GRADALL®

Illustrated Parts Manual

Model XL4210III

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October 23, 2008

EFFECTIVITY PAGE

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EFFECTIVITY PAGE

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SERVICE KITS

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6	6-10	80363005	Cab Seat Slide Rail Kit
9	9-3	80004144	Hoist Cylinder Seal Kit
9	9-5	80725004	Boom Cylinder Seal Kit
9	9-7	80004089	Tool Cylinder Seal Kit
9	9-10	80434166	Main Pump Seal Kit
9	9-25	80734036	Control Valve Seal Kit
9	9-25	80734001	Control Valve Seal Kit
9	9-25	80734013	Control Valve Seal Kit
9	9-37	80444032	Swing Motor Seal Kit
9	9-37	80444033	Swing Motor Relief Valve Seal Kit
9	9-39	7024195	Swing Brake Spring Kit
9	9-39	80404121	Swing Brake Seal Kit
9	9-43	80944040	Tilt Brake O-Ring Kit
9	9-43	80944041	Tilt Brake Stack Kit
9	9-43	77344021	Tilt Brake Bearing Kit
9	9-45	80934050	Tilt Motor Seal Kit
9	9-47	80934560	Center Pin Seal Kit

SERVICE KITS

Section	Page No.	Part No.	Description

SECTION 1
FRAME & ATTACHING PARTS

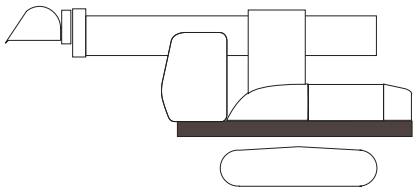

Figure 1-1 Frame Assembly

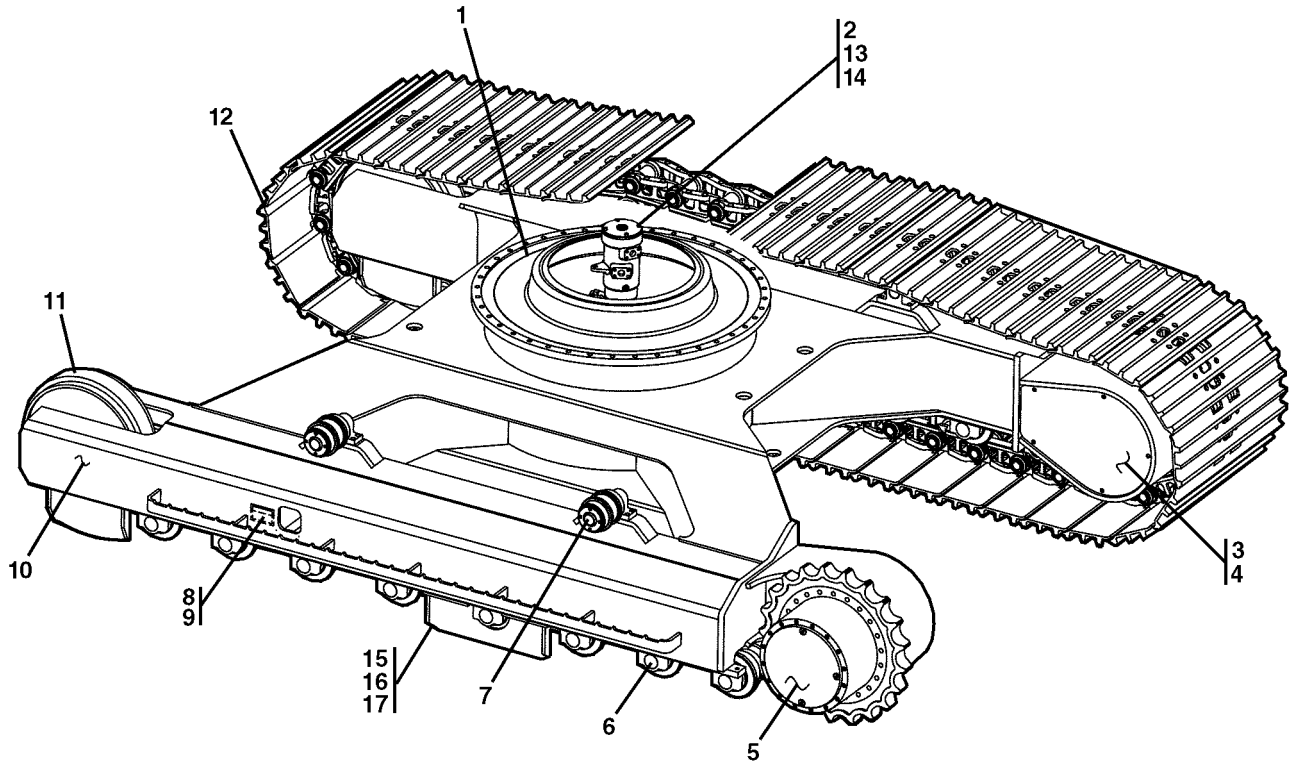

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Figure 1-1 Frame Assembly

Item	Part Number	Qty.	Description	Rev.
1	80413010	1	BEARING COVER	
2		Ref	CENTER PIN, (see Figure 9-20 for details)	
3	80411006	2	COVER PLATE	
4	80223034	10	WHIZ-LOK SCREW, 1/2-13X3/4	
5		Ref	CRAWLER DRIVE, (see Figure 5-5 for details)	
6		Ref	TRACK ROLLER, (see Figure 5-2 for details)	
7		Ref	CARRIER ROLLER, (see Figure 5-3 for details)	
8	80213077	2	CRAWLER CAUTION TAG	
9	88341010	8	DRIVE SCREW, #4X3/16	
10	80716001	1	CRAWLER UNDERCARRIAGE	
11		Ref	FRONT IDLER TRACK ADJUSTER, (see Figure 5-4 for details)	
12		Ref	TRACK CHAIN & SHOES, (see Figure 5-1 for details)	
13	88201067	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5, (torque to 68-78 lb-ft)	
14	90027471	4	HARDWASHER, 1/2	
15	90027472	16	HARDWASHER, 5/8	
16	80416008	2	TRACK GUIDE WELDMENT	
17	86081050	16	HEX HD CAPSCREW, 5/8-11X1-1/2, (loctite & torque to 200-215 lb-ft)	

Figure 1-2 Rotating Platform

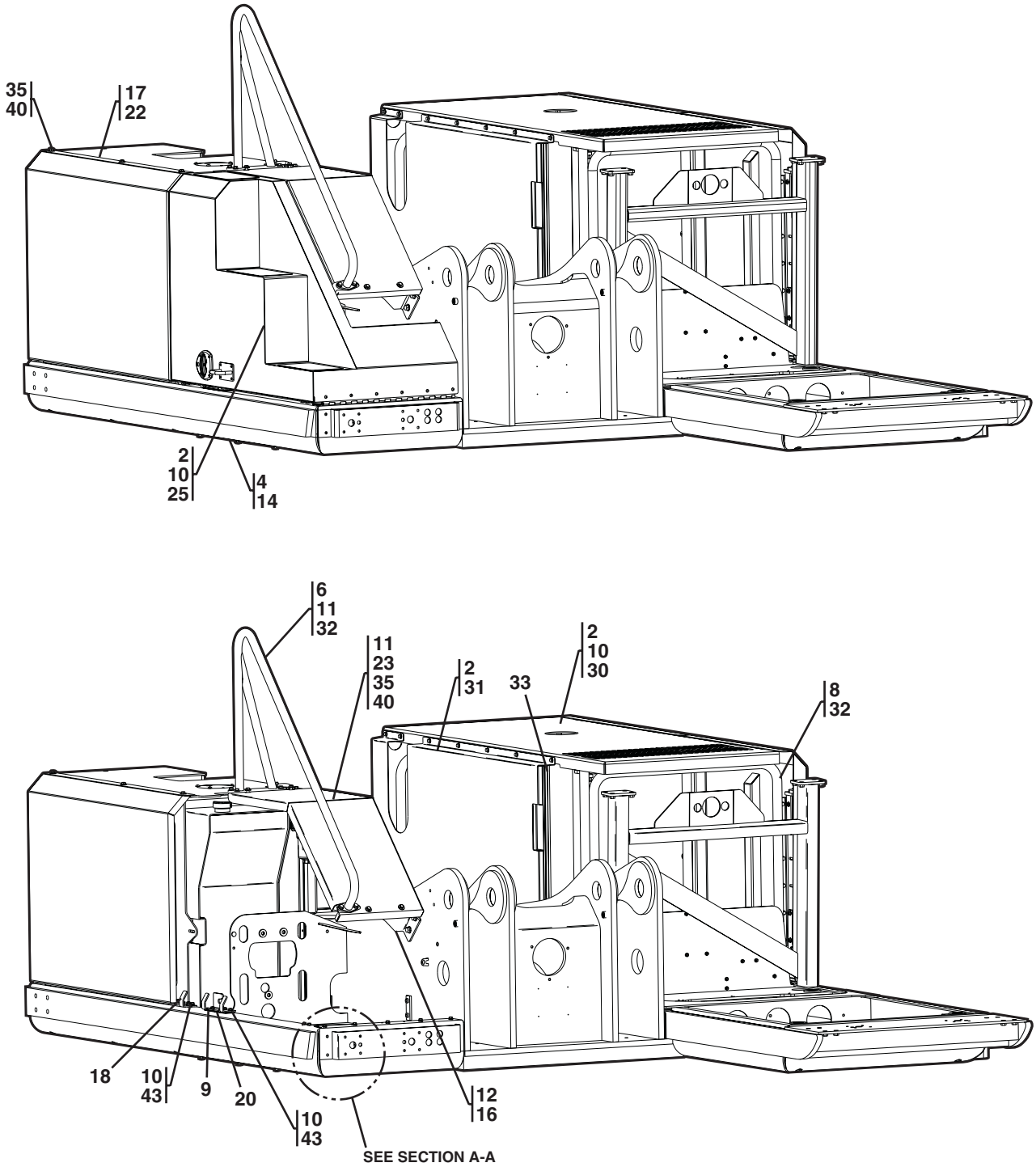

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Figure 1-2 Rotating Platform

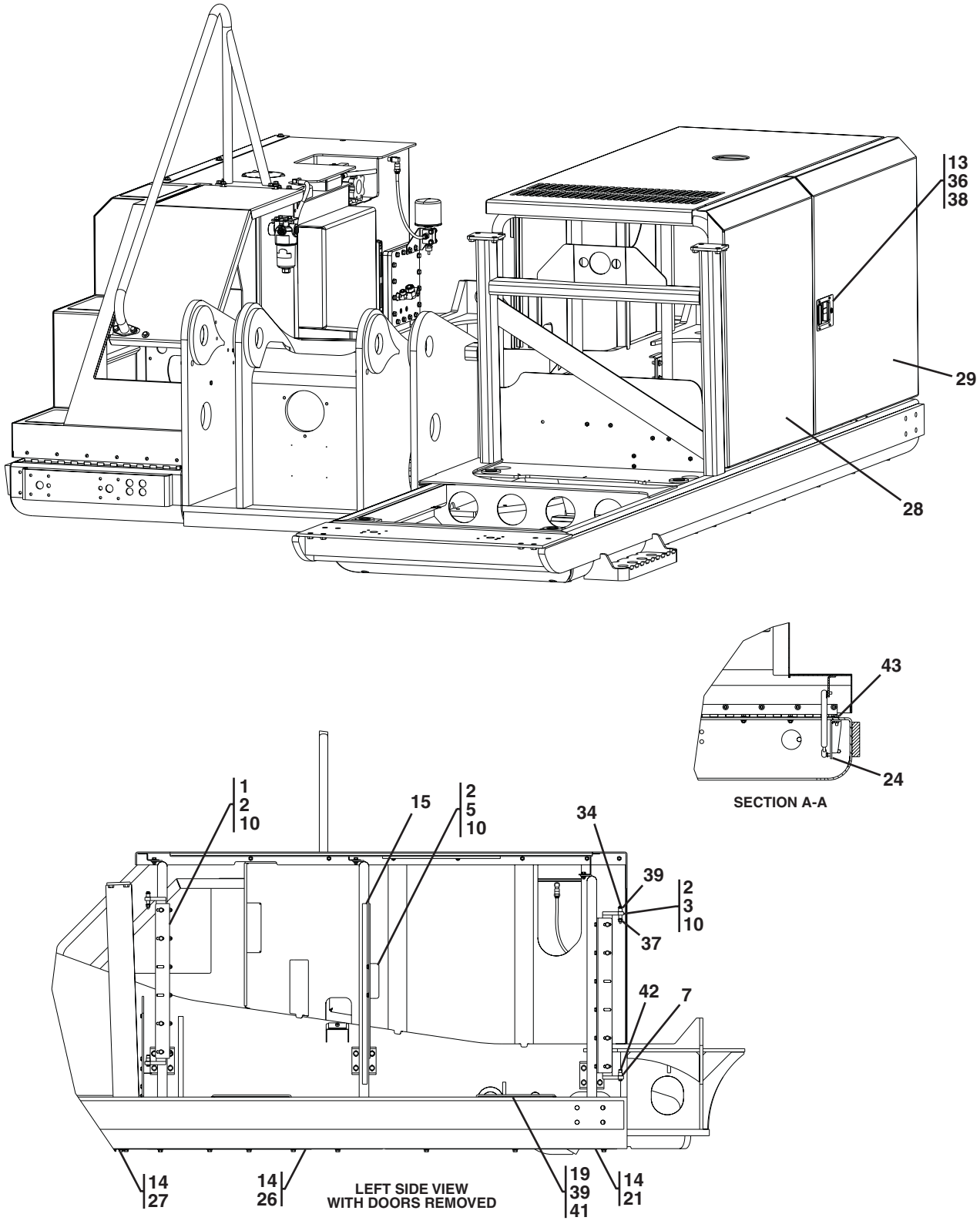

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Figure 1-2 Rotating Platform

Item	Part Number	Qty.	Description	Rev.
	80775011	Ref	ROTATING PLATFORM (covers installation), (includes all items)	A
1	0182086	2	COVER SUPPORT ANGLE	
2	0791506	46	WHIZ-LOK SCREW, 5/16-18X3/4	
3	2600301	4	HINGE COVER WELDMENT	
4	3380682	1	BELLYPAN VALVE COVER	
5	3576535	1	STRIKER PLATE	
6	3641644	1	HAND RAIL	
7	4100114	4	NYLON SLEEVE	
8	4341202	3	LEFT COVER SUPPORT	
9	4341240	1	STRIKER PLATE	
10	77143006	44	WHIZ LOK NUT, 5/16-18	
11	77143015	6	WHIL LOK NUT, 3/8-16	
12	80223034	2	WHIZ-LOK SCREW, 1/2-13X3/4	
13	80273004	1	LATCH ASSY	
14	80303094	17	WHIZ LOK SCREW, 3/8-16X3/4	
15	80383368	1	FOAM GASKET	
16	80471048	1	COVER SUPPORT BRACKET	
17	80471069	3	GROMMET	
18	80541016	1	COVER GUIDE	
19	80771008	2	DOOR PROP	
20	80771022	3	LATCH BRACKET SHIM	
21	80771025	1	REAR BELLYPAN	
22	80771046	1	RESERVOIR COVER	
23	80771054	1	INSIDE VALVE COVER	
24	80771057	1	STRUT BRACKET	
25		Ref	VALVE COVER ASSY, (see Figure 1-3 for details)	
26	80776005	1	MIDDLE BELLY PAN WELDMENT	
27	80776006	1	CAB BELLY PAN WELDMENT	
28	80776007	1	FRONT DOOR WELDMENT	
29	80776008	1	REAR DOOR	
30	80776010	1	TOP ENGINE COVER	
31	80776011	1	INSIDE ENGINE COVER WELDMENT	
32	80973025	30	WHIZ LOK SCREW, 3/8-16X1	
33	83673124	22”	TRIM SEAL	
34	88201011	2	HEX HD CAPSCREW, 1/4-20X2-1/2, GR5	
35	88201035	7	HEX HD CAPSCREW, 3/8-16X1, GR5	
36	88212215	4	SOCKET HD CAPSCREW, #8-32X1/2	
37	88521204	2	HEX NUT, 1/4-20	
38	88521604	4	HEX NUT, #8-32	
39	88561002	6	FLAT WASHER, 1/4	
40	88561004	7	FLAT WASHER, 3/8	
41	88631303	2	COTTER PIN, 1/16X1	
42	88631542	4	SPRING PIN, 1/2X1-3/4	
43	91363018	7	WHIZ LOK SCREW, 5/16-18X1	

Figure 1-2 Rotating Platform (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 1-3 Valve Cover

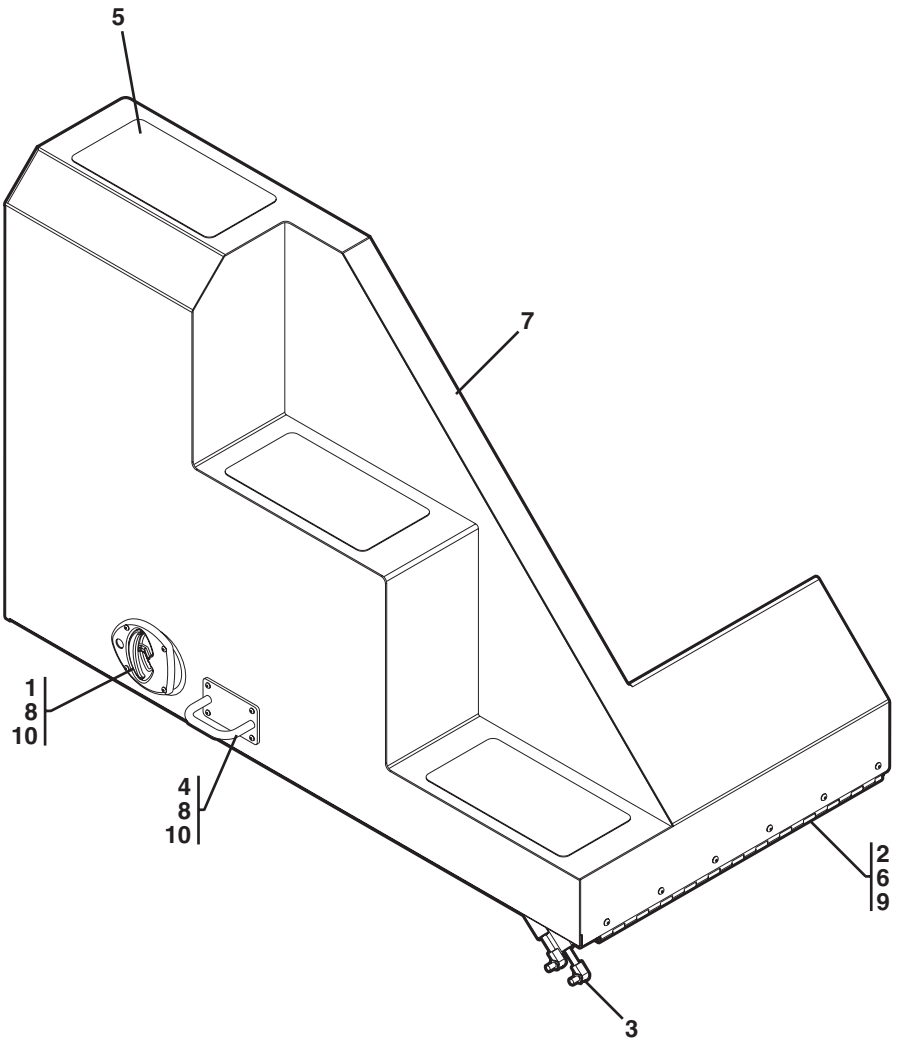

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Figure 1-3 Valve Cover

Item	Part Number	Qty.	Description	Rev.
	80775013	Ref	VALVE COVER ASSY, (includes all items)	A
1	7300364	1	HOOD LATCH ASSY	
2	77143013	6	WHIZ LOK NUT, 1/4-20	
3	80363153	2	GAS STRUT, 130#	
4	80466006	1	BRACKET HANDLE	
5	80514162	3	NON-SKID STAIR TREAD	
6	80773050	1	VALVE COVER HINGE	
7	80776012	1	VALVE COVER	
8	88261010	8	BUTTON HD SCREW, #10-24X3/4	
9	88261014	6	BUTTON HD SCREW, 1/4-20X1/2	
10	88521605	8	HEX NUT, #10-24	

Figure 1-4 Swing Components Installation

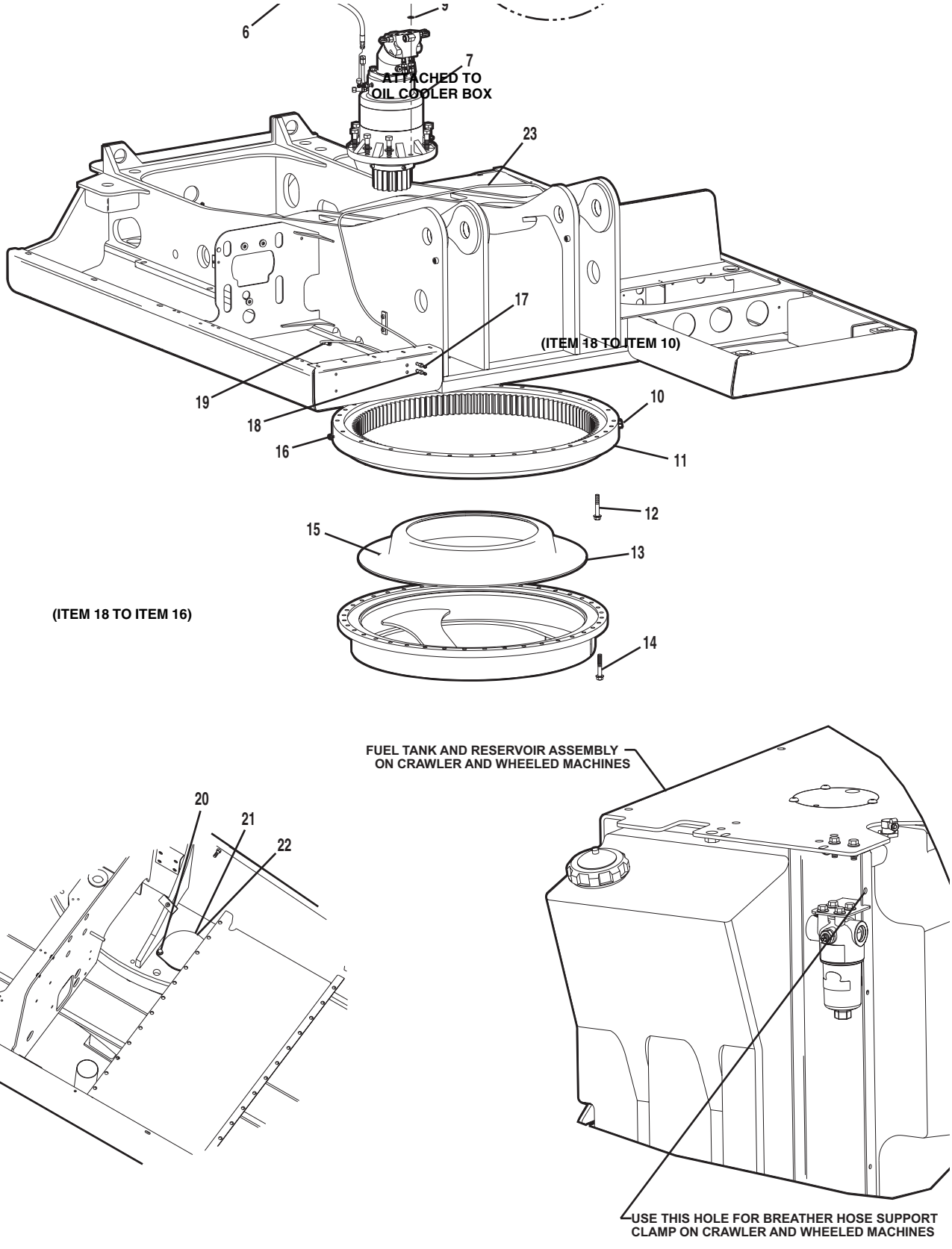

Figure 1-4 Swing Components Installation

Item	Part Number	Qty.	Description	Rev.
	0275369	Ref	SWING COMPONENTS INSTALLATION, (includes all items)	D
1	77343070	1	VENT	
2	80243019	1	MALE ADAPTER	
3	91043147	1	SUPPORT CLAMP	
4	80303094	1	WHIZ-LOK SCREW, 3/8-16X3/4	
5	77143015	1	WHIZ-LOK NUT, 3/8-16	
6	84716547	1	HOSE ASSY	
7		Ref	SWING TRANSMISSION ASSY, (see Figure 9-13 for details)	
8	83201017	10	HEX HD CAPSCREW, 3/4-10X2-3/4, GR8, (torque to 340-365 lb-ft)	
9	90027473	10	HARDENED WASHER, 3/4	
10	88743041	1	MALE ELBOW, 90 DEGREES, 1/8X1/4 TUBE	
11	80443001	1	SWIING BEARING	
12	80323011	32	FLAT HD CAPSCREW, 3/8-11X3-3/4, (loctite & torque to 200-215 lb-ft.)	
13	80413010	1	BEARING COVER	
14	80433131	40	FLAT HD CAPSCREW, 5/8-11X2-1/2, (loctite & torque to 200-215 lb-ft.)	
15	85041302	18	#2 GREASE CARTRIDGE, (14.5 oz.)	
16	88743021	1	MALE ELBOW, 45 DEGREES, 1/8X1/4 TUBE	
17	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
18	80623016	2	BULKHEAD ADAPTER	
19	84719896	1	HOSE ASSY	
20	80973025	2	WHIZ-LOK SCREW, 3/8-16X1	
21	80471053	1	COVER	
22	80473060	1	GASKET	
23	2754860	1	GREASE HOSE	

Figure 1-5 Fuel Tank & Reservoir Installation

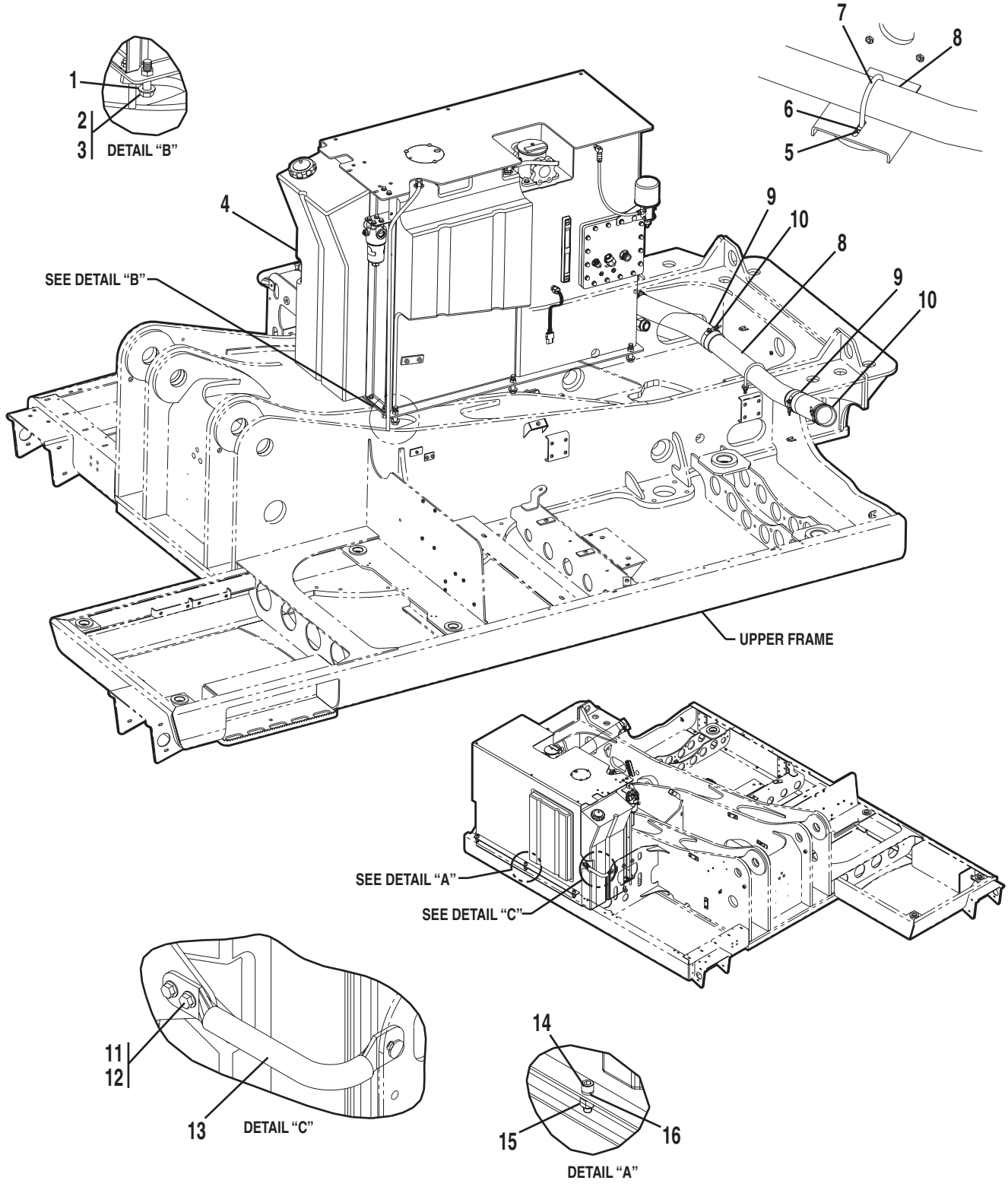

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Figure 1-5 Fuel Tank & Reservoir Installation

Item	Part Number	Qty.	Description	Rev.
	80775003	Ref	FUEL TANK & RESERVOIR INSTALLATION, (includes all items)	B
1	90027472	3	HARDENED WASHER	
2	88201099	3	HEX HD CAPSCREW, 3/8-16X4-1/2, GR5	
3	14403364	AR	LOCTITE, (242 blue)	
4		Ref	FUEL TANK & RESERVOIR ASSY, (see Figure 1-6 for details)	
5	88521206	2	HEX LOCKNUT, 3/8-16	
6	88561004	2	FLAT WASHER, 3/8	
7	86961096	1	U-BOLT	
8	80733008	1	SUCTION TUBE	
9	80433109	2	SUCTION HOSE	
10	91163129	4	HEAVY DUTY BAND CLAMP	
11	91363018	2	WHIZ-LOK SCREW, 5/16-18X1	
12	77143006	3	WHIZ-LOK NUT, 5/16-18	
13	80443015	1	GRAB HANDLE	
14	88212258	3	HEX SOCKET HD CAPSCREW, 5/8-11X2, GR8	
15	88521010	3	HEX LOCKNUT, 5/8-11	
16	88551153	3	LOCKWASHER, 5/8	

Figure 1-6 Fuel Tank & Reservoir Assembly

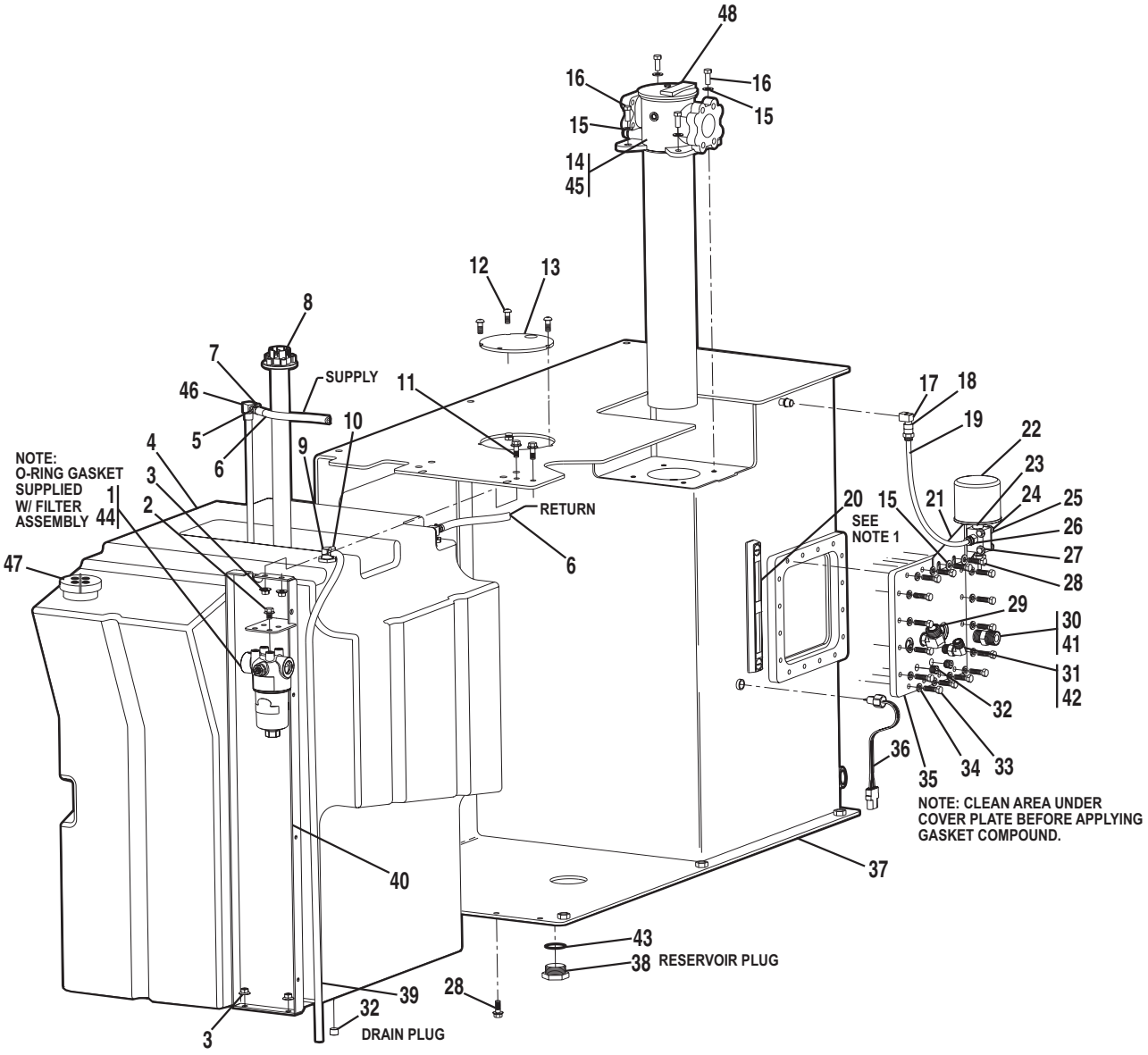

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Figure 1-6 Fuel Tank & Reservoir Assembly

Item	Part Number	Qty.	Description	Rev.
	80775014	Ref	RESERVOIR & FUEL TANK ASSY, (includes all items)	A
1	2120220	1	PILOT FILTER ASSY, (includes item 44)	
2	88681306	4	WHIZ-LOK SCREW, 3/8-16X1/2	
3	77143015	4	WHIZ-LOK NUT, 3/8-16	
4	80776013	1	FUEL TANK	
5	84717192	2	PUSH-LOK FITTING	
6		AR	FUEL HOSE, 3/8” I.D.	
7	83483497	2	CLAMP ASSY	
8	80773005	1	FUEL LEVEL SENDER	
9	80373051	1	VENT	
10	6883106	1	CLAMP ASSY	
11	80973025	4	WHIZ-LOK SCREW, 3/8-16X1	
12	88261029	3	SOCKET BUTTON HD CAPSCREW, 3/8-16X1	
13	80371012	1	COVER	
14	80773003	1	IN-TANK FILTER ASSY, (includes item 45 & 48)	
15	90027470	6	HARDENED WASHER, 3/8	
16	88201035	2	HEX HD CAPSCREW, 1/4-2-X1, GR5	
17	86983649	1	TUBE FITTING, 90 DEGREES	
18	80383047	1	PUSH-LOK FITTING	
19		AR	HOSE, 3/8	
20	80373052	1	SITE GAUGE	
21	80471060	1	BREATHER BRACKET	
22	80933068	1	RESERVOIR BREATHER	
23	80473049	1	BREATHER MANIFOLD	
24	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
25	77143013	2	WHIZ-LOK NUT, 1/4-20	
26	80383142	1	TUBE FITTING, STRAIGHT, 1/8	
27	88561002	2	FLAT WASHER, 1/4	
28	80973044	1	DRAIN VALVE	
29	80433047	1	ELBOW, 90 DEGREES,	
30	88662304	1	CONNECTOR, (includes item 41)	
31	88662330	1	ELBOW, 90 DEGREES, (includes item 42)	
32	88711282	3	HEX SOCKET PIPE PLUG, 3/8	
33	88201036	16	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
34	88551011	14	LOCKWASHER, 3/8	
35	80471104	1	COVER PLATE	
36	80933061	1	HYDRAULIC LEVEL PROBE SWITCH	
37	80776001	1	RESERVOIR WELDMENT	
38	88662180	1	HEX SOCKET PIPE PLUG, 1-1/4, (includes item 43)	
39		AR	FUEL HOSE, 5/16	
40	80776003	1	CORNER SUPPORT	
41	88591204	1	O-RIING	
42	88591205	1	O-RING	
43	88591210	1	O-RING	
44	80533001	1	FILTER ELEMENT	
45	80773038	1	FILTER ELEMENT	
46	80773051	2	FUEL TANK DROP TUBE	
47	86541381	1	FUEL TANK CAP	
48	80774020	1	COVER & SEAL ASSY	

Figure 1-6 Fuel Tank & Reservoir Assembly

Item	Part Number	Qty.	Description	Rev.
	80774019	1	SEAL KIT, (includes installation seals for item 14)	

Figure 1-6 Fuel Tank & Reservoir Assembly

Item	Part Number	Qty.	Description	Rev.

Figure 1-7 Counterweight & Swing Light Installation

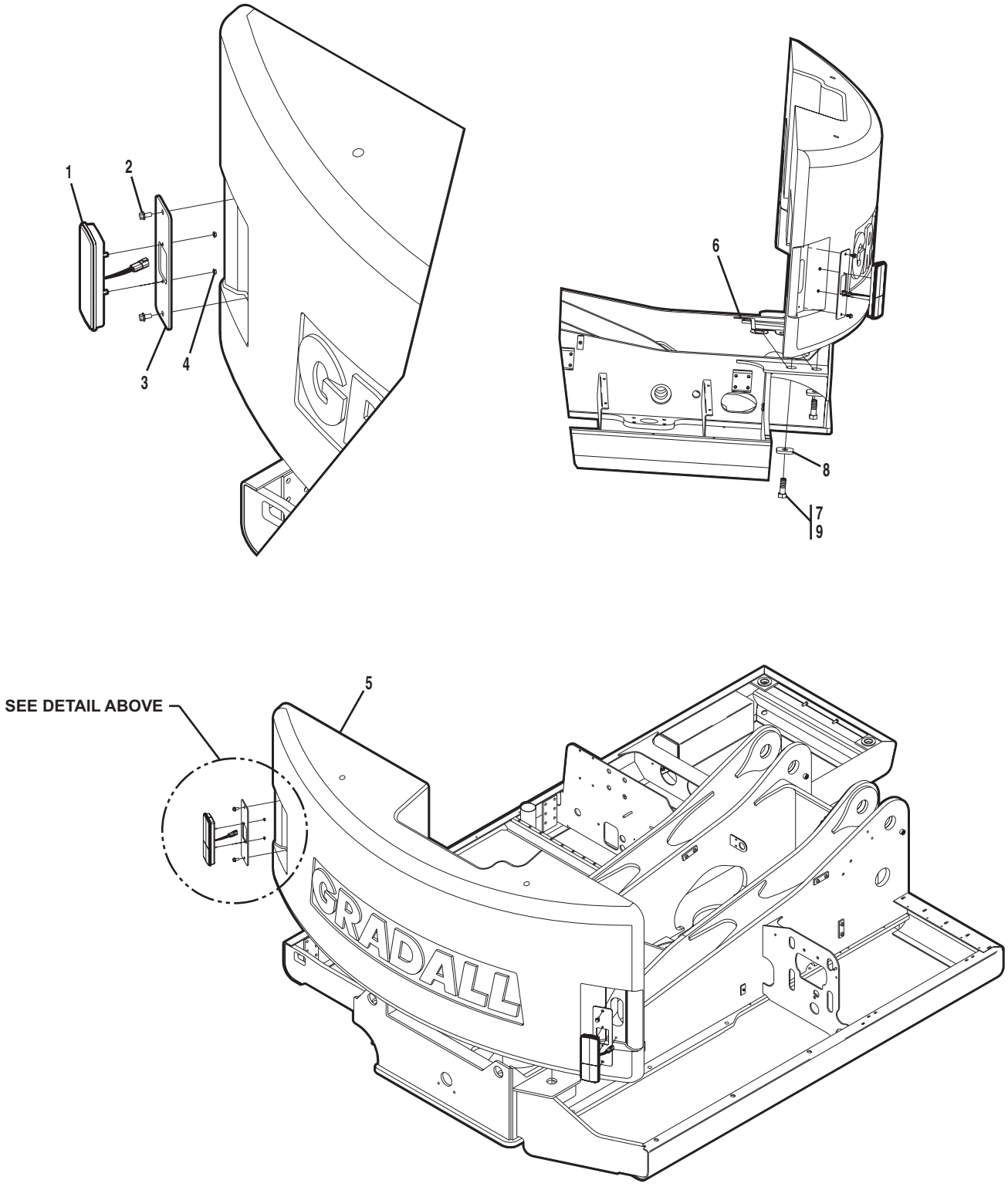

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Figure 1-7 Counterweight & Swing Light Installation

Item	Part Number	Qty.	Description	Rev.
	0275538	Ref	COUNTERWEIGHT & SWING LIGHT INSTALLATION, (includes all items)	C
1	2920194	2	SWING LIGHT	
2	80303094	4	WHIZ-LOK SCREW, 3/8-16X3/5	
3	4341111	2	SWING LIGHT MOUNT	
4	5220600	4	RIPP NUTT, 6mm	
5	4821467	1	COUNTERWEIGHT, 8,850 LBS.	
6	4071123	AR	COUNTERWEIGHT SHIM	
7	88201137	6	HEX HD CAPSCREW, 1-8X3, GR5, (loctite & torque to 545-595 lb-ft)	
8	4740569	6	SPECIAL SQUARE WASHER	
9	14403364	AR	LOCTITE, #242 BLUE	

Figure 1-8 Boom Installation Components

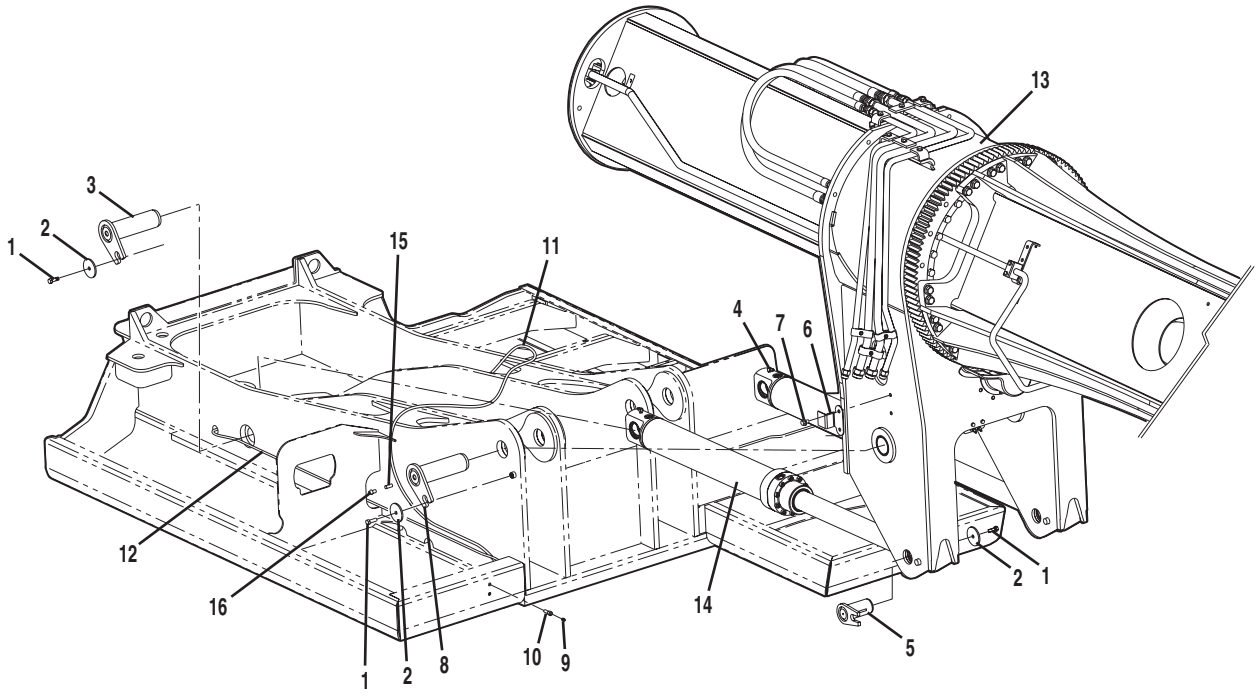

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Figure 1-8 Boom Installation Components

Item	Part Number	Qty.	Description	Rev.
	0275378	Ref	BOOM INSTALLATION COMPONENTS, (includes items 1 thru 12 & 15 thru 16)	D
1	88201067	6	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
2	80321089	6	SPECIAL WASHER	
3	80526006	2	PIN WELDMENT	
4	88743041	2	MALE ELBOW, 90 DEGREES, 1/8X1/4 TUBE	
5	80326011	2	PIN WELDMENT	
6	3576490	1	LOCATOR PLATE	
7	80223034	2	WHIZ-LOK SCREW, 1/2-13X3/4	
8	80626014	2	PIN WELDMENT	
9	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
10	80623016	2	BULKHEAD ADAPTER	
11	2754860	1	GREASE HOSE	
12	84719898	1	GREASE HOSE	
13		Ref	BOOM CRADLE WELDMENT, (see Figure 2-1 for details)	
14		Ref	HOIST CYLINDER ASSY, (see Figure 9-1 for details)	
15	88691302	2	CONNECTOR	
16	88671018	2	LUBE FITTING, 45 DEGREES, 1/8	

Figure 1-9 Cab Installation Components

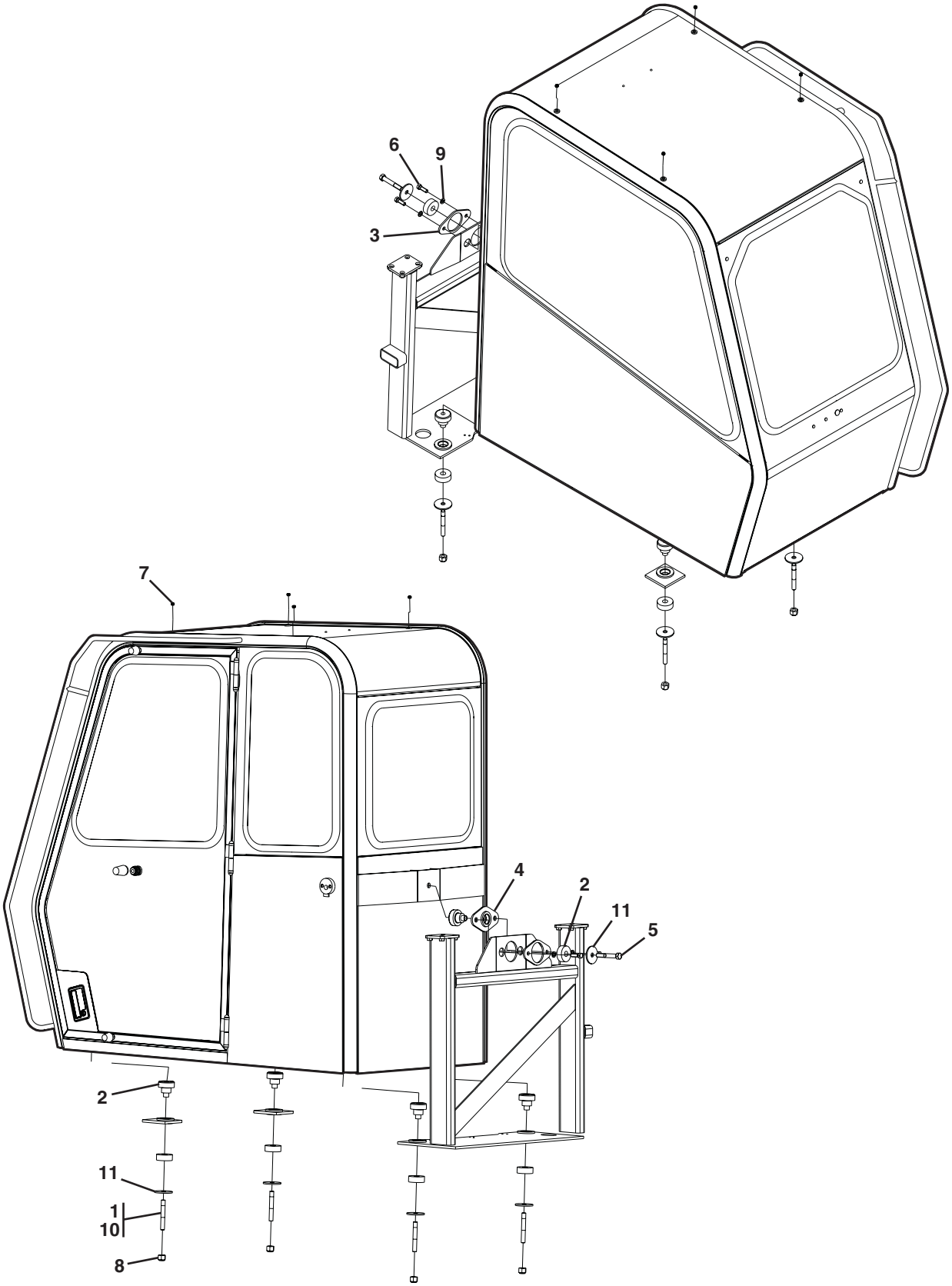
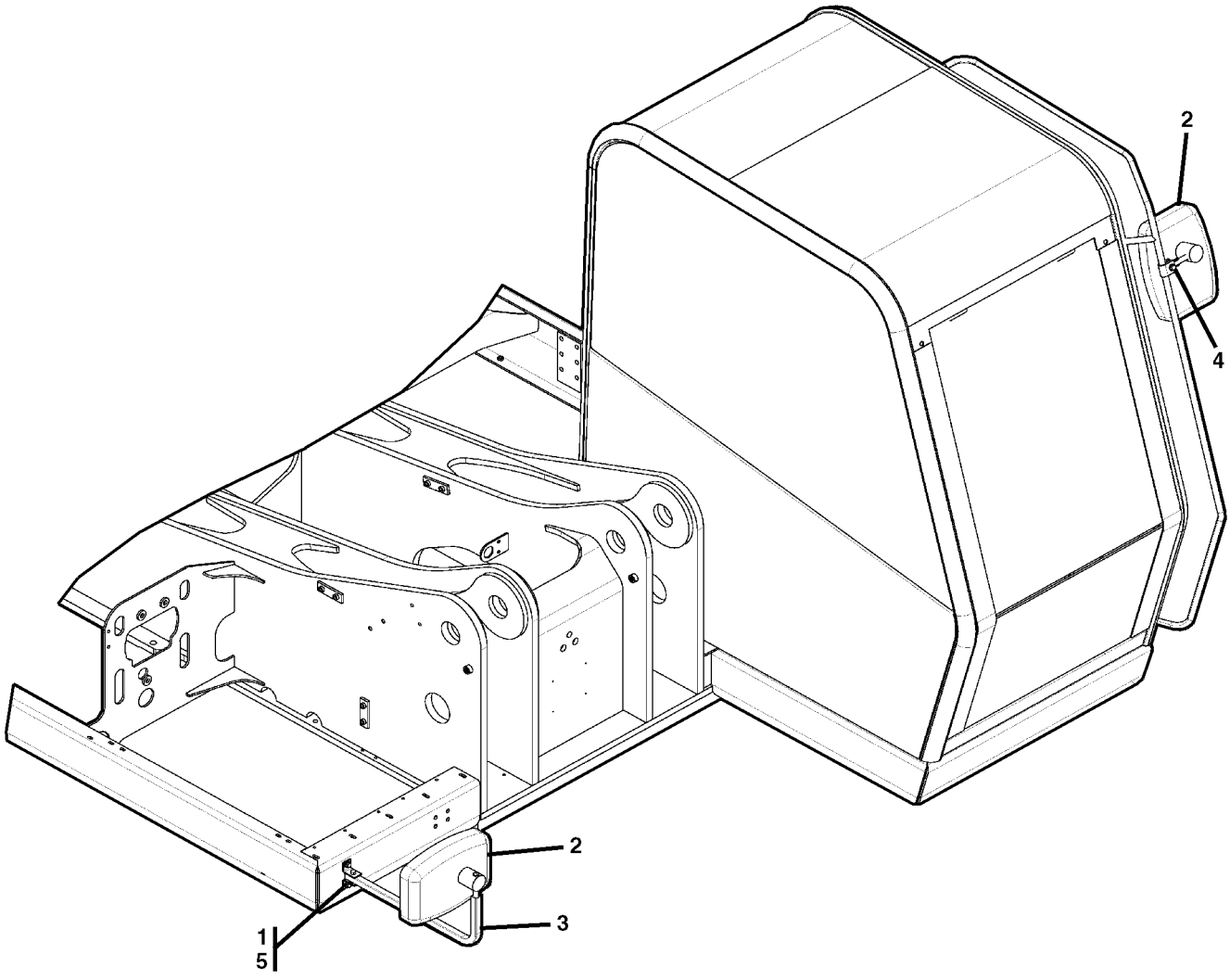


Figure 1-9 Cab Installation Components

Item	Part Number	Qty.	Description	Rev.
	80765018	Ref	CAB INSTALLATION, (includes all items)	A
1	14403364	AR	LOCTITE, (#242 blue)	
2	80383060	5	SHOCK MOUNT	
3	80741032	1	CAB MOUNT FLANGE PLATE	
4	80746009	1	CAB MOUNT FLANGE WELDMENT	
5	83201044	1	HEX HD CAPSCREW, 5/8-11X4, GR8, (torque to 200-215 lb-ft)	
6	83201160	2	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8, (torque to 100-110 lb-ft)	
7	88221104	4	SOCKET HD SET SCREW, 1/2-13X3/8, (cup point)	
8	88521010	4	HEX NUT, 5/8-11	
9	88551013	2	LOCKWASHER, 1/2	
10	88681394	4	STUD, 5/8-11X4-3/4, GR5	
11	91203138	5	REBOUND WASHER	

Figure 1-10 Mirror Installation



PAE0030

Figure 1-10 Mirror Installation

Item	Part Number	Qty.	Description	Rev.
	80505001	1	MIRROR INSTALLATION, (includes all items)	A
1	77143015	2	WHIZ LOK NUT, 3/8-16	
2	80363195	2	SIDE VIEW MIRROR	
3	80363196	1	MIRROR MOUNT	
4	80363197	1	CAB MIRROR MOUNT	
5	80973025	2	WHIZ LOK SCREW, 3/8-16X1	

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SECTION 2
BOOM

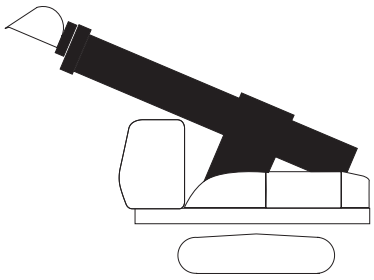
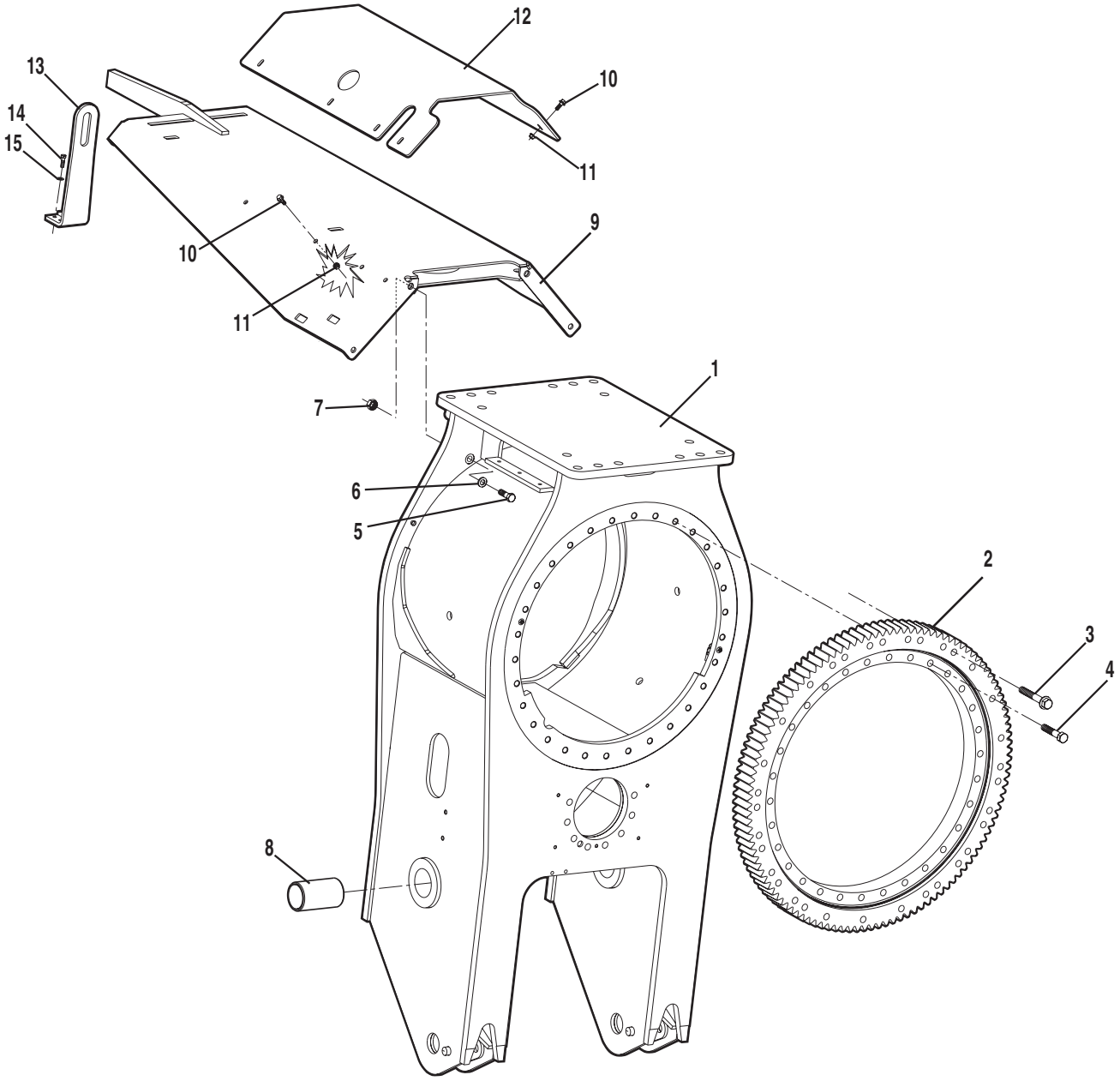


Figure 2-1 Boom Cradle



PAD2320

Figure 2-1 Boom Cradle

Item	Part Number	Qty.	Description	Rev.
1	80526010	1	CRADLE WELDMENT	
2	80523001	1	TILT GEAR ASSY	
3	80323013	27	FLANGE HD CAPSCREW, 3/4-10X5, (loctite & torque to 340-365 lb-ft)	
4	83201058	30	HEX HD CAPSCREW, 3/4-10X3-3/4, GR8, (loctite & torque to 340-365 lb-ft)	
5	83201092	4	HEX HD CAPSCREW, 5/8-11X2, GR8	
6	80993217	4	SPECIAL WASHER	
7	88971006	4	HEX LOCKNUT, 5/8-11	
8	80923009	2	BUSHING	
9	80526011	1	HOOD WELDMENT	
10	80973025	7	WHIZ-LOK SCREW, 3/8-16X1	
11	88971004	7	HEX NUT, 3/8-16	
12	80421170	1	HOSE COVER	
13	80426036	1	STABILIZER WELDMENT	
14	83201115	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR8	
15	90027470	4	HARDENED WASHER, 3/8	

Figure 2-2 Main Boom Assembly

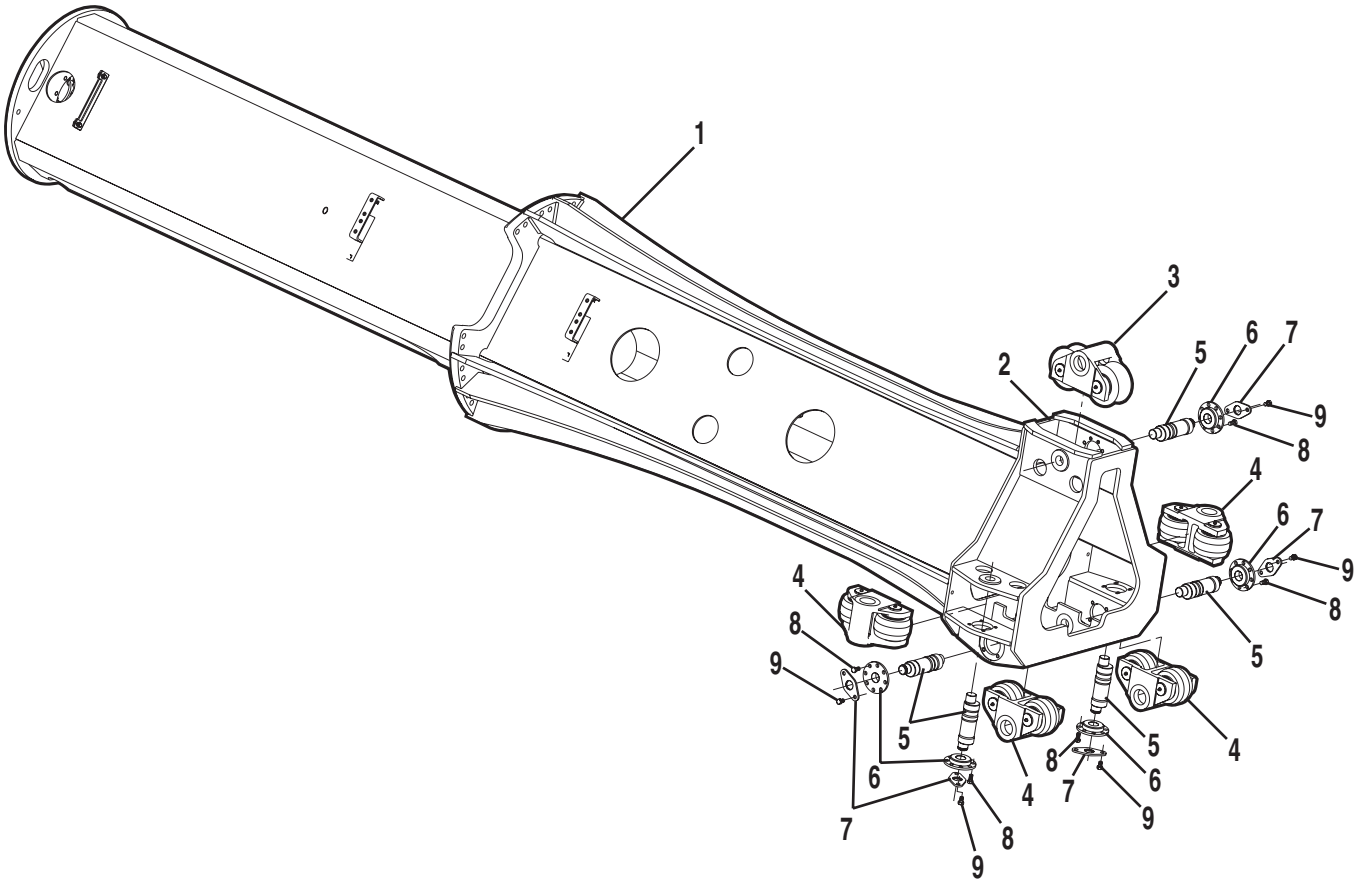
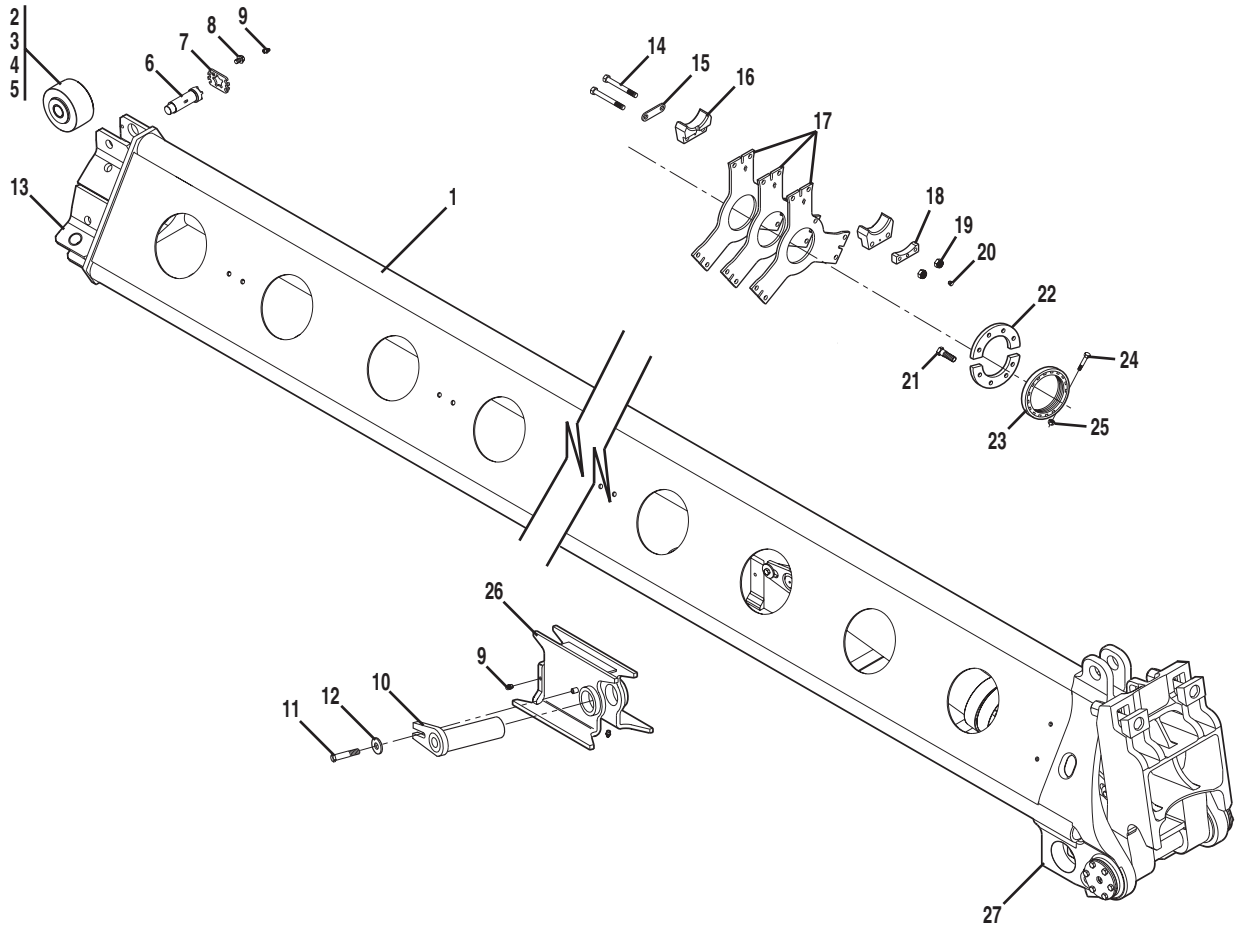


Figure 2-2 Main Boom Assembly

Item	Part Number	Qty.	Description	Rev.
1	80726004	1	MAIN BOOM WELDMENT, (includes item 2)	
2	80526008	1	ROLLER BRACKET WELDMENT	
3		REF	DUAL CONCAVE ROLLER ASSY, (see Figure 2-4 for details)	
4		REF	DUAL FLAT ROLLER ASSY, (see Figure 2-4 for details)	
5	80921095	5	ECCENTRIC SHAFT	
6	85021683	5	SPACER HUB	
7	80921093	5	LOCKING PLATE	
8	83201123	10	HEX HD CAPSCREW, 1/2-13X1, GR8	
9	80923036	14	HEX HD CAPSCREW, 1/2-13X3/4	

Figure 2-3 Telescope Boom Assembly



PAD2340

Figure 2-3 Telescope Boom Assembly

Item	Part Number	Qty.	Description	Rev.
1	80726005	1	TELESCOPING BOOM ASSY, (includes items 13, 26 & 27)	D
2	80425010	3	BOOM ROLLER ASSY, (includes items 3 thru 5)	
3	83621145	3	BUSHING	
4	83621262	6	THRUST WASHER	
5	83623005	6	FACE SEAL	
6	80423005	3	ECCENTRIC SHAFT	
7	80421109	3	ROLLER ADJUSTMENT PLATE	
8	80223035	6	FLANGE HD CAPSCREW, 1/2-13X3/4, GR8	
9	88671001	4	LUBE FITTING, STRAIGHT, 1/8	
10	80926014	1	PIN WELDMENT	
11	83201129	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
12	83621283	1	SPECIAL WASHER	
13	80426004	1	ROLLER BRACKET	
14	88201078	6	HEX HD CAPSCREW, 1/2-13X4-1/2, GR5	
15	80421136	3	KEEPER	
16	80293014	6	SPIDER PAD	
17	80421139	3	SPIDER	
18	80221280	3	THREADED BAR	
19	88521308	6	HEX NUT, 1/2-13	
20	88711280	3	HEX PLUG, 1/8	
21	80323020	6	FLANGE HD CAPSCREW, 5/8-11X1-1/2, GR8, (lubricate & torque to 200-215 lb-ft)	
22	80521023	6	CYLINDER RETAINER	
23	80423030	1	SPIDER RETAINER	
24	88212248	1	SOCKET HD CAPSCREW, 7/16-14X2-1/2, GR8, (never-seize & torque to 30-35 lb-ft)	
25	88681300	1	HEX LOCKNUT, 7/16-14	
26	4341126	1	CYLINDER MOUNT WELDMENT	
27	4341079	1	TOOL EYE WELDMENT	

Figure 2-4 Boom Roller Assemblies

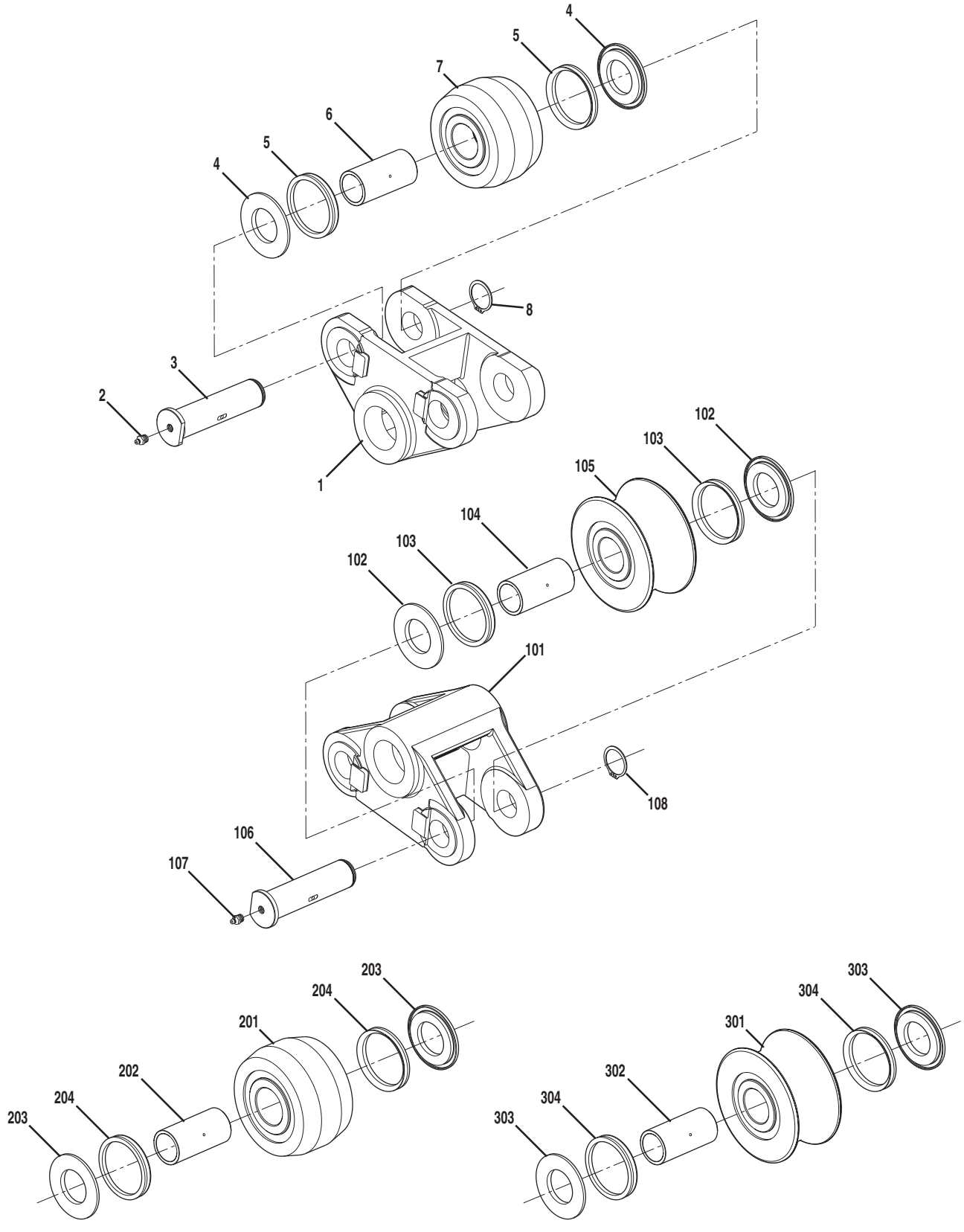
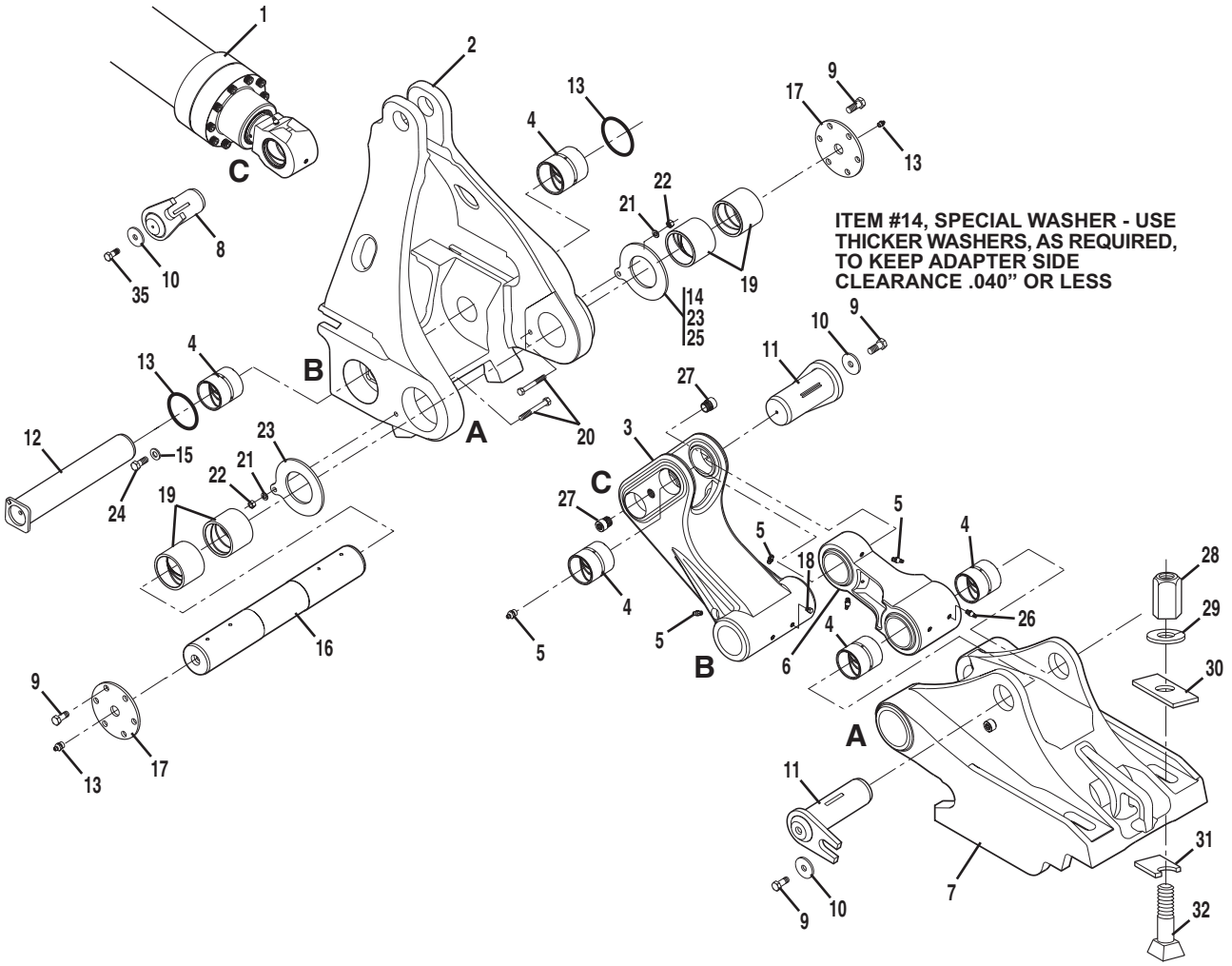


Figure 2-4 Boom Roller Assemblies

Item	Part Number	Qty.	Description	Rev.
	80925003	1	BOOM ROLLER ASSY, (includes items 1 thru 8)	
1	80921002	1	BOOM ROLLER BRACKET	
2	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
3	85021704	2	PIN WELDMENT	
4	83621262	4	THRUSTWASHER	
5	83623005	4	SEAL	
6	83621145	2	BUSHING	
7	83625043	2	BOOM ROLLER	
8	88581140	2	SNAP RING	
	80925002	1	BOOM ROLLER ASSY, (includes items 101 thru 108)	
101	80921001	1	BOOM ROLLER BRACKET	
102	83621262	4	THRUSTWASHER	
103	83623005	4	SEAL	
104	83621145	2	BUSHING	
105	83625044	2	BOOM ROLLER	
106	85021704	2	PIN WELDMENT	
107	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
108	88581140	2	SNAP RING	
	83625043	1	BOOM ROLLER ASSY, (includes items 201 thru 204)	
201	83621214	1	BOOM ROLLER	
202	83621145	1	BUSHING	
203	83621262	2	THRUSTWASHER	
204	83623005	2	SEAL	
	83625044	1	BOOM ROLLER ASSY, (includes items 201 thru 204)	
301	83621215	1	BOOM ROLLER	
302	83621145	1	BUSHING	
303	83621262	2	THRUSTWASHER	
304	83623005	2	SEAL	
			NOTE: QUANTITIES SHOWN FOR ONE ROLLER ASSY ONLY.	

Figure 2-5 Bucket Linkage



PAD2400

Figure 2-5 Bucket Linkage

Item	Part Number	Qty.	Description	Rev.
1		Ref	TOOL CYLINDER ASSY, (see Figure 9-3 for details)	
2	4341079	1	TOOL EYE WELDMENT	
3	80725006	1	CURVED LINK ASSY, (includes qty 2 of items 4, 5, 27 & 18)	
4	80723002	4	BUSHING	
5	88671008	4	LUBE FITTING, STRAIGHT, 1/8	
6	80725005	1	STRAIGHT LINK ASSY, (includes item 4 & qty 2 of items 26)	
7	0080275	1	BUCKET ADAPTER	
	80656037	1	XL4000 SERIES ATTACHMENT ADAPTER, (optional), (not illustrated)	
	80756007	1	HAMMER MOUNT ADAPTER, (optional), (not illustrated)	
	80993297	1	REMMER HAMMER QUICK CHANGE ADAPTER, (not illustrated)	
8	80926014	2	PIN WELDMENT	
9	83201129	12	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
10	83621283	2	SPECIAL WASHER	
11	80926014	1	PIN WELDMENT	
12	3423229	1	PIN WELDMENT	
13	88671001	3	LUBE FITTING, STRAIGHT, 1/8	
14	80321134	AR	SPECIAL WASHER, (see illustration note)	
15	90027471	1	HARDENED WASHER	
16	3423228	1	PIN WELDMENT	
17	80521045	2	PIN RETAINER PLATE	
18	88221183	2	HEX SOCKET SET SCREW, 1/4-28X1/4, (cup point)	
19	80323047	4	BUSHING	
20	88201043	2	HEX HD CAPSCREW, 3/8-16X3, GR5	
21	88551011	2	LOCKWASHER, 1/2	
22	3271601	2	HEX NUT, 1/2-13	
23	80321039	2	SPECIAL WASHER	
24	83201129	4	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8, (lubricate & torque to 66-71 lb-ft)	
25	80321135	AR	SPECIAL WASHER, (see illustration note)	
26	88221183	2	HEX SOCKET SET SCREW, 1/4-20X1/4, (cup point)	
27	80421119	2	THREADED STUD	
28	80921174	2	HIGH NUT	
29	88551018	2	LOCKWASHER	
30	4740568	2	RECTANGLE WASHER	
31	3576790	2	KEEPER	
32	3900383	2	WEDGE BOLT	

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SECTION 3
ATTACHMENTS

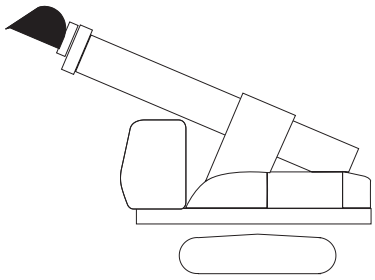
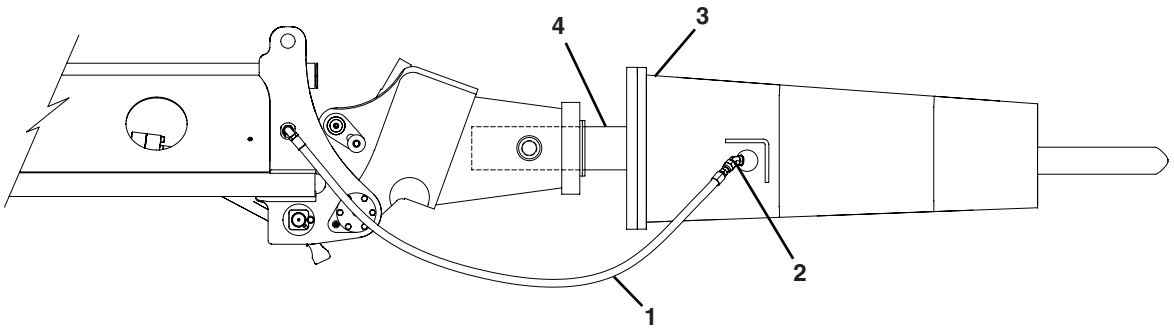


Figure 3-1 Hammer Hose Installation

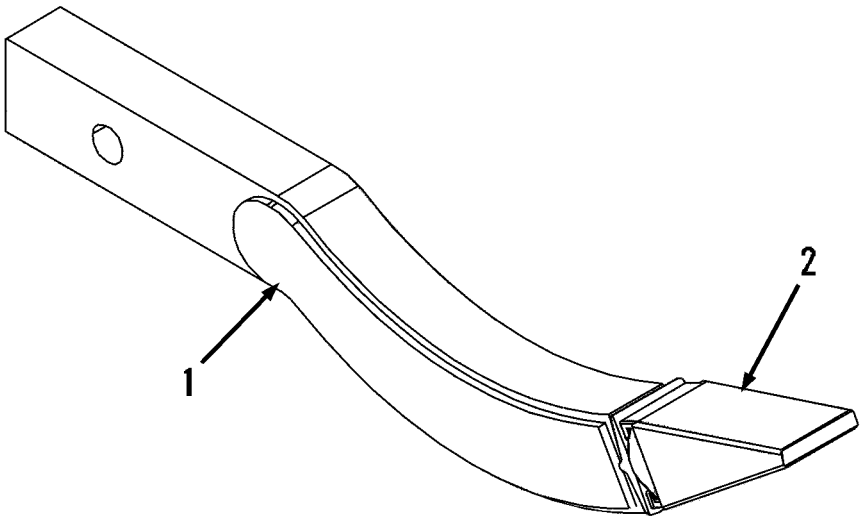


SPECIAL

Figure 3-1 Hammer Hose Installation

Item	Part Number	Qty.	Description	Rev.
	80755017	1	HAMMER HOSE INSTALLATION, (includes items 1 & 2)	-
1	84721419	2	HOSE ASSY	
2	88662124	2	FITTING, 45 DEGREES	
3	X5213025	1	S29 RAMMER HAMMER	
4		Ref	HAMMER BRACKET, (customer supplied)	
			AVAILABLE RAMMER S29 HAMMER BITS:	
	80653015	A/R	35.4” MOIL POINT	

Figure 3-2 Skull Hook & Tooth

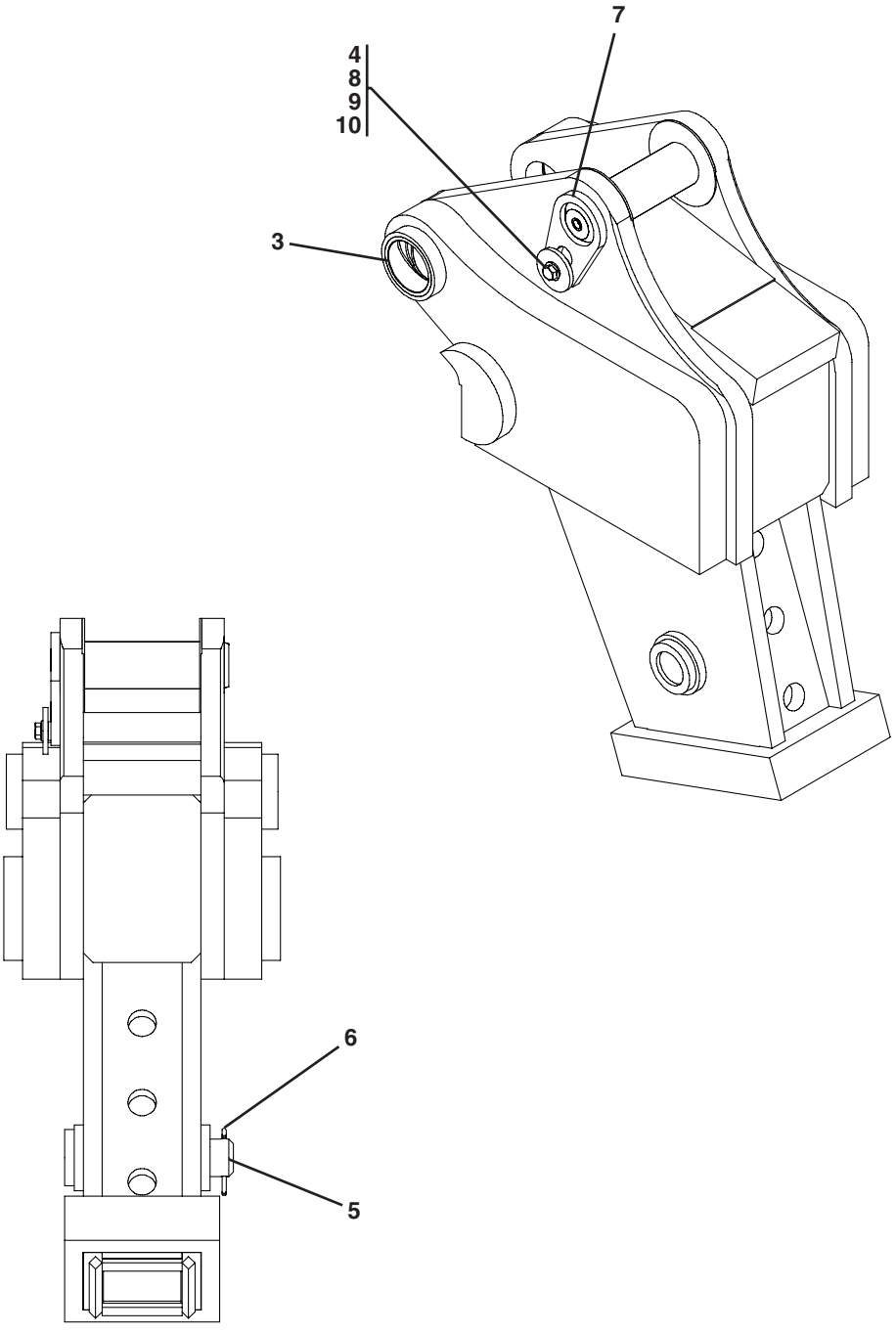


SPECIAL

Figure 3-2 Skull Hook & Tooth

Item	Part Number	Qty.	Description	Rev.
1	80753004	1	4’ SKULL HOOK	
2	80993299	1	TOOTH	

Figure 3-3 Quick Switch Box Reciever



SPECIAL

Figure 3-3 Quick Switch Box Reciever

Item	Part Number	Qty.	Description	Rev.
	80753003	1	QUICK SWITCH BOX RECIEVER, (includes all items)	-
1 to 2	Not Used			
3	80323047	2	BUSHING	
4	3423228	1	PIN	
5	80754001	1	SKULL HOOK PIN, 2”X8-1/2”	
6	80754002	1	COTTER PIN, 1/4”X3”	
7	80521025	1	PIN ASSY	
8	80754003	1	BOLT, 1/2”X1-1/2”, GR8	
9	80754004	1	FLAT WASHER, 1/2	
10	80754005	1	WASHER, 2-1/2X13/16X1/4	

Figure 3-4 4’ Bucket

ILLUSTRATION NOT AVAILABLE FOR THIS PART

Figure 3-4 4’ Bucket

Item	Part Number	Qty.	Description	Rev.
	80753005	1	4’ BUCKET	-

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SECTION 4
ENGINE & ATTACHING PARTS

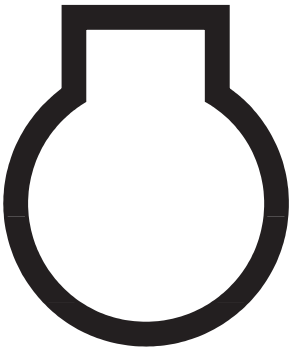
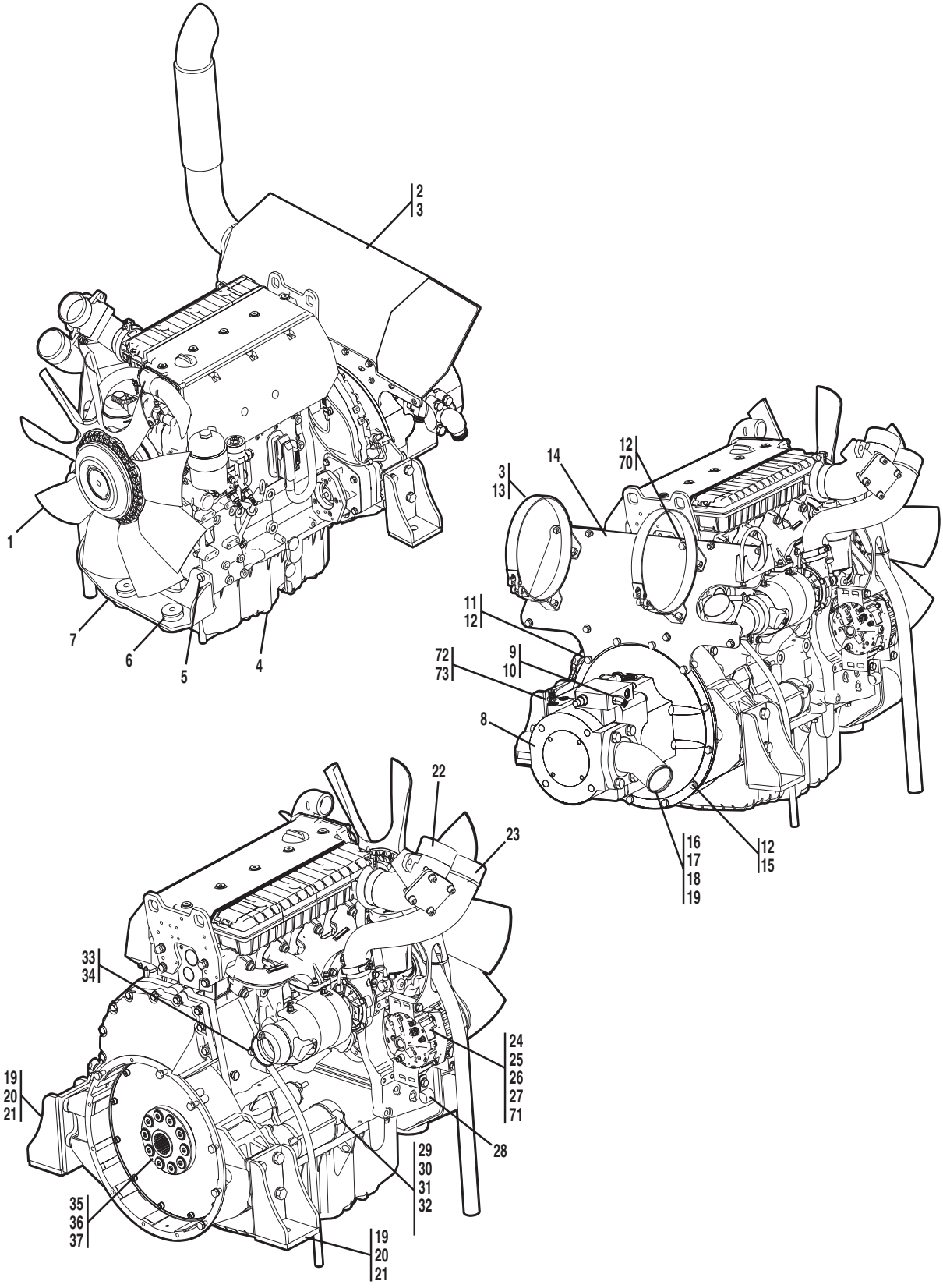
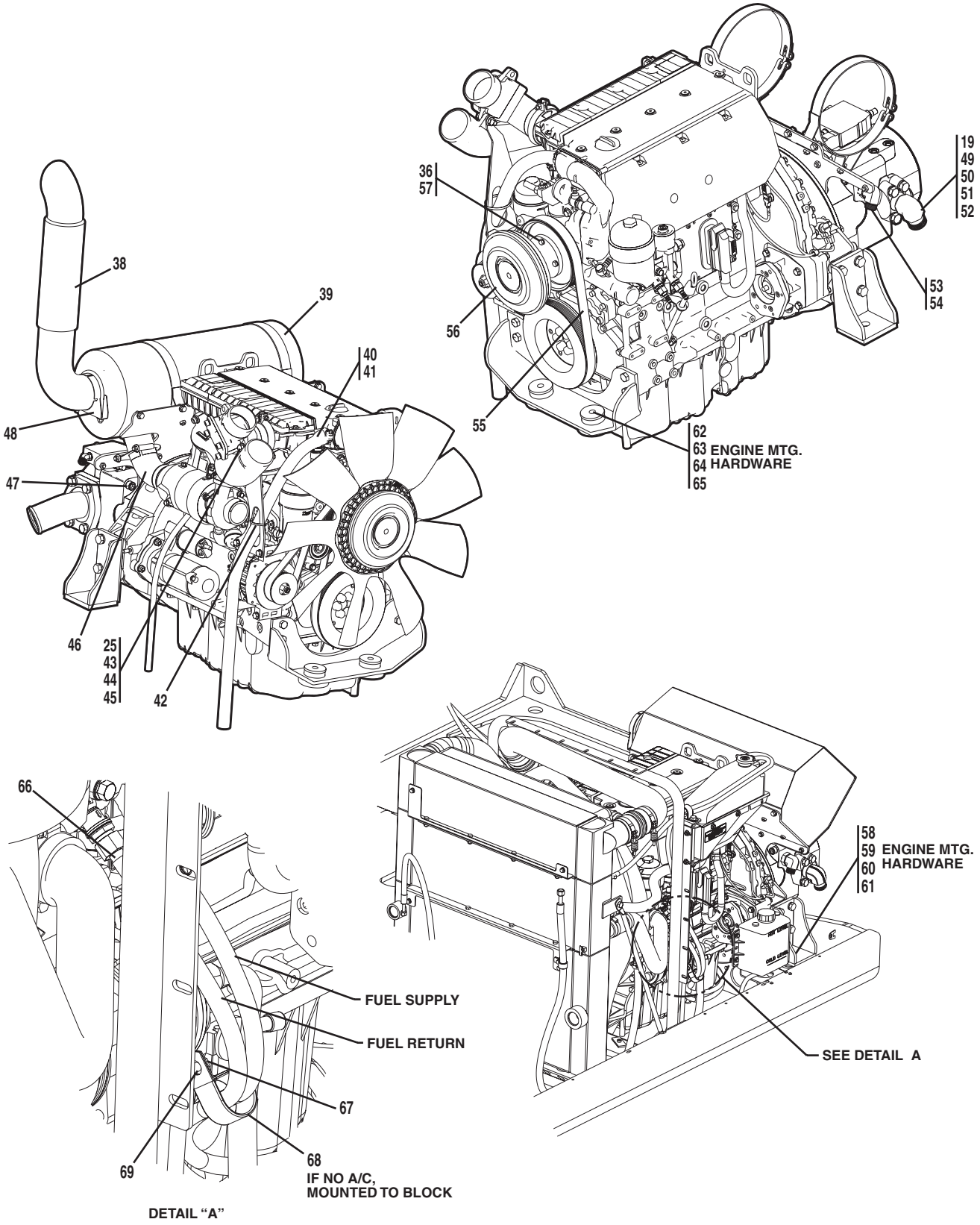


Figure 4-1 Engine Assembly



PAD0030

Figure 4-1 Engine Assembly



PAD0040

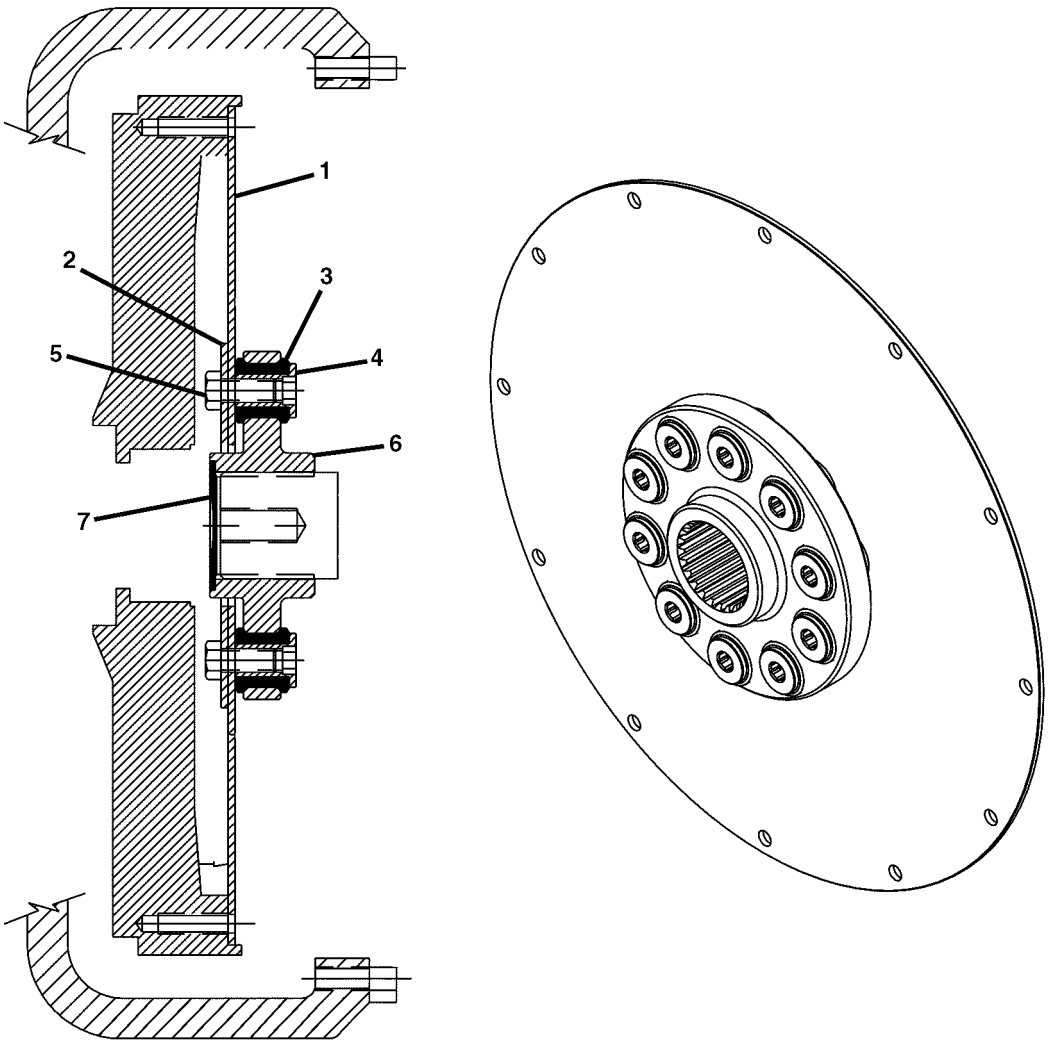
Figure 4-1 Engine Assembly

Item	Part Number	Qty.	Description	Rev.
	80775001	1	POWER UNIT ASSY, (includes items 1 thru 57 & 70 thru 73; excludes items 49 thru 52)	D
1	2060038	1	FAN	
2	80776004	1	HEAT SHIELD WELDMENT	
3	80303094	12	WHIZ-LOK SCREW, 3/8-16X3/4	
4	80773001	1	ENGINE	
5	83191067	4	HEX SOCKET HD CAPSCREW, M14-2X43, (loctite & torque to 87-93 lb-ft)	
6	80383399	2	LORD MOUNT	
7	80486016	1	FRONT ENGINE MOUNT	
8		Ref	MAIN PUMP ASSY, (see Figure 9-4 for details)	
9	88662418	1	CONNECTOR, (includes item 10)	
10	88591204	1	O-RING	
11	83191027	4	HEX HD CAPSCREW, M10-1.5X35, GR8, (loctite & torque to 32-36 lb-ft)	
12	83191013	14	LOCKWASHER, M10	
13	80483121	2	MUFFLER CLAMP	
14	80771013	1	MUFFLER BRACKET	
15	83191021	10	HEX HD CAPSCREW, M10-1.50X30, GR8, (loctite & torque to 32-36 lb-ft)	
16	80773036	1	SUCTION ELBOW	
17	80933139	1	O-RING	
18	88201096	4	HEX HD CAPSCREW, 5/8-11X1-3/4, GR5, (loctite & torque to 140-155 lb-ft)	
19	88551015	16	LOCKWASHER, 5/8	
20	80776002	2	REAR ENGINE MOUNT	
21	80773006	8	HEX HD CAPSCREW, M16-2X65, GR10, (loctite & torque to 173-180 lb-ft)	
22	80773046	1	TUBE ASSY	
23	80773045	1	TUBE ASSY	
24	80483052	1	ALTERNATOR	
25	80771024	1	BRACKET	
26	90027470	4	HARDENED WASHER, 3/8	
27	80483108	4	HEX HD CAPSCREW, (loctite & torque to 32-36 lb-ft)	
28	86521144	1	SUPPORT CLAMP	
29	80483055	1	STARTER	
30	80233220	3	HARDENED FLAT WASHER, M10	
31	83191030	3	HEX LOCKNUT, M10-1.5, (loctite & torque to 32-36 lb-ft)	
32	80483237	3	STUD, M10-1.5x45, (loctite & torque to 40-45 lb-ft)	
33	83483497	1	WORM CLAMP	
34	82092119	23”	HOSE, 1/2”	
35		Ref	FLYWHEEL COUPLER ASSY, (see Figure 4-2 for details)	
36	83191011	16	LOCKWASHER, M8	
37	83191046	12	HEX SOCKET HD CAPSCREW, M8-1.25X20, (loctite & torque to 16-20 lb-ft)	
38	80773009	1	EXHAUST TAILPIPE	
39	80773008	1	MUFFLER	
40	80483127	1	SLOBBER HOSE ASSY	
41	86671187	1	HOSE CLAMP	
42	86683122	1	TIE WRAP	
43	77143014	1	WHIZ-LOK NUT, 1/2-13	
44	88201069	1	HEX HD CAPSCREW, 1/2-13X2, GR5	
45	88561111	1	FLAT WASHER, 1/2	
46	80773010	1	EXHAUST TUBE	
47	24921332	1	MUFFLER CLAMP, 3”	

Figure 4-1 Engine Assembly

Item	Part Number	Qty.	Description	Rev.
48	86883127	1	MUFFLER CLAMP, 4”	
49	84712740	2	FLANGE HALF	
50	83783043	1	O-RING	
51	88201098	4	HEX HD CAPSCREW, 5/8-11X2-1/4, GR5, (loctite & torque to 140-155 lb-ft)	
52	88662535	1	ELBOW, 90 DEGREES	
53	88662429	1	ELBOW, 90 DEGREES, (includes item 54)	
54	88591209	1	O-RING	
55	80483056	1	DRIVE BELT, (without A/C)	
	80483057	1	DRIVE BELT, (with A/C)	
56	1400129	1	FAN CLUTCH	
57	83191045	4	HEX HD CAPSCREW, 8-1.25X30, GR8.8, (loctite & torque to 16-20 lb-ft)	
58	77321274	2	HEX HD CAPSCREW, 7/8-9X5	
59	80373049	2	REBOUND WASHER	
60	88521214	2	HEX LOCKNUT, 7/8-11	
61	91333003	2	SHOCK MOUNT	
62	77381205	2	SPECIAL WASHER	
63	88201103	2	HEX HD CAPSCREW, 5/8-11X3-1/2, GR5	
64	88521210	2	HEX LOCKNUT, 5/8-11	
65	88561113	2	FLAT WASHER, 5/8	
66	83483497	2	WORM CLAMP	
67	77143004	1	WHIZ-LOK SCREW, 5/16-18X1-1/4	
68	85841150	1	SUPPORT CLAMP, 1-1/2	
69	77143006	1	WHIZ-LOK NUT, 5/16-18	
70	83191024	2	HEX HD CAPSCREW, M12-1.75X90, GR8, (loctite & torque to 32-36 lb-ft)	
71	80483045	1	PULLEY	
72	77133089	1	MINI-CHECK COUPLING, (includes item 73)	
73	80763056	1	VITON O-RING, (lubricate lightly)	
	80774017	1	ENGINE FILTER KIT, (includes the following items)	
	80774016	1	OIL FILTER	
	80774012	1	FILTER ELEMENT	
	80774010	1	SAFETY ELEMENT	
	80384384	1	FUEL FILTER	
	80774018	1	PRE-FUEL FILTER SCREEN	

Figure 4-2 Flywheel Coupler Assembly



PAD1120

Figure 4-2 Flywheel Coupler Assembly

Item	Part Number	Qty.	Description	Rev.
	80773007	1	FLYWHEEL COUPLER ASSY, (includes all items)	A
1	80774014	1	FLYWHEEL PLATE	
2	80974037	1	BACKING PLATE	
3	80374008	10	THREADED BUSHING	
4	80374007	10	NEOPRENE INSERT	
5	80374009	10	HEX HD BOLT, 7/16-20X1	
6	80774015	1	COUPLING HUB	
7	80374010	1	HUBBARD PLUG	

Figure 4-3 Air Cleaner & Installation

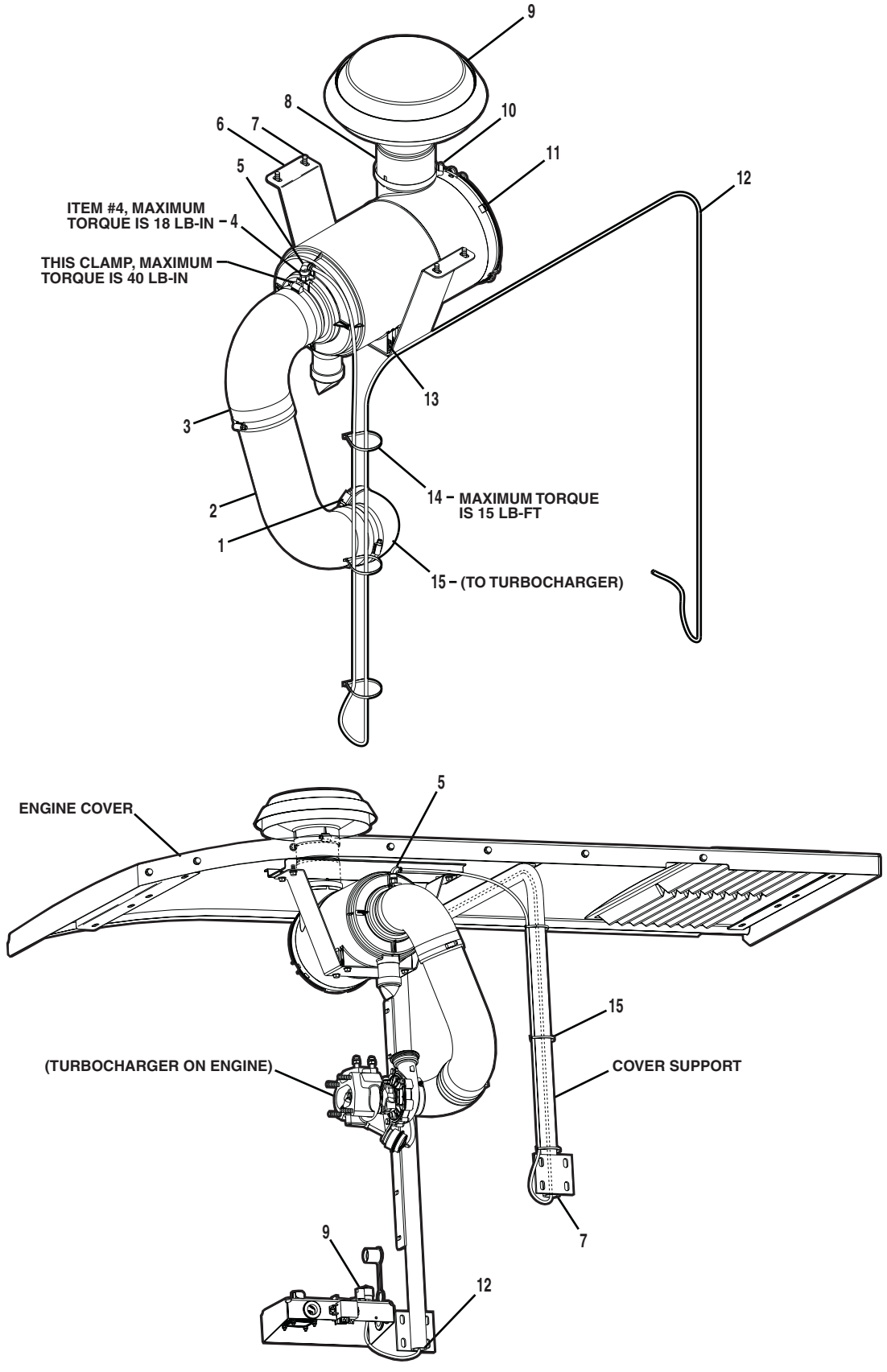
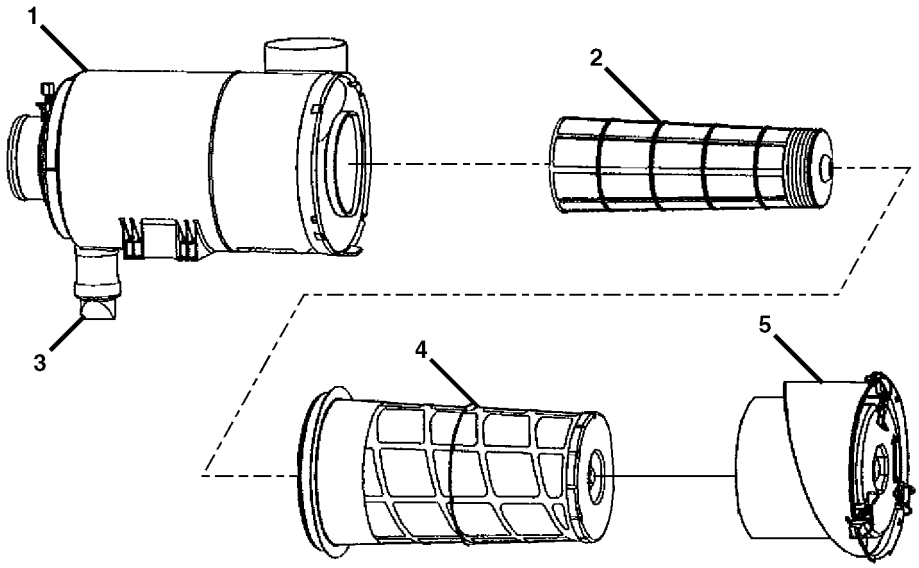


Figure 4-3 Air Cleaner & Installation

Item	Part Number	Qty.	Description	Rev.
	80775005	Ref	AIR CLEANER & INSTALLATION, (includes all items)	B
1	90027713	1	HOSE CLAMP, 2-1/8X4	
2	80773011	1	AIR INTAKE TUBE	
3	09523572	1	AIR INTAKE ELBOW	
4	88712317	1	COUPLING, 1/8	
5	80383151	1	TUBE FITTING, 90 DEGREES	
6	80771016	1	AIR CLEANER MOUNT PLATE	
7	77143003	4	WHIZ-LOK SCREW, 5/16-18X5/8	
8	80773015	1	TUBE CONNECTOR	
9	80773014	1	AIR INLET HOOD	
10	86871176	4	HOSE CLAMP, 4x5	
11		Ref	DONALDSON AIR CLEANER, (see Figure 4-4 for details)	
12		AR	NYLON TUBING, 1/4	
13	80773048	4	WHIZ-LOK SCREW, M8-1.25X12	
14	83664133	3	TY-RAP	
15	80773012	1	AIR INTAKE ADAPTER	

Figure 4-4 Air Cleaner Assembly



PAD1110

Figure 4-4 Air Cleaner Assembly

Item	Part Number	Qty.	Description	Rev.
	80773013	1	AIR CLEANER ASSEMBLY, (includes all items)	
1		1	BODY, (not available for service)	
2	80774010	1	SAFETY ELEMENT	
3	80774011	1	VACUATOR VALVE	
4	80774012	1	PRIMARY ELEMENT	
5	80774013	1	COVER	

Figure 4-5 Oil Cooler, Radiator & Hoses

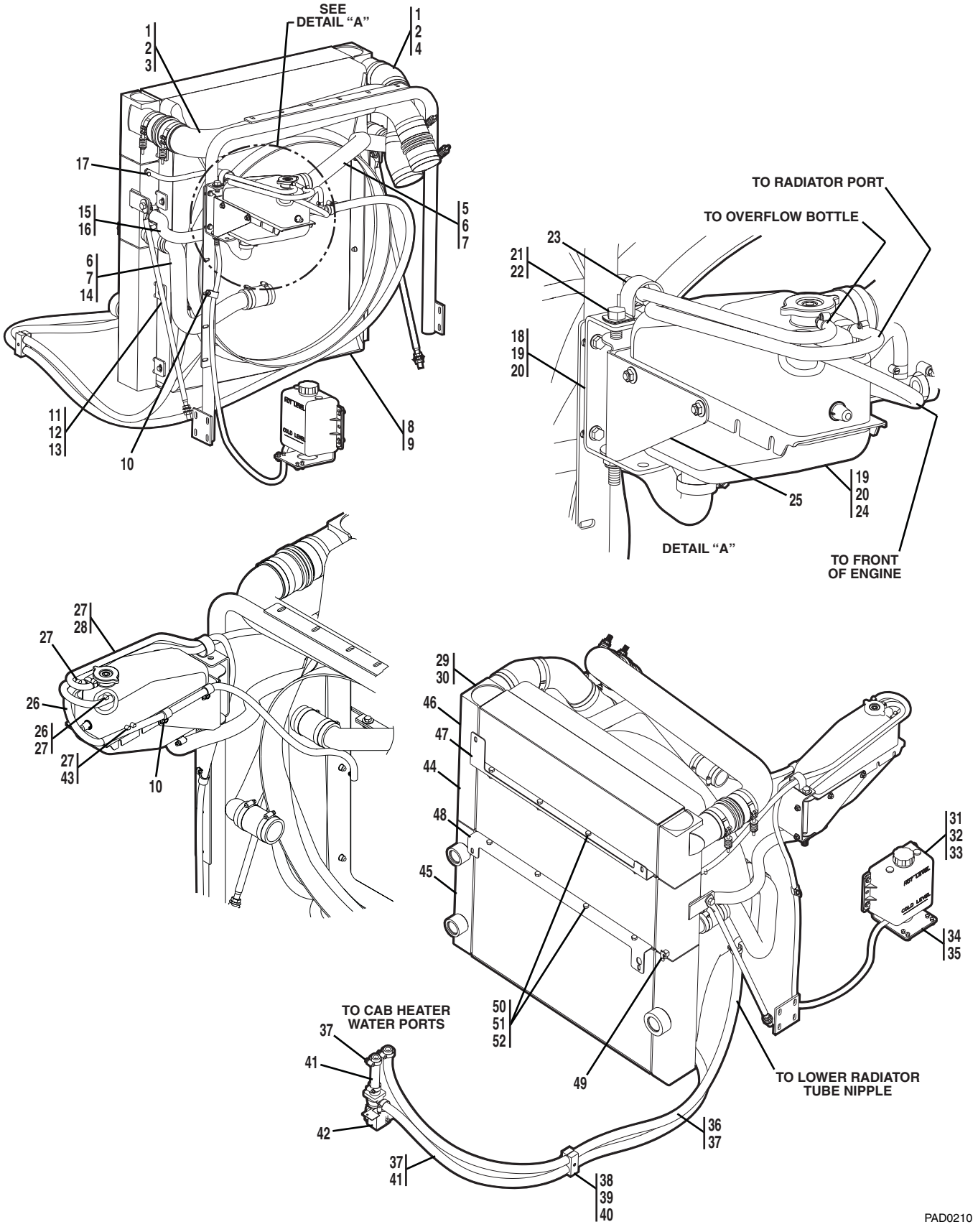


Figure 4-5 Oil Cooler, Radiator & Hoses

Item	Part Number	Qty.	Description	Rev.
	80775006	Ref	OIL COOLER, RADIATOR & HOSES, (includes all items)	B
1	80483048	4	CHARGE AIR HOSE	
2	80683250	8	T-BOLT CLAMP	
3	80773021	1	CHARGE AIR TUBE	
4	80773022	1	CHARGE AIR TUBE	
5	80773023	1	UPPER RADIATOR TUBE	
6	80483109	4	RADIATOR TUBE COUPLING	
7	85071128	8	HOSE CLAMP, 1-9/16X2-1/2	
8	80773019	1	FAN SHROUD	
9	91363018	8	WHIZ-LOK SCREW, 5/16-18X1	
10	91143122	3	SUPPORT CLAMP, 5/8	
11	80773020	2	COOLING UNIT SUPPORT	
12	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
13	77143014	6	WHIZ-LOK NUT, 1/2-13	
14	80773028	1	LOWER RADIATOR TUBE	
15	80773027	1	FORMED HOSE	
16	86971172	2	HOSE CLAMP	
17	84717192	1	PUSH-LOK FITTING	
18	80771020	1	TANK PIVOT BRACKET	
19	77143003	6	WHIZ-LOK SCREW, 5/16-18X5/8	
20	77143006	6	WHIZ-LOK NUT, 5/16-18	
21	83201143	1	HEX HD CAPSCREW, 1/2-13X8, GR5	
22	88521308	1	HEX LOCKNUT, 1/2-13	
23	85841150	1	SUPPORT CLAMP	
24	80483230	1	SURGE TANK	
25	80771019	1	TANK SUPPORT WELDMENT	
26	2720340	AR	HOSE, 3/8	
27	86883106	8	HOSE CLAMP	
28	82092118	1	OVERFLOW HOSE	
29	80223034	2	WHIZ-LOK SCREW, 1/2-13X3/4	
30	80773017	1	COOLING UNIT ASSY, (includes items 44 thru 52)	A
31	80983051	1	OVERFLOW TANK	
32	88561002	4	FLAT WASHER, 1/4	
33	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
34	80771023	1	OVERFLOW TANK BRACKET	
35	88261016	4	BUTTON HD CAPSCREW, 1/4-20X3/4	
36	82033995	AR	HEATER HOSE, BLACK	
37	86671187	6	HOSE CLAMP	
38	77133279	1	CLAMP SET	
39	77133137	1	COVER PLATE	
40	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
41	82033988	AR	HEATER HOSE, RED	
42	80773025	1	HEATER CONTROL VALVE	
43	80481144	1	IN-LINE ORIFICE	
44	80774001	1	RADIATOR	
45	80774002	1	HYDRAULIC OIL COOLER	
46	80774003	1	CHARGE AIR COOLER	
47	80774004	1	MOUNTING BRACKET	
48	80774005	1	MOUNTING BRACKET	

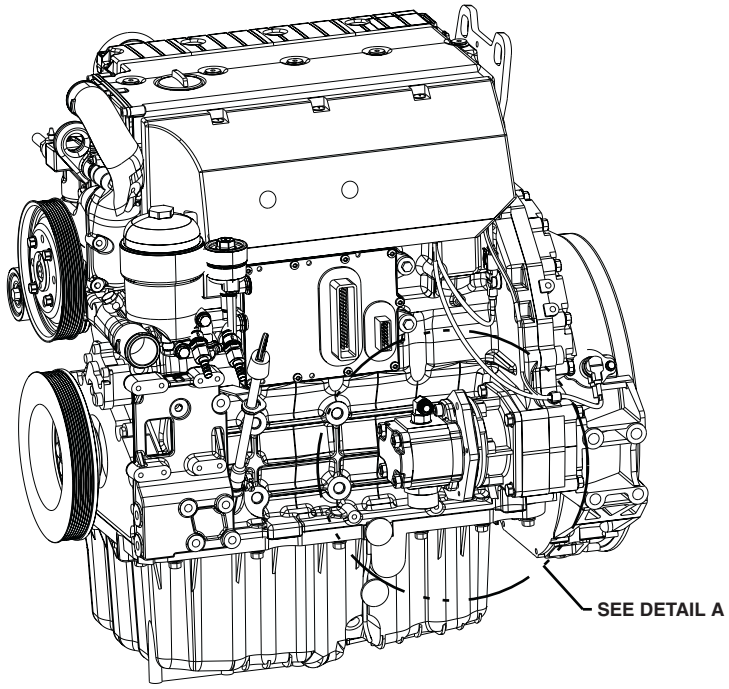
Figure 4-5 Oil Cooler, Radiator & Hoses

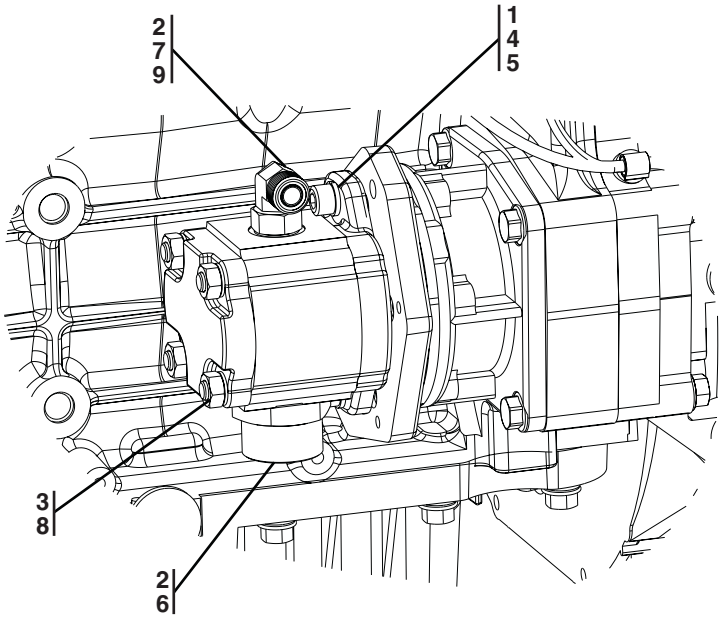
Item	Part Number	Qty.	Description	Rev.
49	80774006	1	DRAINCOCK, 1/4”NPTX90 DEGREES	
50	80774007	16	HEX NUT, 3/8-16, (zinc)	
51	80774008	16	FLANGE HD CAPSCREW, 3/8-16X1.25, (zinc)	
52	80774009	32	FLAT WASHER, 3/8, (zinc)	

Figure 4-5 Oil Cooler, Radiator & Hoses

Item	Part Number	Qty.	Description	Rev.

Figure 4-6 Gear Pump Installation





DETAIL A

PAE0420

Figure 4-6 Gear Pump Installation

Item	Part Number	Qty.	Description	Rev.
	80735008	1	GEAR PUMP INSTALLATION, (includes all items)	B
1	14403364	A/R	LOCTITE, (242 blue)	
2	14404043	A/R	LOCTITE, (#545 purple)	
3		Ref	GEAR PUMP, (see Figure 9-21 for details)	
4	83191013	2	LOCKWASHER, M10	
5	83191040	2	SOCKET HD CAPSCREW, M10X30, (loctite & torque to 32-36 lb-ft)	
6	88662315	1	STRAIGHT CONNECTOR, (includes o-ring)	
7	88662330	1	ELBOW, 90 DEGREES, (includes item 9)	
8	86671112	1	PUMP GASKET	
9	88591209	1	O-RING	

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SECTION 5
DRIVE TRAIN

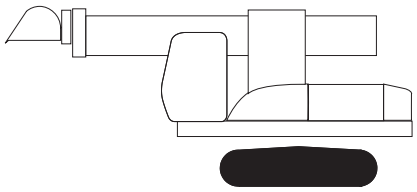
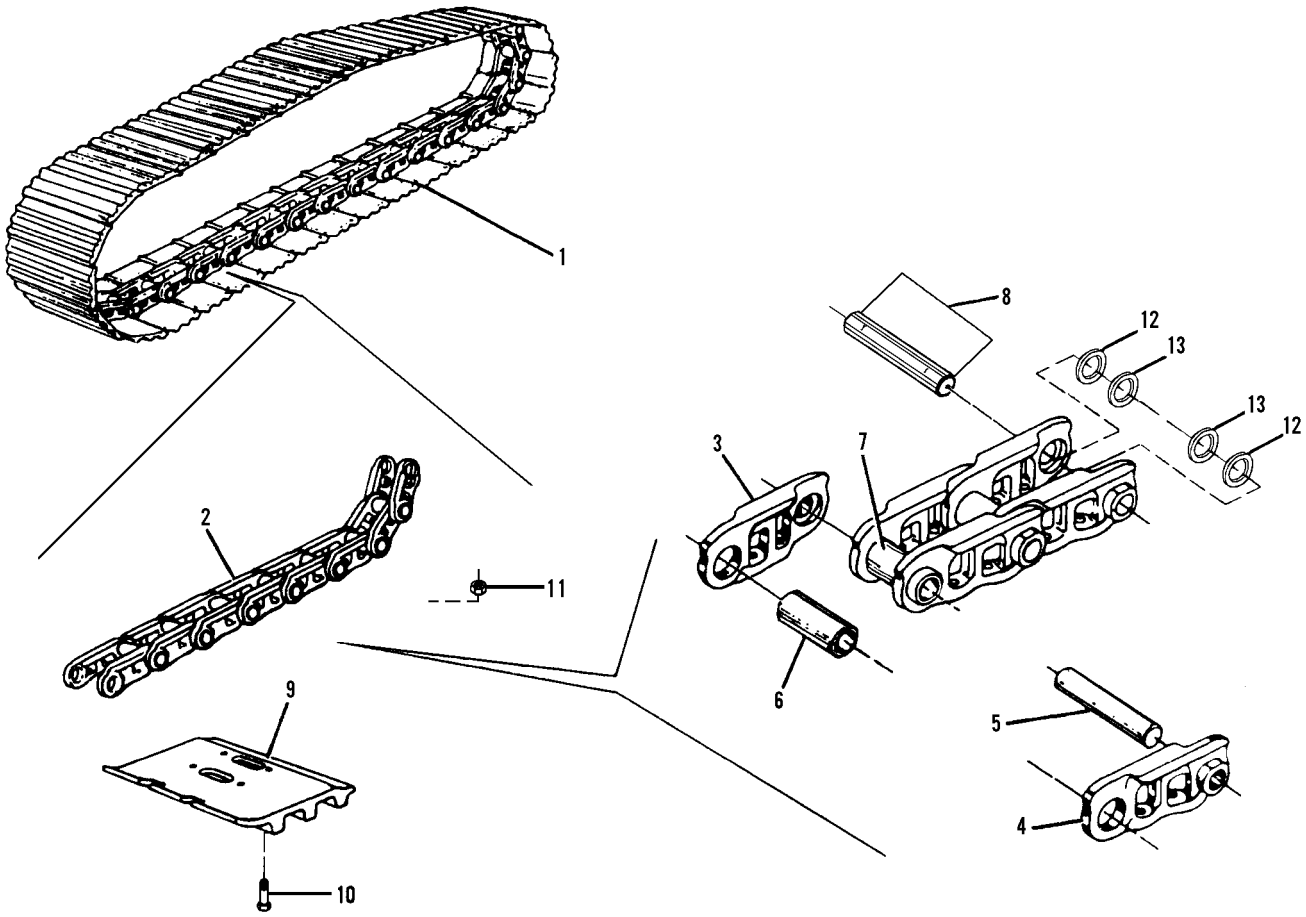


Figure 5-1 Track Chain & Shoes

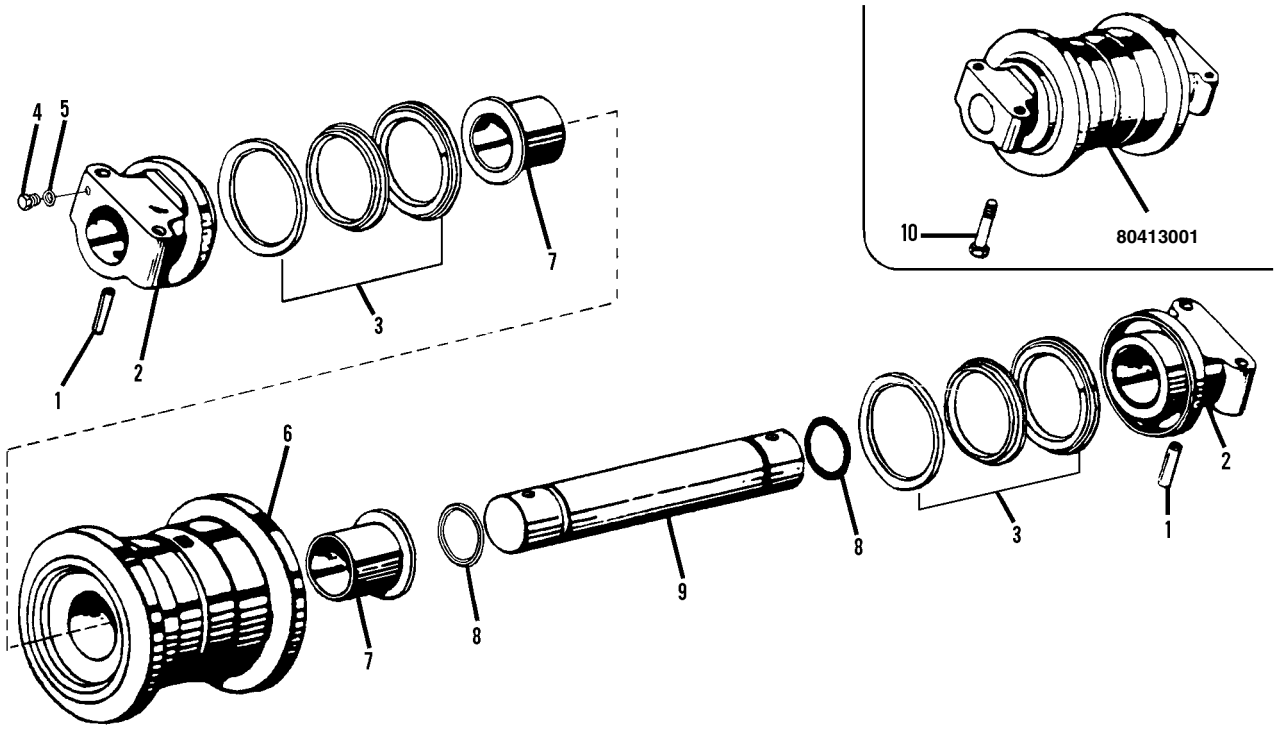


PAE0150

Figure 5-1 Track Chain & Shoes

Item	Part Number	Qty.	Description	Rev.
1	80413004	2	SEALED TRACK CHAIN & SHOES, (includes all items), (800mm)	
	80413008	2	SEALED TRACK CHAIN & SHOES, (includes all items), (600mm)	
2	80314012	1	TRACK CHAIN w/o SHOES, (includes items 3 thru 8)	
3	80314001	46	TRACK LINK, L.H.	
4	80314002	46	TRACK LINK, R.H.	
5	80314003	45	PIN	
6	80314004	45	BUSHING	
7	80314005	1	MASTER BUSHING	
8	80314006	1	MASTER PIN	
9	80414105	43	TRIPLE GROUSER SHOE, (800mm)	
	80414015	43	TRIPLE GROUSER SHOE, (600mm)	
10	80314008	184	HEX HD CAPSCREW	
11	80314009	184	HEX NUT	
12	80314010	4	SEALED WASHER	
13	80314011	2	SPACER	
			NOTE: QUANTITIES SHOWN ARE FOR ONE TRACK CHAIN & SHOE ASSEMBLY ONLY	

Figure 5-2 Track Roller

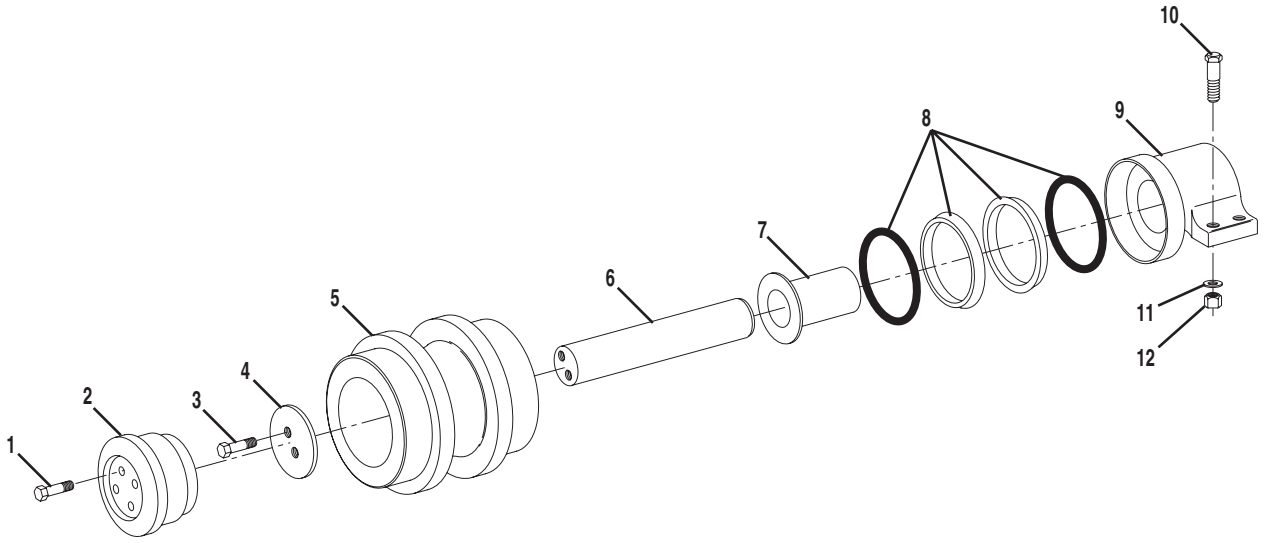


PAE0160

Figure 5-2 Track Roller

Item	Part Number	Qty.	Description	Rev.
	80413001	16	TRACK ROLLER, (includes items 1 thru 9)	
1	83694174	2	DOWEL	
2	80414018	2	EXTERNAL COLLAR	
3	80314033	2	SEAL GROUP	
4	83694108	1	PLUG, (includes item 5)	
5		1	SEAL	
6	80414020	Ref	ROLLER SHELL ASSY, (includes item 7)	
7	83694036	2	BUSHING	
8	80314032	2	GASKET	
9	80414021	1	ROLLER SHAFT	
10	80223068	4	FLANGE BOLT, 5/8-11X3-1/2, GR8, (loctite & torque to 200-215 lb-ft)	
			NOTE: QUANTITIES SHOWN ARE FOR ONE TRACK ROLLER ONLY	

Figure 5-3 Carrier Roller

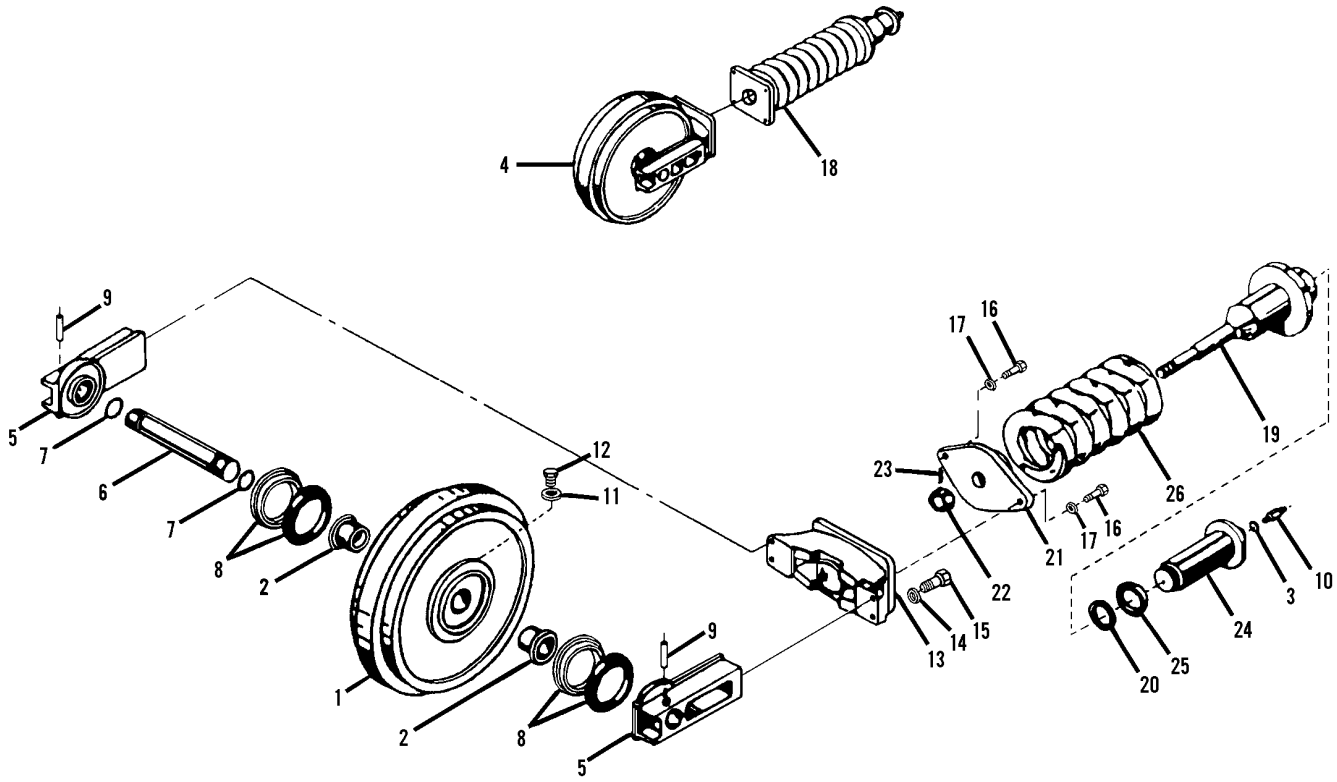


PAE0170

Figure 5-3 Carrier Roller

Item	Part Number	Qty.	Description	Rev.
	80413003	4	CARRIER ROLLER, (includes items 1 thru 9)	
1	80414022	4	HEX HD CAPSCREW	
2	80414023	1	END COVER	
3	80414024	2	HEX HD CAPSCREW	
4	80414025	1	THRUST WASHER	
5	80414026	1	ROLLER SHELL ASSY, (includes item 7)	
6	80414027	1	SHAFT	
7	80414028	1	BUSHING	
8	80414029	1	SEAL GROUP	
9	80414030	1	BRACKET	
10	80433131	4	FLANGE HD CAPSCREW, 5/8-11X2-1/2, GR8, (torque to 200-215 lb-ft)	
11	90027472	4	HARDENED WASHER, 5/8	
12	88521310	4	HEX LOCKNUT, 5/8-11	
			NOTE: QUANTITIES SHOWN ARE FOR ONE CARRIER ROLLER ONLY	

Figure 5-4 Front Idler Track Adjuster

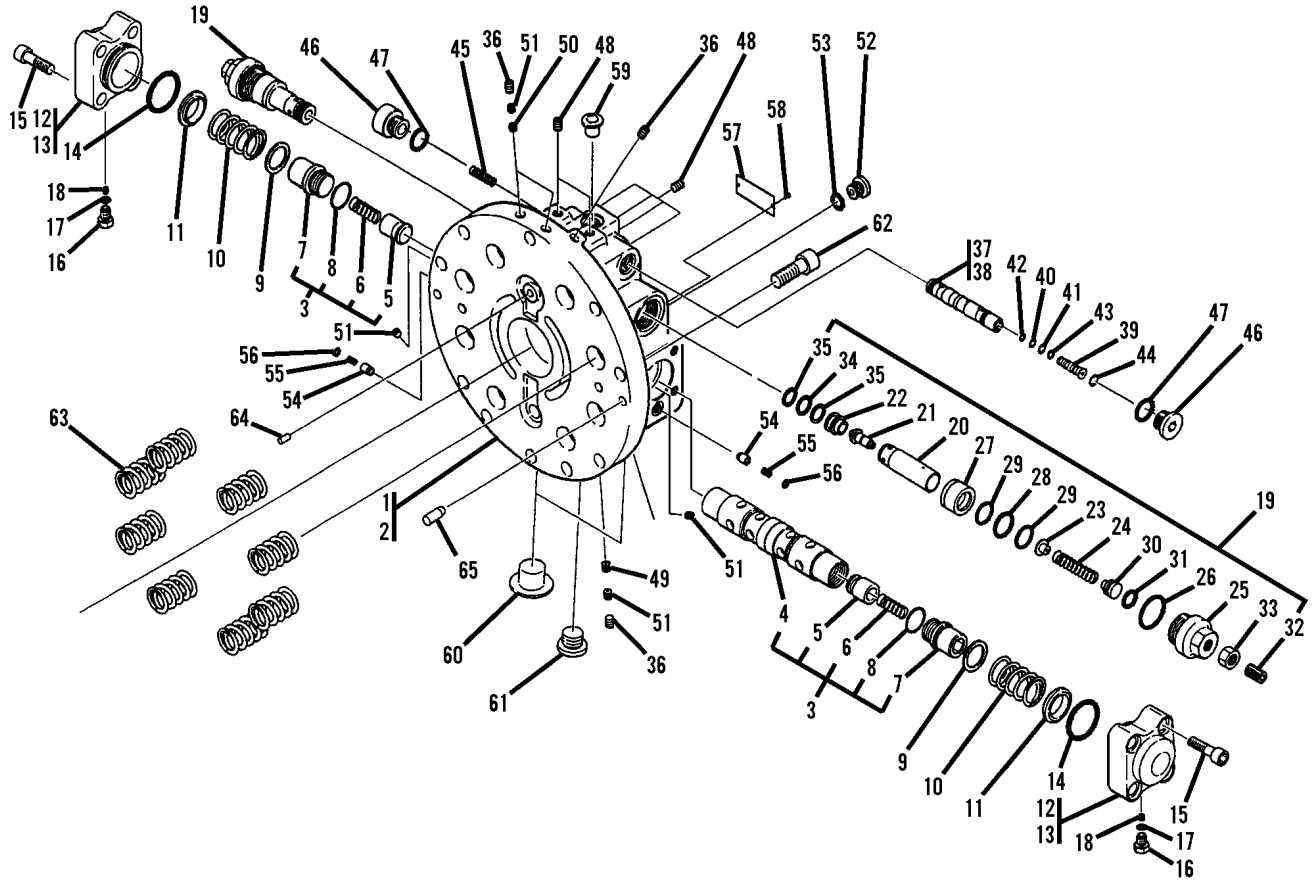


PAE0180

Figure 5-4 Front Idler Track Adjuster

Item	Part Number	Qty.	Description	Rev.
	80413002	2	FRONT IDLER TRACK ADJUSTER, (includes items 1 thru 26, except items 3 &10)	
1	80414031	1	IDLER w/BUSHINGS, (includes item 2)	
2	83694036	2	BUSHING	
3	80613009	1	SEAL	
4	80313006	1	IDLER w/FORK, (includes items 1 thru 9 & 11 thru 17, except item 3)	
5	83694154	2	BRACKET	
6	83694038	1	SHAFT	
7	80314032	2	SEAL	
8	80414033	2	PACKING	
9	80614004	2	SPRING PIN	
10	80613008	1	FITTING	
11	83694107	1	SEAL	
12	83694108	1	PLUG	
13	80414034	1	FORK	
14	83694007	4	LOCKWASHER	
15	80414035	4	HEX HD CAPSCREW	
16	80314036	2	HEX HD CAPSCREW	
17	83694010	2	WASHER	
18	80313005	1	TRACK TENSION GROUP, (includes items 19 thru 26)	
19	80414036	1	CYLINDER ASSY	
20	80414037	1	SEAL	
21	80614009	1	PLATE	
22	80414038	1	HEX NUT	
23	80314041	1	SPRING PIN	
24	80414039	1	PISTON	
25	83694045	1	WIPER	
26	80414040	1	SPRING	
			NOTE: QUANTITIES SHOWN ARE FOR ONE FRONT IDLER TRACK ADJUSTER ONLY	

Figure 5-5 Crawler Drive - Control



PAE0190

Figure 5-5 Crawler Drive - Control

Item	Part Number	Qty.	Description	Rev.
	80413006	2	CRAWLER DRIVE, (includes all items)	
		Ref	HYDRAULIC MOTOR, (see Figure 5-6 for details)	
		Ref	GEARBOX, (see Figure 5-7 for details)	
1	80414041	1	BASE PLATE ASSY, (includes items 2 thru 56)	
2	80414042	1	BASE PLATE	
3	80414043	1	SPOOL ASSY, (includes items 4 thru 8)	
4		1	SPOOL	
5		2	CHECK VALVE	
6		2	SPRING	
7		2	PLUG	
8	80914028	2	O-RING	
9	80914040	2	SPRING SEAT	
10	80414044	2	SPRING	
11	80914938	2	SPRING SEAT	
12	80414045	2	CAP ASSY, (includes items 13 thru 18)	
13		1	CAP	
14	80914055	1	O-RING	
15	80914056	4	SOCKET HD CAPSCREW	
16		1	PLUG	
17	80914058	1	O-RING	
18		1	SET SCREW	
19	80414046	2	RELIEF VALVE ASSY, (includes items 20 thru 35)	
20		1	RELIEF HOUSING	
21		1	POPPET	
22		1	POPPET SEAL	
23		1	SPRING SEAT	
24		1	SPRING	
25		1	PLUG	
26		1	O-RING	
27		1	FREE PISTON	
28		1	O-RING	
29		2	BACK-UP RING	
30		1	GUIDE SPRING	
31		1	O-RING	
32		1	SET SCREW	
33		1	NUT	
34		1	O-RING	
35		2	BACK-UP RING	
36	80314061	4	PLUG	
37	80314060	1	VALVE ASSY, (includes items 38 thru 44)	
38		1	SPOOL	
39		1	FILTER	
40		1	O-RING	
41		1	O-RING	
42		1	BACK-UP RING	
43		1	BACK-UP RING	
44		1	SNAP RING	
45	80414047	1	SPRING	
46	80914051	2	PLUG	

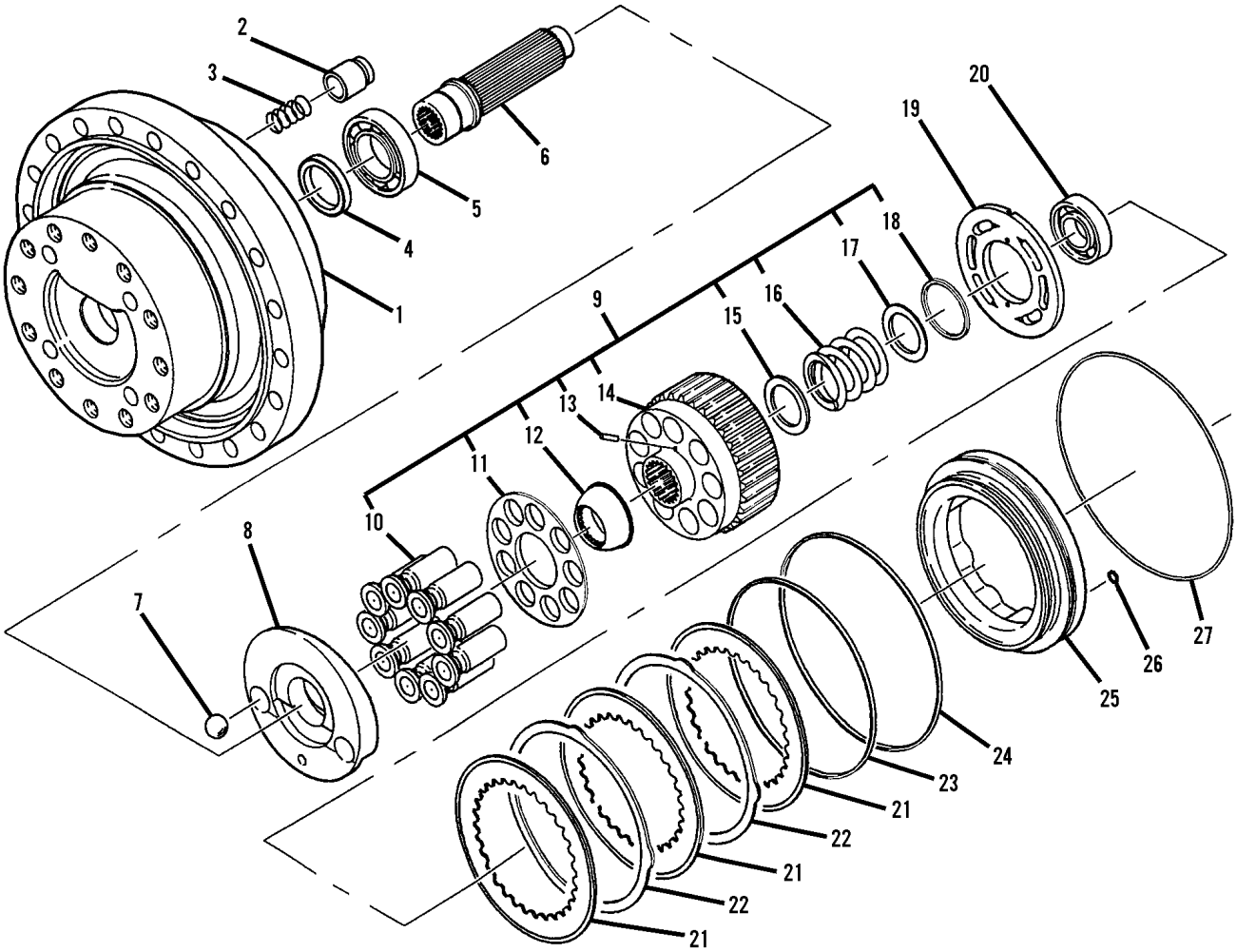
Figure 5-5 Crawler Drive - Control (Continued)

Item	Part Number	Qty.	Description	Rev.
47	80914050	2	O-RING	
48	80314100	6	PLUG	
49	80414048	1	ORIFICE	
50	80914252	2	ORIFICE	
51	80214303	5	ORIFICE	
52	80314054	4	PLUG	
53	80414049	4	O-RING	
54	80414050	2	CHECK VALVE	
55	80414051	2	SPRING	
56	80414052	2	O-RING	
57	80314052	1	NAME PLATE	
58	80414053	2	DRIVE SCREW	
59	80414054	1	PLUG	
60	80414055	2	PLUG	
61	80414056	2	PLUG	
62	80414057	10	CAPSCREW	
63	80914048	8	SPRING	
64	80914047	1	PIN	
65	80414058	4	PIN	
	80414059	1	SEAL KIT, (includes items 8, 14, 17, 26, 28, 29, 34, 35, 40, 41, 42, 43, 44, 53 & 56 on Figure 5-5 & designated items on Figure 5-6)	
			NOTE: QUANTITIES SHOWN ARE FOR ONE CRAWLER DRIVE ONLY	

Figure 5-5 Crawler Drive - Control (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 5-6 Crawler Drive - Hydraulic Motor

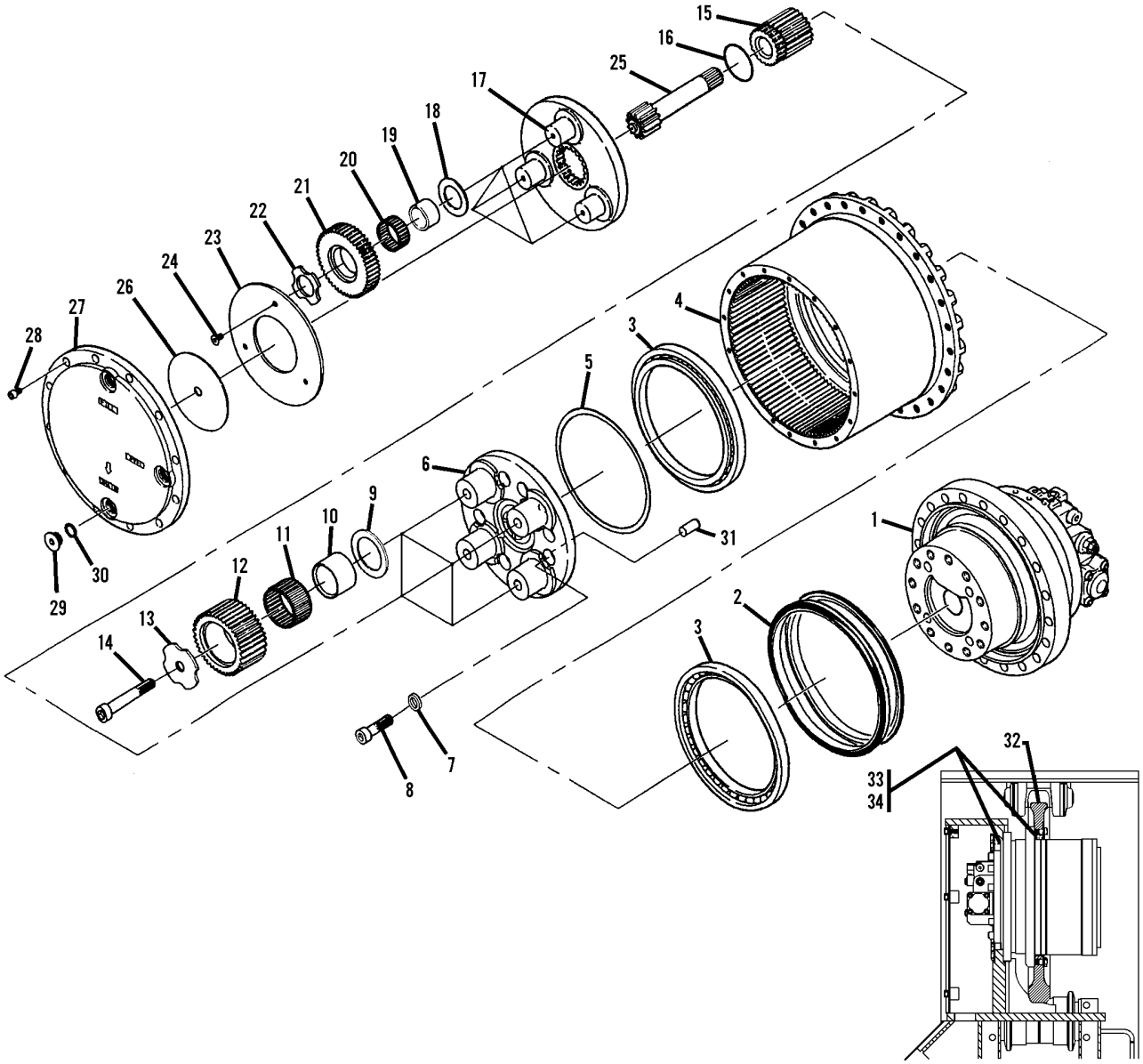


PAE0200

Figure 5-6 Crawler Drive - Hydraulic Motor

Item	Part Number	Qty.	Description	Rev.
1	80414061	1	FLANGE	
2	80414062	2	PISTON ASSY	
3	80914262	2	SPRING	
4	80414063	1	OIL SEAL	
5	80414064	1	BALL BEARING	
6	80414065	1	SHAFT	
7	80914070	2	STEEL BALL	
8	80414066	1	SWASH PLATE	
9	80414067	1	CYLINDER BLOCK ASSY, (includes items 10 thru 18)	
10		9	PISTON ASSY	
11		1	PLATE RETAINER	
12		1	RETAINER HOLDER	
13		3	PIN	
14		1	BLOCK CYLINDER	
15		1	SPRING SEAL	
16		1	SPRING	
17		1	COLLAR	
18		1	SNAP RING	
19	80914269	1	VALVE PLATE	
20	80414068	1	BALL BEARING	
21	80414069	3	DISC PLATE	
22	80414070	2	FRICTION PLATE	
23	80414071	1	O-RING	
24	80414072	1	O-RING	
25	80414073	1	PISTON BRAKE	
26	80914065	1	O-RING	
27	80424074	1	O-RING	
	80414059	1	SEAL KIT, (includes items 4, 23, 24, 26 & 27 on Figure 5-6 & designated items on Figure 5-5)	
	80414060	1	FLANGE KIT, (includes items 1 & 2)	

Figure 5-7 Crawler Drive - Gearbox



PAE0210

Figure 5-7 Crawler Drive - Gearbox

Item	Part Number	Qty.	Description	Rev.
		1	GEARBOX, (includes items 1 thru 31)	
1	80414076	1	PISTON MOTOR	
2	80914157	2	FLOATING SEAL	
3	80414077	2	ANGULAR BEARING	
4	80414078	1	HOUSING	
5	80414079	1	SHIM KIT	
6	80414080	1	HOLDER	
7	80414081	8	WASHER	
8	80414082	8	BOLT	
9	80414083	4	THRUST PLATE	
10	80414084	4	INNER RACE	
11	80414085	4	NEEDLE BEARING	
12	80414086	4	PLANETARY GEAR	
13	80414087	4	THRUST PLATE	
14	80414088	4	BOLT	
15	80414089	1	SUN GEAR	
16	80414090	1	SNAP RING	
17	80414091	1	HOLDER	
18	80414092	3	THRUST PLATE	
19	80414093	3	INNER RACE	
20	80414094	3	NEEDLE BEARING	
21	80414095	3	PLANETARY GEAR	
22	80414096	3	THRUST PLATE	
23	80414097	1	THRUST PLATE	
24	80314089	3	SCREW	
25	80414098	1	DRIVE GEAR	
26	80414099	1	THRUST PLATE KIT	
27	80414100	1	COVER	
28	80314077	16	BOLT	
29	80314078	3	PLUG	
30	80314079	3	O-RING	
31	80914277	4	PIN	
32	80413005	2	SPROCKET	
33	80213011	52	FLANGE HD BOLT, M16X50, (loctite and torque to 230-245 lb-ft)	
34	14403323	AR	NEVER SEIZE	
	80414075	1	SEAL KIT, (includes items 2 & 30)	

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SECTION 6
CAB

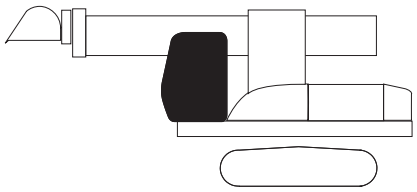


Figure 6-1 Operators Cab

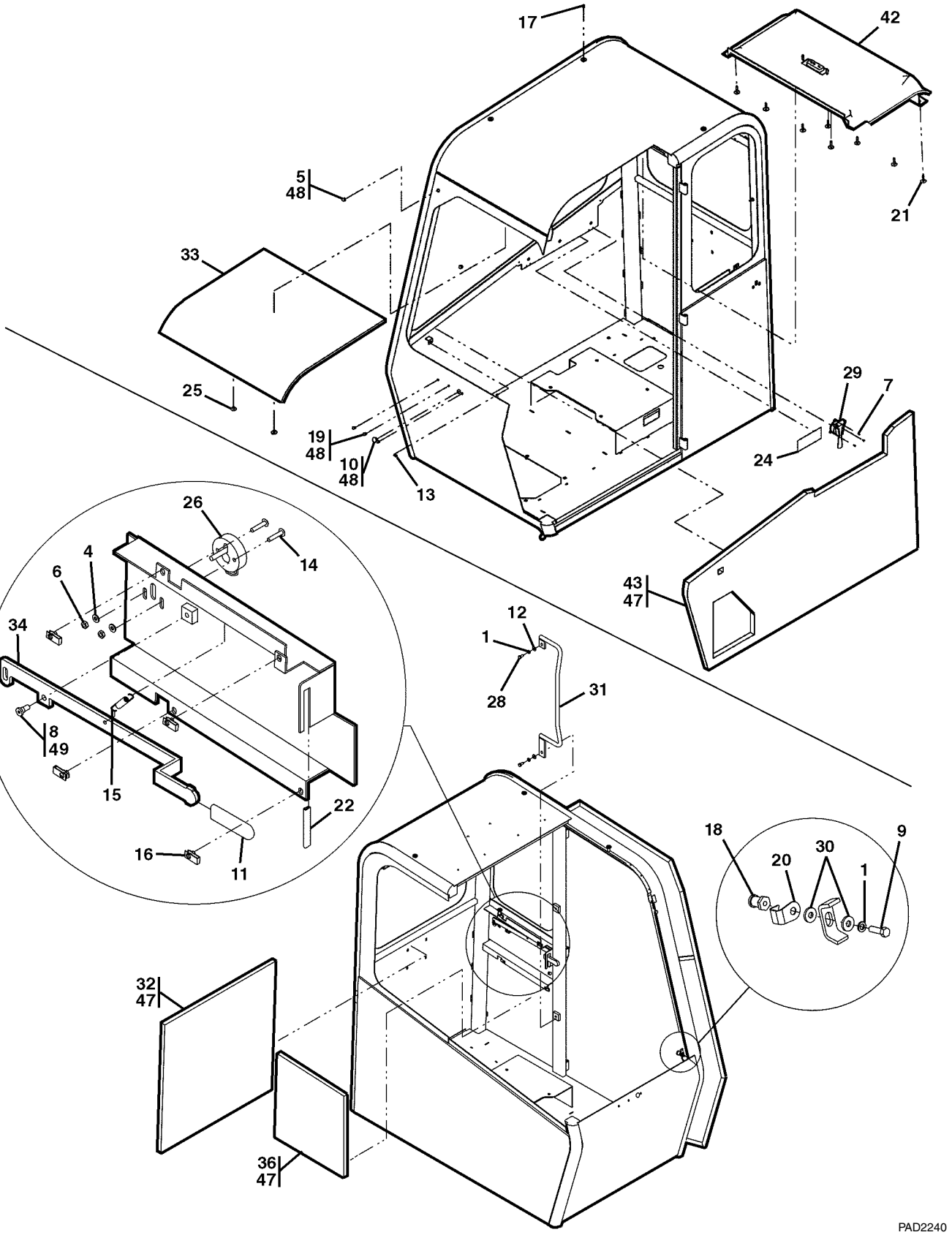
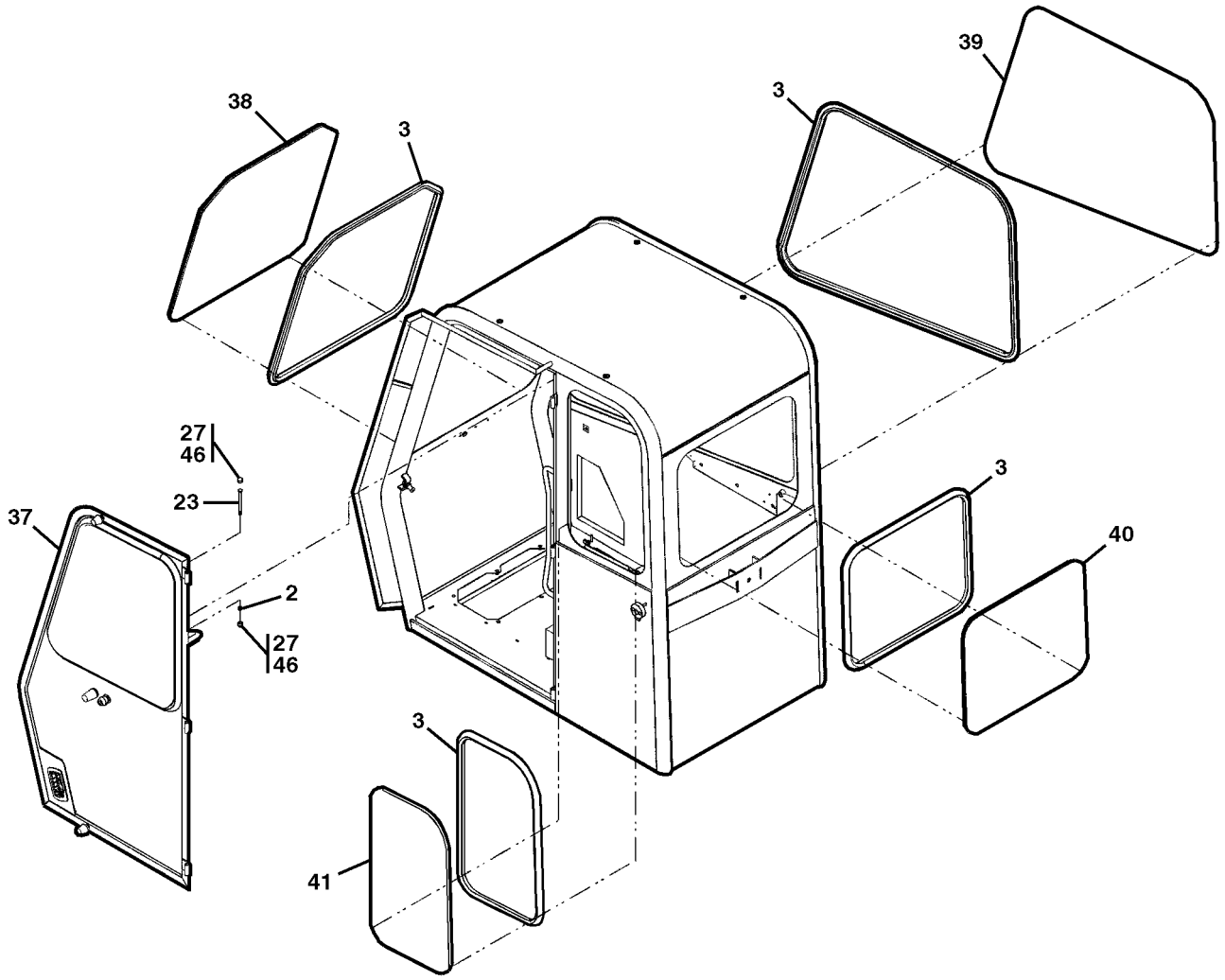


Figure 6-1 Operators Cab



PAD2250

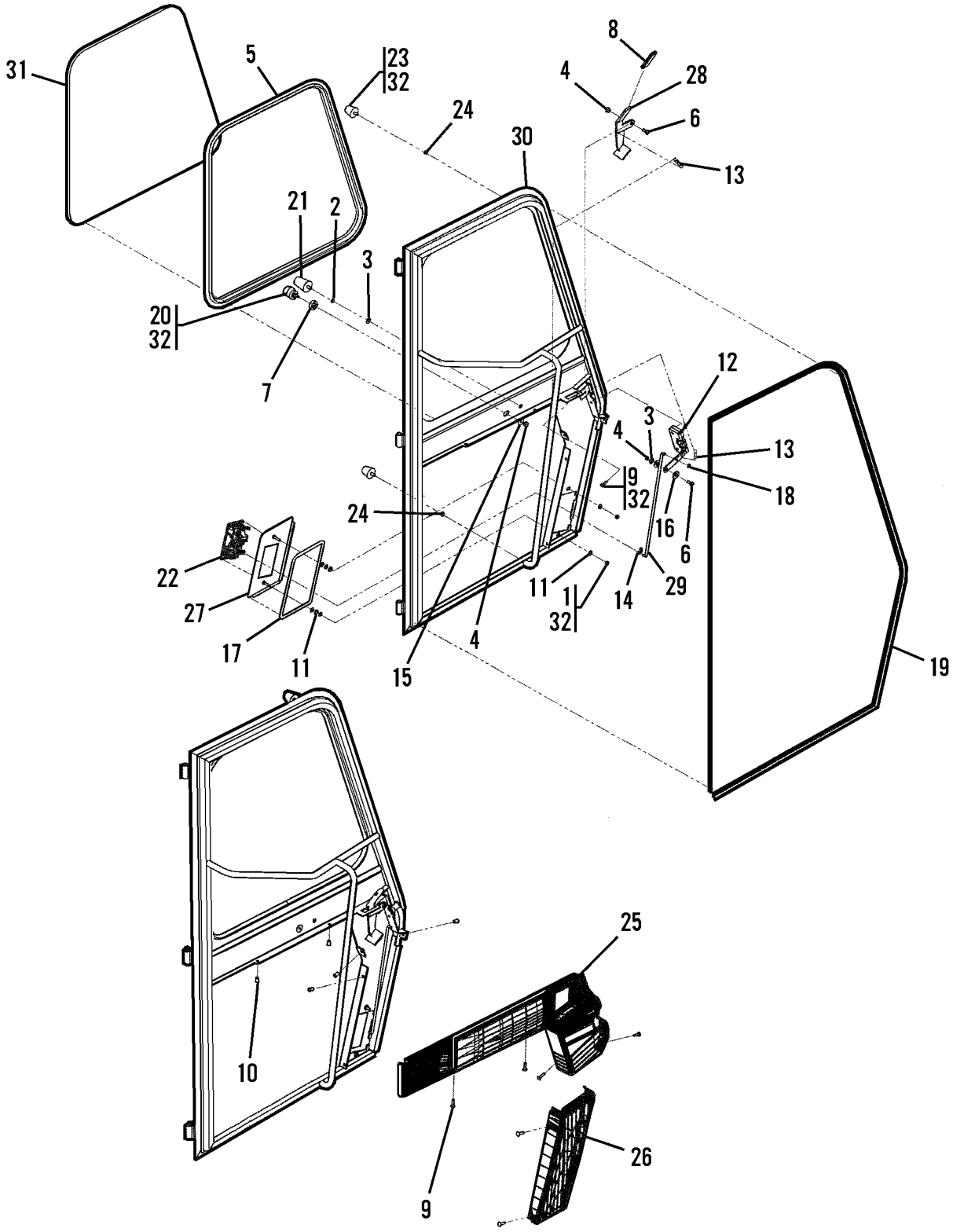
Figure 6-1 Operators Cab

Item	Part Number	Qty.	Description	Rev.
	80763032	1	OPERATORS CAB, (includes all items)	A
1	80364021	3	LOCKWASHER, .381X.67X.10	
2	80364006	3	LOCKNUT, 3/8-16	
3	80464038	39.8’	WINDOW RUBBER	
4	80364042	2	FLAT WASHER, .25X.565X.06	
5	80514028	2	HOLE PLUG	
6	91344040	2	LOCKNUT, 1/4-20	
7	91404298	3	POP RIVET	
8	80514020	1	SHOULDER BOLT, 5/16-18X3/4	
9	91334017	1	HEX BOLT, .38-16X1-1/4, GR8	
10	91164087	1	ROUND PLUG	
11	80364148	1	PLASTIC GRIP	
12	80364037	2	FLAT WASHER, .376X.88X.08	
13	80264046	1	HEX NUT, 1/4-20	
14	91344017	2	TORX SCREW, 1/4-20X1.25, GR5	
15	80514037	1	BLACK TENSION SPRING	
16	80464037	4	BLACK NUT, 1/4-20	
17	80384223	4	CAP PLUG	
18	80364023	1	THREAD STRIKER, 3/8-16	
19	80464036	3	ROUND PLUG	
20	80364022	1	STRIKER BOLT GUARD	
21	80514006	8	X-MAS FASTENER, .08-1.26	
22	80364045	.25’	EDGE TRIM	
23	80384205	3	HEX BOLT, 3/8-16X4-1/2	
24	91404299	1	EMERGENCY EXIT DECAL	
25	80364052	2	X-MAS FASTENER, .08-.56	
26	80364044	1	FEMALE DOOR RETAINER	
27	80364004	6	HEX DOME CAP, 3/8	
28	80464034	2	HEX BOLT, .38-16X1, GR5	
29	91404301	1	EMERGENCY EXIT HAMMER CABLE	
30	80514004	2	FLAT WASHER	
31	80364038	1	GRAB RAIL WELDMENT	
32	80364034	1	REAR FOAM	
33	80484105	1	FRONT FOAM HEADLINER	
34	80364043	1	HOLD OPEN LEVER	
35	Not Used			
36	80364035	1	LEFT SIDE FOAM	
37		Ref	DOOR ASSY, (see Figure 6-2 for details)	
38	80464013	1	FRONT WINDOW	
39	80464014	1	RH SIDE WINDOW	
40	80464015	1	REAR WINDOW	
41	80464016	1	LH SIDE REAR WINDOW	
42	80514007	1	HEADLINER ASSY	
43	80514018	1	RIGHT SIDE FOAM	
44 to 45	Not Used			
46	91344046	AR	SUPER WEATHER STRIP SEALANT	
47	91344026	AR	ADHESIVE	
48	80364012	AR	TRIPOLYMER CLEAR SEALANT	
49	91344018	AR	LOCTITE, (blue)	

Figure 6-1 Operators Cab

Item	Part Number	Qty.	Description	Rev.

Figure 6-2 Cab Door

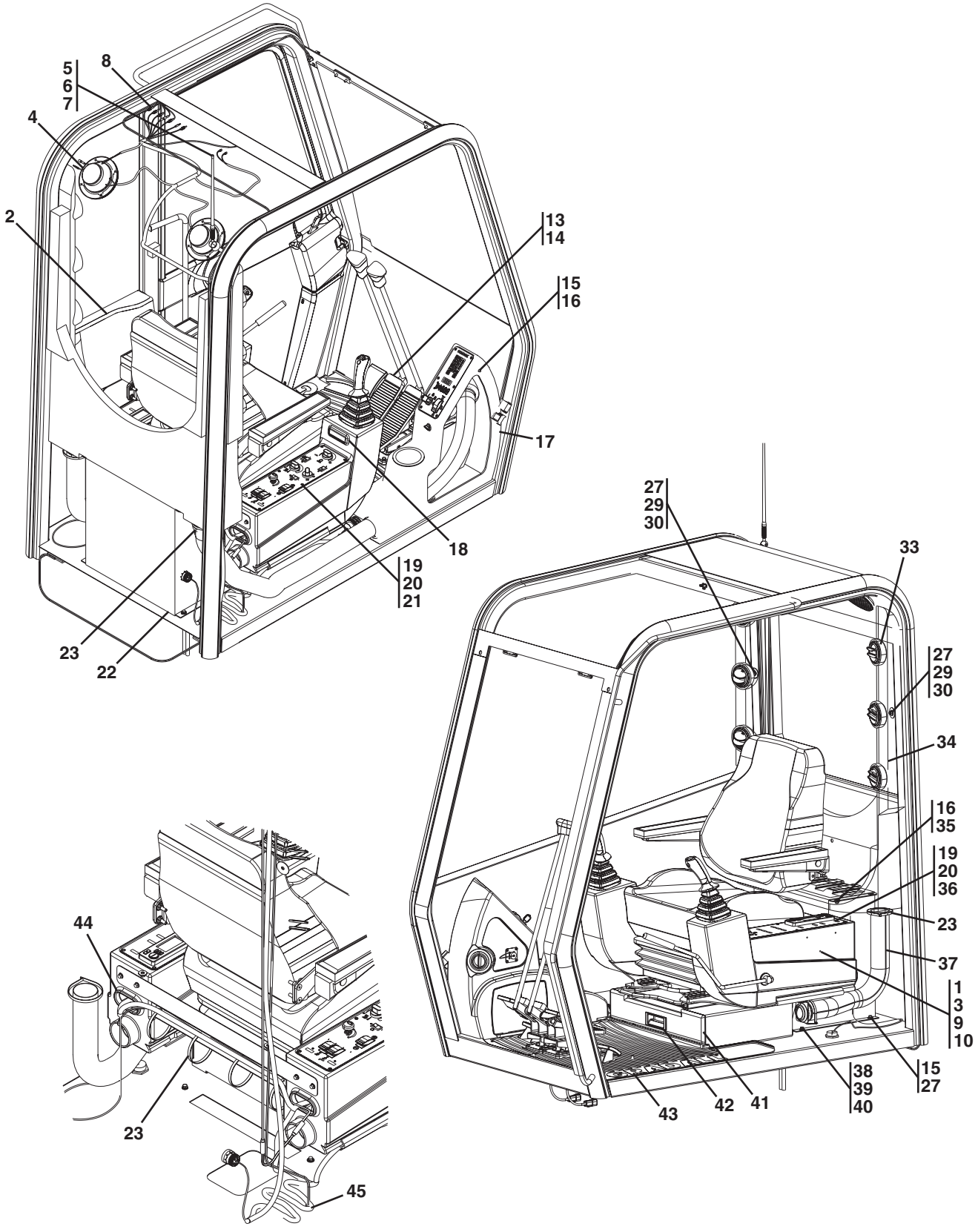


PAD2260

Figure 6-2 Cab Door

Item	Part Number	Qty.	Description	Rev.
	80464039	1	DOOR ASSY, (includes all items)	
1	80264072	2	HEX NUT, 1/4-20	
2	80264098	1	LOCKWASHER	
3	91334032	2	FLAT WASHER	
4	80264093	2	LOCKNUT, 5/16-18	
5	80464038	A/R	WINDOW RUBBER	
6	80264059	2	SHOULDER BOLT, 5/16-18X3/4	
7	80364141	1	SHOCK MOUNT BUSHING	
8	80364148	1	PLASTIC GRIP	
9	80264053	10	BOLT, 1/4-20X3/4, GR5	
10	80264046	5	HEX NUT, 1/4-20	
11	80364063	12	FLAT WASHER	
12	91344037	1	RH CAM LATCH	
13	80514037	2	BLACK TENSION SPRING	
14	80384185	1	ROD END RETAINER CLIP	
15	80264082	1	FLAT WASHER	
16	80514041	2	FLAT WASHER	
17	91484029	A/R	BULB SEAL	
18	80364145	1	INTERNAL TOOTH RETAINER	
19	80364001	A/R	BULB SEAL	
20	80364140	1	MALE DOOR RETAINER	
21	91404300	1	RUBBER BUMPER	
22	80384184	1	PADDLE LATCH W/KEY	
23	80364199	2	RUBBER BUMPER	
24	80514036	2	JAM NUT, .31-18	
25	80364146	1	DOOR COVER, UPPER PLASTIC	
26	80364147	1	DOOR COVER, LOWER PLASTIC	
27	80364142	1	EXT. RELEASE MOUNT WELDMENT	
28	80364144	1	DOOR HANDLE	
29	80364143	1	DOOR ROD	
30	80464040	1	DOOR WELDMENT	
31	80464012	1	DOOR WINDOW	
32	91344018	A/R	LOCTITE, (blue)	

Figure 6-3 Cab Interior Components



PAE0760

Figure 6-3 Cab Interior Components

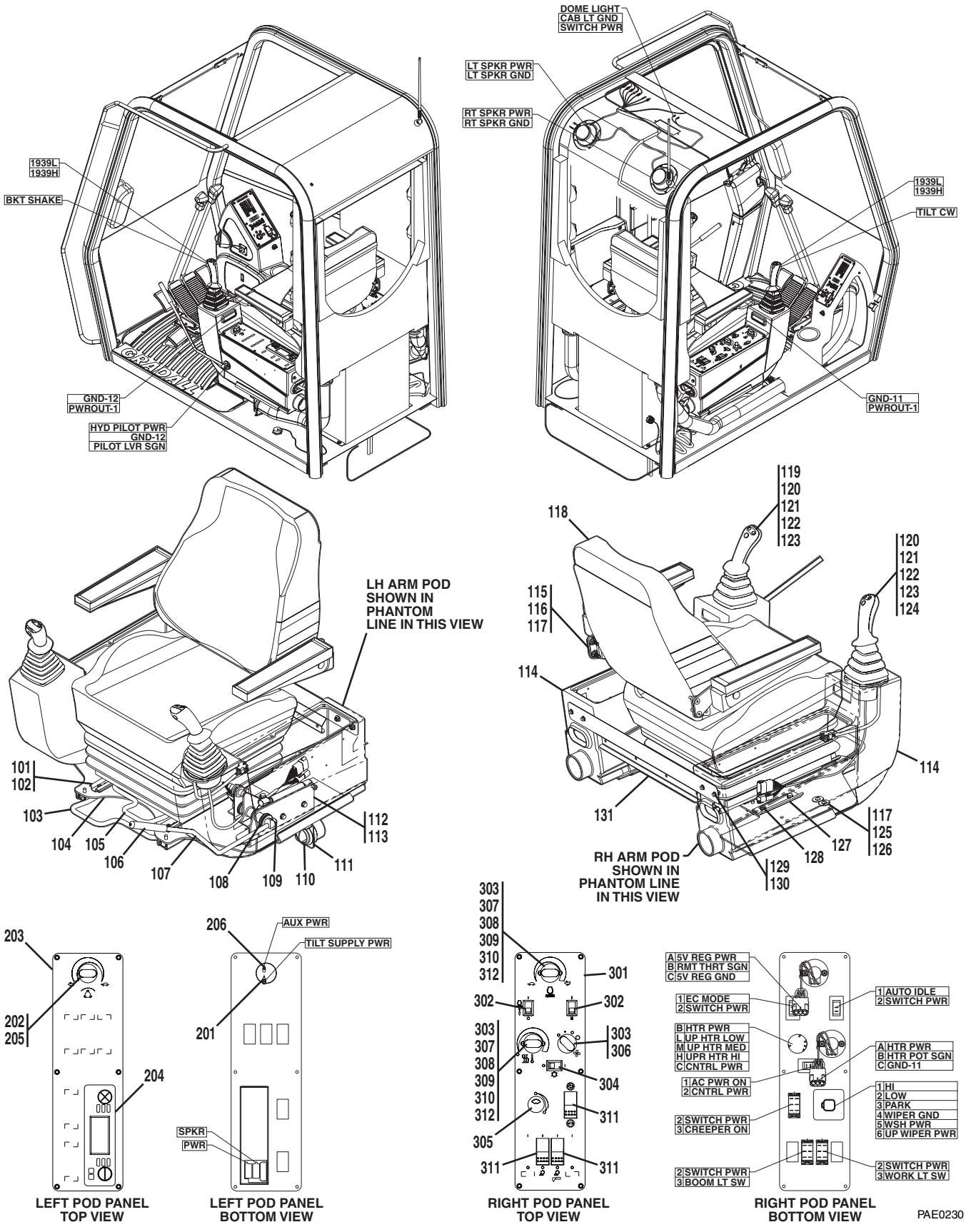


Figure 6-3 Cab Interior Components

Item	Part Number	Qty.	Description	Rev.
	80765019	Ref	CAB INTERIOR COMPONENTS, (includes items 1 thru 45)	A
1	77143016	1	WHIZ-LOK SCREW, #10-24X3/8	
2	80363105	1	LATCH COVER	
3	88501612	1	HEX NUT, #10-24	
4	80263029	2	SPEAKER ASSY	
5	80363121	1	LEAD, ANTENNA EXT, 12”	
6	80363120	1	LEAD, ANTENNA EXT, 48”	
7	80263030	1	ANTENNA ASSY	
8	90028960	5	MALE SPADE TERMINAL	
9	88551007	1	LOCKWASHER, #10	
10	88561105	1	FLAT WASHER, #10	
11 to 12	Not Used			
13		Ref	FOOT PEDAL PLATE ASSY, (see Figure 7-1 for details)	
14	88261027	6	BUTTON HD SCREW, 3/8-16X3/4	
15	80263012	4	WHIZ-LOK SCREW, 1/4-20X1/2	
16	88561003	3	FLAT WASHER, 5/16	
17		Ref	CAB CONSOLE ASSY, (see Figure 6-5 for details)	
18	80363107	2	POD LIGHT	
19	80363034	12	TINNERMAN NUT, #10-24	
20	80363033	12	FLANGE HD CAPSCREW, #10-24X1	
21	80565004	1	RH POD PANEL ASSY, (includes items 301 thru 312)	D1
22		Ref	HEATER ASSY, (see Figure 6-6 for details)	
23	90027187	7	TIE-WRAP	
24 to 26	Not Used			
27	88561002	5	FLAT WASHER, 1/4	
28	Not Used			
29	91083533	2	FENDER WASHER, 11/32X1-1/2X.047-.080	
30	88521304	2	HEX LOCKNUT, 1/4-20	
31	80565003	1	SEAT ASSY, (includes items 101 thru 131)	A
32	88212223	4	SOCKET HD CAPSCREW, 5/16-18X1/2	
33	80363106	6	AIR DIFFUSER VENT	
34	80363193	1	AIR PLENUM	
35	77143013	2	WHIZ-LOK NUT, 1/4-20	
36	80765011	1	LH POD PANEL ASSY, (includes items 201 thru 206)	A
37	71492152	3’	FLEXIBLE AIR DUCT	
38	88201005	1	HEX HD CAPSCREW, 1/4-20X1, GR5	
39	88561107	1	FLAT WASHER, 1/4	
40	88551009	1	LOCKWASHER, 1/4	
41	80363059	1	CAB STORAGE DRAWER	
42	80363060	1	CAB DRAWER LATCH	
43	80763020	1	FLOOR MAT	
44	80763018	1	CAB HARNESS	
45	86683103	1	GROMMET	
101	80363005	1	SLIDE RAIL KIT	
102	88212223	8	HEX SOCKET HD CAPSCREW, 5/16-18X1/2	
103	80363062	1	BOTTOM SLIDE RELEASE LEVER	

Figure 6-3 Cab Interior Components (Continued)

Item	Part Number	Qty.	Description	Rev.
104	80361001	1	FORMED SEAT PLATE	
105	80363061	1	TOP SLIDE RELEASE LEVER	
106	80363045	1	RUBBER GRIP	
107	80363083	1	BAR LEVER	
108	85131075	1	GROMMET	
109	88501108	1	HEAVY HEX JAM NUT, 1/2-13	
110	80363229	1	AIR PLENUM LOUVER	
111	80361100	1	LOUVER BRACKET	
112		Ref	PILOT CUT-OFF ASSY, (see Figure 6-7 for details)	
113	91363018	4	SCREW, 5/16-18X1	
114	80363006	2	ARM POD	
115	80361021	2	SEAT ARM MOUNT PLATE	
116	88241043	4	SOCKET FLAT HD CAPSCREW, 5/16-18X1-1/2	
117	77143006	4	WHIZ-LOK NUT, 5/16-18	
118		Ref	SEAT ASSY, (see Figure 6-4 for details)	
119	1600426	1	JOYSTICK, L.H.	
120	80361043	2	TAPPED PLATE	
121	88211042	8	HEX SOCKET HD CAPSCREW, 1/4-20X1, GR8	
122	88551009	8	LOCKWASHER, 1/4	
123	88561002	8	FLAT WASHER, 1/4	
124	1600425	1	JOYSTICK, R.H.	
125	88261024	2	SOCKET BUTTON HD CAPSCREW, 5/16-18X1	
126	91023098	2	FENDER WASHER, 11/32	
127	80361002	2	CLAMP ANGLE	
128	77143003	4	WHIZ-LOK SCREW, 5/16-18X5/8	
129	80263012	4	WHIZ-LOK SCREW, 1/4-20X3/4	
130	77143013	4	WHIZ-LOK NUT, 1/4-20	
131	80361003	1	HARNESS SUPPORT	
201	77163105	1	FEMALE BULLET TERMINAL	
202	80363029	1	KNOB	
203	80763019	1	LH POD PANEL COVER	
204	80963314	1	STEREO	
205	80964002	1	RHEOSTAT SWITCH	
206	86983193	1	MALE BULLET TERMINAL	
301	1671253	1	RH POD PANEL COVER	
302	80363030	2	MINI ROCKER SWITCH	
303	80363069	3	KNOB	
304	80363157	1	MINI ROCKER SWITCH	
305		Ref	INTERMITTENT WIPER SWITCH	
306	80964001	1	BLOWER SWITCH	
307	88241014	4	FLAT HEAD SOCKET SCREW, #6-32X5/8	
308	88501608	4	HEX NUT, #6-32	
309	88561103	4	FLAT WASHER, #6	

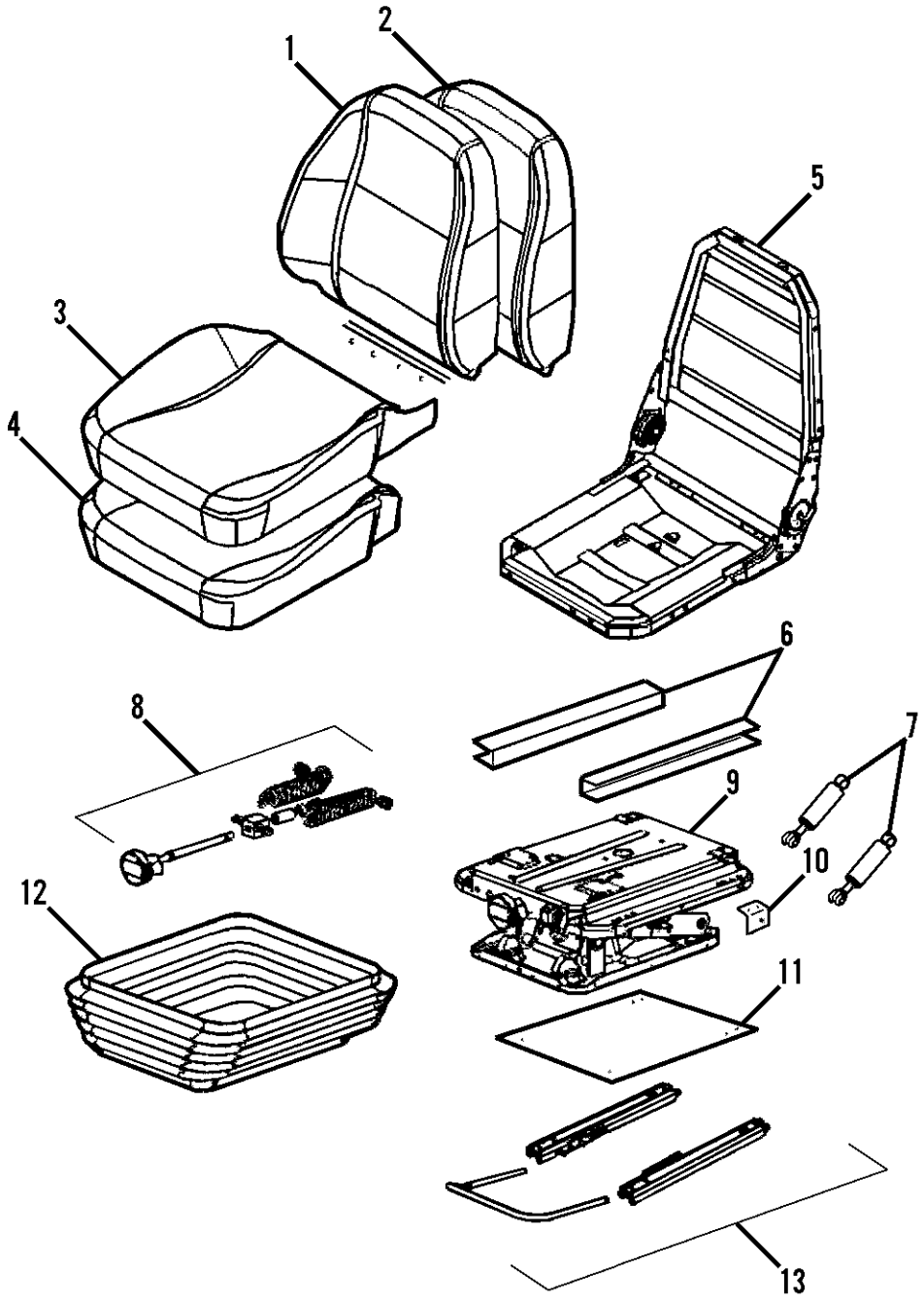
Figure 6-3 Cab Interior Components (Continued)

Item	Part Number	Qty.	Description	Rev.
310	88691387	2	WIRE HARNESS CLAMP	
311	91403304	3	ROCKER SWITCH	
312	80565001	2	POTENTIOMETER	

Figure 6-3 Cab Interior Components (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 6-4 Cab Seat

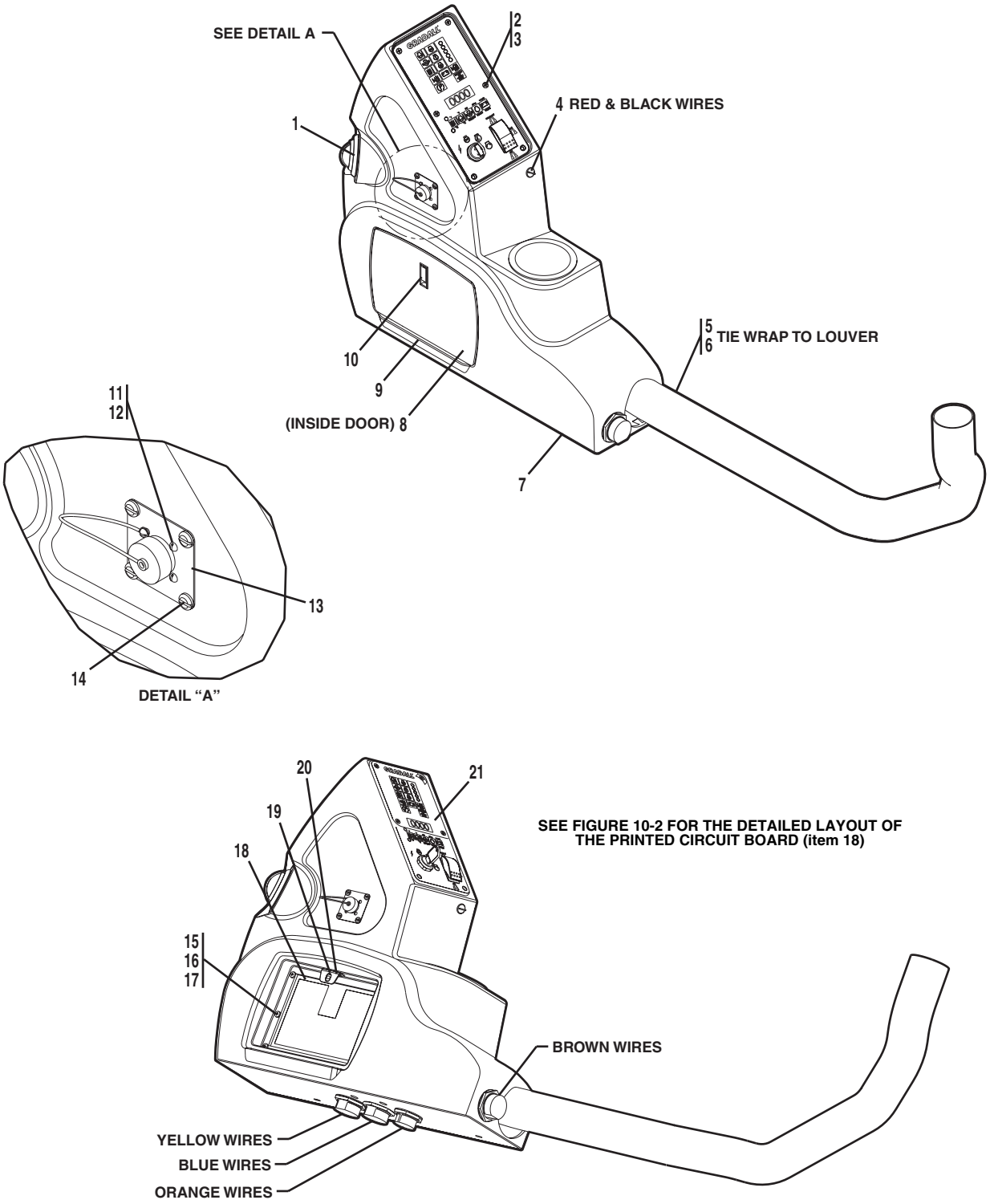


PAD0050

Figure 6-4 Cab Seat

Item	Part Number	Qty.	Description	Rev.
	80363223	1	CAB SEAT, (includes all items)	
1	80264003	1	SEAT BACK COVER	
2	80264002	1	SEAT BACK FOAM	
3	80264005	1	SEAT BOTTOM COVER	
4	80264004	1	SEAT BOTTOM FOAM	
5	80364183	1	SEAT FRAME	
6	80364184	1	SEAT MOUNTING CHANNEL, R.H.	
	80364185	1	SEAT MOUNTING CHANNEL, L.H.	
7	80364186	1	DAMPER KIT	
8	80364187	1	WEIGHT ADJUSTER KIT	
9	80364188	1	SUSPENSION	
10	80364189	1	SEAT BELT BRACKET, R.H.	
	80364190	1	SEAT BELT BRACKET, L.H.	
11	80364191	1	SLIDERAIL MOUNTING BRACKET	
12	80364192	1	SUSPENSION COVER	
13	80264023	1	SLIDERAIL KIT	

Figure 6-5 Cab Console

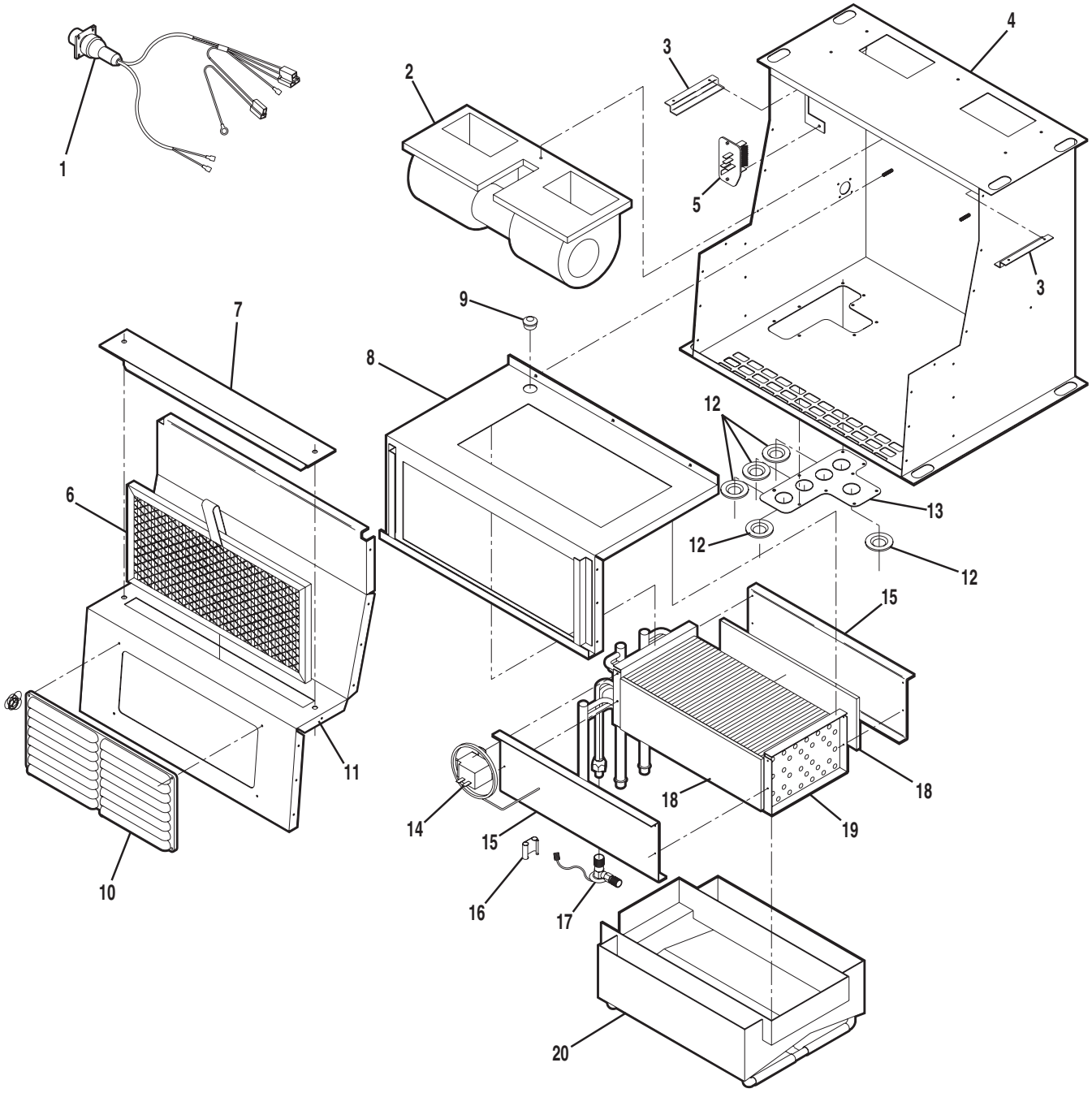


PAD0060

Figure 6-5 Cab Console

Item	Part Number	Qty.	Description	Rev.
	80765004	1	CAB CONSOLE ASSY, (includes all items)	A
1	80363229	1	AIR PLENUM LOUVER	
2	80363033	4	FLANGE HD CAPSCREW, #10-24X1	
3	80363034	4	TINNERMAN NUT, #10-24	
4	80363244	1	12 V POWER SUPPLY	
5	4240018	1	CABLE TIE STRAP	
6	71492152	70”	CAB CONSOLE AIR DUCT	
7	0861796	1	CAB CONSOLE BOX	
8	80763006	1	FUSE IDENTIFICATION DECAL	
9	80363039	1	CONSOLE DOOR	
10	80363066	1	SOUTHCO LATCH	
11	88501604	4	HEX NUT, #4-40	
12	88301023	4	ROUND HD MACHINE SCREW, #4-40X3/8	
13	80461205	1	DIAGNOSTIC CONNECTOR BRACKET	
14	80373157	4	SCREW, #8-3/8	
15	88301090	6	ROUND HD MACHINE SCREW, #10-24X1/2	
16	88501612	6	HEX NUT, #10-24	
17	80363185	6	NYLON WASHER, 3/8	
18	80763005	1	PRINTED CIRCUIT BOARD, (see service manual for schematic)	
19	80361020	1	LATCH RECEIVER PLATE	
20	88321030	2	SELF-TAPPING SCREW, #10-24X1/2	
21	80763007	1	ELECTRICAL MONITORING UNIT	

Figure 6-6 Cab Heater & Installation

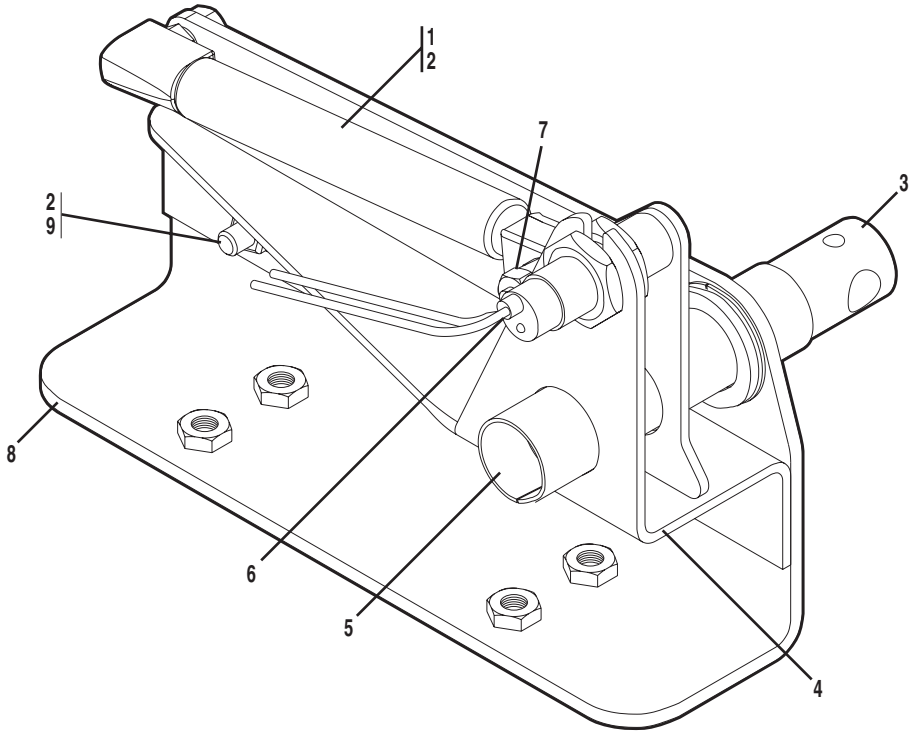


PAD1470

Figure 6-6 Cab Heater & Installation

Item	Part Number	Qty.	Description	Rev.
	3620064	1	CAB HEATER ASSY, (includes all items)	
1	80524047	1	BLOWER HARNESS	
2	80524048	1	BLOWER ASSY	
3	80524049	2	BLOWER MOUNT BRACKET	
4	80524051	1	HEATER CASE	
5	80524050	1	RESISTOR	
6	80524053	1	FILTER, 7”X15”X.5”	
7	80524052	1	FILTER COVER BRACKET	
8	80524056	1	COIL & FILTER COVER	
9	80524057	1	GROMMET	
10	80524054	1	GRILL	
11	80524055	1	FRONT HEATER COVER	
12	80524058	5	GROMMET w/MEMBRANE	
13	80524059	1	TUBE PLATE BRACKET	
14	91514265	1	THERMOSTAT, 34-39 DEGREES	
15	80524060	2	COIL CAP BRACKET	
16	80524061	1	BULB CLAMP	
17	91514272	1	VALVE ASSY	
18	80524064	2	FOAM	
19	80524068	1	HEATER CORE	
20	80524062	1	DRAIN PAN ASSY	

Figure 6-7 Pilot Cut-off Assembly



PAD1240

Figure 6-7 Pilot Cut-off Assembly

Item	Part Number	Qty.	Description	Rev.
	80365023	1	PILOT CUT-OFF ASSY, (includes all items)	D
1	80363037	1	GAS SPRING	
2	77143006	5	WHIZ-LOK NUT, 5/16-18	
3	80363210	1	PIVOT LEVER	
4	80361093	1	INSIDE MOUNT BRACKET	
5	80363043	2	BUSHING	
6	80363166	1	SENSOR	
7	80363082	2	BALL STUD	
8	80361026	1	OUTSIDE MOUNT BRACKET	
9	91363018	3	WHIZ-LOK BOLT, 5/16-18X1	

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SECTION 7
CONTROLS

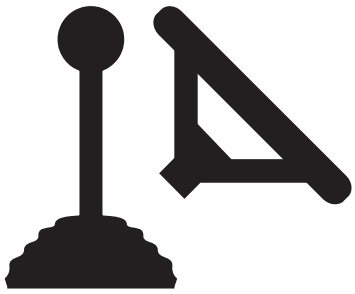
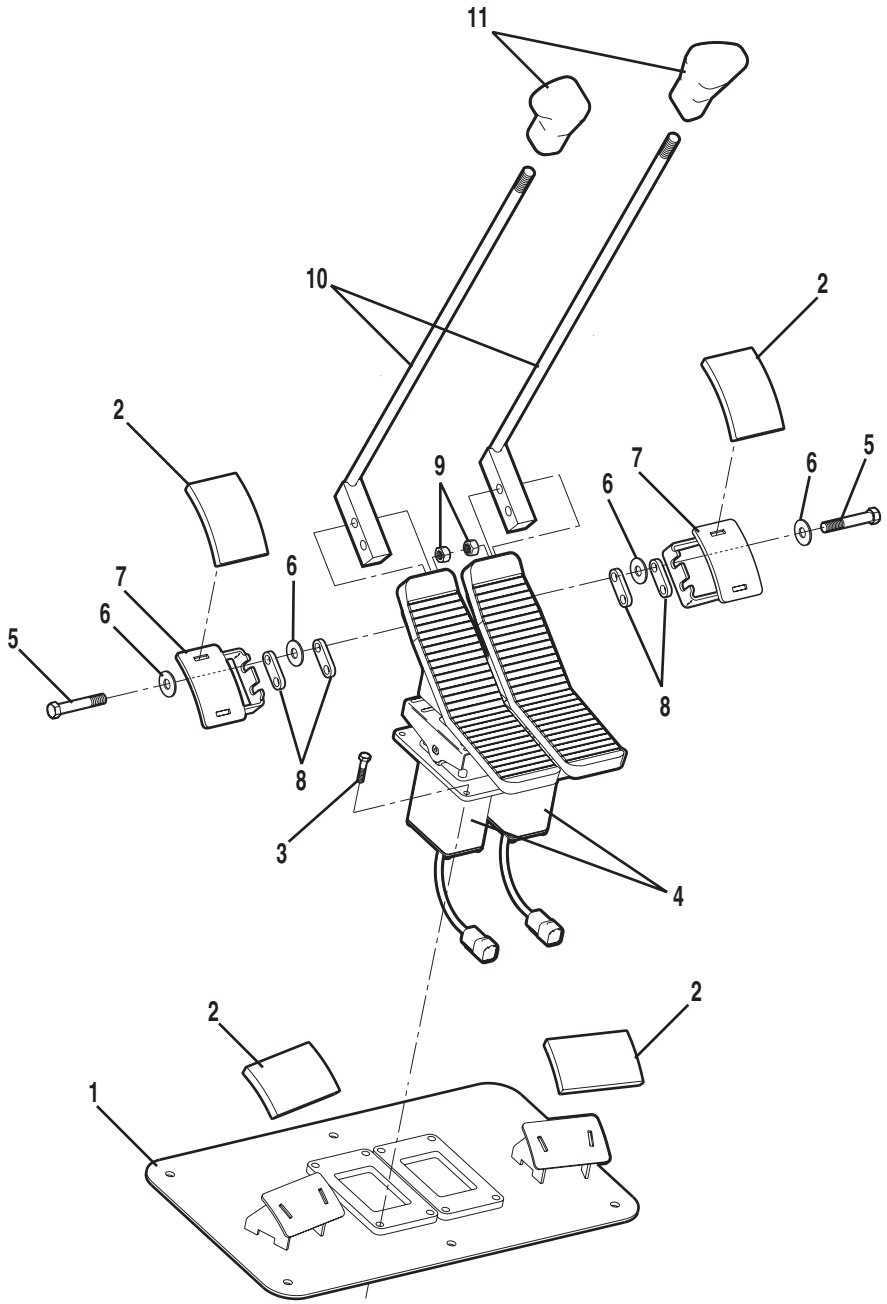


Figure 7-1 Foot Pedal Plate Assembly



PAE0850

Figure 7-1 Foot Pedal Plate Assembly

Item	Part Number	Qty.	Description	Rev.
	80765012	1	PEDAL PLATE ASSY, (includes all items)	B
1	80766003	1	PEDAL PLATE WELDMENT	
2	80263108	4	WEAR PAD	
3	88201006	8	HEX HD CAPSCREW, 1/4-20X1-1/4, GR5	
4	1600437	1	FOOT PEDAL CONTROLLER VALVE	
5	83201181	4	HEX HD CAPSCREW, 7/16-14X2-3/4, GR8	
6	88561005	8	FLAT WASHER, 7/16	
7	80766024	2	PEDAL WELDMENT	
8	80261092	4	LEVER SPACER	
9	88521007	4	HEX LOCKNUT, 7/16-14	
10	80763033	2	CONTROL LEVER	
11	80963290	2	LEVER KNOB	

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SECTION 8
HYDRAULIC CIRCUITS

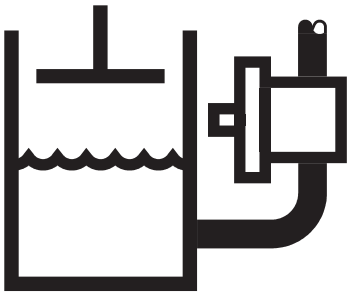


Figure 8-1 Hydraulic Pressure to Control Valves

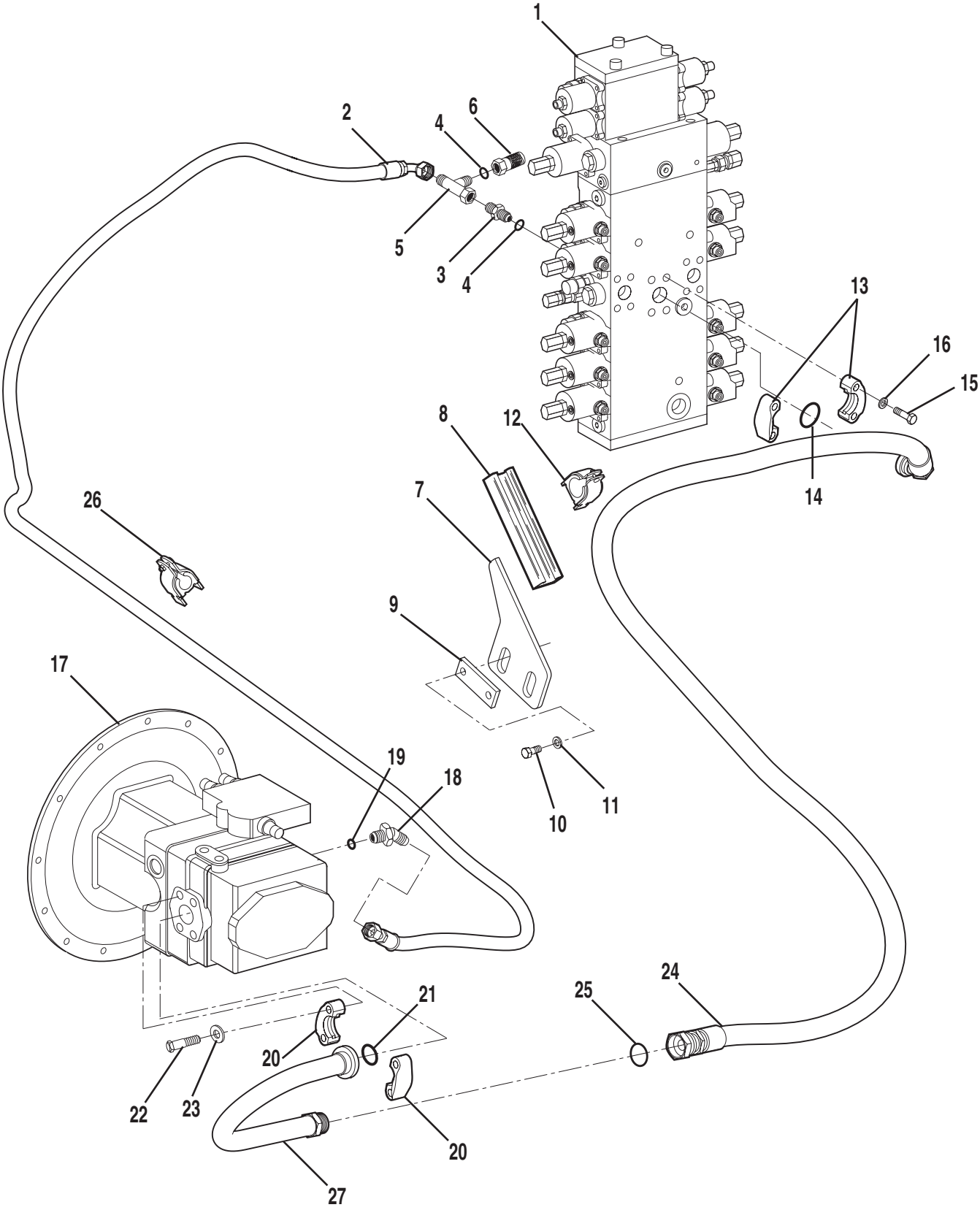
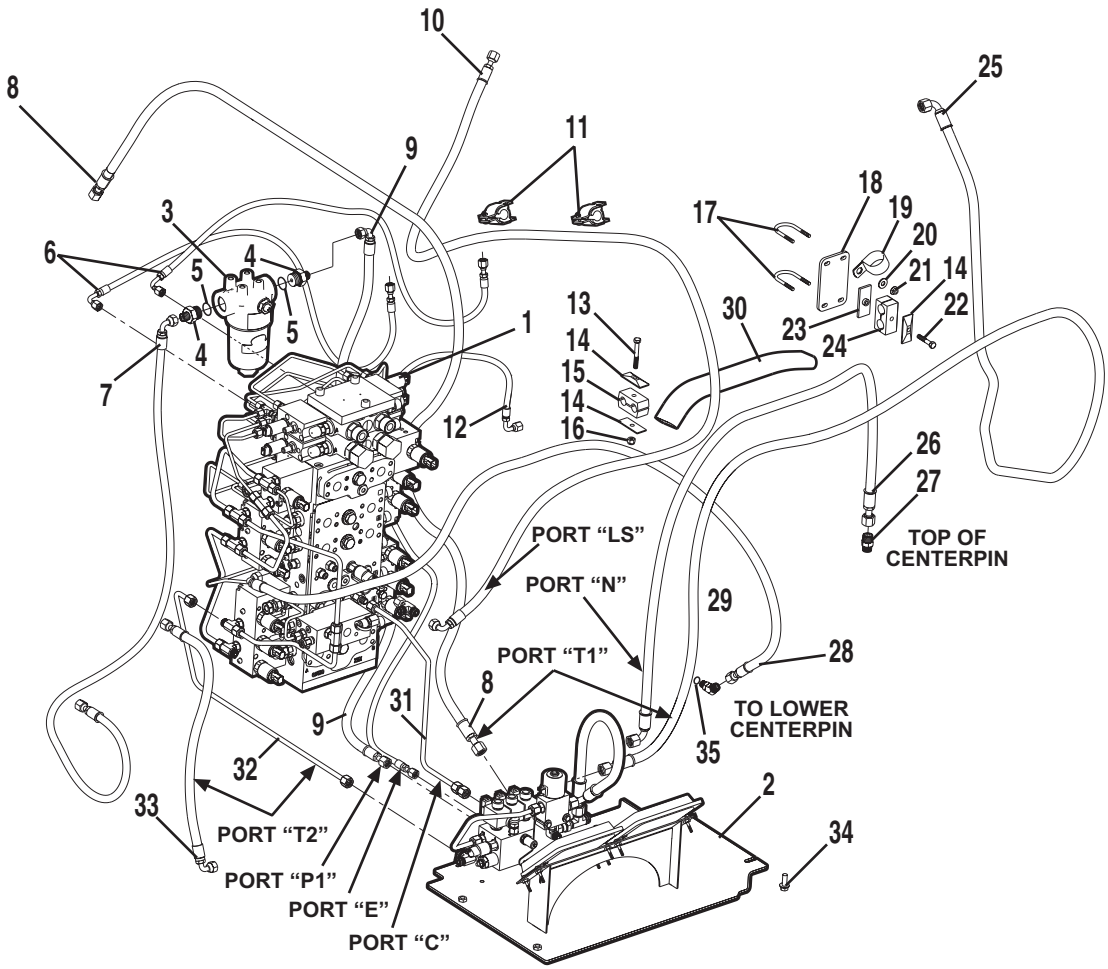


Figure 8-1 Hydraulic Pressure to Control Valves

Item	Part Number	Qty.	Description	Rev.
1		1	MAIN HYDRAULIC CONTROL VALVE ASSY, (see Figure 9-12 for details)	
2	84721197	1	HOSE ASSY	
3	88662301	1	CONNECTOR, (includes item 4)	
4	88591204	2	O-RING	
5	88662446	1	SWIVEL NUT RUN TEE	
6	88662546	1	MINI-CHECK COUPLING, (includes item 4)	
7	80441063	1	CLAMP BASE WELDMENT	
8	90206088	1	CHANNEL WELDMENT	
9	83251291	1	KEEPER	
10	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
11	88551011	2	LOCKWASHER, 3/8	
12	90205793	3	CUSHION CLAMP, 1-1/2	
13	84712738	2	FLANGE HALF	
14	91083106	1	O-RING	
15	88201053	4	HEX HD CAPSCREW, 7/16-14X3/4, GR5	
16	88551012	4	LOCKWASHER, 7/16	
17		1	MAIN HYDRAULIC PUMP ASSY, (see Figure 9-4 for details)	
18	88662418	1	ELBOW, 45 DEGREES, (includes item 19)	
19	88591204	1	O-RING	
20	84712740	2	FLANGE HALF	
21	83783043	1	O-RING	
22	88201098	4	HEX HD CAPSCREW, 5/8-11X2-1/4, GR5	
23	88551015	4	LOCKWASHER, 5/8	
24	84711385	1	HOSE ASSY	
25	88591510	1	O-RING	
26	91343012	2	CUSHION CLAMP	
27	80733036	1	TUBE ASSY	

Figure 8-2 Main Valve to Valve Module Hydraulic Circuit

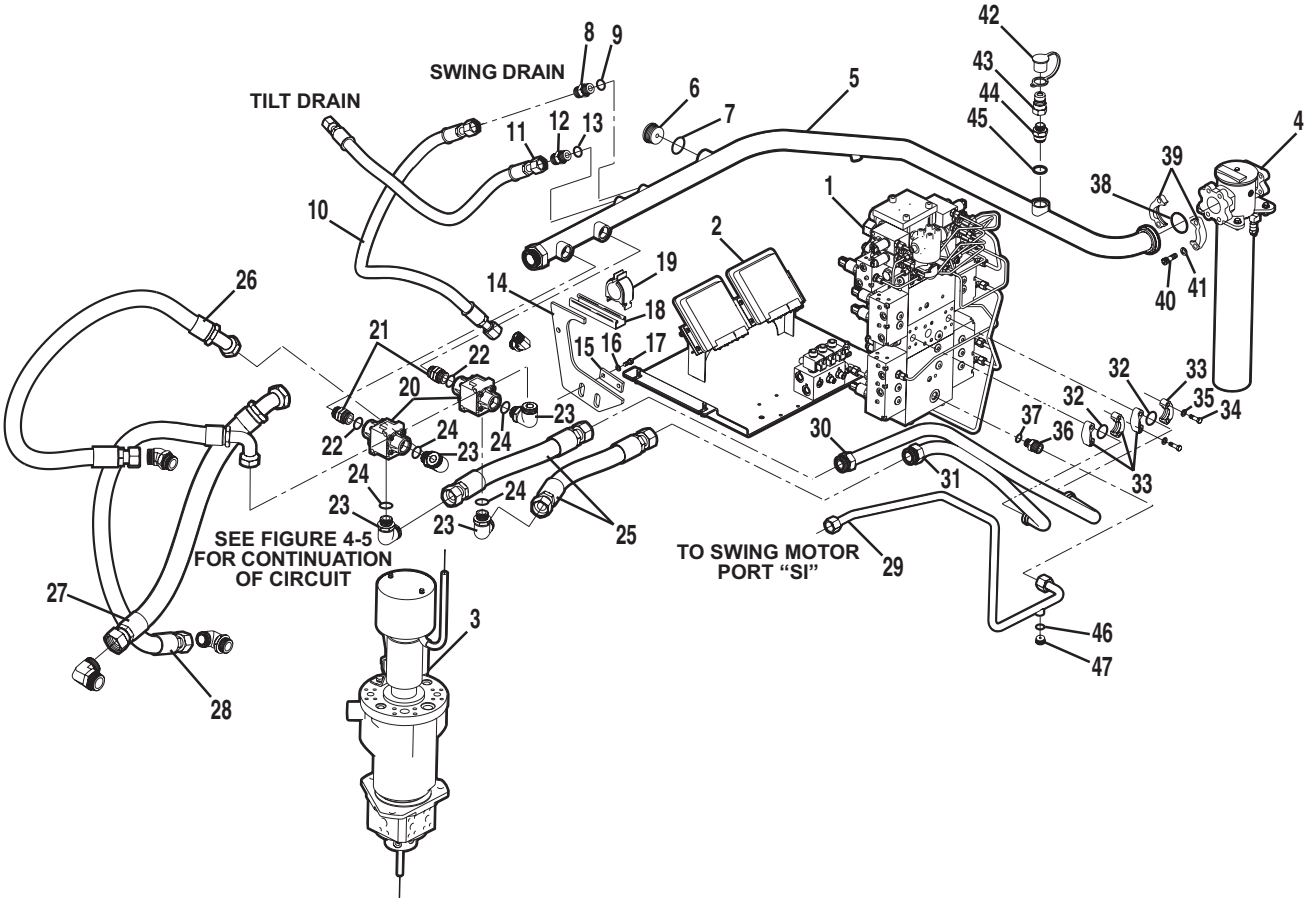


PAE0790

Figure 8-2 Main Valve to Valve Module Hydraulic Circuit

Item	Part Number	Qty.	Description	Rev.
1		REF	MAIN HYDRAULIC CONTROL VALVE ASSY, (see Figure 9-8 for details)	
2		REF	VALVE MODULE ASSY, (see Figure 9-6 for details)	
3	2120220	1	PILOT FILTER ASSY	
	80533001	1	ELEMENT	
4	88662448	2	CONNECTOR, (includes item 5)	
5	88591207	2	O-RING	
6	84719270	2	HOSE ASSY	
7	84718604	1	HOSE ASSY	
8	84718804	1	HOSE ASSY	
9	84719025	1	HOSE ASSY	
10	84721197	1	HOSE ASSY	
11	91343012	2	CUSHION CLAMP	
12	84719295	1	HOSE ASSY	
13	88201026	1	HEX HD CAPSCREW, 5/16-18X2-1/2, GR51	
14	77133137	3	COVER PLATE	
15	77133136	1	CLAMP SET	
16	88521205	1	HEX LOCKNUT, 5/16-18	
17	86661066	2	U-BOLT	
18	3756764	1	CLAMP BASE	
19	84521062	1	CLAMP	
20	88561003	1	FLATWASHER, 5/16	
21	77143013	4	WHIZ-LOK NUT, 5/16-18	
22	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
23	77133138	1	BASE PLATE	
24	77323029	1	CLAMP SET	
25	84721230	1	HOSE ASSY	
26	84719956	1	HOSE ASSY	
27	88662302	1	CONNECTOR, (includes item 36)	
28	84719550	1	HOSE ASSY	
29	88662418	1	ELBOW, 45 DEGREES, (includes item 35)	
30	83953053	1	HOSE SLEEVE	
31	80733021	1	TUBE ASSY	
32	80733018	1	TUBE ASSY	
33	84719064	1	HOSE ASSY	
34	80973025	4	WHIZ-LOK SCREW, 3/8-16X1	
35	88591204	1	O-RING	
36	88591205	1	O-RING	

Figure 8-3 Dump Circuit

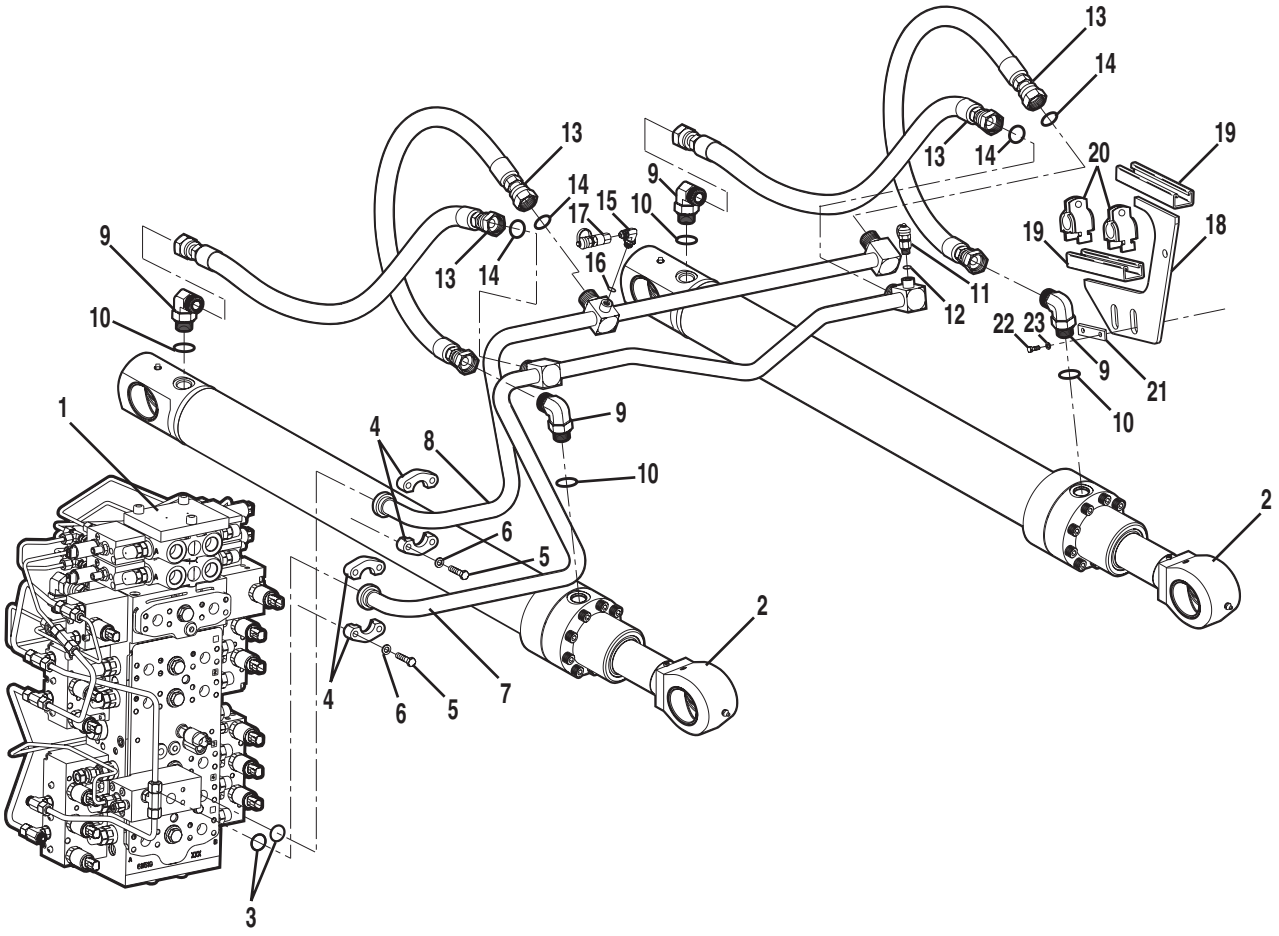


PAE0560

Figure 8-3 Dump Circuit

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY, (see Figure 9-8 for details)	
2		Ref	VALVE MODULE ASSY, (see Figure 9-6 for details)	
3		Ref	CENTERPIN ASSY, (see Figure 9-20 for details)	
4		Ref	HYDRAULIC FILTER ASSY, (see Figure 1-6 for details)	
5	80733005	1	DUMP TUBE ASSY	
6	88662196	1	HEX PLUG, (includes item 7)	
7	88591209	1	O-RING	
8	88662302	1	CONNECTOR, (includes item 9)	
9	88591205	1	O-RING	
10	84721043	1	HOSE ASSY	
11	84719985	1	HOSE ASSY	
12	88662419	1	CONNECTOR, (includes item 13)	
13	88591205	1	O-RING	
14	80441062	1	BRACKET	
15	83251291	1	KEEPER	
16	88551011	2	LOCKWASHER, 3/8	
17	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
18	90206088	1	CHANNEL WELDMENT	
19	83863005	1	CUSHION CLAMP	
20	80433106	2	THERMAL BY-PASS VALVE	
21	80933055	2	CONNECTOR, (includes item 22)	
22		2	O-RING	
23	88662455	4	ELBOW, 90 DEGREES, (includes item 24)	
24	88591209	4	O-RING	
25	84719770	2	HOSE ASSY	
26	2754621	1	HOSE ASSY	
27	84721194	1	HOSE ASSY	
28	84721193	1	HOSE ASSY	
29	3460513	1	TUBE ASSY	
30	80433101	1	TUBE ASSY	
31	80733010	1	TUBE ASSY	
32	91083106	2	O-RING	
33	84711333	4	FLANGE HALF	
34	88201036	8	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
35	88551011	8	LOCKWASHER, 3/8	
36	88662311	1	CONNECTOR, (includes item 37)	
37	88591206	1	O-RING	
38	77363038	1	O-RING	
39	84711427	2	FLANGE HALF	
40	88211107	4	SOCKET HD CAPSCREW, 1/2-13X1-1/2, GR8	
41	88551013	4	LOCKWASHER, 1/2	
42	83623026	1	DUST CAP	
43	83451129	1	MALE Q.D. COUPLING	
44	88662027	1	CONNECTOR, (includes item 45)	
45	88591209	1	O-RING	
46	88662192	1	HEX PLUG, (includes item 47)	
47	88591204	1	O-RING	

Figure 8-4 Hoist Circuit

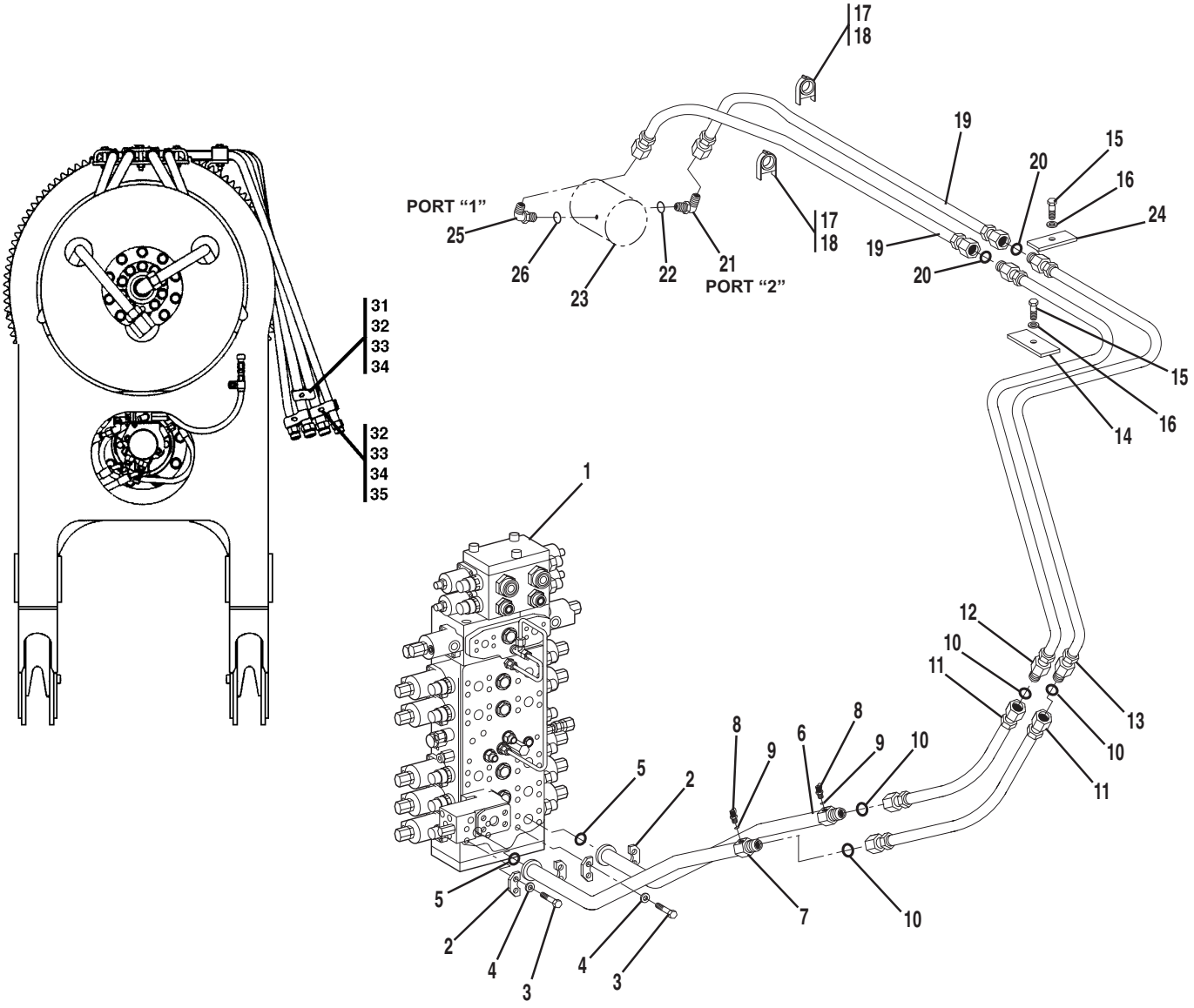


PAD1380

Figure 8-4 Hoist Circuit

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY, (see Figure 9-8 for details)	
2		Ref	HOIST CYLINDER ASSY, (see Figure 9-1 for details)	
3	80933066	2	O-RING	
4	84712737	4	FLANGE HALF	
5	88201037	8	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
6	88551011	8	LOCKWASHER, 3/8	
7	80433023	1	TUBE ASSY	
8	80433022	1	TUBE ASSY	
9	88662332	4	ELBOW, 90 DEGREES, (includes item 10)	
10	88591207	4	O-RING	
11	77133089	1	MINI-CHECK COUPLING, (includes item 12)	
12	83763056	1	VITON O-RING, (lubricate lightly)	
13	84719882	4	HOSE ASSY	
14	88591508	4	O-RING	
15	88662064	1	ELBOW, 90 DEGREES, (includes item 16)	
16	88591204	1	O-RING	
17	91143172	1	MINI-CHECK COUPLING	
18	80441062	1	CHANNEL MOUNT BRACKET	
19	90206088	2	CHANNEL WELDMENT	
20	91053413	2	CUSHION CLAMP	
21	83251291	1	KEEPER	
22	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
23	88551011	2	LOCKWASHER, 3/8	

Figure 8-5 Boom Cylinder



PAD2270
PAD1460

Figure 8-5 Boom Cylinder

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY, (see Figure 9-8 for details)	
2	84712737	4	FLANGE HALF	
3	88201037	8	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
4	88551011	8	LOCKWASHER, 3/8	
5	80933066	2	O-RING	
6	80433203	1	TUBE ASSY	
7	80433204	1	TUBE ASSY	
8	77133089	2	MINI-CHECK COUPLING, (includes item 9)	
9	83763056	2	VITON O-RING, (lubricate lightly)	
10	88591509	4	O-RING	
11	84719452	2	HOSE ASSY,	
12	80423019	1	TUBE ASSY	
13	80423020	1	TUBE ASSY	
14	80321083	2	TUBE CLAMP	
15	88201071	2	HEX HD CAPSCREW, 1/2-13X2-1/2, GR5	
16	88551013	2	LOCKWASHER, 1/2	
17	90205793	2	HYDRA-ZORB CLAMP, 1-1/2	
18	80991124	4	INSERT	
19	84721362	2	HOSE ASSY	
20	88591510	4	O-RING	
21	88662336	1	ELBOW, 90 DEGREES, (includes item 22)	
22	88591207	1	O-RING	
23	80423033	1	TILT GLAND	
24	80321084	4	TUBE CLAMP	
25	88662333	1	ELBOW, 90 DEGREES, (includes item 26)	
26	88591209	1	O-RING	
31	80321085	2	CLAMP	
32	80221281	3	SPACER	
33	88211073	3	SOCKET HD CAPSCREW, 3/8-16X1-1/2, GR8	
34	88521206	3	HEX LOCKNUT, 3/8-16	
35	80221277	4	CLAMP	
	80424034	1	TILT GLAND SEAL KIT	

Figure 8-6 Tool Cylinder

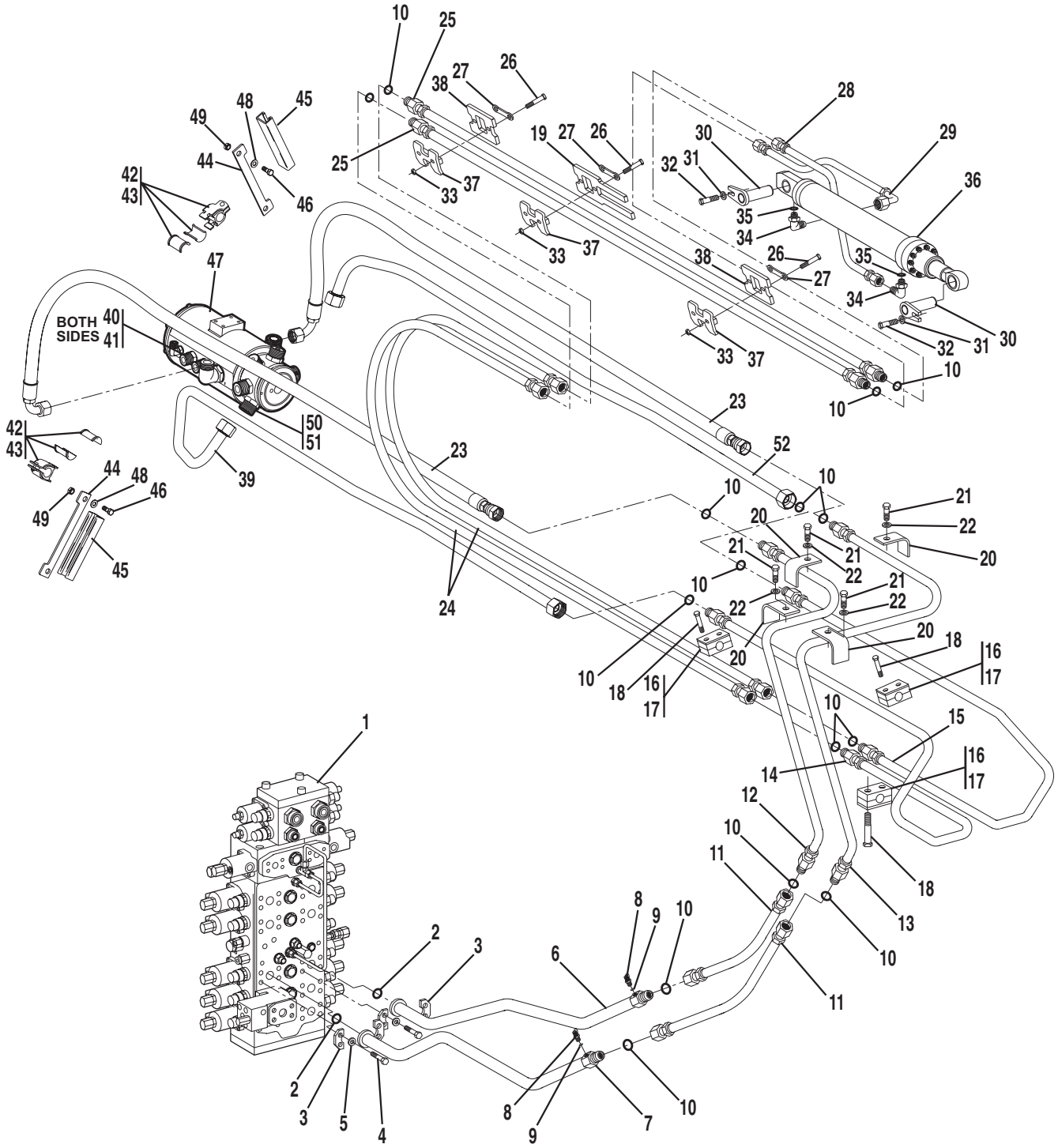


Figure 8-6 Tool Cylinder

Item	Part Number	Qty.	Description	Rev.
1		REF	MAIN HYDRAULIC CONTROL, (see Figure 9-8 for details)	
2	80933066	2	O-RING	
3	84712737	4	FLANGE HALF	
4	88201037	8	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
5	88551011	8	LOCKWASHER, 3/8	
6	80433027	1	TUBE ASSY	
7	80433026	1	TUBE ASSY	
8	77133089	2	MINI-CHECK COUPLING, (includes item 9)	
9	83763056	2	VITON O-RING, (lubricate lightly)	
10	88591508	14	O-RING	
11	84719337	2	HOSE ASSY	
12	80423022	1	TUBE ASSY	
13	80423021	1	TUBE ASSY	
14	80523008	1	TUBE ASSY	
15	80523009	1	TUBE ASSY	
16	80423054	6	CLAMP SET	
17	83253010	6	COVER PLATE	
18	88201042	12	HEX HD CAPSCREW, 3/8-16X2-3/4, GR5	
19	80321137	1	CENTER CLAMP PLATE	
20	80321084	4	TUBE CLAMP	
21	88201073	4	HEX HD CAPSCREW, 1/2-13X3, GR5	
22	88551013	4	LOCKWASHER, 1/2	
23	84721361	2	HOSE ASSY	
24	84721313	2	HOSE ASSY	
25	3460577	2	TUBE ASSY	
26	88201069	6	HEX HD CAPSCREW, 1/2-13X2, GR5	
27	80221278	6	KEEPER	
28	84721360	1	HOSE ASSY	
29	84721359	1	HOSE ASSY	
30	80926014	2	PIN WELDMENT	
31	83621283	2	SPECIAL WASHER	
32	83201129	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
33	88521008	6	HEX NUT, 1/2-13	
34	88662332	2	ELBOW, 90 DEGREES, (includes item 35)	
35	88591207	2	O-RING	
36		Ref	TOOL CYLINDER ASSY, (see Figure 9-3 for details)	
37	80423038	3	TOP CLAMP WELDMENT	
38	80321136	2	BOTTOM PLATE	
39	80523005	1	TUBE ASSY	
40	88662311	2	ADAPTER, (includes item 41)	
41	88591206	4	O-RING	
42	91053413	2	HYDRA-ZORB CLAMP, 1-1/4	
43	80521042	4	INSERT	
44	80521041	2	CHANNEL MOUNT	
45	90206088	2	CHANNEL WELDMENT	
46	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
47		Ref	TILT GLAND, (see Figure 9-17 for details)	
48	90027470	4	HARDENED WASHER	
49	88971004	4	HEX LOCKNUT	

Figure 8-6 Tool Cylinder

Item	Part Number	Qty.	Description	Rev.
50	88662566	1	CONNECTOR, (includes item 51)	
51	88591206	1	O-RING	
52	80523006	1	TUBE ASSY	
	80424034	1	TILT GLAND SEAL KIT	

Figure 8-6 Tool Cylinder

Item	Part Number	Qty.	Description	Rev.

Figure 8-7 Tilt Motor

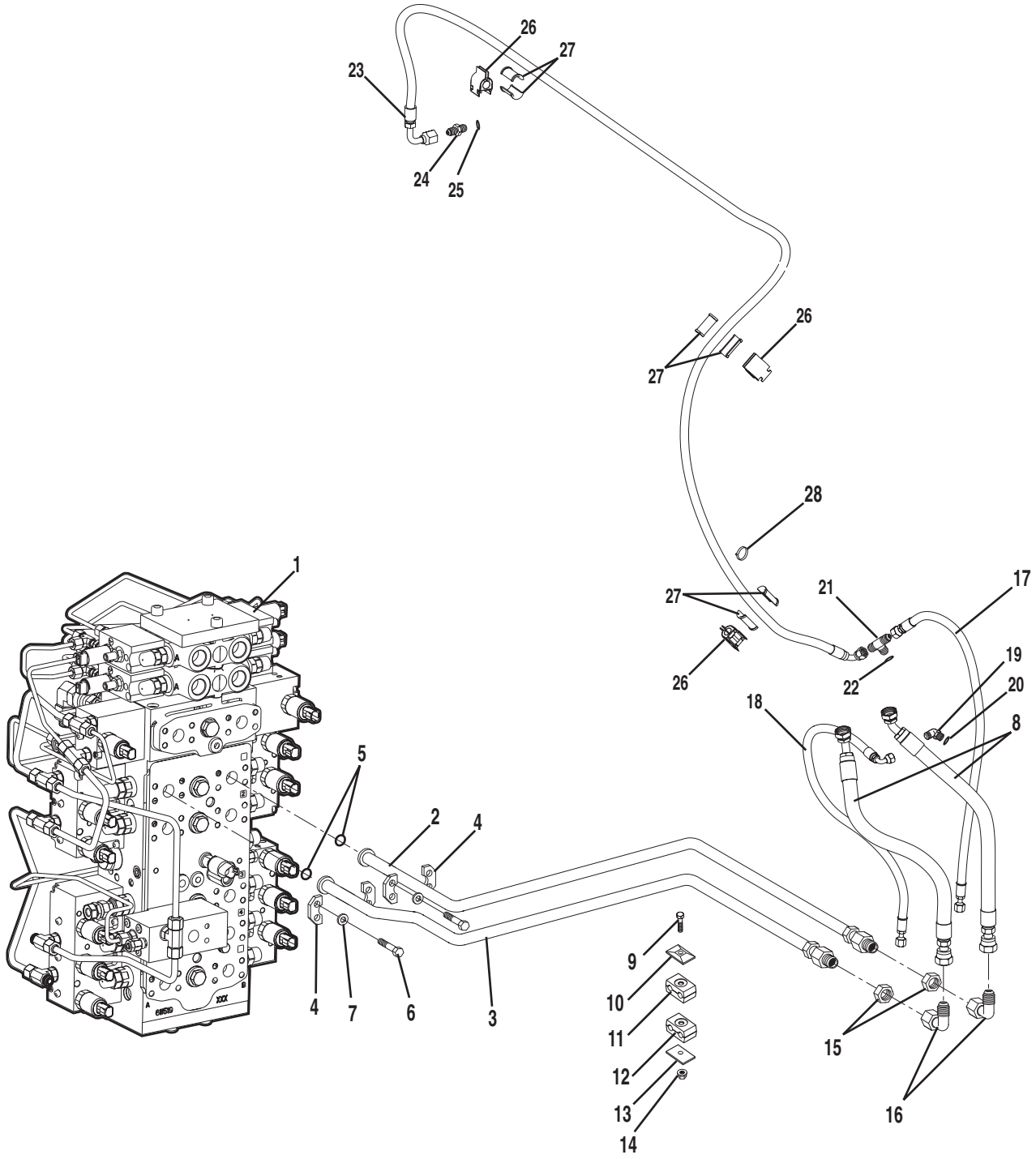


Figure 8-7 Tilt Motor

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY, (see Figure 9-8 for details)	
2	80733028	1	TUBE ASSY	
3	80733029	1	TUBE ASSY	
4	84712737	4	FLANGE HALF	
5	80933066	2	O-RING	
6	88201037	8	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
7	88551011	8	LOCKWASHER, 3/8	
8	84721128	2	HOSE ASSY	
9	88201026	1	HEX HD CAPSCREW, 5/16-18X2-1/2, GR5	
10	77133137	1	COVER PLATE	
11	77323029	1	CLAMP SET	
12	77133136	1	CLAMP SET	
13	77133137	1	COVER PLATE‘	
14	88521205	1	HEX LOCKNUT, 5/16-18	
15	88662441	2	HEX NUT	
16	88662374	2	BULKHEAD ELBOW	
17	84721130	1	HOSE ASSY	
18	84721129	1	HOSE ASSY	
19	88662445	1	ELBOW, 90 DEGREES, (includes item 20)	
20	88591202	1	O-RING	
21	88662339	1	BRANCH TEE, (includes item 22)	
22	88591205	1	O-RING	
23	84721143	1	HOSE ASSY	
24	88662440	1	CONNECTOR, (includes item 25)	
25	88591204	1	O-RING	
26	90207463	3	CUSHION CLAMP	
27	80991126	6	INSERT	
1				

Figure 8-8 Upper Propelling

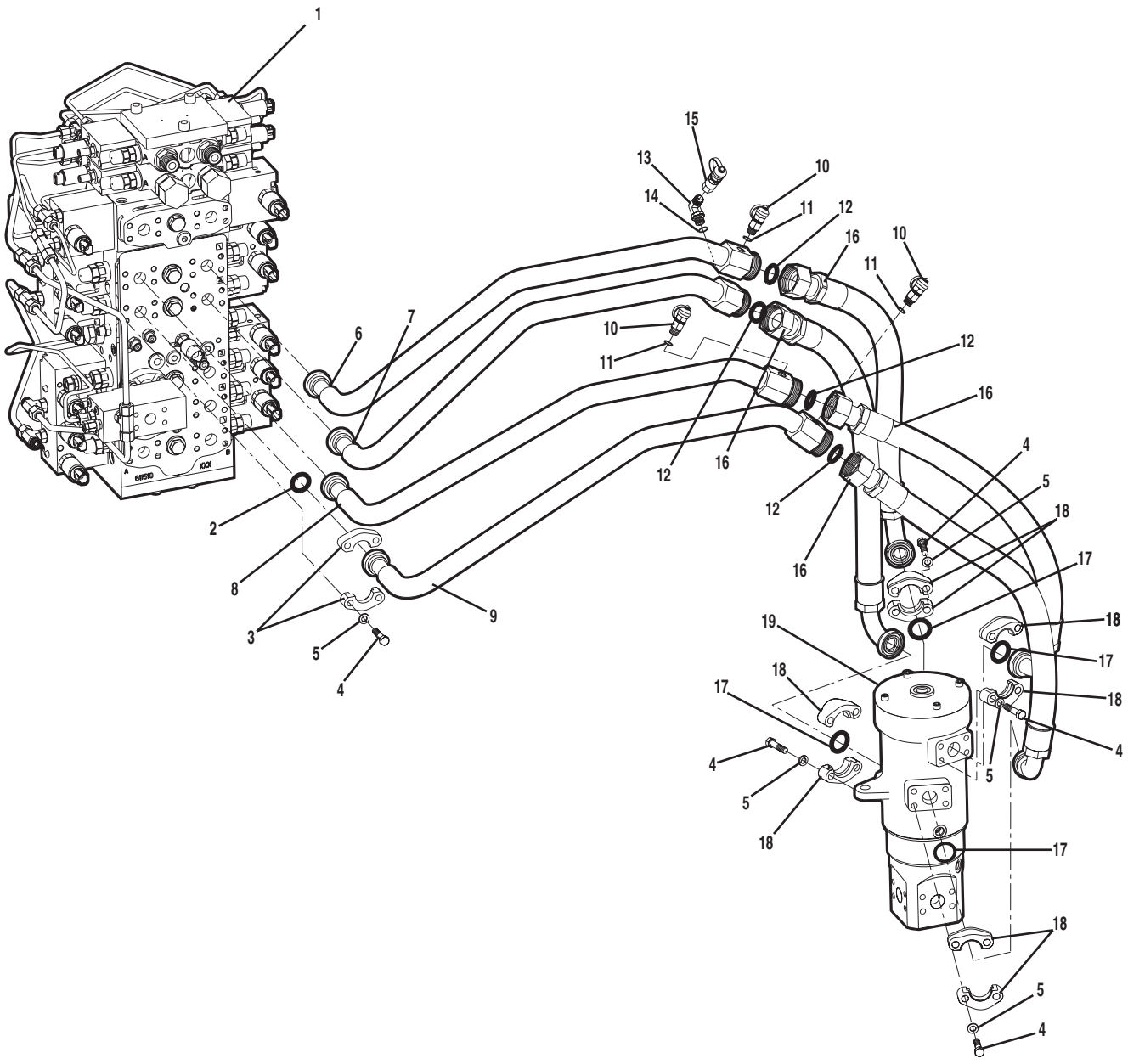


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Figure 8-8 Upper Propelling

Item	Part Number	Qty.	Description	Rev.
1		REF	MAIN HYDRAULIC CONTROL VALVE ASSEMBLY, (see Figure 9-8 for details)	
2	80933066	4	O-RING	
3	84712737	8	FLANGE HALF	
4	88201037	32	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
5	88551011	32	LOCKWASHER, 3/8	
6	80433125	1	TUBE ASSY	
7	80433095	1	TUBE ASSY	
8	80433124	1	TUBE ASSY	
9	80433094	1	TUBE ASSY	
10	77133089	3	MINI-CHECK COUPLING, (includes item 11)	
11	83763056	3	VITON O-RING, (lubricate lightly)	
12	88591510	4	O-RING	
13	88662064	1	ELBOW, 90 DEGREES, (includes item 14)	
14	88591204	1	O-RING	
15	91143172	1	MINI-CHECK COUPLING	
16	84719785	4	HOSE ASSY	
17	91083106	4	O-RING	
18	84711333	8	FLANGE HALF	
19		REF	CENTERPIN ASSY, (see Figure 9-20 for details)	

Figure 8-9 Drive Main

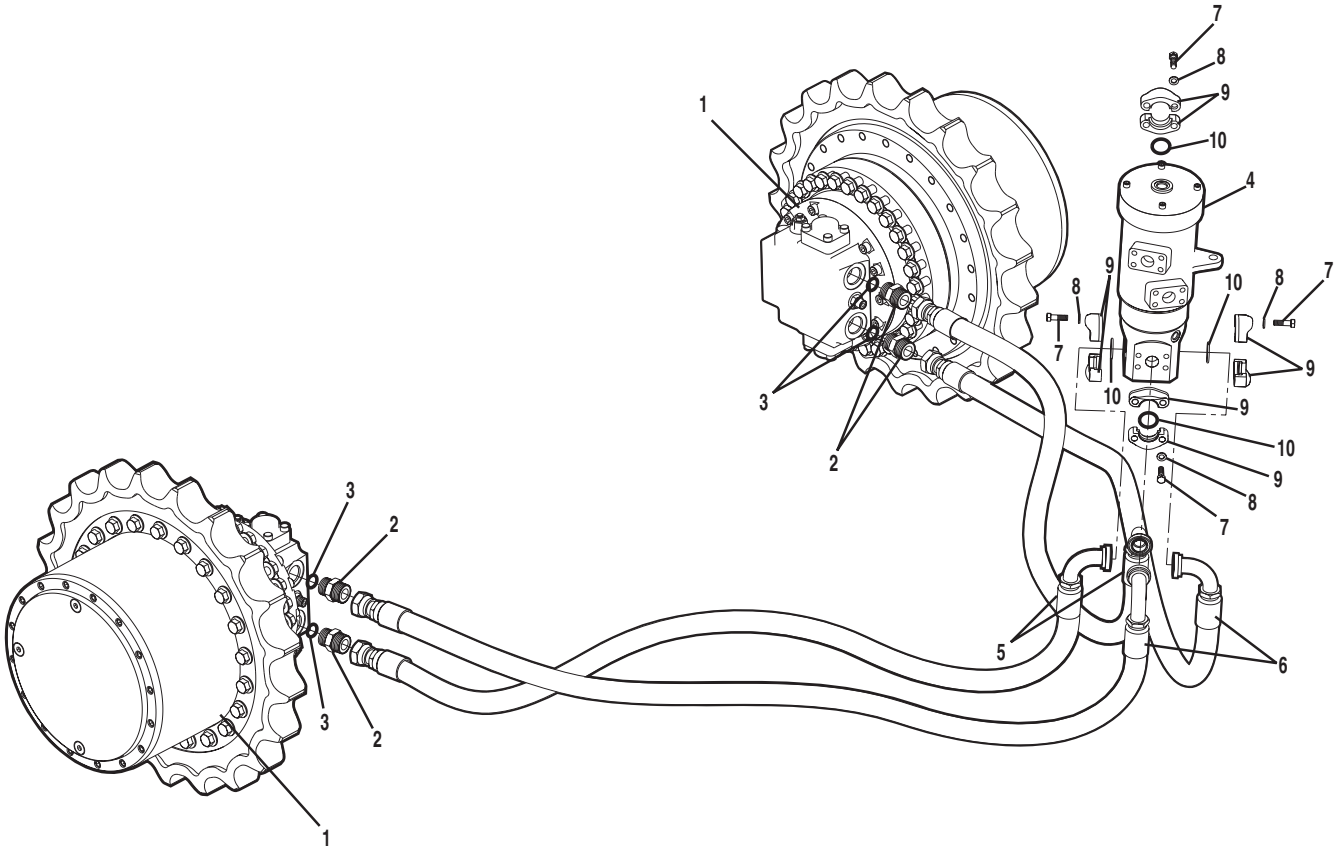

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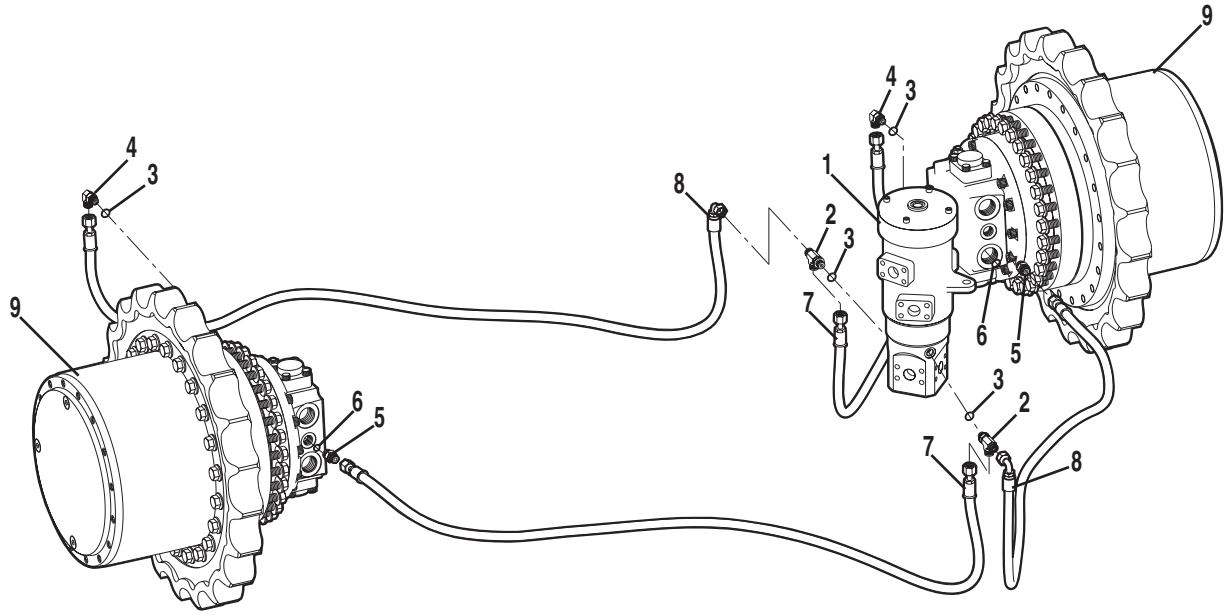
Figure 8-9 Drive Main

Item	Part Number	Qty.	Description	Rev.
1		REF	CRAWLER DRIVE ASSY, (see Figure 5-5 for details)	
2	88662305	4	CONNECTOR, (includes item 3)	
3	88591209	4	O-RING	
4		REF	CENTERPIN ASSY, (see Figure 9-20 for details)	
5	84719736	2	HOSE ASSY	
6	84719737	2	HOSE ASSY	
7	88201036	16	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
8	88551011	16	LOCKWASHER, 3/8	
9	84711333	8	FLANGE HALF	
10	91083106	4	O-RING	

Figure 8-10 Drive Forward/Reverse



PAE0650

Figure 8-10 Drive Forward/Reverse

Item	Part Number	Qty.	Description	Rev.
1		REF	CENTERPIN ASSY, (see Figure 9-20 for details)	
2	88662346	2	RUN TEE, (includes item 3)	
3	88591204	4	O-RING	
4	88662329	2	ELBOW, 90 DEGREES, (includes item 3)	
5	88662310	2	CONNECTOR, (includes item 6)	
6	88591205	2	O-RING	
7	84719739	2	HOSE ASSY	
8	84719738	2	HOSE ASSY	
9		REF	CRAWLER DRIVE ASSY, (see Figure 5-5 for details)	

Figure 8-11 Swing Motor

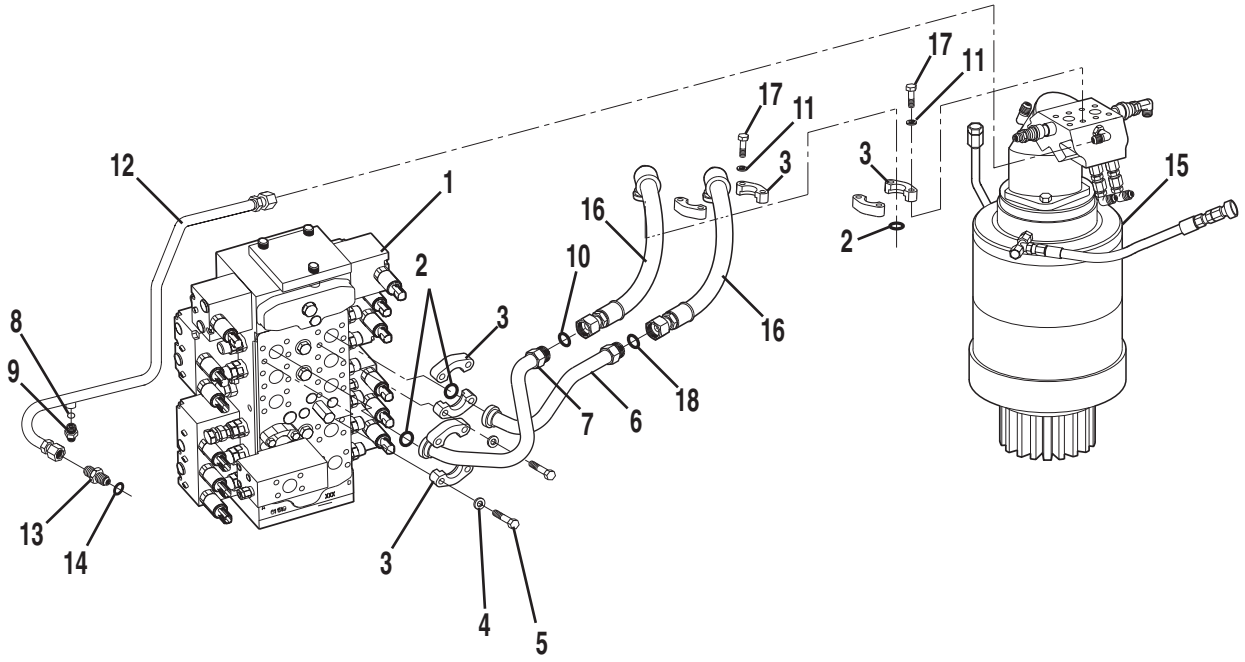


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Figure 8-11 Swing Motor

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY, (see Figures 9-8 thru 9-12 for details)	
2	80933066	4	O-RING	
3	84712737	8	FLANGE HALF	
4	88551011	8	LOCKWASHER, 3/8	
5	83201037	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
6	80433135	1	TUBE ASSY	
7	80433031	1	TUBE ASSY	
8	88662192	1	HEX PLUG, (includes item 9)	
9	88591204	1	O-RING	
10	88591508	2	O-RING	
11	83191013	8	LOCKWASHER, M10	
12	3460513	1	TUBE ASSY	
13	88662311	1	CONNECTOR, (includes item 14)	
14	88591206	1	O-RING	
15		Ref	SWING TRANSMISSION ASSY, (see Figure 9-13 for details)	
16	84719881	2	HOSE ASSY	
17	83191027	8	HEX HD CAPSCREW, 3M10-1.5x35, GR8	

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SECTION 9
HYDRAULIC COMPONENTS

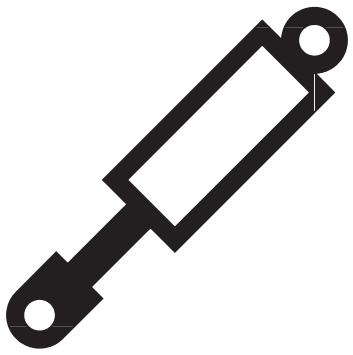
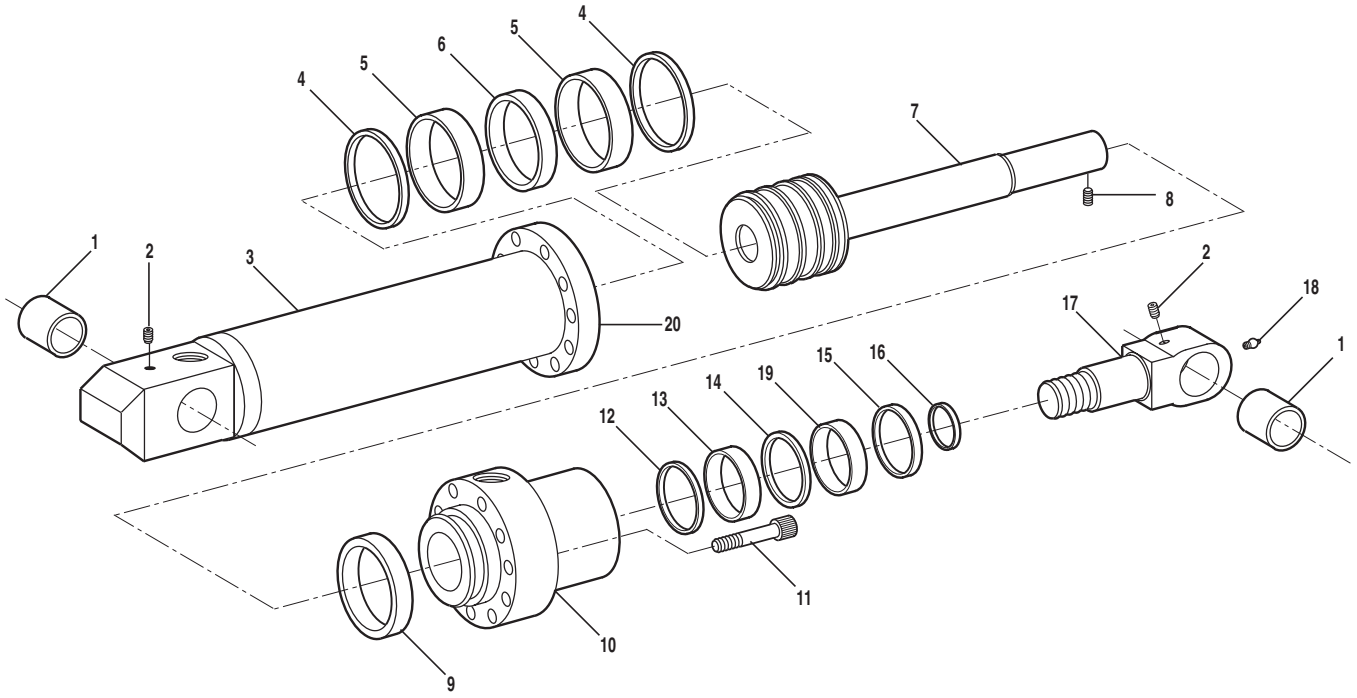


Figure 9-1 Hoist Cylinder Assembly

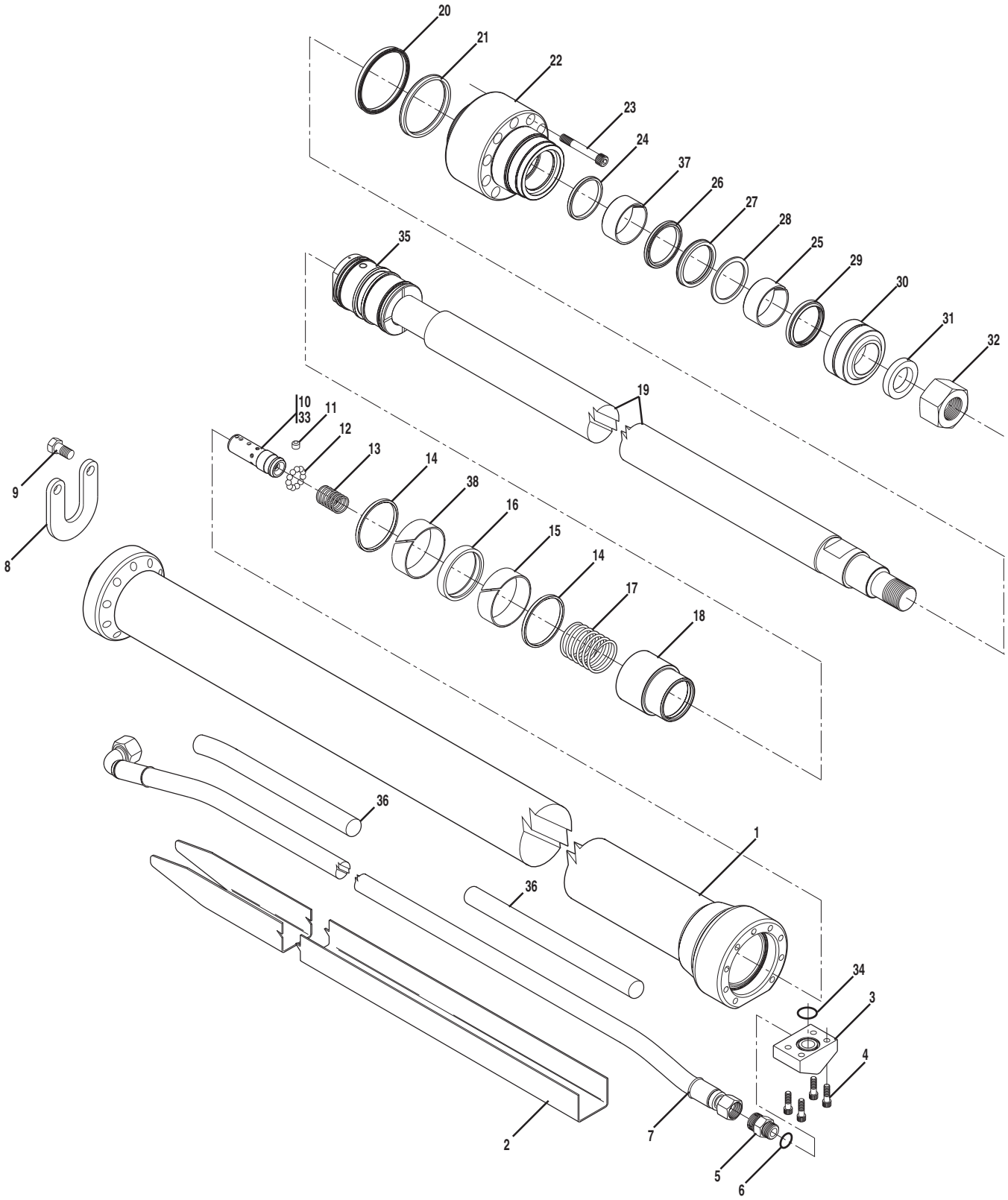


PAC2380

Figure 9-1 Hoist Cylinder Assembly

Item	Part Number	Qty.	Description	Rev.
	80005185	2	HOIST CYLINDER ASSY, (includes all items)	
1	83304136	2	BUSHING	
2	80004132	2	THREADED PLUG	
3	80004133	1	CYLINDER TUBE WELDMENT	
4	80004104	2	INGESTION RING	
5	80004105	2	WEAR RING	
6	80004102	1	PISTON SEAL	
7		1	PISTON ROD ASSY	
8	88004085	2	HEX SOCKET SET SCREW, (half dog point), 3/8-16X1/2, (use loctite)	
9	80004103	1	STATIC SEAL	
10	80004134	1	CYLINDER HEAD	
11	80004135	9	HEX SOCKET HD CAPSCREW, 1/3-13X3, (loctite & torque to 100-110 lb-ft)	
12	80004136	1	INGESTION RING	
13	80004137	2	BEARING	
14	80004138	1	BUFFER SEAL	
15	80004139	1	ROD SEAL	
16	80004140	1	ROD WIPER	
17	80001476	1	ROD EYE	
18	80004046	1	LUBE FITTING, STRAIGHT, 1/8	
19	80004141	1	WEAR RING	
20	80004143	1	THREADED COLLAR	
	80004144	AR	PACKING KIT, (includes items 4, 5, 6, 9 & 12 thru 16 & 19)	
	80845002	1	PISTON ROD ASSY, (includes item 7)	

Figure 9-2 Boom Cylinder Assembly

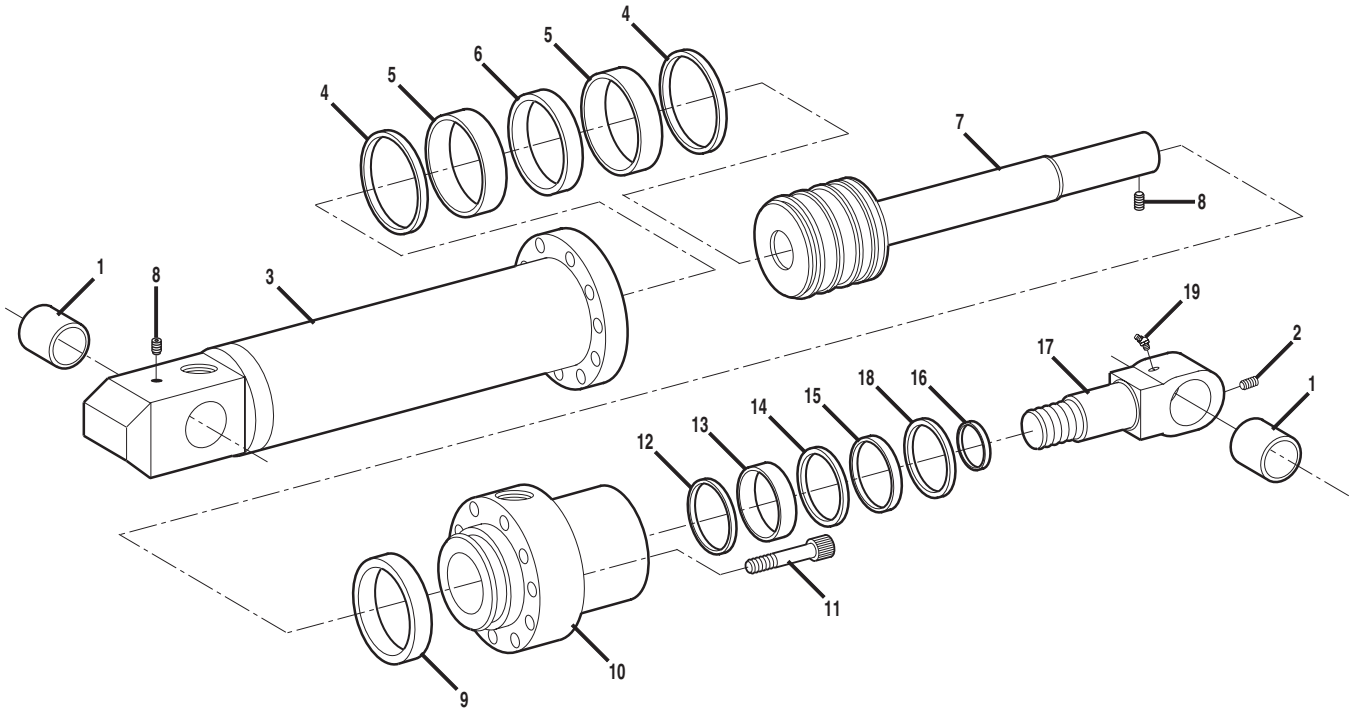


PAC0780

Figure 9-2 Boom Cylinder Assembly

Item	Part Number	Qty.	Description	Rev.
	80725003	1	BOOM CYLINDER ASSY, (includes all items)	B
1	80726001	1	TUBE ASSY, (includes items 2 & 20)	
2	80721007	1	HOSE TROUGH	
3	80321133	1	PORT BLOCK	
4	88211072	4	SOCKET HD CAPSCREW, 3/8-16X1-1/4, GR8	
5	88662304	1	CONNECTOR, (includes item 6)	
6	88591207	1	O-RING	
7	84719751	1	HOSE ASSY	
8	80001642	1	PROTECTOR PLATE	
9	88201094	2	HEX HD CAPSCREW, 5/8-11X1-1/4, GR5	
10	80721004	1	CUSHION PLUNGER	
11	88221276	1	SOCKET SET SCREW, (flat point), 1/2-13X1/2	
12	80323040	1	BALL	
13	80423035	1	SPRING	
14	80003637	2	INGRESSION RING	
15	80003636	1	WEAR RING	
16	80003635	1	PISTON SEAL	
17	80423006	1	SPRING	
18	80421137	1	CUSHION BUSHING	
19	80721001	1	CYLINDER ROD	
20	80003616	1	SEAL	
21	80003617	1	SEAL	
22	80721006	1	CYLINDER HEAD	
23	88211112	9	SOCKET HD CAPSCREW1/2-13X2-3/4, GR8	
24	80003610	1	INGRESSION RING	
25	80003611	1	WEAR RING	
26	80003612	1	BUFFER SEAL	
27	80003613	1	SEAL	
28	80003614	1	BACK-UP RING	
29	80003615	1	ROD WIPER	
30	0440324	1	SPHERICAL BUSHING	
31	80521021	1	WASHER	
32	80521022	1	HEAVY HEX NUT	
33	88241070	1	SOCKET FLAT HD CAPSCREW1/2-13X3/4	
34	91083106	1	O-RING	
35	80721002	1	PISTON	
36	91403528	2	HOSE GUARD	
37	80003756	1	NARROW BEARING	
38	80003755	1	WIDE BEARING	
	80725004	AR	PACKING KIT, (includes items 14 thru 16, 21, 24 thru 29, 37 & 38)	

Figure 9-3 Tool Cylinder Assembly

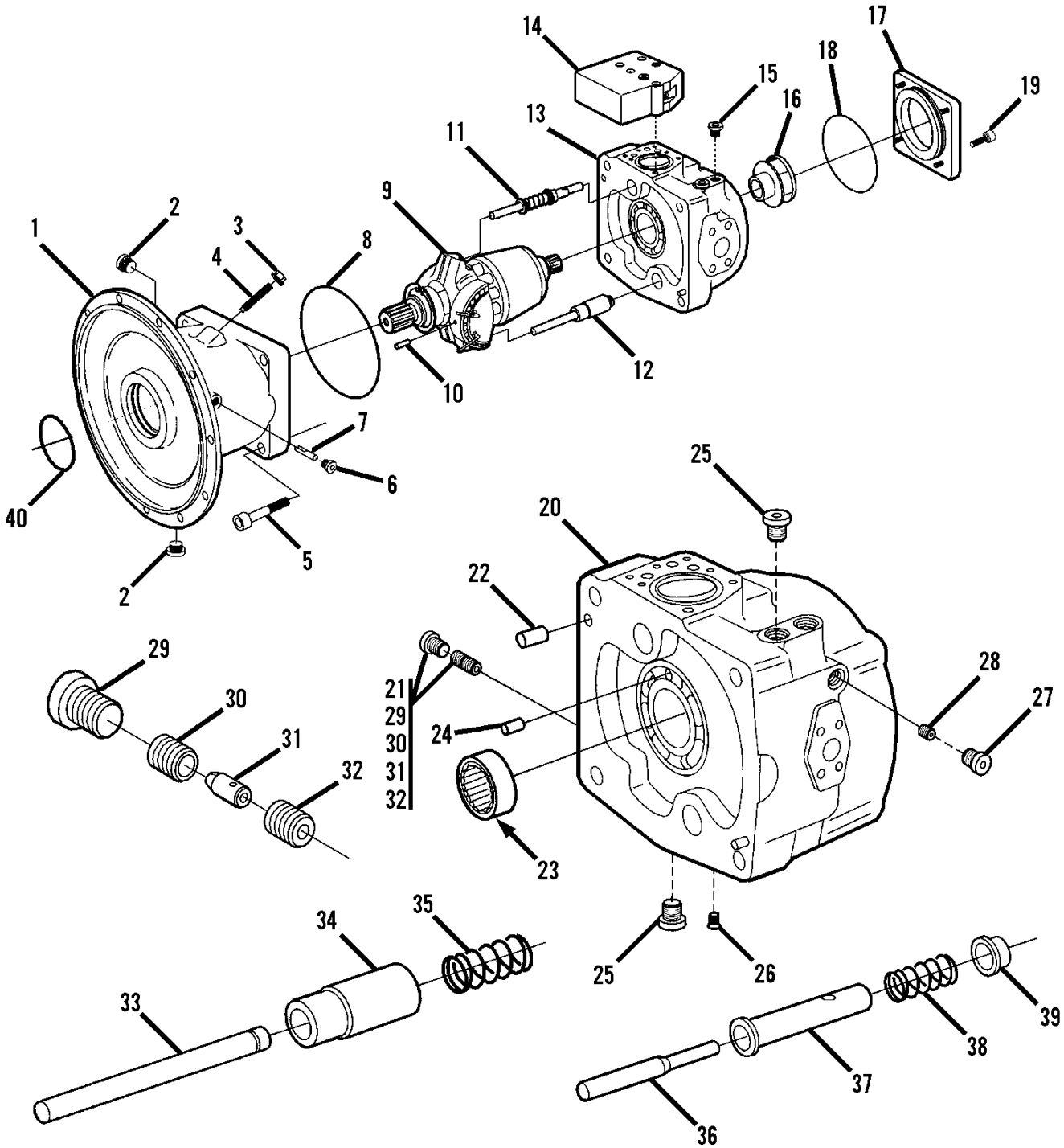


PAD2190

Figure 9-3 Tool Cylinder Assembly

Item	Part Number	Qty.	Description	Rev.
	80005209	1	TOOL CYLINDER ASSY, (includes all items)	A
1	80004088	2	BUSHING	
2	83304146	1	HEX SOCKET PIPE PLUG	
3	80524036	1	CYLINDER TUBE WELDMENT	
4		2	INGRESSION RING	
5		2	WEAR RING	
6		1	PISTON SEAL	
7	80524046	1	PISTON ROD	
8	80004123	2	HEX SOCKET SET SCREW	
9		1	STATIC SEAL	
10	80004082	1	CYLINDER HEAD	
11	80004122	10	SOCKET HD CAPSCREW	
12		1	INGRESSION RING	
13		1	WEAR RING	
14		1	BUFFER SEAL	
15		1	ROD SEAL	
16		1	ROD WIPER	
17	80004046	1	ROD EYE	
18		1	WEAR RING	
19	88671016	1	LUBE FITTING, 30 DEGREES, 1/8	
	80004089	AR	PACKING KIT, (includes items 4, 5, 6, 9, 12, 13, 14, 15, 16 & 18)	

Figure 9-4 Main Pump - Front



PAD0680

Figure 9-4 Main Pump - Front

Item	Part Number	Qty.	Description	Rev.
	80433014	1	MAIN HYDRAULIC PUMP, (includes all items)	A
1	80434167	1	MOTOR FLANGE	
2	80434168	3	LOCKING SCREW	
3	80434169	2	SEAL LOCKNUT	
4	80434170	2	THREADED PIN	
5	80434171	4	SOCKET HD CAPSCREW	
6	80434096	4	LOCKING SCREW	
7	80334064	4	JOINT PIN	
8	80434172	1	O-RING	
9	80434173	1	ROTARY GROUP	
10	80434177	2	CLAMPING PIN	
11	80434174	1	CONTROL, (includes items 36 thru 39)	
12	80434175	1	HYDRAULIC CONTROL, (includes items 33 thru 35)	
13	80434176	1	PORT PLATE w/ACCESSORIES, (includes items 20 thru 28)	
14		Ref	REGULATOR, (see Figure 9-5 for details)	
15	80434109	1	LOCKING SCREW	
16	80434178	1	IMPELLER, (R.H. rotation)	
17	89434179	1	COVER	
18	80434180	1	O-RING	
19	89434181	4	SOCKET HD CAPSCREW	
20	80434182	1	PORT PLATE, BASIC	
21	80434183	1	CONTROL ELEMENT, (includes items 29 thru 32)	
22	80434184	2	CYLINDER PIN	
23	80434185	1	ROLLER BEARING	
24	80434186	1	CYLINDER PIN	
25	80434109	1	LOCKING SCREW	
26	80434111	7	DOUBLE BREAK-OFF PIN	
27	80434187	1	LOCKING SCREW	
28	80934416	1	ORIFICE	
29	80434121	1	LOCKING SCREW	
30	91404057	1	THROTTLE SCREW	
31	80434188	1	THROTTLE PIN	
32	91404055	1	THROTTLE SCREW	
33		AR	RETURN ROD	
		AR	RETURN ROD	
		AR	RETURN ROD	
		AR	RETURN ROD	
34		1	RETURN PISTON	
35		1	PRESSURE SPRING	
36		AR	ROD, (134.7)	
		AR	ROD, (134.9)	
		AR	ROD, (135.1)	
		AR	ROD, (135.3)	
37		1	POSITIONING PISTON	
38		1	PRESSURE SPRING	
39		1	BUSHING	
40	80434089	1	SHAFT SEAL	

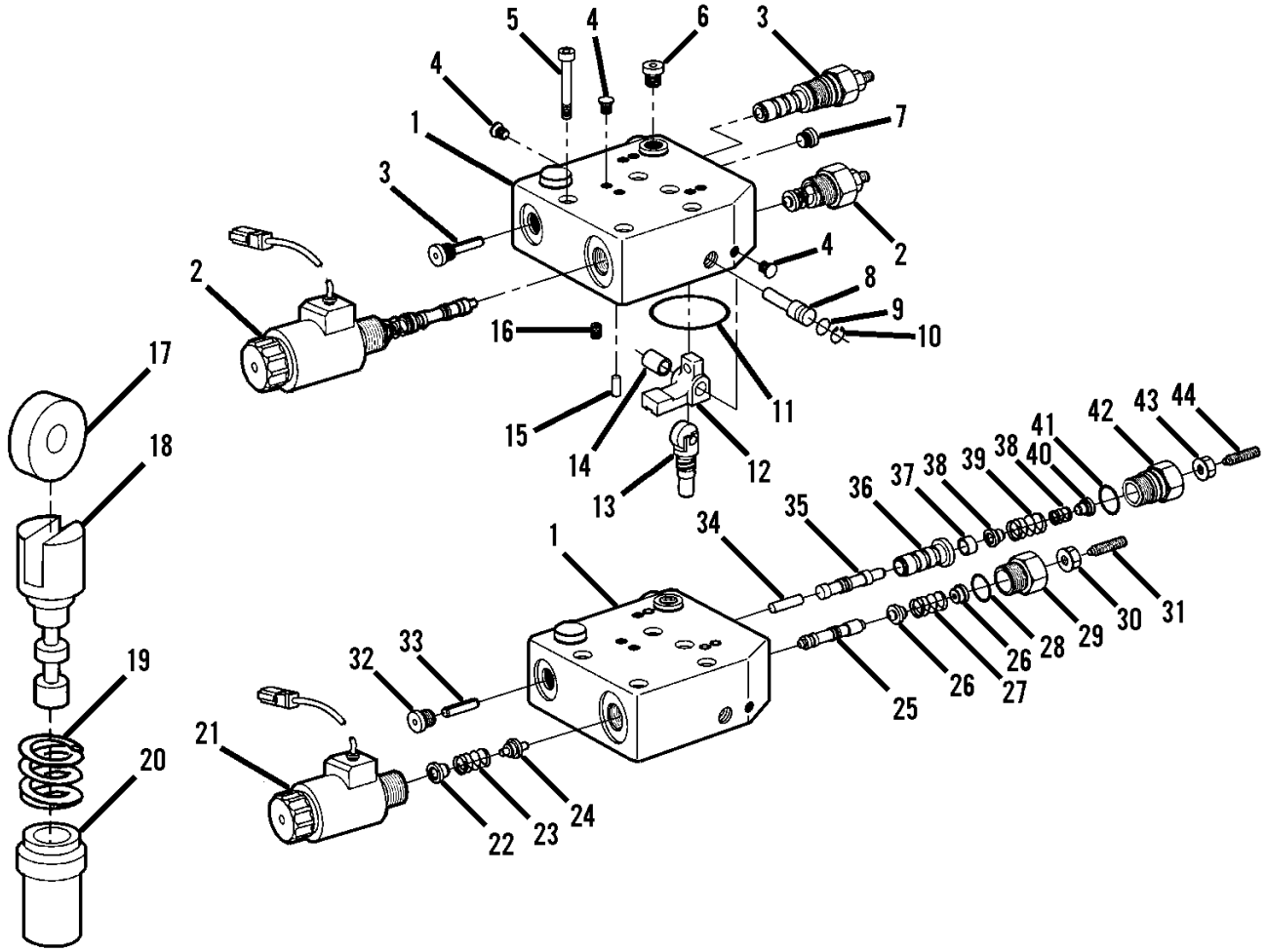
Figure 9-4 Main Pump - Front

Item	Part Number	Qty.	Description	Rev.
	80434166	1	SEAL KIT, (includes items 2, 3, 6, 8, 14, 25, 27, 29, 31 & designated items on Figure 9-5)	

Figure 9-4 Main Pump - Front

Item	Part Number	Qty.	Description	Rev.

Figure 9-5 Main Pump - Rear



PAD0690

Figure 9-5 Main Pump - Rear

Item	Part Number	Qty.	Description	Rev.
	80434189	1	REGULATOR ASSY, (includes items 1 thru 17)	A
1	80434190	1	REGULATOR HOUSING	
2	80434191	1	CONTROL ELEMENT, (includes items 21 thru 31)	
3	80434192	1	CONTROL ELEMENT, (includes items 32 thru 44)	
4	80434111	9	DOUBLE BREAK-OFF PIN	
5	80434122	5	SOCKET HD CAPSCREW	
6	80434109	2	LOCKING SCREW	
7	80434113	3	QUAD BONDET RING	
8	80434194	1	BEARING BOLT	
9	80434125	1	O-RING	
10	80434194	1	RETAINING RING	
11	80434195	1	O-RING	
12	80434196	1	MEASURING PISTON w/ACCESSORIES, (includes items 17 thru 20)	
13	80434197	1	ANGLE LEVER	
14	80334084	1	BEARING BUSHING	
15	80434127	2	CYLINDER PIN	
16	80434109	1	ORIFICE	
17	80434198	1	ROLLER	
18	80434199	1	MEASURING PISTON	
19	80434200	1	PRESSURE SPRING	
20	80434201	1	SETTING BUSHING	
21	80434202	1	PROPORTIONAL SOLENOID	
22	80434203	1	SPRING COLLAR	
23	80434204	1	PRESSURE SPRING	
24	80434205	1	SPRING BOLT	
25	80434206	1	CONTROL PISTON	
26	80434207	2	SPRING BOLT	
27	80434208	1	PRESSURE SPRING	
28	80434209	1	O-RING	
29	80434210	1	LOCKING SCREW	
30	80434211	1	SEALING LOCKNUT	
31	80434212	1	THREADED PIN	
32	80434213	1	LOCKING SCREW	
33	80434214	1	CONTROL PISTON	
34	80434215	1	CONTROL PISTON	
35	80434216	1	PISTON	
36	80434217	1	CONTROL BUSHING	
37	80434218	1	BUSHING	
38	80434219	2	SPRING BOLT	
39	80434220	1	PRESSURE SPRING	
40	80434221	1	PRESSURE SPRING	
41	80434209	1	O-RING	
42	80434223	1	LOCKING SCREW	
43	80434211	1	SEALING LOCKNUT	
44	80434225	1	THREADED PIN	

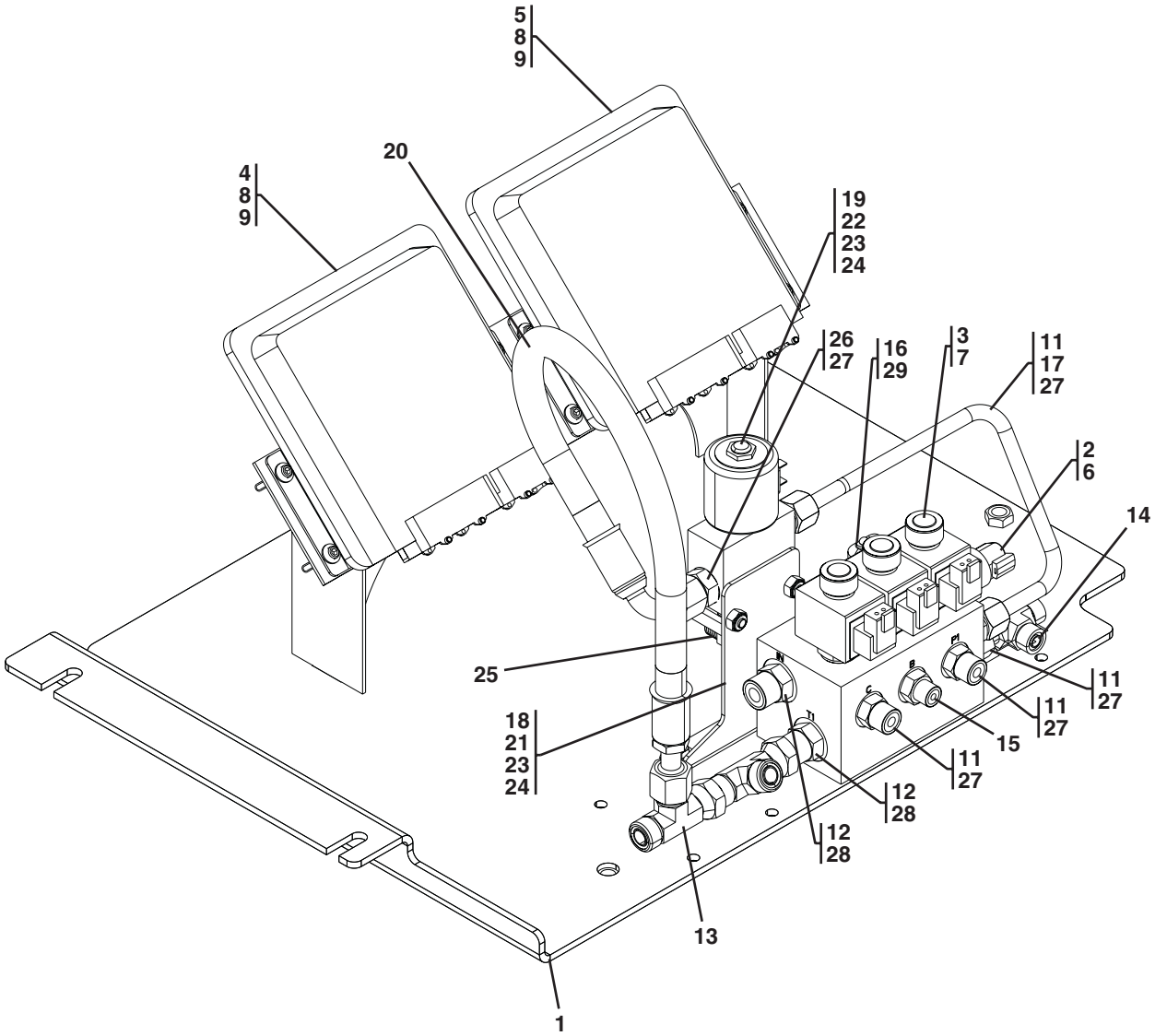
Figure 9-5 Main Pump - Rear

Item	Part Number	Qty.	Description	Rev.
	80434166	1	SEAL KIT, (includes items 6, 7, 11, 28, 30, 33, 42, 44 & designated items on Figure 9-4)	

Figure 9-5 Main Pump - Rear

Item	Part Number	Qty.	Description	Rev.

Figure 9-6 Valve Module Assembly

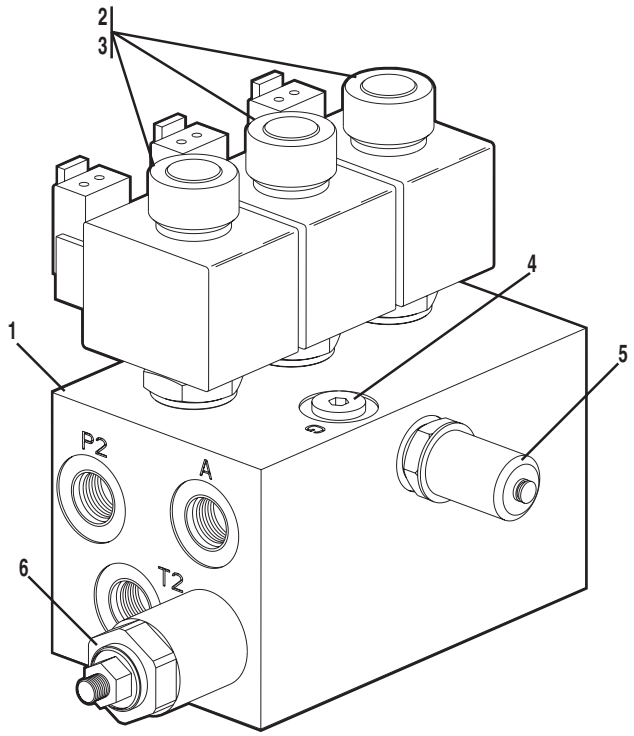


PAE0770

Figure 9-6 Valve Module Assembly

Item	Part Number	Qty.	Description	Rev.
	80735013	Ref	VALVE MODULE ASSY, (includes all items)	A
1	3576432	1	VALVE MOUNTING PLATE	
2	80333052	1	TUBE END REDUCER	
3		Ref	PILOT MANIFOLD ASSEMBLY, (see Figure 9-7 for details)	
4	80733019	1	UPPER CRAWLER CONTROLLER	
5	80733020	1	UPPER EXPANSION CRAWLER CONTROLLER	
6	80763017	1	PRESSURE TRANSDUCER	
7	88201002	4	HEX HD CAPSCREW, 1/4-20X5/8, GR5	
8	88211033	8	SOCKET HD CAPSCREW, #10-24X1-1/4	
9	88561105	8	FLAT WASHER, #10	
10	Not Used			
11	88662301	5	STRAIGHT CONNECTOR, (includes item 27)	
12	88662302	2	STRAIGHT CONNECTOR, (includes item 28)	
13	88662438	2	SWIVEL NUT RUN TEE	
14	88662446	1	SWIVEL NUT RUN TEE	
15	88662471	1	STRAIGHT ADAPTER, (includes item 27)	
16	91053020	1	MINI-CHECK COULING, (includes item 29)	
17	3460520	1	PILOT TUBE ASSY	
18	80731003	1	VALVE BRACKET	
19	80933050	1	SOLENOID VALVE	
20	84719065	1	HOSE ASSY	
21	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
22	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
23	88521304	4	HEX LOCKNUT, 1/4-20	
24	88561002	4	FLAT WASHER, 1/4	
25	88662329	1	ELBOW, 90 DEGREES	
26	88662440	1	STRAIGHT ADAPTER, (includes item 27)	
27	88591204	7	O-RING	
28	88591205	2	O-RING	
29	91044002	1	VITON O-RING, (lubricate lightly)	

Figure 9-7 Pilot Manifold Assembly

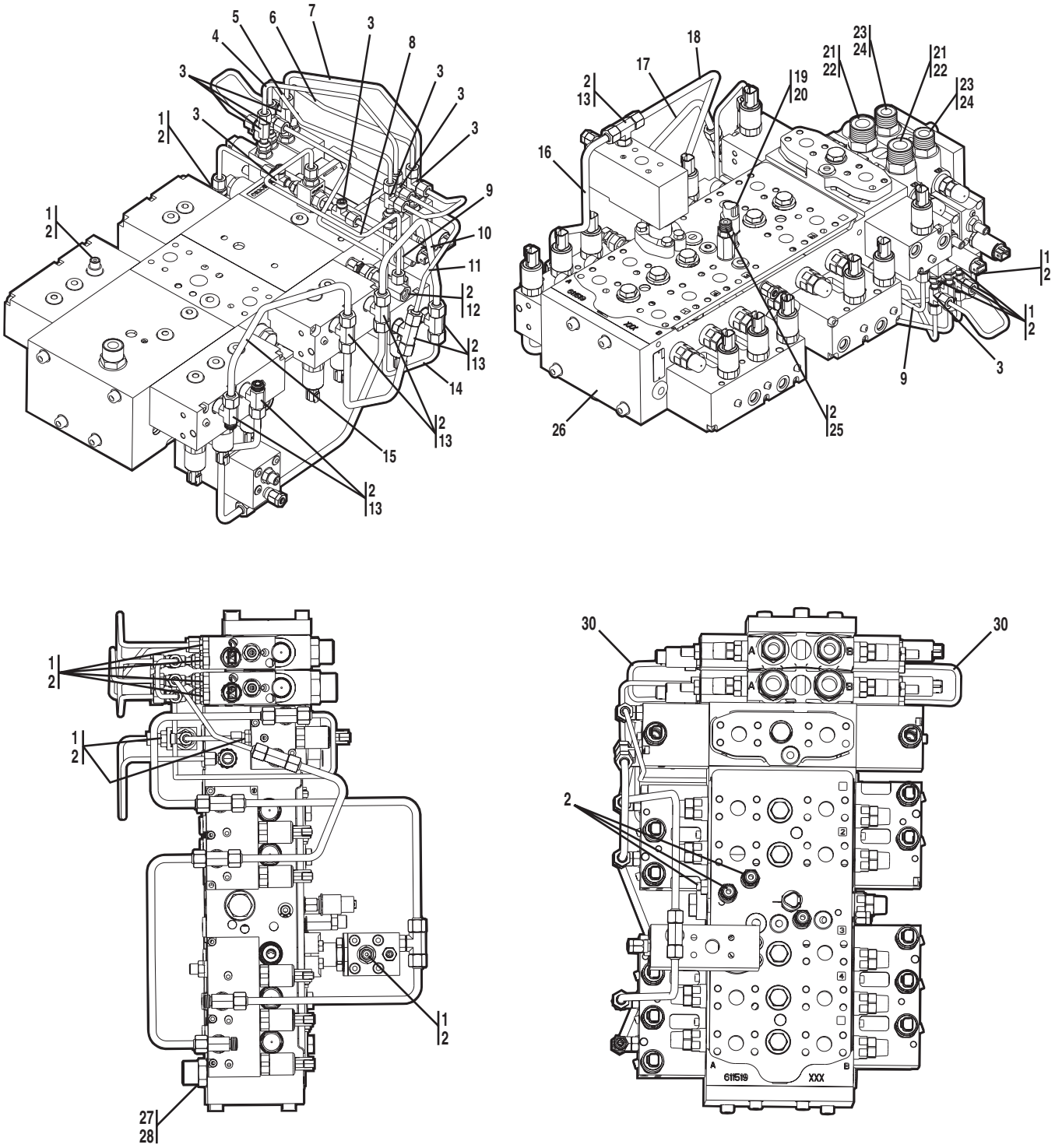


PAD1550

Figure 9-7 Pilot Manifold Assembly

Item	Part Number	Qty.	Description	Rev.
	80733013	1	PILOT MANIFOLD VALVE, (includes all items)	A
1		1	VALVE BLOCK	
2	80534001	2	PILOT/SWING BRAKE VALVE ASSY	
3	80534002	2	PILOT/SWING BRAKE VALVE COIL	
4	7018905	1	PLUG	
5	7024063	1	FITTING	
6	80374066	1	CARTRIDGE	

Figure 9-8 Main Hydraulic Control Valve w/Auxiliary Assembly



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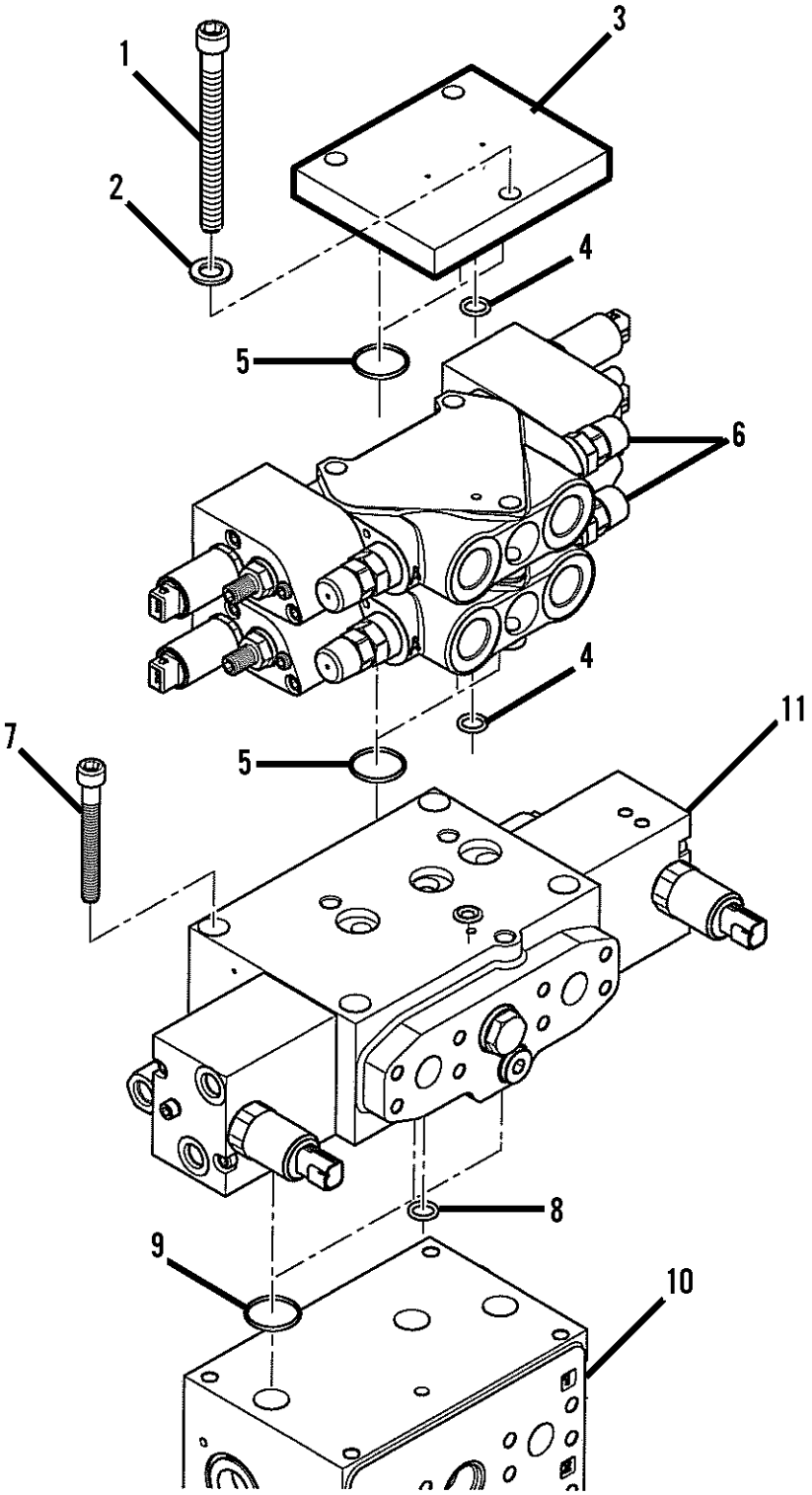
PAE0300

Figure 9-8 Main Hydraulic Control Valve w/Auxiliary Assembly

Item	Part Number	Qty.	Description	Rev.
	80735012	1	MAIN HYDRAULIC CONTROL VALVE w/AUX ASSY, (includes all items)	A
1	88662471	16	CONNECTOR, (includes item 2)	
2	88591204	22	O-RING	
3	80233259	8	SWIVEL NUT RUN TEE	
4	80733003	1	TUBE ASSY	
5	80733002	1	TUBE ASSY	
6	80333227	1	TUBE ASSY	
7	80333226	1	TUBE ASSY	
8	3460542	1	TUBE ASSY	
9	3460541	2	TUBE ASSY	
10	3460520	1	TUBE ASSY	
11	3460521	1	TUBE ASSY	
12	88662489	1	ELBOW, 90 DEGREES, (includes iitem 2)	
13	88662338	7	BRANCH TEE, (includes item 2)	
14	3460522	1	TUBE ASSY	
15	3460516	1	TUBE ASSY	
16	3460518	1	TUBE ASSY	
17	3460517	1	TUBE ASSY	
18	3460519	1	TUBE ASSY	
19	80333052	1	REDUCING BUSHING	
20	80763017	1	PRESSURE TRANSDUCER	
21	88662309	2	CONNECTOR, (includes item 22)	
22	88591207	2	O-RING	
23	88662304	2	CONNECTOR, (includes item 24)	
24	88591207	2	O-RING	
25	88662301	1	CONNECTOR, (includes item 2)	
26		Ref	MAIN HYDRAULIC CONTROL VALVE, (see Figure 9-9 for details)	
27	80333248	1	SHUTTLE VALVE	
28	88662311	1	CONNECTOR, (includes item 29)	
29	88501206	1	O-RING	
30	80733004	1	TUBE ASSY	

Figure 9-9 Main Hydraulic Control Valve



PAD0700

Figure 9-9 Main Hydraulic Control Valve

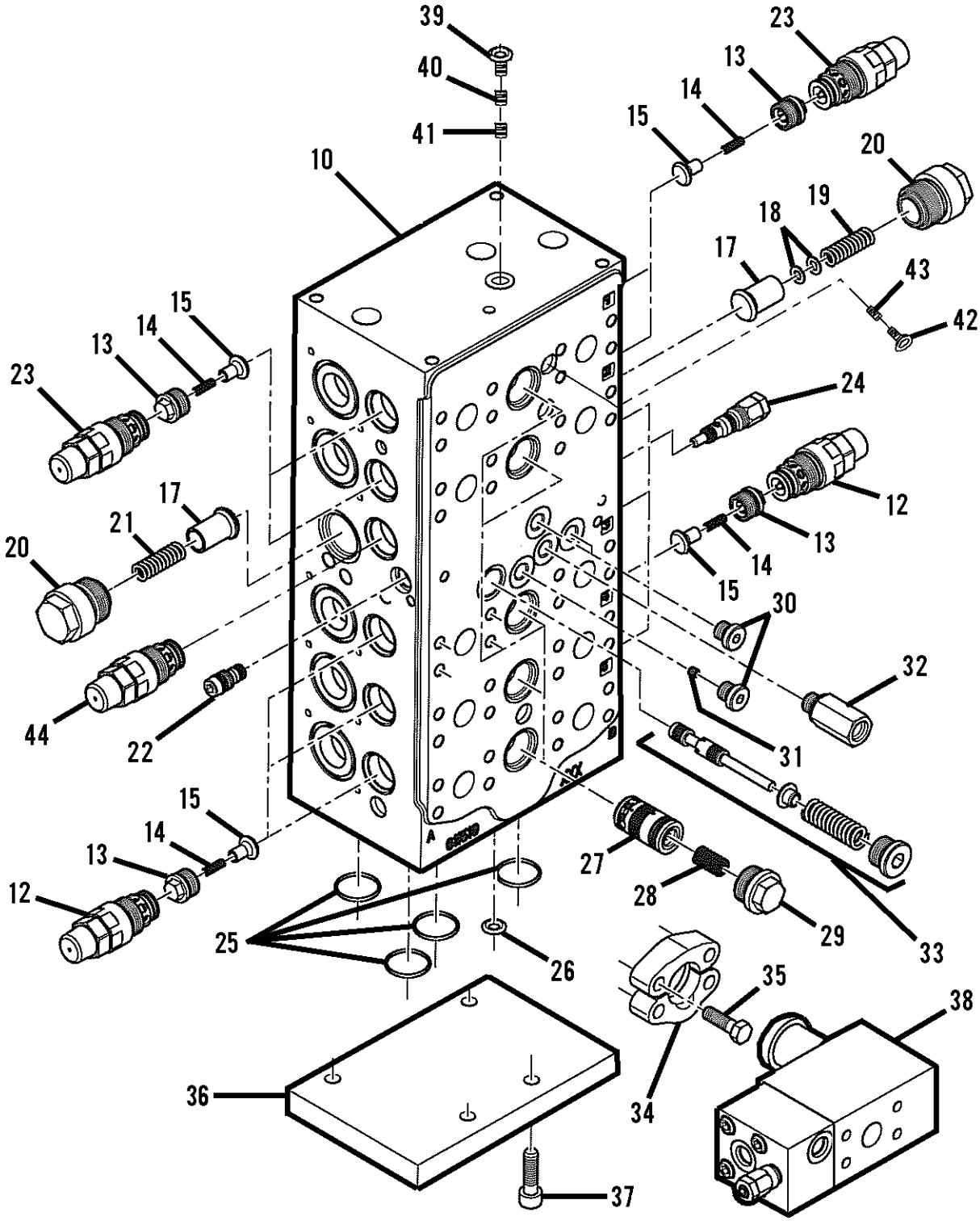


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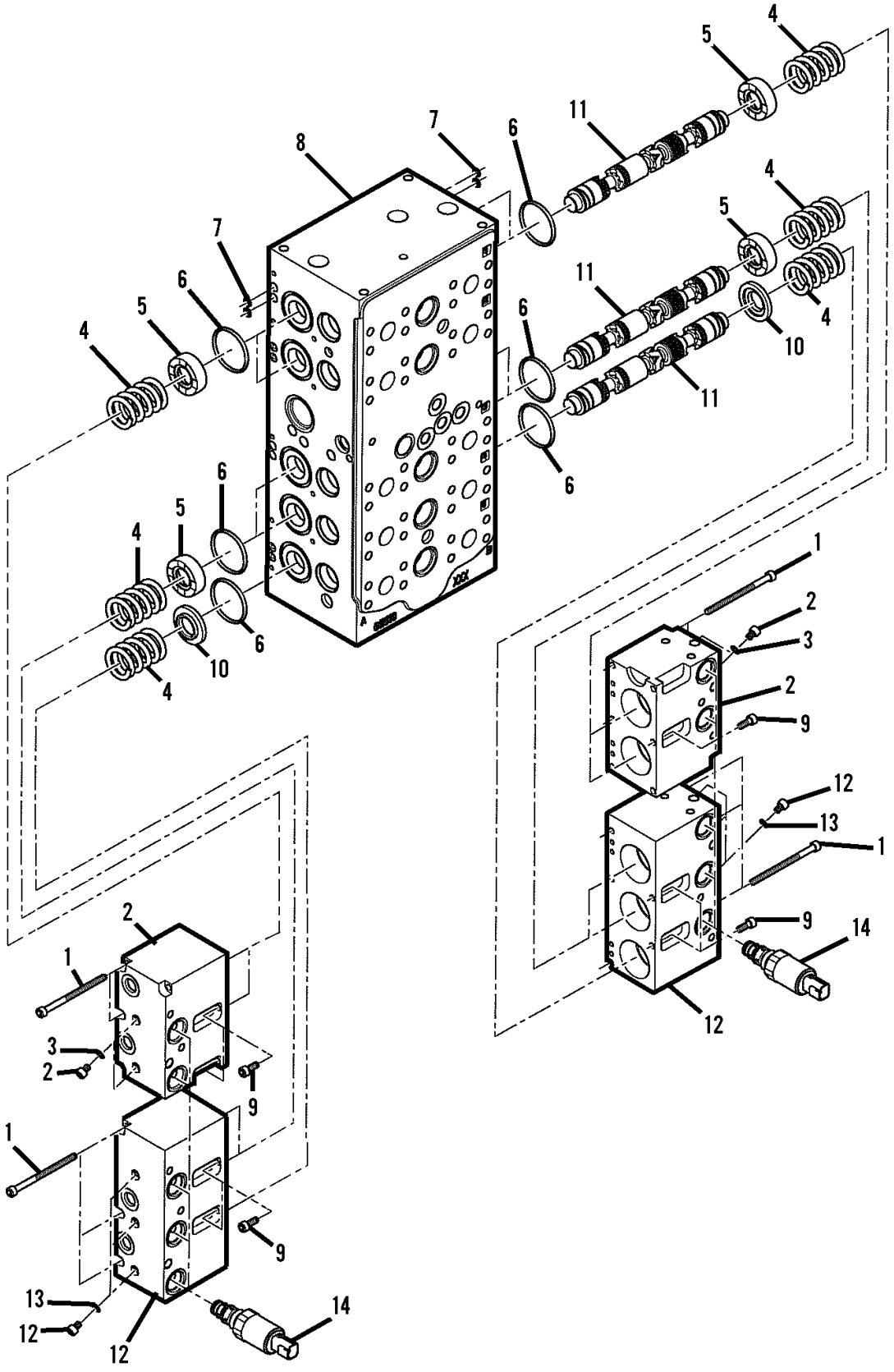
Figure 9-9 Main Hydraulic Control Valve

Item	Part Number	Qty.	Description	Rev.
	80733014	1	MAIN HYDRAULIC CONTROL VALVE ASSY, (includes all items on Figures 9-9 thru Figure 9-12)	A
1	80734002	3	SOCKET HD CAPSCREW	
2	80734003	3	WASHER	
3	80734004	1	PLATE	
4		1	O-RING	
5		3	O-RING	
6		Ref	VALVE SECTION, TILT & AUX, (see Figure 9-12 for details)	
7	80734006	4	SOCKET HD CAPSCREW	
8		1	O-RING	
9		3	O-RING	
10		1	MAIN HOUSING	
11		Ref	VALVE SECTION, SWING, (see Figure 9-11 for details)	
12	80334166	7	CARTRIDGE	
13	80734014	10	LOCKING SCREW	
14	80734015	10	COMPRESSION SPRING	
15	80734016	10	POPPET	
16		1	HOUSING	
17	80734017	2	POPPET	
18	80734018	2	SHIM RING	
19	80734019	1	COMPRESSION SPRING	
20	80734020	2	LOCKING SCREW	
21	80734021	1	COMPRESSION SPRING	
22	80734022	1	BLEED SCREW	
23	80734023	4	RELIEF VALVE	
24	80514126	1	LOAD SENSE RELIEF VALVE	
25		4	SEAL	
26		1	O-RING	
27		5	SPOOL	
28	80734025	5	COMPRESSION SPRING	
29	80734026	5	LOCKING SCREW	
30	80734027	20	LOCKING SCREW	
31	80734028	1	JET	
32	80734029	1	ADAPTER	
33	80734030	1	ASSEMBLY KIT	
34	80734031	2	FLANGE HALF	
35	80734032	4	HEX HD CAPSCREW	
36	80514105	1	PLATE	
37	80734034	4	SOCKET HD CAPSCREW	
38	80734035	1	ANTI-DRIFT VALVE	
39	80734057	1	LOCKING SCREW	
40	80734058	1	JET	
41	80734059	1	JET	
42	80734056	1	CHECK VALVE	
43	80734060	1	LOCKING SCREW	
44	80734061	1	RELIEF VALVE	

Figure 9-9 Main Hydraulic Control Valve (Continued)

Item	Part Number	Qty.	Description	Rev.
	80734036	1	SEAL KIT, (includes items 25 & 26 and designated items in Figure 9-10)	
	80734001	1	SEAL KIT, (includes items 4 & 5)	
	80734013	1	SEAL KIT, (includes items 8 & 9 and designated items on Figure 9-11)	

Figure 9-10 Main Hydraulic Control Valve - End Caps

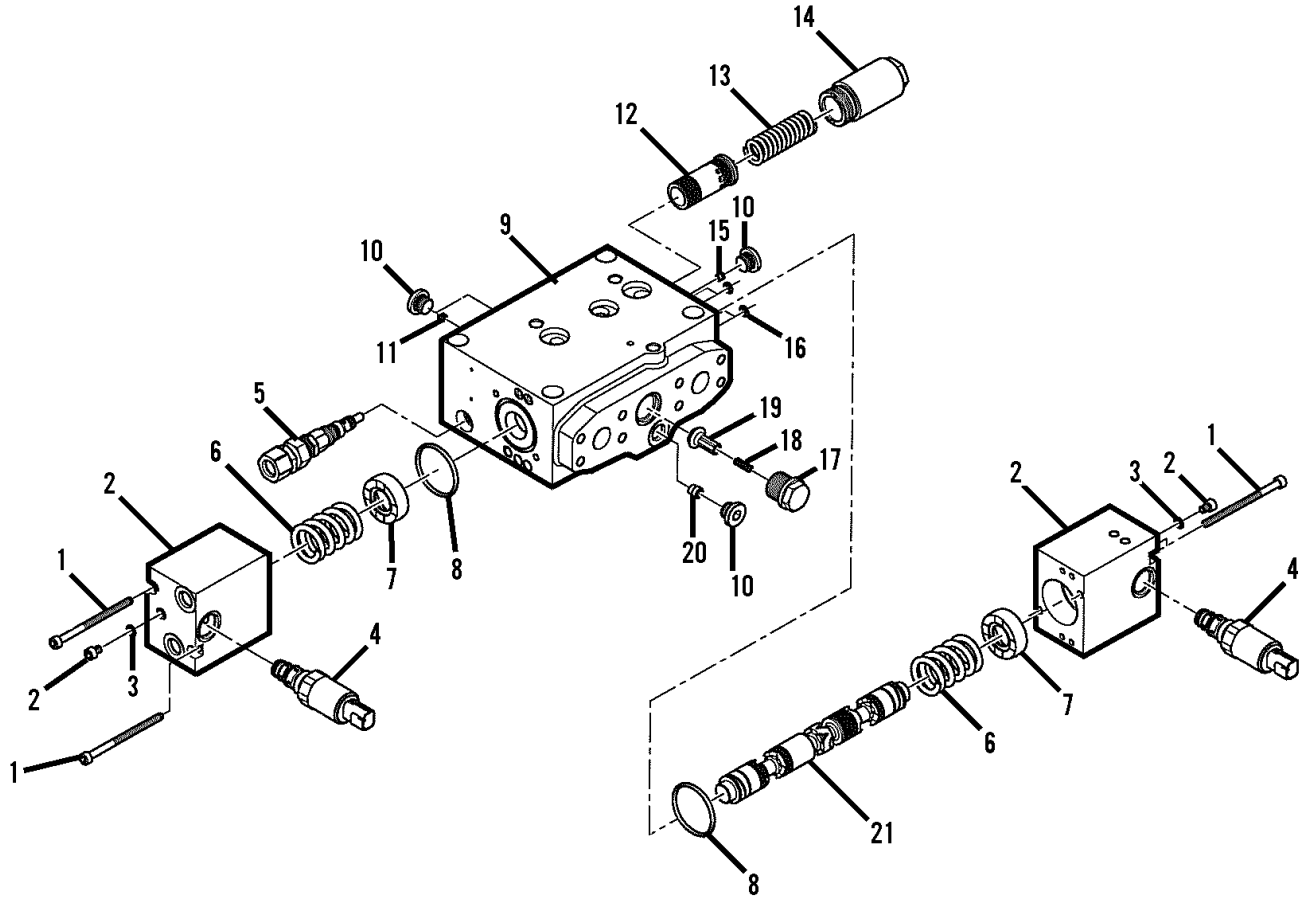


PAD0720

Figure 9-10 Main Hydraulic Control Valve - End Caps

Item	Part Number	Qty.	Description	Rev.
1	80734037	10	SOCKET HD CAPSCREW	
2	80734038	2	COVER	
3		10	RING	
4	80734039	10	COMPRESSION SPRING	
5	80734040	8	SPRING RETAINER	
6		10	O-RING	
7		16	O-RING	
8		1	HOUSING	
9	80734041	7	SOCKET HD CAPSCREW	
10	80734042	2	SPRING RETAINER	
11		5	SPOOL	
12	80734043	2	COVER	
13		10	RING	
14	80734044	10	RELIEF VALVE	
	80734036	1	SEAL KIT, (includes items 3, 6, 7 & 13 and designated items Figure 9-9)	

Figure 9-11 Main Hydraulic Control Valve - Valve Section, Swing

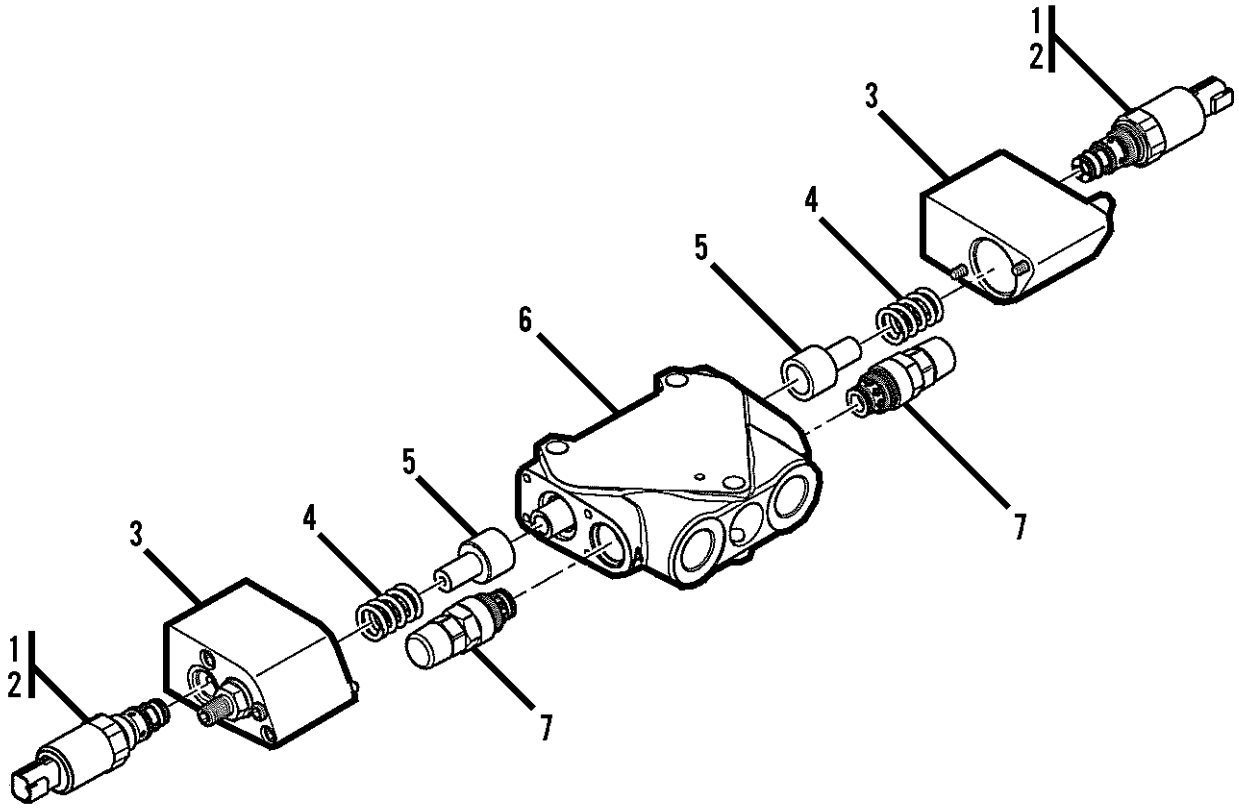


PAD1310

Figure 9-11 Main Hydraulic Control Valve - Valve Section, Swing

Item	Part Number	Qty.	Description	Rev.
		1	VALVE SECTION, SWING, (includes all items)	
1	80734037	4	SOCKET HD CAPSCREW	
2	80734046	2	COVER	
3		10	RING	
4	80734044	10	RELIEF VALVE	
5	80734047	1	BLEED SCREW	
6	80734039	2	COMPRESSION SPRING	
7	80734040	2	SPRING RETAINER	
8		2	O-RING	
9		1	HOUSING	
10	80734048	4	LOCKING SCREW	
11	80734049	1	JET	
12		1	SPOOL	
13	80734050	1	COMPRESSION SPRING	
14	80734051	1	LOCKING SCREW	
15	80734052	1	JET	
16		8	RING	
17	80734053	1	LOCKING SCREW	
18	80734054	1	COMPRESSION SPRING	
19	80734055	1	POPPET	
20	80734056	1	CHECK VALVE	
21		1	SPOOL	
	80734013	1	SEAL KIT, (includes items 3, 8 & 16 and designated items on Figure 9-9)	

Figure 9-12 Main Hydraulic Control Valve - Valve Section, Tilt & Aux

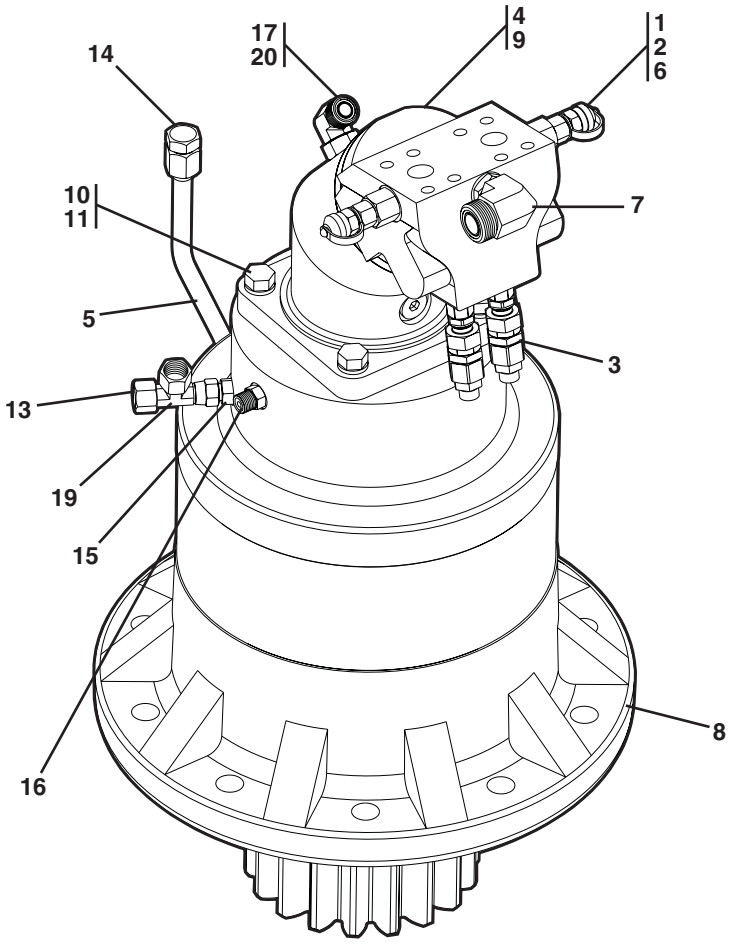


PAD1320

Figure 9-12 Main Hydraulic Control Valve - Valve Section, Tilt & Aux

Item	Part Number	Qty.	Description	Rev.
	80734005	2	VALVE SECTION, TILT & AUX, (includes all items)	
1	80734007	2	CARTRIDGE	
2	80734062	2	CARTRIDGE	
3	80734009	2	COVER	
4	80734010	2	COMPRESSION SPRING	
5	80734011	2	SPRING RETAINER	
6		1	HOUSING	
7	80734012	2	RELIEF VALVE	

Figure 9-13 Swing Transmission Assembly

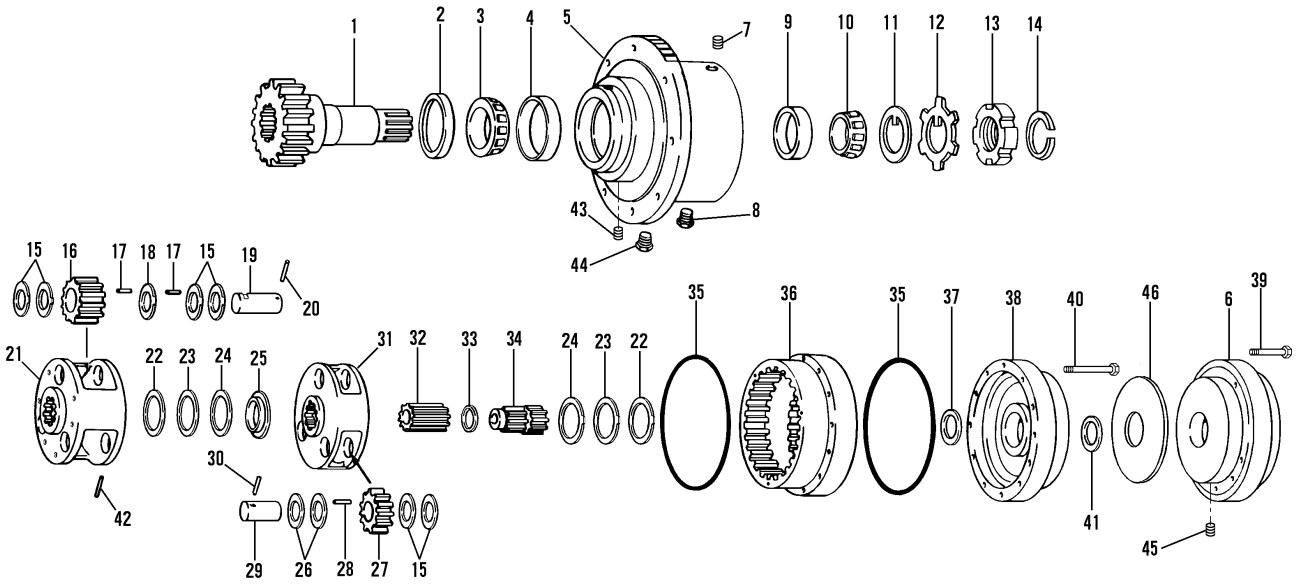


PAD1030

Figure 9-13 Swing Transmission Assembly

Item	Part Number	Qty.	Description	Rev.
	80445004	1	SWING TRANSMISSION ASSY, (includes all items)	
1	83763056	2	VITON O-RING, (lubricate lightly)	
2	77133089	2	MINI-CHECK COUPLING, (includes item 1)	
3	80233254	2	ADAPTER	
4	80243021	1	O-RING	
5	80343003	1	TUBE ASSY	
6	80433144	2	ADAPTER	
7	80433152	1	ELBOW	
8		Ref	SWING TRANSMISSION, (see Figure 9-14 for details)	
9		Ref	SWING MOTOR, (see Figure 9-15 for details)	
10	88201068	4	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5, (torque to 68-78 lb-ft)	
11	88551013	4	LOCKWASHER, 1/2	
12	88661112	1	MALE ELBOW, 90 DEGREES, 3/8X1/2 TUBE	
13	88661364	2	HEX CAP, 3/8	
14	88661385	1	HEX PLUG, 1/2 TUBE	
15	88662005	1	ADAPTER	
16	88662300	1	STRAIGHT ADAPTER	
17	88662330	1	CONNECTOR, (includes item 20)	
18	88711281	2	PIPE PLUG, 1/4	
19	88662239	1	SWIVEL NUT RUN TEE	
20	88591205	1	O-RING	

Figure 9-14 Swing Transmission

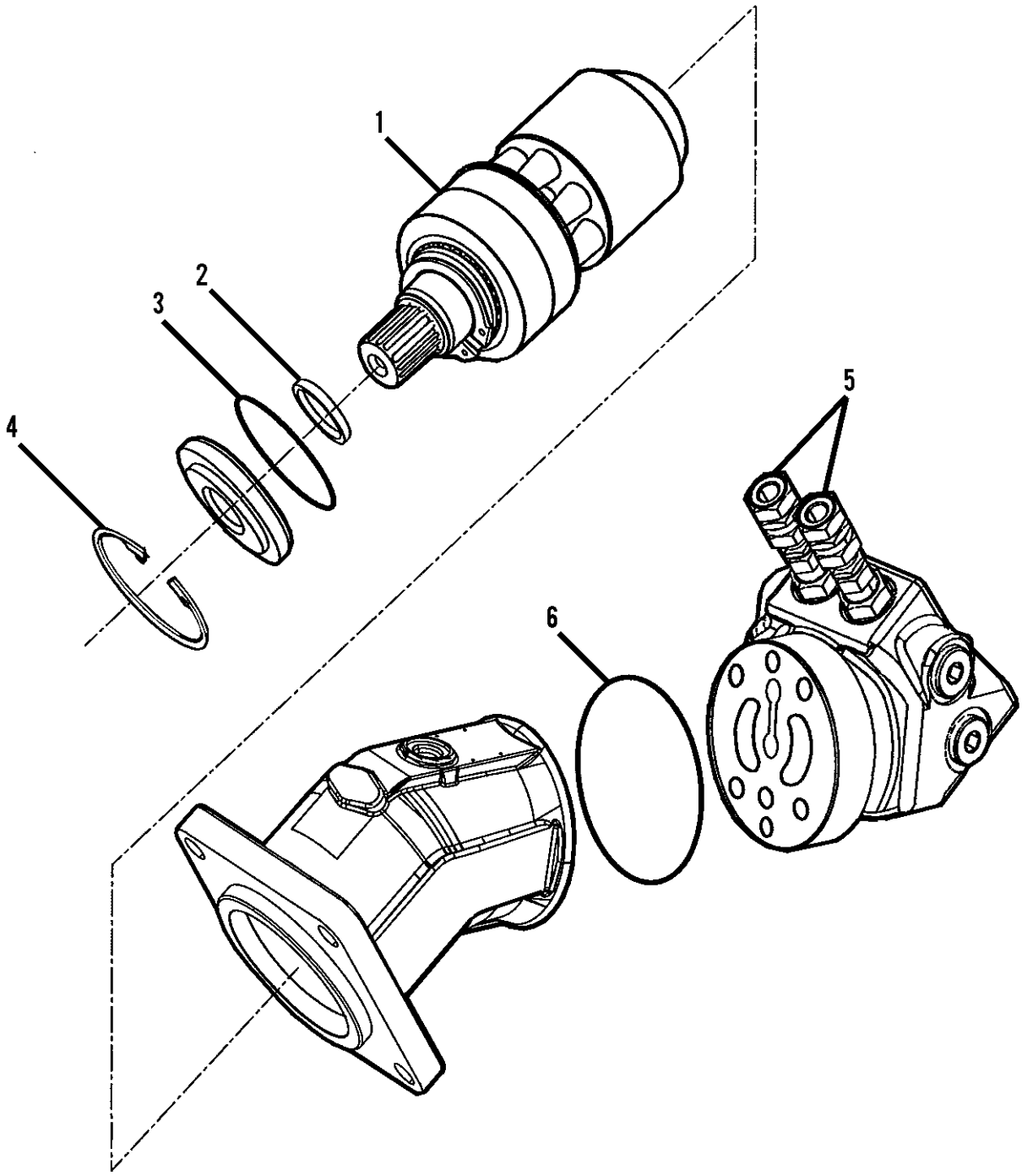


PAD1040

Figure 9-14 Swing Transmission

Item	Part Number	Qty.	Description	Rev.
	80443002	1	SWING TRANSMISSION ASSY, (includes all items)	
1	80244012	1	OUTPUT SHAFT	
2	77144002	1	OIL SEAL	
3	77344006	1	BEARING CONE	
4	77344007	1	BEARING CUP	
5	80404004	1	HOUSING	
6		Ref	SWING BRAKE ASSY, (see Figure 9-16 for details)	
7	77124007	1	PIPE PLUG	
8	77144008	1	MAGNETIC PLUG	
9	77144005	1	BEARING CUP	
10	77144004	1	BEARING CONE	
11	77344009	1	TANGED WASHER	
12	77344010	1	LOCKWASHER	
13	77344011	1	LOCKNUT	
14	77344012	1	RETAINING RING	
15	77144012	12	THRUST WASHER	
16	77344014	3	PLANET GEAR	
17	77144014	108	NEEDLE ROLLER	
18	77144015	3	THRUST WASHER	
19	80444030	3	PLANET SHAFT	
20	80944033	3	SPRING PIN	
21	80944031	1	SECOND STAGE CARRIER	
22	90202542	2	THRUST WASHER, (thick)	
23	90202543	2	THRUST BEARING	
24	77144019	2	THRUST WASHER, (thin)	
25	77144020	1	THRUST BEARING CARRIER	
26	77144022	12	THRUST WASHER	
27	77144023	3	PLANET GEAR	
28	77144024	57	NEEDLE ROLLER	
29	77144025	3	PLANET SHAFT	
30	77144036	3	ROLL PIN	
31	77144026	1	FIRST STAGE CARRIER	
32	77344015	1	SECOND STAGE SUN GEAR	
33	77144028	1	THRUST WASHER	
34	80404005	1	INPUT GEAR	
35	77124024	2	O-RING	
36	77344017	1	RING GEAR	
37	80404006	1	THRUST WASHER	
38	80404007	1	INPUT COVER	
39	80404008	4	SOCKET HD CAPSCREW	
40	77344019	24	BOLT	
41	80404010	1	RETAINING RING	
42	90202517	3	ROLL PIN	
43	80404013	1	PIPE PLUG	
44	80404011	1	MAGNETIC PLUG	
45	80404012	1	PIPE PLUG, (includes O-ring)	
46	77344004	1	LIP SEAL	

Figure 9-15 Swing Motor

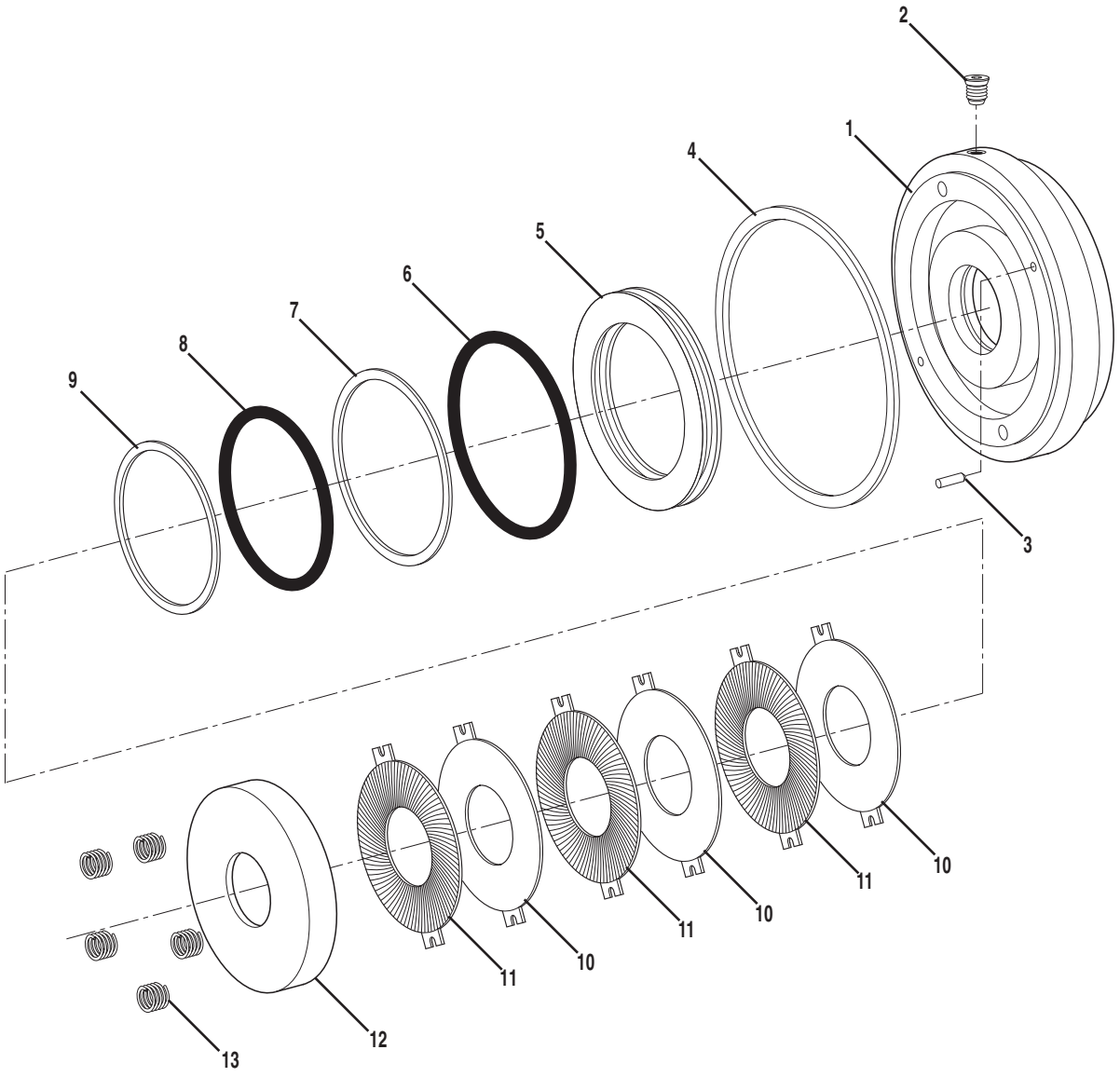


PAD1490

Figure 9-15 Swing Motor

Item	Part Number	Qty.	Description	Rev.
	80443019	1	SWING MOTOR ASSY, (includes all items)	
1	80444011	1	ROTARY GROUP	
2	80444017	1	SHAFT SEAL	
3	80444018	1	O-RING	
4	80444015	1	RETAINING RING	
5	80444031	2	RELIEF VALVE	
6	80444007	1	O-RING	
	80444032	1	SEAL KIT, (includes items 2, 3 & 6)	
	80444033	1	RELIEF VALVE SEAL KIT, (includes all seals required for installation of one relief valve)	

Figure 9-16 Swing Brake

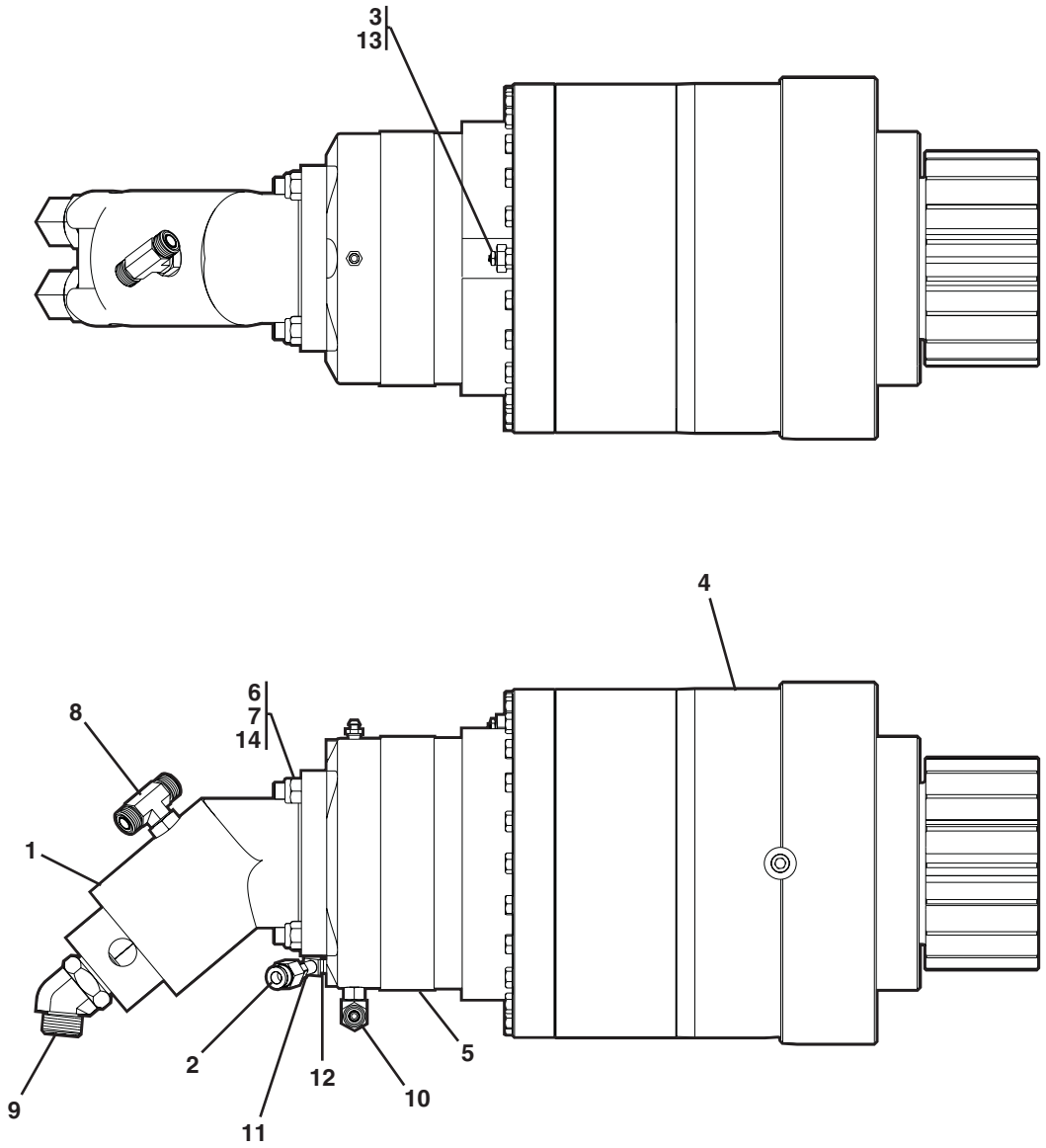


PAD1060

Figure 9-16 Swing Brake

Item	Part Number	Qty.	Description	Rev.
	80404009	1	SWING BRAKE ASSY, (includes all items)	
1	80404014	1	PRESSURE PLATE	
2	80404012	1	PLUG	
3	80404015	2	DOWEL PIN	
4		1	CASE SEAL	
5		1	PISTON	
6		1	O-RING	
7		1	BACK-UP RING	
8		1	O-RING	
9		1	BACK-UP RING	
10	80404022	3	STATOR	
11	80404023	3	ROTOR	
12	80404024	1	PLATE	
13		5	SPRING	
	7024195	1	SPRING KIT, (contains 12 springs)	
	80404121	1	SEAL KIT, (includes items 4 thru 9)	

Figure 9-17 Tilt Transmission Assembly

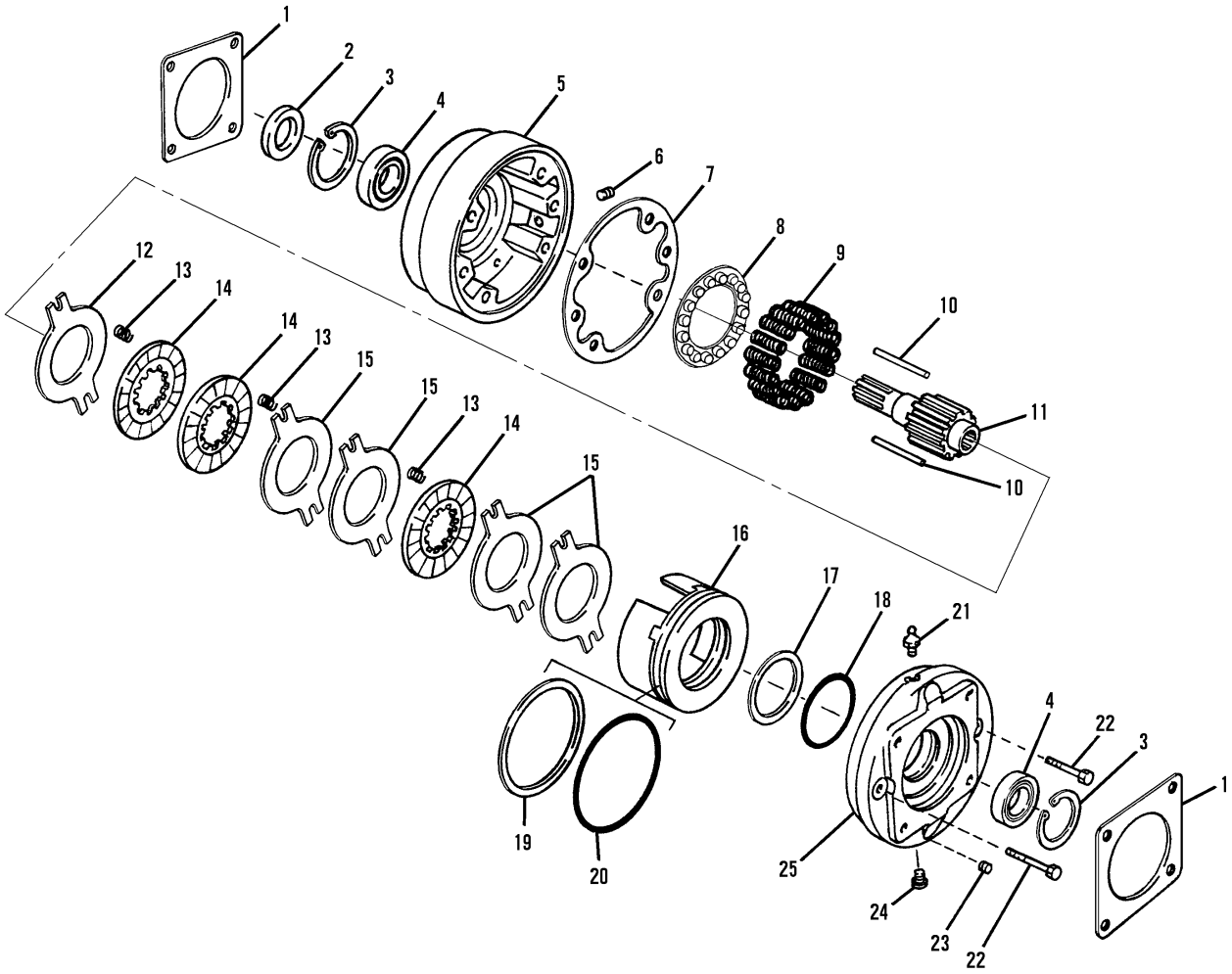


PAD2200

Figure 9-17 Tilt Transmission Assembly

Item	Part Number	Qty.	Description	Rev.
	80425018	1	TILT TRANSMISSION ASSY, (includes all items)	A
1		Ref	TILT MOTOR, (see Figure 9-19 for details)	
2	80383206	1	TUBE FITTING, 1/8X3/8	
3	80423055	1	RELIEF FITTING	
4	80473099	1	TILT TRANSMISSION	
5		Ref	TILT BRAKE, (see Figure 9-18 for details)	
6	83641853	4	STUD, 1/2-13X6-3/4	
7	88521008	4	HEX LOCKNUT, 1/2-13, (torque to 80-85 lb-ft)	
8	88662339	1	TEE, (includes o-ring)	
	88591205	1	O-RING	
9	88662425	2	ELBOW, 45 DEGREES, (includes o-ring)	
	88591209	2	O-RING	
10	88662445	1	ELBOW, 90 DEGREES, (includes o-ring)	
	88591202	1	O-RING	
11	88691302	1	STRAIGHT CONNECTOR	
12	88691338	1	ELBOW, 60 DEGREES, 1/8	
13	88711382	1	REDUCING BUSHING, 3/8X1/8	
14	14402461	AR	LOCTITE, AV50	

Figure 9-18 Tilt Brake

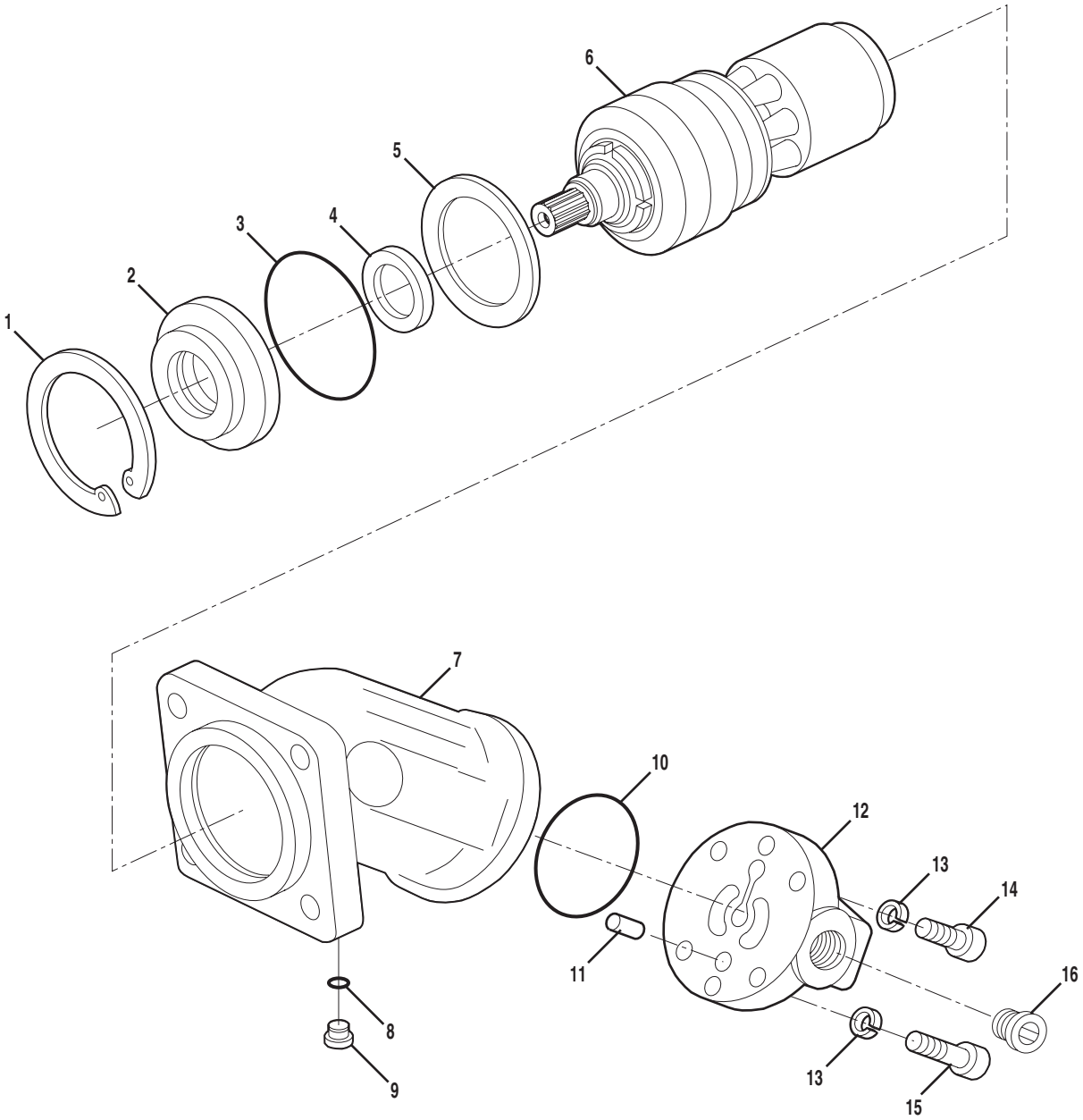


PAD2220

Figure 9-18 Tilt Brake

Item	Part Number	Qty.	Description	Rev.
	80943011	1	TILT BRAKE, (includes all items)	
1	77344046	2	GASKET	
2	77344060	1	OIL SEAL	
3	86691290	2	RETAINING RING	
4	77344043	2	BALL BEARING	
5	77344024	1	HOUSING	
6	77344025	1	HEX SOCKET PLUG	
7	77344047	1	GASKET	
8	77344026	1	SPRING RETAINER	
9	77134212	11	COMPRESSION SPRING	
10	77344048	2	TORQUE PIN	
11	77344027	1	SPLINED SHAFT	
12	77344049	1	PRIMARY DISC	
13	86691296	6	COMPRESSION SPRING	
14	77344050	3	ROTATING DISC	
15	77344051	4	STATIONARY DISC	
16	80944042	1	PISTON	
17	77134073	1	BACK-UP RING	
18	77134074	1	O-RING	
19	77344052	1	BACK-UP RING	
20	77344053	1	O-RING	
21	86693001	1	BLEEDER SCREW	
22	83441316	2	HEX FLANGE SCREW	
23	77344030	1	HEX SOCKET PLUG	
24	77134220	1	PLUG	
25	77344029	1	POWER PLATE	
	77344021	AR	BEARING KIT, (includes items 2, 3 & 4)	
	80944040	AR	O-RING KIT, (includes items 7, 17, 18, 19 & 20)	
	80944041	AR	STACK KIT, (includes items 9, 10, 12, 13, 14 & 15)	

Figure 9-19 Tilt Motor

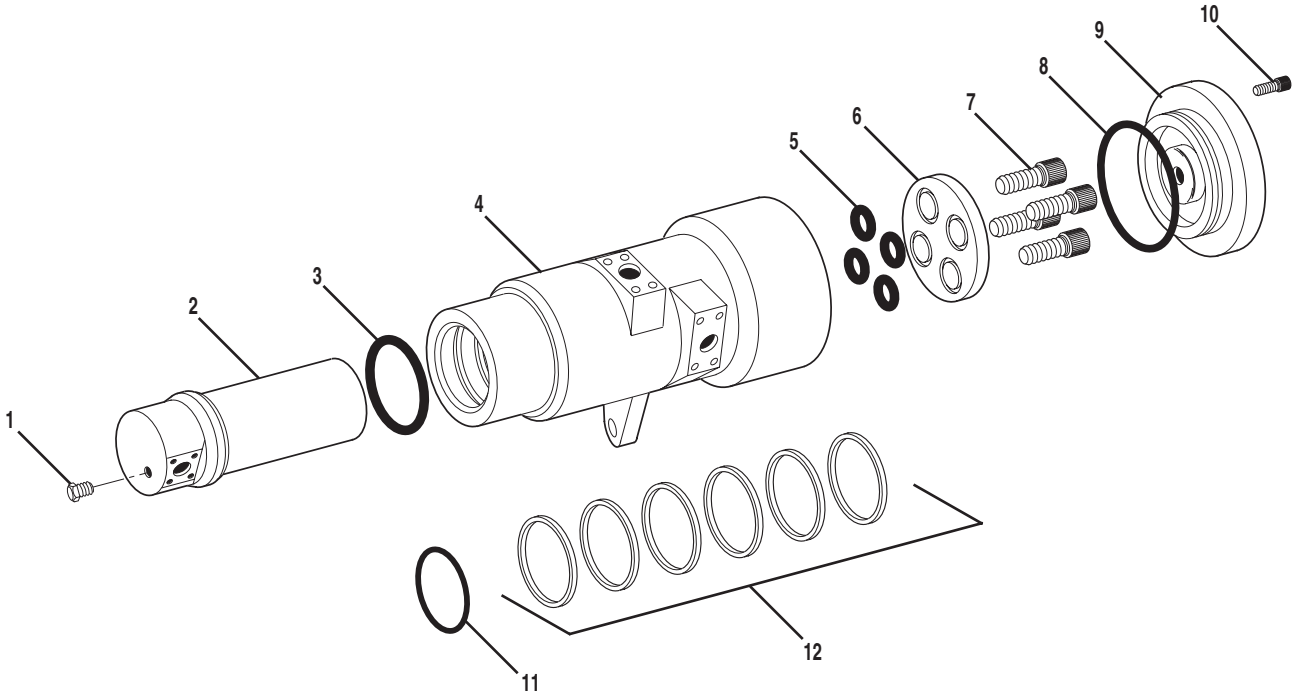


PAD2230

Figure 9-19 Tilt Motor

Item	Part Number	Qty.	Description	Rev.
	80933001	1	TILT MOTOR, (includes all items)	
1	80934052	1	RETAINING RING	
2	80934053	1	FRONT COVER	
3	80934576	1	O-RING	
4	80634004	1	SHAFT SEAL	
5	80934056	AR	SHIM, (0.1 thick)	
	80934057	AR	SHIM, (0.3 thick)	
6	80934575	1	ROTARY GROUP	
7	80934073	1	HOUSING	
8	80634061	1	O-RING	
9	80934082	1	PLUG, (includes item 8)	
10	80934074	1	O-RING	
11	80934081	1	DOWEL PIN	
12	80934075	1	PORT PLATE	
13	80934076	6	LOCKWASHER	
14	80934077	2	CAPSCREW, M8X20	
15	80934080	4	CAPSCREW, M8X50	
16	80634002	2	PLUG	
	80934050	AR	SEAL KIT, (includes items 3, 5, 14, 15, 19 & 20)	

Figure 9-20 Center Pin

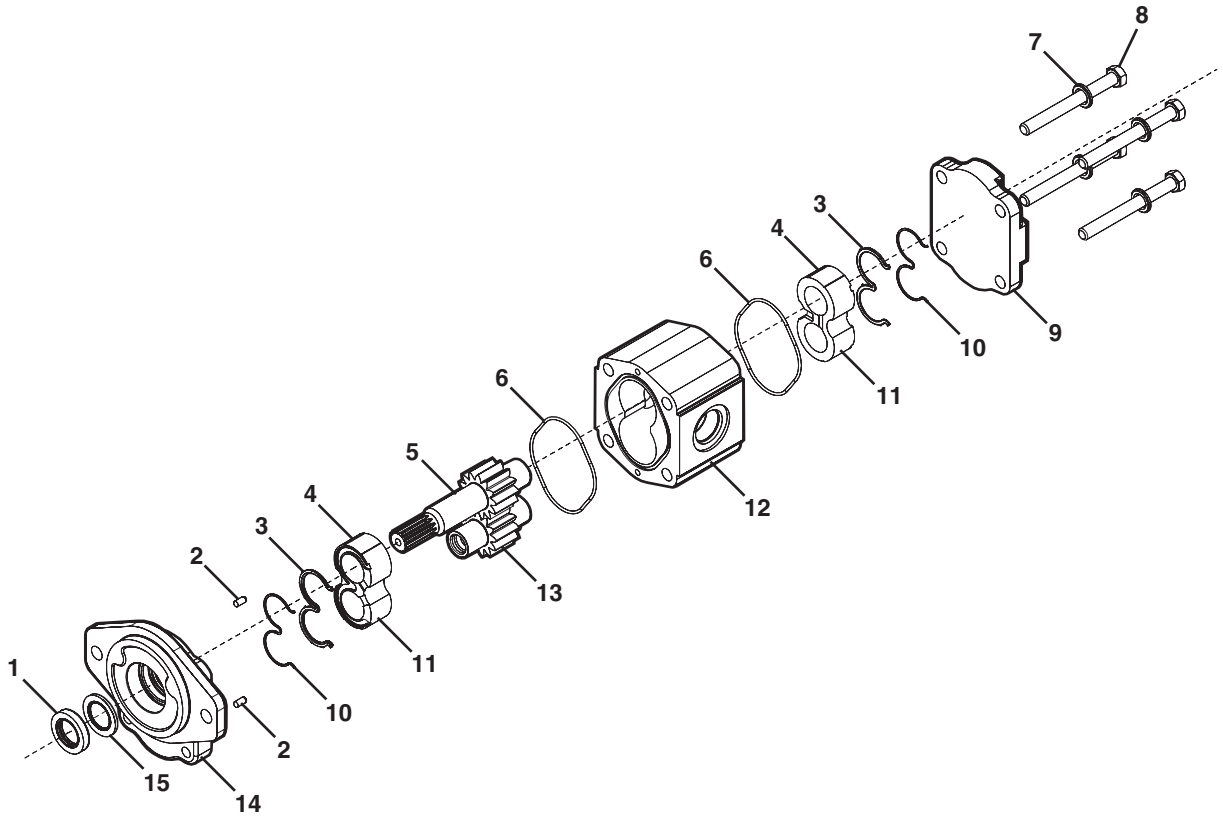


PAE0320

Figure 9-20 Center Pin

Item	Part Number	Qty.	Description	Rev.
	80933333	1	CENTER PIN, (includes all items)	
1	80934561	1	PIPE PLUG, 1/8	
2	80934562	1	CENTER PIN BODY	
3	80934563	1	SEAL	
4	80934564	1	HOUSING	
5	80934565	4	O-RING	
6	80934566	1	THRUST PLATE	
7	80934567	4	SOCKET HD CAPSCREW	
8	80934568	1	O-RING	
9	80934569	1	COVER	
10	80934570	4	SOCKET HD CAPSCREW	
11		1	ENVIRO-SEAL	
12		6	SEAL ASSY, (2-piece)	
	80934560	1	SEAL KIT, (includes items 11 & 12)	

Figure 9-21 Gear Pump



PAE0460

Figure 9-21 Gear Pump

Item	Part Number	Qty.	Description	Rev.
	80733015	1	GEAR PUMP, (includes all items)	
1	80434302	1	SNAP RING	
2	80434037	2	DOWEL PIN	
3	80434020	2	BACK UP SEAL	
4	80434304	2	BEARING BLOCK	
5	80734064	1	DRIVE GEAR	
6	80434018	2	SEAL	
7	80434013	4	WASHER	
8	80734065	4	SCREW	
9	80434024	1	HOUSING	
10	80434019	2	SEAL	
11	80434303	2	BEARING BLOCK	
12	80734063	1	GEAR HOUSING	
13	80434299	1	DRIVEN GEAR	
14	80434026	1	HOUSING	
15	80434301	1	LIP SEAL	

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SECTION 10
ELECTRICAL

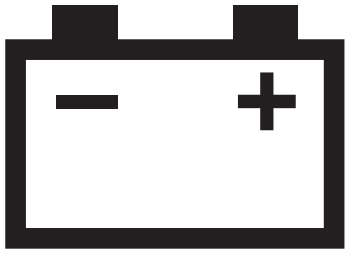


Figure 10-1 Electrical Components

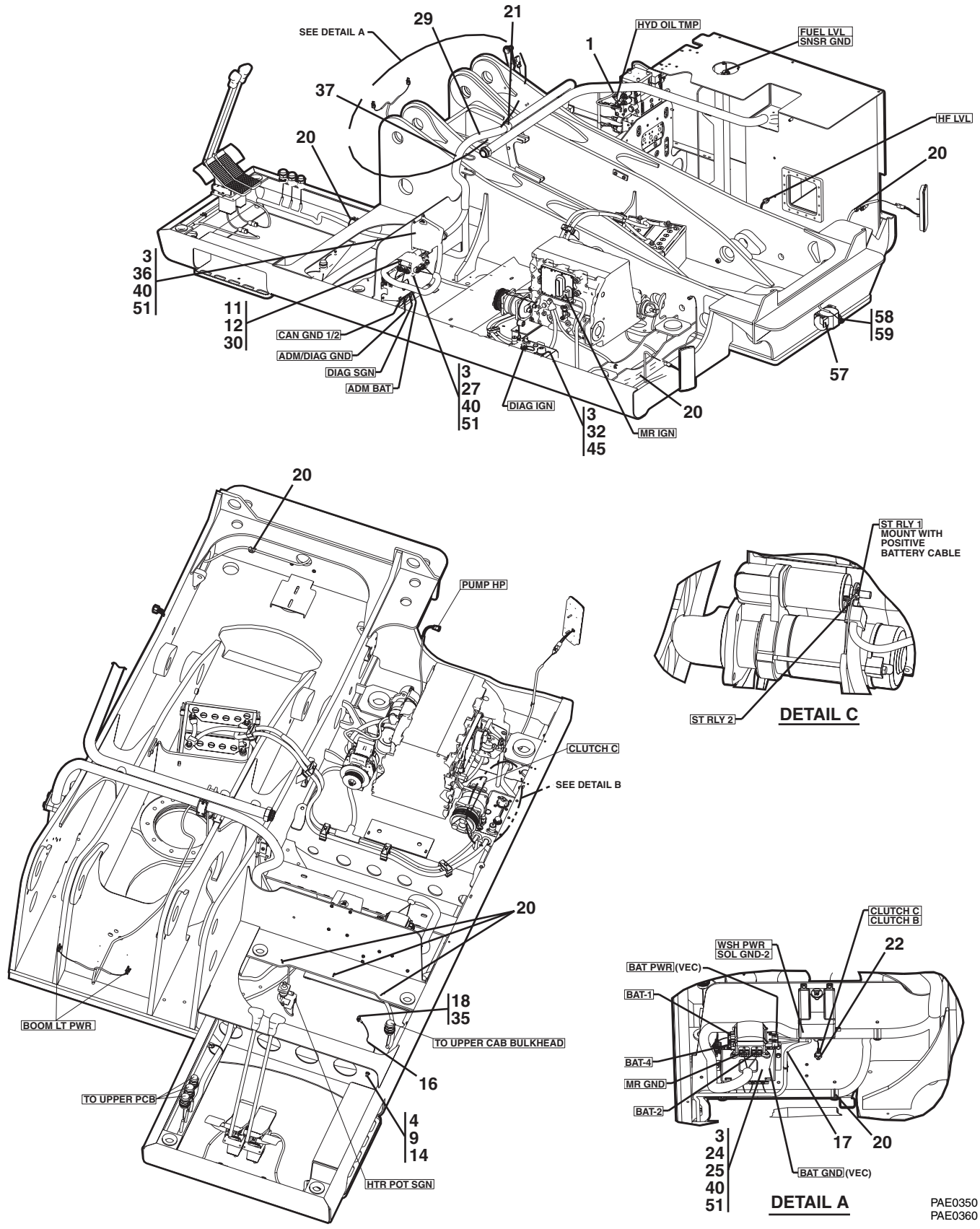
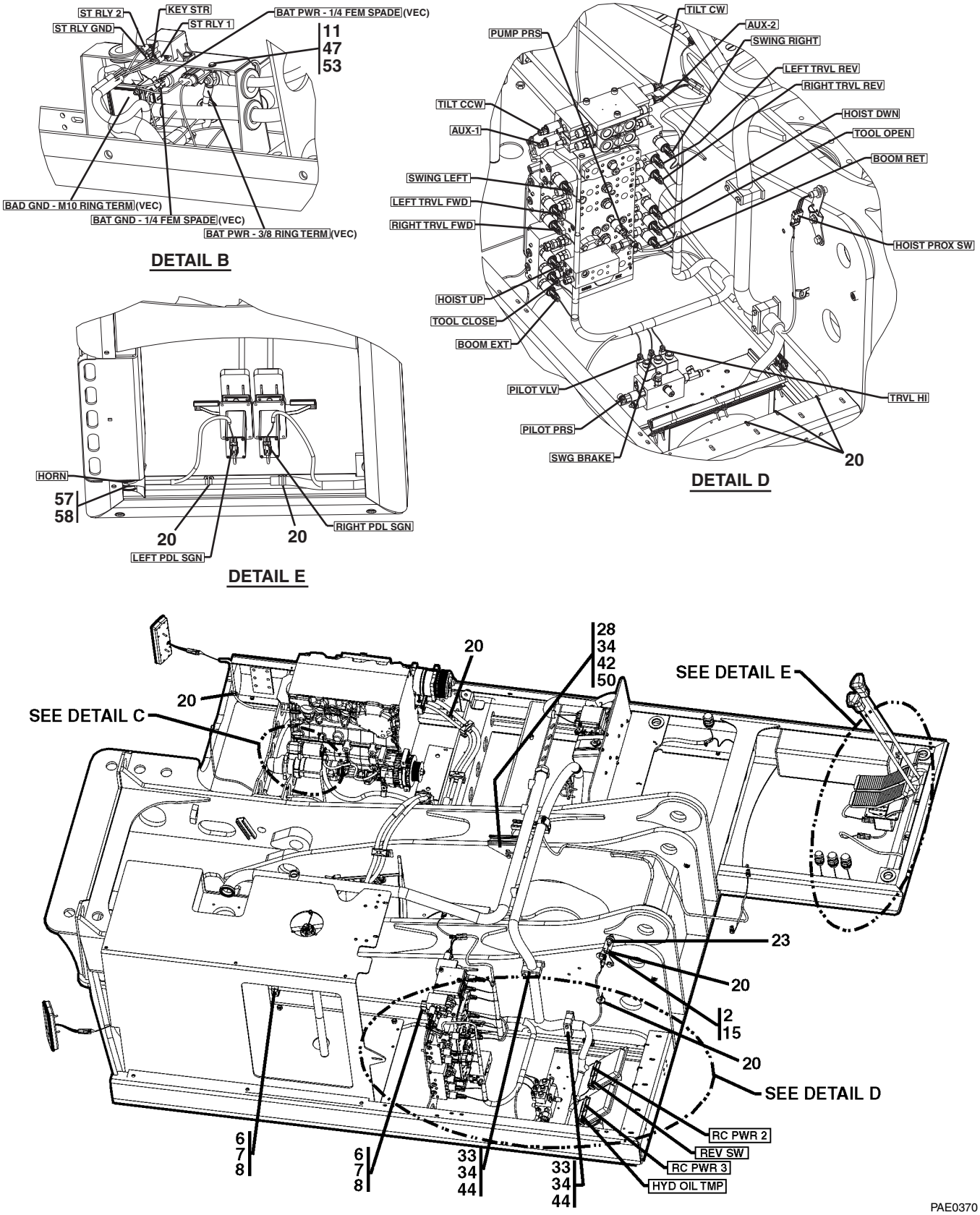


Figure 10-1 Electrical Components



PAE0370
PAE0380

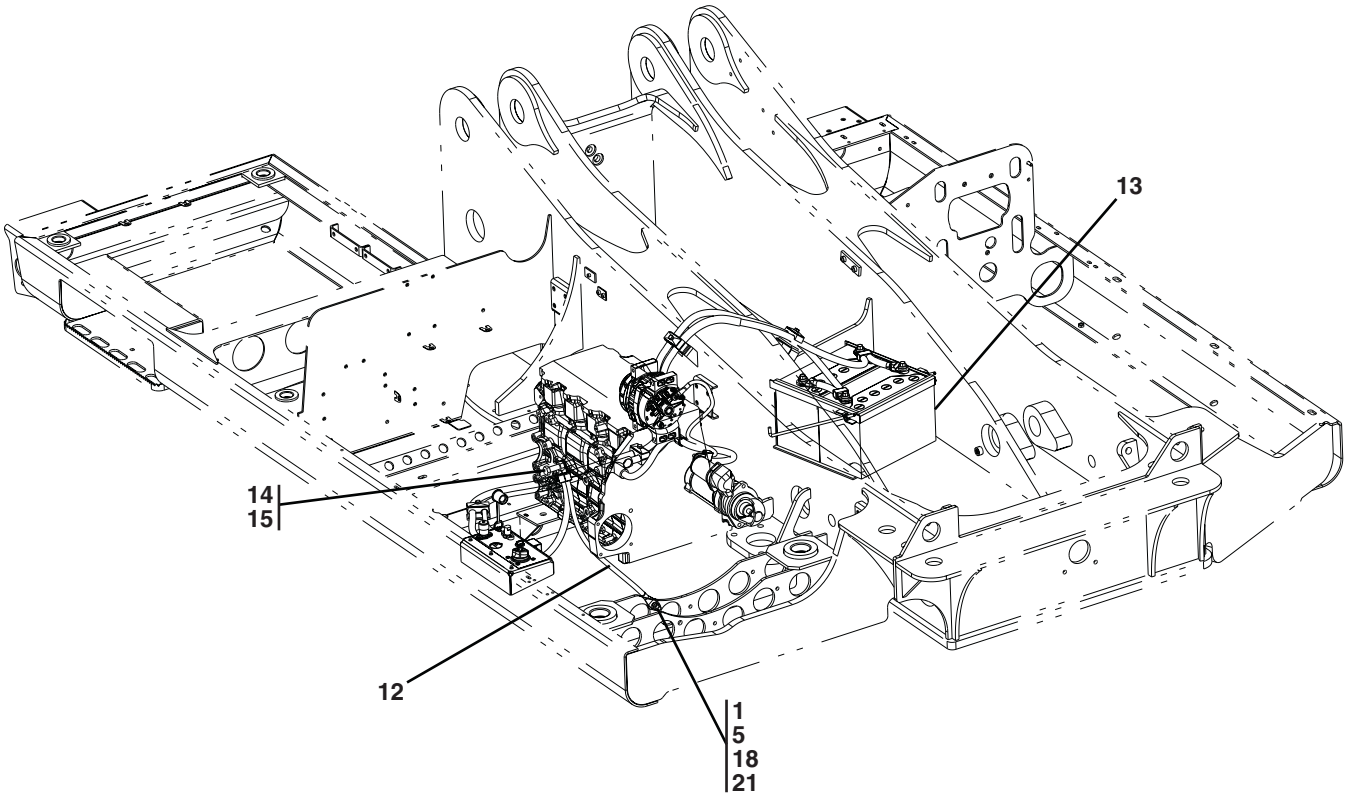
Figure 10-1 Electrical Components

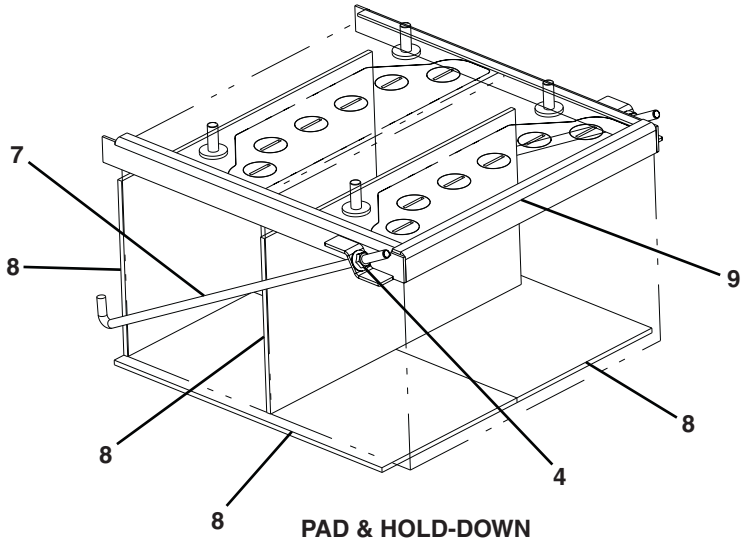
Item	Part Number	Qty.	Description	Rev.
	80765013	Ref	ELECTRICAL COMPONENTS INSTALLATION, (includes items 1 thru 58)	C
1	4000012	1	TEMPERATURE SENSOR	
2	4341189	1	SWITCH SUPPORT	
3	14403364	A/R	LOCTITE, #242 BLUE	
4	14403416	A/R	GREASE, DI-ELECTRIC	
6	77133140	2	COVER PLATE	
7	77133168	2	CLAMP SET	
8	77133177	2	HEX HD CAPSCREW, 5/16-18X1-3/8	
9	77143006	1	WHIZ-LOK NUT, 5/16-18	
10	Not Used			
11	77143016	5	WHIZ-LOK SCREW, #10-24X3/8	
12	77143017	4	WHIZ-LOK NUT, #10-24	
15	80223034	2	WHIZ-LOK SCREW, 1/2-13X3/4	
16	80263042	1	GROUND STRAP CABLE	
17	80763014	1	UPPER VEC HARNESS	
20	86683122	23	TIE-WRAP	
21	90205792	1	CUSHION CLAMP	
22	80363099	1	PRESSURE SWITCH	
23	80363166	1	PROXIMITY SENSOR	
24	80383412	1	ENGINE CONTROL, (supplied with engine)	
25	80481112	1	ENGINE VCU BRACKET	
26	Not Used			
27	80741008	1	VEC MOUNTING PLATE	
28	80746002	1	CLAMP CHANNEL WELDMENT	
29	80763021	1	UPPER CRAWLER HARNESS	
30	80763012	1	UPPER VEC	
31	Not Used			
32		Ref	SERVICE PANEL ASSY, (see Figure 10-3 for details)	
33	83251289	2	CLAMP SET	
34	83251291	3	COVER PLATE	
35	Not Used			
36	83683085	1	WASHER FLUID BOTTLE	
37	84521062	1	SUPPORT CLAMP	
40	88201003	10	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
41	Not Used			
42	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
43	Not Used			
44	88201042	4	HEX HD CAPSCREW, 3/8-16X2-3/4, GR5	
45	88261016	3	BUTTON HD SCREW, 1/4-20X3/4	
46	88501004	1	HEX NUT, 1/4-20	
47	88501612	1	HEX NUT, #10-24	
50	88551011	2	LOCKWASHER, 3/8	
51	88561002	11	FLAT WASHER, 1/4	

Figure 10-1 Electrical Components

Item	Part Number	Qty.	Description	Rev.
53	88561105	1	FLAT WASHER, #10	
57	91143357	2	HORN	
58	91363018	4	WHIZ-LOK SCREW, 5/16-18X1	
59	91403420	1	TRAVEL ALARM	

Figure 10-2 Battery Installation

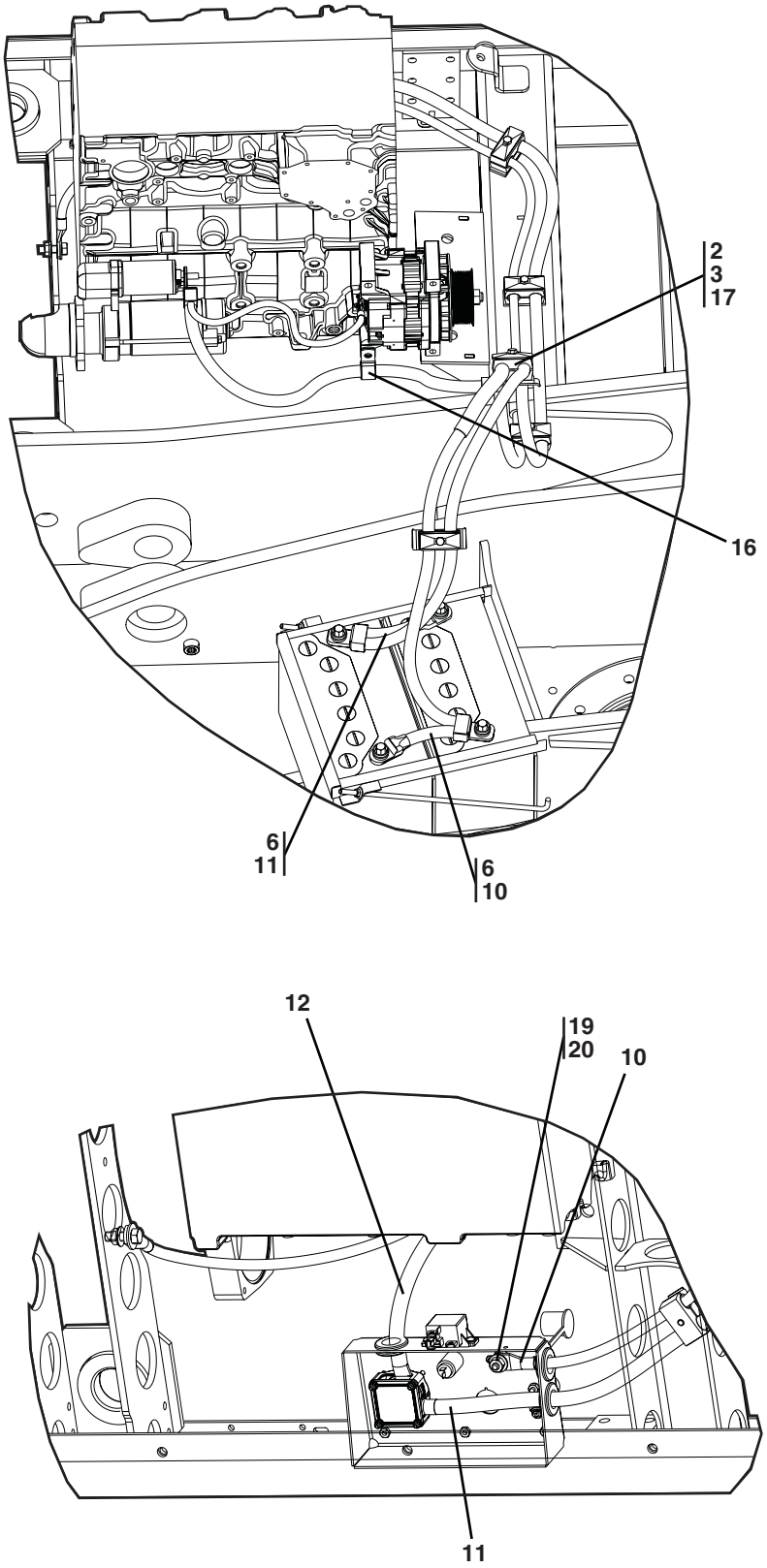




PAD & HOLD-DOWN PLACEMENT DETAIL

PAE0390

Figure 10-2 Battery Installation



PAE0400

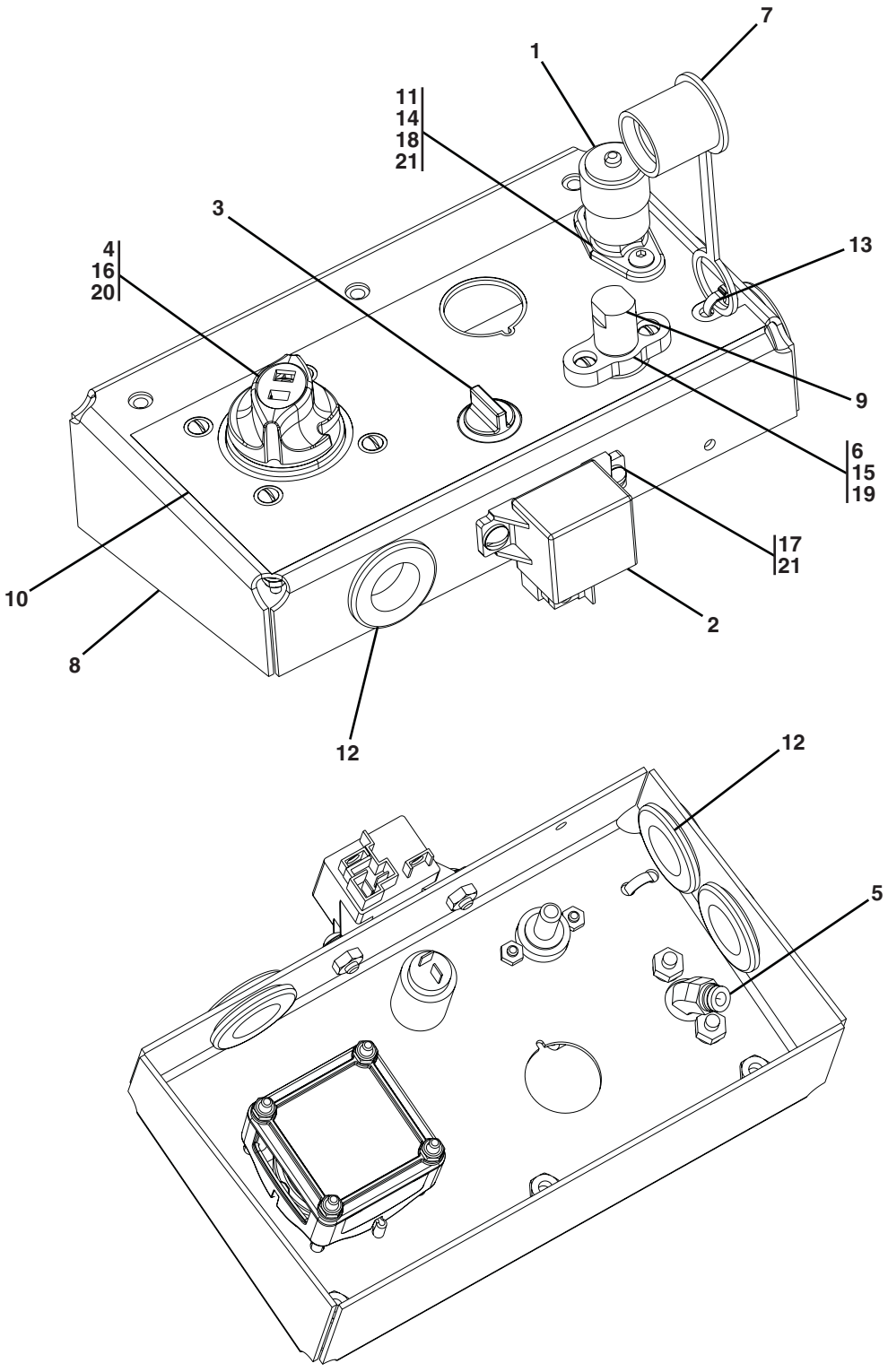
Figure 10-2 Battery Installation

Item	Part Number	Qty.	Description	Rev.
	80765008	1	BATTERY INSTALLATION, (includes all items)	C
1	14403416	A/R	DI-ELECTRIC GREASE	
2	77133136	5	CLAMP SET	
3	77133137	5	TWIN CLAMP COVER PLATE	
4	77143006	2	WHIZ-LOK NUT, 5/16-18	
5	77143014	1	WHIZ-LOK NUT, 1/2-13	
6	77383567	4	STAINLESS STEEL NUT	
7	80381114	2	HOLD DOWN STUD	
8	80763010	4	BATTERY PAD	
9	80766002	1	BATTERY HOLD-DOWN	
10	80773030	1	POSITIVE BATTERY CABLE	
11	80773031	1	NEGATIVE BATTERY CABLE	
12	80773034	1	GROUND CABLE	
13		2	BATTERY, (purchase locally)	
14	80763028	1	HEX NUT, M16X1.5	
15	80763029	1	HEX HD CAPSCREW, M16X1.5X90MM, GR8.8	
16	86521144	1	SUPPORT CLAMP, 13/16	
17	88201023	5	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
18	88201067	1	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
19	88501006	1	HEX NUT, 3/8-16	
20	88561004	1	FLAT WASHER, 3/8	
21	88561006	1	FLAT WASHER, 1/2	

Figure 10-2 Battery Installation

Item	Part Number	Qty.	Description	Rev.

Figure 10-3 Service Panel Assembly



PAE0410

Figure 10-3 Service Panel Assembly

Item	Part Number	Qty.	Description	Rev.
	80775008	1	SERVICE PANEL ASSY, (includes all items)	A
1	77383154	1	SERVICE INDICATOR	
2	77383377	1	BOSCH STARTER RELAY	
3	80363244	1	12 VOLT POWER SUPPLY	
4	80373133	1	BATTERY DISCONNECT SWITCH	
5	80383164	1	TUBE FITTING, 90 DEGREES, 1/8X1/4	
6	80483061	1	JUNCTION BLOCK	
7	80763013	1	PROTECTIVE CAP	
8	80771018	1	SERVICE BRACKET	
9	80773033	1	BRASS BUSHING	
10	80773037	1	SERVICE PANEL DECAL	
11	83671476	1	REMOTE MOUNT FLANGE	
12	85131075	3	GROMMET	
13	86683122	1	TIE-WRAP	
14	88261016	2	BUTTON HD SCREW, 1/4-20X3/4	
15	88301090	2	ROUND HD MACHINE SCREW, #10-24X1/2, GR8	
16	88301101	4	ROUND HD MACHINE SCREW, #10-24X2-1/4, GR8	
17	88301125	2	ROUND HD MACHINE SCREW, 1/4-20X5/8, GR8	
18	88501004	2	HEX NUT, 1/4-20	
19	88501612	2	HEX NUT, #10-24	
20	88521605	4	HEX LOCKNUT, #10-24	
21	88551009	4	LOCKWASHER, 1/4	

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SECTION 11
DECALS

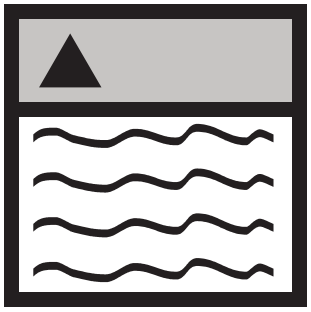
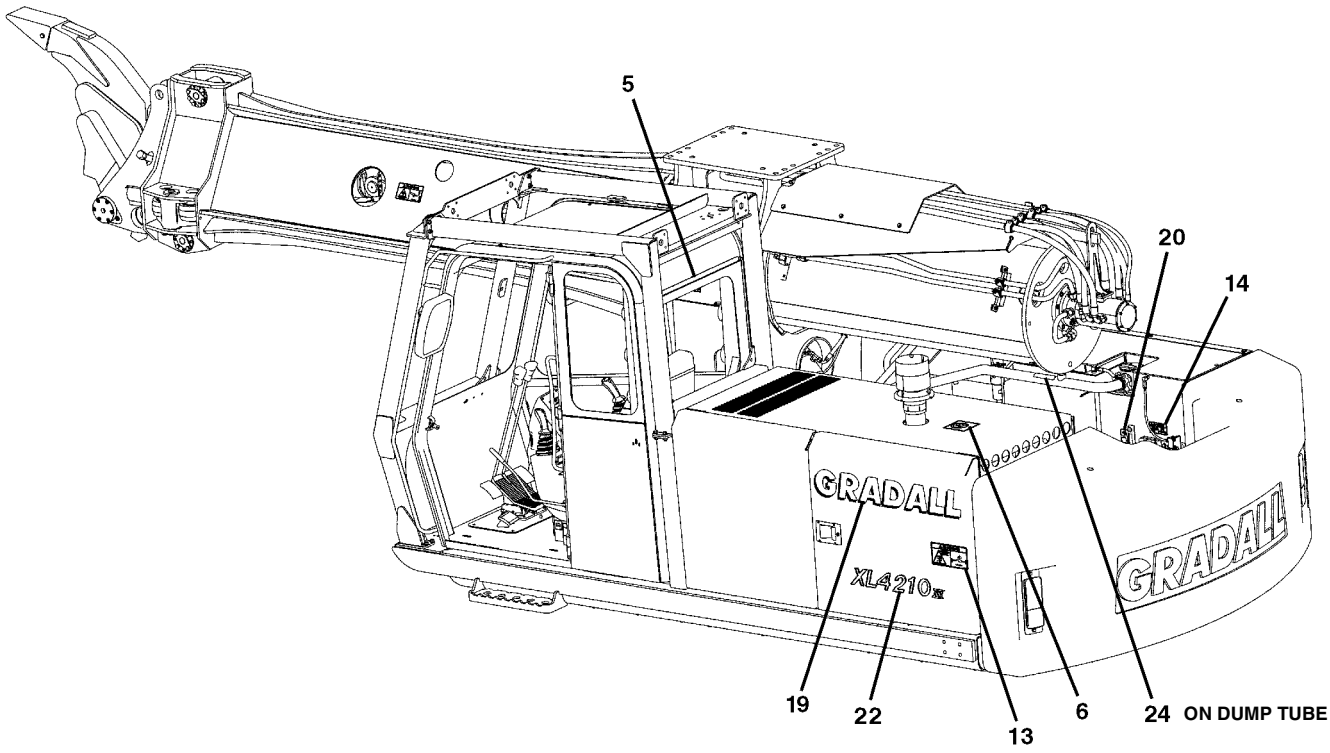
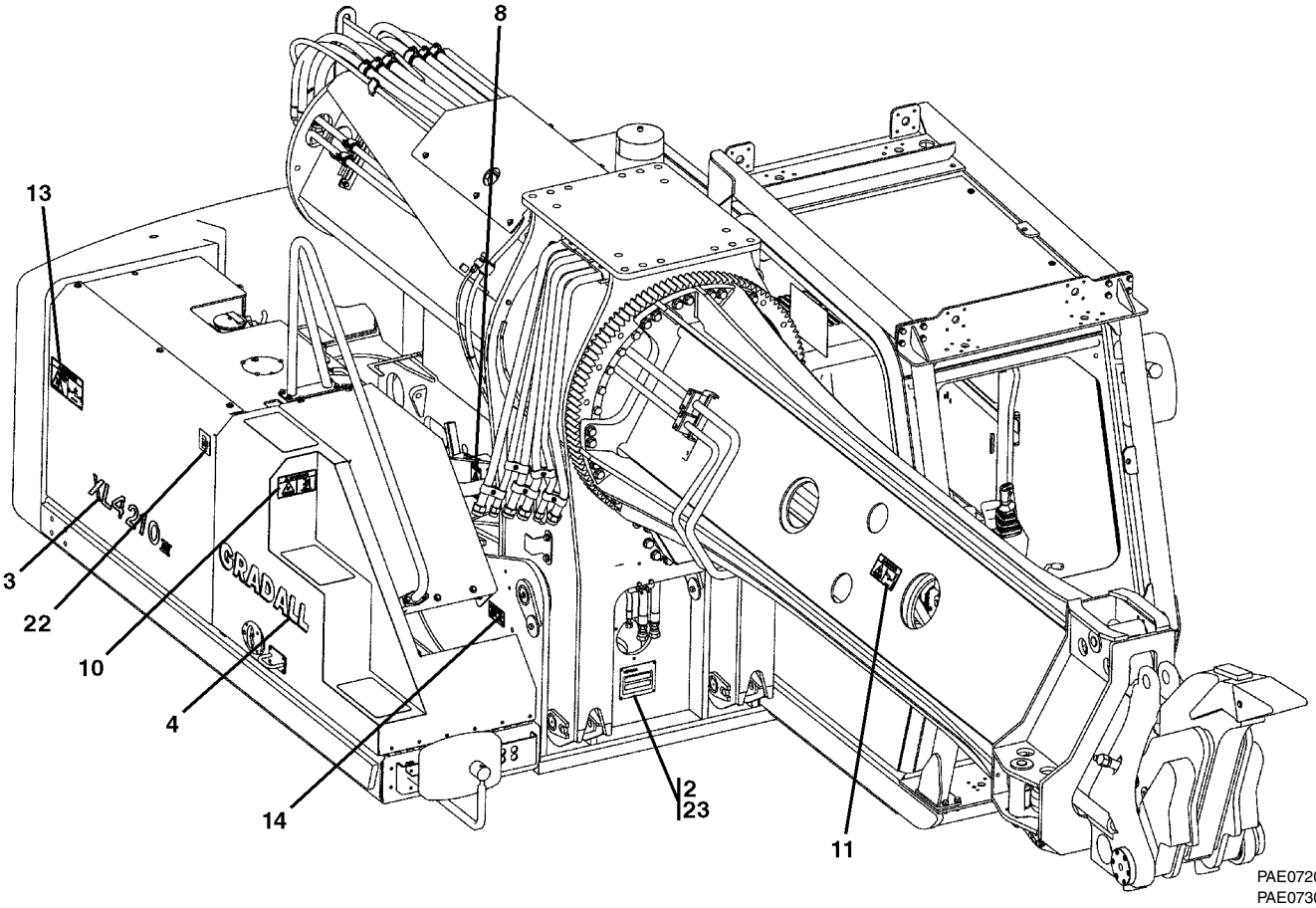


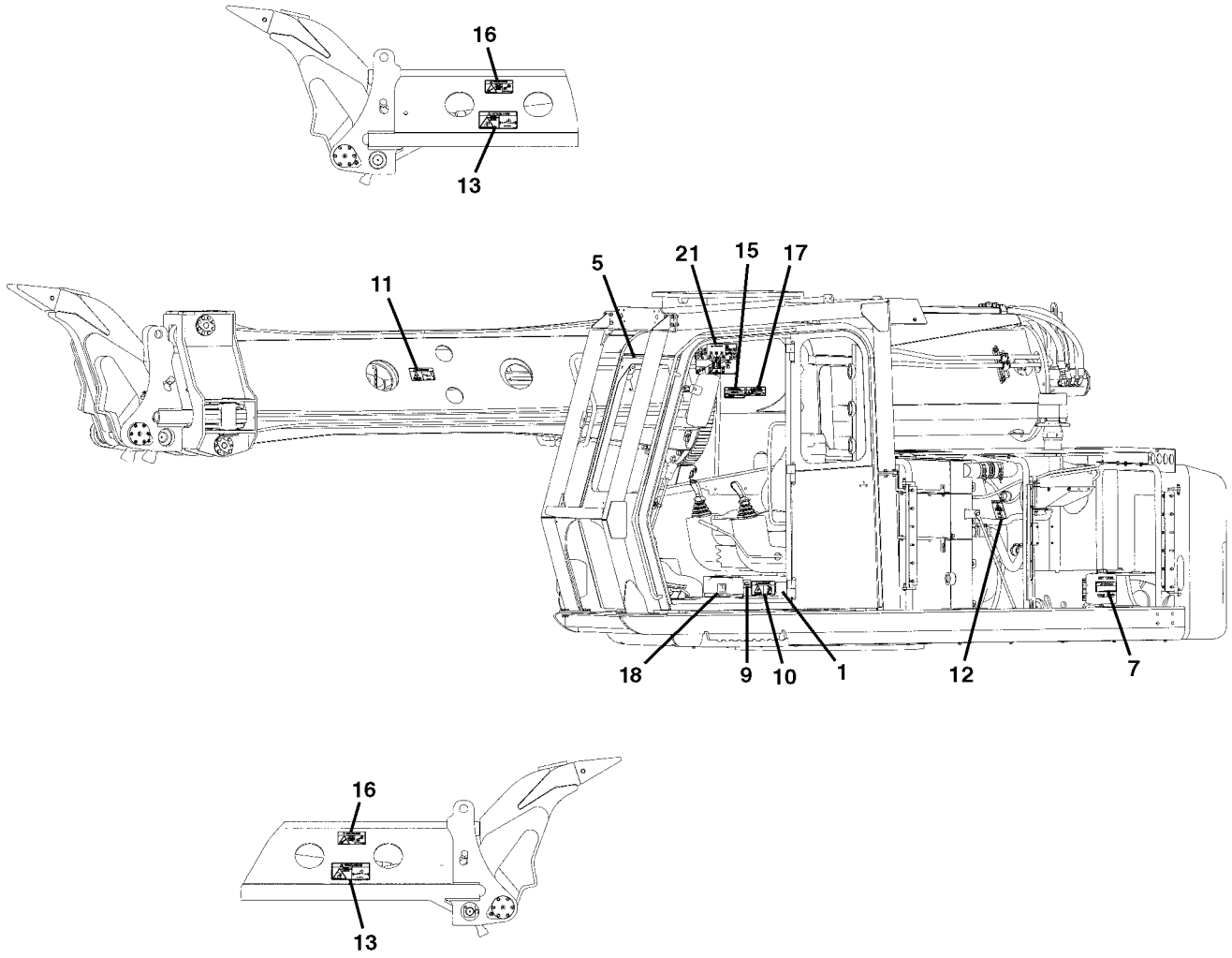
Figure 11-1 Decal Installation





PAE0720
PAE0730

Figure 11-1 Decal Installation (Continued)



PAE0740

Figure 11-1 Decal Installation

Item	Part Number	Qty.	Description	Rev.
	80715007	1	XL4210III DECAL INSTALLATION, (includes all items)	A
1	77333027	1	MADE IN USA DECAL	
2	77333047	1	SERIAL NUMBER PLATE	
3	80213104	1	DIESEL FUEL DECAL	
4	80373061	1	SMALL GRADALL DECAL	
5	80373066	2	REFLECTIVE STRIP DECAL	
6	80373077	1	NO STEP DECAL	
7	80483160	1	COOLANT FILLING DECAL	
8	80509004	1	BATTERY WARNING DECAL	
9	80509005	1	MANUALS DECAL	
10	80509012	2	CLIMBING WARNING DECAL	
11	80509013	2	PINCH POINT WARNING DECAL	
12	80509014	1	ROTATION WARNING DECAL	
13	80509015	4	SWING AREA WARNING DECAL	
14	80509016	2	HYDRAULIC OIL WARNING DECAL	
15	80509017	1	READ MANUAL WARNING DECAL	
16	80509018	2	DO NOT LIFT WARNING DECAL	
17	80509019	1	ELECTROCUTION DANGER DECAL	
18	80509023	1	OVERLAY KIT	
19	80509025	1	LARGE GRADALL DECAL	
20	80513002	1	RESERVOIR FILL DECAL	
21	80513004	1	SAE CONTROLS DECAL	
22	80713004	2	XL4210III DECAL	
23	88341012	4	DRIVE SCREW, #4X5/16	
24	91143288	1	HYDRAULIC FLUID DECAL	

Figure 11-1 Decal Installation (Continued)

Item	Part Number	Qty.	Description	Rev.

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SECTION 12
OPTIONS

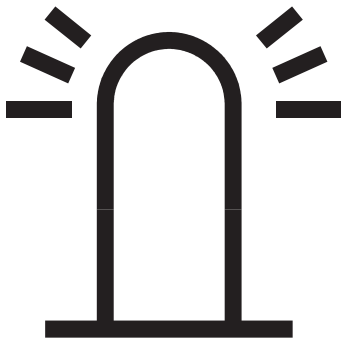


Figure 12-1 Grid Heater Installation

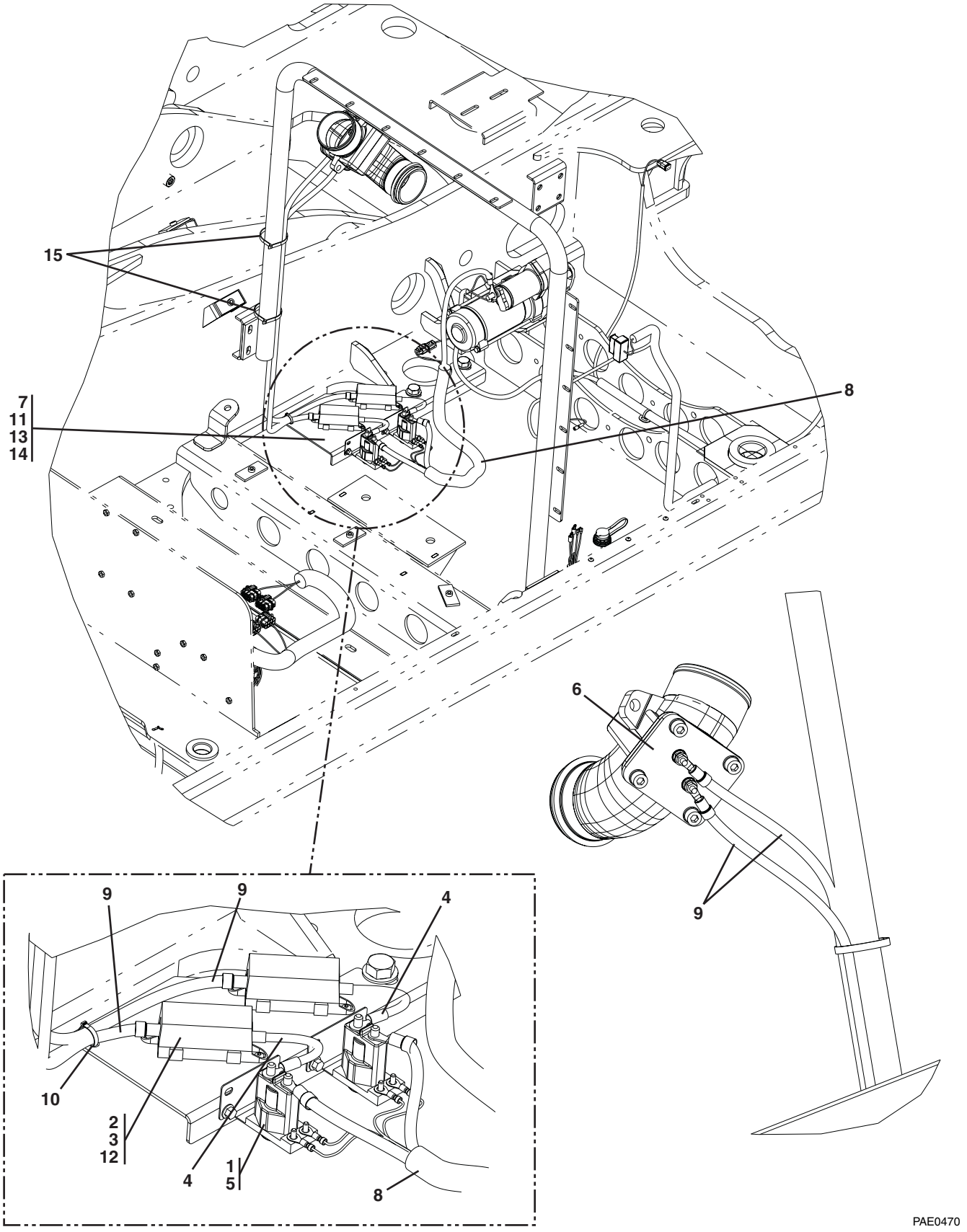
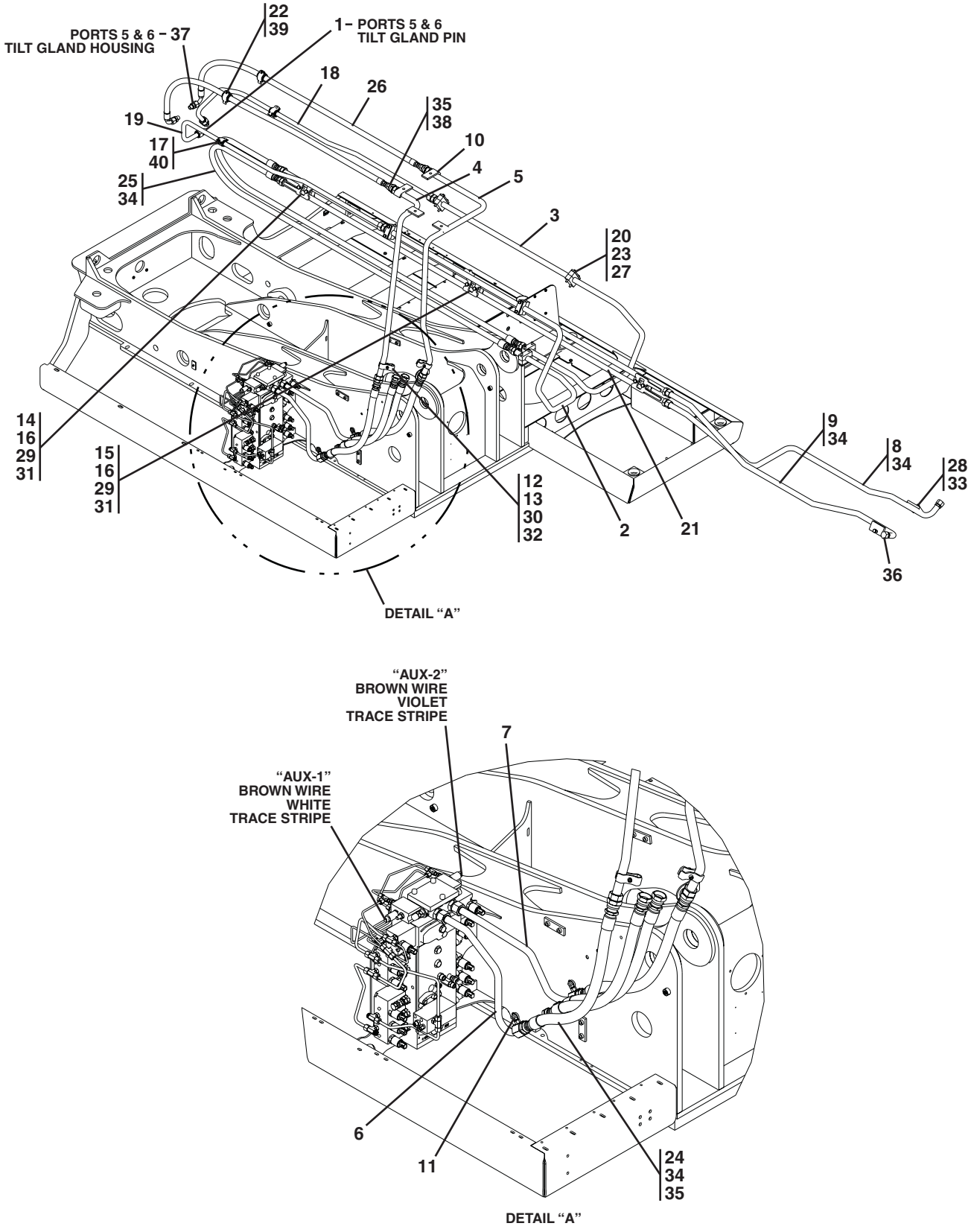


Figure 12-1 Grid Heater Installation

Item	Part Number	Qty.	Description	Rev.
	80765016	1	GRID HEATER INSTALLATION, (includes all items)	A
1	77373027	1	GRID HEATER RELAY	
2	77373030	2	MEGA FUSE HOLDER	
3	77373031	2	FUSE, 125AMP	
4	77373041	2	CABLE JUMPER	
5	80263012	4	WHIZ LOK SCREW, 1/4-20X1/2	
6	80483156	1	GRID HEATER	
7	80761006	1	RELAY MOUNT BRACKET	
8	80763030	1	GRID HEATER HARNESS	
9	80763031	2	JUMPER CABLE, (to grid heater)	
10	86683122	1	TIE WRAP	
11	88201099	2	HEX HD CAPSCREW, 5/8-11X2-1/2, GR5	
12	88261008	4	BUTTON HD SCREW, #10-24X1/2	
13	88521310	2	HEX NUT, 5/8-11	
14	88561113	2	FLAT WASHER, 5/8	
15	90027187	2	TIE WRAP	

Figure 12-2 Auxiliary Hydraulic Hosing Installation

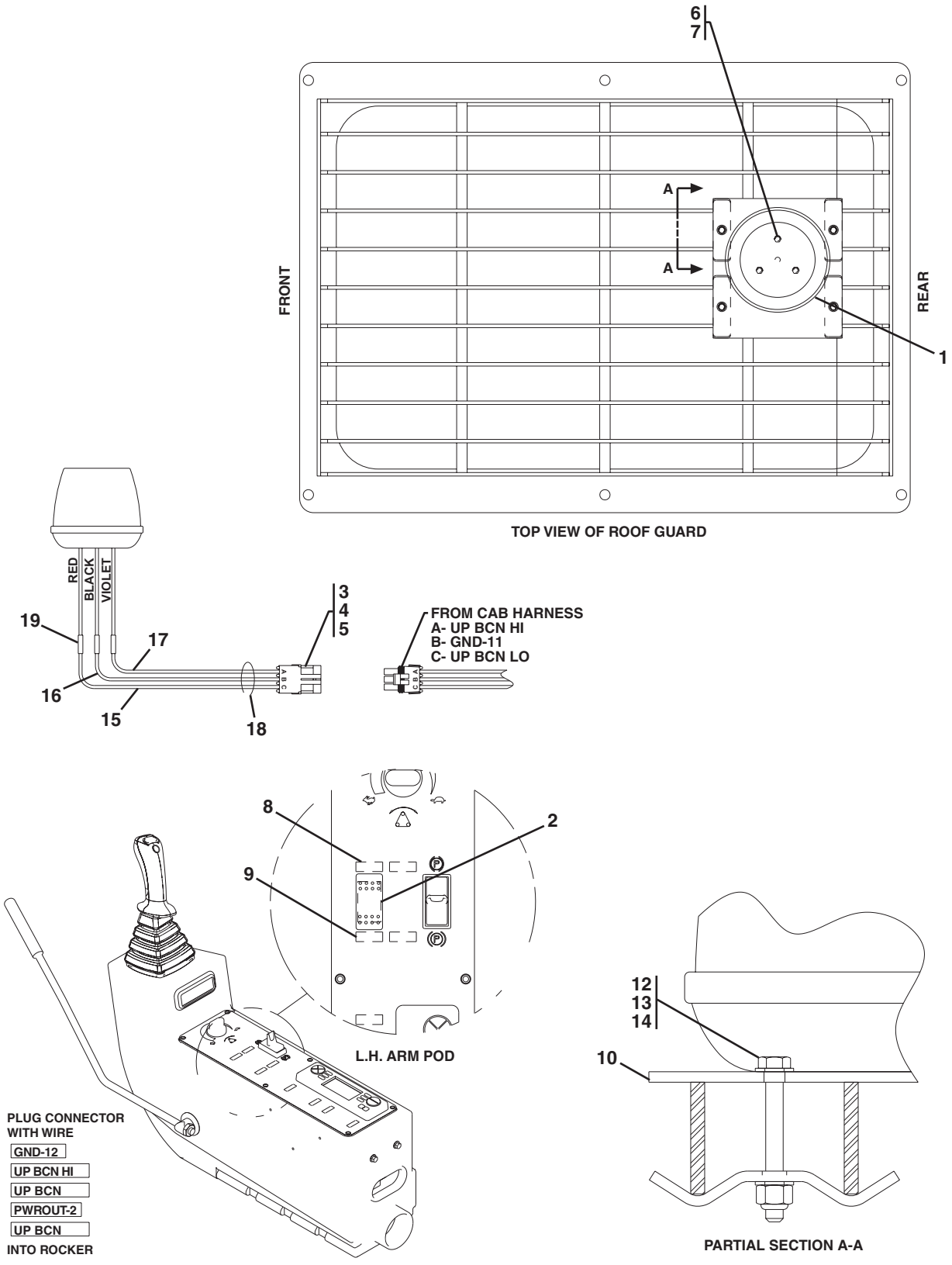


PAE0710

Figure 12-2 Auxiliary Hydraulic Hosing Installation

Item	Part Number	Qty.	Description	Rev.
	80715005	1	AUXILIARY HYDRAULIC HOSING INSTALLATION, (includes all items)	A
1	88662566	2	STRAIGHT CONNECTOR	
2	3460462	1	TUBE ASSY	
3	3460465	1	TUBE ASSY, HYDRAULIC, BOOM	
4	3460478	1	TUBE ASSY, AUX	
5	3460479	1	TUBE ASSY, AUX	
6	3460525	1	TUBE ASSY, AUX, HYDRAULIC	
7	3460526	1	TUBE ASSY, HYDRAULIC, AUX	
8	3460535	1	TUBE ASSY, AUX	
9	3460536	1	TUBE ASSY, AUX	
10	3576829	4	TUBE SUPPORT CLAMP	
11	77133089	2	MINI-CHECK COUPLING, (includes o-ring)	
	83763056	2	VITON O-RING, (lubricate lightly)	
12	80221277	4	CLAMP	
13	80221281	2	SPACER	
14	80321136	2	BOTTOM PLATE	
15	80321137	1	CENTER CLAMP BOTTOM PLATE	
16	80423038	3	CAST TUBE CLAMP	
17	80521042	4	ALUMINUM HALF CLAMP	
18	80523003	1	TUBE ASSY	
19	80523004	1	TUBE ASSY	
20	80523010	6	CLAMP SET	
21	80723001	2	STRAIGHT TUBE ASSY	
22	80991123	4	ALUMINUM CLAMP HALF	
23	83251291	6	COVER PLATE	
24	84721106	2	FIRE SLEEVE HOSE ASSY	
25	84721313	2	HOSE ASSY	
26	84721361	2	HOSE ASSY	
27	88201044	12	HEX HD CAPSCREW, 3/8-16X3-1/4, GR5	
28	88201068	2	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
29	88201070	6	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5	
30	88211073	2	SOCKET HD CAPSCREW, 3/8-16X1-1/2	
31	88521008	6	HEX LOCKNUT, 1/2-13	
32	88521206	2	HEX LOCKNUT, 3/8-16	
33	88521208	2	HEX LOCKNUT, 1/2-13	
34	88591509	8	O-RING	
35	88591510	4	O-RING	
36	88661369	2	CAP	
37	88662311	2	STRAIGHT CONNECTOR, (includes o-ring)	
	88591206	2	O-RING	
38	88662565	2	TUBE END REDUCER	
39	90205792	2	CUSHION CLAMP, 1-1/4	
40	91053413	2	CUSHION CLAMP, 1”	

Figure 12-3 Strobe Light Installation

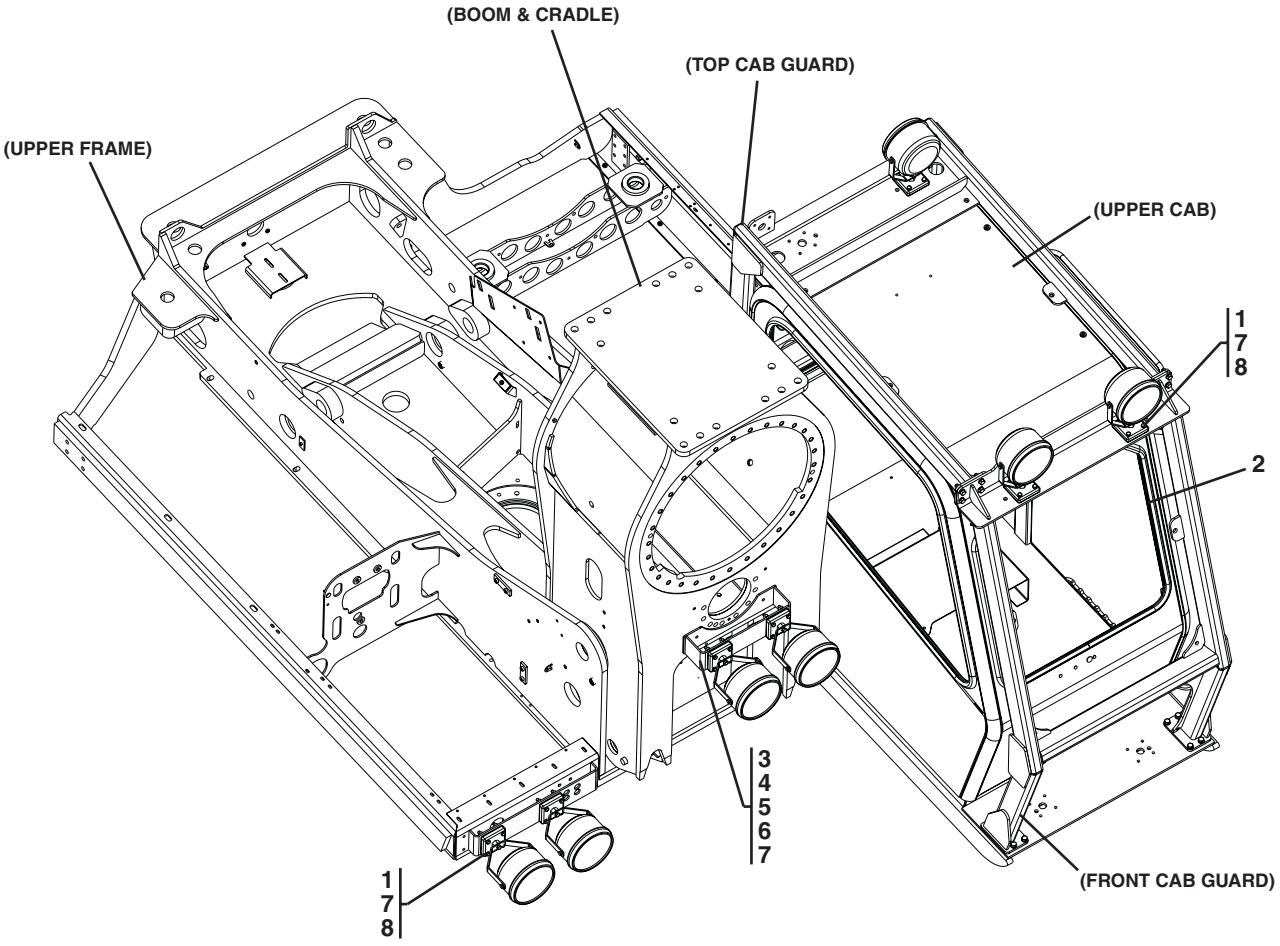


PAD1970

Figure 12-3 Strobe Light Installation

Item	Part Number	Qty.	Description	Rev.
	80465081	1	STROBE LIGHT INSTALLATION, (includes all items)	-
1	77383751	1	WHELEN STROBE LIGHT KIT	
2	91403320	1	ROCKER SWITCH	
3	80963060	1	3-WIRE W/P SHROUD	
4	80963069	3	MALE PIN TERMINAL	
5	91143187	3	CABLE SEAL, (purple 22 ga.)	
6	88201005	3	HEX HD CAPSCREW, 1/4-20X1, GR5	
7	88521204	3	HEX NUT, 1/4	
8	80463104	1	DECAL	
9	80463105	1	DECAL	
10	80461045	1	LIGHT BRACKET	
11	80461046	4	CLAMP	
12	88201027	4	HEX HD CAPSCREW, 5/16-18X2-3/4, GR5	
13	88521205	4	HEX NUT, 5/16-18	
14	88561108	8	FLAT WASHER, 5/16	
15	86661152	20”	WIRE, (16 ga. red)	
16	86661147	20”	WIRE, (16 ga. black)	
17	86661155	20”	WIRE, (16 ga. blue)	
18	86683103	1	GROMMET	
19	83683548	4.5”	HEAT SHRINK TUBING	

Figure 12-4 Work Light Installation

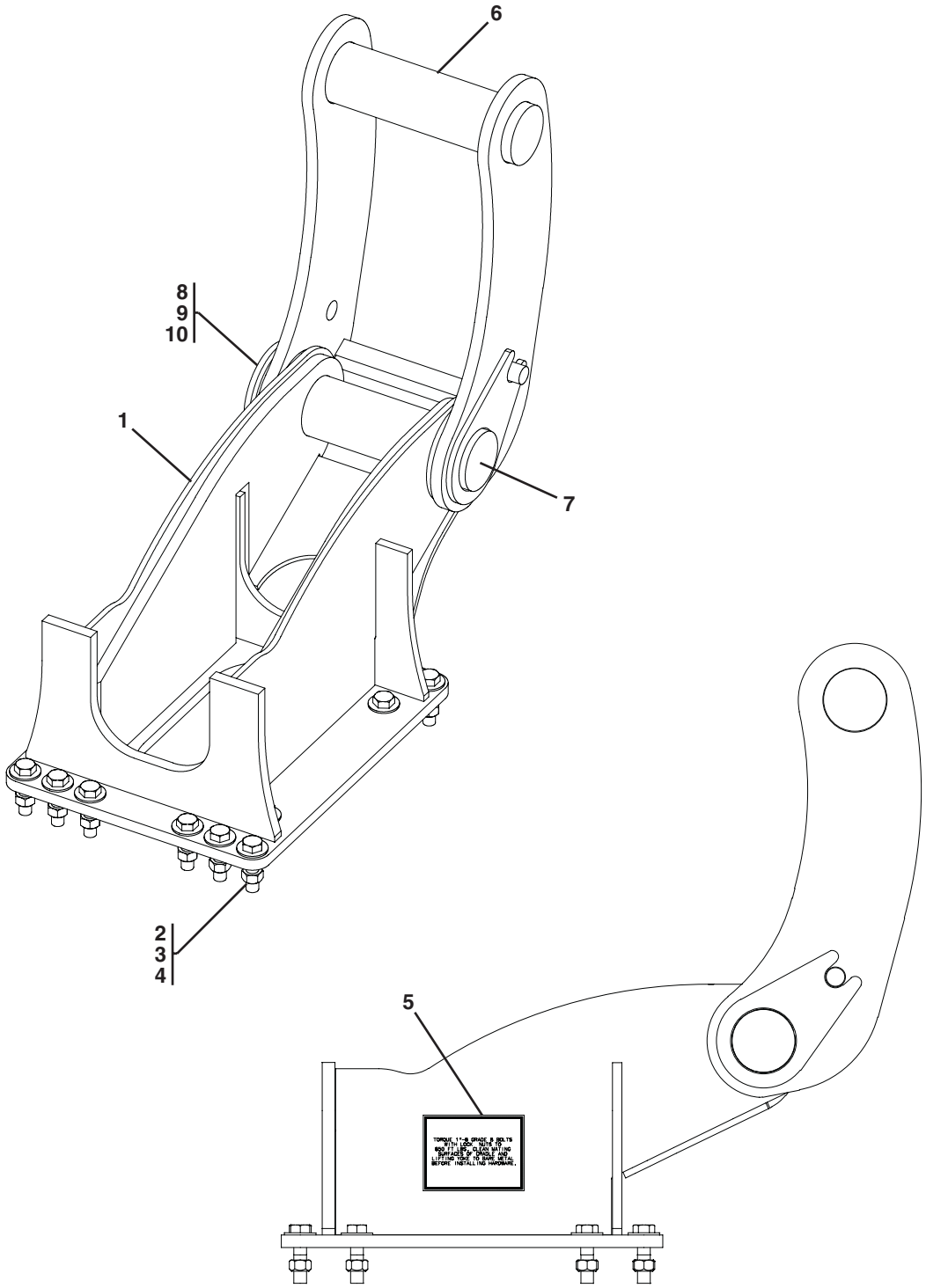


PAD2000

Figure 12-4 Work Light Installation

Item	Part Number	Qty.	Description	Rev.
	80765025	1	WORK LIGHT INSTALLATION, (includes all items)	A
1	77163105	5	FEMALE BULLET TERMINAL, .157	
2	80363094	1	CAB WORK LIGHT HARNESS	
3	80426027	1	LIGHT BRACKET	
4	80963058	2	SHROUD CONNECTOR	
5	80963066	4	CABLE SEAL, (16 guage)	
6	80963069	4	MALE PIN	
7	83663292	7	FLOODLIGHT	
8	86983193	5	MALE BULLET TERMINAL, .157	

Figure 12-5 Bolt-On Folding Lift Yoke Installation



PAD2380

Figure 12-5 Bolt-On Folding Lift Yoke Installation

Item	Part Number	Qty.	Description	Rev.
	80425039	1	BOLT-ON FOLDING LIFT YOKE INSTALLATION, (includes all items)	A
1	80426051	1	BOLT-ON FOLDING LIFTING YOKE WELDMENT	
2	83201074	16	HEX HD CAPSCREW, 1-8X4, GR8, (torque to 795-845 lb-ft)	
3	88561011	16	FLAT WASHER, 1”	
4	88521016	16	HEX NUT, 1-8	
5	80993274	2	DECAL	
6	80426029	1	LIFTING HOOK WELDMENT	
7	80426032	1	PIN WELDMENT	
8	80421191	2	SPACER	
9	80421194	1	WASHER	
10	86431005	1	HEX HD CAPSCREW, 1-8X2-1/2, GR8	

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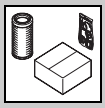
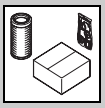
RECOMMENDED SPARE PARTS



The following list will service fleets of machines (built to current production per date on the front cover) with repair parts which can be installed in the field. Parts from the list should be replaced when inventory is depleted to keep service parts stock supplied. For further information, contact your Gradall dealer or the Gradall Industries Parts Department.

Part Number	Description	Qty./Machine



RECOMMENDED SPARE PARTS

The following list will service fleets of machines (built to current production per date on the front cover) with repair parts which can be installed in the field. Parts from the list should be replaced when inventory is depleted to keep service parts stock supplied. For further information, contact your Gradall dealer or the Gradall Industries Parts Department.

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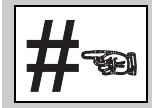

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