THE POWER IN YOUR ENGINE

2018
2019
2020

BUS • TRUCK • AGRICULTURAL
HEAVY DUTY • INDUSTRIAL ENGINES

KAMYON • OTOBÜS • ÇEKİCİ ARAÇLAR
TRAKTÖR • İŞ MAKİNALARI
ENDÜSTRİYEL MOTORLAR

YENMAK®

ENGINE PARTS

IMPORTANT INFORMATION

The catalogue has been complied for the aim of giving general information. Our firm can not be held reponsible for the changes on the desing of the spare parts made by the engine manufacturer. All schematic drawings and other data in the catalogue are given only for explanation and illustration purposes. The given data must not be used for engine renovation, desing and reproduction. In order not to experience any problem, expert advice must be taken from the producer or from authorized service.

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ÖNEMLİ BİLGİ

Bu katalog bilgi vermek amacı ile hazırlanmıştır.Motor üreticisinin, yedek parçaların tasarımlarında yaptığı değişiklikler için firmamız sorumlu tutulamaz. Katalogdaki bütün şemalar, çizimler ve diğer veriler sadece açıklama ve örnek amaçlıdır. Verilen bilgiler, motor yenilemesi, tasarımı ve üretimi için, üreticiden veya onun yetkili tamir servisinden uzman tavsiyesi alınmalıdır.

Bu kataloğun; kopyalanması, taklit edilmesi ve çoğaltılması kesinlikle yasaktır.
Alıntı yapılması; yazılı onayımızın alınmasına ve kesin kaynağın belirtilmesine bağlıdır.

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YENMAK®

ENGINE PARTS

Yenmak, as a small atelier was founded in Konya by Kahvecioğlu family in 1965.Over the years, Yenmak constantly renewing and improving itself regardless of engine parts supplier on domestic and abroad was one of the largest suppliers worldwide.

Yenmak today KIT, PISTONS, PISTON PIN, PISTON and CYLINDER ENGINE LINER production and with supply SEAL, VALVE, ENGINE BEARING; these products are exported to more than 80 different countries on 5 continents.

To our valuable customers and our long-term partners, we ensure to give best quality and reasonable price, as well as sales and after-sales services from a single source. In a single package, we ensure to supply all engine parts. In addition, knowing that most important of all components of the human factor YENMAK gives considerable importance and value of customer relationships.

YENMAK; INMETRO, ISO 9001, ISO / TS 16949, IATF 16949, TS EN ISO 14001 certified.

Today, 2 factories and 1 Head Officw & Logistics building with a total of 50,000 square meters and is based in Konya 1. 2. 3.Organize industrial areas.

Sales and marketing activities in Istanbul in YENMAK export office is performed.

Head Office & Logistics

Piston & Piston Pin Production Facility

Cylinder Liner Production Facility

YENMAK®

ENGINE PARTS

Since 2003, Yenmak products can be packed according to the format shown below and taked place in the market.

Find detailed information in the below about packaging

Be the first to reach the product thanks to special label.

Traceability number

Integrated 3D safety hologram on the box for the aim of ensuring product safety.

Box bottom safety label with the purpose of product safety ensurance.

BUREAU VERITAS
Certification

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12 SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 9001:2008

Belgelendirme Kapsamı

İÇTEN YANMALI MOTORLAR İÇİN ALÜMİNYUM KOKİL DÖKÜM PİSTON VE PİSTON PİMİ ÜRETİMİ

İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

SEÇKİN DEMİRALP
Belgelendirme Müdürü

Sayfa 1/1

BUREAU VERITAS Certification

Certificate of Approval

Awarded to

YENMAK PİSTON SEGMAN SAN. VE TİC. A.Ş.

KIRIM CD. SARIÇİÇEK SK. NO:12 SELÇUKLU KONYA
42000 - Konya - Turkey

Bureau Veritas Certification certify that the Quality Management System of the above organization has been audited and found to be in accordance with the requirements of

ISO/TS 16949:2009

and the applicable customer specific requirements

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12
SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme Holding SAS – İngiltere Şubesi yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 14001:2004

Belgelendirme Kapsamı

ÇTEN YANMALI MOTORLAR İÇİN PİSTON VE PİSTON PİMİ ÜRETİMİ

Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

SEÇKİN DEMİRALP
BVCH SAS İngiltere Şubesi
adına imzalayan

Sayfa 1/1

BUREAU VERITAS Certification

YENMAK MOTOR GÖMLEK SANAYİ VE TİCARET A.Ş.

1.ORGANİZE SANAYİ BÖLGESİ HOROZLUHAN MAH. ATABEY SOK. NO: 8 SELÇUKLU, KONYA, TURKEY

Bureau Veritas Certification Holding SAS - UK Branch certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standard

ISO 9001:2015

Scope of certification

MANUFACTURING OF CASTING AND MACHINING CYLINDER LINERS AND CASTING RING CARRIERS

Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

İBRAHİM TAŞKY
Signed on behalf of
BVCH SAS UK Branch

ISO 14001
ISO / TS 16949
BUREAU VERITAS
Certification

TSE

BUREAU VERITAS
Certification

Certificate of Approval

Awarded to

YENMAK MOTOR GÖMLEK VE TİC. A.Ş.

1. ORGANİZE SANAYİ BÖLGESİ, HOROZLUHAN
MAHALLESİ, ATABEY SOKAK No:8, SELÇUKLU
42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
Casing and machining cylinder liners and casting ring carriers

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

STEEL PISTON

Steel piston, moving the interconnected steel piston head and the aluminum piston shaft are formed in piston pin. Due to their high strength and low wearing out values, these pistons are mainly used in heavy-duty diesel engines. Also, they provide low exhaust gas and emission limits.

Steel pistons;

• High compression ratio and new generation of engines with modern combustion chamber design

• Used in Heavy-duty diesel engines

• Multi-fuel system is used in the engine

Advantages of Steel Pistons;

• Steel pistons compared with the aluminum pistons; because of less contact with the cylinder liner, steel pistons provide less losses due less friction rate.

• Steel pistons compared with the aluminum pistons; steel pistons reduce the risk of profile deformation, because of their high resistance to thermal load.The sealing features of rings are increased.

• Aluminum piston, showing pressure resistance up to 100 bar, A steel piston of the same dimensions may show resistance up to 250 bar pressure.

• Provision of highers compression rate. The steel pistons provide 2-5% less emission. They provide reduction the contact problem resulting from the ring carrier (Ni-resist) material.

• Steel piston is closer to the top of the piston cooling groove. Consequently the cooling of the piston top is more efficiently.

• Compared with the aluminum piston, the combustion chamber has a minimized deformation.

• Due to the positive effects of prolonged engine life, they reduce the cost of rectifying the engine.

• When problems occur in supercharging and fuel injection systems, it causes to melting or piston perforation. In the two-parts (articulated) steel pistons, this kind of problems do not occur.

MONOSTEEL PISTON

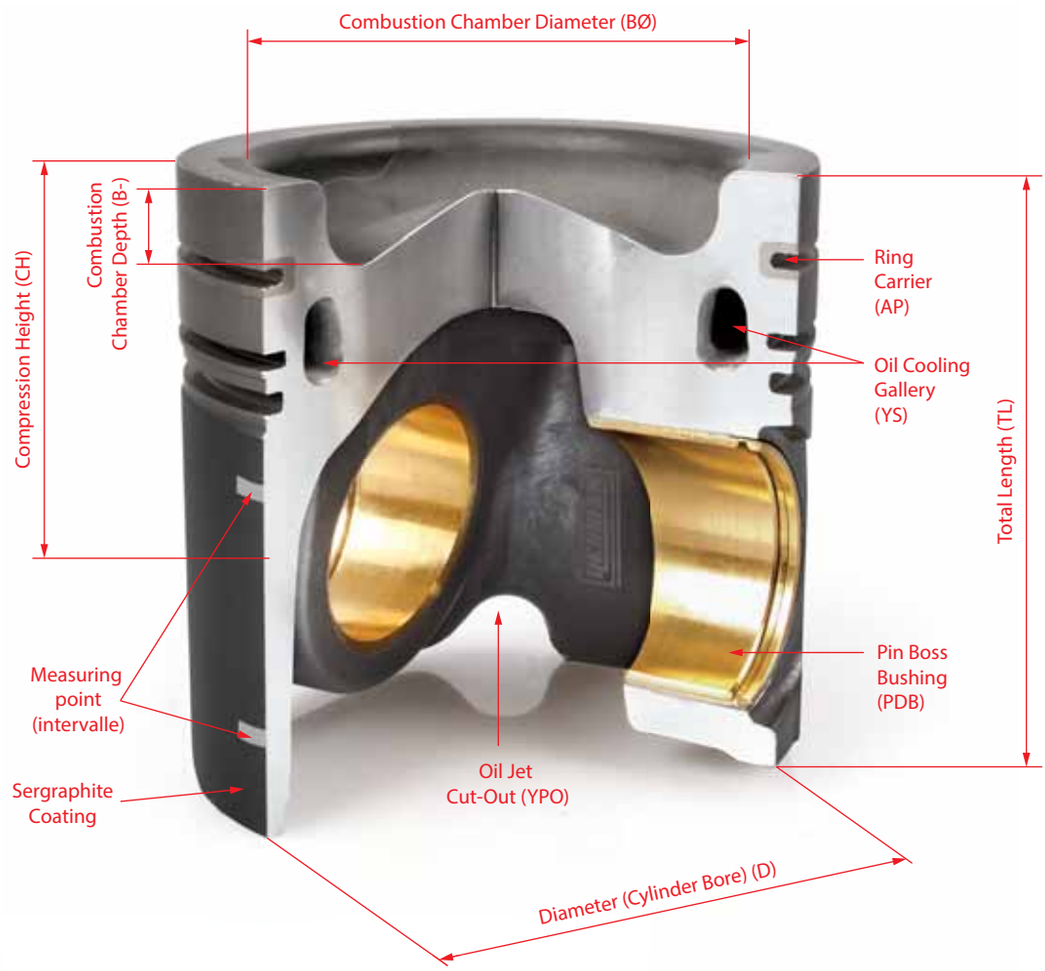
Monosteel piston has maximum load carrying capability and minimum combustion chamber deformation.

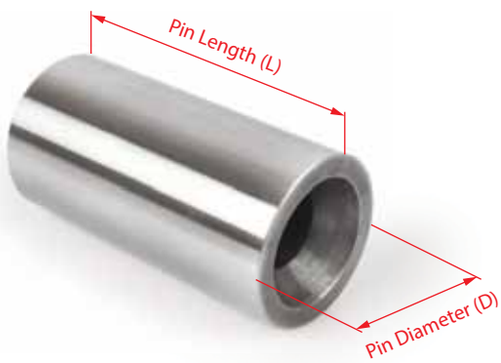
Monosteel pistons have cooling and power capacity which covers the high combustion chamber pressure and temperature demands of new generation engines.

In Monosteel pistons, the cooling groove is near to combustion area and this results as an effective cooling. The large cooling gallery provides much more effective cooling of combustion chamber and the ring groove areas..

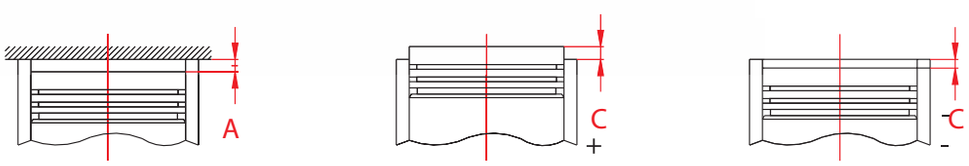
Due to its design, monosteel piston exhibits good wear values in addition to high strength and temperature resistance.This type pistons have better conditions For providing and ensuring lower oil consumption , relatively high surface temperature and low exhaus emission limits.

TECHNICAL DEFINITIONS





5- Piston Description of Clearance Dimensions



A = Clearance Measured to Cylinder

C = Clearance Measured to the Top of the Cylinder Block

GENERAL PISTON RİNG ASSEMBLY INSTRUCTION

The YENMAK replacement piston ring system is suitable for use in the reconditioning of Internal Combustion Engines in different states of wear. YENMAK piston rings are designed for use in engine overhauls where the engine exhibits excessive oil consumption and power loss due to a high mileage and worn cylinders. Prior to fitting the piston rings to the old piston, oil carbon deposits clinging to the piston grooves must be removed from the piston crown. Exercise extreme care when cleaning the groove root, especially the radiused corners between groove root and groove sides, otherwise any sharp nicks can subsequently grow into cracks. The pistons do not need re-machining because YENMAK piston ring sets are designed to fit the original pistons of the engine.

Gasoline Engines: Diameter upto 0.1 mm.

Diesel Engines: Diameter upto 0.15 mm.

Defective and worn pistons especially ones with loose ring carriers or with serious axial wear must always be replaced by YENMAK Pistons. Even if diametric dimensions are acceptable, form distortions that effect the parallel structure of the ring grooves could cause oil consumption and combustion gas leakage (blow-by).

Do not force and bend the rings, this could cause the working surface and the coating of the ring to be de- formed. Deformations that are not visible to the naked eye could cause problems in the engine.

Fit the rings in sequence, using piston ring pliers and inserting them into the piston grooves. Then use a ring tensioner to compress the rings on the piston. Push the piston into the cylinder, pushing and tapping lightly with the handle of a hammer. In the process make quite certain that the tensioner always rests on the surface of the cylinder block in order to prevent axially narrow rings from springing and suffering damage. It is important that chromium plated piston rings must not be fitted into chromium plated cylinder bores.

Located on a surface of piston rings YEN or TOP marks in the marking of the surface into the combustion chamber should be assembled into the piston ring grooves.Without any marking on the piston rings can be assembled in every direction.

RING COATING AND SURFACE TREATMENTS

Cr = Chrome Coating
Mo = Molybdenum Coating
P = Phosphate Coating
Fe = Ferroxyd Coating
Cu = Copper Coating
Nt = Nitrite Coating
Sn = Tin Coating
Ck = Chrome-Ceramic Coating
Pvd = Physical Vapor Deposition
Cdc = Chrome Diamond Coating
Dlc = Diamond Like Carbon
Tef = Teflon Coating

RING COATING

CK (Chrome-Ceramic Coating)

Chrome-Ceramic Coating, chrome and aluminum oxide elements with interpenetrating form gets a kind of composite coating. These coatings are mainly used in the pistons of diesel engines which used for diesel engine pistons top rings. Due to differences in the electrolysis method, chrome ceramic coating provides heigh quality and performance.

The difference between chrome coating and hard chrome plating;

- Higher abrasion resistance
- Higher Melting point
- Higher Hardness and fracture density

Because of these advantages, chrome ceramic coatings provide prolong engine life and reduction of the exhaust gas.

PVD (Physical Vapor Deposition)

PVD dissociates from the vapor phase reactive the accumulation of ring surface is formed. The metal vaporization and ionization is achieved with Electrical arc or ion bombardment by this methode.After the reaction, thin coating is formed in ring working surface. Through the characters in the ceramic coating,rings show a high resistance against wearing out and abrassion.

Mo (Molybdenum Coating)

Ring working surface prevent wearing out with molybdenum coating. The coating process may take place both flame spraying and plasma spraying method.

Molybdenum, provides more resistance on the ring working surface with high melting point(2620 C^0) , porous structure and lubricant effect. Thermal conductivity and abrasion resistance against friction are high.

Tef (Teflon Coating)

- Ability to operate without lubrication or in marginally lubricated conditions; no catastrophic failure if lubricant starvation occurs.
- Reduced wear rates, both of the piston ring and of the mating surface.
- Resistance to chemical attack by corrosive gases.
- Compatibility with unround surfaces.
- No need for running - in procedures.
- Ease of installation; non - brittle resilience allows one - piece construction.

Cr (Chrome Coating)

Hard chrome coating method which increases the resistance of the rings is applied extensively. The purpose of coating with chrome, reducing wearing out and prolong rings and cylinder liner life.

Chrome coating is applied in two methodes:

- Hard chrome coating

- Cellular chrome coating

Hard chrome coating; after rings are coated with chrome, rings grinned to take their final form.

Cellular chrome coating; ring surfaces provide an oil trap feature. Whereby, they provide the wearing out is minimized.

Nt (Nitrite Coating)

All ring surfaces are hardened with nitrite coating. Consequently the relevant ring surfaces get a higher resistance against abrassion. Thus, ring lifetime is extended. The nitride coating is environmental friendly due to production and emission characteristics. Ring of occurring in sensitive points reduce oil loss.Cast iron rings reduce the friableness.The engine life is extended.

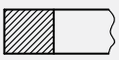
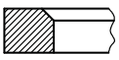
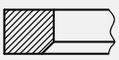
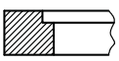
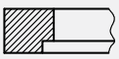
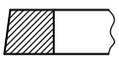
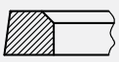
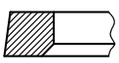
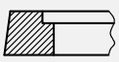
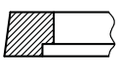
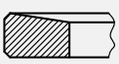
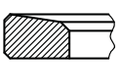
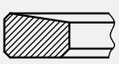
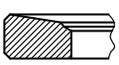
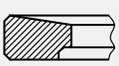
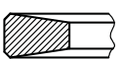
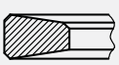
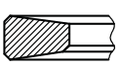
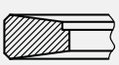
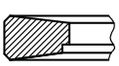
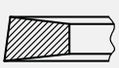
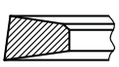
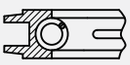
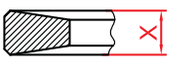
Cdc-Chrome Diamond Coating

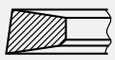
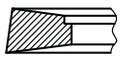
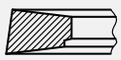
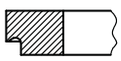
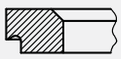
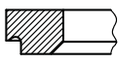
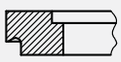
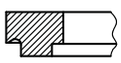
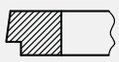
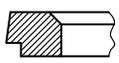
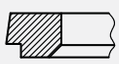
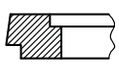
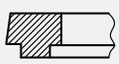
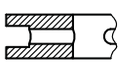
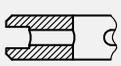
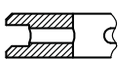
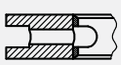
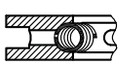
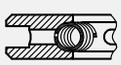
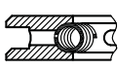
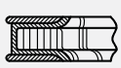
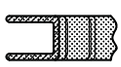
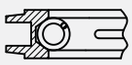
This type of coating is used in the top ring of Euro 4 and diesel engines. Applicable/useable materials for this methods are flexible alloy cast iron.Diamond particles are used instead of ceramic particles. Thus, abrasion resistance and anti-friction performance are increased.

Dlc-Diamond Like Carbon

This coating reduces the friction rate and increased wear resistance. DLC coating is an environmental friendly with features. Chemical bonds are strong. The mechanical stresses are unbreakable. They are not crystalline, but shapeless. Therefore, it is a very strong material. Compared to other coatings, this coating is more resistant and a higher resistant against friction.

TECHNICAL DEFINITIONS

	D	=	Rectangular Ring
	D-IF	=	Rectangular Ring with Internal bevel on top
	D-IFU	=	Rectangular Ring with Internal bevel on bottom
	D-IW	=	Rectangular Ring with Internal Step on top
	D-IWU	=	Rectangular Ring with Internal Step on bottom
	K	=	Taper Faced Ring
	K-IF	=	Taper Faced Ring with Internal bevel on top
	K-IFU	=	Taper Faced Ring with Internal bevel on bottom
	K-IW	=	Taper Faced Ring with Internal step on top
	K-IWU	=	Taper Faced Ring with Internal step on bottom
	TT	=	Half Keystone Ring
	TT-IF	=	Half Keystone Ring with Internal bevel on Top
	TT-IFU	=	Half Keystone Ring with Internal bevel on bottom
	TT-IW	=	Half Keystone Ring with Internal step on top
	TT-IWU	=	Half Keystone Ring with Internal step on bottom
	T	=	Keystone Ring
	T-IF	=	Keystone Ring with Internal bevel on Top
	T-IFU	=	Keystone Ring with Internal bevel on bottom
	T-IW	=	Keystone Ring with Internal step on top
	T-IWU	=	Keystone Ring with Internal step on bottom
	TK	=	Taper Faced Keystone Ring
	TK-IF	=	Taper Faced Keystone Ring with Internal bevel on top
	SDR	=	Steel Oil Control Rings with R-Shaped Groove
	X = Ring Thickness (mm)		

	TI-IFU	=	Taper Faced Keystone Ring with Internal bevel on bottom
	TK-IW	=	Taper Faced Keystone Ring with Internal step on top
	TK-IWU	=	Taper Faced Keystone Ring with Internal step on bottom
	N	=	Napier Ring
	N-IF	=	Napier Ring with Internal bevel on top
	N-IFU	=	Napier Ring with Internal bevel on bottom
	N-IW	=	Napier Ring with Internal Step on top
	N-IWU	=	Napier Ring with Internal Step on bottom
	TN	=	Taper Faced Napier Ring
	TN-IF	=	Taper Faced Napier Ring with Internal bevel on top
	TN-IFU	=	Taper Faced Napier Ring with Internal bevel on bottom
	TN-IW	=	Taper Faced Napier Ring with Internal step on top
	TN-IWU	=	Taper Faced Napier Ring with Internal step on bottom
	SC	=	Slotted Oil Control Ring
	DC	=	Bevelled Edge Oil Control Ring
	DB	=	Double Bevelled Edge Oil Control Ring
	ES	=	Slotted Oil Control Ring with Expanderspring
	SY	=	Coil Spring Loaded Slotted Oil Control Ring
	DY	=	Coil Spring Loaded Bevelled Edge Oil Control Ring
	PS	=	Coil Spring Loaded Double Bevelled Edge Oil Control Ring
	VF	=	Multi-piece Steel-rail Oil Control
	UB	=	U-flex Ring (Multi-piece)
	SDV	=	Steel Oil Control Rings with V-Shaped Groove
	DKS	=	Liner, Taper, Cylindrical Oil Control Rings

General Piston Assembly Instruction

1- The inner surface of the piston cylinder should be rhombic honing lines.If ready assembled piston used and/or assembling to worn cylinder, cylinder rhombic honing lines should be controlled for suitability. If the inner surface rhombic honing lines partially or completely lost and the inner surface has a polished surface, the inner surface should be honed to rebuild rhombic honing lines.

2- All pistons are manufactured sensitive for piston-cylinder make up a correct running clearance when the pistons are assembled inside of the cylinders. Inner diameters of the cylinders should be controlled for suitability according to measurements that they are located on the label shown on the box. If inner diameters of the cylinders are not suitable, the cylinders should be remanufactured.Inside diameters of the worn cylinders must be manufactured to measure the top, the top measure nominal diameter should be manufactured with 0.000-0.020 mm tolerance that this tolerance range is recommended.

3- Piston pin should be removed without damage to piston and piston pin from ready for assembly of the pistons. Piston pins are assembled their relevant pistons according to suitable piston measurements, the piston pins must not be changed randomly.

4- During the assembly of the piston rings, should be used suitable equipment for not deformed piston rings and damged pistons. During the assembly of the piston in the cylinder, should be used suitable piston ring compressor or tapered assembling sleeve. After piston rings has been clamped in accordance with procedures, pistons must not be assembled with using excessive force or hitting, the pistons must be assembled carefully with finger force.

5- Piston and piston pin must be cleaned carefully and especially piston pin hole must be lubricated before assembling the piston in the cylinder. Before the assembly, inside of the cylinders must be lubricated for during the first engine starting and untile lubricating,prevent damage to the cylinders.

6- If assembly direction signs marking locates on the piston crown, during the assembly this direction signs must be taken into consideration for assembly.

7- Please pay utmost attention for avoid damage to piston, piston pin and piston ring.

8- Pistons are manufactured in the direction of generally accepted norms according to the other parts that the other parts are used with the pistons. Therefore, do not make any operation on the pistons.

9- Pins and snap rings should not be used again, please always use a new pin and snap ring.

10- Controlled of piston rods linearity is very important for prevent serious problems. Before assembly, linearity of the connecting rods must be recontrolled again with appropriate equipments.

NOTE: Should act in accordance with specified in this assembly instructions.

The manufacturer is not liable for faulty assembly problems result from fail to comply instructions.

TECHNICAL DEFINITIONS

8- MARKING AND CODING ON THE PISTON CROWN

1- Producer Logo

2- STD/Oversize Information

7- Traceability Number

5- Piston Cylinder Gap (mm)

8- Compansated Compression Height Values (mm)

4- Cylinder Numbers for Installation

6 - Installation Direction Information. This direction is to be observed upon installation.Some special markings that are used expressions such as ''pin hole axial run-out'', ''front'' or ''Abluft''. ''Volant'' is a symbol for used to prevent incorrect assembly.

3- Piston Nominal Diameter

9- PISTON REFERENCE NUMBER

EXAMPLE

Piston Reference Number ← **11-01513-000** →

000 = STD/ Piston+Ring
001 = Compression height -0,20 mm short
002 = Compression height -0,40 mm short
003 = Compression height -0,60 mm short
050 = Oversize + 0,50 mm / Piston

OLD REFERENCE NUMBER	NEW REFERENCE NUMBER
1513 000	11-01513-000

10- PISTON COMPLATE WITH RING REFERENCE NUMBER

EXAMPLE

Piston Complete with ring reference number ← **31-03513-000** →

000 = STD/Piston + Ring
050 = Oversize + 0,50 mm /Piston+Ring

Differences between piston ring types and coatings. ← **38-** **39-**

OLD REFERENCE NUMBER	NEW REFERENCE NUMBER
3513 000	31-03513-000
3513 000-08	38-03513-000
3513 000-09	39-03513-000

11 - LINER REFERENCE DEFINATIONS

EXAMPLE

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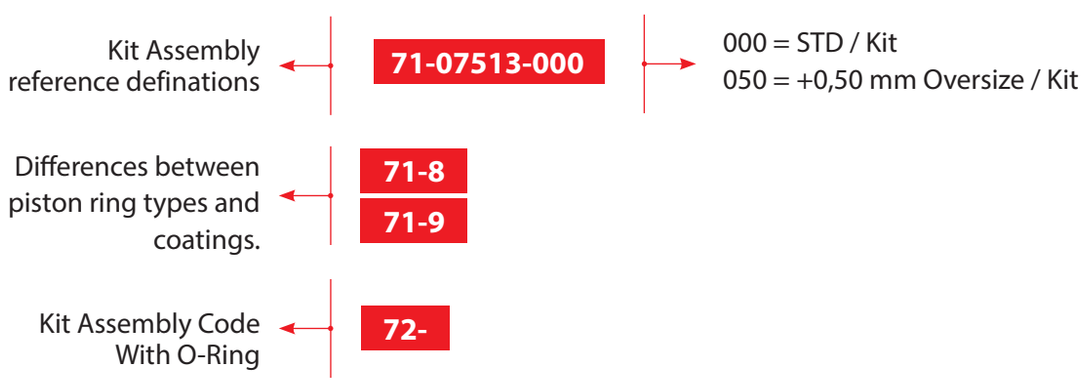
5513 000	51-05513-000

12 - KIT, SET REFERENCE DEFINATIONS

Kit Assembly Reference: Piston + Pin + Ring + Liner



OLD REFERENCE NUMBER	NEW REFERENCE NUMBER
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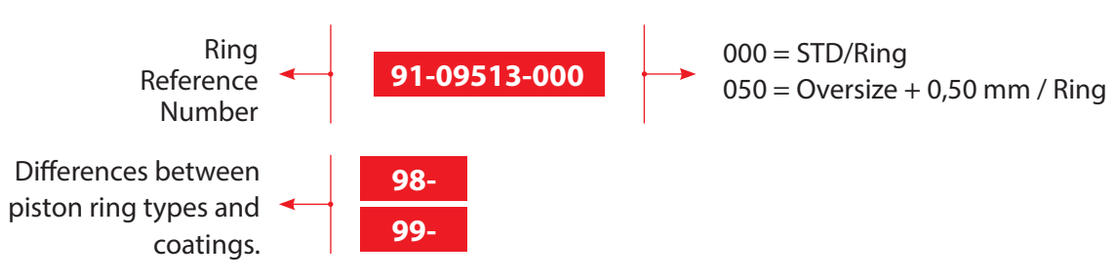
7513 000-08	71-87513-000
7513 000-09	71-97513-000

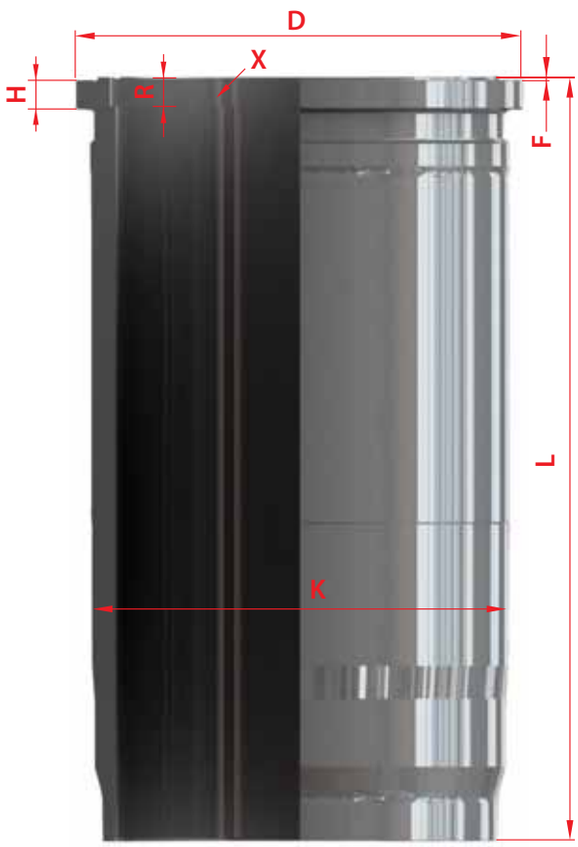
13 - RING REFERENCE NUMBER



OLD REFERENCE NUMBER	NEW REFERENCE NUMBER
9513 000	91-09513-000
9513 000-08	98-09513-000
9513 000-09	99-09513-000

14 - SEALING RING REFERANS NUMARASI

TECHNICAL EXPLANATIONS OF CYLINDER LINERS



K = Outside diameter
L = Total length
H = Flange width
F = Flange overlap
D = Flange diameter
X = Fire ring height
R = Relief height

Definition of Cylinder Liners according to TSE 842

In the internal combustion engines the cylinder liners are cast machine elements that are placed in the cylinder block and in which the piston moves and the fuel is combusted. The engine cylinder liners may be examined in two classes.

Wet Cylinder Liners

These are liners that cool the cylinder block that they are placed in with external water.

These are classified in 3 main groups:

a- Flanged and Channeled: These are liners that are placed on the cylinder block from the top with a flange and that have seal channels to prevent the leakage of engine cooling water in the lower section (Figure-1)

b- Flanged and without channel: These are liners that are placed on the cylinder block from the top with a flange and that do not have seal channels to prevent leakage. (Figure-2)

c- Double Flange: These are the cylinder Liners that are fixed on the cylinder block from the top and bottom with a flange and seal in a way to prevent water leakage. (Figure-3)

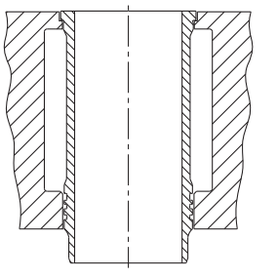


Figure - 1

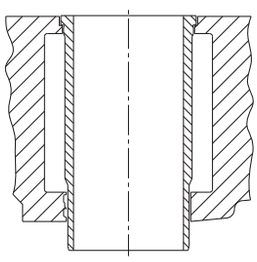


Figure - 2

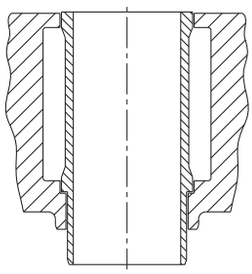


Figure - 3

Dry Cylinder Liners:

These are the liners that do not come into direct contact with the cooling water in cylinder block that they are placed.They can be classified under 2 main groups in term of shape:

A- Flanged (Figure-4)

B- Flangeless-plain (Figure-5)

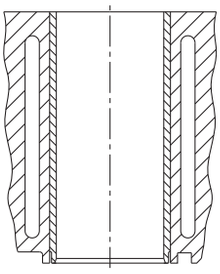


Figure - 4

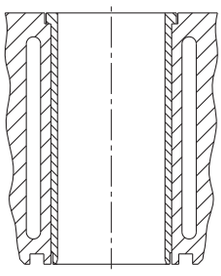


Figure - 5

THE MATTERS TO BE TAKEN INTO CONSIDERATION IN ASSEMBLY OF CYLINDER LINERS

The dry cylinder liners are produced with or without flange. (Figure-6) The displacement frequently seen case of blocking of the piston in the flangeless liners that are under unsuitable operating conditions is not encountered in flange liners. And this is an advantage that is provided by the flange.

Prior to the pressing of the liners to the cylinder, the cylinders are ground or fine machined in accordance with the rated dimensions specified for liner outer diameter(A). The following tolerances must be observed(Figure-7). Otherwise, the risk of unhealthy heat transfer in case of low pre-tension, incompliance with the cylinders with thin walls in case of high pre-tension and thus operation defects may be encountered. The internal diameter is approximately 0,5 - 0,75 mm dry liners with final outer diameter dimensions.

When assembling the flanged dry liner to the cylinder block by pressing, the hole processed for flange should be greater than the outer diameter(C) of the flange to prevent breaking of the flange.

When press assembling the flanged dry liner to the cylinder it should be made sure that the lower section of the flange is placed precisely on the having block.

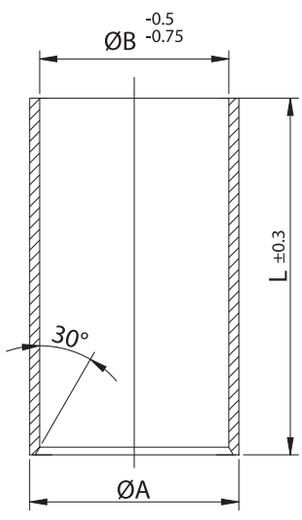


Figure - 6

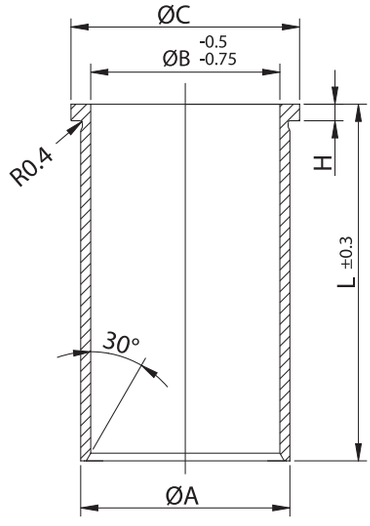


Figure - 7

As it is known, the liners have a radius of 0.4 mm at the lower section of the flange A tolerance of 1.0 mm should be given in the transition section on the block on which the flange is placed in assembly of the liner to the block in order to prevent placement of this radius. Otherwise the breaking of the liner flange is unavoidable.

Prior to mounting of the new liners, the cylinders on the engine block should be cleaned thoroughly and the dimensions should be controlled. The level of ovalness and conicity should not exceed 0.025 mm. When honing a bright surface should be provided and the level of surface roughness should be controlled according to the motor type. Excessively bright and smooth surfaces should be avoided due to the fact that they shall cause in efficient lubrication.

In pressing of the dry cylinder liners a pressure of 3000-5000 kg is efficient. If a solid substance shall be used as lubricator during assembly, this substance shall become coked, thus making the heat transfer difficult. Following the assembly by press the extrusions of the cylinder block from the seal surface should be removed by grinding.

If it shall be necessary to reprocess the seal surface of the cylinder block, the placement surface of the flange in the housing should be processed deeper. Moreover, liners with final outer dimensions and fine machined inner diameters are also available. These liners are pressed into the cylinders with a little honing tolerance and honed in pressed form. The rated dimension tolerance of the cylinder is between +0 and +0.015mm. The rated dimensions tolerance of the outer diameter of the cylinder liner between 0.012 and 0.024 mm.

	Liner Out Diameter Groups		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	Block Bore Diameter (mm)		
	50 - 80	80 - 120	120 - 180
Q_1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25

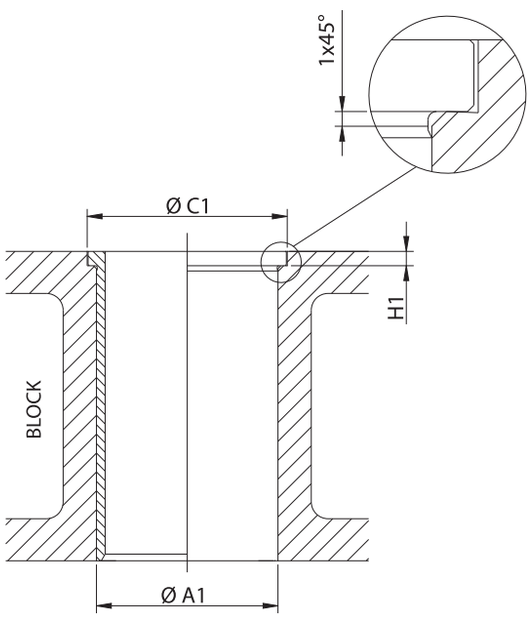


Figure - 9

ASSEMBLY INSTRUCTIONS FOR WET CYLINDER LINERS

Yenmak Engine Cylinder Liners are produced with the Blow Cast method that provides for resistance against wear and shrinking. Care should be given no to damage the housing places on the cylinder when removing the old liners.

The contact points on the engine block should be carefully cleaned of lime, dirt and other substances.Tools such as scrapers, chisels that may cause damage should not be use during cleaning. The most suitable tool for this process is a wire brush. For removal of the liners which are fixed on the cylinder due to corrosion and lime layers, a wooden block is placed on these layers and hit with a hammer. If it shall be impossible to remove the liner with this process, then a hydraulic press should be used. When cleaning care should be taken not to damage the placement surfaces.

The liner flange should be parallel to the surface block on which the lower part is placed as in (Figure-10) and it should not differ in terms of smoothness and linearity. Moreover, it should be controlled that cylinder axis is perpendicular to the seal surface of the cylinder block. (Figure-11) Another matter that must be taken into consideration is damaging of the placement surface by means of compression.(Figure-12) The flange placement surface on the (d) cylinder of the radius on the liner flange sub-surface should be given a radius of 0.5-1.0 mm 450 in order to prevent its placement on the (a) corner.

In order to prevent the risk of breaking, the tightness strength and the counter force should be leveled vertically.

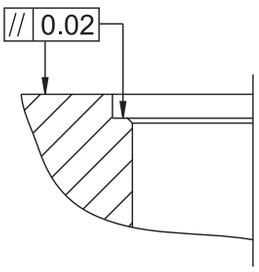


Figure - 10

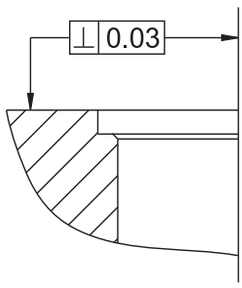


Figure - 11

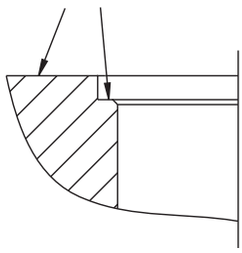


Figure - 12

The hole diameter(b) of the seals and the outer diameter(c) of the liner should be equal to one another.In order to provide for a full tightness the metal framed seals should be used.

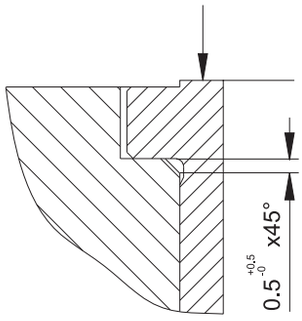


Figure - 14

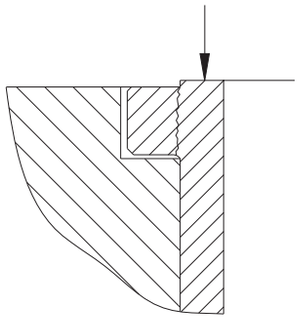


Figure - 15

In order to determine whether the cylinder block is easily established within the cylinder liner and is very large or very wide, cylinder liner should be inserted into the cylinder block by hand without the usage of rubber rings before installation. Especially the correct positioning of the liner flange to the block surface should be controlled. Utilization of a drawing ink is recommended for a correct placement control. In order to determine whether the flange diameter has an efficient space it is recommended that the liners are turned inside out prior to the assembly and placed to the flange placement surface on the flange side. As it is known, the flange is in the section of the motor that is not cooled and it is subject to expansion. At this point a space of 0.3-0.5 mm should be taken into consideration.

The matter that is emphasized the mosts in these instructions is the matter of placement and removal of the liner in accordance with the purpose. In other words, the errors that may be caused by utilization of heavy tools such as hammers etc. may cause severe results.

The elastic rings that shall be used during assembly should be of high quality and resistant against swelling, wear, oil and heat. Otherwise, penetration of water into the crankcase may cause clogging of the liner or defects in dimensions. Lubrication soap is applied on the elastic rings every time and then they are placed to their housings.

Only the high quality brands used by engine producers should be used as elastic rings. The main reason of this preference is the fact that they are resistant against swelling, wear, lubrication and heat.

Piston seizure, which causes breakage of the cylinder liner, is a result of the improper usage of rubber rings. Points where rubber rings are placed must never be scraped.

Following manual placement of the liners, it shall be benefiting to check the cylinder dimension once again. This control should be made especially in the sections that may cause oval formation and shrinkage.

After the liners are placed completely, the cylinder block should be filled with water and the tightness must be controlled.

DETAIL OF LINER MARKING

SEALING RING (O-RING)

The Sealing Ring (O-Ring) from the sealing parts is one of the important parts affecting the operation and performance of the engine. You can order our products using our single Sealing Ring (O-Ring) codes or kit and liner with Sealing Ring (O-Ring) reference codes.

Sealing Ring Material	
EPDM	Rubber EPDM
NBR	Rubber
FPM / VI	Viton
Cu	Copper
T	Tombak
ST	Steel
SC / MVQ	Silicone
Shim / SM	Soft Metal

93,000 (1)		3	4	5	6	7
4JB1 (2)		D	00 2005 > 00 2005	4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) CH 51,850 (9) VD1 0,550 (10) B- 19,500 (11) BØ 43,900 (12) TL 91,850 (13) 31,00x76,00 (15) Isuzu ve Opel ile Ortak Motor (27)	AP YS HA CP (14)	91-09389-000 1 2,000 P 2 2,000 P 3 4,000 CrP (16)	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)	Ø 93,000 (18)	31-04385-000 (19)
		99-09389-000 1 2,000 FeP 2 2,000 FeP 3 4,000 TeF (16)			39-04385-000
K=95,00 (22) L=181,00 (24) H=0,90 (25) D=101,00 (23)	DF-CR-ST (26)			51-35721-000 (20)	71-08385-000 71-98385-000 (21)
K=120,00 (22) L=229,00 (24) H+F=9,00+1,10 (25) D=128,50 (23)	WF (26)		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00 (28)	51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

1 - Piston Diameter
2 - Engine Code
3 - Type of Fuel
4 - Model Years
5 - Cylinder Number
6 - Displacement
7 - Engine Power
8 - Piston Code
9 - CH: Compression Height
10 - VD1/VD2: Valve Depth
11 - B- : Combustion Chamber Depth
B+ : Radiated crown
12 - BØ: Bowl Diameter
13 - TL: Total Length
14 - Piston Specifications
*DAP: Double Ring Carrier Piston
*AP: Ring Carrier Piston
*YS: Oil-Cooled Piston
*CP: Steel Sheet Piston
*HA: Hard Anodized Coating
*PDB: Piston Pin Hole Bushing
15 - Piston Pin Diameter- Length
16 - Piston Ring Specifications
17 - Piston Protrusion
18 - Cylinder Diameter
19 - Piston + Ring Reference No
20 - Liner Reference No
21 - KIT Reference No
22 - Cylinder Outside Diameter
23 - Liner Flange Diameter
24 - Liner Total Length
25 - Flange Height / Overlap
26 - Cylinder Liner Specifications
*WS : Wet liner semi finish
*WF : Wet liner full finish
*DS : Dry liner semi finish
*DF : Dry liner full finish
*AF : Air cooled full finish
*PH : Phosphate
*CR : Chrome
*HR : Hardened
*NT : Nitrite
*HT : Heat treatment
*STEEL : Steel
27 - Common engine
28 - Sealing Ring Code

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Motor tipleri, açıklamalar, ürünler, ürün resimleri, üreticiler, araçlar v.b. nitelendirmeler sadece referans amaçlı verilmiştir.

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Yenmak, 1965 yılında Kahvecioğlu ailesi tarafından küçük bir atölye olarak Konya'da kuruldu. Geçen yıllar içinde YENMAK kendisini sürekli olarak yenileyerek ve geliştirerek yurt içi ve yurtdışında bağımsız motor parça tedarikçisi olarak dünya çapındaki büyük tedarikçilerden biri olmuştur.

Yenmak bugün KİT, PİSTON, PİSTON PİMİ, SEGMAN ve SİLİNDİR MOTOR GÖMLEĞİ üretimi; CONTA, SUPAP ve MOTOR YATAĞI tedariği ile bu ürünleri 5 kıtada 95'den fazla ülkeye ihraç etmektedir.

Siz değerli müşterilerimiz için uzun soluklu bir iş ortağı olarak nihai güven, en iyi kalite ve makul fiyatın yanı sıra, satış ve satış sonrası hizmetler olarak, müşterilerine ürün portföyünde tek bir kaynaktan, bir paket içinde bütün motor parçalarının teminini sağlar. Bunun yanı sıra YENMAK insan faktörünün bütün bileşenler içinde en önemlisi olduğunu bilerek müşteri ilişkilerine değer vermektedir.

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Piston & Pim Fabrikası

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MOTOR PARÇALARI

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Standart

ISO 9001:2008

Belgelendirme Kapsamı

İÇTEN YANMALI MOTORLAR İÇİN ALÜMİNYUM KOKİL DÖKÜM PİSTON VE PİSTON PİMİ ÜRETİMİ

İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

TÜRKAK

SEÇKİN DEMİRALP
Belgelendirme Müdürü

Sayfa 1/1

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Certificate of Approval

Awarded to

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42000 - Konya - Turkey

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and the applicable customer specific requirements

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

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Standart

ISO 14001:2004

Belgelendirme Kapsamı

ÇTEN YANMALI MOTORLAR İÇİN PİSTON VE PİSTON PİMİ ÜRETİMİ

Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

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Standard

ISO 9001:2015

Scope of certification

MANUFACTURING OF CASTING AND MACHINING CYLINDER LINERS AND CASTING RING CARRIERS

Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

UKAS

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ISO 14001
ISO / TS 16949
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Certificate of Approval

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MAHALLESİ, ATABEY SOKAK No:8, SELÇUKLU
42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
Casing and machining cylinder liners and casting ring carriers

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

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TÜRK STANDARDLARINA UYGUNLUK BELGESİ
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CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

ÇİFT PARÇA ÇELİK PİSTONLAR

Çift parça çelik pistonlar, piston pimi üzerinde hareketli olarak birbirine bağlı bir çelik piston başı ve alüminyum piston şaftından oluşmaktadır. Yüksek mukavemet ve düşük aşınma değerleri nedeniyle, bu pistonlar ağırlıklı olarak ağır hizmet dizel motorlarında düşük egzoz gazı ve emisyon limitlerinde çalışılmasını sağlamaktadır.

Çift Parça Çelik Pistonlar;

• Yüksek sıkıştırma oranına ve modern yanma odalarına sahip yeni nesil motorlarda,

• Ağır hizmet dizel motorlarında,

• Çoklu yakıt sistemlerinin kullanıldığı motorlarda,

Çift Parça Çelik Pistonların Avantajları;

• Çift parça çelik pistonlar alüminyum pistonlara göre; silindir gömleği ile temas mesafesinin daha az olması nedeniyle sürtünme kuvvetlerinden kaynaklı kayıpların daha az olmasını sağlar.

• Çift parça çelik pistonlar alüminyum pistonlara göre; termal yüklere karşı yüksek direnç göstermesi nedeniyle gömlek deformasyon riskini azaltır ve daha düşük silindir boşluğunda çalışabilir, segmanların sızdırmazlık özelliklerini arttırır.

• Normal bir alüminyum piston 100 bar basınca kadar dayanım gösterirken, aynı ölçülerdeki bir çelik piston 250 bar basınca kadar dayanım gösterebilir.

• Motorda daha yüksek sıkıştırma oranı ve %2-5 arasında daha az CO_2 emisyonu oluşumu sağlar. Dizel motorlar için alüminyum pistonlarda kullanılan alfin (Ni-resist) malzemeden kaynaklanan temas problemlerini azaltmayı sağlar.

• Soğutma kanallı pistonlarda soğutma kanalının pistonun üst kısmına daha yakın olmasına olanak sağlar, bu daha etkin bir soğutmanın sağlanmasına yol açar.

• Çift parça çelik pistonlar alüminyum pistonlara göre minimum yanma odası deformasyonuna sahiptir.

• Çift parça çelik pistonlar motorun ömrünün uzamasına pozitif yöndeki etkileri sebebiyle motor rektifiye maliyetlerini düşürürler.

• Aşırı doldurma ve yakıt püskürtme sistemlerinde oluşan arızalar, piston ergime ya da delinme gibi problemlere neden olur. Çift parça çelik pistonlarda ise bu problemler meydana gelmez.

TEK PARÇA ÇELİK PİSTONLAR

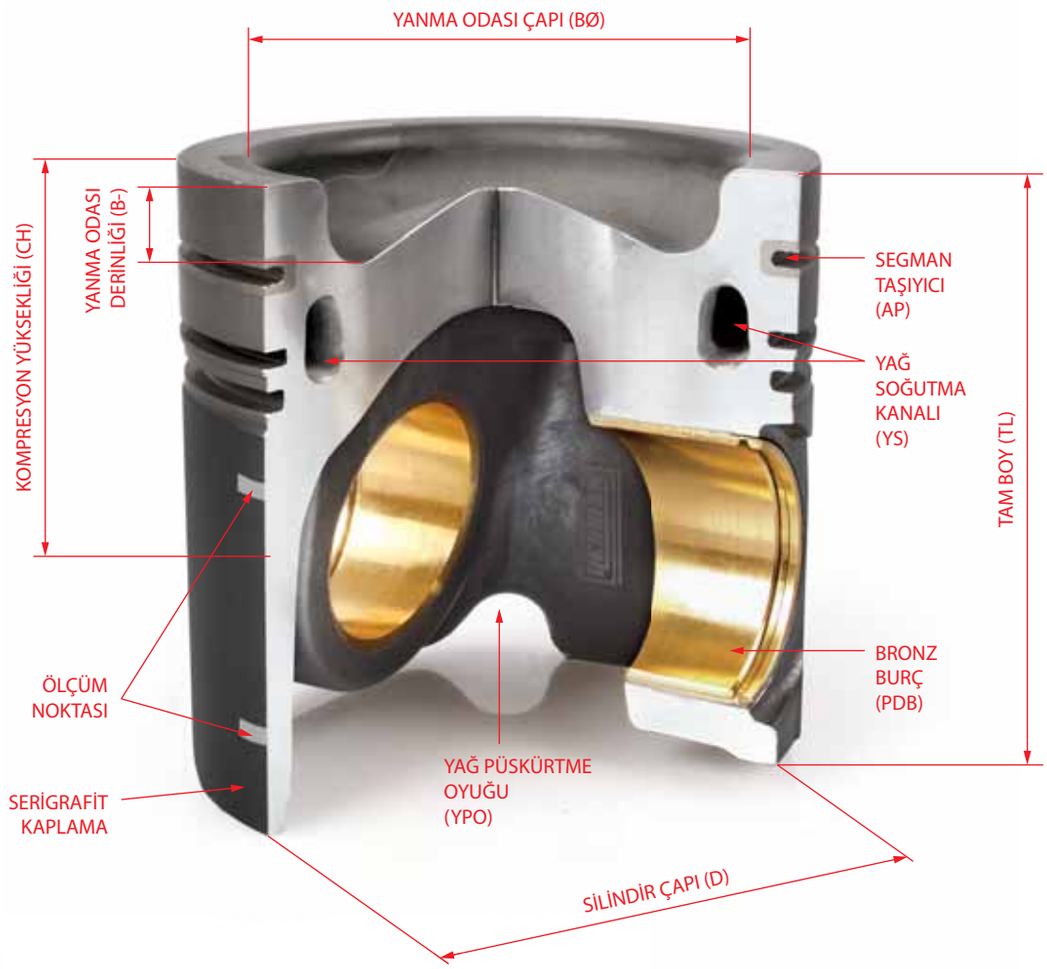
Maksimum yük taşıma kapasitesi ve minimum yanma odası deformasyonuna sahiptir.

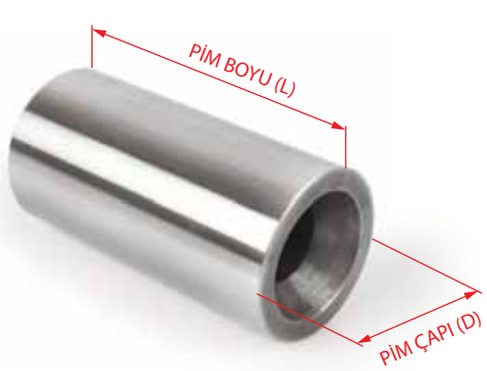
Monosteel pistonların, yeni nesil motorların yüksek yanma odası basıncını ve sıcaklık taleplerini karşılayan soğutma ve güç kapasitesi vardır.

Monosteel pistonlarda, soğutma kanalı pistonun üst kısmına daha yakındır, bu da daha etkin bir soğutmanın gerçekleşmesini sağlar. Geniş soğutma kanalı sayesinde yanma odası ve segman set bölgesinin çok daha verimli soğutulması sağlanmıştır.

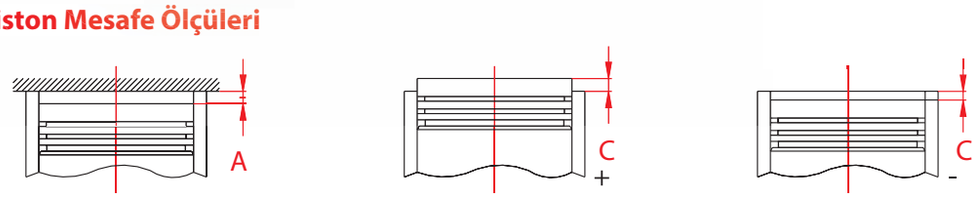
Tasarımı nedeniyle, monosteel piston, yüksek mukavemet ve sıcaklık direncine ek olarak iyi aşınma değerlerine sahiptir. Sürekli düşük yağ tüketimi ve nispeten yüksek yüzey sıcaklığı, düşük egzoz emisyon limitlerini korumak için iyi koşullar sağlar.

TEKNİK TANIMLAMALAR





Piston Mesafe Ölçüleri



A = Silindir kafasına kadar olan ölçü

C = Blok yüzeyinden piston başındaki ölçü

YENMAK PİSTON SEGMANLARI MONTAJ TALİMATI

Kullanılmış pistonlarda takılmak istendiğinde, pistonların, segman yuva kanallarındaki karbon kalıntılarının ve yağ deliklerinin temizlenmesi gerekir. Pistonların tepelerindeki karbon tabakaları dışında, bütün fazla karbon kalıntıları temizlenmelidir. Segman kanallarının temiz olmasına çok dikkat edilmelidir. Yan ve dip yüzeylerin birleştiği kenar kavislerinin temizlenmesi sırasında çizilmeler olmamasına dikkat edilmelidir. Aksi taktirde bu çizilmeler ilerde çatlamaların başlangıcı olabilecektir. Pistonların işlenmesine gerek yoktur, çünkü Yenmak segman setleri motorların orijinal pistonlarına uyacak şekilde dizayn edilmektedirler. Yenmak piston segmanlarının kullanılabileceği silindir aşınma sınır değerleri aşağıda belirtildiği gibidir:

Benzin motorlarında çapta en çok 0, 1 mm

Dizel motorlarında çapta en çok 0, 15 mm

Genelde kullanılmış pistonlarda yukarıda belirtilen boşluk değerlerinin içinde bir aşınma olmuşsa da, segman kanallarında aşırı deformasyon olan pistonları mutlaka değiştiriniz. Çünkü segman kanallarındaki form ve paralellikte bozulmalar olan pistonlarda, boşluk değerinin uygun olması yanıltıcı olur ve segmanlar bu tip pistonlarda doğru bir şekilde çalışamaz, yağ sarfiyatı ve üfleme gibi şikâyetlere neden olurlar.

Segmanları yukarı, aşağı eğme bükme hareketleri yapmak, segmanın çalışma yüzeyi formlarının bozulması ve kaplama malzemesinin deforme olmasına neden olabilir. Gözle görülemeyen bu deformasyonlar motor çalışma şartlarında problemlere yol açabilmektedir.

Segmanları (Segman açma pensesi ile) açarak, sırasıyla pistondaki yuvalarına yerleştiriniz. Daha sonra bir segman sıkma kelepçesi veya konik montaj kovanı kullanarak segmanları sıkınız ve pistonun tepesine çekiç sapı ile iterek gerekirse hafifçe vurarak silindir içine kaydırınız. Bu işlem sırasında, ince segmanların kelepçe dışına çıkıp hasarlanmasını önlemek için kelepçenin sürekli bir şekilde blok yüzüne oturmuş olarak tutulmasına dikkat ediniz. İçi krom kaplı gömlekli motorlarda, krom kaplı segmanlar kullanılmamalıdır.

Bir yüzeyinde YEN veya TOP markalaması bulunan segmanların markalamanın bulunduğu yüzleri yanma odasına bakacak şekilde yuvalarına takılmalıdır. Üzerinde herhangi bir markalama olmayan segmanlar her yönde takılabilir.

SEGMAN KAPLAMA VE YÜZEY İŞLEMLERİ

Cr = Krom Kaplama
Mo = Molibden Kaplama
P = Fosfat Kaplama
Fe = Ferroksit Kaplama
Cu = Bakır Kaplama
Nt = Nitrit Kaplama
Sn = Kalay Kaplama
Ck = Krom Seramik
Pvd= Fiziksel Buhar Birikimi
Cdc= Krom Elmas Kaplama
Dlc = Elmas Kaplamalı Karbon Kaplama
Tef = Teflon Kaplama

SEGMAN KAPLAMA VE YÜZEY İŞLEMLERİ

Ck (Krom-Seramik Kaplama)

Krom-Seramik Kaplamalar (CK), krom ve alüminyum oksit elementlerinin iç içe oluşturduğu ağ yapısı ile elde edilen kompozit bir kaplama türüdür. Bu kaplamalar ağırlıklı olarak dizel motorlu araçların pistonlarının birinci yuva segmanlarının kaplanmasında kullanılır. CK kaplama, elektroliz yöntemindeki farklılık sebebiyle yüksek kalite ve performansı beraberinde getirir.

Ck kaplamanın sert krom kaplamadan farkları;

- Aşınma direnci daha yüksek
- Erime noktası daha yüksek
- Sertliği ve çatlak yoğunluğu daha yüksek

Bu avantajlarından dolayı kullanıldığı araçlarda CK kaplamalar motor ömrünü uzatmayı, düşük emisyonlu egzoz gazlarının oluşmasını sağlar.

Pvd (Fiziksel Buhar Birikimi)

Sert kaplamaların buhar fazından reaktif olarak ayrışarak segman yüzeyine birikimi sonucunda oluşan bir yöntemdir. Elektrik arkı ya da iyon bombardımanı ile metalin buharlaşması ve iyonlaşması bu yöntem ile sağlanır.

Ayrışmış ve düzenlenmiş metal iyonları bileşenin yüzeyine doğru ilerletilir. Bunun sonucunda metal atomları reaktif gazlar ile reaksiyona girer ve nitrit, karbit, ve oksit oluşturur. Reaksiyon sonrası segman çalışma yüzeyinde ince bir kaplama oluşmuş olur. Kaplama içindeki seramik karakter sayesinde aşınma ve yıpranmalara karşı yüksek direnç gösterir.

Mo (Molibden Kaplama)

Segman çevresi aşınmaları önlemek için molibden ile kaplanır.Yanık izlerinden kaçınılması için segmanların çalışma yüzeyi molibden ile doldurulabilir veya tüm yüzeyi kaplanabilir. Kaplama işlemi, hem alev ile püskürtme hem de plazma ile püskürtme yöntemi ile gerçekleşebilir.

Molibden, yüksek erime noktası(2620 C^0), gözenekli yapısı ve yağlayıcı etkisi sayesinde piston segmanı çalışma yüzeyinin daha dayanıklı olmasını sağlar.Isıl iletkenliği ve sürtünmelere karşı aşınma direnci yüksektir.

Tef (Teflon Kaplama)

- Yağlama olmadan ya da çok az yağlı şartlarda çalışabilme özelliğine sahiptir. Yağlama yetersizliği meydana gelirse yıkımsal iş görmezlik meydana getirmez.
- Segmanda ve temas ettiği yüzeylerde aşınma miktarını azaltır.
- Aşındırıcı gazların kimyasal madde etkisine dirençlidir.
- Yuvarlak/dairesel olmayan yüzeylere uygundur.
- Alıştırma işlemine gerek yoktur.
- Montaj kolaylığı sağlar, kırılgan olmayan /esnek yapısı sayesinde tek parça bir yapıdadır.

Cr (Krom Kaplama)

Segmanların dayanıklılıklarının arttırılmasında yaygın bir biçimde uygulanan yöntem sert kromla kaplamadır. Krom ile kaplamadan amaç aşınmayı azaltarak segmanın ve silindir gömleğinin servis ömrünü uzatmaktır. Segman ve silindir duvarı aşınmasının azaltılması, en üstteki segmanın krom kaplanmasıyla mümkündür. Günümüzde sadece en üst segman değil, aynı zamanda iki veya daha fazla segmanının kromla kaplanması eğilimi vardır.

Kromla kaplamanın sert bir yüzey oluşturması nedeniyle, segmanların kendisinde aşınmayı azaltacağı açıktır.

Kromla kaplama başlıca iki şekilde uygulanmaktadır:

- Sert

- Gözenekli kromla kaplama

Sert krom kaplamada segmanlar yüzeyleri kromla kaplandıktan sonra taşlanarak son şekillerini almaktadırlar. Segmanlar, gözenekli olarak kromla kaplanmalarından dolayı yüzeyleri yağ tutucu bir özellik kazanır. Böylece, hem kendileri ve hem de çalışacakları gömlek yüzeylerinde aşınmanın en aza inmesini sağlarlar.

Nt (Nitrit Kaplama)

Nitrit kaplama işlemi ile segman yüzeyinin tümü sertleştirilir. Bu kaplama ile yüzeyin sürtünmelere karşı direnci arttırılır. Bu sayede segman kullanım ömrü uzatılmış olur. Nitrit kaplama üretimi ve emisyon özellikleri ile çevre dostudur. Nitrit kaplama ile kritik performans yüzeylerinden daha etkin çalışma sonuçları çıktığı görülmüştür. Segmanların hassas noktalarından oluşan yağ kayıplarını azaltır. Dökme demir segmanların kırılganlığını azaltır. Motor ömrünü uzatır.

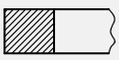
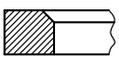
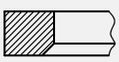
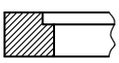
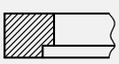
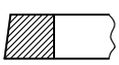
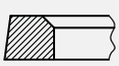
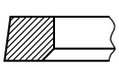
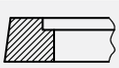
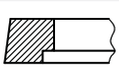
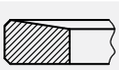
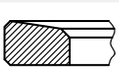
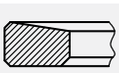
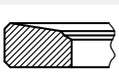
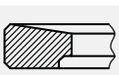
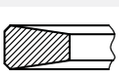
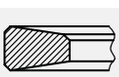
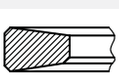
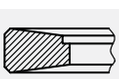
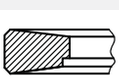
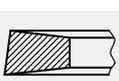
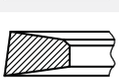
Cdc (Krom Elmas Kaplama)

Bu kaplama tipi Euro 4 ve dizel motorların tepe segmanlarında kullanılmaktadır. Esnek ve alaşımlı dökme demirlere, karbon çeliğine uygulanabilir. Elmas parçacık seramik parçacığın yerine kullanılmıştır. Bu sayede aşınma direnci ve sürtünmeye karşı performansı artmıştır.

Dlc (Diamond Like Carbon) (Elmas Görünümlü Karbon Kaplama)

Bu kaplama sayesinde sürtünme azaltılmakta aşınmaya karşı direnç arttırılmaktadır. DLC kaplama özellikleri itibari ile çevre dostu bir yapıdadır. Kimyasal bağları güçlüdür mekanik gerilim altında kırılmaz. Kristal yapılı değildirler, şekilsizdirler. Bu malzeme yapısından dolayı çok kuvvetli bir malzemedir. Diğer kaplamalara göre daha dayanıklı, sürtünmelere karşı direnci daha yüksektir.

TEKNİK TANIMLAMALAR

	D	=	Dikdörtgen segman
	D-IF	=	İç kenar üst yüzey pahlı dikdörtgen segman
	D-IFU	=	İç kenar alt yüzey pahlı dikdörtgen segman
	D-IW	=	İç kenar üst yüzey kademeli dikdörgen segman
	D-IWU	=	İç kenar alt yüzey kademeli dikdörgen segman
	K	=	Konik segman
	K-IF	=	İç kenar üst yüzey pahlı konik segman
	K-IFU	=	İç kenar alt yüzey pahlı konik segman
	K-IW	=	İç kenar üst yüzey kademeli konik segman
	K-IWU	=	İç kenar alt yüzey kademeli konik segman
	TT	=	Tek taraflı trapez segman
	TT-IF	=	İç kenar üst yüzey pahlı tek taraflı trapez segman
	TT-IFU	=	İçkenar alt yüzey pahlı tek taraflı trapez segman
	TT-IW	=	İç kenar üst yüzey kademeli tek taraflı trapez segman
	TT-IWU	=	İç kenar alt yüzey kademeli tek taraflı trapez segman
	T	=	Çift taraflı trapez segman
	T-IF	=	İç kenar üst yüzey pahlı çift taraflı trapez segman
	T-IFU	=	İç kenar alt yüzey pahlı çift taraflı trapez segman
	T-IW	=	İç kenar üst yüzey kademeli çift taraflı trapez segman
	T-IWU	=	İç kenar alt yüzey kademeli çift taraflı trapez segman
	TK	=	Çift taraflı trapez konik segman
	TK-IF	=	İç kenar üst yüzey pahlı çift taraflı trapez konik segman
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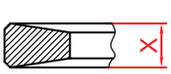
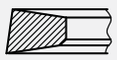
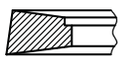
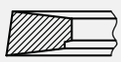
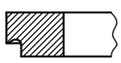
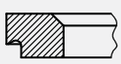
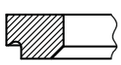
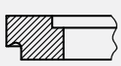
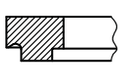
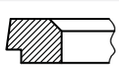
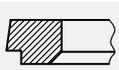
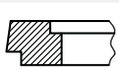
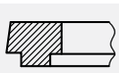
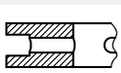
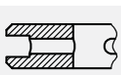
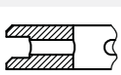
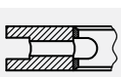
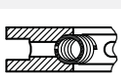
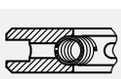
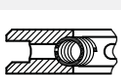
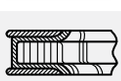
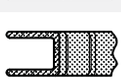
	X = Segman kalınlığı (mm)		

	TI-IFU	=	İç kenar alt yüzey pahlı çift taraflı trapez konik segman
	TK-IW	=	İç kenar üst yüzey kademeli çift taraflı trapez konik segman
	TK-IWU	=	İç kenar alt yüzey kademeli çift taraflı trapez konik segman
	N	=	Burun sıyırıcı segman
	N-IF	=	İç kenar üst yüzey pahlı burun sıyırıcı segman
	N-IFU	=	İç kenar alt yüzey pahlı burun sıyırıcı segman
	N-IW	=	İç kenar üst yüzey kademeli burun sıyırıcı segman
	N-IWU	=	İç kenar alt yüzey kademeli burun sıyırıcı
	TN	=	Burun sıyırıcı konik segman
	TN-IF	=	İç kenar üst yüzey pahlı burun sıyırıcı konik segman
	TN-IFU	=	İç kenar alt yüzey pahlı burun sıyırıcı konik segman
	TN-IW	=	İç kenar üst yüzey kademeli burun sıyırıcı konik segman
	TN-IWU	=	İç kenar alt yüzey kademeli burun sıyırıcı konik segman
	SC	=	Yarıklı yağ kontrol segmanı
	DC	=	Pahlı yağ kontrol segmanı
	DB	=	Çift pahlı yağ kontrol segmanı
	ES	=	Yaprak yaylı yarıklı yağ kontrol segmanı
	SY	=	Spiral yaylı yarıklı yağ kontrol segmanı
	DY	=	Spiral yaylı kenarları pahlı yağ kontrol segmanı
	PS	=	Spiral yaylı kenarları çift pahlı yağ kontrol segmanı
	VF	=	Çelik bantlı VF yaylı yağ kontrol segmanı
	UB	=	Çelik bantlı U tipi yağ kontrol segmanı
	SDV	=	Spiral yaylı V tipi kanallı çelik yağ kontrol segmanı
	DKS	=	Düz konik silindir uçlu yağ kontrol segmanı

GENEL PİSTON MONTAJ TALİMATI

1- Pistonun monte edileceği silindir iç yüzeyinde baklavaması honlama çizgileri olmalıdır. Şayet montaja hazır piston kullanılmış ve/veya aşınmış silindire monte edilecekse, silindir iç yüzeyi honlama çizgilerinin uygunluğu açısından kontrol edilmelidir. Eğer silindir iç yüzeyinde honlama çizgileri kısmen veya tamamen kaybolmuş ve parlak bir yüzey oluşmuşsa, silindir iç yüzeyi honlama çizgileri tekrar oluşacak şekilde honlanmalıdır.

2- Bütün pistonlar, doğru ölçülü bir silindir içine monte edildiklerinde belirlenmiş olan doğru piston-silindir çalışma boşluğu oluşturmaları için hassas olarak imal edilirler. Silindir iç çapları, kutu üstündeki etiketlerde gösterilen ölçülere uygunluklarını kontrol etmek ve bu şekilde yeniden işlenmelerinin gerekli olup olmadığını saptamak için kontrol edilmelidir. Yıpranmış silindirlerin iç çapları üst ölçüye işlenmesi gerektiğinde, üst ölçü nominal çapı 0.000-0.025 mm toleransında işlenmesi tavsiye edilir.

3- Montaja hazır pistonlardan piston pimi, pistona ve pime zarar vermeyecek şekilde uygun metodlarla çıkarılmalıdır. Piston pimleri ilgili pistonlara ölçüsel uygunlukları sağlanacak şekilde eşleştirilerek monte edilmiştir, rastgele değiştirilmemelidir.

4- Segmanların pistona takılması esnasında segmanları deforme etmeyecek ve pistona zarar vermeyecek şekilde uygun ekipman kullanınız. Pistonun silindire montajı esnasında uygun bir segman sıkma kelepçesi veya konik montaj kovanı kullanınız. Uygun şekilde segman sıkma işlemi gerçekleştirildikten sonra pistonu silindir içerisine aşırı kuvvet uygulayarak veya vurarak monte etmekten kaçınılmalı, parmak kuvveti ile dikkatlice monte edilmelidir.

5- Pistonun silindire montajından önce pistonun dikkatlice temizlenmesi ve özellikle piston pim deliğinin temizlenerek yağlanması önemlidir. Montaj öncesi silindir içleri ilk çalışma esnasında yağlama gerçekleşene kadar piston ve silindirin zarar görmemesi için iyice yağlanmalıdır.

6- Şayet piston tepe kısmında montaj yönünü belirtir işarete yönelik markalama mevcutsa, montaj esnasında bu işaret dikkate alınarak uygun şekilde montaj gerçekleştirilmelidir.

7- Pistona, piston pimine ve segmana zarar vermemek için azami dikkat gösteriniz.

8- Pistonlar genel kabul gören normlar doğrultusunda birlikte kullanılacakları diğer parçalara uygun üretilmektedir. Bu sebeple sonradan üzerinde işlem yapmayınız.

9- Pim ve emniyet segmanları yeniden kullanılmamalıdır, her zaman yeni pim ve emniyet segmanı kullanınız.

10- Montajda kullanılacak biyel kolunun doğrusallığının kontrolü, doğabilecek çok ciddi sorunların önüne geçilmesi açısından önemlidir. Biyel kolunun doğrusallığı, montaj öncesinde uygun cihazlarla yeniden kontrol edilmelidir.

NOT : Bu montaj talimatında belirtilenlere uygun hareket edilmelidir. Talimata uygun olmayan montajdan kaynaklanacak sorunlardan üretici sorumlu tutulamaz.

8- PİSTON MARKALAMA VE KODLAR

1- Firma logosu

2- STD / Üst ölçü bilgisi

7- İzlenebilirlik No.

5- Piston silindir boşluğu (mm)

8- Kompresyon yüksekliği kısa ölçüsü (mm)

4- Montaj yapılacak silindir numarası

6 - Piston takma yönü. Pim delik eksen kaçıklığı, "front" "Abluft" gibi özel yön belirleyici işaretleri olabilir. "Volant" sembolü ise pistonun motora hatasız montajını sağlar.

3- Piston anma çapı

9- PİSTON REFERANS NUMARASI

ÖRNEK

Piston referans numarası ← **11-01513-000**

000 = STD / Piston + Segman
001 = Kompresyon (strok) yüksekliği -0,20 mm kısa
002 = Kompresyon (strok) yüksekliği -0,40 mm kısa
003 = Kompresyon (strok) yüksekliği -0,60 mm kısa
050 = +0,50 mm üst ölçü / Piston + Segman

ESKİ REFERANS NUMARASI	YENİ REFERANS NUMARASI
1513 000	11-01513-000

10- PİSTON + SEGMAN REFERANS NUMARASI

ÖRNEK

Piston + Segman referans numarası ← **31-03513-000**

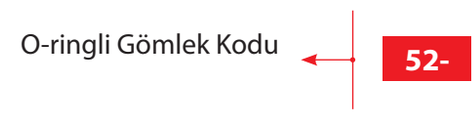
000 = STD / Piston + Segman
050 = +0,50 mm üst ölçü / Piston + Segman

ESKİ REFERANS NUMARASI	YENİ REFERANS NUMARASI
3513 000	31-03513-000
3513 000-08	38-03513-000
3513 000-09	39-03513-000

Segman tip ve kaplamalarındaki farklılıklar. ← **38-** **39-**

11 - GÖMLEK REFERANS TANIMLAMALARI

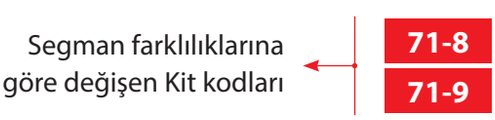
ÖRNEK



ESKİ REFERANS NUMARASI	YENİ REFERANS NUMARASI
5513 000	51-05513-000

12 - KİT, SET, REFERANS TANIMLAMALARI

KİT Referans : Piston + Pim + Segman + Gömlek



ESKİ REFERANS NUMARASI	YENİ REFERANS NUMARASI
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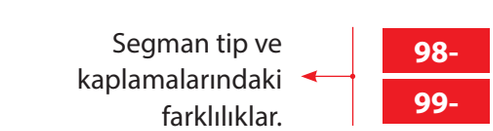
7513 000-08	71-87513-000
7513 000-09	71-97513-000

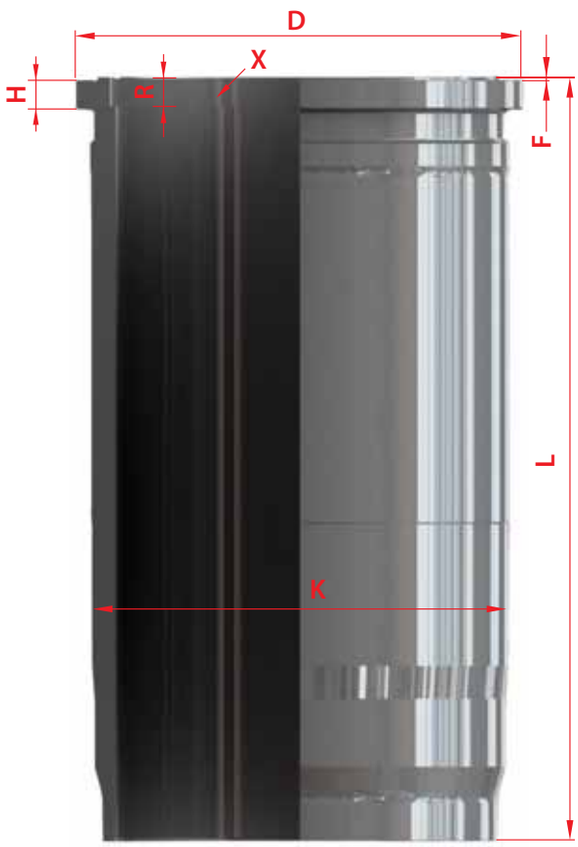
13 - SEGMAN REFERANS NUMARASI



ESKİ REFERANS NUMARASI	YENİ REFERANS NUMARASI
9513 000	91-09513-000
9513 000-08	98-09513-000
9513 000-09	99-09513-000

14 - O-RİNG REFERANS NUMARASI

SİLİNDİR GÖMLEĞİ TEKNİK AÇIKLAMA



K = Dış çap
L = Toplam boy
H = Flanş boyu
F = Conta derinliği
D = Flanş çapı
X = Kurum yeri segman boyu
R = Kurum yeri boyu

TSE 482' ye Göre Silindir Gömleklerinin Tarifi:

Silindir gömlekleri içten yanmalı motorlarda, silindir blokuna takılan, içinde pistonun hareket ettiği ve yakıtın yandığı, silindir biçiminde kır döküm makine elemanıdır.

Motor Silindir Gömlekleri iki sınıfta incelenebilir.

Yaş Silindir Gömlekleri:

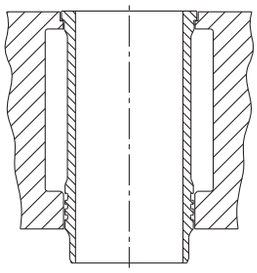
Takıldıkları silindir blokunda dıştan su ile soğutulan gömleklerdir.

3 ana grupta toplanır:

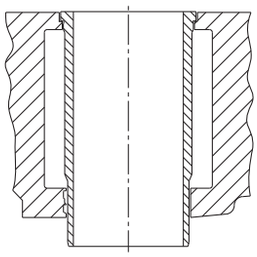
a- Flanşlı ve Kanallı: Silindir blokuna, üsten flanşla oturan, alt kısmında motor so¤utma suyunun sızmasını sağlamak için conta kanalları bulunan gömleklerdir. (Şekil-1)

b- Flanşlı ve Kanalsız: Silindir blokuna, üstten flanşlı oturan ve alt kısımda conta kanalları bulunmayan gömleklerdir. Sızdırmazlık contaları blokta açılan kanallarda bulunur. (Şekil-2)

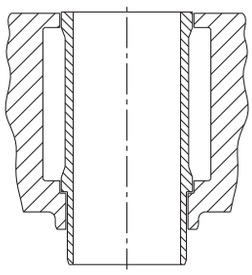
c- Çift Flanşlı: Silindir blokuna, motor soğutma suyunu kaçırmayacak şekilde üstten ve alttan flanşlı ve contalı olarak tespit edilen silindir gömleklerdir. (Şekil-3)



Şekil - 1



Şekil - 2



Şekil - 3

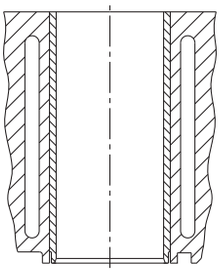
Kuru Silindir Gömlekleri:

Takıldıkları silindir blokunda soğutma suyu ile direkt olarak temas etmeyen gömleklerdir.

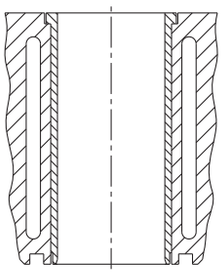
Şekil yönünden 2 ana sınıfa incelenebilir:

A- Flanşlı (Şekil-4)

b- Flanşsız-Düz (Şekil-5)



Şekil - 4



Şekil - 5

SİLİNDİR GÖMLEKLERİNİN MONTAJINDA DİKKAT EDİLECEK HUSUSLAR

KURU SİLİNDİR GÖMLEKLERİ İÇİN MONTAJ TALİMATI

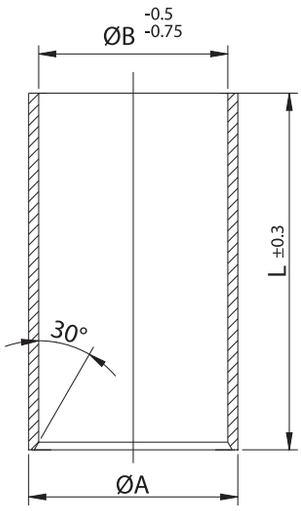
Kuru silindir gömlekleri flanşlı ve flanşsız olarak imal edilir. (Şekil-6) Kötü çalışma şartları altında bulunan flanşsız gömleklerde pistonun takılması halinde eksenel yönde sık sık görülmesi muhtemel olan kaymalara flanşlı gömleklerde rastlanmaz. Bu da flanşın sağladığı bir avantajdır.

Gömlekler, silindire preslenmeden önce mutlaka silindirler aşağıdaki listede gömlek dış çapı için (A) gösterilen Nominal ölçülere uygun olarak ya taşlanır veya hassas tornalama ve honlama işlemine tabi tutulur.

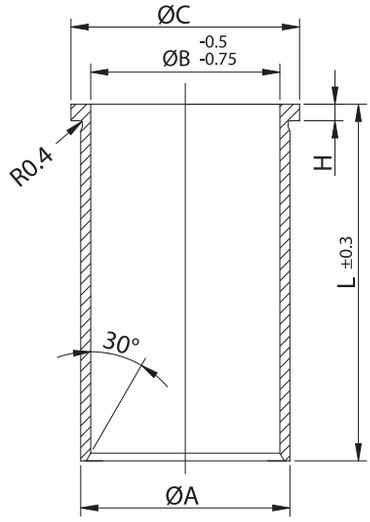
Aşağıdaki toleranslara özellikle dikkat edilmelidir. (Şekil-7) Aksi takdirde ön gerilim çok düşük ise ısı transferinin sıhhatli olmayacağı, ön gerilim çok yüksek ise çok ince cidarlı olan gömleklerin silindire uyumsuzluklar sebep olma tehlikesini doğuracağı ve bu yüzden işletme arızalarına sebebiyet vereceği, ortaya çıkması muhtemel olan hususlardır. Dış çapları nihai ölçü olarak işlenen kuru gömlekler iç çapları yaklaşık olarak 0.5-0.75 mm küçük olarak tornalanarak sevk edilir.

Flanşlı kuru gömleği silindir bloğuna presle monte ederken, flanşın kopmasını önlemek maksadı ile, blokta flanş için işlenen deliğin, flanşın dış çapından (C) daha büyük olarak işlenmesi gerekir

Flanşlı kuru gömlekler, pres geçme yapılırken, flanşın alt yüzeyinin bloktaki yuvanın oturma yüzeyine çok iyi bir şekilde oturması sağlanmalıdır.



Şekil - 6



Şekil - 7

Bilindiği gibi gömlekler, flanşın alt tarafında yaklaşık 0.4 mm lik bir radyüse sahiptir Gömleğin bloka montajında bu radyüsün oturmasını önlemek için, blokta flanşın oturduğu geçiş bölgesine 1.0 mm lik bir pah verilmelidir. Aksi taktirde gömlek flanşının kopması kaçınılmazdır

Yeni gömlekler monte edilmeden önce motor blokundaki silindirler özenle temizlenmeli ve ölçüleri hassas olarak kontrol edilmelidir. Ovallik ya da koniklik 0.025 mm yi aşmamalıdır. Honlama yapılırken parlak bir yüzey elde edilmeye çalışılmalı ve motorun tipine göre yüzey pürüzlülük değerleri kontrol edilmelidir. Çok parlak ve pürüzsüz yüzeyler yağlamanın eksik olmasına sebep olacağı için bu durumdan kaçınılmalıdır.

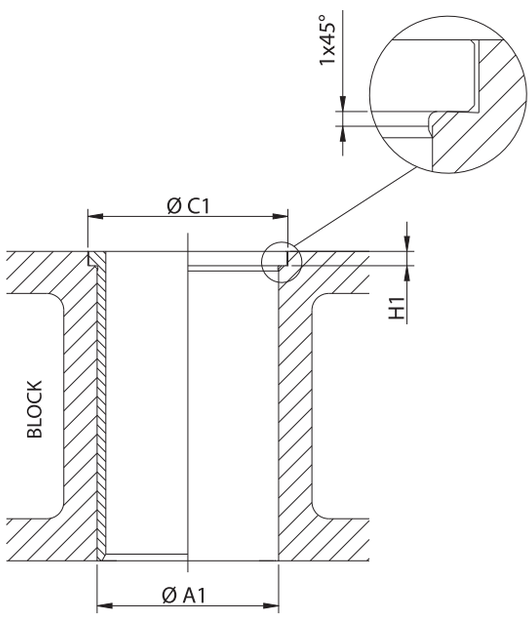
Kuru silindir gömleklerinin presle basılmalarında 3000-5000 kg lık bir basınç yeterlidir. Montaj esnasında yağlama maddesi olarak katı bir madde kullanılacak olursa daha sonra ısıdan dolayı bu madde koklaşacak ve ısı transferini zorlaştıracaktır. Presle yapılan montajdan sonra silindir blokunu conta yüzeyinden taşlamalar yüzey taşlama ile alınmalıdır.

Silindir bloğunun conta yüzeyini işleme tabi tutmak gerektiği taktirde, buna uygun olarak flanşın yuvadaki oturma yüzeyi daha derin işlenmelidir. Ayrıca dış çapları bitmiş ölçüde iç çapları ise hassas tornalanmış silindir gömlekleride mevcuttur.

Bu gömlekler çok az bir honlama payına haiz olarak silindire preslenirler ve preslenmiş durumda honlanırlar. Silindirin iç çapı nominal ölçü toleransı +0 ile +0.015 mm. Silindir gömleğinin dış çapı ise nominal ölçü toleransı +0.012 ile 0.024 mm. arasındadır.

	Gömlek Dış Çap Grupları		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	Blok Delik Çapları (mm)		
	50 - 80	80 - 120	120 - 180
Q_1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25



Şekil 9

SULU SİLİNDİR GÖMLEKLERİ MONTAJ TALİMATI

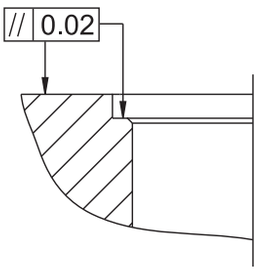
YENMAK Motor Silindir Gömlekleri aşınmaya ve çekmeye karşı mukavim bir yapı özellikleri elde edilmesini sağlayan savurma döküm yöntemiyle imal edilir. Silindirde oturma yüzeylerinde tahribata sebep olmamak için eski gömlekler çıkartılırken büyük bir itina gösterilmelidir.

Motor blokunda silindirlerin temas yerleri kireç çamur ve diğer kirli maddelerden özenle temizlenmelidir. Temizlik esnasında çizilmeye yol açacak raspa, keski gibi aletler kullanılmamalıdır. Bu işlem için elverişli araç çelik telli fırçadır. Pas kireç tabakaları ile silindirde sabitleşen gömleklerin çıkarılması için üzerlerine konan bir araç takoz parçasına çekiçle vurulur, buna rağmen gömlek çıkartmak mümkün olmassa o zaman hidrolik pres' e başvurulur. Temizleme yapılırken oturma yüzeylerine son derece dikkat edilerek, hasar görmemeleri sağlanmalıdır.

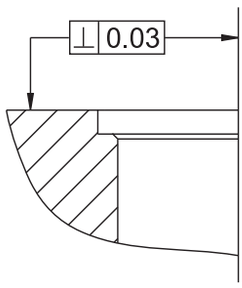
Gömlek flanşı alt yüzeyinin oturduğu yüzey bloku yüzeyine parelel olmalı. (Şekil-10) da gösterildiği gibi düzgünlük ve düzlemsellik bakımından farklılık göstermemelidir. Ayrıca silindir eksenin, silindir blokunun conta yüzeyine dik olup olmadığı kontrol edilmelidir. (Şekil-11) Daima dikkat edilmesi gereken bir konuda silindirdeki oturma yüzeylerinin ezilerek tahrip edilmemeleridir. (Şekil 12)

Gömlek flanş alt yüzeyindeki radyüsün (d) silindirdeki flanş oturma yüzeyi (a) daki köşeye oturmasını önlemek için silindir çapını (c) geçiş yaptığı noktada 0.5-1.0 mm. 45° lik bir radyüs verilmelidir.

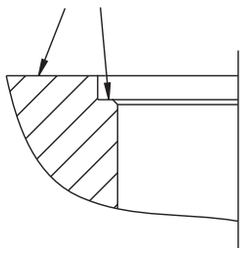
Kırılma tehlikesinin önlenmesi için sızdırmazlık kuvveti ile karşı kuvvet düşey olarak karşılıklı bulunmalıdır.



Şekil 10

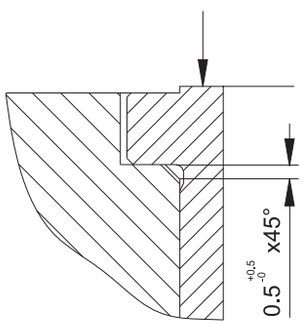


Şekil 11

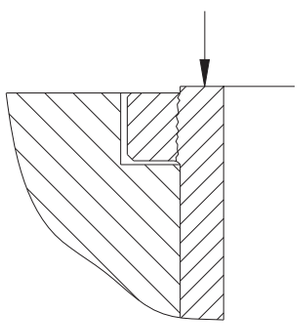


Şekil 12

Contaların delik çapı (b) ile gömleğin dış çapı (c) birbirine eşit olmalıdır. Yanma odasında tam bir sızdırmazlığın sağlanabilmesi için metal çerçeveli contaların kullanılması gerekir.



Şekil 14



Şekil 15

Gömleğin kolaylıkla yerleşip yerleşmediğini ve bloktaki silindirin çok büyük yahut çok geniş olup olmadığını tespit etmek için, gömlekler montajdan önce el ile lastik ring kullanmadan silindire sokulmalıdır. Bilhassa gömlek flanşının blok yüzeyine olan pozisyonunun doğru olup olmadığını tespit etmek için, montajdan önce gömlekleri ters çevirerek, flaş tarafından, flanş oturma yüzeyine yerleştirilmesi tavsiye edilir. Flanş bilindiği gibi, motorun soğumayan bölgesinde olup genleşmek durumundadır. Burada 0.3-0.5 mm. lik bir boşluk nazari dikkate alınmalıdır.

Bu montaj talimatında her fırsatta önemle vurgulanan şey, gömleği takma ve sökme işleminin maksada uygun olarak yapılması hususudur. Yani montaj esnasında çekiç vb. diğer ağır takımların kullanılmasıyla ki bu şekil doğru değildir, ortaya çıkan hatalar kötü sonuç verir.

Montaj esnasında kullanılacak lastik ringler mutlaka kaliteli olmalı ve kabarmaya, eskimeye dayanaklı, yağ ve ısıya karşı mukavim olmalıdır. Aksi halde kartere su inmesi, gömleğin sıkışmasına ve ölçülerin bozulmasına yol açar. Lastik ringlere her defasında yağlama sabunu sürülür ve böylece yuvalarına yerleştirilir.

Lastik ringler olarak yanlızca motor üreticileri tarafından kullanılan kaliteli markalar tercih edilmelidir.Bu tercihteki asıl sebep lastik ringlerin kabarmaya ve eskimeye dayanıklı, yağ ve ısıya karşı mukavim olmalarıdır.

Gömlekte kopmalara neden olan piston krepajı, uygun olmayan lastik ring kullanmanın bir neticesidir. Lastik ringlerin oturduğu kısımlar hiçbir zaman kazınmamalıdır.

Gömlekler el ile yerleştirildikten sonra silindirin ölçüsünü bir kere daha kontrol edilmesinde fayda vardır. Bu kontrol bilhassa lastik ringlerin bulunduğu bölgelerde ovalleşme ve büzülmelerin meydana gelebileceği yerlerde yapılmalıdır.

Gömlekler tamamen yerleştirildikten sonra silindir bloku su ile doldulurak sıkıştırılmalı ve sızdırmazlık durumu mutlaka kontrol edilmelidir.

GÖMLEK MARKALAMA DETAYI

O-RİNG (GÖMLEK LASTİĞİ)

Sızdırmazlık parçalarından o-ring, motorun çalışmasını ve performansını etkileyen önemli parçalardan bir tanesidir. Tek O-ring kodlarımızı veya O-ringli kit ve gömlek referans numaralarımızı kullanarak ürünlerimizi sipariş verebilirsiniz.

O-Ring Materyalleri	
EPDM	Kauçuk EPDM
NBR	Kauçuk
FPM / VI	Viton
Cu	Bakır
T	Tombak
ST	Çelik
SC / MVQ	Silikon
Shim / SM	Yumuşak Metal

93,000 (1)		(3)	(4)	(5)	(6)	(7)
4JB1 (2)		D	00 2005 > 00 2005	4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) (9) CH 51,850 VD1 0,550 (10) (11) B- 19,500 BØ 43,900 (12) (13) TL 91,850 (15) 31,00x76,00		AP YS (14) HA CP	91-09389-000 1 2,000 P 2 2,000 P 3 4,000 CrP (16)	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)	Ø 93,000 (18)	31-04385-000 (19)
			99-09389-000 1 2,000 FeP 2 2,000 FeP 3 4,000 TeF (16)			39-04385-000
Isuzu ve Opel ile Ortak Motor (27)						
(22) K=95,00 (24) L=181,00 (25) H=0,90 (23) D=101,00		DF-CR-ST (26)			51-35721-000 (20)	71-08385-000 71-98385-000 (21)
(22) K=120,00 (24) L=229,00 (25) H+F=9,00+1,10 (23) D=128,50		WF (26)		O-Ring/Seal 55-50613-000 (28) 2 FPM 112,00x3,00	51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

1 - Piston Çapı
2 - Araç Bilgisi
3 - Yakıt Bilgisi
4 - Model Yılları
5 - Silindir Sayısı
6 - Silindir Hacmi
7 - Motor Gücü
8 - Piston Kodu
9 - CH: Kompresyon Yüksekliği
10 - VD1/VD2: Supap Derinliği
11 - B- : Yanma Odası Derinliği
B+ : Tepe Bombesi
12 - BØ: Hücre Çapı
13 - TL: Tam Boy
14 - Piston Özellikleri
*DAP: Double Alfinli Piston
*AP: Alfinli Piston
*YS: Yağ Soğutmalı Piston
*CP: Çelik Saclı Piston
*HA: Hard Anodized Kaplamalı
*PDB: Pim Deliği Burçlu
15 - Pim Çapı - Boyu
16 - Segman Özellikleri
17 - Piston Kafa Çıkıntısı
18 - Silindir Çapı
19 - Piston + Segman Kodu
20 - Gömlek Kodu
21 - Kit + O-Ring Kodu
22 - Silindir Dış Çapı
23 - Gömlek Flanş Çapı
24 - Gömlek Tam Boyu
25 - Flanş Fatura Kalınlığı
26 - Gömlek Özellikleri
*WS : İç çapı semi yaş gömlek
*WF : İç çapı honlanmış yaş gömlek
*DS : İç çapı semi kuru gömlek
*DF : İç çapı honlanmış kuru gömlek
*AF : İç çapı honlanmış hava soğutma gömlek
*PH : Fosfat
*CR : Krom
*HR : Sertleştirilmiş
*NT : Nitrür
*HT : Isıl işlem
*STEEL: Çelik
27 - Ortak Motor
28 - O-Ring Kodu

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Компания Yenmak была основана в 1965 году в Конье семьей Кахведжиоглу в качестве небольшой семейной мастерской. На протяжении последующих лет компания YENMAK постоянно обновлялась и развивалась, в результате чего стала одним из крупнейших мировых поставщиков деталей для двигателей, как на внутреннем, так и на внешнем рынке.

Сегодня компания Yenmak, производящая КОМПЛЕКТЫ, ПОРШНИ, ПОРШНЕВЫЕ ПАЛЬЦЫ, КОЛЬЦА и ГИЛЬЗЫ ЦИЛИНДРОВ ДВИГАТЕЛЯ и поставляющая УПЛОТНИТЕЛИ, КЛАПАНЫ И ВКЛАДЫШИ ДЛЯ ДВИГАТЕЛЯ, экспортирует свою продукцию в более чем 80 различных стран на 5 континентах.

В качестве долгосрочного бизнес-партнера для вас, наши дорогие клиенты, компания обеспечивает для своих клиентов комплексную поставку из одного источника всех деталей двигателя, представленных в ассортименте компании, в дополнение к окончательной надежности, самому лучшему качеству и разумной цене предлагая продажное и послепродажное обслуживание. Помимо этого YENMAK знает, что человеческий фактор является наиболее важным среди всех компонентов, и поэтому придает большое значение взаимоотношениям с клиентами и высоко ценит их.

Компания YENMAK имеет сертификаты INMETRO, ISO 9001, ISO / TS 16949, IATF 16943, TS EN ISO 14001. На сегодняшний день компания, имеющая 2 фабрики и здание центральной администрации и логистики, ведет деятельность на площадях в 50.000 квадратных метров в 1-й, 2-й и 3-й Организованной промышленной зоне города Коньи.

Сбытовая и маркетинговая деятельность компании осуществляется в экспортном офисе YENMAK, который находится в Стамбуле.

Центральная администрация и логистика

Фабрика поршней и пальцев

Фабрика гильз цилиндров

YENMAK

ДЕТАЛИ ДЛЯ ДВИГАТЕЛЕЙ

Начиная с 2003 года, продукция компании Yenmak упаковывается и поставляется на рынок в представленном ниже виде.

Сведения, содержащие подробную информацию об упаковке, представлены ниже:

Благодаря нашей специальной наклейке на стыке коробки с крышкой станьте первым, кто коснется продукта.

Номер отслеживаемости

Защитная 3D-голограмма, которая интегрирована в поверхность упаковки с целью обеспечения защиты продукции.

Защитная этикетка в нижней части упаковки с целью обеспечения защиты продукции.

BUREAU VERITAS
Certification

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12 SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 9001:2008

Belgelendirme Kapsamı

İÇTEN YANMALI MOTORLAR İÇİN ALÜMİNYUM KOKİL DÖKÜM PİSTON VE PİSTON PİMİ ÜRETİMİ

İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

TÜRKAK

SEÇKİN DEMİRALP
Belgelendirme Müdürü

Sayfa 1/1

BUREAU VERITAS Certification

Certificate of Approval

Awarded to

YENMAK PİSTON SEGMAN SAN. VE TİC. A.Ş.

KIRIM CD. SARIÇİÇEK SK. NO:12 SELÇUKLU KONYA
42000 - Konya - Turkey

Bureau Veritas Certification certifi that the Quality Management System of the above organization has been audited and found to be in accordance with the requirements of

ISO/TS 16949:2009

and the applicable customer specific requirements

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

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2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12
SELÇUKLU, KONYA, TÜRKİYE

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Standart

ISO 14001:2004

Belgelendirme Kapsamı

ÇTEN YANMALI MOTORLAR İÇİN PİSTON VE PİSTON PİMİ ÜRETİMİ

Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

UKAS

SEÇKİN DEMİRALP
BVCH SAS İngiltere Şubesi
adına imzalayan

Sayfa 1/1

BUREAU VERITAS Certification

YENMAK MOTOR GÖMLEK SANAYİ VE TİCARET A.Ş.

1.ORGANİZE SANAYİ BÖLGESİ HOROZLUHAN MAH. ATABEY SOK. NO: 8 SELÇUKLU, KONYA, TURKEY

Bureau Veritas Certification Holding SAS - UK Branch certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standard

ISO 9001:2015

Scope of certification

MANUFACTURING OF CASTING AND MACHINING CYLINDER LINERS AND CASTING RING CARRIERS

Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

UKAS

İBRAHİM TAŞKY
Signed on behalf of
BVCH SAS UK Branch

ISO 14001
ISO / TS 16949
BUREAU VERITAS
Certification

BUREAU VERITAS
Certification

Certificate of Approval

YENMAK MOTOR GÖMLEK VE TİC. A.Ş.

1. ORGANİZE SANAYİ BÖLGESİ, HOROZLUHAN
MAHALLESİ, ATABEY SOKAK No:8, SELÇUKLU
42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
Casing and machining cylinder liners and casting ring carriers

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

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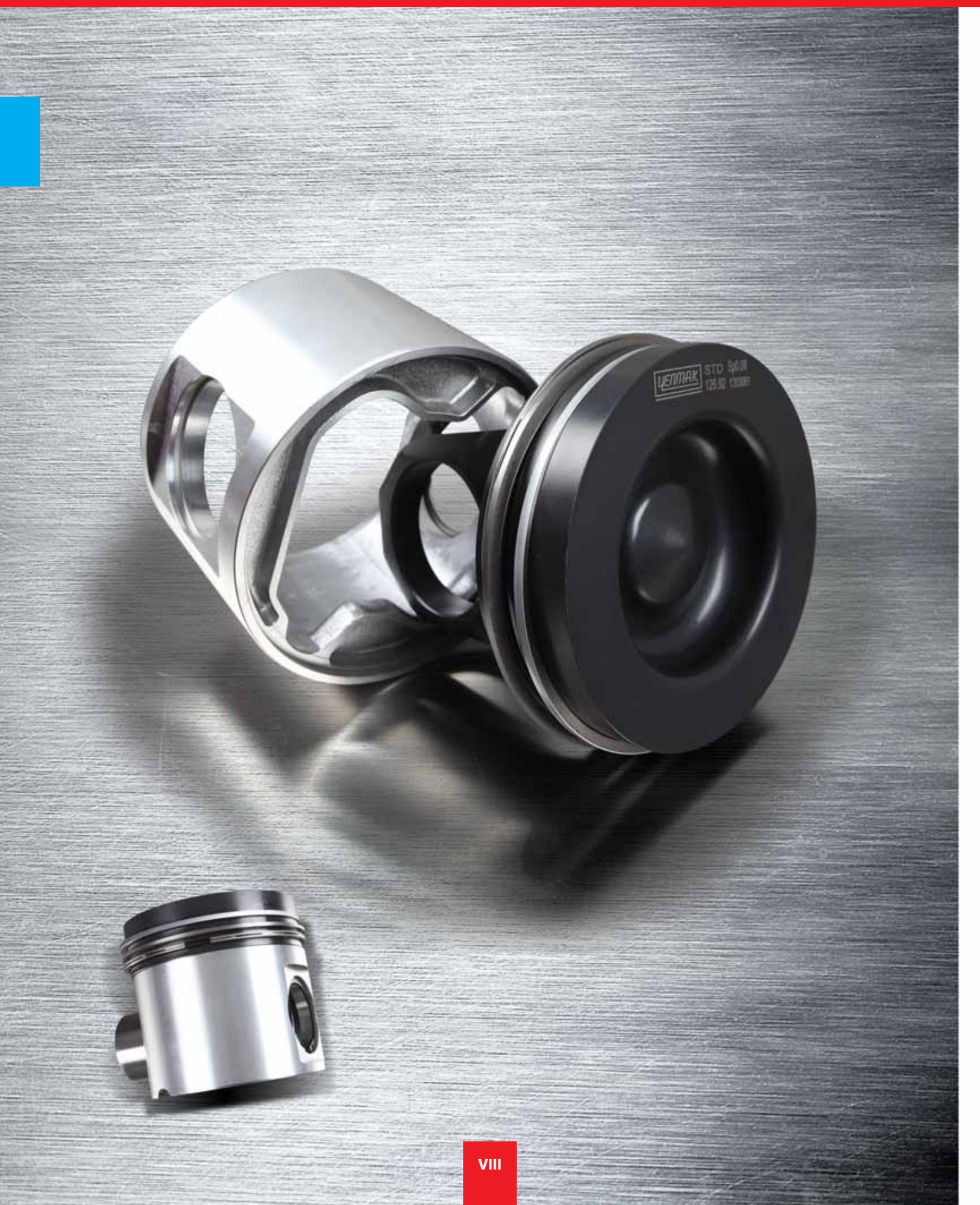
KONYA BELGELENDİRME MÜDÜRÜ

СОСТАВНЫЕ СТАЛЬНЫЕ ПОРШНИ



Составные стальные поршни состоят из подвижно соединенных друг с другом на поршневом пальце стальной головки поршня и алюминиевого вала поршня. Благодаря высокой прочности и низким значениям износа эти поршни, в основном, обеспечивают работу дизельных двигателей, предназначенных для тяжелого режима работы, в низких пределах выхлопных газов и эмиссии.

Составные стальные поршни используются:

• В двигателях нового поколения с высокими коэффициентами сжатия и с современными камерами сгорания,

• В дизельных двигателях, предназначенных для тяжелого режима работы,

• В двигателях, в которых используются мультитопливные системы,

Преимущества составных стальных поршней:

• По сравнению с алюминиевыми поршнями составные стальные поршни обеспечивают меньшие потери от сил трения за счет меньшего контактного расстояния с гильзой цилиндра.

• По сравнению с алюминиевыми поршнями составные стальные поршни за счет своей высокой стойкости к тепловой нагрузке уменьшают риск деформации гильзы и могут работать в меньшей полости цилиндра, улучшают уплотнительные свойства колец.

• Если обычный алюминиевый поршень выдерживает давление до 100 бар, то стальной поршень таких же параметров может выдержать давление до 250 бар.

• Обеспечивают более высокий коэффициент сжатия в двигателе и уменьшение уровня выбросов CO_2 на 2-5%. Обеспечивают уменьшение контактных проблем, возникающих из-за материала алфин (нирезист), который используется в алюминиевых поршнях для дизельных двигателей.

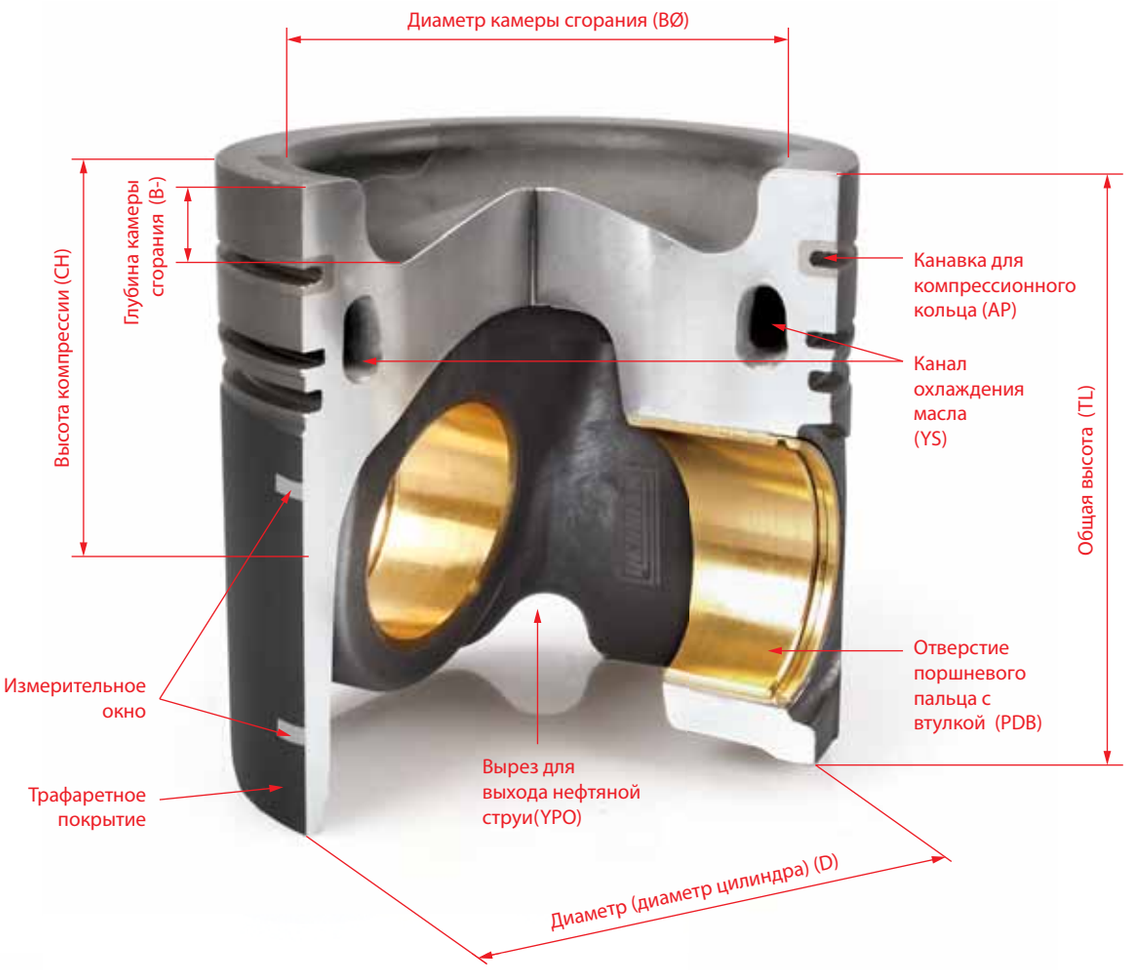
• В поршнях с охлаждающим каналом дают возможность более близкого расположения охлаждающего канала к верхней части поршня, что приводит к обеспечению более эффективного охлаждения.

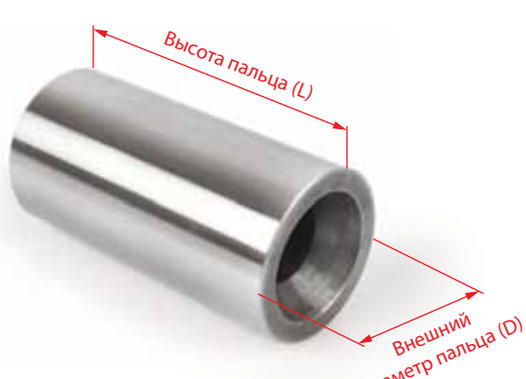
• По сравнению с алюминиевыми поршнями составные стальные поршни обладают минимальной деформацией камеры сгорания.

• Благодаря положительному влиянию на увеличение срока службы двигателя составные стальные поршни уменьшают затраты на ремонт двигателя.

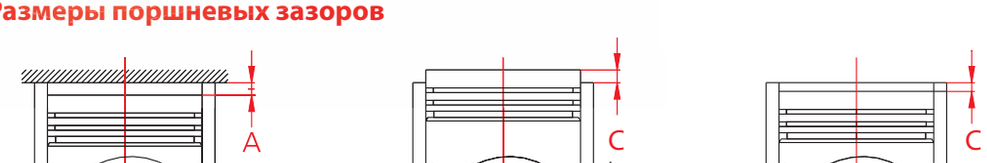
• При использовании составных стальных поршней не возникает таких проблем, как плавка поршня, прогорание поршня, вызываемых чрезмерными показателями систем наддува и систем впрыска топлива.

ТЕХНИЧЕСКИЕ ОПРЕДЕЛЕНИЯ





Размеры поршневых зазоров



A = Расстояние до головки блока цилиндров

C = Расстояние от головки поршня до поверхности блока цилиндров

ИНСТРУКЦИЯ ПО УСТАНОВКЕ ПОРШНЕВЫХ КОЛЕЦ YENMAK

Если вы хотите установить кольца на бывшие в употреблении поршни, то следует произвести очистку поршней, канавок для поршневых колец от углеродного нагара, а также масляных отверстий. Помимо углеродного слоя на верхушках поршней должны быть вычищены все излишки углеродного нагара. Следует уделить большое внимание чистоте кольцевых канавок. Следует обратить внимание, чтобы во время очистки краевых стыков в местах схождения боковых и нижних поверхностей не оставалось царапин. В противном случае в будущем подобные царапины могут положить начало образованию трещин. Наборы поршневых колец Yenmak разрабатываются таким образом, чтобы соответствовать оригинальным поршням двигателей, поэтому нет необходимости подвергать поршни обработке. Предельные значения износа цилиндра, при которых могут быть использованы поршневые кольца Yenmak, представлены ниже:

Для бензиновых двигателей - максимум 0,1 мм в диаметре

Для дизельных двигателей - максимум 0,15 мм в диаметре

Как правило, даже если износ, присутствующий в бывших в употреблении поршнях, находится в пределах вышеуказанных значений зазоров, обязательно замените поршни, имеющие чрезмерную деформацию в канавках поршневых колец. Потому что в поршнях с нарушениями формы и параллельности канавок поршневых колец значение зазора может быть обманчивым, а кольца в таких поршнях не могут выполнять свои функции должным образом, что приводит к жалобам на повышенный расход масла и утечку газов.

Отгибание поршневых колец вверх, вниз, их сгибание может привести к нарушению формы рабочей поверхности поршневого кольца и деформированию материала покрытия. Подобные невидимые невооруженным глазом деформации могут привести к проблемам в условиях работы двигателя.

Раскройте поршневые кольца (при помощи щипцов для снятия поршневых колец) и поочередно поместите их в канавки поршня. Затем затяните кольца, используя зажим для сжатия поршневых колец или конический монтажный кожух, и подвиньте их в направлении верхней части поршня, подталкивая их ручкой молотка, а при необходимости слегка ударяя по ним ею. Во время этой процедуры старайтесь держать зажим таким образом, чтобы он непрерывно сидел на блоке, для предотвращения повреждения тонких поршневых колец в случае, если они выйдут за пределы зажима. В двигателях, внутренние поверхности гильз цилиндров которых покрыты хромом, не должны использоваться хромированные поршневые кольца.

Те поршневые кольца, на одной из сторон которых имеется маркировка YEN или TOP, должны устанавливаться в канавки таким образом, чтобы поверхность с маркировкой была обращена к камере сгорания. Поршневые кольца без какой-либо маркировки могут устанавливаться в любом положении.

ВИДЫ ПОКРЫТИЙ И ОБРАБОТКИ ПОВЕРХНОСТЕЙ ПОРШНЕВЫХ КОЛЕЦ

Cr = Хромовое покрытие
Mo = Молибденовое покрытие
P = Фосфатное покрытие
Fe = Покрытие оксидом железа
Cu = Медное покрытие
Nt = Нитридное покрытие
Sn = Оловянное покрытие
Ck = Хромо-керамика
Pvd = Физическое осаждение из паровой фазы
Cdc = Хромо-алмазное покрытие
Dlc = Углеродное покрытие с алмазным напылением
Tef = Тефлоновое покрытие

ТЕХНИЧЕСКИЕ ОПРЕДЕЛЕНИЯ

ВИДЫ ПОКРЫТИЙ И ОБРАБОТКИ ПОВЕРХНОСТЕЙ ПОРШНЕВЫХ КОЛЕЦ

Ck (хромо-керамическое покрытие)

Хромо-керамическое покрытие (CK) представляет собой разновидность композитного покрытия, образованного сетчатой структурой, формируемой соединением элементов хрома и оксида алюминия. Эти покрытия используются в основном в транспортных средствах с дизельными двигателями для покрытия первых компрессионных поршневых колец. Благодаря отличиям в процессе электролиза покрытие CK обеспечивает высокое качество и производительность.

Отличия покрытия Ck от покрытия твердым хромом:

- Более высокая износостойкость

- Более высокая точка плавления

- Более высокая твердость и интенсивность трещин

Благодаря вышеуказанным преимуществам покрытия CK обеспечивают продление срока службы двигателей транспортных средств, в которых они используются, а также формирование выхлопных газов с низкой теплоотдачей.

Pvd (Физическое осаждение из паровой фазы)

Метод, при котором твердые покрытия, реактивным образом диссоциируясь в паровой фазе, оседают на поверхности поршневого кольца, носит название метода PVD. При данном методе обеспечивается испарение и ионизация металла посредством электрической дуги или ионной бомбардировки.

Диссоциированные и упорядоченные ионы металла направляются непосредственно на поверхность детали. В результате этого атомы металла вступают в реакцию с реактивными газами и образуют нитриды, карбиды и оксиды. Таким образом, по окончании реакции на рабочей поверхности поршневого кольца формируется тончайшее покрытие. Благодаря своей керамической составляющей покрытие обладает высокой устойчивостью к износу.

Mo (Молибденовое покрытие)

Окружность поршневого кольца покрывается молибденом для предотвращения износа. В целях избегания следов горения молибденом может быть покрыта только рабочая поверхность поршневых колец, либо же вся их поверхность. Процесс нанесения покрытия может осуществляться либо методом пламенного распыления, либо методом плазменного распыления. Благодаря высокой температуре плавления (2620 C^0), пористой структуре и смазочным эффектам молибден обеспечивает дополнительную прочность рабочей поверхности поршневого кольца. Обладает высокой теплопроводностью и стойкостью к износу и истиранию.

Cr (Хромовое покрытие)

Покрытие твердым хромом - это метод, который широко применяется для увеличения долговечности поршневых колец. Цель хромового покрытия - уменьшение износа и увеличение срока службы поршневых колец и гильз цилиндра. Уменьшение износа поршневого кольца и стенок цилиндра возможно путем нанесения хрома на самое верхнее поршневое кольцо. В настоящее время имеется тенденция к покрытию хромом не только самого верхнего кольца, но и второго и следующих поршневых колец.

Благодаря тому, что хромирование формирует твердую поверхность, уменьшение износа самого поршневого кольца не вызывает сомнений.

Хромовое покрытие наносится двумя основными способами:

- Твердое покрытие

- Пористое покрытие хромом

При твердом покрытии хромом после хромирования поверхности поршневых колец подвергаются шлифовке, в результате которой принимают свою окончательную форму. Благодаря пористому нанесению хромового покрытия поверхность поршневых колец приобретает свойство удерживать смазку. Таким образом, кольца обеспечивают сведение к минимуму как собственного износа, так и износа поверхности гильзы, внутри которой они работают.

Nt (Нитридное покрытие)

Процедура покрытия нитридом делает более твердой всю поверхность поршневого кольца. Благодаря этому виду покрытия увеличивается устойчивость поверхности к истиранию. Это, в свою очередь, приводит к увеличению срока службы поршневого кольца. Производство нитридного покрытия, а также характеристики выбросов с использованием таких деталей являются экологически чистым. Было установлено, что с использованием нитридного покрытия поверхности с критическим уровнем производительности показывают более эффективные результаты. Уменьшает потери масла, обусловленные наиболее подверженными воздействиям точками поршневых колец. Снижает ломкость чугунных колец. Увеличивает срок службы двигателя.

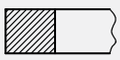
Cdc (Хромо-алмазное покрытие)

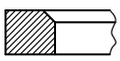
Данный вид покрытия используется для верхних поршневых колец в двигателях Euro 4 и в дизельных двигателях. Может применяться для гибких сплавов чугуна, углеродистой стали. В этом покрытии вместо керамических частиц используются алмазные частицы. Благодаря этому увеличена устойчивость к износу и улучшены показатели против истирания.

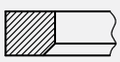
Dlc (Diamond Like Carbon) (Углеродное покрытие с алмазным напылением)

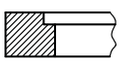
Благодаря этому покрытию уменьшается истирание и увеличивается стойкость к износу. Благодаря своим характеристикам покрытие DLC обладает экологически чистой структурой. Его химические связи сильны, оно не ломается под механическим воздействием. Его структура не кристаллическая, а аморфная. Благодаря своей структуре данный материал в высшей степени прочен. Это покрытие - более стойкое по сравнению с другими видами покрытий, с более высоким сопротивлением износу.

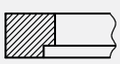
ТЕХНИЧЕСКИЕ ОПРЕДЕЛЕНИЯ

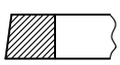

D = Прямоугольное в поперечном сечении кольцо

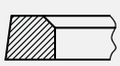

D-IF = Прямоугольное в поперечном сечении кольцо со скошенной выточкой на верхней поверхности внутреннего края

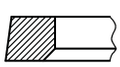

D-IFU = Прямоугольное в поперечном сечении кольцо со скошенной выточкой на нижней поверхности внутреннего края

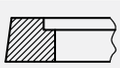

D-IW = Прямоугольное в поперечном сечении кольцо с прямоугольной выточкой на верхней поверхности внутреннего края

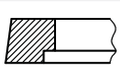

D-IWU = Прямоугольное в поперечном сечении кольцо с прямоугольной выточкой на нижней поверхности внутреннего края

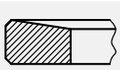

K = Кольцо с конической рабочей поверхностью

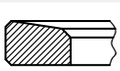

K-IF = Кольцо с конической рабочей поверхностью со скошенной выточкой на верхней поверхности внутреннего края

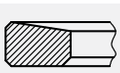

K-IFU = Кольцо с конической рабочей поверхностью со скошенной выточкой на нижней поверхности внутреннего края

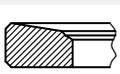

K-IW = Кольцо с конической рабочей поверхностью с прямоугольной выточкой на верхней поверхности внутреннего края

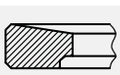

K-IWU = Кольцо с конической рабочей поверхностью с прямоугольной выточкой на нижней поверхности внутреннего края

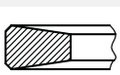

TT = Кольцо с поперечным сечением в виде несимметричной трапеции

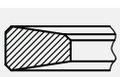

TT-IF = Кольцо с поперечным сечением в виде несимметричной трапеции со скошенной выточкой на верхней поверхности внутреннего края

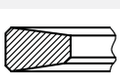

TT-IFU = Кольцо с поперечным сечением в виде несимметричной трапеции со скошенной выточкой на нижней поверхности внутреннего края

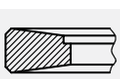

TT-IW = Кольцо с поперечным сечением в виде несимметричной трапеции с прямоугольной выточкой на верхней поверхности внутреннего края

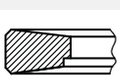

TT-IWU = Кольцо с поперечным сечением в виде несимметричной трапеции с прямоугольной выточкой на нижней поверхности внутреннего края

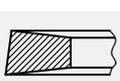

T = Кольцо с поперечным сечением в виде симметричной трапеции

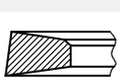

T-IF = Кольцо с поперечным сечением в виде симметричной трапеции со скошенной выточкой на верхней поверхности внутреннего края


T-IFU = Кольцо с поперечным сечением в виде симметричной трапеции со скошенной выточкой на нижней поверхности внутреннего края

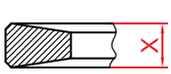

T-IW = Кольцо с поперечным сечением в виде симметричной трапеции с прямоугольной выточкой на верхней поверхности внутреннего края

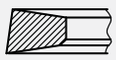

T-IWU = Кольцо с поперечным сечением в виде симметричной трапеции с прямоугольной выточкой на нижней поверхности внутреннего края

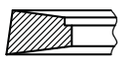

TK = Кольцо с поперечным сечением в виде симметричной трапеции с конической рабочей поверхностью

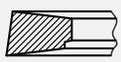

TK-IF = Кольцо с поперечным сечением в виде симметричной трапеции с конической рабочей поверхностью со скошенной выточкой на верхней поверхности внутреннего края

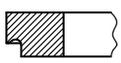
SDR = Стальное маслосъемное кольцо с V-образной канавкой со спиральной пружиной

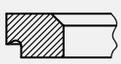

X = Толщина поршневого кольца (мм)

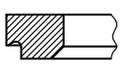

TI-IFU = Кольцо с поперечным сечением в виде симметричной трапеции с конической рабочей поверхностью со скошенной выточкой на нижней поверхности внутреннего края

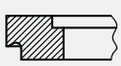

TK-IW = Кольцо с поперечным сечением в виде симметричной трапеции с конической рабочей поверхностью с прямоугольной выточкой на верхней поверхности внутреннего края

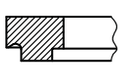

TK-IWU = Кольцо с поперечным сечением в виде симметричной трапеции с конической рабочей поверхностью с прямоугольной выточкой на нижней поверхности внутреннего края


N = Скребковое кольцо

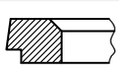

N-IF = Скребковое кольцо со скошенной выточкой на верхней поверхности внутреннего края

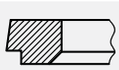

N-IFU = Скребковое кольцо со скошенной выточкой на нижней поверхности внутреннего края

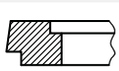

N-IW = Скребковое кольцо с прямоугольной выточкой на верхней поверхности внутреннего края

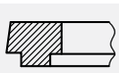

N-IWU = Скребковое кольцо с прямоугольной выточкой на нижней поверхности внутреннего края

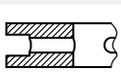
TN = Скребковое кольцо с конической рабочей поверхностью

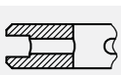

TN-IF = Скребковое кольцо с конической рабочей поверхностью со скошенной выточкой на верхней поверхности внутреннего края

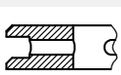

TN-IFU = Скребковое кольцо с конической рабочей поверхностью со скошенной выточкой на нижней поверхности внутреннего края

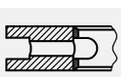

TN-IW = Скребковое кольцо с конической рабочей поверхностью с прямоугольной выточкой на верхней поверхности внутреннего края

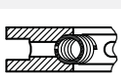

TN-IWU = Скребковое кольцо с конической рабочей поверхностью с прямоугольной выточкой на нижней поверхности внутреннего края

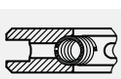

SC = Раздвоенное маслосъемное кольцо

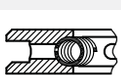

DC = Маслосъемное кольцо со скошенной выточкой

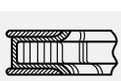

DB = Маслосъемное кольцо с двойной скошенной выточкой

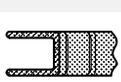

ES = Раздвоенное маслосъемное кольцо с пластинчатой пружиной


SY = Раздвоенное маслосъемное кольцо со спиральной пружиной


DY = Маслосъемное кольцо со спиральной пружиной со скошенной выточкой по краям


PS = Маслосъемное кольцо со спиральной пружиной с двойной скошенной выточкой по краям


VF = Маслосъемное кольцо с VF-пружиной и стальной лентой


UB = Маслосъемное кольцо U-образного типа со стальной лентой

SDV = Стальное маслосъемное кольцо с V-образной канавкой со спиральной пружиной

DKS = Футеровочный, конический, цилиндрические кольца контроля масла

ОБЩАЯ ИНСТРУКЦИЯ ПО УСТАНОВКЕ ПОРШНЕЙ

1- На внутренней поверхности цилиндра, в который будет устанавливаться поршень, должны присутствовать ромбовидные хонинговальные линии. Если использован готовый к установке поршень и/или если он будет устанавливаться в изношенный цилиндр, то внутренняя поверхность цилиндра должна быть проверена на предмет соответствия хонинговальных линий. Если хонинговальные линии на внутренней поверхности цилиндра частично или полностью исчезли, и образовалась отполированная до блеска поверхность, то внутренняя поверхность цилиндра должна быть отхонингована таким образом, чтобы снова появились хонинговальные линии.

2- Все поршни производятся с тем уровнем точности, чтобы в процессе установки вовнутрь цилиндра соответствующих размеров они образовывали указанное нужное рабочее пространство между поршнем и цилиндром. Следует проверить внутренние диаметры цилиндров на соответствие размерам, указанным на этикетках на коробке, и, таким образом, установить, нуждаются ли они в повторной обработке. Если необходима обработка внутреннего диаметра изношенного цилиндра до верхнего размера, то рекомендуется обрабатывать номинальный диаметр верхнего размера в пределах допуска 0.000-0.025 мм.

3- Поршневые пальцы из готовых к установке поршней должны быть извлечены с помощью соответствующих методов таким образом, чтобы не повредить поршень и поршневой палец. Поршневые пальцы скомпонованы с поршнями и установлены в них таким образом, чтобы обеспечить их совпадение по размерам, поэтому не должны заменяться произвольным образом.

4- При установке на поршень поршневых колец используйте соответствующий инструмент, чтобы не деформировать поршневые кольца и не повредить поршень. Во время установки поршня в цилиндр используйте соответствующий зажим для сжатия поршневых колец или конический монтажный кожух. После осуществления процедуры сжатия поршневых колец должным образом следует аккуратно, при помощи силы пальцев установить поршень внутрь цилиндра, при этом следует избегать применения чрезмерной силы или ударов.

5- Перед установкой поршня в цилиндр очень важно провести тщательную очистку поршня, и в особенности очистку и смазку отверстия поршневого пальца. Перед установкой следует тщательно смазать поршень и цилиндр, чтобы они не получили повреждений до того, как будет произведена смазка внутренней поверхности цилиндра во время первого запуска.

6- Если в верхней части поршня имеется маркировка, содержащая обозначение, указывающее направление установки, то при установке следует следовать данным указаниям и производить установку соответствующим образом.

7- Проявите предельную осторожность, чтобы избежать повреждения поршня, поршневого пальца и поршневых колец.

8- В соответствии с общепринятыми нормами поршни производятся таким образом, чтобы соответствовать другим деталям, вместе с которыми они будут использоваться. Поэтому не подвергайте их последующей обработке.

9- Не следует повторно использовать пальцы и стопорные кольца, всегда используйте новые пальцы и стопорные кольца.

10- Проверка используемого в процессе установки поршневого штока на предмет линейности очень важна для того, чтобы предотвратить очень серьезные проблемы, которые могут возникнуть в связи с этим. Линейность поршневого штока следует проверить еще раз непосредственно перед установкой при помощи соответствующих инструментов.

ПРИМЕЧАНИЕ: Следует следовать указаниям, изложенным в этой инструкции. Производитель не несет ответственности за любые проблемы, связанные с неправильной установкой, при которой не были соблюдены требования инструкции.

ТЕХНИЧЕСКИЕ ОПРЕДЕЛЕНИЯ

8- МАРКИРОВКА И КОДЫ ПОРШНЕЙ

9- СПРАВОЧНЫЙ НОМЕР ПОРШНЯ

ПРИМЕР

Справочный номер поршня ← **11-01513-000**

000 = STD / поршень + кольцо
001 = Высота компрессии (хода) -0,20 мм (коротк.)
002 = Высота компрессии (хода) -0,40 мм (коротк.)
003 = Высота компрессии (хода) -0,60 мм (коротк.)
050 = +0,50 мм верхний размер / поршень + кольцо

СТАРЫЙ СПРАВОЧНЫЙ НОМЕР	НОВЫЙ СПРАВОЧНЫЙ НОМЕР
1513 000	11-01513-000

10- СПРАВОЧНЫЙ НОМЕР ПОРШЕНЬ + КОЛЬЦО

ПРИМЕР

Справочный номер поршень + кольцо ← **31-03513-000**

000 = STD / поршень + кольцо
050 = +0,50 мм верхний размер / поршень + кольцо

СТАРЫЙ СПРАВОЧНЫЙ НОМЕР	НОВЫЙ СПРАВОЧНЫЙ НОМЕР
3513 000	31-03513-000
3513 000-08	38-03513-000
3513 000-09	39-03513-000

Разница между поршневыми кольцами и покрытиями ← **38-** / **39-**

11 - СПРАВОЧНЫЕ ОПРЕДЕЛЕНИЯ ДЛЯ ГИЛЬЗ ЦИЛИНДРА

ПРИМЕР

Справочный номер гильзы ← **51-05513-000** → 000 = STD / гильза
050 = +0,50 мм верхний размер / гильза

СТАРЫЙ СПРАВОЧНЫЙ НОМЕР	НОВЫЙ СПРАВОЧНЫЙ НОМЕР
5513 000	51-05513-000

12 - СПРАВОЧНЫЕ ОПРЕДЕЛЕНИЯ ДЛЯ КОМПЛЕКТА, НАБОРА

Комплект: поршень, штырь, кольцо,футеровка

Номер комплектации ← **71-07513-000** → 000 = STD / кольцо
050 = +0,50 мм Комплект большего размера

Разница между поршневыми кольцами и покрытиями ← **71-8** / **71-9**

СТАРЫЙ СПРАВОЧНЫЙ НОМЕР	НОВЫЙ СПРАВОЧНЫЙ НОМЕР
7513 000	71-07513-000
7513 000-08	71-87513-000
7513 000-09	71-97513-000

13- СПРАВОЧНЫЙ НОМЕР ПОРШНЕВЫЕ КОЛЬЦА

Справочный номер поршневых колец ← **91-09513-000** → 000 = STD / кольцо
050 = +0,50 мм верхний размер / кольцо

Разница между поршневыми кольцами и покрытиями ← **98-** / **99-**

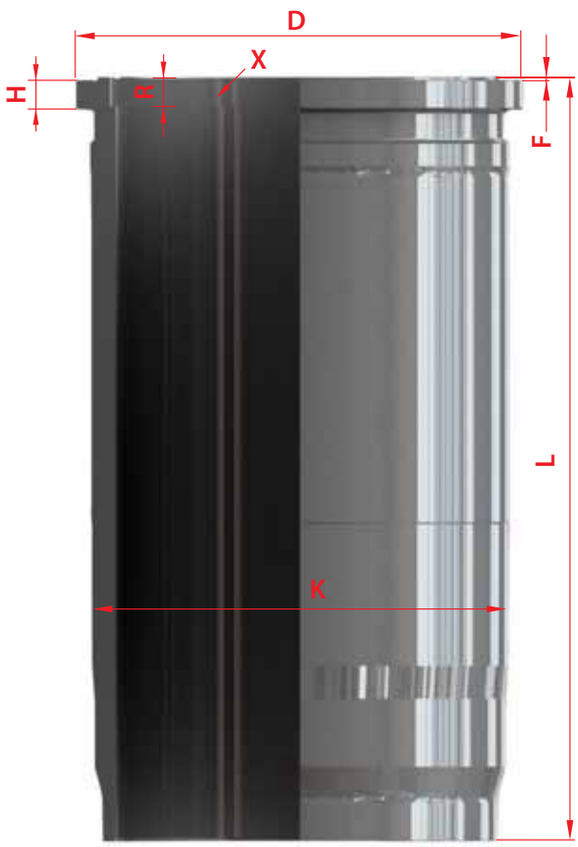
СТАРЫЙ СПРАВОЧНЫЙ НОМЕР	НОВЫЙ СПРАВОЧНЫЙ НОМЕР
9513 000	91-09513-000
9513 000-08	98-09513-000
9513 000-09	99-09513-000

14 - “СПРАВОЧНЫЙ НОМЕР УПЛОТНИТЕЛЬНОЕ КОЛЬЦО”

Справочный номер Уплотнительное кольцо ← **55-50701-000**

ТЕХНИЧЕСКИЕ ОПРЕДЕЛЕНИЯ

ТЕХНИЧЕСКОЕ ОПИСАНИЕ ДЛЯ ГИЛЬЗЫ ЦИЛИНДРА



K = Внешний диаметр
L = Общая высота
H = Высота фланца
F = Глубина уплотнителя
D = Диаметр фланца
X = Высота кольца в месте установки
R = Высота в месте установки

Описание гильз цилиндров в соответствии с TSE 482:

Гильзы цилиндров в двигателях внутреннего сгорания - это литые машинные элементы цилиндрической формы, устанавливаемые в блок цилиндров, внутри которых движется поршень и сгорает топливо. Гильзы цилиндров двигателя можно рассматривать в качестве двух классов.

Мокрые гильзы цилиндров:

Гильзы, которые снаружи охлаждаются жидкостью внутри блока цилиндров, в котором они установлены.

Делятся на три основные группы:

a- С фланцем и каналами: Гильзы, которые садятся в блок цилиндров сверху на фланец, а в их нижней части имеются уплотнительные каналы для обеспечения циркуляции охлаждающей двигатель жидкости (Рисунок 1).

b- С фланцем без каналов: Гильзы, которые садятся в блок цилиндров сверху на фланец, а в их нижней части отсутствуют уплотнительные каналы. Герметичные уплотнители имеются в каналах в блоке (Рисунок 2).

c- С двойным фланцем: Гильзы двигателя, которые устанавливаются в блок цилиндров посредством верхнего и нижнего фланца таким образом, чтобы не пропускать охлаждающую двигатель жидкость (Рисунок 3).

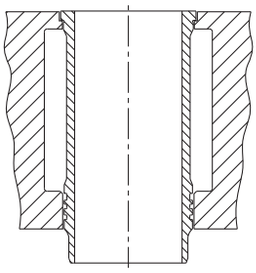


Рисунок 1

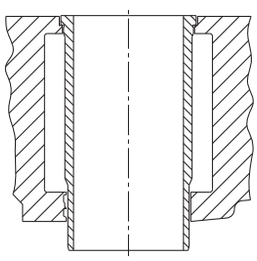


Рисунок 2

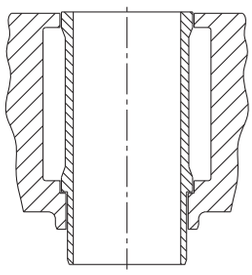


Рисунок 3

Сухие гильзы цилиндров:

Гильзы, которые не соприкасаются непосредственно с охлаждающей жидкостью внутри блока цилиндров, в котором они установлены.

С точки зрения формы могут быть разделены на два основных класса:

a- С фланцем (Рисунок 4) b- Без фланца - прямые (Рисунок 5)

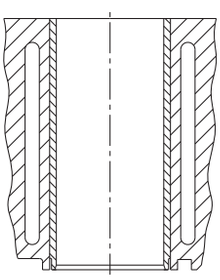


Рисунок 4

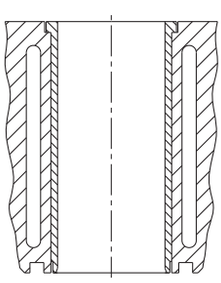


Рисунок 5

МОМЕНТЫ, НА КОТОРЫЕ СЛЕДУЕТ ОБРАТИТЬ ВНИМАНИЕ ПРИ УСТАНОВКЕ ГИЛЬЗ ЦИЛИНДРОВ

ИНСТРУКЦИЯ ПО УСТАНОВКЕ СУХИХ ГИЛЬЗ ЦИЛИНДРОВ :

Сухие гильзы цилиндров выпускаются с фланцем и без фланца (Рисунок 6). Сдвиги в осевом направлении, которые можно часто наблюдать в случае установки поршня в гильзы цилиндров без фланца, которые эксплуатируются в тяжелых условиях, не встречаются при использовании гильз с фланцем. Это является преимуществом фланца.

Перед запрессовкой гильз в тело цилиндров сами цилиндры должны обязательно быть отшлифованы в соответствии с номинальными значениями, указанными в перечне ниже для внешнего диаметра (A), либо подвергнуты процедуре тонкой расточки и хонингования.

Особое внимание следует уделить нижеуказанным допускам (Рисунок 7). В противном случае если напряжение смещения будет слишком низким, то не будет здоровой теплопередачи, а если напряжение смещения будет слишком высоким, то возникнет опасность того, что гильзы с очень тонкими стенками окажутся причиной несоответствия цилиндру, что может привести к поломкам в процессе эксплуатации. Сухие гильзы, внешний диаметр которых обработан в окончательный размер, поставляются расточенными таким образом, чтобы их внутренний диаметр был на 0.5-0.75 мм меньше.

В процессе установки методом запрессовки сухой гильзы с фланцем в блок цилиндров для предотвращения обрыва фланца необходимо, чтобы отверстие для фланца в блоке было больше внешнего диаметра фланца (C).

ТЕХНИЧЕСКИЕ ОПРЕДЕЛЕНИЯ

При запрессовке сухих гильз с фланцем следует обеспечить очень хорошую посадку нижней поверхности фланца на поверхность посадочного гнезда блока.

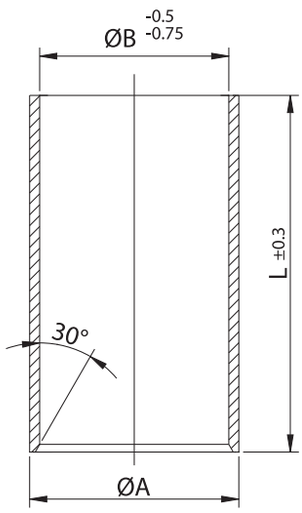


Рисунок 6

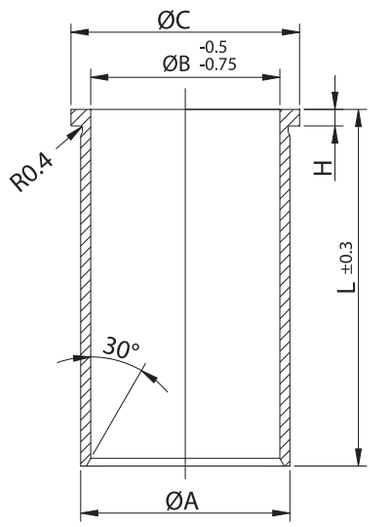


Рисунок 7

Как известно, гильзы в нижней части фланца имеют радиус около 0,4 мм. Для того чтобы в процессе установки гильзы в блок предотвратить посадку этого радиуса, в блоке в зоне перехода, куда встанет фланец, делается фаска в 1.0 мм. В противном случае обрыв фланца будет неизбежен.

Перед установкой новых гильз цилиндры в блоке двигателя должны быть тщательно очищены, а их размеры проверены с особой точностью. Овальность или конусность не должна превышать 0,025 мм. В процессе хонингования нужно стремиться к получению глянцевой поверхности, также следует проверить значения шероховатости поверхности в соответствии с типом двигателя. Излишне блестящие и гладкие поверхности станут причиной недостаточности смазки, поэтому следует избегать этого.

Для запрессовки сухих гильз цилиндров достаточно давления 3000-5000 кг. Если в процессе установки в качестве смазывающего материала будет использована твердая смазка, то впоследствии из-за высоких температур такая смазка будет коксоваться, что затруднит теплообмен. После установки, выполняемой при помощи пресса, неровности с уплотнительной поверхности блока цилиндров должны быть устранены шлифованием поверхности.

При необходимости обработки уплотнительной поверхности блока цилиндров поверхность посадки фланца в гнезде должна быть обработана в соответствии с этим на большую глубину. Кроме того, имеются гильзы цилиндров, внешние диаметры которых выполнены в окончательный размер, а внутренние диаметры - под тонкую расточку.

Такие гильзы, имеющие очень небольшой пай для хонингования, запрессовываются в цилиндр и хонингуются уже в запрессованном виде. Номинальный размерный допуск внутреннего диаметра цилиндра имеет диапазон от +0 до +0.015 мм. А номинальный размерный допуск наружного диаметра гильзы цилиндра имеет диапазон от+0.012 до +0.024 мм.

	Группы наружных диаметров гильз		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	Диаметры отверстий блока (мм)		
	50 - 80	80 - 120	120 - 180
Q_1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25

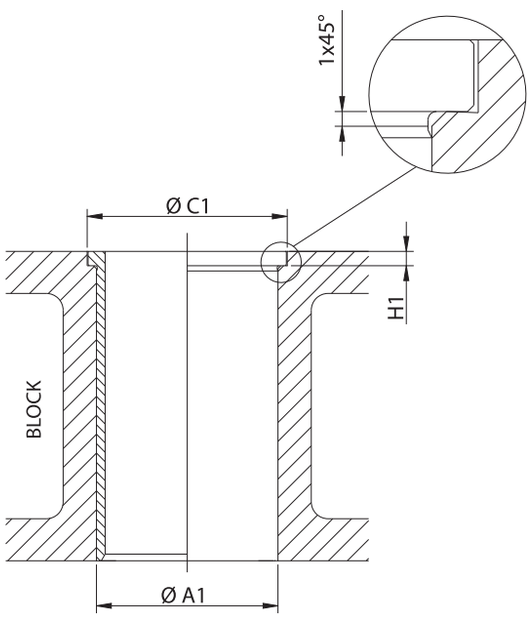


Рисунок 9

ИНСТРУКЦИЯ ПО УСТАНОВКЕ МОКРЫХ ГИЛЬЗ ЦИЛИНДРОВ:

Гильзы цилиндров двигателя YENMAK изготавливаются методом центробежного литья, что позволяет получить структурные характеристики, устойчивые к износу и растяжению. Следует соблюдать предельную осторожность при извлечении старых гильз, чтобы избежать повреждения посадочной поверхности цилиндра.

Контактные поверхности цилиндров в блоке двигателя должны быть тщательно очищены от отложений, грязи и прочих загрязняющих веществ. Проводя очистку, не следует использовать такие инструменты, как скребки, стамески, которые могут привести к появлению царапин. Наиболее подходящий для данной процедуры инструмент - щетка со стальной щетиной. Для извлечения гильз, прикипевших внутри цилиндра за счет слоев ржавчины и отложений, следует наставить на них клин и ударять по нему молотком, если, несмотря на это, извлечь гильзу не удается, то следует применить гидравлический пресс. Производя очистку, крайнюю осторожность следует проявлять по отношению к посадочным поверхностям, чтобы не повредить их.

Посадочная поверхность нижней части фланца гильзы должна быть параллельна поверхности блока. Как показано на Рисунке 10, не должно быть различий с точки зрения гладкости и ровности. Кроме того, следует проверить, чтобы ось цилиндра была перпендикулярна уплотнительной поверхности блока цилиндров (Рисунок 11). Еще один момент, на который всегда следует обращать внимание, - посадочные поверхности цилиндра не должны быть продавлены либо повреждены (Рисунок 12).

Для того чтобы предотвратить посадку радиуса (d) нижней поверхности фланца гильзы в угол посадочной поверхности для фланца (a) внутри цилиндра, в точке, где он проходит диаметр цилиндра (c), ему следует дать радиус 45° 0.5-1.0 мм.

Для предотвращения поломки сила герметизации и противодействующая сила должны быть взаимно перпендикулярны.

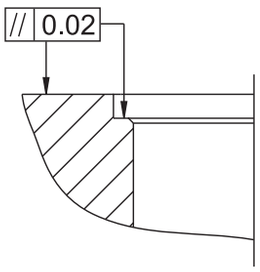


Рисунок 10

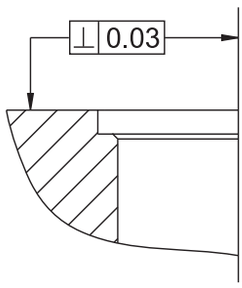


Рисунок 11

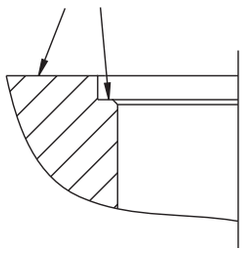


Рисунок 12

Диаметр отверстия в уплотнителе (b) и наружный диаметр гильзы (c) должны быть одинаковыми. Для обеспечения абсолютной герметичности в камере сгорания следует использовать уплотнители с металлической оправой. Диаметр отверстия в уплотнителе (b) и наружный диаметр гильзы (c) должны быть одинаковыми. Для обеспечения абсолютной герметичности в камере сгорания следует использовать уплотнители с металлической оправой.

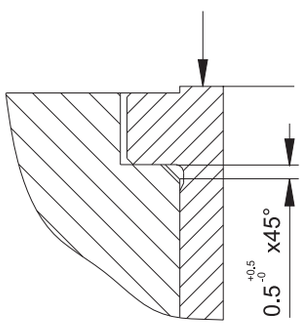


Рисунок 14

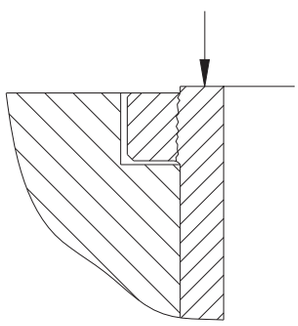


Рисунок 15

Чтобы определить, легко ли гильза помещается в цилиндр и не является ли цилиндр блока двигателя слишком большим или слишком широким, перед установкой следует поместить гильзы в цилиндр без использования кольца. Кроме того, чтобы определить, является ли положение фланца гильзы по отношению к поверхности блока правильным, рекомендуется перед началом установки перевернуть гильзы вверх дном и поместить их на посадочную поверхность фланца со стороны фланца. Как известно, фланец находится в неохлаждаемой зоне двигателя и постоянно расширяется.

Здесь следует обратить внимание на то, чтобы остался зазор в 0.3-0.5 мм.

В данной инструкции по установке при каждом удобном случае настойчиво подчеркивается, что процедура установки и демонтажа гильз должна производиться в соответствии с целью операции. То есть дефекты, которые возникнут при использовании в процессе установки молотка и других тяжелых инструментов, что само по себе неправильно, приведут к негативным результатам.

Используемые в процессе установки резиновые кольца должны обязательно быть качественными, устойчивыми к появлению пузырей, износостойкими, маслостойкими и термостойкими. В противном случае попадание жидкости в картер приведет к застопориванию гильзы и ее деформации. На резиновые кольца каждый раз наносится смазочная паста, после чего они устанавливаются в гнезда.

Резиновые кольца следует предпочесть только тех качественных марок, которые используются производителями двигателей. Основной причиной для такого предпочтения является то, что резиновые кольца должны быть устойчивыми к появлению пузырей, износостойкими, маслостойкими и термостойкими.

Деформация поршня, которая может привести к обрыву гильзы, является результатом использования несоответствующих резиновых колец. Места посадки резиновых колец никогда не должны подвергаться действиям, в результате которых возникают царапины.

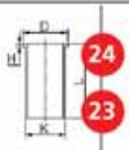
После установки гильз на места вручную будет не лишним еще раз проверить размер цилиндра. Подобная проверка должна быть проведена, в первую очередь, в местах возможной овализации и деформации в зонах установки резиновых колец.

После окончательной установки гильз следует наполнить блок цилиндров водой и приложить давление, таким образом, проведя проверку на герметичность.

СВЕДЕНИЯ О МАРКИРОВКЕ ГИЛЬЗ

УПЛОТНИТЕЛЬНОЕ КОЛЬЦО

Уплотнительное кольцо	
EPDM	Каучук EPD
NBR	Каучук NBR
FPM / VI	Витон(FPM / FKM)
Cu	Медь
T	Томпак
ST	Сталь
SC / MVQ	Силикон (VMQ)
Shim / SM	Мягкий металл

93,000 (1)		(3)	(4)	(5)	(6)	(7)
4JB1 (2)		D 00 2005	> 00 2005	4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) (9) CH 51,850 VD1 0,550 (10) (11) B- 19,500 BØ 43,900 (12) (13) TL 91,850 (15) 31,00x76,00	(14) AP YS HA CP	91-09389-000 1 2,000 P 2 2,000 P 3 4,000 CrP (16)	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)		Ø 93,000 (18)	31-04385-000 (19)
		99-09389-000 1 2,000 FeP 2 2,000 FeP 3 4,000 TeF (16)				39-04385-000
Isuzu ve Opel ile Ortak Motor (27)						
 K=95,00 (22) (24) L=181,00 H=0,90 (25) (23) D=101,00	DF-CR-ST (26)				51-35721-000 (20)	71-08385-000 71-98385-000 (21)
K=120,00 (22) (24) L=229,00 H+F=9,00+1,10 (25) (23) D=128,50	WF (26)		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00 (28)		51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

1 - Диаметр поршня
2 - Код двигателя
3 - Сведения о топливе
4 - Годы выпуска модели
5 - Количество цилиндров
6 - Объем цилиндра
7 - Мощность двигателя
8 - Поршневой Код
9 - CH: Ход
10 - VD1/VD2: Глубина клапана
11 - B- : Глубина камеры сгорания
B+ : Првышение днища
12 - BØ: Диаметр ячейки
13 - TL: Полная длина
14 - Характеристики поршня
*DAP: Двойной алфиновый поршень
*AP: Алфиновый поршень
*YS: Поршень с масляным охлаждением
*CP: Поршень из листовой стали
*HA: С твердым анодированным покрытием
*PDB: Отверстие поршневого
15 - Диаметр - длина -
характеристики пальца
пальца с втулкой
16 - Характеристики кольца
17 - Выступ головки поршня
18 - Диаметр цилиндра
19 - Код поршень + кольцо
20 - Код гильзы
21 - Код комплекта
22 - Наружный диаметр цилиндра
23 - Диаметр фланцы гильзы
24 - Полная длина гильзы
25 - Толщина фланца
26 - Тип и характеристики гильзы
*WS : Влажные лайнер полуфабриката
*WF : Влажные подкладка полная отделка
*DS : Сухой лайнер полуфабриката
*DF : Сухая подкладка полная отделка
*AF : Воздушное охлаждение полной отделкой
*PH : Фосфат
*CR : Хром
*HR : Закаленный
*NT : нитрит
*HT : Термическая обработка
*STEEL: Стали
27 - Общий двигатель
28 - Уплотнительное Кольцо Код

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تأسست شركة ينماك عام 1965 كورشة صغيرة من قبل عائلة قهوجي اوغلوا في مدينة قونيا ، ومنذ ذلك التاريخ تقوم الشركة بتجديد وتطوير نفسها بشكل مستمر حتى غدت من اكبر المجهزين لقطع المحركات على الصعيد المحلي والعالمي . تقوم الشركة بانتاج اطقم الكيتات والبساتم وبنزاتها والشانبر وحامل الحلقات الفولاذية للبساتم، كما تقوم بتوريد وتسويق سبائك المحركات والصبابات والكاسكيتات وتقوم بتصدير كل هذه القطع الى اكثر من 80 دولة في القارات الخمسة ،

انتم عملائنا الكرام شركائنا على المدى الطويل نوفر لكم جميع قطع اجزاء المحرك ضمن باقة واحدة ومن مصدر واحد فضلا على المبيعات وخدمات مابعد البيع باسعار معقولة .

ينماك على دراية بان العامل البشري هو العنصر الاهم ضمن جميع العناصر لذا تعطي الاهمية القصوى للعلاقات مع زبائنها .

ان الشركة حائزة على شهادة الجودة INMETRO ISO 9001, ISO/TS 16949, TS EN ISO 14001

الشركة مستمره في عملها من خلال مصنعين ومركز عام ومركز لوجستي على مساحة 50.000 الف متر مربع في المنطقة الصناعية الاولى والثانية والثالثة في مدينة قونيا ، كما تقوم الشركة ببيع وتسويق منتوجاتها من خلال مكتب التصدير والتوزيع المحلي والواقع في مدينة اسطنبول .

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ستجد التفاصيل المتعلقة بالعلبه ادناه :

بفضل ختم العلبه كن اول من
يحصل على المنتوج .

رقم التتبع

من اجل ضمان سلامة المنتج
وضعت على العلب صور
ذات الابعاد الثلاثية .

من اجل ضمان سلامة
المنتج وضع مصلق الامان
في الفوهة السفلية للعلبه .

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Standart

ISO 9001:2008

Belgelendirme Kapsamı

İÇTEN YANMALI MOTORLAR İÇİN ALÜMİNYUM KOKİL DÖKÜM PİSTON VE PİSTON PİMİ ÜRETİMİ

İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

TÜRKAK

SEÇKİN DEMİRALP
Belgelendirme Müdürü

Sayfa 1/1

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Certificate of Approval

Awarded to

YENMAK PİSTON SEGMAN SAN. VE TİC. A.Ş.

KIRIM CD. SARIÇİÇEK SK. NO:12 SELÇUKLU KONYA
42000 - Konya - Turkey

Bureau Veritas Certification certifi that the Quality Management System of the above organization has been audited and found to be in accordance with the requirements of

ISO/TS 16949:2009

and the applicable customer specific requirements

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12
SELÇUKLU, KONYA, TÜRKİYE

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Standart

ISO 14001:2004

Belgelendirme Kapsamı

ÇTEN YANMALI MOTORLAR İÇİN PİSTON VE PİSTON PİMİ ÜRETİMİ

Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

UKAS

SEÇKİN DEMİRALP
BVCH SAS İngiltere Şubesi
adına imzalayan

Sayfa 1/1

BUREAU VERITAS Certification

YENMAK MOTOR GÖMLEK SANAYİ VE TİCARET A.Ş.

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Bureau Veritas Certification Holding SAS - UK Branch certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standard

ISO 9001:2015

Scope of certification

MANUFACTURING OF CASTING AND MACHINING CYLINDER LINERS AND CASTING RING CARRIERS

Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

UKAS

İBRAHİM TAŞKY
Signed on behalf of
BVCH SAS UK Branch

ISO 14001
ISO / TS 16949
BUREAU VERITAS
Certification

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Certificate of Approval

YENMAK MOTOR GÖMLEK VE TİC. A.Ş.

1. ORGANİZE SANAYİ BÖLGESİ, HOROZLUHAN
MAHALLESİ, ATABEY SOKAK No:8, SELÇUKLU
42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
Casing and machining cylinder liners and casting ring carriers

TÜRK STANDARDLARI ENSTİTÜSÜ
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TURKISH STANDARDS INSTITUTION
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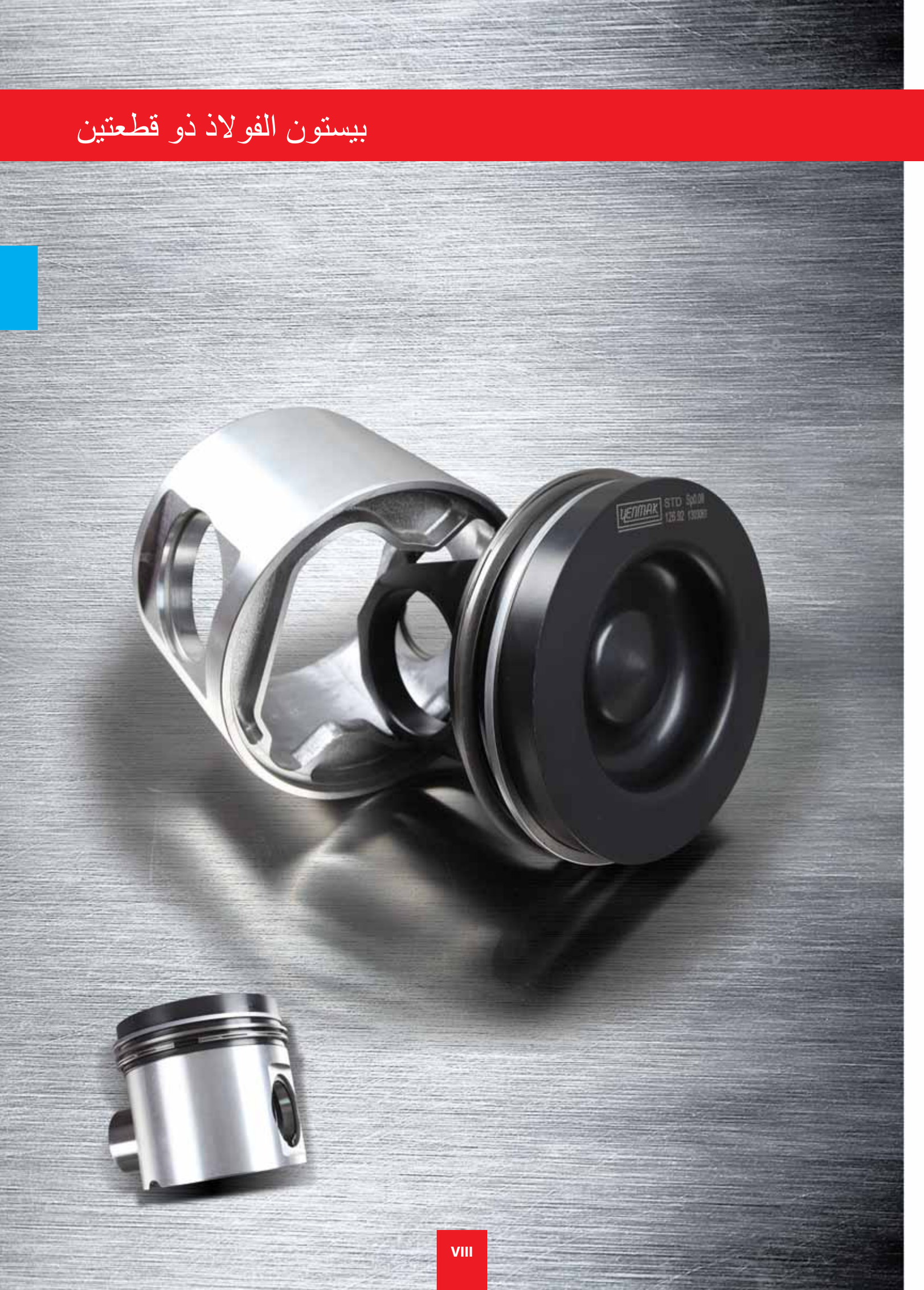
KONYA BELGELENDİRME MÜDÜRÜ

بيستون الفولاذ ذو قطعتين



بساتم الفولاذ ذات القطعتين يتكون من راس بيستون فولاذ صلب ومرتبط بشكل حر بواسطة البنزات مع هيكل من الالومنيوم ، نظرا لمقاومته العالية ونسبة التاكل المنخفض صمم هذا البيستون لتقديم افضل الاداء في محركات الديزل التقيلة ذات الانبعاثات المنخفضة

بيستون الفولاذ ذو قطعتين :

- الجيل الجديد من محركات مع نسب ضغط عالية وغرفة الاحتراق الحديثة.
- محركات الديزل ذات الخدمات الثقيلة .
- في المحركات ذات استعمال الوقود المتعدد.

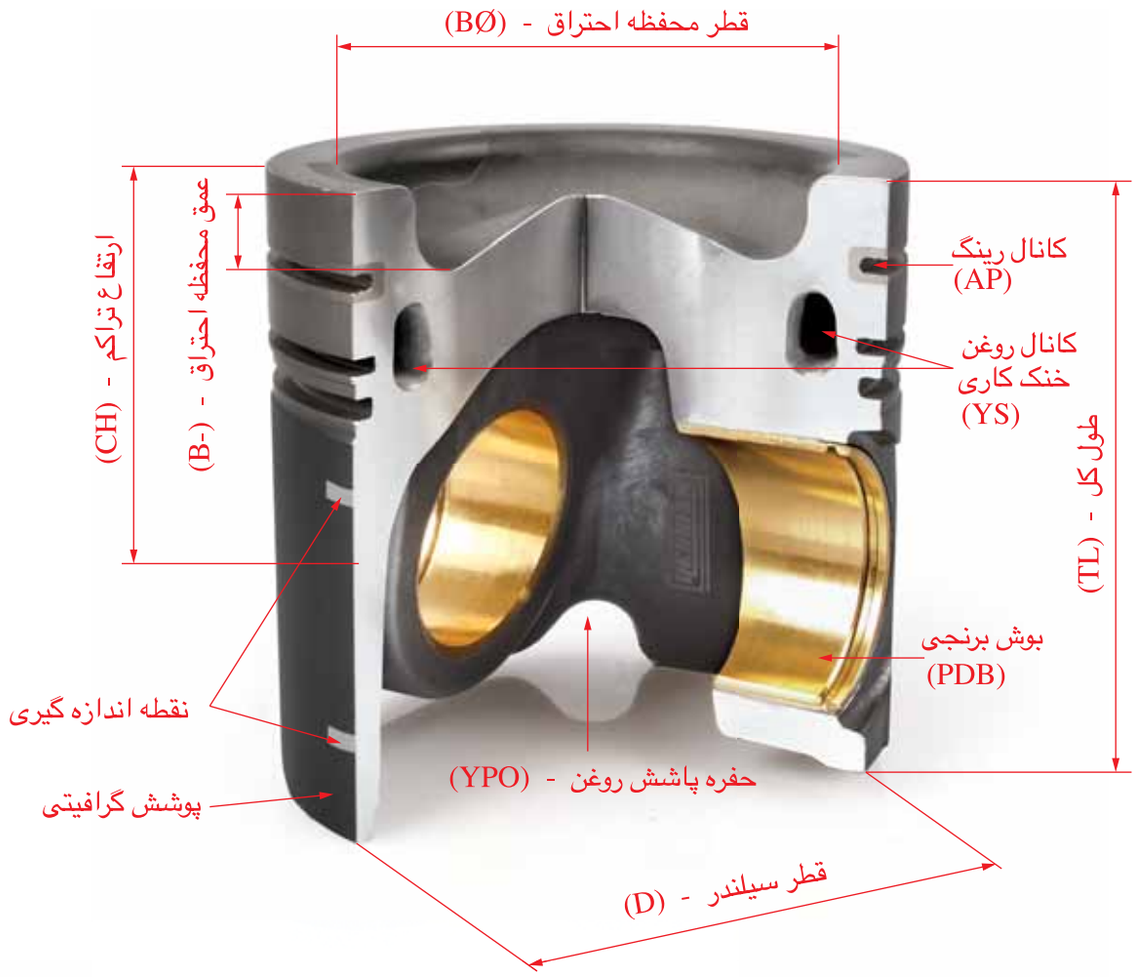
مزايا بساتم الفولاذ ذات قطعتين :

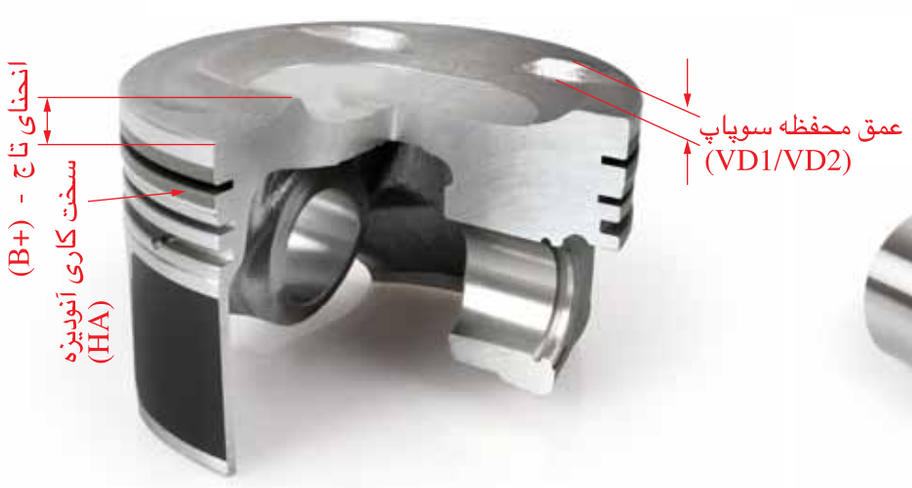
بساتم الفولاذ ذات قطعتين مسافة تماسها مع قمصان سلندر اقل قياسا من بساتم الالومنيوم وهذا يودي ايجابا بتقليل الفقدان المنتجة نتيجة قوة الاحتكاك .

بيستون الفولاذ ذو قطعتين قياسا الى بساتم الالومنيوم :

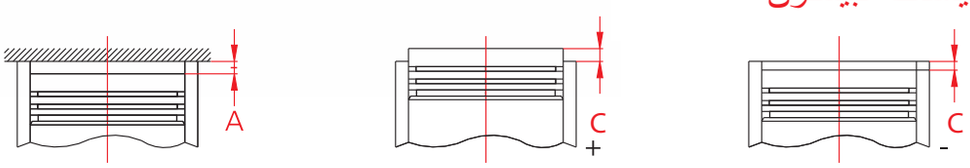
- بسبب ارتفاع المقاومة للاحمال الحرارية العالية يقلل من خطر التشوهات التي تطرا على قمصان سلندر وبامكانه العمل في فراغات اقل وهذا يزيد من قوة مقاومة تسريبات الشنابر .
- بيستون الومنيوم يستطيع مقاومة ضغط 100 بار بيد ان بيستون الفولاذ ذو قطعتين يستطيع مقاومة ضغط يصل الى 250 بار .
- يوفر قوة ضغط اعلى في المحركات ويقلل 5-2٪ من نسبة ثان اوكسيد الكاربون في العادم كما يوفر من مقاومة التماس التي تحصل في بساتم الالومنيوم التي تسعمل حلقات الفولاذ .
- في بساتم ذات التبريد الذاتي بامكان قنوات التبريد ان تصل الى مسافة اقرب من سطح البيستون وهذا يؤدي ايجابا الى زيادة كفاءة عملية التبريد .
- غرف احتراق بساتم ذات القطعتين مقاومة اكثر للتشوهات التي تحصل نتيجة الاحتراق والانفجار قياسا بغرف الاحتراق في بساتم الالومنيوم التقليدية .
- بساتم الفولاذ ذات القطعتين تزيد من عمر المحرك وهذا يؤدي الى تقليل من تكلفة تجديد المحركات .
- التزويد المفرط للوقود والخلل في نظام حقن الوقود يسبب ذوبان البيستون او تثقيبه بيد ان هذه المشاكل لاتحصل في بساتم الفولاذ ذات قطعتين .

المصطلحات الفنية





قیاسات البیستون



A = القیاس الی راس السلندر
C = القیاس من سطح المحرك الی راس البیستون

عند تركيبك للبساتم المستعملة يجب تنظيف مجرى الشنبر و ثقب التزيت من مخلفات الكربون والشوائب ، كما يجب تنظيف جميع الكربونات المتعلقة بالبيستون ماعدا طبقات الكربون الموجودة على راس البيستون ، يجب ان يكون مجرى الشنابر نظيفة جدا، يجب مراعاة بعدم ايذاء التجاويف والزوايا للبيستون عند عملية التنظيف والا فان اي خدش بسيط سوف يكون سبب للتشقوقات المستقبلية . قياسات ينماك متوافقة مع الشنابر الاصلية لذا لا داعي باجراء اي تغير في قياسات البيستون يمكن استخدام شنابر البساتم ماركة ينماك حسب نسب التاكل في السلندر على النحو المبين ادناه :

في محركات البنزين القطر في نطاق 0,1 ملم

في محركات الديزل قطر في نطاق 0,15 ملم

حتى لو كانت قياسات البساتم المستعملة ضمن نسبة التاكل المسموح بها اعلاه الا اننا نوصي بتغير البساتم التي حصلت فيها تشويهات في مجرى الشنابر ، لان البساتم التي حصلت فيها التشوهات في الاخاديد المتوازية في مجرى الشنابر سوف تكون مضللة ولا يمكن تشخيص مثل تلك العيوب بالعين المجرده لذا ان الشنابر سوف لن تعمل بشكل سليم في مثل تلك الحالات وسوف يؤدي الى مشاكل صرف الزيت والتبخير .
حركة الشنابر العلوي والسفلي داخل قنوات البساتم قد تتعرض الى اضرار وهذا يعوق دون عمل المحرك بشكل سليم .

تركيب الشنابر بشكل متوالي بعدة تركيب خاصة ثم شد الشنابر بواسطة عدة تركيب الشنبر وتنزيلها داخل القميص او السندر بدفعها بخشبة المطرقة ويجوز استعمال الطرق الخفيف دون اللجوء الى القوة المفرطة وفي هذا الاثتناء قد تخرج الشنابر الرفيعة من مجراها لذا يجب الاستمرار في شد الشنابر بعدتها الى ان تتم عملية التنزيل بسلام وينبغي عدم استعمال الشنابر المغطى بالكروم عند تركيبها في قمصان المغطى بالكروم داخليا .
TOP او YEN
هذه الكلمة يجب ان تقع الى الاعلى محاذاة غرفة الاحتراق عند تركيبها على البساتم وفي حالة عدم وجود مثل تلك الكتابة انذاك بالامكان تركيب الشنبر كيفما يشاء

طلاء الشنابر والمعالجة السطحية

Sn	=	طلاء القصدير	
Ck	=	السيراميك كروم	
Pvd	=	تراكم البخار المادية	
Cdc	=	كروم المطلي بالماس	
Dlc	=	طلاء الماس طلاء الكاربون	
Tef	=	پوشش تفلونى	
Cr	=	طلاء الكربون	
Mo	=	طلاء الموليبدين	
P	=	طلاء الفوسفات	
Fe	=	طلاء فيروكسيت	
Cu	=	طلاء النحاس	
Nt	=	طلاء نتريت	

طلاء الشنابر والمعالجة السطحية

Ck طلاء السيراميك كروم

طلاء الكروم الخزفية

الكروم الطلاءات الخزفية

نوع من الطلاء يتكون من تركيب هيكلة الشبكة التي تحصل نتيجة اكسدة عناصر الكربون مع الالومنيوم . هذا النوع من الطلاء يستعمل عادة في طلاء قنوات الشنبر الاولى في بساتم محركات الديزل .وبسبب الاختلاف في اسلوب التحليل الكهربائي بفضل هذا الطلاء فان الشنبر يكسب الجودة والاداء العالي .

ميزات الطلاء الخزفية من الطلاء بالكروم
- المقاومة الاعلى للتاكل
- نقطة انصهار أعلى اكثر
- الصلابة وكثافة التصدع اعلى

بسبب هذا المزايا يكون عمر المحرك الذي يستعمل هذا النوع من الطلاء اطول، كما يكون نسبة الغازات المنبعثة من العادم اقل .

Pvd ترسبات البخار المادية

هي طريقة انفصال التراكمي من خلال المرحلة التفاعلية للبخار على السطوح القاسية للشنابر . وتحصل على هذا عن طريق اسلوب تبخير و تاين المعدن بطريقة قصف الايونات والتحليل الكهربائي

وتحرير أيونات المعادن على سطح حقن عنصر متقدم. نتيجة لذلك سوف تتفاعل ذرات المعدن مع الغازات التفاعلية والنترات، كربيد وأكسيد. وشكلت رد فعل طلاء رقيقة على سطح العامل في الشنابر. طلاء بالسيراميك يعطي مقاومة عالية ضد البلى والتمزق.

Mo طلاء الموليبدين

لمنع تاكل سطع الشنبر يطلى بمادة الموليبدن لتفادي من اثار الاحتراق يحشى الوجه العامل للشنبر بهذه المادة او يطلى الشنبر بالكامل بالموليبدن وبالامكان الحصول مثل هذا الطلاء عن طريق الرش باللهيب او عن طريق التاين الكهربائي .(C° 2620) نقطة انصهار العليا للموليبدن
وبفضل النتوءات الموجودة على مادة المولبيدن حيث انها تساعد على بقاء سطح الشنبر مزيته وهذا يساعد ايجابا بزيادة المقاومة و من عمر الشنبر والعمل بانزلاقية جيده .

Cr طلاء الكروم

الطلاء بالكروم القاسي هي عملية شائعة من اجل زيادة متانة الشنبر ، والغاية منها تقليل البلى وزيادة من عمر اداء قميص السندر ، ويتم ذلك بوساطة طلاء الجدار الخارجي اللشنابر حيث هذه العملية تقلل من التاكل في الجدار الداخلي للقمصان وبسبب القساوة التي تعطي الكروم لسطح الشنبر تجعل من الشنبر ان تحافظ على متانتها وقوتها امام التاكل والبلى ان الطرق الحديثة تميل الى ليس طلاء الشنبر العلوي بالكروم فحسب بل تتعدى الى طلاء جميع الشنابر بهذه المادة المقاومة

يتم تطبيق طلاء الكروم بطريقتين الأولى:

- صلد
- مطلي المسامية بالكروم

في عملية الطلاء بالكروم الصلد يتم طلاء سطوح الشنبار بالكروم ثم تجري عملية التخليج لاعطاء الشكل النهائي للشنابر وبما ان السطوم بعد التخليخ يكون ذو مسامات وهذا يؤدي الى الاحتفاظ بالزيت عند التشغيل وبهذا يكون يحتفظ على نفسه اولا ويحافظ على جدار القمصان من التردي .

Nt طلاء نتريت

يتم باعطاء الصلادة على جميع سطوح الشنابر بواسطة الطلاء بالنتريت . وبهذه الطريقة تتم زيادة من العمر الافتراضي للشنابر وبخصوصية هذا الطلاء يقلل من الانبعثات في العادم ويكون صديقا للبيئة ، كما يزيد من فعالية الاداء الحرجة و يقوم بتقليل من فقدان الزيت في المناطق الحساسة للشنابر ومن الهشاشات المادية التي تطرا على حلقات الشنابر وهذا يؤدي ايجابا الى زيادة من عمر المحرك

Cdc (كروم المغلفة بالاماس)

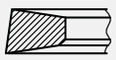
هذا النوع من الطلاء يستعمل في طلاء الشنبر العلوي لمحركات ايرو 4 . بالامكان تطبيق هذا العملية على الحديد المرن والزهر والفولاذ الكربوني . قطع الالماس استعمل بدل قطع السراميك وبهذا زادت من مقاومة التاكل واثرت ايجابا بالاداء ضد الاحتكاك

Dlc طلاء الماس طلاء كاربون

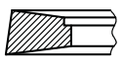
بهذه الطريقة يقلل من الاحتكاك ويزيد من مقاومة التاكل كما انها صديق للبيئة اواصرها الكيمائية متينة، لا ينكسر تحت الظغوطات ، انها ذو هيكل غير بلورية لذا بدون شك انها مادة قوية جدا وقياسا الى المواد الاخرى انها اكثر مقاوما كما انها تقلل من قوة الاحتكاك.

المصطلحات الفنية

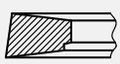
TI-IFU = شنبر مخروطي ثنائية الانحراف السطح السفلي من الحافة الداخلية مشطوفة



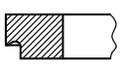
TK-IW = شنبر السطح العلوي من الحافة الداخلية كلا الطرفين منحرف تدريجي



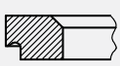
TK-IWU= شنبر السطح السفلي من الحافة الداخلية كلا الطرفين منحرف تدريجي



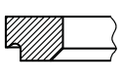
N = شنبر مكشوط الراس



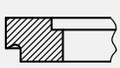
N-IF = شنبر مكشوط الراس، السطح العلوي من الحافة الداخلية مشطوفة



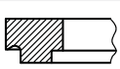
N-IFU = شنبر مكشوط الراس ، السطح السفلي من الحافة الداخلية مشطوفة



N-IW = شنبر السطح العلوي من الحافة الداخلية مكشوط الراس تدريجي

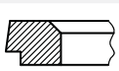


N-IWU = شنبر السطح السفلي من الحافة الداخلية مكشوط الراس تدريجي

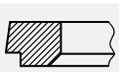


TN = شنبر مخروطي مكشوط الراس

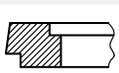
TN-IF = شنبرمكشوط الراس مخروطي ، السطح العلوي من الحافة الداخلية مشطوفة



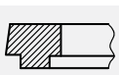
TN-IFU= شنبرمكشوط الراس مخروطي ، السطح السفلي من الحافة الداخلية مشطوفة



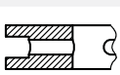
TN-IW = شنبرمخروطي ، السطح العلوي من الحافة الداخلية مكشوط الراس تدريجي



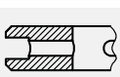
TN-IWU= شنبرمخروطي ، السطح السفلي من الحافة الداخلية مكشوط الراس تدريجي



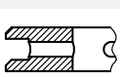
SC = شنبر ذو شق ضبط الزيت



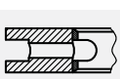
DC = شنبر ذو شطف ضبط الزيت



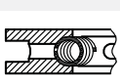
DB = شنبر ذو ثنائي ظبط الزيت



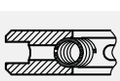
ES = شنبر ذو شق ظبط الزيت نابض ورقي



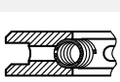
SY = شنبر ذو شق ظبط الزيت نابض حلزوني



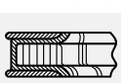
DY = شنبر ظبط الزيت نابض حلزوني مشطوف الحافة



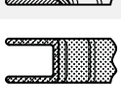
PS = شنبر ظبط الزيت نابض حلزوني مزدوج مشطوف الحافة



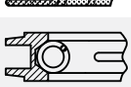
VF = شنبر ذو حزام فولاذي لولب ضبط الزيت على شكل VF



UB = شنبر ذو حزام فولاذي لولب ضبط الزيت على شكل U

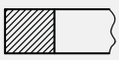


SDV = شنبر ذو حزام فولاذي لولب ضبط الزيت على شكل V

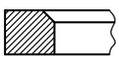


DKS = رينگ كنترل روغن سه تكه اى تخت،ذوزنقه اى و استوانه اى

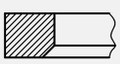
D = شنبر قائم



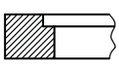
D-IF= شنبر قائم السطح العلوي من الحافة الداخلية مشطوفة



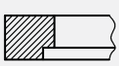
D-IFU = شنبر قائم السطح السفلي من الحافة الداخلية مشطوفة



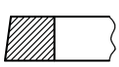
D-IW = شنبر السطح العلوي من الحافة الداخلية قائم تدريجي



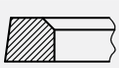
D-IWU = شنبر السطح السفلي من الحافة الداخلية قائم تدريجي



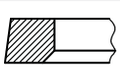
K = شنبر مخروطي



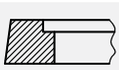
K-IF = شنبرمخروطي السطح العلوي من الحافة الداخلية مشطوفة



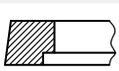
K-IFU = شنبرمخروطي السطح السفلي من الحافة الداخلية مشطوفة



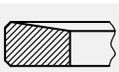
K-IW = شنبر السطح العلوي من الحافة الداخلية مخروط تدريجي



K-IWU = شنبر السطح العلوي من الحافة السفلية مخروط تدريجي

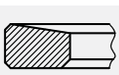


TT = شنبر احادية الانحراف

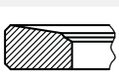


TT-IF = شنبراحادية الانحراف السطح العلوي من الحافة الداخلية مشطوفة

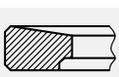
TT-IFU=شنبراحادية الانحراف السطح السفلي من الحافة الداخلية مشطوفة



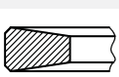
TT-IW = شنبر السطح العلوي من الحافة الداخلية منحرف احد طرفه تدريجي



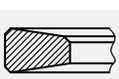
TT-IWU= شنبر السطح السفلي من الحافة الداخلية منحرف احد طرفة تدريجي



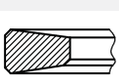
T = شنبر ثنائية الانحراف



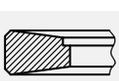
T-IF = شنبرثنائية الانحراف السطح العلوي من الحافة الداخلية مشطوفة



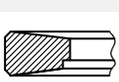
T-IFU = شنبرثنائية الانحراف السطح السفلي من الحافة الداخلية مشطوفة



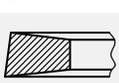
T-IW = شنبر السطح العلوي من الحافة الداخلية منحرف الطرفين تدريجيا



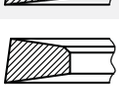
T-IWU = شنبر السطح العلوي من الحافة السفلية منحرف الطرفين تدريجيا



TK = شنبر مخروطي ثنائية الانحراف



TK-IF = شنبر مخروطي ثنائية الانحراف السطح العلوي من الحافة الداخلية مشطوفة



SDR = شنبر قناة السطره على الزيت فولاذي ذات لولب على شكل V

X = سمك الشنبر (مم)

تعليمات تركيب البساتم

1 - يجب ان يكون سطح السلندر المراد تركيب البيستون عليه مشحوذ على شكل خطوط مربعة و عند تركيب البساتم على سلندرات اوعلى قمصان مستعلمة يجب مراعاة والتاكيد من تواجد تلك المربعات على السطوح الداخلية لتجويف السندر وعند اختفاء او مسح تلك الخطوط يجب شخذ السلندر او القميص من جديد.

2 - يصنع البساتم التي تركب بشكل سليم على السلندرات بقياسات حساسة وياخذ بنظر الاعتبار الفراغات المسموحة بها عند صناعة البساتم ، يجب التاكيد من قطر البيستون المذكور على مصلق البيانات الموجودة على العلبة وبهذه الطريقة تتم تحديد ما اذا كانت المعالجة مطلوبة ام لا ، عند ضرورة تجليخ السطح الداخلي للسندر في حالة البلى يجب ان تكون نسبة السماح في القطرضمن نطاق 0,000 الى 0,025 ملم .

3 - ينبغي تركيب بنزات البساتم الجاهزة على البساتم بصورة صحيحة ماخذتا بنظر الاعتبار القياسات لكلا القطعتين لان اي اختلاف في القياسات سوف تؤذي البيستون والبنزات معا . نوصي بقياس البنزات قبل التركيب و بالابتعاد من العشوائية عند التركيب .

4 - بعد تركيب الشنابر على البساتم بواسطة عدة تركيب خاصة لهذا الغرض اضغط الشنابر بواسطة عدة طوق الشنابراو عدة القمع المخروطي وتزيتها جيدا ثم قم بتنزيل البيستون على تجويف السلندر بشكل صحيح ودون استعمال القوة المفرطة في عميلة التنزيل لانها نسبب في كسر الشنابر كما يجب ان تاخذ بنظر الاعتبار اتجاه الشنابر مع بعظها

5 - قبل تركيب البساتم بعناية يجب تنظيفها تنظيفا جيدا وتزيت ثقب البنز على الخصوص كما يجب تزيت تجويف السلندر جيدا لتفادي الاضرار التي تنجم في التشغيل لاول مرة .

6 - عند تركيب البساتم اذا كانت هناك اشارة اوسهم يبين اتجاه تركيب البسيون موجوده على راس البيستون يجب اخذ هذه الاشارات بنظر الاعتبار .

7 - يجب ابداء الاهتمام القصوى للشنابر والبساتم وبنزاتها عند التركيب تفاديا للاضرار .

8 - يصنع البساتم حسب الموصفات والقياست المطلوبة والمتوافقه عليها لذا لايمكن اجراء اي عملية تعديل على البساتم قبل تركيبها .

9 - لايمكن استعمال البنزات وشنابر البنزات المستعلمة لذا يجب تغير هذه القطع عند كل تركيب .

10 - يجب فحص اذرع البيل قبل التركيب في كل مرة لان اي اعوجاج او خلل في الذاراع ينجم اضرارا كبيرة جدا .

ملاحظة : الشركة المنتجة للقطع غير مسوؤلة عن الاضراراو التلف التي تنجم من خلال تركيب القطع دون مراعاة النقاط المبينة اعلاه .

8 - وسمة ورموز البيستون

2 - شعار الشركة

2 - القياس الاصلي او القياسات العليا .

7 - رقم التتبع

5 - فراغ بيستون وتجويف السلندر (مم)

8 - حجم قصيرة لإرتفاع ا لضغط (مم)

4 - رقم السلندر المراد تركيب عليها البيستون.

6 - تثبيت اتجاه البيستون. انحراف البنز هول، الاشارت الخاصة لاتجاه الانحراف يرشدك على تركيب البساتم بصورة صحيحة.

3 - قياس قطر البيستون

9 - رقم مرجع المكبس

نموذج

11-01513-000

رقم مرجع االبيستون

000 = القياس الاصلى / بيستون+ شنبر
001 = ارتفاع انضغاط البيستون 0,20 مم قصيرة
002 = ارتفاع انضغاط البيستون 0,40 مم قصيرة
003 = ارتفاع انظغاط البيستون 0,60 مم قصيرة
050 = بيستون + شنبر/ اعلى مقياس 0,50

رقم المرجع الجديد	رقم المرجع القديم
11-01513-000	1513 000

10 - رقم مرجع البيستون+ شنبر

نموذج

31-03513-000

رقم مرجع البيستون+ شنبر

000 = المقاسات الاصلية/ بيستون + شنبر
050 = المقاس الاعلى / بيستون + شنبر ملم 0,50

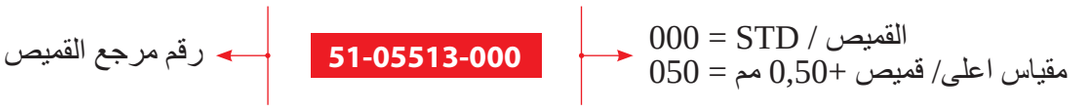
رقم المرجع الجديد	رقم المرجع القديم
31-03513-000	3513 000
38-03513-000	3513 000-08
39-03513-000	3513 000-09

38-
39-

المختلفة الطلاء ونوعية الشنبر شكل

11 - رقم مرجع تعريفات القميص

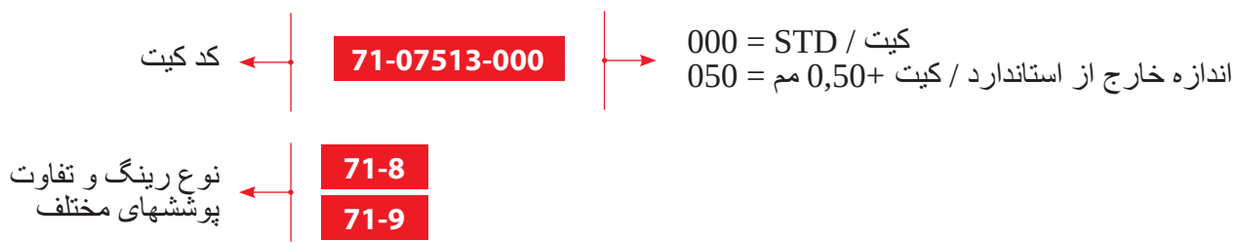
نموذج



رقم المرجع الجديد	رقم المرجع القديم
51-05513-000	5513 000

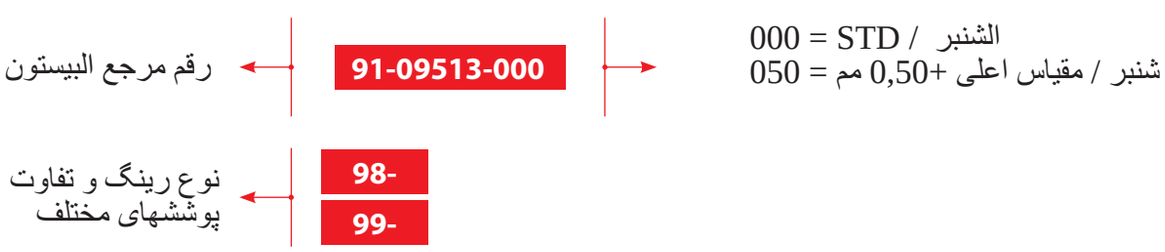
12 - ارقام مراجع اطقم الكيتات

كد كيت: پيستون + گژن پين + رينگ + بوش



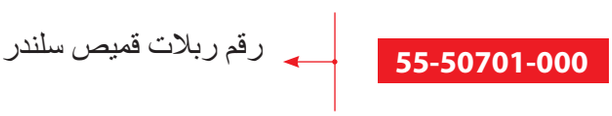
رقم المرجع الجديد	رقم المرجع القديم
71-07513-000	7513 000
71-87513-000	7513 000-08
71-97513-000	7513 000-09

13 - رقم مرجع الشنبر

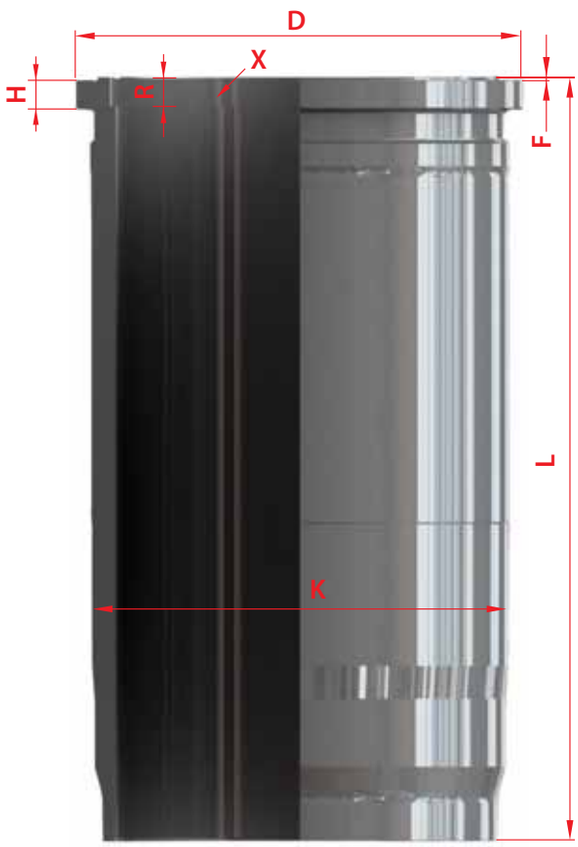


رقم المرجع الجديد	رقم المرجع القديم
91-09513-000	9513 000
98-09513-000	9513 000-08
99-09513-000	9513 000-09

14 - رقم ربلات قميص سلندر



توضيحات حول الموصفات الثقنية للقمصان



K = القطر الخارجي
L = الطول الإجمالي
H = طول الشفة
F = عمق الحشية
D = قطر الشفة
X = طول الشنبر مكان تجمع الكربون
R = طول مكان تجمع الكربون

تعريف قميص سلندر حسب معهد المواصفات التركية TSE 482
قمصان سلندر في محركات ذات الاحتراق الداخلي والذي يتحرك البيستون في داخله وتتم في داخله عملية الاحتراق ويتكون على شكل اسطوانه مصنوعة من الحديد الزهر الرمادية وينقسم الى قسمين .

قمصلن سلندر مبللة :

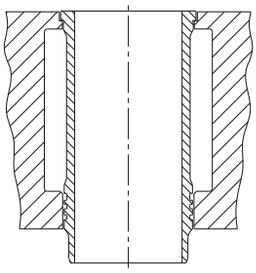
تلك القمصان التي تركب على سلندرات والتي تتم فيها عملية التبريد بواسطة الماء مباشرة اي تمس الماء الجدار الخارجي للقميص في داخل بلوك سلندر

يتكون من ثلاثة اقسام رئيسية :

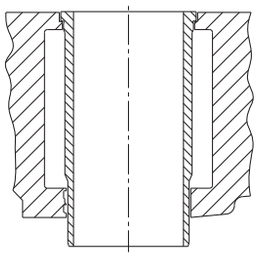
ا- ذو شفة وقناة : يجلس على بلوك السندر بواسطة شفة بارزة وله قناة يركب عليه ربلات لكي يمنع تسرب الماء الذي يمسه في عملية للتبريد . (الشكل 1)

ب - ذو شفة وبدون قناة :يجلس على بلوك السندر بواسطة شفة بارزة ولايحتوي على قناة لان القناة موجودة في بلوك السندر . (الشكل 2)

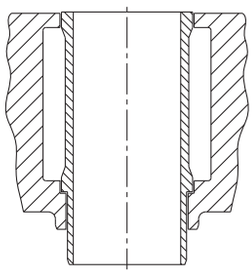
ت - ثنائية الشفة : لاجل يمنع تسرب الماء من بلوك السندر تكون هناك شفة من الاعلى و شفة من الاسفل (الشكل 3)



الشكل-1



الشكل-2



الشكل-3

قميص سلندر جاف :

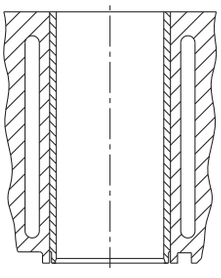
قميص لايمسه الماء مباشرة عند عملية التبريد في بلوك المحرك الذي يركب عليه هذا النوع من القميص

.

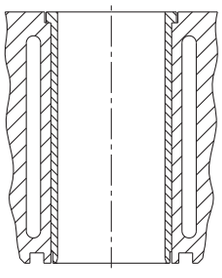
يمكن تصنيفه على فئتين على اساس الشكل :

أ- ذي شفة (شكل 4)

ب- بدون شفة - مسطح (شكل 5)



شكل- 4



شكل- 5

المسائل التي يجب اخذها بنظر الاعتبار عند تركيب القمصان :

ارشادات تركيب قمصان سلندر جافة

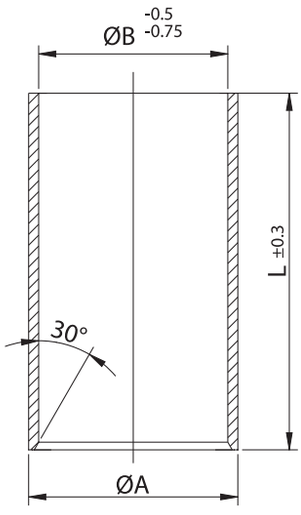
يصنع قميص سلندرجاف على شكل نوعين ذو شفة وبدون شفة (الشكل-6) ظروف العمل السيئة وتركيب البساتم بشكل غير صحيح كل هذ ه الامور تؤدي الى انحراف في الاتجاه المحوري في قمصان جافة بدون شفة لذا يرجح تركيب قمصان جافة ذو شفة تفاديا تلك المشاكل .

قبل تنزيل القمصان بالظغط يجب ان يكون المقياس الخارجي مطابقة كما في القيم الموجود في القائمة (أ) وعند عدم ملائمة القياس يجب شحذ القميص او خراطته .

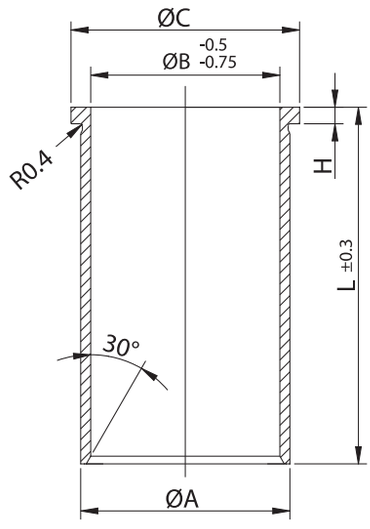
ويجب مراعاة القياسات ادناه كما في الشكل 7 وعلى خلاف ذلك فلو كانت الارتداد الامامي واطئة جدا فان عملية تصريف الحرارة سوف لن تكون بشكل مرضي ولو كانت االارتداد الامامي عالية جدا فانها تؤدي الى عدم تطابق الجدار الرقيق للقمصان مع بطانة السلندر فمن المحتمل ظهور اعطال التشغيل انذاك . القمصان الجافة الجاهزة قياستها الخارجية يتم خراطة القطر الداخلي اصغر بحوالي 0,5-0,75 ملم .

عند تنزيل القمصان الجافة ذات شفة على بلوك سلندربواسطة المكبس يجب خراطة القطر الخارجي للشفة من فوهة السلندر التي تجلس عليها شفة القميص بقطر اكبر تفاديا من تعرض شفة القميص الى القطع .

يجب التاكد من ان السطح السفلي من وجه شفة القميص جلست في مكانها في فوهة السلندر بشكل صحيح عند تنزيلها بالمكبس على السلندر .



6- الشكل



7- الشكل

من المعلوم بان القسم السفلي لشفة القمصان منحي بدرجة 0,4 ملم . لذا يجب اعطاء شطب بدرجة 1,0 على المكان الذي يجلس عليها الشفة وعلى خلاف ذلك فان الشفة تتعرض للقطع عند التنزيل .

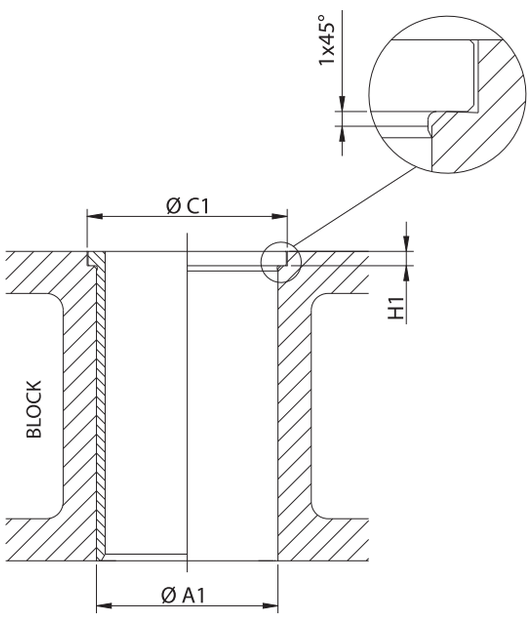
عند تركيب قمصان جديدة على السلندرات يجب تنظيف تجويف السندر تنظيفا جيدا وظبط قياسته الحساسة بشكل دقيق ويجب ان لا يتعدى مخروطيته وبيضويته من 0,025 ملم . وعند الشحذ يجب محاولة تحقيق سطح لامع كما يجب تحقيق خشونه سطحية ملائمة حسب نوعية المحرك . ومن اجل تحقيق عملية تزيت صحية يجب الابتعاد من تحقيق لمعان او خشونه مفرطة .
ضغط 3000- 5000 كغم كافية عند كبس القميص الجاف في عملية تنزيله الى السلندرات . يجب الابتعاد من استعمال المواد الصلبه (غير مائعة) في عملية التزيت عند تنزيل القمصان لان تلك المواد سوف تتفحم وتعدوا مادة عازلة تعوق دون اتمام تسريب الحرارة في اثناء عملية التبريد . كما يجب تخليخ سطح السلندر بعد تنزيل القمصان لاجل عمل سطح مناسب للكاسكيت .

في حالة ايجاب معالجة السطح العلوي للبلوك - مكان تجليس الكاسكيت- يجب انذاك معالجة فوهة جلوس الكاسيت بشكل اعمق في محركات التي تستعمل قمصان منتهية القياسات خارجيا ومخروطة من الداخل بحساسية .

هذه الانواع من القمصان التي انزلت عن طريق الكبس على البلوك لديها حصة قليلة للشحذ نسبة سماح القطر الداخلي تتراوح بين + 0 الى +0,015 ملم والقطر الخارجي تتراوح السماح بين +0,012 الى 0,024 ملم

	مجموعة القطر الخارجي للقمصان		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	اقطار تجويف البلوك (مم)		
	50 - 80	80 - 120	120 - 180
Q 1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25



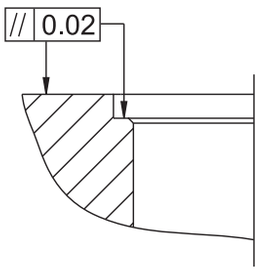
الشكل-9

تعليمات تركيب قمصان مبللة

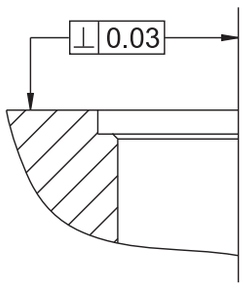
يتم تصنيع قمصان سلندر في ينماك بطريقة الطرد المركزي لمقاومة الانكماش والتأكل . لتفادي حدوث تخريبات على البلوك يوصي اخراج القمصان من البلوك بعناية فائقة . يجب تنظيف بلوك السندر من التركمات الطينية والجيرية والتراكمات الملوحية ويجب عدم استعمال الات حادة وثاقبة في عملية التنظيف بل يوصى باستعمل الفرشاة السلكية لهذا الغرض . عند محاولة اخراج القميص من البلوك قد يكون القميص عالق انذاك يوصى بوضع وتد ومحاولة تحريك القمصان بالضرب على الوتد وفي حالة عدم جدوى هذه الطريقة انذاك يخرج القمصان باستعمال الماكبس الهيدروليكية وعند التنظيف يجب ابداء الاهتمام الخاصة على السطوح التي تجلس عليها القميص .

يجب ان يكون سطح البلوك الذي يجلس عليه القميص والسطح السفلي لشفة القميص موازيا مع بعض كما في الشكل (10) . ويجب ان لايكون هناك اي اختلاف في التسطيح والنعومة لكلا الوجهين . بالإضافة إلى ذلك، يجب فحص ما إذا كان محور سطح البلوك مقعد الكاسكيت عموديا ام لا. (الشكل 11) كما هناك نقطة مهمة جدا وهي فحص سطح البلوك الذي يجلس عليه القميص ما انه غير تالف او متاكل وانها بحالة جيده .كما في الشكل (12) .

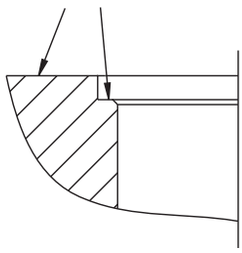
لتفادي مسالة عدم جلوس الزاويا السفلى من شفة القميص (د) مع الزاوية القائمة لمكان جلوس القميص في البلوك (أ) قطر السلندر (س) من نقطة العبور يجب اعطاء انحراف 0,5-1.0 ملم بزاوية 45 درجة لمنع خطر الانكسار يجب ايجاد القوة العمودية بين قوة عدم التسرب وقوة الرد المقابله لها .



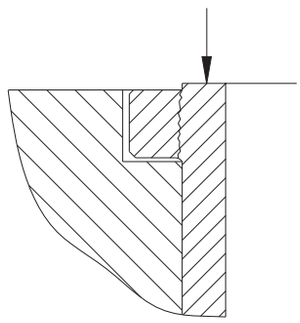
الشكل- 10



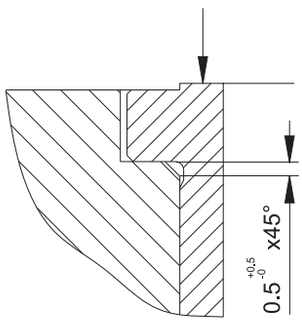
الشكل- 11



الشكل- 12



الشكل-15



الشكل- 14

قطر فوهة الكاسكيت (ب) يجب ان يكون مساوية مع القطر الخارجي للقميص (ج) . ولمنع التسرب من غرفة الاحتراق يجب ان يكون اطار فوهة الكاسكيت معدنية .

- لمعرفة ما اذا كان القميص المراد تركيبه كبير او صغير ينزل القميص على داخل بلوك سلندر بدون تركيب الربلات قبل تركيبه النهائي. وبالاخص التاكيد من ان شفة القميص تجلس في مكانها بشكل جيد يوصى قبل التركيب بقلب القميص ووضعه على فوهة السلندر ومعرفة اذا كانت ملائمة ام لا و كما هو معروف ان شفة القميص تقع في المنطقة التي لاتصل اليها عملية التبريد وانها تتعرض للتمدد لذا يجب اخذ بنظر الاعتبار ان يكون الفراغ هنا 0,3-0.5 ملم

هنا في تعليمات التركيب ننتهز كل فرصة لكي نؤكد باستعمال ادواة خاصة معدة لهذا الغرض وعدم استعمال المطارق او بعض اللات الغير ملائمة في عملية اخرج وتركيب القمصان لان اي خلل بسيط قد يؤدي الى عواقب وخيمة لذا نوصي بابداء الاهتمام والعناية .

الربلات التي تسعمل في التركيب يجب ان تكون ذات جودة عالية تتحمل الحرارة العالية والزيت ومقاومة للانتفاخ والبلى وخلاف ذلك فانها تسرب الماء الى الكارتير وهذا يودي الى تعصي القميص ويفسد القياسات ويكون سببا في اعطال المحرك . يجب تشحيم الربلات بالصابون في كل مرة قبل التركيب لاجل اجلاس الربلات في محله بشكل سهل وصحيح.

مسك البيستون والذي يؤدي الى قطع القمصان سببه استعمال ربلات غير ملائمة ينبغى عدم حفر فنوات الربلات مطلاقا .

من الاحسن اعادة قياسات السلندر بعد تجليس القميص فيه ، هذه القياسات يجب ان تجري تحديدا في المناطق الموجوده فيها الربلات للتاكيد من عدم حصول البيضوية او في المناطق التي قد تحدث فيها الانكماشات .

بعد تركيب القمصان على السلندر يجب املاء السلندر بالماء وضغطها للتاكيد من عدم وجود التسربات

تفاصيل علامات القميص

ربلات القمصان

ربلات القمصان	
مطاط EPDM	EPDM
مطاط NBR	NBR
فايتون	FPM / VI
نحاس	Cu
سبيكة من نحاس والزنك	T
فولاذ	ST
سليكون	SC / MVQ
معدن لين	Shim / SM

93,000 (1)		3	4	5	6	7
4JB1 (2)		D 00 2005	> 00 2005	4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) (9) CH 51,850 VD1 0,550 (10) (11) B- 19,500 BØ 43,900 (12) (13) TL 91,850	AP YS (14) HA CP	91-09389-000 1 2,000 P 2 2,000 P (16) 3 4,000 CrP	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)		Ø 93,000 (18)	31-04385-000 (19)
(15) 31,00x76,00		99-09389-000 1 2,000 FeP 2 2,000 FeP (16) 3 4,000 TeF				39-04385-000
Isuzu ve Opel ile Ortak Motor (27)						
K=95,00 (22) (24) L=181,00 H=0,90 (25) (23) D=101,00	DF-CR-ST (26)				51-35721-000 (20)	71-08385-000 71-98385-000 (21)
K=120,00 (22) (24) L=229,00 H+F=9,00+1,10 (25) (23) D=128,50	WF (26)		O-Ring/Seal 55-50613-000 (28) 2 FPM 112,00x3,00		51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

-1 قطر البيستون
-2 رمز المحرك
-3 معلومات الوقود
-4 موديل الاعوام
-5 عدد االسلندرات
-6 حجم السندر
-7 قوة المحرك
-8 رمز البيستون
-9 التخزين: CH
-10 عمق الصباب : VD1/VD2
-11 الاحتراق غرفة عمق (-B)
العليا القبة (+B)
-12 قطر الغرفة :BØ
-13 الطول الكلي :TL
خصائص البيستون
بيستون ثنائية التسليح :*DAP
بيستون مسلح :*AP
بيستون تبريد زيت :*YS
بيستون ذو رقائق فولاذ :*CP
معالج بأكسيد الصلب :*HA
ثقب البنز ذو بطانه:*PDB

-15 قطر البنز - طول- خصائص
-16 خصائص الرنك .
-17 بروزات رأس البيستون
-18 قطر السلندر
-19 رمز البيستون + الرنك
-20 رمز القميص
-21 رمز اطقم الكيتات
-22 القطر الخارجي للقميص
-23 قطر شفة القميص
-24 طول القميص
-25 سمك الشفة
-26 ميزات القمصان

*WS بوش مرطوب نيمه به پايان رسيد
*WF بوش مرطوب پايان كامل
*DS بوش خشک نيمه به پايان رسيد
*DF بوش خشک پايان كامل
*AF هوا سرد می شود پايان كامل
*PH فسفات
*CR كروم
*HR سخت
*NT نيتريت
*HT حرارت درمانی
*STEEL فولاد

-27 موتور معمولی
-28 رمز ربلات قمصان

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Yenmak, a été créé en 1965 par la famille Kahvecioğlu à Konya dans un petit atelier. Avec le temps YENMAK n'a cessé de s'évoluer et de se renouveler et est devenu l'un des plus grands fournisseurs indépendant, pour les pièces du moteur en Turquie et à l'étranger.

Yenmak aujourd'hui fait la production d'ENSEMBLE, PİSTON, AXES DE PİSTON, SEGMENT et CHEMİSE; JOINT De CULASSE, et fait la distribution de SOUPAPE et COUSSİNET DE MOTEUR, elle fait l'exportation de ces produits dans plus de 80 pays différents sur les 5 continents du monde.

Nous offrons à nos clients un partenariat à long terme, avec une confiance ultime, un rapport qualité prix exceptionnel, un service de vente et après vente, pour la fourniture de toutes les pièces du moteur. Yenmak donne beaucoup d'importance à la valeur humaine car c'est l'un des points le plus important pour une bonne relation avec ces clients.

YENMAK; est en possession des certificats de INMETRO, ISO 9001, ISO / TS 16949, IATF 16943, TS EN ISO 14001.

Aujourd'hui, 2 sites de production, 1 siège social et un bâtiment logistique, avec une superficie totale de 50.000 m^2 est installé à la zone industrielles 1,2 et 3 à Konya.

Les services ventes et opérations de marketing sont au bureau d'İstanbul.

Siège Social & Logistique

Site de Production Piston & axe de piston

Site de Production Chemise de Moteur

PİECES MOTEUR

Depuis 2003, les produits Yenmak on pris une place dans le marché sous la forme ci- dessous.

Voici les détails de l'emballage:

Grace à notre labelle, soyez le premier à ouvrir le produit.

Numéro de traçabilité

Un hologramme 3D est intégré sur la boîte, pour assurer la sécurité du produit.

Etiquette de sécurité pour assurer la sécurité du produit dessous de la boite.

BUREAU VERITAS
Certification

BUREAU VERITAS Certification

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Bureau Veritas Belgelendirme yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 9001:2008

Belgelendirme Kapsamı

İÇTEN YANMALI MOTORLAR İÇİN ALÜMİNYUM KOKİL DÖKÜM PİSTON VE PİSTON PİMİ ÜRETİMİ

İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

TÜRKAK

SEÇKİN DEMİRALP
Belgelendirme Müdürü

Sayfa 1/1

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Certificate of Approval

Awarded to

YENMAK PİSTON SEGMAN SAN. VE TİC. A.Ş.

KIRIM CD. SARIÇİÇEK SK. NO:12 SELÇUKLU KONYA
42000 - Konya - Turkey

Bureau Veritas Certification certifi that the Quality Management System of the above organization has been audited and found to be in accordance with the requirements of

ISO/TS 16949:2009

and the applicable customer specific requirements

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

BUREAU VERITAS Certification

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SARIÇİÇEK SOK. NO: 12
SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme Holding SAS – İngiltere Şubesi yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 14001:2004

Belgelendirme Kapsamı

ÇTEN YANMALI MOTORLAR İÇİN PİSTON VE PİSTON PİMİ ÜRETİMİ

Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

UKAS

SEÇKİN DEMİRALP
BVCH SAS İngiltere Şubesi
adına imzalayan

Sayfa 1/1

BUREAU VERITAS Certification

YENMAK MOTOR GÖMLEK SANAYİ VE TİCARET A.Ş.

1.ORGANİZE SANAYİ BÖLGESİ HOROZLUHAN MAH. ATABEY SOK. NO: 8 SELÇUKLU, KONYA, TURKEY

Bureau Veritas Certification Holding SAS - UK Branch certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standard

ISO 9001:2015

Scope of certification

MANUFACTURING OF CASTING AND MACHINING CYLINDER LINERS AND CASTING RING CARRIERS

Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

UKAS

İBRAHİM TAŞKY
Signed on behalf of
BVCH SAS UK Branch

ISO 14001
ISO / TS 16949
BUREAU VERITAS
Certification

BUREAU VERITAS
Certification

Certificate of Approval

YENMAK MOTOR GÖMLEK VE TİC. A.Ş.

1. ORGANİZE SANAYİ BÖLGESİ, HOROZLUHAN
MAHALLESİ, ATABEY SOKAK No:8, SELÇUKLU
42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
Casing and machining cylinder liners and casting ring carriers

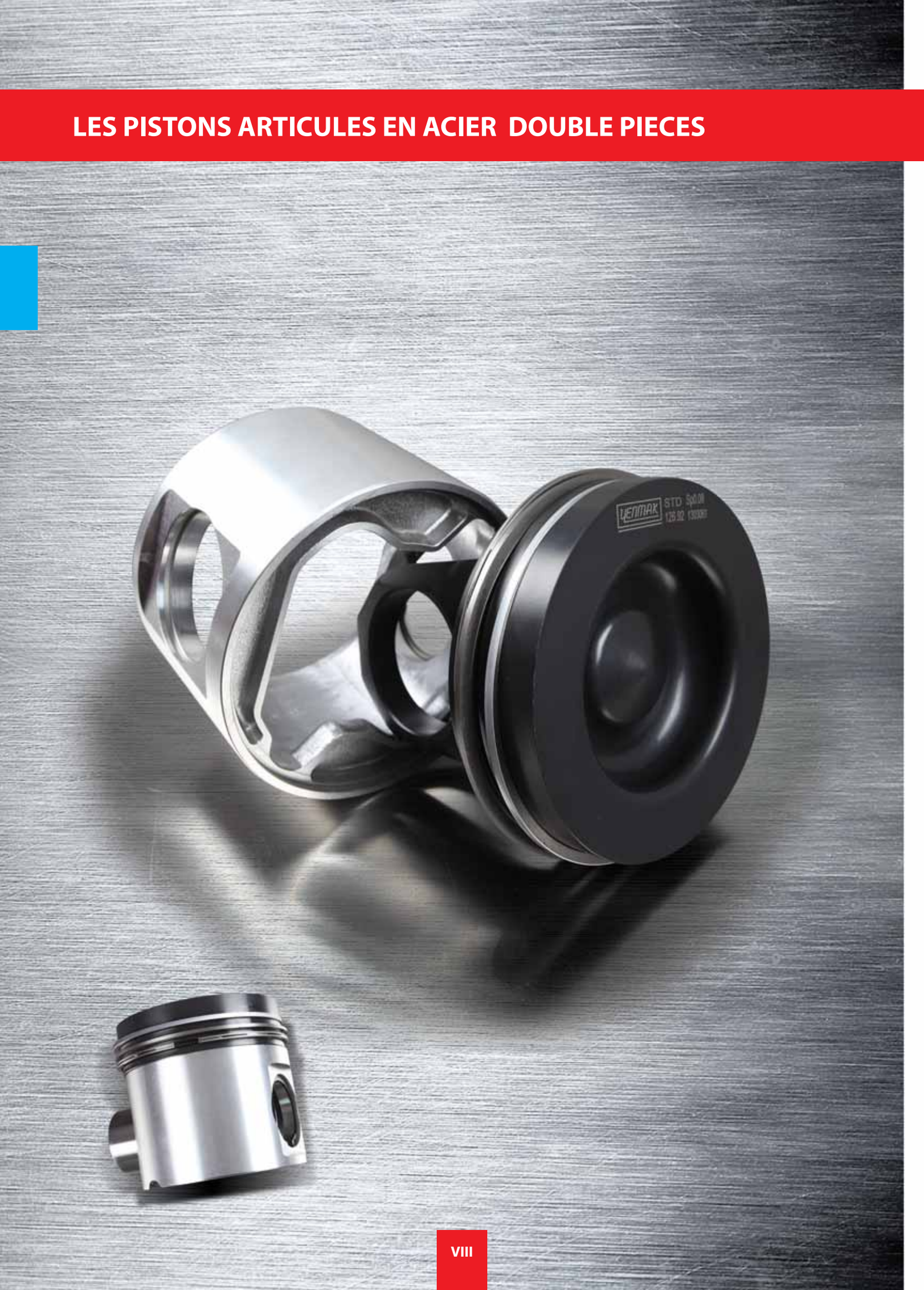
TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

KONYA BELGELENDİRME MÜDÜRÜ

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

KONYA BELGELENDİRME MÜDÜRÜ

LES PISTONS ARTICULES EN ACIER DOUBLE PIECES



Les pistons articulés en acier est formées d'une tête de piston en acier et d'un corps en aluminium reliés entre eux et mouvementé sur l'axe de piston. Due a des valeurs de résistance très élevée et de faible abrasion, ces pistons sont principalement utilisés pour des moteurs diesel avec gaz d'échappement et des émissions basse et limités.

Les pistons articulés en acier sont utilisés pour;

• Les moteurs ayant un taux de compression élevés avec des chambres de combustion moderne.

• Les Moteurs diesel lourd pour service

• Les moteurs au système de carburant multiple

Les avantages de piston articulés en acier à doubles pièces

• Moins de perte du au frottement.

• Grâce à sa forte résistance face aux charges thermiques, il réduit le risque de déformation des chemises et peut fonctionner des le bas de la chemise tout en augmentant les propriétés d'étanchéité des segments.

• Un piston normal en aluminium peut résister a une pression allant jusqu'à 100 bars, tandis que le piston articulé peut résister jusqu'à 250 bars de pression.

• Un taux de compression plus haut et une émission de CO_2 en baisse de % 2-5. L'alfin (anneaux d'acier) utilisé sur les pistons en aluminium sur les moteurs diesel, essaye de réduire ces problèmes de contact.

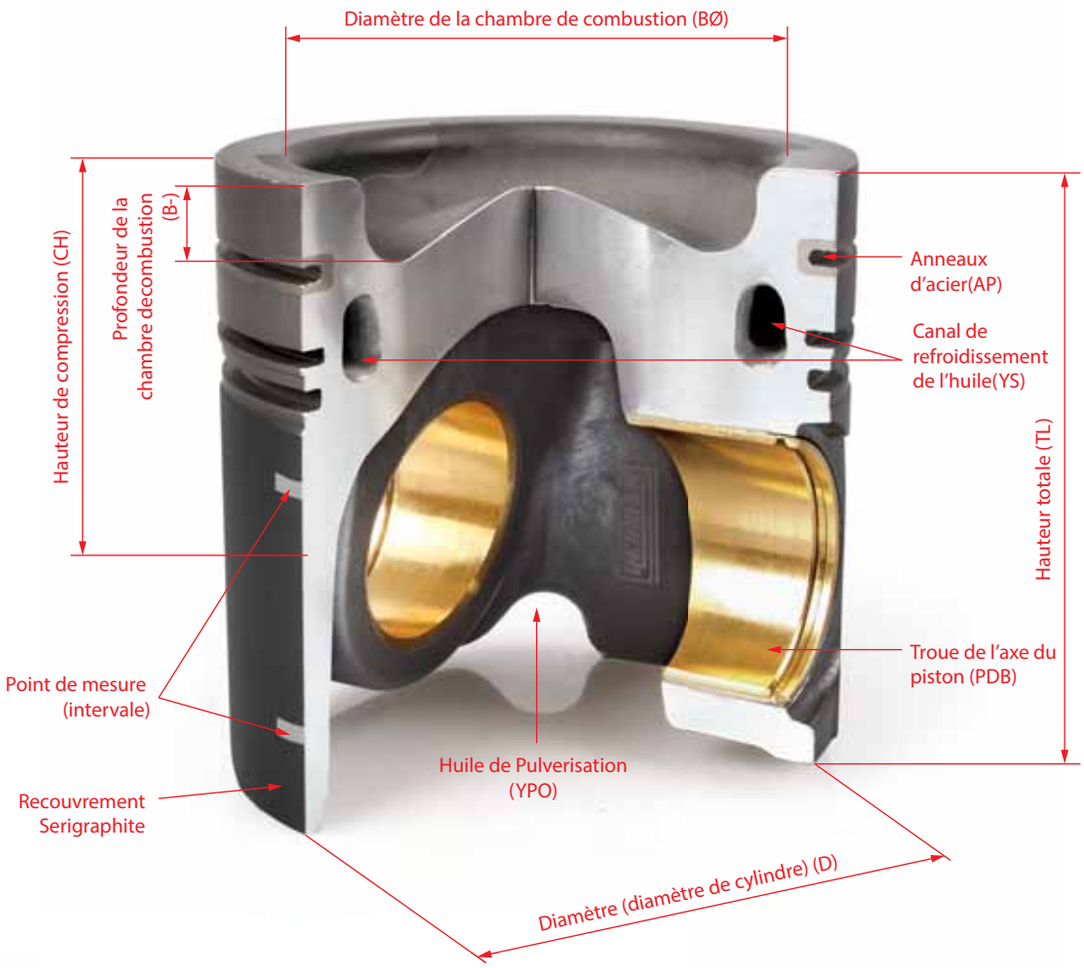
• Pour les pistons avec canaux de refroidissements, il donne l'occasion aux canaux d'être plus près de la partie supérieure du piston et cela donne un refroidissement plus efficace.

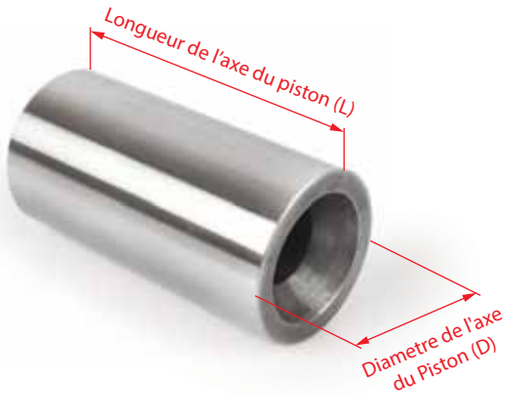
• Les pistons acier articulé par rapport au piston en aluminium ont une déformation minimum dans la chambre de combustion

• Les pistons acier articulé baissent les coûts de rectification de moteurs, liés à leur effet positif sur la vie de moteur.

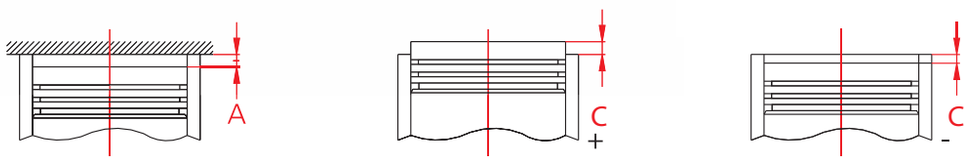
• Les pistons acier articulé, n'on pas le problème de perforation ni la fonte de piston, lié au système d'injection de carburant excessif.

SPECIFICATIONS TECHNIQUES





Mesure des têtes des pistons



A = longueur jusqu'à la tête du cylindre

C = longueur de la tête de piston depuis la surface du bloque

INSTRUCTIONS DU MONTAGE DES SEGMENTS DE PİSTON YENMAK

Nettoyer les canaux d'huiles et les résidus de carbone qui sont dans les canaux du piston avant installation des segments. Il faut bien nettoyer tous les résidus, sauf les couches de carbones situés sur le haut du piston. Faire attention à ce que les canaux soient propres. Il faut veiller à ce qu'il n'y ait pas de rayures quand on nettoie les courbures du bord de la jonction de faces latérales et inférieures. Sinon dans l'avenir, ces rayures seront le début des craquages. les segments Yenmak sont conformes au piston original des moteurs. Les valeurs des limites d'abrasion des cylindres des segments de piston de Yenmak sont citées en bas:

Pour les moteurs en essence, plus 0, 1 mm au diamètre

Pour les moteurs Diesel plus 0, 15 mm au diamètre

Même s'il ya une abrasion dans les limites cités en haut du piston usée, un changement des pistons est préconiser car il y a une déformation excessive dans les canaux des segments. Les pistons ayant une valeur d'espace acceptable peut être trompeuse car les défauts sur les canaux de la segmentation et cela vas engendrer un mauvais fonctionnement du travail des segments et une surconsommation d'huile.

Tordre les segments peut causer la détérioration de la surface de travail des segments et déformer les matériaux de revêtements. Cette déformation invisible peut conduire à des problèmes de fonctionnement du moteur.

Placer les pistons dans leur fente dans l'ordre, en ouvrant les segments (avec une pince de segment). Après, il faut serrer les segments en utilisant un serre segment de piston ou bien un manchon d'installation et pousser le haut du piston avec la tige du marteau et le faire glisser dans le cylindre. Pendant ce processus et pour empêcher que les segments fin sortent de leur canaux et causent des dommages, il faut faire attention à bien tenir les menottes. Il ne faut pas utiliser des segments chromés pour les moteurs ayant une chemise chromée. Il faut accrocher les segments dans les fentes en mettant le marquage YEN ou TOP vers le côté de la chambre de combustion. Si aucun marquage sur les segments, alors il peut être monte sur tous les sens.

REVETEMENTS DE PISTON ET TRAITEMENTS DE SURFACE

Cr = Chromage
Mo = Revêtement de molybdène
P = Revêtement phosphate
Fe = Revêtement de Ferroksyte
Cu = Revêtement de cuivre
Nt = Revêtement de nitrure
Sn = Revêtement d'étain
Ck = Revêtement de Céramique chrome
Pvd = Accumulation de Vapeur physique
CDC = Revêtement de Diamant chrome
Dlc = Revêtement de carbone revêtu de diamant
Tef = Recouvrement Teflon

REVETEMENT DE PISTON ET TRAİTEMENTS DE SURFACE

Ck (Chrome-céramique revêtement)

Les revêtements de chrome-céramique est une sorte de revêtement composite qui est formé des éléments nichés de chrome, aluminium et d'oxyde. Ces revêtements sont utilisés pour les premier segment de pistons pour véhicules a moteur de diesel. Les revêtements CKS ont une très haute performance et haute qualité avec sa différence de méthode en électrolyse.

Différence de revêtement Ck de revêtement de chrome dur;

- Résistance à l'abrasion plus élevée

- Point de fusion plus élevé

- Densité de fissure et dureté plus élevée

Grâce à ces avantages, les revêtements CK fournissent une extension de vie au moteurs et une formation des gaz d'échappement à faible émission.

Pvd (L'accumulation du vapeur physique)

Le procédé PVD est le résultat de l'accumulation des segments sur la surface en se décomposant ré activement par la phase vapeur du revêtement dur. La vaporisation et l'ionisation du métal avec le bombardement d'ion et l'arc électrique se font avec ce procédé.

Les ions en métal dissociés et organisés se font avancer sur la surface des composants. A la fin de ceci, les atomes métales entrent en réaction avec les gaz réactifs et produisent oxyde, nitrure et carbure. Après la réaction sur la surface de travail des segments, se produit une couche mince. Cette couche montre une forte résistance face à l'abrasion et à la corrosion grâce au caractère se trouvant dans le céramique.

Mo (Molybdène Revêtement)

Pour empêcher l'abrasion de l'entourage des segments, il faut le revêtir avec le molybdène. Pour éviter les traces des brulures, on peut revêtir ou remplir avec le molybdène les surfaces de travail des segments. Le procédé de revêtement se fait soit avec la pulvérisation de flamme et soit avec la pulvérisation de plasma. Avec son point de fusion élevé, avec sa structure poreuse, son effet lubrifiant, Molybdène fournit une surface (2620 C0) de travail de piston de segment plus résistant. Sa résistance d'abrasion face aux frictions et à la conductivité thermique est élevée.

Cr (Chromage)

La méthode est utilisé pour augmenter la dureté des segments. Le but du revêtir de chrome, c'est réduire l'usure et prolonger la durée de vie des chemises de cylindre et des segments. Il est possible de réduire l'usure du flanc de la chemise du cylindre et du segment, en couvrant le 1er segment avec du chrome. Aujourd'hui, non seulement le 1er segment en est recouvert de chrome, mais deux ou plus de deux segments en sont recouvert.

L'usure liée au segment sera moins forte car le chromage va former une surface dure.

Le chromage s'applique en deux façons:

- Dure

- Couvrir avec chrome poreux

Pour le chromage dur, après avoir couvert la surface des segments avec le chrome, celui-ci prend sa forme finale après être rectifié. Les surfaces des segments détiennent l'huile car ils sont couvert avec du chrome poreux. Avec celle ci, ils fournissent une usure minimum sur les surfaces des chemises de cylindre où elle vont travailler.

Nt (Revêtement Nitrure)

Toute la surface du segment est durcit avec une opération de revêtement de nitrure. Avec cette couverture, la résistance de la surface augmente face à la friction. Donc la durée de vie du segment augmente.
La production de revêtement de nitrure et les spécifications d'émission sont respectueuses fasse à l'environnement. On a vu des résultats de travail plus performant avec le revêtement nitrure depuis les surfaces de performances critique. Il abaisse les pertes d'huile produite par les points faible des segments. La fonte baisse la fragilité des segments. Il prolonge la vie des moteurs.

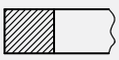
Cdc (Couvert de chrome diamant)

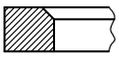
Ce revêtement est utilisé pour le 1er des segments, des moteurs diesel et euro 4. On peut l'utiliser pour des fontes en alliage, souples et acier en carbone. Les Particules de diamant sont utilisées à la place des particules de céramique. Ainsi, la résistance à l'abrasion et la performance antifriction est augmentée.

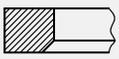
Dlc (Diamond Like Carbon)

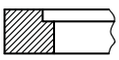
Grâce à son revêtement, la friction baisse et la résistance contre l'usure augmente. Les spécifications des revêtements DLC sont respectueuses à l'environnement. Leur liaison chimique est forte et ne se casse pas sous la tension mécanique. Ils ne sont pas en forme de cristal mais uniformes. Ces matériaux sont très forts en raison de sa structure. Il est plus résistant par rapport à d'autre revêtement et en même temps sa résistance est plus élevé contre l'abrasion.

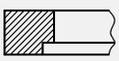
SPECIFICATIONS TECHNIQUES

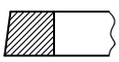

D = Segment rectangulaire

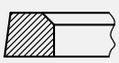

D-IF = bord intérieure surface supérieur biseautée segment rectangulaire

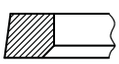

D-IFU = bord intérieur la surface intérieure segment rectangulaire

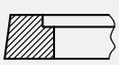

D-IW = bord intérieure la surface supérieur segment rectangulaire

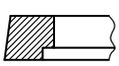

D-IWU= bord intérieur surface intérieure graduelle segment rectangulaire

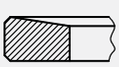

K = Segment conique

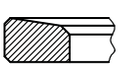

K-IF = Segment, le bord intérieure la surface supérieur conique biseautée

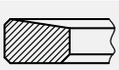

K-IFU = Segment, le bord intérieure la surface intérieure conique biseautée


K-IW = Segment, le bord intérieure la surface supérieur conique graduelle


K-IWU= Segment, le bord intérieure la surface intérieure conique graduelle


TT = Segment de trapèze unilatérale


TT-IF = Le bord intérieure la surface supérieur segment de trapèze biseauté unilatérale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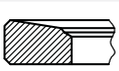
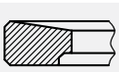
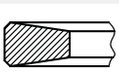
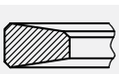
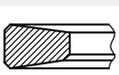
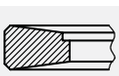

TT-IW = Le bord intérieure la surface supérieur segment de trapèze graduelle unilatérale

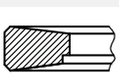

TT-IWU= Le bord intérieure la surface intérieure segment de trapèze graduelle unilatérale

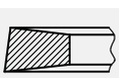

T = Segment de trapèze à deux côtés

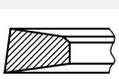

T-IF = Le bord intérieure la surface supérieur segment de trapèze biseauté à deux côtés


T-IFU = Le bord intérieure la surface intérieure segment de trapèze biseauté à deux côtés

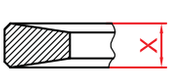

T-IW = Le bord intérieure la surface supérieur segment de trapèze graduelle à deux côtés

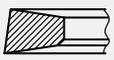

T-IWU = Le bord intérieure la surface intérieure segment de trapèze graduelle à deux côtés

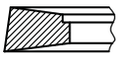

TK = Segment de trapèze conique à deux côtés

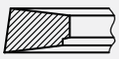

TK-IF = Le bord intérieure la surface supérieur segment de trapèze biseauté conique à deux côtés

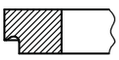
SDR = Type V, avec un canal, segment de contrôle d'huile en acier, spiral avec arc

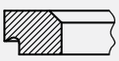

X = L'épaisseur de segment (mm)

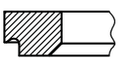

TI-IFU = Le bord intérieure la surface intérieure segment de trapèze biseauté conique à deux côtés

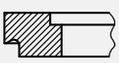

TK-IW = Le bord intérieure la surface supérieur segment de trapèze graduelle conique à deux côtés

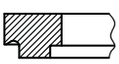

TK-IWU= Le bord intérieure la surface intérieure segment de trapèze graduelle conique à deux côtés

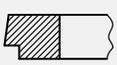

N = Segment au nez éraflant

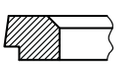

N-IF = Le bord intérieure la surface supérieur segment biseauté au nez éraflant

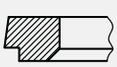

N-IFU = Le bord intérieure la surface intérieure segment biseauté au nez éraflant

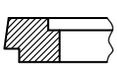

N-IW = Le bord intérieure la surface supérieur segment graduelle au nez éraflant

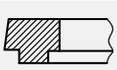

N-IWU= Le bord intérieure la surface intérieure segment graduelle au nez éraflant

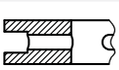

TN = Segment conique au nez éraflant

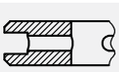

TN-IF = Le bord intérieure la surface supérieur segment biseauté conique au nez éraflant

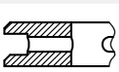

TN-IFU= Le bord intérieure la surface supérieur segment biseauté conique au nez éraflant

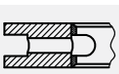

TN-IW = Le bord intérieure la surface supérieur segment graduelle conique au nez éraflant

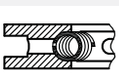

TN-IWU= Le bord intérieure la surface intérieure segment graduelle conique au nez éraflant

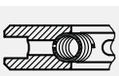

SC = Segment fendu de contrôle de l'huile

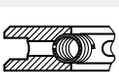

DC = Segment biseauté de contrôle de l'huile

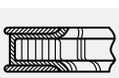

DB = Segment à deux biseautées de contrôle de l'huile


ES = Segment de contrôle de l'huile fendu ressort à feuille


SY = Segment spirale à feuilles de contrôle de l'huile


DY = Ressort à spirale côtés biseautés segment de contrôle de l'huile


PS = Ressort à spirale côtés à deux biseautés segment de contrôle de l'huile


VF = Bande d'acier ressort à VF segment de contrôle de l'huile

UB = Bande d'acier type U segment contrôle de l'huile

SDV = Ressort à spirale type V avec canal segment acier de contrôle de l'huile

DKS = Cylindre Konique huile de Control du segment

INSTRUCTIONS GENERALES DU MONTAGE DES PISTONS

1- Il faut qu'il y ait des lignes de rodage en forme de losange sur la surface intérieur du cylindre où sera le montage du piston. Il faut contrôler l'aptitude des lignes de rodage, sur la surface intérieur du cylindre si celui ci sera installé sur le cylindre usé et/ou utilisé. Si les lignes de rodage sur la surface intérieur du cylindre a disparu et qu'il y a une surface clair, il faut encore faire des lignes de rodage.

2- Quand tous les pistons s'installent dans un cylindre ayant des dimensions bonnes, la fabrication se fait sensiblement en déterminant les bons pistons- espace de travail du cylindre. Il faut contrôler les diamètres intérieurs du cylindre pour voir l'aptitude avec les étiquettes sur les boites et décider s'il faut encore les traiter ou pas. Quand il faut traiter les diamètres intérieurs des cylindres usés, il faut traiter la tolérance comme diamètre nominal de dimension haut 0.000 - 0.025 mm.

3- Il faut enlever le maneton avec des méthodes sans donner dommage au piston ni au pin. Il ne faut pas changer les manetons de façon aléatoire, les manetons sont assemblés avec les pistons en jumelant leur conformité dimensionnelle

4- Pendant le montage des segments au piston, utilisez un équipement convenable à ne pas donner dommage au piston et déformer les segments. Pendant le montage du piston au cylindre, utilisez un serrage de pince de segment convenable ou bien un manchon d'installation conique. Après avoir réalisé la procédure du serrage de segment, évitez d'assembler le piston dans le cylindre avec beaucoup d'effort ou bien en tapant, faut juste assembler avec attention par la force du doigt.

5- Avant le montage du piston au cylindre, il faut nettoyer le piston avec attention et notamment faut nettoyer le trou du maneton et mettre de l'huile. Avant le montage, l'intérieur du cylindre, il faut mettre de l'huile complètement pour que le piston et le cylindre n'aient pas de dommage pendant le premier travail, jusqu'à la lubrification du piston

6-S'il y a un étiquetage qui montre la direction du montage au sommet du piston comme marque, il faut faire l'installation en conformité avec ce marque

7- Il faut faire attention maximum à ne pas endommager le piston ni le segment et le maneton

8- Les pistons sont fabriqués convenable aux autre pièces qu'ils vont être utilisés ensemble et qui sont acceptés en général conforme aux normes. A cause de cela, il ne faut pas faire de traitement dessus après.

9- Il ne faut pas utiliser les pins et les segments de sécurité encore une fois, chaque fois, il faut utiliser des nouveaux.

10- Contrôle de la linéarité de la tige à être utilisé dans l'installation, il est important d'éviter les problèmes très graves qui peuvent survenir. La linéarité de la tige doit être vérifiée de nouveau avant l'assemblage de dispositifs appropriés.

NOT : Pendant les instructions de montage, il faut suivre ces instructions. Le fabricant n'est pas responsable des problèmes liés au montage non convenable.

SPECIFICATIONS TECHNIQUES

8- LES CODES ET LES MARQUAGES DES PİSTONS

1- Logo de la société

2- STD / L'information de dimension du haut

7- No de traçabilité.

5- L'espace de cylindre de Piston (mm)

8- Hauteur de la compression, dimension court (mm)

4- Numéro du cylindre pour le montage

6 -La direction de l'insertion pour le Piston. Le désalignement du trou du pin et peut avoir des marquages spéciaux tels que la détermination de la direction comme "avant" "Abluft". Le symbole du "volant" aide que le montage du piston se fasse sans faute sur le moteur

3- Piston diamètre nominal

9- LE NUMERO DE REFERENCE DE PİSTON

EXEMPLE

Le numéro de référence de Piston ← **11-01513-000**

000 = STD / Piston + Segment
001 = Hauteur de compression (stroke) -0,20 mm court
002 = Hauteur de compression (stroke) -0,40 mm court
003 = Hauteur de compression (stroke) -0,60 mm court
050 = +0,50 mm dimension du haut / Piston + Segment

ANCIEN NUMERO DE REFERENCE	NOUVEAU NUMERO DE REFERENCE
1513 000	11-01513-000

10- PİSTON + LE NUMERO DE REFERENCE DE SEGMENT

EXEMPLE

Piston + Segment numéro de référence ← **31-03513-000**

000 = STD / Piston + Segment
050 = +0,50 mm dimension du haut / Piston + Segment

ANCIEN NUMERO DE REFERENCE	NOUVEAU NUMERO DE REFERENCE
3513 000	31-03513-000
3513 000-08	38-03513-000
3513 000-09	39-03513-000

Differences entre types de segments et recouvrements ← **38-** **39-**

11 - DESCRIPTIONS DES REFERENCES DES CHEMISES

EXEMPLE

Numéro de référence des Chemises ← **51-05513-000** → 000 = STD / Chemise
050 = +0,50 mm dimension du haut / Chemise

ANCIEN NUMERO DE REFERENCE	NOUVEAU NUMERO DE REFERENCE
5513 000	51-05513-000

12 - KİT, SET, DESCRIPTION DES REFERENCES

Ensemble Kit : Piston + Segment + Chemise + Pim

Kit Description Des References ← **71-07513-000** → 000 = STD / Kit
050 = +0,50 mm dimension du haut / Kit

Differences entre types de segments et recouvrements ← **71-8** / **71-9**

ANCIEN NUMERO DE REFERENCE	NOUVEAU NUMERO DE REFERENCE
7513 000	71-07513-000
7513 000-08	71-87513-000
7513 000-09	71-97513-000

13 - LES NUMEROS DES REFERENCES DES SEGMENTS

Les numéros des références du segment ← **91-09513-000** → 000 = STD / Segment
050 = +0,50 mm dimension du haut/ Segment

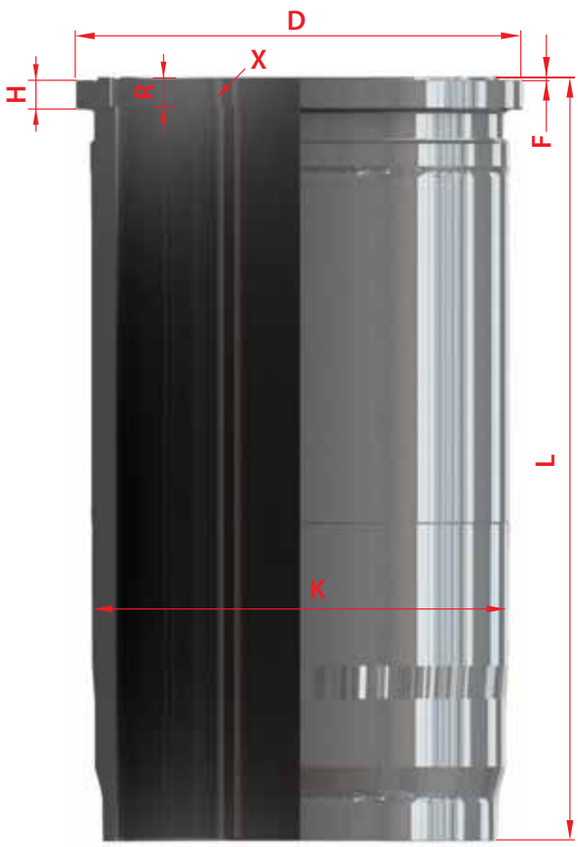
Differences entre types de segments et recouvrements ← **98-** / **99-**

ANCIEN NUMERO DE REFERENCE	NOUVEAU NUMERO DE REFERENCE
9513 000	91-09513-000
9513 000-08	98-09513-000
9513 000-09	99-09513-000

14 - LE NUMÉRO DE RÉFÉRENCE DE BAGUE D'ÉTANCHÉİTÉ

Le numéro de référence de Bague d'étanchéité ← **55-50701-000**

DESCRIPTION TECHNIQUE CHEMISE DE CYLINDRE



K = Diamètre extérieur
L = Longueur total
H = Hauteur de la bride
F = Profondeur du joint d'étanchéité
D = Diamètre de la bride
X = Longueur du segment de la place d'institution
R = Longueur de place d'institution

La description des chemises de cylindre d'après TSE 482:

Dans les moteurs à combustion interne, les chemises de cylindre sont des éléments de machine en forme de cylindre, dedans le piston bouge et le carburant brûle, celui-ci est accrochées au bloque du cylindre. On pourra les examiner en 2 parties.

Les chemises de cylindres humides:

Ce sont des chemises qu'on fait refroidir par dehors, dans le bloque où ils sont accrochés.

Il y a 3 groupes principaux:

a- Avec la Bride et canal: Ce sont les chemises qui s'assoit sur le bloque du cylindre par la bride du haut; et en bas il ya des canaux de joint d'étanchéité pour la pénétration de l'eau du refroidissement du moteur. (Figure-1)

b- Avec la bride et sans canal: Ce sont les chemises qui s'assoit au bloque du cylindre par la bride du dessus et en bas il n'y a pas de canaux de joint d'étanchéité. Les joint d'étanchéité de pénétration se trouvent aux canaux ouvertes dans le bloque. (Figure -2)

c- Avec deux brides: Ce sont les chemises de cylindres qui ne vont pas manquer l'eau du refroidissement du moteur au bloque du cylindre, du haut et du bas, elles sont détectées avec bride et joint d'étanchéité. (Figure-3)

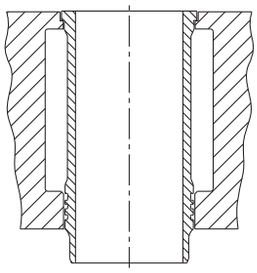


Figure - 1

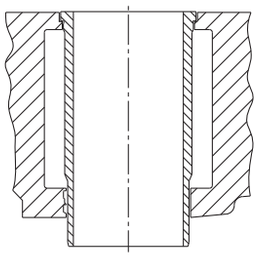


Figure - 2

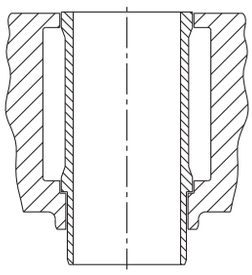


Figure - 3

Les Chemises de cylindre sèches:

Ce sont les chemises qui n'ont pas de contact avec l'eau de refroidissement au bloque de cylindre où ils sont accrochés.

On peut les analyser en 2 parties :

A- Avec la bride (Figure-4)

B- Sans bride-plate (Figure-5)

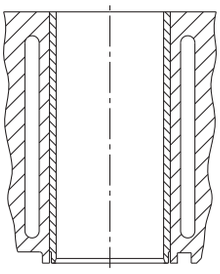


Figure - 4

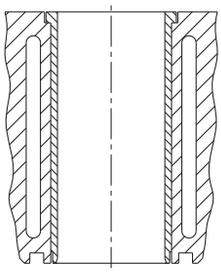


Figure - 5

QUESTIONS À ENVISAGER PENDANT L'INSTALLATION DES CHEMISES DE CYLINDRE

L'INSTRUCTION DE MONTAGE POUR LES CHEMISES SECHES DU CYLINDRE

Ces chemises sont fabriquées avec la bride et sans bride. (Figure -6) On ne voit pas de dislocation sur les chemises avec la bride par contre sur les chemises sans bride, qui sont sous de mauvaises conditions de travail; quand on accroche le piston, il ya des dislocations axiales qu'on constate plusieurs fois. C'est un avantage que la bride crée.

Les chemises avant d'être pressé dans le cylindre, il faut absolument roder, et meuler, en accord à dimensions nominales, qu'on voit dans la liste (A), convenable au diamètre extérieur de la chemise.

Il faut faire attention aux tolérances en bas. (Figure-7)

Sinon si la tension du devant est très basse, le transfert de chaleur ne sera pas bon, si la tension est très haute, il y aura des incompatibilités entre les chemises et les cylindres et ceci peut causer des fautes d'exploitation. Les chemises sèches qui ont des diamètres extérieurs finals, on les expédie 0,5-0,75 mm plus petit, par leur diamètre intérieur.

Quand on va assembler la chemise sèche avec la bride au bloque du cylindre à l'aide de la presse, pour empêcher que la bride ait une rupture, le trou qu'on a engravé pour la bride au bloque, faut l'engraver plus grande que le diamètre extérieur (C) de la bride.

SPECIFICATIONS TECHNIQUES

Les chemises sèches avec la bride, quand on passe avec la presse, il faut que la surface bas de la bride s'assoit très bien sur la surface des sièges du nid au bloque prés.

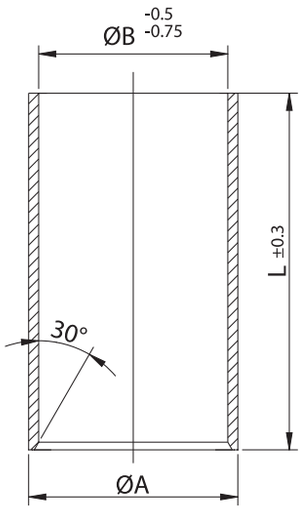


Figure - 6

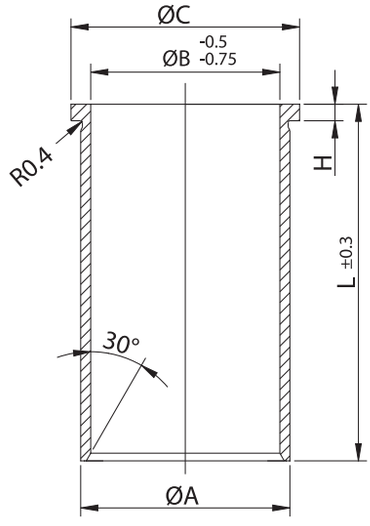


Figure - 7

Comme on le sait, les chemises la partie inférieure de la bride a un rayon d'environ 0,4 mm. Pendant l'assemblage de la chemise au bloque, pour empêcher que le rayon s'assoit, il faut donner un part de 1,0 mm au passage où la bride s'assoit. Sinon, la bride de la chemise peut couper.

Il faut nettoyer les cylindres au bloque du moteur avant d'assembler les nouvelles chemises et faut contrôler les dimensions précieusement. La rondeur et la forme de conique ne doit pas dépasser 0,025 mm. En faisant le honing, il faut essayer d'avoir une surface brillante et d'âpres le type du moteur, faut contrôler les valeurs de rugosité des surfaces. Il faut éviter d'avoir des surfaces lisses et très brillantes car cela va causer manque de lubrification.

Une pression de 3000-5000 kg suffit pour les chemises de cylindres sèches, pour appuyer avec la presse. Pendant le montage, si on va utiliser un matériel comme matériel de lubrification, par la suite cette matière roucoulera à cause de la chaleur et ce sera difficile pour le transfert de chaleur. Apres le montage fait avec la presse, des blocs-cylindres de broyage à partir des surfaces d'étanchéité doivent être pris avec meulage de surface.

S'il faut traiter la surface du joint d'étanchéité du bloque de cylindre, il faut traiter plus profondément la surface d'appui au nid de la bride. En plus il y a des chemises de cylindre ayant des diamètres extérieurs finis et des diamètres intérieurs précieusement blanchi.

Ces chemises se pressent dans la presse avec une petite part de honing et elles ont le honing en être pressant. .Le diamètre en tolérance de l'intérieur du cylindre est entre +0 ile +0.015 mm. Le diamètre en tolérance de l'extérieur de la chemise du cylindre est entre +0.012 ile 0.024 mm.

	Groupe de diamètre extérieur de la chemise		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	Diamètre de trou du bloc (mm)		
	50 - 80	80 - 120	120 - 180
Q_1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25

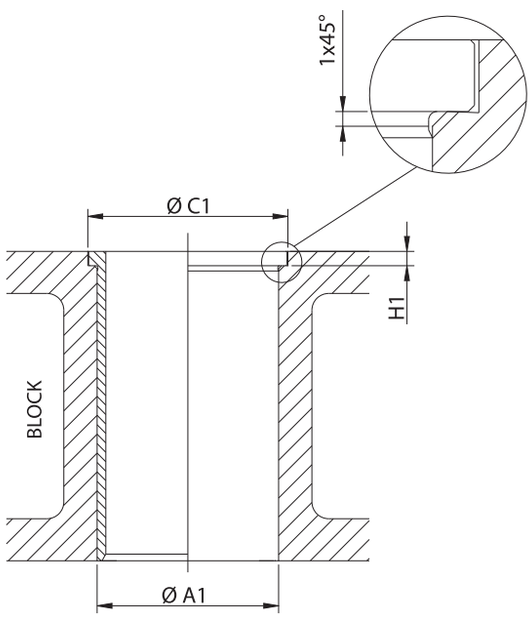


Figure 9

INSTRUCTION DE MONTAGE DE LA CHEMISE DE CYLINDRE AQUEUSE

Les chemises de cylindre du moteur de YENMAK se fabriquent, permettant d'obtenir un résistant caractéristique structure méthode de coulée centrifuge, contre l'abrasion et la traction. Une grande attention doit être accordée en sortant les anciennes chemises afin de ne pas endommager les surfaces du cylindre d'appui.

Il faut nettoyer la chaux la boue et d'autres contaminent soigneusement aux emplacements de contact de cylindre dans le bloc-moteur. Pendant le nettoyage il ne faut pas utiliser des outils comme grattoir et burin qui peut causé à se tracer. L'appareil le plus efficace pour ce processus est la brosse métallique en acier. Pour sortir les chemises stabilisées avec la couche de rouille chaux, on lance avec un marteau au morceau de coin qui est mis sur les chemises, malgré ce la si ce n'est pas possible de sortir les chemises alors on utilise presse hydraulique. En faisant le nettoyage on fait vraiment attention à la surface d'appui pour assurer qu'il n'y aura pas de dégât.

Le bride de la chemise, il faut qu'il soit parallèle à la surface au bloc de surface qui appuie la surface intérieure, comme montre la (Figure-10) qu'il ne doit pas montrer des diversités en concernant la régularité et la coplanarité. De plus, il faire le contrôle si l'axe de cylindre est droit (vertical) à la surface de joint du cylindre de bloc. (Figure -11) Un sujet aussi qu'on doit faire attention, les surfaces d'appui aux cylindres ne doit pas être détruites en écrasant. (Figure 12)

Le rayon qui est à la surface intérieure de la bride de la chemise (d) la surface d'appui de bride au cylindre, pour empêcher qu'il appuie à la côte(a), le diamètre de cylindre (c) au point de transition, il faut donner un rayon de 0.5-1.0 mm. 45°

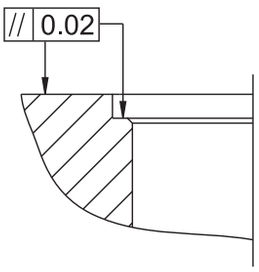


Figure 10

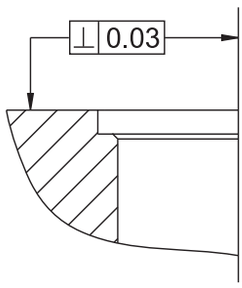


Figure 11

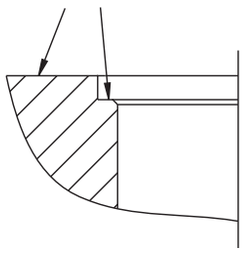


Figure 12

Il faut qu'il soit égale le diamètre du trou des joints (b) avec le diamètre extérieur de la chemise (c). Afin d'assurer une étanchéité complète de la chambre de combustion, il nécessite l'utilisation d'armature en métal.

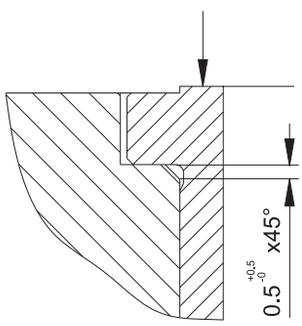


Figure 14

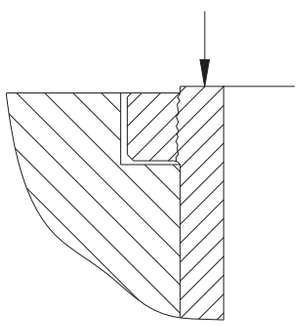


Figure 15

Pour relever si la chemise se fixe facilement ou pas et si le cylindre dans le bloc est trop grand et trop large ou pas, il faut enfoncer les chemises dans le cylindre avec la main sans utiliser le Ring avant le montage. Surtout pour relever si la position de bride de la chemise est correcte à la surface du bloc, en retournant les chemises avant le montage, il est recommandé de se fixer à la surface de bride par la bride. Comme on le sait, la bride est dans la partie qui ne se refroidit pas et va se dilater. Ici il faut prendre en compte une cavité spéculative de 0,3-0,5 mm.

Dans l'instruction de ce montage ce qui est souligné fortement, faut monter et démonter les chemises opportunément dans tous les cas. C'est à dire, lors de montage utilisation de marteau etc. équipes lourds n'est pas juste ; les erreurs peuvent produire de mauvais résultats.

Lors de montage, le ring caoutchoucs d'occasion doit être sûrement en qualité et doit être résistants au gonflement, au vieillissement, à l'huile et à la chaleur. Sinon il cause à arriver l'eau à la carter, à l'oppression de la chemise et à la déformation des dimensions. A chaque fois on met du savon pour la lubrification et les installe à leur nid.

Comme ring caoutchouc il faut seulement préférer les marques de qualité qui s'utilisent par les fabriquant de moteur. La vraie raison pour cette préférence, c'est que les rings caoutchoucs soient résistants au gonflement, au vieillissement, à l'huile et à la chaleur.

Le grippage de piston qui cause des ruptures en chemise est le résultat d'utilisation du ring caoutchoucs inéligibles. Les parties où sont mis les rings caoutchoucs ne doivent jamais gagner.

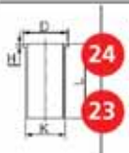
Après avoir placé les chemises avec la main, c'est avantageux de refaire encore un contrôle de la mesure du cylindre. Ce contrôle doit se faire surtout au lieu où ça peut arriver l'ovalisation et le rétrécissement dans les parties où se trouvent les rings caoutchoucs.

Apres avoir placé complètement les chemises, il faut comprimer le bloc de cylindre en remplaçant de l'eau et sûrement il faut faire le contrôle qu'il n'y a pas de fuite.

DETAIL DU MARQUAGE DE LA CHEMISE

BAGUE D'ÉTANCHÉITÉ

Bague d'étanchéité	
EPDM	Caoutchouc EPDM
NBR	Caoutchouc NBR
FPM / VI	FPM / FKM
Cu	Cuivre
T	Laiton Rouge
ST	Acier
SC / MVQ	Silicone (VMQ)
Shim / SM	Métal Doux

93,000 (1)		(3)	(4)	(5)	(6)	(7)
4JB1 (2)		D 00 2005 > 00 2005		4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) CH 51,850 (9) VD1 0,550 (10) B- 19,500 (11) BØ 43,900 (12) TL 91,850 (13) (15) 31,00x76,00	AP YS HA CP (14)	91-09389-000 1 2,000 P 2 2,000 P 3 4,000 CrP (16)	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)		Ø 93,000 (18)	31-04385-000 (19)
		99-09389-000 1 2,000 FeP 2 2,000 FeP 3 4,000 TeF (16)				39-04385-000
Isuzu ve Opel ile Ortak Motor (27)						
 K=95,00 (22) L=181,00 (24) H=0,90 (25) D=101,00 (23)	DF-CR-ST (26)				51-35721-000 (20)	71-08385-000 71-98385-000 (21)
K=120,00 (22) L=229,00 (24) H+F=9,00+1,10 (25) D=128,50 (23)	WF (26)		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00 (28)		51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

1 - Diamètre de piston
2 - Code de moteur
3 - Information de carburant
4 - Années de modèle
5 - Nombres de cylindres
6 - Volume de cylindre
7 - Puissance du moteur
8 - Piston Code
9 - CH: Stroke(Coup)
10 - VD1/VD2: Profondeur de soupape
11 - B- : Combustion Chamber Depth
B+ : Bombe de la tête du piston
12 - BØ: Diamètre de la cellule
13 - TL: Taille réelle
14 - Propriétés de piston
*DAP: Piston à double alfin
*AP: Piston à l'alfin
*YS: Piston refroidi par l'huile
*CP: Piston en tôle d'acier
*HA: Enduit anodisé hard
*PDB: Goupille-trou douillé
15 - Diamètre de goupille - Taille- Propriété
16 - Propriété de segment
17 - La Saillie de la tête de piston
18 - Diamètre de cylindre
19 - Piston + Code de Segment
20 - Code de chemise
21 - Code de Kits
22 - Diamètre extérieur du cylindre
23 - Diamètre de la bride de cylindre
24 - Taille réel de la chemise
25 - L'épaisseur de la facture de bride
26 - Modèles de chemise et propriétés
*WS: Revêtement humide semi-fini
*WF: Revêtement humide finition complète
*DS : Dry Liner semi-fini
*DF : Dry Liner finition complète
*AF : Air refroidi pleine finition
*PH : Phosphate
*CR : Chrome
*HR : Blindé
*NT : Nitrate
*HT : Traitement thermique
*STEEL: Acier
27 - Moteur commun
28 - Bague d'étanchéité Code

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Motor tipleri, açıklamalar, ürünler, ürün resimleri, üreticiler, araçlar v.b. nitelendirmeler sadece referans amaçlı verilmiştir.

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ینماک، در سال ۱۹۶۵ به عنوان یک کارگاه کوچک توسط خانواده **کاهوجی اغلو** در شهر قونیه تاسیس شد.
ینماک در طول سالها با به روز کردن و بهبود مستمرخود در زمینه تولید قطعات موتور به طور مستقل در بازار داخلی و جهانی جایگاه خود را به عنوان یکی از بزرگترین تامین کنندگان قطعات موتور بدست آورده است.

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امروز **ینماک** با دو کارخانه و یک مرکز اصلی و تدارکات حمل سفارشات در کل در مساحتی بالغ بر ۵۰۰۰۰ متر مربع در شهرکهای صنعتی شماره۱، ۲ و ۳ قونیه فعالیت دارد.
فعالیت فروش و بازاریابی در استانبول در دفتر صادرات **ینماک** صورت می گیرد.

ساختمان مرکزی و تدارکات و حمل

کارخانه پیستون و گژن پین

کارخانه بوش سیلندر موتور

YENMAK

قطعات موتور

ازسال ۲۰۰۳ محصولات ینماک بصورت ذیل بسته بندی شده و
جایگاه خود را در بازار کسب کرده است
مشخصات و جزئیات اطلاعات موجود بر
روی بسته بندی در ذیل ارائه شده است

در سایه درپوشهای مخصوص اولین
کسی باشید که به محصول
دسترسی پیدا می کند

شماره قابلیت ردیابی

به منظور ایمنی و اطمینان برچسب
هولوگرام سه بعدی بر روی
جعبه بسته بندی محصول وجود دارد

به منظور حفظ ایمنی محصول در
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Standart

ISO 9001:2008

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İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

TÜRKAK

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SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

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Standart

ISO 14001:2004

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Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

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Standard

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Scope of certification

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Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

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İBRAHİM TAŞKY
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42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
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موتورهای دیزلی سنگین

در موتورهای با سیستم های سوخت چند گانه

مزایای پیستون فلزی دوپارچه:

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پیستون های فولادی دو پارچه نسبت به پیستونهای آلومینیومی بدلیل مقاومت گرمایی بالاتر ریسک تغییر شکل بوش سیلندر را کاهش داده و در فاصله کم با بوش سیلندر بخوبی کار می کند و عملکرد عایقی رینگها را نیز افزایش می دهد.

در حالی که یک پیستون آلومینیومی معمولی نهایتا تا فشار ۱۰۰ بار می تواند مقاومت نشان دهد، یک پیستون فولادی با همان ابعاد تا فشار ۲۵۰ بار قدرت مقاومت دارد.

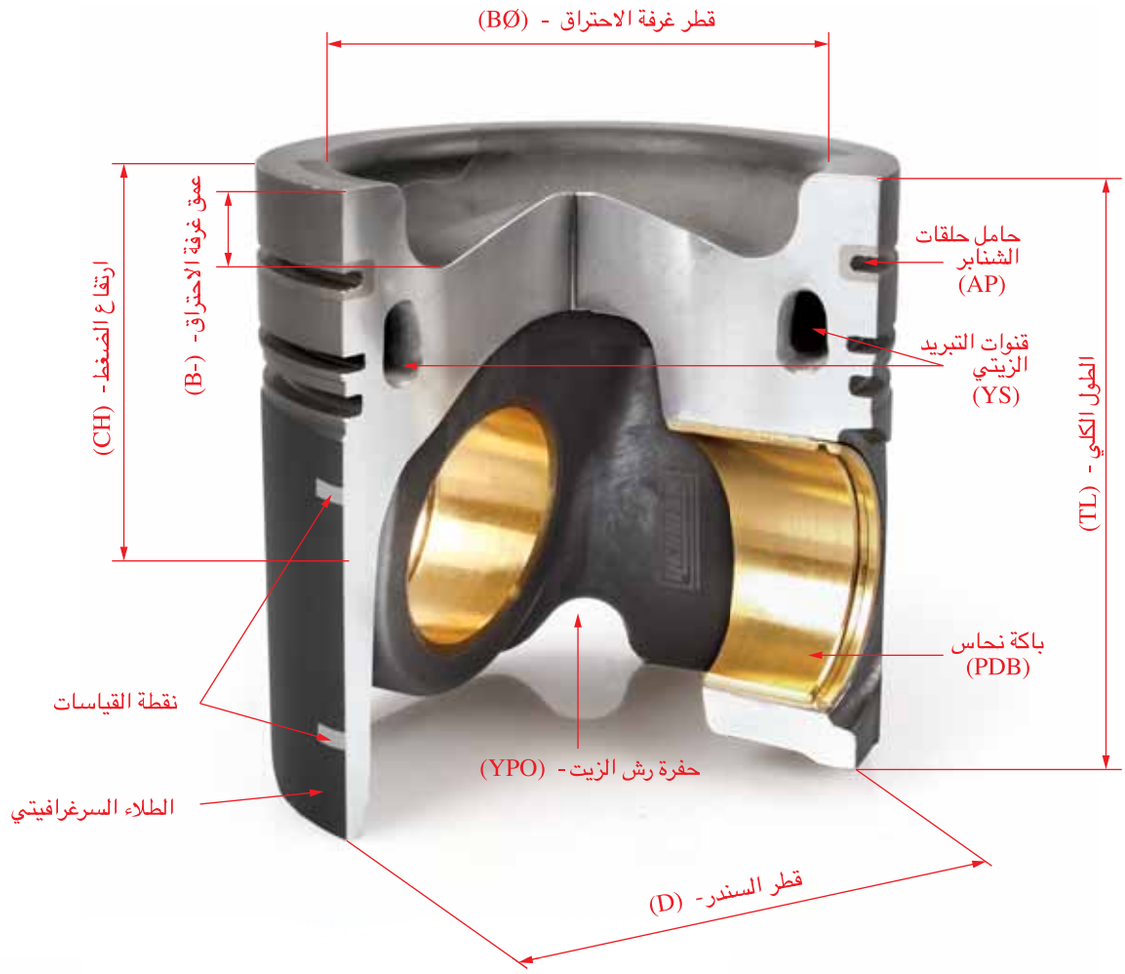
قابلیت تراکم موتور را افزایش می دهد و بمیزان ۲الی ۵ درصد میزان تولید گاز CO_2 را کاهش می دهد.
آلفین (مقاوم شده با نیکل) بکار رفته در پیستونهای آلومینیومی موتورهای دیزلی مشکلات تماسی ناشی از مواد بکار رفته را کاهش می دهد.

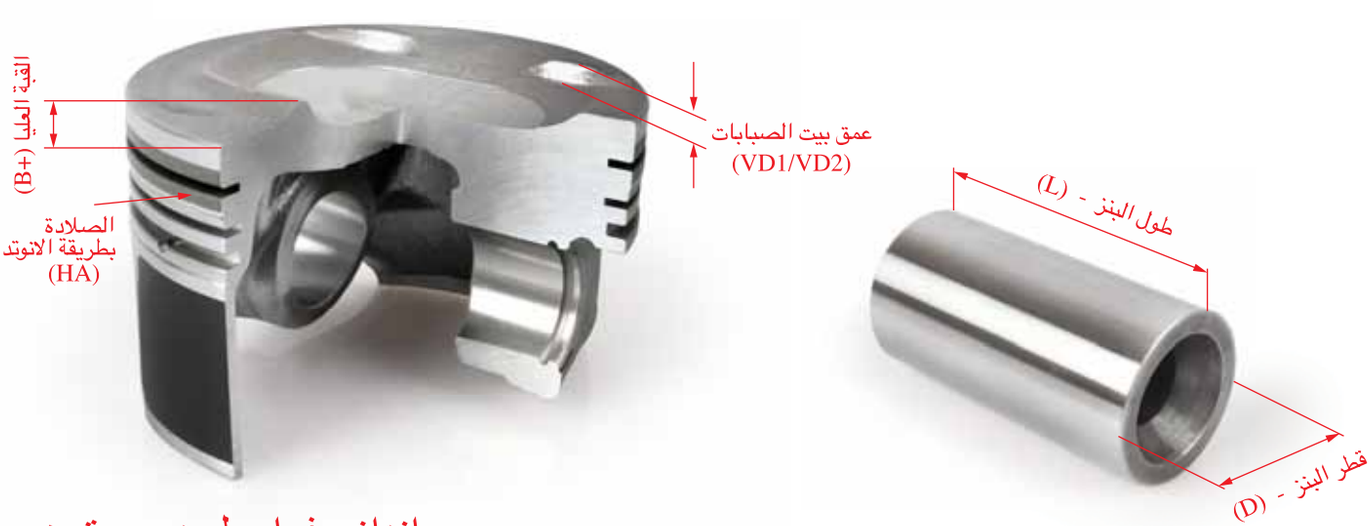
پیستون های دارای کانال خنک کننده، باعث نزدیکتر شدن کانال خنک کننده به قسمت فوقانی پیستون شده و فرآیند خنک کاری را بهبود می بخشند.

پیستون های فولادی دو پارچه باعث افزایش عمر موتور و کاهش هزینه های تعمیر موتور می شوند.

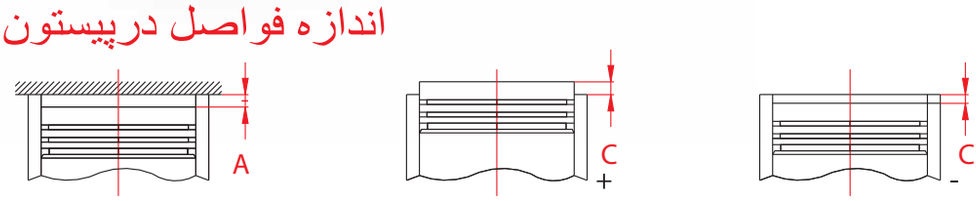
که در پیستون های دو در نتیجه ایراد در سیستم پاشش سوخت و تزریق بیش از اندلزه سوخت احتمال ذوب پیستون وجود دارد تکه ای این احتمال از بین می رود

مشخصات فنی





اندازه فواصل درپیستون



A = فاصله تا سر سیلندر

C = فاصله سر پیستون از سطح بلوک

دستورالعمل مونتاژ رینگ پیستون ینماک

در صورت مونتاژ بر روی پیستون کارکرده ابتدا بایستی کانالهای رینگ از بقایای کربن تمیز شده و سوراخ های روغن کاری نیز تمیز شوند به استثنای قسمت تاج پیستون بقایای کربن موجود در تمامی قسمتها بایستی تمیز شود به تمیز بودن کانالهای رینگ بایستی بسیار دقت شود بهنگام تمیز کردن محل تقاطع سطوح عمودی و افقی بایستی بسیار دقت شود تا زدگی و خراش بوجود نیاید در غیر اینصورت این محلها بعدا به محل پیداش ترکها تبدیل می شوند نیاز به ماشینکاری در پیستون نمی باشد چرا که رینگهای ین ماک بر اساس پیستونهای موتورهای اورجینال طراحی شده اند حداکثر محدوده سائیدگی سیلندرهایی که رینگهای ین ماک در آنها استفاده می شود به شکل ذیل می باشد:

در موتورهای بنزینی حداکثر ۰،۱ میلی متر از قطر
در موتورهای دیزلی حداکثر ۰،۱۵ میلی متراز قطر

معمولا در پیستون های کارکرده حتی اگر میزان سایش موجود در محدوده ذکر شده بالا هم باشد بایستی پیستونهایی که در کانالهای رینگ آنها تغییر شکل بوجود آمده تعویض شوند چراکه در پیستونهایی که در کانال رینگ آنها توازی از بین رفته و تغییر شکل داده اند ، به اندازه بودن فاصله پیستون و سیلندر می تواند ما را به اشتباه بیاندازد چرا که رینگها در چنین پیستونهایی نمی توانند بدرستی عمل کنند و شکایتهایی نظیر روغن سوزی و بخار کردن بوجود می آورد
خم کردن رینگها ،پیچ و تاب دادن و امثال آن موجب ایجاد خرابی در سطح عملکرد و آسیب دیدن پوشش رینگ می شود اینگونه خرابیها که به چشم دیده نمی شوند موجب بروز مشکلات درحین کار کردن موتور می شوند.

رینگ را بایستی با استفاده از رینگ باز کن باز کرد و به ترتیب در کانالهای موجود در پیستون جای داد سپس با استفاده از جمع کن رینگ یا وسیله مونتاژ مخروطی شکل رینگ آنها را فشرده و با فشردن سر پیستون و در صورت لزوم با ضربه زدن آهسته، با استفاده از دسته چکش ،پیستون را داخل سیلندر قرار داد در حین انجام این کار بمنظور جلوگیری خروج رینگهای نازک از رینگ جمع کن و آسیب دیدن آنها بایستی رینگ جمع کن را بطریقی پیوسته روی بلوک ثابت نگه داریم برای بوش سیلندرهایی که پوشش داخلی آنها کروم می باشد نباید رینگ با پوشش کروم استفاده کرد.

رینگهایی که بر روی یک سطح آنها علامتYEN ویا TOP وجود دارد بایستی بطریقی در پیستون قرار گیرند که این نوشته ها رو به بالا یعنی بطرف محفظه احتراق باشند رینگهایی که بر روی آنها هیچگونه علامتی وجود ندارد در هر دو جهت قابل مونتاژ هستند.

روکش رینگ و عملیات روی سطح آنها

روکش قلع = Sn
کروم سرامیک = Ck
روکش رسوب فیزیکی بخار = Pvd
روکش کروم الماس = Cdc
روکش کربن با پوشش الماس = Dlc
الطلاء بالتفلون = Tef

روکش کروم = Cr
روکش مولیبدن = Mo
روکش فسفات = P
روکش فررو اکسید = Fe
روکش مس = Cu
روکش نیترید = Nt

روکش رینگ و عملیات سطح

روکش کروم سرامیک CK

روکش کروم و سرامیک CK، یک نوع روکش کامپوزیتی متشکل از شبکه تودرتوی عناصر کروم و اکسید آلومینیوم می باشد این نوع روکش ها بیشتر در روکش اولین رینگ از پیستونهای موتورهای دیزلی کاربرد دارند روکش CK به دلیل استفاده از روش الکتروز عملکرد و کیفیت بالاتری را فراهم می کند.

تفاوت روکش CK با روکش کروم سخت
مقاومت سایشی بالاتر
نقطه ذوب بالاتر
دارای تنش شکست و سختی بالاتر
بدلیل این مزیتها موتورهایی که از رینگ با روکش CK استفاده می کنند دارای عمر بیشتر بوده و میزان آلاینده های کمتری تولید می کنند.

Pvd(روکش رسوب فیزیکی بخار)

روکشهای سخت را به شکل بخارطی واکنش تجزیه ای بر روی سطح رینگ می پوشانند که به این روش PVD گفته می شود بخار شدن و یونیزه شدن فلزات با استفاده از قوس الکتریکی و بمباران یونی بدین طریق صورت می گیرد
یونهای جدا شده و تنظیم شده فلز به سمت سطح جزء مورد نظر هدایت می شود در نتیجه اتمهای فلز با گازهای واکنشی واکنش داده و نیترید،کاربید و اکسید تولید می کنند بعد از اتمام واکنش بر روی رینگ پوشش بوجود می آید در سایه وجود عناصر سرامیکی در پوشش ،مقاومت سایشی و فرسایشی بالایی بوجود می آید.

Mo (روکش مولیبدن)

برای جلوگیری از سایش محوطه اطراف رینگ ، رینگ با پوشش مولیبدن استفاده می شود. برای جلوگیری از اثرات سوختگی سطح عمل کننده رینگ با مولیبدن پوشش داده می شود و یا کل سطح پوشش داده می شود. پوشش مولیبدن هم بطریق اسپری با شعله و هم از طریق اسپری با پلاسما می تواند انجام گیرد مولیبدن با نقطه ذوب بالا (۲۶۲۰درجه سانتی گراد)، ساختار منفذ دار و خاصیت روغنکاری سطح عمل کننده مقاومی برای رینگ پیستون فراهم می کند. هدایت گرمایی و مقاومت سایش اصطکاکی بالایی دارد.

Cr (روکش کروم)

جهت افزایش مقاومت رینگ یکی از روشهای متداول استفاده از روکش کروم سخت می باشد هدف از روکش کروم کاهش میزان سایش و افزایش عمر رینگ و بوش سیلندر می باشد کاهش ساییدگی رینگ و بوش سیلندر از طریق پوشش کروم بالاترین رینگ امکانپذیر می باشد امروزه نه تنها اولین رینگ بلکه تمایل به پوشش رینگهای دوم و بیشتر نیز با کروم وجود دارد
به دلیل سطح سختی که پوشش کروم فراهم می کند سایش در خود رینگها نیز کاهش می یابد.
پوشش کروم به دو شکل انجام می گیرد:
سخت
روکش کروم متخلخل
در روکش کروم سخت بعد از اینکه سطح رینگها با کروم پوشش داده شدند با سنگکاری شکل نهایی خود را پیدا می کنند رینگها بعلت دارا بودن پوشش متخلخل قابلیت نگه داشتن روغن در این حفرها را پیدا می کنند. و بدین ترتیب میزان سایش خود رینگ و سطح بوش سیلندر که با آن در تماس هستند را به حداقل می رسانند.

Nt (روکش نیترات)

با روکش نیترید تمامی سطح رینگ سخت می شود با این روکش مقاومت سطح در مقابل سایش افزایش می یابدو عمر رینگ نیز افزایش می یابد روکش نیترید به لحاظ ویژگیهای تولید و نشر گازهای آلاینده دوست طبیعت می باشد با استفاده از روکش نیترید در عملکردهای حساس نتایج بسیار بهتری بدست می آید میزان روغن از دست رفته از قسمتهای حساس رینگ کاهش می یابد مقاومت در مقابل شکست رینگهای چدنی را افزایش می دهد و عمر موتور نیز افزایش می یابد.

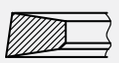
Cdc (روکش کروم الماس)

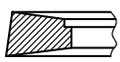
این نوع پوشش در موتورهای Euro4 و دیزلی برای رینگ بالا بکار میروند در چدن های نرم و آلیاژی و فولادهای کربنی کاربرد دارد در این پوشش ذرات الماس بجای سرامیک جایگزین شده اند و بهمین دلیل مقاومت سایشی و اصطکاکی بالاتری دارند.

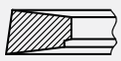
Dlc (روکش کربن با پوشش الماس) (روکش کربن با پوشش الماس)

در سایه این پوشش میزان سایش کم شده و مقاومت در مقابل ساییدگی کاهش می یابد. DLC دارای خواص پوششی دوستدار طبیعت می باشد دارای پیوندهای شیمیایی مستحکمی می باشد و تحت تنشهای مکانیکی نمی شکند. دارای ساختار کریستالی نمی باشد و بدون شکل می باشد. بدلیل ساختار ماده تشکیل دهنده خود دارای استحکام بالایی می باشد در مقایسه با سایر پوشش ها دارای مقاوت بیشتری بوده و استحکام سایشی بالاتری دارد.

مشخصات فنی


TI-IFU = رینگ گوه ای دو طرفه مخروطی با پخ سطح پایینی لبه داخلی


TK-IW = رینگ گوه ای دو طرفه مخروطی با سطح بالایی پلکانی لبه داخلی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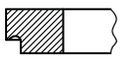
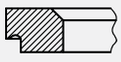
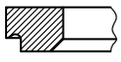
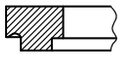
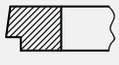

N = رینگ خاردار

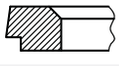

N-IF = رینگ خاردار با پخ سطح بالایی لبه داخلی

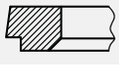

N-IFU = رینگ خاردار با پخ سطح پایینی لبه داخلی

N-IW = رینگ خاردار با سطح بالایی پلکانی لبه داخلی


N-IWU = رینگ خاردار با سطح پایینی پلکانی لبه داخلی


TN = رینگ خاردار مخروطی


TN-IF = رینگ خاردار مخروطی با پخ سطح بالایی لبه داخلی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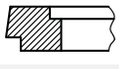
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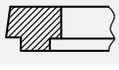
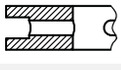
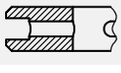
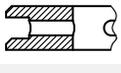
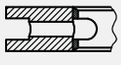
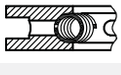

TN-IWU = رینگ خاردار مخروطی با سطح پایینی پلکانی لبه داخلی

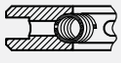

SC = رینگ شیاردار کنترل روغن

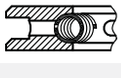

DC = رینگ کنترل روغن با لبه پخدار

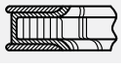

DB = رینگ کنترل روغن با دو لبه پخدار

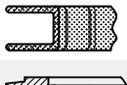

ES = رینگ شیاردار با فنر ورقه ای کنترل روغن

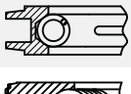

SY = رینگ شیاردار با فنر مارپیچی کنترل روغن


DY = رینگ با فنر مارپیچی و با لبه پخدار کنترل روغن


PS = رینگ با فنر مارپیچی و با لبه های پخدار کنترل روغن

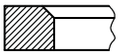

VF = رینگ کنترل روغن با ریلهای فولادی فنر بندی VF


UB = رینگ کنترل روغن با ریلهای فولادی فنر بندی U

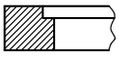

SDV = رینگ فنری مارپیچی کنترل روغن، دارای کانال فلزی به شکل V

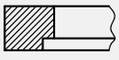
DKS = شنبر التحكم بالتزيت حافته على شكل انحراف استقامي

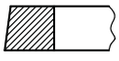
D = رینگ مستطیلی

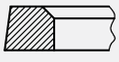

D-IF = رینگ مستطیلی با پخ سطح بالایی لبه داخلی

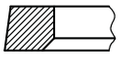
D-IFU = رینگ مستطیلی با پخ سطح پایینی لبه داخلی

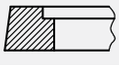

D-IW = رینگ مستطیلی با سطح بالایی پلکانی لبه داخلی

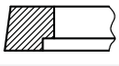

D-IWU = رینگ مستطیلی با سطح پایینی پلکانی لبه داخلی

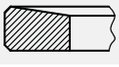

K = رینگ مخروطی

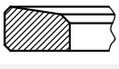

K-IF = رینگ مخروطی با پخ سطح بالایی لبه داخلی

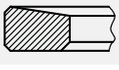

K-IFU = رینگ مخروطی با پخ سطح پایینی لبه داخلی

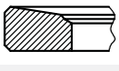

K-IW = رینگ مخروطی با سطح بالایی پلکانی لبه داخلی

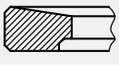

K-IWU = رینگ مخروطی با سطح پایینی پلکانی لبه داخلی

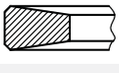

TT = رینگ گوه ای یک طرفه

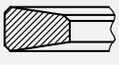

TT-IF = رینگ گوه ای یک طرفه با پخ سطح بالایی لبه داخلی

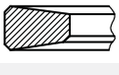

TT-IFU = رینگ گوه ای یک طرفه با پخ سطح پایینی لبه داخلی

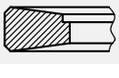

TT-IW = رینگ گوه ای یک طرفه با سطح بالایی پلکانی لبه داخلی

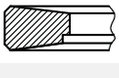

TT-IWU = رینگ گوه ای یک طرفه با سطح پایینی پلکانی لبه داخلی

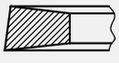

T = رینگ گوه ای دو طرفه


T-IF = رینگ گوه ای دو طرفه با پخ سطح بالایی لبه داخلی


T-IFU = رینگ گوه ای دو طرفه با پخ سطح پایینی لبه داخلی


T-IW = رینگ گوه ای دو طرفه با سطح بالایی پلکانی لبه داخلی


T-IWU = رینگ گوه ای دو طرفه با سطح پایینی پلکانی لبه داخلی


TK = رینگ گوه ای دو طرفه مخروطی

TK-IF = رینگ گوه ای دو طرفه مخروطی با پخ سطح بالایی لبه داخلی

SDR = رینگ کنترل روغن فولادی با کانال نوع V و فنرهای مارپیچی

X = ضخامت رینگ(میلی متر)

راهنمای کلی مونتاژ پیستون

۱. در داخل سیلندری که قرار است پیستون مونتاژ شود بایستی خطوط هونینگ لوزی شکل وجود داشته باشد شاید پیستون آماده شده جهت مونتاژ بر روی سیلندر استفاده شده و یا ساییده شده بکار خواهد رفت در این صورت بایستی مناسب بودن خطوط هونینگ درون سیلندر کنترل شود در صورتیکه خطوط هونینگ داخل سیلندر کاملا و یا قسمتی از بین رفته و سطح براقی بوجود آمده باشد بایستی عمل هونینگ جهت ایجاد این خطوط انجام گیرد.

۲.تمامی پیستونها به نحوی تولید می شوند که وقتی در داخل یک سیلندر، که بصورت صحیح عمل هونینگ بر روی آن اعمال گردیده ،مونتاژ شوند فاصله صحیح بین پیستون و سیلندر جهت عملکرد درست آنها را فراهم می کند بایستی قطر داخلی سیلندر اندازه گیری شود و با مشخصات نوشته شده رو ی قوطی مقایسه شود تا در صورت نیاز ماشین کاری مورد نیاز بر روی سیلندر بمنظور تنظیم قطر داخلی آن صورت گیرد در صورتیکه نیاز به ماشینکاری سیلندر کارکرده وجود داشته باشد بایستی در محدوده تلرانس ۰/۰۰۰ ۰/۰۲۵ ماشینکاری گردند.

۳. زمانی که پیستون جهت مونتاژ آماده شد بایستی گژن پین به شکلی که به پیستون و گژن پین آسیب نیاید از پیستون جدا شود گژن پین هر پیستون متناسب با اندازهای آن پیستون انتخاب و نصب شده است و نباید بشکل تصادفی گژن پینی روی پیستون نصب کرد.

۴ موقع نصب رینگ بر روی پیستون بایستی از ابزار مناسب نصب رینگ استفاده کرد تا به پیستون و رینگ آسیب وارد نشود . موقع نصب پیستون داخل سیلندر بایستی از رینگ جمع کن و یا محفظه مخروطی مونتاژ استفاده کرد. بعد از اینکه رینگها بروش صحیح فشرده شدند پیستون بایستی با نیروی دست و به آرامی داخل سیلندر قرار گیرد و نباید نیروی بیش از اندازه وارد کرد و یا ضربه زد.

۵. قبل از نصب پیستون داخل سیلندر بایستی پیستون بدقت تمیز شود بخصوص محل سوراخ گژن پین تمیز شده و روغن کاری شود بدین منظور برای اینکه در ابتدای شروع کار پیستون و سیلندر تا شروع روغن کاری آسیب نبینند موقع مونتاژ بایستی پیستون و سیلندر روغن کاری شوند.

۶. در صورتیکه در قسمت سر پیستون علامت جهت مونتاژ وجود داشته باشد با یستی موقع نصب این علامت در نظر گرفته شود و بر اساس آن مونتاژ صورت گیرد.

۷. برای آسیب ندیدن پیستون،گژن پین و رینگ بایستی حداکثر دقت عمل را بکار برد

۸. پیستون ها با در نظر گرفتن قواعد و استانداردهای کلی جهت عملکرد صحیح با سایر قطعات موتور تولید می شوند بدین دلیل بعدا نبایستی تغییری در آنها ایجاد شود.

۹. گژن پین و گیره نگهدارنده آن را فقط یکبار می توان استفاده کرد و قابل استفاده مجدد نمی باشند و بایستی تعویض شوند.

۱۰.موقع مونتاژ بایستی عمود بودن شاتون پیستون جهت پیشگیری از مشکلات جدی بایستی صورت گیرد. عمود بودن شاتون پیستون قبل از مونتاژ بایستی با تجهیزات مناسب بررسی گردد.

قتّ: در حین مونتاژ باید به دستورالعملهای فوق دقت شود. تولید کننده مسئولیت هرگونه مشکلات ناشی از مونتاژ نادرست را بر عهده نمی گیرد.

۸ برچسب زنی و شماره گذاری پیستون

۱ لوگوی شرکت (نشان تجاری)

۲ استاندارد/ فوق اندازه استاندارد

۳ قطر اسمی پیستون

۴ شماره سیلندر قابل مونتاژ با آن

۵ فضای بین پیستون و سیلندر (میلی متر)

۶ نشانگر جهت مونتاژ میزان خروج از مرکز سوراخ گژن پین، عبارتهایی مانند " front " و "Abluft" میتواند برای نشان دادن جهت بکار رود علامت"Volant " نیز جهت نصب بدون نقص پیستون بر روی موتور بکار می رود.

۷ کد قابلیت ردیابی

۸ میزان ارتفاع کم شده ازارتفاع تراکم استاندارد (برحسب میلی متر)

۹ شماره مرجع پیستون

مثال

رینگ پیستون استاندارد = 000
ارتفاع تراکم به اندازه 0.20 میلی متر کوتاهتر از استاندارد = 001
ارتفاع تراکم به اندازه 0.40 میلی متر کوتاهتر از استاندارد = 002
ارتفاع تراکم به اندازه 0.60 میلی متر کوتاهتر از استاندارد = 003
رینگ پیستون به میزان 0.50 میلیمتر بزرگتر از استاندارد = 050

شماره مرجع پیستون ← **11-01513-000**

کد فنی جدید	کد فنی قدیمی
11-01513-000	1513 000

۱۰ شماره مرجع رینگ + پیستون

مثال

رینگ + پیستون / استاندارد = 000
به میزان 0,50+ میلیمتر بزرگتر از استاندارد = 050 رینگ + پیستون /

شماره مرجع رینگ + پیستون ← **31-03513-000**

کد فنی جدید	کد فنی قدیمی
31-03513-000	3513 000
38-03513-000	3513 000-08
39-03513-000	3513 000-09

مختلف پوششهای تفاوت و رینگ نوع ← **38-** **39-**

١١ توضيحات شماره مرجع بوش سيلندر

مثال

بوش سيلندر / استاندارد = 000
به ميزان 0,50+ ميليمتر بزرگتر از استاندارد = 050
بوش سيلندر /

51-05513-000

شماره مرجع بوش سيلندر

كد فنى جديد	كد فنى قديمى
51-05513-000	5513 000

١٢ توضيحات كد مرجع كيتها و ستها

رقم الكيت بيستون + بنز + شنبر + قميص

رينگ / كيت =000
كيت\استاندارد از خارج اندازه = 0.50
رينگ / به ميزان 0.50

71-07513-000

ارقام التعرف لاطقم الكيتات

71-8
71-9

شكل الشنبر ونوعية الطلاء المختلفة

كد فنى جديد	كد فنى قديمى
71-07513-000	7513 000
71-87513-000	7513 000-08
71-97513-000	7513 000-09

١٣ شماره مرجع رينگ

رينگ / استاندارد =000
ميليمتر بزرگتر از استاندارد = 0.50
رينگ / به ميزان 0.50

91-09513-000

شماره مرجع رينگ

98-
99-

شكل الشنبر ونوعية الطلاء المختلفة

كد فنى جديد	كد فنى قديمى
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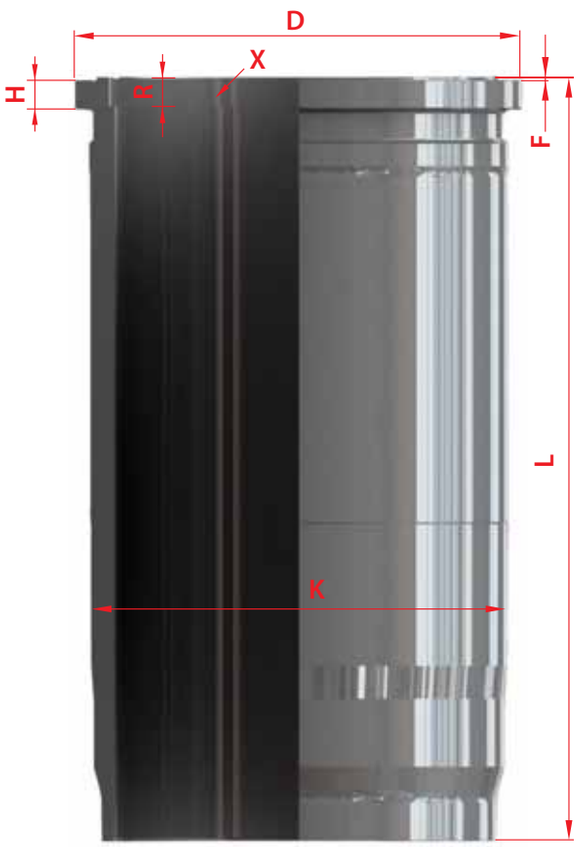
98-09513-000	9513 000-08
99-09513-000	9513 000-09

١٤ شماره فنى اورينگ

55-50701-000

شماره فنى اورينگ

توضیحات فنی بوش سیلندر



K = قطر خارجی
L = طول کل
H = طول فلانج
F =ضخامت واشر سر سیلندر
D = قطر !فلانج
X = ارتفاع رینگ احتراق
R = ارتفاع منطقه احتراق

تعریف بوش سیلندر بر اساس TSE482:

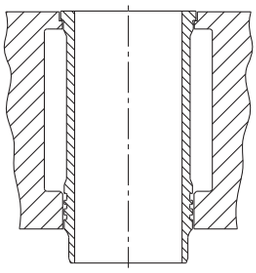
در موتورهای احتراق داخلی قطعه از چدن ریخته شده می باشد که داخل بلوک سیلندر قرار می گیرد و محفظه حرکت پیستون و محل انجام احتراق می باشد.بوش سیلندر موتورها شامل دو گروه می شوند.
بوش سیلندر های تر:
بوش هایی هستند که داخل بلوک سیلندر از اطراف بوسیله آب خنکاری می شوند.
شامل سه گروه اصلی می شوند:

الف دارای کانال و فلانج:

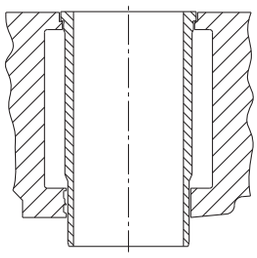
دراین نوع، بوش سیلندر از بالا از طریق فلانج بر روی بلوک سیلندر قرار می گیرد و از پایین برای جلوگیری از نشت آب خنک کاری به داخل بوش سیلندر کانالهایی جهت قرار گرفتن اورینگ جود دارد. (شکل ۱)

ب بدون کانال فلانج دار
در این نوع ، بوش سیلندر از بالا از طریق فلانج خود بر روی بلوک سیلندر قرار می گیرد و در قسمت پایین این نوع بوش سیلندر کانال اورینگ وجود ندارد. کانالهای عایقبندی اورینگ در این نوع موتورها بر روی سیلندر قرار دارد.(شکل ۲)

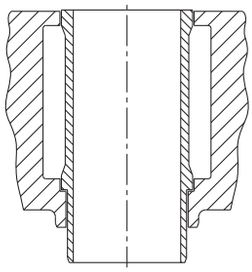
ج دارای دو فلانج
در این نوع، بوش سیلندر از بالا و پایین دارای فلانج و کانال جهت قرار گرفتن بوش می باشد. (شکل ۳)



شکل ۱

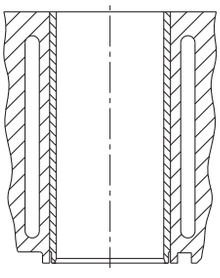


شکل ۲

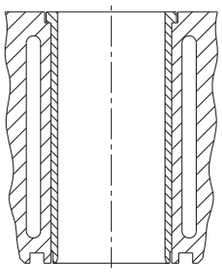


شکل ۳

بوش سیلندر خشک
بوش سیلندرهایی که وقتی داخل بلوک سیلندر قرار می گیرند به طور
مستقیم با آب خنک کاری در تماس نمی باشند
دارای دو نوع اصلی می باشند
الف فلانج دار (شکل۴)
ب بدون فلانج (شکل ۵)



شکل۴



شکل ۵

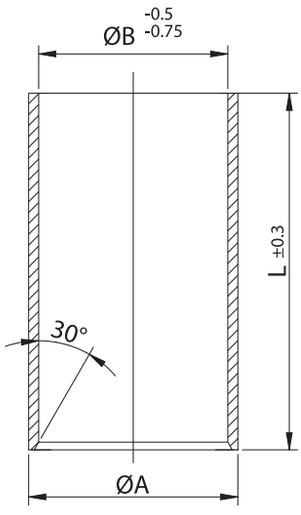
مواردی که بایستی در مونتاژ بوش سیلندرها رعایت شود

دستورالعمل مونتاژ بوش سیلندرهای خشک:
سیلندرهای خشک بصورت فلانج دار و بدون فلانج تولید می شوند.(شکل۶) در شرایط کارکرد نامناسب در موتورهایی که پیستون داخل بوش سیلندر بدون فلانج نصب می شود لغزشهایی در راستای محور مشاهده می شود که چنین مشکلی در بوش سیلندرهای فلانج دار بوجود نمی آید که این از مزایای فلانج می باشد

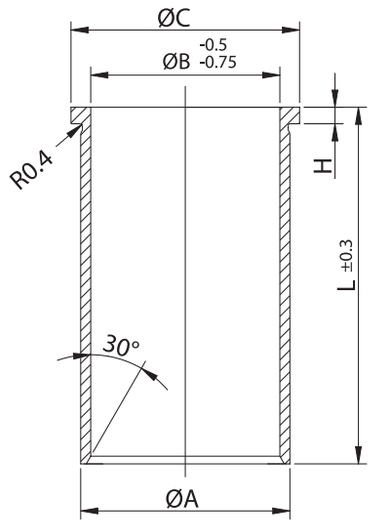
قبل از پرس شدن بوش سیلندر داخل سیلندر بایستی به اندازه های قطر بوش سیلندرها که در لیست نشان داده شده در پایین آمده است(آ) ، دقت شود و بر اساس قطر اسمی داده شده،در داخل سیلندر سنگ کاری یا ماشینکاری حساس و هونینگ صورت گیرد
بایستی به تلرانس های ذکر شده در پایین دقت شود. (شکل 7) در غیر اینصورت اگر میزان پیش تنیدگی خیلی کم باشد انتقال گرما بشکل صحیحی صورت نخواهد گرفت و اگر میزان پیش تنیدگی خیلی بالا باشد در بوش سیلندرهایی که دارای جداره خیلی نازک می باشند باعث بوجود آوردن عدم تناسب با سیلندر و بوجود آمدن مشکلات در عملکرد می شود در سیلندرهای خشکی که قطر خارجی آنها به اندازه مقدار نهایی آن ماشینکاری شده اند قطر داخلی آنها به ۰/۵ تا ۰/۷۵ میلیمتر کوچکتر از انداز نهایی ماشینکاری می شود

موقع مونتاژپرسی بوش سیلندر در داخل سیلندر، بمنظور آسیب ندیدن فلانج بوش ،بایستی قطر محل قرار گرفتن فلانج در سیلندر کمی بزرگتر از قطر خارجی فلانج (C) باشد

در بوش سیلندرهای خشک فلانج دار سطح پایین فلانج بایستی به طور صحیح در محل خود در سیلندر قرار بگیرد.



شکل ۶



شکل ۷

همانطور که می دانیم فلانج در قسمت پایین دارای رادیوسی به قطر ۰/۴ می باشد که برای جلوگیری از نشستن این انحنا بر روی سیلندر، در محل تماس فلانج و سیلندر ، درگوشه محل تماس بر روی سیلندر پخی به اندازه ۱ میلیمتر داده می شود.در غیر اینصورت شکستن فلانج بوش سیلندر اجتناب ناپذیر است.

قبل از مونتاژ بوش سیلندر جدید بایستی بلوک سیلندر به دقت تمیز شده و اندازه های آن کنترل شود.در صورت مخروطی یا بیضوی شدن بلوک این مقدار نباید از ۰ ۲ ۵ / ۰ تجاوز کند. بعد از مرحله هونینگ

بایستی به یک سطح براق دست یافت و بسته به نوع موتور بایستی میزان صافی سطح کنترل شود سطح های بسیار صاف و براق باعث عدم روغنکاری مناسب شده و بایستی اجتناب گردند

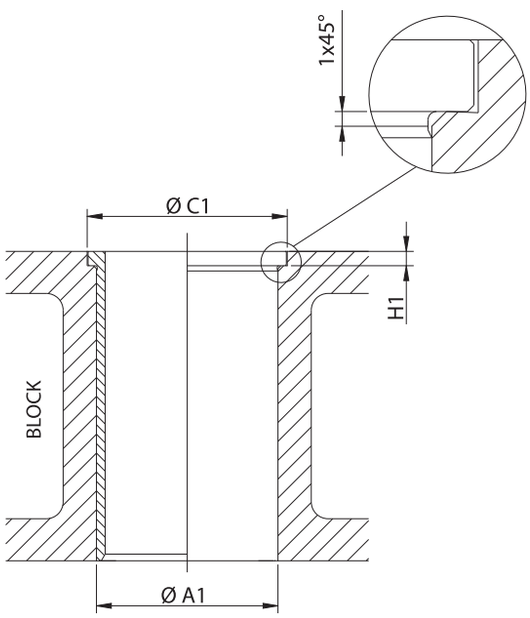
برای پرس بوش سیلندرهای خشک فشاری به اندازه ۰۰۰ ۵ ۰۰۰ ۳ کیلوگرم کافی است در طی مراحل مونتاژ اگر ماده ای که برای روغن کاری بکار می رود غلیظ باشد در اثر گرما این ماده دچار فرآیند ککسازی شده و در انتقال گرما دچار مشکل می شود.
بعد از مونتاژ از طریق پرس، سنگ زنی سطحی از بلوک سیلندر که بوش سر سیلندر قرار خواهد گرفت بایستی بوسیله سنگ زن سطح صورت گیرد.

در صورتیکه سطحی از بلوک سیلندر که بوش سر سیلندر آنجا قرار میگیرد نیاز به ماشینکاری داشته باشد متناسب با آن بایستی محلی که فلانج بوش سیلندر در آن قرارمی گیرد به عمق بیشتری ماشینکاری شود علاوه بر اینها بوش سیلندرهایی که قطر داخلی آنها به اندازه نهایی ماشینکاری شده و قطر داخلی نیز به شکل کاملا حساسی تراشکاری شده نیز موجود می باشد.

در این نوع بوش سیلندرها ضخامت بسیار کمی جهت عمل هونینگ در نظر گرفته شده که بعد از مونتاژ پرسی در داخل سیلندر عمل هونینگ بر روی آنها انجام می گیرد میزان تلرانس قطر داخلی سیلندر ازاندازه اسمی آن بین ۰ و ۰۱۵ ۰میلی متراست میزان تلرانس قطر بیرونی بوش سیلندراز اندازه اسمی بین ۰۱۲/ ۰ + و ۰۲۴ ۰ میلی متر می باشد.

	گروه بندی قطر خارجی بوش سیلندر		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	قطر سوراخهای بلوک سیلندر (میلیمتر)		
	50 - 80	80 - 120	120 - 180
Q_1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25



شکل ۹

دستورالعمل مونتاژ بوش سیلندر های تر

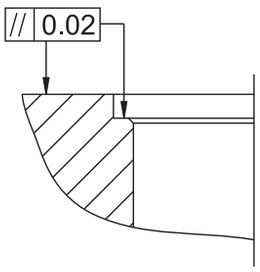
ین ماک برای بدست آوردن مقاومت لازم در مقابل ساییدگی وتغییر شکل از روش ریخته گری گریز از مرکز برای تولید بوش سیلندر های خوداستفاده می کند. برای جلوگیری از وارد آمدن هرگونه خسارت به سطوح تماس سیلندر موقع خارج کردن بوش سیلندر قدیمی بایستی بسیار دقت شود.

در بلوک سیلندر محل های تماس بایستی بدقت از بقایای گل،زنگ و سایر آلودگیها تمییز شود.بهنگام تمییزکاری هرگونه وسیله مانند سمباده یا چکش که موجب ایجاد خراش می شود نبایستی استفاده شود.بهترین وسیله برای اینکار فرچه با سیمهای فولادی است.در صورتیکه بوش سیلندر در نتیجه زنگ زدگی و رسوب به بلوک محکم چسبیده باشدبا گذاشتن تخته پارچه روی آن و وارد کردن ضربات با استفاده از چکش آنرا جدا میکنیم. اگر با این وجود جدا نشد بایستی از پرس هیدرولیکی استفاده نمود. بهنگام تمیزکاری بایستی نهایت دقت صورت گیرد تا از آسیب دیدن سطوح تماس جلوگیری شود.

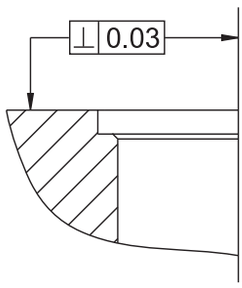
سطح پایینی فلانج بوش سیلندر بایستی کاملا موازی با سطح بلوک باشد. همانطور که در (شکل ۱۰) نشان داده شده است از لحاظ صافی و مسطح بودن نباید تفاوتی داشته باشند.از طرفی بایستی عمود بودن محور سیلندر بر سطحی از سیلندر که بوش سر سیلندر قرار می گیرد نیز کنترل شود. (شکل ۱۱) نکته ای که همواره باید به آن دقت شود این است که سطوح تماسی در سیلندر نباید با له کردن تخریب شوند. شکل۱۲)

برای جلوگیری از برخورد رادیوس موجود در قسمت پایین فلانج بوش سیلندر(د) با سیلندردر نقطه (آ) در محل تغییر زاویه سیلندر پخی به اندازه ۰/ ۱ـ ۵/ ۰میلی متر به شعاع ۴۵ درجه داده می شود.

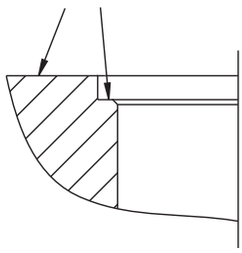
برای جلوگیری از احتمال شکست بایستی نیروی آببندی و نیروی عکس العمل بصورت نزولی مقابل یکدیگر باشند.



شکل ۱۰

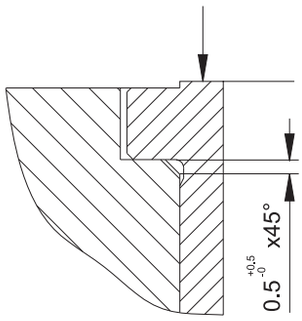


شکل ۱۱

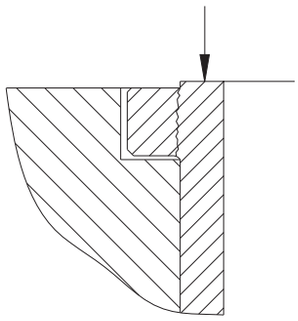


شکل ۱۲

قطر سوراخ واشرسرسیلندر (ب) با قطر خارجی بوش سیلندر (ج) باید یکسان باشد به منظور حصول اطمینان از آب بندی کامل محفظه ی احتراق استفاده از واشرهایی با قالب فلزی الزامی می باشد.



شکل ۱۴



شکل ۱۵

بزرگ یا کوچک بودن سیلندر یا بوش را بتوانیم بسنجیم برای اینکه از مناسب بودن اندازه بوش برای سیلندر مورد نظر مطمئن شویم و قبل از مونتاژ بوش داخل سیلندر آن را بصورت دستی و بدون اورینگ داخل بلوک سیلندر قرار میدهیم .

بخصوص برای بررسی قرار گرفتن صحیح فلانج بوش سیلندر در جایگاه خود در بلوک سیلندر،قبل از مونتاژ بوش سیلندر را به حالت معکوس در آورده و در محل قرار گرفتن فلانج در سیلندر قرار می گیرد. همانطور که می دانیم فلانج در قسمتی از موتور که عمل خنک کاری در آن صورت نمی گیرد قرار دارد.در اینجا فضایی به اندازه ۰/۳ ۰/۵ میلی مترمورد نظر می باشد.

آنچه که در این راهنمای مونتاژ در هر فرصت بر روی آن تاکید می شود این است که عمل خارج کردن و جایگذاری بوش سیلندر باسیتی بطور صحیح انجام شود یعنی در هنگام مونتاژاستفاده از وسایلی مانند چکش و سایر ابزارالات سنگین که باعث بوجود آمدن اشتباهات جبران ناپذیری می شود مجاز نمی باشد.

رینگهای لاستیکی که در حین مونتاژ بکار می روند بایستی دارای کیفیت خوب بوده ودر مقابل ورم کردن،استهلاک ،گرما و روغن مقاوم باشند در غیر اینصورت موجب نفوذ آب به داخل کارتر شده وباعث گیر کردن بوش سیلندر و تغییر ابعاد می شود هر بار به رینگهای لاستیکی صابون روغنکاری مالیده شده و در کانالهایشان قرار می گیرند.

رینگهای لاستیکی فقط از برندهای با کیفیت که سازندگان موتور استفاده می کنند بایستی مورد استفاده قرار گیرد علت این ترجیح نیز الزامی بودن مقاومت رینگهای لاستیکی در مقابل تورم،استهلاک،روغن و گرما می باشد.

گیر کردن و ساییدگی پیستون در داخل بوش سیلندر از نتایج استفاده از رینگ لاستیکی نامناسب می باشد کانالهای رینگهای لاستیکی نباید کنده شود.

جدا شدن بوش که در نتیجه موجب گیرپاژ پیستون می شود به دلیل بدلیل استفاده از اورینگ نامناسب می باشد کانالهای محل قرار گیری اورینگها نبایستی کنده شود

بعد از اینکه بوش سیلندرها در جای خود قرار گرفتند بلوک سیلندر بایستی با آب پر شده و وضعیت نفوذ آب حتما بایستی بررسی شود.

جزئیات برچسب زنی بوش سیلندر

اورینگ

EPDM لاستیکی	EPDM
لاستیک NBR	NBR
وایتون	FPM / VI
مسی	Cu
لاستیک تومباک	T
فولادی	ST
سیلیکونی	SC / MVQ
فلز نرم	Shim / SM

93,000 (1)		(3)	(4)	(5)	(6)	(7)
4JB1 (2)		D 00 2005 >	00 2005	4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) (9) CH 51,850 VD1 0,550 (10) (11) B- 19,500 BØ 43,900 (12) (13) TL 91,850	AP YS HA CP (14)	91-09389-000 1 2,000 P 2 2,000 P 3 4,000 CrP (16)	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)		Ø 93,000 (18)	31-04385-000 (19)
(15) 31,00x76,00		99-09389-000 1 2,000 FeP 2 2,000 FeP 3 4,000 TeF (16)				39-04385-000
Isuzu ve Opel ile Ortak Motor (27)						
K=95,00 (22) (24) L=181,00 H=0,90 (25) (23) D=101,00	DF-CR-ST (26)				51-35721-000 (20)	71-08385-000 71-98385-000 (21)
K=120,00 (22) (24) L=229,00 H+F=9,00+1,10 (25) (23) D=128,50	WF (26)		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00 (28)		51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

۱ - قطر پیستون
۲ - کد موتور
۳ - اطلاعات سوخت
۴ - سالهای مدل
۵ - تعداد سیلندر
۶ - حجم سیلندر
۷ - قدرت موتور
۸ - کد پیستون
۹ - استرک(زمانه) :CH
۱۰- عمق سوپاپ VD1/VD2:
۱۱- B- احتراق محفظه عمق
B+ تاج انحنای
۱۲- قطرمحفظه: Bø
۱۳- طول کلی : TL
۱۴- ویژگی های پیستون
DAP: پیستون با دو آلفین
AP: پیستون آلفین دار
YS: پیستون دارای کانال خنک کننده روغن
CP: پیستون دارای ورق فولادی
HA: روکش هارد آنودایز
PDB: سوراخ پین بوشدار

۱۵- قطر پین طول ویژگیها
۱۶- ویژگی های رینگ
۱۷- برآمدگی سر پیستون
۱۸- قطر سیلندر
۱۹- کد رینگ+ پیستون
۲۰- کد بوش سیلندر
۲۱- کد کیت
۲۲- قطربیرونی سیلندر
۲۳- قطر فلنج بوش سیلندر
۲۴- طول کلی بوش سیلندر
۲۵- ضخامت فلانج
۲۶- مشخصات بوش
WS بطانة الرطب الانتهاء من شبه
WF بطانة الرطب الانتهاء الكامل
DS بطانة جافة الانتهاء من شبه
DF بطانة جافة النهاية الكامل
AF تبريد الهواء النهاية الكامل
PH فوسفات
CR كروم
HR تصلب
NT النتريت
HT المعالجة الحرارية
STEEL فولاذ
۲۷- المحرك المشترك
۲۸- کد اورینگ

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6 BD 1
GRADE: 3A

YENMAK®

PİEZAS DE MOTOR

Yenmak, fue creada en 1965 por la familia Kahvecioglu en la ciudad de Konya, en un taller pequeño. Con los años YENMAK que siempre se ha ido avanzando y renovándose, se convirtió en uno de los grandes proveedores de piezas de motor dentro y fuera de país.

Hoy en día Yenmak produce KIT, PISTÓN, PASADOR DE PISTÓN, SEGMENTO y CAMISA DE MOTOR SILINDRO; y exporta a más de 80 paises en 5 continentes las piezas como JUNTA, VALVULA y BANCADA DE MOTOR.

A nuestros valiosos clientes y nuestros socios a largo plazo, aseguramos de dar la mejor calidad y precio razonable, así como las ventas y servicios de post-venta de una sola fuente. En un solo paquete, nos aseguramos de suministrar todas las piezas del motor. Proveemos las todas las piezas de motor que se encuentran en nuestro portafolio de productos, de única fuente, dentro de un paquete. Además de esto, YENMAK que considera el factor humano como lo más importante, da mucha importancia y valor a las relaciones que establece con los clientes.

YENMAK cuenta con certificados como INMETRO, ISO 9001, ISO / TS 16949, IATF 16943, TS EN ISO 14001.
Hoy en día, la empresa se encuentra en 1., 2. y 3. organizado zona industrial de Konya, con 2 fabricas, 1 Sede & Edificio de Logísticas, en total una área de 50.000 metros cuadrados.

Las actividades de venta y marketing se realiza en la oficina de exportación que se encuentra en Estambul.

Sede & Logística

Fabrica de Pistona & Pasador

Fabrica de Camisa de Motor

PİEZAS DE MOTOR

Desde el año 2003 los productos de Yenmak se toman lugar en el mercado envesado el formato que se puede ver aquí abajo.

La información sobre detalles de envesado se puede ver aquí abajo:

Gracias a cubertura especial será usted la primera persona en tocar el producto.

Número de Trazabilidad

Para asegurar la seguridad del producto sobre el envase se encuentra integrado un holograma 3D de seguridad.

Una etiqueta que se encuentra bajo envase para proporcionar seguridad al producto.

BUREAU VERITAS
Certification

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12 SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 9001:2008

Belgelendirme Kapsamı

İÇTEN YANMALI MOTORLAR İÇİN ALÜMİNYUM KOKİL DÖKÜM PİSTON VE PİSTON PİMİ ÜRETİMİ

İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

TÜRKAK

SEÇKİN DEMİRALP
Belgelendirme Müdürü

Sayfa 1/1

BUREAU VERITAS Certification

Certificate of Approval

Awarded to

YENMAK PİSTON SEGMAN SAN. VE TİC. A.Ş.

KIRIM CD. SARIÇİÇEK SK. NO:12 SELÇUKLU KONYA
42000 - Konya - Turkey

Bureau Veritas Certification certifi that the Quality Management System of the above organization has been audited and found to be in accordance with the requirements of

ISO/TS 16949:2009

and the applicable customer specific requirements

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12
SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme Holding SAS – İngiltere Şubesi yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 14001:2004

Belgelendirme Kapsamı

ÇTEN YANMALI MOTORLAR İÇİN PİSTON VE PİSTON PİMİ ÜRETİMİ

Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

UKAS

SEÇKİN DEMİRALP
BVCH SAS İngiltere Şubesi
adına imzalayan

Sayfa 1/1

BUREAU VERITAS Certification

YENMAK MOTOR GÖMLEK SANAYİ VE TİCARET A.Ş.

1.ORGANİZE SANAYİ BÖLGESİ HOROZLUHAN MAH. ATABEY SOK. NO: 8 SELÇUKLU, KONYA, TURKEY

Bureau Veritas Certification Holding SAS - UK Branch certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standard

ISO 9001:2015

Scope of certification

MANUFACTURING OF CASTING AND MACHINING CYLINDER LINERS AND CASTING RING CARRIERS

Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

UKAS

İBRAHİM TAŞKY
Signed on behalf of
BVCH SAS UK Branch

ISO 14001
ISO / TS 16949
BUREAU VERITAS
Certification

TSE

BUREAU VERITAS
Certification

Certificate of Approval

Awarded to

YENMAK MOTOR GÖMLEK VE TİC. A.Ş.

1. ORGANİZE SANAYİ BÖLGESİ, HOROZLUHAN
MAHALLESİ, ATABEY SOKAK No:8, SELÇUKLU
42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
Casing and machining cylinder liners and casting ring carriers

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

PISTONES DE ACERO DE DOS PIEZAS

Pistón de acero de dos piezas, se conforma de una cabecera de acero da pistón y un eje de aluminio de pistón los dos juntados uno a otro con movilidad. Por los valores altos de resistencia y valores bajos de corrosión, estos pistones se pueden funcionar especialmente en los motores diésel de funcionamiento duro en limites bajos de emisión y gases de escape.

Pistones de Acero de Dos Piezas

• En motores de generación nueva que cuentan con ratio alto de comprimir y modernas cámaras de combustión.

• En los motores diésel de funcionamiento duro.

• En los motores que funcionan con sistemas de multi-combustible.

Ventajas de Pistones de Acero de Dos Piezas

• Pistones de acero de dos piezas comparando con los pistones de aluminio; área de contacto con la camisa de cilindro es menos así que hace que sean menos los perdidos que se causan por rozamiento,.

• Pistones de acero de dos piezas comparando con los pistones de aluminio; gracias a la resistencia que muestra contra los cargos termales, disminuye el riesgo de deformación de la camisa, puede funcionar en menos espacio de cilindro, aumenta la característica de impermeabilidad de los segmentos.

• Un pistón normal de aluminio muestra resistencia hasta 100 bares pero un pistón de acero de mismo tamaño puede ser hasta 250 bares.

• Proporciona mas alto ratio de comprimir y menos %2-5 emisión de CO_2 . Disminuye problemas de contacto causados por material alfin (Ni-resist) que se utilizan en pistones de aluminio para motores diésel.

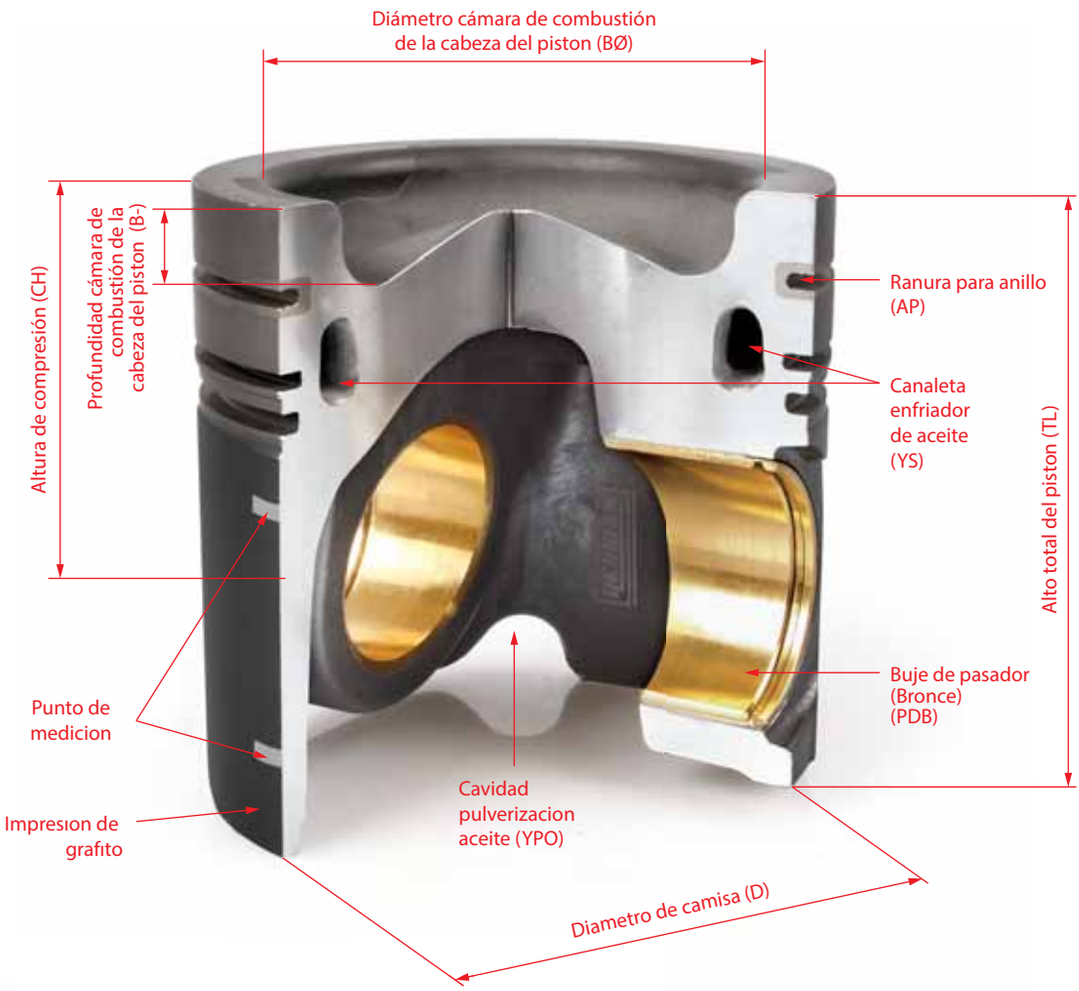
• En pistones con cadenas de enfriamiento, hace que cadena de enfriamiento sea más cerca al pistón, y eso proporciona un enfriamiento efectivo.

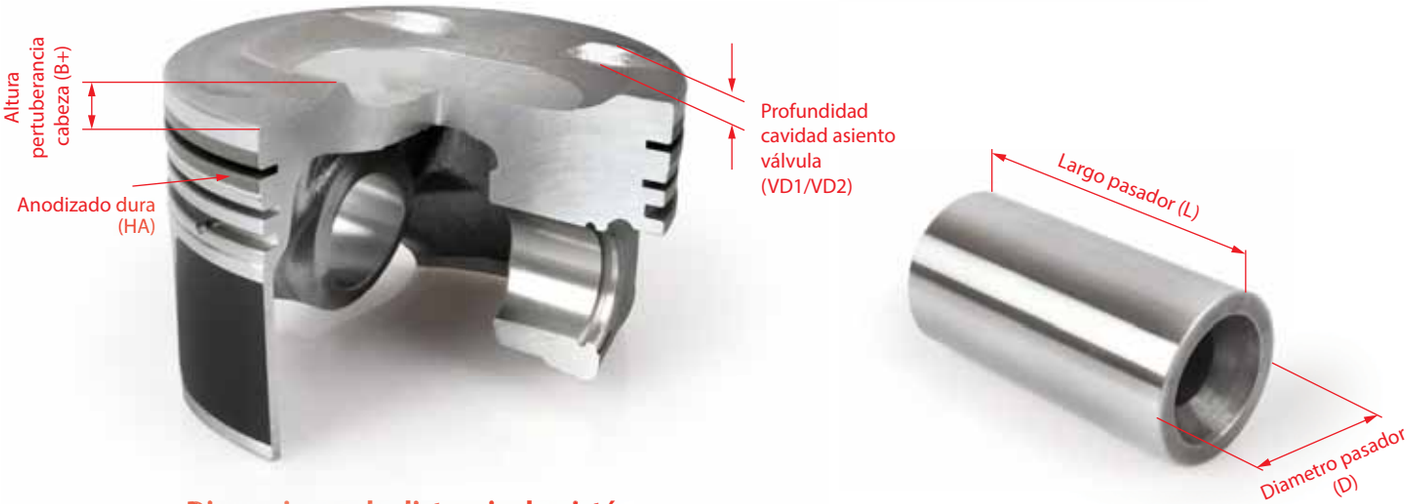
• Pistones de acero de dos piezas comparando con los pistones de aluminio proporcionan menos deformación de la cámara de combustión.

• Pistones de acero de dos piezas disminuyen los gastos de rectificación del motor gracias a los efectos positivos que alargan la duración de uso de motor.

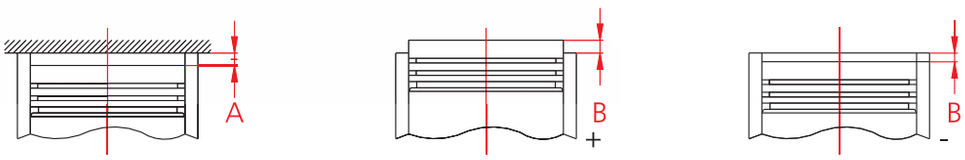
• Cuando hay problemas en la sobrealimentación y sistemas de inyección de combustible, causa a la fusión o perforación del pistón. En los dos-partes (articulado) pistones de acero, este tipo de problemas no se producen.

DESCRIPCIONES TECNICAS





Dimensiones de distancia de pistón



A = Dimensión hasta cabecera de cilindro

C = Dimensión de cabecera de pistón desde el superficie de bloqueo

INSTRUCCIONES DE MONTAJE DE LOS SEGMENTOS DE PISTON DE YENMAK

Si se desea poner en pistones ya usados, es necesario limpiar los agujeros de aceite y los residuos de carbón en canales de alojamiento de segmento. Es necesario limpiar todos los residuos de carbón excepto capas de carbón que se encuentran en las cúpulas de pistón. Hay que prestar atención en la limpieza de canales de pistón. Hay que prestar atención para que no se realicen rayas cuando se limpian las curvas de margenes donde se juntan superficies laterales y superficies de base. Sino estas rayos pueden causar quiebras en futuro. No es necesario procesar los pistones, porque kit de segmento de Yenmak son diseñados para sentar de de modo que convengan con los pistones originales. Los valores limites de gasto de cilindro que pueden utilizar los segmentos de pistones de Yenmak son:

En motores de bencina, en diámetro como máximo 0, 1 mm

En motores de diésel, en diametro como maximo 0, 15 mm

Si en los pistones utilizados existe un desgaste dentro de valores espacio mencionados arriba, se debe cambiar los pistones que tienen mucha deformación en canales de segmento. Porque pistones que tiene sus canales desgastados como forma y paralelismo, los valores de ajuste de espacio son incorrectos y los segmentos no funcionan correctamente en estos tipos de pistones y causan desperdicio de aceite y soplo.

Torcer los segmentos hacia abajo o arriba, causa la deformación en el funcionamiento de superficie de segmento y desgaste de material de cobertura. Estos desgastes invisibles causan problemas en las condiciones de funcionamiento de motor.

Abre los segmentos (con la ayuda de pinzas) y coloque los segmentos en los alojamientos que se encuentran en pistón. Después apriete los segmentos utilizando clips de aprieta o un manguito cónico de montaje y empujando o si es necesario golpeando suavemente con un martillo coloquelos dentro de cilindro. Mientras este proceso, para prevenir que los segmentos finos salgan fuera de clips y se dañen, sostenga los clips sobre superficie de bloqueo. No se pueden utilizar segmentos cubiertos de cromo con motores con camisa cuyos dentro está cubierto de cromo.

Los segmentos marcados como YEN y TOP se deben colocar en los alojamientos de modo que los lados marcados sean hacia la cámara de combustión. Los segmentos que no tienen ningún marca encima, se pueden colocar hacia cualquier lado.

PROCESOS DE REVESTIMIENTO DE SEGEMENTO y PROCESOS DE SUPERFICIE

Cr = Revestimiento de Cromo
Mo = Revestimiento Molibdeno
P = Revestimiento de Fosfato
Fe = Revestimiento de Colcótar
Cu = Revestimiento de Cobre
Nt = Revestimiento de Nitrito
Sn = Revestimiento de Bidón
Ck = Revestimiento de Cromo
Pvd = Acumulación de Vapor Físico
Cdc = Revestimiento de Diamente Cromo
Dlc = Revestimiento de Carbono con
Tef = Revestimiento teflon

PROCESOS DE REVESTIMIENTO DE SEGEMENTO y PROCESOS DE SUPERFICIE

Ck (Revestimiento de Cromo-Cerámica)

Revestimiento de Cromo-Cerámica (CK), es un tipo de revestimiento compuesto, con estructura de red que se forman los elementos de oxido como cromo y aluminio. Estos revestimientos generalmente se utilizan para procesos de revestimiento de segmentos de primero alojamiento de los pistones de vehículos con motor diésel. Revestimiento CK lleva rendimiento alto y calidad alta gracias a la diferencia de electro plastia.

Diferencias entre Revestimiento de Ck y revestimiento de cromo duro

- Más resistencia contra desgaste

- Más alto punto de fusión

- Más alto dureza y concentración de fractura

Por estos ventajas los revestimientos de CK, proporcionan más largo vida de uso de motor y producción gases de escape de emisión baja.

Pvd (Acumulación de Vapor Físico)

Se denomina método de PVD, método que se forma por la acumulación en superficie del segmento de los duros revestimientos que se separan re-activamente de fase de vapor. Con este método se realiza evaporación y ionización de metal por arco eléctrico o bombardeo de iones

İones de metal puros y regulados se hace avanzar hacia superficie de componente. Como conclusión de esto, átomos de metal se forman nitrito, carburo y oxido reaccionando con las gases reactivos. Después de reacción sobre el superficie de funcionamiento de segmento se forma un revestimiento fino. Muestra alta resistencia contra desgastes gracias a carácter cerámica dentro de revestimiento.

Mo (Revestimiento Molibdeno)

Segmento se cubre con molibdeno para prevenir desgastes. Para prevenir los rastros de quemadura superficie de funcionamiento de segmento se llena con molibdeno o también toda la superficie se puede cubrir. Proceso de revestir se puede realizar por método de propagación de las llamas o propagación por la plasma.proyección de plasma. Punto alto de fusión de molibdeno (2620 C^0), gracias a efecto de aceitar y a carácter de superficie porosa, superficie de funcionamiento de segmento de pistón es más durable. Tiene resistencia alta contra desgastes por la fricción y conductividad térmica.

Cr (Revestimiento de Cromo)

Este método de revestir con cromo duro es muy comun para mejorar la dureza de los segmentos. El objetivo de revestimiento de cromo es prolongar la vida de uso de la camisa de cilindro y segmento, disminuyendo desgastes. Disminuir desgastes en el segmento y en pared de cilindro es posible con revestir con cromo el segmento que se encuentra más arriba. Hoy en día, hay la inclinación de cubrir dos y más segmentos, no solamente el segmento que se encuentra más arriba .

Como que el revestimiento con cromo proporciona una superficie dura, es obvio que disminuye desgaste en los segmentos.

Revestimiento con cromo se aplica en dos diferentes modos:

- Duro

- Revestimiento con cromo poroso

En revestimiento con cromo superficies de segmentos, después de revestimiento se mole y toma su última forma. Por revestimiento con cromo poroso, la superficie de segmento gana una carácter que retiene aceite. Así, proporcionan menos desgaste en sus mismas y en camisas que funcionan.

Nt (Revestimiento de Nitrito)

Con este método toda la superficie del segmento se endurece. Con este revestimiento la resistencia de superficie contra las fricciones se aumenta. Así se prolonga la vida de uso del segmento. Revestimiento con nitrito por sus caracteres de producción y emisión, es favorable al medio ambiente. Se ha visto que con revestimiento nitrito, se obtiene soluciones más efectivos de funcionamiento en superficies de rendimiento. Disminuye desperdicios de aceite en puntos sensibles del segmento. Hierro fundido aumento fragilidad de los segmentos. Prolonga vida de uso de motor.

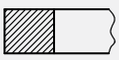
Cdc (Revestimiento de Diamente Cromo)

Este tipo de revestimiento se utiliza en segmentos más altos de motores de tipo Euro 4 y diésel. Se puede aplicar a hierros fundidos aleados y flexibles y aceros de carbón. Pieza de diamente se utiliza en lugar de pieza de cerámica. Así la resistencia contra desgastes y rendimiento contra la fricción se aumenta.

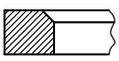
Dlc (Diamente Como Carbono) (Revestimiento de Carbono con Revestimiento de Diamente)

Gracias a esto revestimiento se disminuye la fricción y se aumenta la resistencia contra desgaste. Revestimiento de DLC tiene carácter favorable al medio ambiente. Tiene fuertes enlaces químicos y no se rompe bajo tensión mecánica. No es de estructura cristal, es sin forma. Este producto es muy fuerte por su carácter. Es más durable comparando con otros, y tiene más resistencia contra la fricción.

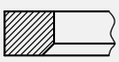
DESCRIPCIONES TECNICAS



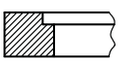
D = Segmento rectangular



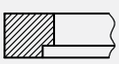
D-IF = Segmento rectangular con superficie superior de margen interior achaflanado.



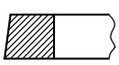
D-IFU= Segmento rectangular con superficie inferior de margen interior achaflanado.



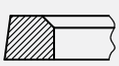
D-IW = Segmento rectangular con superficie superior de margen interior escalonado.



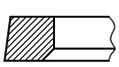
D-IWU = Segmento rectangular con superficie inferior de margen interior escalonado.



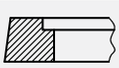
K = Segmento cónico



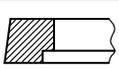
K-IF = Segmento cónico con superficie superior de margen interior achaflanado.



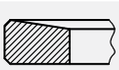
K-IFU = Segmento cónico con superficie inferior de margen interior achaflanado.



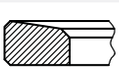
K-IW = Segmento cónico con superficie superior de margen interior escalonado.



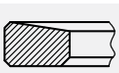
K-IWU = Segmento cónico con superficie inferior de margen interior escalonado.



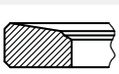
TT = Segmento trapecio de unilateral



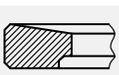
TT-IF = Segmento unilateral con superficie superior de margen interior achaflanado.



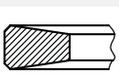
TT-IFU = Segmento unilateral con superficie inferior de margen interior achaflanado.



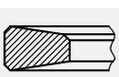
TT-IW = Segmento unilateral con superficie superior de margen interior escalonado.



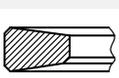
TT-IWU = Segmento unilateral con superficie inferior de margen interior escalonado.



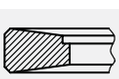
TT = Segmento trapecio bilateral



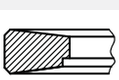
T-IF = Segmento bilateral con superficie superior de margen interior achaflanado.



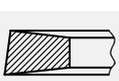
T-IFU = Segmento bilateral con superficie inferior de margen interior achaflanado.



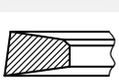
T-IW = Segmento bilateral con superficie superior de margen interior escalonado.



T-IWU = Segmento bilateral con superficie inferior de margen interior escalonado.

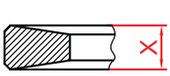


TK = Segmento cónico trapecio bilateral

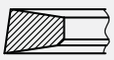


TK-IF = Segmento bilateral con superficie superior de margen interior achaflanado.

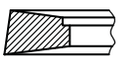
SDR = Segmento de acero con canales tipo V y con muelle helicoidal para control de aceite



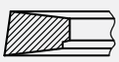
X = Espesor del segmento (mm)



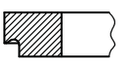
T-IFU = Segmento cónico con superficie inferior de margen interior achaflanado.



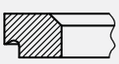
TK-IF = Segmento cónico con superficie superior de margen interior escalonado.



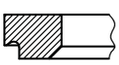
TK-IWU = Segmento cónico con superficie inferior de margen interior escalonado.



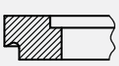
N = Segmento rascador



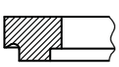
N-IF = Segmento rascador con superficie superior de margen interior achaflanado.



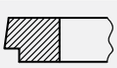
N-IFU = Segmento rascador con superficie inferior de margen interior achaflanado.



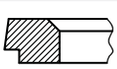
N-IW = Segmento rascador con superficie superior de margen interior escalonado.



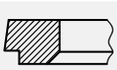
N-IWU = Segmento rascador con superficie inferior de margen interior escalonado.



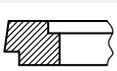
TN = Segmento rascador cónico



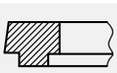
TN-IF = Segmento rascador cónico con superficie superior de margen interior achaflanado.



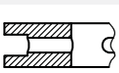
TN-IFU = Segmento rascador cónico con superficie inferior de margen interior achaflanado.



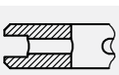
TN-IW = Segmento rascador cónico con superficie superior de margen interior escalonado.



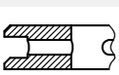
TN-IWU = Segmento rascador cónico con superficie inferior de margen interior escalonado.



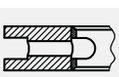
SC = Segmento dentado para control aceite



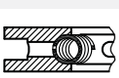
DC = Segmento achaflanado para control aceite



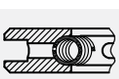
DB = Segmento achaflanado doble para control aceite



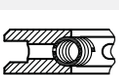
ES = Segmento dentado y con muelle plano para control de aceite



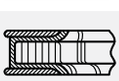
SY = Segmento dentado y con muelle helicoidal para control de aceite



DY = Segmento achaflanado con muelle helicoidal para control de aceite

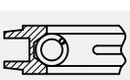


PS = Segmento de doble achaflanado con muelle helicoidal para control de aceite



VF = Segmento con cinturón acero y muelle VF de control de aceite

UB = Segmento con cinturón acero tipo U para control de aceite



SDV = Segmento de acero con canales tipo V y con muelle helicoidal para control de aceite

DKS = Aceitero con punta conica

INSTRUCCIONES GENERALES PARA MONTAJE DE LOS PISTONES

1- Superficie interior del cilindro que se va a montar el pistón debe tener rayas de rectificado. Si el pistón se va a montar en un cilindro usado y /o desgastado, se debe controlar la conformidad de las rayas de rectificado de la superficie inferior. Si las rayas de rectificado de la superficie inferior del cilindro se perdieron por parte o completamente o si se ha formado una superficie reluciente, las rayas de rectificado se deben formar de nuevo.

2- Todos los pistones se producen sensibles para formar correcto espacio de funcionamiento de pistón - cilindro, cuando se montan dentro de un cilindro de tamaño correcto. Diámetros interiores de cilindro se deben controlas si son iguales con los tamaños que se mencionan sobre envase y así definir si es necesario que se procesen de nuevo. Cuando es necesario procesar diámetros interiores de cilindros desgastes a medida superior, se recomienda que diámetro de medidas superiores se procesan en tolerancia de 0.000-0.025 mm.

3- Pasador de pistón se debe quitar de los pistones listos para montaje sin dañar a pistón y el pasador de pistón. Pasadores de pistón deben ser montados combinándose con los tamaños de pistones y no se deben cambiar al azar.

4- Al montar los segmentos en los pistones, se debe utilizar herramientas adecuadas que no dañan a pistón y no deforman a segmentos. Al montar el pistón en el cilindro se debe utilizar adecuado clips de aprieta o manguito cónico de montaje. Después de realizar el proceso de apriete, se debe evitar montar el pistón dentro de cilindro aplicando fuerza excesiva o golpeando, se debe montar por la fuerza de dedo, con cuidado.

5- Antes de montaje del pistón al cilindro hay que limpiar cuidadosamente el cilindro y especialmente hay que limpiar los agujeros de pasador de cilindro y limpiarlos. Antes de montaje se debe aceitar dentro cilindro, para que en el primer funcionamiento hasta que realice el proceso de aceitar no se dañen el pistón y el cilindro.

6-Si en la parte arriba de pistón existe un señal que indica la dirección de montaje, el montaje se realiza conforme a este señal.

7- Debe tener mucha cuidado para no dañar el pistón, pasador de pistón y el segmento.

8- Los pistones se producen conforme a las normas, con otras piezas que se van a utilizar juntos. Por eso no se debe hacer ningún proceso sobre los pistones.

9- Pasador y segmentos de seguridad no tienen que ser usados de nuevo, siempre hay que usar nuevos pasadores y segmentos de seguridad.

10- Control de la linealidad del brazo de biela que se va a utilizar en el montaje es importante para prevenir posibles problemas graves. La linealidad del brazo de biela, se debe controlar otra vez antes de montaje con aparatos adecuados.

NOTA: Hay que actuar conforme de los mencionados en esta instrucción de montaje. El productor no aceptará responsabilidad por problamas causadas de montaje no realizado conforme las instrucciones.

DESCRIPCIONES TECNICAS

8- MARCAJE DE PISTON Y CODIGOS

1- Logotipo de empresa

2- STD / Información sobre medida superior

7- Número de Trazabilidad

5- Espacio pistón cilindro(mm)

8- Tamaño corto de altura de compresión (mm)

4- Número de cilindro que se realizará el montaje

3- Diámetro nominal de pistón

6- Dirección de montaje de pistón Defecto de alineación de agujero de pasador, se puede haber señales determinantes como "front" "Abluft". Símbolo de "Volant" proporciona montaje correcto de pistón al motor.

9- NÚMERO DE REFERENCIA DE PISTÓN

EJEMPLO

Número de referencia de pistón ← **11-01513-000**

000 = STD / Pistón + Segmento
001 = Altura de compresión (strok) -0,20 mm corto
002 = Altura de compresión (strok) -0,40 mm corto
003 = Altura de compresión (strok) -0,60 mm corto
050 = +0,50 mm medida superior / Pistón + Segmento

NÚMERO DE REFERENCIA ANTERIOR	NUEVO NÚMERO DE REFERENCIA
1513 000	11-01513-000

10- NÚMERO DE REFERENCIA DE PISTÓN + SEGMENTO

EJEMPLO

Número de referencia de pistón + segmento ← **31-03513-000**

000 = STD / Pistón + Segmento
050 = +0,50 mm medida superior / Pistón + Segmento

Diferencias entre tipos y revestimientos de los anillos motor. ← **38-** **39-**

NÚMERO DE REFERENCIA ANTERIOR	NUEVO NÚMERO DE REFERENCIA
3513 000	31-03513-000
3513 000-08	38-03513-000
3513 000-09	39-03513-000

11- DESCRIPCIONES DE REFERENCIA DE CAMISA

EJEMPLO

Número de r eferencia de camisa ← **51-05513-000** → 000 = STD / Camisa
050 = +0,50 mm medida superior / Camisa

NÚMERO DE REFERENCIA ANTERIOR	NUEVO NÚMERO DE REFERENCIA
5513 000	51-05513-000

12- DESCRIPCIONES DE REFERENCIA DE KIT, SET

Referencia del Kit Motor : Piston + Pasador + Anillos + Camisa

Numero de referencia del kıt ← **71-07513-000** → 000 = STD / Kit
050 = +0,50 mm sobremedida / Kit

Diferencias entre tipos y revestimientos de los anillos motor. ← **71-8** / **71-9**

NÚMERO DE REFERENCIA ANTERIOR	NUEVO NÚMERO DE REFERENCIA
7513 000	71-07513-000
7513 000-08	71-87513-000
7513 000-09	71-97513-000

13- NÚMERO DE REFERENCIA DE SEGMENTO

Número de referencia de segmento ← **91-09513-000** → 000 = STD / Segmento
050 = +0,50 mm medida superior / Segmento

Diferencias entre tipos y revestimientos de los anillos motor. ← **98-** / **99-**

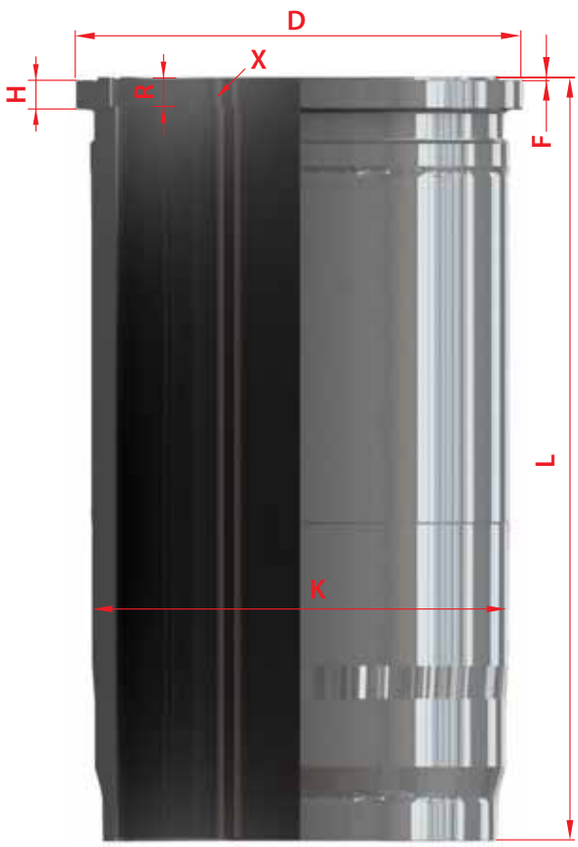
NÚMERO DE REFERENCIA ANTERIOR	NUEVO NÚMERO DE REFERENCIA
9513 000	91-09513-000
9513 000-08	98-09513-000
9513 000-09	99-09513-000

14 - NÚMERO DE REFERENCİA DE RETÉN

Número de referencia de Retén ← **55-50701-000**

DESCRIPCIONES TECNICAS

DESCRIPCIÓN TECNICO DE LA CAMISA DE CILINDRO



K = Diámetro exterior
L = Altura total
H = Altura de brida
F = Profundidad de junta
D = Diámetro de brida
X = Altura de segmento en lugar de montaje
R = Altura de lugar de montaje

Descripción de Las Camisas de Cilindro Conforme a TES 482

En motores de combustión interna, es elemento de maquina de forma cilindro y de fundición gris que se monta a bloqueo de cilindro, y dentro de este elemento pistón se mueve y el combustible se quema. Camisas de Cilindro de Motor se puede analizar en dos grupos:

Camisa de Cilindro Húmeda

Son camisas de cilindro que en el bloqueo de cilindro se enfrían por agua desde exterior.

Se agrupa en tres grupos principales:

a- : Con Brida y Canal: Son camisas que se montan en el bloque de cilindro con brida desde arriba, en parte baja de motor existen canales de junta para permitir la fuga de agua de enfriamiento. (Imagen-1)

b- Con Brida y Sin Canal: Son camisas que se montan en el bloque de cilindro con brida desde arriba y en parte baja no tienen canales de junta. Juntas de impermeabilidad se encuentran en las canales abiertas en bloque. (Imagen-2)

c- Con Doble Brida: Son camisas que se montan en el bloque de cilindro con brida y junta desde arriba y abajo de un modo que no permita a fuga de agua de enfriamiento de motor. (Imagen-3)

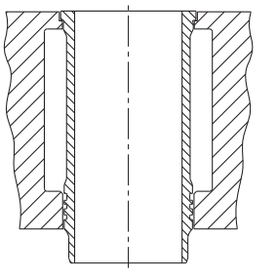


Imagen- 1

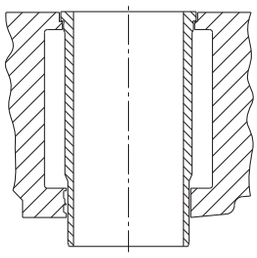


Imagen- 2

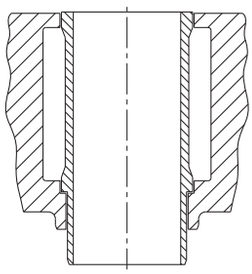


Imagen- 3

Camisas Secas de Cilindro:

Son camisas que no tienen contacto directo con agua de enfriamiento en el bloque de cilindro que se montan.

Se pueden analizar en dos grupos según sus formas:

a- Con Brida (Imagen -4)

b- Sin Brida - Liso (Imagen-5)

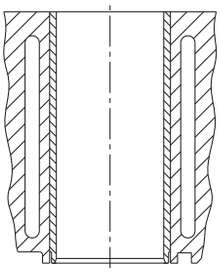


Imagen- 4

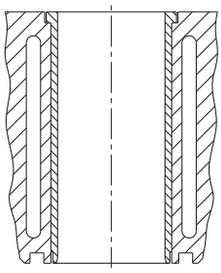


Imagen- 5

LOS PUNTOS A CONSIDERAR EN EL MONTAJE DE CAMISAS DE CILINDRO

INSTUCCIÓN DE MONTAJE DE CAMISAS SECAS DE CILINDRO

Las camisas secas de cilindro se producen con brida y sin brida. (Imagen-6) Mientras que en camisas sin bridas baja condiciones malas es común deslizamiento axial, en caso de montaje de pistón, no es común en camisas con bridas. Es una ventaja de la brida.

Antes de que se presionan las camisas a cilindros, hay que moler o realizar torneado sensible o el proceso de rectificado en los cilindros conforme a valores Nominales que se presentan en la lista de diámetro exterior de las camisas (A) que se ve aquí abajo.

Hay que prestar atención especial a las tolerancias que se mencionan aquí abajo. (Imagen -7). Si no, en caso de que tensión delantera sea muy baja la transferencia de calor no se realiza correctamente, en caso de que tensión delantera sea muy alta, las camisas que tienen paredes muy finos corren peligro de causar desajuste en el cilindro y eso puede causar fallos de operaciones. Las camisas secas cuyas dimensiones exteriores se procesan como medida final, se envían después de atorneado 0.5-0.75 mm más pequeño las diámetros interiores.

Cuando la camisa seca con brida se monta con presión al bloque de cilindro, para evitar que se rompa la brida, el agujero preparado para brida en el bloque debe ser más grande que el diámetro exterior (C) de la brida.

DESCRIPCIONES TECNICAS

En camisas secas con brida, cuando se realiza la presión, parte baja de la brida tiene que sentar bien a superficie de sentar sobre el alojamiento de bloque.

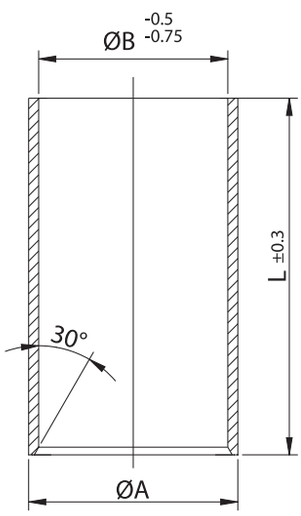


Imagen- 6

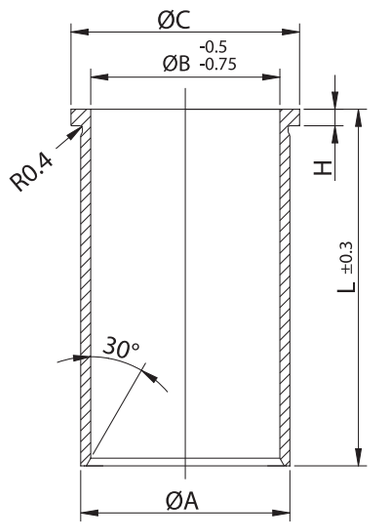


Imagen- 7

Como se sabe las camisas tienen en la parte baja de la brida radio de 0.4 mm. Al montar la camisa al bloque para evitar que se sienta este radio, hay que dejar un achaflanado de 1.0 mm al área donde se sienta la brida. Sino, es inevitable la rotura de brida de la camisa.

Antes de montar nuevas camisas los cilindros que se encuentran en bloque de motor se deben limpiar cuidadosamente y hay que controlar dimensiones de los mismos. La ovalidad y conicidad no debe superar a 0.025 mm. En el proceso de rectificado hay que trabajar para obtener un superficie reluciente y hay que controlar los valores de suavidad conforme a tipo de motor. Superficies muy relucientes y suaves causan que el proceso de aceitar se falte por eso no hay que evitar que sean así los superficies.

Presiones de 3000-5000 kg son bastantes para camisas secas de cilindro. Si se utiliza un material duro como material de aceite, después de un tiempo este material pasa por coquificación por el calor y transferencia de calor se dificulta. Después de montaje con presión, los molidos deben quitarse de superficie de la junta de bloque de cilindro mediante molidos de superficie.

Si es necesario procesar superficie de junta de bloque de cilindro, superficie de sentar para las bridas en alojamiento debe ser más profunda. También se pueden encontrar camisas de cilindro que tienen dimensiones interiores torneadas y otras que tienen dimensiones terminadas.

Estas camisas se presionan a cilindro con poca cuota de retrificado y el proceso de retrificado se realiza después de presionar. Tolerancia de medida nominal de diámetro interior de cilindro es de +0 ile +0.015 mm. Tolerancia de medida nominal de diámetro exterior de cilindro es de +0.012 ile 0.024 mm.

	Grupos de Diámetro Exterior de Camisas		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	Diámetros de Agujero de Bloque (mm)		
	50 - 80	80 - 120	120 - 180
Q_1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25

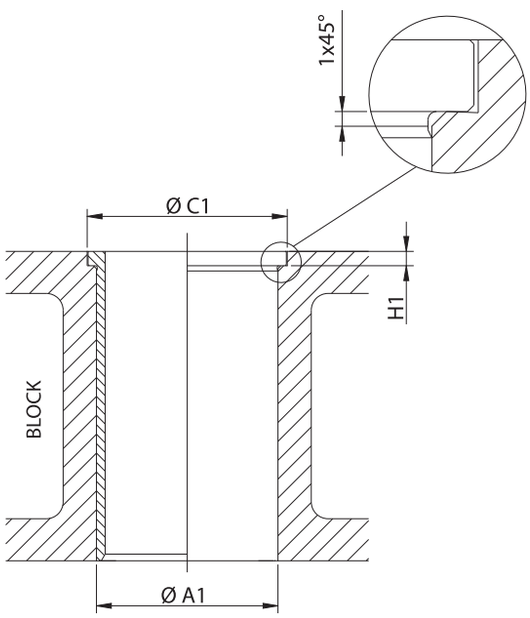


Imagen- 9

INSTUCCIÓN DE MONTAJE DE CAMISAS DE CILINDRO HUMEDAS

Camisas de Cilindro de YENMAK Motor se producen por método de fundición centrifugada que proporciona resistencia contra desgaste y tire. Cuando se quita camisas antiguas de cilindro hay que prestar mucha atención para no causar daño en las superficies de cilindro.

Se debe limpiar cuidadosamente el cal, barro o otros materiales de suciedad si cuando existen en bloque de motor, en puntos de contacto de cilindro. En la limpieza no hay que utilizar cortadores o rascadores que pueden rayar superficies. Para este proceso el utensilio apto es cepillo de alambres. Para quitar capas de cal, oxidación y para quitar antiguas camisas que se fijan en cilindro hay que golpear con una chaveta y martillo, si la camisa no se puede quitar asi se utiliza presión hidráulica. Mientras se limpia hay que prestar atención en superficies de sentar para que estas no se dañen.

Superficie que se sienta brida de camisa debe ser paralelo a superficie de bloque. No debe presentar ninguna diferencia en sentido de plenitud y lisura como se ve en (Imagen-10). Además hay que controlar si el eje de cilindro es vertical según superficie de junta de bloque de cilindro. (Imagen-11) Siempre hay que tener cuidado tambien para no aplastar superficies de sentar de cilindro. (Imagen 12)

Para evitar que radio que se encuenta debajo de brida de camisa (d) se sienta en lugar de superficie de sentar de brida (a) hay que dejar un radio de 45° 0.5-1.0 mm en el punto donde se encuentra diámetro de cilindro (c). Para evitar el peligro de rotura la fuerza de impermeabilidad y fuerza opositor tienen que colocarse en sentidos opositos.

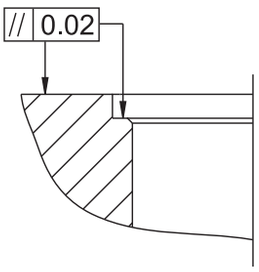


Imagen- 10

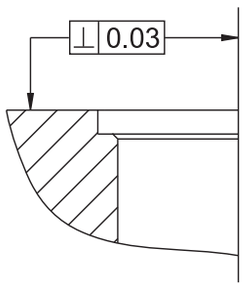


Imagen- 11

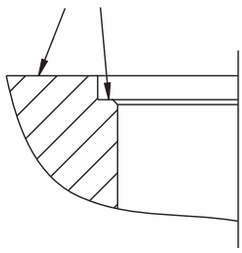


Imagen- 12

Debe de ser de mismo tamaño el diámetro de agujero de juntas (b) y diámetro exterior de la camisa (c). Para proporcionar impermeabilidad completa a cámara de combustión hay que utilizar juntas de marco metálico.

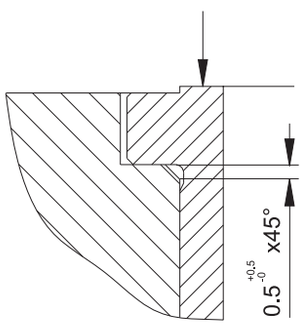


Imagen- 14

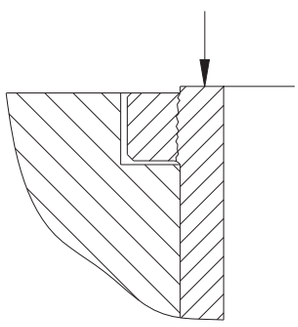


Imagen- 15

Con el fin de determinar si el bloque de cilindros se establece fácilmente dentro de la camisa de cilindro y es muy grande o muy amplia, camisa de cilindro debe ser insertado en el bloque de cilindros a mano sin el uso de anillos de goma antes de la instalación. Especialmente para controlar si la posicionamiento de brida de la camisa con la superficie es correcto o no, se recomienda trastornar la camisa y ponerla a superficie de montaje de brida antes de montaje. Como se sabe, brida debe estar en parte que no se enfría de motor y se expande.

Aquí hay que tener en cuenta un espacio de 0.3-0.5 mm.

En esta instrucción de montaje, la cosa que más se subraya es que el proceso de montar y quitar la camisa se debe realizar conforme a objetivo. O sea, problemas causados por el uso de martillo u otros utensilios en el proceso de montaje dan una solución mala.

Rings de caucho que se utilizarán en el montaje deben ser de buena calidad y resistentes a inflamación, envejecimiento, el aceite y el calor. Sino, el agua baja a cárter y presión a la camisa y deformación de las medidas se realiza. Cada vez se aplica jabón de aceite a rings de caucho y así se colocan en alojamientos.

Rings de caucho solamente pueden ser los que se prefieren por productores de motor. Porque son resistentes a inflamación, envejecimiento, el aceite y el calor.

Agarrotamiento del pistón, lo que provoca la rotura de la camisa del cilindro, es un resultado de la utilización inadecuada de los anillos de goma. Puntos donde se colocan los anillos de goma no deben ser raspados.

Hay que controlar una vez más la medida de cilindro después de poner las camisas manualmente. Este control especialmente debe realizar en los lugares de rings de caucho donde se pueden ocurrir ovalidad o inclinación.

Después de poner comletamente las camisas bloque de cilindro debe llenarse con agua y presionarse para controlar el estado de impermeabilidad.

DETALLES DE MARCAJE DE CAMISA

RETÉN

Junta Torica	
EPDM	Caucho EPD
NBR	Goma/Perbunan (NBR)
FPM / VI	FPM / FKM
Cu	Cobre
T	Latón Rojo
ST	Acero
SC / MVQ	Silicona (VMQ)
Shim / SM	Metal Blando

93,000 (1)		(3)	(4)	(5)	(6)	(7)
4JB1 (2)		D	00 2005 > 00 2005	4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) (9) CH 51,850 VD1 0,550 (10) (11) B- 19,500 BØ 43,900 (12) (13) TL 91,850 (15) 31,00x76,00	(14) AP YS HA CP	91-09389-000 1 2,000 P 2 2,000 P 3 4,000 CrP (16)	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)		Ø 93,000 (18)	31-04385-000 (19)
		99-09389-000 1 2,000 FeP 2 2,000 FeP 3 4,000 TeF (16)				39-04385-000
Isuzu ve Opel ile Ortak Motor (27)						
K=95,00 (22) (24) L=181,00 H=0,90 (25) (23) D=101,00	DF-CR-ST (26)				51-35721-000 (20)	71-08385-000 71-98385-000 (21)
K=120,00 (22) (24) L=229,00 H+F=9,00+1,10 (25) (23) D=128,50	WF (26)		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00 (28)		51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

1 - Diámetro de Pistón
2 - Código de Motor
3- Información de Combustible
4- Años de Modeles
5 - Número de Cilindro
6 - Volumen de Cilindro
7 - Potencia de Motor
8 - Código de Pistón
9 - CH: Strok
10 - VD1/VD2: Profundidad de Válvula
11- B- : Profundidad de cámara de combustión
B+ : Altura pertuberancia cabeza
12- BØ: Diámetro de Célula
13- TL: Longitud Total
14 - Especialidades de Pistón
*DAP: Pistón Con Alfin Doble
*AP: Pistón Con Alfin
*YS: Piston con enfriamiento de aceite
*CP: Piston Con Chapa de Acero
*HA: Con Revestimiento de Anodizado Duro
*PDB: Agujero de Pasador Con Cojinete
15- Diámetro de Pasador - Tamaño - Especialidades
16 - Especialidades de Segmento
17- Alzas de Cabecera de pistón
18- Diámetro de Cilindro
19- Piston + Brazo de Segmento
20 - Código de Camisa
21 - Código de Kit
22- Diámetro Exterior de Cilindro
23- Diámetro de Brida de Camisa
24- Longitud Total de Camisa
25- Espesor de Brida
26- Especificaciones de la camisa.
*WS : Revestimiento húmedo semi terminado
*WF : Revestimiento húmedo final completo
*DS : Revestimiento seco semi terminado
*DF : Revestimiento seco final completo
*AF : Refrigerado por aire final completo
*PH : Fosfato
*CR : Cromo
*HR : Curtido
*NT : Nitrato
*HT : Tratamiento térmico
*STEEL : Acero
27- Moteur commun
28- Código de Retén

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Motor tipleri, açıklamalar, ürünler, ürün resimleri, üreticiler, araçlar v.b. nitelendirmeler sadece referans amaçlı verilmiştir.

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PEÇAS DE MOTOR

Yenmak em 1965 pela família Kahvecioğlu foi fundada em Konya como uma pequena oficina. YENMAK Ao longo dos anos, sempre se renovando e melhorando a casa e no exterior como um fornecedor independente de peças de motor, tornou-se um dos maiores fornecedores mundiais. Yenmak hoje "produção de equipamento, êmbolo, pino do pistão, anel de pistão, forro do cilindro do motor, selo, válvula do motor e berço" abastecimento destes produtos são exportados para mais de 80 países diferentes dos cinco continentes.

Para nossos clientes, nós, como um parceiro de longo prazo; Além da melhor qualidade e preço razoável e máxima confiabilidade; tais como serviço pós-venda e as vendas, o portfólio de produtos aos seus clientes a partir de uma única fonte assegura o fornecimento de todas as peças de motor em um pacote.

Yenmak tem INMETRO, ISO 9001, ISO / TS 16949, IATF 16943, TS EN ISO 14001. Yenmak, um total de 50.000 metros quadrados de área, está localizado em Konya Organizado Zona Industrial 1,2,3.(Planta Sede 1 e 2 ea construção de logística,). Vendas e atividades de marketing YENMAK em Istambul, realizado no escritório de exportação.

Sede E Logística

E Pino Do Pistão Fábrica

Camisa De Motor De Fábrica

PEÇAS DE MOTOR

Desde 2003; Yenmak produtos, embalados em um formato que vemos a seguir, realizou-se no mercado.

Os dados para encontrar os detalhes do pacote são:

Graças ao nosso selo especial, você é o primeiro a abrir o produto.

Número de rastreabilidade

Com o objetivo de ser segura, uma holograma 3D integrado na caixa.

Com o objetivo de garantir a segurança dos produtos, aplicado caixa de seis etiqueta de segurança.

BUREAU VERITAS
Certification

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12 SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 9001:2008

Belgelendirme Kapsamı

İÇTEN YANMALI MOTORLAR İÇİN ALÜMİNYUM KOKİL DÖKÜM PİSTON VE PİSTON PİMİ ÜRETİMİ

İlk Döngü Başlangıç Tarihi: 23 Eylül 2014
Önceki Döngü Geçerlilik Tarihi: 22 Eylül 2017
Belgelendirme / Yeniden Belgelendirme Denetim Tarihi: 24 Mayıs 2017
Belgelendirme / Yeniden Belgelendirme Döngüsü Başlangıç Tarihi: 21 Eylül 2017

Kuruluşun yönetim sistemi, standardın yeterliliklerini karşılamaya devam ettiği sürece bu sertifika 14 Eylül 2018 tarihine kadar geçerlidir.

Sertifika Numarası: TR000075-1 Sürüm No: 1 Revizyon Tarihi: 21 Eylül 2017

TÜRKAK

SEÇKİN DEMİRALP
Belgelendirme Müdürü

Sayfa 1/1

BUREAU VERITAS Certification

Certificate of Approval

Awarded to

YENMAK PİSTON SEGMAN SAN. VE TİC. A.Ş.

KIRIM CD. SARIÇİÇEK SK. NO:12 SELÇUKLU KONYA
42000 - Konya - Turkey

Bureau Veritas Certification certifi that the Quality Management System of the above organization has been audited and found to be in accordance with the requirements of

ISO/TS 16949:2009

and the applicable customer specific requirements

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
7.3 - Product design responsibility

PRODUCT(S) DELIVERED
PISTONS AND PISTON PINS BY ALUMINIUM GRAVITY CASTING AND MACHINED FOR INTERNAL COMBUSTION ENGINES

BUREAU VERITAS Certification

YENMAK PİSTON SEGMAN SANAYİ VE TİC. A.Ş.

2.ORGANİZE SANAYİ BÖLGESİ KIRIM CAD.
SARIÇİÇEK SOK. NO: 12
SELÇUKLU, KONYA, TÜRKİYE

Bureau Veritas Belgelendirme Holding SAS – İngiltere Şubesi yukarıda adı geçen kuruluşun, Yönetim Sisteminin aşağıda detayları belirtilen Yönetim Standardı gerekletirine uygunluğunu değerlendirmiş olup, onaylamaktadır.

Standart

ISO 14001:2004

Belgelendirme Kapsamı

ÇTEN YANMALI MOTORLAR İÇİN PİSTON VE PİSTON PİMİ ÜRETİMİ

Belgelendirme Döngüsü Başlangıç Tarihi: 26 Ağustos 2016

15 Eylül 2018 tarihine kadar geçerli olan bu sertifikanın geçerliliği, Bureau Veritas tarafından periyodik olarak kontrol edilmektedir.

Orjinal Sertifika Tarihi: 26 Ağustos 2016

Sertifika Numarası: TR004743-1 Sürüm No : 1 Revizyon Tarihi: 26 Ağustos 2016

UKAS

SEÇKİN DEMİRALP
BVCH SAS İngiltere Şubesi
adına imzalayan

Sayfa 1/1

BUREAU VERITAS Certification

YENMAK MOTOR GÖMLEK SANAYİ VE TİCARET A.Ş.

1.ORGANİZE SANAYİ BÖLGESİ HOROZLUHAN MAH. ATABEY SOK. NO: 8 SELÇUKLU, KONYA, TURKEY

Bureau Veritas Certification Holding SAS - UK Branch certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standard

ISO 9001:2015

Scope of certification

MANUFACTURING OF CASTING AND MACHINING CYLINDER LINERS AND CASTING RING CARRIERS

Original cycle start date: 01 February 2017
Expiry date of previous cycle: 14 September 2018
Certification / Recertification Audit date: 04 October 2017
Certification / Recertification cycle start date: 12 January 2018
Subject to the continued satisfactory operation of he organization's Management System, this certificate expires on: 11 January 2021

Certificate No: TR006347-1 Version No: 1 Revision date: 12 January 2018

UKAS

İBRAHİM TAŞKY
Signed on behalf of
BVCH SAS UK Branch

ISO 14001
ISO / TS 16949
BUREAU VERITAS
Certification

BUREAU VERITAS
Certification

Certificate of Approval

YENMAK MOTOR GÖMLEK VE TİC. A.Ş.

1. ORGANİZE SANAYİ BÖLGESİ, HOROZLUHAN
MAHALLESİ, ATABEY SOKAK No:8, SELÇUKLU
42120 - KONYA - Turkey

IATF 16949

SCOPE
Manufacturing

PERMITTED EXCLUSION(S)
8.3 - Design and development of products and services

PRODUCT(S) DELIVERED
Casing and machining cylinder liners and casting ring carriers

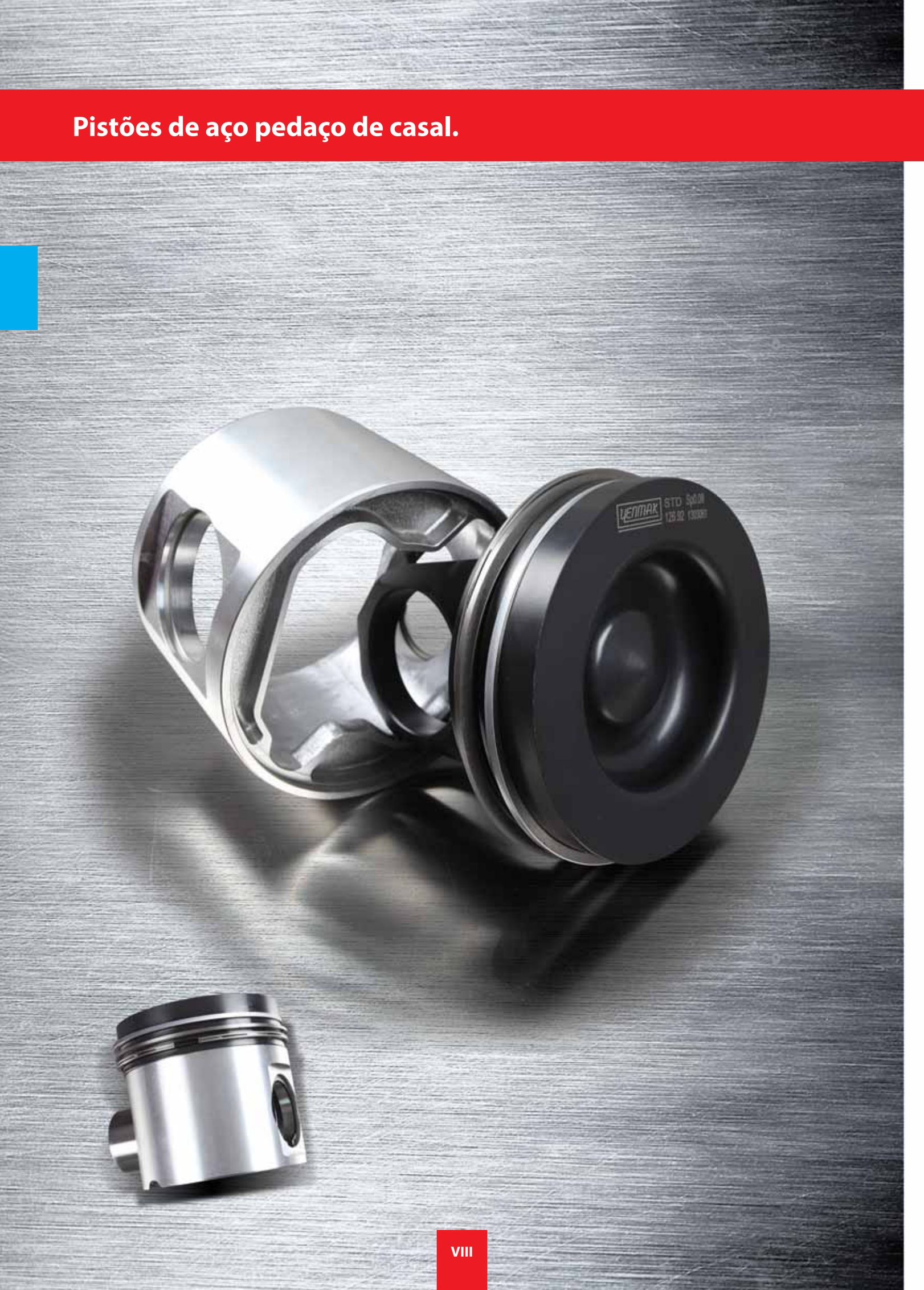
TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

KONYA BELGELENDİRME MÜDÜRÜ

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

KONYA BELGELENDİRME MÜDÜRÜ

Pistões de aço pedaço de casal.



Duplo peça pistão de aço, consiste em o movimento do pino de êmbolo na cabeça do êmbolo e do aço e alumínio interligado haste do êmbolo.

Devido à resistência elevada e valores baixos de desgaste, esses pistões são, principalmente, oferece trabalho em baixa as emissões de escape e limites de emissões para os motores diesel pesados.

Peça de aço Pistons dupla;

• A nova geração de motores com altas taxas de compressão e câmara de combustão moderno,

• Nos motores pesados com motores diesel,

• Em motores que utilizam os vários sistemas de combustível,

Vantagens de via dupla pistão de aço;

• De acordo com os pistões pistões de aço de alumínio peças de casal; Devido às distâncias de menos contacto com o revestimento, que garante menos forças de atrito induzido perdas.

• Pistões de aço dupla peça, em comparação com pistões de alumínio;

• Devido à sua elevada resistência à carga térmica, reduzir o risco de deformação e revestimentos podem operar em uma câmara inferior do cilindro aumenta as propriedades de vedação dos anéis.

• Normalmente, um pistão de alumínio mostrando resistência à pressão de até 100 bar, um pistão de aço com as mesmas dimensões podem suportar a pressão até 250 bar.

• Uma maior taxa de compressão no motor e permite a formação de entre 2-5% menos emissões de CO_2. ALF utilizado em cilindros de alumínio para motores diesel (Ni-resistir) permite reduzir os problemas decorrentes do contato material.

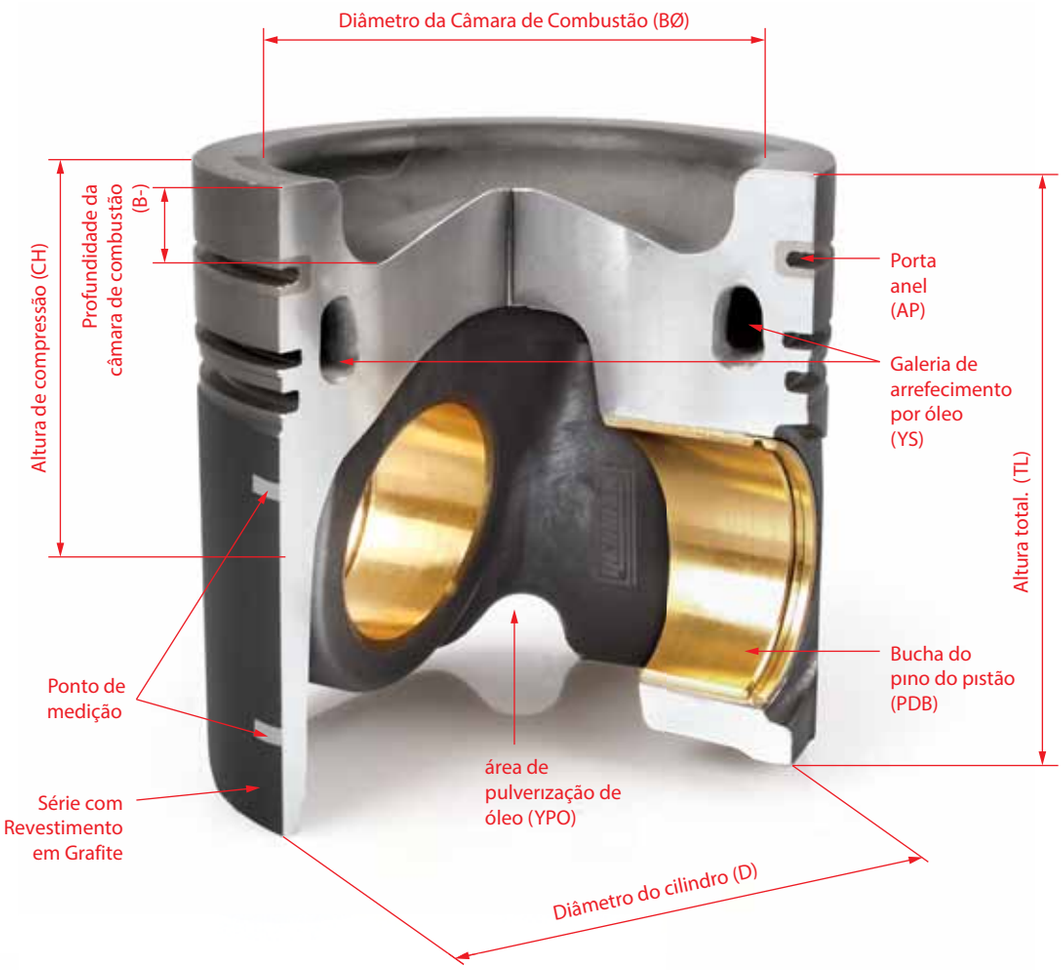
• A conduta de arrefecimento de êmbolo, o êmbolo pode estar mais perto do topo do canal de arrefecimento, permitindo, assim, um arrefecimento mais eficaz pode ser fornecido.

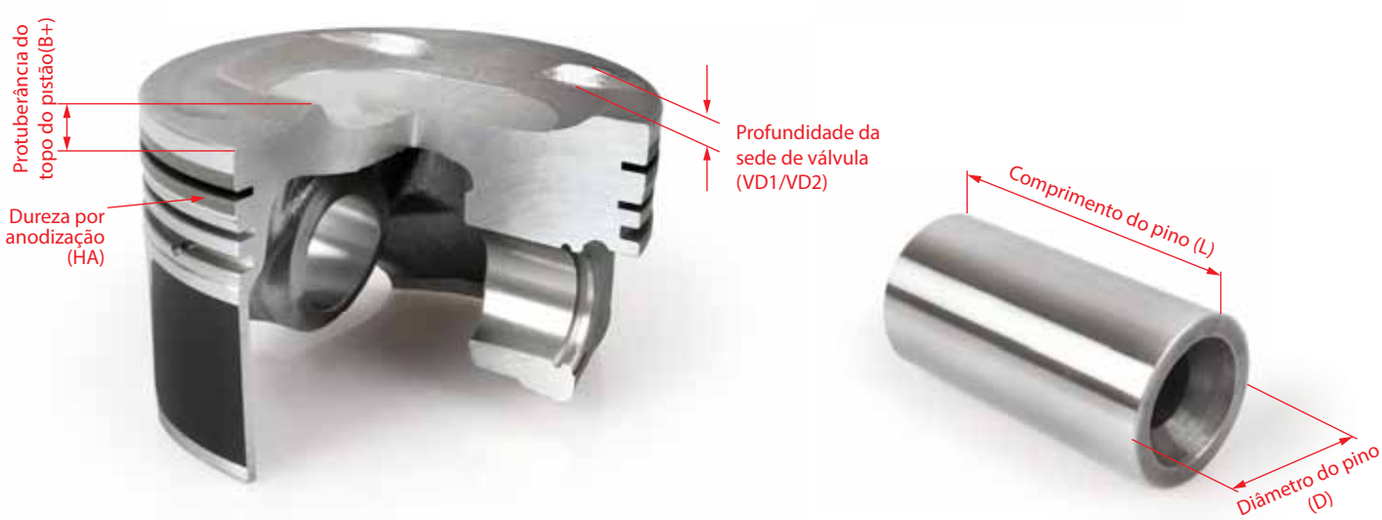
• Pistões de aço dupla peça, em comparação com pistões de alumínio; a câmara de combustão uma distorção mínima.

• Pistões de aço dupla peça prolongar a vida útil do motor, os efeitos positivos, o motor irá moer inferior.

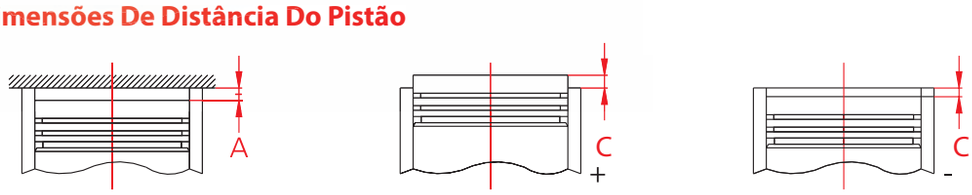
• Pistões de aço duplo peças e pistão ocorreu sistema de sistemas de injeção de combustível sobrealimentação, que resulta da fusão dos problemas de perfuração pistão não ocorrem.

DEFININDO DESCRIÇÃO TÉCNICA;





Dimensões De Distância Do Pistão



A = as dimensões da cabeça do cilindro.

C = tamanho do êmbolo no início da superfície do bloco.

INSTRUÇÕES DE MONTAGEM PISTÃO YENMAK

Quando solicitado, usado para pendurar no pistão, pistons devem ser apuradas de resíduo de carbono nos canais sulco anel e buracos de óleo. Camada de carbono nas colinas fora os Pistons devem ser limpos todos os mais resíduo de carbono. Canais anel deve ser cuidadosamente. Tenha cuidado para não arranhar durante a limpeza da junção do lado e as curvas borda inferior. Caso contrário, começando futuras rachaduras arranhões. Há máquina de ter o anel do pistão porque YENMAK propõe, para adaptar os motores de pistão originais foram projetados. Anéis de pistão do cilindro Yenmak podem ser utilizados, os valores-limite de desgaste são:

Diâmetro A maioria dos motores a gasolina é 0, 1 mm.

O diâmetro dos motores diesel é também 0, 15 mm.

Em geral; que estão no pistão, a cavidade é uma erosão dos valores definidos acima,

Deformação excessiva da ranhura para o anel de pistão é para ser substituída. À medida que os segmentos de pistões e perturbações na forma de paralelismo no canal, é enganadora para um valor adequado e segmentos espacial bem neste tipo de êmbolo, causar sintomas como óleo e drenagem. Anel de dobragem para cima e para baixo, a fim de tornar o movimento da superfície de trabalho na forma de anéis e deterioração do material de revestimento pode causar deformado. Esta deformação e invisível, pode levar a problemas com as condições de funcionamento do motor.

Arruelas (abertura anel com uma pinça) é aberta, coloque seus slots no pistão, respectivamente. Então, através de um cônicas clips anel ou apertar o anel com manga e martelo cabo de montagem no topo do pistão, cilindro, se necessário, tocando em seu slide. Durante este processo, para evitar danos por ficar braçadeira de anel fino, como o bloco terminal de rosto para baixo de forma contínua, preste atenção para a conservação. No motor de forros intra-crómio, cromados anéis de pistão não deve ser usado.

A superfície em YEN ou TOP do segmento com as marcas, que enfrenta o branding, queimadura, de frente para a câmara, deve ser anexado à habitação. Sem uma marcação sobre os anéis de pistão pode ser instalada em qualquer direcção.

ANEL REVESTIMENTOS E TRATAMENTOS DE SUPERFÍCIE

Cr = cromagem.
Mo = revestimento do molibdênio
P = revestimento de fosfato
Fe = revestimento ferroksit
Cu = bainha de cobre
Nt = revestimento de nitreto
Sn = tin chapeamento
Ck = cromo cerâmica
Pvd= deposição de vapor físico
Cdc= revestimento de cromo diamante
Dlc = revestimento de carbono revestido de diamante
Tef = revestimento de Teflon

DEFININDO DESCRIÇÃO TÉCNICA;

REVESTIMENTOS E TRATAMENTOS DE SUPERFÍCIE DE PISTÃO,

Ck (O crómio revestimento cerâmico)

Revestimentos de cromo-cerâmico (CK) e crómio obtidos por a estrutura da rede da alumina formar um elemento de envelope aninhados compósito. Estes revestimentos são principalmente veículos com pistões do motor diesel, anéis de pistão utilizados para cobrir os primeiros slots. CK revestimento, como resultado das diferenças no processo de electrólise, adicionando alta qualidade e desempenho.

A diferença entre o revestimento Ck e cromagem dura;

- Abrasão superior.

- Ponto de fusão mais elevado.

- Dureza e densidade de crack maior.

Devido a estas vantagens, revestimentos de CK são usados em veículos, a extensão da vida do motor permite a criação de baixa emissão de gases de escape.

PVD (Physical Vapor Deposition)

A decomposição do reagente na fase de vapor do revestimento duro, um método devido à acumulação de segmentos de superfície, chamado método PVD. Para arco eléctrico ou bombardeamento iónico, evaporação do metal e ionização por meio deste método. E providenciado iões metálicos dissociados, é avançada para a superfície do componente. Como resultado, os átomos de metal reagir gases reagentes, e nitreto, carboneto e óxido. Após a reacção, a superfície do anel de operação é formada uma camada fina. Devido à natureza do revestimento de cerâmica é altamente resistente à abrasão.

Mo (Molibdénio)

De modo a evitar influências ambientais anéis são revestidos com molibdénio. A fim de evitar as queimaduras, a superfície de trabalho dos segmentos pode ser preenchido com molibdénio ou de toda a superfície a ser revestida. O processo de revestimento por pulverização e tanto chama de plasma pode ser realizada pelo método de pulverização. Molibdênio, elevado ponto de fusão (2620 C⁰), graças à sua estrutura porosa, e o efeito lubrificante dos anéis de pistão sobre a superfície de trabalho, faz com que seja mais resistente. Resistência ao desgaste e abrasão alta condutividade térmica.

Cr (cromagem)

Para aumentar a durabilidade dos anéis, que método é usado extensivamente revestidas com cromo duro. Chromium alvo menos desgaste prolongar a vida útil dos anéis de pistão e camisas de cilindro. Redução da parede do cilindro e do anel de desgaste, pode ser feito por revestimento dos anéis de topo de crómio. Hoje em dia, não só o anel de pistão superior, mas também tem a tendência de crómio a partir de dois ou mais segmentos. O revestimento com cromo, porque para criar uma superfície dura, é claro que reduz o desgaste dos aros do êmbolo.

Revestimento de crómio é aplicada de duas maneiras:

- Difícil,

- Revestimento poroso com crómio,

Em processo de cromagem dura, depois de as superfícies de pistão revestidas com cromo, apedrejado para obter a sua forma final. Anéis, apenas o revestimento poroso com cromo, superfície adquire uma função de separador de gordura. Por conseguinte, limitar tanto as próprias obras bem como a sua superfície lateral, também ao desgaste.

Nt (Nitrito De Revestimento)

Nitrito processo de revestimento, todas as superfícies do anel são endurecidas. Com este revestimento, a resistência ao atrito da superfície aumenta. Assim, o tempo de vida é prolongado anel. De produção e de emissão de propriedades do revestimento de nitreto é ambientalmente amigável. Resultados mais efetivos de trabalho dos revestimentos de superfície desempenho críticos com nitrito foram demonstrados. Anel de reduzir derramamentos de petróleo que consistem em pontos sensíveis. Reduz a fragilidade de anéis de ferro fundido. Aumenta a vida útil do motor.

CDC (revestimento de diamante cromo)

Este tipo de revestimento pode ser utilizado nas colinas e anéis em Euro 4 motores diesel.

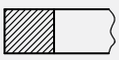
flexível e pode ser aplicado a liga de ferro fundido de aço carbono. Partículas de diamante são usados em vez de partículas de cerâmica. Pelo qual a resistência ao desgaste contra o atrito e melhorar o desempenho.

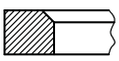
DLC (de carbono diamante)(Revestimento de carbono revestido de diamante)

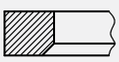
Com este revestimento reduz o atrito e aumento da resistência à abrasão. Tal como acontece com as propriedades de revestimento DLC, é um edifício ambientalmente amigável. As ligações químicas são fortes, inquebrável sob estresse mecânico.

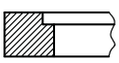
Eles são não-cristalino, amorfo. Devido a este material de construção é um material muito forte. Outros revestimentos com base em mais durável, mais resistente ao desgaste e ao rasgamento.

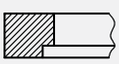
DEFININDO DESCRIÇÃO TÉCNICA;

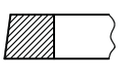

D = Anéis retangulares.

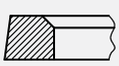

D-IF = Superfície chanfrada anel rectangular borda interna.

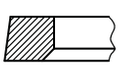

D-IFU = Anel inferior interior borda chanfrada oblongo.

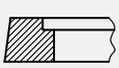

D-IW = Superfície de Borda dentro gradualmente anel retangular.

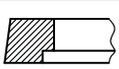

D-IWU = Borda interna gradualmente menor anel retangular superfície.

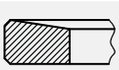

K = Arruelas cônicas.

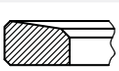

K-IF = Anel interno cônico cantos chanfrados superfície.

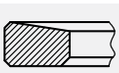

K-IFU = Bordas chanfradas cônico anel inferior interior.

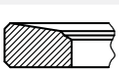

K-IW = Superfície periférica interna gradualmente reduzida anel.

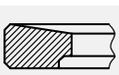

K-IWU = Gradualmente afunilada bordo interior do anel inferior.

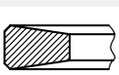

TT = Anéis de trapézio unilaterais.

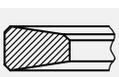

TT-IF = Arestas interiores de superfície chanfrada anéis trapézio lados.

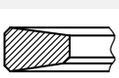

TT-IFU= İçken faces chanfradas anéis de trapézio de superfície.

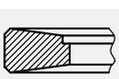

TT-IW = Dentro superfície Borda gradualmente anéis de trapézio lados.

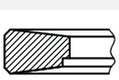

TT-IWU = Borda interna gradualmente inferiores anéis trapézio unilaterais.

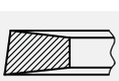

T = Anéis trapezoidais frente e verso.

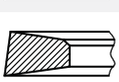

T-IF = Superfície chanfrada dentro de anéis de trapézio borda duplex.


T-IFU = Com dois lados bordas da superfície inferior do anel interior chanfrada trapézio.

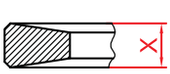

T-IW = Superfície do bordo interior anéis trapezoidais duplas gradualmente.

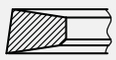

T-IWU = Borda interna gradualmente mais baixo face anéis trapezoidais.

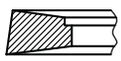

TK = Trapezoidal anéis cônicos de dupla face.

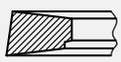

TK-IF = Superfície chanfrada dentro de borda dupla trapezoidais anéis cônicos.

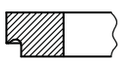
SDR = V-channel anel de controle de óleo de aço mola helicoidal.

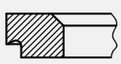

X = Espessura do corte (mm)

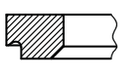

TI-IFU = Com dois lados bordas da superfície inferior do anel de trapézio cone superior chanfrada.

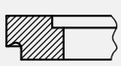

TK-IW = Superfície de dupla face gradualmente reduzida anéis trapézio borda interna.

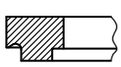

TK-IWU=Anéis de trapézio Duplex gradualmente reduzida borda interna da superfície do fundo.


N = Anéis de nariz raspador.

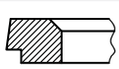

N-IF= Superfície chanfrada dentro anéis raspadores nariz borda.

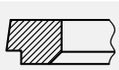

N-IFU = A superfície inferior da borda interna chanfrada anéis raspadores nariz.

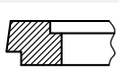

N-IW = Inside Edge skimmers de superfície gradualmente anéis de nariz.

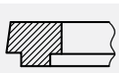

N-IWU = Nariz dentro de borda skimmers gradualmente inferiores.

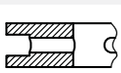
TN = Anéis Nosecone raspador.

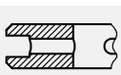

TN-IF = Superfície interior bordas chanfradas nariz afilado anel raspador

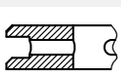

TN-IFU= Bordas chanfradas interior inferior nariz afilado anel raspador

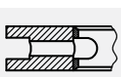

TN-IW = Dentro superfície Borda anel raspador de nariz gradualmente reduzida

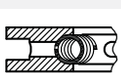

TN-IWU= Fundo borda interna do anel raspador de nariz gradualmente reduzida

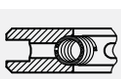

SC = Fenda anel de controle de óleo

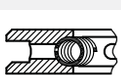

DC = Anel de controle de óleo chanfrada

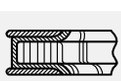

DB = Anel de controle de óleo duas vezes chanfrada

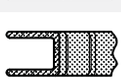

ES = Reed fenda anel de controle de óleo


SY = Mola helicoidal com fenda anel de controle de óleo


DY = Mola helicoidal bordas chanfradas anel de controle de óleo


PS = Mola helicoidal bordas chanfradas casal, anel de controle de óleo


VF = Anéis de controle de óleo VF feito de banda de aço mola


UB = Aço do tipo banda de anel de controle de óleo

SDV = Canal-V anel de controle de óleo de aço mola helicoidal

DKS = Anel de óleo com fenda, ponta cônica e mola

INSTRUÇÕES DE MONTAGEM PISTÃO GERAL.

1- O cilindro de pistão está preso à superfície interior deve baklavams linhas de moagem. Se pistão usado pronto para a instalação e / ou no cilindro desgastado instalada no interior deve ser verificada a conformidade com as linhas que afiam. Se a superfície interior do cilindro, é aperfeiçoar linhas e superfície lisa é composto por parcialmente ou totalmente perdida, aperfeiçoar reveste a superfície interior da garrafa tem de ser cortado para voltar a ocorrer.

2- Todo o êmbolo, se for medido correctamente instalado num cilindro, e pistão-cilindro de trabalho definido para a realização do furo, fabricado com precisão. o diâmetro interior do cilindro, para determinar a medição no rótulo da caixa ou a adequação deve ser verificado e re-processada de modo a que eles têm de ser verificados. o diâmetro interior de cilindros gastos, o processamento de medição superior é, o diâmetro nominal da medida de tolerância superior recomendada processamento de 0000-0025 mm.

3- Pronto para a montagem do pistão do pino de êmbolo, o pino do êmbolo, e que não sejam prejudiciais para ser removido por um método adequado. Pino de êmbolo, a fim de proporcionar combinado montado em conformidade dimensional do pistão é alterada de forma aleatória.

4- Durante a inserção dos segmentos de pistões; anéis de distorcer e danificar o pistão, utilizar equipamento adequado. Durante o elemento pistão-cilindro, com um anel de grampos adequados ou manga cónica de montagem. Adequadamente, o processo de fiação de anéis, levada a cabo após o pistão no cilindro deve evitar a instalar a aplicação de força excessiva, ou para fotografar deve ser cuidadosamente instalado com a força de dedo.

5- Os pistões, antes da montagem do cilindro cuidadosamente limpos e a limpeza do furo do pistão e do pistão do pino, especialmente a lubrificação de interesse. Durante a primeira execução antes da instalação para evitar danos no pistão do cilindro interno e lubrificação cilindro Até então, bem untada.

6- Se a coroa do pistão, a marcação indica a direcção de montagem do sinal, considerando que marca durante a instalação, a instalação deve ser feito corretamente.

7- Para evitar danos nos anéis de pistão e pinos de pistão, tomar o máximo cuidado.

8- Pistons, em conformidade com as normas geralmente aceites, são fabricados para as outras partes são utilizadas em conjunto. Por conseguinte, faz depois.

9- Alfinetes de segurança e anéis não podem ser reutilizados, use sempre um novo pino eo retentor.

10- A linearidade da haste de ligação para uso no controle é importante para os problemas graves que as impedem. A linearidade da haste deve ser verificado novamente antes da montagem com o equipamento certo.

Nota: Isto deve ser observada de acordo com as instruções de instalação. Instruções do fabricante não é responsável por quaisquer problemas causados pela instalação incorreta.

DEFININDO DESCRIÇÃO TÉCNICA;

8- PISTON MARCAÇÃO E CODIFICAÇÃO;

1- Logotipo da empresa

2- Std informações métricas superior /

7- Número de rastreabilidade.

5- Cavidade cilindro do pistão (mm)

8- Altura de compressão (mm)

4- Montagem será realizada número de cilindro

6 - Direcção de inserção do pistão. Alinhamento dos furos, "front""abluft" pode ter marcações especiais, tais como a determinação da direção. Símbolo "volante" faz uma fixação exacta dos êmbolos do motor.

3- Pistões nominais de diâmetro

9- NÚMERO DE REFERÊNCIA DO PISTÃO

EXEMPLO

Referência Pistão ← **11-01513-000**

000 anéis = std / + pistão.
001 = compressão (acidente vascular cerebral)
Altura - 0,20 mm mais curto.
002 = compressão (acidente vascular cerebral)
Altura - 0,40 milímetros mais curto.
003 = compressão (acidente vascular cerebral)
Altura - 0,60 mm mais curto.
050 = 0,50 mm acima da medição / pistão + segmento.

NÚMERO DE REFERÊNCIA ANTERIOR	NOVO NÚMERO DE REFERÊNCIA
1513 000	11-01513-000

10- NÚMERO DE REFERÊNCIA DO ANEL + PISTÃO

EXEMPLO

Número de referência do anel + pistão ← **31-03513-000**

000 anéis = std / + pistão.
050 = 0,50 mm acima da medição / pistão + segmento.

NÚMERO DE REFERÊNCIA ANTERIOR	NOVO NÚMERO DE REFERÊNCIA
3513 000	31-03513-000
3513 000-08	38-03513-000
3513 000-09	39-03513-000

Diferenças entre tipos de pistão e revestimentos. ← **38-** **39-**

11 - REFEREM-SE AOS FORROS DESCRIÇÕES.

EXEMPLO

Número de referência camisa. ← **51-05513-000** → 000 = STD / camisas.
050 = 0,50 mm acima das medições / forros.

NÚMERO DE REFERÊNCIA ANTERIOR	NOVO NÚMERO DE REFERÊNCIA
5513 000	51-05513-000

12 - DEFINIÇÕES DE EQUIPAMENTOS E KIT.

Referência do kit montado : Pistão + pino + anel de segmento + camisa de cilindro

Referência do kit montado - Definição ← **71-07513-000** → 000 = STD / Kit
050 = +0,50 mm Sob medida / Kit

Diferenças entre tipos de pistão e revestimentos. ← **71-8** / **71-9**

NÚMERO DE REFERÊNCIA ANTERIOR	NOVO NÚMERO DE REFERÊNCIA
7513 000	71-07513-000
7513 000-08	71-87513-000
7513 000-09	71-97513-000

13 - NÚMERO DE REFERÊNCIA DO ANEL.

Número de referência do anel. ← **91-09513-000** → 000 = STD / anéis.
050 = 0,50 milímetros de benchmarking / Anéis.

Diferenças entre tipos de pistão e revestimentos. ← **98-** / **99-**

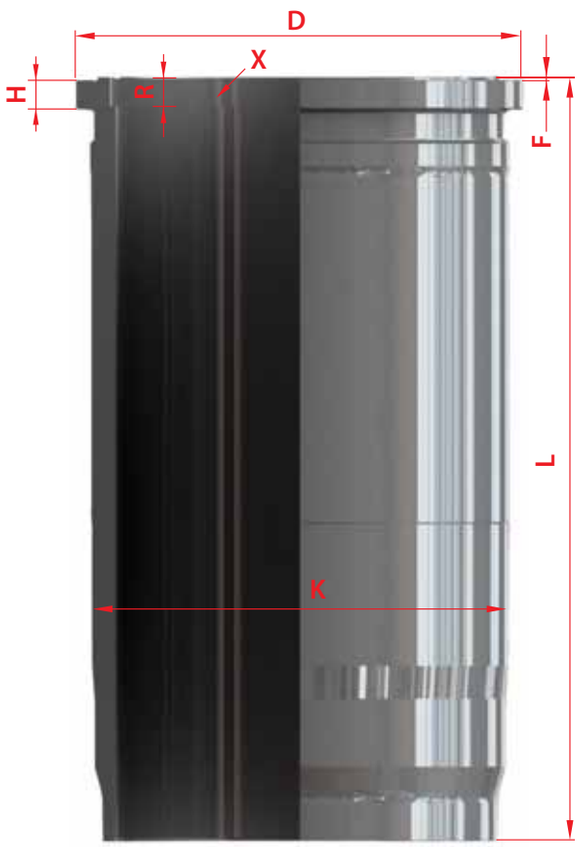
NÚMERO DE REFERÊNCIA ANTERIOR	NOVO NÚMERO DE REFERÊNCIA
9513 000	91-09513-000
9513 000-08	98-09513-000
9513 000-09	99-09513-000

14 - REFERÊNCIA VEDAÇÃO

Referência Vedação ← **55-50701-000**

DEFININDO DESCRIÇÃO TÉCNICA;

DESCRIÇÃO TÉCNICA DA CAMISA DO CILINDRO



K = diâmetro externo
L = comprimento total
H = altura da flange
F = profundidade selo
D = diâmetro da flange
X = comprimento do segmento instituições.
R = em vez definições de comprimento.

TS 482 'de acordo com a descrição do revestimento do cilindro:

Camisas de cilindro, em um motor de combustão interna montada no bloco do motor, que se desloca no pistão e combustível é queimado um ferro fundido máquina cilíndrica partes.

Camisas de cilindro de motor, podem ser divididos em duas classes.

Idade gömklek dos cilindros:

De água gelada na qual estes estão ligados externa para o bloco de cilindros é forros.

Acumulados três grupos principais:

a- Flange e canal: Bloco de cilindros, sentando-se em cima da flange, para garantir a fuga do líquido de refrigeração na parte inferior, há camisas canais vedantes. (Figura 1)

b- Flange e semcanal: Estes são os blocos de camisas de cilindro, ao sentar-se nas flanges superiores e inferiores sem canais vedantes. Selos no bloco localizado no canal de abertura. (Figura 2)

c- Flange Duplo: motores, água de arrefecimento de modo a não perder a parte superior e inferior e flanges são detectados como um camisas de cilindro fechadas. (Figura 3)

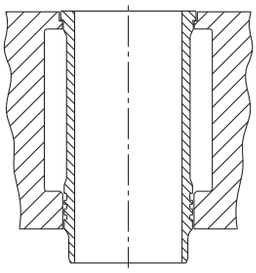


Figura - 1

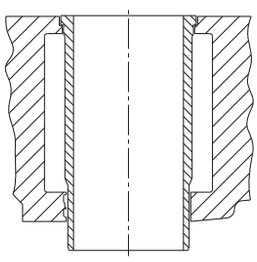


Figura - 2

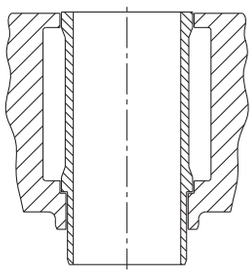


Figura - 3

Camisas De Cilindro Secas:

Eles não estão em contacto com as camisas de cilindro são inseridos bloco diretamente com água de arrefecimento.

A forma podem ser analisados em duas categorias principais:

a- flange (Figura 4)

b- flange de carga (Figura 5)

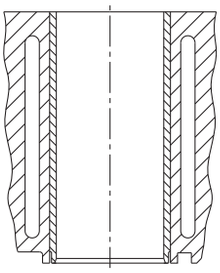


Figura - 4

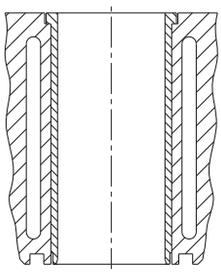


Figura - 5

ASPECTOS IMPORTANTES DA INSTALAÇÃO DO REVESTIMENTO.

INSTRUÇÕES DE INSTALAÇÃO PARA AS CAMISAS DE CILINDRO SECO.

Camisas de cilindros secos são fabricados como flange e sem flange. (Figura 6) geralmente visto na direcção axial do êmbolo no caso de montagem de flanges camisa sob más condições de trabalho não pode ser encontrada em um flange de forros são susceptíveis de deslizar. Esta é uma vantagem da flange.

Forros, antes do cilindro é pressionado, fortes camisas de cilindro de diâmetro externo na lista a seguir para (A) de acordo com o tamanho nominal, ou é vítima de torneamento de precisão ou de moagem e aprimorando processos.

As seguintes tolerâncias, a atenção deve ser pago. (Figura 7) Caso contrário, a tensão é muito baixa, a transferência de calor vai ser saudável, pré-tensão é muito alto, paredes muito finas, o que levará ao perigo de as razões da não-conformidade com camisas de cilindro e, assim, levar para dar questões de falência são susceptíveis de surgir. O diâmetro exterior é enviada como a medida final de camisas secos transformados tornalanarak diâmetro interno pequeno de cerca de 0,5-0,75 mm.

Quando flange de montagem pressiona o bloco de cilindro de revestimento seco, a fim de evitar a ruptura da flange, o furo para o processamento de flange solto, o diâmetro exterior da flange (C) que é maior processada.

DEFININDO DESCRIÇÃO TÉCNICA;

Flangeadas camisas secos, enquanto prima passe, assim como o ajuste direito deve ser fornecida no lado de baixo do assento do alojamento da flange de bloco.

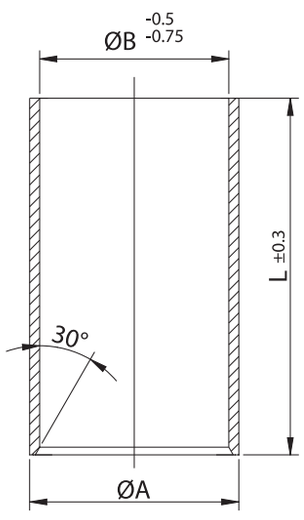


Figura - 6

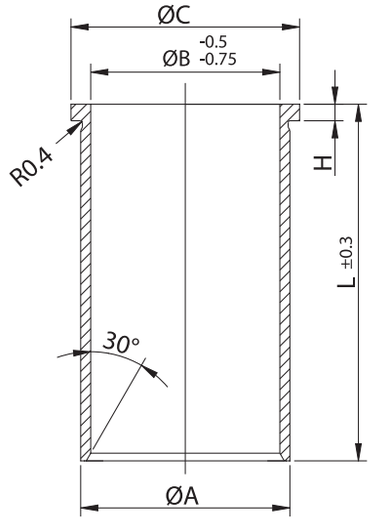


Figura - 7

Como é bem conhecido, as camisas têm o lado inferior da flange tem um raio de 0,4 mm. a camisa do conjunto do bloco, a fim de evitar esse raio de permanência, passagem bloco habitada do flange tem de ser dada de um chanfro de 1,0 mm. Caso contrário, a ruptura da camisa é flanges inevitáveis.

Antes de instalar o novo camisola; cilindro deve ser monitorado cuidadosamente limpos a precisão do motor e de medição. Arredondamento e afunilamento não deve exceder 0.025 milímetros. enquanto aperfeiçoa rugosidade da superfície procurará alcançar o tipo de motor deverá ser verificada pela superfície brilhante. Muito superfície brilhante e lisa para a falta de lubrificação fará com que esta situação, deverá ser evitada.

Antes de instalar o novo camisola; cilindro deve ser monitorado cuidadosamente limpos a precisão do motor e de medição. A pressão de 3000-5000 kg de camisas de cilindros secos imprensa escrita é suficiente. Quando usado como lubrificante sólido durante a montagem, em seguida, coque devido ao calor, e este material é difícil de transferência de calor. Prensas feito após a instalação do bloco de cilindros de fecho e de rectificação plana.

Bloco de cilindros, se necessário, para tratar as superfícies da junta,

Deste modo, o assento na flange da carcaça edição mais profunda. Além disso, o diâmetro exterior do diâmetro interno dos rolos acabados mate maquinada com precisão em camisas. Estas camisas têm uma parte muito pequena de brunimento, os cilindros são pressionados e pressionou, eles apertaram no estado. O diâmetro interno do cilindro de medição com nominal de tolerância 0 0,015 milímetros.

O diâmetro exterior da camisa do cilindro, as dimensões nominais e tolerância entre 0012-0024 mm.

	Camisa De Fora Grupos De Diâmetro.		
	50 - 80	80 - 120	120 - 180
QA	+0.03 +0.04	+0.04 +0.06	+0.05 +0.07
H	+0.2 -0	+0.2 -0	+0.2 -0
QC	-0.06 -0.10	-0.06 -0.10	-0.06 -0.10

	Diâmetro Do Furo Do Bloco (mm)		
	50 - 80	80 - 120	120 - 180
Q 1A	+0.01	+0.01	+0.01
H_1	+0 -0.15	+0 -0.15	+0 -0.15
QC_1	+0.10 +0.25	+0.10 +0.25	+0.10 +0.25

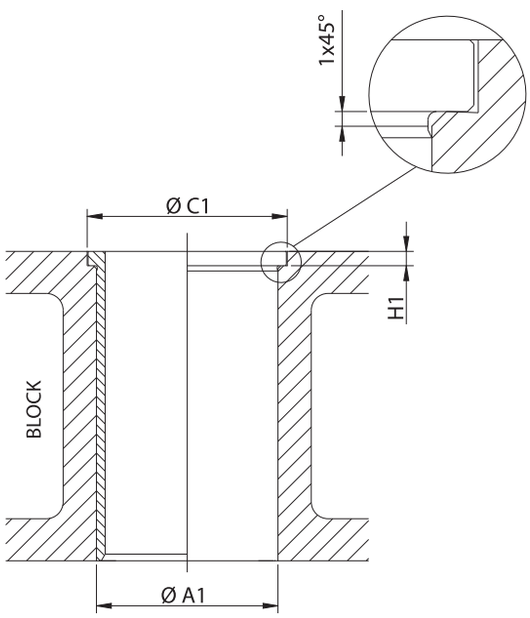


Figura - 9

CAMISAS DE CILINDRO MOLHADAS INSTRUÇÕES DE INSTALAÇÃO

YENMAK camisas de cilindro motor contra o desgaste e resistência à tracção, para assim se obter uma estrutura de propriedades de resistência, é fabricado pelo método de fundição centrífuga.

A fim de evitar danos para a sede do cilindro, deve mostrar cuidado ao remover camisas velhas.

O contacto do cilindro no motor, limpar cuidadosamente a lama de cal e de outros poluentes. Durante a limpeza, então zero raspador de usar ferramentas como formões.

Este processo é escova de aço ferramenta adequada. Para a remoção de ferrugem e cal estabilizado camada das camisas de cilindro é atingido com um martelo monta uma peças do carro sobre eles, embora seja possível para a camisa olmassa prensa hidráulica, em seguida, 'tiro, a fim de remover a cabeça. A limpeza é feita com muito cuidado com o assento, devem ser fornecidos os danos.

Sente-se sobre a superfície inferior do plano paralelo ao colar as superfícies de bloco.

(Figura 10) não diferem em termos de suavidade e planicidade conforme mostrado.

Além disso, o eixo do cilindro perpendiculares ao bloco de cilindros, assegurar que a superfície de vedação. (Figura 11) é chão em um único superfícies de assentamento da garrafa deve sempre ter cuidado que eles são destruídos. (Figura 12)

L raio na parte inferior do colar (D) da superfície da flange do cilindro de assentamento (a) no canto ao diâmetro do cilindro (C) de 0,5-1,0 mm, para impedir que para além do seu ponto. No caso de uma gama de 45 °.

Força contra a força de vedação para impedir a falha, tem de ser perpendiculares entre si.

DEFININDO DESCRIÇÃO TÉCNICA;

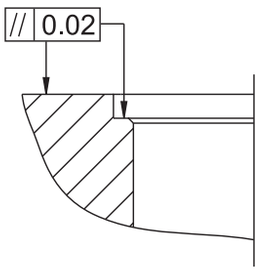


Figura - 10

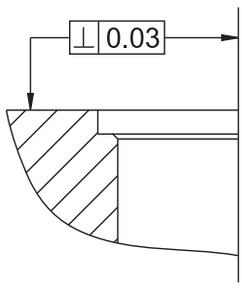


Figura - 11

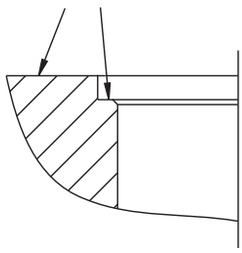


Figura - 12

O diâmetro exterior da manga com um diâmetro do orifício da junta de vedação deve ser igual. Câmara de combustão, a fim de garantir uma vedação completa, o selo terá de utilizar a estrutura de metal.

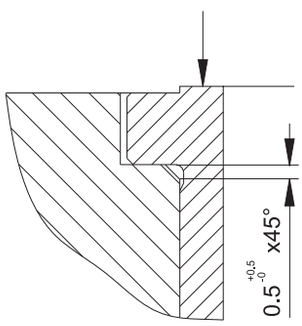


Figura - 14

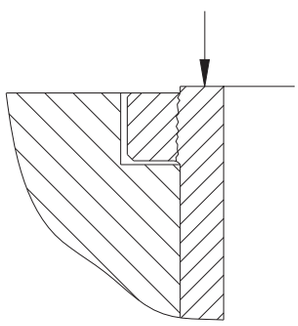


Figura - 15

Para determinar se o cilindro é facilmente organizados no assentamento da camisa e é muito grandes ou muito grandes camisas blocos no cilindro deve ser inserido à mão sem o uso do anel para a instalação. Em particular, a fim de determinar se a posição correta para sua camisa antes de as superfícies do flange de montagem do bloco de inversão de flash, colocando as superfícies de assento flange recomendado. Conhecido como para arrefecer o flange no motor, para aumentá-la. Deve ser considerado como uma abertura teórico de 0,3-0,5 mm.

Ele salienta que nada nas instruções de instalação em todas as oportunidades, é usar camisas e considerações em conformidade com a finalidade de remoção. Quando o conjunto de martelos e assim por diante. Que o uso de outro time pesado, desta forma não é correto, dar maus resultados de ocorrência de erros.

Os anéis de borracha para ser usado durante a instalação, há a qualidade e as bolhas necessitam de ser, resistente ao desgaste, óleo e deve ser resistente ao calor. Caso contrário, cobrir a água que vem para baixo, o que conduz a uma deterioração da camisa e a compressão medida. Sabão macio cada vez que o anel de borracha é accionado e, assim, inserido na ranhura.

Como anel de borracha, usado somente pelas marcas de fabricantes de motores de qualidade pode ser designada. Esta é a principal razão para a escolha, elásticos inchar e resistente ao desgaste, não óleo e calor.

Apreensão do pistão, que pode causar a quebra camisa é um resultado do uso indevido de anéis de borracha. Peças habitadas por anéis de borracha não deve nunca ganhar.

Depois de camisas inserido manualmente, é importante para controlar o tamanho do cilindro uma vez. Este controle, especialmente em áreas onde os anéis de borracha são oval em forma e têm de encolhimento pode ocorrer.

Shirts Uma vez totalmente inseridos, doldulurak ser comprimida pelo bloco de cilindros e estado da água de selagem devem ser monitorados.

DETALHES CAMISA TAG.

VEDAÇÃO

Anel de Vedação	
EPDM	Borracha EPD
NBR	Borracha NBR
FPM / VI	FPM / FKM
Cu	Cobre
T	Latão Vermelho
ST	Aço
SC / MVQ	Silicone (VMQ)
Shim / SM	Metal Macio

93,000 (1)		(3)	(4)	(5)	(6)	(7)
4JB1 (2)		D 00 2005	> 00 2005	4 Cyl	2771cc	57kW (78ps)
11-02385-000 (8) (9) CH 51,850 VD1 0,550 (10) (11) B- 19,500 BØ 43,900 (12) (13) TL 91,850	AP YS (14) HA CP	91-09389-000 1 2,000 P 2 2,000 P (16) 3 4,000 CrP	1. Conta ile 1,50mm (+0,71/+0,77) 2. Conta ile 1,55mm (+0,77/+0,81) 3. Conta ile 1,60mm (+0,81/+0,87) (17)		Ø 93,000 (18)	31-04385-000 (19)
(15) 31,00x76,00		99-09389-000 1 2,000 FeP 2 2,000 FeP (16) 3 4,000 TeF				39-04385-000
Isuzu ve Opel ile Ortak Motor (27)						
(24) K=95,00 (22) L=181,00 H=0,90 (25) (23) D=101,00	DF-CR-ST (26)				51-35721-000 (20)	71-08385-000 71-98385-000 (21)
(24) K=120,00 (22) L=229,00 H+F=9,00+1,10 (25) (23) D=128,50	WF (26)		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00 (28)		51-06067-000 52-06067-000 (20)	71-07152-000 72-07152-000 (21)

1 - Diâmetro Do Pistão
2 - Código De Motor
3 - Informações De Combustível
4 - Anos De Modelo
5 - O Número De Cilindros
6 - Volume Do Cilindro
7 - A Potência Do Motor
8 - Código De Pistão
9 - Ch: Acidente Vascular Cerebral
10 - Vd1 / Vd2: Profundidade Válvula
11 - B- : Profundidade da câmara de combustão.
B+ : Protuberâncıa do topo do pıstão
12 - Bo: Diâmetro De Célula
13 - Tl: Tamanho Grande
14 - Funções De Pistão
* Dap: Pistões Duplos Alf
* Ap: Pistão Alfinl
* Ys: Pistões Refrigerados A Óleo
* Cpu: Pistões De Aço
* Ha: Revestimento Anodizado Duro
* Pdb: Ônibus Pinhole
15 - Pin Diâmetro - Altura - Recursos
16 - Características Do Segmento
17 - Projeção Cruzeta
18 - Diâmetro
19 - Código De Pistão +
20 - Código De Camisa
21 - Código Kit
22 - Diâmetro Exterior Do Cilindro
23 - Diâmetro Camisas Flange
24 - Camisa De Corpo Inteiro
25 - Flange Bill Espessura
26 - Tipo E Características Camisa
*WS : Liner Wet semi-acabados
*WF : Liner Wet acabamento completo
*DS : Liner seca semi-acabados
*DF : Liner seca acabamento completo
*AF : Refrigerado a ar acabamento completo
*PH : Fosfato
*CR : Cromado
*HR : Endurecido
*NT : Nitrito
*HT : Tratamento termico
*STEEL : Aço
27 - Motor comum
28 - Código De Vedação

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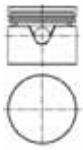
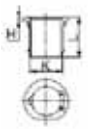
Motor tipleri, açıklamalar, ürünler, ürün resimleri, üreticiler, araçlar v.b. nitelendirmeler sadece referans amaçlı verilmiştir.

AIRCOMPRESSOR

		Type		B C		

60,000

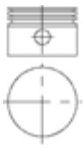
MERCEDES BENZ OM457 / Voith-Nr: LP 490 — K — 1 Cyl — **cc** — **kW** — (ps)

	**11-01115-000** CH 25,000 TL 50,000 **14,00x53,00**		**91-09108-000** 1 2,000 P 2 2,000 P 3 3,000 P		Ø 60,000	**31-03115-000**
	K=65,40 L=81,00 H=7,00 D=88,00	CF		O-Ring/Seal 55-50920-000 1 FPM 64,00x3,00 1 FPM 67,00x3,00	**51-95174-000** 52-95174-000	**71-08871-000** 72-08871-000

75,000

SCANIA(HAVA SOGUTMALI 15W37 WB15) — K — 2 Cyl

SCANIA(SU SOGUTMALI 15.5W31 WB31) — K — 2 Cyl

	**11-01910-000** CH 32,200 TL 52,800 **15,88x60,40**		**91-09910-000** 1 2,385 P 2 2,385 P 3 3,947 P		Ø 75,000 Ø 75,250 Ø 75,500 Ø 75,750 Ø 76,000	**31-03910-000** **31-03910-010** **31-03910-020** **31-03910-030** **31-03910-040**

75,000

DAF — K — 1960 — 2 Cyl

VOLVO — K — 1960 — 1 Cyl

	11-01911-000 CH 31,000 TL 60,000 **18,00x62,90**		**91-09011-000** 1 2,000 2 2,000 3 4,000		Ø 75,000 Ø 75,250 Ø 75,500	**31-03911-000** **31-03911-025** **31-03911-050**
			99-09011-000 1 2,000 2 2,000 3 4,000			**39-03911-000** **39-03911-025** **39-03911-050**

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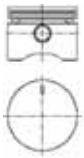
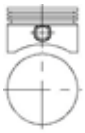
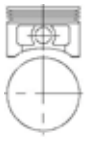
		Type		B C		
75,000						
DAF			K 1960	2 Cyl		
VOLVO			K 1960	1 Cyl		
	**11-02802-000** CH 28,000 TL 57,000 **15,00x50,00**		**91-09011-000** 1 2,000 2 2,000 3 4,000		Ø 75,000 Ø 75,250 Ø 75,500 Ø 75,750 Ø 76,000	**31-04802-000** **31-04802-025** **31-04802-050** **31-04802-075** **31-04802-100**
			99-09011-000 1 2,000 2 2,000 3 4,000			**39-04802-000** **39-04802-025** **39-04802-050** **39-04802-075** **39-04802-100**
78,000						
KOMPRESSOR			K	1 Cyl		
R.V.I BERLIET MIDR 06.23.06 A41			K	1 Cyl		
	11-02926-000 CH 31,000 TL 60,000 **18,00x63,00**		**91-09926-000** 1 2,500 2 2,500 3 4,000		Ø 78,000	**31-04926-000**
82,000						
IVECO			K	2 Cyl		
	**11-02855-000** CH 28,500 TL 52,100 **14,00x72,00**		**91-09752-000** 1 2,500 P 2 2,500 P 3 4,000 P		Ø 82,000 Ø 82,500	**31-04855-000** **31-04855-050**
85,000						
MERCEDES BENZ OM 457 LA Euro 3			K	1 Cyl		
MERCEDES BENZ OM 457 LA Euro 4			K	1 Cyl		
	**11-01607-000** CH 33,300 TL 59,000 **19,05x60,00**		**91-09607-000** 1 2,000 2 2,000 3 4,000		Ø 85,000 Ø 85,250 Ø 85,500 Ø 85,750 Ø 86,000	**31-03607-000** **31-03607-025** **31-03607-050** **31-03607-075** **31-03607-100**

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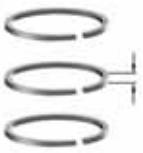
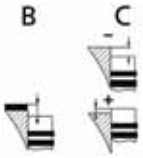
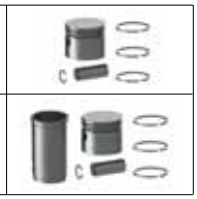
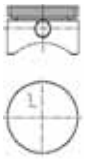
		Type		B C		
						

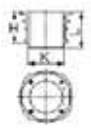
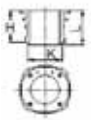
86,000

IVECO CURSOR 10-13 — K — 1 Cyl

	**11-01107-000** CH 26,500 TL 56,800 **18,00x63,00**		**91-09113-000** 1 2,000 P 2 2,000 P 3 3,000 P		Ø 86,000 Ø 86,250 Ø 86,500 Ø 86,750 Ø 87,000	**31-03107-000** **31-03107-025** **31-03107-050** **31-03107-075** **31-03107-100**

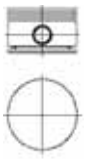
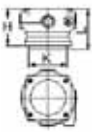
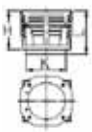
88,000

MERCEDES BENZ OM 366 LA — K — 1 Cyl

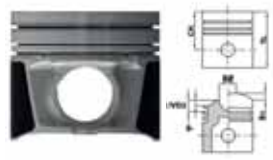
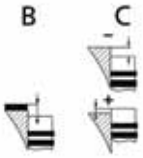
	11-02801-000 CH 31,500 TL 65,600 **18,00x63,00**		**91-09116-000** 1 2,500 P 2 2,500 P 3 4,000 P		Ø 88,000 Ø 88,250 Ø 88,500 Ø 88,750 Ø 89,000	**31-04801-000** **31-04801-025** **31-04801-050** **31-04801-075** **31-04801-100**
	K=95,00 L=97,00 H=85,00	CF			**51-95184-000**	**71-08838-000**
	K=95,00 L=98,50 H=91,00	CF			**51-96164-000**	**71-08851-000**

90,000

MERCEDES BENZ LP490 — K — 1 Cyl

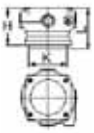
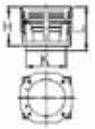
	**11-01618-000** CH 35,000 TL 57,500 **20,00x60,00**		**91-09618-000** 1 2,500 P 2 2,500 P 3 2,500 P 4 4,000		Ø 90,000 Ø 90,100 Ø 90,500 Ø 91,000	**31-03618-000** **31-03618-010** **31-03618-050** **31-03618-100**
	K=95,00 L=104,00 H=94,00	CF			**51-95626-000**	**71-07618-000**
	K=95,00 L=104,00 H=94,00	CF			**51-95627-000**	**71-07617-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

90,000

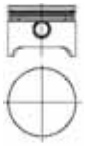
D 2530,2538,2555,2556,2566 — K — 1 Cyl

	11-01619-000 CH 35,000 TL 57,500 **20,00x60,00**		**91-09618-000** 1 2,500 P 2 2,500 P 3 4,000		Ø 90,000 Ø 90,100 Ø 90,500 Ø 91,000	**31-03619-000** **31-03619-010** **31-03619-050** **31-03619-100**
	K=95,00 L=104,00 H=94,00	CF			**51-95626-000**	**71-07619-000**
	K=95,00 L=104,00 H=94,00	CF			**51-95627-000**	**71-07010-000**

92,000

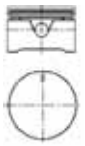
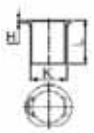
FORD NHDD — K — 1 Cyl

MAN D2066 KOMPRESOR — K — 1 Cyl

	**11-01101-000** CH 31,000 TL 67,900 **18,00x63,00**		**91-09123-000** 1 2,500 2 2,500 3 4,000		Ø 92,000 Ø 92,250 Ø 92,500 Ø 92,750 Ø 93,000	**31-03101-000** **31-03101-025** **31-03101-050** **31-03101-075** **31-03101-100**

92,000

MERCEDES BENZ OM457 / Voith-Nr: LP 490 — K — 1 Cyl

	**11-01119-000** CH 31,050 TL 60,950 **18,00x63,00**		1 2,500 2 2,500 3 3,000		Ø 92,000	**31-03119-000**
	K=98,00 L=122,00 H=7,00 D=126,00	CF		O-Ring/Seal 55-50921-000 1 FPM 98,00x3,00	**51-95179-000** 52-95179-000	**71-08872-000** 72-08872-000

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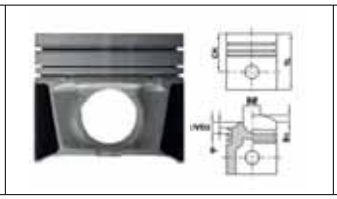
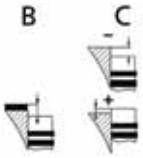
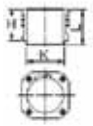
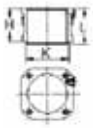
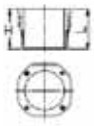
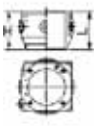
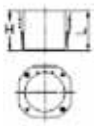
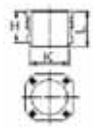
		Type				

100,000

MERCEDES BENZ OM501 HAVA KOMP. K 1996 1 Cyl

	11-02712-000 CH 30,400 TL 52,200 **20,00x50,00**		**91-09620-000** 1 2,500 CR 2 2,500 P 3 4,000 P		Ø 100,000	**31-04712-000**
	K=106,00 L=101,00 H=89,00	CF			**51-95180-000**	**71-08848-000**
	K=106,00 L=91,00 H=84,00	CF			**51-95181-000**	**71-08836-000**
	K=115,00 L=102,70 H=102,70	CF			**51-95188-000**	**71-08835-000**
	L=102,00 H=102,00	WS			**51-95576-000**	**71-08842-000**
	K=115,00 L=102,00 H=102,00	CF			**51-95622-000**	**71-08622-000**
	K=106,00 L=101,00 H=89,00	CF			**51-95623-000**	**71-08623-000**

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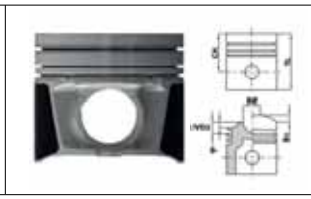
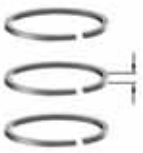
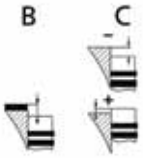
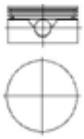
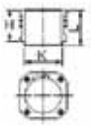
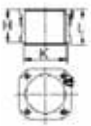
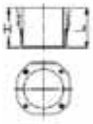
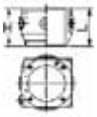
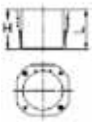
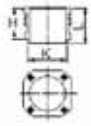
AIRCOMPRESSOR

		Type				

100,000

MAN KOMP.			K 1996	1 Cyl		
MERCEDES BENZ OM442-501-502-541-542			K	1 Cyl		
	**11-02752-000** CH 30,400 TL 52,200 **20,00x50,00**		**91-09122-000** 1 2,500 P 2 2,500 P 3 3,000 CrP		Ø 100,000	**31-04752-000**
	K=106,00 L=101,00 H=89,00	CF			**51-95180-000**	**71-08849-000**
	K=106,00 L=91,00 H=84,00	CF			**51-95181-000**	**71-08837-000**
	K=115,00 L=102,70 H=102,70	CF			**51-95188-000**	**71-08834-000**
	L=102,00 H=102,00	WS			**51-95576-000**	**71-08843-000**
	K=115,00 L=102,00 H=102,00	CF			**51-95622-000**	**71-08822-000**
	K=106,00 L=101,00 H=89,00	CF			**51-95623-000**	**71-08824-000**

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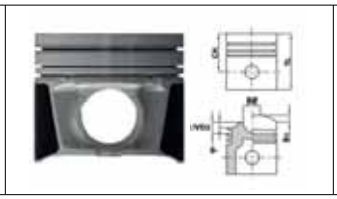
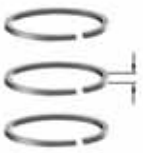
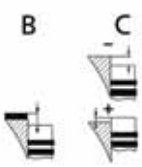
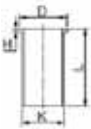
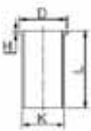
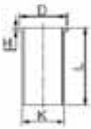
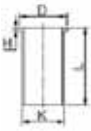
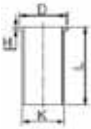
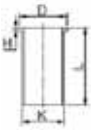
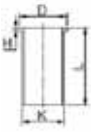
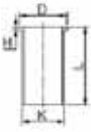
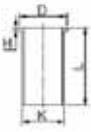
		Type				

137,000

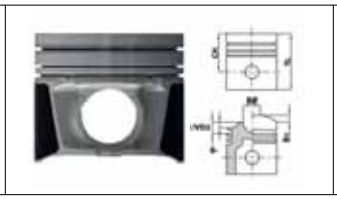
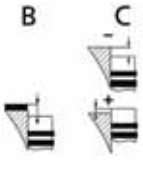
8210.42L. D 1993 6 Cyl

	11-02825-000 CH 92,000 B- 21,000 BØ 83,800 TL 157,000 **50,00x115,00**	AP YS HA PDB	**91-09854-000** 1 4,000 CR 2 3,000 CR 3 5,500 CR		Ø 137,000	**31-04825-000**
Astra ve Iveco ile Ortak Motor						
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-07421-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05			**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	**71-07422-000**
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05			**51-35447-005**	
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

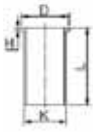
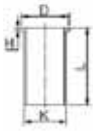
		Type		B C		
84,000						
403D-15T / 15G / 17 Euro 3			D	3 Cyl	**1496cc** **13-30kW**	(18-41ps)
	11-02959-000 CH 47,700 VD1 1,600 B- 1,600 TL 87,700 **28,00x72,00**		**91-09769-000** 1 2,000 CR 2 1,500 CrP 3 3,000 CR		Ø 84,000 Ø 84,500	**31-04959-000** **31-04959-050**
Atlas Copco ve Perkins ile Ortak Motor						

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

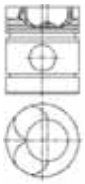
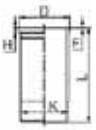
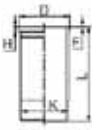
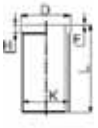
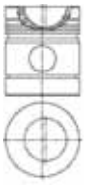
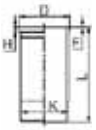
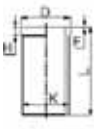
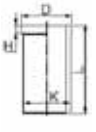
		Type				

103,180

10.220	D	1961	1974	4 Cyl	**3611cc**	**49-55kW**	(66-74ps)
5, J 330	D	1961	1983	6 Cyl	**5417cc**	**73-82kW**	(100-111ps)

	11-01310-000 CH 71,500 B- 21,500 BØ 52,900 TL 118,240 **34,93x88,10**		**91-09310-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 P 5 4,747 P		Ø 103,180 Ø 103,680 Ø 103,930 Ø 104,180	**31-03310-000** **31-03310-020** **31-03310-030** **31-03310-040**
	K=108,05 L=216,30 H+F= + D=	DS			**51-65309-000**	
	K=108,05 L=216,30 H=6,00 D=111,12	DS			**51-65310-000**	
	K=108,50 L=216,30 H=6,00 D=111,12	DS +0,50			**51-65310-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

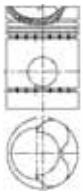
		Type		B C		
98,000						
4.98 NV			D 1974	4 Cyl	**3770cc** **46-55kW**	(62-72ps)
6,98 DV / NV			D 1972	6 Cyl	**5665cc** **71-85kW**	(97-115ps)
	**11-01338-000** CH 68,200 VD1 2,400 B- 25,000 BØ 56,000 TL 116,300 **34,93x82,50**		**91-09338-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 4,747 P	0/+0,20	Ø 98,000	**31-03338-000**
	K=108,18 L=221,60 H+F=8,89+0,89 D=117,10	WF-PH			**51-05338-000**	**71-07338-000**
	K=108,70 L=221,60 H+F=9,50+0,89 D=117,60	WF-PH +0,50			**51-05338-050**	
	K=116,00 L=222,00 H+F=20,00+0,80 D=123,65	WF-OS			**51-05340-000**	**71-07340-000**
100,000						
1042			D	3 Cyl	**2800cc** **32kW**	(44ps)
OEE			D	4 Cyl	**3770cc** **44kW**	(60ps)
	**11-01339-000** CH 70,300 B- 27,000 BØ 57,000 TL 121,000 **34,93x84,50**		**91-09339-000** 1 3,947 CR 2 2,385 P 3 2,385 P 4 6,335 CR 5 6,335 P		Ø 100,000	**31-03339-000**
	K=110,62 L=221,60 H+F=8,90+0,80 D=117,05	WF-PH			**51-05339-000**	**71-07339-000**
	K=116,00 L=222,00 H+F=20,00+0,80 D=123,65	WF-OS			**51-05345-000**	**71-07146-000**
	K=116,00 L=222,00 H=19,00 D=123,65	WS			**51-05346-000**	**71-07341-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

146,000

Buldozer Heavy Duty — D — 8 Cyl — **cc** — **kW** — (ps)



11-02405-000
CH 132,500
VD1 7,600
B- 25,000
BØ 104,500
TL 208,000

60,00x119,60

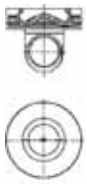
91-09405-000

1	4,500	CrP
2	2,500	P
3	2,500	P
4	6,500	CrP
5	6,500	CrP

Ø 146,000

31-04405-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
105,000						
3116			D	Cyl		
	**11-01175-000** CH 59,157 B- 17,600 BØ 59,000 TL 87,000 **40,00x85,09**	PDB STEEL PISTON	1 3,000 2 3,000 3 4,000		Ø 105,000	
114,300						
3204 10.4L			D			
3204 5.2L			D			
	11-01194-000 CH 58,930 B- 20,930 BØ 63,500 TL 93,230 **38,10x81,40**	AP	**91-09198-000** 1 3,160 MoP 2 2,778 CR		Ø 114,300	**31-03194-000**
	K=119,14 L=196,85	DS			**51-65355-000**	

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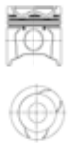
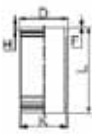
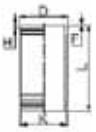
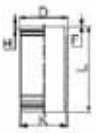
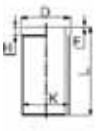
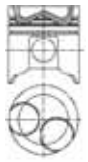
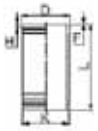
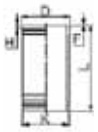
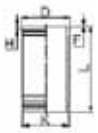
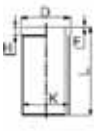
		Type		B C		
120,650						
3304 / 3306			D			
	**11-01022-000** CH 74,000 VD1 2,000 B- 17,900 BØ 85,000 TL 130,000 **43,18x94,80**	DAP	1 3,175 2 3,175 3 4,000		Ø 120,650	**31-03022-000**
120,650						
3304			D	4 Cyl	**7000cc**	
3306			D	6 Cyl	**10500cc**	
	11-01204-000 CH 73,900 VD1 6,670 VD2 7,250 B- 14,200 BØ 101,600 TL 115,050 **38,12x95,00**	DAP	**91-09204-000** 1 3,160 CrP 2 2,385 CrP 3 5,535 CrP	-0,45/+0,06	Ø 120,650	**31-03204-000**
	K=134,45 L=255,00 H+F=11,30+1,00 D=144,70	WF-OS			**51-05258-000**	**71-07205-000**
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF-HR		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05331-000** 52-05331-000	**71-07113-000** 72-07113-000
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05352-000** 52-05352-000	**71-07204-000** 72-07204-000
	K=139,00 L=255,00 H+F=15,00+1,00 D=146,00	WF-OS			**51-05358-000**	**71-07047-000**

		Type		B C		

120,650

D 3306 D 6 Cyl **10500cc 78-147kW** (106-200ps)

	**11-01209-000** CH 73,910 VD1 2,030 B- 19,700 BØ 85,090 TL 129,910 **43,18x94,90**	DAP	**91-09205-000** 1 3,120 CrP 2 3,120 CrP 3 3,160 CrP	-0,45/+0,06	Ø 120,650	**31-03209-000**
	K=134,45 L=255,00 H+F=11,30+1,00 D=144,70	WF-OS			**51-05258-000**	**71-07206-000**
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF-HR		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05331-000** 52-05331-000	**71-07122-000** 72-07122-000
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05352-000** 52-05352-000	**71-07209-000** 72-07209-000
	K=139,00 L=255,00 H+F=15,00+1,00 D=146,00	WF-OS			**51-05358-000**	**71-07005-000**

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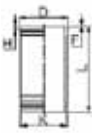
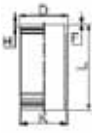
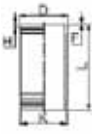
		Type		B C		

120,650

D 3306 D 6 Cyl **10500cc 78-147kW** (106-200ps)

	11-01210-000 CH 73,910 VD1 2,030 B- 19,700 BØ 85,090 TL 129,910 **43,18x94,90**	DAP	**91-09210-000** 1 3,120 CrP 2 3,120 CrP 3 4,000 CrP		Ø 120,650	**31-03210-000**
	K=134,45 L=255,00 H+F=11,30+1,00 D=144,70	WF-OS			**51-05258-000**	**71-07207-000**
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF-HR		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05331-000** 52-05331-000	**71-07120-000** 72-07120-000
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05352-000** 52-05352-000	**71-07210-000** 72-07210-000
	K=139,00 L=255,00 H+F=15,00+1,00 D=146,00	WF-OS			**51-05358-000**	**71-07121-000**

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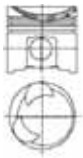
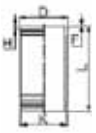
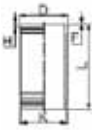
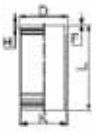
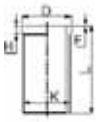
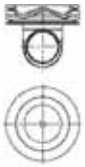
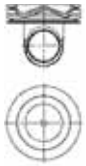
		Type		B C		
120,650						
3304			D	4 Cyl	**7000cc** **46-97kW**	(62-130ps)
3306			D	6 Cyl	**10500cc** **78-147kW**	(106-200ps)
	**11-01211-000** CH 73,900 VD1 6,670 VD2 7,250 B- 14,200 BØ 101,600 TL 115,050 **38,12x95,00**	DAP	**91-09204-000** 1 3,160 CrP 2 2,385 CrP 3 5,535 CrP		Ø 120,650	**31-03211-000**
	K=134,45 L=255,00 H+F=11,30+1,00 D=144,70	WF-OS			**51-05258-000**	**71-07208-000**
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF-HR		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05331-000** 52-05331-000	**71-07115-000** 72-07115-000
	K=134,40 L=255,00 H+F=10,30+1,00 D=142,80	WF		O-Ring/Seal 55-50911-000 1 NBR 130,00x132,20x6,00 3 NBR 117,00x4,00	**51-05352-000** 52-05352-000	**71-07211-000** 72-07211-000
	K=139,00 L=255,00 H+F=15,00+1,00 D=146,00	WF-OS			**51-05358-000**	**71-07114-000**
125,000						
C10			D	6 Cyl	**cc** **kW**	(ps)
	**11-01025-000** CH 70,050 B- 14,600 BØ 90,000 TL 104,250	PDB STEEL PISTON	1 4,000 2 3,000 3 4,000		Ø 125,000	
129,540						
C12			D	6 Cyl		
	**11-01026-000** CH 69,550 B- 16,000 BØ 94,800 TL 105,500	PDB STEEL PISTON	1 4,000 2 3,000 3 4,000		Ø 129,540	

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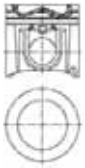
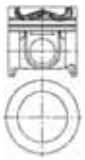
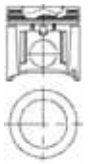
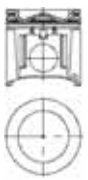
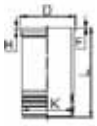
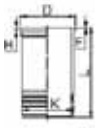
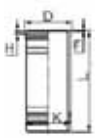
		Type		B C		
137,160						
340614,6L			D	8 Cyl		
	**11-02547-000** CH 88,000 B- 18,000 BØ 94,000 TL 138,100 **50,80x112,00**	DAP	**91-09553-000** 1 3,969 Mo 2 3,175 CR 3 3,175 CrP		Ø 137,160	**31-04547-000**
137,160						
340614.6L			D	8 Cyl	**14600cc 261kW**	(355ps)
340818.0L			D	8 Cyl	**18000cc 317kW**	(431ps)
	11-02548-000 CH 88,000 B- 16,750 BØ 94,000 TL 138,100 **50,80x112,00**	DAP	**91-09553-000** 1 3,969 Mo 2 3,175 CR 3 3,175 CrP		Ø 137,160	**31-04548-000**
137,160						
3408 / 18.0L1099CID			D	8 Cyl	**18000cc 231kW**	(314ps)
	**11-02549-000** CH 88,000 B- 16,100 BØ 94,000 TL 138,100 **50,80x112,00**	DAP	**91-09553-000** 1 3,969 Mo 2 3,175 CR 3 3,175 CrP		Ø 137,160	**31-04549-000**
137,160						
3406 / 14.6893CID			D	8 Cyl	**14600cc 261-317kW**	(355-431ps)
	**11-02550-000** CH 88,000 B- 18,500 BØ 94,000 TL 138,100 **50,80x112,00**	DAP	**91-09553-000** 1 3,969 Mo 2 3,175 CR 3 3,175 CrP		Ø 137,160	**31-04550-000**
137,160						
3406 / 14.6893CID			D	8 Cyl	**14600cc 213-246kW**	(289-335ps)
	**11-02551-000** CH 88,000 B- 17,800 BØ 94,000 TL 138,100 **50,80x112,00**	DAP	**91-09553-000** 1 3,969 Mo 2 3,175 CR 3 3,175 CrP		Ø 137,160	**31-04551-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
137,160						
3406 Turbo Intercooled		D	6 Cyl	**cc**	**kW**	(ps)
3408 Turbo Intercooled		D	8 Cyl	**cc**	**kW**	(ps)
3412 Turbo Intercooled		D	12 Cyl	**cc**	**kW**	(ps)
	11-02553-000 CH 87,930 B- 17,900 BØ 94,000 TL 137,300 **50,80x112,00**	DAP	**91-09553-000** 1 3,969 Mo 2 3,175 CR 3 3,175 CrP	-1,80/-2,10	Ø 137,160	**31-04553-000**
	K=153,65 L=274,50 H+F=8,90+1,00 D=165,15	WF-CR			**51-05329-000**	**71-08554-000**
	K=153,65 L=274,50 H+F=8,90+1,00 D=165,15	WF-HR			**51-05349-000**	**71-08553-000**
137,160						
3406 / 14.6L893 CID crown gallery cooled		D	8 Cyl			
	11-02630-000 CH 88,100 B- 20,000 BØ 94,000 TL 138,100 **50,80x112,00**	DAP YS	**91-09553-000** 1 3,969 Mo 2 3,175 CR 3 3,175 CrP		Ø 137,160	**31-04630-000**
146,050						
D13000		D	1954 8 Cyl	**20400cc**		
D339		D	1954 8 Cyl	**13620cc**		
D375D		D	1954 8 Cyl	**27250cc**		
D397D		D	1954 8 Cyl	**40800cc**		
	11-02556-000 CH 131,700 VD1 6,730 B- 21,870 BØ 128,500 TL 207,980 **60,71x120,30**	DAP	**91-09615-000** 1 3,947 CR 2 3,947 CR 3 6,335 CR	0,6	Ø 146,050	**31-04556-000**
	K=168,07 L=382,50 H+F=12,70+1,00 D=177,40	WF			**51-05368-000**	**71-08556-000**

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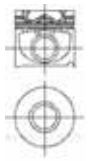
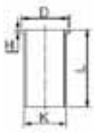
		Type		B C		

99,000

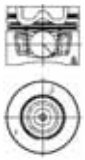
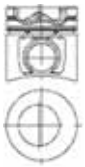
F32 MNT Euro 3 — D — 4 Cyl — **3200cc** — **53-65kW** — (72-88ps)

	**11-02827-000** CH 62,500 B- 19,900 BØ 50,000 TL 93,000 **36,00x81,00** Claas ve Fiat / Iveco ile Ortak Motor	AP	**91-09692-000** 1 2,500 CdC 2 2,000 3 2,500 CK		Ø 99,000 Ø 99,400	**31-04827-000** **31-04827-040**
	K=103,00 L=174,00 H=5,00 D=105,00	DS			**51-65750-000**	

105,000

1104D-E44T Euro 3 — D — 4 Cyl — **4400cc** — **55-75kW** — (75-102ps)

	11-02963-000 CH 70,116 B- 15,700 BØ 76,600 TL 108,050 **39,70x86,00** Claas ve Perkins ile Ortak Motor	AP	**91-09771-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 105,000	**31-04963-000**

		Type		B C		
94,000						
ISF2.8			D	4 Cyl	**cc** **kW**	(ps)
	**11-02969-000** CH 48,700 B- 16,300 BØ 51,900 TL 76,000 **34,50x73,00**	AP YS	**91-09365-000** 1 2,500 CK St 2 2,000 P 3 3,000 CrP		Ø 94,000 Ø 94,500	**31-04969-000** **31-04969-050**
102,000						
6BT 5.9L E17			D	6 Cyl		
	11-01362-000 CH 71,580 B- 22,100 BØ 51,400 TL 105,390 **40,00x83,00**	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP		Ø 102,000 Ø 102,500	**31-03362-000** **31-03362-050**
102,000						
4B 3.9 C Euro 2			D	4 Cyl	**3900cc**	
4BT 3.9 Euro 2			D	4 Cyl	**3900cc**	
4BTA 3.9 Euro 2			D	4 Cyl	**3900cc**	
6B 5.9 C Euro 2			D	6 Cyl	**5883cc**	
6BT / 6BTA 5.9 Euro 2			D	6 Cyl	**5883cc**	
	**11-01363-000** CH 71,560 B- 17,700 BØ 59,100 TL 105,360 **40,00x75,68**	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP		Ø 102,000 Ø 102,500	**31-03363-000** **31-03363-050**
Cummins ve Volvo ile Ortak Motor						
102,000						
ISB 135 / 150 / 170 Euro 3			D	4 Cyl	**3900cc** **99-125kW**	(135-170ps)
ISB 185 / 220 / 250 / 275 Euro 3			D	6 Cyl	**5900cc** **136-202kW**	(185-275ps)
	11-01365-000 CH 71,400 B- 18,500 BØ 56,500 TL 105,200 **40,00x83,00**	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP		Ø 102,000 Ø 102,500 Ø 103,000	**31-03365-000** **31-03365-020** **31-03365-040**

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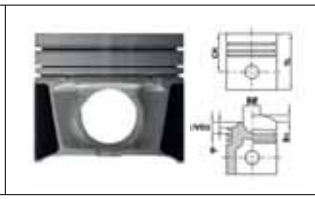
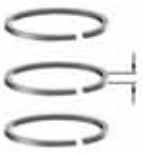
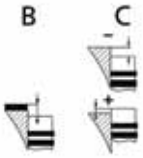
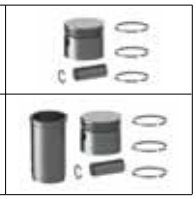
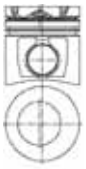
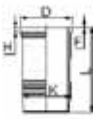
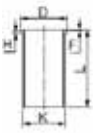
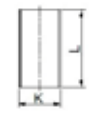
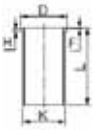
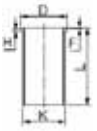
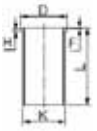
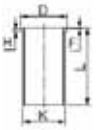
		Type		B C		
						

102,000

4B 3.9C Euro2	D		4 Cyl	**3900cc**	**55-60kW** (75-82ps)
4BT 3.9 Euro2	D		4 Cyl	**3900cc**	**60-82kW** (82-111ps)
4BTA 3.9 Euro2	D	1991	4 Cyl	**3900cc**	**82-97kW** (111-132ps)
6B 5.9C / 6BTA 5.9 Euro2	D		6 Cyl	**5880cc**	**86-132kW** (115-177ps)
6BT 5.9 Euro2	D	1991	6 Cyl	**5880cc**	**86-132kW** (115-177ps)

	**11-01370-000** CH 71,560 B- 17,600 BØ 59,150 TL 105,360 **40,00x75,80**	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP	+0,33/+0,66	Ø 102,000 Ø 102,500 Ø 103,000	**31-03370-000** **31-03370-020** **31-03370-040**
	K=137,50 L=246,60 H+F=12,00+0,60 D=149,00	WF-PH			**51-05573-000**	**71-07368-000**
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DF			**51-35328-000**	**71-07369-000**
	K=104,62 L=200,00	DF			**51-35333-000**	**71-07370-000**
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DS			**51-65370-000**	
	K=106,50 L=204,00 H+F=5,05+0,80 D=109,50	DS +0,50			**51-65370-050**	
	K=107,07 L=204,00 H+F=5,05+0,80 D=110,00	DS +1,00			**51-65370-100**	
	K=107,50 L=204,00 H+F=5,05+0,80 D=110,50	DS +1,50			**51-65370-150**	

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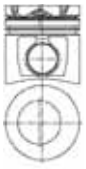
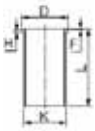
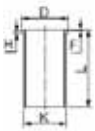
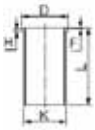
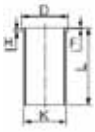
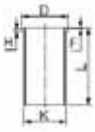
		Type		B C		
102,000						
4BTA 3.9 Euro1		D		4 Cyl	**3920cc** **57-97kW**	(78-132ps)
6BTA A5.9		D	1991	6 Cyl	**5880cc** **144kW**	(193ps)
	**11-01372-000** CH 71,560 B- 17,900 BØ 63,500 TL 105,360 **40,00x75,80** Cummins ve Daf ile Ortak Motor	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP	+0,33/+0,66	Ø 102,000 Ø 102,500 Ø 103,000	**31-03372-000** **31-03372-020** **31-03372-040**
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DF			**51-35328-000**	**71-07377-000**
	K=104,62 L=200,00	DF			**51-35333-000**	**71-07373-000**
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DS			**51-65370-000**	
	K=106,50 L=204,00 H+F=5,05+0,80 D=109,50	DS +0,50			**51-65370-050**	
	K=107,07 L=204,00 H+F=5,05+0,80 D=110,00	DS +1,00			**51-65370-100**	
	K=107,50 L=204,00 H+F=5,05+0,80 D=110,50	DS +1,50			**51-65370-150**	
	K=104,62 L=200,00	DS			**51-65373-000**	
	K=105,06 L=200,00	DS +0,50			**51-65373-050**	

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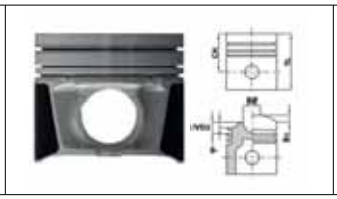
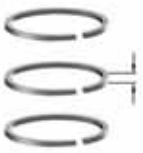
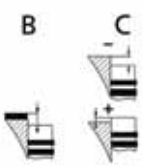
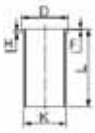
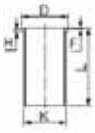
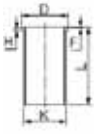
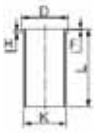
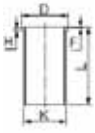
		Type				

102,000

B215 / 235.20 Euro2 — D 2003 — 6 Cyl — **5880cc** **kW** — (215-235ps)

	11-01374-000 CH 71,620 B- 22,000 BØ 51,250 TL 105,400 **40,00x83,00**	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP	+0,33/+0,66	Ø 102,000 Ø 102,500	**31-03374-000** **31-03374-050**
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DF			**51-35328-000**	**71-07387-000**
	K=104,62 L=200,00	DF			**51-35333-000**	**71-07374-000**
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DS			**51-65370-000**	
	K=106,50 L=204,00 H+F=5,05+0,80 D=109,50	DS +0,50			**51-65370-050**	
	K=107,07 L=204,00 H+F=5,05+0,80 D=110,00	DS +1,00			**51-65370-100**	
	K=107,50 L=204,00 H+F=5,05+0,80 D=110,50	DS +1,50			**51-65370-150**	
	K=104,62 L=200,00	DS			**51-65373-000**	
	K=105,06 L=200,00	DS +0,50			**51-65373-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

102,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston — Cyl — **cc** — (ps)

11-01374-001
CH 71,420
B- 22,000
BØ 51,250
TL 105,400

40,00x83,00

AP

CH -0,20 mm

91-09370-000
1 3,000 CR
2 2,350 P
3 4,000 CrP

Ø 102,000 **31-03374-001**
Ø 102,500 **31-03374-051**

102,000

ISB 160.10 Euro1 — D — 2002

ISBe4 185B — D — 2002

11-01377-000
CH 71,620
B- 20,700
BØ 54,000
TL 105,400

40,00x83,00

AP

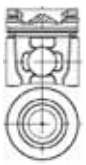
91-09370-000
1 3,000 CR
2 2,350 P
3 4,000 CrP

Ø 102,000 **31-03377-000**
Ø 102,500 **31-03377-050**

102,000

ISF2.8S — D — 4 Cyl — **2776cc** — **79-109kW** — (107-148ps)

ISF3.8S — D — 4 Cyl — **3759cc** — **105-123kW** — (143-154ps)



11-02352-000
CH 73,900
B- 18,000
BØ 54,700
TL 108,900

40,00x82,70

AP
YS

91-09370-000
1 3,000 CR
2 2,350 P
3 4,000 CrP

Ø 102,000 **31-04352-000**

102,000

IS B3.9L Euro3 — D — 2005 — 4 Cyl — **3922cc** — **104-125kW** — (140-168ps)

IS B5.9L Euro3 — D — 2003 — 6 Cyl — **5833cc** — **164-184kW** — (220-247ps)

11-02353-000
CH 71,385
B- 18,550
BØ 56,500
TL 105,200

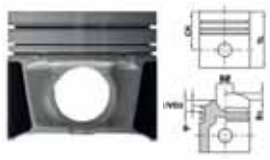
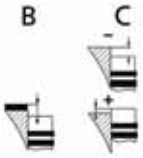
40,00x83,00

AP
YS

91-09370-000
1 3,000 CR
2 2,350 P
3 4,000 CrP

Ø 102,000 **31-04353-000**
Ø 102,500 **31-04353-050**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

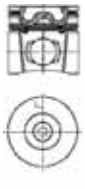
102,000

6BT Turbo — D — 1989 — 1998 — 6 Cyl — **5880cc** — **119-160kW** — (162-218ps)

	11-02428-000 CH 71,600 B- 22,150 BØ 52,000 TL 105,500 **40,00x83,00**	DAP	**91-09369-000** 1 3,000 Mo 2 3,000 P 3 4,000 CrP		Ø 102,000	**31-04428-000**

107,000

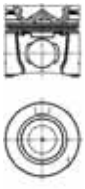
QSB4.5 — D — 4 Cyl — **4500cc** — **82-127kW** — (111-173ps)

	**11-02356-000** CH 69,400 B- 22,450 BØ 54,000 TL 103,200 **40,00x90,50**	AP YS	**91-09064-000** 1 3,000 CK 2 2,500 P 3 3,500 CrP		Ø 107,000	**31-04356-000**

107,000

ISBE — D — 4 Cyl — **4500cc** — **kW** — (ps)

ISDE — D — 6 Cyl — **6700cc** — **kW** — (ps)

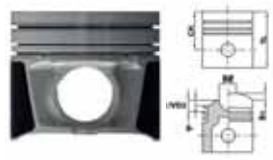
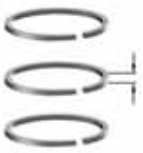
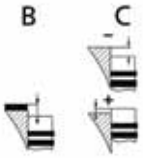
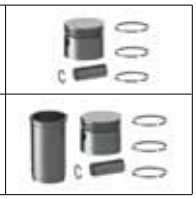
	**11-02970-000** CH 69,400 B- 19,460 BØ 59,100 TL 102,900 **40,00x89,70**	AP YS	**91-09064-000** 1 3,000 CK 2 2,500 P 3 3,500 CrP		Ø 107,000	**31-04970-000**

114,000

ISL 9 — D — 6 Cyl — **8270cc**

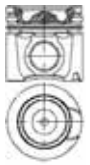
	11-01364-000 CH 74,300 VD1 1,000 B- 22,200 BØ 80,300 TL 104,500 **45,00x90,85**	STEEL PISTON	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000	**31-03364-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

114,000

6 CT, 6L Dongfeng L 340 — D — 6 Cyl — **8298cc** — **250kW** — (340ps)

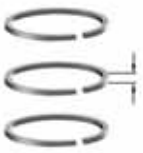
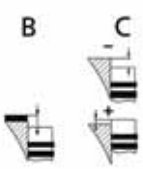
	**11-01366-000** CH 74,250 VD1 0,950 B- 22,000 BØ 64,800 TL 111,500 **45,00x91,00**	AP YS PDB	**91-09366-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000	**31-03366-000**
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-PH		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-000** 52-05325-000	**71-07396-000** 72-07396-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-PH +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-120** 52-05325-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-PH +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-150** 52-05325-150	

114,000

6 CTAA — D — 6 Cyl — **8267cc** — **194kW** — (263ps)

	11-01367-000 CH 78,820 B- 25,450 BØ 60,500 TL 120,320 **45,00x91,10**	DAP	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR	+0,20/+0,50	Ø 114,000	**31-03367-000**
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-CR		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-000** 52-05195-000	**71-07348-000** 72-07348-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-CR +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-120** 52-05195-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-CR +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-150** 52-05195-150	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-PH		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-000** 52-05325-000	**71-07364-000** 72-07364-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-PH +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-120** 52-05325-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-PH +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-150** 52-05325-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-000** 52-05326-000	**71-07363-000** 72-07363-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-120** 52-05326-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-150** 52-05326-150	
	K=125,67 L=238,20 H+F=123,09+1,25 D=133,00	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05371-000** 52-05371-000	**71-07361-000** 72-07361-000
	K=125,67 L=238,20 H+F=123,05+1,25 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05372-000** 52-05372-000	**71-07357-000** 72-07357-000
	K=125,67 L=238,20 H+F=124,25+1,25 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05372-120** 52-05372-120	
	K=125,67 L=238,20 H+F=124,55+1,25 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05372-150** 52-05372-150	

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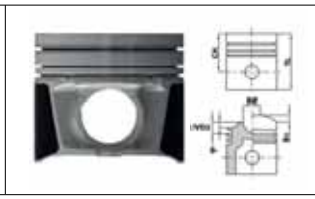
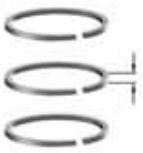
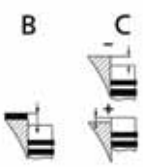
		Type				

114,000

6 CTAA Euro1 D 6 Cyl **8298cc** **160kW** (214ps)

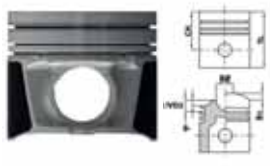
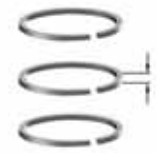
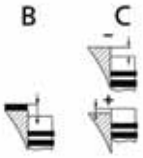
	11-01368-000 CH 79,020 B- 25,000 BØ 56,000 TL 120,520 **45,00x91,10**	DAP HA	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR	+0,20/+0,50	Ø 114,000	**31-03368-000**
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-CR		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-000** 52-05195-000	**71-07393-000** 72-07393-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-CR +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-120** 52-05195-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-CR +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-150** 52-05195-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-PH		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-000** 52-05325-000	**71-07356-000** 72-07356-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-PH +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-120** 52-05325-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-PH +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-150** 52-05325-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-000** 52-05326-000	**71-07366-000** 72-07366-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-120** 52-05326-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-150** 52-05326-150	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

114,000

6 CTAA Euro1 D 6 Cyl **8298cc** **160kW** (214ps)

		Type		B C		
	11-01369-000 CH 79,020 B- 21,000 BØ 65,250 TL 120,520 **45,00x91,10**	DAP HA	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR	+0,20/+0,50	Ø 114,000	**31-03369-000**
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-CR		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-000** 52-05195-000	**71-07349-000** 72-07349-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-CR +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-120** 52-05195-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-CR +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-150** 52-05195-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-PH		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-000** 52-05325-000	**71-07354-000** 72-07354-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-PH +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-120** 52-05325-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-PH +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-150** 52-05325-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-000** 52-05326-000	**71-07353-000** 72-07353-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-120** 52-05326-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-150** 52-05326-150	

		Type		B C		
						

114,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston

				Cyl	cc	kW	(ps)
	11-01369-001 CH 78,820 B- 21,000 BØ 65,250 TL 120,320 **45,00x91,10**	DAP HA CH -0,20 mm	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000		**31-03369-001**

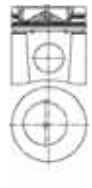
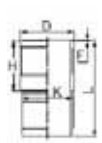
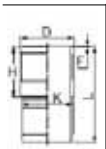
114,000

Strok Boyu 0,40mm Kisa Piston / Stroke Lenght 0,40mm Shorter Piston

	11-01369-002 CH 78,620 B- 21,000 BØ 56,000 TL 120,120 **45,00x91,10**	DAP HA CH -0,40 mm	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000		**31-03369-002**

114,000

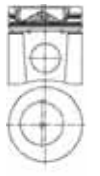
6CT 8.3 Euro 2 — D

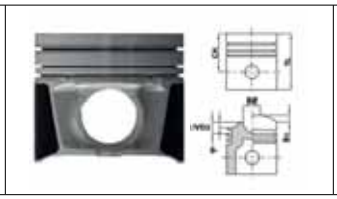
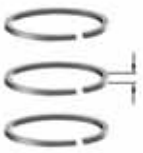
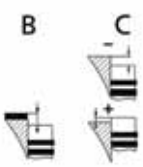
	**11-01371-000** CH 78,820 B- 21,800 BØ 63,000 TL 120,320 **45,00x91,10**	DAP	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR	+0,20/+0,50	Ø 114,000		**31-03371-000**
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-CR		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-000** 52-05195-000		**71-07394-000** 72-07394-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-CR +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-120** 52-05195-120		
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-CR +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-150** 52-05195-150		
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-PH		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-000** 52-05325-000		**71-07376-000** 72-07376-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-PH +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-120** 52-05325-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-PH +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-150** 52-05325-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-000** 52-05326-000	**71-07367-000** 72-07367-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-120** 52-05326-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-150** 52-05326-150	
	K=125,67 L=238,20 H+F=123,09+1,25 D=133,00	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05371-000** 52-05371-000	**71-07371-000** 72-07371-000
	K=125,67 L=238,20 H+F=123,05+1,25 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05372-000** 52-05372-000	**71-07372-000** 72-07372-000
	K=125,67 L=238,20 H+F=124,25+1,25 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05372-120** 52-05372-120	
	K=125,67 L=238,20 H+F=124,55+1,25 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05372-150** 52-05372-150	

114,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston			Cyl	cc	kW	(ps)
	**11-01371-001** CH 78,620 B- 21,800 BØ 63,000 TL 120,120 **45,00x91,10**	DAP	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR	+0,20/+0,50	Ø 114,000	**31-03371-001**

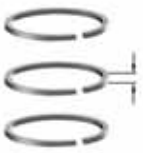
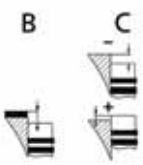
		Type				

114,000

6 CTAA Euro1 — D

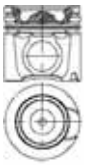
	11-01373-000 CH 79,020 B- 25,000 BØ 56,000 TL 120,520 **45,00x91,10**	DAP	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000	**31-03373-000**
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-CR		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-000** 52-05195-000	**71-07395-000** 72-07395-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-CR +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-120** 52-05195-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-CR +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-150** 52-05195-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-PH		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-000** 52-05325-000	**71-07352-000** 72-07352-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-PH +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-120** 52-05325-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-PH +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-150** 52-05325-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-000** 52-05326-000	**71-07362-000** 72-07362-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-120** 52-05326-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-150** 52-05326-150	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

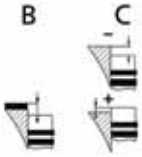
		Type				

114,000

6 CT, 6L Dongfeng L 340 — D — 6 Cyl — **8298cc** — **250kW** — (340ps)

	**11-01387-000** CH 74,250 VD1 0,950 B- 22,000 BØ 64,800 TL 111,500 **45,00x91,00**	AP YS	**91-09366-000** 1 3,500 CR 2 3,000 P 3 4,000 CR	1,70mm conta +0,15/+0,48	Ø 114,000	**31-03387-000**
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-CR		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-000** 52-05195-000	**71-07397-000** 72-07397-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-CR +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-120** 52-05195-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-CR +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05195-150** 52-05195-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF-PH		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-000** 52-05325-000	**71-07388-000** 72-07388-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF-PH +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-120** 52-05325-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF-PH +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05325-150** 52-05325-150	
	K=125,67 L=235,30 H+F=123,05+1,20 D=130,95	WF		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-000** 52-05326-000	**71-07379-000** 72-07379-000
	K=125,67 L=235,30 H+F=124,25+1,20 D=131,20	WF +1,20		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-120** 52-05326-120	
	K=125,67 L=235,30 H+F=124,55+1,20 D=131,20	WF +1,50		O-Ring/Seal 55-50915-000 1 FPM 118,20x122,70x3,95	**51-05326-150** 52-05326-150	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

114,000

CT 8.3 L — D — 6 Cyl — **8298cc** **kW** (ps)

	11-02348-000 CH 78,820 B- 21,270 BØ 66,500 TL 120,320 **45,00x91,00**	DAP	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000	**31-04348-000**

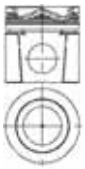
114,000

6 CT 8,3 L — D — 6 Cyl — **8298cc**

	11-02349-000 CH 79,000 B- 27,230 BØ 66,610 TL 120,580 **45,00x91,00**	DAP	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000	**31-04349-000**

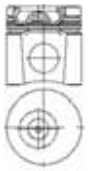
114,000

ISC 8.3L Euro 3 — D — 6 Cyl — **8270cc**

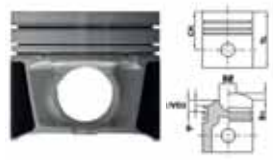
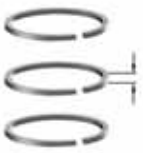
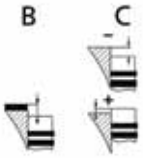
	**11-02350-000** CH 78,990 B- 14,450 BØ 80,980 TL 115,500 **45,00x91,10**	DAP	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000	**31-04350-000**

114,000

6CTA 8.3 Euro 2 — D — 6 Cyl — **8270cc** **127-274kW** (172-372ps)

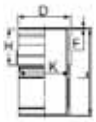
	**11-02351-000** CH 78,930 B- 24,000 BØ 56,700 TL 120,430 **45,00x91,10**	DAP HA	**91-09371-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 114,000	**31-04351-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

125,000

L10 611 CID (10.0 L) D 6 Cyl **10000cc kW** (ps)

	11-02345-000 CH 78,840 B- 21,340 BØ 90,000 TL 124,340 **54,00x98,70**	AP	**91-09372-000** 1 3,160 CrP 2 3,160 CrP 3 4,747 CrP		Ø 125,000	**31-04345-000**
	K=138,00 L=241,20 H+F=100,00+1,25 D=146,00	WF			**51-05190-000**	**71-07389-000**

125,000

L10 611 CID (10.0 L) 88L10 D 6 Cyl **10000cc**

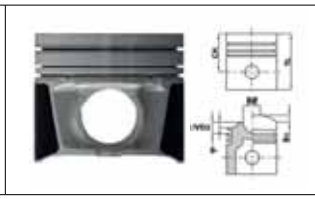
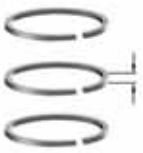
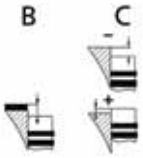
	11-02346-000 CH 79,550 B- 10,670 BØ 91,800 TL 125,050 **54,00x98,70**	AP	**91-09372-000** 1 3,160 CrP 2 3,160 CrP 3 4,747 CrP		Ø 125,000	**31-04346-000**

125,000

QSMII CM 876 D 2007 6 Cyl **10800cc**

	11-02354-000 CH 75,350 VD1 1,400 VD2 1,400 B- 20,000 BØ 78,300 TL 113,050 **54,00x102,00**	STEEL PISTON	**91-09367-000** 1 3,150 CR 2 3,150 CrP 3 4,000 NT St		Ø 125,000	**31-04354-000**
	K=138,00 L=241,20 H+F=100,00+1,25 D=146,00	WF			**51-05190-000**	**71-07193-000**

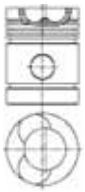
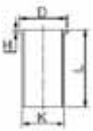
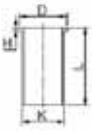
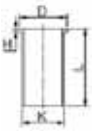
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

100,610

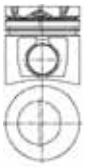
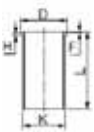
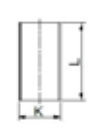
DD 575 — D — 1969 — 1982 — 6 Cyl — **5760cc** — **77-88kW** — (105-120ps)

DS575 / DSD575 — D — 1980 — 6 Cyl — **5760cc** — **121kW** — (165ps)

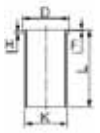
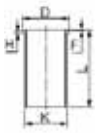
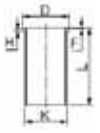
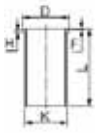
	**11-01385-000** CH 81,900 VD1 2,400 B- 24,800 BØ 58,600 TL 132,700 **33,03x87,90** Daf ve Leyland ile Ortak Motor	AP	**91-09385-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,335 P 5 6,335 P		Ø 100,610	**31-03385-000**
	K=105,67 L=239,00 H=12,72 D=115,21	DF			**51-35383-000**	**71-07385-000**
	K=105,70 L=239,00 H=12,70 D=115,20	DS			**51-65379-000**	
	K=106,20 L=239,00 H=12,70 D=115,20	DS +0,50			**51-65379-050**	

102,000

CS 119 L Euro 1 — D — 6 Cyl — **5880cc** — **119kW** — (162ps)

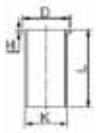
	**11-01372-000** CH 71,560 B- 17,900 BØ 63,500 TL 105,360 **40,00x75,80** Cummins ve Daf ile Ortak Motor	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP	+0,33/+0,66	Ø 102,000 Ø 102,500 Ø 103,000	**31-03372-000** **31-03372-020** **31-03372-040**
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DF			**51-35328-000**	**71-07377-000**
	K=104,62 L=200,00	DF			**51-35333-000**	**71-07373-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

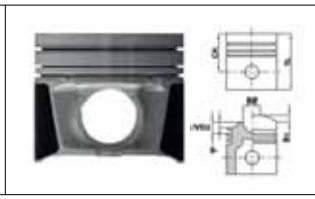
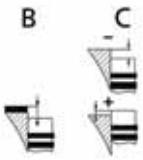
		Type		B C		
	K=106,07 L=204,00 H+F=4,05+0,80 D=109,00	DS			**51-65370-000**	
	K=106,50 L=204,00 H+F=5,05+0,80 D=109,50	DS +0,50			**51-65370-050**	
	K=107,07 L=204,00 H+F=5,05+0,80 D=110,00	DS +1,00			**51-65370-100**	
	K=107,50 L=204,00 H+F=5,05+0,80 D=110,50	DS +1,50			**51-65370-150**	
	K=104,62 L=200,00	DS			**51-65373-000**	
	K=105,06 L=200,00	DS +0,50			**51-65373-050**	

104,175

DF 615	D	1966	1995	6 Cyl	**6137cc**	**85-93kW**	(116-127ps)
DT 615	D	1967	1995	6 Cyl	**6137cc**	**101-124kW**	(137-169ps)
DTD 615	D	1970	1991	6 Cyl	**6137cc**	**123kW**	(168ps)

	11-01380-000 CH 81,970 VD1 2,300 B- 23,150 BØ 60,000 TL 132,800 **38,00x88,00**	AP	**91-09380-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 6,000 P 5 6,000 P		Ø 104,175	**31-03380-000**
	K=109,00 L=239,00 H=8,00 D=117,10	DF			**51-35380-000**	**71-07380-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

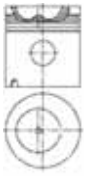
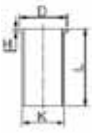
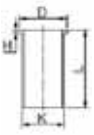
104,175

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston

				Cyl	cc	kW	(ps)
	11-01380-001 CH 81,970 VD1 2,300 B- 23,150 BØ 60,000 TL 132,720 	AP HA	**91-09380-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 6,000 P 5 6,000 P		Ø 104,175		**31-03380-001**

118,000

DHR 825	D	1971	1991	
DHS 825	D	1982	1991	
DHS 825SM	D	1990	1991	
DHT 825	D	1978	1991	
DHTD 825	D	1976	1991	
DHU 825	D	1976	1991	
H825 / S825	D	1989		

	**11-01381-000** CH 95,000 B- 26,300 BØ 64,800 TL 152,000 **42,00x99,00**	AP	**91-09381-000** 1 3,500 CrP 2 3,000 CrP 3 3,000 P 4 6,000 CrP		Ø 118,000	**31-03381-000**
	K=123,49 L=262,00 H=10,05 D=133,60	DF			**51-35381-000**	**71-07381-000**
	K=123,55 L=262,00 H=10,05 D=133,60	DS			**51-65250-000**	

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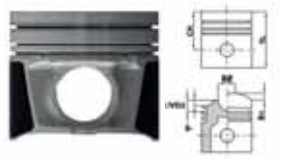
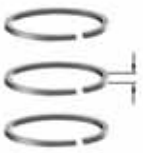
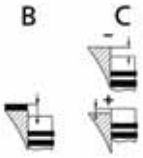
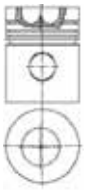
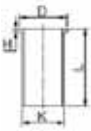
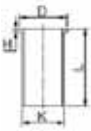
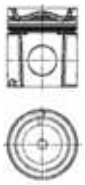
		Type		B C		
						

118,000

825 DHB				D	1970	1979	6 Cyl	**8250cc** **148kW** (201ps)
825 DU				D	1971	1980	6 Cyl	**8250cc** **159kW** (216ps)
DH 825				D			6 Cyl	**8250cc** **115kW** (156ps)
	**11-01383-000** CH 95,000 B- 26,300 BØ 61,000 TL 152,000 **42,00x99,00**	AP CP	**91-09381-000** 1 3,500 CrP 2 3,000 CrP 3 3,000 P 4 6,000 CrP		0/+0,25		Ø 118,000	**31-03383-000**
	K=123,49 L=262,00 H=10,05 D=133,60	DF					**51-35381-000**	**71-07383-000**
	K=123,55 L=262,00 H=10,05 D=133,60	DS					**51-65250-000**	

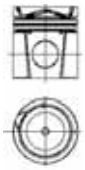
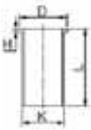
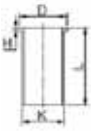
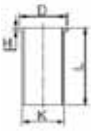
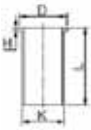
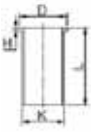
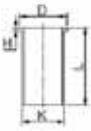
118,010

PE 228 C Euro 3				D	2000		6 Cyl	**9200cc** **228kW** (310ps)
PE 265 C Euro 3				D	2000		6 Cyl	**9200cc** **265kW** (360ps)
	**11-01281-000** CH 88,000 B- 14,070 BØ 87,000 TL 132,000 **48,00x96,90**	AP	**91-09373-000** 1 3,500 CK 2 3,000 CR 3 4,000 CR				Ø 118,010	**31-03281-000**

DAF

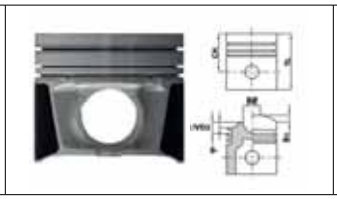
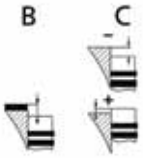
		Type		B C		

130,000

XE 280 C1 EURO3			D 1998	6 Cyl	**12583cc 280kW**	(381ps)
XE 315 C1 EURO3			D 1998	6 Cyl	**12583cc 315-355kW**	(428-483ps)
	**11-01034-000** CH 95,000 VD1 1,000 B- 15,440 BØ 99,600 TL 143,000 **52,00x106,00**	AP	**91-09378-000** 1 4,000 MoP 2 3,160 CrP 3 4,000 CrP		Ø 130,000	**31-03034-000**
	K=136,00 L=288,50 H=10,05 D=143,60	DF			**51-35382-000**	**71-07272-000**
	K=136,25 L=288,50 H=10,05 D=143,60	DF +0,25			**51-35382-025**	
	K=136,50 L=288,50 H=10,05 D=143,60	DF +0,50			**51-35382-050**	
	K=136,05 L=288,50 H=10,05 D=143,60	DS			**51-65253-000**	
	K=136,25 L=288,50 H=10,50 D=143,60	DS +0,25			**51-65253-025**	
	K=136,50 L=288,50 H=10,50 D=143,60	DS +0,50			**51-65253-050**	

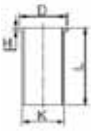
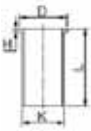
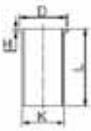
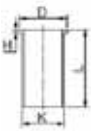
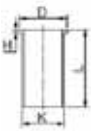
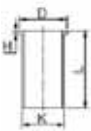
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

DAF

		Type				

130,000

DKS E 1160	D	1980		6 Cyl	**11630cc**	**206kW**	(276ps)
DKV / DKX E / DKZ 1160	D	1983		6 Cyl	**11630cc**	**139-260kW**	(189-354ps)
DKX 1160 ATI	D	1985	1991	6 Cyl	**11630cc**	**260kW**	(354ps)
DKX E 1160 ATI	D	1985	1991	6 Cyl	**11630cc**	**206-212kW**	(280-288ps)

	11-01263-000 CH 101,000 VD1 4,000 B- 29,100 BØ 74,600 TL 169,500 **52,00x106,00**	AP HA	**91-09382-000** 1 3,160 CrP 2 3,160 CrP 3 3,160 CrP 4 6,335 CrP	-0,25/+0,25	Ø 130,000	**31-03263-000**
	K=136,00 L=288,50 H=10,05 D=143,60	DF			**51-35382-000**	**71-07263-000**
	K=136,25 L=288,50 H=10,05 D=143,60	DF +0,25			**51-35382-025**	
	K=136,50 L=288,50 H=10,05 D=143,60	DF +0,50			**51-35382-050**	
	K=136,05 L=288,50 H=10,05 D=143,60	DS			**51-65253-000**	
	K=136,25 L=288,50 H=10,50 D=143,60	DS +0,25			**51-65253-025**	
	K=136,50 L=288,50 H=10,50 D=143,60	DS +0,50			**51-65253-050**	

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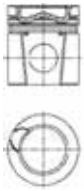
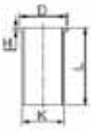
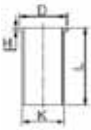
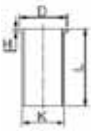
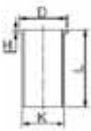
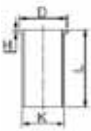
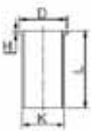
		Type		B C		

130,000

XF 250 M Euro 2	D	1998	6 Cyl	**12583cc**	**250kW**	(340ps)
XF 280 M Euro 2	D	1997	6 Cyl	**12583cc**	**280kW**	(381ps)
XF 315 M Euro 2	D	1996	6 Cyl	**12583cc**	**315kW**	(428ps)
XF 355 M Euro 2	D	1997	6 Cyl	**12583cc**	**355kW**	(483ps)

	**11-01273-000** CH 95,000 VD1 1,000 B- 21,750 BØ 82,000 TL 143,000 **52,00x105,65**	AP	**91-09378-000** 1 4,000 MoP 2 3,160 CrP 3 4,000 CrP	0/+0,25	Ø 130,000	**31-03273-000**
	K=136,00 L=288,50 H=10,05 D=143,60	DF			**51-35382-000**	**71-07273-000**
	K=136,25 L=288,50 H=10,05 D=143,60	DF +0,25			**51-35382-025**	
	K=136,50 L=288,50 H=10,05 D=143,60	DF +0,50			**51-35382-050**	
	K=136,05 L=288,50 H=10,05 D=143,60	DS			**51-65253-000**	**71-07274-000**
	K=136,25 L=288,50 H=10,50 D=143,60	DS +0,25			**51-65253-025**	
	K=136,50 L=288,50 H=10,50 D=143,60	DS +0,50			**51-65253-050**	

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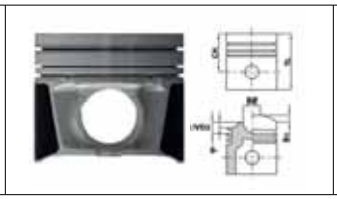
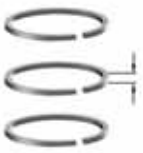
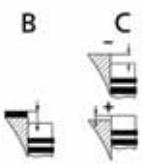
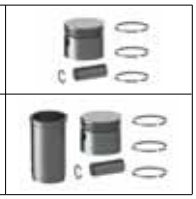
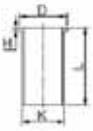
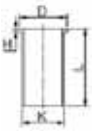
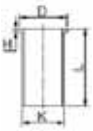
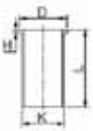
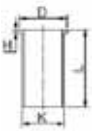
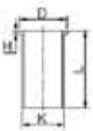
		Type				

130,000

WS 222 / 242 / 268 L ATi Euro 1	D	1992	1997	6 Cyl	**11630cc**	**222-268kW**	(302-364ps)
WS 222 G / WS 222-242-268-295-315 L ATi Euro 1	D	1990		6 Cyl	**11630cc**	**222-315kW**	(302-428ps)
WS 222 L ATi Euro 1	D	1992		6 Cyl	**11630cc**	**222kW**	(302ps)
WS 295 / 315 L ATi Euro 1	D	1992		6 Cyl	**11630cc**	**295-315kW**	(401-428ps)

	11-01277-000 CH 101,000 VD1 0,800 B- 24,750 BØ 75,000 TL 155,000 **52,00x106,00**	AP	**91-09378-000** 1 4,000 MoP 2 3,160 CrP 3 4,000 CrP	0/+0,25	Ø 130,000	**31-03277-000**
	K=136,00 L=288,50 H=10,05 D=143,60	DF			**51-35382-000**	**71-07275-000**
	K=136,25 L=288,50 H=10,05 D=143,60	DF +0,25			**51-35382-025**	
	K=136,50 L=288,50 H=10,05 D=143,60	DF +0,50			**51-35382-050**	
	K=136,05 L=288,50 H=10,05 D=143,60	DS			**51-65253-000**	
	K=136,25 L=288,50 H=10,50 D=143,60	DS +0,25			**51-65253-025**	
	K=136,50 L=288,50 H=10,50 D=143,60	DS +0,50			**51-65253-050**	

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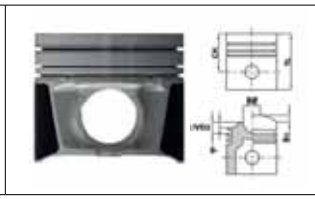
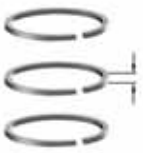
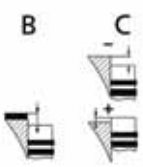
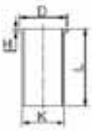
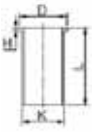
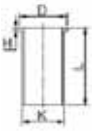
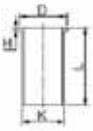
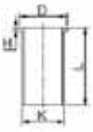
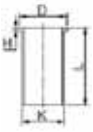
		Type				

130,000

WS 225 ATI	D	1987	1997	6 Cyl	**11630cc**	**225kW**	(306ps)
WS 259 ATi	D	1987	1997	6 Cyl	**11630cc**	**259kW**	(352ps)
WS 282 L	D	1987	1997	6 Cyl	**11630cc**	**282kW**	(383ps)

	11-01278-000 CH 101,000 VD1 0,800 B- 29,420 BØ 75,000 TL 155,000 **52,00x106,00**	AP	**91-09378-000** 1 4,000 MoP 2 3,160 CrP 3 4,000 CrP		Ø 130,000	**31-03278-000**
	K=136,00 L=288,50 H=10,05 D=143,60	DF			**51-35382-000**	**71-07276-000**
	K=136,25 L=288,50 H=10,05 D=143,60	DF +0,25			**51-35382-025**	
	K=136,50 L=288,50 H=10,05 D=143,60	DF +0,50			**51-35382-050**	
	K=136,05 L=288,50 H=10,05 D=143,60	DS			**51-65253-000**	
	K=136,25 L=288,50 H=10,50 D=143,60	DS +0,25			**51-65253-025**	
	K=136,50 L=288,50 H=10,50 D=143,60	DS +0,50			**51-65253-050**	

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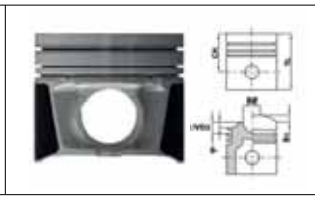
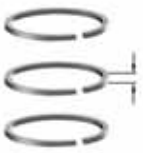
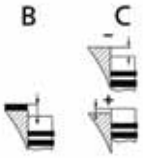
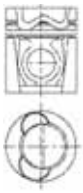
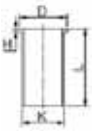
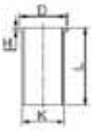
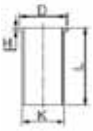
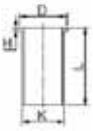
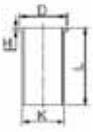
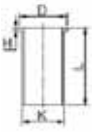
DAF

		Type				

130,000

WS 242 G			D	1990	1997	6 Cyl	**11630cc**	**242kW** (329ps)
WS 268 G			D	1990	1997	6 Cyl	**11630cc**	**268kW** (364ps)
WS 295 G			D	1990	1997	6 Cyl	**11630cc**	**295kW** (401ps)

	**11-01378-000** CH 101,000 VD1 0,800 VD2 1,500 B- 26,320 BØ 79,000 TL 155,000 **52,00x106,00**	AP	**91-09378-000** 1 4,000 MoP 2 3,160 CrP 3 4,000 CrP	0/+0,25	Ø 130,000	**31-03378-000**
	K=136,00 L=288,50 H=10,05 D=143,60	DF			**51-35382-000**	**71-07378-000**
	K=136,25 L=288,50 H=10,05 D=143,60	DF +0,25			**51-35382-025**	
	K=136,50 L=288,50 H=10,05 D=143,60	DF +0,50			**51-35382-050**	
	K=136,05 L=288,50 H=10,05 D=143,60	DS			**51-65253-000**	
	K=136,25 L=288,50 H=10,50 D=143,60	DS +0,25			**51-65253-025**	
	K=136,50 L=288,50 H=10,50 D=143,60	DS +0,50			**51-65253-050**	

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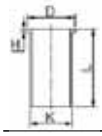
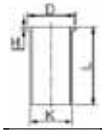
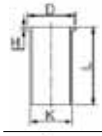
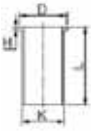
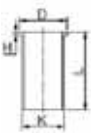
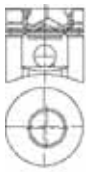
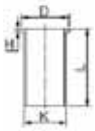
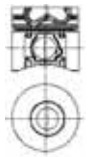
		Type		B C		

130,000

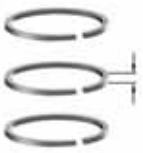
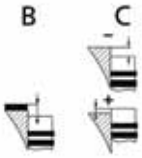
DKC / DKCL 1160	D	1973		6 Cyl	**11630cc**	**156kW**	(212ps)
DKFL 1160	D	1973		6 Cyl	**11630cc**	**191kW**	(260ps)
DKS 1160 / 1160 E	D	1973	1991	6 Cyl	**11630cc**	**139-228kW**	(189-315ps)
DKSB 1160	D	1973	1989	6 Cyl	**11630cc**	**228kW**	(310ps)
DKT 1160	D	1974		6 Cyl	**11630cc**	**185-213kW**	(252-290ps)
DKTD 1160	D	1974	1991	6 Cyl	**11630cc**	**185-199kW**	(252-270ps)
DKTL 1160	D	1974	1993	6 Cyl	**11630cc**	**165-199kW**	(224-270ps)
DKVL 1160	D	1973	1993	6 Cyl	**11630cc**	**139-260kW**	(189-354ps)
DKX 1160	D	1981	1991	6 Cyl	**11630cc**	**243kW**	(330ps)
DKZ 1160 ATI	D	1985	1991	6 Cyl	**11630cc**	**274kW**	(373ps)
LT 160 Euro 1	D	1992		6 Cyl	**11630cc**	**160kW**	(218ps)
LT 195 Euro 1	D	1992		6 Cyl	**11630cc**	**195kW**	(265ps)
LT 210 Euro 1	D	1992		6 Cyl	**11630cc**	**210kW**	(286ps)

	11-01382-000 CH 101,000 VD1 4,000 B- 29,100 BØ 74,500 TL 169,500 **48,00x111,00**	AP	**91-09382-000** 1 3,160 CrP 2 3,160 CrP 3 3,160 CrP 4 6,335 CrP	-0,25/+0,25	Ø 130,000	**31-03382-000**
	K=136,00 L=288,50 H=10,05 D=143,60	DF			**51-35382-000**	**71-07382-000**
	K=136,25 L=288,50 H=10,05 D=143,60	DF +0,25			**51-35382-025**	
	K=136,50 L=288,50 H=10,05 D=143,60	DF +0,50			**51-35382-050**	
	K=136,05 L=288,50 H=10,05 D=143,60	DS			**51-65253-000**	
	K=136,25 L=288,50 H=10,50 D=143,60	DS +0,25			**51-65253-025**	
	K=136,50 L=288,50 H=10,50 D=143,60	DS +0,50			**51-65253-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
91,000						
F 2 L 1011	D 1989	2 Cyl	**1366cc**	**18-22 kW**	(25-30ps)	
F 3 L 1011	D 1989	3 Cyl	**2049cc**	**27-33 kW**	(37-45ps)	
F 4 L 1011	D 1988	4 Cyl	**2732cc**	**36-44 kW**	(49-60ps)	
	**11-01511-000** CH 55,370 B- 19,800 BØ 40,000 TL 86,370 **26,00x65,00**		**91-09511-000** 1 2,000 CrP 2 2,000 P 3 3,000 CrP	1. Conta ile +0,59/+0,69 2. Conta ile +0,69/+0,76 3. Conta ile +0,76/+0,83	Ø 91,000 Ø 91,500 Ø 92,000	**31-03511-000** **31-03511-050** **31-03511-100**
	K=94,00 L=175,50 H=4,55 D=98,85	DF			**51-35511-000**	**71-07511-000**
91,000						
BF 3 L 1011 F	D	3 Cyl	**2185cc**	**40kW**	(54ps)	
BF 4 L 1011	D 1989	1994 4 Cyl	**2732cc**	**50-56 kW**	(68-76ps)	
BF 4 L 1011 F Euro 1	D 1994	4 Cyl	**2732cc**	**48-56 kW**	(65-76ps)	
BF 4 L 1011 FT Euro 1	D 1994	4 Cyl	**2732cc**	**46-53 kW**	(63-72ps)	
F2 L 1011	D 1989	2 Cyl	**1366cc**	**21kW**	(29ps)	
F3 L 1011	D 1989	3 Cyl	**2049cc**	**31kW**	(42ps)	
F4 L 1011	D 1988	4 Cyl	**2732cc**	**42kW**	(57ps)	
	**11-01694-000** CH 55,200 B- 18,000 BØ 45,000 TL 86,150 **30,00x68,00** Deutz ve Volvo ile Ortak Motor	AP AA=27,60 mm	**91-09046-000** 1 3,000 MoP 2 2,000 P 3 3,000 CrP	(+0,59/+0,69) (+0,69/+0,76) (+0,76/+0,83)	Ø 91,000 Ø 91,500	**31-03694-000** **31-03694-050**
	K=94,00 L=175,50 H=4,55 D=98,85	DF			**51-35511-000**	**71-07515-000**

DEUTZ

		Type		B C		
						

91,000

F 2 M 1011 F Euro 1	D	1997	2 Cyl	**1366cc**	**21-23kW**	(29-31ps)
F 3 M 1011 F Euro 1	D	1994	3 Cyl	**2185cc**	**32-36kW**	(44-49ps)
F 4 M 1011 F Euro 1	D	1994	4 Cyl	**2914cc**	**44-48kW**	(60-65ps)

11-02635-000
CH 51,700
B- 19,000
BØ 42,000
TL 81,650

26,00x65,00

91-09511-000
1 2,000 CrP
2 2,000 P
3 3,000 CrP

Ø 91,000
Ø 91,500

31-04635-000
31-04635-050

91,000

BF 3 L 1011 FL	D		3 Cyl	**3236cc**	**kW**	(ps)
BF 3 M 1011 F	D	1999	3 Cyl	**2185cc**	**51kW**	(68ps)
BF 3 M 1011 F Euro 1	D	1994	3 Cyl	**2185cc**	**46kW**	(62ps)
BF 4 M 1011 F Euro 1	D	1988	4 Cyl	**2912cc**	**41-61kW**	(56-83ps)

11-02636-000
CH 51,600
B- 18,800
BØ 45,000
TL 81,600

30,00x68,00

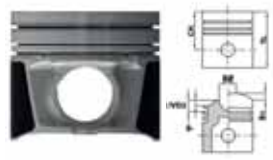
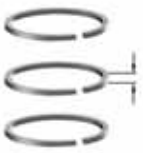
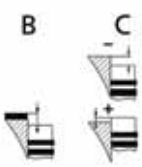
AP
YS

91-09046-000
1 3,000 MoP
2 2,000 P
3 3,000 CrP

Ø 91,000
Ø 91,500

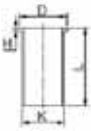
31-04636-000
31-04636-050

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
					

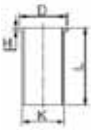
94,000

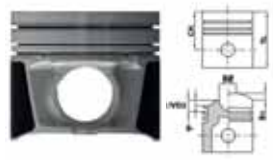
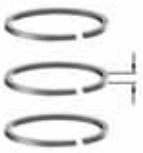
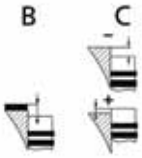
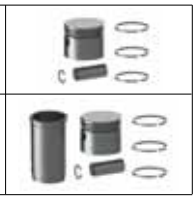
BF 4 M 1012	D	2000	4 Cyl	**3192cc**	**45-84kW**	(61-114ps)
BF 4 M 1012 C Euro 1	D	1990	4 Cyl	**3192cc**	**70-82 kW**	(95-112ps)
BF 4 M 1012 E Euro 2	D	1990	4 Cyl	**3192cc**	**48-73 kW**	(65-99ps)
BF 4 M 1012 EC Euro 2	D	1990	4 Cyl	**3192cc**	**60-73 kW**	(82-99ps)
BF 4 M 1012 Euro 1	D	1992	4 Cyl	**3192cc**	**47-65 kW**	(64-88ps)
BF 6 M 1012 C Euro 1	D	1992	4 Cyl	**3192cc**	**88-140 kW**	(120-190ps)
BF 6 M 1012 E Euro 2	D	1990	4 Cyl	**3192cc**	**72-100 kW**	(98-136ps)
BF 6 M 1012 EC Euro 2	D	1990	4 Cyl	**3192cc**	**85-125 kW**	(115-170ps)
BF 6 M 1012 Euro 1	D	1992	4 Cyl	**3192cc**	**83-98 kW**	(113-133ps)

11-01695-000 CH 61,200 B- 18,360 BØ 49,650 TL 98,000 **34,00x78,00**	AP	**91-09043-000** 1 3,000 CK 2 2,000 3 3,000 CR	(+0,43/+0,64) (+0,64/+0,74) (+0,74/+0,84)	Ø 94,000	**31-03695-000**
 K=98,50 L=196,00 H=5,00 D=102,50	DF			**51-35527-000**	**71-07524-000**

94,000

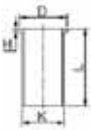
BF 3 L 2011 Euro2	D	2004	3 Cyl	**2330cc**	**45kW**	(61ps)
BF 3 M 2011 Euro 2	D	2001	3 Cyl	**2330cc**	**49kW**	(63ps)
BF 4 L 2011 Euro2	D	2004	4 Cyl	**3110cc**	**58kW**	(79ps)
BF 4 M 2011 Euro 2	D	2001	4 Cyl	**3110cc**	**65kW**	(84ps)
BF 4 M 2011 C Euro 2	D		4 Cyl	**3110cc**	**59kW**	(80ps)

11-01696-000 CH 51,700 B- 17,600 BØ 52,000 TL 81,650 **30,00x68,00**	AP YS AA=27,60 mm	**91-09043-000** 1 3,000 CK 2 2,000 3 3,000 CR	1 Kertik conta ile (0,51/0,69) 2 Kertik conta ile (0,70/0,76) 3 Kertik conta ile (0,77/0,83)	Ø 94,000 Ø 94,500	**31-03696-000** **31-03696-050**
 K=97,00 L=175,00 H=5,10 D=98,50	DS			**51-65772-000**	

		Type		B C		
						

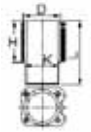
94,000

F 2 L 2011	D	2001		2 Cyl	**1550cc**	**23kW**	(31ps)
F 2 M 2011	D	2001		2 Cyl	**1550cc**	**26kW**	(32ps)
F 3 L 2011	D	2001		3 Cyl	**2330cc**	**36kW**	(49ps)
F 3 M 2011	D	2001		3 Cyl	**2330cc**	**37kW**	(47ps)
F 4 M / L 2011	D	2001		4 Cyl	**3109cc**	**49kW**	(63ps)

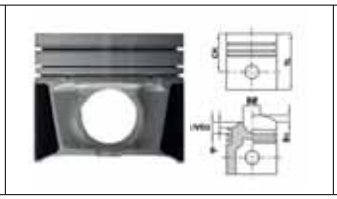
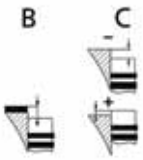
	11-01697-000 CH 51,700 B- 19,000 BØ 46,000 TL 81,650 **26,00x65,00**	AA=27,50 mm	**91-09044-000** 1 2,000 CR 2 2,000 3 3,000 		Ø 94,000 Ø 94,500	**31-03697-000** **31-03697-050**
	K=97,00 L=175,00 H=5,10 D=98,50	DS			**51-65772-000**	

95,000

F 1 L 812	D	1963	1967	1 Cyl	**850cc**	**9kW**	(13ps)
F 2 L 812	D	1963		2 Cyl	**1700cc**	**16-22kW**	(22-30ps)
F 3 L 812	D	1963		3 Cyl	**2552cc**	**26-29kW**	(35-40ps)
F 4 L 812	D	1963	1975	4 Cyl	**3400cc**	**33-43kW**	(45-58ps)
F 6 L 812	D	1963	1970	6 Cyl	**5104cc**	**59-74kW**	(80-100ps)

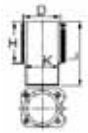
	11-01716-000 CH 68,000 B+ 11,700 TL 125,700 **35,00x80,00**		**91-09505-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 5,000 CR 		Ø 95,000 Ø 95,500 Ø 96,000	**31-03716-000** **31-03716-050** **31-03716-100**
	K=105,00 L=217,60 H=132,60 D=115,00	AF			**51-95559-000**	**71-07716-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

95,000

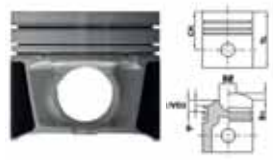
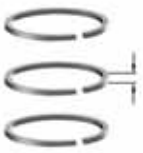
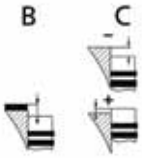
F 1 L 712	D			1 Cyl	**850cc**	**9-11kW**	(13-14ps)
F 2 L 712	D			2 Cyl	**1700cc**	**13-18kW**	(18-24ps)
F 3 L 712	D			3 Cyl	**2550cc**	**28kW**	(38ps)
F 4 L 712	D			4 Cyl	**3400cc**	**38kW**	(52ps)
F 6 L 712	D	1958	1968	6 Cyl	**5100cc**	**66kW**	(90ps)

	11-02804-000 CH 64,750 B+ 12,000 TL 125,750 **35,00x80,00**		**91-09013-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 5,000 P 5 5,000 P		Ø 95,000	**31-04804-000**
	K=105,00 L=217,60 H=132,60 D=115,00	AF			**51-95515-000**	**71-08804-000**

96,000

2011			D		4 Cyl	**cc**	**kW** (ps)
	11-02632-000 CH 81,600 B- 19,400 BØ 52,000 TL 81,600 **35,00x80,00**	AP	**91-09038-000** 1 3,000 CkP 2 2,000 P 3 3,000 CrP			Ø 96,000 Ø 96,500	**31-04632-000** **31-04632-050**

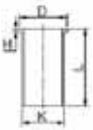
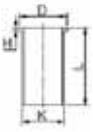
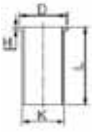
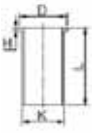
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

98,000

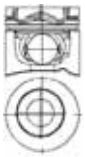
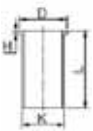
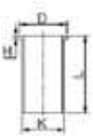
BF 4 M 2012 — D — 4 Cyl

BF 6 M 2012 — D — 6 Cyl

	11-01717-000 CH 50,650 B- 17,500 BØ 61,060 TL 90,650 **38,00x76,00**	AP	**91-09717-000** 1 3,000 CK 2 2,030 P 3 3,000 CR		Ø 98,000	**31-03717-000**
	Volvo ve Deutz Ortak Motor					
	K=101,00 L=188,00 H=4,50 D=105,00	DF			**51-36038-000**	**71-07117-000**
	K=101,50 L=188,00 H=5,00 D=105,00	DF +0,50			**51-36038-050**	
	K=101,00 L=193,00 H=4,50 D=105,00	DF			**51-36039-000**	**71-07137-000**
	K=101,50 L=193,00 H=5,00 D=105,00	DF +0,50			**51-36039-050**	

98,000

TCD 2012 Euro3 — D — 2005 — 6 Cyl — **5700cc** — **147kW** — (200ps)

	**11-01718-000** CH 55,150 B- 17,310 BØ 61,500 TL 90,650 **40,00x80,00**	AP	**91-09717-000** 1 3,000 CK 2 2,030 P 3 3,000 CR		Ø 98,000	**31-03718-000**
	Volvo ve Deutz Ortak Motor					
	K=101,00 L=188,00 H=4,50 D=105,00	DF			**51-36038-000**	**71-07138-000**
	K=101,50 L=188,00 H=5,00 D=105,00	DF +0,50			**51-36038-050**	

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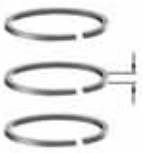
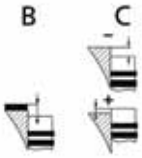
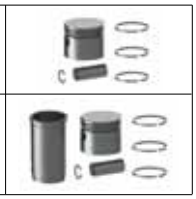
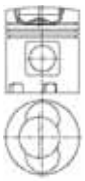
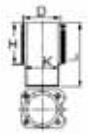
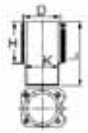
		Type		B	C		
							

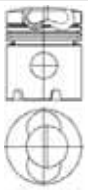
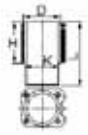
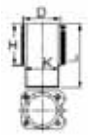
100,000

F 2 L 912 D	D	1968	1986	2 Cyl	**1884cc**	**18-25 kW**	(24-34ps)
F 3 L 912 D	D	1965		3 Cyl	**2826cc**	**26-44 kW**	(35-60ps)
F 4 L 912 D	D	1967		4 Cyl	**3770cc**	**19-59 kW**	(20-80ps)
F 5 L 912 D	D	1967		5 Cyl	**4712cc**	**40-78 kW**	(54-106ps)
F 6 L 912 D	D	1968		6 Cyl	**5655cc**	**42-92 kW**	(57-125ps)

 **11-01510-000** CH 71,900 B+ 5,600 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00** Deutz ve Ihc/Case ile Ortak Motor		**91-09510-000** 1 3,000 CrP 2 2,500 P 3 5,000 CrP	+1,00/+1,20	Ø 100,000 Ø 100,500 Ø 101,000	**31-03510-000** **31-03510-050** **31-03510-100**
 K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07510-000**
 K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07718-000** 72-07718-000

100,000

F 2 L 912 D	D	1967	1975	2 Cyl	**1884cc**	**18-25kW**	(24-34ps)
F 3 L 912 D	D	1987		3 Cyl	**2826cc**	**26-44kW**	(35-60ps)
F 4 L 912 D	D	1987		4 Cyl	**3770cc**	**19-59kW**	(20-80ps)
F 5 L 912 D	D	1967		5 Cyl	**4712cc**	**40-78kW**	(54-106ps)
F 6 L 912 D	D	1999		6 Cyl	**5655cc**	**42-92kW**	(57-125ps)

 **11-01512-000** CH 71,900 B+ 5,600 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00** Deutz ve Ihc/Case ile Ortak Motor		**91-09512-000** 1 3,000 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP	+1,00/+1,20	Ø 100,000 Ø 100,500 Ø 101,000	**31-03512-000** **31-03512-050** **31-03512-100**
 K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07512-000**
 K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07719-000** 72-07719-000

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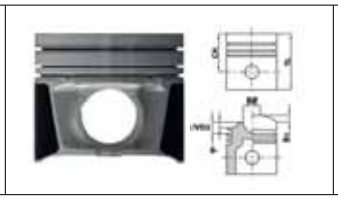
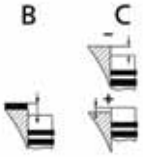
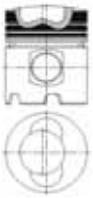
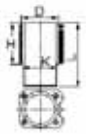
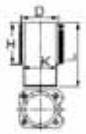
		Type		B C		
						

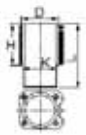
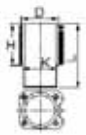
100,000

F 2 L 912 D	D	2 Cyl	**1885cc**	**21-28kW**	(29-38ps)
F 3 L 912 D	D	3 Cyl	**2826cc**	**26kW**	(35ps)
F 4 L 912 D	D	4 Cyl	**3770cc**	**38kW**	(52ps)
F 5 L 912 D	D	5 Cyl	**4712cc**	**58kW**	(79ps)
F 6 L 912 D	D	6 Cyl	**5655cc**	**42kW**	(57ps)

	**11-01514-000** CH 71,900 B+ 5,600 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00**		**91-09512-000** 1 3,000 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 100,000 Ø 100,500 Ø 101,000	**31-03514-000** **31-03514-050** **31-03514-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07514-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07530-000** 72-07530-000

100,000

F 4 L 912	D	4 Cyl	**3700cc**	**59kW**	(80ps)

	11-01522-000 CH 71,900 B+ 3,300 B- 17,350 BØ 45,000 TL 123,720 **35,00x80,00**		**91-09512-000** 1 3,000 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 100,000 Ø 100,500	**31-03522-000** **31-03522-050**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07522-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07531-000** 72-07531-000

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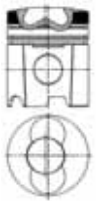
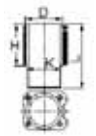
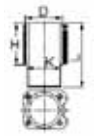
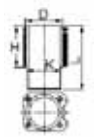
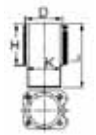
		Type		B C		
100,000						
F 4 L 912			D	4 Cyl	**3700cc** **59kW**	(80ps)
	**11-01523-000** CH 71,900 B+ 3,300 B- 17,350 BØ 45,000 TL 123,720 **35,00x80,00**		**91-09523-000** 1 2,940 CrP 2 2,000 P 3 3,000 CrP		Ø 100,000 Ø 100,500	**31-03523-000** **31-03523-050**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07523-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07529-000** 72-07529-000
100,000						
F 2 L 912			D	2 Cyl	**1884cc** **26-28kW**	(36-38ps)
F 3 L 912			D	3 Cyl	**2826cc** **26-43kW**	(35-56-5ps)
F 4 L 912			D	4 Cyl	**3768cc** **43-59kW**	(58-80ps)
F 5 L 912			D	5 Cyl	**4712cc** **63-74kW**	(85-100ps)
F 6 L 912			D	6 Cyl	**5652cc** **59-82kW**	(80-112ps)
	11-01525-000 CH 71,800 B+ 5,700 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00**		**91-09512-000** 1 3,000 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 100,000 Ø 100,500 Ø 101,000	**31-03525-000** **31-03525-050** **31-03525-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07525-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07724-000** 72-07724-000

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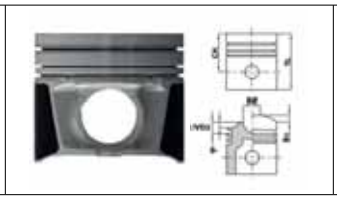
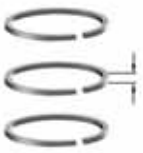
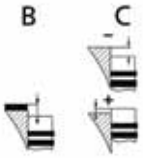
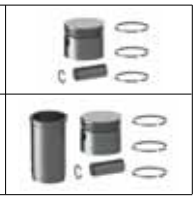
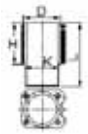
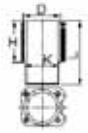
		Type		B C		
						

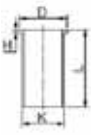
100,000

F 2 L 912 D	D	1967	1975	2 Cyl	**1884cc**	**18-25 kW**	(24-34ps)
F 3 L 912 D	D	1987		3 Cyl	**2826cc**	**26-44 kW**	(35-60ps)
F 4 L 912 D	D	1987		4 Cyl	**3770cc**	**19-59 kW**	(20-80ps)
F 5 L 912 D	D	1967		5 Cyl	**4712cc**	**40-78 kW**	(54-106ps)
F 6 L 912 D	D	1999		6 Cyl	**5655cc**	**42-92 kW**	(57-125ps)

	11-01715-000 CH 71,800 VD1 1,100 B+ 5,700 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00**		**91-09506-000** 1 3,000 CrP 2 2,000 3 3,500 CR		Ø 100,000 Ø 100,500	**31-03715-000** **31-03715-050**
Deutz ve Ihc/Case ile Ortak Motor						
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07715-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07717-000** 72-07717-000

101,000

TCD 2012 L4 2V Euro 3	D	2004		4 Cyl	**4038cc**	**83-103kW**	(113-140ps)
TCD 2012 L6 2V Euro 3	D	2004		6 Cyl	**6057cc**	**105-165kW**	(142-224ps)

	11-01524-000 CH 55,150 B- 18,120 BØ 62,000 TL 90,650 **40,00x80,00**	AP	**91-09059-000** 1 2,500 CK 2 2,000 P 3 3,000 CR	Ø 101,000	**31-03524-000**
	K=104,00 L=190,00 H=5,00 D=106,00	DS		**51-65769-000**	

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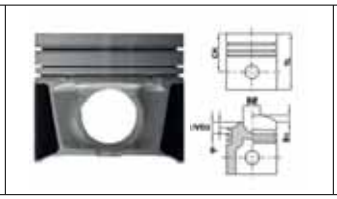
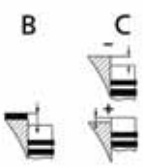
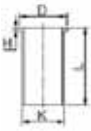
		Type		B C		
						

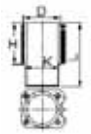
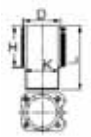
101,000

BF 4 M 2012 C Euro 2	D		4 Cyl	**4038cc**	**56-155kW**	(76-208ps)
BF 4 M 2012 Euro 2	D	2001	4 Cyl	**4038cc**	**74-93kW**	(101-126ps)
BF 6 M 2012	D		6 Cyl	**6060cc**	**80-208kW**	(109-283ps)
BF 6 M 2012 C Euro 2	D	2003	6 Cyl	**6060cc**	**80-155kW**	(109-209ps)

	11-02046-000 CH 50,650 B- 18,000 BØ 61,030 TL 86,150 **38,00x76,00**	AP	**91-09059-000** 1 2,500 CK 2 2,000 P 3 3,000 CR	(+0,33/+0,55) (+0,56/+0,65) (+0,66/+0,75)	Ø 101,000 Ø 101,500	**31-04046-000** **31-04046-050**
	K=104,00 L=190,00 H=5,00 D=106,00	DS			**51-65769-000**	

102,000

F 4 L 913 D	D		4 Cyl	**4086cc**	**34-59kW**	(46-80ps)
F 6 L 913 D	D		6 Cyl	**6128cc**	**51-89kW**	(69-121ps)

	11-01513-000 CH 69,100 B+ 6,000 B- 16,600 BØ 56,200 TL 123,600 **35,00x80,00**	AP	**91-09513-000** 1 3,000 MoP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 102,000 Ø 102,500 Ø 103,000	**31-03513-000** **31-03513-050** **31-03513-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95513-000**	**71-07513-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07499-000** 72-07499-000

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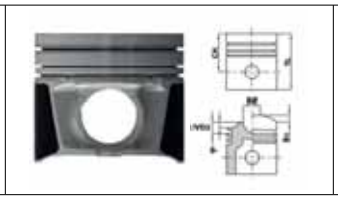
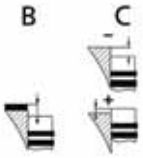
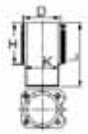
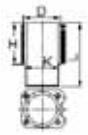
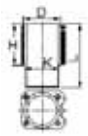
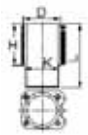
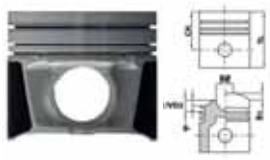
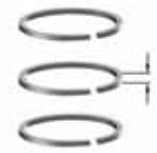
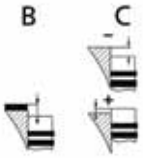
		Type		B C		
						

102,000

BF 4 L 913	D	1980	4 Cyl	**4086cc**	**55-81 kW**	(75-111ps)
BF 4 L 913 T	D	1982	4 Cyl	**4086cc**	**55-78 kW**	(75-106ps)
BF 6 L 913	D		6 Cyl	**6128cc**	**70-140 kW**	(95-191ps)
BF 6 L 913 C	D	1986	6 Cyl	**6128cc**	**118-164 kW**	(160-223ps)
BF 6 L 913 T	D	1981	6 Cyl	**6128cc**	**85-112 kW**	(115-152ps)

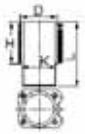
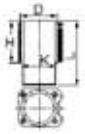
	11-01516-000 CH 69,100 B+ 6,000 B- 17,600 BØ 58,000 TL 123,600 **40,00x80,00**	AP YS	**91-09516-000** 1 3,000 MoP 2 3,000 CrP 3 2,500 P 4 5,000 CrP	+1,00/+1,20	Ø 102,000 Ø 102,500 Ø 103,000	**31-03516-000** **31-03516-050** **31-03516-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95513-000**	**71-07516-000**
	K=109,90 L=220,40 H=135,40 D=124,50	AF			**51-95517-000**	**71-07135-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96213-000** 52-96213-000	**71-07527-000** 72-07527-000
	K=109,90 L=220,40 H=134,90 D=124,50	AF			**51-96217-000**	**71-07721-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

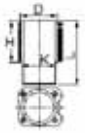
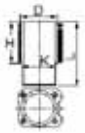
102,000

1516 nin yag sogutmasi olmayan versiyonu / piston version 1516 without oil cooling galery

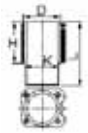
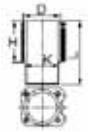
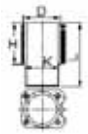
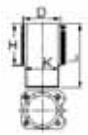
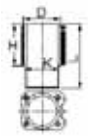
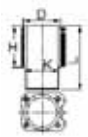
				Cyl	cc	kW	(ps)
	11-01521-000 CH 69,100 B+ 6,000 B- 17,600 BØ 58,000 TL 123,600 **40,00x80,00**	AP	**91-09516-000** 1 3,000 MoP 2 3,000 CrP 3 2,500 P 4 5,000 CrP		Ø 102,000 Ø 102,500 Ø 103,000		**31-03521-000** **31-03521-050** **31-03521-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF				**51-95513-000**	**71-07521-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50		**51-96213-000** 52-96213-000	**71-07528-000** 72-07528-000

102,000

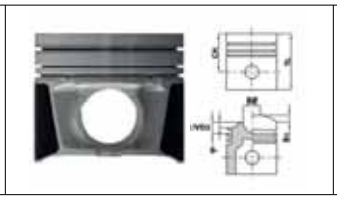
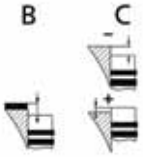
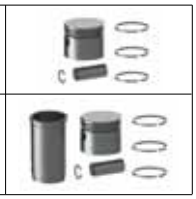
F 3 L 913	D	1982	
F 4 L 913	D	1973	
F 5 L 913	D	1979	
F 6 L 913	D	1973	

	11-01705-000 CH 69,100 B+ 6,000 B- 16,600 BØ 56,000 TL 123,600 **35,00x80,00**	AP YS	**91-39516-000** 1 3,000 MoP 2 3,000 CrP 3 5,000 CrP		Ø 102,000 Ø 102,500		**31-03705-000** **31-03705-050**
	K=110,00 L=222,30 H=137,30 D=120,00	AF				**51-95513-000**	**71-07705-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50		**51-96213-000** 52-96213-000	**71-07706-000** 72-07706-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
102,000						
BF 4 L 913 T		D 1982	4 Cyl	**4086cc**	**55-78kW**	(75-106ps)
BF 6 L 913 T		D 1981	6 Cyl	**6128cc**	**85-112kW**	(115-152ps)
	11-01707-000 CH 69,100 B+ 6,000 B- 17,600 BØ 58,000 TL 123,600 **35,00x80,00**	AP YS	**91-09521-000** 1 3,000 CrP 2 2,500 CrP 3 2,500 P 4 5,000 CrP	+1,00/+1,20	Ø 102,000 Ø 102,500 Ø 103,000	**31-03707-000** **31-03707-050** **31-03707-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95513-000**	**71-07707-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96213-000** 52-96213-000	**71-07710-000** 72-07710-000
102,000						
BF 4 L 913		D 1982	4 Cyl	**4086cc**	**55-81kW**	(75-111ps)
BF 4 L 913 T		D 1982	4 Cyl	**4086cc**	**55-78kW**	(75-106ps)
BF 6 L 913		D 1973	6 Cyl	**6128cc**	**70-140kW**	(95-191ps)
BF 6 L 913 C		D 1986	6 Cyl	**6128cc**	**118-164kW**	(160-223ps)
BF 6 L 913 T		D 1986	6 Cyl	**6128cc**	**85-112kW**	(115-152ps)
	11-01708-000 CH 69,100 B+ 4,450 B- 17,600 BØ 58,400 TL 123,600 **40,00x80,00**	AP YS	**91-09709-000** 1 3,000 CrP 2 3,000 MoP 3 3,500 CrP		Ø 102,000 Ø 102,500 Ø 103,000	**31-03708-000** **31-03708-050** **31-03708-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95513-000**	**71-07708-000**
	K=109,90 L=220,40 H=135,40 D=124,50	AF			**51-95517-000**	**71-07709-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96213-000** 52-96213-000	**71-07711-000**
	K=109,90 L=220,40 H=134,90 D=124,50	AF			**51-96217-000**	**71-07704-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B	C		
							

102,000

F 3 L 913	D	1987		3 Cyl	**3064cc**	**37-45kW**	(50-61ps)
F 4 L 913	D	1987		4 Cyl	**4086cc**	**51-66kW**	(70-90ps)
F 5 L 913	D	1980		5 Cyl	**5107cc**	**66kW**	(90ps)
F 6 L 913	D	1980	1985	6 Cyl	**6128cc**	**71-96kW**	(96-130ps)

	11-02631-000 CH 69,210 B- 23,000 BØ 45,000 TL 117,200 **35,00x80,00**		**91-09034-000** 1 2,940 MoP 2 2,000 3 3,000 CR		Ø 102,000 Ø 102,500	**31-04631-000** **31-04631-050**

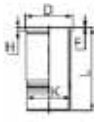
102,000

F 4 L 913 W	D	1998		4 Cyl	**4086cc**	**55kW**	(75ps)
F 5 L 913 W	D	1998		5 Cyl	**5107cc**	**44kW**	(60ps)

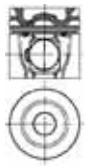
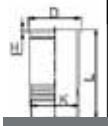
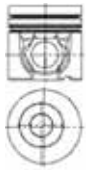
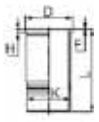
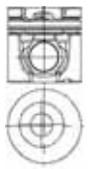
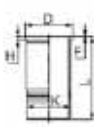
	11-02633-000 CH 69,210 B- 8,100 TL 117,200 **35,00x80,00**		**91-09036-000** 1 3,000 CK 2 2,000 P 3 3,000 CR		Ø 102,000 Ø 102,500	**31-04633-000** **31-04633-050**

108,000

BF 4 M 1013 C Euro 1	D	1990		4 Cyl	**4764cc**	**99-125 kW**	(135-168ps)
BF 4 M 1013 CP Euro 1	D	1998		4 Cyl	**4764cc**	**100kW**	(136ps)
BF 4 M 1013 Euro 1	D	1994		4 Cyl	**4764cc**	**63-93 kW**	(85-127ps)
BF 6 M 1013 C Euro 1 / BF 6 M 1013 Euro2	D	1993		6 Cyl	**7146cc**	**144-235 kW**	(196-320ps)
BF 6 M 1013 CP Euro 1	D	1992		6 Cyl	**7146cc**	**161-190 kW**	(219-258ps)
BF 6 M 1013 Euro 1	D	1993		6 Cyl	**7146cc**	**95-141 kW**	(129-192ps)

	11-01698-000 CH 71,150 B- 16,600 BØ 71,000 TL 108,000 **42,00x86,00**	AP	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR	1 Centik conta ile (+0,28/+0,53) 2 Centik conta ile (+0,54/+0,63) 3 Centik conta ile (+0,64/+0,75)	Ø 108,000	**31-03698-000**
Deutz ve Volvo ile Ortak Motor						
	K=120,00 L=229,00 H+F=9,00+1,10 D=128,50	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-05387-000** 52-05387-000	**71-08067-000** 72-08067-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
108,000						
TCD 2013 L06 4V Euro 3		D		6 Cyl	**7146cc** **147-243kW** (200-330ps)	
	**11-02036-000** CH 70,900 B- 19,600 BØ 64,500 TL 107,800 **45,00x86,00** Deutz, Renault Trucks (RVI) ve Volvo ile Ortak Motor	AP YS	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04036-000**
	K=120,00 L=228,00 H=8,07 D=131,70	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-06065-000** 52-06065-000	**71-08031-000** 72-08031-000
108,000						
BF 4 M 1013 EC Euro 2		D	1993	4 Cyl	**4764cc** **100-118kW** (136-160ps)	
BF 4 M 1013 FC Euro 2		D	2001	4 Cyl	**4764cc** **133kW** (181ps)	
BF 6 M 1013 ECP Euro 2		D	1998	6 Cyl	**7146cc** **147-195kW** (200-265ps)	
BF 6 M 1013 FC Euro 3		D	1998	6 Cyl	**7146cc** **147-200kW** (200-272ps)	
	**11-02037-000** CH 71,100 B- 19,920 BØ 63,000 TL 108,000 **42,00x86,00** Deutz ve Volvo ile Ortak Motor	AP	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04037-000**
	K=120,00 L=229,00 H+F=9,00+1,10 D=128,50	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-05387-000** 52-05387-000	**71-08069-000** 72-08069-000
108,000						
BF 4M 1013		D		4 Cyl	**4764cc** **kW** (ps)	
BF 6M 1013		D		6 Cyl	**7146cc** **kW** (ps)	
	**11-02044-000** CH 71,100 B- 19,600 BØ 64,000 TL 108,000 **42,00x86,00** Deutz ve Volvo ile Ortak Motor	AP	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04044-000**
	K=120,00 L=229,00 H+F=9,00+1,10 D=128,50	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-06067-000** 52-06067-000	**71-07153-000** 72-07153-000

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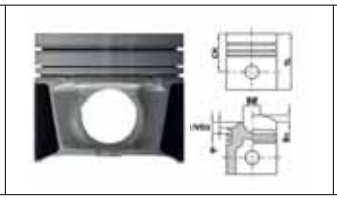
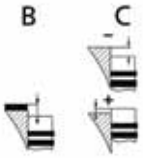
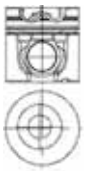
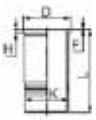
		Type		B C		
						

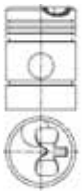
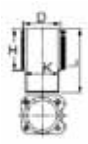
108,000

BF 4 M 1013 E Euro 2			D	1993	4 Cyl	**4764cc**
BF 6 M 1013 E Euro 2			D	1995	6 Cyl	**7146cc**
TCD 2013 L04 2V Euro 3			D		4 Cyl	**4764cc**
TCD 2013 L06 2V Euro 3			D		6 Cyl	**7146cc**

	**11-02045-000** CH 71,100 B- 19,600 BØ 64,000 TL 108,000 **42,00x86,00**	AP	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04045-000**
	Deutz ve Volvo ile Ortak Motor					
	K=120,00 L=229,00 H+F=9,00+1,10 D=128,50	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-06067-000** 52-06067-000	**71-07152-000** 72-07152-000

110,000

F 1 L 514			D	1 Cyl	**1330cc** **11-13kW**	(15-18ps)
F 12 L 614			D	12 Cyl	**15966cc** **184kW**	(250ps)
F 2 AL / L 514			D	2 Cyl	**2660cc** **22-24kW**	(30-33ps)
F 3 L 514			D	3 Cyl	**3990cc** **33-37kW**	(45-50ps)
F 4 L 514			D	4 Cyl	**5322cc** **63kW**	(85ps)
F 6 L 514 / 614			D	6 Cyl	**7980cc** **74-92kW**	(101-125ps)
F 8 L 614			D	8 Cyl	**10643cc** **125kW**	(170ps)

	**11-01517-000** CH 87,000 VD1 0,500 B- 10,500 TL 154,000 **40,00x93,00**	CP	**91-09517-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 6,000 CR 5 6,000 P	+1,20/+1,40	Ø 110,000 Ø 110,500 Ø 111,000 Ø 111,500	**31-03517-000** **31-03517-050** **31-03517-100** **31-03517-150**
	K=130,00 L=274,55 H+F=162,40+7,10 D=140,00	AF-PH			**51-95518-000**	**71-07517-000**

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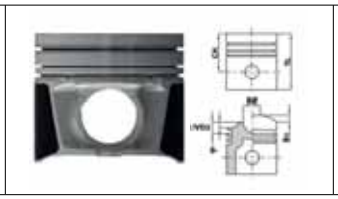
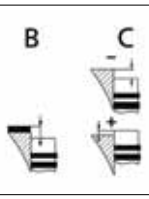
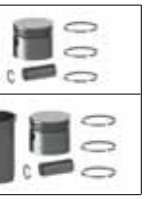
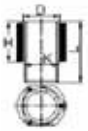
		Type		B C		
						

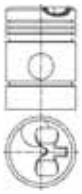
120,000

F 10 L 413			D	1970	1982	10 Cyl	**14140cc**	**167-224kW** (227-305ps)
F 12 L 413			D	1971	1975	12 Cyl	**16960cc**	**138-250kW** (188-340ps)
F 6 L 413			D	1968	1986	6 Cyl	**8487cc**	**69-130kW** (94-176ps)
F 8 L 413			D	1967	1986	8 Cyl	**11310cc**	**118-171kW** (160-232ps)

	11-01518-000 CH 90,160 B+ 5,090 B- 45,550 BØ 46,000 TL 145,250 **45,00x96,00**	AP	**91-09518-000** 1 3,000 CR 2 3,000 CR 3 3,000 CR 4 6,000 CrP	+1,10/+1,30	Ø 120,000 Ø 120,500 Ø 121,000	**31-03518-000** **31-03518-050** **31-03518-100**
	K=134,00 L=255,50 H=170,08 D=145,00	AF-PH			**51-95521-000**	**71-07518-000**

120,000

F/A 10 L 714			D	1959		10 Cyl	**15883cc**	**173kW** (235ps)
F/A 12 L 714			D	1959		12 Cyl	**19000cc**	**213kW** (290ps)
F/A 6 L 714			D	1959		6 Cyl	**9500cc**	**106kW** (145ps)
F/A 8 L 714			D	1959		8 Cyl	**12667cc**	**143kW** (195ps)

	**11-01519-000** CH 87,000 VD1 0,300 B- 13,000 TL 154,000 **45,00x102,00**	CP	**91-09519-000** 1 3,000 CR 2 3,000 3 3,000 4 6,000 CrP 5 6,000 P	+1,30/+1,50	Ø 120,000 Ø 120,500 Ø 121,000	**31-03519-000** **31-03519-050** **31-03519-100**

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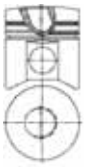
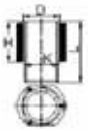
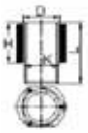
		Type		B	C		
125,000							
F 10 L 413 F	D	1978		10 Cyl	**15953cc**	**173-235kW**	(235-320ps)
F 12 L 413 F	D	1976		12 Cyl	**19144cc**	**224-282kW**	(305-383ps)
F 4 L 413 F / FR	D	1978	1991	4 Cyl	**6381cc**	**83-94kW**	(113-128ps)
F 5 L 413 F / FR	D	1975		5 Cyl	**7976cc**	**94-118kW**	(128-160ps)
F 6 L 413 F / FR	D	1975	1993	6 Cyl	**9572cc**	**104-188kW**	(141-256ps)
F 8 L 413 F	D	1977	1987	8 Cyl	**12763cc**	**147-188kW**	(200-255ps)

	**11-01520-000** CH 87,400 B+ 5,250 B- 47,650 BØ 48,000 TL 138,650 **45,00x102,00** Deutz ve Ford ile Ortak Motor	AP	**91-09520-000** 1 3,000 CrP 2 2,500 P 3 4,000 CrP	+1,15/+1,30	Ø 125,000 Ø 125,500 Ø 126,000	**31-03520-000** **31-03520-050** **31-03520-100**
	K=139,00 L=250,70 H=169,50 D=150,00	AF-PH			**51-95529-000**	**71-07119-000**
	K=139,00 L=250,70 H=169,50 D=154,00	AF-PH			**51-95556-000**	**71-07134-000**

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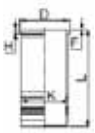
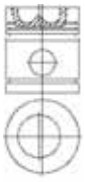
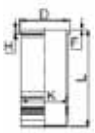
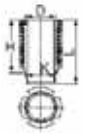
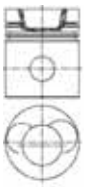
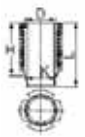
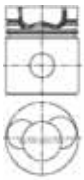
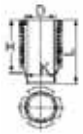
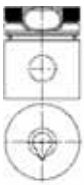
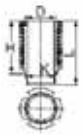
		Type		B C		
127,000						
LC2		D	2 Cyl	**cc**	**kW**	(ps)
LC3		D	3 Cyl	**cc**	**kW**	(ps)
LC4		D	4 Cyl	**cc**	**kW**	(ps)
LC5		D	5 Cyl	**cc**	**kW**	(ps)
LC6		D	6 Cyl	**cc**	**kW**	(ps)
	11-01400-000 CH 101,664 B- 28,260 BØ 73,600 TL 154,000 **44,45x107,95**		**91-09400-000** 1 3,175 CR 2 3,175 P 3 3,175 P 4 6,350 P 5 6,350 P		Ø 127,000	**31-03400-000**
	K=142,80 L=295,90 H+F=11,17+0,63 D=150,10	WF			**51-05257-000**	**71-07400-000**
127,000						
LA2		D	2 Cyl			
LA3		D	3 Cyl			
LA4		D	4 Cyl			
LA5		D	5 Cyl			
LA6		D	6 Cyl			
	**11-01401-000** CH 111,176 B- 22,780 BØ 70,700 TL 163,576 **44,45x107,95**		**91-49400-000** 1 3,175 CR 2 3,175 P 3 6,350 P 4 6,350 P		Ø 127,000	**31-03401-000**
	K=142,80 L=295,90 H+F=11,17+0,63 D=150,10	WF			**51-05257-000**	**71-07401-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
100,000						
EDK1			D	1 Cyl		
EDK2			D	2 Cyl		
EDK3			D	3 Cyl		
EDK4			D	4 Cyl		
EDK6			D	6 Cyl		
	11-02805-000 CH 81,000 VD1 0,500 B- 28,800 BØ 25,500 TL 121,000 **35,00x85,00**		**91-09007-000** 1 3,000 CR 2 3,000 P 3 5,000 CrP		Ø 100,000	**31-04805-000**
	K=109,00 L=243,00 H=201,90 D=114,00	AF			**51-95468-000**	**71-08805-000**
100,000						
EDL2-1			D 1982	2 Cyl	**1963cc** **26kW**	(35ps)
EDL3-1			D 1982	3 Cyl	**2945cc** **31kW**	(42ps)
EDL4-1			D 1982	4 Cyl	**3927cc** **55kW**	(75ps)
EDL6-3			D 1982	6 Cyl	**5890cc** **80kW**	(104ps)
	**11-02806-000** CH 81,000 VD1 0,750 B- 26,000 BØ 54,600 TL 121,000 **35,00x85,00**		**91-09006-000** 1 3,000 CR 2 3,000 P 3 4,000 CrP		Ø 100,000	**31-04806-000**
	K=109,00 L=243,00 H=201,90 D=114,00	AF			**51-95468-000**	**71-08806-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
100,000						
DL4-2T		D 1981	4 Cyl	**3927cc**	**65kW**	(88ps)
EDL3-5T		D 1981	3 Cyl	**2945cc**	**49kW**	(66ps)
EDL6-5T		D 1981	6 Cyl	**5890cc**	**92kW**	(125ps)
EDL6-6T		D 1981	6 Cyl	**5890cc**	**107kW**	(145ps)
	**11-02807-000** CH 81,000 VD1 0,750 B- 24,300 BØ 57,000 TL 121,000 **35,00x85,00**		**91-09006-000** 1 3,000 CR 2 3,000 P 3 4,000 CrP		Ø 100,000	**31-04807-000**
	K=109,00 L=243,00 H=201,90 D=114,00	AF			**51-95468-000**	**71-08807-000**
100,000						
EDK2-4		D	4 Cyl	**1964cc**	**kW**	(ps)
EDK3-4		D	3 Cyl	**2946cc**	**kW**	(ps)
EDK4-4		D	4 Cyl	**3928cc**	**kW**	(ps)
EDK6-4		D	6 Cyl	**5890cc**	**kW**	(ps)
	**11-02815-000** CH 82,500 VD1 0,500 B- 30,000 BØ 25,600 TL 122,500 **35,00x85,00**		**91-09007-000** 1 3,000 CR 2 3,000 P 3 5,000 CrP		Ø 100,000	**31-04815-000**
	K=109,00 L=243,00 H=201,90 D=114,00	AF			**51-95468-000**	**71-08815-000**

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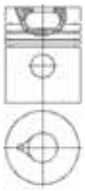
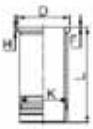
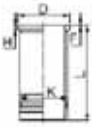
		Type		B C		

123,000

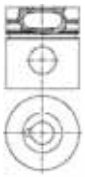
2F / 4 — D 1965 — 6 Cyl — **9981cc**

	**11-01260-000** CH 90,300 B- 37,000 BØ 38,000 TL 165,000 **45,00x102,00**	AP	**91-09260-000** 1 3,000 CrP 2 3,000 P 3 3,000 P 4 6,000 P		Ø 123,000	**31-03260-000**
	K=138,95 L=281,50 H+F=15,30+0,50 D=148,95	WF		O-Ring/Seal 55-50906-000 2 NBR 130,00x3,50	**51-05264-000** 52-05264-000	**71-07260-000** 72-07260-000
	K=138,95 L=281,50 H+F=15,30+0,50 D=148,95	WF +0,10		O-Ring/Seal 55-50906-000 2 NBR 130,00x3,50	**51-05264-010** 52-05264-010	

125,000

2F-B — D 1980 — 6 Cyl — **11040cc** **142kW** (193ps)

2FU-B — D 1980 — 6 Cyl — **11040cc** **147kW** (200ps)

	**11-02900-000** CH 89,300 B- 38,100 BØ 38,000 TL 137,800 **46,00x108,00**	AP	**91-09900-000** 1 3,500 CrP 2 3,000 P 3 6,000 CrP		Ø 125,000	**31-04900-000**
	K=138,95 L=281,50 H+F=15,30+0,50 D=148,95	WF		O-Ring/Seal 55-50907-000 2 NBR 130,00x4,00	**51-05266-000** 52-05266-000	**71-08900-000** 72-08900-000

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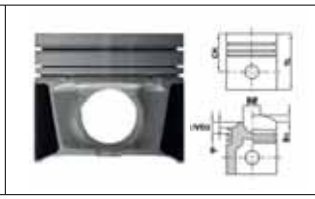
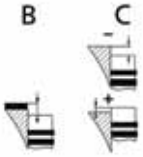
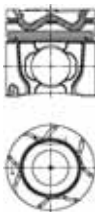
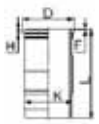
		Type				

123,000

CA6DM			D		**11000cc**	(ps)
	**11-01090-000** CH 81,000 VD1 1,650 VD2 1,800 B- 20,000 BØ 75,700 TL 123,450 **54,00x100,00**	AP YS	**91-09316-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 123,000	**31-03090-000**
	K=137,00 L=257,00 H+F=11,10+0,85 D=149,00	WF			**51-06135-000**	**71-08250-000**

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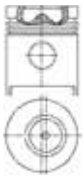
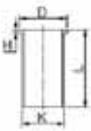
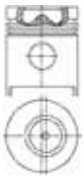
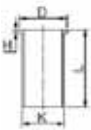
		Type		B C		
95,000						
802.000 / 8020.01 / 8025.01	D	1966	1971	2 Cyl	**1560cc**	**18 kW** (25 ps)
8030.01	D	1966	1971	3 Cyl	**2340cc**	**28 kW** (38 ps)
8035.01.303 / 306 / 308-309 / 320	D	1968	1986	3 Cyl	**2338cc**	**28-35kW** (38-48ps)
8045.01 / 804.000 / 8040.01	D	1966	1971	4 Cyl	**3120cc**	**40-54 kW** (52-70 ps)
806.000 / 8060.01 / 8065.01.000	D	1960		6 Cyl	**4678cc**	**66-81 kW** (90-110 ps)

	**11-01402-000** CH 59,650 B- 23,500 BØ 42,500 TL 101,150 **32,00x82,50**		**91-09402-000** 1 2,500 CrP 2 2,500 P 3 5,500 CrP	+0,46/+0,79	Ø 95,000 Ø 95,400 Ø 95,600	**31-03402-000** **31-03402-040** **31-03402-060**
Fiat / Iveco ve Utb-Universal ile Ortak Motor						
	K=99,08 L=187,50	DS			**51-65402-000**	
	K=99,05 L=187,50 H=6,00 D=100,05	DS			**51-65454-000**	
	K=103,03 L=187,50	DS			**51-66020-000**	

95,000						
8020.01	D			2 Cyl	**1560cc**	**18kW** (25ps)
8030.01	D	1966	1971	3 Cyl	**2339cc**	**28-37kW** (38-51ps)
8040.01	D	1968	1971	4 Cyl	**3119cc**	**40-52kW** (54-70ps)
8060.01	D	1960	1971	5 Cyl	**4678cc**	**81kW** (110ps)

	**11-01404-000** CH 59,650 B- 23,500 BØ 42,500 TL 101,150 **32,00x82,50**	AP	**91-09402-000** 1 2,500 CrP 2 2,500 P 3 5,500 CrP	+0,46/+0,79	Ø 95,000 Ø 95,400 Ø 95,600	**31-03404-000** **31-03404-040** **31-03404-060**
	K=99,08 L=187,50	DS			**51-65402-000**	
	K=99,05 L=187,50 H=6,00 D=100,05	DS			**51-65454-000**	

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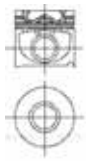
		Type		B C		

99,000

F32 AM / GE / GEF / MNS / MNT / MNSX / MNTX / TM1X Euro 3	D		4 Cyl	**3200cc**	**kW**	(ps)
F5 C Euro 3	D		4 Cyl	**3200cc**	**kW**	(ps)
F5 CE Euro 3	D		4 Cyl	**3200cc**	**kW**	(ps)



11-02827-000
CH 62,500
B- 19,900
BØ 50,000
TL 93,000

36,00x81,00

AP

91-09692-000
1 2,500 CdC
2 2,000
3 2,500 CK

Ø 99,000
Ø 99,400

31-04827-000
31-04827-040

Claas ve Fiat / Iveco ile Ortak Motor

K=103,00
L=174,00
H=5,00
D=105,00

DS

51-65750-000

100,000

8035.06	D	1985	1988	3 Cyl	**2710cc**	
8040.02 / 8045.06	D	1985		4 Cyl	**3613cc**	

11-01350-000
CH 65,100
B- 22,700
BØ 49,000
TL 108,500

38,00x85,00

AP

91-09403-000
1 2,500 CrP
2 2,500 P
3 5,500 CrP

Ø 100,000
Ø 100,400
Ø 100,600

31-03350-000
31-03350-040
31-03350-060

100,000

Tier YESIL MOTOR	D			3 Cyl	**cc**	**kW** (50-55ps)

11-01351-000
CH 65,330
B- 20,000
BØ 48,200
TL 108,680

38,00x85,00

91-09406-000
1 2,500 CrP
2 2,500 P
3 4,000 CrP

Ø 100,000

31-03351-000

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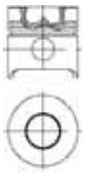
		Type		B C		

100,000

8045.06 TURBO			D	4 Cyl		(ps)
	11-01353-000 CH 65,100 B- 22,700 BØ 49,000 TL 108,500 **38,00x85,00**	AP	**91-09406-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP		Ø 100,000 Ø 100,400 Ø 100,600	**31-03353-000** **31-03353-040** **31-03353-060**

100,000

8025.02			D	2 Cyl	**1728cc**	
8030.02 / 8035.02			D	3 Cyl	**2592cc**	
8040.02 / 8045.02			D	4 Cyl	**3456cc**	
8060.02 / 8065.02			D	6 Cyl	**5184cc**	
	**11-01354-000** CH 59,650 B- 23,700 BØ 47,000 TL 101,150 **32,00x84,00**		**91-09403-000** 1 2,500 CrP 2 2,500 P 3 5,500 CrP		Ø 100,000 Ø 100,600	**31-03354-000** **31-03354-060**

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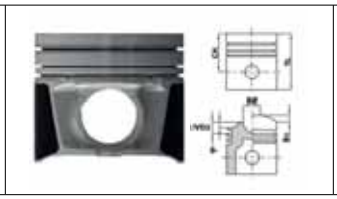
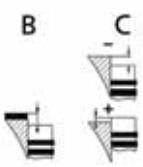
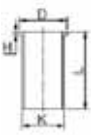
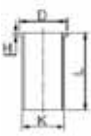
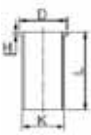
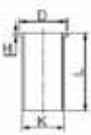
		Type				

100,000

8025.02	D	1972	2 Cyl	**1727cc**
8030.02 / 8035.02	D	1969	3 Cyl	**2592cc**
8040.02 / 8045.02	D	1973	4 Cyl	**3456cc**
8060.02 / 8065.02	D	1972	6 Cyl	**5184cc**

	11-01403-000 CH 59,650 B- 23,700 BØ 47,000 TL 101,150 **32,00x84,00**		**91-09403-000** 1 2,500 CrP 2 2,500 P 3 5,500 CrP	+0,46/+0,79	Ø 100,000 Ø 100,600	**31-03403-000** **31-03403-060**
	K=103,06 L=187,50	DS			**51-65403-000**	
	K=103,20 L=187,50	DS +0,20			**51-65403-020**	
	K=103,55 L=187,50	DS +0,50			**51-65403-050**	
	K=104,06 L=187,50	DS +1,00			**51-65403-100**	
	K=103,05 L=187,50 H=6,00 D=104,05	DS			**51-65404-000**	
	K=103,50 L=187,50 H=6,00 D=104,50	DS +0,50			**51-65404-050**	
	K=104,05 L=187,50 H=6,00 D=105,00	DS +1,00			**51-65404-100**	
	K=104,50 L=187,50 H=6,00 D=105,50	DS +1,50			**51-65404-150**	

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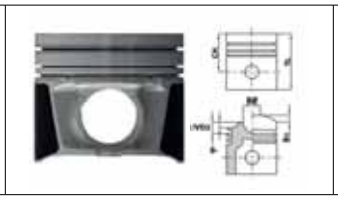
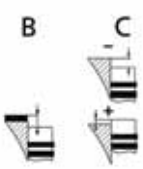
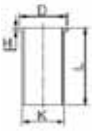
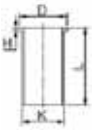
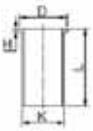
		Type				

100,000

8035.06				D	1985	1988	3 Cyl	**2710cc** **40kW** (55ps)
8040.02 / 8045.06				D	1985		4 Cyl	**3613cc** **48kW** (65ps)
	11-01405-000 CH 65,100 B- 22,700 BØ 49,000 TL 108,500 **38,00x84,00**		**91-09406-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP			+0,365/+0,761		Ø 100,000 **31-03405-000** Ø 100,400 **31-03405-040** Ø 100,600 **31-03405-060**
	K=103,06 L=196,00	DS						**51-65406-000**
	K=103,55 L=196,00	DS +0,50						**51-65406-050**
	K=103,05 L=196,00 H=6,00 D=104,05	DS						**51-65449-000**
	K=103,50 L=196,00 H=6,00 D=104,50	DS +0,50						**51-65449-050**
	K=104,05 L=196,00 H=6,00 D=105,00	DS +1,00						**51-65449-100**

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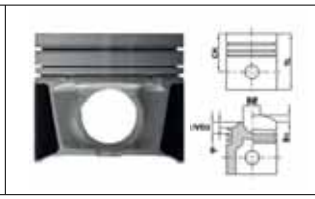
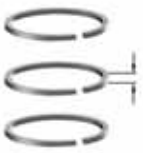
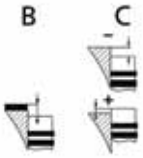
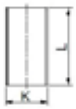
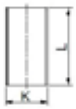
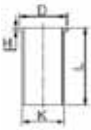
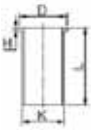
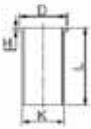
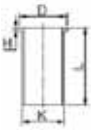
		Type				

100,000

8040.02	D	1971	1981	4 Cyl	**3456cc**	**60kW**	(82ps)
8040.02.041 / 267 / 300 / 367	D	1972	1990	4 Cyl	**3456cc**	**56kW**	(76ps)
8040.02.360	D	1972	1990	4 Cyl	**3456cc**	**44kW**	(60ps)

	11-01406-000 CH 59,650 B- 23,500 BØ 47,100 TL 101,150 **34,00x84,00**		**91-09406-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP	+0,365/+0,761	Ø 100,000 Ø 100,600	**31-03406-000** **31-03406-060**
	K=103,06 L=187,50	DS			**51-65403-000**	
	K=103,20 L=187,50	DS +0,20			**51-65403-020**	
	K=103,55 L=187,50	DS +0,50			**51-65403-050**	
	K=104,06 L=187,50	DS +1,00			**51-65403-100**	
	K=103,05 L=187,50 H=6,00 D=104,05	DS			**51-65404-000**	
	K=103,50 L=187,50 H=6,00 D=104,50	DS +0,50			**51-65404-050**	
	K=104,05 L=187,50 H=6,00 D=105,00	DS +1,00			**51-65404-100**	
	K=104,50 L=187,50 H=6,00 D=105,50	DS +1,50			**51-65404-150**	

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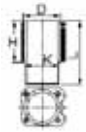
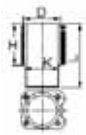
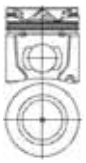
		Type		B C		
102,000						
D 115		D	4 Cyl	**2340cc**	**33kW**	(45ps)
D 115,050		D	4 Cyl	**2340cc**	**39kW**	(53ps)
D 121,050 / D 171,050		D	4 Cyl	**3595cc**	**47kW**	(64ps)
D 2404,062		D	4 Cyl	**3759cc**	**61kW**	(83ps)
	11-01415-000 CH 59,500 B- 24,500 BØ 48,500 TL 101,000 **32,00x84,00**		**91-09415-000** 1 2,500 CR 2 2,500 P 3 5,000 CR		Ø 102,000	**31-03415-000**
	K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95513-000**	**71-07415-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96213-000** 52-96213-000	**71-07409-000** 72-07409-000
102,000						
F4 AE 3481		D	2006 2008 4 Cyl	**3922cc**	**134kW**	(182ps)
F4 AE 3682 A / B / C Euro 4		D	6 Cyl	**5883cc**	**kW**	(ps)
F4 AE 3682 E Euro 4		D	6 Cyl	**5883cc**	**194 kW**	(264 ps)
	**11-02265-000** CH 71,380 B- 17,150 BØ 76,000 TL 105,380 **40,00x82,68**	AP YS	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP		Ø 102,000 Ø 102,500	**31-04265-000** **31-04265-050**
102,000						
F4AE0454A / F4BE0454B		D	6 Cyl	**5900cc**	**kW**	(ps)
	11-02834-000 CH 71,450 B- 22,000 BØ 51,300 TL 105,300 **40,00x83,00**	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP		Ø 102,000	**31-04834-000**

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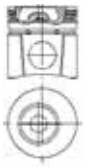
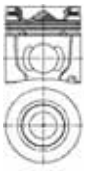
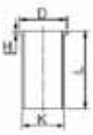
		Type		B C		
	**11-02839-000** CH 71,350 B- 22,000 BØ 51,300 TL 105,300 **40,00x83,00**	AP	**91-09369-000** 1 3,000 Mo 2 3,000 P 3 4,000 CrP		Ø 102,000	**31-04839-000**

102,000

F4BE0684B — D — 4 Cyl — **5900cc**

	**11-02847-000** CH 71,380 B- 18,550 BØ 56,000 TL 105,380 **40,00x82,68**	AP YS	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP	+0,45/+0,65	Ø 102,000 Ø 102,500 Ø 103,000	**31-04847-000** **31-04847-050** **31-04847-100**
	K=105,00 L=202,00 H=5,00 D=108,00	DS			**51-65130-000**	

102,000

F4 AE 0481 A Euro 3	D	2000	2003	4 Cyl	**3920cc**	**125kW**	(170ps)
F4 AE 0481 C Euro 3	D	2000	2003	4 Cyl	**3920cc**	**110kW**	(149ps)
F4 AE 0481 D Euro 3	D	2000	2003	4 Cyl	**3920cc**	**95kW**	(130ps)
F4 AE 0681 A Euro 3	D	2000	2003	6 Cyl	**5880cc**	**202kW**	(275ps)
F4 AE 0681 B Euro 3	D	2000	2003	6 Cyl	**5880cc**	**176kW**	(239ps)
F4 AE 0681 D Euro 3	D	2000	2003	6 Cyl	**5880cc**	**154kW**	(210ps)
F4 AE 0681 E Euro 3	D	2000	2003	6 Cyl	**5880cc**	**134kW**	(182ps)
F4 AE 0684 C	D			6 Cyl	**5880cc**	**169kW**	(227ps)

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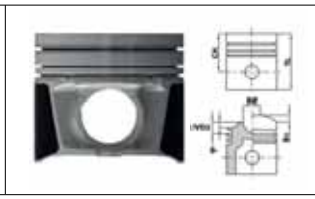
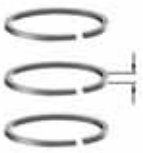
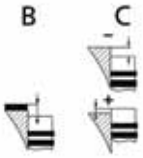
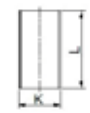
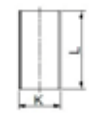
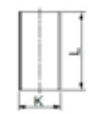
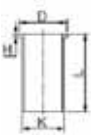
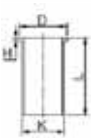
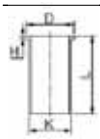
		Type				

103,000

8031.04.300	D	1979	1984	3 Cyl	**2749cc**	**40kW**	(54ps)
8035.04.265 / 270 / 272 / 300 / 359 / 370 / 376-378	D	1970		3 Cyl	**2749cc**	**35-43kW**	(48-58ps)
8035.44.059	D	1980	1987	3 Cyl	**2749cc**	**35kW**	(48ps)
8040.04.200 / 280	D	1983	1986	4 Cyl	**3666cc**	**63kW**	(85ps)
8041.04.200 / 250 / 260 / 300	D	1979	1988	4 Cyl	**3666cc**	**50-63kW**	(68-88ps)
8041I.002 / I.004 / I.005 / I.006	D	1982		4 Cyl	**3666cc**	**52-59kW**	(71-80ps)
8045.04.189 / 270 / 275-277 / 293 / 300 / 359 / 370 / 376 / 377	D	1975	1985	4 Cyl	**3666cc**	**48-57kW**	(65-78ps)
8051I105	D	1982	1987	5 Cyl	**4583cc**	**72kW**	(98ps)
8055.04.200	D	1980	1984	5 Cyl	**4583cc**	**63-66kW**	(86-90ps)
8055.04.205	D	1981	1984	5 Cyl	**4583cc**	**65kW**	(88ps)
8055.04.250	D	1981	1981	5 Cyl	**4583cc**	**60kW**	(82ps)
8060.04.000 / 051-052 / 055 / 060 / 066 / 070 / 620 / 621 / 630 / 639 / 658 / 660-662 / 669-670 / 672 / 675 / 689	D	1978	1990	6 Cyl	**5499cc**	**73-102kW**	(99-139ps)
8060.05.661-663 / 673	D	1986	1988	6 Cyl	**5499cc**	**81-96kW**	(110-120ps)
8065.04.089 / 095 / 097 / 200 / 217 / 270	D	1976	1988	6 Cyl	**5499cc**	**53-85kW**	(72-115ps)

	11-01407-000 CH 59,650 B- 22,700 BØ 50,000 TL 101,150 **34,00x89,80**		**91-09407-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP	+0,465/+0,785	Ø 103,000 Ø 103,600	**31-03407-000** **31-03407-060**
	K=107,05 L=187,50	DS			**51-65407-000**	**71-07407-000**
	K=107,15 L=187,50	DS +0,10			**51-65407-010**	
	K=107,25 L=187,50	DS +0,20			**51-65407-020**	
	K=107,05 L=187,50 H=6,00 D=108,00	DS			**51-65456-000**	
	K=107,50 L=187,50 H=6,00 D=108,50	DS +0,50			**51-65456-050**	
	K=108,05 L=187,50 H=6,00 D=109,00	DS +1,00			**51-65456-100**	

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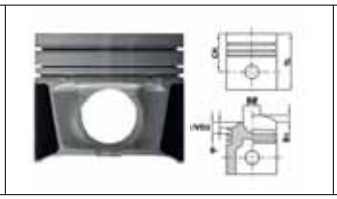
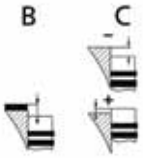
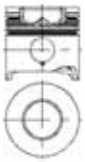
		Type				

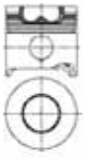
103,000

8060.24 D 6 Cyl **5499cc** **kW** (ps)

	**11-02835-000** CH 59,650 B- 22,700 BØ 51,000 TL 101,150 **34,00x90,00**	AP HA	**91-09933-000** 1 3,000 MoP 2 2,500 P 3 4,000 CrP		Ø 103,000	**31-04835-000**

103,000

8060.24.001 D 1982 1988 6 Cyl **5500cc**

	**11-02842-000** CH 59,600 B- 22,700 BØ 51,000 TL 101,150 **34,00x90,00**	AP	**91-09933-000** 1 3,000 MoP 2 2,500 P 3 4,000 CrP		Ø 103,000	**31-04842-000**

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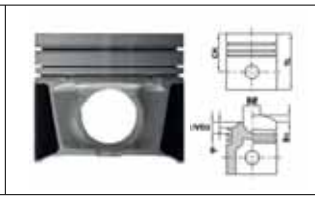
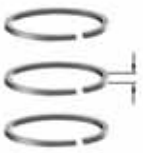
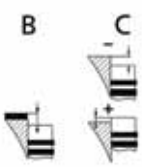
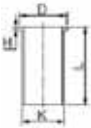
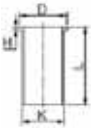
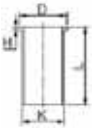
		Type				

103,000

8031.04.300	D	1979	1984	3 Cyl	**2749cc**	**40kW**	(54ps)
8035.04.265 / 270 / 272 / 300 / 359 / 370 / 376-378	D	1970		3 Cyl	**2749cc**	**35-43kW**	(48-58ps)
8035.44.059	D	1980	1987	3 Cyl	**2749cc**	**35kW**	(48ps)
8040.04.200 / 280	D	1983	1986	4 Cyl	**3666cc**	**63kW**	(85ps)
8041.04.200 / 250 / 260 / 300	D	1979	1988	4 Cyl	**3666cc**	**50-63kW**	(68-88ps)
8041I.002 / I.004 / I.005 / I.006	D	1982		4 Cyl	**3666cc**	**52-59kW**	(71-80ps)
8045.04.189 / 270 / 275-277 / 293 / 300 / 359 / 370 / 376 / 377	D	1975	1985	4 Cyl	**3666cc**	**48-57kW**	(65-78ps)
8051I105	D	1982	1987	5 Cyl	**4583cc**	**72kW**	(98ps)
8055.04.200	D	1980	1984	5 Cyl	**4583cc**	**63-66kW**	(86-90ps)
8055.04.205	D	1981	1984	5 Cyl	**4583cc**	**65kW**	(88ps)
8055.04.250	D	1981	1981	5 Cyl	**4583cc**	**60kW**	(82ps)
8060.04.000 / 051-052 / 055 / 060 / 066 / 070 / 620-621 / 630 / 639 / 658 / 660-662 / 669 / 670 / 672 / 675 / 689	D	1978	1990	6 Cyl	**5499cc**	**73-102kW**	(99-139ps)
8060.05.661-663 / 673	D	1986	1988	6 Cyl	**5499cc**	**81-96kW**	(110-120ps)
8065.04.089 / 095 / 097 / 200 / 217 / 270	D	1976	1988	6 Cyl	**5499cc**	**53-85kW**	(72-115ps)

	11-02930-000 CH 59,650 B- 22,400 BØ 52,000 TL 101,000 **34,00x90,00**	AP	**91-09407-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP		Ø 103,000	**31-04930-000**
	K=107,05 L=187,50	DS			**51-65407-000**	
	K=107,15 L=187,50	DS +0,10			**51-65407-010**	
	K=107,25 L=187,50	DS +0,20			**51-65407-020**	
	K=107,05 L=187,50 H=6,00 D=108,00	DS			**51-65456-000**	
	K=107,50 L=187,50 H=6,00 D=108,50	DS +0,50			**51-65456-050**	
	K=108,05 L=187,50 H=6,00 D=109,00	DS +1,00			**51-65456-100**	

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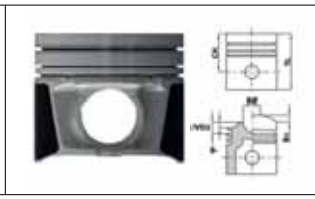
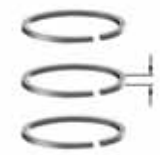
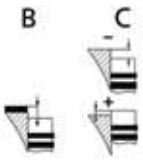
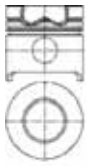
		Type		B C		
						

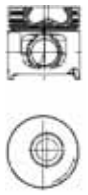
103,000

8060.24.601 — D — 1983 — 1985 — 6 Cyl — **5499cc** — **124kW** — (169ps)

	**11-02933-000** CH 59,610 B- 22,500 BØ 53,000 TL 101,150 **34,00x90,00**	AP	**91-09933-000** 1 3,000 MoP 2 2,500 P 3 4,000 CrP		Ø 103,000	**31-04933-000**

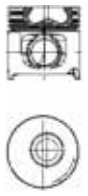
104,000

TUMOSAN 8045.25 231 — D — 4 Cyl — **cc** — **kW** — (ps)

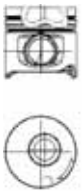
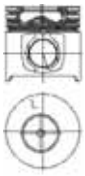
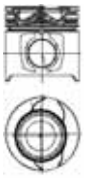
	**11-01000-000** CH 65,330 B- 23,260 BØ 45,540 TL 104,330 **38,00x85,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR		Ø 104,000 Ø 104,600	**31-03000-000** **31-03000-060**

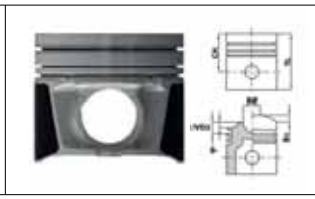
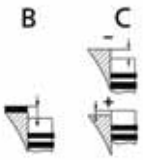
104,000

TUMOSAN 8045.25 231 Euro2 / 8045.05/25 — D — 4 Cyl — 3900cc — 66-74kW — (90-100ps)

	**11-01001-000** CH 65,330 B- 21,400 BØ 48,200 TL 104,330 **38,00x85,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR		Ø 104,000 Ø 104,600	**31-03001-000** **31-03001-060**

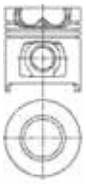
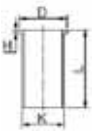
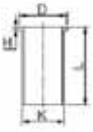
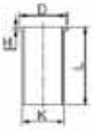
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
104,000						
TUMOSAN 4DT39			D	4 Cyl	**cc**	
	**11-01002-000** CH 65,330 B- 23,260 BØ 45,540 TL 104,330 **38,00x84,80**	AP	**91-09315-000** 1 3,000 CrP 2 2,385 P 3 3,500 CrP		Ø 104,000 Ø 107,100	**31-03002-000** **31-03002-060**
104,000						
8035.05			D 2004	3 Cyl		
8045.05/25			D 2004	4 Cyl		
	**11-01030-000** CH 65,330 B- 21,400 BØ 48,200 TL 104,330 **38,00x85,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR		Ø 104,000	**31-03030-000**
104,000						
8045.25D.313T			D	4 Cyl	**3908cc** **76kW**	(110ps)
	**11-01031-000** CH 65,330 B- 18,200 BØ 58,000 TL 104,330 **38,00x85,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR		Ø 104,000	**31-03031-000**
Iveco ve Ihc/Case ile Ortak Motor						

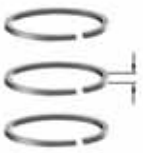
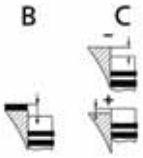
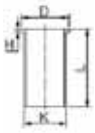
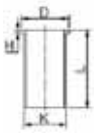
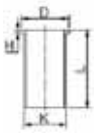
		Type				

104,000

8031.05.300	D	1985	1989	3 Cyl	**2931cc**	**43kW**	(58ps)
8035.05.000 / 200 / 206 / 216 / 265 / 306-309 / 317 / 358 / 359 / 377	D	1984		3 Cyl	**2931cc**	**37-44kW**	(50-60ps)
8040.05.200 / 203 / 230 / 232 / 233 / 235	D	1987	1992	4 Cyl	**3908cc**	**65kW**	(88ps)
8045.05.000 / 200 / 204-209 / 216 / 217 / 300 / 304 / 306-309 / 317 / 359 / 389 / 393 / 395	D	1984		4 Cyl	**3908cc**	**57-60kW**	(78-82ps)
8045.06.206	D	1984		4 Cyl	**3908cc**	**51kW**	(70ps)
8055.05.000 / 200 / 205 / 250	D	1984		5 Cyl	**4885cc**	**66-72kW**	(90-98ps)
8060.05.000 / 200 / 201 / 203 / 205 / 246 / 270 / 276 / 280 / 284-286 / 288 / 289	D	1985		6 Cyl	**5863cc**	**79-102kW**	(108-138ps)
8065.05.000	D	1984		6 Cyl	**5863cc**	**85kW**	(115ps)

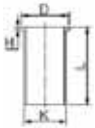
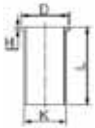
	**11-01340-000** CH 65,100 B- 22,700 BØ 51,700 TL 108,500 **38,00x85,00**		**91-09340-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP		Ø 104,000 Ø 104,600	**31-03340-000** **31-03340-060**
	K=107,05 L=198,00	DS			**51-65408-000**	
	K=107,17 L=197,00	DS +0,20			**51-65408-020**	
	K=107,56 L=198,00	DS +0,50			**51-65408-050**	
	K=108,07 L=198,00	DS +1,00			**51-65408-100**	
	K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**	
	K=107,07 L=198,00 H=5,05 D=110,05	DS +0,10			**51-65409-010**	
	K=107,17 L=198,00 H=5,05 D=110,05	DS +0,20			**51-65409-020**	

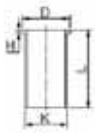
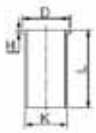
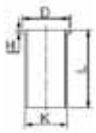
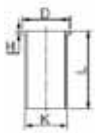
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				
	K=107,50 L=198,00 H=6,00 D=110,35	DS +0,50			**51-65409-050**	
	K=108,00 L=198,00 H=6,00 D=110,35	DS +1,00			**51-65409-100**	
	K=108,50 L=198,00 H=6,00 D=111,00	DS +1,50			**51-65409-150**	

104,000

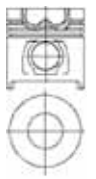
8065,05 D 1984 6 Cyl **cc** **85kW** (115ps)

	11-01341-000 CH 65,150 B- 22,300 BØ 54,500 TL 108,500 **38,00x89,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR		Ø 104,000	**31-03341-000**
	K=107,05 L=198,00	DS			**51-65408-000**	
	K=107,17 L=197,00	DS +0,20			**51-65408-020**	
	K=107,56 L=198,00	DS +0,50			**51-65408-050**	
	K=108,07 L=198,00	DS +1,00			**51-65408-100**	
	K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**	
	K=107,07 L=198,00 H=5,05 D=110,05	DS +0,10			**51-65409-010**	

		Type		B C		
	K=107,17 L=198,00 H=5,05 D=110,05	DS +0,20			**51-65409-020**	
	K=107,50 L=198,00 H=6,00 D=110,35	DS +0,50			**51-65409-050**	
	K=108,00 L=198,00 H=6,00 D=110,35	DS +1,00			**51-65409-100**	
	K=108,50 L=198,00 H=6,00 D=111,00	DS +1,50			**51-65409-150**	

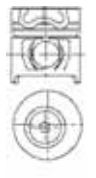
104,000

8035.05.215			D	1983	3 Cyl	**44kW** (60ps)
8045.05.000			D	1987	4 Cyl	**59kW** (80ps)
8045.05.213-215			D	1983	4 Cyl	**55kW** (75ps)

	**11-01343-000** CH 65,100 B- 22,700 BØ 51,700 TL 108,500 **38,00x85,00**	AP	**91-09340-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP	Ø 104,000 Ø 104,600	**31-03343-000** **31-03343-060**

104,000

YESIL MOTOR Turbosuz			D		3 Cyl	**2900cc kW** (60ps)

	**11-01352-000** CH 65,330 B- 21,400 BØ 48,200 TL 104,330 **38,00x85,00**		**91-09340-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP	Ø 104,000	**31-03352-000**

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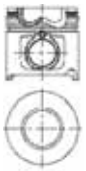
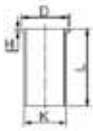
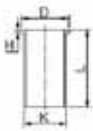
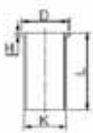
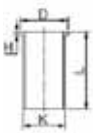
		Type		B C		
104,000						
8040.25.200-203		D 1987 1992 6 Cyl	**3908cc**			(115ps)
8060.25.600 / 605		D 1986 6 Cyl	**5868cc**			(177ps)
	**11-01355-000** CH 65,150 B- 20,880 BØ 54,500 TL 104,150 **38,00x85,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR		Ø 104,000 Ø 104,600	**31-03355-000** **31-03355-060**
	K=107,05 L=198,00	DS			**51-65408-000**	
	K=107,17 L=197,00	DS +0,20			**51-65408-020**	
	K=107,56 L=198,00	DS +0,50			**51-65408-050**	
	K=108,07 L=198,00	DS +1,00			**51-65408-100**	
	K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**	
	K=107,07 L=198,00 H=5,05 D=110,05	DS +0,10			**51-65409-010**	
	K=107,17 L=198,00 H=5,05 D=110,05	DS +0,20			**51-65409-020**	
	K=107,50 L=198,00 H=6,00 D=110,35	DS +0,50			**51-65409-050**	

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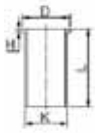
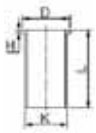
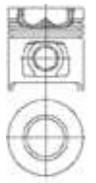
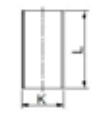
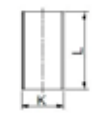
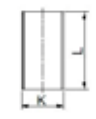
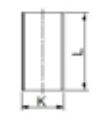
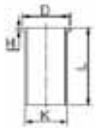
		Type		B C		
	K=108,00 L=198,00 H=6,00 D=110,35	DS +1,00			**51-65409-100**	
	K=108,50 L=198,00 H=6,00 D=111,00	DS +1,50			**51-65409-150**	

104,000

8031.05.300	D	1985	1989	3 Cyl	**2931cc**	**43kW**	(58ps)
8035.05.000 / 200 / 206 / 208 / 216 / 265 / 306-309 / 317 / 359 / 389 / 393 / 395	D	1984		3 Cyl	**2931cc**	**37-44kW**	(50-60ps)
8040.05.200 / 203 / 230 / 232-233 / 235	D	1987	1992	4 Cyl	**3908cc**	**65kW**	(88ps)
8045.05.000 / 200 / 204-209 / 216 / 217 / 300 / 304 / 306-309 / 317 / 359 / 389 / 393 / 395	D	1984		4 Cyl	**3908cc**	**57-60kW**	(78-82ps)
8045.06.206	D	1984		4 Cyl	**3908cc**	**51kW**	(70ps)
8055.05.000 / 200 / 205 / 250	D	1984		5 Cyl	**4885cc**	**66-72kW**	(90-98ps)
8060.05.000 / 200-201 / 203 / 205 / 246 / 270 / 276 / 280 / 284-286 / 288 / 289	D	1985		6 Cyl	**5863cc**	**79-102kW**	(108-138ps)
8065.05.000	D	1984	1990	6 Cyl	**5863cc**	**85kW**	(115ps)

	**11-01408-000** CH 65,150 B- 22,500 BØ 52,200 TL 108,500 **38,00x85,00**	AP	**91-09340-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP	+0,46/+0,79	Ø 104,000 Ø 104,600	**31-03408-000** **31-03408-060**
	K=107,05 L=198,00	DS			**51-65408-000**	
	K=107,17 L=197,00	DS +0,20			**51-65408-020**	
	K=107,56 L=198,00	DS +0,50			**51-65408-050**	
	K=108,07 L=198,00	DS +1,00			**51-65408-100**	
	K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**	

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		Type		B C		
K=107,07 L=198,00 H=5,05 D=110,05		DS +0,10			**51-65409-010**	
K=107,17 L=198,00 H=5,05 D=110,05		DS +0,20			**51-65409-020**	
K=107,50 L=198,00 H=6,00 D=110,35		DS +0,50			**51-65409-050**	
K=108,00 L=198,00 H=6,00 D=110,35		DS +1,00			**51-65409-100**	
K=108,50 L=198,00 H=6,00 D=111,00		DS +1,50			**51-65409-150**	

104,000

8040.25.000 / 200-203 / 207 / 208 / 220 / 222-223 / 225 / 229-231 / 233 / 234 / 600	D	1987	1992	4 Cyl	**3908cc**	**74-85kW**	(101-115ps)
8060.25.000 Euro2	D	1991	2001	6 Cyl	**5863cc**	**130kW**	(177ps)
8060.25.600-605 / 621 / 630 / 631 / 641 / 662-663 / 669 / 670 / 673 / 678 / 679	D	1983	1999	6 Cyl	**5863cc**	**92-130kW**	(120-177ps)
8060.25.661	D	1986	1988	6 Cyl	**5863cc**	**92kW**	(120ps)
8065.05.220	D	1986		6 Cyl	**5863cc**	**81kW**	(110ps)
8065.25.080 / 094	D	1988		6 Cyl	**5863cc**	**105kW**	(143-150ps)

11-01409-000 CH 65,100 B- 22,500 BØ 54,500 TL 104,150 **38,00x85,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR	+0,46/+0,79	Ø 104,000 Ø 104,600	**31-03409-000** **31-03409-060**	
K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**		
K=107,07 L=198,00 H=5,05 D=110,05	DS +0,10			**51-65409-010**		

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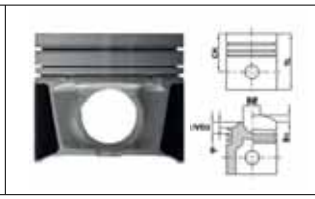
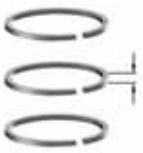
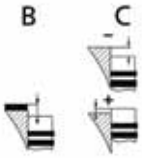
		Type		B C		
K=107,17 L=198,00 H=5,05 D=110,05		DS +0,20			**51-65409-020**	
K=107,50 L=198,00 H=6,00 D=110,35		DS +0,50			**51-65409-050**	
K=108,00 L=198,00 H=6,00 D=110,35		DS +1,00			**51-65409-100**	
K=108,50 L=198,00 H=6,00 D=111,00		DS +1,50			**51-65409-150**	
K=107,00 L=198,00 H=6,50 D=110,50		DS			**51-65758-000**	
K=107,50 L=198,00 H=6,50 D=110,50		DS +0,50			**51-65758-050**	

104,000

NEF45 SM1	D	4 Cyl	**3364cc**	**59kW**	(80ps)
NEF45 SM2	D	4 Cyl	**3364cc**	**66kW**	(90ps)
NEF45 TM1	D	4 Cyl	**4500cc**	**85kW**	(116ps)
NEF45 TM2	D	4 Cyl	**4500cc**	**87kW**	(118ps)
NEF67 SM1	D	6 Cyl	**6700cc**	**110kW**	(150ps)
NEF67 TM3	D	6 Cyl	**6700cc**	**152kW**	(207ps)

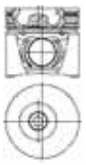
	11-02263-000 CH 62,385 B- 24,200 BØ 52,500 TL 96,385 **38,00x82,00**	AP	**91-09416-000** 1 3,000 CK 2 2,385 P 3 4,000 CR		Ø 104,000 Ø 104,400	**31-04263-000** **31-04263-040**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

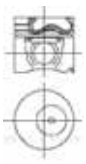
104,000

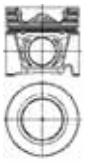
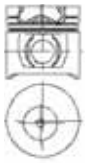
F4 AE 0686B	D	2006	6 Cyl	**6700cc**	**272kW**	(369ps)
F4 GE 0454A / 0455B / 9454H/ 9484F	D		6 Cyl	**6700cc**	**74kW**	(100ps)
F4 GE 0484C	D		4 Cyl	**4500cc**	**94kW**	(128ps)
F4 GE 0485A	D		6 Cyl	**6700cc**	**98kW**	(133ps)
F4 GE 0485C	D		6 Cyl	**6700cc**	**87kW**	(118ps)
F4 GE 0655B	D		6 Cyl	**6700cc**	**125kW**	(169ps)
F4 GE 0685B	D		6 Cyl	**6700cc**	**152-165kW**	(206-224ps)
F4 GE 0685D	D		6 Cyl	**6700cc**	**130kW**	(176ps)
F4 GE 9454J	D		4 Cyl	**4500cc**	**63kW**	(85ps)
F4 GE 9484F	D		4 Cyl	**4500cc**	**70kW**	(95ps)
N45MNS Euro3	D		4 Cyl	**4500cc**	**66 kW**	(90 ps)
N45MNT Euro3	D		4 Cyl	**4500cc**	**93kW**	(126ps)
NEF45SM1	D		4 Cyl	**4500cc**	**59kW**	(80ps)
NEF45TM1	D		4 Cyl	**4500cc**	**85kW**	(116ps)
NEF67SM1	D		6 Cyl	**6700cc**	**110kW**	(150ps)

	**11-02264-000** CH 62,385 B- 24,200 BØ 52,400 TL 96,400 **38,00x82,00**	AP	**91-09416-000** 1 3,000 CK 2 2,385 P 3 4,000 CR	Ø 104,000 Ø 104,400	**31-04264-000** **31-04264-040**

104,000

F4GE0404	D	2004	4 Cyl	**4485cc**	**60kW**	(81ps)
F4GE0604	D	2004	6 Cyl	**6728cc**	**81kW**	(110ps)

	**11-02826-000** CH 62,400 B- 23,920 BØ 47,800 TL 96,400 **38,00x82,00**		**91-09340-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP	Ø 104,000	**31-04826-000**

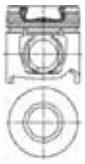
		Type		B C		
104,000						
N45 ENT Euro 3		D		4 Cyl	**4500cc** **104kW**	(141ps)
N45 MNS Euro 3		D		4 Cyl	**4500cc** **66kW**	(90ps)
N45 MNT Euro 3		D		4 Cyl	**4500cc** **93kW**	(126ps)
N45 MSS Euro 3		D		4 Cyl	**4500cc** **66kW**	(90ps)
N67 ENT Euro 3		D		6 Cyl	**6700cc** **175kW**	(238ps)
N67 MNT Euro 3		D		6 Cyl	**6700cc** **129kW**	(175ps)
	**11-02828-000** CH 62,390 B- 20,480 BØ 57,510 TL 96,380 **38,00x82,00**	AP	**91-09416-000** 1 3,000 CK 2 2,385 P 3 4,000 CR		Ø 104,000	**31-04828-000**
104,000						
F4 HE 968 A Euro 3		D		6 Cyl	**6700cc** **kW**	(ps)
N67 ENT Euro 3		D		6 Cyl	**6700cc** **175kW**	(238ps)
N67 ENT x20.00 Euro 3		D		6 Cyl	**6700cc** **kW**	(ps)
	11-02829-000 CH 62,400 B- 21,000 BØ 59,500 TL 96,500 **38,00x82,00**	AP YS	**91-09416-000** 1 3,000 CK 2 2,385 P 3 4,000 CR		Ø 104,000 Ø 104,400	**31-04829-000** **31-04829-040**
Fiat / Iveco ve New Holland ile Ortak Motor						
104,000						
60.65,60.66,60.90,FL4		D	1983	4 Cyl	**2931cc**	
Engine		D	1996	5 Cyl	**3908cc**	
SeriesTNF65		D	1996	4 Cyl	**3908cc**	
	**11-02832-000** CH 65,330 B- 21,400 BØ 48,200 TL 104,330 **38,00x85,00**		**91-09340-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP		Ø 104,000 Ø 104,600	**31-04832-000** **31-04832-060**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

104,000

8040.05.4990	D			4 Cyl	**3908cc**	**80kW** (109ps)
8040.25.4200 / 400 / 420 / 4000 / 4200	D	1986	1996	4 Cyl	**3908cc**	**85kW** (115ps)
8040.25R.4200	D	1991	1996	4 Cyl	**3908cc**	**85kW** (115ps)
8040.25X.4000 / 4927	D	1991	1996	4 Cyl	**3908cc**	**85kW** (116ps)
8060.25.4200 / 400 / 420 / 4000 / 4200	D	1991	2000	6 Cyl	**5861cc**	**130kW** (177ps)
8060.25.4200 / 4300 / 4700 / 4900 Series	D	1991	2000	6 Cyl	**5861cc**	**105kW** (143ps)
8060.25V.40004080 / 4800 Euro1	D	1991	2003	6 Cyl	**5861cc**	**130kW** (177ps)

	**11-02850-000** CH 65,330 B- 21,000 BØ 46,000 TL 104,330 **38,00x85,00**	AP	**91-09859-000** 1 3,500 Mo 2 2,500 3 4,000 CR		Ø 104,000	**31-04850-000**
	K=107,05 L=198,00	DS			**51-65408-000**	
	K=107,17 L=197,00	DS +0,20			**51-65408-020**	
	K=107,56 L=198,00	DS +0,50			**51-65408-050**	
	K=108,07 L=198,00	DS +1,00			**51-65408-100**	

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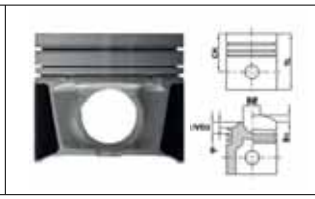
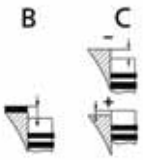
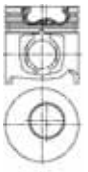
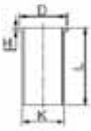
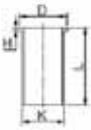
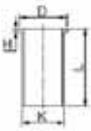
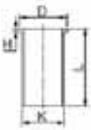
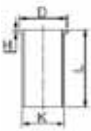
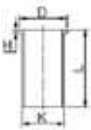
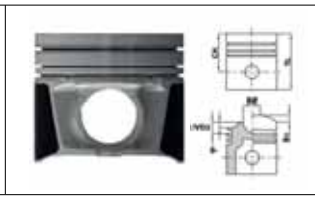
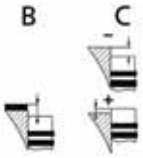
		Type		B C		
						

104,000

8040.45D.5100 / 5101 / 5103 / 5105 Euro2	D	1994	2000	4 Cyl	**3908cc**	**85kW**	(115ps)
8040.45D.5200 / 5201 / 5203 / 5205 / 5280 / 5281 Euro2	D	1994		4 Cyl	**3908cc**	**100kW**	(136ps)
8060.45.5200-5205 / 5210 / 5211 / 5220-5223 / 5232-5235 / 5250 / 5251 / 5255	D	1995		6 Cyl	**5863cc**	**152kW**	(207ps)
8060.45B.5100-5105 / 5110-5113 / 5120-5124 / 5145 / 5146 / 5150-5155 / 5160 / 5185 / 5186 Euro2	D	1991	2003	6 Cyl	**5863cc**	**130kW**	(177ps)

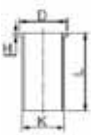
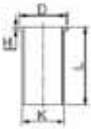
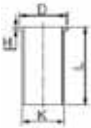
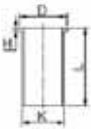
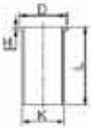
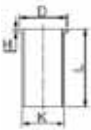
	**11-02851-000** CH 65,330 B- 21,750 BØ 48,200 TL 104,330 **38,00x85,00**	AP	**91-09859-000** 1 3,500 Mo 2 2,500 3 4,000 CR	+0,46/+0,79	Ø 104,000	**31-04851-000**
	K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**	
	K=107,07 L=198,00 H=5,05 D=110,05	DS +0,10			**51-65409-010**	
	K=107,17 L=198,00 H=5,05 D=110,05	DS +0,20			**51-65409-020**	
	K=107,50 L=198,00 H=6,00 D=110,35	DS +0,50			**51-65409-050**	
	K=108,00 L=198,00 H=6,00 D=110,35	DS +1,00			**51-65409-100**	
	K=108,50 L=198,00 H=6,00 D=111,00	DS +1,50			**51-65409-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

104,000

8040.45.400	D	1991	2001	4 Cyl	**3908cc**	**100kW**	(136ps)
8060.45.4100TCA	D			6 Cyl	**5861cc**	**152kW**	(207ps)
8060.45.600	D			6 Cyl	**5861cc**	**151kW**	(206ps)

	11-02856-000 CH 65,300 B- 22,100 BØ 54,500 TL 104,300 **38,00x85,00**	AP	**91-09859-000** 1 3,500 Mo 2 2,500 3 4,000 CR		Ø 104,000	**31-04856-000**
	K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**	
	K=107,07 L=198,00 H=5,05 D=110,05	DS +0,10			**51-65409-010**	
	K=107,17 L=198,00 H=5,05 D=110,05	DS +0,20			**51-65409-020**	
	K=107,50 L=198,00 H=6,00 D=110,35	DS +0,50			**51-65409-050**	
	K=108,00 L=198,00 H=6,00 D=110,35	DS +1,00			**51-65409-100**	
	K=108,50 L=198,00 H=6,00 D=111,00	DS +1,50			**51-65409-150**	

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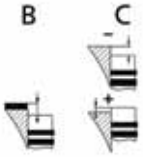
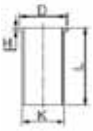
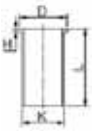
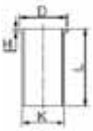
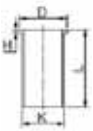
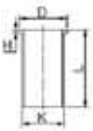
		Type		B C		
						

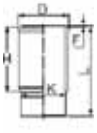
104,000

8060.45.7200 Euro2	D	1995		6 Cyl	**5858cc**	**167kW** (227ps)
8060.45S.7200-7203 / 7205 / 7210-7211 / 7213 / 7215 / 7250 / 7251 / 7255 Euro2	D	1991	2003	6 Cyl	**5858cc**	**167kW** (227ps)

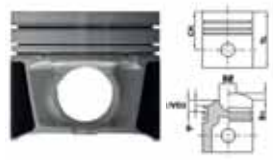
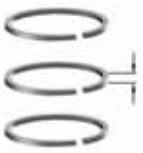
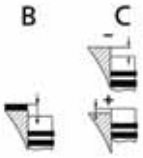
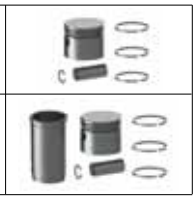
11-02865-000 CH 65,330 VD1 0,350 B- 20,550 BØ 54,000 TL 104,330 **38,00x85,00**	AP	**91-09859-000** 1 3,500 Mo 2 2,500 3 4,000 CR		Ø 104,000	**31-04865-000**
 K=106,97 L=198,00 H=5,05 D=109,85	DS			**51-65409-000**	
 K=107,07 L=198,00 H=5,05 D=110,05	DS +0,10			**51-65409-010**	
 K=107,17 L=198,00 H=5,05 D=110,05	DS +0,20			**51-65409-020**	
 K=107,50 L=198,00 H=6,00 D=110,35	DS +0,50			**51-65409-050**	
 K=108,00 L=198,00 H=6,00 D=110,35	DS +1,00			**51-65409-100**	

110,000

C021	D	1969		4 Cyl	**4562cc**	**66kW** (90ps)
C03 / C060 / C075	D	1968		4 Cyl	**4562cc**	**66kW** (90ps)

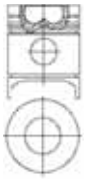
11-01345-000 CH 75,200 B- 27,500 BØ 51,100 TL 150,200 **40,00x93,00**	AP	**91-49412-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 110,000	**31-03345-000**
 K=117,95 L=235,90 H+F=169,95+0,90 D=129,50	WF-PH			**51-05411-000**	**71-07345-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

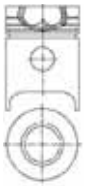
110,000

CN3	D		3 Cyl	**3706cc**	**48kW**	(65ps)
CO3 / CO7	D		4 Cyl	**4940cc**	**76-81kW**	(103-110ps)
CP3	D	1968	6 Cyl	**7412cc**	**114kW**	(155ps)

	**11-01410-000** CH 70,200 B- 28,000 BØ 54,800 TL 140,200 **40,00x93,00**		**91-09412-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP 5 5,000 P		Ø 110,000	**31-03410-000**
	K=117,95 L=235,90 H+F=169,95+0,90 D=129,50	WF-PH			**51-05411-000**	**71-07410-000**

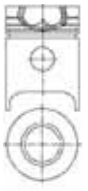
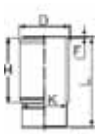
110,000

CN3	D		3 Cyl	**cc**	**kW**	(ps)
CP3	D		6 Cyl	**7412cc**	**107kW**	(145ps)

	**11-01411-000** CH 70,200 B- 28,000 BØ 54,800 TL 140,200 **40,00x93,00**		**91-49412-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 110,000	**31-03411-000**
	K=117,95 L=235,90 H+F=169,95+0,90 D=129,50	WF-PH			**51-05411-000**	**71-07411-000**

110,000

C021	D	1969	4 Cyl			
C03 / C060 / C075	D	1968	4 Cyl			

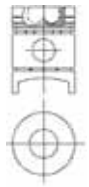
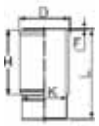
	**11-01412-000** CH 75,200 B- 27,500 BØ 51,100 TL 150,200 **40,00x93,00**		**91-49412-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 110,000	**31-03412-000**
	K=117,95 L=235,90 H+F=169,95+0,90 D=129,50	WF-PH			**51-05411-000**	**71-07412-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

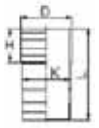
110,000

CO3 / 20 / 21 / 40 / 41 / 75 — D — 1968 — 4 Cyl — **4562cc** — **66kW** — (90ps)

	**11-01414-000** CH 75,200 B- 27,500 BØ 51,100 TL 150,200 **40,00x93,00**		**91-09412-000** 1 2,500 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP 5 5,000 P		Ø 110,000	**31-03414-000**
	K=117,95 L=235,90 H+F=169,95+0,90 D=129,50	WF-PH			**51-05411-000**	**71-07414-000**

112,000

8360,46	D	1991	2000	6 Cyl	**7684cc**	**196kW** (267ps)
8360.46B.4591	D	1996		6 Cyl	**7684cc**	**162-196kW** (220-267ps)
8360.46R	D	1992		6 Cyl	**7684cc**	**175kW** (238ps)
8360.46V.4591 / 4691	D	1996		6 Cyl	**7684cc**	**196kW** (267ps)

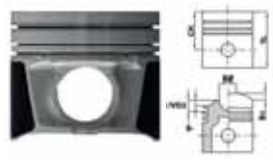
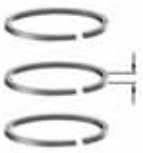
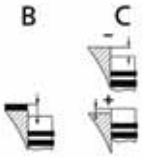
	11-02843-000 CH 76,500 VD1 1,500 B- 26,300 BØ 52,000 TL 126,500 **42,00x93,00**	AP YS	**91-09865-000** 1 3,500 CK 2 2,500 CR 3 4,000 CR		Ø 112,000	**31-04843-000**
	K=120,49 L=232,00 H=87,00 D=129,00	WF-CR			**51-05755-000**	**71-07344-000**

112,000

8360.46	D	1991		6 Cyl	**7685cc**	**196kW** (226ps)
8360.46R.416	D			6 Cyl	**7685cc**	**176kW** (240ps)

	11-02874-000 CH 76,500 VD1 1,500 B- 25,000 BØ 52,000 TL 126,500 **42,00x93,00**	AP YS	**91-09865-000** 1 3,500 CK 2 2,500 CR 3 4,000 CR		Ø 112,000	**31-04874-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

115,000

83.6.25.000 — D — 1980 — 6 Cyl — **8102cc** — **120-133kW** — (163-180ps)

	11-01346-000 CH 76,500 B- 29,000 BØ 52,000 TL 140,500 **42,00x97,00**	AP	**91-09346-000** 1 3,000 CR 2 2,500 CrP 3 4,000 CR		Ø 115,000 **31-03346-000**
	K=121,95 L=235,00 H=166,92 D=129,80	WF-PH			**51-05415-000** **71-07346-000**

115,000

8340.04.000 / 040 / 200 / 250 / 300 / 350 / 362 — D — 1977 — 1988 — 4 Cyl — **4570cc** — **66-74kW** — (90-101ps)

8340.06.000 — D — 1977 — 1987 — 4 Cyl — **4570cc** — **74kW** — (100ps)

8360.04.200 / 300 — D — 1978 — 6 Cyl — **6855cc** — **106kW** — (145ps)

	11-01413-000 CH 76,500 B- 27,000 BØ 52,000 TL 140,500 **42,00x97,00**	AP	**91-09413-000** 1 2,500 CrP 2 2,500 P 3 4,000 CrP		Ø 115,000 **31-03413-000**
	K=121,95 L=215,00 H=146,97 D=129,80	WF			**51-05413-000** **71-07413-000**

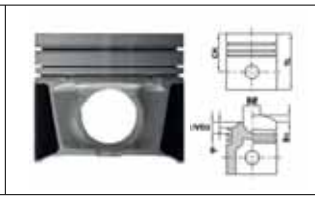
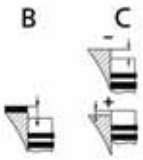
115,000

F2BE0681E Euro2 — D — 6 Cyl — **7790cc** — **180kW** — (245ps)

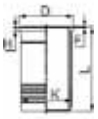
	11-02840-000 CH 72,100 B- 21,500 BØ 60,000 TL 117,100 **46,00x95,50**	AP YS	**91-09840-000** 1 3,000 CrP 2 2,500 CrP 3 4,000 CrP		Ø 115,000 **31-04840-000**
	K=128,50 L=211,00 H+F=9,00+1,20 D=136,50	WF			**51-05273-000** **71-08840-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

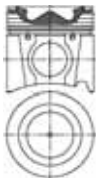
FIAT / IVECO

		Type		B C		
						

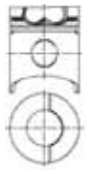
115,000

F2BE0681A Euro3				D	1998	6 Cyl	**7790cc**	**259kW** (352ps)
F2BE0681B / F Euro3				D	1998	6 Cyl	**7790cc**	**228kW** (310ps)
F2BE0681C Euro3				D	1998	6 Cyl	**7790cc**	**200kW** (272ps)
F2BE0681CA / D / DA / DB Euro3				D	1998	6 Cyl	**7790cc**	**180kW** (245ps)
	11-02841-000 CH 72,100 B- 19,300 BØ 61,700 TL 117,100 **46,00x95,50**	AP YS	**91-09840-000** 1 3,000 CrP 2 2,500 CrP 3 4,000 CrP				Ø 115,000	**31-04841-000**
	K=128,50 L=211,00 H+F=9,00+1,20 D=136,50	WF					**51-05273-000**	**71-08841-000**

115,000

F2BE3681 / F2BE3682 Euro4-5				D	2006	6 Cyl	**7790cc**	**kW** (ps)
	**11-02844-000** CH 72,100 B- 19,300 BØ 61,700 TL 117,100 **46,00x95,50**	AP YS	**91-09844-000** 1 2,000 CkP 2 1,500 P 3 4,000 CR				Ø 115,000	**31-04844-000**

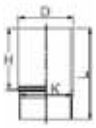
115,000

8361.25.510 / 511 Euro2				D	1984	6 Cyl	**8101cc**	**154-173kW** (210-235ps)
8361.45.500				D	1969	6 Cyl	**8101cc**	**169kW** (230ps)
8361.45.530				D	1985 1989	6 Cyl	**8101cc**	**243kW** (330ps)
8365.25.500-503 / 512-515 / 520 / 522 / 530 / 532-533				D	1980	6 Cyl	**8101cc**	**113-147kW** (116-200ps)
	**11-02867-000** CH 76,500 VD1 1,000 B- 27,700 BØ 59,000 TL 140,500 **42,00x97,00**	AP	**91-09861-000** 1 3,000 CR 2 2,500 CrP 3 4,000 CR				Ø 115,000	**31-04867-000**
	K=121,95 L=235,00 H=166,92 D=129,80	WF-PH					**51-05415-000**	**71-08868-000**

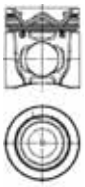
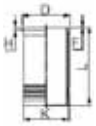
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

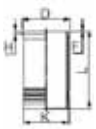
115,000

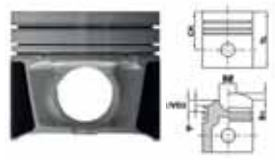
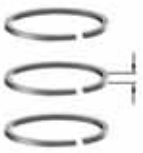
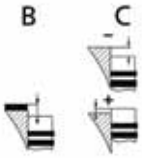
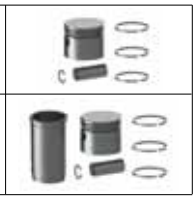
8210.42 / 42K			D	4 Cyl	**5401cc** **272kW**	(370ps)
8210.42.			D	4 Cyl	**5401cc** **277kW**	(377ps)
8210.42L / L(TCA)			D	4 Cyl	**5401cc** **309kW**	(420ps)
	11-02935-000 CH 70,500 B- 29,400 BØ 54,000 TL 140,500 **40,00x99,00**		**91-09935-000** 1 2,500 CrP 2 2,500 P 3 5,000 CrP		Ø 115,000	**31-04935-000**
	K=121,95 L=235,00 H=166,92 D=129,80	WF-PH			**51-05415-000**	**71-08928-000**

117,000

F2CFE613A			D	4 Cyl	**cc** **kW**	(ps)
	**11-01028-000** CH 80,200 B- 20,800 BØ 65,600 TL 125,500 **52,00x93,00**	AP YS	**91-09408-000** 1 3,000 CkP 2 2,500 P 3 4,000 CR		Ø 117,000	**31-03028-000**
	K=129,50 L=226,15 H+F=8,95+1,00 D=137,50	WF			**51-05759-000**	**71-07342-000**

117,000

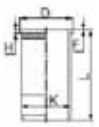
F2CE9687			D	4 Cyl		
	11-01029-000 CH 80,000 B- 20,500 BØ 65,600 TL 125,500 **52,00x93,00**	AP YS	**91-09408-000** 1 3,000 CkP 2 2,500 P 3 4,000 CR		Ø 117,000	**31-03029-000**
	K=129,50 L=226,15 H+F=8,95+1,00 D=137,50	WF			**51-05759-000**	**71-07343-000**

		Type		B C		
						

120,000

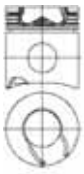
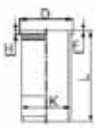
8460.21B.613 / 615 — D — 6 Cyl

8460.41S.733 / 735 / 739 — D — 1993 — 6 Cyl

	11-02833-000 CH 84,700 VD1 3,100 B- 27,050 BØ 60,000 TL 134,700 **48,00x96,00**	AP YS HA PDB	**91-09853-000** 1 3,500 CR 2 3,000 CR 3 5,000 CR		Ø 120,000	**31-04833-000**
	K=134,00 L=249,25 H+F=10,00+1,00 D=144,80	WF-PH			**51-05444-000**	**71-08833-000**

120,000

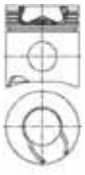
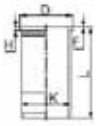
2862 nin burçsuz olan versiyonu / piston version 2862 without pin boss bushing — Cyl — **cc** — **kW** — (ps)

	**11-02852-000** CH 84,700 VD1 3,180 B- 27,400 BØ 60,000 TL 134,700 **48,00x96,00**	AP YS	**91-09853-000** 1 3,500 CR 2 3,000 CR 3 5,000 CR		Ø 120,000	**31-04852-000**
	K=134,00 L=249,25 H+F=10,00+1,00 D=144,80	WF-PH			**51-05444-000**	**71-08852-000**

120,000

8460.41E / K / R / T — D

8460.41SRI — D

	**11-02862-000** CH 84,700 VD1 3,180 B- 27,400 BØ 60,000 TL 134,700 **48,00x96,00**	AP YS PDB	**91-09853-000** 1 3,500 CR 2 3,000 CR 3 5,000 CR		Ø 120,000	**31-04862-000**
	K=134,00 L=249,25 H+F=10,00+1,00 D=144,80	WF-PH			**51-05444-000**	**71-08862-000**

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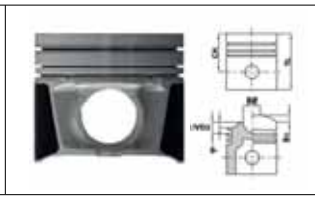
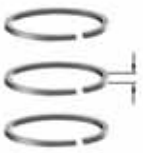
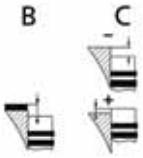
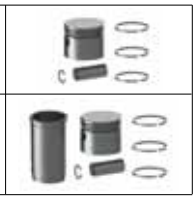
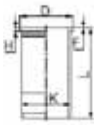
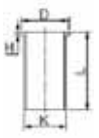
		Type		B	C		
							

120,000

8460.21.002 / 004				D	1986		6 Cyl	**9498cc** **176kW** (239ps)
8460.21.102				D	1986	1994	6 Cyl	**9498cc** **192kW** (261ps)
8460.21.406				D	1989		6 Cyl	**9498cc** **191kW** (260ps)
8465.21.002				D	1987		6 Cyl	**9498cc** **186kW** (253ps)
	11-02866-000 CH 84,700 VD1 3,100 B- 22,600 BØ 71,800 TL 134,700 **48,00x108,00**	AP YS HA	**91-09853-000** 1 3,500 CR 2 3,000 CR 3 5,000 CR				Ø 120,000	**31-04866-000**
	K=134,00 L=249,25 H+F=10,00+1,00 D=144,80	WF-PH					**51-05444-000**	**71-08876-000**

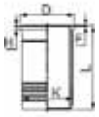
122,000

8200.02.00				D	1969		6 Cyl	**9880cc** **147kW** (200ps)
8200.12.004				D	1969		6 Cyl	**9880cc** **141-147kW** (192-200ps)
8205.02				D	1973	1983	6 Cyl	**9880cc** **115kW** (156ps)
	11-01417-000 CH 80,200 B- 28,000 BØ 65,600 TL 150,000 **42,00x104,50**	AP	**91-09417-000** 1 3,500 CR 2 3,000 P 3 3,000 P 4 5,500 CR				Ø 122,000	**31-03417-000**
	K=128,00 L=252,00 H=6,05 D=132,00	DF-PH					**51-35417-000**	**71-07417-000**

		Type		B C		

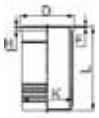
125,000

F3 AE 0681 B Euro 3	D	2000	6 Cyl	**10303cc**	**294kW**	(400ps)
F3 AE 0681 D Euro 3	D	1999	6 Cyl	**10303cc**	**316kW**	(430ps)
F3 AE 0681 E Euro 3	D	1999	6 Cyl	**10303cc**	**287kW**	(390ps)

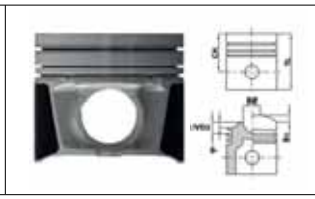
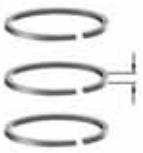
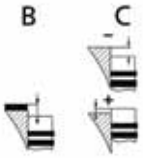
	11-02845-000 CH 85,500 B- 21,200 BØ 88,000 TL 133,500 **50,00x101,00**	AP YS	**91-09845-000** 1 3,500 CrP 2 3,000 P 3 4,000 CrP	+0,28/+0,52	Ø 125,000	**31-04845-000**
	K=140,00 L=239,00 H+F=9,96+1,20 D=150,60	WF		O-Ring/Seal 55-50908-000 2 FPM 132,94x3,53 1 FPM 132,94x3,53	**51-05281-000** 52-05281-000	**71-08845-000** 72-08845-000
	K=140,00 L=239,00 H+F=9,96+1,20 D=150,60	WF-PH		O-Ring/Seal 55-50908-000 2 FPM 132,94x3,53 1 FPM 132,94x3,53	**51-05283-000** 52-05283-000	**71-08844-000** 72-08844-000

125,000

F3 AE 3681 A / B / D Euro 5	D	2006	6 Cyl	**10308cc**	**331kW**	(450ps)

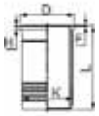
	11-02864-000 CH 85,500 B- 21,200 BØ 67,200 TL 133,500 **50,00x101,00**	AP YS PDB	**91-09864-000** 1 2,500 CkP 2 3,000 P 3 4,000 CR	+0,28/+0,52	Ø 125,000	**31-04864-000**
	K=140,00 L=239,00 H+F=9,96+1,20 D=150,60	WF		O-Ring/Seal 55-50908-000 2 FPM 132,94x3,53 1 FPM 132,94x3,53	**51-05281-000** 52-05281-000	**71-08869-000** 72-08869-000
	K=140,00 L=239,00 H+F=9,96+1,20 D=150,60	WF-PH		O-Ring/Seal 55-50908-000 2 FPM 132,94x3,53 1 FPM 132,94x3,53	**51-05283-000** 52-05283-000	**71-08870-000** 72-08870-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

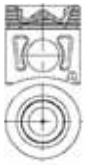
135,000

F3 BE 0681 A Euro 3	D	2002	6 Cyl	**12880cc**	**397kW**	(540ps)
F3 BE 0681 B / E Euro 3	D	2001	6 Cyl	**12880cc**	**353kW**	(480ps)
F3 BE 0681 C / CB Euro 3	D	2000	6 Cyl	**12880cc**	**324kW**	(441ps)
F3 BE 0681 F Euro 3	D	2001	6 Cyl	**12880cc**	**337kW**	(460ps)
F3 BE 0681 G Euro 3	D	2001	6 Cyl	**12880cc**	**280kW**	(381ps)

	11-02846-000 CH 90,400 B- 23,100 BØ 94,000 TL 142,400 **54,00x107,50**	AP YS	**91-09846-000** 1 4,000 CK 2 3,000 CR 3 5,000 CR		Ø 135,000	**31-04846-000**
	K=151,90 L=255,00 H+F=10,00+1,20 D=161,00	WF		O-Ring/Seal 55-50916-000 3 FPM 145,60x3,53	**51-05275-000** 52-05275-000	**71-08849-000** 72-08849-000

135,000

F3 BE 3681 D Euro4	D	2006	6 Cyl	**12882cc**	**302kW**	(410ps)

	**11-02868-000** CH 90,400 B- 23,100 BØ 94,000 TL 142,400 **54,00x107,00**	AP YS PDB	**91-09847-000** 1 3,000 CkP 2 3,000 CR 3 5,000 CR		Ø 135,000	**31-04868-000**

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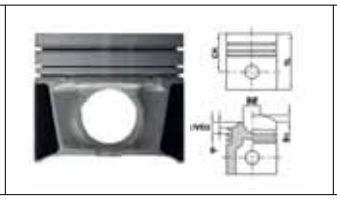
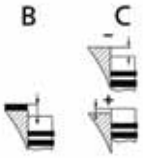
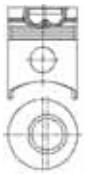
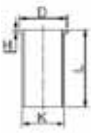
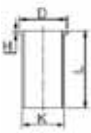
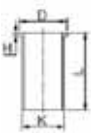
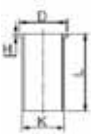
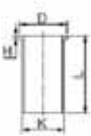
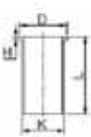
		Type				

137,000

8210.02.000 / 221A	D	6 Cyl	**16797cc**	**162-191kW**	(220-260ps)
8210.12.0	D	6 Cyl	**16797cc**	**162-191kW**	(220-260ps)
8215.02	D	6 Cyl	**16797cc**	**162-191kW**	(220-260ps)

	**11-01418-000** CH 92,000 B- 32,400 BØ 67,000 TL 167,000 **48,00x117,00**	AP	**91-09418-000** 1 4,000 Mo 2 3,000 CR 3 3,000 CR 4 5,500 CR	-0,27/+0,22	Ø 137,000	**31-03418-000**
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-07418-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05			**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	**71-07419-000**
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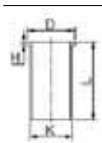
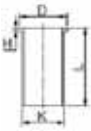
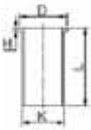
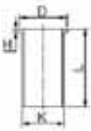
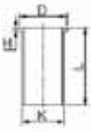
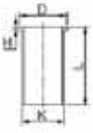
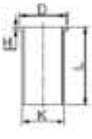
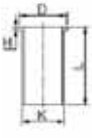
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B	C		
137,000							
8210.42L		D	1994	2002	6 Cyl	**13798cc**	**309kW** (420ps)
8210.42L(TCA)		D	1999	2004	6 Cyl	**13798cc**	**309kW** (420ps)
8210.42L(TCA), 8210.42L.		D	1993	2004	6 Cyl	**13798cc**	**309kW** (420ps)
8210.42L.		D	1993	2004	6 Cyl	**13798cc**	**309kW** (420ps)
8210.42L., 8210.42L(TCA)		D	1993	2002	6 Cyl	**13798cc**	**309kW** (420ps)
8210.42L.400		D	1993	2002	6 Cyl	**13798cc**	**309kW** (420ps)
8210.42L.400, 8210.42L(TCA)		D	1992		6 Cyl	**13798cc**	**309kW** (420ps)
	11-02825-000 CH 92,000 B- 21,000 BØ 83,800 TL 157,000 **50,00x115,00**	AP YS HA PDB	**91-09854-000** 1 4,000 CR 2 3,000 CR 3 5,500 CR			Ø 137,000	**31-04825-000**
Astra ve Iveco ile Ortak Motor							
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH				**51-35418-000**	**71-07421-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02				**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05				**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25				**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50				**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF				**51-35447-000**	**71-07422-000**
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05				**51-35447-005**	

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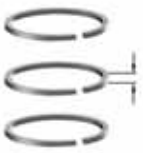
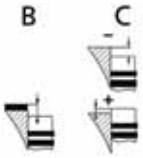
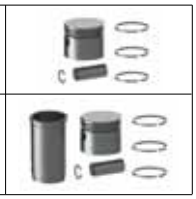
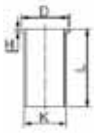
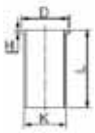
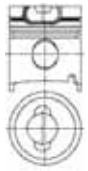
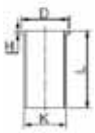
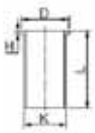
		Type				
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25				**51-35447-025**
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50				**51-35447-050**

137,000

8210.22.510 / 559 / 859 / 869	D			6 Cyl	**13798cc**	**221kW** (300ps)
8210.22.559 / 859 / 869	D	1987	1989	6 Cyl	**13798cc**	**235kW** (320ps)

	**11-02853-000** CH 92,000 B- 32,500 BØ 57,000 TL 162,000 **50,00x117,00**	AP YS HA	**91-09418-000** 1 4,000 Mo 2 3,000 CR 3 3,000 CR 4 5,500 CR		Ø 137,000	**31-04853-000**
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-08853-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
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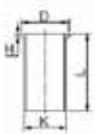
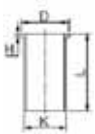
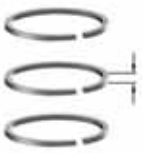
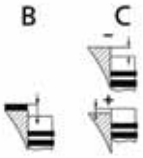
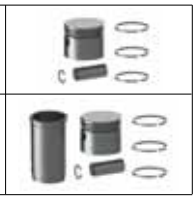
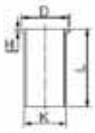
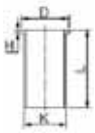
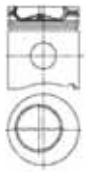
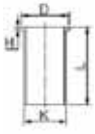
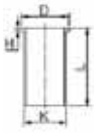
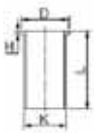
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	**71-08865-000**
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05			**51-35447-005**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

137,000

8210.42 K — D 1990 — 6 Cyl — **13798cc 272kW** (370ps)

	**11-02854-000** CH 92,000 B- 21,000 BØ 83,000 TL 157,000 **50,00x115,00**	AP YS HA	**91-09854-000** 1 4,000 CR 2 3,000 CR 3 5,500 CR	-0,27/+0,22	Ø 137,000	**31-04854-000**
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-08854-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05			**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	**71-08857-000**
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05			**51-35447-005**	

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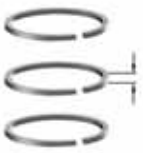
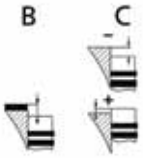
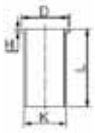
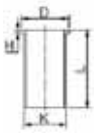
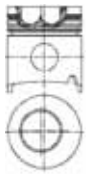
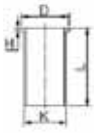
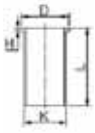
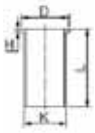
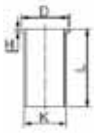
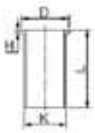
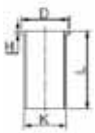
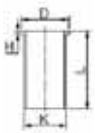
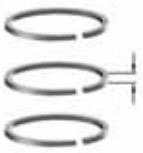
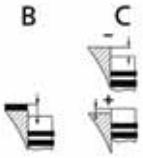
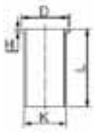
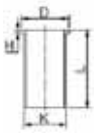
		Type				
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

137,000

8210.42.009 / 011 / 101 / 115 — D 1987 — 6 Cyl — **13798cc 265kW** (360ps)

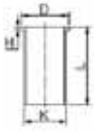
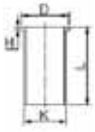
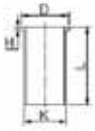
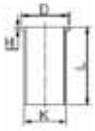
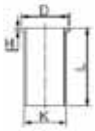
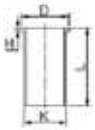
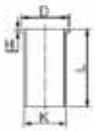
	**11-02858-000** CH 92,000 B- 33,000 BØ 72,000 TL 157,000 **50,00x117,00**	AP YS	**91-09854-000** 1 4,000 CR 2 3,000 CR 3 5,500 CR	-0,27/+0,20	Ø 137,000	**31-04858-000**
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-08858-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05			**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	**71-08863-000**
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05			**51-35447-005**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

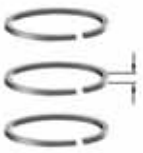
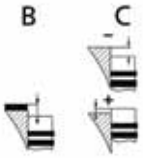
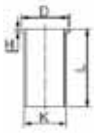
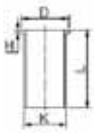
		Type				
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

137,000

8210.42 K — D 1990 — 6 Cyl — **13798cc 272kW** (370ps)

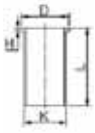
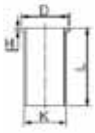
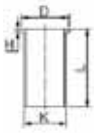
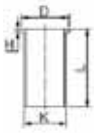
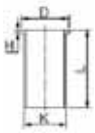
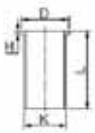
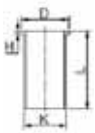
	11-02859-000 CH 92,000 B- 21,000 BØ 83,000 TL 157,000 **50,00x115,00**	AP YS	**91-09854-000** 1 4,000 CR 2 3,000 CR 3 5,500 CR		Ø 137,000	**31-04859-000**
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-08859-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05			**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05			**51-35447-005**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

137,000

8210,42 D 6 Cyl **13798cc kW** (ps)

	11-02860-000 CH 92,000 B- 25,500 BØ 72,000 TL 157,000 **50,00x115,00**	AP YS	**91-09854-000** 1 4,000 CR 2 3,000 CR 3 5,500 CR		Ø 137,000	**31-04860-000**
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-08867-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05			**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	**71-08855-000**
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05			**51-35447-005**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

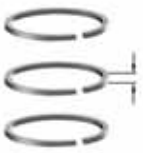
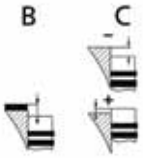
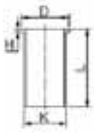
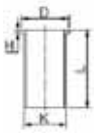
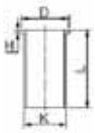
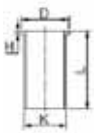
		Type		B C		
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

137,000

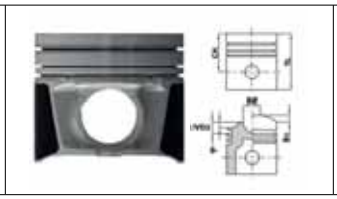
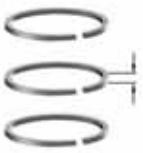
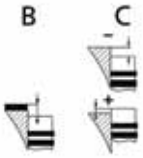
8210.22.000 / 069 / 101 / 175 / 183 / 235 / 236 / 269 / 317 / 327 / 371 / 373 / 385	D	1980		6 Cyl	**13798cc**
8210.22.105	D	1984	1987	6 Cyl	**13798cc**
8210.22.406 / 409 / 419 / 631	D	1983		6 Cyl	**13798cc**
8215.22.520	D	1979	1991	6 Cyl	**13798cc**
8215.22.531	D	1979	1991	6 Cyl	**13798cc**
8215.22.542	D	1982	1990	6 Cyl	**13798cc**

	11-02932-000 CH 92,000 B- 33,000 BØ 72,000 TL 162,000 **50,00x117,00**	AP YS	**91-09932-000** 1 4,000 CrP 2 3,000 CrP 3 3,000 P 4 5,500 CrP	-0,275/+0,225	Ø 137,000	**31-04932-000**
	K=143,00 L=282,00 H=6,05 D=147,00	DF-PH			**51-35418-000**	**71-08932-000**
	K=143,02 L=282,00 H=6,05 D=147,00	DF-PH +0,02			**51-35418-002**	
	K=143,05 L=282,00 H=6,05 D=147,00	DF-PH +0,05			**51-35418-005**	
	K=143,25 L=282,00 H=6,05 D=147,00	DF-PH +0,25			**51-35418-025**	
	K=143,50 L=282,00 H=6,05 D=147,00	DF-PH +0,50			**51-35418-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

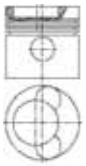
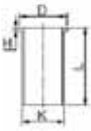
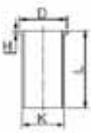
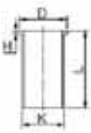
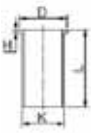
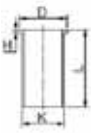
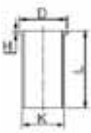
		Type				
	K=143,00 L=282,00 H=6,05 D=149,00	DF			**51-35447-000**	**71-08933-000**
	K=143,05 L=282,00 H=6,05 D=149,00	DF +0,05			**51-35447-005**	
	K=143,25 L=282,00 H=6,05 D=149,00	DF +0,25			**51-35447-025**	
	K=143,50 L=282,00 H=6,05 D=149,00	DF +0,50			**51-35447-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

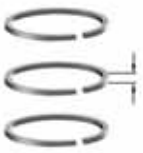
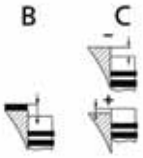
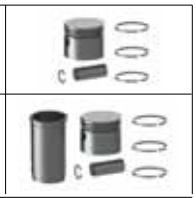
		Type				

97,000

OM 352.900 / 913 / 916 / 918 / 937 / 946 / 950 / 968 / 988 / 994 — D 1986 — 6 Cyl — **5675cc** — **99-124kW** (135-168ps)

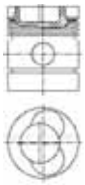
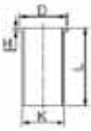
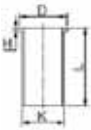
	**11-01622-000** CH 65,200 *CH 64,800 VD1 2,200 *VD1 2,200 B- 20,000 *B- 20,000 BØ 55,000 *BØ 55,000 TL 105,200 *TL 104,800 * For Oversize Piston Dimensions **36,00x82,50**	AP	**91-09622-000** 1 2,500 Mo 2 2,500 CR 3 4,000 CR	-0,07/+0,30	Ø 97,000 Ø 97,500 Ø 98,000	**31-03622-000** **31-03622-050** **31-03622-100**
	Ford ve Mercedes-Benz ile Ortak Motor					
	K=100,40 L=222,00 H=5,20 D=103,50	DS			**51-65635-000**	
	K=101,05 L=222,00 H=6,00 D=103,92	DS +0,50			**51-65635-050**	
	K=101,50 L=222,00 H=6,00 D=104,42	DS +1,00			**51-65635-100**	
	K=102,50 L=222,00 H=6,00 D=105,42	DS +2,00			**51-65635-200**	
	K=101,00 L=222,00 H=5,50 D=103,50	DS			**51-65735-000**	
	K=101,50 L=222,00 H=5,50 D=104,00	DS +0,50			**51-65735-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

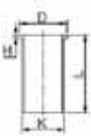
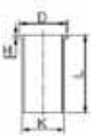
97,000

OM 352.937 — D — 1986 — 6 Cyl — **5675cc** — **110kW** — (150ps)

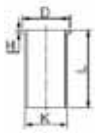
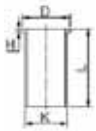
	**11-02912-000** CH 65,200 VD1 2,400 B- 20,000 BØ 55,000 TL 115,700 **36,00x82,50** Ford ve Mercedes-Benz ile Ortak Motor	AP	**91-09912-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 5,500 CrP 5 5,500 P	-0,07/+0,30	Ø 97,000 Ø 97,500 Ø 98,000	**31-04912-000** **31-04912-050** **31-04912-100**
	K=101,00 L=222,00 H=5,50 D=103,50	DS			**51-65735-000**	
	K=101,50 L=222,00 H=5,50 D=104,00	DS +0,50			**51-65735-050**	

104,770

6D — D — 6 Cyl — **5945cc** — **81kW** — (110ps)

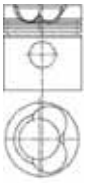
	11-01428-000 CH 71,250 VD1 2,600 B- 23,000 BØ 57,500 TL 119,900 **34,93x90,00**	AP CP	**91-09428-000** 1 2,385 CrP 2 2,385 CrP 3 2,385 P 4 4,747 CrP	-0,150/+0,40	Ø 104,770 Ø 105,155 Ø 105,665	**31-03428-000** **31-03428-015** **31-03428-035**
	K=108,87 L=218,80	DS			**51-65427-000**	
	K=108,95 L=218,50 H=7,00 D=109,95	DS			**51-65428-000**	
	K=109,50 L=218,50 H=7,00 D=110,50	DS +0,50			**51-65428-050**	
	K=110,00 L=218,50 H=7,00 D=111,00	DS +1,00			**51-65428-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=110,50 L=218,50 H=7,00 D=111,50	DS +1,50			**51-65428-150**	
	K=111,00 L=218,50 H=7,00 D=112,00	DS +2,00			**51-65428-200**	

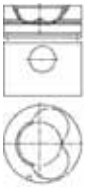
104,770

363DOVERII — D — 6 Cyl — **5950cc** **kW** (ps)

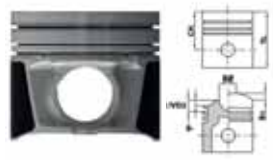
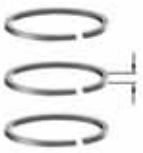
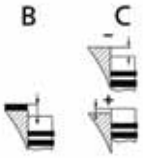
	**11-01429-000** CH 71,250 VD1 2,300 B- 23,000 BØ 57,500 TL 119,900 **36,51x86,20**	AP CP	**91-39428-000** 1 2,385 CrP 2 2,385 CrP 3 4,747 CrP	+0,380/+0,152	Ø 104,770 Ø 105,155 Ø 105,665	**31-03429-000** **31-03429-015** **31-03429-035**

104,770

6D — D — 6 Cyl — **5946cc**

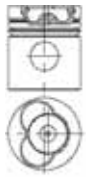
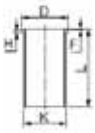
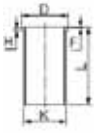
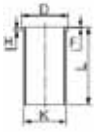
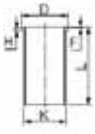
	**11-01450-000** CH 71,250 VD1 2,600 B- 23,000 BØ 57,300 TL 119,900 **34,93x90,00**	AP CP	**91-39428-000** 1 2,385 CrP 2 2,385 CrP 3 4,747 CrP	-0,150/+0,40	Ø 104,770 Ø 105,155 Ø 105,665	**31-03450-000** **31-03450-015** **31-03450-035**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

104,770

DOVER6.0TCI TurboIntercooled — D 1992 — 6 Cyl — **5946cc** **kW** — (185ps)

	**11-02236-000** CH 71,250 VD1 2,300 B- 21,500 BØ 55,000 TL 119,900 **41,00x87,12**	AP HA	**91-09236-000** 1 3,000 MoP 2 2,500 P 3 4,000 P	+0,30/+0,40	Ø 104,770	**31-04236-000**
	K=109,07 L=218,50 H+F=4,75+0,70 D=112,75	DS			**51-65429-000**	
	K=109,25 L=218,50 H+F=4,75+0,70 D=112,75	DS +0,25			**51-65429-025**	
	K=109,53 L=218,50 H+F=5,05+0,70 D=113,00	DS +0,50			**51-65429-050**	
	K=110,07 L=218,50 H+F=6,00+0,70 D=113,75	DS +1,00			**51-65429-100**	

104,770

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston — Cyl — **cc** — (ps)

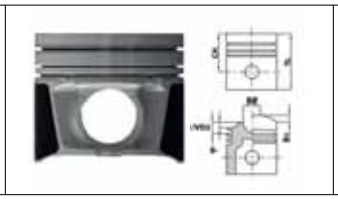
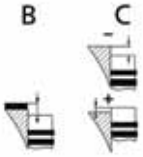
	11-02236-001 CH 71,050 VD1 2,300 B- 21,500 BØ 55,000 TL 119,700 **41,00x87,12**	AP HA CH -0,20 mm	**91-09236-000** 1 3,000 MoP 2 2,500 P 3 4,000 P		Ø 104,770	**31-04236-001**

104,770

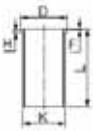
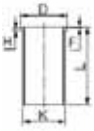
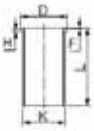
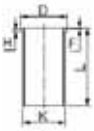
Strok Boyu 0,40mm Kisa Piston / Stroke Lenght 0,40mm Shorter Piston

	11-02236-002 CH 70,850 VD1 2,300 B- 21,500 BØ 55,000 TL 119,500 **41,00x87,12**	AP HA CH -0,40 mm	**91-09236-000** 1 3,000 MoP 2 2,500 P 3 4,000 P		Ø 104,770	**31-04236-002**

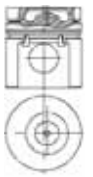
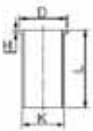
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

104,770

150 / 6CA-Dover				D	1981	1996		
2726T				D	1981			
360TCTornado				D	1981			
	11-02237-000 CH 71,250 VD1 2,300 B- 22,000 BØ 60,250 TL 119,900 **41,00x87,12**	AP	**91-09237-000** 1 3,100 MoP 2 2,385 P 3 2,385 P 4 4,750 P		+0,152/+0,380		Ø 104,770	**31-04237-000**
	K=109,07 L=218,50 H+F=4,75+0,70 D=112,75	DS					**51-65429-000**	
	K=109,25 L=218,50 H+F=4,75+0,70 D=112,75	DS +0,25					**51-65429-025**	
	K=109,53 L=218,50 H+F=5,05+0,70 D=113,00	DS +0,50					**51-65429-050**	
	K=110,07 L=218,50 H+F=6,00+0,70 D=113,75	DS +1,00					**51-65429-100**	

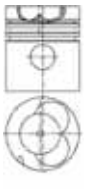
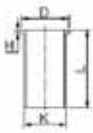
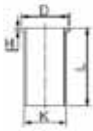
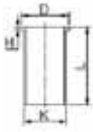
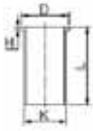
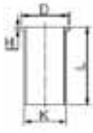
104,770

DOVER6.0TCI				D	1981	1996	6 Cyl **5946cc** **kW** (ps)	
	**11-02239-000** CH 71,230 B- 20,300 BØ 55,900 TL 112,880 **41,00x87,12**	AP	**91-09239-000** 1 3,000 CrP 2 2,500 P 3 4,000 CR		+0,25/+0,40		Ø 104,770	**31-04239-000**
	K=109,08 L=218,50 H=5,00 D=113,00	DS					**51-65499-000**	

		Type		B C		

104,775

2701E,2706E DORSET		D	1965	1969	4 Cyl	**2400cc**
2704E,2709E DORSET		D	1965	1969	6 Cyl	**3600cc**

	**11-01430-000** CH 71,000 VD1 1,800 B- 25,800 BØ 51,500 TL 118,000 **34,93x90,00**		**91-09428-000** 1 2,385 CrP 2 2,385 CrP 3 2,385 P 4 4,747 CrP	+0,15/+0,40	Ø 104,775 Ø 105,275 Ø 105,525 Ø 105,775	**31-03430-000** **31-03430-020** **31-03430-030** **31-03430-040**
	K=108,87 L=218,80	DS			**51-65427-000**	
	K=108,95 L=218,50 H=7,00 D=109,95	DS			**51-65428-000**	
	K=109,50 L=218,50 H=7,00 D=110,50	DS +0,50			**51-65428-050**	
	K=110,00 L=218,50 H=7,00 D=111,00	DS +1,00			**51-65428-100**	
	K=110,50 L=218,50 H=7,00 D=111,50	DS +1,50			**51-65428-150**	
	K=111,00 L=218,50 H=7,00 D=112,00	DS +2,00			**51-65428-200**	

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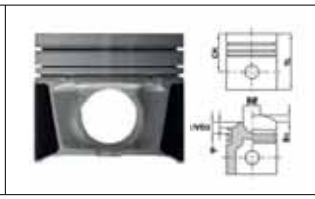
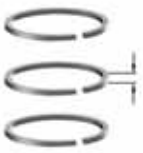
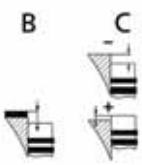
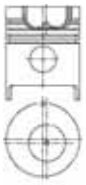
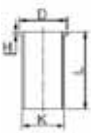
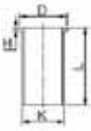
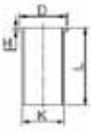
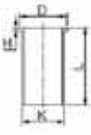
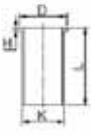
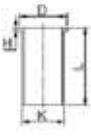
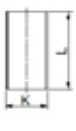
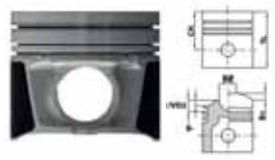
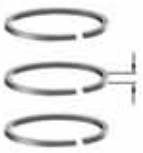
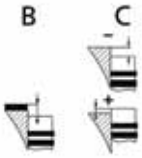
		Type				

106,680

6Y / 7A	D	1965	4 Cyl	**3818cc**	**49-55kW**	(67-75ps)
6Y / 7A / 2504E / 2508E	D	1965	3 Cyl	**2868cc**	**32-35kW**	(44-47ps)

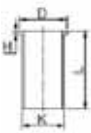
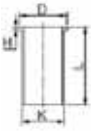
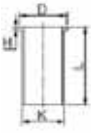
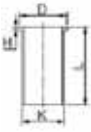
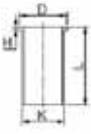
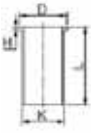
	**11-01431-000** CH 70,150 B- 17,900 BØ 59,200 TL 129,000 **38,10x89,15**	AP	**91-09433-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR	-0,05/-0,15	Ø 106,680 Ø 107,180 Ø 107,430 Ø 107,680	**31-03431-000** **31-03431-020** **31-03431-030** **31-03431-040**
	K=110,82 L=209,00 H=6,00 D=112,00	DS			**51-65431-000**	
	K=111,05 L=209,00 H=6,00 D=112,00	DS +0,25			**51-65431-025**	
	K=111,50 L=209,00 H=7,00 D=112,50	DS +0,50			**51-65431-050**	
	K=112,05 L=209,00 H=7,00 D=113,00	DS +1,00			**51-65431-100**	
	K=112,50 L=209,00 H=7,00 D=113,50	DS +1,50			**51-65431-150**	
	K=113,05 L=209,00 H=7,00 D=114,00	DS +2,00			**51-65431-200**	
	K=110,79 L=209,50	DS			**51-65432-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

106,680

2504E	D	1965	3 Cyl	**2870cc**	**35kW**	(47ps)
ND	D	1965	3 Cyl	**2870cc**	**32-35kW**	(44-47ps)
RD	D	1965	4 Cyl	**3815cc**	**46-50kW**	(62-68ps)

	11-01433-000 CH 70,150 B- 17,020 BØ 63,800 TL 129,000 **38,10x89,15**	AP	**91-09433-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR	-0,05/-0,15	Ø 106,680 Ø 107,180 Ø 107,430 Ø 107,680	**31-03433-000** **31-03433-020** **31-03433-030** **31-03433-040**
	K=110,82 L=209,00 H=6,00 D=112,00	DS			**51-65431-000**	
	K=111,05 L=209,00 H=6,00 D=112,00	DS +0,25			**51-65431-025**	
	K=111,50 L=209,00 H=7,00 D=112,50	DS +0,50			**51-65431-050**	
	K=112,05 L=209,00 H=7,00 D=113,00	DS +1,00			**51-65431-100**	
	K=112,50 L=209,00 H=7,00 D=113,50	DS +1,50			**51-65431-150**	
	K=113,05 L=209,00 H=7,00 D=114,00	DS +2,00			**51-65431-200**	
	K=110,79 L=209,50	DS			**51-65432-000**	

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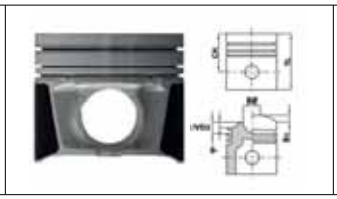
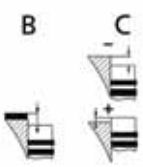
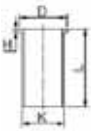
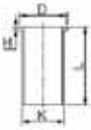
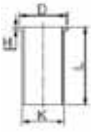
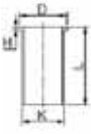
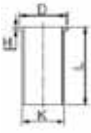
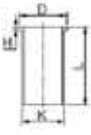
		Type				

106,700

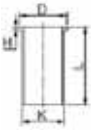
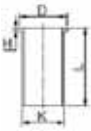
2502E — D 1965 — 3 Cyl — **2589cc** **25-29kW** (34-40ps)

	11-02247-000 CH 75,230 B- 19,300 BØ 53,200 TL 134,080 **38,10x89,15**	AP	**91-09433-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR	-0,05/-0,15	Ø 106,700 Ø 107,180 Ø 107,430 Ø 107,680	**31-04247-000** **31-04247-020** **31-04247-030** **31-04247-040**
	K=110,82 L=209,00 H=6,00 D=112,00	DS			**51-65431-000**	
	K=111,05 L=209,00 H=6,00 D=112,00	DS +0,25			**51-65431-025**	
	K=111,50 L=209,00 H=7,00 D=112,50	DS +0,50			**51-65431-050**	
	K=112,05 L=209,00 H=7,00 D=113,00	DS +1,00			**51-65431-100**	
	K=112,50 L=209,00 H=7,00 D=113,50	DS +1,50			**51-65431-150**	
	K=113,05 L=209,00 H=7,00 D=114,00	DS +2,00			**51-65431-200**	
	K=110,79 L=209,50	DS			**51-65432-000**	

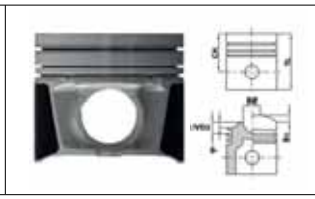
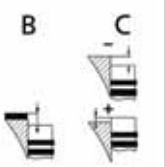
		Type		B C		

107,210

254 CID	D		4 Cyl	**4160cc**	**66kW**	(90ps)
380 CID	D	1981	6 Cyl	**6221cc**	**89kW**	(121ps)
DOVER	D		6 Cyl	**6224cc**	**96kW**	(128ps)

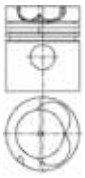
	11-01434-000 CH 71,250 VD1 2,300 B- 23,300 BØ 58,500 TL 119,900 **36,52x86,20**	AP CP	**91-39435-000** 1 2,385 CrP 2 2,385 P 3 4,747 CrP	+0,152/+0,380	Ø 107,210 Ø 107,590 Ø 108,100	**31-03434-000** **31-03434-015** **31-03434-035**
	K=111,41 L=213,50 H+F= +	DS			**51-65434-000**	
	K=112,50 L=213,50 H=7,00 D=113,50	DS +0,50			**51-65435-050**	
	K=113,00 L=213,50 H=7,00 D=114,00	DS +1,00			**51-65435-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

107,210

2711E	D	1969	1981	4 Cyl	**622cc**	**55kW**	(75ps)
2712E	D	1969		4 Cyl	**4161cc**	**50-59kW**	(68-80ps)
2714E	D	1969	1981	6 Cyl	**6227cc**	**77kW**	(105ps)
2715C	D			6 Cyl	**6227cc**	**82kW**	(112ps)
2715E	D	1969		6 Cyl	**6227cc**	**77-86kW**	(105-117ps)
2722	D	1969	1971	4 Cyl	**4161cc**	**56kW**	(76ps)
2725	D	1969	1971	6 Cyl	**6227cc**	**85kW**	(115ps)
7AA / 380CID	D	1973	1982	6 Cyl	**6227cc**	**89kW**	(120ps)

	**11-01435-000** CH 71,250 VD1 1,700 B- 26,750 BØ 51,500 TL 119,900 **36,51x90,00**		**91-09435-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 CrP	-0,15/+0,40	Ø 107,210 Ø 107,710 Ø 107,960 Ø 108,210	**31-03435-000** **31-03435-020** **31-03435-030** **31-03435-040**
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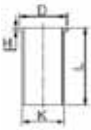
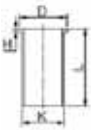
	K=112,50 L=213,50 H=7,00 D=113,50	DS +0,50			**51-65435-050**	
	K=113,00 L=213,50 H=7,00 D=114,00	DS +1,00			**51-65435-100**	

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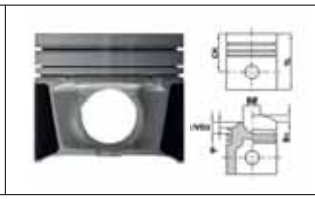
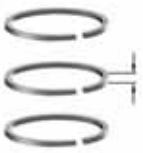
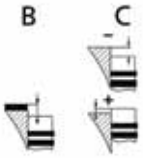
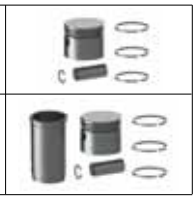
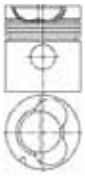
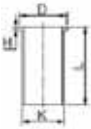
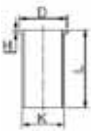
						

107,210

254 CID	D		4 Cyl	**4160cc**	**66kW**	(90ps)
380 CID	D	1981	6 Cyl	**6221cc**	**89kW**	(121ps)
DOVER	D		6 Cyl	**6224cc**	**96kW**	(128ps)

	**11-01454-000** CH 71,250 VD1 2,300 B- 23,300 BØ 58,700 TL 119,900 **36,52x86,20**	AP CP	**91-09435-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 CrP	+0,152/+0,380	Ø 107,210 Ø 107,590 Ø 108,100	**31-03454-000** **31-03454-015** **31-03454-035**
	K=111,41 L=213,50 H+F= +	DS			**51-65434-000**	
	K=112,50 L=213,50 H=7,00 D=113,50	DS +0,50			**51-65435-050**	
	K=113,00 L=213,50 H=7,00 D=114,00	DS +1,00			**51-65435-100**	

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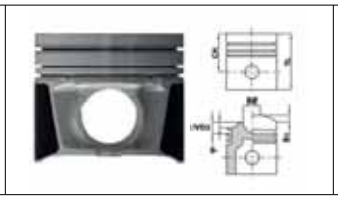
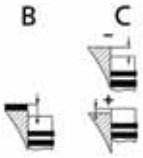
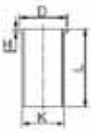
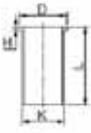
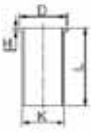
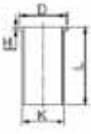
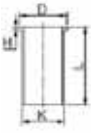
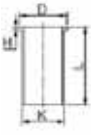
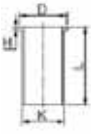
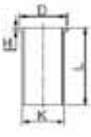
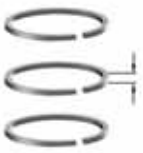
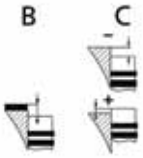
		Type				

111,760

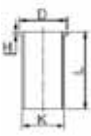
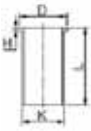
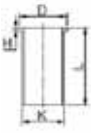
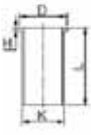
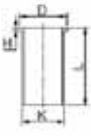
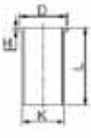
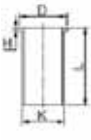
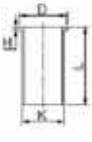
6Y 4.2			D	1971	4 Cyl	**4195cc** **69kW**	(94ps)
7A 4.2			D	1971	4 Cyl	**4195cc** **69kW**	(94ps)
	11-01436-000 CH 70,380 B- 22,170 BØ 56,000 TL 129,500 **41,28x89,30**	AP	**91-09445-000** 1 3,170 CR 2 2,385 CrP 3 2,385 P 4 4,747 CrP			Ø 111,760 Ø 112,260 Ø 112,510 Ø 112,760	**31-03436-000** **31-03436-020** **31-03436-030** **31-03436-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS				**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50				**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00				**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50				**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS				**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50				**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00				**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50				**51-65437-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

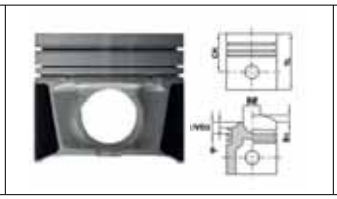
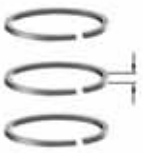
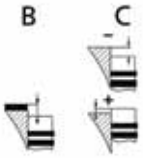
		Type		B C		
						

111,760

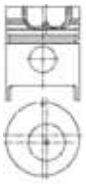
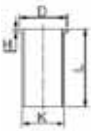
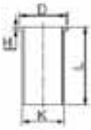
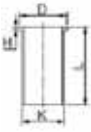
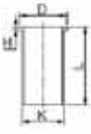
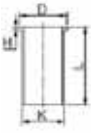
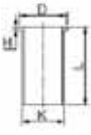
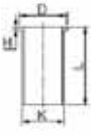
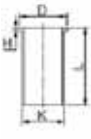
2514E	D	1968	4 Cyl	**4195cc**	**55kW**	(75ps)
4256	D	1968	4 Cyl	**4195cc**	**56-58kW**	(76-79ps)

	11-01438-000 CH 70,660 B- 18,620 BØ 63,500 TL 129,500 **38,10x89,15**	AP	**91-09440-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR	+0,18/+0,61	Ø 111,760 Ø 112,260 Ø 112,510 Ø 112,760	**31-03438-000** **31-03438-020** **31-03438-030** **31-03438-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

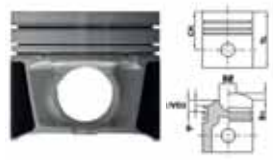
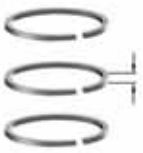
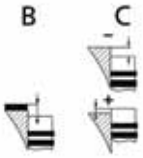
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

111,760

Traktor Engine			D	3 Cyl	cc	kW	(ps)
	**11-01439-000** CH 70,150 B- 22,960 BØ 56,000 TL 129,000 **38,10x89,15**	AP	**91-09440-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR	+0,28/+0,58	Ø 111,760 Ø 112,260 Ø 112,510 Ø 112,760		**31-03439-000** **31-03439-020** **31-03439-030** **31-03439-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS				**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50				**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00				**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50				**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS				**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50				**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00				**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50				**51-65437-150**	

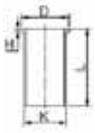
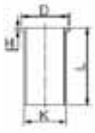
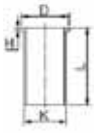
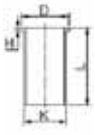
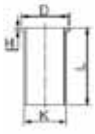
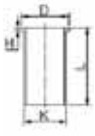
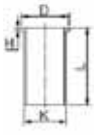
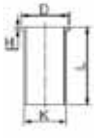
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

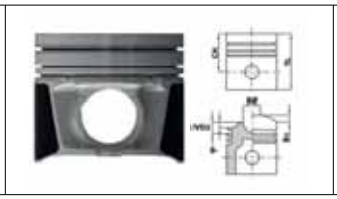
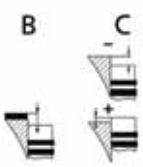
111,760

BSD 333H / PD / 6Y / 7A — D 1968 — 3 Cyl

BSD 444 — D 1981 1987 4 Cyl

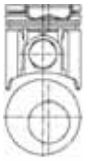
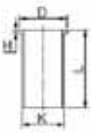
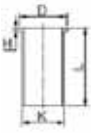
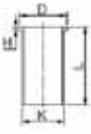
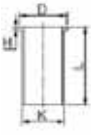
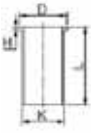
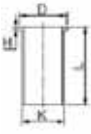
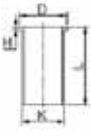
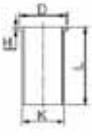
	11-01440-000 CH 68,100 B- 19,800 BØ 63,600 TL 127,000 **38,10x89,15**	AP	**91-09440-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR	+0,28/+0,58	Ø 111,760 Ø 112,260 Ø 112,510 Ø 112,760	**31-03440-000** **31-03440-020** **31-03440-030** **31-03440-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

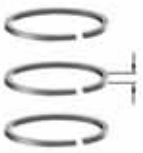
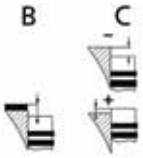
		Type				

111,760

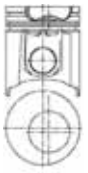
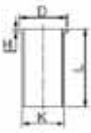
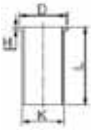
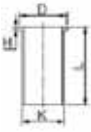
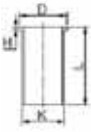
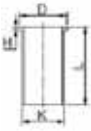
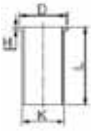
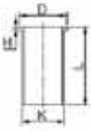
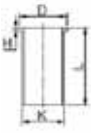
7740 D 1991 1998 4 Cyl **cc** **kW** (86ps)

	**11-01441-000** CH 72,900 B- 19,750 BØ 61,900 TL 126,250 **41,27x94,40**	AP	**91-09441-000** 1 3,170 CR 2 2,385 CrP 3 4,747 CR		Ø 111,760	**31-03441-000**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

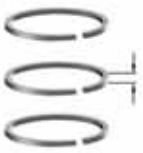
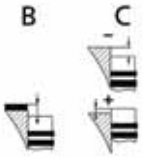
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

111,760

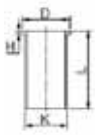
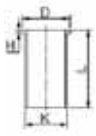
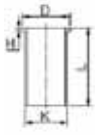
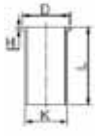
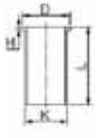
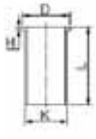
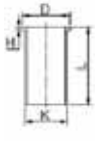
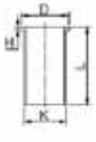
Genesis			D	4 Cyl		(ps)
	**11-01442-000** CH 80,850 B- 18,500 BØ 61,900 TL 134,200 **38,10x89,15**	AP	**91-09442-000** 1 2,385 CR 2 2,385 CR 3 4,747 CR		Ø 111,760 Ø 112,260	**31-03442-000** **31-03442-020**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

111,760

7A 6.6 102 kW	D	1969	6 Cyl
BSD 444 T	D	1981	6 Cyl

	11-01445-000 CH 67,800 B- 19,000 BØ 63,700 TL 127,000 **41,28x89,30**	AP	**91-09445-000** 1 3,170 CR 2 2,385 CrP 3 2,385 P 4 4,747 CrP		Ø 111,760 Ø 112,260 Ø 112,510 Ø 112,760	**31-03445-000** **31-03445-020** **31-03445-030** **31-03445-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

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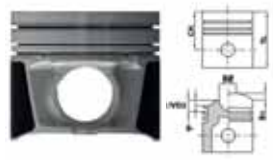
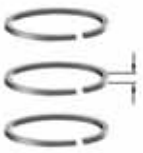
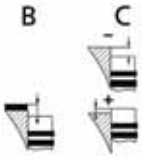
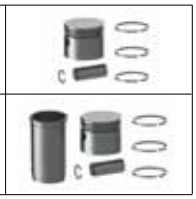
		Type		B C		
						

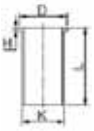
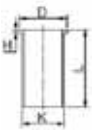
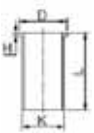
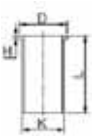
111,760

Genesis — D — 4 Cyl — cc — kW — (ps)

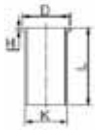
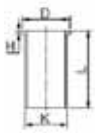
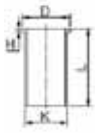
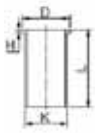
	11-01458-000 CH 73,250 B- 21,670 BØ 62,000 TL 126,600 **38,10x89,15**	AP	**91-39440-000** 1 2,385 CR 2 2,385 CR 3 4,747 CR				**31-03458-000**

111,760

2512E	D	1968		3 Cyl	
3201	D	1976		3 Cyl	
6Y3.3	D	1964	1981	3 Cyl	
7A 4.2	D	1964	1981	3 Cyl	
BSD 333 H	D	1981		3 Cyl	
BSD 444	D	1981		4 Cyl	
PD	D	1968		3 Cyl	

	11-02240-000 CH 68,100 B- 19,600 BØ 63,500 TL 127,000 **38,10x89,15**	AP	**91-09445-000** 1 3,170 CR 2 2,385 CrP 3 2,385 P 4 4,747 CrP		Ø 111,760 Ø 112,260 Ø 112,510 Ø 112,760	**31-04240-000** **31-04240-020** **31-04240-030** **31-04240-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

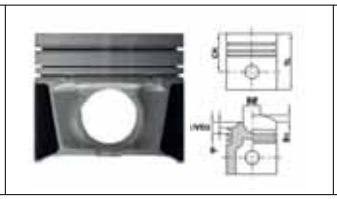
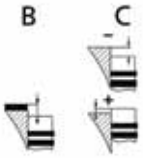
		Type		B C		
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

111,760

7A 6.6 102kW	D	1976	6 Cyl	**6588cc**	**102-137kW**	(138-186ps)
BSD 444 T	D	1981	6 Cyl	**6588cc**	**68kW**	(92ps)

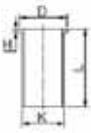
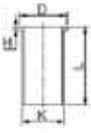
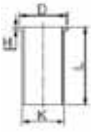
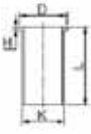
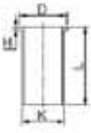
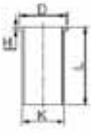
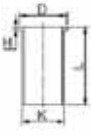
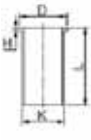
	11-02241-000 CH 67,800 B- 18,800 BØ 63,700 TL 127,000 **41,28x89,30**	AP	**91-09445-000** 1 3,170 CR 2 2,385 CrP 3 2,385 P 4 4,747 CrP	Ø 111,760 Ø 112,260 Ø 112,510 Ø 112,760	**31-04241-000** **31-04241-020** **31-04241-030** **31-04241-040**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

111,775

BSD 444 D 1981 4 Cyl **4385cc** **60kW** (82ps)

	11-02945-000 CH 68,100 B- 18,900 BØ 61,900 TL 127,000 **38,10x89,15**	AP	**91-09440-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR		Ø 111,775 Ø 112,275 Ø 112,525 Ø 112,775	**31-04945-000** **31-04945-020** **31-04945-030** **31-04945-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

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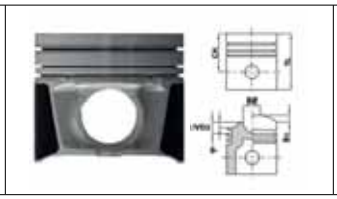
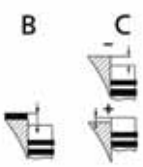
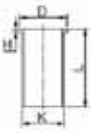
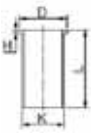
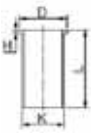
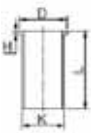
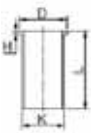
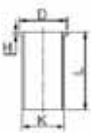
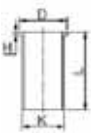
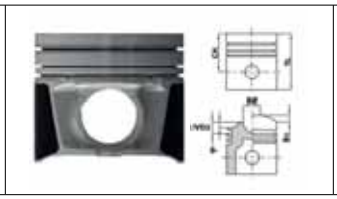
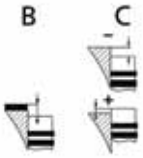
		Type				

111,775

BSD 442 D 4 Cyl **4385cc kW** (ps)

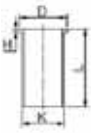
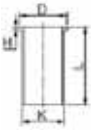
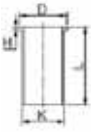
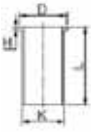
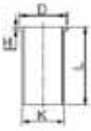
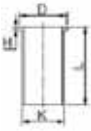
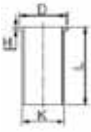
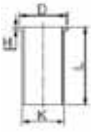
	11-02946-000 CH 70,660 B- 17,900 BØ 61,900 TL 129,500 **38,10x89,15**	AP	**91-09440-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR		Ø 111,775 Ø 112,275 Ø 112,525 Ø 112,775	**31-04946-000** **31-04946-020** **31-04946-030** **31-04946-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

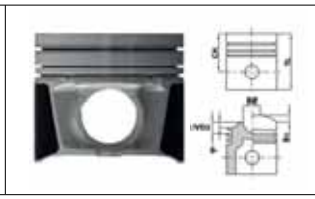
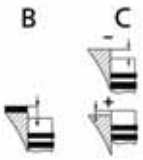
		Type				

111,775

401 D 6 Cyl **6571cc**

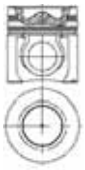
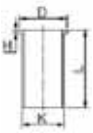
	11-02947-000 CH 68,350 B- 22,000 BØ 58,000 TL 127,000 **38,10x89,15**	AP	**91-09440-000** 1 2,385 CR 2 2,385 CR 3 2,385 P 4 4,747 CR		Ø 111,775 Ø 112,275 Ø 112,525 Ø 112,775	**31-04947-000** **31-04947-020** **31-04947-030** **31-04947-040**
	K=114,43 L=208,50 H=2,56 D=120,35	DS			**51-65436-000**	
	K=114,93 L=208,50 H=2,56 D=120,35	DS +0,50			**51-65436-050**	
	K=115,43 L=208,50 H=2,56 D=120,35	DS +1,00			**51-65436-100**	
	K=115,93 L=208,50 H=2,56 D=120,35	DS +1,50			**51-65436-150**	
	K=116,05 L=208,50 H=7,00 D=117,05	DS			**51-65437-000**	
	K=116,50 L=208,50 H=7,00 D=117,50	DS +0,50			**51-65437-050**	
	K=117,00 L=208,50 H=7,00 D=118,00	DS +1,00			**51-65437-100**	
	K=117,50 L=208,50 H=7,00 D=118,50	DS +1,50			**51-65437-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

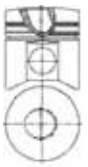
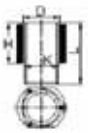
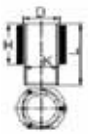
112,010

ECOTORQNHDD — D 2003 — 6 Cyl — **7300cc**

	**11-02238-000** CH 79,350 B- 18,760 BØ 60,710 TL 120,350 **46,00x92,30**	AP YS	**91-09238-000** 1 3,000 Ck 2 2,500 Sn 3 3,000 Sn	+0,21/+0,31	Ø 112,010	**31-04238-000**
	K=115,00 L=235,00 H=5,00 D=125,80	DF			**51-35462-000**	**71-08238-000**

125,000

F6L 413 FR / F — D 1971 — 6 Cyl — **9572cc**

	**11-01520-000** CH 87,400 B+ 5,250 B- 47,650 BØ 48,000 TL 138,650 **45,00x102,00** Deutz ve Ford ile Ortak Motor	AP	**91-09520-000** 1 3,000 CrP 2 2,500 P 3 4,000 CrP	+1,15/+1,30	Ø 125,000 Ø 125,500 Ø 126,000	**31-03520-000** **31-03520-050** **31-03520-100**
	K=139,00 L=250,70 H=169,50 D=150,00	AF-PH			**51-95529-000**	**71-07119-000**
	K=139,00 L=250,70 H=169,50 D=154,00	AF-PH			**51-95556-000**	**71-07134-000**

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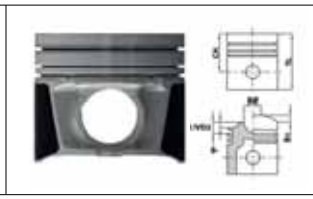
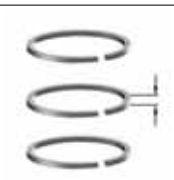
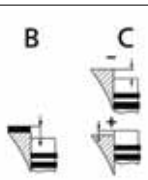
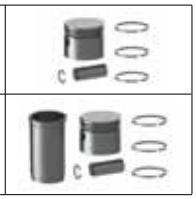
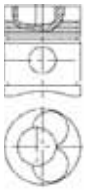
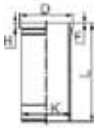
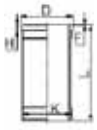
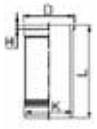
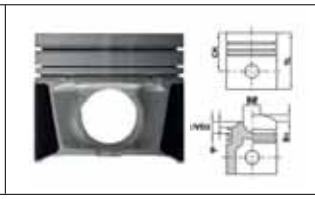
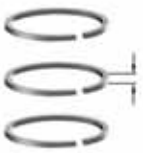
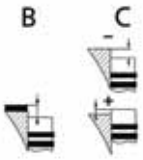
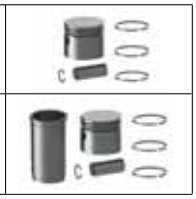
		Type		B C		
						

100,000

590E,6D			D	1957	1965	6 Cyl	**5416cc** **79kW**	(108ps)
592E,4D			D	1952	1965	4 Cyl	**3610cc** **51kW**	(69ps)

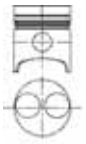
	**11-02000-000** CH 71,040 VD1 1,740 B- 24,740 BØ 50,000 TL 118,140 **34,93x85,70**		**91-09000-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 CrP 5 4,747 P	-0,700/+0,127	Ø 100,000	**31-04000-000**
	K=108,67 L=223,00 H+F=11,17+0,65 D=117,40	WF			**51-06000-000**	**71-08000-000**
	K=111,80 L=223,00 H+F=11,17+0,65 D=119,60	WF		O-Ring/Seal 55-50910-000 1 NBR 109,50x4,75 1 NBR 111,50x2,25	**51-06001-000** 52-06001-000	**71-08001-000** 72-08001-000
	K=111,80 L=222,25 H=11,15 D=119,60	WF			**51-06004-000**	**71-08004-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

75,000

E / ES71	D	1958	1 Cyl	**353cc**	**3-4kW**	(4-6ps)
E / ES75	D	1958	1 Cyl	**353cc**	**3-4kW**	(4-6ps)

	**11-01264-000** CH 48,500 VD1 1,200 VD2 1,550 TL 87,500 **25,00x64,00**	CP	**91-09264-000** 1 1,750 CrP 2 1,750 P 3 4,000 P	+0,65/+0,75	Ø 75,000 **31-03264-000** Ø 75,500 **31-03264-050** Ø 76,000 **31-03264-100** Ø 76,500 **31-03264-150**

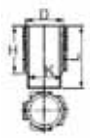
90,000

E89 / FG / FL / G	D	1965	1 Cyl	**668cc**	**7-9kW**	(10-12ps)

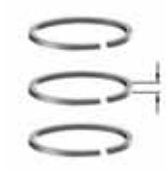
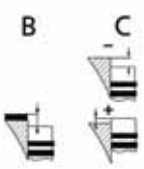
	11-01472-000 CH 53,500 B- 8,800 BØ 27,500 TL 103,500 **30,00x78,00**	CP	**91-09472-000** 1 3,000 CrP 2 3,000 P 3 5,000 CrP		Ø 90,000 **31-03472-000** Ø 90,500 **31-03472-020** Ø 91,000 **31-03472-040**

108,000

D 108	D		3 Cyl	**3021cc**	**39-44kW**	(54-60ps)
E 108	D		1 Cyl	**1007cc**	**13-15kW**	(18-20ps)
V 108	D	1970	4 Cyl	**4028cc**	**53-59kW**	(72-80ps)
Z 108	D		2 Cyl	**2014cc**	**26-30kW**	(36-40ps)

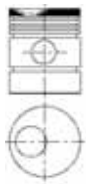
	11-01267-000 CH 71,000 VD1 0,900 B- 20,000 BØ 55,700 TL 108,500 **35,00x85,00**	CP	**91-09267-000** 1 3,000 CrP 2 3,000 P 3 3,000 P 4 5,000 P	+1,10/+1,30	Ø 108,000 **31-03267-000** Ø 108,500 **31-03267-020** Ø 109,000 **31-03267-040**
	K=118,00 L=217,50 H=166,20 D=129,50	AF			**51-95291-000**	**71-07267-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
				

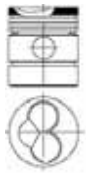
82,550

DD 132	D	1953	1963	4 Cyl	**2175cc**	**22kW**	(33ps)
DD 66	D	1956		2 Cyl	**1088cc**	**10kW**	(14ps)
DD 99	D	1956	1963	3 Cyl	**1631cc**	**15-17kW**	(20-24ps)

	**11-01483-000** CH 50,900 B- 5,500 TL 99,000 **28,00x67,00**		**91-09483-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 P 5 4,747 P		Ø 82,550	**31-03483-000**
	K=90,40 L=179,50 H=5,80 D=99,30	WF			**51-05700-000**	**71-07483-000**
	K=90,40 L=179,50 H=6,00 D=99,30	WF +0,20			**51-05700-020**	

87,310

DD148 / DU148	D	1959	1965	4 Cyl	**2434cc**	**27-28kW**	(36-38ps)

	**11-01484-000** CH 50,900 B- 5,500 TL 99,000 **28,00x72,00**		**91-09484-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 P 5 4,747 P		Ø 87,310	**31-03484-000**
	K=95,25 L=179,50 H=5,80 D=103,30	WF			**51-05702-000**	**71-07487-000**
	K=95,25 L=179,50 H=6,00 D=103,30	WF +0,20			**51-05702-020**	

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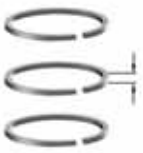
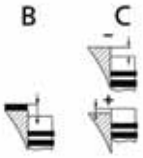
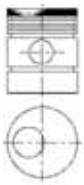
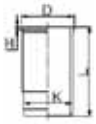
		Type		B C		
						

87,310

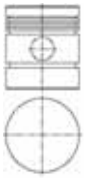
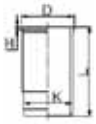
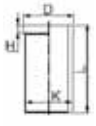
DD 74 — D — 2 Cyl — **1217cc** — **12-14kW** — (17-19ps)

DD111 / DU11 — D — 1956 — 1975 — 3 Cyl — **1825cc** — **17-26kW** — (24-35ps)

	**11-01485-000** CH 50,900 B- 5,500 BØ 35,000 TL 99,000 **28,00x72,00**		**91-09485-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 CR 5 4,747 P		Ø 87,310	**31-03485-000**
	K=95,25 L=179,50 H=5,80 D=104,00	WF			**51-05701-000**	**71-07485-000**
	K=95,25 L=179,50 H=6,00 D=104,00	WF +0,20			**51-05701-020**	

88,900

BD 154 — D — 1963 — 4 Cyl — **2520cc** — **26kW** — (36ps)

	**11-01480-000** CH 50,900 TL 99,000 **28,00x77,00**		**91-09480-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 P 5 4,747 CrP	-0,008/+0,28	Ø 88,900	**31-03480-000**
	K=93,65 L=185,70 H=5,80 D=101,50	WF			**51-05480-000**	**71-07480-000**
	K=99,00 L=185,70 H=11,00 D=104,00	WF-OS			**51-05481-000**	**71-07478-000**

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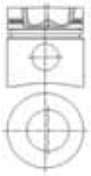
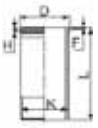
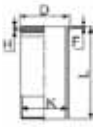
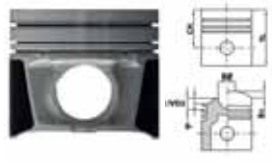
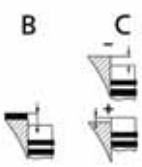
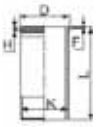
		Type		B C		
98,425						
D 179		D	1965	3 Cyl	**2933cc**	**36-38kW** (49-52ps)
D 239		D	1965	4 Cyl	**3910cc**	**45-67kW** (62-91ps)
D 358		D	1964	6 Cyl	**5866cc**	**72-104kW** (98-142ps)
UD 179		D	1965	3 Cyl	**2933cc**	**50kW** (68ps)
UD 358		D	1965	6 Cyl	**5866cc**	(141ps)
	**11-01213-000** CH 67,000 B- 24,000 BØ 56,000 TL 107,000 **36,00x82,00**	AP	**91-09213-000** 1 3,160 CR 2 2,385 3 4,747 CR	-0,40/-0,55	Ø 98,425	**31-03213-000**
	K=110,75 L=216,10 H+F=7,72+1,00 D=119,00	WF			**51-05482-000**	**71-07213-000**
	K=110,75 L=216,10 H+F=7,72+1,00 D=119,00	WF		O-Ring/Seal 55-50909-000 1 FPM 110,00x5,00 1 FPM 109,16x4,75	**51-05484-000** 52-05484-000	**71-07484-000** 72-07484-000
98,425						
D 179		D	1965	3 Cyl	**2933cc**	**33-50kW** (48-68ps)
D 239		D	1967	4 Cyl	**3910cc**	**45-67kW** (61-91ps)
D 358		D	1965	6 Cyl	**5860cc**	**66-104kW** (90-142ps)
	11-01219-000 CH 67,000 B- 22,100 BØ 56,000 TL 107,000 **36,00x82,00**	AP	**91-09213-000** 1 3,160 CR 2 2,385 3 4,747 CR		Ø 98,425	**31-03219-000**
	K=110,75 L=216,10 H+F=7,72+1,00 D=119,00	WF		O-Ring/Seal 55-50909-000 1 FPM 110,00x5,00 1 FPM 109,16x4,75	**51-05484-000** 52-05484-000	**71-07219-000** 72-07219-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

98,425

D 155			D	1966		3 Cyl	**2540cc**	**26-33kW** (35-45ps)
D 206			D	1965		4 Cyl	**3380cc**	**40-50kW** (54-68ps)
D 310			D	1965		6 Cyl	**5070cc**	**62-79kW** (84-107ps)
UD 155			D	1966	1990	3 Cyl	**2540cc**	**26-33kW** (35-45ps)
UD 206			D	1965		4 Cyl	**3380cc**	**58kW** (79ps)
UD 310			D	1965		6 Cyl	**5070cc**	**90kW** (123ps)

	11-01227-000 CH 67,000 B- 19,900 BØ 55,000 TL 107,000 **36,00x82,00**	AP	**91-09213-000** 1 3,160 CR 2 2,385 3 4,747 CR	Ø 98,425	**31-03227-000**
	K=110,70 L=201,10 H+F=7,72+1,00 D=119,00	WF		**51-05479-000**	**71-07227-000**

98,425

D 155			D			3 Cyl	**2540cc**	**26-33kW** (36-45ps)
D 206			D			4 Cyl	**3380cc**	**43kW** (57ps)
D 310			D	1965		6 Cyl	**5070cc**	**63-79kW** (85-107ps)

	11-01482-000 CH 67,000 B- 19,900 BØ 55,000 TL 101,500 **36,00x82,00**		**91-09482-000** 1 3,160 CrP 2 2,385 CrP 3 4,747 CrP	+0,46/+0,77	Ø 98,425	**31-03482-000**
	K=110,70 L=201,10 H+F=7,72+1,00 D=119,00	WF			**51-05479-000**	**71-07482-000**

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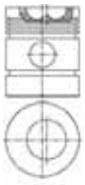
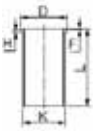
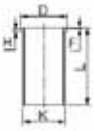
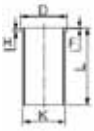
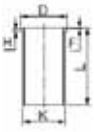
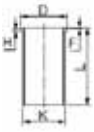
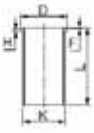
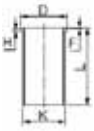
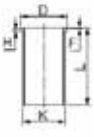
		Type		B C		

98,480

6.354V	D	1972	1975	6 Cyl	**5800cc**	**87kW**	(118ps)
6354	D	1969		6 Cyl	**5800cc**	**69-82kW**	(94-112ps)

	**11-01840-000** CH 70,100 B- 25,700 BØ 54,000 TL 120,700 **34,93x84,10**		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03840-000**
Ihc/Case, Leyland, Massey-Ferguson ve Perkins ile Ortak Motor						
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07840-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

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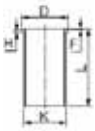
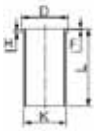
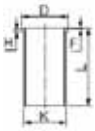
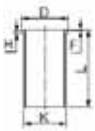
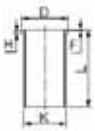
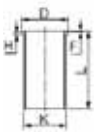
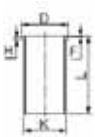
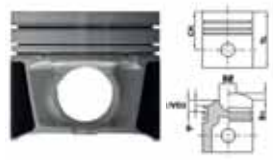
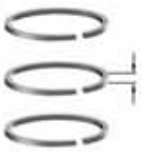
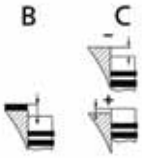
		Type		B C		
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

98,480

4212 D 1975 4 Cyl **3864cc** **44-47kW** (60-64ps)

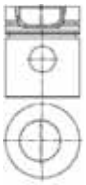
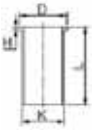
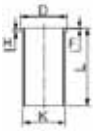
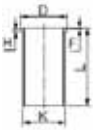
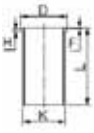
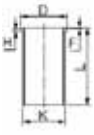
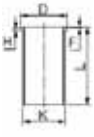
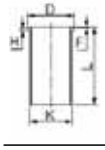
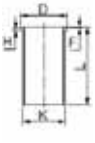
	11-01842-000 CH 76,500 B- 19,200 BØ 54,000 TL 127,300 **34,93x84,10** Ihc/Case, Massey-Ferguson ve Perkins ile Ortak Motor		**91-49863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP		Ø 98,480	**31-03842-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07842-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

98,480

4236 D 1972 4 Cyl **3864cc** **48-60kW** (59-80ps)

	**11-01848-000** CH 70,050 B- 20,150 BØ 61,000 TL 120,850 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor	AP CP	**91-09867-000** 1 2,385 CrP 2 2,385 P 3 4,747 CR	+0,28/+0,48	Ø 98,480	**31-03848-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07858-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07848-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

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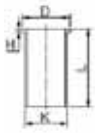
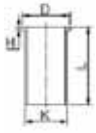
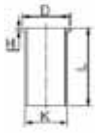
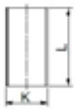
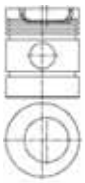
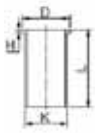
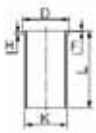
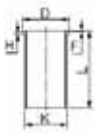
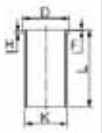
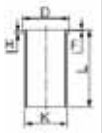
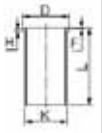
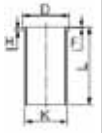
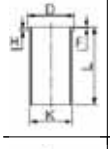
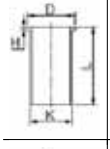
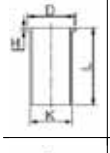
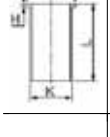
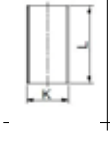
		Type		B C		
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

98,480

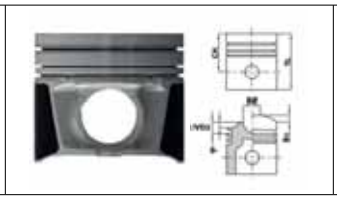
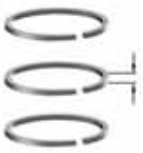
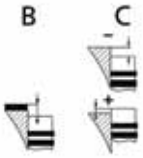
4236 D 1972 4 Cyl **3864cc** **48-60kW** (59-80ps)

	**11-01863-000** CH 70,250 B- 20,280 BØ 60,500 TL 120,900 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03863-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07864-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07863-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

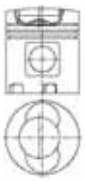
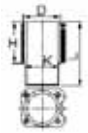
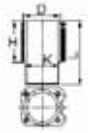
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

100,000

D268			D			4 Cyl	**4388cc**	**65-65kW** (77-88ps)
D402			D	1973		6 Cyl	**6582cc**	**kW** (ps)
	11-01486-000 CH 67,000 B- 24,000 BØ 59,500 TL 107,000 **36,00x82,00**	AP	**91-09486-000** 1 3,160 CR 2 2,385 CR 3 4,747 CR				Ø 100,000	**31-03486-000**
	K=110,75 L=216,10 H+F=7,72+1,00 D=119,00	WF					**51-05483-000**	**71-07486-000**

100,000

F 4 L 912 D			D	1973	1986	4 Cyl	**3770cc**	**19-59 kW** (20-80ps)
F 6 L 912 D			D	1973	1986	6 Cyl	**5655cc**	**42-92 kW** (57-125ps)
	**11-01510-000** CH 71,900 B+ 5,600 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00** Deutz ve Ihc/Case ile Ortak Motor		**91-09510-000** 1 3,000 CrP 2 2,500 P 3 5,000 CrP		+1,00/+1,20		Ø 100,000 Ø 100,500 Ø 101,000	**31-03510-000** **31-03510-050** **31-03510-100**
	K=110,00 L=222,30 H=137,30 D=120,00	AF					**51-95512-000**	**71-07510-000**
	K=110,00 L=222,30 H=136,80 D=120,00	AF			O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50		**51-96212-000** 52-96212-000	**71-07718-000** 72-07718-000

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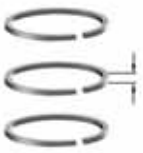
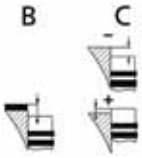
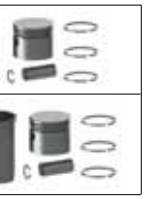
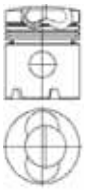
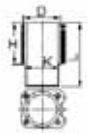
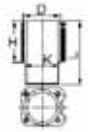
		Type		B C		
						

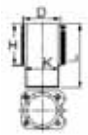
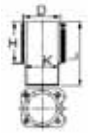
100,000

F 4 L 912 D	D	1973	1986	4 Cyl	**3770cc**	**19-59kW**	(20-80ps)
F 6 L 912 D	D	1973	1986	6 Cyl	**5655cc**	**42-92kW**	(57-125ps)

 **11-01512-000** CH 71,900 B+ 5,600 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00** Deutz ve Ihc/Case ile Ortak Motor		**91-09512-000** 1 3,000 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP	+1,00/+1,20	Ø 100,000 Ø 100,500 Ø 101,000	**31-03512-000** **31-03512-050** **31-03512-100**
 K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07512-000**
 K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07719-000** 72-07719-000

100,000

F 4 L 912 D	D	1973	1986	4 Cyl	**3770cc**	**19-59 kW**	(20-80ps)
F 6 L 912 D	D	1973	1986	6 Cyl	**5655cc**	**42-92 kW**	(57-125ps)

11-01715-000 CH 71,800 VD1 1,100 B+ 5,700 B- 21,400 BØ 55,000 TL 123,600 **35,00x80,00** Deutz ve Ihc/Case ile Ortak Motor		**91-09506-000** 1 3,000 CrP 2 2,000 3 3,500 CR		Ø 100,000 Ø 100,500	**31-03715-000** **31-03715-050**
 K=110,00 L=222,30 H=137,30 D=120,00	AF			**51-95512-000**	**71-07715-000**
 K=110,00 L=222,30 H=136,80 D=120,00	AF		O-Ring/Seal 55-50919-000 1 SM 110,10x117,60x0,50	**51-96212-000** 52-96212-000	**71-07717-000** 72-07717-000

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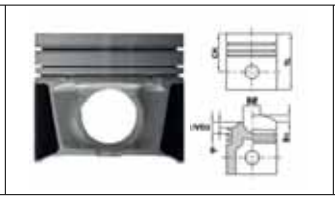
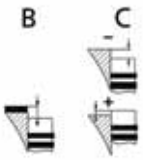
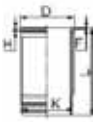
		Type		B C		
						

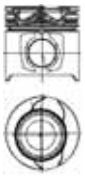
101,600

W 5540 — D — 2 Cyl — **cc** — **kW** — (ps)

	11-01214-000 CH 60,875 VD1 1,600 B- 15,000 BØ 66,000 TL 108,000 **31,75x81,00**		**91-09214-000** 1 3,160 CrP 2 2,385 CrP 3 4,747 CrP		Ø 101,600	**31-03214-000**
	K=108,60 L=187,25 H+F=6,23+0,97 D=115,00	WF			**51-05353-000**	**71-07214-000**

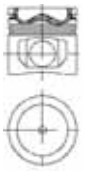
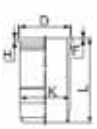
104,000

8045.25D.313T — D — 4 Cyl

	**11-01031-000** CH 65,330 B- 18,200 BØ 58,000 TL 104,330 **38,00x85,00**	AP	**91-09409-000** 1 3,000 MoP 2 2,500 P 3 4,000 CR		Ø 104,000	**31-03031-000**
Iveco ve Ihc/Case ile Ortak Motor						

130,000

OM 942.967 Euro 2/3 — D — 1998 — 8 Cyl — **15928cc** — **370-380kW** — (503-516ps)

	**11-02677-000** CH 78,550 B- 16,200 BØ 92,800 TL 119,500 **52,00x103,00**	AP YS PDB	**91-09710-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR	+0,27/+0,61	Ø 130,000	**31-04677-000**
Ihc/Case ve Merdedes-Benz ile Ortak Motor						
	K=150,00 L=258,00 H+F=10,10+1,00 D=164,00	WF		O-Ring/Seal 55-50510-000 1 SM 153,30x163,50x0,15 2 FPM 149,00x158,60x7,00	**51-05684-000** 52-05684-000	**71-07026-000** 72-07026-000

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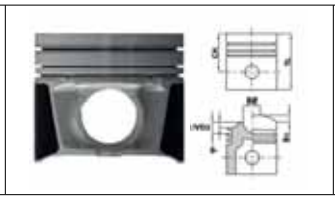
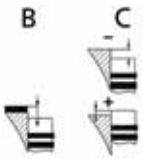
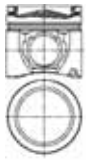
		Type		B C		
						

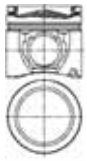
130,000

OM 942.900 / 910-912 / 925 / 930 / 960 / 967 / 970 / 980 / 990 Euro2 / 3 — D — 1998 — 8 Cyl — **15928cc** — **370-380kW** — (503-516ps)

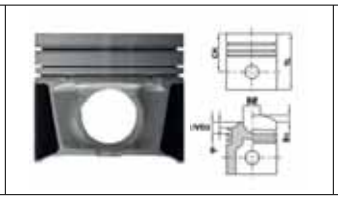
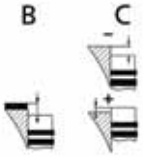
	**11-02732-000** CH 78,550 B- 16,250 BØ 92,900 TL 123,550 **52,00x103,00** Ihc/Case ve Merdedes-Benz ile Ortak Motor	AP YS PDB	**91-09710-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR	+0,27/+0,61	Ø 130,000	**31-04732-000**
	K=150,00 L=258,00 H+F=10,10+1,00 D=164,00	WF-PH		O-Ring/Seal 55-50510-000 1 SM 153,30x163,50x0,15 2 FPM 149,00x158,60x7,00	**51-05674-000** 52-05674-000	**71-08746-000** 72-08746-000
	K=150,00 L=258,00 H+F=10,10+1,00 D=164,00	WF		O-Ring/Seal 55-50510-000 1 SM 153,30x163,50x0,15 2 FPM 149,00x158,60x7,00	**51-05684-000** 52-05684-000	**71-08732-000** 72-08732-000

130,000

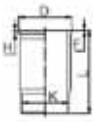
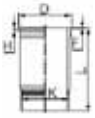
Strok Boyu 0,30mm Kisa Piston / Stroke Lenght 0,30mm Shorter Piston — Cyl — **cc** — **kW** — (ps)

	**11-02732-002** CH 78,250 B- 16,250 BØ 92,900 TL 123,250 **52,00x103,00** Ihc/Case ve Merdedes-Benz ile Ortak Motor	AP YS PDB CH -0,30 mm	**91-09710-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR		Ø 130,000	**31-04732-002**

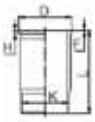
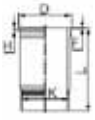
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

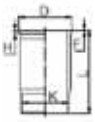
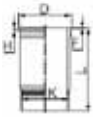
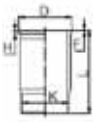
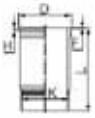
		Type		B C		
						

98,000

153310			D	1964	1967	
153510			D	1964	1967	
710			D	1964	1967	
	11-01500-000 CH 57,277 B- 16,510 BØ 59,000 TL 99,220 **30,17x80,00**		**91-09500-000** 1 2,385 CR 2 2,385 P 3 5,000 CR		Ø 98,000	**31-03500-000**
	K=107,60 L=197,00 H+F=6,05+0,75 D=122,96	WF			**51-05500-000**	**71-07500-000**
	K=107,60 L=197,00 H+F=6,05+0,75 D=122,96	WF			**51-05504-000**	**71-07069-000**

102,000

3164 DL 03			D	3 Cyl	**2690cc** **26-38kW**	(35-51ps)
4219 DL 03			D	4 Cyl	**3590cc** **50kW**	(68ps)
6329 DL 03			D	6 Cyl	**5380cc** **63-68kW**	(86-92ps)
	11-01495-000 CH 66,300 B- 21,500 BØ 54,000 TL 112,000 **34,93x84,10**		**91-09502-000** 1 3,170 MoP 2 2,385 P 3 5,000 CrP		Ø 102,000	**31-03495-000**
	K=110,97 L=197,00 H+F=6,05+0,75 D=125,00	WF		O-Ring/Seal 55-50905-000 1 NBR 104,00x110,60x3,30 1 S 110,50x3,50 1 VI 110,50x3,50	**51-05501-000** 52-05501-000	**71-07455-000** 72-07455-000
	K=110,97 L=197,00 H+F=6,05+0,75 D=125,00	WF			**51-05502-000**	

		Type		B C		
102,000						
3164 DL 01, JD 164		D		3 Cyl	**2696cc**	**41kW** (50ps)
4219 DL 01		D		4 Cyl	**3588cc**	**53kW** (72ps)
6329 DL 01, JD 329		D	1968 1973	6 Cyl	**5395cc**	**66kW** (90ps)
	11-01501-000 CH 57,300 B- 16,500 BØ 58,500 TL 103,190 **30,17x84,80**		**91-09502-000** 1 3,170 MoP 2 2,385 P 3 5,000 CrP	-0,70/0	Ø 102,000	**31-03501-000**
	K=110,97 L=197,00 H+F=6,05+0,75 D=125,00	WF		O-Ring/Seal 55-50905-000 1 NBR 104,00x110,60x3,30 1 S 110,50x3,50 1 VI 110,50x3,50	**51-05501-000** 52-05501-000	**71-07501-000** 72-07501-000
	K=110,97 L=197,00 H+F=6,05+0,75 D=125,00	WF			**51-05502-000**	**71-07104-000**
102,000						
3164 DL 03		D		3 Cyl	**2690cc**	**26-38kW** (35-51ps)
4219 DL 03		D		4 Cyl	**3590cc**	**50kW** (68ps)
6329 DL 03		D		6 Cyl	**5380cc**	**63-68kW** (86-92ps)
	11-01502-000 CH 66,300 B- 21,500 BØ 54,300 TL 112,000 **34,93x84,10**	AP	**91-09502-000** 1 3,170 MoP 2 2,385 P 3 5,000 CrP	-0,70/0	Ø 102,000	**31-03502-000**
	K=110,97 L=197,00 H+F=6,05+0,75 D=125,00	WF		O-Ring/Seal 55-50905-000 1 NBR 104,00x110,60x3,30 1 S 110,50x3,50 1 VI 110,50x3,50	**51-05501-000** 52-05501-000	**71-07080-000** 72-07080-000
	K=110,97 L=197,00 H+F=6,05+0,75 D=125,00	WF			**51-05502-000**	**71-07502-000**

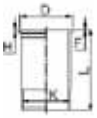
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

JOHN DEERE

		Type		B C		

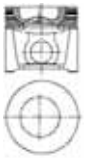
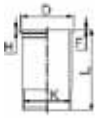
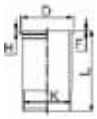
106,500

4045		D	4 Cyl	**4500cc**	**60-123kW**	(82-165ps)
6068		D	6 Cyl	**6800cc**	**101-224kW**	(135-300ps)

	11-01010-000 CH 71,700 B- 25,500 BØ 57,000 TL 104,600 **41,28x72,00**	AP	**91-09766-000** 1 3,160 MoP 2 2,400 P 3 3,500 CrP		Ø 106,500	**31-03010-000**
	K=115,70 L=219,40 H+F=6,05+0,70 D=125,80	WF			**51-05510-000**	**71-08506-000**

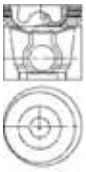
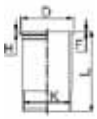
106,500

3029T		D	3 Cyl	**2938cc**	**48-53kW**	(64-71ps)

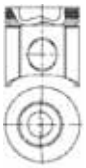
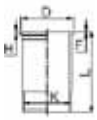
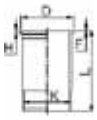
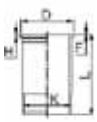
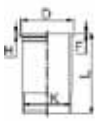
	**11-01489-000** CH 66,300 B- 18,920 BØ 58,500 TL 95,500 **32,00x80,00**	AP	**91-09492-000** 1 2,500 MoP 2 2,385 P 3 3,500 CrP		Ø 106,500	**31-03489-000**
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50903-000 1 FPM 117,00x3,50 1 MVQ 117,07x3,53 1 NBR 99,00x2,30x3,80	**51-05503-000** 52-05503-000	**71-07489-000** 72-07489-000
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50904-000 1 FPM 117,00x3,50 1 S 117,00x3,50 1 NBR 99,00x2,30	**51-05508-000** 52-05508-000	**71-07488-000** 72-07488-000

106,500

4045 D/T (4045DF150)		D	1997 4 Cyl	**4482cc**	**63kW**	(85ps)
6068 DL050		D	1997 6 Cyl	**6786cc**	**93kW**	(125ps)

	**11-01492-000** CH 71,700 B- 23,800 BØ 57,400 TL 100,600 **34,93x71,60**	AP	**91-09492-000** 1 2,500 MoP 2 2,385 P 3 3,500 CrP	0/0,15	Ø 106,500	**31-03492-000**
	K=115,70 L=219,40 H+F=6,05+0,70 D=125,80	WF			**51-05510-000**	**71-07492-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
106,500						
3.179T	D		3 Cyl	**2938cc**	**59kW**	(79ps)
4.039T	D		4 Cyl	**3920cc**	**82kW**	(110ps)
4.239A	D		4 Cyl	**3920cc**	**87kW**	(117ps)
6.059T	D	1997	6 Cyl	**5878cc**	**123kW**	(165ps)
6.359A	D	1997	6 Cyl	**5878cc**	**131kW**	(176ps)
 **11-01494-000** CH 66,300 B- 18,800 BØ 58,400 TL 112,000 **41,27x84,00**	AP	**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP	+0,14/+0,20	Ø 106,500		**31-03494-000**
 K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50903-000 1 FPM 117,00x3,50 1 MVQ 117,07x3,53 1 NBR 99,00x2,30x3,80	**51-05503-000** 52-05503-000		**71-07494-000** 72-07494-000
 K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50904-000 1 FPM 117,00x3,50 1 S 117,00x3,50 1 NBR 99,00x2,30	**51-05508-000** 52-05508-000		**71-07070-000** 72-07070-000
106,500						
3.179 DL-01	D	1975	1986 3 Cyl	**2938cc**	**41kW**	(56ps)
4.039D	D		4 Cyl	**3920cc**	**60kW**	(80ps)
6.059D	D		6 Cyl	**5878cc**	**89kW**	(120ps)
11-01496-000 CH 66,300 B- 18,920 BØ 58,500 TL 112,000 **34,93x84,10**	AP	**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP		Ø 106,500		**31-03496-000**
 K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50903-000 1 FPM 117,00x3,50 1 MVQ 117,07x3,53 1 NBR 99,00x2,30x3,80	**51-05503-000** 52-05503-000		**71-07496-000** 72-07496-000
 K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50904-000 1 FPM 117,00x3,50 1 S 117,00x3,50 1 NBR 99,00x2,30	**51-05508-000** 52-05508-000		**71-07498-000** 72-07498-000

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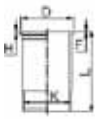
		Type		B C		

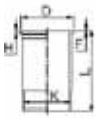
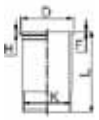
106,500

3239 DL O1			D	1973		3 Cyl	**2938cc**	**41kW** (56ps)
4239 DL O1			D	1972	1979	4 Cyl	**3918cc**	**55kW** (75ps)
6329 DL O3			D	1973		6 Cyl	**5395cc**	**63-68kW** (86-92ps)
6359 DL O1			D	1973		6 Cyl	**5876cc**	**82kW** (112ps)

	11-01497-000 CH 66,420 B- 20,900 BØ 58,500 TL 112,000 **34,93x84,10**		**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP	+0,10/+0,30	Ø 106,500	**31-03497-000**
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50903-000 1 FPM 117,00x3,50 1 MVQ 117,07x3,53 1 NBR 99,00x2,30x3,80	**51-05503-000** 52-05503-000	**71-07497-000** 72-07497-000

106,500

3.239 D			D			3 Cyl	**2938cc**	**41kW** (56ps)
4.239 DL-01			D	1972	1979	4 Cyl	**3920cc**	**46-55kW** (63-75ps)
4.239 DL-03			D	1979	1986	4 Cyl	**3920cc**	**46-55kW** (62-75ps)
6.359 D-02			D	1975		6 Cyl	**5878cc**	**66kW** (90ps)
6.359 DL-02			D			6 Cyl	**5878cc**	**71kW** (97ps)
6.359 TZ-02			D	1975		6 Cyl	**5878cc**	**83kW** (113ps)

	11-01503-000 CH 66,420 B- 18,500 BØ 58,500 TL 112,000 **34,93x84,10**	AP	**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP	+0,10/+0,30	Ø 106,500	**31-03503-000**
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50903-000 1 FPM 117,00x3,50 1 MVQ 117,07x3,53 1 NBR 99,00x2,30x3,80	**51-05503-000** 52-05503-000	**71-07503-000** 72-07503-000
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50904-000 1 FPM 117,00x3,50 1 S 117,00x3,50 1 NBR 99,00x2,30	**51-05508-000** 52-05508-000	**71-08503-000** 72-08503-000

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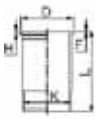
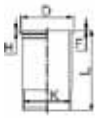
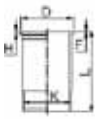
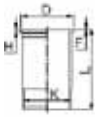
		Type		B C		
106,500						
4045TL001-003-004			D 1994	4 Cyl	**3920cc** **73kW**	(100ps)
6068 T / 6068TRW01-02			D 1994	6 Cyl	**6786cc** **96kW**	(130ps)
	11-01504-000 CH 71,700 B- 22,500 BØ 60,000 TL 124,500 **41,27x84,00**	AP	**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP		Ø 106,500	**31-03504-000**
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50903-000 1 FPM 117,00x3,50 1 MVQ 117,07x3,53 1 NBR 99,00x2,30x3,80	**51-05503-000** 52-05503-000	**71-07504-000** 72-07504-000
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50904-000 1 FPM 117,00x3,50 1 S 117,00x3,50 1 NBR 99,00x2,30	**51-05508-000** 52-05508-000	**71-07558-000** 72-07558-000
106,500						
4.239TL-02			D 1979 1986	4 Cyl	**3920cc** **60kW**	(82ps)
4239			D 1979 1986	4 Cyl	**3920cc** **67kW**	(91ps)
6.359T			D	6 Cyl	**5878cc** **82-102kW**	(112-139ps)
	11-01505-000 CH 66,420 B- 19,650 BØ 58,500 TL 112,000 **41,27x84,00**	AP	**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP		Ø 106,500	**31-03505-000**
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50903-000 1 FPM 117,00x3,50 1 MVQ 117,07x3,53 1 NBR 99,00x2,30x3,80	**51-05503-000** 52-05503-000	**71-07505-000** 72-07505-000
	K=115,71 L=197,00 H+F=6,05+0,80 D=126,00	WF		O-Ring/Seal 55-50904-000 1 FPM 117,00x3,50 1 S 117,00x3,50 1 NBR 99,00x2,30	**51-05508-000** 52-05508-000	**71-07060-000** 72-07060-000

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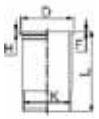
		Type		B C		

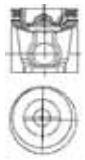
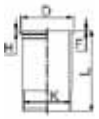
106,500

4045TL001-003-004		D	4 Cyl	**3920cc**	**73kW**	(100ps)
6068 T / 6068TRW01-02		D	6 Cyl	**6786cc**	**96kW**	(130ps)

	11-02985-000 CH 71,690 B- 22,020 BØ 60,210 TL 120,000 **41,27x84,50**	AP	**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP		Ø 106,500	**31-04985-000**
	K=115,70 L=219,40 H+F=6,05+0,70 D=125,80	WF			**51-05510-000**	**71-08985-000**

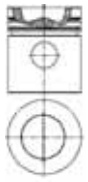
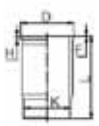
106,500

4045 TF275 Teire II		D	4 Cyl	**4524cc**	**84kW**	(113ps)
6068 T 414 CID (6068TP054)		D	6 Cyl	**6786cc**	**116-168kW**	(154-225ps)

	**11-02986-000** CH 71,680 B- 25,500 BØ 56,930 TL 100,680 **34,94x70,15**	AP	**91-09503-000** 1 3,160 MoP 2 2,385 P 3 3,465 CrP	0.07-0.25	Ø 106,500	**31-04986-000**
	K=115,71 L=218,50 H+F=6,05+0,85 D=126,00	WF			**51-05509-000**	**71-08504-000**

107,950

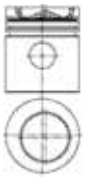
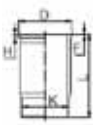
6404 D		D	6 Cyl	**5878cc**	**272-295kW**	(370-400ps)

	**11-01507-000** CH 69,900 B- 18,000 BØ 63,500 TL 124,400 **38,10x85,20**	AP	**91-09507-000** 1 3,170 CrP 2 2,385 CrP 3 6,350 CrP		Ø 107,950	**31-03507-000**
	K=117,50 L=231,50 H+F=6,56+0,80 D=131,53	WF			**51-05505-000**	**71-07507-000**

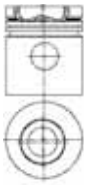
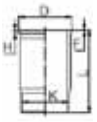
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

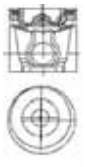
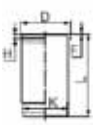
107,950

4270 D		D		4 Cyl	**4400cc** **kW**	(ps)
6404		D		6 Cyl	**5878cc** **kW**	(ps)
	**11-01508-000** CH 69,900 B- 15,000 BØ 68,800 TL 124,250 **38,10x85,20**	AP	**91-09507-000** 1 3,170 CrP 2 2,385 CrP 3 6,350 CrP		Ø 107,950	**31-03508-000**
	K=117,50 L=231,50 H+F=6,56+0,80 D=131,53	WF			**51-05505-000**	**71-07508-000**

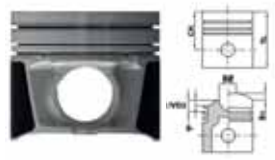
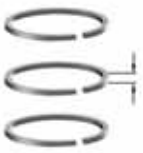
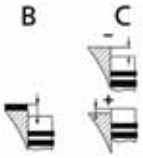
107,950

6404D		D		6 Cyl	**5878cc**	
	**11-01509-000** CH 70,040 B- 18,700 BØ 63,500 TL 124,750 **38,10x85,50**	AP	**91-09509-000** 1 3,175 CR 2 2,385 CR 3 4,747 CR		Ø 107,950	**31-03509-000**
	K=117,50 L=231,50 H+F=6,56+0,80 D=131,53	WF			**51-05505-000**	**71-07509-000**

115,900

6081 Teire		D	1996	6 Cyl	**8120cc**	
6081HRW01-17-26-27-28-35-36-37-38-40		D	1996	6 Cyl	**8120cc**	
	**11-02987-000** CH 66,500 B- 16,000 BØ 73,000 TL 111,500 **47,61x91,45**	DAP	**91-09508-000** 1 3,900 MoP 2 3,200 P 3 4,000 NT St		Ø 115,888	**31-04987-000**
	K=125,10 L=228,00 H+F=12,05+1,20 D=135,10	WF			**51-05564-000**	**71-08505-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

120,000

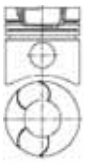
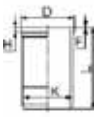
740.50-360 Euro1 — D — 8 Cyl — **10850cc kW** (ps)

740.51-320 Euro1 — D — 8 Cyl — **10850cc kW** (ps)

	11-02400-000 CH 71,000 VD1 2,700 B- 21,700 BØ 70,000 TL 117,800 **45,00x95,00**	AP	**91-09240-000** 1 3,500 CR 2 3,000 CR 3 4,000 CR		Ø 120,000	**31-04400-000**
	K=134,00 L=221,00 H+F=10,28+1,20 D=146,00	WF			**51-05574-000**	**71-08400-000**

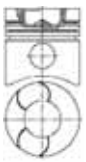
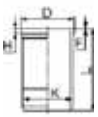
120,000

VMotor740 — D — 8 Cyl — **10850cc**

	**11-02430-000** CH 75,700 VD1 2,700 B- 24,800 BØ 60,000 TL 123,000 **45,00x95,00**	AP	**91-09430-000** 1 3,000 CrP 2 3,000 CrP 3 5,000 CrP		Ø 120,000	**31-04430-000**
	K=134,00 L=224,00 H+F=10,30+1,15 D=145,95	WF			**51-05507-000**	**71-08430-000**

120,000

740.10 — D — 8 Cyl — **10850cc 154kW** (210ps)

	**11-02431-000** CH 75,700 VD1 2,700 B- 26,400 BØ 60,000 TL 123,000 **45,00x95,00**	AP	**91-09430-000** 1 3,000 CrP 2 3,000 CrP 3 5,000 CrP		Ø 120,000	**31-04431-000**
	K=134,00 L=224,00 H+F=10,30+1,15 D=145,95	WF			**51-05507-000**	**71-08431-000**

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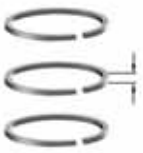
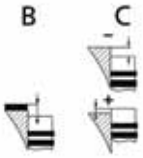
		Type		B C		
						

82,000

V1702 — D — 4 Cyl — cc — kW — (ps)

	11-01007-000 CH 43,450 TL 80,000		**91-09580-000** 1 2,500 CrP 2 1,980 P 3 5,000 CrP		Ø 82,000	**31-03007-000**

83,000

V2003 V2003-DI — D — 4 Cyl

	11-01005-000 CH 43,450 B- 15,950 BØ 38,000 TL 79,900	CP	**91-09576-000** 1 2,000 NT 2 1,980 CrP 3 4,000 CrP		Ø 83,000	**31-03005-000**

83,000

V2003T — D — 4 Cyl

	11-01015-000 CH 43,450 VD1 1,150 VD2 1,850 B- 2,000 TL 79,900	HA	**91-09684-000** 1 2,000 NT 2 1,980 CrP 3 5,000 CrP		Ø 83,000	**31-03015-000**

87,000

V2203-M-DI — D — 4 Cyl

V2203-M-DI-E2B — D — 4 Cyl

V2203-M-DI-E2B-BC-1 — D — 4 Cyl

V2203-M-DI-E2B-BC-3 — D — 4 Cyl

V2403-M-DI — D — 4 Cyl

	11-01004-000 CH 43,450 B- 16,700 BØ 40,000 TL 80,000	CP	**91-09575-000** 1 2,000 P 2 1,980 P 3 4,000 CR		Ø 87,000	**31-03004-000**

87,000

V2203IDI — D — 4 Cyl

	11-01006-000 CH 43,450 VD1 1,000 B- 1,500 TL 80,000	CP	**91-09579-000** 1 2,500 CrP 2 1,980 P 3 5,000 CrP		Ø 87,000 Ø 87,500	**31-03006-000** **31-03006-050**

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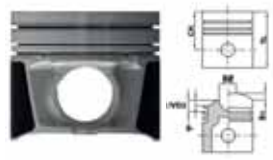
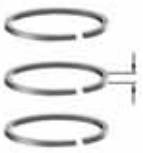
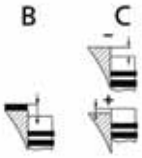
		Type		B C		
						

87,000

ENDUSTRIYEL ENGINE — D — 4 Cyl

	11-01008-000 CH 39,150 B- 16,250 BØ 45,300 TL 80,000	AP	**91-09581-000** 1 2,000 P 2 1,480 CrP 3 3,000 CR		Ø 87,000	**31-03008-000**

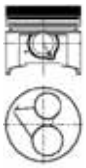
87,000

ENDUSTRIYEL ENGINE — D — 4 Cyl

	11-01009-000 CH 43,500 B- 16,500 BØ 42,000 TL 80,000	AP CP	**91-09637-000** 1 2,000 P 2 1,980 CrP 3 2,500 CR		Ø 87,000	**31-03009-000**

87,000

V2203 / CFP-25 — B — 4 Cyl

	**11-01094-000** CH 43,400 VD1 1,400 VD2 1,600 TL 80,000 **25,00x64,00**	CP	1 2,000 2 2,000 3 5,000		Ø 87,000	**31-03094-000**

98,000

V3300T — D — 4 Cyl

	11-01014-000 CH 46,600 B- 18,000 BØ 50,000 TL 87,600	AP	**91-09683-000** 1 2,000 NT 2 1,980 CrP 3 3,000 NT		Ø 98,000	**31-03014-000**

100,000

V3800 V3800T V3800-DI-T — D — 4 Cyl

	11-01013-000 CH 44,000 B- 18,200 BØ 57,000 TL 85,000	AP	**91-09638-000** 1 2,000 NT 2 1,980 CrP 3 3,000 CR		Ø 100,000	**31-03013-000**

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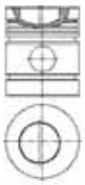
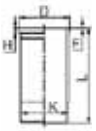
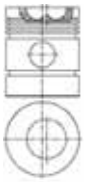
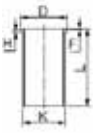
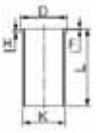
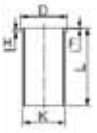
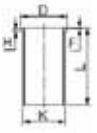
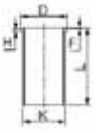
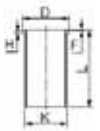
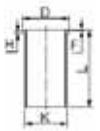
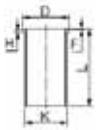
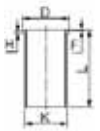
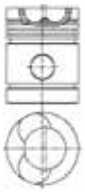
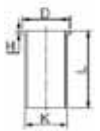
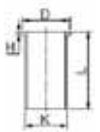
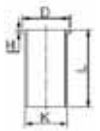
		Type		B C		
95,000						
3.4T		D	4 Cyl			
3.4TD		D	4 Cyl			
3DL		D	3 Cyl			
	**11-02410-000** CH 70,700 B- 23,500 BØ 54,000 TL 121,500 **34,93x79,30**		**91-09410-000** 1 3,947 CR 2 2,385 3 2,385 4 6,350 CR 5 6,350 P		Ø 95,000	**31-04410-000**
	K=106,35 L=222,00 H+F=11,17+0,90 D=114,20	WF-PH			**51-05230-000**	
98,480						
6354		D 1961	4 Cyl		**5800cc**	
	**11-01840-000** CH 70,100 B- 25,700 BØ 54,000 TL 120,700 **34,93x84,10**		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03840-000**
Ihc/Case, Leyland, Massey-Ferguson ve Perkins ile Ortak Motor						
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07840-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

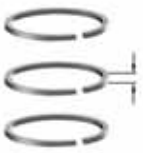
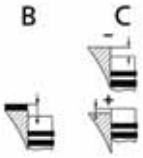
		Type		B C		
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

100,610

0.350 D 1952 6 Cyl **5760cc** **76kW** (104ps)

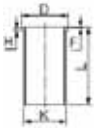
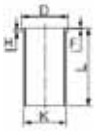
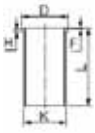
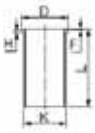
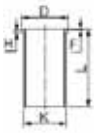
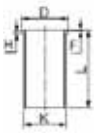
	**11-01385-000** CH 81,900 VD1 2,400 B- 24,800 BØ 58,600 TL 132,700 **33,03x87,90**	AP	**91-09385-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,335 P 5 6,335 P		Ø 100,610	**31-03385-000**
Daf ve Leyland ile Ortak Motor						
	K=105,67 L=239,00 H=12,72 D=115,21	DF			**51-35383-000**	**71-07385-000**
	K=105,70 L=239,00 H=12,70 D=115,20	DS			**51-65379-000**	
	K=106,20 L=239,00 H=12,70 D=115,20	DS +0,50			**51-65379-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

107,210

0400 / 401D — D — 4 Cyl — **6540cc** **kW** (ps)

	11-01560-000 CH 82,135 VD1 2,150 B- 19,250 BØ 71,400 TL 145,600 **41,27x88,70**	AP	**91-09560-000** 1 3,175 CR 2 2,385 P 3 4,763 P		Ø 107,210	**31-03560-000**
	K=111,35 L=239,50	DF			**51-35560-000**	**71-07560-000**
	K=111,28 L=240,00 H+F=4,50+1,00 D=112,75	DF			**51-35562-000**	**71-07064-000**
	K=111,78 L=240,00 H+F=5,00+1,00 D=113,30	DF +0,50			**51-35562-050**	
	K=112,55 L=240,00 H+F=6,00+1,00 D=114,05	DF +1,00			**51-35562-100**	
	K=111,36 L=240,00 H+F=4,50+0,80 D=113,05	DS			**51-65561-000**	
	K=111,80 L=240,00 H+F=4,50+0,80 D=113,50	DS +0,50			**51-65561-050**	
	K=112,35 L=240,00 H+F=4,50+0,80 D=114,00	DS +1,00			**51-65561-100**	

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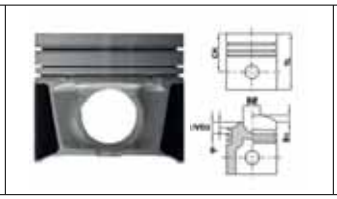
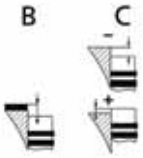
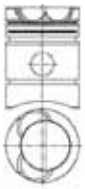
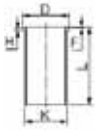
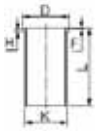
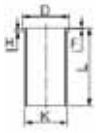
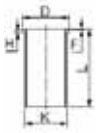
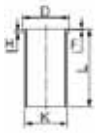
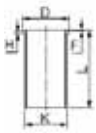
		Type				

107,210

0.401 D 1961 6 Cyl **6540cc**

	**11-01561-000** CH 82,100 VD1 2,400 B- 19,500 BØ 71,000 TL 145,500 **33,78x92,50**	AP	**91-09561-000** 1 3,430 2 3,430 3 6,335 4 6,335		Ø 107,210	**31-03561-000**
	K=111,35 L=239,50	DF			**51-35560-000**	**71-07561-000**
	K=111,28 L=240,00 H+F=4,50+1,00 D=112,75	DF			**51-35562-000**	**71-07006-000**
	K=111,78 L=240,00 H+F=5,00+1,00 D=113,30	DF +0,50			**51-35562-050**	
	K=112,55 L=240,00 H+F=6,00+1,00 D=114,05	DF +1,00			**51-35562-100**	
	K=111,36 L=240,00 H+F=4,50+0,80 D=113,05	DS			**51-65561-000**	
	K=111,80 L=240,00 H+F=4,50+0,80 D=113,50	DS +0,50			**51-65561-050**	
	K=112,35 L=240,00 H+F=4,50+0,80 D=114,00	DS +1,00			**51-65561-100**	

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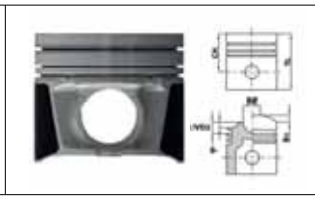
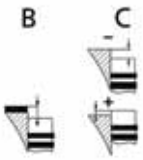
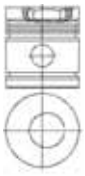
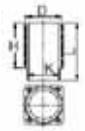
		Type		B C		
						

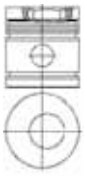
88,900

SR1			D			1 Cyl	**582cc**	**kW** (ps)
SR2			D			2 Cyl	**1102cc**	**kW** (ps)
SR3			D			3 Cyl	**1655cc**	**kW** (ps)
SR4			D	1961	1975	4 Cyl	**cc**	**kW** (ps)
	11-01252-000 CH 65,150 B- 17,220 BØ 35,000 TL 103,180 **29,37x76,00**		**91-09252-000** 1 3,200 CR 2 2,381 P 3 2,381 P 4 3,968 CR 5 3,968 P				Ø 88,900 Ø 89,400 Ø 89,650 Ø 89,900 Ø 90,400	**31-03252-000** **31-03252-020** **31-03252-030** **31-03252-040** **31-03252-060**

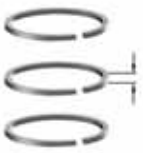
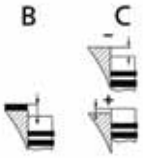
95,250

ST1 / TS1			D			1 Cyl	**630cc**	
ST2 / TS2			D			2 Cyl	**1270cc**	
ST3 / TS3			D			3 Cyl	**1900cc**	
	**11-01582-000** CH 65,150 B- 16,000 BØ 45,000 TL 103,180 **33,34x79,20**		**91-09582-000** 1 3,160 CR 2 2,385 P 3 2,385 P 4 4,747 CR 5 4,747 P				Ø 95,250 Ø 95,750 Ø 96,000 Ø 96,250	**31-03582-000** **31-03582-020** **31-03582-030** **31-03582-040**
	K=104,70 L=185,80 H=148,83 D=114,30	AF					**51-95567-000**	**71-07582-000**

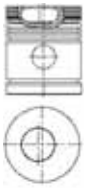
101,650

HA / HB			D			2 Cyl	**2090cc**	
	**11-01585-000** CH 73,070 B- 21,260 BØ 47,500 TL 127,000 **36,51x85,10**		**91-09585-000** 1 4,760 CR 2 3,175 P 3 3,175 P 4 4,747 CR 5 4,747 P				Ø 101,650 Ø 102,150 Ø 102,400 Ø 102,650 Ø 103,150	**31-03585-000** **31-03585-020** **31-03585-030** **31-03585-040** **31-03585-060**

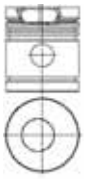
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

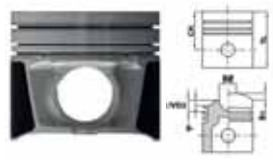
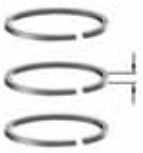
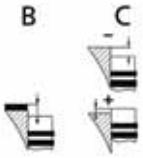
108,000

HR2			D 1967	2 Cyl	**2090cc**	
HR3			D 1967	3 Cyl	**3140cc**	
	**11-01253-000** CH 73,076 B- 21,720 BØ 51,000 TL 127,000 **39,69x88,72**		**91-09253-000** 1 3,969 CrP 2 3,175 P 3 3,175 P 4 4,762 CR 5 4,762 P		Ø 108,000 Ø 108,500 Ø 108,750 Ø 109,000 Ø 109,500	**31-03253-000** **31-03253-020** **31-03253-030** **31-03253-040** **31-03253-060**

108,000

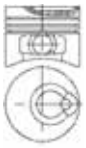
HR2			D 1967	2 Cyl	**2090cc**	**21kW**	(30ps)
HR3			D 1967	3 Cyl	**3140cc**	**32kW**	(45ps)
	**11-01255-000** CH 73,076 B- 21,720 BØ 51,000 TL 127,000 **39,69x88,72**	AP	**91-09253-000** 1 3,969 CrP 2 3,175 P 3 3,175 P 4 4,762 CR 5 4,762 P		Ø 108,000 Ø 108,500 Ø 109,000 Ø 109,500	**31-03255-000** **31-03255-020** **31-03255-040** **31-03255-060**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

72,000

Water Pump Engine			D	1997	1999	4 Cyl	**1200cc**	**95kW**	(129ps)

	**11-01241-000** CH 37,000 B- 4,100 TL 58,030 **18,00x51,00**	**91-09241-000** 1 2,000 CR 2 2,000 P 3 3,000 CR		Ø 72,000 Ø 72,500	**31-03241-000** **31-03241-050**

75,000

Water Pump Engine			D			4 Cyl	**cc**	**kW**	(ps)

	11-01243-000 CH 35,400 B- 4,200 TL 56,500 **20,00x55,00**	**91-09243-000** 1 2,000 CR 2 2,000 P 3 3,000 CR		Ø 75,000 Ø 75,500	**31-03243-000** **31-03243-050**

85,000

LDA450			D			1 Cyl			

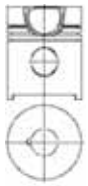
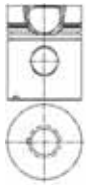
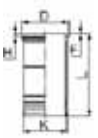
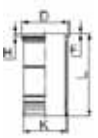
	11-01587-000 CH 52,000 B- 14,500 BØ 42,600 TL 90,000 **23,00x63,10**	**91-09587-000** 1 2,000 CrP 2 2,000 P 3 2,000 P 4 4,000 P		Ø 85,000 Ø 85,500 Ø 86,000	**31-03587-000** **31-03587-050** **31-03587-100**

85,000

LDA450			D			1 Cyl	**510cc**	**8kW**	(11ps)
LDA451			D			1 Cyl	**510cc**	**8kW**	(11ps)

	11-01589-000 CH 47,000 B- 16,600 BØ 43,000 TL 85,000 **23,00x63,10**	**91-09587-000** 1 2,000 CrP 2 2,000 P 3 2,000 P 4 4,000 P		Ø 85,000 Ø 85,500 Ø 86,000	**31-03589-000** **31-03589-050** **31-03589-100**

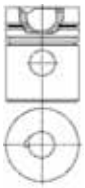
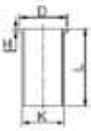
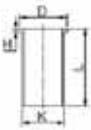
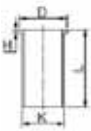
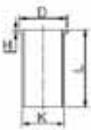
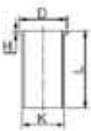
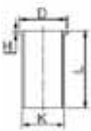
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
102,000						
720.08			D 1973 1977 4 Cyl **3596cc** **66kW** (90ps)			
	**11-01942-000** CH 75,580 B- 37,950 BØ 37,700 TL 120,600 **36,00x86,00** Man, Renault Trucks (RVI) ve Saviem ile Ortak Motor	AP	**91-09942-000** 1 3,000 MoP 2 2,500 P 3 5,000 CrP		Ø 102,000	**31-03942-000**
	K=114,00 L=234,50 H+F=8,00+0,80 D=120,90	WF			**51-05942-000**	**71-07942-000**
	K=114,00 L=218,00 H+F=8,00+0,70 D=120,70	WF-PH			**51-05948-000**	**71-07076-000**
	K=114,00 L=220,50 H+F=8,00+0,70 D=120,70	WF-PH			**51-05949-000**	**71-07944-000**
102,000						
797			D 1971 1981 6 Cyl **5496cc** **89-100kW** (121-136ps)			
	**11-01943-000** CH 77,820 B- 38,200 BØ 38,400 TL 123,820 **36,00x86,00** Man, Renault, Renault Trucks (RVI) ve Saviem ile Ortak Motor	AP	**91-09942-000** 1 3,000 MoP 2 2,500 P 3 5,000 CrP		Ø 102,000	**31-03943-000**
	K=114,00 L=235,50 H+F=8,00+0,80 D=121,00	WF			**51-05943-000**	**71-07943-000**
	K=114,00 L=234,00 H+F=8,00+0,80 D=122,50	WF			**51-05944-000**	**71-07325-000**

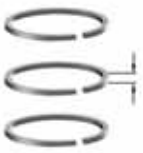
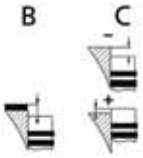
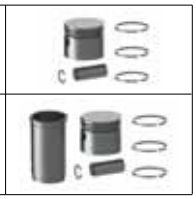
		Type		B C		

108,000

D 0846 HM 2	D	1969	1974	6 Cyl	**7252cc**	**118kW**	(160ps)
D 0846 HMN 2	D	1969	1977	6 Cyl	**7252cc**	**118kW**	(160ps)

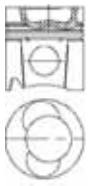
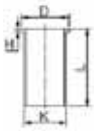
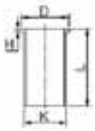
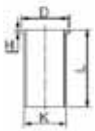
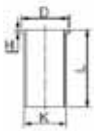
 **11-01591-000** CH 89,000 B- 40,000 BØ 43,300 TL 145,500 **42,00x90,00** Man ve Saviem ile Ortak Motor	AP	**91-09591-000** 1 2,500 CrP 2 2,500 P 3 5,000 CrP	+0,16/+0,46	Ø 108,000	**31-03591-000**
 K=112,98 L=254,00 H=5,05 D=117,85	DF			**51-35591-000**	**71-07591-000**
 K=113,48 L=254,00 H=5,05 D=117,85	DF +0,50			**51-35591-050**	
 K=113,98 L=254,00 H=5,05 D=117,85	DF +1,00			**51-35591-100**	
 K=113,06 L=254,00 H=5,05 D=117,85	DS			**51-65580-000**	
 K=113,50 L=254,00 H=5,05 D=117,85	DS +0,50			**51-65580-050**	
 K=114,00 L=254,00 H=6,00 D=118,85	DS +1,00			**51-65580-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B	C		
							

108,000

D0824 Euro1 LF01 / LF03-LF10 / LFL01 / LFL05 / LOH01-LOH03	D	1969		4 Cyl	**4580cc**	**114kW**	(155ps)
D0826 3 Euro 2 LUH08	D	1992		6 Cyl	**6871cc**	**162kW**	(220ps)
D0826 Euro 1 LF / LFL / LOH / LUH Series	D	1989		6 Cyl	**6871cc**	**114-198kW**	(155-270ps)
D0826 FG001 / FG002	D	1988	1994	6 Cyl	**6871cc**	**169kW**	(230ps)
D0826 LE10 / LOH12 / LUH213	D	1990		6 Cyl	**6871cc**	**140-165kW**	(190-224ps)
D0826 LF01-LF03 / LF05 / LFG02-LFG04 / LOH04-LOH05 / LUH04	D	1988		6 Cyl	**6871cc**	**140-169kW**	(190-230ps)
D0826 LF06	D	1988	1996	6 Cyl	**6871cc**	**169kW**	(230ps)
D0826FG001	D	1988	1994	6 Cyl	**6871cc**	**169kW**	(230ps)
D0826LF08 Euro1	D	1994	1996	6 Cyl	**6871cc**	**169kW**	(230ps)

	**11-01592-000** CH 73,000 VD1 1,700 B- 21,250 BØ 63,000 TL 113,000 **40,00x90,00**	AP	**91-09592-000** 1 3,000 CR 2 2,500 3 4,000 CR	+0,10/+0,40	Ø 108,000 Ø 108,500	**31-03592-000** **31-03592-050**
Man ve Steyr ile Ortak Motor						
	K=111,47 L=217,00 H=4,05 D=116,00	DF			**51-35592-000**	**71-07592-000**
	K=111,72 L=217,00 H=4,05 D=116,00	DF +0,25			**51-35592-025**	
	K=111,97 L=217,00 H=4,05 D=116,00	DF +0,50			**51-35592-050**	
	K=112,47 L=217,00 H=5,00 D=117,00	DF +1,00			**51-35592-100**	
	K=111,54 L=217,00 H=4,05 D=116,00	DS			**51-65596-000**	
	K=112,04 L=217,00 H=4,05 D=116,00	DS +0,50			**51-65596-050**	

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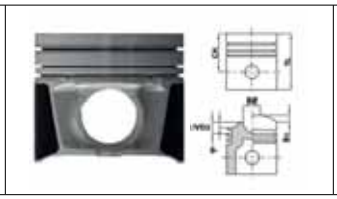
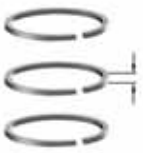
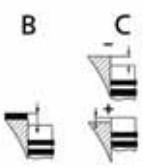
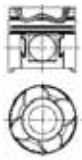
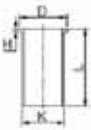
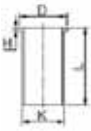
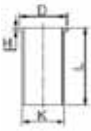
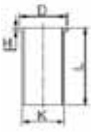
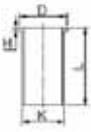
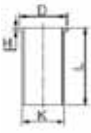
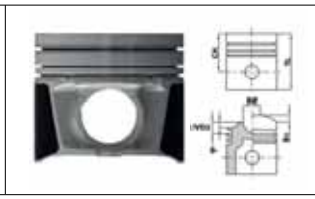
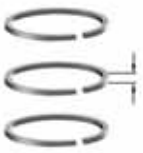
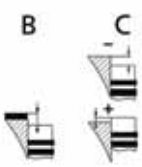
		Type				

108,000

D 0834 LFL 40-42 / LOH 50-51 Euro 3	D	2005	4 Cyl	**4580cc**	**103-151kW**	(140-206ps)
D 0836 LOH 40-41 / LOH 50 Euro 3	D	2002	6 Cyl	**6871cc**	**176-206kW**	(239-280ps)

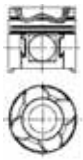
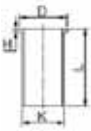
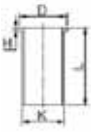
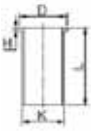
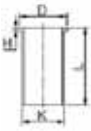
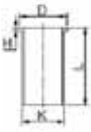
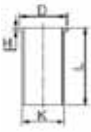
	**11-02661-000** CH 63,900 VD1 1,700 B- 17,390 BØ 65,400 TL 103,000 **42,00x86,00**	AP	**91-09761-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 108,000 Ø 108,500	**31-04661-000** **31-04661-050**
	K=111,47 L=217,00 H=4,05 D=116,00	DF			**51-35592-000**	**71-07607-000**
	K=111,72 L=217,00 H=4,05 D=116,00	DF +0,25			**51-35592-025**	
	K=111,97 L=217,00 H=4,05 D=116,00	DF +0,50			**51-35592-050**	
	K=112,47 L=217,00 H=5,00 D=117,00	DF +1,00			**51-35592-100**	
	K=111,54 L=217,00 H=4,05 D=116,00	DS			**51-65596-000**	
	K=112,04 L=217,00 H=4,05 D=116,00	DS +0,50			**51-65596-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

108,000

D 0834 LFL 40-42 Euro 3	D	2005	4 Cyl	**4580cc**	**103-151kW**	(140-205ps)
D 0836 LF 43-44 / LFL 40-41 / LFL 44 / LUH 40-41 / LUH 50 Euro 3	D	2002	6 Cyl	**6871cc**	**176-240kW**	(240-326ps)
D 0836 LOH 40-41 / LOH 50 Euro 3	D		6 Cyl	**6871cc**	**176-206kW**	(239-280ps)

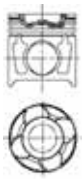
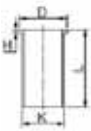
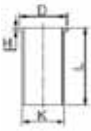
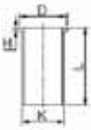
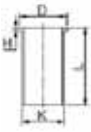
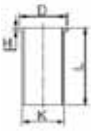
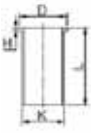
	**11-02662-000** CH 63,900 VD1 1,700 B- 17,390 BØ 65,400 TL 103,000 **42,00x86,00**	AP YS	**91-09761-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 108,000 Ø 108,500	**31-04662-000** **31-04662-050**
	K=111,47 L=217,00 H=4,05 D=116,00	DF			**51-35592-000**	**71-07608-000**
	K=111,72 L=217,00 H=4,05 D=116,00	DF +0,25			**51-35592-025**	
	K=111,97 L=217,00 H=4,05 D=116,00	DF +0,50			**51-35592-050**	
	K=112,47 L=217,00 H=5,00 D=117,00	DF +1,00			**51-35592-100**	
	K=111,54 L=217,00 H=4,05 D=116,00	DS			**51-65596-000**	
	K=112,04 L=217,00 H=4,05 D=116,00	DS +0,50			**51-65596-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

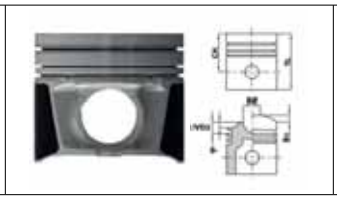
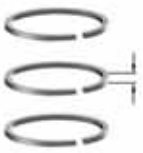
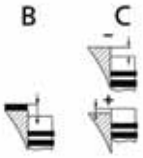
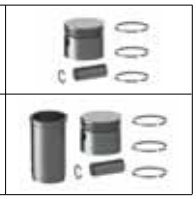
		Type		B C		

108,000

D 0834 LFL 50-55 / 57 Euro 4	D	2006	4 Cyl	**4580cc**	**110-151kW**	(150-206ps)
D 0836 LFG 50 Euro 3	D		6 Cyl	**6871cc**	**kW**	(ps)
D 0836 LFL 50-55 / LOH 51-58 / LOH 62-63 Euro 4	D	2005	6 Cyl	**6871cc**	**176-240kW**	(240-326ps)
D 0836 LOH 60-61	D		6 Cyl	**6871cc**	**184-213kW**	(250-290ps)
D 0836 LOH 64-66 Euro 5	D		6 Cyl	**6871cc**	**184-213kW**	(250-290ps)

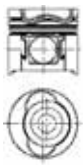
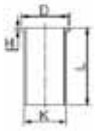
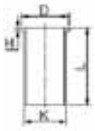
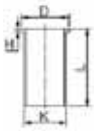
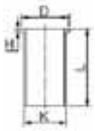
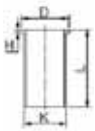
	**11-02663-000** CH 63,900 VD1 1,700 B- 17,390 BØ 65,000 TL 103,000 **44,00x88,00**	AP YS	**91-09761-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 108,000 Ø 108,500	**31-04663-000** **31-04663-050**
	K=111,47 L=217,00 H=4,05 D=116,00	DF			**51-35592-000**	**71-07609-000**
	K=111,72 L=217,00 H=4,05 D=116,00	DF +0,25			**51-35592-025**	
	K=111,97 L=217,00 H=4,05 D=116,00	DF +0,50			**51-35592-050**	
	K=112,47 L=217,00 H=5,00 D=117,00	DF +1,00			**51-35592-100**	
	K=111,54 L=217,00 H=4,05 D=116,00	DS			**51-65596-000**	
	K=112,04 L=217,00 H=4,05 D=116,00	DS +0,50			**51-65596-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

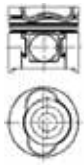
108,000

D 0834 LFL 01-04 / LFL 10-11 / LOH 01-03 Euro 3	D	1999	4 Cyl	**4580cc**	**103-125kW** (140-170ps)
D 0836 LF 01-02 / LFL 01 / LFL 04 / LOH 01 Euro 2	D	1998	6 Cyl	**6871cc**	**196-206kW** (266-280ps)
D 0836 LF 03-06 / LF 10 / LF 18 / LFL 02-03 / LFL 05-06 / LOH 02-03 / LUH 01-02 Euro 3	D	1999	6 Cyl	**6871cc**	**162-206kW** (220-280ps)
D 0836 LF 40-42 Euro 3	D		6 Cyl	**6871cc**	**173-228kW** (235-310ps)

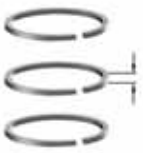
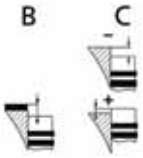
	**11-02664-000** CH 63,900 VD1 1,700 B- 16,150 BØ 70,500 TL 103,000 **42,00x86,00**	AP	**91-09761-000** 1 3,000 CK 2 2,500 P 3 3,000 CR	+0,09/+0,39	Ø 108,000	**31-04664-000**
	K=111,47 L=217,00 H=4,05 D=116,00	DF			**51-35592-000**	**71-07610-000**
	K=111,72 L=217,00 H=4,05 D=116,00	DF +0,25			**51-35592-025**	
	K=111,97 L=217,00 H=4,05 D=116,00	DF +0,50			**51-35592-050**	
	K=112,47 L=217,00 H=5,00 D=117,00	DF +1,00			**51-35592-100**	
	K=111,54 L=217,00 H=4,05 D=116,00	DS			**51-65596-000**	
	K=112,04 L=217,00 H=4,05 D=116,00	DS +0,50			**51-65596-050**	

108,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston	Cyl	**cc**	**kW**	(ps)

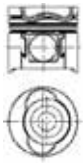
	**11-02664-001** CH 63,700 VD1 1,700 B- 16,150 BØ 70,500 TL 102,800 **42,00x86,00**	AP	**91-09761-000** 1 3,000 CK 2 2,500 P 3 3,000 CR	+0,09/+0,39	Ø 108,000	**31-04664-001**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

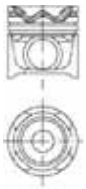
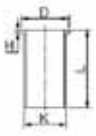
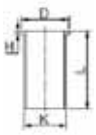
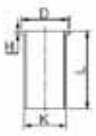
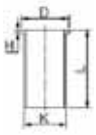
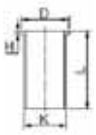
		Type		B C		
						

108,000

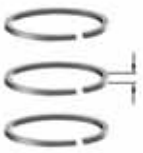
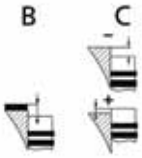
Strok Boyu 0,40mm Kisa Piston / Stroke Lenght 0,40mm Shorter Piston

	**11-02664-002** CH 63,500 VD1 1,700 B- 16,150 BØ 70,500 TL 102,600 **42,00x86,00**	AP	**91-09761-000** 1 3,000 CK 2 2,500 P 3 3,000 CR	+0,09/+0,39	Ø 108,000	**31-04664-002**

108,000

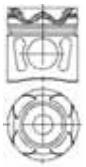
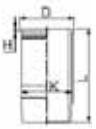
D 0834 LF 01-02-06 / LFL 68 / LFL 70 Euro5 / LFL71 Euro5		D				
D 0836 LFL 66 / 67 / 68 / 69 / 70 / 71 Euro 5		D				
D 0836 LOH 51-58 Euro 4		D				
D 0836 LOH 60 / 62 Euro4		D				
D 0836 LOH 66-68 / 70-73		D				
	**11-02666-000** CH 63,900 VD1 1,700 B- 18,470 BØ 65,000 TL 103,000 **44,00x88,00**	AP	**91-09761-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 108,000	**31-04666-000**
	K=111,47 L=217,00 H=4,05 D=116,00	DF			**51-35592-000**	**71-07612-000**
	K=111,72 L=217,00 H=4,05 D=116,00	DF +0,25			**51-35592-025**	
	K=111,97 L=217,00 H=4,05 D=116,00	DF +0,50			**51-35592-050**	
	K=112,47 L=217,00 H=5,00 D=117,00	DF +1,00			**51-35592-100**	
	K=111,54 L=217,00 H=4,05 D=116,00	DS			**51-65596-000**	
	K=112,04 L=217,00 H=4,05 D=116,00	DS +0,50			**51-65596-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

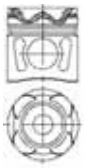
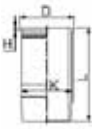
120,000

D2066 LF01-LF04 / LF06 / LF07 / LOH10-LOH12 Euro3	D	2004	6 Cyl	**10520cc**	
D2066 LF11-LF20 / LF23 / LF24 / LF29-LF39 / LOH01-LOH06 Euro4	D	2004	6 Cyl	**10520cc**	
D2066 LF21 / LF22 / LF25-LF28 / LF40-LF53 / LF57 / LF58 Euro5	D	2007	6 Cyl	**10520cc**	

	**11-01566-000** CH 76,800 VD1 2,000 B- 20,000 BØ 84,000 TL 123,300 **52,00x96,00**	AP YS	**91-09573-000** 1 3,500 CkP 2 3,000 CrP 3 4,000 CrP		Ø 120,000	**31-03566-000**
	K=139,50 L=260,00 H=8,07 D=150,00	WF-PH		O-Ring/Seal 55-50505-000 2 FPM 139,40x4,70	**51-05605-000** 52-05605-000	**71-07566-000** 72-07566-000

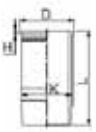
120,000

D2066 LF01-LF04 / LF06 / LF07 / LOH10 Euro3	D	2004	6 Cyl	**10520cc**	**228-316kW**	(310-430ps)
D2066 LF11-LF14 / LF23 / LF24 / LF31-LF33 / LF35 / LF37 / LOH01-LOH04 / LUH11-LUH15 Euro4	D	2004	6 Cyl	**10520cc**	**190-324kW**	(270-440ps)
D2066 LF21 / LF58 / LUH48 Euro5	D	2004	6 Cyl	**10520cc**	**265-436kW**	(360-436ps)
D2066 LUH41 / LUH46 / LUH47 EEV	D	2007	6 Cyl	**10520cc**	**206-235kW**	(280-320ps)

	**11-01567-000** CH 76,800 VD1 2,000 B- 19,700 BØ 67,000 TL 123,300 **52,00x96,00**	AP YS	**91-09573-000** 1 3,500 CkP 2 3,000 CrP 3 4,000 CrP		Ø 120,000	**31-03567-000**
	K=139,50 L=260,00 H=8,07 D=150,00	WF-PH		O-Ring/Seal 55-50505-000 2 FPM 139,40x4,70	**51-05605-000** 52-05605-000	**71-07567-000** 72-07567-000

120,000

D2066 LF 25 Euro5	D	2007	6 Cyl	**10518cc**	**324kW**	(440ps)

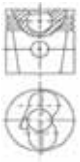
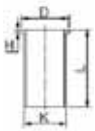
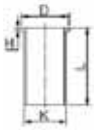
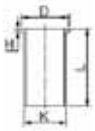
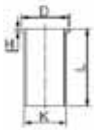
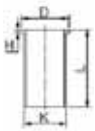
	11-02667-000 CH 76,800 VD1 1,600 B- 19,700 BØ 70,000 TL 123,300 **52,00x96,00**	AP YS	**91-09573-000** 1 3,500 CkP 2 3,000 CrP 3 4,000 CrP		Ø 120,000	**31-04667-000**
	K=139,50 L=260,00 H=8,07 D=150,00	WF-PH		O-Ring/Seal 55-50505-000 2 FPM 139,40x4,70	**51-05605-000** 52-05605-000	**71-07606-000** 72-07606-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

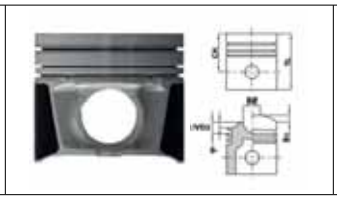
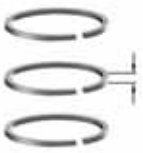
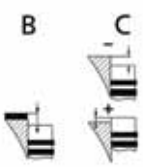
		Type		B C		

121,000

D2156 MT2	D	1966	1971	6 Cyl	**10344cc**	**188kW**	(256ps)
D2156 MTN1 / MTN5 / MTN6 / MTN8	D	1966	1978	6 Cyl	**10344cc**	**184-188kW**	(250-256ps)
D2156 MTNS	D	1974	1978	6 Cyl	**10344cc**	**210kW**	(285ps)
D2156 MTU	D	1966	1971	6 Cyl	**10344cc**	**188kW**	(256ps)
D2156 MTX	D	1966	1973	6 Cyl	**10344cc**	**188kW**	(256ps)

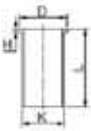
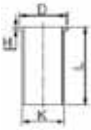
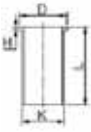
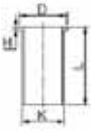
 **11-01573-000** CH 94,000 VD1 2,400 B- 48,350 BØ 47,200 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP HA	**91-09593-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP	+0,05/+0,35	Ø 121,000	**31-03573-000**
 K=125,98 L=287,00 H=8,00 D=131,80	DF			**51-35587-000**	**71-07573-000**
 K=126,48 L=287,00 H=8,00 D=131,80	DF +0,50			**51-35587-050**	
 K=126,98 L=287,00 H=8,00 D=131,80	DF +1,00			**51-35587-100**	
 K=126,05 L=287,00 H=8,05 D=132,00	DS			**51-65593-000**	
 K=126,55 L=287,00 H=8,05 D=132,00	DS +0,50			**51-65593-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

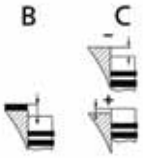
		Type				

121,000

D10TC Euro2 D 1997 6 Cyl **10350cc 150kW** (204ps)

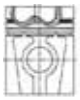
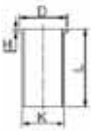
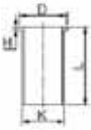
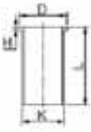
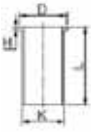
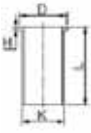
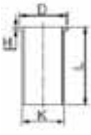
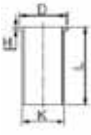
	11-01580-000 CH 94,000 B- 24,900 BØ 69,000 TL 155,000 **45,00x102,00**	AP	**91-09583-000** 1 3,500 CR 2 2,000 CR 3 3,500 CR		Ø 121,000	**31-03580-000**
	K=125,98 L=287,00 H=8,06 D=131,80	DF			**51-35588-000**	**71-07580-000**
	K=126,08 L=287,00 H=8,06 D=131,80	DF +0,10			**51-35588-010**	
	K=126,48 L=287,00 H=8,06 D=131,80	DF +0,50			**51-35588-050**	
	K=126,99 L=287,00 H=8,26 D=131,80	DF +1,00			**51-35588-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

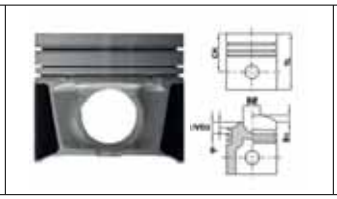
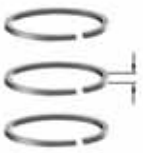
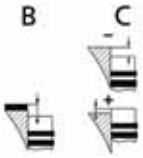
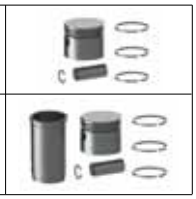
		Type		B C		
						

121,000

D10UT150 Euro1 D 1995 6 Cyl **10350cc 150kW** (204ps)

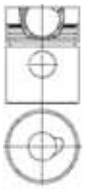
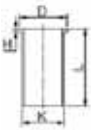
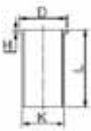
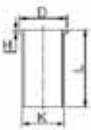
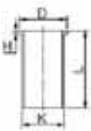
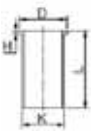
	**11-01583-000** CH 94,000 VD1 2,400 B- 28,000 BØ 73,400 TL 155,000 **45,00x102,00**	AP	**91-09583-000** 1 3,500 CR 2 2,000 CR 3 3,500 CR		Ø 121,000	**31-03583-000**
	K=125,98 L=287,00 H=8,00 D=131,80	DF			**51-35587-000**	**71-07063-000**
	K=126,48 L=287,00 H=8,00 D=131,80	DF +0,50			**51-35587-050**	
	K=126,98 L=287,00 H=8,00 D=131,80	DF +1,00			**51-35587-100**	
	K=125,98 L=287,00 H=8,06 D=131,80	DF			**51-35588-000**	**71-07583-000**
	K=126,08 L=287,00 H=8,06 D=131,80	DF +0,10			**51-35588-010**	
	K=126,48 L=287,00 H=8,06 D=131,80	DF +0,50			**51-35588-050**	
	K=126,99 L=287,00 H=8,26 D=131,80	DF +1,00			**51-35588-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B	C		
							

121,000

D2156 6U	D	1969		6 Cyl	**10344cc**	**141kW**	(192ps)
D2156 HM2 / HM3 / HM9	D	1966	1975	6 Cyl	**10344cc**	**141-169kW**	(192-230ps)
D2156 HMN3 / HMN8 / HMN9	D	1966	1975	6 Cyl	**10344cc**	**141-159kW**	(192-216ps)
D2156 HNY / MGN / MNY	D	1966	1975	6 Cyl	**10344cc**	**141-169kW**	(192-230ps)
D2156 MY	D	1971	1973	6 Cyl	**10344cc**	**141-169kW**	(192-230ps)
D2156 MYN	D	1971	1973	6 Cyl	**10344cc**	**141-169kW**	(192-230ps)

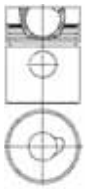
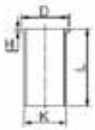
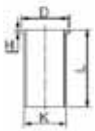
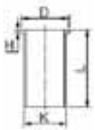
	**11-01593-000** CH 94,000 B- 48,600 BØ 47,100 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP	**91-09593-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP		Ø 121,000	**31-03593-000**
	K=125,98 L=287,00 H=8,00 D=131,80	DF			**51-35587-000**	**71-07593-000**
	K=126,48 L=287,00 H=8,00 D=131,80	DF +0,50			**51-35587-050**	
	K=126,98 L=287,00 H=8,00 D=131,80	DF +1,00			**51-35587-100**	
	K=126,05 L=287,00 H=8,05 D=132,00	DS			**51-65593-000**	
	K=126,55 L=287,00 H=8,05 D=132,00	DS +0,50			**51-65593-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

121,000

D2156 6U	D	1969		6 Cyl	**10344cc**	**141kW** (192ps)
D2156 HM2 / HM3 / HM9	D	1966	1975	6 Cyl	**10344cc**	**141-169kW** (192-230ps)
D2156 HMN3 / HMN8 / HMN9	D	1966	1975	6 Cyl	**10344cc**	**141-159kW** (189-216ps)
D2156 HNY / MGN / MNY	D	1966	1975	6 Cyl	**10344cc**	**141-169kW** (192-230ps)
D2156 MY	D	1971	1973	6 Cyl	**10344cc**	**141-169kW** (192-230ps)
D2156 MYN	D	1971	1973	6 Cyl	**10344cc**	**141-169kW** (192-230ps)

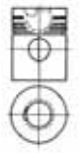
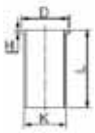
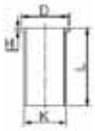
 **11-01600-000** CH 94,000 B- 48,600 BØ 47,000 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP HA	**91-09593-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP		Ø 121,000	**31-03600-000**
 K=125,98 L=287,00 H=8,00 D=131,80	DF			**51-35587-000**	**71-07593-000**
 K=126,48 L=287,00 H=8,00 D=131,80	DF +0,50			**51-35587-050**	
 K=126,98 L=287,00 H=8,00 D=131,80	DF +1,00			**51-35587-100**	
K=126,05 L=287,00 H=8,05 D=132,00	DS			**51-65593-000**	
K=126,55 L=287,00 H=8,05 D=132,00	DS +0,50			**51-65593-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

123,000

D2356 HM6DK	D	1968	1974	6 Cyl	**10690cc**	**173kW** (235ps)
D2356 HM6U / HM9 / HMHU-063	D	1968	1974	6 Cyl	**10690cc**	**169kW** (230ps)
D2356 HMN2 / HMN5 / HMN9	D	1967	1974	6 Cyl	**10690cc**	**169-173kW** (230-235ps)
D2356 M9	D	1968	1974	6 Cyl	**10690cc**	**169kW** (230ps)

	**11-01572-000** CH 94,000 B- 50,500 BØ 48,500 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP HA	**91-09594-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP	+0,05/+0,35	Ø 123,000	**31-03572-000**
	K=125,98 L=287,00 H=8,00 D=132,00	DF			**51-35594-000**	**71-07572-000**
	K=126,48 L=287,00 H=8,00 D=132,00	DF +0,50			**51-35594-050**	

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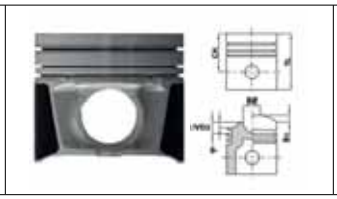
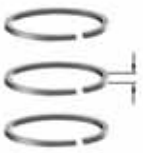
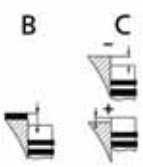
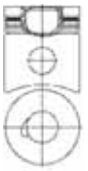
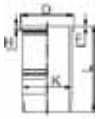
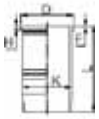
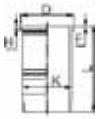
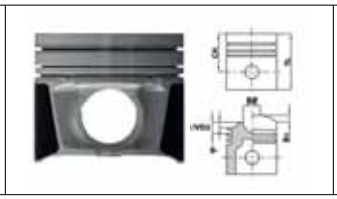
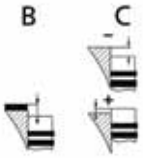
		Type				

125,000

D2565 HM	D	1976	1985	5 Cyl	**9510cc**	**92-141kW**	(125-192ps)
D2565 M / MF / MFR / MH / MR / MUE / MUH / MUL	D	1975	1990	5 Cyl	**9510cc**	**124-141kW**	(168-192ps)
D2566 HM / MFO / MFR / MH / MHO / MUE / MXF	D	1976		6 Cyl	**11407cc**	**177kW**	(241ps)
D2566 M	D	1976	1993	6 Cyl	**11407cc**	**125-177kW**	(170-240ps)
D2566 ME	D	1976	1993	6 Cyl	**11407cc**	**136-177kW**	(185-240ps)
D2566 MF	D	1983	1989	6 Cyl	**11407cc**	**162-177kW**	(220-240ps)
D2566 MUH	D	1975	1986	6 Cyl	**11407cc**	**129-177kW**	(175-240ps)
D2566 MUL	D	1979	1980	6 Cyl	**11407cc**	**130kW**	(177ps)
D2566 MUM	D	1976	1988	6 Cyl	**11407cc**	**147-177kW**	(200-240ps)

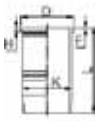
	**11-01595-000** CH 89,870 B- 44,000 BØ 49,600 TL 141,870 **46,00x105,00**	AP	**91-09595-000** 1 3,000 CR 2 3,000 P 3 5,000 CR		Ø 125,000	**31-03595-000**
	K=139,95 L=270,00 H+F=10,05+0,80 D=151,95	WF-PH			**51-05595-000**	**71-07595-000**
	K=139,95 L=270,00 H+F=10,25+0,80 D=151,95	WF-PH +0,20		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-020** 52-05595-020	
	K=139,95 L=270,00 H+F=10,55+0,80 D=151,95	WF-PH +0,50		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-050** 52-05595-050	
	K=139,95 L=270,00 H+F=10,05+0,80 D=151,95	WF-CR		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05603-000** 52-05603-000	**71-07603-000** 72-07603-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

125,000

D2565 MK / MKUL / MT	D	1976		5 Cyl	**9510cc**	**169kW**	(230ps)
D2566 KUL / MTUM	D	1969		6 Cyl	**11407cc**	**162-235kW**	(220-320ps)
D2566 MFT	D	1976	1985	6 Cyl	**11407cc**	**210-250kW**	(286-340ps)
D2566 MK / MKF / MKUL / MTHO / MTUM	D	1977	1991	6 Cyl	**11407cc**	**206-235kW**	(280-320ps)
D2566 MKE	D	1976		6 Cyl	**11407cc**	**235kW**	(320ps)
D2566 MKUH	D	1980	1982	6 Cyl	**11407cc**	**177-235kW**	(240-320ps)
D2566 MLE	D	1976		6 Cyl	**11407cc**	**210-250kW**	(286-340ps)
D2566 MLUH	D	1985	1985	6 Cyl	**11407cc**	**192kW**	(261ps)
D2566 MLUM	D	1992	1993	6 Cyl	**11407cc**	**222-229kW**	(305-311ps)
D2566 MT / MTF / MTFG / MTH / MTU / MTUE	D	1976		6 Cyl	**11407cc**	**206kW**	(280ps)
D2566 MTE	D	1983	1991	6 Cyl	**11407cc**	**147-240kW**	(200-327ps)

	11-01596-000 CH 89,800 VD1 1,700 B- 43,000 BØ 52,000 TL 141,800 **46,00x105,00**	AP YS	**91-09596-000** 1 3,500 CR 2 3,000 P 3 5,000 CR		Ø 125,000	**31-03596-000**
	K=139,95 L=270,00 H+F=10,05+0,80 D=151,95	WF-PH			**51-05595-000**	**71-07596-000**
	K=139,95 L=270,00 H+F=10,25+0,80 D=151,95	WF-PH +0,20		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-020** 52-05595-020	
	K=139,95 L=270,00 H+F=10,55+0,80 D=151,95	WF-PH +0,50		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-050** 52-05595-050	

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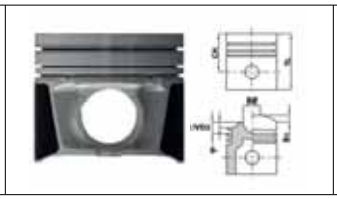
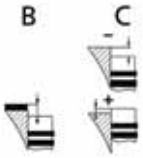
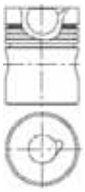
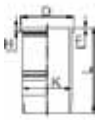
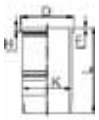
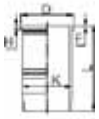
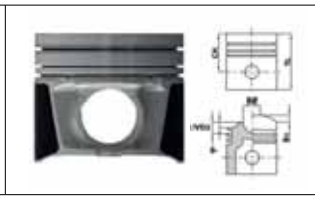
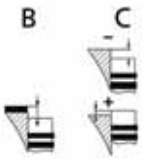
		Type		B C		
						

125,000

D2565 HM / M / MF / MFR / MH / MR / MUE / MUH / MUL	D	1975	1986	5 Cyl	**9510cc**	**92-141kW** (125-192ps)
D2566 HM / M / ME / MF / MFO / MFR / MH / MHO / MUE / MUH / MUL / MUM / MXF	D	1975		6 Cyl	**11407cc**	**125-177kW** (170-241ps)

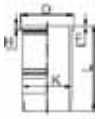
	**11-01601-000** CH 89,870 B- 44,000 BØ 49,600 TL 141,870 **46,00x105,00**	AP HA	**91-09595-000** 1 3,000 CR 2 3,000 P 3 5,000 CR	0/+0,32	Ø 125,000	**31-03601-000**
	K=139,95 L=270,00 H+F=10,05+0,80 D=151,95	WF-PH			**51-05595-000**	**71-07601-000**
	K=139,95 L=270,00 H+F=10,25+0,80 D=151,95	WF-PH +0,20		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-020** 52-05595-020	
	K=139,95 L=270,00 H+F=10,55+0,80 D=151,95	WF-PH +0,50		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-050** 52-05595-050	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

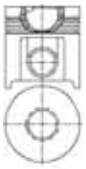
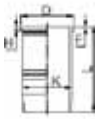
125,000

D2565 MK / MKUL / MT	D	1976		5 Cyl	**9510cc**	**169kW**	(230ps)
D2566 KUL / MKUH / MKUL / MLE / MLUH / MLUM	D	1976		6 Cyl	**11407cc**	**162-250kW**	(220-340ps)
D2566 MFT / MKE / MT / MTE / MTF / MTFG / MTH / MTHO / MTU / MTUE / MTUM	D	1976		6 Cyl	**11407cc**	**147-250kW**	(200-340ps)
D2566 MK / MKF / MTUH	D	1977	1988	6 Cyl	**11407cc**	**206-235kW**	(280-320ps)

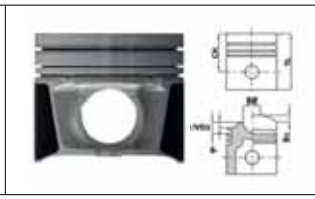
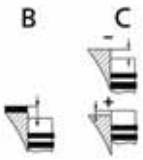
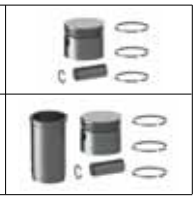
	11-01602-000 CH 89,800 VD1 1,700 B- 43,000 BØ 52,000 TL 141,800 **46,00x105,00**	AP YS HA	**91-09596-000** 1 3,500 CR 2 3,000 P 3 5,000 CR	0/+0,32	Ø 125,000	**31-03602-000**
	K=139,95 L=270,00 H+F=10,05+0,80 D=151,95	WF-PH			**51-05595-000**	**71-07605-000**
	K=139,95 L=270,00 H+F=10,25+0,80 D=151,95	WF-PH +0,20		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-020** 52-05595-020	
	K=139,95 L=270,00 H+F=10,55+0,80 D=151,95	WF-PH +0,50		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05595-050** 52-05595-050	

125,000

D 2530 ME / MF / MFR / MK / MKF / MR / MXF / MXFR	D	1972	1986	10 Cyl	**15945cc**	**156-235kW**	(212-320ps)
D 2538 M / ME / MF	D	1972	1977	8 Cyl	**12763cc**	**188kW**	(256ps)

	**11-01732-000** CH 92,300 B- 44,900 BØ 47,300 TL 137,300 **46,00x97,00**	AP	**91-09595-000** 1 3,000 CR 2 3,000 P 3 5,000 CR	0/+0,40	Ø 125,000	**31-03732-000**
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-PH		O-Ring/Seal 55-50502-000 2 FPM 138,00x2,10 2 FPM 140,00x4,00	**51-05601-000** 52-05601-000	**71-07732-000** 72-07732-000
	K=144,45 L=253,00 H+F=10,05+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05602-000** 52-05602-000	**71-07007-000** 72-07007-000

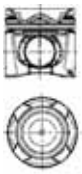
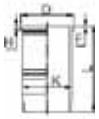
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

126,000

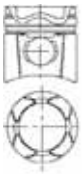
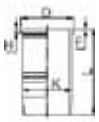
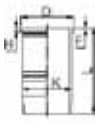
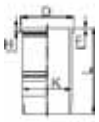
D 2676 LF 01-05 / LOH 01-04 Euro 4 — D 1995 — 6 Cyl — **12419cc** **338-353kW** (460-480ps)

D 2676 LF 06-08 / LF 10-22 / LF 25-28 / LF 31-33 Euro 5 — D 1969 — 6 Cyl — **12419cc** **353kW** (480ps)

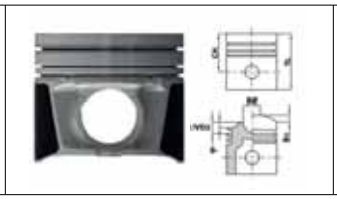
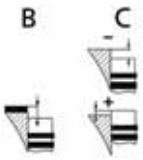
	**11-02665-000** CH 76,300 VD1 2,000 B- 19,950 BØ 95,000 TL 121,800 **52,00x103,00**	AP YS PDB	**91-09762-000** 1 4,000 CdC 2 3,000 CrP 3 4,000 CR		Ø 126,000	**31-04665-000**
	K=139,50 L=257,50 H=8,07 D=150,00	WF		O-Ring/Seal 55-50505-000 2 FPM 139,40x4,70	**51-05699-000** 52-05699-000	**71-07611-000** 72-07611-000

128,000

D2876 LF05 Euro3 — D 1999 — 2003 — 6 Cyl — **12816cc** **375kW** (510ps)

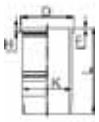
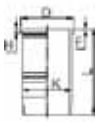
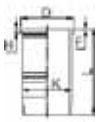
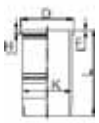
	**11-01568-000** CH 79,250 VD1 1,900 B- 21,740 BØ 85,900 TL 134,250 **50,00x107,00**	AP YS	**91-09578-000** 1 4,000 CK 2 3,000 CR 3 4,000 CK		Ø 128,000	**31-03568-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07568-000** 72-07568-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07751-000** 72-07751-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

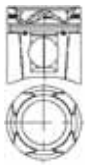
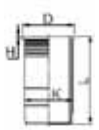
128,000

D2866 LF31 / LF32 / LF40 / LF43 Euro2 — D 1997 — 6 Cyl — **11967cc** **265-301kW** (360-410ps)

	11-01569-000 CH 89,750 VD1 1,900 B- 22,800 BØ 80,000 TL 141,750 **46,00x105,00**	AP	**91-09578-000** 1 4,000 CK 2 3,000 CR 3 4,000 CK		Ø 128,000	**31-03569-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07562-000** 72-07562-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07752-000** 72-07752-000

128,000

D2876 LF12 / LF13 / LF25 / LOH20 Euro3 — D 2000 — 6 Cyl — **12816cc** **301-390kW** (410-530ps)

	**11-01570-000** CH 79,250 VD1 1,900 B- 23,750 BØ 76,160 TL 134,250 **52,00x103,00**	AP YS	**91-09578-000** 1 4,000 CK 2 3,000 CR 3 4,000 CK		Ø 128,000	**31-03570-000**
	K=144,50 L=268,00 H=8,07 D=153,80	WF		O-Ring/Seal 55-50506-000 1 FPM 138,00x144,75x4,60 2 FPM 144,00x4,00	**51-05604-000** 52-05604-000	**71-07569-000** 72-07569-000

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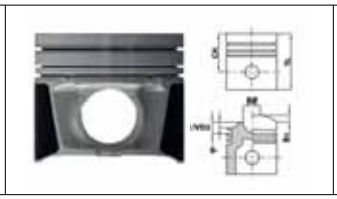
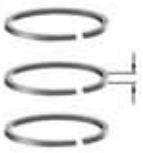
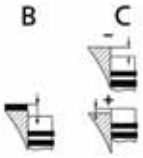
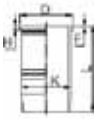
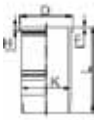
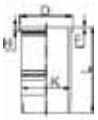
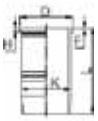
		Type				

128,000

D2866 LUH01 Euro3 D 1996 6 Cyl **11967cc 228kW** (310ps)

	11-01574-000 CH 89,200 B- 28,000 BØ 100,500 TL 141,270 **46,00x105,00**	AP	**91-09574-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 128,000	**31-03574-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07574-000** 72-07574-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07753-000** 72-07753-000

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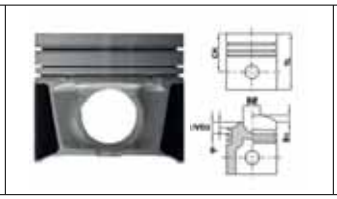
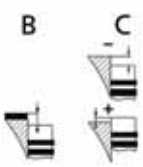
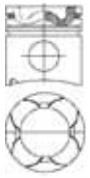
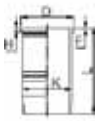
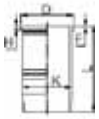
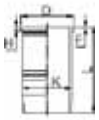
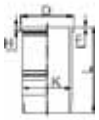
		Type				

128,000

D2876 LF02 Euro2	D	1994	6 Cyl	**12816cc**	**320-338kW**	(435-460ps)
D2876 LOH01 Euro2	D	1995	6 Cyl	**12816cc**	**338kW**	(460ps)
D2876 LUH01 / LUH02 / LUH03 Euro2	D		6 Cyl	**12816cc**	**294-338kW**	(400-460ps)

	**11-01577-000** CH 79,250 VD1 2,100 B- 23,100 BØ 81,200 TL 134,250 **50,00x107,00**	AP	**91-09578-000** 1 4,000 CK 2 3,000 CR 3 4,000 CK	+0,01/+0,33	Ø 128,000	**31-03577-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07577-000** 72-07577-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-CR		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05608-000** 52-05608-000	**71-07576-000** 72-07576-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07754-000** 72-07754-000

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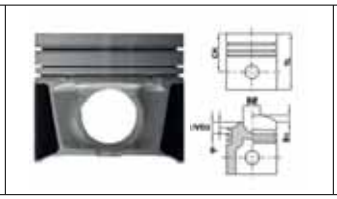
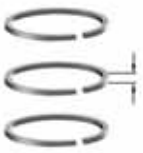
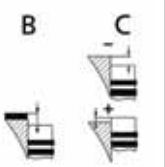
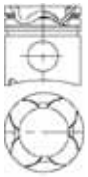
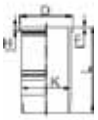
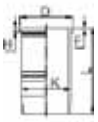
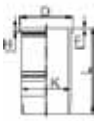
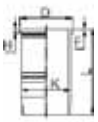
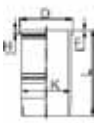
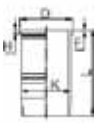
		Type				

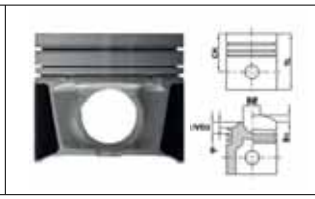
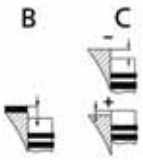
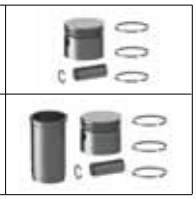
128,000

D2866 LF23-LF28 / LF37 / LOH27-LOH30 / LOH32-LOH35 / LUH23-LUH25 Euro3 — D 1994 — 6 Cyl — **11967cc** **191-301kW** (260-410ps)

D2866 LF37 Euro2 — D 1999 — 6 Cyl — **11967cc** **265kW** (360ps)

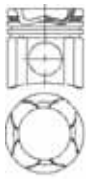
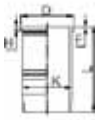
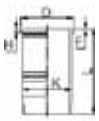
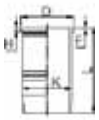
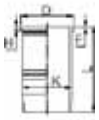
	**11-01578-000** CH 89,750 VD1 1,900 B- 22,000 BØ 80,000 TL 141,750 **46,00x105,00**	AP	**91-09578-000** 1 4,000 CK 2 3,000 CR 3 4,000 CK	+0,01/+0,33	Ø 128,000	**31-03578-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07578-000** 72-07578-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-CR		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05608-000** 52-05608-000	**71-07575-000** 72-07575-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07755-000** 72-07755-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50506-000 1 FPM 138,00x144,75x4,60 2 FPM 144,00x4,00	**51-05740-000** 52-05740-000	**71-07565-000** 72-07565-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

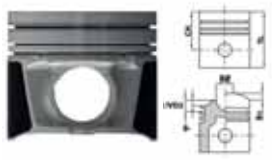
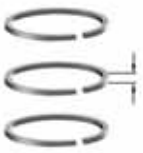
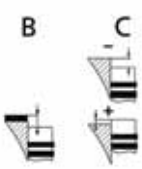
		Type		B C		
						

128,000

D2876 LF03 / LF04 / LF09 / LF10 / LF14 / LF17 / LOH02-LOH05 Euro3			D	1998		6 Cyl	**12816cc**	**301-390kW** (409-530ps)
D2876 LF06 Euro2			D	1998	2001	6 Cyl	**12816cc**	**321-338kW** (436-460ps)

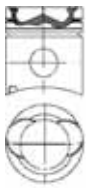
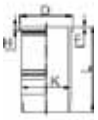
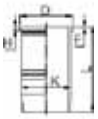
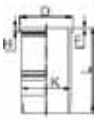
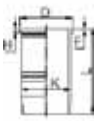
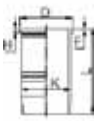
	**11-01579-000** CH 79,250 VD1 1,900 B- 21,740 BØ 85,050 TL 134,250 **50,00x107,00**	AP	**91-09578-000** 1 4,000 CK 2 3,000 CR 3 4,000 CK		Ø 128,000	**31-03579-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07579-000** 72-07579-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-CR		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05608-000** 52-05608-000	**71-07570-000** 72-07570-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07756-000** 72-07756-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

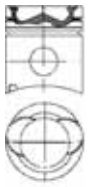
128,000

D2865 LF01 Euro0	D	1989	5 Cyl	**9972cc**	**198kW**	(270ps)
D2865 LF09 / LF20 / LF21 / LOH07 - LOH10 / LUH 07 Euro2	D	1991	5 Cyl	**9972cc**	**191-250kW**	(260-340ps)
D2865 LF22 / LF23 / LOH05 - LOH06 Euro 1	D	1991	5 Cyl	**9972cc**	**191-235kW**	(260-320ps)
D2865 LFR01 - LFR03	D	1989	5 Cyl	**9972cc**	**kW**	(ps)
D2866 LF14 / LF16 - LF17 / LOH23 / LOH25 / LOH26 / LOH 31 / LUH21 / LUH22 / LUH26 Euro2	D	1993	6 Cyl	**11967cc**	**191-294kW**	(260-400ps)

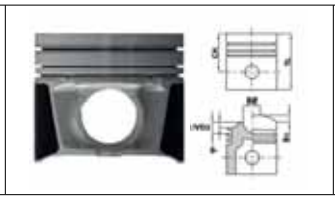
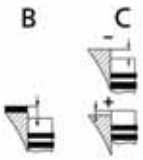
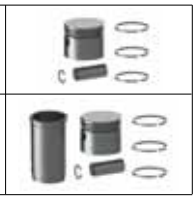
	**11-01597-000** CH 89,750 VD1 2,100 B- 21,600 BØ 81,200 TL 141,750 **46,00x105,00**	AP	**91-09598-000** 1 3,500 CR 2 3,000 P 3 5,000 CR	+0,01/+0,33	Ø 128,000	**31-03597-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07597-000** 72-07597-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-CR		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05608-000** 52-05608-000	**71-07604-000** 72-07604-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07757-000** 72-07757-000

128,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston	Cyl	**cc**	**kW**	(ps)

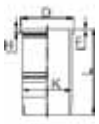
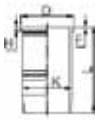
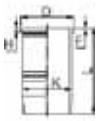
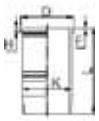
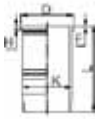
	**11-01597-002** CH 89,550 VD1 2,100 B- 21,600 BØ 81,200 TL 141,550 **46,00x105,00**	AP CH -0,20 mm	**91-09598-000** 1 3,500 CR 2 3,000 P 3 5,000 CR		Ø 128,000	**31-03597-002**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

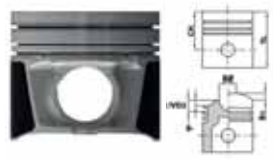
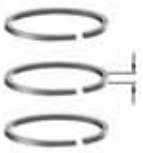
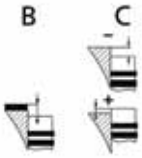
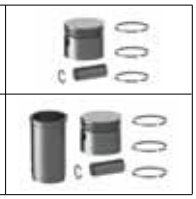
		Type		B C		
						

128,000

D2865 LF13 Euro2	D	1995	
D2865 LFR05 / LFR06 / LFR10 / LFR14 / LFR15	D	1989	
D2866 FZ	D	1987	
D2866 KF / KF01 / KFZ / KOH / KU / KUH / KUL / LF / LFZ / LH01/LU/LUH/LUL/LXF/TUH	D	1983	
D2866 LF33 Euro3	D	1999	
D2866 LULK	D	1985	
D2866 T	D	1987	1993
D2866 TOCH / TOH / TUH	D	1984	
D2866 TU	D	1987	1993

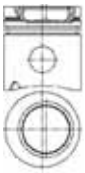
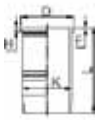
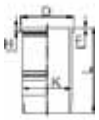
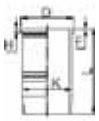
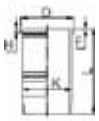
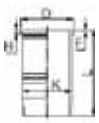
	11-01598-000 CH 89,800 VD1 2,300 B- 32,200 BØ 70,000 TL 141,800 **46,00x105,00**	AP	**91-09598-000** 1 3,500 CR 2 3,000 P 3 5,000 CR	0/+0,20	Ø 128,000	**31-03598-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07598-000** 72-07598-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-CR		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05608-000** 52-05608-000	**71-07599-000** 72-07599-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07758-000** 72-07758-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B	C		
							

128,000

D2866 E20	D	1989		6 Cyl	**11967cc**	**138-240kW**	(188-326ps)
D2866 F	D	1988	1989	6 Cyl	**11967cc**	**185kW**	(252ps)
D2866 FOH	D	1985		6 Cyl	**11967cc**	**265kW**	(360ps)
D2866 FR	D		1997	6 Cyl	**11967cc**	**177kW**	(240ps)
D2866 OCH	D	1969		6 Cyl	**11967cc**	**180kW**	(245ps)
D2866 OH	D	1986		6 Cyl	**11967cc**	**177kW**	(241ps)
D2866 U	D	1990	1992	6 Cyl	**11967cc**	**160-180kW**	(218-245ps)
D2866 UE	D	1984	1987	6 Cyl	**11967cc**	**160kW**	(218ps)
D2866 UH	D	1980	1988	6 Cyl	**11967cc**	**180kW**	(245ps)
D2866 UH / 205	D	1969		6 Cyl	**11967cc**	**150kW**	(204ps)
D2866 UH01	D	1969		6 Cyl	**11967cc**	**180kW**	(245ps)
D2866 UM	D	1983	1987	6 Cyl	**11967cc**	**152kW**	(207ps)

	**11-01746-000** CH 89,870 B- 31,070 BØ 67,000 TL 141,870 **46,00x105,00**	AP	**91-09598-000** 1 3,500 CR 2 3,000 P 3 5,000 CR	0/+0,20	Ø 128,000	**31-03746-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07746-000** 72-07746-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-CR		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05608-000** 52-05608-000	**71-07749-000** 72-07749-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07759-000** 72-07759-000

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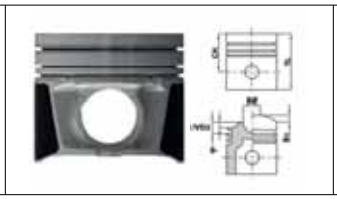
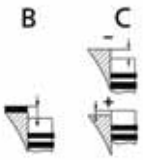
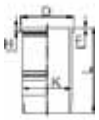
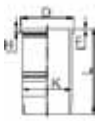
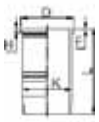
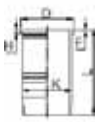
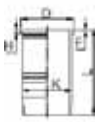
		Type		B C		
						

128,000

D2865 LF / LF02-LF04 / LU01-LU03	D	1988	5 Cyl	**9972cc**	**198-235kW**	(269-320ps)
D2865 LF05 / LF06 / LF10 / LF14 / LOH01 / LOH02 / LU04 / LU06 / LUH02 / LUH03 / LUH05 / LUH06 / LUH08 / LXF / LXFR	D	1990	5 Cyl	**9972cc**	**191-250kW**	(260-340ps)
D2865 LF15 / LOH	D	1983	5 Cyl	**9972cc**	**198-344kW**	(269-468ps)
D2866 KF09 / LH02 / LX / LXE30	D	1983	5 Cyl	**9972cc**	**198-324kW**	(269-440ps)
D2866 LF02-LF04 / LF06 / LF07 / LOH / LOH02 / LU01 / LXOH / LXU / LXUH	D	1983	5 Cyl	**9972cc**	**213-309kW**	(290-420ps)
D2866 LF05 / LF09 / LF10 / LF15 / LOH03 / LOH06 / LOH07 / LOH09 / LOH20-LOH22 / LOH24 / LU03-LU05 / LU09 Euro1	D	1990	5 Cyl	**9972cc**	**230-310kW**	(313-420ps)
D2866 LF21 / LF22 / LFG03 / LXFG Euro1	D	1994	5 Cyl	**9972cc**	**198-324kW**	(269-440ps)
D2866 LFG	D	1991	5 Cyl	**9972cc**	**221-243kW**	(300-330ps)
D2866 LFG04 Euro1	D	1994	5 Cyl	**9972cc**	**309kW**	(420ps)

	11-01748-000 CH 89,750 VD1 2,050 B- 24,400 BØ 75,600 TL 141,750 **46,00x105,00**	AP	**91-09598-000** 1 3,500 CR 2 3,000 P 3 5,000 CR	+0,01/+0,038	Ø 128,000	**31-03748-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07748-000** 72-07748-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-CR		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05608-000** 52-05608-000	**71-07750-000** 72-07750-000
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07760-000** 72-07760-000

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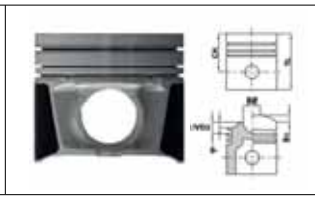
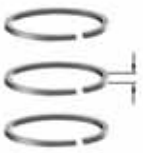
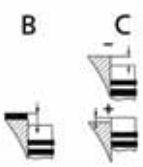
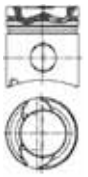
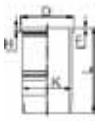
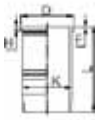
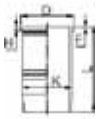
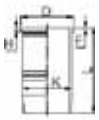
		Type				

128,000

D2865 LF24 Euro2	D	1994		5 Cyl	**9972cc**	**213kW**	(290ps)
D2865 LUH09 Euro2	D	1996	1998	5 Cyl	**9972cc**	**191kW**	(260ps)
D2865 LUH20 Euro2	D	1969		5 Cyl	**9972cc**	**191kW**	(260ps)
D2866 LUH20 Euro2	D	1996		6 Cyl	**11967cc**	**228kW**	(310ps)

	**11-02660-000** CH 89,750 VD1 2,100 B- 20,200 BØ 81,200 TL 141,750 **46,00x105,00**	AP	**91-09598-000** 1 3,500 CR 2 3,000 P 3 5,000 CR		Ø 128,000	**31-04660-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-000** 52-05598-000	**71-07571-000** 72-07571-000
	K=144,45 L=270,00 H+F=10,27+1,00 D=153,80	WF-PH +0,20		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-020** 52-05598-020	
	K=144,45 L=270,00 H+F=10,57+1,00 D=153,80	WF-PH +0,50		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05598-050** 52-05598-050	
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05738-000** 52-05738-000	**71-07761-000** 72-07761-000

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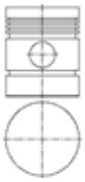
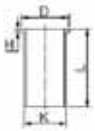
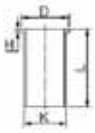
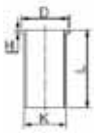
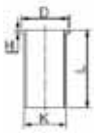
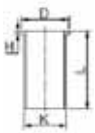
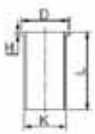
		Type		B C		
91,480						
A 3.152		D		3 Cyl	**2503cc** **27-35kW**	(37-48ps)
A 4.203		D		4 Cyl	**3335cc** **43kW**	(58ps)
A 6.305		D	1960	6 Cyl	**5003cc** **55kW**	(75ps)
	**11-01831-000** CH 57,200 TL 107,700 **31,75x75,30** Massey-Ferguson, Perkins ve Volvo ile Ortak Motor		**91-09832-000** 1 2,385 CrP 2 2,385 P 3 3,160 P 4 6,335 P 5 6,335 CrP	-0,13/0	Ø 91,480	**31-03831-000**
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07831-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	
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	K=95,75 L=216,00 H=3,81 D=98,75	DS +2,00			**51-65834-200**	

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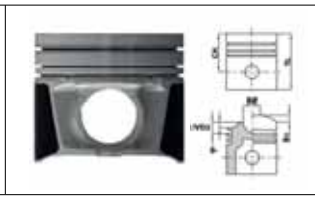
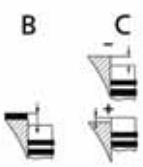
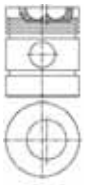
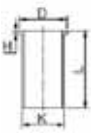
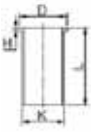
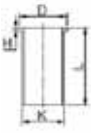
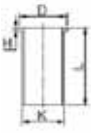
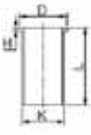
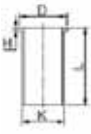
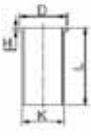
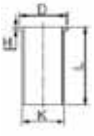
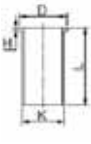
		Type				

91,480

AD3.152		D	4 Cyl	**2500cc**	**28-42kW**	(38-57ps)
AD4.203		D	4 Cyl	**2500cc**	**40-43kW**	(55-59ps)

	**11-01832-000** CH 61,910 B- 18,400 BØ 55,850 TL 109,540 **31,75x75,30**		**91-09832-000** 1 2,385 CrP 2 2,385 P 3 3,160 P 4 6,335 P 5 6,335 CrP	-0,03/+0,10	Ø 91,480	**31-03832-000**
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07832-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,80 L=216,00 H=5,00 D=97,00	DS			**51-65831-000**	
	K=94,30 L=216,00 H=5,00 D=97,00	DS +0,50			**51-65831-050**	
	K=94,80 L=216,00 H=5,00 D=97,65	DS +1,00			**51-65831-100**	
	K=95,05 L=216,00 H=6,00 D=98,00	DS +1,25			**51-65831-125**	
	K=95,30 L=216,00 H=6,00 D=98,25	DS +1,50			**51-65831-150**	
	K=95,80 L=216,00 H=6,00 D=98,75	DS +2,00			**51-65831-200**	

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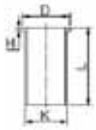
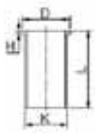
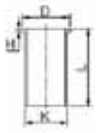
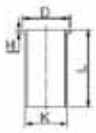
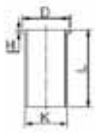
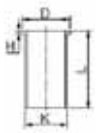
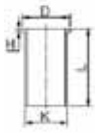
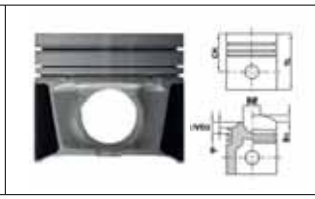
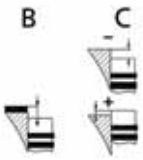
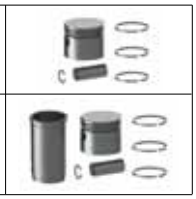
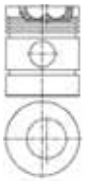
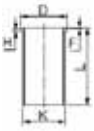
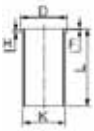
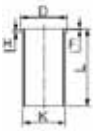
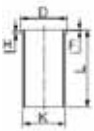
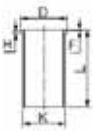
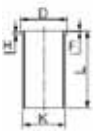
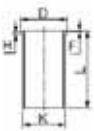
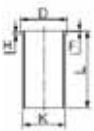
		Type		B C		
	K=96,30 L=216,00 H=6,00 D=99,25	DS +2,50			**51-65831-250**	
	K=96,80 L=216,00 H=6,00 D=99,75	DS +3,00			**51-65831-300**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	
	K=95,25 L=216,00 H=3,81 D=98,25	DS +1,50			**51-65834-150**	
	K=95,75 L=216,00 H=3,81 D=98,75	DS +2,00			**51-65834-200**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

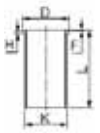
		Type		B C		
						

98,480

A6.354.1	D	1969	1990	6 Cyl	**5800cc**	**71-82kW**	(97-112ps)
6354	D			6 Cyl	**5800cc**	**69-82kW**	(94-112ps)

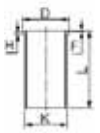
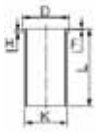
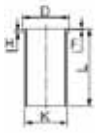
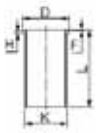
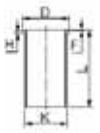
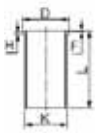
 **11-01840-000** CH 70,100 B- 25,700 BØ 54,000 TL 120,700 **34,93x84,10** Ihc/Case, Leyland, Massey-Ferguson ve Perkins ile Ortak Motor		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03840-000**
 K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	
 K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07840-000**
 K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
 K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
 K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
 K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
 K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
 K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

98,480

4212	D	1969	4 Cyl	**3864cc**	**44-47kW**	(60-64ps)
A4.212	D	1964	4 Cyl	**3864cc**	**44kW**	(60ps)

	11-01842-000 CH 76,500 B- 19,200 BØ 54,000 TL 127,300 **34,93x84,10** Ihc/Case, Massey-Ferguson ve Perkins ile Ortak Motor		**91-49863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP	Ø 98,480	**31-03842-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF		**51-35844-000**	**71-07842-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00		**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS		**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25		**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50		**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00		**51-65840-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

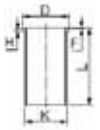
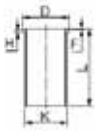
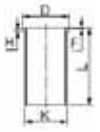
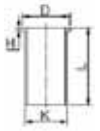
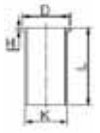
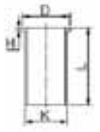
		Type		B C		
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

98,480

4236	D		4 Cyl	**3864cc**	**48-60kW**	(59-80ps)
A4.236	D		4 Cyl	**3864cc**	**37-65kW**	(50-89ps)
AD4.236	D	1965	4 Cyl	**3864cc**	**48-60kW**	(59-80ps)

	11-01848-000 CH 70,050 B- 20,150 BØ 61,000 TL 120,850 **34,93x84,10**	AP CP	**91-09867-000** 1 2,385 CrP 2 2,385 P 3 4,747 CR	+0,28/+0,48	Ø 98,480	**31-03848-000**
	Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor					
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07858-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07848-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

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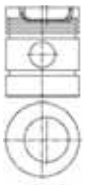
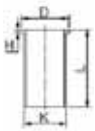
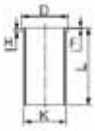
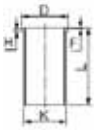
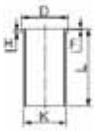
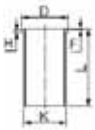
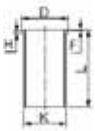
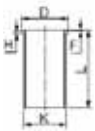
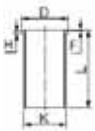
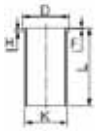
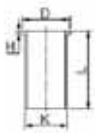
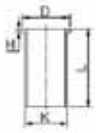
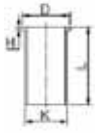
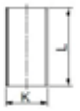
		Type		B C		

98,480

4236	D		4 Cyl	**3864cc**	**48-60kW**	(59-80ps)
A4.236	D		4 Cyl	**3864cc**	**37-65kW**	(50-89ps)
AD4.236	D	1965	4 Cyl	**3864cc**	**48-60kW**	(59-80ps)

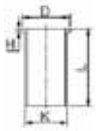
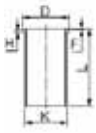
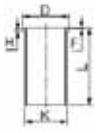
	**11-01863-000** CH 70,250 B- 20,280 BØ 60,500 TL 120,900 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03863-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07864-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07863-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	

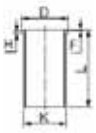
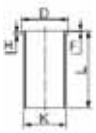
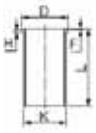
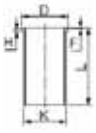
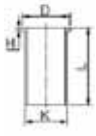
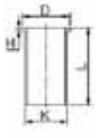
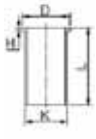
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

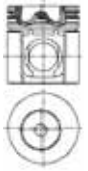
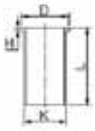
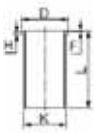
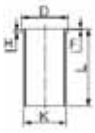
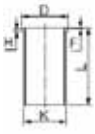
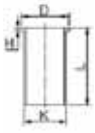
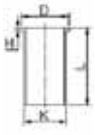
98,480

T4.236 D 4 Cyl **3864cc** **49kW** (66ps)

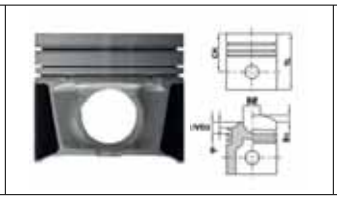
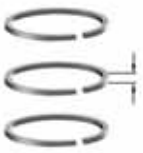
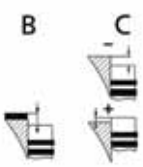
	11-01868-000 CH 70,250 B- 19,950 BØ 61,000 TL 108,250 **38,10x82,50**	AP CP	**91-09868-000** 1 3,160 CrP 2 2,385 P 3 4,747 CrP		Ø 98,480	**31-03868-000**
Massey-Ferguson, Perkins ve Renault Trucks (RVI) ile Ortak Motor						
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07868-000**
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	

		Type		B C		
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

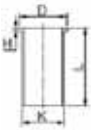
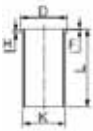
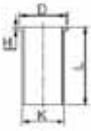
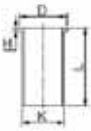
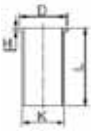
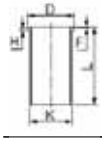
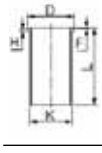
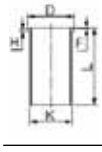
		Type		B C		
100,000						
1106C-E60TA Euro2			D 2003	6 Cyl	**5984cc** **88-130kW** (120-175ps)	
	**11-02466-000** CH 70,266 B- 21,750 BØ 52,800 TL 108,230 **39,70x78,00** Massey-Fergusan, Perkins ve Renault Trucks (RVI) ile Ortak Motor	AP	**91-09466-000** 1 3,500 MoP 2 2,500 3 3,500 CR		Ø 100,000	**31-04466-000**
	K=104,21 L=226,45 H=3,85 D=107,45	DF			**51-35848-000**	**71-08466-000**
	K=104,26 L=227,50 H+F=3,81+1,00 D=107,35	DF			**51-35849-000**	**71-08468-000**
	K=104,26 L=227,50 H+F=3,81+1,00 D=107,35	DS			**51-65839-000**	
	K=104,76 L=227,50 H+F=3,81+1,00 D=107,35	DS +0,50			**51-65839-050**	
	K=104,25 L=226,45 H=3,85 D=107,45	DS			**51-65847-000**	
	K=104,50 L=226,45 H=3,85 D=107,45	DS +0,25			**51-65847-025**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

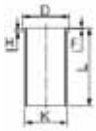
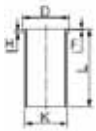
		Type				

101,054

4248 D 1969 4 Cyl **4064cc** **53-66kW** (72-90ps)

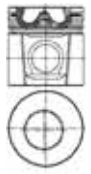
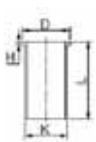
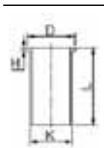
	11-01852-000 CH 70,100 B- 21,000 BØ 61,500 TL 120,900 **34,93x84,10**	CP	**91-09852-000** 1 2,385 CR 2 2,385 CR 3 2,385 CR 4 6,335 CR		Ø 101,054	**31-03852-000**
Massey-Ferguson ve Perkins ile Ortak Motor						
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35846-000**	**71-07131-000**
	K=104,20 L=227,20 H+F=3,80+0,85 D=107,40	DF			**51-35852-000**	**71-07852-000**
	K=104,26 L=227,00 H=3,83 D=107,38	DS			**51-65843-000**	
	K=104,76 L=227,00 H=3,83 D=107,38	DS +0,50			**51-65843-050**	
	K=105,26 L=227,00 H=5,00 D=107,38	DS +1,00			**51-65843-100**	
	K=104,33 L=227,20 H+F=3,85+0,90 D=107,45	DS			**51-65851-000**	
	K=104,55 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,25			**51-65851-025**	
	K=104,80 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,50			**51-65851-050**	
	K=105,05 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,75			**51-65851-075**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=105,30 L=227,20 H+F=3,85+0,90 D=108,45	DS +1,00			**51-65851-100**	
	K=105,80 L=227,20 H+F=5,00+0,90 D=108,95	DS +1,50			**51-65851-150**	
	K=103,33 L=224,00	DS			**51-65853-000**	

105,000

1103C-33 Euro2	D	2005	4 Cyl	**3300cc**	**39-43kW**	(53-58ps)
1103C-33T Euro2	D	2004	4 Cyl	**3300cc**	**47-55kW**	(64-75ps)
1104C-44T Euro2	D	2002	4 Cyl	**4400cc**	**60-85kW**	(82-116ps)
1104C-44TA Euro2	D	2003	4 Cyl	**4400cc**	**85-99kW**	(115-135ps)
1104C-E44TA Euro2	D	2003	4 Cyl	**4400cc**	**82-106kW**	(110-142ps)

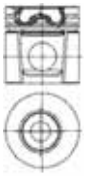
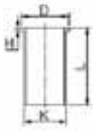
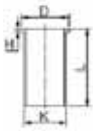
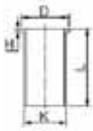
	**11-02465-000** CH 70,100 B- 22,000 BØ 55,100 TL 108,000 **39,70x78,00**	AP	**91-09465-000** 1 3,500 MoP 2 2,500 P 3 3,500 CrP	Ø 105,000 Ø 105,500 Ø 106,000	**31-04465-000** **31-04465-050** **31-04465-100**
Massey-Fergusan ve Perkins ile Ortak Motor					
	K=108,00 L=227,00 H=5,10 D=109,40	DF		**51-35833-000**	**71-08465-000**
	K=108,06 L=227,00 H=5,10 D=109,40	DS		**51-65836-000**	
	K=108,56 L=227,00 H=5,10 D=109,90	DS +0,50		**51-65836-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

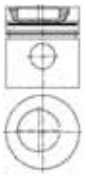
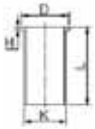
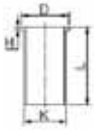
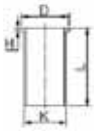
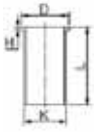
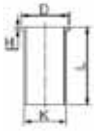
		Type		B C		

105,000

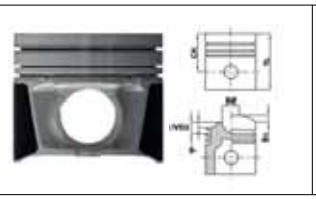
1103C-33 Euro2	D	2005	4 Cyl	**3300cc**	**39-43kW**	(53-58ps)
1104C-44 Euro2	D	2002	4 Cyl	**4400cc**	**50-64kW**	(67-84ps)

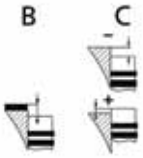
 **11-02467-000** CH 70,100 B- 22,400 BØ 51,250 TL 108,000 **39,70x70,00** Massey-Fergusan ve Perkins ile Ortak Motor		**91-09467-000** 1 2,500 CR 2 2,500 P 3 3,500 CrP		Ø 105,000 Ø 105,500 Ø 106,000	**31-04467-000** **31-04467-050** **31-04467-100**
 K=108,00 L=227,00 H=5,10 D=109,40	DF			**51-35833-000**	**71-08467-000**
 K=108,06 L=227,00 H=5,10 D=109,40	DS			**51-65836-000**	
 K=108,56 L=227,00 H=5,10 D=109,90	DS +0,50			**51-65836-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

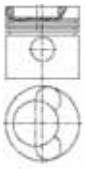
		Type		B C		
97,000						
OM 314A	D	4 Cyl	**3780cc**	**63kW**	(85ps)	
OM 352A / OM 353A	D	6 Cyl	**5675cc**	**115kW**	(156ps)	
OM 362LA.906 / 909 / 910	D	6 Cyl	**5675cc**	**141kW**	(192ps)	
	**11-01621-000** CH 65,200 *CH 64,900 B- 21,500 *B- 21,500 BØ 55,000 *BØ 55,000 TL 105,200 *TL 104,900 * For Oversize Piston Dimensions **36,00x82,50**	AP	**91-09622-000** 1 2,500 Mo 2 2,500 CR 3 4,000 CR	-0,07/+0,30	Ø 97,000 Ø 97,500 Ø 98,000	**31-03621-000** **31-03621-050** **31-03621-100**
	K=100,40 L=222,00 H=5,20 D=103,50	DS			**51-65635-000**	
	K=101,05 L=222,00 H=6,00 D=103,92	DS +0,50			**51-65635-050**	
	K=101,50 L=222,00 H=6,00 D=104,42	DS +1,00			**51-65635-100**	
	K=102,50 L=222,00 H=6,00 D=105,42	DS +2,00			**51-65635-200**	
	K=101,00 L=222,00 H=5,50 D=103,50	DS			**51-65735-000**	
	K=101,50 L=222,00 H=5,50 D=104,00	DS +0,50			**51-65735-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018





		Type		B	C		
97,000							
OM 341.913 / 933 / 937 / 939 / 943 / 947 / 950 / 996	D	1973		6 Cyl	**5675cc**	**96-118kW**	(130-160ps)
OM 344.913 / 931	D	1973		6 Cyl	**5675cc**	**115kW**	(156ps)
OM 352.900 (OM 352A)	D	1982	1987	6 Cyl	**5675cc**	**99-124kW**	(135-168ps)
OM 352.900 / 913 / 916 / 918 / 937 / 946 / 950 / 968 / 988 / 994	D			6 Cyl	**5675cc**	**99-124kW**	(135-168ps)
OM 353.909 / 914 / 921 / 937 / 950 / 954 / 958 / 970 / 972 / 974 / 978 / 991 / 997	D			6 Cyl	**5675cc**	**92-127kW**	(125-172ps)



11-01622-000
CH 65,200 *CH 64,800
VD1 2,200 *VD1 2,200
B- 20,000 *BØ 55,000
BØ 55,000 *TL 104,800
TL 105,200

* For Oversize Piston Dimensions

36,00x82,50

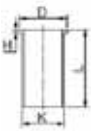
AP

91-09622-000
1 2,500 Mo
2 2,500 CR
3 4,000 CR

-0,07/+0,30

Ø 97,000 **31-03622-000**
Ø 97,500 **31-03622-050**
Ø 98,000 **31-03622-100**

Ford ve Mercedes-Benz ile Ortak Motor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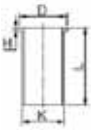
L=222,00
H=5,20
D=103,50

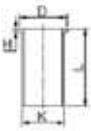
DS

51-65635-000


K=101,05
L=222,00
H=6,00
D=103,92

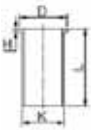
DS
+0,50

51-65635-050


K=101,50
L=222,00
H=6,00
D=104,42

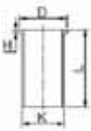
DS
+1,00

51-65635-100


K=102,50
L=222,00
H=6,00
D=105,42

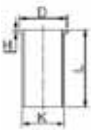
DS
+2,00

51-65635-200


K=101,00
L=222,00
H=5,50
D=103,50

DS

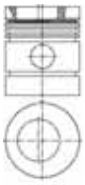
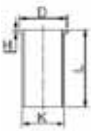
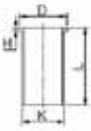
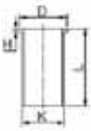
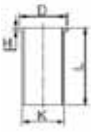
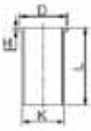
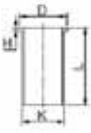
51-65735-000


K=101,50
L=222,00
H=5,50
D=104,00

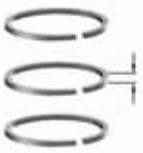
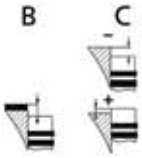
DS
+0,50

51-65735-050

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

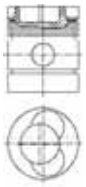
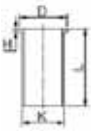
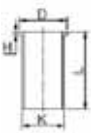
		Type		B C		
97,000						
OM 314.963	D 1964 1981 4 Cyl **3800cc** **63kW** (85ps)					
OM 352.906 / OM 353.949	D 1964 1982 6 Cyl **5700cc** **51-100kW** (70-130ps)					
	**11-01638-000** CH 65,200 B- 20,000 BØ 55,000 TL 115,700 **36,00x82,50** Mercedes-Benz ve Toyota ile Ortak Motor	AP	**91-09912-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 5,500 CrP 5 5,500 P	(-0,07/+0,35)	Ø 97,000 Ø 97,500 Ø 98,000	**31-03638-000** **31-03638-050** **31-03638-100**
	K=100,40 L=222,00 H=5,20 D=103,50	DS			**51-65635-000**	
	K=101,05 L=222,00 H=6,00 D=103,92	DS +0,50			**51-65635-050**	
	K=101,50 L=222,00 H=6,00 D=104,42	DS +1,00			**51-65635-100**	
	K=102,50 L=222,00 H=6,00 D=105,42	DS +2,00			**51-65635-200**	
	K=101,00 L=222,00 H=5,50 D=103,50	DS			**51-65735-000**	
	K=101,50 L=222,00 H=5,50 D=104,00	DS +0,50			**51-65735-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

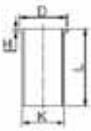
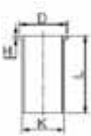
97,000

OM 341.913 / 933 / 937 / 939 / 943 / 947 / 950 / 996	D	1973	6 Cyl	**5675cc**	**96-118kW**	(130-160ps)
OM 344.913	D	1973	6 Cyl	**5675cc**	**115kW**	(156ps)
OM 344.931	D	1973	6 Cyl	**5675cc**	**115kW**	(156ps)
OM 352.900 / -006 / -008 / -010 / -013 / -015 / -400 / -410-430 / 913 / 916 / 918 / 937 / 946 / 949-950 / 968 / 988 / 994	D	1968	6 Cyl	**5675cc**	**96-124kW**	(130-168ps)
OM 353.909-914 / 921 / 937 / 950-954 / 958 / 970-972 / 974-978 / 991 / 997	D	1970	6 Cyl	**5675cc**	**92-127kW**	(125-172ps)

 **11-02912-000** CH 65,200 VD1 2,400 B- 20,000 BØ 55,000 TL 115,700 **36,00x82,50**	AP	**91-09912-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 5,500 CrP 5 5,500 P	-0,07/+0,30	Ø 97,000 Ø 97,500 Ø 98,000	**31-04912-000** **31-04912-050** **31-04912-100**
Ford ve Mercedes-Benz ile Ortak Motor					
 K=101,00 L=222,00 H=5,50 D=103,50	DS			**51-65735-000**	
 K=101,50 L=222,00 H=5,50 D=104,00	DS +0,50			**51-65735-050**	

97,500

OM 364A	D		4 Cyl	**3972cc**	**100kW**	(135ps)
OM 366A	D		6 Cyl	**6000cc**	**95-125kW**	(120-170ps)
OM 366LA Euro2	D	1964	6 Cyl	**6000cc**	**135kW**	(184ps)

11-01631-000 CH 63,000 B- 22,250 BØ 52,700 TL 108,000 **36,00x82,50**	AP	**91-09640-000** 1 2,500 Mo 2 2,500 CR 3 4,000 CR		Ø 97,500 Ø 98,000	**31-03631-000** **31-03631-050**
 K=100,47 L=222,00 H=5,20 D=103,37	DS			**51-65140-000**	
 K=100,97 L=222,00 H=5,45 D=103,87	DS +0,50			**51-65140-050**	
K=101,47 L=222,00 H=5,95 D=104,37	DS +1,00			**51-65140-100**	

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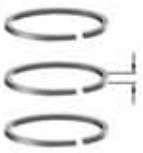
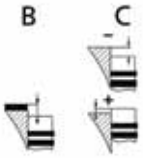
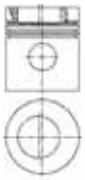
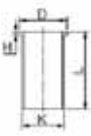
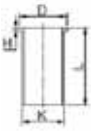
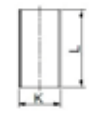
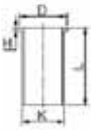
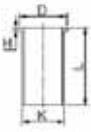
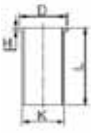
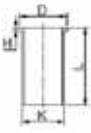
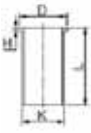
		Type		B C		
						

97,500

OM 364A	D	1964		4 Cyl	**3972cc**	**100kW**	(135ps)
OM 366A / LA	D	1964	1998	6 Cyl	**5958cc**	**90-129kW**	(125-175ps)

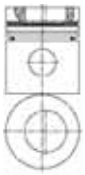
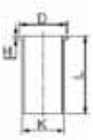
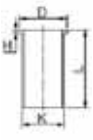
	**11-01640-000** CH 62,800 *CH 62,500 B- 22,350 *B- 22,350 BØ 55,800 *BØ 55,800 TL 107,800 *TL 107,500 * For Oversize Piston Dimensions **36,00x82,50**	AP	**91-09640-000** 1 2,500 Mo 2 2,500 CR 3 4,000 CR		Ø 97,500 Ø 98,000 Ø 98,000	**31-03640-000** **31-03640-050** **31-03640-100**
	K=100,40 L=222,00 H=5,10 D=103,50	DS			**51-65638-000**	
	K=101,00 L=222,00 H=5,10 D=104,00	DS +0,50			**51-65638-050**	
	K=100,49 L=224,00	DS			**51-65639-000**	
	K=100,49 L=222,00 H=4,50 D=103,50	DS			**51-65640-000**	
	K=100,75 L=222,00 H=5,20 D=103,75	DS +0,25			**51-65640-025**	
	K=101,05 L=222,00 H=6,00 D=104,00	DS +0,50			**51-65640-050**	
	K=101,50 L=222,00 H=6,00 D=104,50	DS +1,00			**51-65640-100**	
	K=102,05 L=222,00 H=6,00 D=105,00	DS +1,50			**51-65640-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

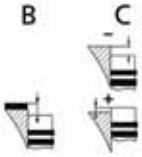
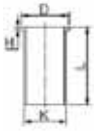
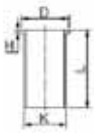
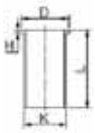
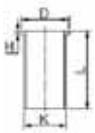
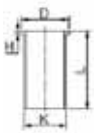
		Type		B C		

97,500

OM 304.900-001 / -014 / -401 / -410	D	1985		4 Cyl	**3972cc**	**61-85kW**	(83-115ps)
OM 306.900-016 / -017 / -018 / -413 / -414 / -415 / -416 / -417	D	1984		6 Cyl	**5958cc**	**92-125kW**	(125-170ps)
OM 356A.940	D	1989	1993	6 Cyl	**5958cc**	**116-129kW**	(158-175ps)
OM 356LA.984-985	D	1985	1994	6 Cyl	**5958cc**	**155kW**	(211ps)
OM 364A.901-400 / 950-952 / 954 / 980	D	1984	2001	4 Cyl	**3972cc**	**66-100kW**	(90-136ps)
OM 364LA.901-500 / 981 / 984	D	1987		4 Cyl	**3972cc**	**100kW**	(136ps)
OM 366A.901-400 / 944-949 / 951-955 / 957-958 / 960 / 962-963 / 965-971 / 973-979	D	1984	2001	6 Cyl	**5958cc**	**92-129kW**	(125-175ps)
OM 366LA.901-500-540-541 / 980-981 / 983-984 / 988 / 990 / 992-997	D	1984		6 Cyl	**5958cc**	**136-177kW**	(185-240ps)
OM 370.950-951	D	1985		4 Cyl	**3972cc**	**85kW**	(115ps)
OM 372A.950-951 / 953 / 956 / 958	D			6 Cyl	**5958cc**	**100-125kW**	(136-170ps)
OM 376A.945-947 / 950-951 / 953-958 / 961-962 / 964	D	1988		6 Cyl	**5958cc**	**66-131kW**	(90-177ps)
OM 376LA.911(500-516) / 941-963	D	1988		6 Cyl	**5958cc**	**125-170kW**	(170-230ps)
OM 380.942	D	1985		4 Cyl	**3972cc**	**85kW**	(115ps)
OM 382.913 / 919 / 971	D	1988		6 Cyl	**5958cc**	**125-150kW**	(170-204ps)
OM 384.907	D	1985		4 Cyl	**3972cc**	**85kW**	(115ps)
OM 386A.951-952	D	1988		6 Cyl	**5958cc**	**125kW**	(170ps)
OM 386LA.980-981 / 983	D	1985		6 Cyl	**5958cc**	**150kW**	(204ps)
OM 390A.900(-006 / -007 / -405 / -407)	D	1973		6 Cyl	**5958cc**	**100-127kW**	(136-173ps)
OM 390LA.900(-505 / -506 / -508)	D	1984		6 Cyl	**5958cc**	**138-150kW**	(185-204ps)

	**11-01642-000** CH 62,800 B- 22,350 BØ 56,000 TL 107,800 **36,00x82,50**	AP	**91-09640-000** 1 2,500 Mo 2 2,500 CR 3 4,000 CR	-0,07/+0,30	Ø 97,500 Ø 98,000	**31-03642-000** **31-03642-050**
	K=100,40 L=222,00 H=5,10 D=103,50	DS			**51-65638-000**	
	K=101,00 L=222,00 H=5,10 D=104,00	DS +0,50			**51-65638-050**	
	K=100,49 L=224,00	DS			**51-65639-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				
	K=100,49 L=222,00 H=4,50 D=103,50	DS			**51-65640-000**	
	K=100,75 L=222,00 H=5,20 D=103,75	DS +0,25			**51-65640-025**	
	K=101,05 L=222,00 H=6,00 D=104,00	DS +0,50			**51-65640-050**	
	K=101,50 L=222,00 H=6,00 D=104,50	DS +1,00			**51-65640-100**	
	K=102,05 L=222,00 H=6,00 D=105,00	DS +1,50			**51-65640-150**	

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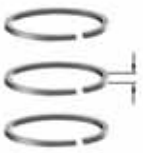
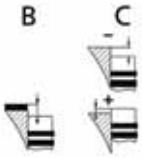
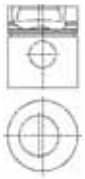
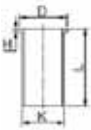
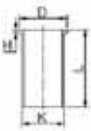
		Type		B C		
						

97,500

OM 356.913 Euro1	D		6 Cyl	**5958cc**	**100kW**	(136ps)
OM 364.900 / -000	D	1984	4 Cyl	**3972cc**	**kW**	(ps)
OM 364.900-040 / 906-909 / 911-913	D		4 Cyl	**3972cc**	**49-66kW**	(67-90ps)
OM 366.900 / -000 / 905-910 / 912-914 / 917-919 / 930-933 / 935-937 / 940	D		6 Cyl	**5958cc**	**kW**	(ps)
OM 366.938 Euro1	D		6 Cyl	**5958cc**	**92-102kW**	(125-139ps)
OM 370.905	D		4 Cyl	**3972cc**	**66kW**	(90ps)
OM 370.952	D		4 Cyl	**3972cc**	**80kW**	(110ps)
OM 372.906-907 / 930	D		6 Cyl	**5958cc**	**100kW**	(136ps)
OM 376.905-909 / 910-005 / -006 / -007 / -008 / -010 / -011 / -012 / -013 / -014 / -015 / -019 / 930	D		6 Cyl	**5958cc**	**69-100kW**	(94-136ps)
OM 376.980-982 / 987-989 / 998-999(USA)	D		6 Cyl	**5958cc**	**127-142kW**	(170-190ps)
OM 382.912	D		6 Cyl	**5958cc**	**100kW**	(136ps)
OM 384.906	D		4 Cyl	**3972cc**	**66kW**	(90ps)
OM 390.900-509(AMS)	D		6 Cyl	**5958cc**	**156kW**	(210ps)

	**11-02714-000** CH 62,800 *CH 62,500 B- 24,200 *B- 24,200 BØ 48,000 *BØ 48,000 TL 107,800 *TL 107,500 * For Oversize Piston Dimensions **36,00x82,50**	AP	**91-09640-000** 1 2,500 Mo 2 2,500 CR 3 4,000 CR	-0,07/+0,30	Ø 97,500 Ø 98,000	**31-04714-000** **31-04714-050**
	K=100,40 L=222,00 H=5,10 D=103,50	DS			**51-65638-000**	
	K=101,00 L=222,00 H=5,10 D=104,00	DS +0,50			**51-65638-050**	
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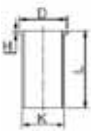
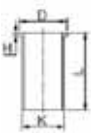
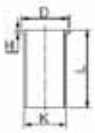
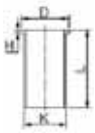
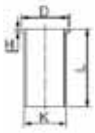
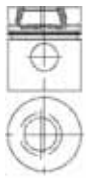
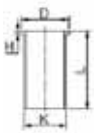
	K=100,49 L=222,00 H=4,50 D=103,50	DS			**51-65640-000**	
	K=100,75 L=222,00 H=5,20 D=103,75	DS +0,25			**51-65640-025**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

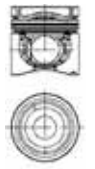
		Type		B C		
	K=101,05 L=222,00 H=6,00 D=104,00	DS +0,50			**51-65640-050**	
	K=101,50 L=222,00 H=6,00 D=104,50	DS +1,00			**51-65640-100**	
	K=102,05 L=222,00 H=6,00 D=105,00	DS +1,50			**51-65640-150**	

97,500

OM 356.901-912 / 914-916 Euro1	D	6 Cyl	**5958cc**	**95kW**	(129ps)
OM 364.900-004 / 918-921 Euro1	D	4 Cyl	**3972cc**	**kW**	(ps)
OM 366.900-004 / 911TUR / 915 Euro1	D	6 Cyl	**5958cc**	**kW**	(ps)

	**11-02734-000** CH 62,800 *CH 62,500 B- 24,000 *B- 24,000 BØ 43,400 *BØ 43,400 TL 107,800 *TL 107,500 * For Oversize Piston Dimensions **36,00x82,50**	AP	**91-09734-000** 1 2,500 CR 2 2,500 CR 3 4,000 CR			**31-04734-000** **31-04734-050** **31-04734-100**
	K=100,40 L=222,00 H=5,10 D=103,50	DS			**51-65638-000**	
	K=101,00 L=222,00 H=5,10 D=104,00	DS +0,50			**51-65638-050**	

102,000

OM 906 LA Euro 5		D	6 Cyl	**6370cc**	**210kW**	(286ps)
	**11-02678-000** CH 64,400 B- 13,900 BØ 73,200 TL 102,400 **42,00x80,00**	AP YS HA	**91-09713-000** 1 3,500 CdC 2 2,500 CR 3 4,000 CdC		Ø 102,000	**31-04678-000**
	K=106,12 L=220,00 H=6,15 D=109,50	DS			**51-65655-000**	

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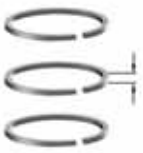
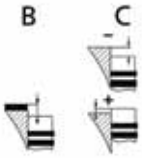
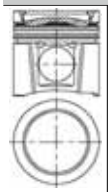
		Type		B C		
						

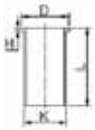
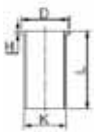
102,000

OM 904 LA Euro4	D	2008	4 Cyl	**4250cc**	**115-130kW**	(156-177ps)
OM 906 LA Euro4	D	2008	6 Cyl	**6370cc**	**175-210kW**	(238-286ps)

 **11-02679-000** CH 64,400 B- 13,900 BØ 73,200 TL 102,400 **42,00x80,00**	AP HA	**91-09713-000** 1 3,500 CdC 2 2,500 CR 3 4,000 CdC		Ø 102,000	**31-04679-000**

102,000

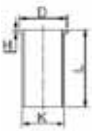
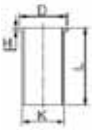
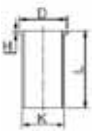
OM 902.937 / 938 Euro3	D		4 Cyl	**4250cc**	**180kW**	(245ps)
OM 904.904 / 905 Euro2	D		4 Cyl	**4250cc**	**75kW**	(102ps)
OM 904.906 Euro2	D		4 Cyl	**4250cc**	**100kW**	(136ps)
OM 904.907-912 Euro2	D		4 Cyl	**4250cc**	**125kW**	(170ps)
OM 904.914-951 Euro2	D		4 Cyl	**4250cc**	**90-142kW**	(122-190ps)
OM 904.952 Euro2	D	2002	4 Cyl	**4250cc**	**130kW**	(177ps)
OM 904.953-957 / 959 / 961-962 / 964-968 Euro2	D		4 Cyl	**4250cc**	**110kW**	(150ps)
OM 904.972 / 974 / 977-978 / 980-981 Euro2	D		4 Cyl	**4250cc**	**110-130kW**	(150-177ps)
OM 906.910-941 / 944-968USA / MEX / 970-971 / 974-983USA / MEX / 985 / 988 Euro2	D		6 Cyl	**6374cc**	**142-224kW**	(190-300ps)
OM 907.910 / 920 / 930 / 940-941 / 960 / 970 / 980 / 990 Euro2	D		4 Cyl	**4250cc**	**75-125kW**	(102-170ps)
OM 909.900-901 / 910-911 / 920-921 / 960 / 970-971 Euro2	D		6 Cyl	**6374cc**	**170-205kW**	(231-279ps)

11-02740-000 CH 64,400 B- 13,800 BØ 73,300 TL 102,500 **42,00x80,00**	AP	**91-09740-000** 1 3,000 CkP 2 2,500 CrP 3 4,000 CrP	+0,28/+0,50	Ø 102,000 Ø 102,500	**31-04740-000** **31-04740-050**
 K=106,12 L=220,00 H=6,15 D=109,50	DS			**51-65655-000**	**71-07017-000**
 K=106,62 L=220,00 H=6,65 D=110,00	DS +0,50			**51-65655-050**	
K=107,12 L=220,00 H=7,15 D=110,50	DS +1,00			**51-65655-100**	

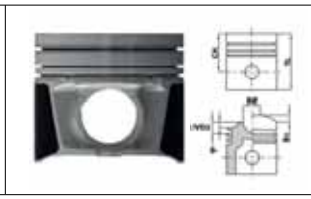
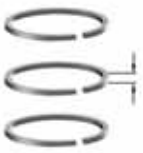
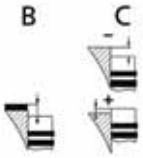
		Type		B C		

102,000

OM 902.937 / 938 Euro3	D		4 Cyl	**4250cc**	**180kW**	(245ps)
OM 904.904 / 905 Euro2	D		4 Cyl	**4250cc**	**75kW**	(102ps)
OM 904.906 Euro2	D		4 Cyl	**4250cc**	**100kW**	(136ps)
OM 904.907-912 Euro2	D		4 Cyl	**4250cc**	**125kW**	(170ps)
OM 904.914-951 Euro2	D		4 Cyl	**4250cc**	**90-142kW**	(122-190ps)
OM 904.952 Euro2	D	2002	4 Cyl	**4250cc**	**130kW**	(177ps)
OM 904.953-957 / 959 / 961-962 / 964-968 Euro2	D		4 Cyl	**4250cc**	**110kW**	(150ps)
OM 904.972 / 974 / 977-978 / 980-981 Euro2	D		4 Cyl	**4250cc**	**110-130kW**	(150-177ps)
OM 906.910-941 / 944-968USA / MEX / 970-971 / 974-983USA / MEX / 985 / 988 Euro2	D		6 Cyl	**6374cc**	**142-224kW**	(190-300ps)
OM 907.910 / 920 / 930 / 940-941 / 960 / 970 / 980 / 990 Euro2	D		4 Cyl	**4250cc**	**75-125kW**	(102-170ps)
OM 909.900-901 / 910-911 / 920-921 / 960 / 970-971 Euro2	D		6 Cyl	**6374cc**	**170-205kW**	(231-279ps)

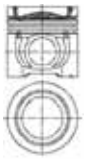
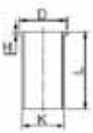
	11-02742-000 CH 64,400 B- 13,900 BØ 73,230 TL 102,400 **40,00x78,00**	AP	**91-09740-000** 1 3,000 CkP 2 2,500 CrP 3 4,000 CrP		Ø 102,000	**31-04742-000**
	K=106,12 L=220,00 H=6,15 D=109,50	DS			**51-65655-000**	
	K=106,62 L=220,00 H=6,65 D=110,00	DS +0,50			**51-65655-050**	
	K=107,12 L=220,00 H=7,15 D=110,50	DS +1,00			**51-65655-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

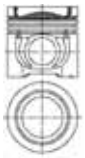
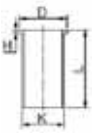
102,000

OM 904LA Euro2 BRAZIL	D	1998	4 Cyl	**4250cc**	**90-130kW**	(122-177ps)
OM 906LA Euro2 BRAZIL	D	1998	6 Cyl	**6374cc**	**167-209kW**	(210-284ps)

	**11-02749-000** CH 64,400 B- 13,900 BØ 73,230 TL 101,200 **40,00x78,00**	AP	**91-09740-000** 1 3,000 CkP 2 2,500 CrP 3 4,000 CrP	Ø 102,000	**31-04749-000**
	K=106,12 L=220,00 H=6,15 D=109,50	DS		**51-65655-000**	

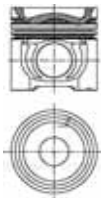
102,000

OM 904LA Euro2 BRAZIL	D	1998	4 Cyl	**4250cc**	**90-130kW**	(122-177ps)
OM 906LA Euro2 BRAZIL	D	1998	6 Cyl	**6374cc**	**167-209kW**	(210-284ps)

	**11-02750-000** CH 64,400 B- 13,900 BØ 73,230 TL 101,200 **42,00x80,00**	AP	**91-09740-000** 1 3,000 CkP 2 2,500 CrP 3 4,000 CrP	Ø 102,000	**31-04750-000**
	K=106,12 L=220,00 H=6,15 D=109,50	DS		**51-65655-000**	

102,000

OM 902 / 904 Euro2-3	D		4 Cyl	**4250cc**	**90-130kW**	(122-177ps)
OM 906 Euro2-3	D		6 Cyl	**6374cc**	**142-206kW**	(190-281ps)

	**11-02759-000** CH 64,400 B- 13,130 BØ 72,920 TL 101,200 **42,00x80,00**	AP	**91-09740-000** 1 3,000 CkP 2 2,500 CrP 3 4,000 CrP	Ø 102,000	**31-04759-000**

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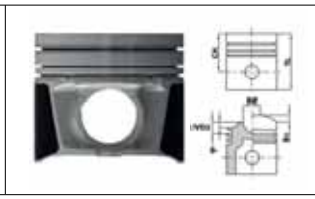
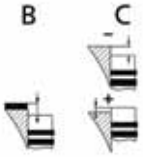
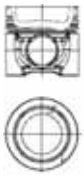
		Type		B C		
						

106,000

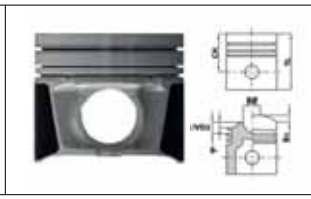
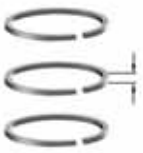
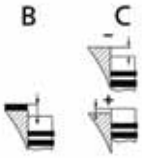
M 902.900	D	1998	6 Cyl	**7201cc**	**205kW**	(279ps)
M 902.901	D	1996	6 Cyl	**7201cc**	**170-205kW**	(231-279ps)
M 902.902	D		6 Cyl	**7201cc**	**170-205kW**	(231-279ps)
M 902.903	D	1998	6 Cyl	**7201cc**	**205kW**	(279ps)
M 906.900 Euro 3	D	2000	6 Cyl	**7201cc**	**205kW**	(279ps)
M 906.901 Euro 2	D		6 Cyl	**7201cc**	**205kW**	(279ps)
M 906.903 Euro 2	D		6 Cyl	**6374cc**	**205kW**	(279ps)

	**11-02586-000** CH 64,400 B- 22,500 BØ 80,300 TL 101,200 **42,00x80,00**	AP	**91-09631-000** 1 3,000 CK 2 2,500 CR 3 4,000 CR	Ø 106,000 Ø 106,500 Ø 107,000	**31-04586-000** **31-04586-050** **31-04586-100**

106,000

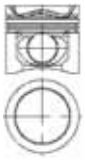
OM 924.917 / 925 / 929 / 933 Euro3	D		4 Cyl	**4800cc**	**142kW**	(190ps)
OM 926.916 Euro3	D		6 Cyl	**7201cc**	**240kW**	(326ps)
OM 926.920 Euro3	D		6 Cyl	**7201cc**	**209-224kW**	(280-300ps)
OM 926.927 Euro3	D		6 Cyl	**7201cc**	**187kW**	(250ps)
OM 926.928 Euro3	D		6 Cyl	**7201cc**	**187-209kW**	(250-280ps)
OM 926.942 Euro3	D		6 Cyl	**7201cc**	**224kW**	(300ps)
OM 926.950 Euro3	D		6 Cyl	**7201cc**	**194kW**	(260ps)
OM 926.961 / 963 Euro4 / 5	D	2007	6 Cyl	**7201cc**	**kW**	(ps)

	11-02754-000 CH 61,400 B- 12,500 BØ 80,000 TL 98,400 **42,00x80,00**	AP YS	**91-09754-000** 1 3,000 CK 2 2,500 CR 3 4,000 CR	Ø 106,000	**31-04754-000**
	K=110,00 L=220,00	DS		**51-65736-000**	

		Type		B C		
						

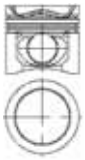
106,000

OM 924.911	D	2001	4 Cyl	**4800cc**	**160kW**	(218ps)
OM 926.911 Euro3	D		6 Cyl	**7201cc**	**240kW**	(326ps)
OM 926.912	D	2000	6 Cyl	**7201cc**	**240kW**	(326ps)

	**11-02755-000** CH 61,400 B- 13,400 BØ 78,500 TL 98,400 **42,00x80,00**	AP YS	**91-09754-000** 1 3,000 CK 2 2,500 CR 3 4,000 CR		Ø 106,000	**31-04755-000**
	K=110,00 L=220,00	DS			**51-65736-000**	

106,000

OM 924.913 / 915-916 / 919-920 / 924 / 928 / 932 Euro3	D		4 Cyl	**4800cc**	**145-160kW**	(187-218ps)
OM 926.913-915 / 917 / 921 / 924 / 926 / 929-930 / 932-933 / 935 / 938 / 940-94´ Euro3	D		6 Cyl	**7201cc**	**187-240kW**	(250-236ps)
OM 926.968 Euro4 / 5	D		6 Cyl	**7201cc**	**225kW**	(306ps)

	**11-02756-000** CH 61,400 B- 14,190 BØ 76,000 TL 98,400 **42,00x80,00**	AP YS HA	**91-09754-000** 1 3,000 CK 2 2,500 CR 3 4,000 CR		Ø 106,000	**31-04756-000**
	K=110,00 L=220,00	DS			**51-65736-000**	

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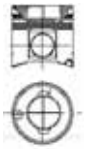
		Type		B C		

106,000

OM 924.927 Euro 5	D		4 Cyl	**4800cc**	**160kW**	(218ps)
OM 924.930 Euro 5	D	2006	4 Cyl	**4800cc**	**160kW**	(218ps)
OM 924.931 Euro 5	D	2006	4 Cyl	**4800cc**	**160kW**	(218ps)
OM 926.945 Euro 5	D		6 Cyl	**7201cc**	**240kW**	(326ps)
OM 926.946 Euro 5	D		6 Cyl	**7201cc**	**210-240kW**	(286-326ps)
OM 926.947 Euro 5	D		6 Cyl	**7201cc**	**240kW**	(326ps)
OM 926.948 Euro 5	D		6 Cyl	**7201cc**	**240kW**	(326ps)
OM 926.949 Euro 4	D		6 Cyl	**7201cc**	**210kW**	(286ps)



11-02762-000
CH 61,400
B- 15,670
BØ 72,300
TL 99,400

44,00x85,00

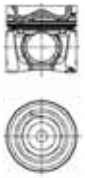
AP
YS

91-09696-000
1 3,500 CK
2 2,500 CR
3 4,000 CK

Ø 106,000 **31-04762-000**
Ø 106,300 **31-04762-030**
Ø 106,600 **31-04762-060**

106,000

OM 924.927-931-945-946-947-948 Euro 5 / 926.960 Euro 4/5	D		6 Cyl	**7201cc**	**kW**	(ps)
OM 924.930 Euro 5	D	2006	4 Cyl	**4800cc**	**160kW**	(218ps)
OM 926.945 / 947 Euro 5	D		6 Cyl	**7201cc**	**240kW**	(326ps)



11-02763-000
CH 61,400
B- 15,670
BØ 72,300
TL 99,400

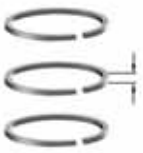
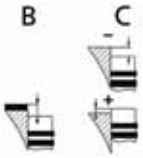
44,00x85,00

AP
YS

91-09696-000
1 3,500 CK
2 2,500 CR
3 4,000 CK

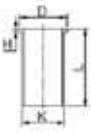
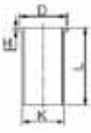
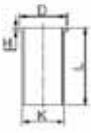
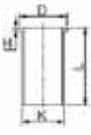
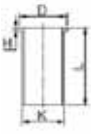
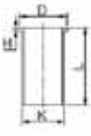
Ø 106,000 **31-04763-000**
Ø 106,300 **31-04763-030**
Ø 106,600 **31-04763-060**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

115,000

OM 360.910-912 / 914-915 / 916-918 / 930-931 / 933-944 / 946-952 / 954-956 / 959-978 / 979-981 / 983	D	1968	6 Cyl	**8725cc**	**81-141kW**	(110-192ps)
OM 360.982 / 984-986	D	1978	6 Cyl	**8725cc**	**141-154kW**	(192-210ps)

	11-01641-000 CH 85,300 VD1 0,700 VD2 0,700 B- 22,000 BØ 65,000 TL 133,300 **42,00x98,00**	AP	**91-09641-000** 1 3,500 CR 2 3,000 CrP 3 5,500 CR	+0,08/+0,41	Ø 115,000 Ø 115,500 Ø 116,000	**31-03641-000** **31-03641-050** **31-03641-100**
	K=120,06 L=253,50 H=6,00 D=124,90	DS			**51-65641-000**	
	K=120,50 L=253,50 H=7,00 D=125,40	DS +0,50			**51-65641-050**	
	K=121,06 L=253,50 H=7,00 D=125,90	DS +1,00			**51-65641-100**	
	K=122,06 L=253,50 H=7,00 D=126,90	DS +2,00			**51-65641-200**	
	K=120,06 L=253,50 H=5,50 D=124,90	DS			**51-65642-000**	
	K=120,07 L=253,50 H=5,75 D=125,00	DS			**51-65742-000**	

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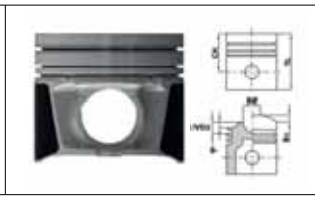
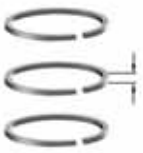
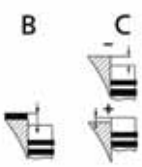
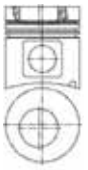
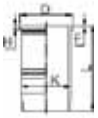
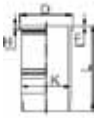
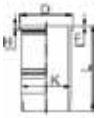
		Type				

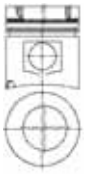
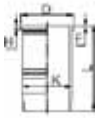
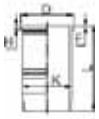
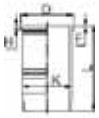
125,000

OM 401.901 / 924	D	1973		6 Cyl	**10456cc**	**144kW**	(196ps)
OM 402.901 / -000	D			8 Cyl	**13941cc**	**kW**	(ps)
OM 403.911 / -000 / 933 / 935	D	1972		10 Cyl	**15960cc**	**261kW**	(355ps)
OM 404.901 / -000 / 918	D	1973	1989	12 Cyl	**20911cc**	**236kW**	(320ps)

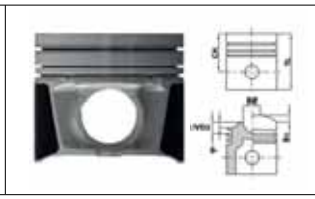
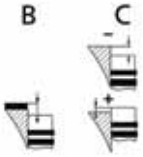
	**11-01628-000** CH 81,250 B- 24,500 BØ 69,000 TL 126,250 **46,00x97,00**	AP	**91-09643-000** 1 3,000 Mo 2 3,000 Mo 3 6,000 CR	+0,07/+0,43	Ø 125,000	**31-03628-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05616-000** 52-05616-000	**71-07039-000** 72-07039-000
	K=139,95 L=253,00 H+F=9,92+1,00 D=151,95	WF-PH			**51-05617-000**	**71-07037-000**
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-PH		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05643-000** 52-05643-000	**71-07628-000** 72-07628-000
	K=144,45 L=253,00 H+F=10,05+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05644-000** 52-05644-000	**71-07038-000** 72-07038-000
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-CR			**51-05680-000**	**71-07125-000**
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05734-000** 52-05734-000	**71-07633-000** 72-07633-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
125,000						
OM 407.901 / 913 / 915 / 916 / 917 / 919 / 920 / 930 / 932	D	1980	6 Cyl	**11412cc**	**147-177kW**	(200-240ps)
OM 409.901-000 / 906 / 908	D	1985	5 Cyl	**9204cc**	**135kW**	(183ps)
OM 495.900 / 900-002 / 900-003 / 900-009 / 900-010	D		5 Cyl	**9204cc**	**135kW**	(183ps)
OM 496.900-001 / 002 / 003 / 023 / 026 / 027 / 030 / 031 / 034 / 035 / 201	D		6 Cyl	**11412cc**	**147-162kW**	(200-220ps)

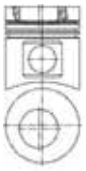
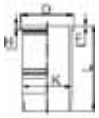
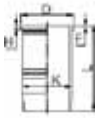
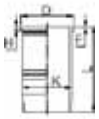
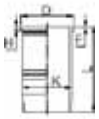
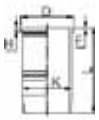
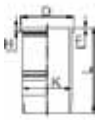
	**11-01629-000** CH 84,850 B- 23,000 BØ 75,000 TL 139,850 **46,00x97,00**	AP	**91-09643-000** 1 3,000 Mo 2 3,000 Mo 3 6,000 CR		Ø 125,000	**31-03629-000**
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-PH		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05643-000** 52-05643-000	**71-07630-000** 72-07630-000
	K=139,95 L=265,00 H+F=10,07+1,00 D=151,95	WF		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05646-000** 52-05646-000	**71-07629-000** 72-07629-000
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05734-000** 52-05734-000	**71-07634-000** 72-07634-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

125,000

OM 401.905-909 / 912-918 / 921-923 / 925-928	D	1972	1987	6 Cyl	**9572cc**	**129-141kW**	(175-192ps)
OM 402.900	D			8 Cyl	**12760cc**	**147-180kW**	(188-245ps)
OM 402.905 / 915-919 / 930-932 / 934	D	1970	1985	10 Cyl	**15960cc**	**236kW**	(320ps)
OM 402.910 / 911 / 913 / 914 / 917 / 921 / 923 / 927 / 928	D			8 Cyl	**12760cc**	**177kW**	(240ps)
OM 402.924-926	D	1972	1985	8 Cyl	**12760cc**	**188kW**	(256ps)

	**11-01643-000** CH 87,250 B- 23,500 BØ 65,000 TL 137,250 **46,00x97,00**	AP	**91-09643-000** 1 3,000 Mo 2 3,000 Mo 3 6,000 CR	+0,07/+0,43	Ø 125,000	**31-03643-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05616-000** 52-05616-000	**71-07002-000** 72-07002-000
	K=139,95 L=253,00 H+F=9,92+1,00 D=151,95	WF-PH			**51-05617-000**	**71-07040-000**
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-PH		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05643-000** 52-05643-000	**71-07643-000** 72-07643-000
	K=144,45 L=253,00 H+F=10,05+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05644-000** 52-05644-000	**71-07041-000** 72-07041-000
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-CR			**51-05680-000**	**71-07100-000**
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05734-000** 52-05734-000	**71-07635-000** 72-07635-000

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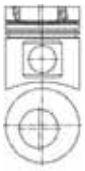
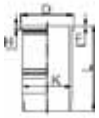
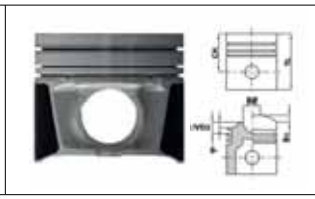
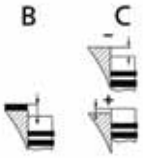
		Type		B C		
125,000						
OM 407.900 / -000	D	1982	1989	6 Cyl	**11040cc**	**kW** (ps)
OM 407.900 / 907 / 909-911	D	1973	1989	6 Cyl	**11040cc**	**155kW** (210ps)
OM 407.905 / 908	D	1973	1986	6 Cyl	**11040cc**	**132kW** (180ps)
OM 407.954 (AFS)	D	1973	1983	6 Cyl	**11040cc**	**235kW** (320ps)
OM 407.954 (AFS)	D			6 Cyl	**11040cc**	**235kW** (320ps)

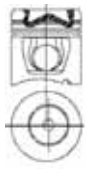
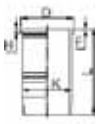
	**11-01644-000** CH 87,250 B- 25,400 BØ 70,000 TL 137,250 **46,00x97,00**	AP	**91-09643-000** 1 3,000 Mo 2 3,000 Mo 3 6,000 CR		Ø 125,000	**31-03644-000**
	K=139,95 L=265,00 H+F=10,07+1,00 D=151,95	WF		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05646-000** 52-05646-000	**71-07644-000** 72-07644-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

125,000

OM 401.901-504 Euro1	D	1992	6 Cyl	**9572cc**
OM 401.970 Euro1	D	1991	6 Cyl	**9572cc**
OM 401.972 / 979 / 981 / 986 / 987 / 993	D		6 Cyl	**9572cc**
OM 401.973 / 974 / 977 / 978 / 980 / 985 / 989 / 991	D		6 Cyl	**9572cc**
OM 401.975 / 976 / 984 / 990 / 994	D		6 Cyl	**9572cc**
OM 402.901 / -504 Euro1	D		8 Cyl	**12760cc**
OM 402.970-973 / 975 / 977 / 978 / 980-990 / 995 / 996	D		8 Cyl	**12760cc**
OM 402.974 Euro1	D		8 Cyl	**12760cc**
OM 402.976 Euro1	D		8 Cyl	**12760cc**

	**11-01645-000** CH 87,350 B- 25,000 BØ 68,300 TL 133,350 **46,00x102,00**	AP HA	**91-09645-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CrP	+0,07/+0,43	Ø 125,000	**31-03645-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05616-000** 52-05616-000	**71-07645-000** 72-07645-000
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-PH		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05643-000** 52-05643-000	**71-07130-000** 72-07130-000
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05734-000** 52-05734-000	**71-07636-000** 72-07636-000

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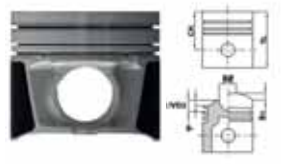
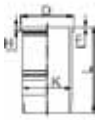
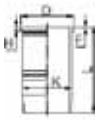
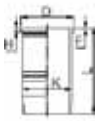


125,000

OM 401.901-504 Euro1	D	1992	6 Cyl	**9572cc**
OM 401.970 Euro1	D	1991	6 Cyl	**9572cc**
OM 401.972 / 979 / 981 / 986 / 987 / 993	D		6 Cyl	**9572cc**
OM 401.973 / 974 / 977 / 978 / 980 / 985 / 989 / 991	D		6 Cyl	**9572cc**
OM 401.975 / 976 / 984 / 990 / 994	D		6 Cyl	**9572cc**
OM 402.901 / -504 Euro1	D		8 Cyl	**12760cc**
OM 402.970-973 / 975 / 977 / 978 / 980-990 / 995 / 996	D		8 Cyl	**12760cc**
OM 402.974 Euro1	D		8 Cyl	**12760cc**
OM 402.976 Euro1	D		8 Cyl	**12760cc**

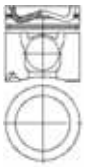
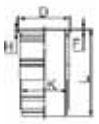
	11-02725-000 CH 87,350 B- 25,000 BØ 68,300 TL 133,350 **46,00x102,00**	AP	**91-09645-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CrP		Ø 125,000	**31-04725-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05616-000** 52-05616-000	**71-08725-000** 72-08725-000
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF-PH		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05643-000** 52-05643-000	**71-08726-000** 72-08726-000
	K=139,95 L=253,00 H+F=10,07+0,90 D=151,95	WF		O-Ring/Seal 55-50501-000 2 FPM 138,00x1,90 2 FPM 140,00x3,80	**51-05734-000** 52-05734-000	**71-07637-000** 72-07637-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

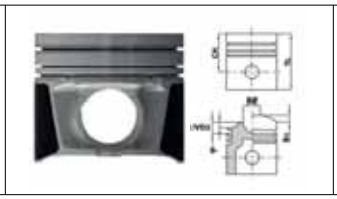
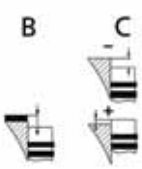
		Type		B C		

128,000

OM 460.900 Euro3	D	6 Cyl	**12816cc**
OM 460.901 Euro3	D	6 Cyl	**12816cc**
OM 460.902 / 903 Euro3	D	6 Cyl	**12816cc**
OM 460.904 / 905 Euro3	D	6 Cyl	**12816cc**
OM 460.906 / 909 / 910 / 912 / 915 / 916 / 918 / 922Eruo3	D	6 Cyl	**12816cc**
OM 460.907 Euro3	D	6 Cyl	**12816cc**
OM 460.908 Euro3	D	6 Cyl	**12816cc**
OM 460.911 / 913 / 914 / 917 / 919 / 921 / 923 / 925 / 929 / 931 Euro3	D	6 Cyl	**12816cc**

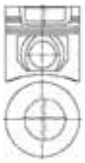
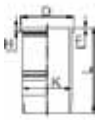
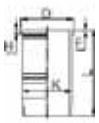
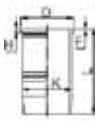
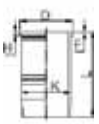
	**11-01632-000** CH 79,550 B- 17,750 BØ 93,100 TL 126,550 **52,00x103,00**	AP YS HA PDB	**91-09719-000** 1 3,000 CkP St 2 3,000 CrP 3 4,000 CkP		Ø 128,000	**31-03632-000**
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50	WF-CR		O-Ring/Seal 55-50503-000 1 SM 146,00x155,00x0,15 2 FPM 144,00x154,00x7,00	**51-05615-000** 52-05615-000	**71-08767-000** 72-08767-000
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50	WF		O-Ring/Seal 55-50503-000 1 SM 146,00x155,00x0,15 2 FPM 144,00x154,00x7,00	**51-05628-000** 52-05628-000	**71-07652-000** 72-07652-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

128,000

OM 421.900-000 / 901-410 / 901-500 / 901-510	D	1979		6 Cyl	**10965cc**	**kW**	(ps)
OM 421.905-910 / 923 / 967	D	1979		6 Cyl	**10965cc**	**159kW**	(216ps)
OM 421.951	D	1985	1989	6 Cyl	**10965cc**	**184kW**	(250ps)
OM 422.900 / -000 / -400 / -500	D			8 Cyl	**14618cc**	**kW**	(ps)
OM 422.905-923	D			8 Cyl	**14618cc**	**184-206kW**	(250-280ps)
OM 422.951 / 952 / 954 / 956	D	1979		8 Cyl	**14618cc**	**243kW**	(330ps)
OM 422.953 / 955	D	1980		8 Cyl	**14618cc**	**276kW**	(375ps)
OM 423.900 / -000 / -400 / -500	D			10 Cyl	**18273cc**	**kW**	(ps)
OM 423.905-909	D	1981		10 Cyl	**18273cc**	**261kW**	(355ps)
OM 423901-510 / 901	D			10 Cyl	**18273cc**	**346kW**	(470ps)
OM 424.900 / -000 / -400 / -500	D	1980		12 Cyl	**21930cc**	**kW**	(ps)
OM 481.902 / 904(TUR)	D			6 Cyl	**10965cc**	**159kW**	(216ps)
OM 481.912 / 930(TUR)	D	1980		6 Cyl	**10965cc**	**206kW**	(280ps)
OM 481.940 / 941(TUR)	D			6 Cyl	**10965cc**	**269kW**	(366ps)
OM 482.940 / 941(TUR)	D	1991		8 Cyl	**14618cc**	**269kW**	(366ps)
OM 493.900-001(AFS)	D			10 Cyl	**18273cc**	**261kW**	(355ps)

	**11-01650-000** CH 81,350 B- 24,100 BØ 70,000 TL 126,350 **46,00x99,00**	AP	**91-09704-000** 1 3,000 Mo 2 3,000 MoP 3 4,000 CR	-0,07/+0,43	Ø 128,000	**31-03650-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-07031-000** 72-07031-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-07042-000** 72-07042-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-07650-000** 72-07650-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-07032-000** 72-07032-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08771-000** 72-08771-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

128,000

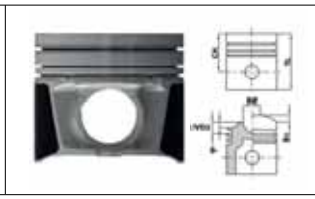
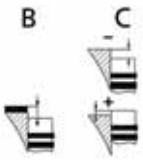
OM 457 Euro 4/Euro 5
.948/950-954/957/959/961/964-969/973-974/976-977/980-981 D 1998 6 Cyl **11970cc**

	11-02681-000 CH 85,000 B- 17,700 BØ 87,000 TL 135,000 **52,00x103,00**	AP YS PDB	**91-09719-000** 1 3,000 CkP St 2 3,000 CrP 3 4,000 CkP	+0,85/+0,71	Ø 128,000	**31-04681-000**
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50 X=6,50 (RING)	WF		O-Ring/Seal 55-50504-000 1 SM 146,00x155,00x0,15 2 VI 144,50x154,00x7,00 1 VI 132,50 x137,00x3,90	**51-05743-000** 52-05743-000	**71-07028-000** 72-07028-000

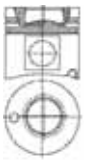
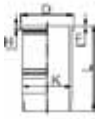
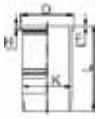
128,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston Cyl **cc** **kW** (ps)

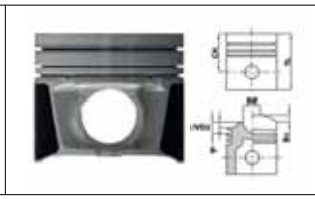
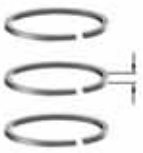
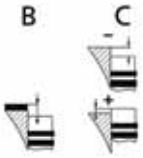
	11-02681-001 CH 84,800 B- 17,700 BØ 87,000 TL 134,800 **52,00x103,00**	AP YS PDB CH -0,20 mm	**91-09719-000** 1 3,000 CkP St 2 3,000 CrP 3 4,000 CkP		Ø 128,000	**31-04681-001**

		Type		B C		
						

128,000

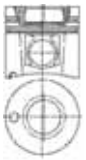
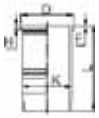
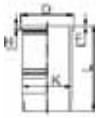
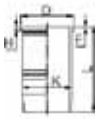
OM 441.901 / 960-962 / 981-983 / 985			D			
OM 442.941-946 / 950-953 / 957 / 959-960 / 962-966 / 968 / 971 / 972 / 974-976 / 980 / 982 / 983 / 989 / 991-994						
OM 443.901 / 901-500 / 940 / 980			D			
OM 444.901 (OM 444LA)			D			
	**11-02704-000** CH 81,350 B- 27,500 BØ 66,200 TL 126,350 **46,00x105,00**	AP	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000 Ø 128,000	**31-04704-000** **31-04704-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-07023-000** 72-07023-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-07082-000** 72-07082-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-08704-000** 72-08704-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-07024-000** 72-07024-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08773-000** 72-08773-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

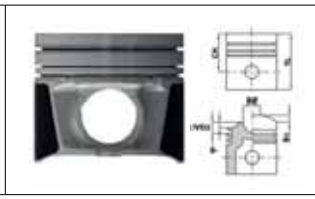
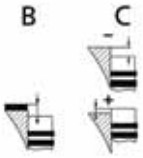
		Type		B C		
						

128,000

OM 447.900 / 901 / 905-908 / 910-912	D	1985	6 Cyl	**11970cc**	**150-184kW**	(204-250ps)
OM 466.900-005(AFS)	D		6 Cyl	**11970cc**	**175kW**	(238ps)
OM 475.907 / 950 / 951 / 953 / 954 / 982	D		5 Cyl	**9973cc**	**184-221kW**	(250-300ps)
OM 476.916 / 917 / 950 / 980-983	D		6 Cyl	**11970cc**	**213-310kW**	(290-422ps)
OM 485.980(BRA)	D		5 Cyl	**9973cc**	**221kW**	(300ps)

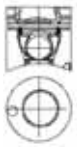
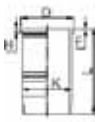
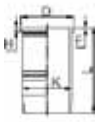
	**11-02706-000** CH 90,000 B- 30,000 BØ 59,900 TL 140,000 **46,00x99,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04706-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05651-000** 52-05651-000	**71-08706-000** 72-08706-000
	K=144,50 L=270,00 H+F=9,92+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05657-000** 52-05657-000	**71-07022-000** 72-07022-000
	K=144,50 L=270,00 H+F=9,92+1,00 D=153,80	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05737-000** 52-05737-000	**71-07638-000** 72-07638-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

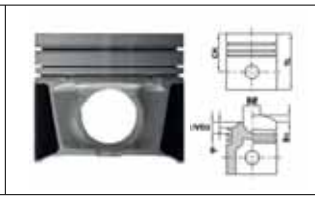
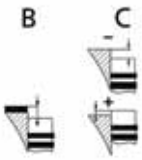
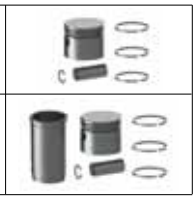
		Type		B C		
						

128,000

OM 441.950 / 951 / 953 / 955	D	6 Cyl	**10965cc**	**200-250kW**	(272-340ps)
OM 442.950-955 / 957 / 959-966 / 968 / 971 / 972 / 974-976 / 980 / 982 / 983 / 985 / 989 / 991-994	D	8 Cyl	**14618cc**	**269-366kW**	(354-492ps)
OM 443.940 / 980	D	10 Cyl	**18273cc**	**340-412kW**	(462-560ps)

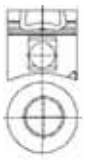
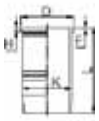
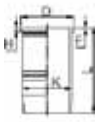
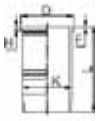
	**11-02709-000** CH 81,450 B- 27,500 BØ 66,500 TL 126,450 **46,00x105,00**	AP YS HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR	+0,17/+0,53	Ø 128,000	**31-04709-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-08709-000** 72-08709-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-07095-000** 72-07095-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-07011-000** 72-07011-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-08745-000** 72-08745-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08769-000** 72-08769-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

128,000

OM 441.950 / 953 / 955	D	1987	1992	6 Cyl	**10965cc**	**200kW**	(272ps)
OM 441.951 / 960-962 / 980-983 / 985-988	D			6 Cyl	**10965cc**	**250kW**	(340ps)
OM 442.969-502(USA)	D			8 Cyl	**14618cc**	**261kW**	(350ps)
OM 442.969-503(USA)	D			8 Cyl	**14618cc**	**298kW**	(400ps)
OM 442A.901 / 941-946 / 950 / 952 / 954-968 / 971 / 972 / 976	D			8 Cyl	**14618cc**	**269kW**	(366ps)
OM 442LA.951 / 953 / 980 / 982 / 983 / 985 / 989 / 992-994	D			8 Cyl	**14618cc**	**320-362kW**	(435-492ps)
OM 443A.901 / 940 / 980	D			10 Cyl	**18273cc**	**kW**	(ps)
OM 443LA.901 / 980	D			10 Cyl	**18273cc**	**412kW**	(560ps)
OM 444A.901 / 444LA.901	D			12 Cyl	**21920cc**	**kW**	(ps)
OM 462.900-410(AFS)	D			8 Cyl	**14618cc**	**260kW**	(354ps)
OM 462.900-510 / -511(AFS)	D			8 Cyl	**14618cc**	**320-329kW**	(435-447ps)

	**11-02711-000** CH 81,350 B- 27,500 BØ 66,600 TL 126,350 **46,00x105,00**	AP HA PDB	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR	-0,10/+0,32	Ø 128,000	**31-04711-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-08711-000** 72-08711-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-07096-000** 72-07096-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-07012-000** 72-07012-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-08712-000** 72-08712-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08770-000** 72-08770-000

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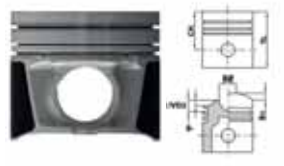
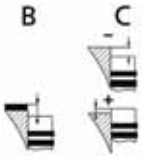




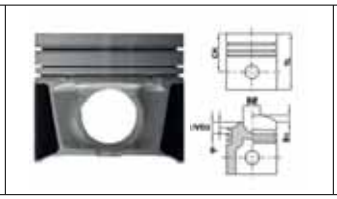
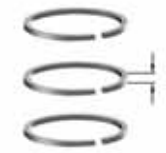
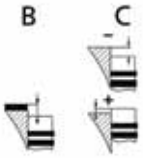
Type

128,000

OM 440.940-942 / 945 Euro1	D	1991	1994	8 Cyl	**14618cc**	**250kW**	(340ps)	
OM 440.978-986 / 991 Euro1	D	1990		8 Cyl	**14618cc**	**320-370kW**	(435-503ps)	
OM 441.990 Euro1	D	1992	1995	6 Cyl	**10965cc**	**250kW**	(340ps)	

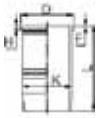
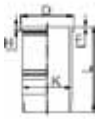
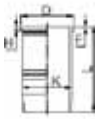
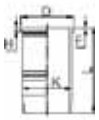
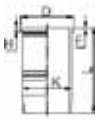
11-02713-000 CH 81,450 B- 24,500 BØ 66,600 TL 126,450 **46,00x105,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04713-000**
K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-08713-000** 72-08713-000
K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-08716-000** 72-08716-000
K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-07126-000** 72-07126-000
K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-08714-000** 72-08714-000
K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08774-000** 72-08774-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

128,000

OM 441.901 / 960-962 / 981-983 / 985	D	6 Cyl	**10965cc**	**250kW**	(340ps)
OM 442.941-946 / 950-953 / 957 / 959-960 / 962-966 / 968 / 971 / 972 / 974-976 980 / 982 / 983 / 989 / 991-994	D	8 Cyl	**14618cc**	**269-362kW**	(354-492ps)
OM 443.901 / 901-500 / 940 / 980	D	10 Cyl	**18273cc**	**340-412kW**	(462-560ps)
OM 444.901 (OM 444LA)	D	12 Cyl	**21920cc**	**kW**	(ps)

	11-02721-000 CH 81,350 B- 27,500 BØ 66,200 TL 126,350 **46,00x105,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04721-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-08721-000** 72-08721-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-08724-000** 72-08724-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-08702-000** 72-08702-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-08720-000** 72-08720-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08772-000** 72-08772-000

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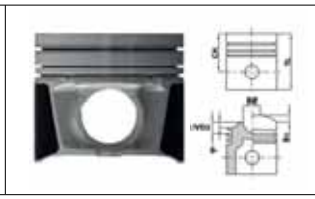
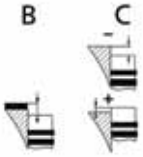
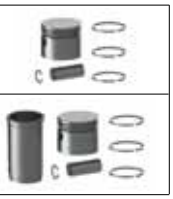
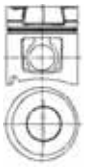
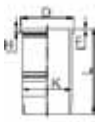
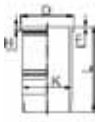
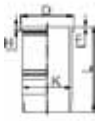
		Type		B C		
						

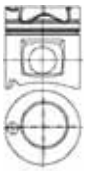
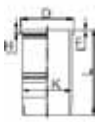
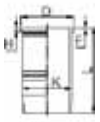
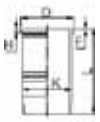
128,000

OM 447.913 Euro1	D	1993	6 Cyl	**11970cc**	**150-157kW**	(204-214ps)
OM 447.914 Euro1	D	1993	6 Cyl	**11970cc**	**150-157kW**	(204-214ps)

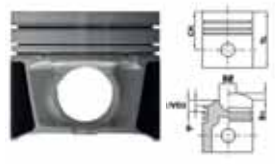
	**11-02727-000** CH 90,000 B- 25,500 BØ 62,500 TL 140,000 **46,00x99,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04727-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05651-000** 52-05651-000	**71-08731-000** 72-08731-000
	K=144,50 L=270,00 H+F=9,92+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05657-000** 52-05657-000	**71-08727-000** 72-08727-000
	K=144,50 L=270,00 H+F=9,92+1,00 D=153,80	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05737-000** 52-05737-000	**71-07639-000** 72-07639-000

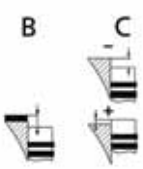
128,000

OM 447.903-600 / 903-604 / 954-959 / 995	D	1991	6 Cyl	**11970cc**	**184kW**	(250ps)
OM 447.960(TUR) Euro1	D	1997	6 Cyl	**11970cc**	**184kW**	(250ps)
OM 447HLA.903-704 / 903-705 / 947TUR / 960TUR / 980-987	D	1991	6 Cyl	**11970cc**	**184-220kW**	(250-300ps)

	**11-02728-000** CH 90,000 B- 24,000 BØ 75,000 TL 140,000 **46,00x105,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04728-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05651-000** 52-05651-000	**71-08733-000** 72-08733-000
	K=144,50 L=270,00 H+F=9,92+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05657-000** 52-05657-000	**71-08728-000** 72-08728-000
	K=144,50 L=270,00 H+F=9,92+1,00 D=153,80	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05737-000** 52-05737-000	**71-07640-000** 72-07640-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

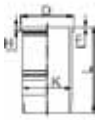
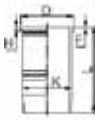
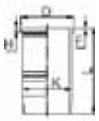
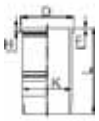
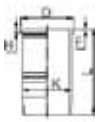




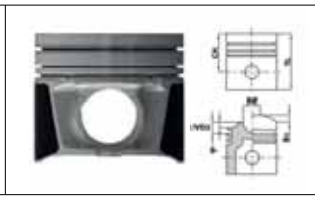
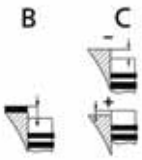
Type

128,000

OM 440.940-942 / 945 Euro1	D	8 Cyl	**14618cc 250kW** (340ps)
OM 440.978-986 / 991 Euro1	D	8 Cyl	**14618cc 320kW** (435ps)
OM 441.990 Euro1	D	6 Cyl	**10965cc 250kW** (340ps)

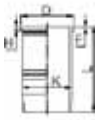
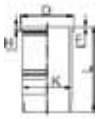
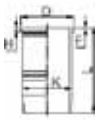
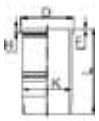
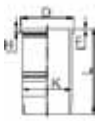
	11-02731-000 CH 81,450 B- 24,500 BØ 66,600 TL 126,450 **46,00x105,00**	AP	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04731-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-08739-000** 72-08739-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-07141-000** 72-07141-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-08740-000** 72-08740-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-08743-000** 72-08743-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08776-000** 72-08776-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

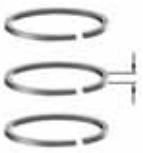
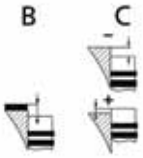
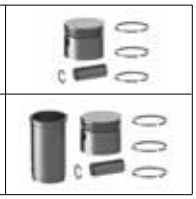
		Type		B C		
						

128,000

OM 441.901-400	D		6 Cyl	**10965cc**	**kW** (ps)
OM 441.901-500 / 901-505 / 901-507 / 901-520 / 901-530	D	1995	6 Cyl	**10965cc**	**250kW** (340ps)
OM 442.901-507 / 901-508 / 901-520 Euro2	D		8 Cyl	**14618cc**	**kW** (ps)
OM 445.920-927 / 929-931 / 933-941 Euro2	D	1994	6 Cyl	**10965cc**	**180-250kW** (245-340ps)
OM 446.920 / 922-936 / 938-943 / 945-946 / 948 Euro2	D	1994	8 Cyl	**14618cc**	**280-390kW** (381-530ps)

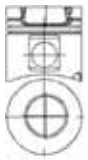
	11-02733-000 CH 81,450 B- 24,000 BØ 72,500 TL 126,450 **46,00x105,00**	AP YS	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR	-0,07/+0,43	Ø 128,000	**31-04733-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-08734-000** 72-08734-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-08736-000** 72-08736-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-08735-000** 72-08735-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-08738-000** 72-08738-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08775-000** 72-08775-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

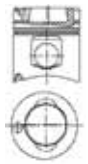
128,000

2711 in burçsuz ve hücresi düz olani / piston version 2711 without pin boss bushing and plane cylindrical combustion chamber — Cyl — **cc**

	**11-02736-000** CH 81,350 B- 26,000 BØ 66,600 TL 126,350 **46,00x105,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04736-000**

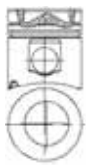
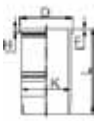
128,000

OM 447LA BRAZIL	D	1995	
OM 449A BRAZIL	D		
OM 475.950-954BRAZIL	D		
OM 475.982 / 992BRAZIL	D		
OM 476.980-981 / 983BRAZIL	D		

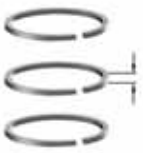
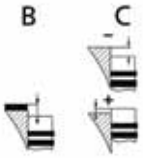
	**11-02744-000** CH 89,950 B- 26,500 BØ 62,500 TL 140,000 **46,00x105,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04744-000**
	K=144,50 L=270,00 H+F=9,92+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05657-000** 52-05657-000	**71-08754-000** 72-08754-000

128,000

OM 449LA BRA	D	1995	6 Cyl	**11970cc**	**264kW**	(360ps)
OM 475.985-986 / 989 / 991 / 994 / 997-998(AFS / LAM) Euro1	D		5 Cyl	**9973cc**	**184-224kW**	(250-305ps)
OM 476.977(BRA) Euro2	D	1995	6 Cyl	**11970cc**	**264kW**	(360ps)
OM 476.979LA BRAZIL Euro2	D		6 Cyl	**11970cc**	**264kW**	(360ps)
OM 476.985(BRA) Euro1	D	1995	6 Cyl	**11970cc**	**261kW**	(355ps)
OM 489.960-961(TUR) Euro1	D	1995	5 Cyl	**9973cc**	**155kW**	(211ps)

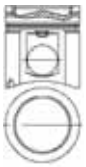
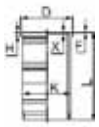
	**11-02745-000** CH 89,950 B- 24,000 BØ 77,000 TL 140,000 **46,00x105,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04745-000**
	K=144,45 L=270,00 H+F=10,07+1,00 D=153,80	WF-PH		O-Ring/Seal 55-50508-000 2 FPM 138,00x2,10 2 FPM 144,00x4,00	**51-05651-000** 52-05651-000	**71-08751-000** 72-08751-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

128,000

OM 457 Euro2-3 / OM 457 LA Euro2-3 / OM 458 Euro2-3 — D 1995 — 6 Cyl — **11970cc 250kW** (340ps)

	**11-02747-000** CH 90,050 B- 15,850 BØ 93,000 TL 140,050 **52,00x103,00**	AP YS Old version 2719 000	**91-09719-000** 1 3,000 CkP St 2 3,000 CrP 3 4,000 CkP		Ø 128,000	**31-04747-000**
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50	WF-CR		O-Ring/Seal 55-50503-000 1 SM 146,00x155,00x0,15 2 FPM 144,00x154,00x7,00	**51-05615-000** 52-05615-000	**71-08766-000** 72-08766-000
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50	WF		O-Ring/Seal 55-50503-000 1 SM 146,00x155,00x0,15 2 FPM 144,00x154,00x7,00	**51-05628-000** 52-05628-000	**71-08756-000** 72-08756-000
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50 X=6,50 (RING)	WF		O-Ring/Seal 55-50504-000 1 SM 146,00x155,00x0,15 2 VI 144,50x154,00x7,00 1 VI 132,50 x137,00x3,90	**51-05743-000** 52-05743-000	**71-08764-000** 72-08764-000

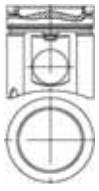
128,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston — D 1995 — 6 Cyl — **11970cc 250kW** (340ps)

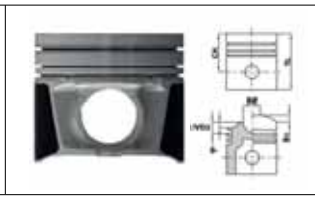
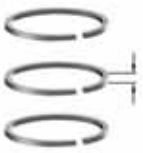
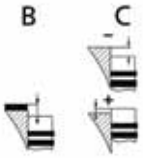
	11-02747-001 CH 89,750 B- 15,850 BØ 93,000 TL 140,050 **52,00x103,00**	AP YS CH -0,30 mm	**91-09719-000** 1 3,000 CkP St 2 3,000 CrP 3 4,000 CkP		Ø 128,000	**31-04747-001**

128,000

OM 457 Euro2/3 — D 1997 — 6 Cyl — **11970cc 185-315kW** (252-428ps)

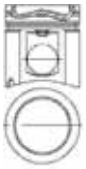
	**11-02748-000** CH 90,050 B- 18,000 BØ 89,500 TL 140,050 **52,00x103,00**	AP YS	**91-09719-000** 1 3,000 CkP St 2 3,000 CrP 3 4,000 CkP		Ø 128,000	**31-04748-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

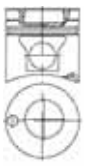
128,000

OM 457.936 Euro2	D		6 Cyl	**11970cc**	**300kW**	(408ps)	
OM 457.939 Euro2	D	1998	6 Cyl	**11970cc**	**260kW**	(354ps)	
OM 457.942 Euro2	D	1997	6 Cyl	**11970cc**	**185-260kW**	(252-354ps)	
OM 457.944 Euro2	D	1999	6 Cyl	**11970cc**	**260-310kW**	(354-421ps)	
OM 457LA Euro2	D		6 Cyl	**11970cc**	**250kW**	(340ps)	

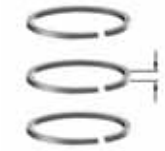
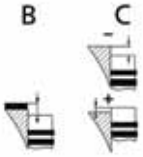
	**11-02751-000** CH 90,050 B- 18,000 BØ 89,500 TL 140,050 **52,00x103,00**	AP YS	**91-09719-000** 1 3,000 CkP St 2 3,000 CrP 3 4,000 CkP		Ø 128,000	**31-04751-000**
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50	WF-CR		O-Ring/Seal 55-50503-000 1 SM 146,00x155,00x0,15 2 FPM 144,00x154,00x7,00	**51-05615-000** 52-05615-000	**71-08755-000** 72-08755-000
	K=144,50 L=266,00 H+F=10,12+1,10 D=155,50	WF		O-Ring/Seal 55-50503-000 1 SM 146,00x155,00x0,15 2 FPM 144,00x154,00x7,00	**51-05628-000** 52-05628-000	**71-08765-000** 72-08765-000

128,000

OM 441LA Euro1980 / 986 / 989 / 993	D	1991	1996	6 Cyl	**10960cc**	**249kW**	(340ps)
OM 442A900 / 941 / 946 / 950 / 952 / 954 / 968	D	1991		8 Cyl	**14618cc**	**269kW**	(366ps)
OM 443A901	D			10 Cyl	**18270cc**	**kW**	(ps)

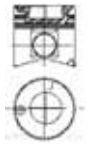
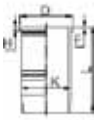
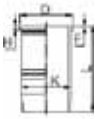
	**11-02757-000** CH 81,300 B- 24,350 BØ 66,600 TL 126,350 **46,00x105,00**	AP HA	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR	-0,03/+0,33	Ø 128,000	**31-04757-000**
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-08762-000** 72-08762-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

128,000

OM 442LA.901 / 953 / 955 / 959 — D 1980 — 8 Cyl — **14618cc** **184-390kW** (250-530ps)

	**11-02764-000** CH 81,350 B- 26,040 BØ 65,440 TL 126,350 **46,00x105,00**	AP HA PDB	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR		Ø 128,000	**31-04764-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-08825-000** 72-08825-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-08831-000** 72-08831-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08779-000** 72-08779-000

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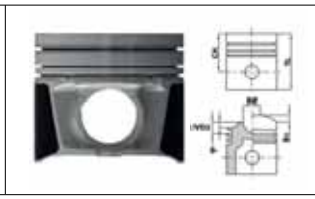
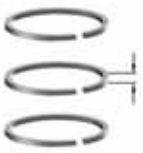
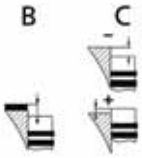
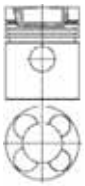
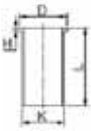
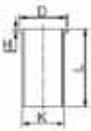
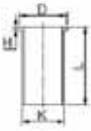
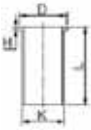
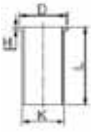
		Type		B C		
						

128,000

OM 335.910 / 930 / 932	D	1969	6 Cyl	**11581cc**	**154-176kW**	(210-240ps)
OM 345.910 / 912 / 914(001-005) / 932-933 / 936-937	D	1974	6 Cyl	**11581cc**	**103-177kW**	(140-240ps)
OM 345.915 / 919 / 919(001-002) / 941-942 / 945-947 / 949 / 972-973 / 975	D	1976	6 Cyl	**11581cc**	**114-150kW**	(155-204ps)
OM 347.915 / 942-943	D	1985	5 Cyl	**9651cc**	**141-147kW**	(192-200ps)
OM 355.910-916 / 918 / 960-964 / 966-967 / 970 / 972-975 / 975(005-006) / 976 / 976(001-004) / 978-984	D	1967	6 Cyl	**11581cc**	**136-191kW**	(185-260ps)
OM 355II.Serie	D	1969	5 Cyl	**9651cc**	**kW**	(ps)

	**11-02901-000** CH 90,260 VD1 1,100 B- 27,000 BØ 70,000 TL 161,260 **48,00x108,00**	AP	**91-09911-000** 1 3,500 MoP 2 3,500 P 3 3,500 P 4 6,500 CrP	+0,09/+0,30	Ø 128,000 Ø 128,500 Ø 129,000 Ø 129,500	**31-04901-000** **31-04901-050** **31-04901-100** **31-04901-150**
	K=133,49 L=287,50 H=5,55 D=137,45	DF			**51-35631-000**	**71-08901-000**
	K=133,55 L=287,50 H=5,55 D=137,42	DS			**51-65648-000**	
	K=134,05 L=287,50 H=6,00 D=137,92	DS +0,50			**51-65648-050**	
	K=134,50 L=287,50 H=6,00 D=138,42	DS +1,00			**51-65648-100**	
	K=135,05 L=287,50 H=6,00 D=138,92	DS +1,50			**51-65648-150**	

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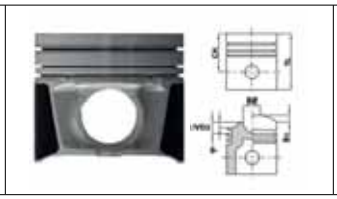
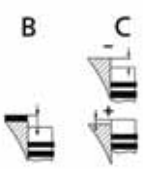
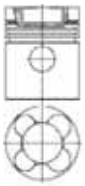
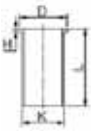
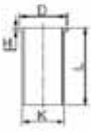
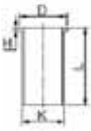
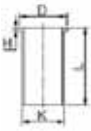
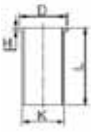
		Type				

128,000

OM 345.913-960	D	1975	6 Cyl	**11581cc**	**210kW**	(285ps)
OM 345.913-960(BRA)	D	1975	6 Cyl	**11581cc**	**210kW**	(285ps)
OM 355.968-969 / 977	D	1974	6 Cyl	**11581cc**	**191-207kW**	(260-280ps)

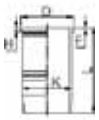
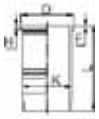
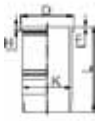
	**11-02911-000** CH 90,260 VD1 2,000 B- 28,500 BØ 70,000 TL 161,260 **48,00x108,00**	AP	**91-09911-000** 1 3,500 MoP 2 3,500 P 3 3,500 P 4 6,500 CrP	-0,10/+0,22	Ø 128,000 Ø 128,500 Ø 129,000 Ø 129,500	**31-04911-000** **31-04911-050** **31-04911-100** **31-04911-150**
	K=133,49 L=287,50 H=5,55 D=137,45	DF			**51-35631-000**	**71-08911-000**
	K=133,55 L=287,50 H=5,55 D=137,42	DS			**51-65648-000**	
	K=134,05 L=287,50 H=6,00 D=137,92	DS +0,50			**51-65648-050**	
	K=134,50 L=287,50 H=6,00 D=138,42	DS +1,00			**51-65648-100**	
	K=135,05 L=287,50 H=6,00 D=138,92	DS +1,50			**51-65648-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

128,000

OM 421.901 / -400 / -410 / 951	D	1984		6 Cyl	**10965cc**	**184kW**	(250ps)
OM 421.901 / -500-510	D	1984		6 Cyl	**10965cc**	**kW**	(ps)
OM 422.901-400-410 / 951-952 / 954 / 956-958 / 963	D	1979	1991	8 Cyl	**14618cc**	**206-243kW**	(280-330ps)
OM 422.901-500 / 953 / 955 / 959	D	1980		8 Cyl	**14618cc**	**276kW**	(375ps)
OM 423.901 / -400 / -500	D	1984		10 Cyl	**18273cc**	**346kW**	(470ps)
OM 423.901-510 / 950	D	1984	1994	10 Cyl	**18273cc**	**346-368kW**	(470-500ps)
OM 424.901 / -500 / -510	D	1980		12 Cyl	**21930cc**	**441kW**	(600ps)
OM 424.901-400	D	1980		12 Cyl	**21930cc**	**kW**	(ps)
OM 492.900 / -405 / -406 / -409 / -411	D	1984		8 Cyl	**14618cc**	**221-243kW**	(300-330ps)
OM 492.900-501	D	1984		8 Cyl	**14618cc**	**276kW**	(375ps)
OM 493.900-501	D	1984		10 Cyl	**18273cc**	**368kW**	(500ps)

	11-02919-000 CH 81,350 B- 25,400 BØ 70,000 TL 126,350 **46,00x105,00**	AP	**91-09650-000** 1 3,000 Mo 2 3,000 CR 3 4,000 CR	-0,07/+0,43	Ø 128,000	**31-04919-000**
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05618-000** 52-05618-000	**71-07029-000** 72-07029-000
	K=144,45 L=253,00 H+F=10,42+1,00 D=153,70	WF		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05619-000** 52-05619-000	**71-07043-000** 72-07043-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05650-000** 52-05650-000	**71-08919-000** 72-08919-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-07147-000** 72-07147-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05733-000** 52-05733-000	**71-08780-000** 72-08780-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50507-000 2 FPM 140,00x1,90 2 FPM 144,00x3,80	**51-05652-000** 52-05652-000	**71-07631-000** 72-07631-000

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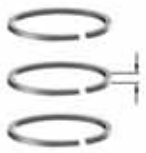
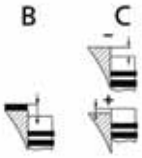
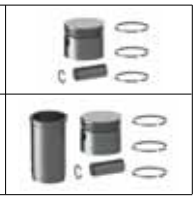
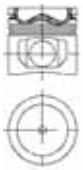





	Type					
130,000						
OM 501 LA EURO3	D	2003	6 Cyl	**11950cc**	**230-350kW**	(313-476ps)
OM 502 LA EURO3	D	2003	8 Cyl	**15928cc**	**350-440kW**	(476-598ps)
OM 521.940 Euro 2 / Euro 3	D		6 Cyl	**11946cc**	**315kW**	(428ps)
OM 521.950 / 951 Euro 2	D		6 Cyl	**11946cc**	**260-335kW**	(354-456ps)
OM 522.940-943 / 950 Euro2	D		8 Cyl	**15928cc**	**420kW**	(570ps)
OM 541 Euro 2/3 .940 - 948 / 950 - 952	D	1996	6 Cyl	**11946cc**	**230-355kW**	(313-483ps)
OM 541.920 - 928 / 949 Euro 2	D	1996	6 Cyl	**11946cc**	**230kW**	(331ps)
OM 542 Euro 2 .920 - 926 / 956 - 957	D	1996	8 Cyl	**15928cc**	**350kW**	(476ps)
OM 542 Euro 2/3 .940 - 945 / 947 - 948	D	1995	8 Cyl	**15928cc**	**320-425kW**	(435-587ps)
OM 941 Euro 2/3 .900 / 910 / 920 - 921 / 929 - 930 / 940 / 960 / 970 / 980 - 981 / 990	D	1996	6 Cyl	**11946cc**	**230-315kW**	(313-428ps)
OM 942 Euro 2/3 .900 / 910 - 912 / 925 / 930 / 960 / 967 / 970 / 980 / 990	D	1996	8 Cyl	**15928cc**	**300-448kW**	(408-609ps)



11-02677-000
CH 78,550
B- 16,200
BØ 92,800
TL 119,500

52,00x103,00

AP
YS
PDB

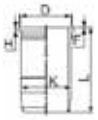
91-09710-000
1 3,000 CR
2 3,000 CR
3 4,000 CR

+0,27/+0,61

Ø 130,000

31-04677-000

Ihc/Case ve Merdedes-Benz ile Ortak Motor



K=150,00
L=258,00
H+F=10,10+1,00
D=164,00

WF

O-Ring/Seal
55-50510-000
1 SM 153,30x163,50x0,15
2 FPM 149,00x158,60x7,00

51-05684-000
52-05684-000

71-07026-000
72-07026-000

130,000						
OM 541 Euro 4/5 (BlueTec).953 / 959 / 970 - 981 / 990 - 992 / 994 / 996 - 999	D	2005	6 Cyl	**11946cc**	**235-350kW**	(320-476ps)
OM 542 Euro 4/5 (BluTec) .960 - 966 / 970 - 973	D	2005	8 Cyl	**15928cc**	**350-448kW**	(476-609ps)
OM 942.993	D		8 Cyl	**15928cc**	**376-480kW**	(510-653ps)

11-02680-000
CH 78,550
B- 17,600
BØ 87,000
TL 119,550

52,00x103,00

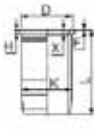
AP
YS
PDB

91-09711-000
1 3,000 CdC
2 3,000 CR
3 4,000 CdC

+0,27/+0,61

Ø 130,000

31-04680-000



K=150,00
L=258,00
H+F=10,12+1,15
D=164,20
X=13,50 (RING)

WF

O-Ring/Seal
55-50510-000
1 SM 153,30x163,50x0,15
2 FPM 149,00x158,60x7,00

51-05744-000
52-05744-000

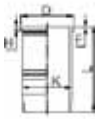
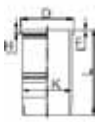
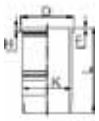
71-07027-000
72-07027-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

130,000

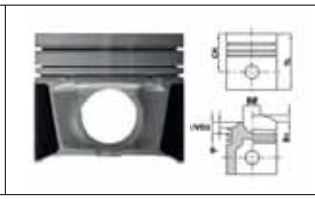
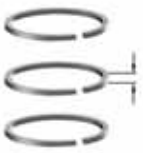
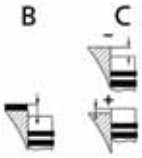
OM 440.909-911	D		8 Cyl	**15080cc**	**195kW**	(265ps)
OM 441.905-909 / 911-921 / 923-922	D		6 Cyl	**11309cc**	**150-165kW**	(204-224ps)
OM 442.905	D		8 Cyl	**15080cc**	**191kW**	(260ps)
OM 442.906-911 / 915-919 / 923-930	D		8 Cyl	**15080cc**	**206-218kW**	(280-296ps)
OM 442.914 / 920-922 / 932-935	D		8 Cyl	**15080cc**	**195kW**	(265ps)
OM 443.905	D		10 Cyl	**18848cc**	**271kW**	(369ps)
OM 462.900-010 / -011 / -012 / -013	D		8 Cyl	**15080cc**	**195-203kW**	(265-276ps)
OM 463.900-010	D	1986	10 Cyl	**18848cc**	**260-271kW**	(354-368ps)

	11-02708-000 CH 81,350 B- 27,200 BØ 60,800 TL 126,350 **46,00x99,00**	AP	**91-09708-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR		Ø 130,000	**31-04708-000**
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05653-000** 52-05653-000	**71-08708-000** 72-08708-000
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05658-000** 52-05658-000	**71-07018-000** 72-07018-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05681-000** 52-05681-000	**71-08703-000** 72-08703-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

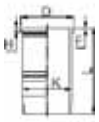
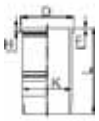
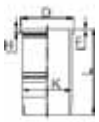
		Type		B C		
130,000						
OM 522LA Euro2		D	8 Cyl	**15928cc**	**362-420kW**	(496-570ps)
OM 541LA Euro2		D	6 Cyl	**11946cc**	**230-355kW**	(313-455ps)
OM 542LA Euro2		D	8 Cyl	**15928cc**	**320-420kW**	(435-571ps)
OM 941LA Euro2		D	6 Cyl	**11946cc**	**230-315kW**	(313-428ps)
OM 942LA Euro2		D	8 Cyl	**15928cc**	**300-448kW**	(408-609ps)
	11-02710-000 CH 78,650 B- 18,200 BØ 88,500 TL 119,550 **52,00x103,00**	AP YS	**91-09710-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR	+0,27/+0,61	Ø 130,000	**31-04710-000**
	K=150,00 L=258,00 H+F=10,10+1,00 D=164,00	WF-PH		O-Ring/Seal 55-50510-000 1 SM 153,30x163,50x0,15 2 FPM 149,00x158,60x7,00	**51-05674-000** 52-05674-000	**71-08710-000** 72-08710-000
	K=150,00 L=258,00 H+F=10,10+1,00 D=164,00	WF		O-Ring/Seal 55-50510-000 1 SM 153,30x163,50x0,15 2 FPM 149,00x158,60x7,00	**51-05684-000** 52-05684-000	**71-08747-000** 72-08747-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

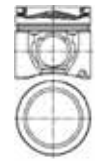
		Type		B C		
						

130,000

OM 440.909-911	D		8 Cyl	**15080cc**	**195kW**	(265ps)
OM 441.905-909 / 911-921 / 923-922	D		6 Cyl	**11309cc**	**150-165kW**	(204-224ps)
OM 442.905	D		8 Cyl	**15080cc**	**191kW**	(260ps)
OM 442.906-911 / 915-919 / 923-930	D		8 Cyl	**15080cc**	**206-218kW**	(280-296ps)
OM 442.914 / 920-922 / 932-935	D		8 Cyl	**15080cc**	**195kW**	(265ps)
OM 443.905	D		10 Cyl	**18848cc**	**271kW**	(369ps)
OM 462.900-010 / -011 / -012 / -013	D		8 Cyl	**15080cc**	**195-203kW**	(265-276ps)
OM 463.900-010	D	1986	10 Cyl	**18848cc**	**260-271kW**	(354-368ps)

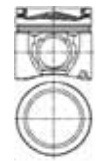
	11-02729-000 CH 81,350 B- 27,200 BØ 60,800 TL 126,350 **46,00x99,00**	AP HA	**91-09708-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR	+0,07/+0,43	Ø 130,000	**31-04729-000**
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05653-000** 52-05653-000	**71-08729-000** 72-08729-000
	K=144,45 L=253,00 H+F=9,92+1,00 D=153,70	WF-PH		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05658-000** 52-05658-000	**71-08730-000** 72-08730-000
	K=144,45 L=253,00 H+F=10,06+1,00 D=153,70	WF-CR		O-Ring/Seal 55-50509-000 1 T 147,40x153,50x0,15 2 FPM 144,00x3,80 1 FPM 140,00x1,90	**51-05681-000** 52-05681-000	**71-08701-000** 72-08701-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	**11-02732-000** CH 78,550 B- 16,250 BØ 92,900 TL 123,550 **52,00x103,00**	AP YS PDB	**91-09710-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR	+0,27/+0,61	Ø 130,000	**31-04732-000**
	Ihc/Case ve Merdedes-Benz ile Ortak Motor					
	K=150,00 L=258,00 H+F=10,10+1,00 D=164,00	WF-PH		O-Ring/Seal 55-50510-000 1 SM 153,30x163,50x0,15 2 FPM 149,00x158,60x7,00	**51-05674-000** 52-05674-000	**71-08746-000** 72-08746-000
	K=150,00 L=258,00 H+F=10,10+1,00 D=164,00	WF		O-Ring/Seal 55-50510-000 1 SM 153,30x163,50x0,15 2 FPM 149,00x158,60x7,00	**51-05684-000** 52-05684-000	**71-08732-000** 72-08732-000

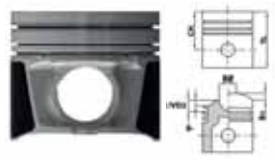
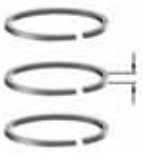
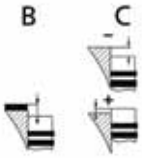
130,000

Strok Boyu 0,30mm Kisa Piston / Stroke Lenght 0,30mm Shorter Piston — Cyl | **cc** | **kW** | (ps)

	**11-02732-002** CH 78,250 B- 16,250 BØ 92,900 TL 123,250 **52,00x103,00**	AP YS PDB CH -0,30 mm	**91-09710-000** 1 3,000 CR 2 3,000 CR 3 4,000 CR		Ø 130,000	**31-04732-002**
	Ihc/Case ve Merdedes-Benz ile Ortak Motor					

OM 501LA	D		6 Cyl	**11950cc**	**230-350kW**	(313-476ps)
OM 502LA	D		8 Cyl	**15930cc**	**350-440kW**	(476-598ps)
OM 521.940 / 950 Euro2	D	1996	6 Cyl	**11946cc**	**260-335kW**	(354-456ps)
OM 522.940-943 / 950 Euro2	D	1996	8 Cyl	**15928cc**	**362-530kW**	(496-721ps)
OM 541.920-928 / 949-952 / 960 / 970 / 972 / 974 / 976 / 978 / 980 Euro2	D		6 Cyl	**11946cc**	**230-355kW**	(313-455ps)
OM 541.940-948 Euro2 / 3	D		6 Cyl	**11946cc**	**230-355kW**	(313-483ps)
OM 542.920-926 / 956-957 Euro2	D		8 Cyl	**15928cc**	**350-448kW**	(476-609ps)
OM 542.940 Euro2 / 3	D		8 Cyl	**15928cc**	**320-425kW**	(435-587ps)
OM 941.910 / 920-921 / 925 / 929-930 / 940 / 960 / 970 / 980-981 / 990 Euro2 / 3	D		6 Cyl	**11946cc**	**230-315kW**	(313-428ps)
OM 942.900 / 910-912 / 925 / 930 / 960 / 967 / 970 / 980 / 990 Euro2 / 3	D	1996	8 Cyl	**15928cc**	**300-448kW**	(408-609ps)

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

85,000

D987LKS — D

	11-01671-000 CH 60,000 B- 16,200 BØ 48,000 TL 92,000 **26,00x68,00**	CP	**91-09671-000** 1 3,000 CrP 2 3,000 P 3 5,000 CrP		Ø 85,000 Ø 85,500 Ø 86,000	**31-03671-000** **31-03671-050** **31-03671-100**

85,000

D987LKS-R — D — 4 Cyl — **3370cc**

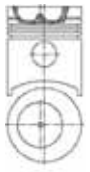
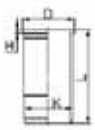
	11-01672-000 CH 60,000 B- 16,200 BØ 43,500 TL 92,000 **26,00x68,00**	CP	**91-09672-000** 1 3,000 CrP 2 3,000 P 3 5,000 CrP		Ø 85,000 Ø 85,500 Ø 86,000	**31-03672-000** **31-03672-050** **31-03672-100**

95,000

D327 — D — 4 Cyl — **3370cc**

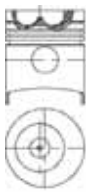
D327-3 — D — 3 Cyl — **2827cc**

D372-2 — D — 2 Cyl — **1885cc**

	**11-01670-000** CH 59,800 B- 17,500 BØ 57,500 TL 112,800 **32,00x82,00**	CP	**91-09670-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 5,000 CR		Ø 95,000 Ø 95,500	**31-03670-000** **31-03670-050**
	K=105,91 L=211,00 H=8,07 D=114,00	WF		O-Ring/Seal 55-50901-000 2 NBR 105,00x4,00	**51-05670-000** 52-05670-000	**71-07670-000** 72-07670-000

95,000

D225 — D — 1 Cyl — **1700cc** **25kW** (33ps)

	**11-01681-000** CH 59,800 B- 17,500 BØ 57,500 TL 112,800 **32,00x82,00**	CP	**91-09670-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 5,000 CR		Ø 95,000 Ø 95,500	**31-03681-000** **31-03681-050**

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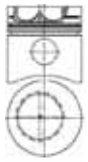
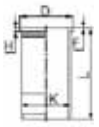
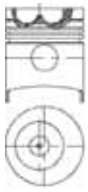
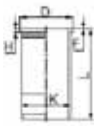
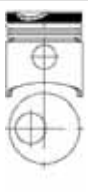
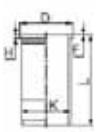
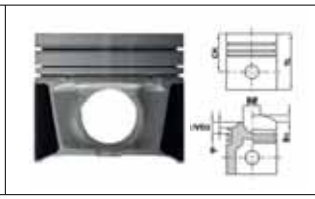
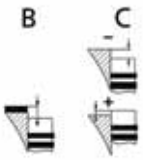
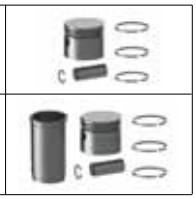
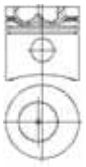
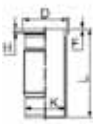
		Type		B C		
100,000						
D27-4.2		D		4 Cyl	**3370cc** **kW**	(ps)
D327-2.2		D		2 Cyl	**1885cc** **kW**	(ps)
D327-3.2		D		3 Cyl	**2827cc** **kW**	(ps)
D327-6.2		D	1977	6 Cyl	**5655cc** **kW**	(ps)
	**11-01674-000** CH 60,400 B- 19,200 BØ 56,000 TL 102,400 **35,00x82,00**		**91-09673-000** 1 3,000 CrP 2 2,000 3 2,000 P 4 4,000 CR		Ø 100,000 Ø 100,500	**31-03674-000** **31-03674-050**
	K=112,92 L=212,00 H+F=8,05+0,45 D=119,06	WF		O-Ring/Seal 55-50902-000 2 NBR 112,00x4,00	**51-05673-000** 52-05673-000	**71-07674-000** 72-07674-000
100,000						
D327-2.2		D	1977	2 Cyl	**1885cc**	
D327-3.2		D	1977	3 Cyl	**2827cc**	
D327-4.2		D	1977	4 Cyl	**3370cc**	
D327-6.2		D	1977	6 Cyl	**5655cc**	
	**11-01675-000** CH 60,400 B- 19,200 BØ 56,000 TL 113,400 **35,00x82,00**	CP	**91-09673-000** 1 3,000 CrP 2 2,000 3 2,000 P 4 4,000 CR		Ø 100,000 Ø 100,500	**31-03675-000** **31-03675-050**
	K=112,92 L=212,00 H+F=8,05+0,45 D=119,06	WF		O-Ring/Seal 55-50902-000 2 NBR 112,00x4,00	**51-05673-000** 52-05673-000	**71-08803-000** 72-08803-000
100,000						
D225Agricola		D		3 Cyl	**2800cc**	
	**11-02816-000** CH 59,800 B- 17,500 TL 112,800 **32,00x82,00**	CP	**91-09673-000** 1 3,000 CrP 2 2,000 3 2,000 P 4 4,000 CR		Ø 100,000	**31-04816-000**
	K=111,00 L=213,00 H+F=8,05+0,45 D=117,06	WF-PH			**51-05695-000**	**71-08816-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

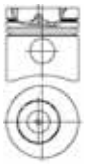
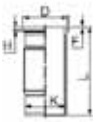
102,000

D229/3 — D — 1985 — 4 Cyl — **2900cc**

	**11-02817-000** CH 60,400 B- 21,200 TL 102,400 **32,00x82,00**	AP	**91-09599-000** 1 3,000 CR 2 2,500 CrP 3 4,000 CrP		Ø 102,000	**31-04817-000**
	K=113,00 L=213,00 H+F=8,00+1,00 D=119,00	WF			**51-05683-000**	**71-08817-000**

102,000

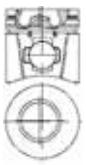
TD 229 — D — 1950 — 4 Cyl — **3920cc**

	**11-02821-000** CH 60,400 B- 19,300 BØ 58,300 TL 102,400 **35,00x88,00**	AP	**91-09599-000** 1 3,000 CR 2 2,500 CrP 3 4,000 CrP		Ø 102,000	**31-04821-000**
	K=113,00 L=213,00 H+F=8,00+1,00 D=119,00	WF			**51-05683-000**	**71-08821-000**

103,000

4.10T — D — 4 Cyl — **4300cc**

4.10TCA — D — 4 Cyl — **4300cc**

	**11-02818-000** CH 64,500 B- 24,500 BØ 51,000 TL 103,200 **38,00x87,00**	AP	**91-09818-000** 1 3,000 CrP 2 2,500 3 4,000 CR		Ø 103,000	**31-04818-000**
	K=113,95 L=213,00 H+F=8,05+1,00 D=123,50	WF-PH			**51-05696-000**	**71-08818-000**

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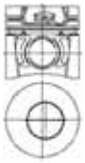
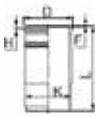
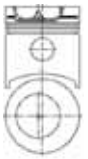
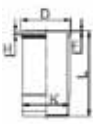
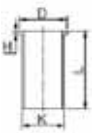
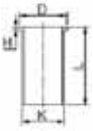
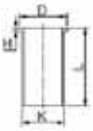
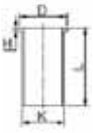
		Type		B C		

103,000

6.10TCA240CV Euro2 — D — 6 Cyl — **6100cc** **177kW** (241ps)

	**11-02819-000** CH 64,500 B- 24,000 BØ 50,000 TL 100,500 **38,00x88,00**	AP	**91-09818-000** 1 3,000 CrP 2 2,500 3 4,000 CR		Ø 103,000	**31-04819-000**
	K=113,95 L=213,00 H+F=8,05+1,00 D=123,50	WF-PH			**51-05696-000**	**71-08819-000**

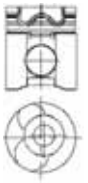
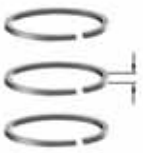
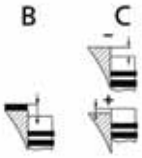
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
105,000						
D226-2	D 1972	2 Cyl	**2080cc**	**27-30kW**	(37-40ps)	
D226-3	D 1968	3 Cyl	**3117cc**	**35-44kW**	(48-60ps)	
D226-4	D 1968	4 Cyl	**4154cc**	**44-64kW**	(60-87ps)	
D226-6	D 1969	6 Cyl	**6234cc**	**74-96kW**	(101-131ps)	
	**11-01676-000** CH 59,800 B- 19,800 BØ 62,000 TL 112,800 **32,00x82,00** Mwm ve Renault-Trucks (RVI) ile Ortak Motor	CP	**91-09676-000** 1 3,000 CR 2 2,000 P 3 2,000 P 4 4,000 CR	-0,28/-0,60	Ø 105,000	**31-03676-000**
	K=115,00 L=213,00 H+F=8,07+1,00 D=123,00	WF		O-Ring/Seal 55-50917-000 2 FPM 112,00x1,50 2 FPM 115,00x4,00	**51-05678-000** 52-05678-000	**71-07676-000** 72-07676-000
	K=108,05 L=214,00 H=6,05 D=111,80	DF			**51-35676-000**	**71-07677-000**
	K=108,55 L=214,00 H=6,05 D=112,30	DF +0,50			**51-35676-050**	
	K=108,05 L=214,00 H=6,05 D=111,80	DS			**51-65677-000**	
	K=108,50 L=214,00 H=6,50 D=111,80	DS +0,50			**51-65677-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
105,000						
D226B-2	D 1986		2 Cyl	**2080cc**	**32kW**	(43ps)
D226B-3	D 1986		3 Cyl	**3120cc**	**33-55kW**	(45-75ps)
D226B-4	D 1986	1993	4 Cyl	**4154cc**	**51-74kW**	(70-100ps)
D226B-6	D 1986	1999	6 Cyl	**6234cc**	**77-105kW**	(88-120ps)
11-01678-000 CH 66,400 B- 22,400 BØ 57,500 TL 102,400 **35,00x82,00**		**91-09680-000** 1 3,000 CR 2 2,000 P 3 4,000 CR				**31-03678-000**
K=115,00 L=213,00 H+F=8,07+1,00 D=123,00	WF			O-Ring/Seal 55-50917-000 2 FPM 112,00x1,50 2 FPM 115,00x4,00	**51-05678-000** 52-05678-000	**71-07678-000** 72-07678-000
105,000						
Motor4.12TCAE Euro3	D 2002		4 Cyl	**4800cc**	**133kW**	(180ps)
11-02820-000 CH 60,500 B- 19,760 BØ 61,200 TL 96,500 **38,00x88,00**	AP	**91-09677-000** 1 3,000 CkP 2 2,500 3 3,500 CR			Ø 105,000	**31-04820-000**
K=113,90 L=208,00 H+F=8,05+1,00 D=124,00	WF-PH				**51-05697-000**	**71-08820-000**
105,000						
4.12TCAE	D		4 Cyl	**4800cc**	**kW**	(ps)
11-02822-000 CH 60,500 B- 19,770 BØ 61,200 TL 96,500 **38,00x88,00**	AP	**91-09677-000** 1 3,000 CkP 2 2,500 3 3,500 CR			Ø 105,000	**31-04822-000**
105,000						
4.12TCE	D		4 Cyl	**4800cc**		
6.12TCE	D		6 Cyl	**7200cc**		
11-02823-000 CH 60,500 B- 19,770 BØ 61,100 TL 96,500 **38,00x88,00**	AP YS HA	**91-09677-000** 1 3,000 CkP 2 2,500 3 3,500 CR			Ø 105,000	**31-04823-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

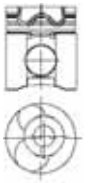
109,230

DT 466PLN — D — 1984 — 1995 — 6 Cyl — **7636cc**

	11-01220-000 CH 81,650 VD1 1,300 VD2 1,500 B- 23,000 BØ 62,200 TL 127,900 **46,37x88,50**	AP	**91-09211-000** 1 3,175 Mo 2 3,175 P 3 4,000 CrP		Ø 109,230	**31-03220-000**

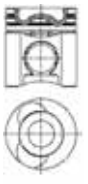
109,230

DT 466E — D — 1994 — 2004 — 6 Cyl — **7636cc** — **220kW** — (300ps)

	**11-01221-000** CH 81,650 VD1 1,050 VD2 1,550 B- 23,000 BØ 62,200 TL 127,900 **46,37x88,50**	AP	**91-09200-000** 1 3,175 Mo 2 3,000 P 3 4,000 CrP		Ø 109,230	**31-03221-000**

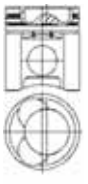
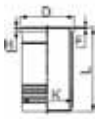
116,500

Maxx Force DT Engine — D — 6 Cyl — **9340cc** — **220kW** — (300ps)

	**11-01224-000** CH 81,750 VD1 2,300 VD2 1,600 B- 20,900 BØ 72,200 TL 127,900 **46,37x96,60**	AP	**91-09212-000** 1 3,500 Mo 2 3,175 P 3 4,000 CrP		Ø 116,500	**31-03224-000**

116,500

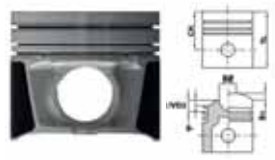
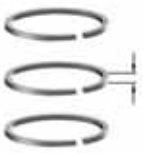
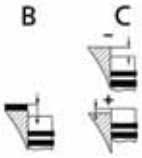
DT 530E — D — 6 Cyl — **7600cc** — **kW** — (250-275ps)

	**11-01225-000** CH 81,750 VD1 1,800 VD2 1,300 B- 22,200 BØ 69,300 TL 127,900 **46,37x88,00**	AP	**91-09212-000** 1 3,500 Mo 2 3,175 P 3 4,000 CrP		Ø 116,500	**31-03225-000**
	K=127,80 L=239,50 H+F=9,00+1,15 D=134,87	WF			**51-06136-000**	**71-07225-000**

		Type		B C		
104,000						
F4 HE 9684 J x 100			D	6 Cyl	**6700cc**	(ps)
	11-02829-000 CH 62,400 B- 21,000 BØ 59,500 TL 96,500 **38,00x82,00**	AP YS	**91-09416-000** 1 3,000 CK 2 2,385 P 3 4,000 CR		Ø 104,000 Ø 104,400	**31-04829-000** **31-04829-040**
Fiat / Iveco ve New Holland ile Ortak Motor						

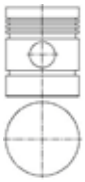
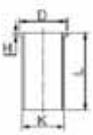
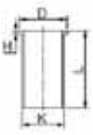
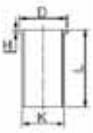
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
84,000						
404D-22T Euro3		D		4 Cyl	**2216cc**	
404D-22TA Euro3		D		4 Cyl	**2216cc**	
	11-02958-000 CH 47,700 B- 1,800 TL 87,700 **28,00x72,00**		**91-09768-000** 1 2,000 CrP 2 1,500 CrP 3 3,000 CR		Ø 84,000	**31-04958-000**
84,000						
403C-15 / 15G Euro 2		D 2001		3 Cyl	**1496cc**	**45261kW** (16-31ps)
403D-15T / 15G / 17 Euro 3		D		3 Cyl	**1496cc**	**13-30kW** (18-41ps)
404C-20		D		4 Cyl	**2216cc**	**kW** (ps)
404C-22 / 22T / 22G / 22TG Euro 2		D 2001		4 Cyl	**2216cc**	**28-46kW** (38-65ps)
404D-22 / 22T / 22TA Euro 3		D		4 Cyl	**2216cc**	**37-49kW** (50-66ps)
404D-22TAG Euro 4		D		4 Cyl	**2216cc**	**36kW** (49ps)
404D-22TG Euro 2		D		4 Cyl	**2216cc**	**27-33kW** (37-45ps)
	11-02959-000 CH 47,700 VD1 1,600 B- 1,600 TL 87,700 **28,00x72,00**		**91-09769-000** 1 2,000 CR 2 1,500 CrP 3 3,000 CR		Ø 84,000 Ø 84,500	**31-04959-000** **31-04959-050**
Atlas Copco ve Perkins ile Ortak Motor						

		Type		B C		
						

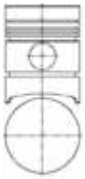
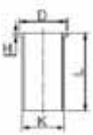
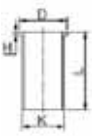
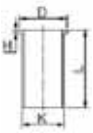
88,925

P3 / P3.144	D	3 Cyl	**2360cc**	**22-28kW**	(30-38ps)
PA / PB / P4 / P192 / 4.192	D	4 Cyl	**3140cc**	**29-37kW**	(40-50ps)
PF / PG / P6 / 6.288	D	6 Cyl	**4730cc**	**45kW**	(62ps)

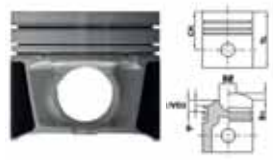
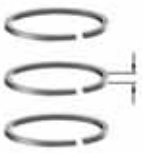
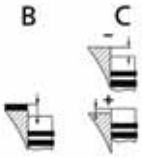
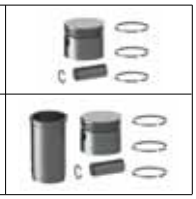
	**11-01830-000** CH 57,200 TL 107,900 **31,75x75,30**		**91-09830-000** 1 2,385 CrP 2 2,385 P 3 3,160 P 4 6,335 P 5 6,335 P		Ø 88,925	**31-03830-000**
	K=93,71 L=215,90 H=4,71 D=94,40	DF			**51-35829-000**	**71-07830-000**
	K=93,75 L=215,90 H=4,76 D=94,45	DS			**51-65830-000**	
	K=94,75 L=215,90 H=4,76 D=95,45	DS +1,00			**51-65830-100**	

88,925

4154	D	4 Cyl	**2523cc**	**kW**	(ps)

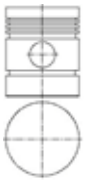
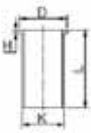
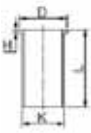
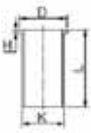
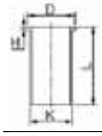
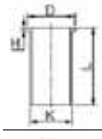
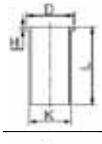
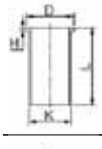
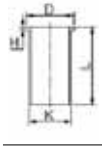
	**11-01836-000** CH 60,200 TL 115,650 **31,75x75,30**		**91-09836-000** 1 2,385 CR 2 2,385 P 3 2,385 P 4 4,747 CR 5 4,747 P		Ø 88,925	**31-03836-000**
	K=93,71 L=215,90 H=4,71 D=94,40	DF			**51-35829-000**	**71-07836-000**
	K=93,75 L=215,90 H=4,76 D=94,45	DS			**51-65830-000**	
	K=94,75 L=215,90 H=4,76 D=95,45	DS +1,00			**51-65830-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

91,480

3152	D			3 Cyl	**2490cc**
4203	D	1964	1990	4 Cyl	**3335cc**
6305	D	1958	1968	6 Cyl	**5003cc**
A 3.152	D			3 Cyl	**2503cc**
A 4.203	D			4 Cyl	**3335cc**
A 6.305	D			6 Cyl	**5003cc**

	**11-01831-000** CH 57,200 TL 107,700 **31,75x75,30** Massey-Ferguson, Perkins ve Volvo ile Ortak Motor		**91-09832-000** 1 2,385 CrP 2 2,385 P 3 3,160 P 4 6,335 P 5 6,335 CrP	-0,13/0	Ø 91,480	**31-03831-000**
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07831-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	
	K=95,25 L=216,00 H=3,81 D=98,25	DS +1,50			**51-65834-150**	
	K=95,75 L=216,00 H=3,81 D=98,75	DS +2,00			**51-65834-200**	

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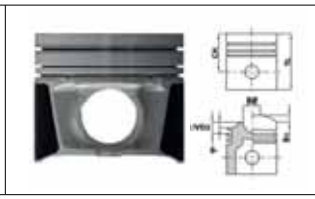
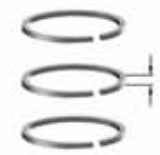
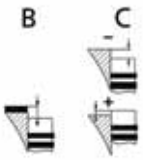
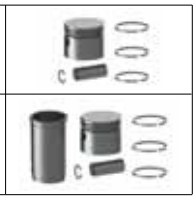
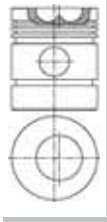
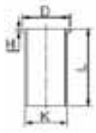
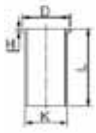
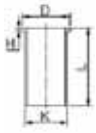
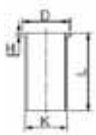
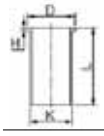
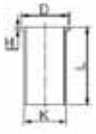
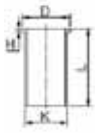
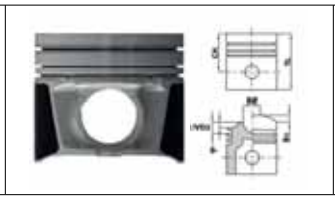
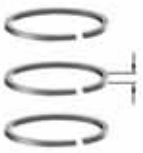
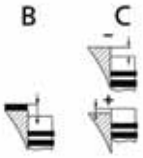
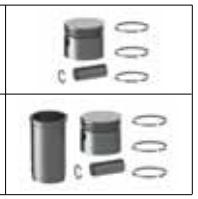
		Type		B C		
						

91,480

AD / D 3.152	D	1953	1980	3 Cyl	**2490cc**	**28-42kW** (38-57ps)
AD / D 4.203	D			4 Cyl	**3335cc**	**40-43kW** (55-59ps)

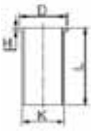
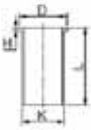
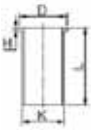
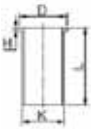
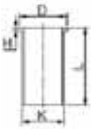
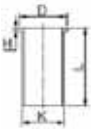
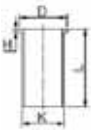
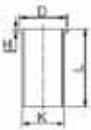
	**11-01832-000** CH 61,910 B- 18,400 BØ 55,850 TL 109,540 **31,75x75,75,30** Massey-Ferguson, Perkins ve Volvo ile Ortak Motor		**91-09832-000** 1 2,385 CrP 2 2,385 P 3 3,160 P 4 6,335 P 5 6,335 CrP		Ø 91,480	**31-03832-000**
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07832-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	
	K=93,80 L=216,00 H=5,00 D=97,00	DS			**51-65831-000**	
	K=94,30 L=216,00 H=5,00 D=97,00	DS +0,50			**51-65831-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

91,480

D3.152		D	1970	1980	3 Cyl	**2503cc** **35kW**	(47ps)
D4.203		D			4 Cyl	**3335cc** **40kW**	(54ps)

	11-01834-000 CH 62,000 B- 19,250 BØ 59,800 TL 109,600 **31,75x75,30**		**91-09834-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 4,747 CrP	-0,025/+0,010	Ø 91,480	**31-03834-000**
	Fiat / Iveco ve Perkins ile Ortak Motor					
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07834-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,80 L=216,00 H=5,00 D=97,00	DS			**51-65831-000**	
	K=94,30 L=216,00 H=5,00 D=97,00	DS +0,50			**51-65831-050**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	

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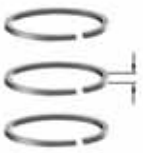
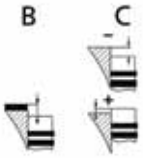
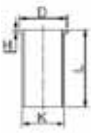
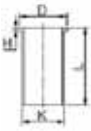
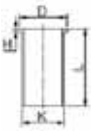
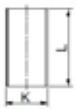
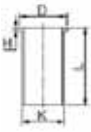
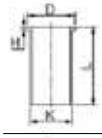
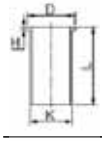
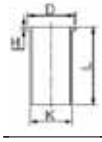
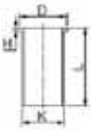
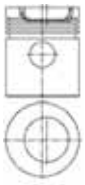
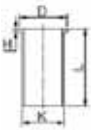
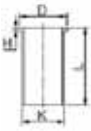
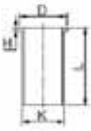
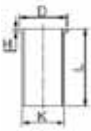
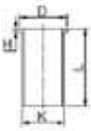
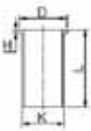
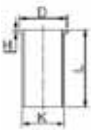
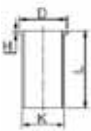
		Type		B C		
						

91,480

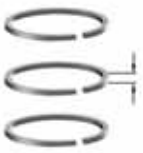
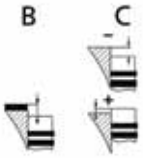
T3.152(HC) D 4 Cyl **cc** **kW** (ps)

	11-01857-000 CH 61,800 B- 18,800 BØ 59,700 TL 109,400 **31,75x75,30**	AP	**91-39834-000** 1 2,385 CrP 2 2,385 P 3 4,747 CrP	-0,025/+0,152	Ø 91,480	**31-03857-000**
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07857-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,76 L=216,00	DS			**51-65832-000**	
	K=94,50 L=216,00	DS +0,75			**51-65832-075**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	
	K=95,25 L=216,00 H=3,81 D=98,25	DS +1,50			**51-65834-150**	
	K=95,75 L=216,00 H=3,81 D=98,75	DS +2,00			**51-65834-200**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
91,480						
D3.152		D	3 Cyl			
D4.203		D	4 Cyl			
	**11-01860-000** CH 62,275 B- 18,670 BØ 55,800 TL 109,900 **31,75x75,30**		**91-09860-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,335 CrP		Ø 91,480	**31-03860-000**
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07860-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	
	K=95,25 L=216,00 H=3,81 D=98,25	DS +1,50			**51-65834-150**	
	K=95,75 L=216,00 H=3,81 D=98,75	DS +2,00			**51-65834-200**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

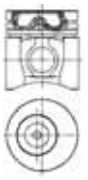
95,000

Seri 900 / Seri 903.27 T Euro1 — D 1997 — 3 Cyl — **2700cc** **kW** (ps)

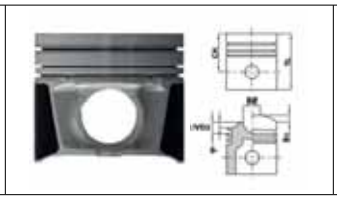
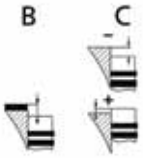
	11-02463-000 CH 62,000 B- 21,000 BØ 50,000 TL 99,700 **31,75x75,00**		**91-09463-000** 1 2,500 Mo 2 2,000 3 4,000 CR		Ø 95,000	**31-04463-000**
	K=97,10 L=216,00	DS			**51-65837-000**	
	K=97,60 L=216,00	DS +0,50			**51-65837-050**	

95,000

Seri 900 / Seri 903.27 T Euro1 — D 1997 — 3 Cyl — **2700cc**

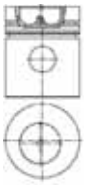
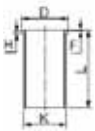
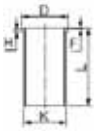
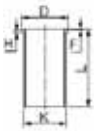
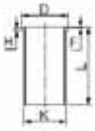
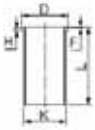
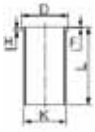
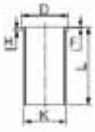
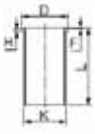
	**11-02464-000** CH 62,000 B- 21,000 BØ 50,000 TL 99,700 **31,75x75,00**	AP	**91-09464-000** 1 3,000 CR 2 2,000 CR 3 4,000 CR		Ø 95,000	**31-04464-000**
	K=97,10 L=216,00	DS			**51-65837-000**	
	K=97,60 L=216,00	DS +0,50			**51-65837-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

98,480

6.354.4 D 6 Cyl **5794cc**

	**11-01384-000** CH 69,920 B- 25,500 BØ 54,100 TL 120,720 **34,93x84,10**	AP CP	**91-09867-000** 1 2,385 CrP 2 2,385 P 3 4,747 CR	0/+0,18	Ø 98,480	**31-03384-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07384-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

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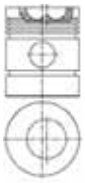
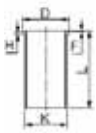
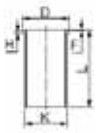
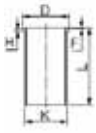
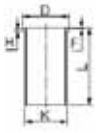
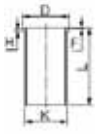
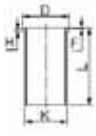
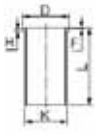
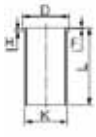
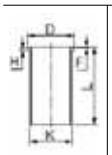
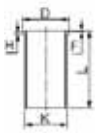
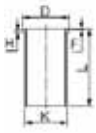
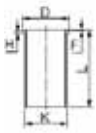
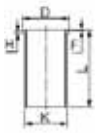
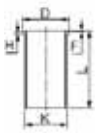
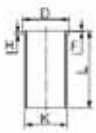
		Type		B C		
98,480						
A6.354.1		D		6 Cyl	**5800cc**	**71-82kW** (97-112ps)
6.354V		D	1970 1989	6 Cyl	**5800cc**	**87kW** (118ps)
6354		D	1968 1990	6 Cyl	**5800cc**	**69-82kW** (94-112ps)
	**11-01840-000** CH 70,100 B- 25,700 BØ 54,000 TL 120,700 **34,93x84,10** Ihc/Case, Leyland, Massey-Ferguson ve Perkins ile Ortak Motor		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03840-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07840-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

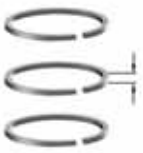
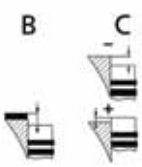
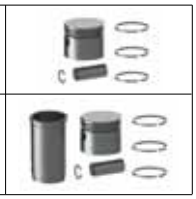
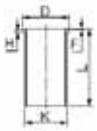
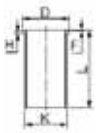
		Type		B C		
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

98,480

A4.212	D	1970	1990	4 Cyl	**3864cc**	**44kW**	(60ps)
4212	D			4 Cyl	**3864cc**	**44-47kW**	(60-64ps)

	11-01842-000 CH 76,500 B- 19,200 BØ 54,000 TL 127,300 **34,93x84,10** Ihc/Case, Massey-Ferguson ve Perkins ile Ortak Motor		**91-49863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP	Ø 98,480	**31-03842-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF		**51-35844-000**	**71-07842-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00		**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS		**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25		**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50		**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00		**51-65840-100**	

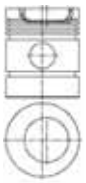
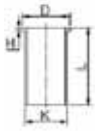
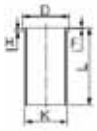
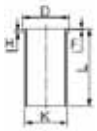
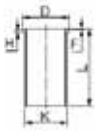
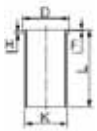
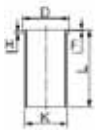
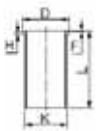
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

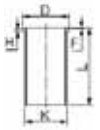
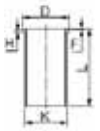
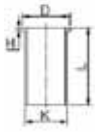
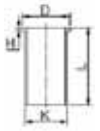
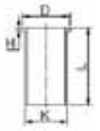
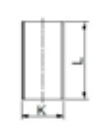
98,480

AD4.236 D 1961 4 Cyl **3864cc** **48-60kW** (59-80ps)

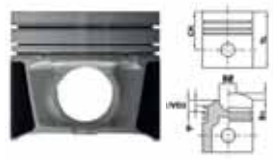
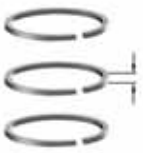
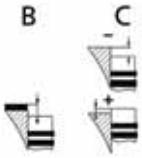
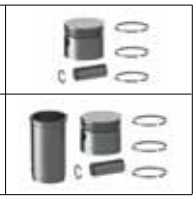
D39C D 1961 4 Cyl **3864cc** **48-60kW** (59-80ps)

	**11-01843-000** CH 70,680 B- 20,710 BØ 61,000 TL 121,480 **34,93x84,10**		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P	+0,28/+0,48	Ø 98,480	**31-03843-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07124-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07843-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

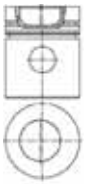
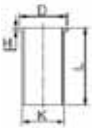
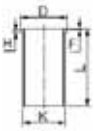
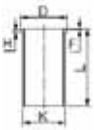
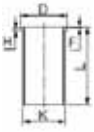
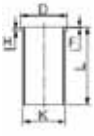
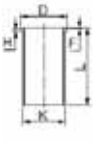
		Type		B C		
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

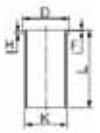
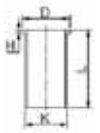
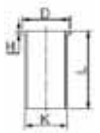
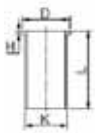
		Type		B C		
						

98,480

4.236	D	1974	1990	4 Cyl	**3864cc**	**48-60kW**	(59-80ps)
4236	D	1974	1990	4 Cyl	**3864cc**	**48-60kW**	(59-80ps)
A4.236	D	1974	1990	4 Cyl	**3864cc**	**37-65kW**	(50-89ps)
AD4.236	D	1961		4 Cyl	**3864cc**	**48-60kW**	(59-80ps)

 **11-01848-000** CH 70,050 B- 20,150 BØ 61,000 TL 120,850 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor	AP CP	**91-09867-000** 1 2,385 CrP 2 2,385 P 3 4,747 CR	+0,28/+0,48	Ø 98,480	**31-03848-000**
 K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07858-000**
 K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07848-000**
 K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
 K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
 K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
 K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

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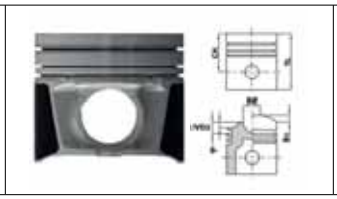
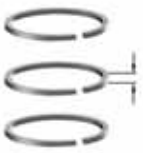
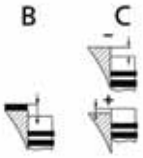
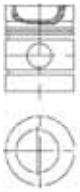
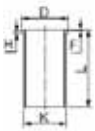
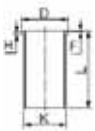
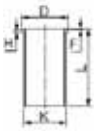
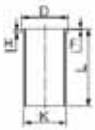
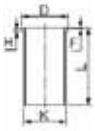
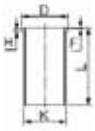
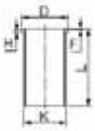
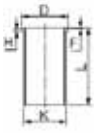
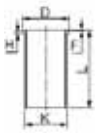
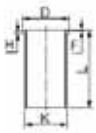
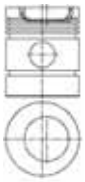
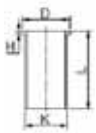
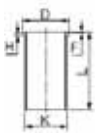
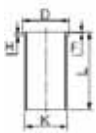
		Type				

98,480

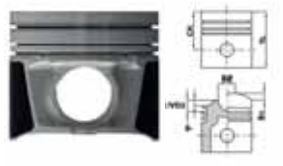
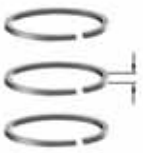
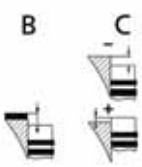
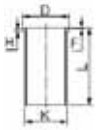
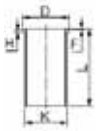
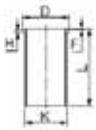
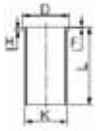
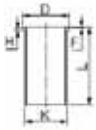
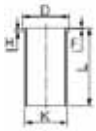
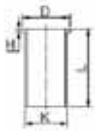
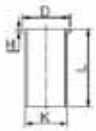
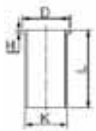
AD4.236 / D39C D 4 Cyl **3864cc** **57-59kW** (78-80ps)

	**11-01854-000** CH 69,925 B- 19,960 BØ 60,500 TL 120,580 **34,93x84,10**		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03854-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07854-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

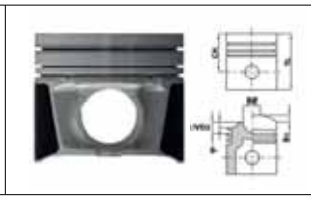
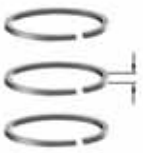
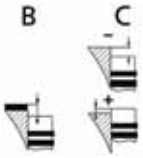
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
98,480						
4212 D 1969 4 Cyl **3475cc** **44-47kW** (60-64ps)						
	11-01859-000 CH 76,500 B- 19,200 BØ 59,700 TL 127,300 **34,93x84,10**		**91-49863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP	+0,38/+0,53	Ø 98,480	**31-03859-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07859-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
98,480						
4236 D 1974 1990 4 Cyl **3864cc** **48-60kW** (59-80ps)						
A4.236 D 1974 1990 4 Cyl **3864cc** **37-65kW** (50-89ps)						
AD4.236 D 1961 4 Cyl **3864cc** **48-60kW** (59-80ps)						
	**11-01863-000** CH 70,250 B- 20,280 BØ 60,500 TL 120,900 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03863-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07864-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07863-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

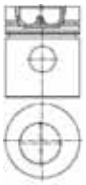
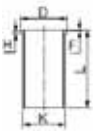
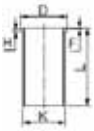
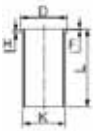
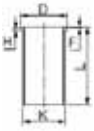
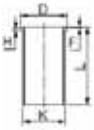
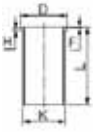
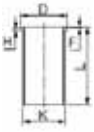
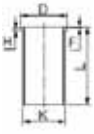
		Type				
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

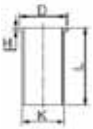
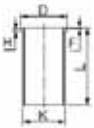
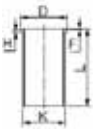
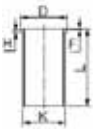
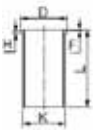
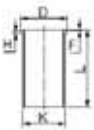
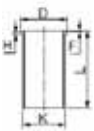
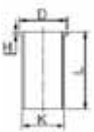
		Type				

98,480

6.354.4 D 1975 6 Cyl **5794cc** **92kW** (125ps)

	**11-01867-000** CH 69,800 B- 23,870 BØ 54,000 TL 120,600 **34,93x84,10**	AP CP	**91-09867-000** 1 2,385 CrP 2 2,385 P 3 4,747 CR		Ø 98,480	**31-03867-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07867-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
98,480						
T 4.236		D 1984		4 Cyl	**3864cc** **49kW**	(66ps)
T 4.38		D		4 Cyl	**3864cc** **58-72kW**	(79-98ps)
	11-01868-000 CH 70,250 B- 19,950 BØ 61,000 TL 108,250 **38,10x82,50** Massey-Ferguson, Perkins ve Renault Trucks (RVI) ile Ortak Motor	AP CP	**91-09868-000** 1 3,160 CrP 2 2,385 P 3 4,747 CrP		Ø 98,480	**31-03868-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07868-000**
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

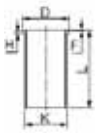
		Type		B C		
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	

98,480

4.236 Series A4.212 D 1963 4 Cyl **3470cc** **kW** (ps)

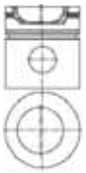
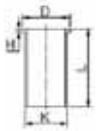
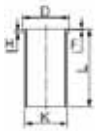
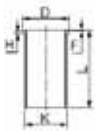
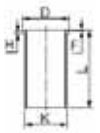
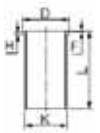
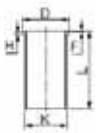
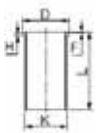
	11-01869-000 CH 76,530 B- 19,600 BØ 54,000 TL 116,130 **34,93x84,10**		**91-39863-000** 1 2,385 CrP 2 2,385 P 3 6,350 CrP		Ø 98,480	**31-03869-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07869-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

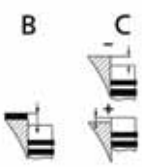
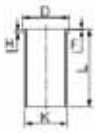
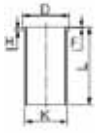
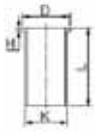
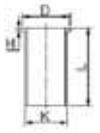
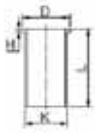
		Type		B C		
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

98,480

4.236AT D 4 Cyl **3864cc**

	**11-01871-000** CH 70,250 B- 20,400 BØ 61,000 TL 108,250 **38,10x82,50**	AP CP	**91-09868-000** 1 3,160 CrP 2 2,385 P 3 4,747 CrP		Ø 98,480	**31-03871-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07872-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07871-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

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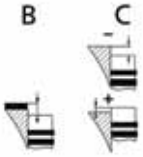
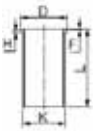
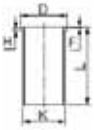
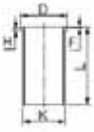
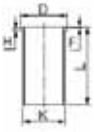
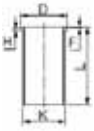
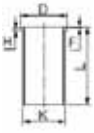
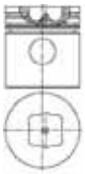
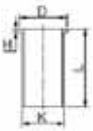
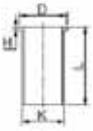
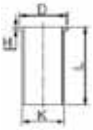
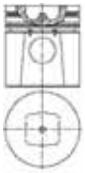
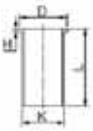
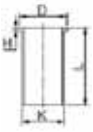
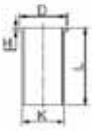
		Type		B C		
						

98,480

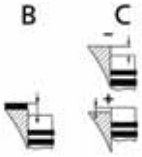
6.354.4 D 4 Cyl **5800cc** **116kW** (155ps)

	11-01872-000 CH 70,250 B- 19,250 BØ 66,600 TL 108,250 **38,10x82,50**	AP CP	**91-09868-000** 1 3,160 CrP 2 2,385 P 3 4,747 CrP	0/+0,18	Ø 98,480	**31-03872-000**
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

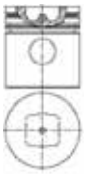
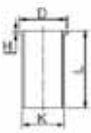
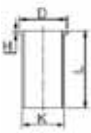
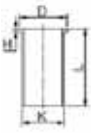
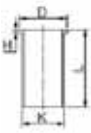
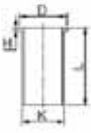
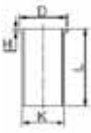
		Type		B C		
100,000						
BH 509 / Phazer 90		D	4 Cyl	**4000cc**	**kW**	(ps)
Phaser 1000 Series 1004.4T		D	4 Cyl	**4000cc**	**kW**	(ps)
Phaser 1000 Series 1006.6T		D	6 Cyl	**6000cc**	**kW**	(ps)
	**11-01850-000** CH 70,020 B- 20,140 TL 108,000 **34,93x84,10**	AP CP	**91-09850-000** 1 2,500 Mo 2 2,500 P 3 4,000 CrP	+0,14/+0,36	Ø 100,000	**31-03850-000**
	K=104,21 L=226,45 H=3,85 D=107,45	DF			**51-35848-000**	**71-07850-000**
	K=104,25 L=226,45 H=3,85 D=107,45	DS			**51-65847-000**	
	K=104,50 L=226,45 H=3,85 D=107,45	DS +0,25			**51-65847-025**	
100,000						
BH 509 / Phazer 90		D	4 Cyl	**4000cc**		
Phaser 1000 Series 1004.4T		D	4 Cyl	**4000cc**		
Phaser 1000 Series 1006.6T		D	6 Cyl	**6000cc**		
	**11-01855-000** CH 69,950 B- 19,500 BØ 56,000 TL 108,000 **38,10x82,50**	AP CP	**91-09855-000** 1 3,500 MoP 2 2,500 P 3 4,000 CrP		Ø 100,000	**31-03855-000**
	K=104,21 L=226,45 H=3,85 D=107,45	DF			**51-35848-000**	**71-07855-000**
	K=104,25 L=226,45 H=3,85 D=107,45	DS			**51-65847-000**	
	K=104,50 L=226,45 H=3,85 D=107,45	DS +0,25			**51-65847-025**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

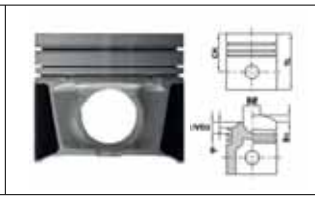
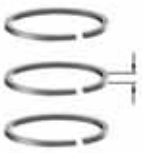
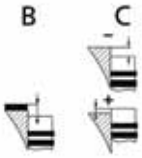
		Type		B C		
						

100,000

D 235 / Phazer 160 T / 180 TI — D — 6 Cyl — **5985cc**

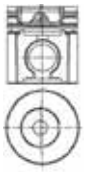
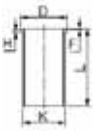
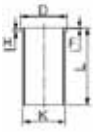
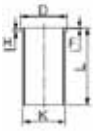
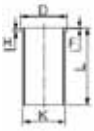
	**11-01856-000** CH 70,160 B- 19,500 TL 108,060 **38,10x82,50**	AP CP	**91-09856-000** 1 3,000 MoP 2 2,500 P 3 4,000 CrP	+0,25/+0,40	Ø 100,000	**31-03856-000**
	K=104,21 L=226,45 H=3,85 D=107,45	DF			**51-35848-000**	**71-07856-000**
	K=104,25 L=226,45 H=3,85 D=107,45	DS			**51-65847-000**	
	K=104,50 L=226,45 H=3,85 D=107,45	DS +0,25			**51-65847-025**	
	K=104,28 L=227,30 H=3,90 D=107,70	DS			**51-65850-000**	
	K=104,80 L=227,30 H=3,90 D=107,70	DS +0,50			**51-65850-050**	
	K=105,28 L=227,30 H=5,00 D=108,70	DS +1,00			**51-65850-100**	

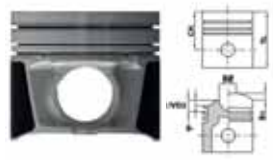
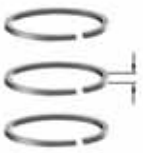
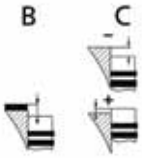
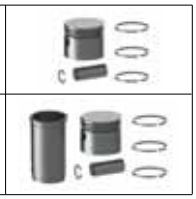
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

100,000

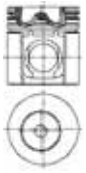
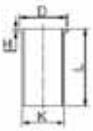
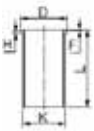
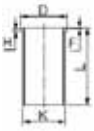
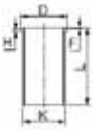
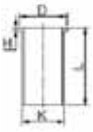
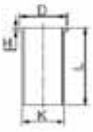
T4.40	D	1990	1992	4 Cyl	**3990cc**
T6.60	D	1994		6 Cyl	**5984cc**

	**11-01861-000** CH 70,300 B- 21,750 BØ 52,800 TL 108,230 **39,70x78,00** Perkins ve Renault Trucks (RVI) ile Ortak Motor	AP	**91-09855-000** 1 3,500 MoP 2 2,500 P 3 4,000 CrP	+0,382/+0,504	Ø 100,000	**31-03861-000**
	K=104,21 L=227,00 H+F=3,86+1,00 D=107,45	DF			**51-35828-000**	**71-07861-000**
	K=104,23 L=227,00 H+F=3,86+1,00 D=107,45	DF +0,02			**51-35828-002**	
	K=104,28 L=227,00 H+F=3,85+0,90 D=107,45	DS			**51-65858-000**	
	K=104,78 L=227,00 H+F=3,85+0,90 D=107,45	DS +0,50			**51-65858-050**	

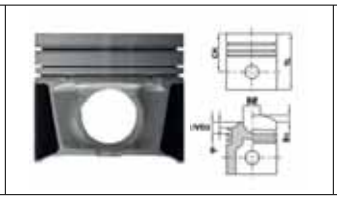
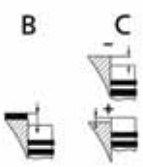
		Type		B C		
						

100,000

1106C-E60TA Euro 2	D	2001	6 Cyl	**5984cc**	**88-130kW** (120-175ps)
T 4.40	D	1992	4 Cyl	**3990cc**	**82-88kW** (112-120ps)
T 6.60	D	1994	6 Cyl	**5984cc**	**88kW** (120ps)

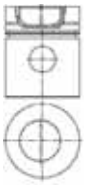
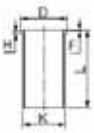
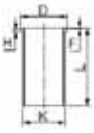
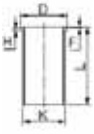
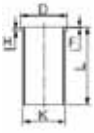
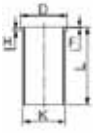
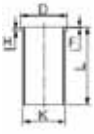
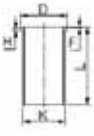
	**11-02466-000** CH 70,266 B- 21,750 BØ 52,800 TL 108,230 **39,70x78,00** Massey-Fergusan, Perkins ve Renault Trucks (RVI) ile Ortak Motor	AP	**91-09466-000** 1 3,500 MoP 2 2,500 3 3,500 CR		Ø 100,000	**31-04466-000**
	K=104,21 L=226,45 H=3,85 D=107,45	DF			**51-35848-000**	**71-08466-000**
	K=104,26 L=227,50 H+F=3,81+1,00 D=107,35	DF			**51-35849-000**	**71-08468-000**
	K=104,26 L=227,50 H+F=3,81+1,00 D=107,35	DS			**51-65839-000**	
	K=104,76 L=227,50 H+F=3,81+1,00 D=107,35	DS +0,50			**51-65839-050**	
	K=104,25 L=226,45 H=3,85 D=107,45	DS			**51-65847-000**	
	K=104,50 L=226,45 H=3,85 D=107,45	DS +0,25			**51-65847-025**	

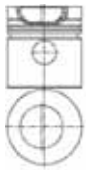
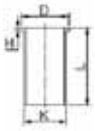
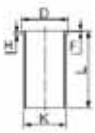
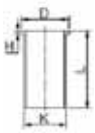
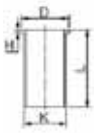
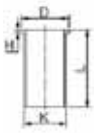
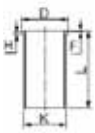
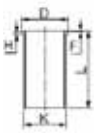
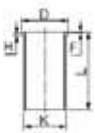
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

101,054

4.248 Series A4.248 / 4.236 Series A4.248 D 6 Cyl **4064cc** **53-61kW** (72-83ps)

	**11-01851-000** CH 70,300 B- 21,100 BØ 61,450 TL 121,100 **34,93x84,10**	CP	**91-09851-000** 1 2,500 Mo 2 2,500 3 5,000 CR	+0,08/+0,25	Ø 101,054	**31-03851-000**
	K=104,20 L=227,20 H+F=3,80+0,85 D=107,40	DF			**51-35852-000**	**71-07851-000**
	K=104,33 L=227,20 H+F=3,85+0,90 D=107,45	DS			**51-65851-000**	
	K=104,55 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,25			**51-65851-025**	
	K=104,80 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,50			**51-65851-050**	
	K=105,05 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,75			**51-65851-075**	
	K=105,30 L=227,20 H+F=3,85+0,90 D=108,45	DS +1,00			**51-65851-100**	
	K=105,80 L=227,20 H+F=5,00+0,90 D=108,95	DS +1,50			**51-65851-150**	
	K=103,33 L=224,00	DS			**51-65853-000**	

		Type		B C		
101,054						
4248			D 1969	4 Cyl	**4064cc** **53-66kW**	(72-90ps)
	**11-01852-000** CH 70,100 B- 21,000 BØ 61,500 TL 120,900 **34,93x84,10**	CP	**91-09852-000** 1 2,385 CR 2 2,385 CR 3 2,385 CR 4 6,335 CR		Ø 101,054	**31-03852-000**
Massey-Ferguson ve Perkins ile Ortak Motor						
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35846-000**	**71-07131-000**
	K=104,20 L=227,20 H+F=3,80+0,85 D=107,40	DF			**51-35852-000**	**71-07852-000**
	K=104,26 L=227,00 H=3,83 D=107,38	DS			**51-65843-000**	
	K=104,76 L=227,00 H=3,83 D=107,38	DS +0,50			**51-65843-050**	
	K=105,26 L=227,00 H=5,00 D=107,38	DS +1,00			**51-65843-100**	
	K=104,33 L=227,20 H+F=3,85+0,90 D=107,45	DS			**51-65851-000**	
	K=104,55 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,25			**51-65851-025**	
	K=104,80 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,50			**51-65851-050**	

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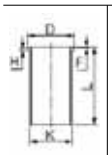
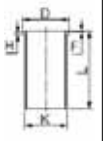
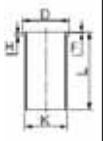
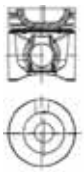
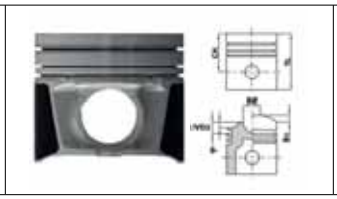
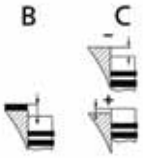
		Type		B C		
	K=105,05 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,75			**51-65851-075**	
	K=105,30 L=227,20 H+F=3,85+0,90 D=108,45	DS +1,00			**51-65851-100**	
	K=105,80 L=227,20 H+F=5,00+0,90 D=108,95	DS +1,50			**51-65851-150**	
	K=103,33 L=224,00	DS			**51-65853-000**	

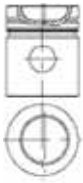
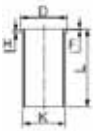
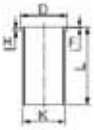
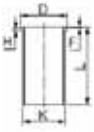
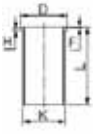
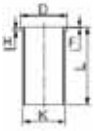
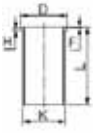
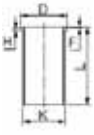
101,060

P4000 NA			D	4 Cyl	**3929cc** **kW**	(ps)
	**11-01967-000** CH 70,500 B- 21,140 BØ 61,450 TL 108,500 **34,92x77,00**	AP	**99-09376-000** 1 3,000 CR St 2 2,500 P 3 4,000 CR St		Ø 101,060	**39-03967-000**

		Type				

101,060

Motor 4248 D 8 Cyl **cc**

	**11-02474-000** CH 70,620 B- 20,780 BØ 61,400 TL 121,420 **34,92x83,90**		**91-09837-000** 1 2,385 CR 2 2,385 P 3 2,385 P 4 4,747 CR		Ø 101,060	**31-04474-000**
	K=104,20 L=227,20 H+F=3,80+0,85 D=107,40	DF			**51-35852-000**	**71-07820-000**
	K=104,33 L=227,20 H+F=3,85+0,90 D=107,45	DS			**51-65851-000**	
	K=104,55 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,25			**51-65851-025**	
	K=104,80 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,50			**51-65851-050**	
	K=105,05 L=227,20 H+F=3,85+0,90 D=107,45	DS +0,75			**51-65851-075**	
	K=105,30 L=227,20 H+F=3,85+0,90 D=108,45	DS +1,00			**51-65851-100**	
	K=105,80 L=227,20 H+F=5,00+0,90 D=108,95	DS +1,50			**51-65851-150**	
	K=103,33 L=224,00	DS			**51-65853-000**	

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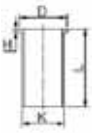
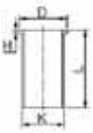
		Type		B C		
103,000						
1004.42			D	4 Cyl	4230cc 45kW	(61ps)
	11-02460-000 CH 70,240 VD1 1,100 VD2 1,500 B- 22,000 BØ 52,300 TL 108,200 **39,70x74,00**		**91-09461-000** 1 2,500 MoP 2 2,500 P 3 3,500 CR		Ø 103,000	**31-04460-000**
	K=106,97 L=228,00 H=4,00 D=110,00	DF			**51-35827-000**	**71-08460-000**
	K=107,03 L=228,00 H=4,00 D=110,00	DS			**51-65861-000**	

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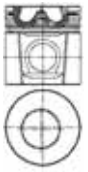
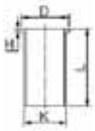
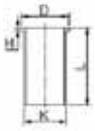
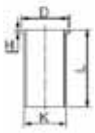
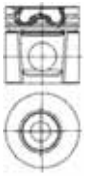
		Type		B C		
105,000						
1103A-33G		D		3 Cyl	3300cc	
1103A-33TG1		D		3 Cy	3300cc	
1103C-33 Euro2		D	2004	3 Cyl	3300cc	
1103C-33T Euro2		D	2004	3 Cyl	3300cc	
1103C-33TG2		D		3 Cyl	3300cc	
1103D-33 Euro3		D		3 Cyl	3300cc	
1104A-44		D		4 Cyl	4400cc	
1104C-44T Euro2		D	2001	4 Cyl	4400cc	
1104C-44TA Euro2		D	2001	4 Cyl	4400cc	
1104C-44TG2 / 44TG3 Euro2		D		4 Cyl	4400cc	
1104C-E44T Euro2		D		4 Cyl	4400cc	
1104C-E44TA Euro2		D		4 Cyl	4400cc	
1104D-44TG1 Euro3		D		4 Cyl	4400cc	
	**11-02465-000** CH 70,100 B- 22,000 BØ 55,100 TL 108,000 **39,70x78,00**	AP	**91-09465-000** 1 3,500 MoP 2 2,500 P 3 3,500 CrP		Ø 105,000 Ø 105,500 Ø 106,000	**31-04465-000** **31-04465-050** **31-04465-100**
Massey-Fergusan ve Perkins ile Ortak Motor						
	K=108,00 L=227,00 H=5,10 D=109,40	DF			**51-35833-000**	**71-08465-000**
	K=108,06 L=227,00 H=5,10 D=109,40	DS			**51-65836-000**	
	K=108,56 L=227,00 H=5,10 D=109,90	DS +0,50			**51-65836-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
105,000						
1103C-33 Euro2	D 2004	3 Cyl	**3300cc**	**39-43kW**	(53-58ps)	
1104A-44	D	4 Cyl	**4400cc**	**50-64kW**	(67-84ps)	
1104C-44 Euro2	D 2001	4 Cyl	**4400cc**	**50-64kW**	(67-84ps)	
1104C-E44 Euro2	D	4 Cyl	**4400cc**	**50-64kW**	(67-84ps)	
1104D-44 Euro3	D	4 Cyl	**4400cc**	**54-56kW**	(73-75ps)	

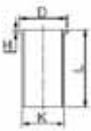
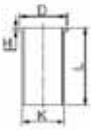
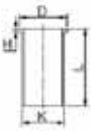


11-02467-000
CH 70,100
B- 22,400
BØ 51,250
TL 108,000

39,70x70,00

Massey-Fergusan ve Perkins ile Ortak Motor

91-09467-000
1 2,500 CR
2 2,500 P
3 3,500 CrP

					Ø 105,000	**31-04467-000**
					Ø 105,500	**31-04467-050**
					Ø 106,000	**31-04467-100**
	K=108,00 L=227,00 H=5,10 D=109,40	DF			**51-35833-000**	**71-08467-000**
	K=108,06 L=227,00 H=5,10 D=109,40	DS			**51-65836-000**	
	K=108,56 L=227,00 H=5,10 D=109,90	DS +0,50			**51-65836-050**	

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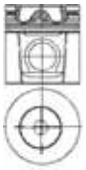
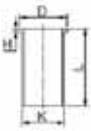
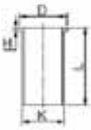
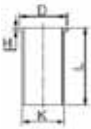
		Type		B C		

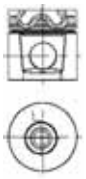
105,000

1104C-44 Euro2	D	2003	4 Cyl	**4400cc**	**50-64kW**	(67-84ps)
1104C-44T Euro2	D	2003	4 Cyl	**4400cc**	**60-85kW**	(82-116ps)
1104C-44TA Euro2	D	2003	4 Cyl	**4400cc**	**85-99kW**	(115-135ps)

	**11-02469-000** CH 70,100 B- 22,700 BØ 56,700 TL 108,000 **39,70x78,00**	AP	**91-09465-000** 1 3,500 MoP 2 2,500 P 3 3,500 CrP		Ø 105,000 Ø 105,500 Ø 106,000	**31-04469-000** **31-04469-050** **31-04469-100**
	K=108,00 L=227,00 H=5,10 D=109,40	DF			**51-35833-000**	**71-08469-000**
	K=108,06 L=227,00 H=5,10 D=109,40	DS			**51-65836-000**	
	K=108,56 L=227,00 H=5,10 D=109,90	DS +0,50			**51-65836-050**	

105,000

1104D-44 Euro 3	D		4 Cyl	**4400cc**	**54-56kW**	(73-75ps)

	**11-02961-000** CH 70,116 B- 21,900 BØ 48,400 TL 108,050 **39,70x70,00**		**91-09467-000** 1 2,500 CR 2 2,500 P 3 3,500 CrP		Ø 105,000	**31-04961-000**

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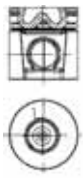
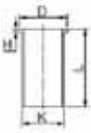
		Type		B C		
105,000						
1104D-44T Euro 3	D	4 Cyl	**4400cc**	**56-75kW**	(74-102ps)	
1106C-E66TAG2 Euro 2	D	6 Cyl	**6600cc**	**117-131kW**	(159-178ps)	
1106C-E66TAG3 Euro 2	D	6 Cyl	**6600cc**	**130-144kW**	(177-196ps)	
1106C-E66TAG4 Euro 2	D	6 Cyl	**6600cc**	**157-173kW**	(213-235ps)	
1106D-66TA Euro 3	D	6 Cyl	**6600cc**	**82-130kW**	(111-177ps)	
1106D-E66TAG4 Euro 3	D	6 Cyl	**6600cc**	**174-193kW**	(237-262ps)	
11-02962-000 CH 70,116 B- 15,700 BØ 76,600 TL 108,050 **39,70x86,00**	AP YS	**91-09771-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 105,000	**31-04962-000**	
105,000						
1104D-E44T Euro 3	D	4 Cyl	**4400cc**	**55-75kW**	(75-102ps)	
1104D-E44TA Euro 3	D	4 Cyl	**4400cc**	**75-106kW**	(102-144ps)	
1106D-E66TA Euro 3	D	6 Cyl	**6600cc**	**90-205kW**	(122-279ps)	
11-02963-000 CH 70,116 B- 15,700 BØ 76,600 TL 108,050 **39,70x86,00** Claas ve Perkins ile Ortak Motor	AP	**91-09771-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 105,000	**31-04963-000**	
105,000						
1104D-44TA Euro 3	D	4 Cyl	**4400cc**	**74-83kW**	(100-111ps)	
 **11-02964-000** CH 70,116 B- 22,940 BØ 50,000 TL 108,050 **39,70x78,00**	AP	**91-09771-000** 1 3,000 CK 2 2,500 P 3 3,000 CR		Ø 105,000	**31-04964-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

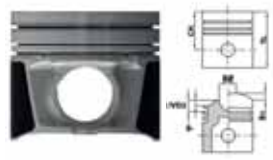
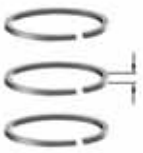
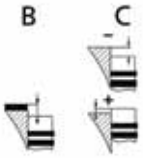
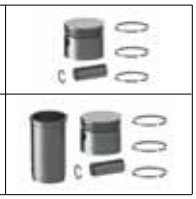
		Type		B C		

114,300

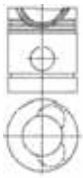
A4.318 D 4 Cyl **5215cc** **72kW** (98ps)

	11-01835-000 CH 70,750 B- 24,000 BØ 66,000 TL 124,800 **36,51x99,00**		**91-09835-000** 1 2,385 CR 2 2,385 P 3 2,385 P 4 6,350 CR		Ø 114,300	**31-03835-000**
	K=117,88 L=230,80 H=2,71 D=121,13	DF			**51-35856-000**	**71-07835-000**

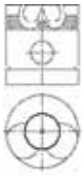
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

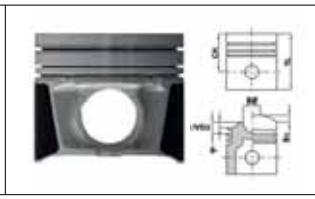
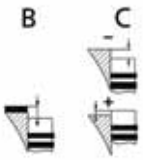
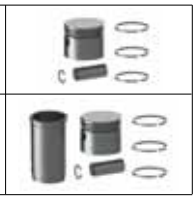
87,310

PH1 / PH1W		D	1 Cyl	**659cc**	**kW**	(ps)
PH2 / PH2W		D	2 Cyl	**1318cc**	**kW**	(ps)
	**11-01268-000** CH 63,600 VD1 0,610 B- 25,400 BØ 50,800 TL 106,000 **30,00x74,50**		**91-09268-000** 1 2,385 CR 2 2,385 P 3 2,385 P 4 4,747 P		Ø 87,310 Ø 87,570 Ø 87,820 Ø 88,070 Ø 88,320	**31-03268-000** **31-03268-025** **31-03268-050** **31-03268-075** **31-03268-100**

96,960

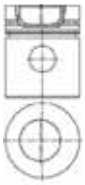
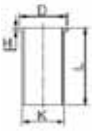
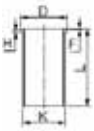
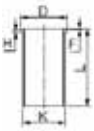
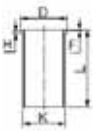
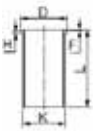
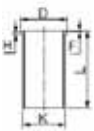
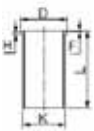
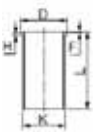
Aircooled Engine		D	1 Cyl	**cc**		
	**11-01269-000** CH 63,600 VD1 0,600 B- 23,000 BØ 39,800 TL 106,000 **30,00x84,45**		**91-09269-000** 1 2,385 CR 2 2,385 P 3 2,385 P 4 4,747 CR		Ø 96,960	**31-03269-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

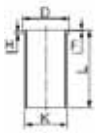
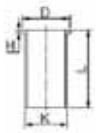
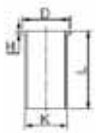
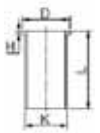
		Type		B C		
						

98,480

4236	D	1979	4 Cyl	
A4.236	D		4 Cyl	

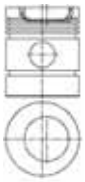
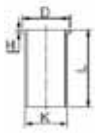
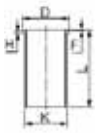
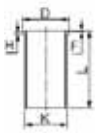
	**11-01848-000** CH 70,050 B- 20,150 BØ 61,000 TL 120,850 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor	AP CP	**91-09867-000** 1 2,385 CrP 2 2,385 P 3 4,747 CR	+0,28/+0,48	Ø 98,480	**31-03848-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07858-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07848-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	

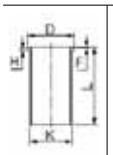
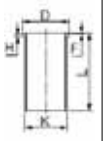
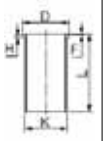
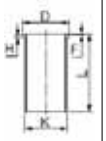
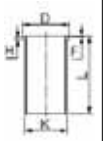
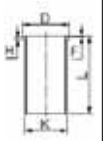
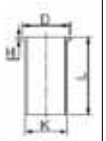
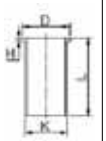
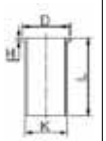
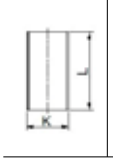
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

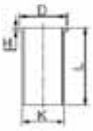
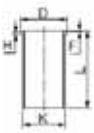
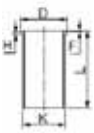
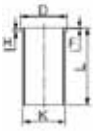
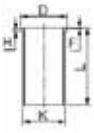
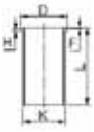
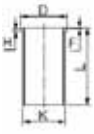
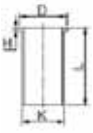
98,480

4236	D	1979	4 Cyl	**3864cc**	**48-60kW**	(59-80ps)
A4.236	D		4 Cyl	**3864cc**	**37-65kW**	(50-89ps)

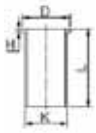
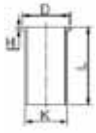
	**11-01863-000** CH 70,250 B- 20,280 BØ 60,500 TL 120,900 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor	**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03863-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF		**51-35842-000**	**71-07864-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF		**51-35844-000**	**71-07863-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00		**51-35844-100**	

		Type		B C		
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

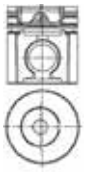
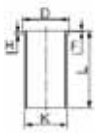
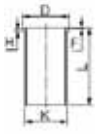
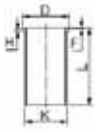
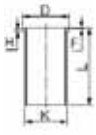
		Type		B C		
98,480						
T4.38			D 1986 1990 4 Cyl **3864cc** **58-72kW** (79-98ps)			
	11-01868-000 CH 70,250 B- 19,950 BØ 61,000 TL 108,250 **38,10x82,50** Massey-Ferguson, Perkins ve Renault Trucks (RVI) ile Ortak Motor	AP CP	**91-09868-000** 1 3,160 CrP 2 2,385 P 3 4,747 CrP		Ø 98,480	**31-03868-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07868-000**
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

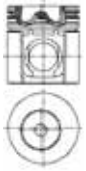
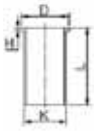
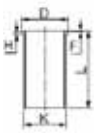
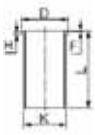
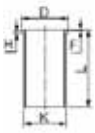
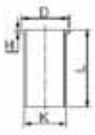
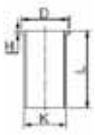
		Type		B C		
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	

100,000

T4.40 D 1990 1992 6 Cyl **5984cc** **82-88kW** (112-120ps)

	**11-01861-000** CH 70,300 B- 21,750 BØ 52,800 TL 108,230 **39,70x78,00** Perkins ve Renault Trucks (RVI) ile Ortak Motor	AP	**91-09855-000** 1 3,500 MoP 2 2,500 P 3 4,000 CrP	+0,382/+0,504	Ø 100,000	**31-03861-000**
	K=104,21 L=227,00 H+F=3,86+1,00 D=107,45	DF			**51-35828-000**	**71-07861-000**
	K=104,23 L=227,00 H+F=3,86+1,00 D=107,45	DF +0,02			**51-35828-002**	
	K=104,28 L=227,00 H+F=3,85+0,90 D=107,45	DS			**51-65858-000**	
	K=104,78 L=227,00 H+F=3,85+0,90 D=107,45	DS +0,50			**51-65858-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
100,000						
T4.40			D 1990 1992 4 Cyl **3990cc** **82-88kW** (112-120ps)			
	**11-02466-000** CH 70,266 B- 21,750 BØ 52,800 TL 108,230 **39,70x78,00** Massey-Fergusan, Perkins ve Renault Trucks (RVI) ile Ortak Motor	AP	**91-09466-000** 1 3,500 MoP 2 2,500 3 3,500 CR		Ø 100,000	**31-04466-000**
	K=104,21 L=226,45 H=3,85 D=107,45	DF			**51-35848-000**	**71-08466-000**
	K=104,26 L=227,50 H+F=3,81+1,00 D=107,35	DF			**51-35849-000**	**71-08468-000**
	K=104,26 L=227,50 H+F=3,81+1,00 D=107,35	DS			**51-65839-000**	
	K=104,76 L=227,50 H+F=3,81+1,00 D=107,35	DS +0,50			**51-65839-050**	
	K=104,25 L=226,45 H=3,85 D=107,45	DS			**51-65847-000**	
	K=104,50 L=226,45 H=3,85 D=107,45	DS +0,25			**51-65847-025**	

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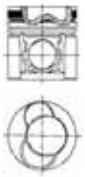
		Type		B C		

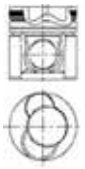
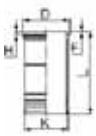
102,000

MIDR 06.02.26D Euro1 — D — 1989 — 2000 — 6 Cyl — **6177cc** — **159-166kW** — (216-226ps)

	**11-01314-000** CH 71,180 VD1 0,800 VD2 2,060 B- 20,790 BØ 58,800 TL 108,180 **42,00x84,00**	AP	**91-09317-000** 1 3,500 CR 2 2,500 CrP 3 4,000 CrP		Ø 102,000	**31-03314-000**
	K=114,00 L=218,00 H+F=8,00+0,80 D=122,50	WF		O-Ring/Seal 55-50804-000 2 FPM 104,20x3,00	**51-05209-000** 52-05209-000	**71-07313-000** 72-07313-000

102,000

MIDR 06.02.26	D	2000		6 Cyl	**6177cc**	**159kW** (216ps)
MIDR 06.02.26 A/4 / (B/4) / (U/4) / (V/4) / (V/41) / (V) / (W/4) / (Y41) Euro2	D	1992		6 Cyl	**6177cc**	**100-184kW** (136-250ps)
MIDR 06.02.26D / S / U / W / X Euro1	D	1989	2000	6 Cyl	**6177cc**	**110-166kW** (150-226ps)
MIDR 06.02.26DU	D	1991		6 Cyl	**6177cc**	**110-166kW** (150-226ps)
MIDR 06.02.26H	D	1990	1993	6 Cyl	**6177cc**	**144kW** (196ps)
MIDR 06.02.26Q	D	1990	1993	6 Cyl	**6177cc**	**137kW** (186ps)
MIDR 06.02.26Y	D	2000		6 Cyl	**6177cc**	**184kW** (250ps)

	**11-01317-000** CH 70,700 VD1 0,800 B- 21,800 BØ 60,000 TL 107,700 **42,00x84,00**	AP	**91-09317-000** 1 3,500 CR 2 2,500 CrP 3 4,000 CrP		Ø 102,000	**31-03317-000**
	K=114,00 L=218,00 H+F=8,00+0,80 D=122,50	WF		O-Ring/Seal 55-50804-000 2 FPM 104,20x3,00	**51-05209-000** 52-05209-000	**71-07317-000** 72-07317-000

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		Type		B C		

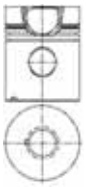
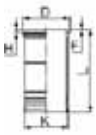
102,000

720	D	1979	1991	4 Cyl	**3596cc**	**65-67kW**	(88-91ps)	
720.12	D	1976	1986	4 Cyl	**3596cc**	**72kW**	(98ps)	

	11-01942-000 CH 75,580 B- 37,950 BØ 37,700 TL 120,600 **36,00x86,00** Man, Renault Trucks (RVI) ve Saviem ile Ortak Motor	AP	**91-09942-000** 1 3,000 MoP 2 2,500 P 3 5,000 CrP		Ø 102,000	**31-03942-000**
	K=114,00 L=234,50 H+F=8,00+0,80 D=120,90	WF			**51-05942-000**	**71-07942-000**
	K=114,00 L=218,00 H+F=8,00+0,70 D=120,70	WF-PH			**51-05948-000**	**71-07076-000**
	K=114,00 L=220,50 H+F=8,00+0,70 D=120,70	WF-PH			**51-05949-000**	**71-07944-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
102,000						
797	D	1980	1991	6 Cyl	**5496cc**	**89-100kW** (121-136ps)
797-10	D	1979	1984	6 Cyl	**5496cc**	**98kW** (133ps)
797-21	D	1985	1990	6 Cyl	**5496cc**	**76kW** (103ps)
797-23	D	1983	1991	6 Cyl	**5496cc**	**96kW** (130ps)
797-26	D	1975	1990	6 Cyl	**5496cc**	**98kW** (133ps)
797.20	D	1983	1991	6 Cyl	**5496cc**	**89-113kW** (121-154ps)

	**11-01943-000** CH 77,820 B- 38,200 BØ 38,400 TL 123,820 **36,00x86,00** Man, Renault, Renault Trucks (RVI) ve Saviem ile Ortak Motor	AP	**91-09942-000** 1 3,000 MoP 2 2,500 P 3 5,000 CrP		Ø 102,000	**31-03943-000**
	K=114,00 L=235,50 H+F=8,00+0,80 D=121,00	WF			**51-05943-000**	**71-07943-000**
	K=114,00 L=234,00 H+F=8,00+0,80 D=122,50	WF			**51-05944-000**	**71-07325-000**

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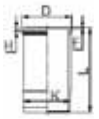
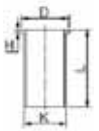
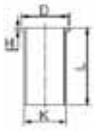
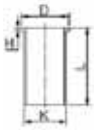
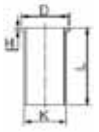
		Type		B C		
105,000						
D226-3		D 1968	3 Cyl	**3117cc**	**35-44kW**	(48-60ps)
D226-4		D 1968	4 Cyl	**4154cc**	**44-64kW**	(60-87ps)
D226-6		D 1969	6 Cyl	**6234cc**	**74-96kW**	(101-131ps)
	11-01676-000 CH 59,800 B- 19,800 BØ 62,000 TL 112,800 **32,00x82,00** Mwm ve Renault-Trucks (RVI) ile Ortak Motor	CP	**91-09676-000** 1 3,000 CR 2 2,000 P 3 2,000 P 4 4,000 CR	-0,28/-0,60	Ø 105,000	**31-03676-000**
	K=115,00 L=213,00 H+F=8,07+1,00 D=123,00	WF		O-Ring/Seal 55-50917-000 2 FPM 112,00x1,50 2 FPM 115,00x4,00	**51-05678-000** 52-05678-000	**71-07676-000** 72-07676-000
	K=108,05 L=214,00 H=6,05 D=111,80	DF			**51-35676-000**	**71-07677-000**
	K=108,55 L=214,00 H=6,05 D=112,30	DF +0,50			**51-35676-050**	
	K=108,05 L=214,00 H=6,05 D=111,80	DS			**51-65677-000**	
	K=108,50 L=214,00 H=6,50 D=111,80	DS +0,50			**51-65677-050**	

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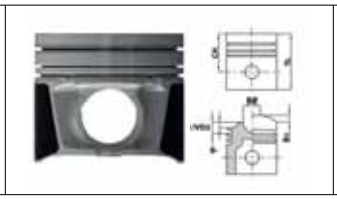
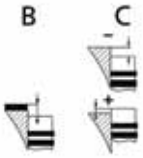
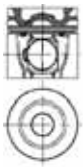
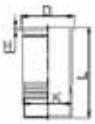
		Type		B C		
						

108,000

DXi 5 160 / 190 / 215 / 220 / 360 Euro 4 — D — 4 Cyl — **4761cc** — **118-265kW** (160-360ps)

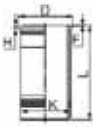
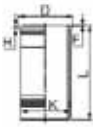
DXi 7 240 / 280 / 320 / 360 Euro 4 — D — 6 Cyl — **7146cc** — **117-265kW** (240-360ps)

	**11-02036-000** CH 70,900 B- 19,600 BØ 64,500 TL 107,800 **45,00x86,00**	AP YS	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04036-000**
Deutz, Renault Trucks (RVI) ve Volvo ile Ortak Motor						
	K=120,00 L=228,00 H=8,07 D=131,70	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-06065-000** 52-06065-000	**71-08031-000** 72-08031-000

120,000

MIDR 06.20.45 — D — 1985 — 6 Cyl — **9839cc** — **188-249kW** (298-338ps)

MIDS 06.20.45 — D — 1984 — 1993 — 6 Cyl — **9839cc** — **152-169kW** (207-230ps)

	11-01315-000 CH 83,800 VD1 0,800 VD2 1,100 B- 24,080 BØ 74,000 TL 134,800 **50,00x97,40**	AP	**91-09321-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 120,000	**31-03315-000**
	K=135,00 L=260,50 H+F=9,28+0,80 D=147,00	WF-PH		O-Ring/Seal 55-50806-000 2 FPM 128,00x2,00 3 FPM 124,00x3,00	**51-05210-000** 52-05210-000	**71-07314-000** 72-07314-000
	K=135,00 L=260,50 H+F=9,38+0,80 D=147,30	WF-PH		O-Ring/Seal 55-50807-000 2 FPM 128,00x2,00 3 FPM 123,00x4,00	**51-05215-000** 52-05215-000	**71-07315-000** 72-07315-000

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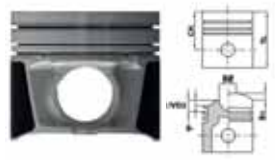
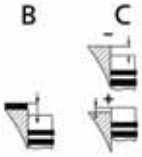




Type

120,000

MIDR 06.20.30 A	D	1980		6 Cyl	**9834cc**	**190kW**	(258ps)
MIDR 06.20.45 A/2	D	1982		6 Cyl	**9834cc**	**202-206kW**	(275-280ps)
MIHR 06.20.45 A41 Euro 2	D	1996		6 Cyl	**9834cc**	**185kW**	(252ps)
MIPR 06.20.45	D	1995		6 Cyl	**9834cc**	**222-265kW**	(302-360ps)
MIPR 06.20.45 A	D	1989	1992	6 Cyl	**9834cc**	**210kW**	(286ps)
MIPR 06.20.45 B3 Euro 1	D	1992	1995	6 Cyl	**9834cc**	**186-222kW**	(252-302ps)
MIPR 06.20.45 C3 Euro 1	D	1992	1995	6 Cyl	**9834cc**	**152kW**	(207ps)
MIPR 06.20.45 E	D			6 Cyl	**9834cc**	**222-265kW**	(302-360ps)

11-01321-000
CH 83,800
VD1 0,800
VD2 1,100
B- 23,000
BØ 73,800
TL 134,800

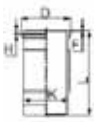
50,00x97,40

AP

91-09321-000
1 3,500 CR
2 3,000 P
3 4,000 CR

Ø 120,000

31-03321-000



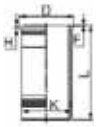
K=135,00
L=257,00
H+F=9,35+0,75
D=147,50

WF

O-Ring/Seal
55-50802-000
2 FPM 129,00x2,00
1 FPM 134,00x5,70
1 FPM 134,00x5,70

51-05214-000
52-05214-000

71-07318-000
72-07318-000



K=135,00
L=260,50
H+F=9,38+0,80
D=147,30

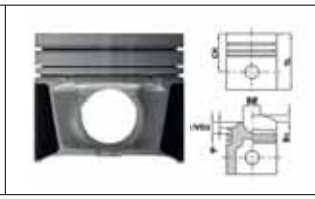
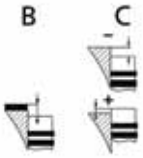
WF-PH

O-Ring/Seal
55-50807-000
2 FPM 128,00x2,00
3 FPM 123,00x4,00

51-05215-000
52-05215-000

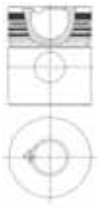
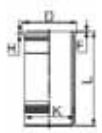
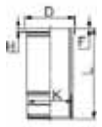
71-07321-000
72-07321-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

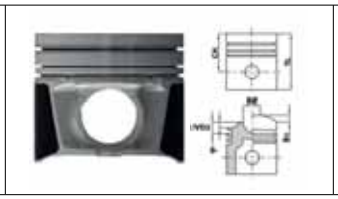
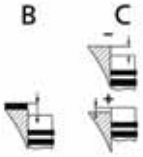
		Type		B C		
						

120,000

M 420 / 520	D	4 Cyl	**7917cc**	**88-110kW**	(120-250ps)
M 620 23 / P / T / Z3	D	4 Cyl	**9500cc**	**132kW**	(180ps)
MDU 24 M / 25 M / 44 M / 44 M3 / 45 M / 46 M3 / MK	D	4 Cyl	**7917cc**	**111kW**	(151ps)
MDX 16 M / 24 M / 26 M / 44 M / 44 M3 / 46 M / 48 M	D	4 Cyl	**6328cc**	**88kW**	(120ps)
MDZ 23	D	4 Cyl	**7917cc**	**111kW**	(151ps)

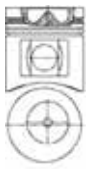
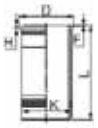
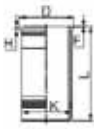
	**11-01330-000** CH 90,200 B- 44,800 BØ 48,000 TL 147,000 **45,00x100,00**	AP	**91-09325-000** 1 3,250 CR 2 3,000 P 3 3,000 P 4 6,000 CR		Ø 120,000	**31-03330-000**
	K=135,00 L=260,50 H+F=9,38+0,80 D=147,30	WF-PH		O-Ring/Seal 55-50807-000 2 FPM 128,00x2,00 3 FPM 123,00x4,00	**51-05215-000** 52-05215-000	**71-07331-000** 72-07331-000
	K=133,00 L=275,00 H+F=10,05+0,90 D=149,00	WF		O-Ring/Seal 55-50801-000 1 NBR 128,00x4,00	**51-05220-000** 52-05220-000	**71-07330-000** 72-07330-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

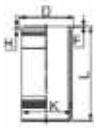
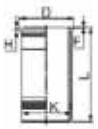
120,000

MID 06.20.30	D			6 Cyl	**8822cc**	**141kW**	(192ps)
MID 06.20.30 G	D	1978	1991	6 Cyl	**8822cc**	**141kW**	(192ps)
MID 620.30	D	1975	1987	6 Cyl	**8822cc**	**135-158kW**	(184-215ps)
MIP 06.20.30	D			6 Cyl	**8822cc**	**135-158kW**	(184-215ps)

	**11-02905-000** CH 74,450 B- 24,680 BØ 67,900 TL 130,950 **42,00x100,00**	AP	**91-09905-000** 1 3,250 CR 2 3,000 CR 3 4,000 CR		Ø 120,000	**31-04905-000**
	K=135,00 L=260,50 H+F=9,28+0,80 D=147,00	WF-PH		O-Ring/Seal 55-50806-000 2 FPM 128,00x2,00 3 FPM 124,00x3,00	**51-05210-000** 52-05210-000	**71-08905-000** 72-08905-000
	K=135,00 L=241,00 H+F=9,28+0,80 D=147,30	WF-PH		O-Ring/Seal 55-50806-000 2 FPM 128,00x2,00 3 FPM 124,00x3,00	**51-05211-000** 52-05211-000	**71-07133-000** 72-07133-000

120,000

MIDS 06.20.30	D			6 Cyl	**8820cc**	**162kW** (220ps)

	11-02906-000 CH 94,300 VD1 1,000 VD2 1,300 B- 23,130 BØ 68,000 TL 150,800 **50,00x97,00**	AP	**91-09905-000** 1 3,250 CR 2 3,000 CR 3 4,000 CR		Ø 120,000	**31-04906-000**
	K=135,00 L=260,50 H+F=9,28+0,80 D=147,00	WF-PH		O-Ring/Seal 55-50806-000 2 FPM 128,00x2,00 3 FPM 124,00x3,00	**51-05210-000** 52-05210-000	**71-08912-000** 72-08912-000
	K=135,00 L=260,50 H+F=9,38+0,80 D=147,30	WF-PH		O-Ring/Seal 55-50807-000 2 FPM 128,00x2,00 3 FPM 123,00x4,00	**51-05215-000** 52-05215-000	**71-08906-000** 72-08906-000

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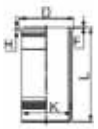
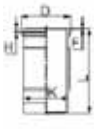
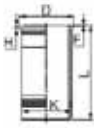
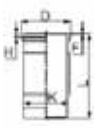
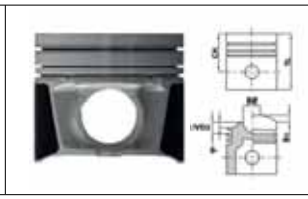
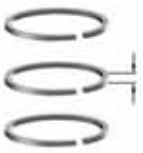
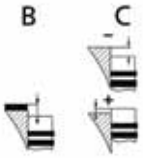
		Type		B C		
120,000						
MIDS 06.20.45 A2	D	1987	1996	6 Cyl	**9939cc**	**202kW** (275ps)
MIPS 06.20.45	D	1984	1992	6 Cyl	**9939cc**	**137kW** (186ps)
MIPS 06.20.45 A	D	1984	1992	6 Cyl	**9939cc**	**129-144kW** (175-196ps)
MIPS 06.20.45 B	D	1984	1994	6 Cyl	**9939cc**	**176kW** (239ps)
MIPS 06.20.45 C	D	1984	1992	6 Cyl	**9939cc**	**129-144kW** (175-196ps)

	11-02939-000 CH 83,800 VD1 0,800 B- 23,340 BØ 74,000 TL 134,800 **50,00x97,40**	AP	**91-09321-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 120,000	**31-04939-000**
	K=135,00 L=260,50 H+F=9,28+0,80 D=147,00	WF-PH		O-Ring/Seal 55-50806-000 2 FPM 128,00x2,00 3 FPM 124,00x3,00	**51-05210-000** 52-05210-000	**71-08946-000** 72-08946-000
	K=135,00 L=257,00 H+F=9,35+0,75 D=147,50	WF		O-Ring/Seal 55-50802-000 2 FPM 129,00x2,00 1 FPM 134,00x5,70 1 FPM 134,00x5,70	**51-05214-000** 52-05214-000	**71-08937-000** 72-08937-000
	K=135,00 L=260,50 H+F=9,38+0,80 D=147,30	WF-PH		O-Ring/Seal 55-50807-000 2 FPM 128,00x2,00 3 FPM 123,00x4,00	**51-05215-000** 52-05215-000	**71-08939-000** 72-08939-000

120,000						
MIDR 06	D			6 Cyl	**9839cc**	**202-265kW** (275-360ps)

	11-02942-000 CH 83,800 VD1 0,800 B- 26,400 BØ 85,000 TL 134,800 **50,00x97,40**	AP	**91-09321-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 120,000	**31-04942-000**
	K=135,00 L=257,00 H+F=9,35+0,75 D=147,50	WF		O-Ring/Seal 55-50802-000 2 FPM 129,00x2,00 1 FPM 134,00x5,70 1 FPM 134,00x5,70	**51-05214-000** 52-05214-000	**71-08945-000** 72-08945-000
	K=135,00 L=260,50 H+F=9,38+0,80 D=147,30	WF-PH		O-Ring/Seal 55-50807-000 2 FPM 128,00x2,00 3 FPM 123,00x4,00	**51-05215-000** 52-05215-000	**71-08942-000** 72-08942-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Type

120,000

MIDR 06.20.45 B/3 Euro 1	D	1991	1996	6 Cyl	**9840cc**	**195kW**	(265ps)
MIDR 06.20.45 D/3 Euro 1	D	1990	1998	6 Cyl	**9840cc**	**222kW**	(302ps)
MIDR 06.20.45 D/41 Euro 2	D	1996	2002	6 Cyl	**9840cc**	**219kW**	(298ps)
MIDR 06.20.45 DD	D	1990	1996	6 Cyl	**9840cc**	**222kW**	(302ps)
MIDR 06.20.45 E Euro 1	D	1988	1998	6 Cyl	**9840cc**	**236-249kW**	(321-339ps)
MIDR 06.20.45 E/2 Euro 1	D	1990	1993	6 Cyl	**9840cc**	**249kW**	(339ps)
MIDR 06.20.45 E/41 Euro 2	D	1996	2002	6 Cyl	**9840cc**	**249kW**	(338ps)
MIDR 06.20.45 H	D	1988	1993	6 Cyl	**9840cc**	**240kW**	(326ps)
MIDR 06.20.45 M41 Euro 2	D	1996		6 Cyl	**9840cc**	**250kW**	(340ps)
MIDS 06.20.45 B	D	1982	1993	6 Cyl	**9840cc**	**192-202kW**	(261-275ps)

11-02943-000
CH 83,800
VD1 0,800
B- 22,500
BØ 73,800
TL 134,800

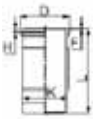
50,00x97,40

AP

91-09321-000
1 3,500 CR
2 3,000 P
3 4,000 CR

Ø 120,000

31-04943-000



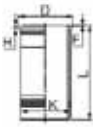
K=135,00
L=257,00
H+F=9,35+0,75
D=147,50

WF

O-Ring/Seal
55-50802-000
2 FPM 129,00x2,00
1 FPM 134,00x5,70
1 FPM 134,00x5,70

51-05214-000
52-05214-000

71-07127-000
72-07127-000



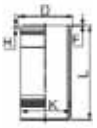
K=135,00
L=260,50
H+F=9,38+0,80
D=147,30

WF-PH

O-Ring/Seal
55-50807-000
2 FPM 128,00x2,00
3 FPM 123,00x4,00

51-05215-000
52-05215-000

71-08943-000
72-08943-000



K=134,90
L=260,50
H+F=9,35+0,70
D=147,20

WF

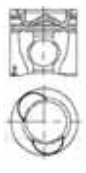
O-Ring/Seal
55-50803-000
2 FPM 128,00x2,00
2 FPM 123,00x4,00
1 FPM 125,00x133,20x6,65

51-05216-000
52-05216-000

71-08943-000
72-08943-000

123,000

MIDR 06.23.56A / 41 Euro2	D	1996		6 Cyl	**11160cc**	**280kW**	(381ps)
MIDR 06.23.56B / 41 Euro2	D	1996	2002	6 Cyl	**11160cc**	**288kW**	(392ps)



11-01316-000
CH 78,300
VD1 0,900
VD2 1,200
B- 24,100
BØ 75,000
TL 120,300

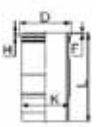
50,00x97,40

AP

91-09316-000
1 3,500 CR
2 3,000 P
3 4,000 CR

Ø 123,000

31-03316-000



K=134,92
L=257,00
H+F=9,35+0,70
D=147,50

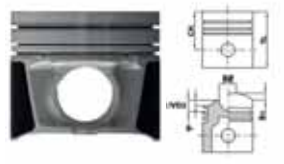
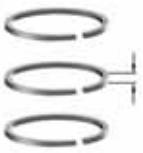
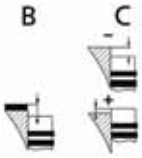
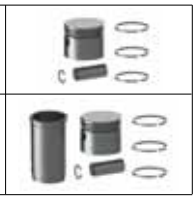
WF

O-Ring/Seal
55-50802-000
2 FPM 129,00x2,00
1 FPM 134,00x5,70
1 FPM 134,00x5,70

51-05227-000
52-05227-000

71-07316-000
72-07316-000

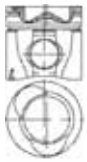
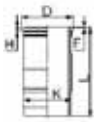
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

123,000

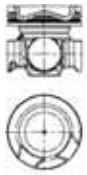
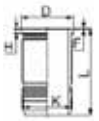
MIDR 06.23.56 A/41 Euro 2 — D — 1996 — 6 Cyl — **11160cc** — **280kW** — (381ps)

MIDR 06.23.56 B/41 Euro 2 — D — 1996 — 2002 — 6 Cyl — **11160cc** — **288kW** — (392ps)

	**11-01319-000** CH 78,300 VD1 0,900 VD2 1,200 B- 24,100 BØ 75,000 TL 120,300 **50,00x97,40**	AP PDB	**91-09316-000** 1 3,500 CR 2 3,000 P 3 4,000 CR	+0,30/+0,35	Ø 123,000	**31-03319-000**
	K=134,92 L=257,00 H+F=9,35+0,70 D=147,50	WF		O-Ring/Seal 55-50802-000 2 FPM 129,00x2,00 1 FPM 134,00x5,70 1 FPM 134,00x5,70	**51-05227-000** 52-05227-000	**71-07139-000** 72-07139-000

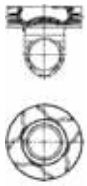
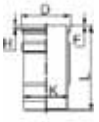
123,010

DXi 11 Euro3-4 — D — 2010 — 6 Cyl — **10800cc** — **243-332kW** — (330-450ps)

	**11-02637-000** CH 78,400 VD1 1,000 B- 16,900 BØ 83,600 TL 114,400 **54,00x73,00** Renault Truck (RVI) ve Volvo ile Ortak Motor	MONOTHERM FRICTION STEEL PISTON	**91-09182-000** 1 3,500 PvD St 2 2,500 NT St 3 3,000 NT St		Ø 123,010	**31-04637-000**
	K=139,00 L=249,50 H+F=11,20+0,85 D=149,00	WF			**51-05228-000**	**71-07178-000**

123,030

DCI 11 C.RAIL EURO 3 — D — 2002 — 6 Cyl — **11100cc** — **303kW** — (412ps)

	**11-02936-000** CH 78,480 VD1 1,600 B- 24,000 BØ 72,600 TL 114,480 **50,00x102,20**	STEEL PISTON	**91-09316-000** 1 3,500 CR 2 3,000 P 3 4,000 CR		Ø 123,030	**31-04936-000**
	K=134,92 L=257,00 H+F=9,35+0,70 D=147,30	WF		O-Ring/Seal 55-50802-000 2 FPM 129,00x2,00 1 FPM 134,00x5,70 1 FPM 134,00x5,70	**51-05226-000** 52-05226-000	**71-08948-000** 72-08948-000

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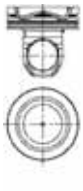
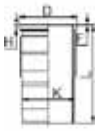
		Type		B C		

131,010

DXi12440 Euro3 — D — 2005 — 6 Cyl — **12100cc** — **324kW** — (440ps)

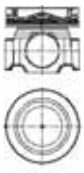
DXi12480 Euro3 — D — 2005 — 6 Cyl — **12100cc** — **353kW** — (480ps)

	**11-02085-000** CH 87,400 B- 17,140 BØ 89,000 TL 129,400 **55,00x107,00** Renault Trucks (RVI) ve Volvo ile Ortak Motor	STEEL PISTON	**91-09005-000** 1 4,000 Mo 2 3,000 P 3 4,000 CR	+0,15/+0,65	Ø 131,010	**31-04085-000**
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06064-000** 52-06064-000	**71-08552-000** 72-08552-000
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06083-000** 52-06083-000	**71-08550-000** 72-08550-000

131,010

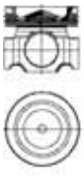
Dxi 13 / 13 460 — D — 6 Cyl — **12800cc** — **338kW** — (460ps)

Dxi 13 500 — D — 6 Cyl — **12800cc** — **368kW** — (500ps)

	**11-02656-000** CH 75,900 B- 18,100 BØ 89,000 TL 114,900 **58,00x76,00** Volvo ve Renault ile Ortak Motor	MONOTHERM FRICTION STEEL PISTON	**91-09089-000** 1 3,500 NtPvD St 2 2,500 NT St 3 3,000 NT St		Ø 131,010	**31-04656-000**
	K=144,00 L=262,00 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06088-000** 52-06088-000	**71-07174-000** 72-07174-000

131,010

Dxi 13 440 / 480 — D — 2009 — 6 Cyl — **12780cc** — **353kW** — (480ps)

	**11-02657-000** CH 75,900 B- 18,000 BØ 90,500 TL 114,900 **58,00x76,00** Volvo ve Renault ile Ortak Motor	MONOTHERM FRICTION STEEL PISTON	**91-09089-000** 1 3,500 NtPvD St 2 2,500 NT St 3 3,000 NT St		Ø 131,010	**31-04657-000**
	K=144,00 L=262,00 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06088-000** 52-06088-000	**71-07173-000** 72-07173-000

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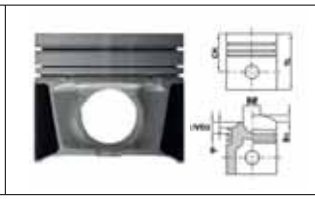
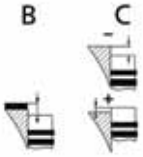
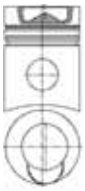
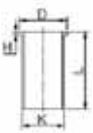
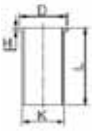
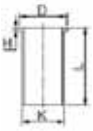
		Type		B C		
						

135,030

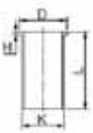
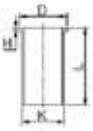
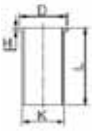
MIDR 06.35.40 — D 1979 — 6 Cyl — **12024cc** **226kW** (307ps)

MIDR 06.35.40C — D 1980 1989 — 6 Cyl — **12024cc** **224-226kW** (305-307ps)

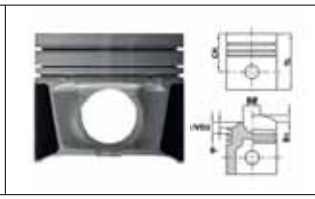
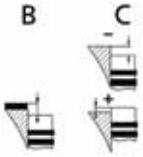
	**11-01320-000** CH 90,300 VD1 0,800 B- 29,120 BØ 78,000 TL 170,100 **55,00x112,00**	AP	**91-09320-000** 1 3,500 CrP 2 3,000 P 3 4,000 CrP		Ø 135,030	**31-03320-000**
	K=143,02 L=286,00 H=7,00 D=147,00	DF-PH			**51-35320-000**	**71-07320-000**
	K=143,02 L=286,00 H=7,35 D=148,90	DF-PH			**51-35322-000**	**71-07106-000**
	K=143,25 L=286,00 H=7,35 D=148,90	DF-PH +0,25			**51-35322-025**	

135,030

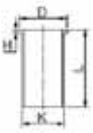
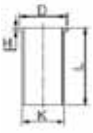
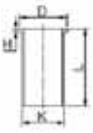
M 635.40 — D 1964 — 6 Cyl — **12024cc** **177-224kW** (240-306ps)

	11-01322-000 CH 90,300 B- 43,900 BØ 53,000 TL 170,200 **50,00x115,40**	AP	**91-09322-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 6,000 CrP		Ø 135,030	**31-03322-000**
	K=143,02 L=286,00 H=7,00 D=147,00	DF-PH			**51-35320-000**	**71-07107-000**
	K=143,02 L=286,00 H=7,35 D=148,90	DF-PH			**51-35322-000**	**71-07322-000**
	K=143,25 L=286,00 H=7,35 D=148,90	DF-PH +0,25			**51-35322-025**	

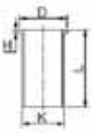
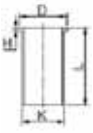
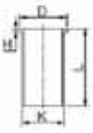
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

135,030

MDS 635.40			D	6 Cyl	**12024cc 191-224kW**	(260-305ps)
MS 06.35 T			D	6 Cyl	**12024cc 191-224kW**	(260-305ps)
	11-01323-000 CH 90,300 VD1 0,800 B- 40,900 BØ 57,000 TL 170,200 **50,00x115,40**	AP	**91-09322-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 6,000 CrP		Ø 135,030	**31-03323-000**
	K=143,02 L=286,00 H=7,00 D=147,00	DF-PH			**51-35320-000**	**71-07323-000**
	K=143,02 L=286,00 H=7,35 D=148,90	DF-PH			**51-35322-000**	**71-07108-000**
	K=143,25 L=286,00 H=7,35 D=148,90	DF-PH +0,25			**51-35322-025**	

135,030

MDS 635.40			D	6 Cyl	**12024cc 206kW**	(280ps)
MIDS 06.35.40			D	6 Cyl	**12024cc 206kW**	(280ps)
	11-01324-000 CH 90,300 VD1 0,800 B- 29,120 BØ 78,000 TL 170,200 **55,00x112,00**	AP	**91-09324-000** 1 3,500 CrP 2 3,000 P 3 6,000 CrP		Ø 135,030	**31-03324-000**
	K=143,02 L=286,00 H=7,00 D=147,00	DF-PH			**51-35320-000**	**71-07324-000**
	K=143,02 L=286,00 H=7,35 D=148,90	DF-PH			**51-35322-000**	**71-07109-000**
	K=143,25 L=286,00 H=7,35 D=148,90	DF-PH +0,25			**51-35322-025**	

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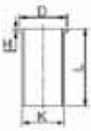
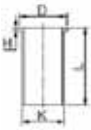
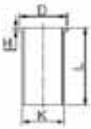
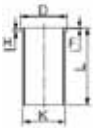
		Type		B C		

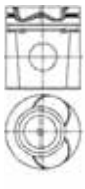
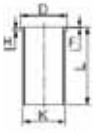
135,030

MIDR 06.35.40 G	D	1986	1993	8 Cyl	**12024cc**	**243-259kW**	(330-352ps)	
MIDR 06.35.40 H	D	1986	1996	8 Cyl	**12024cc**	**259-276kW**	(352-375ps)	
MIDR 06.35.40 H2	D	1991	1992	8 Cyl	**12024cc**	**275kW**	(374ps)	

	11-01329-000 CH 90,300 VD1 0,800 B- 26,030 BØ 78,000 TL 170,200 **55,00x112,00**	AP	**91-09941-000** 1 4,000 Mo 2 3,000 CrP 3 4,000 CR		Ø 135,030	**31-03329-000**
	K=143,02 L=286,00 H=7,00 D=147,00	DF-PH			**51-35320-000**	**71-07329-000**
	K=143,02 L=286,00 H=7,35 D=148,90	DF-PH			**51-35322-000**	**71-07111-000**
	K=143,25 L=286,00 H=7,35 D=148,90	DF-PH +0,25			**51-35322-025**	
	K=143,00 L=287,60 H+F=7,58+1,02 D=149,00	DF-PH			**51-35323-000**	**71-07112-000**

135,030

MIDR 06.35.40 J1 Euro 1	D	1991	1996	6 Cyl	**12024cc**	**305-314kW**	(415-427ps)	
MIDR 06.35.40 L1	D	1991	1996	6 Cyl	**12024cc**	**283kW**	(385ps)	

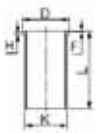
	**11-02938-000** CH 90,400 VD1 0,700 B- 24,000 BØ 78,000 TL 149,400 **55,00x108,00**	AP PDB	**91-09941-000** 1 4,000 Mo 2 3,000 CrP 3 4,000 CR		Ø 135,030	**31-04938-000**
	K=143,00 L=287,60 H+F=7,58+1,02 D=149,00	DF-PH			**51-35323-000**	**71-08938-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

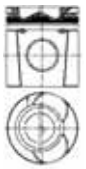
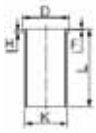
135,030

MIDR 06.35.40 J3 Euro 1			D	1992	1996	6 Cyl	**12024cc**	**305kW** (415ps)
MIDR 06.35.40 L3 Euro 1			D			6 Cyl	**12024cc**	**283kW** (385ps)
MIDR 06.35.40 M3 Euro 1			D	1992	1998	6 Cyl	**12024cc**	**235kW** (320ps)
MIDR 06.35.40 N/3 Euro 1			D	1992	1998	6 Cyl	**12024cc**	**283kW** (385ps)

	11-02941-000 CH 90,400 VD1 0,800 B- 21,800 BØ 78,000 TL 149,400 **55,00x108,00**	AP	**91-09941-000** 1 4,000 Mo 2 3,000 CrP 3 4,000 CR		Ø 135,030	**31-04941-000**
	K=143,00 L=287,60 H+F=7,58+1,02 D=149,00	DF-PH			**51-35323-000**	**71-08941-000**

135,030

MIDR 06.35.40 J3 Euro 1			D	1992	1996	6 Cyl	**12024cc**	**305kW** (415ps)
MIDR 06.35.40 L3 Euro 1			D			6 Cyl	**12024cc**	**283kW** (385ps)
MIDR 06.35.40 M3 Euro 1			D	1992	1998	6 Cyl	**12024cc**	**235kW** (320ps)
MIDR 06.35.40 N/3 Euro 1			D	1992	1998	6 Cyl	**12024cc**	**283kW** (385ps)

	**11-02944-000** CH 90,400 VD1 0,800 B- 21,800 BØ 78,000 TL 149,400 **55,00x108,00**	AP PDB	**91-09941-000** 1 4,000 Mo 2 3,000 CrP 3 4,000 CR	Ø 135,030	**31-04944-000**
	K=143,00 L=287,60 H+F=7,58+1,02 D=149,00	DF-PH		**51-35323-000**	**71-08944-000**

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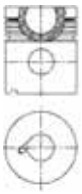
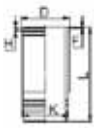
		Type		B C		

100,000

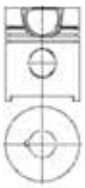
597 — D 1967 — 6 Cyl — **5278cc** **92kW** (126ps)

	**11-01946-000** CH 77,800 B- 36,650 BØ 36,000 TL 131,800 **36,00x86,00**	AP	**91-09512-000** 1 3,000 CrP 2 2,500 P 3 2,500 P 4 5,000 CrP		Ø 100,000	**31-03946-000**
	K=114,00 L=234,50 H+F=8,00+0,80 D=120,90	WF			**51-05941-000**	**71-07941-000**

102,000

720.08 — D 1972 1986 — 4 Cyl — **3596cc** **66kW** (90ps)

720.12 — D 1972 1986 — 4 Cyl — **3596cc** **72kW** (98ps)

	**11-01942-000** CH 75,580 B- 37,950 BØ 37,700 TL 120,600 **36,00x86,00**	AP	**91-09942-000** 1 3,000 MoP 2 2,500 P 3 5,000 CrP		Ø 102,000	**31-03942-000**
Man, Renault Trucks (RVI) ve Saviem ile Ortak Motor						
	K=114,00 L=234,50 H+F=8,00+0,80 D=120,90	WF			**51-05942-000**	**71-07942-000**
	K=114,00 L=218,00 H+F=8,00+0,70 D=120,70	WF-PH			**51-05948-000**	**71-07076-000**
	K=114,00 L=220,50 H+F=8,00+0,70 D=120,70	WF-PH			**51-05949-000**	**71-07944-000**

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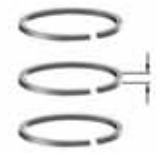
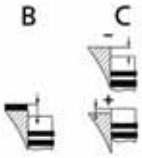
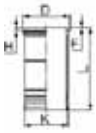
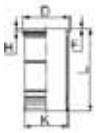
		Type		B C		
						

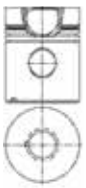
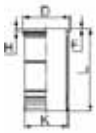
102,000

797	D	1971	6 Cyl	**5496cc**	**89-100kW**	(121-136ps)
D 0216 BMXU	D	1971	6 Cyl	**5496cc**	**110kW**	(150ps)
U 5 M 62	D	1971	6 Cyl	**5496cc**	**kW**	(ps)

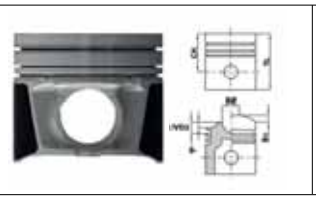
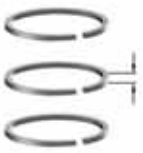
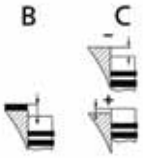
11-01943-000 CH 77,820 B- 38,200 BØ 38,400 TL 123,820 **36,00x86,00** Man, Renault, Renault Trucks (RVI) ve Saviem ile Ortak Motor	AP	**91-09942-000** 1 3,000 MoP 2 2,500 P 3 5,000 CrP		Ø 102,000	**31-03943-000**
 K=114,00 L=235,50 H+F=8,00+0,80 D=121,00	WF			**51-05943-000**	**71-07943-000**
 K=114,00 L=234,00 H+F=8,00+0,80 D=122,50	WF			**51-05944-000**	**71-07325-000**

102,000

379-13 A	D	1971	6 Cyl	**5489cc**	**kW**	(ps)

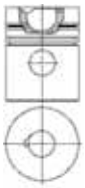
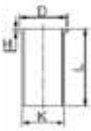
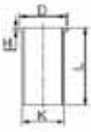
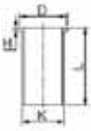
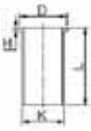
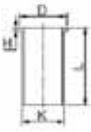
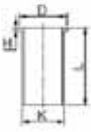
 **11-02920-000** CH 77,800 B- 38,400 BØ 38,000 TL 131,700 **36,00x86,00**	AP	**91-09942-000** 1 3,000 MoP 2 2,500 P 3 5,000 CrP		Ø 102,000	**31-04920-000**
 K=114,00 L=235,50 H+F=8,00+0,80 D=121,00	WF			**51-05943-000**	**71-08920-000**
K=114,00 L=234,00 H+F=8,00+0,80 D=122,50	WF			**51-05944-000**	**71-07056-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

108,000

D0846HMN2 D 1969 6 Cyl **7252cc**

	**11-01591-000** CH 89,000 B- 40,000 BØ 43,300 TL 145,500 **42,00x90,00** Man ve Saviem ile Ortak Motor	AP	**91-09591-000** 1 2,500 CrP 2 2,500 P 3 5,000 CrP	+0,16/+0,46	Ø 108,000	**31-03591-000**
	K=112,98 L=254,00 H=5,05 D=117,85	DF			**51-35591-000**	**71-07591-000**
	K=113,48 L=254,00 H=5,05 D=117,85	DF +0,50			**51-35591-050**	
	K=113,98 L=254,00 H=5,05 D=117,85	DF +1,00			**51-35591-100**	
	K=113,06 L=254,00 H=5,05 D=117,85	DS			**51-65580-000**	
	K=113,50 L=254,00 H=5,05 D=117,85	DS +0,50			**51-65580-050**	
	K=114,00 L=254,00 H=6,00 D=118,85	DS +1,00			**51-65580-100**	

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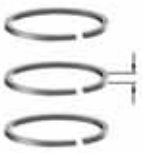
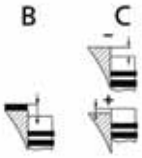
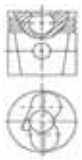
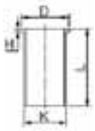
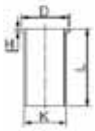
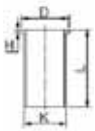
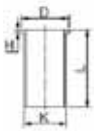
		Type		B C		
						

121,000

D2156 MTN5 D 1974 1978 6 Cyl **10344cc** **188kW** (256ps)

	**11-01573-000** CH 94,000 VD1 2,400 B- 48,350 BØ 47,200 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP HA	**91-09593-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP	+0,05/+0,35	Ø 121,000	**31-03573-000**
	K=125,98 L=287,00 H=8,00 D=131,80	DF			**51-35587-000**	**71-07573-000**
	K=126,48 L=287,00 H=8,00 D=131,80	DF +0,50			**51-35587-050**	
	K=126,98 L=287,00 H=8,00 D=131,80	DF +1,00			**51-35587-100**	
	K=126,05 L=287,00 H=8,05 D=132,00	DS			**51-65593-000**	
	K=126,55 L=287,00 H=8,05 D=132,00	DS +0,50			**51-65593-050**	

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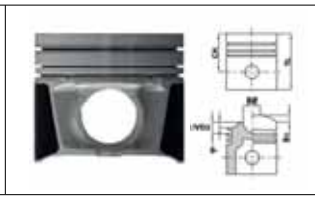
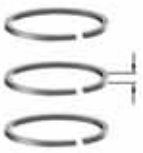
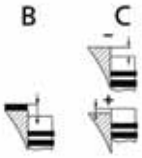
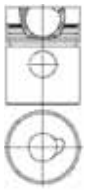
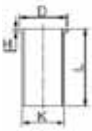
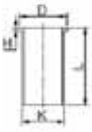
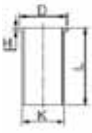
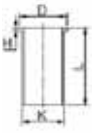
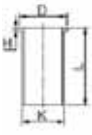
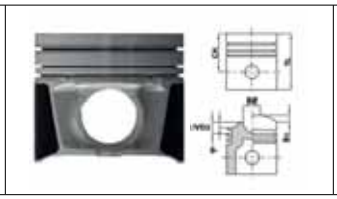
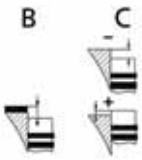
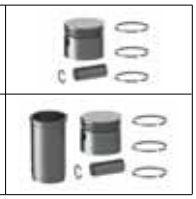
		Type		B C		
						

121,000

D2156 HM 6	D	1974	1975	6 Cyl	**10344cc**	**173kW**	(235ps)
D2156 HMN 6	D	1966	1975	6 Cyl	**10344cc**	**169kW**	(230ps)

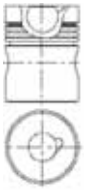
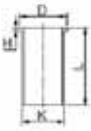
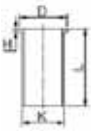
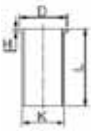
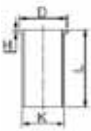
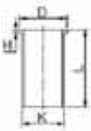
	**11-01593-000** CH 94,000 B- 48,600 BØ 47,100 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP	**91-09593-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP		Ø 121,000	**31-03593-000**
	K=125,98 L=287,00 H=8,00 D=131,80	DF			**51-35587-000**	**71-07593-000**
	K=126,48 L=287,00 H=8,00 D=131,80	DF +0,50			**51-35587-050**	
	K=126,98 L=287,00 H=8,00 D=131,80	DF +1,00			**51-35587-100**	
	K=126,05 L=287,00 H=8,05 D=132,00	DS			**51-65593-000**	
	K=126,55 L=287,00 H=8,05 D=132,00	DS +0,50			**51-65593-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

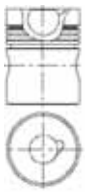
121,000

D2156 HM6	D	1974	1975	6 Cyl	**10344cc**	**173kW** (235ps)
D2156 HMN6	D	1966	1975	6 Cyl	**10344cc**	**169kW** (230ps)

 **11-01600-000** CH 94,000 B- 48,600 BØ 47,000 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP HA	**91-09593-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP		Ø 121,000	**31-03600-000**
 K=125,98 L=287,00 H=8,00 D=131,80	DF			**51-35587-000**	**71-07593-000**
 K=126,48 L=287,00 H=8,00 D=131,80	DF +0,50			**51-35587-050**	
 K=126,98 L=287,00 H=8,00 D=131,80	DF +1,00			**51-35587-100**	
 K=126,05 L=287,00 H=8,05 D=132,00	DS			**51-65593-000**	
 K=126,55 L=287,00 H=8,05 D=132,00	DS +0,50			**51-65593-050**	

121,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston	Cyl	**cc**	**kW**	(ps)

 **11-01600-001** CH 93,800 B- 48,600 BØ 47,400 TL 161,800 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP HA CH -0,20 mm	**91-09593-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP	+0,05/+0,35	Ø 121,000	**31-03600-001**

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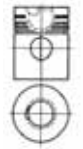
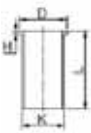
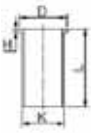
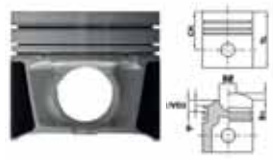
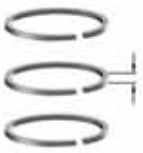
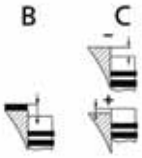
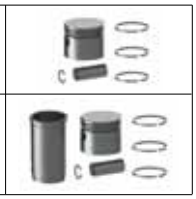
		Type		B C		

123,000

D2356 HM6DK	D	1974	1980	
D2356 HMN5	D	1974	1980	

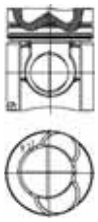
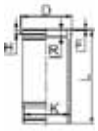
	**11-01572-000** CH 94,000 B- 50,500 BØ 48,500 TL 162,000 **45,00x102,00** Man ve Saviem ile Ortak Motor	AP HA	**91-09594-000** 1 3,500 CrP 2 3,000 P 3 3,000 P 4 5,500 CrP	+0,05/+0,35	Ø 123,000	**31-03572-000**
	K=125,98 L=287,00 H=8,00 D=132,00	DF			**51-35594-000**	**71-07572-000**
	K=126,48 L=287,00 H=8,00 D=132,00	DF +0,50			**51-35594-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

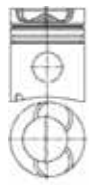
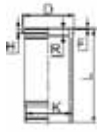
123,000

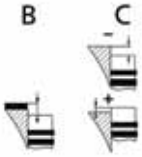
DS 9.05/06/08 — D — 1985 — 1991 — 6 Cyl — 8471cc

	**11-01146-000** CH 87,400 VD1 2,450 B- 20,150 BØ 69,000 TL 139,400 **50,00x92,00**	AP	**91-09522-000** 1 3,160 CR 2 2,385 3 4,747 CR		Ø 123,000	**31-03146-000**
	K=127,95 L=265,00 H+F=10,25+0,80 D=140,70 R=18,00	WF		O-Ring/Seal 55-50701-000 1 FPM129,50x4,00 2 FPM123,00x128,00x10,70	**51-05912-000** 52-05912-000	**71-08514-000** 72-08514-000

115,000

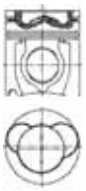
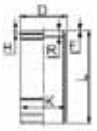
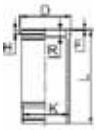
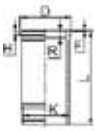
DS 9	D		1998	6 Cyl	**8476cc**	**185kW**	(252ps)
DS 9.05 / 06 / 08	D	1985	1998	6 Cyl	**8476cc**	**155-185kW**	(211-252ps)
DSC 9	D	1985	1988	6 Cyl	**8476cc**	**167kW**	(227ps)
DSC 9.07 / 08 / 09 Euro 1	D	1987	2001	6 Cyl	**8476cc**	**184-208kW**	(250-283ps)

	**11-02522-000** CH 87,400 B- 20,230 BØ 69,000 TL 139,400 **50,00x92,00**	AP	**91-09522-000** 1 3,160 CR 2 2,385 3 4,747 CR	+0,07/+0,50	Ø 115,000	**31-04522-000**
	K=129,95 L=271,00 H+F=8,20+0,80 D=137,30 R=19,00	WF		O-Ring/Seal 55-50704-000 3 FPM 129,50 x4,00	**51-05911-000** 52-05911-000	**71-07142-000** 72-07142-000
	K=127,95 L=265,00 H+F=10,25+0,80 D=140,70 R=18,00	WF		O-Ring/Seal 55-50701-000 1 FPM129,50x4,00 2 FPM123,00x128,00x10,70	**51-05912-000** 52-05912-000	**71-08522-000** 72-08522-000
	K=129,95 L=271,00 H+F=8,20+0,80 D=137,30	WF-PH			**51-05971-000**	**71-08529-000**

		Type		B C		
						

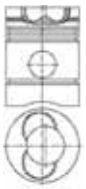
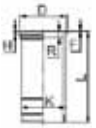
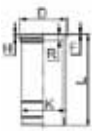
115,000

DSC 9.11 Euro 2	D	6 Cyl	**8974cc**	**162kW**	(220ps)	
DSC 9.12 Euro 2	D	6 Cyl	**8974cc**	**191kW**	(260ps)	
DSC 9.13 Euro 2	D	6 Cyl	**8974cc**	**228kW**	(310ps)	
DSC 9.15 Euro 2	D	6 Cyl	**8974cc**	**228kW**	(310ps)	

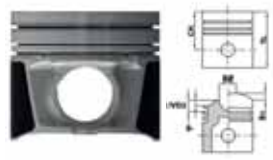
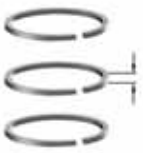
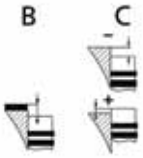
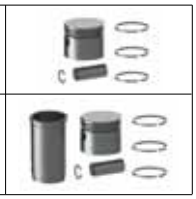
	**11-02525-000** CH 83,400 VD1 0,500 B- 20,500 BØ 71,500 TL 130,900 **50,00x92,00**	AP	**91-09525-000** 1 3,160 CrP 2 2,385 P 3 3,500 CrP	+0,35/+0,50	Ø 115,000	**31-04525-000**
	K=129,95 L=271,00 H+F=8,20+0,80 D=137,30 R=19,00	WF		O-Ring/Seal 55-50704-000 3 FPM 129,50 x4,00	**51-05911-000** 52-05911-000	**71-08525-000** 72-08525-000
	K=127,95 L=265,00 H+F=10,25+0,80 D=140,70 R=18,00	WF		O-Ring/Seal 55-50701-000 1 FPM 2 FPM 129,50x4,00 123,00x128,00x10,70	**51-05912-000** 52-05912-000	**71-08524-000** 72-08524-000
	K=128,00 L=258,00 H+F=8,20+0,80 D=140,75 R=10,50	WF			**51-05916-000**	**71-08526-000**

115,000

D 5	D	1967	1969	4 Cyl	**5200cc**	**75kW**	(102ps)
D 8	D	1962	1969	6 Cyl	**7800cc**	**115kW**	(157ps)

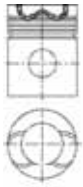
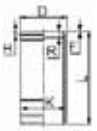
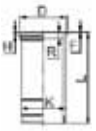
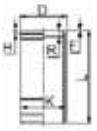
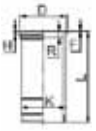
	**11-02913-000** CH 96,200 VD1 2,500 B- 19,200 BØ 73,800 TL 158,100 **42,00x98,00**	AP	**91-09913-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 6,000 P 5 6,000 P		Ø 115,000	**31-04913-000**
	K=129,95 L=271,00 H+F=8,05+0,70 D=137,30 R=19,00	WF		O-Ring/Seal 55-50704-000 3 FPM 129,50 x4,00	**51-05913-000** 52-05913-000	**71-08913-000** 72-08913-000
	K=129,95 L=271,00 H+F=8,05+0,70 D=137,30	WF-PH			**51-05973-000**	**71-08929-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

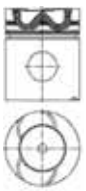
115,000

DS 8-05 / DS 8-06 LO	D	1981	1986	6 Cyl	**7786cc**	**144-155kW**	(190-205ps)	
DS 801 LB 14 / 15 / 196	D	1975	1980	6 Cyl	**7786cc**	**123kW**	(163ps)	

	**11-02914-000** CH 96,200 VD1 2,500 B- 18,100 BØ 75,300 TL 150,100 **46,00x96,00**	AP	**91-09914-000** 1 2,385 CR 2 2,385 P 3 2,385 P 4 4,747 CR		Ø 115,000	**31-04914-000**
	K=129,95 L=271,00 H+F=8,20+0,80 D=137,30 R=19,00	WF		O-Ring/Seal 55-50704-000 3 FPM 129,50 x4,00	**51-05911-000** 52-05911-000	**71-08914-000** 72-08914-000
	K=129,95 L=271,00 H+F=8,05+0,70 D=137,30 R=19,00	WF		O-Ring/Seal 55-50704-000 3 FPM 129,50 x4,00	**51-05913-000** 52-05913-000	**71-07145-000** 72-07145-000
	K=129,95 L=271,00 H+F=8,20+0,80 D=137,30	WF-PH			**51-05971-000**	**71-08930-000**
	K=129,95 L=271,00 H+F=8,05+0,70 D=137,30	WF-PH			**51-05973-000**	**71-08931-000**

127,000

DS 11.01 / DSI 11.01	D	1973	1975	6 Cyl	**11018cc**	**202kW**	(275ps)	
DS 11.01/2/14/15/18 DSC 11.01/2/4/11	D	1975	1978	6 Cyl	**11018cc**	**206-245kW**	(280-333ps)	

	**11-01148-000** CH 98,760 VD1 2,900 B- 27,060 BØ 76,000 TL 156,260 **50,00x108,00**	AP	**91-09528-000** 1 3,500 CR 2 2,385 3 4,747 CR		Ø 127,000	**31-03148-000**

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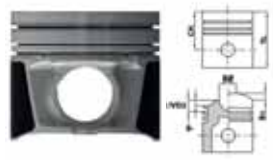
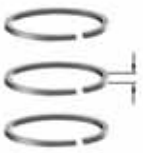
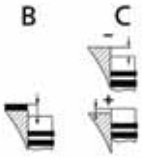
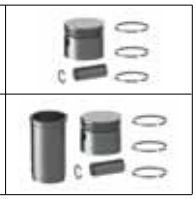
		Type		B C		
						

127,000

DC 12.10 Euro 4	D	2005	6 Cyl	**11716cc**	**250kW**	(340ps)
DC 12.13 Euro 4	D	2005	6 Cyl	**11716cc**	**280-309kW**	(380-420ps)
DC 12.25 Euro 4	D		6 Cyl	**11716cc**	**kW**	(ps)
DT 12.03 Euro 4	D	2004	6 Cyl	**11716cc**	**345kW**	(470ps)
DT 12.11 Euro 4	D	2004	6 Cyl	**11716cc**	**309kW**	(420ps)
DT 12.12 Euro 4	D	2004	6 Cyl	**11716cc**	**309kW**	(420ps)
DT 12.17 Euro 4	D	2004	6 Cyl	**11716cc**	**353kW**	(480ps)
DT12.19	D		6 Cyl	**11716cc**	**kW**	(ps)

	11-01149-000 CH 85,210 B- 22,400 BØ 77,500 TL 125,210 **54,00x106,00**	STEEL PISTON	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-03147-000**
	K=140,00 L=270,50 H=194,27 D=151,00	WF		O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05963-000** 52-05963-000	**71-08516-000** 72-08516-000

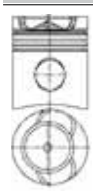
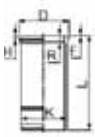
127,000

DC 12.420 EURO5	D	2013	6 Cyl	**11700cc**	**309kW**	(420ps)

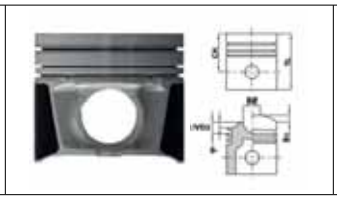
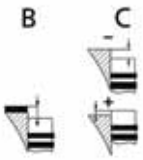
	11-01150-000 CH 85,250 B- 23,000 BØ 75,000 TL 122,750 **54,00x106,00**	STEEL PISTON	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-03150-000**
	K=140,00 L=270,50 H=194,27 D=151,00 R=8,00	WF		O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05933-000** 52-05933-000	**71-07930-000** 72-07930-000

127,000

DS 11	D	1966	6 Cyl	**11000cc**	**202kW**	(275ps)

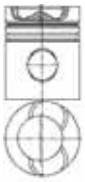
	**11-01917-000** CH 98,500 VD1 2,500 B- 26,800 BØ 75,600 TL 166,000 **47,00x108,00**	AP	**91-09916-000** 1 2,385 CR 2 2,385 P 3 2,385 P 4 6,335 CR 5 6,335 P		Ø 127,000	**31-03917-000**
	K=140,00 L=291,00 H+F=8,20+0,80 D=153,80 R=20,00	WF		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05917-000** 52-05917-000	**71-07917-000** 72-07917-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

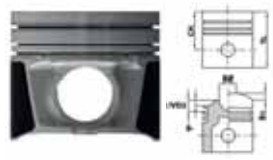
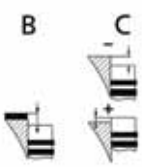
		Type		B C		
						

127,000

DS 11.01	D	1978	1991	6 Cyl	**11022cc**	**184-213kW**	(250-290ps)
DS 11.02	D	1980	1988	6 Cyl	**11022cc**	**224-232kW**	(305-315ps)
DS 11.14	D	1978	1991	6 Cyl	**11022cc**	**206kW**	(280ps)
DS 11.15	D	1981	1998	6 Cyl	**11022cc**	**224kW**	(305ps)
DS 11.16	D	1981	1988	6 Cyl	**11022cc**	**224kW**	(305ps)
DS 11.18	D	1981	1998	6 Cyl	**11022cc**	**254-267kW**	(345-363ps)
DSC 11.01	D	1981	1999	6 Cyl	**11022cc**	**245kW**	(333ps)

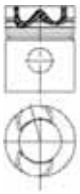
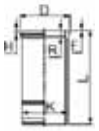
	**11-01918-000** CH 98,760 VD1 2,900 B- 27,060 BØ 76,000 TL 156,260 **50,00x108,00**	AP	**91-09918-000** 1 2,385 Mo 2 2,385 CR 3 4,747 CR		Ø 127,000	**31-03918-000**
	K=140,00 L=291,00 H+F=8,20+0,80 D=153,80 R=20,00	WF		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05917-000** 52-05917-000	**71-07073-000** 72-07073-000
	K=140,00 L=291,00 H+F=7,90+0,80 D=153,80 R=21,00	WF		O-Ring/Seal 55-50707-000 1 T 148,10x153,70x0,30 3 FPM 140,00x4,00	**51-05918-000** 52-05918-000	**71-07918-000** 72-07918-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

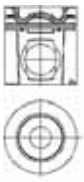
127,000

DS 11.01	D	1978	1991	6 Cyl	**11022cc**	**184-213kW**	(250-290ps)	
DS 11.02	D	1980	1988	6 Cyl	**11022cc**	**224-232kW**	(305-315ps)	
DS 11.14	D	1978	1991	6 Cyl	**11022cc**	**206kW**	(280ps)	
DS 11.15	D	1981	1998	6 Cyl	**11022cc**	**224kW**	(305ps)	
DS 11.16	D	1981	1988	6 Cyl	**11022cc**	**224kW**	(305ps)	
DS 11.18	D	1981	1998	6 Cyl	**11022cc**	**254-267kW**	(345-363ps)	
DSC 11.01	D	1981	1999	6 Cyl	**11022cc**	**245kW**	(333ps)	

	**11-01919-000** CH 98,760 VD1 2,900 B- 27,060 BØ 76,000 TL 156,260 **50,00x108,00**	AP	**91-09919-000** 1 2,380 Mo 2 2,380 3 2,380 4 4,740 CR		Ø 127,000	**31-03919-000**
	K=140,00 L=291,00 H+F=8,20+0,80 D=153,80 R=20,00	WF		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05917-000** 52-05917-000	**71-07919-000** 72-07919-000
	K=140,00 L=291,00 H+F=7,90+0,80 D=153,80 R=21,00	WF		O-Ring/Seal 55-50707-000 1 T 148,10x153,70x0,30 3 FPM 140,00x4,00	**51-05918-000** 52-05918-000	**71-07920-000** 72-07920-000

127,000

DC 11.01 / 07 Euro 2	D	1996	2004	6 Cyl	**10640cc**	**243-250kW**	(330-340ps)	
DC 11.03 / 06 / 08 Euro 3	D	1996		6 Cyl	**10640cc**	**250kW**	(340ps)	

	**11-01920-000** CH 92,040 B- 21,150 BØ 75,100 TL 136,040 **54,00x106,00**	AP	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-03920-000**
	K=139,00 L=271,10 H=194,27 D=150,00 R=8,00	WF		O-Ring/Seal 55-50705-000 1 FPM 144,00x2,50 1 FPM 148,00x4,00	**51-05922-000** 52-05922-000	**71-07921-000** 72-07921-000
	K=140,00 L=270,50 H=194,27 D=151,00 R=8,00	WF		O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05933-000** 52-05933-000	**71-07928-000** 72-07928-000

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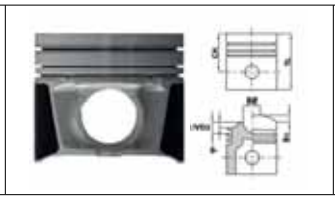
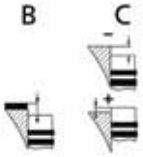
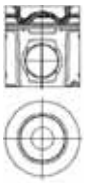
		Type		B C		
						

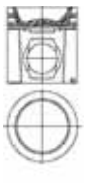
127,000

DC 11.02 Euro 2	D	1996	2004	6 Cyl	**10640cc**	**280kW**	(380ps)
DC 11.03 / 04 / 09 Euro 3	D	1996		6 Cyl	**10640cc**	**250-280kW**	(340-380ps)
DC 9.11 / 13 / 13 / 20 Euro 3	D	2004		4 Cyl	**8870cc**	**169-228kW**	(230-310ps)
DC 9.19	D	2006		4 Cyl	**8870cc**	**169kW**	(230ps)
DC 9.21	D	2004		4 Cyl	**8870cc**	**228kW**	(310ps)
DC 9.60 A 177 / 199 / 228 / 243 Euro 2	D	2006		4 Cyl	**8870cc**	**177-243kW**	(240-330ps)
DC 9.64 A 177 / 199 / 228 / 243 Euro 3	D	2006		4 Cyl	**8870cc**	**177-243kW**	(240-330ps)

	**11-01921-000** CH 92,040 B- 21,150 BØ 75,100 TL 136,040 **54,00x106,00**	AP PDB	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-03921-000**
	K=139,00 L=271,10 H=194,27 D=150,00 R=8,00	WF		O-Ring/Seal 55-50705-000 1 FPM 144,00x2,50 1 FPM 148,00x4,00	**51-05922-000** 52-05922-000	**71-07922-000** 72-07922-000
	K=140,00 L=270,50 H=194,27 D=151,00 R=8,00	WF		O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05933-000** 52-05933-000	**71-07927-000** 72-07927-000

127,000

DC 9.17 / 18 Euro4	D	2004		6 Cyl	**10640cc**	**kW**	(ps)

	**11-01922-000** CH 92,040 B- 27,250 BØ 92,500 TL 136,040 **54,00x106,00**	AP PDB	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-03922-000**
	K=139,00 L=271,10 H=194,27 D=150,00 R=8,00	WF		O-Ring/Seal 55-50705-000 1 FPM 144,00x2,50 1 FPM 148,00x4,00	**51-05922-000** 52-05922-000	**71-07923-000** 72-07923-000

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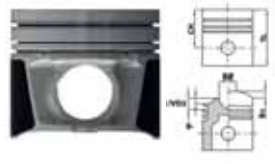
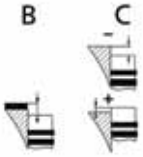
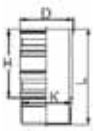
		Type		B C		
						

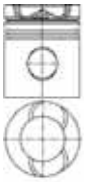
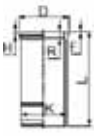
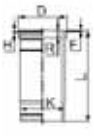
127,000

DC 9.16 / 17 / 18 Euro 4	D	2005		5 Cyl	**8870cc**	
DC 9.16 / 17 Euro 4	D	2005		5 Cyl	**8870cc**	
DC 9.16 Euro 4	D	2004		5 Cyl	**8870cc**	
DC 9.17 / 18 Euro 4	D	2007		5 Cyl	**8870cc**	
DC 9.17 Euro 4	D	2004		5 Cyl	**8870cc**	
DC 9.18 Euro 4	D	2004		5 Cyl	**8870cc**	

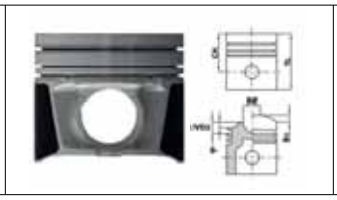
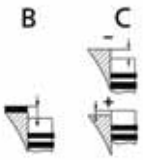
	11-01923-000 CH 92,040 B- 21,500 BØ 93,000 TL 136,040 **54,00x106,00**	AP PDB	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-03923-000**
	K=140,00 L=270,50 H=194,27 D=151,00	WF		O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05963-000** 52-05963-000	**71-08515-000** 72-08515-000

127,000

DSC 11 (USA)	D	1978	1988	6 Cyl	**11000cc**	**kW**	(ps)	
DSI 11 (USA)	D	1973	1990	6 Cyl	**11000cc**	**169kW**	(230ps)	

	**11-02527-000** CH 98,760 VD1 2,900 B- 25,410 BØ 76,000 TL 156,260 **50,00x108,00**	AP	**91-09527-000** 1 3,160 CR 2 2,385 3 2,385 4 4,740 CR		Ø 127,000	**31-04527-000**
	K=140,00 L=291,00 H+F=8,20+0,80 D=153,80 R=20,00	WF		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05917-000** 52-05917-000	**71-07074-000** 72-07074-000
	K=140,00 L=291,00 H+F=7,90+0,80 D=153,80 R=21,00	WF		O-Ring/Seal 55-50707-000 1 T 148,10x153,70x0,30 3 FPM 140,00x4,00	**51-05918-000** 52-05918-000	**71-08527-000** 72-08527-000

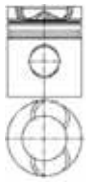
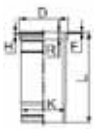
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

127,000

DS 11.34 / 71-74 — D — 1981 — 6 Cyl — **11027cc**

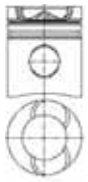
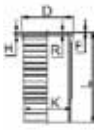
DSC 11.02 / 12 / 13 / 16 / 16B / 17 / 17B / 18 / 18B — D — 1981 — 6 Cyl — **11027cc**

	**11-02528-000** CH 98,760 VD1 2,960 B- 24,500 BØ 75,500 TL 156,260 **50,00x108,00**	AP	**91-09528-000** 1 3,500 CR 2 2,385 3 4,747 CR	-0,14/+0,15	Ø 127,000	**31-04528-000**
	K=139,95 L=291,00 H+F=8,18+0,80 D=153,80 R=21,00	WF-PH		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05914-000** 52-05914-000	**71-08523-000** 72-08523-000
	K=140,00 L=291,00 H+F=7,90+0,80 D=153,80 R=21,00	WF		O-Ring/Seal 55-50707-000 1 T 148,10x153,70x0,30 3 FPM 140,00x4,00	**51-05918-000** 52-05918-000	**71-08519-000** 72-08519-000

127,000

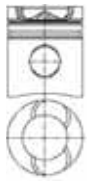
DSC 14.05 — D — 1980 — 1988 — 6 Cyl — **14181cc** — **290-318kW** — (394-432ps)

DSC 14.06 — D — 1980 — 1996 — 6 Cyl — **14181cc** — **297kW** — (404ps)

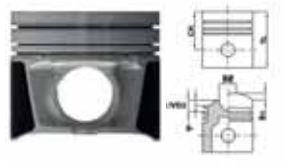
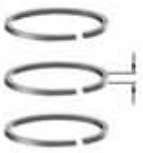
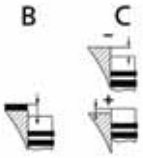
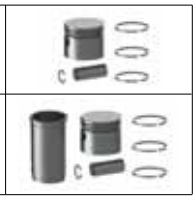
	**11-02530-000** CH 94,670 VD1 2,920 B- 24,000 BØ 74,600 TL 146,670 **50,00x105,00**	AP	**91-09915-000** 1 3,500 CR 2 2,385 3 4,747 CR	-0,16/-0,54	Ø 127,000	**31-04530-000**
	K=140,00 L=276,00 H+F=10,05+0,40 D=156,00 R=20,00	WF		O-Ring/Seal 55-50702-000 1 FPM 136,00x10,75 2 FPM 140,00x4,00	**51-05924-000** 52-05924-000	**71-08538-000** 72-08538-000

127,000

Yanma odasi farkli olan versiyonu / different version of combustion chamber — Cyl — **cc** — **kW** — (ps)

	**11-02530-002** CH 94,670 VD1 2,920 B- 26,000 BØ 75,350 TL 146,670 **50,00x105,00**	AP	**91-09915-000** 1 3,500 CR 2 2,385 3 4,747 CR	-0,16/-0,54	Ø 127,000	**31-04530-002**

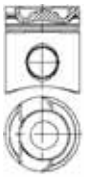
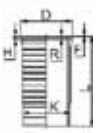
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

127,000

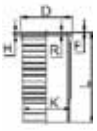
DSC 14.13 Euro2 — D 1994

DSC 14.15 Euro2 — D 1996 2001

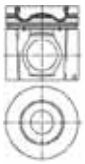
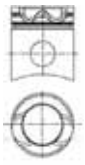
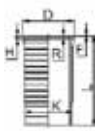
	**11-02881-000** CH 94,670 VD1 2,920 B- 19,590 BØ 83,000 TL 146,670 **50,00x102,00**	AP HA PDB	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-04881-000**
	K=140,00 L=275,50 H+F=10,05+0,40 D=156,00 R=8,50	WF		O-Ring/Seal 55-50702-000 1 FPM 136,00x10,75 2 FPM 140,00x4,00	**51-05929-000** 52-05929-000	**71-08881-000** 72-08881-000

127,000

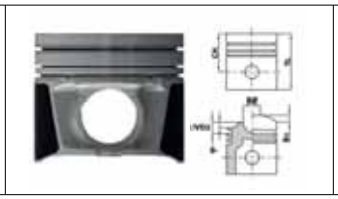
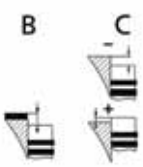
DSC 14 Series — D 1980 1996 8 Cyl **14181cc** **331-346kW** (450-470ps)

	11-02882-000 CH 94,670 VD1 2,920 B- 23,850 BØ 75,500 TL 146,670 **50,00x108,00**	AP	**91-09528-000** 1 3,500 CR 2 2,385 3 4,747 CR		Ø 127,000	**31-04882-000**
	K=140,00 L=276,00 H+F=10,05+0,40 D=156,00 R=12,00	WF		O-Ring/Seal 55-50702-000 1 FPM 136,00x10,75 2 FPM 140,00x4,00	**51-05925-000** 52-05925-000	**71-08882-000** 72-08882-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

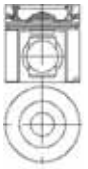
		Type		B C		
127,000						
DC 12.01 / 02 / 03 / 09 Euro 3	D 1995	6 Cyl	**11716cc**	**294-309kW**	(400-420ps)	
DC 16.02 Euro 3	D 2000	8 Cyl	**15600cc**	**353kW**	(480ps)	
DSC 12.01 / 02 / 03 / 05 Euro 2	D 1995	6 Cyl	**11716cc**	**265-309kW**	(360-420ps)	
DT 12.02 Euro 3	D 2000	6 Cyl	**11716cc**	**346kW**	(470ps)	
	**11-02886-000** CH 85,040 B- 22,150 BØ 78,000 TL 129,040 **54,00x106,00**	AP	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-04886-000**
	K=139,00 L=271,10 H=194,27 D=150,00 R=8,00	WF		O-Ring/Seal 55-50705-000 1 FPM 144,00x2,50 1 FPM 148,00x4,00	**51-05922-000** 52-05922-000	**71-08886-000** 72-08886-000
127,000						
DSC 14.03 / 04	D 1987	1998	8 Cyl	**14181cc**	**331-346kW**	(450-470ps)
DSC 14.08 / 09 / 10 / 16 Euro 1	D 1988	2001	8 Cyl	**14181cc**	**309-368kW**	(420-500ps)
	**11-02887-000** CH 94,670 VD1 2,920 B- 23,850 BØ 75,500 TL 146,670 **50,00x108,00**	AP YS HA	**91-09528-000** 1 3,500 CR 2 2,385 3 4,747 CR		Ø 127,000	**31-04887-000**
	K=140,00 L=276,00 H+F=10,05+0,40 D=156,00 R=12,00	WF		O-Ring/Seal 55-50702-000 1 FPM 136,00x10,75 2 FPM 140,00x4,00	**51-05925-000** 52-05925-000	**71-08887-000** 72-08887-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

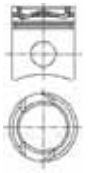
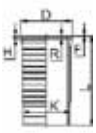
127,000

DC 12.01 / 02 / 03 / 09 Euro 3	D	1995	6 Cyl	**11716cc**	**294-309kW**	(400-420ps)
DC 16.02 Euro 3	D	2000	8 Cyl	**15600cc**	**353kW**	(480ps)
DSC 12.01 / 02 / 03 / 05 Euro 2	D	1995	6 Cyl	**11716cc**	**265-309kW**	(360-420ps)
DT 12.02 Euro 3	D	2000	6 Cyl	**11716cc**	**346kW**	(470ps)

	**11-02888-000** CH 85,040 B- 22,150 BØ 78,000 TL 129,040 **54,00x106,00**	AP PDB	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		Ø 127,000	**31-04888-000**
	K=139,00 L=271,10 H=194,27 D=150,00 R=8,00	WF		O-Ring/Seal 55-50705-000 1 FPM 144,00x2,50 1 FPM 148,00x4,00	**51-05922-000** 52-05922-000	**71-08888-000** 72-08888-000
	K=140,00 L=270,50 H=194,27 D=151,00 R=8,00	WF		O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05933-000** 52-05933-000	**71-08885-000** 72-08885-000

127,000

DSC 14.09	D	1993	8 Cyl	**14181cc**	**368kW**	(500ps)

	**11-02889-000** CH 94,670 VD1 2,980 B- 15,920 BØ 89,350 TL 146,670 **50,00x108,00**	AP YS HA	**91-09528-000** 1 3,500 CR 2 2,385 3 4,747 CR	-0,16/-0,54	Ø 127,000	**31-04889-000**
	K=140,00 L=276,00 H+F=10,05+0,40 D=156,00 R=12,00	WF		O-Ring/Seal 55-50702-000 1 FPM 136,00x10,75 2 FPM 140,00x4,00	**51-05925-000** 52-05925-000	**71-08889-000** 72-08889-000

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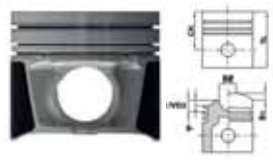
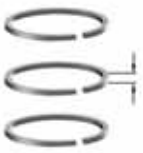
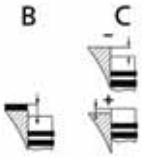
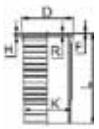
		Type		B C		
						

127,000

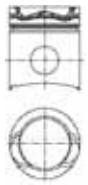
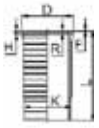
DS 14.41 / 47 / 50 / 56 / 60 / 61 / 63 — D — 1988 — 8 Cyl — **14180cc 340kW** — (462ps)

	11-02890-000 CH 94,670 VD1 3,000 B- 19,000 BØ 89,200 TL 146,670 **50,00x108,00**	AP YS HA	**91-09528-000** 1 3,500 CR 2 2,385 3 4,747 CR		Ø 127,000	**31-04890-000**
	K=140,00 L=275,50 H+F=10,05+0,40 D=156,00 R=22,00	WF			**51-05923-000**	**71-08890-000**

127,000

DSC 14.08 (17:1) Euro 1 — D — 8 Cyl — **14181cc 309kW** — (420ps)

DSC 14.10 (17:1) Euro 1 — D — 8 Cyl — **14181cc 333kW** — (453ps)

	**11-02894-000** CH 94,670 VD1 2,920 B- 15,400 BØ 89,350 TL 146,670 **50,00x108,00**	AP	**91-09915-000** 1 3,500 CR 2 2,385 3 4,747 CR		Ø 127,000	**31-04894-000**
	K=140,00 L=276,00 H+F=10,05+0,40 D=156,00 R=12,00	WF		O-Ring/Seal 55-50702-000 1 FPM 136,00x10,75 2 FPM 140,00x4,00	**51-05925-000** 52-05925-000	**71-08535-000** 72-08535-000

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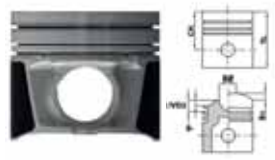
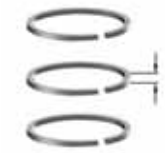
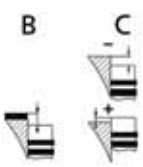
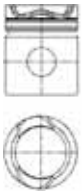
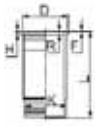
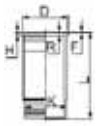
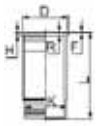
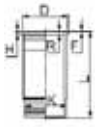




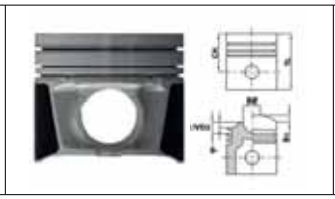
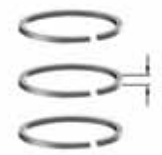
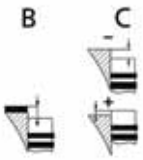
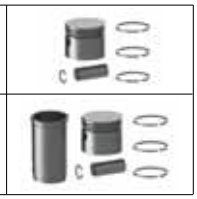
Type

127,000

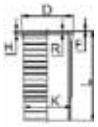
DS 11	D	1975	1980	6 Cyl	**11022cc**	**166-233kW**	(225-317ps)
DS 11.08 / 21-23 / 30 / 35 / 36 / 39 / 75	D			6 Cyl	**11022cc**	**228-267kW**	(310-363ps)
DSC 11.21 / 23 Euro 1	D	1982	2000	6 Cyl	**11022cc**	**235-266kW**	(320-362ps)
DSC 11.35 / 36 / 39 / 71	D	1982	2000	6 Cyl	**11022cc**	**191-267kW**	(260-363ps)
DSC 11.74 / 75 Euro 1	D	1996	1999	6 Cyl	**11022cc**	**235-265kW**	(320-360ps)
DSC 11.79 Euro 2	D	1996	1999	6 Cyl	**11022cc**	**250kW**	(340ps)

	**11-02895-000** CH 98,760 VD1 2,960 B- 16,520 BØ 90,000 TL 156,260 **50,00x108,00**	AP	**91-09528-000** 1 3,500 CR 2 2,385 3 4,747 CR	-0,15/+0,15	Ø 127,000	**31-04895-000**
	K=140,00 L=291,00 H+F=8,20+0,80 D=153,80 R=20,00	WF		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05917-000** 52-05917-000	**71-08892-000** 72-08892-000
	K=140,00 L=291,00 H+F=8,20+0,80 D=153,86 R=11,50	WF		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05928-000** 52-05928-000	**71-08536-000** 72-08536-000
	K=140,00 L=291,00 H+F=7,90+0,80 D=153,80 R=12,00	WF		O-Ring/Seal 55-50707-000 1 T 148,10x153,70x0,30 3 FPM 140,00x4,00	**51-05926-000** 52-05926-000	**71-08893-000** 72-08893-000
	K=140,00 L=291,00 H+F=7,92+0,80 D=153,86 R=12,00	WF		O-Ring/Seal 55-50708-000 1 T 148,10x153,70x0,30 3 FPM 140,00x4,00 1 FPM 138,00x143,00x11,00	**51-05927-000** 52-05927-000	**71-08895-000** 72-08895-000
	K=140,00 L=291,00 H+F=8,20+0,80 D=153,86 R=11,50	WF		O-Ring/Seal 55-50703-000 3 VI 140,00x4,00	**51-05928-000** 52-05928-000	**71-08536-000** 72-08536-000

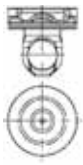
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

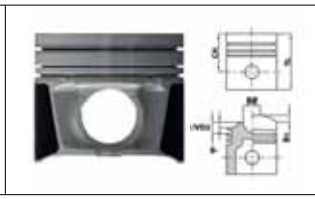
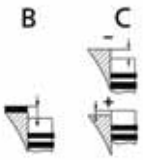
127,000

DS 14			D	1969	1981	8 Cyl	**14181cc**	**257-283kW** (350-385ps)
DS 14.01 / 02 / 06			D	1980		8 Cyl	**14181cc**	**275-310kW** (387-425ps)
DS 14.42 A 24 S			D	1984	1998	8 Cyl	**14181cc**	**294kW** (400ps)
DSC 14			D	1980	1988	8 Cyl	**14181cc**	**316kW** (430ps)
DSC 14.01 / 02			D	1980	1988	8 Cyl	**14181cc**	**297-309kW** (390-420ps)
DSI 14.420			D	1983		8 Cyl	**14181cc**	**309kW** (420ps)
	11-02902-000 CH 94,670 VD1 2,920 B- 26,200 BØ 75,500 TL 146,670 **50,00x108,00**	AP	**91-39527-000** 1 3,160 CR 2 2,385 3 4,740 CR		-0,16/-0,54	Ø 127,000		**31-04902-000**
	K=140,00 L=276,00 H+F=10,05+0,40 D=156,00 R=20,00	WF			O-Ring/Seal 55-50702-000 1 FPM 136,00x10,75 2 FPM 140,00x4,00	**51-05924-000** 52-05924-000		**71-08902-000** 72-08902-000

127,000

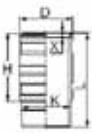
DC 12.01 / 02 / 03 / 09 / 14 Euro 3			D	1995		6 Cyl	**11716cc**	**294-309kW** (400-420ps)
DC 12.50 A 272 / 316 / 330 Euro 2			D	2006		6 Cyl	**11716cc**	**272-330kW** (370-450ps)
DC 16.01 / 03 / 04 Euro 3			D	2000		8 Cyl	**15600cc**	**368-427kW** (500-580ps)
DC 16.41 A 294 / 331 / 368 / 404 / 432 Euro 2			D	2006		8 Cyl	**15600cc**	**294-404kW** (400-588ps)
DI 12.54 A 243 / 272 / 280 Euro 2			D	2006		6 Cyl	**11716cc**	**243-280kW** (330-381ps)
DSC 12.01 / 02 / 03 / 05 Euro 2			D	1995		6 Cyl	**11716cc**	**265-309kW** (360-420ps)
DT 12.02 / 08 Euro 3			D	1995		6 Cyl	**11716cc**	**324-346kW** (440-470ps)
	**11-02918-000** CH 85,210 B- 22,150 BØ 78,000 TL 125,210 **54,00x106,00**	STEEL PISTON	**91-09003-000** 1 3,500 CR 2 2,385 P 3 3,500 CR		0/0,35	Ø 127,000		**31-04918-000**
	K=139,00 L=271,10 H=194,27 D=150,00 R=8,00	WF			O-Ring/Seal 55-50705-000 1 FPM 144,00x2,50 1 FPM 148,00x4,00	**51-05922-000** 52-05922-000		**71-07924-000** 72-07924-000
	K=140,00 L=270,50 H=194,27 D=151,00 R=8,00	WF			O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05933-000** 52-05933-000		**71-07926-000** 72-07926-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

130,000

DC 13 PDE Euro5 D 2013 6 Cyl **12700cc 294kW** (400ps)

	11-02627-000 CH 82,000 B- 23,100 BØ 78,200 TL 128,000 **58,00x104,00**	AP PDB	**91-09479-000** 1 3,500 CK St 2 3,000 CR 3 4,000 CK St		Ø 130,000	**31-04627-000**
	K=140,00 L=270,50 H=194,27 D=151,00 X=8,85 (RING)	WF		O-Ring/Seal 55-50706-000 1 FPM 144,00x3,50 1 FPM 148,00x4,00	**51-05977-000** 52-05977-000	**71-07929-000** 72-07929-000

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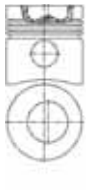
		Type		B C		

100,000

WD308.40 / 41 / 45	D		3 Cyl	**2355cc**	**31-35kW**	(40-47ps)
WD408.40 / 41 / 42 / 43	D	1962	4 Cyl	**3140cc**	**38-47kW**	(52-63ps)

	**11-01961-000** CH 63,400 B- 19,400 BØ 54,000 TL 103,900 **35,00x83,00**		**91-09961-000** 1 2,500 CrP 2 2,500 P 3 2,500 4 5,000 CrP	+0,25/+0,28	Ø 100,000	**31-03961-000**
	K=109,37 L=197,00 H+F=9,03+0,90 D=117,95	WF-PH			**51-05960-000**	**71-07961-000**
	K=109,37 L=197,00 H+F=9,03+0,90 D=117,95	WF-CR			**51-05961-000**	**71-07101-000**

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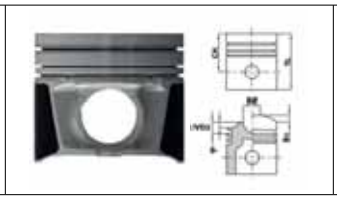
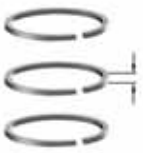
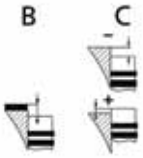
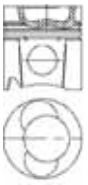
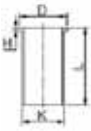
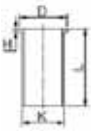
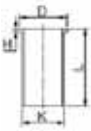
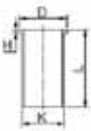
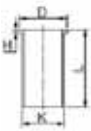
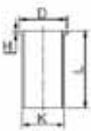
		Type		B C		
						

108,000

D0824 Euro1 LF01 / LF03-LF10 / LFL01 / LFL05 / LOH01-LOH03	D	1991	4 Cyl	**4580cc**	**103-118kW** (140-160ps)
D0826 Euro 1 LF04/LF07-LF08/LFG05-LFG07/LFL01-LFL02/LFL05-LFL08 /LOH06-LOH07/LOH10/LUH01-LUH03/LUH05-LUH06/LUH10	D	1989	6 Cyl	**6871cc**	**114-198kW** (155-270ps)

 **11-01592-000** CH 73,000 VD1 1,700 B- 21,250 BØ 63,000 TL 113,000 **40,00x90,00** Man ve Steyr ile Ortak Motor	AP	**91-09592-000** 1 3,000 CR 2 2,500 3 4,000 CR	+0,10/+0,40	Ø 108,000 Ø 108,500	**31-03592-000** **31-03592-050**
 K=111,47 L=217,00 H=4,05 D=116,00	DF			**51-35592-000**	**71-07592-000**
 K=111,72 L=217,00 H=4,05 D=116,00	DF +0,25			**51-35592-025**	
 K=111,97 L=217,00 H=4,05 D=116,00	DF +0,50			**51-35592-050**	
 K=112,47 L=217,00 H=5,00 D=117,00	DF +1,00			**51-35592-100**	
 K=111,54 L=217,00 H=4,05 D=116,00	DS			**51-65596-000**	
 K=112,04 L=217,00 H=4,05 D=116,00	DS +0,50			**51-65596-050**	

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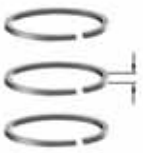
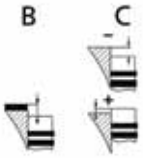
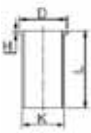
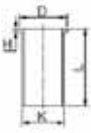
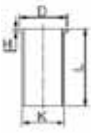
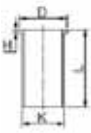
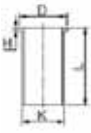
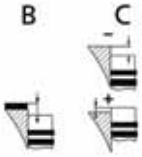
		Type		B C		
						

126,000

WD615E2-3A D 6 Cyl **9726cc** **kW** (ps)

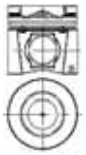
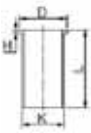
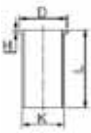
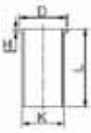
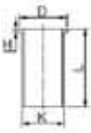
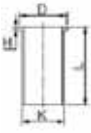
	11-01963-000 CH 80,000 VD1 0,650 B- 19,500 BØ 75,150 TL 123,000 **50,00x105,00**	AP YS	**91-09965-000** 1 3,500 CkP 2 3,000 P 3 4,000 CrP		Ø 126,000	**31-03963-000**
	K=129,98 L=241,00 H=4,84 D=136,35	DF			**51-35965-000**	**71-07963-000**
	K=130,00 L=241,00 H=4,84 D=136,35	DF +0,02			**51-35965-002**	
	K=130,03 L=241,00 H=4,84 D=136,35	DF +0,05			**51-35965-005**	
	K=130,25 L=241,00 H=4,84 D=136,35	DF +0,25			**51-35965-025**	
	K=130,50 L=241,00 H=4,84 D=136,35	DF +0,50			**51-35965-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

126,000

HWD615-E3 D 6 Cyl **9726cc**

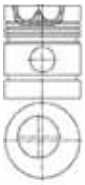
	**11-01965-000** CH 79,900 B- 19,000 BØ 75,100 TL 123,300 **50,00x105,00**	AP YS	**91-09965-000** 1 3,500 CkP 2 3,000 P 3 4,000 CrP		Ø 126,000	**31-03965-000**
	K=129,98 L=241,00 H=4,84 D=136,35	DF			**51-35965-000**	**71-07965-000**
	K=130,00 L=241,00 H=4,84 D=136,35	DF +0,02			**51-35965-002**	
	K=130,03 L=241,00 H=4,84 D=136,35	DF +0,05			**51-35965-005**	
	K=130,25 L=241,00 H=4,84 D=136,35	DF +0,25			**51-35965-025**	
	K=130,50 L=241,00 H=4,84 D=136,35	DF +0,50			**51-35965-050**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

98,480

77.12 / 16		D	1 Cyl	**770cc**	
77.26 / 28 / 32		D	2 Cyl	**1540cc**	

	**11-01970-000** CH 63,600 B- 19,500 BØ 54,000 TL 114,400 **34,93x84,10**		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P	+0,60/+0,70	Ø 98,480	**31-03970-000**
	K=112,70 L=207,40 H+F=7,10+1,40 D=121,70	WF			**51-05970-000**	**71-07970-000**

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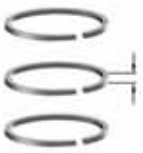
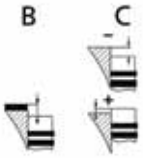
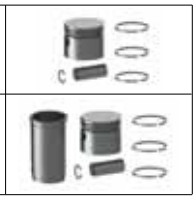
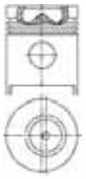
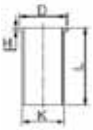
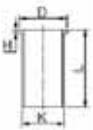
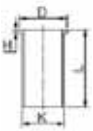
		Type		B C		
						

95,000

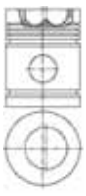
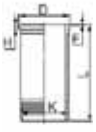
D115 D 1970 3 Cyl **2340cc**

D121 D 1972 6 Cyl **4678cc**

	**11-01402-000** CH 59,650 B- 23,500 BØ 42,500 TL 101,150 **32,00x82,50**		**91-09402-000** 1 2,500 CrP 2 2,500 P 3 5,500 CrP	+0,46/+0,79	Ø 95,000 Ø 95,400 Ø 95,600	**31-03402-000** **31-03402-040** **31-03402-060**
Fiat / Iveco ve Utb-Universal ile Ortak Motor						
	K=99,08 L=187,50	DS			**51-65402-000**	
	K=99,60 L=187,50	DS +0,50			**51-65402-050**	
	K=99,05 L=187,50 H=6,00 D=100,05	DS			**51-65454-000**	
	K=99,50 L=187,50 H=6,00 D=100,50	DS +0,50			**51-65454-050**	
	K=100,05 L=187,50 H=6,00 D=101,05	DS +1,00			**51-65454-100**	
	K=103,03 L=187,50	DS			**51-66020-000**	

108,000

D110 D 4 Cyl **4760cc** **48kW** (68ps)

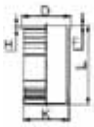
	**11-02030-000** CH 87,000 B- 23,500 BØ 61,400 TL 141,000 **40,00x88,00**		**91-09030-000** 1 3,000 CrP 2 3,000 P 3 3,000 P 4 6,000 P 5 6,000 P		Ø 108,000	**31-04030-000**
	K=125,00 L=258,00 H+F=10,10+1,30 D=132,00	WF			**51-06030-000**	**71-08030-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

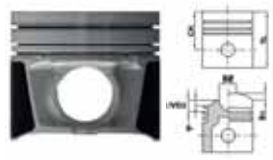
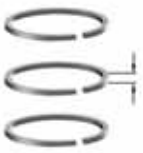
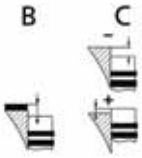
		Type		B C		

108,000

RTK / TPL — D — 6 Cyl — **2000cc** **140kW** (160ps)

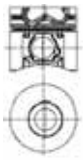
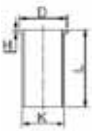
	11-02235-000 CH 70,650 VD1 0,800 B- 19,060 BØ 64,500 TL 106,650 **40,00x89,00**	AP	**91-09592-000** 1 3,000 CR 2 2,500 3 4,000 CR		Ø 108,000	**31-04235-000**
	K=123,00 L=218,00 H+F=9,05+0,90 D=131,70	WF			**51-06095-000**	**71-08235-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

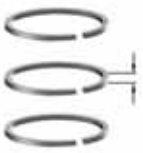
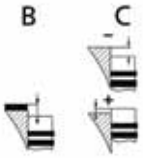
		Type		B C		
						

91,000

BF 4 L 1011 F Euro 1	D	1998	4 Cyl	**2732cc**	**48-56 kW**	(65-76ps)
BF 4 L 1011 FT Euro 1	D	1998	4 Cyl	**2732cc**	**46-53 kW**	(63-72ps)

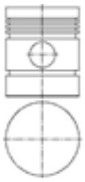
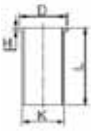
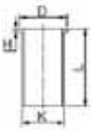
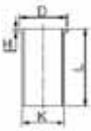
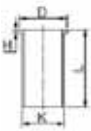
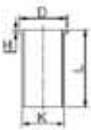
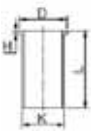
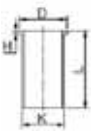
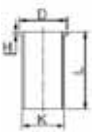
	**11-01694-000** CH 55,200 B- 18,000 BØ 45,000 TL 86,150 **30,00x68,00**	AP AA=27,60 mm	**91-09046-000** 1 3,000 MoP 2 2,000 P 3 3,000 CrP	(+0,59/+0,69) (+0,69/+0,76) (+0,76/+0,83)	Ø 91,000 Ø 91,500	**31-03694-000** **31-03694-050**
Deutz ve Volvo ile Ortak Motor						
	K=94,00 L=175,50 H=4,55 D=98,85	DF			**51-35511-000**	**71-07515-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

91,480

A 3.152 D 3 Cyl **2503cc** **27-35kW** (37-48ps)

	**11-01831-000** CH 57,200 TL 107,700 **31,75x75,30** Massey-Ferguson, Perkins ve Volvo ile Ortak Motor		**91-09832-000** 1 2,385 CrP 2 2,385 P 3 3,160 P 4 6,335 P 5 6,335 CrP	-0,13/0	Ø 91,480	**31-03831-000**
	K=93,67 L=216,00 H=3,81 D=96,70	DF			**51-35835-000**	**71-07831-000**
	K=93,90 L=216,00 H=3,81 D=96,70	DF +0,25			**51-35835-025**	
	K=94,16 L=216,00 H=3,81 D=96,70	DF +0,50			**51-35835-050**	
	K=93,75 L=216,00 H=3,81 D=96,75	DS			**51-65834-000**	
	K=94,30 L=216,00 H=3,81 D=96,75	DS +0,50			**51-65834-050**	
	K=94,75 L=216,00 H=3,81 D=96,75	DS +1,00			**51-65834-100**	
	K=95,25 L=216,00 H=3,81 D=98,25	DS +1,50			**51-65834-150**	
	K=95,75 L=216,00 H=3,81 D=98,75	DS +2,00			**51-65834-200**	

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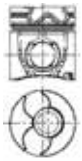
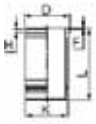
		Type		B C		

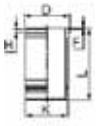
92,000

KAD / KAMD43 / TAMD 43 — D — 2 Cyl — **3590cc** **169kW** (230ps)

	**11-02038-000** CH 66,730 VD1 1,050 VD2 1,030 B- 19,520 BØ 40,020 TL 101,620 **35,00x76,00**	AP YS	**91-09048-000** 1 3,000 MoP 2 2,500 MoP 3 4,000 CR		Ø 92,000	**31-04038-000**
	K=105,00 L=180,80 H+F=9,00+1,00 D=114,00	WF		O-Ring/Seal 55-50614-000 2 FPM 96,00x3,00 1 FPM 99,50x3,00 1 FPM 102,00x1,60	**51-06046-000** 52-06046-000	**71-08033-000** 72-08033-000

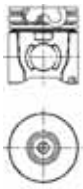
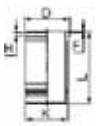
92,000

AQAD 31 A	D	1986	4 Cyl	**2400cc**	**96kW**	(130ps)
AQAD 41 A	D	1986	6 Cyl	**2400cc**	**147kW**	(200ps)
TAMD 31 A	D		4 Cyl	**2400cc**	**96kW**	(131ps)
TAMD 41 A	D		6 Cyl	**2400cc**	**147kW**	(200ps)
TMD 31 A	D		4 Cyl	**2400cc**	**74kW**	(101ps)
TMD 41 A	D		6 Cyl	**2400cc**	**110kW**	(150ps)

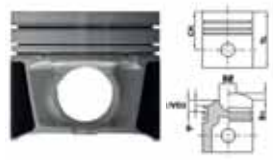
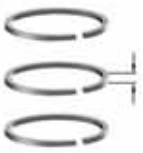
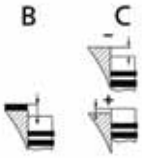
	11-02039-000 CH 66,850 B- 22,000 BØ 40,000 TL 101,660 **35,00x76,00**	AP YS HA	**91-09047-000** 1 2,500 Mo 2 2,500 MoP 3 4,000 CR		Ø 92,000	**31-04039-000**
	K=105,00 L=180,80 H+F=9,00+1,00 D=114,00	WF		O-Ring/Seal 55-50614-000 2 FPM 96,00x3,00 1 FPM 99,50x3,00 1 FPM 102,00x1,60	**51-06046-000** 52-06046-000	**71-08034-000** 72-08034-000

92,000

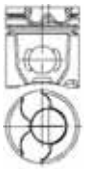
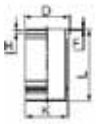
MD-TAMD-KAD-KAMD 31 / 32 / 41-44 — B — 6 Cyl — **3598cc** **169kW** (230ps)

	**11-02094-000** CH 66,660 B- 19,980 BØ 40,000 TL 101,600 **35,00x75,87**	AP YS	**91-09067-000** 1 3,500 Mo 2 2,500 MoP 3 3,000 CR		Ø 92,000	**31-04094-000**
	K=105,00 L=180,80 H+F=9,00+1,00 D=114,00	WF		O-Ring/Seal 55-50614-000 2 FPM 96,00x3,00 1 FPM 99,50x3,00 1 FPM 102,00x1,60	**51-06046-000** 52-06046-000	**71-07092-000** 72-07092-000

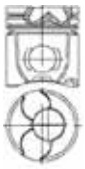
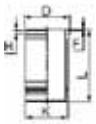
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

92,010

KAD42A / B / P				D	6 Cyl	**3600cc** **kW** (155ps)
	**11-02047-000** CH 66,650 VD1 1,800 B- 19,000 BØ 43,000 TL 101,650 **35,00x76,00**	AP YS HA	**91-09048-000** 1 3,000 MoP 2 2,500 MoP 3 4,000 CR		Ø 92,010	**31-04047-000**
	K=105,00 L=180,80 H+F=9,00+1,00 D=114,00	WF		O-Ring/Seal 55-50614-000 2 FPM 96,00x3,00 1 FPM 99,50x3,00 1 FPM 102,00x1,60	**51-06046-000** 52-06046-000	**71-08037-000** 72-08037-000

92,010

AD 31 XD				D	4 Cyl	**2400cc** (130ps)
TAMD 31 B				D	4 Cyl	**2400cc** (110-130ps)
TAMD 31 D				D	4 Cyl	**2400cc** (130ps)
TAMD 41 B				D	6 Cyl	**3600cc** (145-200ps)
TAMD 41 D				D	6 Cyl	**3600cc** (145ps)
	**11-02048-000** CH 66,650 VD1 1,050 B- 19,500 BØ 40,000 TL 101,650 **35,00x76,00**	AP YS HA	**91-09048-000** 1 3,000 MoP 2 2,500 MoP 3 4,000 CR		Ø 92,010	**31-04048-000**
	K=105,00 L=180,80 H+F=9,00+1,00 D=114,00	WF		O-Ring/Seal 55-50614-000 2 FPM 96,00x3,00 1 FPM 99,50x3,00 1 FPM 102,00x1,60	**51-06046-000** 52-06046-000	**71-08038-000** 72-08038-000

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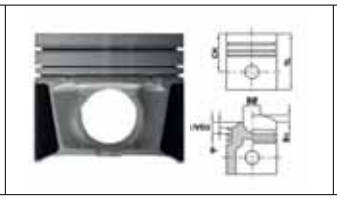
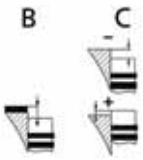
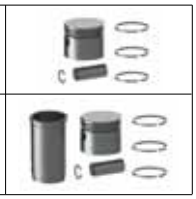
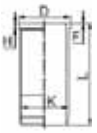
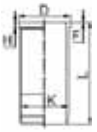
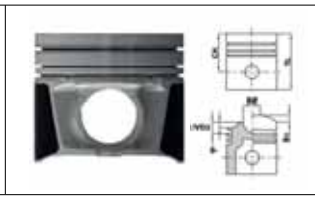
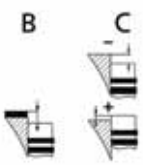
		Type		B C		
						

95,250

D 50 A	D	1965	1971	6 Cyl	**5100cc**	**74-79kW**	(100-107ps)
D 50 B	D	1970	1978	6 Cyl	**5100cc**	**64-86kW**	(87-117ps)
D50A	D	1968	1970	6 Cyl	**5100cc**	**74-79kW**	(100-107ps)
D50B	D	1972	1975	6 Cyl	**5100cc**	**64-86kW**	(87-117ps)
TD 50 A	D	1965	1975	6 Cyl	**5100cc**	**81-108kW**	(110-147ps)
TD 50 B	D	1965	1978	6 Cyl	**5100cc**	**108-121kW**	(147-165ps)
TD 50A	D	1969	1975	6 Cyl	**5100cc**	**81-108kW**	(110-147ps)
TD 50B	D			6 Cyl	**5100cc**	**108-121kW**	(147-165ps)

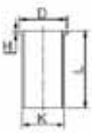
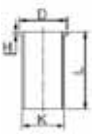
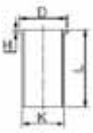
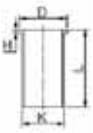
	11-02050-000 CH 79,400 B- 23,900 BØ 50,000 TL 124,400 **40,00x77,30**	AP	**91-09050-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR		Ø 95,250	**31-04050-000**
	K=107,95 L=234,50 H+F=11,61+0,73 D=117,00	WF-PH			**51-06040-000**	**71-08053-000**
	K=107,95 L=234,50 H+F=11,61+0,73 D=117,00	WF		O-Ring/Seal 55-50602-000 1 FPM 103,50x1,60 2 EPDM 106,50x5,70	**51-06050-000** 52-06050-000	**71-08050-000** 72-08050-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

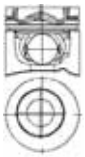
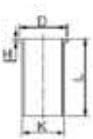
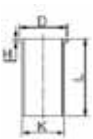
98,000

TAD 620 VE Euro2 — D — 4 Cyl — **5703cc** — **155kW** — (211ps)

	11-01717-000 CH 50,650 B- 17,500 BØ 61,060 TL 90,650 **38,00x76,00**	AP	**91-09717-000** 1 3,000 CK 2 2,030 P 3 3,000 CR		Ø 98,000	**31-03717-000**
Volvo ve Deutz Ortak Motor						
	K=101,00 L=188,00 H=4,50 D=105,00	DF			**51-36038-000**	**71-07117-000**
	K=101,50 L=188,00 H=5,00 D=105,00	DF +0,50			**51-36038-050**	
	K=101,00 L=193,00 H=4,50 D=105,00	DF			**51-36039-000**	**71-07137-000**
	K=101,50 L=193,00 H=5,00 D=105,00	DF +0,50			**51-36039-050**	

98,000

TAD 660 VE Euro3 — D — 2006 — 6 Cyl — **5703cc** — **147kW** — (200ps)

	**11-01718-000** CH 55,150 B- 17,310 BØ 61,500 TL 90,650 **40,00x80,00**	AP	**91-09717-000** 1 3,000 CK 2 2,030 P 3 3,000 CR		Ø 98,000	**31-03718-000**
Volvo ve Deutz Ortak Motor						
	K=101,00 L=188,00 H=4,50 D=105,00	DF			**51-36038-000**	**71-07138-000**
	K=101,50 L=188,00 H=5,00 D=105,00	DF +0,50			**51-36038-050**	

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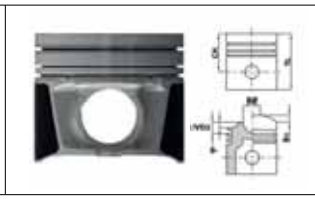
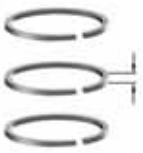
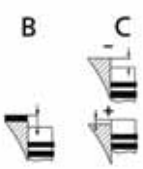
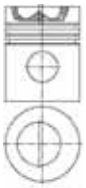
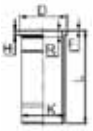
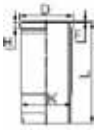
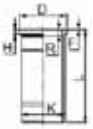
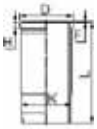
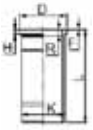
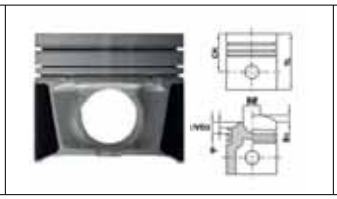
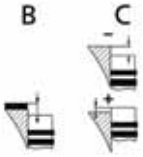
		Type				

98,430

TAMD 60 C	D	1978	1985	6 Cyl	**5480cc**	**108-184kW**	(147-250ps)
TD 60 B / C / DG	D	1978	1987	6 Cyl	**5480cc**	**86-132kW**	(117-180ps)
TD 61 B / F / FB / G / GA / GB / GC / GE / GS	D	1985		6 Cyl	**5480cc**	**108-153kW**	(147-208ps)

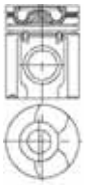
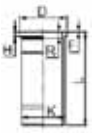
	**11-02051-000** CH 79,400 B- 21,800 BØ 57,000 TL 124,400 **40,00x77,30**	AP	**91-09051-000** 1 2,385 CrP 2 3,160 CrP 3 4,747 CrP	+0,05/+0,55	Ø 98,430	**31-04051-000**
	K=109,92 L=237,00 H+F=9,65+3,50 D=119,10 R=8,50	WF		O-Ring/Seal 55-50609-000 1 FPM 109,00x5,80 2 EPDM 109,00x5,80 1 FPM 104,00x1,50	**51-06035-000** 52-06035-000	**71-08040-000** 72-08040-000
	K=109,92 L=234,50 H+F=11,61+0,73 D=119,10	WF-PH		O-Ring/Seal 55-50608-000 1 FPM 104,00x1,50 1 EPDM 109,00x5,80 1 FPM 109,00x5,80	**51-06041-000** 52-06041-000	**71-08041-000** 72-08041-000
	K=109,92 L=237,00 H+F=9,65+3,50 D=119,10 R=20,00	WF-PH			**51-06042-000**	**71-08042-000**
	K=109,92 L=234,50 H+F=11,61+0,73 D=119,10	WF		O-Ring/Seal 55-50608-000 1 FPM 104,00x1,50 1 EPDM 109,00x5,80 1 FPM 109,00x5,80	**51-06051-000** 52-06051-000	**71-08051-000** 72-08051-000
	K=109,92 L=237,00 H+F=9,65+3,50 D=119,10 R=20,00	WF		O-Ring/Seal 55-50609-000 1 FPM 109,00x5,80 2 EPDM 109,00x5,80 1 FPM 104,00x1,50	**51-06081-000** 52-06081-000	**71-07045-000** 72-07045-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

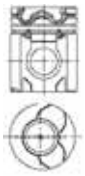
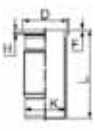
98,430

TD 63 E / ES / KDE Euro 1	D	1991		6 Cyl	**5480cc**	**88-154kW**	(120-209ps)
TD 63 KBE Euro 1	D	1994		6 Cyl	**5480cc**	**115-118kW**	(156-160ps)
TD 63 KDE Euro 1	D	1993		6 Cyl	**5480cc**	**88-154kW**	(120-209ps)
TD 63 KEE Euro 1	D	1996		6 Cyl	**5480cc**	**105kW**	(143ps)
TD 63 KFE Euro 1	D	1995		6 Cyl	**5480cc**	**120-122kW**	(163-166ps)
TD 63 KGE Euro 1	D	1999	2002	6 Cyl	**5480cc**	**94kW**	(128ps)

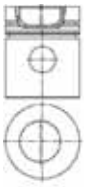
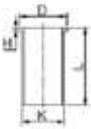
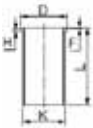
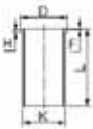
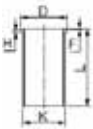
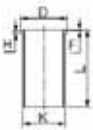
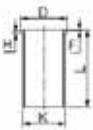
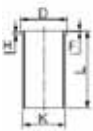
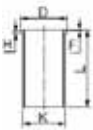
	**11-02053-000** CH 79,400 VD1 0,800 B- 20,300 BØ 53,100 TL 124,400 **40,00x77,73**	AP	**91-09053-000** 1 3,500 Mo 2 2,500 3 3,500 CR		Ø 98,430	**31-04053-000**
	K=109,92 L=237,00 H+F=9,65+3,50 D=119,10 R=8,50	WF		O-Ring/Seal 55-50609-000 1 FPM 109,00x5,80 2 EPDM 109,00x5,80 1 FPM 104,00x1,50	**51-06035-000** 52-06035-000	**71-08060-000** 72-08060-000

98,430

D 6 A 180 / A 210 / A 230 / A 250 Euro 2	D	1991		6 Cyl	**5480cc**	**132-184kW**	(180-250ps)

	**11-02054-000** CH 79,400 VD1 0,800 B- 19,600 BØ 53,000 TL 124,400 **40,00x77,73**	AP HA	**91-09053-000** 1 3,500 Mo 2 2,500 3 3,500 CR		Ø 98,430	**31-04054-000**
	K=110,00 L=234,50 H+F=9,41+0,93 D=119,10	WF		O-Ring/Seal 55-50609-000 1 FPM 109,00x5,80 2 EPDM 109,00x5,80 1 FPM 104,00x1,50	**51-06037-000** 52-06037-000	**71-08066-000** 72-08066-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
98,480						
4236		D 1975 1986 4 Cyl	**3864cc**	**48-60kW**	(59-80ps)	
D 39 C		D 1975 1986 4 Cyl	**3864cc**	**59kW**	(80ps)	
	**11-01848-000** CH 70,050 B- 20,150 BØ 61,000 TL 120,850 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor	AP CP	**91-09867-000** 1 2,385 CrP 2 2,385 P 3 4,747 CR	+0,28/+0,48	Ø 98,480	**31-03848-000**
	K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07858-000**
	K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07848-000**
	K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

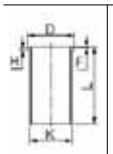
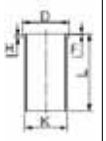
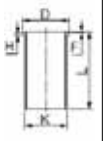
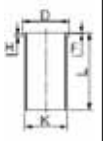
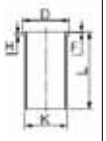
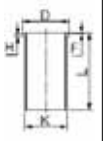
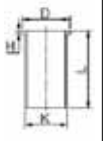
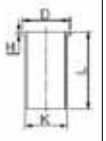
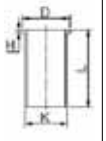
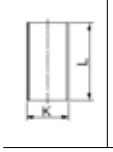
		Type		B C		
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

98,480

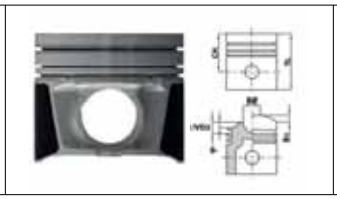
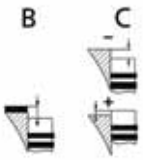
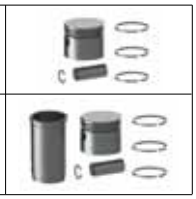
4236	D	1975	1986	4 Cyl	**3864cc**	**48-60kW**	(59-80ps)
D 39 C	D	1975	1986	4 Cyl	**3864cc**	**59kW**	(80ps)

11-01863-000 CH 70,250 B- 20,280 BØ 60,500 TL 120,900 **34,93x84,10** Ihc/Case, Massey-Ferguson, Perkins, Renault Trucks (RVI) ve Volvo ile Ortak Motor		**91-09863-000** 1 2,385 CrP 2 2,385 P 3 2,385 P 4 6,350 CrP 5 6,350 P		Ø 98,480	**31-03863-000**
K=104,21 L=227,00 H=3,83 D=107,38	DF			**51-35842-000**	**71-07864-000**
K=103,21 L=227,30 H+F=3,81+1,00 D=106,36	DF			**51-35844-000**	**71-07863-000**
K=104,21 L=227,30 H+F=3,81+1,00 D=107,36	DF +1,00			**51-35844-100**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

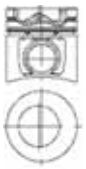
		Type		B C		
	K=103,28 L=227,30 H+F=3,85+0,90 D=106,40	DS			**51-65840-000**	
	K=103,55 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,25			**51-65840-025**	
	K=103,80 L=227,30 H+F=3,85+0,90 D=106,40	DS +0,50			**51-65840-050**	
	K=104,30 L=227,30 H+F=3,85+0,90 D=107,40	DS +1,00			**51-65840-100**	
	K=104,80 L=227,30 H+F=5,00+0,90 D=108,00	DS +1,50			**51-65840-150**	
	K=105,80 L=227,30 H+F=5,00+0,90 D=109,00	DS +2,50			**51-65840-250**	
	K=104,26 L=227,00 H=3,81 D=107,38	DS			**51-65841-000**	
	K=104,75 L=227,00 H=3,81 D=107,38	DS +0,50			**51-65841-050**	
	K=105,25 L=227,00 H=5,00 D=108,35	DS +1,00			**51-65841-100**	
	K=103,28 L=229,00 H+F= +	DS			**51-65845-000**	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

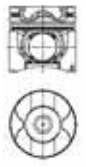
102,000

4B 3.9 C Euro 2	D	1996	4 Cyl	**3900cc**	**55-60kW**	(75-82ps)
6B 5.9 C Euro 2	D	1996	6 Cyl	**5883cc**	**86-132kW**	(115-177ps)

 **11-01363-000** CH 71,560 B- 17,700 BØ 59,100 TL 105,360 **40,00x75,68**	AP	**91-09370-000** 1 3,000 CR 2 2,350 P 3 4,000 CrP		Ø 102,000 Ø 102,500	**31-03363-000** **31-03363-050**
Cummins ve Volvo ile Ortak Motor					

103,000

D4-300 TA/KA/WJ/I-E / I--F	D	2006	4 Cyl	**3700cc**	**221kW**	(300ps)
D6-435 TA/KA/D-E/D-F	D	2006	6 Cyl	**5499cc**	**320kW**	(435ps)
D6-435I WJ/SC-E/SC-F	D	2006	6 Cyl	**5499cc**	**320kW**	(435ps)

 **11-01162-000** CH 62,040 VD1 1,010 B- 18,450 BØ 54,080 TL 100,000 **43,00x83,90**	AP YS	**91-09042-000** 1 3,000 CK 2 2,500 CR 3 3,000 CK		Ø 103,000	**31-03162-000**

103,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston			Cyl	**cc**	**kW**	(ps)

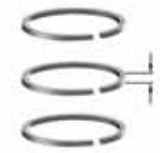
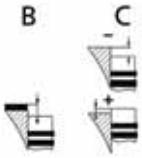
11-01162-001 CH 61,840 VD1 1,010 B- 18,450 BØ 54,080 TL 99,800 **43,00x83,90**	AP YS	**91-09042-000** 1 3,000 CK 2 2,500 CR 3 3,000 CK		Ø 103,000	**31-03162-001**

103,000

D4-225 / 260	D
D6-330 / 350 / 370	D

11-02035-000 CH 62,000 B- 18,800 BØ 51,700 TL 100,000 **43,00x83,00**	AP YS	**91-09042-000** 1 3,000 CK 2 2,500 CR 3 3,000 CK		Ø 103,000	**31-04035-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

103,000

Strok Boyu 0,20mm Kisa Piston / Stroke Lenght 0,20mm Shorter Piston — D — 6 Cyl — **5500cc** — **243-272kW** (330-369ps)

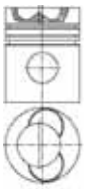
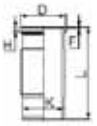
	11-02035-001 CH 61,800 B- 18,800 BØ 51,700 TL 99,800 **43,00x83,00**	AP YS	**91-09042-000** 1 3,000 CK 2 2,500 CR 3 3,000 CK		Ø 103,000	**31-04035-001**

104,775

TD 71ACE / AG / AGP / AP / APB / AW / F / FQ / FQK / FS / FSO / FSQ — D — 1985 — 6 Cyl — **6730cc** — **166-184kW** (226-250ps)

TD 71E / FD / G — D — 1985 — 6 Cyl — **6730cc** — **137-180kW** (186-245ps)

TD F71F — D — 1985 — 6 Cyl — **6730cc** — **169kW** (230ps)

	**11-01154-000** CH 88,450 VD1 1,000 B- 20,950 BØ 65,000 TL 141,050 **45,00x85,80**	AP YS	**91-09058-000** 1 2,385 CR 2 3,160 P 3 4,747 CR	+0,20/+0,70	Ø 104,775	**31-03154-000**
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00	WF-PH		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06048-000** 52-06048-000	**71-07150-000** 72-07150-000
	K=117,00 L=259,70 H+F=9,66+3,60 D=129,40	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06054-000** 52-06054-000	**71-07151-000** 72-07151-000
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00 R=16,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06058-000** 52-06058-000	**71-07154-000** 72-07154-000

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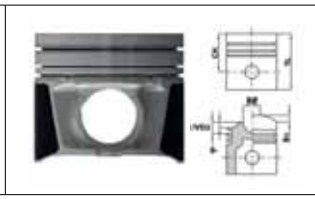


104,775

TD 70 F / FC / FS / G	D	1973	1988	6 Cyl	**6730cc**	**138-180kW**	(188-245ps)
TD 70 GG	D	1983	1986	6 Cyl	**6730cc**	**100-140kW**	(136-190ps)
TD 70F	D	1979	1985	6 Cyl	**6730cc**	**162kW**	(220ps)
TD 70FS	D	1979	1985	6 Cyl	**6730cc**	**180kW**	(245ps)
TD 70G	D	1979	1985	6 Cyl	**6730cc**	**138-156kW**	(188-212ps)
TD 71 A	D	1985		6 Cyl	**6730cc**	**169kW**	(230ps)
TD 71 GE	D			6 Cyl	**6730cc**	**kW**	(ps)
TD 71A	D			6 Cyl	**6730cc**	**169kW**	(230ps)
TID 70 GG	D	1986	1991	6 Cyl	**6730cc**	**116-154kW**	(158-209ps)

11-01158-000
CH 88,450
VD1 1,000
B- 26,150
BØ 60,000
TL 141,050

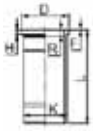
45,00x85,80

AP
YS

91-49057-000
1 2,385 CR
2 3,160 P
3 3,160 P
4 4,747 CR

Ø 104,775

31-03158-000



K=116,95
L=257,00
H+F=11,66+0,73
D=127,00
R=17,00

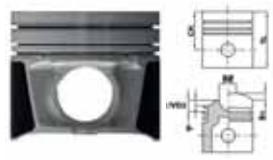
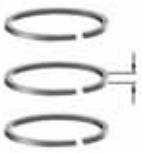
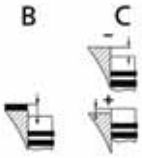
WF

O-Ring/Seal
55-50618-000
1 FPM 115,70x5,70
1 EPDM 115,70x5,70
1 FPM 114,00x1,60

51-06057-000
52-06057-000

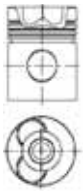
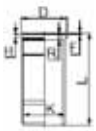
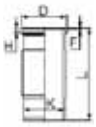
71-07161-000
72-07161-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

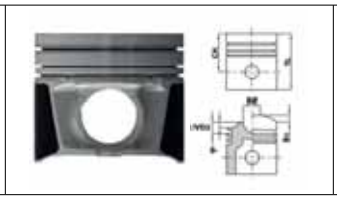
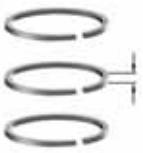
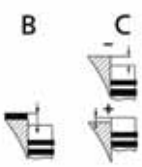
		Type		B C		
						

104,775

TD 71 ACE / AG / AGP / AP / AW / F / FQ / FQK / FS / FSO / FSQ	D	1985	6 Cyl	**6730cc**	**166-184kW**	(226-250ps)
TD 71 APB	D	1985	6 Cyl	**6730cc**	**169kW**	(230ps)
TD 71 E / FD / G	D	1985	6 Cyl	**6730cc**	**137-180kW**	(186-245ps)
TD 71 G	D	1985	6 Cyl	**6730cc**	**137-180kW**	(186-245ps)
TD 71 G 285	D	1987	6 Cyl	**6730cc**	**148kW**	(201ps)
TD 71 GA	D	1986	6 Cyl	**6730cc**	**157kW**	(213ps)
TD F 71 F	D	1985	6 Cyl	**6730cc**	**169kW**	(230ps)

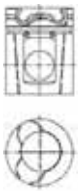
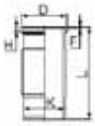
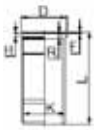
	**11-01161-000** CH 88,450 VD1 1,000 B- 26,300 BØ 60,000 TL 141,050 **45,00x85,80**	AP YS	**91-09058-000** 1 2,385 CR 2 3,160 P 3 4,747 CR	+0,70	Ø 104,775	**31-03161-000**
	K=117,00 L=259,70 H+F=9,66+3,60 D=129,40 R=18,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06036-000** 52-06036-000	**71-07094-000** 72-07094-000
	K=117,00 L=259,70 H+F=9,66+3,60 D=129,40	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06054-000** 52-06054-000	**71-07103-000** 72-07103-000
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00 R=16,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06058-000** 52-06058-000	**71-07102-000** 72-07102-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type				

104,775

TD 73 E / EK / EA / EB / ES Euro 1	D	1990	6 Cyl	**6730cc**	**160-191kW**	(218-260ps)
TD 73 K	D		6 Cyl	**6730cc**	**169kW**	(230ps)
TD 73 KAE Euro 1	D	1991	6 Cyl	**6730cc**	**150kW**	(204ps)
TD 73 KCE Euro 1	D	1991	6 Cyl	**6730cc**	**174-190kW**	(233-255ps)
TD 73 KDE Euro 1	D	1991	6 Cyl	**6730cc**	**130-153kW**	(177-208ps)
TD 73 KE Euro 1	D	1991	6 Cyl	**6730cc**	**150kW**	(204ps)
TD 73 KFE Euro 1	D	1995	6 Cyl	**6730cc**	**173-190kW**	(235-258ps)
TD 73 KGE Euro 1	D	1996	6 Cyl	**6730cc**	**135kW**	(184ps)
TD 73 KHE Euro 1	D	1996	6 Cyl	**6730cc**	**155kW**	(211ps)

	**11-02040-000** CH 88,450 VD1 2,050 VD2 3,050 B- 20,100 BØ 61,000 TL 132,450 **45,00x82,00**	AP	**91-09040-000** 1 3,000 Mo 2 2,500 3 4,000 CR		Ø 104,775	**31-04040-000**
	K=117,00 L=259,70 H+F=9,66+3,60 D=129,40	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06054-000** 52-06054-000	**71-08036-000** 72-08036-000
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00 R=13,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06061-000** 52-06061-000	**71-08035-000** 72-08035-000

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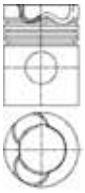
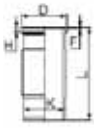
		Type		B C		

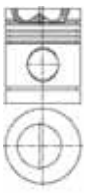
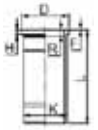
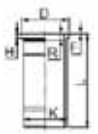
104,775

TD 71 ACE / AG / AGP / AP / AW / F / FQ / FQK / FS / FSO / FSQ	D	1985		6 Cyl	**6730cc**	**169-184kW**	(226-250ps)
TD 71 E / FD / G	D	1985		6 Cyl	**6730cc**	**137-180kW**	(186-245ps)
TD 71 F	D	1985	1994	6 Cyl	**6730cc**	**166-173kW**	(226-235ps)
TD 71 G 285	D	1987		6 Cyl	**6730cc**	**148kW**	(201ps)
TD 71 GA	D	1986		6 Cyl	**6730cc**	**157kW**	(213ps)
TDF 71 F	D	1985		6 Cyl	**6730cc**	**169kW**	(230ps)

	**11-02056-000** CH 88,450 VD1 1,000 B- 20,950 BØ 65,000 TL 141,050 **45,00x85,80**	AP YS	**91-09056-000** 1 2,385 CrP 2 3,160 P 3 3,160 P 4 4,747 CrP		Ø 104,775	**31-04056-000**
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00	WF-PH		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06048-000** 52-06048-000	**71-07158-000** 72-07158-000
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00 R=16,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06058-000** 52-06058-000	**71-08056-000** 72-08056-000
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00 R=13,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06061-000** 52-06061-000	**71-08043-000** 72-08043-000

104,775

TD 70 A / B / C	D	1963	1976	6 Cyl	**6730cc**	**128-158kW**	(175-215ps)
TD 70A	D	1965	1970	6 Cyl	**6730cc**	**128-136kW**	(175-185ps)

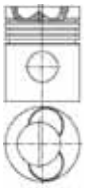
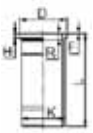
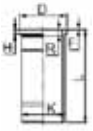
	**11-02057-000** CH 88,450 B- 26,150 BØ 60,000 TL 141,050 **45,00x85,80**	AP	**91-09057-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR 5 4,747 P		Ø 104,775	**31-04057-000**
	K=116,95 L=257,00 H+F=11,66+0,73 D=127,00 R=18,00	WF-PH		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06047-000** 52-06047-000	**71-08047-000** 78-08047-000
	K=116,95 L=257,00 H+F=11,66+0,73 D=127,00 R=17,00	WF		O-Ring/Seal 55-50618-000 1 FPM 115,70x5,70 1 EPDM 115,70x5,70 1 FPM 114,00x1,60	**51-06057-000** 52-06057-000	**71-08057-000** 72-08057-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

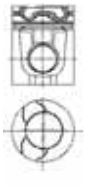
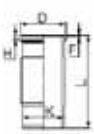
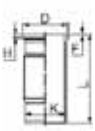
104,775

TD 70 E / ES / H / HA	D	1974		6 Cyl	**6730cc**	**121-166kW**	(165-225ps)
TD 70E	D	1974	1978	6 Cyl	**6730cc**	**155kW**	(210ps)
TD 70ES	D	1974		6 Cyl	**6730cc**	**155-166kW**	(210-225ps)
TD 70H	D	1979	1986	6 Cyl	**6730cc**	**121-157kW**	(165-213ps)

	**11-02058-000** CH 88,450 VD1 1,000 B- 26,150 BØ 60,000 TL 141,050 **45,00x85,80**	AP	**91-09056-000** 1 2,385 CrP 2 3,160 P 3 3,160 P 4 4,747 CrP		Ø 104,775	**31-04058-000**
	K=116,95 L=257,00 H+F=11,66+0,73 D=127,00 R=18,00	WF-PH		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06047-000** 52-06047-000	**71-08048-000** 72-08048-000
	K=116,95 L=257,00 H+F=11,66+0,73 D=127,00 R=17,00	WF		O-Ring/Seal 55-50618-000 1 FPM 115,70x5,70 1 EPDM 115,70x5,70 1 FPM 114,00x1,60	**51-06057-000** 52-06057-000	**71-08058-000** 72-08058-000
	K=116,95 L=259,50 H+F=9,66+3,60 D=127,00 R=16,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06058-000** 52-06058-000	**71-08061-000** 72-08061-000

104,775

D 7 A 230 / A 260 / A 285 / B 230 / B 260 Euro 2	D	1993		6 Cyl	**6730cc**	**169-210kW**	(230-285ps)

	**11-02087-000** CH 88,550 VD1 2,150 VD2 3,150 B- 20,200 BØ 61,000 TL 132,550 **45,00x82,00**	AP	**91-09087-000** 1 3,500 Mo 2 2,500 3 3,500 CR		Ø 104,775	**31-04087-000**
	K=117,00 L=256,80 H+F=9,40+0,95 D=127,00	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06053-000** 52-06053-000	**71-08097-000** 72-08097-000
	K=117,00 L=259,70 H+F=9,66+3,60 D=129,40	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06054-000** 52-06054-000	**71-08095-000** 72-08095-000
	K=117,00 L=257,00 H+F=9,40+0,70 D=129,40	WF		O-Ring/Seal 55-50610-000 2 EPDM 115,70x5,70 1 FPM 115,70x5,70 1 FPM 114,00x1,60	**51-06056-000** 52-06056-000	**71-08087-000** 72-08087-000

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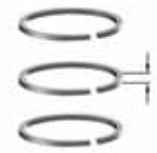
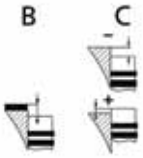
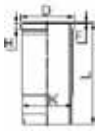
		Type		B C		
						

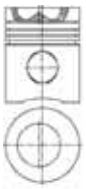
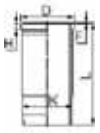
105,570

D 42 A — D 1972 1983 4 Cyl **4200cc** **59kW** (80ps)

	11-02065-000 CH 84,100 B- 23,100 BØ 54,500 TL 135,100 **42,00x88,50**		**91-09066-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR		Ø 105,570	**31-04065-000**
	K=117,95 L=245,00 H+F=14,10+0,70 D=127,50	WF		O-Ring/Seal 55-50603-000 2 FPM 117,60x4,40	**51-06069-000** 52-06069-000	**71-08084-000** 72-08084-000

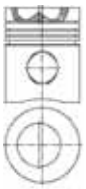
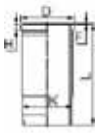
105,570

TD 42 — D 1976 4 Cyl **4200cc** **kW** (ps)

	**11-02066-000** CH 84,100 B- 24,850 BØ 54,600 TL 135,100 **42,00x87,00**		**91-09066-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR		Ø 105,570	**31-04066-000**
	K=117,95 L=245,00 H+F=14,10+0,70 D=127,50	WF		O-Ring/Seal 55-50603-000 2 FPM 117,60x4,40	**51-06069-000** 52-06069-000	**71-08085-000** 72-08085-000

105,570

D 42 A — D 1972 1983 4 Cyl **4200cc**

	**11-02067-000** CH 84,100 B- 23,100 BØ 54,600 TL 135,100 **40,00x88,50**		**91-09066-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR		Ø 105,570	**31-04067-000**
	K=117,95 L=245,00 H+F=14,10+0,70 D=127,50	WF		O-Ring/Seal 55-50603-000 2 FPM 117,60x4,40	**51-06069-000** 52-06069-000	**71-08080-000** 72-08080-000

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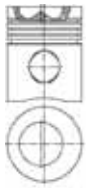
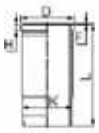
		Type		B C		

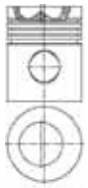
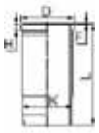
105,570

TD 42 A	D	1976	4 Cyl	**4200cc**	**54kW**	(73ps)

	**11-02069-000** CH 84,100 B- 24,850 BØ 54,600 TL 135,100 **42,00x87,00**	AP	**91-09066-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR		Ø 105,570	**31-04069-000**
	K=117,95 L=245,00 H+F=14,10+0,70 D=127,50	WF		O-Ring/Seal 55-50603-000 2 FPM 117,60x4,40	**51-06069-000** 52-06069-000	**71-08085-000** 72-08085-000

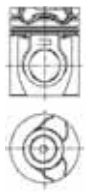
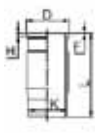
105,570

TD 45 B	D	1980		4 Cyl	**4500cc**	**66-85kW**	(90-116ps)
TD 45 B EM	D	1985	2000	4 Cyl	**4500cc**	**83kW**	(113ps)
TD 45 E	D	1991		4 Cyl	**4500cc**	**84-92kW**	(114-125ps)
TD 45 EM	D	1985		4 Cyl	**4500cc**	**85kW**	(116ps)

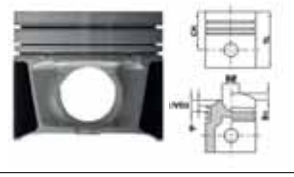
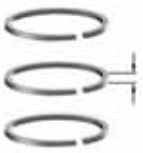
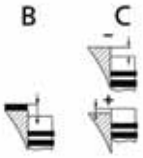
	**11-02070-000** CH 80,100 B- 19,700 BØ 65,000 TL 131,100 **42,00x87,00**	AP	**91-09066-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR		Ø 105,570	**31-04070-000**
	K=117,95 L=245,00 H+F=14,10+0,70 D=127,50	WF		O-Ring/Seal 55-50603-000 2 FPM 117,60x4,40	**51-06069-000** 52-06069-000	**71-08063-000** 72-08063-000

107,000

D 7 C 215 / C 250 / C 275 / C 290 / C 310 Euro 2	D	1998	6 Cyl	**7280cc**	**158-228kW**	(215-310ps)

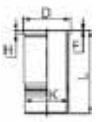
	**11-02062-000** CH 88,450 VD1 2,100 VD2 3,100 B- 20,200 BØ 61,000 TL 134,450 **47,00x85,50**	AP YS	**91-09062-000** 1 3,500 CkP 2 2,500 3 3,500 CR		Ø 107,000	**31-04062-000**
	K=117,00 L=257,00 H+F=9,40+0,70 D=129,40	WF		O-Ring/Seal 55-50601-000 2 FPM 115,80x5,80 1 FPM 115,80x5,80 1 FPM 114,00x1,60	**51-06055-000** 52-06055-000	**71-08065-000** 72-08065-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

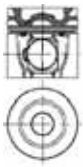
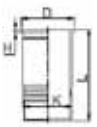
108,000

BF 4 M 1013 Euro 1 — D — 1999 — 4 Cyl — **4764cc** — **63-93 kW** — (85-127ps)

	11-01698-000 CH 71,150 B- 16,600 BØ 71,000 TL 108,000 **42,00x86,00** Deutz ve Volvo ile Ortak Motor	AP	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR	1 Centik conta ile (+0,28/+0,53) 2 Centik conta ile (+0,54/+0,63) 3 Centik conta ile (+0,64/+0,75)	Ø 108,000	**31-03698-000**
	K=120,00 L=229,00 H+F=9,00+1,10 D=128,50	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-05387-000** 52-05387-000	**71-08067-000** 72-08067-000

108,000

D 7 E 240 / 280 / 290 / 320 / 360 Euro 4/5 — D — 6 Cyl — **7146cc** — **177-235kW** — (240-320ps)

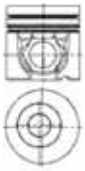
	**11-02036-000** CH 70,900 B- 19,600 BØ 64,500 TL 107,800 **45,00x86,00** Deutz, Renault Trucks (RVI) ve Volvo ile Ortak Motor	AP YS	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04036-000**
	K=120,00 L=228,00 H=8,07 D=131,70	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-06065-000** 52-06065-000	**71-08031-000** 72-08031-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

108,000

D 5 A-B TA Euro 2	D	4 Cyl	**4764cc**	**92-100kW**	(125-136ps)
D 5 A-T Euro 2	D	4 Cyl	**4764cc**	**72-95kW**	(98-129ps)
D 5 A-TA Euro 2	D	4 Cyl	**4764cc**	**89-118kW**	(121-160ps)
D 7 A-B TA	D	6 Cyl	**7146cc**	**130-174kW**	(177-237ps)
D 7 A-T	D	6 Cyl	**7146cc**	**108-129kW**	(147-175ps)



11-02037-000
CH 71,100
B- 19,920
BØ 63,000
TL 108,000

42,00x86,00

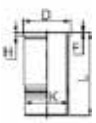
Deutz ve Volvo ile Ortak Motor

AP

91-09045-000
1 3,000 CK
2 2,000 P
3 3,500 CR

Ø 108,000

31-04037-000



K=120,00
L=229,00
H+F=9,00+1,10
D=128,50

WF

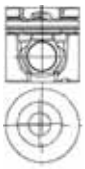
O-Ring/Seal
55-50613-000
2 FPM 112,00x3,00

51-05387-000
52-05387-000

71-08069-000
72-08069-000

108,000

TAD 550 GE Euro 2	D	4 Cyl	**4760cc**	**76-93kW**	(103-127ps)
TAD 551 GE Euro 2	D	4 Cyl	**4760cc**	**89-111kW**	(121-152ps)
TAD 750 GE	D	6 Cyl	**7150cc**	**114-146kW**	(155-199ps)
TAD 750 VE Euro 3	D	6 Cyl	**7150cc**	**170-200kW**	(231-272ps)
TAD 751 GE	D	6 Cyl	**7150cc**	**132-166kW**	(180-226ps)
TAD 760 VE Euro 3	D	6 Cyl	**7150cc**	**181kW**	(246ps)



11-02044-000
CH 71,100
B- 19,600
BØ 64,000
TL 108,000

42,00x86,00

AP

91-09045-000
1 3,000 CK
2 2,000 P
3 3,500 CR

Deutz ve Volvo Ortak Motot

Ø 108,000

31-04044-000

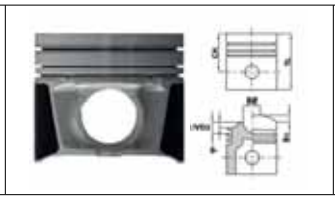
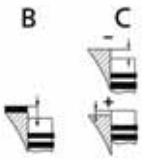
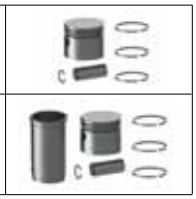
K=120,00
L=229,00
H+F=9,00+1,10
D=128,50

WF

O-Ring/Seal
55-50613-000
2 FPM 112,00x3,00

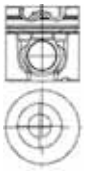
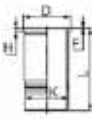
51-06067-000
52-06067-000

71-07153-000
72-07153-000

		Type		B	C		
							

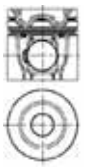
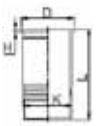
108,000

BF 4 M 1013 E Euro 2	D	1998		4 Cyl	**4764cc**	**71-95kW**	(97-129ps)
D 7 D EAE2 Euro 2	D			6 Cyl	**7146cc**	**143kW**	(194ps)
D 7 D ECE2 Euro 2	D			6 Cyl	**7146cc**	**143kW**	(194ps)
D 7 D EEE2 Euro 2	D			6 Cyl	**7146cc**	**125kW**	(170ps)
D 7 D LAE2 Euro 2	D	1986		6 Cyl	**7146cc**	**165kW**	(224ps)
D 7 D LBE2 Euro 2	D	2003	2007	6 Cyl	**7146cc**	**155kW**	(210ps)

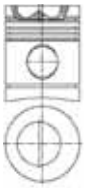
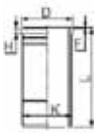
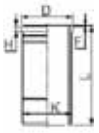
 **11-02045-000** CH 71,100 B- 19,600 BØ 64,000 TL 108,000 **42,00x86,00** Deutz ve Volvo ile Ortak Motor	AP	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04045-000**
 K=120,00 L=229,00 H+F=9,00+1,10 D=128,50	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-06067-000** 52-06067-000	**71-07152-000** 72-07152-000	

108,000

TAD 734 GE Euro 2	D	2007		6 Cyl	**7150cc**	**216-247kW**	(293-336ps)

 **11-02098-000** CH 70,900 B- 20,000 BØ 66,000 TL 107,800 **45,00x86,00**	AP YS	**91-09045-000** 1 3,000 CK 2 2,000 P 3 3,500 CR		Ø 108,000	**31-04098-000**
 K=120,00 L=228,00 H=8,07 D=131,70	WF		O-Ring/Seal 55-50613-000 2 FPM 112,00x3,00	**51-06065-000** 52-06065-000	**71-08108-000** 72-08108-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	**11-02071-000** CH 85,500 B- 26,500 BØ 59,400 TL 148,500 **40,00x90,50**		**91-09071-000** 1 2,385 CR 2 3,160 P 3 3,160 P 4 4,747 CR 5 4,747 P		Ø 111,125	**31-04071-000**
	K=125,95 L=258,50 H+F=14,08+0,70 D=131,95	WF-PH		O-Ring/Seal 55-50619-000 2 FPM 125,00x4,00	**51-06043-000** 52-06043-000	**71-08064-000** 72-08064-000
	K=125,95 L=258,50 H+F=14,08+0,70 D=131,95	WF		O-Ring/Seal 55-50619-000 2 FPM 125,00x4,00	**51-06071-000** 52-06071-000	**71-08071-000** 72-08071-000

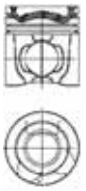
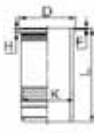
111,125

1113 — D — 3 Cyl — **3780cc** — **41-46kW** — (56-63ps)

1114 — D — 4 Cyl — **5040cc** — **55kW** — (75ps)

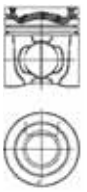
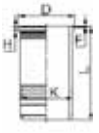
120,000

D9 A — D — 6 Cyl — **9364cc** — **kW** — (ps)

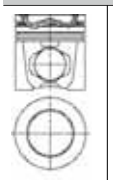
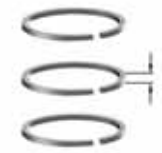
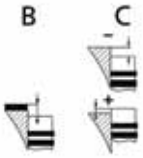
	**11-01163-000** CH 85,500 VD1 0,400 B- 16,700 BØ 83,000 TL 129,900 **54,00x96,00**	AP YS	**91-09086-000** 1 4,000 Mo 2 3,000 CR 3 3,000 NT St		Ø 120,000	**31-03163-000**
	K=139,00 L=249,50 H+F=11,20+0,85 D=149,00	WF		O-Ring/Seal 55-50611-000 1 EPDM 132,50x2,40 1 EPDM 1 FPM 128,00x137,00x5,00 128,00x137,00x5,00	**51-06045-000** 52-06045-000	**71-08027-000** 72-08027-000

120,000

D9 A — D — 6 Cyl — **9364cc**

	**11-01164-000** CH 85,500 B- 17,200 BØ 78,500 TL 129,900 **54,00x96,00**	AP YS	**91-09086-000** 1 4,000 Mo 2 3,000 CR 3 3,000 NT St		Ø 120,000	**31-03164-000**
	K=139,00 L=249,50 H+F=11,20+0,85 D=149,00	WF		O-Ring/Seal 55-50611-000 1 EPDM 132,50x2,40 1 EPDM 1 FPM 128,00x137,00x5,00 128,00x137,00x5,00	**51-06045-000** 52-06045-000	**71-08028-000** 72-08028-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

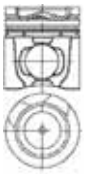
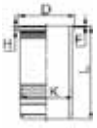
120,000

D 9 A 260 / 300 / 340 / 380 Euro 3 — D 2001 — 6 Cyl — **9364cc**

	11-02086-000 CH 85,450 B- 14,600 BØ 77,000 TL 129,970 **54,00x96,00**	AP YS	**91-09086-000** 1 4,000 Mo 2 3,000 CR 3 3,000 NT St		Ø 120,000	**31-04086-000**
	K=139,00 L=249,50 H+F=11,20+1,00 D=149,00	WF		O-Ring/Seal 55-50611-000 1 EPDM 132,50x2,40 1 EPDM 1 FPM 128,00x137,00x5,00 128,00x137,00x5,00	**51-06066-000** 52-06066-000	**71-08086-000** 72-08086-000

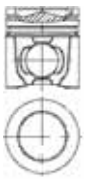
120,000

D 9 B 300 / 340 / 380 Euro 4/5 — D 2005 — 6 Cyl — **9364cc** **220-280kW** (300-380ps)

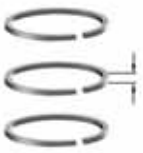
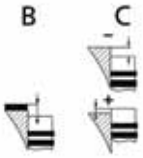
	**11-02095-000** CH 85,450 VD1 1,000 B- 14,900 BØ 79,000 TL 129,950 **54,00x96,00**	AP YS	**91-09095-000** 1 3,500 NT St 2 2,500 NT St 3 3,000 NT St		Ø 120,000	**31-04095-000**
	K=139,00 L=249,50 H+F=11,20+1,00 D=149,00	WF		O-Ring/Seal 55-50611-000 1 EPDM 132,50x2,40 1 EPDM 1 FPM 128,00x137,00x5,00 128,00x137,00x5,00	**51-06066-000** 52-06066-000	**71-08540-000** 72-08540-000

120,000

D 9 A 260 / 300 / 340 / 380 Euro 3 — D 2001 — 6 Cyl — **9364cc** **191-280kW** (260-380ps)

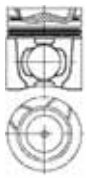
	**11-02096-000** CH 85,450 B- 15,000 BØ 77,900 TL 129,950 **54,00x96,00**	AP YS	**91-09086-000** 1 4,000 Mo 2 3,000 CR 3 3,000 NT St		Ø 120,000	**31-04096-000**
	K=139,00 L=249,50 H+F=11,20+1,00 D=149,00	WF		O-Ring/Seal 55-50611-000 1 EPDM 132,50x2,40 1 EPDM 1 FPM 128,00x137,00x5,00 128,00x137,00x5,00	**51-06066-000** 52-06066-000	**71-08102-000** 72-08102-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

120,000

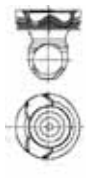
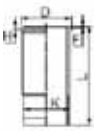
CM19FO / TAD951VE / TAD952VE — D — 6 Cyl — **9364cc** — **kW** — (ps)

	**11-02097-000** CH 85,450 VD1 1,000 B- 14,600 BØ 77,100 TL 129,950 **54,00x96,00**	AP YS	**91-09095-000** 1 3,500 NT St 2 2,500 NT St 3 3,000 NT St		Ø 120,000	**31-04097-000**
	K=139,00 L=249,50 H+F=11,20+1,00 D=149,00	WF		O-Ring/Seal 55-50611-000 1 EPDM 132,50x2,40 1 EPDM 1 FPM 128,00x137,00x5,00 128,00x137,00x5,00	**51-06066-000** 52-06066-000	**71-08103-000** 72-08103-000

120,640

TD 102 F / FD / KF / KCE / GC Euro 1 — D — 1985 — 6 Cyl — **9600cc**

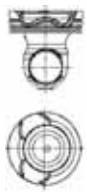
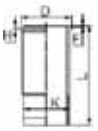
TD 102 FDQ / FF / FH / FQ / GA — D — 1977 — 6 Cyl — **9600cc**

	**11-02648-000** CH 92,550 VD1 1,950 VD2 1,950 B- 22,200 BØ 76,000 TL 132,550 **52,00x98,00**	PDB STEEL PISTON	**91-09073-000** 1 3,000 Mo 2 3,160 CR 3 4,747 CR		Ø 120,640	**31-04648-000**
	K=133,84 L=287,50 H+F=11,52+3,50 D=147,00	WF		O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40	**51-06079-000** 52-06079-000	**71-08106-000** 72-08106-000

120,640

TD 102 FL / FM — D — 1985 — 2001 — 6 Cyl — **9600cc** — **229-234kW** — (311-318ps)

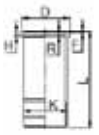
THD 102 KD — D — 1992 — 1996 — 6 Cyl — **9600cc** — **252kW** — (343ps)

	**11-02649-000** CH 92,550 VD1 1,950 VD2 1,950 B- 20,400 BØ 76,000 TL 132,550 **52,00x98,00**	PDB STEEL PISTON	**91-09073-000** 1 3,000 Mo 2 3,160 CR 3 4,747 CR		Ø 120,640	**31-04649-000**
	K=133,84 L=287,50 H+F=11,52+3,50 D=147,00	WF		O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40	**51-06079-000** 52-06079-000	**71-08107-000** 72-08107-000

		Type		B C		

120,650

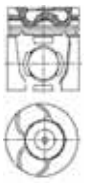
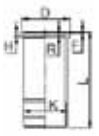
TAD1030G / TAD1030GE / TAD1030P / TAD1030V — D — 6 Cyl — **cc** — **kW** — (ps)

	11-01165-000 CH 109,450 VD1 1,900 B- 24,000 BØ 76,000 TL 155,400 **52,00x106,00**	AP	**91-09004-000** 1 3,500 Mo 2 3,160 CR 3 4,747 CrP		Ø 120,650	**31-03165-000**
	K=133,85 L=296,50 H+F=11,52+3,50 D=146,95 R=12,00	WF		O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40	**51-06073-000** 52-06073-000	**71-08029-000** 72-08029-000

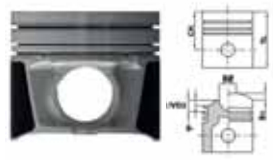
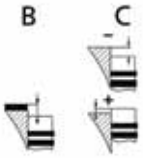
120,650

D 10 A 350 / A 360 / B 350 / B 360 Euro 2 — D — 1995 — 6 Cyl

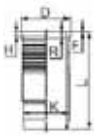
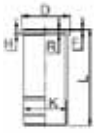
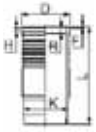
DH 10 A 360 Euro 2 — D — 1992 — 6 Cyl

	**11-02055-000** CH 92,600 VD1 2,100 VD2 2,700 B- 22,500 BØ 64,000 TL 137,600 **52,00x98,00**	AP HA	**91-09055-000** 1 4,000 CR 2 3,160 3 4,747 CR		Ø 120,650	**31-04055-000**
	K=134,00 L=287,50 H+F=11,52+3,50 D=147,00 R=13,00	WF		O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40	**51-06063-000** 52-06063-000	**71-08093-000** 72-08093-000

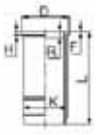
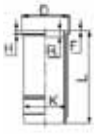
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

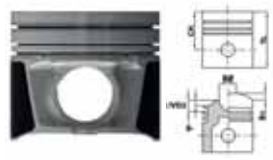
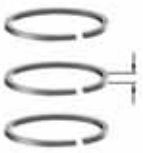
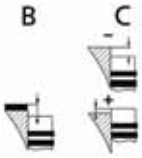
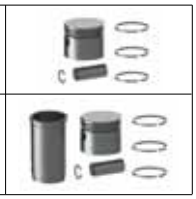
		Type		B C		
						

120,650

TD 100 B / BG				D	1974	1985	6 Cyl	**9600cc**	**207-233kW** (280-317ps)
	11-02072-000 CH 109,400 VD1 2,900 B- 28,000 BØ 76,000 TL 166,400 **52,00x106,00**	AP	**91-09075-000** 1 2,380 CR 2 3,160 3 4,747 CR					Ø 120,650	**31-04072-000**
	K=133,85 L=294,00 H+F=11,73+0,70 D=146,95 R=20,00	WF				O-Ring/Seal 55-50605-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x1,60		**51-06072-000** 52-06072-000	**71-08072-000** 72-08072-000
	K=133,85 L=296,50 H+F=11,52+3,50 D=146,95 R=12,00	WF				O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40		**51-06073-000** 52-06073-000	**71-08073-000** 72-08073-000
	K=133,85 L=296,50 H+F=11,52+3,50 D=147,00 R=12,00	WF				O-Ring/Seal 55-50605-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x1,60		**51-06075-000** 52-06075-000	**71-07149-000** 72-07149-000

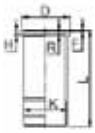
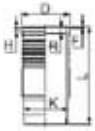
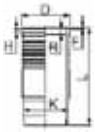
120,650

TD 100 A / AG / AHC / ARC / HC				D	1965		6 Cyl	**9600cc**	**137-191kW** (186-260ps)
THD 100 D				D	1966	1994	6 Cyl	**9600cc**	**155-177kW** (211-241ps)
THD 101 B				D	1975	1982	6 Cyl	**9600cc**	**169-191kW** (230-260ps)
TMD 100 A / D				D	1969		6 Cyl	**9600cc**	**143-194kW** (195-264ps)
	11-02074-000 CH 109,450 VD1 1,000 VD2 1,300 B- 27,650 BØ 71,000 TL 166,450 **52,00x106,00**	AP	**91-09074-000** 1 2,380 CR 2 3,160 3 3,160 4 4,750 CR			-0,50/+0,20		Ø 120,650	**31-04074-000**
	K=133,85 L=294,00 H+F=11,73+0,75 D=146,95 R=24,50	WF				O-Ring/Seal 55-50605-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x1,60		**51-06070-000** 52-06070-000	**71-07088-000** 72-07088-000
	K=133,85 L=294,00 H+F=11,73+0,75 D=146,95 R=20,00	WF				O-Ring/Seal 55-50605-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x1,60		**51-06074-000** 52-06074-000	**71-08074-000** 72-08074-000

		Type		B C		
						

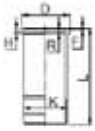
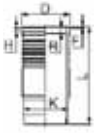
120,650

TD 100 CHC / F / G / GA / GG	D	1980		6 Cyl	**9600cc**	**151-213kW**	(205-290ps)
TD 101 F / FA / FC / FD / G / GA / GE / GG	D	1982		6 Cyl	**9600cc**	**192-222kW**	(261-302ps)
TMD 102 A / C	D	1988	2000	6 Cyl	**9600cc**	**104-200kW**	(141-272ps)

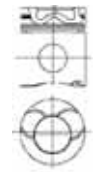
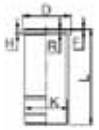
	11-02075-000 CH 109,400 VD1 1,900 B- 23,150 BØ 76,000 TL 166,400 **52,00x106,00**	AP	**91-09075-000** 1 2,380 CR 2 3,160 3 4,747 CR	+0,15/+0,65	Ø 120,650	**31-04075-000**
	K=133,85 L=296,50 H+F=11,52+3,50 D=146,95 R=12,00	WF		O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40	**51-06073-000** 52-06073-000	**71-07089-000** 72-07089-000
	K=133,85 L=296,50 H+F=11,52+3,50 D=147,00 R=12,00	WF		O-Ring/Seal 55-50605-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x1,60	**51-06075-000** 52-06075-000	**71-08075-000** 72-08075-000
	K=133,85 L=296,50 H+F=11,52+3,50 D=147,00 R=15,00	WF		O-Ring/Seal 55-50605-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x1,60	**51-06085-000** 52-06085-000	**71-08090-000** 72-08090-000

120,650

THD 102KA / KF / KJ	D	1988		6 Cyl	**9600cc**	**158-210kW**	(215-286ps)
THD 102KB Euro1	D	1992	1996	6 Cyl	**9600cc**	**210kW**	(286ps)

	11-02078-000 CH 109,400 VD1 1,900 B- 20,400 BØ 76,000 TL 166,400 **52,00x106,00**	AP	**91-09075-000** 1 2,380 CR 2 3,160 3 4,747 CR		Ø 120,650	**31-04078-000**
	K=133,85 L=296,50 H+F=11,52+3,50 D=146,95 R=12,00	WF		O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40	**51-06073-000** 52-06073-000	**71-07083-000** 72-07083-000
	K=133,85 L=296,50 H+F=11,52+3,50 D=147,00 R=12,00	WF		O-Ring/Seal 55-50605-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x1,60	**51-06075-000** 52-06075-000	**71-08078-000** 72-08078-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
	**11-02543-000** CH 92,500 VD1 2,000 B- 21,800 BØ 67,500 TL 144,500 **52,00x98,00**	AP	**91-09004-000** 1 3,500 Mo 2 3,160 CR 3 4,747 CrP		Ø 120,650	**31-04543-000**
	K=134,00 L=287,50 H+F=11,52+3,50 D=147,00 R=13,00	WF		O-Ring/Seal 55-50616-000 1 FPM 132,80x5,80 1 EPDM 132,80x5,80 1 FPM 132,50x2,40	**51-06063-000** 52-06063-000	**71-08544-000** 72-08544-000

120,650

TD 103 E / EA / ES / ME Euro 1 — D — 1991 — 6 Cyl — **9600cc** — **210-235kW** (286-320ps)

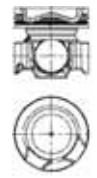
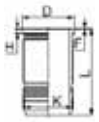
TD 103 KAE / KBE / KCE Euro 2 — D — 1995 — 6 Cyl — **9600cc** — **186-216kW** (253-294ps)

TD 104 KAE Euro 2 — D — 6 Cyl — **9600cc** — **190kW** (258ps)

TWD 1030 ME Euro 1 — D — 1993 — 6 Cyl — **9600cc** — **235kW** (320ps)

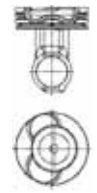
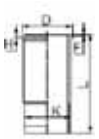
123,010

D 11C — D — 2010 — 6 Cyl — **10800cc** — **243-332kW** (330-450ps)

	**11-02637-000** CH 78,400 VD1 1,000 B- 16,900 BØ 83,600 TL 114,400 **54,00x73,00**	MONOTHERM FRICTION STEEL PISTON	**91-09182-000** 1 3,500 PvD St 2 2,500 NT St 3 3,000 NT St		Ø 123,010	**31-04637-000**
Renault Truck (RVI) ve Volvo ile Ortak Motor						
	K=139,00 L=249,50 H+F=11,20+0,85 D=149,00	WF			**51-05228-000**	**71-07178-000**

130,175

TD 123 E / EA / EB / EC / ED / ES Euro1 — D — 1990 — 2001 — 6 Cyl — **12000cc** — **224-301kW** (305-409ps)

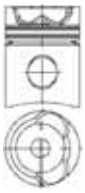
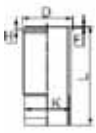
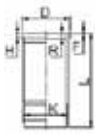
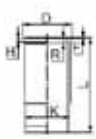
	**11-02654-000** CH 114,550 VD1 2,800 VD2 2,800 B- 21,040 BØ 79,000 TL 159,550 **55,00x105,00**	CAST IRON PISTON	**91-09541-000** 1 3,500 Mo 2 3,160 CR 3 4,747 CR		Ø 130,175	**31-04654-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06080-000** 52-06080-000	**71-08104-000** 72-08104-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		

130,180

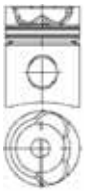
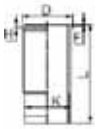
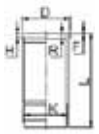
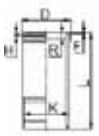
TAMD 120	D	1980	1984	6 Cyl	**12000cc**	**kW**	(ps)
TAMD 120 AK / B / BCC / C / E	D	1980	1984	6 Cyl	**12000cc**	**227-294kW**	(308-400ps)
TD 120 F / FA / FB / FC / FTQ	D	1979	1994	6 Cyl	**12000cc**	**220-265kW**	(299-360ps)
TD 120 G	D	1983		6 Cyl	**12000cc**	**225-256kW**	(306-348ps)
TD 120 G / GA	D	1980	1986	6 Cyl	**12000cc**	**225-256kW**	(306-348ps)
TD 121 F / FD / FE / FF / GG	D	1979	2001	6 Cyl	**12000cc**	**243-283kW**	(330-385ps)
TD 121 FH / FK / GD	D	1983	1994	6 Cyl	**12000cc**	**232-280kW**	(315-361ps)
TD 121 K	D	1983	1993	6 Cyl	**12000cc**	**288kW**	(392ps)
TD 122 GB / KBE	D	1980	1984	6 Cyl	**12000cc**	**227-265kW**	(308-360ps)
TJD 121 G	D	1987		6 Cyl	**12000cc**	**243kW**	(330ps)
TMD 121 A / C	D	1982	1988	6 Cyl	**12000cc**	**164-283kW**	(223-385ps)

	**11-02042-000** CH 114,200 VD1 2,500 B- 27,900 BØ 79,000 TL 175,200 **55,00x114,00**	AP Old version 2077 000	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR		Ø 130,180	**31-04042-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08010-000** 72-08010-000
	K=143,90 L=311,00 H+F=13,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50606-000 1 FPM 142,80x5,80 1 EPDM 142,80x5,80 1 FPM 145,00x1,50 52-S0606-004	**51-06076-000** 52-06076-000	**71-07167-000** 72-07167-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-07169-000** 72-07169-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-07166-000** 72-07166-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

130,180

TAD 120 BHC	D	1977	1980	6 Cyl	**12000cc**	**225-273kW**	(306-371ps)
TAD 121 CHC	D	1983	1988	6 Cyl	**12000cc**	**238kW**	(324ps)
TAMD 120 A / D	D	1977		6 Cyl	**12000cc**	**227-273kW**	(308-371ps)
TAMD 121 C	D	1983	1986	6 Cyl	**12000cc**	**300kW**	(408ps)
TAMD 121 D	D	1983	1988	6 Cyl	**12000cc**	**217-310kW**	(295-420ps)
TD 120 C / D / E / GG	D	1977		6 Cyl	**12000cc**	**173-273kW**	(236-371ps)
TID 120 FG	D			6 Cyl	**12000cc**	**217-264kW**	(295-359ps)

	**11-02043-000** CH 114,200 VD1 2,500 B- 27,620 BØ 83,000 TL 175,200 **55,00x114,00**	AP Old version 2076 000	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR		Ø 130,180	**31-04043-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08011-000** 72-08011-000
	K=143,90 L=311,00 H+F=13,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50606-000 1 FPM 142,80x5,80 1 EPDM 142,80x5,80 1 FPM 145,00x1,50 52-S0606-004	**51-06076-000** 52-06076-000	**71-07163-000** 72-07163-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-07164-000** 72-07164-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-07165-000** 72-07165-000

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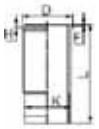
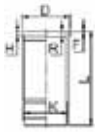
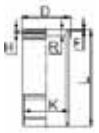
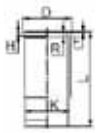
		Type		B C		

130,180

TAD 120 BHC	D	1977	1980	6 Cyl	**12000cc**	**225-273kW**	(306-371ps)
TAD 121 CHC	D	1983	1988	6 Cyl	**12000cc**	**238kW**	(324ps)
TAMD 120 A / D	D	1977		6 Cyl	**12000cc**	**227-273kW**	(308-371ps)
TAMD 121 C	D	1983	1986	6 Cyl	**12000cc**	**300kW**	(408ps)
TAMD 121 D	D	1983	1988	6 Cyl	**12000cc**	**217-310kW**	(295-420ps)
TD 120 C / D / E / GG	D	1977		6 Cyl	**12000cc**	**173-273kW**	(236-371ps)
TID 120 FG	D			6 Cyl	**12000cc**	**217-264kW**	(295-359ps)

	11-02076-000 CH 114,200 VD1 2,500 B- 27,620 BØ 83,000 TL 175,200 **55,00x114,00**	AP	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR	-0,05/+0,45	Ø 130,180	**31-04076-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08012-000** 72-08012-000
	K=143,90 L=311,00 H+F=13,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50606-000 1 FPM 142,80x5,80 1 EPDM 142,80x5,80 1 FPM 145,00x1,50 52-S0606-004	**51-06076-000** 52-06076-000	**71-08076-000** 72-08076-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-07160-000** 72-07160-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-07168-000** 72-07168-000

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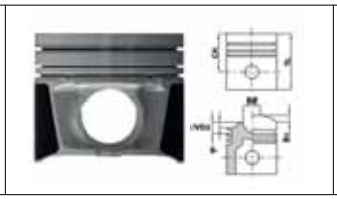
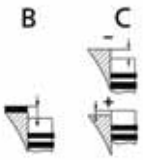
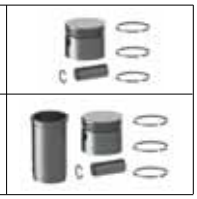
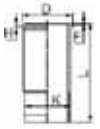
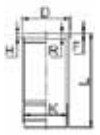
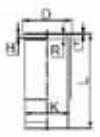
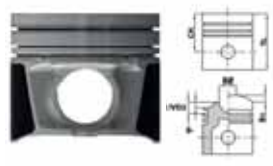
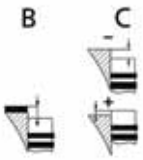
		Type		B C		
						

130,180

TAMD 120 AK / B / BCC / C / E	D	1980	1984	6 Cyl	**12000cc**	**227-294kW**	(308-400ps)
TD 120 F / FA / FB / FC / FTQ	D	1979	1994	6 Cyl	**12000cc**	**220-265kW**	(299-360ps)
TD 120 G	D	1980	1986	6 Cyl	**12000cc**	**225-256kW**	(306-348ps)
TD 120 G / GA	D	1980	1986	6 Cyl	**12000cc**	**225-256kW**	(306-348ps)
TD 121 F / FD / FE / FF / GG	D	1979	2001	6 Cyl	**12000cc**	**243-283kW**	(330-385ps)
TD 121 FH / FK / GD	D	1983	1994	6 Cyl	**12000cc**	**232-280kW**	(315-361ps)
TD 121 K	D	1983	1993	6 Cyl	**12000cc**	**288kW**	(392ps)
TD 122 GB / KBE	D	1980	1984	6 Cyl	**12000cc**	**227-265kW**	(308-360ps)
TJD 121 G	D	1987		6 Cyl	**12000cc**	**243kW**	(330ps)
TMD 121 A / C	D	1982	1988	6 Cyl	**12000cc**	**164-283kW**	(223-385ps)

	11-02077-000 CH 114,200 VD1 2,500 B- 27,900 BØ 79,000 TL 175,200 **55,00x114,00**	AP	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR		Ø 130,180	**31-04077-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08013-000** 72-08013-000
	K=143,90 L=311,00 H+F=13,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50606-000 1 FPM 142,80x5,80 1 EPDM 142,80x5,80 1 FPM 145,00x1,50 52-S0606-004	**51-06076-000** 52-06076-000	**71-08077-000** 72-08077-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-07159-000** 72-07159-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-08089-000** 72-08089-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

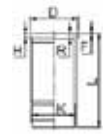
130,180

TD 122 ED / F / F(USA) / FAQ / FBQ / FCQ / FL / KHD	D	1987		6 Cyl	**11977cc**	**262-396kW** (356-538ps)
TD 122 FH Euro 1	D	1990		6 Cyl	**11977cc**	**262kW** (356ps)
TD 122 KHE	D	1992	2002	6 Cyl	**11977cc**	**209kW** (284ps)

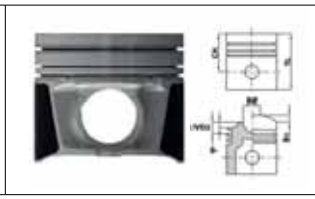
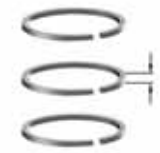
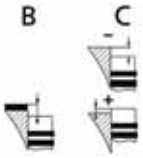
	11-02079-000 CH 114,200 VD1 2,600 B- 24,120 BØ 79,000 TL 175,200 **55,00x114,00**	AP	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR	0/+0,55	Ø 130,180	**31-04079-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08014-000** 72-08014-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-07085-000** 72-07085-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-08079-000** 72-08079-000

130,180

TD 120 A	D	1970	1984	6 Cyl	**12000cc**	**215-243kW** (292-330ps)
TMD 120 A	D	1970	1982	6 Cyl	**12000cc**	**169-243kW** (230-330ps)

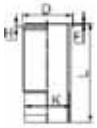
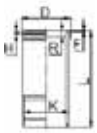
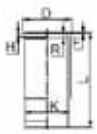
	11-02081-000 CH 114,200 VD1 1,900 VD2 2,100 B- 31,550 BØ 75,000 TL 175,200 **55,00x114,00**	AP	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR	+0,05/+0,45	Ø 130,180	**31-04081-000**
	K=143,90 L=311,00 H+F=13,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50606-000 1 FPM 142,80x5,80 1 EPDM 142,80x5,80 1 FPM 145,00x1,50 52-S0606-004	**51-06076-000** 52-06076-000	**71-08081-000** 72-08081-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-07062-000** 72-07062-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

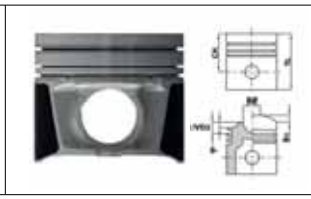
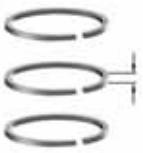
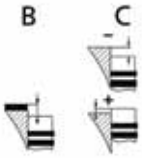
		Type		B C		
						

130,180

TAMD 122 A / AF	D	1988	2002	6 Cyl	**12000cc**	**135-294kW**	(183-400ps)
TD 122 FA / FK / FR / FS / GA / GH / KE	D	1987		6 Cyl	**11977cc**	**179-396kW**	(243-538ps)
TID 121 FG	D	1983		6 Cyl	**12000cc**	**217-305kW**	(295-415ps)
TMD 122 A	D	1988	2000	6 Cyl	**12000cc**	**221-235kW**	(300-320ps)

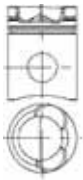
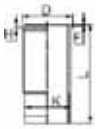
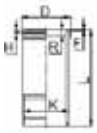
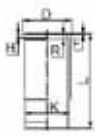
	11-02082-000 CH 114,200 VD1 2,600 B- 25,400 BØ 79,000 TL 175,200 **55,00x114,00**	AP	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR		Ø 130,180	**31-04082-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08015-000** 72-08015-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-07093-000** 72-07093-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-08082-000** 72-08082-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

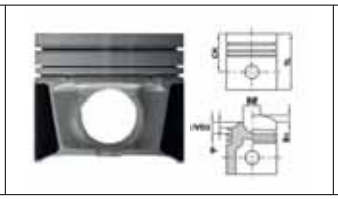
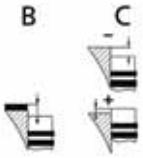
		Type		B C		
						

130,180

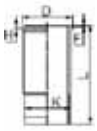
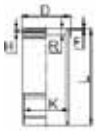
TAD 1230 G / GE / P	D	1993	8 Cyl	**12130cc**	**294-350kW**	(400-476ps)
TAD 1231 GE Euro 1	D	1993	8 Cyl	**12130cc**	**260-304kW**	(354-413ps)
TAD 1232 GE Euro 1	D	1993	8 Cyl	**12130cc**	**300-354kW**	(408-481ps)
TD 121 GP	D	1993	8 Cyl	**12000cc**	**243-283kW**	(330-385ps)
TD 1210 G	D	1991	8 Cyl	**12000cc**	**230kW**	(313ps)
TWD 1211 G	D	1993	8 Cyl	**12000cc**	**260-325kW**	(354-442ps)
TWD 1231 VE	D		8 Cyl	**12000cc**	**310kW**	(422ps)

	**11-02545-000** CH 114,200 VD1 2,600 B- 26,000 BØ 80,000 TL 172,200 **55,00x114,00**	AP	**91-09541-000** 1 3,500 Mo 2 3,160 CR 3 4,747 CR		Ø 130,180	**31-04545-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08017-000** 72-08017-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-08543-000** 72-08543-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-08549-000** 72-08549-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

130,180

TAD 121 CHC			D	6 Cyl	**11975cc 238kW**	(324ps)
TAMD 121 C / D			D	6 Cyl	**11975cc 217-309kW**	(295-420ps)
	11-02915-000 CH 114,200 VD1 2,500 B- 27,640 BØ 83,000 TL 175,200 **55,00x114,00**	AP	**91-09077-000** 1 2,385 Mo 2 3,160 CR 3 4,747 CR		Ø 130,180	**31-04915-000**
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55	WF-PH		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06068-000** 52-06068-000	**71-08018-000** 72-08018-000
	K=143,90 L=311,00 H+F=10,53+0,80 D=157,60 R=18,00	WF		O-Ring/Seal 55-50607-000 1 FPM 145,00x1,50 2 EPDM 143,00x5,70 1 FPM 143,00x5,70	**51-06077-000** 52-06077-000	**71-08915-000** 72-08915-000
	K=143,90 L=313,50 H+F=10,53+3,50 D=157,55 R=18,00	WF		O-Ring/Seal 55-50617-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 141,00x2,40	**51-06078-000** 52-06078-000	**71-07061-000** 72-07061-000

131,000

D 13 A 400 Euro 4/5			D 2005	6 Cyl	**12800cc 294kW**	(400ps)
D 13 A 440 Euro 4/5			D 2005	6 Cyl	**12800cc 324kW**	(440ps)
	11-02089-000 CH 84,200 B- 18,280 BØ 89,000 TL 130,700 **58,00x104,00**	AP YS	**91-09089-000** 1 3,500 NtPvD St 2 2,500 NT St 3 3,000 NT St	-0,10/+0,10	Ø 131,000	**31-04089-000**
	K=144,00 L=262,00 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06088-000** 52-06088-000	**71-08548-000** 72-08548-000

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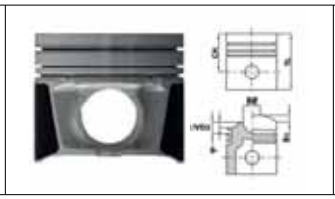
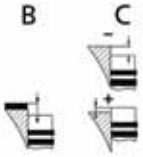
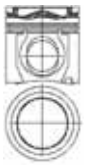
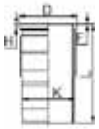
		Type		B C		
						

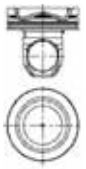
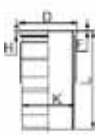
131,000

D 12 C 340 / C 380 / C 420 / D 340 / D 380 / D 420 Euro 3 — D 1993 — 8 Cyl — **12130cc** **250-309kW** (340-420ps)

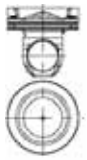
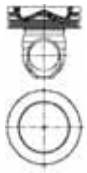
	**11-02546-000** CH 87,250 B- 17,240 BØ 89,000 TL 137,400 **55,00x107,00**	AP HA	**91-09005-000** 1 4,000 Mo 2 3,000 P 3 4,000 CR	+0,15/+0,65	Ø 131,000	**31-04546-000**
	K=143,90 L=276,40 H+F=11,20+4,45 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06082-000** 52-06082-000	**71-08547-000** 72-08547-000
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06083-000** 52-06083-000	**71-08546-000** 72-08546-000

131,010

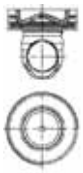
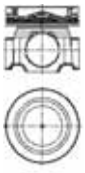
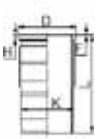
D 12 B 340 Euro 2	D	1993	2002	6 Cyl **12100cc** **250kW** (340ps)
D 12 C 340 / 380 / 420 / 460 Euro 3	D	1998		6 Cyl **12100cc** **313-368kW** (425-500ps)
D 12 D 340 / 380 / 420 / 425 / 460 / 500 Euro 3	D	2001		6 Cyl **12100cc** **250-368kW** (340-500ps)
DH 12 D 340 / 420 Euro 3	D	2001		6 Cyl **12100cc** **250-309kW** (340-420ps)

	**11-02085-000** CH 87,400 B- 17,140 BØ 89,000 TL 129,400 **55,00x107,00**	STEEL PISTON	**91-09005-000** 1 4,000 Mo 2 3,000 P 3 4,000 CR	+0,15/+0,65	Ø 131,010	**31-04085-000**
Renault Trucks (RVI) ve Volvo ile Ortak Motor						
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06064-000** 52-06064-000	**71-08552-000** 72-08552-000
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06083-000** 52-06083-000	**71-08550-000** 72-08550-000

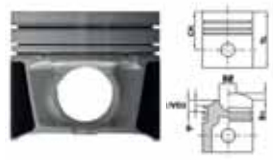
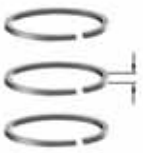
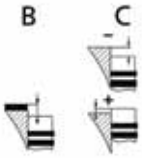
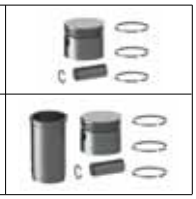
Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
131,010						
D12F 390 Euro 4			D	6 Cyl	**11967cc 287kW**	(390ps)
D12F 430 Euro 4			D	6 Cyl	**11967cc 316kW**	(430ps)
	**11-02651-000** CH 87,400 B- 18,600 BØ 89,000 TL 129,400 **55,00x107,00**	STEEL PISTON	**91-09005-000** 1 4,000 Mo 2 3,000 P 3 4,000 CR		Ø 131,010	**31-04651-000**
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06083-000** 52-06083-000	**71-07172-000** 72-07172-000
131,010						
D12C 345 Euro 3			D	6 Cyl	**12130cc 254kW**	(345ps)
D12C 385 Euro 3			D	6 Cyl	**12130cc 283kW**	(385ps)
D12C 425 Euro 3			D	6 Cyl	**12130cc 317kW**	(425ps)
D12C 465 Euro 3			D	6 Cyl	**12130cc 338kW**	(465ps)
	**11-02652-000** CH 87,400 B- 18,610 BØ 89,000 TL 129,400 **55,00x107,00**	STEEL PISTON	**91-09005-000** 1 4,000 Mo 2 3,000 P 3 4,000 CR		Ø 131,010	**31-04652-000**
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06083-000** 52-06083-000	**71-08652-000** 72-08652-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

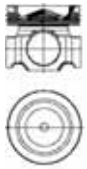
		Type		B C		
131,010						
D12A 340 Euro 2	D 1995	8 Cyl	**12130cc 250kW**	(340ps)		
D12A 370 Euro 2	D 1995	8 Cyl	**12130cc 272kW**	(370ps)		
D12A 380 Euro 2	D 1995	8 Cyl	**12130cc 280kW**	(380ps)		
D12A 415 Euro 2	D 1995	8 Cyl	**12130cc 305kW**	(415ps)		
D12A 420 Euro 2	D 1995	8 Cyl	**12130cc 309kW**	(420ps)		
	**11-02653-000** CH 87,400 B- 19,720 BØ 86,000 TL 129,400 **55,00x107,00**	STEEL PISTON	**91-09005-000** 1 4,000 Mo 2 3,000 P 3 4,000 CR		Ø 131,010	**31-04653-000**
	K=143,90 L=276,40 H+F=11,20+4,45 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06082-000** 52-06082-000	**71-08105-000** 72-08105-000
	K=144,00 L=272,80 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06083-000** 52-06083-000	**71-08653-000** 72-08653-000
131,010						
D13A 400	D 2005	6 Cyl	**12800cc 294kW**	(400ps)		
D13A 480	D 2005	6 Cyl	**12800cc 353kW**	(480ps)		
D13A 520	D 2005	6 Cyl	**12800cc 382kW**	(520ps)		
	**11-02656-000** CH 75,900 B- 18,100 BØ 89,000 TL 114,900 **58,00x76,00**	MONOTHERM FRICTION STEEL PISTON	**91-09089-000** 1 3,500 NtPvD St 2 2,500 NT St 3 3,000 NT St		Ø 131,010	**31-04656-000**
Volvo ve Renault ile Ortak Motor						
	K=144,00 L=262,00 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06088-000** 52-06088-000	**71-07174-000** 72-07174-000

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

		Type		B C		
						

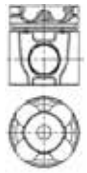
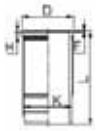
131,010

D 13 C 380 / 420 / 460 / 500 / 540 — D — 2009 — 6 Cyl — **12780cc** — **280-397kW** — (380-540ps)

	**11-02657-000** CH 75,900 B- 18,000 BØ 90,500 TL 114,900 **58,00x76,00**	MONOTHERM FRICTION STEEL PISTON	**91-09089-000** 1 3,500 NtPvD St 2 2,500 NT St 3 3,000 NT St		Ø 131,010	**31-04657-000**
Volvo ve Renault ile Ortak Motor						
	K=144,00 L=262,00 H+F=11,20+0,90 D=159,60	WF		O-Ring/Seal 55-50612-000 1 FPM 142,80x5,80 2 EPDM 142,80x5,80 1 FPM 145,00x2,50	**51-06088-000** 52-06088-000	**71-07173-000** 72-07173-000

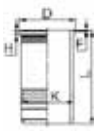
144,000

D 16 A 470 Euro 1	D	1993	1999	6 Cyl	**16120cc**	**346kW**	(470ps)
D 16 A 520 Euro 1	D	1993	1999	6 Cyl	**16120cc**	**382kW**	(520ps)
D 16 B 470 Euro 2	D	1998	2003	6 Cyl	**16120cc**	**346kW**	(470ps)
D 16 B 520 Euro 2	D	1998	2003	6 Cyl	**16120cc**	**382kW**	(520ps)

	**11-01159-000** CH 110,500 VD1 1,650 B- 28,700 BØ 80,000 TL 163,500 **60,00x115,00**	AP YS HA PDB	**91-09054-000** 1 4,500 CK 2 3,500 CR 3 5,000 CR	-0,90/-1,50	Ø 144,000	**31-03159-000**
	K=158,90 L=316,00 H+F=13,09+2,00 D=172,00	WF		O-Ring/Seal 55-50604-000 1 FPM 168,00x2,40 1 NBR 154,00x2,40 2 NBR 157,60x5,80 52-S0604-004	**51-06086-000** 52-06086-000	**71-07162-000** 72-07162-000

144,000

DC 16 — D — 2003 — 6 Cyl — **16120cc** — **404-449kW** — (549-610ps)

	11-02647-000 CH 90,800 B- 18,500 BØ 98,000 TL 134,700 **63,00x119,00**	PDB STEEL PISTON	**91-09076-000** 1 4,500 Mo 2 3,500 3 4,000 NT St		Ø 144,000	**31-04647-000**
	K=166,00 L=288,35 H+F=13,20+0,65 D=177,00	WF		O-Ring/Seal 55-50615-000 1 EPDM 152,00x164,00x7,00 1 FPM 152,00 x164,00x7,00 1 EPDM 155,00x2,40	**51-06033-000** 52-06033-000	**71-07171-000** 72-07171-000

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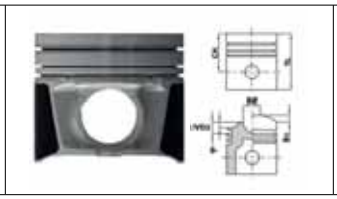
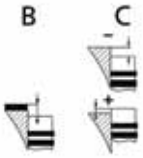
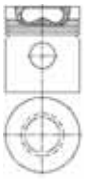
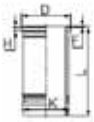
		Type		B C		
						

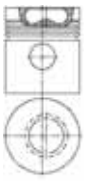
102,000

4901	D	1984	3 Cyl	**2696cc**	**26-33kW**	(35-45ps)
5001	D	1978	3 Cyl	**2696cc**	**26-33kW**	(35-45ps)
5201	D	1984	3 Cyl	**2696cc**	**33kW**	(45ps)
6901	D	1978	4 Cyl	**3596cc**	**42-46kW**	(57-62ps)
7001	D	1984	4 Cyl	**3596cc**	**46-48kW**	(63-65ps)
7201	D	1984	4 Cyl	**3596cc**	**48kW**	(65ps)

	**11-02091-000** CH 66,500 B- 22,500 BØ 47,500 TL 116,500 **35,00x86,00**		**91-09091-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 5,000 CR		Ø 102,000	**31-04091-000**
	K=115,95 L=225,70 H+F=10,05+0,70 D=123,80	WF			**51-06091-000**	**71-08091-000**

110,000

8001	D	1968	4 Cyl	**4562cc**	**55-60kW**	(75-82ps)
8002	D		4 Cyl	**4562cc**	**70-75kW**	(95-102ps)
8601	D	1968	6 Cyl	**6842cc**	**74-87kW**	(100-118ps)
8602	D	1981	4 Cyl	**4562cc**	**110-118kW**	(150-160ps)
GM 01	D	1969	3 Cyl	**3121cc**	**38-41kW**	(51-56ps)
GZ 01	D	1969	4 Cyl	**4562cc**	**56kW**	(76ps)

	**11-02092-000** CH 76,000 B- 21,800 BØ 55,000 TL 128,000 **40,00x93,00**		**91-09092-000** 1 3,000 CR 2 3,000 P 3 3,000 P 4 6,000 CR		Ø 110,000	**31-04092-000**
	K=126,95 L=234,50 H+F=10,07+0,70 D=135,27	WF			**51-06092-000**	**71-08092-000**

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03000-000	11-01000-000	91-09409-000								
31-03001-000	11-01001-000	91-09409-000								
31-03002-000	11-01002-000	91-09315-000								
31-03004-000	11-01004-000	91-09575-000								
31-03005-000	11-01005-000	91-09576-000								
31-03006-000	11-01006-000	91-09579-000								
31-03007-000	11-01007-000	91-09580-000								
31-03008-000	11-01008-000	91-09581-000								
31-03009-000	11-01009-000	91-09637-000								
31-03010-000	11-01010-000	91-09766-000								
31-03013-000	11-01013-000	91-09638-000								
31-03014-000	11-01014-000	91-09683-000								
31-03015-000	11-01015-000	91-09684-000								
31-03022-000	11-01022-000									
31-03025-000	11-01025-000									
31-03026-000	11-01026-000									
31-03028-000	11-01028-000	91-09408-000	51-05759-000	71-07342-000						
31-03029-000	11-01029-000	91-09408-000	51-05759-000	71-07343-000						
31-03030-000	11-01030-000	91-09409-000								
31-03031-000	11-01031-000	91-09409-000								
31-03034-000	11-01034-000	91-09378-000	51-35382-000	71-07272-000						
31-03034-000	11-01034-000	91-09378-000	51-65253-000							
31-03090-000	11-01090-000	91-09316-000								
31-03094-000	11-01094-000									
31-03101-000	11-01101-000	91-09123-000								
31-03107-000	11-01107-000	91-09113-000								
31-01115-000	11-01115-000	91-09108-000	51-95174-000	71-08871-000						
31-01115-000	11-01115-000	91-09108-000	52-95174-000	72-08871-000	55-50920-000					
31-01119-000	11-01119-000		51-95179-000	71-08872-000						
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31-01146-000	11-01146-000	91-09522-000								
31-03148-000	11-01148-000	91-09528-000								
31-03149-000	11-01149-000	91-09003-000	51-05963-000	71-08516-000						
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31-03150-000	11-01150-000	91-09003-000	51-05933-000	71-07930-000						
31-03154-000	11-01154-000	91-09058-000	51-06048-000	71-07150-000						
31-03154-000	11-01154-000	91-09058-000	51-06054-000	71-07151-000						
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31-03158-000	11-01158-000	91-49057-000	51-06057-000	71-07161-000						
31-03158-000	11-01158-000	91-49057-000	52-06057-000	72-07161-000	55-50618-000				32-R3208-000	
31-03159-000	11-01159-000	91-09054-000	51-06086-000	71-07162-000					32-R3208-000	
31-03159-000	11-01159-000	91-09054-000	52-06086-000	72-07162-000	55-50604-000		33-W6066-000			
31-03161-000	11-01161-000	91-09058-000	51-06036-000	71-07094-000			33-W6066-000			
31-03161-000	11-01161-000	91-09058-000	51-06054-000	71-07103-000		31-M0185-000	33-W6061-000		32-R3203-000	
31-03161-000	11-01161-000	91-09058-000	51-06058-000	71-07102-000		31-M0185-000	33-W6061-000		32-R3203-000	
31-03161-000	11-01161-000	91-09058-000	52-06036-000	72-07094-000	55-50610-000	31-M0185-000	33-W6061-000		32-R3203-000	
31-03161-000	11-01161-000	91-09058-000	52-06054-000	72-07103-000	55-50610-000	31-M0185-000	33-W6061-000		32-R3203-000	
31-03161-000	11-01161-000	91-09058-000	52-06058-000	72-07102-000	55-50610-000	31-M0185-000	33-W6061-000		32-R3203-000	
31-03162-000	11-01162-000	91-09042-000				31-M0185-000	33-W6061-000		32-R3203-000	
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31-03164-000	11-01164-000	91-09086-000	52-06045-000	72-08028-000	55-50611-000					
31-03165-000	11-01165-000	91-09004-000	51-06073-000	71-08029-000						
31-03165-000	11-01165-000	91-09004-000	52-06073-000	72-08029-000	55-50616-000					
31-03175-000	11-01175-000									
31-03194-000	11-01194-000	91-09198-000	51-65355-000							
31-03204-000	11-01204-000	91-09204-000	51-05258-000	71-07205-000						
31-03204-000	11-01204-000	91-09204-000	51-05331-000	71-07113-000						
31-03204-000	11-01204-000	91-09204-000	52-05331-000	72-07113-000	55-50911-000					

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03204-000	11-01204-000	91-09204-000	51-05352-000	71-07204-000						
31-03204-000	11-01204-000	91-09204-000	52-05352-000	72-07204-000	55-50911-000					
31-03204-000	11-01204-000	91-09204-000	51-05358-000	71-07047-000						
31-03204-000	11-01204-000	91-09204-000	52-05331-000	72-07113-000	55-50911-000					
31-03204-000	11-01204-000	91-09204-000	52-05352-000	72-07204-000	55-50911-000					
31-03209-000	11-01209-000	91-09205-000	51-05258-000	71-07206-000						
31-03209-000	11-01209-000	91-09205-000	51-05331-000	71-07122-000						
31-03209-000	11-01209-000	91-09205-000	52-05331-000	72-07122-000	55-50911-000					
31-03209-000	11-01209-000	91-09205-000	51-05352-000	71-07209-000						
31-03209-000	11-01209-000	91-09205-000	52-05352-000	72-07209-000	55-50911-000					
31-03209-000	11-01209-000	91-09205-000	51-05358-000	71-07005-000						
31-03209-000	11-01209-000	91-09205-000	52-05331-000	72-07122-000	55-50911-000					
31-03209-000	11-01209-000	91-09205-000	52-05352-000	72-07209-000	55-50911-000					
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31-03210-000	11-01210-000	91-09210-000	51-05331-000	71-07120-000						
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31-03214-000	11-01214-000	91-09214-000	51-05353-000	71-07214-000						
31-03219-000	11-01219-000	91-09213-000	51-05484-000	71-07219-000						
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31-03221-000	11-01221-000	91-09200-000								
31-03224-000	11-01224-000	91-09212-000								
31-03225-000	11-01225-000	91-09212-000	51-06136-000	71-07225-000						
31-03227-000	11-01227-000	91-09213-000	51-05479-000	71-07227-000						
31-03241-000	11-01241-000	91-09241-000								
31-03243-000	11-01243-000	91-09243-000								
31-03252-000	11-01252-000	91-09252-000								
31-03253-000	11-01253-000	91-09253-000	51-95569-000	71-07253-000						
31-03255-000	11-01255-000	91-09253-000	51-95569-000	71-07255-000						
31-03260-000	11-01260-000	91-09260-000	51-05264-000	71-07260-000						
31-03260-000	11-01260-000	91-09260-000	52-05264-000	72-07260-000	55-50906-000					
31-03260-000	11-01260-000	91-09260-000	52-05264-000	72-07260-000	55-50906-000					
31-03263-000	11-01263-000	91-09382-000	51-35382-000	71-07263-000						
31-03263-000	11-01263-000	91-09382-000	51-65253-000							
31-03264-000	11-01264-000	91-09264-000								
31-03267-000	11-01267-000	91-09267-000	51-95291-000	71-07267-000						
31-03268-000	11-01268-000	91-09268-000								
31-03269-000	11-01269-000	91-09269-000								
31-03273-000	11-01273-000	91-09378-000	51-35382-000	71-07273-000						
31-03273-000	11-01273-000	91-09378-000	51-65253-000	71-07274-000					32-R3033-000	
31-03277-000	11-01277-000	91-09378-000	51-35382-000	71-07275-000					32-R3033-000	
31-03277-000	11-01277-000	91-09378-000	51-65253-000							
31-03278-000	11-01278-000	91-09378-000	51-35382-000	71-07276-000						
31-03278-000	11-01278-000	91-09378-000	51-65253-000							
31-03281-000	11-01281-000	91-09373-000								
31-03310-000	11-01310-000	91-09310-000	51-65309-000							

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03310-000	11-01310-000	91-09310-000	51-65310-000							
31-03314-000	11-01314-000	91-09317-000	51-05209-000	71-07313-000						
31-03314-000	11-01314-000	91-09317-000	52-05209-000	72-07313-000	55-50804-000					
31-03314-000	11-01314-000	91-09317-000	52-05209-000	72-07313-000	55-50804-000					
31-03315-000	11-01315-000	91-09321-000	51-05210-000	71-07314-000						
31-03315-000	11-01315-000	91-09321-000	52-05210-000	72-07314-000	55-50806-000					
31-03315-000	11-01315-000	91-09321-000	51-05215-000	71-07315-000						
31-03315-000	11-01315-000	91-09321-000	52-05215-000	72-07315-000	55-50807-000					
31-03315-000	11-01315-000	91-09321-000	52-05210-000	72-07314-000	55-50806-000					
31-03315-000	11-01315-000	91-09321-000	52-05215-000	72-07315-000	55-50807-000					
31-03316-000	11-01316-000	91-09316-000	51-05227-000	71-07316-000						
31-03316-000	11-01316-000	91-09316-000	52-05227-000	72-07316-000	55-50802-000					
31-03316-000	11-01316-000	91-09316-000	52-05227-000	72-07316-000	55-50802-000					
31-03317-000	11-01317-000	91-09317-000	51-05209-000	71-07317-000						
31-03317-000	11-01317-000	91-09317-000	52-05209-000	72-07317-000	55-50804-000					
31-03317-000	11-01317-000	91-09317-000	52-05209-000	72-07317-000	55-50804-000					
31-03319-000	11-01319-000	91-09316-000	51-05227-000	71-07139-000						
31-03319-000	11-01319-000	91-09316-000	52-05227-000	72-07139-000	55-50802-000	31-M0149-000				
31-03319-000	11-01319-000	91-09316-000	52-05227-000	72-07139-000	55-50802-000	31-M0149-000				
31-03320-000	11-01320-000	91-09320-000	51-35320-000	71-07320-000		31-M0149-000				
31-03320-000	11-01320-000	91-09320-000	51-35322-000	71-07106-000						
31-03321-000	11-01321-000	91-09321-000	51-05214-000	71-07318-000						
31-03321-000	11-01321-000	91-09321-000	52-05214-000	72-07318-000	55-50802-000				32-R3160-000	
31-03321-000	11-01321-000	91-09321-000	51-05215-000	71-07321-000					32-R3160-000	
31-03321-000	11-01321-000	91-09321-000	52-05215-000	72-07321-000	55-50807-000				32-R3160-000	
31-03321-000	11-01321-000	91-09321-000	52-05214-000	72-07318-000	55-50802-000				32-R3160-000	
31-03321-000	11-01321-000	91-09321-000	52-05215-000	72-07321-000	55-50807-000				32-R3160-000	
31-03322-000	11-01322-000	91-09322-000	51-35320-000	71-07107-000					32-R3160-000	
31-03322-000	11-01322-000	91-09322-000	51-35322-000	71-07322-000						
31-03323-000	11-01323-000	91-09322-000	51-35320-000	71-07323-000						
31-03323-000	11-01323-000	91-09322-000	51-35322-000	71-07108-000						
31-03324-000	11-01324-000	91-09324-000	51-35320-000	71-07324-000						
31-03324-000	11-01324-000	91-09324-000	51-35322-000	71-07109-000						
31-03329-000	11-01329-000	91-09941-000	51-35320-000	71-07329-000						
31-03329-000	11-01329-000	91-09941-000	51-35322-000	71-07111-000		31-M0147-000			32-R3159-000	
31-03329-000	11-01329-000	91-09941-000	51-35323-000	71-07112-000		31-M0147-000			32-R3159-000	
31-03330-000	11-01330-000	91-09325-000	51-05215-000	71-07331-000		31-M0147-000			32-R3159-000	
31-03330-000	11-01330-000	91-09325-000	52-05215-000	72-07331-000	55-50807-000					
31-03330-000	11-01330-000	91-09325-000	51-05220-000	71-07330-000						
31-03330-000	11-01330-000	91-09325-000	52-05220-000	72-07330-000	55-50801-000					
31-03330-000	11-01330-000	91-09325-000	52-05215-000	72-07331-000	55-50807-000					
31-03330-000	11-01330-000	91-09325-000	52-05220-000	72-07330-000	55-50801-000					
31-03338-000	11-01338-000	91-09338-000	51-05338-000	71-07338-000						
31-03338-000	11-01338-000	91-09338-000	51-05340-000	71-07340-000						
31-03339-000	11-01339-000	91-09339-000	51-05339-000	71-07339-000						
31-03339-000	11-01339-000	91-09339-000	51-05345-000	71-07146-000						
31-03339-000	11-01339-000	91-09339-000	51-05346-000	71-07341-000						
31-03340-000	11-01340-000	91-09340-000	51-65408-000							
31-03340-000	11-01340-000	91-09340-000	51-65409-000							
31-03341-000	11-01341-000	91-09409-000	51-65408-000							
31-03341-000	11-01341-000	91-09409-000	51-65409-000							
31-03343-000	11-01343-000	91-09340-000								
31-03345-000	11-01345-000	91-49412-000	51-05411-000	71-07345-000						
31-03346-000	11-01346-000	91-09346-000	51-05415-000	71-07346-000						
31-03350-000	11-01350-000	91-09403-000								
31-03351-000	11-01351-000	91-09406-000								
31-03352-000	11-01352-000	91-09340-000								
31-03353-000	11-01353-000	91-09406-000								
31-03354-000	11-01354-000	91-09403-000								
31-03355-000	11-01355-000	91-09409-000	51-65408-000							
31-03355-000	11-01355-000	91-09409-000	51-65409-000							
31-03362-000	11-01362-000	91-09370-000				31-M0087-000			32-R3078-000	
31-03363-000	11-01363-000	91-09370-000				31-M0087-000			32-R3078-000	
31-03364-000	11-01364-000	91-09371-000				31-M0087-000			32-R3078-000	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03365-000	11-01365-000	91-09370-000				31-M0087-000			32-R3078-000	
31-03366-000	11-01366-000	91-09366-000	51-05325-000	71-07396-000		31-M0087-000			32-R3078-000	
31-03366-000	11-01366-000	91-09366-000	52-05325-000	72-07396-000	55-50915-000					
31-03367-000	11-01367-000	91-09371-000	51-05195-000	71-07348-000						
31-03367-000	11-01367-000	91-09371-000	52-05195-000	72-07348-000	55-50915-000					
31-03367-000	11-01367-000	91-09371-000	51-05325-000	71-07364-000						
31-03367-000	11-01367-000	91-09371-000	52-05325-000	72-07364-000	55-50915-000					
31-03367-000	11-01367-000	91-09371-000	51-05326-000	71-07363-000						
31-03367-000	11-01367-000	91-09371-000	52-05326-000	72-07363-000	55-50915-000					
31-03367-000	11-01367-000	91-09371-000	51-05371-000	71-07361-000						
31-03367-000	11-01367-000	91-09371-000	52-05371-000	72-07361-000	55-50915-000					
31-03367-000	11-01367-000	91-09371-000	51-05372-000	71-07357-000						
31-03367-000	11-01367-000	91-09371-000	52-05372-000	72-07357-000	55-50915-000					
31-03368-000	11-01368-000	91-09371-000	51-05195-000	71-07393-000						
31-03368-000	11-01368-000	91-09371-000	52-05195-000	72-07393-000	55-50915-000					
31-03368-000	11-01368-000	91-09371-000	51-05325-000	71-07356-000						
31-03368-000	11-01368-000	91-09371-000	52-05325-000	72-07356-000	55-50915-000					
31-03368-000	11-01368-000	91-09371-000	51-05326-000	71-07366-000						
31-03368-000	11-01368-000	91-09371-000	52-05326-000	72-07366-000	55-50915-000					
31-03369-000	11-01369-000	91-09371-000	51-05195-000	71-07349-000						
31-03369-000	11-01369-000	91-09371-000	52-05195-000	72-07349-000	55-50915-000					
31-03369-000	11-01369-000	91-09371-000	51-05325-000	71-07354-000						
31-03369-000	11-01369-000	91-09371-000	52-05325-000	72-07354-000	55-50915-000					
31-03369-000	11-01369-000	91-09371-000	51-05326-000	71-07353-000						
31-03369-000	11-01369-000	91-09371-000	52-05326-000	72-07353-000	55-50915-000					
31-03369-001	11-01369-001	91-09371-000								
31-03369-002	11-01369-002	91-09371-000								
31-03370-000	11-01370-000	91-09370-000	51-05573-000	71-07368-000		31-M0087-000			32-R3078-000	
31-03370-000	11-01370-000	91-09370-000	51-35328-000	71-07369-000		31-M0087-000			32-R3078-000	
31-03370-000	11-01370-000	91-09370-000	51-35333-000	71-07370-000		31-M0087-000			32-R3078-000	
31-03370-000	11-01370-000	91-09370-000	51-65370-000			31-M0087-000			32-R3078-000	
31-03371-000	11-01371-000	91-09371-000	51-05195-000	71-07394-000		31-M0087-000			32-R3078-000	
31-03371-000	11-01371-000	91-09371-000	52-05195-000	72-07394-000	55-50915-000					
31-03371-000	11-01371-000	91-09371-000	51-05325-000	71-07376-000						
31-03371-000	11-01371-000	91-09371-000	52-05325-000	72-07376-000	55-50915-000					
31-03371-000	11-01371-000	91-09371-000	51-05326-000	71-07367-000						
31-03371-000	11-01371-000	91-09371-000	52-05326-000	72-07367-000	55-50915-000					
31-03371-000	11-01371-000	91-09371-000	51-05371-000	71-07371-000						
31-03371-000	11-01371-000	91-09371-000	52-05371-000	72-07371-000	55-50915-000					
31-03371-000	11-01371-000	91-09371-000	51-05372-000	71-07372-000						
31-03371-000	11-01371-000	91-09371-000	52-05372-000	72-07372-000	55-50915-000					
31-03371-001	11-01371-001	91-09371-000								
31-03372-000	11-01372-000	91-09370-000	51-35328-000	71-07377-000		31-M0087-000			32-R3078-000	
31-03372-000	11-01372-000	91-09370-000	51-35333-000	71-07373-000		31-M0087-000			32-R3078-000	
31-03372-000	11-01372-000	91-09370-000	51-65370-000			31-M0087-000			32-R3078-000	
31-03372-000	11-01372-000	91-09370-000	51-65373-000			31-M0087-000			32-R3078-000	
31-03373-000	11-01373-000	91-09371-000	51-05195-000	71-07395-000		31-M0087-000			32-R3078-000	
31-03373-000	11-01373-000	91-09371-000	52-05195-000	72-07395-000	55-50915-000					
31-03373-000	11-01373-000	91-09371-000	51-05325-000	71-07352-000						
31-03373-000	11-01373-000	91-09371-000	52-05325-000	72-07352-000	55-50915-000					
31-03373-000	11-01373-000	91-09371-000	51-05326-000	71-07362-000						
31-03373-000	11-01373-000	91-09371-000	52-05326-000	72-07362-000	55-50915-000					
31-03374-000	11-01374-000	91-09370-000	51-35328-000	71-07387-000		31-M0087-000			32-R3078-000	
31-03374-000	11-01374-000	91-09370-000	51-35333-000	71-07374-000		31-M0087-000			32-R3078-000	
31-03374-000	11-01374-000	91-09370-000	51-65370-000			31-M0087-000			32-R3078-000	
31-03374-000	11-01374-000	91-09370-000	51-65373-000			31-M0087-000			32-R3078-000	
31-03374-001	11-01374-001	91-09370-000				31-M0087-000			32-R3078-000	
31-03377-000	11-01377-000	91-09370-000				31-M0087-000			32-R3078-000	
31-03378-000	11-01378-000	91-09378-000	51-35382-000	71-07378-000		31-M0087-000			32-R3078-000	
31-03378-000	11-01378-000	91-09378-000	51-65253-000							
31-03380-000	11-01380-000	91-09380-000	51-35380-000	71-07380-000						
31-03380-001	11-01380-001	91-09380-000								
31-03381-000	11-01381-000	91-09381-000	51-35381-000	71-07381-000						
31-03381-000	11-01381-000	91-09381-000	51-65250-000							

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03382-000	11-01382-000	91-09382-000	51-35382-000	71-07382-000						
31-03382-000	11-01382-000	91-09382-000	51-65253-000			31-M0041-000	33-W6016-000		32-R3037-000	
31-03383-000	11-01383-000	91-09381-000	51-35381-000	71-07383-000		31-M0041-000	33-W6016-000		32-R3037-000	
31-03383-000	11-01383-000	91-09381-000	51-65250-000							
31-03384-000	11-01384-000	91-09867-000	51-35844-000	71-07384-000						
31-03384-000	11-01384-000	91-09867-000	51-65840-000							
31-03385-000	11-01385-000	91-09385-000	51-35383-000	71-07385-000						
31-03385-000	11-01385-000	91-09385-000	51-65379-000							
31-03387-000	11-01387-000	91-09366-000	51-05195-000	71-07397-000						
31-03387-000	11-01387-000	91-09366-000	52-05195-000	72-07397-000	55-50915-000					
31-03387-000	11-01387-000	91-09366-000	51-05325-000	71-07388-000						
31-03387-000	11-01387-000	91-09366-000	52-05325-000	72-07388-000	55-50915-000					
31-03387-000	11-01387-000	91-09366-000	51-05326-000	71-07379-000						
31-03387-000	11-01387-000	91-09366-000	52-05326-000	72-07379-000	55-50915-000					
31-03400-000	11-01400-000	91-09400-000	51-05257-000	71-07400-000						
31-03401-000	11-01401-000	91-49400-000	51-05257-000	71-07401-000						
31-03402-000	11-01402-000	91-09402-000	51-65402-000			31-M0065-000			32-R3070-000	
31-03402-000	11-01402-000	91-09402-000	51-65454-000			31-M0065-000			32-R3070-000	
31-03402-000	11-01402-000	91-09402-000	51-66020-000			31-M0065-000			32-R3070-000	
31-03403-000	11-01403-000	91-09403-000	51-65403-000			31-M0065-000			32-R3070-000	
31-03403-000	11-01403-000	91-09403-000	51-65404-000							
31-03404-000	11-01404-000	91-09402-000	51-65402-000							
31-03404-000	11-01404-000	91-09402-000	51-65454-000							
31-03404-000	11-01404-000	91-09402-000	51-66020-000							
31-03405-000	11-01405-000	91-09406-000	51-65406-000							
31-03405-000	11-01405-000	91-09406-000	51-65449-000							
31-03406-000	11-01406-000	91-09406-000	51-65403-000							
31-03406-000	11-01406-000	91-09406-000	51-65404-000							
31-03407-000	11-01407-000	91-09407-000	51-65407-000	71-07407-000						
31-03407-000	11-01407-000	91-09407-000	51-65456-000							
31-03408-000	11-01408-000	91-09340-000	51-65408-000			31-M0082-000				
31-03408-000	11-01408-000	91-09340-000	51-65409-000			31-M0082-000				
31-03409-000	11-01409-000	91-09409-000	51-65409-000			31-M0082-000				
31-03409-000	11-01409-000	91-09409-000	51-65758-000			31-M0082-000			32-R3082-000	
31-03410-000	11-01410-000	91-09412-000	51-05411-000	71-07410-000		31-M0082-000			32-R3082-000	
31-03411-000	11-01411-000	91-49412-000	51-05411-000	71-07411-000		31-M0076-000				
31-03412-000	11-01412-000	91-49412-000	51-05411-000	71-07412-000		31-M0076-000				
31-03413-000	11-01413-000	91-09413-000	51-05413-000	71-07413-000		31-M0076-000				
31-03414-000	11-01414-000	91-09412-000	51-05411-000	71-07414-000						
31-03415-000	11-01415-000	91-09415-000	51-95513-000	71-07415-000						
31-03415-000	11-01415-000	91-09415-000	51-96213-000	71-07409-000						
31-03415-000	11-01415-000	91-09415-000	52-96213-000	72-07409-000	55-50919-000					
31-03417-000	11-01417-000	91-09417-000	51-35417-000	71-07417-000						
31-03418-000	11-01418-000	91-09418-000	51-35418-000	71-07418-000						
31-03418-000	11-01418-000	91-09418-000	51-35447-000	71-07419-000						
31-03418-000	11-01418-000	91-09418-000	51-65419-000							
31-03418-000	11-01418-000	91-09418-000								
31-03428-000	11-01428-000	91-09428-000	51-65427-000							
31-03428-000	11-01428-000	91-09428-000	51-65428-000							
31-03429-000	11-01429-000	91-39428-000								
31-03430-000	11-01430-000	91-09428-000	51-65427-000							
31-03430-000	11-01430-000	91-09428-000	51-65428-000							
31-03431-000	11-01431-000	91-09433-000	51-65431-000							
31-03431-000	11-01431-000	91-09433-000	51-65432-000							
31-03433-000	11-01433-000	91-09433-000	51-65431-000							
31-03433-000	11-01433-000	91-09433-000	51-65432-000							
31-03434-000	11-01434-000	91-39435-000	51-65434-000							
31-03435-000	11-01435-000	91-09435-000	51-65434-000							
31-03436-000	11-01436-000	91-09445-000	51-65436-000							
31-03436-000	11-01436-000	91-09445-000	51-65437-000							
31-03438-000	11-01438-000	91-09440-000	51-65436-000							
31-03438-000	11-01438-000	91-09440-000	51-65437-000							
31-03439-000	11-01439-000	91-09440-000	51-65436-000							
31-03439-000	11-01439-000	91-09440-000	51-65437-000							

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03440-000	11-01440-000	91-09440-000	51-65436-000							
31-03440-000	11-01440-000	91-09440-000	51-65437-000							
31-03441-000	11-01441-000	91-09441-000	51-65436-000							
31-03441-000	11-01441-000	91-09441-000	51-65437-000							
31-03442-000	11-01442-000	91-09442-000	51-65436-000							
31-03442-000	11-01442-000	91-09442-000	51-65437-000							
31-03445-000	11-01445-000	91-09445-000	51-65436-000							
31-03445-000	11-01445-000	91-09445-000	51-65437-000							
31-03450-000	11-01450-000	91-39428-000								
31-03454-000	11-01454-000	91-09435-000	51-65434-000							
31-03458-000	11-01458-000	91-39458-000								
31-03472-000	11-01472-000	91-09472-000								
31-03480-000	11-01480-000	91-09480-000	51-05480-000	71-07480-000						
31-03480-000	11-01480-000	91-09480-000	51-05481-000	71-07478-000						
31-03482-000	11-01482-000	91-09482-000	51-05479-000	71-07482-000						
31-03483-000	11-01483-000	91-09483-000	51-05700-000	71-07483-000						
31-03484-000	11-01484-000	91-09484-000	51-05702-000	71-07487-000						
31-03485-000	11-01485-000	91-09485-000	51-05701-000	71-07485-000						
31-03486-000	11-01486-000	91-09486-000	51-05483-000	71-07486-000						
31-03489-000	11-01489-000	91-09492-000	51-05503-000	71-07489-000						
31-03489-000	11-01489-000	91-09492-000	52-05503-000	72-07489-000	55-50903-000					
31-03489-000	11-01489-000	91-09492-000	51-05508-000	71-07488-000						
31-03489-000	11-01489-000	91-09492-000	52-05508-000	72-07488-000	55-50904-000					
31-03489-000	11-01489-000	91-09492-000	52-05503-000	72-07489-000	55-50903-000					
31-03489-000	11-01489-000	91-09492-000	52-05508-000	72-07488-000	55-50904-000					
31-03492-000	11-01492-000	91-09492-000	51-05510-000	71-07492-000						
31-03494-000	11-01494-000	91-09503-000	51-05503-000	71-07494-000						
31-03494-000	11-01494-000	91-09503-000	52-05503-000	72-07494-000	55-50903-000					
31-03494-000	11-01494-000	91-09503-000	51-05508-000	71-07070-000						
31-03494-000	11-01494-000	91-09503-000	52-05508-000	72-07070-000	55-50904-000					
31-03494-000	11-01494-000	91-09503-000	52-05503-000	72-07494-000	55-50903-000					
31-03494-000	11-01494-000	91-09503-000	52-05508-000	72-07070-000	55-50904-000					
31-03495-000	11-01495-000	91-09502-000	51-05501-000	71-07455-000						
31-03495-000	11-01495-000	91-09502-000	51-05502-000							
31-03495-000	11-01495-000	91-09502-000	52-05501-000	71-07455-000	55-50905-000					
31-03496-000	11-01496-000	91-09503-000	51-05503-000	71-07496-000						
31-03496-000	11-01496-000	91-09503-000	52-05503-000	72-07496-000	55-50903-000					
31-03496-000	11-01496-000	91-09503-000	51-05508-000	71-07498-000						
31-03496-000	11-01496-000	91-09503-000	52-05508-000	72-07498-000	55-50904-000					
31-03496-000	11-01496-000	91-09503-000	52-05503-000	72-07496-000	55-50903-000					
31-03496-000	11-01496-000	91-09503-000	52-05508-000	72-07498-000	55-50904-000					
31-03497-000	11-01497-000	91-09503-000	51-05503-000	71-07497-000						
31-03497-000	11-01497-000	91-09503-000	52-05503-000	72-07497-000	55-50903-000					
31-03497-000	11-01497-000	91-09503-000	52-05503-000	72-07497-000	55-50903-000					
31-03500-000	11-01500-000	91-09500-000	51-05500-000	71-07500-000						
31-03500-000	11-01500-000	91-09500-000	51-05504-000	71-07069-000						
31-03501-000	11-01501-000	91-09502-000	51-05501-000	71-07501-000						
31-03501-000	11-01501-000	91-09502-000	52-05501-000	72-07501-000	55-50905-000					
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31-03502-000	11-01502-000	91-09502-000	51-05502-000	71-07502-000						
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31-03503-000	11-01503-000	91-09503-000	51-05503-000	71-07503-000						
31-03503-000	11-01503-000	91-09503-000	52-05503-000	72-07503-000	55-50903-000					
31-03503-000	11-01503-000	91-09503-000	51-05508-000	71-08503-000						
31-03503-000	11-01503-000	91-09503-000	52-05508-000	72-08503-000	55-50904-000					
31-03503-000	11-01503-000	91-09503-000	52-05503-000	72-07503-000	55-50903-000					
31-03503-000	11-01503-000	91-09503-000	52-05508-000	72-08503-000	55-50904-000					
31-03504-000	11-01504-000	91-09503-000	51-05503-000	71-07504-000						
31-03504-000	11-01504-000	91-09503-000	52-05503-000	72-07504-000	55-50903-000					
31-03504-000	11-01504-000	91-09503-000	51-05508-000	71-07558-000						
31-03504-000	11-01504-000	91-09503-000	52-05508-000	72-07558-000	55-50904-000					

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03504-000	11-01504-000	91-09503-000	52-05503-000	72-07504-000	55-50903-000					
31-03504-000	11-01504-000	91-09503-000	52-05508-000	72-07558-000	55-50904-000					
31-03505-000	11-01505-000	91-09503-000	51-05503-000	71-07505-000						
31-03505-000	11-01505-000	91-09503-000	52-05503-000	72-07505-000	55-50903-000					
31-03505-000	11-01505-000	91-09503-000	51-05508-000	71-07060-000						
31-03505-000	11-01505-000	91-09503-000	52-05508-000	72-07060-000	55-50904-000					
31-03505-000	11-01505-000	91-09503-000	52-05503-000	72-07505-000	55-50903-000					
31-03505-000	11-01505-000	91-09503-000	52-05508-000	72-07060-000	55-50904-000					
31-03507-000	11-01507-000	91-09507-000	51-05505-000	71-07507-000						
31-03508-000	11-01508-000	91-09507-000	51-05505-000	71-07508-000						
31-03509-000	11-01509-000	91-09509-000	51-05505-000	71-07509-000						
31-03510-000	11-01510-000	91-09510-000	51-95512-000	71-07510-000						
31-03510-000	11-01510-000	91-09510-000	51-96212-000	71-07718-000		31-M0110-000	33-W6033-000		32-R3285-000	
31-03511-000	11-01511-000	91-09511-000	51-35511-000	71-07511-000		31-M0110-000	33-W6033-000		32-R3285-000	
31-03512-000	11-01512-000	91-09512-000	51-95512-000	71-07512-000		31-M0110-000	33-W6033-000		32-R3107-000	
31-03512-000	11-01512-000	91-09512-000	51-96212-000	71-07719-000		31-M0110-000	33-W6033-000		32-R3107-000	
31-03513-000	11-01513-000	91-09513-000	51-95513-000	71-07513-000		31-M0110-000	33-W6033-000		32-R3107-000	
31-03513-000	11-01513-000	91-09513-000	51-96212-000	71-07499-000						
31-03513-000	11-01513-000	91-09513-000	52-96212-000	72-07499-000	55-50919-000					
31-03514-000	11-01514-000	91-09512-000	51-95512-000	71-07514-000						
31-03514-000	11-01514-000	91-09512-000	51-96212-000							
31-03516-000	11-01516-000	91-09516-000	51-95513-000	71-07516-000						
31-03516-000	11-01516-000	91-09516-000	51-95517-000	71-07135-000		31-M0111-000	33-W6034-000		32-R5100-000	
31-03516-000	11-01516-000	91-09516-000	51-96213-000	71-07527-000		31-M0111-000	33-W6034-000		32-R5100-000	
31-03516-000	11-01516-000	91-09516-000	52-96213-000	72-07527-000	55-50919-000	31-M0111-000	33-W6034-000		32-R5100-000	
31-03516-000	11-01516-000	91-09516-000	51-96217-000	71-07721-000		31-M0111-000	33-W6034-000		32-R5100-000	
31-03517-000	11-01517-000	91-09517-000	51-95518-000	71-07517-000		31-M0111-000	33-W6034-000		32-R5100-000	
31-03518-000	11-01518-000	91-09518-000	51-95521-000	71-07518-000						
31-03519-000	11-01519-000	91-09519-000	51-95522-000	71-07519-000						
31-03520-000	11-01520-000	91-09520-000	51-95529-000	71-07119-000		31-M0112-000				
31-03520-000	11-01520-000	91-09520-000	51-95556-000	71-07134-000		31-M0112-000				
31-03521-000	11-01521-000	91-09516-000	51-95513-000	71-07521-000		31-M0112-000				
31-03521-000	11-01521-000	91-09516-000	51-96213-000	71-07528-000						
31-03521-000	11-01521-000	91-09516-000	52-96213-000	72-07528-000	55-50919-000					
31-03522-000	11-01522-000	91-09512-000	51-95512-000	71-07522-000						
31-03522-000	11-01522-000	91-09512-000	51-96212-000							
31-03523-000	11-01523-000	91-09523-000	51-95512-000	71-07523-000						
31-03523-000	11-01523-000	91-09523-000	51-96212-000	71-07529-000						
31-03523-000	11-01523-000	91-09523-000	52-96212-000	72-07529-000	55-50919-000					
31-03524-000	11-01524-000	91-09059-000	51-65769-000							
31-03525-000	11-01525-000	91-09512-000	51-95512-000	71-07525-000		31-M0640-000				
31-03525-000	11-01525-000	91-09512-000	51-96212-000	71-07724-000						
31-03560-000	11-01560-000	91-09560-000	51-35560-000	71-07560-000						
31-03560-000	11-01560-000	91-09560-000	51-35562-000	71-07064-000						
31-03560-000	11-01560-000	91-09560-000	51-65561-000							
31-03561-000	11-01561-000	91-09561-000	51-35560-000	71-07561-000						
31-03561-000	11-01561-000	91-09561-000	51-35562-000	71-07006-000						
31-03561-000	11-01561-000	91-09561-000	51-65561-000							
31-03566-000	11-01566-000	91-09573-000	51-05605-000	71-07566-000						
31-03566-000	11-01566-000	91-09573-000	52-05605-000	72-07566-000	55-50505-000					
31-03566-000	11-01566-000	91-09573-000	52-05605-000	72-07566-000	55-50505-000					
31-03567-000	11-01567-000	91-09573-000	51-05605-000	71-07567-000						
31-03567-000	11-01567-000	91-09573-000	52-05605-000	72-07567-000	55-50505-000					
31-03567-000	11-01567-000	91-09573-000	52-05605-000	72-07567-000	55-50505-000					
31-03568-000	11-01568-000	91-09578-000	51-05598-000	71-07568-000						
31-03568-000	11-01568-000	91-09578-000	52-05598-000	72-07568-000	55-50508-000					
31-03568-000	11-01568-000	91-09578-000	51-05738-000	71-07751-000						
31-03568-000	11-01568-000	91-09578-000	52-05598-000	72-07568-000	55-50508-000					
31-03568-000	11-01568-000	91-09578-000	52-05738-000	72-07751-000	55-50508-000					
31-03569-000	11-01569-000	91-09578-000	51-05598-000	71-07562-000						
31-03569-000	11-01569-000	91-09578-000	52-05598-000	72-07562-000	55-50508-000					
31-03569-000	11-01569-000	91-09578-000	51-05738-000	71-07752-000						
31-03569-000	11-01569-000	91-09578-000	52-05598-000	72-07562-000	55-50508-000					
31-03569-000	11-01569-000	91-09578-000	52-05738-000	72-07752-000	55-50508-000					

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03570-000	11-01570-000	91-09578-000	51-05604-000	71-07569-000						
31-03570-000	11-01570-000	91-09578-000	52-05604-000	72-07569-000	55-50506-000					
31-03570-000	11-01570-000	91-09578-000	52-05604-000	72-07569-000	55-50506-000					
31-03572-000	11-01572-000	91-09594-000	51-35594-000	71-07572-000						
31-03573-000	11-01573-000	91-09593-000	51-35587-000	71-07573-000						
31-03573-000	11-01573-000	91-09593-000	51-65593-000							
31-03574-000	11-01574-000	91-09574-000	51-05598-000	71-07574-000						
31-03574-000	11-01574-000	91-09574-000	52-05598-000	72-07574-000	55-50508-000					
31-03574-000	11-01574-000	91-09574-000	51-05738-000	71-07753-000						
31-03574-000	11-01574-000	91-09574-000	52-05598-000	72-07574-000	55-50508-000					
31-03574-000	11-01574-000	91-09574-000	52-05738-000	72-07753-000	55-50508-000					
31-03577-000	11-01577-000	91-09578-000	51-05598-000	71-07577-000						
31-03577-000	11-01577-000	91-09578-000	52-05598-000	72-07577-000	55-50508-000					
31-03577-000	11-01577-000	91-09578-000	51-05608-000	71-07576-000						
31-03577-000	11-01577-000	91-09578-000	52-05608-000	72-07576-000	55-50508-000					
31-03577-000	11-01577-000	91-09578-000	51-05738-000	71-07754-000						
31-03577-000	11-01577-000	91-09578-000	52-05598-000	72-07577-000	55-50508-000					
31-03577-000	11-01577-000	91-09578-000	52-05608-000	72-07576-000	55-50508-000					
31-03577-000	11-01577-000	91-09578-000	52-05738-000	72-07754-000	55-50508-000					
31-03578-000	11-01578-000	91-09578-000	51-05598-000	71-07578-000						
31-03578-000	11-01578-000	91-09578-000	52-05598-000	72-07578-000	55-50508-000					
31-03578-000	11-01578-000	91-09578-000	51-05608-000	71-07575-000						
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31-03578-000	11-01578-000	91-09578-000	51-05738-000	71-07755-000						
31-03578-000	11-01578-000	91-09578-000	51-05740-000							
31-03578-000	11-01578-000	91-09578-000	52-05598-000	72-07578-000	55-50508-000					
31-03578-000	11-01578-000	91-09578-000	52-05608-000	72-07575-000	55-50508-000					
31-03578-000	11-01578-000	91-09578-000	52-05738-000	72-07755-000	55-50508-000					
31-03578-000	11-01578-000	91-09578-000								
31-03579-000	11-01579-000	91-09578-000	51-05598-000	71-07579-000						
31-03579-000	11-01579-000	91-09578-000	52-05598-000	72-07579-000	55-50508-000					
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31-03579-000	11-01579-000	91-09578-000	52-05608-000	72-07570-000	55-50508-000					
31-03579-000	11-01579-000	91-09578-000	51-05738-000	71-07756-000						
31-03579-000	11-01579-000	91-09578-000	52-05598-000	72-07579-000	55-50508-000					
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31-03579-000	11-01579-000	91-09578-000	52-05738-000	72-07756-000	55-50508-000					
31-03580-000	11-01580-000	91-09583-000	51-35588-000	71-07580-000						
31-03582-000	11-01582-000	91-09582-000	51-95567-000	71-07582-000						
31-03583-000	11-01583-000	91-09583-000	51-35587-000	71-07063-000						
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31-03585-000	11-01585-000	91-09585-000	51-95568-000	71-07585-000						
31-03587-000	11-01587-000	91-09587-000								
31-03589-000	11-01589-000	91-09587-000								
31-03591-000	11-01591-000	91-09591-000	51-35591-000	71-07591-000						
31-03591-000	11-01591-000	91-09591-000	51-65580-000							
31-03592-000	11-01592-000	91-09592-000	51-35592-000	71-07592-000						
31-03592-000	11-01592-000	91-09592-000	51-65596-000							
31-03593-000	11-01593-000	91-09593-000	51-35587-000	71-07593-000						
31-03593-000	11-01593-000	91-09593-000	51-65593-000							
31-03595-000	11-01595-000	91-09595-000	51-05595-000	71-07595-000						
31-03595-000	11-01595-000	91-09595-000	52-05595-000	72-07595-000	#N/A					
31-03595-000	11-01595-000	91-09595-000	51-05603-000	71-07603-000						
31-03595-000	11-01595-000	91-09595-000	52-05603-000	72-07603-000	55-50502-000					
31-03595-000	11-01595-000	91-09595-000	52-05595-000	72-07595-000	#N/A					
31-03595-000	11-01595-000	91-09595-000	52-05603-000	72-07603-000	55-50502-000					
31-03596-000	11-01596-000	91-09596-000	51-05595-000	71-07596-000						
31-03596-000	11-01596-000	91-09596-000	52-05595-000	72-07596-000	#N/A					
31-03596-000	11-01596-000	91-09596-000	52-05595-000	72-07596-000	#N/A					
31-03597-000	11-01597-000	91-09598-000	51-05598-000	71-07597-000						
31-03597-000	11-01597-000	91-09598-000	52-05598-000	72-07597-000	55-50508-000					
31-03597-000	11-01597-000	91-09598-000	51-05608-000	71-07604-000						
31-03597-000	11-01597-000	91-09598-000	52-05608-000	72-07604-000	55-50508-000					
31-03597-000	11-01597-000	91-09598-000	51-05738-000	71-07757-000						

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03597-000	11-01597-000	91-09598-000	52-05598-000	72-07597-000	55-50508-000					
31-03597-000	11-01597-000	91-09598-000	52-05608-000	72-07604-000	55-50508-000					
31-03597-000	11-01597-000	91-09598-000	52-05738-000	72-07757-000	55-50508-000					
31-03597-002	11-01597-002	91-09598-000								
31-03598-000	11-01598-000	91-09598-000	51-05598-000	71-07598-000						
31-03598-000	11-01598-000	91-09598-000	52-05598-000	72-07598-000	55-50508-000					
31-03598-000	11-01598-000	91-09598-000	51-05608-000	71-07599-000						
31-03598-000	11-01598-000	91-09598-000	52-05608-000	72-07599-000	55-50508-000					
31-03598-000	11-01598-000	91-09598-000	51-05738-000	71-07758-000						
31-03598-000	11-01598-000	91-09598-000	52-05598-000	72-07598-000	55-50508-000					
31-03598-000	11-01598-000	91-09598-000	52-05608-000	72-07599-000	55-50508-000					
31-03598-000	11-01598-000	91-09598-000	52-05738-000	72-07758-000	55-50508-000					
31-03600-000	11-01600-000	91-09593-000	51-35587-000	71-07593-000						
31-03600-000	11-01600-000	91-09593-000	51-65593-000							
31-03600-001	11-01600-001	91-09593-000								
31-03601-000	11-01601-000	91-09595-000	51-05595-000	71-07601-000						
31-03601-000	11-01601-000	91-09595-000	52-05595-000	72-07601-000	#N/A					
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31-03607-000	11-01607-000	91-09607-000								
31-03618-000	11-01618-000	91-09618-000	51-95626-000	71-07618-000						
31-03618-000	11-01618-000	91-09618-000	51-95627-000	71-07617-000						
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31-03621-000	11-01621-000	91-09622-000	51-65735-000			31-M0061-000			32-R3051-000	
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31-03628-000	11-01628-000	91-09643-000	51-05643-000	71-07628-000						
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31-03629-000	11-01629-000	91-09643-000	51-05643-000	71-07630-000						
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31-03632-000	11-01632-000	91-09719-000	51-05615-000	71-08767-000		31-M0058-000			32-R3051-000	
31-03632-000	11-01632-000	91-09719-000	52-05615-000	72-08767-000	55-50503-000					
31-03632-000	11-01632-000	91-09719-000	51-05628-000	71-07652-000						
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31-03638-000	11-01638-000	91-09912-000	51-65635-000							
31-03638-000	11-01638-000	91-09912-000	51-65735-000			31-M0061-000			32-R3057-000	
31-03640-000	11-01640-000	91-09640-000	51-65638-000			31-M0061-000			32-R3057-000	
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31-03640-000	11-01640-000	91-09640-000	51-65640-000			31-M0058-000			32-R3051-000	
31-03641-000	11-01641-000	91-09641-000	51-65641-000			31-M0058-000			32-R3051-000	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
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31-03642-000	11-01642-000	91-09640-000	51-65638-000							
31-03642-000	11-01642-000	91-09640-000	51-65639-000			31-M0058-000				
31-03642-000	11-01642-000	91-09640-000	51-65640-000			31-M0058-000				
31-03643-000	11-01643-000	91-09643-000	51-05616-000	71-07002-000		31-M0058-000				
31-03643-000	11-01643-000	91-09643-000	52-05616-000	72-07002-000	55-50509-000	31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	51-05617-000	71-07040-000		31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	51-05643-000	71-07643-000		31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	52-05643-000	72-07643-000	55-50501-000	31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	51-05644-000	71-07041-000		31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	52-05644-000	72-07041-000	55-50507-000	31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	51-05680-000	71-07100-000		31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	51-05734-000	71-07635-000		31-M0050-000			32-R3050-000	
31-03643-000	11-01643-000	91-09643-000	52-05616-000	72-07002-000	55-50509-000	31-M0050-000			32-R3050-000	
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31-03643-000	11-01643-000	91-09643-000	52-05734-000	71-07635-000	55-50501-000	31-M0050-000			32-R3050-000	
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31-03645-000	11-01645-000	91-09645-000	52-05616-000	72-07645-000	55-50509-000				32-R3053-000	
31-03645-000	11-01645-000	91-09645-000	51-05643-000	71-07130-000					32-R3053-000	
31-03645-000	11-01645-000	91-09645-000	52-05643-000	72-07130-000	55-50501-000				32-R3053-000	
31-03645-000	11-01645-000	91-09645-000	51-05734-000	71-07636-000					32-R3053-000	
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31-03645-000	11-01645-000	91-09645-000	52-05734-000	71-07636-000	55-50501-000				32-R3053-000	
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31-03650-000	11-01650-000	91-09704-000	52-05618-000	72-07031-000	55-50509-000	31-M0420-000			32-R3265-000	
31-03650-000	11-01650-000	91-09704-000	51-05619-000	71-07042-000		31-M0420-000			32-R3265-000	
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31-03650-000	11-01650-000	91-09704-000	52-05650-000	72-07650-000	55-50507-000	31-M0420-000			32-R3265-000	
31-03650-000	11-01650-000	91-09704-000	51-05652-000	71-07032-000		31-M0420-000			32-R3265-000	
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31-03650-000	11-01650-000	91-09704-000	52-05650-000	72-07650-000	55-50507-000	31-M0420-000			32-R3265-000	
31-03650-000	11-01650-000	91-09704-000	52-05652-000	72-07032-000	55-50507-000	31-M0420-000			32-R3265-000	
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31-03670-000	11-01670-000	91-09670-000	51-05670-000	71-07670-000		31-M0420-000			32-R3265-000	
31-03670-000	11-01670-000	91-09670-000	52-05670-000	72-07670-000	55-50901-000					
31-03670-000	11-01670-000	91-09670-000	52-05670-000	72-07670-000	55-50901-000					
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31-03674-000	11-01674-000	91-09673-000	52-05673-000	72-07674-000	55-50902-000					
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31-03676-000	11-01676-000	91-09676-000	52-05678-000	72-07676-000	55-50917-000					
31-03676-000	11-01676-000	91-09676-000	51-35676-000	71-07677-000						
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31-03696-000	11-01696-000	91-09043-000	51-65772-000						32-R5000-000	

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03697-000	11-01697-000	91-09044-000	51-65772-000							
31-03698-000	11-01698-000	91-09045-000	51-05387-000	71-08067-000						
31-03698-000	11-01698-000	91-09045-000	52-05387-000	72-08067-000	55-50613-000					
31-03698-000	11-01698-000	91-09045-000	52-05387-000	72-08067-000	55-50613-000					
31-03705-000	11-01705-000	91-39516-000	51-95513-000	71-07705-000						
31-03705-000	11-01705-000	91-39516-000	51-96213-000	71-07706-000					32-R3285-000	
31-03705-000	11-01705-000	91-39516-000	52-96213-000	72-07706-000	55-50919-000				32-R3285-000	
31-03707-000	11-01707-000	91-09521-000	51-95513-000	71-07707-000					32-R3285-000	
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31-03708-000	11-01708-000	91-09709-000	51-95517-000	71-07709-000		31-M0111-000	33-W6034-000		32-R5100-000	
31-03708-000	11-01708-000	91-09709-000	51-96213-000	71-07711-000		31-M0111-000	33-W6034-000		32-R5100-000	
31-03708-000	11-01708-000	91-09709-000	52-96213-000	72-07711-000	55-50919-000	31-M0111-000	33-W6034-000		32-R5100-000	
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31-03715-000	11-01715-000	91-09506-000	51-95512-000	71-07715-000		31-M0111-000	33-W6034-000		32-R5100-000	
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31-03748-000	11-01748-000	91-09598-000	52-05608-000	72-07750-000	55-50508-000					
31-03748-000	11-01748-000	91-09598-000	51-05738-000	71-07760-000						
31-03748-000	11-01748-000	91-09598-000	52-05598-000	72-07748-000	55-50508-000					
31-03748-000	11-01748-000	91-09598-000	52-05608-000	72-07750-000	55-50508-000					
31-03748-000	11-01748-000	91-09598-000	52-05738-000	72-07760-000	55-50508-000					
31-03830-000	11-01830-000	91-09830-000	51-35829-000	71-07830-000						
31-03830-000	11-01830-000	91-09830-000	51-65830-000							
31-03831-000	11-01831-000	91-09832-000	51-35835-000	71-07831-000						
31-03831-000	11-01831-000	91-09832-000	51-65834-000							
31-03832-000	11-01832-000	91-09832-000	51-35835-000	71-07832-000						
31-03832-000	11-01832-000	91-09832-000	51-65831-000							
31-03832-000	11-01832-000	91-09832-000	51-65834-000							
31-03834-000	11-01834-000	91-09834-000	51-35835-000	71-07834-000		31-M0137-000				
31-03834-000	11-01834-000	91-09834-000	51-65831-000			31-M0137-000				
31-03834-000	11-01834-000	91-09834-000	51-65834-000			31-M0137-000				
31-03835-000	11-01835-000	91-09835-000	51-35856-000	71-07835-000		31-M0137-000				
31-03836-000	11-01836-000	91-09836-000	51-35829-000	71-07836-000						
31-03836-000	11-01836-000	91-09836-000	51-65830-000							
31-03840-000	11-01840-000	91-09863-000	51-35844-000	71-07840-000						
31-03840-000	11-01840-000	91-09863-000								
31-03840-000	11-01840-000	91-09863-000	51-65840-000							
31-03840-000	11-01840-000	91-09863-000	51-65845-000							
31-03842-000	11-01842-000	91-49863-000	51-35844-000	71-07842-000						
31-03842-000	11-01842-000	91-49863-000	51-65840-000							
31-03843-000	11-01843-000	91-09863-000	51-35842-000	71-07124-000						

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03843-000	11-01843-000	91-09863-000	51-35844-000	71-07843-000						
31-03843-000	11-01843-000	91-09863-000	51-65840-000							
31-03843-000	11-01843-000	91-09863-000	51-65841-000							
31-03843-000	11-01843-000	91-09863-000	51-65845-000							
31-03848-000	11-01848-000	91-09867-000	51-35842-000	71-07858-000						
31-03848-000	11-01848-000	91-09867-000	51-35844-000	71-07848-000						
31-03848-000	11-01848-000	91-09867-000	51-65840-000							
31-03848-000	11-01848-000	91-09867-000	51-65841-000							
31-03848-000	11-01848-000	91-09867-000	51-65845-000							
31-03850-000	11-01850-000	91-09850-000	51-35848-000	71-07850-000						
31-03850-000	11-01850-000	91-09850-000	51-65847-000			31-M0136-000	33-W6037-000		32-R3134-000	
31-03851-000	11-01851-000	91-09851-000	51-35852-000	71-07851-000		31-M0136-000	33-W6037-000		32-R3134-000	
31-03851-000	11-01851-000	91-09851-000	51-65851-000							
31-03851-000	11-01851-000	91-09851-000	51-65853-000							
31-03852-000	11-01852-000	91-09852-000	51-35846-000	71-07131-000						
31-03852-000	11-01852-000	91-09852-000	51-35852-000	71-07852-000						
31-03852-000	11-01852-000	91-09852-000	51-65843-000							
31-03852-000	11-01852-000	91-09852-000	51-65851-000							
31-03852-000	11-01852-000	91-09852-000	51-65853-000							
31-03854-000	11-01854-000	91-09863-000	51-35844-000	71-07854-000						
31-03854-000	11-01854-000	91-09863-000	51-65840-000							
31-03854-000	11-01854-000	91-09863-000	51-65845-000							
31-03855-000	11-01855-000	91-09855-000	51-35848-000	71-07855-000						
31-03855-000	11-01855-000	91-09855-000	51-65847-000							
31-03856-000	11-01856-000	91-09856-000	51-35848-000	71-07856-000						
31-03856-000	11-01856-000	91-09856-000	51-65847-000							
31-03856-000	11-01856-000	91-09856-000	51-65850-000							
31-03857-000	11-01857-000	91-39834-000	51-35835-000	71-07857-000						
31-03857-000	11-01857-000	91-39834-000	51-65832-000							
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31-03860-000	11-01860-000	91-09860-000	51-65834-000							
31-03861-000	11-01861-000	91-09855-000	51-35828-000	71-07861-000						
31-03861-000	11-01861-000	91-09855-000	51-65858-000			31-M0136-000		34-L7049-000		
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31-03863-000	11-01863-000	91-09863-000	51-35844-000	71-07863-000						
31-03863-000	11-01863-000	91-09863-000	51-65840-000							
31-03863-000	11-01863-000	91-09863-000	51-65841-000							
31-03863-000	11-01863-000	91-09863-000	51-65845-000							
31-03867-000	11-01867-000	91-09867-000	51-35844-000	71-07867-000						
31-03867-000	11-01867-000	91-09867-000	51-65840-000							
31-03868-000	11-01868-000	91-09868-000	51-35842-000	71-07868-000						
31-03868-000	11-01868-000	91-09868-000	51-65840-000							
31-03868-000	11-01868-000	91-09868-000	51-65841-000							
31-03869-000	11-01869-000	91-39863-000	51-35844-000	71-07869-000						
31-03869-000	11-01869-000	91-39863-000	51-65840-000							
31-03869-000	11-01869-000	91-39863-000	51-65845-000							
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31-03871-000	11-01871-000	91-09868-000	51-65840-000							
31-03871-000	11-01871-000	91-09868-000	51-65841-000							
31-03871-000	11-01871-000	91-09868-000	51-65845-000							
31-03872-000	11-01872-000	91-09868-000	51-65840-000							
31-03910-000	11-01910-000	91-09910-000								
31-03911-000	11-01911-000	91-09011-000								
39-03911-000	11-01911-000	99-09011-000								
31-03917-000	11-01917-000	91-09916-000	51-05917-000	71-07917-000						
31-03917-000	11-01917-000	91-09916-000	52-05917-000	72-07917-000	55-50703-000					
31-03917-000	11-01917-000	91-09916-000	52-05917-000	72-07917-000	55-50703-000					
31-03918-000	11-01918-000	91-09918-000	51-05917-000	71-07073-000						
31-03918-000	11-01918-000	91-09918-000	52-05917-000	72-07073-000	55-50703-000					
31-03918-000	11-01918-000	91-09918-000	51-05918-000	71-07918-000						
31-03918-000	11-01918-000	91-09918-000	52-05918-000	72-07918-000	55-50707-000					

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-03918-000	11-01918-000	91-09918-000	52-05917-000	72-07073-000	55-50703-000					
31-03918-000	11-01918-000	91-09918-000	52-05918-000	72-07918-000	55-50707-000					
31-03919-000	11-01919-000	91-09919-000	51-05917-000	71-07919-000						
31-03919-000	11-01919-000	91-09919-000	52-05917-000	72-07919-000	55-50703-000					
31-03919-000	11-01919-000	91-09919-000	51-05918-000	71-07920-000						
31-03919-000	11-01919-000	91-09919-000	52-05918-000	72-07920-000	55-50707-000					
31-03919-000	11-01919-000	91-09919-000	52-05917-000	72-07919-000	55-50703-000					
31-03919-000	11-01919-000	91-09919-000	52-05918-000	72-07920-000	55-50707-000					
31-03920-000	11-01920-000	91-09003-000	51-05922-000	71-07921-000						
31-03920-000	11-01920-000	91-09003-000	52-05922-000	72-07921-000	55-50705-000					
31-03920-000	11-01920-000	91-09003-000	51-05933-000	71-07928-000						
31-03920-000	11-01920-000	91-09003-000	52-05933-000	72-07928-000	55-50706-000					
31-03920-000	11-01920-000	91-09003-000	52-05922-000	72-07921-000	55-50705-000					
31-03920-000	11-01920-000	91-09003-000	52-05933-000	72-07928-000	55-50706-000					
31-03921-000	11-01921-000	91-09003-000	51-05922-000	71-07922-000						
31-03921-000	11-01921-000	91-09003-000	52-05922-000	72-07922-000	55-50705-000	31-M0174-000				
31-03921-000	11-01921-000	91-09003-000	51-05933-000	71-07927-000		31-M0174-000				
31-03921-000	11-01921-000	91-09003-000	52-05933-000	72-07927-000	55-50706-000	31-M0174-000				
31-03921-000	11-01921-000	91-09003-000	52-05922-000	72-07922-000	55-50705-000	31-M0174-000				
31-03921-000	11-01921-000	91-09003-000	52-05933-000	72-07927-000	55-50706-000	31-M0174-000				
31-03922-000	11-01922-000	91-09003-000	51-05922-000	71-07923-000		31-M0174-000				
31-03922-000	11-01922-000	91-09003-000	52-05922-000	72-07923-000	55-50705-000					
31-03922-000	11-01922-000	91-09003-000	52-05922-000	72-07923-000	55-50705-000					
31-03923-000	11-01923-000	91-09003-000	51-05963-000	71-08515-000						
31-03923-000	11-01923-000	91-09003-000	52-05963-000	72-08515-000	55-50706-000					
31-03923-000	11-01923-000	91-09003-000	52-05963-000	72-08515-000	55-50706-000					
31-03942-000	11-01942-000	91-09942-000	51-05942-000	71-07942-000						
31-03942-000	11-01942-000	91-09942-000	51-05948-000	71-07076-000						
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31-03943-000	11-01943-000	91-09942-000	51-05944-000	71-07325-000						
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31-03961-000	11-01961-000	91-09961-000	51-05961-000	71-07101-000						
31-03963-000	11-01963-000	91-09965-000	51-35965-000	71-07963-000						
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31-03970-000	11-01970-000	91-09863-000	51-05970-000	71-07970-000						
31-04000-000	11-02000-000	91-09000-000	51-06000-000	71-08000-000						
31-04000-000	11-02000-000	91-09000-000	51-06001-000	71-08001-000						
31-04000-000	11-02000-000	91-09000-000	52-06001-000	72-08001-000	55-50910-000					
31-04000-000	11-02000-000	91-09000-000	51-06004-000	71-08004-000						
31-04000-000	11-02000-000	91-09000-000	52-06001-000	72-08001-000	55-50910-000					
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31-04040-000	11-02040-000	91-09040-000	51-06061-000	71-08035-000						
31-04040-000	11-02040-000	91-09040-000	52-06054-000	72-08036-000	55-50610-000					
31-04040-000	11-02040-000	91-09040-000	52-06061-000	72-08035-000	55-50610-000					
31-04042-000	11-02042-000	91-09077-000	51-06068-000	71-08010-000						
31-04042-000	11-02042-000	91-09077-000	51-06076-000	71-07167-000						

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04042-000	11-02042-000	91-09077-000	51-06077-000	71-07169-000						
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31-04042-000	11-02042-000	91-09077-000	52-06068-000	72-08010-000	55-50617-000					
31-04042-000	11-02042-000	91-09077-000	52-06076-000	72-07167-000	55-50606-000					
31-04042-000	11-02042-000	91-09077-000	52-06077-000	72-07169-000	55-50607-000					
31-04042-000	11-02042-000	91-09077-000	52-06078-000	72-07166-000	55-50617-000					
31-04043-000	11-02043-000	91-09077-000	51-06068-000	71-08011-000						
31-04043-000	11-02043-000	91-09077-000	51-06076-000	71-07163-000						
31-04043-000	11-02043-000	91-09077-000	51-06077-000	71-07164-000						
31-04043-000	11-02043-000	91-09077-000	51-06078-000	71-07165-000						
31-04043-000	11-02043-000	91-09077-000	52-06068-000	72-08011-000	55-50617-000					
31-04043-000	11-02043-000	91-09077-000	52-06076-000	72-07163-000	55-50606-000					
31-04043-000	11-02043-000	91-09077-000	52-06077-000	72-07164-000	55-50607-000					
31-04043-000	11-02043-000	91-09077-000	52-06078-000	72-07165-000	55-50617-000					
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31-04044-000	11-02044-000	91-09045-000	52-06067-000	72-07153-000	55-50613-000					
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31-04046-000	11-02046-000	91-09059-000	51-65769-000							
31-04047-000	11-02047-000	91-09048-000	51-06046-000	71-08037-000					32-R5200-000	
31-04047-000	11-02047-000	91-09048-000	52-06046-000	72-08037-000	55-50614-000					
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31-04050-000	11-02050-000	91-09050-000	52-06050-000	72-08050-000	55-50602-000					
31-04050-000	11-02050-000	91-09050-000	52-06050-000	72-08050-000	55-50602-000					
31-04051-000	11-02051-000	91-09051-000	51-06035-000	71-08040-000						
31-04051-000	11-02051-000	91-09051-000	52-06035-000	72-08040-000	55-50609-000		33-W6063-000			
31-04051-000	11-02051-000	91-09051-000	51-06041-000	71-08041-000			33-W6063-000			
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31-04051-000	11-02051-000	91-09051-000	51-06051-000	71-08051-000			33-W6063-000			
31-04051-000	11-02051-000	91-09051-000	51-06081-000	71-07045-000			33-W6063-000			
31-04051-000	11-02051-000	91-09051-000	52-06035-000	72-08040-000	55-50609-000		33-W6063-000			
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31-04051-000	11-02051-000	91-09051-000	52-06081-000	72-07045-000	55-50609-000		33-W6063-000			
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31-04055-000	11-02055-000	91-09055-000	52-06063-000	72-08093-000	55-50616-000					
31-04056-000	11-02056-000	91-09056-000	51-06048-000	71-07158-000						
31-04056-000	11-02056-000	91-09056-000	51-06058-000	71-08056-000						
31-04056-000	11-02056-000	91-09056-000	51-06061-000	71-08043-000						
31-04056-000	11-02056-000	91-09056-000	52-06048-000	72-07158-000	55-50610-000					
31-04056-000	11-02056-000	91-09056-000	52-06058-000	72-08056-000	55-50610-000					
31-04056-000	11-02056-000	91-09056-000	52-06061-000	72-08043-000	55-50610-000					
31-04057-000	11-02057-000	91-09057-000	51-06047-000	71-08047-000						
31-04057-000	11-02057-000	91-09057-000	51-06057-000	71-08057-000						
31-04057-000	11-02057-000	91-09057-000	52-06047-000	72-08047-000	55-50610-000					
31-04057-000	11-02057-000	91-09057-000	52-06057-000	72-08057-000	55-50618-000					
31-04058-000	11-02058-000	91-09056-000	51-06047-000	71-08048-000						
31-04058-000	11-02058-000	91-09056-000	51-06057-000	71-08058-000						
31-04058-000	11-02058-000	91-09056-000	51-06058-000	71-08061-000						
31-04058-000	11-02058-000	91-09056-000	52-06047-000	72-08048-000	55-50610-000					
31-04058-000	11-02058-000	91-09056-000	52-06057-000	72-08058-000	55-50618-000					
31-04058-000	11-02058-000	91-09056-000	52-06058-000	72-08061-000	55-50610-000					

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04062-000	11-02062-000	91-09062-000	51-06055-000	71-08065-000						
31-04062-000	11-02062-000	91-09062-000	52-06055-000	72-08065-000	55-50601-000	31-M0189-000				
31-04065-000	11-02065-000	91-09066-000	51-06069-000	71-08084-000		31-M0189-000				
31-04065-000	11-02065-000	91-09066-000	52-06069-000	72-08084-000	55-50603-000					
31-04066-000	11-02066-000	91-09066-000	51-06069-000	71-08085-000						
31-04066-000	11-02066-000	91-09066-000	52-06069-000	72-08085-000	55-50603-000					
31-04067-000	11-02067-000	91-09066-000	51-06069-000	71-08080-000						
31-04067-000	11-02067-000	91-09066-000	52-06069-000	72-08080-000	55-50603-000					
31-04069-000	11-02069-000	91-09066-000	51-06069-000	71-08085-000						
31-04069-000	11-02069-000	91-09066-000	52-06069-000	72-08085-000	55-50603-000					
31-04070-000	11-02070-000	91-09066-000	51-06069-000	71-08063-000						
31-04070-000	11-02070-000	91-09066-000	52-06069-000	72-08063-000	55-50603-000					
31-04071-000	11-02071-000	91-09071-000	51-06043-000	71-08064-000						
31-04071-000	11-02071-000	91-09071-000	51-06071-000	71-08071-000						
31-04071-000	11-02071-000	91-09071-000	52-06043-000	72-08064-000	55-50619-000					
31-04071-000	11-02071-000	91-09071-000	52-06071-000	72-08071-000	55-50619-000					
31-04072-000	11-02072-000	91-09075-000	51-06072-000	71-08072-000						
31-04072-000	11-02072-000	91-09075-000	51-06073-000	71-08073-000						
31-04072-000	11-02072-000	91-09075-000	51-06075-000	71-07149-000						
31-04072-000	11-02072-000	91-09075-000	52-06072-000	72-08072-000	55-50605-000					
31-04072-000	11-02072-000	91-09075-000	52-06073-000	72-08073-000	55-50616-000					
31-04072-000	11-02072-000	91-09075-000	52-06075-000	72-07149-000	55-50605-000					
31-04074-000	11-02074-000	91-09074-000	51-06070-000	71-07088-000						
31-04074-000	11-02074-000	91-09074-000	51-06074-000	71-08074-000						
31-04074-000	11-02074-000	91-09074-000	52-06070-000	72-07088-000	55-50605-000					
31-04074-000	11-02074-000	91-09074-000	52-06074-000	72-08074-000	55-50605-000					
31-04075-000	11-02075-000	91-09075-000	51-06073-000	71-07089-000						
31-04075-000	11-02075-000	91-09075-000	51-06075-000	71-08075-000		31-M0186-000	33-W6062-000		32-R3197-000	
31-04075-000	11-02075-000	91-09075-000	51-06085-000	71-08090-000		31-M0186-000	33-W6062-000		32-R3197-000	
31-04075-000	11-02075-000	91-09075-000	52-06073-000	72-07089-000	55-50616-000	31-M0186-000	33-W6062-000		32-R3197-000	
31-04075-000	11-02075-000	91-09075-000	52-06075-000	72-08075-000	55-50605-000	31-M0186-000	33-W6062-000		32-R3197-000	
31-04075-000	11-02075-000	91-09075-000	52-06085-000	72-08090-000	55-50605-000	31-M0186-000	33-W6062-000		32-R3197-000	
31-04076-000	11-02076-000	91-09077-000	51-06068-000	71-08012-000		31-M0186-000	33-W6062-000		32-R3197-000	
31-04076-000	11-02076-000	91-09077-000	51-06076-000	71-08076-000						
31-04076-000	11-02076-000	91-09077-000	51-06077-000	71-07160-000						
31-04076-000	11-02076-000	91-09077-000	51-06078-000	71-07168-000						
31-04076-000	11-02076-000	91-09077-000	52-06068-000	72-08012-000	55-50617-000					
31-04076-000	11-02076-000	91-09077-000	52-06076-000	72-08076-000	55-50606-000					
31-04076-000	11-02076-000	91-09077-000	52-06077-000	72-07160-000	55-50607-000					
31-04076-000	11-02076-000	91-09077-000	52-06078-000	72-07168-000	55-50617-000					
31-04077-000	11-02077-000	91-09077-000	51-06068-000	71-08013-000						
31-04077-000	11-02077-000	91-09077-000	51-06076-000	71-08077-000						
31-04077-000	11-02077-000	91-09077-000	51-06077-000	71-07159-000						
31-04077-000	11-02077-000	91-09077-000	51-06078-000	71-08089-000						
31-04077-000	11-02077-000	91-09077-000	52-06068-000	72-08013-000	55-50617-000					
31-04077-000	11-02077-000	91-09077-000	52-06076-000	72-08077-000	55-50606-000					
31-04077-000	11-02077-000	91-09077-000	52-06077-000	72-07159-000	55-50607-000					
31-04077-000	11-02077-000	91-09077-000	52-06078-000	72-08089-000	55-50617-000					
31-04078-000	11-02078-000	91-09075-000	51-06073-000	71-07083-000						
31-04078-000	11-02078-000	91-09075-000	51-06075-000	71-08078-000						
31-04078-000	11-02078-000	91-09075-000	52-06073-000	72-07083-000	55-50616-000					
31-04078-000	11-02078-000	91-09075-000	52-06075-000	72-08078-000	55-50605-000					
31-04079-000	11-02079-000	91-09077-000	51-06068-000	71-08014-000						
31-04079-000	11-02079-000	91-09077-000	51-06077-000	71-07085-000						
31-04079-000	11-02079-000	91-09077-000	51-06078-000	71-08079-000						
31-04079-000	11-02079-000	91-09077-000	52-06068-000	72-08014-000	55-50617-000					
31-04079-000	11-02079-000	91-09077-000	52-06077-000	72-07085-000	55-50607-000					
31-04079-000	11-02079-000	91-09077-000	52-06078-000	72-08079-000	55-50617-000					
31-04081-000	11-02081-000	91-09077-000	51-06076-000	71-08081-000						
31-04081-000	11-02081-000	91-09077-000	51-06077-000	71-07062-000						
31-04081-000	11-02081-000	91-09077-000	52-06076-000	72-08081-000	55-50606-000					
31-04081-000	11-02081-000	91-09077-000	52-06077-000	72-07062-000	55-50607-000					
31-04082-000	11-02082-000	91-09077-000	51-06068-000	71-08015-000						
31-04082-000	11-02082-000	91-09077-000	51-06077-000	71-07093-000		31-M0187-000				

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04082-000	11-02082-000	91-09077-000	51-06078-000	71-08082-000		31-M0187-000				
31-04082-000	11-02082-000	91-09077-000	52-06068-000	72-08015-000	55-50617-000	31-M0187-000				
31-04082-000	11-02082-000	91-09077-000	52-06077-000	72-07093-000	55-50607-000	31-M0187-000				
31-04082-000	11-02082-000	91-09077-000	52-06078-000	72-08082-000	55-50617-000	31-M0187-000				
31-04085-000	11-02085-000	91-09005-000	51-06064-000	71-08552-000		31-M0187-000				
31-04085-000	11-02085-000	91-09005-000	52-06064-000	72-08552-000	55-50612-000					
31-04085-000	11-02085-000	91-09005-000	51-06083-000	71-08550-000						
31-04085-000	11-02085-000	91-09005-000	52-06083-000	72-08550-000	55-50612-000					
31-04085-000	11-02085-000	91-09005-000	52-06064-000	72-08552-000	55-50612-000					
31-04085-000	11-02085-000	91-09005-000	52-06083-000	72-08550-000	55-50612-000					
31-04086-000	11-02086-000	91-09086-000	51-06066-000	71-08086-000						
31-04086-000	11-02086-000	91-09086-000	52-06066-000	72-08086-000	55-50611-000					
31-04087-000	11-02087-000	91-09087-000	51-06053-000	71-08097-000						
31-04087-000	11-02087-000	91-09087-000	51-06054-000	71-08095-000		31-M0620-000	33-W6065-000		32-R3205-000	
31-04087-000	11-02087-000	91-09087-000	51-06056-000	71-08087-000		31-M0620-000	33-W6065-000		32-R3205-000	
31-04087-000	11-02087-000	91-09087-000	52-06053-000	72-08097-000	55-50610-000	31-M0620-000	33-W6065-000		32-R3205-000	
31-04087-000	11-02087-000	91-09087-000	52-06054-000	72-08095-000	55-50610-000	31-M0620-000	33-W6065-000		32-R3205-000	
31-04087-000	11-02087-000	91-09087-000	52-06056-000	72-08087-000	55-50610-000	31-M0620-000	33-W6065-000		32-R3205-000	
31-04089-000	11-02089-000	91-09089-000	51-06088-000	71-08548-000		31-M0620-000	33-W6065-000		32-R3205-000	
31-04089-000	11-02089-000	91-09089-000	52-06088-000	72-08548-000	55-50612-000					
31-04091-000	11-02091-000	91-09091-000	51-06091-000	71-08091-000						
31-04092-000	11-02092-000	91-09092-000	51-06092-000	71-08092-000						
31-04094-000	11-02094-000	91-09067-000	51-06046-000	71-07092-000						
31-04094-000	11-02094-000	91-09067-000	52-06046-000	72-07092-000	55-50614-000					
31-04094-000	11-02094-000	91-09067-000	52-06046-000	72-07092-000	55-50614-000					
31-04095-000	11-02095-000	91-09095-000	51-06066-000	71-08540-000						
31-04095-000	11-02095-000	91-09095-000	52-06066-000	72-08540-000	55-50611-000					
31-04096-000	11-02096-000	91-09086-000	51-06066-000	71-08102-000						
31-04096-000	11-02096-000	91-09086-000	52-06066-000	72-08102-000	55-50611-000					
31-04097-000	11-02097-000	91-09095-000	51-06066-000	71-08103-000						
31-04097-000	11-02097-000	91-09095-000	52-06066-000	72-08103-000	55-50611-000					
31-04098-000	11-02098-000	91-09045-000	51-06065-000	71-08108-000						
31-04098-000	11-02098-000	91-09045-000	52-06065-000	72-08108-000	55-50613-000					
31-04235-000	11-02235-000	91-09233-000	51-06095-000	71-08235-000						
31-04236-000	11-02236-000	91-09236-000	51-65429-000							
31-04236-001	11-02236-001	91-09236-000								
31-04236-002	11-02236-002	91-09236-000								
31-04237-000	11-02237-000	91-09237-000	51-65429-000							
31-04238-000	11-02238-000	91-09238-000	51-35462-000	71-08238-000						
31-04239-000	11-02239-000	91-09239-000	51-65499-000							
31-04240-000	11-02240-000	91-09445-000	51-65436-000							
31-04240-000	11-02240-000	91-09445-000	51-65437-000							
31-04241-000	11-02241-000	91-09445-000								
31-04247-000	11-02247-000	91-09433-000	51-65431-000							
31-04247-000	11-02247-000	91-09433-000	51-65432-000							
31-04263-000	11-02263-000	91-09416-000								
31-04264-000	11-02264-000	91-09416-000								
31-04265-000	11-02265-000	91-09370-000				31-M0087-000			32-R3078-000	
31-04345-000	11-02345-000	91-09372-000	51-05190-000	71-07389-000		31-M0087-000			32-R3078-000	
31-04346-000	11-02346-000	91-09372-000								
31-04348-000	11-02348-000	91-09371-000								
31-04349-000	11-02349-000	91-09371-000								
31-04350-000	11-02350-000	91-09371-000								
31-04351-000	11-02351-000	91-09371-000								
31-04352-000	11-02352-000	91-09370-000								
31-04353-000	11-02353-000	91-09370-000				31-M0087-000			32-R3078-000	
31-04354-000	11-02354-000	91-09367-000	51-05190-000	71-07193-000		31-M0087-000			32-R3078-000	
31-04356-000	11-02356-000	91-09064-000								
31-04400-000	11-02400-000	91-09240-000	51-05574-000	71-08400-000						
31-04405-000	11-02405-000	91-09405-000	51-06500-000							
31-04410-000	11-02410-000	91-09410-000	51-05230-000							
31-04428-000	11-02428-000	91-09369-000								
31-04430-000	11-02430-000	91-09430-000	51-05507-000	71-08430-000						
31-04431-000	11-02431-000	91-09430-000	51-05507-000	71-08431-000						

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04460-000	11-02460-000	91-09461-000	51-35827-000	71-08460-000						
31-04460-000	11-02460-000	91-09461-000	51-65861-000							
31-04463-000	11-02463-000	91-09463-000	51-65837-000							
31-04464-000	11-02464-000	91-09464-000	51-65837-000							
31-04465-000	11-02465-000	91-09465-000	51-35833-000	71-08465-000						
31-04465-000	11-02465-000	91-09465-000	51-65836-000							
31-04466-000	11-02466-000	91-09466-000	51-35848-000	71-08466-000						
31-04466-000	11-02466-000	91-09466-000	51-35849-000	71-08468-000						
31-04466-000	11-02466-000	91-09466-000	51-65839-000							
31-04466-000	11-02466-000	91-09466-000	51-65847-000							
31-04467-000	11-02467-000	91-09467-000	51-35833-000	71-08467-000						
31-04467-000	11-02467-000	91-09467-000	51-65836-000							
31-04469-000	11-02469-000	91-09465-000	51-35833-000	71-08469-000						
31-04469-000	11-02469-000	91-09465-000	51-65836-000							
31-04474-000	11-02474-000	91-09837-000	51-35852-000	71-07820-000						
31-04474-000	11-02474-000	91-09837-000	51-65851-000							
31-04474-000	11-02474-000	91-09837-000	51-65853-000							
31-04522-000	11-02522-000	91-09522-000	51-05911-000	71-07142-000						
31-04522-000	11-02522-000	91-09522-000	52-05911-000	72-07142-000	55-50704-000	31-M0170-000		34-L7017-000	32-R3187-000	25-E8002-000
31-04522-000	11-02522-000	91-09522-000	51-05912-000	71-08522-000		31-M0170-000		34-L7017-000	32-R3187-000	25-E8002-000
31-04522-000	11-02522-000	91-09522-000	52-05912-000	72-08522-000	55-50701-000	31-M0170-000		34-L7017-000	32-R3187-000	25-E8002-000
31-04522-000	11-02522-000	91-09522-000	51-05971-000	71-08529-000		31-M0170-000		34-L7017-000	32-R3187-000	25-E8002-000
31-04522-000	11-02522-000	91-09522-000	52-05911-000	72-07142-000	55-50704-000	31-M0170-000		34-L7017-000	32-R3187-000	25-E8002-000
31-04522-000	11-02522-000	91-09522-000	52-05912-000	72-08522-000	55-50701-000	31-M0170-000		34-L7017-000	32-R3187-000	25-E8002-000
31-04525-000	11-02525-000	91-09525-000	51-05911-000	71-08525-000		31-M0170-000		34-L7017-000	32-R3187-000	25-E8002-000
31-04525-000	11-02525-000	91-09525-000	52-05911-000	72-08525-000	55-50704-000	31-M0175-000	33-W6054-000		32-R3187-000	
31-04525-000	11-02525-000	91-09525-000	51-05912-000	71-08524-000		31-M0175-000	33-W6054-000		32-R3187-000	
31-04525-000	11-02525-000	91-09525-000	52-05912-000	72-08524-000	55-50701-000	31-M0175-000	33-W6054-000		32-R3187-000	
31-04525-000	11-02525-000	91-09525-000	51-05916-000	71-08526-000		31-M0175-000	33-W6054-000		32-R3187-000	
31-04525-000	11-02525-000	91-09525-000	52-05911-000	72-08525-000	55-50704-000	31-M0175-000	33-W6054-000		32-R3187-000	
31-04525-000	11-02525-000	91-09525-000	52-05912-000	72-08524-000	55-50701-000	31-M0175-000	33-W6054-000		32-R3187-000	
31-04527-000	11-02527-000	91-09527-000	51-05917-000	71-07074-000		31-M0175-000	33-W6054-000		32-R3187-000	
31-04527-000	11-02527-000	91-09527-000	52-05917-000	72-07074-000	55-50703-000					
31-04527-000	11-02527-000	91-09527-000	51-05918-000	71-08527-000						
31-04527-000	11-02527-000	91-09527-000	52-05918-000	72-08527-000	55-50707-000					
31-04527-000	11-02527-000	91-09527-000	52-05917-000	72-07074-000	55-50703-000					
31-04527-000	11-02527-000	91-09527-000	52-05918-000	72-08527-000	55-50707-000					
31-04528-000	11-02528-000	91-09528-000	51-05914-000	71-08523-000						
31-04528-000	11-02528-000	91-09528-000	52-05914-000	72-08523-000	55-50703-000	31-M0171-000	33-W6053-000		32-R3184-000	
31-04528-000	11-02528-000	91-09528-000	52-05914-000	72-08523-000	55-50703-000	31-M0171-000	33-W6053-000		32-R3184-000	
31-04528-000	11-02528-000	91-09915-000	51-05918-000	71-08519-000		31-M0171-000	33-W6053-000		32-R3184-000	
31-04528-000	11-02528-000	91-09915-000	52-05918-000	72-08519-000	55-50707-000	31-M0171-000	33-W6053-000		32-R3184-000	
31-04528-000	11-02528-000	91-09915-000	52-05918-000	72-08519-000	55-50707-000	31-M0171-000	33-W6053-000		32-R3184-000	
31-04530-000	11-02530-000	91-09915-000	51-05924-000	71-08538-000		31-M0171-000	33-W6053-000		32-R3184-000	
31-04530-000	11-02530-000	91-09915-000	52-05924-000	72-08538-000	55-50702-000	31-M0172-000			32-R3186-000	
31-04530-000	11-02530-000	91-09915-000	52-05924-000	72-08538-000	55-50702-000	31-M0172-000			32-R3186-000	
31-04530-002	11-02530-002	91-09915-000				31-M0172-000			32-R3186-000	
31-04541-000	11-02541-000	91-09541-000	51-06068-000	71-08016-000		31-M0172-000			32-R3186-000	
31-04541-000	11-02541-000	91-09541-000	51-06077-000	71-07078-000						
31-04541-000	11-02541-000	91-09541-000	51-06078-000	71-08541-000						
31-04541-000	11-02541-000	91-09541-000	52-06068-000	72-08016-000	55-50617-000					
31-04541-000	11-02541-000	91-09541-000	52-06077-000	72-07078-000	55-50607-000					
31-04541-000	11-02541-000	91-09541-000	52-06078-000	72-08541-000	55-50617-000					
31-04543-000	11-02543-000	91-09004-000	51-06063-000	71-08544-000						
31-04543-000	11-02543-000	91-09004-000	52-06063-000	72-08544-000	55-50616-000					
31-04545-000	11-02545-000	91-09541-000	51-06068-000	71-08017-000						
31-04545-000	11-02545-000	91-09541-000	51-06077-000	71-08543-000						
31-04545-000	11-02545-000	91-09541-000	51-06078-000	71-08549-000						
31-04545-000	11-02545-000	91-09541-000	52-06068-000	72-08017-000	55-50617-000					
31-04545-000	11-02545-000	91-09541-000	52-06077-000	72-08543-000	55-50607-000					
31-04545-000	11-02545-000	91-09541-000	52-06078-000	72-08549-000	55-50617-000					
31-04546-000	11-02546-000	91-09005-000	51-06082-000	71-08547-000						
31-04546-000	11-02546-000	91-09005-000	51-06083-000	71-08546-000						
31-04546-000	11-02546-000	91-09005-000	52-06082-000	72-08547-000	55-50612-000					

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04546-000	11-02546-000	91-09005-000	52-06083-000	72-08546-000	55-50612-000					
31-04547-000	11-02547-000	91-09553-000								
31-04548-000	11-02548-000	91-09553-000								
31-04549-000	11-02549-000	91-09553-000								
31-04550-000	11-02550-000	91-09553-000								
31-04551-000	11-02551-000	91-09553-000								
31-04553-000	11-02553-000	91-09553-000	51-05329-000	71-08554-000						
31-04553-000	11-02553-000	91-09553-000	51-05349-000	71-08553-000						
31-04556-000	11-02556-000	91-09615-000	51-05368-000	71-08556-000						
31-04586-000	11-02586-000	91-09631-000								
31-04627-000	11-02627-000	91-09479-000	51-05977-000	71-07929-000						
31-04627-000	11-02627-000	91-09479-000	52-05977-000	72-07929-000	55-50706-000					
31-04630-000	11-02630-000	91-09553-000								
31-04631-000	11-02631-000	91-09034-000								
31-04632-000	11-02632-000	91-09038-000								
31-04633-000	11-02633-000	91-09036-000								
31-04635-000	11-02635-000	91-09511-000								
31-04636-000	11-02636-000	91-09046-000								
31-04637-000	11-02637-000	91-09182-000	51-05228-000	71-07178-000						
31-04647-000	11-02647-000	91-09076-000	51-06033-000	71-07171-000						
31-04647-000	11-02647-000	91-09076-000	52-06033-000	72-07171-000	55-50615-000					
31-04648-000	11-02648-000	91-09073-000	51-06079-000	71-08106-000						
31-04648-000	11-02648-000	91-09073-000	52-06079-000	72-08106-000	55-50616-000					
31-04649-000	11-02649-000	91-09073-000	51-06079-000	71-08107-000						
31-04649-000	11-02649-000	91-09073-000	52-06079-000	72-08107-000	55-50616-000				32-R3198-000	
31-04651-000	11-02651-000	91-09005-000	51-06083-000	71-07172-000					32-R3198-000	
31-04651-000	11-02651-000	91-09005-000	52-06083-000	72-07172-000	55-50612-000					
31-04652-000	11-02652-000	91-09005-000	51-06083-000	71-08652-000						
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31-04653-000	11-02653-000	91-09005-000	51-06082-000	71-08105-000						
31-04653-000	11-02653-000	91-09005-000	51-06083-000	71-08653-000						
31-04653-000	11-02653-000	91-09005-000	52-06082-000	72-08105-000	55-50612-000					
31-04653-000	11-02653-000	91-09005-000	52-06083-000	72-08653-000	55-50612-000					
31-04654-000	11-02654-000	91-09541-000	51-06080-000	71-08104-000						
31-04654-000	11-02654-000	91-09541-000	52-06080-000	72-08104-000	55-50617-000					
31-04656-000	11-02656-000	91-09089-000	51-06088-000	71-07174-000						
31-04656-000	11-02656-000	91-09089-000	52-06088-000	72-07174-000	55-50612-000					
31-04656-000	11-02656-000	91-09089-000	52-06088-000	72-07174-000	55-50612-000					
31-04657-000	11-02657-000	91-09089-000								
31-04660-000	11-02660-000	91-09598-000	51-05598-000	71-07571-000						
31-04660-000	11-02660-000	91-09598-000	52-05598-000	72-07571-000	55-50508-000					
31-04660-000	11-02660-000	91-09598-000	51-05738-000	71-07761-000						
31-04660-000	11-02660-000	91-09598-000	52-05598-000	72-07571-000	55-50508-000					
31-04660-000	11-02660-000	91-09598-000	52-05738-000	72-07761-000	55-50508-000					
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31-04661-000	11-02661-000	91-09761-000	51-65596-000							
31-04662-000	11-02662-000	91-09761-000	51-35592-000	71-07608-000						
31-04662-000	11-02662-000	91-09761-000	51-65596-000							
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31-04663-000	11-02663-000	91-09761-000	51-65596-000							
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31-04664-000	11-02664-000	91-09761-000	51-65596-000							
31-04664-001	11-02664-001	91-09761-000								
31-04664-002	11-02664-002	91-09761-000								
31-04665-000	11-02665-000	91-09762-000	51-05699-000	71-07611-000						
31-04665-000	11-02665-000	91-09762-000	52-05699-000	72-07611-000	55-50505-000					
31-04665-000	11-02665-000	91-09762-000	52-05699-000	72-07611-000	55-50505-000					
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31-04666-000	11-02666-000	91-09761-000	51-65596-000							
31-04667-000	11-02667-000	91-09573-000	51-05605-000	71-07606-000						
31-04667-000	11-02667-000	91-09573-000	52-05605-000	72-07606-000	55-50505-000					
31-04667-000	11-02667-000	91-09573-000	52-05605-000	72-07606-000	55-50505-000					
31-04677-000	11-02677-000	91-09710-000	51-05684-000	71-07026-000						
31-04677-000	11-02677-000	91-09710-000	52-05684-000	72-07026-000	55-50510-000					

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04677-000	11-02677-000	91-09710-000	52-05684-000	72-07026-000	55-50510-000					
31-04678-000	11-02678-000	91-09713-000	51-65655-000							
31-04679-000	11-02679-000	91-09713-000								
31-04680-000	11-02680-000	91-09711-000	51-05744-000	71-07027-000						
31-04680-000	11-02680-000	91-09711-000	52-05744-000	72-07027-000	55-50510-000					
31-04680-000	11-02680-000	91-09711-000	52-05744-000	72-07027-000	55-50510-000					
31-04681-000	11-02681-000	91-09719-000	51-05743-000	71-07028-000						
31-04681-000	11-02681-000	91-09719-000	52-05743-000	72-07028-000	55-50504-000				32-R3054-000	
31-04681-000	11-02681-000	91-09719-000	52-05743-000	72-07028-000	55-50504-000				32-R3054-000	
31-04681-001	11-02681-001	91-09719-000							32-R3054-000	
31-04704-000	11-02704-000	91-09650-000	51-05618-000	71-07023-000					32-R3054-000	
31-04704-000	11-02704-000	91-09650-000	52-05618-000	72-07023-000	55-50509-000					
31-04704-000	11-02704-000	91-09650-000	51-05619-000	71-07082-000						
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31-04704-000	11-02704-000	91-09650-000	51-05652-000	71-07024-000						
31-04704-000	11-02704-000	91-09650-000	52-05652-000	72-07024-000	55-50507-000					
31-04704-000	11-02704-000	91-09650-000	51-05733-000	71-08773-000						
31-04704-000	11-02704-000	91-09650-000	52-05618-000	72-07023-000	55-50509-000					
31-04704-000	11-02704-000	91-09650-000	52-05619-000	72-07082-000	55-50509-000					
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31-04706-000	11-02706-000	91-09650-000	52-05737-000	72-07638-000	55-50509-000					
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31-04708-000	11-02708-000	91-09708-000	52-05653-000	72-08708-000	55-50509-000					
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31-04708-000	11-02708-000	91-09708-000	52-05653-000	72-08708-000	55-50509-000					
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31-04708-000	11-02708-000	91-09708-000	52-05681-000	72-08703-000	55-50509-000					
31-04709-000	11-02709-000	91-09650-000	51-05618-000	71-08709-000						
31-04709-000	11-02709-000	91-09650-000	52-05618-000	72-08709-000	55-50509-000	31-M0051-000				
31-04709-000	11-02709-000	91-09650-000	51-05619-000	71-07095-000		31-M0051-000				
31-04709-000	11-02709-000	91-09650-000	52-05619-000	72-07095-000	55-50509-000	31-M0051-000				
31-04709-000	11-02709-000	91-09650-000	51-05650-000	71-07011-000		31-M0051-000				
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31-04709-000	11-02709-000	91-09650-000				31-M0051-000				
31-04710-000	11-02710-000	91-09710-000	51-05674-000	71-08710-000		31-M0051-000				
31-04710-000	11-02710-000	91-09710-000	52-05674-000	72-08710-000	55-50510-000					
31-04710-000	11-02710-000	91-09710-000	51-05684-000	71-08747-000						
31-04710-000	11-02710-000	91-09710-000	52-05684-000	72-08747-000	55-50510-000					
31-04710-000	11-02710-000	91-09710-000	52-05674-000	72-08710-000	55-50510-000					
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31-04711-000	11-02711-000	91-09650-000	51-05618-000	71-08711-000						
31-04711-000	11-02711-000	91-09650-000	52-05618-000	72-08711-000	55-50509-000	31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	51-05619-000	71-07096-000		31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	52-05619-000	72-07096-000	55-50509-000	31-M0051-000				

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31-04711-000	11-02711-000	91-09650-000	51-05650-000	71-07012-000		31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	52-05650-000	72-07012-000	55-50507-000	31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	51-05652-000	71-08712-000		31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	52-05652-000	72-08712-000	55-50507-000	31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	51-05733-000	71-08770-000		31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	52-05618-000	72-08711-000	55-50509-000	31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	52-05619-000	72-07096-000	55-50509-000	31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	52-05650-000	72-07012-000	55-50507-000	31-M0051-000				
31-04711-000	11-02711-000	91-09650-000	52-05652-000	72-08712-000	55-50507-000	31-M0051-000				
31-04711-000	11-02711-000	91-09650-000				31-M0051-000				
31-04712-000	11-02712-000	91-09620-000	51-95180-000	71-08848-000		31-M0051-000				
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31-04713-000	11-02713-000	91-09650-000	51-05733-000	71-08774-000						
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31-04713-000	11-02713-000	91-09650-000	52-05619-000	72-08716-000	55-50509-000					
31-04713-000	11-02713-000	91-09650-000	52-05650-000	72-07126-000	55-50507-000					
31-04713-000	11-02713-000	91-09650-000	52-05652-000	72-08714-000	55-50507-000					
31-04713-000	11-02713-000	91-09650-000								
31-04714-000	11-02714-000	91-09640-000	51-65638-000							
31-04714-000	11-02714-000	91-09640-000	51-65639-000							
31-04714-000	11-02714-000	91-09640-000	51-65640-000							
31-04721-000	11-02721-000	91-09650-000	51-05618-000	71-08721-000						
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31-04721-000	11-02721-000	91-09650-000	51-05619-000	71-08724-000		31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	52-05619-000	72-08724-000	55-50509-000	31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	51-05650-000	71-08702-000		31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	52-05650-000	72-08702-000	55-50507-000	31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	51-05652-000	71-08720-000		31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	52-05652-000	72-08720-000	55-50507-000	31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	51-05733-000	71-08772-000		31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	52-05618-000	72-08721-000	55-50509-000	31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	52-05619-000	72-08724-000	55-50509-000	31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	52-05650-000	72-08702-000	55-50507-000	31-M0051-000				
31-04721-000	11-02721-000	91-09650-000	52-05652-000	72-08720-000	55-50507-000	31-M0051-000				
31-04721-000	11-02721-000	91-09650-000				31-M0051-000				
31-04725-000	11-02725-000	91-09645-000	51-05616-000	71-08725-000		31-M0051-000				
31-04725-000	11-02725-000	91-09645-000	52-05616-000	72-08725-000	55-50509-000					
31-04725-000	11-02725-000	91-09645-000	51-05643-000	71-08726-000						
31-04725-000	11-02725-000	91-09645-000	52-05643-000	72-08726-000	55-50501-000					
31-04725-000	11-02725-000	91-09645-000	51-05734-000	71-07637-000						
31-04725-000	11-02725-000	91-09645-000	52-05616-000	72-08725-000	55-50509-000					
31-04725-000	11-02725-000	91-09645-000	52-05643-000	72-08726-000	55-50501-000					
31-04725-000	11-02725-000	91-09645-000	52-05734-000	71-07637-000	55-50501-000					
31-04727-000	11-02727-000	91-09650-000	51-05651-000	71-08731-000						
31-04727-000	11-02727-000	91-09650-000	51-05657-000	71-08727-000						
31-04727-000	11-02727-000	91-09650-000	52-05657-000	72-08727-000	55-50509-000					
31-04727-000	11-02727-000	91-09650-000	51-05737-000	71-07639-000						
31-04727-000	11-02727-000	91-09650-000	52-05651-000	72-08731-000	55-50508-000					
31-04727-000	11-02727-000	91-09650-000	52-05657-000	72-08727-000	55-50509-000					
31-04727-000	11-02727-000	91-09650-000	52-05737-000	72-07639-000	55-50509-000					
31-04728-000	11-02728-000	91-09650-000	51-05651-000	71-08733-000						
31-04728-000	11-02728-000	91-09650-000	51-05657-000	71-08728-000						

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04728-000	11-02728-000	91-09650-000	52-05657-000	72-08728-000	55-50509-000					
31-04728-000	11-02728-000	91-09650-000	51-05737-000	71-07640-000						
31-04728-000	11-02728-000	91-09650-000	52-05652-000	72-08733-000	55-50507-000					
31-04728-000	11-02728-000	91-09650-000	52-05657-000	72-08728-000	55-50509-000					
31-04728-000	11-02728-000	91-09650-000	52-05737-000	72-07640-000	55-50509-000					
31-04729-000	11-02729-000	91-09708-000	51-05653-000	71-08729-000						
31-04729-000	11-02729-000	91-09708-000	52-05653-000	72-08729-000	55-50509-000					
31-04729-000	11-02729-000	91-09708-000	51-05658-000	71-08730-000						
31-04729-000	11-02729-000	91-09708-000	52-05658-000	72-08730-000	55-50509-000					
31-04729-000	11-02729-000	91-09708-000	51-05681-000	71-08701-000						
31-04729-000	11-02729-000	91-09708-000	52-05681-000	72-08701-000	55-50509-000					
31-04729-000	11-02729-000	91-09708-000	52-05653-000	72-08729-000	55-50509-000					
31-04729-000	11-02729-000	91-09708-000	52-05658-000	72-08730-000	55-50509-000					
31-04729-000	11-02729-000	91-09708-000	52-05681-000	72-08701-000	55-50509-000					
31-04731-000	11-02731-000	91-09650-000	51-05618-000	71-08739-000						
31-04731-000	11-02731-000	91-09650-000	52-05618-000	72-08739-000	55-50509-000					
31-04731-000	11-02731-000	91-09650-000	51-05619-000	71-07141-000						
31-04731-000	11-02731-000	91-09650-000	52-05619-000	72-07141-000	55-50509-000					
31-04731-000	11-02731-000	91-09650-000	51-05650-000	71-08740-000						
31-04731-000	11-02731-000	91-09650-000	52-05650-000	72-08740-000	55-50507-000					
31-04731-000	11-02731-000	91-09650-000	51-05652-000	71-08743-000						
31-04731-000	11-02731-000	91-09650-000	52-05652-000	72-08743-000	55-50507-000					
31-04731-000	11-02731-000	91-09650-000	51-05733-000	71-08776-000						
31-04731-000	11-02731-000	91-09650-000	52-05618-000	72-08739-000	55-50509-000					
31-04731-000	11-02731-000	91-09650-000	52-05619-000	72-07141-000	55-50509-000					
31-04731-000	11-02731-000	91-09650-000	52-05650-000	72-08740-000	55-50507-000					
31-04731-000	11-02731-000	91-09650-000	52-05652-000	72-08743-000	55-50507-000					
31-04731-000	11-02731-000	91-09650-000								
31-04732-000	11-02732-000	91-09710-000	51-05674-000	71-08746-000						
31-04732-000	11-02732-000	91-09710-000	52-05674-000	72-08746-000	55-50510-000	31-M0062-000	33-W6020-000		32-R3056-000	
31-04732-000	11-02732-000	91-09710-000	51-05684-000	71-08732-000		31-M0062-000	33-W6020-000		32-R3056-000	
31-04732-000	11-02732-000	91-09710-000	52-05684-000	72-08732-000	55-50510-000	31-M0062-000	33-W6020-000		32-R3056-000	
31-04732-000	11-02732-000	91-09710-000	52-05674-000	72-08746-000	55-50510-000	31-M0062-000	33-W6020-000		32-R3056-000	
31-04732-000	11-02732-000	91-09710-000	52-05684-000	72-08732-000	55-50510-000	31-M0062-000	33-W6020-000		32-R3056-000	
31-04732-002	11-02732-002	91-09710-000				31-M0062-000	33-W6020-000		32-R3056-000	
31-04733-000	11-02733-000	91-09650-000	51-05618-000	71-08734-000		31-M0062-000	33-W6020-000		32-R3056-000	
31-04733-000	11-02733-000	91-09650-000	52-05618-000	72-08734-000	55-50509-000					
31-04733-000	11-02733-000	91-09650-000	51-05619-000	71-08736-000						
31-04733-000	11-02733-000	91-09650-000	52-05619-000	72-08736-000	55-50509-000					
31-04733-000	11-02733-000	91-09650-000	51-05650-000	71-08735-000						
31-04733-000	11-02733-000	91-09650-000	52-05650-000	72-08735-000	55-50507-000					
31-04733-000	11-02733-000	91-09650-000	51-05652-000	71-08738-000						
31-04733-000	11-02733-000	91-09650-000	52-05652-000	72-08738-000	55-50507-000					
31-04733-000	11-02733-000	91-09650-000	51-05733-000	71-08775-000						
31-04733-000	11-02733-000	91-09650-000	52-05618-000	72-08734-000	55-50509-000					
31-04733-000	11-02733-000	91-09650-000	52-05619-000	72-08736-000	55-50509-000					
31-04733-000	11-02733-000	91-09650-000	52-05650-000	72-08735-000	55-50507-000					
31-04733-000	11-02733-000	91-09650-000	52-05652-000	72-08738-000	55-50507-000					
31-04733-000	11-02733-000	91-09650-000								
31-04734-000	11-02734-000	91-09640-000	51-65638-000							
31-04736-000	11-02736-000	91-09650-000	51-05650-000	71-08763-000						
31-04736-000	11-02736-000	91-09650-000	52-05650-000	72-08763-000	55-50507-000					
31-04736-000	11-02736-000	91-09650-000	51-05733-000	71-08777-000						
31-04736-000	11-02736-000	91-09650-000	52-05650-000	72-08763-000	55-50507-000					
31-04740-000	11-02740-000	91-09740-000	51-65655-000	71-07017-000						
31-04742-000	11-02742-000	91-09740-000	51-65655-000							
31-04744-000	11-02744-000	91-09650-000	51-05657-000	71-08754-000						
31-04744-000	11-02744-000	91-09650-000	52-05657-000	72-08754-000	55-50509-000					
31-04744-000	11-02744-000	91-09650-000	51-05737-000	71-07641-000						
31-04744-000	11-02744-000	91-09650-000	52-05657-000	72-08754-000	55-50509-000					
31-04744-000	11-02744-000	91-09650-000	52-05737-000	72-07641-000	55-50509-000					
31-04745-000	11-02745-000	91-09650-000	51-05651-000	71-08751-000						
31-04745-000	11-02745-000	91-09650-000	52-05652-000	72-08751-000	55-50507-000					
31-04747-000	11-02747-000	91-09719-000	51-05615-000	71-08766-000						

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04747-000	11-02747-000	91-09719-000	52-05615-000	72-08766-000	55-50503-000					
31-04747-000	11-02747-000	91-09719-000	51-05628-000	71-08756-000						
31-04747-000	11-02747-000	91-09719-000	52-05628-000	72-08756-000	55-50503-000					
31-04747-000	11-02747-000	91-09719-000	51-05743-000	71-08764-000						
31-04747-000	11-02747-000	91-09719-000	52-05615-000	72-08766-000	55-50503-000					
31-04747-000	11-02747-000	91-09719-000	52-05628-000	72-08756-000	55-50503-000					
31-04747-001	11-02747-001	91-09719-000	52-05628-000	72-08756-000	55-50503-000					
31-04748-000	11-02748-000	91-09719-000								
31-04749-000	11-02749-000	91-09740-000	51-65655-000							
31-04750-000	11-02750-000	91-09740-000	51-65655-000							
31-04751-000	11-02751-000	91-09719-000	51-05615-000	71-08755-000						
31-04751-000	11-02751-000	91-09719-000	52-05615-000	72-08755-000	55-50503-000					
31-04751-000	11-02751-000	91-09719-000	51-05628-000	71-08765-000						
31-04751-000	11-02751-000	91-09719-000	52-05628-000	72-08765-000	55-50503-000					
31-04751-000	11-02751-000	91-09719-000	52-05615-000	72-08755-000	55-50503-000					
31-04751-000	11-02751-000	91-09719-000	52-05628-000	72-08765-000	55-50503-000					
31-04752-000	11-02752-000	91-09122-000	51-95180-000	71-08849-000						
31-04752-000	11-02752-000	91-09122-000	51-95181-000	71-08837-000						
31-04752-000	11-02752-000	91-09122-000	51-95188-000	71-08834-000						
31-04752-000	11-02752-000	91-09122-000	51-95576-000	71-08843-000						
31-04752-000	11-02752-000	91-09122-000	51-95622-000	71-08822-000						
31-04752-000	11-02752-000	91-09122-000	51-95623-000	71-08824-000						
31-04754-000	11-02754-000	91-09754-000	51-65736-000							
31-04755-000	11-02755-000	91-09754-000	51-65736-000							
31-04756-000	11-02756-000	91-09754-000	51-65736-000							
31-04757-000	11-02757-000	91-09650-000	51-05652-000	71-08762-000						
31-04757-000	11-02757-000	91-09650-000	52-05652-000	72-08762-000	55-50507-000					
31-04757-000	11-02757-000	91-09650-000	52-05652-000	72-08762-000	55-50507-000					
31-04759-000	11-02759-000	91-09740-000								
31-04762-000	11-02762-000	91-09696-000								
31-04763-000	11-02763-000	91-09696-000								
31-04764-000	11-02764-000	91-09650-000	51-05618-000	71-08825-000						
31-04764-000	11-02764-000	91-09650-000	52-05618-000	72-08825-000	55-50509-000					
31-04764-000	11-02764-000	91-09650-000	51-05650-000	71-08831-000						
31-04764-000	11-02764-000	91-09650-000	52-05650-000	72-08831-000	55-50507-000					
31-04764-000	11-02764-000	91-09650-000	51-05733-000	71-08779-000						
31-04764-000	11-02764-000	91-09650-000	52-05618-000	72-08825-000	55-50509-000					
31-04764-000	11-02764-000	91-09650-000	52-05650-000	72-08831-000	55-50507-000					
31-04801-000	11-02801-000	91-09116-000	51-95184-000	71-08838-000						
31-04801-000	11-02801-000	91-09116-000	51-96164-000	71-08851-000						
31-04802-000	11-02802-000	91-09011-000								
39-04802-000	11-02802-000	99-09011-000								
31-04804-000	11-02804-000	91-09013-000	51-95515-000	71-08804-000						
31-04805-000	11-02805-000	91-09007-000	51-95468-000	71-08805-000						
31-04806-000	11-02806-000	91-09006-000	51-95468-000	71-08806-000						
31-04807-000	11-02807-000	91-09006-000	51-95468-000	71-08807-000						
31-04815-000	11-02815-000	91-09007-000	51-95468-000	71-08815-000						
31-04816-000	11-02816-000	91-09673-000	51-05695-000	71-08816-000						
31-04817-000	11-02817-000	91-09599-000	51-05683-000	71-08817-000						
31-04818-000	11-02818-000	91-09818-000	51-05696-000	71-08818-000						
31-04819-000	11-02819-000	91-09818-000	51-05696-000	71-08819-000						
31-04820-000	11-02820-000	91-09677-000	51-05697-000	71-08820-000						
31-04821-000	11-02821-000	91-09599-000	51-05683-000	71-08821-000						
31-04822-000	11-02822-000	91-09677-000								
31-04823-000	11-02823-000	91-09677-000								
31-04825-000	11-02825-000	91-09854-000	51-35418-000	71-07421-000						
31-04825-000	11-02825-000	91-09854-000	51-35447-000	71-07422-000						
31-04825-000	11-02825-000	91-09854-000								
31-04826-000	11-02826-000	91-09340-000								
31-04827-000	11-02827-000	91-09692-000	51-65750-000							
31-04828-000	11-02828-000	91-09416-000								
31-04829-000	11-02829-000	91-09416-000								
31-04832-000	11-02832-000	91-09340-000								
31-04833-000	11-02833-000	91-09853-000	51-05444-000	71-08833-000		31-M0075-000	33-W6027-000		32-R3081-000	

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04834-000	11-02834-000	91-09370-000				31-M0075-000	33-W6027-000		32-R3081-000	
31-04835-000	11-02835-000	91-09933-000								
31-04839-000	11-02839-000	91-09369-000								
31-04840-000	11-02840-000	91-09840-000	51-05273-000	71-08840-000		31-M0089-000			32-R3087-000	
31-04841-000	11-02841-000	91-09840-000	51-05273-000	71-08841-000		31-M0089-000			32-R3087-000	
31-04842-000	11-02842-000	91-09933-000				31-M0089-000			32-R3087-000	
31-04843-000	11-02843-000	91-09865-000	51-05755-000	71-07344-000						
31-04844-000	11-02844-000	91-09844-000								
31-04845-000	11-02845-000	91-09845-000	51-05281-000	71-08845-000		31-M0091-000			32-R3080-000	
31-04845-000	11-02845-000	91-09845-000	52-05281-000	72-08845-000	55-50908-000	31-M0091-000			32-R3080-000	
31-04845-000	11-02845-000	91-09845-000	51-05283-000	71-08844-000		31-M0091-000			32-R3080-000	
31-04845-000	11-02845-000	91-09845-000	52-05283-000	72-08844-000	55-50908-000	31-M0091-000			32-R3080-000	
31-04845-000	11-02845-000	91-09845-000	52-05281-000	72-08845-000	55-50908-000	31-M0091-000			32-R3080-000	
31-04845-000	11-02845-000	91-09845-000	52-05283-000	72-08844-000	55-50908-000	31-M0091-000			32-R3080-000	
31-04846-000	11-02846-000	91-09846-000	51-05275-000	71-08849-000		31-M0091-000			32-R3080-000	
31-04846-000	11-02846-000	91-09846-000	52-05275-000	72-08849-000	55-50916-000	31-M0092-000			32-R3079-000	
31-04847-000	11-02847-000	91-09370-000	51-65130-000			31-M0092-000			32-R3079-000	
31-04850-000	11-02850-000	91-09859-000	51-65408-000			31-M0087-000	33-W6026-000		32-R3078-000	
31-04851-000	11-02851-000	91-09859-000	51-65409-000			31-M0082-000	33-W6026-000		32-R3082-000	
31-04852-000	11-02852-000	91-09853-000	51-05444-000	71-08852-000		31-M0075-000	33-W6027-000		32-R3081-000	
31-04853-000	11-02853-000	91-09418-000	51-35418-000	71-08853-000		31-M0075-000	33-W6027-000		32-R3081-000	
31-04853-000	11-02853-000	91-09418-000	51-35447-000	71-08865-000						
31-04853-000	11-02853-000	91-09418-000	51-65419-000							
31-04853-000	11-02853-000	91-09418-000								
31-04854-000	11-02854-000	91-09854-000	51-35418-000	71-08854-000						
31-04854-000	11-02854-000	91-09854-000	51-35447-000	71-08857-000						
31-04854-000	11-02854-000	91-09854-000	51-65419-000							
31-04854-000	11-02854-000	91-09854-000								
31-04855-000	11-02855-000	91-09752-000								
31-04856-000	11-02856-000	91-09859-000	51-65409-000							
31-04858-000	11-02858-000	91-09854-000	51-35418-000	71-08858-000						
31-04858-000	11-02858-000	91-09854-000	51-35447-000	71-08863-000						
31-04858-000	11-02858-000	91-09854-000	51-65419-000							
31-04858-000	11-02858-000	91-09854-000								
31-04859-000	11-02859-000	91-09854-000	51-35418-000	71-08859-000						
31-04859-000	11-02859-000	91-09854-000	51-35447-000							
31-04859-000	11-02859-000	91-09854-000								
31-04860-000	11-02860-000	91-09854-000	51-35418-000	71-08867-000						
31-04860-000	11-02860-000	91-09854-000	51-35447-000	71-08855-000		31-M0085-000			32-R3085-000	
31-04862-000	11-02862-000	91-09853-000	51-05444-000	71-08862-000		31-M0085-000	33-W6027-000		32-R3085-000	
31-04864-000	11-02864-000	91-09864-000	51-05281-000	71-08869-000		31-M0075-000	33-W6027-000		32-R3081-000	
31-04864-000	11-02864-000	91-09864-000	51-05283-000			31-M0091-000			32-R3080-000	
31-04864-000	11-02864-000	91-09864-000	52-05281-000	71-08869-000	55-50908-000	31-M0091-000			32-R3080-000	
31-04864-000	11-02864-000	91-09864-000	52-05283-000		55-50908-000	31-M0091-000			32-R3080-000	
31-04865-000	11-02865-000	91-09859-000	51-65409-000			31-M0091-000	33-W6026-000		32-R3080-000	
31-04866-000	11-02866-000	91-09853-000	51-05444-000	71-08876-000		31-M0082-000	33-W6026-000		32-R3082-000	
31-04867-000	11-02867-000	91-09861-000	51-05415-000	71-08868-000		31-M0075-000	33-W6027-000		32-R3081-000	
31-04868-000	11-02868-000	91-09847-000				31-M0072-000	33-W6026-000		32-R3079-000	
31-04874-000	11-02874-000	91-09865-000				31-M0092-000			32-R3079-000	
31-04881-000	11-02881-000	91-09003-000	51-05929-000	71-08881-000						
31-04881-000	11-02881-000	91-09003-000	52-05929-000	72-08881-000	55-50702-000					
31-04881-000	11-02881-000	91-09003-000	52-05929-000	72-08881-000	55-50702-000					
31-04882-000	11-02882-000	91-09528-000	51-05925-000	71-08882-000						
31-04882-000	11-02882-000	91-09528-000	52-05925-000	72-08882-000	55-50702-000					
31-04886-000	11-02886-000	91-09003-000	51-05922-000	71-08886-000						
31-04886-000	11-02886-000	91-09003-000	52-05922-000	72-08886-000	55-50705-000				32-R3188-000	
31-04886-000	11-02886-000	91-09003-000	52-05922-000	72-08886-000	55-50705-000				32-R3188-000	
31-04887-000	11-02887-000	91-09528-000	51-05925-000	71-08887-000					32-R3188-000	
31-04887-000	11-02887-000	91-09528-000	52-05925-000	72-08887-000	55-50702-000					
31-04887-000	11-02887-000	91-09528-000	52-05925-000	72-08887-000	55-50702-000					
31-04888-000	11-02888-000	91-09003-000	51-05922-000	71-08888-000						
31-04888-000	11-02888-000	91-09003-000	52-05922-000	72-08888-000	55-50705-000				32-R3188-000	
31-04888-000	11-02888-000	91-09003-000	51-05933-000	71-08885-000					32-R3188-000	
31-04888-000	11-02888-000	91-09003-000	52-05933-000	72-08885-000	55-50706-000				32-R3188-000	

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04888-000	11-02888-000	91-09003-000	52-05922-000	72-08888-000	55-50705-000				32-R3188-000	
31-04888-000	11-02888-000	91-09003-000	52-05933-000	72-08885-000	55-50706-000				32-R3188-000	
31-04889-000	11-02889-000	91-09528-000	51-05925-000	71-08889-000					32-R3188-000	
31-04889-000	11-02889-000	91-09528-000	52-05925-000	72-08889-000	55-50702-000					
31-04889-000	11-02889-000	91-09528-000	52-05925-000	72-08889-000	55-50702-000					
31-04890-000	11-02890-000	91-09528-000	51-05923-000	71-08890-000						
31-04894-000	11-02894-000	91-09915-000	51-05925-000	71-08535-000						
31-04894-000	11-02894-000	91-09915-000	52-05925-000	72-08535-000	55-50702-000					
31-04894-000	11-02894-000	91-09915-000	52-05925-000	72-08535-000	55-50702-000					
31-04895-000	11-02895-000	91-09528-000	51-05917-000	71-08892-000						
31-04895-000	11-02895-000	91-09528-000	52-05917-000	72-08892-000	55-50703-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09528-000	51-05928-000	71-08536-000			33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09528-000	52-05928-000	72-08536-000	55-50703-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09528-000	52-05917-000	72-08892-000	55-50703-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09528-000	52-05928-000	72-08536-000	55-50703-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	51-05926-000	71-08893-000			33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	52-05926-000	72-08893-000	55-50707-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	51-05927-000	71-08895-000			33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	52-05927-000	72-08895-000	55-50708-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	51-05928-000	71-08536-000			33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	52-05928-000	72-08536-000	55-50703-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	52-05926-000	72-08893-000	55-50707-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	52-05927-000	72-08895-000	55-50708-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04895-000	11-02895-000	91-09915-000	52-05928-000	72-08536-000	55-50703-000		33-W6053-000		32-R3184-000	25-E8003-000
31-04900-000	11-02900-000	91-09900-000	51-05266-000	71-08900-000			33-W6053-000		32-R3184-000	25-E8003-000
31-04900-000	11-02900-000	91-09900-000	52-05266-000	72-08900-000	55-50907-000					
31-04900-000	11-02900-000	91-09900-000	52-05266-000	72-08900-000	55-50907-000					
31-04901-000	11-02901-000	91-09911-000	51-35631-000	71-08901-000						
31-04901-000	11-02901-000	91-09911-000	51-65648-000			31-M0052-000			32-R3049-000	
31-04902-000	11-02902-000	91-39527-000	51-05924-000	71-08902-000		31-M0052-000			32-R3049-000	
31-04902-000	11-02902-000	91-39527-000	52-05924-000	72-08902-000	55-50702-000	31-M0172-000			32-R3186-000	
31-04902-000	11-02902-000	91-39527-000	52-05924-000	72-08902-000	55-50702-000	31-M0172-000			32-R3186-000	
31-04905-000	11-02905-000	91-09905-000	51-05210-000	71-08905-000		31-M0172-000			32-R3186-000	
31-04905-000	11-02905-000	91-09905-000	52-05210-000	72-08905-000	55-50806-000					
31-04905-000	11-02905-000	91-09905-000	51-05211-000	71-07133-000						
31-04905-000	11-02905-000	91-09905-000	52-05211-000	72-07133-000	55-50806-000					
31-04905-000	11-02905-000	91-09905-000	52-05210-000	72-08905-000	55-50806-000					
31-04905-000	11-02905-000	91-09905-000	52-05211-000	72-07133-000	55-50806-000					
31-04906-000	11-02906-000	91-09905-000	51-05210-000	71-08912-000						
31-04906-000	11-02906-000	91-09905-000	52-05210-000	72-08912-000	55-50806-000					
31-04906-000	11-02906-000	91-09905-000	51-05215-000	71-08906-000						
31-04906-000	11-02906-000	91-09905-000	52-05215-000	72-08906-000	55-50807-000					
31-04906-000	11-02906-000	91-09905-000	52-05210-000	72-08912-000	55-50806-000					
31-04906-000	11-02906-000	91-09905-000	52-05215-000	72-08906-000	55-50807-000					
31-04911-000	11-02911-000	91-09911-000	51-35631-000	71-08911-000						
31-04911-000	11-02911-000	91-09911-000	51-65648-000							
31-04912-000	11-02912-000	91-09912-000	51-65735-000							
31-04913-000	11-02913-000	91-09913-000	51-05913-000	71-08913-000						
31-04913-000	11-02913-000	91-09913-000	52-05913-000	72-08913-000	55-50704-000					
31-04913-000	11-02913-000	91-09913-000	51-05973-000	71-08929-000						
31-04913-000	11-02913-000	91-09913-000	52-05913-000	72-08913-000	55-50704-000					
31-04914-000	11-02914-000	91-09914-000	51-05911-000	71-08914-000						
31-04914-000	11-02914-000	91-09914-000	52-05911-000	72-08914-000	55-50704-000					
31-04914-000	11-02914-000	91-09914-000	51-05913-000	71-07145-000						
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31-04914-000	11-02914-000	91-09914-000	51-05971-000	71-08930-000						
31-04914-000	11-02914-000	91-09914-000	51-05973-000	71-08931-000						
31-04914-000	11-02914-000	91-09914-000	52-05911-000	72-08914-000	55-50704-000					
31-04914-000	11-02914-000	91-09914-000	52-05913-000	72-07145-000	55-50704-000					
31-04915-000	11-02915-000	91-09077-000	51-06068-000	71-08018-000						
31-04915-000	11-02915-000	91-09077-000	51-06077-000	71-08915-000						
31-04915-000	11-02915-000	91-09077-000	51-06078-000	71-07061-000						
31-04915-000	11-02915-000	91-09077-000	52-06068-000	72-08018-000	55-50617-000					
31-04915-000	11-02915-000	91-09077-000	52-06077-000	72-08915-000	55-50607-000					

Engine types, descriptions, products, product design, manufacturers vehicle etc. are only given for the reference. ©Yenmak Otomotiv A.Ş. 2018

Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04915-000	11-02915-000	91-09077-000	52-06078-000	72-07061-000	55-50617-000					
31-04918-000	11-02918-000	91-09003-000	51-05922-000	71-07924-000						
31-04918-000	11-02918-000	91-09003-000	52-05922-000	72-07924-000	55-50705-000				32-R3188-000	
31-04918-000	11-02918-000	91-09003-000	51-05933-000	71-07926-000					32-R3188-000	
31-04918-000	11-02918-000	91-09003-000	52-05933-000	72-07926-000	55-50706-000				32-R3188-000	
31-04918-000	11-02918-000	91-09003-000	52-05922-000	72-07924-000	55-50705-000				32-R3188-000	
31-04918-000	11-02918-000	91-09003-000	52-05933-000	72-07926-000	55-50706-000				32-R3188-000	
31-04919-000	11-02919-000	91-09650-000	51-05618-000	71-07029-000					32-R3188-000	
31-04919-000	11-02919-000	91-09650-000	52-05618-000	72-07029-000	55-50509-000					
31-04919-000	11-02919-000	91-09650-000	51-05619-000	71-07043-000						
31-04919-000	11-02919-000	91-09650-000	52-05619-000	72-07043-000	55-50509-000					
31-04919-000	11-02919-000	91-09650-000	51-05650-000	71-08919-000						
31-04919-000	11-02919-000	91-09650-000	52-05650-000	72-08919-000	55-50507-000					
31-04919-000	11-02919-000	91-09650-000	51-05652-000	71-07147-000						
31-04919-000	11-02919-000	91-09650-000	52-05652-000	72-07147-000	55-50507-000					
31-04919-000	11-02919-000	91-09650-000	51-05733-000	71-08780-000						
31-04919-000	11-02919-000	91-09650-000	52-05618-000	72-07029-000	55-50509-000					
31-04919-000	11-02919-000	91-09650-000	52-05619-000	72-07043-000	55-50509-000					
31-04919-000	11-02919-000	91-09650-000	52-05650-000	72-08919-000	55-50507-000					
31-04919-000	11-02919-000	91-09650-000	52-05652-000	72-07147-000	55-50507-000					
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31-04919-000	11-02919-000	91-09704-000	52-05652-000	72-07631-000	55-50507-000					
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31-04926-000	11-02926-000	91-09926-000								
31-04930-000	11-02930-000	91-09407-000	51-65407-000							
31-04930-000	11-02930-000	91-09407-000	51-65456-000							
31-04932-000	11-02932-000	91-09932-000	51-35418-000	71-08932-000						
31-04932-000	11-02932-000	91-09932-000	51-35447-000	71-08933-000						
31-04932-000	11-02932-000	91-09932-000	51-65419-000							
31-04932-000	11-02932-000	91-09932-000								
31-04933-000	11-02933-000	91-09933-000								
31-04935-000	11-02935-000	91-09935-000	51-05415-000	71-08928-000						
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31-04936-000	11-02936-000	91-09316-000	52-05226-000	72-08948-000	55-50802-000					
31-04936-000	11-02936-000	91-09316-000	52-05226-000	72-08948-000	55-50802-000					
31-04938-000	11-02938-000	91-09941-000	51-35323-000	71-08938-000						
31-04939-000	11-02939-000	91-09321-000	51-05210-000	71-08946-000						
31-04939-000	11-02939-000	91-09321-000	52-05210-000	72-08946-000	55-50806-000					
31-04939-000	11-02939-000	91-09321-000	51-05214-000	71-08937-000						
31-04939-000	11-02939-000	91-09321-000	52-05214-000	72-08937-000	55-50802-000					
31-04939-000	11-02939-000	91-09321-000	51-05215-000	71-08939-000						
31-04939-000	11-02939-000	91-09321-000	52-05215-000	72-08939-000	55-50807-000					
31-04939-000	11-02939-000	91-09321-000	52-05210-000	72-08946-000	55-50806-000					
31-04939-000	11-02939-000	91-09321-000	52-05214-000	72-08937-000	55-50802-000					
31-04939-000	11-02939-000	91-09321-000	52-05215-000	72-08939-000	55-50807-000					
31-04941-000	11-02941-000	91-09941-000	51-35323-000	71-08941-000						
31-04942-000	11-02942-000	91-09321-000	51-05214-000	71-08945-000						
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31-04942-000	11-02942-000	91-09321-000	51-05215-000	71-08942-000						
31-04942-000	11-02942-000	91-09321-000	52-05215-000	72-08942-000	55-50807-000					
31-04942-000	11-02942-000	91-09321-000	52-05214-000	72-08945-000	55-50802-000					
31-04942-000	11-02942-000	91-09321-000	52-05215-000	72-08942-000	55-50807-000					
31-04943-000	11-02943-000	91-09321-000	51-05214-000	71-07127-000						
31-04943-000	11-02943-000	91-09321-000	52-05214-000	72-07127-000	55-50802-000					
31-04943-000	11-02943-000	91-09321-000	51-05215-000	71-08943-000						
31-04943-000	11-02943-000	91-09321-000	52-05215-000	72-08943-000	55-50807-000					
31-04943-000	11-02943-000	91-09321-000	51-05216-000	71-08943-000						
31-04943-000	11-02943-000	91-09321-000	52-05216-000	72-08943-000	55-50803-000					
31-04943-000	11-02943-000	91-09321-000	52-05214-000	72-07127-000	55-50802-000					
31-04943-000	11-02943-000	91-09321-000	52-05215-000	72-08943-000	55-50807-000					
31-04943-000	11-02943-000	91-09321-000	52-05216-000	72-08943-000	55-50803-000					

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Piston+Ring Reference No	Piston Reference No	Ring Reference No	Cylinder Liner Reference No	Kit Reference No	O-Ring Reference No	Main Bearing	Trust Washer	Rod Bushing	Conrod Bearing	Camshaft Bushings
31-04944-000	11-02944-000	91-09941-000	51-35323-000	71-08944-000						
31-04945-000	11-02945-000	91-09440-000	51-65436-000							
31-04945-000	11-02945-000	91-09440-000	51-65437-000							
31-04946-000	11-02946-000	91-09440-000	51-65436-000							
31-04946-000	11-02946-000	91-09440-000	51-65437-000							
31-04947-000	11-02947-000	91-09440-000	51-65436-000							
31-04947-000	11-02947-000	91-09440-000	51-65437-000							
31-04958-000	11-02958-000	91-09768-000								
31-04959-000	11-02959-000	91-09769-000								
31-04961-000	11-02961-000	91-09467-000								
31-04962-000	11-02962-000	91-09771-000								
31-04963-000	11-02963-000	91-09771-000								
31-04964-000	11-02964-000	91-09771-000								
31-04969-000	11-02969-000	91-09365-000								
31-04970-000	11-02970-000	91-09064-000								
31-04985-000	11-02985-000	91-09503-000	51-05510-000	71-08985-000						
31-04986-000	11-02986-000	91-09503-000	51-05509-000	71-08504-000						
31-04987-000	11-02987-000	91-09508-000	51-05564-000	71-08505-000						

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