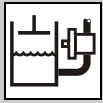


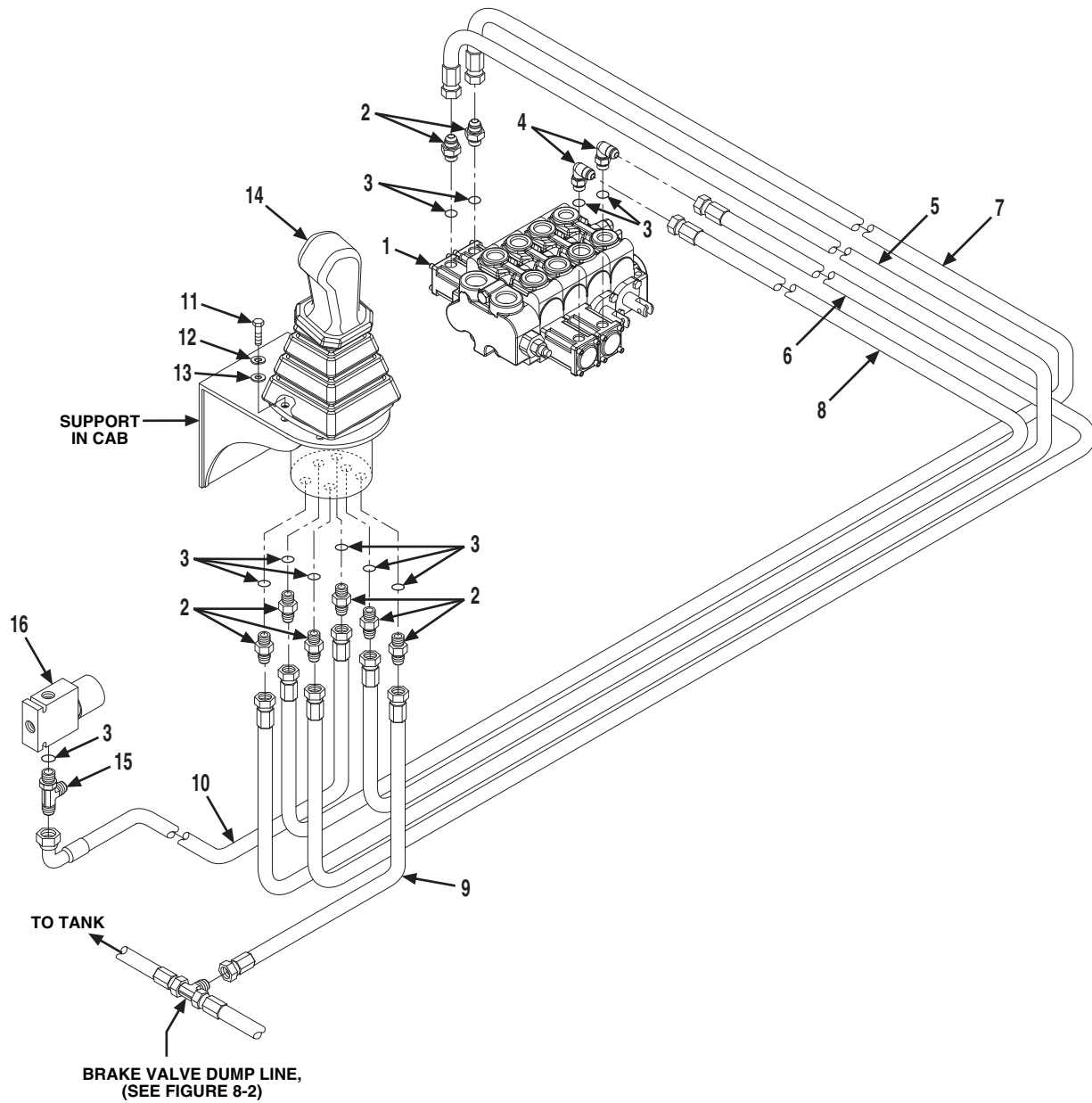
Figure 8-6 Service/Parking Brake

Item	Part Number	Qty.	Description	Rev.
1		Ref	BYPASS VALVE, (see Figure 9-18 for details)	
2	2220465	1	ADAPTER, 90 DEGREE, (includes item 3)	
3	88591209	1	O-RING	
4	84719591	1	HOSE ASSY	
5		Ref	ELBOW, 90 DEGREE, (see Section 4 for details)	
6		Ref	HYDRAULIC PUMP, (see Figure 9-9 for details)	
7		Ref	FITTING, (see Section 4 for details)	
8		Ref	TRACTION LOCK VALVE, (see Figure 9-14 for details)	
9	84719424	1	HOSE ASSY	
10	84719546	1	HOSE ASSY	
11		Ref	BRAKE VALVE, (see Figure 9-16 for details)	
12	84719544	1	HOSE ASSY	
13		Ref	INCHING VALVE, (see Figure 9-15 for details)	
14	84717854	1	HOSE ASSY	
15		Ref	SOLENOID VALVE, (see Figure 9-20 for details)	
16	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
17	88551009	4	LOCKWASHER, 1/4	
18	88561107	4	FLAT WASHER, 1/4	
19	2220371	1	CONNECTOR, (includes item 20)	
20	88591204	2	O-RING	
21	2220606	1	RUN TEE, (includes item 20)	
22		Ref	HOSE ASSY, (service brake), (see Section 5 for details)	
23	91413132	1	RELIEF VALVE	
24	2220596	1	ADAPTER, 90 DEGREE, (includes item 25)	
25	88591205	1	O-RING	
26	2220385	1	SWIVEL NUT RUN TEE, 1/2, TUBE	
27	2220683	1	ADAPTER, 45 DEGREE, (swivel nut)	
28	84719592	1	HOSE ASSY	
29	77323029	2	HOSE CLAMP	
30	77133137	2	COVER PLATE	
31	88201023	2	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
32		Ref	HOSE ASSY, (park brake), (see Section 5 for details)	



HYDRAULIC CIRCUITS

Figure 8-7 Boom Joystick



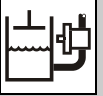
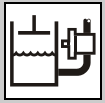


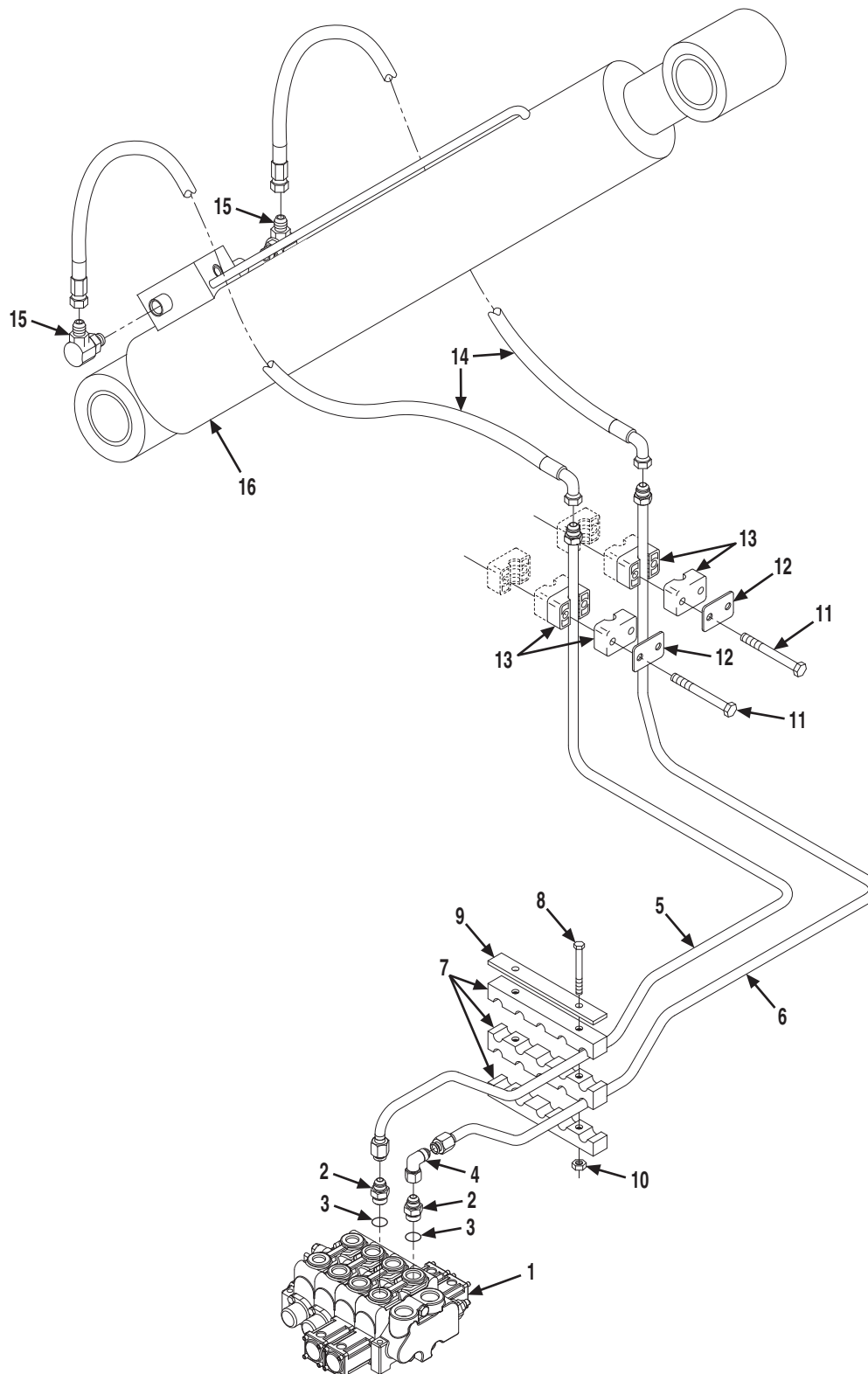
Figure 8-7 Boom Joystick

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN CONTROL VALVE, (see Figure 9-7 for details)	
2	2220371	8	ADAPTER, (includes item 3)	
3	88591204	11	O-RING	
4	2220473	2	ELBOW, 90 DEGREE, (includes item 3)	
5	84719371	1	HOSE ASSY, (yellow)	
6	84719376	1	HOSE ASSY, (green)	
7	84719372	1	HOSE ASSY, (blue)	
8	84719374	1	HOSE ASSY, (red)	
9	84719375	1	HOSE ASSY	
10	84719373	1	HOSE ASSY	
11	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
12	88551009	4	LOCKWASHER, 1/4	
13	88561002	4	FLAT WASHER, 1/4	
14		Ref	BOOM JOYSTICK, (see Figure 7-6 for details)	
15	2220606	1	RUN TEE, (includes item 3)	
16		Ref	SOLENOID VALVE, (see Figure 9-20 for details)	



HYDRAULIC CIRCUITS

Figure 8-8 Lift Cylinder



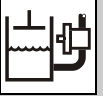
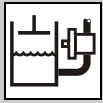


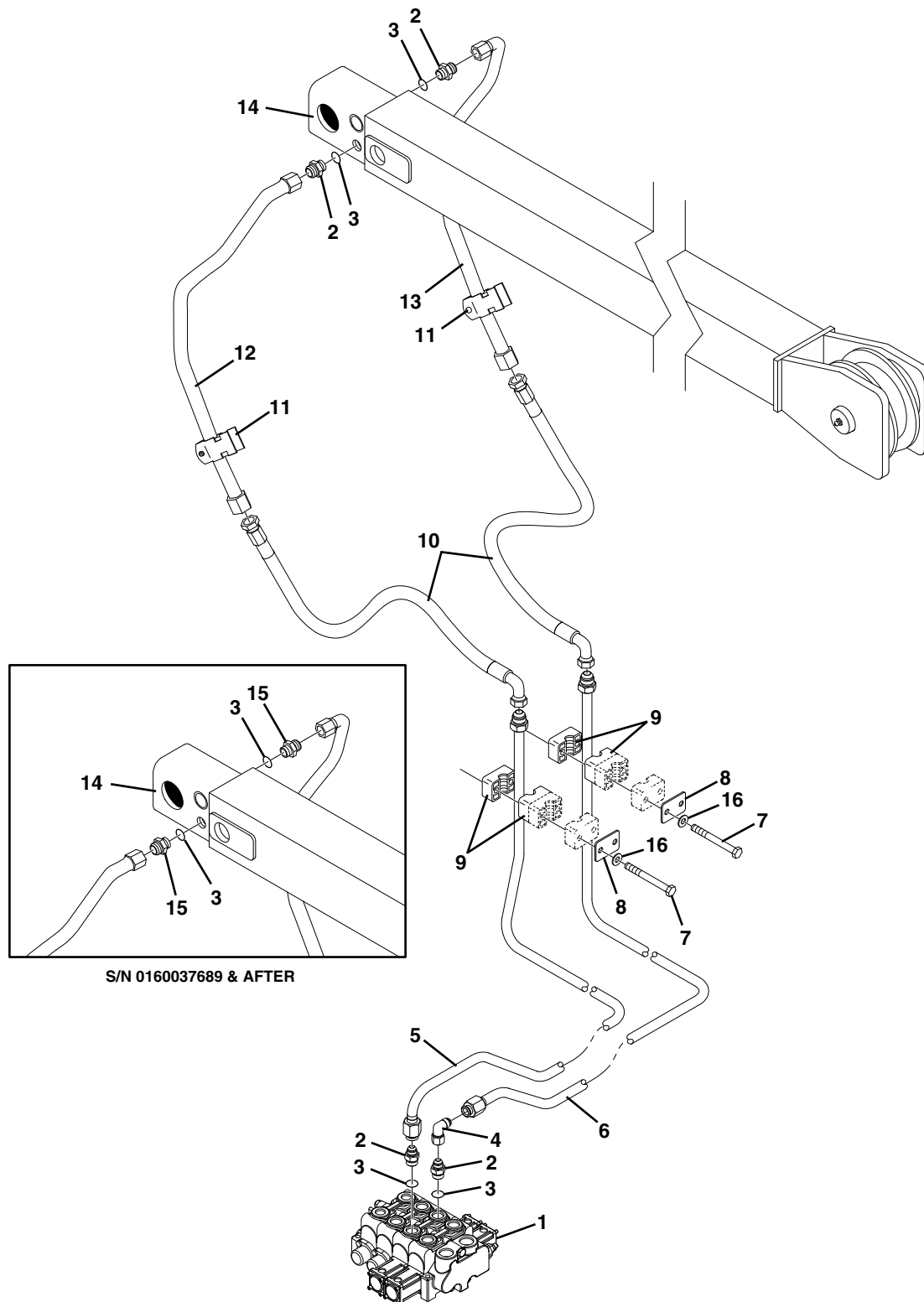
Figure 8-8 Lift Cylinder

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN CONTROL VALVE, (see Figure 9-7 for details)	
2	2220947	2	ADAPTER, (includes item 3)	
3	88591206	2	O-RING	
4	2220973	1	ELBOW, 90 DEGREE, (swivel nut)	
5	91403543	1	HYDRAULIC TUBE	
6	91403544	1	HYDRAULIC TUBE	
7	91403353	1	SPECIAL TUBE CLAMP	
8	88201028	2	HEX HD CAPSCREW, 5/16-18X3, GR5	
9	91411021	1	TUBE CLAMP COVER PLATE	
10	88521305	2	HEX LOCKNUT, 5/16-18	
11	88201012	4	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
12	77133498	2	COVER PLATE	
13	77133497	2	CLAMP	
14	84719226	2	HOSE ASSY	
15	91413013	2	HYDRAULIC SWIVEL	
16		Ref	LIFT CYLINDER, (see Figure 9-1 for details)	
101	90021705	1	TUBE CLAMP, (not shown)	



HYDRAULIC CIRCUITS

Figure 8-9 Crowd Cylinder



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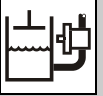


Figure 8-9 Crowd Cylinder

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN CONTROL VALVE, (see Figure 9-7 for details)	
2	2220947	4	ADAPTER, (Before S/N 0160037689) , (includes item 3)	
	2220947	2	ADAPTER, (S/N 0160037689 & After) , (includes item 3)	
3	88591206	4	O-RING	
4	2220973	1	ELBOW, 90 DEGREE, (swivel nut)	
5	91403545	1	HYDRAULIC TUBE	
6	91403546	1	HYDRAULIC TUBE	
7	88201012	4	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
8	77133498	2	COVER PLATE	
9	77133497	2	CLAMP	
10	84719227	2	HOSE ASSY, (Before S/N 0160037689)	
	1001102664	2	HOSE ASSY, (S/N 0160037689 & After)	
11	91083217	2	CLAMP	
12	91403507	1	TUBE ASSY, (Before S/N 0160037689)	
	1001098363	1	TUBE ASSY, (S/N 0160037689 & After)	
13	91403506	1	TUBE ASSY, (Before S/N 0160037689)	
	1001098362	1	TUBE ASSY, (S/N 0160037689 & After)	
14		Ref	CROWD CYLINDER, (see Figure 9-2 for details)	
15	2111010	2	ADAPTER, (S/N 0160037689 & After) , (includes item 3)	
16	88561007	4	FLAT WASHER, 1/2	

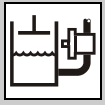
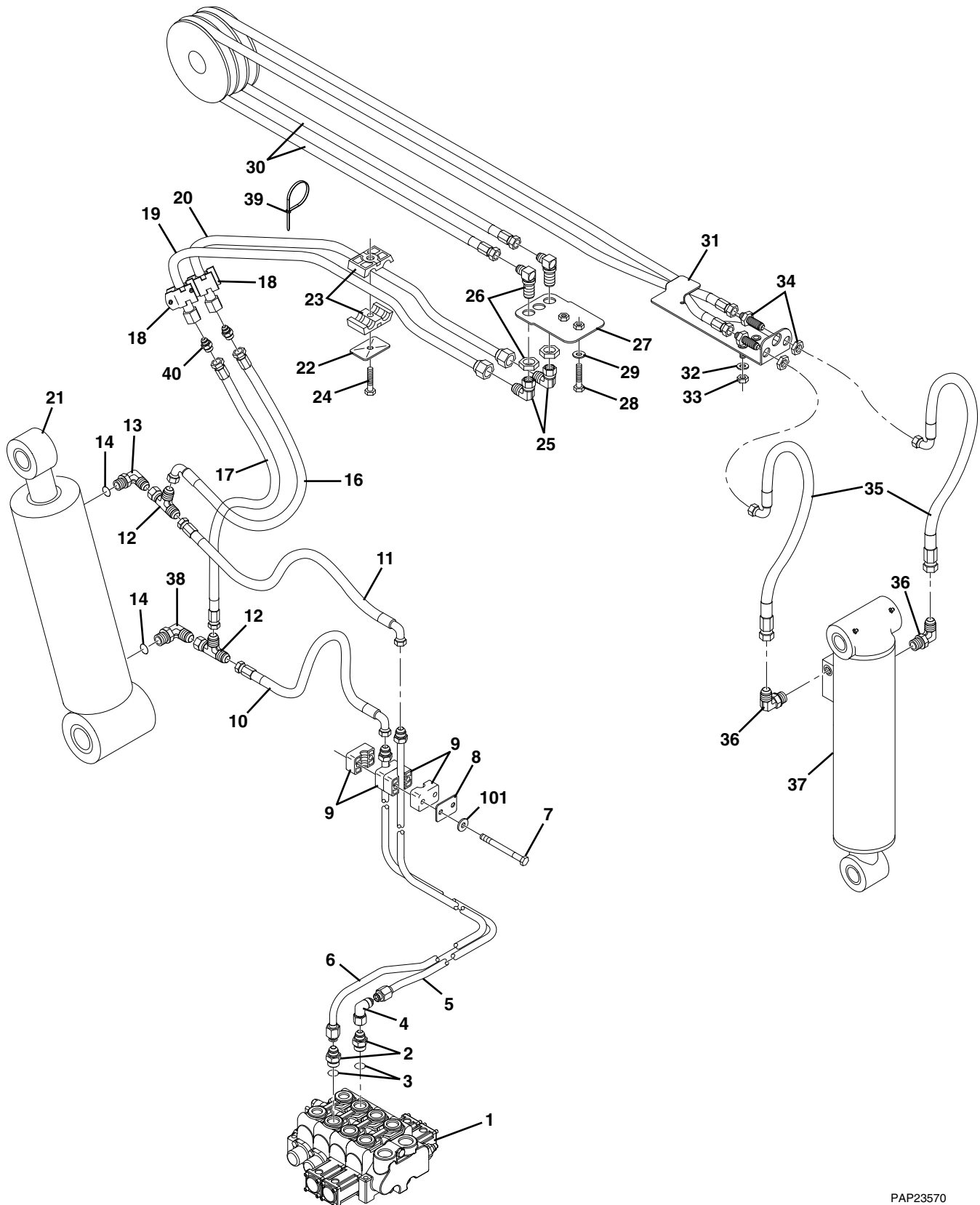


Figure 8-10 Tilt & Compensating Cylinder



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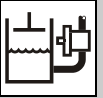


Figure 8-10 Tilt & Compensating Cylinder

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN CONTROL VALVE, (see Figure 9-7 for details)	
2	2220374	2	ADAPTER, (includes item 3)	
3	88591206	2	O-RING	
4	88662106	1	ELBOW, 90 DEGREE, (swivel nut)	
5	91403548	1	HYDRAULIC TUBE	
6	91403547	1	HYDRAULIC TUBE	
7	88201012	2	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
8	77133498	1	COVER PLATE	
9	91033138	2	CLAMP	
10	84719433	1	HOSE ASSY	
11	84719225	1	HOSE ASSY	
12	2220385	2	SWIVEL NUT RUN TEE, 1/2, TUBE	
13	2220596	1	ELBOW, 90 DEGREE, (includes item 14)	
14	88591205	2	O-RING	
16	84719438	1	HOSE ASSY	
17	84719228	1	HOSE ASSY	
18	91083216	2	CLAMP	
19	91403393	1	TUBE ASSY	
20	4569359	1	TUBE ASSY	
21		Ref	COMPENSATING CYLINDER, (see Figure 9-4 for details)	
22	77133140	3	COVER PLATE	
23	77133168	3	CLAMP SET	
24	77133177	3	HEX HD CAPSCREW, 5/16X1-3/8	
25	91403415	2	FITTING, 90 DEGREE	
26	2230043	2	ADAPTER, 90 DEGREE	
27	91401344	1	HOSE BRACKET	
28	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
29	88561109	2	FLAT WASHER, 3/8	
30	84719168	2	HOSE ASSY	
31	0903293	1	HOSE RETAINER	
32	4761600	2	LOCKWASHER, 3/8	
33	88501006	2	HEX NUT, 3/8-16	
34	88661084	2	BULKHEAD UNION, 9/16-18X3/8, TUBE	
35	84718545	2	HOSE ASSY	
36	2220828	2	ELBOW, 90 DEGREE	
37		Ref	TILT CYLINDER, (see Figure 9-3 for details)	
38	2220474	1	ELBOW, 90 DEGREE, (includes item 14)	
39	86683122	6	TIE WRAP	
40	88661002	2	MALE CONNECTOR, 1/8X3/16, TUBE	
101	88561007	2	FLAT WASHER, 1/2	
102	84719280	1	HOSE ASSY, (not shown)	
103	84719282	1	HOSE ASSY, (not shown)	
104	84719281	1	HOSE ASSY, (not shown)	

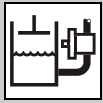
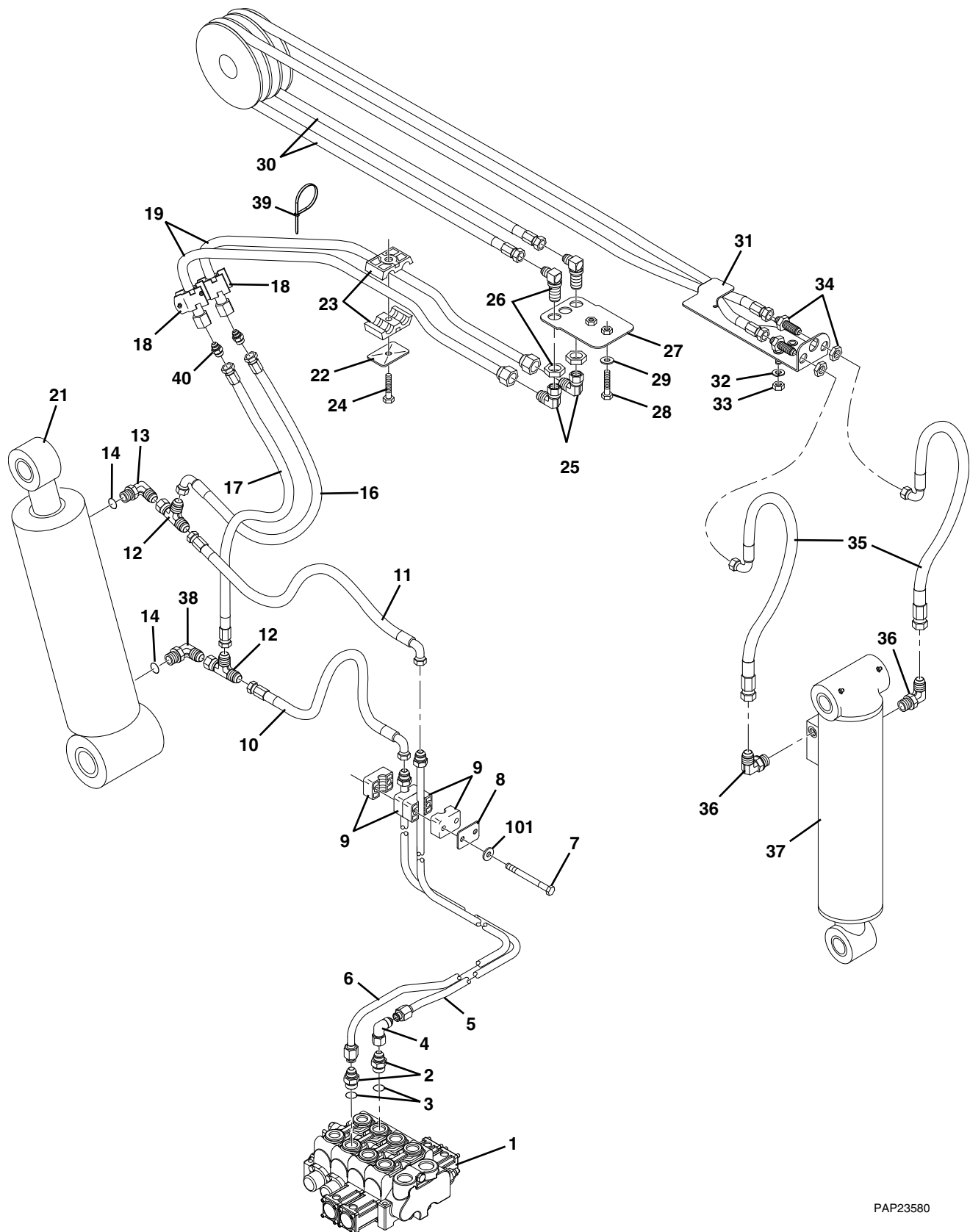


Figure 8-10 Tilt & Compensating Cylinder



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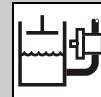
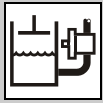


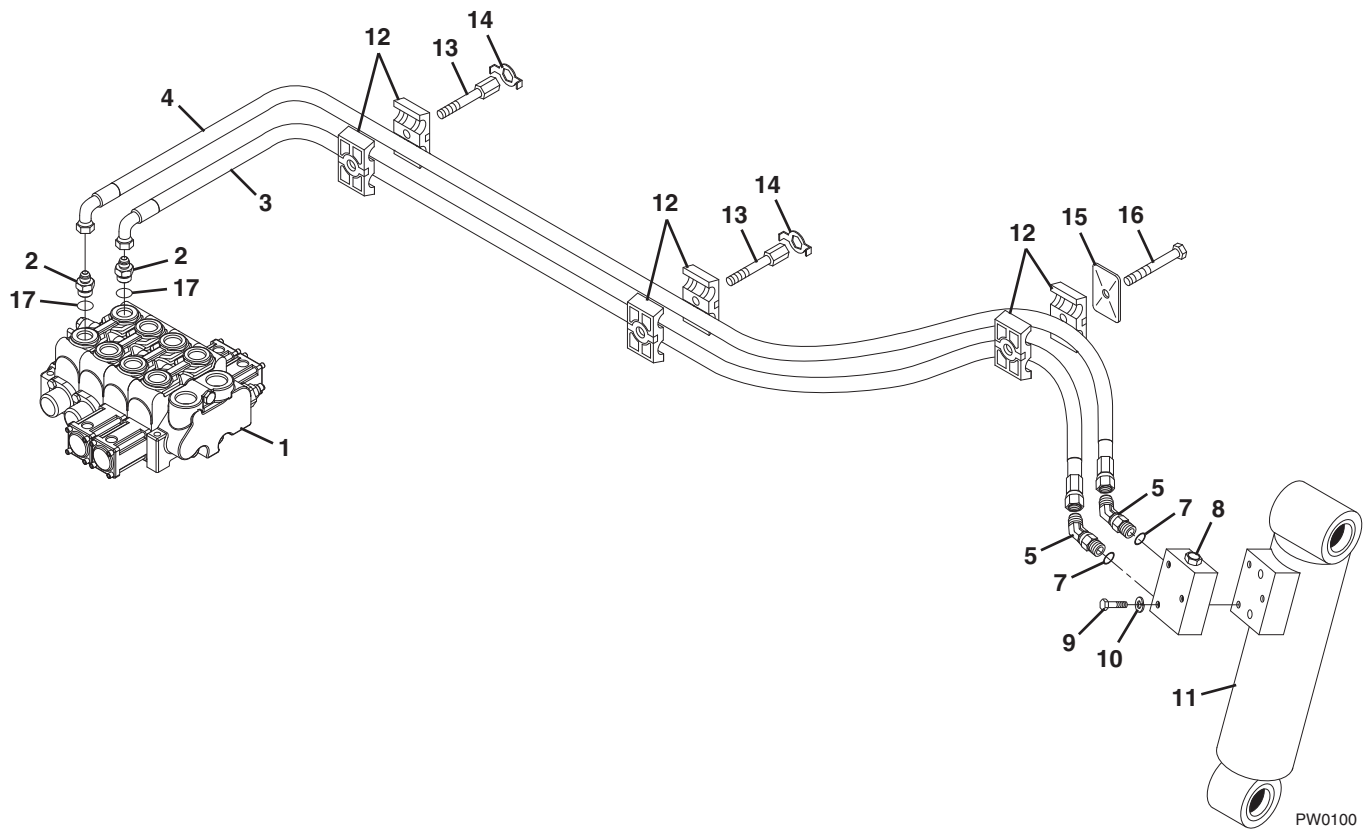
Figure 8-10 Tilt & Compensating Cylinder

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN CONTROL VALVE, (see Figure 9-7 for details)	
2	2220374	2	ADAPTER, (includes item 3)	
3		2	O-RING	
4	8765204	1	ELBOW, 90 DEGREE, (swivel nut)	
5	91403548	1	HYDRAULIC TUBE	
6	91403547	1	HYDRAULIC TUBE	
7	88201012	2	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
8	77133498	1	COVER PLATE	
9	91033138	2	CLAMP	
10	84719433	1	HOSE ASSY	
11	84719225	1	HOSE ASSY	
12	2220385	2	SWIVEL NUT RUN TEE, 1/2, TUBE	
13	2220596	1	ELBOW, 90 DEGREE, (includes item 14)	
14	88591205	2	O-RING	
16	1001102662	1	HOSE ASSY	
17	1001102663	1	HOSE ASSY	
18	91083216	2	CLAMP	
19	1001001332	2	TUBE ASSY	
21		Ref	COMPENSATING CYLINDER, (see Figure 9-4 for details)	
22	77133140	3	COVER PLATE	
23	77133168	3	CLAMP SET	
24	0641511	3	HEX HD CAPSCREW, 5/16X1-3/8	
25	2221253	2	ELBOW, 90 DEGREE	
26	2171206	2	BULKHEAD FITTING, 90 DEGREE	
27	1001090364	1	HOSE BRACKET	
28	0641607	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
29	4711600	2	FLAT WASHER, 3/8	
30	1001112207	2	HOSE ASSY	
31	0903293	1	HOSE RETAINER	
32	4761600	2	LOCKWASHER, 3/8	
33	88501006	2	HEX NUT, 3/8-16	
34	2171106	2	BULKHEAD UNION, 9/16-18X3/8, TUBE	
35	1001101617	2	HOSE ASSY	
36	2130610	2	ELBOW, 90 DEGREE	
37		Ref	TILT CYLINDER, (see Figure 9-3 for details)	
38	2220474	1	ELBOW, 90 DEGREE	
39	86683122	6	TIE WRAP	
40	88661002	2	MALE CONNECTOR, 1/8X3/16, TUBE	
101	88561007	2	FLAT WASHER, 1/2	



HYDRAULIC CIRCUITS

Figure 8-11 Sway Cylinder



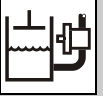
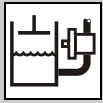


Figure 8-11 Sway Cylinder

Item	Part Number	Qty.	Description	Rev.
1		Ref	MAIN CONTROL VALVE, (see Figure 9-7 for details)	
2	2220372	2	ADAPTER, (includes item 17)	
3	84719280	1	HOSE ASSY	
4	84719282	1	HOSE ASSY	
5	2221040	2	ELBOW, 45 DEGREE, (swivel nut)	
7	88591204	2	O-RING	
8		Ref	SWAY CYLINDER VALVE, (see Figure 9-19 for details)	
9	88201008	3	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
10	88551009	3	LOCKWASHER, 1/4	
11		Ref	SWAY CYLINDER, (see Figure 9-5 for details)	
12	77133168	3	HOSE CLAMP	
13	77133389	2	STACK BOLT	
14	77133390	2	SAFETY CLIP	
15	77133140	1	COVER PLATE	
16	77133177	1	HEX HD CAPSCREW, 5/16-18X3/4	
17	88591205	2	O-RING	

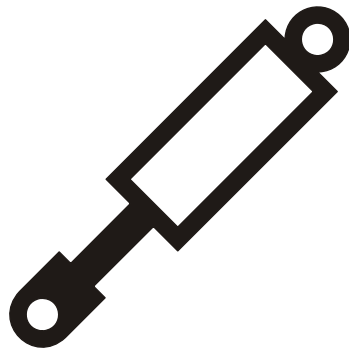


HYDRAULIC CIRCUITS

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SECTION 9

HYDRAULIC COMPONENTS

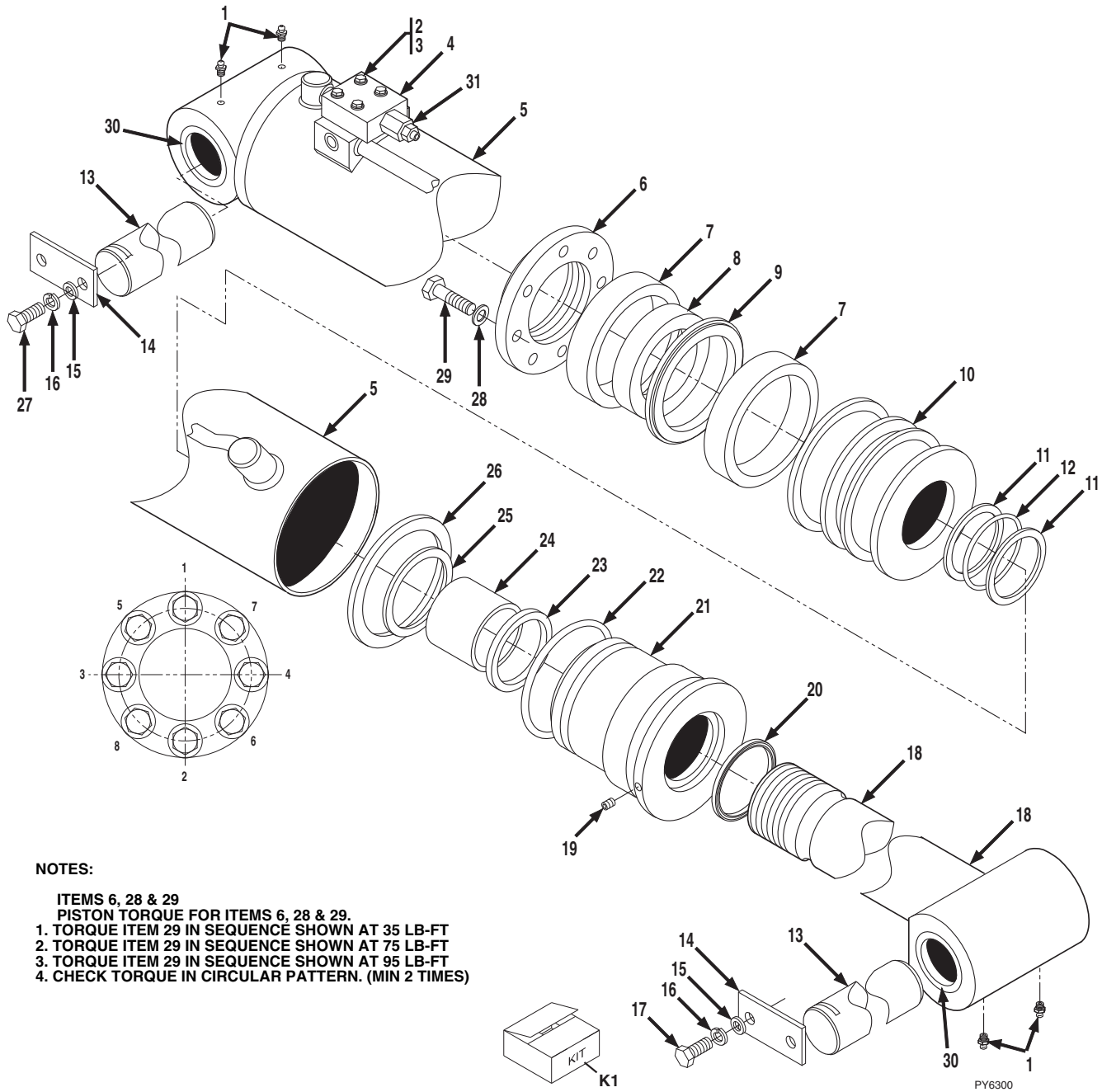




HYDRAULIC COMPONENTS

S/N 0189001 thru 0189345 &
0160000230 thru 0160005398

Figure 9-1 Lift Cylinder



NOTES:

ITEMS 6, 28 & 29

PISTON TORQUE FOR ITEMS 6, 28 & 29.

1. TORQUE ITEM 29 IN SEQUENCE SHOWN AT 35 LB-FT
2. TORQUE ITEM 29 IN SEQUENCE SHOWN AT 75 LB-FT
3. TORQUE ITEM 29 IN SEQUENCE SHOWN AT 95 LB-FT
4. CHECK TORQUE IN CIRCULAR PATTERN. (MIN 2 TIMES)

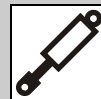
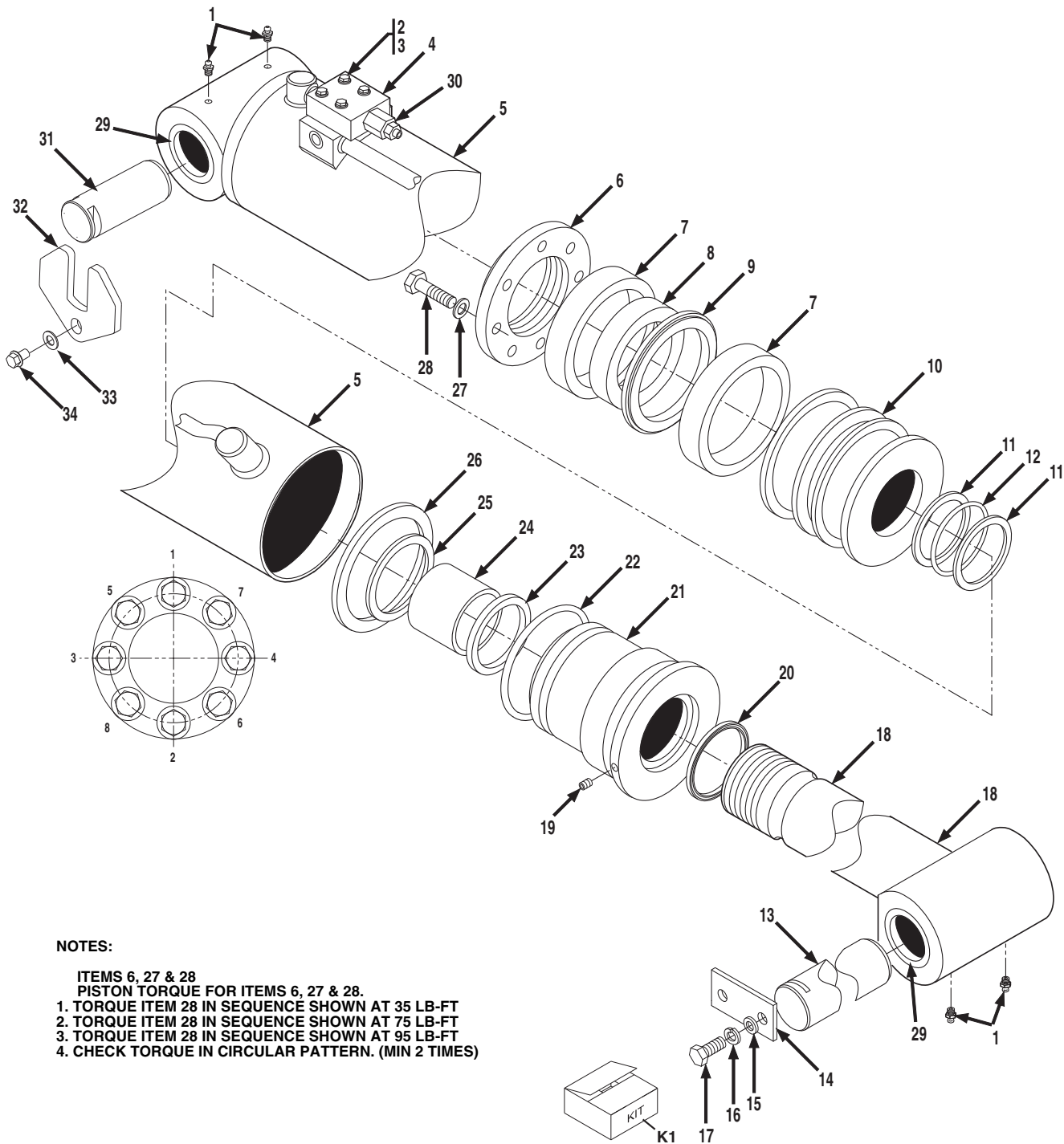


Figure 9-1 Lift Cylinder

Item	Part Number	Qty.	Description	Rev.
	91403009	1	LIFT CYLINDER, (includes all items except items 13 thru 17 & 27)	F
1	91144128	4	GREASE FITTING	
2	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
3	91404152	4	LOCKWASHER	
4	91404138	1	VALVE BLOCK, (includes item 31)	
5	91404133	1	CASE ASSY	
6	91404137	1	BOLT PLATE	
7	Use Kit K1	2	WEAR RING	
8	91404136	1	SPLIT RING	
9	Use Kit K1	1	PISTON SEAL	
10	91404134	1	PISTON	
11	Use Kit K1	2	BACK-UP RING	
12	Use Kit K1	1	O-RING	
13	91403027	2	PIN	
14	91401189	2	KEEPER	
15	88561111	4	WASHER, 1/2	
16	88551013	4	LOCKWASHER, 1/2	
17	88211105	2	SOCKET HD CAPSCREW, 1/2-13X1, GR8	
18	91404139	1	SHAFT ASSY	
19	91124096	1	SET SCREW, (torque to 11 lb-ft)	
20	Use Kit K1	1	CANNED WIPER	
21	91404135	1	HEAD, (torque to 100 lb-ft)	
22	Use Kit K1	1	O-RING	
23	Use Kit K1	1	ROD SEAL	
24	Use Kit K1	1	WEAR RING	
25	Use Kit K1	1	STEP SEAL	
26	Use Kit K1	1	U-CUP	
27	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
28	91404131	8	WASHER	
29	91404151	8	CAPSCREW, (see service note for torque specifications)	
30	91404288	4	BUSHING	
31	1001109225	1	VALVE, (torque to 44 lb-ft)	
	91404382	1	SEAL KIT	
K1	91404140	1	SEAL KIT, (includes items 7, 9, 11, 12, 20 & 22 thru 26)	



Figure 9-1 Lift Cylinder



HYDRAULIC COMPONENTS**Figure 9-1 Lift Cylinder**

Item	Part Number	Qty.	Description	Rev.
	91403009	1	LIFT CYLINDER, (includes all items except items 13 thru 17 & 31 thru 34)	G
1	91144128	4	GREASE FITTING	
2	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
3	91404152	4	LOCKWASHER	
4	91404138	1	VALVE BLOCK, (includes item 30)	
5	91404133	1	CASE ASSY	
6	91404137	1	BOLT PLATE	
7	Use Kit K1	2	WEAR RING	
8	91404136	1	SPLIT RING	
9	Use Kit K1	1	PISTON SEAL	
10	91404134	1	PISTON	
11	Use Kit K1	2	BACK-UP RING	
12	Use Kit K1	1	O-RING	
13	91403027	1	PIN	
14	91401189	1	KEEPER	
15	88561111	2	WASHER, 1/2	
16	88551013	2	LOCKWASHER, 1/2	
17	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
18	91404139	1	SHAFT ASSY	
19	91124096	1	SET SCREW, (torque to 11 lb-ft)	
20	Use Kit K1	1	CANNED WIPER	
21	91404135	1	HEAD, (torque to 100 lb-ft)	
22	Use Kit K1	1	O-RING	
23	Use Kit K1	1	ROD SEAL	
24	Use Kit K1	1	WEAR RING	
25	Use Kit K1	1	STEP SEAL	
26	Use Kit K1	1	U-CUP	
27	91404131	8	WASHER	
28	91404151	8	CAPSCREW, (see service note for torque specifications)	
29	91404288	4	BUSHING	
30	1001109225	1	VALVE, (torque to 44 lb-ft)	
	91404382	1	SEAL KIT	
31	91473233	1	PIN	
32	91471240	1	KEEPER PLATE	
33	4891800	1	HARD WASHER, 1/2	
34	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8, (torque to 100-110 lb-ft)	
K1	91404140	1	SEAL KIT, (includes items 7, 9, 11, 12, 20 & 22 thru 26)	



HYDRAULIC COMPONENTS

S/N 0160007751 thru 0160010472

Figure 9-1 Lift Cylinder

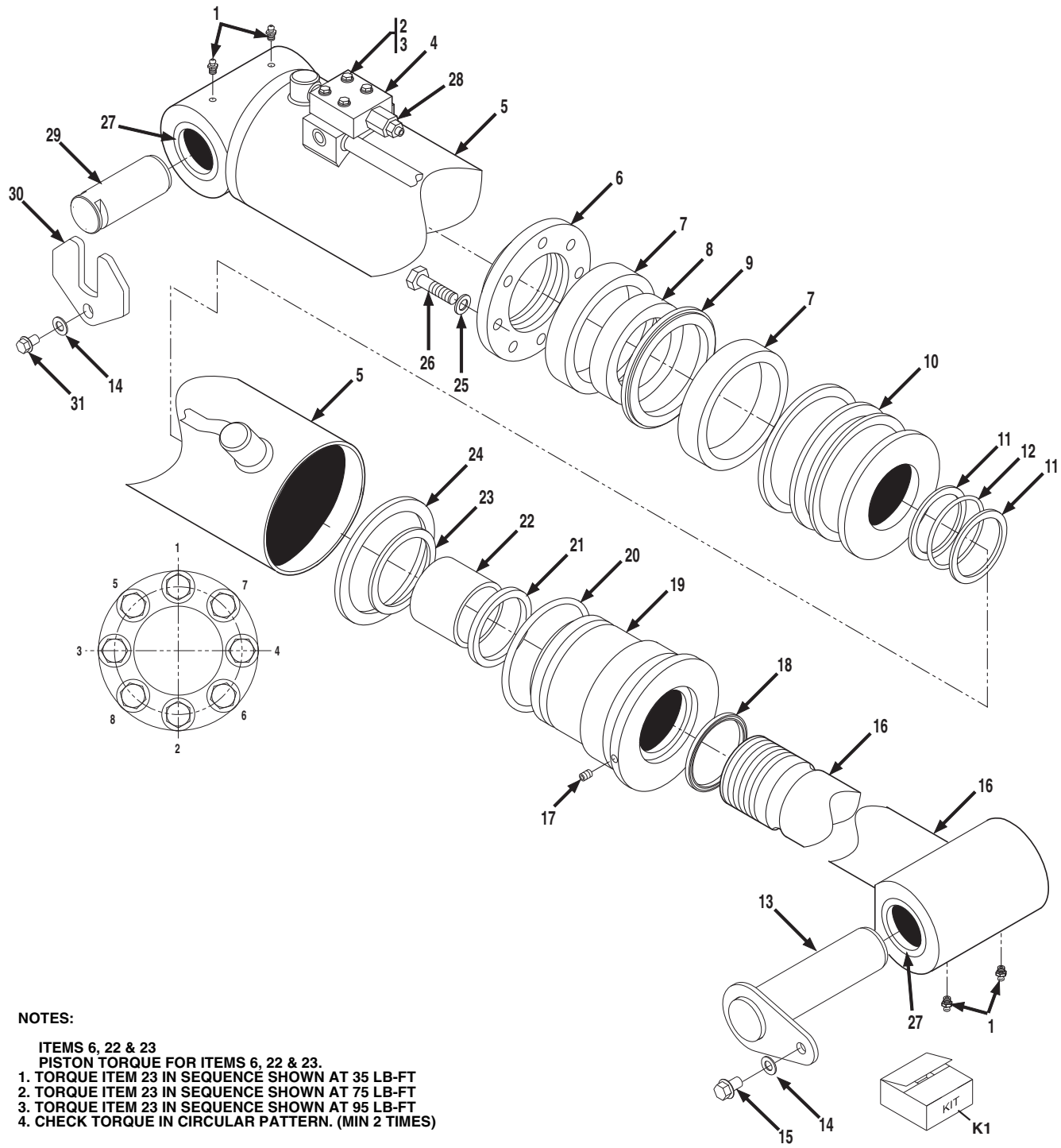


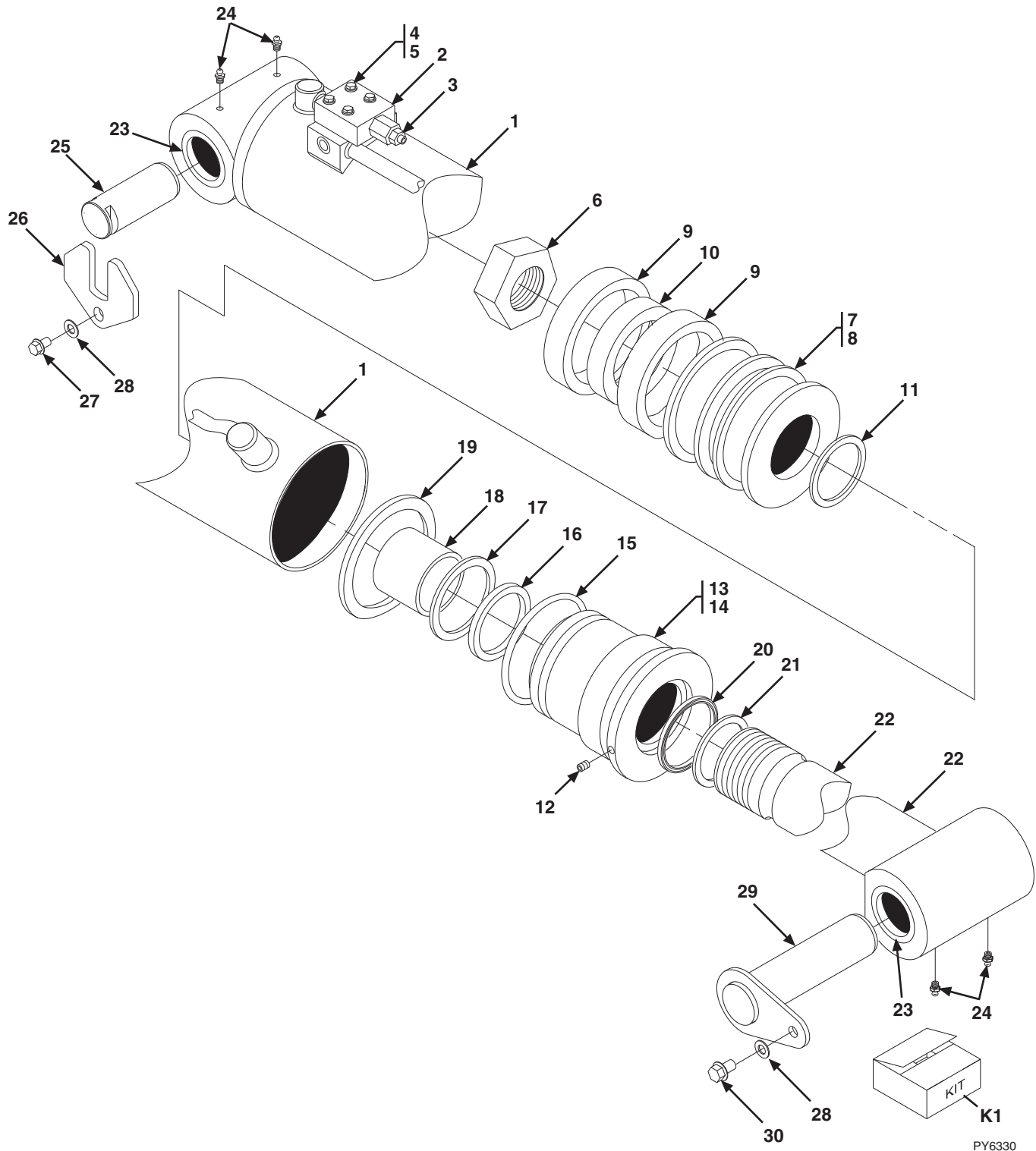


Figure 9-1 Lift Cylinder

Item	Part Number	Qty.	Description	Rev.
	91403009	1	LIFT CYLINDER, (includes all items except items 13 thru 15 & 29 thru 31)	H
1	91144128	4	GREASE FITTING	
2	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
3	91404152	4	LOCKWASHER	
4	91404138	1	VALVE BLOCK, (includes item 28)	
5	91404133	1	CASE ASSY	
6	91404137	1	BOLT PLATE	
7	Use Kit K1	2	WEAR RING	
8	91404136	1	SPLIT RING	
9	Use Kit K1	1	PISTON SEAL	
10	91404134	1	PISTON	
11	Use Kit K1	2	BACK-UP RING	
12	Use Kit K1	1	O-RING	
13	1001101703	1	PIN	
14	4891800	2	HARD WASHER, 1/2	
15	88201066	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5, (torque to 100 lb-ft)	
16	91404139	1	SHAFT ASSY	
17	91124096	1	SET SCREW, (torque to 11 lb-ft)	
18	Use Kit K1	1	CANNED WIPER	
19	91404135	1	HEAD, (torque to 100 lb-ft)	
20	Use Kit K1	1	O-RING	
21	Use Kit K1	1	ROD SEAL	
22	Use Kit K1	1	WEAR RING	
23	Use Kit K1	1	STEP SEAL	
24	Use Kit K1	1	U-CUP	
25	91404131	8	WASHER	
26	91404151	8	CAPSCREW, (see service note for torque specifications)	
27	91404288	4	BUSHING	
28	1001109225	1	VALVE, (torque to 44 lb-ft)	
	91404382	1	SEAL KIT	
29	91473233	1	PIN	
30	91471240	1	KEEPER PLATE	
31	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8, (torque to 100-110 lb-ft)	
K1	91404140	1	SEAL KIT, (includes items 7, 9, 11, 12, 18 & 20 thru 24)	



Figure 9-1 Lift Cylinder



**Figure 9-1 Lift Cylinder**

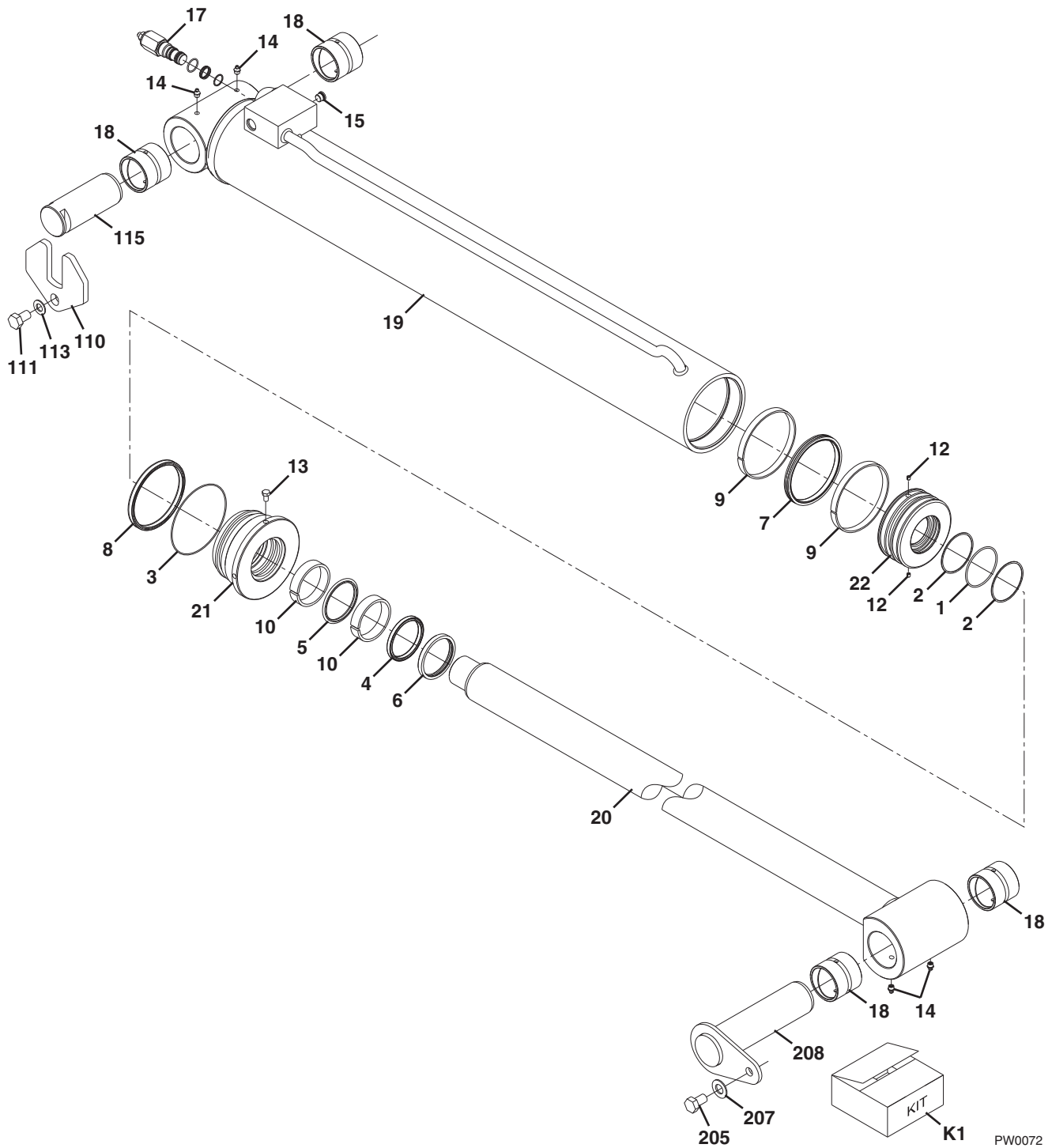
Item	Part Number	Qty.	Description	Rev.
	91413158	1	LIFT CYLINDER, (includes items 1 thru 24)	B
1	91404133	1	CASE ASSY	
2	91404138	1	VALVE BLOCK ASSY, (includes item 3)	
3	1001109225	1	VALVE, (torque to 44 lb-ft)	
	91404382	1	SEAL KIT	
4	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
5	91404152	4	LOCKWASHER	
6	91034153	1	LOCKNUT	
7	91414065	1	PISTON ASSY, (includes items 8 thru 11)	
8	91414066	1	PISTON	
9	Use Kit K1	2	WEAR RING	
10	Use Kit K1	1	CAP SEAL	
11	Use Kit K1	1	O-RING	
12	91124096	1	SET SCREW	
13	91414067	1	HEAD ASSY, (includes items 14 thru 20)	
14	91404135	1	HEAD	
15	Use Kit K1	1	O-RING	
16	Use Kit K1	1	ROD SEAL	
17	Use Kit K1	1	STEP SEAL	
18	Use Kit K1	1	WEAR RING	
19	Use Kit K1	1	U-CUP	
20	Use Kit K1	1	CANNED WIPER	
21	7026458	1	O-RING	
22	91414068	1	SHAFT ASSY	
23	91404288	4	BUSHING	
24	91144128	4	GREASE FITTING	
25	91473233	1	LOWER LIFT CYLINDER PIN	
26	91471240	1	KEEPER PLATE	
27	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8, (torque to 100-110 lb-ft)	
28	4891800	2	HARD WASHER, 1/2	
29	1001101703	1	UPPER LIFT CYLINDER PIN	
30	88201066	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5, (torque to 100-110 lb-ft)	
K1	91414069	1	SEAL KIT, (includes items 9 thru 11 & 15 thru 20)	



HYDRAULIC COMPONENTS

S/N 0160033805 & After

Figure 9-1 Lift Cylinder



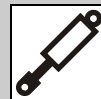


Figure 9-1 Lift Cylinder

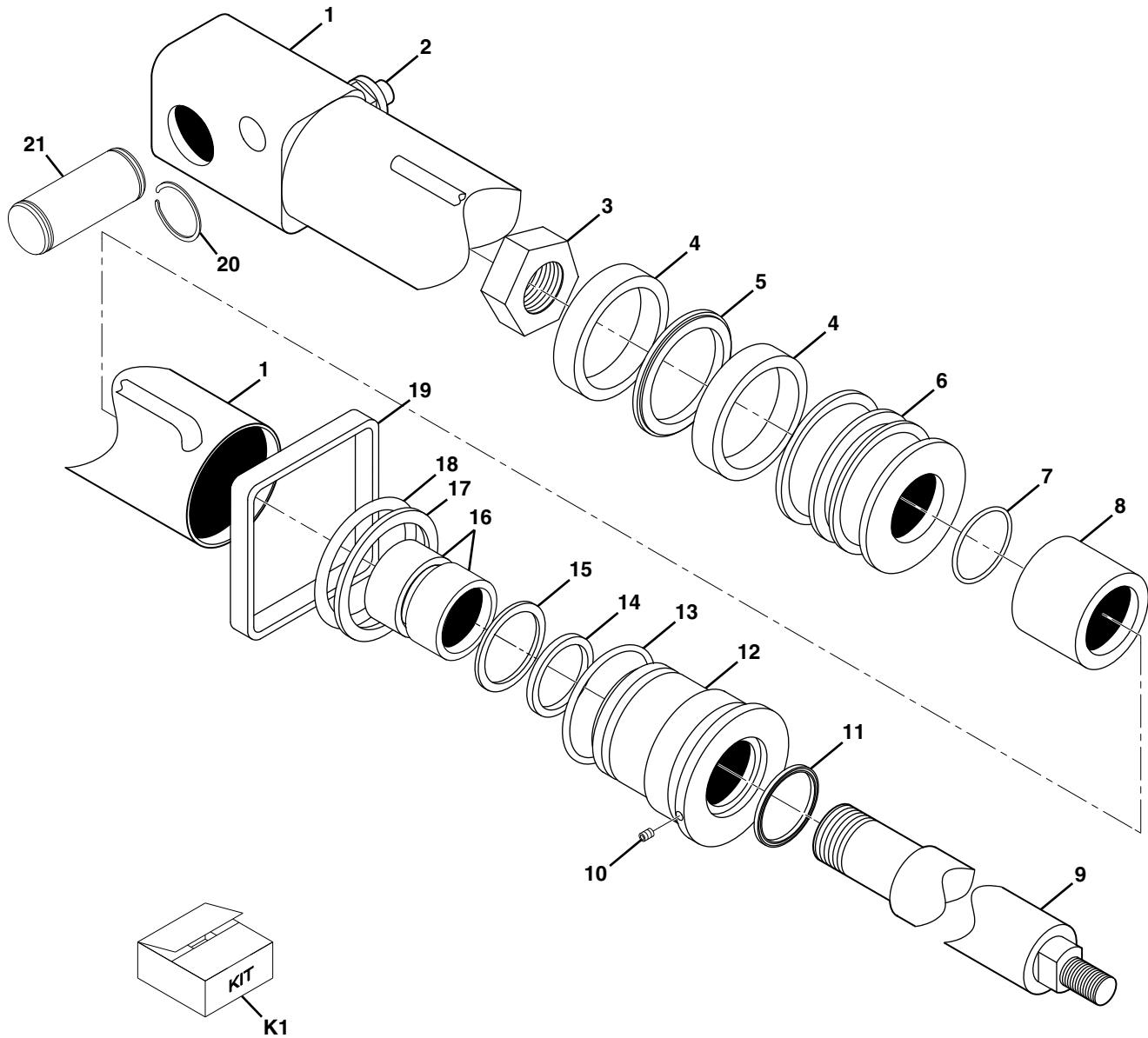
Item	Part Number	Qty.	Description	Rev.
	91413155	1	LIFT CYLINDER, (S/N 0160033805 thru 0160036159), (includes items 1 thru 22)	C
	1001101280	1	LIFT CYLINDER, (S/N 0160036529 & After), (includes items 1 thru 22)	D
1	Use Kit K1	1	O-RING	
2	Use Kit K1	2	BACK-UP RING	
3	Use Kit K1	1	O-RING	
4	Use Kit K1	1	SEAL	
5	Use Kit K1	1	SEAL	
6	Use Kit K1	1	WIPER	
7	Use Kit K1	1	SEAL	
8	Use Kit K1	1	SEAL	
9	Use Kit K1	2	WEAR RING	
10	Use Kit K1	2	WEAR RING	
12	70021757	2	SET SCREW	
13	70021630	1	SELF-TAPPING SCREW	
14	7003242	4	LUBE FITTING	
15	20021648	1	PORT PLUG	
17	1001109225	1	VALVE	
	91404382	1	SEAL KIT	
18	70021756	4	BUSHING	
19	70021755	1	TUBE ASSY, (S/N 0160033805 thru 0160036159), (70021755 is no longer available, replace with both 70021957 head & 70021958 tube assy)	
	70021958	1	TUBE ASSY, (S/N 0160036529 & After)	
20	70021754	1	ROD ASSY	
21	70021753	1	HEAD, (S/N 0160033805 thru 0160036159), (70021753 is no longer available, replace with both 70021957 head & 70021958 tube assy)	
	70021957	1	HEAD, (S/N 0160036529 & After)	
22	70021752	1	PISTON	
110	91471240	1	KEEPER PLATE	
111	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
113	4891800	1	HARD WASHER, 1/2	
115	91473233	1	LIFT CYLINDER PIN	
205	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
207	4891800	1	HARD WASHER, 1/2	
208	1001101703	1	LIFT CYLINDER PIN	
K1	70021758	1	SEAL KIT, (includes items 1 thru 10)	



HYDRAULIC COMPONENTS

S/N 0189001 thru 0189345
& 0160000230 thru 0160033603

Figure 9-2 Crowd Cylinder - Iowa



PAP23610

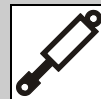


Figure 9-2 Crowd Cylinder - Iowa

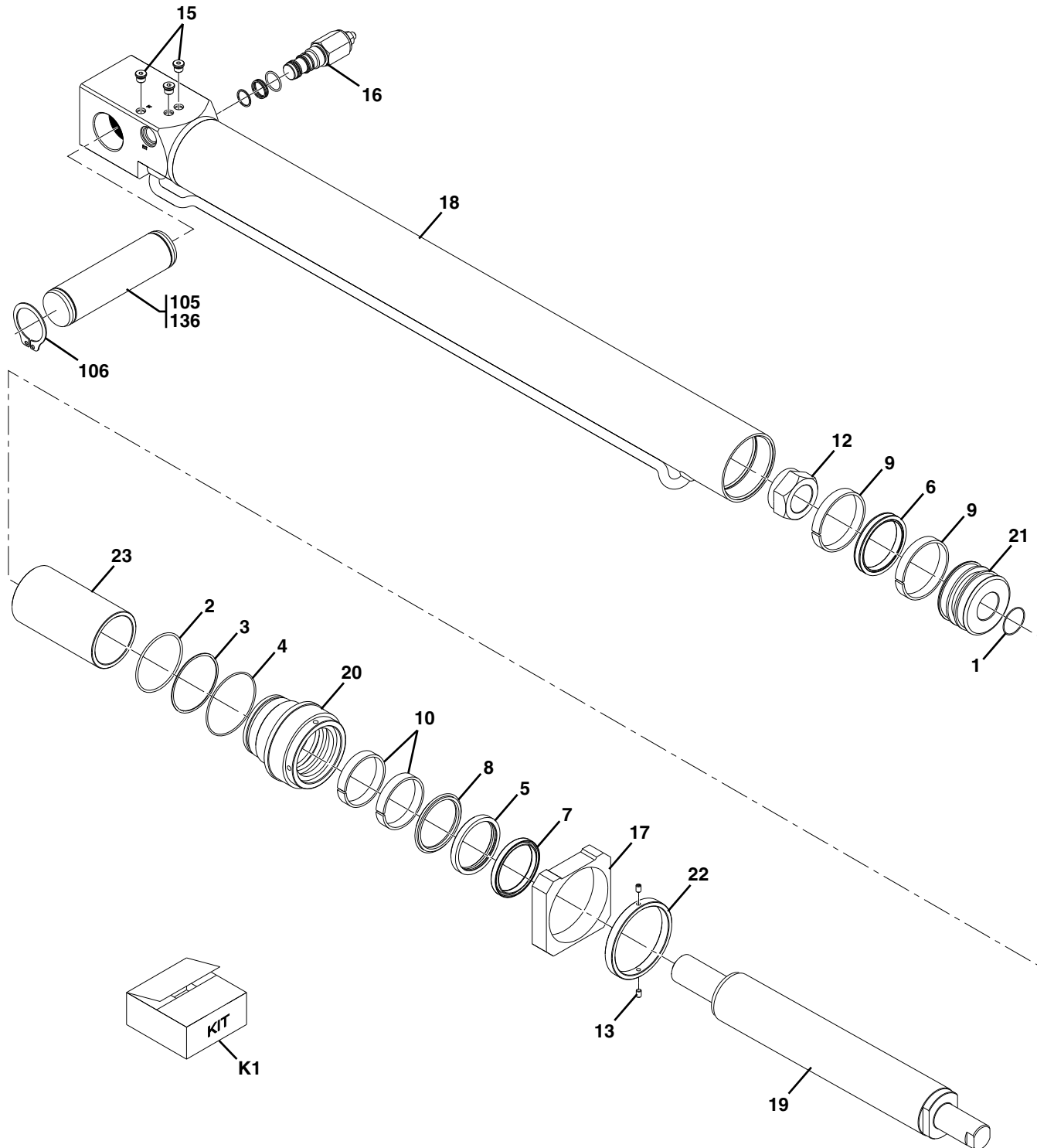
Item	Part Number	Qty.	Description	Rev.
	91403006	1	CROWD CYLINDER, (includes all items 1 thru 19)	G
1	91404112	1	CASE ASSY	
2	1001109225	1	VALVE, (torque to 40-45 lb-ft)	
	91404382	1	SEAL KIT	
3	91034267	1	LOCKNUT, (torque to 600-650 lb-ft)	
4	Use Kit K1	2	WEAR RING	
5	Use Kit K1	1	PISTON SEAL	
6	70020494	1	PISTON ASSY, (includes items 4, 5 & 7)	
7	Use Kit K1	1	O-RING	
8	91404113	1	SPACER	
9	91404114	1	SHAFT	
10	91404130	1	SET SCREW, (torque to 11 lb-ft)	
11	Use Kit K1	1	CANNED WIPER	
12	70020495	1	HEAD ASSY, (includes items 11 & 13 thru 18), (torque to 100 lb-ft)	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	U-CUP	
15	Use Kit K1	1	STEP SEAL	
16	Use Kit K1	2	WEAR RING	
17	Use Kit K1	1	BACK-UP RING	
18	Use Kit K1	1	O-RING	
19	91409117	1	WEAR BAND	
20	88581149	2	RETAINING RING	
21	91403022	1	CROWD CYLINDER PIN	
K1	70020432	1	SEAL KIT, (includes items 4, 5, 7, 11 & 13 thru 18)	



HYDRAULIC COMPONENTS

S/N 0160033805 & After

Figure 9-2 Crowd Cylinder - Texas Hydraulics



PAP23620



Figure 9-2 Crowd Cylinder - Texas Hydraulics

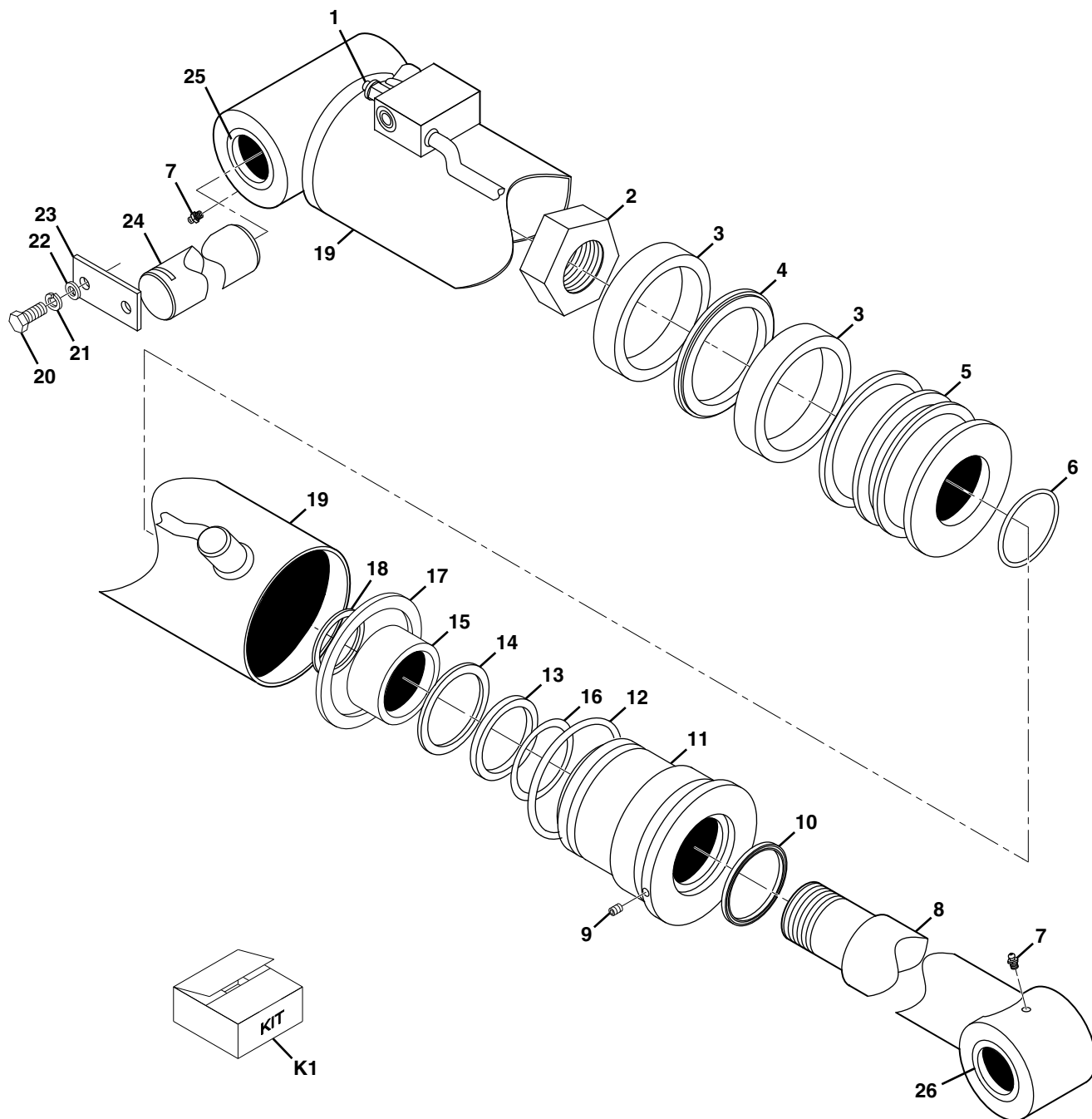
Item	Part Number	Qty.	Description	Rev.
	91473230	1	CROWD CYLINDER, (includes items 1 thru 23)	B
1	Use Kit K1	1	O-RING	
2	Use Kit K1	1	O-RING	
3	Use Kit K1	1	BACK-UP RING	
4	Use Kit K1	1	O-RING	
5	Use Kit K1	1	SEAL	
6	Use Kit K1	1	SEAL	
7	Use Kit K1	1	WIPER	
8	Use Kit K1	1	SEAL	
9	Use Kit K1	2	WEAR RING	
10	Use Kit K1	2	WEAR RING	
12	7003226	1	LOCKNUT	
13	70021774	2	SET SCREW	
15	7005365	3	PORT PLUG	
16	1001109225	1	COUNTERBALANCE VALVE	
	91404382	1	SEAL KIT	
17	70021772	1	WEAR PAD	
18	70021771	1	TUBE ASSY	
19	70021770	1	ROD	
20	70021769	1	HEAD	
21	70021768	1	PISTON	
22	70021767	1	COLLAR	
23	70021766	1	SPACER	
105	91403022	1	CYLINDER PIN	
106	88581149	2	RETAINING RING	
136	14403323	AR	NEVER SEEZE LUBE	
K1	70021775	1	SEAL KIT, (includes items 1 thru 10)	



HYDRAULIC COMPONENTS

S/N 0189001 thru 0189345
& 0160000230 thru 0160033603

Figure 9-3 Tilt Cylinder - Iowa



NOTE:

FOR ROD END PIN, SEE FIGURE 2-8.

PAP23590

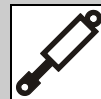


Figure 9-3 Tilt Cylinder - Iowa

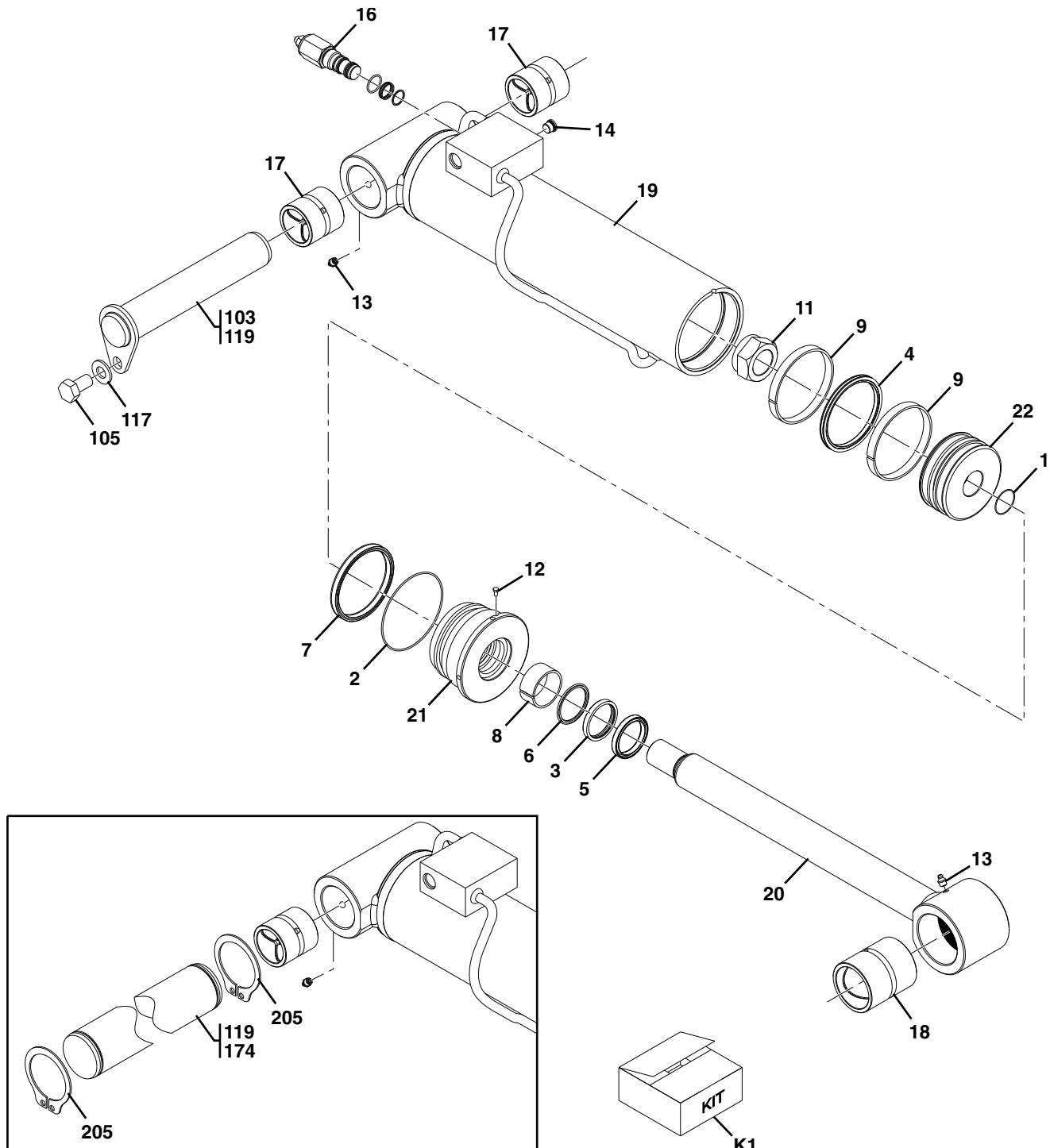
Item	Part Number	Qty.	Description	Rev.
	91403008	1	TILT CYLINDER, (includes all items except items 20 thru 24)	J
1	1001109225	1	VALVE, (torque to 45-50 lb-ft)	
	91404382	1	SEAL KIT	
2	91034267	1	LOCKNUT, (torque to 1250-1300 lb-ft)	
3	Use Kit K1	2	WEAR RING	
4	Use Kit K1	1	PISTON SEAL	
5	91404153	1	PISTON	
6	Use Kit K1	1	O-RING	
7	91144128	3	GREASE FITTING	
8	91404156	1	SHAFT ASSY	
9	91124096	1	SET SCREW, (torque to 11 lb-ft)	
10	Use Kit K1	1	CANNED WIPER	
11	91404154	1	HEAD, (torque to 200 lb-ft)	
12	Use Kit K1	1	O-RING	
13	Use Kit K1	1	U-CUP SEAL	
14	Use Kit K1	1	STEP SEAL	
15	Use Kit K1	1	WEAR RING	
16	Use Kit K1	1	BACK-UP RING	
17	Use Kit K1	1	U-CUP	
18	91084372	1	RETAINING RING	
19	91404155	1	CASE ASSY	
20	88201064	2	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
21	88551013	2	LOCKWASHER, 1/2	
22	88561111	2	WASHER, 1/2	
23	91401189	1	KEEPER	
24	91403021	1	TILT CYLINDER PIN	
25	91404286	2	BUSHING, (manganese phosphate coating)	
26	91404287	1	BUSHING, (manganese phosphate coating)	
K1	91404157	1	SEAL KIT, (includes items 3, 4, 6, 10 & 12 thru 17)	



HYDRAULIC COMPONENTS

S/N 0160033805 & After

Figure 9-3 Tilt Cylinder - Texas Hydraulics



S/N 0160037689 & AFTER

PAP23600

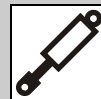


Figure 9-3 Tilt Cylinder - Texas Hydraulics

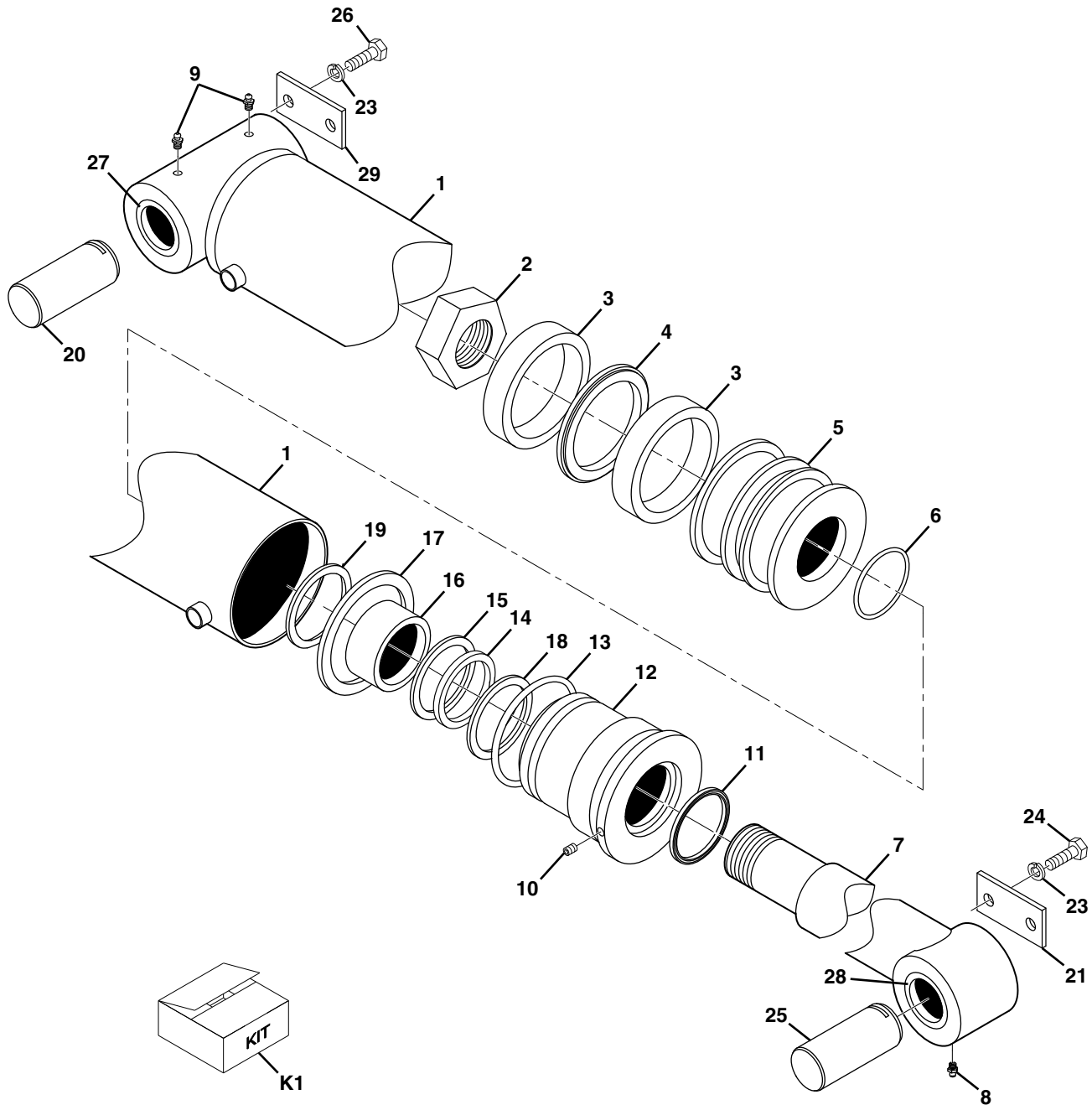
Item	Part Number	Qty.	Description	Rev.
	91413156	1	TILT CYLINDER, (includes items 1 thru 22)	A
1	Use Kit K1	1	O-RING	
2	Use Kit K1	1	O-RING	
3	Use Kit K1	1	SEAL	
4	Use Kit K1	1	SEAL	
5	Use Kit K1	1	WIPER	
6	Use Kit K1	1	SEAL	
7	Use Kit K1	1	SEAL	
8	Use Kit K1	1	WEAR RING	
9	Use Kit K1	2	WEAR RING	
11	7003226	1	LOCKNUT	
12	70021630	1	SELF-TAPPING SCREW	
13	7003242	3	LUBE FITTING	
14	70021648	1	PORT PLUG	
16	1001109225	1	COUNTERBALANCE VALVE	
	91404382	1	SEAL KIT	
17	70021763	2	BUSHING	
18	70021765	1	BUSHING	
19	70021762	1	TUBE ASSY	
20	70021761	1	ROD ASSY	
21	70021760	1	HEAD	
22	70021759	1	PISTON	
103	91473234	1	CYLINDER PIN, (Before S/N 0160037689)	
105	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
117	4891800	1	WASHER, 1/2	
119	14403323	AR	NEVER SEEZE LUBE	
174	1001098223	1	CYLINDER PIN, (S/N 0160037689 & After)	
205	88581149	2	RETAINING RING, (S/N 0160037689 & After)	
217	8307904	AR	WASHER, SHIM, (not shown), (S/N 0160037689 & After)	
218	8310093	AR	WASHER, SHIM, (not shown), (S/N 0160037689 & After)	
219	8307918	AR	WASHER, SHIM, (not shown), (S/N 0160037689 & After)	
K1	70021764	1	SEAL KIT, (includes items 1 thru 9)	



HYDRAULIC COMPONENTS

S/N 0189001 thru 0189345 &
0160000230 thru 0160007625

Figure 9-4 Compensating Cylinder



PAP23680

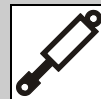
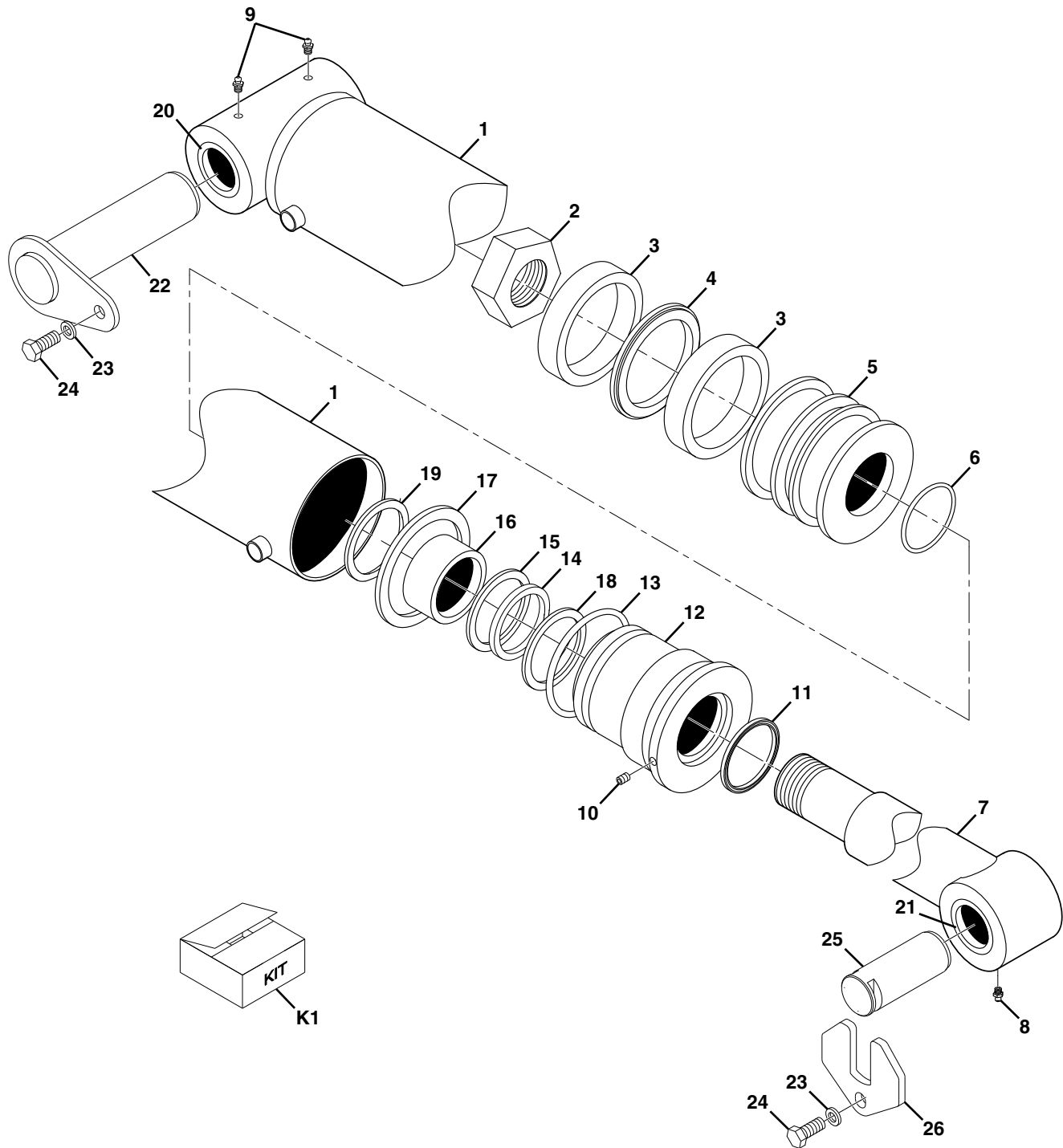


Figure 9-4 Compensating Cylinder

Item	Part Number	Qty.	Description	Rev.
	91403585	1	COMPENSATING CYLINDER, (includes all items except items 20 thru 26 & 29)	
1	91404204	1	CASE ASSY	
2	91034267	1	LOCKNUT, (torque to 1250-1300 lb-ft)	
3	Use Kit K1	2	WEAR RING	
4	Use Kit K1	1	PISTON SEAL	
5	91404153	1	PISTON	
6	Use Kit K1	1	O-RING	
7	91404205	1	SHAFT ASSY	
8	91144128	1	GREASE FITTING	
9	91404203	2	GREASE FITTING	
10	91124096	1	SET SCREW	
11	Use Kit K1	1	CANNED WIPER	
12	91404154	1	HEAD, (torque to 200 lb-ft)	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	U-CUP SEAL	
15	Use Kit K1	1	STEP SEAL	
16	Use Kit K1	1	WEAR RING	
17	Use Kit K1	1	U-CUP	
18	Use Kit K1	1	O-RING	
19	Use Kit K1	1	RETAINING RING	
20	91403108	1	PIN	
21	91401189	1	KEEPER	
23	88551013	4	LOCKWASHER, 1/2	
24	88211105	2	SOCKET HD CAPSCREW, 1/2-13X1, GR8	
25	91403026	1	PIN	
26	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
27	91404286	2	BUSHING, (manganese phosphate coating)	
28	91404287	1	BUSHING, (manganese phosphate coating)	
29	91401529	1	KEEPER	
K1	91404206	1	SEAL KIT, (includes items 3, 4, 6, 11 & 13 thru 19)	



Figure 9-4 Compensating Cylinder



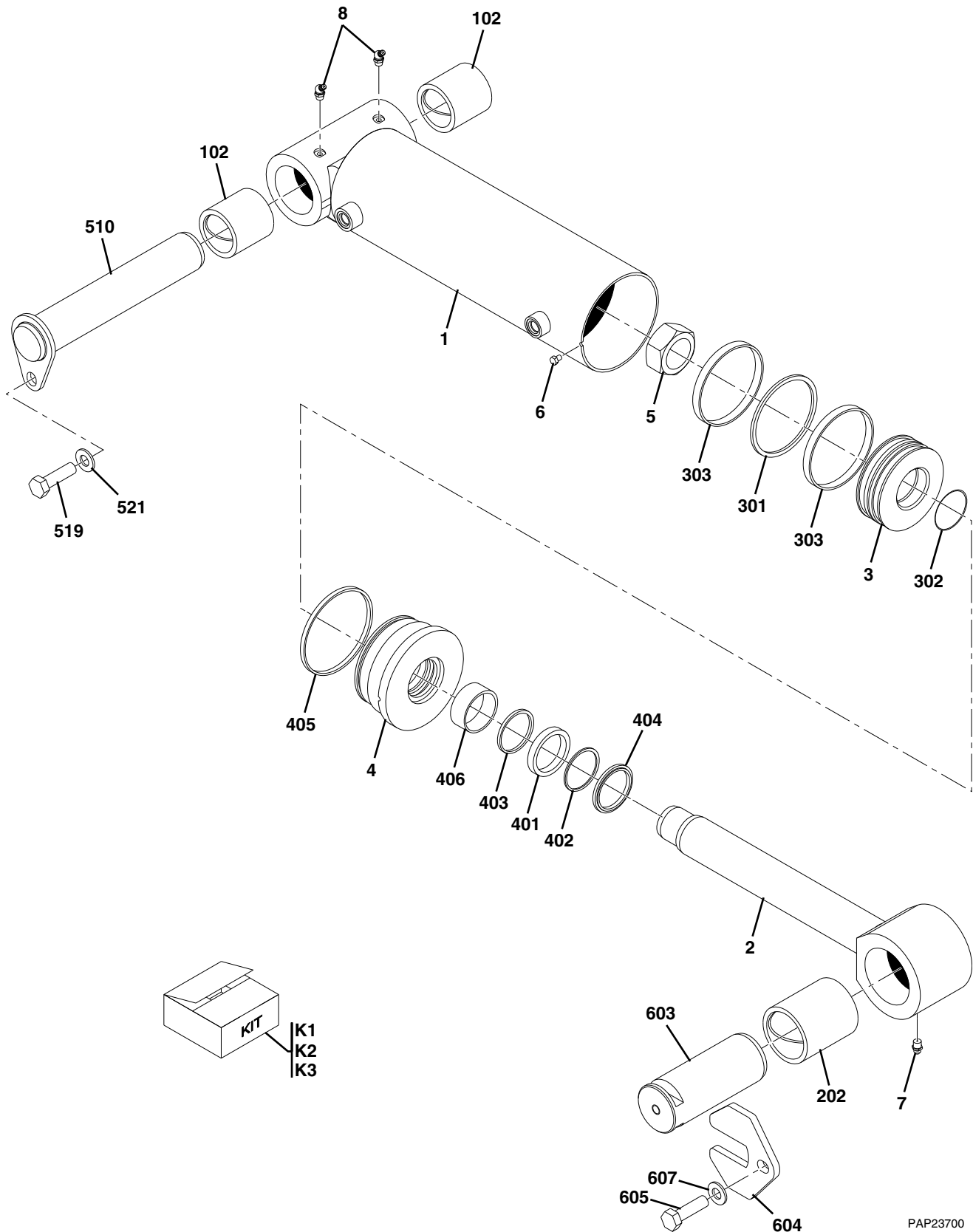
PAP23690

**Figure 9-4 Compensating Cylinder**

Item	Part Number	Qty.	Description	Rev.
	91403585	1	COMPENSATING CYLINDER, (includes items 1 thru 21)	C
1	91404204	1	CASE ASSY	
2	91034267	1	LOCKNUT, (torque to 1250-1300 lb-ft)	
3	Use Kit K1	2	WEAR RING	
4	Use Kit K1	1	PISTON SEAL	
5	91404153	1	PISTON	
6	Use Kit K1	1	O-RING	
7	91404205	1	SHAFT ASSY	
8	91144128	1	GREASE FITTING	
9	91404203	2	GREASE FITTING	
10	91124096	1	SET SCREW	
11	Use Kit K1	1	CANNED WIPER	
12	91404154	1	HEAD, (torque to 200 lb-ft)	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	U-CUP SEAL	
15	Use Kit K1	1	STEP SEAL	
16	Use Kit K1	1	WEAR RING	
17	Use Kit K1	1	U-CUP	
18	Use Kit K1	1	O-RING	
19	Use Kit K1	1	RETAINING RING	
20	91404286	2	BUSHING, (manganese phosphate coating)	
21	91404287	1	BUSHING, (manganese phosphate coating)	
22	91473235	1	PIN	
23	4891800	2	HARD WASHER, 1/2	
24	0681810	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8, (torque to 100-110 lb-ft)	
25	91513282	1	PIN	
26	91471240	1	KEEPER PLATE	
K1	91404206	1	SEAL KIT, (includes items 3, 4, 6, 11 & 13 thru 19)	



Figure 9-4 Compensating Cylinder



PAP23700

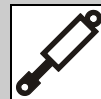


Figure 9-4 Compensating Cylinder

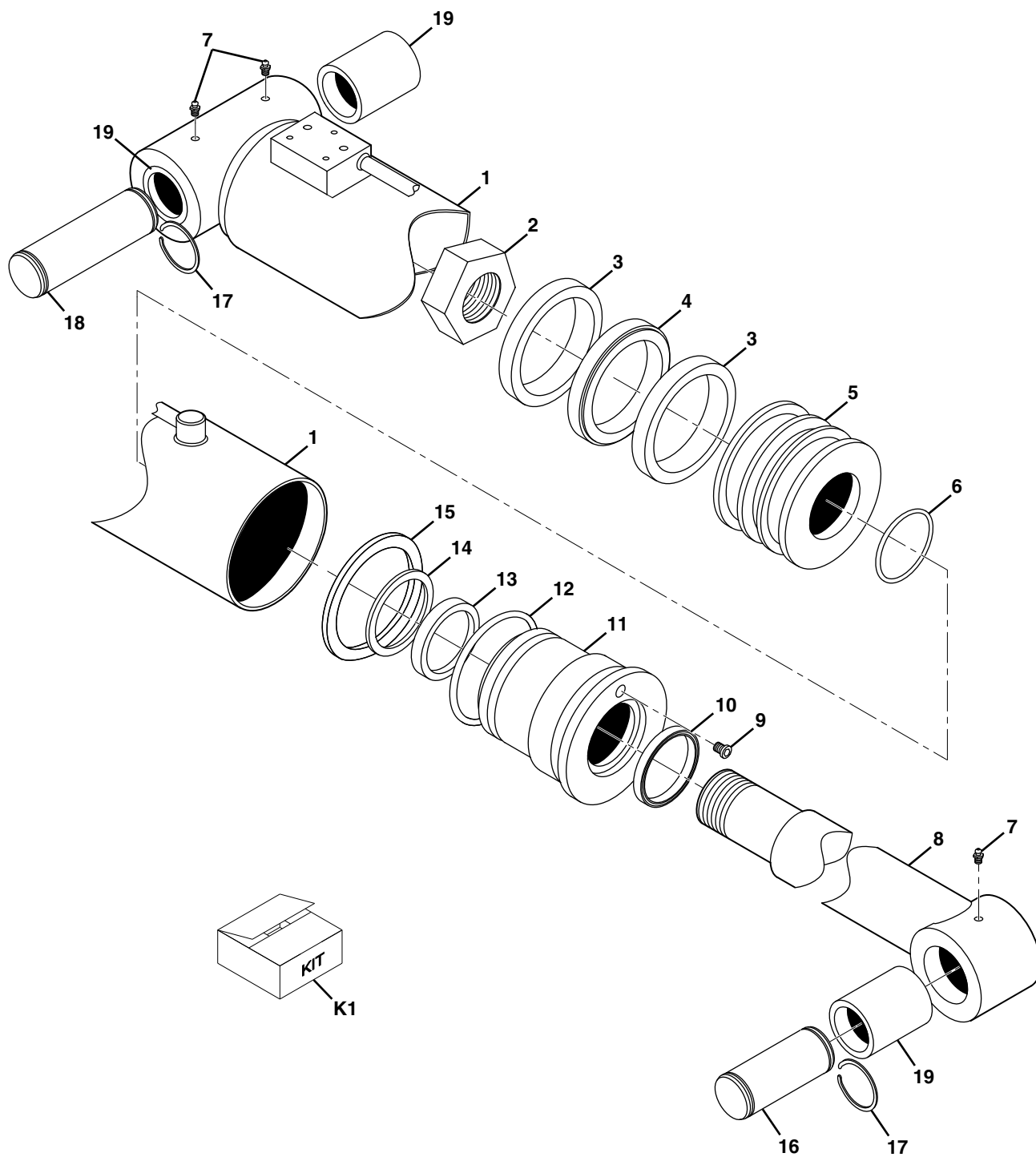
Item	Part Number	Qty.	Description	Rev.
	91413154	1	COMPENSATING CYLINDER, (includes items 1 thru 406)	B
1	7029866	1	BARREL ASSY, (includes item 102)	
2	7029869	1	ROD ASSY, (includes item 202)	
3	7029868	1	PISTON ASSY, (includes items 301 thru 303)	
4	7029870	1	ROD BEARING ASSY, (includes items 401 thru 406)	
5	91014066	1	NUT	
6	7029760	1	CAPSCREW	
7	91044080	1	GREASE FITTING	
8	70021913	2	GREASE FITTING	
102	7029871	2	BUSHING	
202	7029872	1	BUSHING	
301	Use Kit K1 or K3	1	PISTON SEAL	
302	Use Kit K1 or K3	1	O-RING	
303	Use Kit K1 or K3	2	WEAR RING	
401	Use Kit K2 or K3	1	ROD SEAL	
402	Use Kit K2 or K3	1	BACK-UP	
403	Use Kit K2 or K3	1	BUFFER	
404	Use Kit K2 or K3	1	WIPER	
405	Use Kit K2 or K3	1	SEAL	
406	Use Kit K2 or K3	1	WEAR RING	
510	91473234	1	CYLINDER PIN	
519	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
521	4891800	1	HARD WASHER, 1/2	
603	91513282	1	CYLINDER PIN	
604	91471240	1	KEEPER PLATE	
605	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
607	4891800	1	HARD WASHER, 1/2	
K1	7029873	1	PISTON SEAL KIT, (includes items 301 thru 303)	
K2	7029874	1	ROD BEARING SEAL KIT, (includes items 401 thru 406)	
K3	7029821	1	CYLINDER SEAL KIT, (includes items 301 thru 406)	



HYDRAULIC COMPONENTS

S/N 0189001 thru 0189345
& 0160000230 thru 0160033603

Figure 9-5 Sway Cylinder - Iowa



PAP23530

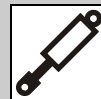


Figure 9-5 Sway Cylinder - Iowa

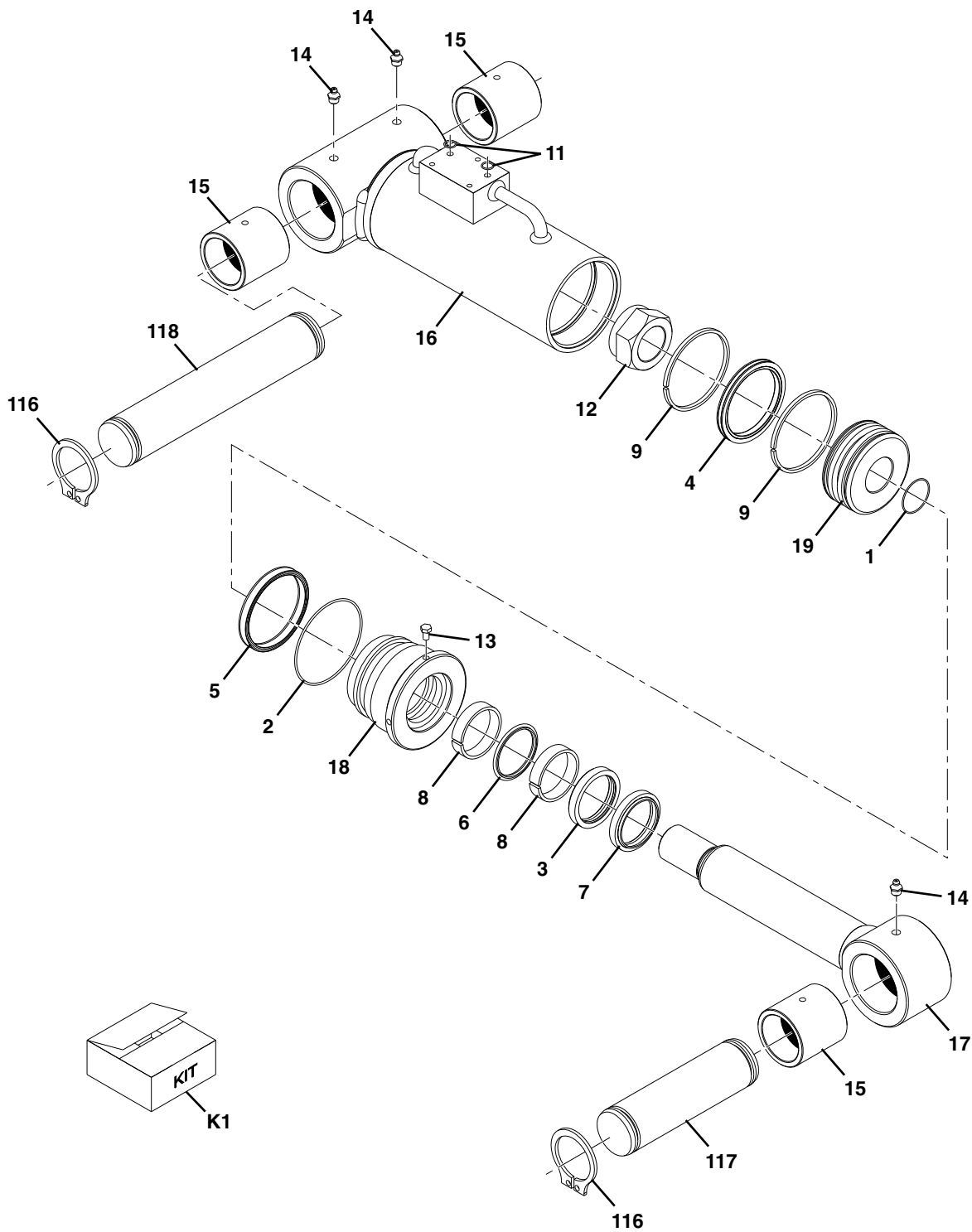
Item	Part Number	Qty.	Description	Rev.
	91403054	1	SWAY CYLINDER, (includes all items except 16, 17 & 18)	F
1	91404168	1	CASE ASSY	
2	91144038	1	LOCKNUT, (torque to 550-600 lb-ft)	
3	Use Kit K1	2	WEAR RING	
4	Use Kit K1	1	PISTON SEAL	
5	91404171	1	PISTON	
6	Use Kit K1	1	O-RING	
7	91144128	3	GREASE FITTING	
8	91404170	1	SHAFT ASSY	
9	91124096	1	SET SCREW, (torque to 11 lb-ft)	
10	Use Kit K1	1	CANNED WIPER	
11	91404169	1	HEAD, (torque to 100 lb-ft)	
12	91404176	1	O-RING	
13	Use Kit K1	1	U-CUP SEAL	
14	Use Kit K1	1	STEP SEAL	
15	Use Kit K1	1	BACK-UP RING	
16	91403225	1	SWAY PIN	
17	90028935	4	RETAINING RING	
18	91403226	1	SWAY CYLINDER PIN	
19	91404352	3	BUSHING	
K1	91404172	1	SEAL KIT, (includes items 3, 4, 6, 10 & 13 thru 15)	



HYDRAULIC COMPONENTS

S/N 0160033805 & After

Figure 9-5 Sway Cylinder - Texas Hydraulics



PAP23520



Figure 9-5 Sway Cylinder - Texas Hydraulics

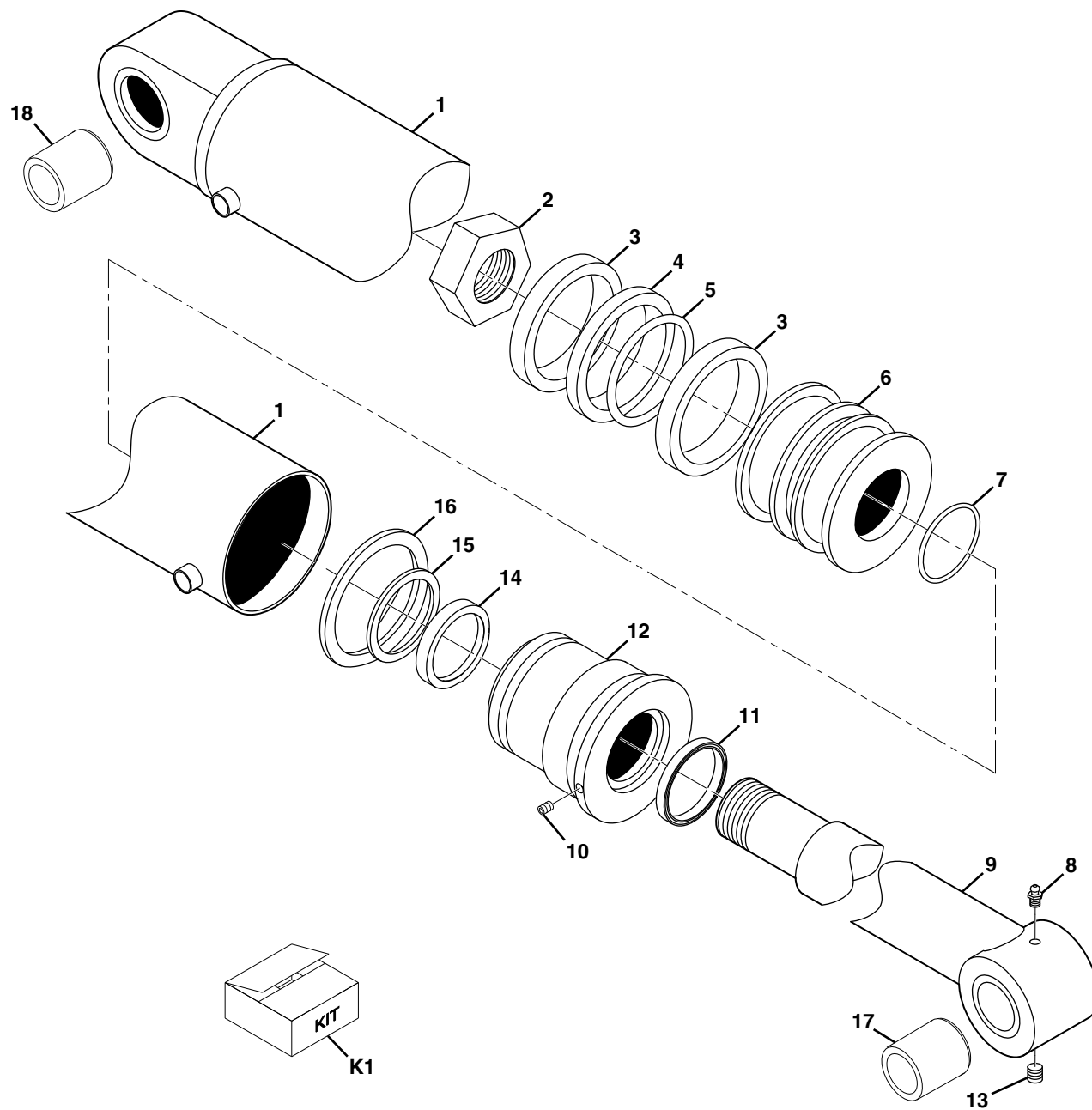
Item	Part Number	Qty.	Description	Rev.
	91413152	1	SWAY CYLINDER, (includes items 1 thru 19)	A
1	Use Kit K1	1	O-RING	
2	Use Kit K1	1	O-RING	
3	Use Kit K1	1	SEAL	
4	Use Kit K1	1	SEAL	
5	Use Kit K1	1	SEAL	
6	Use Kit K1	1	SEAL	
7	Use Kit K1	1	WIPER	
8	Use Kit K1	2	WEAR RING	
9	Use Kit K1	2	WEAR RING	
11	7023500	2	O-RING	
12	7003226	1	LOCKNUT	
13	70021630	1	SELF-TAPPING SCREW	
14	7003242	3	LUBE FITTING	
15	70021634	3	BUSHING	
16	70021744	1	TUBE ASSY	
17	70021743	1	ROD ASSY	
18	70021742	1	HEAD	
19	70021635	1	PISTON	
116	90028935	4	RETAINING RING	
117	91403225	1	SWAY PIN	
118	91403226	1	CYLINDER PIN	
K1	70021633	1	SEAL KIT, (includes items 1 thru 9)	



HYDRAULIC COMPONENTS

S/N 0189001 thru 0189345
& 0160000230 thru 0160033603

Figure 9-6 Steering Cylinder - Iowa



PAP23420

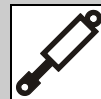


Figure 9-6 Steering Cylinder - Iowa

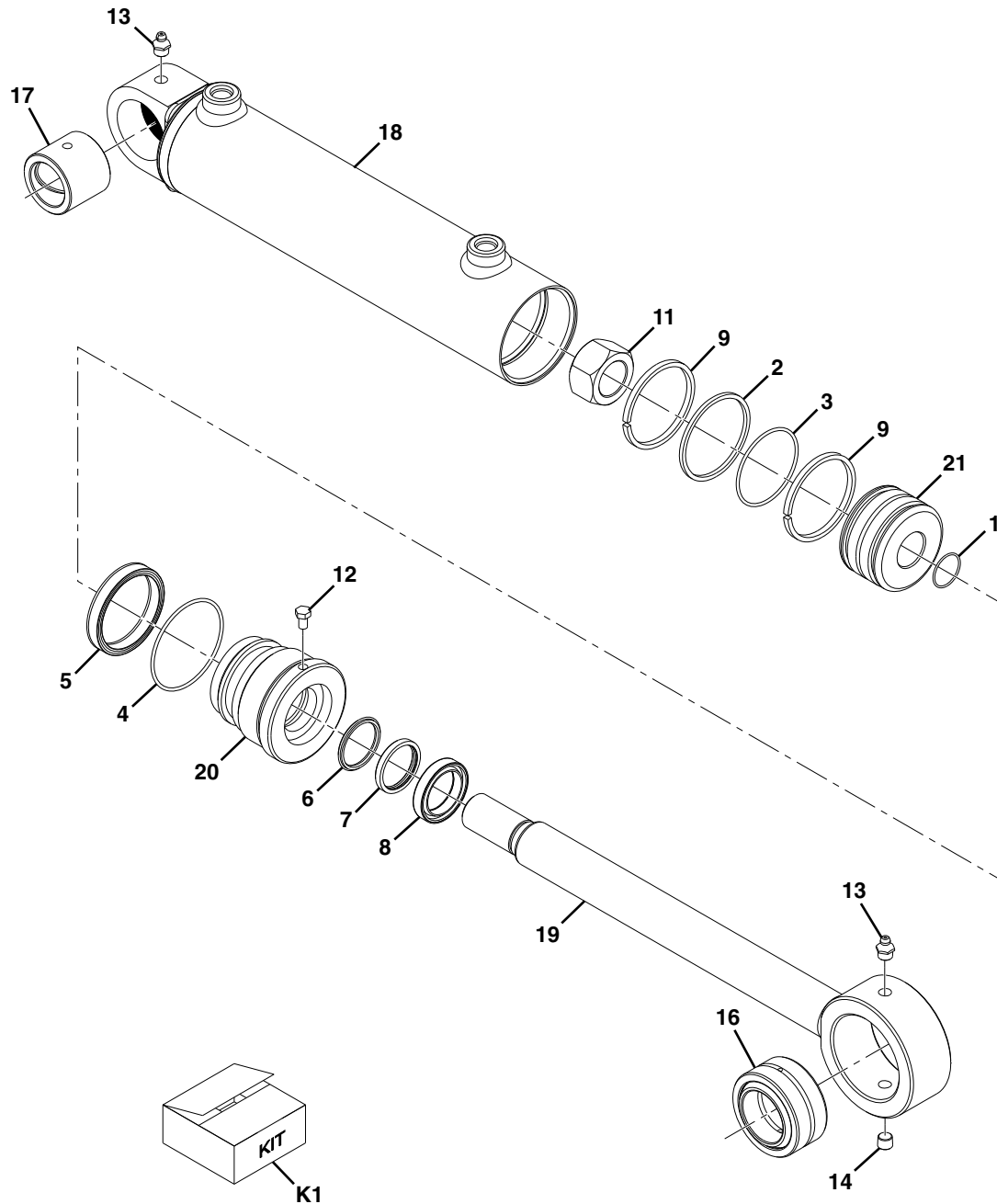
Item	Part Number	Qty.	Description	Rev.
	91403629	1	STEERING CYLINDER, (includes all items)	B
1	91404193	1	CASE ASSY	
2	91204460	1	LOCKNUT, (torque to 350-370 lb-ft)	
3	Use Kit K1	2	WEAR RING	
4	Use Kit K1	1	SEAL TEFLON	
5	Use Kit K1	1	O-RING	
6	91124089	1	PISTON	
7	Use Kit K1	1	O-RING	
8	91144128	1	GREASE FITTING	
9	91404194	1	SHAFT ASSY	
10	91124096	1	SETSCREW	
11	Use Kit K1	1	CANNED WIPER	
12	91404195	1	HEAD	
13	91404202	1	HEX PLUG	
14	Use Kit K1	1	U-CUP SEAL	
15	Use Kit K1	1	BUFFER SEAL	
16	Use Kit K1	1	BACK-UP RING	
17	91144042	1	BUSHING	
18	70020429	1	BRONZE BUSHING	
K1	91404196	1	SEAL KIT, (includes items 3, 4, 5, 7, 11 & 14 thru 16)	



HYDRAULIC COMPONENTS

S/N 0160033805 & After

Figure 9-6 Steering Cylinder - Texas Hydraulics



PAP23430



Figure 9-6 Steering Cylinder - Texas Hydraulics

Item	Part Number	Qty.	Description	Rev.
	91413153	1	STEERING CYLINDER, (includes all items)	A
1	Use Kit K1	1	O-RING	
2	Use Kit K1	1	SEAL	
3	Use Kit K1	1	O-RING	
4	Use Kit K1	1	O-RING	
5	Use Kit K1	1	SEAL	
6	Use Kit K1	1	SEAL	
7	Use Kit K1	1	SEAL	
8	Use Kit K1	1	WIPER	
9	Use Kit K1	2	WEAR RING	
11	7017367	1	LOCKNUT	
12	70021630	1	SELF-TAPPING SCREW	
13	7003242	2	LUBE FITTING	
14	83304146	1	PIPE PLUG	
16	70021750	1	SPHERICAL BEARING	
17	70021749	1	BUSHING	
18	70021748	1	TUBE ASSY	
19	70021747	1	ROD ASSY	
20	70021746	1	HEAD	
21	70021745	1	PISTON	
K1	70021751	1	SEAL KIT, (includes items 1 thru 9)	



HYDRAULIC COMPONENTS

Figure 9-7 Main Control Valve

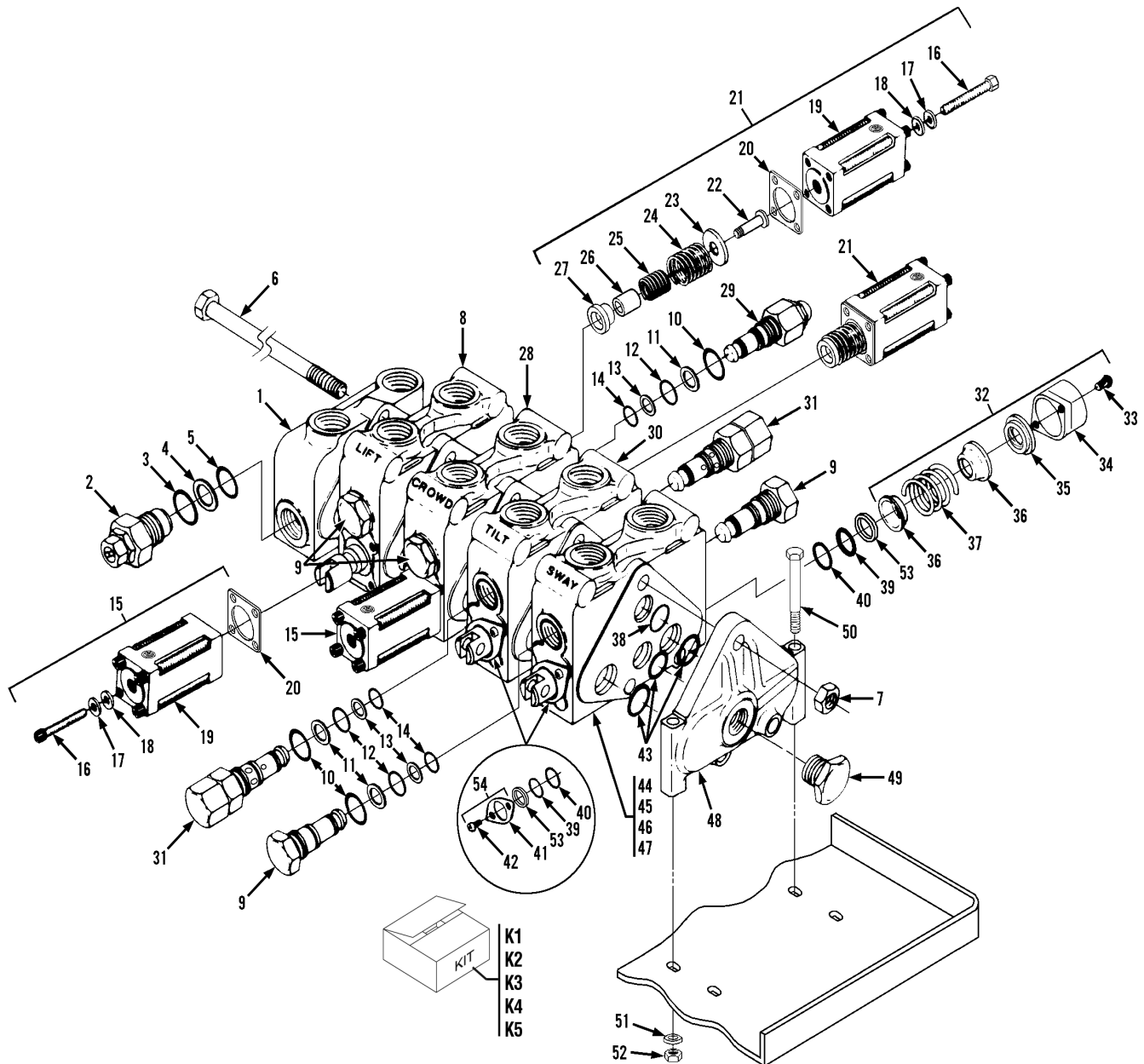




Figure 9-7 Main Control Valve

Item	Part Number	Qty.	Description	Rev.
	91403541	1	MAIN HYDRAULIC CONTROL VALVE, (includes all items except 50 thru 52)	I
1	91084008	1	INLET COVER ASSY, (includes item 2)	
2	91084009	1	MAIN RELIEF, (includes items 3, 4 & 5)	
3	Use Kit K3	1	O-RING	
4	Use Kit K3	1	BACK-UP RING	
5	Use Kit K3	1	O-RING	
6	Use Kit K1	3	HEX HD CAPSCREW	
7	Use Kit K1	3	HEX NUT	
8	91404182	1	VALVE SECTION ASSY, (Hoist), (includes one each of items 15, 21 & two of item 9)	
9	91404183	5	LOAD CHECK PLUG, (includes items 10 thru 14)	
10	Use Kit K4	2	O-RING	
11	Use Kit K4	1	BACK-UP RING	
12	Use Kit K4	1	O-RING	
13	Use Kit K4	1	O-RING	
14	Use Kit K4	2	BACK-UP RING	
15	91404184	2	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20)	
16	NSS	4	SCREW	
17	NSS	4	LOCKWASHER	
18	NSS	4	BEARING PLATE	
19	NSS	1	BONNET	
20	NSS	1	SEAL	
21	91404185	2	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20 & 22 thru 27)	
22	NSS	1	SPOOL POSITIONER	
23	NSS	1	WASHER	
24	NSS	1	SPRING, (large)	
25	NSS	1	SPRING, (small)	
26	NSS	1	STOP SLEEVE	
27	NSS	1	STOP COLLAR	
28	91404186	1	VALVE SECTION ASSY, (Crowd), (includes one each of items 9, 15, 21 & 29)	
29	91404187	1	RELIEF CARTRIDGE, (includes items 10 thru 14)	
30	91404188	1	VALVE SECTION ASSY, (Tilt), (includes one each of items 32, 54 & two each of items 31, 39, 40 & 53)	
31	91404189	2	RELIEF CARTRIDGE, (includes items 10 thru 14)	
32	91404190	2	SPOOL POSITIONER ASSY, (includes items 33 thru 37)	
33	NSS	2	SCREW	
34	NSS	1	BONNET	
35	NSS	1	SPOOL SPUD	
36	NSS	2	SPRING COLLAR	
37	NSS	1	SPRING	
38	Use Kit K2	1	O-RING	
39	Use Kit K5	4	BACK-UP WASHER	
40	Use Kit K5	4	O-RING	
41	NSS	1	RETAINER PLATE	
42	NSS	2	SCREW	
43	Use Kit K2	3	O-RING	
44	91404191	1	VALVE SECTION ASSY, (Sway), (includes one each of items 32, 54 & two each of items 9, 39, 40 & 53)	



HYDRAULIC COMPONENTS

Figure 9-7 Main Control Valve (Continued)

Item	Part Number	Qty.	Description	Rev.
45	91404192	2	PORT RESTRICTER ASSY, (includes items 46 & 47)	
46	NSS	1	ORIFICE PLATE	
47	NSS	1	CONICAL SPRING	
48	91084278	1	OUTLET COVER ASSY, (includes item 49)	
49	91084279	1	PLUG	
50	88201028	3	HEX HD CAPSCREW, 5/16-18X3, GR5	
51	88561003	3	FLAT WASHER, 5/16	
52	88521305	3	HEX LOCKNUT, 5/16-18	
53	91404214	4	SEAL RETAINER	
54	91404180	2	SEAL RETAINER KIT, (includes items 41 & 42)	
K1	91404177	1	STUD KIT, (includes items 6 & 7)	
K2	91404178	5	VALVE SECTION SEAL KIT, (includes items 38 & 43)	
K3	91404179	1	MAIN RELIEF SEAL KIT, (includes items 3 thru 5)	
K4	70020717	8	PLUG SEAL KIT, (includes items 10 thru 14)	
K5	91404181	4	SPOOL SEAL KIT, (includes one each of items 39 & 40)	

Figure 9-7 Main Control Valve (Continued)

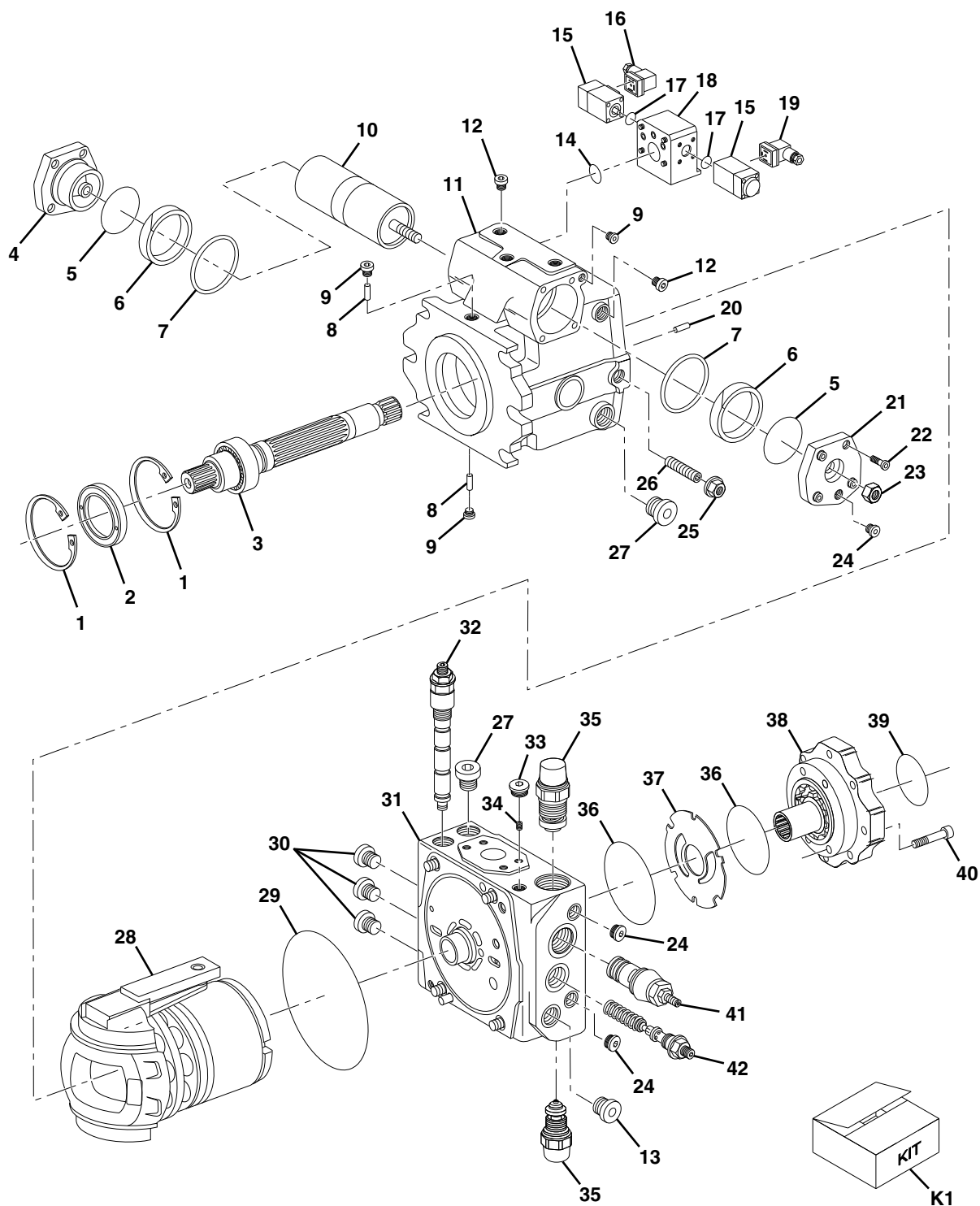
Item	Part Number	Qty.	Description	Rev.



HYDRAULIC COMPONENTS

S/N 0189001 thru 0189332

Figure 9-8 Hydrostatic Transmission



NOTE:

IF HYDROSTATIC TRANSMISSION'S DA CONTROL ASSY, (ITEM 18),
CONTAINS ROUND SOLENOIDS, (ITEM 15), SEE NEXT FIGURE FOR DETAILS.

PAP23830

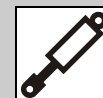


Figure 9-8 Hydrostatic Transmission

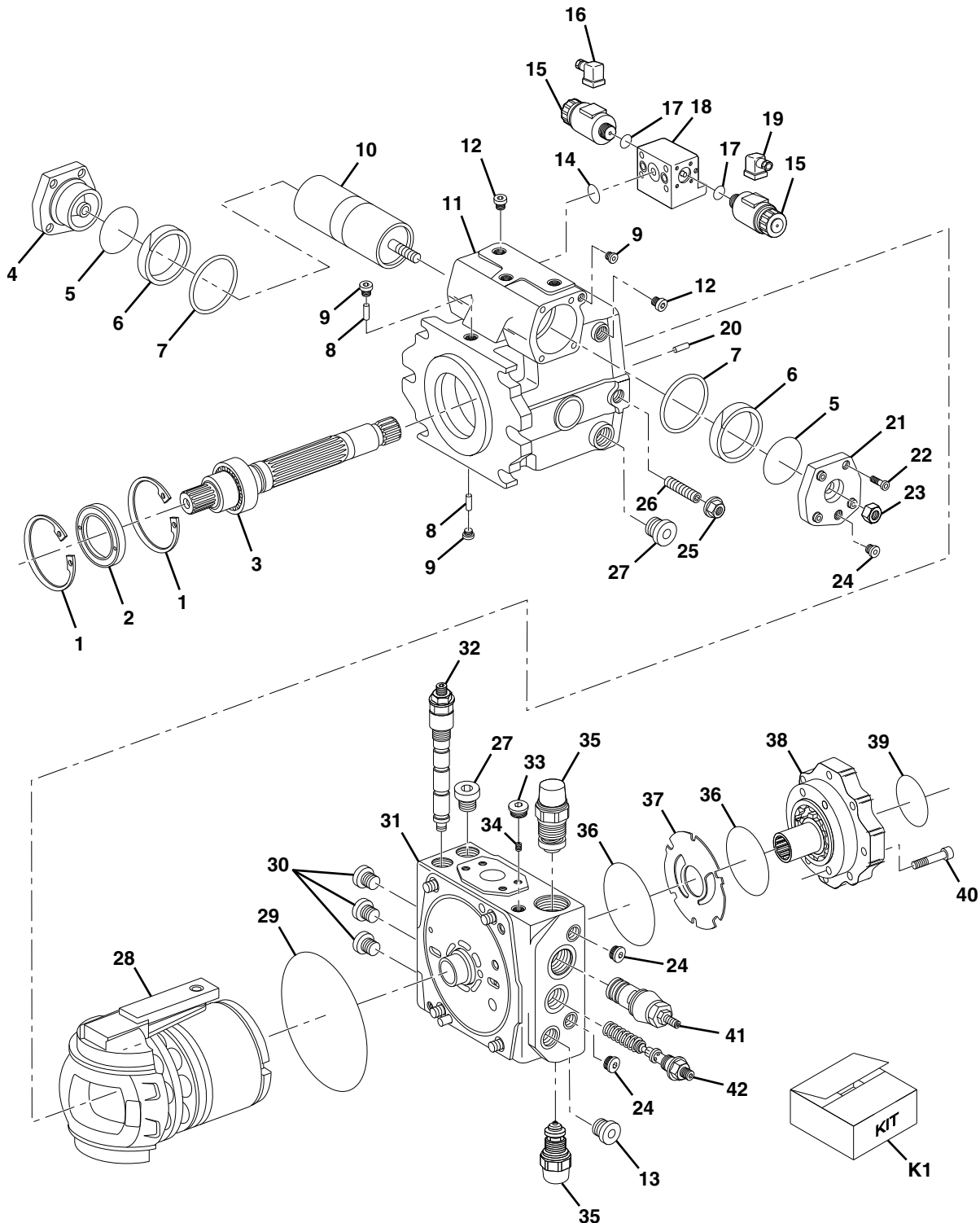
Item	Part Number	Qty.	Description	Rev.
	91403451	Ref	HYDROSTATIC TRANSMISSION, (includes all items)	C
1	Use Kit K1	2	RETAINING RING	
2	Use Kit K1	1	SHAFT SEAL	
3	91404018	1	DRIVE SHAFT	
4	91404019	1	COVER	
5	Use Kit K1	2	O-RING	
6	91404020	2	SPACER	
7	Use Kit K1	2	BACK-UP RING	
8	91404021	2	PIN	
9	Use Kit K1	4	PLUG, M10X1	
10	91404022	1	STROKING PISTON ASSY	
11	91404023	1	HOUSING	
12	Use Kit K1	2	PLUG, 9/16-18	
13	Use Kit K1	1	PLUG, 3/4-16	
14	Use Kit K1	1	O-RING	
15	91084316	2	CONTROL SOLENOID	
16	91404025	1	PLUG BOX	
17	Use Kit K1	2	O-RING	
18	91084324	1	DA CONTROL ASSY, (includes items 14, 15, 16, 17 & 19)	
19	91404026	1	PLUG BOX	
20	91404027	2	DOWEL	
21	91404028	1	COVER	
22	91404029	8	SOCKET HD SCREW, M8X20	
23	91404030	1	HEX NUT	
24	Use Kit K1	3	PLUG, 7/16-20	
25	Use Kit K1	1	SEAL NUT, M12X1-1/2	
26	91404031	1	ECCENTRIC SCREW	
27	Use Kit K1	2	PLUG, 1-1/16-12	
28	91404032	1	ROTARY GROUP ASSY	
29	Use Kit K1	1	O-RING	
30	Use Kit K1	3	PLUG, M22X1-1/2	
31	91404033	1	PORT BLOCK WITH VALVES, (includes items 29, 32, 33 & 35)	
32	91404034	1	P.O.R. ASSY	
33	Use Kit K1	1	PLUG, M12X1-1/2	
34	91404035	1	ORIFICE, M10	
35	70022729	2	HIGH PRESSURE RELIEF VALVE	
36	Use Kit K1	2	O-RING	
37	Use Kit K1	1	WEAR PLATE	
38	91404036	1	CHARGE PUMP, (includes items 36, 37, 39 & 40)	
39	Use Kit K1	1	O-RING	
40	91404037	4	CAPSCREW, M12X40	
41	91144099	1	CONTROL CARTRIDGE	
42	91144098	1	CHARGE PRESSURE RELIEF VALVE	
K1	91364143	AR	SEAL KIT, (includes items 1, 2, 5, 7, 9, 12, 13, 14, 17, 24, 25, 27, 29, 30, 33, 36, 37, 39, 41 & additional items not illustrated)	



HYDRAULIC COMPONENTS

S/N 0189333 thru 0189345 &
0160000230 thru 0160001775

Figure 9-8 Hydrostatic Transmission



NOTE:

IF HYDROSTATIC TRANSMISSION'S DA CONTROL ASSY, (ITEM 18),
CONTAINS SQUARE SOLENOIDS, (ITEM 15), SEE NEXT FIGURE FOR DETAILS.

PAP23840

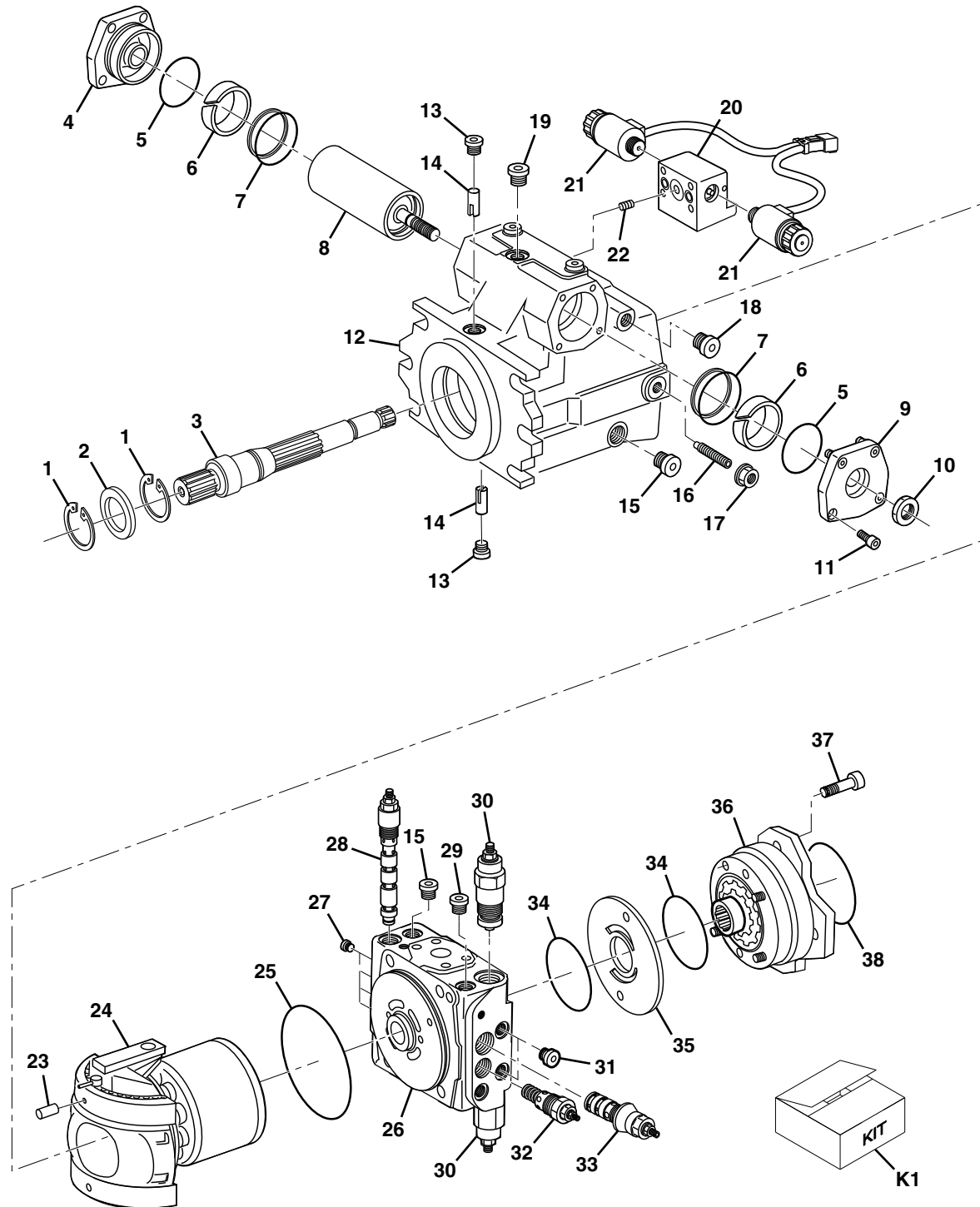


Figure 9-8 Hydrostatic Transmission

Item	Part Number	Qty.	Description	Rev.
	91413055	Ref	HYDROSTATIC TRANSMISSION, (includes all items)	A
1	Use Kit K1	2	RETAINING RING	
2	Use Kit K1	1	SHAFT SEAL	
3	91404018	1	DRIVE SHAFT	
4	91404019	1	COVER	
5	Use Kit K1	2	O-RING	
6	91404020	2	SPACER	
7	Use Kit K1	2	BACK-UP RING	
8	91404021	2	PIN	
9	Use Kit K1	4	PLUG, M10X1	
10	91404022	1	STROKING PISTON ASSY	
11	91404023	1	HOUSING	
12	Use Kit K1	2	PLUG, 9/16-18	
13	Use Kit K1	1	PLUG, 3/4-16	
14	Use Kit K1	1	O-RING	
15	91414042	2	CONTROL SOLENOID	
16	91414044	1	PLUG BOX	
17	Use Kit K1	2	O-RING	
18	91414041	1	DA CONTROL ASSY, (includes items 14, 15, 16, 17 & 19)	
19	91414043	1	PLUG BOX	
20	91404027	2	DOWEL	
21	91404028	1	COVER	
22	91404029	8	SOCKET HD SCREW, M8X20	
23	91404030	1	HEX NUT	
24	Use Kit K1	3	PLUG, 7/16-20	
25	Use Kit K1	1	SEAL NUT, M12X1-1/2	
26	91404031	1	ECCENTRIC SCREW	
27	Use Kit K1	2	PLUG, 1-1/16-12	
28	91404032	1	ROTARY GROUP ASSY	
29	Use Kit K1	1	O-RING	
30	Use Kit K1	3	PLUG, M22X1-1/2	
31	91404033	1	PORT BLOCK WITH VALVES, (includes items 29, 32, 33 & 35)	
32	91404034	1	P.O.R. ASSY	
33	Use Kit K1	1	PLUG, M12X1-1/2	
34	91404035	1	ORIFICE, M10	
35	70022729	2	HIGH PRESSURE RELIEF VALVE	
36	Use Kit K1	2	O-RING	
37	Use Kit K1	1	WEAR PLATE	
38	91404036	1	CHARGE PUMP, (includes items 36, 37, 39 & 40)	
39	Use Kit K1	1	O-RING	
40	91404037	4	CAPSCREW, M12X40	
41	91084033	1	CONTROL CARTRIDGE	
42	91144098	1	CHARGE PRESSURE RELIEF VALVE	
K1	91364143	AR	SEAL KIT, (includes items 1, 2, 5, 7, 9, 12, 13, 14, 17, 24, 25, 27, 29, 30, 33, 36, 37, 39, 41 & additional items not illustrated)	



Figure 9-8 Hydrostatic Transmission



PAP23270

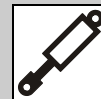


Figure 9-8 Hydrostatic Transmission

Item	Part Number	Qty.	Description	Rev.
	91413118	1	HYDROSTATIC TRANSMISSION PUMP, (includes all items)	C
1	Use Kit K1	2	RETAINING RING	
2	Use Kit K1	1	SHAFT SEAL RING	
3	91404018	1	DRIVE SHAFT	
4	91404019	1	COVER	
5	Use Kit K1	2	O-RING	
6	91404020	2	GUIDE RING	
7	Use Kit K1	2	TURCON-GLYD RING & O-RING	
8	91364144	1	STROKING PISTON ASSY	
9	91404028	1	COVER	
10	91404030	1	HEX NUT	
11	91404029	8	SOCKET HD SCREW, M8X20	
12	91404023	1	HOUSING	
13	Use Kit K1	2	PLUG	
14	91404021	2	JOINT PIN	
15	Use Kit K1	2	PLUG	
16	91404031	1	ECCENTRIC SCREW	
17	Use Kit K1	1	SEAL LOCKNUT, M12X1	
18	Use Kit K1	1	LOCKING SCREW	
19	Use Kit K1	4	LOCKING SCREW	
20	91364145	1	4/3-WAY DIRECTIONAL VALVE, (includes item 21)	
21	91364146	1	SOLENOID PAIR	
22	Use Kit K1	1	THROTTLE SCREW	
23	91404027	2	CLAMPING PIN	
24	91404032	1	ROTARY GROUP, (includes items 1, 2 & 3)	
25	Use Kit K1	1	O-RING	
26	91404033	1	PORT BLOCK WITH VALVES, (includes items 25 & 27 thru 32)	
27	Use Kit K1	4	LOCKING SCREW	
28	91404034	1	P.O.R. VALVE	
29	Use Kit K1	1	LOCKING SCREW	
30	70022729	2	RELIEF VALVE	
31	Use Kit K1	2	LOCKING SCREW	
32	91144098	1	PRESSURE RELIEF VALVE	
33	91144099	1	CONTROL CARTRIDGE	
34	Use Kit K1	2	O-RING	
35	Use Kit K1	1	WEAR PLATE	
36	91404036	1	CHARGE PUMP, (includes items 34, 35, 37 & 38)	
37	91403037	4	CAPSCREW, M12X40	
38	Use Kit K1	1	O-RING	
K1	91364143	AR	SEAL KIT, (includes items 1, 2, 5, 7, 13, 15, 17, 18, 19, 22, 23, 25, 27, 29, 31, 34, 35, 38 & additional items not illustrated)	



HYDRAULIC COMPONENTS

Figure 9-9 Implement Pump

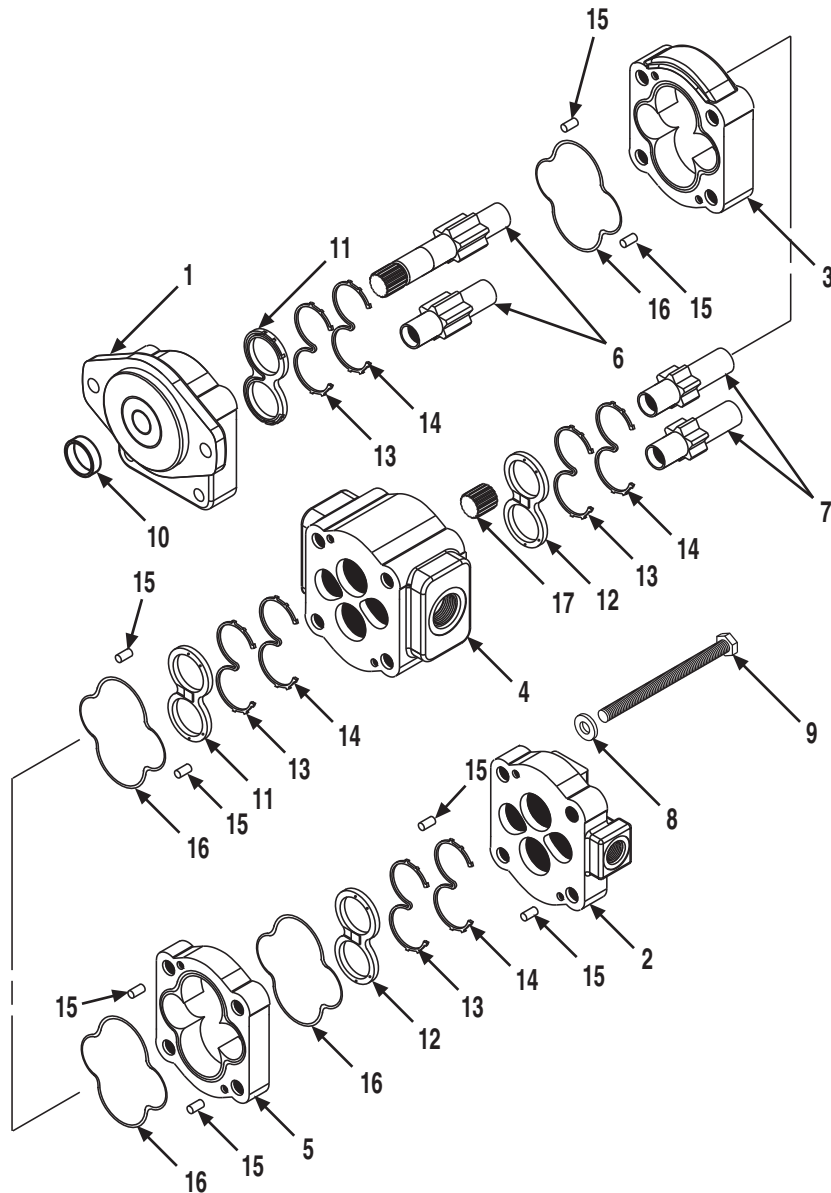




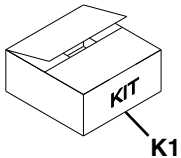
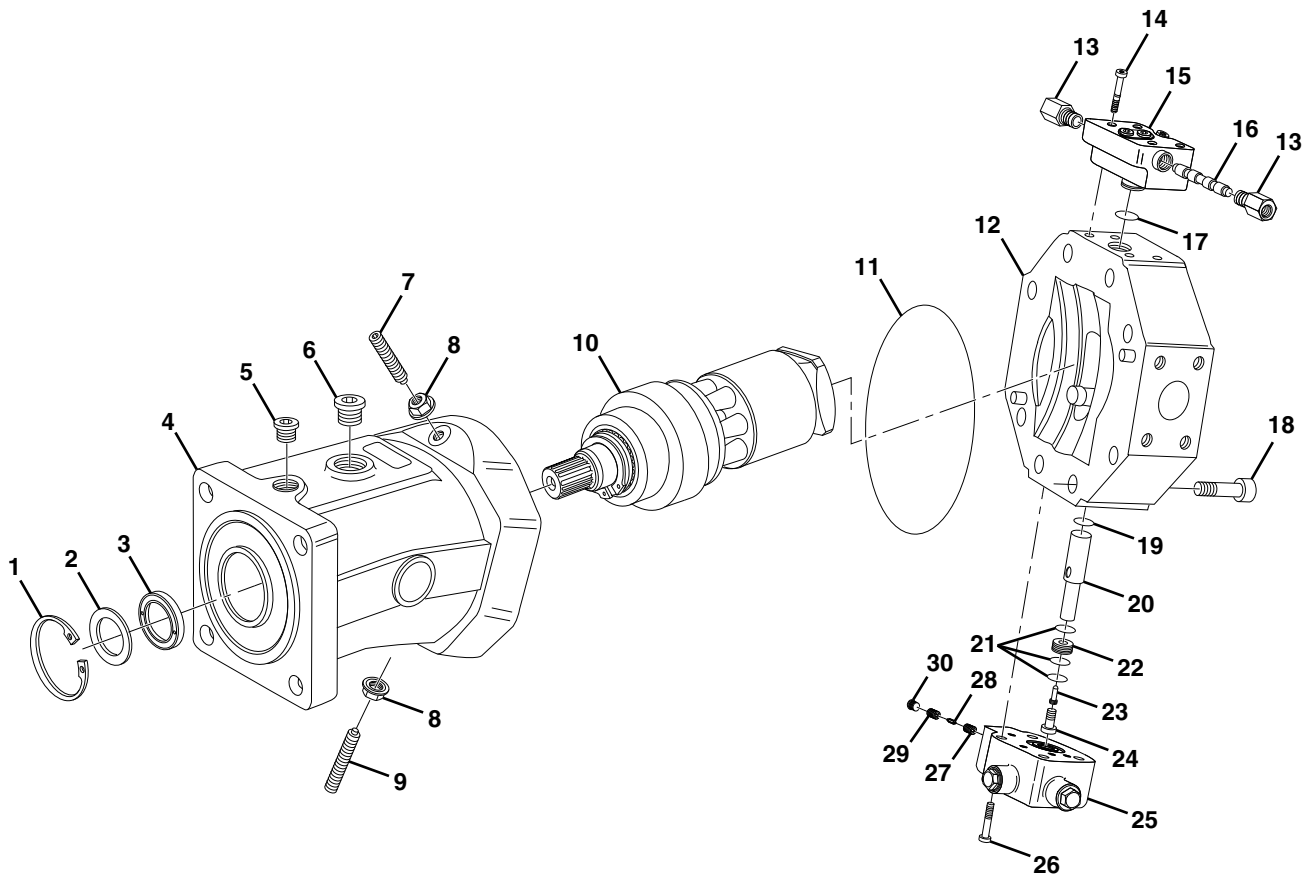
Figure 9-9 Implement Pump

Item	Part Number	Qty.	Description	Rev.
	91413007	1	IMPLEMENT PUMP, (includes all items)	A
1	91414030	1	SHAFT END COVER	
2	91414031	1	PORT END COVER	
3	91474179	1	GEAR HOUSING	
4	91414032	1	BEARING CARRIER	
5	91414033	1	GEAR HOUSING	
6	91414034	1	GEAR SHAFT & GEAR SET	
7	91414035	1	GEAR SET	
8	77134044	4	WASHER	
9	91414036	4	HEX HD CAPSCREW, 5/8-11X8, GR8	
10	77134026	1	DOUBLE LIP SEAL	
11	91414037	2	THRUST PLATE	
12	83674096	2	THRUST PLATE	
13	91474182	4	CHANNEL SEAL	
14	91474184	4	GASKET SEALS	
15	83671037	8	DOWEL PIN	
16	91414038	4	BACK-UP SEAL	
17	91414039	1	CONNECTING SHAFT	



HYDRAULIC COMPONENTS

Figure 9-10 Front Drive Motor



NOTE:

ILLUSTRATION IS INVERTED FROM MACHINE APPLICATION.

PAP23850



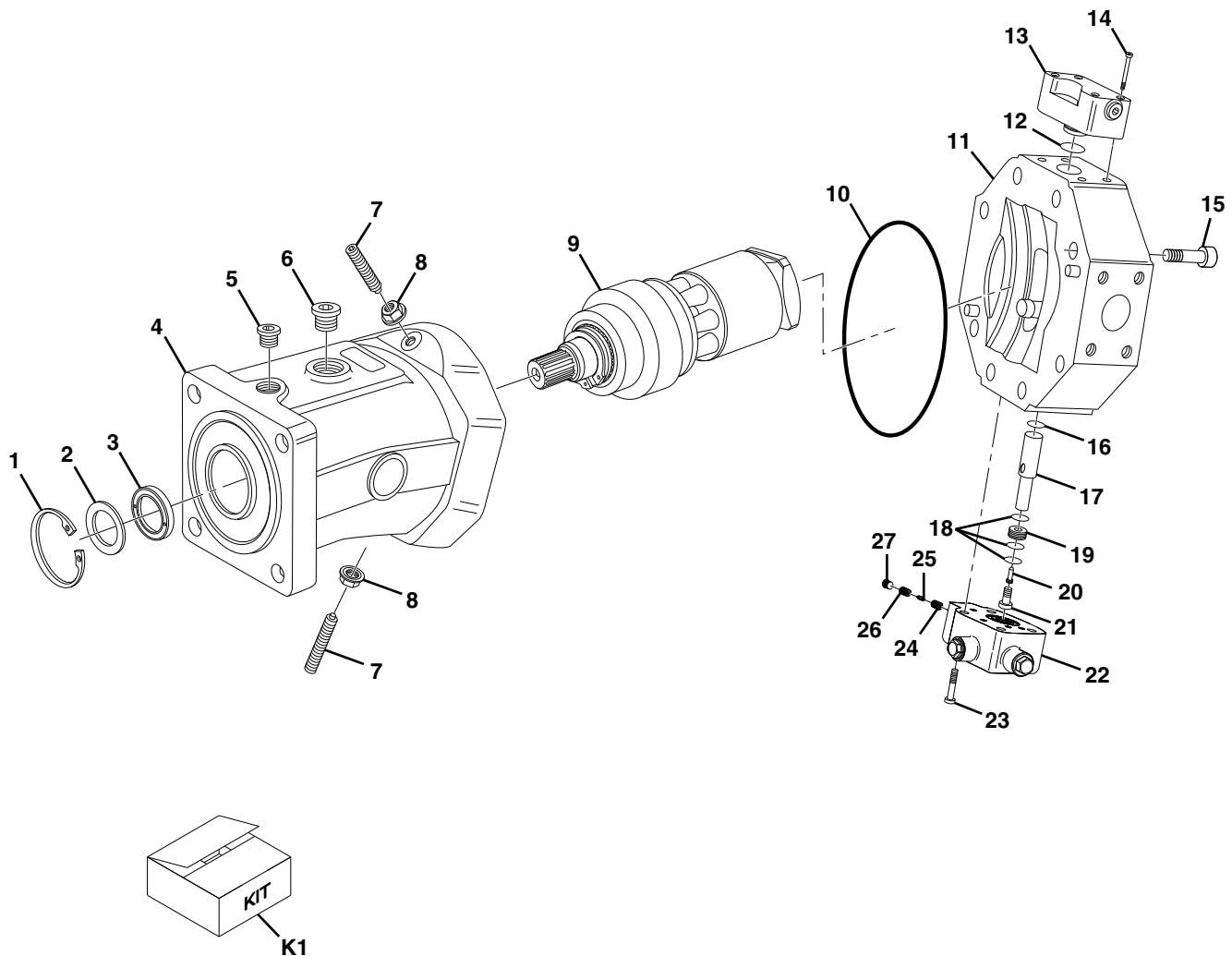
Figure 9-10 Front Drive Motor

Item	Part Number	Qty.	Description	Rev.
	91403449	Ref	FRONT DRIVE MOTOR, (includes all items)	C
1	91404040	1	SNAP RING	
2	Use Kit K1	1	SHIM	
3	Use Kit K1	1	SHAFT SEAL	
4	91404041	1	HOUSING	
5	Use Kit K1	1	PLUG, 7/8-14	
6	Use Kit K1	1	PLUG, 11/16-12	
7	91404042	1	STOP SCREW	
8	Use Kit K1	2	SEAL NUT, M12	
9	91404043	1	STOP SCREW	
10	91404044	1	ROTARY GROUP	
11	Use Kit K1	1	O-RING	
12	91404045	1	CONTROL ASSY, (includes items 15, 18 & 20 thru 25)	
13	91144248	2	FITTING	
14	91404046	4	CAPSCREW, M8X50	
15	91094033	1	DA1 CONTROL, (includes items 13, 14, 16 & 17)	
16	91404047	1	SLIDER	
17	Use Kit K1	1	O-RING	
18	91404048	8	CAPSCREW, M16X45	
19	Use Kit K1	1	O-RING	
20	91404049	1	STROKING PISTON	
21	Use Kit K1	3	SQUARE RING	
22	91404050	1	PISTON	
23	91404051	1	THREADED PIN	
24	91404052	1	CAPSCREW, M14X1-1/2	
25	91404053	1	FLUSHING VALVE, (includes items 19 & 26 thru 30)	
26	91404054	4	CAPSCREW, M12X50	
27	91404055	1	ORIFICE SEAT, (inner)	
28	91404056	1	SHUTTLE ORIFICE	
29	91404057	1	ORIFICE SEAT, (outer)	
30	Use Kit K1	1	PLUG, M14X1	
K1	7028820	1	SEAL KIT, (includes items 2, 3, 5, 6, 8, 11, 17, 19, 21, 30 & additional items not illustrated)	



HYDRAULIC COMPONENTS

Figure 9-11 Rear Drive Motors



NOTE:

PAY CLOSE ATTENTION WHEN ORDERING REAR DRIVE MOTORS. THE MOTORS ARE NOT INTERCHANGABLE & MUST BE USED ON THE SIDE DESIGNATED BY THIS FIGURE.

PAP23410



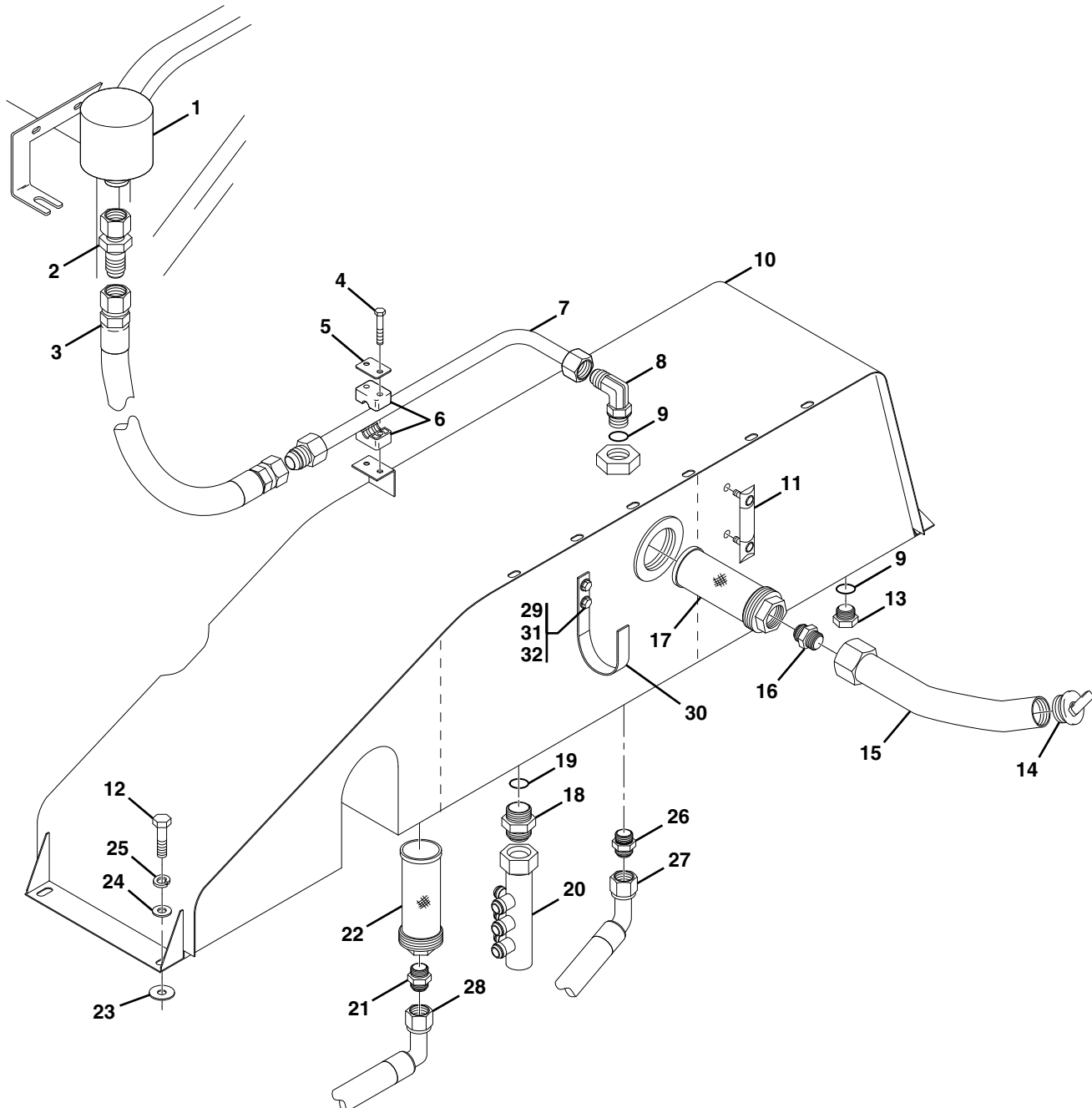
Figure 9-11 Rear Drive Motors

Item	Part Number	Qty.	Description	Rev.
	91403450	Ref	RH REAR DRIVE MOTOR, (includes all items)	D
	91403456	Ref	LH REAR DRIVE MOTOR, (includes all items)	C
1	91404070	1	SNAP RING	
2	Use Kit K1	1	SHIM	
3	Use Kit K1	1	SHAFT SEAL	
4	91404071	1	HOUSING	
5	Use Kit K1	1	PLUG, 7/8-14	
6	Use Kit K1	1	PLUG, 11/16-12	
7	91404072	2	STOP SCREW	
8	Use Kit K1	2	SEAL NUT, M10	
9	91404073	1	ROTARY GROUP	
10	Use Kit K1	1	O-RING	
11	91404074	1	CONTROL ASSY, (includes items 13, 15 & 17 thru 22)	
12	Use Kit K1	1	O-RING	
13	91404075	1	HZ1 CONTROL, (includes items 12 & 14)	
14	91404076	4	CAPSCREW, M6X40	
15	91404077	8	CAPSCREW, M10X60	
16	Use Kit K1	1	O-RING	
17	91404078	1	STROKING PISTON	
18	Use Kit K1	3	SQUARE RING	
19	91404079	1	PISTON	
20	91404080	1	THREADED PIN	
21	91404081	1	CAPSCREW, M10X25	
22	7029893	1	FLUSHING VALVE, (includes items 16 & 23 thru 27)	
23	91404082	4	CAPSCREW, M12X50	
24	91404055	1	ORIFICE SEAT, (inner)	
25	91404083	1	SHUTTLE ORIFICE	
26	91404057	1	ORIFICE SEAT, (outer)	
27	Use Kit K1	1	PLUG, M14X1-1/2	
K1	91144414	AR	SEAL KIT, (includes items 2, 3, 5, 6, 8, 10, 12, 16, 18, 27 & additional items not illustrated)	



HYDRAULIC COMPONENTS

Figure 9-12 Hydraulic Tank Assembly



PAP23240



Figure 9-12 Hydraulic Tank Assembly

Item	Part Number	Qty.	Description	Rev.
	91405034	Ref	HYDRAULIC TANK ASSY, (includes all items except 1, 2, 3, 12, 23, 24 & 25)	Q
1	1340021	1	BREATHER	
2	91163100	1	BULKHEAD	
3	84719610	1	HOSE ASSY	
4	88201007	2	HEX HD CAPSCREW, 1/4-20X1-1/2	
5	77133052	1	COVER PLATE	
6	77133053	1	CLAMP SET	
7	91403502	1	TUBE ASSY	
8	2220578	1	ADAPTER, 90 DEGREE, (includes item 9)	
9	88591207	2	O-RING	
10	91403161	1	HYDRAULIC TANK	
11	91083070	1	FLUID LEVEL GAUGE, (includes mounting hardware)	
12	83201160	3	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
13	88662177	1	HEX HD PLUG, (Before S/N 0160002301) , (includes item 9)	
14	91403579	1	OIL FILLER CAP	
15	91403565	1	FILL TUBE	
16	2220690	1	ADAPTER	
17	91403575	1	TANK FILTER	
18	2220765	1	ADAPTER, (includes item 19)	
19	88591211	1	O-RING	
20	91403253	1	RETURN MANIFOLD	
21	91083200	1	ADAPTER	
22	91083301	1	TANK FILTER	
23	91403611	3	RUBBER WASHER	
24	90027471	3	HARDENED WASHER, 1/2	
25	88551013	3	LOCKWASHER, 1/2	
26	2220733	1	ADAPTER	
27		Ref	HOSE ASSY, (see Figure 8-2 for details)	
28		Ref	HOSE ASSY, (see Figure 8-1 for details)	
29	91411069	1	SUPPORT	
30	90206198	63 in	TRIM-LOCK	
31	88551011	2	LOCKWASHER, 3/8	
32	88501006	2	HEX NUT, 3/8-16	



HYDRAULIC COMPONENTS

Figure 9-13 Oil Filter Assembly

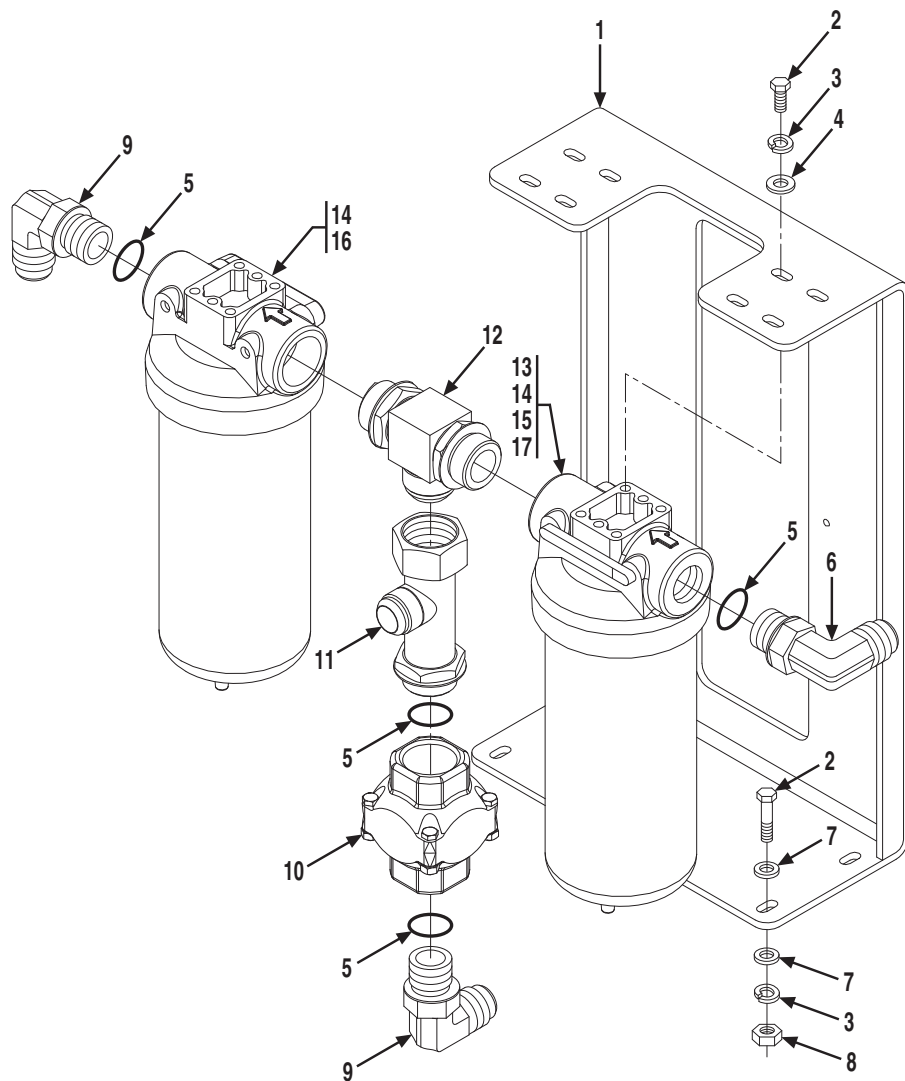




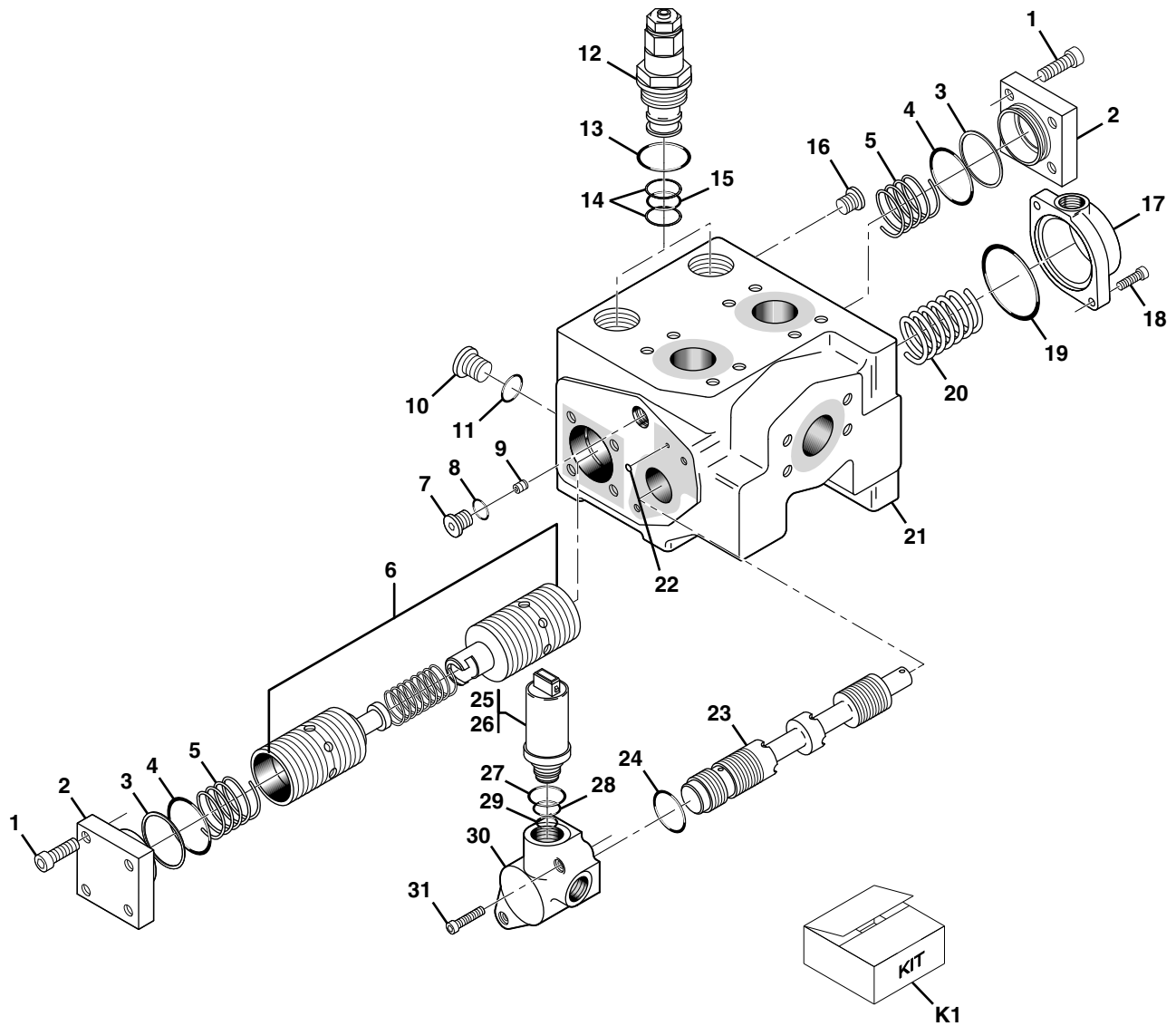
Figure 9-13 Oil Filter Assembly

Item	Part Number	Qty.	Description	Rev.
	91405091	1	OIL FILTER ASSY, (includes all items)	C
1	91406134	1	FILTER SUPPORT WELDMENT	
2	88201020	12	HEX HD CAPSCREW, 5/16-18X1, GR5	
3	88551010	12	LOCKWASHER, 5/16	
4	88561108	8	FLAT WASHER, 5/16	
5	88591210	4	O-RING	
6	2220464	1	ELBOW, 90 DEGREE, (includes item 5)	
7	90027469	8	HARDENED WASHER, 5/16	
8	88501005	4	HEX NUT, 5/16-18	
9	88662070	2	ADAPTER, 90 DEGREE, (includes item 5)	
10	91403264	1	CHECK VALVE	
11	91403554	1	FILTER TUBE	
12	91403553	1	ADAPTER	
13	91403158	1	RETURN FILTER, (includes items 14, 15 & 17)	
14	1001093626	2	FILTER ELEMENT	
15	91404084	1	BAR GAUGE	
16	91403504	1	SUCTION FILTER, (includes item 14)	
17	7029833	1	SEAL RING, (between element & housing)	



HYDRAULIC COMPONENTS

Figure 9-14 Traction Lock Valve



PAP23280



Figure 9-14 Traction Lock Valve

Item	Part Number	Qty.	Description	Rev.
	91403589	1	TRACTION LOCK VALVE, (includes all items)	E
1	91404058	8	HEX HD CAPSCREW, M10X30	
2	91404059	2	COVER	
3	Use Kit K1	2	BACK-UP RING	
4	Use Kit K1	2	O-RING	
5	91404060	2	SPRING	
6		1	SPOOL, (not sold separately, order 91403589)	
7	91404061	1	PLUG, (includes item 8)	
8	Use Kit K1	1	O-RING	
9	91404062	1	ORIFICE	
10	91404063	2	PLUG, (includes item 11)	
11	Use Kit K1	2	O-RING	
12	91084297	2	RELIEF VALVE CARTRIDGE, (includes items 13, 14 & 15)	
13	Use Kit K1	2	O-RING	
14	Use Kit K1	4	BACK-UP RING	
15	Use Kit K1	2	O-RING	
16	Use Kit K1	1	PLUG	
17	91404064	1	COVER	
18	91404065	2	HEX HD CAPSCREW, M6X16	
19	Use Kit K1	1	O-RING	
20	91404066	1	SPRING	
21		1	VALVE BODY, (not sold separately, order 91403589)	
22	Use Kit K1	1	O-RING	
23		1	SPOOL, (not sold separately, order 91403589)	
24	Use Kit K1	1	O-RING	
25	91084302	1	SOLENOID VALVE, (include items 27, 28 & 29)	
26	91144015	1	CONNECTOR	
27	Use Kit K1	1	O-RING	
28	Use Kit K1	1	O-RING	
29	Use Kit K1	1	O-RING	
30	91084301	1	COVER	
31	91404067	2	HEX HD CAPSCREW, M6X30	
K1	91084284	1	SEAL KIT, (includes items 3, 4, 8, 11, 13 thru 16, 19, 22, 24 & 27 thru 29)	



HYDRAULIC COMPONENTS

Figure 9-15 Inching Valve

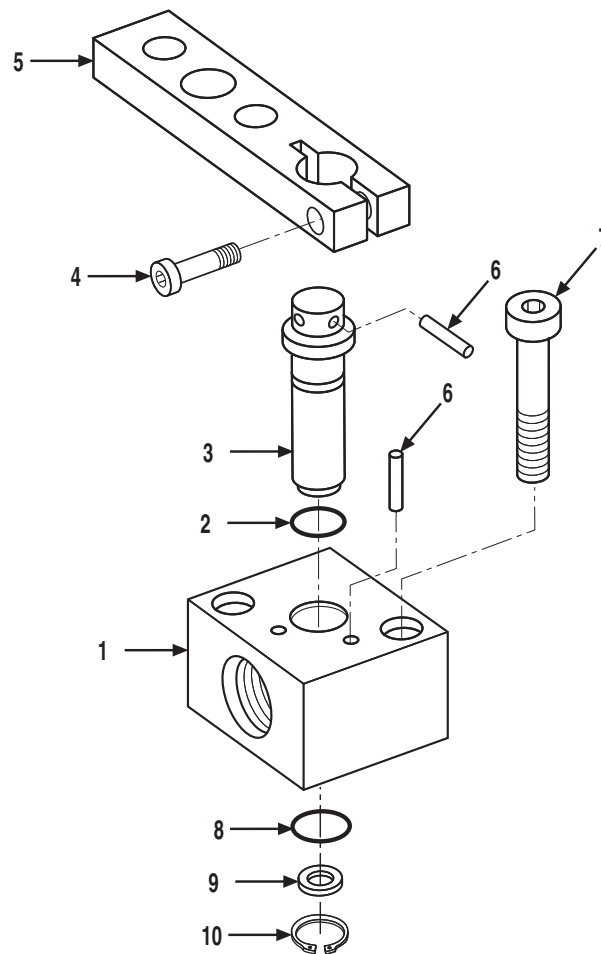




Figure 9-15 Inching Valve

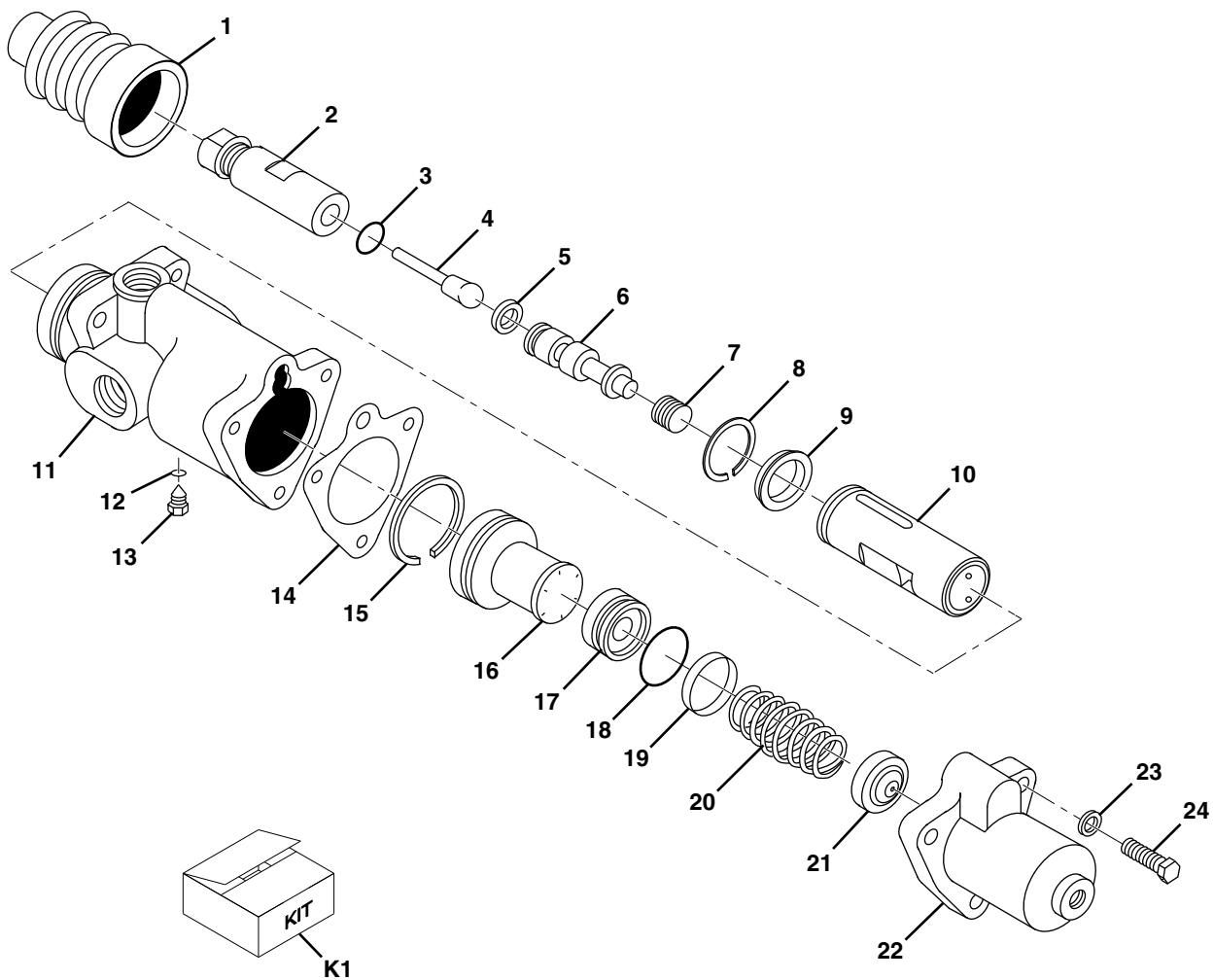
Item	Part Number	Qty.	Description	Rev.
	91143372	1	INCHING VALVE, (Before S/N 0160003213) , (includes all items)	B
	91413141	1	INCHING VALVE, (S/N 0160003213 & After) , (includes all items except 1, 2 & 5)	C
1	91144460	1	INCHING DEVICE, (includes all items except one of item 6)	
2	70022051	1	O-RING	
3	91144462	1	SHAFT	
4	91144463	1	CAPSCREW, M5X20	
5	91144464	1	LEVER	
6	91144465	3	PIN	
7	91144466	2	CAPSCREW, M8X30	
8	80934671	1	O-RING	
9	91144461	1	SHIM	
10	91144467	1	SNAP RING	



HYDRAULIC COMPONENTS

S/N 0189001 thru 0189345

Figure 9-16 Brake Valve



PAP23200

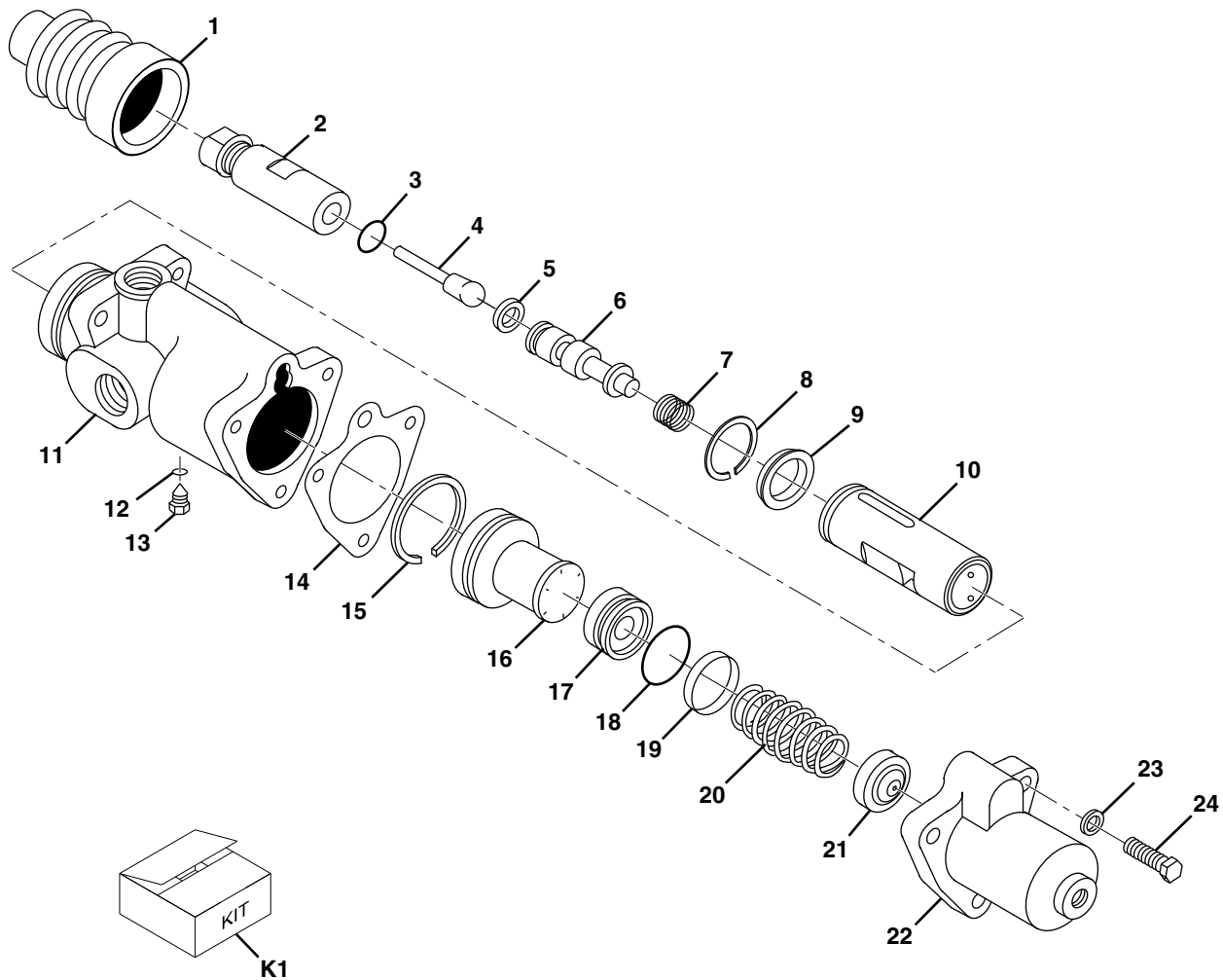


Figure 9-16 Brake Valve

Item	Part Number	Qty.	Description	Rev.
	91413010	1	POWER BRAKE VALVE, (includes all items)	A
1	91084042	1	BOOT	
2	NSS	1	PRESSURE REGULATING SPRING ASSY	
3	NSS	1	RETAINING RING	
4	NSS	1	PUSH ROD	
5	Use Kit K1	1	CUP	
6	NSS	1	SPOOL	
7	NSS	1	SPRING	
8	NSS	1	RETAINING RING	
9	Use Kit K1	1	CUP	
10	NSS	1	SLEEVE	
11	NSS	1	HOUSING	
12	Use Kit K1	1	O-RING	
13	NSS	1	CAPSCREW	
14	Use Kit K1	1	GASKET	
15	Use Kit K1	1	PISTON RING	
16	NSS	1	PISTON	
17	Use Kit K1	1	PISTON & POPPET ASSY	
18	Use Kit K1	1	O-RING	
19	Use Kit K1	1	RING SEAL	
20	NSS	1	SPRING	
21	Use Kit K1	1	RESIDUAL VALVE	
22	NSS	1	END CAP	
23	NSS	3	LOCKWASHER	
24	NSS	3	HEX HD CAPSCREW	
K1	91084043	1	REPAIR KIT, (includes items 1, 5, 9, 12, 14, 15, 17, 18, 19 & 21)	



Figure 9-16 Brake Valve



PAP20040



Figure 9-16 Brake Valve

Item	Part Number	Qty.	Description	Rev.
	91403592	1	POWER BRAKE VALVE, (includes all items)	C
1	Use Kit K1	1	BOOT	
2	NSS	1	PRESSURE REGULATING SPRING ASSY	
3	NSS	1	RETAINING RING	
4	NSS	1	PUSH ROD	
5	Use Kit K1	1	CUP	
6	NSS	1	SPOOL	
7	NSS	1	SPRING	
8	NSS	1	RETAINING RING	
9	Use Kit K1	1	CUP	
10	NSS	1	SLEEVE	
11	NSS	1	HOUSING	
12	Use Kit K1	1	O-RING	
13	NSS	1	CAPSCREW	
14	Use Kit K1	1	GASKET	
15	Use Kit K1	1	PISTON RING	
16	NSS	1	PISTON	
17	Use Kit K1	1	PISTON & POPPET ASSY	
18	Use Kit K1	1	O-RING	
19	Use Kit K1	1	RING SEAL	
20	NSS	1	SPRING	
21	Use Kit K1	1	RESIDUAL VALVE	
22	NSS	1	END CAP	
23	NSS	3	LOCKWASHER	
24	NSS	3	HEX HD CAPSCREW	
K1	91084043	1	REPAIR KIT, (includes items 1, 5, 9, 12, 14, 15, 17, 18, 19 & 21)	



HYDRAULIC COMPONENTS

Figure 9-17 Priority Flow Divider Valve & Assembly

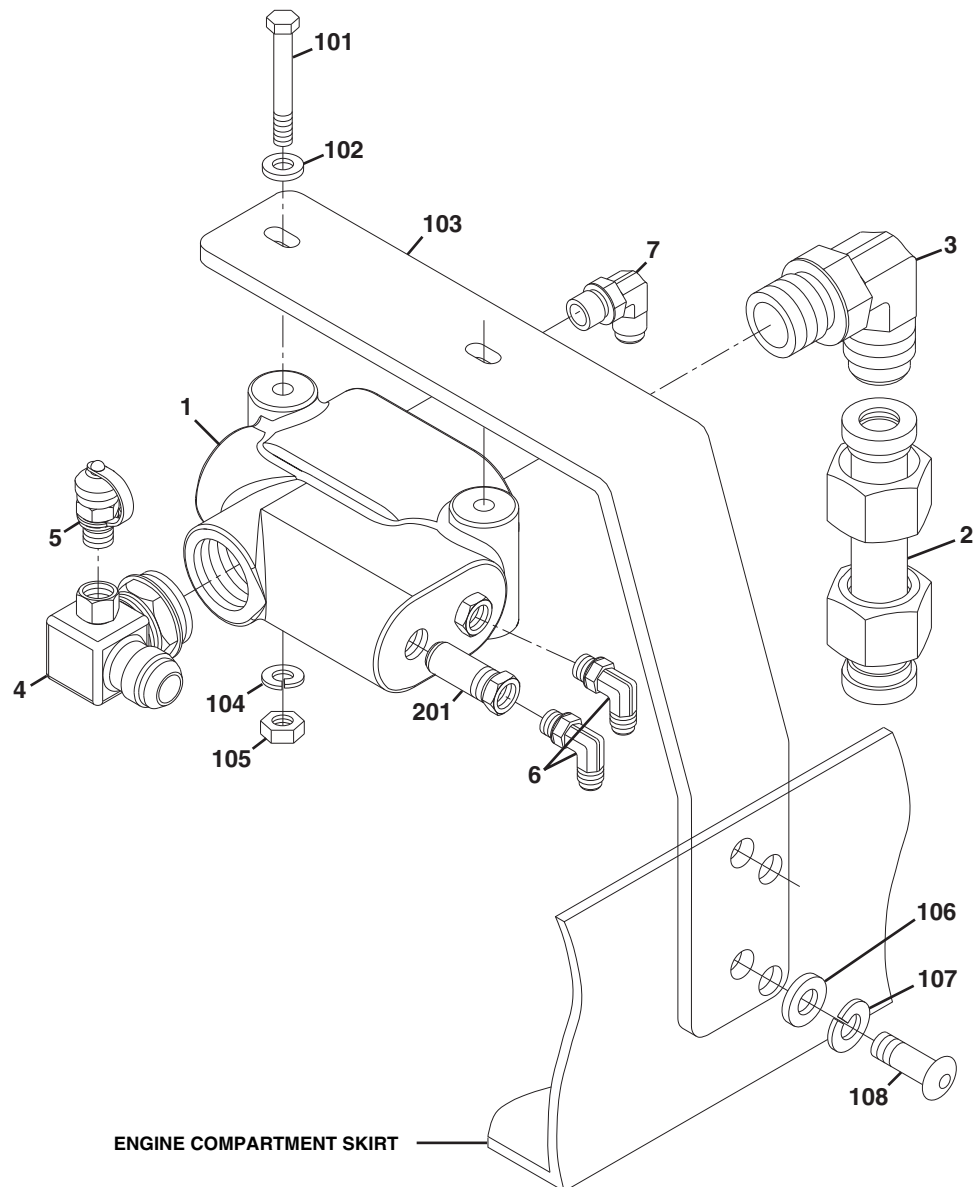




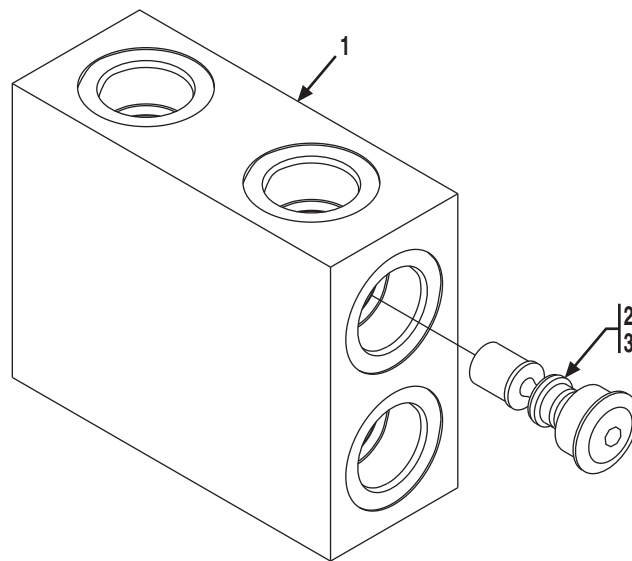
Figure 9-17 Priority Flow Divider Valve & Assembly

Item	Part Number	Qty.	Description	Rev.
	91415032	1	PRIORITY FLOW DIVIDER VALVE ASSY, (includes items 1 thru 7)	C
1	91033240	1	PRIORITY FLOW DIVIDER VALVE, (includes item 201)	A
2	91413008	1	HYDRAULIC TUBE	
3	2131616	1	ELBOW, 90 DEGREE, (includes o-ring)	
4	91413015	1	ELBOW, 90 DEGREE	
5	91053020	1	MINI-CHECK	
	91054002	1	VITON O-RING, (lubricate lightly)	
6	2220466	2	ELBOW, 90 DEGREE, (includes o-ring)	
7	2220671	1	ELBOW, 90 DEGREE, (includes o-ring)	
101	88201030	2	HEX HD CAPSCREW, 5/16-18X3-1/2, GR5	
102	88561003	2	FLAT WASHER, 5/16	
103	91411017	1	VALVE BRACKET	
104	88551010	2	LOCKWASHER, 5/16	
105	88501005	2	HEX NUT, 5/16-18	
106	88561004	2	FLAT WASHER, 3/8	
107	88551011	2	LOCKWASHER, 3/8	
108	88261029	2	SOCKET BUTTON HD CAPSCREW, 3/8-16X1	
201	90206553	1	RELIEF CARTRIDGE	



HYDRAULIC COMPONENTS

Figure 9-18 Thermal Bypass Valve

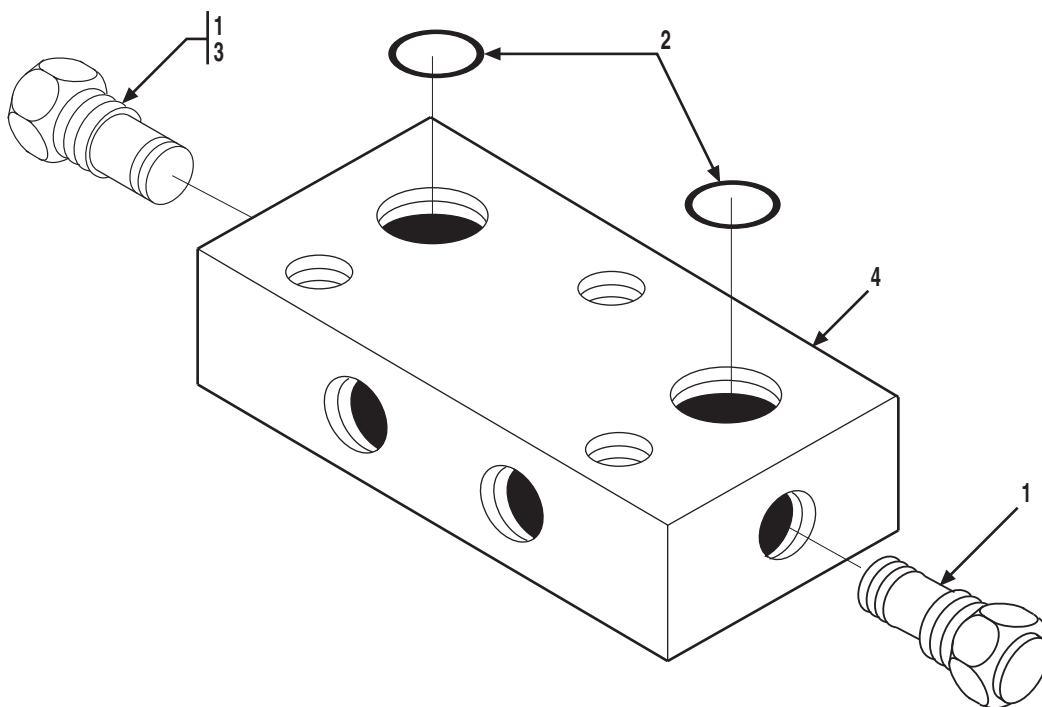


**Figure 9-18 Thermal Bypass Valve**

Item	Part Number	Qty.	Description	Rev.
1	91403552	1	THERMAL BYPASS VALVE, (includes all items)	B
2	91404340	2	PRESSURE MAINTAINING CARTRIDGE ASSY, (includes item 3)	
3	91404341	2	SEAL KIT	



Figure 9-19 Sway Cylinder Valve



**Figure 9-19 Sway Cylinder Valve**

Item	Part Number	Qty.	Description	Rev.
	91403180	1	SWAY CYLINDER VALVE, (includes all items)	E
1	91404216	2	VALVE CARTRIDGE	
2	91404215	2	O-RING	
3	91404217	1	PISTON	
4	91404218	1	VALVE BODY	



HYDRAULIC COMPONENTS

S/N 0189344 thru 0189345 &
0160000230 & After

Figure 9-19 Sway Cylinder Valve

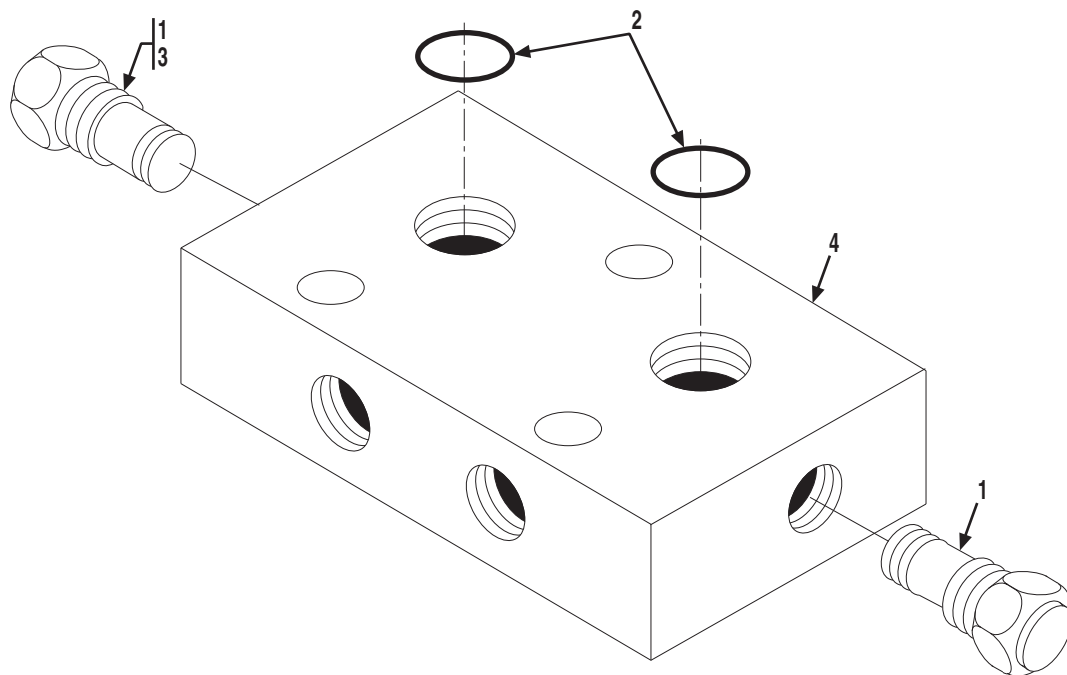




Figure 9-19 Sway Cylinder Valve

Item	Part Number	Qty.	Description	Rev.
	91473188	1	SWAY CYLINDER VALVE, (includes all items)	B
1	91474490	2	VALVE CARTRIDGE	
2	91404215	2	O-RING	
3	91404217	1	PISTON	
4	91474491	1	VALVE BODY	



HYDRAULIC COMPONENTS

Figure 9-20 Solenoid Valve

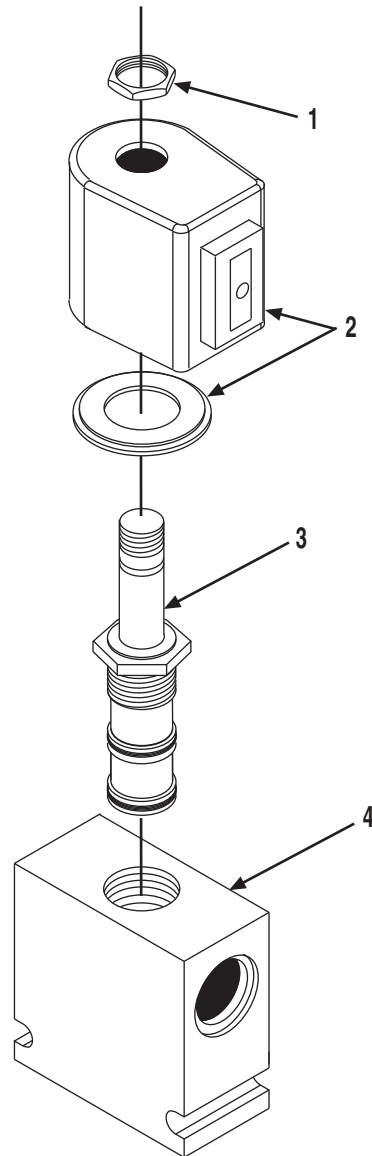




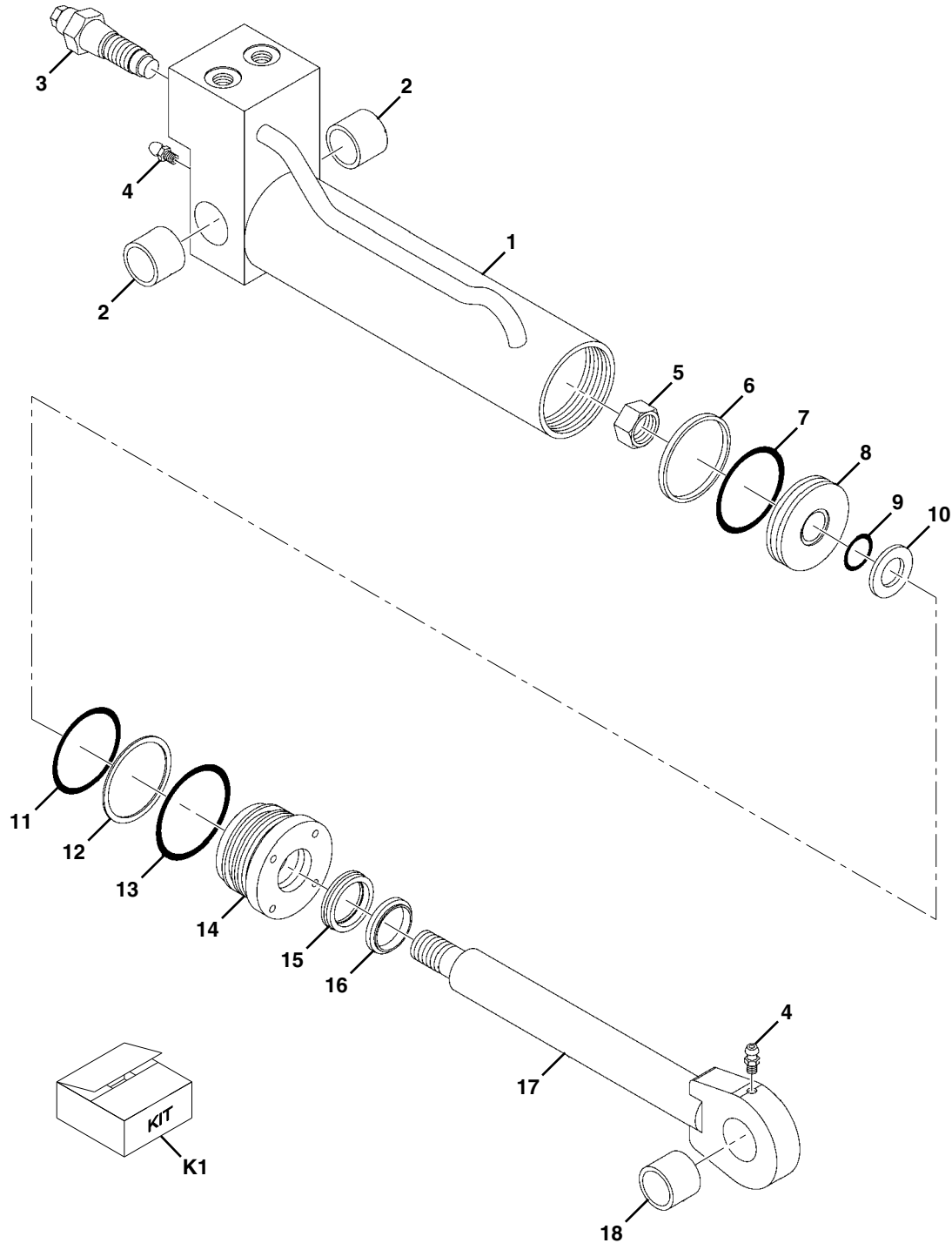
Figure 9-20 Solenoid Valve

Item	Part Number	Qty.	Description	Rev.
	91043446	1	3-WAY SOLENOID VALVE, (includes all items)	
1	90208066	1	NUT	
2	91144158	1	COIL	
3	91144159	1	CORE ASSY, (3-way, 2-position)	
4	80934035	1	VALVE BODY	



HYDRAULIC COMPONENTS

Figure 9-21 Grapple Bucket Cylinder



PAP23860



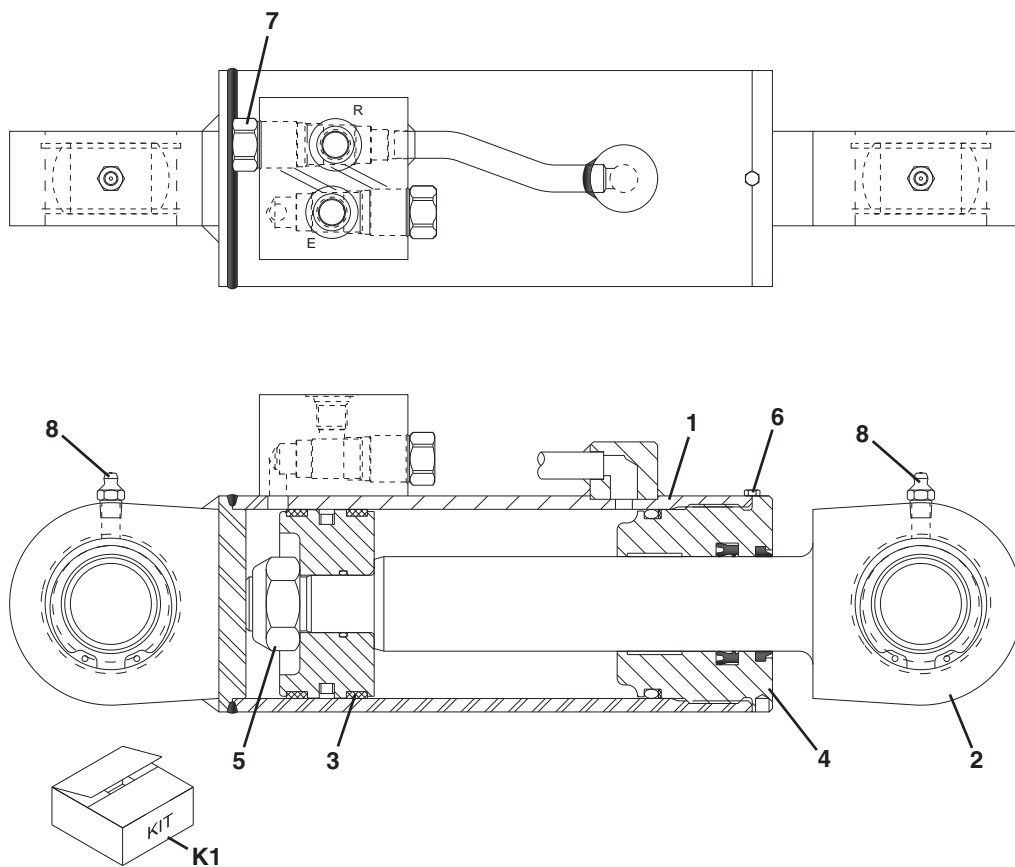
Figure 9-21 Grapple Bucket Cylinder

Item	Part Number	Qty.	Description	Rev.
	70021393	1	GRAPPLE BUCKET CYLINDER, (includes all items)	
1	70021465	1	CYLINDER TUBE	
2	70021448	2	BUSHING	
3	70021464	2	VALVE CARTRIDGE	
4	90554045	2	GREASE FITTING	
5	70021440	1	HEX NUT	
6	Use Kit K1	1	PISTON RING	
7	Use Kit K1	1	O-RING	
8	70021451	1	PISTON	
9	Use Kit K1	1	O-RING	
10	70021444	1	WASHER	
11	Use Kit K1	1	O-RING	
12	Use Kit K1	1	BACK-UP WASHER	
13	Use Kit K1	1	O-RING	
14	70021446	1	CYLINDER GLAND	
15	Use Kit K1	1	POLY-PAK SEAL	
16	Use Kit K1	1	ROD WIPER	
17	70021466	1	PISTON ROD	
18	70021447	1	BUSHING	
K1	70021452	1	SEAL KIT, (includes items 6, 7, 9, 11 thru 13, 15 & 16)	



HYDRAULIC COMPONENTS

Figure 9-22 Side Tilt Carriage Cylinder



PY1581



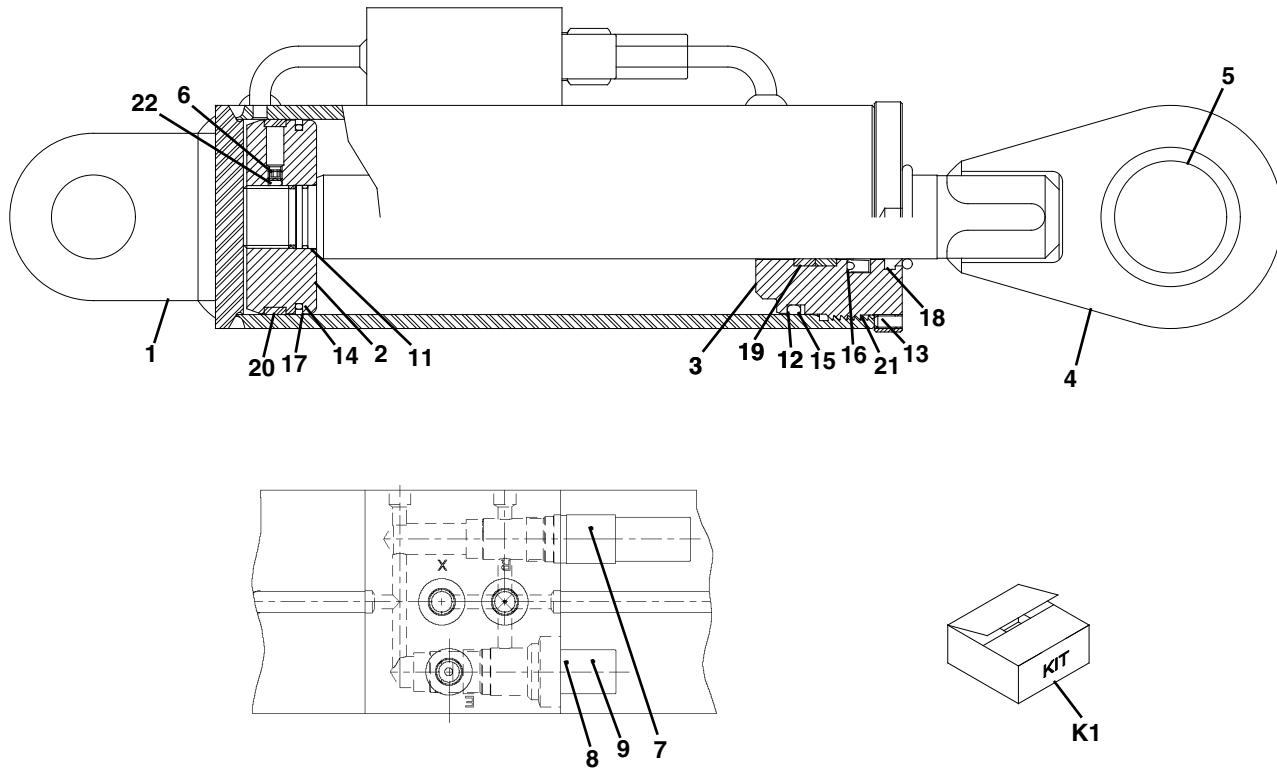
Figure 9-22 Side Tilt Carriage Cylinder

Item	Part Number	Qty.	Description	Rev.
	1001090134	1	SIDE TILT CARRIAGE CYLINDER, (includes all items)	B
1	70022038	1	BARREL ASSY	
2	70022039	1	ROD ASSY	
3	70022040	1	PISTON	
	70022042	1	SEAL KIT	
4	70021908	1	ROD BEARING	
	70022043	1	SEAL KIT	
5	90022230	1	HEX NUT	
6	7029760	1	CAPSCREW	
7	4640438	2	CHECK VALVE	
	2900770	1	SEAL KIT	
8	91044080	2	GREASE FITTING	
K1	70022041	1	SEAL KIT, (contains 70022042 & 70022043)	



HYDRAULIC COMPONENTS

Figure 9-23 72 Inch 90 Degree Swing Carriage Cylinder



PAP18860



Figure 9-23 72 Inch 90 Degree Swing Carriage Cylinder

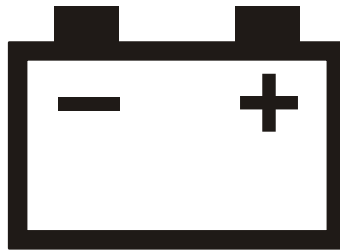
Item	Part Number	Qty.	Description	Rev.
	1001103182	1	SWING CARRIAGE CYLINDER, (includes items 1 thru 22)	B
1	70022044	1	TUBE ASSY	
2	8035863	1	PISTON	
3	8035862	1	HEAD GLAND	
4	70022045	1	ROD ASSY	
5	70022046	1	BEARING	
6	8035536	2	SET SCREW, 5/16-18X1/2	
7	70020428	1	RELIEF VALVE, (preset to 2000 psi)	
	7024574	1	SEAL KIT	
8	8033786	1	COUNTERBALANCE VALVE, (preset to 3000 psi)	
	8205655	1	SEAL KIT	
9	70021812	1	TAMPERPROOF CAP	
11	Use Kit K1	1	O-RING	
12	Use Kit K1	1	O-RING	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	SQUARE RING	
15	Use Kit K1	1	BACK-UP RING	
16	Use Kit K1	1	SEAL	
17	Use Kit K1	1	PISTON SEAL	
18	Use Kit K1	1	ROD WIPER	
19	Use Kit K1	2	WEAR BAND	
20	Use Kit K1	1	WEAR BAND	
21	Use Kit K1	2	INSERT	
22	Use Kit K1	2	INSERT	
K1	2915023	1	SEAL KIT, (includes items 11 thru 22)	

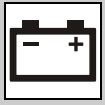


HYDRAULIC COMPONENTS

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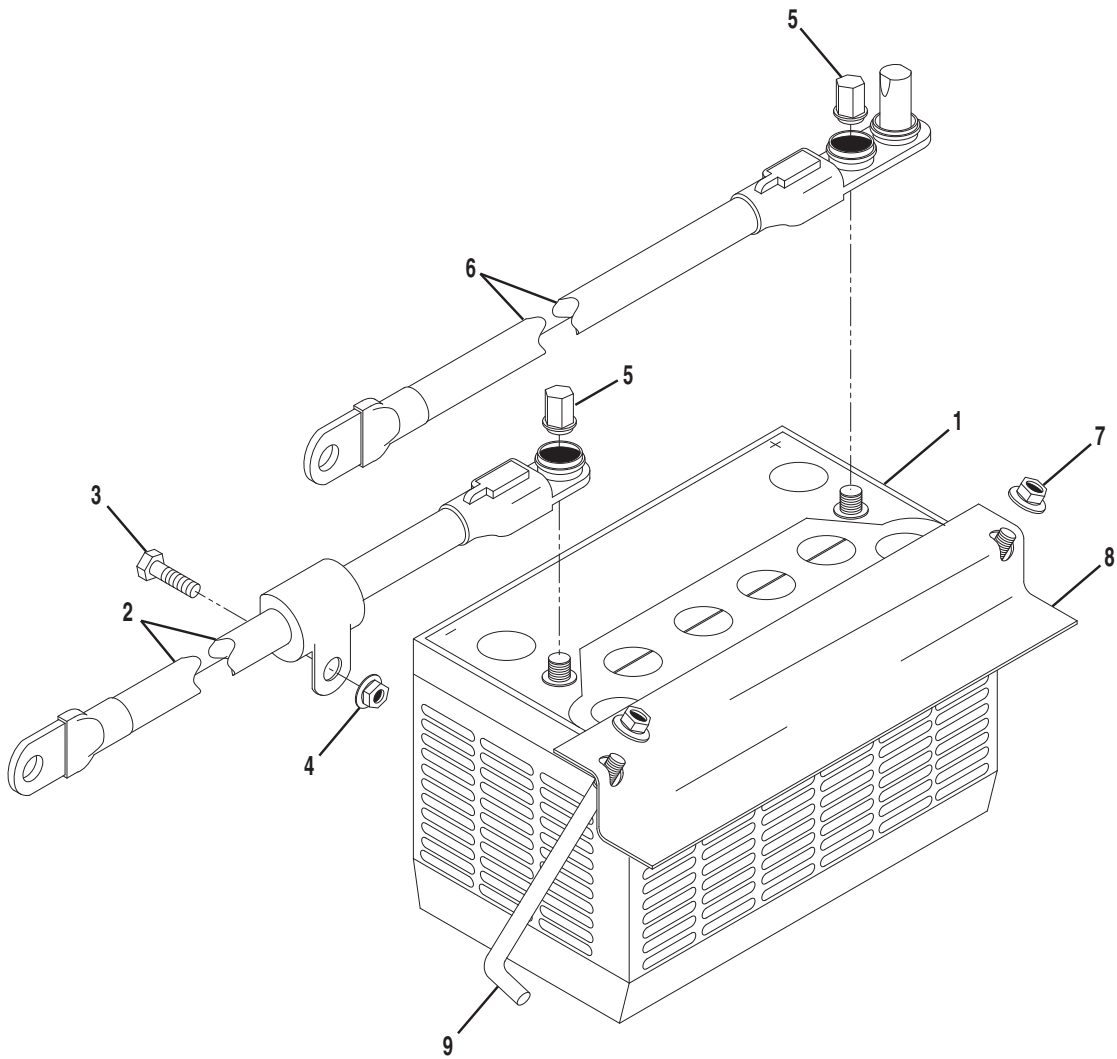
SECTION 10 ELECTRICAL





ELECTRICAL

Figure 10-1 Battery & Cables



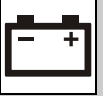


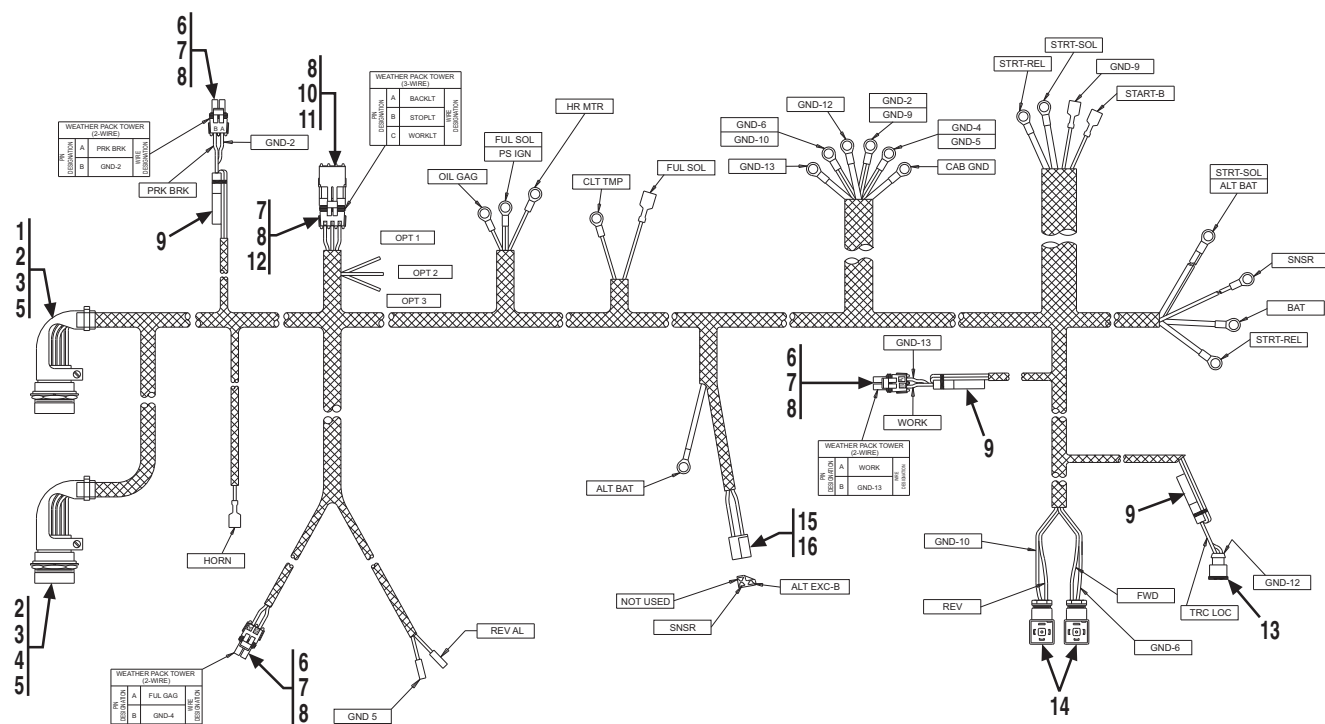
Figure 10-1 Battery & Cables

Item	Part Number	Qty.	Description	Rev.
1	91473226	1	BATTERY, (Before S/N 0160018356), (12V, 750 AMP), TOP STUD, 3/8-16 UNC THREAD, BCI GROUP 31	
	91083483	1	BATTERY, (S/N 0160018356 & After), (12V, 1050 AMP), TOP STUD, 3/8-16 UNC THREAD, BCI GROUP 31	
2	91403200	1	NEGATIVE BATTERY CABLE	
3	80973025	1	WHIZ-LOCK SCREW, 3/8-16	
4	77143015	1	WHIZ-LOCKNUT, 3/8-16	
5	77383567	2	TERMINAL NUT	
6	91413147	1	POSITIVE BATTERY CABLE	
7	77143006	2	WHIZ-LOCKNUT, 5/16-18	
8	91401281	1	BATTERY HOLD DOWN	
9	91081640	2	HOLD DOWN STUD, 5/16-18	
10	14403416	AR	DI-ELECTRIC GREASE, (not shown), (add to caps on battery terminals)	

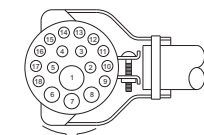


S/N 0189001 thru 0189345 &
0160000230 thru 0160001775

Figure 10-2 Engine Harness



PIN DESIGNATION	1	BAT	WIRE DESIGNATION
	2	HR MTR	
	3	HORN	
	4	FUL GAG	
	5	START-B	
	6	PLUG	
	7	PLUG	
	8	PLUG	
	9	ALT EXC-B	
	10	PLUG	
	11	PLUG	
	12	PLUG	
	13	REV	
	14	FWD	
	15	4X4	
	16	TRC LOC	
	17	PLUG	
	REV AL		



**END VIEW OF
CONNECTOR BODIES**

PIN DESIGNATION	1	CAB GND	WIRE DESIGNATION
	2	BACKLT	
	3	STOPLT	
	4	OPT 1	
	5	PLUG	
	6	WORKLT	
	7	PLUG	
	8	OPT 2	
	9	PS IGN	
	10	OIL GAG	
	11	CTL TMP	
	12	PRK BRK	
	13	PLUG	
	14	PLUG	
	15	PLUG	
	16	PLUG	
	17	OPT 3	
	18	PLUG	

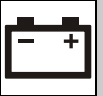
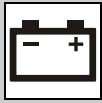


Figure 10-2 Engine Harness

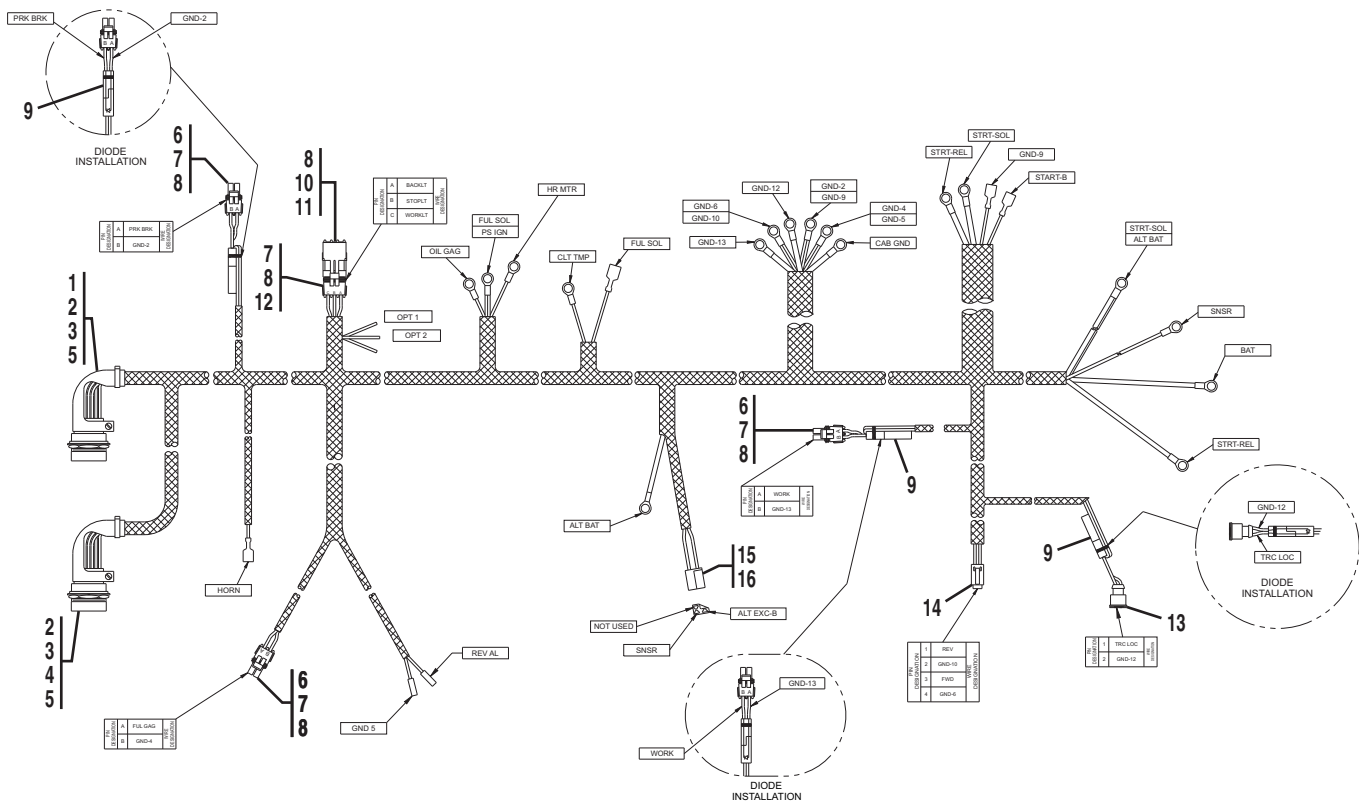
Item	Part Number	Qty.	Description	Rev.
	91403457	1	ENGINE HARNESS, (includes all items)	G
1	91404337	1	PLUG CONNECTOR	
2	83481286	2	PANEL NUT	
3	83481285	2	PANEL LOCKWASHER	
4	91364010	1	PLUG CONNECTOR	
5	91474463	2	STRAIN RELIEF	
6	80963057	3	WEATHER PACK CONNECTOR	
7	80963068	4	FEMALE PIN TERMINAL	
8	91364009	5	CABLE SEAL	
9	91363021	3	MOLDED DIODE	
10	80963060	1	WEATHER PACK CONNECTOR	
11	80963069	1	MALE PIN TERMINAL	
12	80963059	1	WEATHER PACK CONNECTOR	
13	91083440	1	SOLENOID CONNECTOR	
14	91084038	2	PLUG-IN CONNECTOR	
15	83683254	1	3 CONTACT PLUG	
16	90026803	1	CONNECTOR	



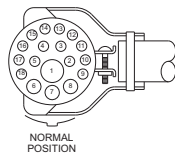
ELECTRICAL

S/N 0160001921 thru 0160006643
excluding 0160006494 & 0160006543

Figure 10-2 Engine Harness



PIN DESIGNATION	WIRE DESIGNATION
1	BAT
2	HR MTR
3	HORN
4	FUL GAG
5	START-B
6	PLUG
7	PLUG
8	PLUG
9	ALT EXC-B
10	PLUG
11	PLUG
12	PLUG
13	REV
14	FWD
15	4X4
16	TRC LOC
17	PLUG
18	REVAL



END VIEW OF
CONNECTOR BODIES

PIN DESIGNATION	WIRE DESIGNATION
1	CAB GND
2	BACKLT
3	STOPLT
4	OPT 1
5	PLUG
6	WORKLT
7	PLUG
8	OPT 2
9	PS IGN
10	OIL GAG
11	CTL TMP
12	PRK BRK
13	PLUG
14	PLUG
15	PLUG
16	PLUG
17	OPT 3
18	PLUG

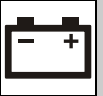


Figure 10-2 Engine Harness

Item	Part Number	Qty.	Description	Rev.
	91413120	1	ENGINE HARNESS, (includes all items)	B
1	91404337	1	PLUG CONNECTOR	
2	83481286	2	PANEL NUT	
3	83481285	2	PANEL LOCKWASHER	
4	91364010	1	PLUG CONNECTOR	
5	91474463	2	STRAIN RELIEF	
6	80963057	3	WEATHER PACK CONNECTOR	
7	80963068	4	FEMALE PIN TERMINAL	
8	91364009	5	CABLE SEAL	
9	91363021	3	MOLDED DIODE	
10	80963060	1	WEATHER PACK CONNECTOR	
11	80963069	1	MALE PIN TERMINAL	
12	80963059	1	WEATHER PACK CONNECTOR	
13	91083440	1	SOLENOID CONNECTOR	
14	91554011	1	PLUG-IN CONNECTOR	
15	83683254	1	3 CONTACT PLUG	
16	90026803	1	CONNECTOR	



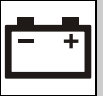
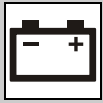


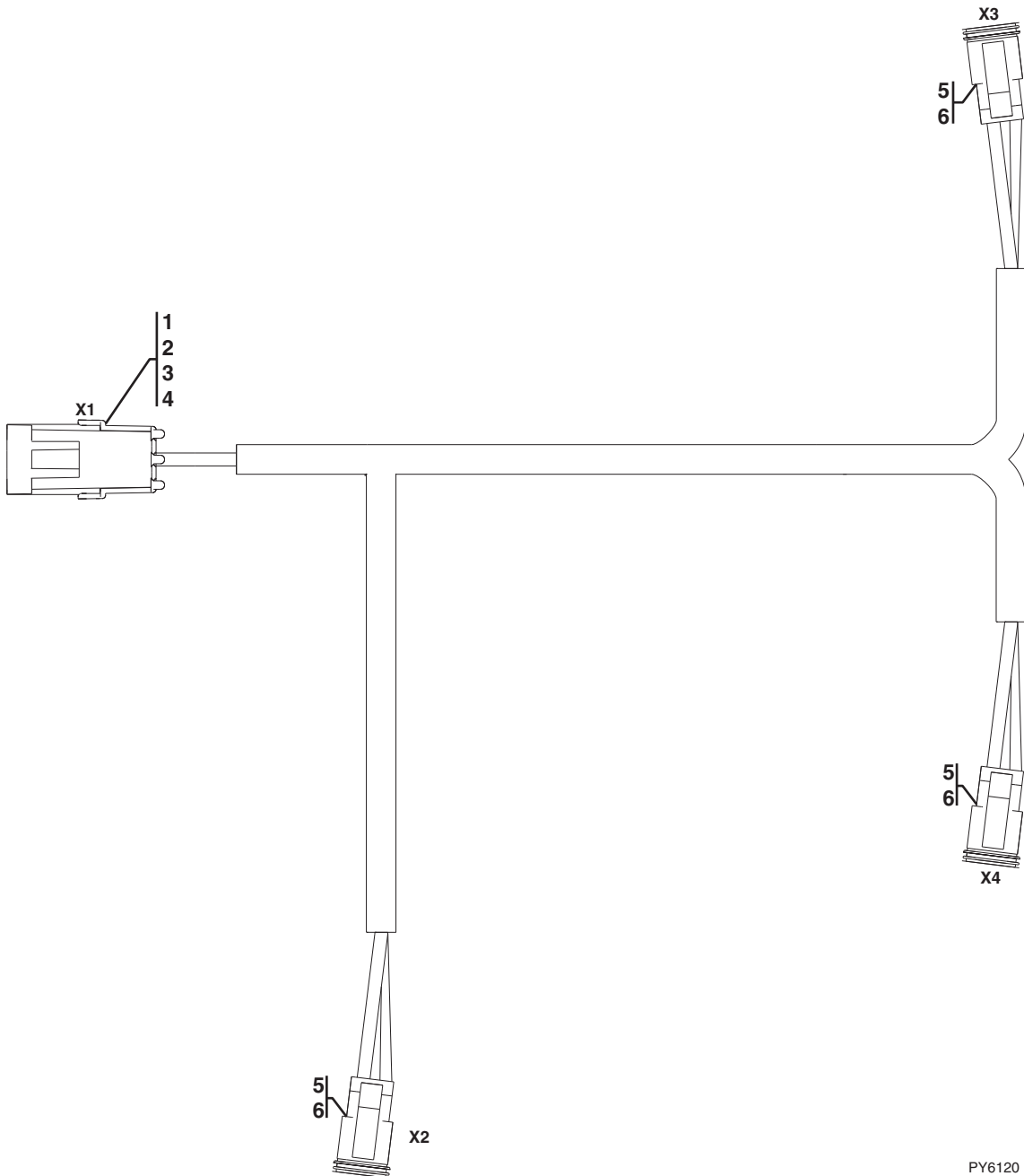
Figure 10-2 Engine Harness

Item	Part Number	Qty.	Description	Rev.
	91413146	1	ENGINE HARNESS, (S/N 0160006706 thru 0160018158), (includes items 1 thru 16)	B
	4923400	1	ENGINE HARNESS, (S/N 01600018163 & After), (includes all items)	A
1	91474463	2	90 DEGREE STRAIN RELIEF	
2	80963057	3	WEATHER PACK CONNECTOR	
3	80963068	4	FEMALE PIN TERMINAL	
4	91364009	5	CABLE SEAL	
5	80963060	1	WEATHER PACK CONNECTOR	
6	80963069	1	MALE PIN TERMINAL	
7	4460459	1	WEATHER PACK CONNECTOR	
8	91363021	3	MOLDED DIODE	
9	91083440	1	SOLENOID CONNECTOR	
10	91554011	1	PLUG	
11	83683254	1	3 CONTACT PLUG	
12	90026803	1	CONNECTOR	
13	91364010	1	PLUG CONNECTOR	
14	83481286	2	PANEL NUT	
15	83481285	2	PANEL LOCKWASHER	
16	91404337	1	PLUG CONNECTOR	
101	1001117021	1	CONNECTOR	
102	8220890	1	LOCK	
103	4460746	2	TERMINAL	
104	4460789	1	SEAL	



ELECTRICAL

Figure 10-3 Boom Work Lights Harness



PY6120

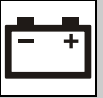
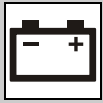


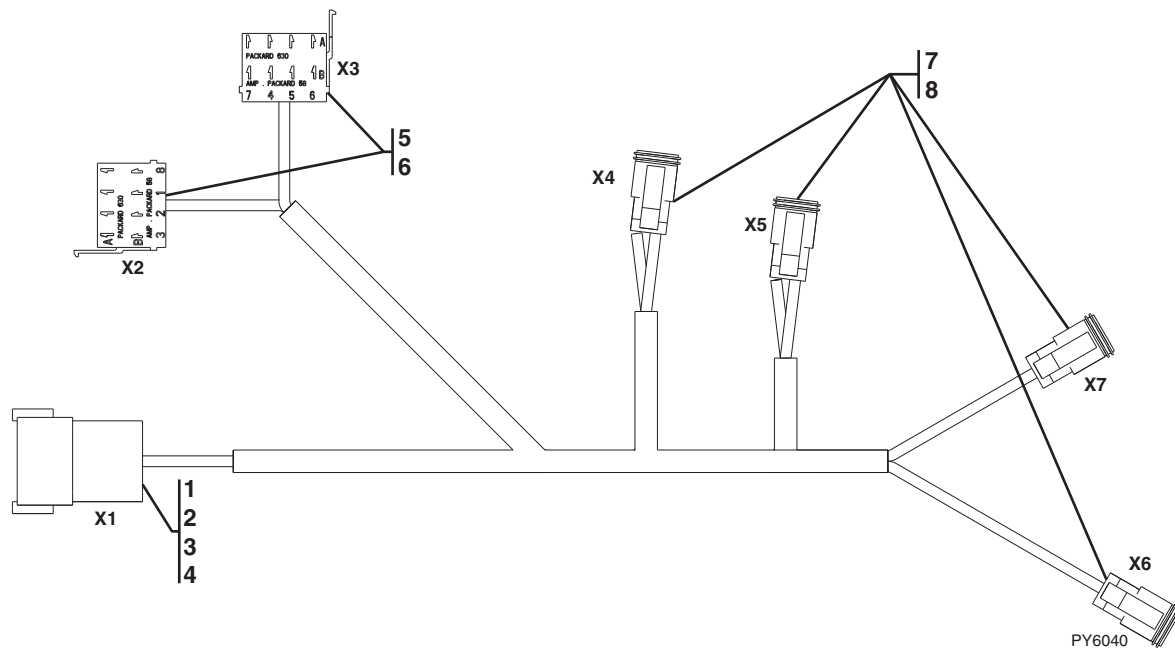
Figure 10-3 Boom Work Lights Harness

Item	Part Number	Qty.	Description	Rev.
	1001125382	1	BOOM WORK LIGHTS HARNESS, (if equipped), (includes all items)	A
1	80963062	1	CONNECTOR	
2	4460850	2	TERMINAL	
3	4460789	1	SEAL	
4	1001116727	2	PLUG	
5	4460891	3	CONNECTOR KIT	
	80604018	3	WEDGE LOCK	
6	4460942	6	TERMINAL	



ELECTRICAL

Figure 10-4 Cab Work Light Harness



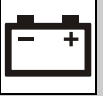
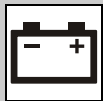


Figure 10-4 Cab Work Light Harness

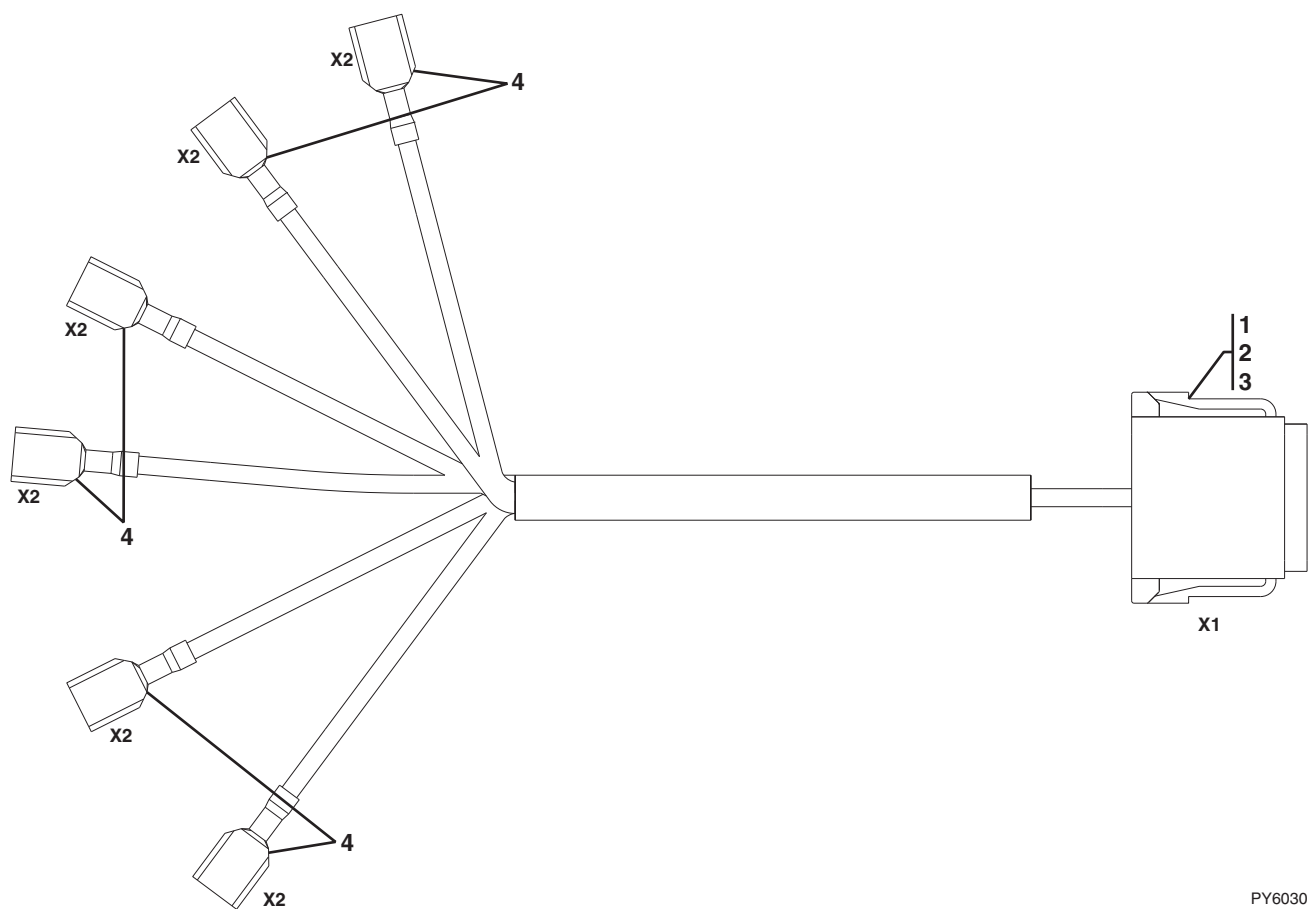
Item	Part Number	Qty.	Description	Rev.
	1001125384	1	CAB WORK LIGHT HARNESS, (if equipped), (includes all items)	A
1	4460931	1	CONNECTOR	
	80604025	1	WEDGE LOCK	
2	4460465	2	TERMINAL	
3	4460942	4	TERMINAL	
4	4460466	2	PLUG	
5	7026439	2	CONNECTOR	
6	1001118384	8	TERMINAL	
7	4460891	4	CONNECTOR	
	80604018	4	WEDGE LOCK	
8	4460942	8	TERMINAL	



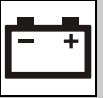
ELECTRICAL

S/N 0160031703 & After

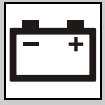
Figure 10-5 Cab Work Light & Beacon Light Harness



PY6030

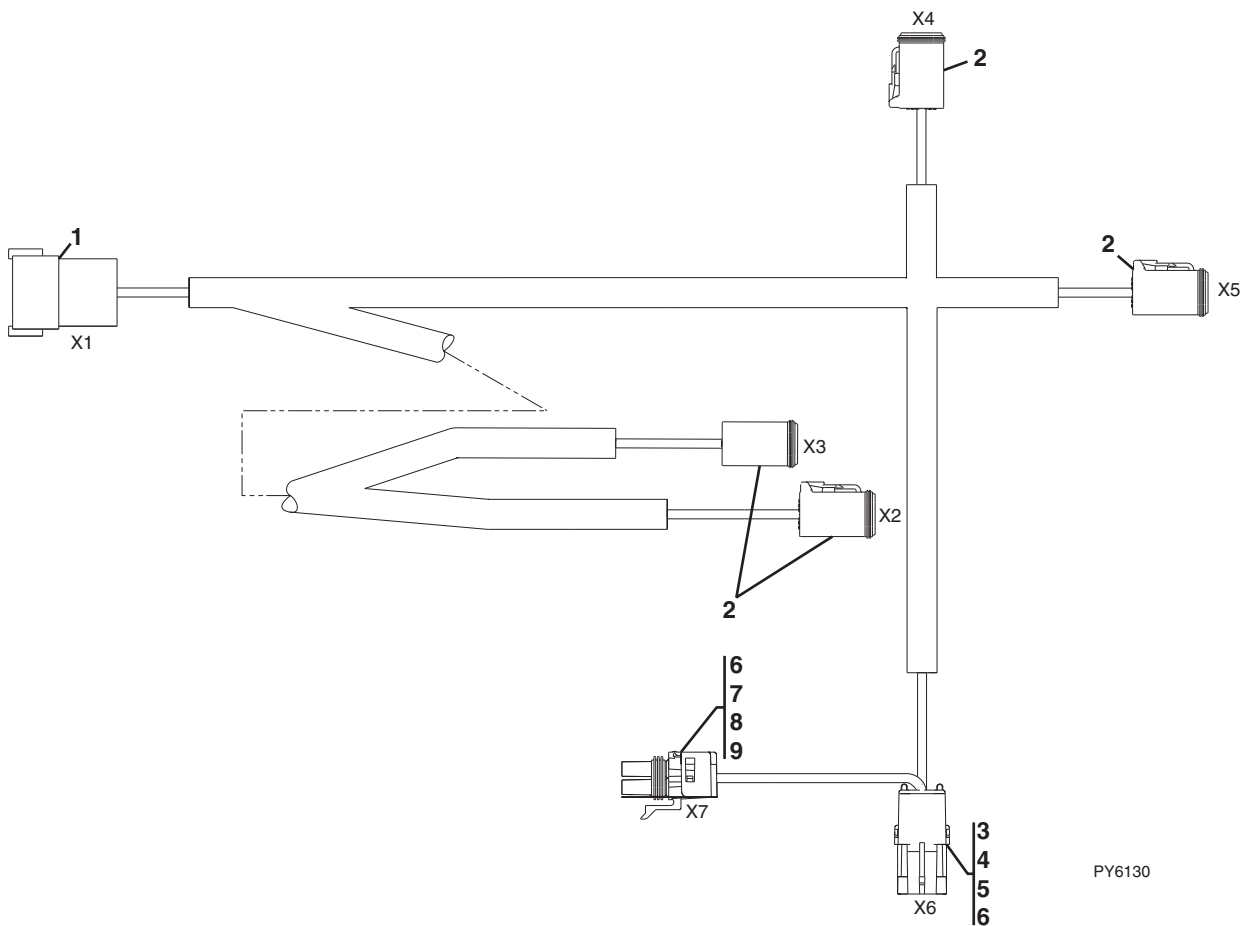
**Figure 10-5 Cab Work Light & Beacon Light Harness**

Item	Part Number	Qty.	Description	Rev.
	1001090507	1	CAB WORK LIGHT & BEACON LIGHT SWITCH HARNESS, (if equipped), (includes all items)	B
1	4460930	1	CONNECTOR	
	80604025	1	WEDGE LOCK	
2	NSS	7	TERMINAL	
3	4460466	1	PLUG	
4	NSS	6	TERMINAL, 1/4 FULLY INSULATED	



ELECTRICAL

Figure 10-6 Frame Road Lights Harness



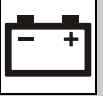
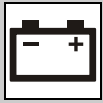


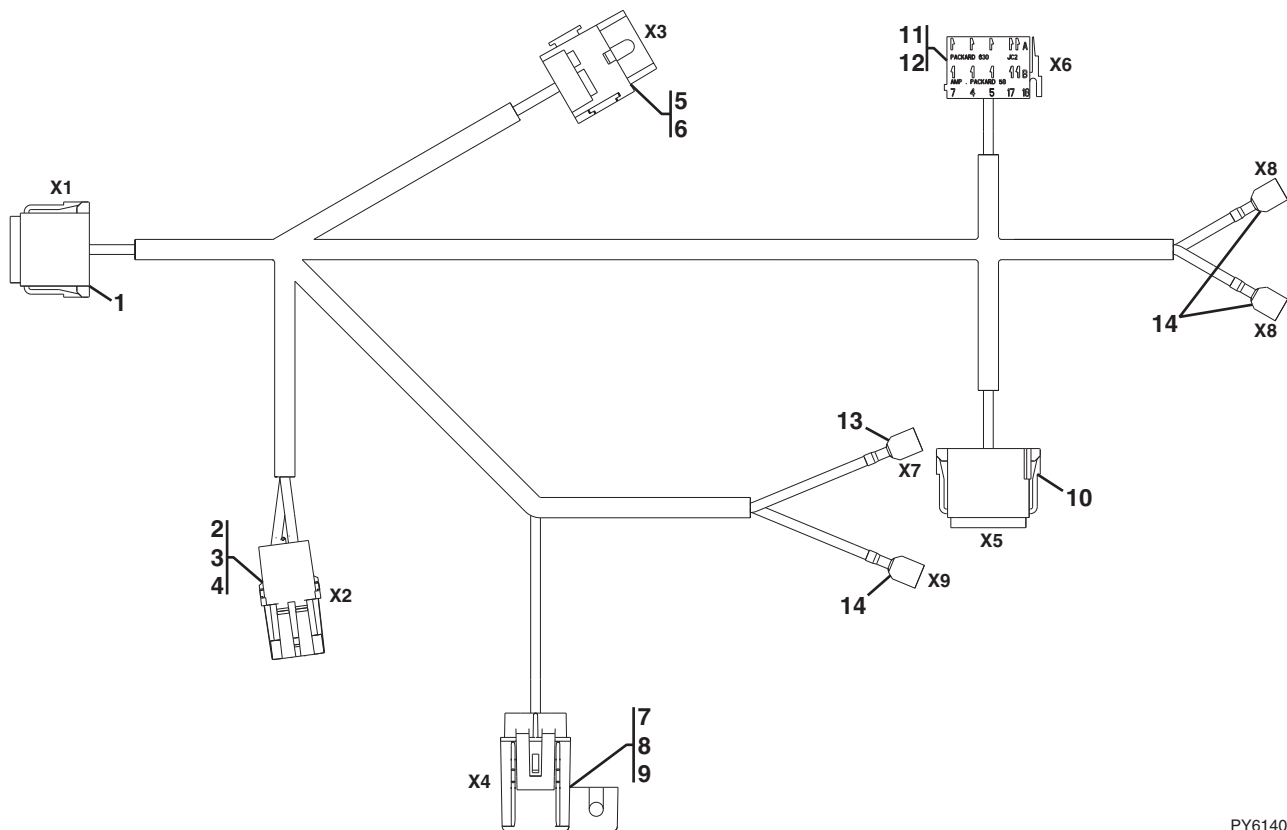
Figure 10-6 Frame Road Lights Harness

Item	Part Number	Qty.	Description	Rev.
	1001125385	1	FRAME ROAD LIGHTS HARNESS, (if equipped), (includes all items)	A
1	91503105	1	CONNECTOR	
	91503106	1	WEDGE LOCK	
2	7026909	4	CONNECTOR	
	80604023	4	WEDGE LOCK	
3	80963062	1	CONNECTOR	
4	4460789	3	TERMINAL	
5	8220089	1	SEAL	
6	80963070	4	PLUG	
7	80963061	1	CONNECTOR	
8	4460457	2	TERMINAL	
9	4460458	1	SEAL	



ELECTRICAL

Figure 10-7 Cab Road Lights Harness



PY6140

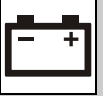
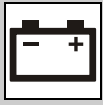


Figure 10-7 Cab Road Lights Harness

Item	Part Number	Qty.	Description	Rev.
	1001090509	1	CAB ROAD LIGHTS HARNESS, (if equipped), (includes all items)	C
1	4460851	1	CONNECTOR	
	80604025	1	WEDGE LOCK	
2	4461157	1	CONNECTOR	
3	4460475	2	TERMINAL	
4	8220081	1	SEAL	
5	1001117058	1	CONNECTOR	
6	4460419	2	TERMINAL	
7	1001117018	1	CONNECTOR, (includes 15 amp fuse)	
8	1001116733	2	TERMINAL	
9	7029771	1	COVER	
10	4460934	1	CONNECTOR	
	80604016	1	WEDGE LOCK	
11	1001117079	1	CONNECTOR	
12	1001118384	7	TERMINAL	
13	NSS	1	1/4 SPADE TERMINAL	
14	NSS	3	1/4 FEMALE TERMINAL	

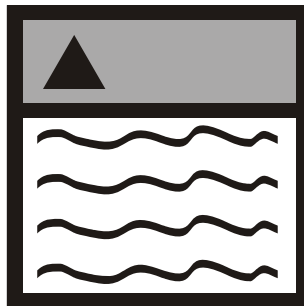


ELECTRICAL

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SECTION 11

DECALS

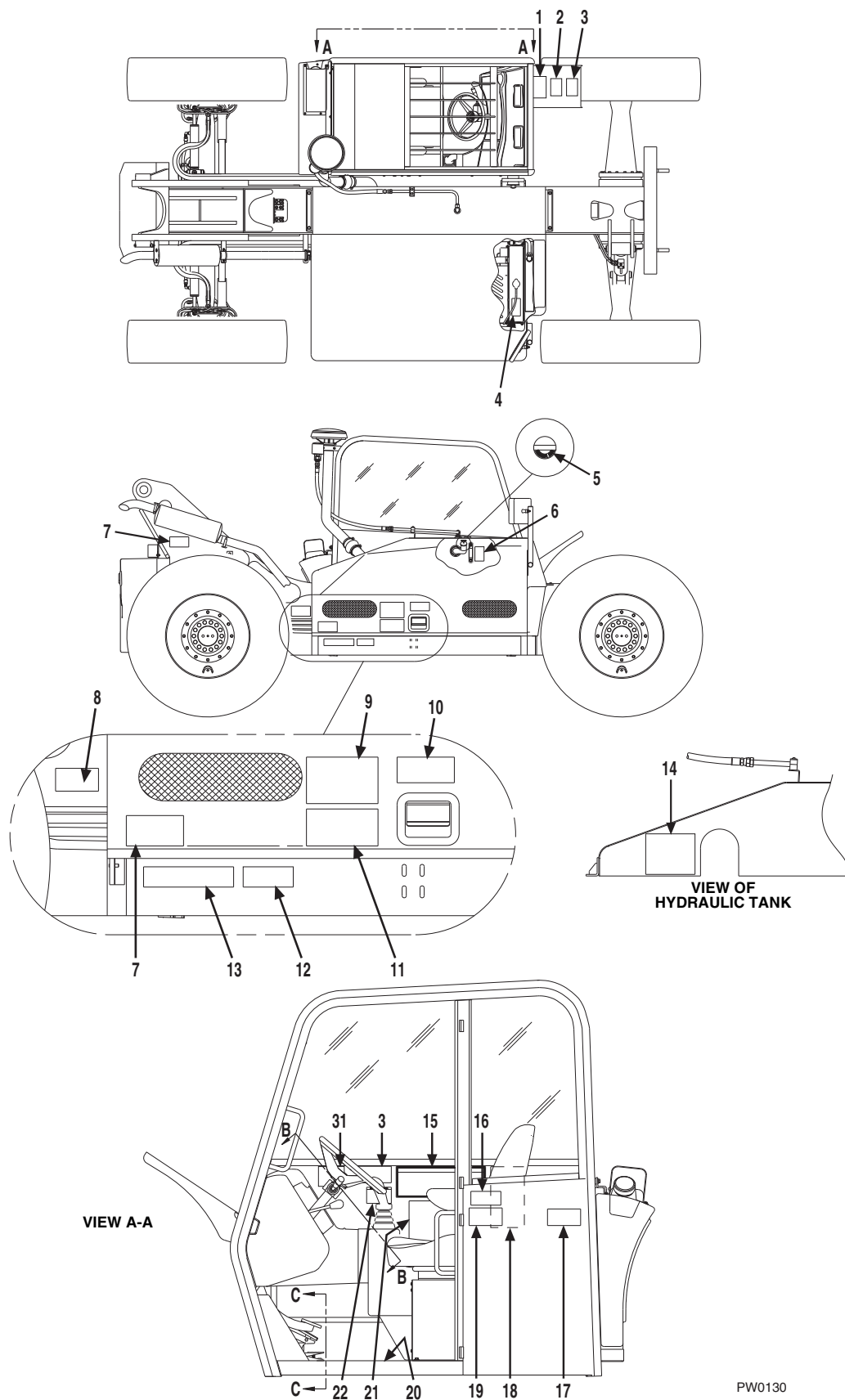




DECALS

S/N 0189001 thru 0189345
& 0160000230 thru 0160003960

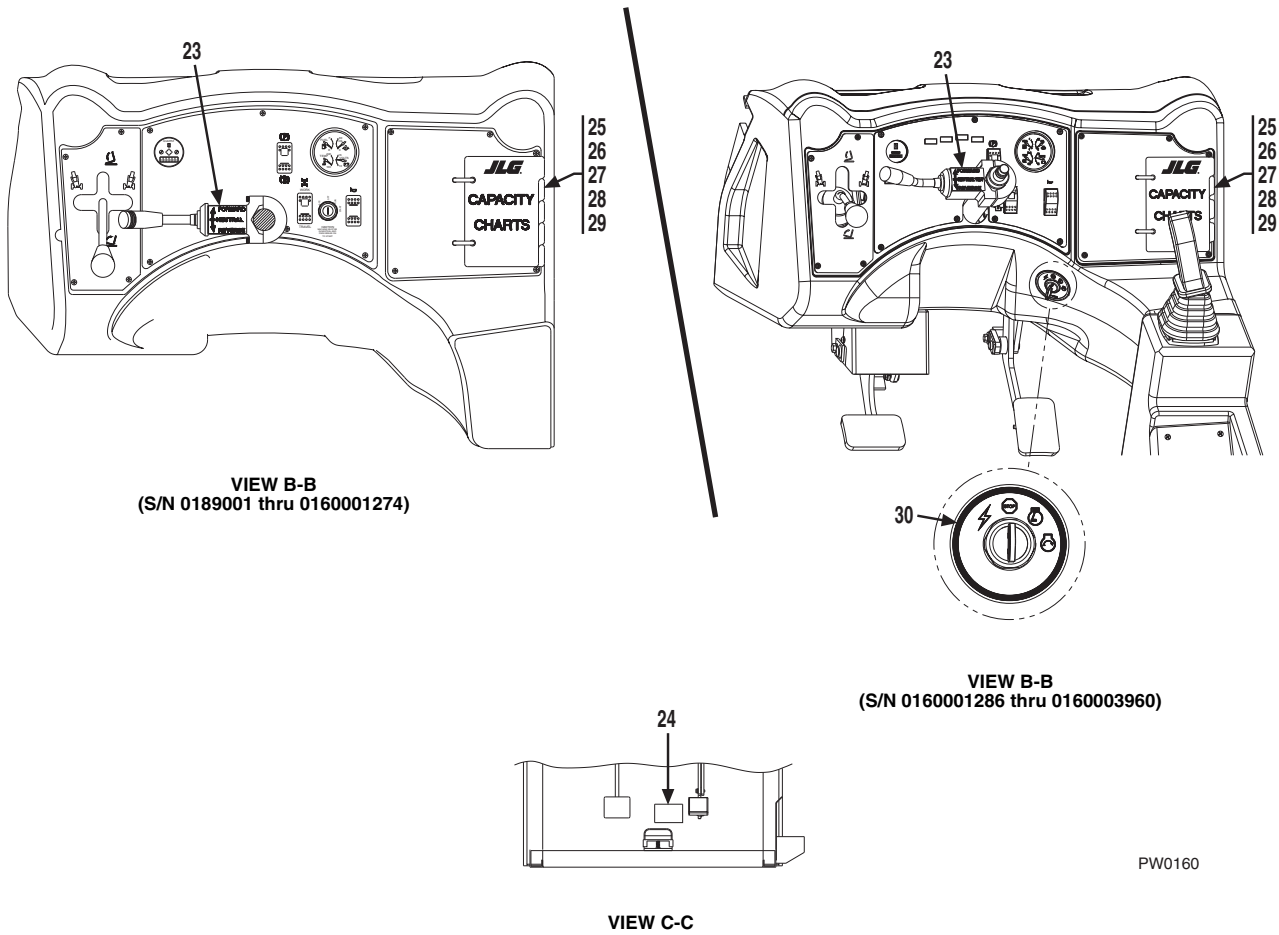
Figure 11-1 Cab & Frame Decals



PW0130



Figure 11-1 Cab & Frame Decals (Continued)





DECALS

S/N 0189001 thru 0189345
& 0160000230 thru 0160003960

Figure 11-1 Cab & Frame Decals

Item	Part Number	Qty.	Description	Rev.
1	80603022	1	DANGER DECAL	
2	90553027	1	WARNING DECAL	
3	91323030	2	WARNING DECAL	
4	80603026	1	CAUTION DECAL	
5	91403573	1	HYDRAULIC FLUID DECAL	
6	91403569	1	OIL LEVEL DECAL	
7	91143282	3	WARNING DECAL	
8	91143280	1	WARNING DECAL	
9	91143285	1	INSTRUCTION DECAL	
10	91143281	1	WARNING DECAL	
11	91143284	1	WARNING DECAL	
12	91143288	1	HYDRAULIC OIL PLATE	
13	91083492	1	OIL WARNING DECAL	
14	91413024	1	TEST PORT DECAL	
15	90553028	1	WARNING DECAL	
16	77333027	1	MADE IN USA DECAL	
17	91143286	1	WARNING DECAL	
18	NSS	1	S/N & ATTACHING PLATE	
19	91143283	1	WARNING DECAL	
20	91403597	1	NON-SKID FLOOR	
21	91413012	1	SERVICE INSTRUCTION PLATE	
22	91503102	1	BOOM OPERATION DECAL, (standard)	
23	91163028	1	SHIFTER DECAL	
24	91403529	1	TRACTION LOCK DECAL	
25	91403618	1	LOAD CHART FRONT COVER	
26	91413011	1	LOAD CHART, CARRIAGE & SLOPE PILER	
27	91413021	1	LOAD CHART, MAST	
28	91413026	1	LOAD CHART, SWING CARRIAGE & WORK PLATFORM	
29	91413027	1	LOAD CHART, TRUSS BOOM	
30	91413061	1	IGNITION SWITCH DECAL, (S/N 0160001286 thru 0160003960)	
31	91343016	1	CAUTION DECAL, (S/N 0160003213 thru 0160003960)	



Figure 11-1 Cab & Frame Decals (Continued)

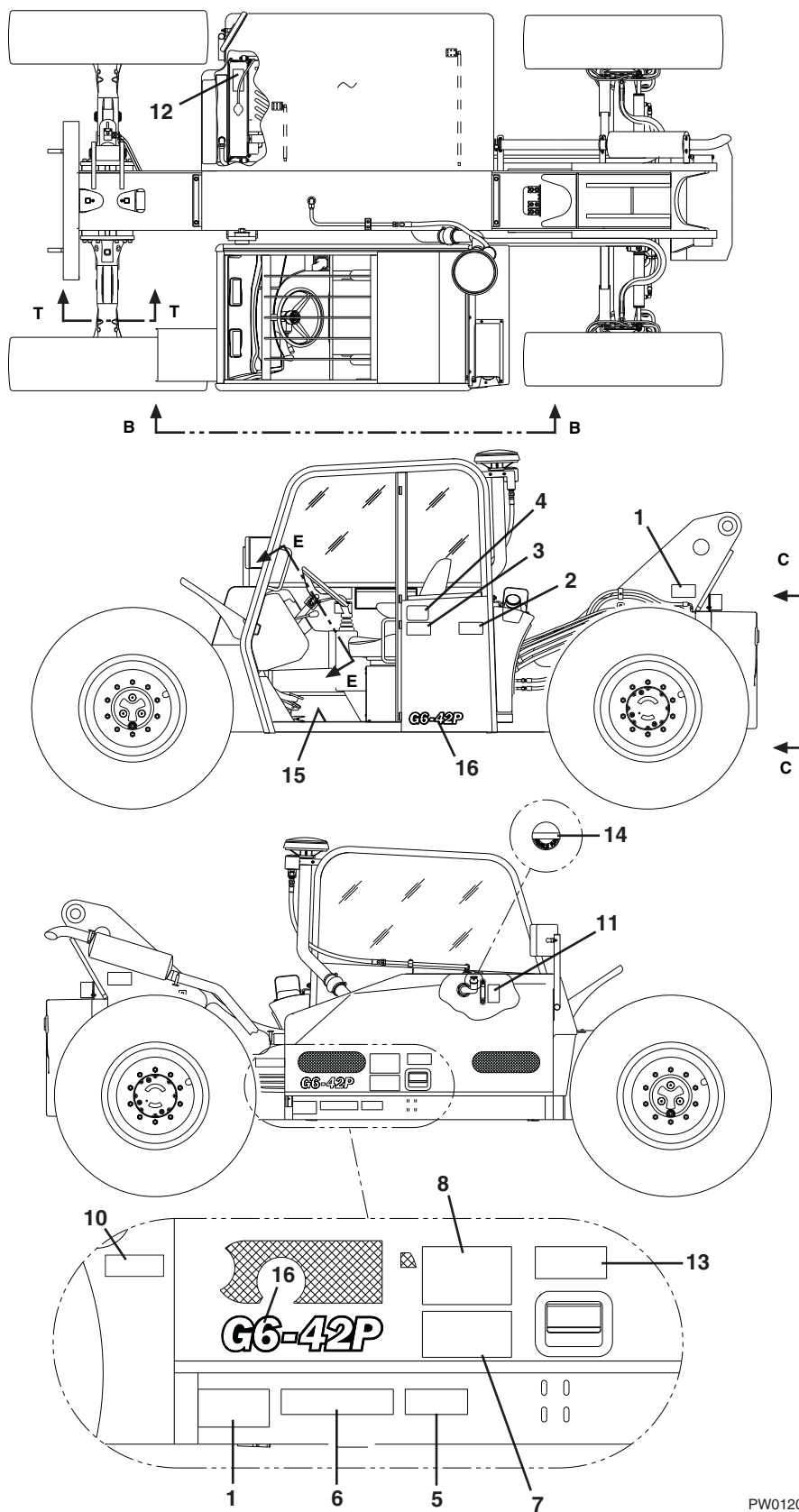
Item	Part Number	Qty.	Description	Rev.



DECALS

S/N 0160004018 & After

Figure 11-1 Cab & Frame Decals



PW0120

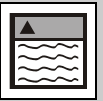
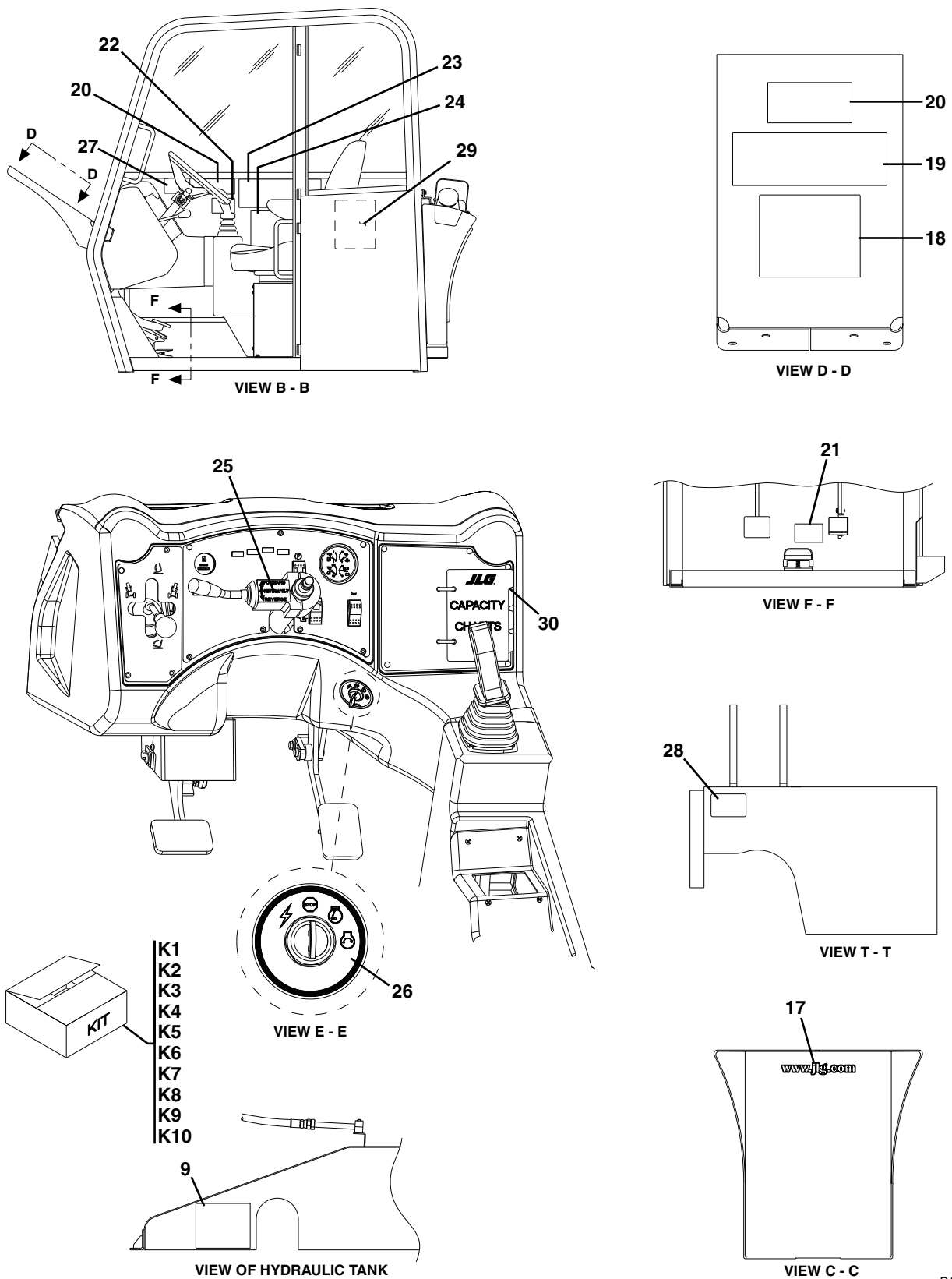


Figure 11-1 Cab & Frame Decals (Continued)





DECALS

S/N 0160004018 & After

Figure 11-1 Cab & Frame Decals

Item	Part Number	Qty.	Description	Rev.
1	91143282	3	WARNING DECAL	
2	91143286	1	WARNING DECAL	
3	91143283	1	WARNING DECAL	
4	3251813	1	MADE IN USA DECAL	
5	91143288	1	HYDRAULIC OIL PLATE	
6	91083492	1	OIL WARNING DECAL	
7	91143284	1	WARNING DECAL	
8	91143285	1	INSTRUCTION DECAL	
9	91413024	1	TEST PORT DECAL	
10	91143280	1	WARNING DECAL, (if equipped)	
11	91403569	1	OIL LEVEL DECAL	
12	80603026	1	CAUTION DECAL	
13	91143281	1	WARNING DECAL	
14	91403573	1	HYDRAULIC FLUID DECAL	
15	91403597	1	NON-SKID FLOOR	
16	1706191	2	G6-42P DECAL, (S/N 0160006618 & After)	
17	1704885	1	WEBSITE DECAL, (S/N 0160006618 & After)	
18	80603022	1	DANGER DECAL	
19	90553027	1	WARNING DECAL	
20	91323030	1	WARNING DECAL	
21	91403529	1	TRACTION LOCK DECAL	
22	91503102	1	BOOM OPERATION DECAL	
23	90553028	1	WARNING DECAL	
24	91413012	1	SERVICE INSTRUCTION PLATE	
25	91163028	1	SHIFTER DECAL	
26	91413061	1	IGNITION SWITCH DECAL	
27	91343016	1	CAUTION DECAL	
28	NSS	1	S/N PLATE	
29	90554001	1	PLATFORM DECAL	
30	1001105324	Ref	LOAD CHART BOOKLET, (Before S/N 0160037689), (includes all items)	2
	91403618	1	CAPACITY CHART FRONT COVER	
	91413011	1	CAPACITY CHART, CARRIAGE & SLOPE PILER	
	91413021	1	CAPACITY CHART, MAST	
	91413026	1	CAPACITY CHART, SWING CARRIAGE & WORK PLATFORM	
	91413027	1	CAPACITY CHART, TRUSS BOOM	
	1001106005	1	LOAD CHART BOOKLET, (S/N 0160037689 & After), (includes all items)	4
	1001112752	1	CAPACITY CHART FRONT COVER	
	1001106037	1	CAPACITY CHART, STANDARD CARRIAGE	
	1001106062	1	CAPACITY CHART, TILT CARRIAGE	
	1001106087	1	CAPACITY CHART, SWING CARRIAGE	
	1001106112	1	CAPACITY CHART, 120 IN BUCKET	
	1001106137	1	CAPACITY CHART, 15 FT TRUSS BOOM	
	1001110405	1	LOAD CHART BOOKLET, (S/N 0160037689 & After), (includes all items)	2
	1001106191	1	GRAPPLE BUCKET	
	1001106226	1	TRUSS BOOM WITH WINCH	
	1001106296	1	VERTICAL MAST	

**Figure 11-1 Cab & Frame Decals (Continued)**

Item	Part Number	Qty.	Description	Rev.
K1	91415021	1	DECAL KIT, (S/N 0160006618 & After) , (includes items 1 thru 9, 11 thru 14, 16 thru 27 & items 2 thru 9 on Figure 11-2)	H
K2	91415042	1	DECAL KIT, (Spanish)	
K3	91415041	1	DECAL KIT, (Portuguese)	
K4	91475104	1	NATIONS RENT DECAL KIT	
K5	91515073	1	NES DECAL KIT	
K6	91475063	1	SUN BELT RENTALS DECAL KIT	
K7	91415071	1	UNITED RENTALS DECAL KIT	
K8	91515074	1	H & E RENTALS DECAL KIT	
K9	1001094592	1	RSC DECAL KIT	
K10	91555029	1	CORPORATE LOGOS DECAL KIT	



DECALS

S/N 0189001 thru 0189345
& 0160000230 thru 0160006413

Figure 11-2 Boom Decals

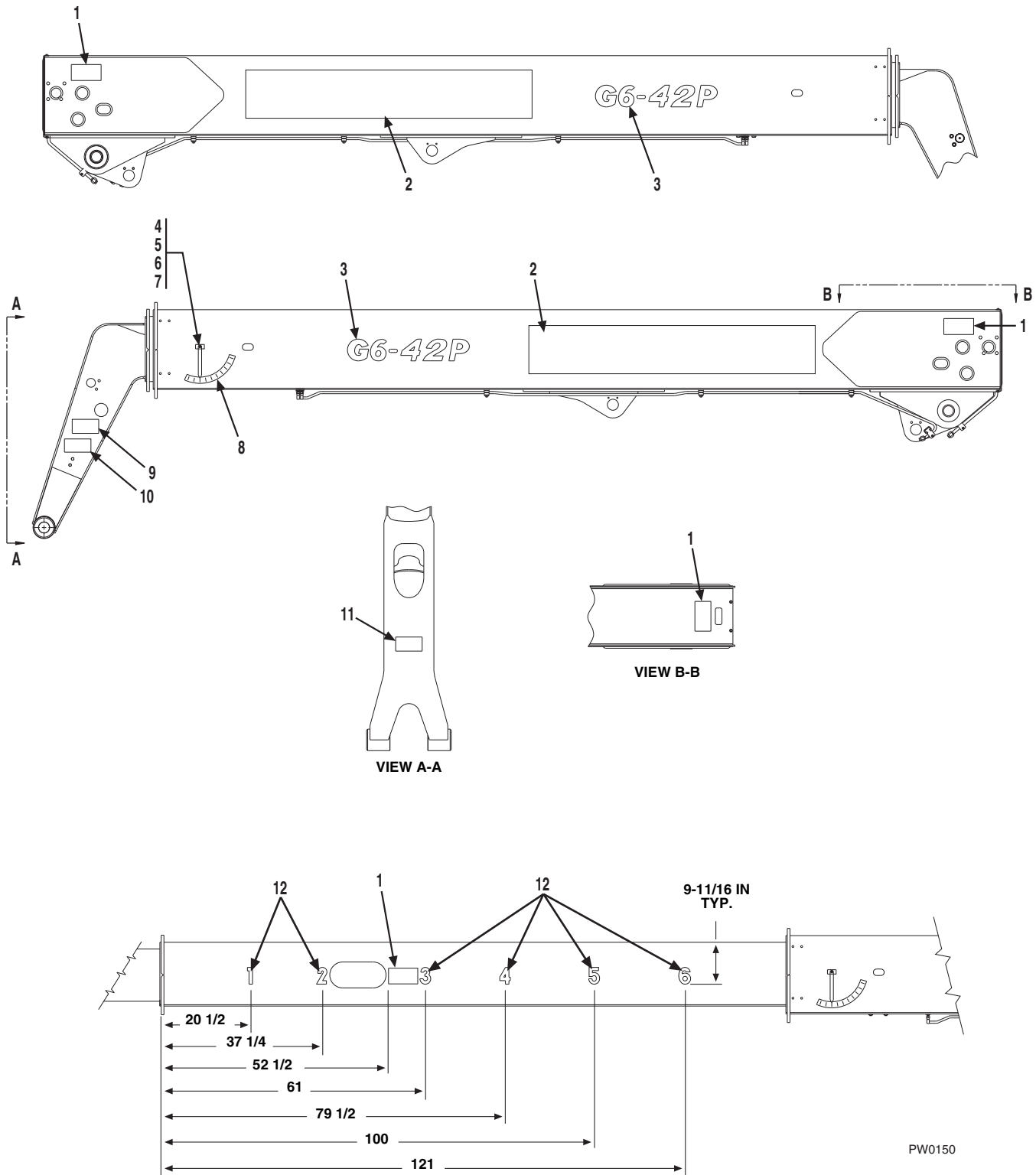




Figure 11-2 Boom Decals

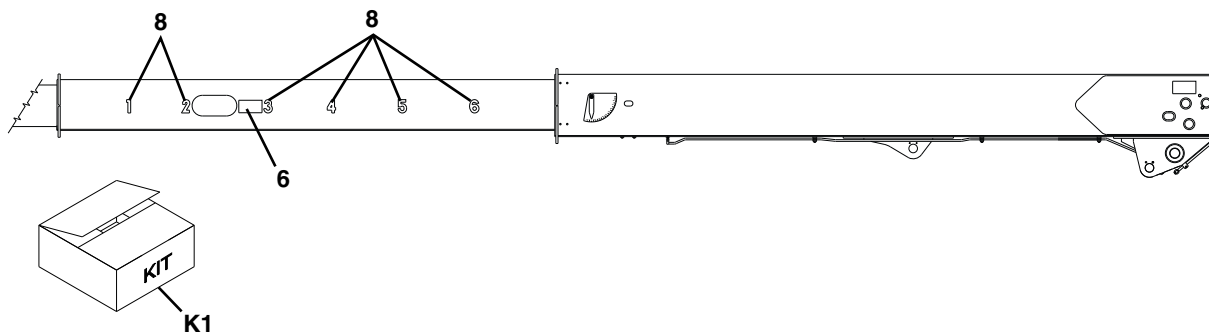
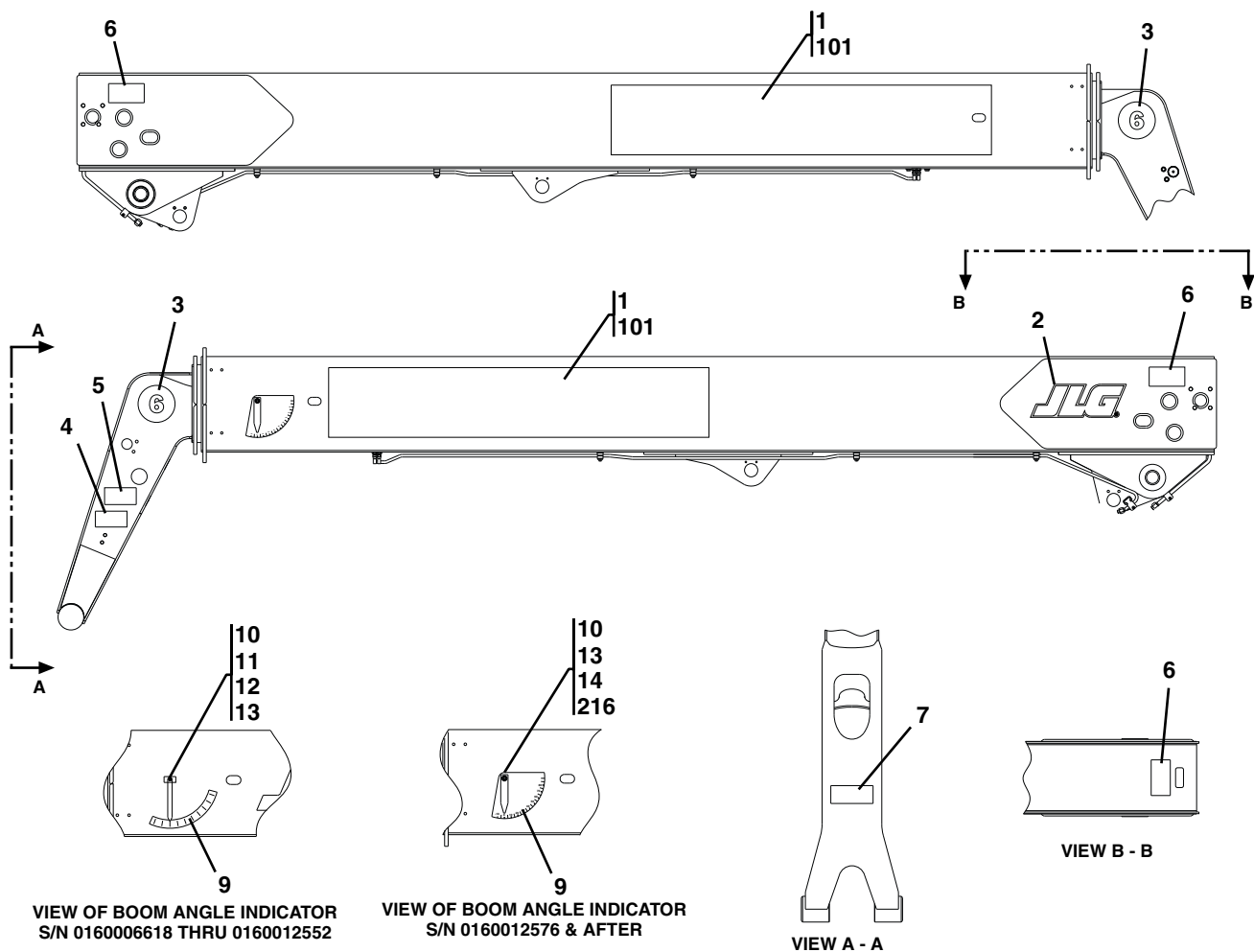
Item	Part Number	Qty.	Description	Rev.
1	80603037	5	WARNING DECAL	
2	1001106734	2	JLG DECAL	
3	91403622	2	G6 DECAL, WHITE, (standard)	
	91403623	2	G6 DECAL, BLACK, (optional)	
4	90200445	1	PENDULUM	
5	90200688	1	BEARING	
6	90026491	1	SHOULDER BOLT, 1/4-20	
7	88561108	1	FLAT WASHER, 5/16	
8	91003031	1	BOOM ANGLE DECAL, WHITE	
9	91143282	2	WARNING DECAL	
10	91143290	1	WARNING DECAL	
11	90553026	1	WARNING DECAL	
12	91553072	1	BOOM NUMBERS DECAL KIT	



DECALS

S/N 0160006618 & After

Figure 11-2 Boom Decals



PAP23730



Figure 11-2 Boom Decals

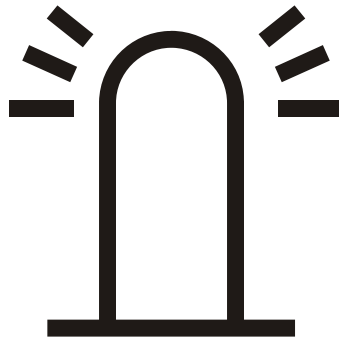
Item	Part Number	Qty.	Description	Rev.
1	1706184	2	12 IN GRADALL DECAL, WHITE, (no longer supplied with decal kit)	
2	1706101	2	7 IN JLG DECAL, WHITE	
3	1706170	2	GOOSENECK DECAL, 6	
4	91143290	1	WARNING DECAL	
5	91143282	2	WARNING DECAL	
6	80603037	5	WARNING DECAL	
7	90553026	1	WARNING DECAL	
8	91553072	1	BOOM NUMBERS DECAL KIT	
9	91003031	1	BOOM ANGLE DECAL, WHITE, (S/N 0160006618 thru 0160012552)	
	4105262	1	BOOM ANGLE DECAL, WHITE, (S/N 0160012576 & After)	
10	90200445	1	PENDULUM, (S/N 0160006618 thru 0160012552)	
	7075611	1	PENDULUM, (S/N 0160012576 thru 0160032930)	
	1001098769	1	PENDULUM, (S/N 0160033319 & After)	
11	90200688	1	BEARING, (S/N 0160006618 thru 0160012552)	
12	90026491	1	SHOULDER BOLT, 1/4-20, (S/N 0160006618 thru 0160012552)	
13	88561108	1	FLAT WASHER, 5/16, (S/N 0160006618 thru 0160012552)	
	8307113	3	WASHER, (S/N 0160012576 thru 0160032930)	
	4711600	1	WASHER, 3/8, (S/N 0160033319 & After)	
14	8305647	1	NUT, (S/N 0160012576 thru 0160032930)	
	8305645	1	HEX LOCKNUT, 3/8-16, (S/N 0160033319 & After)	
101	1001106734	2	JLG DECAL	
216	1001096404	1	BOOM ANGLE INDICATOR SPACER SLEEVE, (S/N 0160033319 & After)	
K1	91415021	1	DECAL KIT, (S/N 0160006618 & After), (includes items 1 thru 9, 11 thru 14 & 16 thru 27 on Figure 11-1 & items 2 thru 9 on Figure 11-2)	H



DECALS

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SECTION 12 OPTIONS





OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160001775

Figure 12-1 Turbo Option

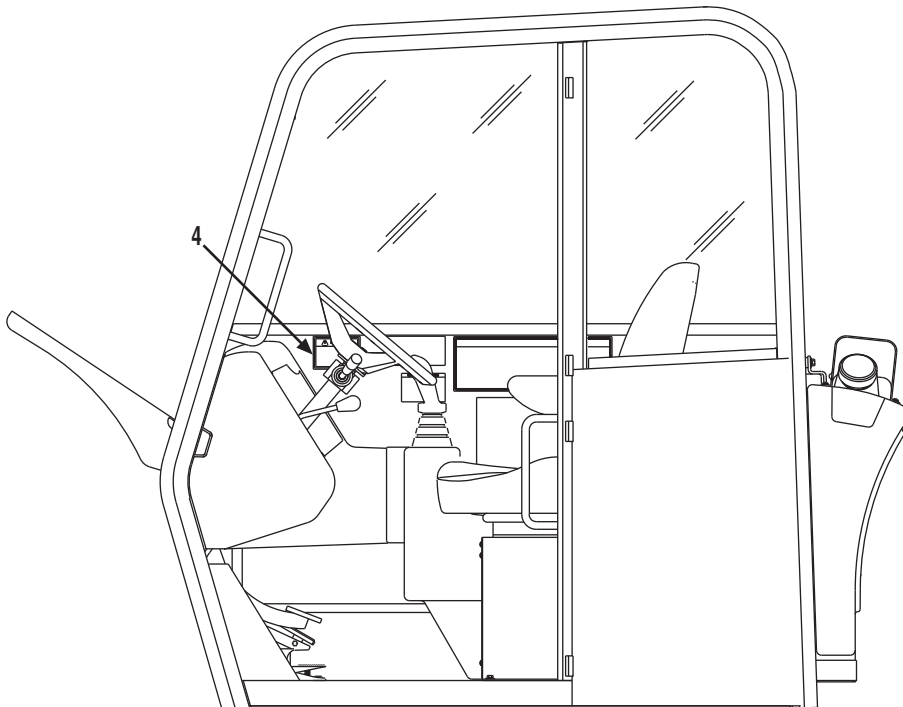
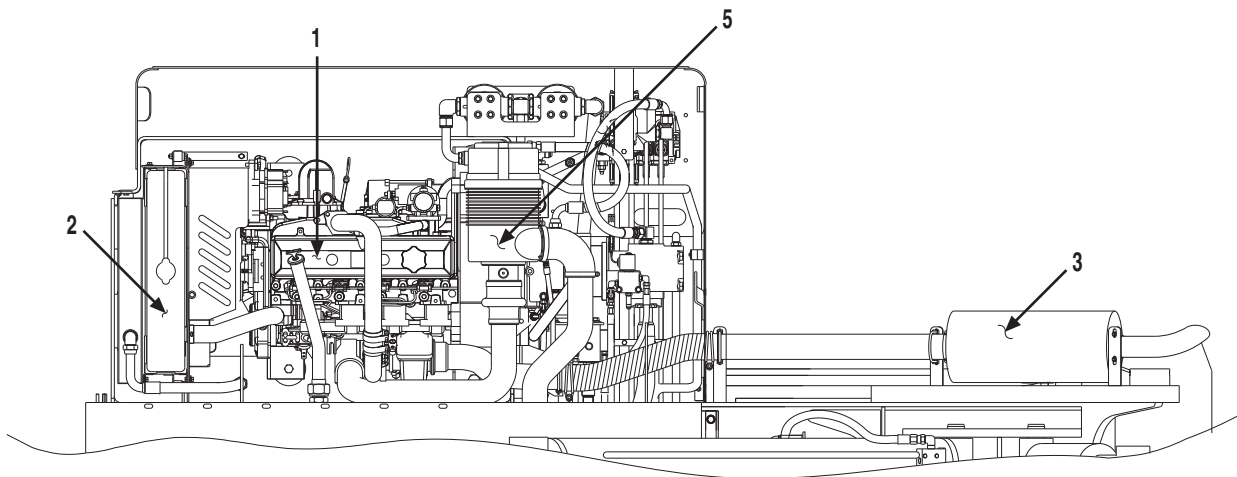




Figure 12-1 Turbo Option

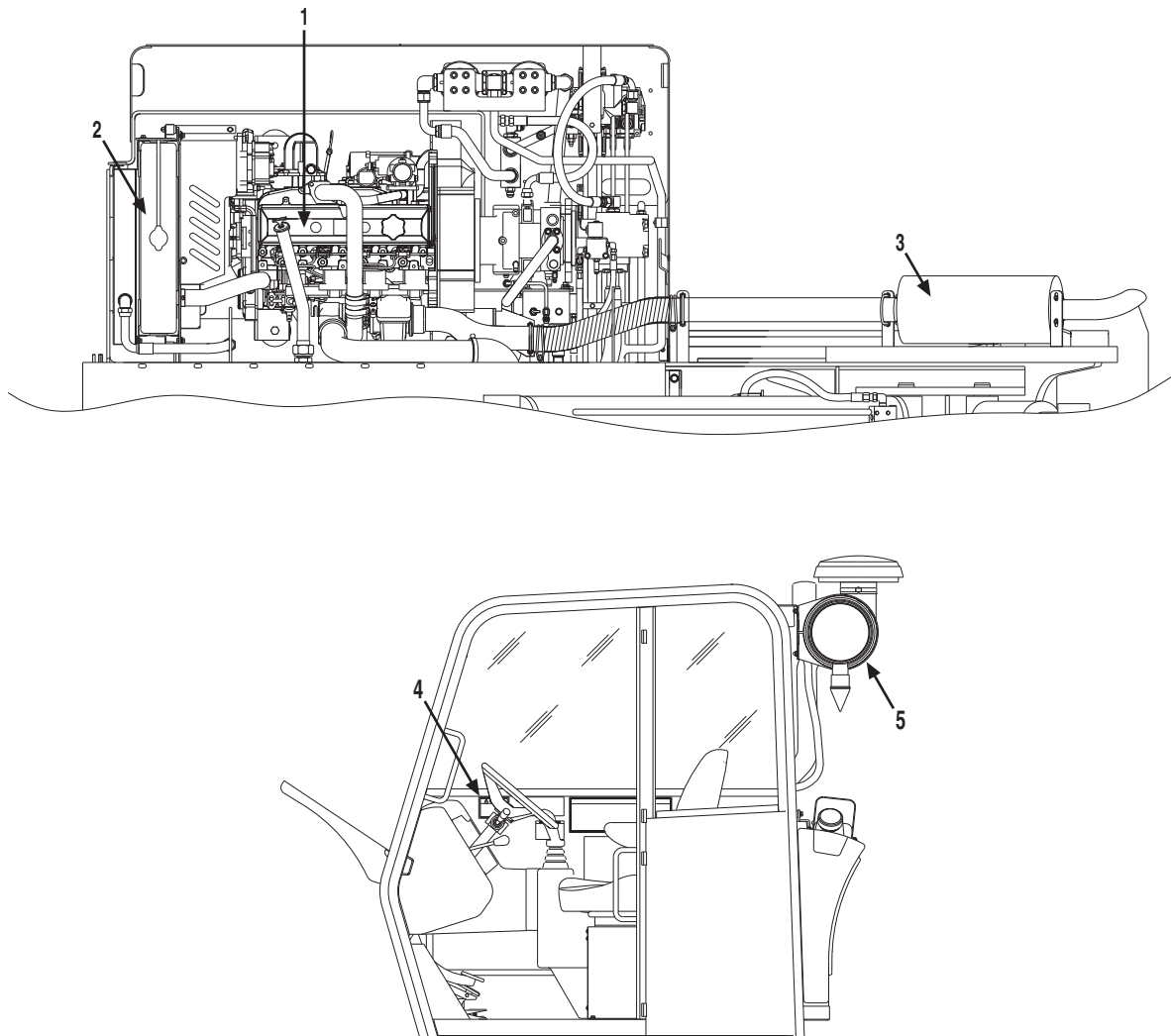
Item	Part Number	Qty.	Description	Rev.
1	91415011	1	TURBO OPTION, (includes all items)	H
2		Ref	TURBO ENGINE ASSY, (see Figure 12-2 & 12-3 for details)	
3		Ref	TURBO RADIATOR ASSY, (see Figure 12-5 for details)	
4	91343016	1	TURBO EXHAUST & ATTACHING PARTS, (see Figure 12-7 for details)	
5		Ref	CAUTION DECAL	
			TURBO AIR CLEANER & ATTACHING PARTS, (see Figure 12-6 for details)	



OPTIONS

S/N 0160001921 thru 0160003058
excluding 0160002657

Figure 12-1 Turbo Option



NOTE:

AFTER S/N 0160003058 SEE SECTION 4 FOR DETAILS.



Figure 12-1 Turbo Option

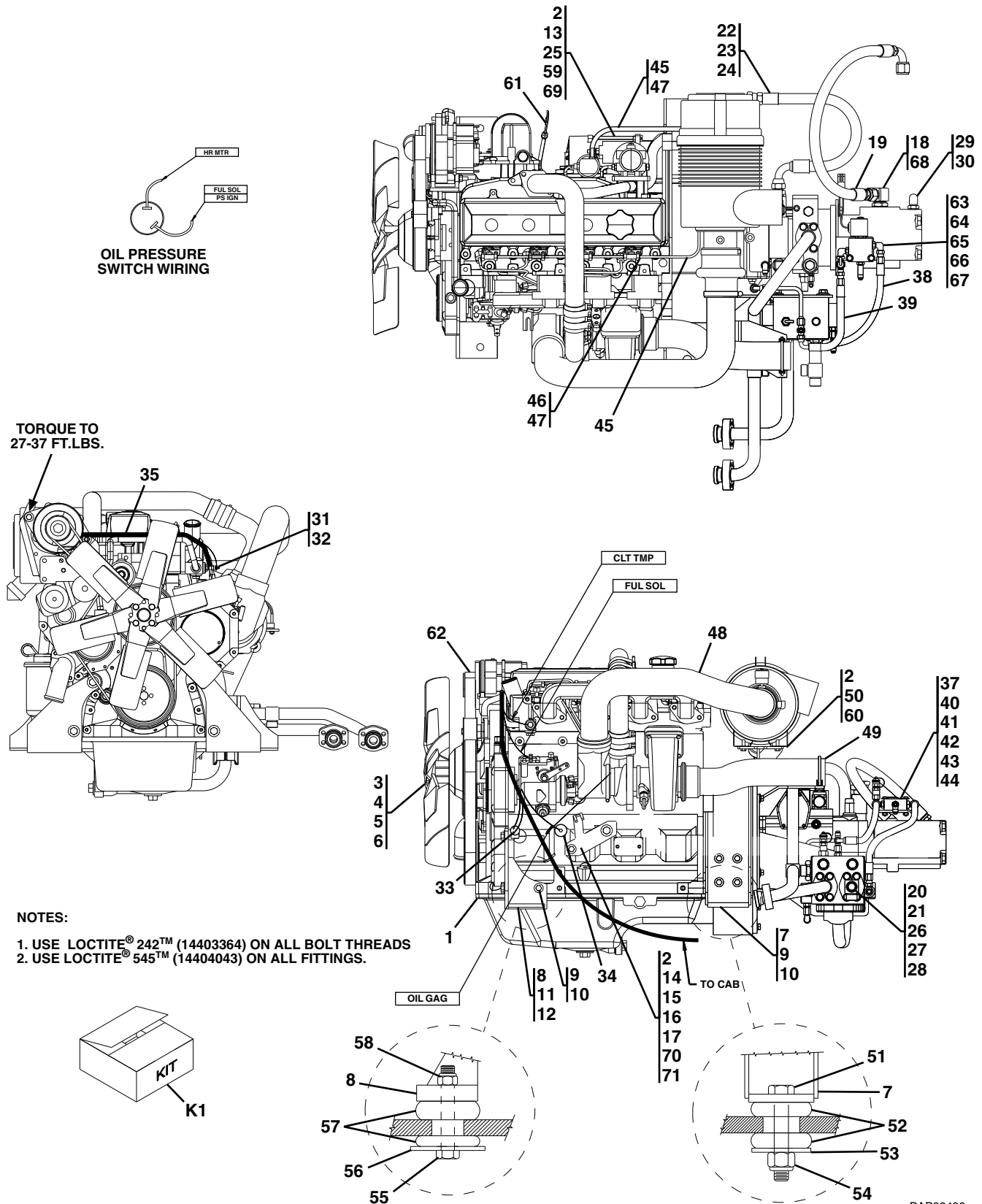
Item	Part Number	Qty.	Description	Rev.
1	91415011	1	TURBO OPTION, (includes all items)	I
2		Ref	TURBO ENGINE ASSY, (see Figure 12-2 thru 12-4 for details)	
3		Ref	TURBO RADIATOR ASSY, (see Figure 12-5 for details)	
4	91343016	1	TURBO EXHAUST & ATTACHING PARTS, (see Figure 12-7 for details)	
5		Ref	CAUTION DECAL	
			TURBO AIR CLEANER & ATTACHING PARTS, (see Figure 12-6 for details)	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160001775

Figure 12-2 Turbo Engine Assembly, LH View



PAP23490



Figure 12-2 Turbo Engine Assembly, LH View

Item	Part Number	Qty.	Description	Rev.
	91415012	Ref	TURBO ENGINE ASSEMBLY, (includes items 1 thru 50, 60, 61, 62 & 69 thru 71 on Figure 12-2 & all items on Figure 12-3)	
1		Ref	JOHN DEERE ENGINE, TURBO, (see Figure 12-4 for details)	
2	83191013	6	LOCKWASHER, M10	
3	91403105	1	FAN	
4	91403248	1	FAN SPACER	
5	83191041	4	HEX HD CAPSCREW, M8X1-1/4X70	
6	88561108	4	FLAT WASHER, 5/16	
7	91406032	2	REAR ENGINE MOUNT	
8	91406026	1	LH FRONT ENGINE MOUNT	
	91406027	1	RH FRONT ENGINE MOUNT	
9	83191032	10	HEX HD CAPSCREW, M12X1-3/4X35, (torque to 66-76 lb-ft)	
10	83191010	10	LOCKWASHER, M12	
11	83191043	4	HEX HD CAPSCREW, M16X2X30, (torque to 166-181 lb-ft)	
12	83783030	4	LOCKWASHER, M16	
13	91403160	1	STARTER, (S/N 189001 thru 0189345), (includes item 59)	
	91413104	1	STARTER, (S/N 189346 thru 0160001775), (includes item 59)	
14	91401227	1	ACCELERATOR CABLE BRACKET, (S/N 189001 thru 0160001379)	
	91401060	1	ACCELERATOR CABLE BRACKET, (S/N 0160001388 thru 0160001775)	
15	83191038	1	HEX HD CAPSCREW, M10X1-1/2X20	
16	91403293	1	HEX HD CAPSCREW, M14X2X25	
17	83191014	1	LOCKWASHER, M14	
18	88662429	1	ELBOW, 90 DEGREE, (includes item 68)	
19	84719468	1	HOSE ASSY	
20	91083106	1	O-RING	
21	91403455	1	HYDRAULIC TUBE	
22	2220451	1	CONNECTOR, (includes item 23)	
23	88591207	1	O-RING	
24	84719407	1	HOSE ASSY	
25	83191040	1	SOCKET HD CAPSCREW, M10X1-1/2X30, (torque to 38-48 lb-ft)	
26	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2	
27	88551012	4	LOCKWASHER, 7/16	
28	84712738	2	CLAMP HALF	
29	88662059	1	ELBOW, 90 DEGREE, (includes item 30)	
30	88591206	1	O-RING	
31	91143314	1	WATER TEMPERATURE SENDER	
32	91403265	1	ADAPTER FITTING, (includes o-ring)	
33	24741047	1	OIL PRESSURE SWITCH	
34	91143315	1	OIL PRESSURE SENDER	
35	90027187	6	NYLON TIE	
37		Ref	SOLENOID VALVE, (see Figure 9-20 for details)	
38	77133201	1	HOSE ASSY	
39	84719408	1	HOSE ASSY	
40	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
41	88501304	2	HEX NUT, 1/4-28	
42	88561002	2	FLAT WASHER, 1/4	
43	88551009	2	LOCKWASHER, 1/4	
44	91401535	1	VALVE BRACKET	
45	82092118	120 in	FUEL LINE	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160001775

Figure 12-2 Turbo Engine Assembly, LH View (Continued)

Item	Part Number	Qty.	Description	Rev.
46	80373025	1	PUSH LOCK FITTING	
47	86883106	2	HOSE CLAMP	
48		Ref	TURBO AIR CLEANER & INSTALLATION, (see Figure 12-6 for details)	
49		Ref	TURBO EXHAUST & INSTALLATION, (see Figure 12-7 for details)	
50	83191027	2	HEX HD CAPSCREW, M10X1-1/2X35	
51	77321274	2	HEX HD CAPSCREW, 7/8-9X5	
52	91333003	2	SHOCK MOUNT	
53	91403137	2	REBOUND WASHER	
54	88521214	2	HEX LOCKNUT, 7/8-9	
55	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
56	91403138	2	REBOUND WASHER	
57	91333002	2	SHOCK MOUNT	
58	88521010	2	HEX LOCKNUT, 5/8-11	
59	91404274	1	STARTER SOLENOID, (S/N 189001 thru 0189345)	
	91414040	1	STARTER SOLENOID, (S/N 189346 thru 0160001775)	
60	91406118	1	AIR CLEANER BRACKET	
61	91404085	1	DIP STICK	
62	91404086	1	FAN BELT	
63	2220635	1	SWIVEL NUT RUN TEE, 3/8, TUBE	
64	2220473	2	ELBOW, 90 DEGREE, (includes item 65)	
65	88591204	3	O-RING	
66	2220606	1	RUN TEE, (includes item 65)	
67	91143172	1	TEST COUPLING	
68	88591209	1	O-RING	
69	83191062	2	SOCKET HD CAPSCREW, M10X1-1/2X40, (torque to 38-48 lb-ft)	
70	88561007	1	FLAT WASHER, 9/16	
71	80233220	1	FLAT WASHER, M10	
K1	91415035	1	TURBO ENGINE FILTER KIT, (includes all items)	
	91404005	1	OIL FILTER ELEMENT	
	91404004	1	FUEL FILTER	
	80273042	1	AIR FILTER SAFETY ELEMENT	
	80273010	1	AIR FILTER ELEMENT	
	91083218	1	FUEL STRAINER	



Figure 12-2 Turbo Engine Assembly, LH View (Continued)

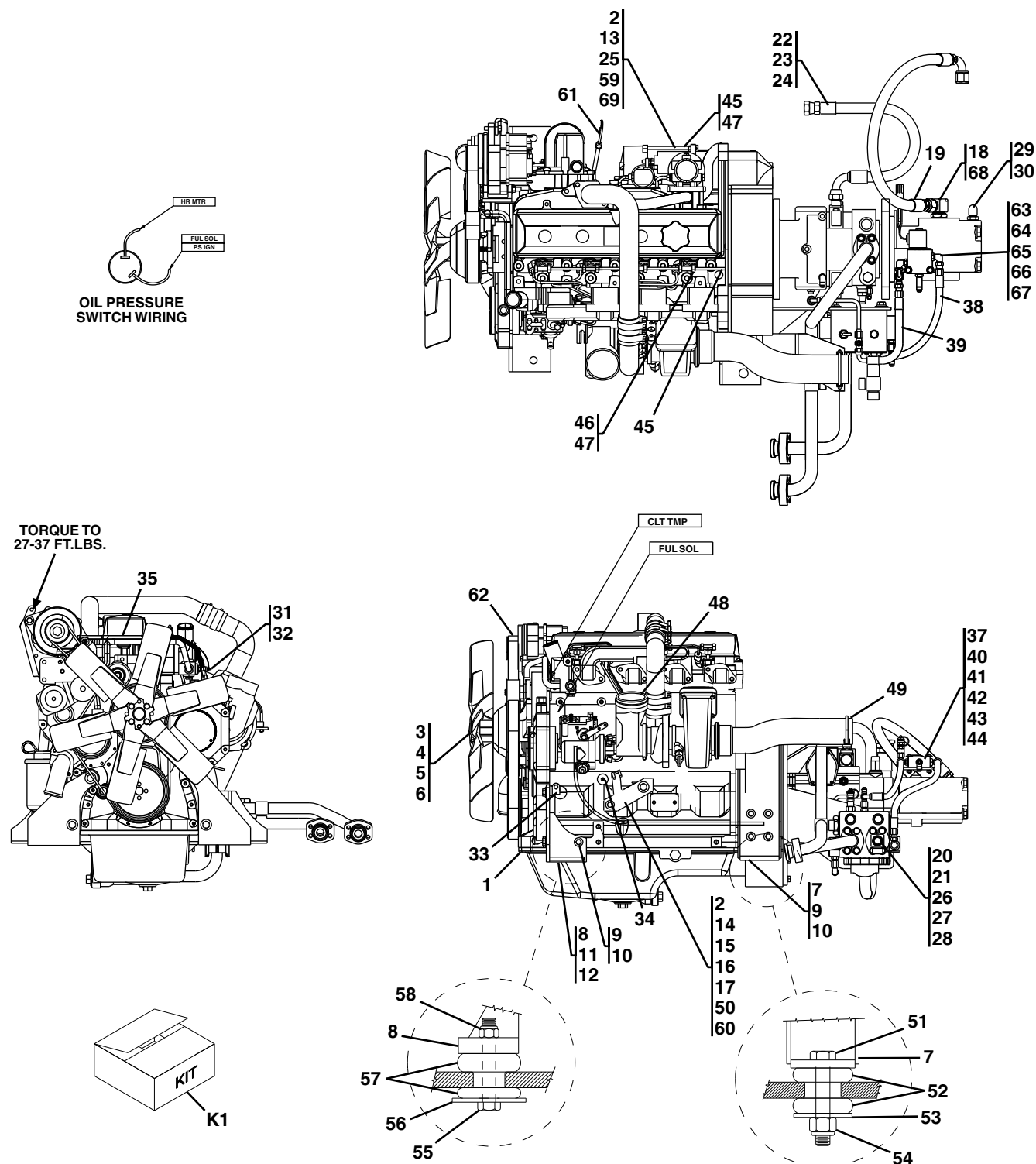
Item	Part Number	Qty.	Description	Rev.



OPTIONS

S/N 0160001921 thru 0160003058
excluding 0160002657

Figure 12-2 Turbo Engine Assembly, LH View



NOTES:

1. USE LOCTITE® 242™, 14403364, ON ALL BOLT THREADS
2. USE LOCTITE® 545™, 14404043, ON ALL FITTINGS.
3. AFTER S/N 0160003058, SEE FIGURE 4-1 FOR DETAILS.

PAP23500



Figure 12-2 Turbo Engine Assembly, LH View

Item	Part Number	Qty.	Description	Rev.
	91415012	Ref	TURBO ENGINE ASSY, (includes items 1 thru 50, 60, 61, 62 & 69 on Figure 12-2 & all items on Figure 12-3)	N
1		Ref	JOHN DEERE ENGINE, TURBO, (see Figure 12-4 for details)	
2	83191013	6	LOCKWASHER, M10	
3	91403105	1	FAN	
4	91403248	1	FAN SPACER	
5	83191041	4	HEX HD CAPSCREW, M8X1-1/4X70	
6	88561108	4	FLAT WASHER, 5/16	
7	91406032	2	REAR ENGINE MOUNT	
8	91406026	1	LH FRONT ENGINE MOUNT	
	91406027	1	RH FRONT ENGINE MOUNT	
9	83191032	10	HEX HD CAPSCREW, M12X1-3/4X35, (torque to 66-76 lb-ft)	
10	83191010	10	LOCKWASHER, M12	
11	83191043	4	HEX HD CAPSCREW, M16X2X30, (torque to 166-181 lb-ft)	
12	83783030	4	LOCKWASHER, M16	
13	91413104	1	STARTER, (includes item 59)	
14	91411060	1	ACCELERATOR CABLE BRACKET	
15	83191038	1	HEX HD CAPSCREW, M10X1-1/2X20	
16	91403293	1	HEX HD CAPSCREW, M14X2X25	
17	83191014	1	LOCKWASHER, M14	
18	88662429	1	ELBOW, 90 DEGREE, (includes item 68)	
19	84719468	1	HOSE ASSY	
20	91083106	1	O-RING	
21	91403455	1	HYDRAULIC TUBE	
22	2220451	1	CONNECTOR, (includes item 23)	
23	88591207	1	O-RING	
24	84719407	1	HOSE ASSY	
25	83191040	1	SOCKET HD CAPSCREW, M10X1-1/2X30, (torque to 38-48 lb-ft)	
26	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2	
27	88551012	4	LOCKWASHER, 7/16	
28	84712738	2	CLAMP HALF	
29	88662059	1	ELBOW, 90 DEGREE, (includes item 30)	
30	88591206	1	O-RING	
31	91143314	1	WATER TEMPERATURE SENDER	
32	91403265	1	ADAPTER FITTING, (includes o-ring)	
33	24741047	1	OIL PRESSURE SWITCH	
34	91143315	1	OIL PRESSURE SENDER	
35	90027187	6	NYLON TIE	
37		Ref	SOLENOID VALVE, (see Figure 9-20 for details)	
38	77133201	1	HOSE ASSY	
39	84719408	1	HOSE ASSY	
40	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
41	88501304	2	HEX NUT, 1/4-28	
42	88561002	2	FLAT WASHER, 1/4	
43	88551009	2	LOCKWASHER, 1/4	
44	91401535	1	VALVE BRACKET	
45	82092118	120 in	FUEL LINE	
46	80373025	1	PUSH LOCK FITTING	
47	86883106	2	HOSE CLAMP	



OPTIONS

S/N 0160001921 thru 0160003058
excluding 0160002657

Figure 12-2 Turbo Engine Assembly, LH View (Continued)

Item	Part Number	Qty.	Description	Rev.
48		Ref	TURBO AIR CLEANER & INSTALLATION, (see Figure 12-6 for details)	
49		Ref	TURBO EXHAUST & INSTALLATION, (see Figure 12-7 for details)	
50	88561007	1	FLAT WASHER, 9/16	
51	77321274	2	HEX HD CAPSCREW, 7/8-9X5	
52	91333003	2	SHOCK MOUNT	
53	91403137	2	REBOUND WASHER	
54	88521214	2	HEX LOCKNUT, 7/8-9	
55	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
56	91403138	2	REBOUND WASHER	
57	91333002	2	SHOCK MOUNT	
58	88521010	2	HEX LOCKNUT, 5/8-11	
59	91414040	1	STARTER SOLENOID	
60	80233220	1	FLAT WASHER, M10	
61	91404085	1	DIP STICK	
62	91404086	1	FAN BELT	
63	2220635	1	SWIVEL NUT RUN TEE, 3/8, TUBE	
64	2220473	2	ELBOW, 90 DEGREE, (includes item 65)	
65	88591204	3	O-RING	
66	2220606	1	RUN TEE, (includes item 65)	
67	91143172	1	TEST COUPLING	
68	88591209	1	O-RING	
69	83191062	2	SOCKET HD CAPSCREW, M10X1-1/2X40, (torque to 38-48 lb-ft)	
K1	91415064	1	TURBO ENGINE FILTER KIT, (includes all items)	C
	91404005	1	OIL FILTER ELEMENT	
	91404004	1	FUEL FILTER	
	1101313	1	AIR FILTER SAFETY ELEMENT	
	1101312	1	AIR FILTER ELEMENT	
	91083218	1	FUEL STRAINER	



Figure 12-2 Turbo Engine Assembly, LH View (Continued)

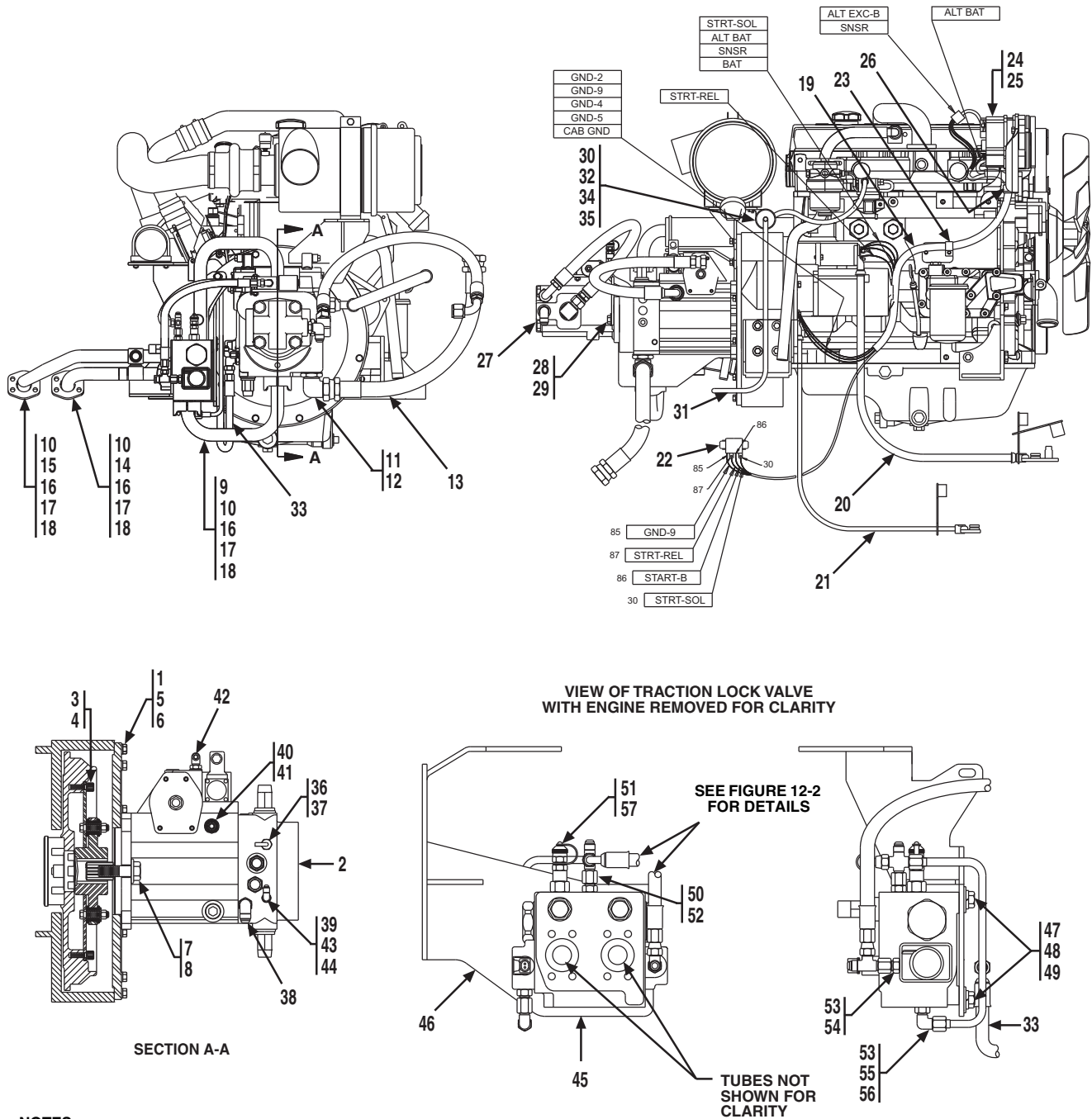
Item	Part Number	Qty.	Description	Rev.



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160001775

Figure 12-3 Turbo Engine Assembly, RH View



NOTES:

1. USE LOCTITE® 242™, 14403364, ON ALL BOLT THREADS
2. USE LOCTITE® 545™, 14404043, ON ALL FITTINGS.



Figure 12-3 Turbo Engine Assembly, RH View

Item	Part Number	Qty.	Description	Rev.
	91415012	Ref	TURBO ENGINE ASSY, (includes items 1 thru 50, 60, 61, 62 & 69 thru 71 on Figure 12-2 & all items on Figure 12-3)	
1	91163011	1	PUMP MOUNT & COUPLING	
2		Ref	HYDROSTATIC TRANSMISSION, (see Figure 9-8 for details)	
3	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8, GR8, (torque to 40-45 lb-ft)	
4	88551011	8	LOCKWASHER, 3/8	
5	83191006	7	HEX HD CAPSCREW, M10X1-1/2X40, (torque to 38-48 lb-ft)	
6	83191013	7	LOCKWASHER, M10	
7	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, GR5, (torque to 240-265 lb-ft)	
8	90027473	2	HARDENED WASHER, 3/4	
9	91403454	1	HYDRAULIC TUBE	
10	91083106	4	O-RING	
11	88662070	1	ELBOW, 90 DEGREE, (includes item 12)	
12	88591210	1	O-RING	
13	84719593	1	HOSE ASSY	
14	91403556	1	HYDRAULIC TUBE	
15	91413005	1	HYDRAULIC TUBE	
16	83201135	16	HEX HD CAPSCREW, 7/16-14X1-1/2	
17	88551012	16	LOCKWASHER, 7/16	
18	84712738	8	CLAMP HALF	
19	91403457	1	WIRING HARNESS	
20		Ref	POSITIVE BATTERY CABLE, (see Figure 10-1 for details)	
21		Ref	NEGATIVE BATTERY CABLE, (see Figure 10-1 for details)	
22	77383377	1	STARTER RELAY	
23	85941017	1	SUPPORT CLAMP	
24	91343222	1	ALTERNATOR, (includes item 25)	
25	91083504	1	REGULATOR	
26	24431386	1	SUPPORT CLAMP	
27		Ref	HYDRAULIC PUMP, (see Figure 9-9 for details)	
28	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5, (torque to 68-78 lb-ft)	
29	90027471	2	HARDENED WASHER, 1/2	
30	91083218	1	FUEL STRAINER	
31	82092118	89 in	FUEL LINE	
32	90028660	1	SUPPORT CLAMP	
33	84719163	1	HOSE ASSY	
34	88561003	1	FLAT WASHER, 5/16	
35	86883106	2	HOSE CLAMP	
36	91053020	1	MINI-CHECK, (includes item 37)	
37	91054002	1	VITON O-RING, (lubricate lightly)	
38	91083222	1	ELBOW, 90 DEGREE, (swivel nut)	
39	88662103	1	ELBOW, 90 DEGREE, (swivel nut)	
40	2220371	1	CONNECTOR, (includes item 41)	
41	88591204	1	O-RING	
42	90027906	2	ELBOW, 90 DEGREE	
43	2220415	1	CONNECTOR, (includes item 44)	
44	88591202	1	O-RING	
45		Ref	TRACTION LOCK VALVE, (see Figure 9-14 for details)	
46	91406112	1	FLOW DIVIDER BRACKET	
47	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160001775

Figure 12-3 Turbo Engine Assembly, RH View (Continued)

Item	Part Number	Qty.	Description	Rev.
48	88551013	2	LOCKWASHER, 1/2	
49	88561006	2	FLAT WASHER, 1/2	
50	91403523	1	SPECIAL FITTING	
51	83763056	1	VITON O-RING, (lubricate lightly)	
52	2220497	1	STRAIGHT THREAD CONNECTOR	
53	2220371	2	CONNECTOR, (includes item 54)	
54	88591204	2	O-RING	
55	88662105	1	ELBOW, 90 DEGREE, (swivel nut)	
56	91163098	1	TUBE ASSY	
57	77133089	1	MINI-CHECK, (includes item 51)	

Figure 12-3 Turbo Engine Assembly, RH View (Continued)

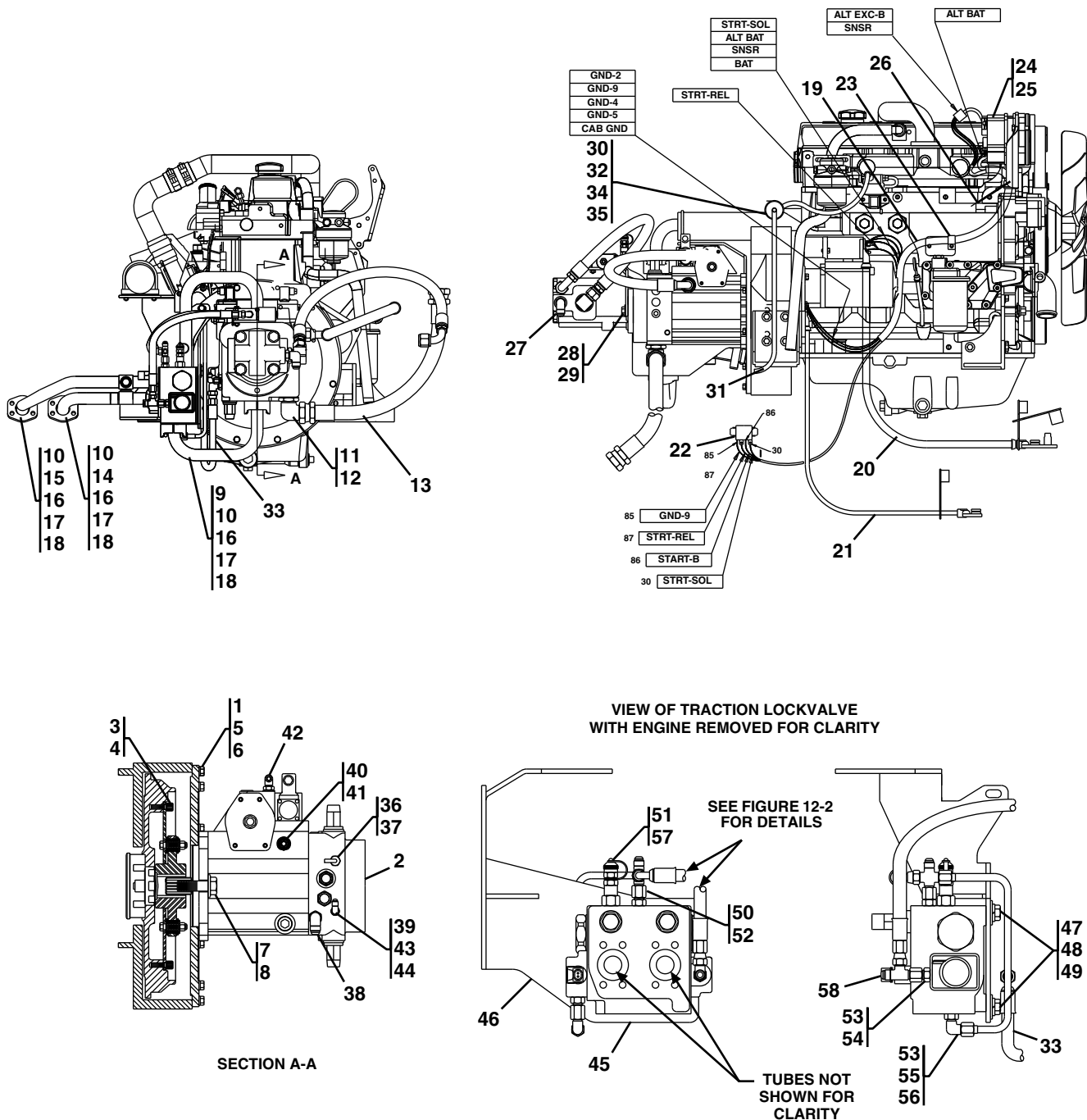
Item	Part Number	Qty.	Description	Rev.



OPTIONS

S/N 0160001921 thru 0160003058
excluding 0160002657

Figure 12-3 Turbo Engine Assembly, RH View



NOTES:

1. USE LOCTITE® 242™, 14403364, ON ALL BOLT THREADS
2. USE LOCTITE® 545™, 14404043, ON ALL FITTINGS.
3. AFTER S/N 0160003058, SEE FIGURE 4-2 FOR DETAILS.

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Figure 12-3 Turbo Engine Assembly, RH View

Item	Part Number	Qty.	Description	Rev.
	91415012	Ref	TURBO ENGINE ASSY, (includes items 1 thru 50, 60, 61, 62 & 69 on Figure 12-2 & all items on Figure 12-3)	N
1	91163011	1	PUMP MOUNT & COUPLING	
2		Ref	HYDROSTATIC TRANSMISSION, (see Figure 9-8 for details)	
3	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8, GR8, (torque to 40-45 lb-ft)	
4	88551011	8	LOCKWASHER, 3/8	
5	83191006	7	HEX HD CAPSCREW, M10X1-1/2X40, (torque to 38-48 lb-ft)	
6	83191013	7	LOCKWASHER, M10	
7	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, GR5, (torque to 240-265 lb-ft)	
8	90027473	2	HARDENED WASHER, 3/4	
9	91403454	1	HYDRAULIC TUBE	
10	91083106	4	O-RING	
11	88662070	1	ELBOW, 90 DEGREE, (includes item 12)	
12	88591210	1	O-RING	
13	84719593	1	HOSE ASSY	
14	91403556	1	HYDRAULIC TUBE	
15	91413005	1	HYDRAULIC TUBE	
16	83201135	16	HEX HD CAPSCREW, 7/16-14X1-1/2	
17	88551012	16	LOCKWASHER, 7/16	
18	84712738	8	CLAMP HALF	
19		Ref	WIRING HARNESS, (see Figure 10-2 for details)	
20		Ref	POSITIVE BATTERY CABLE, (see Figure 10-1 for details)	
21		Ref	NEGATIVE BATTERY CABLE, (see Figure 10-1 for details)	
22	77383377	1	STARTER RELAY	
23	85941017	1	SUPPORT CLAMP	
24	1001108293	1	ALTERNATOR, (includes item 25)	
25	1001108291	1	REGULATOR	
26	24431386	1	SUPPORT CLAMP	
27		Ref	HYDRAULIC PUMP, (see Figure 9-9 for details)	
28	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5, (torque to 68-78 lb-ft)	
29	90027471	2	HARDENED WASHER, 1/2	
30	91083218	1	FUEL STRAINER	
31	82092118	89 in	FUEL LINE	
32	90028660	1	SUPPORT CLAMP	
33	84719163	1	HOSE ASSY	
34	88561003	1	FLAT WASHER, 5/16	
35	86883106	2	HOSE CLAMP	
36	91053020	1	MINI-CHECK, (includes item 37)	
37	91054002	1	VITON O-RING, (lubricate lightly)	
38	91083222	1	ELBOW, 90 DEGREE, (swivel nut)	
39	88662103	1	ELBOW, 90 DEGREE, (swivel nut)	
40	2220371	1	CONNECTOR, (includes item 41)	
41	88591204	1	O-RING	
42	90027906	2	ELBOW, 90 DEGREE	
43	2220415	1	CONNECTOR, (includes item 44)	
44	88591202	1	O-RING	
45		Ref	TRACTION LOCK VALVE, (see Figure 9-14 for details)	
46	91406112	1	FLOW DIVIDER BRACKET	
47	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	



OPTIONS

S/N 0160001921 thru 0160003058
excluding 0160002657

Figure 12-3 Turbo Engine Assembly, RH View (Continued)

Item	Part Number	Qty.	Description	Rev.
48	88551013	2	LOCKWASHER, 1/2	
49	88561006	2	FLAT WASHER, 1/2	
50	91403523	1	SPECIAL FITTING	
51	83763056	1	VITON O-RING, (lubricate lightly)	
52	2220497	1	STRAIGHT THREAD CONNECTOR	
53	2220371	2	CONNECTOR, (includes item 54)	
54	88591204	2	O-RING	
55	88662105	1	ELBOW, 90 DEGREE, (swivel nut)	
56	91163098	1	TUBE ASSY	
57	77133089	1	MINI-CHECK, (includes item 51)	
58	2220635	1	SWIVEL NUT RUN TEE, 3/8, TUBE	



Figure 12-3 Turbo Engine Assembly, RH View (Continued)

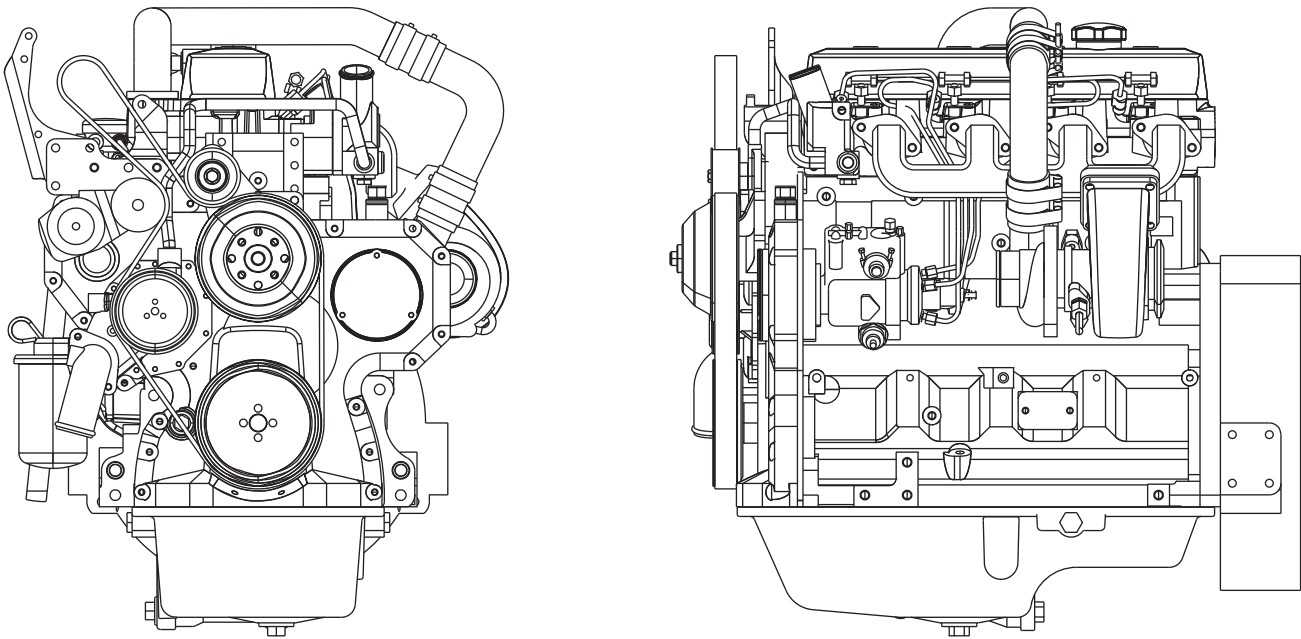
Item	Part Number	Qty.	Description	Rev.



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160003058
excluding 0160002657

Figure 12-4 John Deere Turbo Engine



NOTE:

AFTER S/N 0160003058, SEE FIGURE 4-3 FOR DETAILS.



Figure 12-4 John Deere Turbo Engine

Item	Part Number	Qty.	Description	Rev.
	91403014	1	JOHN DEERE ENGINE, TURBO, (includes all items)	F
	91404219	1	GASKET KIT OVERHAUL	
	91404220	1	ENGINE CYLINDER HEAD GASKET	
	91404221	1	BOLT, BELT TENSIONER	
	91404222	1	SCREW, BELT TENSIONER	
	91404223	1	SHEAVE, BELT TENSIONER	
	91404265	1	GASKET	
	91404266	2	O-RING	
	91404267	1	GASKET	
	91404268	1	HYDRAULIC HOSE	
	91404269	1	TURBOCHARGER	
	91404224	1	OIL COOLER	
	91404225	1	GASKET, OIL COOLER	
	91404226	1	GASKET, OIL COOLER	
	91404227	2	O-RING, OIL COOLER	
	91404228	2	O-RING, OIL COOLER	
	91404230	1	KIT, WATER PUMP REPAIR	
	91404231	1	SEAL KIT, FRONT MAIN SEAL	
	91404232	1	GASKET, WATER PUMP	
	91404233	1	WATER PUMP	
	70024392	1	PULLEY, WATER PUMP	
	91404234	4	GASKET, EXHAUST MANIFOLD	
	91404235	1	FAN PULLEY	
	91404236	1	SCREW, FAN PULLEY	
	91404237	1	SPACER, FAN PULLEY	
	91404238	1	SLEEVE, FAN PULLEY	
	91404239	1	BEARING HOUSING WITH BEARING	
	7026927	1	GASKET, THERMOSTAT	
	91404241	3	PLUG, OIL PAN	
	91404242	1	GASKET, OIL PAN	
	91404243	2	O-RING, OIL DRAIN	
	91404270	1	WASHER, INJECTOR	
	91404248	1	SLEEVE, INJECTOR	
	91404271	1	PACKING, INJECTOR	
	91404272	1	INJECTION NOZZLE	
	91404273	1	PLUG, INJECTOR	
	91404250	1	FLYWHEEL WITH GEAR RING	
	91404251	1	SEAL, REAR MAIN	
	91404252	1	PULLEY, MAIN	
	91404253	2	GASKET, OIL FILTER	
	91404254	1	PACKING, VALVE COVER NUT	
	91404255	1	PACKING, FILLER CAP	
	91404256	4	PLUG, VALVE COVER	
	91404257	1	GASKET, VALVE COVER	
	91404258	1	FILLER CAP, VALVE COVER	
	91404259	4	O-RING, VALVE COVER	
	91404260	1	COOLANT, PRE-MIX, (2.5 gal)	
	91404261	1	COOLANT CONDITIONER	
	91404262	1	FUEL TRANSFER PUMP	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160003058
excluding 0160002657

Figure 12-4 John Deere Turbo Engine (Continued)

Item	Part Number	Qty.	Description	Rev.
	91404263	1	THERMOSTAT	
	91404264	1	THERMOSTAT COVER SEAL	
	70023826	1	ELBOW FITTING, (connects lower radiator hose to the water pump)	
	91404229	1	O-RING, WATER PUMP INLET	
	70023426	1	BOLT, M8X25, (top bolt for mounting elbow fitting to water pump)	
	91474499	1	BOLT, M8X65, (bottom bolt for mounting elbow fitting to water pump)	

S/N 0189001 thru 0189345 &
0160000230 thru 0160003058
excluding 0160002657

OPTIONS



Figure 12-4 John Deere Turbo Engine (Continued)

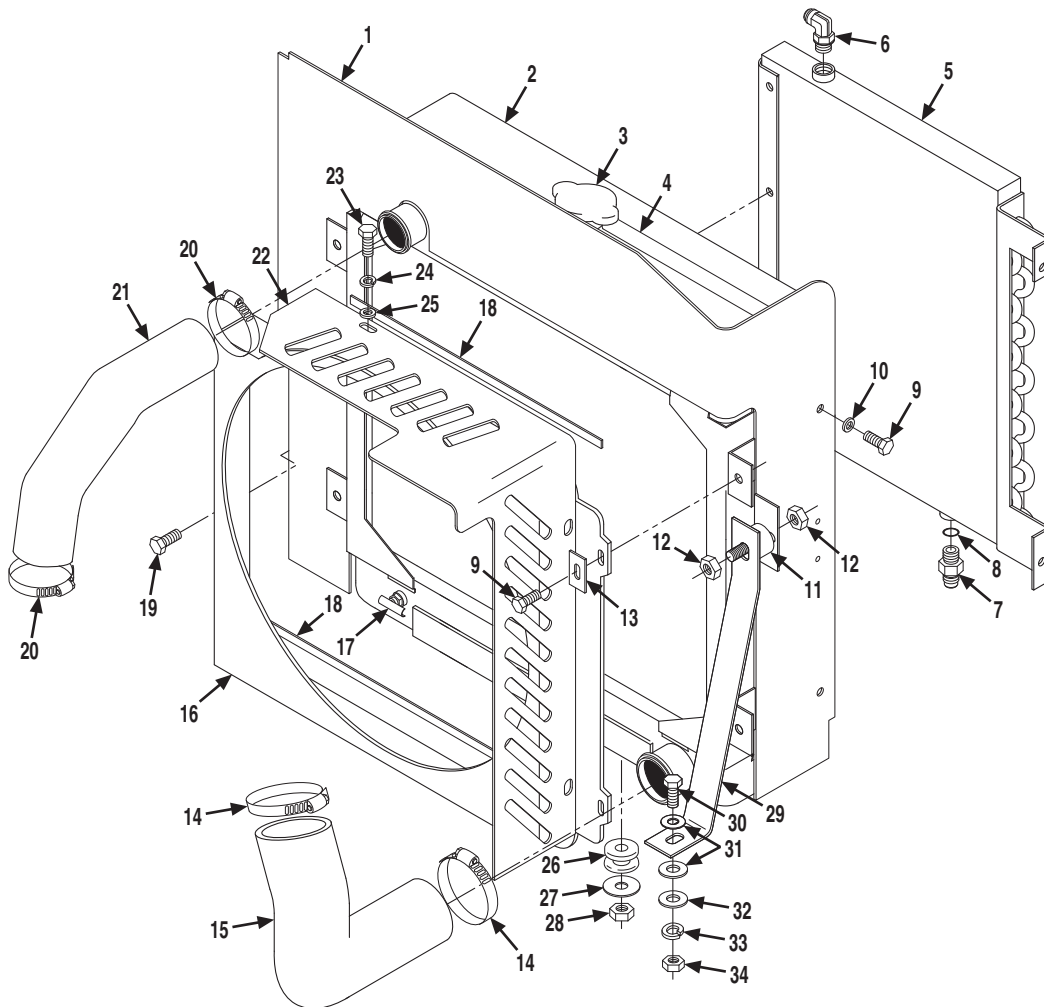
Item	Part Number	Qty.	Description	Rev.



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160003058
excluding 0160002657

Figure 12-5 Turbo Radiator Assembly



NOTE:

AFTER S/N 0160003058, SEE FIGURE 4-5 FOR DETAILS.



Figure 12-5 Turbo Radiator Assembly

Item	Part Number	Qty.	Description	Rev.
	91405010	1	RADIATOR ASSY, (includes items 1 thru 21)	
1	91403403	1	AIR DAM	
2	91403142	1	RADIATOR, (includes items 3 & 4)	
3	91404008	1	RADIATOR CAP, 10 PSI	
4	NSS	38 in	OVERFLOW HOSE	
5	91403086	1	OIL COOLER	
6	83291198	1	ELBOW, 90 DEGREE	
7	2220376	1	CONNECTOR, (includes item 8)	
8	88591207	1	O-RING	
9	77143003	6	WHIZ-LOCK SCREW, 5/16-18X5/8	
10	88561003	2	FLAT WASHER, 5/16	
11	91033137	2	SHOCK MOUNT	
12	77143006	4	WHIZ-LOCKNUT, 5/16-18	
13	91143348	4	CLAMP BAR	
14	86883327	2	HOSE CLAMP	
15	91403096	1	LOWER RADIATOR HOSE	
16	91406090	1	FAN SHROUD	
17	84521056	1	DRAIN COCK	
18	90200755	38 in	GASKA-TAPE	
19	91123124	4	WHIZ-LOCK SCREW, 5/16-18X1/2	
20	85071128	2	HOSE CLAMP	
21	91403095	1	UPPER RADIATOR HOSE	
22	91401233	1	FAN GUARD	
23	88201017	3	HEX HD CAPSCREW, 5/16-18X5/8, GR5	
24	88551010	3	LOCKWASHER, 5/16	
25	88561108	3	FLAT WASHER, 5/16	
26	83683308	2	SHOCK MOUNT	
27	90205918	2	SPECIAL WASHER	
28	88521206	2	HEX LOCKNUT, 3/8-16	
29	91471108	1	RADIATOR SUPPORT BRACKET	
30	88201036	1	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
31	88561004	2	FLAT WASHER, 3/8	
32	90027470	1	HARDENED WASHER, 3/8	
33	88551011	1	LOCKWASHER, 3/8	
34	88501006	1	HEX NUT, 3/8-16	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160001775

Figure 12-6 Turbo Air Cleaner & Installation

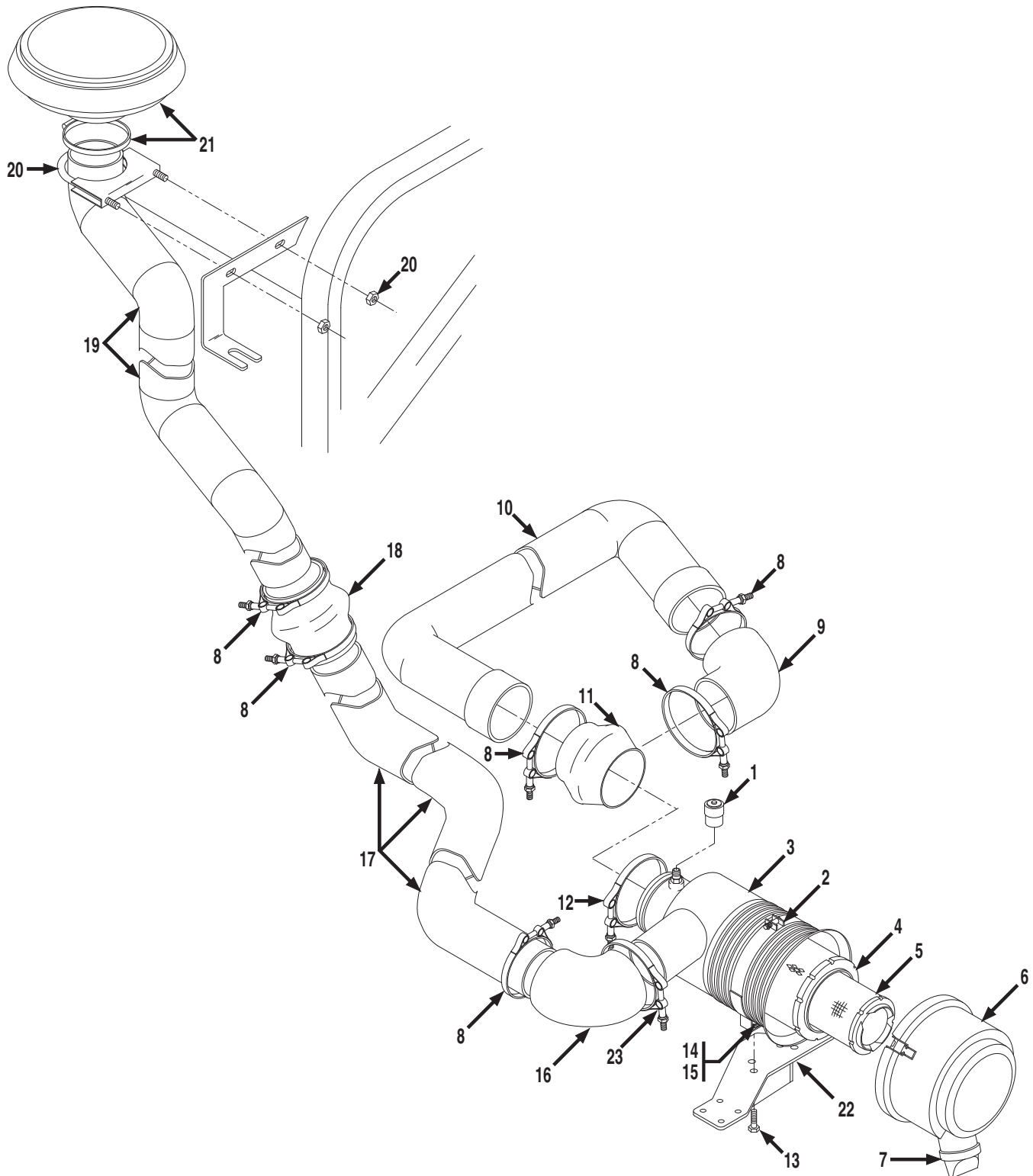




Figure 12-6 Turbo Air Cleaner & Installation

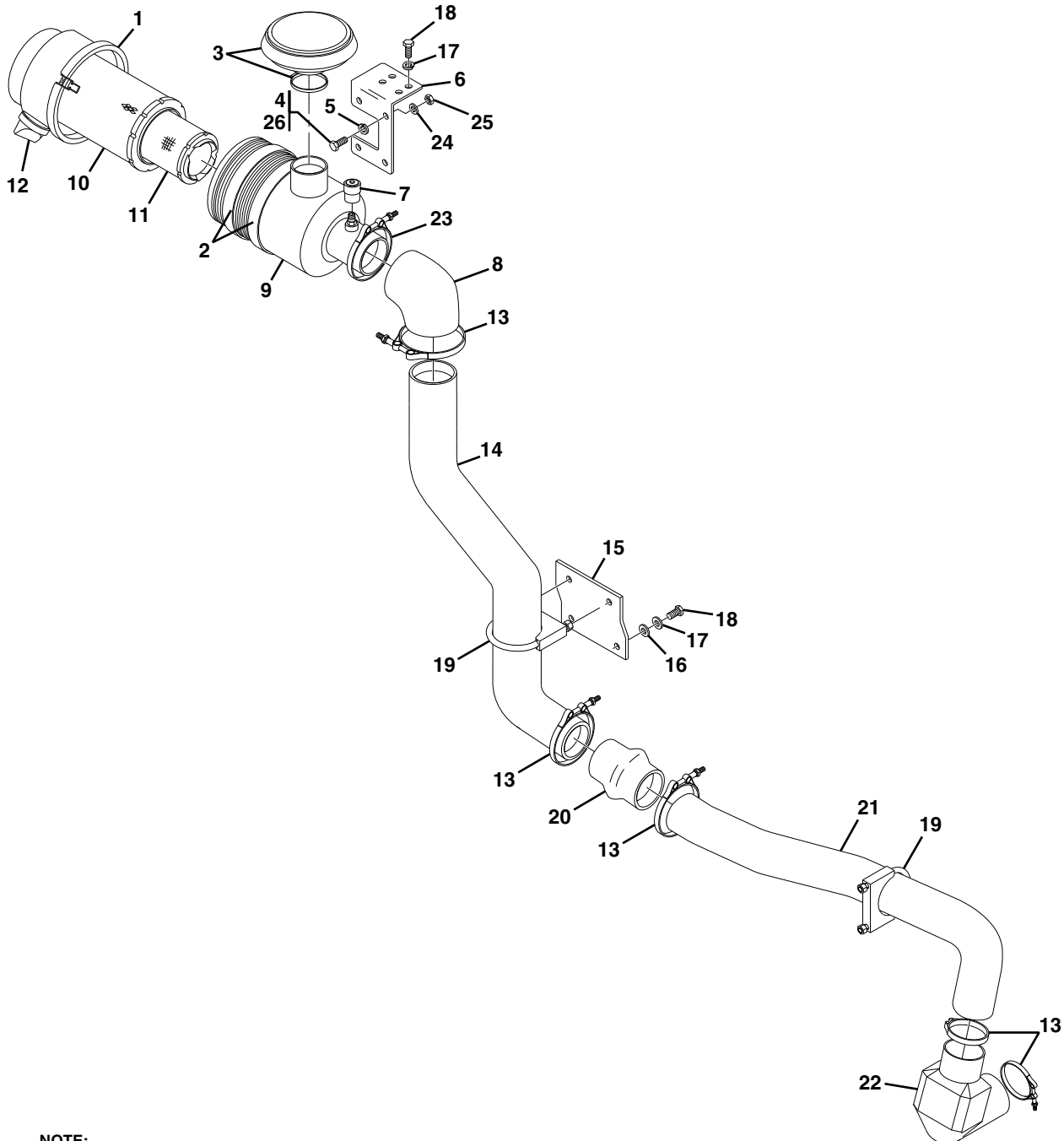
Item	Part Number	Qty.	Description	Rev.
	91405029	Ref	TURBO AIR CLEANER ASSY, (includes items 1 thru 3)	D
1	83671475	1	INDICATOR	
2	80273011	1	BAND CLAMP	
3	10733141	1	AIR CLEANER, (includes items 4 thru 7)	
4	80273010	1	ELEMENT, (outer)	
5	80273042	1	ELEMENT, (inner)	
6	80274004	1	COVER ASSY	
7	10733183	1	VACUATOR	
8	91163129	7	BAND CLAMP	
9	91083126	1	RUBBER ELBOW, 90 DEGREE	
10	91403118	1	AIR INTAKE TUBE	
11	91403239	1	STRAIGHT HUMP	
12	91163137	1	HOSE CLAMP	
13	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
14	88521205	2	HEX LOCKNUT, 5/16-18	
15	88561108	1	FLAT WASHER, 5/16	
16	91083129	1	RUBBER ELBOW, 90 DEGREE	
17	91413054	1	AIR INTAKE TUBE	
18	91403244	1	STRAIGHT HUMP	
19	91403515	1	AIR INTAKE TUBE	
20	24921332	1	MUFFLER CLAMP	
21	91403512	1	AIR INTAKE HOOD, (includes clamp)	
22		Ref	BRACKET, (see Figure 12-2 for details)	
23	91413025	1	BAND CLAMP	



OPTIONS

S/N 0160001921 thru 0160003058
excluding 0160002657

Figure 12-6 Turbo Air Cleaner & Installation



NOTE:

AFTER S/N 0160003058, SEE FIGURE 4-6 FOR DETAILS.

PAP21970



Figure 12-6 Turbo Air Cleaner & Installation

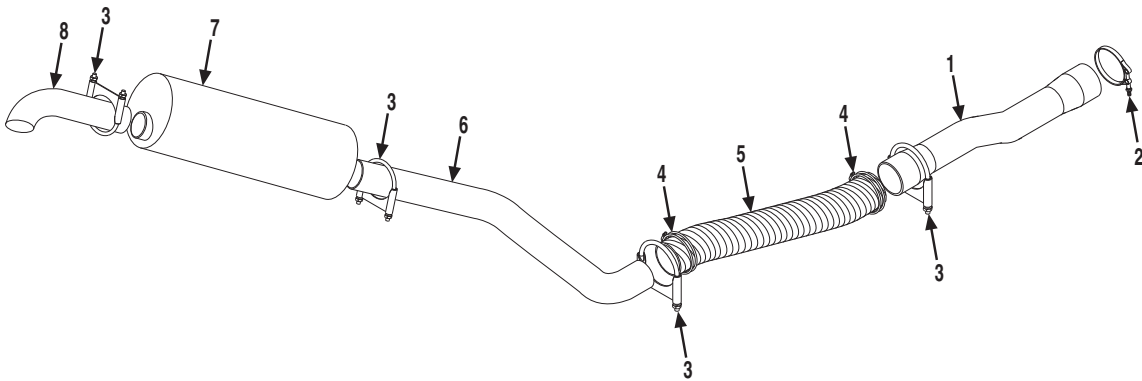
Item	Part Number	Qty.	Description	Rev.
	91515041	Ref	AIR CLEANER INSTALLATION, (not available to order, see items 1 thru 12 for service)	B
1	91364023	1	COVER ASSY	
2	10268516	2	MOUNTING BAND	
3	8273257	1	AIR INLET HOOD, (includes clamp)	
4	88201021	4	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
5	88551010	4	LOCKWASHER, 5/16	
6	91511144	1	MOUNTING BRACKET	
7	77383154	1	SERVICE INDICATOR	
8	91153007	1	ELBOW, 90 DEGREE	
9	8273029	1	AIR CLEANER, (includes items 1 & 10 thru 12)	
10	1101312	1	OUTER ELEMENT	
11	1101313	1	INNER ELEMENT	
12	80373094	1	VACUATOR	
13	91163129	5	BAND CLAMP	
14	91473104	1	AIR INTAKE TUBE	
15	91471133	1	INTAKE SUPPORT BRACKET	
16	88561004	2	FLAT WASHER, 3/8	
17	88551011	4	LOCKWASHER, 3/8	
18	88201033	4	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
19	24921332	2	CLAMP	
20	91403244	1	STRAIGHT HUMP	
21	91473103	1	AIR INTAKE TUBE	
22	91083126	1	AIR INTAKE ELBOW	
23	77383790	1	BAND CLAMP	
24	88561108	4	FLAT WASHER, 5/16	
25	77143006	4	WHIZ-LOCKNUT, 5/16-18	
26	0100011	AR	LOCTITE® 242™	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160003058
excluding 0160002657

Figure 12-7 Turbo Exhaust Installation



NOTE:

AFTER S/N 0160003058, SEE FIGURE 4-6 FOR DETAILS

S/N 0189001 thru 0189345 &
0160000230 thru 0160003058
excluding 0160002657

OPTIONS



Figure 12-7 Turbo Exhaust Installation

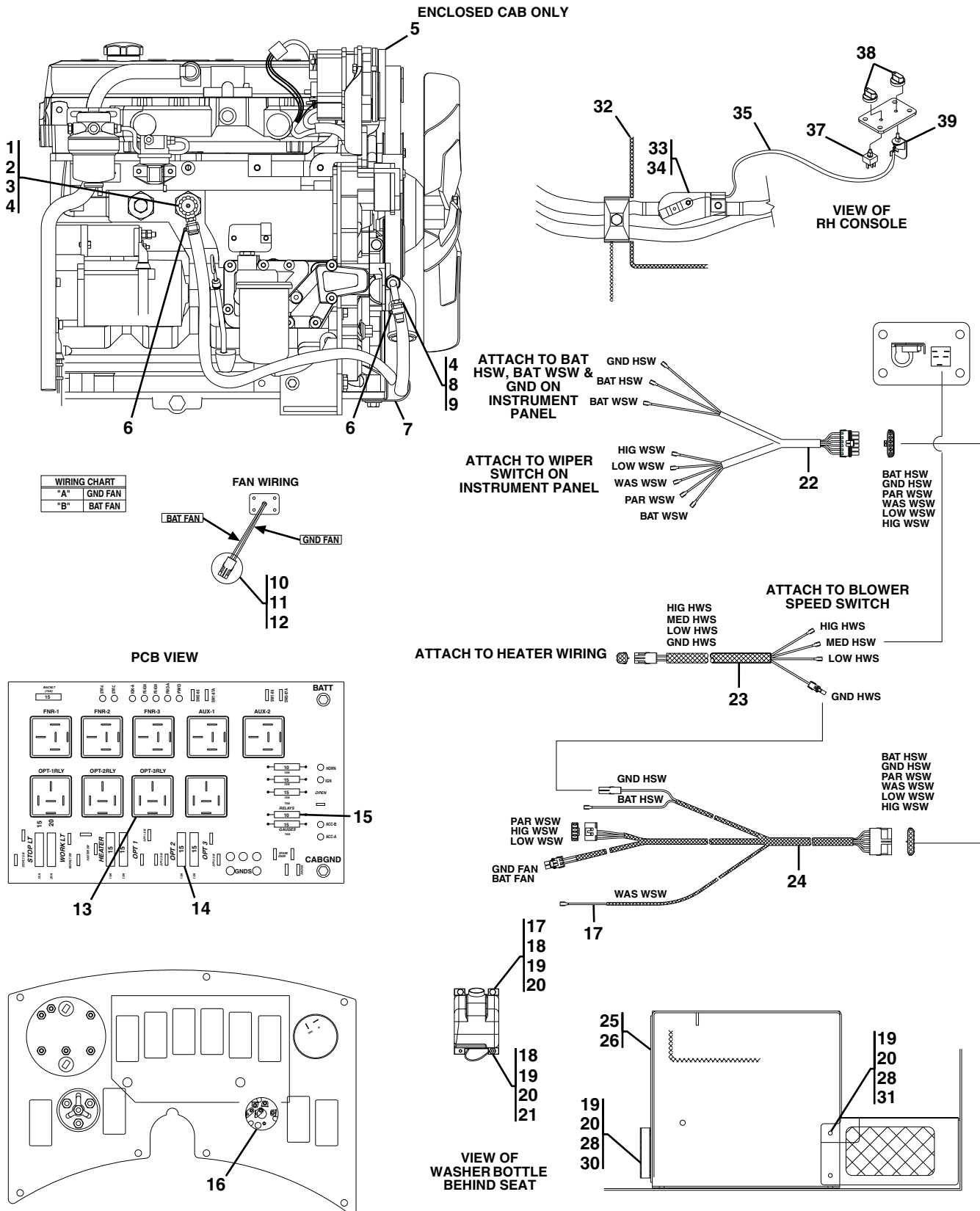
Item	Part Number	Qty.	Description	Rev.
1	91403485	1	EXHAUST TUBE	
2	91403216	1	V-BAND CLAMP	
3	24921332	4	MUFFLER CLAMP	
4	91403601	2	FLEXIBLE TUBE CLAMP	
5	91413030	1	FLEXIBLE TUBING	
6	91403511	1	EXHAUST TUBE	
7	91163035	1	MUFFLER	
8	91403489	1	TAIL PIPE	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160015436

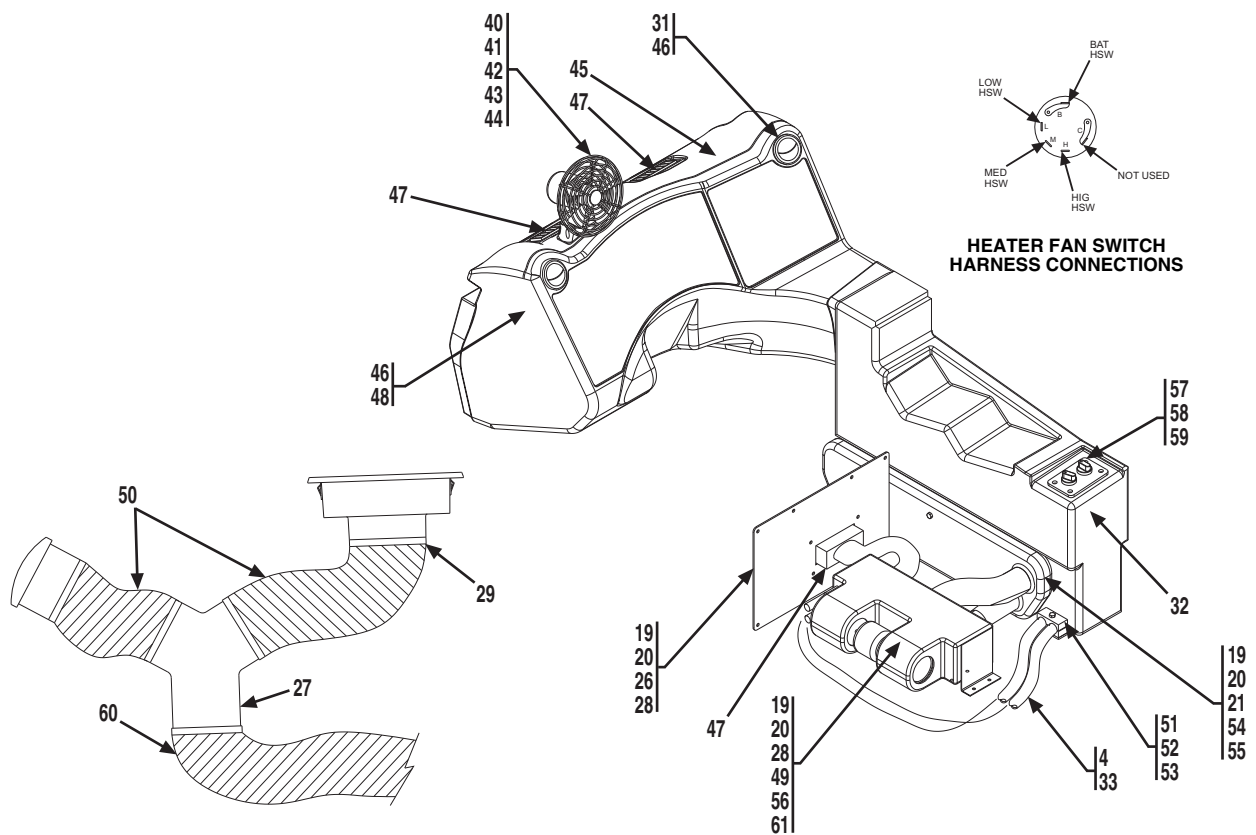
Figure 12-8 Heater Option Assembly



PAP23460



Figure 12-8 Heater Option Assembly (Continued)





OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160015436

Figure 12-8 Heater Option Assembly

Item	Part Number	Qty.	Description	Rev.
	91405056	1	HEATER OPTION ASSY WITH STANDARD SEAT, (includes items 1 thru 55 & 57 thru 60)	K
	91415046	1	HEATER OPTION ASSY WITH SUSPENSION SEAT, (includes items 1 thru 55 & 57 thru 60)	D
1	80373046	1	FITTING	
2	91083155	1	TRUCK VALVE	
3	77383540	1	COOLANT RESTRICTER ORIFICE	
4	82033995	20 ft	HEATER HOSE, 5/8	
5		Ref	ENGINE ASSY, (see Section 4 for details)	
6	86671187	2	HEATER HOSE CLAMP	
7	85941018	1	SUPPORT CLAMP	
8	80683073	1	STRAIGHT FITTING	
9	91403443	1	BARBED FITTING, 90 DEGREE	
10	80963058	1	WEATHER PACK CONNECTOR, (shroud)	
11	80963069	2	WEATHER PACK CONNECTOR, (pins)	
12	80963065	2	WEATHER PACK CONNECTOR, (seals)	
13	77363265	1	RELAY	
14	77363268	2	AUTO FUSE, 15 AMP	
15	77363267	1	AUTO FUSE, 10 AMP	
16	80963101	1	WIPER SWITCH	
17	1001111112	1	WINDOW WASHER FLUID TANK	
18	88201005	3	HEX HD CAPSCREW, 1/4-20X1, GR5	
19	88561002	18	FLAT WASHER, 1/4	
20	88551009	17	LOCKWASHER, 1/4	
21	88501004	2	HEX NUT, 1/4-20	
22	91403351	1	WIPE/WASH HARNESS	
23	91403352	1	HEATER HARNESS	
24	91403350	1	WIPE/HEATER HARNESS	
25	91406114	1	HEATER COVER WELDMENT	
26	91406113	1	BEZEL COVER ACCESS	
27	91403539	2	3 WAY CONNECTOR	
28	88261015	13	SOCKET BUTTON HD CAPSCREW, 1/4-20X5/8	
29	84231107	18	HOSE CLAMP	
30	91401421	1	VENT COVER	
31	91406119	1	HEATER COVER WELDMENT	
32	91403288	1	RH CONSOLE WITH HEATER	
33	86971172	4	HOSE CLAMP	
34	83683182	1	WATER VALVE	
35	91413038	1	HEATER CONTROL CABLE	
37	80964001	1	BLOWER SWITCH	
38	80363069	2	KNOB, 3/16 SHAFT	
39	80363028	1	ROTARY CONTROL	
40	91403608	1	DEFROSTER FAN	
41	91401443	1	FAN BASE PLATE	
42	91033425	1	RUBBER GROMMET	
43	88211030	4	SOCKET HD CAPSCREW, #10-24X3/4, GR8	
44	77143017	4	WHIZ-LOCKNUT, #10-24	
45	91403299	1	DASH, ENCLOSED CAB	
46	80363106	2	CIRCULAR VENT	



Figure 12-8 Heater Option Assembly (Continued)

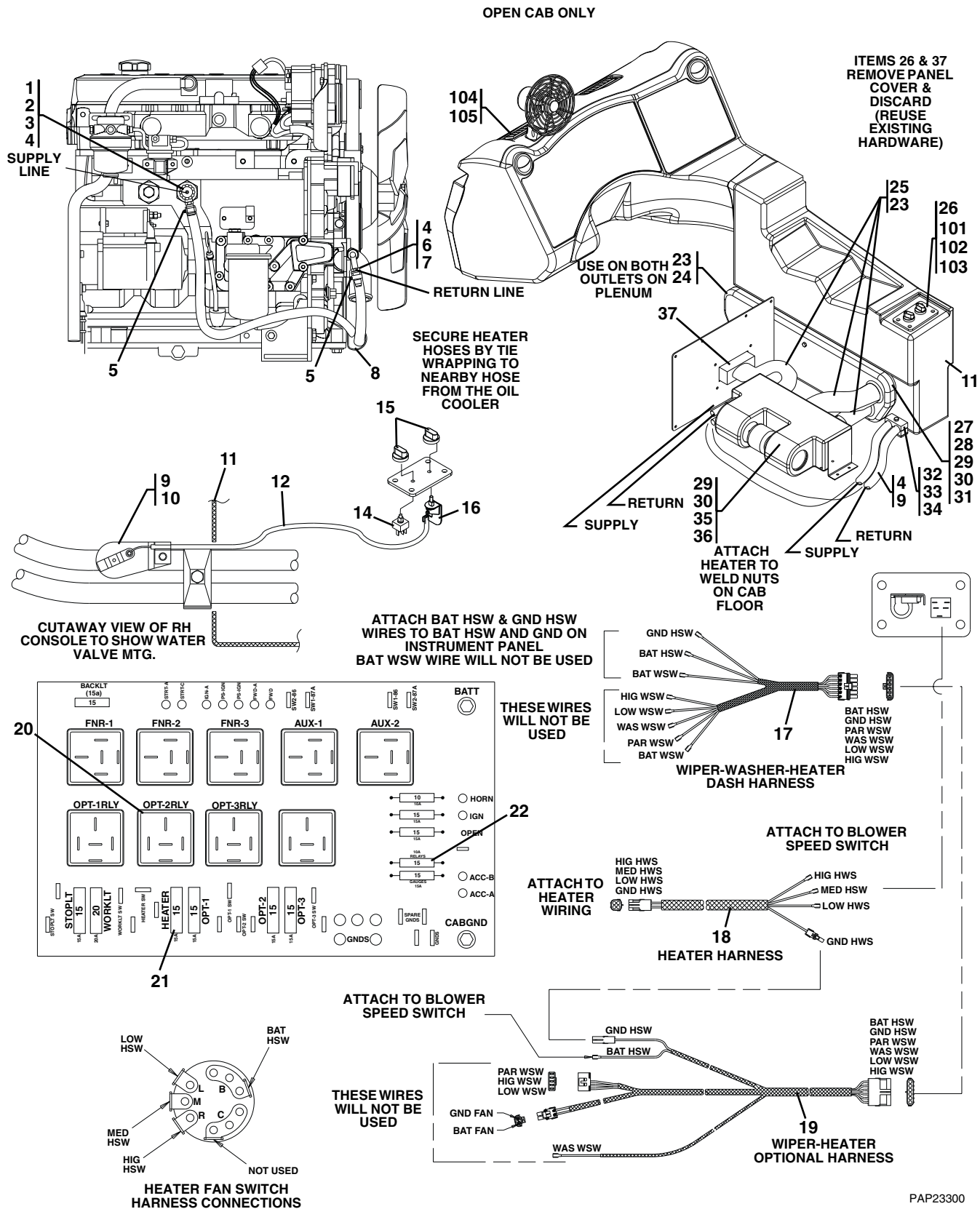
Item	Part Number	Qty.	Description	Rev.
47	91403538	3	RECTANGULAR VENT	
48	91403596	2	VENT REDUCER	
49	91403280	Ref	HEATER UNIT, (Before S/N 0160037689) , (includes items 56 & 61), (no longer available, use 1001114282 for replacement)	
	1001114282	1	HEATER UNIT, 3 SPEED, (S/N 0160037689 & After) , (includes items 56 & 61)	
50	71492150	10 ft	VENT HOSE, 2 IN	
51	77133279	1	CLAMP SET	
52	77133137	1	COVER PLATE	
53	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
54	91403329	1	PLENUM, HEAT/AC	
55	88201011	1	HEX HD CAPSCREW, 1/4-20X2-1/2, GR5	
56	70022804	1	HEATER FAN MOTOR REPLACEMENT KIT	
57	91403445	1	HEATER CONTROL PANEL	
58	91413051	4	SELF-TAPPING SCREW, #10X3/4	
59	80363034	4	TINNERMAN NUT	
60	71492152	10 ft	VENT HOSE, 2-1/2	
61	91404439	2	HEATER FAN WHEEL	



OPTIONS

S/N 0160015465 & After

Figure 12-8 Heater Option Assembly



PAP23300



Figure 12-8 Heater Option Assembly

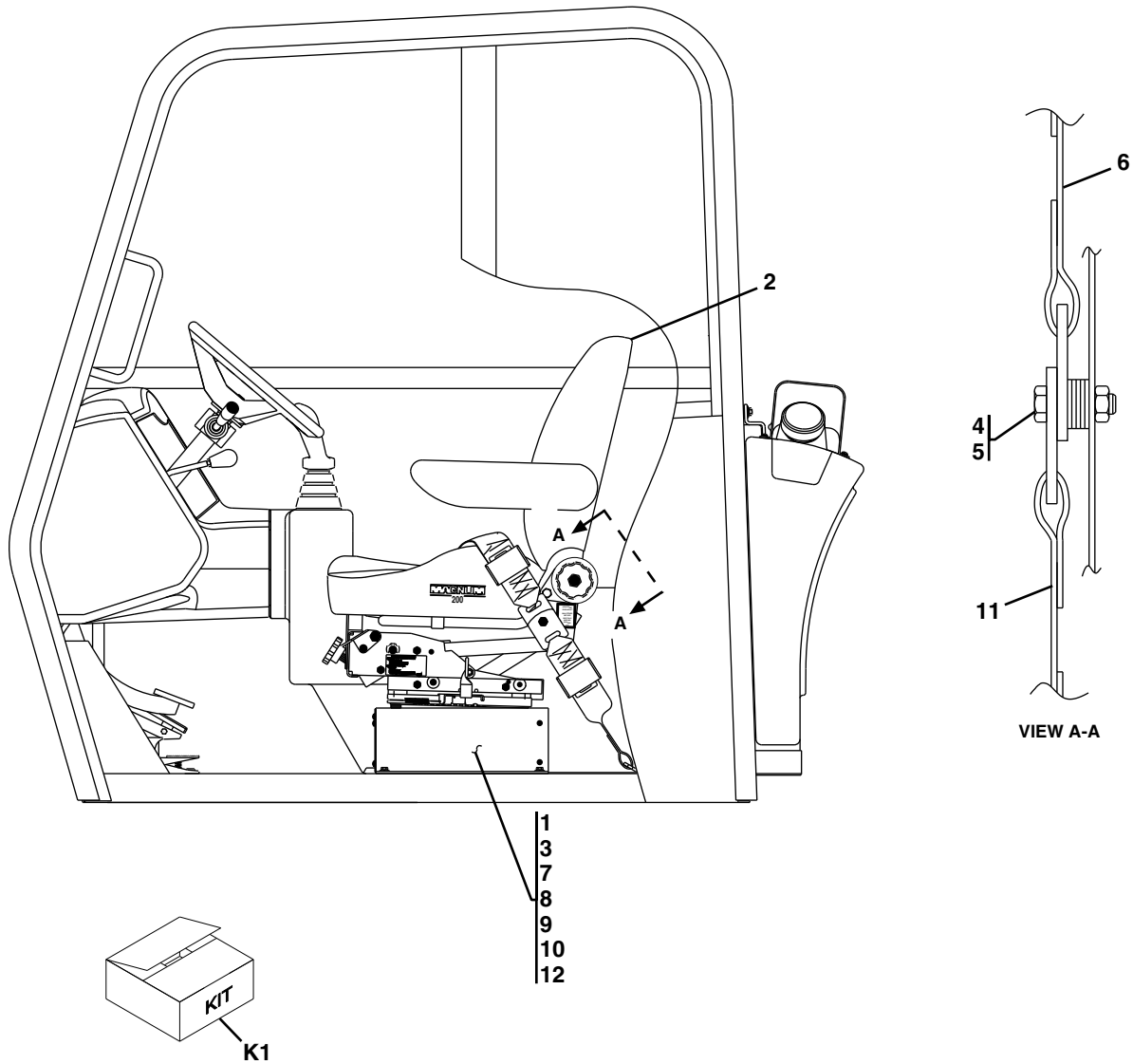
Item	Part Number	Qty.	Description	Rev.
	91475109	1	OPEN CAB HEATER OPTION, (includes items 1 thru 37)	D
1	80373046	1	FITTING	
2	91083155	1	TRUCK VALVE	
3	77383540	1	COOLANT RESTRICTER ORIFICE	
4	82033995	26 ft	HEATER HOSE, 5/8 IN	
5	86671187	2	HEATER HOSE CLAMP	
6	80683073	1	ADAPTER FITTING	
7	91403443	1	BARBED FITTING, 90 DEGREE	
8	86683122	2	TIE WRAP	
9	86683193	4	HOSE CLAMP	
10	83683182	1	WATER VALVE	
11		Ref	RH CONSOLE WITH HEATER, (see Figure 6-6 for details)	
12	91413038	1	HEATER CONTROL CABLE	
14	80964001	1	BLOWER SWITCH	
15	80363069	2	KNOB, 3/16 SHAFT	
16	80363028	1	ROTARY CONTROL	
17	91403351	1	WIPER/WASHER HARNESS	
18	91403352	1	HEATER HARNESS	
19	91403350	1	WIPER/HEATER HARNESS	
20	77363265	1	RELAY	
21	77363268	1	AUTO FUSE, 15 AMP	
22	77363267	1	AUTO FUSE, 10 AMP	
23	84231107	8	HOSE CLAMP	
24	91416020	2	VENT WELDMENT	
25	71492152	5.5 ft	VENT HOSE, 2-1/2 IN	
26	91403445	1	HEATER CONTROL PANEL	
27	91403329	1	HEAT/AC PLENUM	
28	88201011	1	HEX HD CAPSCREW, 1/4-20X2-1/2	
29	88561002	6	FLAT WASHER, 1/4	
30	88551009	5	LOCKWASHER, 1/4	
31	88501004	1	HEX NUT, 1/4-20	
32	77133279	1	CLAMP SET	
33	77133137	1	COVER PLATE	
34	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4	
35	91403280	Ref	HEATER UNIT, (Before S/N 0160037689), (no longer available, use 1001114282 for replacement)	
	1001114282	1	HEATER UNIT, 3 SPEED, (S/N 0160037689 & After)	
36	88261015	4	BUTTON HD CAPSCREW, 1/4-20X5/8	
37	91413053	1	RECTANGULAR VENT	
101	1001100322	4	PAN HD SCREW, #10	
102	80363034	4	TINNERMAN NUT	
103	91471243	1	PANEL COVER	
104	91413036	4	SELF-TAPPING SCREW	
105	91413053	2	RECTANGULAR VENT	



OPTIONS

S/N 0189001 thru 0189345 &
0160000230 thru 0160015436

Figure 12-9 Suspension Seat



PAP23550



Figure 12-9 Suspension Seat

Item	Part Number	Qty.	Description	Rev.
		Ref	SUSPENSION SEAT OPTION WITH OPEN CAB, (includes all items), (item no longer available, see Figure 12-35 for details)	
		Ref	SUSPENSION SEAT OPTION WITH ENCLOSED CAB, (includes all items), (item no longer available, see Figure 12-35 for details)	
1	91405050	1	SEAT RISER ASSY, (open cab), (includes items 3, 7, 8, 9 & 10)	
	91415045	1	SEAT RISER ASSY, (enclosed cab), (includes items 3, 7, 8, 9 & 10)	
2	91403527	1	TRIMLINE MAGNUM 200 SEAT	
3	88551009	6	LOCKWASHER, 1/4	
4	88201551	2	HEX HD CAPSCREW, 7/16-20X1-1/2, GR5	
5	88561111	10	FLAT WASHER, 1/2	
6	91033029	1	STANDARD SEAT BELT, 2 IN	
	91033486	1	SEAT BELT, 3 IN, (California Only), (Before S/N 0160015465)	
	91565064	1	SEAT BELT, 3 IN, (California Only), (S/N 0160015465 & After)	
7	91406116	1	SUSPENSION RISER WELDMENT	
8	88561002	6	FLAT WASHER, 1/4	
9	91401417	1	ACCESS COVER, (open cab)	
	91406114	1	ACCESS COVER, (enclosed cab)	
10	88261015	6	SOCKET BUTTON HD CAPSCREW, 1/4-20X5/8	
11	91403191	1	TETHER	
12	88561002	6	FLAT WASHER, 1/4	
K1	70023139	1	SEAT BELT KIT, 3 IN, (California only) , (includes retractor & female ends)	



OPTIONS

Before S/N 0160031703

Figure 12-10 Work Light Package

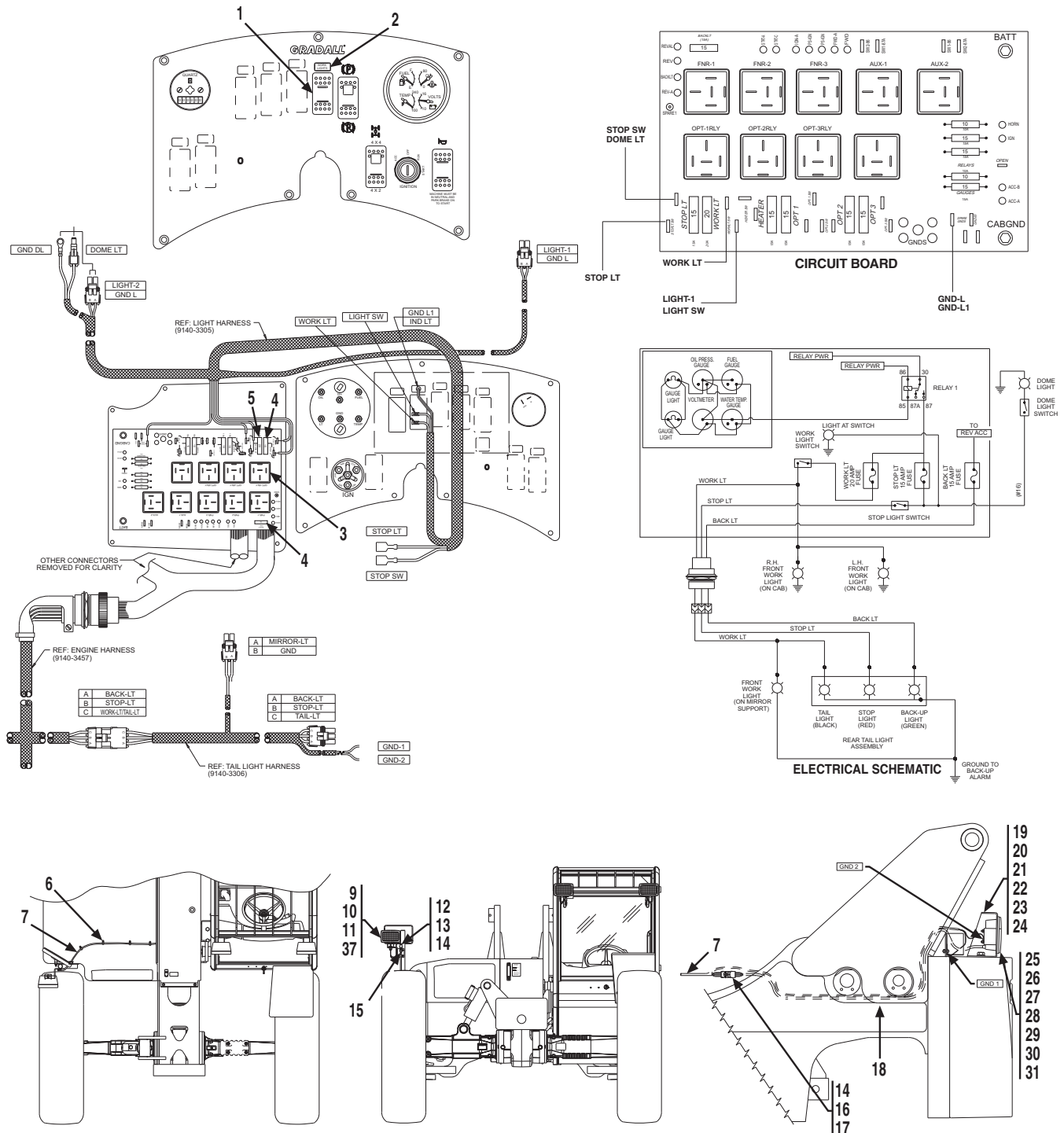
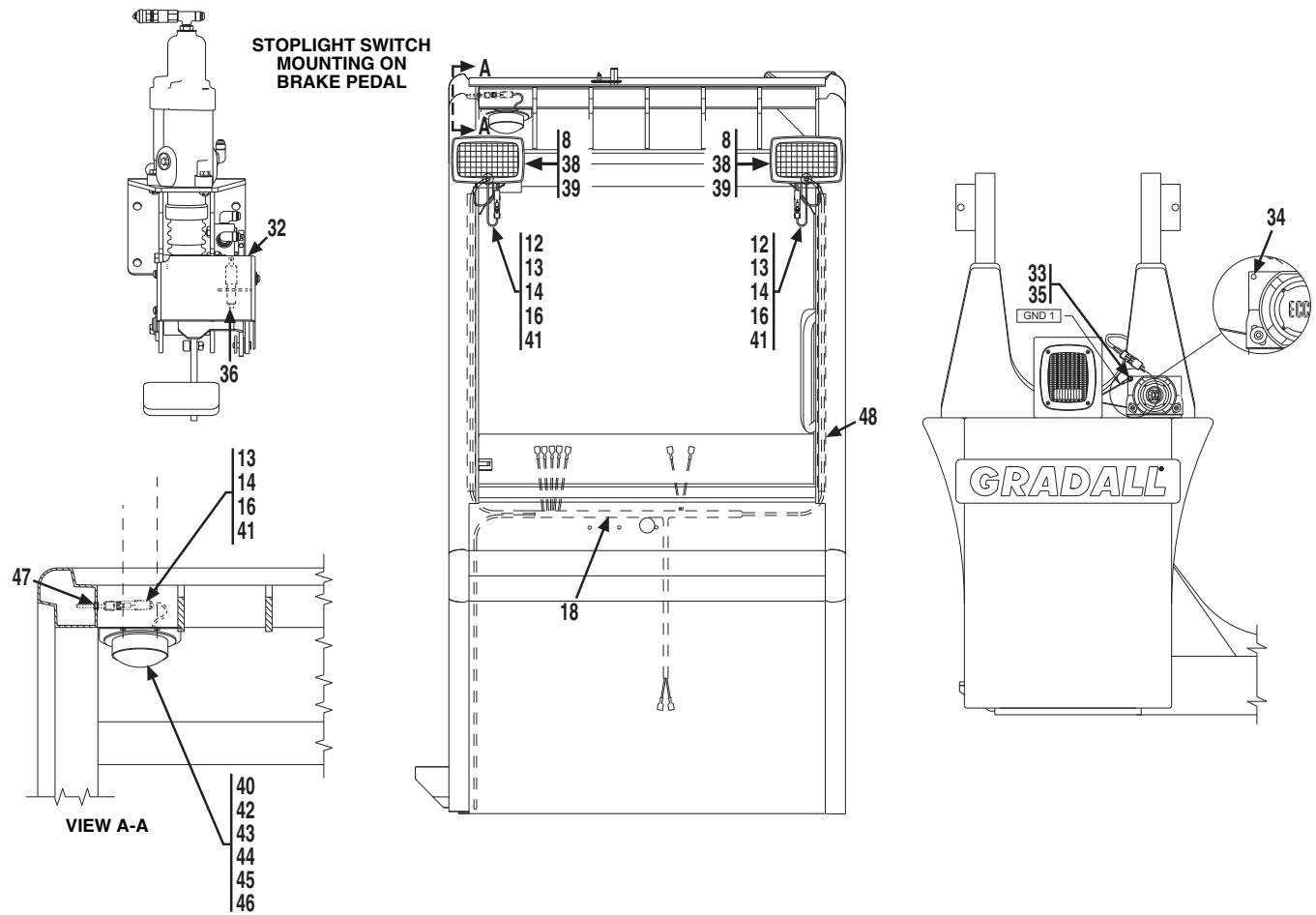


Figure 12-10 Work Light Package (Continued)





OPTIONS

Before S/N 0160031703

Figure 12-10 Work Light Package

Item	Part Number	Qty.	Description	Rev.
	91405057	1	WORK LIGHT PACKAGE, (includes all items)	I
1	91403304	1	TOGGLE SWITCH - SPST	
2	91403613	1	DECAL - WORK LIGHTS	
3	77363265	1	RELAY	
4	77363268	2	FUSE, 15 AMP	
5	77363302	1	FUSE, 20 AMP	
6	91203039	2	SUPPORT CLAMP	
7	91403306	1	TAIL LIGHT HARNESS	
8	91413052	2	MOUNTING BOLT	
9	80963050	1	UTILITY FLOOD LIGHT	
10	91411048	1	LIGHT SUPPORT	
11	77383293	3	WELD STUD, 5/16-18X3/4	
12	80963058	3	WEATHER PACK CONNECTOR, (shroud)	
13	80963068	2	WEATHER PACK CONNECTOR, (female pin terminal)	
14	80963066	10	WEATHER PACK CONNECTOR, (cable seal)	
15	86683122	1	TIE WRAP	
16	80963069	8	WEATHER PACK CONNECTOR, (male pin terminal)	
17	80963060	1	WEATHER PACK CONNECTOR, (shroud)	
18	91403305	1	LIGHT HARNESS	
19	91121145	1	TAIL LIGHT HOUSING	
20	91121146	1	TAIL LIGHT BRACKET	
21	91365045	1	TAIL LIGHT ASSY, (includes items 25 thru 31)	B
22	88201108	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
23	88561115	1	FLAT WASHER, 3/4	
24	88551016	1	LOCKWASHER, 3/4	
25	91123065	1	TAIL LIGHT	
26	86661147	38 in	BLACK WIRE, 16 GA	
27	86661149	38 in	GREEN WIRE, 16 GA	
28	86661152	38 in	RED WIRE, 16 GA	
29	4460035	3	BUTT CONNECTOR	
30	82033996	45 in	WIRE LOOM	
31	86683122	2	TIE WRAP	
32	91406149	1	COVER PLATE WELDMENT	
33	88501004	1	HEX NUT, 1/4-20	
34	91033215	1	WELD STUD, 1/4-20X1/2	
35	88551009	1	LOCKWASHER, 1/4	
36	91143117	1	STOP LIGHT SWITCH	
37	77143006	3	WHIZ-LOCKNUT, 5/16-18	
38	80963050	2	UTILITY FLOOD LIGHT	
39	91403503	2	SPACER	
40	88551006	3	LOCKWASHER, #8	
41	80963056	1	WEATHER PACK CONNECTOR, (shroud)	
42	24861167	1	INTERIOR LIGHT	
43	91361003	1	MOUNTING BRACKET	
44	88321022	2	SELF-TAPPING SCREW, #8-32X3/8	
45	88501610	3	HEX NUT, #8-32	
46	89981036	3	PAN HD SCREW, #8-32X3/8	
47	90029955	1	RUBBER GROMMET	
48	80961142	3	ECONOMY WIRING DUCT	



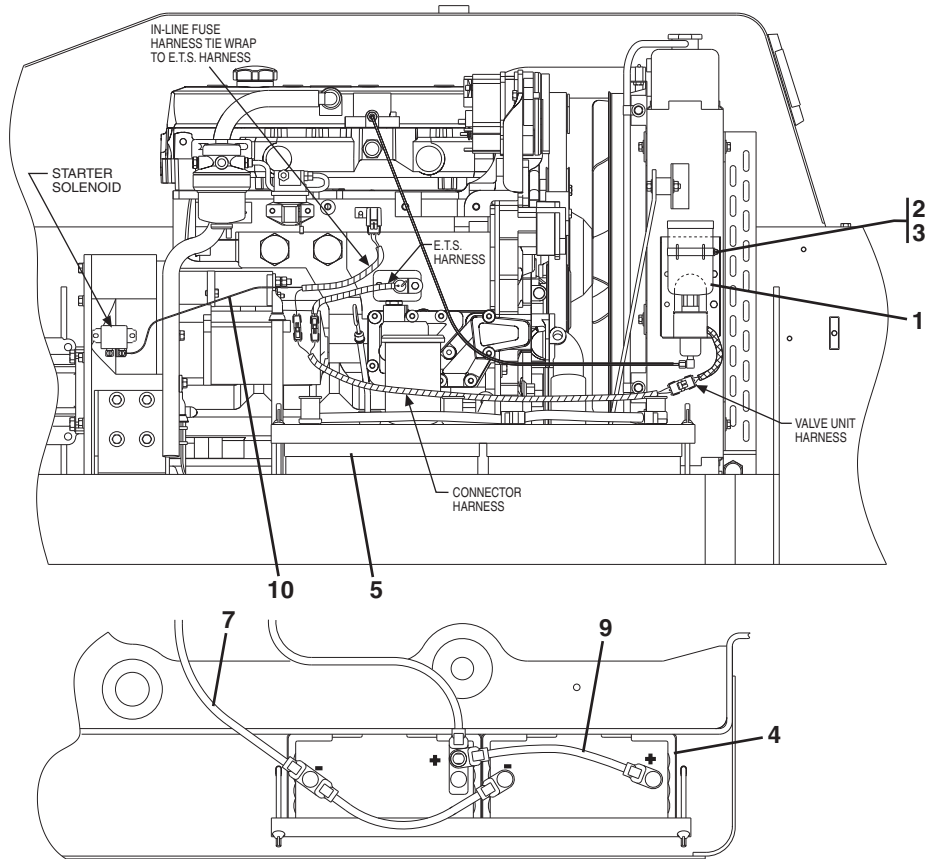
Figure 12-10 Work Light Package (Continued)

Item	Part Number	Qty.	Description	Rev.
49	14404173	AR	SILICON SEALANT, (not shown)	



OPTIONS

Figure 12-11 Cold Start Installation



VIEW OF BATTERY AREA

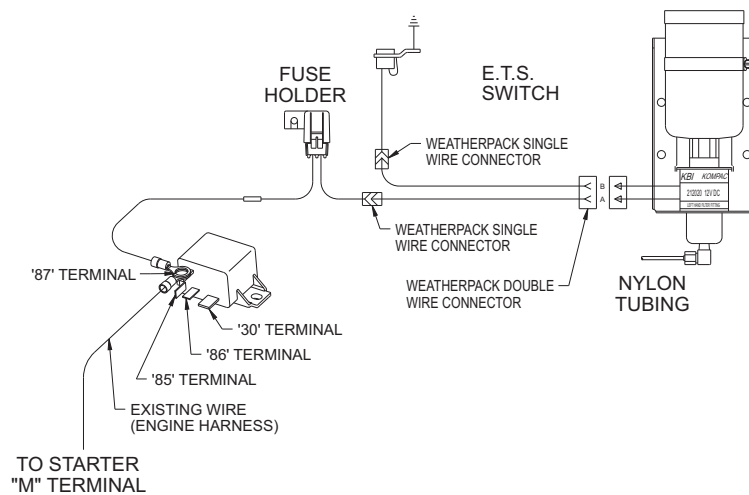




Figure 12-11 Cold Start Installation

Item	Part Number	Qty.	Description	Rev.
	91405023	1	COLD START INSTALLATION, (includes items 1 thru 3 & 10)	C
1	91403295	1	COLD START KIT	
	70023156	1	VALVE, 12VDC	
2	88201001	2	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
3	88551009	2	LOCKWASHER, 1/4	
4	91083483	1	BATTERY, (12 volt, 1050 amps), TOP STUD, 3/8-16 UNC THREAD, BCI GROUP 31	
5	91401299	1	TIE DOWN, (S/N 0189001 thru 0160018282)	
7	91403367	1	NEGATIVE BATTERY CABLE, (S/N 0189001 thru 0160018282)	
9	91403390	1	POSITIVE JUMPER CABLE, (S/N 0189001 thru 0160018282)	
10	91473239	1	COLD START WIRE	



OPTIONS

Figure 12-12 Block Heater Installation

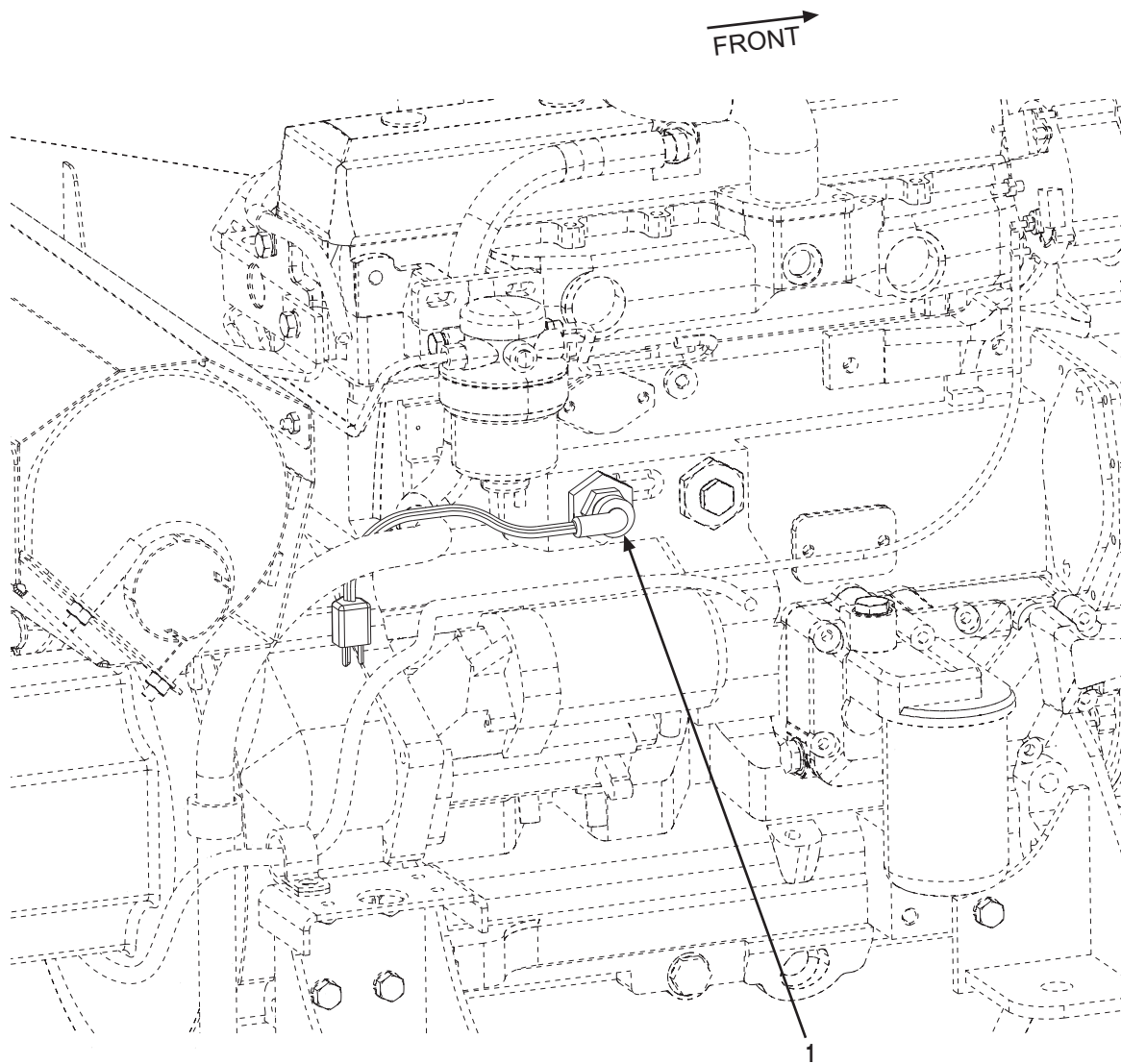




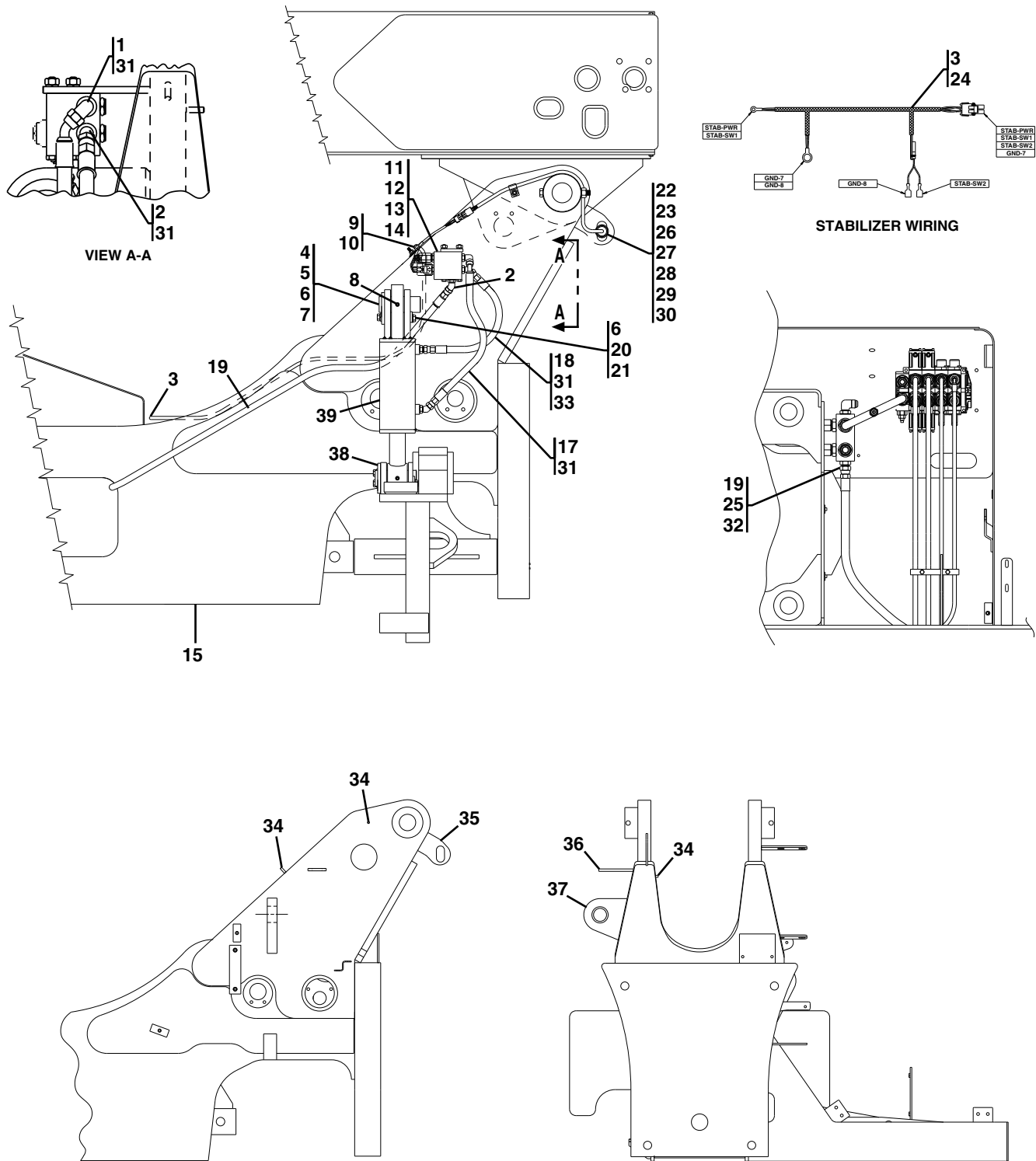
Figure 12-12 Block Heater Installation

Item	Part Number	Qty.	Description	Rev.
1	80375012	1	BLOCK HEATER INSTALLATION, (includes item 1)	A
	80373088	1	BLOCK HEATER	



OPTIONS

Figure 12-13 Stabilizer Option



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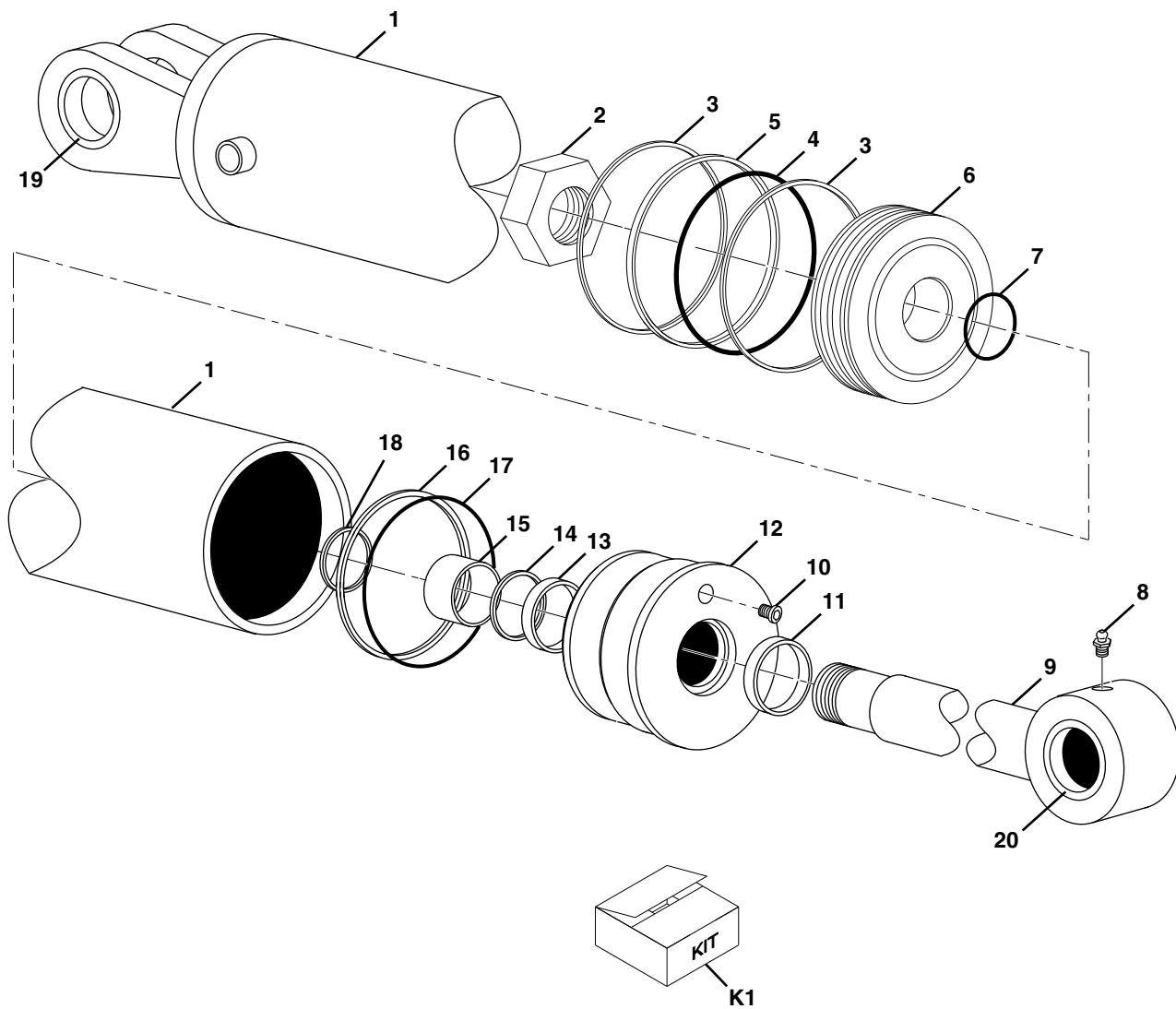
Figure 12-13 Stabilizer Option

Item	Part Number	Qty.	Description	Rev.
	91415014	1	STABILIZER OPTION, (includes items 1 thru 25)	C
1	2220596	1	ADAPTER, 90 DEGREE, (includes item 31)	
2	2220500	2	ADAPTER, 45 DEGREE, (includes item 31)	
3	91403297	1	STABILIZER HARNESS	
4	91166062	1	PIN WELDMENT	
5	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
6	88561111	3	FLAT WASHER, 1/2	
7	88551013	2	LOCKWASHER, 1/2	
8	88671001	1	STRAIGHT LUBE FITTING, 1/8	
9	86621230	3	SUPPORT CLAMP	
10	77143006	3	WHIZ-LOCKNUT, 5/16	
11		Ref	STABILIZER VALVE, (see Figure 12-42 for details)	
12	83201073	2	HEX HD CAPSCREW, 3/8-16X4-1/2	
13	88551011	2	LOCKWASHER, 3/8	
14	88501006	2	HEX NUT, 3/8-16	
15	NSS	1	FRAME WELDMENT	
17	84718631	1	HOSE ASSY	
18	84717556	1	HOSE ASSY	
19	84719596	1	HOSE ASSY	
20	88201065	1	HEX HD CAPSCREW, 1/2-13X1, GR5	
21	91161269	1	KEEPER	
22	91365037	1	STABILIZER SENSOR ASSY, (includes items 26 thru 30)	B
23	91403156	2	WASHER	
24	90027187	4	NYLON TIE	
25	2220435	1	ADAPTER, (includes item 32)	
26	91143155	1	PROXIMITY SENSOR SWITCH	
27	80963062	1	WEATHER PACK CONNECTOR, (shroud)	
28	80963069	4	WEATHER PACK CONNECTOR, (male pin terminal)	
29	80963065	4	WEATHER PACK CONNECTOR, (cable seals)	
30	91053419	1	TIE WRAP	
31	88591205	5	O-RING	
32	88591209	1	O-RING	
33	2220373	1	CONNECTOR, (includes item 31)	
34	85051384	3	WELD STUD, 5/16-18X1	
35	91401256	1	SENSOR MOUNTING BRACKET	
36	91361026	1	STABILIZER VALVE MOUNTING PLATE	
37	91401464	1	STABILIZER CYLINDER BRACKET	
38	91163019	2	BUSHING	
39		Ref	STABILIZER CYLINDER, (see Figure 12-14 for details)	



OPTIONS

Figure 12-14 Stabilizer Cylinder - Iowa



PAP23450



Figure 12-14 Stabilizer Cylinder - Iowa

Item	Part Number	Qty.	Description	Rev.
	91403140	1	STABILIZING CYLINDER, (includes all items)	B
1	91404276	1	CASE ASSY	
2	91064017	1	LOCKNUT	
3	Use Kit K1	2	WEAR RING	
4	Use Kit K1	1	O-RING	
5	Use Kit K1	1	PISTON SEAL	
6	91144033	1	PISTON	
7	Use Kit K1	1	O-RING	
8	91144128	1	GREASE FITTING	
9	91404281	1	SHAFT ASSY	
10	91404282	1	SETSCREW	
11	91124103	1	CANNED WIPER	
12	91404283	1	HEAD	
13	Use Kit K1	1	U-CUP SEAL	
14	Use Kit K1	1	STEP SEAL	
15	Use Kit K1	1	WEAR RING	
16	Use Kit K1	1	BACK-UP RING	
17	Use Kit K1	1	O-RING	
18	91084372	1	RETAINING RING	
19	91404338	2	BUSHING	
20	91404339	1	BUSHING	
K1	91144005	1	SEAL KIT, (includes items 3, 4, 5, 7 & 13 thru 17)	



OPTIONS

Before S/N 0160031703

Figure 12-15 Beacon Light Package

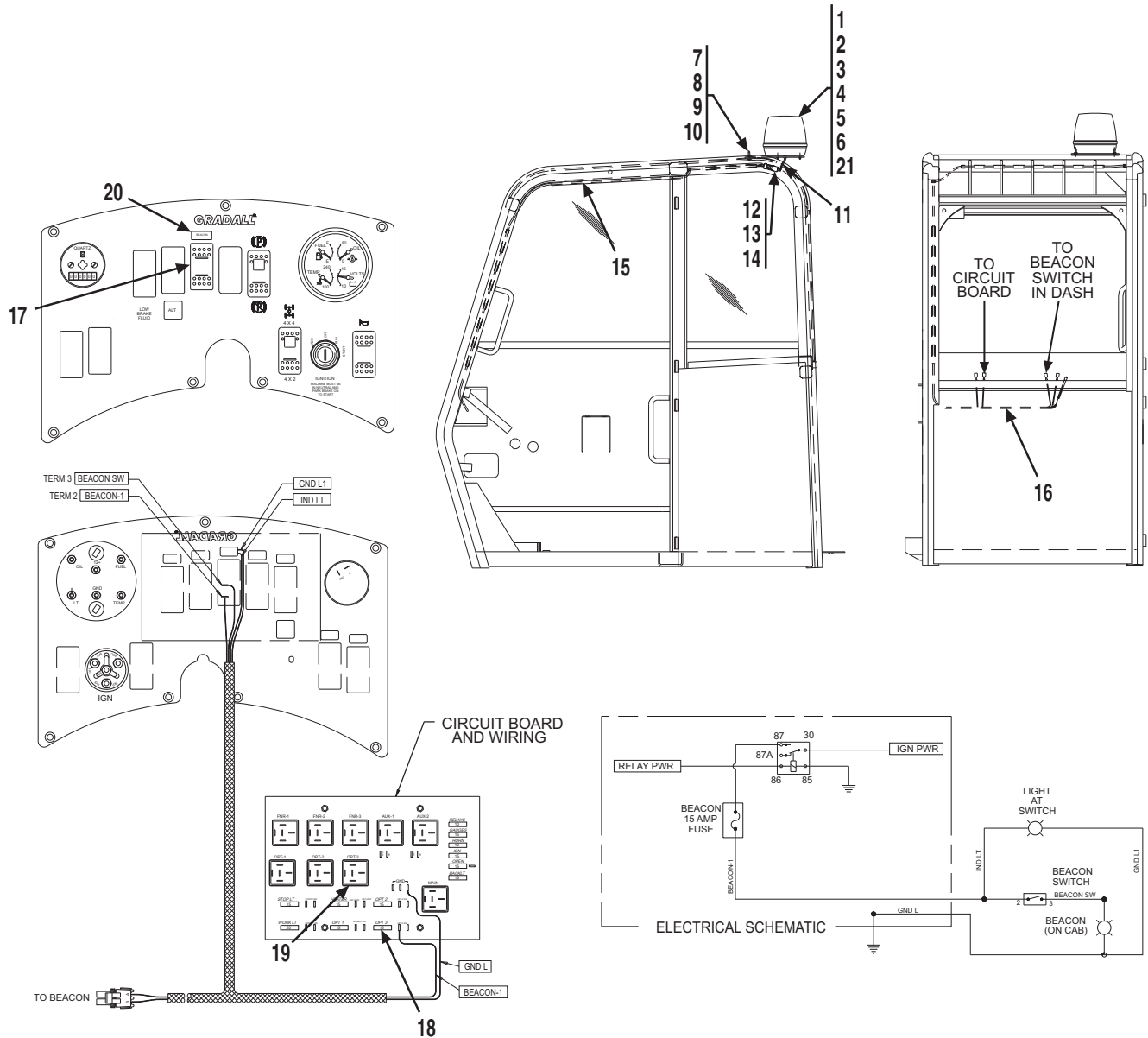




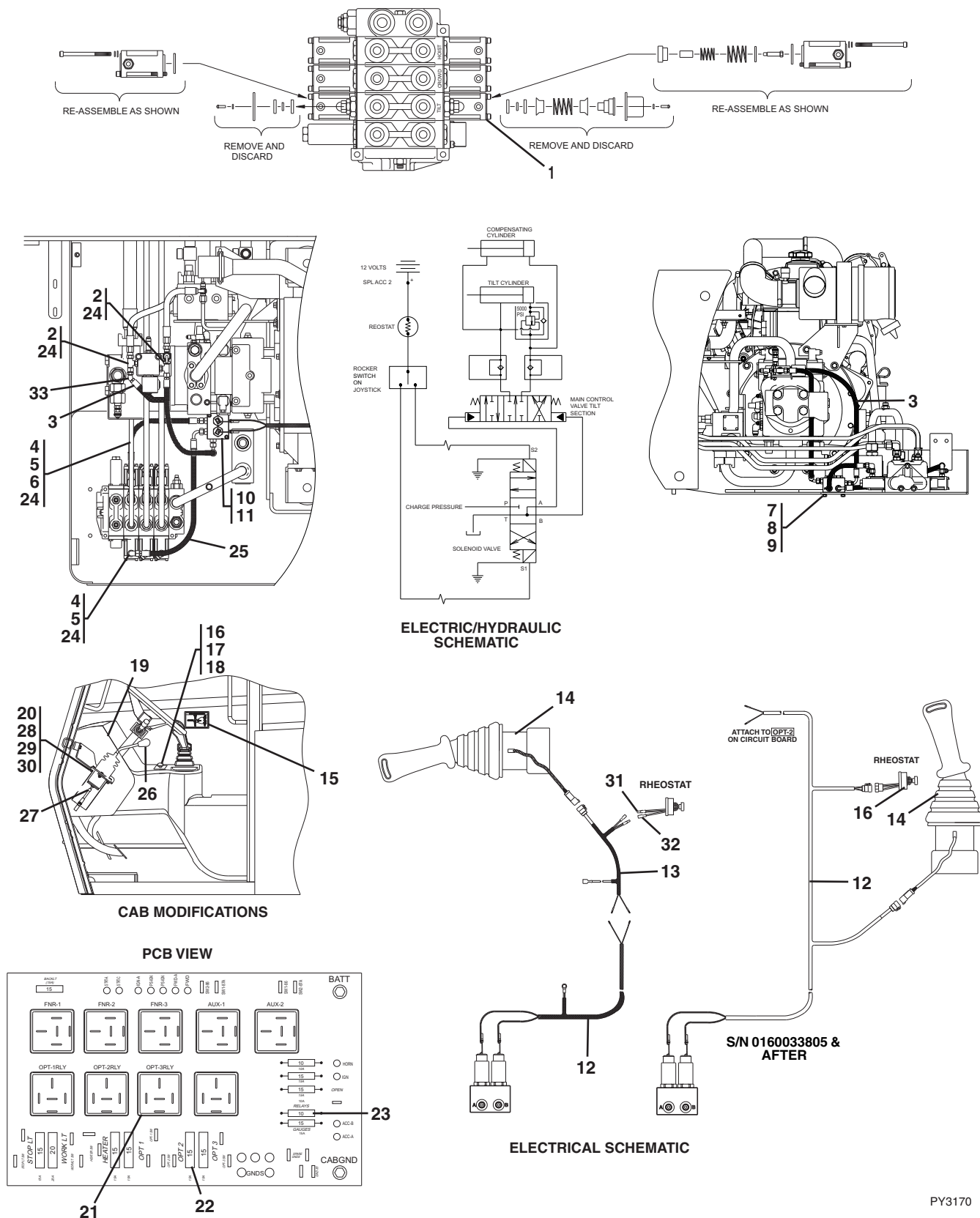
Figure 12-15 Beacon Light Package

Item	Part Number	Qty.	Description	Rev.
	91415036	1	BEACON LIGHT PACKAGE, (includes all items)	D
1	91343031	1	ROTATING BEACON, (includes item 21)	
2	91511206	1	BEACON BRACKET	
3	90027214	1	RUBBER GROMMET	
4	88301093	3	ROUND HD MACHINE SCREW, #10-24X3/4	
5	88551007	3	LOCKWASHER, #10	
6	88501612	3	HEX NUT, #10-24	
7	88201005	2	HEX HD CAPSCREW, 1/4-20X1-1/4, GR5	
8	88561002	2	FLAT WASHER, 1/4	
9	88551009	2	LOCKWASHER, 1/4	
10	88501004	2	HEX NUT, 1/4-20	
11	90029955	1	RUBBER GROMMET	
12	80963058	1	WEATHER PACK CONNECTOR, (shroud)	
13	80963069	2	WEATHER PACK CONNECTOR, (male pin terminal)	
14	80963065	2	WEATHER PACK CONNECTOR, (cable seal)	
15	8096D097	79 in	ECONOMY WIRING DUCT	
16	91413044	1	BEACON HARNESS	
17	91403304	1	TOGGLE SWITCH-SPST	
18	77363268	1	FUSE, 15 AMP	
19	77363265	1	RELAY	
20	91413045	1	BEACON DECAL	
21	91344053	1	BULB	



OPTIONS

Figure 12-16 Tilt on Joystick With LH Sway



PY3170



Figure 12-16 Tilt on Joystick With LH Sway

Item	Part Number	Qty.	Description	Rev.
	91405098	1	TILT ON JOYSTICK WITH LH SWAY, (includes all items)	F
1	91123075	1	HYDRAULIC VALVE POSITIONER KIT	
2	2220899	2	BRANCH TEE, (includes item 24)	
3	77133447	2	HOSE ASSY	
4	2220371	2	CONNECTOR, (includes item 24)	
5	8760268	2	ELBOW, 90 DEGREE, (swivel nut)	
6	84717537	1	HOSE ASSY	
7	88211047	2	SOCKET HD CAPSCREW, 1/4-20X2-1/4, GR8	
8	88551009	2	LOCKWASHER, 1/4	
9	88501004	2	HEX NUT, 1/4-20	
10	91403516	1	SOLENOID VALVE	
	7026991	2	SOLENOID	
11	2220603	4	STRAIGHT THREAD CONNECTOR	
12	91403612	1	TILT ON JOYSTICK ENGINE HARNESS, (Before S/N 0160032178)	
	91513119	1	TILT ON JOYSTICK ENGINE HARNESS, (S/N 0160032178 thru 0160033603)	
	1001099319	1	TILT ON JOYSTICK ENGINE HARNESS, (S/N 0160033805 & After)	
13	91403614	1	TILT ON JOYSTICK CAB HARNESS, (Before S/N 0160032178)	
	91513119	1	TILT ON JOYSTICK ENGINE HARNESS, (S/N 0160032178 thru 0160033603)	
14		Ref	JOYSTICK, (see Figure 12-25 for details)	
15	91403311	1	BOOM CONTROL DECAL	
16	80964002	1	RHEOSTAT, (Before S/N 0160033805)	
	1001099174	1	RHEOSTAT, (S/N 0160033805 & After)	
17	91401571	1	MOUNTING PLATE	
18	88321015	4	SELF-TAPPING SCREW, #6-32X1/2	
19	91403317	1	LH SWAY PANEL	
20	88551009	3	LOCKWASHER, 1/4	
21	77363265	1	RELAY	
22	77363268	1	AUTO FUSE, 15 AMP	
23	77363267	1	AUTO FUSE, 10 AMP	
24	88591204	4	O-RING	
25	84718515	1	HOSE ASSY	
26	91403274	1	JOYSTICK, (Before S/N 0160038555)	
	91513204	1	JOYSTICK, (S/N 0160038555 & After)	
	91404445	1	COVER ATTACHING KIT	
	91404091	1	OVAL KNOB HANDLE	
	91404446	1	CABLE HARDWARE KIT, 1/4-28	
	91404210	1	HEX JAM NUT, 1/2-13, (Before S/N 0160038555)	
	91404447	1	SPRING PACK, (Before S/N 0160038555)	
	91404448	1	TOP BOOT, (Before S/N 0160038555)	
27	91403309	1	TILT/SWAY CABLE	
28	91401172	1	LH SWAY BRACKET	
29	88201009	3	HEX HD CAPSCREW, 1/4-20X2, GR5	
30	88501004	3	HEX NUT, 1/4-20	
31	86983193	1	MALE BULLET CONNECTOR, (Before S/N 0160033805)	
32	77163105	1	FEMALE BULLET CONNECTOR, (Before S/N 0160033805)	
33	2220657	1	ELBOW, 45 DEGREE, (swivel nut)	



ELECTRICAL SCHEMATIC

The schematic shows the wiring for the control system. Key components and labels include:

- 37**: Connector for the joystick.
- 38**: Connector for the reostat.
- 13**: Junction point for the joystick wiring.
- 12**: Main power line connecting to the PCB.
- 14**: Reostat component.
- 16**: Connector for the reostat.
- ATTACH TO OPT-2 ON CIRCUIT BOARD**: Label indicating where to connect the joystick wiring.
- S/N 0160033805 & AFTER**: Note indicating the serial number range for this configuration.

PCB VIEW

The PCB view shows the layout of the control board. Key components and labels include:

- 15**: STOP LT switch.
- 16**: WORK LT switch.
- 17**: HEATER switch.
- 18**: OPT 1 switch.
- 19**: OPT 2 switch.
- 20**: OPT 3 switch.
- 21**: OPT 1RLY relay.
- 22**: OPT 2RLY relay.
- 23**: OPT 3RLY relay.
- 24**: FNR-1 switch.
- 25**: FNR-2 switch.
- 26**: FNR-3 switch.
- 27**: AUX-1 switch.
- 28**: AUX-2 switch.
- 29**: BATT terminal.
- 30**: GND terminal.
- 31**: OPEN terminal.
- 32**: ACC-8 terminal.
- 33**: ACC-A terminal.
- 34**: CABGND terminal.

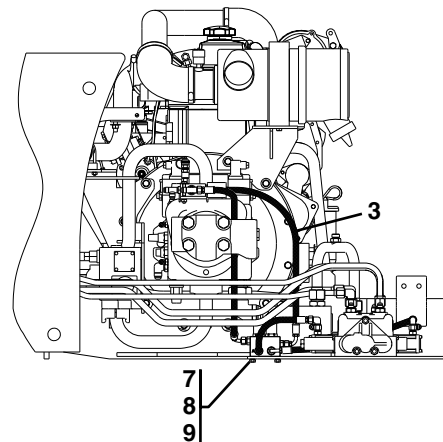
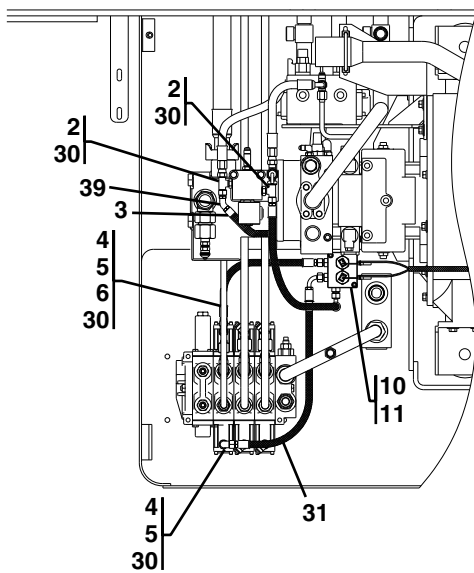
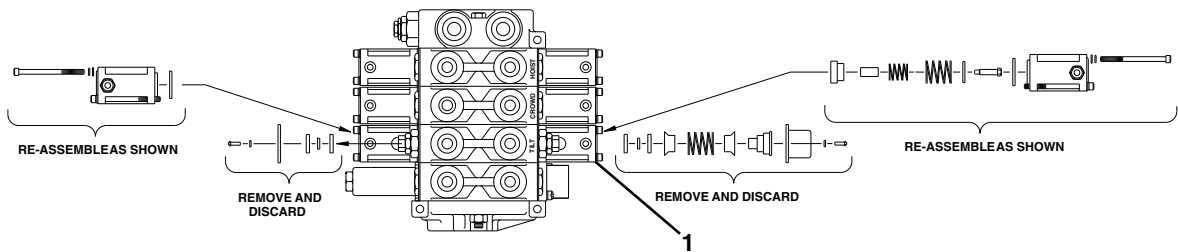
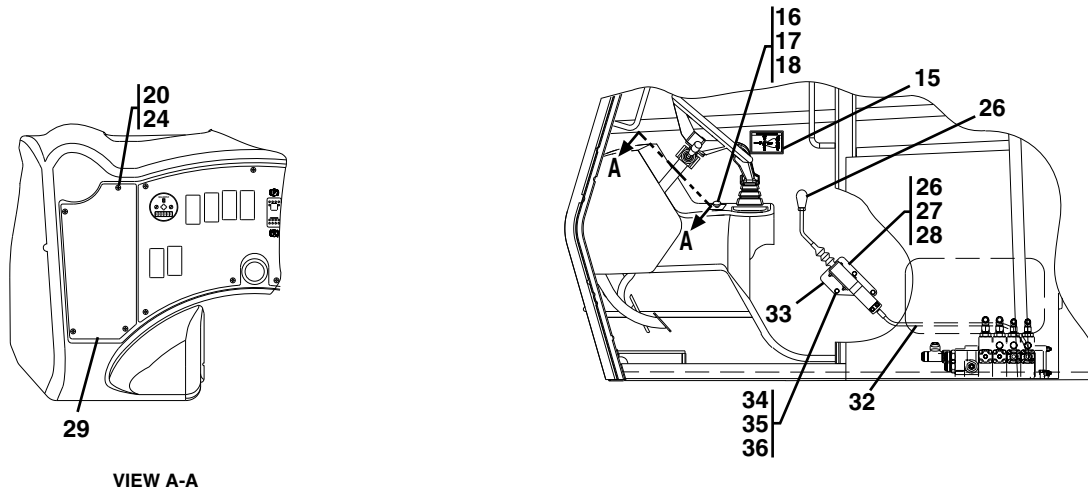
ELECTRIC/HYDRAULIC SCHEMATIC

The electric/hydraulic schematic shows the integration of the electrical and hydraulic systems. Key components and labels include:

- 12 VOLTS**: Power source for the electrical system.
- SPL ACC 2**: Solenoid pressure line.
- REOSTAT**: Variable resistor for the joystick.
- ROCKER SWITCH ON JOYSTICK**: Control switch for the joystick.
- COMPENSATING CYLINDER**: Hydraulic cylinder for compensation.
- TILT CYLINDER**: Hydraulic cylinder for tilting.
- 5000 PSI**: Pressure rating for the hydraulic system.
- MAIN CONTROL VALVE TILT SECTION**: Valve section for the main control.
- CHARGE PRESSURE**: Pressure line for the charge pressure.
- SOLENOID VALVE**: Valve controlled by the solenoid pressure line.



Figure 12-17 Tilt on Joystick With RH Sway (Continued)



PAP23390



OPTIONS

Figure 12-17 Tilt on Joystick With RH Sway

Item	Part Number	Qty.	Description	Rev.
	91415030	1	TILT ON JOYSTICK WITH RH SWAY, (includes all items)	G
1	91123075	1	HYDRAULIC VALVE POSITIONER KIT	
2	2220899	2	BRANCH TEE, (includes item 30)	
3	77133447	2	HOSE ASSY	
4	2220371	2	CONNECTOR, (includes item 30)	
5	8760268	2	ELBOW, 90 DEGREE, (swivel nut)	
6	84717537	1	HOSE ASSY	
7	88211047	2	SOCKET HD CAPSCREW, 1/4-20X2-1/4, GR8	
8	88551009	2	LOCKWASHER, 1/4	
9	88501004	2	HEX NUT, 1/4-20	
10	91403516	1	SOLENOID VALVE	
	7026991	2	SOLENOID	
11	2220603	4	STRAIGHT THREAD CONNECTOR	
12	91403612	1	TILT ON JOYSTICK ENGINE HARNESS, (Before S/N 0160032178)	
	91513119	1	TILT ON JOYSTICK ENGINE HARNESS, (S/N 0160032178 thru 0160033603)	
	1001099319	1	TILT ON JOYSTICK ENGINE HARNESS, (S/N 0160033805 & After)	
13	91403614	1	TILT ON JOYSTICK CAB HARNESS, (Before S/N 0160032178)	
	91513119	1	TILT ON JOYSTICK ENGINE HARNESS, (S/N 0160032178 thru 0160033603)	
	1001099319	1	TILT ON JOYSTICK ENGINE HARNESS, (S/N 0160033805 & After)	
14		Ref	JOYSTICK, (see Figure 12-25 for details)	
15	91403311	1	BOOM CONTROL DECAL	
16	80964002	1	RHEOSTAT, (Before S/N 0160033805)	
	1001099174	1	RHEOSTAT, (S/N 0160033805 & After)	
17	91401571	1	MOUNTING PLATE	
18	88321015	4	SELF-TAPPING SCREW, #6-32X1/2	
19	88241026	4	SOCKET FLAT HD CAPSCREW, #10-24X1-1/4	
20	80363034	8	TINNERMAN NUT	
21	77363265	1	RELAY	
22	77363268	1	AUTO FUSE, 15 AMP	
23	77363267	1	AUTO FUSE, 10 AMP	
24	80363033	4	FLAT HD CAPSCREW, #10-24X1	
25	91413113	1	RH SWAY CONTROL PANEL	
26	91403274	1	JOYSTICK, (Before S/N 0160038555)	
	91513204	1	JOYSTICK, (S/N 0160038555 & After)	
	91404445	1	COVER ATTACHING KIT	
	91404091	1	OVAL KNOB HANDLE	
	91404446	1	CABLE HARDWARE KIT, 1/4-28	
	91404210	1	HEX JAM NUT, 1/2-13, (Before S/N 0160038555)	
	91404447	1	SPRING PACK, (Before S/N 0160038555)	
	91404448	1	TOP BOOT, (Before S/N 0160038555)	
27	88201020	3	HEX HD CAPSCREW, 5/16-18X1, GR5, (Before S/N 0160001921)	
	88201018	3	HEX HD CAPSCREW, 5/16-18X3/4, GR5, (S/N 0160001921 & After)	
28	88551010	3	LOCKWASHER, 5/16	
29	91403324	1	BLANK DASH PANEL	
30	88591204	4	O-RING	
31	84718515	1	HOSE ASSY	
32	91403308	1	TILT/SWAY CABLE	



Figure 12-17 Tilt on Joystick With RH Sway (Continued)

Item	Part Number	Qty.	Description	Rev.
33	91416011	1	RH SWAY BRACKET WELDMENT, (Before S/N 0160031703)	
	1001092843	1	RH SWAY BRACKET WELDMENT, (S/N 0160031703 & After)	
34	88201010	3	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5, (Before S/N 0160001921)	
	88201009	3	HEX HD CAPSCREW, 1/4-20X2, GR5, (S/N 0160001921 & After)	
35	88501004	3	HEX NUT, 1/4-20	
36	88551009	3	LOCKWASHER, 1/4	
37	86983193	1	MALE BULLET CONNECTOR, (Before S/N 0160033805)	
38	77163105	1	FEMALE BULLET CONNECTOR, (Before S/N 0160033805)	
39	2220657	1	ELBOW, 45 DEGREE, (swivel nut)	



OPTIONS

Figure 12-18 LH Sway Option Assembly

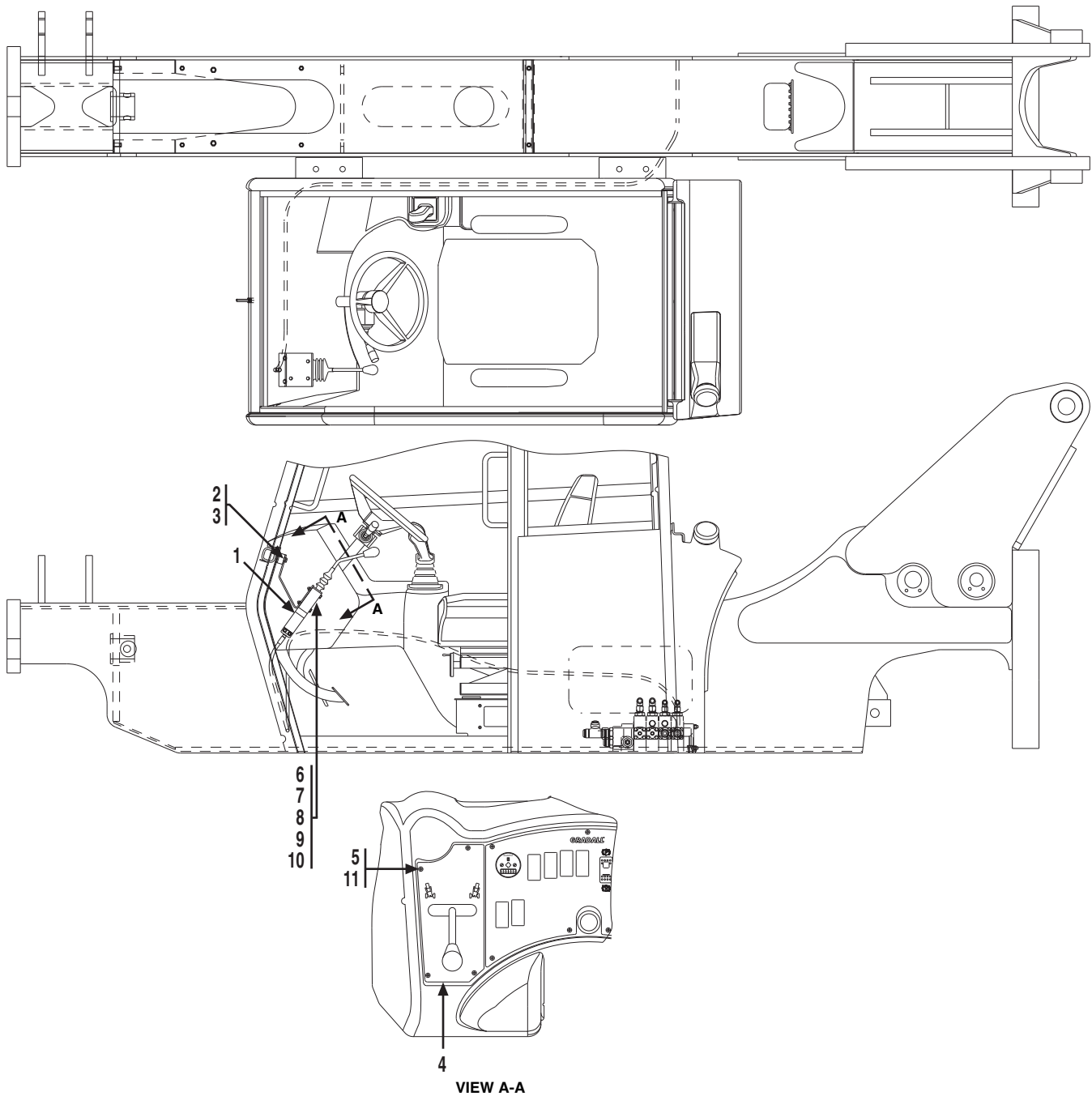




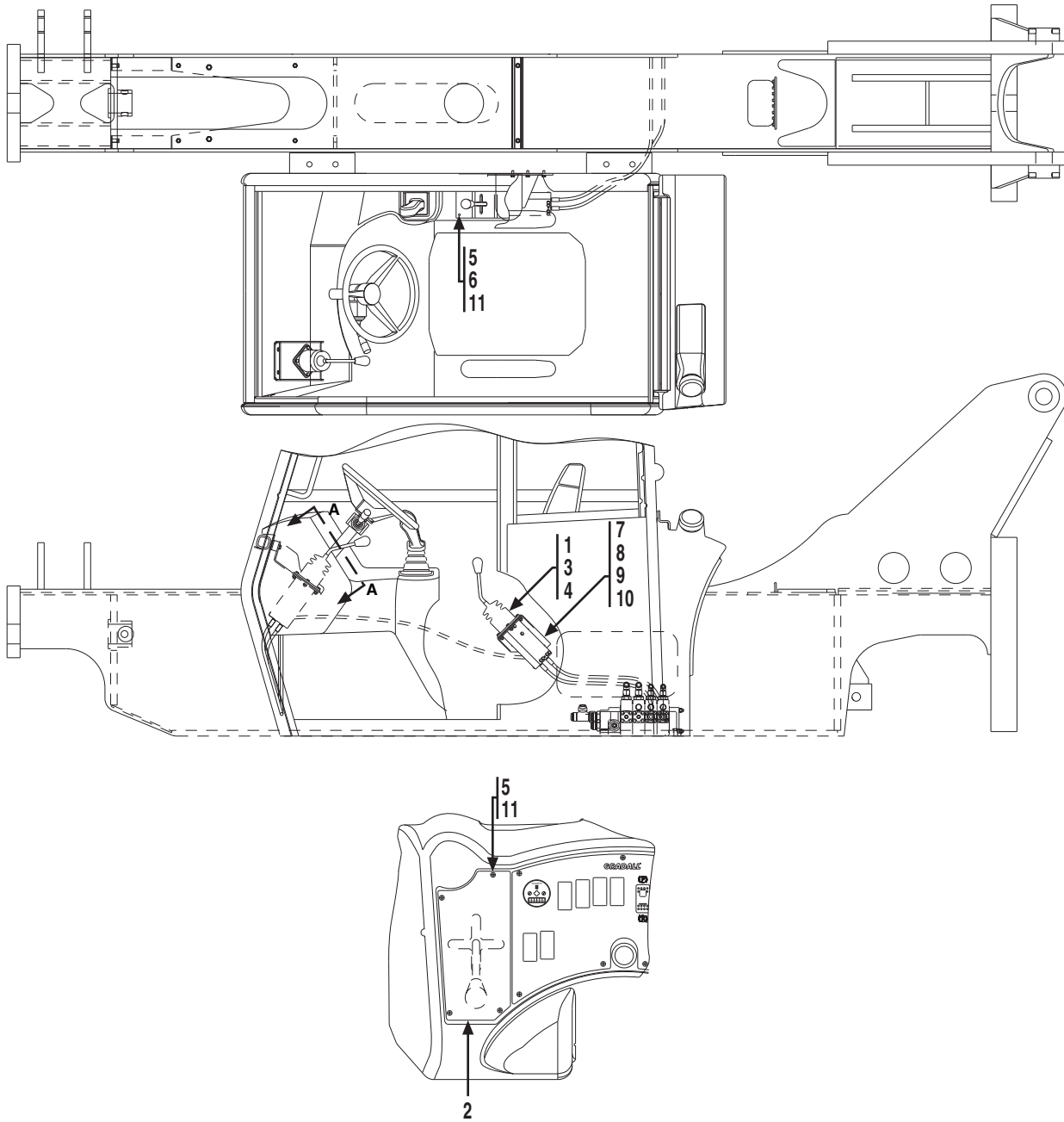
Figure 12-18 LH Sway Option Assembly

Item	Part Number	Qty.	Description	Rev.
1	91405025	1	LH SWAY OPTION ASSY, (includes all items)	A
	91403274	1	JOYSTICK, (Before S/N 0160038555)	
	91513204	1	JOYSTICK, (S/N 0160038555 & After)	
	91404445	1	COVER ATTACHING KIT	
	91404091	1	OVAL KNOB HANDLE	
	91404446	1	CABLE HARDWARE KIT, 1/4-28	
	91404210	1	HEX JAM NUT, 1/2-13, (Before S/N 0160038555)	
	91404447	1	SPRING PACK, (Before S/N 0160038555)	
	91404448	1	TOP BOOT, (Before S/N 0160038555)	
2	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
3	88551111	2	WASHER, 1/2	
4	91403317	1	LH SWAY DASH PANEL	
5	80363033	4	FLAT HD CAPSCREW, #10-24X1	
6	91403309	1	TILT-SWAY CABLE	
7	91401172	1	LH SWAY BRACKET	
8	88201009	3	HEX HD CAPSCREW, 1/4-20X2, GR5	
9	88501004	3	HEX NUT, 1/4-20	
10	88551009	3	LOCKWASHER, 1/4	
11	80363034	4	TINNERMAN NUT	



OPTIONS

Figure 12-19 RH Tilt & Sway Assembly



VIEW A-A



Figure 12-19 RH Tilt & Sway Assembly

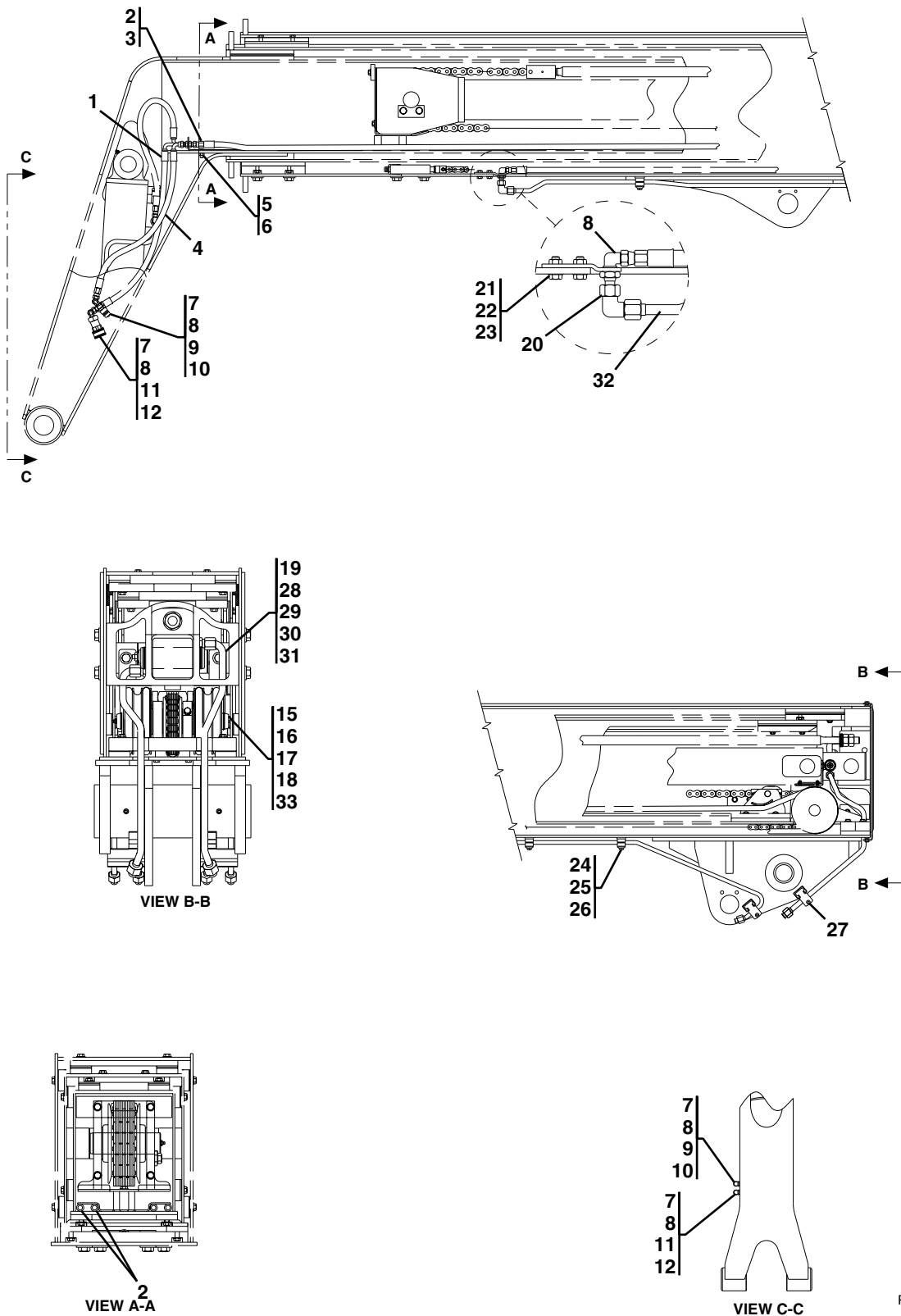
Item	Part Number	Qty.	Description	Rev.
	91405015	1	RH TILT & SWAY ASSY, (includes all items)	E
1	91403178	1	RH CONTROLLER JOYSTICK	
2	91403324	1	BLANK DASH PANEL	
3	88201020	3	HEX HD CAPSCREW, 5/16-18X1, GR5, (Before S/N 0160001921)	
	88201018	3	HEX HD CAPSCREW, 5/16-18X3/4, GR5, (S/N 0160001921 & After)	
4	88551010	3	LOCKWASHER, 5/16	
5	88241026	8	SOCKET FLAT HEAD CAPSCREW, #10-24X1-1/4, (Before S/N 0160000880)	
	80363033	8	SOCKET FLAT HEAD CAPSCREW, #10-24X1, (S/N 0160000885 & After)	
6	91403326	1	RH TILT-SWAY PANEL, (Before S/N 0160000880)	
	91413111	1	RH TILT-SWAY PANEL, (S/N 0160000885 & After)	
7	91403308	2	TILT-SWAY CABLE	
8	91416013	1	RH CONTROL BRACKET	
9	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
10	88501004	4	HEX NUT, 1/4-20, (Before S/N 0160001921)	
	91416017	4	PLATE WELD, (S/N 0160001921 & After)	
11	80363034	8	TINNERMAN NUT	



OPTIONS

Before S/N 0160037689

Figure 12-20 Auxiliary Boom Assembly



PAP22220



Figure 12-20 Auxiliary Boom Assembly

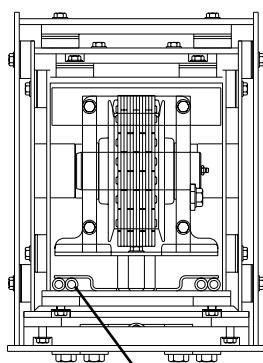
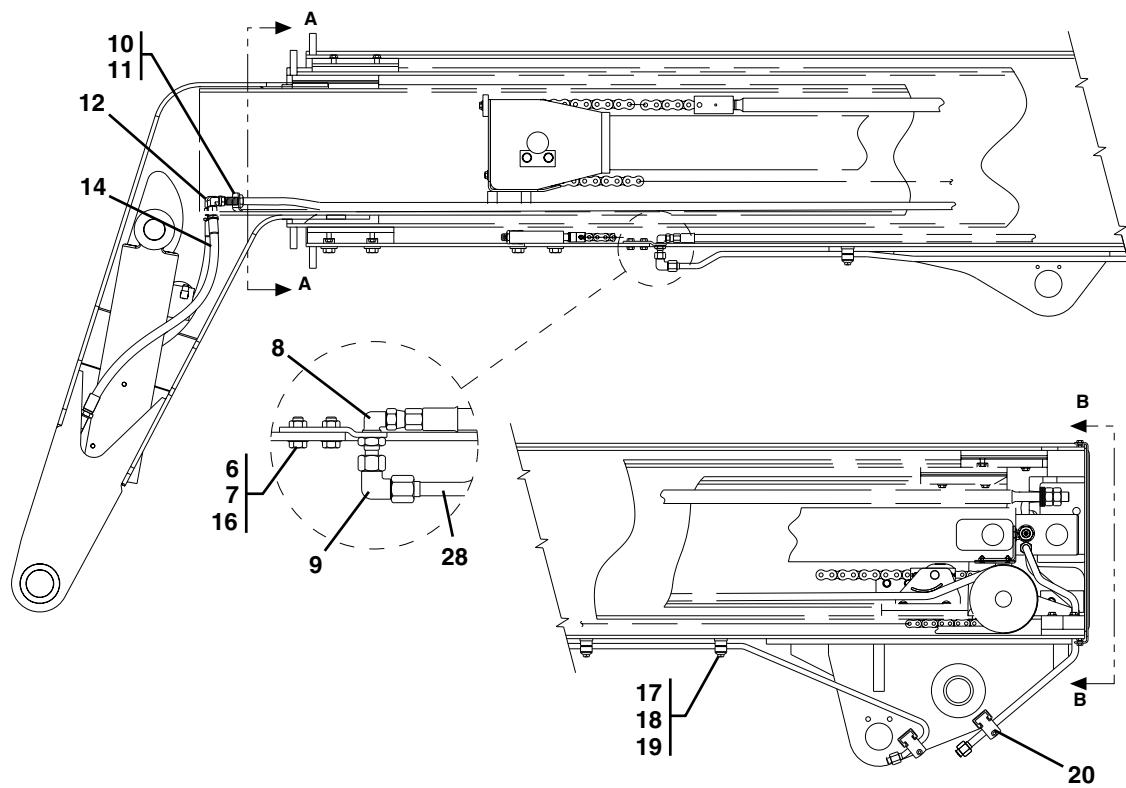
Item	Part Number	Qty.	Description	Rev.
	91405100	1	AUXILIARY BOOM ASSY, (includes all items)	J
1	84719359	1	HOSE ASSY	
2	84719168	2	HOSE ASSY, (Before S/N 0160016955 excluding 0160015548, 0160016461, 0160016462, 0160016463 & 0160016648)	
	2754603	1	HOSE ASSY, (S/N 0160016955 & After including 0160015548, 0160016461, 0160016462, 0160016463 & 0160016648)	
3	2230024	1	BULKHEAD UNION, 9/16-18X3/8, TUBE	
4	84719358	1	HOSE ASSY	
5	91401354	1	HOSE RETAINER	
6	88501006	2	HEX NUT, 3/8-16	
7	91403444	2	ADAPTER, 90 DEGREE	
8	2230043	4	BULKHEAD FITTING, 90 DEGREE	
9	91403414	1	MALE QUICK CONNECT	
10	91043126	1	DUST CAP	
11	91403413	1	FEMALE QUICK CONNECT	
12	91043125	1	DUST PLUG	
15	91403019	1	RETRACT SHEAVE PIN	
16	91403127	AR	THRUST WASHER	
17	90028932	1	RETAINING RING	
18	3580347	1	HOSE SHEAVE	
19	91405086	1	HOSE RETAINER ASSY, (includes items 28 thru 31)	B
20	91403415	2	ADAPTER, 90 DEGREE	
21	88201034	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
22	88561109	2	FLAT WASHER, 3/8	
23	91401344	1	HOSE BRACKET	
24	77133168	3	CLAMP SET, 1/2-1/2	
25	77133140	3	COVER PLATE	
26	77133177	3	HEX HD CAPSCREW, 5/16X1-3/8	
27	91083216	2	CLAMP, 1/2	
28	91401436	1	RH HOSE RETAINER	
29	91403499	1	PAD	
30	88241023	4	SOCKET FLAT HD CAPSCREW, #10-24X5/8	
31	88501612	4	HEX NUT, #10-24	
32	4569358	2	TUBE ASSY	
33	91403126	AR	THRUST WASHER	



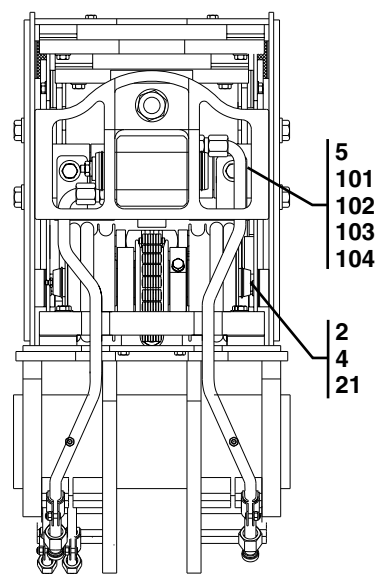
OPTIONS

S/N 0160037689 & After

Figure 12-20 Auxiliary Boom Assembly



12
VIEW A - A



VIEW B - B

PAP22230

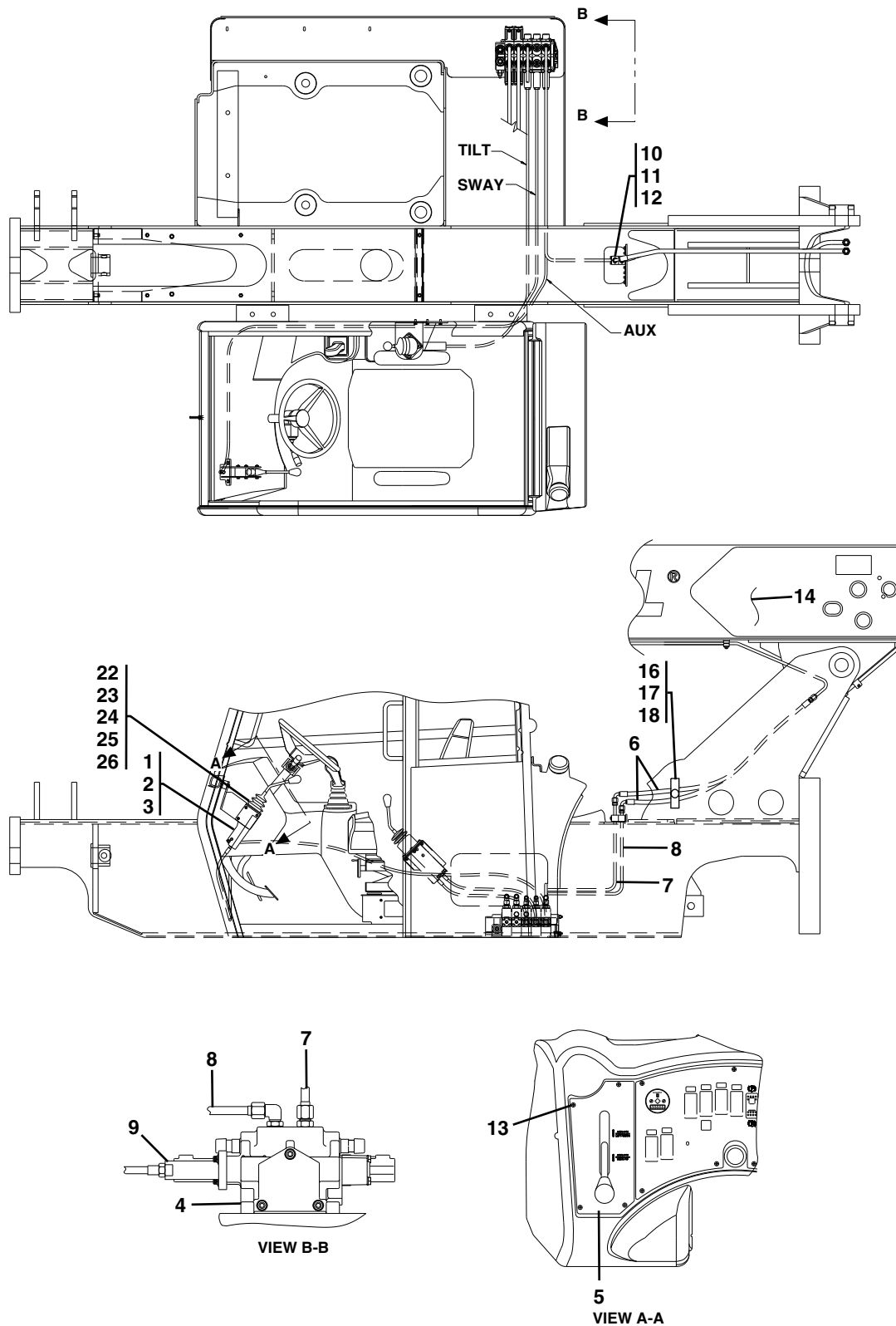
**Figure 12-20 Auxiliary Boom Assembly**

Item	Part Number	Qty.	Description	Rev.
	1001100092	1	AUXILIARY BOOM ASSY, (includes items 2 thru 28)	F
2	91403127	AR	THRUST WASHER	
4	3580347	1	HOSE SHEAVE	
5	91405086	1	HOSE RETAINER ASSY, (includes items 101 thru 104)	B
6	0641607	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
7	4711600	2	FLAT WASHER, 3/8	
8	2171206	2	BULKHEAD FITTING, 90 DEGREE	
9	2221253	2	FITTING, 90 DEGREE	
10	1001101788	1	HOSE RETAINER	
11	88501006	2	HEX NUT, 3/8-16	
12	1001112207	1	HOSE ASSY	
14	1001099889	2	HOSE ASSY	
16	1001090032	1	HOSE BRACKET	
17	77133168	3	CLAMP SET, 1/2-1/2	
18	77133140	3	COVER PLATE	
19	0641511	3	HEX HD CAPSCREW, 5/16X1-3/8	
20	91083216	2	CLAMP, 1/2	
21	91403126	AR	THRUST WASHER	
28	1001001333	2	TUBE ASSY	
101	91401436	1	RH HOSE RETAINER	
102	91403499	1	PAD	
103	88241023	4	SOCKET FLAT HD CAPSCREW, #10-24X5/8	
104	88501612	4	HEX NUT, #10-24	



OPTIONS

Figure 12-21 LH Auxiliary Hydraulics Assembly



PAP23560



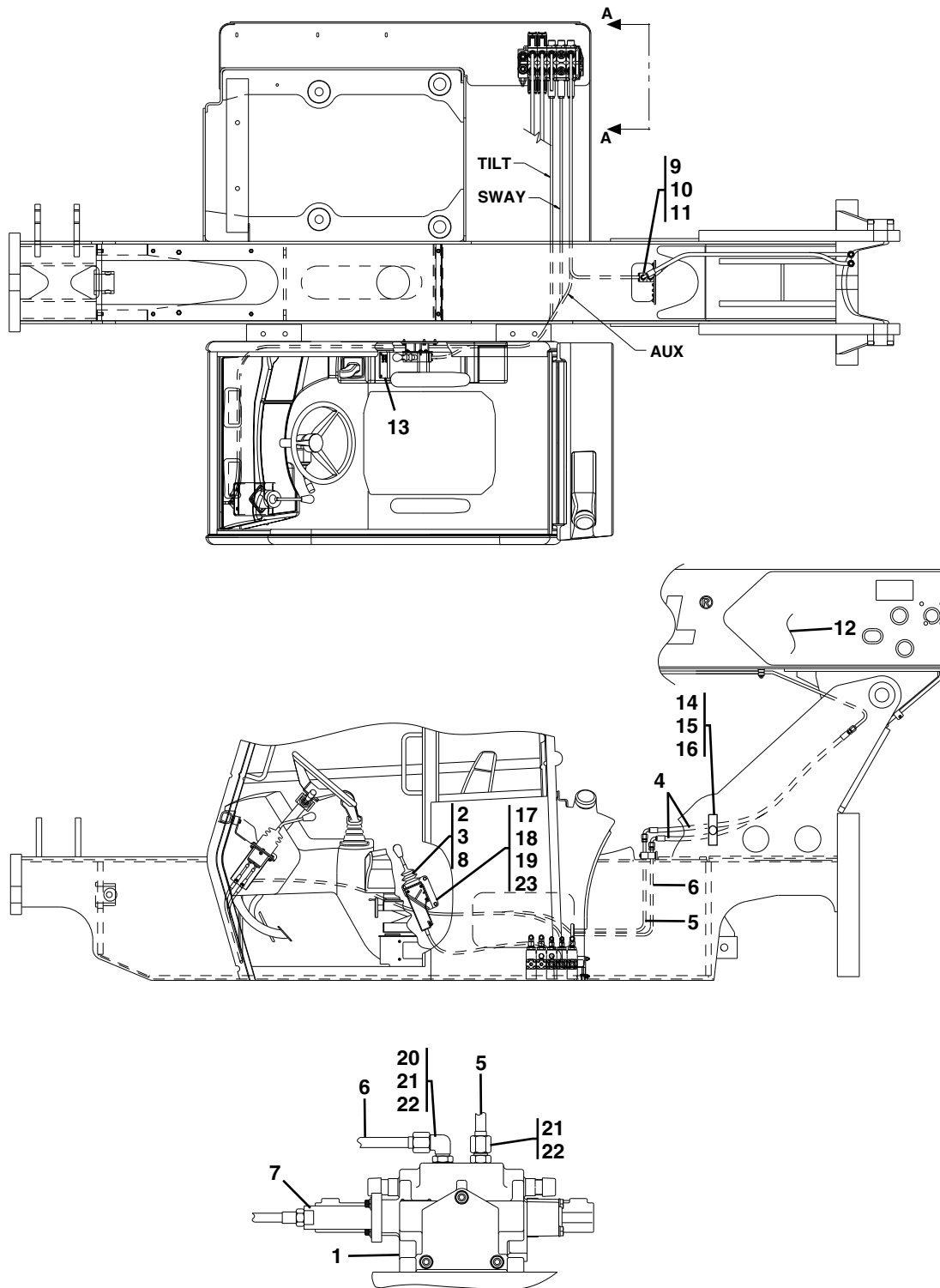
Figure 12-21 LH Auxiliary Hydraulics Assembly

Item	Part Number	Qty.	Description	Rev.
	91405052	1	LH AUXILIARY HYDRAULICS ASSY, (Before S/N 0160037689) , (includes all items)	L
	1001105827	1	LH AUXILIARY HYDRAULICS ASSY, (S/N 0160037689 & After) , (includes all items)	C
1	91403273	1	LH VERTICAL CONTROL JOYSTICK	
	91404091	1	OVAL KNOB HANDLE	
2	0641808	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
3	4761800	2	LOCKWASHER, 1/2	
4		Ref	5 SECTION MAIN CONTROL VALVE, (see Figure 12-24 for details)	
5	91403316	1	LH VERTICAL DASH PANEL	
6	84719205	2	HOSE ASSY, (Before S/N 0160037689)	
	1001102661	2	HOSE ASSY, (S/N 0160037689 & After)	
7	91403549	1	HYDRAULIC TUBE, (Auxiliary)	
8	91403550	1	HYDRAULIC TUBE, (Auxiliary)	
9	91123062	1	CABLE TO VALVE ADAPTER BONNET	
10	91033138	2	CLAMP SET, 1/2	
11	0641422	2	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
12	77133498	1	COVER PLATE	
13	80363033	4	FLAT HEAD CAPSCREW, 10-24X1	
14		Ref	AUXILIARY BOOM ASSEMBLY, (see Figure 12-20 for details)	
16	77133136	1	CLAMP SET	
17	77133137	1	COVER PLATE	
18	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
22	91403309	1	CABLE	
23	91401432	1	LH VERTICAL BRACKET, (Before S/N 0160029242)	
	1001091157		LH VERTICAL BRACKET, (S/N 0160029244 & After)	
24	88201009	3	HEX HD CAPSCREW, 1/4-20X2-1/2, GR5	
25	88501004	3	HEX NUT, 1/4-20	
26	88551009	3	LOCKWASHER	



OPTIONS

Figure 12-22 RH Auxiliary Hydraulics Assembly



VIEW A-A

PAP23890



Figure 12-22 RH Auxiliary Hydraulics Assembly

Item	Part Number	Qty.	Description	Rev.
	91405012	1	RH AUXILIARY HYDRAULICS ASSY, (Before S/N 0160037689) , (includes all items)	J
	1001105828	1	RH AUXILIARY HYDRAULICS ASSY, (S/N 0160037689 & After) , (includes all items)	B
1		Ref	5 SECTION MAIN CONTROL VALVE, (see Figure 12-24 for details)	
2	91405067	1	RH VERTICAL CONTROL ASSY	
3	88201034	3	HEX HD CAPSCREW, 5/16-18X2-1/4, GR5	
4	84719205	2	HOSE ASSY, (Before S/N 0160037689)	
	1001102661	2	HOSE ASSY, (S/N 0160037689 & After)	
5	91403549	1	HYDRAULIC TUBE, (Auxiliary)	
6	91403550	1	HYDRAULIC TUBE, (Auxiliary)	
7	91123062	1	VALVE CONNECTION KIT	
8	4711500	3	WASHER, 5/16	
9	91033138	2	CLAMP SET, 1/2	
10	0641422	2	HEX HD CAPSCREW, 1/4-20X2-3/4	
11	77133498	1	COVER PLATE	
12		Ref	AUXILIARY BOOM ASSEMBLY, (see Figure 12-20 for details)	
13	91403328	1	RH PANEL, AUXILIARY HYDRAULICS, (Before S/N 0160037689)	
	91413112	1	RH PANEL, AUXILIARY HYDRAULICS, (S/N 0160037689 & After)	
14	77133136	1	CLAMP SET	
15	77133137	1	COVER PLATE	
16	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
17	91403308	1	TILT-SWAY CABLE	
18	91416012	1	RH CONTROL BRACKET	
19	88211047	3	SOCKET HD CAPSCREW, 1/4-20X2-1/4, GR8	
20	8765204	1	ELBOW, 90 DEGREE, (swivel nut)	
21	2220374	2	ADAPTER, (includes item 22)	
22	88591206	1	O-RING	
23	4711400	6	FLAT WASHER, 1/4	



OPTIONS

Before S/N 0160037689

Figure 12-23 Auxiliary Electrics Assembly

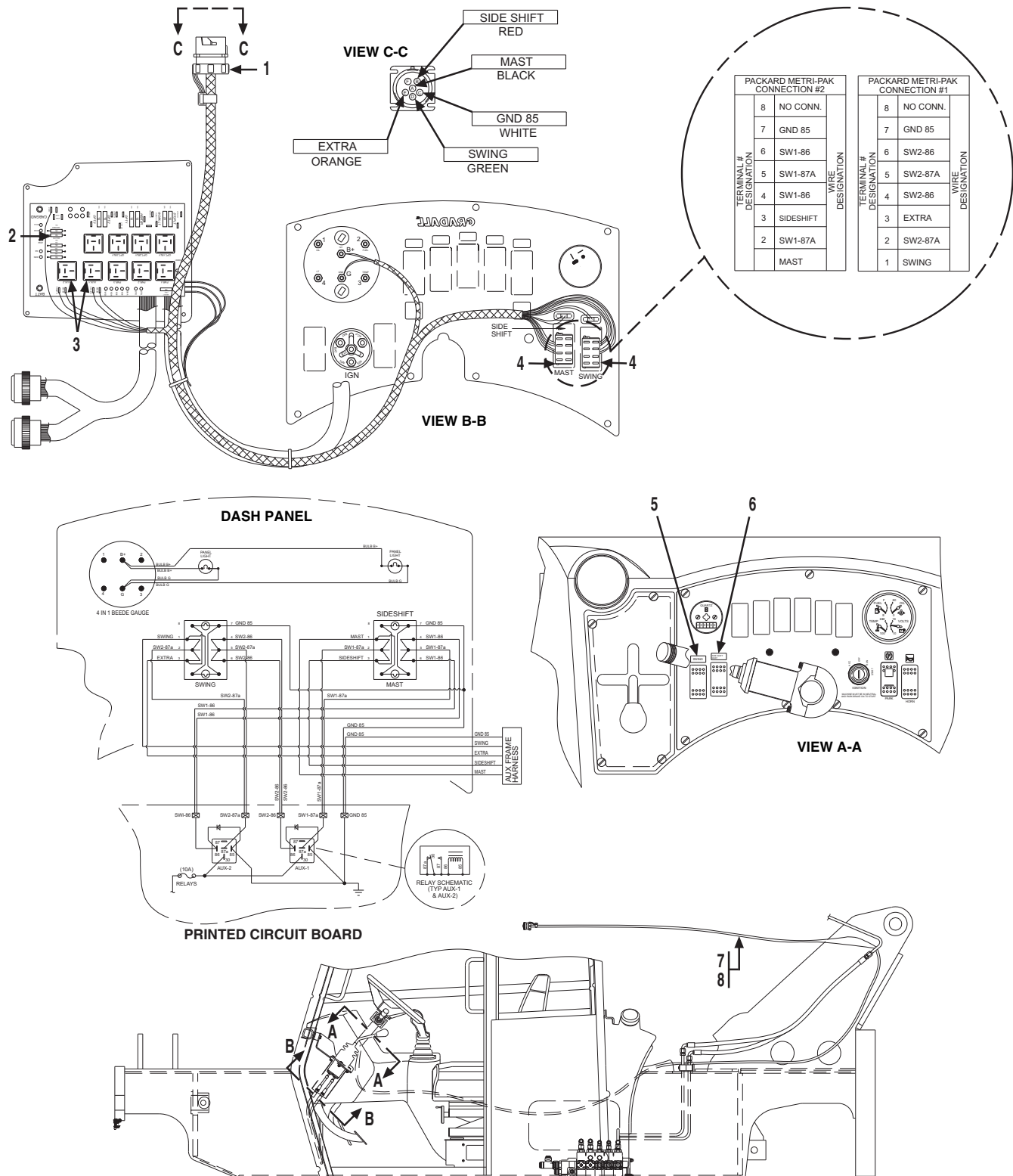
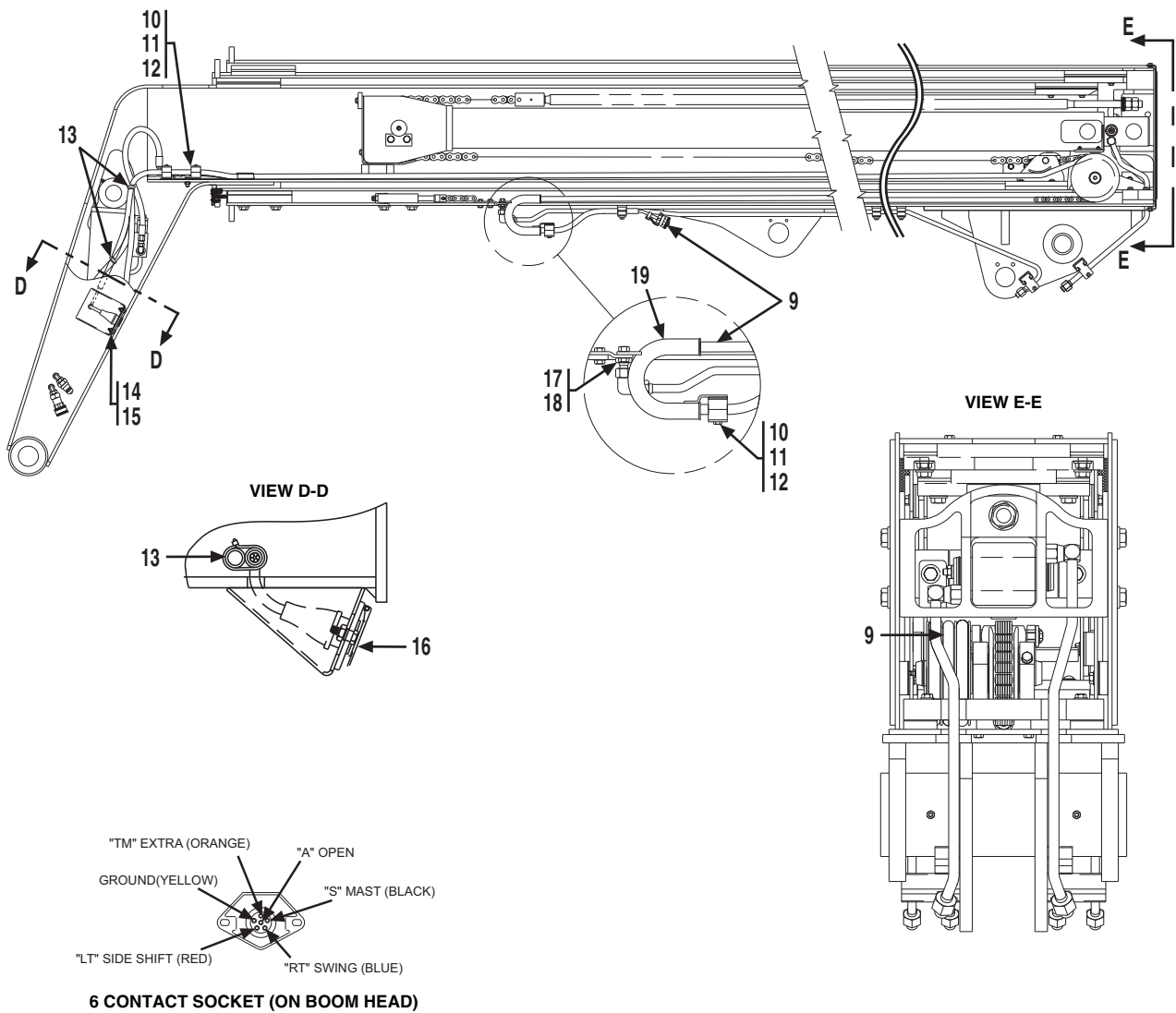


Figure 12-23 Auxiliary Electrics Assembly (Continued)



PLUG CONNECTOR WIRE CHART		
CONN. BODY LETTER	WIRE COLOR	WIRE DESIGNATION
A	BLACK	MAST
B	RED	SIDESHIFT
C	YELLOW	GND 85
D	BLUE	SWING
E	ORANGE	EXTRA
F	NO CONN.	NO CONN.



OPTIONS

Before S/N 0160037689

Figure 12-23 Auxiliary Electrics Assembly

Item	Part Number	Qty.	Description	Rev.
	91405014	1	AUXILIARY ELECTRICS ASSY, (includes all items)	G
1	91473125	1	AUXILIARY DASH HARNESS	
2	77363267	1	AUTO FUSE, 10 AMP	
3	77363265	2	RELAY	
4	91473127	2	SWITCH, DPDT	
5	91403607	1	SWING DECAL	
6	91403606	1	SHIFT MAST DECAL	
7	91403318	1	AUXILIARY FRAME HARNESS	
8	90027187	6	NYLON TIE	
9	91403522	1	AUXILIARY ELECTRIC HARNESS	
10	77133497	3	CLAMP	
11	77133498	3	COVER PLATE	
12	77133209	6	HEX HD CAPSCREW, 1/4-20X1-5/16	
13	90027187	2	NYLON TIE	
14	91401276	1	CONNECTOR COVER	
15	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
16	90207661	1	6 CONTACT SOCKET	
17	88201034	1	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
18	88561004	1	FLAT WASHER, 3/8	
19	91403520	1	TUBE WELD	



Figure 12-23 Auxiliary Electrics Assembly (Continued)

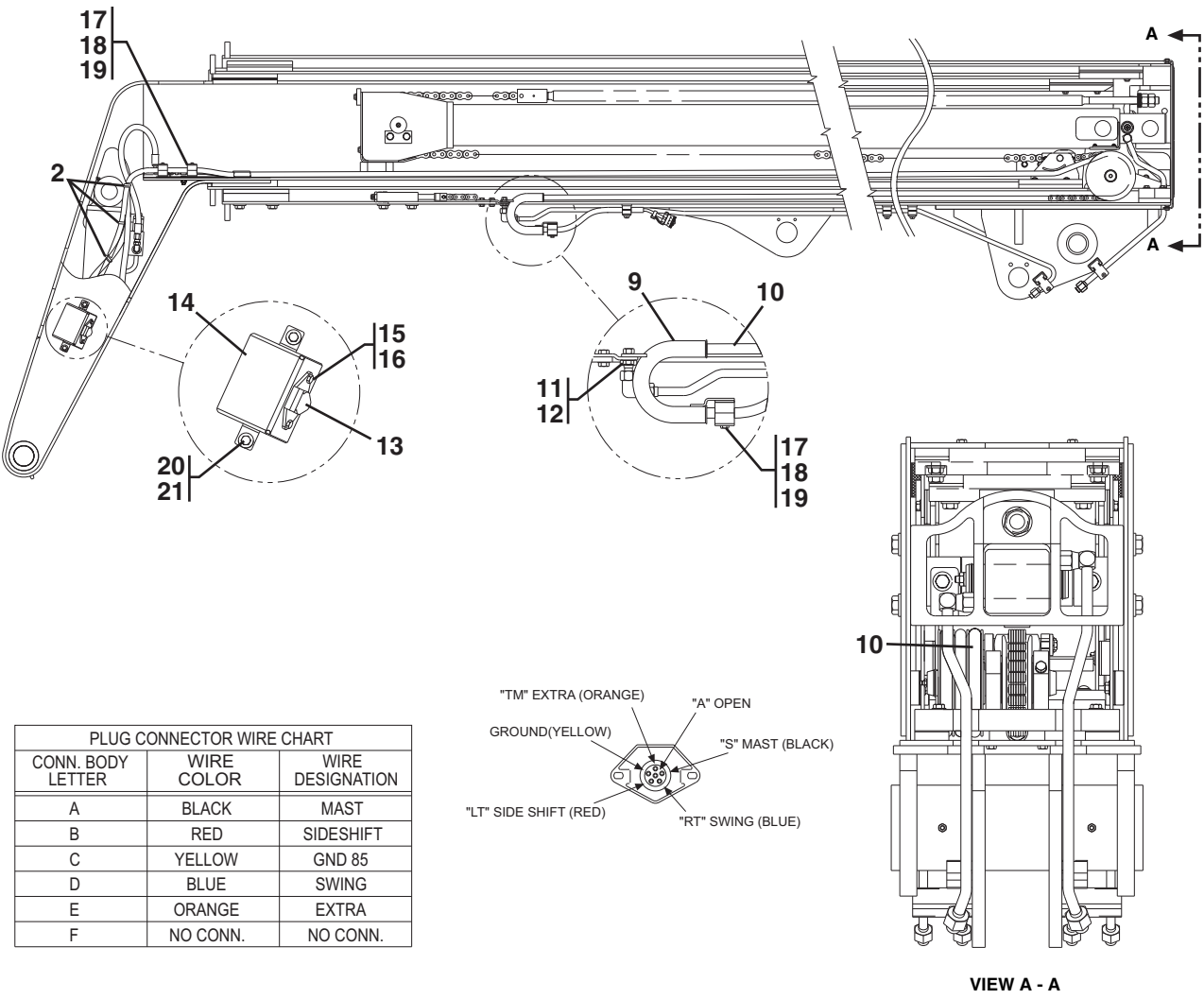
Item	Part Number	Qty.	Description	Rev.



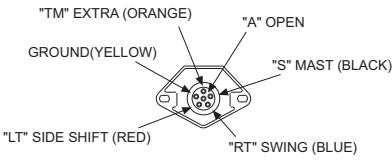
Figure 12-23 Auxiliary Electrics Assembly



Figure 12-23 Auxiliary Electrics Assembly (Continued)



PLUG CONNECTOR WIRE CHART		
CONN. BODY LETTER	WIRE COLOR	WIRE DESIGNATION
A	BLACK	MAST
B	RED	SIDESHIFT
C	YELLOW	GND 85
D	BLUE	SWING
E	ORANGE	EXTRA
F	NO CONN.	NO CONN.



VIEW A - A

PY3060



OPTIONS

S/N 0160037689 & After

Figure 12-23 Auxiliary Electrics Assembly

Item	Part Number	Qty.	Description	Rev.
	1001101743	1	AUXILIARY ELECTRICS ASSY, (includes all items)	B
1	91403318	1	AUXILIARY FRAME HARNESS	
2	8584003	9	NYLON TIE	
3	91403607	1	SWING DECAL	
4	91403606	1	SWING MAST DECAL	
5	91473125	1	AUXILIARY DASH HARNESS	
6	91473127	2	SWITCH, DPDT	
7	77363265	2	RELAY	
8	77363267	1	AUTO FUSE, 10 AMP	
10	91403522	1	AUXILIARY ELECTRIC HARNESS	
11	0641607	1	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
12	4751600	1	FLAT WASHER, 3/8	
13	90207661	1	6 CONTACT SOCKET	
14	1001099812	1	CONNECTOR COVER	
15	4711400	2	FLAT WASHER, 1/4	
16	0641408	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
17	77133497	3	CLAMP	
18	77133498	3	COVER PLATE	
19	77133209	6	HEX HD CAPSCREW, 1/4-20X1-3/8	
20	4711600	2	FLAT WASHER, 3/8	
21	0641808	2	HEX HD CAPSCREW, 1/4-20X1	



Figure 12-23 Auxiliary Electrics Assembly (Continued)

Item	Part Number	Qty.	Description	Rev.



OPTIONS

Before S/N 0160037689

Figure 12-24 Main Control Valve With Auxiliary Hydraulics

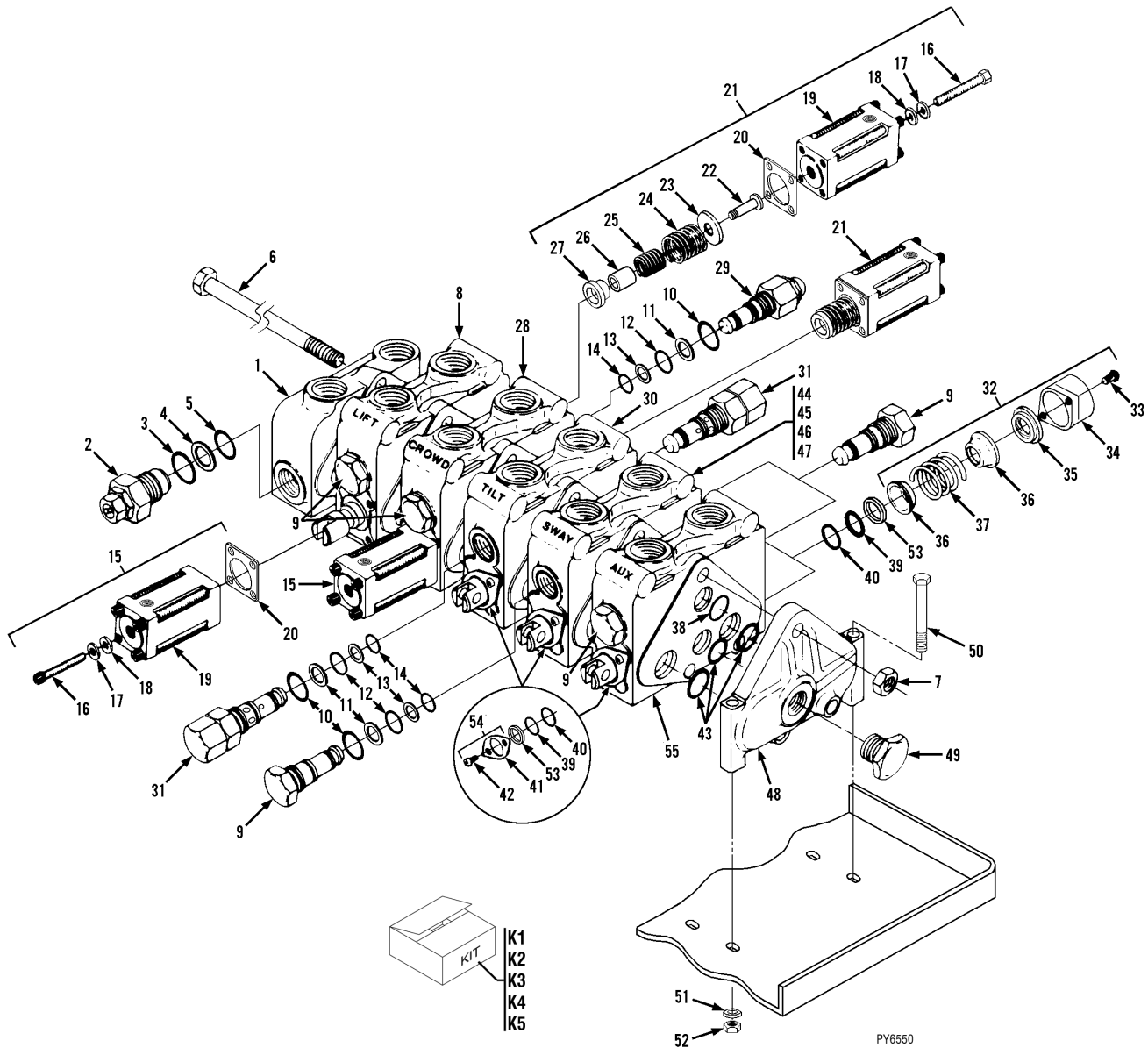




Figure 12-24 Main Control Valve With Auxiliary Hydraulics

Item	Part Number	Qty.	Description	Rev.
	91403540	1	MAIN HYDRAULIC CONTROL VALVE, (includes all items except 50 thru 53)	J
1	91084008	1	INLET COVER ASSY, (includes item 2)	
2	91084009	1	MAIN RELIEF, (includes items 3, 4 & 5)	
3	Use Kit K3	1	O-RING	
4	Use Kit K3	1	BACK-UP RING	
5	Use Kit K3	1	O-RING	
6	Use Kit K1	3	HEX HD CAPSCREW	
7	Use Kit K1	3	HEX NUT	
8	91404182	1	VALVE SECTION ASSY, (Lift), (includes one each of items 15, 21 & two of item 9)	
9	91404183	7	LOAD CHECK PLUG, (includes items 10 thru 14)	
10	Use Kit K4	2	O-RING	
11	Use Kit K4	1	BACK-UP RING	
12	Use Kit K4	1	O-RING	
13	Use Kit K4	1	O-RING	
14	Use Kit K4	2	BACK-UP RING	
15	91404184	2	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20)	
16	NSS	4	SCREW	
17	NSS	4	LOCKWASHER	
18	NSS	4	BEARING PLATE	
19	NSS	1	BONNET	
20	NSS	1	SEAL	
21	91404185	2	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20 & 22 thru 27)	
22	NSS	1	SPOOL POSITIONER	
23	NSS	1	WASHER	
24	NSS	1	SPRING, (large)	
25	NSS	1	SPRING, (small)	
26	NSS	1	STOP SLEEVE	
27	NSS	1	STOP COLLAR	
28	91404186	1	VALVE SECTION ASSY, (Crowd), (includes one each of items 9, 15, 21 & 29)	
29	91404187	1	RELIEF CARTRIDGE, (includes items 10 thru 14)	
30	91404188	1	VALVE SECTION ASSY, (Tilt), (includes one each of items 32, 53 & two each of items 31, 39, 40 & 54)	
31	91404189	2	RELIEF CARTRIDGE, (includes items 10 thru 14)	
32	91404190	3	SPOOL POSITIONER ASSY, (includes items 33 thru 37)	
33	NSS	2	SCREW	
34	NSS	1	BONNET	
35	NSS	1	SPOOL SPUD	
36	NSS	2	SPRING COLLAR	
37	NSS	1	SPRING	
38	Use Kit K2	1	O-RING	
39	Use Kit K5	6	BACK-UP WASHER	
40	Use Kit K5	6	O-RING	
41	NSS	1	RETAINER PLATE	
42	NSS	2	SCREW	
43	Use Kit K2	3	O-RING	
44	91404191	1	VALVE SECTION ASSY, (Sway), (includes one each of items 32, 53 & two each of items 9, 39, 40 & 54)	



OPTIONS

Before S/N 0160037689

Figure 12-24 Main Control Valve With Auxiliary Hydraulics (Continued)

Item	Part Number	Qty.	Description	Rev.
45	91404192	2	PORT RESTRICTOR ASSY, (includes items 46 & 47)	
46	NSS	1	ORIFICE PLATE	
47	NSS	1	CONICAL SPRING	
48	91084278	1	OUTLET COVER ASSY, (includes item 49)	
49	91084279	1	PLUG	
50	88201028	3	HEX HD CAPSCREW, 5/16-18X3, GR5	
51	88561003	3	FLAT WASHER, 5/16	
52	88521305	3	NYLOCK NUT, 5/16-18	
53	Use Kit K5	6	SEAL RETAINER	
54	91404180	3	SEAL RETAINER KIT, (includes items 41 & 42)	
55	91084014	1	VALVE SECTION ASSY, (Auxiliary), (includes one each of items 32 & 54 & two each of items 9, 39, 40 & 53)	
K1	91084203	1	STUD KIT, (includes items 6 & 7)	
K2	91404178	6	VALVE SECTION SEAL KIT, (includes items 38 & 43)	
K3	91404179	1	MAIN RELIEF SEAL KIT, (includes items 3, 4 & 5)	
K4	70020717	8	PLUG SEAL KIT, (includes items 10 thru 14)	
K5	91404181	6	SPOOL SEAL KIT, (includes one each of items 39, 40 & 53)	



Figure 12-24 Main Control Valve With Auxiliary Hydraulics (Continued)

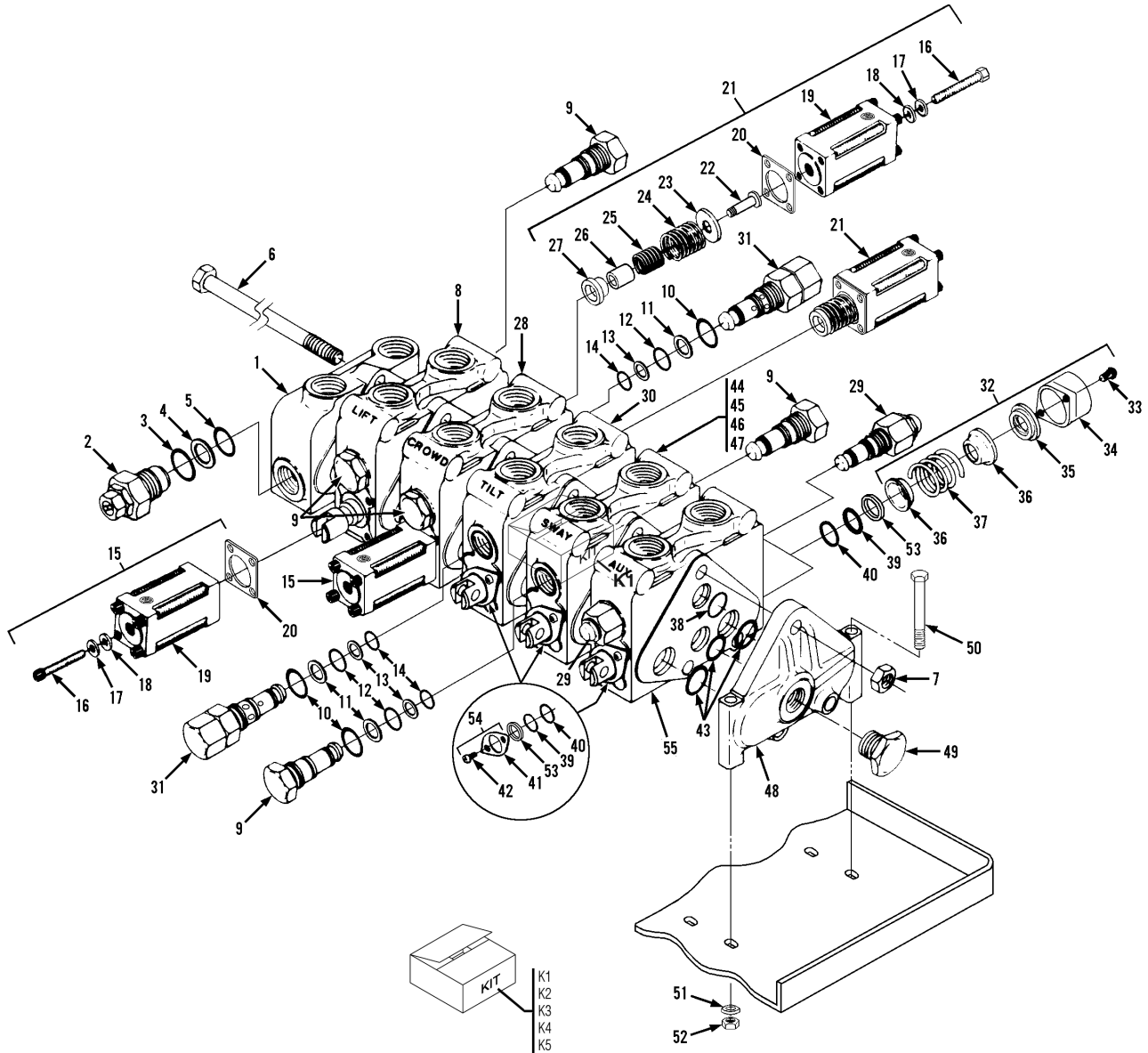
Item	Part Number	Qty.	Description	Rev.



OPTIONS

S/N 0160037689 & After

Figure 12-24 Main Control Valve With Auxiliary Hydraulics



PY6490



Figure 12-24 Main Control Valve With Auxiliary Hydraulics

Item	Part Number	Qty.	Description	Rev.
	1001109217	1	MAIN HYDRAULIC CONTROL VALVE, (includes all items)	A
1	91084008	1	INLET COVER ASSY, (includes item 2)	
2	91084009	1	MAIN RELIEF, (includes items 3, 4 & 5)	
3	Use Kit K3	1	O-RING	
4	Use Kit K3	1	BACK-UP RING	
5	Use Kit K3	1	O-RING	
6	Use Kit K1	3	HEX HD CAPSCREW	
7	Use Kit K1	3	HEX NUT	
8	91404182	1	VALVE SECTION ASSY, (Lift), (includes one each of items 15, 21 & two of item 9)	
9	91084010	3	LOAD CHECK PLUG, (includes items 10 thru 14)	
10	Use Kit K4	2	O-RING	
11	Use Kit K4	1	BACK-UP RING	
12	Use Kit K4	1	O-RING	
13	Use Kit K4	1	O-RING	
14	Use Kit K4	2	BACK-UP RING	
15	91094023	2	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20)	
16	NSS	4	SCREW	
17	NSS	4	LOCKWASHER	
18	NSS	4	BEARING PLATE	
19	NSS	1	BONNET	
20	NSS	1	SEAL	
21	91094024	2	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20 & 22 thru 27)	
22	NSS	1	SPOOL POSITIONER	
23	NSS	1	WASHER	
24	NSS	1	SPRING, (large)	
25	NSS	1	SPRING, (small)	
26	NSS	1	STOP SLEEVE	
27	NSS	1	STOP COLLAR	
28	91404186	1	VALVE SECTION ASSY, (Crowd), (includes one each of items 9, 15, 21 & 31)	
29	91404187	1	RELIEF CARTRIDGE, (includes items 10 thru 14)	
30	91404188	1	VALVE SECTION ASSY, (Tilt), (includes one each of items 32, 53 & two each of items 31, 39, 40 & 54)	
31	91404189	2	RELIEF CARTRIDGE, (includes items 10 thru 14)	
32	91084004	3	SPOOL POSITIONER ASSY, (includes items 33 thru 37)	
33	NSS	2	SCREW	
34	NSS	1	BONNET	
35	NSS	1	SPOOL SPUD	
36	NSS	2	SPRING COLLAR	
37	NSS	1	SPRING	
38	Use Kit K2	1	O-RING	
39	Use Kit K5	6	BACK-UP WASHER	
40	Use Kit K5	6	O-RING	
41	NSS	1	RETAINER PLATE	
42	NSS	2	SCREW	
43	Use Kit K2	3	O-RING	
44	91404191	1	VALVE SECTION ASSY, (Sway), (includes one each of items 32, 53 & two each of items 9, 39, 40 & 54)	



OPTIONS

S/N 0160037689 & After

Figure 12-24 Main Control Valve With Auxiliary Hydraulics (Continued)

Item	Part Number	Qty.	Description	Rev.
45	91404192	2	PORT RESTRICTOR ASSY, (includes items 46 & 47)	
46	NSS	1	ORIFICE PLATE	
47	NSS	1	CONICAL SPRING	
48	91084278	1	OUTLET COVER ASSY, (includes item 49)	
49	91084279	1	PLUG	
50	88201028	3	HEX HD CAPSCREW, 5/16-18X3, GR5	
51	88561003	3	FLAT WASHER, 5/16	
52	88521305	3	NYLOCK NUT, 5/16-18	
53	Use Kit K5	6	SEAL RETAINER	
54	91084006	3	SEAL RETAINER KIT, (includes items 41 & 42)	
55	7029862	1	VALVE SECTION ASSY, (Auxiliary), (includes one each of items 32, 54 & two each of items 29, 39, 40 & 53)	
K1	91084203	1	STUD KIT, (includes items 6 & 7)	
K2	91404178	6	VALVE SECTION SEAL KIT, (includes items 38 & 43)	
K3	91404179	1	MAIN RELIEF SEAL KIT, (includes items 3, 4 & 5)	
K4	70020717	8	PLUG SEAL KIT, (includes items 10 thru 14)	
K5	91084005	6	SPOOL SEAL KIT, (includes one each of items 39, 40 & 53)	



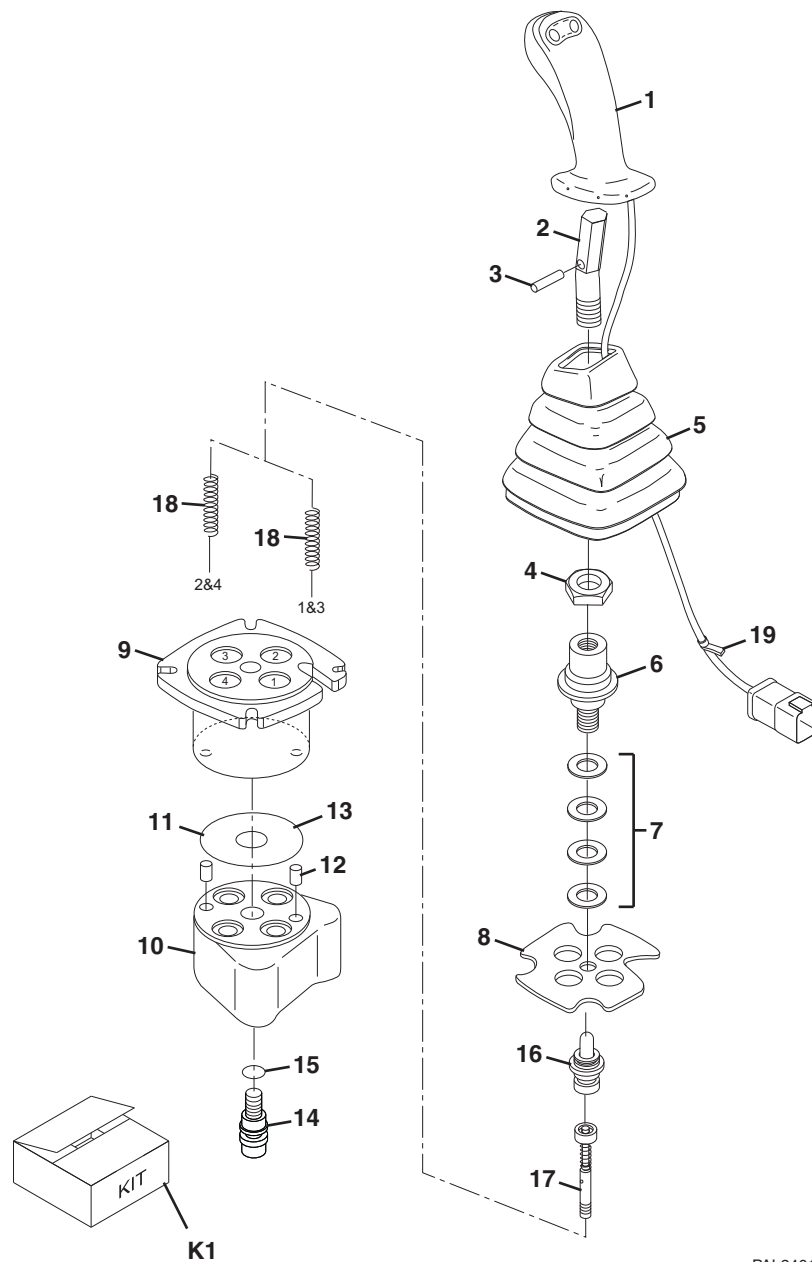
Figure 12-24 Main Control Valve With Auxiliary Hydraulics (Continued)

Item	Part Number	Qty.	Description	Rev.



OPTIONS

Figure 12-25 Boom Joystick With Tilt



PAL2461

NOTE:

THE BOSCH REXROTH CORPORATION JOYSTICK HANDLE SWITCH IS NOT A FIELD SERVICABLE COMPONENT. ANY ATTEMPT BY NON-FACTORY AUTHORIZED PERSONNEL TO REPAIR OR REPLACE THE SWITCH WILL VOID THE WARRANTY & CAN RESULT IN A JOYSTICK MALFUNCTION.



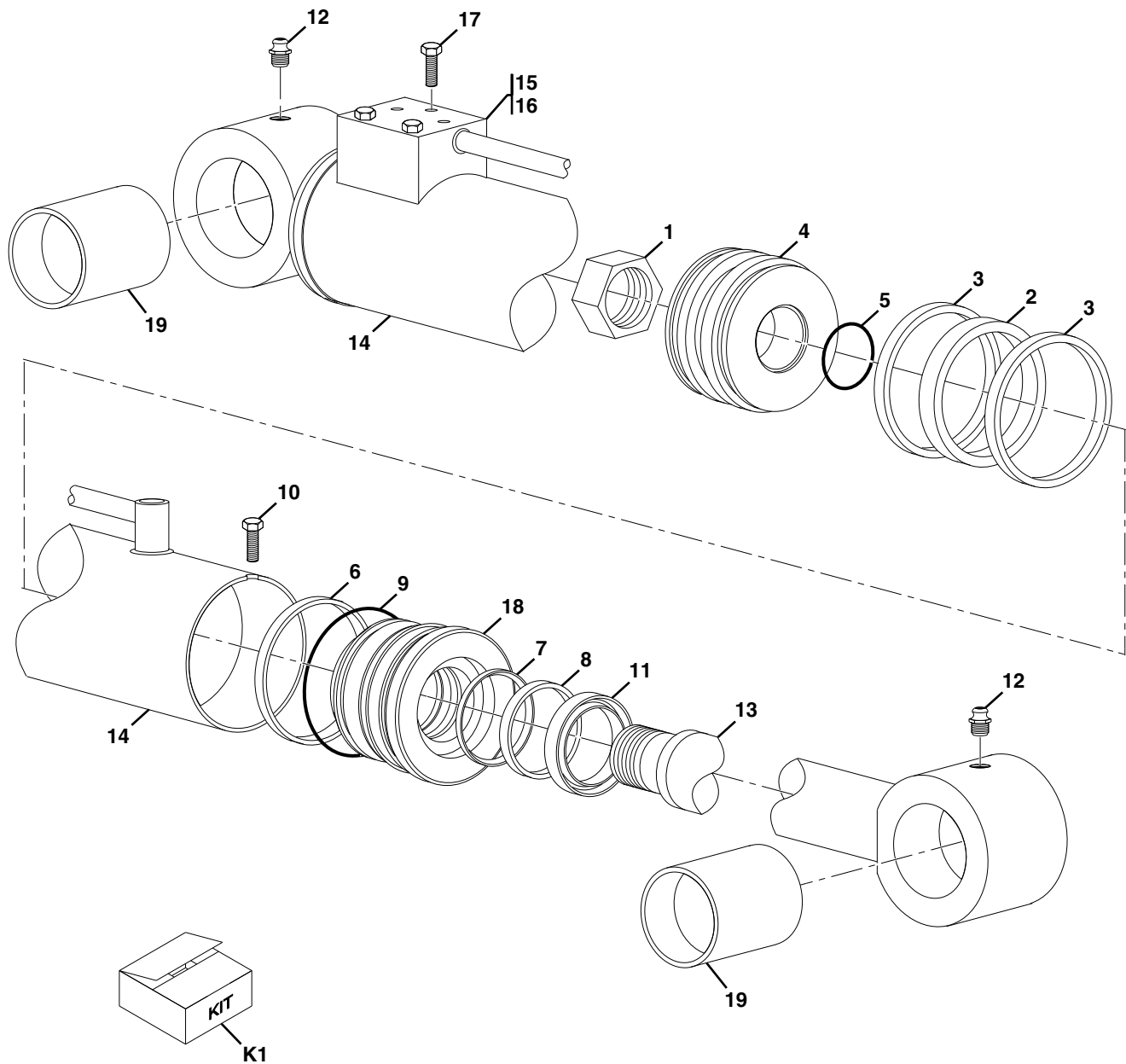
Figure 12-25 Boom Joystick With Tilt

Item	Part Number	Qty.	Description	Rev.
	91403491	1	BOOM JOYSTICK WITH ADJUSTABLE TILT, (if equipped), (includes all items)	A
1	91404325	1	BOOM JOYSTICK HANDLE WITH WIRE & CONNECTOR	
2	91404011	1	BENT LEVER KIT, (includes items 3 & 4)	
3	NSS	1	SPRING PIN	
4	NSS	1	HEX NUT	
5	80364095	1	BOOT	
6	80264138	1	CARDAN KIT, (includes item 7)	
7	NSS	AR	SHIM	
8	91404013	1	RETAINING PLATE	
9	91404016	1	UPPER BODY, (includes item 10)	
10	NSS	1	LOWER BODY	
11	Use Kit K1	1	O-RING	
12	Use Kit K1	2	DOWEL PIN	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	SCREW ASSY	
15	Use Kit K1	1	O-RING	
16	80934498	4	PLUNGER & GUIDE KIT	
17	91404327	4	REGULATING UNIT	
18	91504028	1	SPRING, (ports 1 & 3), (pack of two)	
	91504029	1	SPRING, (ports 2 & 4), (pack of two)	
19	80264139	1	GROMMET WITH CABLE TIE KIT	
K1	91404326	AR	SEAL KIT, (includes items 11 thru 15)	



OPTIONS

Figure 12-26 Sway Cylinder



PAP23870



Figure 12-26 Sway Cylinder

Item	Part Number	Qty.	Description	Rev.
	91403279	1	SWAY CYLINDER, (includes all items)	B
1	91144038	1	LOCKNUT	
2	Use Kit K1	1	PISTON SEAL	
3	Use Kit K1	2	WEAR RING	
4	91404355	1	PISTON	
5	Use Kit K1	1	O-RING	
6	Use Kit K1	1	U-CUP SEAL	
7	Use Kit K1	1	STEP SEAL	
8	Use Kit K1	1	U-CUP SEAL	
9	Use Kit K1	1	O-RING	
10	91124096	1	SELF-TAPPING SCREW	
11	91404360	1	WIPER	
12	91144128	2	GREASE FITTING	
13	91404361	1	SHAFT ASSY	
14	91404362	1	CASE ASSY	
15	91404363	1	COVER	
16	Use Kit K1	1	GASKET	
17	91404365	3	CAPSCREW	
18	91404366	1	HEAD	
19	91404352	2	BUSHING	
K1	91404367	AR	SEAL KIT, (includes items 2, 3, 5 thru 9, 11 & 16)	



OPTIONS

Figure 12-27 Swing Cylinder

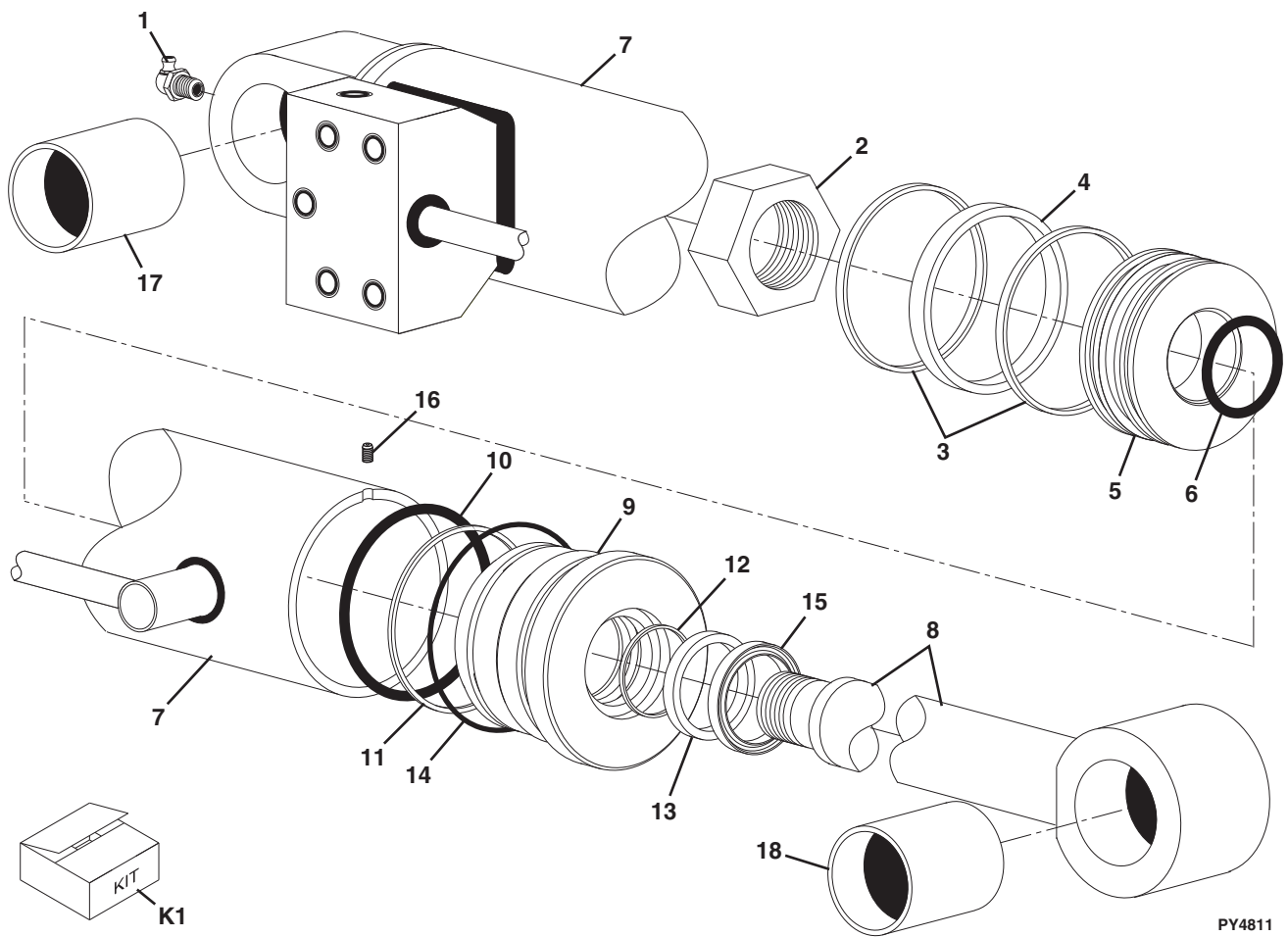




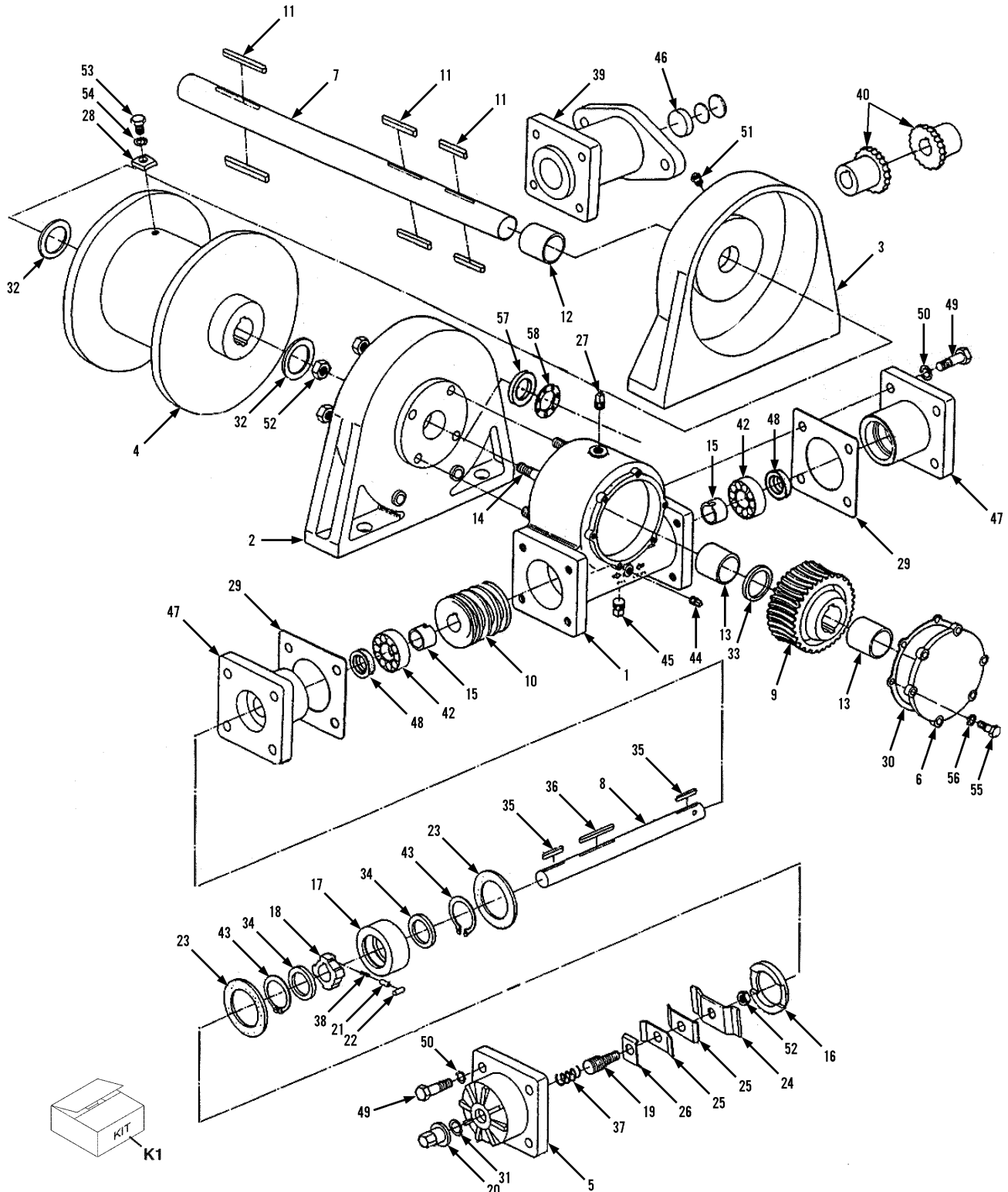
Figure 12-27 Swing Cylinder

Item	Part Number	Qty.	Description	Rev.
	91403322	1	SWING CYLINDER, (includes all items)	A
1	91144125	1	GREASE FITTING	
2	91034156	1	LOCKNUT	
3	Use Kit K1	2	WEAR RING	
4	Use Kit K1	1	PISTON SEAL	
5	91404370	1	PISTON	
6	Use Kit K1	1	O-RING	
7	91404371	1	CASE ASSY	
8	91404372	1	SHAFT ASSY	
9	91404373	1	HEAD	
10	Use Kit K1	1	O-RING	
11	Use Kit K1	1	BACK-UP RING	
12	Use Kit K1	1	STEP SEAL	
13	Use Kit K1	1	U-CUP	
14	Use Kit K1	1	O-RING	
15	Use Kit K1	1	WIPER	
16	91404380	1	SETSCREW	
17	91054157	1	BUSHING	
18	91034267	1	BUSHING	
K1	91404381	AR	SEAL KIT, (includes items 3, 4, 6 & 10 thru 15)	



OPTIONS

Figure 12-28 5 Inch & 8 Inch Winch



PY5560


Figure 12-28 5 Inch & 8 Inch Winch

Item	Part Number	Qty.	Description	Rev.
	91413160	1	WINCH, 5 IN DRUM, (includes all items on this page & on Figure 12-38)	B
	91413159	Ref	WINCH, 8 IN DRUM, (no longer available, use 1001114795 on Figure 12-38 for replacement), (includes all items of this page & on Figure 12-38)	B
1	91404383	1	GEAR CASE	
2	NSS	1	LOCK SET A	
3	91404385	1	LOCK SET B	
4	91404386	1	CABLE DRUM, 5 IN	
	91404432	1	CABLE DRUM, 8 IN	
5	Use Kit K1	1	BRAKE DRUM	
6	91404388	1	GEAR CASE COVER	
7	90208148	1	CABLE DRUM SHAFT, 5 IN	
	91404433	1	CABLE DRUM SHAFT, 8 IN	
8	91404389	1	WORM SHAFT, (includes item 10)	
9	NSS	1	WORM GEAR	
10	NSS	1	WORM	
11	91404392	6	CABLE DRUM SHAFT KEY	
12	NSS	1	LOCK SEAT A BUSHING	
13	91404394	2	BUSHING	
14	91404395	4	STUD BOLT, 1/2X1-1/2	
15	91404396	2	COLLAR	
16	Use Kit K1	1	BRAKE PLATE	
17	Use Kit K1	1	BRAKE HOUSING	
18	Use Kit K1	1	BRAKE DRUM	
19	Use Kit K1	1	ADJUSTING BOLT	
20	Use Kit K1	1	ADJUSTING NUT	
21	Use Kit K1	1	SPRING SEAT	
22	Use Kit K1	1	ROLLER	
23	Use Kit K1	2	BRAKE LINING	
24	Use Kit K1	1	BRAKE PLATE A	
25	Use Kit K1	2	BRAKE PLATE B	
26	Use Kit K1	1	FIXING PLATE	
27	NSS	1	OIL FILL PLUG	
28	NSS	1	BEARING SHIM	
29	91404408	2	BEARING HUB GASKET	
30	91404409	1	GEAR CASE GASKET	
31	Use Kit K1	1	O-RING	
32	91404411	2	WASHER	
33	91404412	1	BUSHING	
34	Use Kit K1	2	SEAL	
35	91404413	2	WORM SHAFT KEY	
36	NSS	1	WORM SHAFT KEY	
37	Use Kit K1	1	SPRING	
38	Use Kit K1	1	BRAKE DRUM SPRING	
39	NSS	1	MOTOR MOUNT ADAPTER	
40	90208181	1	COUPLER	
42	91404416	2	BEARING	
43	Use Kit K1	2	V.C. TYPE LOCK RING	
44	91404418	1	OIL LEVEL PLUG	
45	91404419	1	OIL DRAIN PLUG	



OPTIONS

Figure 12-28 5 Inch & 8 Inch Winch (Continued)

Item	Part Number	Qty.	Description	Rev.
46	NSS	1	COUPLER SPACER	
47	91404420	2	BEARING HUB	
48	91404421	2	OIL SEAL	
49	Use Kit K1	8	CAPSCREW, 3/8X1-1/2	
50	Use Kit K1	8	LOCKWASHER	
51	NSS	1	GREASE FITTING	
52	Use Kit K1	5	NUT	
53	91404426	1	HEX HD CAPSCREW, 3/8X1	
54	NSS	1	LOCKWASHER	
55	NSS	1	HEX HD CAPSCREW, 3/8X1	
56	Use Kit K1	1	BRAKE COVER GASKET	
57	91404430	1	OIL SEAL	
58	NSS	1	LOCK SEAT GASKET	
K1	70020227	1	BRAKE LINING ASSY, (includes items 5, 16 thru 26, 31, 34, 37, 38, 43, 49, 50, 52 & 56)	



Figure 12-28 5 Inch & 8 Inch Winch (Continued)

Item	Part Number	Qty.	Description	Rev.



OPTIONS

Figure 12-29 Winch Motor

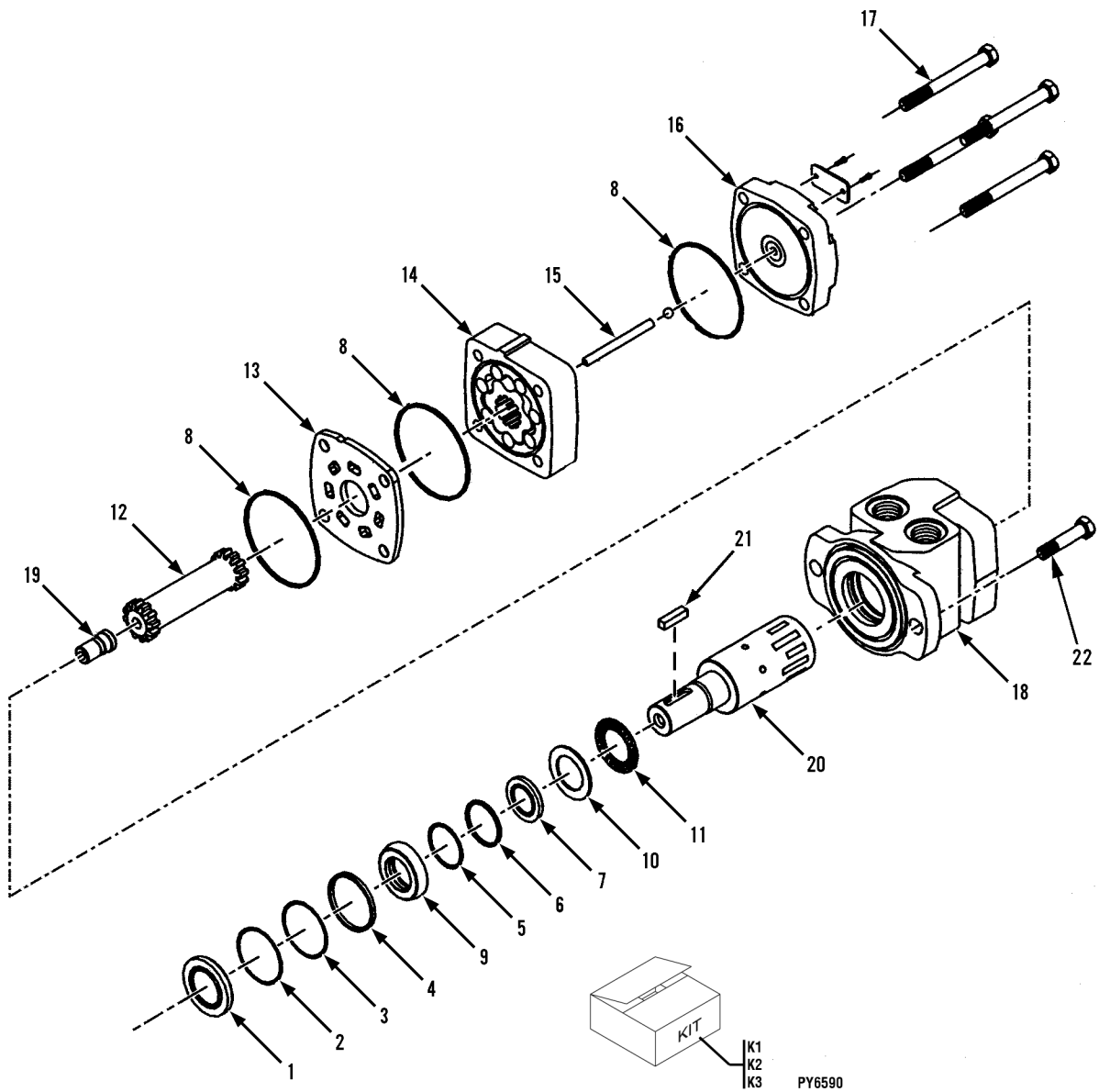




Figure 12-29 Winch Motor

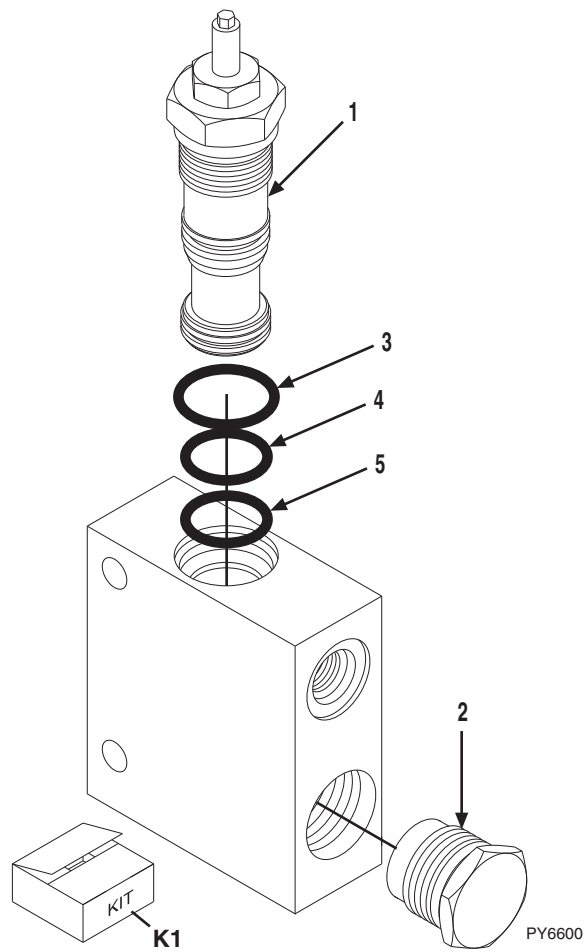
Item	Part Number	Qty.	Description	Rev.
	91413039	1	WINCH MOTOR, (includes all items)	C
1	91414051	1	DUST SEAL	
2	Use Kit K1 or K2	1	SPLIT WIRE RING	
3	Use Kit K1 or K2	1	METAL BACK-UP SHIM	
4	Use Kit K1 or K2	1	HIGH PRESSURE SEAL	
5	Use Kit K1 or K2	1	METAL BACK-UP SHIM	
6	Use Kit K1 or K2	1	TEFLON BACK-UP SHIM	
7	Use Kit K1 or K2	1	SHAFT SEAL	
8	91414052	1	BODY SEAL	
9	Use Kit K1 or K3	1	SEAL CARRIER	
10	Use Kit K1 or K3	1	THRUST WASHER	
11	91414053	1	THRUST BEARING	
12	91414054	1	DRIVE LINK	
13	91414055	1	MID MOUNT WEAR PLATE	
14	91414056	1	ROTOR KIT	
15	91414057	1	DRIVE LINK PIN	
16	91414058	1	END COVER	
17	91414059	1	BOLT SET	
18	91414060	1	HOUSING	
19	91414061	1	COOLING PLUG	
20	91414062	1	SHAFT, (includes item 21)	
21	91414063	1	KEY	
22	88201024	2	HEX HD CAPSCREW, 5/16-18X2, GR5	
K1	91414049	1	SEAL KIT, (includes items 1 thru 10)	
K2	91414050	1	SEAL KIT, (includes items 1 thru 8)	
K3	90208212	1	SEAL KIT, (includes items 9 & 10)	



OPTIONS

S/N 0160015465 & After

Figure 12-30 Truss Boom Pressure Reducer Valve - 1200 PSI



**Figure 12-30 Truss Boom Pressure Reducer Valve - 1200 PSI**

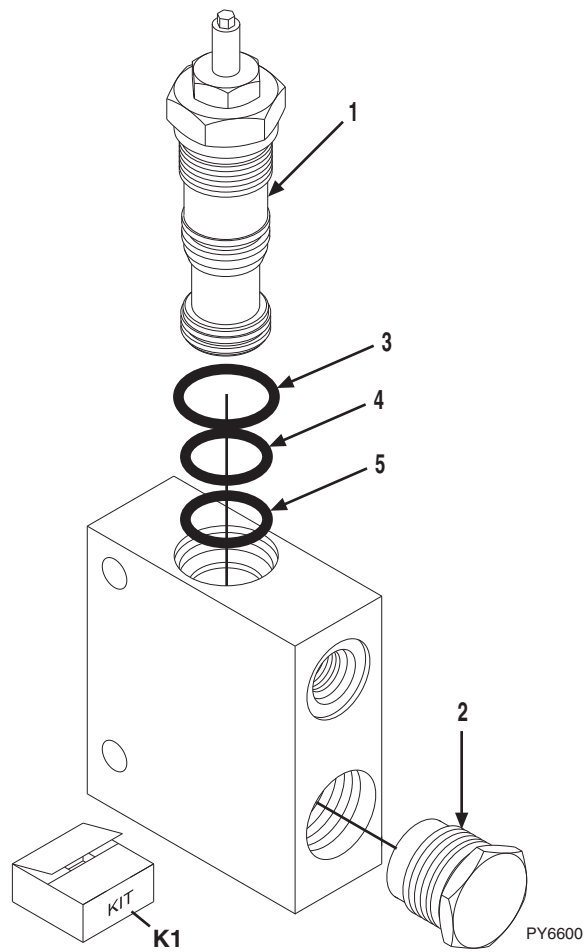
Item	Part Number	Qty.	Description	Rev.
	91413041	1	TRUSS BOOM PRESSURE REDUCER VALVE, 1200 PSI, (if equipped), (includes all items)	B
1	91414046	1	PRESSURE REDUCING CARTRIDGE	
2	91414047	1	CHECK CARTRIDGE	
3	Use Kit K1	1	O-RING	
4	Use Kit K1	1	O-RING	
5	Use Kit K1	1	O-RING	
K1	91414045	1	SEAL KIT, (includes items 3 thru 5)	



OPTIONS

S/N 0160015465 & After

Figure 12-31 Truss Boom Pressure Reducer Valve - 1360 PSI



**Figure 12-31 Truss Boom Pressure Reducer Valve - 1360 PSI**

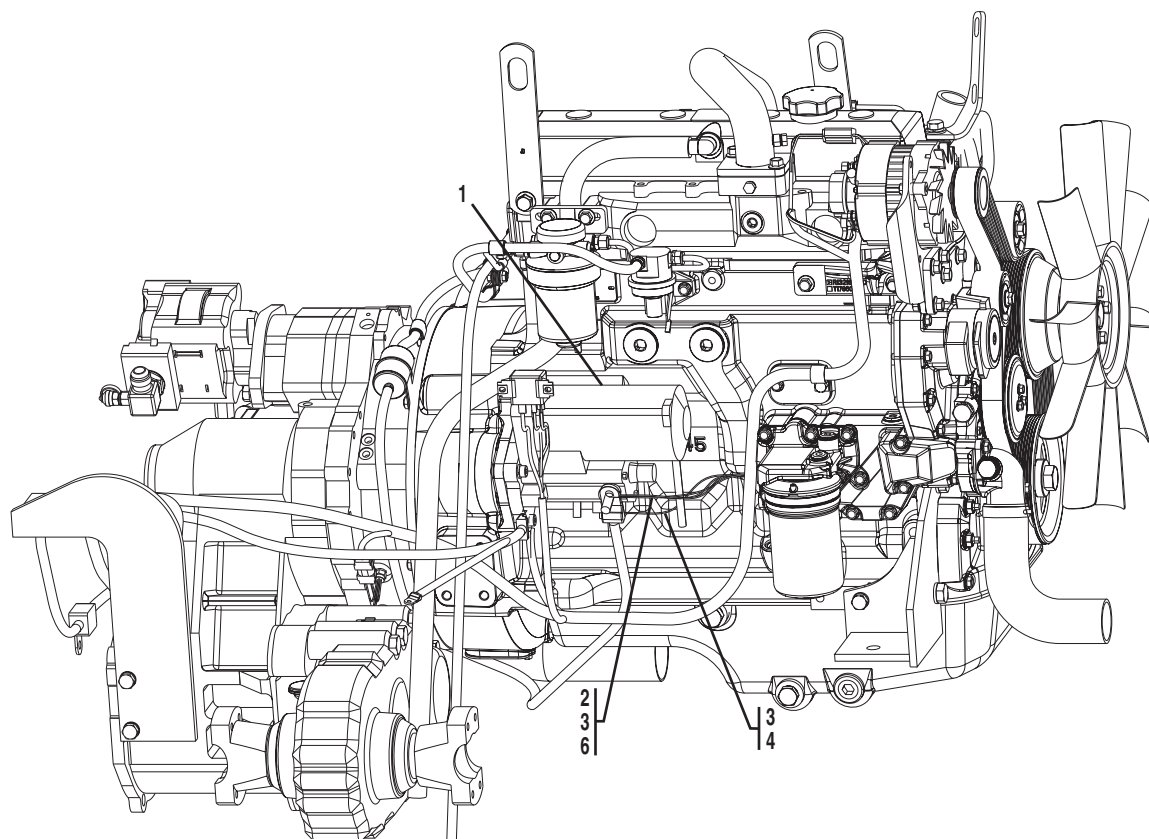
Item	Part Number	Qty.	Description	Rev.
	91413040	1	TRUSS BOOM PRESSURE REDUCER VALVE, 1360 PSI, (includes all items)	
1	91414048	1	PRESSURE REDUCING CARTRIDGE	
2	91414047	1	CHECK CARTRIDGE	
3	Use Kit K1	1	O-RING	
4	Use Kit K1	1	O-RING	
5	Use Kit K1	1	O-RING	
K1	91414045	1	SEAL KIT, (includes items 3 thru 5)	



OPTIONS

Before S/N 0160006706 excluding
0160006494 & 0160006543

Figure 12-32 Starter Kit



NOTE:

**LEECE-NEVILLE & PRESTOLITE STARTERS NO LONGER AVAILABLE, ORDER
DENSO STARTER KIT FOR REPLACEMENT**



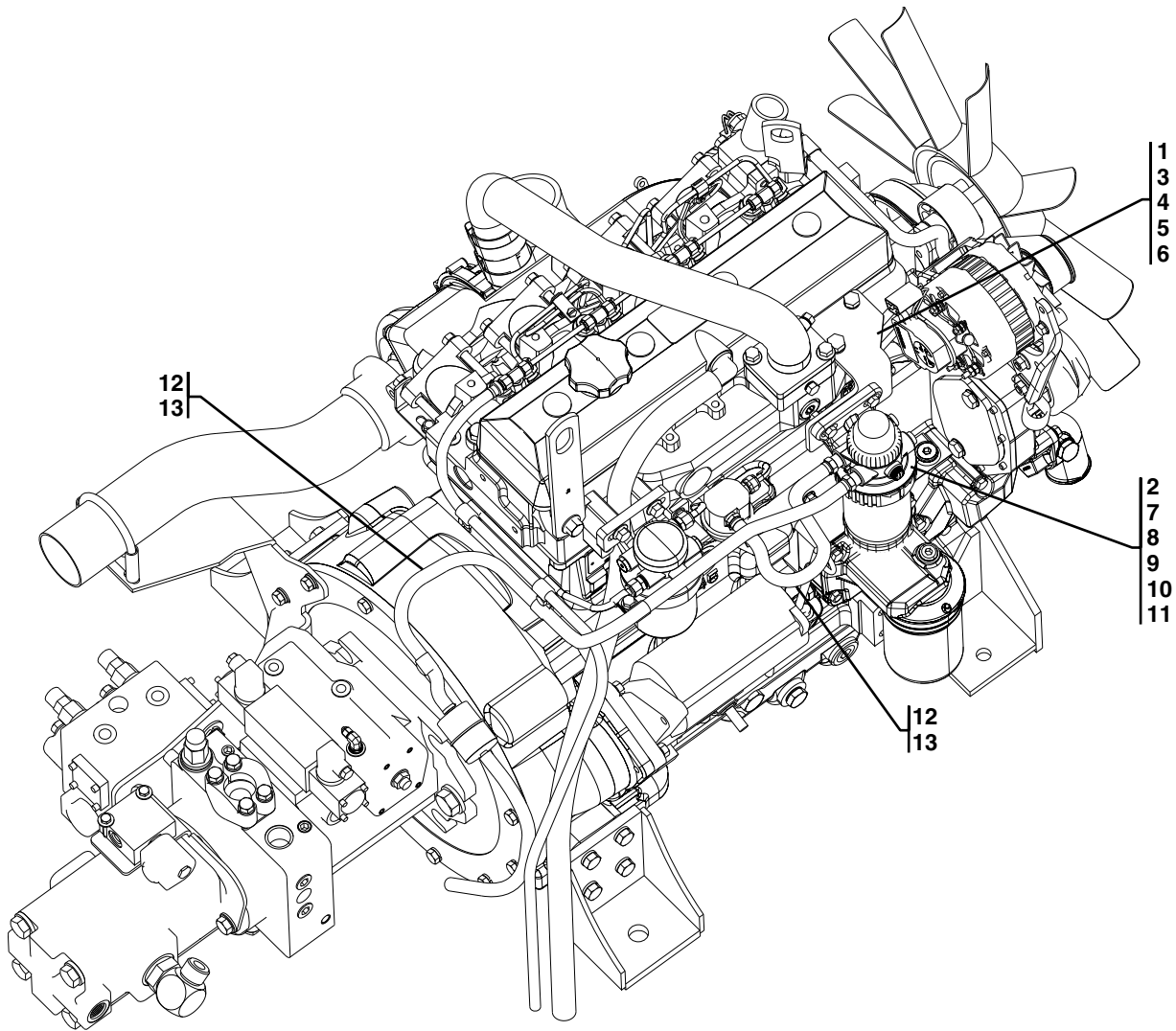
Figure 12-32 Starter Kit

Item	Part Number	Qty.	Description	Rev.
	91415083	1	STARTER KIT, (includes all items)	A
1	7026921	1	STARTER, (DENSO)	
2	91413148	1	JUMPER WIRES	
3	83681905	12 in	HEAT SHRINK INSULATION	
4	91413149	1	JUMPER WIRE	
6	71492134	12 in	SPLIT LOOM	



OPTIONS

Figure 12-33 Fuel/Water Separator Installation



PAP23320



Figure 12-33 Fuel/Water Separator Installation

Item	Part Number	Qty.	Description	Rev.
	91535022	1	FUEL/WATER SEPARATOR INSTALLATION, (includes all items)	B
1	91531026	1	FILTER BRACKET	
2	91473240	1	FUEL/WATER SEPARATOR	
	91474633	1	FUEL/WATER SEPARATOR ELEMENT	
	91474634	1	WATER COLLECTION BOWL	
	91474635	1	REVERSE FLOW HAND PRIMER	
3	4832000	1	LOCKWASHER, 10mm	
4	4832100	1	LOCKWASHER, 12mm	
5	0761012	1	HEX HD CAPSCREW, M10X1-1/2X25, GR5	
6	0761212	1	HEX HD CAPSCREW, M12X1-3/4X25, GR5	
7	4761500	2	LOCKWASHER, 5/16	
8	3311501	2	HEX NUT, 5/16-18	
9	0641510	2	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
10	2200233	2	SOCKET HD PIPE PLUG, (ports #3 & #4)	
11	2221114	2	BARBED FITTING, (ports #1 & #2)	
12	1320022	4	HOSE CLAMP	
13	2750532	3.83 ft	FUEL LINE, 3/8	



OPTIONS

Figure 12-34 Standard Seat Replacement Kit

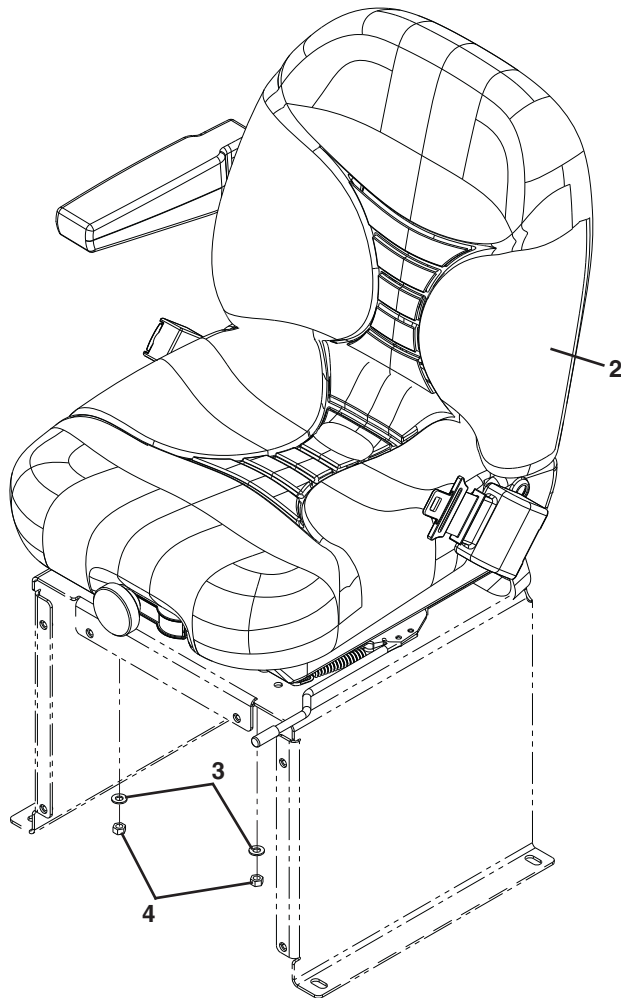




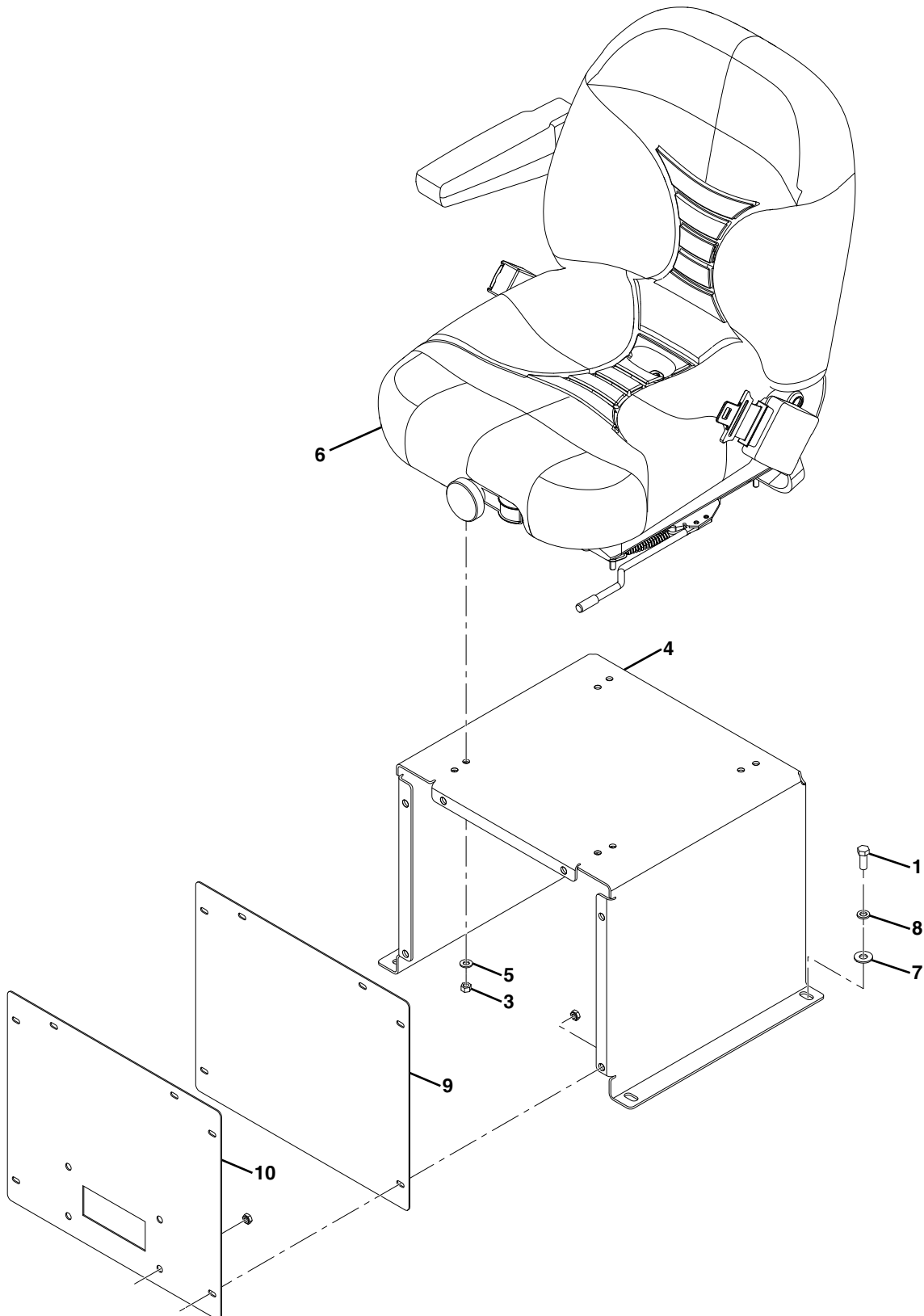
Figure 12-34 Standard Seat Replacement Kit

Item	Part Number	Qty.	Description	Rev.
	2915166	1	STANDARD SEAT REPLACEMENT KIT, (includes all items)	A
1	3128987	1	KIT INSTALLATION INSTRUCTIONS, (not shown)	
2	91563158	1	SUSPENSION SEAT WITH 2 IN SEAT BELT	
3	4711500	4	PLAIN WASHER, 5/16	
4	3311505	4	HEX LOCKNUT, 5/16-18	



OPTIONS

Figure 12-35 Heavy Seat Replacement Kit



PAP11300



Figure 12-35 Heavy Seat Replacement Kit

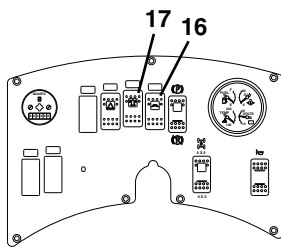
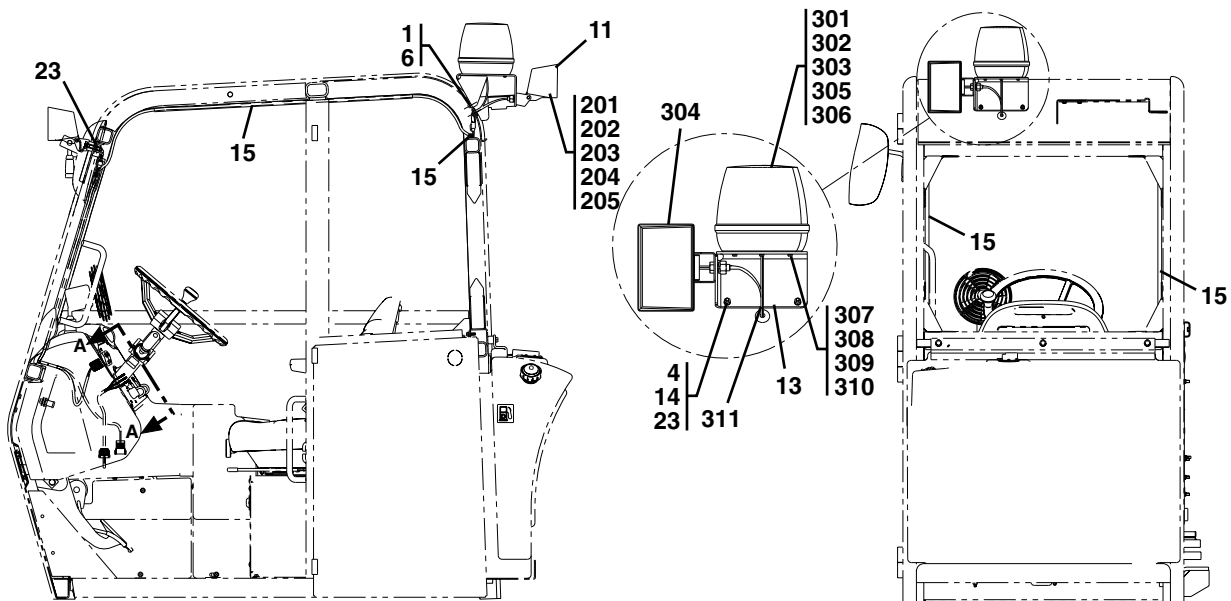
Item	Part Number	Qty.	Description	Rev.
	2915167	1	HEAVY SEAT REPLACEMENT KIT, (includes all items)	B
1	0641608	4	HEX HD CAPSCREW, 3/8-16	
2	3128992	1	KIT INSTALLATION INSTRUCTIONS, (not shown)	
3	3311505	4	HEX LOCKNUT, 5/16-18	
4	91406115	1	SEAT RISER WELDMENT	
5	4711500	4	PLAIN WASHER, 5/16	
6	91563158	1	SUSPENSION SEAT WITH 2 IN SEAT BELT	
7	4751600	4	WASHER, 3/8	
8	4761600	4	LOCKWASHER, 3/8	
9	91401415	1	ACCESS COVER PLATE	
10	91406113	1	ACCESS BEZEL COVER	



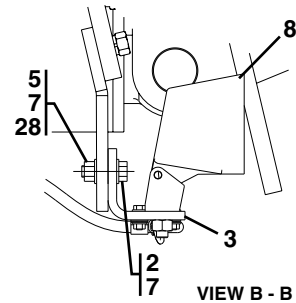
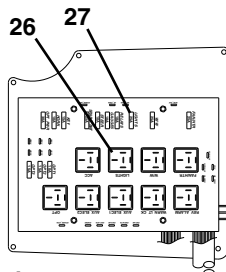
OPTIONS

S/N 0160031703 thru 0160038554

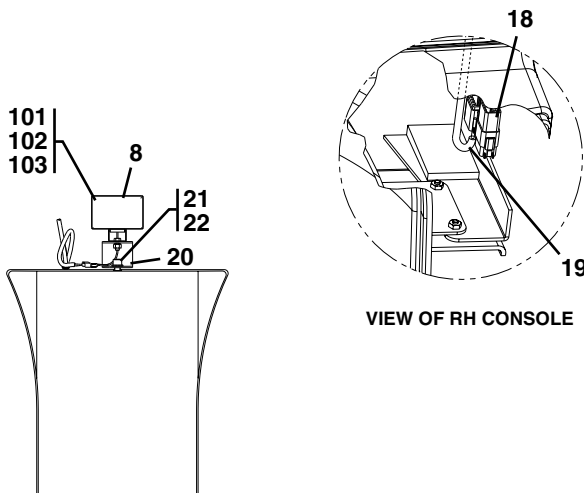
Figure 12-36 Work Light Installation



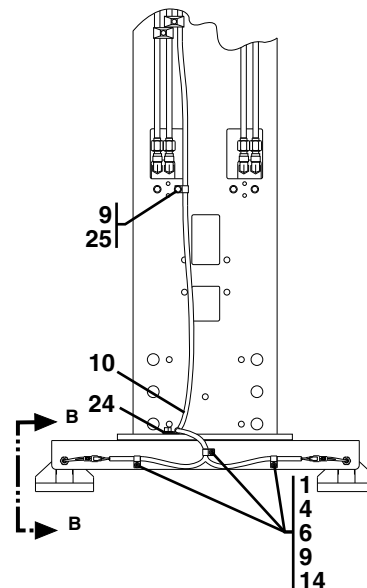
VIEW A - A



VIEW B - B



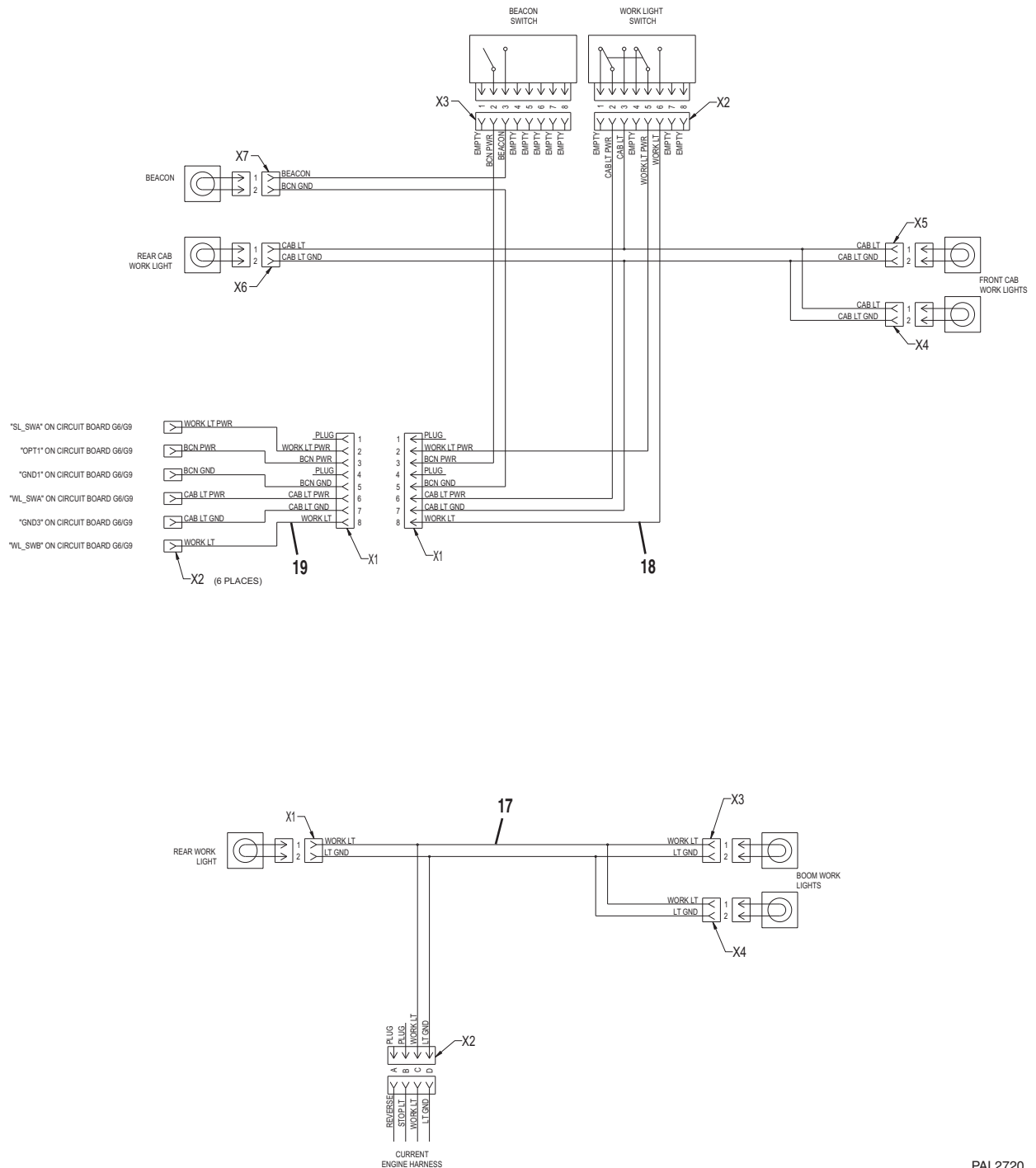
VIEW OF RH CONSOLE



PAP11340



Figure 12-36 Work Light Installation (Continued)



PAL2720



OPTIONS

S/N 0160031703 thru 0160038554

Figure 12-36 Work Light Installation

Item	Part Number	Qty.	Description	Rev.
	1001090468	Ref	WORK LIGHT INSTALLATION, (not available to order, see items 1 thru 28 for service)	H
1	0641407	5	HEX HD CAPSCREW, 1/4-20X7/8, GR5	
2	0641814	2	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
3	0903661	1	BOOM LIGHT MOUNTING BRACKET	
4	3311401	5	HEX NUT, 1/4-20	
5	3311801	2	HEX NUT, 1/2-13	
6	4711400	8	FLAT WASHER, 1/4	
7	4711800	8	FLAT WASHER, 1/2	
8	1001095342	3	FLOOD LIGHT ASSY, (includes items 101 thru 103)	B
	80964070	3	BULB	
9	85941016	3	CLAMP	
10		Ref	BOOM WORK LIGHTS HARNESS, (see Figure 10-3 for details)	
11	1001090580	2	FLOOD LIGHT ASSY, (includes items 201 thru 205)	B
13	1001090581	1	BEACON/FLOOD LIGHT INSTALLATION, (includes items 301 thru 311)	D
14	4761400	5	LOCKWASHER, 1/4	
15	8096D097	8.3 ft	WIRING DUCT	
16	1001090460	1	WORK LIGHTS SWITCH	
17	1001090461	1	BEACON SWITCH	
18		Ref	CAB WORK LIGHTS HARNESS, (see Figure 10-4 for details)	
19		Ref	CAB WORK LIGHT & BEACON LIGHT SWITCH HARNESS, (see Figure 10-5 for details)	
20	1001090522	1	BACK-UP LIGHT MOUNTING BRACKET	
21	0642210	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
22	4712200	1	WASHER, 3/4	
23	14404173	AR	SILICONE SEALANT	
24	8406105	1	CLIP	
25	0641608	1	HEX HD CAPSCREW, 3/8-16X1, GR5	
26	77363265	1	RELAY	
27	80964009	1	FUSE	
28	4761800	2	LOCKWASHER, 1/2	
101	4460464	2	PIN TERMINAL	
102	4460897	1	2 POSITION TERMINAL	
103	80963050	1	FLOOD LIGHT ASSY	A, 1
	80964070	2	BULB	
201	4460464	2	PIN TERMINAL	
202	4460897	1	2 POSITION TERMINAL	
203	80963050	1	FLOOD LIGHT ASSY	A, 1
	80964070	1	BULB	
204	91403503	1	SPACER	
205	91413052	1	WORK LIGHT MOUNTING BOLT	
301	0903669	1	BEACON BRACKET	
302	4460464	4	PIN TERMINAL	
303	4460897	2	2 POSITION TERMINAL	
304	1001099276	1	FLOOD LIGHT ASSY	A
	80964070	1	BULB	
305	91343031	1	ROTATING BEACON	
	91344053	1	BULB	
306	1001090615	1	GROMMET	



Figure 12-36 Work Light Installation (Continued)

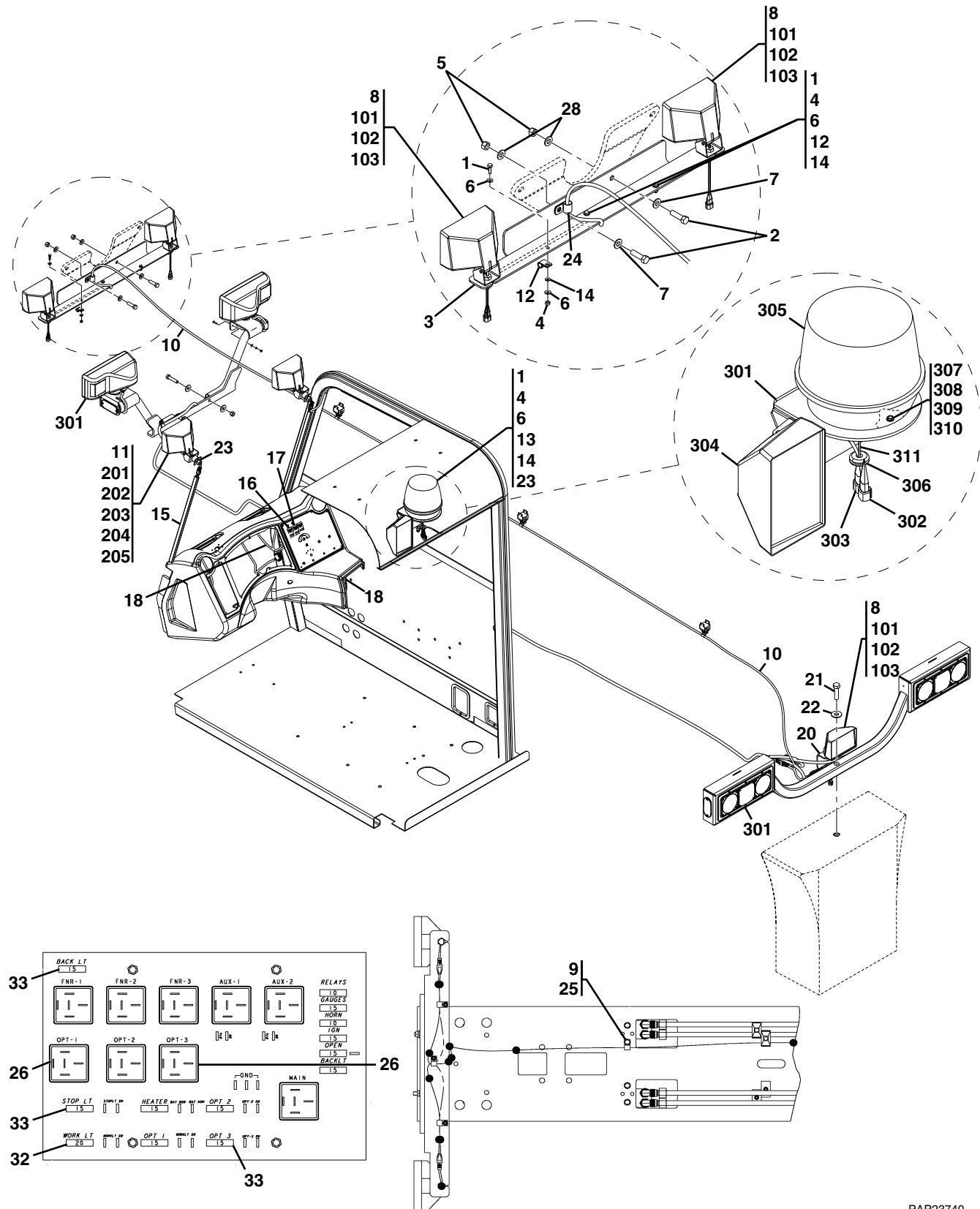
Item	Part Number	Qty.	Description	Rev.
307	0721006	3	INDENTED HEX HD MACHINE SCREW, #10-24X3/4	
308	3311001	3	NUT, #10-24, GR2	
309	4751000	3	WASHER, #10	
310	4761000	3	LOCKWASHER, #10	
311	2820035	AR	INSULATE	



OPTIONS

S/N 0160038555 & After

Figure 12-36 Work Light Installation



PAP23740



Figure 12-36 Work Light Installation

Item	Part Number	Qty.	Description	Rev.
	1001114486	Ref	WORK LIGHT INSTALLATION, (if equipped), (not available to order, see items 1 thru 33 for service)	B
1	0641407	5	HEX HD CAPSCREW, 1/4-20X7/8	
2	0641814	2	HEX HD CAPSCREW, 1/2-13X2-3/4	
3	0903661	1	BOOM LIGHT MOUNTING BRACKET	
4	3311401	5	HEX NUT, 1/4-20, GR2	
5	3311801	2	HEX NUT, 1/2-13, GR2	
6	4711400	6	WASHER, 1/4	
7	4711800	8	WASHER, 1/2	
8	1001095342	3	FLOOD LIGHT ASSY, (includes items 101 thru 103)	B
9	85941016	1	CLAMP	
10		Ref	BOOM WORK LIGHT HARNESS, (see Figure 10-3 for details)	
11	1001090580	2	FLOOD LIGHT ASSY, (includes items 201 thru 205)	B
12	1320263	3	CLAMP, 3/8	
13	1001090581	Ref	BEACON LIGHT INSTALLATION, (includes items 301 thru 311)	D
14	4761400	5	LOCKWASHER, 1/4	
15	8096D097	8.3 ft	ECONOMY WIRING DUCT	
16	1001090460	1	WORK LIGHT SWITCH	
17	1001090461	1	BEACON LIGHT SWITCH	
18		Ref	CAB WORK LIGHT HARNESS, (see Figure 10-4 for details)	
19		Ref	CAB WORK LIGHT & BEACON LIGHT SWITCH HARNESS, (not shown), (see Figure 10-5 for details)	
20	1001090522	1	BACK-UP LIGHT MOUNTING BRACKET	
21	0642210	1	HEX HD CAPSCREW, 3/4-10X1-1/4	
22	4712200	1	WASHER, 3/4	
23	14404173	AR	SILICONE SEALANT	
24	8406105	1	CLAMP, 3/4	
25	0641608	1	HEX HD CAPSCREW, 3/8-16X1	
26	77363265	2	RELAY	
28	4761800	2	LOCKWASHER, 1/2	
32	77363302	1	FUSE, 20 AMP	
33	77363268	3	FUSE, 15 AMP	
101	4460464	2	PIN TERMINAL	
102	4460897	1	2 POSITION TERMINAL	
103	80963050	1	FLOOD LIGHT ASSY	A, 1
	80964070	2	BULB	
201	4660508	4	PIN TERMINAL	
202	4461017	2	2 POSITION TERMINAL	
203	80963050	2	FLOOD LIGHT ASSY	A, 1
	83664354	2	BULB	
204	91403503	2	SPACER	
205	91413052	2	WORK LIGHT MOUNTING BOLT	
301	0903669	1	BEACON BRACKET	
302	4460464	4	PIN TERMINAL	
303	4460897	2	2 POSITION TERMINAL	
304	1001099276	1	UTILITY FLOOD LIGHT	A
	80964070	1	BULB	
305	91343031	1	ROTATING BEACON	
	91344053	1	BULB	



OPTIONS

S/N 0160038555 & After

Figure 12-36 Work Light Installation (Continued)

Item	Part Number	Qty.	Description	Rev.
306	1001090615	1	GROMMET	
307	0721006	3	HEX HD MACHINE SCREW, #10-24X3/4	
308	3311001	3	NUT, #10-24, GR2	
309	4751000	3	WASHER, #10	
310	4761000	3	LOCKWASHER, #10	
311	2820035	AR	INSULATE	



Figure 12-36 Work Light Installation (Continued)

Item	Part Number	Qty.	Description	Rev.



OPTIONS

Figure 12-37 Pintle Hook Installation

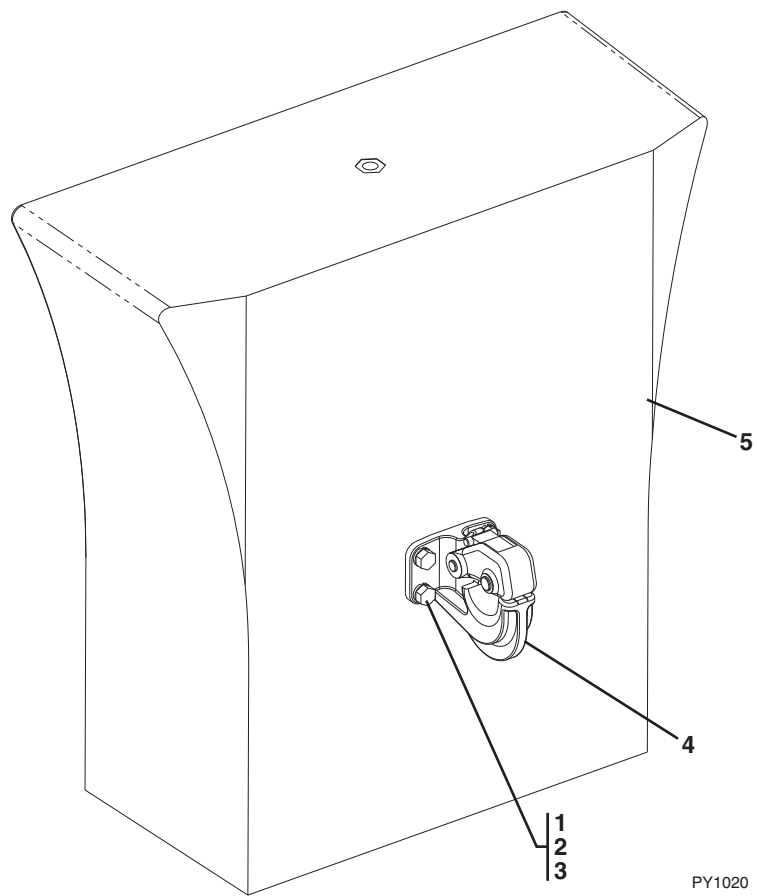




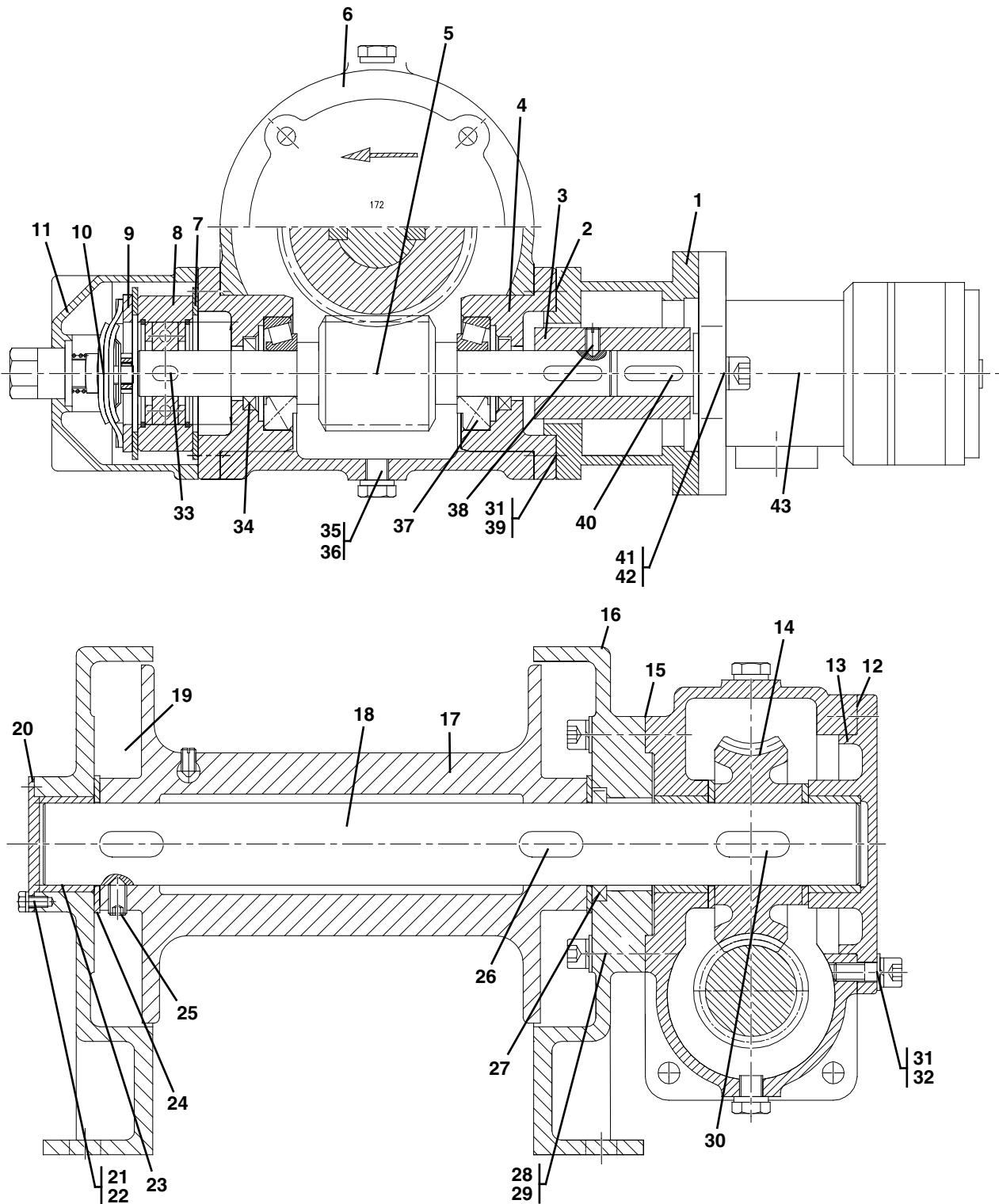
Figure 12-37 Pintle Hook Installation

Item	Part Number	Qty.	Description	Rev.
	1001097095	1	PINTLE HOOK INSTALLATION, (includes all items)	A
1	0100011	AR	LOCTITE® 242™	
2	0681814	4	HEX HD CAPSCREW, 1/2-13X1-3/4	
3	88551013	4	LOCKWASHER, 1/2	
4	90200602	1	PINTLE HOOK	
5		Ref	COUNTERWEIGHT, (see Figure 1-1 for details)	



OPTIONS

Figure 12-38 Winch



PAP2630



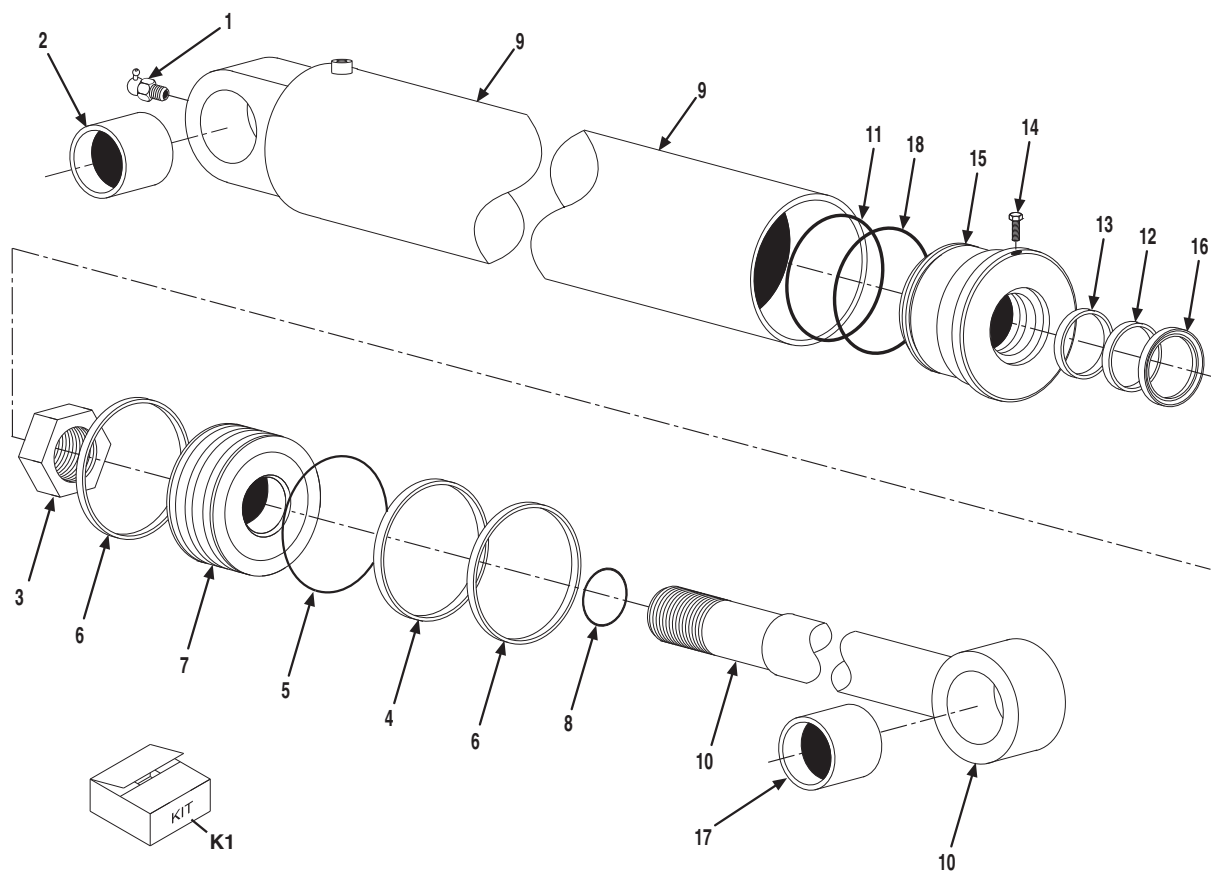
Figure 12-38 Winch

Item	Part Number	Qty.	Description	Rev.
	1001114795	1	WINCH WITH MOTOR, (includes all items)	A
1	70023747	1	MOTOR ADAPTER	
2	70023748	5	PAPER MAT	
3	70023749	1	COUPLING SHAFT	
4	70023750	2	BEARING HOUSING	
5	70023751	1	WORM	
6	70023752	1	GEAR HOUSING	
7	70023753	2	FRICTION PLATE	
8	70023754	1	OVER RUNNING CLUTCH	
9	70023755	1	FRICTION DISK	
10	70023756	1	BRAKE	
11	70023757	1	BRAKE SHELL	
12	70023758	2	PAPER MAT	
13	70023759	1	END CAP	
14	70023760	1	WORM GEAR	
15	70023761	1	PAPER MAT2	
16	70023762	1	CENTER BRACKET	
17	70023763	1	WINCH DRUM	
18	70023764	1	WORM GEAR SHAFT	
19	70023765	1	END BRACKET	
20	70023766	1	LEFT END CAP	
21	70023767	4	END CAP BOLT	
22	70023768	4	END CAP WASHER	
23	70023769	3	SELF LUBRICATING BEARING	
24	70023770	4	THRUST WASHER	
25	70023771	1	SHAFT BOLT	
26	70023772	4	DRUM SHAFT KEY	
27	70023773	1	CENTER BRACKET SEAL	
28	70023774	18	SPRING WASHER	
29	70023775	6	CENTER BRACKET BOLT	
30	70023776	2	DRUM SHAFT KEY	
31	70023777	10	GEAR COVER WASHER	
32	70023778	4	GEAR COVER BOLT	
33	70023779	1	WORM SHAFT KEY1	
34	70023780	2	WORM SHAFT SEAL	
35	70023781	3	GEAR HOUSING BOLT	
36	70023782	3	GEAR HOUSING WASHER	
37	70023783	2	TAPERED ROLLER BEARING	
38	70023784	3	MOTOR COUPLER SCREW	
39	70023785	8	MOTOR ADAPTER BOLT	
40	70023786	1	MOTOR COUPLER KEY	
41	70023787	2	MOTOR BOLT	
42	70023788	2	MOTOR WASHER	
43	70023789	1	MOTOR	



OPTIONS

Figure 12-39 Swing Cylinder



PY4960



Figure 12-39 Swing Cylinder

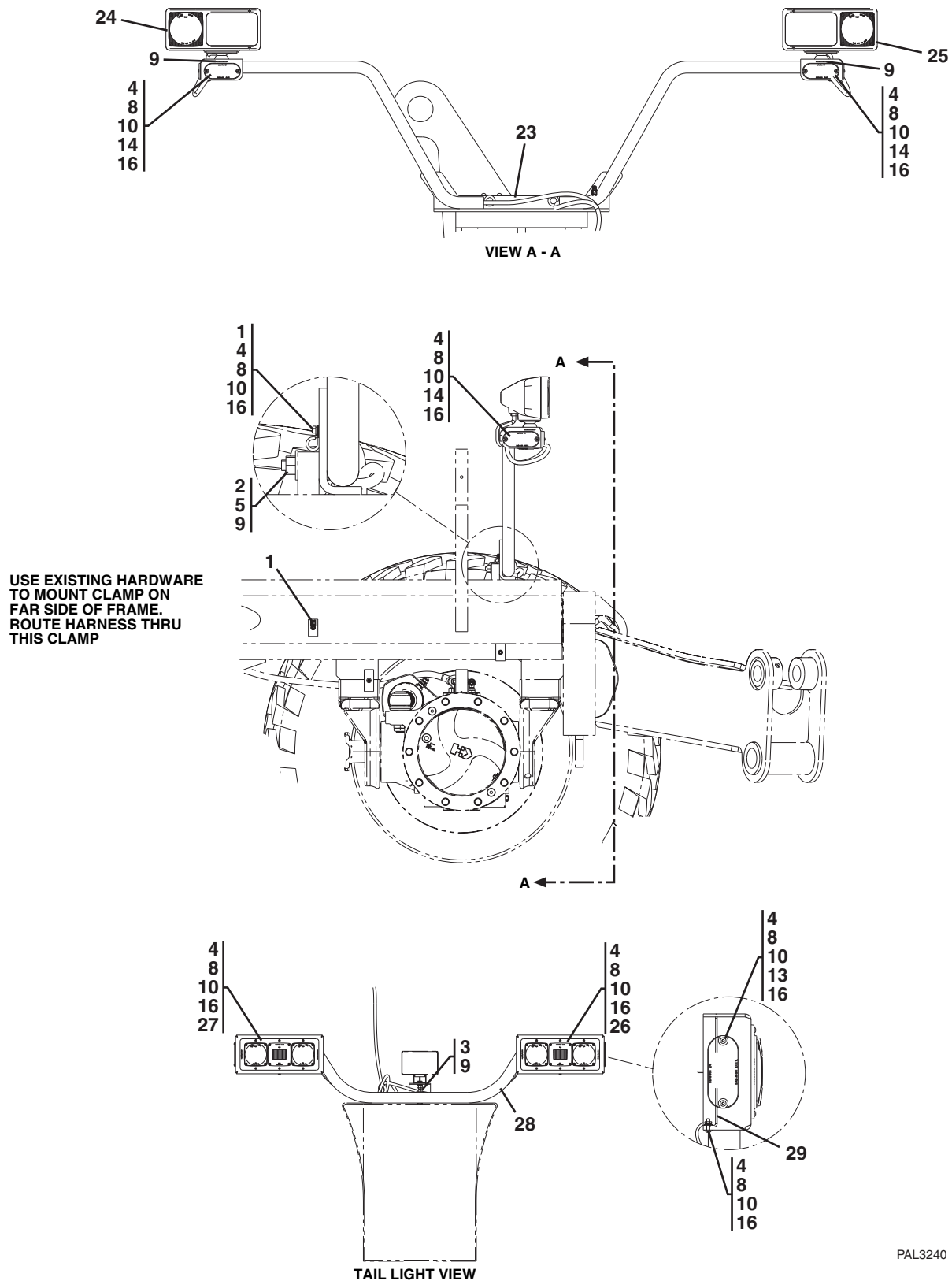
Item	Part Number	Qty.	Description	Rev.
	90453034	1	SWING CYLINDER, (includes all items)	C
1	91144125	1	GREASE FITTING	
2	91034157	1	BUSHING	
3	91144038	1	LOCKNUT	
4	Use Kit K1	1	PISTON SEAL	
5	Use Kit K1	1	O-RING	
6	Use Kit K1	2	WEAR RING	
7	91144039	1	PISTON	
8	Use Kit K1	1	O-RING	
9	91034435	1	BARREL	
10	91034436	1	PISTON ROD	
11	Use Kit K1	1	BACK-UP RING	
12	Use Kit K1	1	U-CUP	
13	Use Kit K1	1	STEP SEAL	
14	91124096	1	SELF-TAPPING SCREW	
15	91144040	1	CYLINDER HEAD	
16	Use Kit K1	1	WIPER	
17	91124087	1	BUSHING	
18	Use Kit K1	1	O-RING	
K1	91144006	1	SEAL KIT, (includes items 4 thru 6, 8, 11 thru 13, 16 & 18)	



OPTIONS

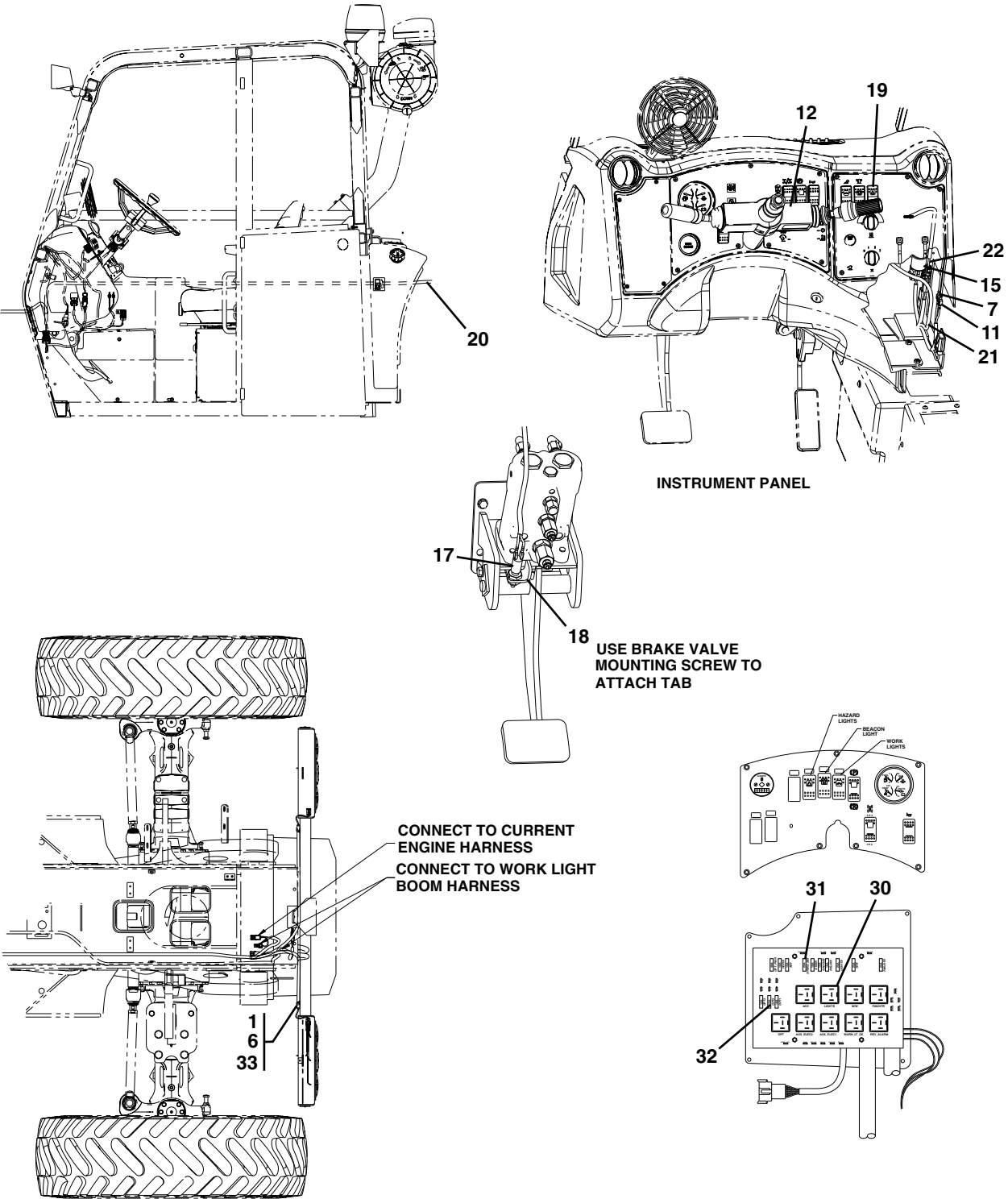
S/N 0160038555 & After

Figure 12-40 Road Lights Installation



PAL3240

Figure 12-40 Road Lights Installation (Continued)



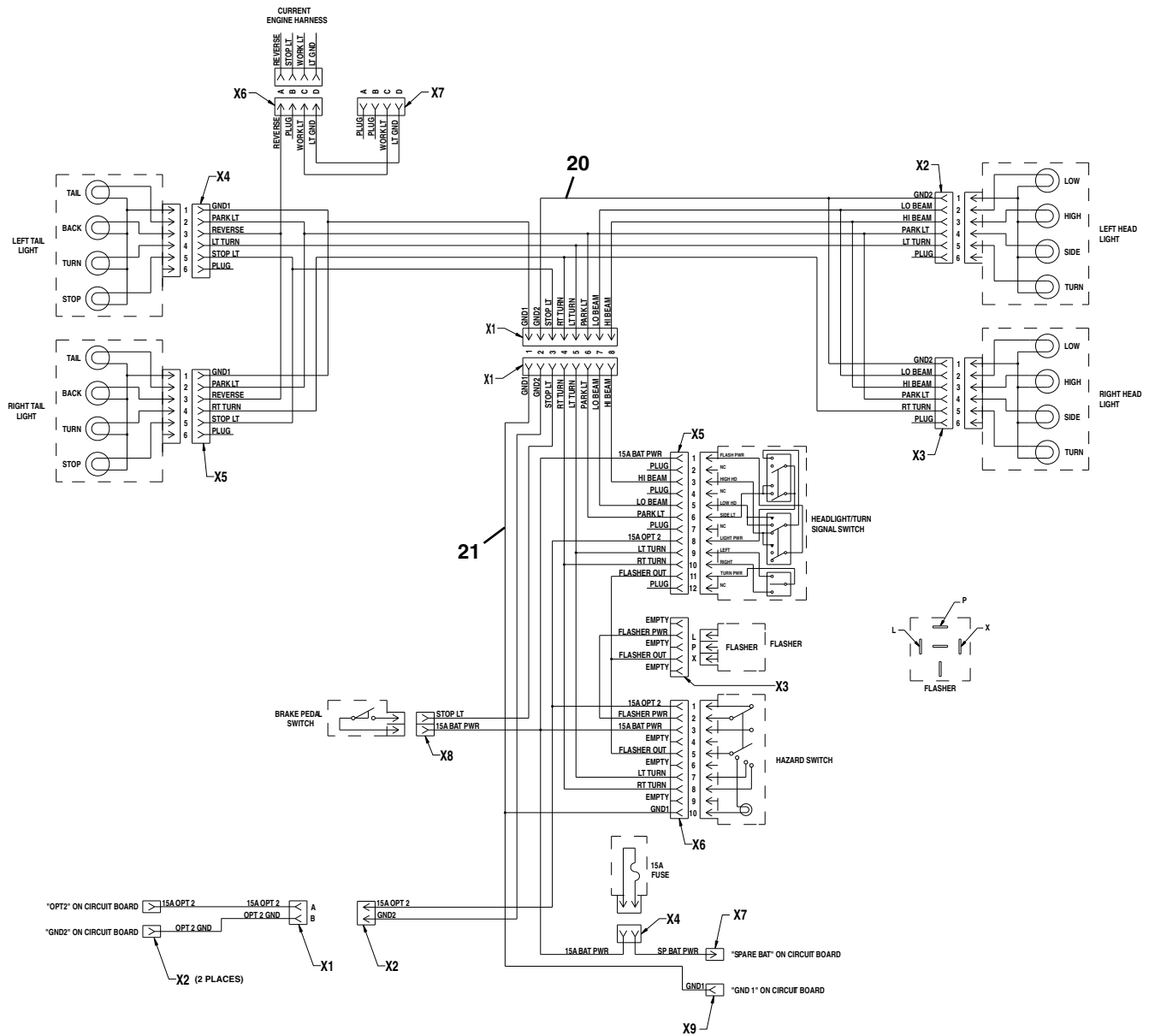
PAP11390



OPTIONS

S/N 0160038555 & After

Figure 12-40 Road Lights Installation (Continued)



PAP18720



Figure 12-40 Road Lights Installation

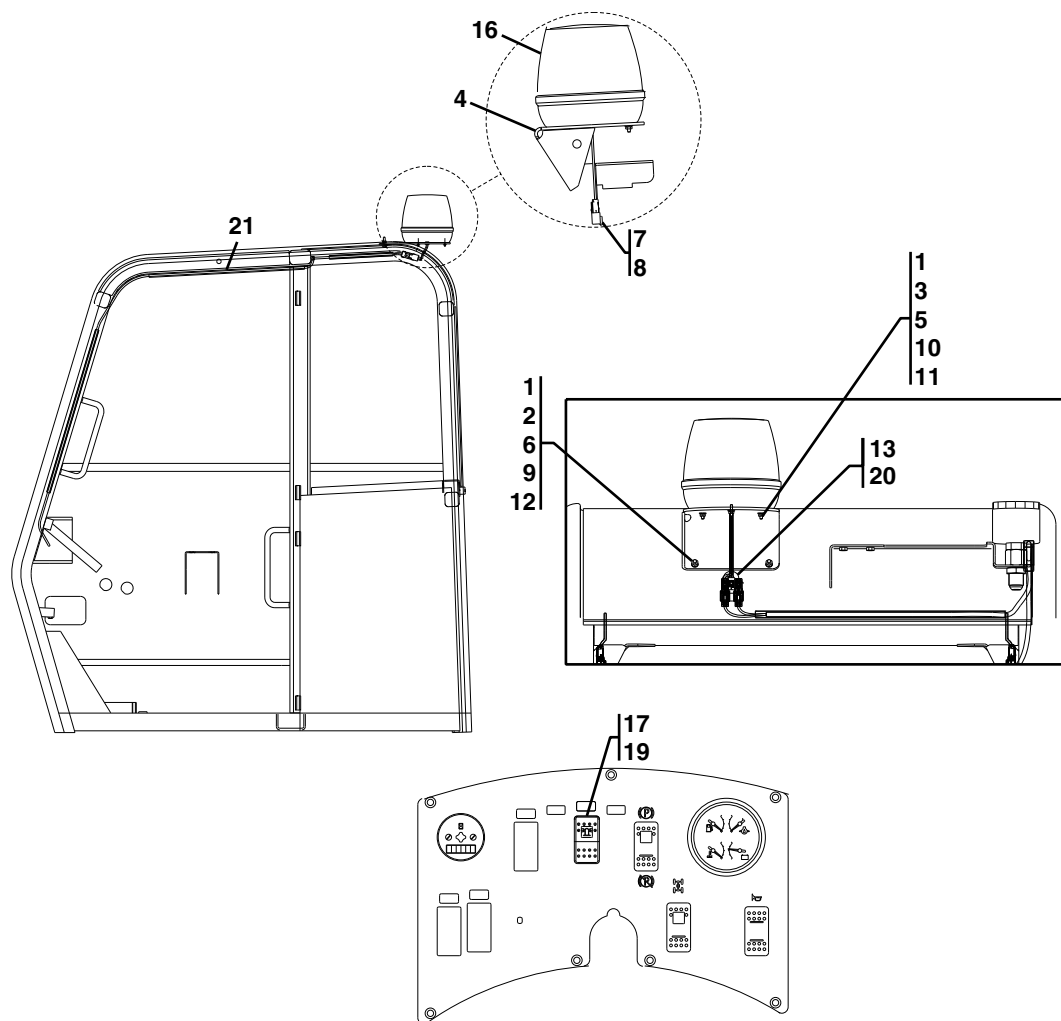
Item	Part Number	Qty.	Description	Rev.
	1001090469	Ref	ROAD LIGHTS INSTALLATION, (if equipped), (includes all items)	F
1	80630	2	CLAMP, 1/2	
2	0641818	2	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5, (torque to 75 lb-ft)	
3	0641822	1	HEX HD CAPSCREW, 1/2-13X2-3/4, GR5, (torque to 80 lb-ft)	
4	3311001	27	HEX NUT, 10-24	
5	3311805	2	HEX LOCKNUT, 1/2-13	
6	3941506	2	TAP SCREW	
7	4461254	1	FASTON TERMINAL	
8	4711000	30	FLAT WASHER, #10	
9	4751800	7	FLAT WASHER, 1/2	
10	4761000	27	LOCKWASHER, #10	
11	8220050	1	MALE CONNECT TERMINAL	
12	8223073	1	TURN SIGNAL SELECTOR	
13	10718991	2	REFLECTOR, RED	
14	10718992	4	REFLECTOR, YELLOW	
15	80983168	1	VARIABLE LOAD FLASHER	
16	88261010	27	SOCKET BUTTON HD CAPSCREW, #10-24X3/4	
17	91143117	1	STOPLIGHT SWITCH	
18	91511127	1	MOUNTING TAB	
19	1001090459	1	SWITCH	
20		Ref	FRAME ROAD LIGHTS HARNESS, (see Figure 10-6 for details)	
21		Ref	CAB ROAD LIGHTS HARNESS, (see Figure 10-7 for details)	
22	1001090510	1	ROAD LIGHTS HARNESS	
23	1001094264	1	FRONT ROAD LIGHTS BRACKET	
24	1001094390	1	RH FRONT ROAD LIGHTS, (torque to 50 lb-ft)	
	91503103	1	CONNECTOR	
	91504107	1	LOCK CONNECTOR	
25	1001094391	1	LH FRONT ROAD LIGHTS, (torque to 50 lb-ft)	
	91503103	1	CONNECTOR	
	91504107	1	LOCK CONNECTOR	
26	1001094392	1	RH TAIL LIGHT	
	91503103	1	CONNECTOR	
	91504107	1	LOCK CONNECTOR	
27	1001094393	1	LH TAIL LIGHT	
	91503103	1	CONNECTOR	
	91504107	1	LOCK CONNECTOR	
28	1001094523	1	TAIL LIGHT BRACKET	
29	1001094824	2	TAIL LIGHT COVER	
30	77363265	1	RELAY	
31	8229262	1	FUSE, 25 AMP	
32	77363268	1	FUSE, 15 AMP	
33	86621230	2	SUPPORT CLAMP	



OPTIONS

S/N 0160031703 thru 0160038554

Figure 12-41 Beacon Light Installation



PAP11090



Figure 12-41 Beacon Light Installation

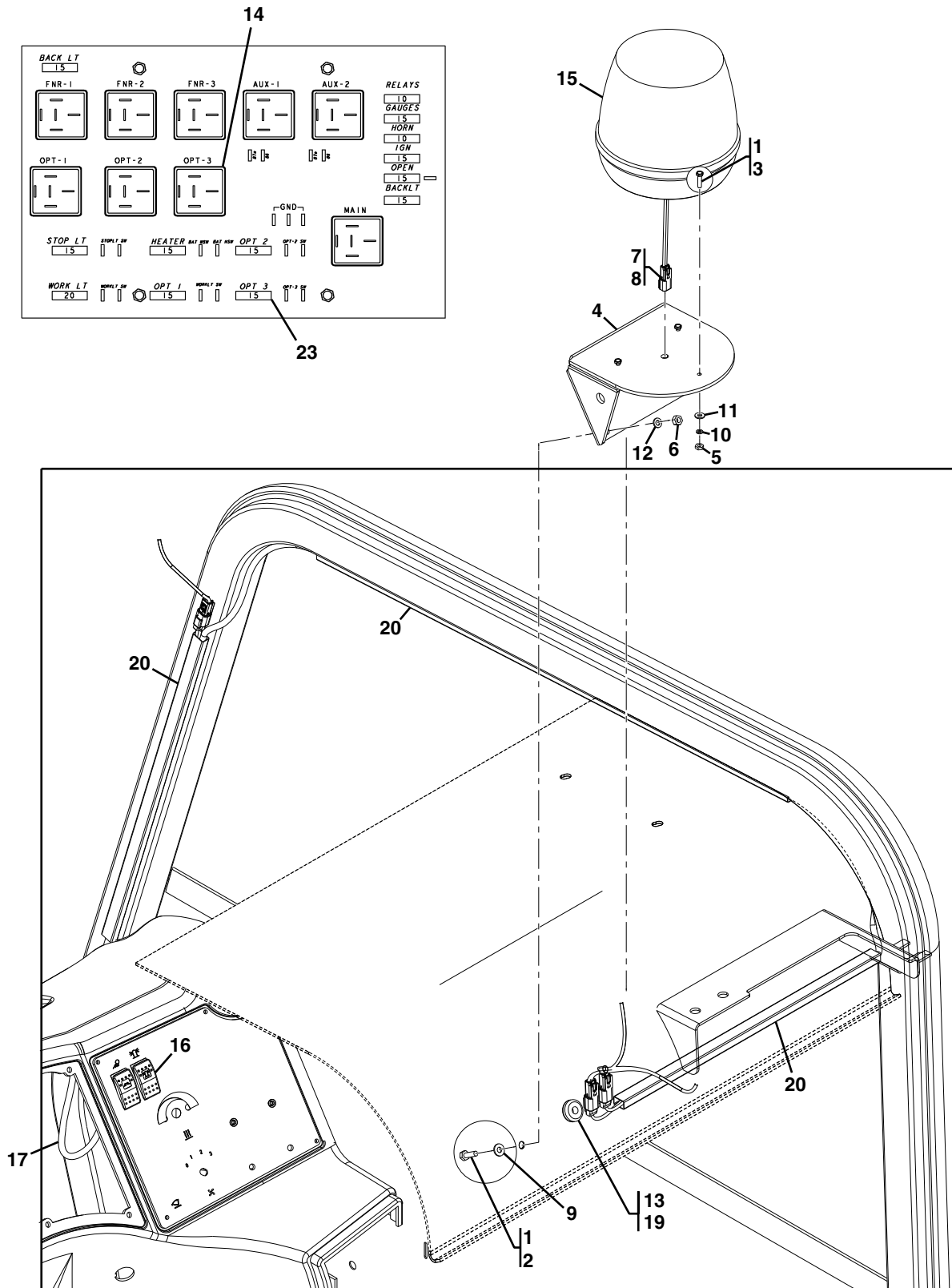
Item	Part Number	Qty.	Description	Rev.
	1001098035	Ref	BEACON LIGHT INSTALLATION, (if equipped), (not available to order, see items 1 thru 21 for service)	C
1	0100011	AR	LOCTITE® 242™	
2	0641407	2	HEX HD CAPSCREW, 1/4-20X7/8, GR5	
3	0721006	3	INDENTED HEX HD MACHINE SCREW, #10-24X3/4	
4	0903669	1	BEACON BRACKET	
5	3311001	3	HEX NUT, #10-24, GR2	
6	3311401	2	HEX NUT, 1/4-20, GR2	
7	4460508	2	TERMINAL	
8	4461017	1	2 POSITION TERMINAL	
9	4711400	2	WASHER, 1/4	
10	4751000	3	WASHER, #10	
11	4761000	3	LOCKWASHER, #10	
12	4761400	2	LOCKWASHER, 1/4	
13	14404173	AR	SILICONE SEALANT	
16	91343031	1	ROTATING BEACON	
	91344053	1	BULB	
17	1001090461	1	BEACON SWITCH	
18		Ref	CAB WORK LIGHT HARNESS, (not shown), (see Figure 10-4 for details)	
19		Ref	CAB WORK LIGHT & BEACON LIGHT SWITCH HARNESS, (see Figure 10-5 for details)	
20	1001090615	1	GROMMET	
21	8096D097	72 in	ECONOMY WIRING DUCT	



OPTIONS

S/N 0160038555 & After

Figure 12-41 Beacon Light Installation



PAP23660

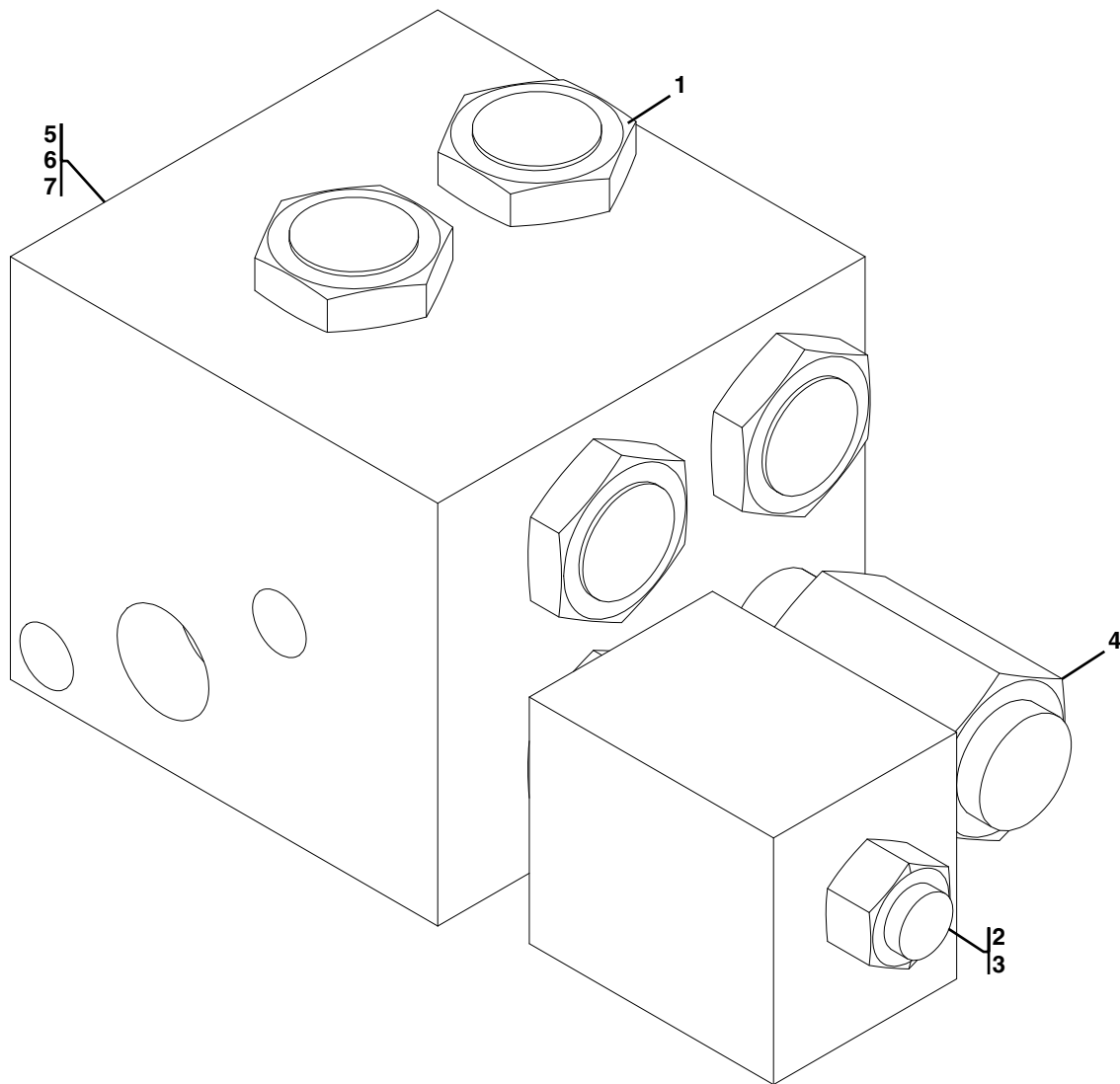
**Figure 12-41 Beacon Light Installation**

Item	Part Number	Qty.	Description	Rev.
	1001114493	Ref	BEACON LIGHT INSTALLATION, (if equipped) , (not available to order, see items 1 thru 23 for service)	B, 2
1	0100011	AR	LOCTITE® 242™	
2	0641407	2	HEX HD CAPSCREW, 1/4-20X7/8, GR5	
3	0721006	3	INDENTED HEX HD MACHINE SCREW, #10-24X3/4	
4	0903669	1	BEACON BRACKET	
5	3311001	3	HEX NUT, #10-24, GR2	
6	3311401	2	HEX NUT, 1/4-20, GR2	
7	4460508	2	TERMINAL	
8	4461017	1	2 POSITION TERMINAL	
9	4711400	2	WASHER, 1/4	
10	4751000	3	WASHER, #10	
11	4761000	3	LOCKWASHER, #10	
12	4761400	2	LOCKWASHER, 1/4	
13	14404173	AR	SILICONE SEALANT	
14	77363265	1	RELAY	
15	91343031	1	ROTATING BEACON	
	91344053	1	BULB	
16	1001090461	1	BEACON SWITCH	
17		Ref	CAB WORK LIGHT HARNESS, (see Figure 10-4 for details)	
18		Ref	CAB WORK LIGHT & BEACON LIGHT SWITCH HARNESS, (not shown), (see Figure 10-5 for details)	
19	1001090615	1	GROMMET	
20	8096D097	72 in	ECONOMY WIRING DUCT	
23	77363268	1	FUSE, 15 AMP	



OPTIONS

Figure 12-42 Stabilizer Valve



PAP23820



Figure 12-42 Stabilizer Valve

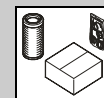
Item	Part Number	Qty.	Description	Rev.
	91113003	1	STABILIZER VALVE, (includes all items)	F
1	7017478	4	CARTRIDGE	
	7017477	4	SEAL KIT	
2	7012910	1	CARTRIDGE	
	2900708	1	SEAL KIT	
3	7000645	1	COIL, 12V DUAL SPADE	
4	70024348	1	RELIEF VALVE	
	7017496	1	SEAL KIT	
5	7017494	2	ORIFICE	
6	7017406	6	PORT PLUG, (includes seals)	
7	NSS	1	BLOCK	



OPTIONS

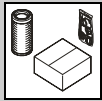
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RECOMMENDED SPARE PARTS



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 JLG dealer or the JLG Industries Parts Department.

Part Number	Description	Qty./Machine
Boom Assembly		
84718545	Tilt Cylinder Hose, (see Figure 8-10)	2
84719168	Boom Hose, (see Figure 8-10)	2
3580347	Hose Sheave, (see Figure 2-3)	1
91403530	Bearing Pad, (see Section 2)	10
91403531	Bearing Pad, (see Section 2)	4
91403532	Bearing Pad, (see Section 2)	4
91403533	Bearing Pad, (see Section 2)	2
1001117654	Bearing Pad, (see Section 2)	4
1001117655	Bearing Pad, (see Section 2)	4
91413127	Shim, .0598, (see Section 2)	4
91403126	Shim, .0359, (see Section 2)	AR
91401215	Shim, .0598, (see Section 2)	AR
91401216	Shim, .0359, (see Section 2)	AR
91471228	Shim, .0598, (see Section 2)	AR
91471229	Shim, .0359, (see Section 2)	AR
91401453	Shim, .0598, (see Section 2)	AR
91401454	Shim, .0359, (see Section 2)	AR
91401456	Shim, .0598, (see Section 2)	AR
91401457	Shim, .0359, (see Section 2)	AR
91401191	Spacer, .1875, (see Section 2)	AR
91401223	Spacer, .0598, (see Section 2)	10
91401224	Spacer, .0598, (see Section 2)	4
91401225	Spacer, .0598, (see Section 2)	4
91401226	Spacer, .0598, (see Section 2)	2
91401450	Spacer, .0598, (see Section 2)	4
91401451	Spacer, .0598, (see Section 2)	AR
91403087	Bearing Pad, Push Beam, (see Figure 2-5)	1
91403404	Quick Switch Pin, (see Figure 2-8)	1
91403407	Quick Release Pin, (see Figure 2-8)	1
2940074	Latch, (see Figure 3-13)	2
Engine		
91405102	Engine Filter Kit, (Standard) , (S/N 0160001921 thru 0160003058 excluding 0160002657), (see Figure 4-1)	1
91415035	Engine Filter Kit, (Turbo) , (S/N 0189001 thru 0189345 & 0160000230 thru 0160001775), (see Figure 12-2)	
91415035	Engine Filter Kit, (Standard) , (S/N 0160001921 thru 0160003058 excluding 0160002657), (see Figure 4-1)	1
91415064	Engine Filter Kit, (Turbo) , (S/N 0160001921 thru 0160003058 excluding 0160002657), (see Figure 12-2)	
91415084	Engine Filter Kit, (S/N 0160003213 & After including 0160002657) , (see Figure 4-1)	1
91403513	Fuel Tank Cap, (see Figure 4-4)	1
91403105	Fan, (S/N 0189001 thru 0189345 & 0160000230 thru 0160001775) , (see Figure 4-1)	1
91513159	Fan, (S/N 0160003213 & After including 0160002657) , (see Figure 4-1)	1
91404086	Alternator Belt, (see Section 4)	1
91404085	Dipstick, (see Section 4)	1

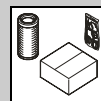


RECOMMENDED SPARE PARTS

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 JLG dealer or the JLG Industries Parts Department.

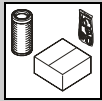
Part Number	Description	Qty./Machine
Drive Train		
91363025	FNR Shifter, (see Figure 7-3)	1
91414004	Rear Boot Seal, (see Figure 5-11)	2
91414005	Rear Hub Oil Seal, (see Figure 5-11)	1
	Meritor Axle, (S/N 0189001 thru 0189345)	
91144336	Shaft Seal, (see Figure 5-5)	2
	Carraro Axle, (S/N 0160000230 & After)	
91364036	Bushing, (see Figure 5-10)	2
91364035	Sealing Ring, (see Figure 5-10)	2
91364079	Hub Seal, (see Figure 5-8)	2
91364080	Hub Bearing, (see Figure 5-8)	4
91474115	Hub O-Ring, (see Figure 5-8)	1
Hydraulic System		
91403490	Boom Joystick, (see Figure 7-6)	1
91404010	Boom Joystick Handle Grip, (see Figure 7-6)	1
91404140	Lift Cyl Seal Kit, (S/N 0189001 thru 0160010472), (see Figure 9-1)	1
91414069	Lift Cyl Seal Kit, (S/N 0160010506 thru 0160033603), (see Figure 9-1)	1
70021758	Lift Cyl Seal Kit, (S/N 0160033805 & After), (see Figure 9-1)	1
70020432	Crowd Cyl Seal Kit, (S/N 0189001 thru 0189345 & 0160000230 thru 0160033603), (see Figure 9-2)	1
70021775	Crowd Cyl Seal Kit, (S/N 0160033805 & After), (see Figure 9-2)	1
91404157	Tilt Cyl Seal Kit, (S/N 0189001 thru 0189345 & 0160000230 thru 0160033603), (see Figure 9-3)	1
70021764	Tilt Cyl Seal Kit, (S/N 0160033805 & After), (see Figure 9-3)	1
91404206	Comp Cyl Seal Kit, (S/N 0189001 thru 0189345 & 0160000230 thru 0160007625), (S/N 0160007751 thru 0160017477), (see Figure 9-4)	1
7029821	Comp Cyl Seal Kit, (S/N 0160017516 & After), (see Figure 9-4)	1
91404172	Sway Cyl Seal Kit, (S/N 0189001 thru 0189345 & 0160000230 thru 0160033603), (see Figure 9-5)	1
70021633	Sway Cyl Seal Kit, (S/N 0160033805 & After), (see Figure 9-5)	1
91404196	Steering Cyl Seal Kit, (S/N 0189001 thru 0189345 & 0160000230 thru 0160033603), (see Figure 9-6)	1
70021751	Steering Cyl Seal Kit, (S/N 0160033805 & After), (see Figure 9-6)	1
91403575	Tank Filter, (see Figure 9-12)	1
91083301	Tank Filter, (see Figure 9-12)	1
1340021	Breather, (see Figure 9-12)	1
91083070	Fluid Level Gauge, (see Figure 9-12)	1
1001093626	Hydraulic Filter Element, (see Figure 9-13)	2
91404084	Color Coded Gauge, (see Figure 9-13)	1
Electrical		
91403307	Accelerator Cable, (S/N 0189001 thru 0189345 & 0160000230 thru 0160001370), (see Figure 7-2)	1
91413121	Accelerator Cable, (S/N 0160001379 thru 0160038344), (S/N 0160038555 & After), (see Figure 7-2)	1
91143314	Water Temp. Sender, (see Figure 4-1)	1
24741047	Oil Press Switch, (see Figure 4-1)	1

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 JLG dealer or the JLG Industries Parts Department.

Part Number	Description	Qty./Machine
91143315	Oil Press Sender, (see Figure 4-1)	1
91403609	Fuel Level Sender, (see Figure 4-4)	1
77383377	Starter relay, (see Figure 4-2)	1
91033317	Ignition Switch, (see Figure 6-7)	1
1001108293	Alternator, (see Figure 4-2)	1
1001108291	Regulator, (see Figure 4-2)	1
91415083	Starter Kit, (Before S/N 0160006706 excluding 0160006494 & 0160006543) , (see Figure 12-32)	1
7026921	Starter, (S/N 0160006786 & After including 0160006494 & 0160006543) , (see Figure 4-3)	1
91404274	Starter Solenoid, (S/N 0189001 thru 0189345) , (see Figure 4-1)	1
91414040	Starter Solenoid, (S/N 0189346 thru 0160001775) , (see Section 4)	1
91403574	Back-up Alarm, (Before S/N 0160016458) , (see Figure 1-1)	1
8270621	Back-up Alarm, (S/N 0160016458 & After) , (see Figure 1-1)	1
91143357	Horn, (see Figure 1-1)	1
	Misc.	
77384578	Ignition Key	1
80964051	Cab Door Key	1
91404275	Engine Cover Key	1
80904003	Hydraulic Test Kit	1
24604083	ORS O-Ring Kit	1
90214009	O-Ring Kit	1
91404003	Owner/Operator Manual, (S/N 0189001 thru 0189345 & 0160000230 thru 0160004017)	1
31200148	Operation & Safety Manual, (S/N 0160004018 & After)	1
91404002	Service Manual	1
91404001	Parts Manual	1



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 JLG dealer or the JLG Industries Parts Department.

Part Number	Description	Qty./Machine

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
0080272	4-41	0682012	3-37	1001094264	12-131	1001101085	6-15
0100011	2-17, 3-11, 4-51, 12-31, 12-123, 12-133, 12-135	0682048	2-3	1001094330	3-55	1001101115	3-29
0100019	1-6	0682244	2-21	1001094390	12-131	1001101116	3-29
0100075	2-17	0700610	1-6	1001094391	12-131	1001101280	9-11
0100093	4-41	0721006	12-117, 12-120, 12-133, 12-135	1001094392	12-131	1001101617	8-27
0240156	3-55	0741610	3-11	1001094393	12-131	1001101703	9-7, 9-9, 9-11
0274674	2-17	0761012	12-109	1001094523	12-131	1001101743	12-80
0274799	2-17	0761212	12-109	1001094592	11-9	1001101788	12-69
0275798	2-17	0791506	4-24	1001094695	3-57	1001101956	3-11
0471140	6-17	0860520	3-39	1001094824	12-131	1001102378	3-11
05101441	3-9	0903293	8-25, 8-27	1001094830	3-55	1001102560	7-9
0630407	6-17	0903661	12-116, 12-119	1001095342	12-116, 12-119	1001102577	2-13
0641405	3-40	0903669	12-116, 12-119, 12-133, 12-135	1001095418	3-25	1001102657	4-41
0641406	1-4	0930020	3-53	1001095810	3-39	1001102661	12-71, 12-73
0641407	12-116, 12-119, 12-133, 12-135	1001001332	8-27	1001096019	3-39	1001102662	8-27
0641408	12-80	1001001333	12-69	1001096020	3-39	1001102663	8-27
0641422	12-71, 12-73	1001001422	4-41	1001096021	3-39	1001102664	8-23
0641508	7-23	1001080707	4-41	1001096023	3-39	1001102813	3-40
0641510	12-109	1001081307	6-5	1001096024	3-39	1001103182	9-77
0641511	8-27, 12-69	1001081308	6-5	1001096025	3-39	1001103637	3-39
0641524	3-37	1001081310	6-5	1001096306	3-39	1001103730	3-39
0641606	2-13, 4-51	1001081311	6-5	1001096327	1-6	1001103736	3-39
0641607	2-5, 2-13, 8-27, 12-69, 12-80	1001090032	12-69	1001096344	1-6	1001105324	11-8
0641608 1-9, 12-113, 12-116, 12-119		1001090063	3-11	1001096404	11-13	1001105441	2-21
0641612	3-11	1001090064	3-11	1001096728	1-6	1001105827	12-71
0641632	2-7	1001090134	9-75	1001097072	3-39	1001105828	12-73
0641807	2-9	1001090140	3-11	1001097095	12-123	1001106005	11-8
0641808	2-5, 2-17, 2-21, 12-71, 12-80	1001090364	8-27	1001097149	1-6	1001106037	11-8
0641810	2-3	1001090459	12-131	1001097168	3-40	1001106062	11-8
0641814	12-116, 12-119	1001090460	12-116, 12-119	1001098035	12-133	1001106087	11-8
0641818	12-131	1001090461	12-116, 12-119, 12-133, 12-135	1001098174	2-21	1001106112	11-8
0641822	12-131	1001090468	12-116	1001098176	2-21	1001106137	11-8
0641829	2-7	1001090469	12-131	1001098218	2-21	1001106191	11-8
0642012	2-3	1001090507	10-15	1001098223	9-19	1001106226	11-8
0642032	3-5, 3-11	1001090509	10-19	1001098233	2-21	1001106296	11-8
0642210	12-116, 12-119	1001090510	12-131	1001098362	8-23	1001106734	11-11, 11-13
0651605	2-10, 2-15	1001090522	12-116, 12-119	1001098363	8-23	1001108291 4-15, 4-19, 4-23, 12-19	
0651606	2-5, 2-9, 2-10, 2-15	1001090580	12-116, 12-119	1001098382	2-21	1001108293 4-15, 4-19, 4-23, 12-19	
0651607	2-5, 2-9, 2-15	1001090581	12-116, 12-119	1001098582	3-40	1001108668	3-60
0651608	2-5, 2-9	1001090582	12-116, 12-119	1001098769	11-13	1001108669	3-64
0651610	2-5	1001090588	12-116, 12-120, 12-133, 12-135	1001099113	3-11	1001109217	12-87
0651614	2-9, 2-13	1001091157	12-71	1001099115	3-11	10011092259-3, 9-5, 9-7, 9-9, 9-11, 9-13, 9-15, 9-17, 9-19	
0651805	2-9	1001091458	1-4	1001099173	1-9	1001110405	11-8
0651806	2-9	1001092280	3-39	1001099174	12-57, 12-60	1001110704	3-25
0651807	2-9	1001092391	3-47	1001099276	12-116, 12-119	1001111112	6-8, 12-36
0651808	2-9	1001092481	3-39	1001099319	12-57, 12-60	1001111190 3-25, 3-60, 3-64	
0651810	2-5, 2-9, 2-15	1001092482	3-39	1001099351	3-19	1001112207	8-27, 12-69
0651812	2-5, 2-9, 2-15	1001092843	7-23, 12-61	1001099812	12-80	1001112752	11-8
0681610	2-13	1001093140	3-39	1001099889	12-69	1001113251	4-39, 4-41
0681810	3-11, 9-5, 9-7, 9-9, 9-11, 9-19, 9-23, 9-25	1001093171	3-40, 3-51	1001099901	3-15	10011142826-8, 12-37, 12-39	
0681814	12-123	1001093273	3-55	1001099902	3-15	1001114486	12-119
		1001093377	3-29, 3-55	1001100092	12-69	1001114493	12-135
		1001093388	4-41	1001100227	3-29	1001114675	1-6
		1001093465	3-55	1001100228	3-29	1001114795	12-125
		1001093626	4-12, 9-53	1001100229	3-29	1001115014	3-31
		1001093641	4-41	1001100322	6-17, 12-39		
				1001100822	3-7		
				1001100823	3-7		
				1001100824	3-7		



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
1001115153.....	1-6	1671313.....	4-41	7-13, 8-9, 8-15,		24921332....	4-47, 4-49, 4-51,
1001116274.....	1-6	1701509.....	3-37, 3-40	8-19, 12-8,		4-55, 12-29,	
1001116727.....	10-11	1702773.....	3-37, 3-39	12-12		12-31, 12-33	
1001116733.....	10-19	1704277.....	3-37, 3-40	2220474.....	8-25, 8-27	2600216.....	3-37
1001117018.....	10-19	1704885.....	3-39, 11-8	2220490.....	3-45	2600281.....	3-39
1001117021.....	10-9	1706101.....	11-13	2220497.....	4-12, 4-15, 4-19,	2716143.....	3-65
1001117058.....	10-19	1706170.....	11-13	12-16, 12-20		2717287.....	3-25
1001117079.....	10-19	1706184.....	11-13	2220499.....	3-17	2720058.....	4-24
1001117654.....	2-5, 2-9	1706191.....	11-8	2220500.....	12-51	2750532.....	4-24, 12-109
1001117655.....	2-9, 2-15	1706892.....	3-37, 3-39	2220574.....	8-11	2753902.....	3-31
1001118384.....	10-13, 10-19	1706893.....	3-37	2220578.....	9-51	2754603.....	12-67
1001120914.....	3-11	20021648.....	9-11	2220596.....	3-17, 3-31, 8-17,	2820035.....	12-117, 12-120
1001120915.....	3-11	2080040.....	3-40	8-25, 8-27,		2890228.....	3-11
1001125382.....	10-11	2080044.....	3-39	12-51		2900708.....	12-137
1001125384.....	10-13	2080063.....	3-37	2220603.....	12-57, 12-60	2900770.....	9-75
1001125385.....	10-17	2080064.....	3-37	2220606.....	3-21, 3-33, 4-4, 4-8,	2902446.....	4-41
1001128273.....	2-3	2110606.....	3-11	4-12, 8-15, 8-17,		2915023.....	9-77
1001132514.....	3-5	2110608.....	3-11	8-19, 12-8,		2915166.....	12-111
10268516.....	4-51, 12-31	2110808.....	3-11	12-12		2915167.....	12-113
1060379.....	3-40	2111010.....	8-23	2220609.....	3-25	2915179.....	4-12
10718991.....	12-131	2111612.....	8-3	2220612.....	8-11	2915184.....	1-6
10718992.....	12-131	2130610.....	8-27	2220628.....	3-25, 4-11	2940074.....	3-37, 3-39
10733141.....	12-29	2131216.....	4-23	2220635.....	4-4, 4-8, 4-12, 4-16,	31200160.....	3-37, 3-39
10733183.....	4-47, 4-49, 12-29	2131616.....	9-63	4-20, 12-8,		31200336.....	3-39
1101312.....	4-12, 4-51, 12-12,	2160001.....	2-7	12-12, 12-20		31200387.....	3-39
12-31		2171106.....	8-27	2220654.....	4-12	31200388.....	3-39
1101313.....	4-12, 4-51, 12-12,	2171206.....	8-27, 12-69	2220657.....	3-22, 3-34, 12-57,	3128987.....	12-111
12-31		2172106.....	3-11	12-61		3128992.....	12-113
1120591.....	4-41	2200233.....	12-109	2220664.....	4-45	3140007.....	1-6
1170019.....	3-5	2220362.....	8-5	22206713-31, 4-23, 7-13, 9-63		3251813.....	11-8
1170021.....	3-5	2220371.....	3-21, 3-33, 4-11,	2220683.....	8-17	3291201.....	4-24
1170022.....	3-5	4-15, 4-16, 4-19,		2220690.....	9-51	3300240.....	3-5, 3-11
1170024.....	3-5	4-20, 5-3, 8-17,		2220726.....	3-17, 3-31	3311001.....	3-37, 12-117,
1170025.....	3-5	8-19, 12-15,		2220733.....	9-51	12-120, 12-131,	
1170054.....	3-11	12-16, 12-19,		2220765.....	9-51	12-133, 12-135	
1170057.....	3-11	12-20, 12-57,		2220819.....	7-13	3311401.....	12-116, 12-119,
1320022.....	12-109	12-60		2220828.....	8-25	12-133, 12-135	
1320263.....	12-119	22203723-9, 3-21, 3-33, 3-44,		2220865.....	8-11	3311405.....	3-40
1340021.....	4-12, 9-51	8-29		2220899.....	3-45, 7-13, 12-57,	3311501.....	3-37, 12-109
1360291.....	2-7	2220373.....	3-17, 3-21, 3-34,	12-60		3311505.....	12-111, 12-113
1360298.....	2-17	3-44, 7-11, 8-5,		2220906.....	8-9	3311801.....	12-116, 12-119
14403303.....	1-10	12-51		2220947.....	8-21, 8-23	3311805.....	12-131
14403323.....	2-17, 8-12, 9-15,	2220374.....	3-17, 7-13, 8-25,	2220973.....	8-21, 8-23	3421453.....	3-40
9-19		8-27, 12-73		2221040.....	8-29	3423242.....	3-5, 3-11
144033644-4, 4-8, 4-12, 4-16,		22203764-43, 4-45, 8-6, 12-27		2221114.....	12-109	3423263.....	3-9
4-20, 4-24		2220377.....	8-5	2221253.....	8-27, 12-69	3423275.....	3-5, 3-11
14403416.....	10-3	2220385.....	3-17, 3-31, 8-17,	2230024.....	3-44, 12-67	3423276.....	3-5, 3-11, 3-25
144040434-4, 4-8, 4-12, 4-16,		8-25, 8-27		2230043.....	8-25, 12-67	3423307.....	3-11
4-20, 4-24		2220415.....	3-25, 4-12, 4-15,	2340037.....	3-47	3440832.....	2-19
14404067.....	1-10	4-19, 12-15,		2340038.....	3-47	3510809.....	3-37
14404102.....	1-10	12-19		2340039.....	3-47	3520072.....	3-37, 3-39
14404173.....	12-45, 12-116,	2220435.....	8-15, 12-51	2340045.....	3-47	3520198.....	3-39
12-119, 12-133,		2220451.....	4-3, 4-7, 4-23, 12-7,	2340046.....	3-47	3539685.....	3-37
12-135		12-11		24431386.....	3-57, 4-16, 4-20,	3573363.....	3-37
14404595.....	8-12, 8-15	2220464.....	9-53	12-15, 12-19		3580347.....	2-7, 12-67, 12-69
14404645.....	1-4	2220465.....	8-17	247410474-4, 4-8, 4-11, 12-7,		3641438.....	3-37
14404646.....	1-4	2220466.....	7-11, 8-3, 8-9, 9-63	12-11		3760170.....	3-40
14404793.....	1-10, 1-13, 2-17	2220472.....	4-11	24861167.....	12-44	3780140.....	3-45
14404978.....	1-10, 4-41	22204733-25, 3-45, 4-8, 4-12,		24861170.....	4-23, 6-8	3780177.....	3-45

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
3790226	1-9	4711000	12-131	70021146	5-27, 5-29	70021766	9-15
3790230	1-9	4711400	1-4, 3-37, 3-40,	70021342	3-19, 3-53	70021767	9-15
3820020	3-39		12-73, 12-80,	70021349	3-19	70021768	9-15
3841203	3-11		12-116, 12-119,	70021358	3-53	70021769	9-15
3900140	4-41		12-133, 12-135	70021359	3-53	70021770	9-15
3911008	3-37	4711500	3-37, 12-73, 12-111,	70021360	3-53	70021771	9-15
3911428	3-37		12-113	70021361	3-53	70021772	9-15
3911528	3-37	4711600	1-10, 2-13, 8-27,	70021362	3-53	70021774	9-15
3941506	12-131		11-13, 12-69,	70021364	3-53	70021775	9-15
3960616	4-39		12-80	70021365	3-53	70021812	9-77
4105262	11-13	4711800	2-3, 2-9, 12-116,	70021366	3-53	70021908	9-75
4110422	3-15, 3-19		12-119	70021367	3-53	70021913	9-25
4160215	7-7	4712000	2-3	70021387	3-53	70021921	3-19
4400490	4-41	4712200	12-116, 12-119	70021391	3-53	70021935	3-19
4400496	4-41	4740003	2-21	70021392	3-53	70021957	9-11
4420060	1-6	4751000	3-37, 12-117,	70021393	9-73	70021958	9-11
4460035	12-44		12-120, 12-133,	70021395	3-53	70021977	3-19
4460419	10-19		12-135	70021399	3-53	70021978	3-19
4460457	10-17	4751400	3-39	70021415	3-19	70021979	3-19
4460458	10-17	4751600	4-51, 12-80, 12-113	70021440	9-73	70021981	3-53
4460459	10-9	4751800	1-6, 2-7, 12-131	70021444	9-73	70022028	3-19
4460464	12-116, 12-119	4761000	3-37, 12-117,	70021446	9-73	70022038	9-75
4460465	10-13		12-120, 12-131,	70021447	9-73	70022039	9-75
4460466	10-13, 10-15		12-133, 12-135	70021448	9-73	70022040	9-75
4460475	10-19	4761400	12-116, 12-119,	70021451	9-73	70022041	9-75
4460508	12-133, 12-135		12-133, 12-135	70021452	9-73	70022042	9-75
4460746	10-9	4761500	1-4, 7-23, 12-109	70021464	9-73	70022043	9-75
4460789	10-9, 10-11, 10-17	4761600	1-9, 2-7, 2-13, 4-51,	70021465	9-73	70022044	9-77
4460850	10-11		8-25, 8-27,	70021466	9-73	70022045	9-77
4460851	10-19		12-113	70021630	9-11, 9-19, 9-29,	70022046	9-77
4460891	10-11, 10-13	4761800	1-6, 2-7, 2-17, 8-9,		9-33	70022051	9-57
4460897	12-116, 12-119		12-71, 12-116,	70021633	9-29	70022527	3-53
4460930	10-15		12-119	70021634	9-29	70022729	9-39, 9-41, 9-43
4460931	10-13	4762000	3-37	70021635	9-29	70022804	12-37
4460934	10-19	4832000	12-109	70021648	9-19	70022931	3-60, 3-64
4460942	10-11, 10-13	4832100	12-109	70021742	9-29	70022932	3-60, 3-64
4461017	12-119, 12-133,	4846265	3-37	70021743	9-29	70022933	3-64
	12-135	4846452	3-39	70021744	9-29	70022934	3-60, 3-65
4461157	10-19	4846528	3-37	70021745	9-33	70022935	3-61, 3-65
4461254	12-131	4891800	3-11, 9-5, 9-7, 9-9,	70021746	9-33	70022936	3-61, 3-65
4520368	5-33		9-11, 9-19, 9-23,	70021747	9-33	70022937	3-61, 3-65
4520369	5-33		9-25	70021748	9-33	70022938	3-65
4520370	5-33	4923400	10-9	70021749	9-33	70022939	3-61, 3-65
4520371	5-33	4923452	4-41	70021750	9-33	70022940	3-65
4520374	5-33	5251016	4-24	70021751	9-33	70022941	3-65
4520375	5-33	6604662	3-25	70021752	9-11	70022942	3-61, 3-65
4520481	5-33	7000297	5-27, 5-29	70021753	9-11	70022943	3-65
4520482	5-33	7000645	12-137	70021754	9-11	70022944	3-65
4520485	5-33	70020227	12-98	70021755	9-11	70022945	3-65
4520486	5-33	70020428	9-77	70021756	9-11	70022946	3-61, 3-65
4520489	5-33	70020429	9-31	70021757	9-11	70022947	3-65
4520490	5-33	70020432	9-13	70021758	9-11	70022948	3-65
4520645	5-34	70020494	9-13	70021759	9-19	70022949	3-61, 3-65, 3-66
4520646	5-34	70020495	9-13	70021760	9-19	70022950	3-61, 3-65
4520647	5-34	70020555	3-51	70021761	9-19	70022951	3-65
4569358	12-67	70020562	3-53	70021762	9-19	70022952	3-61
4569359	8-25	70020717	9-36, 12-84, 12-88	70021763	9-19	70022957	3-60, 3-64
4640438	9-75	70020923	7-11	70021764	9-19	70022958	3-66
4660508	12-119	70021141	5-27, 5-29	70021765	9-19	70022959	3-66



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
70022960	3-60, 3-64	70023747	12-125	70024392	4-27, 12-23	7029874	9-25
70022961	3-66	70023748	12-125	7003226	9-15, 9-19, 9-29	7029893	9-49
70022962	3-65	70023749	12-125	70032429-11, 9-19, 9-29, 9-33		7062922	3-25
70022963	3-66	70023750	12-125	7005365	9-15	7075611	11-13
70022964	3-66	70023751	12-125	7012910	12-137	7110702	3-25
70022965	3-65	70023752	12-125	7017047	5-27, 5-29	7110712	3-25
70022966	3-65	70023753	12-125	7017094	5-27, 5-29	7110722	3-25
70022967	3-65	70023754	12-125	7017367	9-33	7112642	3-29
70022968	3-66	70023755	12-125	7017406	12-137	7114941	3-29
70022969	3-60, 3-64	70023756	12-125	7017477	12-137	71492134	12-107
70022970	3-60, 3-64	70023757	12-125	7017478	12-137	71492142	3-22, 3-34
70022971	3-65	70023758	12-125	7017494	12-137	71492150	6-8, 12-37
70022972	3-65	70023759	12-125	7017496	12-137	71492152 ...	6-8, 12-37, 12-39
70022973	3-65	70023760	12-125	7023483	1-5	771330523-44, 8-9, 8-11, 9-51	
70022974	3-65	70023761	12-125	7023500	9-29	77133053	3-45, 8-11, 9-51
70022975	3-65	70023762	12-125	7024167	5-27, 5-29	77133073	8-9
70022976	3-65	70023763	12-125	7024177	5-27, 5-29	77133089	4-12, 4-15, 4-19, 12-16, 12-20
70022977	3-65	70023764	12-125	7024574	9-77	77133136	3-44, 8-12, 8-15, 12-71, 12-73
70022978	3-65	70023765	12-125	7026439	10-13	771331373-44, 6-8, 8-5, 8-12, 8-15, 8-17, 12-37, 12-39, 12-71, 12-73	
70022979	3-65	70023766	12-125	7026458	9-9	77133139	8-5, 8-9
70022980	3-61, 3-65	70023767	12-125	7026477	7-11	771331408-5, 8-9, 8-15, 8-25, 8-27, 8-29, 12-67, 12-69	
70022981	3-66	70023768	12-125	7026478	7-11	77133168	8-9, 8-15, 8-25, 8-27, 8-29, 12-67, 12-69
70022982	3-65	70023769	12-125	7026798	6-15	771331778-5, 8-9, 8-15, 8-25, 8-29, 12-67	
70022983	3-66	70023770	12-125	7026799	6-15	771332013-45, 4-3, 4-7, 4-24, 12-7, 12-11	
70022984	3-60, 3-64	70023771	12-125	7026900	6-15	77133209 .	3-44, 12-76, 12-80
70022985	3-60, 3-64	70023772	12-125	7026901	6-15	77133279	6-8, 8-5, 8-12, 12-37, 12-39
70022986	3-66	70023773	12-125	7026902	6-15	77133389	8-9, 8-15, 8-29
70022987	3-60, 3-64	70023774	12-125	7026904	6-15	77133390	8-9, 8-15, 8-29
70022988	3-65	70023775	12-125	7026905	6-15	77133447	12-57, 12-60
70022989	3-66	70023776	12-125	7026906	6-15	77133497	6-17, 8-11, 8-12, 8-15, 8-21, 8-23, 12-76, 12-80
70022990	3-61, 3-65	70023777	12-125	7026909	10-17	77133498	6-17, 8-11, 8-12, 8-15, 8-21, 8-23, 8-25, 8-27, 12-71, 12-73, 12-76, 12-80
70022991	3-65	70023778	12-125	7026918	4-31, 4-35	77133499	8-12, 8-15
70022992	3-60, 3-64	70023779	12-125	7026919	4-31, 4-35	77133810	3-44
70022993	3-60, 3-64	70023780	12-125	7026920	4-31, 4-35	77134026	9-45
70022994	3-60, 3-64	70023781	12-125	7026921 ...	4-23, 4-35, 12-107	77134044	9-45
70022995	3-60, 3-64	70023782	12-125	7026923	4-31, 4-35	77143003	4-23, 4-43, 4-45, 12-27
70022997	3-65	70023783	12-125	7026927	4-27, 4-31, 4-35, 12-23	77143006	1-4, 3-45, 4-23, 4-43, 4-45, 4-49, 4-51, 10-3, 12-27, 12-31,
70022998	3-61, 3-65	70023784	12-125	7026991	12-57, 12-60		
70022999	3-65	70023785	12-125	7027772	1-6		
70023000	3-65, 3-66	70023786	12-125	7028492	5-20		
70023001	3-65	70023787	12-125	7028820	9-47		
70023002	3-65	70023788	12-125	7029520	3-51		
70023003	3-60, 3-64	70023789	12-125	7029521	3-51		
70023004	3-60, 3-64	70023826	12-24	7029692	3-19, 3-53		
70023005	3-61, 3-66	70023836	7-9	7029714	3-53		
70023006	3-61, 3-66	70023837	7-9	7029760	9-25, 9-75		
70023007	3-61, 3-66	70023838	7-9	7029771	10-19		
70023008	3-60, 3-64	70023841	7-9	7029821	9-25		
70023009	3-60, 3-64	70023842	7-9	7029833	9-53		
70023010	3-60, 3-64	70023843	7-9	7029860	6-5		
70023011	3-66	70023846	7-9	7029862	12-88		
70023013	3-66	70023849	7-9	7029866	9-25		
70023014	3-60, 3-64	70023850	7-9	7029868	9-25		
70023015	3-61, 3-66	70023851	7-9	7029869	9-25		
70023016	3-60, 3-64, 3-65	70023852	7-9	7029870	9-25		
70023139	6-15, 12-41	70023853	7-9	7029871	9-25		
70023156	12-47	70023854	7-9	7029872	9-25		
70023425	4-27, 4-31, 4-35	70023925	3-61, 3-66	7029873	9-25		
70023426	12-24	70024348	12-137				

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
	12-44, 12-51	80363028 ... 6-8, 12-36, 12-39		80961142	12-44	8305647	11-13
77143013	3-45	80363033	12-60, 12-63,	80963050	12-44, 12-116,	8307007	3-29
77143015	3-9, 10-3		12-65, 12-71		12-119	8307024	1-6
77143017	6-9, 12-36	80363034 6-17, 12-37, 12-39,		80963056	12-44	8307112	3-29
77163105	12-57, 12-61		12-60, 12-63,	80963057 ...	6-19, 6-21, 10-5,	8307113	11-13
77321274 1-5, 4-4, 4-8, 4-12,			12-65		10-7, 10-9	83073828	5-7
	12-8, 12-12	80363069 ... 6-8, 12-36, 12-39		80963058 .	6-8, 12-36, 12-44,	8307904	3-25, 9-19
77323029	8-17	80363106	6-9, 12-36		12-55	8307916	2-21
77333027	11-4	80364001	6-11	80963059	10-5, 10-7	8307917	2-21
77363046	5-15	80364009	6-3, 6-11, 6-13	80963060 ...	6-19, 6-21, 10-5,	8307918	3-25, 9-19
77363265	6-8, 6-19, 6-21,	80364012	6-13		10-7, 10-9,	8310067	2-21
	12-36, 12-39,	80364023	6-5		12-44	8310093	9-19
	12-44, 12-55,	80364030	6-13	80963061	10-17	8310160	3-25
	12-57, 12-60,	80364088	6-11	8096306210-11, 10-17, 12-51		8310161	3-25
	12-76, 12-80,	80364095	7-19, 12-91	80963065 .	6-8, 12-36, 12-51,	8310308	2-19
	12-116, 12-119,	803730254-3, 4-7, 4-24, 12-8,			12-55	8310382	3-37
	12-131, 12-135		12-11	80963066	12-44	83191006	4-11, 4-15, 4-19,
77363267	6-8, 6-19, 6-21,	80373046 ... 6-8, 12-36, 12-39		80963068 ...	10-5, 10-7, 10-9,		12-15, 12-19
	12-36, 12-39,	80373088	12-49		12-44	831910104-3, 4-7, 4-11, 4-23,	
	12-57, 12-60,	80373094	4-51, 12-31	80963069	6-8, 10-5, 10-7,		12-7, 12-11
	12-76, 12-80	80374020	4-31, 4-35		10-9, 12-36,	831910134-3, 4-7, 4-11, 4-15,	
77363268	6-8, 6-19, 6-21,	80374031	4-31, 4-35		12-44, 12-51,		4-19, 4-23, 12-7,
	12-36, 12-39,	80374036	4-31, 4-35		12-55		12-11, 12-15,
	12-44, 12-55,	80374037	4-31, 4-35	80963070	10-17		12-19
	12-57, 12-60,	80374050	4-31, 4-35	80963101	6-8, 12-36	831910144-4, 4-7, 4-11, 12-7,	
	12-119, 12-131,	80374054	4-31, 4-35	80964001 ..	6-8, 12-36, 12-39		12-11
	12-135	80375012	12-49	80964002	12-57, 12-60	83191021	4-11
77363302	12-44, 12-119	80384162	1-5	80964009	12-116	83191027	4-3, 12-8
77383154	4-51, 12-31	80384164	1-5	80964070	12-116, 12-119	831910324-3, 4-7, 4-11, 4-23,	
77383293	12-44	80384184	6-11	8096D097	12-55, 12-116,		12-7, 12-11
77383377	4-15, 4-19, 4-23,	80384186	6-11		12-119, 12-133,	831910384-3, 4-7, 4-11, 12-7,	
	12-15, 12-19	80384187	6-11		12-135		12-11
77383540 ...	6-8, 12-36, 12-39	80384189	6-11	80973025 1-5, 2-3, 6-17, 10-3		831910404-3, 4-7, 4-23, 12-7,	
77383567	10-3	80384191	6-11	80983168	12-131		12-11
77383580	5-3	80384192	6-11	8160419	7-21	831910414-4, 4-8, 4-11, 12-7,	
77383790	4-51, 12-31	80384203	6-5	82033995 ..	6-8, 12-36, 12-39		12-11
77384578	6-19, 6-21	80384205	6-11	82033996	12-44	831910434-4, 4-8, 4-11, 4-23,	
802332204-4, 4-7, 4-11, 12-8,		80384207	6-5	8205655	9-77		12-7, 12-11
	12-12	80384213	6-5	820921184-3, 4-7, 4-15, 4-19,		83191059	7-11
80263012	3-39	80384215	6-5		12-7, 12-11,	831910624-4, 4-7, 4-23, 12-8,	
80263053	1-4	80384218	6-11		12-15, 12-19		12-12
80263108 .	7-5, 7-7, 7-9, 7-13	8050001	1-10	8220050	12-131	83201006	1-10
80264031	6-3	80603022	11-4, 11-8	8220081	10-19	83201021	1-9
80264066	6-11	80603026	11-4, 11-8	8220089	10-17	83201024	3-21, 3-33, 3-45
80264138	7-19, 12-91	80603037	11-11, 11-13	8220890	10-9	83201026	3-21, 3-33, 3-45
80264139	12-91	80604016	10-19	8223073	12-131	83201036	1-15
80273010	4-8, 4-49, 12-8,	80604018	10-11, 10-13	8229262	12-131	83201058	1-6
	12-29	80604023	10-17	8270621	1-4	83201062	3-31
80273011	4-49, 12-29	8060402510-13, 10-15, 10-19		8273029	4-51, 12-31	83201073	12-51
80273042	4-8, 4-49, 12-8,	80623016	8-11	8273257	4-51, 12-31	83201095	3-31
	12-29	80630	12-131	8303626	3-29	83201102	3-31
80274004	4-49, 12-29	80633013	4-23	8303634	3-25	83201115	8-11
80333162	5-15	80634066	8-3	8303715	3-25	83201120	8-9
8033786	9-77	8065062	3-25	8303799	1-6	832011354-3, 4-7, 4-12, 4-15,	
8035180	5-19	80683073 ... 6-8, 12-36, 12-39		8305012	3-29		4-19, 4-24, 8-3,
8035536	9-77	80933066	8-11	8305624	1-4		12-7, 12-11,
8035831	3-66	80934035	9-71	8305643	3-25		12-15, 12-19
8035862	9-77	80934498	7-19, 12-91	8305644	3-29	83201144	1-9
8035863	9-77	80934671	9-57	8305645	11-13	83201155	8-9



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
83201160	9-51	84719217	5-3, 5-15	8-3, 12-15,		8780031	5-31, 5-34
83201172	1-13	84719218	5-3, 5-15	12-19		8780045	5-34
83201183	1-4	84719223	3-9	84719594	8-5	8780264	5-34
83291198	4-43, 12-27	84719225	8-25, 8-27	84719595	8-5	8786514	5-34
83304146	9-33	84719226	8-21	84719596	12-51	88201001	12-47
8340035	1-5	84719227	8-23	84719610	9-51	88201002	6-17
8342813	4-41	84719228	8-25	84719732	3-17	88201003	4-16, 4-20
83481285 10-5, 10-7, 10-9		84719229	3-44, 3-57	84719734	8-9	88201005 .. 1-5, 6-8, 6-17, 7-3,	
83481286 10-5, 10-7, 10-9		84719236	3-31	84719735	8-9	7-5, 7-7, 8-19,	
83483584	5-7	84719280	8-25, 8-29	84719760	3-22, 3-34	12-36, 12-55,	
83664354	12-119	84719281	8-25	84719765	3-44	12-65, 12-76	
83671037	9-45	84719282	8-25, 8-29	84719766	3-44	882010076-17, 8-9, 8-11, 9-51	
83671475 ... 4-47, 4-49, 12-29		84719341	8-9	84719767	3-44	88201008	3-9, 3-21, 3-33,
83674096	9-45	84719351	8-11	84721020	8-9	3-44, 8-5, 8-17,	
83681905	12-107	84719352	8-11	84721021	8-9	8-29, 12-7,	
83683175	4-53	84719353	8-11	84721052	8-11	12-11	
83683182 ... 6-8, 12-36, 12-39		84719354	8-11	84721053	8-11	882010094-3, 4-7, 4-12, 7-23,	
83683254 10-5, 10-7, 10-9		84719357	8-5	85051384	12-51	12-57, 12-61,	
83683308 ... 4-43, 4-45, 12-27		84719358	12-67	85071128 ... 4-43, 4-45, 12-27		12-63, 12-71	
83763056 ... 4-12, 4-15, 4-19,		84719359	12-67	8522012	2-7, 2-17	88201010	12-61
12-16, 12-20		84719371	8-19	85401340	1-9	88201011 ... 6-8, 12-37, 12-39	
837830304-4, 4-8, 4-11, 4-23,		84719372	8-19	8580315	3-25	88201012 ... 8-21, 8-23, 8-25,	
12-7, 12-11		84719373	8-19	8584001	3-25	8-27	
8406105	12-116, 12-119	84719374	8-19	8584003	12-80	88201016	1-5
8420053	3-11, 3-25	84719375	8-19	85941016 12-116, 12-119		88201017 ... 4-43, 4-45, 12-27	
8420055	3-11, 3-25	84719376	8-19	85941017 .. 4-15, 4-19, 12-15,		882010184-49, 6-17, 7-5, 7-7,	
8420231	4-41	84719407 .. 4-3, 4-7, 4-23, 8-5,		12-19		7-13, 8-12,	
84231107 ... 6-8, 12-36, 12-39		12-7, 12-11		85941018	12-36	12-60, 12-65	
8430007	4-41	847194084-3, 4-7, 4-24, 12-7,		8642207	3-25	882010204-47, 6-17, 7-5, 7-7,	
84521056 ... 4-43, 4-45, 12-27		12-11		86521144	3-45	8-5, 9-53, 12-29,	
84521062	3-9	84719418	8-11	86621230 12-51, 12-131		12-60, 12-65	
8466306	1-6	84719420	8-11	86661147	12-44	88201021 ... 4-51, 6-17, 7-13,	
84711342	8-3	84719422	8-15	86661149	12-44	12-31	
84712737	8-11	84719423	8-5	86661152	12-44	88201023	3-31, 3-44, 6-8,
847127384-3, 4-7, 4-12, 4-15,		84719424	8-17	86671187 ... 6-8, 12-36, 12-39		6-17, 8-5, 8-12,	
4-19, 4-24, 8-3,		84719427	8-15	86681572	1-6, 1-10	8-15, 8-17,	
12-7, 12-11,		84719428	8-15	86683122 3-22, 3-34, 6-8,		12-37, 12-39,	
12-15, 12-19		84719433	8-25, 8-27	7-11, 8-25, 8-27,		12-71, 12-73	
84712739	8-9	84719436	8-15	12-39, 12-44		88201024	3-17, 12-101
84717537	12-57, 12-60	84719437	8-15	86683193	6-8, 12-39	88201025	3-45
84717556	12-51	84719438	8-25	86683480	1-6	88201026	8-12
84717593	3-17	84719468 .. 4-3, 4-7, 4-23, 8-3,		86881421	5-11	88201028 .. 8-21, 9-36, 12-84,	
84717854	8-17	12-7, 12-11		868831064-3, 4-7, 4-15, 4-19,		12-88	
84718013	8-5	84719469	8-3	4-24, 4-39, 12-8,		88201029 3-21, 3-33, 3-44	
84718208	3-22, 3-34	84719471	8-5	12-11, 12-15,		88201030	9-63
84718515	12-57, 12-60	84719483	8-5	12-19		88201033 ... 4-49, 7-11, 12-31	
84718545	8-25	84719484	8-5	86883327 ... 4-43, 4-45, 12-27		88201034 .. 7-13, 8-25, 12-67,	
84718631	12-51	84719497	8-11	86971172	12-36	12-73, 12-76	
84718737	3-44	84719498	8-11	86983193	12-57, 12-61	88201035	1-4, 4-39, 4-41,
84719060	3-44	84719499	3-44	86984451	5-13	7-11, 8-11	
84719163 ... 4-11, 4-15, 4-19,		84719541	8-15	86984452	5-13	88201036	1-4, 4-39, 4-41,
12-15, 12-19		84719542	7-13, 8-5	87602683-9, 3-21, 3-33, 3-44,		4-43, 4-45,	
84719167	3-21, 3-33	84719543	8-5	4-11, 12-57,		12-27	
84719168	8-25, 12-67	84719544	8-17	12-60		88201037	3-57
84719170	8-11	84719545	8-5	8760454	8-15	88201038	4-53
84719185	3-44	84719546	8-17	8765204 3-22, 3-34, 3-45,		88201047	7-13
84719197	3-21, 3-33	84719591	8-17	8-27, 12-73		88201064	9-17
84719198	8-15	84719592	8-17	8769132	3-25	88201065	3-9, 4-11, 4-16,
84719205	12-71, 12-73	84719593 ... 4-15, 4-19, 4-23,		8770016	3-25	4-20, 7-3, 9-3,	

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
	9-5, 9-21, 12-15, 12-19, 12-51, 12-63	883201062.....	3-17	88551007	12-55		4-49, 9-63, 12-27, 12-31, 12-76
88201066	4-11, 4-15, 4-19, 9-7, 9-9, 12-15, 12-19, 12-51	88321015.....	12-57, 12-60	885510091-4, 3-9, 3-21, 3-33, 4-3, 4-7, 4-12, 4-16, 4-20, 6-8, 7-3, 7-13, 7-23, 8-17, 8-19, 8-29, 12-7, 12-11, 12-36, 12-39, 12-41, 12-44, 12-47, 12-55, 12-57, 12-60, 12-61, 12-63, 12-71	88561006	4-11, 4-16, 4-20, 12-16, 12-20	
88201067	2-19, 8-3	88321022.....	12-44			885610074-4, 4-7, 4-11, 8-23, 8-25, 8-27, 12-8, 12-12	
88201073	3-13, 3-17	88341022.....	3-37, 3-49			88561011	1-4
882011053-3, 3-9, 3-21, 3-27, 3-33, 4-4, 4-8, 4-12, 12-8, 12-12		88501004....	6-8, 7-23, 12-36, 12-39, 12-44, 12-55, 12-57, 12-60, 12-61, 12-63, 12-65, 12-71			88561105	2-19, 6-8
88201108	12-44	88501005....	3-17, 3-21, 3-33, 3-44, 9-53, 9-63			88561107	1-6, 7-3, 8-17
88201112	4-15, 4-19, 4-23, 12-15, 12-19	885010061-4, 1-9, 3-27, 3-34, 3-57, 4-43, 4-45, 4-53, 7-5, 7-7, 7-9, 8-25, 8-27, 9-51, 12-27, 12-51, 12-67, 12-69		88551010 ...	3-17, 3-21, 3-31, 3-34, 3-44, 4-11, 4-43, 4-45, 4-49, 4-51, 7-5, 7-7, 7-13, 9-53, 9-63, 12-27, 12-31, 12-60, 12-65	885611083-45, 4-4, 4-8, 4-11, 4-43, 4-45, 4-47, 4-51, 7-5, 7-7, 9-53, 11-11, 11-13, 12-7, 12-11, 12-27, 12-29, 12-31	
88201530	2-10	88501008	1-6, 3-13, 3-17			88561109.3-9, 7-5, 7-7, 8-25, 12-67	
88201532	1-6	88501010	3-17, 3-31	885510111-4, 1-9, 3-27, 3-34, 3-57, 4-11, 4-15, 4-19, 4-39, 4-41, 4-43, 4-45, 4-49, 4-53, 7-11, 7-13, 8-11, 9-51, 9-63, 12-15, 12-19, 12-27, 12-31, 12-51		88561111	9-3, 9-5, 9-17, 12-41, 12-51
88201533	2-10	88501012	1-5			88561115	12-44
88201534	1-4, 3-9	88501014	1-5			88581112	2-17
88201535	3-9	88501016	3-9			88581136	3-21, 3-33, 3-45
88201549	1-5	88501106	1-4			885811492-3, 9-13, 9-15, 9-19	
88201551	1-4, 12-41	88501110	1-9			88581325	1-9
88201563	2-9	885013044-3, 4-7, 4-12, 12-7, 12-11				88591019	1-9
88201616	5-3	88501305	7-13	88551012 1-5, 4-3, 4-7, 4-12, 4-15, 4-19, 4-23, 8-3, 12-7, 12-11, 12-15, 12-19		88591202	4-12, 4-15, 4-19, 5-15, 8-3, 8-9, 12-15, 12-19
88204912	1-6	88501307	1-5			885912043-21, 3-33, 4-4, 4-8, 4-11, 4-15, 4-16, 4-19, 4-20, 5-3, 7-13, 8-5, 8-9, 8-11, 8-15, 8-17, 8-19, 8-29, 12-8, 12-12, 12-15, 12-16, 12-19, 12-20, 12-57, 12-60	
88211030	6-9, 12-36	88501310	2-3			88591205	3-9, 3-17, 3-21, 3-31, 3-33, 4-11, 5-3, 8-5, 8-17, 8-25, 8-27, 8-29, 12-51
8821104712-57, 12-60, 12-73		88501322	2-17	88551013	3-9, 4-11, 4-16, 4-20, 7-3, 8-3, 8-9, 9-3, 9-5, 9-17, 9-21, 9-51, 12-16, 12-20, 12-51, 12-123		
88211068	1-9, 4-11, 4-15, 4-19, 12-15, 12-19	88501406	7-13				
88211073	7-5, 7-7, 7-9	88501408	7-13				
88211105	9-3, 9-21	88501410	2-3				
88212229	7-13	88501610	12-44				
88212272	1-9	88501612..	2-7, 12-55, 12-67, 12-69				
88212285	1-10	88521004	6-17	88551016	12-44		
88212321	1-9	88521005	6-17	88551111	12-63		
88221276	2-19	88521010.2-3, 4-4, 4-8, 4-12, 12-8, 12-12		88551151	7-13		
88241023 ...	2-7, 12-67, 12-69	88521012	2-19	88551154	1-10		
88241026	12-60, 12-65	88521016.....	1-13, 1-15, 3-9	88561002	1-5, 3-22, 3-34, 3-44, 4-3, 4-7, 4-12, 6-8, 6-17, 8-19, 12-7, 12-11, 12-36, 12-39, 12-41, 12-55		
88241053	3-27, 3-33	88521020	1-10			885912063-17, 3-31, 4-3, 4-7, 4-12, 4-23, 7-13, 8-3, 8-15, 8-21, 8-23, 8-25, 12-7, 12-11, 12-73	
88251019	7-5, 7-7	88521204	1-6			885912074-3, 4-7, 4-23, 4-43, 4-45, 8-9, 8-11, 9-51, 12-7, 12-11, 12-27	
88261010	12-131	88521205	4-47, 12-29			88591209.4-3, 4-7, 4-23, 8-5, 8-15, 8-17, 12-8, 12-12, 12-51	
88261011	7-17	88521206... 4-43, 4-45, 12-27		88561003	1-5, 4-15, 4-19, 4-39, 4-43, 4-45, 6-17, 7-5, 7-7, 7-13, 8-5, 9-36, 9-63, 12-15, 12-19, 12-27, 12-84, 12-88		
88261014	4-39	88521210	1-9			88591210	4-15, 4-19, 4-23,
88261015	1-4, 6-8, 7-13, 12-36, 12-39, 12-41	885212144-4, 4-8, 4-12, 12-8, 12-12					
88261017	7-15	88521304	7-5, 7-7				
88261024	4-39	88521305..	8-21, 9-36, 12-84, 12-88				
88261029	1-4, 9-63	88521306	1-9, 7-13				
88261030	1-4	885213103-3, 3-9, 3-21, 3-27, 3-33					
88261039	8-11	88521312	1-9	88561004	1-4, 3-57, 4-39, 4-41, 4-43, 4-45,		
88261128	2-15	88551006	12-44				
88261129	2-15						
88301093	12-55						
88301191	4-39						
88301193	2-19						
88302125	6-17						
88302192	4-41						



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
	8-3, 9-53, 12-15, 12-19		12-27	90553012	3-27, 3-34	91041356	3-21, 3-33, 3-44
88591211	9-51	900274712-5, 2-9, 2-15, 4-11, 4-15, 4-19, 9-51, 12-15, 12-19		90553013	3-27, 3-33	91041361	3-22, 3-34, 3-45
88591508	8-12			90553026	11-11, 11-13	91041362	3-45
88631302	2-7	90027472	3-17, 3-31	90553027	11-4, 11-8	91041387	3-9
88631449	3-21, 3-33, 3-37, 3-45	90027473	4-15, 4-19, 4-23, 5-3, 5-15, 12-15, 12-19	90553028	11-4, 11-8	91041451	2-17
88661001	2-19			90553036	3-49	91041596	2-17
88661002	8-25, 8-27	90027906	4-15, 4-19, 12-15, 12-19	90554001	11-8	91041732	1-9
88661084	8-25			90554016	3-19, 3-53	91043084	5-31, 5-34
88662059	4-3, 4-7, 8-3, 8-15, 12-7, 12-11	90027987	7-13	90554017	3-53	91043125	3-9, 3-17, 3-21, 3-33, 3-44, 3-61, 3-65, 12-67
88662064	4-4, 8-5, 8-11	90028488	4-47, 4-49	90554018	3-53		
88662065	5-3	90028660	4-15, 4-19, 4-23, 12-15, 12-19	90554020	3-19	91043126	3-9, 3-17, 3-21, 3-33, 3-44, 3-57, 3-61, 3-65, 8-6, 12-67
88662070	4-15, 4-19, 4-23, 8-3, 9-53, 12-15, 12-19	90028740	1-9	90554042	3-19		
88662103	4-15, 4-19, 12-15, 12-19	90028932	2-7, 12-67	90554045	9-73	91043146	5-31
88662105	4-16, 4-20, 5-3, 12-16, 12-20	90028935	9-27, 9-29	90554054	3-19	91043186	3-22, 3-34
88662106	8-25	90028946	7-5, 7-7	90554062	3-19, 3-53	91043221	3-21, 3-33, 3-37, 3-45
88662121	8-11	90028990	3-17	90554065	3-53	91043222	1-10
88662177	9-51	90029955	12-44, 12-55	90554076	3-19, 3-53	91043295	5-31
88662429	4-3, 4-7, 8-3, 12-7, 12-11	90029999	3-31	90554078	3-49	91043446	9-71
8866514	1-6	90200003	3-3, 3-5, 3-9, 3-11, 3-21, 3-25, 3-27, 3-33	90554080	3-49, 3-51	91044080	9-25, 9-75
8866530	1-6	90200440	5-7	90554081	3-49	91045089	5-31
886710011-10, 2-3, 2-7, 2-17, 3-11, 3-13, 3-17, 8-11, 12-51		90200445	11-11, 11-13	91003031	11-11, 11-13	91045106	5-31
88671008	2-5, 2-19, 2-21, 3-21, 3-33, 3-45	90200602	12-123	91014066	9-25	91045107	5-31
88671018	3-21, 3-33, 3-45	90200688	11-11, 11-13	91023098	6-17	91053020	4-11, 4-15, 4-19, 9-63, 12-15, 12-19
88671022	3-9	90200755	4-43, 4-45, 6-17, 12-27	91031236	3-9		
88671027	2-10, 2-15	90201443	3-31	91033029	1-5, 12-41	91053419	12-51
88681344	2-7	90203384	3-45	91033038	3-21, 3-33, 3-37, 3-44	91053439	8-12
88701021	1-9	90203543	5-13	91033039	3-21, 3-33, 3-37, 3-44	91054002	4-12, 4-15, 4-19, 9-63, 12-15, 12-19
88711280	1-9	90204007	3-9	91033137	4-43, 4-45, 12-27		
88711283	4-39, 4-41	90204097	3-45	91033138	8-25, 8-27, 12-71, 12-73	91054157	12-95
88711284	5-5	90205688	6-19, 6-21	91033215	12-44	91064017	12-53
88712306	4-11	90205870	3-9	91033240	9-63	91081158	4-12
88821004	7-13	90205918	4-43, 4-45, 12-27	91033317	6-19, 6-21	91081177	1-10
88991005	2-5, 2-10, 2-15	90206194	6-17	91033320	1-6	91081313	3-9
89981036	12-44	90206198	7-13, 9-51	91033321	5-31	91081415	1-9
90020247	1-10	90206202	1-5	91033425	6-9, 12-36	91081445	7-13
90022230	9-75	90206553	9-63	91033486	12-41	91081577	3-9
90026491	11-11, 11-13	90207204	5-7	91034028	5-27	91081594	3-9
90026803	10-5, 10-7, 10-9	90207661	12-76, 12-80	91034153	9-9	91081622	3-9
90026965	3-17	90207662	3-44	91034156	12-95	91081630	3-9
90027182	8-5	90207882	3-17	91034157	12-127	91081640	10-3
900271874-3, 4-7, 4-23, 8-11, 8-15, 12-7, 12-11, 12-51, 12-76		90208066	9-71	91034267	9-13, 9-17, 9-21, 9-23, 12-95	91083070	9-51
90027214	12-55	90208148	12-97	91034374	3-44, 3-57	910831064-3, 4-7, 4-12, 4-15, 4-19, 4-24, 8-3, 8-9, 12-7, 12-11, 12-15, 12-19	
90027469	9-53	90208181	12-97	91034375	3-44		
90027470	1-4, 2-5, 2-9, 2-15, 4-43, 4-45,	90208212	12-101	91034377	3-45, 3-57	91083126	4-51, 12-29, 12-31
		90402948	3-13, 3-17	91034399	3-45	91083128	4-47
		90403056	3-17	91034400	3-45	91083129	4-49, 12-29
		90451053	3-13	91034435	12-127	91083136	7-5, 7-7, 7-13
		90451061	3-45	91034436	12-127	91083155	6-8, 12-36, 12-39
		90453018	3-44	91041322	3-21, 3-33, 3-44	91083200	9-51
		90453023	3-44	91041324	3-21, 3-33, 3-45	91083216	8-25, 8-27, 12-67, 12-69
		90453034	12-127	91041325	3-21, 3-33, 3-45		
		90453040	3-13	91041326	3-21, 3-33, 3-45		
		90453041	3-13	91041327	3-21, 3-33, 3-45		

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
91083217	8-23	91124094	5-11	91144332	5-5	91144392	5-7
910832184-4, 4-8, 4-12, 4-15,		91124096 ... 9-3, 9-5, 9-7, 9-9,		91144333	5-13	91144393	5-7
4-19, 4-23, 12-8,		9-17, 9-21, 9-23,		91144334	5-13	91144394	5-7
12-12, 12-15,		9-27, 9-31,		91144335	5-13	91144395	5-7
12-19		12-93, 12-127		91144336	5-13	91144396	5-7
91083222 .. 4-15, 4-19, 12-15,		91124103	12-53	91144337	5-13	91144397	5-7
12-19		91125002	5-31	91144338	5-13	91144398	5-7
91083248	3-9	91125003	5-31	91144339	5-13	91144399	5-7
91083250	4-53	91140001	1-4	91144340	5-13	91144400	5-7
91083301	9-51	91141128	2-7	91144341	5-13	91144401	5-7
91083312	7-13	91141511	5-5	91144342	5-13	91144402	5-7
91083339	8-9	91143117	12-44, 12-131	91144343	5-13	91144403	5-7
91083385	5-31	91143122	4-23	91144344	5-13	91144404	5-7
91083440 10-5, 10-7, 10-9		91143155	12-51	91144345	5-13	91144405	5-7
91083449	1-9	911431724-4, 4-8, 4-12, 7-13,		91144346	5-13	91144406	5-7
91083483	10-3, 12-47	12-8, 12-12		91144347	5-13	91144407	5-7
91083492	11-4, 11-8	91143177	8-3	91144348	5-13	91144408	5-7
91083504	12-15	91143220	1-5	91144349	5-13	91144414	9-49
91083533 1-4, 6-17, 8-12		91143280	11-4, 11-8	91144350	5-13	91144442	5-11
91083535	3-31	91143281	11-4, 11-8	91144351	5-13	91144448	7-11
91084004	12-87	91143282 3-21, 3-33, 3-44,		91144352	5-13	91144458	7-11
91084005	12-88	11-4, 11-8,		91144353	5-13	91144460	9-57
91084006	12-88	11-11, 11-13		91144354	5-13	91144461	9-57
91084008 .. 9-35, 12-83, 12-87		91143283	11-4, 11-8	91144355	5-13	91144462	9-57
91084009 .. 9-35, 12-83, 12-87		91143284	11-4, 11-8	91144356	5-13	91144463	9-57
91084010	12-87	91143285	11-4, 11-8	91144357	5-13	91144464	9-57
91084014	12-84	91143286	11-4, 11-8	91144358	5-13	91144465	9-57
91084033	9-41	91143288	11-4, 11-8	91144359	5-13	91144466	9-57
91084038	10-5	91143290	11-11, 11-13	91144360	5-13	91144467	9-57
91084042	9-59	911433144-3, 4-7, 4-11, 12-7,		91144361	5-13	91153007	4-51, 12-31
91084043	9-59, 9-61	12-11		91144362	5-13	91161222	2-5, 2-15
91084046	5-5	911433154-4, 4-7, 4-11, 12-7,		91144363	5-13	91161269	12-51
91084047	5-5	12-11		91144364	5-13	91163011 4-11, 4-15, 4-19,	
91084203	12-84, 12-88	91143348 ... 4-43, 4-45, 12-27		91144365	5-13	12-15, 12-19	
91084278 .. 9-36, 12-84, 12-88		91143357	1-4	91144366	5-13	91163019	1-10, 12-51
91084279 .. 9-36, 12-84, 12-88		91143372	9-57	91144367	5-13	91163028	11-4, 11-8
91084284	9-55	91144005	12-53	91144368	5-13	91163035	4-55, 12-33
91084297	9-55	91144006	12-127	91144369	5-11	91163087	6-17
91084301	9-55	91144015	9-55	91144370	5-11	91163098 4-12, 4-16, 4-20,	
91084302	9-55	91144033	12-53	91144371	5-11	12-16, 12-20	
91084316	9-39	911440389-27, 12-93, 12-127		91144372	5-11	91163100	9-51
91084324	9-39	91144039	12-127	91144373	5-11	91163129 4-47, 4-49, 4-51,	
91084372	9-17, 12-53	91144040	12-127	91144374	5-11	12-29, 12-31	
91085040	5-31	91144042	9-31	91144376	5-11	91163137 ... 4-49, 4-51, 12-29	
91094023	12-87	91144098 9-39, 9-41, 9-43		91144377	5-11	91163268	4-53
91094024	12-87	91144099 9-39, 9-43		91144378	5-11	91164086	6-3
91094033	9-47	91144125	12-95, 12-127	91144379	5-11	91164087	6-3
91113003	12-137	91144128 ... 9-3, 9-5, 9-7, 9-9,		91144380	5-11	91164094	6-3
91121145	12-44	9-17, 9-21, 9-23,		91144381	5-11	91164440	3-13
91121146	12-44	9-27, 9-31,		91144382	5-8	91166062	12-51
91123062 .. 7-23, 12-71, 12-73		12-53, 12-93		91144383	5-8	91203039	4-23, 12-44
91123065	12-44	91144158	9-71	91144384	5-8	91204460	9-31
91123075	12-57, 12-60	91144159	9-71	91144385	5-8	91303049	8-12
91123092	1-9	91144190	7-11	91144386	5-7	91323030	11-4, 11-8
91123119	5-5	91144248	9-47	91144387	5-7	913330024-4, 4-8, 4-12, 12-8,	
91123124 ... 4-43, 4-45, 12-27		91144326	5-5	91144388	5-7	12-12	
91123126	7-11	91144327	5-5	91144389	5-7	913330034-4, 4-8, 4-12, 12-8,	
91124087	12-127	91144328	5-5	91144390	5-7	12-12	
91124089	9-31	91144329	5-5	91144391	5-7	91334024	6-5



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
91334031	6-11	91364052	5-19	91401190	2-17	91403006	9-13
91334032	6-11	91364053	5-19	91401191	2-9	91403008	9-17
91334038	6-19, 6-21	91364054	5-19	91401193	2-3	91403009	9-3, 9-5, 9-7
91334135	6-5	91364055	5-19	91401197	2-9	91403014	12-23
91343016	11-4, 11-8, 12-3, 12-5	91364056	5-19	91401198	4-39, 4-41	91403017	2-17
91343031	12-55, 12-116, 12-119, 12-133, 12-135	91364057	5-19	91401204	2-13	91403018	2-7
91343052	1-9	91364058	5-19	91401215	2-5, 2-9	91403019	2-7, 12-67
91343218	7-17	91364059	5-19	91401216	2-5, 2-9	91403020	2-19
91343222	12-15	91364060	5-19	91401223	2-5, 2-9	91403021	9-17
91344018	6-11	91364061	5-19	91401224	2-5, 2-10	91403022	9-13, 9-15
91344046	6-11	91364062	5-19	91401225	2-9, 2-15	91403025	2-3
91344053	12-55, 12-116, 12-119, 12-133, 12-135	91364063	5-19	91401226	2-15	91403026	9-21
91355034	5-33	91364064	5-19	91401227	4-3, 12-7	91403027	9-3, 9-5
91355035	5-33	91364065	5-19	91401233 ...	4-43, 4-45, 12-27	91403030	4-27
91355037	5-33	91364066	5-19	91401256	12-51	91403031	1-9
91355038	5-33	91364067	5-19	91401266 ...	3-21, 3-33, 3-37, 3-44	91403033	1-10
91361003	12-44	91364068	5-19	91401276	12-76	91403034	1-9
91361018	6-17	91364069	5-19	91401281	10-3	91403037	9-43
91361026	12-51	91364070	5-19	91401296	3-31	91403045	2-17
91363021	10-5, 10-7, 10-9	91364071	5-19	91401299	12-47	91403047	2-17
91363025	7-11	91364072	5-19	91401303	3-3, 3-9	91403052	2-7
91363158	5-17	91364073	5-19	91401324	3-3, 3-9, 3-21	91403053	2-7
91363202	5-31	91364074	5-19	91401340	3-27, 3-33	91403054	9-27
91363215	5-34	91364075	5-19	91401344	8-25, 12-67	91403060	2-19
91364009	10-5, 10-7, 10-9	91364076	5-19	91401347	1-4	91403061	2-3
91364010	10-5, 10-7, 10-9	91364077	5-19	91401354	12-67	91403065	1-9, 2-17
91364013	6-19, 6-21	91364078	5-19	91401370	8-12	91403066	1-9
91364023	4-51, 12-31	91364079	5-19	91401415	1-4, 12-113	91403067	1-9
91364026	5-25	91364080	5-19	91401417	12-41	91403071	2-7
91364027	5-25	91364081	5-19	91401421	12-36	91403076	6-3
91364028	5-25	91364082	5-19	91401423	7-5, 7-7, 7-9	91403078	1-9
91364029	5-25	91364083	5-19	91401432	12-71	91403079	1-9
91364030	5-25	91364084	5-19	91401435	2-7	91403082	1-9
91364031	5-25	91364085	5-19	91401436	12-67, 12-69	91403084 6-5, 6-8, 6-11, 6-13	
91364032	5-25	91364086	5-20	91401443	6-9, 12-36	91403086 ...	4-43, 4-45, 12-27
91364033	5-25	91364087	5-20	91401450	2-5, 2-9	91403087	2-13
91364034	5-25	91364088	5-20	91401451	2-9, 2-15	91403095 ...	4-43, 4-45, 12-27
91364035	5-25	91364089	5-20	91401453	2-9, 2-15	91403096 ...	4-43, 4-45, 12-27
91364036	5-25	91364090	5-20	91401454	2-9, 2-15	91403097	1-6
91364037	5-25	91364091	5-20	91401456	2-5	91403098	1-5
91364038	5-25	91364092	5-20	91401457	2-5	91403100	4-47
91364039	5-25	91364093	5-20	91401464	12-51	91403101	4-49
91364040	5-25	91364094	5-20	91401469	2-5	91403102	4-4, 4-47
91364041	5-23	91364095	5-20	91401472	2-5	91403103	4-4, 4-47
91364042	5-23	91364096	5-20	91401487	1-5	91403104	4-47
91364043	5-23	91364097	5-20	91401516	6-17	91403105 4-4, 4-8, 12-7, 12-11	
91364044	5-23	91364098	5-20	91401524	1-4	91403108	9-21
91364045	5-23	91364143	9-39, 9-41, 9-43	91401529	9-21	91403114	2-3
91364046	5-19	91364144	9-43	91401535 4-3, 4-7, 4-12, 12-7, 12-11		91403118	12-29
91364047	5-19	91364145	9-43	91401567	7-13	91403119	2-17
91364048	5-19	91364146	9-43	91401568	2-13	91403125	4-47
91364049	5-19	91365037	12-51	91401570	1-4	91403126	2-7, 2-9, 12-67, 12-69
91364050	5-19	91365045	12-44	91401571	12-57, 12-60	91403127	2-7, 2-9, 12-67, 12-69
91364051	5-19	91365076	5-33	91401573	7-13	91403137 4-4, 4-8, 4-12, 12-8, 12-12	
		91401060	12-7	91401581	4-39	91403138 4-4, 4-8, 12-8, 12-12	
		91401081	1-9	91401590	6-17	91403140	12-53
		91401168	7-3				
		91401172	12-57, 12-63				
		91401189 2-17, 9-3, 9-5, 9-17,					

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
91403141	4-43	91403308 7-23, 12-60, 12-65,		91403450	9-49	91403543	8-21
91403142	4-45, 12-27	12-73		91403451	9-39	91403544	8-21
91403145	1-9, 1-10	91403309 .. 7-3, 12-57, 12-63,		91403454 ... 4-11, 4-15, 4-19,		91403545	8-23
91403146	1-9	12-71		8-3, 12-15,		91403546	8-23
91403153	1-5	91403311	12-57, 12-60	12-19		91403547	8-25, 8-27
91403156	12-51	91403316	12-71	914034554-3, 4-7, 4-12, 12-7,		91403548	8-25, 8-27
91403158	9-53	91403317	12-57, 12-63	12-11		91403549	12-71, 12-73
91403160	4-3, 12-7	91403318	12-76, 12-80	91403456	9-49	91403550	12-71, 12-73
91403161	9-51	91403322	12-95	91403457	10-5, 12-15	91403552	9-65
91403163	1-9	91403324	12-60, 12-65	91403461	6-19	91403553	9-53
91403164	1-9	91403325	1-5	91403462	8-11	91403554	9-53
91403165	1-9	91403326	12-65	91403463	8-11	91403556 ... 4-15, 4-19, 4-23,	
91403166	1-9	91403328	12-73	91403466	8-11	12-15, 12-19	
91403172	1-10	91403329 ... 6-8, 12-37, 12-39		91403467	8-11	91403557	8-5
91403173	1-10	91403338	3-45	91403471	4-47	91403558	8-5
91403174	1-10	91403339	3-57	91403473	7-5, 7-7	91403559	8-6
91403176	4-39	91403350 ... 6-8, 12-36, 12-39		91403474	7-5, 7-7	91403565	9-51
91403178	7-21, 12-65	91403351 ... 6-8, 12-36, 12-39		91403476	7-5, 7-7, 7-9	91403569	11-4, 11-8
91403180	9-67	91403352 ... 6-8, 12-36, 12-39		91403478	7-15	91403573	11-4, 11-8
91403191	12-41	91403353	8-21	91403481	6-17	91403574	1-4
91403193	5-34	91403354	1-10	91403484	4-53	91403575	9-51
91403200	10-3	91403355	1-10	91403485	4-55, 12-33	91403578	7-11
91403216	4-55, 12-33	91403359	3-47	91403488	4-53	91403579	9-51
91403217	1-5	91403364	3-44, 3-47	91403489	4-55, 12-33	91403582	1-4
91403225	9-27, 9-29	91403366 ... 3-27, 3-34, 3-47		91403490	7-19	91403585	9-21, 9-23
91403226	9-27, 9-29	91403367	12-47	91403491	12-91	91403588	5-29
91403230 ... 1-5, 3-37, 6-17		91403372	1-9	91403493	2-3	91403589	9-55
91403239	12-29	91403377	2-13	91403499 .. 2-7, 12-67, 12-69		91403590	7-13
91403240	4-49	91403384	3-31	91403502	9-51	91403592	9-61
91403241	1-13, 1-15	91403387	8-15	91403503 1-6, 12-44, 12-116,		91403596	6-9, 12-37
91403242	1-13, 1-15	91403388	8-15	12-119		91403597	11-4, 11-8
91403243	1-13, 1-15	91403390	12-47	91403504	9-53	91403600	1-4
91403244 ... 4-47, 4-49, 4-51,		91403393	8-25	91403506	8-23	91403601	4-55, 12-33
12-29, 12-31		91403403 ... 4-43, 4-45, 12-27		91403507	8-23	91403606	12-76, 12-80
91403247	7-13	91403404	2-19	91403510	4-53	91403607	12-76, 12-80
914032484-4, 4-8, 4-11, 12-7,		91403405	2-19	91403511	4-55, 12-33	91403608	6-9, 12-36
12-11		91403407	2-19	91403512	4-47, 12-29	91403609	4-39
91403253	9-51	91403411	2-19	91403513	4-39	91403611	9-51
91403254	4-39	91403412	2-19	91403514	4-39	91403612	12-57, 12-60
91403258	5-15	91403413 ... 3-9, 3-11, 3-17,		91403515	4-47, 12-29	91403613	12-44
91403264	9-53	3-21, 3-25, 3-31,		91403516	12-57, 12-60	91403614	12-57, 12-60
914032654-3, 4-7, 12-7, 12-11		3-33, 3-44, 3-61,		91403519	2-7	91403618	11-4, 11-8
91403268	1-4	3-65, 12-67		91403520	12-76	91403619	8-5
91403273	12-71	91403414 ... 3-9, 3-11, 3-17,		91403521	7-5, 7-7, 7-9	91403620	6-17
9140327412-57, 12-60, 12-63		3-21, 3-25, 3-31,		91403522	12-76, 12-80	91403622	11-11
91403279	12-93	3-33, 3-44, 3-57,		91403523 ... 4-12, 4-15, 4-19,		91403623	11-11
91403280 ... 6-8, 12-37, 12-39		3-61, 3-65, 8-6,		12-16, 12-20		91403629	9-31
91403288	6-17, 12-36	12-67		91403524	4-39	914040044-4, 4-8, 4-12, 4-31,	
91403289	6-17	91403415 ... 3-45, 8-25, 12-67		91403527	12-41	4-35, 12-8,	
914032934-3, 4-7, 4-11, 12-7,		91403425	2-13, 7-13	91403528	8-5	12-12	
12-11		91403432	2-17	91403529	11-4, 11-8	914040054-4, 4-8, 12-8, 12-12	
91403295	12-47	91403433	2-7	91403530	2-5, 2-9	91404007	4-47
91403297	12-51	91403437	4-39	91403531	2-9, 2-15	91404008 ... 4-43, 4-45, 12-27	
91403298	6-17	91403441	1-4	91403532	2-5, 2-9	91404010	7-19
91403299	12-36	91403443 ... 6-8, 12-36, 12-39		91403533	2-15	91404011	7-19, 12-91
91403304	12-44, 12-55	91403444	12-67	91403538	12-37	91404013	7-19, 12-91
91403305	12-44	91403445 ... 6-8, 12-37, 12-39		91403539	6-8, 12-36	91404016	7-19, 12-91
91403306	12-44	91403448	3-17	91403540	12-83	91404018 ... 9-39, 9-41, 9-43	
91403307	7-5	91403449	9-47	91403541	9-35	91404019 ... 9-39, 9-41, 9-43	



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
91404020	9-39, 9-41, 9-43	91404083	9-49	91404182	9-35, 12-83, 12-87		12-23
91404021	9-39, 9-41, 9-43	91404084	9-53	91404183	9-35, 12-83	91404235	4-27, 12-23
91404022	9-39, 9-41	914040854-3, 4-7, 4-31, 4-35,		91404184	9-35, 12-83	91404236	4-27, 12-23
91404023	9-39, 9-41, 9-43	12-8, 12-12		91404185	9-35, 12-83	91404237	4-27, 12-23
91404025	9-39	914040864-4, 4-8, 4-31, 4-35,		91404186	9-35, 12-83, 12-87	91404238	4-27, 12-23
91404026	9-39	12-8, 12-12		91404187	9-35, 12-83, 12-87	91404239	4-27, 12-23
91404027	9-39, 9-41, 9-43	91404088	7-21	91404188	9-35, 12-83, 12-87	91404241	4-27, 12-23
91404028	9-39, 9-41, 9-43	91404089	7-21	91404189	9-35, 12-83, 12-87	91404242	4-27, 4-31, 4-35,
91404029	9-39, 9-41, 9-43	91404091	7-21, 12-57, 12-60,	91404190	9-35, 12-83	12-23	
91404030	9-39, 9-41, 9-43	12-63, 12-71		91404191	9-35, 12-83, 12-87	91404243	4-27, 12-23
91404031	9-39, 9-41, 9-43	91404093	7-21	91404192	9-36, 12-84, 12-88	91404244	4-27
91404032	9-39, 9-41, 9-43	91404094	7-21	91404193	9-31	91404245	4-27
91404033	9-39, 9-41, 9-43	91404095	7-21	91404194	9-31	91404246	4-27
91404034	9-39, 9-41, 9-43	91404096	7-21	91404195	9-31	91404247	4-27
91404035	9-39, 9-41	91404097	7-21	91404196	9-31	91404248	12-23
91404036	9-39, 9-41, 9-43	91404098	7-21	91404202	9-31	91404249	4-27
91404037	9-39, 9-41	91404099	7-21	91404203	9-21, 9-23	91404250	4-27, 4-31, 4-35,
91404040	9-47	91404100	7-21	91404204	9-21, 9-23	12-23	
91404041	9-47	91404101	7-21	91404205	9-21, 9-23	91404251	4-27, 4-31, 4-35,
91404042	9-47	91404102	7-21	91404206	9-21, 9-23	12-23	
91404043	9-47	91404103	7-21	91404207	7-21	91404252	4-27, 12-23
91404044	9-47	91404105	7-21	91404208	7-21	91404253	4-27, 4-31, 4-35,
91404045	9-47	91404106	7-21	91404209	7-21	12-23	
91404046	9-47	91404107	7-21	91404210	7-21, 12-57, 12-60,	91404254	4-27, 12-23
91404047	9-47	91404108	6-3	12-63		91404255	4-27, 4-31, 4-35,
91404048	9-47	91404109	6-3, 6-13	91404211	7-5, 7-7, 7-9	12-23	
91404049	9-47	91404110	6-3, 6-13	91404212	7-5, 7-7, 7-9	91404256	4-27, 4-31, 4-35,
91404050	9-47	91404112	9-13	91404213	7-5, 7-7, 7-9	12-23	
91404051	9-47	91404113	9-13	91404214	9-36	91404257	4-27, 4-31, 4-35,
91404052	9-47	91404114	9-13	91404215	9-67, 9-69	12-23	
91404053	9-47	91404130	9-13	91404216	9-67	91404258	4-27, 4-31, 4-35,
91404054	9-47	91404131	9-3, 9-5, 9-7	91404217	9-67, 9-69	12-23	
91404055	9-47, 9-49	91404132	9-3, 9-5, 9-7, 9-9	91404218	9-67	91404259	4-27, 4-31, 4-35,
91404056	9-47	91404133	9-3, 9-5, 9-7, 9-9	91404219	4-27, 12-23	12-23	
91404057	9-47, 9-49	91404134	9-3, 9-5, 9-7	91404220	4-27, 4-31, 4-35,	91404260	4-27, 12-23
91404058	9-55	91404135	9-3, 9-5, 9-7, 9-9	12-23		91404261	4-27, 12-23
91404059	9-55	91404136	9-3, 9-5, 9-7	91404221	4-27, 4-31, 4-35,	91404262	4-27, 4-31, 4-35,
91404060	9-55	91404137	9-3, 9-5, 9-7	12-23		12-23	
91404061	9-55	91404138	9-3, 9-5, 9-7, 9-9	91404222	4-27, 4-31, 4-35,	91404263	4-27, 12-24
91404062	9-55	91404139	9-3, 9-5, 9-7	12-23		91404264	4-27, 4-31, 4-35,
91404063	9-55	91404140	9-3, 9-5, 9-7	91404223	4-27, 4-31, 4-35,	12-24	
91404064	9-55	91404151	9-3, 9-5, 9-7	12-23		91404265	4-31, 4-35, 12-23
91404065	9-55	91404152	9-3, 9-5, 9-7, 9-9	91404224	4-27, 4-31, 4-35,	91404266	12-23
91404066	9-55	91404153	9-17, 9-21, 9-23	12-23		91404267	4-31, 4-35, 12-23
91404067	9-55	91404154	9-17, 9-21, 9-23	91404225	4-27, 4-31, 4-35,	91404268	12-23
91404068	4-39	91404155	9-17	12-23		91404269	12-23
91404070	9-49	91404156	9-17	91404226	4-27, 4-31, 4-35,	91404270	12-23
91404071	9-49	91404157	9-17	12-23		91404271	12-23
91404072	9-49	91404168	9-27	91404227	4-27, 12-23	91404272	12-23
91404073	9-49	91404169	9-27	91404228	4-27, 12-23	91404273	12-23
91404074	9-49	91404170	9-27	91404229	4-27, 4-31, 4-35,	91404274	4-4, 12-8
91404075	9-49	91404171	9-27	12-24		91404275	1-4
91404076	9-49	91404172	9-27	91404230	4-27, 12-23	91404276	12-53
91404077	9-49	91404176	9-27	91404231	12-23	91404281	12-53
91404078	9-49	91404177	9-36	91404232	4-27, 4-31, 4-35,	91404282	12-53
91404079	9-49	91404178	9-36, 12-84, 12-88	12-23		91404283	12-53
91404080	9-49	91404179	9-36, 12-84, 12-88	91404233	4-27, 4-31, 4-35,	91404286	9-17, 9-21, 9-23
91404081	9-49	91404180	9-36, 12-84	12-23		91404287	9-17, 9-21, 9-23
91404082	9-49	91404181	9-36, 12-84	91404234	4-27, 4-31, 4-35,	91404288	9-3, 9-5, 9-7, 9-9

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
91404291	6-13	91404350	6-19	91405013	7-11	91406069	3-21, 3-33, 3-37, 3-44
91404292	6-11	91404351	6-19	91405014	12-76	91406070	3-21, 3-33, 3-37, 3-44
91404293	6-5	91404352	9-27, 12-93	91405015	12-65	91406072	3-44
91404294	6-11	91404355	12-93	91405018	5-31	91406090 ...	4-43, 4-45, 12-27
91404295	6-5	91404360	12-93	91405021	5-31	91406094	1-4
91404296	6-13	91404361	12-93	91405023	12-47	91406098	1-9, 8-11
91404297	6-5	91404362	12-93	91405024	3-31	91406099	1-9, 8-11
91404298	6-5	91404363	12-93	91405025	12-63	91406112	4-12, 4-16, 4-20, 12-15, 12-19
91404299	6-5	91404365	12-93	91405027	4-47	91406113	12-36, 12-113
91404300	6-11	91404366	12-93	91405029	12-29	91406114	12-36, 12-41
91404301	6-5	91404367	12-93	91405032	2-19	91406115	1-4, 12-113
91404302	6-11, 6-13	91404370	12-95	91405034	9-51	91406116	12-41
91404303	6-11	91404371	12-95	91405035	5-33	91406117	1-4
91404304	6-11	91404372	12-95	91405036	5-33	91406118	4-3, 12-8
91404305	6-11	91404373	12-95	91405039	5-31	91406119	12-36
91404306	6-11	91404380	12-95	91405042	4-39	91406134	9-53
91404307	6-11	91404381	12-95	91405047	7-3	91406139	7-5, 7-7
91404308	6-11	91404382 ...	9-3, 9-5, 9-7, 9-9, 9-11, 9-13, 9-15, 9-17, 9-19	91405050	12-41	91406141	7-13
91404309	6-11			91405051	1-4	91406143	7-13
91404310	6-11			91405052	12-71	91406147	7-5, 7-7
91404311	6-11	91404383	12-97	91405054	3-7	91406148	7-5, 7-7
91404312	6-11	91404385	12-97	91405055	3-7	91406149	12-44
91404313	6-11	91404386	12-97	91405056	12-36	91406155	3-45
91404314	6-11	91404388	12-97	91405057	12-44	91406156	3-37
91404315	6-11	91404389	12-97	91405061	3-57	91409117	9-13
91404316	6-11	91404392	12-97	91405067	12-73	91411017	9-63
91404317	6-11	91404394	12-97	91405070	3-44	91411021	8-21
91404318	6-11	91404395	12-97	91405071	3-7	91411044	3-31
91404319	6-11	91404396	12-97	91405073	3-3	91411048	12-44
91404320	6-11	91404408	12-97	91405074	3-3	91411050	3-22, 3-34, 3-45
91404321	6-11	91404409	12-97	91405075	3-21	914110604-3, 4-7, 4-11, 12-11	
91404322	6-13	91404411	12-97	91405077	3-27	91411069	9-51
91404323	6-11	91404412	12-97	91405078	3-33	91411071	1-6
91404324	6-11	91404413	12-97	91405079	3-9	91411073	3-21, 3-33, 3-45
91404325	12-91	91404416	12-97	91405080	3-17	91413001	5-27
91404326	7-19, 12-91	91404418	12-97	91405081	3-17	91413002	5-3
91404327	7-19, 12-91	91404419	12-97	91405082	3-13	91413003	5-3
91404328	6-19, 6-21	91404420	12-98	91405083	3-13	91413004	1-13, 1-15
91404329	6-19, 6-21	91404421	12-98	91405084	7-5	91413005	4-15, 4-19, 4-23, 12-15, 12-19
91404330	6-19, 6-21	91404426	12-98	91405085	2-7	91413007	9-45
91404331	6-19, 6-21	91404430	12-98	91405086	12-67, 12-69	91413008	9-63
91404332	6-19, 6-21	91404432	12-97	91405088	4-12	91413010	9-59
91404333	6-19, 6-21	91404433	12-97	91405091	9-53	91413011	11-4, 11-8
91404334	6-19, 6-21	91404435	5-29	91405098	12-57	91413012	11-4, 11-8
91404335	6-19, 6-21	91404436	5-29	91405100	12-67	91413013	8-21
91404336	6-19, 6-21	91404437	1-5	91405101	3-9	91413014	7-5
91404337	10-5, 10-7, 10-9	91404439	12-37	91405102	4-4	91413015	9-63
91404338	12-53	91404441	1-5	91406012	2-3	91413016	7-11
91404339	12-53	91404442	1-5	91406013	2-7	91413021	11-4, 11-8
91404340	9-65	91404443	4-39	91406014	2-13	91413024	11-4, 11-8
91404341	9-65	9140444512-57, 12-60, 12-63		91406015	2-17	91413025	12-29
91404342	1-5	9140444612-57, 12-60, 12-63		91406017	1-9	91413026	11-4, 11-8
91404343	1-5	9140444712-57, 12-60, 12-63		91406021	1-10	91413027	11-4, 11-8
91404344	1-4	9140444812-57, 12-60, 12-63		914060264-4, 4-7, 4-11, 12-7, 12-11		91413030	4-55, 12-33
91404345	1-5	91404450	1-5			91413031	4-53
91404346	1-4	91404451	4-27	91406027 4-4, 4-8, 4-23, 7-5, 12-7, 12-11			
91404347	1-5	91405003	4-43				
91404348	1-5	91405010	4-45, 12-27	914060324-3, 4-7, 4-11, 4-23, 12-7, 12-11			
91404349	6-19	91405012	12-73				



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
91413036	6-8, 6-17, 12-39	91414005	5-27, 5-29	91415004	7-13	91473223	4-11
91413037	8-12	91414007	5-27, 5-29	91415007	4-3, 4-7, 4-15, 4-19	91473226	10-3
91413038	6-8, 12-36, 12-39	91414008	5-27	91415011	12-3, 12-5	91473230	9-15
91413039	12-101	91414009	5-27, 5-29	91415012	12-7, 12-11, 12-15, 12-19	91473233	9-5, 9-7, 9-9, 9-11
91413040	12-105	91414011	5-27, 5-29	91415014	12-51	91473234	9-19, 9-25
91413041	12-103	91414012	5-27, 5-29	91415021	11-9, 11-13	91473235	9-23
91413044	12-55	91414013	5-27, 5-29	91415025	3-37	91473239	12-47
91413045	12-55	91414014	5-27, 5-29	91415027	6-5	91473240	12-109
91413047	8-5	91414015	5-27, 5-29	91415030	12-60	91474037	5-20, 5-25
91413049	8-5	91414019	5-27, 5-29	91415031	7-23	91474039	5-25
91413050	6-17	91414020	5-27, 5-29	91415032	9-63	91474058	5-25
91413051	6-17, 12-37	91414021	5-27, 5-29	91415035	4-8, 12-8	91474060	5-25
91413052	12-44, 12-116, 12-119	91414022	5-27, 5-29	91415036	12-55	91474061	5-25
91413053	6-9, 12-39	91414024	5-27, 5-29	91415039	1-10	91474064	5-25
91413054	12-29	91414026	5-27, 5-29	91415040	1-10	91474065	5-25
91413055	9-41	91414027	5-27, 5-29	91415041	11-9	91474066	5-25
91413060	6-21	91414028	7-11	91415042	11-9	91474075	5-25
91413061	11-4, 11-8	91414029	7-11	91415045	12-41	91474095	5-25
91413096	4-47	91414030	9-45	91415046	12-36	91474098	5-25
91413099	3-21, 3-33, 3-44	91414031	9-45	91415053	5-15	91474115	5-19
91413100	3-21, 3-33	91414032	9-45	91415064	12-12	91474116	5-19
91413104	4-23, 12-7, 12-11	91414033	9-45	91415067	7-7	91474126	5-19
91413106	5-15	91414034	9-45	91415071	11-9	91474128	5-19
91413107	5-15	91414035	9-45	91415072	5-33	91474136	5-23
91413110	6-17	91414036	9-45	91415078	4-11, 4-23	91474137	5-23
91413111	12-65	91414037	9-45	91415078	4-11, 4-23	91474139	5-23
91413112	12-73	91414038	9-45	91415083	12-107	91474140	5-23
91413113	12-60	91414039	9-45	91415084	4-12	91474141	5-23
91413118	9-43	91414040	4-4, 4-8, 4-23, 12-8, 12-12	91415088	6-8	91474142	5-23
91413120	10-7	91414041	9-41	91416006	7-3	91474143	5-23
91413121	7-7, 7-9	91414042	9-41	91416011	12-61	91474144	5-23
91413122	2-17	91414043	9-41	91416012	12-73	91474145	5-23
91413123	2-17	91414044	9-41	91416013	12-65	91474146	5-23
91413127	2-7	91414045	12-103, 12-105	91416014	4-39, 4-41	91474147	5-23
91413130	6-17	91414046	12-103	91416017	12-65	91474149	5-23
91413132	8-5, 8-17	91414047	12-103, 12-105	91416018	3-44	91474151	5-23
91413134	4-31	91414048	12-105	91416020	12-39	91474155	5-19
91413138	2-3	91414049	12-101	91471108	4-43, 4-45, 12-27	91474157	5-19
91413139	2-3	91414050	12-101	91471133	4-49, 4-51, 12-31	91474162	5-20
91413141	9-57	91414051	12-101	91471181	4-49	91474163	5-20
91413142	6-13	91414052	12-101	91471226	2-5, 2-9	91474179	9-45
91413145	4-35	91414053	12-101	91471227	2-5, 2-9	91474182	9-45
91413146	10-9	91414054	12-101	91471228	2-9, 2-15	91474184	9-45
91413147	10-3	91414055	12-101	91471229	2-9	91474411	1-5
91413148	12-107	91414056	12-101	91471240	9-5, 9-7, 9-9, 9-11, 9-23, 9-25	91474412	1-5
91413149	12-107	91414057	12-101	91471243	12-39	91474413	1-5
91413152	9-29	91414058	12-101	91473100	4-49	91474414	1-5
91413153	9-33	91414059	12-101	91473102	4-49	91474416	1-5
91413154	9-25	91414060	12-101	91473103	4-51, 12-31	91474417	1-5
91413155	9-11	91414061	12-101	91473104	4-49, 4-51, 12-31	91474423	1-5
91413156	9-19	91414062	12-101	91473125	12-76, 12-80	91474427	1-5
91413158	9-9	91414063	12-101	91473127	12-76, 12-80	91474463	6-21, 10-5, 10-7, 10-9
91413159	12-97	91414065	9-9	91473163	6-17	91474490	9-69
91413160	12-97	91414066	9-9	91473188	9-69	91474491	9-69
91414001	5-27, 5-29	91414067	9-9	91473206	5-34	91474492	6-11
91414002	5-27, 5-29	91414068	9-9	91473211	6-17	91474499	12-24
91414003	5-27, 5-29	91414069	9-9	91473212	6-17	91474506	4-31, 4-35
91414004	5-27, 5-29	91415001	5-3	91473222	4-4, 4-8	91474629	4-27, 4-31, 4-36

PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
91474630	4-28, 4-32, 4-36	91555029	 11-9				
91474631	4-28, 4-32, 4-36	91555031	 1-10				
91474633	 12-109	91555032	 1-10				
91474634	 12-109	91561150	 6-17				
91474635	 12-109	91561200	 6-17				
91475046	 4-49	91563141	 3-47				
91475048	 7-11	91563142	 3-47				
91475054	 5-33	91563143	 3-47				
91475055	 5-33	91563158	 6-15, 12-111,				
91475063	 11-9		12-113				
91475093	 5-33	91563164	 6-15				
91475104	 11-9	91563208	 7-11				
91475109	 12-39	91565064	 12-41				
91476053	 7-7	91565094	 3-51				
91503102	 11-4, 11-8						
91503103	 12-131						
91503105	 10-17						
91503106	 10-17						
91504028	 7-19, 12-91						
91504029	 7-19, 12-91						
91504107	 12-131						
91511127	 12-131						
91511144	 4-51, 12-31						
91511206	 12-55						
91513029	 2-17						
91513099	 1-5						
91513119	 12-57, 12-60						
91513159	 4-11						
91513197	 1-6						
91513204	7-23, 12-57, 12-60,						
	12-63						
91513206	 3-47						
91513282	 9-23, 9-25						
91514246	 1-5						
91514256	 4-31, 4-35						
91514257	 4-31, 4-35						
91514258	 4-31, 4-35						
91514259	 4-31, 4-35						
91514260	 4-31, 4-35						
91515041	 4-51, 12-31						
91515056	 5-33						
91515073	 11-9						
91515074	 11-9						
91516044	 1-4						
91531026	 12-109						
91534005	 4-12, 4-31, 4-35						
91534006	 4-12						
91535017	 5-33						
91535019	 5-33						
91535022	 12-109						
91543002	 5-34						
91545008	 5-33						
91545010	 5-33						
91551039	 1-10						
91553052	 8-11						
91553054	 8-11						
91553072	 11-11, 11-13						
91554011	 10-7, 10-9						
91554032	 4-31, 4-35						



PART NUMBER INDEX

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
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