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# ***Illustrated Parts Manual***

## ***Model 544D***

**SN 0355001 through 0455362  
& 0160000192 to Present**

**91364001**

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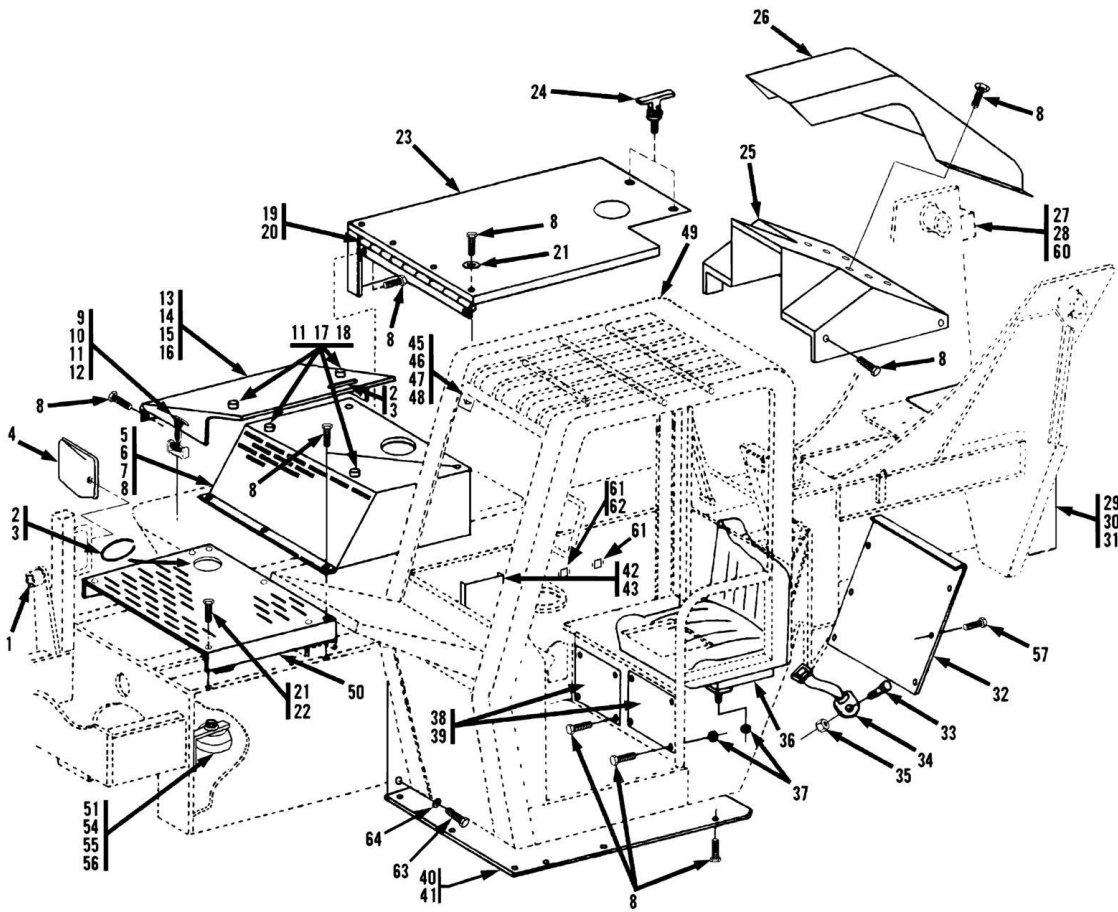


## **SECTION 1 - FRAME AND ATTACHING PARTS**

## **SECTION 1 - FRAME AND ATTACHING PARTS**

# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



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## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91166058	Ref	FRAME WELDMENT	
	14404645	AR	T-9 METAL PROTECTANT, (12oz)	
	14404646	AR	T-9 METAL PROTECTANT, (1 gal)	
1	91143051	2	BUSHING	
2	90206196	61 in	TRIM-LOCK	
3	14402248	AR	ADHESIVE	
4	83683291	1	MIRROR	
5	91146103	1	RADIATOR COVER (SN 0355001 through 0355023)	
5	91366003	1	RADIATOR COVER (SN 0355024 through 0160000973)	
6	91143346	1	RUBBER AIR DAM	
7	90200755	24 in	WEATHER STRIP	
8	77143003	52	WHIZ-LOCK SCREW, 5/16-18X5/8	
9	90207458	2	DRAW LATCH	
10	88301193	8	ROUND HD MACHINE SCREW, #10-32X1/2	
11	88551007	12	LOCKWASHER, #10	
12	88501613	4	HEX NUT, #10-32	
13	91366004	1	TANK COVER WELDMENT	
14	85211088	2	RUBBER BUMPER	
15	88301073	2	ROUND HD MACHINE SCREW, #8-32X3/4	
16	88521604	2	HEX LOCKNUT, #8-32	
17	91083173	4	RUBBER HD SCREW BUMPER	
18	88501612	4	HEX NUT, #10-24	
19	91141218	1	HINGE	
20	91143348	1	CLAMP BAR	
21	88561003	9	FLAT WASHER, 5/16	
22	91123124	4	WHIZ-LOCK SCREW, 5/16-18X1/2	
23	91366017	1	REAR ENGINE COVER	
24	91303021	2	T-HANDLE (SN 0355001 through 0160000323)	
24	91363210	2	T-HANDLE (SN 0160000339 through 0160000973)	
25	91146050	1	REAR COVER WELDMENT	
26	91366002	1	REAR COVER CENTER	
27	91403574	1	BACK-UP ALARM	
28	88201016	2	HEX HD CAPSCREW, 5/16-18x1/2, GR5	
29	91140001	1	COUNTERWEIGHT	
30	88201143	4	HEX HD CAPSCREW, 1-8X5, GR5, (torque to 545-595 lbs-ft)	
31	88561011	4	WASHER, 1	
32	91161282	1	REAR CAB COVER	
33	88201050	2	HEX HD CAPSCREW, 7/16-14X1, GR5	
34	91033029	1	SEAT BELT, (not used with optional seat)	
35	88501007	2	HEX NUT, 7/16-14	
36	91033485	1	SEAT WITH ARMREST, (std)	
36	91124107	1	SLIDE ADJ KIT, (use with std seat)	
36	91043237	1	GRAMMER SEAT, (opt)	
36	88201020	4	HEX HD CAPSCREW, 5/16-18X1, GR5, (use with opt seat)	
37	77143006	8	WHIZ-LOCKNUT, 5/16-18	
38	91081475	1	HEATER COVER PLATE	
39	91141329	1	VALVE ACCESS COVER	
40	91361005	1	BELLY PAN	
41	91083533	10	FENDER WASHER, 1-1/2, OD	

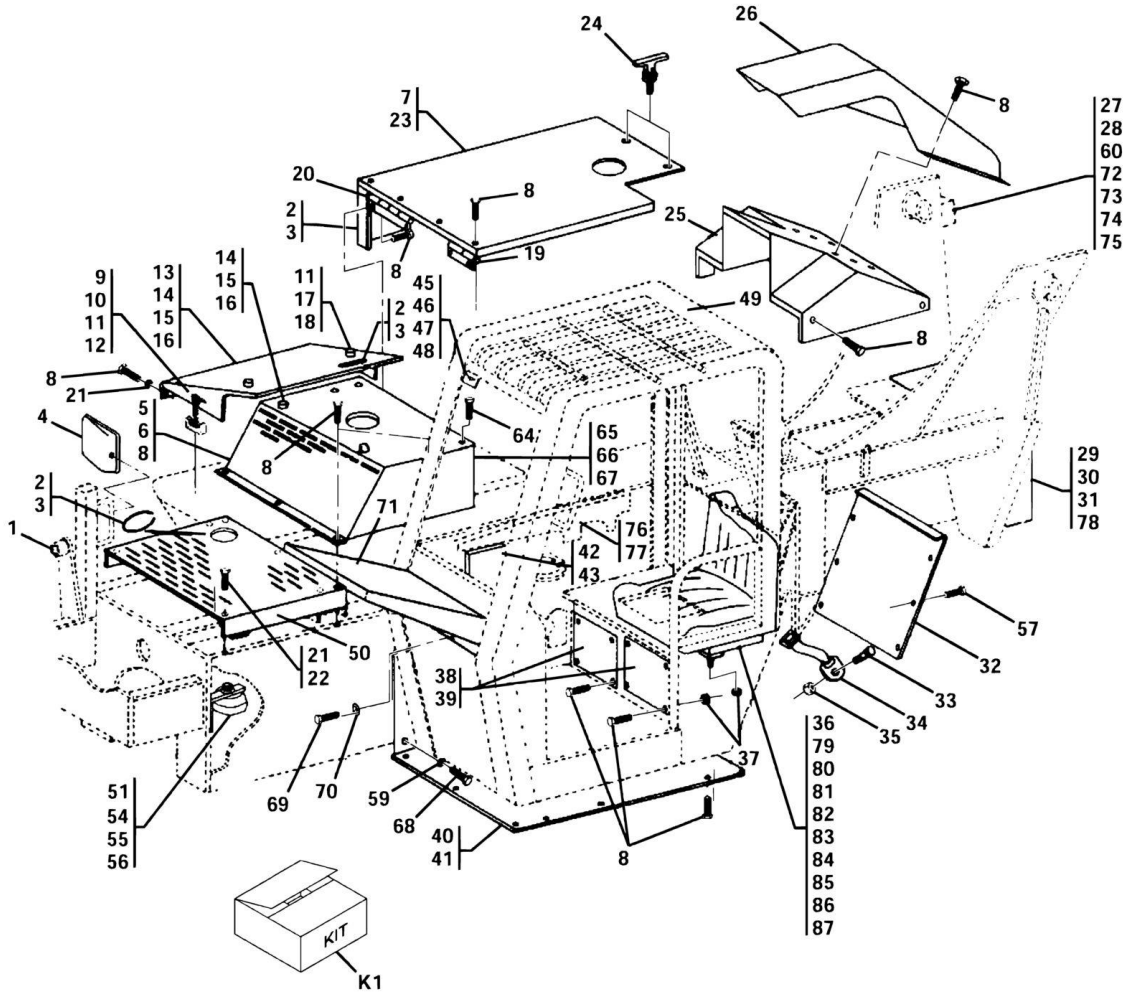
## SECTION 1 - FRAME AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	91403230	1	MANUAL CASE	
43	77143013	4	WHIZ-LOCKNUT, 1/4-20	
44	77143006	2	WHIZ-LOCKNUT, 5/16-18, (not shown), (use with item 58)	
45	91033320	NLA	TILT GAUGE, (no longer available; use 8466306 for replacement)	
45	8466306	1	TILT GAUGE, (with adhesive)	
46	88204912	1	HEX HD CAPSCREW, 1/4-20X1	
47	88561107	1	FLAT WASHER	
48	88521204	1	LOCKNUT, 1/4-20	
49		Ref	OPEN CAB, (See CAB SECTION for Breakdown)	
50	91141463	1	DECK COVER <b>(SN 0355001 through 0355023)</b>	
50	91361007	1	DECK COVER <b>(SN 0355024 through 016000973)</b>	
51	91143357	1	HORN ASSY	
54	77133177	2	HEX HD CAPSCREW, 5/16-18X1-3/8, GR5	
55	77133168	2	CLAMP SET	
56	77133140	2	COVER PLATE	
57	91363018	8	WHIZ-LOCK SCREW, 5/16-18X1	
58	91166074	1	HOSE GUARD, (not shown), (located under dash panel, beneath steering column) <b>(SN 0355035 through 0355039)</b>	
58	91363065	1	HOSE GUARD, (not shown), (located under dash panel, beneath steering column) <b>(SN 0355040 through 016000973)</b>	
59	85941016	1	SUPPORT CLAMP, (not shown), (use with item 58)	
60	86683122	1	TIE WRAP	
61	88261014	4	SOCKET BUTTON HD CAPSCREW, 1/4-20X1/2	
62	91146081	1	DIPSTICK COVER	
63	83201158	4	HEX HD CAPSCREW, 7/8-9X1-3/4, (torque to 450-475 lb-ft)	
64	4892500	4	HARDENED WASHER, 7/8	



# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-2. FRAME SHROUDING AND TRIM (SN 0160000976 through 0160034720, Including 0160035922)



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## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-2. FRAME SHROUDING AND TRIM (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91556001	1	FRAME WELDMENT, (SN 0355001 through 0455362, SN 0160000192 through 016001615, Excluding 0160015296, 0160015297 and 0160015492)	L
	91556019	1	FRAME WELDMENT (SN 0160015710 through 0160034720, Including 0160015296, 0160015297, 0160015492 and 0160035922)	D
	14404645	AR	T-9 METAL PROTECTANT, (12oz)	
	14404646	AR	T-9 METAL PROTECTANT, (1 gal)	
1	91143051	2	BUSHING	
2	90206196	59 in	TRIM-LOCK	
3	14402248	AR	ADHESIVE	
4	83683291	1	MIRROR	
5	91556015	1	RADIATOR COVER	
6	91553043	1	RUBBER AIR DAM	
7	90200755	24 in	WEATHER STRIP	
8	77143003	53	WHIZ-LOCK SCREW, 5/16-18X5/8	
9	90207458	2	DRAW LATCH	
10	88301193	8	ROUND HD MACHINE SCREW, #10-32X1/2	
11	88551007	10	LOCKWASHER, #10	
12	88501613	4	HEX NUT, #10-32	
13	91366004	1	TANK COVER WELDMENT	
14	85211088	4	RUBBER BUMPER	
15	88301073	4	ROUND HD MACHINE SCREW, #8-32X3/4	
16	88521604	4	HEX LOCKNUT, #8-32	
17	91083173	2	RUBBER HD SCREW BUMPER	
18	88501612	2	HEX NUT, #10-24	
19	91551023	1	HINGE	
20	91551024	1	HINGE	
21	88561003	9	FLAT WASHER, 5/16	
22	91123124	4	WHIZ-LOCK SCREW, 5/16-18X1/2	
23	91556014	1	REAR ENGINE COVER	
24	91363210	2	T-HANDLE	
25	91146050	1	REAR COVER WELDMENT	
26	91556016	1	REAR COVER CENTER	
27		Ref	BACK-UP ALARM, (no longer available, order kit 2915184 for service) <b>(Prior to SN 0160016754)</b>	
27	8270621	1	BACK-UP ALARM <b>(SN 0160016754 to Present)</b>	
28	0641406	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5 <b>(SN 0160016754 to Present)</b>	
29	91140001	1	COUNTERWEIGHT, (no pintle hook)	
29	1001091458	1	COUNTERWEIGHT, (with pintle hook)	
30	88201143	4	HEX HD CAPSCREW, 1-8X5, GR5, (torque to 545-595 lb-ft)	
31	88561011	4	WASHER, 1	
32	91161282	1	REAR CAB COVER <b>(SN 0160000976 through 0160012366, Excluding 0160012298)</b>	
32		Ref	REAR CAB COVER , (See CAB SECTION for Breakdown) <b>(SN 0160012437 to Present, Including 0160012298)</b>	
33	88201050	2	HEX HD CAPSCREW, 7/16-14X1, GR5 <b>(Prior to SN 0160016097, Excluding 0160015710, 0160015711 and 0160015915)</b>	

## SECTION 1 - FRAME AND ATTACHING PARTS

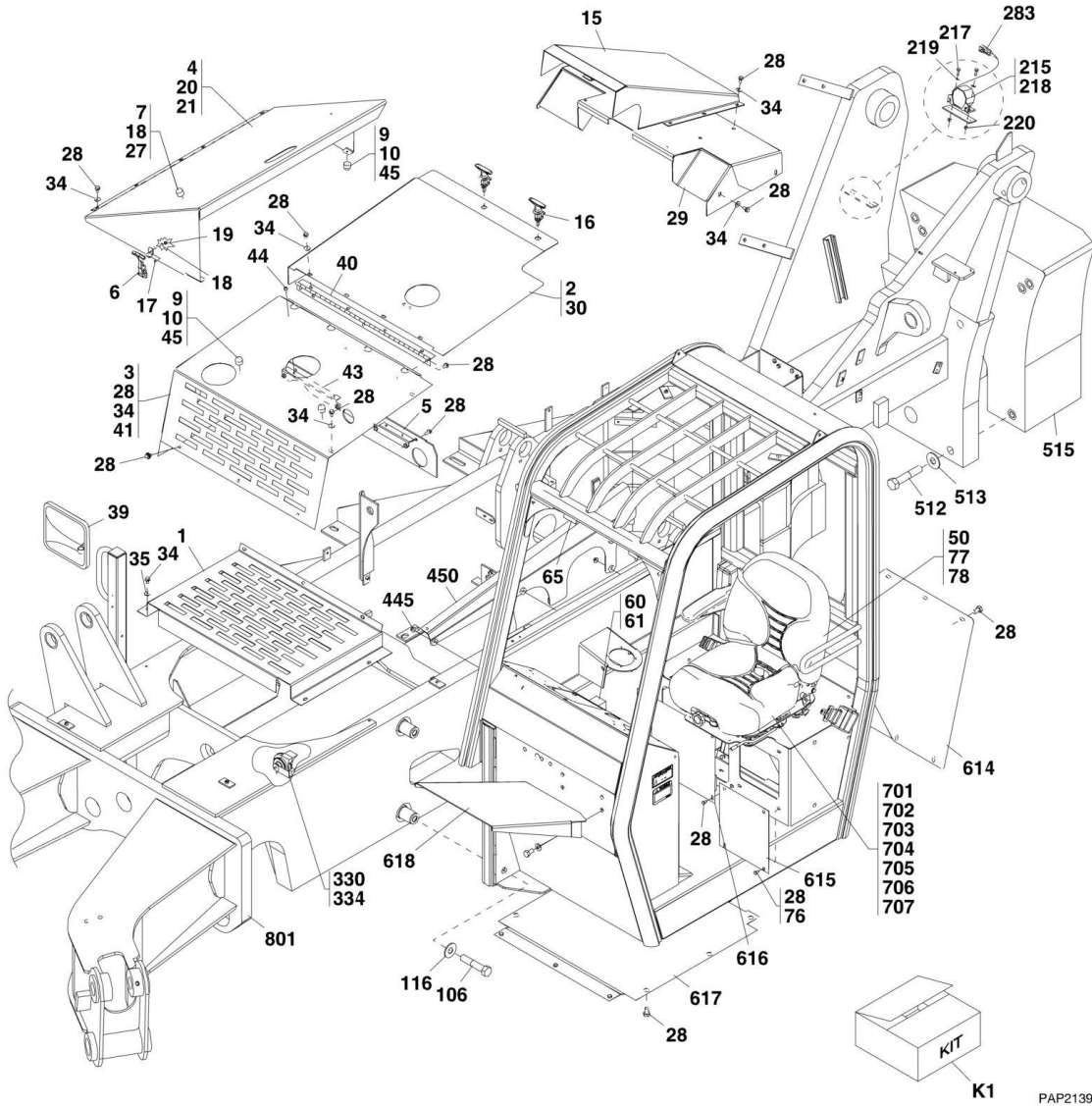
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
34	91033029	1	SEAT BELT, (not used with optional seat ) (Prior to SN 0160016097, Excluding 0160015710, 0160015711 and 0160015915)	
35	88501007	2	HEX NUT, 7/16-14 (Prior to SN 0160016097, Excluding 0160015710, 0160015711 and 0160015915)	
36	91033485	1	SEAT WITH ARMREST, (std ) (Prior to SN 0160016097, Excluding 0160015710, 0160015711 and 0160015915)	C
36	91563158	1	SUSPENSION SEAT WITH 2 IN SEAT BELT (SN 0160016097 to Present, Including 0160015710, 0160015711 and 0160015915)	E
36	1001101085	1	SUSPENSION SEAT WITH 2 IN SEAT BELT, (includes items 81 thru 87)	
36	7026904	1	ARMREST KIT	
36	91124107	1	SLIDE ADJ KIT, (use with std seat ) (Prior to SN 0160016097, Excluding 0160015710, 0160015711 and 0160015915)	
36	91043237	1	GRAMMER SEAT, (opt ) (Prior to SN 0160016097, Excluding 0160015710, 0160015711 and 0160015915)	
36	88201020	4	HEX HD CAPSCREW, 5/16-18X1, GR5, (use with opt seat ) (Prior to SN 0160016097, Excluding 0160015710, 0160015711 and 0160015915)	
37	77143006	8	WHIZ-LOCKNUT, 5/16-18	
38	91081475	1	HEATER COVER PLATE (SN 0160000976 through 0160012366, Excluding 0160012298)	
38		Ref	HEATER COVER PLATE , (See CAB SECTION for Breakdown) (SN 0160012437 to Present, Including 0160012298)	
39	91141329	1	VALVE ACCESS COVER (SN 0160000976 through 0160012366, Excluding 0160012298)	
39		Ref	VALVE ACCESS COVER , (See CAB SECTION for Breakdown) (SN 0160012437 to Present, Including 0160012298)	
40	91361005	1	BELLY PAN (SN 0160000976 through 0160012366, Excluding 0160012298)	
40		Ref	BELLY PAN , (See CAB SECTION for Breakdown) (SN 0160012437 to Present, Including 0160012298)	
41	91083533	10	FENDER WASHER, 1-1/2, OD	
42	91403230	1	MANUAL CASE	
43	77143013	4	WHIZ-LOCKNUT, 1/4-20	
44	77143006	2	WHIZ-LOCKNUT, 5/16-18, (use with item 58), (not shown)	
45		Ref	TILT GAUGE, (no longer available, use 8466306 for service) (SN 0160000976 through 0160005687)	
45	8466306	1	TILT GAUGE, (with adhesive) (SN 016005766 to Present)	
46	88204912	1	HEX HD CAPSCREW, 1/4-20X1 (SN 0160000976 through 0160005687)	
47	88561107	1	FLAT WASHER (SN 0160000976 through 0160005687)	
48	88521204	1	LOCKNUT, 1/4-20 (SN 0160000976 through 0160005687)	
49		Ref	OPEN CAB, (See CAB SECTION for Breakdown)	
50	91361007	1	DECK COVER	
51	91143357	1	HORN ASSY	
54	77133177	1	HEX HD CAPSCREW, 5/16-18X1-3/8, GR5	
55	77133139	1	CLAMP SET	
56	77133140	1	COVER PLATE	
57	91363018	8	WHIZ-LOCK SCREW, 5/16-18X1	
58	91363065	1	HOSE GUARD, (not shown), (located under dash panel, beneath steering column)	
59	4892500	4	HARDENED WASHER, 7/8	
60	86683122	1	TIE WRAP	
64	88261020	4	SOCKET BUTTON HD CAPSCREW, 5/16-18X1/2	

## SECTION 1 - FRAME AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
65	91143348	2	CLAMP BAR	
66	91551034	1	AIR DAM SUPPORT	
67	91551033	1	AIR DAM SUPPORT	
68	83201158	4	HEX HD CAPSCREW, 7/8-9X1-3/4, (torque to 450-475 lb-ft)	
69	88201021	4	HEX HD CAPSCREW, 5/16-18X1-1/4 <b>(SN 0160012437 to Present, Including 0160012298)</b>	
70	4751500	4	FLAT WASHER, 5/16 <b>(SN 0160012437 to Present, Including 0160012298)</b>	
71		Ref	FENDER, (See CAB SECTION for Breakdown)	
72	8305624	2	LOCKNUT, 1/4-20	
73	3576433	1	MOUNTING BAR	
74	4711400	2	FLAT WASHER, 1/4	
75	86683480	2	BUTT CONNECTOR	
76	91556017	1	SHEET METAL SUPPORT	
77	77143006	4	WHIZ-LOCKNUT, 5/16-18	
78	0100019	AR	LOCTITE 271	
79	3311505	4	HEX LOCKNUT, 5/16-18 <b>(SN 0160016097 to Present, Including 0160015710, 0160015711 and 0160015915)</b>	
80	4711500	4	FLAT WASHER, 5/16 <b>(SN 0160016097 to Present, Including 0160015710, 0160015711 and 0160015915)</b>	
81	7026900	1	BACK CUSHION KIT	
82	7026902	1	BACK PANEL KIT	
83	7026905	1	SEAT BELT	
83	91565064	1	SEAT BELT, 3 IN, (California Only), (not included with std seat)	
84	7026906	1	TETHER KIT	
85	7026901	1	SEAT CUSHION KIT	
86	7026799	1	KNOB KIT	
87	7026798	1	SLIDE KIT	
K1	2915184	1	BACK-UP ALARM SERVICE KIT, (includes items 27, 28 & 72 thru 75)	A

# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-3. FRAME SHROUDING AND TRIM (SN 0160035037 to Present, Excluding 0160035922)



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## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-3. FRAME SHROUDING AND TRIM (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	1001099036	1	DECK COVER	
2	1001091065	1	REAR ENGINE COVER	
3	1001099034	1	RADIATOR COVER	
4	91366004	1	TANK COVER WELDMENT	
5	1001093467	1	RUBBER AIR DAM	
6	90207458	2	DRAW LATCH	
7	91083173	2	RUBBER BUMPER	
9	88301073	4	ROUND HD MACHINE SCREW, #8-32X3/4	
10	88521604	4	HEX LOCKNUT, #10-32	
15	91556016	1	REAR CENTER COVER	
16	91363210	2	T-HANDLE	
17	88301193	8	ROUND HD CAPSCREW, #10-32X1/2	
18	4761000	10	LOCKWASHER, #10	
19	88501613	4	HEX NUT, #10-32	
20	90206196	AR	TRIM-LOCK	
21	14402248	AR	3M ADHESIVE	
27	88501612	2	HEX NUT, #10-24	
28	0791505	70	WHIZ-LOCK SCREW, 5/16-18X5/8	
29	91146050	1	REAR COVER WELDMENT	
30	90200755	24 in	WEATHER STRIP	
34	4751500	26	FLAT WASHER, 5/16	
35	0791504	4	WHIZ-LOCK SCREW, 5/16-18X1/2	
37	14404645	AR	T-9 METAL PROTECTION, (12 oz spray), (not shown)	
38	14404646	AR	T-9 METAL PROTECTION, (1 gal), (not shown)	
39	83683291	1	MIRROR	
40	91141218	1	HINGE	
41	91143348	2	CLAMP BAR	
43	91531021	1	AIR DAM SUPPORT	
44	0630467	4	HEX SOCKET BUTTON HD CAPSCREW, 5/16-18X1/2	
45	85211088	4	RUBBER BUMPER	
50	91563158	1	SUSPENSION SEAT WITH 2 IN SEAT BELT	G
50	1001101085	1	SUSPENSION SEAT WITH 2 IN SEAT BELT, (includes items 701 thru 707)	D
50	7026904	1	ARMREST KIT	
60	77143013	4	WHIZ-LOCKNUT, 1/4-20	
61	91403230	1	MANUAL HOLDER	
65	8466306	1	TILT ANGLE GAUGE	
76	77143006	4	WHIZ-LOCKNUT	
77	3311505	4	HEX LOCKNUT, 5/16-18	
78	4711500	4	FLAT WASHER, 5/16	
106	0682414	4	HEX HD CAPSCREW, 7/8-9X1-3/4, GR8	
116	4892500	4	HARDENED WASHER, 7/8	
215	86683122	1	TIE WRAP	
217	0641406	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
218	8270621	1	BACK-UP ALARM	
219	4711400	2	FLAT WASHER, 1/4	
220	8305624	2	HEX LOCKNUT, 1/4-20	
283	1001116274	1	MOLDED RESISTOR	
330	91143357	1	HORN ASSY	
334	0791504	1	WHIZ-LOCK SCREW, 5/16-18X1/2	

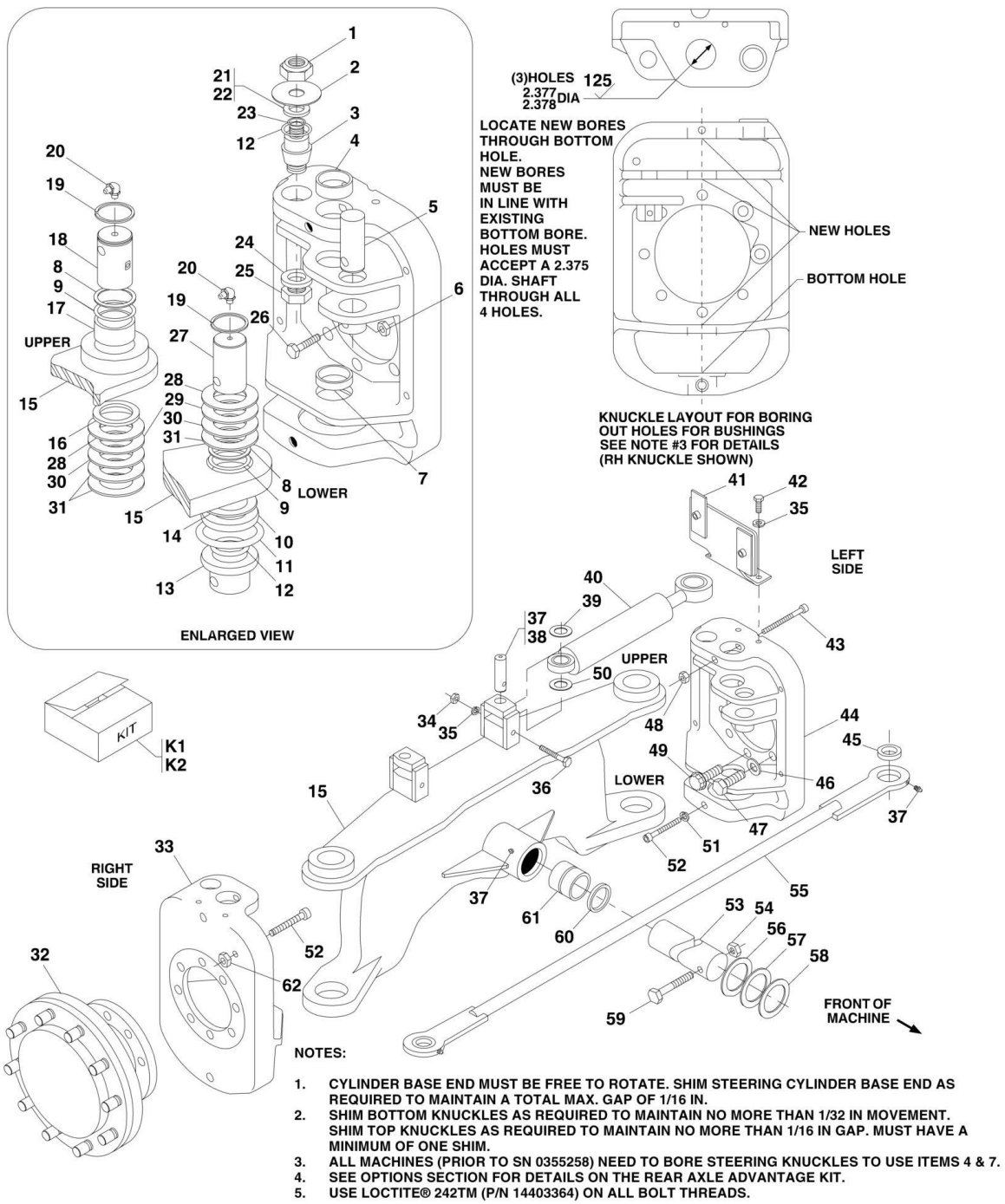
## SECTION 1 - FRAME AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
445	77143006	4	WHIZ-LOCKNUT, 5/16	
450	1001091086	1	SHEET METAL SUPPORT	
512	0642640	4	HEX HD CAPSCREW, 1-8X5	
513	4752600	4	FLAT WASHER, 1	
515	91140001	1	COUNTERWEIGHT	
614		Ref	REAR PANEL COVER, (See CAB SECTION for Breakdown)	
615		Ref	HEATER PANEL COVER, (See CAB SECTION for Breakdown)	
616		Ref	VALVE ACCESS COVER, (See CAB SECTION for Breakdown)	
617		Ref	CAB BELLY PAN COVER, (See CAB SECTION for Breakdown)	
618		Ref	FRONT FENDER, (See CAB SECTION for Breakdown)	
701	7026900	1	BACK CUSHION KIT	
702	7026902	1	BACK PANEL KIT	
703	7026905	1	SEAT BELT KIT	
703	91563164	1	SEAT BELT, 3 IN, (California Only), (not included with standard seat)	
704	7026906	1	TETHER KIT	
705	7026901	1	SEAT CUSHION KIT	
706	7026799	1	KNOB KIT	
707	7026798	1	SLIDE KIT	
708	70023040	1	SHOCK ABSORBER KIT, (not shown), (includes one shock absorber, two shock pins and two hex nuts)	
709	70023041	1	SPRING AND SADDLE KIT, (not shown)	
801	1001091067	1	FRAME WELDMENT	
K1	70023139	1	SEAT BELT KIT, 3 IN, (California only), (includes retractor and female end)	



# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-4. REAR AXLE AND ATTACHING PARTS (SN 0355001 through 0455362)



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## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-4. REAR AXLE AND ATTACHING PARTS (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88521312	2	HEX LOCKNUT, 3/4-10, (torque to 160-175 lb-ft)	
2	91081415	2	DIRT SHIELD	
3	91041481	2	STEERING CYLINDER PIN	
4	91121239	2	BUSHING	
5	91041439	2	TIE ROD PIN	
6	88521306	2	LOCKNUT, 3/8-16	
7	91121240	4	BUSHING	
8	91123030	4	BACK-UP RING	
9	88591032	4	O-RING	
10	91123027	2	BUSHING	
11	91123029	2	O-RING	
12	88591104	4	O-RING	
13	91121091	2	THRUST BUSHING	
14	91041733	AR	SHIM	
15	91166013	1	REAR AXLE WELDMENT, (includes items 10, 17, 61 & 63)	
16	86921268	2	LIP SEAL	
17	91123028	2	BUSHING	
18	91081693	2	UPPER KING PIN	
19	88581323	4	RETAINING RING	
20	88671022	4	LUBE FITTING, 90, 1/8	
21	91041732	2	SPACER, (3/16 thick)	
22	91041438	AR	SPACER	
23	88591019	2	O-RING	
24	91041459	2	WASHER	
25	88501416	2	HEX JAM NUT, 1-14, (torque to 225-250 lb-ft)	
26	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
27	91141424	2	LOWER KING PIN	
28	91041449	AR	SHIM, (0.060 thick, see note #2)	
29	91041450	AR	SHIM, (0.0478 thick, see note #2)	
30	91041451	AR	SHIM, (0.106 thick, see note #2)	
31	91041596	AR	SHIM, (20 ga, see note #2)	
32		Ref	DRIVE HUB, (See DRIVE TRAIN SECTION for Breakdown)	
33	91120004	1	RH STEERING KNUCKLE, (see note #3)	
34	88501006	2	HEX NUT, 3/8-16	
35	88551011	6	LOCKWASHER, 3/8	
36	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR8	
37	88671001	6	STRAIGHT LUBE FITTING, 1/8	
38	91081695	2	STEERING CYLINDER PIVOT PIN	
39	91403066	AR	SHIM, (0.060 thick, see note #1)	
40		Ref	STEERING CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
41	91166056	1	LH TUBE SUPPORT	
41	91166055	1	RH TUBE SUPPORT	
42	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
43	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
44	91120003	1	LH STEERING KNUCKLE, (see note #3)	
45	91043247	2	SELF-ALIGNING BUSHING	
46	86681572	12	HARDENED WASHER, 3/4	
47	83201006	12	HEX HD CAPSCREW, 3/4-10X2, GR8, (torque to 270-290 lb-ft)	
48	88521208	2	HEX LOCKNUT, 1/2-13	

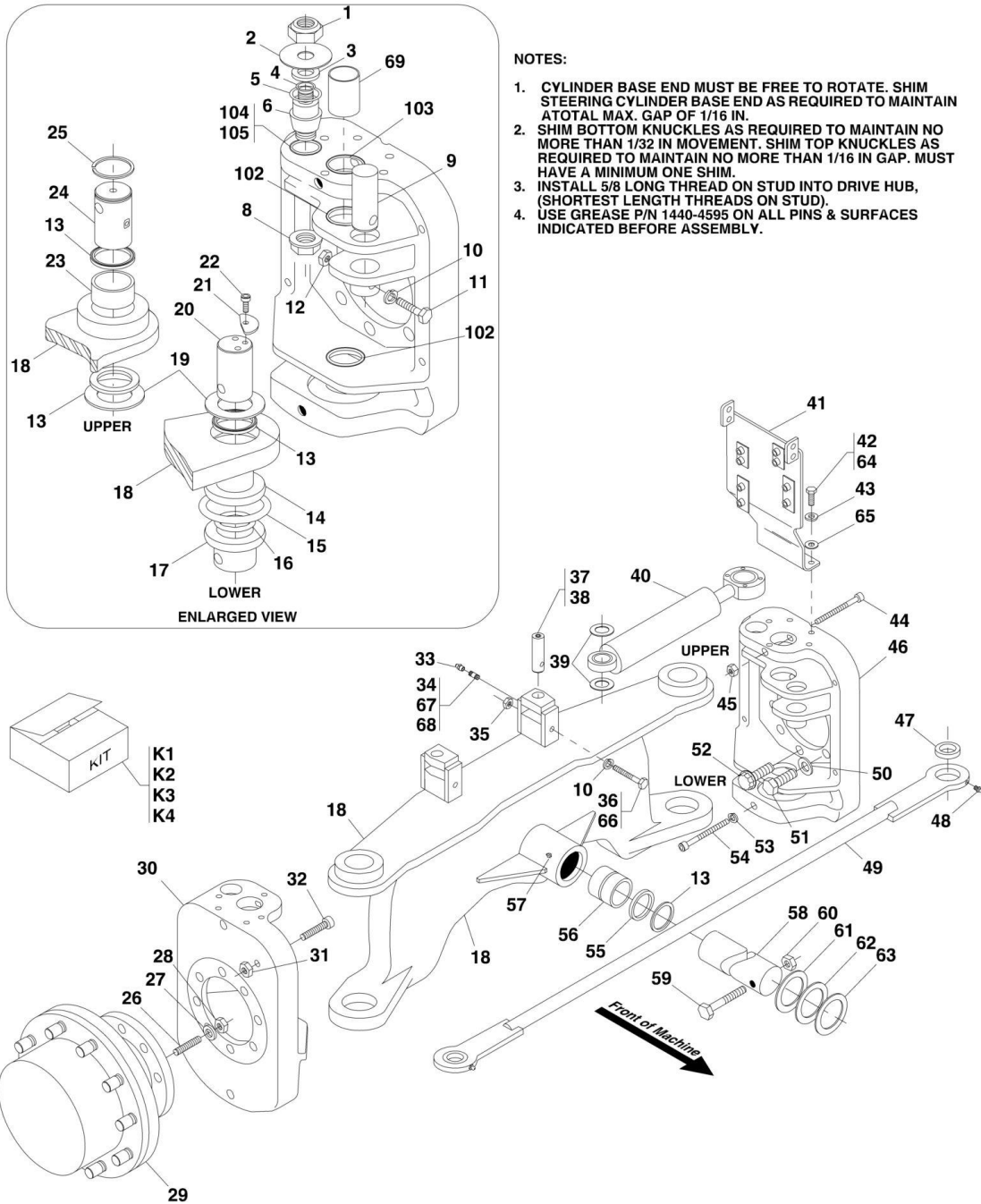
## SECTION 1 - FRAME AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	91043222	4	CAPSCREW, 12PT, 3/410X2, GR8, (torque to 270-290 ft lbs)	
50	91403065	AR	SHIM, (10 ga, see note #1)	
51	88551153	2	LOCKWASHER, 5/8	
52	88212321	4	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
53	91081177	1	REAR AXLE MOUNTING PIN	
54	85101098	1	HEX NUT, 1-1/4-7	
55	91166063	1	TIE ROD, (includes items 45 & 2 of item 37)	
56	91161066	AR	SHIM, (0.0598 thick)	
57	91161067	AR	SHIM, (0.1046 thick)	
58	91161068	AR	SHIM, (0.1345 thick)	
59	90020247	1	HEX HD CAPSCREW, 1-1/4-7X6, GR5	
60	24601570	2	LIP SEAL	
61	91123031	2	BUSHING	
62	88501110	2	HEX NUT, 5/8-11	
63	91163019	2	BUSHING, (stabilizer support), (not shown)	
K1	91145099	1	STEERING KNUCKLE KIT, (includes items 2, 4, 7, 8, 9, 11 thru 14, 16, 18 thru 23, 27 thru 31, 51 & two of item 52, one kit does both sides)	F
K2	91045152	AR	STEERING CYLINDER PIN KIT, (includes one each of items 1, 2, 3, 12, 21 thru 25, one kit needed for each side)	



# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-5. REAR AXLE AND ATTACHING PARTS (SN 0160000192 to Present)



**NOTES:**

1. CYLINDER BASE END MUST BE FREE TO ROTATE. SHIM STEERING CYLINDER BASE END AS REQUIRED TO MAINTAIN A TOTAL MAX. GAP OF 1/16 IN.
2. SHIM BOTTOM KNUCKLES AS REQUIRED TO MAINTAIN NO MORE THAN 1/32 IN MOVEMENT. SHIM TOP KNUCKLES AS REQUIRED TO MAINTAIN NO MORE THAN 1/16 IN GAP. MUST HAVE A MINIMUM ONE SHIM.
3. INSTALL 5/8 LONG THREAD ON STUD INTO DRIVE HUB, (SHORTEST LENGTH THREADS ON STUD).
4. USE GREASE P/N 1440-4595 ON ALL PINS & SURFACES INDICATED BEFORE ASSEMBLY.

PAP21550

## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-5. REAR AXLE AND ATTACHING PARTS (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88521312	2	LOCKNUT, 3/4-10, (torque to 160-175 lb-ft)	
2	91081415	2	DIRT SHIELD	
3	91041732	2	SPACER	
4	80933066	2	O-RING	
5	3790226	2	O-RING	
6	91343052	2	ROD END STEER CYLINDER PIN	
8	1001099173	2	FLANGE NUT, (torque to 280-305 lb-ft)	
9	91403082	2	TIE ROD PIN	
10	4761600	4	LOCKWASHER, 3/8	
11	83201021	2	HEX HD CAPSCREW, 3/8-16X3	
12	88521306	2	HEX LOCKNUT, 3/8-16, (nylok)	
13	91403145	8	WIPER SEAL	
14	91403034	2	LOWER BUSHING	
15	91403146	2	O-RING	
16	88591108	2	O-RING	
17	91401081	2	THRUST BUSHING	
18	91346009	1	REAR AXLE WELDMENT, (includes items 14, 23, 56, 69)	I
19	91403163	AR	KING PIN SHIM, (see note #2)	
19	91403164	AR	KING PIN SHIM, (see note #2)	
19	91403165	AR	KING PIN SHIM, (see note #2)	
19	91403166	AR	KING PIN SHIM, (see note #2)	
20	91403078	2	LOWER KING PIN	
21	91403067	2	RETAINING WASHER	
22	88211068	2	SOCKET HD CAPSCREW, 3/8-16X5/8, GR8	
23	91403031	2	UPPER BUSHING	
24	91403079	2	UPPER KING PIN	
25	88581325	2	SNAP RING	
26	91123092	8	STUD, (see note #3)	
27	85401340	8	HARD WASHER	
28	91083449	8	HEX NUT, 1/2-13	
29		Ref	DRIVE HUB, (See DRIVE TRAIN SECTION for Breakdown)	
30	Kit	1	RH KNUCKLE	
31	88501110	2	HEX NUT, 5/8-11	
32	88212321	2	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
33	90028740	2	FEMALE GREASE FITTING	
34	88701021	2	NIPPLE, 1/8X2	
35	88501006	2	HEX NUT, 3/8-16	
36	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4	
37	91403372	2	BASE END STEER CYLINDER PIN	
38	88711280	2	HEX SOCKET PIPE PLUG, 1/8	
39	91403065	AR	KING PIN SHIM, (see note #1)	
39	91403066	AR	KING PIN SHIM, (see note #1)	
40		Ref	STEERING CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
41	91406098	1	LH TUBE SUPPORT	
41	91406099	1	RH TUBE SUPPORT	
42	0641608	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
43	4761600	4	LOCKWASHER, 3/8	
44	88212272	2	SOCKET HD CAPSCREW, 5/8-11X8, GR8	
45	88521210	2	HEX LOCKNUT, 5/8, (nylok)	

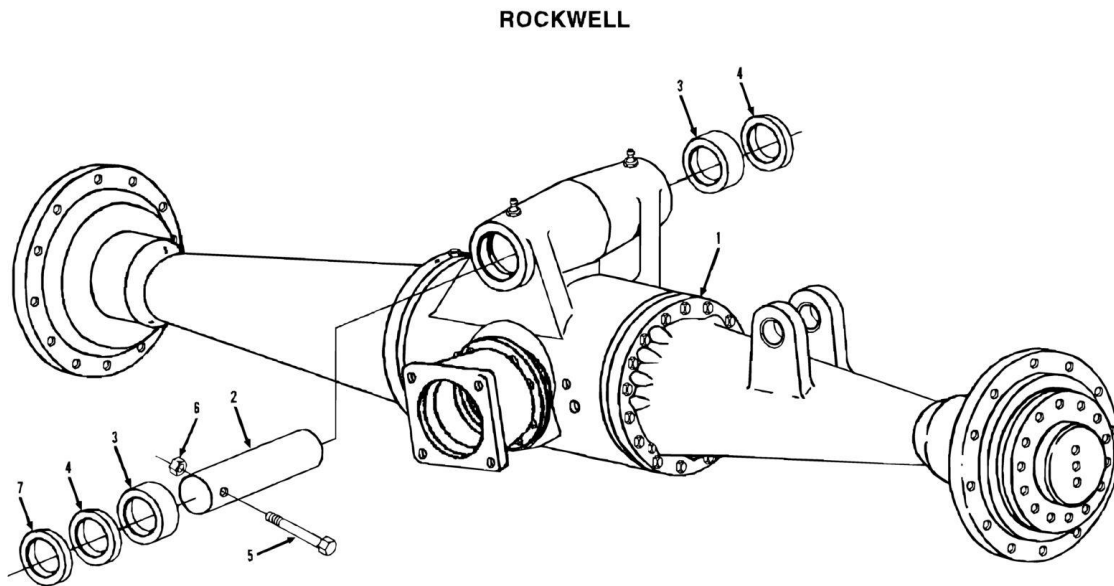
## SECTION 1 - FRAME AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	Kit	1	LH KNUCKLE	
47	8050001	2	SELF-ALIGNING BUSHING, (tie rod)	
48	88671001	2	STRAIGHT LUBE FITTING, 1/8	
49	91406021	1	TIE ROD WELDMENT, (includes items 47 & 48)	
50	86681572	12	HARDENED WASHER, 3/4	
51	83201006	12	HEX HD CAPSCREW, 3/4-10X2	
52	91043222	4	12 POINT SCREW, 3/4-10X2	
53	88551154	2	LOCKWASHER, 3/4, (hi-collar)	
54	88212285	2	SOCKET HD CAPSCREW, 3/4-10X5, GR8	
55	91403145	2	WIPER SEAL	
56	91403033	2	PIVOT TUBE BUSHING	
57	88671001	1	LUBE FITTING - STRAIGHT, 1/8, (rear)	
58	91081177	1	REAR AXLE PIN	
59	90020247	1	HEX HD CAPSCREW, 1-1/4-7X6	
60	88521020	1	LOCKNUT, 1-1/4-7	
61	91161068	AR	SHIM, (0.135 thick)	
62	91161067	AR	SHIM, (0.100 thick)	
63	91161066	AR	SHIM, (0.060 thick)	
64	14404793	AR	UNION 76 MEGAPLEX GREASE	
65	4711600	4	PLAIN WASHER, 3/8	
66	14404595	AR	MYSTIK TETRIMOLY GREASE	
67	14404082	AR	LOCTITE PIPE SEALANT	
68	14404102	AR	LOCTITE 277	
69	91163019	2	BUSHING	
102	91403354	2	BUSHING	
103	91403355	1	BUSHING	
104	91551039	1	BUSHING	
105	14404978	AR	LOCTITE 641	
K1	91415039	1	STEERING KNUCKLE KIT, (includes items 2 thru 5, 13 thru 17, 19 thru 25, 44, 45, 53 & 54)	
K2	91415040	1	STEERING CYLINDER PIN KIT, (includes one each of items 1 thru 8, one kit needed for each side)	
K3	91555032	AR	RH KNUCKLE KIT, (includes items 8, 30 & 102 thru 105)	
K4	91555031	AR	LH KNUCKLE KIT, (includes items 8, 46 & 102 thru 105)	



# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-6. FRONT AXLE MOUNTING (SN 0355001 through 0455362)





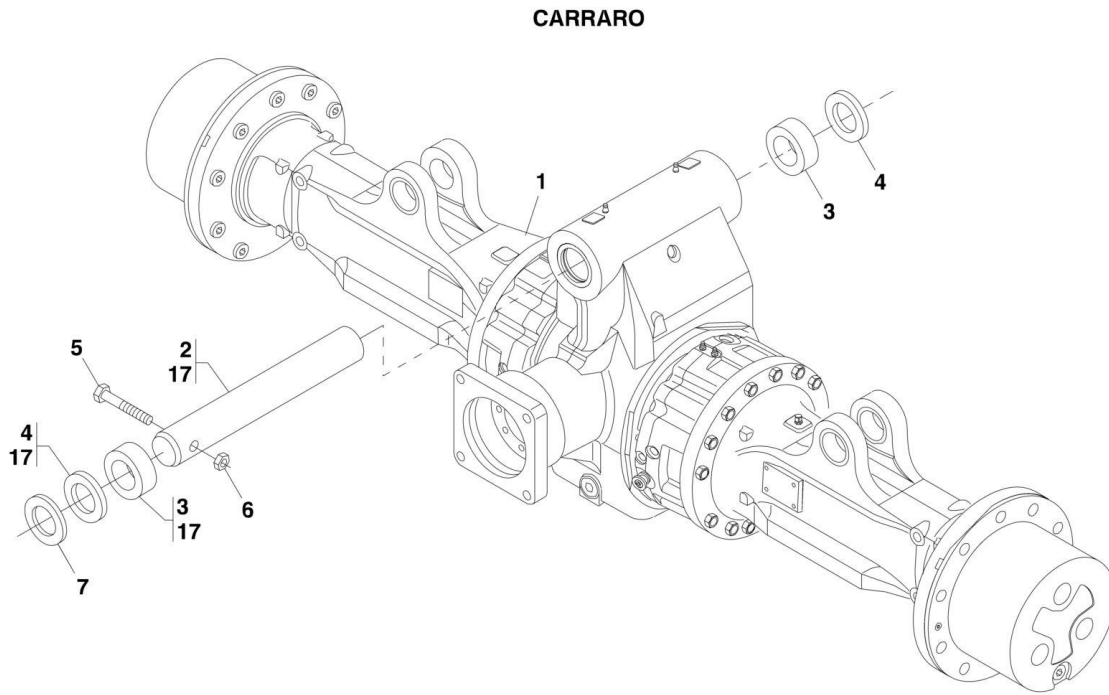
## SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-6. FRONT AXLE MOUNTING (SN 0355001 through 0455362)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	14404793	AR	UNION 76 MEGAPLEX GREASE	
		Ref	FRONT AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	
2	91081176	1	FRONT SWAY PIN	
3	90205891	2	SPACER	
4	91031014	2	SHIM WASHER	
5	83201172	1	HEX HD CAPSCREW, 1-8 x 5, GR8	
6	88521016	1	HEX LOCK NUT, 1-8	
7	91083480	1	SHIM WASHER	

# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-7. FRONT AXLE MOUNTING (SN 0160000192 to Present)



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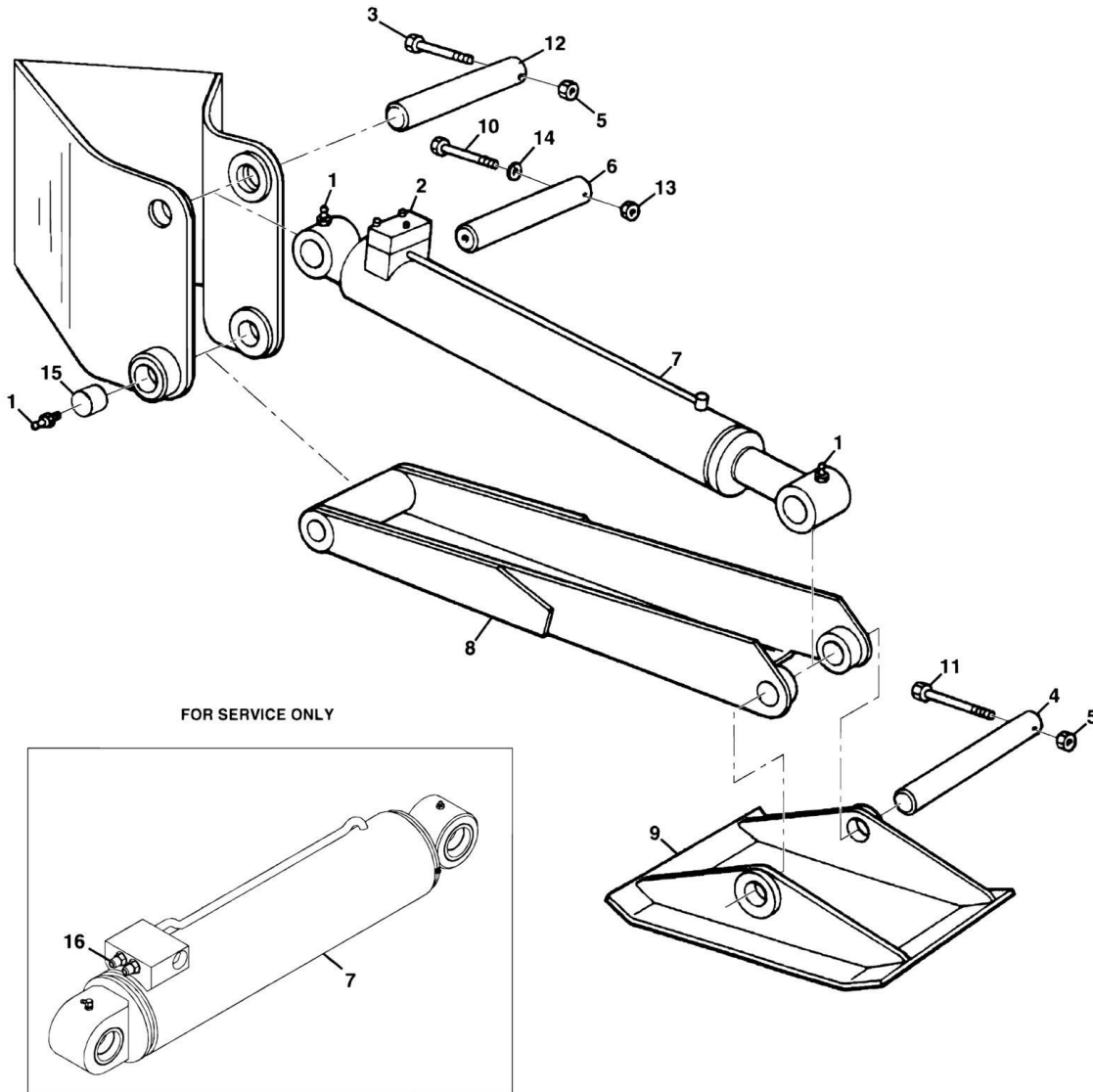
# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-7. FRONT AXLE MOUNTING (SN 0160000192 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	
2	3423248	1	FRONT SWAY PIN	
3	90205891	AR	SPACER	
4	91031014	AR	SHIM WASHER	
5	83201172	1	HEX HD CAPSCREW, 1-8X5, GR8	
6	88521016	1	HEX LOCKNUT, 1-8	
7	91083480	AR	SHIM WASHER	
17	14404793	AR	UNION 76 MEGAPLEX GREASE	

# SECTION 1 - FRAME AND ATTACHING PARTS

## FIGURE 1-8. OUTRIGGER MOUNTING (Prior to SN 0160015062)



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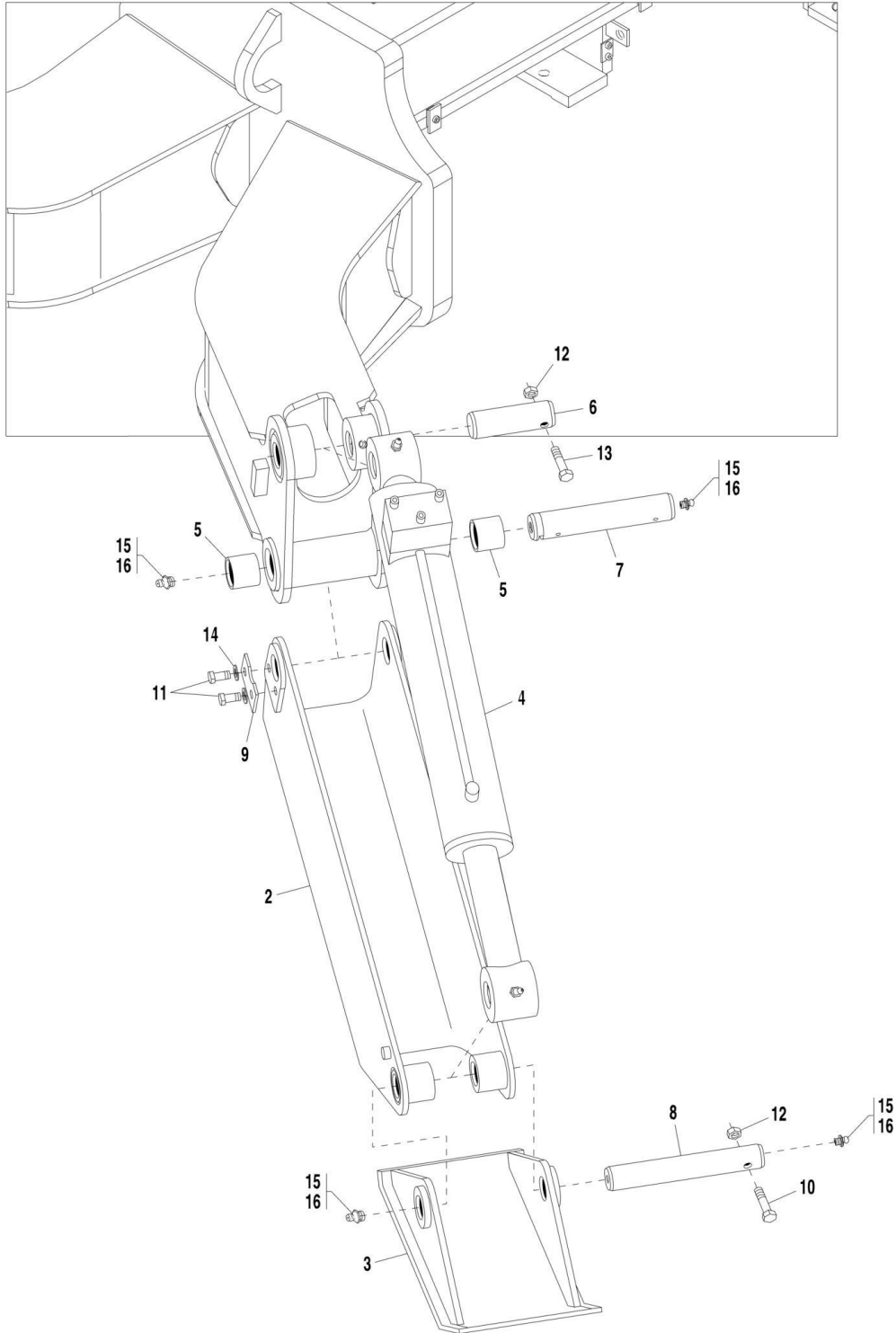
## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-8. OUTRIGGER MOUNTING (Prior to SN 0160015062)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88671001	4	STRAIGHT LUBE FITTING, 1/8	
2		Ref	OUTRIGGER CYLINDER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88211083	2	SOCKET HD CAPSCREW, 3/8-16X4-1/2, GR8	
4	91161080	2	SHOE PIN	
5	3300143	4	HEX LOCKNUT, 3/8-16	
6	91161069	2	ARM PIN	
7		Ref	OUTRIGGER CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	91166008	2	ARM WELDMENT	
9	91166011	2	OUTRIGGER SHOE	
10	88201065	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
11	83793054	2	HEX HD CAPSCREW, 3/8-16X4-1/4	
12	91161016	2	OUTRIGGER CYLINDER PIN	
13	91081313	2	KEEPER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
14	88551013	4	LOCKWASHER, 1/2	
15	91163014	4	BUSHING	
16		Ref	ADAPTOR, (includes o-ring), (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-9. OUTRIGGER MOUNTING (SN 0160015062 to Present)



PAL3390

## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-9. OUTRIGGER MOUNTING (SN 0160015062 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	OUTRIGGER INSTALLATION, (includes all items)	
2	91566050	2	ARM WELDMENT	
3	91566051	2	OUTRIGGER HOSE	
4		Ref	OUTRIGGER CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
4		Ref	OUTRIGGER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
4		Ref	OUTRIGGER CYLINDER AND VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
5	91163014	4	BUSHING	
6	91563197	2	OUTRIGGER CYLINDER PIN	
7	91563198	2	ARM PIN	
8	91563199	2	SHOE PIN	
9	91081313	2	KEEPER	
10	0641634	2	HEX HD CAPSCREW, 3/8-16X4-1/4, GR5	
11	0641808	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
12	3300143	4	HEX LOCKNUT, 3/8-16	
13	3931672	2	SOCKET HD CAPSCREW, 3/8-16X4-1/2, GR8	
14	4761800	4	LOCKWASHER, 1/2	
15	2160002	4	STRAIGHT LUBE FITTING, 1/8	
16	0100011	AR	LOCTITE 242	
17		Ref	HOSE ASSY, (not shown), (See HYDRAULIC CIRCUITS SECTION for Breakdown)	

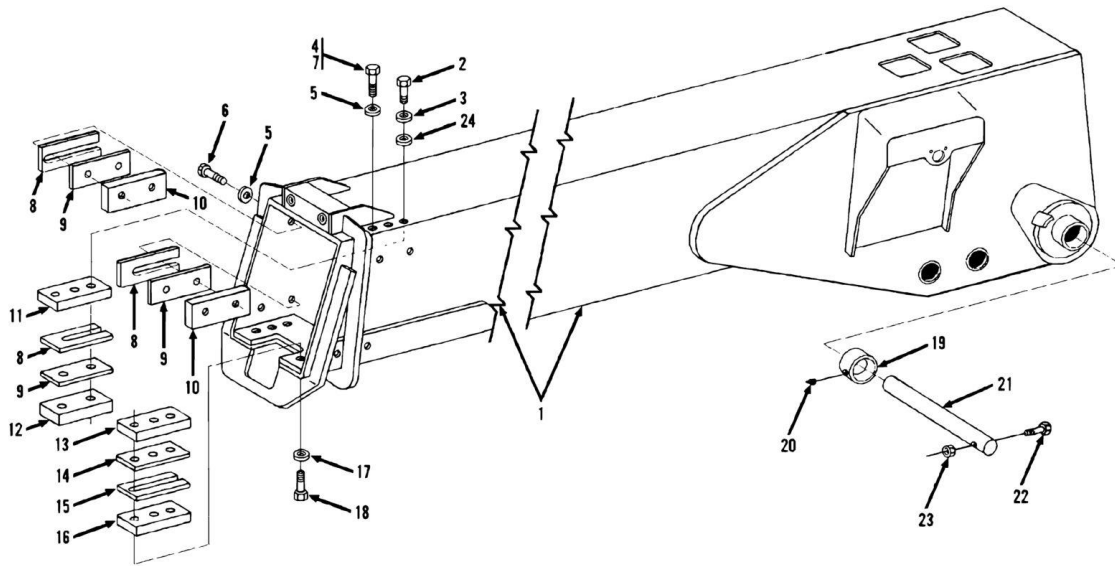




**SECTION 2 - BOOM**

## SECTION 2 - BOOM

FIGURE 2-1. FIRST BOOM SECTION



**NOTES:**

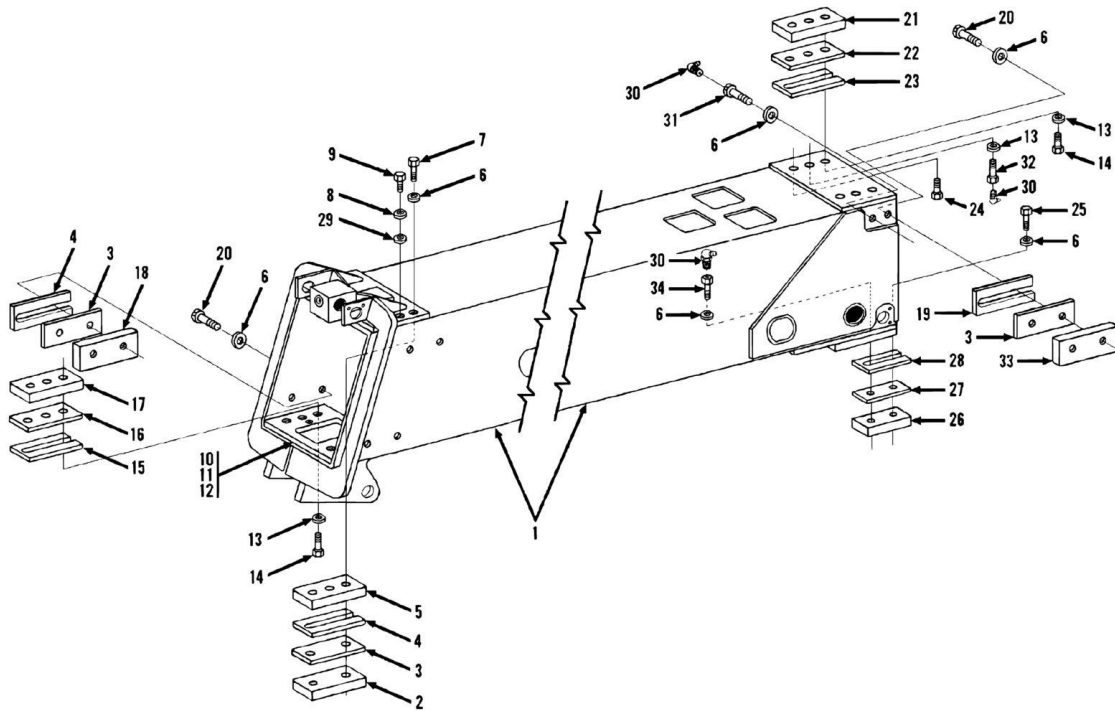
1. ADD BEARING PAD SHIMS & SPACERS AS REQUIRED TO SHIM BOOM TO WITHIN 1/16 IN OF A TIGHT FIT. AMOUNTS OF SHIMS CAN VARY AT EACH SHIM POINT. WHENEVER A SHIM IS USED WITH A PAD, A SPACER MUST BE INSERTED BETWEEN PAD & SHIM. NO PADS SHALL SIT DIRECTLY ON SLOTTED SURFACE OF SHIMS.
2. ADD, 14404793, MYSTIK TETRIMOLY GREASE TO ALL BEARING PADS & BEARING SLIDE AREAS.
3. THE LENGTH OF PAD BOLTS DEPEND ON THE AMOUNT OF SHIMS USED. BOLT CANNOT EXTEND PAST CHAMFER ON BEARING.
4. BEARING PAD BOLT TORQUES, 3/8 IN BOLTS = 32-37 LB-FT, 1/2 IN BOLTS = 76-86 LB-FT

FIGURE 2-1. FIRST BOOM SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91166014	1	FIRST BOOM SECTION	
2	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5 (Prior to SN <b>0160012437</b> )	
2	0651618	2	HEX HD CAPSCREW, 0.375-24X2.25, LG (SN <b>0160012437</b> to <b>Present</b> )	
3	88551013	2	LOCKWASHER, 1/2	
4	88201536	2	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5 (Prior to SN <b>0160012437</b> )	
4	0651612	2	HEX HD CAPSCREW, 0.375-24X1.5, LG (SN <b>0160012437</b> to <b>Present</b> )	
5	90027470	10	HARDENED WASHER, 3/8	
6	0651606	8	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
6	0651605	AR	HEX HD CAPSCREW, 0.375-24X0.62, LG	
6	0651607	AR	HEX HD CAPSCREW, 0.375-24X0.88, LG	
7	88201537	AR	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5 (Prior to SN <b>0160012437</b> )	
7	0651614	AR	HEX HD CAPSCREW, 0.375-24X1.75, LG (SN <b>0160012437</b> to <b>Present</b> )	
8	91361048	6	SHIM	
9	91031236	6	SPACER	
10	91033186	4	BEARING PAD	
11	91161171	2	BEARING PAD SUPPORT	
12	91033189	2	BEARING PAD	
13	1001117653	2	BEARING PAD	
14	91161183	2	SPACER	
15	91361050	2	SHIM (Prior to SN <b>0160012437</b> )	
15	91161184	2	SHIM (SN <b>0160012437</b> to <b>Present</b> )	
16	91161167	2	BEARING PAD SUPPORT	
17	90027471	AR	HARDENED WASHER, 1/2	
18	88201570	6	HEX HD CAPSCREW, 1/2-20X2-1/2, GR5 (Prior to SN <b>0160012437</b> )	
18	0651820	6	HEX HD CAPSCREW, 0.5-20 X 2.5, LG (SN <b>0160012437</b> to <b>Present</b> )	
18	0651822	AR	HEX HD CAPSCREW, 0.5-20 X 2.75, LG (SN <b>0160012437</b> to <b>Present</b> )	
19	91141301	2	BUSHING	
20	88671001	2	LUBE FITTING	
21	91141122	1	BOOM BASE PIN (Prior to SN <b>0160018546</b> )	
21	3423247	1	BOOM BASE PIN (SN <b>0160018546</b> to <b>Present</b> )	
22	83481645	1	HEX HD CAPSCREW, 5/8-11X6, GR8 (Prior to SN <b>0160018546</b> )	
22	88212287	1	HEX HD CAPSCREW, 3/4-16X6, GR8 (SN <b>0160018546</b> to <b>Present</b> )	
23	88521010	1	HEX NUT, 5/8-11 (Prior to SN <b>0160018546</b> )	
23	8310067	1	HEX LOCKNUT, 3/4-10 (SN <b>0160018546</b> to <b>Present</b> )	
24	88561111	2	FLAT WASHER, 1/2	

# SECTION 2 - BOOM

## FIGURE 2-2. SECOND BOOM SECTION



**NOTES:**

1. ADD BEARING PAD SHIMS & SPACERS AS REQUIRED TO SHIM BOOM TO WITHIN 1/16 IN OF A TIGHT FIT. AMOUNTS OF SHIMS CAN VARY AT EACH SHIM POINT. WHENEVER A SHIM IS USED WITH A PAD, A SPACER MUST BE INSERTED BETWEEN PAD & SHIM. NO PADS SHALL SIT DIRECTLY ON SLOTTED SURFACE OF SHIMS.
2. ADD, 14404793, MYSTIK TETRIMOLY GREASE TO ALL BEARING PADS & BEARING SLIDE AREAS.
3. ADD, 14404595, MYSTIK TETRIMOLY GREASE ON ALL BEARING PAD GREASE FITTINGS AT REAR OF BOOM.
4. THE LENGTH OF PAD BOLTS DEPEND ON THE AMOUNT OF SHIMS USED. BOLT CANNOT EXTEND PAST CHAMFER ON BEARING.
5. BEARING PAD BOLT TORQUES, 3/8 IN BOLTS = 32-37 LB-FT, 1/2 IN BOLTS = 76-86 LB-FT, HOLLOW 3/8 IN BOLTS = 20-25 LB-FT, HOLLOW 1/2 IN BOLTS = 45-50 LB-FT

FIGURE 2-2. SECOND BOOM SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91166015	1	SECOND BOOM SECTION	
2	91033189	2	BEARING PAD	
3	91031236	8	SPACER	
4	91361048	6	SHIM	
5	91161170	2	BEARING PAD SUPPORT	
6	90027470	20	HARDENED WASHER, 3/8	
7	88201539	4	HEX HD CAPSCREW, 3/8-24X2-1/4, GR5 (Prior to SN <b>0160012437</b> )	
7	0651618	AR	HEX HD CAPSCREW, 0.375-24X2.25, LG (SN <b>0160012437</b> to <b>Present</b> )	
8	88551013	2	LOCKWASHER, 1/2	
9	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5 (Prior to SN <b>0160012437</b> )	
9	0651620	AR	HEX HD CAPSCREW, 0.375-24X2.25, LG (SN <b>0160012437</b> to <b>Present</b> )	
10	91161168	1	BEARING PAD SUPPORT	
11	90027473	2	HARDENED WASHER, 3/4	
12	88201108	2	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5 (Prior to SN <b>0160012437</b> )	
12	0642210	2	HEX HD CAPSCREW, 0.75-10X1.25, LG (SN <b>0160012437</b> to <b>Present</b> )	
13	90027471	18	HARDENED WASHER, 1/2	
14	0651812	8	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5	
14	0651816	AR	HEX HD CAPSCREW, 500-20X2.00, LG	
14	0651808	AR	HEX HD CAPSCREW, 500-20X1.00, LG	
14	0651806	1	HEX HD CAPSCREW, 500-20X0.75, LG	
15	91141302	2	SHIM	
16	91141303	2	SPACER	
17	1001117652	2	BEARING PAD	
18	91033186	4	BEARING PAD	
19	90205870	2	SHIM	
20	0651606	10	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
20	0651605	AR	HEX HD CAPSCREW, 0.375-24X0.62, LG	
20	0651607	AR	HEX HD CAPSCREW, 0.375-24X0.88, LG	
21	1001117653	2	BEARING PAD	
22	91161183	2	SPACER	
23	91161184	2	SHIM	
24	88201564	2	HEX HD CAPSCREW, 1/2-20X1, GR5	
25	88201538	2	HEX HD CAPSCREW, 3/8-24X2, GR5 (Prior to SN <b>0160012437</b> )	
25	0651616	2	HEX HD CAPSCREW, 0.375-24X2, LG (SN <b>0160012437</b> to <b>Present</b> )	
26	91163214	2	BEARING PAD	
27	91511094	2	SPACER	
28	91121082	4	SHIM	
29	88561111	2	FLAT WASHER, 1/2	
30	88671027	6	GREASE FITTING, 90	
31	91161248	2	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 20-25 lb-ft) (Prior to SN <b>0160012437</b> )	
31	91361045	2	HOLLOW HEX HD CAPSCREW, 0.375-24X0.875, (torque to 20-25 ft lbs) (SN <b>0160012437</b> to <b>Present</b> )	
31	91361044	2	HOLLOW HEX HD CAPSCREW, 0.375-24X0.625, (torque to 20-25 lb-ft) (SN <b>0160012437</b> to <b>Present</b> )	

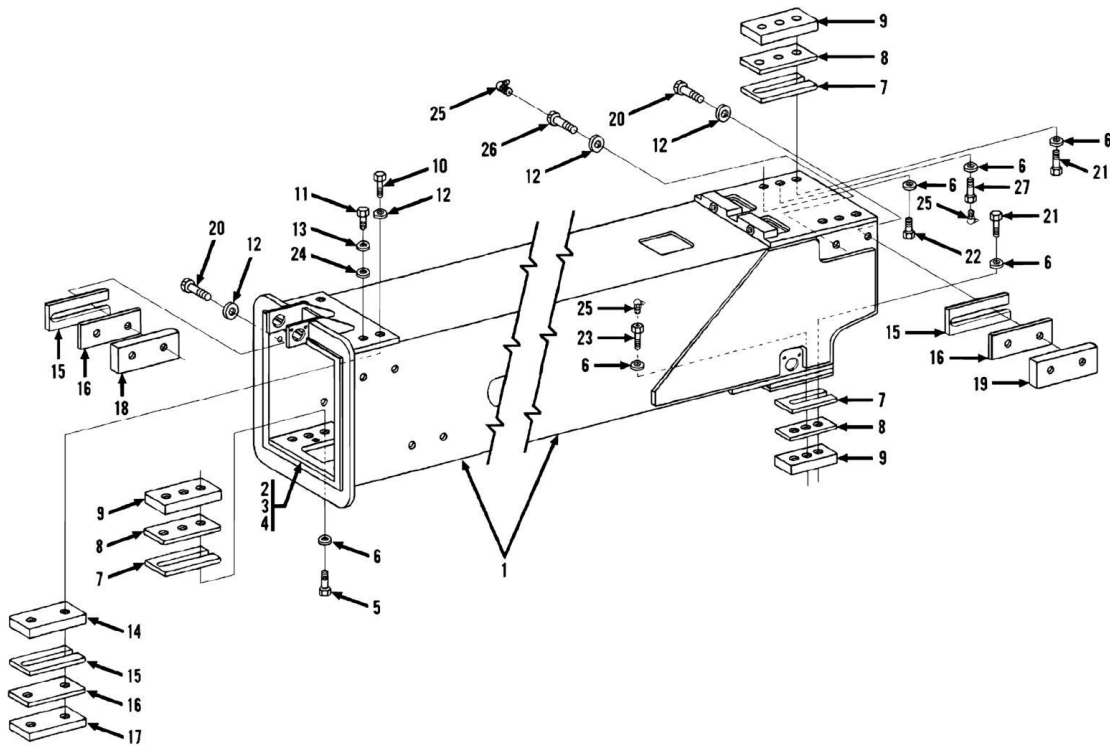
## SECTION 2 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
32	91161222	2	HOLLOW HEX HD CAPSCREW, 1/2-20X1-1/2, (torque to 20-25 lb-ft)	
33	91163188	2	BEARING PAD	
34	91161278	2	HOLLOW HEX HD CAPSCREW, 3/8-24X2, (torque 20-25 lb-ft) <b>(Prior to SN 0160012437)</b>	
34	91361046	2	HOLLOW HEX HD CAPSCREW, 0.375-24X2.25, (torque 20-25 lb-ft) <b>(SN 0160012437 to Present)</b>	



# SECTION 2 - BOOM

## FIGURE 2-3. THIRD BOOM SECTION



**NOTES:**

1. ADD BEARING PAD SHIMS & SPACERS AS REQUIRED TO SHIM BOOM TO WITHIN 1/16 IN OF A TIGHT FIT. AMOUNTS OF SHIMS CAN VARY AT EACH SHIM POINT. WHENEVER A SHIM IS USED WITH A PAD, A SPACER MUST BE INSERTED BETWEEN PAD & SHIM. NO PADS SHALL SIT DIRECTLY ON SLOTTED SURFACE OF SHIMS.
2. ADD, 14404793, MYSTIK TETRIMOLY GREASE TO ALL BEARING PADS & BEARING SLIDE AREAS.
3. ADD, 14404595, MYSTIK TETRIMOLY GREASE ON ALL BEARING PAD GREASE FITTINGS AT REAR OF BOOM.
4. THE LENGTH OF PAD BOLTS DEPEND ON THE AMOUNT OF SHIMS USED. BOLT CANNOT EXTEND PAST CHAMFER ON BEARING.
5. BEARING PAD BOLT TORQUES; 3/8 IN BOLTS = 32-37 LB-FT, 1/2 IN BOLTS = 76-86 LB-FT, HOLLOW 3/8 IN BOLTS = 20-25 LB-FT, HOLLOW 1/2 IN BOLTS = 45-50 LB-FT



FIGURE 2-3. THIRD BOOM SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91166016	1	THIRD BOOM SECTION	
2	91161169	1	BEARING PAD SUPPORT	
3	88201093	2	HEX HD CAPSCREW, 5/8-11X1, GR5 (Prior to SN 0160012437)	
3	0642008	2	HEX HD CAPSCREW, 0.625-11X1.00, LG (SN 0160012437 to Present)	
4	77141077	2	HARDENED WASHER, 5/8	
5	88201564	6	HEX HD CAPSCREW, 1/2-20X1, GR5 (Prior to SN 0160012437)	
5	0651816	AR	HEX HD CAPSCREW, 500-20X2, LG (SN 0160012437 to Present)	
5	0651808	AR	HEX HD CAPSCREW, 500-20X1, LG (SN 0160012437 to Present)	
5	0651806	1	HEX HD CAPSCREW, 500-20X0.75, LG (SN 0160012437 to Present)	
6	90027471	AR	HARDENED WASHER, 1/2	
7	91141302	6	SHIM	
8	91141303	6	SPACER	
9	1001117652	6	BEARING PAD	
10	88201539	2	HEX HD CAPSCREW, 3/8-24X2-1/4, GR5 (Prior to SN 0160012437)	
10	0651618	AR	HEX HD CAPSCREW, 0.375-24X2.25, LG (SN 0160012437 to Present)	
11	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5 (Prior to SN 0160012437)	
11	0651620	AR	HEX HD CAPSCREW, 0.375-24X2.25, LG (SN 0160012437 to Present)	
12	90027470	AR	HARDENED WASHER, 3/8	
13	88551013	2	LOCKWASHER, 1/2	
14	91161170	2	BEARING PAD SUPPORT	
15	91361048	8	SHIM	
16	91031236	8	SPACER	
17	91033189	2	BEARING PAD	
18	91033186	4	BEARING PAD	
19	91163188	2	BEARING PAD	
20	0651606	10	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
20	0651605	AR	HEX HD CAPSCREW, 0.375-24X0.62, LG	
20	0651607	AR	HEX HD CAPSCREW, 0.375-24X0.88, LG	
21	0651814	6	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5	
21	0651810	6	HEX HD CAPSCREW, 0.50-20 X 1.50, LG	
22	88201565	2	HEX HD CAPSCREW, 1/2-20X1-1/4, GR5	
22	0651808	2	HEX HD CAPSCREW, 1/2-20X1	
22	0651810	2	HEX HD CAPSCREW, 1/2-20X1-1/4	
22	0651806	2	HEX HD CAPSCREW, 1/2-20X3/4	
23	91161277	2	HOLLOW HEX HD CAPSCREW, 1/2-20X2, (torque to 20-25 lb-ft) (Prior to SN 0160012437)	
23	91361047	2	HOLLOW HEX HD CAPSCREW, 0.50-20X1.50, (torque to 20-25 lb-ft) (SN 0160012437 to Present)	
24	88561111	3	FLAT WASHER, 1/2	
25	88671027	6	GREASE FITTING, 90	
26	91161248	2	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 20-25 lb-ft) (Prior to SN 0160012437)	
26	91361045	2	HOLLOW HEX HD CAPSCREW, 0.375-24X0.875, (torque to 20-25 ft lbs) (SN 0160012437 to Present)	
27	91161221	2	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 20-25 lb-ft)	

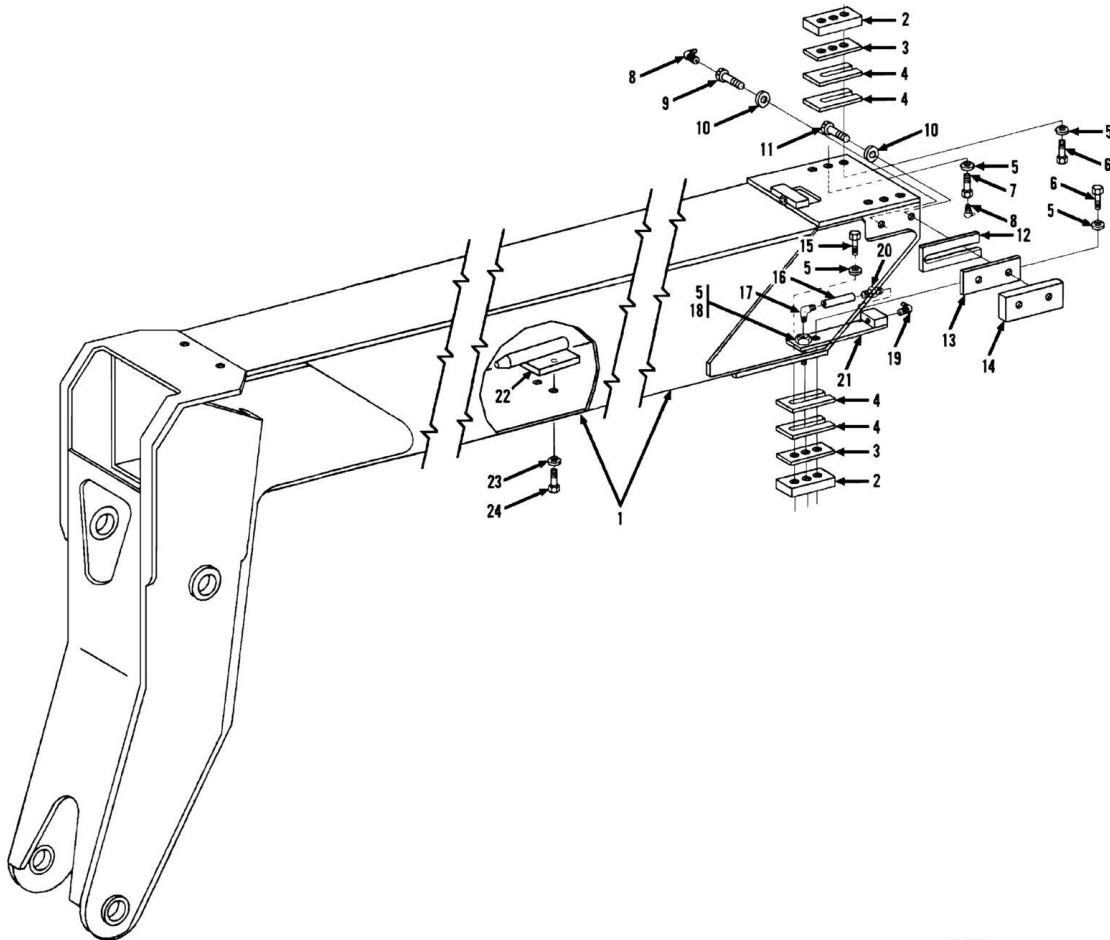
## SECTION 2 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
27	91361047	2	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 20-25 lb-ft)	



## SECTION 2 - BOOM

### FIGURE 2-4. FOURTH BOOM SECTION



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#### NOTES:

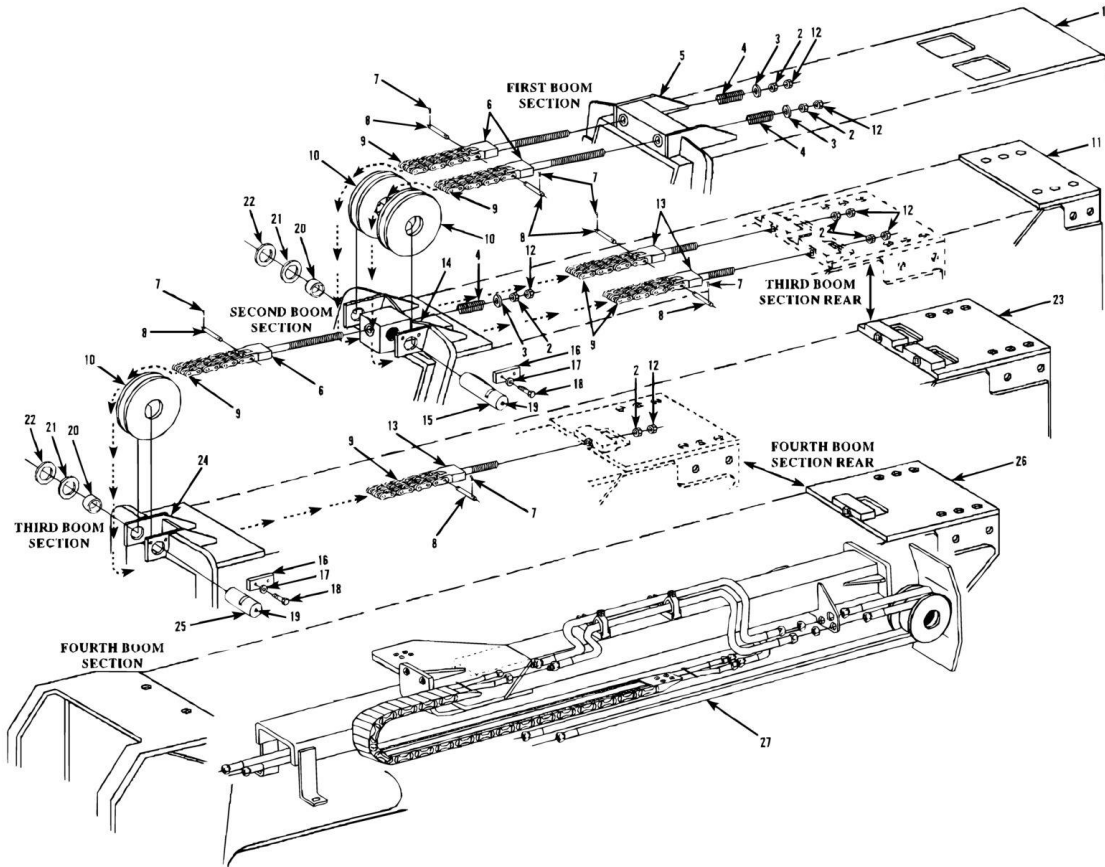
1. ADD BEARING PAD SHIMS & SPACERS AS REQUIRED TO SHIM BOOM TO WITHIN 1/16 IN OF A TIGHT FIT. AMOUNTS OF SHIMS CAN VARY AT EACH SHIM POINT. WHENEVER A SHIM IS USED WITH A PAD, A SPACER MUST BE INSERTED BETWEEN PAD & SHIM. NO PADS SHALL SIT DIRECTLY ON SLOTTED SURFACE OF SHIMS.
2. ADD 14404793, MYSTIK TETRIMOLY GREASE TO ALL BEARING PADS & BEARING SLIDE AREAS.
3. ADD 14404595, MYSTIK TETRIMOLY GREASE ON ALL BEARING PADS.
4. THE LENGTH OF PAD BOLTS DEPEND ON THE AMOUNT OF SHIMS USED. BOLT CANNOT EXTEND PAST CHAMFER ON BEARING.
5. BEARING PAD BOLT TORQUES, 3/8 IN BOLTS = 32-37 LB-FT, 1/2 IN BOLTS = 76-86 LB-FT, HOLLOW 3/8 IN BOLTS = 20-25 FT.LBS, HOLLOW 1/2 IN BOLTS = 45-50 LB-FT

FIGURE 2-4. FOURTH BOOM SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91166017	1	FOURTH BOOM SECTION (Prior to SN 0160037689)	
1	1001099331	1	FOURTH BOOM SECTION (SN 0160037689 to Present)	
2	1001117652	4	BEARING PAD	
3	91141303	4	SPACER	
4	91141302	8	SHIM	
5	90027471	AR	HARDENED WASHER, 1/2	
6	0651814	6	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft)	
6	0651816	AR	HEX HD CAPSCREW, 500-20X2.00, LG	
6	0651808	AR	HEX HD CAPSCREW, 500-20X1.00, LG	
6	0651806	1	HEX HD CAPSCREW, 500-20X0.750, LG	
7	91161221	2	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 20-25 lb-ft)	
8	88671027	4	GREASE FITTING, 90	
9	91161248	2	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 20-25 lb-ft) (Prior to SN 0160012437)	
9	91361045	2	HOLLOW HEX HD CAPSCREW, 0.375-24X0.875, (torque to 20-25 ft lbs) (SN 0160012437 to Present)	
9	91361044	AR	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 20-25 lb-ft)	
10	90027470	AR	HARDENED WASHER, 3/8	
11	0651606	10	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
11	0651605	AR	HEX HD CAPSCREW, 0.375-24X0.62, LG	
11	0651607	AR	HEX HD CAPSCREW, 0.375-24X0.88, LG	
12	91361048	2	SHIM	
13	91031236	2	SPACER	
14	91163188	2	BEARING PAD	
15	0651812	2	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5, (torque to 76-87 ft lbs)	
15	0651810	2	HEX HD CAPSCREW, 0.5-20X1.5, LG	
16	72088049	12 in	NYLON TUBE, 1/4 IN OD	
17	86881276	2	ELBOW, 90	
18	91161274	2	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 20-25 lb-ft)	
19	88671018	2	LUBE FITTING, 45, 1/8	
20	86881273	2	STRAIGHT THREAD CONNECTOR	
21	91166065	2	BRACKET	
22	91166039	1	BRACKET ASSY	
23	4761600	2	LOCKWASHER, 3/8	
24	0641606	2	HEX HD CAPSCREW, 3/8-16X3/4	

# SECTION 2 - BOOM

## FIGURE 2-5. EXTENSION CHAINS



**NOTES:**

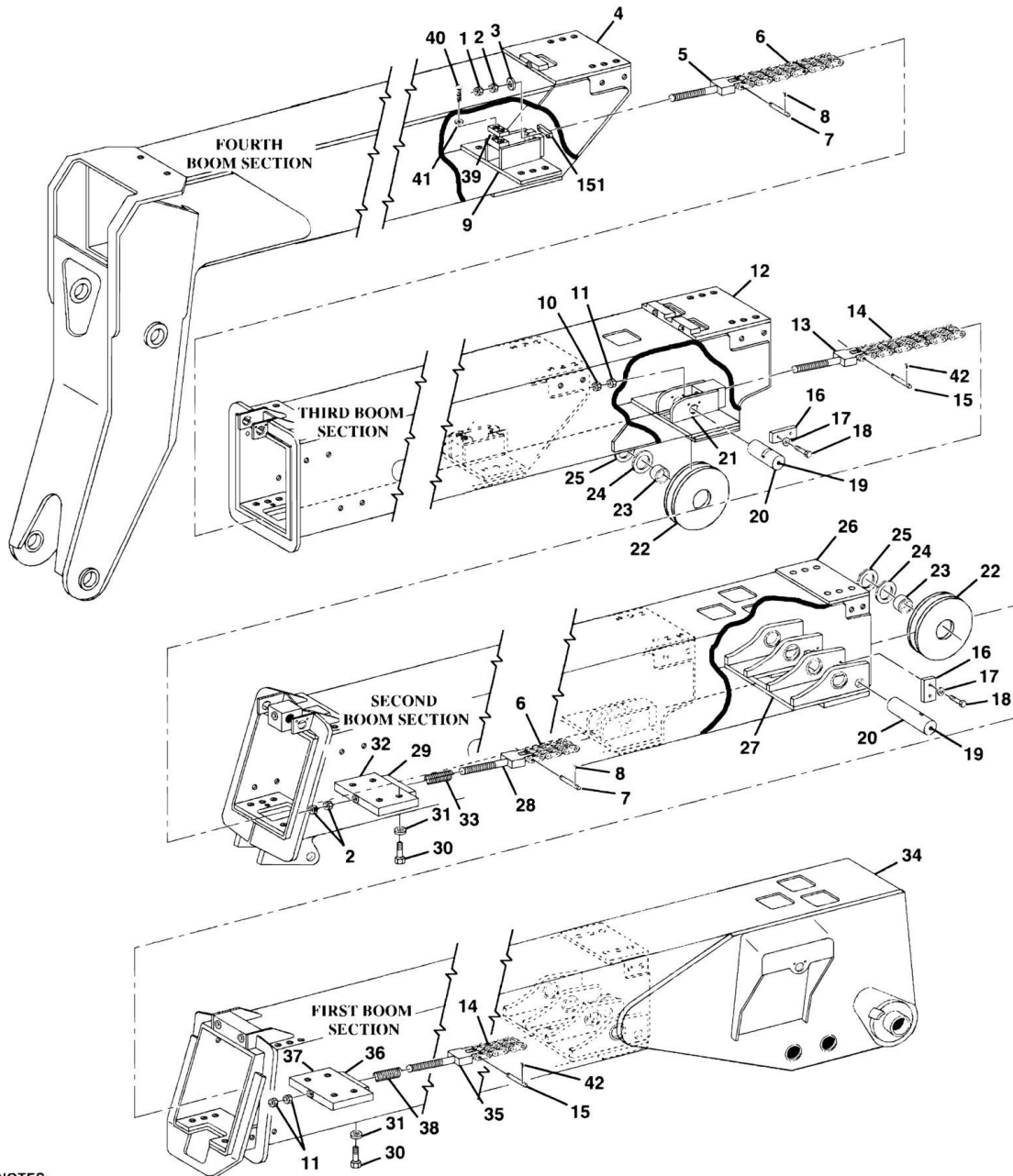
- 1. USE ITEM 101 ON ITEM 8.
- 2. BOOM SECTIONS SHOWN SEPARATELY FOR CLARIFICATION.

FIGURE 2-5. EXTENSION CHAINS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FIRST BOOM SECTION, (See FIRST BOOM SECTION for Breakdown)	
2	88501314	6	HEX NUT, 7/8-14, (torque to 100 lb-ft)	
3	91161218	3	SPECIAL WASHER	
4	91163163	3	SPRING	
5	91166044	1	CHAIN ANCHOR	
6	1360296	3	CHAIN CLEVIS	
7	88581112	12	RETAINING RING, 3/8	
8	91413122	6	CHAIN PIN	
9	91163036	3	CHAIN, 193 IN	
10	91165022	3	CHAIN ROLLER, (includes items 20 & 21)	
11		Ref	SECOND BOOM SECTION, (See SECOND BOOM SECTION for Breakdown)	
12	88501414	6	JAM NUT, (torque to 100 lb-ft)	
13	1360297	3	CHAIN CLEVIS	
14	91166045	1	ROLLER BRACKET	
15	91161266	1	CHAIN SHEAVE PIN	
16	91081313	2	PIN KEEPER	
17	4761800	4	LOCKWASHER, 1/2	
18	88201065	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
19	88671001	2	GREASE FITTING	
20	91163204	3	BUSHING	
21	86921268	6	SEAL	
22	91041451	6	THRUST WASHER, (0.106 in thick)	
22	91041450	AR	THRUST WASHER, (0.0478 in thick)	
22	91041449	AR	THRUST WASHER, (0.060 in thick)	
22	91041596	AR	THRUST WASHER, (0.0359 in thick)	
23		Ref	THIRD BOOM SECTION, (See THIRD BOOM SECTION for Breakdown)	
24	91166025	1	ROLLER BRACKET	
25	91161267	1	CHAIN SHEAVE PIN	
26		Ref	FOURTH BOOM SECTION, (See FOURTH BOOM SECTION for Breakdown)	
27		Ref	BOOM HYD SUB ASSY, (See HYDRAULIC CIRCUITS SECTION for Breakdown)	
101	8522012	AR	ANTI-SEIZE LUBE, (not shown)	
151	88581157	2	RETAINING RING, (not shown)	

# SECTION 2 - BOOM

## FIGURE 2-6. RETRACTION CHAINS



**NOTES:**

1. USE ITEM 101 ON ITEM 8.
2. BOOM SECTIONS SHOWN SEPARATELY FOR CLARIFICATION.

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FIGURE 2-6. RETRACTION CHAINS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88501412	1	HEX JAM NUT, 3/4-16, (torque to 100 lb-ft)	
2	88501312	3	HEX NUT, 3/4-16, (torque to 100 lb-ft)	
3	90027473	2	HARDENED WASHER, 3/4	
4		Ref	FOURTH BOOM SECTION, (See FOURTH BOOM SECTION for Breakdown)	
5	1360293	1	CHAIN CLEVIS	
6	91163037	1	CHAIN, 167-1/4 IN	
7	91413129	2	CHAIN PIN	
8	88681344	2	SNAP RING, .312 SHAFT DIA	
9	91166027	1	ANCHOR BRACKET	
10	88501414	1	HEX JAM NUT, 7/8-14, (torque to 100 lb-ft)	
11	88501314	3	HEX NUT, 7/8-14, (torque to 100 lb-ft)	
12		Ref	THIRD BOOM SECTION, (See THIRD BOOM SECTION for Breakdown)	
13	1360297	1	CHAIN CLEVIS	
14	91163036	1	CHAIN, 193 IN	
15	91413122	2	CHAIN PIN	
16	91081313	2	PIN KEEPER	
17	4761800	4	LOCKWASHER, 1/2	
18	88201065	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
19	88671001	2	GREASE FITTING	
20	91161267	2	CHAIN SHEAVE PIN	
21	91166026	1	ROLLER BRACKET	
22	91165022	2	CHAIN ROLLER, (includes items 23 & 24)	
23	91163204	2	BUSHING	
24	86921268	4	SEAL	
25	91041451	4	THRUST WASHER	
25	91041450	AR	THRUST WASHER	
25	91041449	AR	THRUST WASHER	
25	91041596	AR	THRUST WASHER	
26		Ref	SECOND BOOM SECTION, (See SECOND BOOM SECTION for Breakdown)	
27	91166022	1	ROLLER BRACKET	
28	1360292	1	CHAIN CLEVIS	
29	91161214	1	STOP BAR	
30	83201061	8	HEX HD CAPSCREW, 3/4-10X1-3/4, GR5, (torque to 340-365 lb-ft) <b>(Prior to SN 0160012437)</b>	
30	0682214	8	HEX HD CAPSCREW, 0.750-10X1.750, LG <b>(SN 0160012437 to Present)</b>	
31	90027473	8	HARDENED WASHER, 3/4	
32	91161212	1	CABLE ADJUSTMENT BLOCK	
33	91163162	1	SPRING	
34		Ref	FIRST BOOM SECTION, (See FIRST BOOM SECTION for Breakdown)	
35	1360296	1	CHAIN CLEVIS	
36	91161213	1	STOP BAR	
37	91161211	1	CABLE ADJUSTMENT BLOCK	
38	91163161	1	SPRING	
39	91033187	1	BEARING PAD	
40	88201536	2	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5	
41	90027470	AR	HARDENED WASHER, 3/8	

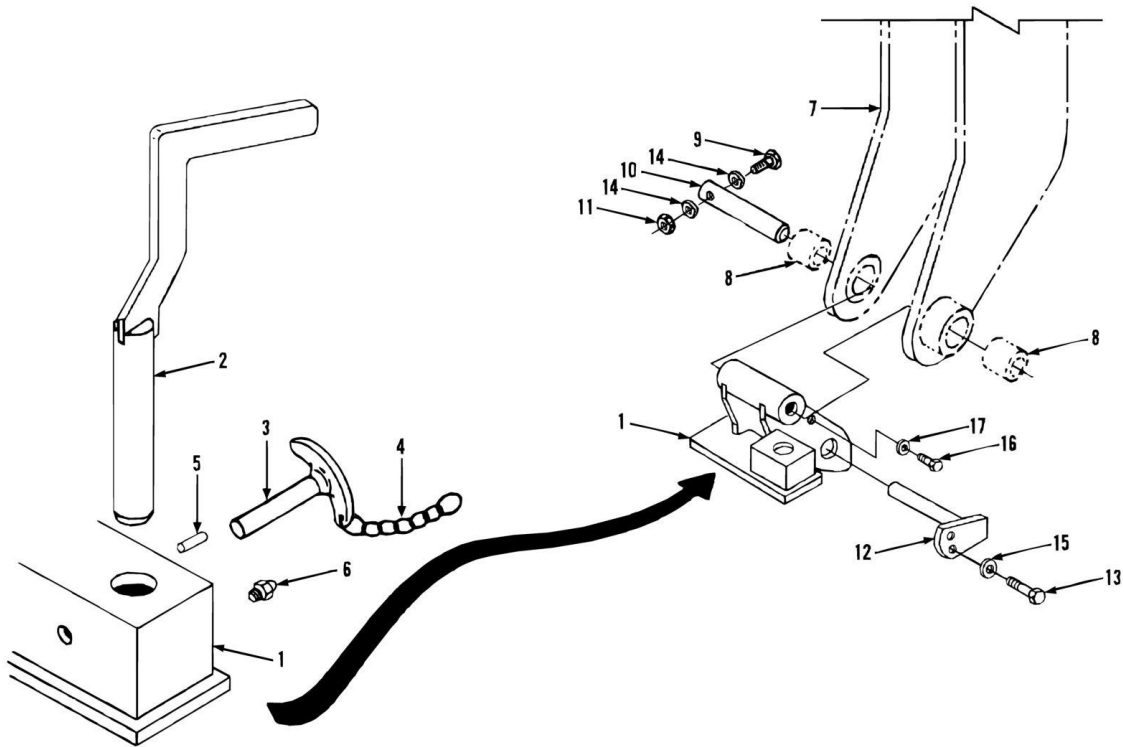
## SECTION 2 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	88581112	4	RETAINING RING, 3/8	
101	8522012	AR	ANTI-SEIZE LUBE, (not shown)	
151	91161180	1	KEEPER PLATE	
152	88581157	2	RETAINING RING, (not shown)	



## SECTION 2 - BOOM

FIGURE 2-7. QUICK SWITCH ASSEMBLY (Prior to SN 0160037689)



### NOTES:

1. USE EXTREME PRESSURE GREASE WITH THE FOLLOWING PROCEDURE:
  - A. CLEAN ID OF BUSHINGS
  - B. COAT ID OF BUSHINGS WITH GREASE ALL THE WAY AROUND
  - C. INSTALL PIN & QUICK SWITCH WITHOUT RETAINING BOLT, (ITEM 9)
  - D. GREASE BOTH BUSHINGS UNTIL GREASE COMES OUT
  - E. ROTATE PIN 180
  - F. GREASE BOTH BUSHINGS A SECOND TIME
  - G. INSTALL RETAINING BOLT, (ITEM 9)

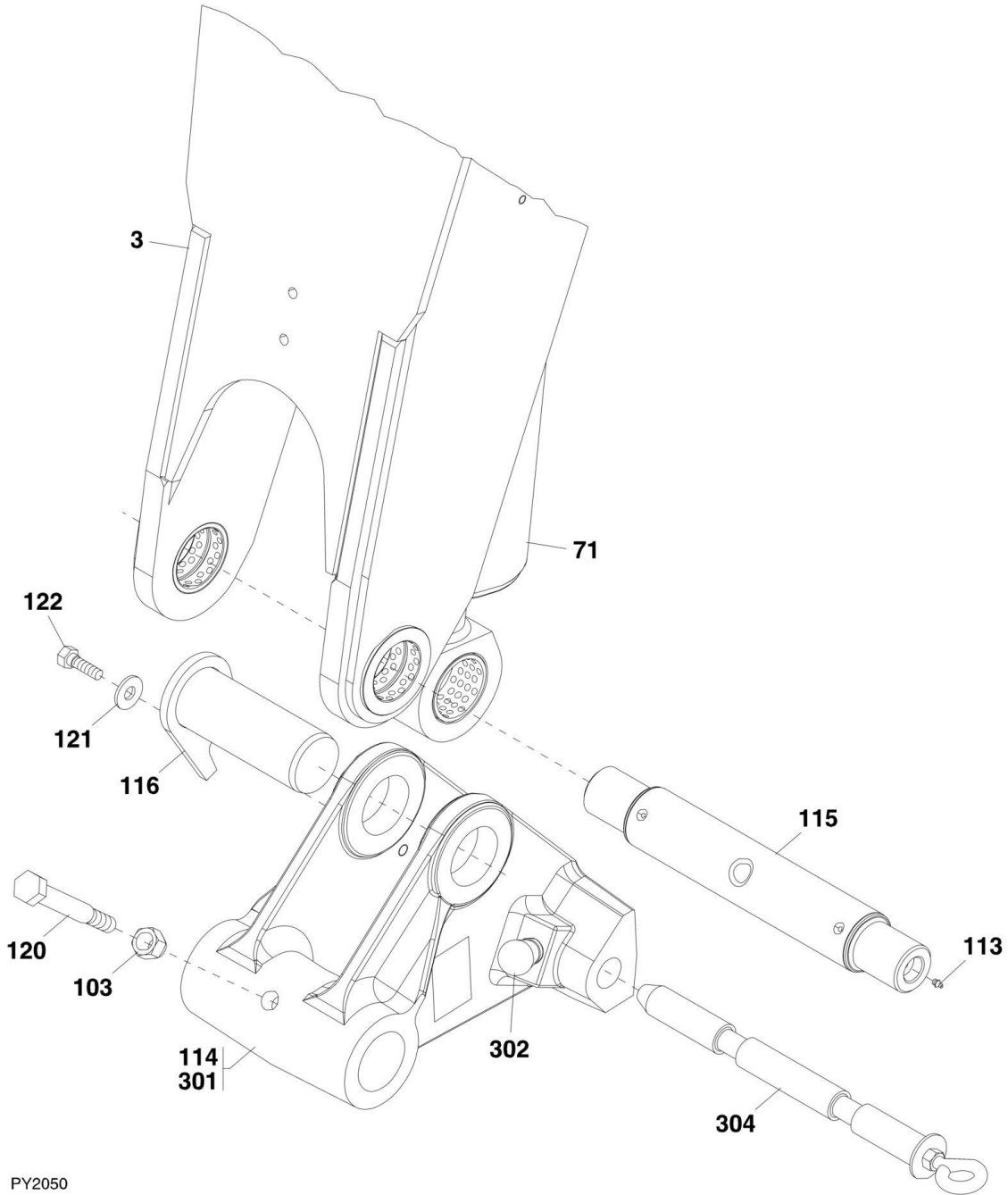
## SECTION 2 - BOOM

**FIGURE 2-7. QUICK SWITCH ASSEMBLY (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085091	1	QUICK SWITCH ASSY, (includes items 1 thru 6, 16 & 17)	C
1	91086152	1	QUICK SWITCH WELDMENT	
2	91086151	1	PLUNGER WELDMENT	
3	90207902	1	QUICK RELEASE PIN	
4	91033038	1	JACK CHAIN, 5 IN LONG, SIZE 12	
5	3440832	1	ROLL PIN, 1/4X2	
6	88671008	1	STRAIGHT LUBE FITTING, 1/4-28	
7		Ref	FOURTH BOOM SECTION, (includes item 8), (See FOURTH BOOM SECTION for Breakdown)	
8	91363085	2	BUSHING	
9	91121308	1	HEX HD CAPSCREW, 5/8-11X5, L-9	
10	91041365	1	PIN	
11	91121309	1	HEX LOCKNUT, 5/8-11, L-9, (torque to 185-200 lb-ft, do not substitute lesser grade hardware for L-9 parts)	
12	91166062	1	TILT CYLINDER PIN	
13	83201123	2	HEX HD CAPSCREW, 1/2-13X1, GR5, (nylok)	
14	4712000	2	FLAT WASHER, 5/8, L-9	
15	4711800	2	FLAT WASHER, 1/2	
16	88301193	1	ROUND HD MACHINE SCREW, #10-32X1/2	
17	88561105	1	FLAT WASHER, #10	

# SECTION 2 - BOOM

FIGURE 2-8. QUICK SWITCH ASSEMBLY (SN 0160037689 to Present)



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## SECTION 2 - BOOM

**FIGURE 2-8. QUICK SWITCH ASSEMBLY (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
3		Ref	FOURTH BOOM SECTION, (See FOURTH BOOM SECTION for Breakdown)	
71		Ref	TILT CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
103	8310067	1	LOCKNUT, 3/4-10	
113	2160002	2	STRAIGHT GREASE FITTING	
114	1001098383	1	QUICK SWITCH COUPLING ASSY, (includes items 301 thru 304)	D
115	1001098233	1	PIVOT PIN	
115	8307916	AR	WASHER, SHIM, (not shown)	
115	8307917	AR	WASHER, SHIM, (not shown)	
116	1001098492	1	PIN WELDMENT	
116	8307904	AR	WASHER, SHIM, (not shown)	
116	8310093	AR	WASHER, SHIM, (not shown)	
116	8307918	AR	WASHER, SHIM, (not shown)	
120	0682244	1	HEX HD CAPSCREW, 3/4-10X5-1/2, GR8	
121	4740003	1	WASHER, 1/2	
122	0641808	1	HEX HD CAPSCREW, 1/2-13X1, GR5	
301	1001100755	1	QUICK SWITCH COUPLER	
302	1001143692	1	POPPIN PIN ASSY	
304	1001105441	1	QUICK SWITCH LOCK PIN	

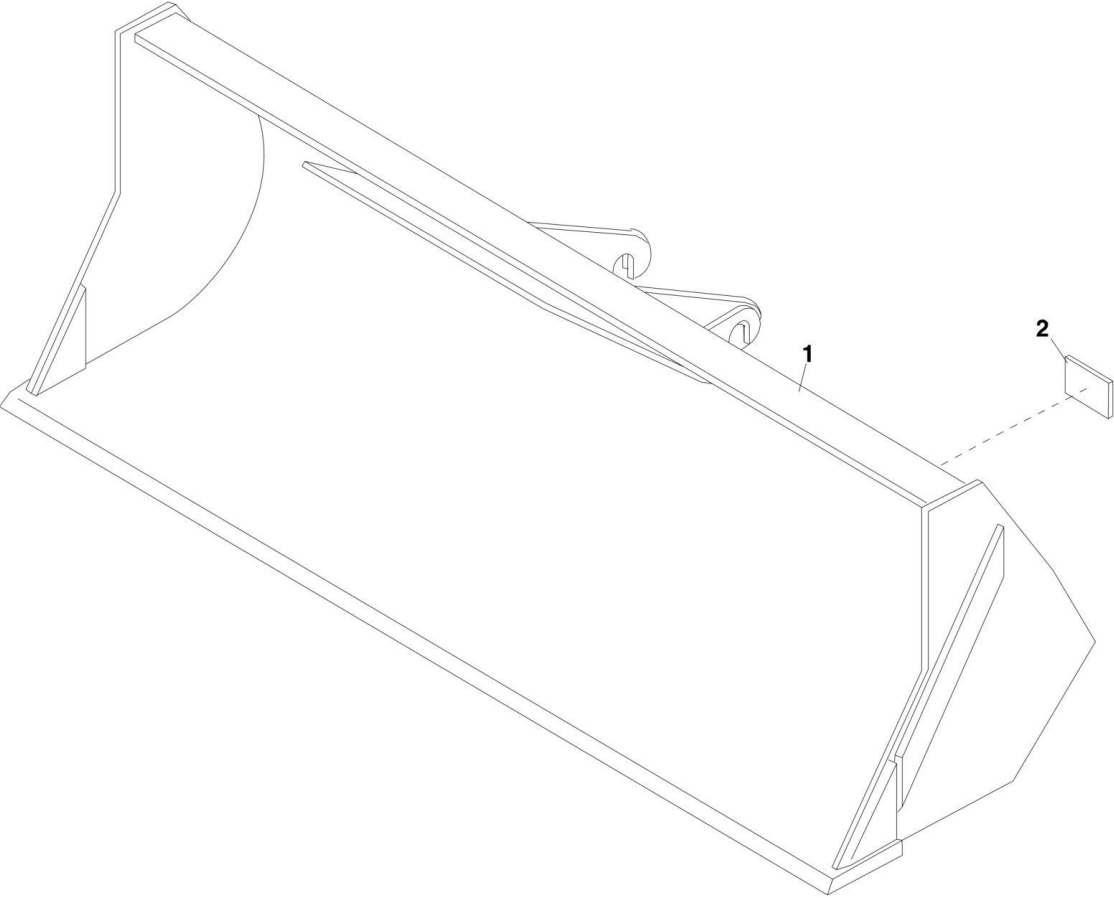




**SECTION 3 - ATTACHMENTS**

**SECTION 3 - ATTACHMENTS**

**FIGURE 3-1. BUCKETS**



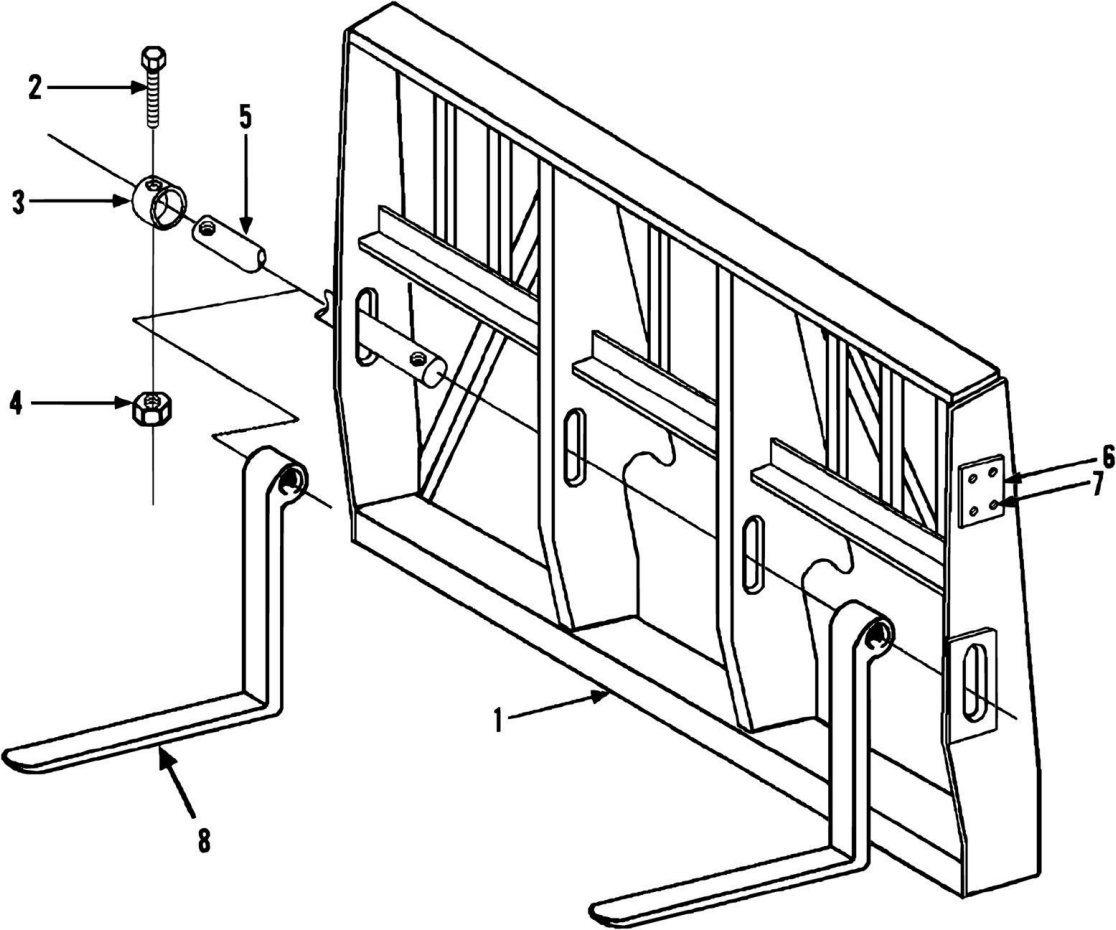
## SECTION 3 - ATTACHMENTS

**FIGURE 3-1. BUCKETS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90455049	1	60 IN BUCKET, 3/4 <sup>3</sup> YARD (Prior to SN 0160037689)	D
1	1001100822	1	72 IN BUCKET, 1.0 <sup>3</sup> YARD (SN 0160037689 to Present)	B
1	90555020	1	74 IN BUCKET, 1-1/4 <sup>3</sup> YARD (Prior to SN 0160037689)	D
1	90453039	1	74 IN BUCKET, 2.0 <sup>3</sup> YARD (Prior to SN 0160037689)	B
1	1001100823	1	96 IN BUCKET, 1.5 <sup>3</sup> YARD (SN 0160037689 to Present)	B
1	1001100824	1	102 IN BUCKET, 2.0 <sup>3</sup> YARD (SN 0160037689 to Present)	B
1	91123115	1	CONCRETE HOPPER, 3/4 <sup>3</sup> YARD (Prior to SN 0160037689)	C
2	N.S.S.	1	S/N PLATE	

**SECTION 3 - ATTACHMENTS**

**FIGURE 3-2. TILT CARRIAGE (Prior to SN 0160023515)**



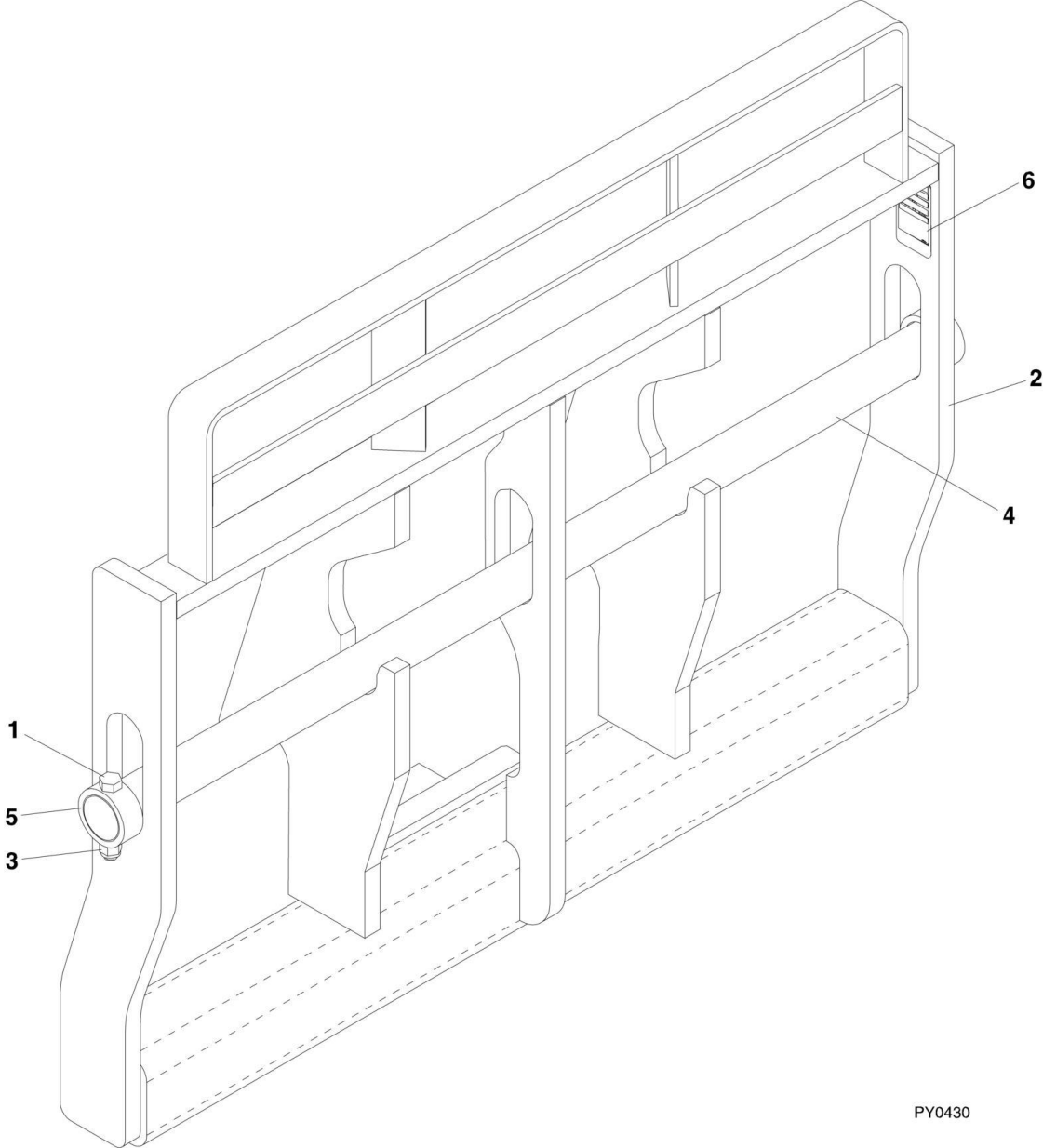
## SECTION 3 - ATTACHMENTS

**FIGURE 3-2. TILT CARRIAGE (Prior to SN 0160023515)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455051	1	48 IN CARRIAGE ASSY, (includes items 1 thru 7)	H
	90455052	1	66 IN CARRIAGE ASSY, (includes items 1 thru 7)	G
	90555008	1	72 IN CARRIAGE ASSY, (includes items 1 thru 7)	G
1	N.S.S.	1	CARRIAGE WELDMENT	
2	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
3	90200003	2	COLLAR	
4	88521310	2	HEX LOCKNUT, 5/8-11	
5	90451058	1	FORK PIN, (48 in carriage)	
5	90402478	1	FORK PIN, (66 in carriage)	
5	90551013	1	FORK PIN, (72 in carriage)	
6	N.S.S.	1	S/N PLATE	
7	88341022	4	DRIVE SCREW, #10X3/8	
8		Ref	FORKS, (See FORKS SECTION for Breakdown)	

**SECTION 3 - ATTACHMENTS**

**FIGURE 3-3. TILT CARRIAGE (SN 0160023515 to Present)**



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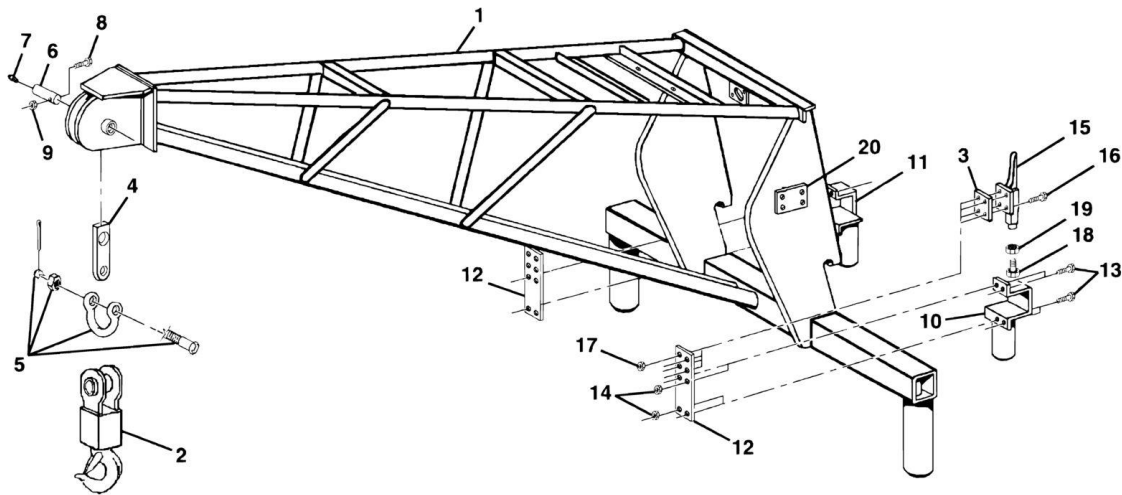
## SECTION 3 - ATTACHMENTS

**FIGURE 3-3. TILT CARRIAGE (SN 0160023515 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1170020	1	50 IN TILT CARRIAGE, (includes all items) <b>(Prior to SN 0160037689)</b>	C
	1170021	1	50 IN TILT CARRIAGE, (includes all items) <b>(SN 0160037689 to Present)</b>	D
	1170023	1	60 IN TILT CARRIAGE, (includes all items) <b>(Prior to SN 0160037689)</b>	C
	1170024	1	60 IN TILT CARRIAGE, (includes all items) <b>(SN 0160037689 to Present)</b>	D
	1170026	1	72 IN TILT CARRIAGE, (includes all items) <b>(Prior to SN 0160037689)</b>	C
	1170027	NLA	72 IN TILT CARRIAGE, (includes all items), (no longer available, use 1001132514 for service) <b>(SN 0160037689 to Present)</b>	E
	1001132514	1	72 IN TILT CARRIAGE, (includes all items) <b>(SN 0160037689 to Present)</b>	A
1	0642032	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
2	N.S.S.	1	TILT CARRIAGE	
3	3300240	2	LOCKNUT, 5/8-11	
4	3423275	1	50 IN FORK PIN	
4	3423242	1	60 IN FORK PIN	
4	3423276	1	72 IN FORK PIN	
5	90200003	2	COLLAR	
6	N.S.S.	1	S/N PLATE	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-4. TRUSS BOOM (Prior to SN 0160037689)



PAP19460



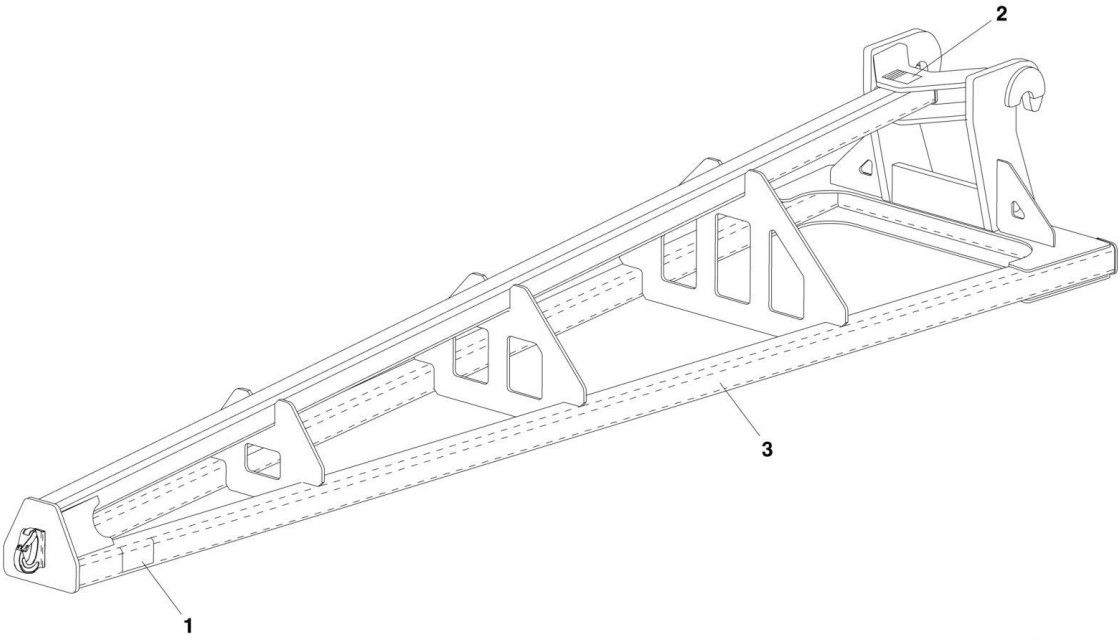
## SECTION 3 - ATTACHMENTS

**FIGURE 3-4. TRUSS BOOM (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455011	1	10 FT TRUSS BOOM, (includes all items)	K
1	N.S.S.	1	TRUSS BOOM WELDMENT	
2	90453040	1	SWIVEL HOOK	
2	91164440	1	SAFETY LATCH KIT	
3	90451047	2	SPACER	
4	90451053	1	HANGER	
5	90453041	1	SHACKLE, (includes attachment hardware)	
5	N.S.S.	1	BOLT	
5	N.S.S.	1	NUT	
5	N.S.S.	1	COTTER PIN	
6	90402948	1	PIN	
7	88671001	1	STRAIGHT LUBE FITTING, 1/8	
8	88201073	1	HEX HD CAPSCREW, 1/2-13X3, GR5	
9	88501008	1	HEX NUT, 1/2-13	
10	90602905	1	SLIDER BRACKET	
11	90602904	1	SLIDER BRACKET	
12	90403437	2	SLIDER BAR	
13	88201036	8	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
14	88501006	8	HEX NUT, 3/8-16	
15	90207884	2	LOCKING CLAMP	
16	88201021	8	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
17	88501005	8	HEX NUT, 5/16-18	
18	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
19	88501106	2	HEAVY HEX JAM NUT, 3/8-16	
20	N.S.S.	1	S/N PLATE	

**SECTION 3 - ATTACHMENTS**

**FIGURE 3-5. TRUSS BOOM (SN 0160037689 to Present)**



PY1540

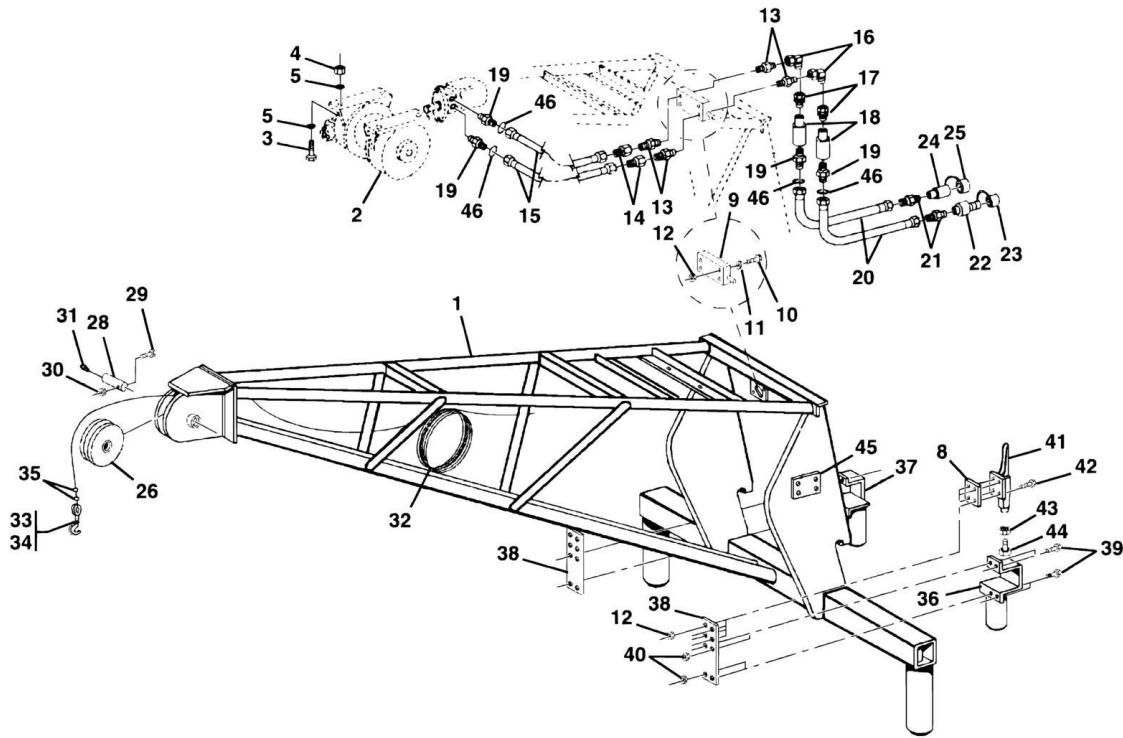
## SECTION 3 - ATTACHMENTS

**FIGURE 3-5. TRUSS BOOM (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001099902	1	12 FT TRUSS BOOM, (includes all items)	A
	1001099901	1	15 FT TRUSS BOOM, (includes all items)	A
1	4110422	2	DANGER SWINGING LOADS DECAL	
2	N.S.S.	1	S/N PLATE	
3	N.S.S.	1	TRUSS BOOM	

# SECTION 3 - ATTACHMENTS

FIGURE 3-6. TRUSS BOOM WITH WINCH (Prior to SN 0160037689)



PAP21530

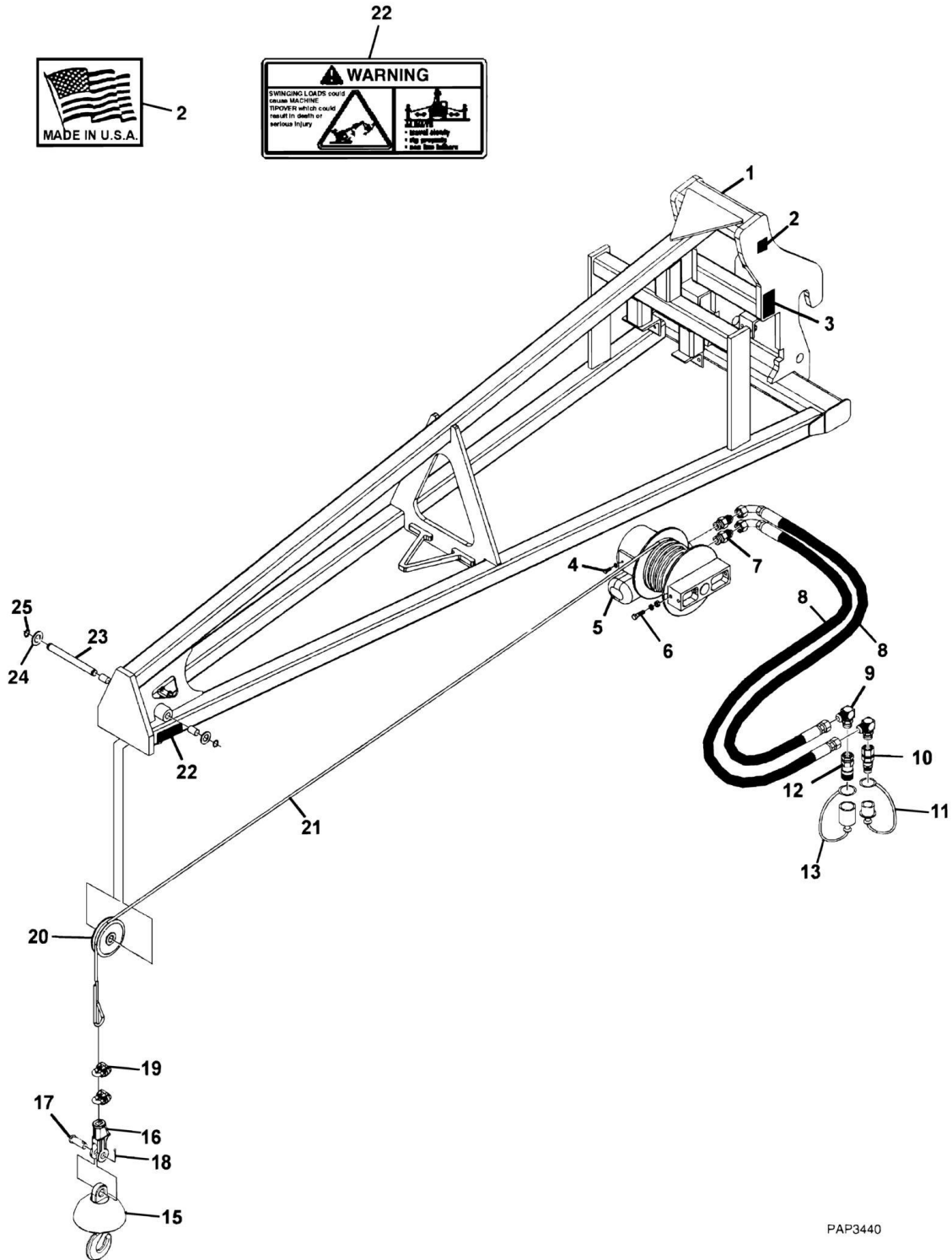
## SECTION 3 - ATTACHMENTS

**FIGURE 3-6. TRUSS BOOM WITH WINCH (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455012	1	10 FT TRUSS BOOM ASSY WITH WINCH, (includes all items)	Q
1	N.S.S.	1	TRUSS BOOM WELDMENT	
2		Ref	WINCH WITH MOTOR, (See OPTIONS SECTION for Breakdown)	
3	88201096	4	HEX HD CAPSCREW, 5/8-11X1-3/4, GR5	
4	88501010	4	HEX NUT, 5/8-11	
5	88561113	8	FLAT WASHER, 5/8	
8	90451047	2	SPACER	
9		Ref	CROSSOVER VALVE, (See OPTIONS SECTION for Breakdown)	
10	88201027	2	HEX HD CAPSCREW, 5/16-18X2-3/4, GR5	
11	88561108	2	FLAT WASHER, 5/16	
12	88501005	10	HEX NUT, 5/16-18	
13	83451104	4	ADAPTER	
14	1001094695	2	ADAPTER	
15	90205121	2	HOSE ASSY	
16	2220973	2	ELBOW, 90, (swivel nut)	
17	2220898	2	ADAPTER	
18	90207880	2	FLOW LIMITER	
19	2220374	4	ADAPTER, (includes item 46)	
20	84717644	2	HOSE ASSY	
21	88661013	2	MALE CONNECTOR, 1/2X1/2-01, (Prior to SN 2005283-01)	
21	2220373	2	ADAPTER, (SN 2005283-01 to Present), (includes 8859-1205 o-ring)	
22	91163138	1	MALE TIP COUPLER, (Prior to SN 2005283-01)	
22	91403414	1	MALE TIP COUPLER, (SN 2005283-01 to Present)	
23	91043126	1	DUST CAP	
24	91163139	1	FEMALE COUPLER, (Prior to SN 2005283-01)	
24	91403413	1	FEMALE COUPLER, (SN 2005283-01 to Present)	
25	91043125	1	DUST PLUG	
26	90403056	1	SHEAVE	
28	90402948	1	PIN	
29	88201073	1	HEX HD CAPSCREW, 1/2-13X3, GR5	
30	88501008	1	HEX NUT, 1/2-13	
31	88671001	1	STRAIGHT LUBE FITTING, 1/8	
32	90207882	1	WIRE ROPE, 3/8 IN DIAMETER	
33	91403448	1	SWIVEL HOOK	
34	90026965	1	THIMBLE	
35	90028990	2	WIRE ROPE CLIP	
36	90602905	1	SLIDER BRACKET	
37	90602904	1	SLIDER BRACKET	
38	90403437	2	SLIDER BAR	
39	88201036	8	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
40	88501006	8	HEX NUT, 3/8-16	
41	90207884	2	LOCKING CLAMP	
42	88201021	8	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
43	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
44	88501106	2	HEAVY HEX JAM NUT, 3/8-16	
45	N.S.S.	1	S/N PLATE	
46	88591206	4	O-RING	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-7. TRUSS BOOM WITH WINCH (SN 0160037689 to Present)



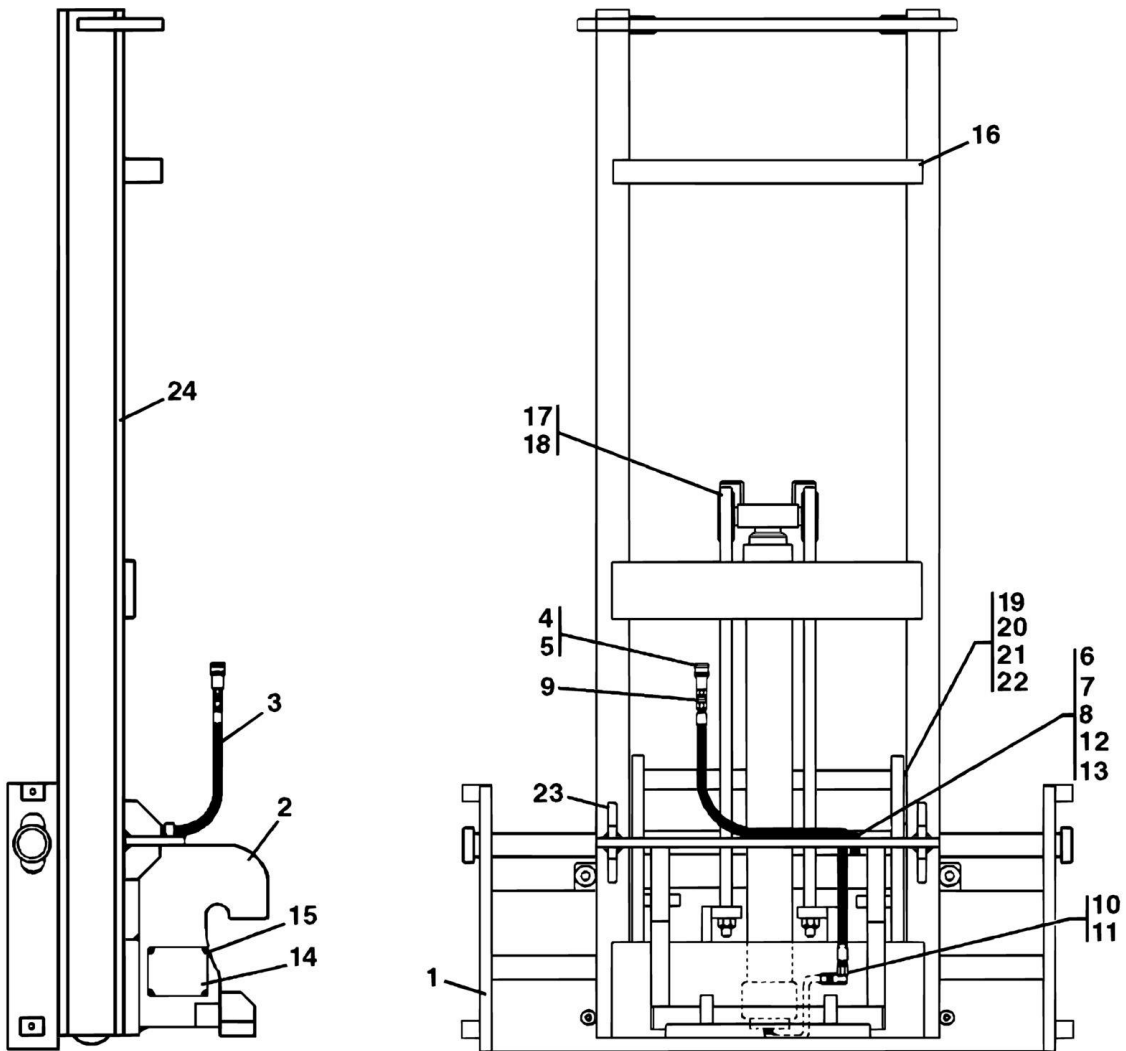
## SECTION 3 - ATTACHMENTS

**FIGURE 3-7. TRUSS BOOM WITH WINCH (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001099351	1	12 FT TRUSS BOOM WITH WINCH, (includes all items)	F
1	N.S.S.	1	TRUSS BOOM FRAME	
2	90554016	1	USA DECAL	
3	N.S.S.	1	S/N PLATE	
4	70021349	4	HEX HD CAPSCREW, 3/8X1	
4	90554042	4	LOCKWASHER, 3/8	
5	70021921	1	TRUSS BOOM WINCH MOTOR	
6	N.S.S.	2	HEX HD CAPSCREW, 1/2X1.75	
6	90554020	2	LOCKWASHER, 1/2	
6	90554054	2	HEX NUT, 1/2	
7	70021415	2	CONNECTOR	
8	70021977	2	Hose 32in (Boom Front Disconnect)	
8	70031445	2	Hose 48in (Boom Side Disconnect)	
9	N.S.S.	1	ELBOW, 90	
10	7029692	1	MALE QUICK COUPLER	
11	90554062	1	DUST CAP	
12	70021342	1	FEMALE QUICK COUPLER	
13	90554076	1	DUST COVER	
15	70021978	1	BALL SWIVEL WITH SAFETY HOOK	
16	70021979	1	SOCKET ASSY	
17	N.S.S.	1	PIN	
18	N.S.S.	1	COTTER PIN	
19	N.S.S.	2	CLAMP	
20	70021935	1	PULLEY	
21	70022028	1	CABLE	
22	4110422	2	WARNING SWINGING LOADS DECAL	
23	N.S.S.	1	PIN	
24	N.S.S.	2	FLAT WASHER, 1	
25	N.S.S.	2	SNAP RING	

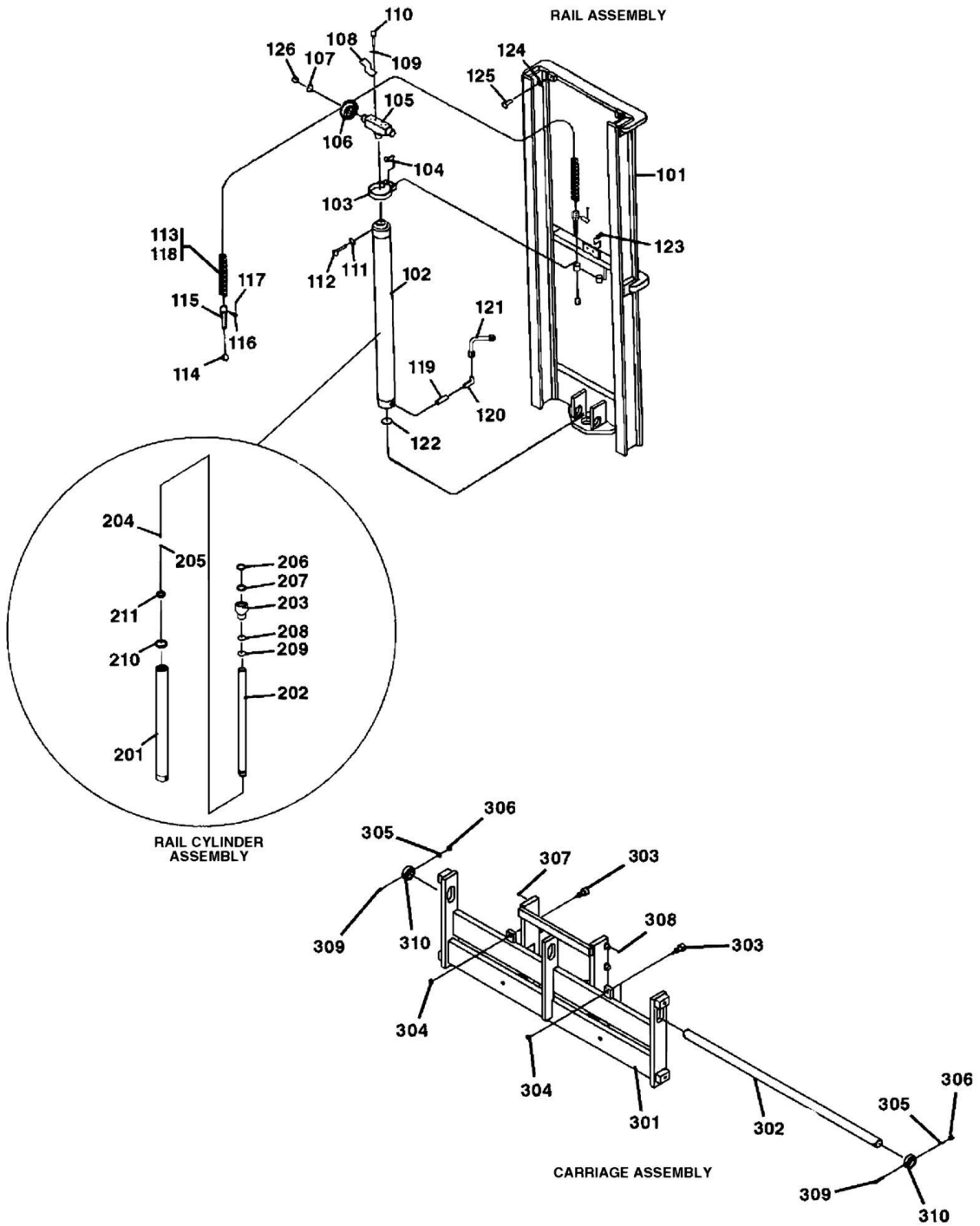
# SECTION 3 - ATTACHMENTS

FIGURE 3-8. 6 FT VERTICAL MAST (Prior to SN 0160037689)





# SECTION 3 - ATTACHMENTS



## SECTION 3 - ATTACHMENTS

**FIGURE 3-8. 6 FT VERTICAL MAST (Prior to SN 0160037689)**

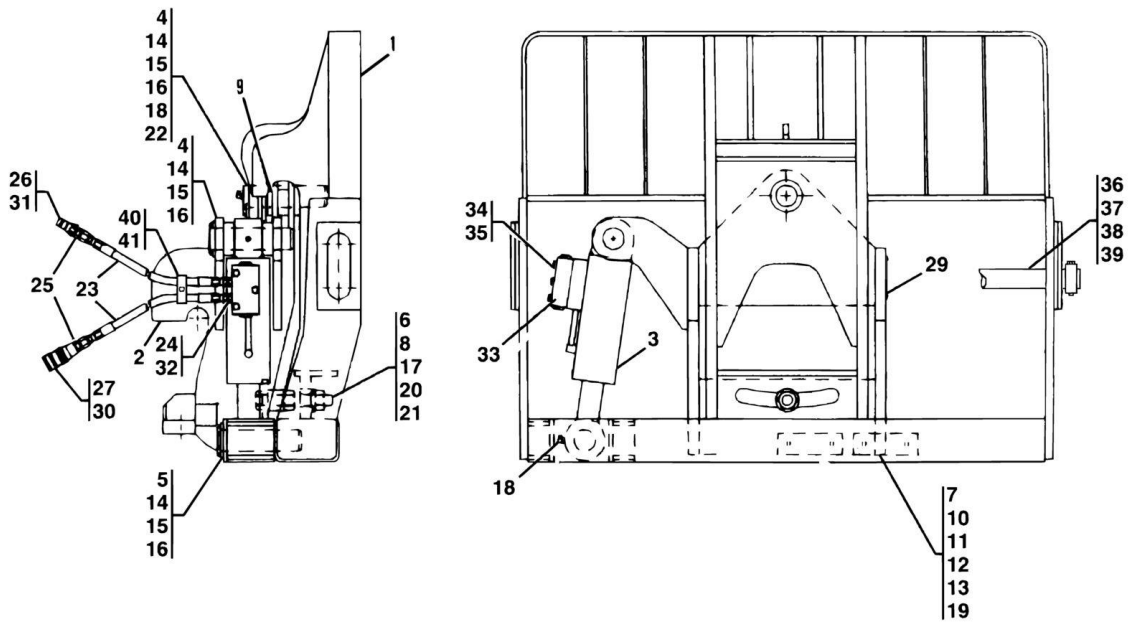
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455035	1	MAST ASSY, (48 in carriage), (includes all items)	R
	90455037	1	MAST ASSY, (66 in carriage), (includes all items)	R
1	N.S.S.	1	CARRIAGE, (includes items 301 thru 310)	
2	N.S.S.	1	ADAPTER WELDMENT	
3	84717640	1	HOSE ASSY	
4	91163138	1	MALE HYDRAULIC COUPLING, (Prior to SN 2005283-01)	
4	91403414	1	MALE HYDRAULIC COUPLING, (SN 2005283-01 to Present)	
5	91043126	1	DUST CAP	
6	24431386	2	CLAMP	
7	88201037	2	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
8	88561004	2	FLAT WASHER, 3/8	
9	88661013	1	MALE ADAPTER, 1/2X1/2 TUBE ,(Prior to SN 2005283-01)	
9	2220373	1	ADAPTER, (SN 2005283-01 to Present), (includes o-ring)	
10	88661016	1	MALE CONNECTOR, 5/8X1/2 TUBE	
11	88661180	1	FEMALE ELBOW, 90, 1/2X1/2 TUBE	
12	88501006	2	HEX NUT, 3/8-16	
13	88551011	2	LOCKWASHER, 3/8	
14	N.S.S.	1	S/N PLATE	
15	N.S.S.	4	DRIVE SCREW, #10X3/8	
16	90451039	1	STOP TUBE	
17	91034372	2	RETAINING RING	
18	91034373	2	CHAIN ROLLER	
19	91034374	6	LOAD ROLLER, (inside carriage frame)	
20	91034375	AR	SHIM	
21	91034376	4	SIDE THRUST ROLLER, (small outside roller)	
22	91034377	2	SCREW	
23	91031271	4	GUSSET	
24	90453030	1	6 FT MAST, (includes items 101 thru 125)	B
101	91034431	1	OUTER RAIL ASSY	
102	91034394	1	CYLINDER ASSY, (3-5/8 OD)	
102	00078041	1	SEAL KIT	
102	91034404	1	CYLINDER ASSY, (3-3/4 OD), (includes items 201 thru 211)	
102	00083046	1	SEAL KIT, (includes items 206 thru 211)	
103	91034423	1	CYLINDER RETAINING RING ASSY	
104	91034422	2	NUT	
105	91034393	1	FREE LIFT CYLINDER HEAD	
106	91034373	2	CHAIN SHIEVE	
107	91034372	2	RETAINING RING	
108	91034421	2	GUARD	
109	91034420	4	LOCKWASHER	
110	91034419	4	SCREW	
111	8033686	1	LOCKWASHER	
112	91034424	1	SCREW	
113	91034417	2	CHAIN ASSY, (includes items 114 thru 118)	
114	8033693	4	NUT	
115	8033690	4	CHAIN ANCHOR	
116	8033691	4	CHAIN CONNECT PIN	
117	8033692	8	COTTER PIN	
118	91034392	2	CHAIN	
119	91034428	1	FLOW VALVE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
120	91034427	1	FITTING	
121	91034426	1	TUBE	
122	91034429	1	RETAINING RING	
123	91034430	2	BOLT	
124	91034433	2	LOCKWASHER	
125	91034434	2	SCREW	
126	91034418	2	PLUG	
201	91034405	1	OUTER TUBE ASSY	
202	91034408	1	PISTON AND RAM ASSY	
203	91034409	1	GLAND NUT	
204	91034407	1	CHECK VALVE	
205	91034406	1	RETAINING RING	
206	N.S.S.	1	WIPER	
207	N.S.S.	1	U-CUP, (gland nut)	
208	N.S.S.	1	BACK-UP RING, (gland nut)	
209	N.S.S.	1	O-RING, (gland nut)	
210	N.S.S.	1	U-CUP, (piston)	
211	N.S.S.	1	WEAR RING	
301	N.S.S.	1	CARRIAGE WELDMENT	
302	91034410	1	SHAFT, (48 in carriage)	
302	91034432	1	SHAFT, (66 in carriage)	
303	91034376	4	THRUST ROLLER	
304	8033698	2	NUT	
305	8033686	2	LOCKWASHER	
306	91034413	2	NUT	
307	91034377	2	FLAT HD SCREW	
308	91034414	2	GREASE FITTING	
309	91034415	2	BOLT	
310	91034416	2	END RING	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-9. 48 IN SLOPE PILER CARRIAGE (Prior to SN 0160037689)



PAP20090

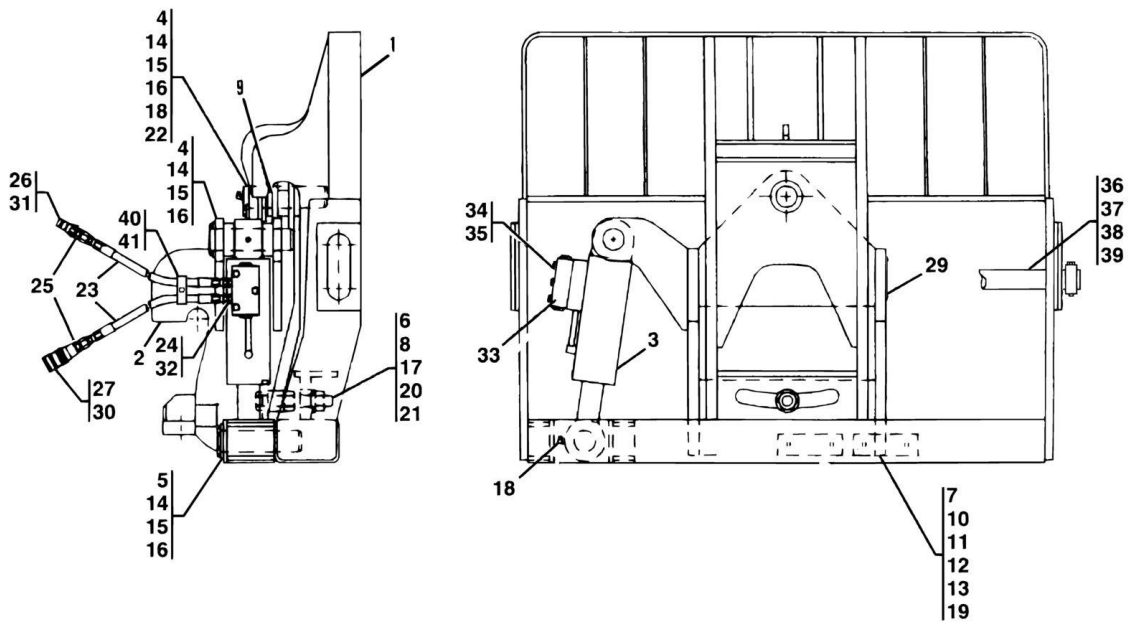
## SECTION 3 - ATTACHMENTS

**FIGURE 3-9. 48 IN SLOPE PILER CARRIAGE (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085058	Ref	48 IN SLOPE PILER CARRIAGE, (includes all items)	U
1	N.S.S.	1	CARRIAGE WELDMENT	
2	N.S.S.	1	ADAPTER WELDMENT	
3		Ref	SWAY CYLINDER, (See OPTIONS SECTION for Breakdown)	
4	91083248	1	BUSHING	
5	3423263	2	PIN	
6	90204007	1	TUBE	
7	91033186	2	BEARING PAD	
8	91081577	1	TAP BOLT	
9	91081594	1	THRUST WASHER	
10	90205870	AR	SHIM	
11	91031236	2	SPACER	
12	88201535	4	HEX HD CAPSCREW, 3/8-24X1-1/4, GR5	
13	88201534	4	HEX HD CAPSCREW, 3/8-24X1, GR5	
14	91081313	3	KEEPER PLATE	
15	88201065	6	HEX HD CAPSCREW, 1/2-13X1, GR5	
16	88551013	6	LOCKWASHER, 1/2	
17	88521016	1	HEX LOCKNUT, 1-8	
18	88671022	2	LUBE FITTING, 90, 1/8	
19	88561109	4	FLAT WASHER, 3/8	
20	88501016	1	HEX NUT, 1-8	
21	05101441	1	WASHER, 1-1/16	
22	91081622	1	PIN	
23	84716434	2	HOSE ASSY	
24	2220603	2	ADAPTER	
25	88661010	2	ADAPTER, (Prior to SN 2005283-01)	
25	2220372	2	ADAPTER, (SN 2005283-01 to Present)	
26	91163138	1	MALE QUICK DISCONNECT, (Prior to SN 2005283-01)	
26	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
27	91163139	1	FEMALE QUICK DISCONNECT, (Prior to SN 2005283-01)	
27	91403413	1	FEMALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
29	N.S.S.	1	S/N PLATE	
30	91043125	1	DUST PLUG	
31	91043126	1	DUST CAP	
32	8760268	2	ELBOW, 90, (swivel nut)	
33		Ref	DUAL P.O. CHECK VALVE, (See OPTIONS SECTION for Breakdown)	
34	88201040	3	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
35	88551011	3	LOCKWASHER, 3/8	
36	90451058	1	FORK PIN	
37	90200003	2	COLLAR	
38	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
39	88521310	2	LOCKNUT, 5/8-11	
40	84521062	1	SUPPORT CLAMP	
41	77143015	1	WHIZ-LOCKNUT, 3/8-16	

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## FIGURE 3-10. 66 IN SLOPE PILER CARRIAGE (Prior to SN 0160037689)



PAP20100

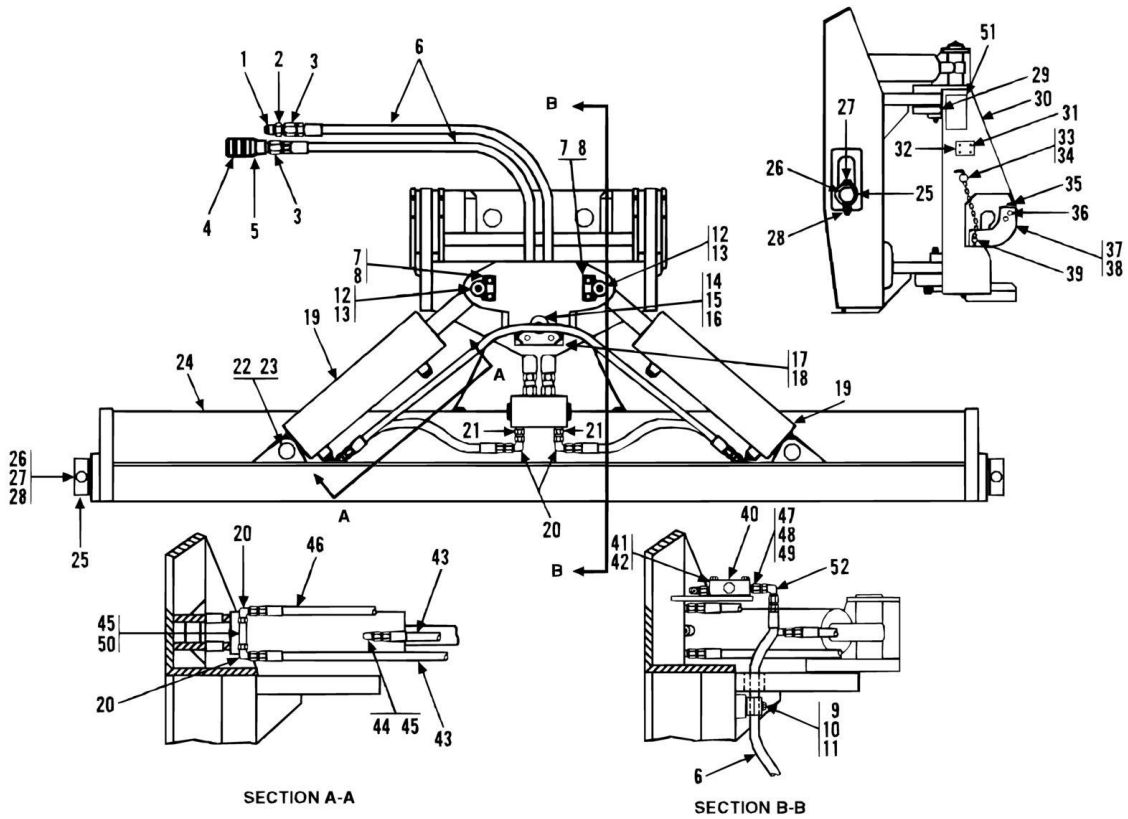
## SECTION 3 - ATTACHMENTS

**FIGURE 3-10. 66 IN SLOPE PILER CARRIAGE (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91305016	Ref	66 IN SLOPE PILER CARRIAGE, (includes all items)	U
1	N.S.S.	1	CARRIAGE WELDMENT	
2	N.S.S.	1	ADAPTER WELDMENT	
3		Ref	SWAY CYLINDER, (See OPTIONS SECTION for Breakdown)	
4	91083248	1	BUSHING	
5	3423263	2	PIN	
6	90204007	1	TUBE	
7	91033186	2	BEARING PAD	
8	91081577	1	TAP BOLT	
9	91081594	1	THRUST WASHER	
10	90205870	AR	SHIM	
11	91031236	2	SPACER	
12	88201535	4	HEX HD CAPSCREW, 3/8-24X1-1/4, GR5	
13	88201534	4	HEX HD CAPSCREW, 3/8-24X1, GR5	
14	91081313	3	KEEPER PLATE	
15	88201065	6	HEX HD CAPSCREW, 1/2-13X1, GR5	
16	88551013	6	LOCKWASHER, 1/2	
17	88521016	1	HEX LOCKNUT, 1-8	
18	88671022	2	LUBE FITTING, 90, 1/8	
19	88561109	4	FLAT WASHER, 3/8	
20	88501016	1	HEX NUT, 1-8	
21	05101441	1	WASHER, 1-1/16	
22	91081622	1	PIN	
23	84716434	2	HOSE ASSY	
24	83661316	2	CONNECTOR	
25	88661010	2	CONNECTOR, (Prior to SN 2005283-01)	
25	2220372	2	CONNECTOR, (SN 2005283-01 to Present)	
26	91163138	1	MALE QUICK DISCONNECT, (Prior to SN 2005283-01)	
26	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
27	91163139	1	FEMALE QUICK DISCONNECT, (Prior to SN 2005283-01)	
27	91403413	1	FEMALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
29	N.S.S.	1	S/N PLATE	
30	91043125	1	DUST PLUG	
31	91043126	1	DUST CAP	
32	8760268	2	ELBOW, 90, (swivel nut)	
33		Ref	DUAL P.O. CHECK VALVE, (See OPTIONS SECTION for Breakdown)	
34	88201040	3	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
35	88551011	3	LOCKWASHER, 3/8	
36	91301083	1	FORK PIN	
37	90200003	2	COLLAR	
38	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
39	88521310	2	LOCKNUT, 5/8-11	
40	84521062	1	SUPPORT CLAMP	
41	77143015	1	WHIZ-LOCKNUT, 3/8-16	

# SECTION 3 - ATTACHMENTS

FIGURE 3-11. 100, SWING FORK (Prior to SN 0160037689)



NOTE:

USE LOCTITE® 242™ (P/N 14403364) ON ALL BOLT THREADS & TUBE FITTINGS.



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**FIGURE 3-11. 100, SWING FORK (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455044	1	100, SWING FORK ASSY, (includes all items)	Q
1	91043126	1	DUST CAP	
2	91163138	1	MALE QUICK DISCONNECT, (Prior to SN 2005283-01)	
2	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
3	88661013	2	MALE ADAPTER, 1/2X1/2 TUBE, (Prior to SN 2005283-01)	
3	2220373	2	ADAPTER, (SN 2005283-01 to Present), (includes 88591205 o-ring)	
4	91043125	1	DUST CAP	
5	91163139	1	FEMALE QUICK DISCONNECT, (Prior to SN 2005283-01)	
5	91403413	1	FEMALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
6	84718067	2	HOSE ASSY	
7	91411073	2	LOCKING PLATE	
8	83201024	4	HEX HD CAPSCREW, 3/8-16X1, SELF-LOCKING, GR8, (nylok)	
9	91083249	1	CLAMP SET	
10	77133140	1	COVER PLATE	
11	77133177	1	HEX HD CAPSCREW, 5/16X1-3/8	
12	91041324	2	PIVOT PIN	
13	88671008	2	STRAIGHT LUBE FITTING, 1/4-28	
14	91041325	2	PIVOT PIN	
15	88671022	2	LUBE FITTING, 90	
16	91041327	2	BUSHING	
17	91041322	2	LOCKING PLATE	
18	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
19		Ref	SWING CYLINDER, (See OPTIONS SECTION for Breakdown)	
20	8760268	6	ELBOW, 90, (swivel nut)	
21	2220372	2	ADAPTER, (includes item 48)	
22	91041326	2	PIVOT PIN	
23	88581136	4	RETAINING RING	
24	N.S.S.	1	CARRIAGE WELDMENT	
25	90200003	2	COLLAR	
26	90551013	1	FORK PIN	
27	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
28	88521310	2	LOCKNUT	
29	91041356	6	SPACER	
30	N.S.S.	1	PIVOT WELDMENT	
31	N.S.S.	4	DRIVE SCREW	
32	N.S.S.	1	S/N PLATE	
33	91033039	2	CHAIN CONNECTOR	
34	91033038	24 in	CHAIN	
35	88631449	2	ROLL PIN, 1/8X1-1/2	
36	91141350	2	PIN	
37	91146053	1	LH SUPPORT BRACKET	
38	91146054	1	RH SUPPORT BRACKET	
39	91043221	2	DETENT PIN	
40	91043186	1	DOUBLE PILOT CHECK VALVE	
41	88561002	2	FLAT WASHER, 1/4	
42	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
43	90204097	2	HOSE ASSY	
44	2220501	2	ELBOW, 45, (includes item 45)	
45	N.S.S.	4	O-RING	

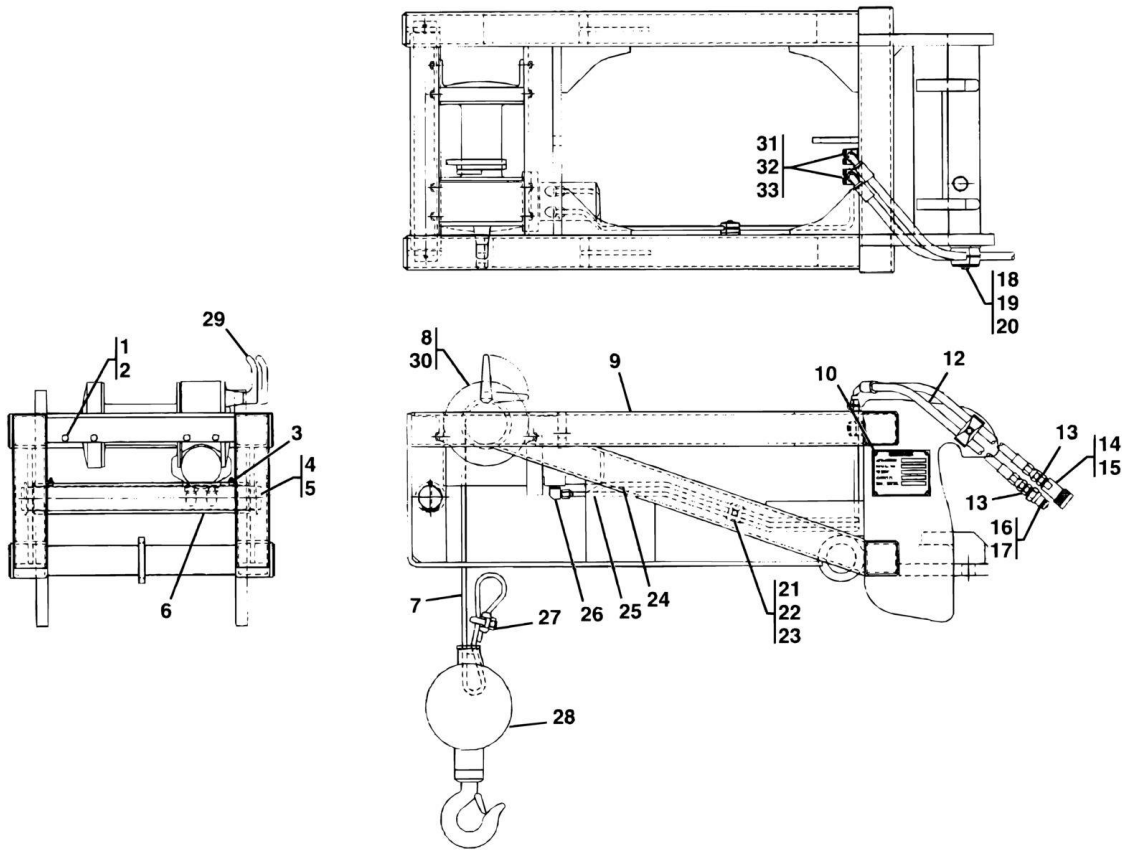
### SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	77133201	2	HOSE ASSY	
47	91041361	2	FITTING	
48	N.S.S.	2	O-RING	
49	91041362	2	ORIFICE FITTING	
50	2220899	2	TEE FITTING, (includes item 45)	
51	91143282	2	PINCH POINT DECAL	
52	8765204	2	ELBOW, 90, (swivel nut)	



# SECTION 3 - ATTACHMENTS

FIGURE 3-12. QUICK HOOK ASSEMBLY (Prior to SN 0160037689)



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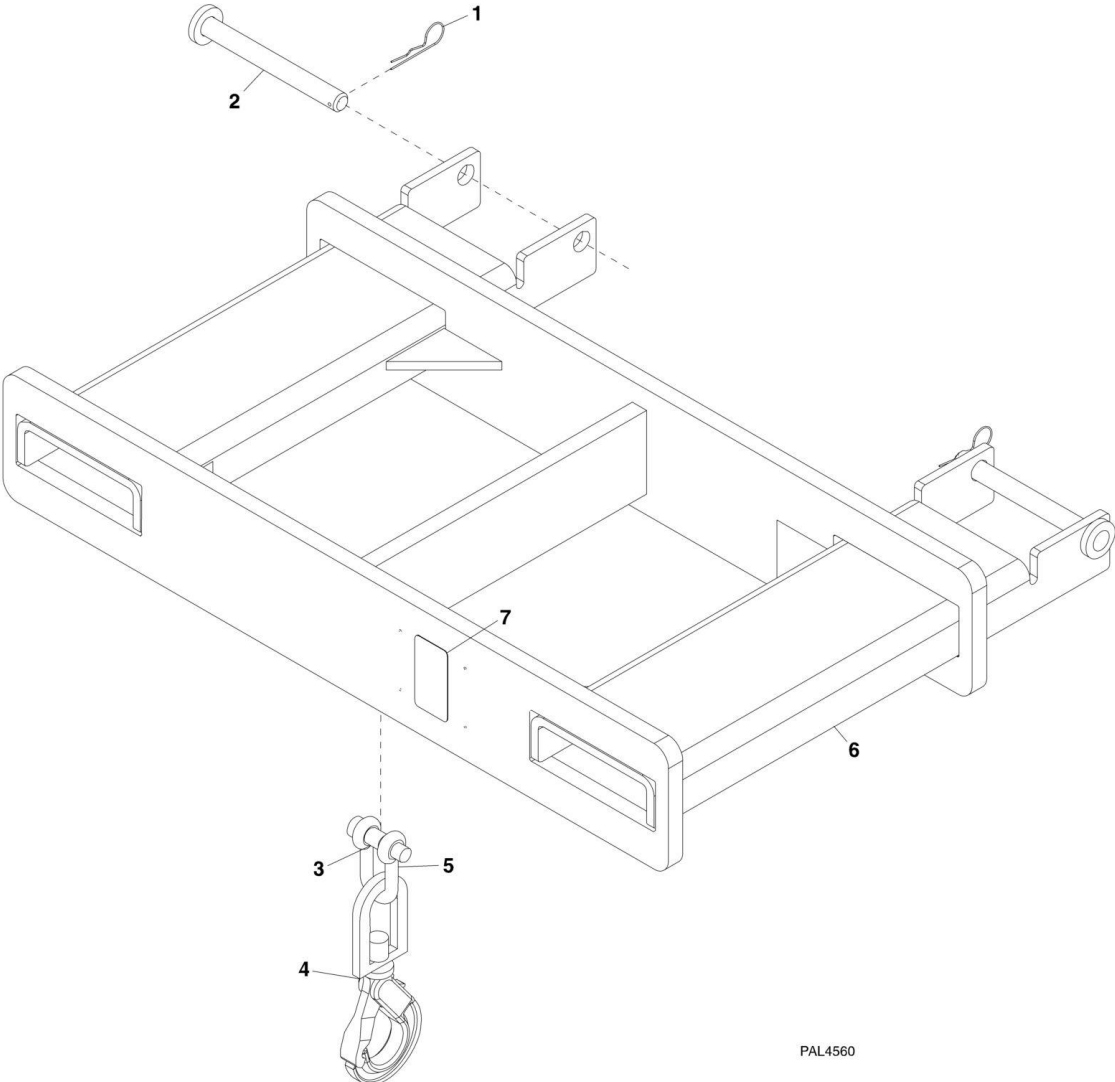
## SECTION 3 - ATTACHMENTS

**FIGURE 3-12. QUICK HOOK ASSEMBLY (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085056	Ref	QUICK HOOK ASSY, (includes all items)	J
1	88551011	8	LOCKWASHER, 3/8	
2	88201034	8	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
3	88671001	2	STRAIGHT LUBE FITTING, 1/8	
4	91081574	1	PIN	
5	88631343	2	COTTER PIN	
6	91081573	1	ROLLER	
7	91083368	1	WIRE ROPE, (7/16 in Dia)	
8	91083367	1	WINCH	
9	N.S.S.	1	QUICK HOOK WELDMENT	
10	N.S.S.	1	S/N PLATE	
12	90205126	2	HOSE ASSY	
13	77363079	2	STRAIGHT THREAD CONNECTOR, (Prior to SN 2005283-01)	
13	2220373	2	CONNECTOR, (SN 2005283-01 to Present), (includes 88591205 o-ring)	
14	91043125	1	DUST CAP	
15	91163139	1	FEMALE HYDRAULIC COUPLING, (Prior to SN 2005283-01)	
15	91403413	1	FEMALE HYDRAULIC COUPLING, (SN 2005283-01 to Present)	
16	91043126	1	DUST CAP	
17	91163138	1	MALE HYDRAULIC COUPLING, (Prior to SN 2005283-01)	
17	91403414	1	MALE HYDRAULIC COUPLING, (SN 2005283-01 to Present)	
18	77133136	1	STAUFF CLAMP SET	
19	77133137	1	STAUFF COVER PLATE	
20	88201023	1	HEX BOLT	
21	77133270	1	STAUFF CLAMP SET	
22	88561002	1	STAUFF COVER PLATE	
23	88201005	1	HEX BOLT	
24	91143276	1	TUBE ASSY	
25	91143275	1	TUBE ASSY	
26	88661110	2	MALE ELBOW, 90, 3/8X1/2 TUBE	
27	90029999	1	WIRE ROPE CLAMP, 7/16	
28	90201443	1	HOOK AND BALL	
29	91143277	1	L-Handle	
30	91081737	1	WEDGE	
31	91063040	2	CLAMP SET	
32	91063039	2	COVER PLATE	
33	88201006	4	HEX BOLT	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-13. FORK MOUNTED LIFTING HOOK



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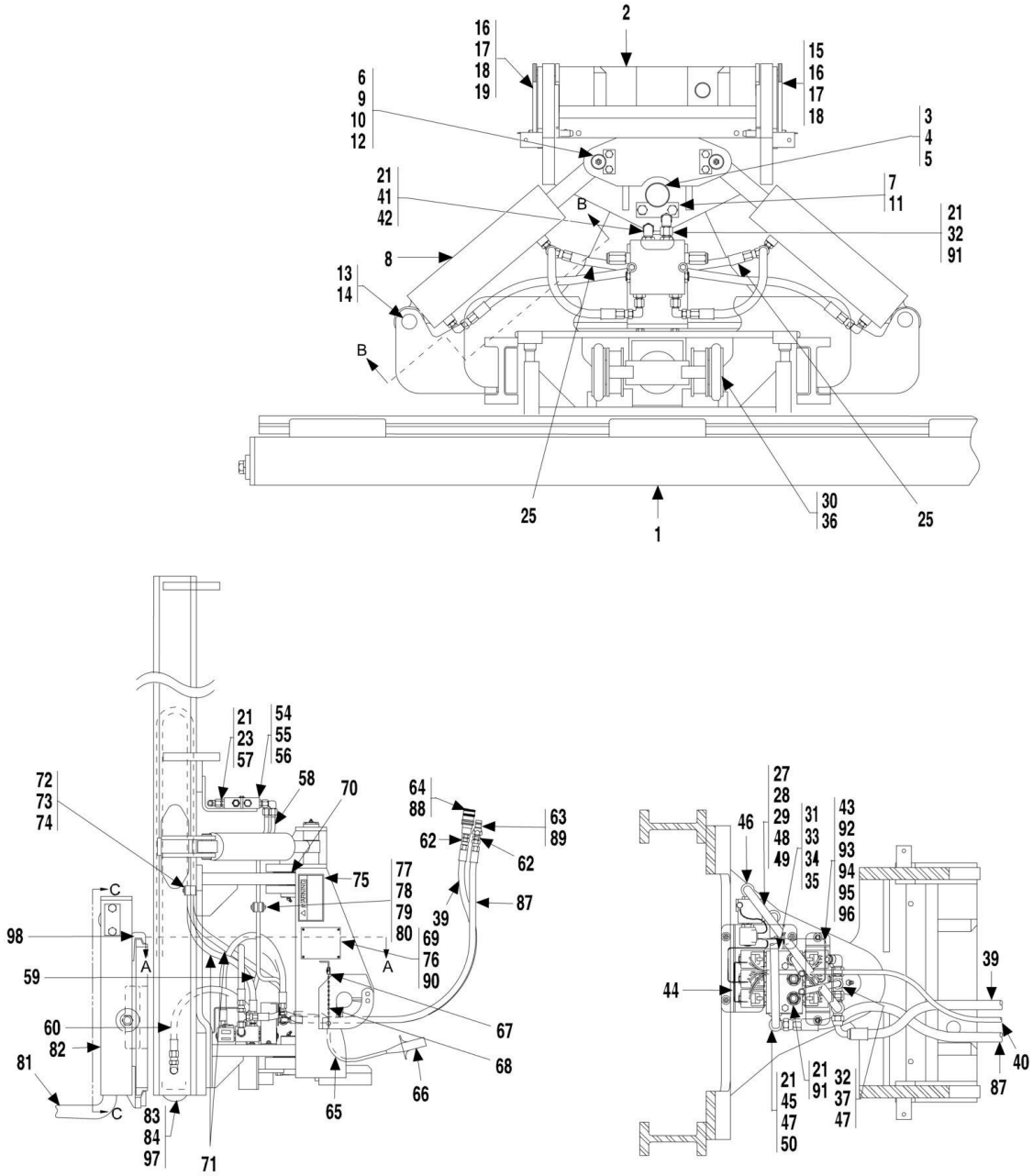
## SECTION 3 - ATTACHMENTS

### FIGURE 3-13. FORK MOUNTED LIFTING HOOK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91565094	1	FORK MOUNTED LIFTING HOOK, (includes all items)	F
1	7029520	2	HAIRPIN CLIP	
2	1001093171	2	PIN	
3	70020555	1	SPRING BUSHING	
4	90554080	1	SLING HOOK	
5	7029521	1	CHAIN SHACKLE, 12,000LB	
6	90554080	1	LIFTING HOOK	
7	N.S.S.	1	S/N PLATE	

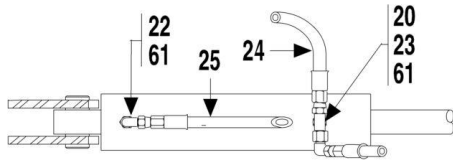
# SECTION 3 - ATTACHMENTS

FIGURE 3-14. 6 FT SWING MAST WITH SIDE SHIFT (Prior to SN 0160037689)

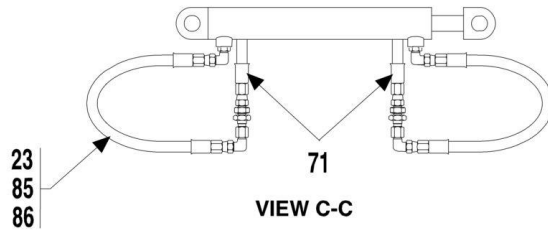




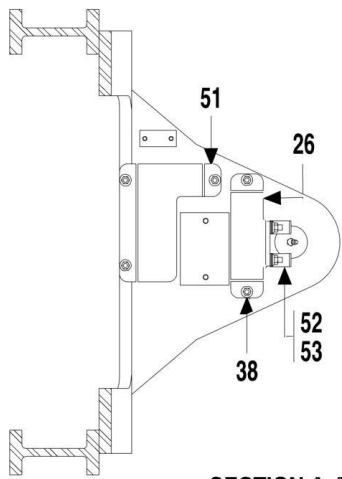
# SECTION 3 - ATTACHMENTS



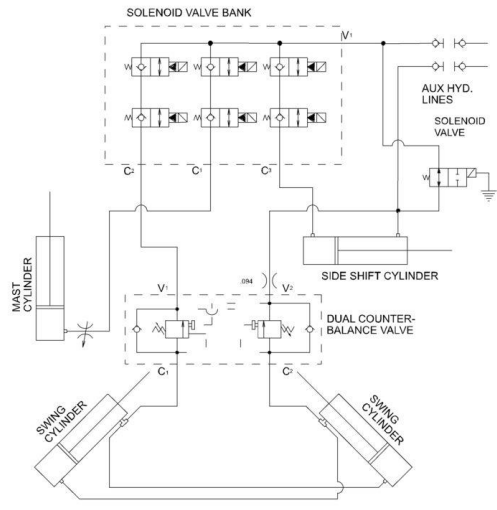
VIEW B-B



VIEW C-C



SECTION A-A



HYDRAULIC SCHEMATIC

## SECTION 3 - ATTACHMENTS

FIGURE 3-14. 6 FT SWING MAST WITH SIDE SHIFT (Prior to SN 0160037689)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455047	Ref	6 FT SWING MAST WITH SIDE SHIFT, (includes all items)	Z
1	N.S.S.	1	MAST WELDMENT	
2	N.S.S.	1	SWING FORK PIVOT WELDMENT	
3	91041325	2	PIVOT PIN	
4	88671018	2	LUBE FITTING, 45, 1/8	
5	91041327	2	BUSHING	
6	91411073	2	LOCKING PLATE	
7	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
8		Ref	HYDRAULIC CYLINDER, (See OPTIONS SECTION for Breakdown)	
9	91041324	2	PIVOT PIN	
10	88671008	2	STRAIGHT LUBE FITTING, 1/4-28	
11	91041322	2	LOCKING PLATES	
12	83201024	4	HEX HD CAPSCREW, 3/8-16X1, GR8	
13	91041326	2	PIVOT PIN	
14	88581136	4	SNAP RING	
15	91146053	1	LH SUPPORT BRACKET	
16	91141350	2	PIN	
17	88631449	2	ROLL PIN, 1/8X1-1/2	
18	91043221	2	DETENT PIN	
19	91146054	1	RH SUPPORT BRACKET	
20	2220899	2	TEE FITTING, (includes item 61)	
21	N.S.S.	7	O-RING	
22	2220473	2	ELBOW, 90, (includes item 61)	
23	8760268	6	ELBOW, 90, (swivel nut)	
24	77133201	2	HOSE ASSY	
25	90204097	2	HOSE ASSY	
26	90451060	1	FRONT COVER, (solenoid valve)	
27	90453043	1	SOLENOID VALVE	
28	88201007	2	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
29	88551009	2	LOCKWASHER, 1/4	
30	91034399	2	HOSE SHEAVE	
31	88551010	2	LOCKWASHER, 5/16	
32	8765204	2	ELBOW, 90, (swivel nut)	
33	90453019	1	SOLENOID VALVE BANK	
34	88201025	2	HEX HD CAPSCREW, 5/16-18X2-1/4, GR5	
35	88561108	2	FLAT WASHER, 5/16	
36	91034400	2	SHOULDER BOLT	
37	2220362	1	TEE FITTING	
38	77143013	5	WHIZ-LOCKNUT, 1/4-20	
39	77133269	1	HOSE ASSY	
40	90453023	1	WIRING HARNESS	
41	90203384	1	ADAPTER	
42	91041362	1	ORIFICE FITTING	
43	91345026	1	DIODE ASSY, (includes items 92 thru 96)	C
44	90453044	1	WIRING HARNESS	
45	84718047	1	HOSE ASSY	
46	77133458	1	HOSE ASSY	
47	2220385	2	ADAPTER	
48	2220726	2	ELBOW, 90	

## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	90207719	1	JUMPER WIRE	
50	2220596	1	ELBOW, 90, (includes item 21)	
51	90451061	1	BACK COVER, (solenoid valve)	
52	80673023	2	SUPPORT CLAMP	
53	77143006	2	WHIZ-LOCKNUT, 5/16-18	
54	90453018	1	DUAL COUNTERBALANCE VALVE	
55	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
56	88561002	2	FLAT WASHER, 1/4	
57	2220372	2	ADAPTER, (includes item 21)	
58	90453021	1	TUBE ASSY	
59	90453020	1	TUBE ASSY	
60	84717778	1	HOSE ASSY	
61	N.S.S.	4	O-RING	
62	88661013	2	MALE ADAPTER, 1/2X1/2 TUBE, (Prior to SN 2005283-01)	
62	2220373	2	ADAPTER, (SN 2005283-01 to Present), (includes o-ring)	
63	91163138	1	HYD COUPLING, MALE TIP, (Prior to SN 2005283-01)	
63	91403414	1	HYD COUPLING, MALE TIP, (SN 2005283-01 to Present)	
64	91043125	1	DUST CAP	
65	90453046	1	WIRING HARNESS	
66	90207662	1	6 CONTACT PLUG	
67	91033039	2	CHAIN CONNECTION	
68	91033038	24 in	CHAIN	
69	N.S.S.	4	DRIVE SCREW, #10X3/8	
70	91041356	6	SPACER	
71	84717871	2	HOSE ASSY	
72	77133497	2	CLAMP	
73	77133498	2	COVER PLATE	
74	77133499	4	HEX HD CAPSCREW, 1/4-20X1-5/16	
75	91143282	2	PINCH POINT DECAL	
76	91343053	1	ATTENTION DECAL	
77	77133168	1	CLAMP SET	
78	77133140	2	COVER PLATE	
79	88201024	1	HEX HD CAPSCREW, 5/16-18X2, GR5	
80	88501005	1	HEX NUT, 5/16-18	
81		Ref	FORKS, (See FORKS SECTION for Breakdown)	
82	90453033	1	66 IN S.S. CARRIAGE	
82	90454001	1	CYLINDER	
82	90454002	1	PACKING KIT	
83	91034374	6	LOAD ROLLER	
84	91034375	12	SHIM	
85	84717537	2	HOSE ASSY	
86	2230024	2	ADAPTER	
87	77133146	1	HOSE ASSY	
88	91163139	1	HYD COUPLING, FEMALE, (Prior to SN 2005283-01)	
88	91403413	1	HYD COUPLING, FEMALE, (SN 2005283-01 to Present)	
89	91043126	1	DUST CAP	
90	N.S.S.	1	S/N PLATE	
91	2220373	4	ADAPTER, (includes item 21)	
92	77385131	1	DIODE ASSY	
93	91043440	2	PIGGYBACK CONNECTOR	
94	86661147	3 in	BLACK WIRE, 16 GA	

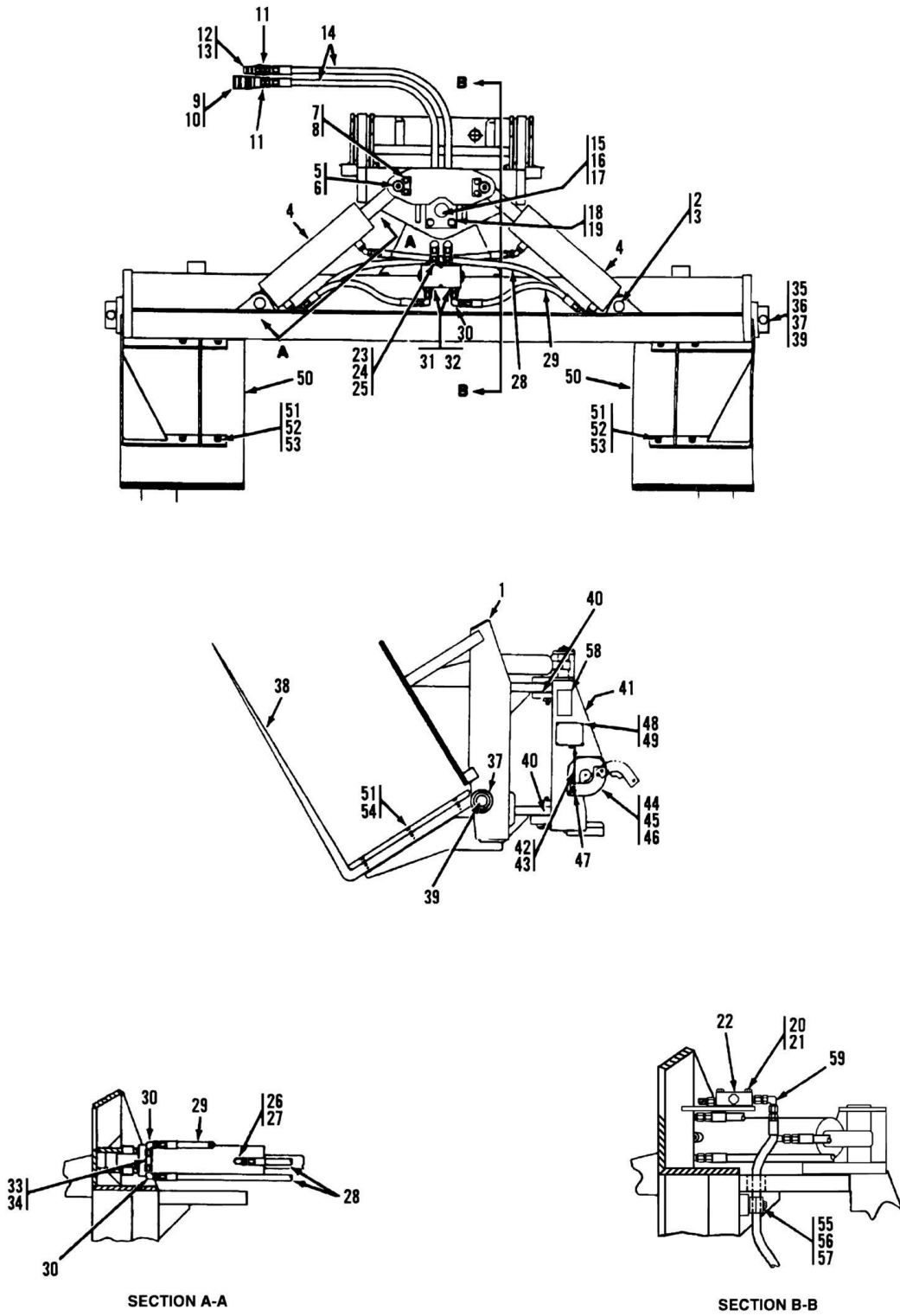
### SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
95	86683480	1	BUTT CONNECTOR	
96	83683549	AR	HEAT SHRINK TUBING	
97	91034377	2	SCREW	
98	90454003	2	BRONZE GUIDE	



# SECTION 3 - ATTACHMENTS

FIGURE 3-15. 100, DRYWALL SWING CARRIAGE (Prior to SN 0160037689)



## SECTION 3 - ATTACHMENTS

**FIGURE 3-15. 100, DRYWALL SWING CARRIAGE (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90555013	1	100, DRYWALL SWING CARRIAGE, (includes all items)	Q
1	N.S.S.	1	DRYWALL CARRIAGE WELDMENT	
2	91041326	2	PIVOT PIN	
3	88581136	4	EXTERNAL RETAINING RING	
4		Ref	SWING CYLINDER ASSY, (See OPTIONS SECTION for Breakdown)	
5	91041324	2	PIVOT PIN	
6	88671008	2	STRAIGHT LUBE FITTING, 1/4-28	
7	91411073	2	LOCKING PLATE	
8	83201024	4	HEX HD CAPSCREW, 3/8-16X1, GR8	
9	91043125	1	DUST CAP	
10	91163139	1	FEMALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
10	91403413	1	FEMALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
11	88661013	2	MALE CONNECTOR, 1/2X1/2 TUBE, (Prior to SN 2005283-01)	
11	2220373	2	CONNECTOR, (SN 2005283-01 to Present), (includes 88591205 o-ring)	
12	91043126	1	DUST CAP	
13	91163138	1	MALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
13	91403414	1	MALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
14	84718067	2	HOSE ASSY	
15	91041325	2	PIVOT PIN	
16	91041327	2	BUSHING	
17	88671022	2	LUBE FITTING, 90, 1/8	
18	91041322	2	LOCKING PLATE	
19	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
20	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
21	88561002	2	FLAT WASHER, 1/4	
22	91043186	1	DOUBLE PILOT CHECK VALVE	
23	91041361	2	FITTING	
24	91041362	2	ORIFICE FITTING	
25	88591205	2	O-RING	
26	2220501	2	ELBOW, 45, (includes item 27)	
27	88591204	2	O-RING	
28	90204097	2	HOSE ASSY	
29	77133201	2	HOSE ASSY	
30	8760268	6	ELBOW, 90, (swivel nut)	
31	2220372	2	CONNECTOR, (includes item 32)	
32	88591205	2	O-RING	
33	2220899	2	BRANCH TEE, (includes item 34)	
34	88591204	2	O-RING	
35	88201105	4	HEX HD CAPSCREW, 5/8-11X4, GR5	
36	88521310	4	HEX LOCKNUT, 5/8-11	
37	90200003	4	COLLAR	
38	90453013	2	DRYWALL FORK	
39	90451020	2	FORK PIN	
40	91041356	6	SPACER	
41	N.S.S.	1	PIVOT WELDMENT	
42	91033038	1	CHAIN, 24 IN	
43	91033039	2	CHAIN CONNECTION	
44	88631449	2	ROLL PIN, 1/8X1-1/2	

## SECTION 3 - ATTACHMENTS

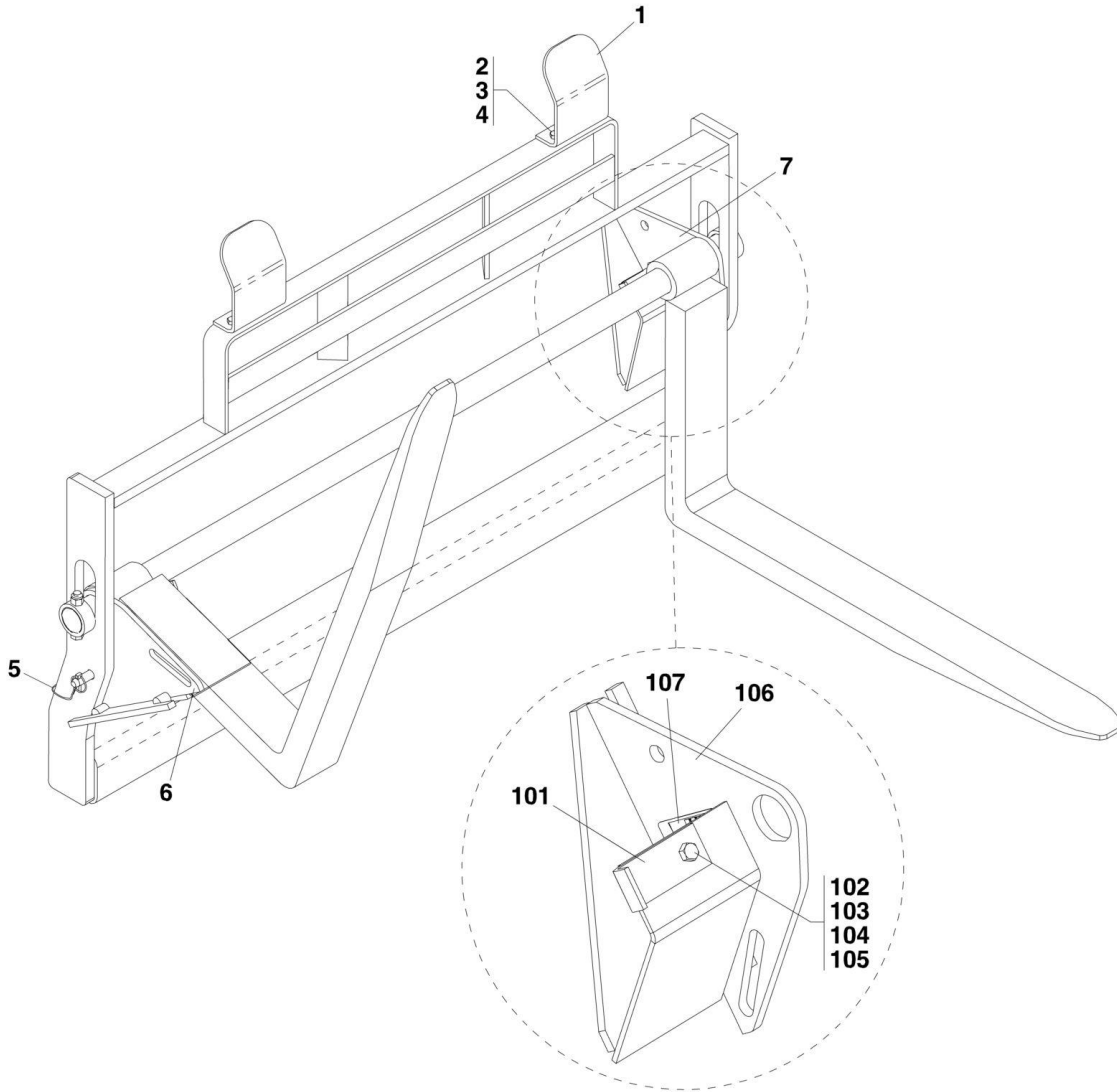
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	91141350	2	PIN	
46	91146053	1	LH SUPPORT BRACKET	
46	91146054	1	RH SUPPORT BRACKET	
47	91043221	2	DETENT PIN	
48	N.S.S.	1	S/N PLATE	
49	N.S.S.	4	DRIVE SCREW, #10X3/8	
50	90553012	2	SIDE DRYWALL GUARD	
51	88241053	14	SOCKET FLAT HD CAPSCREW, 3/8-16X1-1/2	
52	88551011	8	LOCKWASHER, 3/8	
53	88501006	8	HEX NUT, 3/8-16	
54	90553013	2	BOTTOM DRYWALL GUARD	
55	91083249	1	CLAMP SET	
56	77133140	1	COVER PLATE	
57	77133177	1	HEX HD CAPSCREW, 5/16-18X1-3/8	
58	91143282	2	PINCH POINT DECAL	
59	8765204	2	ELBOW, 90, (swivel nut)	





# SECTION 3 - ATTACHMENTS

FIGURE 3-16. SHEET MATERIAL HANDLER (SN 0160037689 to Present)



LEFT SIDE SHOWN, RIGHT SIDE  
OPPOSITE

PY1510

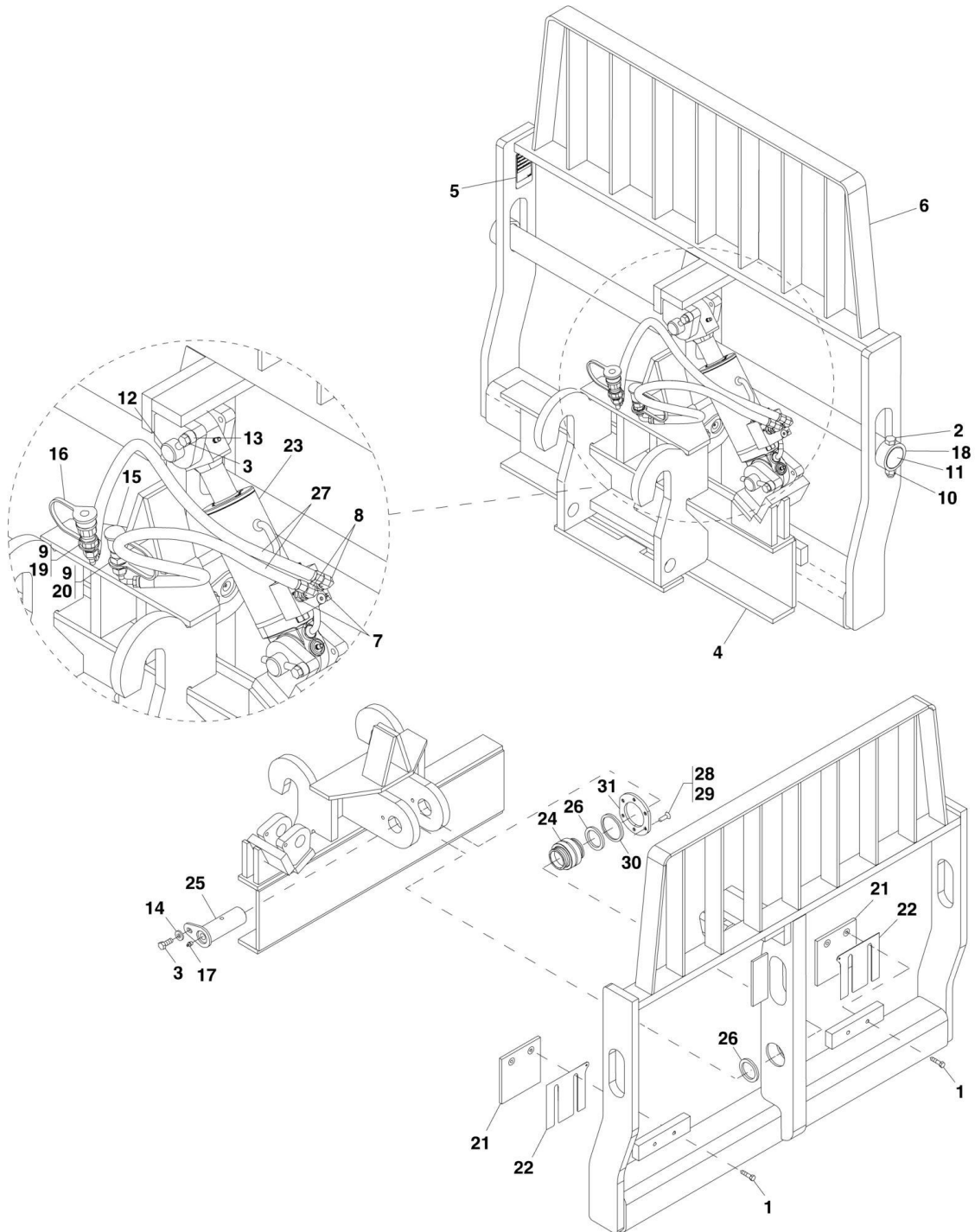
## SECTION 3 - ATTACHMENTS

**FIGURE 3-16. SHEET MATERIAL HANDLER (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001100227	1	SHEET MATERIAL HANDLER ASSY, (includes all items)	A
1	7112642	2	BACKREST EXTENSION	
2	8303626	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
3	8305012	4	HEX NUT, 1/2-13	
4	8307007	4	LOCKWASHER, 1/2	
5	1001093377	2	HITCH PIN	
6	1001101115	1	RH FORK SUPPORT ASSY, (includes items 101 thru 107)	A
7	1001101116	1	LH FORK SUPPORT ASSY, (includes items 101 thru 107)	B
101	7114941	1	LOCK BAR	
102	8303626	1	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
103	8305644	1	HEX LOCKNUT, 1/2-13	
104	8307007	1	LOCKWASHER, 1/2	
105	8307112	1	WASHER, 1/2	
106	N.S.S.	1	RH FORK SUPPORT, (not shown)	
106	N.S.S.	1	LH FORK SUPPORT, (shown)	
107	N.S.S.	1	S/N PLATE	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-17. SIDE TILT CARRIAGE (SN 0160037689 to Present)



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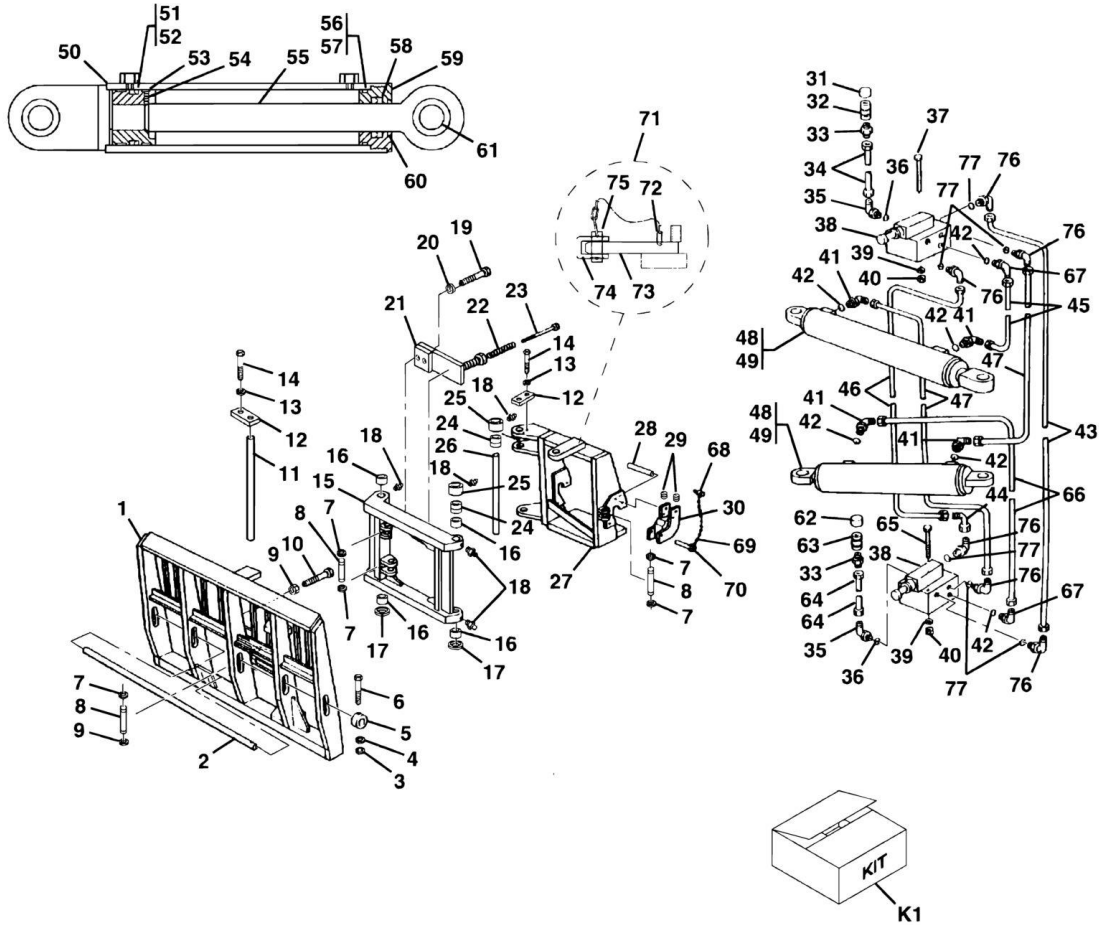
## SECTION 3 - ATTACHMENTS

**FIGURE 3-17. SIDE TILT CARRIAGE (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1170054	1	50 IN SIDE TILT CARRIAGE, (includes all items)	I
	1001101956	1	60 IN SIDE TILT CARRIAGE, (includes all items)	J
	1170057	1	72 IN SIDE TILT CARRIAGE, (includes all items)	I
1	0641612	4	HEX HD CAPSCREW, 3/8-16X1-1/2	
2	0642032	2	HEX HD CAPSCREW, 5/8-11X4	
3	0681810	3	HEX HD CAPSCREW, 1/2-13X1-1/4	
4	1001133072	1	CARRIAGE BASE	
5	N.S.S.	1	S/N PLATE	
6	N.S.S.	1	SIDE TILT CARRIAGE	
7	2110606	2	CONNECTOR	
8	2172106	2	CONNECTOR, 90	
9	2110808	2	CONNECTOR	
10	3300240	2	LOCKNUT, 5/8-11	
11	3423275	1	50 IN FORK PIN	
11	3423242	1	60 IN FORK PIN	
11	3423276	1	72 IN FORK PIN	
12	3423307	2	PIN	
13	3841203	2	KEEPER	
14	4891800	1	WASHER, 1/2	
15	8420053	1	DUST CAP	
16	8420055	1	DUST PLUG	
17	88671001	1	GREASE FITTING	
18	90200003	2	COLLAR	
19	91403413	1	CONNECTOR	
20	91403414	1	CONNECTOR	
21	1001090063	2	WEAR PAD	
22	1001090064	AR	SHIM	
23		Ref	HYDRAULIC CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	1001090140	1	BEARING	
25	1001099113	1	PIN	
26	1001099115	2	SLEEVE	
27	1001102378	2	HOSE ASSY, 3/8X39	
28	0100011	AR	LOCTITE 242, (apply to item 29)	
29	0741610	6	FLAT HD SOCKET SCREW, 3/8-16	
30	1001120914	1	BEARING RETAINER SHIM	
31	1001120915	1	BEARING RETAINER PLATE	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-18. 180, SWING CARRIAGE (Prior to SN 0160000976)



PAP21870

## SECTION 3 - ATTACHMENTS

**FIGURE 3-18. 180, SWING CARRIAGE (Prior to SN 0160000976)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90553011	1	SWING FRAME ASSY, 180, (includes all items)	
1	N.S.S.	1	FORK BASE WELDMENT	
2	91144205	1	FORK PIN	
3	91144206	2	HEX NUT, 1/2	
4	91204400	2	LOCKWASHER, 1/2	
5	91144207	2	COLLAR	
6	91144208	2	HEX HD CAPSCREW, 1/2X3-1/4, GR5	
7	91144209	8	SNAP RING	
8	91144210	4	PIN	
9	91144211	1	HEAVY HEX JAM NUT, 3/4	
10	91144212	1	HEX HD CAPSCREW, 3/4X2, GR5	
11	91044251	1	SHAFT	
12	91044242	2	PIN RETAINER	
13	91204368	4	LOCKWASHER, 5/8	
14	91144213	4	HEX HD CAPSCREW, 5/8X1-1/4, GR5	
15	N.S.S.	1	INTERMEDIATE FRAME	
16	91044244	4	BRONZE BUSHING	
17	91044245	AR	SHIM	
18	91144214	10	STRAIGHT LUBE FITTING, 1/4	
19	91144215	2	HEX HD CAPSCREW, 1/4X3/4, GR5	
20	91144216	2	LOCKWASHER, 1/4	
21	91144218	2	DRILLED SHIM, 20 GAUGE	
22	91144217	2	STEEL SPRING	
23	91144219	1	FLAT HD CAPSCREW, 2X1/4	
24	91044249	2	THRUST BEARING	
25	91044250	2	LUBRICATION COLLAR	
26	91044241	1	SHAFT	
27	N.S.S.	1	FIXED FRAME	
28	91141350	2	PIN	
29	91144221	4	SOCKET SET SCREW, (cup point), 1/4X3/8	
30	91146053	1	PIN SUPPORT, LH	
30	91146054	1	PIN SUPPORT, RH	
31	91043126	1	DUST CAP, FEMALE	
32	90204245	1	QUICK DISCONNECT HYDRAULIC FITTING, FEMALE	
33	88661013	2	STRAIGHT FITTING	
34	91144222	1	HOSE ASSY	
35	91204563	2	ELBOW, 90, (includes item 36)	
36		Ref	O-RING	
37	91144223	2	HEX HD CAPSCREW, 5/16X3, GR5	
38		Ref	SWING VALVE ASSY, (See OPTIONS SECTION for Breakdown)	
39	91144224	4	LOCKWASHER, 5/16	
40	91144225	2	HEX NUT, 5/16	
41	2220473	4	ELBOW, 90, (includes item 42)	
42	88591204	6	O-RING	
43	91144226	1	HOSE ASSY	
44	91144227	1	ELBOW, (swivel nut)	
45	91144228	1	HOSE ASSY	
46	91144229	1	HOSE ASSY	
47	91144230	2	HOSE ASSY	
48	91044262	2	CYLINDER ASSY, (includes items 49 thru 60)	

## SECTION 3 - ATTACHMENTS

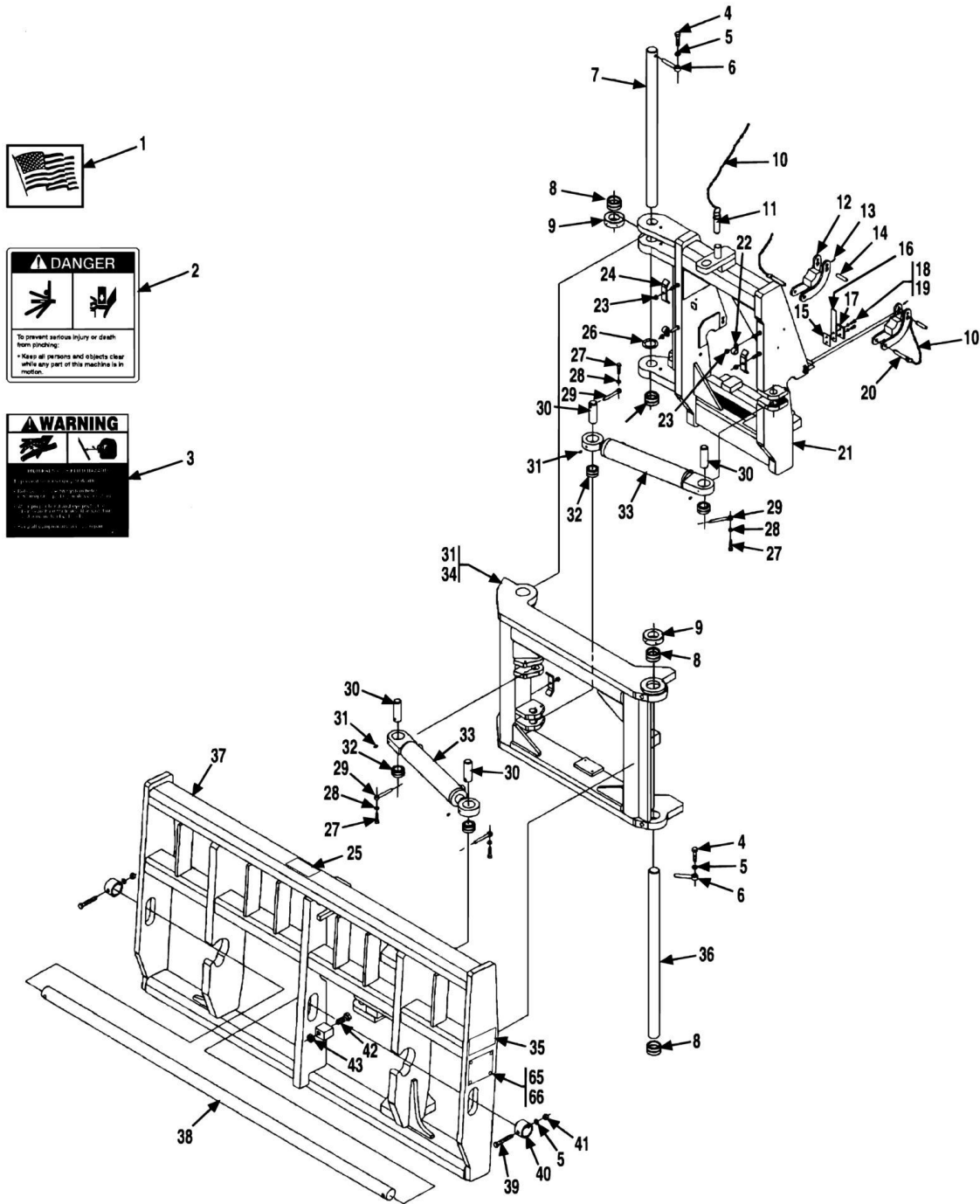
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	91144231	AR	CYLINDER SEAL KIT, (includes items 51, 52, 56, 57, 58 & 60)	
50	91144232	1	TUBE ASSY	
51	N.S.S.	1	PIP RING	
52	N.S.S.	1	PISTON SEAL	
53	91144233	1	LOCKING SET SCREW	
54	91144234	1	PISTON	
55	91144235	1	ROD ASSY	
56	N.S.S.	1	O-RING	
57	N.S.S.	1	BACK-UP RING	
58	N.S.S.	1	ROD SEAL	
59	91144236	1	GLAND	
60	N.S.S.	1	ROD WIPER	
61	91144237	4	SPHERICAL BEARING	
62	91043125	1	DUST CAP, MALE	
63	90204244	1	QUICK DISCONNECT HYDRAULIC FITTING, MALE	
64	91144238	1	HOSE ASSY	
65	91144239	2	HEX HD CAPSCREW, 5/16X3-1/4, GR5	
66	91144240	1	HOSE ASSY	
67	2220819	2	ELBOW, 90, LONG, (includes item 42)	
68	N.S.S.	2	CHAIN CONNECTION	
69	91144241	1	CHAIN, 18 IN	
70	91144242	2	DETENT PIN	
71	91144243	1	LOCK-LINK ASSY, (includes items 72 thru 75)	
72	91144244	1	CHAIN, 7 IN	
73	91144245	1	LOCK-LINK WELDMENT	
74	91144246	1	CLEVIS	
75	91144247	1	DETENT PIN	
76	2220466	6	ELBOW, 90, (includes item 77)	
77	88591203	6	O-RING	
K1	91144203	1	HOSE KIT, (includes items 34, 43, 45, 46, 47, 64 & 66)	





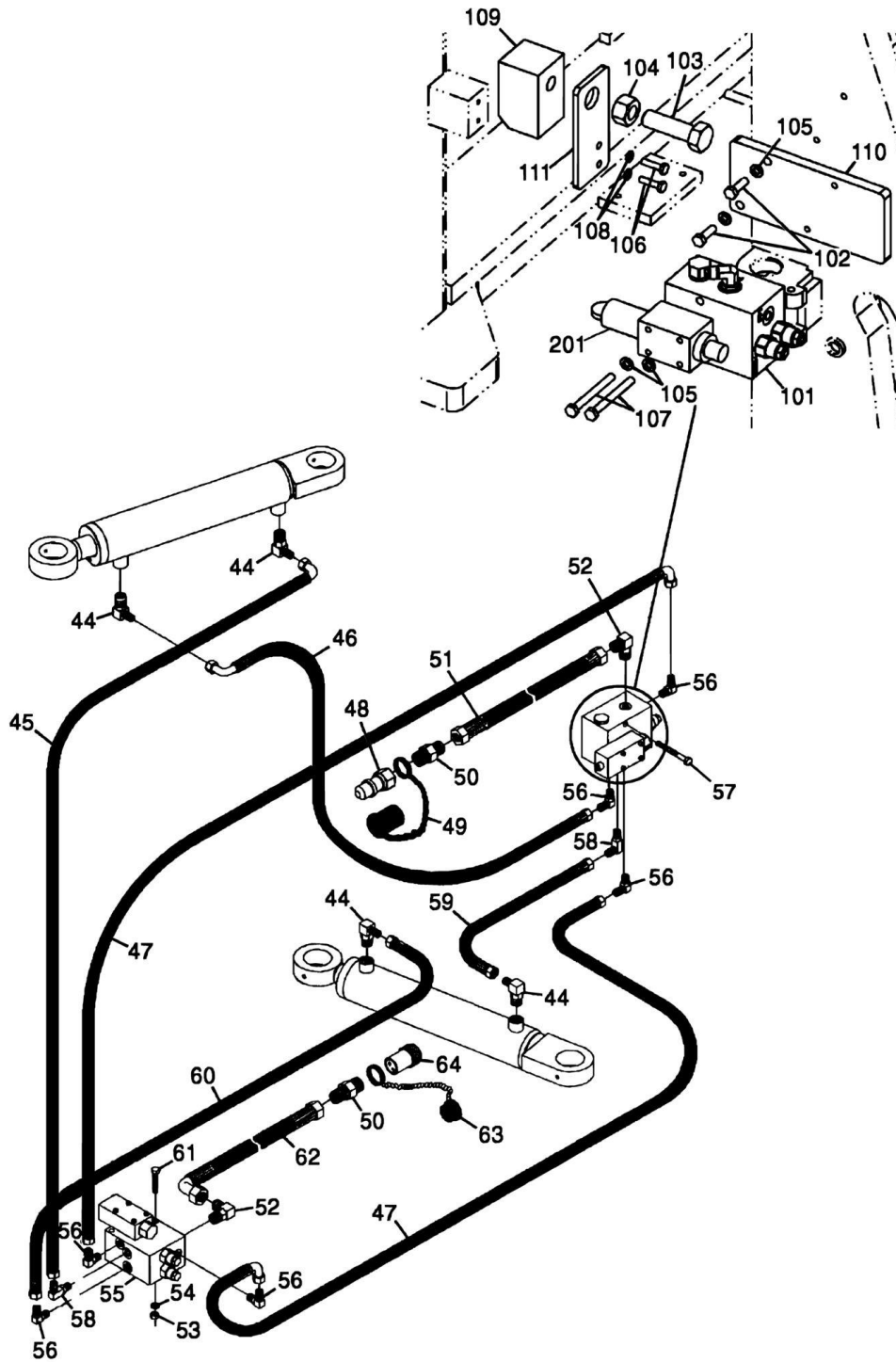
# SECTION 3 - ATTACHMENTS

FIGURE 3-19. 180, SWING CARRIAGE (SN 016000976 through 0160023514)



# SECTION 3 - ATTACHMENTS

## L.H. VALVE SERVICE KIT



PAP19510

## SECTION 3 - ATTACHMENTS

FIGURE 3-19. 180, SWING CARRIAGE (SN 0160000976 through 0160023514)

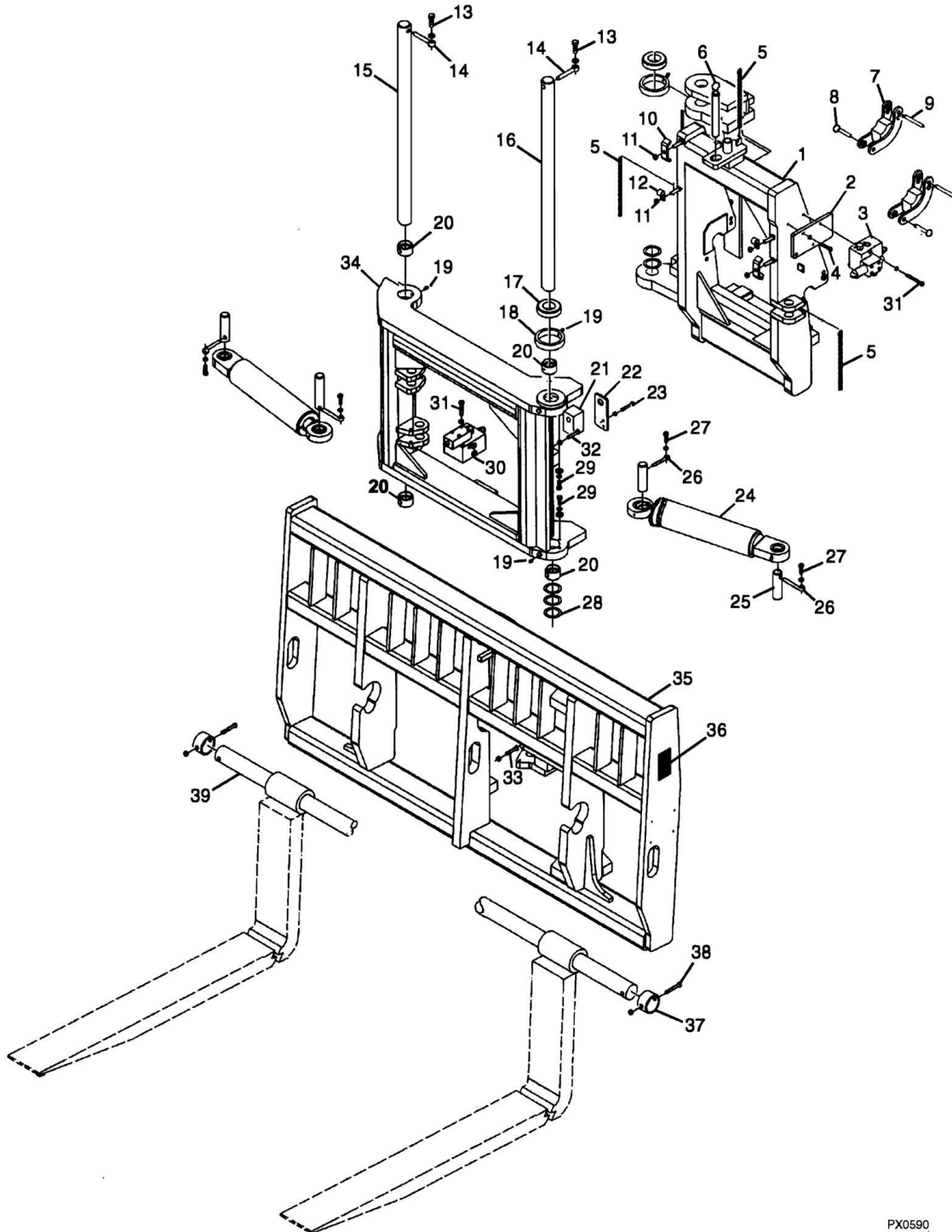
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90553024	NLA	180, SWING CARRIAGE ASSY, (includes items 1 thru 68) (90553024 is no longer available, order 91553076)	E
1	90554016	1	MADE IN USA DECAL	
2	90554017	3	DANGER PINCH POINT DECAL	
3	90554018	1	WARNING HIGH PRESSURE FLUID DECAL	
4	90554019	2	HEX HD CAPSCREW	
5	90554020	4	LOCKWASHER, 1/2	
6	90554021	2	PIN	
7	90554022	1	SWING PIN	
8	90554023	4	BUSHING	
9	90554024	2	BEARING	
10	90554025	3	CHAIN	
11	90554026	1	PIN	
12	90554027	2	PIN SUPPORT	
13	90554028	2	ROLL PIN	
14	90554029	2	PIN	
15	90554030	2	SHIM	
16	90554031	1	FLAT SPRING	
17	90554032	1	PLATE	
18	90554033	2	HEX HD CAPSCREW	
19	90554034	2	LOCKWASHER, 1/4	
20	90554035	2	QUICK RELEASE PIN	
21	N.S.S.	1	FIXED BASE FRAME	
22	90554037	2	SINGLE HOSE CLAMP	
23	90554038	3	LOCKNUT, 1/2	
24	90554039	3	DOUBLE HOSE CLAMP	
25	90553021	1	CAUTION DECAL	
26	90554040	AR	THRUST WASHER	
27	90554041	4	HEX HD CAPSCREW	
28	90554042	4	LOCKWASHER, 0.38 IN	
29	90554043	4	PIN	
30	90554044	4	CYLINDER PIN	
31	90554045	8	GREASE FITTING	
32	90554046	4	BUSHING	
33		Ref	CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
34	N.S.S.	1	INTERMEDIATE FRAME	
35	91143282	2	WARNING DECAL	
36	90554049	1	PIN	
37	N.S.S.	1	FORK MOUNTING FRAME	
38	90554051	1	FORK PIN	
39	90554052	2	HEX HD CAPSCREW, 1/2X3-1/4	
40	90554053	2	BUSHING	
41	90554054	2	HEX NUT	
42	90554055	1	HEX HD CAPSCREW, 3/4X2	
43	90554056	1	HEX JAM NUT, 3/4	
44	90554057	4	ELBOW, 90	
45	90554058	1	HOSE ASSY	
46	90554059	1	HOSE ASSY	
47	90554060	2	HOSE ASSY	

## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	90554061	1	MALE COUPLER	
49	90554062	1	DUST CAP	
50	90554063	2	ADAPTER	
51	90554064	1	HOSE ASSY	
52	90554065	2	ELBOW, 90	
53	90554066	2	HEX NUT	
54	90554067	2	LOCKWASHER, 0.31 IN	
55		Ref	VALVE, (See OPTIONS SECTION for Breakdown)	
56	90554069	6	ELBOW, 90	
57	90554070	2	HEX HD CAPSCREW, 0.31X3 IN	
58	90554071	2	ELBOW, 90	
59	90554072	1	HOSE ASSY	
60	90554073	1	HOSE ASSY	
61	90554074	2	HEX HD CAPSCREW	
62	90554075	1	HOSE ASSY	
63	90554076	1	PLUG	
64	90554077	1	FEMALE COUPLER	
65	N.S.S.	1	S/N PLATE	
66	88341022	4	DRIVE SCREW, #10X3/8	
	2915037	2	SWING VALVE KIT, (includes items 101 thru 111)	A
101	91564003	1	VALVE, (includes item 201)	
102	Kit	2	HEX HD CAPSCREW, 5/16-18X1, GR8	
103	Kit	1	HEX HD CAPSCREW, 3/4-10X2-1/2, GR8	
104	90554056	1	HEX NUT, 3/4	
105	Kit	4	LOCKWASHER, 5/16	
106	Kit	2	HEX HD CAPSCREW, 1/4-20X1, GR8	
107	90554070	2	HEX HD CAPSCREW, 5/16-18X3, GR8	
108	Kit	2	LOCKWASHER, 1/4	
109	70022048	1	MOUNTING PLATE	
110	70022049	1	MOUNTING PLATE	
111	70022047	1	MOUNTING PLATE	
201	70020383	1	VALVE, (includes o-rings and mounting hardware)	

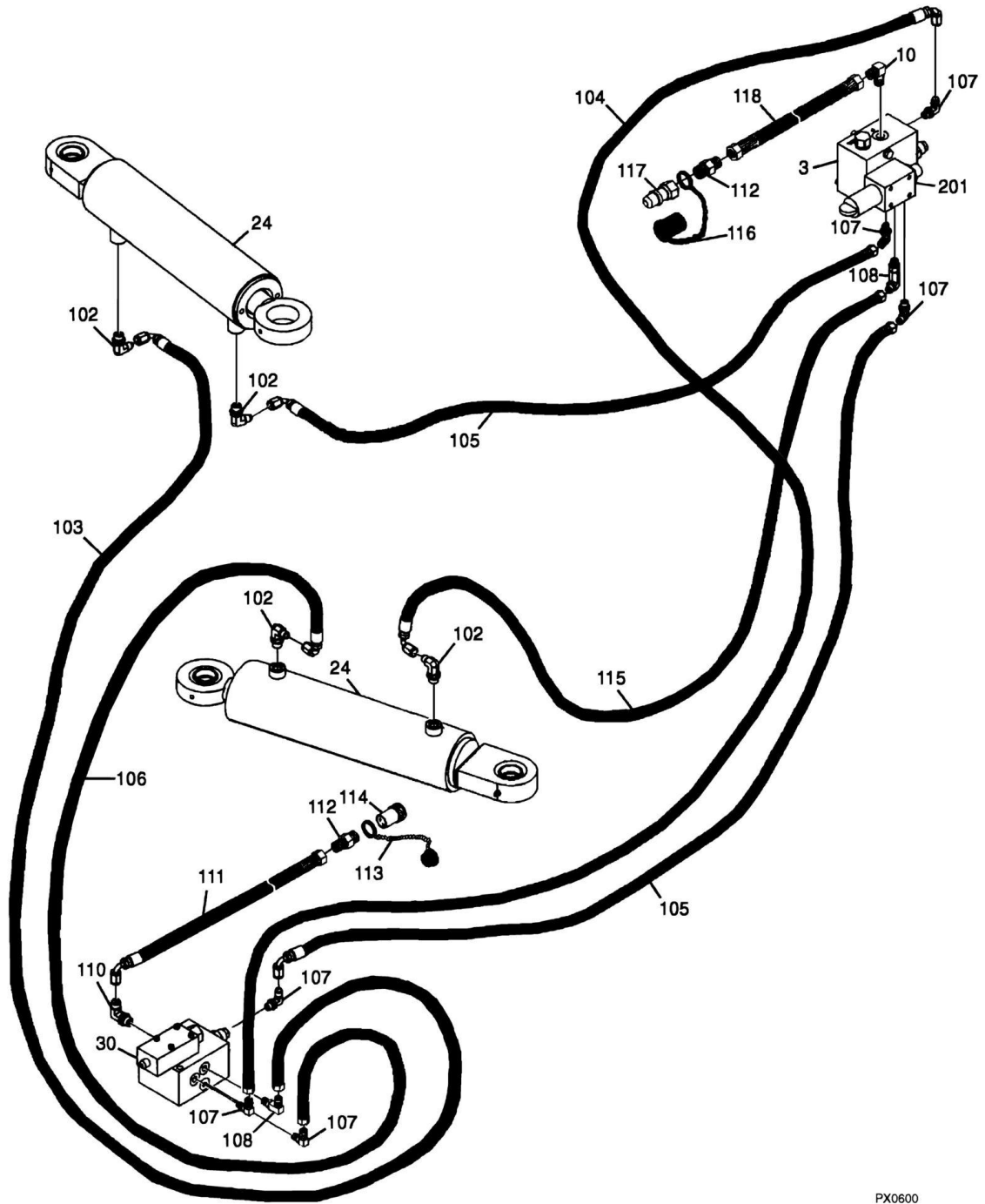
# SECTION 3 - ATTACHMENTS

FIGURE 3-20. 180, SWING CARRIAGE (SN 0160023515 through 0160037688)



PX0590

# SECTION 3 - ATTACHMENTS



PX0600

## SECTION 3 - ATTACHMENTS

FIGURE 3-20. 180, SWING CARRIAGE (SN 0160023515 through 0160037688)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553076	1	180, SWING CARRIAGE ASSY, (includes items 1 thru 118)	B
1	N.S.S.	1	WELDMENT	
2	70022047	1	MOUNTING PLATE	
3	91564003	1	VALVE, (includes item 201)	
4	N.S.S.	2	HEX HD CAPSCREW, 5/16-18X1	
4	90554067	2	LOCKWASHER, 5/16	
5	90554025	3	CHAIN	
6	90554026	1	LOCK PIN	
7	90554027	2	PIN SUPPORT	
8	90554021	2	PIN	
9	90554028	2	PIN	
10	90554039	3	HOSE CLAMP	
11	70021367	6	LOCKNUT, 3/8	
12	7029996	3	HOSE CLAMP	
13	70021382	2	HEX HD CAPSCREW, 1/2X1-1/2	
13	90554020	2	LOCKWASHER, 1/2	
14	90554021	2	PIN	
15	90554022	1	PIN	
16	90554049	1	PIN	
17	90554024	2	BEARING	
18	70020017	2	BEARING	
19	90554045	10	GREASE FITTING	
20	70020015	4	BUSHING	
21	70022048	1	MOUNTING PLATE	
22	70022049	1	MOUNTING PLATE	
23	N.S.S.	2	HEX HD CAPSCREW, 1/4X1	
23	90554034	2	LOCKWASHER, 1/4	
24		Ref	CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	90554044	4	PIN	
26	90554043	4	PIN	
27	70021429	4	HEX HD CAPSCREW, 3/8X1-1/4	
27	90554042	4	LOCKWASHER, 3/8	
28	90554040	5	WASHER	
29	7029997	6	HEX HD CAPSCREW, 3/8X3/4	
29	90554042	6	LOCKWASHER, 3/8	
29	N.S.S.	6	HEX HD CAPSCREW, 3/8X3/4	
30	90554068	1	VALVE	
31	90554070	4	HEX HD CAPSCREW, 5/16X3	
31	90554067	4	LOCKWASHER, 5/16	
32	N.S.S.	1	HEX HD CAPSCREW, 3/4X2-1/4	
32	90554056	2	HEX NUT, 3/4	
33	90554055	1	HEX HD CAPSCREW, 3/4X2	
34	N.S.S.	1	WELDMENT	
35	N.S.S.	1	WELDMENT	
36	N.S.S.	1	S/N PLATE	
37	90554053	2	BUSHING	
38	90554052	2	HEX HD CAPSCREW, 1/2X3-1/4	
38	90554038	2	LOCKNUT, 1/2	
39	90554051	1	PIN	

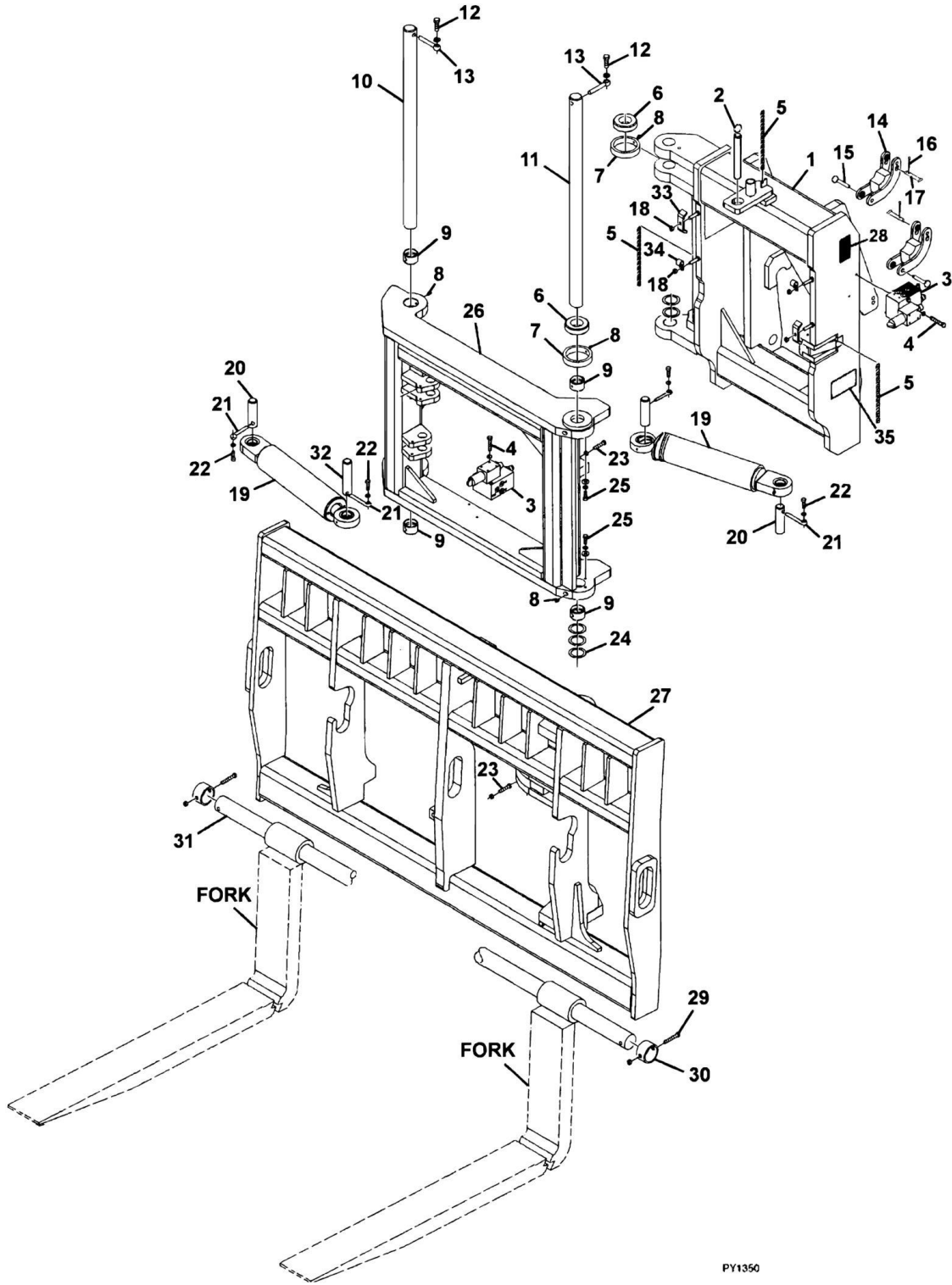


## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
102	90554057	4	ELBOW, 90	
103	90554058	1	HOSE ASSY	
104	90554059	1	HOSE ASSY	
105	90554060	2	HOSE ASSY	
106	90554073	1	HOSE ASSY	
107	90554069	6	ELBOW, 90	
108	90554071	2	ELBOW, 90	
110	90554065	2	ELBOW, 90	
111	70021983	1	HOSE ASSY	
112	90554063	2	ADAPTER	
113	90554076	1	DUST PLUG	
114	91403213	1	FEMALE QUICK COUPLER	
115	90554072	1	HOSE ASSY	
116	90554062	1	DUST CAP	
117	91403414	1	MALE QUICK COUPLER	
118	90554064	1	HOSE ASSY	
201	70020383	1	VALVE, (includes o-rings and mounting hardware)	

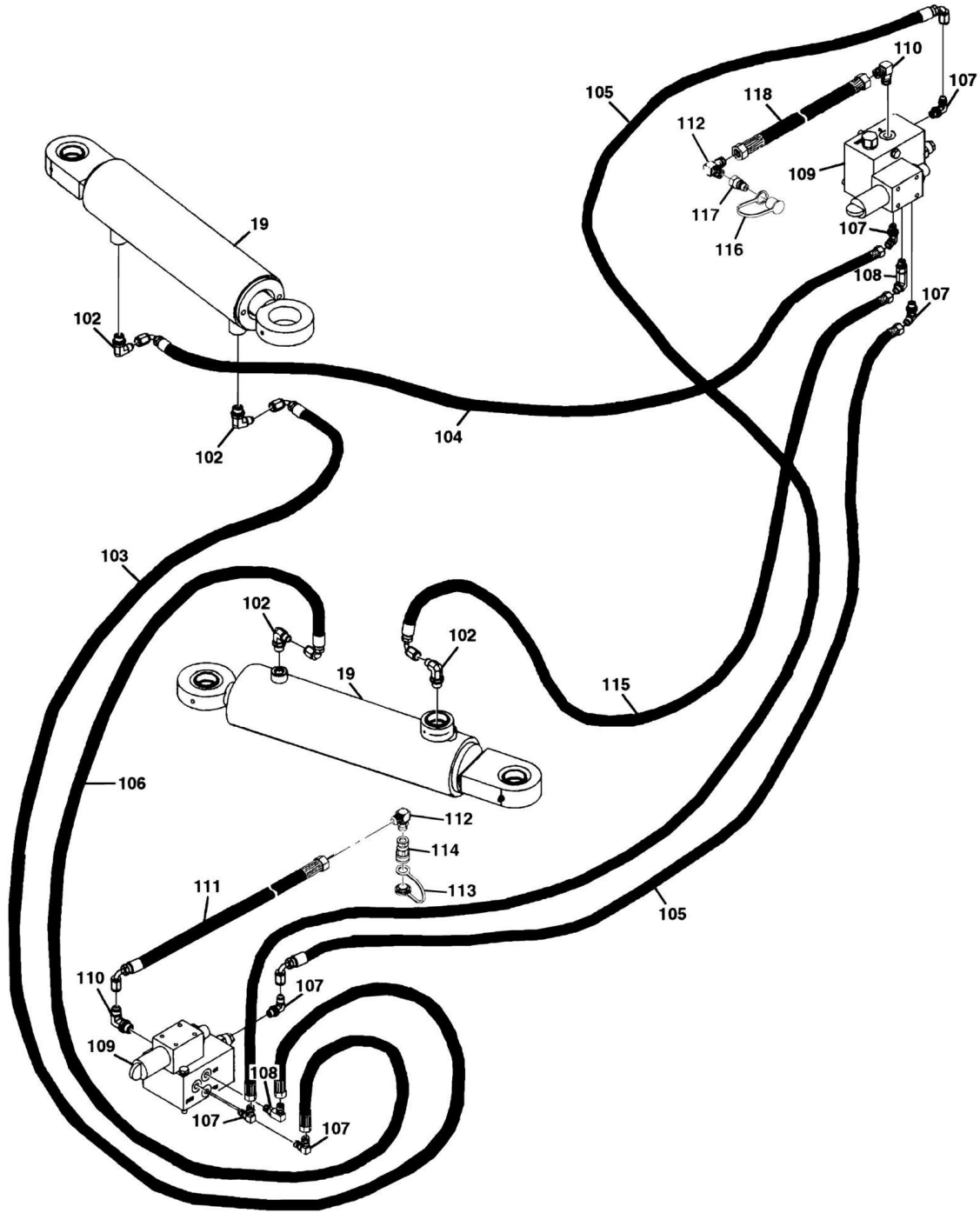
# SECTION 3 - ATTACHMENTS

FIGURE 3-21. 180, SWING CARRIAGE (SN 0160037689 to Present)



PY1350

# SECTION 3 - ATTACHMENTS



PAP3450

## SECTION 3 - ATTACHMENTS

**FIGURE 3-21. 180, SWING CARRIAGE (SN 0160037689 to Present)**

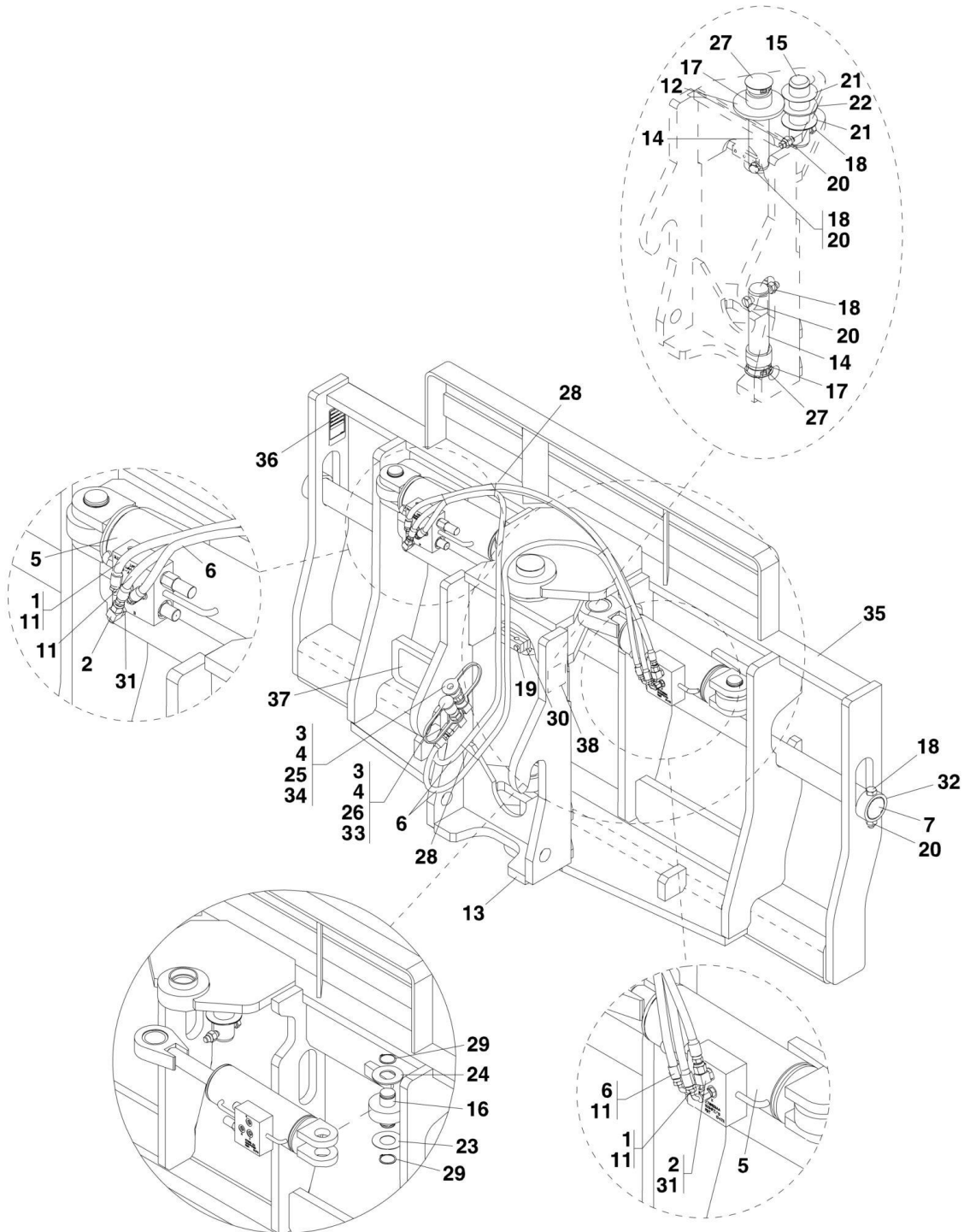
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	1001104992	1	180, SWING CARRIAGE, 72 IN, (includes all items)	G
1	N.S.S.	1	BACK FRAME	
2	90554026	2	LOCK PIN	
3	91564003	2	VALVE	
4	90554070	4	HEX HD CAPSCREW, 5/16X3	
4	90554067	4	LOCKWASHER, 5/16	
5	90554025	3	CHAIN	
6	90554024	2	BEARING	
7	70020017	2	BEARING	
8	90554045	10	GREASE FITTING	
9	70020015	4	BUSHING	
10	70020026	1	PIN	
11	70020025	1	PIN	
12	70021382	2	HEX HD CAPSCREW, 1/2X1.5	
12	90554020	2	LOCKWASHER, 1/2	
13	90554021	2	PIN	
14	90554027	2	PIN SUPPORT	
15	90554035	2	PIN	
16	1316794	2	COTTER PIN	
17	70020029	2	CLEVIS PIN	
18	70021367	6	LOCKNUT, 3/8	
19		Ref	CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
20	90554044	3	PIN	
21	90554043	4	PIN	
22	70021429	4	HEX HD CAPSCREW, 3/8X1-1/4	
22	90554042	4	LOCKWASHER, 3/8	
23	70020004	2	HEX HD CAPSCREW, 3/4X2-1/2	
23	90554056	2	HEX NUT, 3/4	
24	90554040	5	WASHER	
25	7029997	6	HEX HD CAPSCREW, 3/8X3/4	
25	90554042	6	LOCKWASHER, 3/8	
25	7029703	6	FLAT WASHER, 3/8	
26	N.S.S.	1	MIDDLE FRAME	
27	N.S.S.	1	FRONT FRAME	
28	N.S.S.	1	S/N PLATE	
29	70020002	2	HEX HD CAPSCREW, 1/2X3-1/2	
29	90554038	2	LOCKNUT, 1/2	
30	70020028	2	BUSHING	
31	70020027	1	PIN	
32	70022530	1	PIN	
33	90554039	3	CLAMP	
34	7029996	3	CLAMP	
35	1001110704	1	WARNING CRUSH HAZARD DECAL	
102	90554057	4	ELBOW, 90	
103	90554058	1	HOSE ASSY, 1/4X20-1/2	
104	90554059	1	HOSE ASSY, 1/4X63	
105	90554060	2	HOSE ASSY, 1/4X73	
106	90554073	1	HOSE ASSY, 1/4X57	
107	90554069	6	ELBOW, 90	

### SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
108	90554071	2	ELBOW, 90	
	70020383	1	VALVE, (includes o-rings AND mounting hardware)	
110	90554065	2	ELBOW, 90	
111	70021983	1	HOSE ASSY, 3/8X93	
112	70022527	2	ELBOW, 90	
113	8420055	1	DUST PLUG	
114	91403413	1	FEMALE QUICK COUPLER	
115	90554072	1	HOSE ASSY, 1/4X15	
116	8420053	1	DUST CAP	
117	91503414	1	MALE QUICK COUPLER	
118	90554064	1	HOSE ASSY, 3/8X64	

# SECTION 3 - ATTACHMENTS

FIGURE 3-22. 90, SWING CARRIAGE (SN 0160037689 to Present)



PAP3360

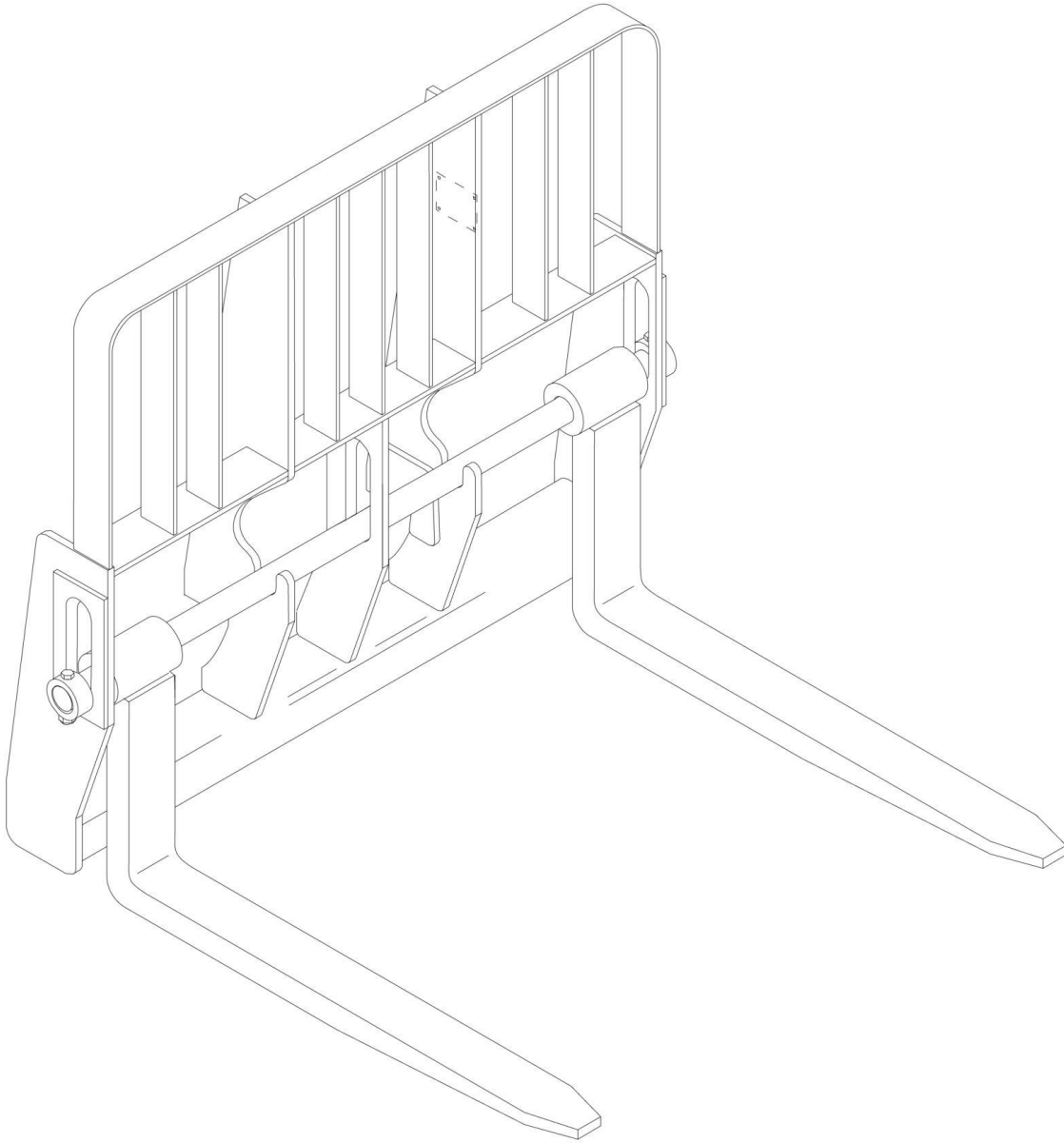
## SECTION 3 - ATTACHMENTS

**FIGURE 3-22. 90, SWING CARRIAGE (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001095418	1	90, SWING CARRIAGE, 72 IN, (includes all items)	K
1	2220415	4	CONNECTOR	
2	2220473	2	CONNECTOR, 90	
3	2220609	2	CONNECTOR	
4	2220628	2	CONNECTOR, 90	
5		Ref	SWING CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	2717287	2	Hose 58in (Boom Front Disconnect)	
6	1001301599	1	Hose 66in (Boom Side Disconnect)	
6	1001301600	1	Hose 46in (Boom Side Disconnect)	
7	3423276	1	PIN	
11	6604662	2	HOSE ASSY, 1/4X40.5	
12	7062922	1	WASHER	
13	N.S.S.	1	PIVOT WELDMENT	
14	7110702	2	PIVOT PIN	
15	7110712	1	PIN	
16	7110722	2	PIN	
17	8065062	2	BUSHING	
18	8303634	5	HEX HD CAPSCREW, 5/8-11X4, GR5	
19	8303715	3	HEX HD CAPSCREW, 5/16-18X1.5, GR5	
20	8305643	5	HEX NUT, 5/8-11	
21	8307904	AR	SHIM	
22	8307918	AR	SHIM	
23	8310160	AR	SHIM	
24	8310161	AR	SHIM	
25	8420053	1	DUST CAP	
26	8420055	1	DUST PLUG	
27	8580315	2	PLUG	
28	8584001	5	TIE WRAP	
29	8642207	4	RETAINING RING	
30	8769132	2	CLAMP	
31	8770016	2	CONNECTOR	
32	90200003	2	COLLAR	
33	91403413	1	CONNECTOR	
34	91403414	1	CONNECTOR	
35	N.S.S.	1	CARRIAGE FRAME	
36	N.S.S.	1	S/N PLATE	
37	1001110704	1	WARNING CRUSH HAZARD DECAL	
38	1001111190	2	WARNING DECAL	

## SECTION 3 - ATTACHMENTS

FIGURE 3-23. FORKS





## SECTION 3 - ATTACHMENTS

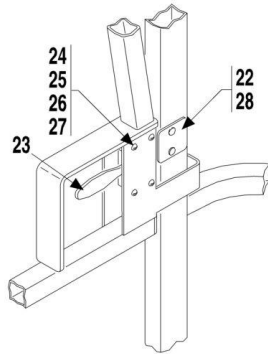
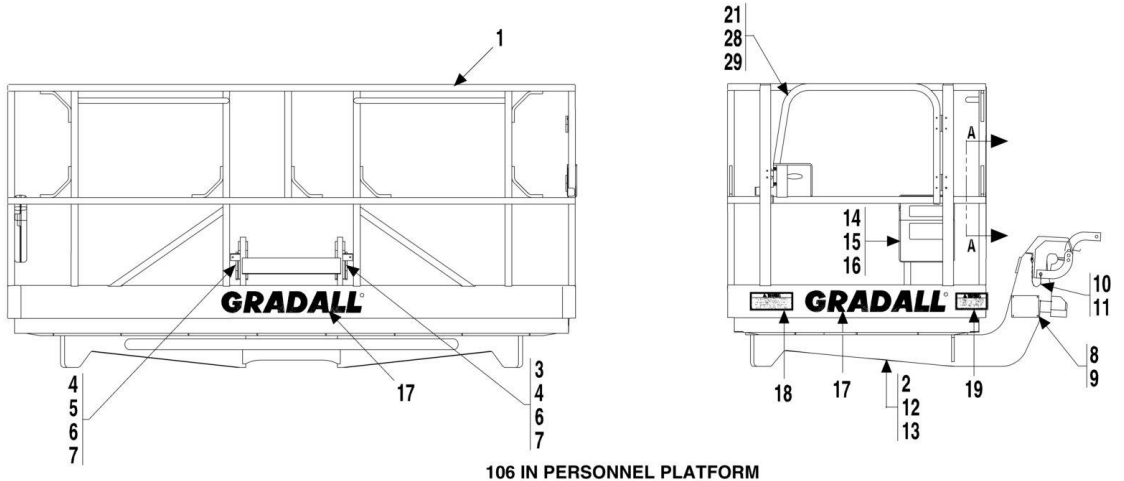
### FIGURE 3-23. FORKS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90600390	2	48IN CUBING FORK, 2X2, 3,000 lbs	
	2340037	2	48IN CUBING FORK, 2X2, 3,800 lbs	A
	90553008	2	48IN PALLET FORK, 1-3/4X4, 5,000 lbs, (used on 6ft swing mast only, 90455047)	
	90601819	2	48IN PALLET FORK, 1-3/4X6, 9,000 lbs	
	90453002	2	48IN PALLET FORK, 2X4, 8,000 lbs	
	90453048	2	48IN PALLET FORK, 2.25X4, 10,950 lbs	
	2340045	2	48IN PALLET FORK, 2.36X4, 10,950 lbs	B
	2340038	2	48IN PALLET FORK, 2.36X5, 13,700 lbs	B
	90553005	2	48IN PALLET FORK, 2X6, 10,000 lbs	
	90601015	2	60IN PALLET FORK, 2X6, 10,000 lbs	
	91163269	2	60IN PALLET FORK, 2X6, 11,300 lbs	
	90453045	2	60IN PALLET FORK, 2X6, 11,300 lbs, (used on 6ft swing mast only, 90455054)	
	2340039	2	60IN DUAL TAPER FORK, 2.36X6, 16,300 lbs	B
	90553018	2	72IN PALLET FORK, 2X6, 10,000 lbs	
	91123132	2	72IN PALLET FORK, 2X6, 10,000 lbs	
	H0453002	2	96IN PALLET FORK, 2X6, 7,500 lbs loaded center	
	2340046	2	60IN DUAL TAPER FORK, 1.75X7, 10,800 lbs	B
	1001092391	2	72IN DUAL TAPER FORK, 2X6, 11,300 lbs	B
N1	Note	Ref	<b>FORKS RATED LESS THAN ATTACHMENT OR MACHINE'S CAPACITY DECREASES CAPACITY OF THE ATTACHMENT OR MACHINE TO THAT OF THE FORKS. FORKS RATED MORE THAN THE ATTACHMENT OR MACHINE'S CAPACITY DO NOT INCREASE ATTACHMENT OR MACHINE'S CAPACITY.</b>	
N2	Note	Ref	<b>PLEASE CONSULT THE JLG PARTS DEPARTMENT TO DETERMINE THE CORRECT FORKS APPLICABLE TO YOUR SPECIFIC CARRIAGE ASSEMBLY AND APPLICATION.</b>	

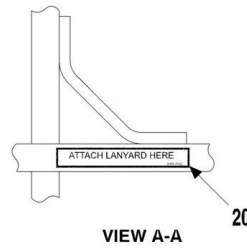
# SECTION 3 - ATTACHMENTS

## FIGURE 3-24. PERSONNEL PLATFORM (Prior to SN 0160037689)

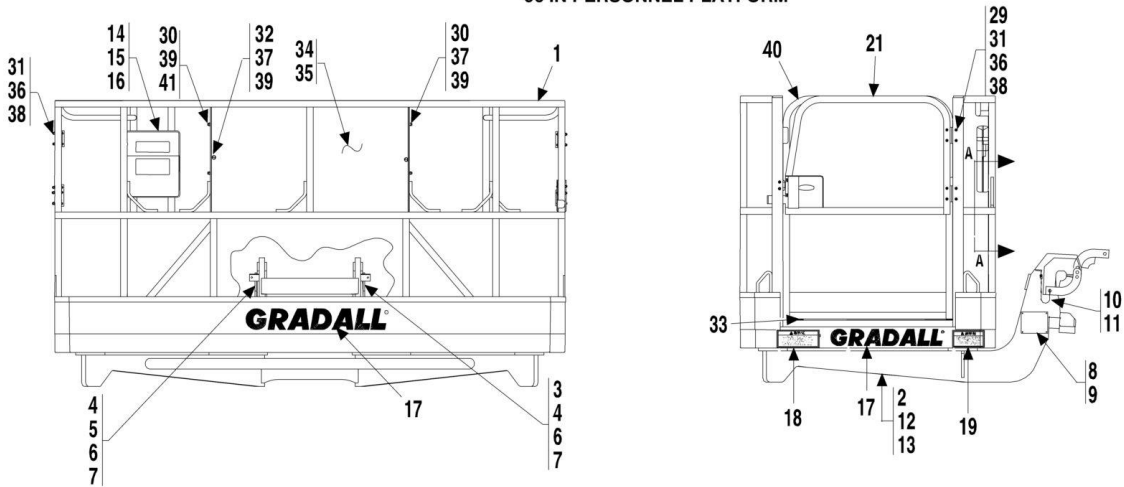
DO NOT USE THE PERSONNEL PLATFORM UNTIL PROPER CAPACITY CHART AND DECALS ARE IN PLACE.



VIEW OF LATCH AREA ON GATE



96 IN PERSONNEL PLATFORM



## SECTION 3 - ATTACHMENTS

**FIGURE 3-24. PERSONNEL PLATFORM (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90555024	1	PERSONNEL PLATFORM ASSY, (includes all items)	J
1		Ref	106 IN PERSONNEL PLATFORM, (includes items 21 thru 29)	
1	90553034	NLA	96 IN PERSONNEL PLATFORM, (no longer available, use 3510809 for service), (includes items 21 thru 27 & 29 thru 41)	B
1	3510809	1	96 IN PERSONNEL PLATFORM, (includes items 21 thru 27 & 29 thru 41)	C
1	3510807	1	96 IN PLATFORM	A
2	90556020	1	ADAPTER SUPPORT	
3	91146053	1	LH SUPPORT BRACKET	
4	91141350	2	PIN	
5	91146054	1	RH SUPPORT BRACKET	
6	88631449	2	ROLL PIN, 1/8X1-1/2	
7	91043221	2	DETENT PIN	
8	N.S.S.	1	S/N PLATE	
9		Ref	DRIVE SCREW, #10X3/8	
10	91033039	2	CHAIN CONNECTION	
11	91033038	24 in	CHAIN	
12	0682012	8	HEX HD CAPSCREW, 5/8-11X1-1/2	
13	88551015	8	LOCKWASHER, 5/8	
14	91403230	1	MANUAL HOLDER	
15	77143013	4	WHIZ-LOCKNUT, 1/4-20	
16	90554001	1	PERSONNEL WORK PLATFORM MANUAL	
17	80903009	3	GRADALL DECAL, (106 in platform)	
17	77333053	3	GRADALL DECAL, (96 in platform)	
18	1706893	1	WARNING DECAL	
19	1706892	1	WARNING DECAL	
20	1704277	AR	LANYARD DECAL	
21	4846265	1	GATE	
22	3539685	1	LATCH PLATE	
23	2940074	1	LATCH	
24	3911008	4	ROUND HD SCREW	
25	3311001	4	HEX NUT, #10-24	
26	4751000	4	WASHER, #10	
27	4761000	4	WASHER	
28	90554013	10	BLIND FASTENER	
29	2600216	2	HINGE	
30	0641524	4	HEX HD CAPSCREW, 5/16-18X3	
31	2080063	16	NYLON LOCKNUT, 1/4-20	
32	2080064	14	NYLON LOCKNUT, 5/16-18	
33	3520072	5	CAP PLUG	
34	3573363	1	GUARD PLATE	
35	3641438	1	BENT RAIL	
36	3911428	16	ROUND HD SCREW, 1/4-20X3/4	
37	3911528	12	ROUND HD SCREW, 5/16-18X3/4	
38	4711400	16	WASHER, 1/4	
39	4711500	32	WASHER, 5/16	
40	4846528	1	BASKET END WELDMENT	
41	3311501	2	HEX NUT, 5/16-18	

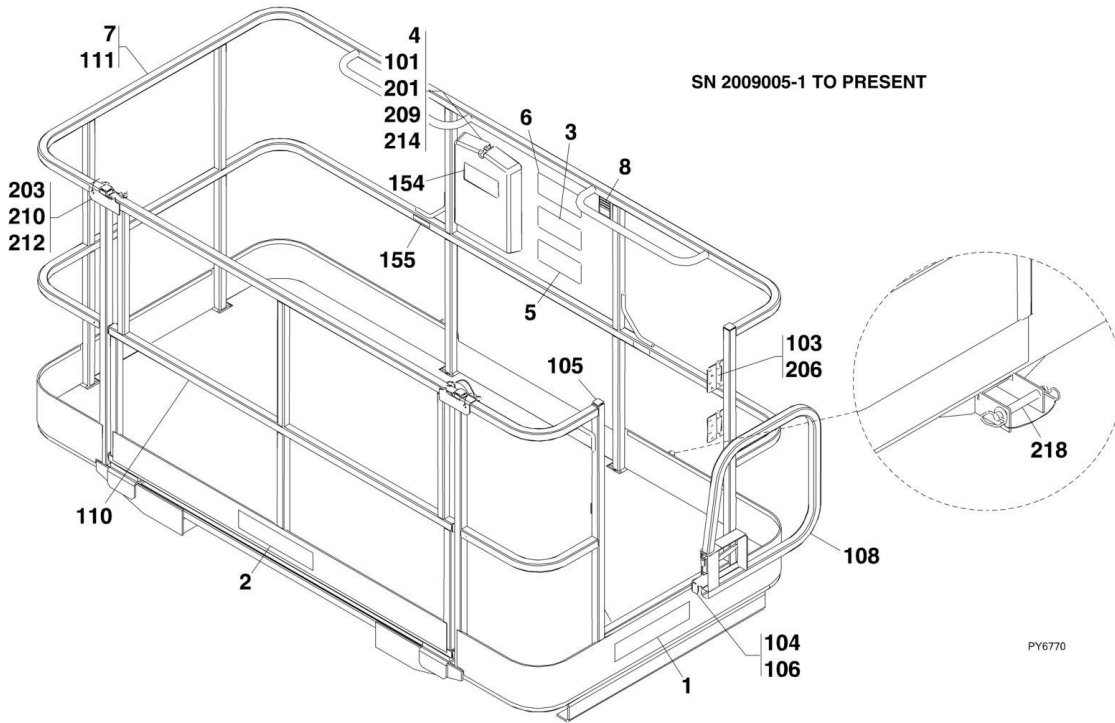
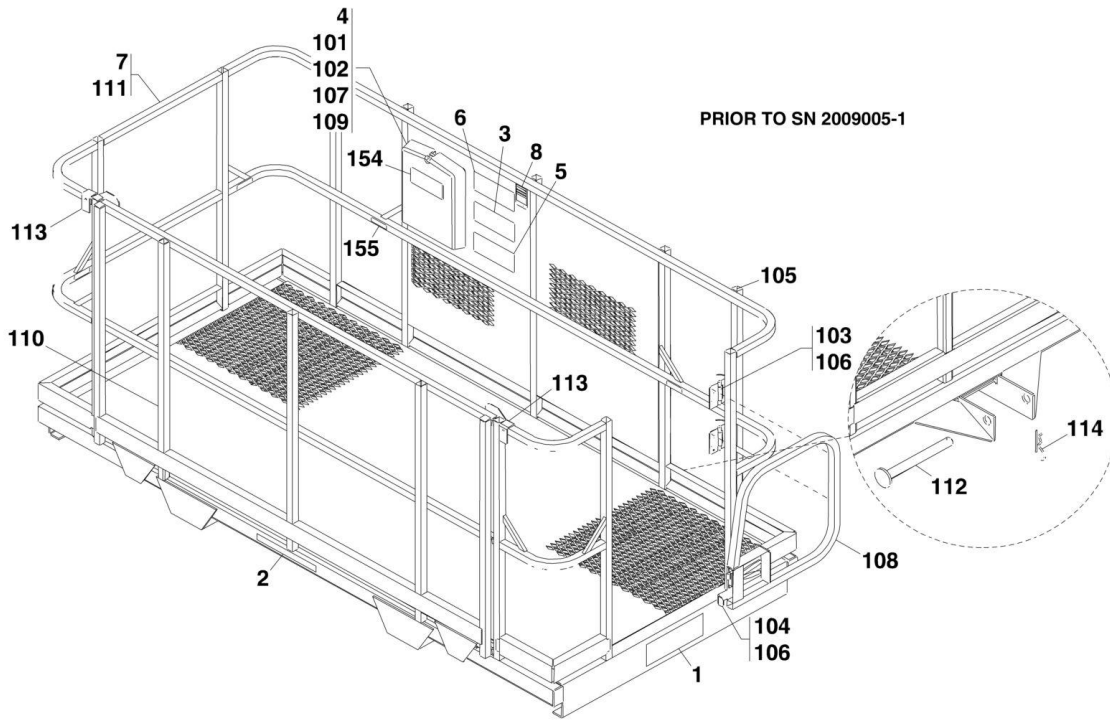
## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>WHEN BUYING THE PERSONNEL PLATFORM ASSEMBLY FOR THE FIELD INSTALLATION, BE SURE TO ALSO ORDER THE FOLLOWING:</b>	
	91363189	1	CAPACITY CHART - PERSONNEL PLATFORM	
	91365052	1	DECAL KIT, (includes all items listed below)	
	90554001	1	PERSONNEL PLATFORM MANUAL	
	91384011	1	GRADALL MATERIAL HANDLER SAFETY MANUAL	
	90553026	1	WARNING DECAL	
	90553027	1	WARNING DECAL	
	90553028	1	WARNING DECAL	
	24604172	1	GRADALL/EMI OPERATOR ORIENTATION VIDEO	
	91364024	1	OPERATOR'S MANUAL	



# SECTION 3 - ATTACHMENTS

## FIGURE 3-25. FORK MOUNTED PLATFORM



PY6770

## SECTION 3 - ATTACHMENTS

**FIGURE 3-25. FORK MOUNTED PLATFORM**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001092280	NLA	FORK MOUNTED PLATFORM, (Prior to SN 2009005-1) (ASME), (no longer available, order 1001103637 for replacement or items 1 thru 8 for service)	E
	1001103637	1	FORK MOUNTED PLATFORM, (SN 2009005-1 to Present) (ASME), (includes items 1 thru 8)	B
	1001096306	NLA	FORK MOUNTED PLATFORM, (Prior to SN 2009005-1), (ISO), (no longer available, order 1001103730 for replacement or items 1 thru 8 for service)	C
	1001103730	1	FORK MOUNTED PLATFORM, (SN 2009005-1 to Present), (ISO), (includes items 1 thru 8)	B
	1001097072	NLA	FORK MOUNTED PLATFORM, (Prior to SN 2009005-1), (ASME - FRENCH), (no longer available, order 1001103736 for replacement or items 1 thru 8 for service)	C
	1001103736	1	FORK MOUNTED PLATFORM, (SN 2009005-1 to Present), (ASME - FRENCH), (includes 1 thru 8)	B
1	1702773	2	JLG DECAL	
2	1704885	1	WEBSITE DECAL	
3	1706892	1	PLATFORM WARNING DECAL, (ASME)	
3	1001096025	1	PLATFORM WARNING DECAL, (ISO)	
3	1001096024	1	PLATFORM WARNING DECAL, (ASME - FRENCH)	
4	31200160	1	OPERATION AND SAFETY MANUAL, (ASME)	
4	31200387	1	OPERATION AND SAFETY MANUAL, (ISO - SPANISH)	
4	31200388	1	OPERATION AND SAFETY MANUAL, (ISO - PORTUGUESE)	
4	31200386	1	OPERATION AND SAFETY MANUAL, (ASME - FRENCH)	
5	1001092481	1	WARNING DECAL, (ASME)	
5	1001096021	1	WARNING DECAL, (ISO)	
5	1001096019	1	WARNING DECAL, (ASME - FRENCH)	
6	1001092482	1	CAPACITY DECAL, (ASME)	
6	1001096023	1	CAPACITY DECAL, (ISO)	
6	1001096020	1	CAPACITY DECAL, (ASME - FRENCH)	
7	N.S.S.	1	FORK MOUNTED PLATFORM, (Prior to SN 2009005-1), (includes items 101 thru 114, 154 & 155)	B
7	N.S.S.	1	FORK MOUNTED PLATFORM, (SN 2009005-1 to Present), (includes items 101, 103 thru 106, 108, 110, 111, 154, 155, 201, 203, 206, 210, 212, 214 & 218)	H
8	N.S.S.	1	S/N PLATE	
101	0860520	1	MANUAL STORAGE BOX	
102	2080044	4	RIVNUT FASTENER 1/4-20	
103	2600281	2	HINGE	
104	2940074	1	LATCH	
105	3520198	21	PLUG, (Prior to SN 2009005-1)	
105	3520072	10	PLUG, (SN 2009005-1 to Present)	
106	3820020	20	POP RIVET (Prior to SN 2009005-1)	
106	3820020	4	POP RIVET, (SN 2009005-1 to Present)	
107	4751400	4	WASHER, 1/4	
108	4846452	1	GATE WELDMENT	
109	80263012	4	SCREW WHIZ LOCK 1/4-20 X 1/2	
110	1001093140	1	GATE WELDMENT, (Prior to SN 2009005-1)	
110	1001095810	1	GATE WELDMENT, (SN 2009005-1 to Present)	
111	N.S.S.	1	PLATFORM WELDMENT	
112	1001093171	2	PIN	
113	1001097168	2	PIN, SAFETY SNAP, WITH LANYARD	

### SECTION 3 - ATTACHMENTS

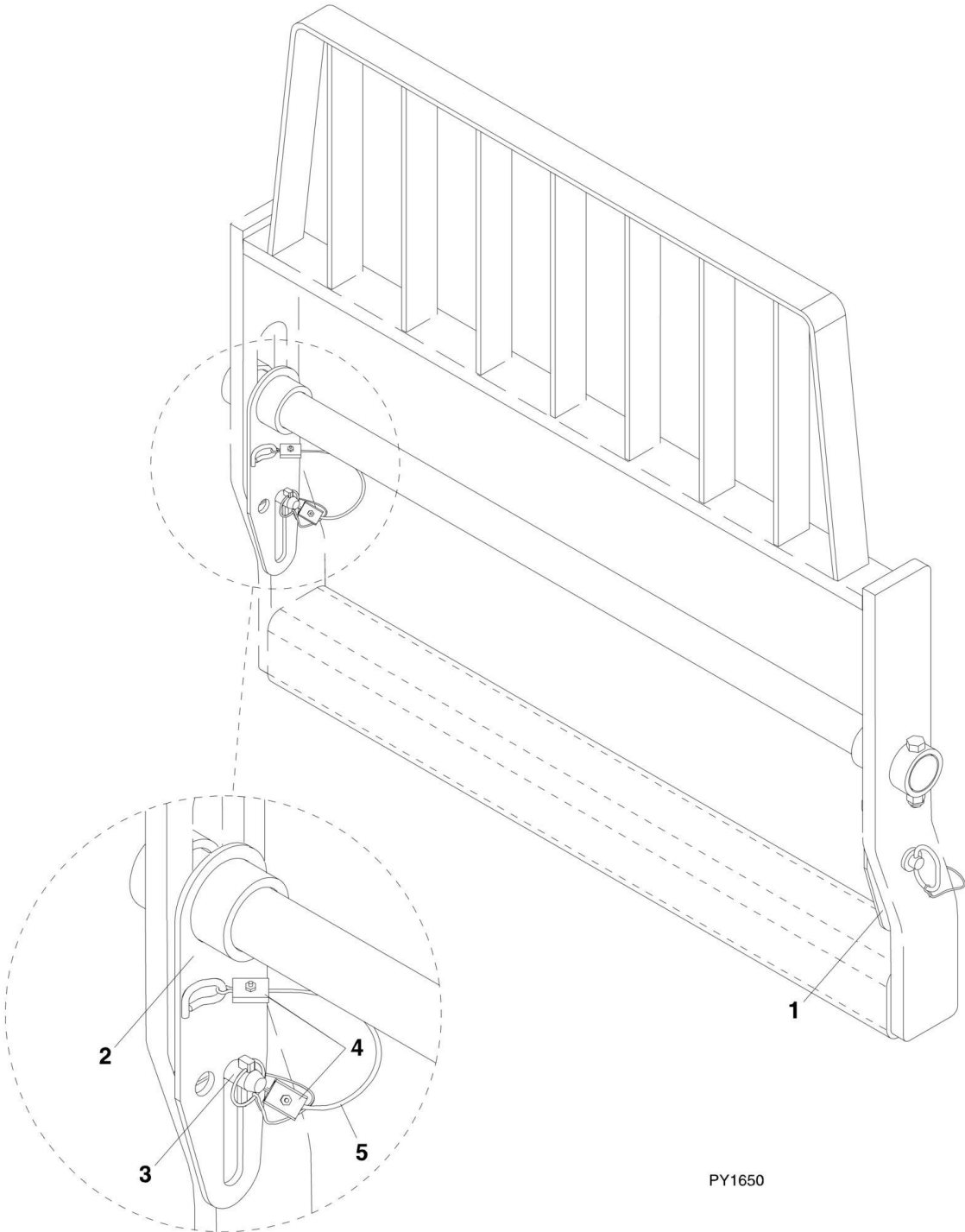
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
114	1001098582	2	LYNCH PIN 3/16 WITH LANYARD	
154	1701509	1	MANUAL DECAL	
155	1704277	3	LANYARD ATTACH DECAL	
201	0641405	4	HEX HD CAPSCREW, 1/4-20X5/8	
203	1060379	2	6 IN LANYARD CABLE	
206	2080040	16	FASTENER	
209	3311405	4	HEX NUT, 1/4-20	
210	3421453	2	PIN	
212	3760170	4	RING	
214	4711400	8	WASHER, 1/4	
218	1001102813	2	HITCH PIN	





# SECTION 3 - ATTACHMENTS

FIGURE 3-26. FORK PIN LOCK INSTALLATION (SN 0160037689 to Present)



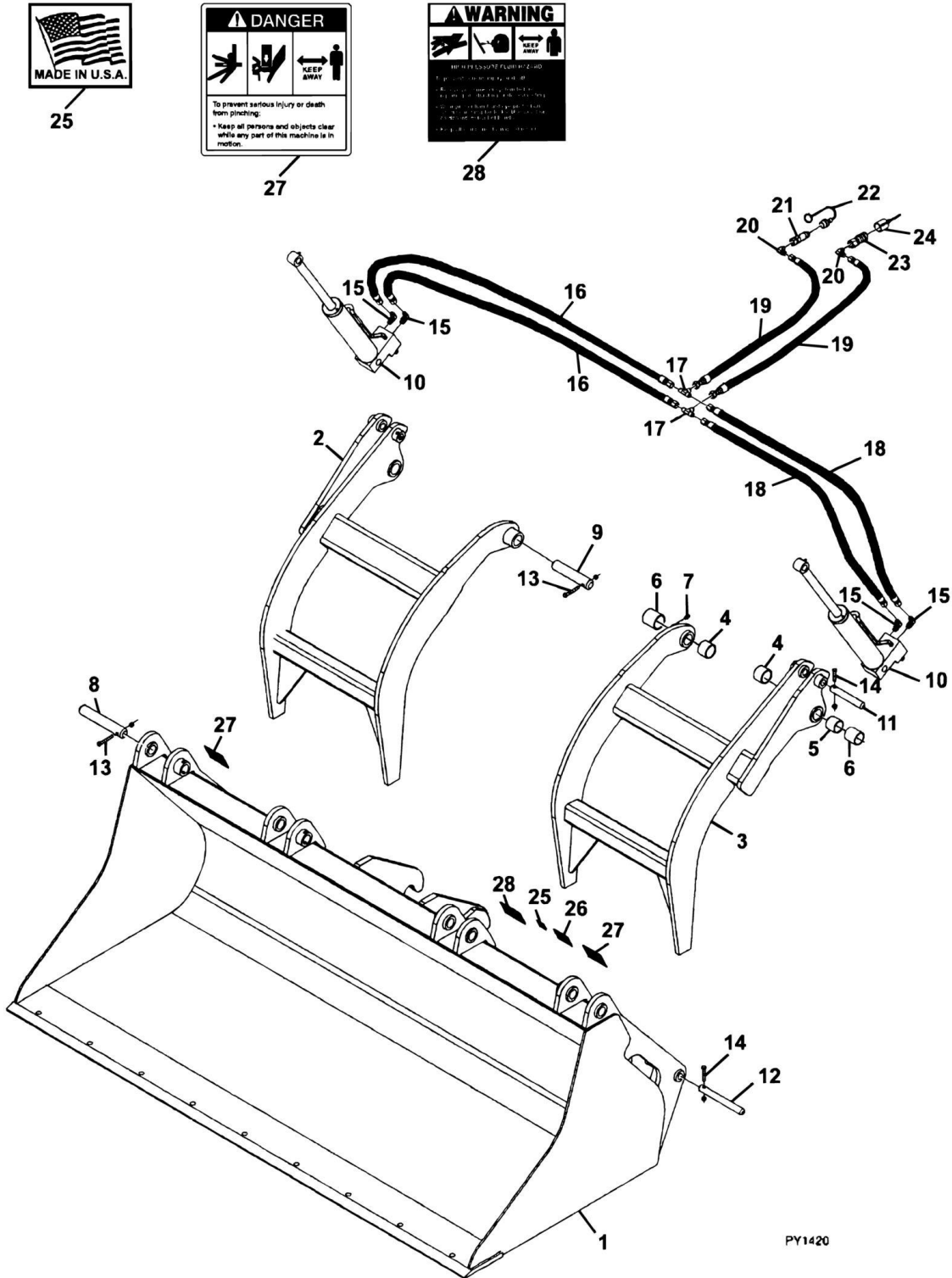
## SECTION 3 - ATTACHMENTS

**FIGURE 3-26. FORK PIN LOCK INSTALLATION (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001093465	1	FORK PIN LOCK INSTALLATION (includes all items)	B
1	0240156	1	LH FORK PIN LOCK	
2	1001093273	1	RH FORK PIN LOCK	
3	1001093377	2	HITCH PIN	
4	1001094830	4	CLAMP	
5	1001094330	2	LANYARD CABLE	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-27. GRAPPLE BUCKET (SN 0160037689 to Present)



PY1420

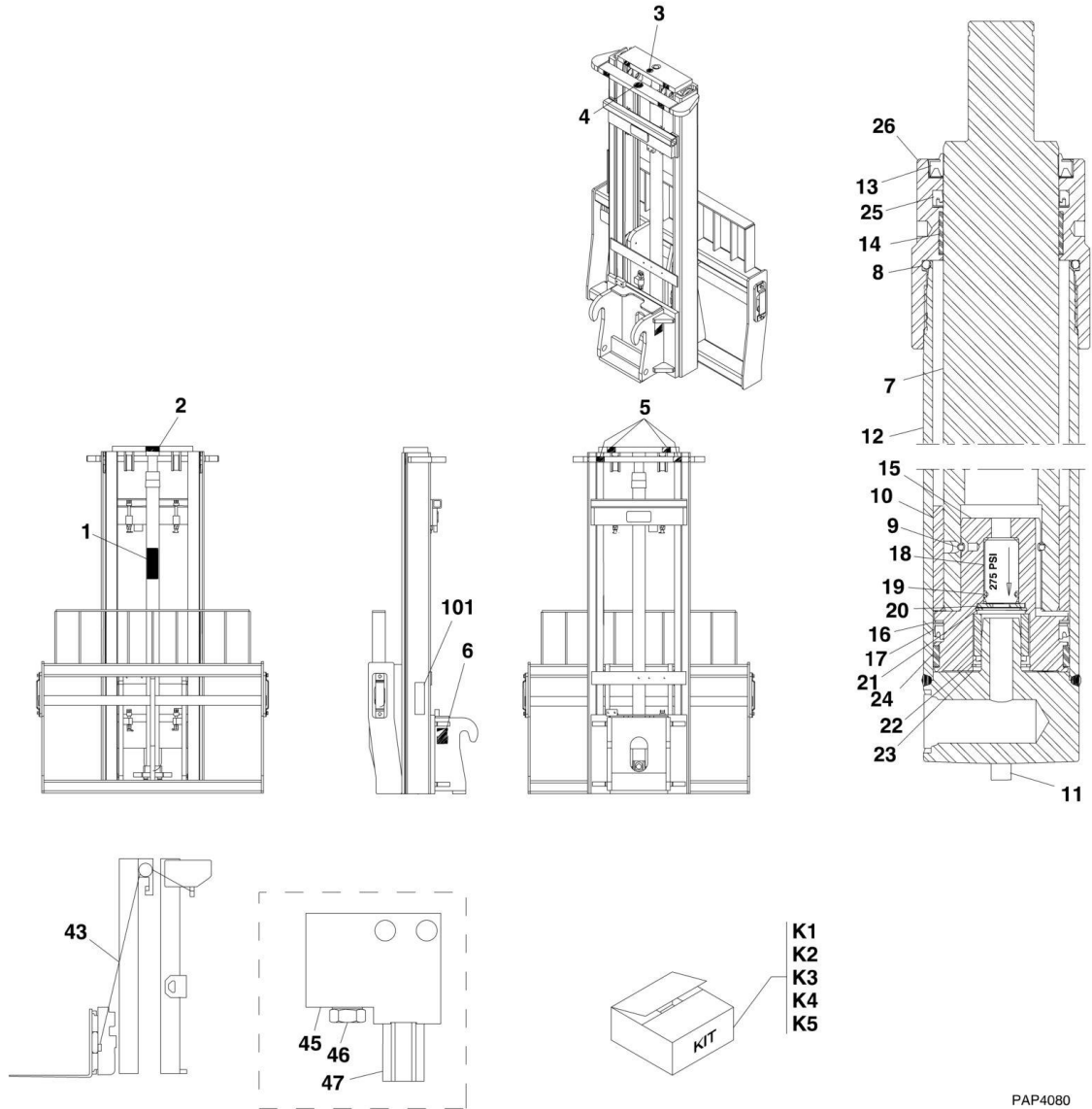
## SECTION 3 - ATTACHMENTS

**FIGURE 3-27. GRAPPLE BUCKET (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0930020	1	GRAPPLE BUCKET, (includes all items)	G
1	N.S.S.	1	BUCKET	
1	70021387	4	HOSE CLAMP	
2	70021391	1	RIGHT GRAPPLE HOOK	
3	70021392	1	LEFT GRAPPLE HOOK	
4	70021358	4	BUSHING	
5	70021359	2	SPACER	
6	70021360	4	BUSHING	
7	7029714	4	GREASE FITTING	
8	70021361	2	OUTER PIVOT PIN	
9	70021362	2	INNER PIVOT PIN	
10		Ref	GRAPPLE BUCKET CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	70021364	2	PIN	
12	70021365	2	PIN	
13	70021366	4	HEX HD CAPSCREW, 3/8X2.75	
13	70021367	4	LOCKNUT, 3/8	
14	70021399	4	HEX HD CAPSCREW, 3/8X2.25	
14	70021367	4	LOCKNUT, 3/8	
15	90554065	4	ELBOW, 90	
16	70021980	2	HOSE ASSY, 3/8X73 IN	
17	70020562	2	TEE FITTING	
18	70021981	2	HOSE ASSY, 3/8X46 IN	
19	70021395	2	HOSE ASSY, 3/8X34 IN	
20	70022527	2	ELBOW, 90	
21	7029692	1	MALE QUICK COUPLER	
22	90554062	1	DUST COVER	
23	70021342	1	FEMALE QUICK COUPLER	
24	90554076	1	DUST COVER	
25	90554016	1	MADE IN USA DECAL	
26	N.S.S.	1	S/N PLATE	
27	90554017	2	DANGER PINCH POINT DECAL	
28	90554018	1	HIGH PRESSURE WARNING DECAL	

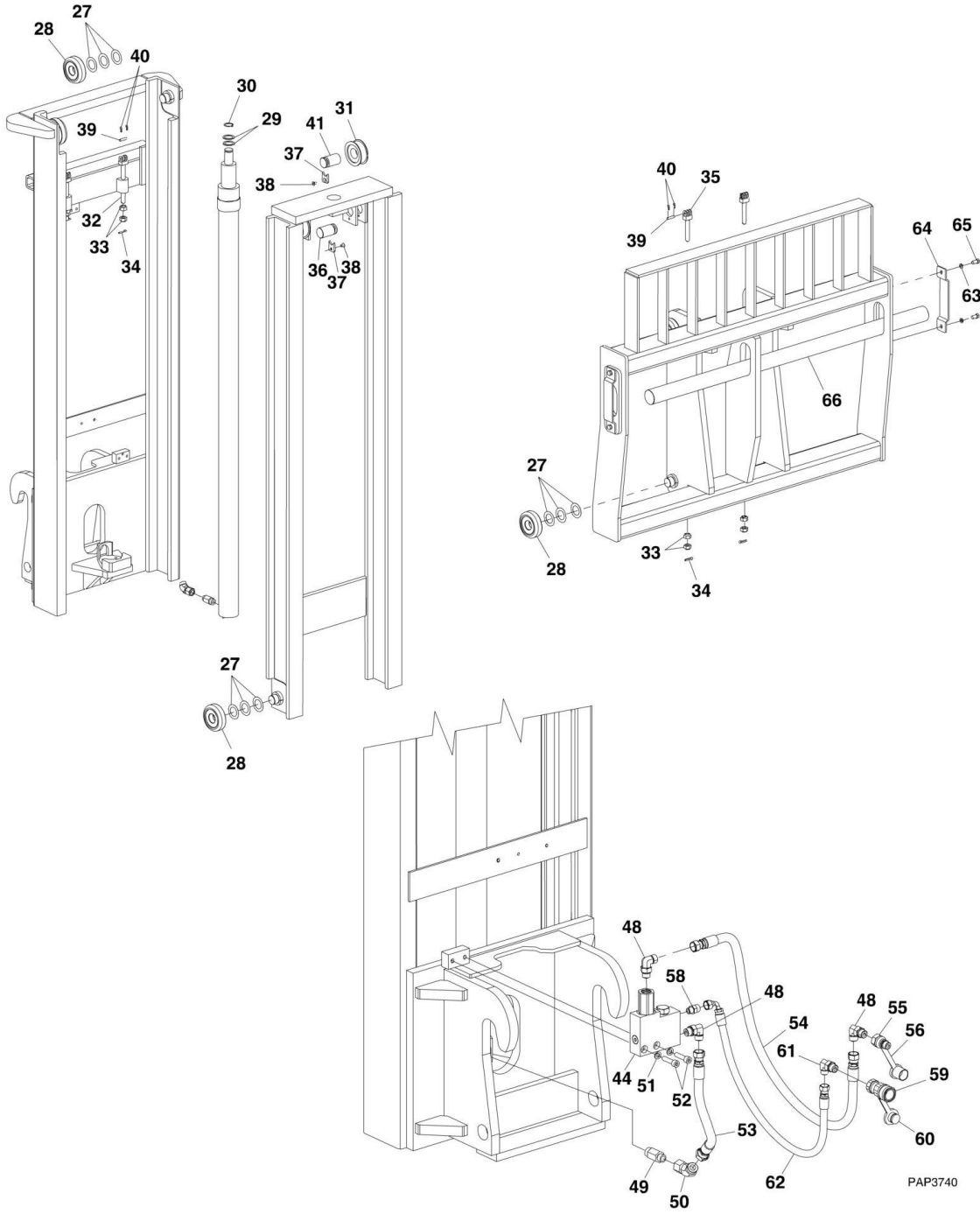
# SECTION 3 - ATTACHMENTS

FIGURE 3-28. 8 FT STANDARD MAST (SN 0160037689 to Present)



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# SECTION 3 - ATTACHMENTS



## SECTION 3 - ATTACHMENTS

**FIGURE 3-28. 8 FT STANDARD MAST (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001108668	1	8 FT STANDARD MAST, (includes all items)	B
1	Kit	1	WARNING DECAL	
2	Kit	1	WARNING DECAL	
3	Kit	1	NO STEP DECAL	
4	Kit	1	NO STEP DECAL	
5	Kit	4	HANDS OFF DECAL	
6	1001111190	2	HOSE ROUTING	
6	70023008	1	MAIN LIFT CYLINDER, (includes items 7 thru 26)	
7	N.S.S.	1	ROD/PLUNGER	
8	Kit	1	O-RING	
9	Kit	1	PULL WIRE	
10	N.S.S.	1	SPACER	
11	N.S.S.	2	ROLL PIN	
12	N.S.S.	1	BARREL	
13	Kit	1	WIPER	
14	Kit	1	BUSHING	
15	N.S.S.	1	PISTON	
16	Kit	1	NYLON RING	
17	Kit	1	PISTON SEAL	
18	Kit	1	CHECK VALVE	
19	Kit	1	O-RING	
20	Kit	1	WASHER	
21	Kit	1	CIRCLIP	
22	N.S.S.	1	SLEEVE	
23	Kit	1	RETAINING RING	
24	Kit	1	WEAR RING	
25	Kit	1	ROD SEAL	
26	70023004	1	RETAINER/GLAND	
27	70023014	24	SHIM	
28	70022987	8	BALL BEARING	
29	Kit	2	WASHER SHIM	
30	70023016	1	SNAP RING	
31	70022969	2	SHEAVE ASSY	
32	70022960	2	CHAIN ANCHOR	
33	70022957	8	NUT, 0.625-18UNF	
34	70022993	4	COTTER PIN	
35	70022995	2	CHAIN ANCHOR	
36	70022984	1	SHEAVE SHAFT	
37	70022970	2	RETAINER BAR	
38	70023003	2	FLAT HD CAPSCREW	
39	70022994	4	CHAIN ANCHOR PIN	
40	70022992	8	COTTER PIN	
41	70022985	1	SHEAVE SHAFT	
43	70023009	2	LIFT CHAIN	
44	70022932	1	P.O. CHECK VALVE ASSY, (includes items 45, 46 & 47)	
45	N.S.S.	1	MANIFOLD	
46	70022931	1	P.O. CHECK VALVE CARTRIDGE	
47	70023010	1	P.O. CHECK	
48	70022934	3	FITTING, 90	
49	70022936	1	FLOW LIMITER	

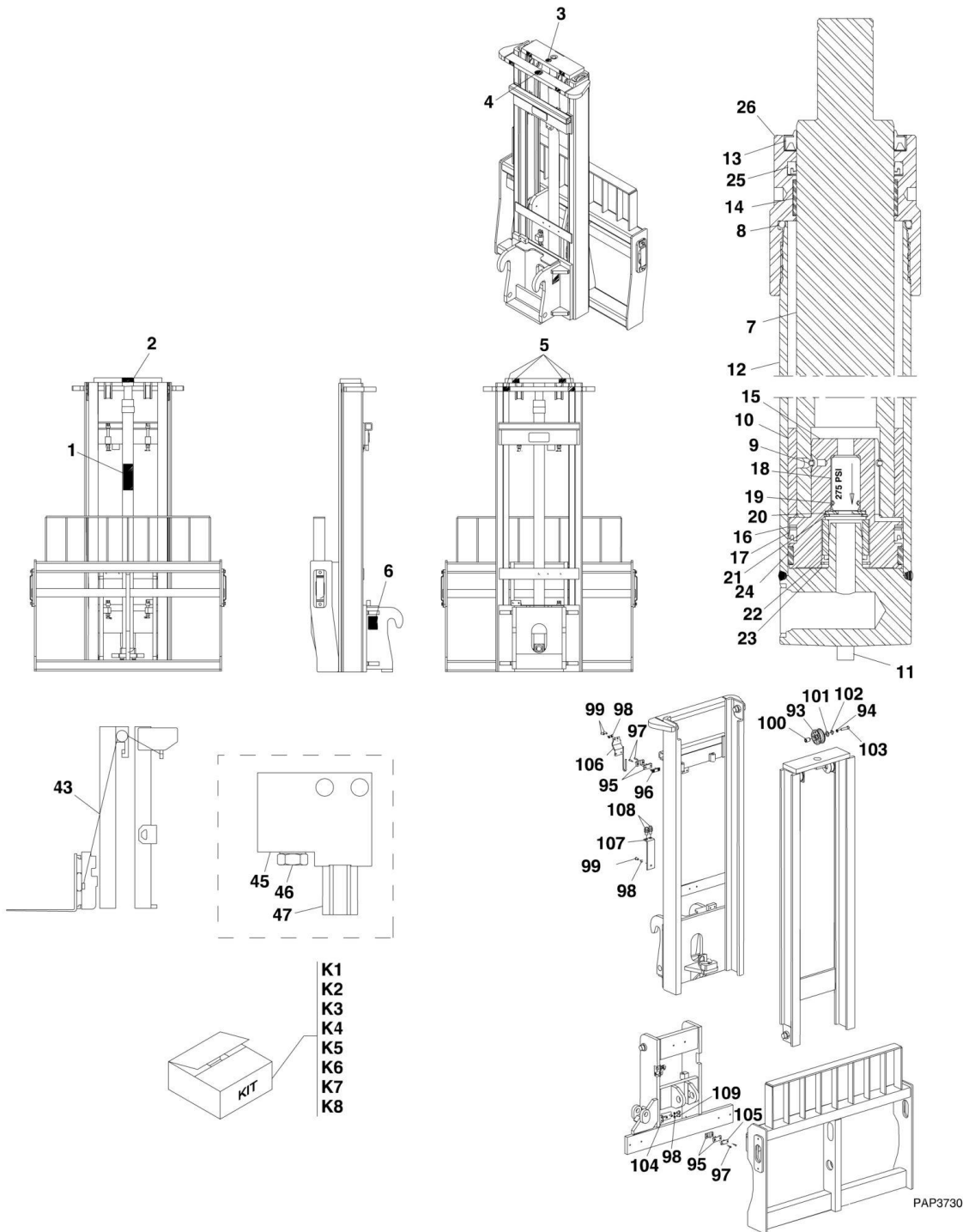


## SECTION 3 - ATTACHMENTS

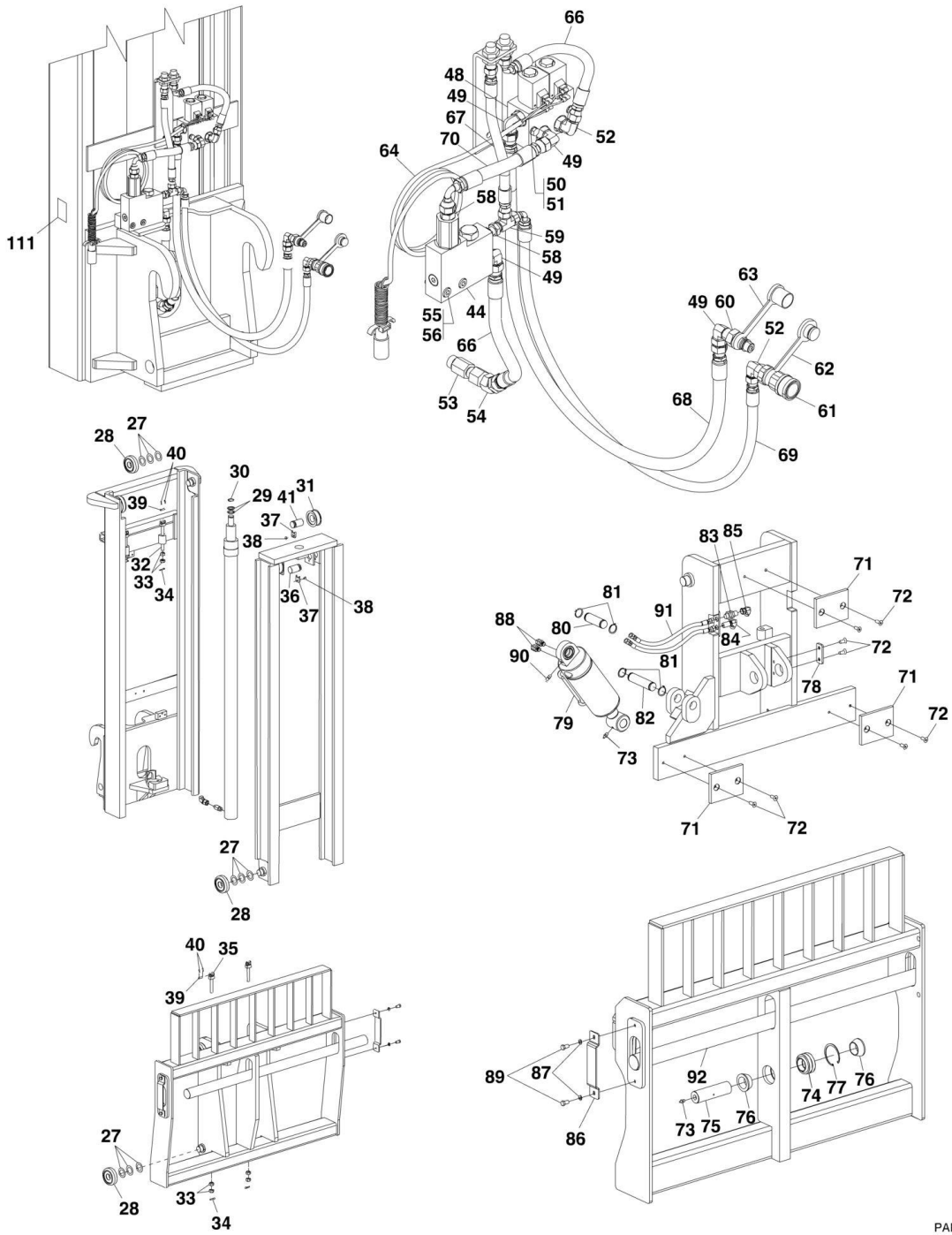
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	70022937	1	FITTING, 45	
51	70022949	2	LOCKWASHER, M10	
52	70022950	2	HEX SOCKET CAPSCREW	
53	70022942	1	HOSE ASSY	
54	70022952	1	HOSE ASSY	
55	91403414	1	MALE QUICK DISCONNECT COUPLING	
56	91043126	1	DUST CAP	
58	70022939	1	STRAIGHT FITTING, #6	
59	91403413	1	FEMALE QUICK DISCONNECT COUPLING	
60	91043125	1	DUST PLUG	
61	70022935	1	ELBOW, STRAIGHT THREAD	
62	70022946	1	HOSE ASSY	
63	70022949	4	LOCKWASHER, M10	
64	70022980	2	FORK PIN KEEPER	
65	70022998	4	CAPSCREW, M10X20, LG	
66	70022990	1	FORK PIN	
101	N.S.S.	1	S/N PLATE	
K1	70023925	1	DECAL KIT, (includes items 1 thru 6)	
K2	70023005	1	SEAL KIT, MAIN LIFT CYLINDER, (includes items 8, 9, 13, 14, 16, 17, 19, 21, 23, 24 & 25)	
K3	70023006	1	CHECK VALVE KIT, (includes items 18, 19, 20, 21 & 23)	
K4	70023007	1	SHIM KIT	
K5	70023015	1	MAST COMMON PARTS KIT, (includes items 27 thru 43)	

# SECTION 3 - ATTACHMENTS

FIGURE 3-29. 8 FT SIDE TILT ELECTRIC MAST (SN 0160037689 to Present)



# SECTION 3 - ATTACHMENTS



PAP17780

## SECTION 3 - ATTACHMENTS

**FIGURE 3-29. 8 FT SIDE TILT ELECTRIC MAST (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001108669	1	8 FT SIDE TILT ELECTRIC MAST, (includes all items)	B
1	Kit	1	WARNING DECAL	
2	Kit	1	WARNING DECAL	
3	Kit	1	NO STEP DECAL	
4	Kit	1	NO STEP DECAL	
5	Kit	4	HANDS OFF DECAL	
6	1001111190	2	WARNING DECAL	
6	70023008	1	MAIN LIFT CYLINDER	
7	N.S.S.	1	ROD/PLUNGER	
8	Kit	1	O-RING	
9	Kit	1	PULL WIRE	
10	N.S.S.	1	SPACER	
11	N.S.S.	2	ROLL PIN	
12	N.S.S.	1	BARREL	
13	Kit	1	WIPER	
14	Kit	1	BUSHING	
15	N.S.S.	1	PISTON	
16	Kit	1	NYLON RING	
17	Kit	1	PISTON SEAL	
18	Kit	1	CHECK VALVE	
19	Kit	1	O-RING	
20	Kit	1	WASHER	
21	Kit	1	CIRCLIP	
22	N.S.S.	1	SLEEVE	
23	Kit	1	RETAINING RING	
24	Kit	1	WEAR RING	
25	Kit	1	ROD SEAL	
26	70023004	1	RETAINER/GLAND	
27	70023014	24	SHIM	
28	70022987	8	BALL BEARING	
29	Kit	2	WASHER SHIM	
30	70023016	1	SNAP RING	
31	70022969	2	SHEAVE ASSY	
32	70022960	2	CHAIN ANCHOR	
33	70022957	8	NUT, 0.625-18UNF	
34	70022993	4	COTTER PIN	
35	70022995	2	CHAIN ANCHOR	
36	70022984	1	SHEAVE SHAFT	
37	70022970	2	RETAINER BAR	
38	70023003	2	FLAT HD CAPSCREW	
39	70022994	4	PIN, CHAIN ANCHOR	
40	70022992	8	COTTER PIN	
41	70022985	1	SHEAVE SHAFT	
43	70023009	2	LIFT CHAIN	
44	70022932	1	P.O. CHECK VALVE ASSY, (includes items 45 thru 47)	
45	N.S.S.	1	MANIFOLD	
46	70022931	1	P.O. CHECK VALVE CARTRIDGE	
47	70023010	1	P.O. CHECK	
48	70022933	1	SOLENOID VALVE BANK	
49	70022934	4	FITTING, 90	

## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	70022948	2	LOCKWASHER, M8	
51	70022951	2	CAPSCREW, M8X60	
52	70022935	2	STRAIGHT THREAD ELBOW	
53	70022936	1	FLOW LIMITER	
54	70022937	1	FITTING, 45	
55	70022949	2	LOCKWASHER, M10	
56	70022950	2	HEX SOCKET CAPSCREW	
57	70022938	1	STRAIGHT FITTING, (not shown)	
58	70022939	1	STRAIGHT FITTING, #6	
59	70022940	1	TEE FITTING	
60	91403414	1	MALE QUICK DISCONNECT COUPLING	
61	91403413	1	FEMALE QUICK DISCONNECT COUPLING	
62	91043125	1	DUST PLUG	
63	91043126	1	DUST CAP	
64	70022941	1	HARNES	
65	70022942	1	HOSE ASSY, (not shown)	
66	70022943	1	HOSE ASSY	
67	70022944	1	HOSE ASSY	
68	70022945	1	HOSE ASSY	
69	70022946	1	HOSE ASSY	
70	70022947	1	HOSE ASSY	
71	70022972	3	WEAR PAD	
72	70022971	8	FLAT HD CAPSCREW	
73	70023001	2	GREASE FITTING	
74	70022975	1	BEARING	
75	70022973	1	PIVOT SHAFT	
76	70022974	2	BEVELED SPACER	
77	70022988	1	RETAINING RING	
78	70022976	1	RETAINER PLATE	
79	2716143	1	TILT CYLINDER	
80	70022977	1	PIN, 128.1mm	
81	70023016	4	SNAP RING, 1-1/4	
82	70022978	1	PIN, 128.1mm	
83	70023000	1	BULKHEAD UNION, (with locknut)	
84	70022999	1	BULKHEAD UNION ELBOW	
85	70022982	1	STRAIGHT THREAD ELBOW	
86	70022980	2	FORK PIN KEEPER	
87	70022949	4	LOCKWASHER, M10	
88	70022991	2	STRAIGHT THREAD ELBOW, 90	
89	70022998	4	CAPSCREW, M10X20, LG	
90	70022966	1	GREASE FITTING	
91	70022979	2	HOSE ASSY	
92	70022990	1	FORK PIN	
93	70022965	1	SHEAVE	
94	70022997	1	LOCKWASHER, M12	
95	70022967	4	HOSE CLAMP	
96	70022962	1	BAR ASSY	
97	70023002	4	CAPSCREW, M6X25, LG	
98	70022949	5	LOCKWASHER, M10	
99	70022958	3	CAPSCREW, M10X20	
100	70022961	1	SHAFT	

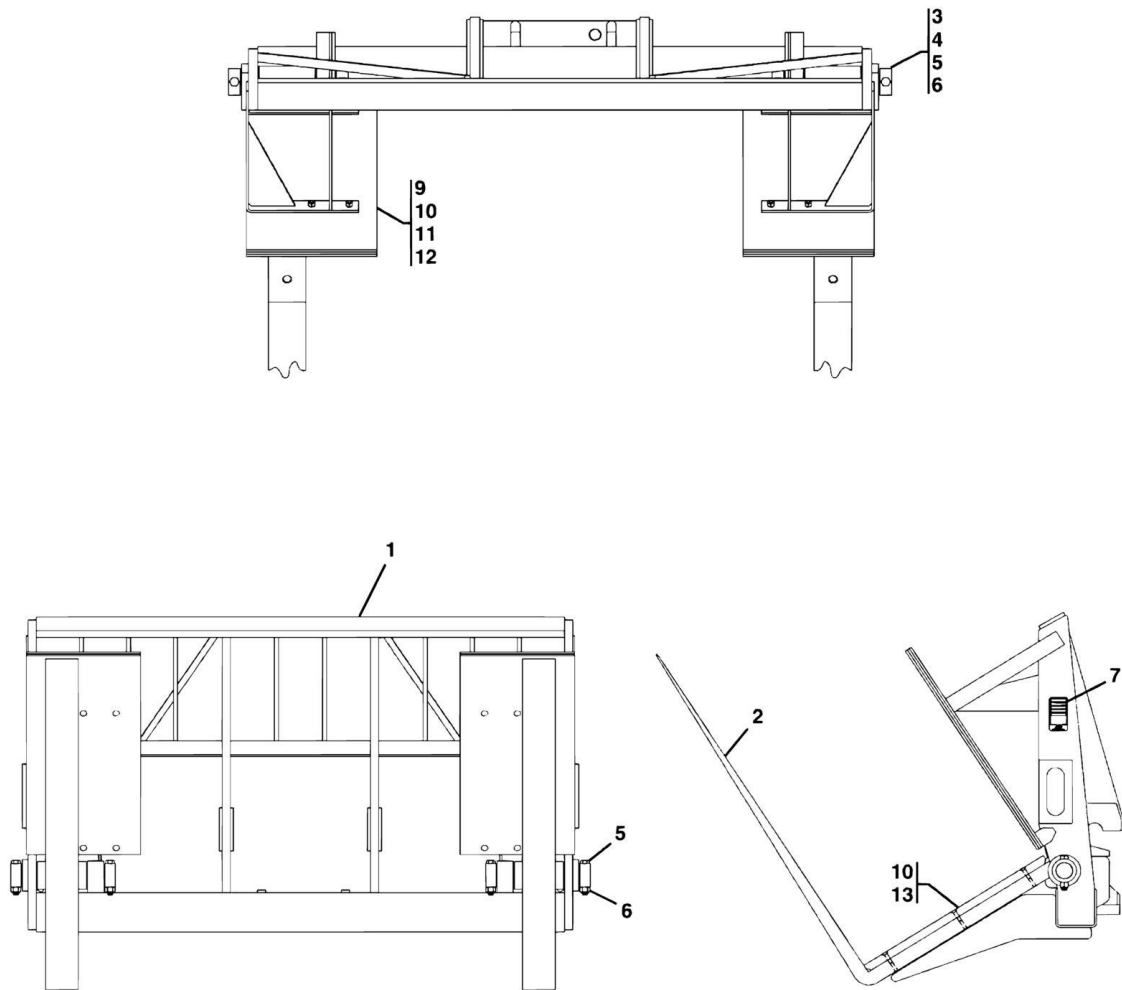
## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
101	70022959	1	WASHER	
102	70022989	1	RETAINING RING	
103	70022964	1	CAPSCREW, M12X55	
104	70022981	1	IHR BRACKET	
105	70022968	1	HOSE CLAMP BAR	
106	70023011	1	IHR BRACKET	
107	70022983	1	TERMINATION BRACKET	
108	70023000	2	BULKHEAD UNION AND LOCKNUT	
109	70022996	3	CAPSCREW, M10X16 LG	
110	70022963	2	HOSE ASSY, (not shown)	
111	N.S.S.	1	S/N PLATE	
K1	70023925	1	DECAL KIT, (includes items 1 thru 6)	
K2	70023005	1	SEAL KIT, MAIN LIFT CYLINDER, (includes items 8, 9, 13, 14, 16, 17, 19, 21, 23, 24 & 25)	
K3	70023006	1	CHECK VALVE KIT, (includes items 18, 19, 20, 21 & 23)	
K4	70023007	1	SHIM KIT	
K5	70023015	1	MAST COMMON PARTS KIT, (includes items 27 thru 43)	
K6	8035831	1	SEAL KIT, TILT CYLINDER	
K7	70023013	1	IHR COMMON PARTS KIT, (includes items 93 thru 109)	
K8	70022986	1	IHR KIT, (includes items 93 thru 110)	



# SECTION 3 - ATTACHMENTS

FIGURE 3-30. 66 IN DRYWALL CARRIAGE (Prior to SN 0160037689)



PAP21710



## SECTION 3 - ATTACHMENTS

**FIGURE 3-30. 66 IN DRYWALL CARRIAGE (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455053	1	DRYWALL CARRIAGE ASSEMBLY, (includes all items)	D
1	N.S.S.	1	DRYWALL CARRIAGE WELDMENT	
2	90453013	2	DRYWALL FORK	
3	90451054	2	FORK PIN	
4	90200003	4	COLLAR TUBE	
5	0642032	4	HEX HD CAPSCREW, 5/8-11X4,GR5	
6	88521310	4	HEX LOCKNUT, 5/8-11	
7	N.S.S.	1	S/N PLATE	
9	90553012	2	SIDE DRYWALL GUARD	
10	0741612	14	SOCKET FLAT HD CAPSCREW, 3/8-16X1-1/2	
11	88551011	8	LOCKWASHER, 3/8	
12	80501006	8	HEX NUT, 3/8-16	
13	90553013	2	BOTTOM DRYWALL GUARD	

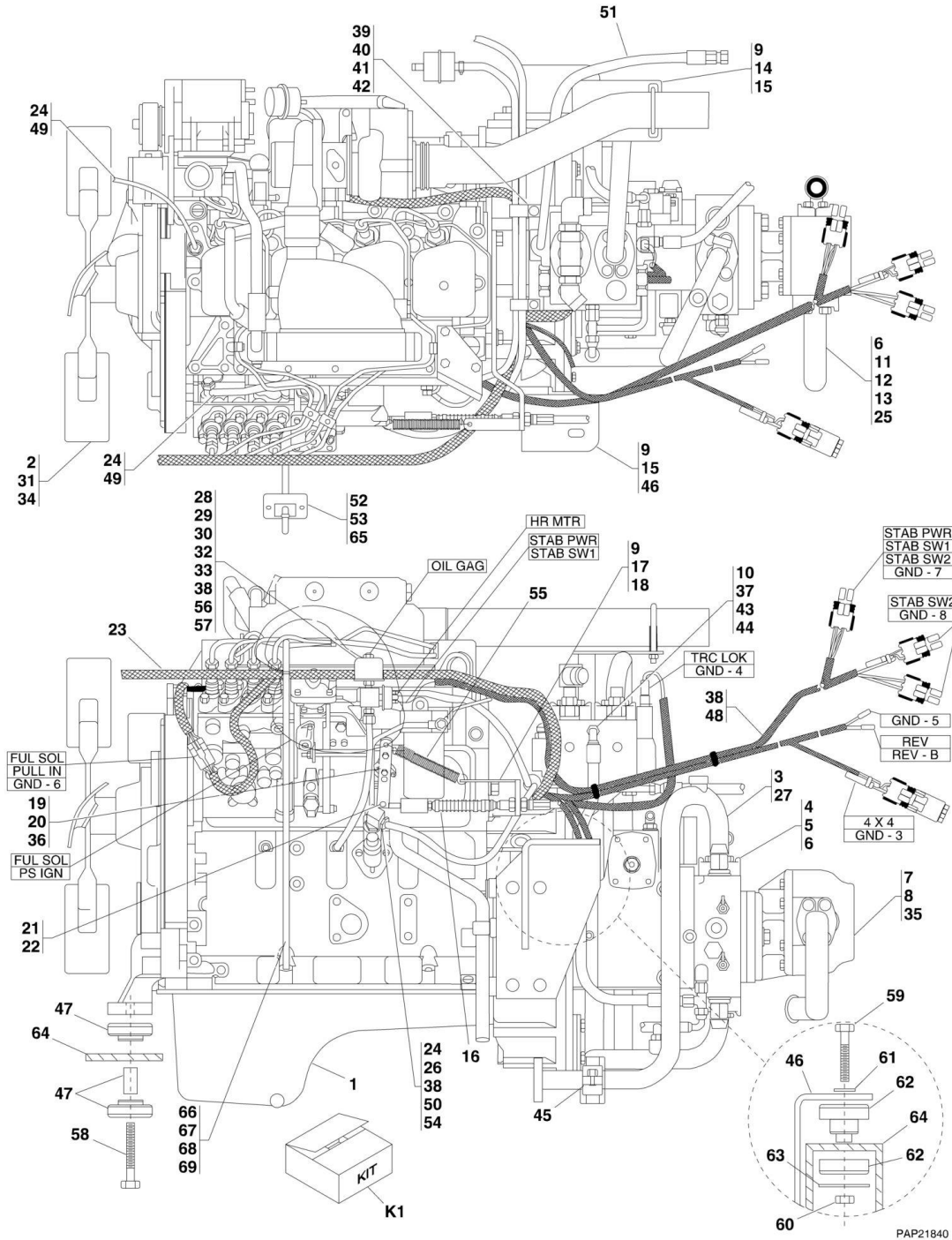


## **SECTION 4 - ENGINE AND ATTACHING PARTS**

## **SECTION 4 - ENGINE AND ATTACHING PARTS**

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-1. ENGINE ASSEMBLY, LH VIEW (SN 0355001 through 0355069)



**NOTES:**

1. USE LOCTITE® 242™ (14403364) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.
2. USE LOCTITE PIPE SEALANT (14404082) ON ALL PIPE & HYDRAULIC FITTING THREADS.

## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-1. ENGINE ASSEMBLY, LH VIEW (SN 0355001 through 0355069)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	Ref	ENGINE ASSY (includes all items on ENGINE ASSEMBLY, LH VIEW except items 47, 52 & 56 thru 64 also includes items on ENGINE ASSEMBLY, RH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	
1	91163017	1	CUMMINS B3.9C-130 EPA ENGINE	
2	91143329	1	FAN ASSY	
3	91163122	1	TUBE ASSY	
4	84712738	2	SPLIT FLANGE CLAMP	
5	83201135	4	HEX HD CAPSCREW, 7/16X14-1-1/2, GR8	
6	88551012	8	LOCKWASHER, 7/16	
7		Ref	MAIN PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88201095	2	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
9	83191010	10	LOCKWASHER, M12	
10	2220635	1	TEE FITTING	
11	88591027	1	O-RING	
12	91143121	1	SUCTION TUBE	
13	84711334	2	FLANGE CLAMP	
14	91146056	1	RH ENGINE MOUNT	
15	83191032	8	HEX HD CAPSCREW, M12X1.75X35, (lubricate and torque to 58-68 lb-ft)	
16	91163260	1	ACCELERATOR CABLE	
17	91166075	1	THROTTLE BRACKET	
18	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
19	83191012	2	LOCKWASHER, M6	
20	83191035	2	SOCKET HD CAPSCREW, M6X1X16	
21	91143345	1	BALL SOCKET	
22	91143344	1	OVER TRAVEL	
23		Ref	ENGINE HARNESS, (See ELECTRICAL SECTION for Breakdown)	
24	2720058	121 in	FUEL LINE HOSE, 5/16	
25	88201051	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
26	90030271	1	HOSE NIPPLE	
27	91083106	1	O-RING	
28	24741047	1	PRESSURE SWITCH	
29	91143315	1	OIL PRESSURE SENDER	
30	91081388	1	TAPPED BAR	
31	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
32	86883075	2	TUBE FITTING	
33	72071980	28 in	NYLON TUBE, 3/8	
34	88561108	4	WASHER, 5/16	
35	90027472	2	HARDENED WASHER, 5/8	
36	91161323	1	THROTTLE BAR	
37	88591206	1	O-RING	
38	90027187	7	TIE WRAP	
39	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
40	24861170	2	SUPPORT CLAMP	
41	85941017	2	SUPPORT CLAMP	
42	88521205	2	HEX NUT, 5/16-18	
43	77133447	1	HOSE ASSY	
44	2220497	1	ADAPTER, (includes item 37)	

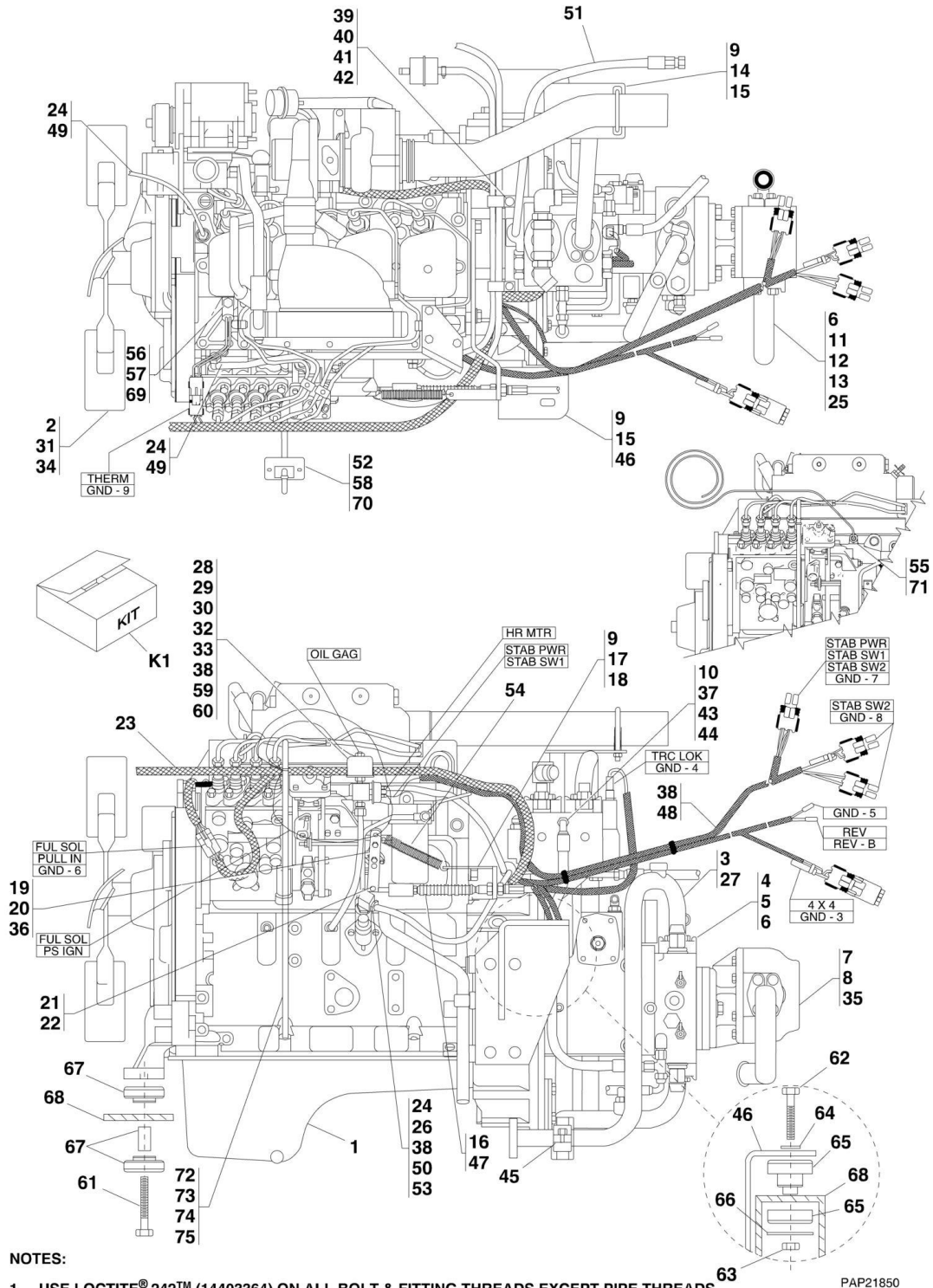
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	90205792	1	CUSHION CLAMP	
46	91146021	1	LH ENGINE MOUNT	
47	91143030	1	SHOCK MOUNT	
48	91163049	1	STABILIZER HARNESS	
49	86883106	3	HOSE CLAMP	
50	2220648	1	ELBOW, 90	
51	84718745	1	HOSE ASSY	
52	88261014	2	SOCKET BUTTON HD CAPSCREW, 1/4-20X1/2	
53	91146101	1	DIPSTICK WELDMENT	
54	88711384	1	REDUCING BUSHING, 1/2-1/4	
55	91163259	1	THROTTLE SPRING	
56	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
57	88551009	2	LOCKWASHER, 1/4	
58	91143131	1	HEX HD CAPSCREW, M12X1.25X90	
59	88201075	2	HEX HD CAPSCREW, 1/2-13X3-1/2, GR5	
60	88521008	2	LOCKNUT, 1/2-13	
61	88561111	2	FLAT WASHER, 1/2	
62	91143031	2	SHOCK MOUNT	
63	91143032	2	REBOUND WASHER	
64		Ref	FRAME WELDMENT, (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
65	91124125	1	DIPSTICK	
66	91164115	1	LOWER TUBE	
67	91164112	1	DIPSTICK TUBE	
68	91164113	1	UPPER TUBE END	
69	91164114	2	SPRING CLAMP	
70	7029164	1	WATER PUMP KIT, (includes o-ring) (not shown)	
71	80974028	1	ALTERNATOR PULLEY, (not shown)	
72	80974033	1	SPLIT BUSHING, (not shown)	
73	80974038	1	ALTERNATOR SUPPORT, (not shown)	
74	91164118	1	SOLENOID, FUEL SHUT-OFF, (not shown)	
K1	91365008	NLA	250 HOUR FILTER KIT, (no longer available to order, use 1001220559 for replacement) (includes the following items)	
K1	1001220559	1	FILTER KIT, (includes the following items)	
K1	91154001	1	AIR FILTER	
K1	91084001	1	LUBE FILTER	
K1	8320270	1	FUEL FILTER	
K1	91083218	1	FUEL FILTER, (I/L)	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-2. ENGINE ASSEMBLY, LH VIEW (SN 0355070 through 0355140)



**NOTES:**

1. USE LOCTITE® 242™ (14403364) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.
2. USE LOCTITE PIPE SEALANT (14404082) ON ALL PIPE & HYDRAULIC FITTING THREADS.

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## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-2. ENGINE ASSEMBLY, LH VIEW (SN 0355070 through 0355140)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE ASSEMBLY, LH VIEW except items 51 & 58 thru 68, also includes items on ENGINE ASSEMBLY, RH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	
1	91163017	1	CUMMINS B3.9C-130 EPA ENGINE	
2	91143329	1	FAN ASSY	
3	91163122	1	TUBE ASSY	
4	84712738	2	SPLIT FLANGE CLAMP	
5	83201135	4	HEX HD CAPSCREW, 7/16X14-1-1/2, GR8	
6	88551012	8	LOCKWASHER, 7/16	
7		Ref	MAIN PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88201095	2	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
9	83191010	10	LOCKWASHER, M12	
10	2220635	1	TEE FITTING	
11	88591027	1	O-RING	
12	91143121	1	SUCTION TUBE	
13	84711334	2	FLANGE CLAMP	
14	91146056	1	RH ENGINE MOUNT	
15	83191032	8	HEX HD CAPSCREW, M12X1.75X35, (lubricate and torque to 58-68 lb-ft)	
16	91163260	1	ACCELERATOR CABLE	
17	91166075	1	THROTTLE BRACKET	
18	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
19	83191012	2	LOCKWASHER, M6	
20	83191035	2	SOCKET HD CAPSCREW, M6X1X16	
21	91143345	1	BALL SOCKET	
22	91143344	1	OVER TRAVEL	
23		Ref	ENGINE HARNESS, (See ELECTRICAL SECTION for Breakdown)	
24	2720058	107 in	FUEL LINE HOSE, 5/16	
25	88201051	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
26	90030271	1	HOSE NIPPLE	
27	91083106	1	O-RING	
28	24741047	1	PRESSURE SWITCH	
29	91143315	1	OIL PRESSURE SENDER	
30	91081388	1	TAPPED BAR	
31	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
32	86883075	2	TUBE FITTING	
33	72071980	28 in	NYLON TUBE, 3/8	
34	88561108	4	WASHER, 5/16	
35	90027472	2	HARDENED WASHER, 5/8	
36	91161323	1	THROTTLE BAR	
37	88591206	1	O-RING	
38	90027187	7	TIE WRAP	
39	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
40	24861170	2	SUPPORT CLAMP	
41	85941017	2	SUPPORT CLAMP	
42	88521205	2	HEX NUT, 5/16-18	
43	77133447	1	HOSE ASSY	
44	2220497	1	ADAPTER, (includes item 37)	

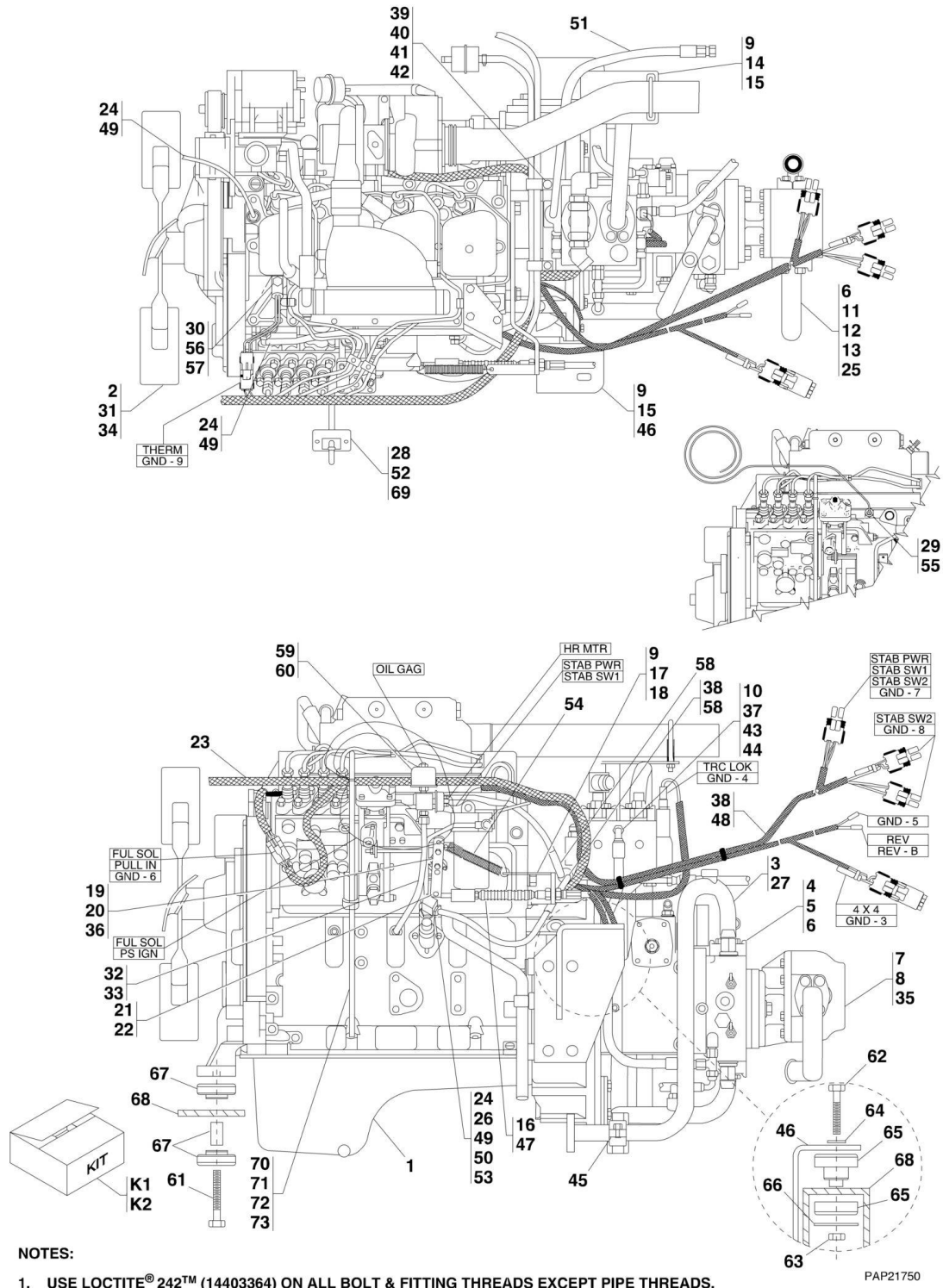
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	90205792	1	CUSHION CLAMP	
46	91146021	1	LH ENGINE MOUNT	
47	90028977	1	YOKE	
48	91163049	1	STABILIZER HARNESS	
49	86883106	3	HOSE CLAMP	
50	2220648	1	ELBOW, 90	
51	84718745	1	HOSE ASSY	
52	91146101	1	DIPSTICK WELDMENT	
53	88711384	1	REDUCER BUSHING, 1/2-1/4	
54	91163259	1	THROTTLE SPRING	
55	91363029	1	ATOMIZER, 1/8 IN	
56	91365014	1	QUICK START THERMOSTAT ASSY, (includes the following items)	
56	91363031	1	THERMOSTAT	
56	80963058	1	SHROUD CONNECTOR 2-WIRE	
56	4460475	2	MALE PIN TERMINAL	
56	80963065	2	CABLE SEAL	
57	83191038	1	HEX HD CAPSCREW, M10X1.50X20	
58	88261014	2	SOCKET BUTTON HD CAPSCREW, 1/4-20X1/2	
59	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
60	88551009	2	LOCKWASHER, 1/4	
61	91143131	1	HEX HD CAPSCREW, M12X1.25X90	
62	88201075	2	HEX HD CAPSCREW, 1/2-13X3-1/2, GR5	
63	88521008	2	LOCKNUT, 1/2-13	
64	88561111	2	FLAT WASHER, 1/2	
65	91143031	2	SHOCK MOUNT	
66	91143032	2	REBOUND WASHER	
67	91143030	2	SHOCK MOUNT	
68		Ref	FRAME WELDMENT, (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
69	83191013	1	LOCKWASHER, M10	
70	91124125	1	DIPSTICK	
71	91363028	1	NYLON TUBE	
72	91164115	1	LOWER TUBE	
73	91164112	1	DIPSTICK TUBE	
74	91164113	1	UPPER TUBE END	
75	91164114	2	SPRING CLAMP	
76	7029164	1	WATER PUMP KIT, (includes o-ring) (not shown)	
77	80974028	1	ALTERNATOR PULLEY, (not shown)	
78	80974033	1	SPLIT BUSHING, (not shown)	
79	80974038	1	ALTERNATOR SUPPORT, (not shown)	
80	91164118	1	SOLENOID, FUEL SHUT-OFF, (not shown)	
K1	91365008	NLA	250 HOUR FILTER KIT, (no longer available to order, use 1001220559 for replacement) (includes the following items)	
K1	1001220559	1	FILTER KIT, (includes the following items)	
K1	91154001	1	AIR FILTER	
K1	91084001	1	LUBE FILTER	
K1	8320270	1	FUEL FILTER	
K1	91083218	1	FUEL FILTER, (I/L)	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-3. ENGINE ASSEMBLY, LH VIEW (SN 0355141 through 0455362, SN 0160000192 through 0160000973)



- NOTES:
1. USE LOCTITE® 242™ (14403364) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.
  2. USE LOCTITE PIPE SEALANT (14404082) ON ALL PIPE & HYDRAULIC FITTING THREADS.

## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-3. ENGINE ASSEMBLY, LH VIEW (SN 0355141 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE ASSEMBLY, LH VIEW except items 51 & 59 thru 69, also includes items on ENGINE ASSEMBLY, RH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	AB
1	91163017	1	CUMMINS B3.9C-130 EPA ENGINE	
2	91143329	1	FAN ASSY	
3	91163122	1	TUBE ASSY	
4	84712738	2	SPLIT FLANGE CLAMP	
5	83201135	4	HEX HD CAPSCREW, 7/16X14-1-1/2, GR8	
6	88551012	8	LOCKWASHER, 7/16	
7		Ref	MAIN PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88201095	2	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
9	83191010	10	LOCKWASHER, M12	
10	2220635	1	TEE FITTING	
11	88591027	1	O-RING	
12	91143121	1	SUCTION TUBE	
13	84711334	2	FLANGE CLAMP	
14	91146056	1	RH ENGINE MOUNT	
15	83191032	8	HEX HD CAPSCREW, M12X1.75X35, (lubricate and torque to 58-68 lb-ft)	
16	91163260	1	ACCELERATOR CABLE	
17	91166075	1	THROTTLE BRACKET	
18	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
19	83191012	2	LOCKWASHER, M6	
20	83191035	2	SOCKET HD CAPSCREW, M6X1X16	
21	91143345	1	BALL SOCKET	
22	91143344	1	OVER TRAVEL	
23		Ref	ENGINE HARNESS ASSY, (See ELECTRICAL SECTION for Breakdown)	
24	2720058	107 in	FUEL LINE HOSE, 5/16	
25	88201051	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
26	90030271	1	HOSE NIPPLE	
27	91083106	1	O-RING	
28	91124125	1	DIPSTICK	
29	91363028	1	NYLON TUBE	
30	83191013	1	LOCKWASHER, M10	
31	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
32	86883075	1	TUBE FITTING	
33	72071980	28 in	NYLON TUBE, 3/8	
34	88561108	4	WASHER, 5/16	
35	90027472	2	HARDENED WASHER, 5/8	
36	91161323	1	THROTTLE BAR	
37	88591206	1	O-RING	
38	90027187	4	TIE WRAP	
39	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
40	24861170	2	SUPPORT CLAMP	
41	85941017	2	SUPPORT CLAMP	
42	88521205	2	HEX NUT, 5/16-18	
43	77133447	1	HOSE ASSY	

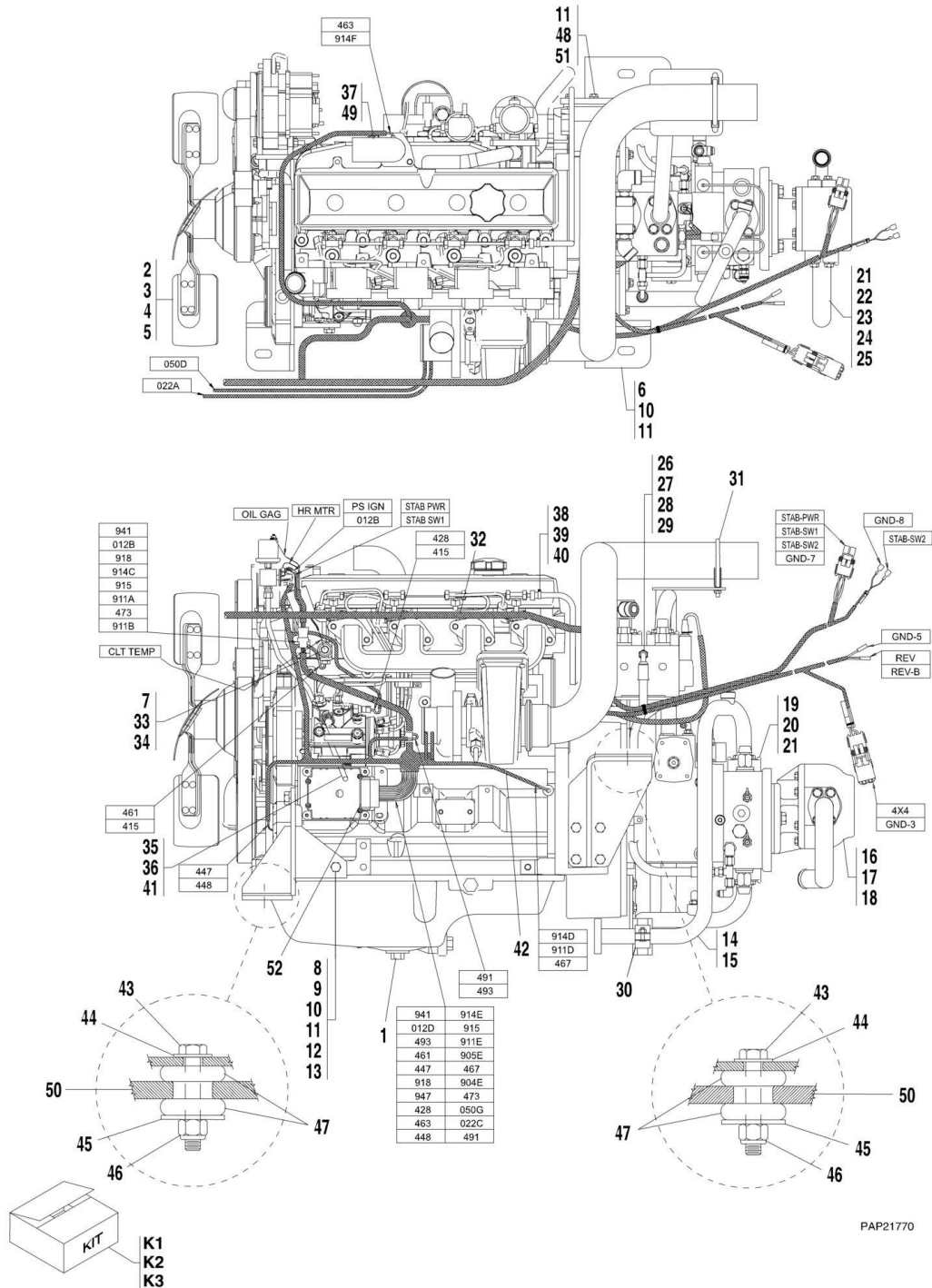
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	2220497	1	ADAPTER, (includes item 37)	
45	90205792	1	CUSHION CLAMP	
46	91146021	1	LH ENGINE MOUNT	
47	90028977	1	YOKE	
48	91163049	1	STABILIZER HARNESS	
49	86883106	4	HOSE CLAMP	
50	2220648	1	ELBOW, 90	
51	84718745	1	HOSE ASSY	
52	91146101	1	DIPSTICK WELDMENT	
53	88711384	1	REDUCING BUSHING, 1/2-1/4	
54	91163259	1	THROTTLE SPRING	
55	91363029	1	ATOMIZER, 1/8	
56		Ref	QUICK START THERMOSTAT ASSY, (See ELECTRICAL SECTION for Breakdown)	
57	83191038	1	HEX HD CAPSCREW, M10X1.50X20	
58	91083493	6 in	SPLIT FLEX LOOM, 1/2 OD	
59	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
60	88551009	2	LOCKWASHER, 1/4	
61	91143131	1	HEX HD CAPSCREW, M12X1.25X90	
62	88201075	2	HEX HD CAPSCREW, 1/2-13X3-1/2, GR5	
63	88521008	2	LOCKNUT, 1/2-13	
64	88561111	2	FLAT WASHER, 1/2	
65	91143031	2	SHOCK MOUNT	
66	91143032	2	REBOUND WASHER	
67	91143030	2	SHOCK MOUNT	
68		Ref	FRAME WELDMENT, (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
69	88261014	2	SOCKET BUTTON HD CAPSCREW, #1/4-20X1/2	
70	91164115	1	LOWER TUBE	
71	91164112	1	DIPSTICK TUBE	
72	91164113	1	UPPER TUBE END	
73	91164114	2	SPRING CLAMP	
74	7029164	1	WATER PUMP KIT, (includes o-ring) (not shown)	
75	80974028	1	ALTERNATOR PULLEY, (not shown)	
76	80974033	1	SPLIT BUSHING, (not shown)	
77	80974038	1	ALTERNATOR SUPPORT, (not shown)	
78	91164118	1	SOLENOID, FUEL SHUT-OFF, (not shown)	
K1	91365008	NLA	250 HOUR FILTER KIT, (no longer available to order, use 1001220559 for replacement) (includes the following items) <b>(SN 0355001 through 0355579)</b>	
K1	1001220559	1	FILTER KIT, (includes the following items)	
K1	91154001	1	AIR FILTER KIT	
K1	91084001	1	LUBE FILTER	
K1	8320270	1	FUEL FILTER	
K1	91083218	1	FUEL FILTER, (I/L)	
K2	91365042	1	ENGINE FILTER KIT, (includes all items) <b>(SN 0355580 through 016000973)</b>	
K2	1101312	1	AIR FILTER ELEMENT	
K2	1101313	1	AIR FILTER SAFETY ELEMENT	
K2	91083218	1	FUEL FILTER	
K2	8320270	1	FUEL FILTER	
K2	91084001	1	LUBE FILTER	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-4. ENGINE ASSEMBLY, LH VIEW (SN 016000976 through 0160034720, Including 0160035922)



**NOTES:**

1. USE LOCTITE® 242™ (14403364) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.
2. USE LOCTITE PIPE SEALANT (14404082) ON ALL PIPE & HYDRAULIC FITTING THREADS.
3. USE LOCTITE® 545™ (14404043) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.



## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-4. ENGINE ASSEMBLY, LH VIEW (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555005	1	ENGINE ASSY, (includes all items except 43 thru 47 & 50 on ENGINE ASSEMBLY, LH VIEW, all items except 52 thru 54 on ENGINE ASSEMBLY, RH VIEW and all items on ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	R
1		Ref	JOHN DEERE ENGINE, 125 HP, (See JOHN DEERE ENGINE for Breakdown)	
2	91553009	1	FAN	
3	91553046	1	FAN SPACER	
4	83191039	4	HEX HD CAPSCREW, M8X1.25X80	
5	88561108	4	WASHER, 5/16	
6	91536012	1	LH REAR ENGINE MOUNT	
7	88591011	1	O-RING	
8	91536014	1	LH FRONT ENGINE MOUNT	
9	91536015	1	RH FRONT ENGINE MOUNT	
10	83191032	6	HEX HD CAPSCREW, M12X1.75X35, (torque to 66-76 lb-ft)	
11	83191010	10	LOCKWASHER, M12	
12	83191043	4	HEX HD CAPSCREW, M16X2X30, (torque to 166-281 lb-ft)	
13	83783030	4	LOCKWASHER, M16	
14	91163122	1	TUBE ASSY	
15	91083106	1	O-RING	
16		Ref	MAIN PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	88201095	2	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
18	90027472	2	HARDENED WASHER, 5/8	
19	84712738	2	SPLIT FLANGE CLAMP	
20	83201155	4	HEX HD CAPSCREW, 7/16-14X1-3/4	
21	88551012	8	LOCKWASHER, 7/16	
22	91143121	1	SUCTION TUBE	
23	88591027	1	O-RING	
24	84711334	2	FLANGE CLAMP	
25	88201051	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
26	2220497	1	ADAPTER, (includes o-ring)	
27	2220635	1	SWIVEL RUN TEE, 3/8 TUBE	
28	77133447	1	HOSE ASSY	
29	88591206	1	O-RING	
30	90205792	1	CUSHION CLAMP	
31		Ref	EXHAUST SYSTEM, (See EXHAUST SYSTEM for Breakdown)	
32		Ref	WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
33	91143314	1	WATER TEMP SENDER	
34	91403265	1	REDUCER BUSHING	
35	86883074	1	TUBE FITTING, 90	
36	72071980	40 in	NYLON TUBE	
37	91553031	1	AIR INLET TUBE	
38	86883106	1	HOSE CLAMP	
39	80373025	1	PUSH LOCK FITTING	
40	2720058	50 in	HOSE, 5/16	
41	88711570	1	PIPE ADAPTER	
42		Ref	ECU ENGINE HARNESS, (See ELECTRICAL SECTION for Breakdown)	

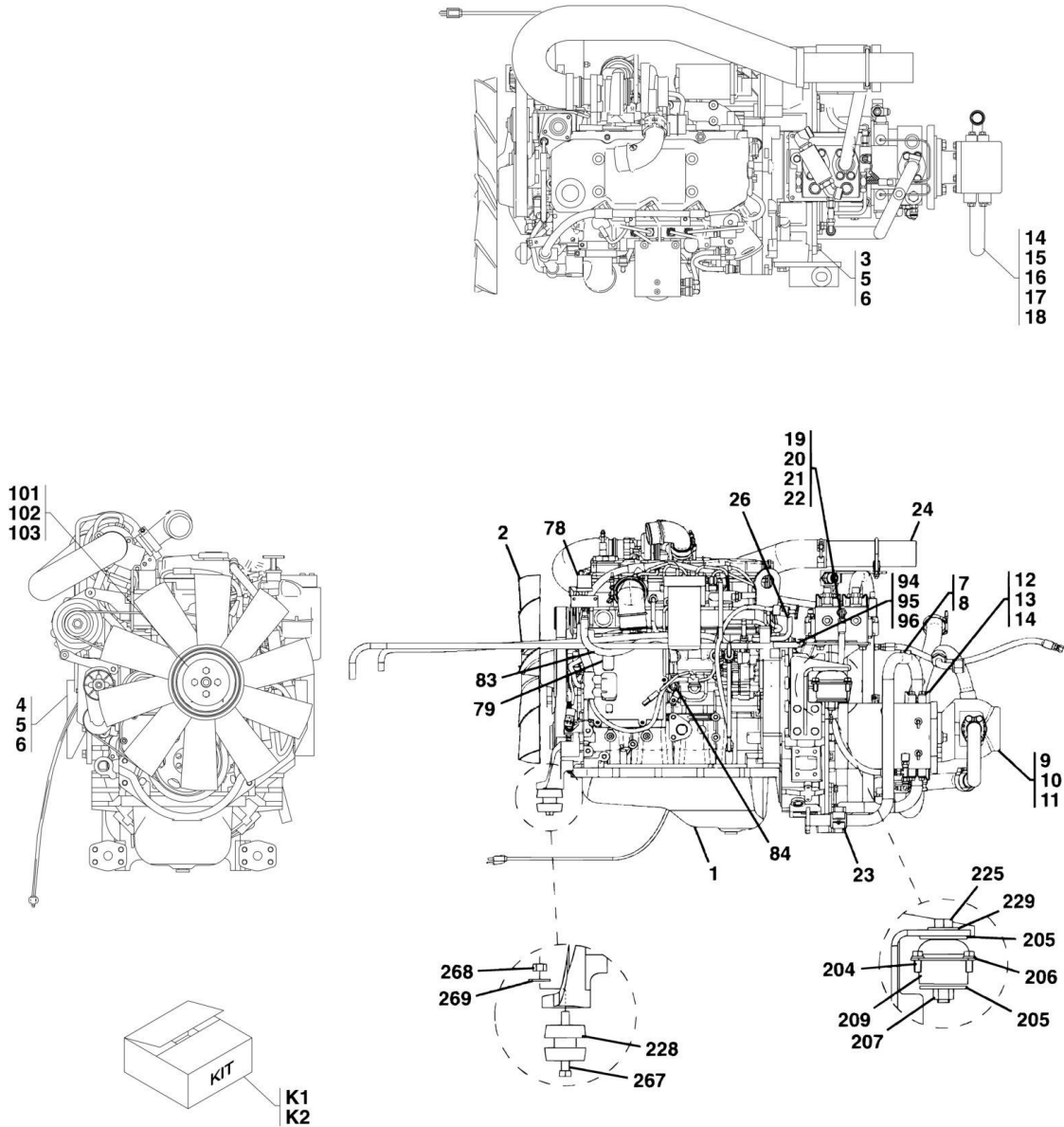
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	88201106	4	HEX HD CAPSCREW, 5/8-11X4-1/2, GR5	
44	91203138	4	REBOUND WASHER	
45	88561113	4	FLAT WASHER, 5/8	
46	88521010	4	HEX LOCKNUT, 5/8-11	
47	91203137	4	SHOCK MOUNT	
48	83191049	4	HEX HD CAPSCREW, M12X1.75X60, (torque to 66-76 lb-ft)	
49	91553057	1	INTAKE GASKET	
50		Ref	FRAME WELDMENT, (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
51	91536013	1	RH REAR ENGINE MOUNT	
52	0100048	AR	DI-ELECTRIC GREASE	
K1	91535011	1	250 HOUR FILTER KIT, (9 in air cleaner), (includes all items)	C
K1	1101312	1	AIR FILTER ELEMENT	
K1	1101313	1	AIR FILTER SAFETY ELEMENT	
K1	91083218	1	FUEL FILTER	
K1	91534004	1	FUEL FILTER	
K1	91534005	1	OIL FILTER	
K1	91534006	1	OIL FILTER SEAL	
K2	2915180	1	1000 HOUR FILTER KIT, (9 in air cleaner), (includes 91535011 & the following)	B
K2	2120168	2	HYDRAULIC FILTER	
K2	91083069	1	HYDRAULIC BREATHER	
K3	1001113510	1	1000 HOUR FILTER KIT, (10 in air cleaner), (includes all items)	2
K3	80373091	1	AIR FILTER ELEMENT	
K3	80373092	1	AIR FILTER SAFETY ELEMENT	
K3	91083218	1	FUEL FILTER	
K3	91534004	1	FUEL FILTER	
K3	91534005	1	OIL FILTER	
K3	91534006	1	OIL FILTER SEAL	
K3	2120168	2	HYDRAULIC FILTER	
K3	91083069	1	HYDRAULIC BREATHER	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-5. ENGINE ASSEMBLY, LH VIEW (SN 0160035037 to Present, Excluding 0160035922)



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## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-5. ENGINE ASSEMBLY, LH VIEW (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001091084	1	ENGINE ASSY, (includes items 1 thru 96 & all items on ENGINE ASSEMBLY, RH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	Q
1		Ref	CUMMINS ENGINE, 130 HP, (See CUMMINS ENGINE for Breakdown)	
2	1001104525	1	FAN ASSY, (includes items 101 thru 103)	A
3	1001091108	1	LH REAR ENGINE MOUNT	
4	1001091109	1	RH REAR ENGINE MOUNT	
5	0761216	8	HEX HD CAPSCREW, M12X1.75X40, GR8.8, (torque to 60-70 lb-ft)	
6	4761800	8	LOCKWASHER, 1/2	
7	91163122	1	TUBE ASSY	
8	91083106	1	O-RING	
9		Ref	MAIN HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	0642012	2	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
11	90027472	2	HARDENED WASHER, 5/8	
12	84712738	2	FLANGE CLAMP	
13	0681714	4	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
14	4761700	8	LOCKWASHER, 7/16	
15	91143121	1	SUCTION TUBE	
16	3790222	1	O-RING	
17	84711334	2	FLANGE CLAMP	
18	0641709	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
19	2220497	1	ADAPTER, (includes item 22)	
20	2220635	1	SWIVEL NUT RUN TEE	
21	77133447	1	HOSE ASSY	
22	88591206	1	O-RING	
23	90205792	1	CUSHION CLAMP	
24		Ref	EXHAUST TUBE, (See EXHAUST SYSTEM for Breakdown)	
26	2720643	37 in	HOSE, 3/8	
78		Ref	ENGINE HARNESS ASSY, (See ELECTRICAL SECTION for Breakdown)	
79		Ref	ECU ENGINE HARNESS, (See ELECTRICAL SECTION for Breakdown)	
83	1001104647	1	HOSE ASSY	
84	8770064	1	CONNECTOR, (swivel nut)	
94	1001093891	1	HOSE COUPLING	
95	1001093944	1	WASHER	
96	8410031	1	GEAR CLAMP	
101	2060045	1	FAN	
102	3575947	2	FAN PLATE	
103	8310705	4	HEX HD CAPSCREW, M10X1.5X50mm, (torque to 34-61 Nm)	
204	0641708	8	HEX HD CAPSCREW, 7/16-14X1, GR5	
205	1001091111	4	REBOUND WASHER	
206	4761700	8	LOCKWASHER, 7/16	
207	3272205	2	HEX LOCKNUT, 3/4-10	
209	1001091080	2	ISOLATOR MOUNT	
225	0682238	2	HEX HD CAPSCREW, 3/4-10X4-3/4, GR8	
228	1001091082	1	ISOLATOR MOUNT	
229	4752200	2	FLAT WASHER, 3/4	

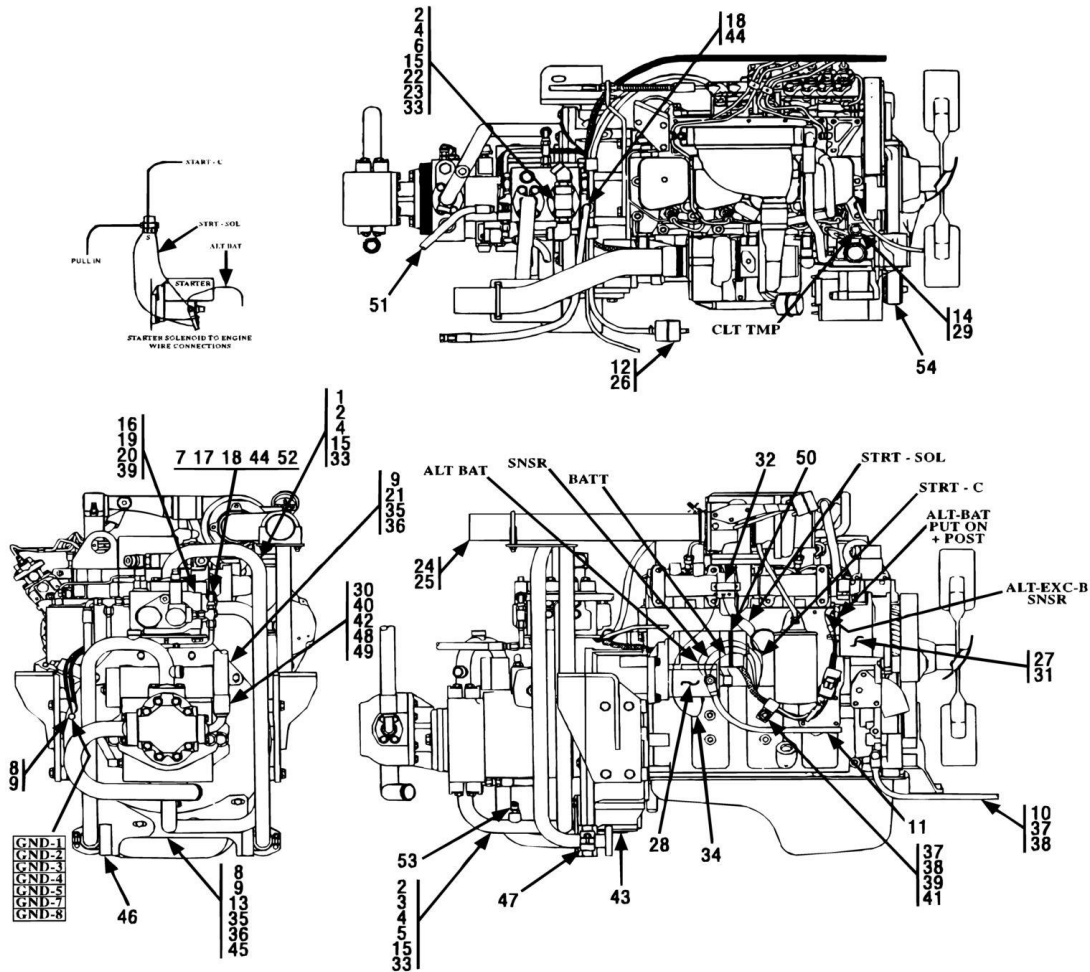
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
267	0681830	1	HEX HD CAPSCREW, 1/2-13X3-3/4, GR8	
268	3271805	1	HEX LOCKNUT, 1/2-13	
269	4751800	1	FLAT WASHER, 1/2	
K1	1001113718	1	250 HOUR FILTER KIT, (includes oil filter, primary and secondary fuel filters, primary and safety air filters)	
K2	1001113719	1	1000 HOUR FILTER KIT, (includes oil filter, primary and secondary fuel filters, primary and safety air filters, hydraulic element and hydraulic breather)	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-6. ENGINE ASSEMBLY, RH VIEW (SN 0355001 through 0355069)



**NOTES:**

1. USE LOCTITE® 242TM (14403364) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.
2. USE LOCTITE PIPE SEALANT (14403420) TO CRANKCASE.
3. ON THE ALTERNATOR, TORQUE MOUNTING SCREWS TO 32 LB-FT
4. ON THE STARTER, TORQUE BOTTOM MOUNTING SCREW TO 32 LB-FT
5. ALTERNATOR PLUG MUST BE TURNED WITH THE SEALED END, (OPP. ALTERNATOR END), UP. THE UNSEALED END, (ALTERNATOR END), MUST BE TURNED DOWN TO HELP KEEP WATER OUT.



## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-6. ENGINE ASSEMBLY, RH VIEW (SN 0355001 through 0355069)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE ASSEMBLY, RH VIEW also includes items on ENGINE ASSEMBLY, LH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	
1	91083418	1	TUBE ASSY	
2	84712738	8	SPLIT FLANGE CLAMP	
3	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
4	88551012	16	LOCKWASHER, 7/16	
5	91163201	1	TUBE ASSY	
6	91083266	1	TUBE ASSY	
7	91163098	1	TUBE ASSY	
8	83191021	5	HEX HD CAPSCREW, M10X1.5X30	
9	83191013	12	LOCKWASHER, M10	
10	91143124	1	NEGATIVE BATTERY CABLE	
11	91143099	1	POSITIVE BATTERY CABLE	
12	91083218	1	FUEL FILTER, (I/L)	
13	91086130	1	TUBE SUPPORT	
14	91143314	1	WATER TEMP SENDER	
15	91083106	4	O-RING	
16		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	2220579	1	TEE FITTING	
18	2220371	2	ADAPTER, (includes item 44)	
19	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
20	88551013	2	LOCKWASHER, 1/2	
21	91146058	1	FLOW DIVIDER BRACKET	
22	2131212	1	ELBOW, 90, (includes o-ring)	
22	88591207	1	O-RING	
23	2151212	1	ELBOW, 45, (includes o-ring)	
23	88591207	1	O-RING	
24	91146037	1	EXHAUST TUBE	
25	83683175	1	MUFFLER CLAMP	
26	83483497	1	HOSE CLAMP	
27	1001108293	1	ALTERNATOR, (includes item 31), (see service note #3 & #5)	
28	91083456	1	STARTER, (see service note #4)	
29	88711385	1	REDUCER BUSHING	
30	84718639	1	HOSE ASSY	
31	1001108291	1	REGULATOR	
32	90402427	1	STARTER SOLENOID, (relay)	
33	83201155	12	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
34	91141506	1	JUMPER WIRE	
35	88561109	7	FLAT WASHER, 3/8	
36	83191006	5	HEX HD CAPSCREW, M10X1.5X40	
37	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
38	83191010	2	LOCKWASHER, M12	
39	88561111	3	FLAT WASHER, 1/2	
40	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
41	91143122	1	SUPPORT CLAMP, 5/8	
42	84711333	2	SPLIT FLANGE	
43	2200224	1	PIPE PLUG, 3/4	
44	88591204	2	O-RING	

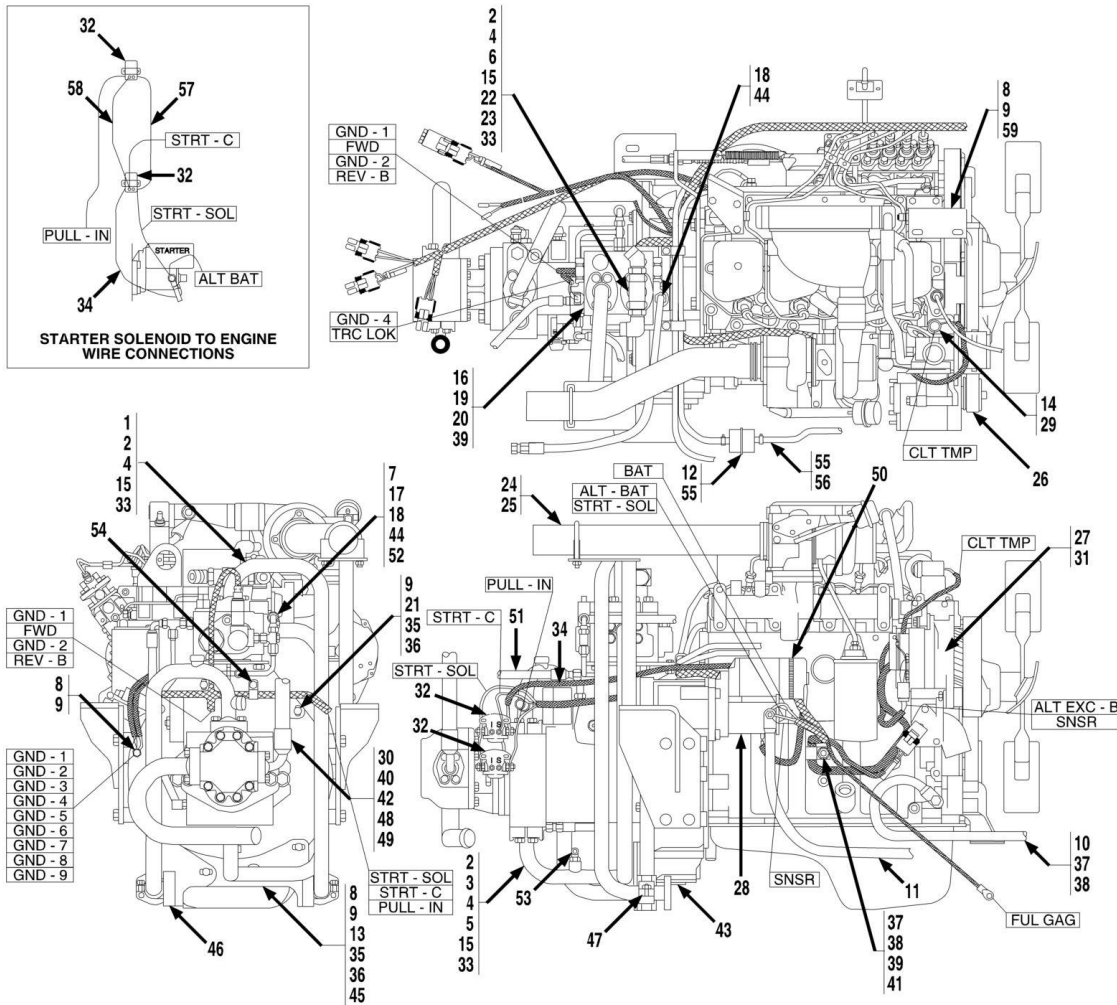
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	83191005	2	HEX HD CAPSCREW, M10X1.5X45	
46	91086131	1	TUBE SUPPORT	
47	90205792	1	CUSHION CLAMP	
48	88591024	1	O-RING	
49	88551011	4	LOCKWASHER, 3/8	
50	90027187	1	TIE WRAP	
51	84718425	1	HOSE ASSY	
52	84718700	1	HOSE ASSY	
53	2220472	1	ELBOW, 90, (includes o-ring)	
53	88591204	1	O-RING	
54	91084162	1	FAN BELT	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-7. ENGINE ASSEMBLY, RH VIEW (SN 0355070 through 0355140)



**NOTES:**

1. USE LOCTITE® 242TM (14403364) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.
2. USE LOCTITE PIPE SEALANT (14403420) TO CRANKCASE.
3. ON THE ALTERNATOR, TORQUE MOUNTING SCREWS TO 32 LB-FT.
4. ON THE STARTER, TORQUE BOTTOM MOUNTING SCREW TO 32 LB-FT.
5. ALTERNATOR PLUG MUST BE TURNED WITH THE SEALED END, (OPP. ALTERNATOR END), UP. THE UNSEALED END, (ALTERNATOR END), MUST BE TURNED DOWN TO HELP KEEP WATER OUT.

## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-7. ENGINE ASSEMBLY, RH VIEW (SN 0355070 through 0355140)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE ASSEMBLY, RH VIEW also includes items on ENGINE ASSEMBLY, LH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	
1	91083418	1	TUBE ASSY	
2	84712738	8	SPLIT FLANGE CLAMP	
3	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
4	88551012	16	LOCKWASHER, 7/16	
5	91163201	1	TUBE ASSY	
6	91083266	1	TUBE ASSY	
7	91163098	1	TUBE ASSY	
8	83191021	7	HEX HD CAPSCREW, M10X1.5X30	
9	83191013	14	LOCKWASHER, M10	
10	91143124	1	NEGATIVE BATTERY CABLE	
11	91143099	1	POSITIVE BATTERY CABLE	
12	91083218	1	FUEL FILTER, (I/L)	
13	91086130	1	TUBE SUPPORT	
14	91143314	1	WATER TEMP SENDER	
15	91083106	4	O-RING	
16		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	2220579	1	TEE FITTING	
18	2220371	2	ADAPTER, (includes item 44)	
19	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
20	88551013	2	LOCKWASHER, 1/2	
21	91146058	1	FLOW DIVIDER BRACKET	
22	2131212	1	ELBOW, 90, (includes o-ring)	
22	88591207	1	O-RING	
23	2151212	1	ELBOW, 45, (includes o-ring)	
23	88591207	1	O-RING	
24	91146037	1	EXHAUST TUBE	
25	83683175	1	MUFFLER CLAMP	
26	91084162	1	FAN BELT	
27	1001108293	1	ALTERNATOR, (includes item 31), (see service note #3 & #5)	
28	91083456	1	STARTER, (see service note #4)	
29	88711385	1	REDUCER BUSHING	
30	84718639	1	HOSE ASSY	
31	1001108291	1	REGULATOR	
32	90402427	2	STARTER SOLENOID, (relay)	
33	83201155	12	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
34	91363022	1	JUMPER WIRE	
35	88561109	7	FLAT WASHER, 3/8	
36	83191006	5	HEX HD CAPSCREW, M10X1.5X40	
37	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
38	83191010	2	LOCKWASHER, M12	
39	88561111	3	FLAT WASHER, 1/2	
40	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
41	91143122	1	SUPPORT CLAMP, 5/8	
42	84711333	2	SPLIT FLANGE	
43	2200224	1	PIPE PLUG, 3/4	
44	88591204	2	O-RING	

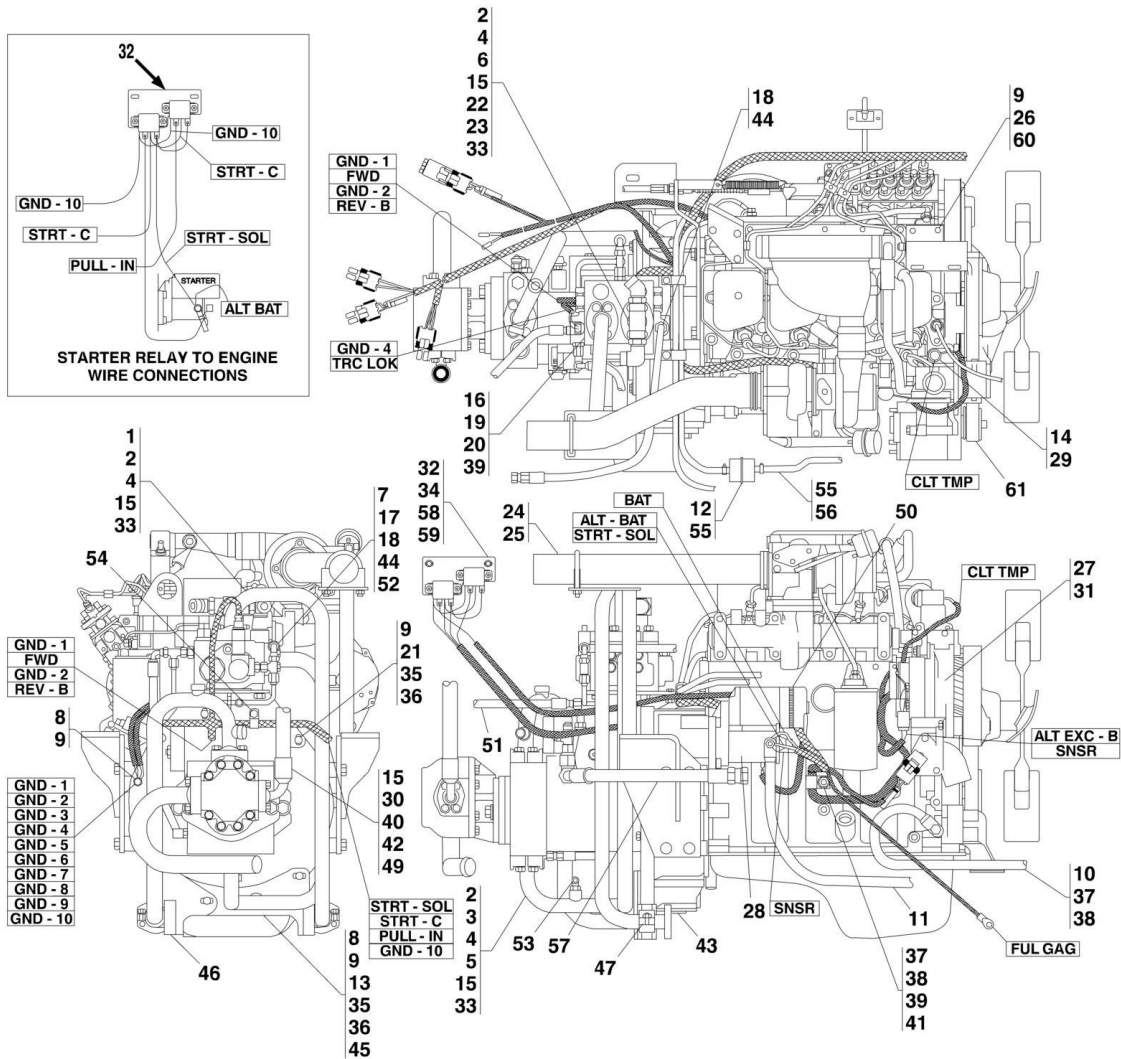
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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	83191005	2	HEX HD CAPSCREW, M10X1.5X45	
46	91086131	1	TUBE SUPPORT	
47	90205792	1	CUSHION CLAMP	
48	88591024	1	O-RING	
49	88551011	4	LOCKWASHER, 3/8	
50	90027187	1	TIE WRAP	
51	84718425	1	HOSE ASSY	
52	84718700	1	HOSE ASSY	
53	2220472	1	ELBOW, 90, (includes o-ring)	
53	88591204	1	O-RING	
54	24861170	1	SUPPORT CLAMP	
55	86883106	2	HOSE CLAMP	
56	2720058	14 in	HOSE, 5/16	
57	91363038	1	JUMPER WIRE	
58	91363039	1	JUMPER WIRE	
59	91361038	1	AIR INTAKE BRACKET	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-8. ENGINE ASSEMBLY, RH VIEW (SN 0355141 through 0455362, SN 016000192 through 016000973)



**NOTES:**

1. USE LOCTITE® 242™ (14403364) ON ALL BOLT & FITTING THREADS EXCEPT PIPE THREADS.
2. USE LOCTITE PIPE SEALANT (14403420) TO CRANKCASE.
3. ON THE ALTERNATOR, TORQUE MOUNTING SCREWS TO 32 LB-FT
4. ON THE STARTER, TORQUE BOTTOM MOUNTING SCREW TO 32 LB-FT
5. ALTERNATOR PLUG MUST BE TURNED WITH THE SEALED END, (OPP. ALTERNATOR END), UP. THE UNSEALED END, (ALTERNATOR END), MUST BE TURNED DOWN TO HELP KEEP WATER OUT.

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## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-8. ENGINE ASSEMBLY, RH VIEW (SN 0355141 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE ASSEMBLY, RH VIEW except items 57, 58, 59 & 34 also includes items on ENGINE ASSEMBLY, LH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	AB
1	91083418	1	TUBE ASSY	
2	84712738	8	SPLIT FLANGE CLAMP	
3	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
4	88551012	16	LOCKWASHER, 7/16	
5	91163201	1	TUBE ASSY	
6	91083266	1	TUBE ASSY	
7	91163098	1	TUBE ASSY	
8	83191021	5	HEX HD CAPSCREW, M10X1.5X30	
9	83191013	14	LOCKWASHER, M10	
10	91143124	1	NEGATIVE BATTERY CABLE	
11	91143099	1	POSITIVE BATTERY CABLE	
12	91083218	1	FUEL FILTER, (I/L)	
13	91086130	1	TUBE SUPPORT	
14	91143314	1	WATER TEMP SENDER	
15	91083106	5	O-RING	
16		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	2220579	1	TEE FITTING	
18	2220371	2	ADAPTER, (includes item 44)	
19	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
20	88551013	2	LOCKWASHER, 1/2	
21	91146058	1	FLOW DIVIDER BRACKET	
22	2131212	1	ELBOW, 90, (includes o-ring)	
22	88591207	1	O-RING	
23	2151212	1	ELBOW, 45, (includes o-ring)	
23	88591207	1	O-RING	
24	91146037	1	EXHAUST TUBE	
25	83683175	1	MUFFLER CLAMP	
26	83191038	2	HEX HD CAPSCREW, M10X1.5X20	
27	1001108293	1	ALTERNATOR, (includes item 31), (see service note #3 & #5)	
28	91083456	1	STARTER, (see service note #4)	
29	88711385	1	REDUCER BUSHING	
30	84718639	1	HOSE ASSY	
31	1001108291	1	REGULATOR	
32		Ref	STARTER RELAY ASSY, (See ELECTRICAL SECTION for Breakdown)	
33	83201155	12	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
34	88551009	2	LOCKWASHER, 1/4	
35	88561109	7	FLAT WASHER, 3/8	
36	83191006	5	HEX HD CAPSCREW, M10X1.5X40	
37	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
38	83191010	2	LOCKWASHER, M12	
39	88561111	3	FLAT WASHER, 1/2	
40	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
41	91143122	1	SUPPORT CLAMP, 5/8	
42	84711333	2	SPLIT FLANGE	

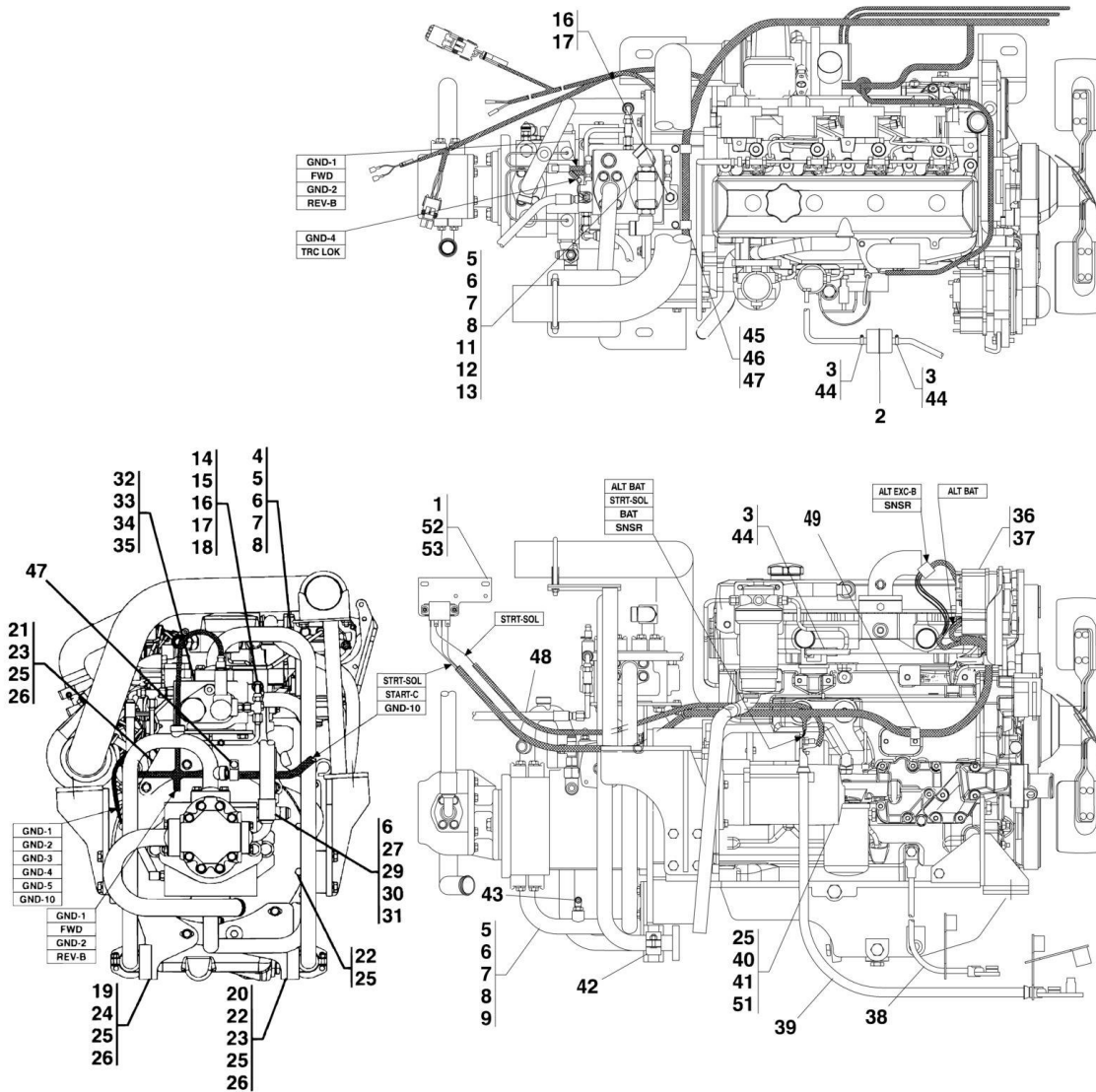
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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	2200224	1	PIPE PLUG, 3/4	
44	88591204	2	O-RING	
45	83191005	2	HEX HD CAPSCREW, M10X1.5X45	
46	91086131	1	TUBE SUPPORT	
47	90205792	1	CUSHION CLAMP	
49	88551011	4	LOCKWASHER, 3/8	
50	90027187	1	TIE WRAP	
51	77133196	1	HOSE ASSY	
52	84718700	1	HOSE ASSY	
53	2220472	1	ELBOW, 90, (includes o-ring)	
53	88591204	1	O-RING	
54	24861170	1	SUPPORT CLAMP	
55	86883106	2	HOSE CLAMP	
56	2720058	14 in	HOSE, 5/16	
57	84718956	1	HOSE ASSY	
58	88561001	2	FLAT WASHER, 1/4	
59	88201001	2	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
60	91361038	1	AIR INTAKE BRACKET	
61	91084162	1	FAN BELT	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-9. ENGINE ASSEMBLY, RH VIEW (SN 0160000976 through 0160034720, Including 0160035922)



**NOTES:**

1. USE LOCTITE® 242™ (14403364) ON ALL BOLT THREADS EXCEPT PIPE THREADS.
2. USE LOCTITE PIPE SEALANT (14404082) ON ALL PIPE THREADS.
3. USE LOCTITE® 545™ (14404043) ON ALL HYDRAULIC FITTING THREADS

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## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-9. ENGINE ASSEMBLY, RH VIEW (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555005	1	ENGINE ASSY, (includes all items except 43 thru 47 & 50 on ENGINE ASSEMBLY, LH VIEW, all items except 1, 52 & 53 on ENGINE ASSEMBLY, RH VIEW and all items on ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	R
1	88551009	2	LOCKWASHER, 1/4	
2	91083218	1	STRAINER	
3	86883106	4	HOSE CLAMP	
4	91083418	1	TUBE ASSY	
5	84712738	8	SPLIT FLANGE CLAMP	
6	91083106	5	O-RING	
7	83201155	16	HEX HD CAPSCREW, 7/16-14X1-3/4	
8	88551012	16	LOCKWASHER, 7/16	
9	91163201	1	TUBE ASSY	
11	91083266	1	TUBE ASSY	
12	2131212	1	ELBOW, 90, (straight thread), (includes o-ring)	
13	2151212	1	ELBOW, 45, (straight thread), (includes o-ring)	
14	91163098	1	TUBE ASSY	
15	2220579	1	TEE FITTING	
16	2220371	2	ADAPTER, (includes item 17)	
17	88591204	2	O-RING	
18	84718700	1	HOSE ASSY	
19	91556011	1	LH TUBE SUPPORT	
20	91556012	1	RH TUBE SUPPORT	
21	91556010	1	FLOW DIVIDER BRACKET	
22	83191021	5	HEX HD CAPSCREW, M10X1.5X30	
23	83191006	5	HEX HD CAPSCREW, M10X1.5X40	
24	83191005	2	HEX HD CAPSCREW, M10X1.5X45	
25	83191013	12	LOCKWASHER, M10	
26	88561109	7	FLAT WASHER, 3/8	
27	84718639	1	HOSE ASSY	
29	84711333	2	SPLIT FLANGE	
30	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
31	88551011	4	LOCKWASHER, 3/8	
32		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
33	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
34	88551013	2	LOCKWASHER, 1/2	
35	88561111	2	FLAT WASHER, 1/2	
36	1001108293	1	ALTERNATOR, (includes item 37)	
37	1001108291	1	REGULATOR	
38		Ref	NEGATIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
39		Ref	POSITIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
40	91553030	NLA	STARTER MOTOR, (no longer available, See OPTIONS SECTION for Breakdown), (includes item 51) <b>(SN 0160000976 through 0160008305)</b>	
41	83191040	2	SOCKET HD CAPSCREW, M10X1.5X30, (torque to 38-48 lb-ft) <b>(SN 0160000976 through 0160008305)</b>	
42	90205792	1	CUSHION CLAMP	
43	2220472	1	ELBOW, 90, (straight thread), (includes o-ring)	

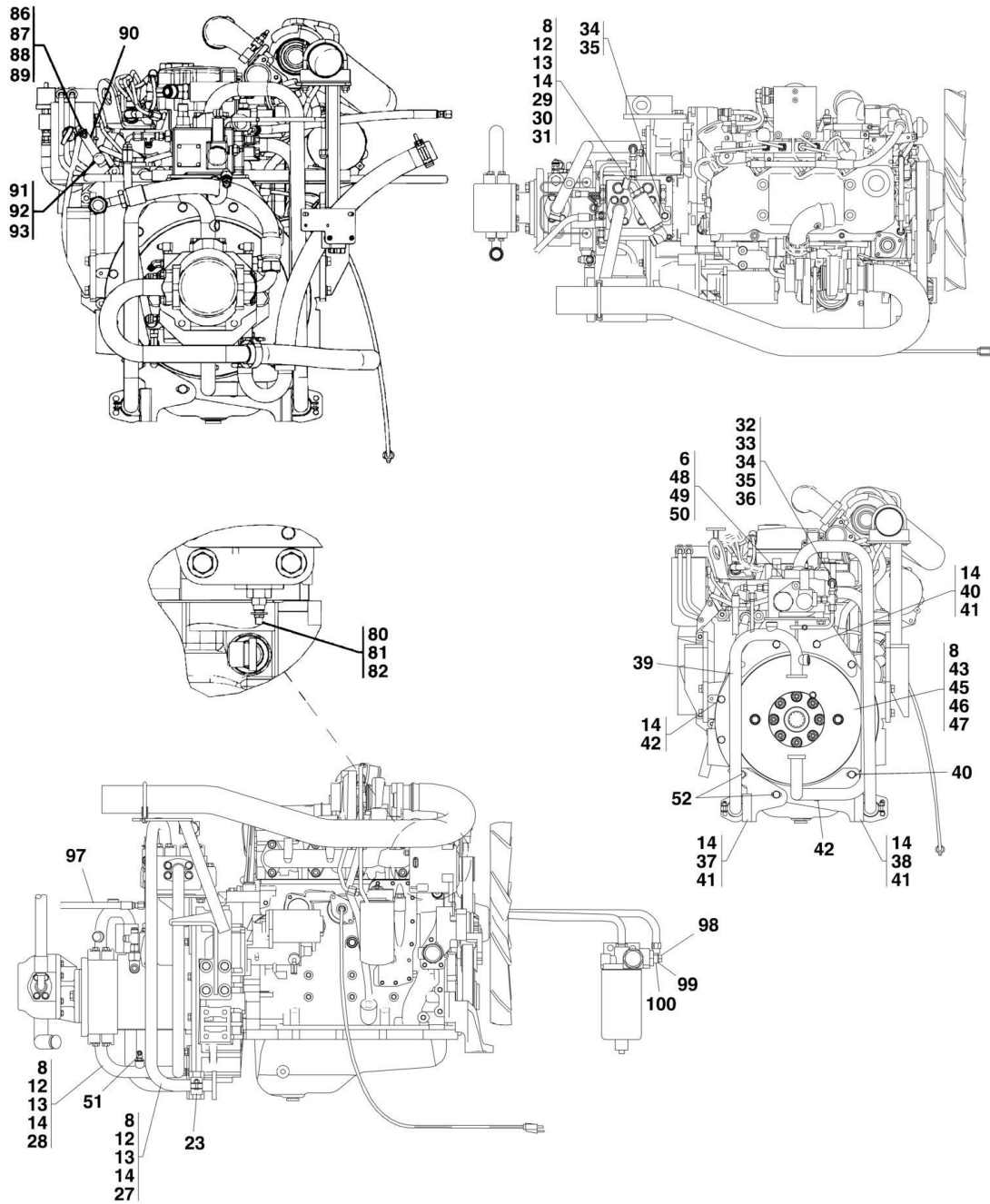
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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	2720058	40 in	HOSE, 5/16	
45	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
46	88521205	2	HEX LOCKNUT, 5/16-18	
47	24861170	3	SUPPORT CLAMP	
48	77133196	1	HOSE ASSY	
49	80683013	2	SUPPORT CLAMP	
51	91554031	1	STARTER SOLENOID	
52	4711400	2	FLAT WASHER, 1/4	
53	88201001	2	HEX HD CAPSCREW, 1/4-20X1/2, GR5	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-10. ENGINE ASSEMBLY, RH VIEW (SN 0160035037 to Present, Excluding 0160035922)



PAP21360



## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-10. ENGINE ASSEMBLY, RH VIEW (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001091084	1	ENGINE ASSY, (includes items 1 thru 26 & item 79 on ENGINE ASSEMBLY, LH VIEW and all items on ENGINE ASSEMBLY, RH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	Q
6	4761800	2	LOCKWASHER, 1/2	
8	91083106	5	O-RING	
12	84712738	8	FLANGE CLAMP	
13	0681714	16	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
14	4761700	28	LOCKWASHER, 7/16	
23	90205792	1	CUSHION CLAMP	
27	1001091704	1	TUBE ASSY	
28	1001091705	1	TUBE ASSY	
29	91083266	1	TUBE ASSY	
30	2131212	1	ELBOW, 90	
31	2151212	1	ELBOW, 45	
32	91163098	1	TUBE ASSY	
33	2220579	1	SWIVEL NUT BRANCH TEE	
34	2220371	2	ADAPTER, (includes item 35)	
35	3780177	2	O-RING	
36	84718700	1	HOSE ASSY	
37	1001091701	1	TUBE SUPPORT, LH	
38	1001091700	1	TUBE SUPPORT, RH	
39	1001091698	1	FLOW DIVIDER BRACKET	
40	0761016	5	HEX HD CAPSCREW, M10X40, GR8.8	
41	4711600	7	FLAT WASHER, 3/8	
42	0701015	5	HEX HD CAPSCREW, 10-1.50X35mm, 8.8	
43	84718639	1	HOSE ASSY	
45	8530030	2	SPLIT FLANGE	
46	0641610	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
47	4761600	4	LOCKWASHER, 3/8	
48		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
49	0641808	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
50	4711800	2	FLAT WASHER, 1/2	
51	2220472	1	ELBOW, 90	
52	0701017	2	HEX HD CAPSCREW, 10-1.50X45mm	
80	2221154	1	PIPE REDUCER, 3/4X1/2	
81	88712306	1	PIPE REDUCER, 1/2X1/8	
82	91143314	1	WATER TEMPERATURE SENDER	
86	1320044	1	CLAMP	
87	4751400	2	LOCKWASHER, 1/4	
88	3311405	1	HEX NUT, 1/4-20	
89	0641406	1	HEX HD CAPSCREW, 1/4-20X5/8	
90	1001105689	1	TUBE SUPPORT BRACKET	
91	0641614	1	HEX HD CAPSCREW, 3/8-16X1-3/4	
92	4751600	2	LOCKWASHER, 3/8	
93	3311605	1	HEX NUT, 3/8-16	
97	77133196	1	HOSE ASSY	
98		Ref	BANJO SCREW, (See FUEL TANK AND LINES for Breakdown)	
99		Ref	COPPER CRUSH WASHER, (See FUEL TANK AND LINES for Breakdown)	

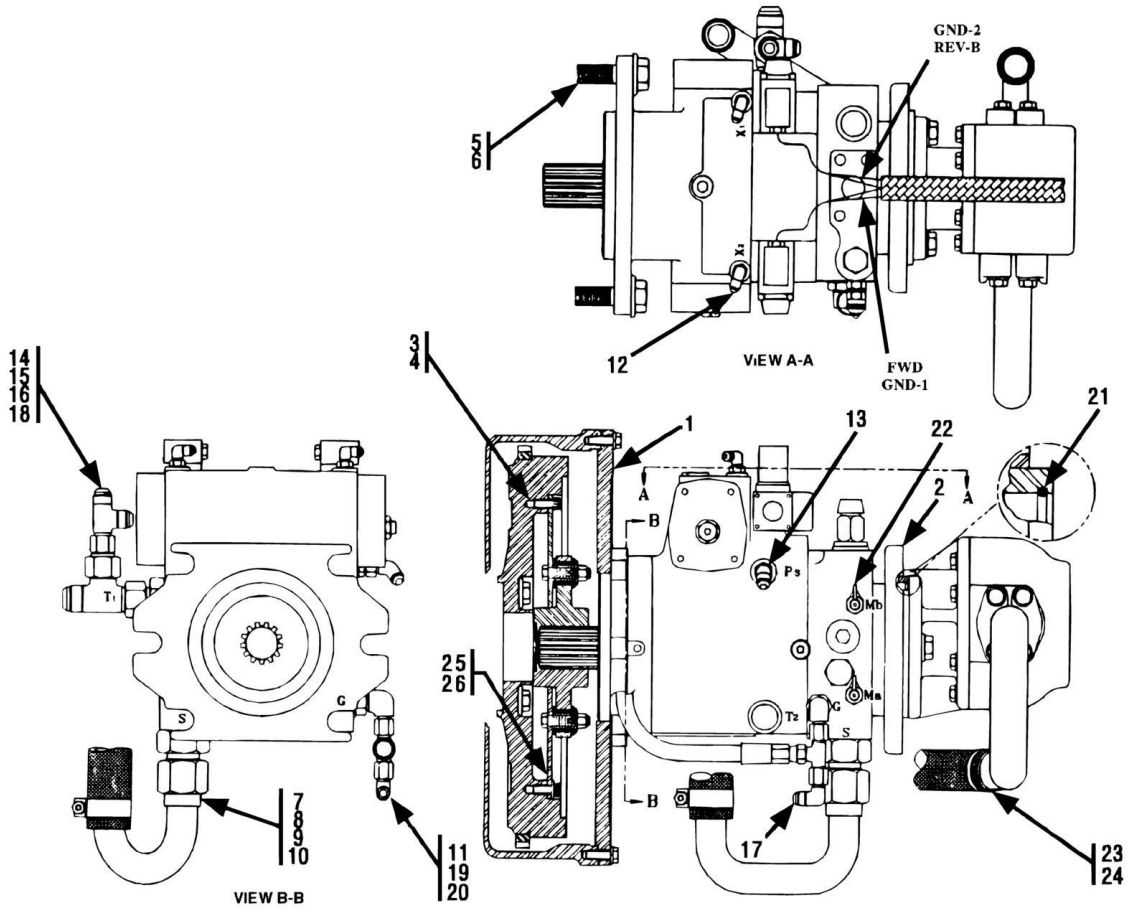
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
100		Ref	BANJO ADAPTER, (See FUEL TANK AND LINES for Breakdown)	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-11. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0355001 through 0355069)



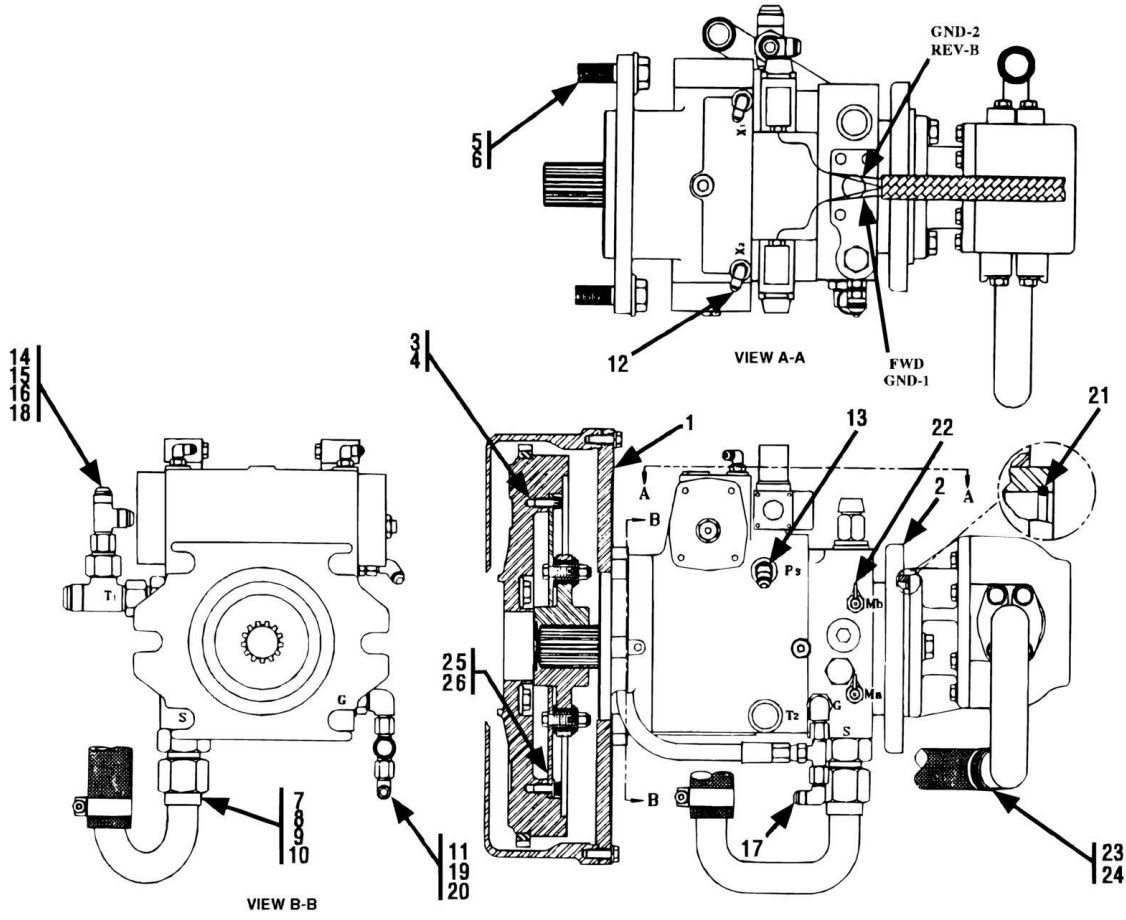
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-11. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0355001 through 0355069)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE PUMP MOUNT AND FLYWHEEL HOUSING also includes items on ENGINE ASSEMBLY, LH VIEW and ENGINE ASSEMBLY, RH VIEW)	
1	91163011	1	PUMP MT AND FLYWHEEL COUPLING	
2		Ref	HYDROSTATIC TRANSMISSION PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8, (torque to 40-45 lb-ft)	
4	88551011	8	LOCKWASHER, 3/8	
5	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, GR5, (torque to 240-265 lb-ft)	
6	90027473	2	HARDENED WASHER, 3/4	
7	2220380	1	ADAPTER, (includes o-ring)	
7	88591210	1	O-RING	
8	91143087	1	INTAKE TUBE	
9	91143143	1	HOSE ASSY	
10	80633030	1	BAND CLAMP	
11	2220628	1	ELBOW, 90	
12	2220472	2	ELBOW, 90, (includes o-ring)	
12	88591204	2	O-RING	
13	2220501	1	ELBOW, 45, (includes o-ring)	
13	88591204	1	O-RING	
14	2220700	1	TEE FITTING	
15	2220622	1	REDUCER WITH ADAPTER	
16	2220385	1	TEE FITTING	
17	8760268	1	ELBOW, 90, (swivel nut)	
18	2220451	1	ADAPTER, (includes o-ring)	
18	88591207	1	O-RING	
19	2220635	1	TEE FITTING	
20	77133447	1	HOSE ASSY	
21	91144002	1	O-RING	
22	91053020	2	TEST COUPLING, (includes o-ring)	
22	91054002	2	O-RING	
23	90028482	1	BAND CLAMP	
24	77363128	1	HOSE ASSY	
25	91084311	1	MOUNTING PLATE, (includes bolts)	
26	91164104	1	COUPLING	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-12. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0355070 through 0355140)



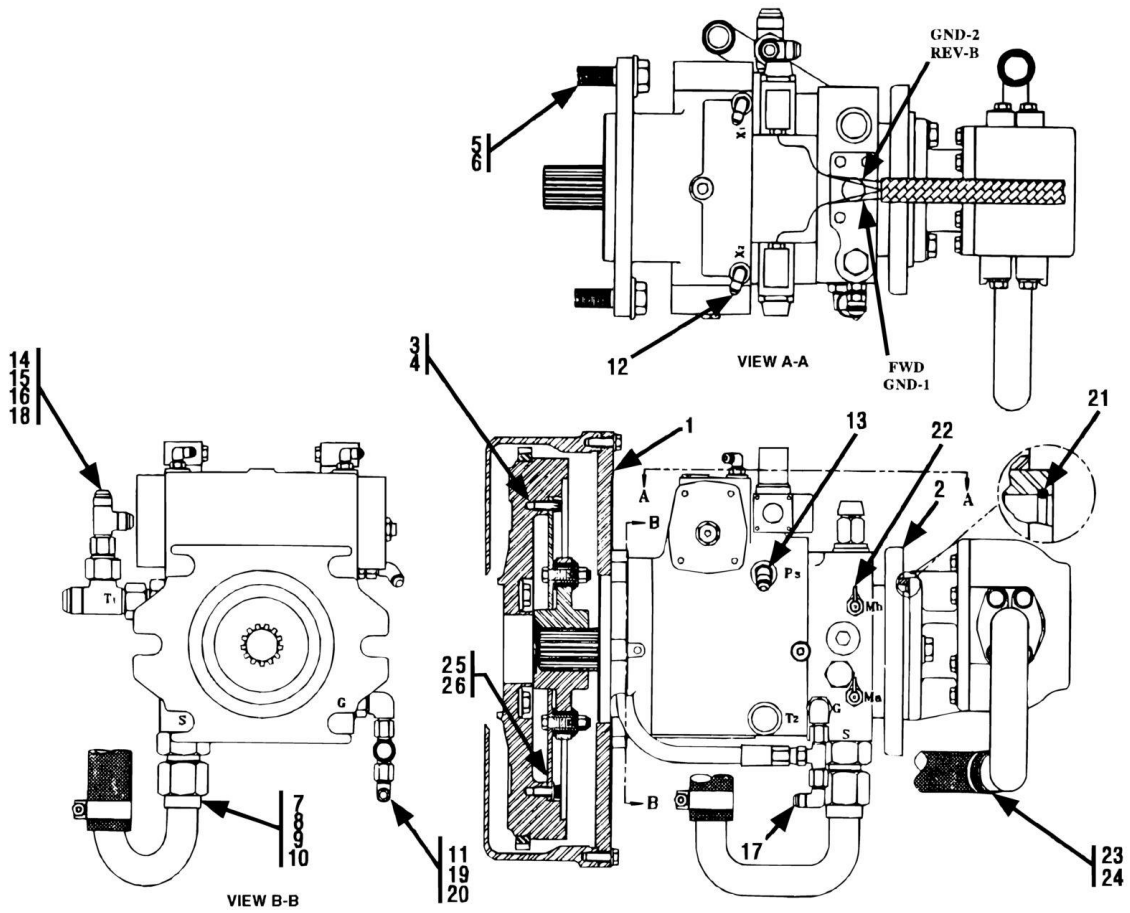
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-12. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0355070 through 0355140)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE PUMP MOUNT AND FLYWHEEL HOUSING also includes items on ENGINE ASSEMBLY, LH VIEW and ENGINE ASSEMBLY, RH VIEW)	
1	91163011	1	PUMP MT AND FLYWHEEL COUPLING	
2		Ref	HYDROSTATIC TRANSMISSION PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8, (torque to 40-45 lb-ft)	
4	88551011	8	LOCKWASHER, 3/8	
5	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, GR5, (torque to 240-265 lb-ft)	
6	90027473	2	HARDENED WASHER, 3/4	
7	2220380	1	ADAPTER, (includes o-ring)	
7	88591210	1	O-RING	
8	91143087	1	INTAKE TUBE	
9	91143143	1	HOSE ASSY	
10	80633030	1	BAND CLAMP	
11	2220628	1	ELBOW, 90	
12	2220472	2	ELBOW, 90, (includes o-ring)	
12	88591204	2	O-RING	
13	2220501	1	ELBOW, 45, (includes o-ring)	
13	88591204	1	O-RING	
14	2220700	1	TEE FITTING	
15	2220622	1	REDUCER WITH ADAPTER	
16	2220385	1	TEE FITTING	
17	8760268	1	ELBOW, 90, (swivel nut)	
18	2220451	1	ADAPTER, (includes o-ring)	
18	88591207	1	O-RING	
19	2220635	1	TEE FITTING	
20	77133447	1	HOSE ASSY	
21	91144002	1	O-RING	
22	91053020	2	TEST COUPLING, (includes o-ring)	
22	91054002	2	O-RING	
23	90028482	1	BAND CLAMP	
24	77363128	1	HOSE ASSY	
25	91084311	1	MOUNTING PLATE, (includes bolts)	
26	91164104	1	COUPLING	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-13. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0355141 through 0455362, SN 0160000192 through 0160000973)





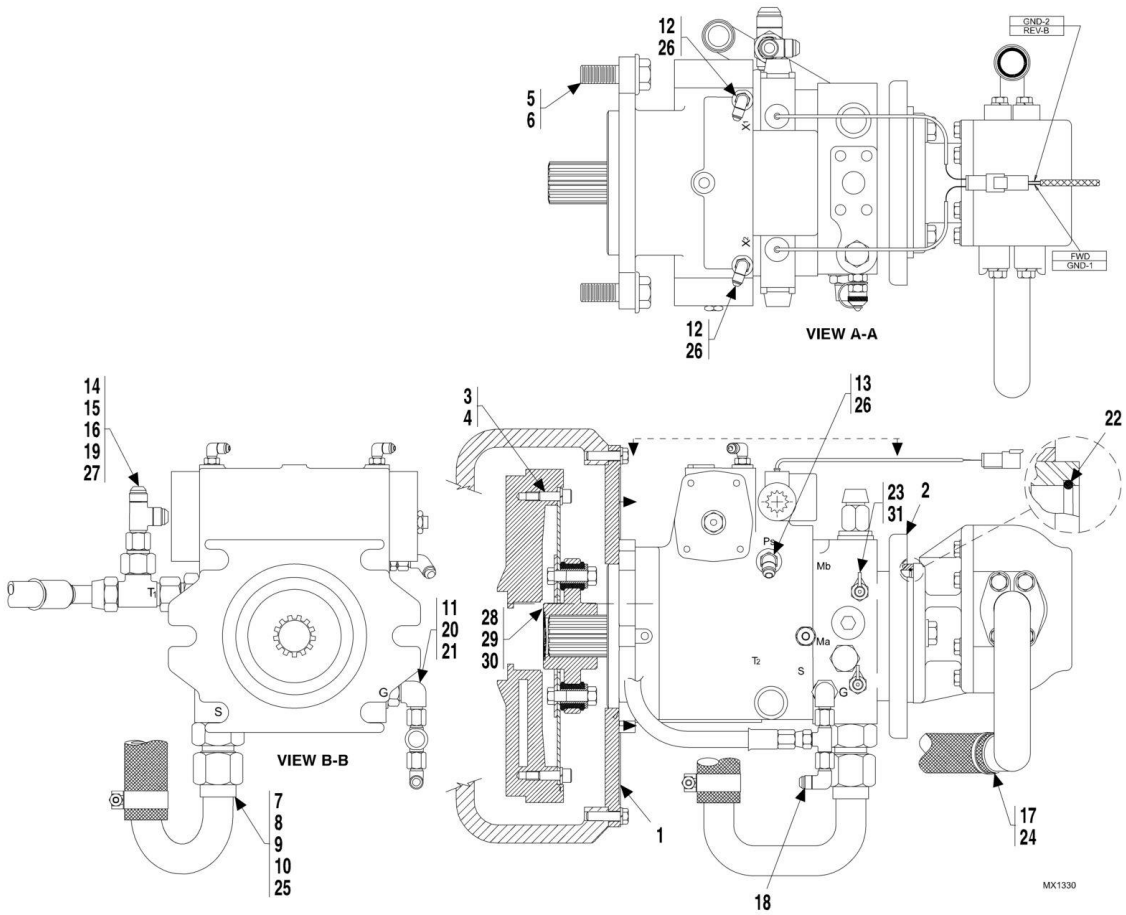
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-13. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0355141 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165032	1	ENGINE ASSY, (includes all items on ENGINE PUMP MOUNT AND FLYWHEEL HOUSING also includes items on ENGINE ASSEMBLY, LH VIEW and ENGINE ASSEMBLY, RH VIEW)	AB
1	91163011	1	PUMP MT AND FLYWHEEL COUPLING	
2		Ref	HYDROSTATIC TRANSMISSION PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8, (torque to 40-45 lb-ft)	
4	88551011	8	LOCKWASHER, 3/8	
5	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, GR5, (torque to 240-265 lb-ft)	
6	90027473	2	HARDENED WASHER, 3/4	
7	2220380	1	ADAPTER, (includes o-ring)	
7	88591210	1	O-RING	
8	91143087	1	INTAKE TUBE	
9	91143143	1	HOSE ASSY	
10	80633030	1	BAND CLAMP	
11	2220628	1	ELBOW, 90	
12	2220472	2	ELBOW, 90, (includes o-ring)	
12	88591204	2	O-RING	
13	2220501	1	ELBOW, 45, (includes o-ring)	
13	88591204	1	O-RING	
14	2220700	1	TEE FITTING	
15	2220622	1	REDUCER WITH ADAPTER	
16	2220385	1	TEE FITTING	
17	8760268	1	ELBOW, 90, (swivel nut)	
18	2220451	1	ADAPTER, (includes o-ring)	
18	88591207	1	O-RING	
19	2220635	1	TEE FITTING	
20	77133447	1	HOSE ASSY	
21	91144002	1	O-RING	
22	91053020	2	TEST COUPLING, (includes o-ring)	
22	91054002	2	O-RING	
23	90028482	1	BAND CLAMP	
24	77363128	1	HOSE ASSY	
25	91084311	1	MOUNTING PLATE, (includes bolts)	
26	91164104	1	COUPLING	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-14. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0160000976 through 0160034720, Including 0160035922)



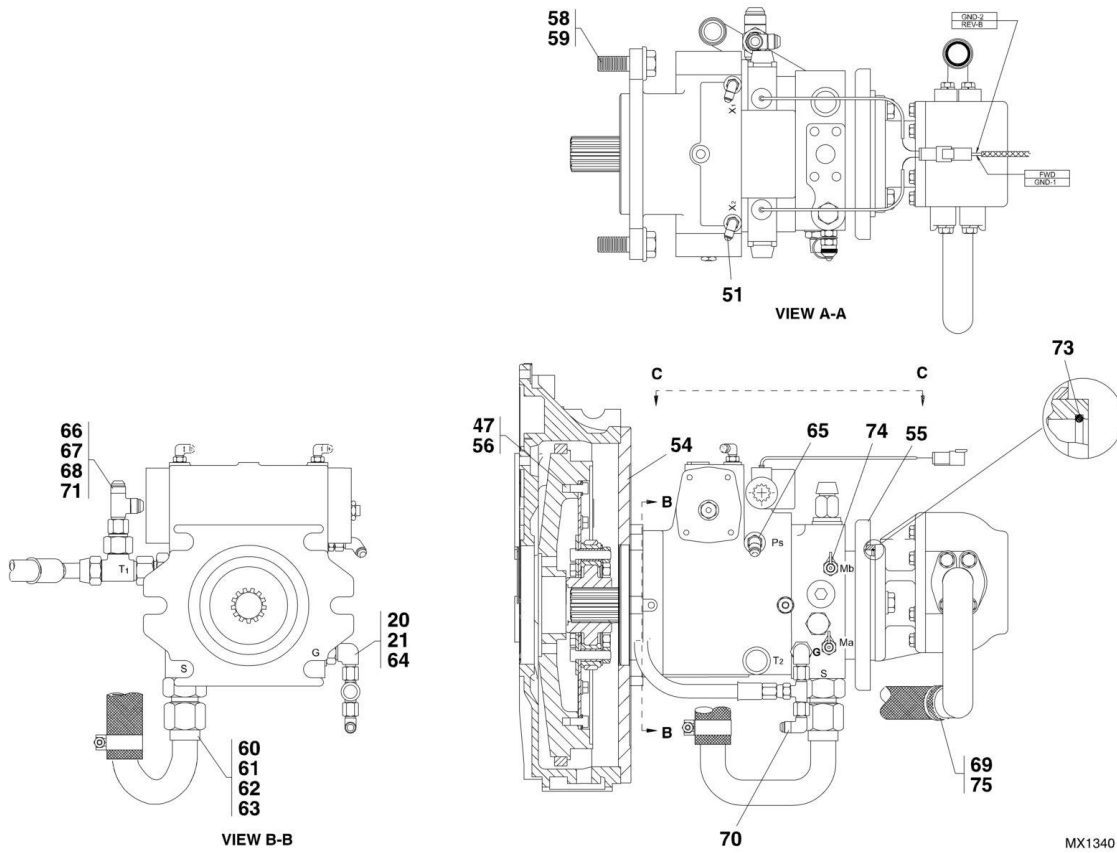
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-14. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555005	1	ENGINE ASSY, (includes all items except 43 thru 47 & 50 on ENGINE ASSEMBLY, LH VIEW, all items except 52 thru 54 on ENGINE ASSEMBLY, RH VIEW and all items on ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	R
1	91363206	1	PUMP MT AND FLYWHEEL COUPLING, (includes items 28 thru 30)	A
2		Ref	HYDROSTATIC TRANSMISSION PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8, GR8, (torque to 40-45 lb-ft)	
4	88551011	8	LOCKWASHER, 3/8	
5	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, GR5, (torque to 240-264 lb-ft)	
6	90027473	2	HARDENED WASHER, 3/4	
7	2220380	1	ADAPTER, (includes item 25)	
8	91143087	1	INTAKE TUBE	
9	91553038	1	INTAKE HOSE	
10	80633030	2	BAND CLAMP	
11	2220628	1	ELBOW, 90, (includes o-ring)	
12	2220472	2	ELBOW, 90, (includes item 26)	
13	2220501	1	ELBOW, 45, (includes item 26)	
14	2220700	1	TEE FITTING	
15	2220622	1	REDUCER WITH ADAPTER	
16	2220385	1	TEE FITTING	
17	77363128	1	HOSE	
18	8760268	1	ELBOW, 90, (swivel nut)	
19	2220451	1	ADAPTER, (includes item 27)	
20	2220635	1	TEE FITTING	
21	77133447	1	HOSE ASSY	
22	91144002	1	O-RING	
23	91053020	2	MINI-CHECK, (includes item 31)	
24	90028482	1	BAND CLAMP	
25	88591210	1	O-RING	
26	88591204	3	O-RING	
27	88591207	1	O-RING	
28	91364099	1	HOUSING MOUNT	
29	91164104	1	COUPLING, (bolts included)	
30	91364100	1	COUPLER	
31	91054002	2	VITON O-RING, (lubricate lightly)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-15. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0160035037 to Present, Excluding 0160035922)



MX1340

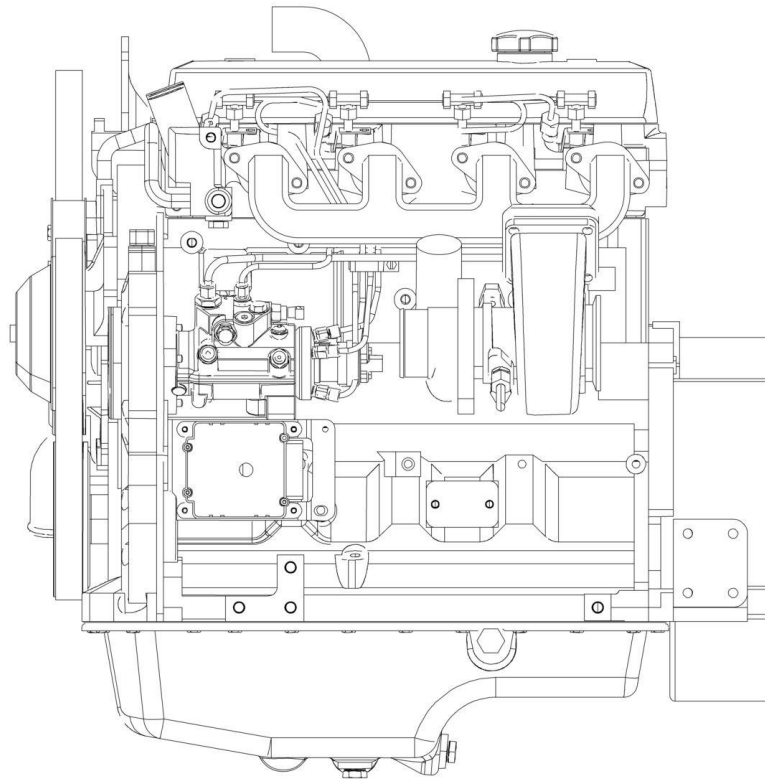
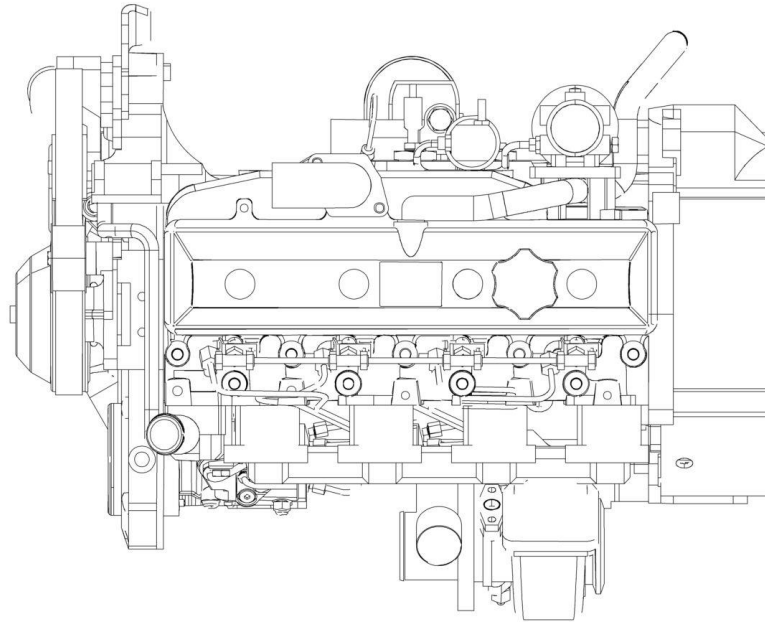
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-15. ENGINE PUMP MOUNT AND FLYWHEEL HOUSING (SN 0160035037 to Present,  
Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001091084	1	ENGINE ASSY, (includes items 1 thru 26 & item 79 on ENGINE ASSEMBLY, LH VIEW and all items on ENGINE ASSEMBLY, RH VIEW and ENGINE PUMP MOUNT AND FLYWHEEL HOUSING)	H
20	2220635	1	TEE FITTING	
21		Ref	HOSE ASSY, (See ENGINE ASSEMBLY, LH VIEW for Breakdown)	
47	4761600	8	LOCKWASHER, 3/8	
51	2220472	2	ELBOW, 90	
54	91163011	1	FLYWHEEL COUPLING ASSY	
55		Ref	HYDROSTATIC TRANSMISSION PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
56	3931610	8	SOCKET HD CAPSCREW, 3/8-16X1	
58	0642218	2	HEX HD CAPSCREW, 3/4-10X2-1/4, GR5	
59	90027473	2	HARDENED WASHER, 3/4	
60	2220380	1	ADAPTER	
61	91143087	1	INTAKE TUBE	
62	91553038	1	INTAKE HOSE	
63	80633030	2	BAND CLAMP	
64	2220628	1	ELBOW, 90	
65	2220501	1	ELBOW, 45	
66	2220700	1	TEE FITTING	
67	2220622	1	REDUCER	
68	2220385	1	TEE FITTING	
69	77363128	1	HOSE	
70	8760268	1	ELBOW, 90, (swivel nut)	
71	2220451	1	ADAPTER	
73	91144002	1	O-RING	
74	91053020	2	TEST COUPLING	
75	90028482	1	BAND CLAMP	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-16. JOHN DEERE ENGINE (SN 0160000976 through 0160008588)



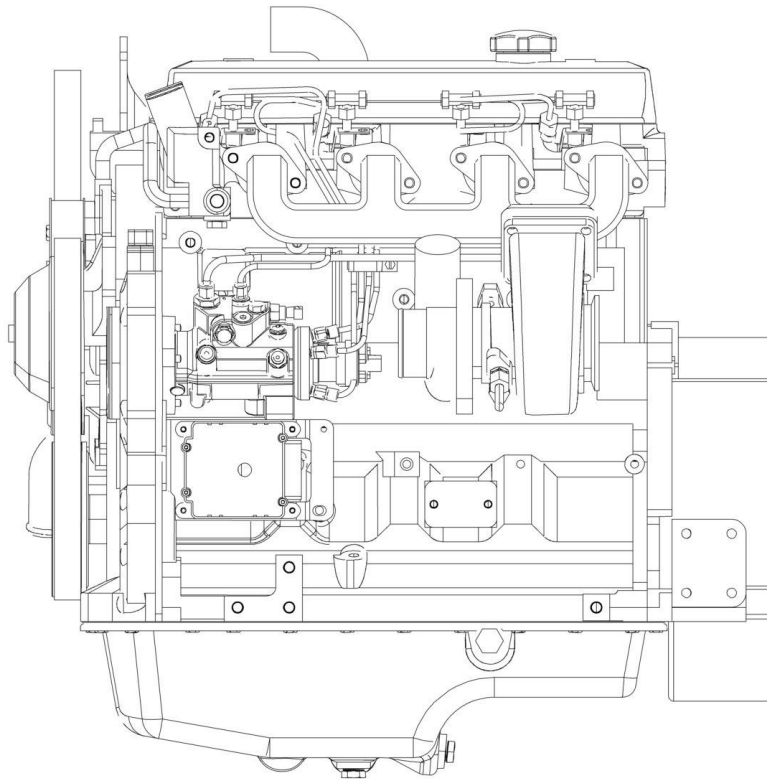
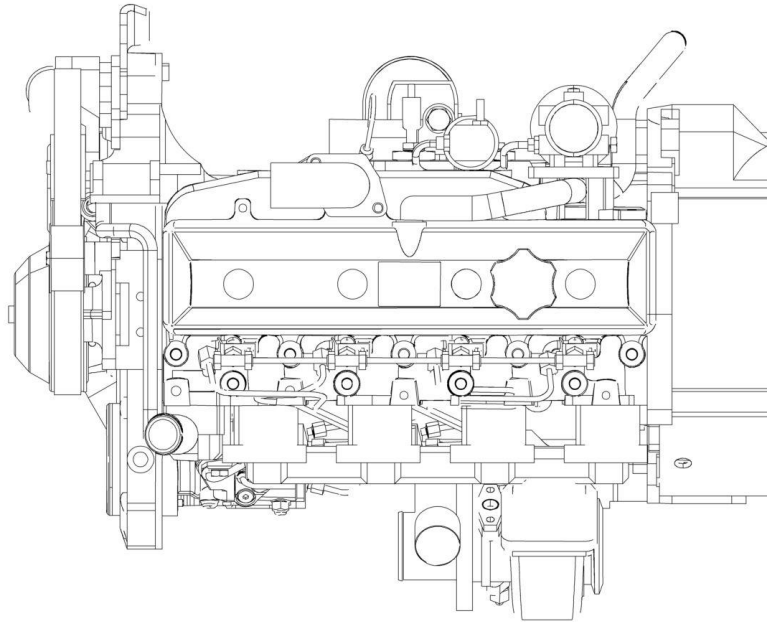
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-16. JOHN DEERE ENGINE (SN 0160000976 through 0160008588)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553006	1	JOHN DEERE ENGINE, 125 HP, (includes all items)	B
	91404257	1	GASKET, VALVE COVER	
	91404256	4	PLUG, VALVE COVER	
	91404259	4	O-RING, VALVE COVER PLUG	
	91404258	1	FILLER CAP, VALVE COVER, (includes packing)	
	91404255	1	PACKING, FILLER CAP	
	91404253	2	GASKET, OIL FILLER	
	91534007	1	FLYWHEEL, (includes ring gear)	
	91534008	1	RING GEAR	
	91534009	4	FLYWHEEL BOLT	
	7026916	1	FUEL INJECTION PUMP	
	7026917	1	O-RING, FUEL INJECTION PUMP	
	7026918	1	GASKET, AIR INLET	
	7026919	1	GASKET, AIR INLET	
	91404242	1	GASKET, OIL PAN	
	7026927	1	GASKET, THERMOSTAT COVER	
	80374015	1	BELT	
	70021472	1	BELT TENSIONER	
	91404222	1	SCREW, BELT TENSIONER	
	91404234	4	GASKET, EXHAUST MANIFOLD	
	91534004	1	FUEL FILTER ELEMENT	
	80374048	1	O-RING, FUEL FILTER	
	80374054	1	KIT, FUEL FILTER	
	80374050	1	SEAL KIT, FUEL FILTER	
	91404262	1	FUEL PUMP, (includes o-ring)	
	7026923	1	O-RING, FUEL PUMP	
	91404085	1	DIPSTICK	
	91554032	1	DIPSTICK TUBE	
	91404229	1	O-RING, WATER PUMP INLET	
	91404267	1	GASKET, TURBOCHARGER	
	7026924	1	TURBOCHARGER	
	7026925	1	GASKET, TURBOCHARGER	
	91404268	1	HOSE ASSY, TURBOCHARGER	
	91404266	2	O-RING, TURBOCHARGER HOSE ASSY	
	80374021	1	O-RING, TURBOCHARGER	
	7026926	1	OIL PRESSURE SENDER	
	91534005	1	OIL FILTER	
	91554033	1	GASKET, OIL FILTER HEAD	
	91474506	1	DRAIN PLUG, OIL FILTER, (includes o-ring)	
	80374020	1	O-RING, DRAIN PLUG	
	91534011	1	CRANK POSITION SENSOR	
	91474629	1	ALTERNATOR BRACKET	
	91474630	1	ALTERNATOR SUPPORT	
	91474631	1	ALTERNATOR STRAP	
	7026920	1	THERMOSTAT	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-17. JOHN DEERE ENGINE (SN 0160008590 through 0160034720, Including 0160035922)





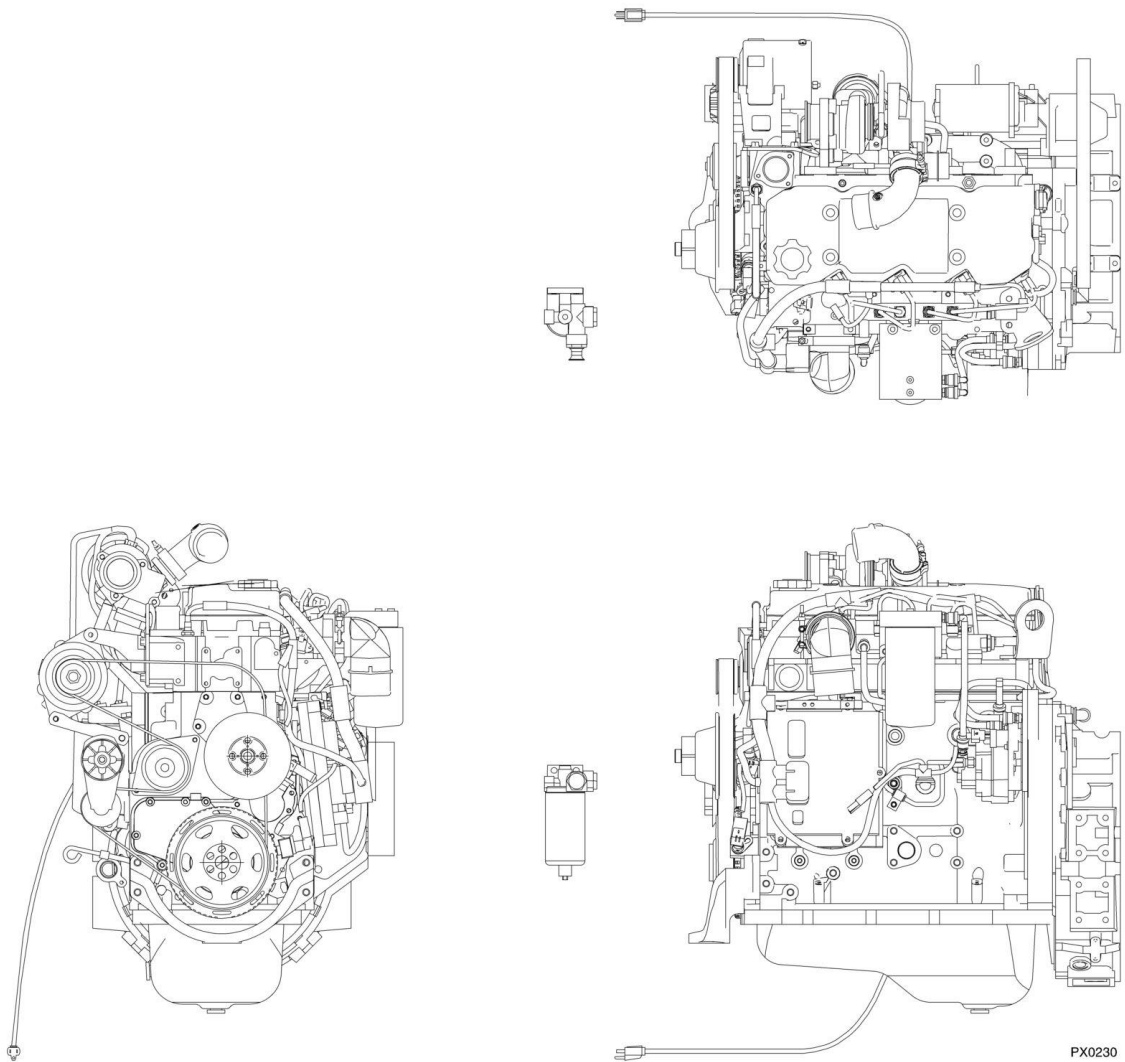
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-17. JOHN DEERE ENGINE (SN 0160008590 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553068	1	JOHN DEERE ENGINE, 125 HP, (includes all items)	D
	91404257	1	GASKET, VALVE COVER	
	91404256	4	PLUG, VALVE COVER	
	91404259	4	O-RING, VALVE COVER PLUG	
	91404258	1	FILLER CAP, VALVE COVER, (includes packing)	
	91404255	1	PACKING, FILLER CAP	
	91404253	2	GASKET, OIL FILLER	
	91534007	1	FLYWHEEL, (includes ring gear)	
	91534008	1	RING GEAR	
	91534009	4	FLYWHEEL BOLT	
	7026916	1	FUEL INJECTION PUMP	
	7026917	1	O-RING, FUEL INJECTION PUMP	
	7026918	1	GASKET, AIR INLET	
	7026919	1	GASKET, AIR INLET	
	91404242	1	GASKET, OIL PAN	
	7026927	1	GASKET, THERMOSTAT COVER	
	80374015	1	BELT	
	91404234	4	GASKET, EXHAUST MANIFOLD	
	91534004	1	FUEL FILTER ELEMENT	
	80374048	1	O-RING, FUEL FILTER	
	80374054	1	KIT, FUEL FILTER	
	80374050	1	SEAL KIT, FUEL FILTER	
	91404262	1	FUEL PUMP, (includes o-ring)	
	7026923	1	O-RING, FUEL PUMP	
	91404085	1	DIPSTICK	
	91554032	1	DIPSTICK TUBE	
	91404229	1	O-RING, WATER PUMP INLET	
	91404267	1	GASKET, TURBOCHARGER	
	7026924	1	TURBOCHARGER	
	7026925	1	GASKET, TURBOCHARGER	
	91404268	1	HOSE ASSY, TURBOCHARGER	
	91404266	2	O-RING, TURBOCHARGER HOSE ASSY	
	80374021	1	O-RING, TURBOCHARGER	
	7026926	1	OIL PRESSURE SENDER	
	91534005	1	OIL FILTER	
	91554033	1	GASKET, OIL FILTER HEAD	
	91474506	1	DRAIN PLUG, OIL FILTER, (includes o-ring)	
	80374020	1	O-RING, DRAIN PLUG	
	91534011	1	CRANK POSITION SENSOR	
	91474629	1	ALTERNATOR BRACKET	
	91474630	1	ALTERNATOR SUPPORT	
	91474631	1	ALTERNATOR STRAP	
	70021472	1	BELT TENSIONER	
	7026920	1	THERMOSTAT	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-18. CUMMINS ENGINE (SN 0160035037 to Present, Excluding 0160035922)



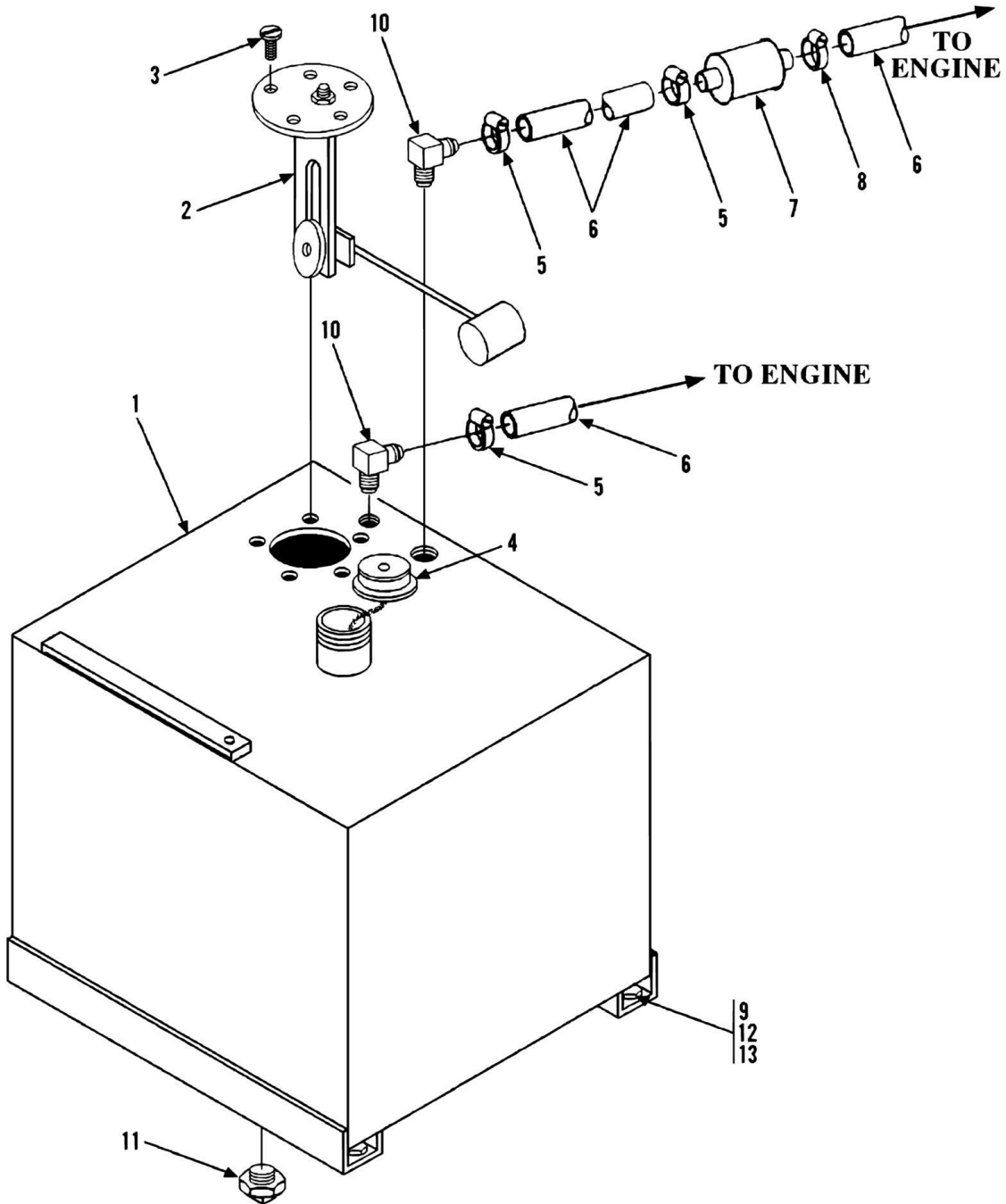
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-18. CUMMINS ENGINE (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2000402	1	CUMMINS ENGINE, 130 HP, (includes all items)	D
	70021793	1	VALVE COVER GASKET	
	70021794	1	FUEL INJECTION PUMP	
	70021795	1	FLY WHEEL	
	70021796	1	ENGINE OIL COOLER	
	70021797	1	ENGINE OIL COOLER GASKET	
	70023300	1	EXTENSION TUBE, DIPSTICK, (used with 800mm dipstick)	
	70023299	1	OIL LEVEL DIPSTICK, (used with 800mm dipstick)	
	70023298	1	DIPSTICK TUBE, (used with 800mm dipstick)	
	70021798	1	OIL LEVEL DIPSTICK, (used with 200mm dipstick)	
	70021799	1	DIPSTICK TUBE, (used with 200mm dipstick)	
	70021800	1	LUBRICATION OIL PUMP	
	70021801	1	OIL PAN	
	70022636	1	OIL PAN GASKET	
	70021803	1	OIL PAN PLUG	
	70021804	1	TURBOCHARGER KIT, (includes 3 gaskets)	
	70021805	1	WATER PUMP	
	70021806	1	WATER PUMP GASKET	
	70021807	1	FAN BELT	
	70022638	1	INJECTOR	
	70021809	1	BELT TENSIONER	
	70021810	1	EXPANSION PLUG	
	70020358	1	OIL FILTER	
	70020348	1	SECONDARY FUEL FILTER	
	70020349	1	PRIMARY FUEL FILTER	
	7029525	1	ALTERNATOR	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-19. FUEL TANK AND LINES (Prior to SN 0160035037, Including 0160035922)



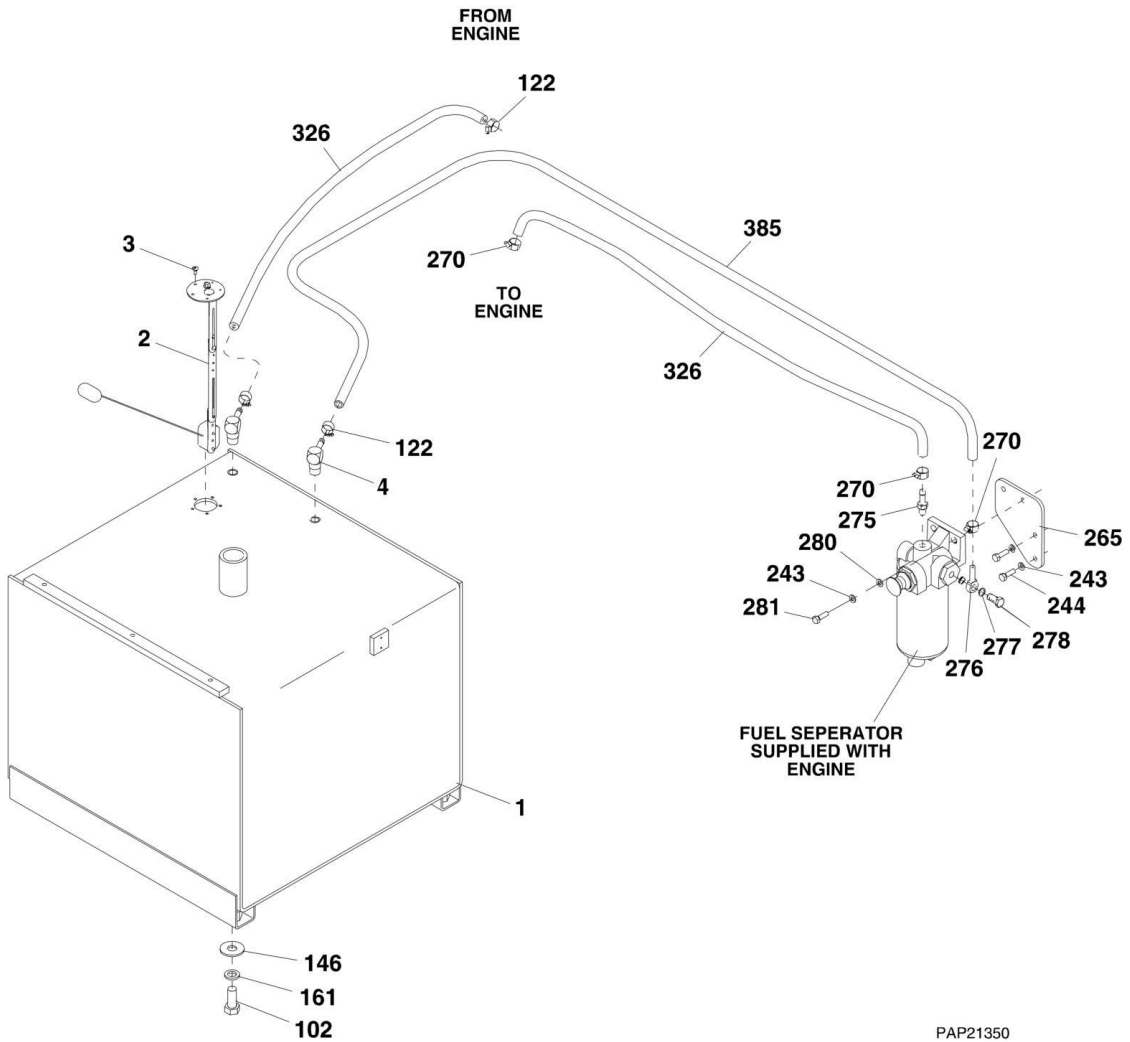
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-19. FUEL TANK AND LINES (Prior to SN 0160035037, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91155016	1	FUEL TANK ASSY, (includes items 1 thru 4, 10 & 11)	E
1	91153031	1	FUEL TANK, (38 gal), (includes items 4 & 11)	
2	91143316	1	FUEL LEVEL SENDER, (do not use hardware provided with sender, order item 3)	
3	91083491	5	GASKETED SCREW, #10-32	
4	86541381	1	FUEL TANK CAP, (with chain)	
5	86883106	4	HOSE CLAMP	
6	2720058	119 in	FUEL LINE HOSE, 5/16 ID	
7		Ref	FUEL FILTER, (I/L), (See ENGINE ASSEMBLY, RH VIEW for Breakdown)	
8	83483497	1	HOSE CLAMP	
9	88551015	4	LOCKWASHER, 5/8	
10	84712746	2	HOSE NIPPLE, 90, 1/2X3/8	
11	88711283	1	HEX SOCKET PIPE PLUG, 1/2	
12	88201095	4	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
13	88561008	4	WASHER, 5/8	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-20. FUEL TANK AND LINES (SN 0160035037 to Present, Excluding 0160035922)



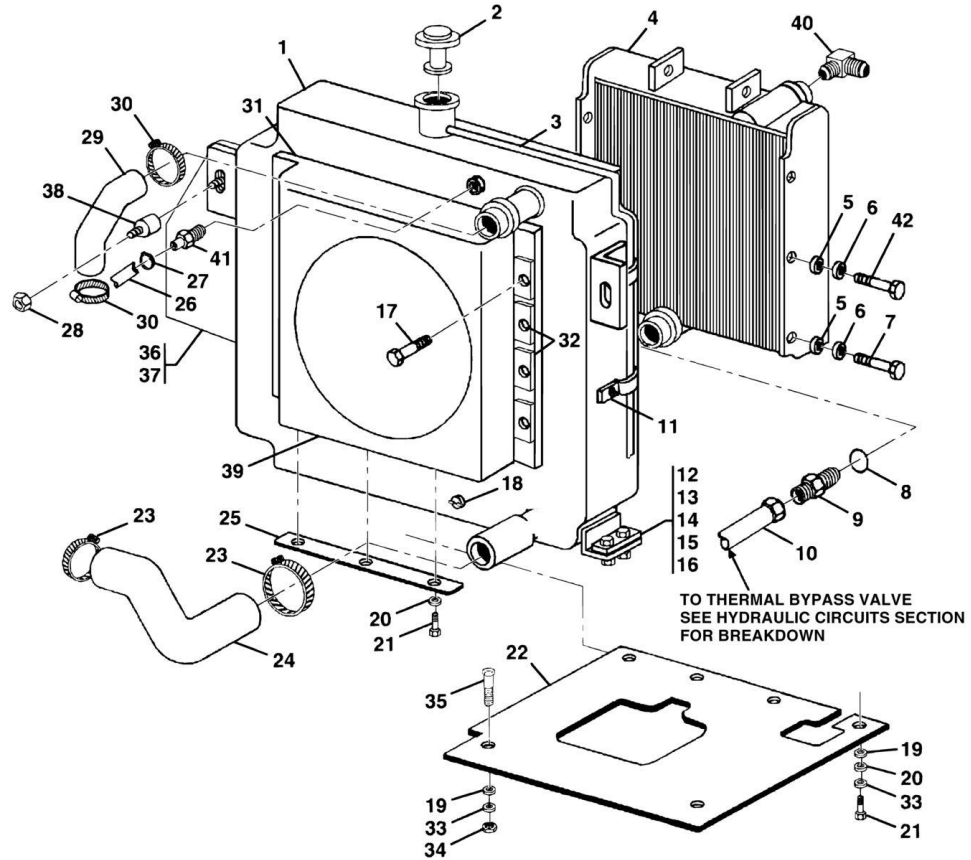
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-20. FUEL TANK AND LINES (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91155016	1	FUEL TANK ASSY, (includes items 1 thru 4)	E
1	91153031	1	FUEL TANK	
1	86541381	1	FUEL TANK CAP, (includes chain)	
1	88711283	1	HEX SOCKET PIPE PLUG, 1/2	
2	91143316	1	FUEL LEVER SENDER	
3	91083491	5	GASKETED SCREW, #10-32	
4	84712746	2	HOSE NIPPLE, 90, 1/2X/8	
102	0642012	4	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
122	8410013	2	HOSE CLAMP	
146	4752000	4	WASHER, 5/8	
161	4762000	4	LOCKWASHER, 5/8	
243	4761500	4	LOCKWASHER, 5/16	
244	0641508	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
265	1001101757	1	FUEL SEPERATOR BRACKET	
270	8410013	2	HOSE CLAMP	
275	1001093891	1	HOSE COUPLING	
276	1001105638	1	BANJO ADAPTER	
277	1001105639	2	COPPER CRUSH WASHER	
278	1001105643	1	BANJO SCREW	
280	4711500	2	WASHER, 5/16	
281	0641510	2	HEX HD CAPSCREW, 5/16-18X1-1/4	
326	2720463	37 in	HOSE, 3/8	
385	1001097568	1	FUEL SUPPLY HOSE	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-21. RADIATOR ASSEMBLY (SN 0355001 through 0455362, SN 016000192 through 016000973)



**NOTE:**

USE FLAT BAR (ITEM 25) UNDER SHROUD (ITEM 22) TO HOLD UP DUST SHIELD (ITEM 22).  
USE FLAT WASHERS (ONE EACH OF ITEMS 19 & 33) UNDER TAB ON SIDE OF SHROUD & BOTH SIDES OF THE FRAME TO SUPPORT THE DUSTSHIELD.

PAP21540



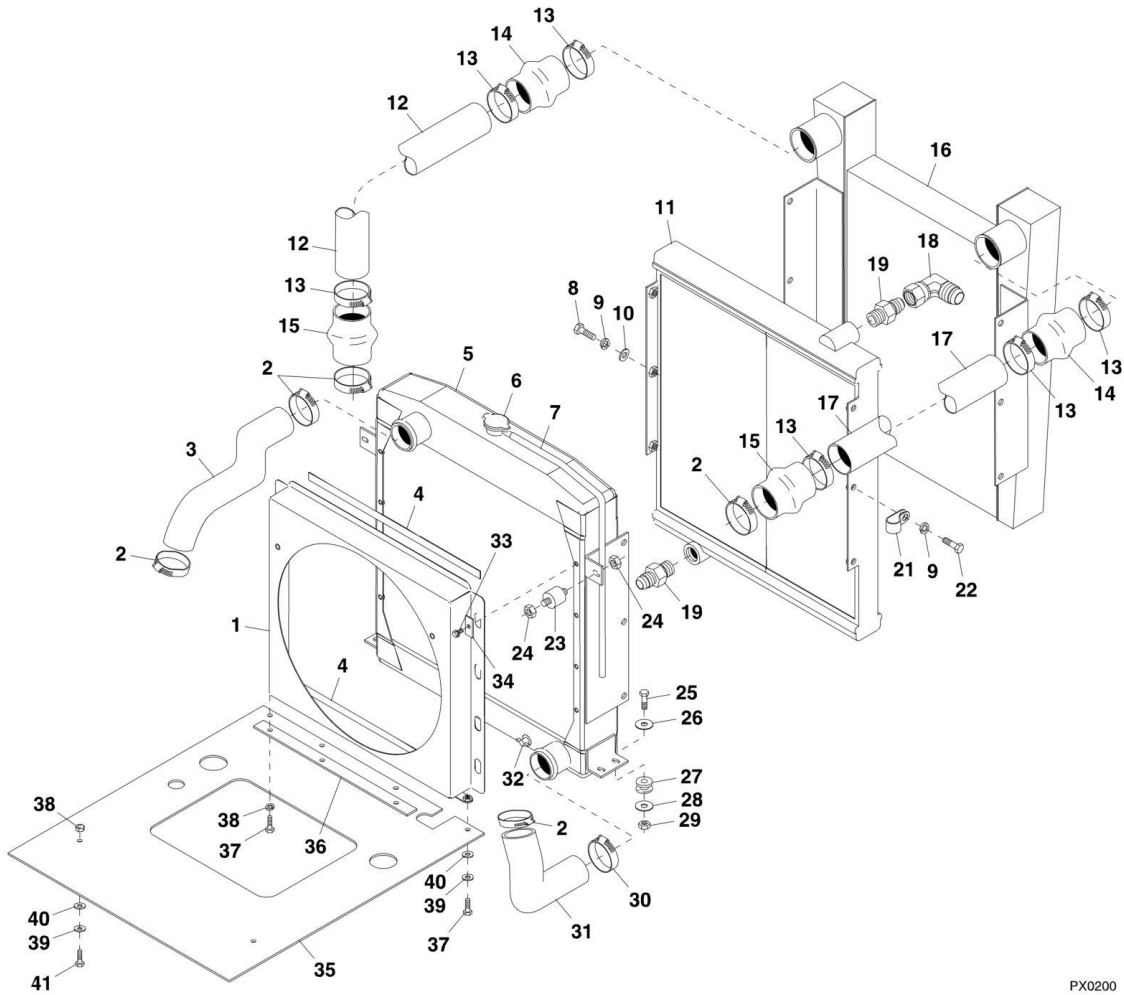
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-21. RADIATOR ASSEMBLY (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145085	1	RADIATOR ASSY, (includes items 1 thru 9, 11, 17, 18, one of item 23, 24, 29 thru 32 & 39 thru 42)	J
1	91143328	1	RADIATOR, (includes item 2)	
2	91144008	1	RADIATOR CAP	
3	2720058	38 in	HOSE, 5/16 ID	
4	91143029	1	OIL COOLER	
5	88551011	6	LOCKWASHER, 3/8	
6	88561109	4	FLAT WASHER, 3/8	
7	88201034	4	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
8	88591210	2	O-RING	
9	2220379	1	ADAPTER, (includes item 8)	
10		Ref	HOSE ASSY, (See HYDRAULIC CIRCUITS SECTION for Breakdown)	
11	85941016	2	SUPPORT CLAMP	
12	83683308	4	MOUNTING PAD	
13	90205918	4	WASHER	
14	88201037	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
15	88561109	4	FLAT WASHER, 3/8	
16	88521206	4	LOCKNUT	
17	77143003	6	WHIZ-LOCK SCREW, 5/16-18X5/8	
18	84521056	1	DRAIN COCK	
19	88561003	3	FLAT WASHER, 5/16	
20	88551010	4	LOCKWASHER, 5/16	
21	88201020	4	HEX HD CAPSCREW, 5/16-18X1, GR5	
22	91143139	1	DUST SHIELD	
23	86883327	2	HOSE CLAMP	
24	91143045	1	LOWER RADIATOR HOSE	
25	91141231	1	FLAT BAR	
26	2720058	14 in	HOSE, 5/16 ID	
27	86883106	2	HOSE CLAMP	
28	77143006	4	WHIZ-LOCKNUT, 5/16-18	
29	91153012	1	UPPER RADIATOR HOSE	
30	85071128	2	HOSE CLAMP	
31	91141485	1	RADIATOR SHROUD	
32	91143348	6	CLAMP BAR	
33	91083533	3	FENDER WASHER	
34	88501005	2	HEX NUT	
35	77143004	2	WHIZ-LOCK SCREW, 5/16-18X1-3/4	
36	91141103	1	LH RADIATOR MOUNT	
36	91141102	1	RH RADIATOR MOUNT	
37	85611278	2	WELD STUD	
38	91033137	2	SHOCK MOUNT	
39	90200755	52 in	GASKA TAPE	
40	2220464	1	ELBOW, (includes item 8)	
41	90030271	1	NIPPLE	
42	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-22. RADIATOR ASSEMBLY (SN 0160000976 through 0160034720, Including 0160035922)



PX0200

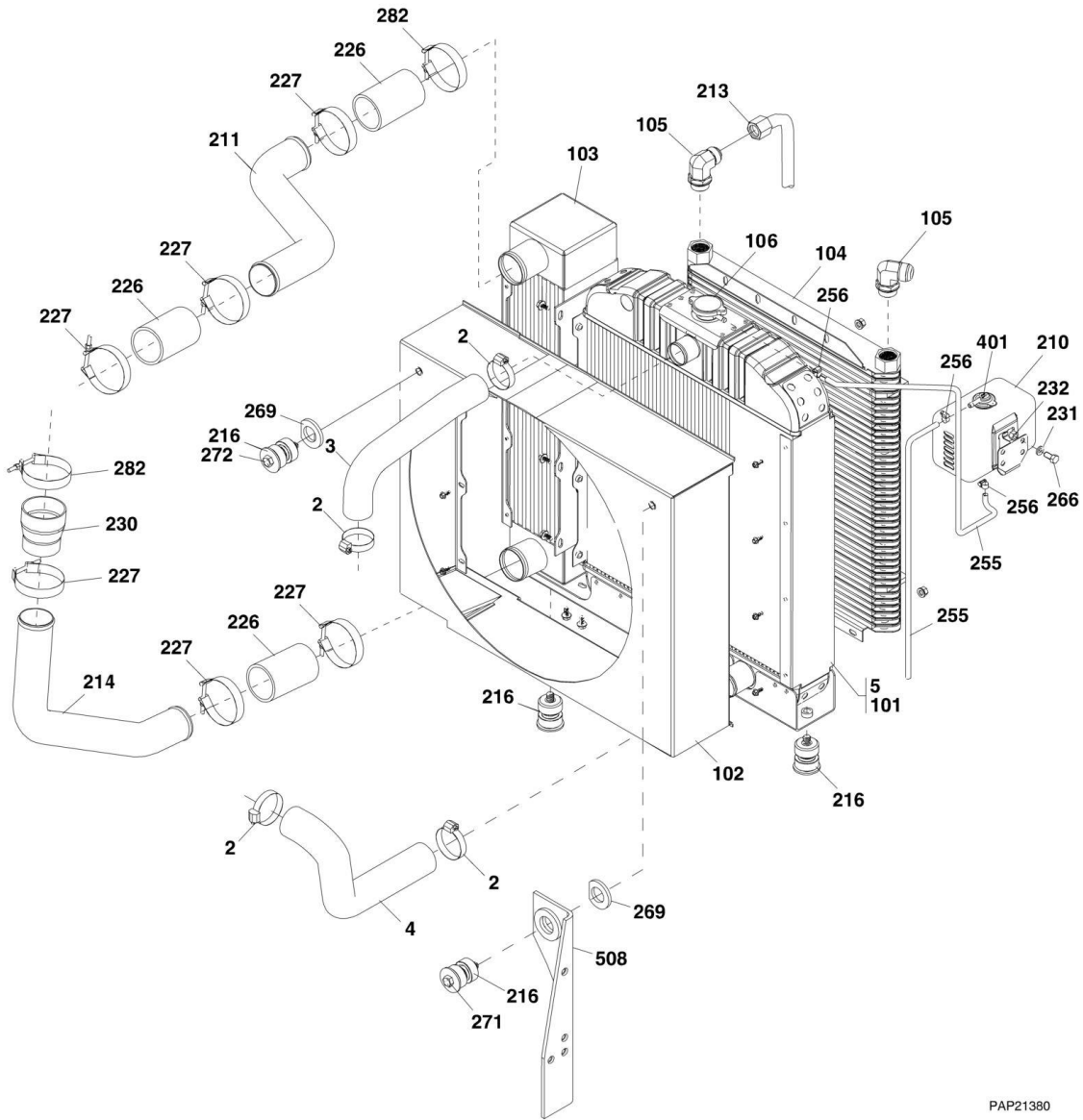
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-22. RADIATOR ASSEMBLY (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555001	1	RADIATOR ASSY, (includes items 1, 1 of item 2, 3 thru 11, 16, 18 thru 22 & 30 thru 34)	C
1	91551031	1	FAN SHROUD	
2	85071128	6	HOSE CLAMP	
3	91553039	1	UPPER RADIATOR HOSE	
4	90200755	52 in	GASKA-TAPE	
5	91553004	1	RADIATOR, (includes item 6)	E
6	7026442	1	RADIATOR CAP, 10 PSI	
7	2720058	38 in	HOSE, 5/16	
8	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
9	88551011	6	LOCKWASHER, 3/8	
10	88561109	4	FLAT WASHER, 3/8	
11	91553002	1	OIL COOLER	
12	91553042	1	CHARGE AIR OUTLET TUBE	
13	86883327	6	HOSE CLAMP	
14	91553010	2	CHARGE AIR COUPLING	
15	2720550	2	CHARGE AIR COUPLING	
16	91553003	1	CHARGE AIR COOLER	
17	91553041	1	CHARGE AIR INLET TUBE	
18	2220878	1	ELBOW, 90, (swivel nut)	
19	2220379	2	ADAPTER, (includes o-ring)	
21	85941016	2	SUPPORT CLAMP	
22	88201036	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
23	91033137	2	SHOCK MOUNT	
24	77143006	4	WHIZ-LOCKNUT, 5/16-18	
25	88201037	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
26	90205918	4	WASHER, 3/8	
27	83683308	4	MOUNTING PAD	
28	88561109	4	FLAT WASHER, 3/8	
29	88521206	4	HEX LOCKNUT, 3/8-16	
30	86883327	1	HOSE CLAMP	
31	91553040	1	LOWER RADIATOR HOSE	
32	84521056	1	DRAIN COCK	
33	77143003	8	WHIZ-LOCK SCREW, 5/16-18X5/8	
34	91143348	8	CLAMP BAR	
35	91553022	1	DUST SHIELD	
36	91551019	1	FLAT BAR	
37	91363018	4	WHIZ-LOCK SCREW, 5/16-18X1	
38	77143006	2	WHIZ-NUT, 5/16-18	
39	88561003	3	FLAT WASHER, 5/16	
40	91083533	3	FENDER WASHER	
41	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-23. RADIATOR ASSEMBLY (SN 0160035037 to Present, Excluding 0160035922)



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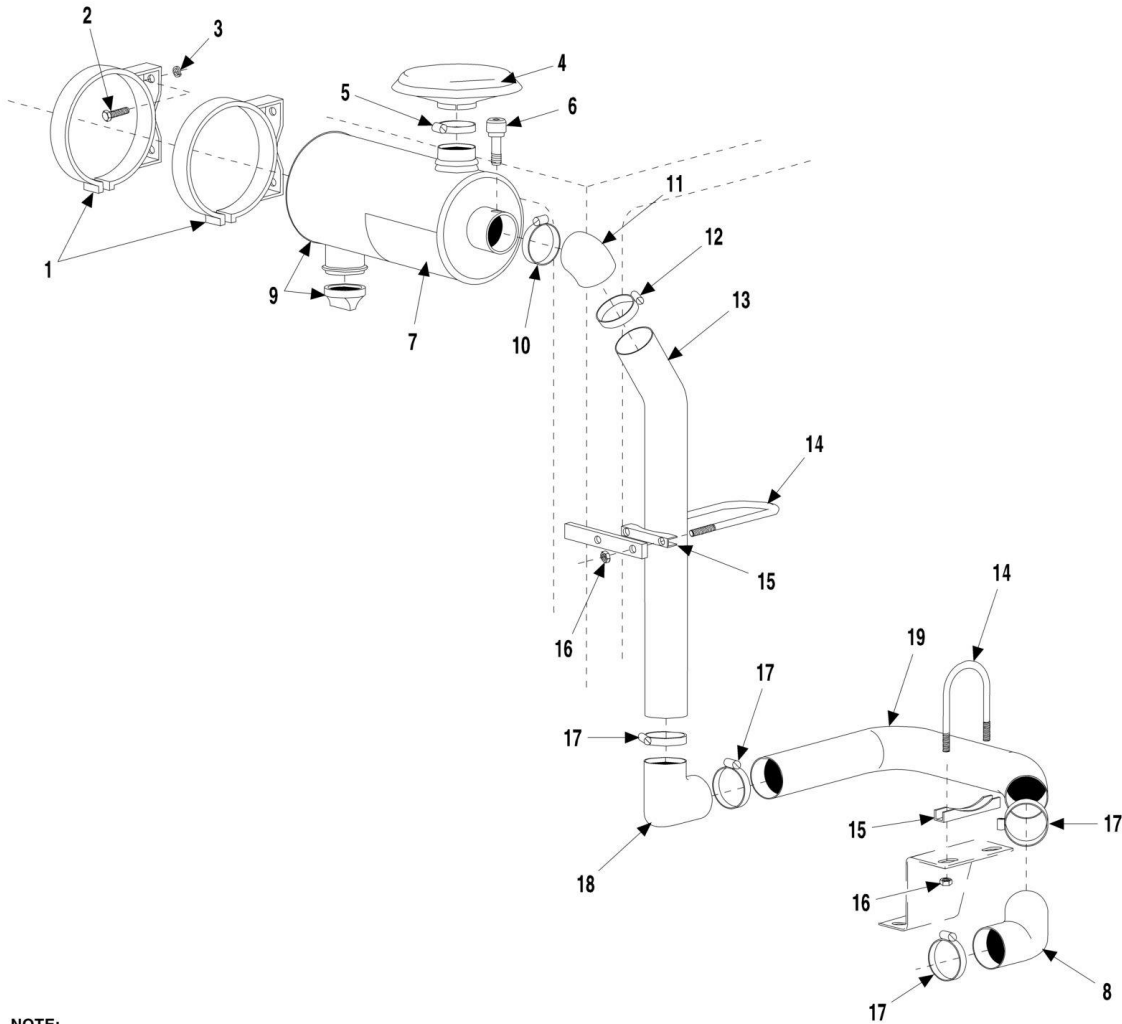
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-23. RADIATOR ASSEMBLY (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001093475	1	RADIATOR ASSY, (includes items 2 thru 5)	D
2	8405201	4	CLAMP	
3	1001093472	1	UPPER RADIATOR HOSE	
4	1001093473	1	LOWER RADIATOR HOSE	
5	1001093474	1	RADIATOR, (includes items 101 thru 106)	D
101	70021584	1	RADIATOR	
102	70021585	1	FAN SHROUD ASSY	
103	70021586	1	CHARGE AIR COOLER	
104	70021587	1	HYDRAULIC COOLER	
105	70021588	2	ELBOW, 90	
106	70023058	1	RADIATOR CAP, 15 PSI	
210	1001092237	1	OVERFLOW BOTTLE, (includes item 401)	
211	1001093476	1	PIPE	
213	1001092238	1	HYDRAULIC HOSE	
214	1001093477	1	PIPE	
216	4341409	4	ISOLATOR	
226	1001114495	3	HUMP HOSE	
227	1001001853	7	BAND CLAMP	
230	2720645	1	REDUCER	
231	4761600	4	LOCKWASHER	
232	3271601	4	HEX NUT, 3/8-16	
255	2720058	AR	HOSE	
256	1320022	3	BAND CLAMP	
266	0681606	4	HEX HD CAPSCREW, 3/8-16X3/4, GR8	
269	4751800	4	WASHER, 1/2	
271	0641820	2	HEX HD CAPSCREW, 1/2-13X2-1/2, GR5	
272	0641822	2	HEX HD CAPSCREW, 1/2-13X2-3/4, GR5	
282	91163129	1	BAND CLAMP	
401	70023457	1	CAP, OVERFLOW BOTTLE	
508	1001104987	1	RH RADIATOR MOUNT	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-24. AIR CLEANER PIPING (SN 0355001 through 0355579)



NOTE:

IF YOUR 544D TURBO MACHINE IS EQUIPED WITH METAL AIR CLEANSER & TUBING SHOWN ON THIS PAGE, IT IS RECOMMENDED TO REPLACE IT WITH RETRO FIT KIT (91345042) SHOWN ON AIR CLEANER PIPING FOR BREAKDOWN.

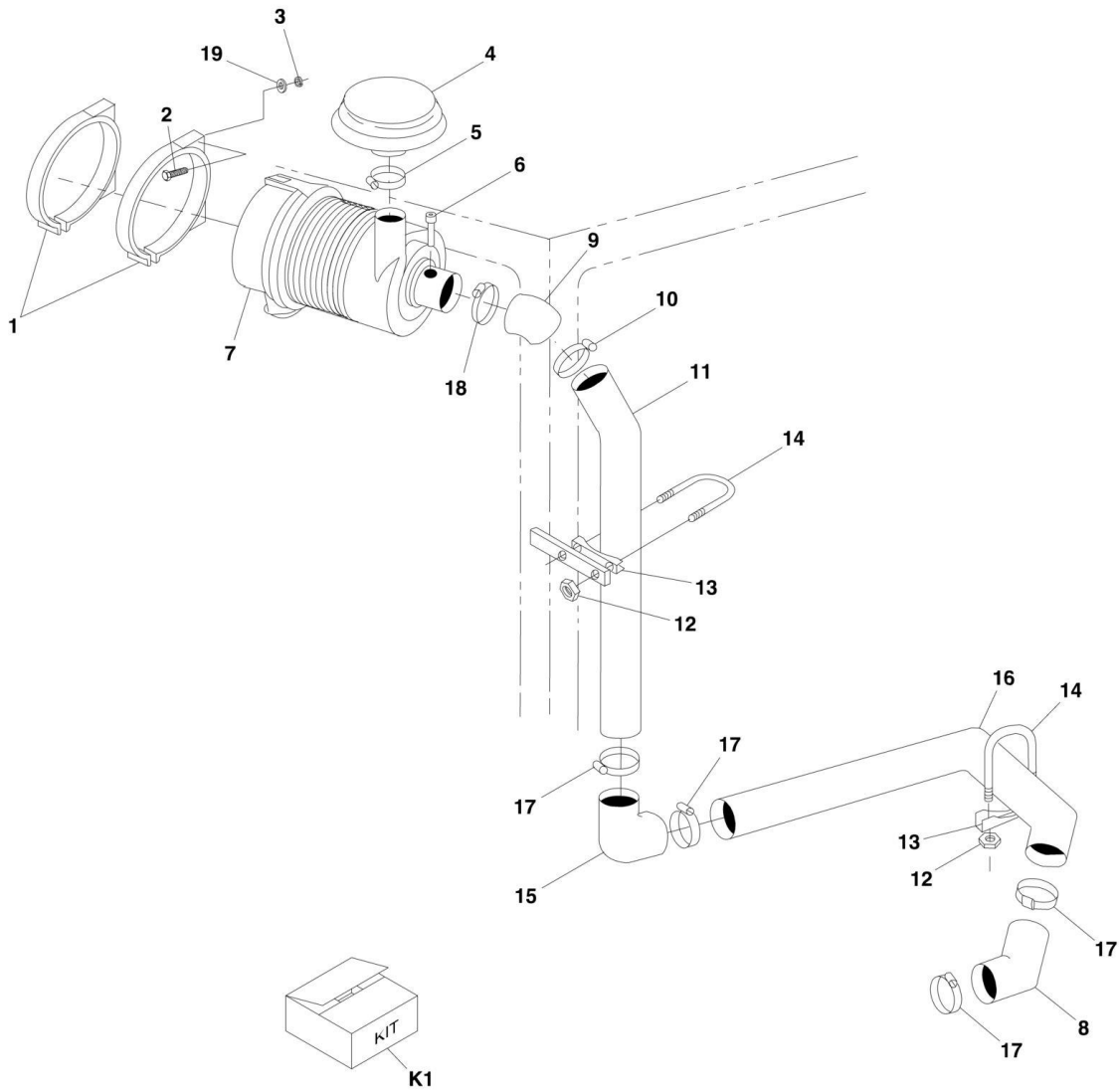
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-24. AIR CLEANER PIPING (SN 0355001 through 0355579)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91155014	1	AIR CLEANER ASSY, (includes items 1, 4 thru 7 & 9 thru 11)	
1	86981533	2	MOUNTING BAND	
2	88201033	4	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
3	88551011	4	LOCKWASHER, 3/8 IN	
4	8273257	1	INLET CAP, (includes item 5)	
5	N.S.S.	1	CLAMP	
6	77383154	1	SERVICE INDICATOR	
7	91343015	1	AIR CLEANER DECAL	
8	91153021	1	AIR INTAKE ELBOW	
9		Ref	AIR CLEANER, METAL HOUSING, (See AIR CLEANER for Breakdown)	
10	77383790	1	BAND CLAMP	
11	91153007	1	REDUCING ELBOW	
12	91163137	1	HOSE CLAMP	
13	91143353	1	AIR INTAKE TUBE, (upper)	
14	24921332	2	MUFFLER CLAMP, (includes items 15 & 16)	
15	N.S.S.	2	BRIDGE	
16	N.S.S.	4	NUT	
17	91163129	4	HOSE CLAMP	
18	91083128	1	90, INTAKE ELBOW	
19	91143352	1	LOWER INTAKE TUBE	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-25. AIR CLEANER PIPING (SN 0355580 through 0455362, SN 0160000192 through 0160000973)



PAP19790



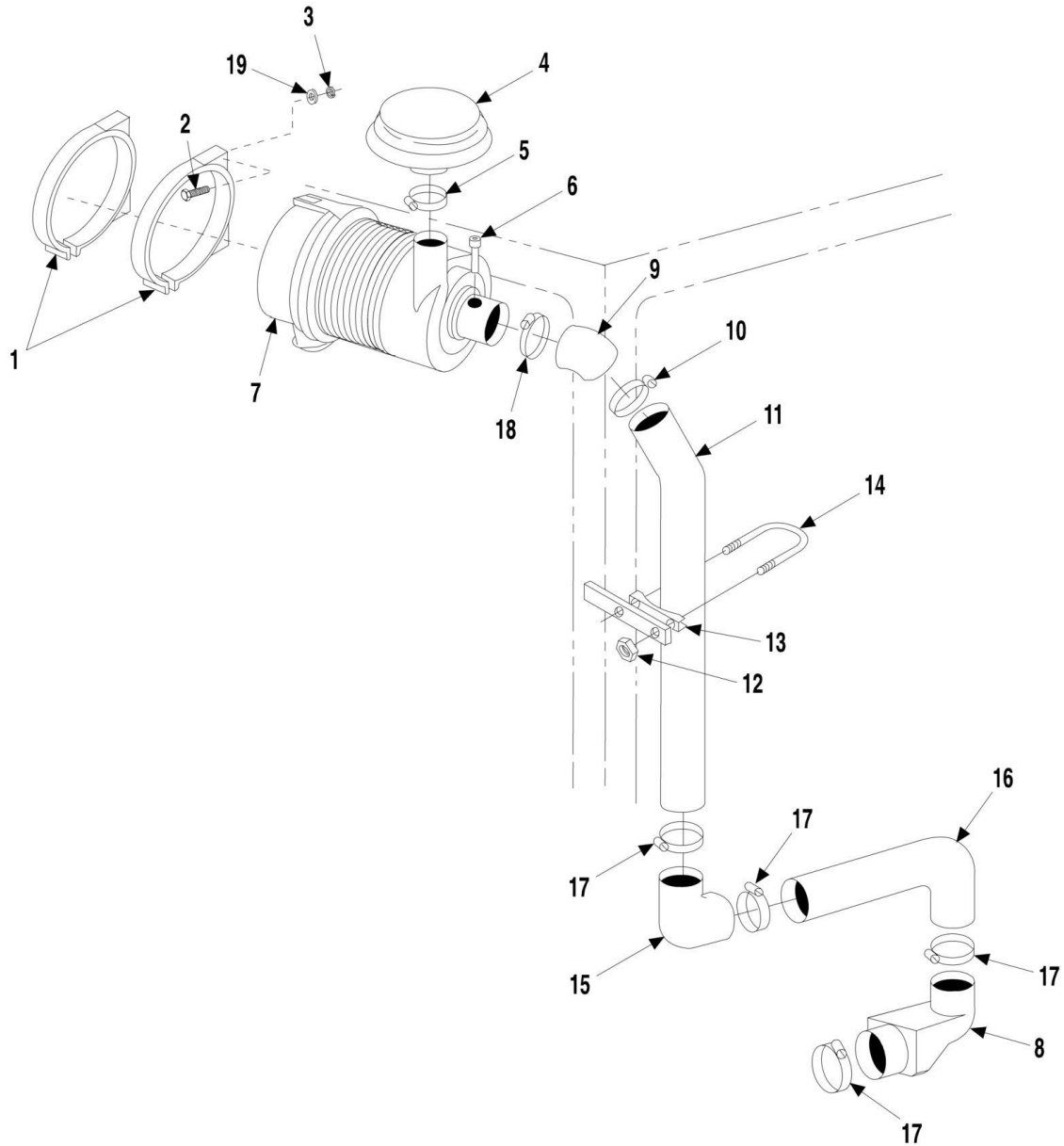
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-25. AIR CLEANER PIPING (SN 0355580 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	10268516	2	MOUNTING BAND	
2	88201021	4	HEX HD CAPSCREW, 5/16 -18X1-1/4, GR5	
3	88551010	4	LOCKWASHER, 5/16	
4	8273257	1	AIR INLET HOOD, (includes item 5)	
5	N.S.S.	1	CLAMP	
6	77383154	1	SERVICE INDICATOR	
7		Ref	9 IN AIR CLEANER, VINYL HOUSING, (See AIR CLEANER for Breakdown)	
8	91153021	1	AIR INTAKE ELBOW	
9	91153007	1	REDUCING ELBOW	
10	91163137	1	HOSE CLAMP	
11	91343023	1	UPPER INTAKE TUBE	
12	N.S.S.	4	NUT	
13	N.S.S.	2	BRIDGE	
14	24921332	2	MUFFLER CLAMP, (includes items 12 & 13)	
15	91083128	1	90, AIR INTAKE ELBOW	
16	91143352	1	LOWER INTAKE TUBE	
17	91163129	4	HOSE CLAMP	
18	77383790	1	BAND CLAMP, (torque to 3 ft lbs)	
19	4751500	4	FLAT WASHER, 5/16	
K1	91345042	1	RETRO FIT KIT, (includes items 1, 2, 3, 4, 6, 9, 11, 18, 19, two of item 17 & the following two items)	
K1	88501005	4	HEX NUT, 5/16-18	
K1	91341028	1	TEMPLATE	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-26. AIR CLEANER PIPING (SN 0160000976 through 0160034720, Including 0160035922)



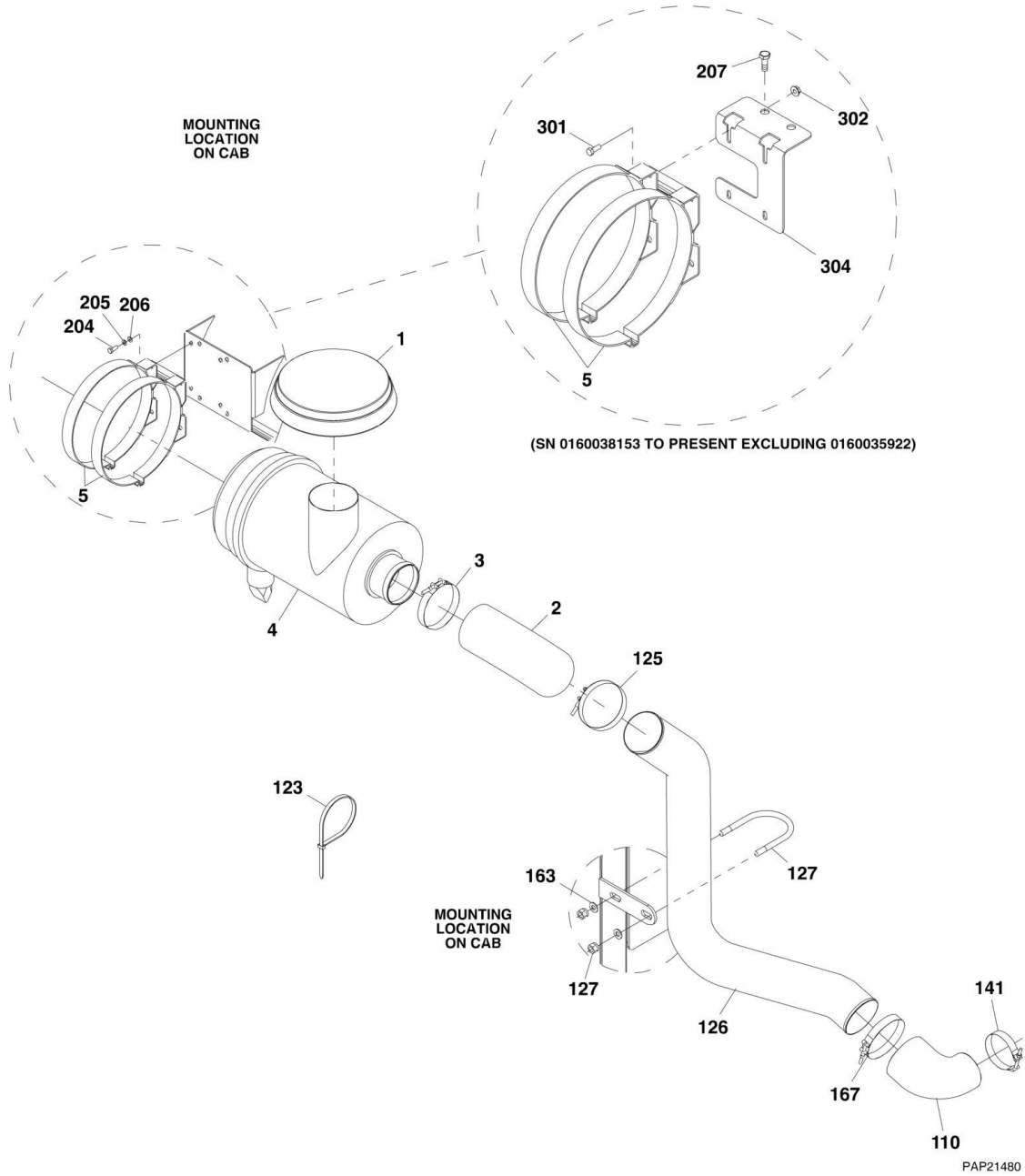
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-26. AIR CLEANER PIPING (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	10268516	2	MOUNTING BAND	
2	88201021	4	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
3	88551010	4	LOCKWASHER, 5/16	
4	8273257	1	AIR INLET HOOD, (includes item 5)	
5	N.S.S.	1	CLAMP	
6	77383154	1	SERVICE INDICATOR	
7		Ref	9 IN AIR CLEANER, VINYL HOUSING, (See AIR CLEANER for Breakdown)	
8	91553001	1	AIR INTAKE ELBOW	
9	91153007	1	REDUCING ELBOW	
10	91163137	1	HOSE CLAMP	
11	91553014	1	UPPER INTAKE TUBE	
12	N.S.S.	2	NUT	
13	N.S.S.	1	BRIDGE	
14	24921332	1	MUFFLER CLAMP, (includes items 12 & 13)	
15	91083128	1	90, AIR INTAKE ELBOW	
16	91553015	1	LOWER INTAKE TUBE	
17	91163129	4	HOSE CLAMP	
18	77383790	1	BAND CLAMP	
19	4751500	4	FLAT WASHER, 5/16	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-27. AIR CLEANER PIPING (SN 0160035037 to Present, Excluding 0160035922)



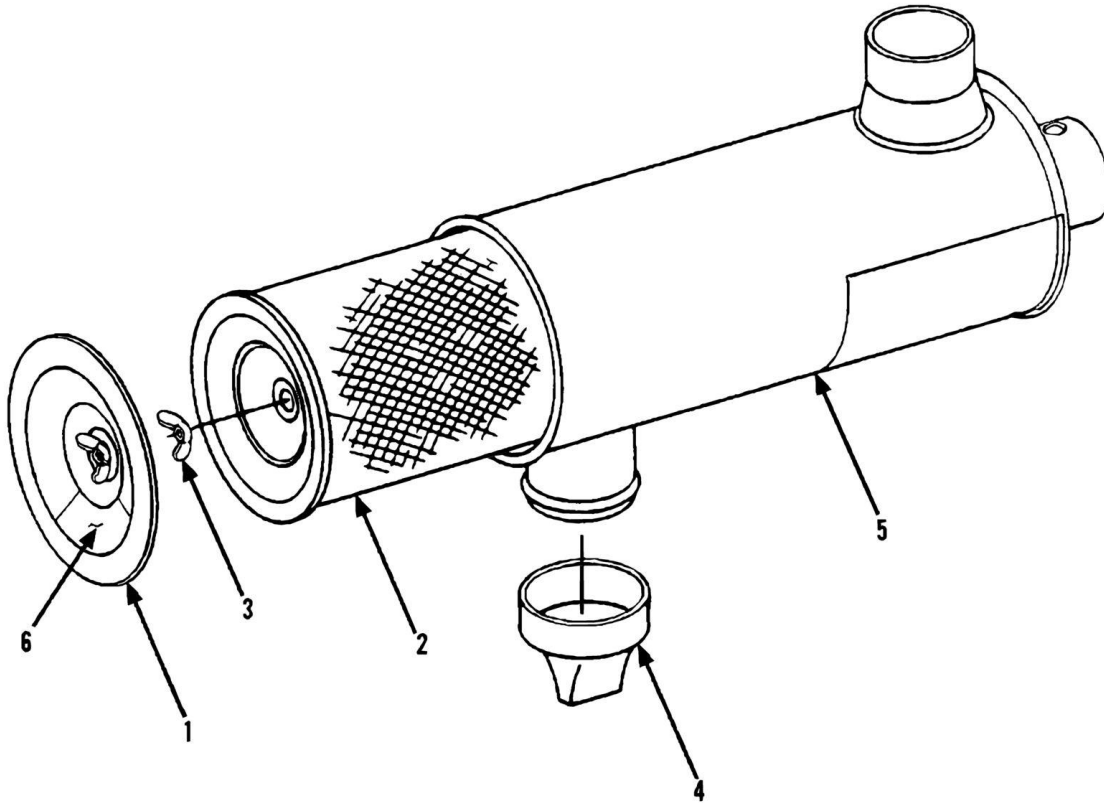
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-27. AIR CLEANER PIPING (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001105241	1	AIR FILTER MOUNTING, 10 IN , (includes items 301 , 302 & 304) <b>(SN 0160038153 to Present, Excluding 0160035922)</b>	A
	1001091071	1	AIR FILTER ASSY, 10 IN, (includes items 1 thru 5)	E
1	8273257	1	AIR INLET HOOD	
2	09523572	1	AIR INTAKE ELBOW, 90	
3	77383790	1	HEAVY DUTY BAND CLAMP	
4		Ref	AIR CLEANER ASSY, (See AIR CLEANER for Breakdown)	
5	1001091069	2	MOUNTING BAND	
110	1001104863	1	INTAKE AIR HOSE	
123	4240018	AR	STRAP CABLE	
125	77383790	1	CLAMP	
126	1001091110	1	INTAKE TUBE	
127	1001104596	1	MUFFLER CLAMP	
141	90028631	1	HEAVY DUTY BAND CLAMP	
163	4711600	2	WASHER, 3/8	
167	80933367	1	HEAVY DUTY BAND CLAMP	
204	88201021	8	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5 <b>(Prior to SN 0160038153, Including 0160035922)</b>	
205	88551010	4	LOCKWASHER, 5/16 <b>(Prior to SN 0160038153, Including 0160035922)</b>	
206	4751500	8	FLAT WASHER, 5/16 <b>(Prior to SN 0160038153, Including 0160035922)</b>	
207	0791606	2	SERRATED HEX HD SCREW, 3/8-16X3/4 <b>(SN 0160038153 to Present, Excluding 0160035922)</b>	
301	0791506	4	SCREW, 5/16-18X3/4, LG	
302	77143006	4	WHIZ-LOCKNUT	
304	1001104436	1	AIR CLEANER SUPPORT BRACKET	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-28. AIR CLEANER (SN 0355001 through 0355579)



**NOTE:**

IF YOUR 544D TURBO MACHINE IS EQUIPED WITH METAL AIR CLEANSER & TUBING SHOWN ON THIS PAGE, IT IS RECOMENDED TO REPLACE IT WITH RETRO FIT KIT (91345042) SHOWN ON AIR CLEANER PIPING FOR BREAKDOWN.

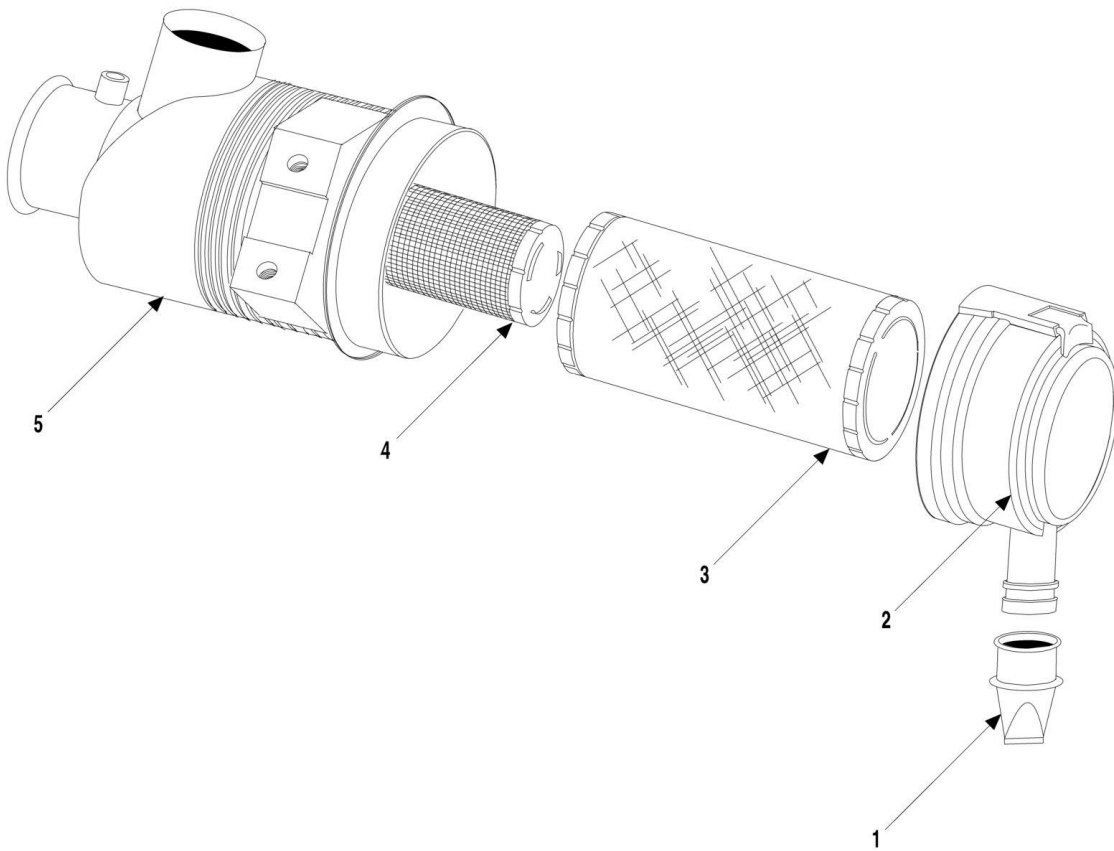
## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-28. AIR CLEANER (SN 0355001 through 0355579)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91153006	1	AIR CLEANER, (includes items 1 thru 5)	
1	91154005	1	COVER WITH NUT	
2	91154001	1	ELEMENT	
3	90201414	1	WING NUT WITH SEAL	
4	90200807	1	VACUATOR	
5	N.S.S.	1	BODY, METAL HOUSING	
6	91363063	1	AIR FILTER DECAL	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-29. AIR CLEANER (SN 035580 through 0455362, SN 0160000192 through 0160034720, Including 0160035922)





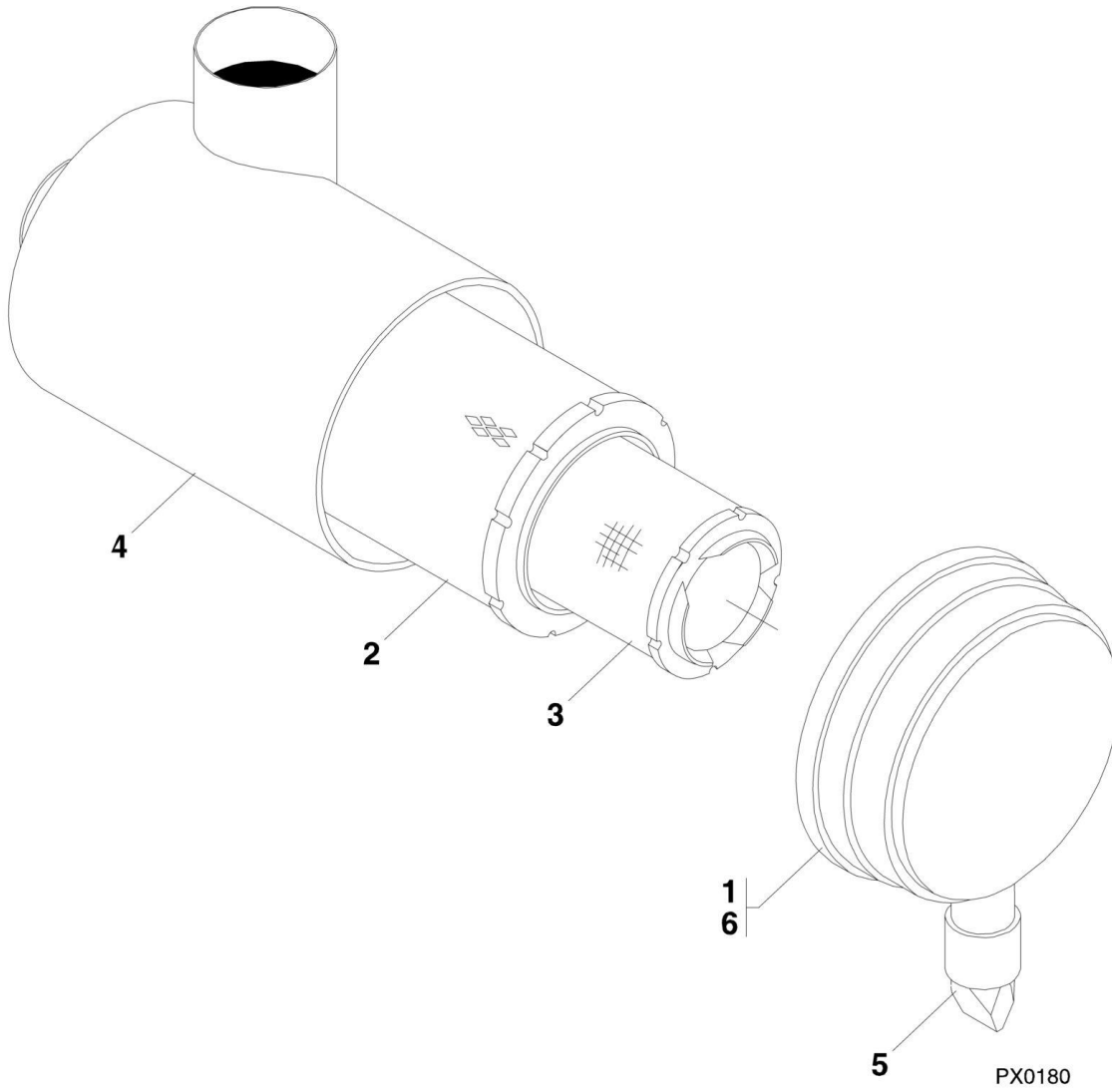
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-29. AIR CLEANER (SN 0355580 through 0455362, SN 0160000192 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	8273029	1	AIR CLEANER, 9 IN, (includes all items)	
1	80373094	1	VACUATOR VALVE	
2	91364023	1	COVER ASSY	
3	1101312	1	FILTER ELEMENT	
4	1101313	1	SAFETY ELEMENT	
5	N.S.S.	1	BODY, VINYL HOUSING	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-30. AIR CLEANER (SN 0160035037 to Present, Excluding 0160035922)



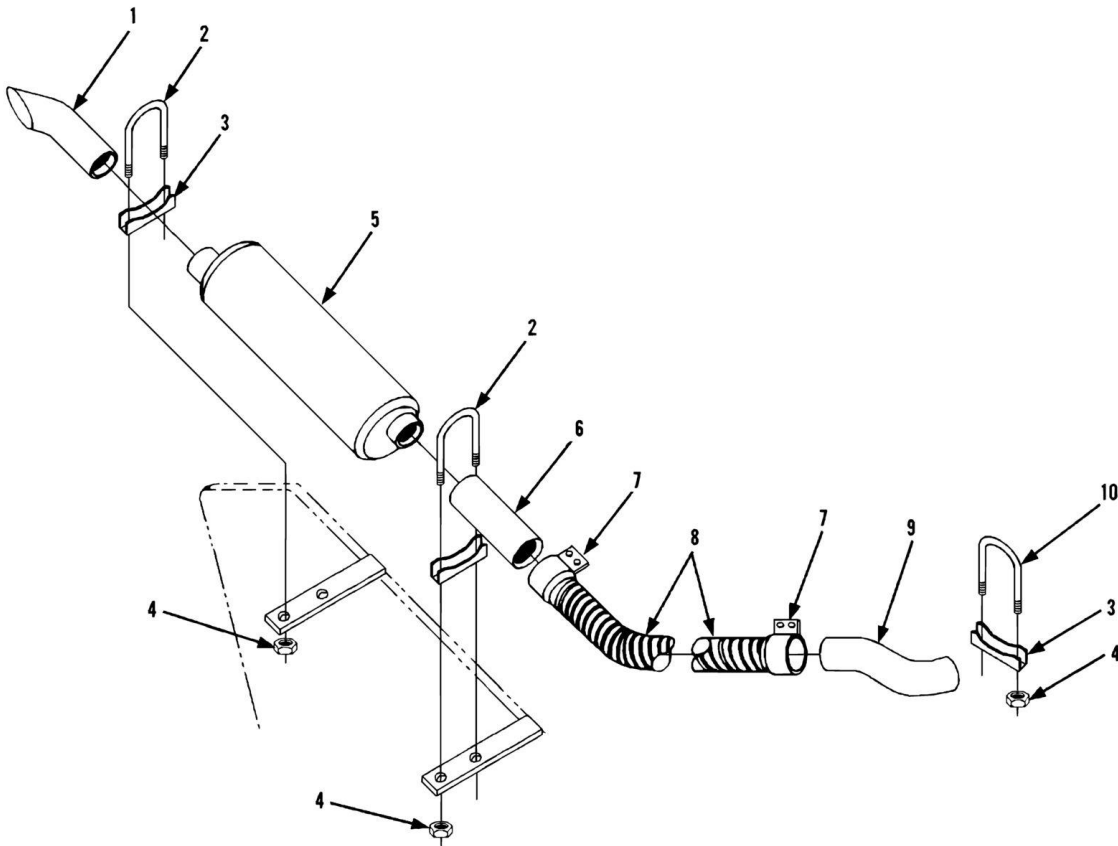
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-30. AIR CLEANER (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001091068	1	AIR CLEANER ASSEMBLY, 10 IN, (includes all items)	A
1	80373090	1	COVER	
2	80373091	1	PRIMARY FILTER	
3	80373092	1	SAFETY FILTER	
4	80373093	1	COVER GASKET	
5	80373094	1	VACUATOR VALVE	
6	80373095	3	LATCH	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-31. EXHAUST SYSTEM (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



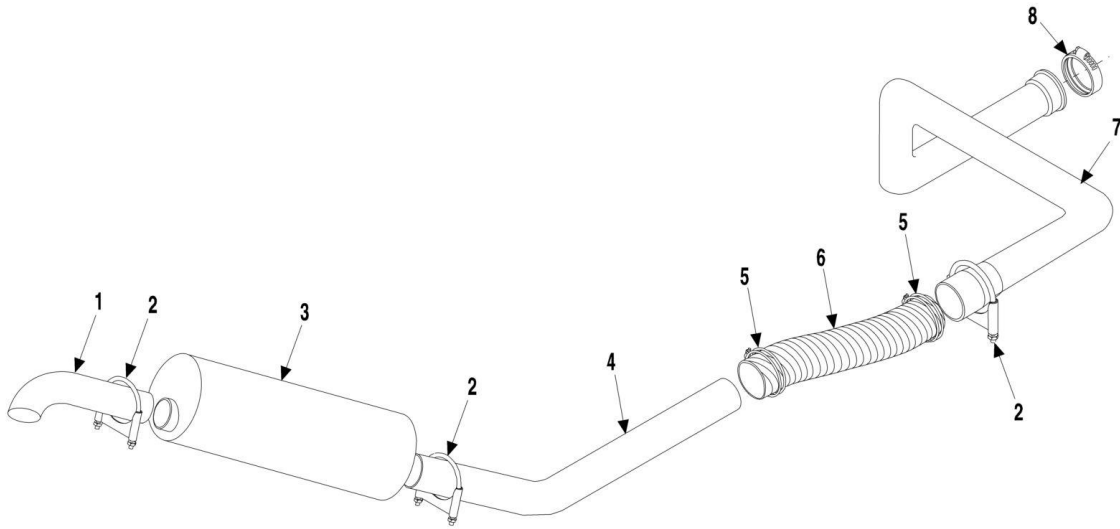
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-31. EXHAUST SYSTEM (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91163189	1	TAIL PIPE	
2	24921332	2	MUFFLER CLAMP, (includes items 3 & 4)	
3	N.S.S.	3	BRIDGE	
4	N.S.S.	6	NUT	
5	91163035	1	MUFFLER	
6	91163234	1	EXHAUST TUBE	
7	91163268	2	CLAMP, (includes hardware)	
8	91043150	1	FLEXIBLE TUBING	
9	91146037	1	EXHAUST TUBE	
10	83683175	1	MUFFLER CLAMP, (includes items 3 & 4)	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-32. EXHAUST SYSTEM (SN 0160000976 through 0160034720, Including 0160035922)



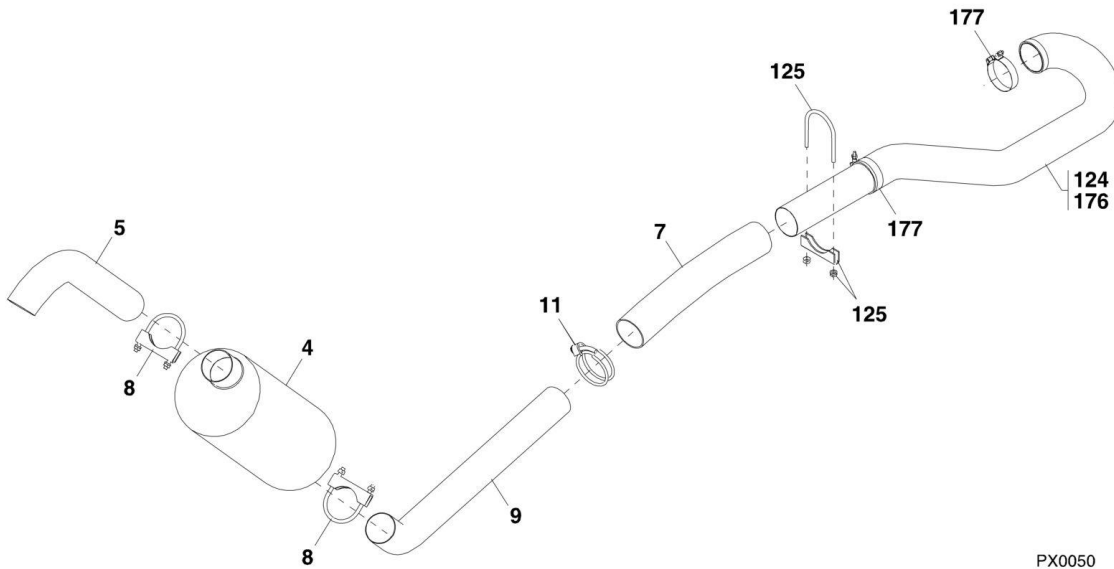
## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-32. EXHAUST SYSTEM (SN 0160000976 through 0160034720, Including 0160035922)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91363201	1	TAIL PIPE	
2	24921332	3	MUFFLER CLAMP	
3	91163035	1	MUFFLER	
4	91553017	1	EXHAUST TUBE	
5	91403601	2	FLEX PIPE CLAMP	
6	91413030	1	FLEXIBLE TUBING	
7	91553060	1	EXHAUST TUBE	
8	91403216	1	V-BAND CLAMP	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-33. EXHAUST SYSTEM (SN 0160035037 to Present, Excluding 0160035922)



PX0050



## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-33. EXHAUST SYSTEM (SN 0160035037 to Present, Excluding 0160035922)

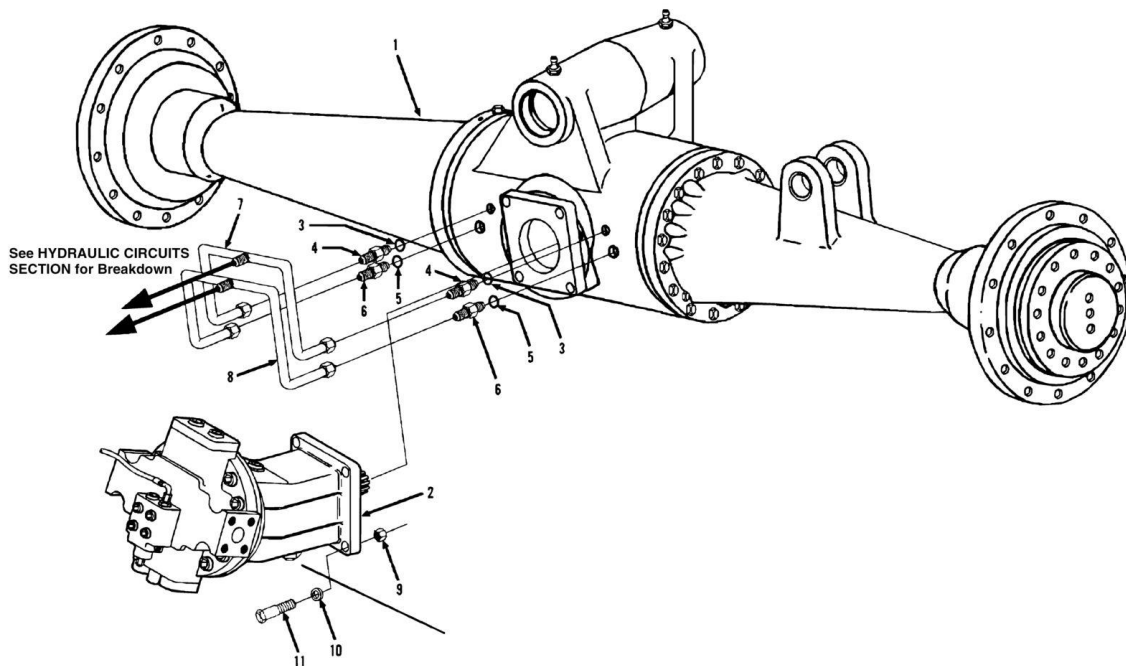
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
4	91163035	1	MUFFLER	
5	91363201	1	TAIL PIPE	
7	91413030	1	FLEXIBLE TUBING	
8	8275247	2	MUFFLER CLAMP	
9	91553017	1	EXHAUST TUBE	
11	91403601	1	PIPE CLAMP	
124	1001091104	1	EXHAUST TUBE	
125	8275247	1	MUFFLER CLAMP	
176	4100109	36 in	FIBERGLASS SLEEVE	
177	90028488	2	CLAMP	



**SECTION 5 - DRIVE TRAIN**

# SECTION 5 - DRIVE TRAIN

FIGURE 5-1. FRONT AXLE ASSEMBLY - ROCKWELL (SN 0355001 through 0455362)



See HYDRAULIC CIRCUITS SECTION for Breakdown

NOTE:

REMOVE METAL PLUG FROM TOP PORT & INSTALL IN BOTTOM PORT.

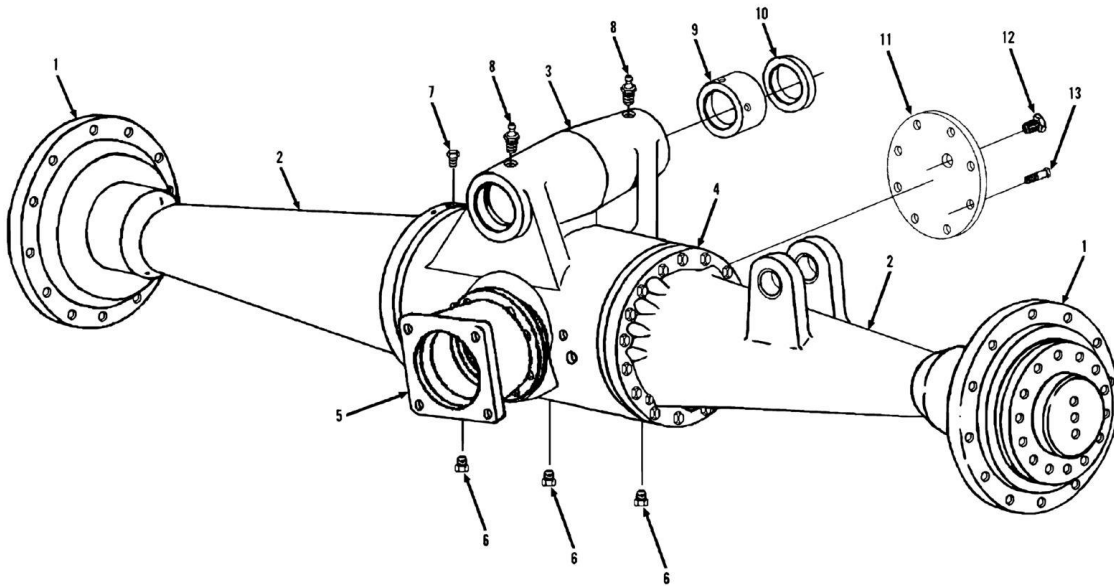
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-1. FRONT AXLE ASSEMBLY - ROCKWELL (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165004	1	FRONT AXLE ASSY, (includes all items)	
1		Ref	FRONT AXLE, (See FRONT AXLE – ROCKWELL for Breakdown)	
2		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88591205	2	O-RING	
4	2220373	2	CONNECTOR, (includes item 3)	
5	88591204	2	O-RING	
6	2220371	2	CONNECTOR, (includes item 5)	
7	91123130	1	PARK BRAKE TUBE LINE	
8	91123127	1	SERVICE BRAKE TUBE LINE	
9	77383580	4	HIGH NUT, 3/4-16	
10	90027473	4	HARD WASHER, 3/4	
11	88201616	4	HEX HD CAPSCREW, 3/4-16X3-1/2, GR5, (torque to 265-290 lb-ft)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-2. FRONT AXLE - ROCKWELL (SN 0355001 through 0455362)



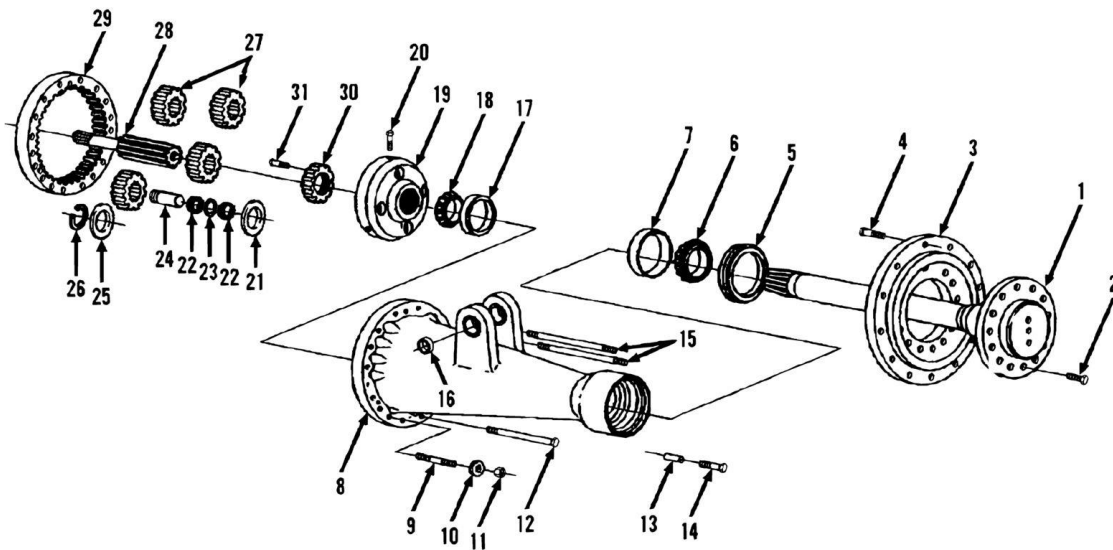
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-2. FRONT AXLE - ROCKWELL (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91163015	1	FRONT AXLE, (includes all items)	
		Ref	WHEEL FLANGE ASSY, (See LEFT/RIGHT HOUSING AND AXLE SHAFT AND WHEEL FLANGE ASSEMBLY – ROCKWELL for Breakdown)	
2		Ref	LEFT AND RIGHT HOUSING ASSY, (See LEFT/RIGHT HOUSING AND AXLE SHAFT AND WHEEL FLANGE ASSEMBLY – ROCKWELL for Breakdown)	
3	91144326	1	CENTER HOUSING ASSY, (includes item 9)	
4		Ref	BRAKE ASSY, (See BRAKE ASSEMBLY – ROCKWELL for Breakdown)	
5		Ref	CARRIER ASSY, (See CARRIER ASSEMBLY – ROCKWELL for Breakdown)	
6	91144327	3	DRAIN PLUG	
7	91144328	1	VENT PLUG	
8	91144329	2	LUBE FITTING	
9	91084046	2	BUSHING	
10	91084047	2	TRUNNION OIL SEAL	
11	91141511	1	COVER	
12	88711281	1	LEVEL PLUG	
13	91144332	8	CAPSCREW, M8X1.25X16.0	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-3. LEFT/RIGHT HOUSING AND AXLE SHAFT AND WHEEL FLANGE ASSEMBLY - ROCKWELL (SN 0355001 through 0455362)





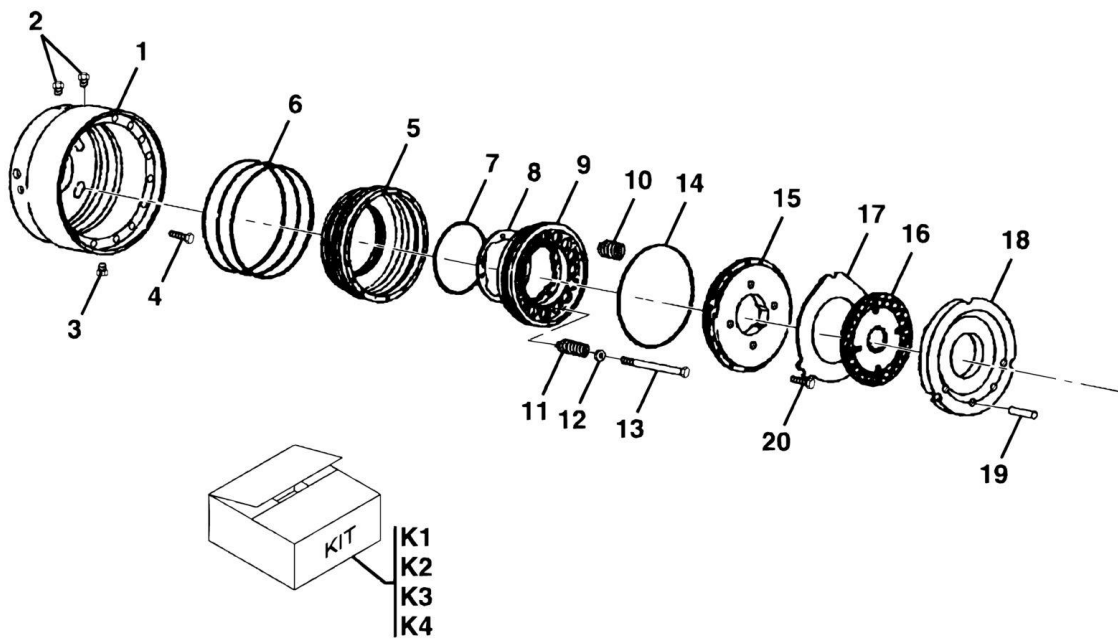
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-3. LEFT/RIGHT HOUSING AND AXLE SHAFT AND WHEEL FLANGE ASSEMBLY -  
ROCKWELL (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91144333	2	AXLE SHAFT ASSY, (includes items 2 thru 5)	
2	91144334	28	CAPSCREW, M20X1.5X50.0	
3	91144335	2	WHEEL FLANGE ASSY, (includes item 4)	
4	90203543	24	WHEEL BOLT	
5	91144336	2	SHAFT OIL SEAL	
6	86984451	2	BEARING CONE	
7	86984452	2	BEARING CUP	
8	91144337	1	HOUSING ASSY, RIGHT SIDE, (shown), (includes qty 1 of item 7 & 16)	
8	91144339	1	HOUSING ASSY - LEFT SIDE, (not shown), (includes qty 1 of item 7)	
9	91144341	4	SET SCREW	
10	91144342	32	WASHER	
11	91144343	8	NUT, M14X1.5-6H	
12	91144344	14	CAPSCREW - RIGHT SIDE, M14X1.5X212	
12	91144345	14	CAPSCREW - LEFT SIDE, M14X1.5X120	
13	91144346	3	SPACER - RIGHT SIDE	
13	91144347	3	SPACER - LEFT SIDE	
14	91144348	3	CAPSCREW - RIGHT SIDE, M14X1.5X85	
14	91144349	3	CAPSCREW - LEFT SIDE, M14X1.5X78	
15	91144350	4	STUD - RIGHT SIDE, M14X1.5X232	
15	91144351	2	STUD - LEFT SIDE, M14X1.5X112	
16	91144352	2	BUSHING	
17	91144353	2	BEARING CUP	
18	91144354	2	BEARING CONE	
19	91164008	2	SPIDER ASSY, (includes items 20 & 24)	
20	91144356	8	CAPSCREW, M10X23	
21	91144357	8	THRUSTWASHER	
22	91144358	8	KIT ROLLER	
23	91144359	8	SPACER	
24	91144360	8	PLANETARY PINION SHAFT	
25	91144361	8	WASHER	
26	91144362	8	SNAP RING	
27	91144363	8	PLANETARY PINION	
28	91144364	1	SUN GEAR, (287mm) - RIGHT SIDE, (shown)	
28	91144365	1	SUN GEAR, (247mm) - LEFT SIDE, (not shown)	
29	91144366	2	RING GEAR	
30	91144367	2	ADJUSTING NUT	
31	91144368	2	CAPSCREW, (adjusting nut lock)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-4. BRAKE ASSEMBLY - ROCKWELL (SN 0355001 through 0455362)



PAP19800

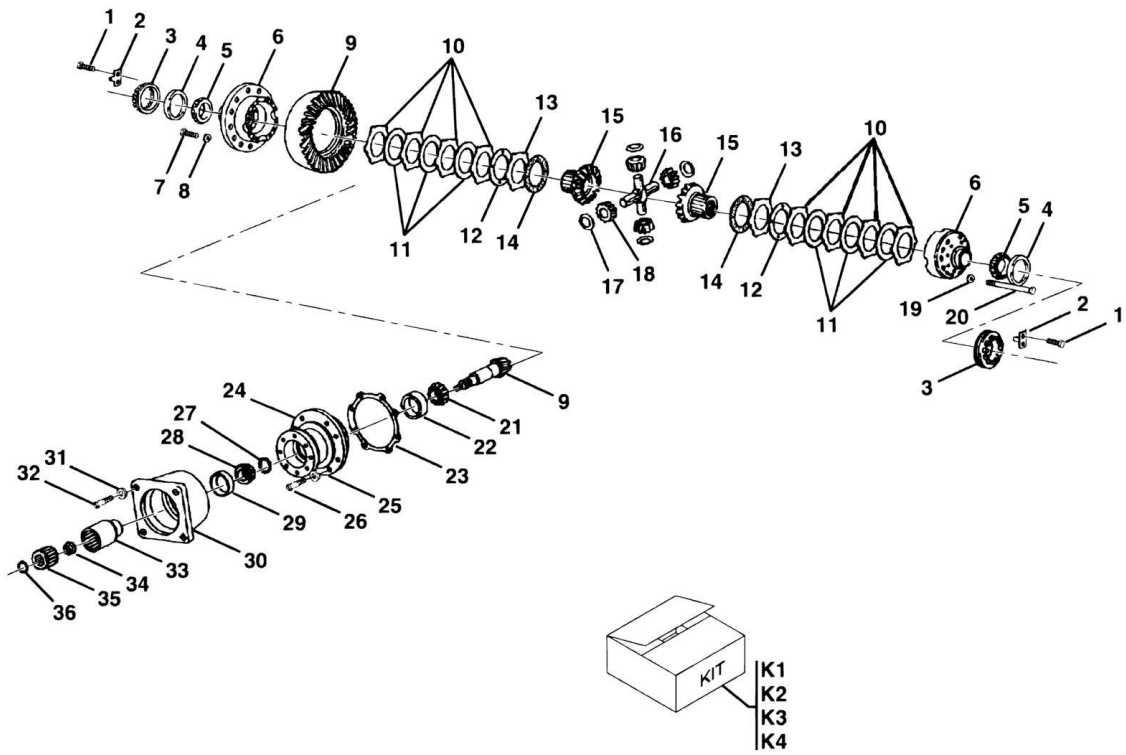
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-4. BRAKE ASSEMBLY - ROCKWELL (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91144372	1	BRAKE HOUSING, (right side only - left side included in center housing)	
2	91144373	4	HYDRAULIC LINE BLEEDER	
3		Ref	DRAIN PLUG, (See FRONT AXLE – ROCKWELL for Breakdown)	
4	91144374	3	CAPSCREW - RIGHT SIDE ONLY, M8X1.25X40	
5	91144375	2	BRAKE PISTON AND PLATE ASSY, (includes items 6, 7, 9, 10, 14, 15 & 20)	
6	91124110	6	O-RING	
7	91124111	2	O-RING	
8	Kit	8	SHIM, (0.075)	
8	Kit	8	SHIM, (0.125)	
8	Kit	8	SHIM, (0.255)	
8	Kit	8	SHIM, (0.555)	
9	91144376	2	BRAKE PISTON	
10	91144377	32	SPRING	
11	91144378	16	SPRING	
12	86881421	16	WASHER	
13	91144379	16	RETURN SPRING BOLT	
14	91124112	2	O-RING	
15	Kit	2	BRAKE ACTUATING PLATE	
16	Kit	10	FRICITION DISC	
17	Kit	10	STATIONARY DISC	
18	70022875	2	BRAKE REACTION PLATE	
19	91144380	6	BRAKE DISC LOCKPIN	
20	91144381	42	CAPSCREW, M6X1X12, (allen)	
K1	91144442	Ref	BRAKE SEAL KIT, (includes items 6, 7 & 14), (services both sides)	
K2	91164081	Ref	BRAKE PISTON PLATE KIT, (includes items 15 thru 18), (services one side)	
K3	91164082	Ref	BRAKE PLATE AND SEAL KIT, (includes items 6, 7 & 14 thru 17), (services one side)	
K4	91144371	Ref	PISTON BRAKE SHIM KIT, (includes item 8), (services one side)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-5. CARRIER ASSEMBLY - ROCKWELL (SN 0355001 through 0455362)



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## SECTION 5 - DRIVE TRAIN

**FIGURE 5-5. CARRIER ASSEMBLY - ROCKWELL (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91144386	4	CAPSCREW	
2	91144387	2	ADJUSTER RING LOCK	
3	91144388	2	ADJUSTER RING	
4	83073828	2	BEARING CUP	
5	91144389	2	BEARING CONE	
6	91144390	1	DIFFERENTIAL CASE	
7	91144391	12	CAPSCREW, M10X1X30	
8	83483584	12	WASHER	
9	91144392	1	SPIRAL GEAR AND PINION	
10	Kit	8	DRIVE FRICTION DISC, (included in 91144382 kit)	
11	Kit	6	DRIVEN FRICTION DISC, (included 91144382 kit)	
12	Kit	2	SHIM, (0.33), (included in shim kit)	
12	Kit	2	SHIM, (0.38), (included in shim kit)	
12	Kit	2	SHIM, (0.25), (included in shim kit)	
12	Kit	2	SHIM, (0.13), (included in shim kit)	
13	Kit	2	COMPRESSION DISC, (included in 91144382 kit)	
14	Kit	2	THRUST WASHER, (included in 91144382 kit)	
15	91144393	2	SIDE GEAR	
16	91144394	1	SPIDER	
17	91144395	4	THRUST WASHER	
18	91144396	4	PINION GEAR	
19	83483584	12	WASHER	
20	91144397	12	CAPSCREW, M10X1.5X80	
21	90207204	1	BEARING CONE	
22	90200440	1	BEARING CUP	
23	Kit	4	SHIM, (0.05), (included in shim kit)	
23	Kit	2	SHIM, (0.125), (included in shim kit)	
23	Kit	3	SHIM, (0.20), (included in shim kit)	
23	Kit	1	SHIM, (0.50), (included in shim kit)	
24	91144398	1	PINION CAGE ASSY, (includes items 22 & 29)	
25	91144399	8	WASHER	
26	91144400	8	CAPSCREW, M12X1.75X40	
27	Kit	1	SHIM, (1.20), (included in shim kit)	
27	Kit	1	SHIM, (1.25), (included in shim kit)	
27	Kit	1	SHIM, (1.30), (included in shim kit)	
27	Kit	1	SHIM, (1.35), (included in shim kit)	
27	Kit	1	SHIM, (1.40), (included in shim kit)	
27	Kit	1	SHIM, (1.45), (included in shim kit)	
27	Kit	1	SHIM, (1.50), (included in shim kit)	
28	91144401	1	BEARING CONE	
29	91144402	1	BEARING CUP	
30	91144403	1	MOTOR ADAPTER FLANGE	
31	83483584	8	WASHER	
32	91144404	8	CAPSCREW, 0.3750-16UNC-2AX1.25	
33	91144405	1	DRIVEN SLEEVE	
34	91144406	1	PINION NUT, M24X1.5	
35	91144407	1	DRIVE SLEEVE	
36	91144408	1	SNAP RING	
K1	91144382	1	LIMITED SLIP PLATE STACK KIT, (includes items 10 thru 14)	
K2	91144383	1	PINION CAGE SHIM KIT, (includes item 23)	

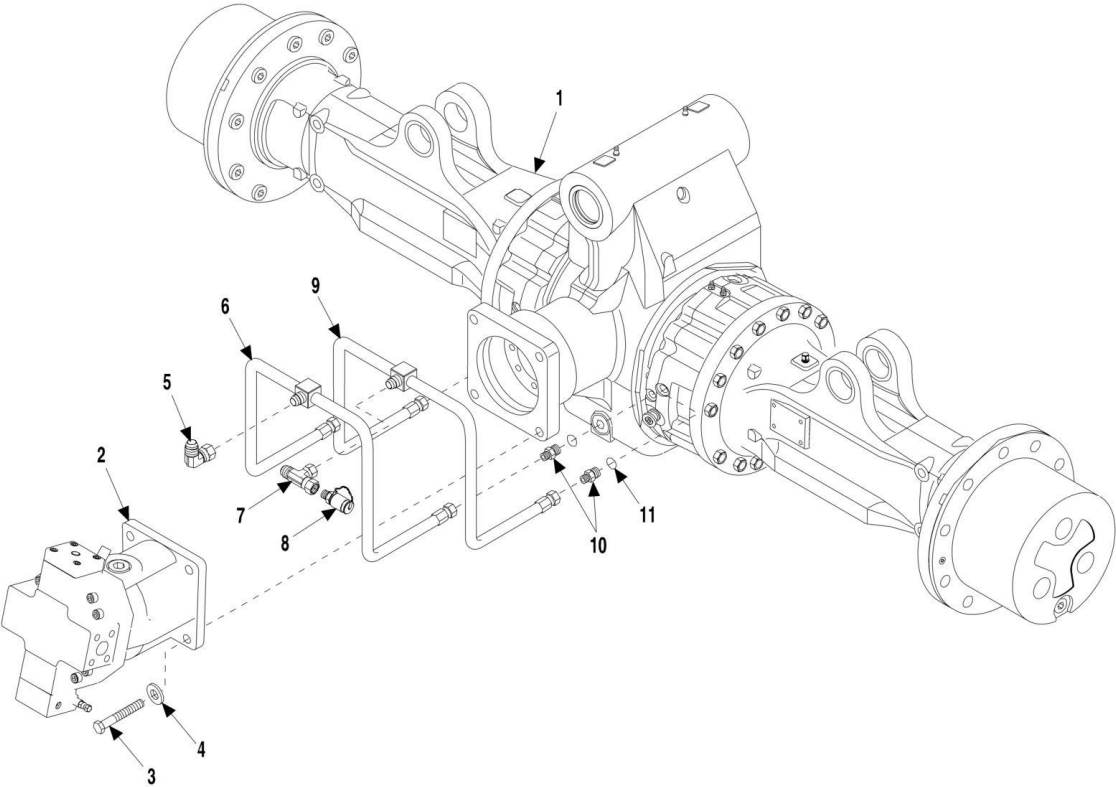
## SECTION 5 - DRIVE TRAIN

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
K3	91144384	1	DRIVE PINION SHIM KIT, (includes item 27)	
K4	91144385	1	LIMITED SLIP SHIM KIT, (includes item 12)	



**SECTION 5 - DRIVE TRAIN**

**FIGURE 5-6. FRONT AXLE ASSEMBLY - CARRARO (SN 0160000192 to Present)**





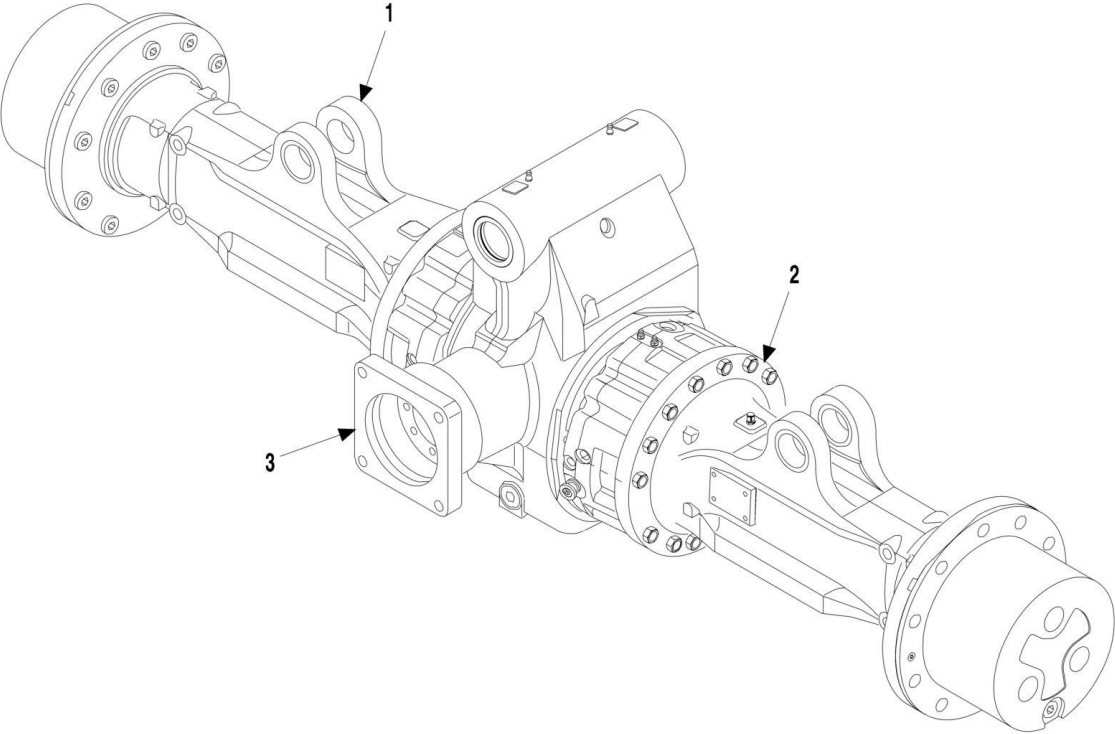
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-6. FRONT AXLE ASSEMBLY - CARRARO (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555006	1	FRONT AXLE ASSY, (includes all items)	B
1		Ref	FRONT AXLE, (See FRONT AXLE – CARRARO for Breakdown)	
2		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	80333162	4	HEX HD CAPSCREW, M20-2.5X65	
4	90027473	4	HARD WASHER, 3/4	
5	2220654	1	ELBOW, 90, (swivel nut)	
6	91343220	1	PARK BRAKE TUBE LINE	
7	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
8	91143172	1	TEST FITTING	
9	91343219	1	SERVICE BRAKE TUBE LINE	
10	91413114	4	ADAPTER, (includes item 11)	
11	88591202	4	O-RING	

**SECTION 5 - DRIVE TRAIN**

**FIGURE 5-7. FRONT AXLE - CARRARO (SN 0160000192 to Present)**



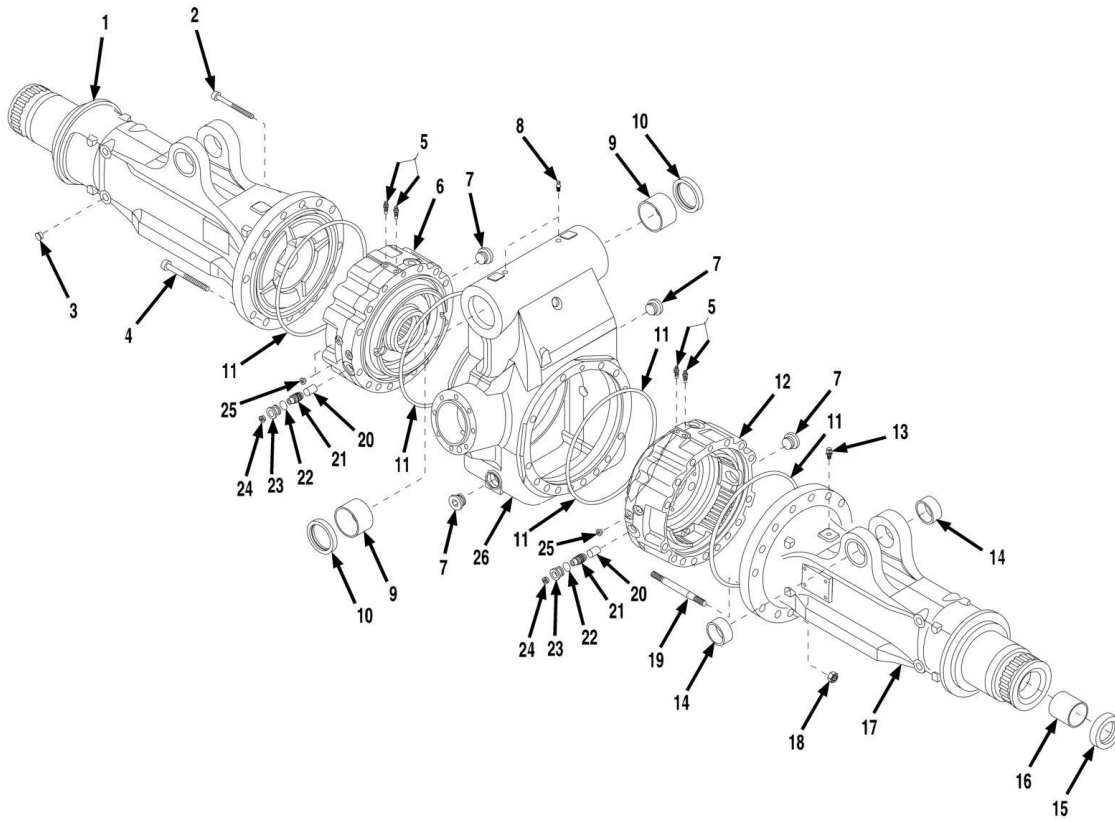
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-7. FRONT AXLE - CARRARO (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91363158	1	FRONT AXLE, (includes all items)	A
		Ref	HOUSING ASSY, (See AXLE HOUSING ASSEMBLY – CARRARO for Breakdown)	
2		Ref	BRAKE ASSY, (See BRAKE ASSEMBLY – CARRARO for Breakdown)	
3		Ref	CARRIER ASSY, (See CARRIER ASSEMBLY – CARRARO for Breakdown)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-8. AXLE HOUSING ASSEMBLY - CARRARO (SN 0160000192 to Present)



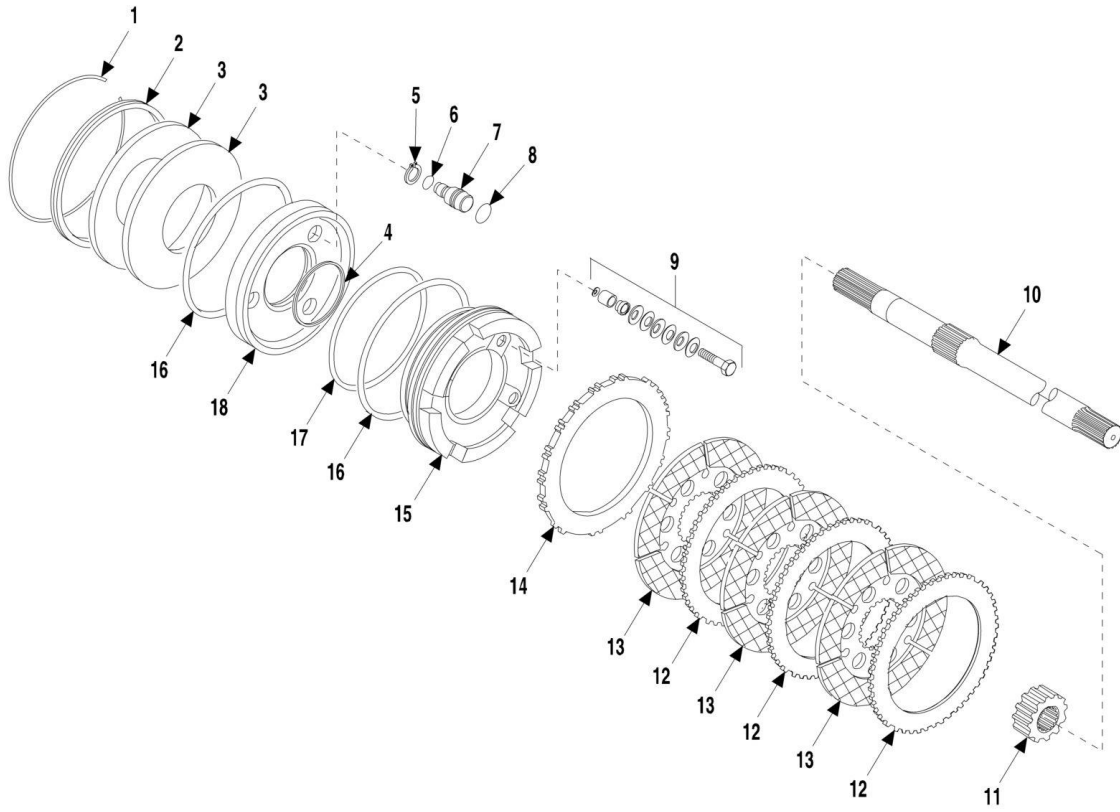
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-8. AXLE HOUSING ASSEMBLY - CARRARO (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91364026	1	AXLE HOUSING, LH	
2	91364027	2	CAPSCREW, M12X130	
3	91474098	8	PLUG	
4	91364028	28	CAPSCREW, M16X160	
5	91474039	4	BREATHER, M10X1	
6	91364029	1	BRAKE HOUSING, LH	
7	91474037	4	PLUG, M30X2	
8	91474095	2	GREASE FITTING	
9	91364030	2	BUSHING	
10	91364031	2	SEAL RING	
11	91364032	4	O-RING	
12	91364033	1	BRAKE HOUSING, RH	
13	91474058	1	BREATHER, M10X1	
14	91364034	2	BUSHING	
15	91364035	2	SEAL RING	
16	91364036	2	BUSHING	
17	91364037	1	AXLE HOUSING, RH	
18	91474061	2	NUT, M16X2	
19	91474060	2	STUD, M16X2	
20	91364038	6	RELEASE PIN	
21	91474066	6	BOLT, M16X1.5	
22	91474065	6	O-RING	
23	91474064	6	SCREW, M22X1.5	
24	91474075	6	PLUG, M16X1.5	
25	91364039	4	PLUG, M10X1	
26	91364040	1	CENTRAL BODY	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-9. BRAKE ASSEMBLY - CARRARO (SN 0160000192 to Present)



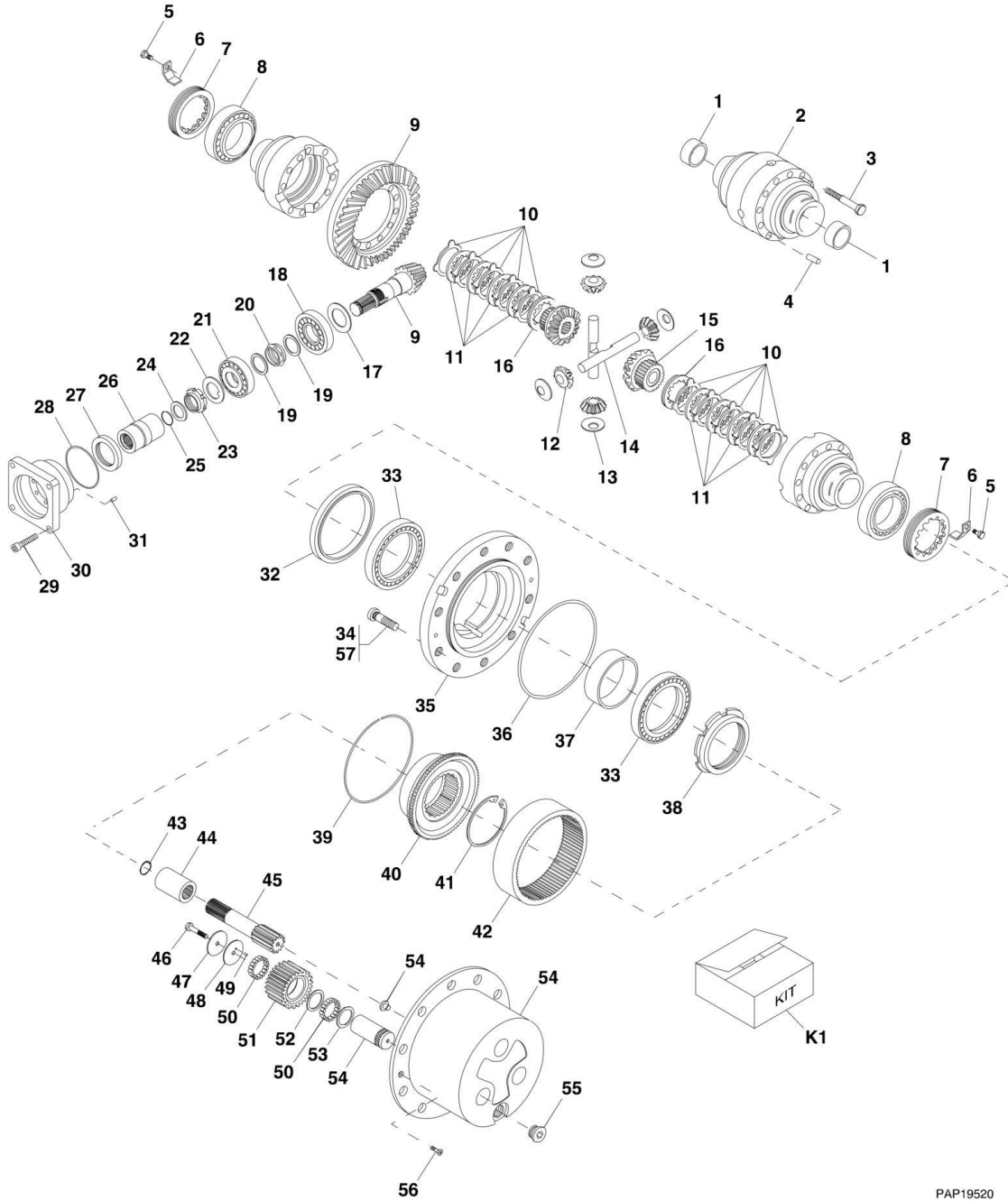
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-9. BRAKE ASSEMBLY - CARRARO (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474143	2	RING	
2	91474144	2	SLEEVE	
3	91474145	4	WASHER	
4	91474147	2	O-RING	
5	91364041	6	SNAP RING	
6	91474149	6	O-RING	
7	91364042	6	PIN	
8	91474151	6	O-RING	
9	91364043	2	SELF-ADJUST KIT, (includes the following)	
9	N.S.S.	36	WASHER	
9	N.S.S.	6	WASHER	
9	N.S.S.	6	PIN	
9	N.S.S.	6	BOLT, M14X65	
9	N.S.S.	6	SPACER	
10	91364044	2	HALF SHAFT	
11	91474142	2	SLEEVE	
12	91474141	6	DRIVE PLATE	
13	91474140	6	BRAKE DISK	
14	91474139	2	DRIVE PLATE	
15	91364045	2	BRAKE PISTON	
16	91474137	4	O-RING	
17	91474136	2	O-RING	
18	91474146	2	BRAKE PISTON	

# SECTION 5 - DRIVE TRAIN

## FIGURE 5-10. CARRIER ASSEMBLY - CARRARO (SN 0160000192 to Present)



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## SECTION 5 - DRIVE TRAIN

**FIGURE 5-10. CARRIER ASSEMBLY - CARRARO (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91364046	2	BUSHING	
2	91364047	1	DIFFERENTIAL HOUSING	
3	91364048	10	BOLT, M12X90	
4	91364049	1	PIN	
5	8035180	2	BOLT, M6X10	
6	91474126	2	LOCKING PLATE	
7	91364050	2	BEARING	
8	91474128	2	RING NUT, M104X2	
9	91364051	1	SPIRAL GEAR AND PINION, (includes items 19, 20 & 22 thru 25)	
10	91364052	10	DIFFERENTIAL DRIVE DISC	
11	91364053	8	DIFFERENTIAL DISC	
12	Kit	4	GEAR, Z12	
13	91364054	4	THRUST WASHER	
14	91364055	2	SHAFT	
15	Kit	2	GEAR, Z18	
16	91364056	2	DIFFERENTIAL DISC	
17	91364057	AR	SHIM, 2.50mm	
17	91364058	AR	SHIM, 2.60mm	
17	91364059	AR	SHIM, 2.70mm	
17	91364060	AR	SHIM, 2.80mm	
17	91364061	AR	SHIM, 2.90mm	
17	91364062	AR	SHIM, 3.00mm	
17	91364063	AR	SHIM, 3.10mm	
17	91364064	AR	SHIM, 3.20mm	
17	91364065	AR	SHIM, 3.30mm	
17	91364066	AR	SHIM, 3.40mm	
18	91364067	1	BEARING	
19	91364068	2	WASHER	
20	91364069	1	SPACER	
21	91364070	1	BEARING	
22	91364071	1	LOCKWASHER	
23	91364072	1	RING NUT, M45X1.5	
24	91474115	1	WASHER	
25	91474116	1	O-RING	
26	91364073	1	COUPLER	
27	91364074	1	SEAL RING	
28	91364075	1	O-RING	
29	91364076	8	BOLT, M12X60	
30	91364077	1	FLANGE	
31	91364078	1	PIN, 12X25	
32	91364079	2	SEAL RING	
33	91364080	4	BEARING	
34	91364081	20	BOLT	
35	91364082	2	WHEEL HUB KIT, (includes wheel hub and item 34)	
36	91474155	2	O-RING	
37	91364083	2	SPACER	
38	91364084	2	RING NUT, M130X2	
39	91474157	2	RING	
40	91364085	2	RING GEAR CARRIER	
41	91364086	2	SNAP RING, 115X4	

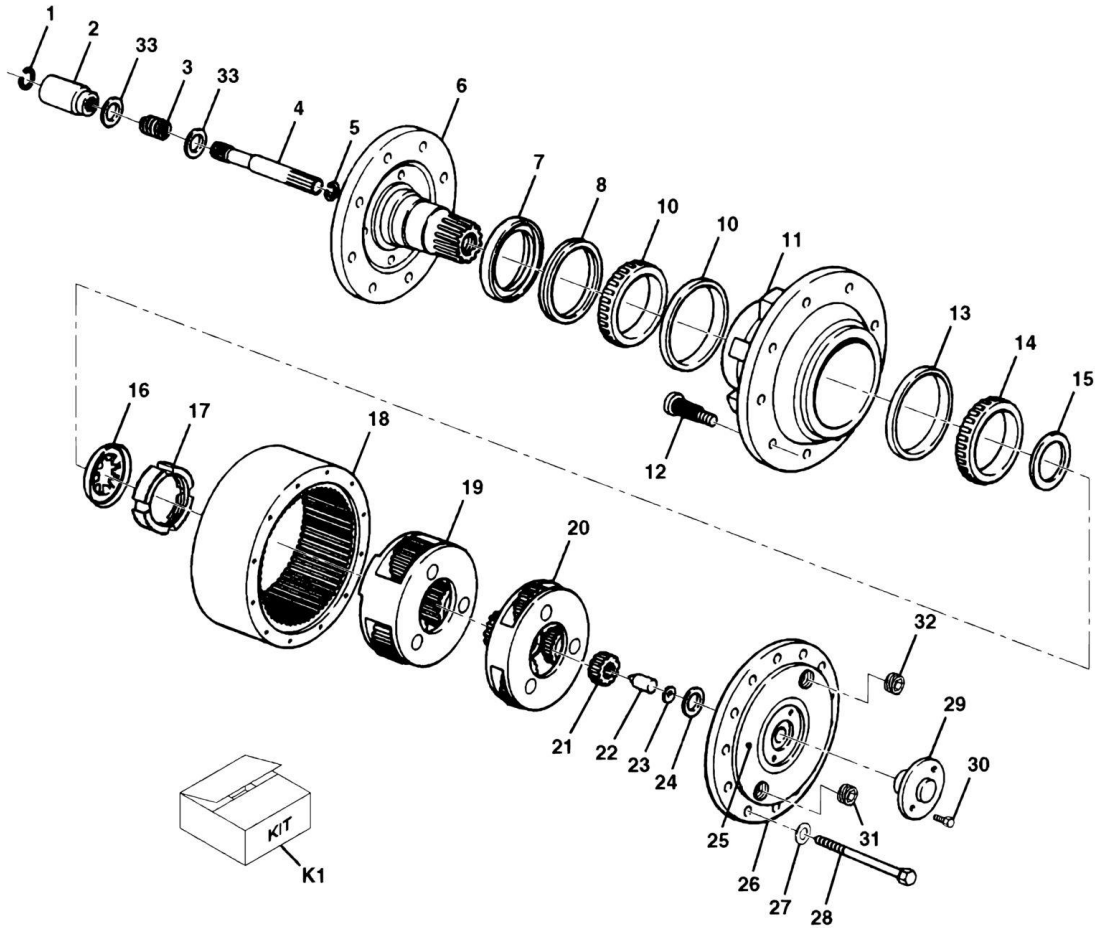
## SECTION 5 - DRIVE TRAIN

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	91364087	2	RING GEAR	
43	91364088	2	SNAP RING	
44	91364089	2	COUPLING SLEEVE	
45	91364090	2	HALF-SHAFT	
46	91474162	6	BOLT	
47	91364091	6	INNER THRUST WASHER	
48	91364092	6	THRUST WASHER	
49	91474163	0.6	NEEDLE BEARINGS, (by tens)	
50	91364093	38.4	NEEDLE BEARINGS, (by tens)	
51	91364094	6	GEAR	
52	91364095	6	THRUST WASHER	
53	91364096	6	THRUST WASHER	
54	91364097	2	PLANETARY CARRIER KIT, (includes planetary carrier and locking pad)	
55	91474037	2	PLUG, M30X2	
56	7028492	4	SCREW	
57	0100011	AR	LOCTITE 242, (apply to item 34)	
K1	91364098	1	DIFFERENTIAL KIT, (includes items 12 thru 15)	



# SECTION 5 - DRIVE TRAIN

## FIGURE 5-11. REAR STEERING AXLE DRIVE HUB (SN 0355001 through 0455362)



NOTE:

TO SERVICE ITEM 17 LOCKNUT, A SPECIAL WRENCH IS REQUIRED, ORDER 91144325 WRENCH

PAP19840

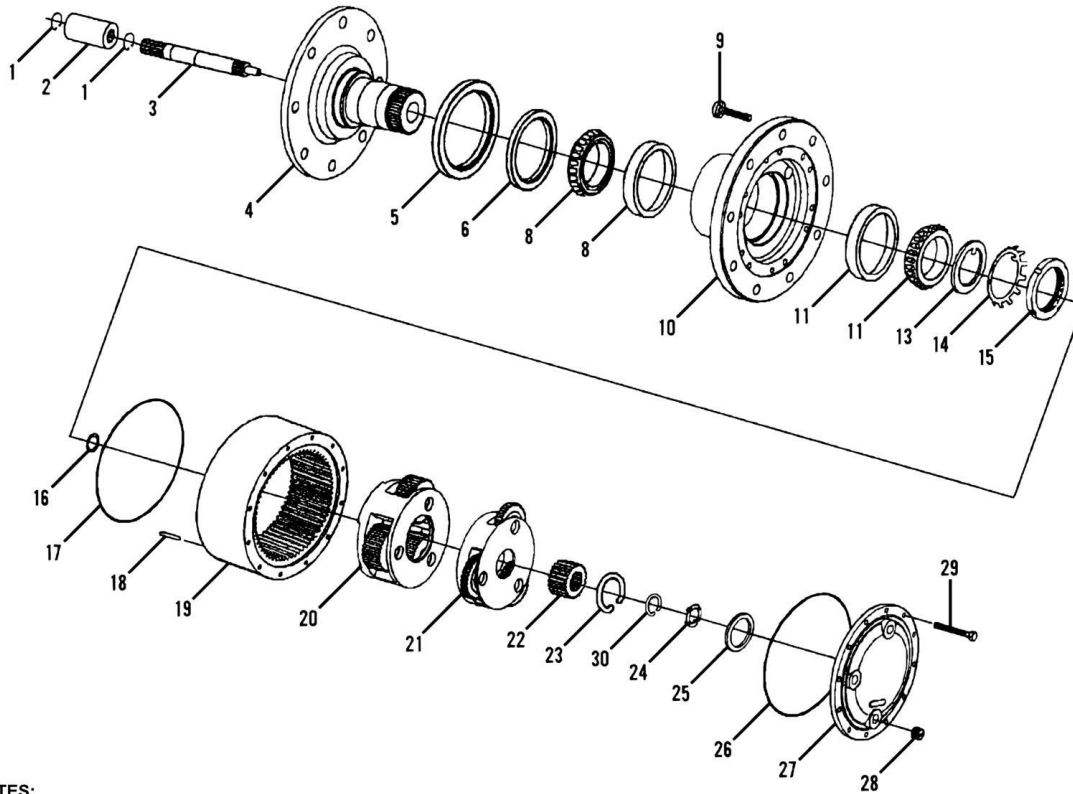
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-11. REAR STEERING AXLE DRIVE HUB (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043472	2	REAR STEERING AXLE DRIVE HUB, (includes all items)	
1	91044276	1	RETAINING RING	
2	91044277	1	COUPLING	
3	91144175	1	SPRING	
4	91144176	1	INPUT SHAFT	
5	91044099	2	RETAINING RING	
6	91144177	1	SPINDLE	
7	Kit	1	SEAL	
8	Kit	1	OIL SEAL	
10	1001091460	1	OUTER BEARING CUP AND CONE KIT	
11	91144178	1	HUB	
12	91044311	12	WHEEL BOLT	
13	91144179	1	INNER BEARING CUP	
14	91144180	1	INNER BEARING CONE	
15	91144181	1	THRUST WASHER	
16	91144182	1	LOCKWASHER	
17	91144183	1	LOCKNUT	
18	91144184	1	RING GEAR	
19	91144185	1	SECONDARY CARRIER ASSY	
20	91144186	1	PRIMARY CARRIER ASSY	
21	91144187	1	PRIMARY SUN GEAR	
22	91044106	1	PLUNGER	
23	91044107	1	O-RING	
24	91044105	1	THRUST WASHER	
25	91044361	1	PIPE PLUG	
26	91144188	1	COVER	
27	91044110	12	FLAT WASHER	
28	91144189	12	HEX HD BOLT	
29	91044112	1	DISENGAGE COVER	
30	Kit	1	LOCK SCREW	
31	91044101	1	MAGNETIC PLUG	
32	91034389	1	PIPE PLUG	
33	91034390	2	THRUST WASHER	
K1	91044462	1	REPAIR KIT, (includes items 7, 8 & 30)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-12. REAR STEERING AXLE DRIVE HUB (SN 0160000192 to Present)



**NOTES:**

- 1. TO SERVICE ITEM 15, BEARING NUT, A SPECIAL WRENCH IS REQUIRED. ORDER 91404449 WRENCH
- 2. APPLY LOCTITE® 587™ (14404067) TO MOUNTING SURFACE OF TORQUE HUB.

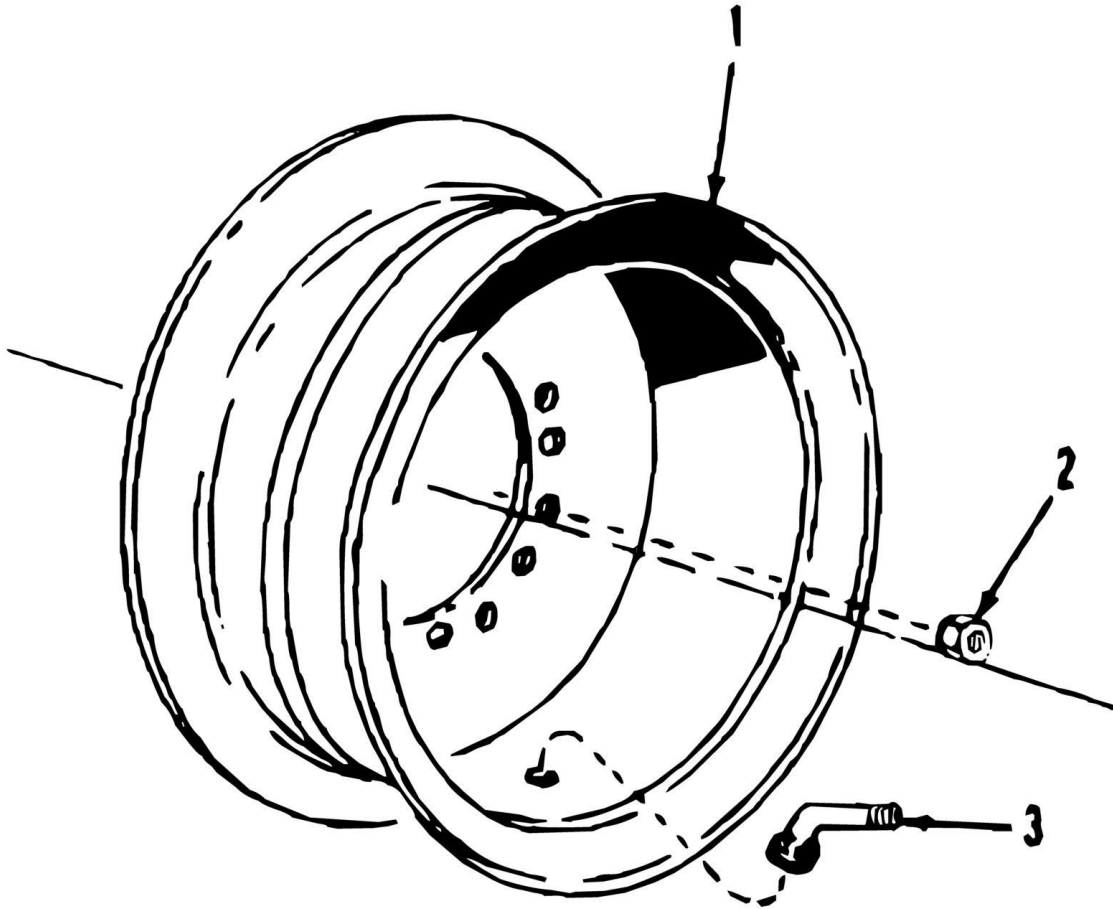
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-12. REAR STEERING AXLE DRIVE HUB (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403588	1	REAR DRIVE HUB, (includes all items)	
1	7000297	2	RETAINING RING	
2	91414001	1	COUPLING	
3	91414002	1	INPUT SHAFT	
4	91414003	1	SPINDLE	
5	91414004	1	BOOT SEAL	
6	91414005	1	OIL SEAL	
8	91414007	1	BEARING CUP AND CONE KIT	
9	91404435	10	WHEEL BOLT	
10	91404436	1	HUB	
11	91414009	1	BEARING CUP AND CONE KIT	
13	91414011	1	THRUST WASHER	
14	91414012	1	LOCKWASHER	
15	91414013	1	BEARING NUT	
16	91414014	1	THRUST WASHER	
17	91414015	1	O-RING	
18	7017047	2	DOWEL PIN	
19	7024167	1	RING GEAR	
20	70021141	1	SECONDARY CARRIER SUB-ASSY, (includes item 16)	
21	70021146	1	PRIMARY CARRIER SUB-ASSY, (includes items 22 & 23)	
22	91414019	1	PRIMARY SUN GEAR	
23	91414020	1	RETAINING RING	
24	91414021	1	THRUST WASHER	
25	91414022	1	THRUST WASHER	
26	7024177	1	O-RING	
27	91414024	1	COVER	
28	7017094	3	MAGNETIC PIPE PLUG	
29	91414026	20	HEX HD BOLT	
30	91414027	1	RETAINING RING	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-13. TIRES AND RIMS (Prior to SN 0160000192)





## SECTION 5 - DRIVE TRAIN

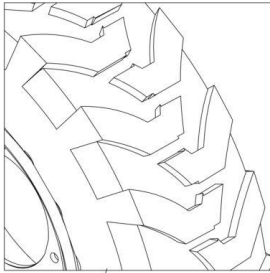
**FIGURE 5-13. TIRES AND RIMS (Prior to SN 0160000192)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165024	2	RH TIRE ASSY, (includes items 1, 3 & 4)	
	91165025	2	LH TIRE ASSY, (includes items 1, 3 & 4)	
1	91043298	2	RIM	
2	91043146	48	LUG NUT, (torque to 350-400 lb-ft)	
3	8786514	2	VALVE	
4	91043084	2	TIRE, (not shown), 14.00X24, 12 ply, G-2 GRADER, TUBELESS	

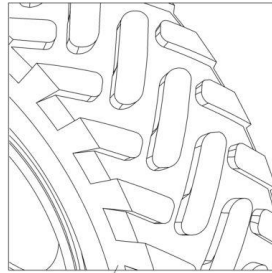
# SECTION 5 - DRIVE TRAIN

## FIGURE 5-14. TIRES AND RIMS (SN 0160000192 to Present)

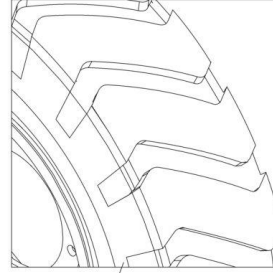
TREAD PATTERNS MAY VARY



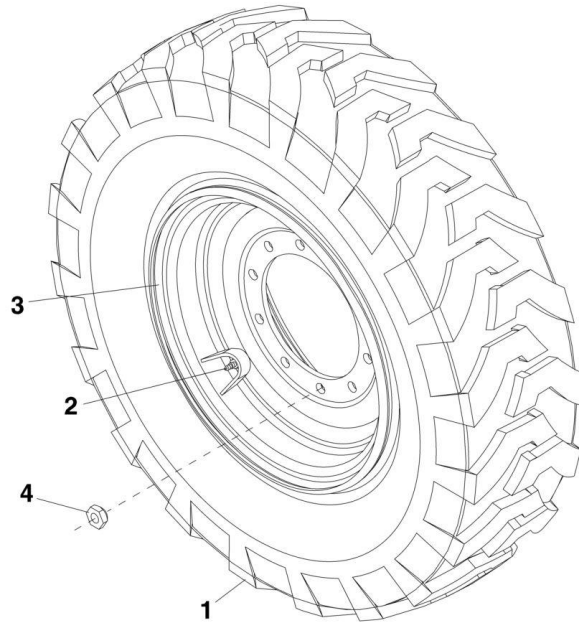
101  
102



5



6



3

2

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1

PAP21610

## SECTION 5 - DRIVE TRAIN

**FIGURE 5-14. TIRES AND RIMS (SN 0160000192 to Present)**

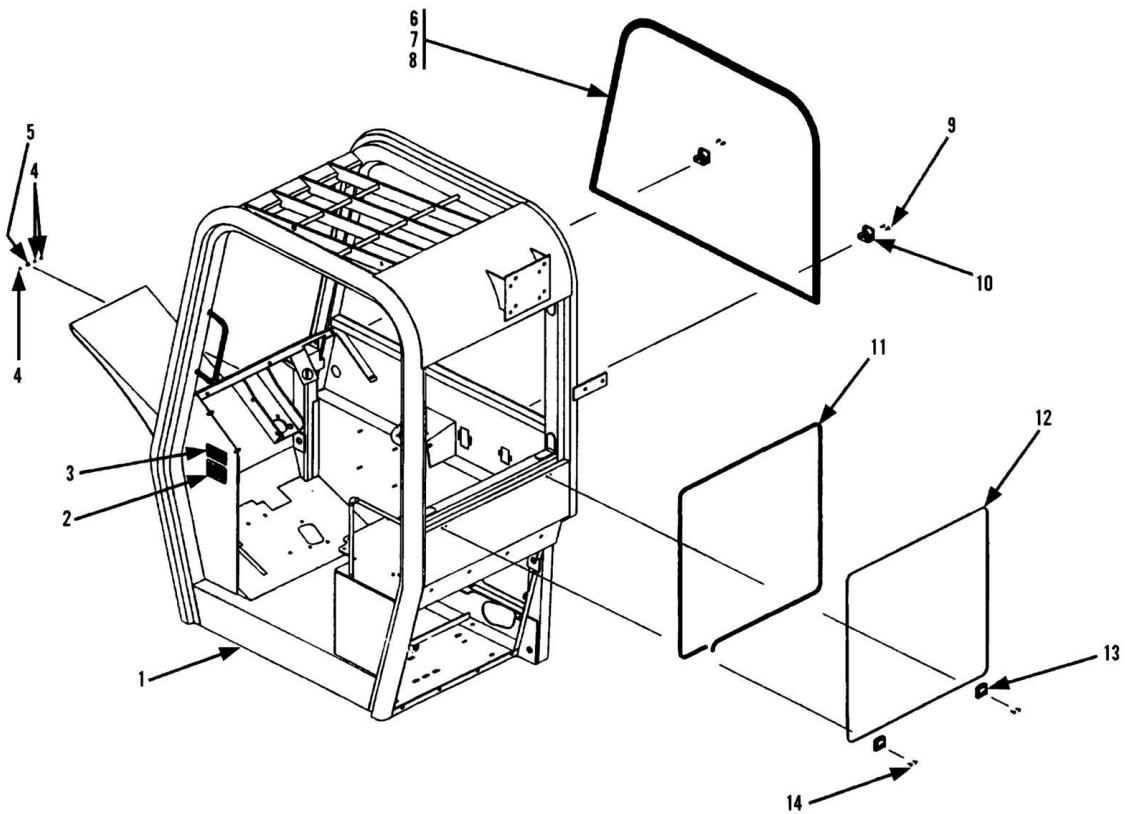
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365070	1	TIRE SET, 14.00-24 BIAS	C
	91355034	2	RH TIRE AND WHEEL ASSY, 14.00-24 BIAS, (includes items 1 thru 3)	D
	91355035	2	LH TIRE AND WHEEL ASSY, 14.00-24 BIAS, (includes items 1 thru 3)	D
	91555030	1	TIRE SET, 14.00-24 BIAS	A
	91545010	4	TIRE AND WHEEL ASSY, 14.00-24 BIAS, ROCK TRED, (includes items 2, 3 & 6)	E
	91555021	1	TIRE SET, 14.00-24 RADIAL	B
	91415072	4	TIRE AND WHEEL ASSY, 14.00-24 RADIAL, (includes items 2, 3 & 5)	C
	4520482	1	TIRE SET, 14.00-24 BIAS, FOAM FILLED	C
	91355037	2	RH TIRE AND WHEEL ASSY, 14.00-24 BIAS, FOAM FILLED, 720#, (includes items 1 thru 3)	F
	91355038	2	LH TIRE AND WHEEL ASSY, 14.00-24 BIAS, FOAM FILLED, 720#, (includes items 1 thru 3)	F
	4520486	1	TIRE SET, 14.00-24 BIAS, ROCK TRED, FOAM FILLED	A
	91545008	4	TIRE AND WHEEL ASSY, 14.00-24 BIAS, ROCK TRED FOAM FILLED, 720#, (includes items 2, 3 & 6)	F
	4520490	1	TIRE SET, 14.00-24 RADIAL, FOAM FILLED	A
	91365076	4	TIRE AND WHEEL ASSY, 14.00-24 RADIAL, FOAM FILLED, 720#, (includes items 2, 3 & 5)	D
	4520484	1	TIRE SET, 14.00-24 BIAS, CALCIUM FILLED	A
	91365061	2	RH TIRE AND WHEEL ASSY, 14.00-24 BIAS, CALCIUM FILLED, 623#, (includes items 1 thru 3)	C
	91365062	2	LH TIRE AND WHEEL ASSY, 14.00-24 BIAS, CALCIUM FILLED, 623#, (includes items 1 thru 3)	C
	4520488	1	TIRE SET, 14.00-24 BIAS, ROCK TRED, CALCIUM FILLED	A
	91555023	4	TIRE AND WHEEL ASSY, 14.00-24 BIAS, ROCK TRED, CALCIUM FILLED, 623#, (includes items 2, 3 & 6)	C
	4520492	1	TIRE SET, 14.00-24 RADIAL, CALCIUM FILLED	A
	91365075	4	TIRE AND WHEEL ASSY, 14.00-24 RADIAL, CALCIUM FILLED, 623#, (includes items 2, 3 & 5)	B
	1001105780	1	TIRE SET, 14X24, SOLID, (includes items 101 & 102)	A
1	91043084	1	TIRE, 14.00-24 BIAS, DIRECTIONAL	
2	8786514	1	VALVE STEM	
3	91473206	1	WHEEL, 24X9	
4	91403193	10	LUG NUT, (torque to 350-400 lb-ft)	
5	91363215	1	TIRE, 14.00-24 RADIAL, NON-DIRECTIONAL	
6	91543002	1	TIRE, 14.00-24 BIAS, ROCK TRED, NON-DIRECTIONAL	
101	1001105782	2	RH TIRE AND WHEEL ASSY, 14.00-24, SOLID	B
102	1001105781	2	LH TIRE AND WHEEL ASSY, 14.00-24, SOLID	B



**SECTION 6 - CAB**

# SECTION 6 - CAB

FIGURE 6-1. OPEN CAB (SN 0355001 through 0455497, SN 0160000192 through 0160012366, Excluding 0160012298)



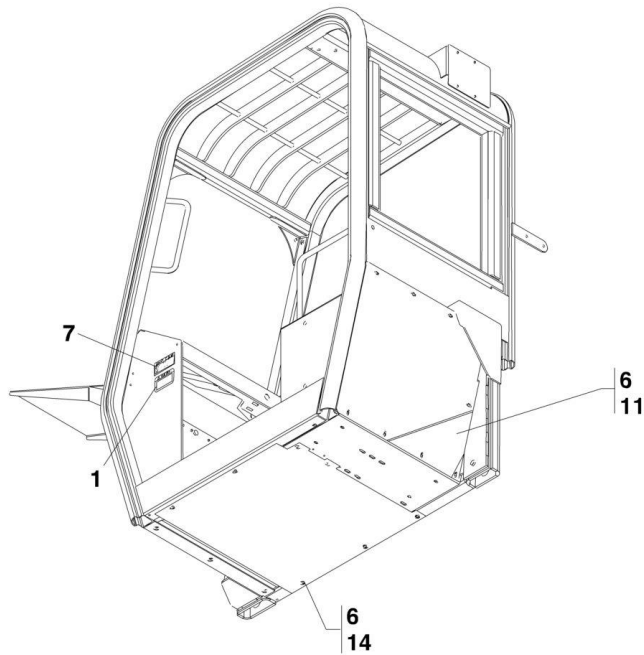
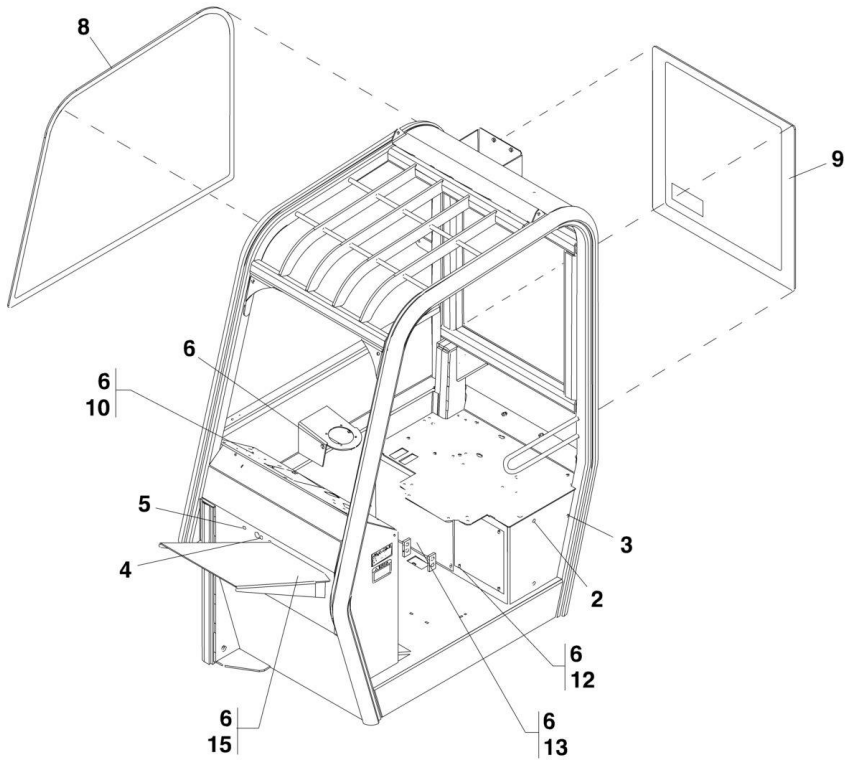
## SECTION 6 - CAB

**FIGURE 6-1. OPEN CAB (SN 0355001 through 0455497, SN 0160000192 through 0160012366,  
Excluding 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	OPEN CAB, (includes all items), (no longer available, See OPTIONS SECTION for Breakdown)	
1	N.S.S.	NLA	CAB WELDMNT, (no longer available, See OPTIONS SECTION for Breakdown)	
2	91164094	1	ROPS WARNING DECAL	
3	91164093	1	SERIAL TAG	
4	91164086	3	HOLE PLUG, 0.313	
5	91164087	1	HOLE PLUG, 0.750	
6	91164088	1	RH SIDE WINDOW	
7	91164089	AR	POWER BOND	
8	8035523	AR	URETHANE, HI VISCOSITY, BLACK	
9	80264034	4	SCREW, #10-32X1.50, FLANGE	
10	91334005	2	WINDOW CLIP	
11	80264032	9.5 ft	BULB SEAL, (to be hidden behind window clip)	
12	91164092	1	REAR WINDOW, RUBBER MOUNT	
13	91164095	2	REAR WINDOW CLIP	
14	91164096	4	SCREW, 0.25-20X0.75, FLANGE	

# SECTION 6 - CAB

FIGURE 6-2. OPEN CAB (SN 0160012437 to Present, Including 0160012298)



PAP19240



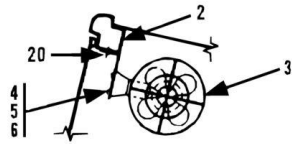
## SECTION 6 - CAB

**FIGURE 6-2. OPEN CAB (SN 0160012437 to Present, Including 0160012298)**

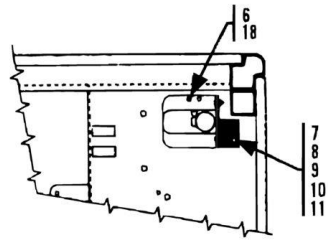
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1040028	1	OPEN CAB, (includes all items)	H
1	91164094	1	ROPS WARNING DECAL	
2	80264111	2	ROUND PLUG, 1/2	
3	80264035	1	ROUND PLUG, 3/8	
4	91164087	1	ROUND PLUG, 3/4	
5	8036654	4	ROUND PLUG, 0.312	
6	7028939	26	HEX RIVNUT, 0.312-18	
7	7028940	1	SERIAL TAG	
8	7028941	1	GLASS, RH SIDE	
9	7028942	1	REAR GLASS	
10	3380582	1	DASH PANEL	
11	3380653	1	REAR CAB COVER	
12	91081475	1	HEATER PLATE COVER	
13	91141329	1	VALVE ACCESS COVER	
14	91361005	1	BELLY PAN COVER	
15	7029004	1	FENDER	
16		Ref	CAULK/PAINT, (not shown)	
17	80364009	AR	URETHANE, SIKA, (not shown)	
18	91404302	AR	ACTIVATOR, SIKA, (not shown)	

# SECTION 6 - CAB

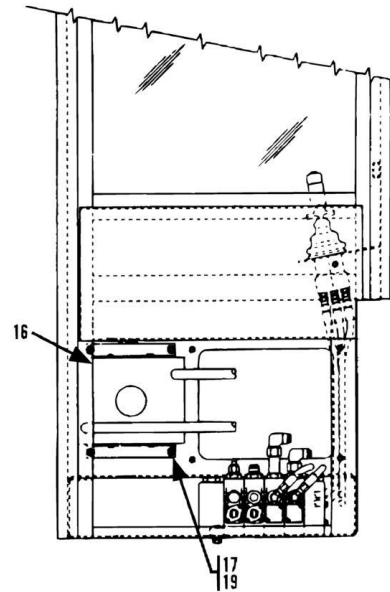
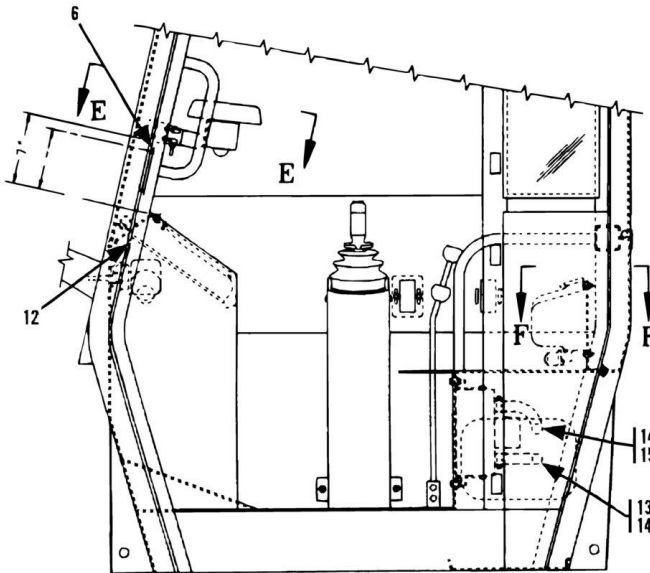
FIGURE 6-3. CAB ENCLOSURE KIT INSTALLATION (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



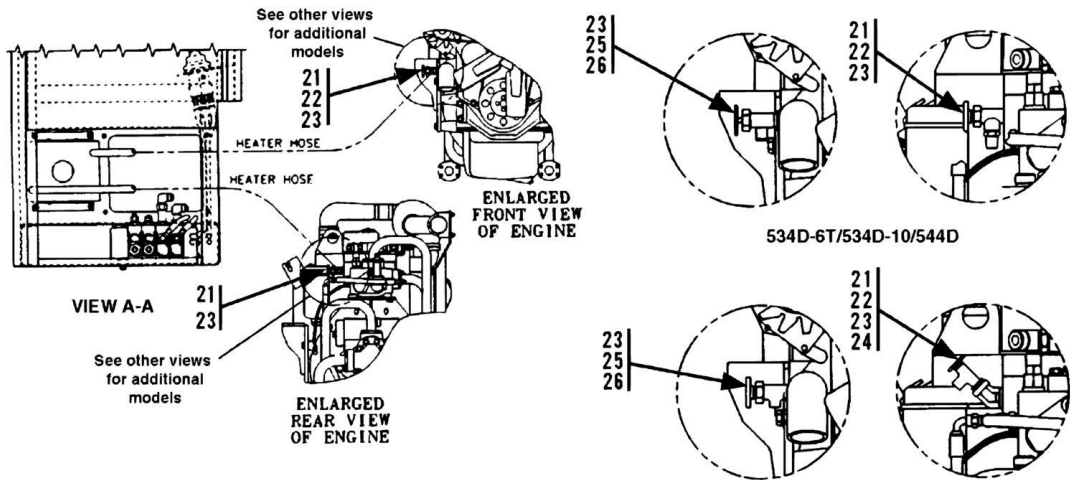
SECTION E-E



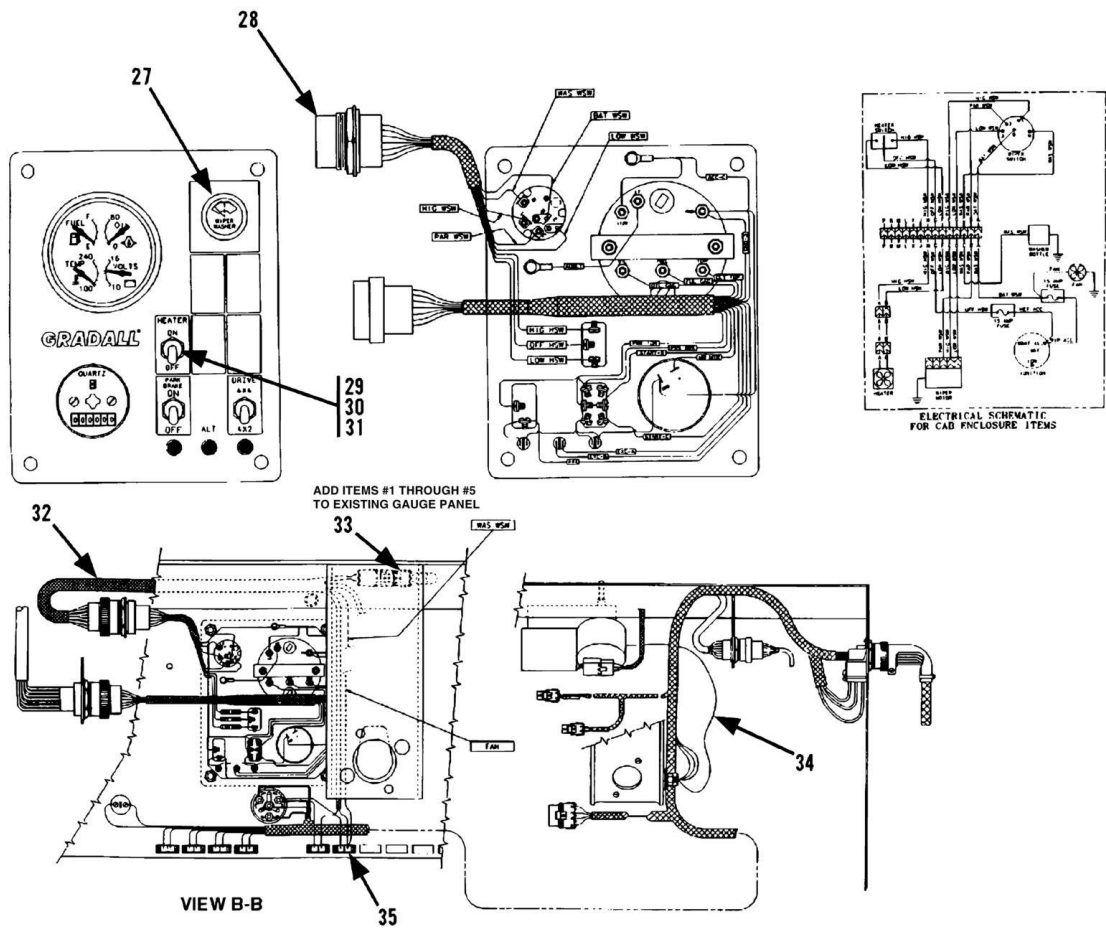
SECTION F-F



# SECTION 6 - CAB



534D-9 HEATER HOSE FITTINGS



## SECTION 6 - CAB

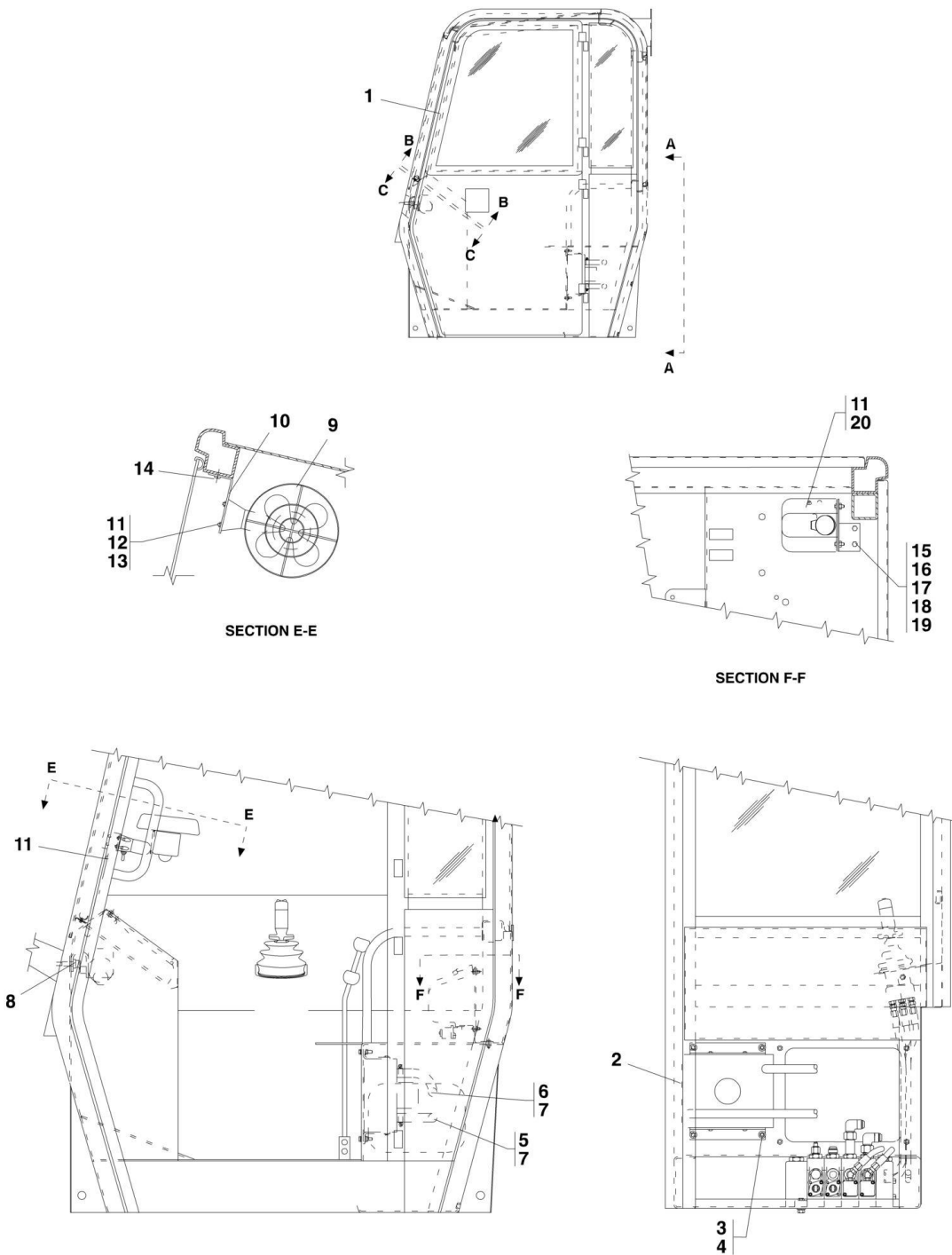
**FIGURE 6-3. CAB ENCLOSURE KIT INSTALLATION (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91345003	1	CAB ENCLOSURE KIT INSTALLATION, (includes all item)	
1	91143267	1	CAB ENCLOSURE KIT, (not shown), (See CAB ENCLOSURE KIT for Breakdown)	
2	91081499	1	MOUNTING ANGLE	
3	90200680	1	FAN	
4	88211030	4	HEX SOCKET HD CAPSCREW, #10-24X3/4, GR8	
5	77143017	4	WHIZ-LOCKNUT, #10-24	
6	90029955	3	RUBBER MOUNT	
7	88501004	6	HEX NUT, 1/4-20	
8	88561009	6	LOCKWASHER, 1/4	
9	88201003	6	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
10	91146099	1	BOTTLE MOUNTING BRACKET	
11	1001111112	1	WASHER BOTTLE	
12	86683480	1	BUTT CONNECTOR	
13	90206169	1	HEATER HOSE	
14	86683193	2	HOSE CLAMP	
15	91141459	1	HEATER HOSE	
16	91125106	1	HEATER ASSY, (includes eight items below)	
16	91043429	1	HEATER	
16	82033996	6 in	FLEX LOOM	
16	80963057	1	TOWER	
16	80963068	2	FEMALE PIN TERMINAL	
16	80963067	2	CABLE SEALS	
16	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
16	88551009	4	LOCKWASHER, 1/4	
16	91031521	2	HEATER MOUNTING BRACKET	
17	77143006	4	WHIZ-LOCKNUT	
18	77163102	1	INSULT FEMALE SPADE, 16-14 GA	
19	77143004	4	WHIZ-LOCK SCREW	
20	90027319	2	SELF-TAPPING SCREW, 1/4-20X1	
21	91083155	1	TRUCK VALVE	
22	77383540	1	COOLANT RESTRICTOR ORIFICE	
23	86683193	2	CLAMP	
24	88712034	1	STREET ELBOW, 45, 1/2	
25	88711383	1	PIPE BUSHING, 1/2X3/8	
26	24641328	1	SHUT OFF VALVE	
27	80963101	1	WIPER AND WASHER SWITCH	
28	91143333	1	WIPER-WASHER-HEATER HARNESS	
29	77383744	1	HEATER SWITCH	
30	77383470	1	BOOT	
31	91143361	1	HEATER DECAL	
32	91143335	1	WIPER-HEATER OPTION HARNESS	
33	91123182	1	HEATER HARNESS	
34	91361018	1	JUMPER WIRE	
35	77363268	2	FUSE, 15 AMP	



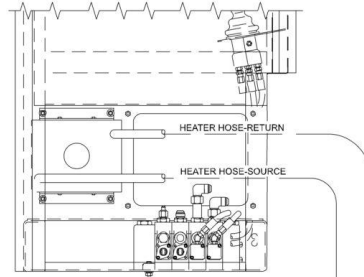
# SECTION 6 - CAB

FIGURE 6-4. CAB ENCLOSURE KIT INSTALLATION (SN 0160000976 through 0160012366, Excluding 0160012298)

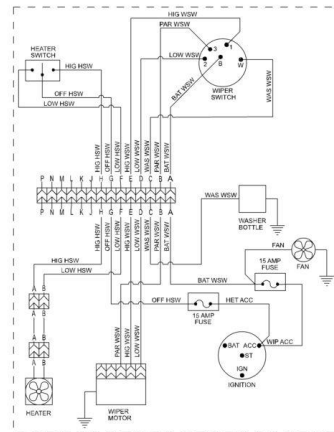
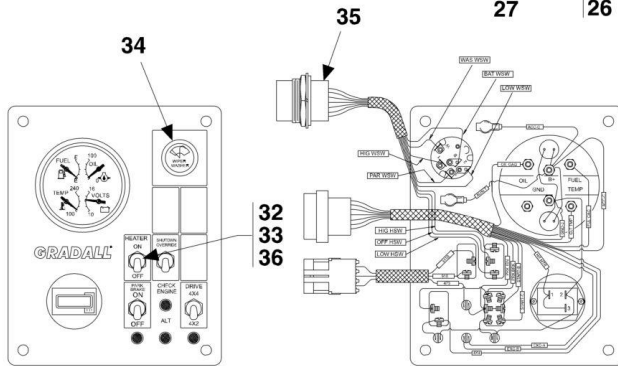
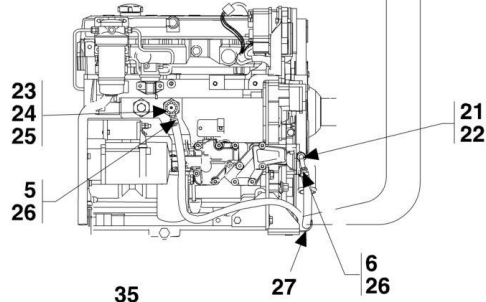


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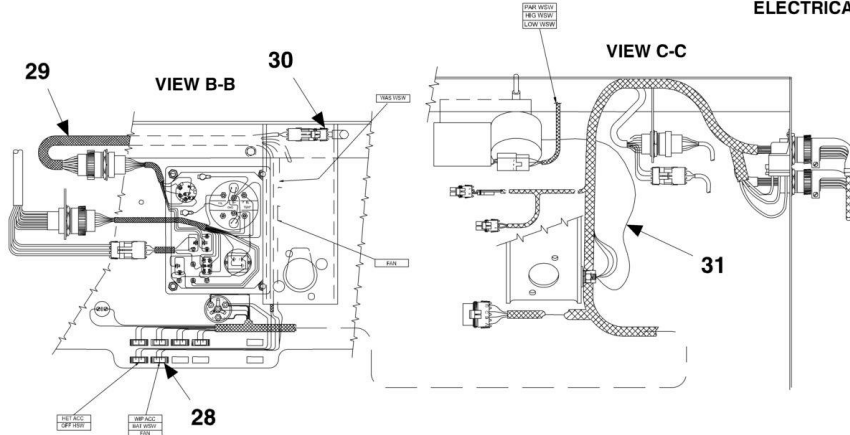
# SECTION 6 - CAB



VIEW A-A



ELECTRICAL SCHEMATIC



## SECTION 6 - CAB

**FIGURE 6-4. CAB ENCLOSURE KIT INSTALLATION (SN 0160000976 through 0160012366, Excluding 0160012298)**

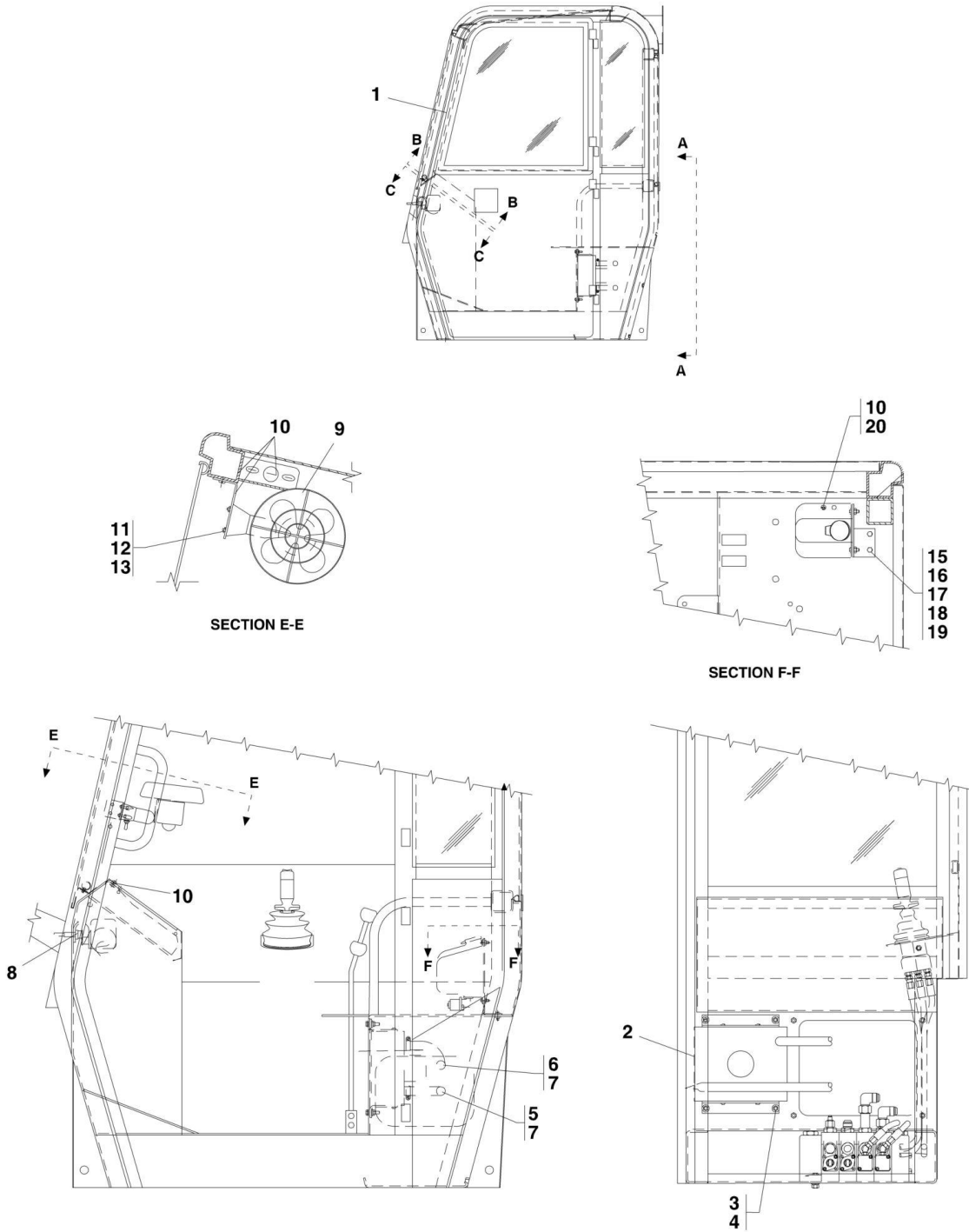
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91535014	1	CAB ENCLOSURE KIT INSTALLATION, (includes all items)	B
		Ref	CAB ENCLOSURE KIT, (See CAB ENCLOSURE KIT for Breakdown)	C
2	91125106	1	HEATER ASSEMBLY, (includes eight items below)	
2	91043429	1	HEATER	
2	82033996	6	FLEX LOOM	
2	80963057	1	TOWER	
2	80963068	2	FEMALE PIN TERMINAL	
2	80963067	2	CABLE SEALS	
2	91031521	2	HEATER MOUNTING BRACKET	
2	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4	
2	88551009	4	LOCKWASHER, 1/4	
3	77143004	4	WHIZ-LOCK SCREW	
4	77143006	4	WHIZ-LOCKNUT	
5	90206169	1	HEATER HOSE	
6	91141459	1	HEATER HOSE	
7	86683193	2	HOSE CLAMP	
8	86683480	1	BUTT CONNECTOR	
9	90200680	1	FAN	
10	91081499	1	MOUNTING ANGLE	
11	90029955	3	RUBBER GROMMET	
12	88211030	4	HEX HD SCREW, 310-24X3/4	
13	77143017	4	WHIZ LOCKNUT, #10-24	
14	90027319	2	SELF-TAPPING SCREW, 1/4-20X1	
15	1001111112	1	WASHER BOTTLE ASSY	
16	91146099	1	BOTTLE MOUNTING BRACKET	
17	88201003	6	HEX HD CAP-SCREW, 1/4-20X3/4	
18	88561009	6	LOCKWASHER, 1/4	
19	88501004	6	HEX NUT, 1/4-20	
20	77163102	1	INSUL FEMALE SPADE, 16-14 GA	
21	80683073	1	FITTING ADAPTER	
22	91403443	1	BARB FITTING, 90	
23	80373046	1	FITTING	
24	77383540	1	COOLANT RESTRICTOR ORIFICE	
25	91083155	1	TRUCK VALVE	
26	86671187	2	HEATER HOSE CLAMP	
27	85941018	1	SUPPORT CLAMP	
28	77363268	2	15 AMP FUSE	
29	91143335	1	WIPER-HEATER OPTION HARNESS	
30	91123182	1	HEATER HARNESS	
31	91361018	1	JUMPER WIRE	
32	77383744	1	HEATER SWITCH	
33	77383470	1	BOOT	
34	80963101	1	WIPER AND WASHER SWITCH	
35	91143333	1	WIPER-WASHER-HEATER HARNESS	
36	91143361	1	HEATER DECAL	



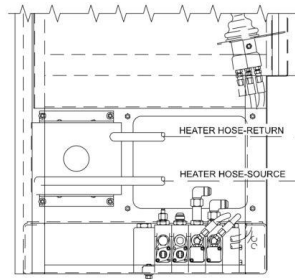


# SECTION 6 - CAB

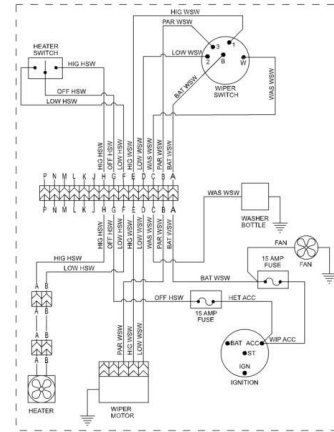
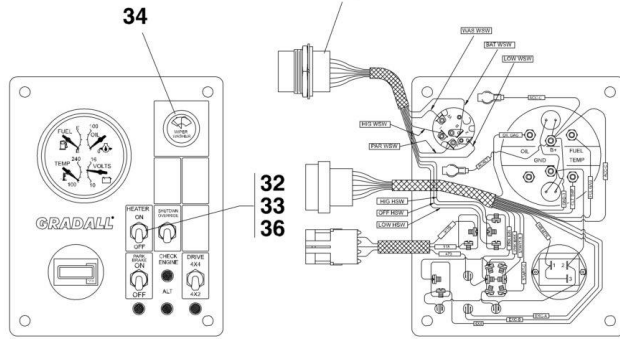
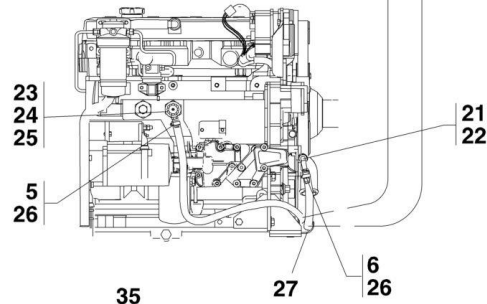
## FIGURE 6-5. CAB ENCLOSURE KIT INSTALLATION (SN 0160012437 to Present, Including 0160012298)



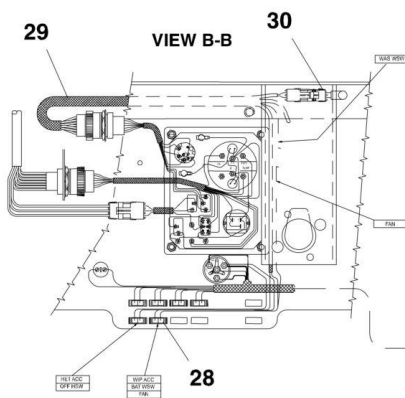
# SECTION 6 - CAB



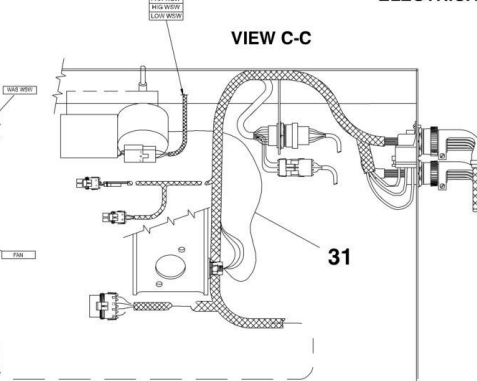
VIEW A-A



ELECTRICAL SCHEMATIC



VIEW B-B



VIEW C-C

## SECTION 6 - CAB

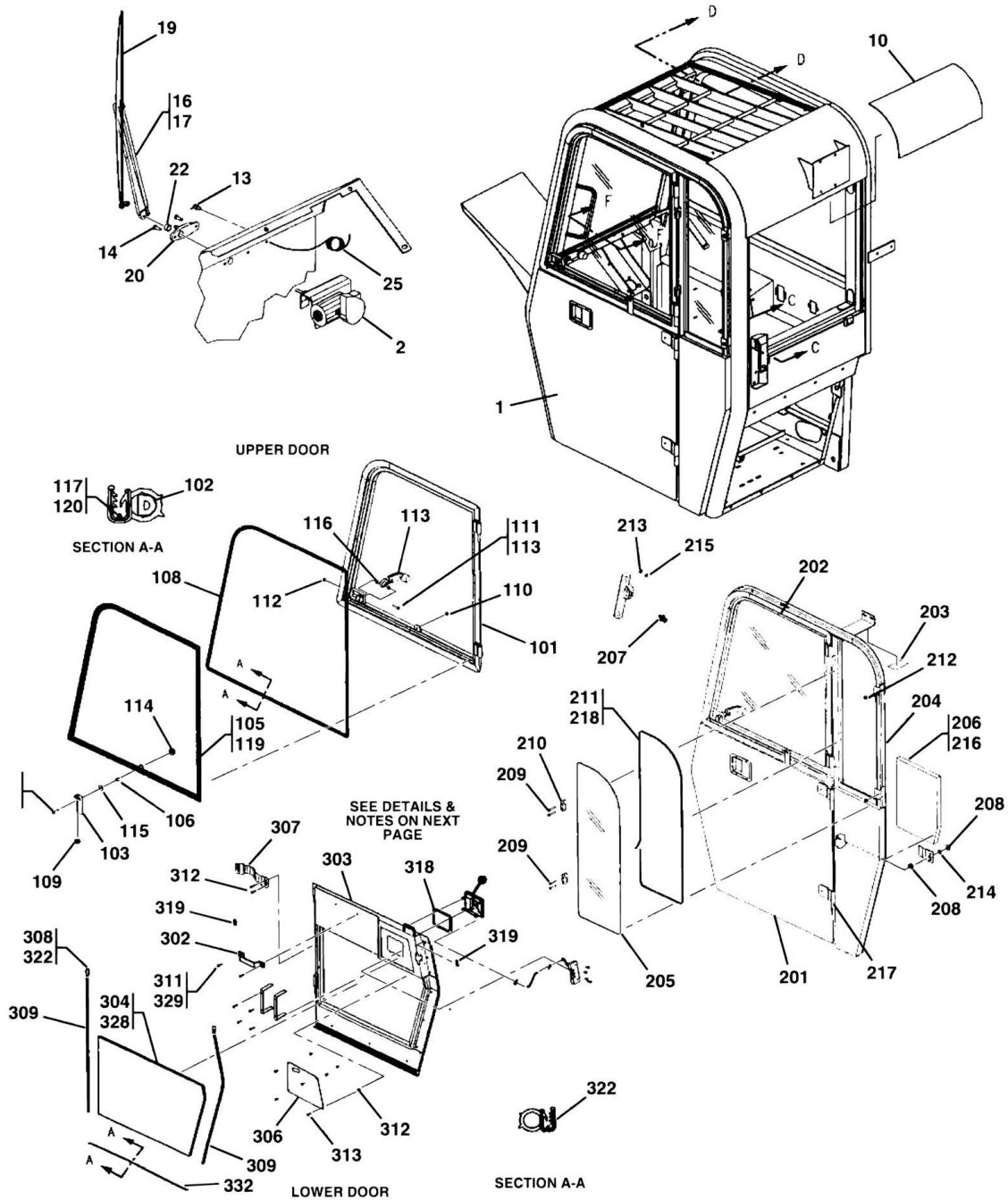
**FIGURE 6-5. CAB ENCLOSURE KIT INSTALLATION (SN 0160012437 to Present, Including 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0274497	1	CAB ENCLOSURE KIT INSTALLATION , (includes all items) (SN 0160012437 through 0160035036, Including 0160012298 and 0160035922)	D
	1001115867	1	CAB ENCLOSURE KIT INSTALLATION , (includes all items except 21 thru 27) (SN 0160035037 to Present, Excluding 0160035922)	A
1		Ref	CAB ENCLOSURE KIT, (See CAB ENCLOSURE KIT for Breakdown)	
2	91125106	1	HEATER ASSY, (includes eight items below)	
2	91043429	1	HEATER	
2	70022026	1	HEATER FAN, 7 INCH	
2	82033996	6	FLEX LOOM	
2	80963057	1	TOWER	
2	80963068	2	FEMALE PIN TERMINAL	
2	80963067	2	CABLE SEALS	
2	91031521	2	HEATER MOUNTING BRACKET	
2	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
2	88551009	4	LOCKWASHER, 1/4	
3	77143004	4	WHIZ-LOCK SCREW	
4	77143006	4	WHIZ-LOCKNUT	
5	90206169	1	HEATER HOSE	
6	91141459	1	HEATER HOSE	
7	86683193	2	HOSE CLAMP	
8	86683480	1	BUTT CONNECTOR	
9	90200680	1	FAN	
10	90027214	6	RUBBER GROMMET	
12	88211030	4	SOCKET HD CAPSCREW, #10-24X3/4, GR8	
13	77143017	4	WHIZ LOCKNUT, #10-24	
15	1001111112	1	WASHER BOTTLE	
16	91146099	1	BOTTLE MOUNTING BRACKET	
17	88201003	6	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
18	88561009	6	LOCKWASHER, 1/4	
19	88501004	6	HEX NUT, 1/4-20	
20	77163102	1	INSULATION FEMALE SPADE, 16-14 GA	
21	80683073	1	FITTING ADAPTER	
22	91403443	1	BARB FITTING, 90	
23	80373046	1	FITTING	
24	77383540	1	COOLANT RESTRICTOR ORIFICE	
25	91083155	1	TRUCK VALVE	
26	86671187	2	HEATER HOSE CLAMP	
27	85941018	1	SUPPORT CLAMP	
28	77363268	2	15 AMP FUSE	
29	91143335	1	WIPER-HEATER OPTION HARNESS	
30	91123182	1	HEATER HARNESS	
31	91361018	1	JUMPER WIRE	
32	77383744	1	HEATER SWITCH	
33	77383470	1	BOOT	
34	80963101	1	WIPER AND WASHER SWITCH	
35	91143333	1	WIPER-WASHER-HEATER HARNESS	
36	91143361	1	HEATER DECAL	

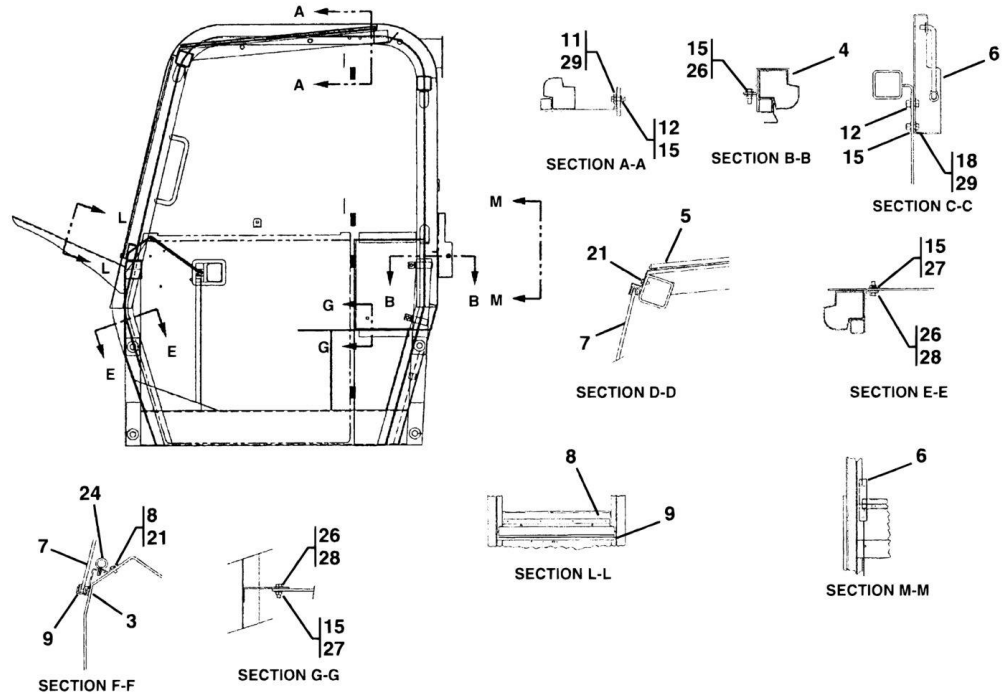


# SECTION 6 - CAB

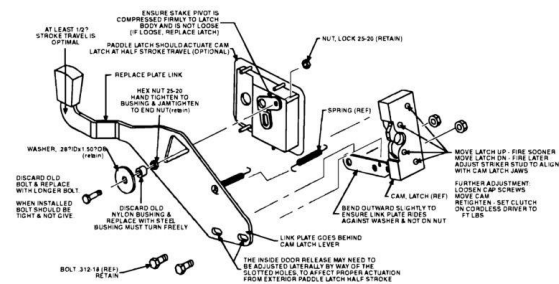
FIGURE 6-6. CAB ENCLOSURE KIT (SN 0355001 through 0455497, SN 0160000192 through 0160012366, Excluding 0160012298)



PAP19690



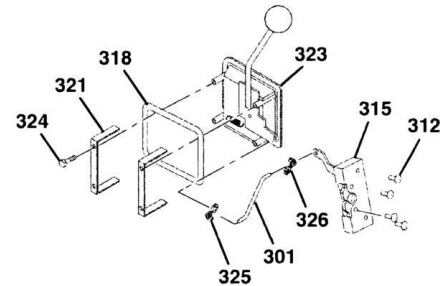
91343056  
**INSIDE & OUTSIDE LATCH KIT**  
 USED IN CAB ENCLOSURE KITS PRIOR TO ANGUS-PALM  
 SN T2702A & ENCLOSED CABS PRIOR TO SN T2705D.



**NOTES:**

1. REMOVE DOOR STIFFENER COVER & MOUNTING HARDWARE.
2. REMOVE INSIDE DOOR RELEASE MOUNTING HARDWARE, INCLUDING (1) 0.25-20X1.00 SCREW, (1) 0.28 ID X 1 OD WASHER, (1) NYLON BUSHING, (2) 0.312-18 LOCKNUT, (1) PLATE, DOOR LINK & (1) 0.25-20 LOCKNUT.
3. INSTALL NEW INSIDE DOOR RELEASE HARDWARE AS SHOWN.
4. REVERSE SPRING ATTACHMENT AS SHOWN.
5. REPLACE DOOR STIFFENER COVER & HARDWARE.

**PADDLE LATCH INSTALLATION**  
 USED ON CAB ENCLOSURE KITS WITH  
 ANGUS-PALM STARTING SN T2702A &  
 ENCLOSED CABS STARTING SN T2705D



**NOTE:**

IF YOUR CAB ENCLOSURE CONTAINS THE LATCH ASSEMBLY, (SHOWN LEFT), IT IS RECOMMENDED TO UPDATE TO CURRENT STYLE, (SHOWN BELOW), BY ORDERING LATCH RETRO FIT KIT, 91144469, (SEE PARTS LIST FOR DETAILS).

PAP19860

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**FIGURE 6-6. CAB ENCLOSURE KIT (SN 0355001 through 0455497, SN 0160000192 through 0160012366, Excluding 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143267	1	CAB ENCLOSURE KIT, (includes all items)	G
1	91334007	1	LH SIDE ASSY, (includes items 201 thru 218)	
2	91334008	1	WIPER MOTOR ASSY, (includes four items below)	
2	80384204	1	WIPER MOTOR, WWJ, 12V	
2	91144476	1	DRIVE ARM, 0.950 IN LONG	
2	91144477	1	CONNECTING LINK	
2	91144478	1	SHAFT AND PIVOT ASSY	
3	91334009	2.25 ft	FOAM, 0.125X0.75	
4	91334010	2	BRACKET, REAR LH PANEL CLAMP	
5	91363019	1	SKYLIGHT ASSY	
5	91164102	1	SKYLIGHT WINDOW, 6.4 (0.25), THICK STD LT GREEN TINT	
6	91334012	1	HOLD-OPEN BRACKET ASSY, (includes five items below)	
6	91344029	1	DOOR HOLD-OPEN ROD	
6	91344028	1	DOOR HOLD-OPEN BRACKET WELDMENT	
6	80264061	1	FLAT WASHER	
6	91344030		COTTER PIN, 1/8X0.75	
6	91344019		GROMMET	
7	91334013	1	FRONT WINDOW ASSY, (includes three items below)	
7	91164099	1	FRONT WINDOW	
7	91344031	11 ft	SEAL, BULB, 90, 1/4 LIP	
7	91344006	1	EMERGENCY EXIT TAG	
8	91334014	1	ANGLE, FRONT WINDOW	
9	91334015	1	FRONT WINDOW BRACKET	
10	91334016	1	HEAD LINER FOAM	
11	91334017	2	HEX BOLT, 0.375-16X1.25, GR5	
12	91334018	4	LOCKNUT, 0.375-16	
13	1001081310	1	WET ARM ADAPTER	
14	80384207	2	HEX SCREW, 0.25-28X0.75, GR5	
15	91334021	11	SPRING WASHER	
16	1001081311	1	WIPER ARM KIT	
17	1001081308	1	22 IN WIPER ARM, PANTO	
18	91334024	2	HEX BOLT, 0.375-16X0.875	
19	1001081309	1	24 IN WIPER BLADE, FLEX	
20	1001081307	1	WIPER ARM ADAPTOR	
21	80264066	8	SCREW, M6X1.0X12	
22	91334135	1	SPACER	
24	91334028	2	DETENT RING PIN, 0.25	
25	91484020	10 ft	WASHER HOSE, 0.156X0.344	
26	91334030	7	HEX BOLT, 0.312-18X1.00, GR5	
27	91334032	5	HEX NUT, 0.312-18, GR8	
28	91334032	8	FLAT WASHER, 0.313X0.75X0.06	
29	91334033	6	FLAT WASHER, 0.375X0.88X0.07	
30	91334034	2	BLACK URETHANE, (not shown)	
101	91344012	1	UPPER DOOR ASSY	
102	91344014	0.17 ft	FOAM, 0.438X0.375	
103	91344016	1	DOOR HOLD-OPEN ANGLE	
105	91164100	1	UPPER DOOR GLASS	
106	91344015	1	BUSHING	
108	91484024	10.5 ft	BULB SEAL, 90	



## SECTION 6 - CAB

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
109	91344019	1	GROMMET	
110	80264078	1	LOCKNUT, 0.25-20	
111	91344017	2	SCREW, 0.25-20X1.25	
112	91344020	1	NUT, 0.25-20	
113	91344013	1	DOOR LATCH ASSY	
114	8035477	1	GROMMET	
115	80264082	1	FLAT WASHER	
116	8036678	2	WASHER	
117	91334034	AR	BLACK URETHANE	
118	91344018	AR	LOCTITE	
119	91164089	AR	GLASS PREP, POWER BOND	
120	91344046	AR	SUPER WEATHER STRIP SEALANT	
201	91344011	1	LOWER DOOR ASSY, (includes items 301 thru 332)	
202	91344010	1	UPPER DOOR ASSY, (includes items 101 thru 120)	
203	91144435	1	SERIAL TAG	
204	N.S.S.	1	LH SIDE FRAME WELDMENT	
205	91164101	1	LH SIDE WINDOW	
206	91344025	1	FOAM, LH SIDE PANEL	
207	1001109478	1	STRIKER BOLT, 0.438-14X1.5	
208	91334018	2	LOCKNUT, 0.375-16	
209	80264034	4	FLANGE SCREW, #10-32X1.5, FLANGE	
210	80264033	2	WINDOW CLIP, BLACK	
211	91344031	7.5 ft	BULB SEAL, 90, 1/4 IN CLIP	
212	80364024	2	BUMPER, 5/8 ODX11/32	
213	80264062	1	HEX NUT, 0.438-14, GR8	
214	91334033	1	FLAT WASHER	
215	80264061	1	FLAT WASHER	
216	91344026	AR	ADHESIVE	
217	N.S.S.	AR	GREASE, WHITE LITHIUM WITH TEFLON	
218	91344046	AR	WEATHER STRIP	
301	91484035	1	LINKAGE ROD	
302	91344032	1	INSIDE GRAB HANDLE	
303	91344011	1	LOWER DOOR WELDMENT	
304	91344047	1	LOWER DOOR FOAM	
306	91484031	1	STIFFENER COVER	
307	91344027	1	DOOR STRAP	
308	91344045	2	VINYL CAP	
309	91484024	6 ft	BULB SEAL, 90	
311	91164096	2	FLANGE SCREW, 0.25-20X0.75	
312	80264074	10	SCREW, 0.25-20X0.75	
313	8866334	4	RIVNUT, 0.25-20	
315	91484036	1	CAM LATCH	
318	91484029	1.5 ft	BULB SEAL	
319	N.S.S.	0.5 ft	FOAM, 3/16X5/8	
321	91484034	2	MOUNTING BRACKET	
322	91344046	AR	SEALANT/ADHESIVE	
323	91484028	1	PADDLE LATCH	
324	80384191	4	SCREW, 10-24X0.5	
325	80384187	1	ROD RETAINER CLIP	
326	80384185	1	ROD RETAINER CLIP	
328	91344026	AR	ADHESIVE	

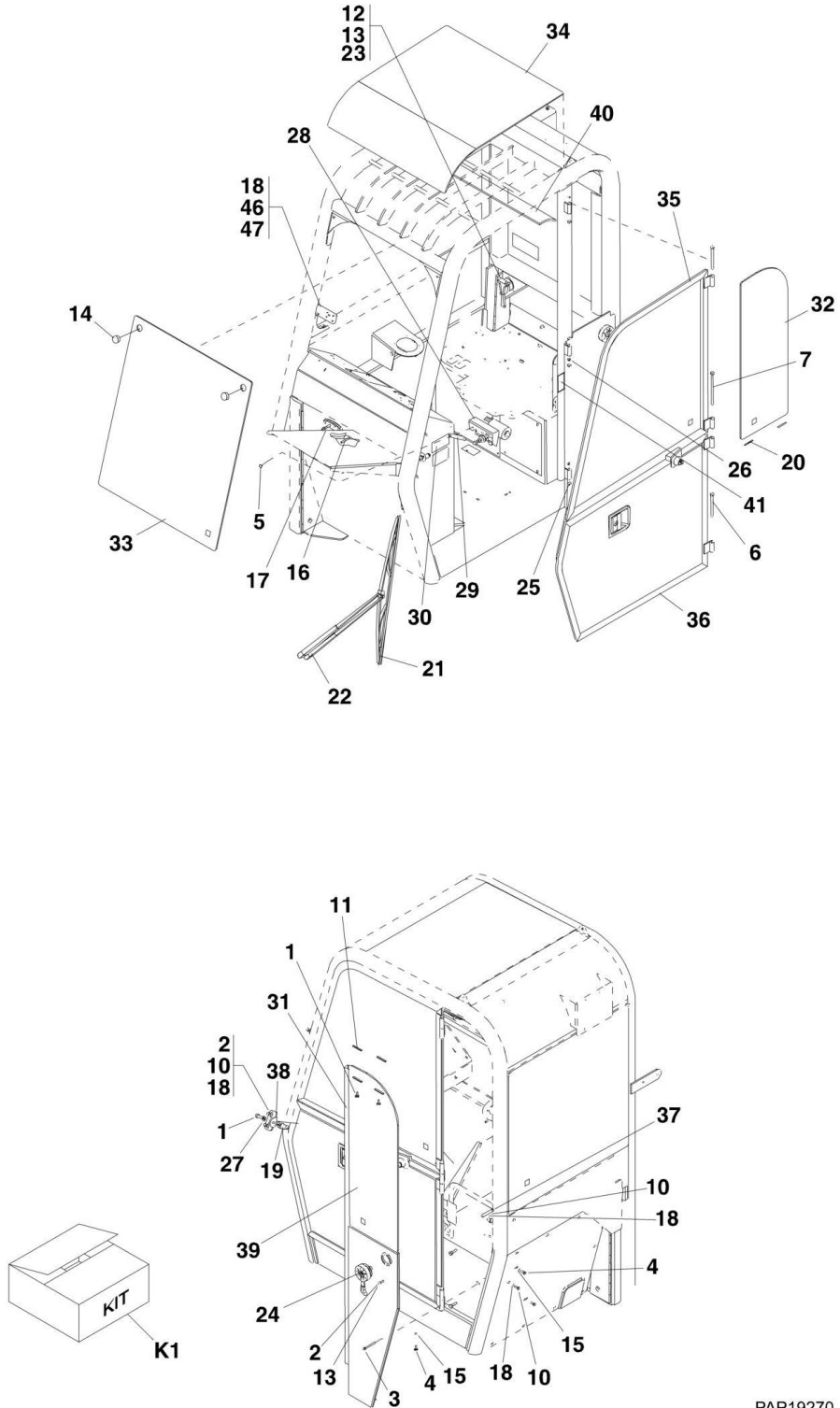
## SECTION 6 - CAB

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
329	91344018	AR	LOCTITE	
332	80264091	2.5 ft	BULB SEAL, 90	



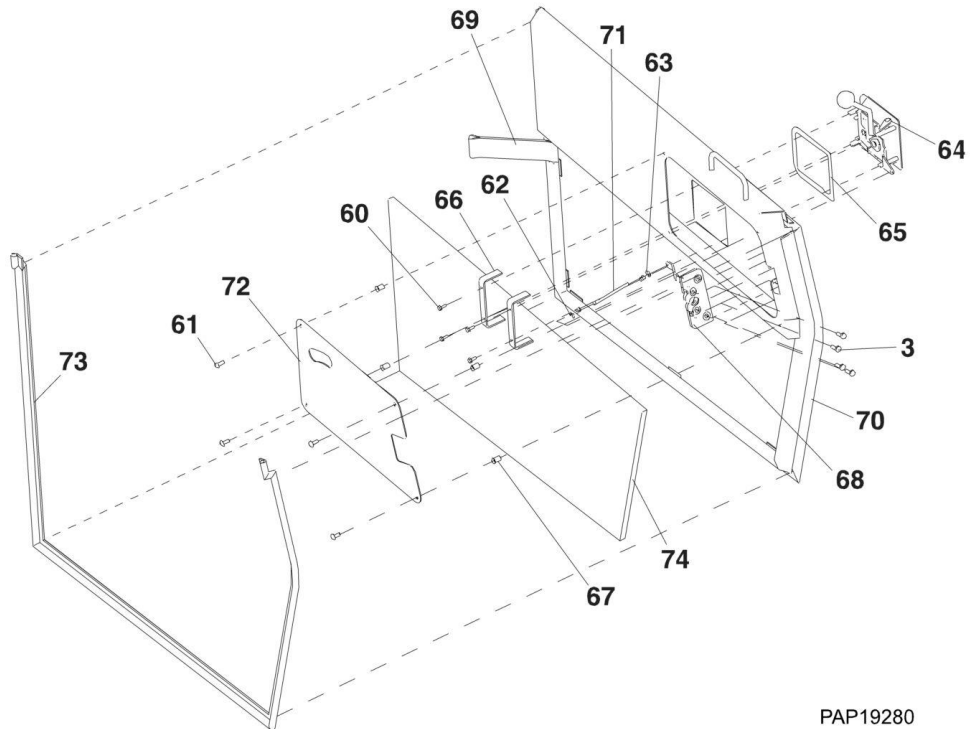
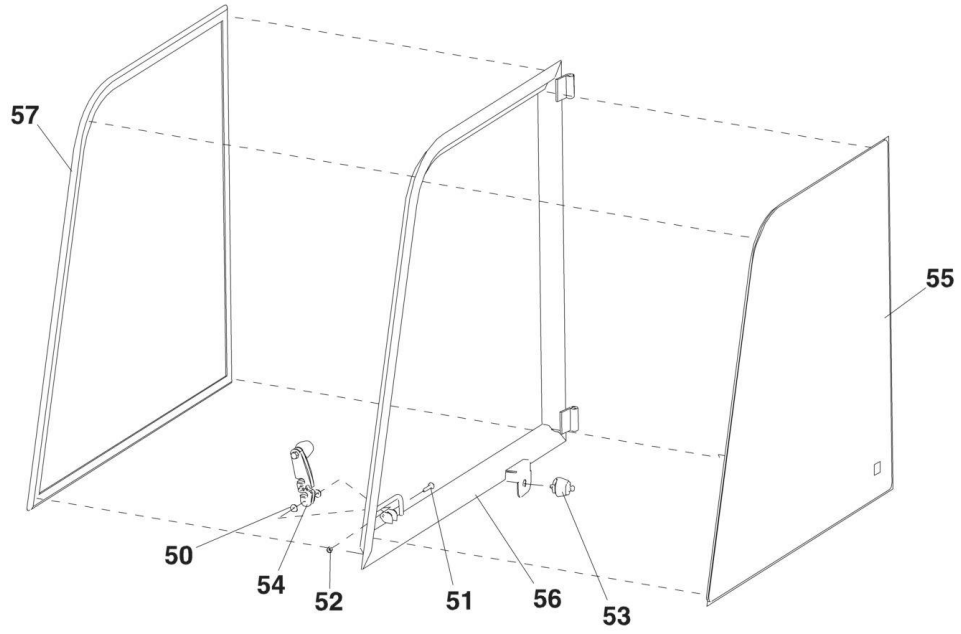
# SECTION 6 - CAB

FIGURE 6-7. CAB ENCLOSURE KIT (SN 0160012437 to Present, Including 0160012298)



PAP19270

# SECTION 6 - CAB



PAP19280

## SECTION 6 - CAB

**FIGURE 6-7. CAB ENCLOSURE KIT (SN 0160012437 to Present, Including 0160012298)**

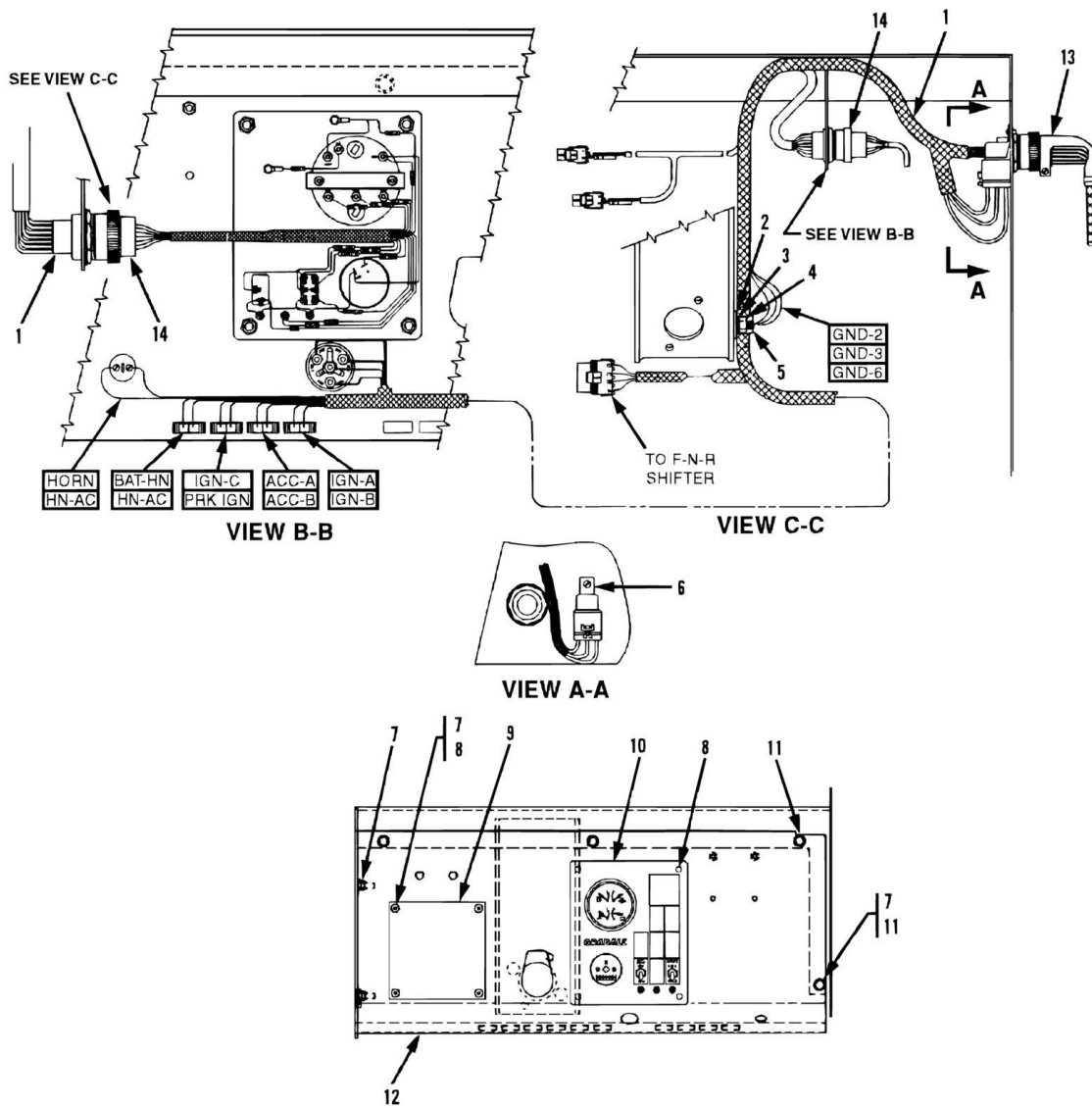
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2915038	1	CAB ENCLOSURE KIT, (includes all items)	B
1	8033866	3	HEX HD BOLT, 0.38-16X3/4, GR8	
2	83201154	8	HEX HD BOLT, 1/4-20X3/4, GR8	
3	7028943	1	HEX HD BOLT, 1/4-20X2-1/2, GR8	
4	83201111	3	HEX HD BOLT, 0.31-18X1-1/2, GR8	
5	8036669	2	HEX HD BOLT, 1/4-28X1, GR4	
6	83201073	2	HEX HD BOLT, 0.38-16X4-1/2	
7	91404305	1	HEX HD BOLT, 0.38-16X6-1/2	
10	10701200	5	HEX NUT, 1/4-20, GR8	
11	88561003	4	FLAT WASHER, 3/8	
12	91404298	3	POP RIVET, 1/8	
13	8035642	3	PLAIN WASHER, 0.270	
14	91404296	2	ROUND PLUG, 1-1/4	
15	7028944	3	FLAT WASHER, 0.320	
16	1001081310	1	ADAPTOR, WET ARM	
17	8034815	1	PANTOGRAPHIC MOUNT PLATE	
18	80364063	9	FLAT WASHER, 9/32, GR8	
19	80364023	1	STRIKER BOLT, 3/8-16	
20	80264031	2	SETTING BLOCK, 1/8X1/4X2	
21	1001081309	1	WIPER BLADE, 24 IN	
22	8035393	1	WIPER ARM, 24 IN PANT	
23	91404301	1	EMERGENCY EXIT HAMMER WITH CABLE	
24	91404303	1	DOOR HOLD-OPEN, FEMALE	
25	91404306	3	HEX NUT, 0.38-16	
26	7028945	4	FLAT WASHER, 0.40	
27	91404297	2	FLAT WASHER, 0.406	
28	8036670	1	FRONT WIPER MOTOR ASSY	
29	1001081306	1	FRONT WIPER SPACER	
30	7028946	1	S/N TAG	
31	7028947	1	WELDMENT, LH SIDE	
32	7028948	1	GLASS, LH SIDE	
33	7028949	1	GLASS, FRONT	
34	7028950	1	SKYLIGHT CURVED GLASS	
35	7028951	1	UPPER DOOR ASSY, (includes items 50 thru 57, 80 & 81)	
36	7028952	1	LOWER DOOR ASSY, (includes items 2, 60 thru 74, 77 & 81)	
37	7028953	1	REAR STRAP	
38	7028954	1	STRIKER BOLT MOUNTING BRACKET	
39	7028955	1	FOAM, LH	
40	7028956	1	FOAM, ROOF	
41	7028957	1	S/N TAG	
46	3900022	2	SELF DRILLING SCREW, 1/4X3/4	
47	7029209	1	FAN BRACKET WELDMENT	
50	8036678	2	FLAT WASHER, 0.260	
51	91344017	1	TORX BOLT, 1/4-20X1-1/4, GR5	
52	91344020	1	HEX NUT, 1/4X20, GR5	
53	91474492	1	DOOR HOLD-OPEN, MALE	
54	91344013	1	DOOR LATCH ASSY	
55	7028958	1	DOOR GLASS, UPPER	
56	N.S.S.	1	UPPER DOOR WELDMENT	
57	7028959	1	UPPER DOOR SEAL	

## SECTION 6 - CAB

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
60	80384191	4	SCREW, #10-24X1/2, GR5	
61	91344043	4	TORX BOLT, 1/4-20X0.62, GR5	
62	80384187	1	ROD END RETAINER CLIP	
63	80384185	1	ROD END RETAINER CLIP	
64	91484028	1	LATCH, LH	
65	91484029	1	GASKET, PADDLE LATCH	
66	91484034	2	MOUNTING BRACKET	
67	8866334	4	ROUND RIVNUT, 1/4-20	
68	91484036	1	CAM LATCH, LH	
69	80384218	1	DOOR STRAP, 6.5 IN C-C, 1.88 WIDE	
70	N.S.S.	1	LOWER DOOR WELDMENT	
71	91484035	1	LATCH RELEASE ROD	
72	7028960	1	LATCH COVER PLATE	
73	7028961	1	LOWER DOOR SEAL	
74	7028962	1	DOOR FOAM	
75	80364009	AR	URETHANE, SIKA, (not shown)	
76	91404302	AR	ACTIVATOR, SIKA, (not shown)	
77	91344026	AR	ADHESIVE, 3M-90 HIGH STRENGTH, (not shown)	
78	80364012	AR	SEALANT, TRIPOLYMER CLEAR, (not shown)	
79		Ref	GREASE, WHITE LITHIUM WITH TEFLON, (not shown)	
80	91344046	1	SEALANT, SUPER WEATHER STRIP, (not shown)	
81	91344018	1	LOCTITE, BLUE, (not shown)	
K1	8036668	1	FRONT WIPER SERVICE KIT, (includes items 5, 16, 17, 21, 22, 28 & 29)	

# SECTION 6 - CAB

FIGURE 6-8. DASH PANEL ASSEMBLY (SN 0355001 through 0355039)





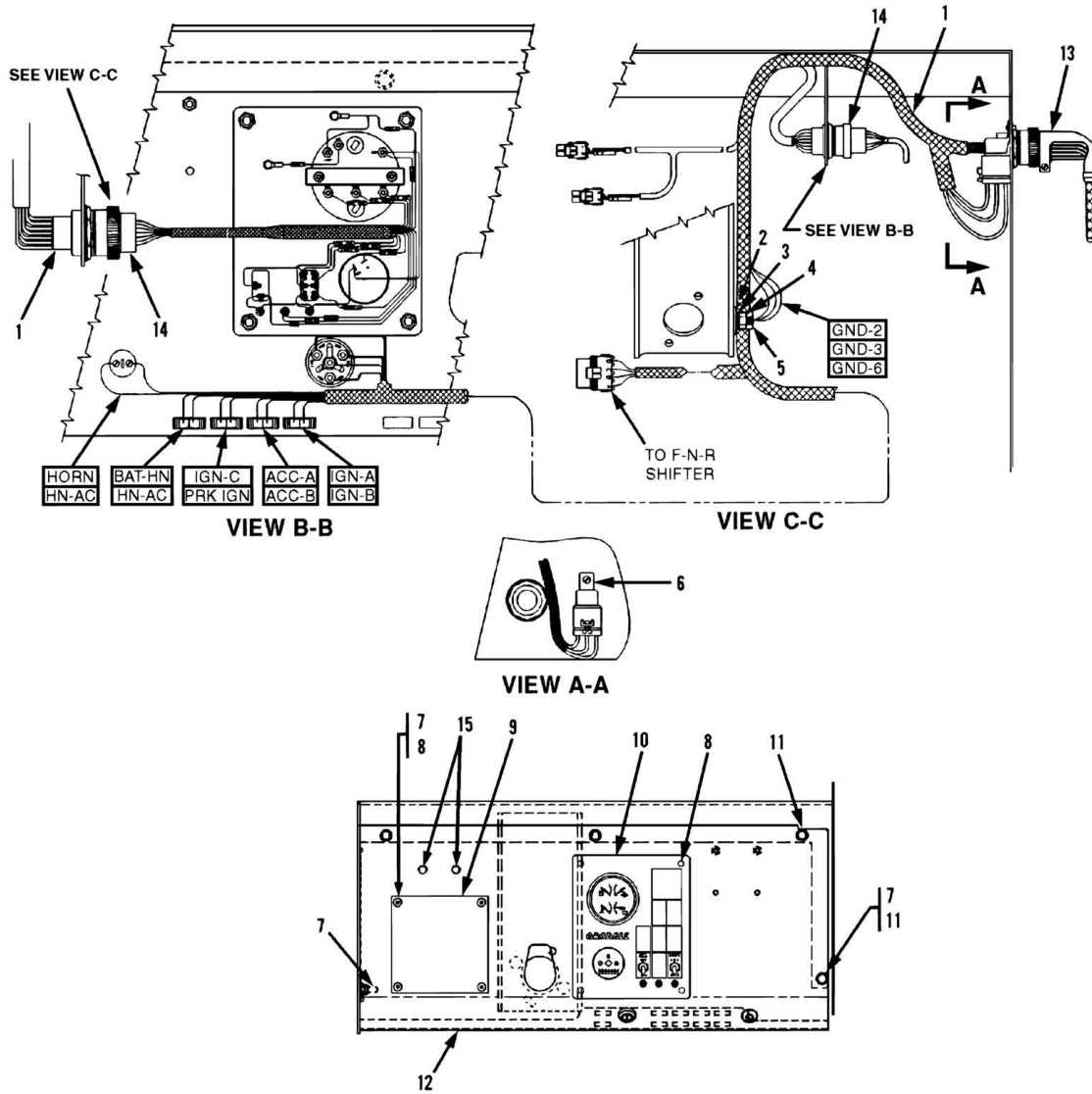
## SECTION 6 - CAB

**FIGURE 6-8. DASH PANEL ASSEMBLY (SN 0355001 through 0355039)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	DASH HARNESS ASSY, (See ELECTRICAL SECTION for Breakdown)	
2	88561006	1	FLAT WASHER, 1/2	
3	88561109	1	FLAT WASHER, 3/8	
4	88501006	1	HEX NUT, 3/8-16	
5	24861170	1	CLAMP	
6	88321029	1	SELF-TAPPING SCREW, #10-24x3/8	
7	77143006	7	WHIZ-LOC NUT, 5/16-18	
8	88261022	8	SOCKET BUTTON HD CAPSCREW, 5/16-18x3/4	
9	91141480	1	COVER	
10		Ref	GAUGE PANEL ASSY, (See GAUGE PANEL ASSEMBLY for Breakdown)	
11	77143003	4	WHIZ-LOC SCREW, 5/16-18X5/8	
12	91141468	1	DASH PANEL	
13		Ref	ENGINE WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
14		Ref	GAUGE PANEL WIRING HARNESS, (See GAUGE PANEL ASSEMBLY for Breakdown)	

# SECTION 6 - CAB

FIGURE 6-9. DASH PANEL ASSEMBLY (SN 0355040 through 0355069)



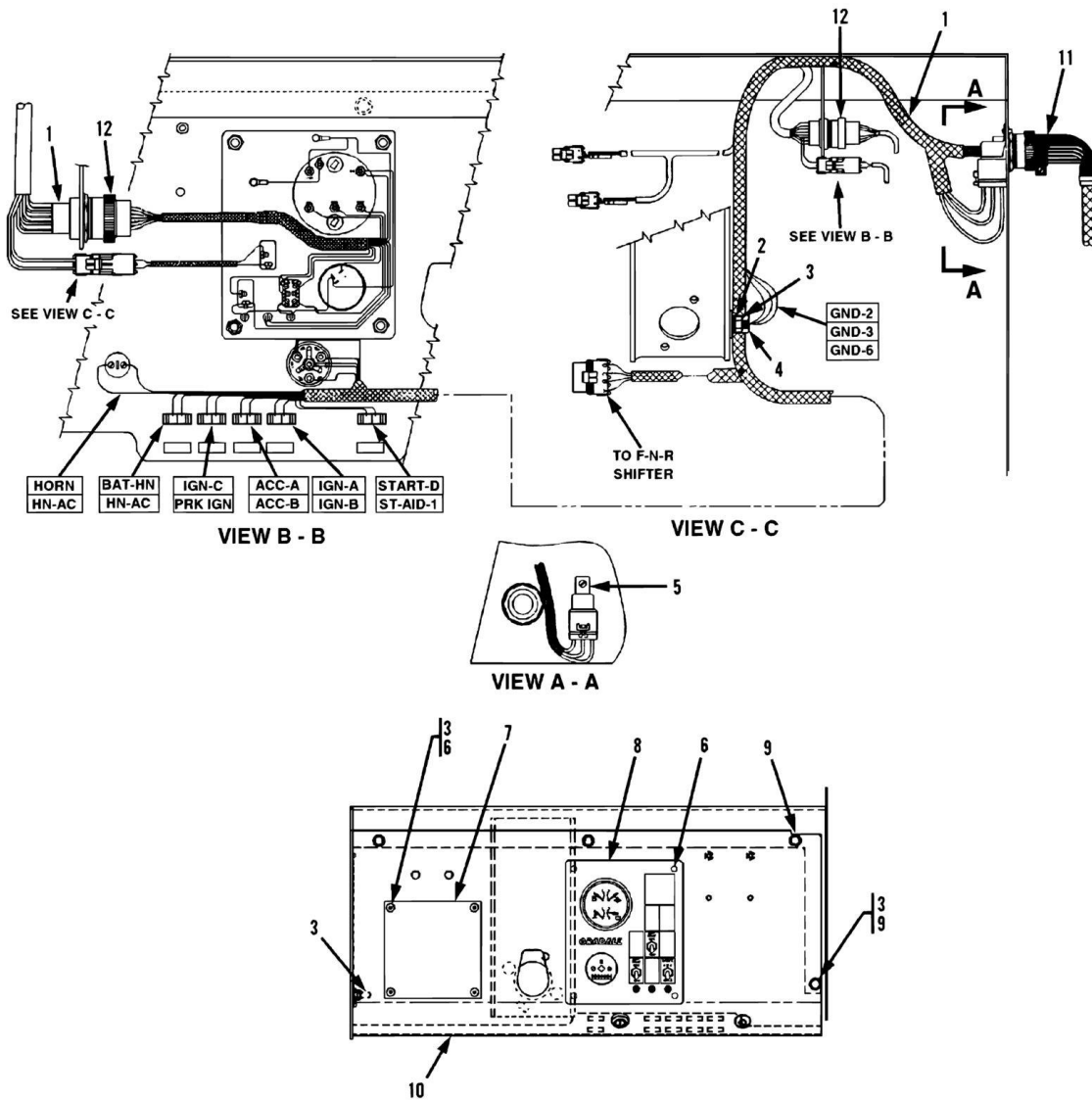
**SECTION 6 - CAB**

**FIGURE 6-9. DASH PANEL ASSEMBLY (SN 0355040 through 0355069)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	DASH HARNESS ASSY, (See ELECTRICAL SECTION for Breakdown)	
2	88561003	1	FLAT WASHER, 1/2	
3	88561108	1	FLAT WASHER, 5/16	
4	88501005	1	HEX NUT, 5/16-18	
5	24861170	1	CLAMP	
6	88321029	1	SELF-TAPPING SCREW, #10-24x3/8	
7	77143006	6	WHIZ-LOC NUT, 5/16-18	
8	88261024	8	SOCKET BUTTON HD CAPSCREW, 5/16-18x1	
9	91141480	1	COVER	
10		Ref	GAUGE PANEL ASSY, (See GAUGE PANEL ASSEMBLY for Breakdown)	
11	77143003	4	WHIZ-LOC SCREW, 5/16-18X5/8	
12	91361008	1	DASH PANEL	
13		Ref	ENGINE WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
14		Ref	GAUGE PANEL WIRING HARNESS, (See GAUGE PANEL ASSEMBLY for Breakdown)	
15	91093031	2	NYLON HOLE PLUG	

# SECTION 6 - CAB

FIGURE 6-10. DASH PANEL ASSEMBLY (SN 0355070 through 0455362, SN 0160000192 through 0160000973)



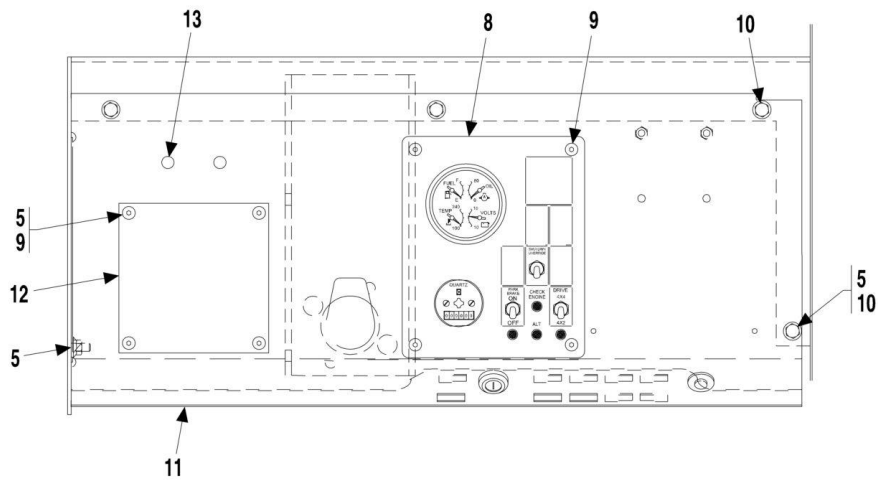
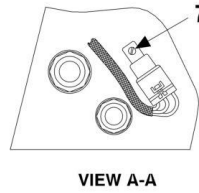
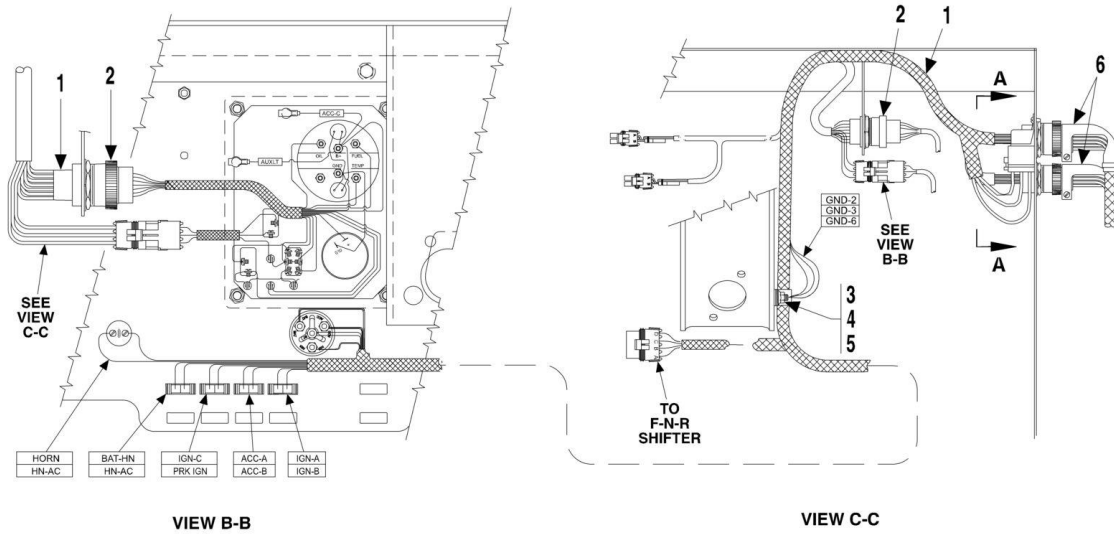
**SECTION 6 - CAB**

**FIGURE 6-10. DASH PANEL ASSEMBLY (SN 0355070 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	DASH HARNESS ASSY, (See ELECTRICAL SECTION for Breakdown)	
2	88561003	1	FLAT WASHER, 1/2	
3	77143006	7	WHIZ-LOC NUT, 5/16-18	
4	24861170	1	CLAMP	
5	88321029	1	SELF-TAPPING SCREW, #10-24x3/8	
6	88261024	8	SOCKET BUTTON HD CAPSCREW, 5/16-18x1	
7	91141480	1	COVER	
8		Ref	GAUGE PANEL ASSY, (See GAUGE PANEL ASSEMBLY for Breakdown)	
9	77143003	4	WHIZ-LOC SCREW, 5/16-18X5/8	
10	91361008	1	DASH PANEL	
11		Ref	ENGINE WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
12		Ref	GAUGE PANEL WIRING HARNESS, (See GAUGE PANEL ASSEMBLY for Breakdown)	

# SECTION 6 - CAB

## FIGURE 6-11. DASH PANEL ASSEMBLY (SN 0160000976 to Present)



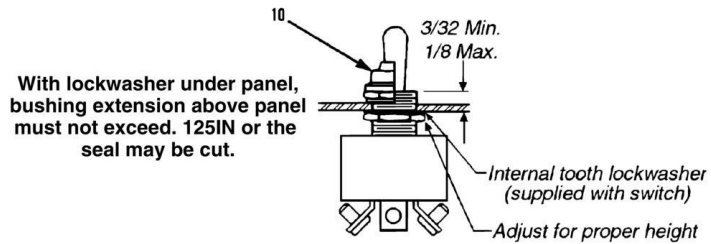
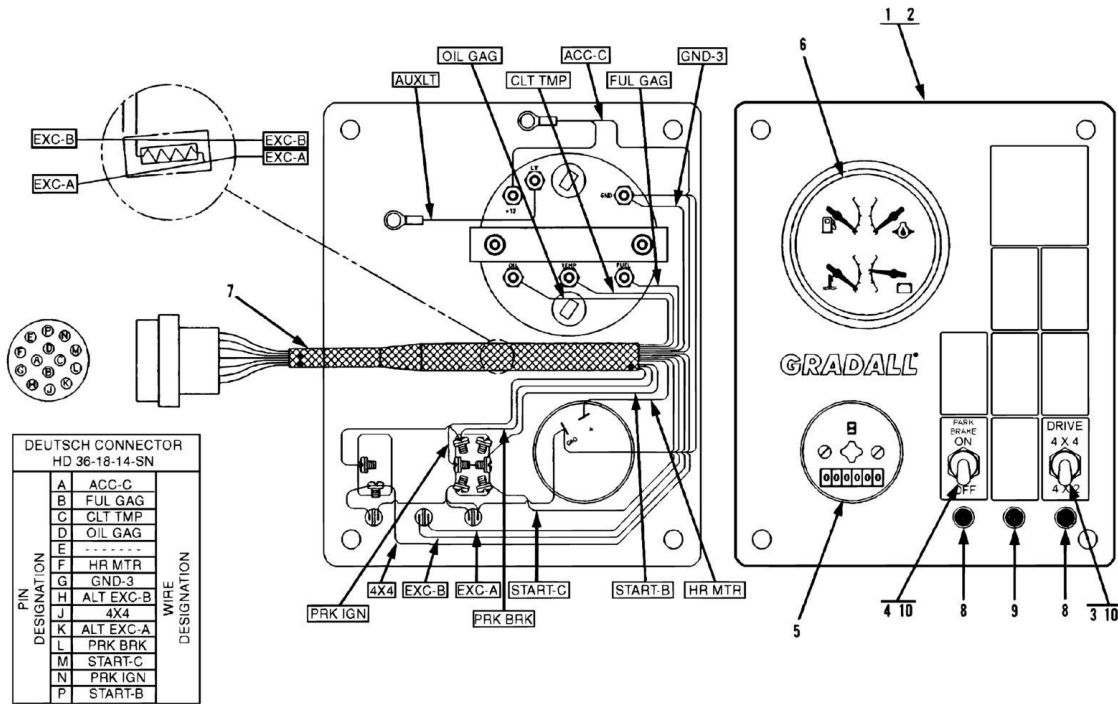
## SECTION 6 - CAB

**FIGURE 6-11. DASH PANEL ASSEMBLY (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	DASH HARNESS ASSY, (See ELECTRICAL SECTION for Breakdown)	
2		Ref	GAUGE PANEL WIRING HARNESS, (See GAUGE PANEL ASSEMBLY for Breakdown)	
3	88561003	1	FLAT WASHER, 1/2 (SN 0160000976 through 0160002224)	
4	24861170	1	CLAMP (SN 0160000976 through 0160012366, Excluding 0160012298)	
4	85941016	1	CLAMP (SN 0160012437 to Present, Including 0160012298)	
5	77143006	7	WHIZ-LOC NUT, 5/16-18	
6		Ref	ENGINE WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
7	88321029	1	SELF TAPPING SCREW, 10-24X3/8	
8		Ref	GAUGE PANEL, (See GAUGE PANEL ASSEMBLY for Breakdown)	
9	88261022	8	SOCKET BUTTON HD CAPSCREW, 5/16-18x3/4	
10	77143003	4	WHIZ-LOC SCREW, 5/16-18X5/8	
11	91361008	1	DASH PANEL (SN 0160000976 through 0160012366, Excluding 0160012298)	
11		Ref	DASH PANEL , (See OPEN CAB for Breakdown) (SN 0160012437 to Present, Including 0160012298)	
12	91141480	1	COVER (Prior to SN 0160024648)	
12		Ref	GUIDE PLATE , (See CONTROLS SECTION for Breakdown) (SN 0160024648 to Present)	
13	91093031	2	NYLON HOLE PLUG	

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FIGURE 6-12. GAUGE PANEL ASSEMBLY (SN 0355001 through 0355069)



**TYPICAL SWITCH AND BOOT INSTALLATION**

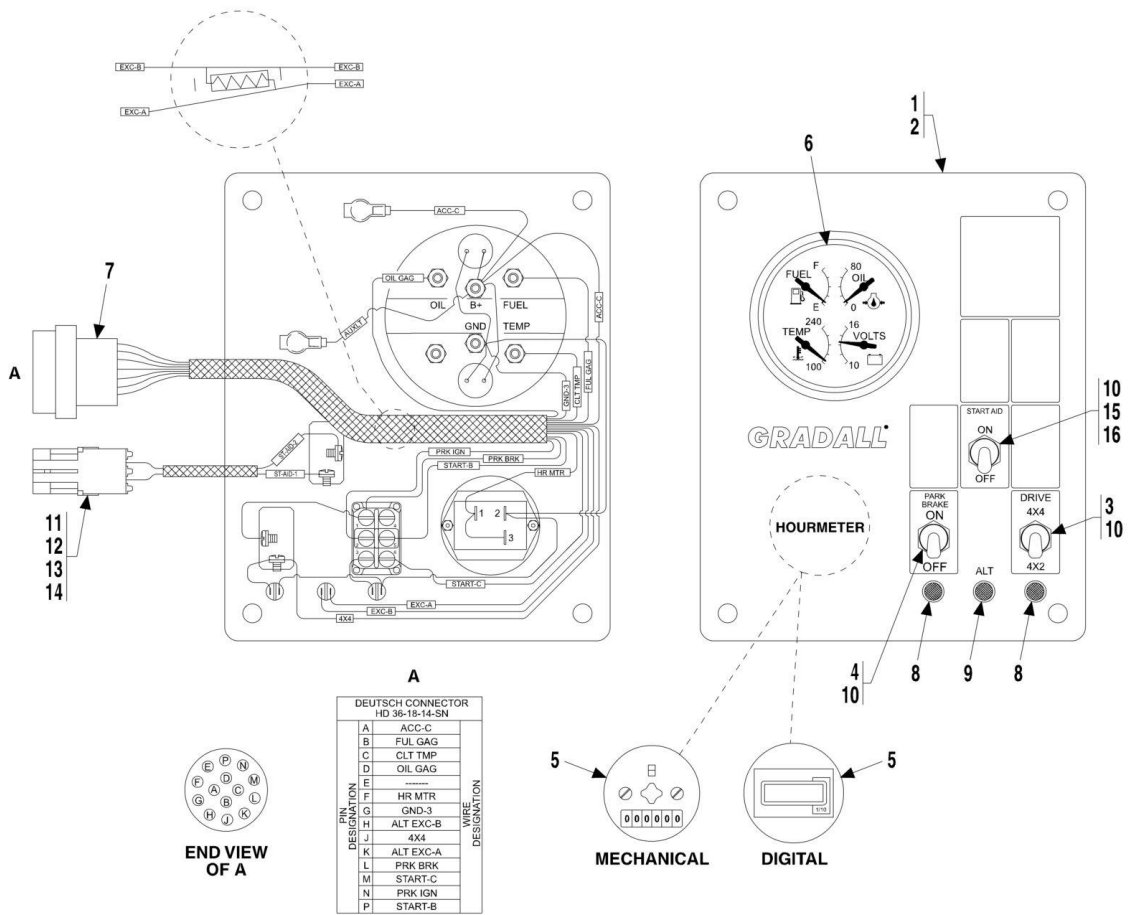


**SECTION 6 - CAB****FIGURE 6-12. GAUGE PANEL ASSEMBLY (SN 0355001 through 0355069)**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>REV</b>
1	91143331	1	GAUGE PANEL, (includes all items)	
1	91364004	1	PANEL ASSY, (includes front and back plates, acrylic lens and std labels)	
2	91364005	1	RUBBER BOOT	
3	77383467	1	TOGGLE SWITCH	
4	91143114	1	PARK BRAKE SWITCH	
5	91364006	1	HOUR METER	
6	91364007	1	4-IN-1 GAUGE, (oil, fuel, temp, volts)	
7	91364008	1	WIRE HARNESS	
8	91143128	2	AMBER INDICATOR LIGHT	
9	91143127	1	RED INDICATOR LIGHT	
10	77383470	2	BOOT	

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FIGURE 6-13. GAUGE PANEL ASSEMBLY (SN 0355070 through 0455362, SN 0160000192 through 0160000973)



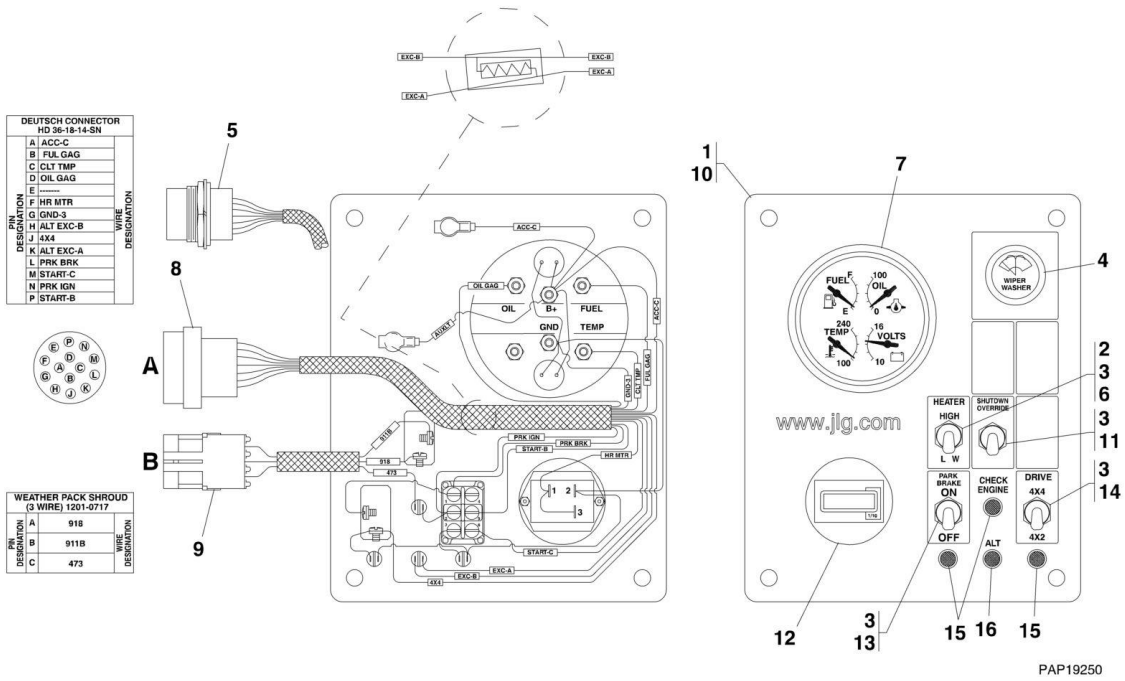
## SECTION 6 - CAB

**FIGURE 6-13. GAUGE PANEL ASSEMBLY (SN 0355070 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143331	1	GAUGE PANEL, (includes all items)	
1	91364004	1	PANEL ASSY, (includes front and back plates, acrylic lens and std labels)	
2	91364005	1	RUBBER BOOT	
3	77383467	1	TOGGLE SWITCH	
4	91343074	1	PARK BRAKE SWITCH	
5	91364006	1	HOUR METER, (MECHANICAL)	
5	91144473	1	HOUR METER, (DIGITAL)	
6	91364007	1	4-IN-1 GAUGE, (oil, fuel, temp, volts)	
7	91364008	1	WIRE HARNESS	
8	91143128	2	AMBER INDICATOR LIGHT	
9	91143127	1	RED INDICATOR LIGHT	
10	77383470	3	BOOT	
11	91363034	1	START AID HARNESS, (includes items 12 thru 14)	
12	80963058	1	CONNECTOR	
13	4460475	2	MALE PIN TERMINAL	
14	91364009	2	CABLE SEAL	
15	91123181	1	TOGGLE SWITCH	
16	91123176	1	START AID DECAL	

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## FIGURE 6-14. GAUGE PANEL ASSEMBLY (SN 016000976 to Present)



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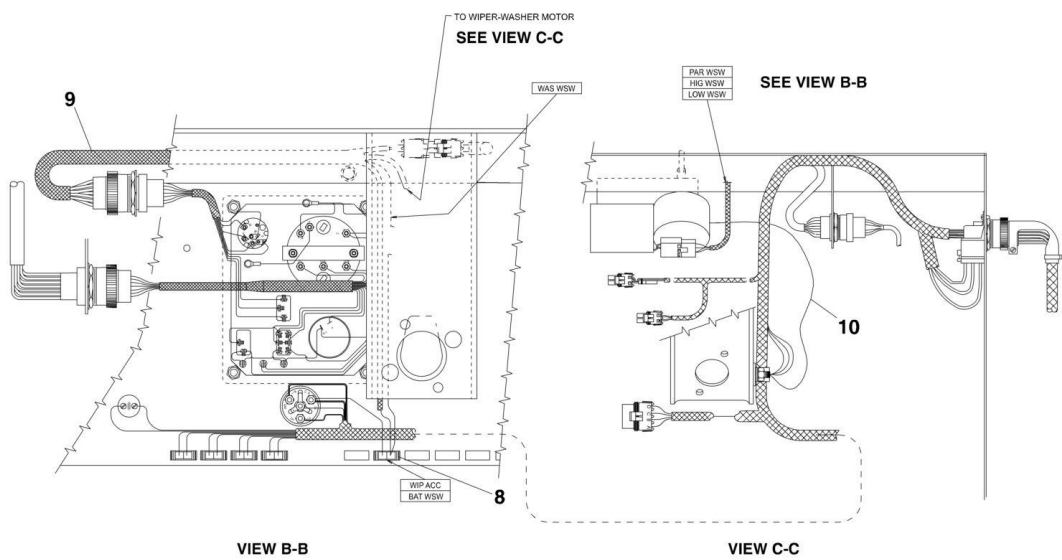
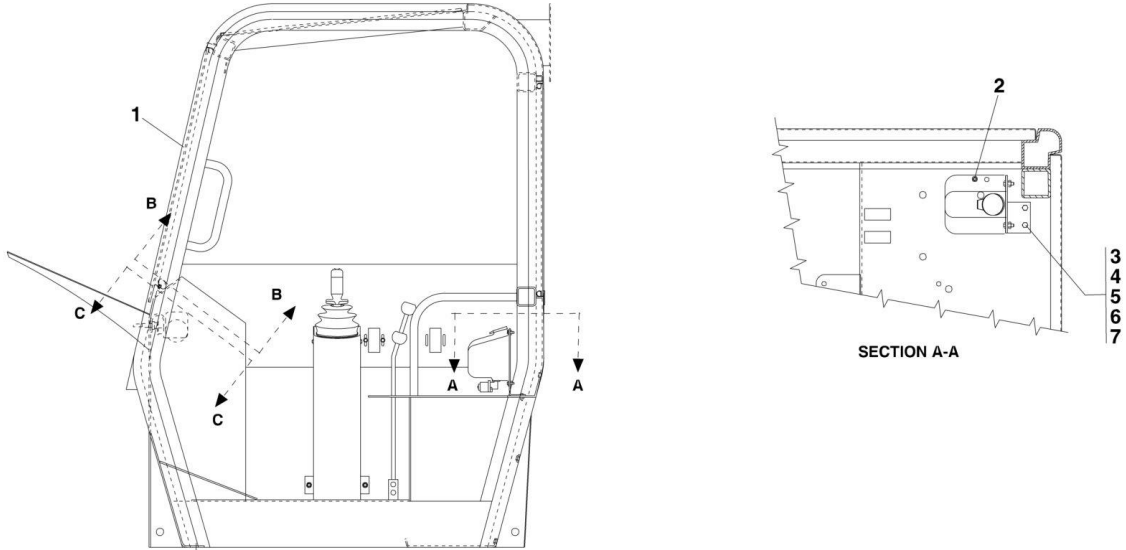
## SECTION 6 - CAB

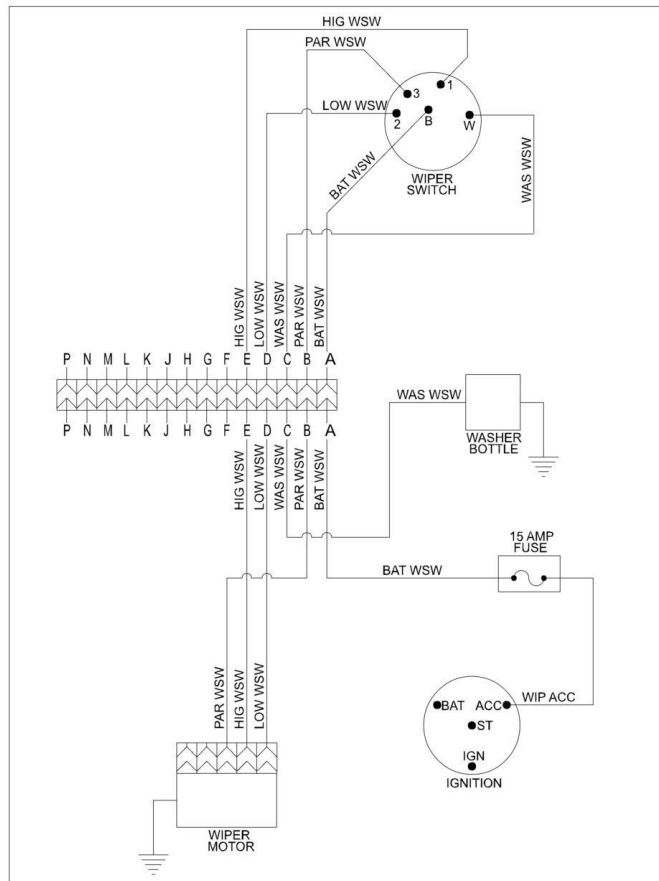
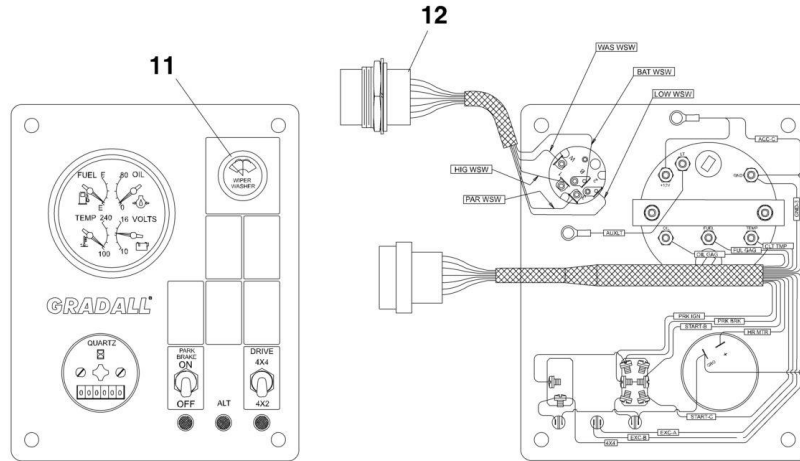
**FIGURE 6-14. GAUGE PANEL ASSEMBLY (SN 016000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555010	1	GAUGE PANEL ASSY, (enclosed cab), (includes all items) <b>(Prior to SN 0160036260)</b>	B
	1001101492	1	GAUGE PANEL ASSY, (enclosed cab), (includes all items) <b>(SN 0160036260 to Present)</b>	C
	91553027	1	GAUGE PANEL, (open cab), (includes items 1, 7 thru 16 & three of item 3) <b>(Prior to SN 0160036260)</b>	D
	1001095325	1	GAUGE PANEL, (open cab), (includes items 1, 7 thru 11, 12 thru 16 & three of item 3) <b>(SN 0160036260 to Present)</b>	D
1	91554037	1	PANEL ASSY, (includes front and back plates, acrylic lens and std labels)	
2	77383744	1	HEATER SWITCH	
3	77383470	4	BOOT	
4	80963101	1	WIPER AND WASHER SWITCH	
5	91143333	1	WIPER-WASHER-HEATER HARNESS	
6	91143361	1	HEATER DECAL	
7	91554038	1	4-IN-1 GAUGE, (oil, fuel, temp, volts)	
8	91364008	1	WIRE HARNESS	
9	91553029	1	SHUTDOWN SWITCH HARNESS	
10	91364005	1	RUBBER BOOT	
11	91123181	1	TOGGLE SWITCH	
12	91144473	1	HOURLMETER	
13	91343074	1	TOGGLE SWITCH	
14	77383467	1	TOGGLE SWITCH	
15	91143128	3	AMBER INDICATOR LIGHT	
16	91143127	1	RED INDICATOR LIGHT	

# SECTION 6 - CAB

## FIGURE 6-15. WINDSHIELD/TOP WINDOW KIT INSTALLATION





**ELECTRICAL SCHEMATIC  
FOR WIPER MOTOR ITEMS**

## SECTION 6 - CAB

**FIGURE 6-15. WINDSHIELD/TOP WINDOW KIT INSTALLATION**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91375005	1	WINDSHIELD/TOP WINDOW KIT INSTALLATION, (includes all items)	B
1	91373011	1	WINDSHIELD/TOP WINDOW KIT	
2	90029955	1	RUBBER GROMMET	
3	1001111112	1	WASHER BOTTLE	
4	91146099	1	BOTTLE MOUNTING BRACKET	
5	0641406	6	HEX HD CAPSCREW, 1/4-20 X 3/4, GR5	
6	4761400	6	LOCKWASHER, 1/4	
7	88501004	6	HEX NUT, 1/4-20	
8	77363268	1	FUSE, 15A	
9	91143335	1	WIPER/HEATER OPTION HARNESS	
10	91361018	1	JUMPER WIRE	
11	80963101	1	WIPER/WASHER SWITCH	
12	91143333	1	WIPER/WASHER/HEATER HARNESS	





# SECTION 6 - CAB

## FIGURE 6-16. SKYLIGHT WIPER INSTALLATION

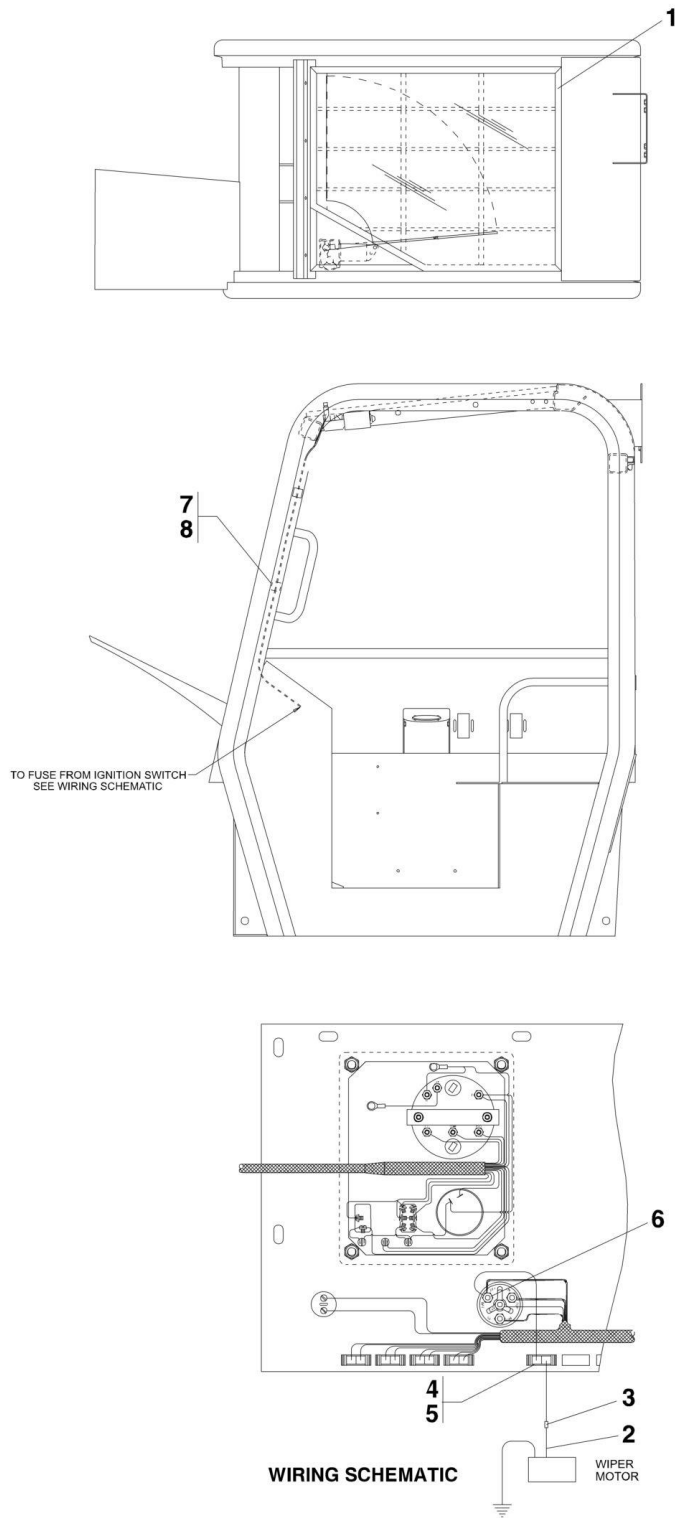


FIGURE 6-16. SKYLIGHT WIPER INSTALLATION

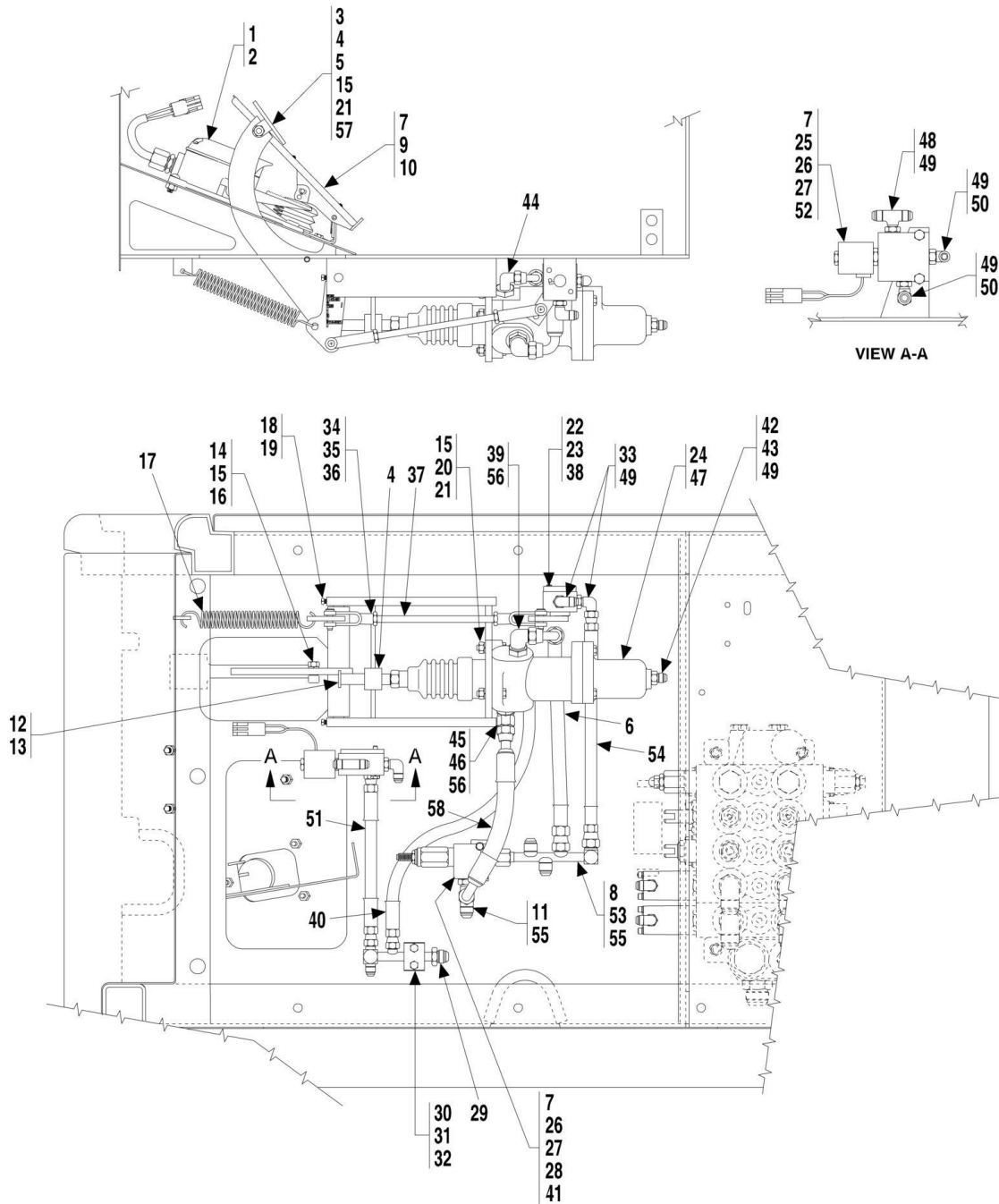
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365016	1	SKYLIGHT WIPER INSTALLATION, (includes all items)	
1	91363037	1	SKYLIGHT WIPER KIT	
1	70021616	1	WIPER MOTOR	
1	8035500	1	WIPER ARM	
1	70021776	1	WIPER BLADE	
2	91141342	1	JUMPER WIRE	
3	86683480	1	BUTT CONNECTOR	
4	91143108	1	FUSE HOLDER	
5	77363268	1	FUSE, 15A	
6	86983188	1	EYELET	
7	83683181	2	TY-RAP BASE	
8	91053419	2	TY-RAP	



**SECTION 7 - CONTROLS**

# SECTION 7 - CONTROLS

FIGURE 7-1. BRAKE AND INCHING LINKAGE (SN 0355001 through 0455362, SN 0160000192 through 0160000238)



## SECTION 7 - CONTROLS

**FIGURE 7-1. BRAKE AND INCHING LINKAGE (SN 0355001 through 0455362, SN 0160000192 through 0160000238)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91163093	1	FOOT SWITCH	
2	88261017	3	SOCKET BUTTON HD CAPSCREW, 1/4-20X7/8	
3	91146108	1	BRAKE PEDAL	
4	91083136	4	BUSHING	
5	91146102	1	PEDAL WELDMENT	
6	84718690	1	HOSE ASSY	
7	88551009	7	LOCKWASHER, 1/4	
8	2220373	1	ADAPTER, (includes item 55)	
9		Ref	ACCELERATOR CONTROL ASSY, (See ACCELERATOR PEDAL ASSEMBLY for Breakdown)	
10	88201003	3	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
11	2220602	1	TEE FITTING, (includes item 55)	
12	91081445	1	PUSH ROD	
13	88501408	1	HEX JAM NUT, 1/2-20	
14	91083312	1	CAM ROLLER	
15	88551010	5	LOCKWASHER, 5/16	
16	88501405	1	HEX JAM NUT, 5/16-24	
17	91043214	1	SPRING	
18	90200284	1	SHAFT	
19	88441001	2	RING RETAINER	
20	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
21	88501005	4	HEX NUT, 5/16-18	
22	91145088	1	INCHING VALVE ASSY, (includes items 33 thru 38)	
23	88212228	2	SOCKET HD CAPSCREW, 5/16-18x1-1/4, GR8	
24	91145089	1	BRAKE VALVE ASSY, (includes items 39, 40 & 42 thru 47)	
25	91145087	1	SOLENOID VALVE ASSY, (includes items 48 thru 52)	
26	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
27	88561107	4	FLAT WASHER, 1/4	
28	91145086	1	RELIEF VALVE ASSY, (includes items 6, 8, 11, 41, 53 & 54)	
29	91163109	1	HYDRAULIC TUBE	
30	91033138	1	TUBE CLAMP	
31	77133498	1	CLAMP COVER	
32	77133499	2	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
33	2220473	2	ELBOW, 90, (includes item 49)	
34	88821004	2	YOKE END	
35	88501406	2	HEX JAM NUT, 3/8-24	
36	90027987	2	SPRING PIN	
37	91081332	1	LINKAGE ROD	
38		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	2220671	1	ELBOW, 90, (includes item 56)	
40	84718688	1	HOSE ASSY	
41	91143200	1	RELIEF VALVE	
42	83633002	1	CONNECTOR (SN 0355001 through 0355947)	
42	2220371	1	CONNECTOR, (includes item 49) (SN 0355948 to Present)	
43	90207856	1	COPPER GASKET (SN 0355001 through 0355947)	
44	2220828	1	ELBOW, 90	
45	2220374	1	CONNECTOR, (includes item 56)	
46	2220683	1	ELBOW, 45, (swivel nut)	

## SECTION 7 - CONTROLS

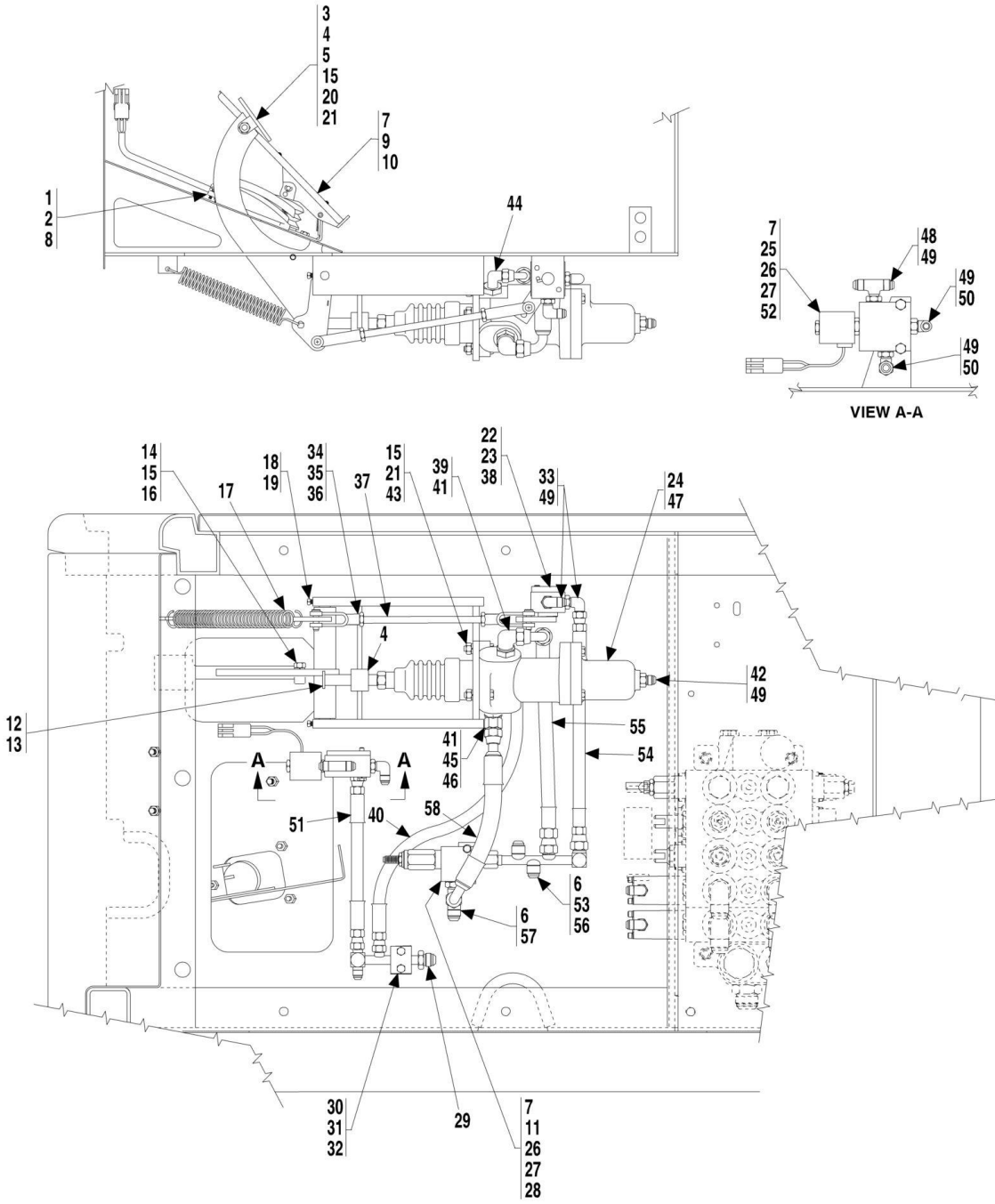
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
48	2220899	1	BRANCH TEE, (includes item 49)	
49	88591204	6	O-RING	
50	2220473	2	ELBOW, 90, (includes item 49)	
51	84718689	1	HOSE ASSY	
52		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
53	91163110	1	HYDRAULIC TUBE	
54	84718691	1	HOSE ASSY	
55	88591205	2	O-RING	
56	88591206	2	O-RING	
57	88201021	1	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
58	84718687	1	HOSE ASSY	





# SECTION 7 - CONTROLS

FIGURE 7-2. BRAKE AND INCHING LINKAGE (SN 016000239 through 016000973)



## SECTION 7 - CONTROLS

**FIGURE 7-2. BRAKE AND INCHING LINKAGE (SN 0160000239 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91343218	1	FOOT SWITCH	
2	88261011	2	SOCKET BUTTON HD CAPSCREW, #10-24X7/8	
3	91146108	1	BRAKE PEDAL	
4	91083136	4	BUSHING	
5	91146102	1	PEDAL WELDMENT	
6	88591205	2	O-RING	
7	88551009	7	LOCKWASHER, 1/4	
8	86683122	1	TIE WRAP	
9		Ref	ACCELERATOR CONTROL ASSY, (See ACCELERATOR PEDAL ASSEMBLY for Breakdown)	
10	88201003	3	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
11	91143200	1	RELIEF VALVE	
12	91081445	1	PUSH ROD	
13	88501408	1	HEX JAM NUT, 1/2-20	
14	91083312	1	CAM ROLLER	
15	88551010	5	LOCKWASHER, 5/16	
16	88501405	1	HEX JAM NUT, 5/16-24	
17	91043214	1	SPRING	
18	90200284	1	SHAFT	
19	88441001	2	RING RETAINER	
20	88201021	1	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
21	88501005	4	HEX NUT, 5/16-18	
22	91145088	1	INCHING VALVE ASSY, (includes items 33 thru 38)	
23	88212228	2	SOCKET HD CAPSCREW, 5/16-18x1-1/4, GR8	
24	91555011	1	BRAKE VALVE ASSY, (includes items 39 thru 42 & 44 thru 47)	
25	91145087	1	SOLENOID VALVE ASSY, (includes items 48 thru 52)	
26	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
27	88561107	4	FLAT WASHER, 1/4	
28	91145086	1	RELIEF VALVE ASSY, (includes items 11 & 53 thru 57)	
29	91163109	1	HYDRAULIC TUBE	
30	91033138	1	TUBE CLAMP	
31	77133498	1	CLAMP COVER	
32	77133499	2	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
33	2220473	2	ELBOW, 90, (includes item 49)	
34	88821004	2	YOKE END	
35	88501406	2	HEX JAM NUT, 3/8-24	
36	90027987	2	SPRING PIN	
37	91081332	1	LINKAGE ROD	
38		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	2220671	1	ELBOW, 90, (includes item 41)	
40	84718688	1	HOSE ASSY	
41	88591206	2	O-RING	
42	2220371	1	ADAPTER, (includes item 49)	
43	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
44	2220828	1	ELBOW, 90	
45	2220374	1	ADAPTER, (includes item 41)	
46	2220683	1	ELBOW, 45, (swivel nut)	
47		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

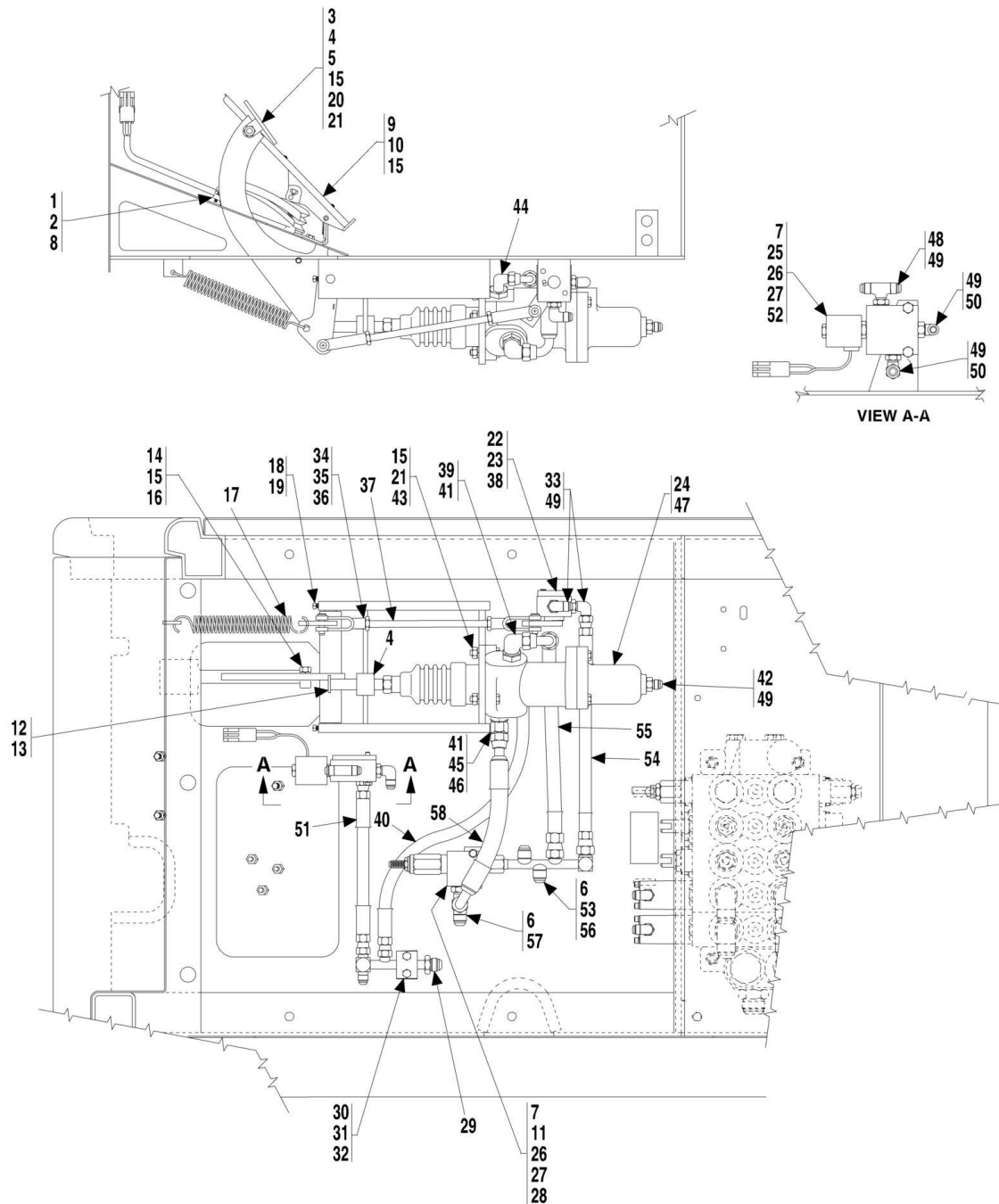
## SECTION 7 - CONTROLS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	2220899	1	BRANCH TEE, (includes item 49)	
49	88591204	6	O-RING	
50	2220473	2	ELBOW, 90, (includes item 49)	
51	84718689	1	HOSE ASSY	
52		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
53	91163110	1	HYDRAULIC TUBE	
54	84718691	1	HOSE ASSY	
55	84718690	1	HOSE ASSY	
56	2220373	1	ADAPTER, (includes item 6)	
57	2220602	1	TEE FITTING, (includes item 6)	
58	84718687	1	HOSE ASSY	



# SECTION 7 - CONTROLS

FIGURE 7-3. BRAKE AND INCHING LINKAGE (SN 016000976 through 0160012366, Excluding 0160012298)



## SECTION 7 - CONTROLS

**FIGURE 7-3. BRAKE AND INCHING LINKAGE (SN 0160000976 through 0160012366, Excluding 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91343218	1	FOOT SWITCH	
2	88261011	2	SOCKET BUTTON HD CAPSCREW, #10-24X7/8	
3	91146108	1	BRAKE PEDAL	
4	91083136	4	BUSHING	
5	91146102	1	PEDAL WELDMENT	
6	88591205	2	O-RING	
7	88551009	4	LOCKWASHER, 1/4	
8	86683122	1	TIE WRAP	
9		Ref	THROTTLE PEDAL, (See ACCELERATOR PEDAL ASSEMBLY for Breakdown)	
10	88201018	4	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
11	91143200	1	RELIEF VALVE (Prior to SN 0160001291)	
11	91413132	1	RELIEF VALVE (SN 0160001291 to Present)	
12	91081445	1	PUSH ROD	
13	88501408	1	HEX JAM NUT, 1/2-20	
14	91083312	1	CAM ROLLER	
15	88551010	9	LOCKWASHER, 5/16	
16	88501405	1	HEX JAM NUT, 5/16-24	
17	91043214	1	SPRING	
18	90200284	1	SHAFT	
19	88441001	2	RING RETAINER	
20	88201021	1	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
21	88501005	4	HEX NUT, 5/16-18	
22	91145088	1	INCHING VALVE ASSY, (includes items 33 thru 38)	
23	88212228	2	SOCKET HD CAPSCREW, 5/16-18x1-1/4, GR8	
24	91555011	1	BRAKE VALVE ASSY, (includes items 39 thru 42 & 44 thru 47)	
25	91145087	1	SOLENOID VALVE ASSY, (includes items 48 thru 52)	
26	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
27	88561107	4	FLAT WASHER, 1/4	
28	91145086	1	RELIEF VALVE ASSY, (includes items 11 & 53 thru 57)	
29	91163109	1	HYDRAULIC TUBE	
30	91033138	1	TUBE CLAMP	
31	77133498	1	CLAMP COVER	
32	77133499	2	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
33	2220473	2	ELBOW, 90, (includes item 49)	
34	88821004	2	YOKE END	
35	88501406	2	HEX JAM NUT, 3/8-24	
36	90027987	2	SPRING PIN	
37	91081332	1	LINKAGE ROD	
38		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	2220671	1	ELBOW, 90, (includes item 41)	
40	84718688	1	HOSE ASSY	
41	88591206	2	O-RING	
42	2220371	1	ADAPTER, (includes item 49)	
43	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
44	2220828	1	ELBOW, 90	
45	2220374	1	ADAPTER, (includes item 41)	
46	2220683	1	ELBOW, 45, (swivel nut)	

## SECTION 7 - CONTROLS

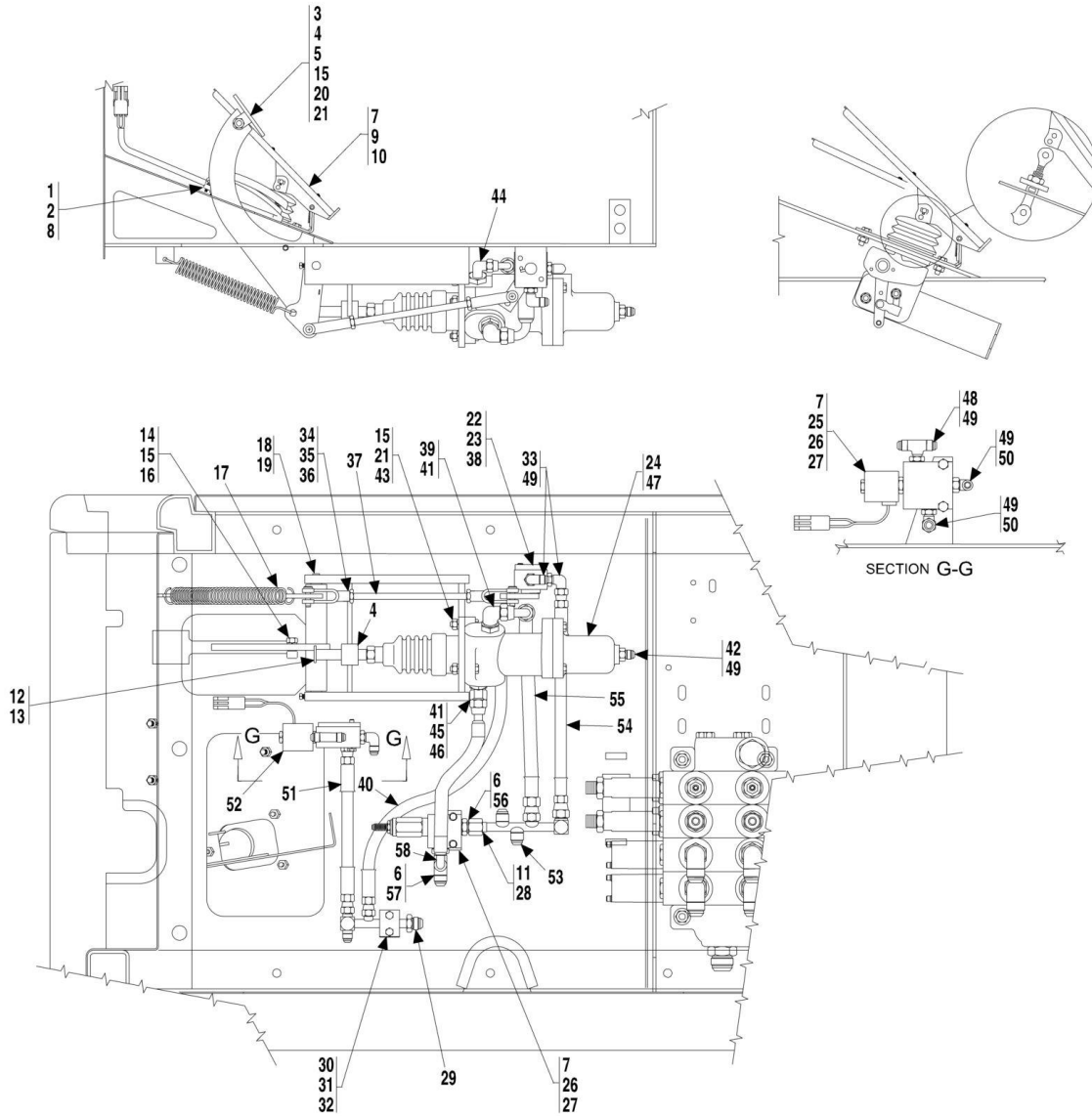
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
48	2220899	1	BRANCH TEE, (includes item 49)	
49	88591204	6	O-RING	
50	2220473	2	ELBOW, 90, (includes item 49)	
51	84718689	1	HOSE ASSY	
52		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
53	91163110	1	HYDRAULIC TUBE	
54	84718691	1	HOSE ASSY	
55	84718690	1	HOSE ASSY	
56	2220373	1	ADAPTER, (includes item 6)	
57	2220602	1	TEE FITTING, (includes item 6)	
58	84718687	1	HOSE ASSY	





# SECTION 7 - CONTROLS

FIGURE 7-4. BRAKE AND INCHING LINKAGE (SN 01600122437 to Present, Including 0160012298)



## SECTION 7 - CONTROLS

**FIGURE 7-4. BRAKE AND INCHING LINKAGE (SN 01600122437 to Present, Including 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91343218	1	FOOT SWITCH	
2	88261011	2	SOCKET BUTTON HD CAPSCREW, #10-24X7/8	
3	91146108	1	BRAKE PEDAL	
4	91083136	4	BUSHING	
5	91146102	1	PEDAL WELDMENT	
6	88591205	2	O-RING	
7	88551009	4	LOCKWASHER, 1/4	
8	86683122	1	TIE WRAP	
9		Ref	THROTTLE PEDAL, (See ACCELERATOR PEDAL ASSEMBLY for Breakdown)	
10	88201018	4	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
11	91413132	1	RELIEF VALVE	
12	91081445	1	PUSH ROD	
13	88501408	1	HEX JAM NUT, 1/2-20	
14	91083312	1	CAM ROLLER	
15	88551010	9	LOCKWASHER, 5/16	
16	88501405	1	HEX JAM NUT, 5/16-24	
17	91043214	1	SPRING	
18	3423212	1	SHAFT	
19	88581303	2	RING RETAINER	
20	88201021	1	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
21	88501005	4	HEX NUT, 5/16-18	
22	91145088	1	INCHING VALVE ASSY, (includes items 33 thru 38)	
23	88212228	2	SOCKET HD CAPSCREW, 5/16-18x1-1/4, GR8	
24	91555011	1	BRAKE VALVE ASSY, (includes items 39 thru 42 & 44 thru 47)	
25	91145087	1	SOLENOID VALVE ASSY, (includes items 48 thru 52)	
26	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
27	88561107	4	FLAT WASHER, 1/4	
28	91145086	1	RELIEF VALVE ASSY, (includes items 11 & 53 thru 57)	
29	91163109	1	HYDRAULIC TUBE	
30	91033138	1	TUBE CLAMP	
31	77133498	1	CLAMP COVER	
32	88201007	2	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
33	2220473	2	ELBOW, 90, (includes item 49)	
34	88821004	2	YOKE END	
35	88501406	2	HEX JAM NUT, 3/8-24	
36	90027987	2	SPRING PIN	
37	91081332	1	LINKAGE ROD	
38		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	2220671	1	ELBOW, 90, (includes item 41)	
40	84718688	1	HOSE ASSY	
41	88591206	2	O-RING	
42	2220371	1	ADAPTER, (includes item 49)	
43	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
44	2220828	1	ELBOW, 90	
45	2220374	1	ADAPTER, (includes item 41)	
46	2220683	1	ELBOW, 45, (swivel nut)	
47		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

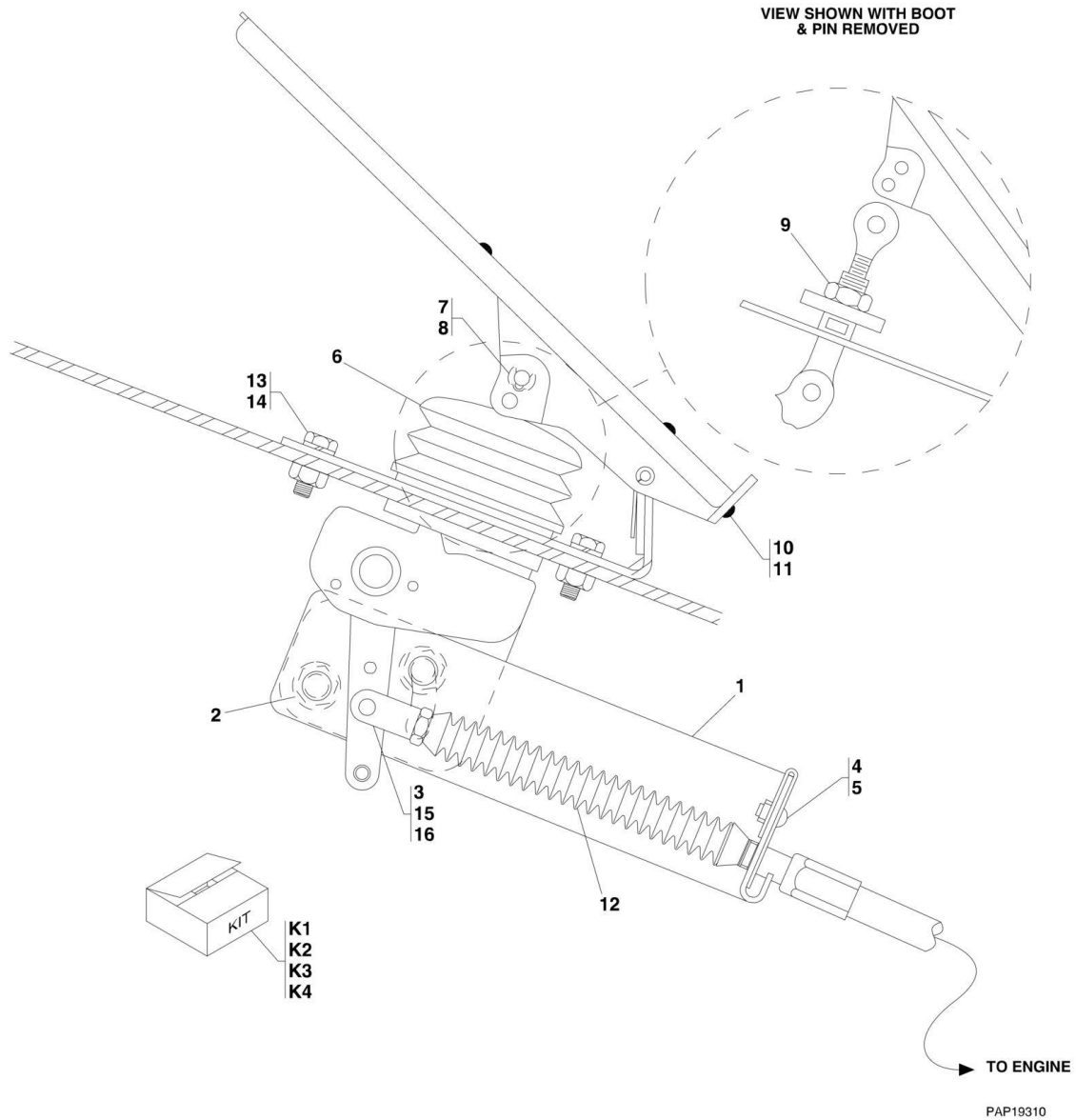
## SECTION 7 - CONTROLS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	2220899	1	BRANCH TEE, (includes item 49)	
49	88591204	6	O-RING	
50	2220473	2	ELBOW, 90, (includes item 49)	
51	84718689	1	HOSE ASSY	
52		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
53	91163110	1	HYDRAULIC TUBE	
54	84718691	1	HOSE ASSY	
55	84718690	1	HOSE ASSY	
56	2220373	1	ADAPTER, (includes item 6)	
57	2220602	1	TEE FITTING, (includes item 6)	
58	84718687	1	HOSE ASSY	



# SECTION 7 - CONTROLS

FIGURE 7-5. ACCELERATOR PEDAL ASSEMBLY (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



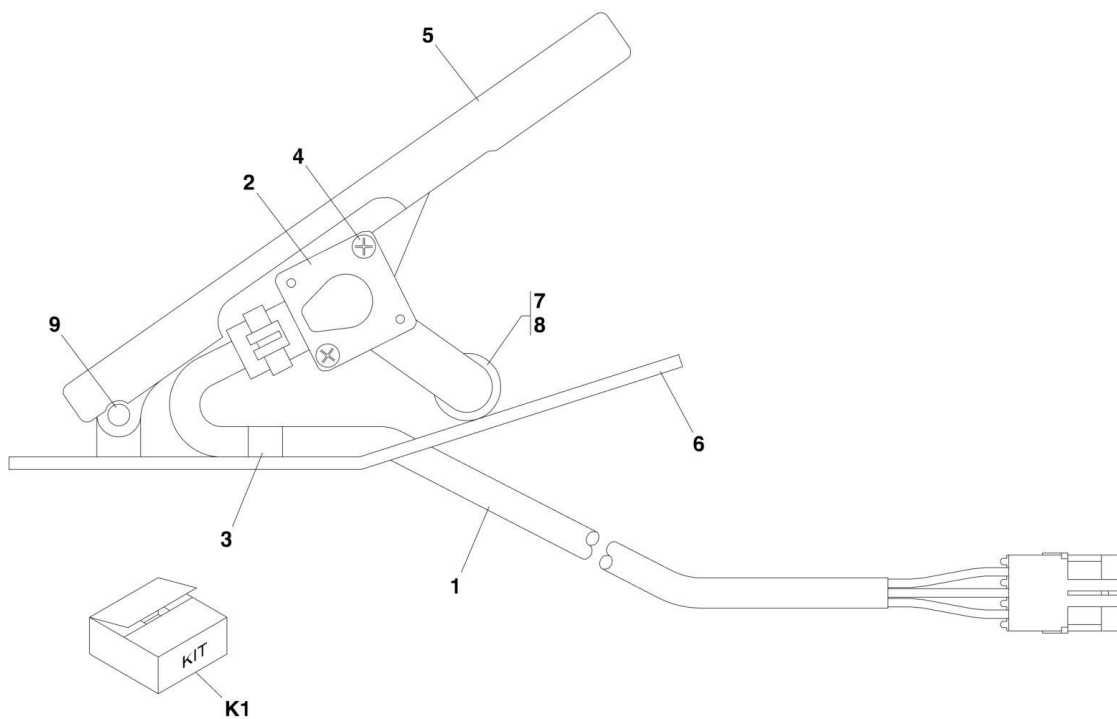
## SECTION 7 - CONTROLS

**FIGURE 7-5. ACCELERATOR PEDAL ASSEMBLY (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143342	1	ACCELERATOR PEDAL ASSY, (includes items 1, 2 & 4 thru 11)	B
1	Kit	1	CABLE SUPPORT	
2	Kit	2	FLANGE NUT	
3	88631301	1	COTTER PIN	
4	Kit	1	LOCK PLATE	
5	Kit	1	CAPSCREW	
6	Kit	1	BOOT	
7	Kit	1	PIN	
8	Kit	1	COTTER HAIRPIN	
9	Kit	1	JAM NUT	
10	Kit	1	HEEL REST	
11	Kit	2	SELF-TAPPING SCREW	
12		Ref	ACCELERATOR CABLE, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
13	88201003	3	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
14	88551009	3	LOCKWASHER, 1/4	
15	90027684	1	CLEVIS	
16	88633001	1	CLEVIS PIN	
K1	91144431	1	CABLE SUPPORT BRACKET KIT, (includes items 1 & 2)	
K2	91144432	1	CABLE ATTACH KIT, (includes items 4 & 5), (discard clevis, clevis pin and cotter hairpin, not shown, and replace with items 3, 15 & 16)	
K3	91144197	1	BOOT KIT, (includes items 6 thru 9)	
K4	91144433	1	HEEL REST KIT, (includes items 10 & 11)	

# SECTION 7 - CONTROLS

FIGURE 7-6. ACCELERATOR PEDAL ASSEMBLY (SN 0160000976 to Present)



PAP19260



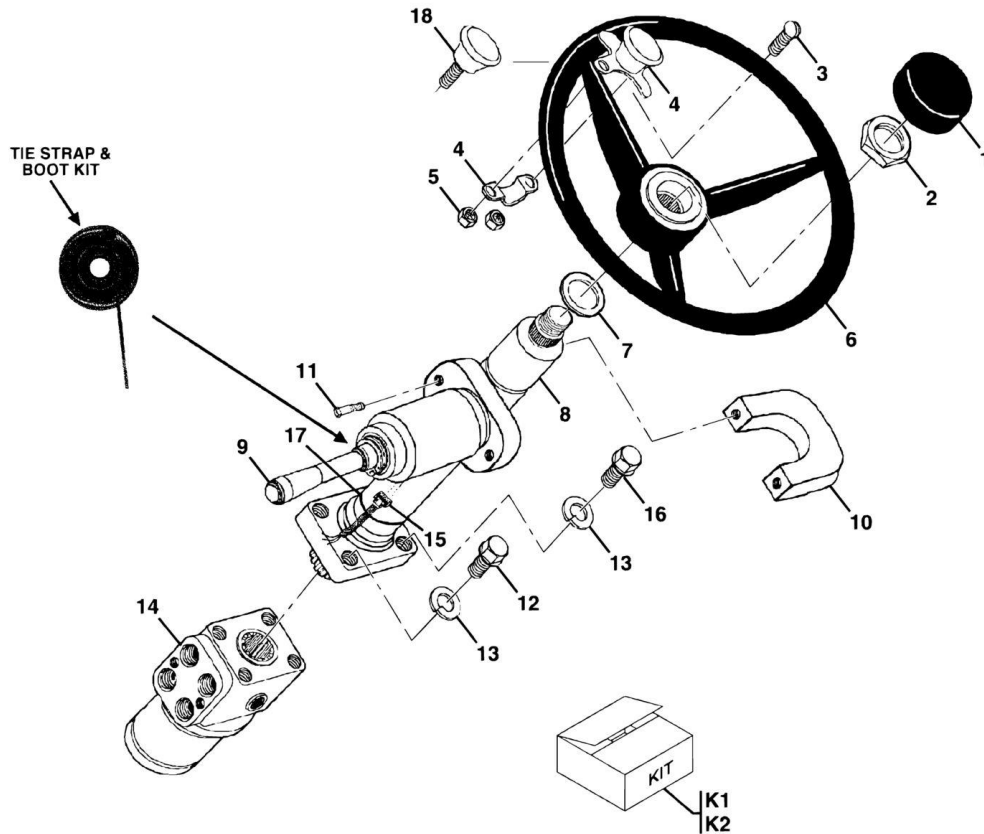
## SECTION 7 - CONTROLS

**FIGURE 7-6. ACCELERATOR PEDAL ASSEMBLY (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553044	1	ACCELERATOR PEDAL , (includes all items) <b>(Prior to SN 0160036625, Including 0160036854, 0160037074 and 0160037964)</b>	B
	3400022	1	ACCELERATOR PEDAL , (includes all items) <b>(SN 0160036625 to Present, Excluding 0160036854, 0160037074 and 0160037964)</b>	C
1	91554001	1	WIRE HARNESS <b>(Prior to SN 0160036625, Including 0160036854, 0160037074 and 0160037964)</b>	
1	70024345	1	WIRE HARNESS <b>(SN 0160036625 to Present, Excluding 0160036854, 0160037074 and 0160037964)</b>	
2	Kit	1	SENSOR	
3	Kit	1	CLAMP	
4	Kit	2	SCREW	
5	91554005	1	TREADLE COVER	
6	N.S.S.	1	BASE PLATE	
6	70020404	Ref	ROLLER ASSY, (includes items 7 & 8)	
7	Kit	1	ROLLER	
8	Kit	1	ROLLER PIN	
9	91554009	1	TREADLE PIN KIT <b>(Prior to SN 0160036625, Including 0160036854, 0160037074 and 0160037964)</b>	
9	70024346	1	TREADLE PIN KIT <b>(SN 0160036625 to Present, Excluding 0160036854, 0160037074 and 0160037964)</b>	
K1	91554010	1	SENSOR KIT , (includes items 1 thru 4) <b>(Prior to SN 0160036625, Including 0160036854, 0160037074 and 0160037964)</b>	
K1	70024347	1	SENSOR KIT , (includes items 1 thru 4) <b>(SN 0160036625 to Present, Excluding 0160036854, 0160037074 and 0160037964)</b>	

# SECTION 7 - CONTROLS

## FIGURE 7-7. STEERING COLUMN AND ATTACHING PARTS



**NOTE:**

WHEN ITEM 9 IS ORDERED, REPLACE SCREWS PROVIDED FROM VENDOR WITH ITEM 11.

PAP19950

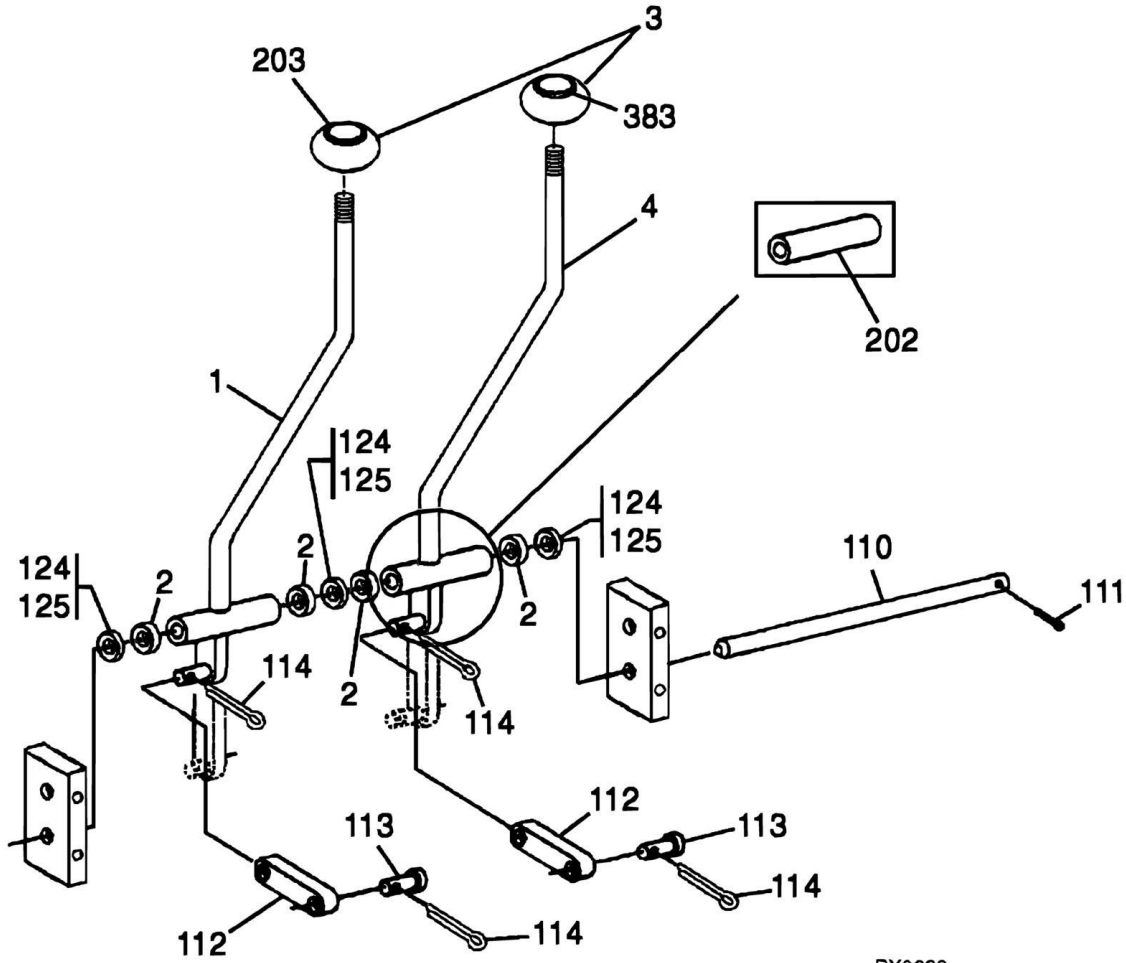
## SECTION 7 - CONTROLS

**FIGURE 7-7. STEERING COLUMN AND ATTACHING PARTS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	7026477	1	STEERING CAP	
2	70020923	1	STEERING WHEEL NUT	
3	88301311	2	FLAT HD MACHINE SCREW, 1/4-20X1	
4	90202230	1	SPINNER KNOB	
5	88501616	2	HEX NUT, 1/4-20	
6	90600273	Ref	STEERING WHEEL, (not available to order, see 91563208 for service)	
6	91563208	1	STEERING WHEEL, (includes items 1 & 18)	F
7	91144192	1	WASHER	
8	91163012	1	STEERING COLUMN, (includes items 2 & 7)	
9	91363025	1	F/N/R SHIFTER, (includes item 10)	
10	91144458	1	CLAMP SET	
11	83191059	2	HEX HD CAPSCREW, M5X0.8, (torque to 30-35 in lbs)	
12	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
13	88551011	4	LOCKWASHER, 3/8	
14	91143020	1	STEERING CONTROL UNIT	
15		Ref	DASH WIRING HARNESS, (See CAB SECTION for Breakdown)	
16	88201033	2	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
17	86683122	1	TIE WRAP	
18	7026478	1	SPINNER KNOB	
K1	91144190	1	STEERING CONTROL UNIT SEAL KIT	
K2	91144448	1	TIE STRAP AND BOOT KIT	

# SECTION 7 - CONTROLS

## FIGURE 7-8. CAB RIGHT SIDE CONTROLS



PX0620

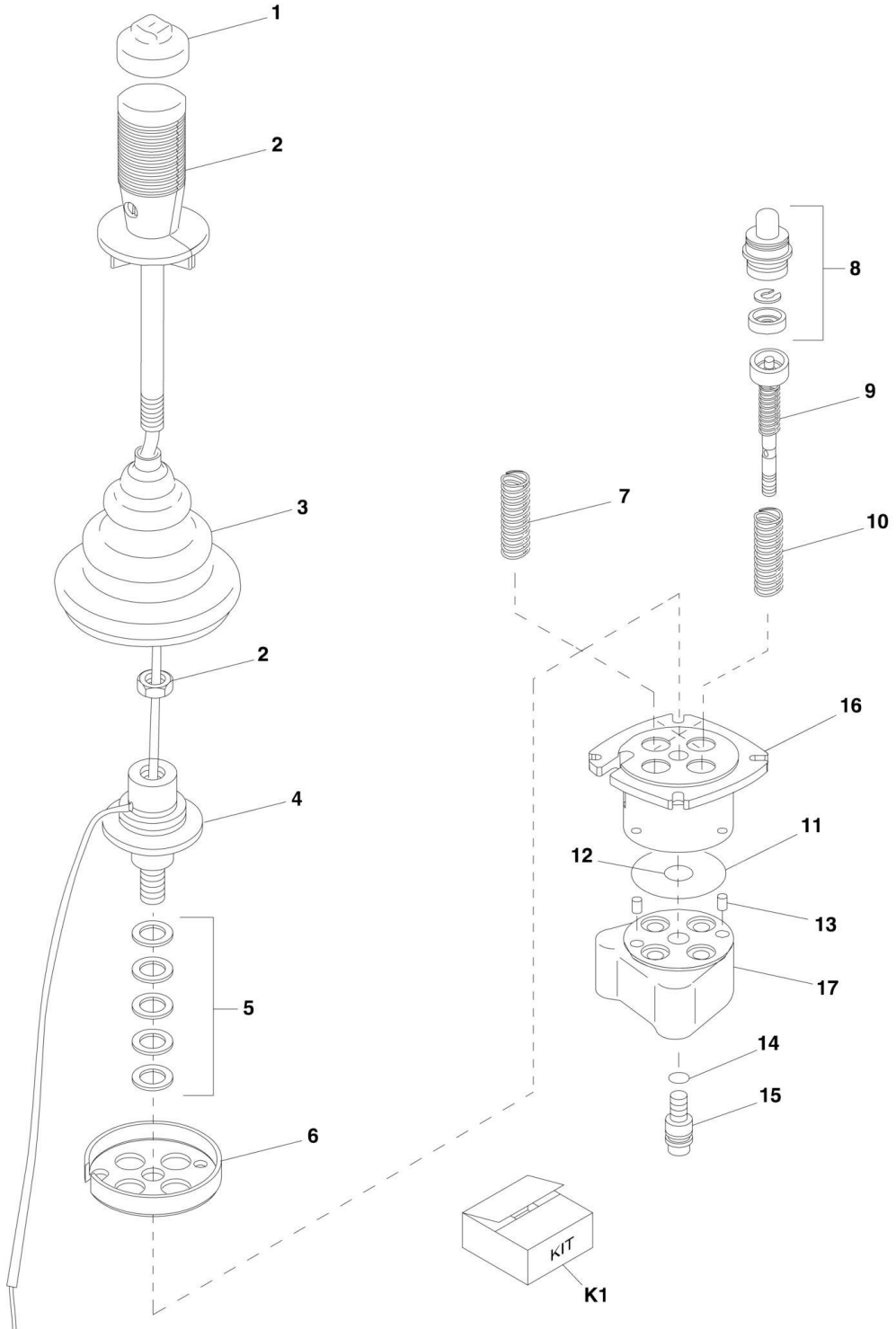
## SECTION 7 - CONTROLS

**FIGURE 7-8. CAB RIGHT SIDE CONTROLS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365019	1	AUXILIARY CONTROL LEVER ASSY, (if equipped), (includes items 1 thru 3), (included item quantities are per lever) <b>(SN 0160024648 to Present)</b>	B
	91145090	1	SWAY CONTROL LEVEL ASSY, (if equipped), (includes items 1 thru 3), (included item quantities are per lever)	B
	91145091	1	TILT CONTROL LEVEL ASSY, (if equipped), (includes items 2 thru 4), (included item quantities are per lever)	B
1	91366009	1	LEVER WELDMENT, (AUXILIARY) <b>(SN 0160024648 to Present)</b>	
1	91146043	1	LEVER WELDMENT, (SWAY)	
2	91083136	2	BUSHING	
3	90200638	1	KNOB	
4	91146042	1	LEVER WELDMENT, (TILT)	
110	91081354	1	SHAFT	
111	88631338	1	COTTER PIN	
112	91361023	1	LINK	
113	90021552	1	CLEVIS PIN	
114	91363036	2	PIN	
124	90028662	3	WAVE BEND WASHER	
125	4712000	9	FLAT WASHER	
202	91301020	1	SPACER	
203	91083547	1	AUXILIARY DECAL <b>(SN 0160024648 to Present)</b>	
203	91083318	1	SWAY DECAL	
383	91083317	1	TILT DECAL	
N1	Note	Ref	<b>ITEMS 112 THRU 114 HAVE A QUANTITY SHOWN PER LEVER.</b>	

# SECTION 7 - CONTROLS

## FIGURE 7-9. JOYSTICK ASSEMBLY



PAP19320

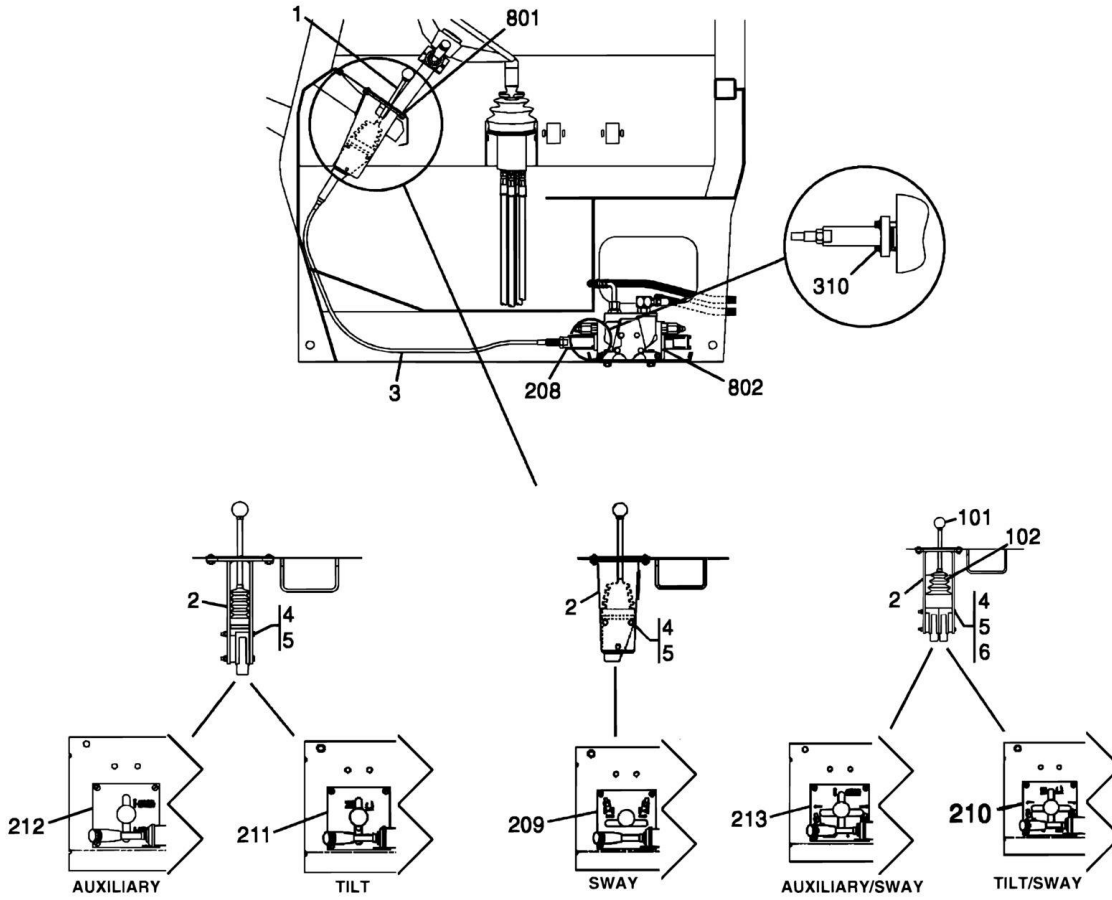
## SECTION 7 - CONTROLS

### FIGURE 7-9. JOYSTICK ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91303037	1	JOYSTICK ASSY, (includes all items)	A
1	80934658	1	CAP	
2	80934656	1	HANDLE GRIP KIT	
3	80934241	1	BOOT	
4	80264140	1	CARDAN KIT, (includes item 5)	
5		Ref	SHIM	
6	91304026	1	RETAINING PLATE	
7	91504029	1	STANDARD SPRING, (pack of two), (port 2 & 4)	
8	80934498	4	PLUNGER AND GUIDE KIT	
9	91404327	4	REGULATING KIT	
10	91504028	1	HEAVY SPRING, (pack of two), (port 1 & 3)	
11	Kit	1	O-RING	
12	Kit	1	O-RING	
13	Kit	2	PIN	
14	Kit	1	O-RING	
15	Kit	1	SCREW	
16	N.S.S.	1	UPPER BODY	
17	N.S.S.	1	LOWER BODY	
K1	91404326	1	SEAL KIT, (includes items 11 thru 15)	

# SECTION 7 - CONTROLS

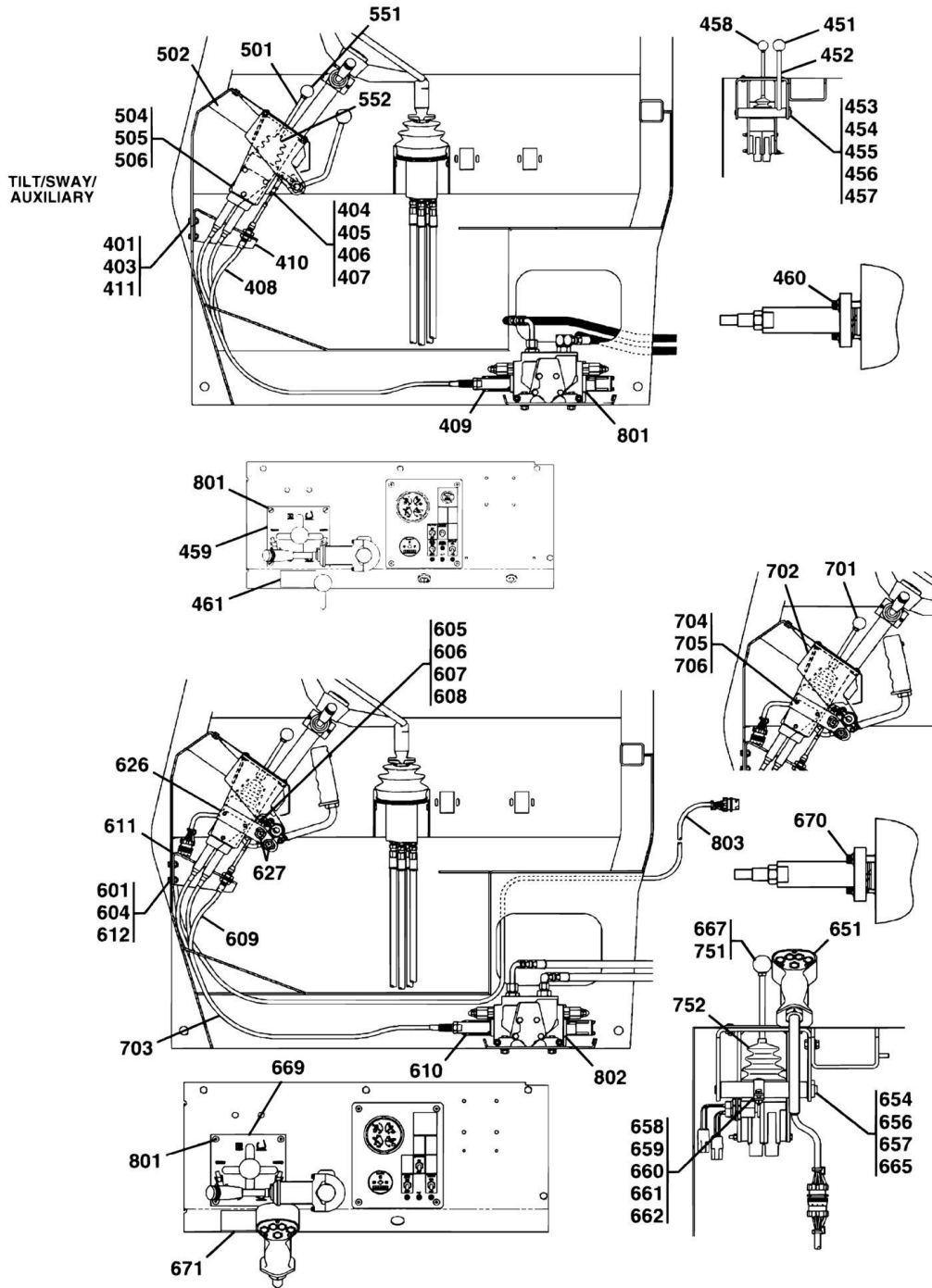
FIGURE 7-10. CAB LEFT SIDE CONTROLS (SN 0160024648 to Present)



PX0660



# SECTION 7 - CONTROLS



TILT/SWAY/AUXILIARY WITH CYBERTECH JOYSTICK

PAP21620

# SECTION 7 - CONTROLS

**FIGURE 7-10. CAB LEFT SIDE CONTROLS (SN 0160024648 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91335014	1	VALVE CONTROL ASSY, (SWAY), (if equipped), (includes items 1 thru 5)	A
	91345010	1	VALVE CONTROL ASSY, (TILT), (AUXILIARY), (if equipped), (includes items 1 thru 5)	A
	91335013	1	VALVE CONTROL ASSY, (TILT/SWAY), (AUXILIARY/SWAY), (if equipped), (includes items 1 thru 6)	B
1	91303019	1	REMOTE VALVE CONTROL, (TILT), (SWAY), (AUXILIARY)	
1	91083107	1	REMOTE VALVE CONTROL, (TILT/SWAY), (AUXILIARY/SWAY), (includes items 101 & 102)	
2	91146119	1	BRACKET, (SWAY)	
2	91366008	1	BRACKET, (TILT/SWAY), (AUXILIARY/SWAY)	
2	91366007	1	BRACKET, (TILT), (AUXILIARY)	
3	91363043	1	CABLE, (TILT), (SWAY), (AUXILIARY)	
3	91363043	2	CABLE, (TILT/SWAY), (AUXILIARY/SWAY)	
4	88201012	3	HEX HD CAPSCREW, 1/4-20X2-3/4, (TILT), (SWAY), (AUXILIARY)	
4	11002410	3	HEX HD CAPSCREW, 1/4-28X4-1/2, (TILT/SWAY), (AUXILIARY/SWAY)	
5	88521304	3	HEX LOCKNUT, 1/4, (TILT), (SWAY), (AUXILIARY)	
5	88501404	3	HEX LOCKNUT, 1/4, (TILT/SWAY), (AUXILIARY/SWAY)	
6	88551009	3	LOCKWASHER, 1/4, (TILT/SWAY), (AUXILIARY/SWAY)	
101	91084282	1	KNOB	
102	91084359	1	BOOT	
208	91123062	1	CABLE ADAPTER, (TILT), (SWAY), (AUXILIARY)	
208	91123062	2	CABLE ADAPTER, (TILT/SWAY), (AUXILIARY/SWAY)	
209	91143371	1	GUIDE PLATE, (SWAY)	
210	91363041	1	GUIDE PLATE, (TILT/SWAY)	
211	91363040	1	GUIDE PLATE, (TILT)	
212	91363045	1	GUIDE PLATE, (AUXILIARY)	
213	91363044	1	GUIDE PLATE, (AUXILIARY/SWAY)	
310	88211044	14	SOCKET HD CAPSCREW, 1/4-20X1-1/2	
	1001106842	Ref	LH CAB HYDRAULIC CONTROL INSTALLATION, (TILT/SWAY/AUXILIARY), (if equipped), (includes items 401 thru 461)	A
401	4761500	2	LOCKWASHER, 5/16	
403	88501005	2	HEX NUT, 5/16	
404	88821002	1	YOKE END	
405	88633001	1	CLEVIS PIN	
406	88631302	1	COTTER PIN	
407	88501404	1	HEX JAM NUT, 1/4	
408	91123050	1	CABLE	
409	91123062	3	CABLE ADAPTER	
410	91341007	1	BRACKET	
411	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8 (SN 0160024648 through 0160037688)	
411	0641507	2	HEX HD CAPSCREW, 5/16-18X3/4 (SN 0160037689 to Present)	
451	90200299	1	KNOB	
452	H1346001	1	AUXILIARY CONTROL WELDMENT	
453	91346004	1	WELDMENT	
454	91083136	2	BUSHING	
455	88201018	1	HEX HD CAPSCREW, 5/16-18X3/4 (SN 0160024648 through 0160037688)	

## SECTION 7 - CONTROLS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
455	0641506	1	HEX HD CAPSCREW, 5/16-18X3/4 (SN 0160037689 to Present)	
456	4761500	1	LOCKWASHER, 5/16	
457	90028662	2	WAVE BEND WASHER	
458	91345020	1	VALVE CONTROL ASSY, (TILT/SWAY), (includes items 501 thru 506)	B
459	91363041	1	GUIDE PLATE, (TILT/SWAY)	
460	88211044	6	SOCKET HD CAPSCREW, 1/4-20X1-1/2	
461	H1343001	1	AUXILIARY CONTROL DECAL	
501	91083107	1	REMOTE VALVE CONTROL, (TILT/SWAY), (includes items 551 & 552)	
502	91346003	1	BRACKET	
504	11002410	3	HEX HD CAPSCREW, 1/4-28X4-1/2	
505	88551009	3	LOCKWASHER, 1/4	
506	88501404	3	HEX NUT, 1/4	
551	91084282	1	KNOB	
552	91084359	1	BOOT	
		Ref	LH CAB HYDRAULIC CONTROL INSTALLATION, (TILT/SWAY/AUXILIARYWITH CYBERTECH JOYSTICK), (if equipped), (includes items 601 thru 671)	
601	88551010	2	LOCKWASHER, 5/16	
604	88501005	2	HEX NUT, 5/16	
605	88821002	1	YOKE END	
606	88633001	1	CLEVIS PIN	
607	88631302	1	COTTER PIN	
608	88501404	1	HEX JAM NUT, 1/4	
609	91123050	1	CABLE	
610	91123062	3	CABLE ADAPTER	
611	91341007	1	BRACKET	
612	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8	
626	91341019	1	SENSOR PLATE	
627	80363036	2	PROXIMITY SENSOR	
651		Ref	CYBERTECH 5-BUTTON JOYSTICK, (See CYBERTECH 5-BUTTON JOYSTICK CONTROLLER for Breakdown)	
654	91346004	1	WELDMENT	
656	88201018	1	HEX HD CAPSCREW, 5/16-18X3/4	
657	88551010	1	LOCKWASHER, 5/16	
658	91346010	1	WELDMENT	
659	91301018	1	HALF CLAMP	
660	0641408	2	HEX HD CAPSCREW, 1/4-20X1	
661	88501004	2	HEX NUT, 1/4	
662	88551009	2	LOCKWASHER, 1/4 (SN 0160024648 through 0160037688)	
662	4761400	2	LOCKWASHER, 1/4 (SN 0160037689 to Present)	
665	90028662	2	WAVE BEND WASHER	
667	91345020	1	VALVE CONTROL ASSY, (TILT/SWAY), (includes items 701 thru 706)	B
669	91363041	1	GUIDE PLATE, (TILT/SWAY)	
670	88211044	6	SOCKET HD CAPSCREW, 1/4-20X1-1/2	
671	91343026	1	AUXILIARY CONTROL DECAL	
701	91083107	1	REMOTE VALVE CONTROL, (TILT/SWAY), (includes items 751 & 752)	
702	91346003	1	BRACKET	
703	91363043	2	CABLE	
704	11002410	3	HEX HD CAPSCREW, 1/4-28X4-1/2	

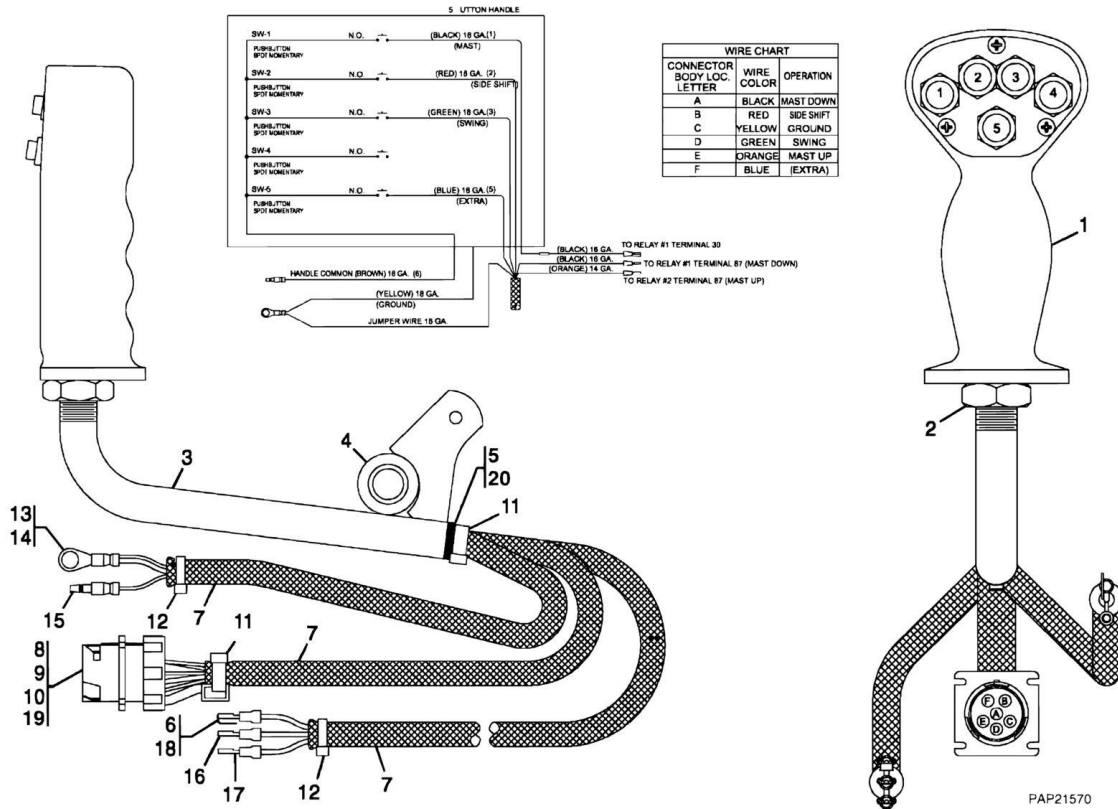
## SECTION 7 - CONTROLS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
705	88551009	3	LOCKWASHER, 1/4	
706	88501404	3	HEX NUT, 1/4	
751	91084282	1	KNOB	
752	91084359	1	BOOT	
801		Ref	GUIDE PLATE MOUNTING HARDWARE, (See CAB SECTION for Breakdown)	
802		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
803		Ref	CAB AUXILIARY WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	



# SECTION 7 - CONTROLS

FIGURE 7-11. CYBERTECH 5-BUTTON JOYSTICK CONTROLLER (SN 0160024648 to Present)



## SECTION 7 - CONTROLS

**FIGURE 7-11. CYBERTECH 5-BUTTON JOYSTICK CONTROLLER (SN 0160024648 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91345022	1	5-BUTTON AUX. HANDLE ASSY, (if equipped), (includes all items)	C
1	91033387	1	5-BUTTON HANDLE	
2	88501112	1	HEX JAM NUT, 3/4-16	
3	91346002	1	LEVER WELDMENT	
4	91083136	2	BUSHING	
5	91123051	1	MOLDED RUBBER BUSHING	
6	86683480	1	BUTT CONNECTOR	
7	82033996	50 in	WIRE LOOM	
8	77363232	1	RECEPTACLE CONNECTOR	
9	77363228	5	PIN CONTACT	
10	91143107	1	STRAIN RELIEF	
11	90027187	2	TIE WRAP	
12	86683122	2	TIE WRAP	
13	91341015	1	JUMPER WIRE	
14	83683363	1	INSULATED RING TERMINAL	
15	86983193	1	MALE BULLET	
16	91341026	1	JUMPER WIRE	
17	91341027	1	JUMPER WIRE	
18	91341020	1	JUMPER WIRE	
19	77363345	1	PIN CONTACT	
20	14402248	AR	3M ADHESIVE	

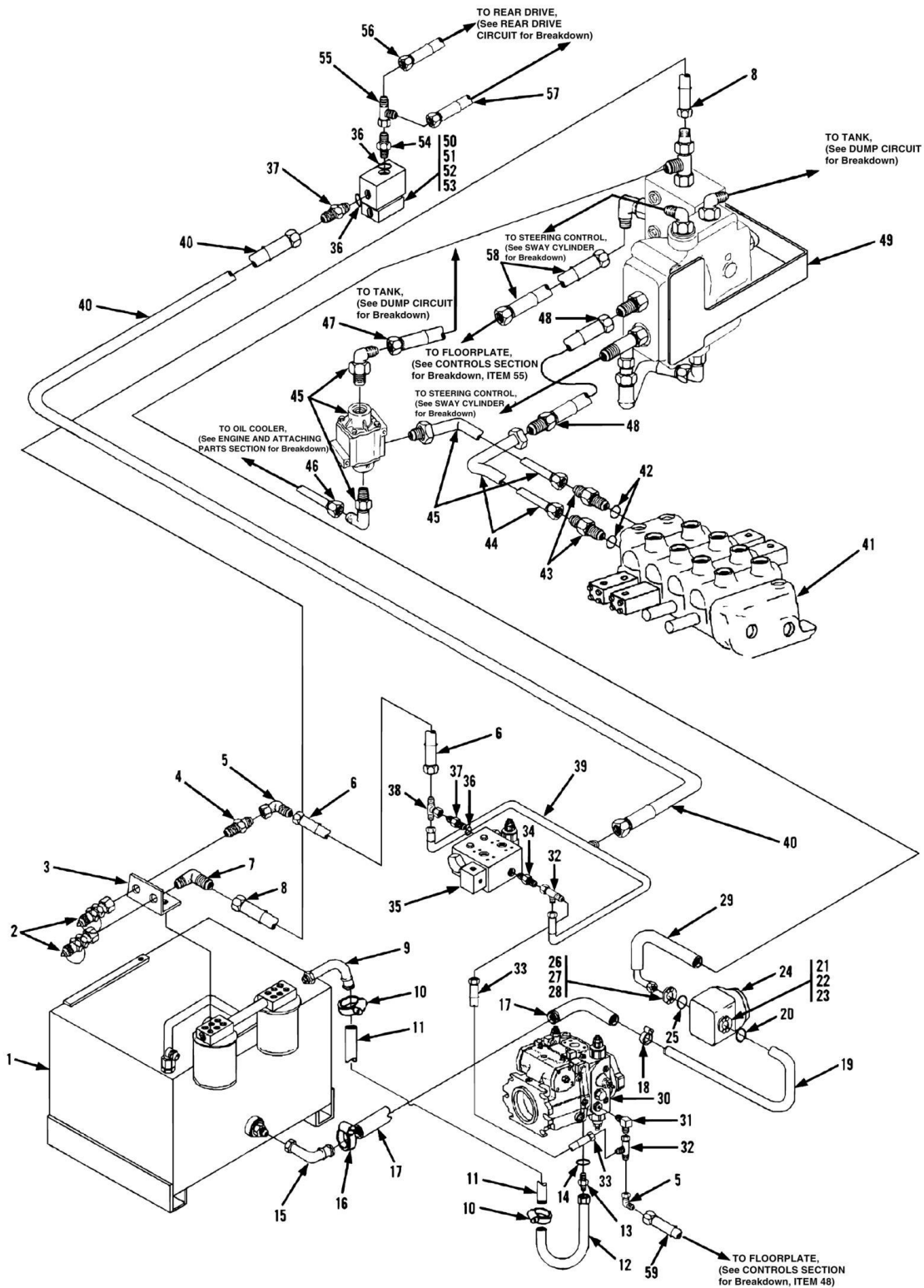




**SECTION 8 - HYDRAULIC CIRCUITS**

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-1. OIL SUPPLY AND PRESSURE LINES (SN 0355001 through 0355140)



## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-1. OIL SUPPLY AND PRESSURE LINES (SN 0355001 through 0355140)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDRAULIC RESERVOIR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	MINI CHECK COUPLING, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3		Ref	FILTER SUPPORT, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
4		Ref	ADAPTER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
5		Ref	ELBOW, 90, (swivel nut), (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	84718700	1	HOSE ASSY	
7		Ref	ELBOW, 90, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	84718701	1	HOSE ASSY	
9		Ref	ELBOW, 90, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	90028695	2	BAND CLAMP	
11	91143143	1	HOSE ASSY	
12	91143087	1	INTAKE TUBE	
13	2220380	1	ADAPTER, (includes item 14)	
14	88591210	1	O-RING	
15	91143059	1	TUBE ASSY	
16	90028482	1	HOSE CLAMP	
17	77363128	1	HOSE ASSY	
18	80933070	1	BAND CLAMP	
19	91143121	1	SUCTION TUBE	
20	88591027	1	O-RING	
21	84711334	2	FLANGE CLAMP	
22	88201051	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
23	88551012	4	LOCKWASHER, 7/16	
24		Ref	MAIN HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88591024	1	O-RING	
26	84711333	4	FLANGE CLAMP	
27	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
28	88551011	4	LOCKWASHER, 3/8	
29	84718639	1	HOSE ASSY	
30		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	2220628	1	REDUCING ADAPTER, 90	
32	2220635	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
33	77133447	1	HOSE ASSY	
34	2220497	1	ADAPTER, (includes o-ring)	
34	88591206	1	O-RING	
35		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
36	88591204	3	O-RING	
37	2220371	2	ADAPTER, (includes item 36)	
38	2220579	1	SWIVEL NUT BRANCH TEE	
39	91163098	1	TUBE ASSY	
40	84718425	1	HOSE ASSY	

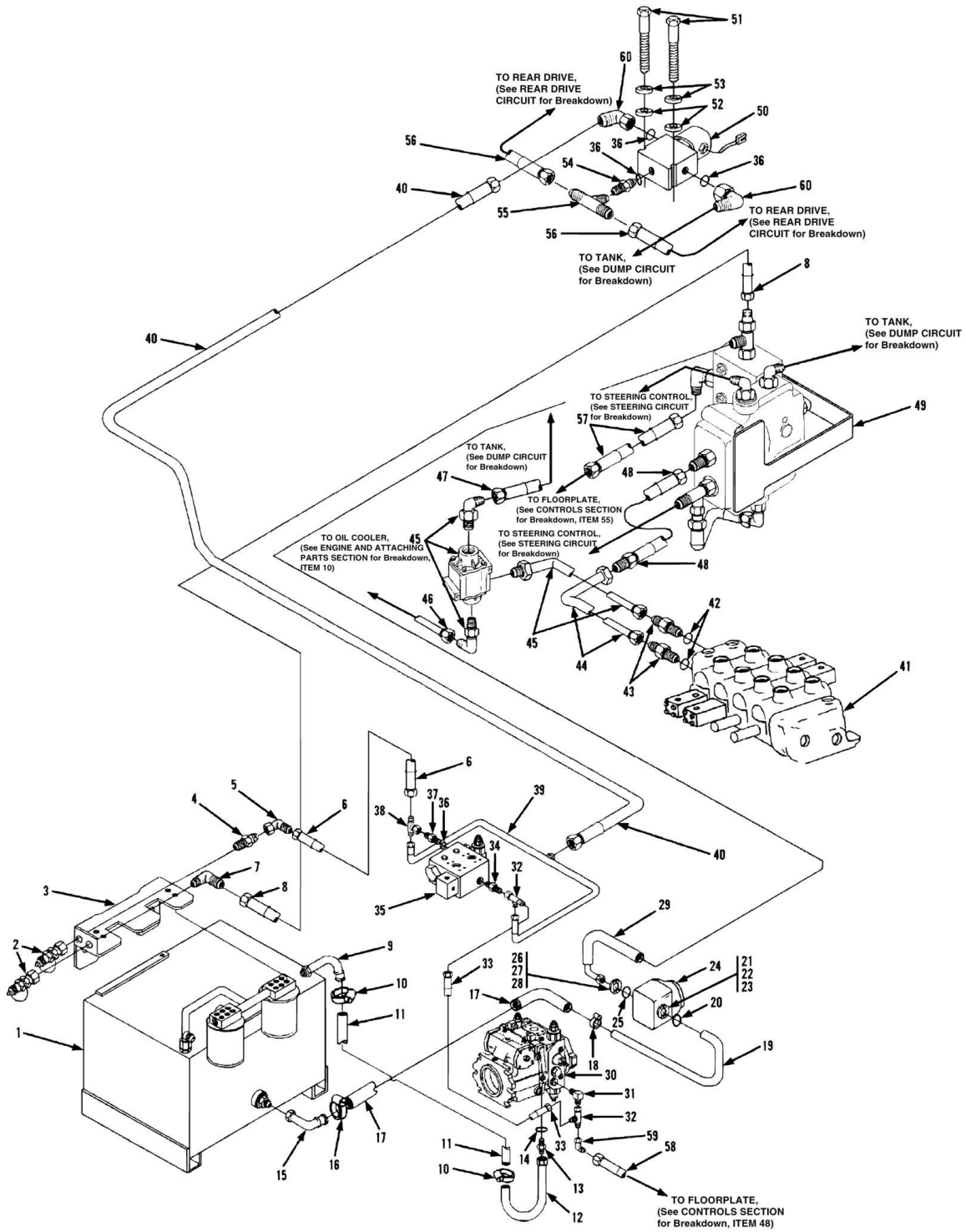
## SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
42	88591210	2	O-RING	
43	2220379	2	ADAPTER, (includes item 42)	
44	91143058	1	TUBE ASSY	
45		Ref	THERMAL BYPASS VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
46	84718945	1	HOSE ASSY	
47	84718947	1	HOSE ASSY	
48	84718625	1	HOSE ASSY	
49		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
50		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
51	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
52	88561002	2	FLAT WASHER, 1/4	
53	88551009	2	LOCKWASHER, 1/4	
54	2220582	1	ADAPTER, (includes item 36)	
55	2220605	1	SWIVEL NUT RUN TEE, 1/4 TUBE	
56	84718752	1	HOSE ASSY	
57	84718751	1	HOSE ASSY	
58	84718201	1	HOSE ASSY	
59	84717304	1	HOSE ASSY	



# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-2. OIL SUPPLY AND PRESSURE LINES (SN 0355141 through 0455362, SN 016000192 through 016000973)



## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-2. OIL SUPPLY AND PRESSURE LINES (SN 0355141 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085137	1	SOLENOID VALVE ASSY, (includes items 50, 54, 55 & 60)	G
1		Ref	HYDRAULIC RESERVOIR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	MINI CHECK COUPLING , (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3		Ref	FILTER SUPPORT, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
4		Ref	ADAPTER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
5		Ref	ELBOW, 90, (swivel nut), (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	84718700	1	HOSE ASSY	
7		Ref	ELBOW, 90, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	84718701	1	HOSE ASSY	
9		Ref	ELBOW, 90, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	90028695	2	BAND CLAMP	
11	91143143	1	HOSE ASSY	
12	91143087	1	INTAKE TUBE	
13	2220380	1	ADAPTER, (includes item 14)	
14	88591210	1	O-RING	
15	91143059	1	TUBE ASSY	
16	90028482	1	HOSE CLAMP	
17	77363128	1	HOSE ASSY	
18	90028482	1	BAND CLAMP	
19	91143121	1	SUCTION TUBE	
20	88591027	1	O-RING	
21	84711334	2	FLANGE CLAMP	
22	88201051	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
23	88551012	4	LOCKWASHER, 7/16	
24		Ref	MAIN HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88591024	1	O-RING	
26	84711333	2	FLANGE CLAMP	
27	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
28	88551011	4	LOCKWASHER, 3/8	
29	84718639	1	HOSE ASSY	
30		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	2220628	1	ADAPTER, 90	
32	2220635	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
33	77133447	1	HOSE ASSY	
34	2220497	1	ADAPTER, (includes o-ring)	
34	88591206	1	O-RING	
35		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
36	88591204	4	O-RING	
37	2220371	1	ADAPTER, (includes item 36)	
38	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
39	91163098	1	TUBE ASSY	

## SECTION 8 - HYDRAULIC CIRCUITS

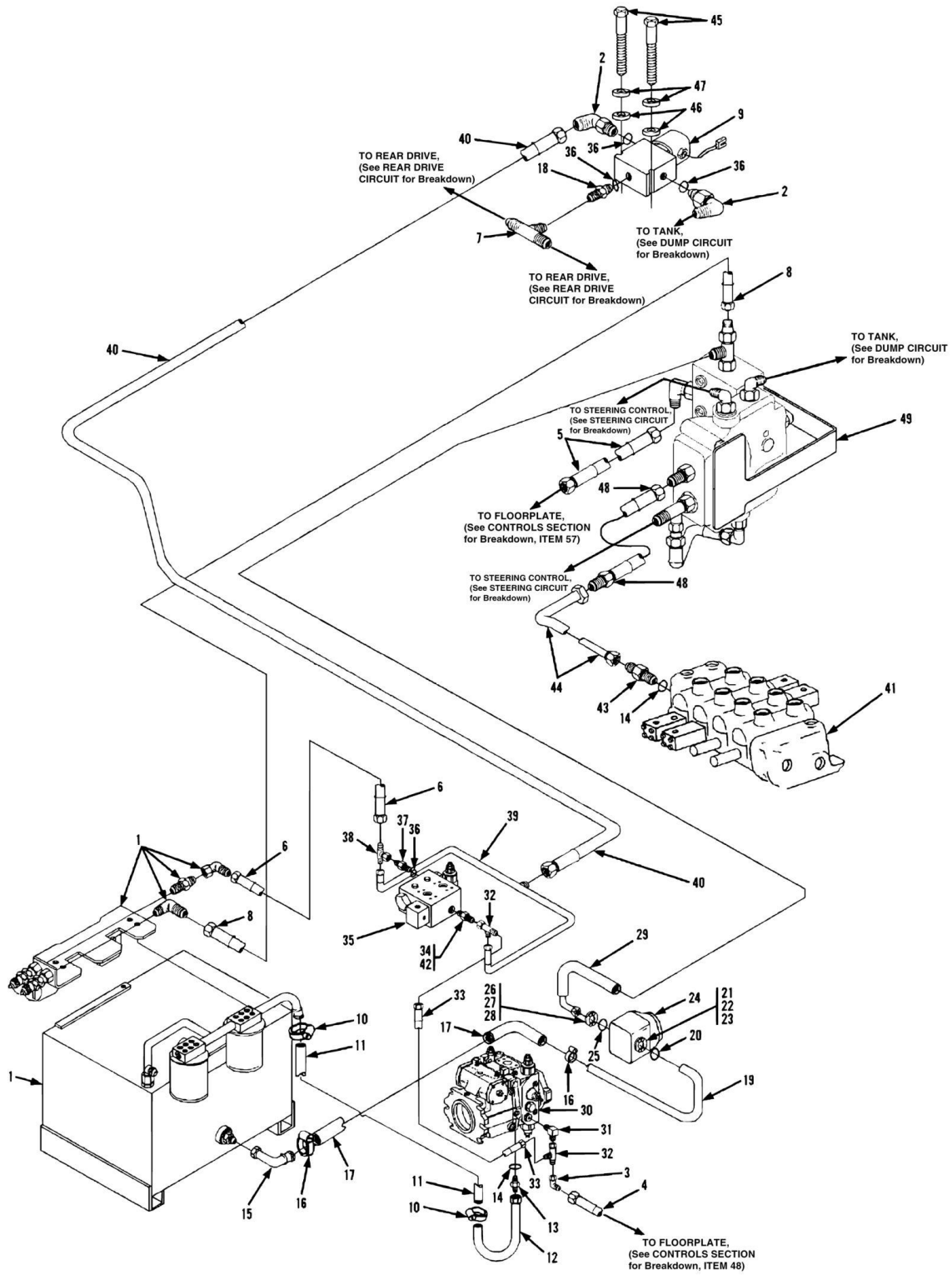
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
40	77133196	1	HOSE ASSY	
41		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
42	88591210	2	O-RING	
43	2220379	2	ADAPTER, (includes item 42)	
44	91143058	1	TUBE ASSY	
45		Ref	THERMAL BYPASS VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
46	84718945	1	HOSE ASSY	
47	84718947	1	HOSE ASSY	
48	84718625	1	HOSE ASSY	
49		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
50		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
51	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
52	88561002	2	FLAT WASHER, 1/4	
53	88551009	2	LOCKWASHER, 1/4	
54	2220582	1	ADAPTER, (includes item 36)	
55	2220861	1	SWIVEL NUT BRANCH TEE, 1/4 TUBE	
56		Ref	HOSE ASSY, (See REAR DRIVE CIRCUIT for Breakdown)	
57	84718201	1	HOSE ASSY	
58	84717304	1	HOSE ASSY	
59	8760268	1	ELBOW, 90, SWIVEL NUT	
60	2220473	2	ELBOW, 90, (includes item 36)	





# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-3. OIL SUPPLY AND PRESSURE LINES (SN 0160000976 to Present)



## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-3. OIL SUPPLY AND PRESSURE LINES (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDRAULIC RESERVOIR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	2220473	2	ELBOW, 90, (includes item 36)	
3	8760268	1	ELBOW, 90, SWIVEL NUT	
4	84717304	1	HOSE ASSY	
5	84718201	1	HOSE ASSY	
6	84718700	1	HOSE ASSY	
7	2220861	1	SWIVEL NUT BRANCH TEE, 1/4 TUBE	
8	84718701	1	HOSE ASSY	
9		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	80633030	2	BAND CLAMP	
11	91553038	1	HOSE ASSY	
12	91143087	1	INTAKE TUBE	
13	2220380	1	ADAPTER, (includes item 14)	
14	88591210	2	O-RING	
15	91143059	1	TUBE ASSY	
16	90028482	2	HOSE CLAMP	
17	77363128	1	HOSE ASSY	
18	2220582	1	ADAPTER, (includes item 36)	
19	91143121	1	SUCTION TUBE	
20	88591027	1	O-RING	
21	84711334	2	FLANGE CLAMP	
22	88201051	4	HEX HD CAPSCREW, 7/16-14X1-1/4, GR5	
23	88551012	4	LOCKWASHER, 7/16	
24		Ref	MAIN HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88591024	1	O-RING	
26	84711333	2	FLANGE CLAMP	
27	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
28	88551011	4	LOCKWASHER, 3/8	
29	84718639	1	HOSE ASSY	
30		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	2220628	1	ADAPTER, 90	
32	2220635	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
33	77133447	1	HOSE ASSY	
34	2220497	1	ADAPTER, (includes item 42)	
35		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
36	88591204	4	O-RING	
37	2220371	1	ADAPTER, (includes item 36)	
38	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
39	91163098	1	TUBE ASSY	
40	77133196	1	HOSE ASSY	
41		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
42	88591210	1	O-RING	
43	2220379	1	ADAPTER, (includes item 14)	
44	91143058	1	TUBE ASSY	
45	0641414	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	

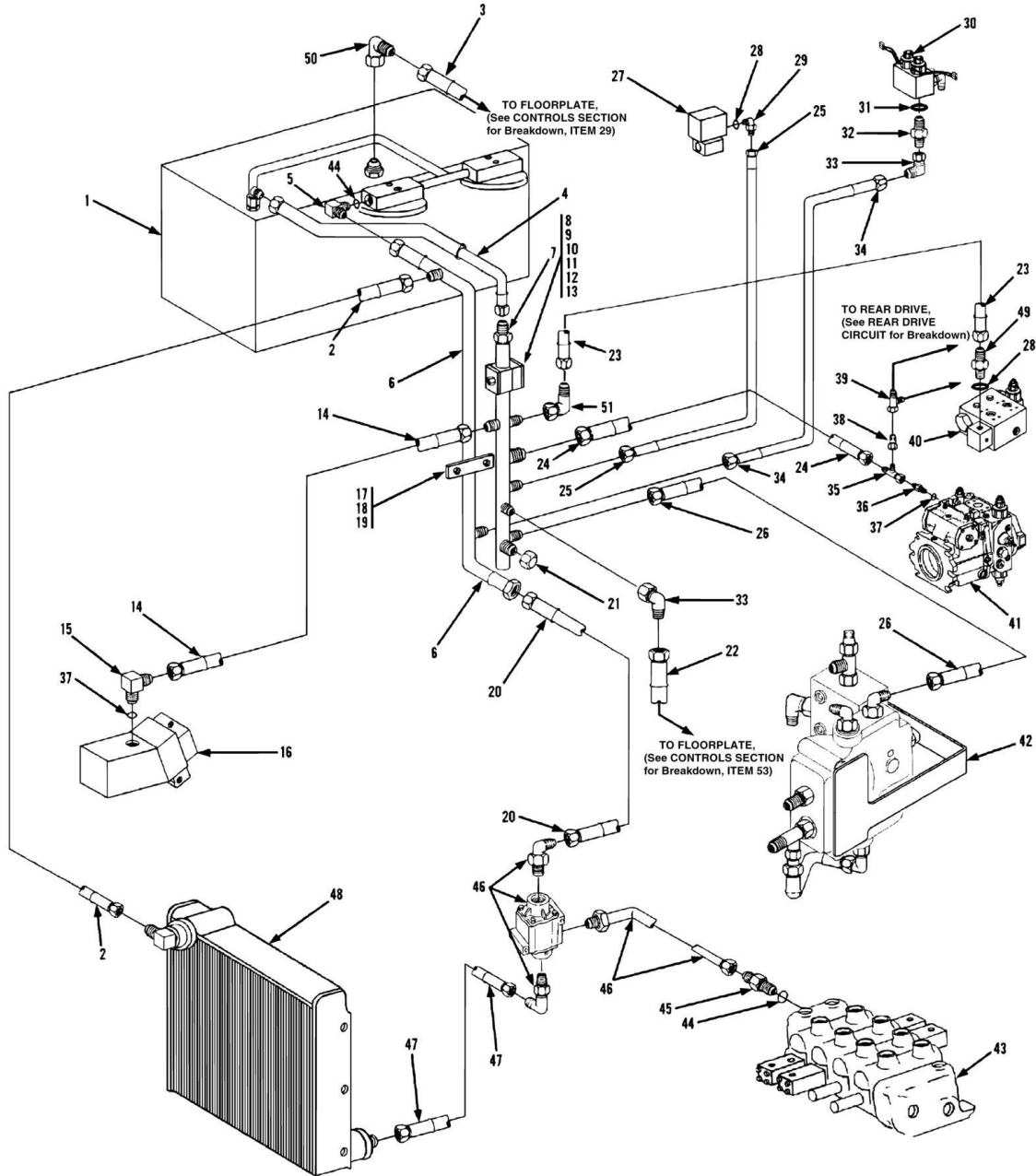
## SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	4751400	2	FLAT WASHER, 1/4	
47	4761400	2	LOCKWASHER, 1/4	
48	84718625	1	HOSE ASSY	
49		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	



# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-4. DUMP CIRCUIT (SN 0355001 through 0355140)



## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-4. DUMP CIRCUIT (SN 0355001 through 0355140)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDRAULIC RESERVOIR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	84718979	1	HOSE ASSY	
3	84718164	1	HOSE ASSY	
4	84718968	1	HOSE ASSY	
5	88662070	1	ELBOW, 90, (includes item 44)	
6	91143273	1	DUMP TUBE	
7	91163140	1	TUBE ASSY	
8	77133053	1	CLAMP SET	
9	77133052	1	COVER PLATE	
10	88201010	2	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5	
11	88501004	2	HEX NUT, 1/4-20	
12	88551009	2	LOCKWASHER, 1/4	
13	88561107	2	FLAT WASHER, 1/4	
14	84718999	1	HOSE ASSY	
15	2221048	1	REDUCER ELBOW, (includes item 37)	
16		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	77133076	1	CLAMP	
18	77133075	1	COVER PLATE	
19	88201011	2	HEX HD CAPSCREW, 1/4-20X2-1/2, GR5	
20	84718947	1	HOSE ASSY	
21	2220516	1	CAP	
22	84718635	1	HOSE ASSY	
23	84718745	1	HOSE ASSY	
24	84718956	1	HOSE ASSY	
25	84716719	1	HOSE ASSY	
26	84718743	1	HOSE ASSY	
27		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
28	88591204	2	O-RING	
29	2220473	1	ELBOW, 90, (includes item 28)	
30		Ref	STABILIZER VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	88591206	1	O-RING	
32	2220374	1	ADAPTER, (includes item 31)	
33	8765204	2	ELBOW, 90	
34	84719365	1	HOSE ASSY	
35	2220700	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
36	2220451	1	ADAPTER, (includes item 37)	
37	88591207	2	O-RING	
38	83651133	1	REDUCER WITH ADAPTER	
39	2220385	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
40		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
41		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
42		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
43		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

## SECTION 8 - HYDRAULIC CIRCUITS

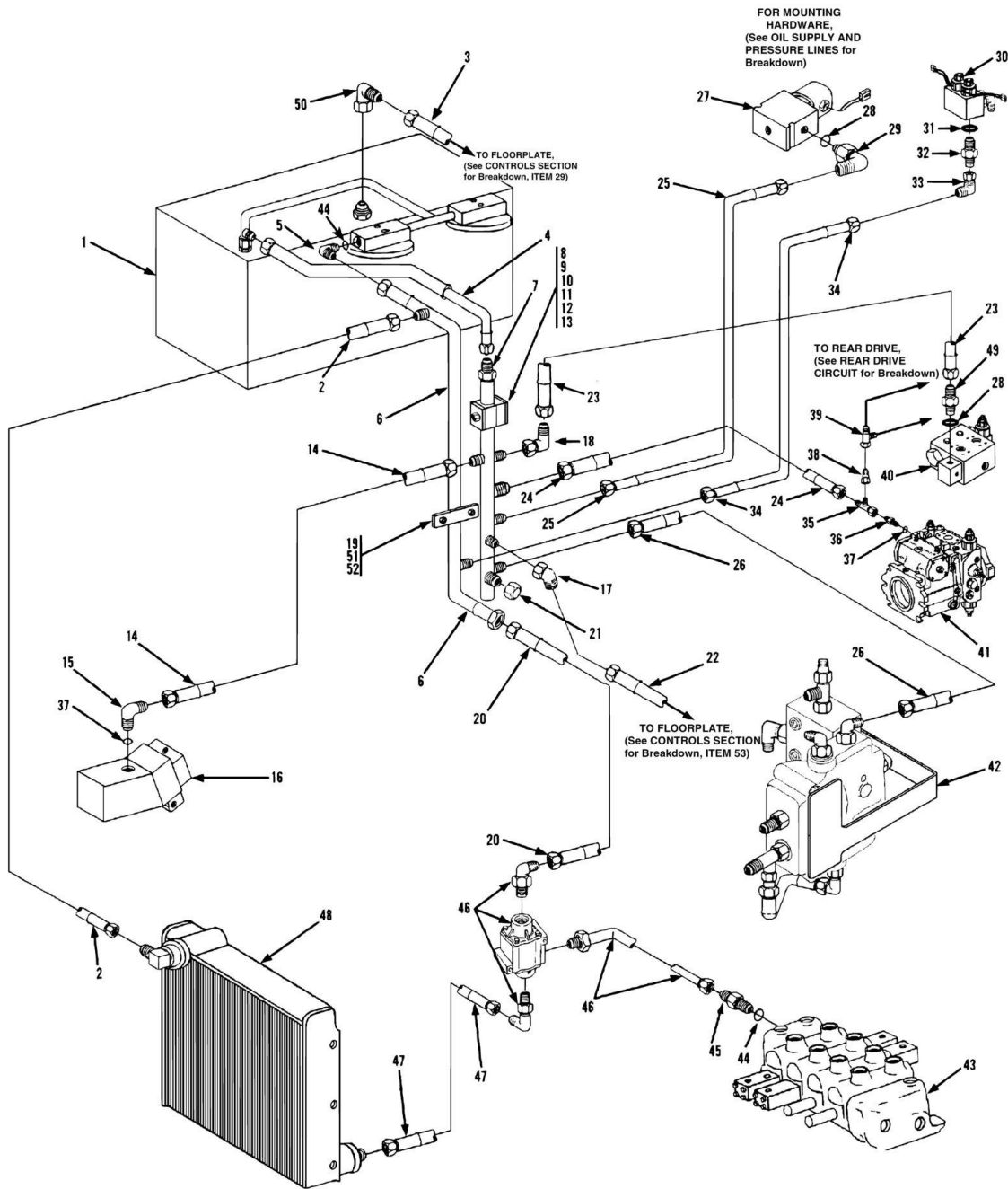
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	88591210	1	O-RING	
45	2220379	1	ADAPTER, (includes item 44)	
46		Ref	THERMAL BYPASS VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
47	84718945	1	HOSE ASSY	
48		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
49	2220371	1	ADAPTER, (includes item 28)	
50		Ref	ELBOW, 45, (swivel nut), (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
51	8760268	1	ELBOW, 90	





# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-5. DUMP CIRCUIT (SN 0355141 through 0455362, SN 016000192 through 016000973)



## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-5. DUMP CIRCUIT (SN 0355141 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDRAULIC RESERVOIR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	84718979	1	HOSE ASSY	
3	84718164	1	HOSE ASSY	
4	84718968	1	HOSE ASSY	
5	88662070	1	ELBOW, 90, (includes item 44)	
6	91143273	1	DUMP TUBE	
7	91163140	1	TUBE ASSY	
8	77133053	1	CLAMP SET	
9	77133052	1	COVER PLATE	
10	88201010	2	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5	
11	88501004	2	HEX NUT, 1/4-20	
12	88551009	2	LOCKWASHER, 1/4	
13	88561107	2	FLAT WASHER, 1/4	
14	84718999	1	HOSE ASSY	
15	2221048	1	REDUCER ELBOW, (includes item 37)	
16		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	8765204	1	ELBOW, 90	
18	8760268	1	ELBOW, 90	
19	77133076	1	CLAMP SET	
20	84718947	1	HOSE ASSY	
21	2220516	1	CAP	
22	84718635	1	HOSE ASSY	
23	84718745	1	HOSE ASSY	
24	84718956	1	HOSE ASSY	
25	84716719	1	HOSE ASSY	
26	84718743	1	HOSE ASSY	
27		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
28	88591204	2	O-RING	
29	2220473	1	ELBOW, 90, (includes item 28)	
30		Ref	STABILIZER VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	88591206	1	O-RING	
32	2220374	1	ADAPTER, (includes item 31)	
33	2220683	1	ELBOW, 45, (swivel nut)	
34	84719365	1	HOSE ASSY	
35	2220700	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
36	2220451	1	ADAPTER, (includes item 37)	
37	88591207	2	O-RING	
38	83651133	1	REDUCER WITH ADAPTER	
39	2220385	1	SWIVEL NUT RUN TEE, 1/8 TUBE	
40		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
41		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
42		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
43		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

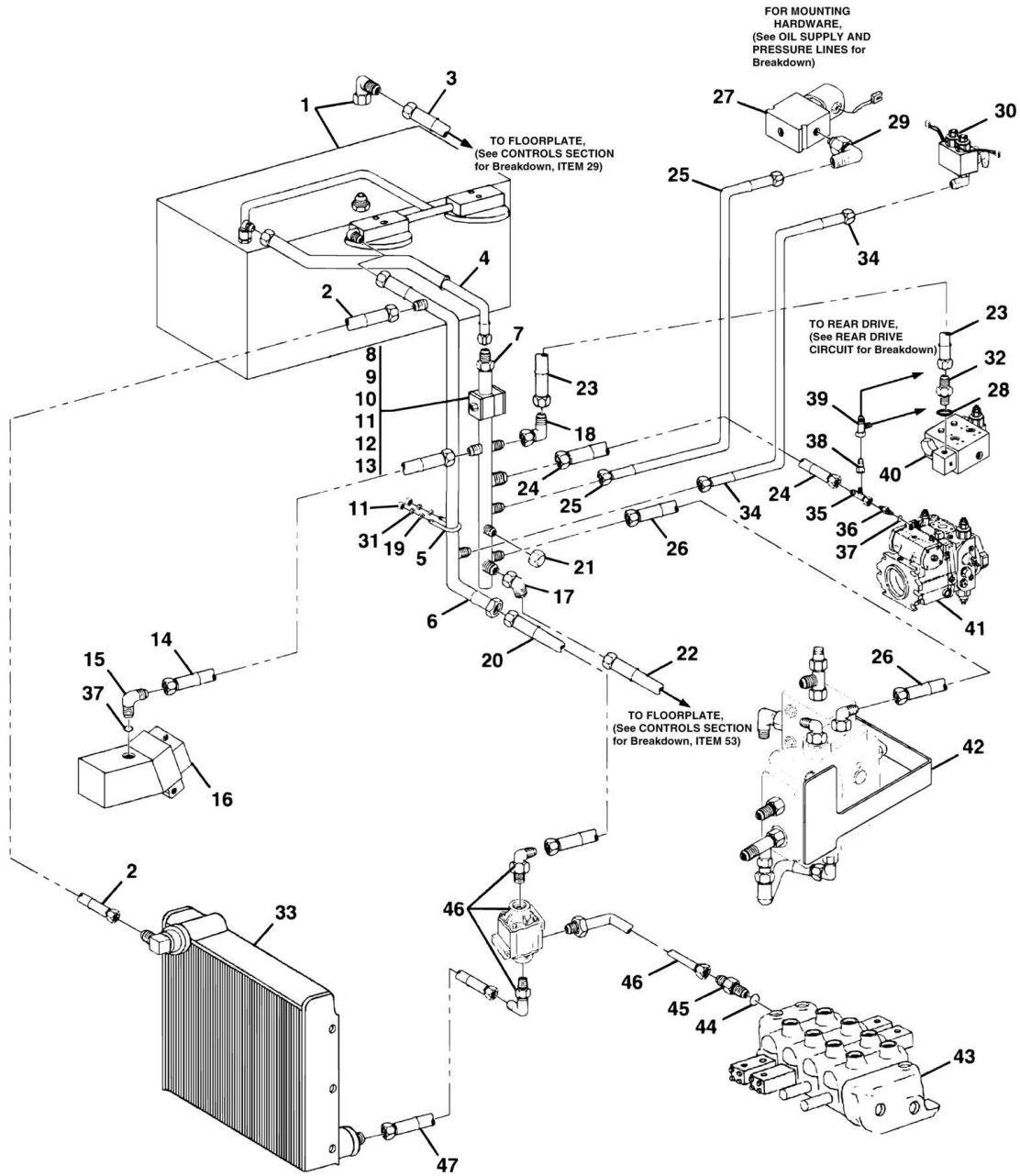
## SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	88591210	1	O-RING	
45	2220379	1	ADAPTER, (includes item 44)	
46		Ref	THERMAL BYPASS VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
47	84718945	1	HOSE ASSY	
48		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
49	2220371	1	ADAPTER, (includes item 28)	
50		Ref	ELBOW, 45, (swivel nut), (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
51	77133075	1	COVER PLATE	
52	88201011	2	HEX HD CAPSCREW, 1/4-20X2-1/2, GR5	



# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-6. DUMP CIRCUIT (SN 0160000976 to Present)



PAP21460

## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-6. DUMP CIRCUIT (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDRAULIC RESERVOIR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	1001104620	1	HOSE ASSY	
3	84718164	1	HOSE ASSY	
4	84718968	1	HOSE ASSY	
5	83421139	1	U-BOLT	
6	91553036	1	DUMP TUBE	
7	91553061	1	DRAIN TUBE	
8	77133053	1	CLAMP SET	
9	77133052	1	COVER PLATE	
10	88201010	2	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5	
11	88501004	2	HEX NUT, 1/4-20	
12	88551009	2	LOCKWASHER, 1/4	
13	88561107	2	FLAT WASHER, 1/4	
14	1001092278	1	HOSE ASSY	
15	2221048	1	REDUCER ELBOW, (includes item 37)	
16		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	8765204	1	ELBOW, 90	
18	8760268	1	ELBOW, 90	
19	4711400	2	FLAT WASHER, 1/4	
20	84718947	1	HOSE ASSY	
21	2220516	1	CAP	
22	84718635	1	HOSE ASSY	
23	84718745	1	HOSE ASSY	
24	84718956	1	HOSE ASSY	
25	84716719	1	HOSE ASSY	
26	84718743	1	HOSE ASSY	
27		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
28	88591204	1	O-RING	
29		Ref	ELBOW, 90, (See OIL SUPPLY AND PRESSURE LINES for Breakdown)	
30		Ref	STABILIZER VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	4761400	2	LOCKWASHER, 1/4	
32	2220371	1	ADAPTER, (includes item 28)	
33		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
34	1001104568	1	HOSE ASSY	
35	2220700	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
36	2220451	1	ADAPTER, (includes item 37)	
37	88591207	2	O-RING	
38	83651133	1	REDUCER WITH ADAPTER	
39	2220385	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
40		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
41		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
42		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

## SECTION 8 - HYDRAULIC CIRCUITS

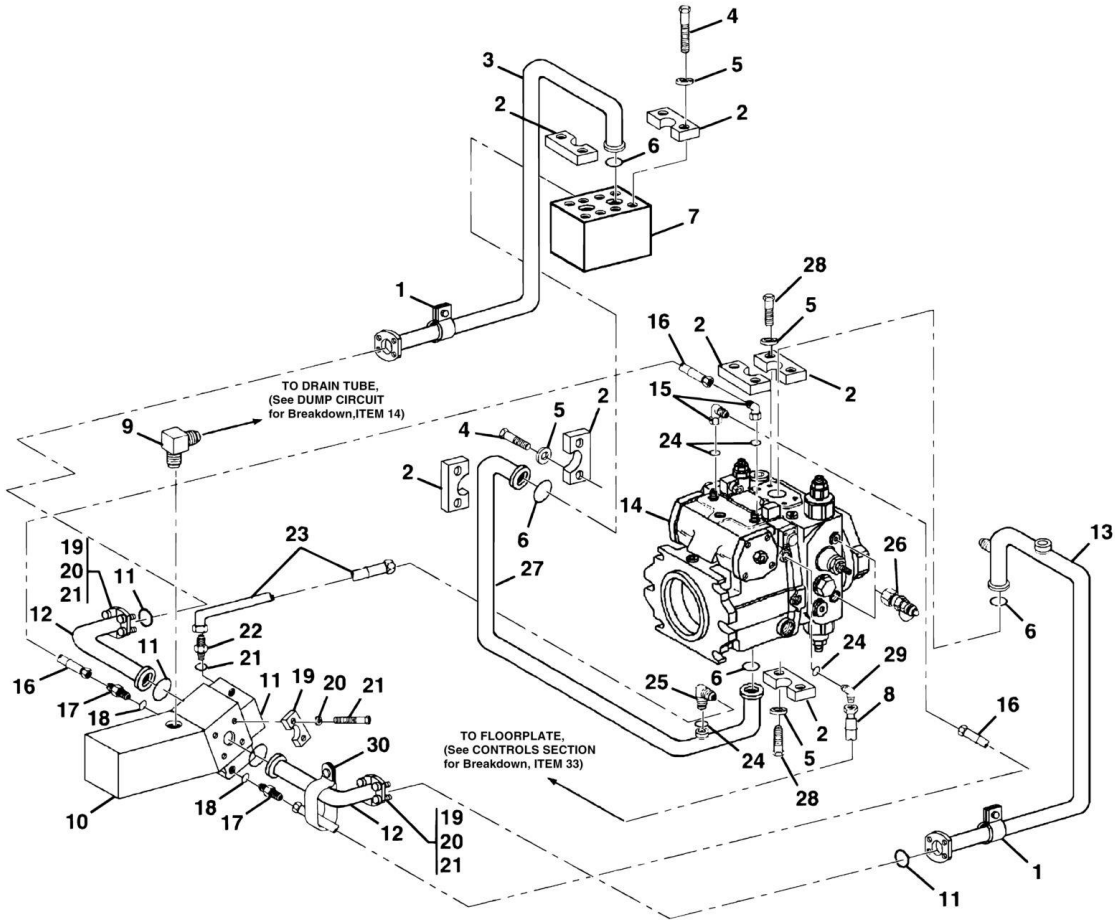
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
44	88591210	1	O-RING	
45	2220379	1	ADAPTER, (includes item 44)	
46		Ref	THERMAL BYPASS VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
47	84719980	1	HOSE ASSY	





# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-7. FRONT DRIVE CIRCUIT



PAP21660

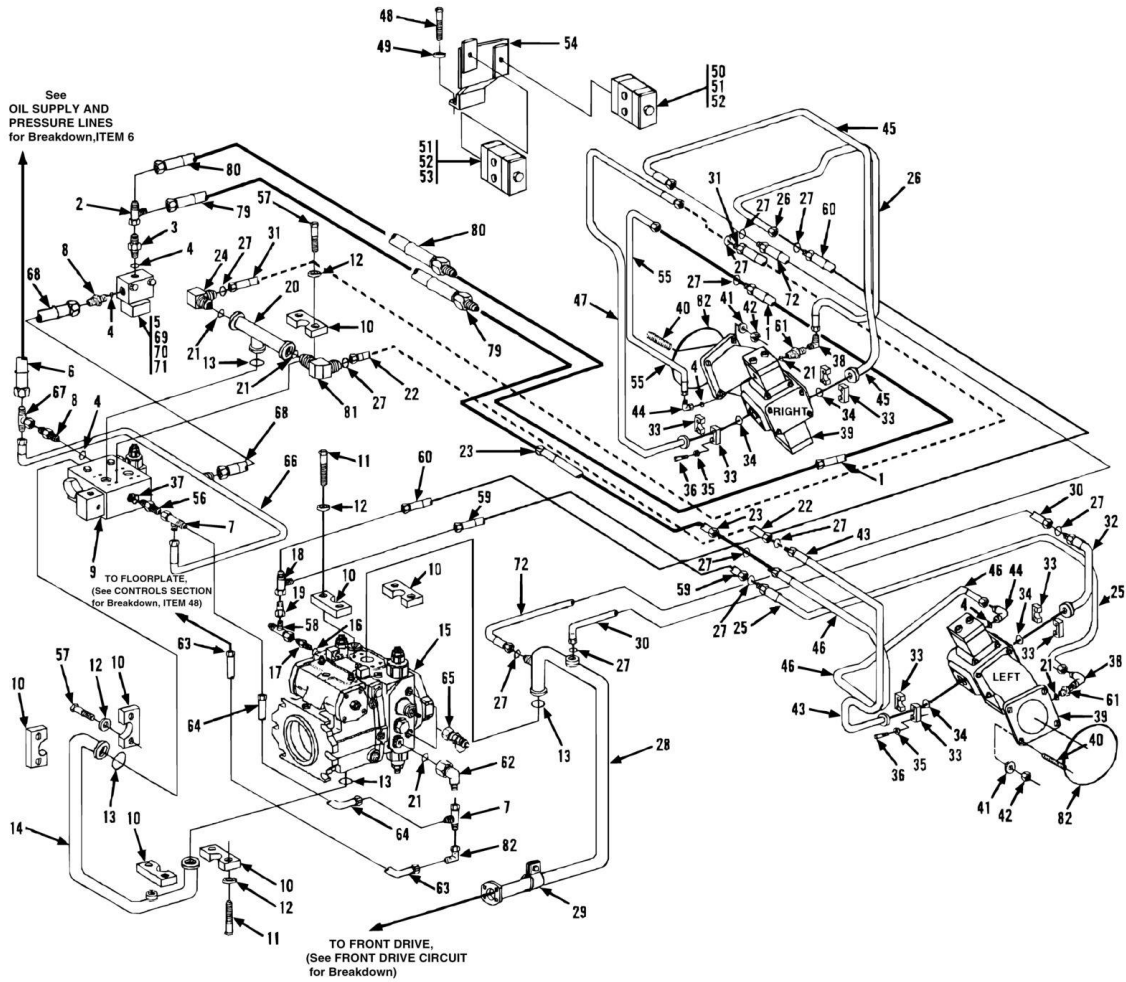
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-7. FRONT DRIVE CIRCUIT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90205792	2	CUSHION CLAMP	
2	84712738	8	SPLIT FLANGE CLAMP	
3	91083418	1	TUBE ASSY	
4	83201155	8	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
5	88551012	16	LOCKWASHER, 7/16	
6	91083106	4	O-RING	
7		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	84718077	1	HOSE ASSY	
9		Ref	ELBOW, 90, (See DUMP CIRCUIT for Breakdown)	
10		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	91083339	4	O-RING	
12	84718845	2	HOSE ASSY	
13	91163122	1	TUBE ASSY	
14		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	90027906	2	ELBOW, 90, (includes item 24)	
16	84719143	2	HOSE ASSY	
17	2220415	2	ADAPTER, (includes item 18)	
18	88591202	2	O-RING	
19	84712739	8	SPLIT FLANGE CLAMP	
20	4761800	16	LOCKWASHER, 1/2	
21	0681814	16	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
22	2220582	1	ADAPTER, (includes item 24)	
23	84718929	1	HOSE ASSY	
24	88591204	5	O-RING	
25	90027906	1	ELBOW, 90, (includes item 24)	
26	91053020	2	TEST COUPLING	
27	91163201	1	TUBE ASSY	
28	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
29	2220501	1	ELBOW, 45, (includes item 24)	
30	24601710	1	SUPPORT CLAMP	

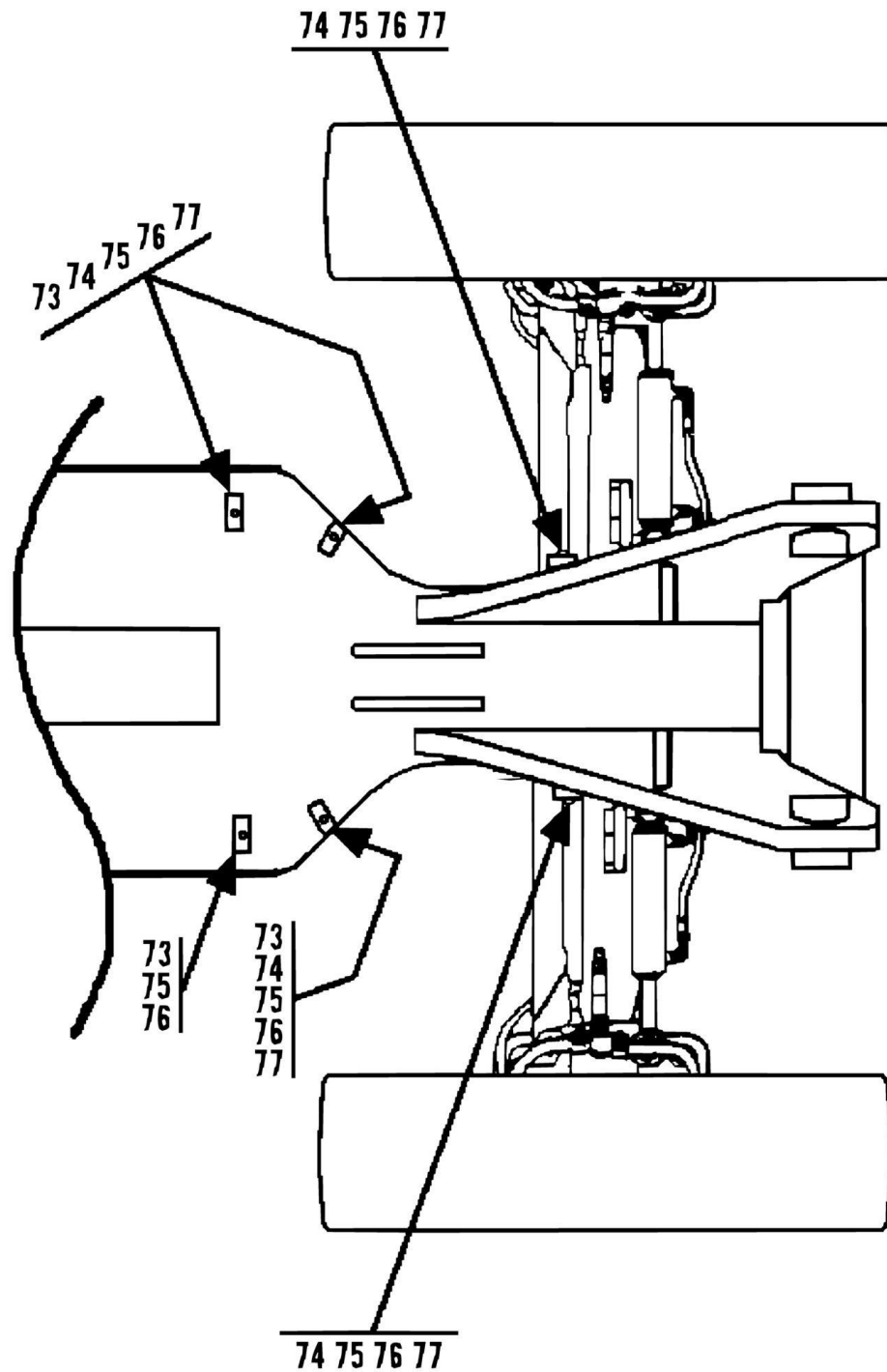
# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-8. REAR DRIVE CIRCUIT (SN 0355001 through 0355140)



# SECTION 8 - HYDRAULIC CIRCUITS

## REAR DRIVE HOSE CLAMP LOCATIONS



## SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-8. REAR DRIVE CIRCUIT (SN 0355001 through 0355140)

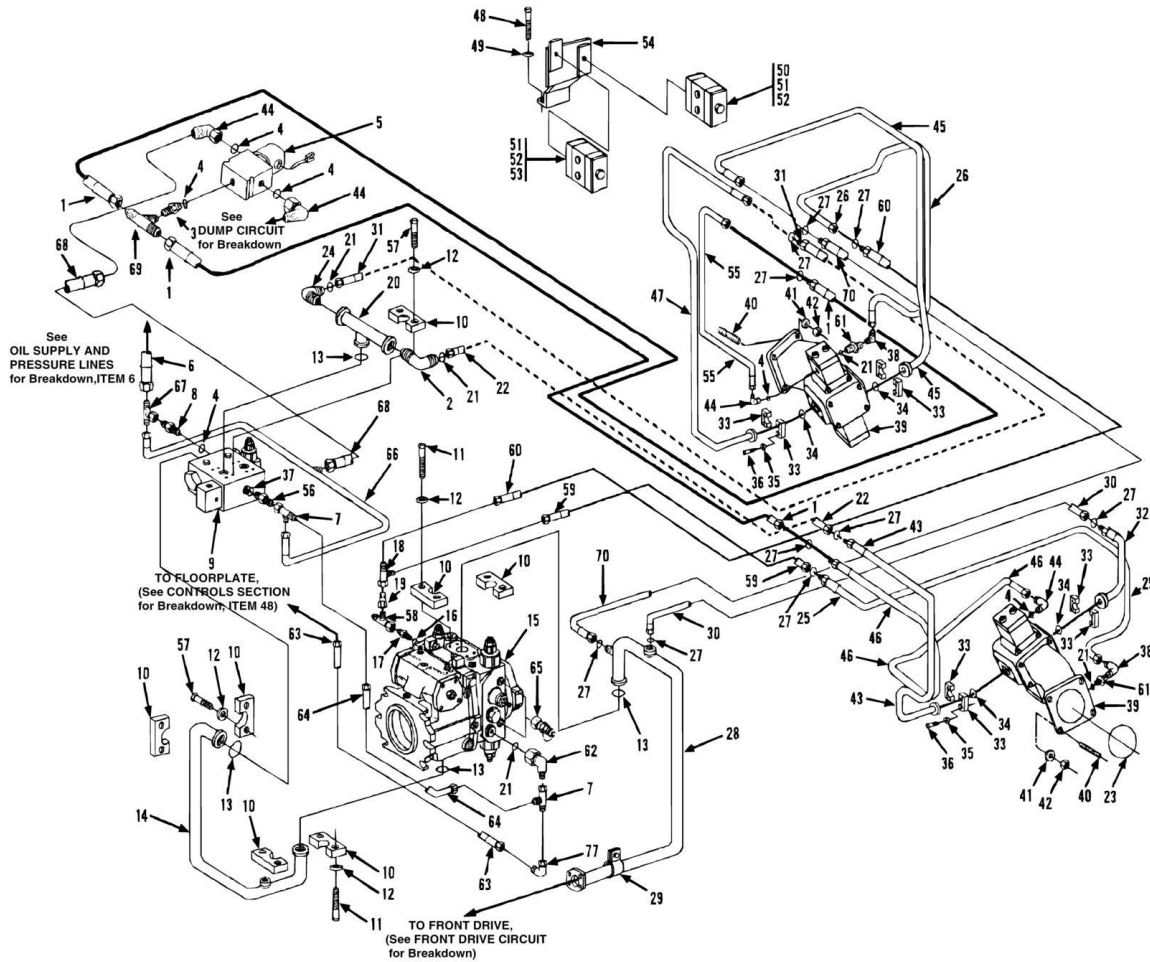
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91163054	1	TUBE ASSY	
2	2220605	1	SWIVEL NUT RUN TEE, 1/4 TUBE	
3	83662017	1	ADAPTER, (includes item 4)	
4	88591204	5	O-RING	
5		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	84718700	1	HOSE ASSY	
7	2220635	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
8	2220371	2	ADAPTER, (includes item 4)	
9		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	84712738	8	SPLIT FLANGE CLAMP	
11	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2	
12	88551012	16	LOCKWASHER, 7/16	
13	91083106	4	O-RING	
14	91163201	1	TUBE ASSY	
15		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	88591207	1	O-RING	
17	2220451	1	ADAPTER, (includes item 16)	
18	2220385	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
19	83651133	1	REDUCER WITH ADAPTER	
20	91083266	1	TUBE ASSY	
21	88591207	5	O-RING	
22	84718739	1	HOSE ASSY	
23	91163055	1	HOSE ASSY	
24	2131212	1	ELBOW, 90, (includes item 21)	
25	91163053	1	TUBE ASSY	
26	91163052	1	TUBE ASSY	
27	88591508	8	O-RING	
28	91163122	1	TUBE ASSY	
29	90205792	1	CUSHION CLAMP	
30	84718740	1	HOSE ASSY	
31	84718741	1	HOSE ASSY	
32	91163133	1	TUBE ASSY	
33	84712737	8	SPLIT FLANGE CLAMP	
34	80933066	4	O-RING	
35	88551011	16	LOCKWASHER	
36	83201115	16	HEX HD CAPSCREW, 3/8-16X1-1/4	
37	88591206	1	O-RING	
38	8765204	2	ELBOW, 90, (swivel nut)	
39		Ref	REAR DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
40	91123092	8	STUD	
41	85401340	8	HARDENED WASHER	
42	91083449	8	HEX NUT	
43	91163042	1	TUBE ASSY	
44	2220473	2	ELBOW, 90, (includes item 4)	
45	91163134	1	TUBE ASSY	
46	91163055	1	TUBE ASSY	

## SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	91163041	1	TUBE ASSY	
48	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
49	88551011	4	LOCKWASHER, 3/8	
50	91213002	2	CLAMP SET	
51	88201023	4	HEX HD CAPSCREW, 3/8-16X1-3/4	
52	77133137	4	COVER PLATE	
53	91163069	2	CLAMP HALF	
54	91166055	1	RH TUBE SUPPORT, (shown)	
54	91166056	1	LH TUBE SUPPORT	
55	91163054	1	TUBE ASSY	
56	2220497	1	ADAPTER, (includes item 37)	
57	83201155	8	HEX HD CAPSCREW, 7/16-14X3/4	
58	2220700	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
59	84718615	1	HOSE ASSY	
60	84718614	1	HOSE ASSY	
61	2220375	2	ADAPTER, (includes item 21)	
62	2220628	1	REDUCING ADAPTER, (includes item 21)	
63	84717304	1	HOSE ASSY	
64	77133447	1	HOSE ASSY	
65	91053020	2	TEST COUPLING	
66	91163098	1	TUBE ASSY	
67	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
68	84718425	1	HOSE ASSY	
69	88561002	2	FLAT WASHER, 1/4	
70	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
71	88551009	2	LOCKWASHER, 1/4	
72	84718355	1	HOSE ASSY	
73	77133279	7	CLAMP SET	
74	77133306	3	STACK BOLT	
75	88201023	4	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
76	77133137	4	COVER PLATE	
77	77133390	4	SAFETY CLIP	
78	90027187	12	NYLON TIE, (not shown), (six needed per side for rear drive hoses)	
79	84718751	1	HOSE ASSY	
80	84718752	1	HOSE ASSY	
81	2151212	1	ELBOW, 45, (includes item 21)	
82	90023159	2	O-RING	

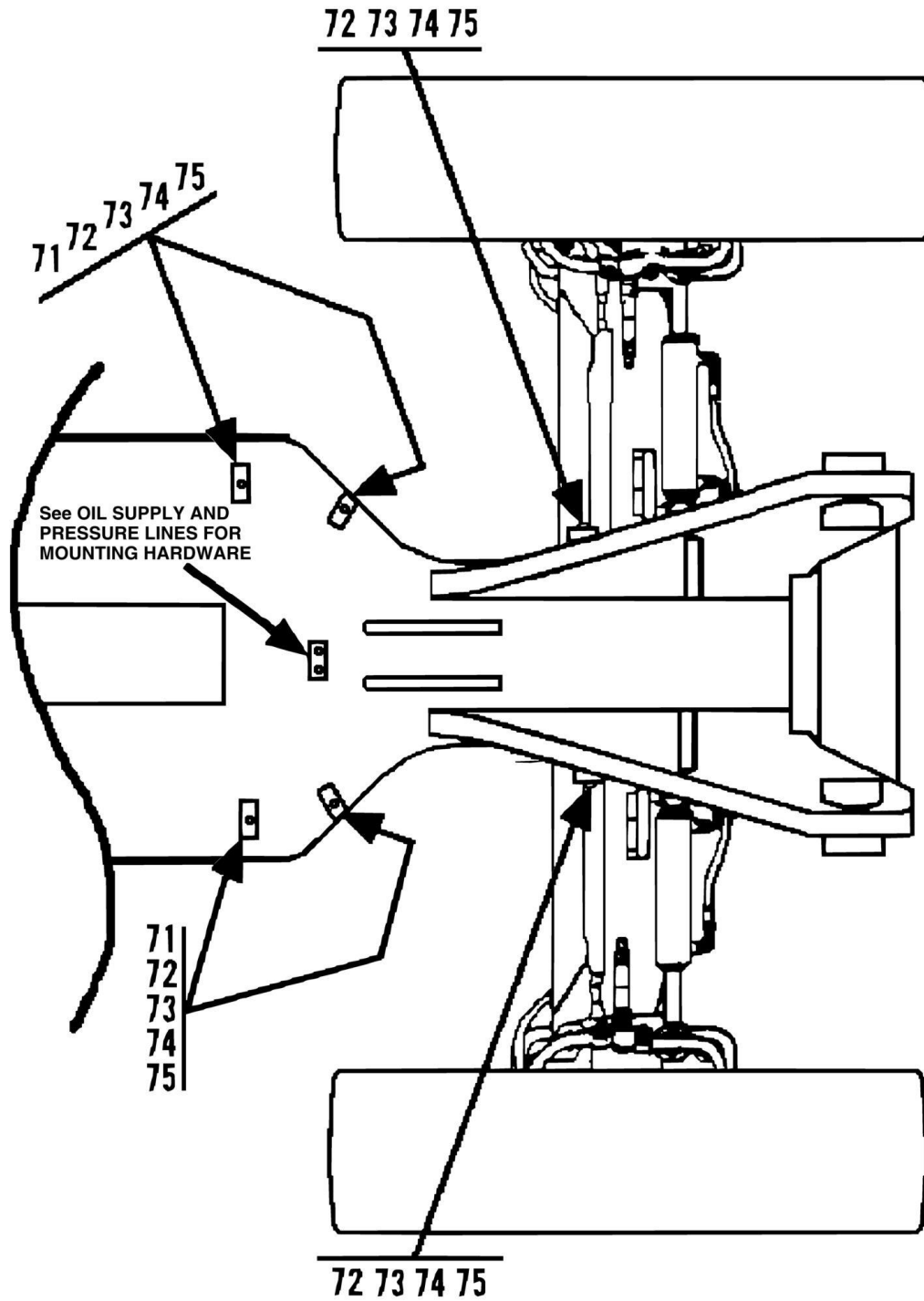
# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-9. REAR DRIVE CIRCUIT (SN 0355141 through 0455362)





REAR DRIVE HOSE CLAMP LOCATIONS



## SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-9. REAR DRIVE CIRCUIT (SN 0355141 through 0455362)

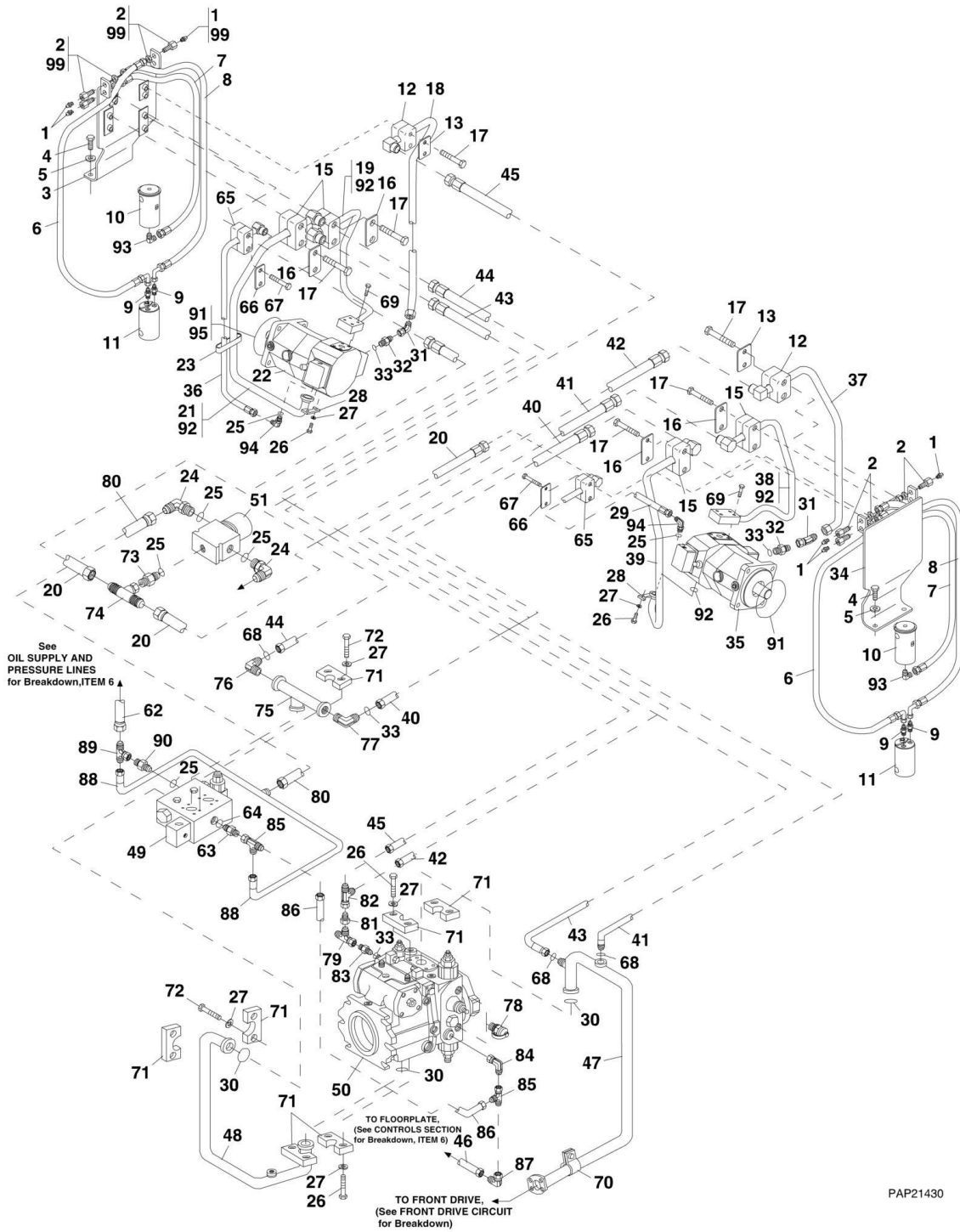
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84719447	2	HOSE ASSY	
2	2151212	1	ELBOW, 45, (includes item 21)	
3	83662017	1	ADAPTER, (includes item 4)	
4	88591204	6	O-RING	
5		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	84718700	1	HOSE ASSY	
7	2220635	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
8	2220371	1	ADAPTER, (includes item 4)	
9		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	84712738	8	SPLIT FLANGE CLAMP	
11	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2	
12	88551012	16	LOCKWASHER, 7/16	
13	91083106	4	O-RING	
14	91163201	1	TUBE ASSY	
15		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	88591207	1	O-RING	
17	2220451	1	ADAPTER, (includes item 16)	
18	2220385	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
19	83651133	1	REDUCER WITH ADAPTER	
20	91083266	1	TUBE ASSY	
21	88591207	5	O-RING	
22	84718739	1	HOSE ASSY	
23	90023159	2	O-RING, (one each side)	
24	2131212	1	ELBOW, 90, (includes item 21)	
25	91163053	1	TUBE ASSY	
26	91163052	1	TUBE ASSY	
27	88591508	10	O-RING	
28	91163122	1	TUBE ASSY	
29	90205792	1	CUSHION CLAMP	
30	84718740	1	HOSE ASSY	
31	84718741	2	HOSE ASSY	
32	91163133	1	TUBE ASSY	
33	84712737	8	SPLIT FLANGE CLAMP	
34	80933066	4	O-RING	
35	88551011	16	LOCKWASHER	
36	83201115	16	HEX HD CAPSCREW, 3/8-16X1-1/4	
37	88591206	1	O-RING	
38	8765204	2	ELBOW, 90, (swivel nut)	
39		Ref	REAR DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
40	91123092	8	STUD	
41	85401340	8	HARDENED WASHER	
42	91083449	8	HEX NUT	
43	91163042	1	TUBE ASSY	
44	2220473	4	ELBOW, 90, (includes item 4)	
45	91163134	1	TUBE ASSY	
46	91163055	1	TUBE ASSY	

## SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	91163041	1	TUBE ASSY	
48	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
49	88551011	4	LOCKWASHER, 3/8	
50	91213002	2	CLAMP SET	
51	88201023	4	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
52	77133137	4	COVER PLATE	
53	91163069	2	CLAMP HALF	
54	91166055	1	RH TUBE SUPPORT	
54	91166056	1	LH TUBE SUPPORT	
55	91163054	1	TUBE ASSY	
56	2220497	1	ADAPTER, (includes item 37)	
57	83201155	8	HEX HD CAPSCREW, 7/16-14X3/4	
58	2220700	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
59	84718615	1	HOSE ASSY	
60	84718614	1	HOSE ASSY	
61	2220375	2	ADAPTER, (includes item 21)	
62	2220628	1	REDUCING ADAPTER, (includes item 21)	
63	84717304	1	HOSE ASSY	
64	77133447	1	HOSE ASSY	
65	91053020	2	TEST COUPLING	
66	91163098	1	HOSE ASSY	
67	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
68	77133196	1	HOSE ASSY	
69	2220861	1	SWIVEL NUT BRANCH TEE, 1/4 TUBE	
70	84718355	1	HOSE ASSY	
71	77133279	7	CLAMP SET	
72	77133306	3	STACK BOLT	
73	88201023	4	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
74	77133137	4	COVER PLATE	
75	77133390	4	SAFETY CLIP	
76	90027187	12	NYLON TIE, (not shown), (six needed per side for rear drive hoses)	
77	8760268	1	ELBOW, 90, SWIVEL NUT	

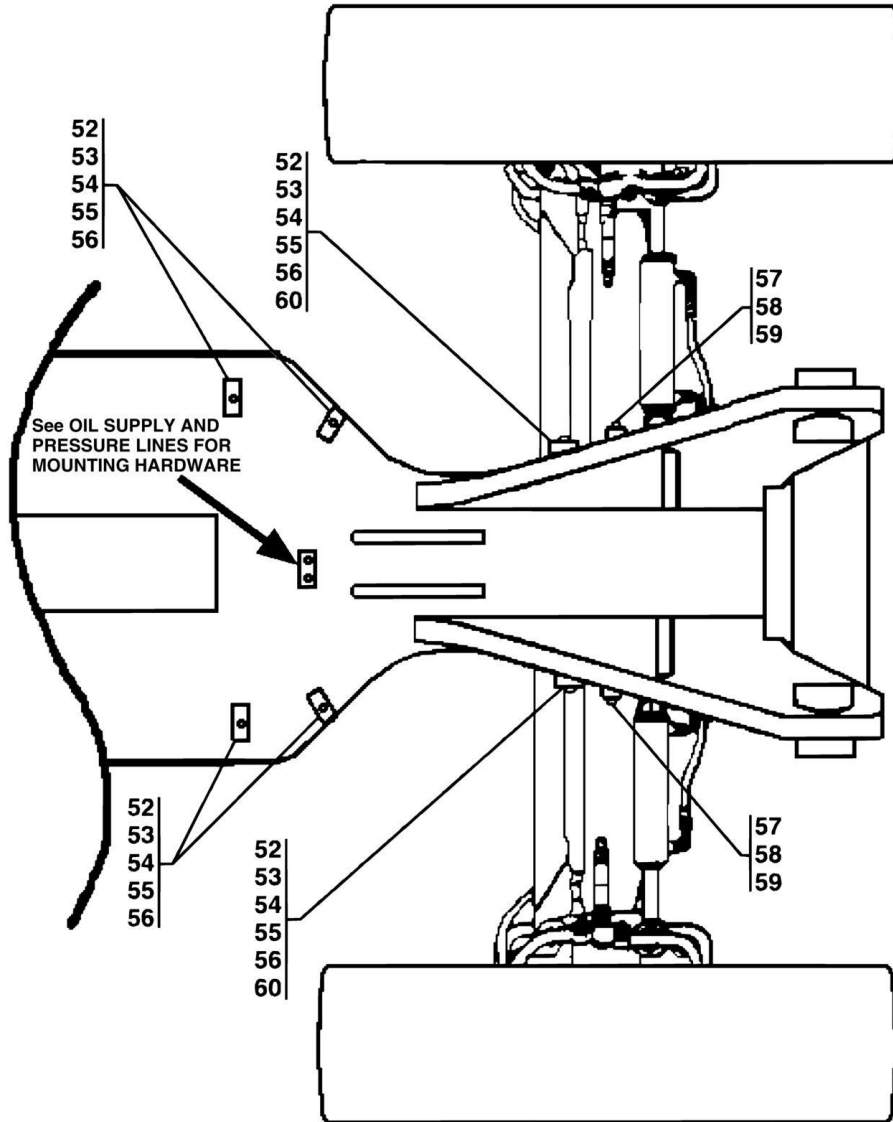
# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-10. REAR DRIVE CIRCUIT (SN 0160000192 to Present)



# SECTION 8 - HYDRAULIC CIRCUITS

REAR DRIVE HOSE CLAMP LOCATIONS



PAP21440

## SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-10. REAR DRIVE CIRCUIT (SN 0160000192 to Present)

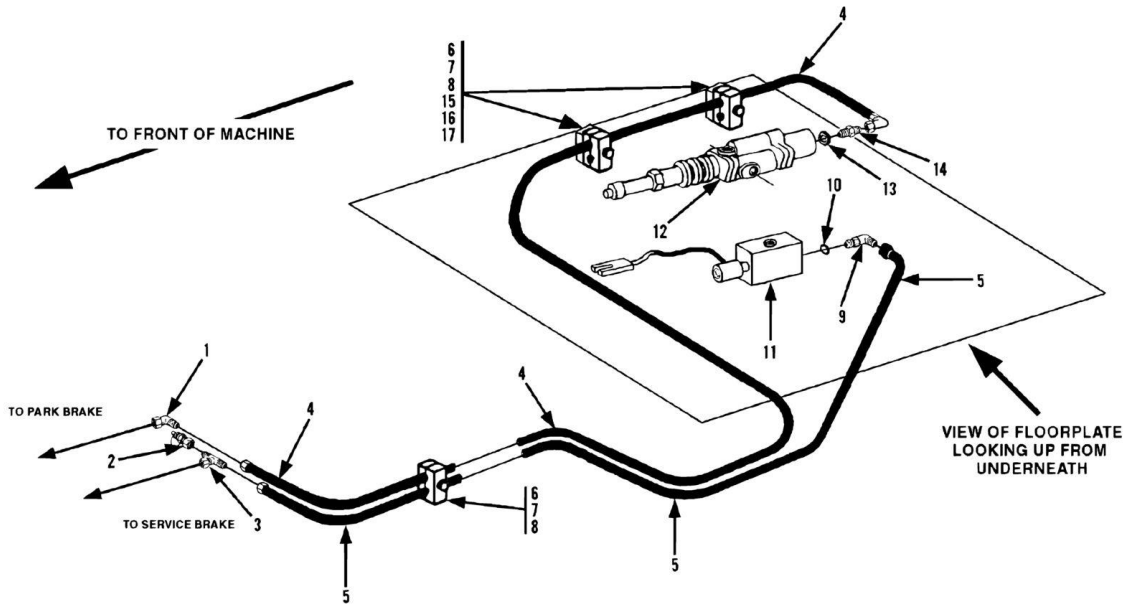
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88671001	6	STRAIGHT LUBE FITTING, 1/8	
2	80623016	6	BULKHEAD ADAPTER	
3	91406099	1	RIGHT TUBE SUPPORT BRACKET	
4	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
5	88551011	4	LOCKWASHER, 3/8	
6	84721053	2	HOSE ASSY	
7	84719170	2	GREASING HOSE	
8	84721052	2	GREASING HOSE	
9	2220574	4	ADAPTER	
10		Ref	UPPER KING PIN, (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
11		Ref	LOWER KING PIN, (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
12	77133497	2	CLAMP SET	
13	77133498	2	COVER PLATE	
15	77133053	4	CLAMP SET	
16	77133052	4	COVER PLATE	
17	88201007	12	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
18	91553052	1	RIGHT CASE DRAIN TUBE	
19	91403462	1	RIGHT PRESSURE TUBE	
20	84719447	2	HOSE ASSY	
21	91403463	1	RIGHT PRESSURE TUBE	
22		Ref	RH REAR DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
23	90027187	20	NYLON TIE	
24	2220473	2	ELBOW, 90, (includes item 25)	
25	88591204	6	O-RING	
26	83201135	16	HEX HD CAPSCREW, 7/16-14X1-1/2	
27	88551012	16	LOCKWASHER, 7/16	
28	84712737	4	FLANGE HALF	
29	91553055	1	LEFT TUBE ASSY	
30	91083106	4	O-RING	
31	88662121	2	ELBOW, 45, (swivel nut)	
32	2220865	2	ADAPTER, (includes item 33)	
33	88591207	5	O-RING	
34	91406098	1	LEFT TUBE SUPPORT BRACKET	
35		Ref	LH REAR DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
36	91553053	1	RIGHT TUBE ASSY	
37	91553054	1	LEFT CASE DRAIN TUBE	
38	91403466	1	LEFT PRESSURE TUBE	
39	91403467	1	LEFT PRESSURE TUBE	
40	84718739	1	HOSE ASSY	
41	84718740	1	HOSE ASSY	
42	84719416	1	HOSE ASSY	
43	84718355	1	HOSE ASSY	
44	84718741	1	HOSE ASSY	
45	84719415	1	HOSE ASSY	
46	84717304	1	HOSE ASSY	
47	91163122	1	TUBE ASSY	

## SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	91163201	1	TUBE ASSY	
49		Ref	TRACTION LOCK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
50		Ref	HYDROSTATIC TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
51		Ref	SOLENOID VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
52	77133279	10	CLAMP SET	
53	77133306	6	STACK BOLT	
54	0641514	6	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
55	77133137	6	COVER PLATE	
56	77133390	6	SAFETY CLIP	
57	91083533	2	FENDER WASHER	
58	91303049	2	HOSE SUPPORT	
59	0641506	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
60	80933123	2	CLAMP SET	
62	84718700	1	HOSE ASSY	
63	2220497	1	ADAPTER	
64	88591206	1	O-RING	
65	91063040	2	CLAMP SET	
66	91063039	2	COVER PLATE	
67	88201006	4	HEX HD CAPSCREW, 1/4-20X1-1/4, GR5	
68	88591508	8	O-RING	
69	88261039	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X2	
70	90205792	1	CUSHION CLAMP	
71	84712738	10	FLANGE HALF	
72	83201155	8	HEX HD CAPSCREW, 7/16-14X1-3/4	
73	2220582	1	ADAPTER, (includes item 25)	
74	2220861	1	SWIVEL NUT BRANCH TEE, 1/4 TUBE	
75	91083266	1	TUBE ASSY	
76	2131212	1	ELBOW, 90, (includes item 33)	
77	2151212	1	ELBOW, 45, (includes item 33)	
78	91053020	2	TEST COUPLING	
79	2220700	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
80	77133196	1	HOSE ASSY	
81	83651133	1	REDUCER WITH ADAPTER	
82	2220385	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
83	2220451	1	ADAPTER, (includes item 33)	
84	2220628	1	ELBOW, 90, (swivel nut)	
85	2220635	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
86	77133447	1	HOSE ASSY	
87	8760268	1	ELBOW, 90, (swivel nut)	
88	91163098	1	TUBE ASSY	
89	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
90	2220371	1	ADAPTER, (includes item 25)	
91	90023159	2	O-RING	
92	80933066	4	O-RING	
93	2220612	2	ELBOW, 90	
94	2220473	2	ELBOW, 90	
95	14403323	AR	NEVER SEEZE LUBE	
99	14404595	AR	MEGAPLEX GREASE	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-11. SERVICE/PARKING BRAKE





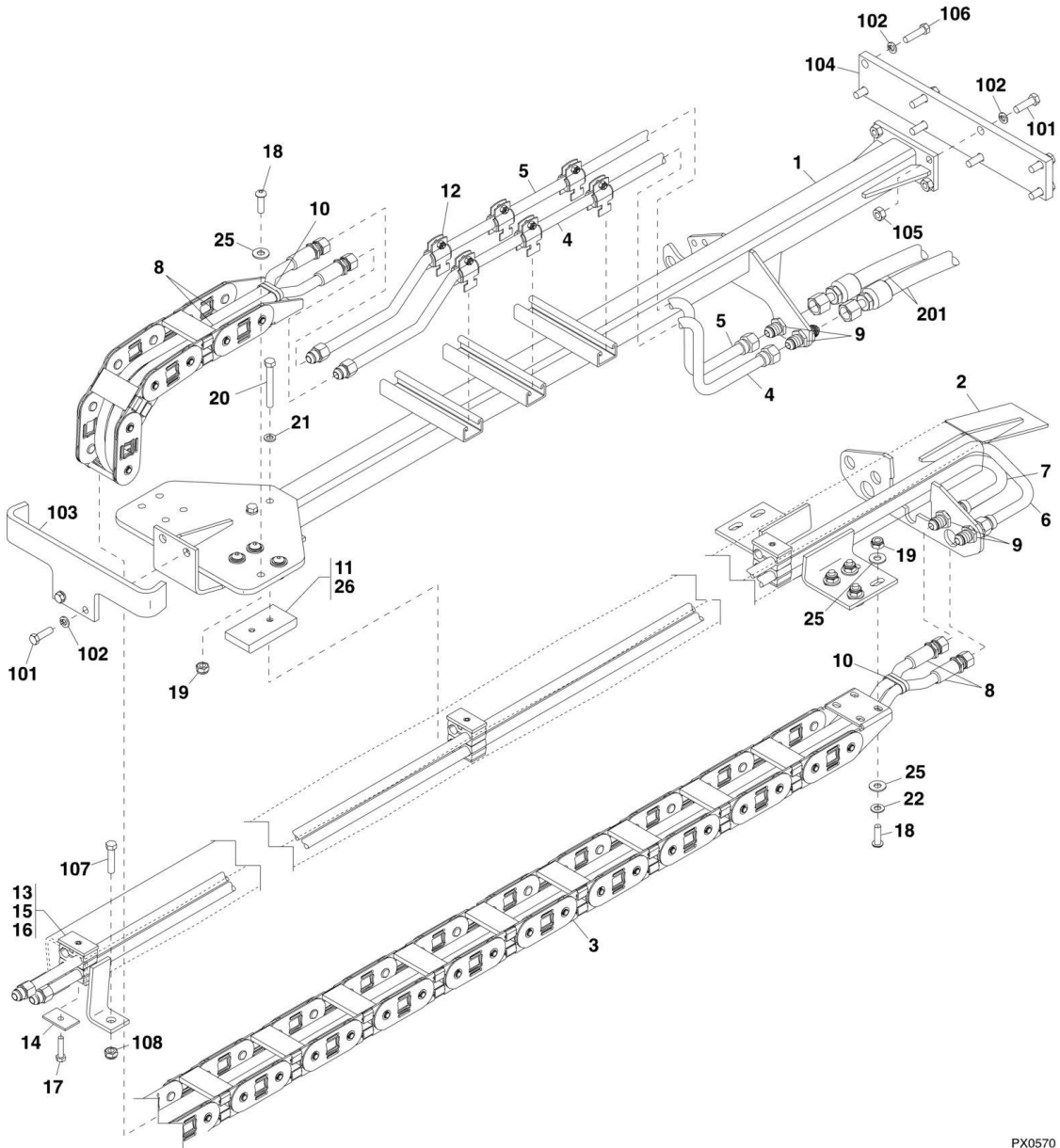
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-11. SERVICE/PARKING BRAKE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	8765204	1	ELBOW, 90, (swivel nut)	
2	91143172	1	TEST FITTING	
3	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
4	84719115	1	HOSE ASSY	
5	84719847	1	HOSE ASSY	
6	77133136	3	CLAMP SET	
7	77133137	3	COVER PLATE	
8	88201023	3	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
9		Ref	ELBOW, 90, (includes item 10), (See CONTROLS SECTION for Breakdown)	
10		Ref	O-RING, (See CONTROLS SECTION for Breakdown)	
11		Ref	SOLENOID VALVE ASSY, (See CONTROLS SECTION for Breakdown)	
12		Ref	BRAKE VALVE ASSY, (See CONTROLS SECTION for Breakdown)	
13		Ref	COPPER GASKET, (See CONTROLS SECTION for Breakdown)	
14		Ref	STRAIGHT THREAD ADAPTER, (See CONTROLS SECTION for Breakdown)	
15	77133390	2	SAFETY CLIP	
16	77133168	2	CLAMP SET	
17	77133389	2	STACKING BOLT	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-12. BOOM HYDRAULICS SUB-ASSY (Prior to SN 0160024648)



PX0570

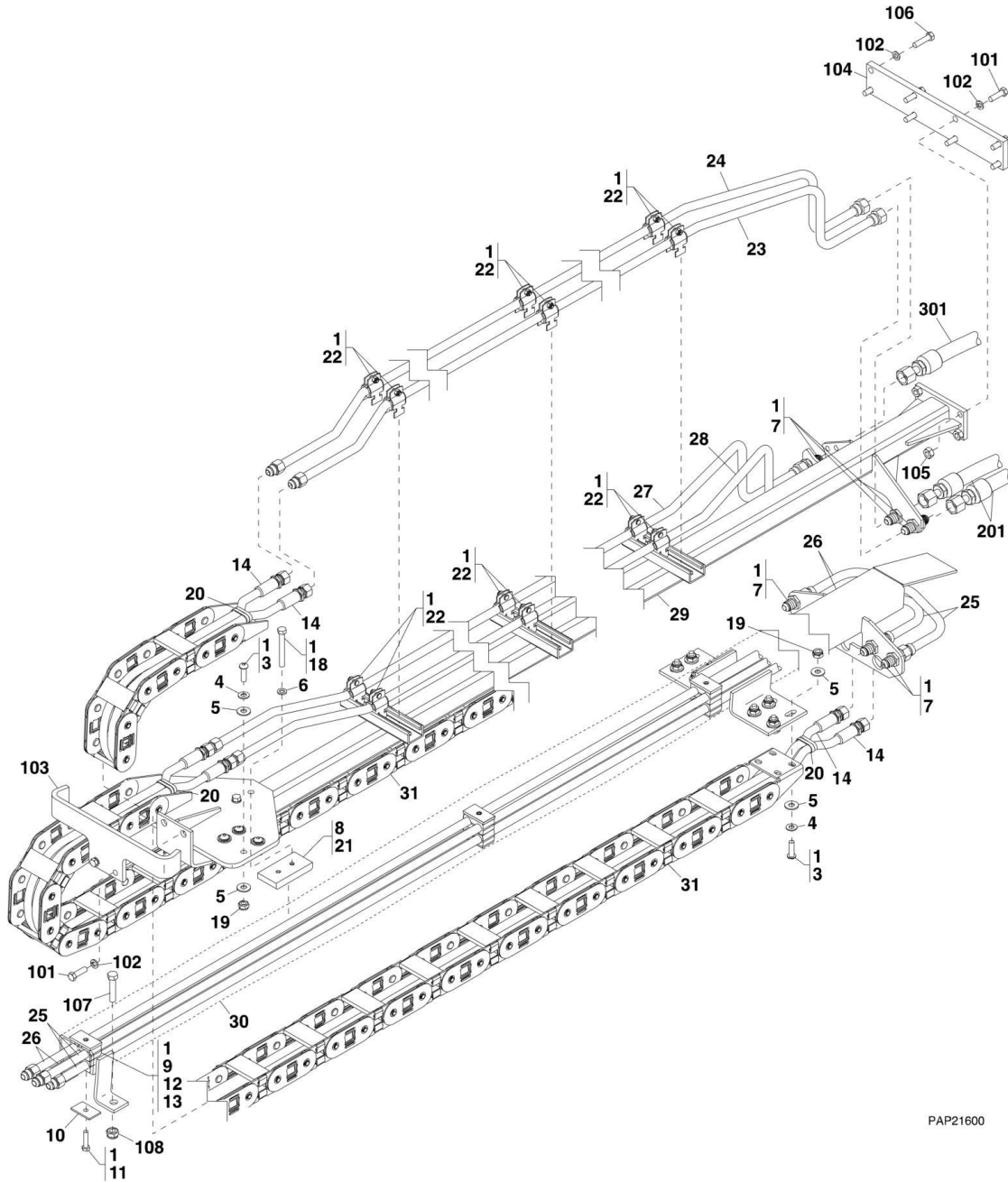
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-12. BOOM HYDRAULICS SUB-ASSY (Prior to SN 0160024648)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165007	1	BOOM HYDRAULICS SUB - ASSY, (includes items 1 thru 26)	J
1	91166032	1	HYDRAULICS CARRIER	
2	91166067	1	HYDRAULICS CARRIER	
3	91363203	1	HOSE CARRIER	
4	91163057	1	TUBE ASSY	
5	91163058	1	TUBE ASSY	
6	91163059	1	TUBE ASSY	
7	91163060	1	TUBE ASSY	
8	84718959	2	HOSE ASSY	
9	2230025	4	ADAPTER	
10	90027187	4	TIE WRAP	
11	91033187	1	BEARING PAD	
12	91083217	6	TUBE CLAMP	
13	77133139	6	CLAMP SET	
14	77133140	3	COVER PLATE	
15	77133389	3	STACK BOLT	
16	77133390	3	SAFETY CLIP	
17	77133177	3	HEX HD CAPSCREW, 5/16-18X1-3/8	
18	88261030	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
19	88521306	8	LOCKNUT, 3/8-16	
20	0651624	2	HEX HD CAPSCREW, 3/8-24X3, GR5	
21	88551011	2	LOCKWASHER, 3/8	
22	88561109	4	FLAT WASHER, 3/8	
25	88561004	12	FLAT WASHER, 3/8	
26	14404793	AR	MYSTIC TETRIMOLY GREASE	
101	88201036	6	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
102	88551011	10	LOCKWASHER, 3/8	
103	91161172	1	GUIDE BRACKET	
104	91161173	1	BRACKET	
105	88501006	4	HEX NUT, 3/8-16	
106	88201037	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
107	83201104	2	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5	
108	88521408	2	HEX LOCKNUT, 1/2-20	
201		Ref	HOSE ASSY, (See TILT CYLINDER AND TILT COMPENSATING CYLINDER for Breakdown)	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-13. BOOM HYDRAULICS SUB-ASSY (SN 0160024648 to Present)



PAP21600

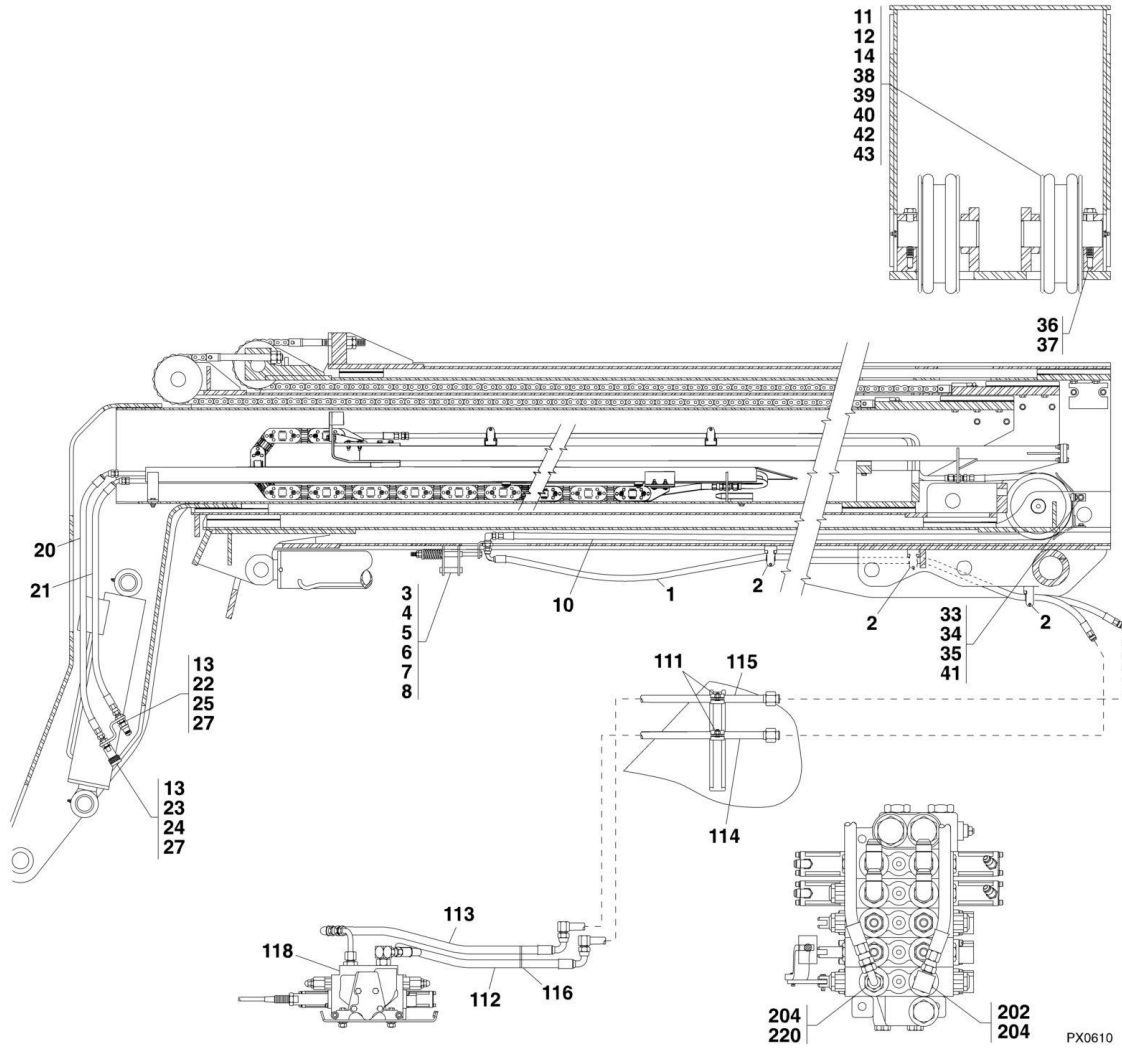
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-13. BOOM HYDRAULICS SUB-ASSY (SN 0160024648 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0275822	1	BOOM HYDRAULICS SUB-ASSY, (includes items 1 thru 31)	D
1	0100011	AR	LOCTITE 242	
3	3900232	16	BUTTON HD CAPSCREW, 3/8-16X1-1/4	
4	4711600	16	NARROW WASHER, 3/8	
5	4751600	32	WIDE WASHER, 3/8	
6	4761600	2	WASHER, 3/8	
7	2230025	8	ADAPTER	
8	14404793	AR	MYSTIK TETRIMOLY GREASE	
9	77133139	6	CLAMP SET	
10	77133140	3	COVER PLATE	
11	77133177	3	HEX HD CAPSCREW, 3/8-24X1-3/4	
12	77133389	3	BOLT	
13	77133390	3	SAFETY CLIP	
14	84718959	4	HOSE ASSY	
18	0651624	2	HEX HD CAPSCREW, 3/8-24-3	
19	88521306	16	HEX LOCKNUT, 3/8-16	
20	90027187	8	TIE STRAP	
21	91033187	1	BEARING PAD	
22	91083217	12	CUSHION CLAMP	
23	91163057	1	TUBE ASSY	
24	91163058	1	TUBE ASSY	
25	91163059	2	TUBE ASSY	
26	91163060	2	TUBE ASSY	
27	91163061	1	TUBE ASSY	
28	91163062	1	TUBE ASSY	
29	91166032	1	HYDRAULIC CARRIER	
30	91166067	1	HYDRAULIC CARRIER	
31	91363203	2	HOSE CARRIER	
101	0641610	6	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
102	4761600	10	LOCKWASHER, 3/8	
103	91161172	1	GUIDE BRACKET	
104	91161173	1	BRACKET	
105	3311601	4	HEX NUT, 3/8-16	
106	0641612	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
107	0691812	2	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5	
108	88521408	2	HEX LOCKNUT, 1/2-20	
201		Ref	HOSE ASSY, (See TILT CYLINDER AND TILT COMPENSATING CYLINDER for Breakdown)	
301		Ref	HOSE ASSY, (See AUXILIARY HYDRAULICS for Breakdown)	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-14. AUXILIARY HYDRAULICS (SN 0160024648 through 0160037688)



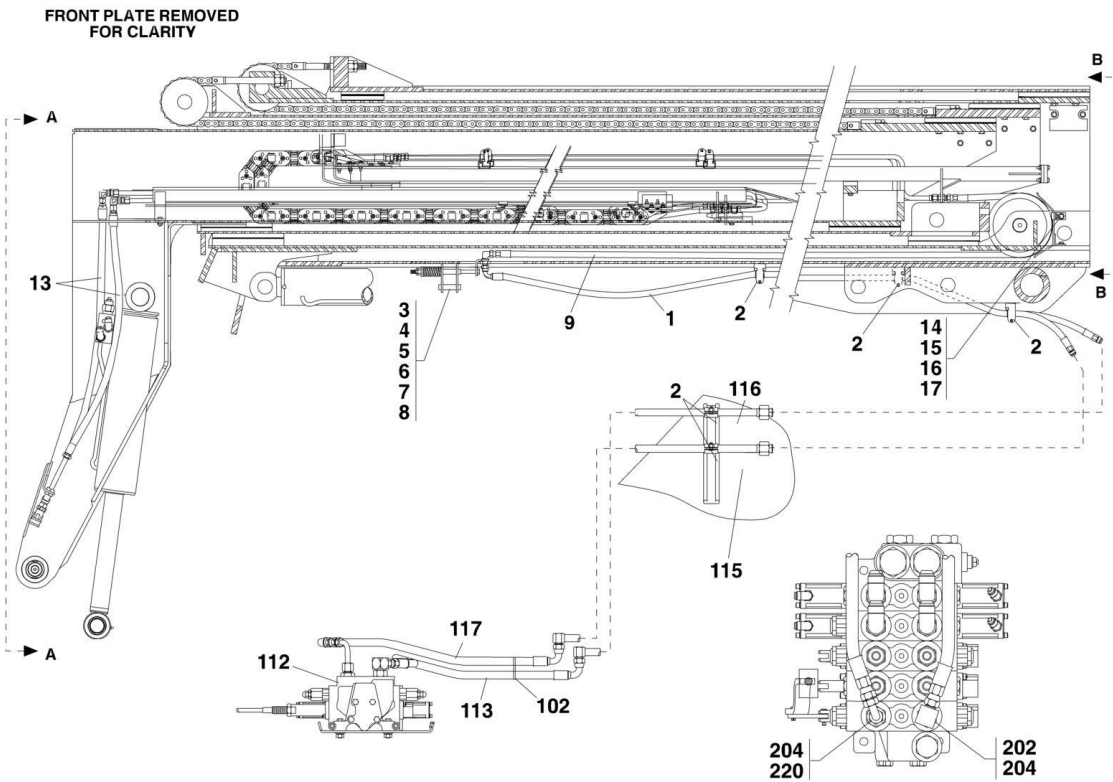
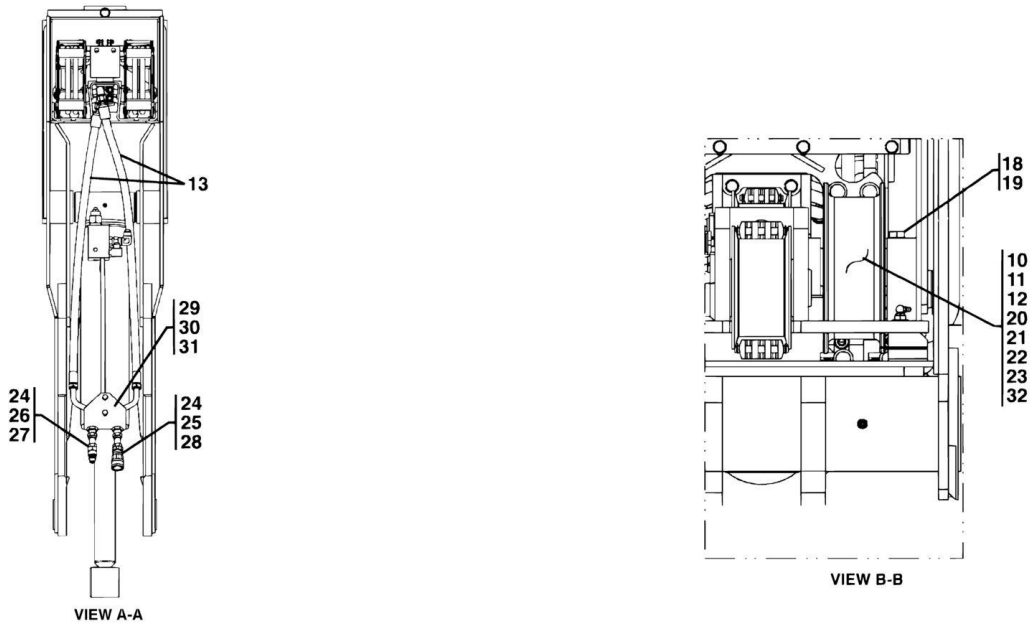
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-14. AUXILIARY HYDRAULICS (SN 0160024648 through 0160037688)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84719018	2	HOSE ASSY	
2	90207463	10	CUSHION CLAMP	
3	91166068	2	HOSE ASSY	
4	91123054	2	COMPRESSION SPRING	
5	91121134	2	SPRING RETAINER	
6	88501008	2	HEX NUT, 1/2	
7	88501108	2	JAM NUT, 1/2	
8	2230044	2	ADAPTER	
10	84719455	2	HOSE ASSY	
11	3423301	1	HOSE SHEAVE PIN	
12	91143024	1	HOSE SHEAVE	
13	2230025	2	ADAPTER	
14	91041451	2	THRUST WASHER	
20	84718637	1	HOSE ASSY	
21	84718943	1	HOSE ASSY	
22	91403414	1	ADAPTER	
23	91403413	1	ADAPTER	
24	91043125	1	DUST PLUG	
25	91043126	1	DUST CAP	
27	2220651	2	ADAPTER	
33	91566043	1	HOSE GUIDE BRACKET	
34	88201034	3	HEX HD CAPSCREW, 3/8-16x7/8	
35	88551011	3	LOCKWASHER, 3/8	
36	88201074	1	HEX HD CAPSCREW, 1/2-13x3-1/4	
37	88551013	1	LOCKWASHER, 1/2	
38	91041449	AR	THRUST WASHER	
39	91041450	AR	THRUST WASHER	
40	91041596	AR	THRUST WASHER	
41	88561004	3	FLAT WASHER, 3/8	
42	88671001	1	GREASE FITTING	
43	14404793	AR	MYSTIK TETRIMOLY GREASE	
112	84718685	1	HOSE ASSY	
113	84718686	1	HOSE ASSY	
114	91163096	1	TUBE ASSY	
115	91163097	1	TUBE ASSY	
116	90027187	2	NYLON TIE	
118		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
202	8765204	1	ELBOW, 90	
204	2220375	2	ADAPTER, (includes o-ring)	
220	2220471	1	ADAPTER	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-15. AUXILIARY HYDRAULICS (SN 0160037689 to Present)



PAP21590



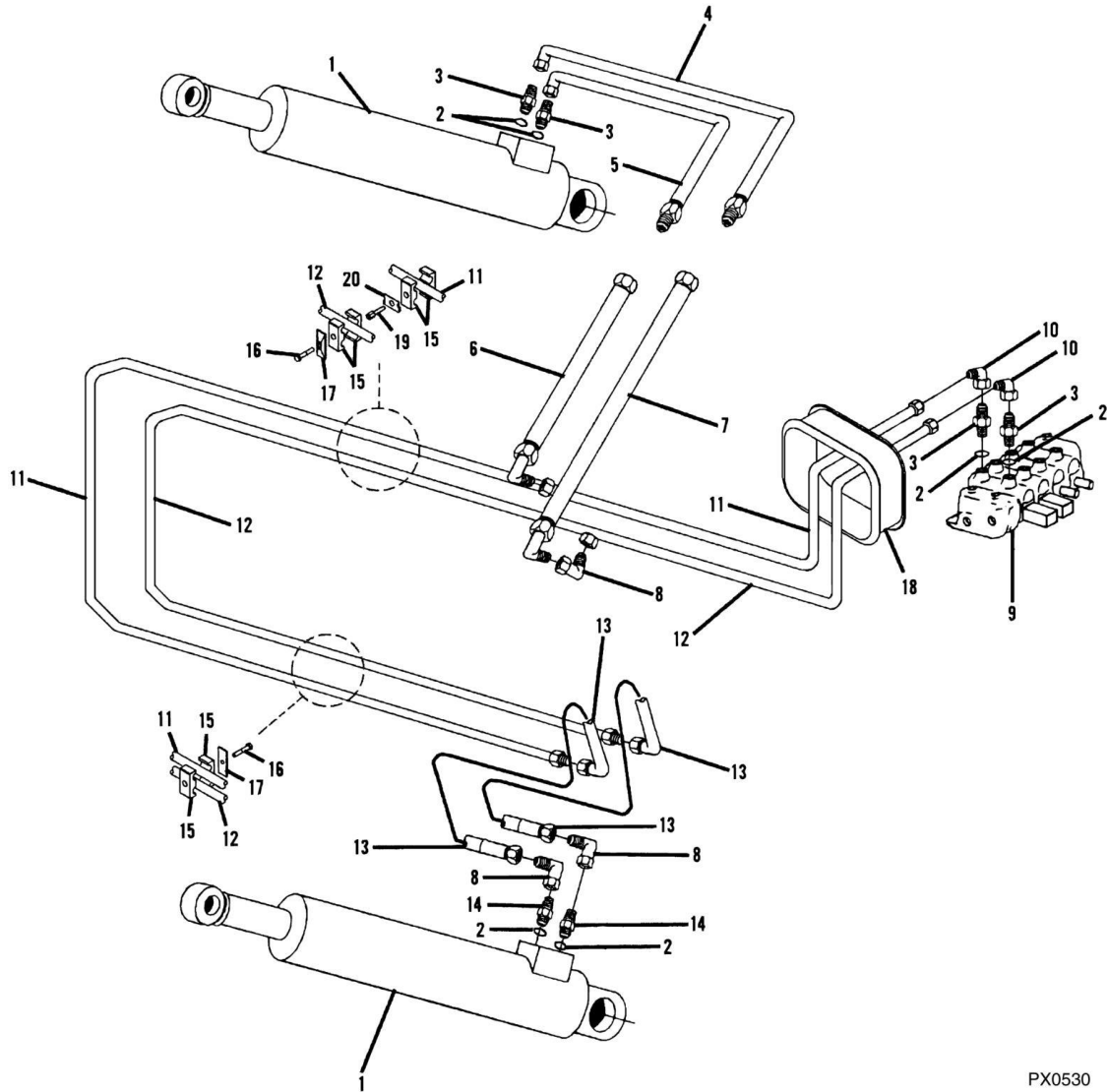
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-15. AUXILIARY HYDRAULICS (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001100466	1	BOOM AUXILIARY HYDRAULIC INSTALLATION, (includes items 1 thru 31)	B
1	84719018	2	HOSE ASSY	
2	90207463	8	CUSHION CLAMP	
3	91166068	2	HOSE ASSY	
4	91123054	2	COMPRESSION SPRING	
5	91121134	2	SPRING RETAINER	
6	88501008	2	HEX NUT, 1/2	
7	88501108	2	JAM NUT, 1/2	
8	2230044	2	ADAPTER	
9	84719455	2	HOSE ASSY	
10	3423301	1	HOSE SHEAVE PIN	
11	91143024	1	HOSE SHEAVE	
12	91041451	2	THRUST WASHER	
13	1001100465	2	HOSE ASSY	
14	91566043	1	HOSE GUIDE BRACKET	
15	0641607	3	HEX HD CAPSCREW, 3/8-16X7/8	
16	4761600	3	LOCKWASHER, 3/8	
17	4751600	3	FLAT WASHER, 3/8	
18	0641826	1	HEX HD CAPSCREW, 1/2-13X3-1/4	
19	4761800	1	LOCKWASHER, 1/2	
20	91041449	AR	THRUST WASHER	
21	91041450	AR	THRUST WASHER	
22	91041596	AR	THRUST WASHER	
23	2160002	1	GREASE FITTING	
24	2180849	2	ADAPTER	
25	91403413	1	ADAPTER	
26	91403414	1	ADAPTER	
27	91043126	1	DUST CAP	
28	91043125	1	DUST PLUG	
29	1001098425	1	BRACKET	
30	0641612	2	HEX HD CAPSCREW, 3/8-16X1-1/2	
31	8305645	2	HEX LOCKNUT, 3/8-16	
32	14404793	AR	MYSTIK TETRIMOLY GREASE	
102	90027187	2	NYLON TIE	
112		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
113	84718685	1	HOSE ASSY	
115	91163096	1	TUBE ASSY	
116	91163097	1	TUBE ASSY	
117	84718686	1	HOSE ASSY	
202	8765204	1	ELBOW, 90	
204	2220375	2	ADAPTER, (includes o-ring)	
220	2220471	1	ADAPTER	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-16. LIFT CYLINDER



PX0530

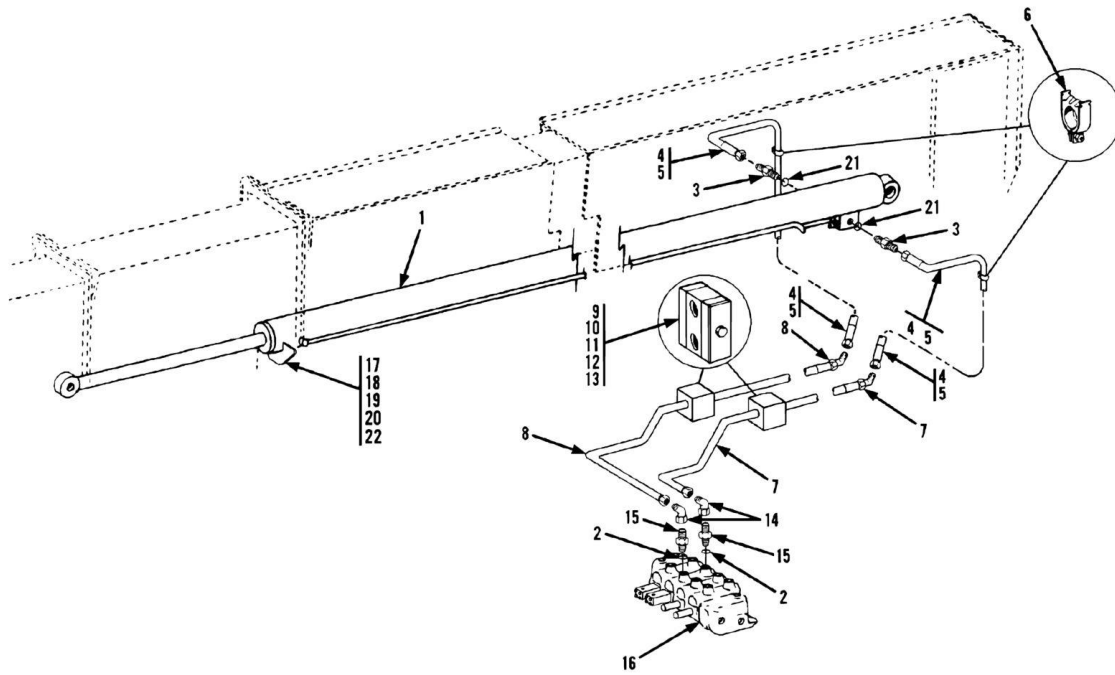
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-16. LIFT CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	LIFT CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591207	6	O-RING	
3	2220451	4	ADAPTER, (includes item 2)	
4	91163220	1	TUBE ASSY	
5	91163219	1	TUBE ASSY	
6	84718893	1	HOSE ASSY	
7	84718894	1	HOSE ASSY	
8	2220973	3	ELBOW, 90, (swivel nut)	
9		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	2220655	2	ELBOW, 90, (swivel nut)	
11	91163218	1	TUBE ASSY	
12	91163217	1	TUBE ASSY	
13	84718948	2	HOSE ASSY	
14	2220865	2	ADAPTER, (includes item 2)	
15	77133136	3	CLAMP	
16	88201023	2	HEX HD CAPSCREW, 5/16-1-3/4, GR5	
17	77133137	2	COVER PLATE	
18	91163198	1	RUBBER GROMMET	
19	77133306	1	STACK BOLT	
20	77133390	1	SAFETY CLIP	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-17. CROWD CYLINDER



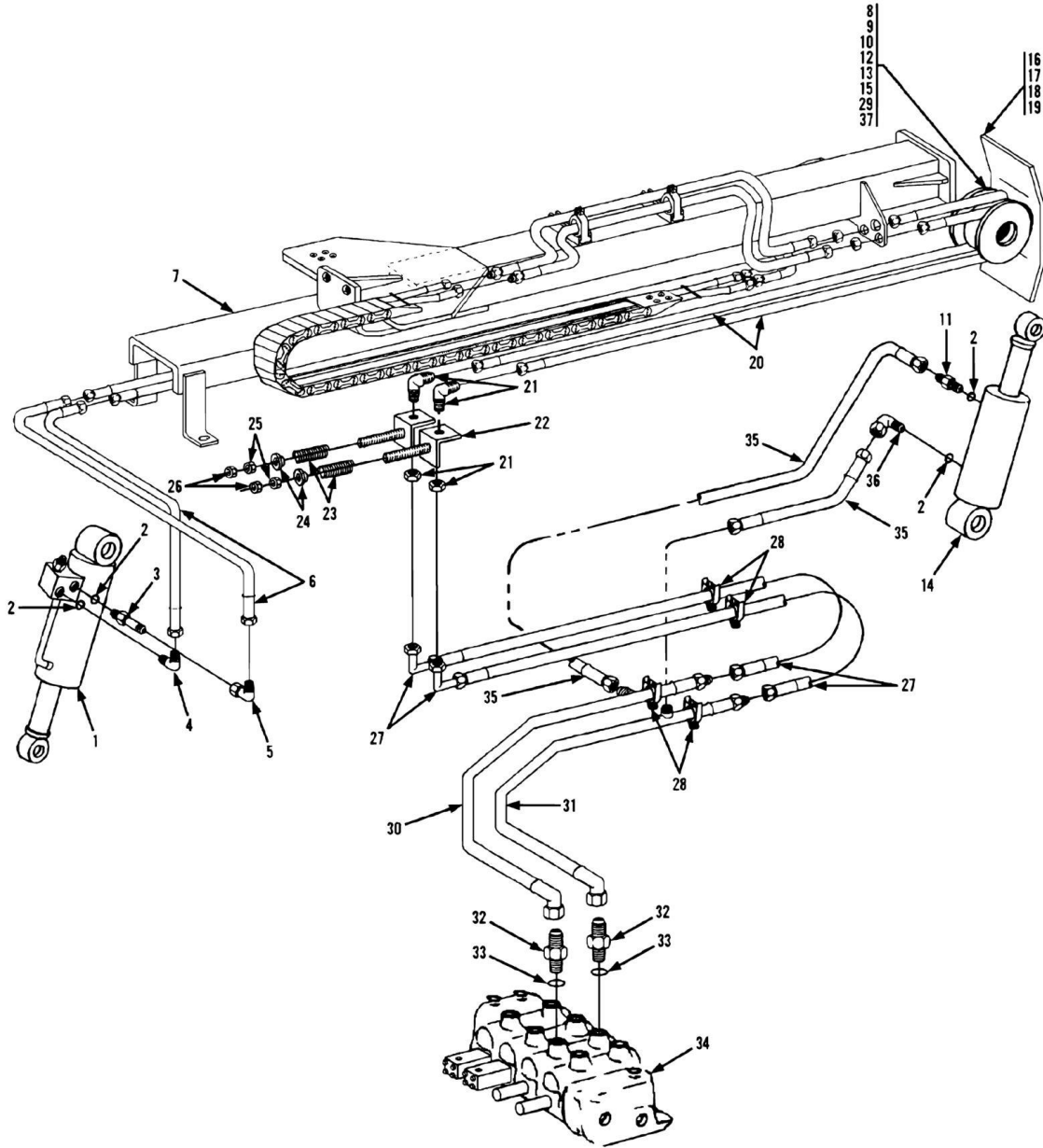
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-17. CROWD CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	CROWD CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591207	2	O-RING	
3	2220947	2	ADAPTER, (includes item 21)	
4	84718684	2	HOSE ASSY	
5	91053413	2	HOSE SUPPORT	
6	90207463	2	CUSHION CLAMP	
7	91163095	1	TUBE ASSY	
8	91163094	1	TUBE ASSY	
9	88201023	2	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
10	77133136	4	CLAMP SET	
11	77133390	2	SAFETY CLIP	
12	77133137	2	COVER PLATE	
13	77133306	2	STACK BOLT	
14	2220655	2	ELBOW, 90, (swivel nut)	
15	2220974	2	ADAPTER, (includes item 2)	
16		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	91161197	1	CROWD CYLINDER SUPPORT	
18	0641818	2	HEX HD CAPSCREW, 1/2-13X2, GR5	
19	4761800	2	LOCKWASHER, 1/2	
20	88501008	2	HEX NUT, 1/2-13	
21	88591206	2	O-RING	
22	4711800	2	FLAT WASHER, 1/2 <b>(SN 0160037689 to Present)</b>	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-18. TILT CYLINDER AND TILT COMPENSATING CYLINDER



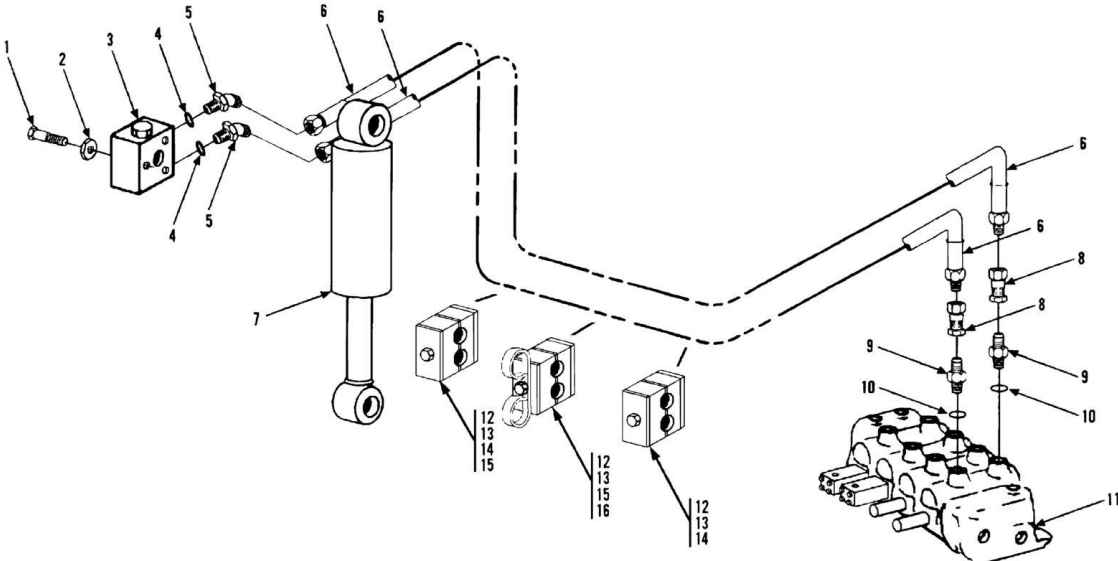
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-18. TILT CYLINDER AND TILT COMPENSATING CYLINDER**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	TILT CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591206	4	O-RING	
3	88662037	1	ADAPTER, (includes item 2)	
4	2221036	1	ELBOW, 90, (includes item 2)	
5	2220973	1	ELBOW, 90, (swivel nut)	
6	84718632	2	HOSE ASSY	
7		Ref	BOOM HYDRAULICS SUB-ASSY, (See BOOM HYDRAULICS SUB-ASSY for Breakdown)	
8	91143024	1	HOSE SHEAVE	
9	3423301	1	HOSE SHEAVE PIN	
10	88201074	1	HEX HD CAPSCREW, 1/2-13X3-1/4, GR5	
11	2220947	1	ADAPTER, (includes item 2)	
12	91041449	AR	THRUST WASHER	
13	91041450	AR	THRUST WASHER	
14		Ref	COMPENSATING CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	91041596	AR	THRUST WASHER	
16	91566025	1	HOSE GUIDE BRACKET	
17	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
18	88561004	3	FLAT WASHER, 3/8	
19	88551011	3	LOCKWASHER, 3/8	
20	84719455	2	HOSE ASSY	
21	2230044	2	ELBOW, 90	
22	91166068	2	HOSE TAKE-UP WELDMENT	
23	91123054	2	COMPRESSION SPRING	
24	91121134	2	SPRING RETAINER	
25	88501008	2	HEX NUT, 1/2-13	
26	88501108	2	JAM NUT, 1/2-13	
27	84719018	2	HOSE ASSY	
28	90207463	10	CUSHION CLAMP	
29	88551013	1	LOCKWASHER, 1/2	
30	91163166	1	TUBE ASSY	
31	91163167	1	TUBE ASSY	
32	2220451	2	ADAPTER, (includes item 33)	
33	88591207	2	O-RING	
34		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
35	84718684	2	HOSE ASSY (57.25IN LENGTH)	
35	84718728	2	HOSE ASSY (19.5IN LENGTH)	
36	2221050	1	ELBOW, 45, (includes item 2)	
37	88671001	1	STRAIGHT LUBE FITTING, 1/8	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-19. SWAY CYLINDER





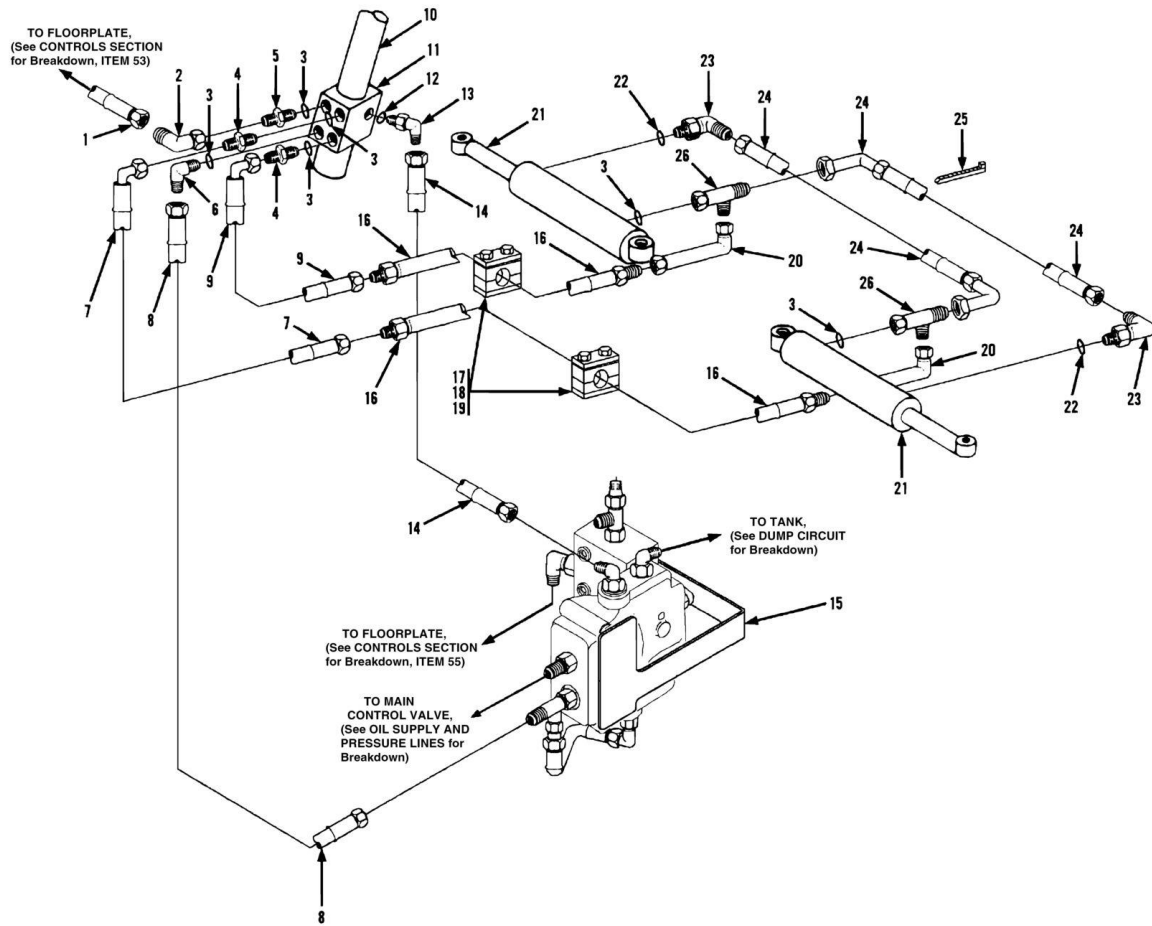
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-19. SWAY CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	0641618	3	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5, (torque to 30-35 lb-ft)	
2	4761600	3	LOCKWASHER, 3/8	
3		Ref	SWAY CYLINDER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
4	88591012	2	O-RING	
5	2220502	2	ELBOW, 45, (includes item 4)	
6	84719040	2	HOSE ASSY	
7		Ref	SWAY CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	2220618	2	ADAPTER	
9	2220375	2	ADAPTER, (includes item 10)	
10	88591207	2	O-RING	
11		Ref	MAIN CONTROL VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12	77133168	3	CLAMP SET	
13	77133140	3	COVER PLATE	
14	77133177	2	HEX HD CAPSCREW, 5/16-18X1-3/8	
15	86621230	3	SUPPORT CLAMP	
16	88201022	1	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-20. STEERING CIRCUIT (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



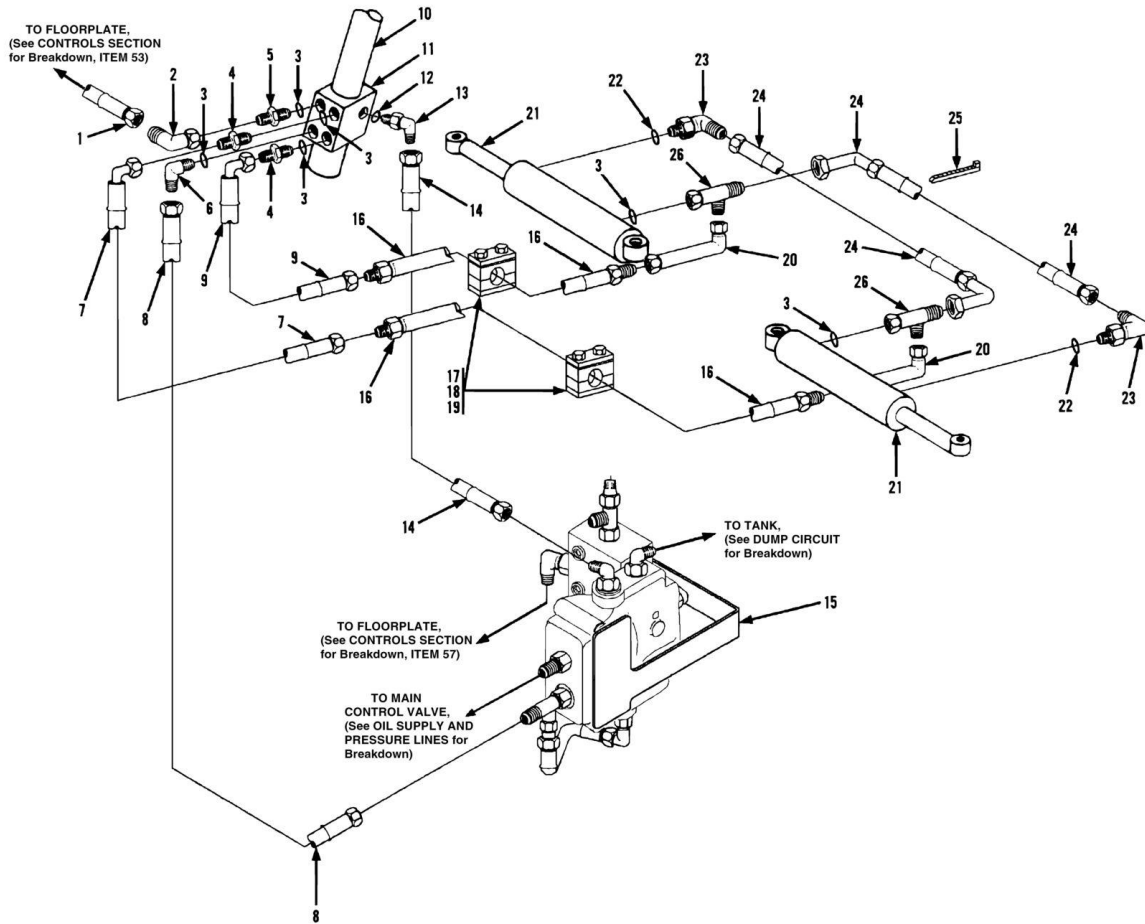
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-20. STEERING CIRCUIT (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84718672	1	HOSE ASSY, (tank)	
2	8760268	1	ELBOW, 90, (swivel nut)	
3	88591205	6	O-RING	
4	2220373	2	ADAPTER, (includes item 3)	
5	2220372	1	ADAPTER, (includes item 3)	
6	2220596	1	ELBOW, 90, (includes item 3)	
7	84719042	1	HOSE ASSY, (left)	
8	84718951	1	HOSE ASSY, (pressure)	
9	84719057	1	HOSE ASSY, (right)	
10		Ref	STEERING COLUMN, (See CONTROLS SECTION for Breakdown)	
11		Ref	STEERING CONTROL UNIT, (See CONTROLS SECTION for Breakdown)	
12	88591203	1	O-RING	
13	2220466	1	ELBOW, 90, (includes item 12)	
14	84718673	1	HOSE ASSY	
15		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	91143354	2	TUBE ASSY	
17	77133499	8	HEX HD CAPSCREW	
18	77133498	4	COVER PLATE	
19	91033138	4	CLAMP SET	
20	90022042	2	HOSE ASSY	
21		Ref	STEERING CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88591204	2	O-RING	
23	2220473	2	ELBOW, 90, (includes item 22)	
24	84718202	2	HOSE ASSY	
25	90027187	4	TIE WRAP	
26	2220602	2	RUN TEE, (includes item 3)	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-21. STEERING CIRCUIT (SN 0160000976 through 0160001769, Excluding 0160001766)



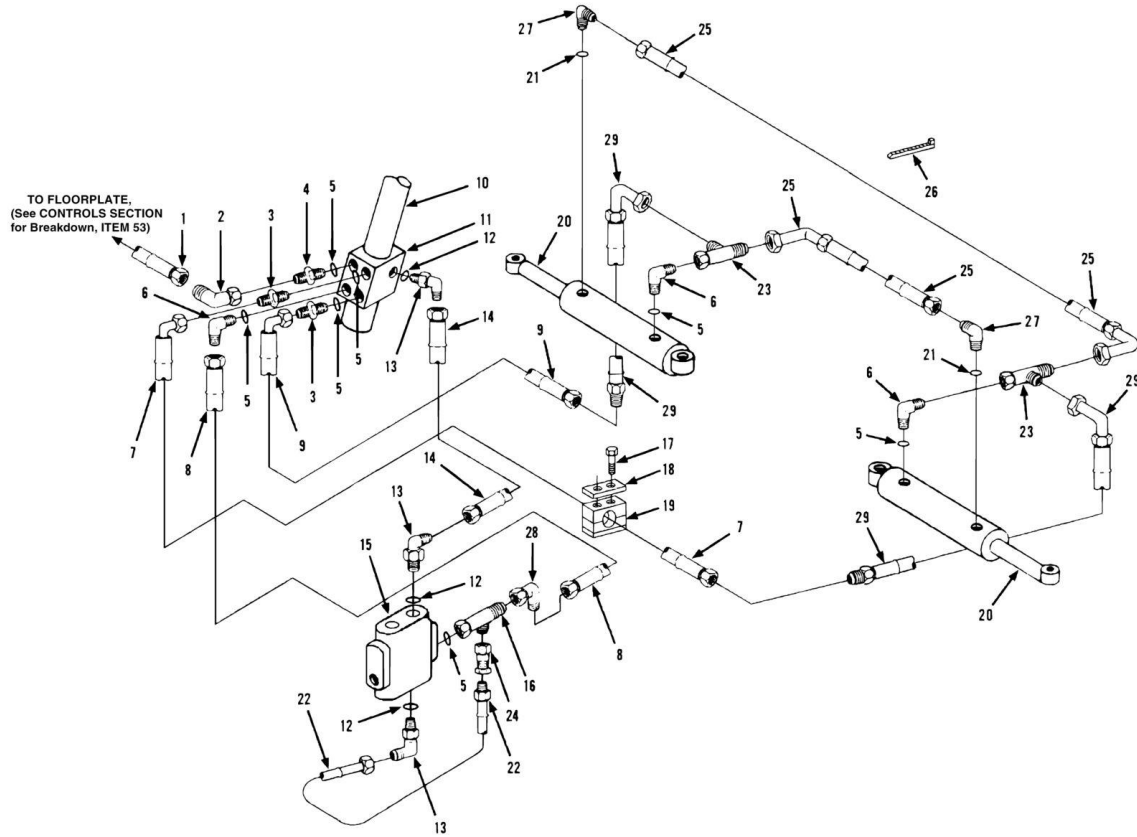
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-21. STEERING CIRCUIT (SN 0160000976 through 0160001769, Excluding 0160001766)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84718672	1	HOSE ASSY, (tank)	
2	8760268	1	ELBOW, 90, (swivel nut)	
3	88591205	6	O-RING	
4	2220373	2	ADAPTER, (includes item 3)	
5	2220372	1	ADAPTER, (includes item 3)	
6	2220596	1	ELBOW, 90, (includes item 3)	
7	84719977	1	HOSE ASSY, (left)	
8	84718951	1	HOSE ASSY, (pressure)	
9	84719057	1	HOSE ASSY, (right)	
10		Ref	STEERING COLUMN, (See CONTROLS SECTION for Breakdown)	
11		Ref	STEERING CONTROL UNIT, (See CONTROLS SECTION for Breakdown)	
12	88591203	1	O-RING	
13	2220466	1	ELBOW, 90, (includes item 12)	
14	84718860	1	HOSE ASSY	
15		Ref	FLOW DIVIDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	91143354	2	TUBE ASSY	
17	77133499	8	HEX HD CAPSCREW	
18	77133498	4	COVER PLATE	
19	91033138	4	CLAMP SET	
20	90022042	2	HOSE ASSY	
21		Ref	STEERING CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88591204	2	O-RING	
23	2220473	2	ELBOW, 90, (includes item 22)	
24	84718202	2	HOSE ASSY	
25	90027187	4	TIE WRAP	
26	2220602	2	RUN TEE, (includes item 3)	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-22. STEERING CIRCUIT (SN 0160001770 to Present, Including 0160001766)



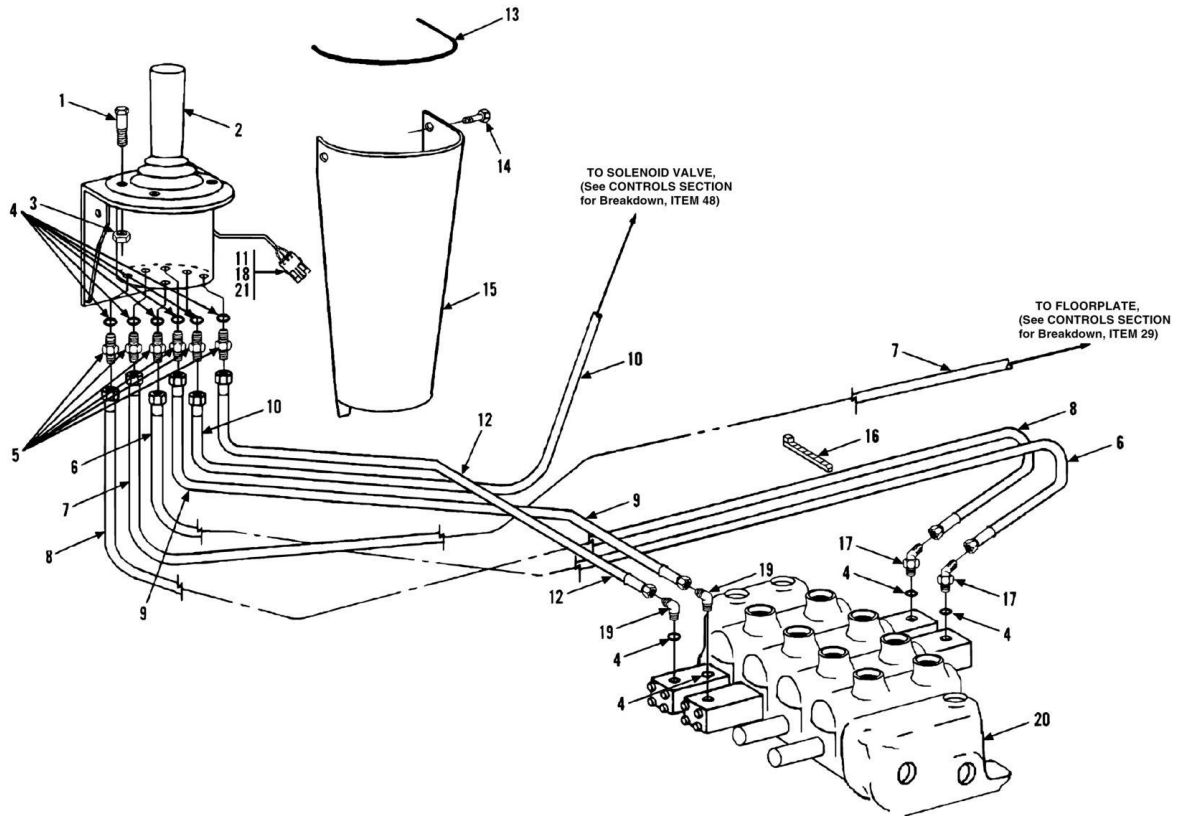
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-22. STEERING CIRCUIT (SN 0160001770 to Present, Including 0160001766)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84718672	1	HOSE ASSY	
2	8760268	1	ELBOW, 90, (swivel nut)	
3	2220373	2	ADAPTER, (includes item 5)	
4	2220372	1	ADAPTER, (includes item 5)	
5	88591205	7	O-RING	
6	2220596	3	ELBOW, 90, (includes item 5)	
7	84721060	1	HOSE ASSY (Prior to SN 0160035037, Including 0160035922)	
7	1001093469	1	HOSE ASSY (SN 0160035037 to Present, Excluding 0160035922)	
8	84718955	1	HOSE ASSY (Prior to SN 0160035037, Including 0160035922)	
8	1001093470	1	HOSE ASSY (SN 0160035037 to Present, Excluding 0160035922)	
9	84718294	1	HOSE ASSY (Prior to SN 0160035037, Including 0160035922)	
9	1001093468	1	HOSE ASSY (SN 0160035037 to Present, Excluding 0160035922)	
10		Ref	STEERING COLUMN, (See CONTROLS SECTION for Breakdown)	
11		Ref	STEERING CONTROL UNIT, (See CONTROLS SECTION for Breakdown)	
12	88591203	3	O-RING	
13	2220466	3	ELBOW, 90, (includes item 12)	
14	84718860	1	HOSE ASSY (Prior to SN 0160035037, Including 0160035922)	
14	1001093471	1	HOSE ASSY (SN 0160035037 to Present, Excluding 0160035922)	
15		Ref	FLOW DIVIDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	2220602	1	RUN TEE, (includes item 5)	
17	0641412	8	HEX HD CAPSCREW, 1/4-20X1-1/2	
18	77133137	4	COVER PLATE	
19	80933123	2	CLAMP SET	
20		Ref	STEERING CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
21	88591204	2	O-RING	
22	84718692	1	HOSE ASSY	
23	2220385	2	RUN TEE	
24	2220618	1	ADAPTER	
25	84718189	2	HOSE ASSY	
26	90027187	12	TIE WRAP	
27	2220473	2	ELBOW, 90, (includes item 21)	
28	8765204	1	ELBOW, 90, (swivel nut)	
29	84717594	2	HOSE ASSY	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-23. JOYSTICK CIRCUIT





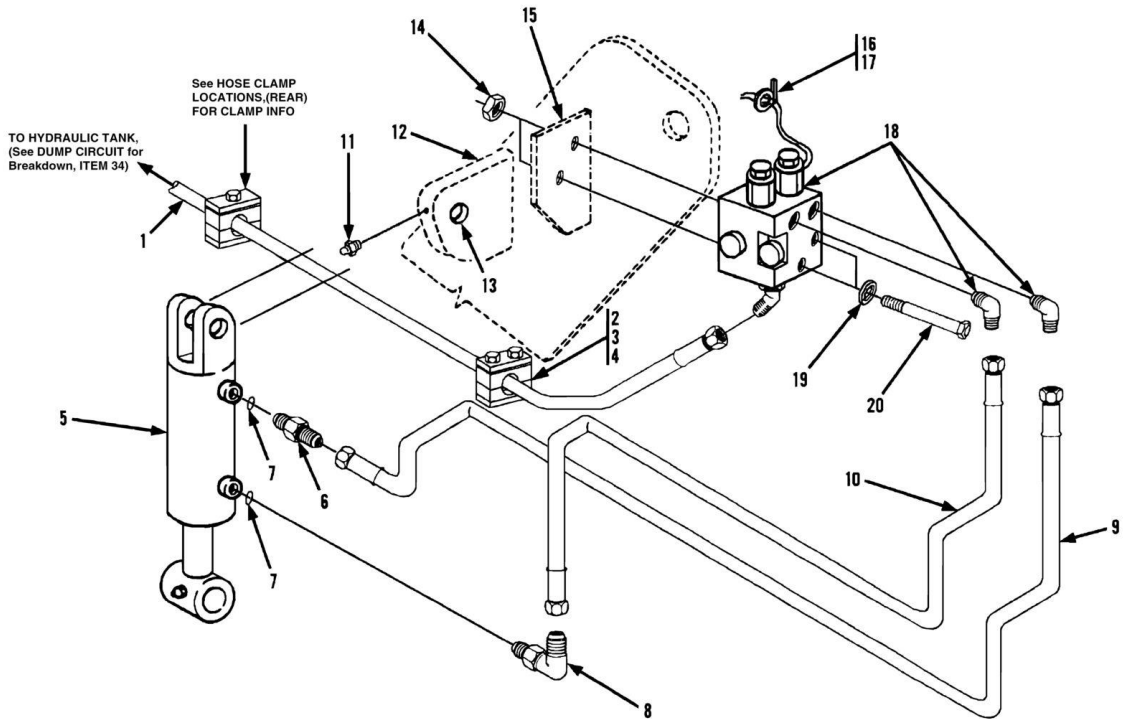
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-23. JOYSTICK CIRCUIT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88261017	4	SOCKET BUTTON HD CAPSCREW, 1/4-20X7/8, GR5	
2		Ref	JOYSTICK, (See CONTROLS SECTION for Breakdown)	
3	88521304	4	HEX LOCKNUT, 1/4-20	
4	88591204	10	O-RING	
5	2220371	6	ADAPTER, (includes item 4)	
6	84717519	1	HOSE ASSY, (crowd in)	
7	84718735	1	HOSE ASSY, (return)	
8	77133197	1	HOSE ASSY, (lift down)	
9	84718377	1	HOSE ASSY, (crowd out)	
10	84718736	1	HOSE ASSY, (pressure)	
11	91143187	3	CABLE SEAL	
12	77363126	1	HOSE ASSY, (lift up)	
13	90206196	AR	TRIM-LOK	
14	77143003	2	WHIZ-LOCK SCREW, 5/16-18X5/8	
15	91363002	1	COVER	
16	90027187	AR	TIE WRAP	
17	2220501	2	ELBOW, 45, (includes item 4)	
18	4460475	3	MALE PIN TERMINAL	
19	2220473	2	ELBOW, 90, (includes item 4)	
20		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
21	4460476	1	WEATHER PACK SHROUD	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-24. STABILIZER CYLINDER (SN 0355001 through 0355496)



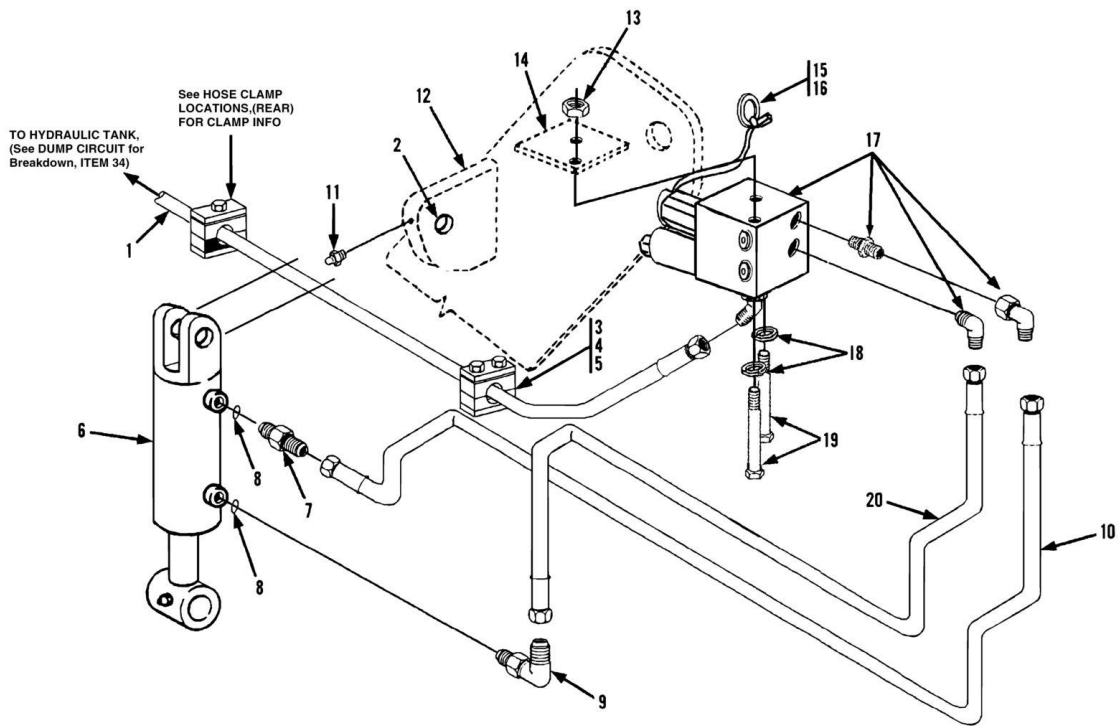
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-24. STABILIZER CYLINDER (SN 0355001 through 0355496)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HOSE ASSY, (See DUMP CIRCUIT for Breakdown)	
2	77133209	2	HEX HD CAPSCREW, 1/4-20X1-3/8	
3	77133052	1	COVER PLATE	
4	77133893	1	CLAMP SET	
5		Ref	STABILIZER CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	2220373	1	ADAPTER, (includes item 7)	
7	88591205	2	O-RING	
8	2220596	1	ELBOW, 90, (includes item 7)	
9	84717560	1	HOSE ASSY	
10	84718631	1	HOSE ASSY	
11	88671001	1	STRAIGHT LUBE FITTING, 1/8	
12	91161083	1	STABILIZER LUG, (includes item 13)	
13	91163018	1	BUSHING	
14	88501006	2	HEX NUT, 3/8-16	
15	91366014	1	VALVE MOUNTING BRACKET	
16	86621230	2	SUPPORT CLAMP	
17	77143006	2	WHIZ-LOCKNUT, 5/16	
18		Ref	STABILIZER VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	88551011	2	LOCKWASHER, 3/8	
20	83201073	2	HEX HD CAPSCREW, 3/8-16X4 1/2, GR5	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-25. STABILIZER CYLINDER (SN 0355497 through 0455362, SN 0160000192 to Present)



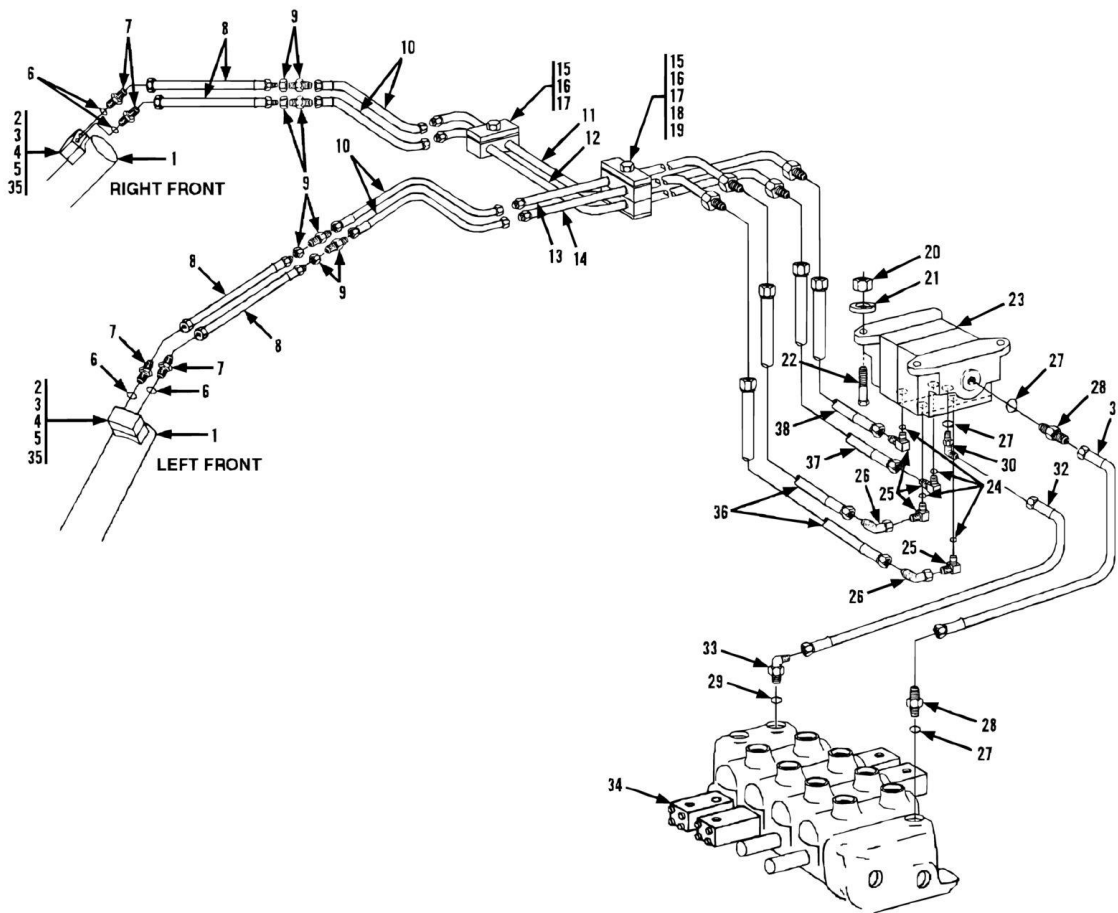
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-25. STABILIZER CYLINDER (SN 0355497 through 0455362, SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HOSE ASSY, (See DUMP CIRCUIT for Breakdown)	
2	91163018	1	BUSHING	
3	77133209	2	HEX HD CAPSCREW, 1/4-20X1-3/8	
4	77133052	1	COVER PLATE	
5	77133893	1	CLAMP SET	
6		Ref	STABILIZER CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7	2220373	1	ADAPTER, (includes item 8)	
8	88591205	2	O-RING	
9	2220596	1	ELBOW, 90, (includes item 8)	
10	84719378	1	HOSE ASSY	
11	88671001	1	STRAIGHT LUBE FITTING, 1/8	
12	91161083	1	STABILIZER LUG, (includes item 2)	
13	88501006	2	HEX NUT, 3/8-16	
14	91366014	1	VALVE MOUNTING BRACKET	
15	86621230	2	SUPPORT CLAMP	
16	77143006	2	WHIZ-LOCKNUT, 5/16	
17		Ref	STABILIZER VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	4761600	2	LOCKWASHER, 3/8	
19	0641636	2	HEX HD CAPSCREW, 3/8-16X4 1/2, GR5	
20	84717556	1	HOSE ASSY	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-26. OUTRIGGER CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



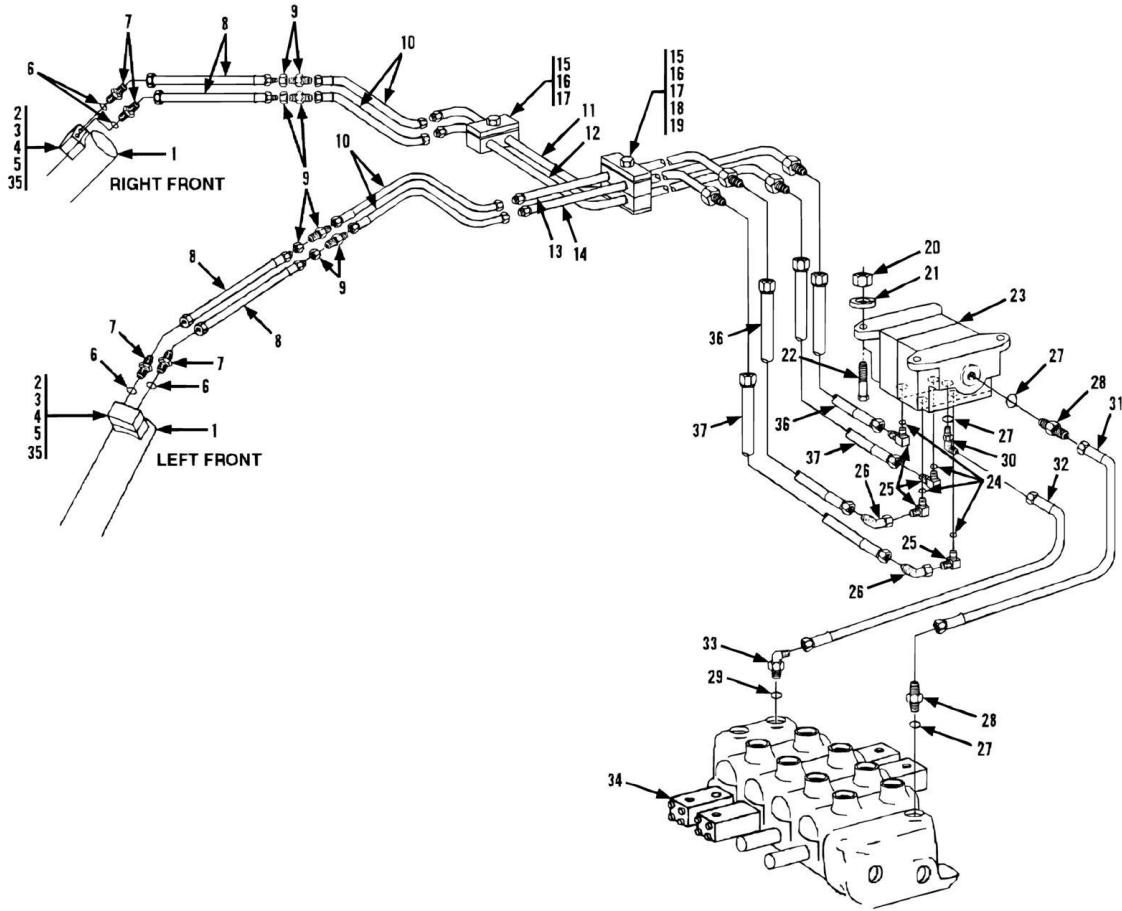
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-26. OUTRIGGER CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	OUTRIGGER CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	OUTRIGGER CYLINDER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88201040	6	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
4	88551011	6	LOCKWASHER, 3/8	
5	88591012	4	O-RING	
6	88591204	4	O-RING	
7	2220371	4	ADAPTER, (includes item 6)	
8	84718737	4	HOSE ASSY	
9	2230024	4	BULKHEAD UNION, 9/16-18X3/8, TUBE	
10	84718738	4	HOSE ASSY	
11	91163128	1	TUBE ASSY	
12	91163127	1	TUBE ASSY	
13	91163126	1	TUBE ASSY	
14	91163125	1	TUBE ASSY	
15	77133168	7	CLAMP SET, (4 not illustrated)	
16	77133140	4	COVER PLATE, (2 not illustrated)	
17	77133177	4	HEX HD CAPSCREW, 5/16-18X1-3/8, (2 not illustrated)	
18	77133390	3	SAFETY CLIP, (2 not illustrated)	
19	77133389	3	STACK BOLT, (2 not illustrated)	
20	88501008	3	HEX NUT, 1/2-13	
21	88551013	3	LOCKWASHER, 1/2	
22	88201070	3	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5	
23		Ref	OUTRIGGER CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	88591207	4	O-RING	
25	2221048	4	ELBOW, 90, (includes item 24)	
26	8760268	2	ELBOW, 90, (swivel nut)	
27	88591209	3	O-RING	
28	2220435	2	ADAPTER, (includes item 27)	
29	88591207	1	O-RING	
30	2220465	1	ELBOW, 90, (includes item 27)	
31	84719224	1	HOSE ASSY	
32	84718680	1	HOSE ASSY	
33	2220578	1	ELBOW, 90, (includes item 29)	
34		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
35	91163246	2	ORIFICE FITTING, (port C2)	
36	84718682	2	HOSE ASSY	
37	84718696	1	HOSE ASSY	
38	84718695	1	HOSE ASSY	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-27. OUTRIGGER CYLINDER (SN 0160000976 to Present)





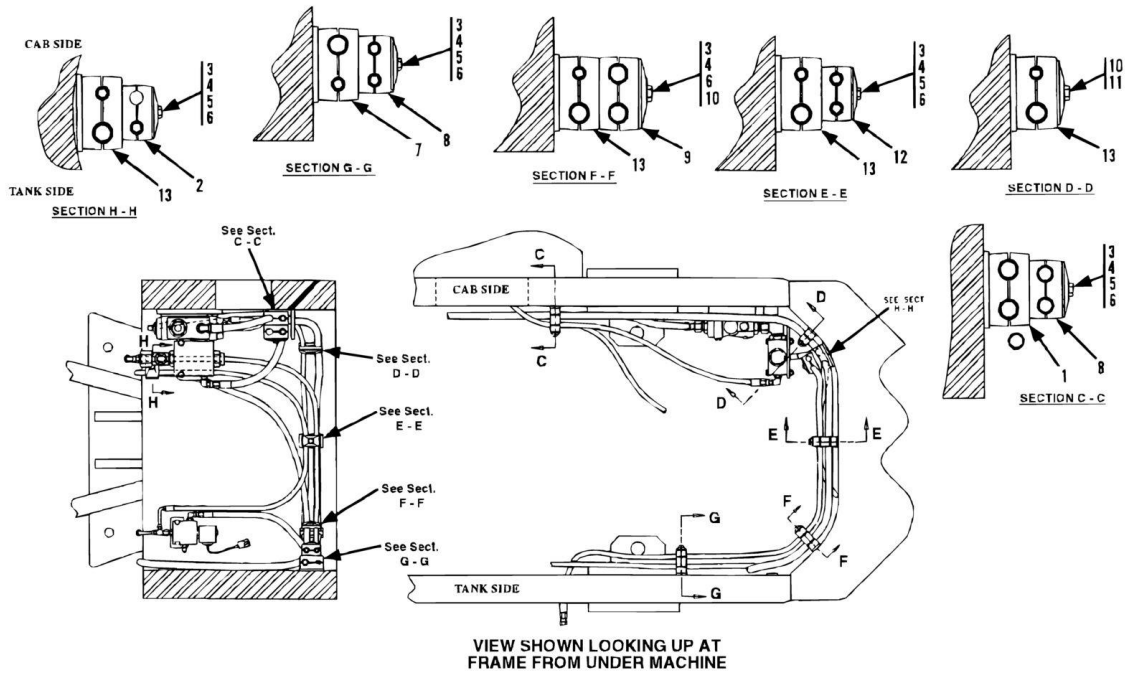
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-27. OUTRIGGER CYLINDER (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	OUTRIGGER CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	OUTRIGGER CYLINDER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88201040	6	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
4	88551011	6	LOCKWASHER, 3/8	
5	88591012	4	O-RING	
6	88591204	4	O-RING	
7	2220371	4	ADAPTER, (includes item 6)	
8	84718737	4	HOSE ASSY	
9	2230024	4	BULKHEAD UNION, 9/16-18X3/8, TUBE	
10	84718738	4	HOSE ASSY	
11	91553035	1	TUBE ASSY	
12	91553034	1	TUBE ASSY	
13	91553033	1	TUBE ASSY	
14	91553032	1	TUBE ASSY	
15	77133168	7	CLAMP SET	
16	77133140	4	COVER PLATE	
17	77133177	4	HEX HD CAPSCREW, 5/16-18X1-3/8	
18	77133390	3	SAFETY CLIP	
19	77133389	3	STACK BOLT	
20	88501008	3	HEX NUT, 1/2-13	
21	88551013	3	LOCKWASHER, 1/2	
22	88201070	3	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5	
23		Ref	OUTRIGGER CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	88591207	4	O-RING	
25	2221048	4	ELBOW, 90, (includes item 24)	
26	8760268	2	ELBOW, 90, (swivel nut)	
27	88591209	3	O-RING	
28	2220435	2	ADAPTER, (includes item 27)	
29	88591207	1	O-RING	
30	2220465	1	ELBOW, 90, (includes item 27)	
31	84719224	1	HOSE ASSY	
32	84718680	1	HOSE ASSY	
33	2220578	1	ELBOW, 90, (includes item 29)	
34		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
35	91163246	2	ORIFICE FITTING, (port C2)	
36	84719984	2	HOSE ASSY	
37	84719976	2	HOSE ASSY	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-28. HOSE CLAMP LOCATIONS, (REAR) (SN 0355001 through 0355140)



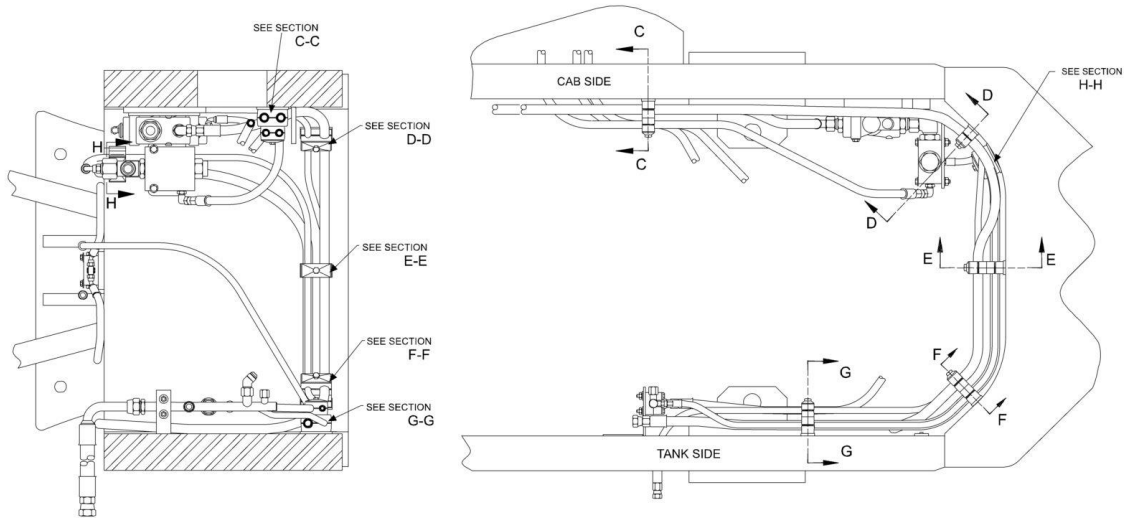
## SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-28. HOSE CLAMP LOCATIONS, (REAR) (SN 0355001 through 0355140)

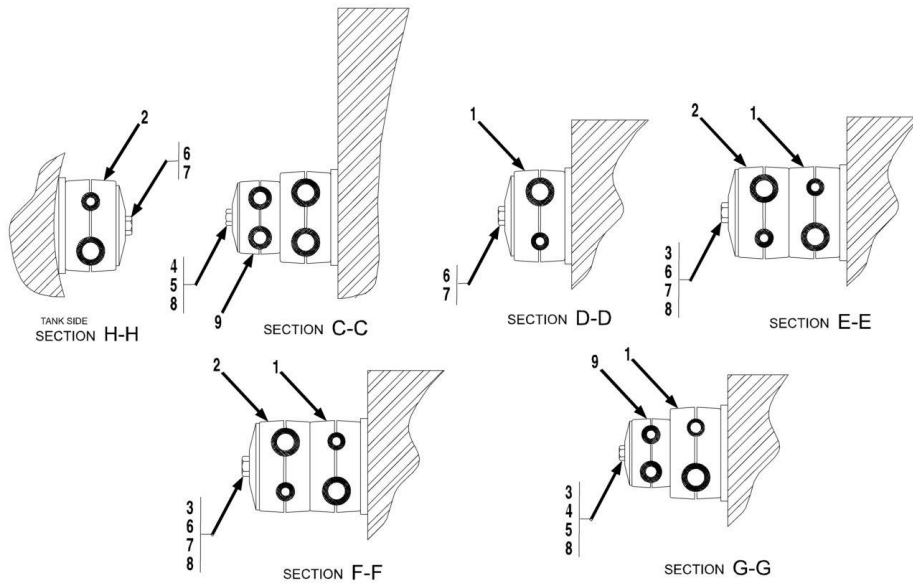
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	77133279	1	CLAMP SET, 1-1	
2	77133168	1	CLAMP SET, 1/2-1/2	
3	77133306	5	STACK BOLT	
4	77133140	4	COVER PLATE	
5	77133177	4	BOLT	
6	77133390	5	SAFETY CLIP	
7	80933123	4	CLAMP SET	
8	77133139	2	CLAMP SET, 5/8-5/8	
9	77133136	1	CLAMP SET, 3/4-3/4	
10	77133137	2	COVER PLATE	
11	88201023	2	BOLT	
12	91083240	1	CLAMP SET, 5/8-1/2	
13	80933140	3	CLAMP SET	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-29. HOSE CLAMP LOCATIONS, (REAR) (SN 0355141 through 0455362, SN 016000192 through 016000973)



VIEW SHOWN LOOKING UP AT FRAME FROM UNDER MACHINE



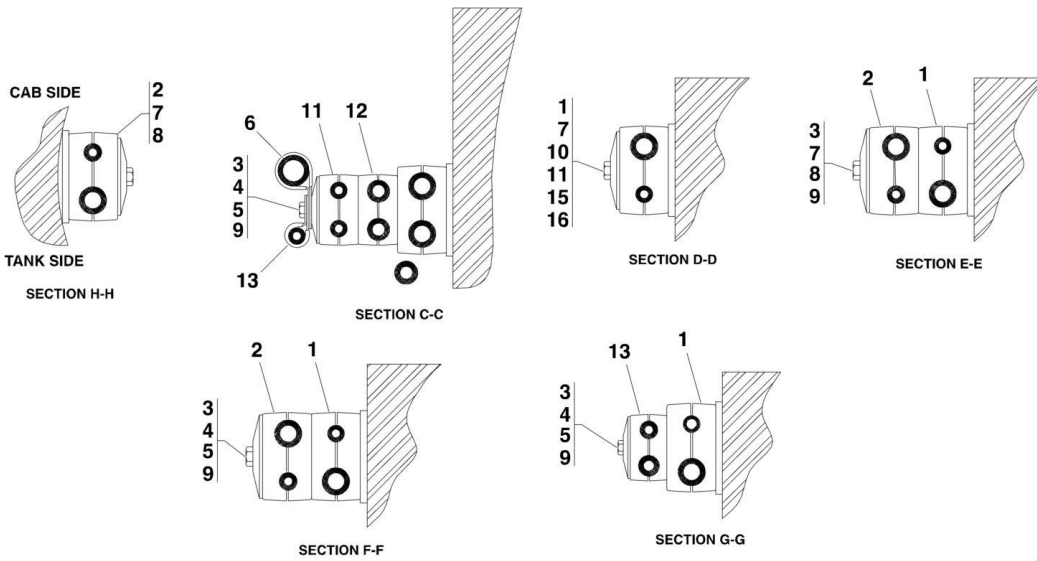
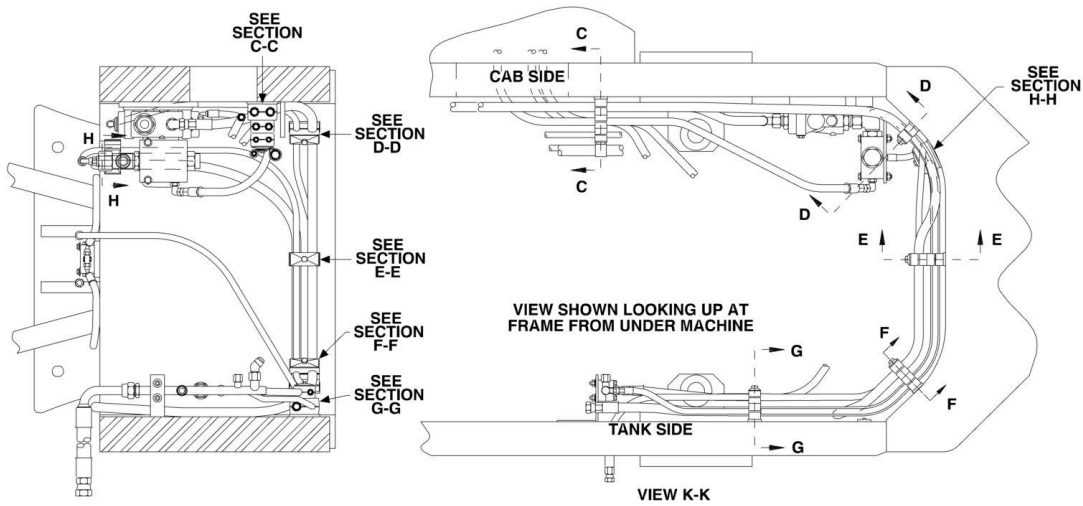
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-29. HOSE CLAMP LOCATIONS, (REAR) (SN 0355141 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	80933123	4	CLAMP SET, 13/16-1/2	
2	80933140	3	CLAMP SET, 13/16-1/2	
3	77133306	3	STACK BOLT	
4	77133140	2	COVER PLATE	
5	77133177	2	BOLT	
6	77133137	4	COVER PLATE	
7	88201023	4	BOLT	
8	77133390	4	SAFETY CLIP	
9	77133139	2	CLAMP SET 5/8+-5/8	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-30. HOSE CLAMP LOCATIONS, (REAR) (SN 0160000976 to Present)



PAP21400

## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-30. HOSE CLAMP LOCATIONS, (REAR) (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	80933123	4	CLAMP SET, 13/16-1/2	
2	80933140	3	CLAMP SET, 13/16-5/8	
3	77133306	4	STACK BOLT	
4	77133140	2	COVER PLATE	
5	77133177	2	BOLT	
6	80673023	1	SUPPORT CLAMP	
7	77133137	4	COVER PLATE	
8	88201023	3	BOLT	
9	77133390	5	SAFETY CLIP	
10	77133389	1	STACK BOLT	
11	77133168	2	CLAMP SET, 1/2-1/2	
12	77133139	1	CLAMP SET, 5/8-5/8	
13	85941016	1	SUPPORT CLAMP	
15	86621230	1	CLAMP	
16	0641516	1	HEX HD CAPSCREW, 5/16-18X2, GR5	

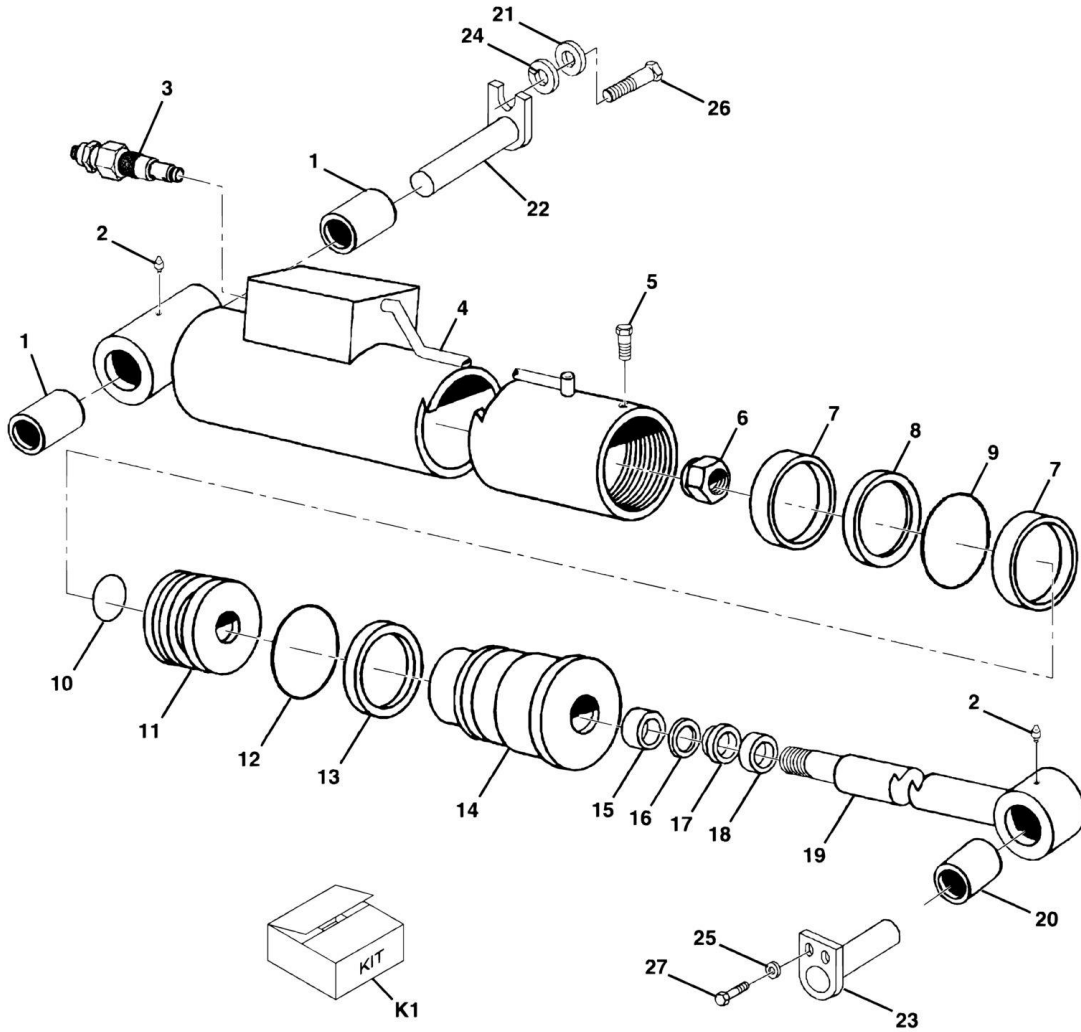




**SECTION 9 - HYDRAULIC COMPONENTS**

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-1. TILT CYLINDER (Prior to SN 0160033224)



PAP19660

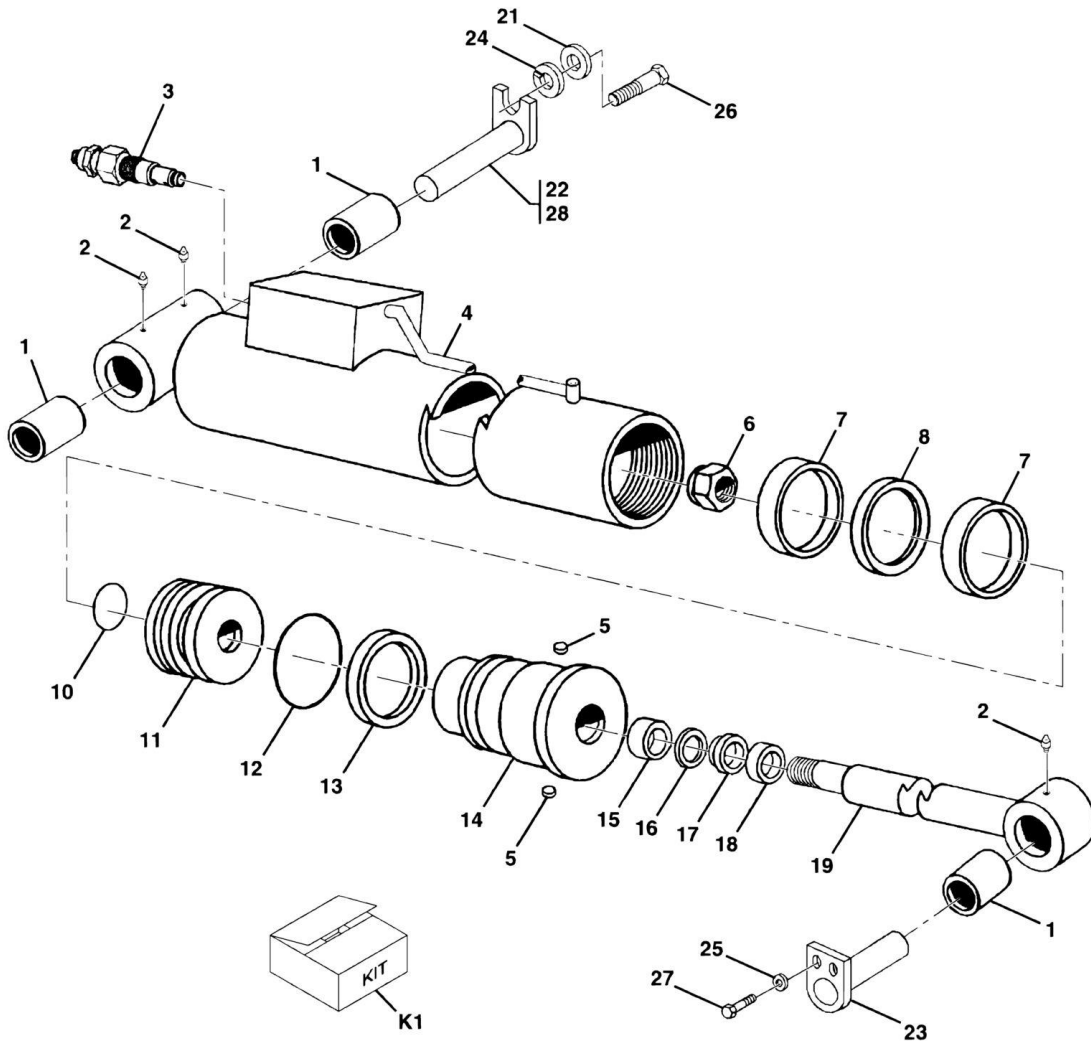
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-1. TILT CYLINDER (Prior to SN 0160033224)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143214	1	TILT CYLINDER ASSY, (includes items 1 thru 20)	F
1	91404352	2	BUSHING	
2	88671001	2	GREASE FITTING	
3	91123089	1	COUNTERBALANCE VALVE	
3	91034276	1	COUNTERBALANCE VALVE SEAL KIT	
4	91144023	1	CASE ASSY	
5	91144017	1	CAPSCREW, #8X32X0.375	
6	91034153	1	LOCKNUT, (torque 1300-1350 lb-ft)	
7	Kit	2	WEAR RING	
8	Kit	1	PISTON SEAL	
9	Kit	1	O-RING	
10	Kit	1	O-RING	
11	91034139	1	PISTON	
12	Kit	1	O-RING	
13	Kit	1	BACK-UP RING	
14	91144024	1	GLAND	
15	Kit	1	WEAR RING	
16	Kit	1	STEP SEAL	
17	Kit	1	U-CUP	
18	Kit	1	WIPER	
19	91144025	1	ROD ASSY	
20	91144479	1	BUSHING	
21	83621283	1	SPECIAL WASHER	
22	91146052	1	PIN WELDMENT	
23	91166062	1	PIN WELDMENT	
24	88551013	1	LOCKWASHER, 1/2	
25	88561111	2	FLAT WASHER, 1/2	
26	88201065	1	HEX HD CAPSCREW, 1/2-13X1, GR5	
27	83201123	2	HEX HD CAPSCREW, 1/2-13X1, (nylok)	
K1	91144004	1	SEAL KIT, (includes items 7, 8, 9, 10, 12, 13 & 15 thru 18)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-2. TILT CYLINDER (SN 0160033224 through 0160037688)



PAP17850

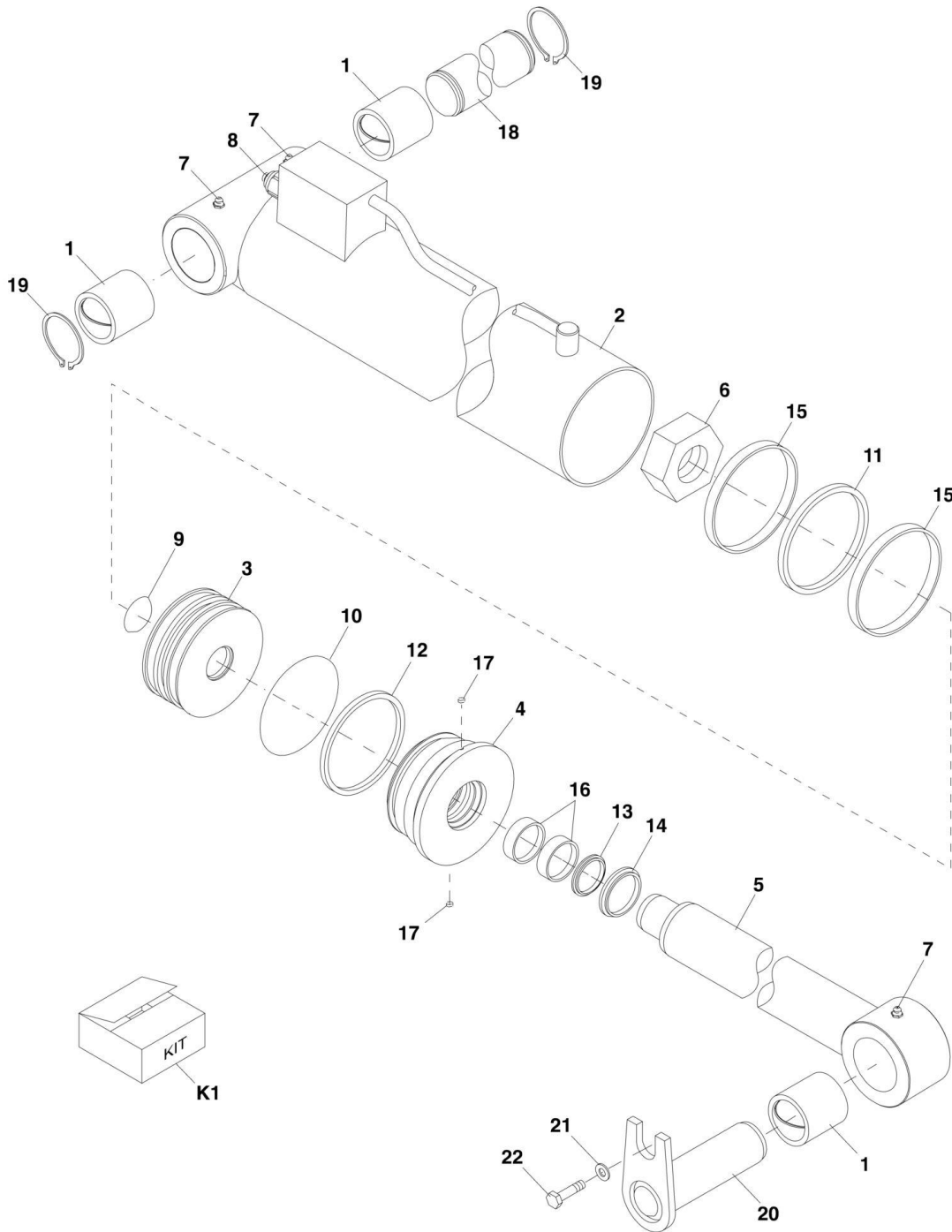
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-2. TILT CYLINDER (SN 0160033224 through 0160037688)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91343231	1	TILT CYLINDER ASSY, (includes items 1 thru 19)	B
1	70022508	3	BUSHING	
2	70022120	3	GREASE FITTING	
3	91123089	1	COUNTERBALANCE VALVE	
3	91164037	1	COUNTERBALANCE VALVE SEAL KIT	
4	70022117	1	CASE ASSY	
5	70022119	2	LOCKING INSERT	
6	8035322	1	LOCKNUT	
7	Kit	2	WEAR RING	
8	Kit	1	PISTON SEAL	
10	Kit	1	O-RING	
11	70022536	1	PISTON ASSY	
12	Kit	1	O-RING	
13	Kit	1	BACK-UP RING	
14	70022537	1	ROD BEARING ASSY	
15	Kit	1	WEAR RING	
16	Kit	1	BUFFER SEAL	
17	Kit	1	ROD SEAL	
18	Kit	1	ROD WIPER	
19	70022118	1	ROD ASSY	
21	83621283	1	SPECIAL WASHER	
22	91146052	1	PIN WELDMENT	
23	91166062	1	PIN WELDMENT	
24	4761800	1	LOCKWASHER, 1/2	
25	4711800	2	FLAT WASHER, 1/2	
26	0641808	1	HEX HD CAPSCREW, 1/2-13X1, GR5	
27	83201123	2	HEX HD CAPSCREW, 1/2-13X1, (nylok)	
28	14403323	AR	NEVER SEEZE LUBE	
K1	70022538	1	SEAL KIT, (includes items 7, 8, 10, 12, 13 & 15 thru 18)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-3. TILT CYLINDER (SN 0160037689 to Present)



PAP17770

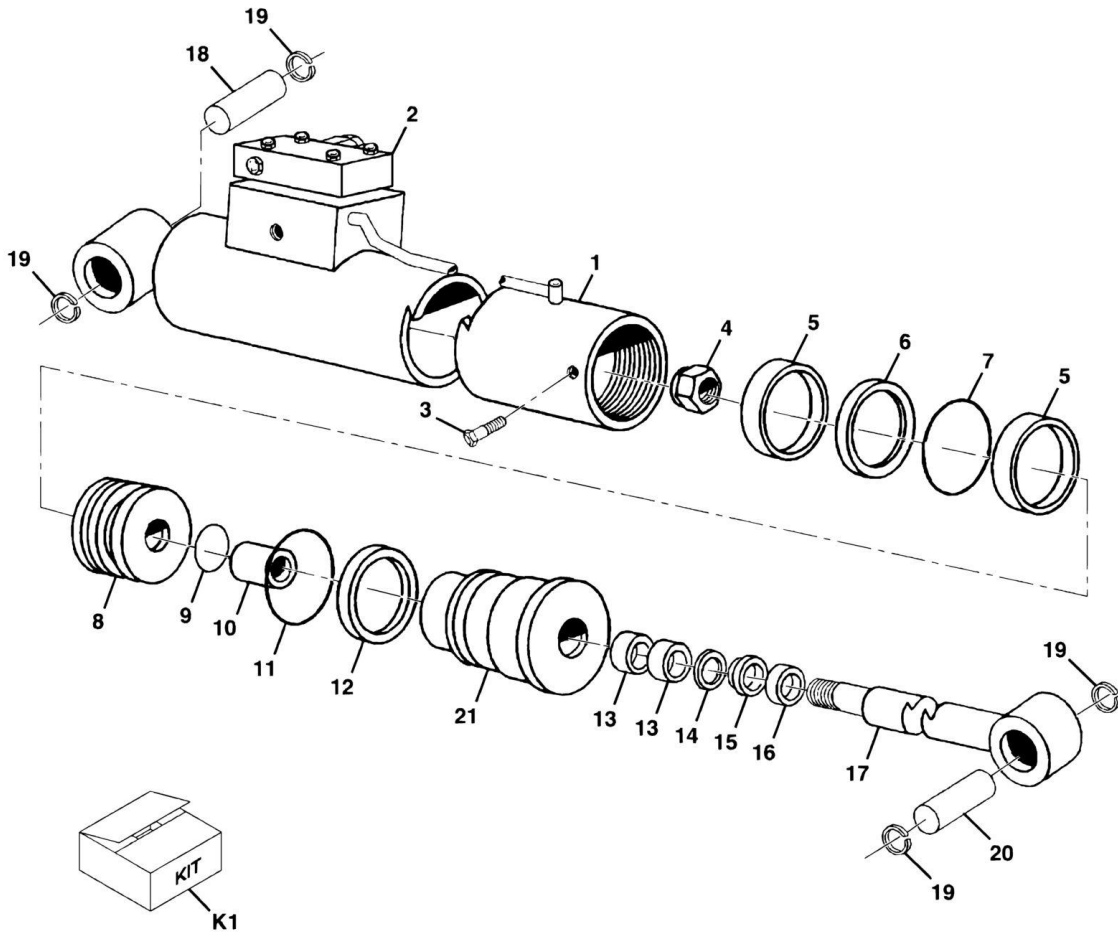
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-3. TILT CYLINDER (SN 0160037689 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001098136	1	TILT CYLINDER ASSY, (includes items 1 thru 17)	F
1	91563244	4	BUSHING	
2	70022121	1	TUBE WELDMENT	
3	70022122	1	PISTON	
4	70022123	1	HEAD GLAND, (torque to 300-400 lb-ft)	
5	70022124	1	ROD WELDMENT	
6	8036394	1	LOCKNUT, (torque to 1800-2000 lb-ft)	
7	70020375	2	GREASE FITTING	
8	91123089	1	COUNTERBALANCE VALVE, (torque to 60-65 lb-ft)	
8	91164037	1	COUNTERBALANCE VALVE SEAL KIT	
9	Kit	1	O-RING	
10	Kit	1	O-RING	
11	Kit	1	DISO-PAC	
12	Kit	1	POLYPAK	
13	Kit	1	DZR SEAL	
14	Kit	1	ROD WIPER	
15	Kit	2	WEAR BAND	
16	Kit	2	WEAR BAND	
17	Kit	2	LOCKING INSERT	
18	1001099579	1	PIN	
19	88581149	2	RETAINING RING	
20		Ref	PIN WELDMENT, (See BOOM SECTION for Breakdown)	
21		Ref	FLAT WASHER, 1/2, (See BOOM SECTION for Breakdown)	
22		Ref	HEX HD CAPSCREW, 1/2-13X1, GR5, (See BOOM SECTION for Breakdown)	
K1	70022125	1	SEAL KIT, (includes items 9 thru 17)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-4. CROWD CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)



PAP21880



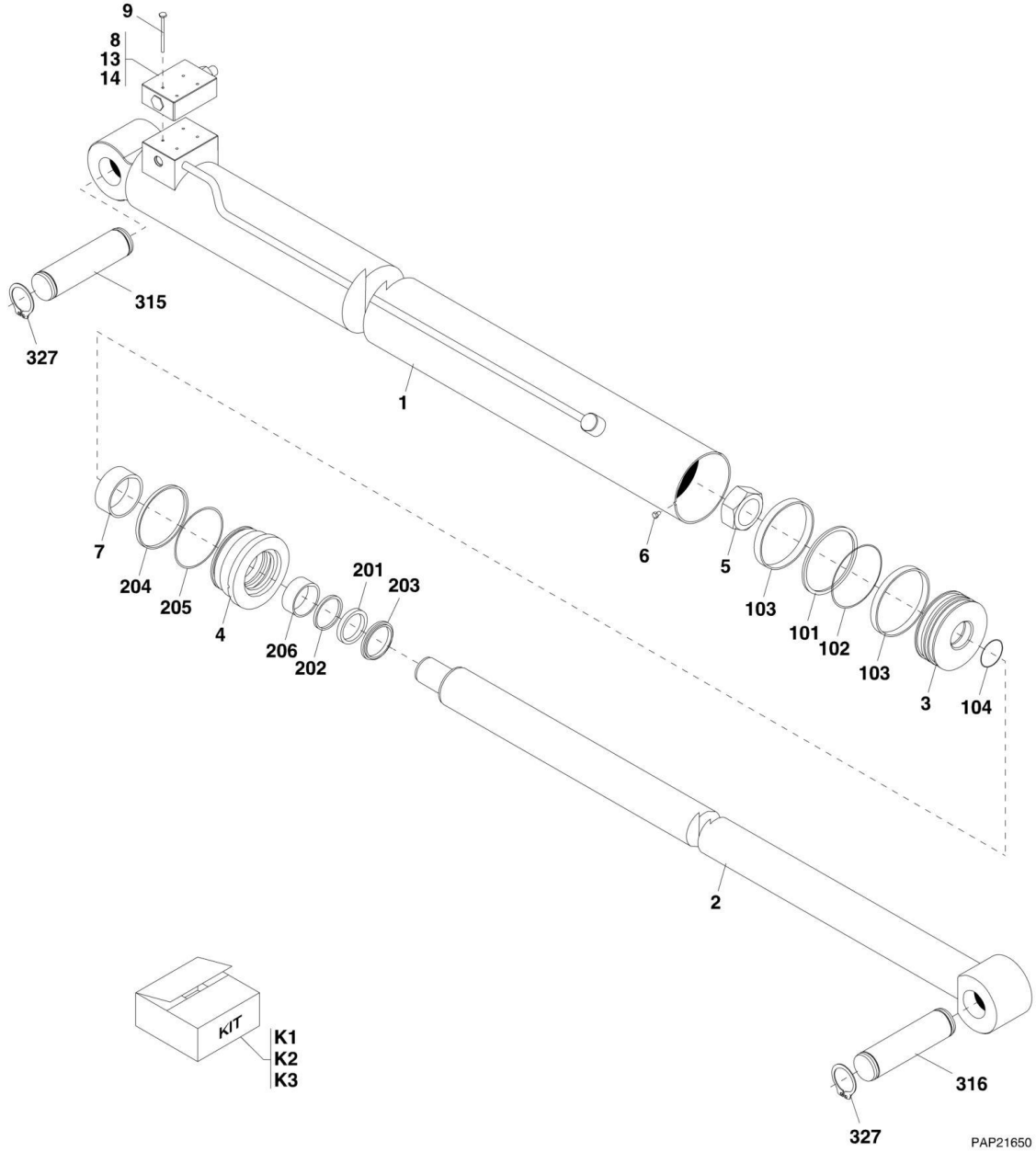
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-4. CROWD CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163225	1	CROWD CYLINDER, (includes items 1 thru 18 & 21)	C
1	91164013	1	CASE ASSY	
2	91164052	1	COUNTERBALANCE VALVE, (4600 PSI)	
3	91124096	1	CAPSCREW	
4	91034153	1	LOCKNUT	
5	Kit	2	WEAR RING	
6	Kit	1	PISTON SEAL	
7	Kit	1	O-RING	
8	91164046	1	PISTON	
9	Kit	1	O-RING	
10	91164047	1	SPACER	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP RING	
13	Kit	2	WEAR RING	
14	Kit	1	STEP SEAL	
15	Kit	1	U-CUP	
16	Kit	1	WIPER	
17	91164048	1	SHAFT ASSY	
18	91161136	1	CYLINDER PIN	
19	88581149	4	RETAINING RING	
20	91161137	1	CYLINDER PIN	
21	91164016	1	CYLINDER HEAD	
K1	91164004	Ref	SEAL KIT, (includes items 5, 6, 7, 9 & 11 thru 16)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-5. CROWD CYLINDER (SN 0160017525 to Present)



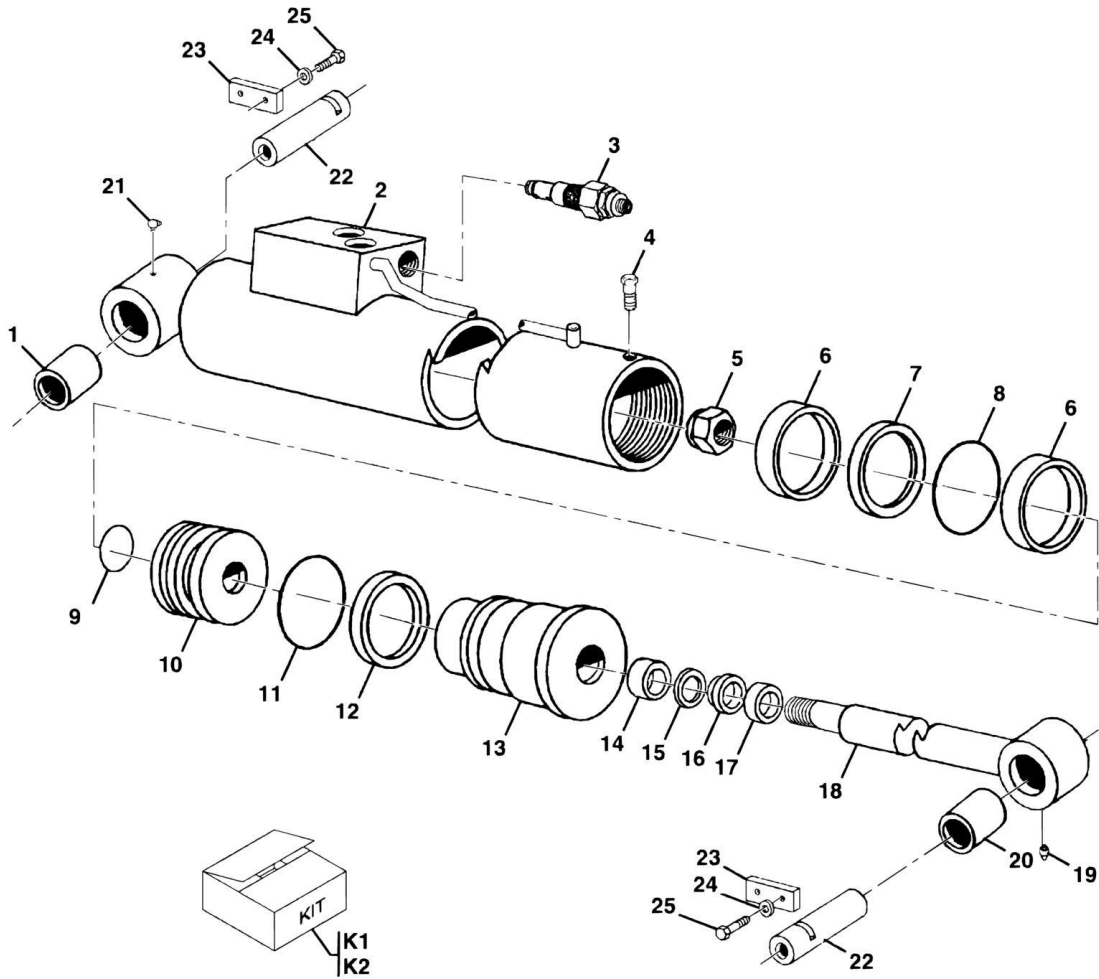
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-5. CROWD CYLINDER (SN 0160017525 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553070	1	CROWD CYLINDER, (includes items 1 thru 206)	A
1	7029756	1	BARREL ASSY	
2	7029757	1	ROD ASSY	
3	7029758	1	PISTON ASSY, (includes items 101 thru 104)	
4	7029759	1	ROD BEARING ASSY, (includes items 201 thru 206)	
5	91014066	1	NUT	
6	7029760	1	CAPSCREW	
7	7029761	1	STROKE LIMITER	
8	7029762	1	VALVE BLOCK	
9	7029763	4	CAPSCREW	
13	7029765	1	O-RING	
14	7029766	2	O-RING	
101	Kit	1	PISTON SEAL	
102	Kit	1	O-RING	
103	Kit	1	WEAR RING	
104	Kit	1	O-RING	
201	Kit	1	ROD SEAL	
202	Kit	1	BUFFER	
203	Kit	1	WIPER	
204	Kit	1	O-RING	
205	Kit	1	BACK-UP	
206	Kit	1	WEAR RING	
315	91161136	1	CROWD CYLINDER PIN	
316	91161137	1	CROWD CYLINDER PIN	
327	88581149	4	SNAP RING	
K1	7029981	1	PISTON SEAL KIT, (includes items 101 thru 104)	
K2	7029982	1	ROD BEARING SEAL KIT, (includes items 201 thru 206)	
K3	91164004	1	CYLINDER SEAL KIT, (includes items 101 thru 206)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-6. LIFT CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)



PAP21890

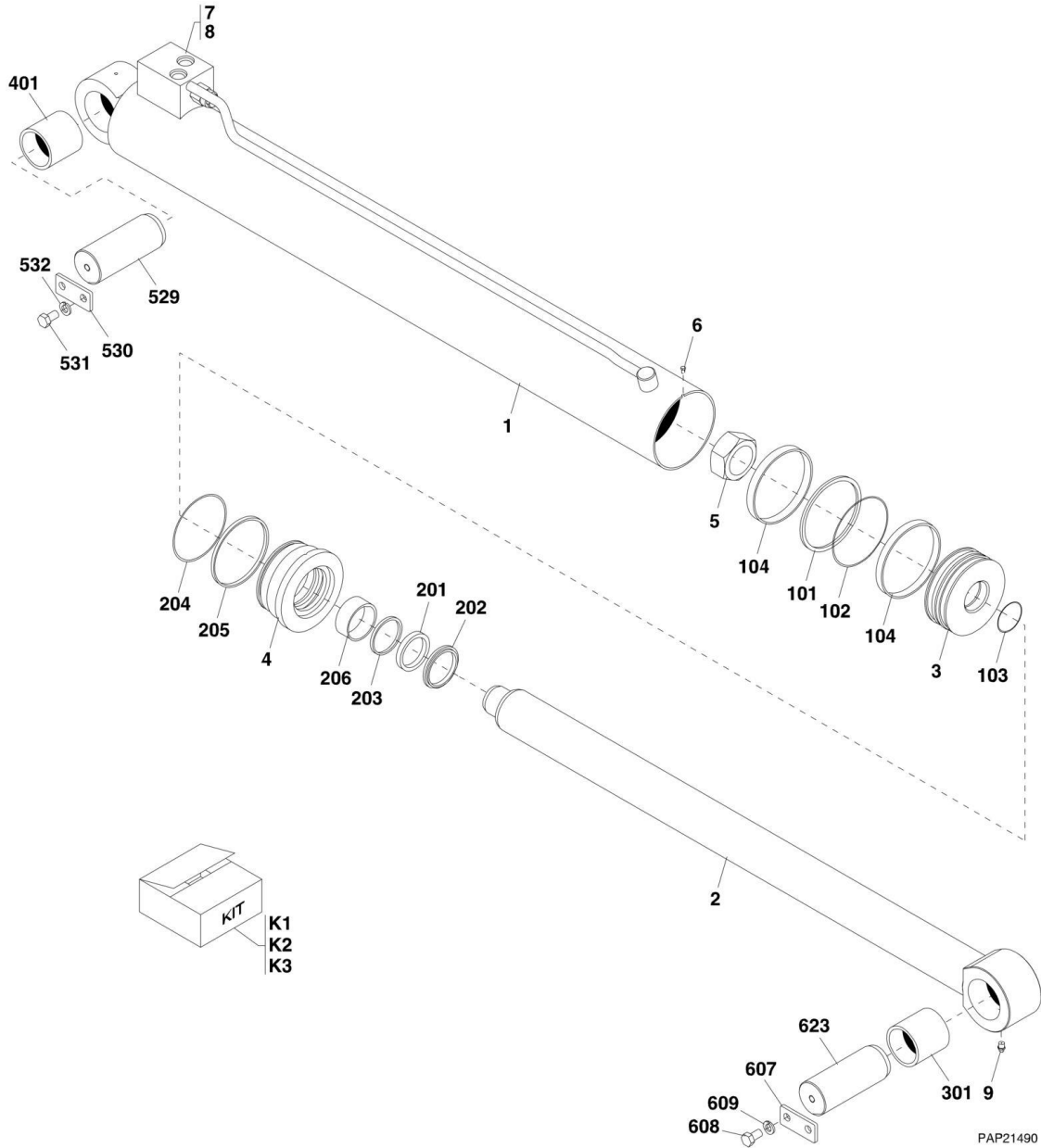
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-6. LIFT CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163008	2	LIFT CYLINDER, (includes items 1 thru 20)	J
1	91164038	1	BUSHING	
2	91164039	1	CASE ASSY	
3	91164011	1	LOAD CONTROL VALVE	
4	91144017	1	CAPSCREW	
5	91034153	1	LOCKNUT	
6	Kit	2	WEAR RING	
7	Kit	1	PISTON SEAL	
8	Kit	1	O-RING	
9	Kit	1	O-RING	
10	91164040	1	PISTON	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP RING	
13	91164041	1	CYLINDER HEAD	
14	Kit	1	WEAR RING	
15	Kit	1	STEP SEAL	
16	Kit	1	U-CUP	
17	Kit	1	WIPER	
18	91164042	1	SHAFT ASSY	
19	91144128	1	GREASE FITTING	
20	91164043	1	BUSHING	
21	88671022	1	GREASE FITTING, 90	
22	91161140	2	CYLINDER PIN	
23	91081313	2	PIN KEEPER	
24	88551013	4	LOCKWASHER, 1/2	
25	88201065	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
K1	91164005	1	SEAL KIT, (includes items 4, 6, 7, 8, 9, 11, 12, 14, 15, 16 & 17)	
K2	91164037	1	LOAD CONTROL VALVE SEAL KIT	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-7. LIFT CYLINDER (SN 0160017525 to Present)



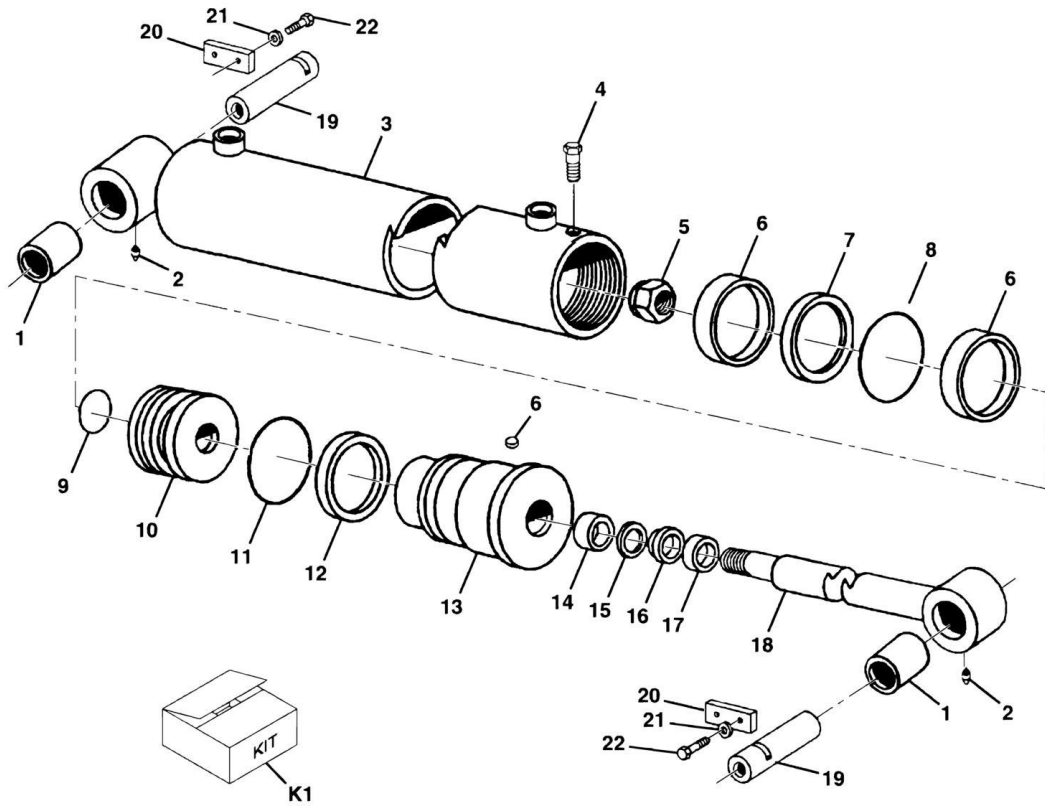
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-7. LIFT CYLINDER (SN 0160017525 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553069	1	LIFT CYLINDER, (includes items 1 thru 401)	B
1	7029988	1	BARREL ASSY, (includes item 401)	
2	7029989	1	ROD ASSY, (includes item 301)	
3	7029983	1	PISTON ASSY, (includes items 101 thru 104)	
4	7029984	1	ROD BEARING ASSY, (includes items 201 thru 206)	
5	91014066	1	NUT	
6	7029760	1	CAPSCREW	
7	91164011	1	VALVE	
8	7029990	1	ORIFICE	
9	91044080	1	GREASE FITTING	
101	Kit	1	PISTON SEAL	
102	Kit	1	O-RING	
103	Kit	1	O-RING	
104	Kit	2	WEAR RING	
201	Kit	1	ROD SEAL	
202	Kit	1	WIPER	
203	Kit	1	BUFFER SEAL	
204	Kit	1	O-RING	
205	Kit	1	BACK-UP	
206	Kit	1	WEAR RING	
301	7029986	1	BUSHING	
401	7029987	1	BUSHING	
529	91161140	2	CYLINDER PIN	
530	91081313	2	KEEPER	
531	0641808	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
532	4761800	4	LOCKWASHER, 1/2	
607	91081313	2	KEEPER	
608	0641808	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
609	4761800	4	LOCKWASHER, 1/2	
623	91161140	2	CYLINDER PIN	
K1	7029959	1	PISTON SEAL KIT, (includes items 101 thru 104)	
K2	7029985	1	ROD BEARING SEAL KIT, (includes items 201 thru 206)	
K3	70024391	1	CYLINDER SEAL KIT, (includes items 101 thru 206)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-8. COMPENSATING CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160032630)



PAP23000



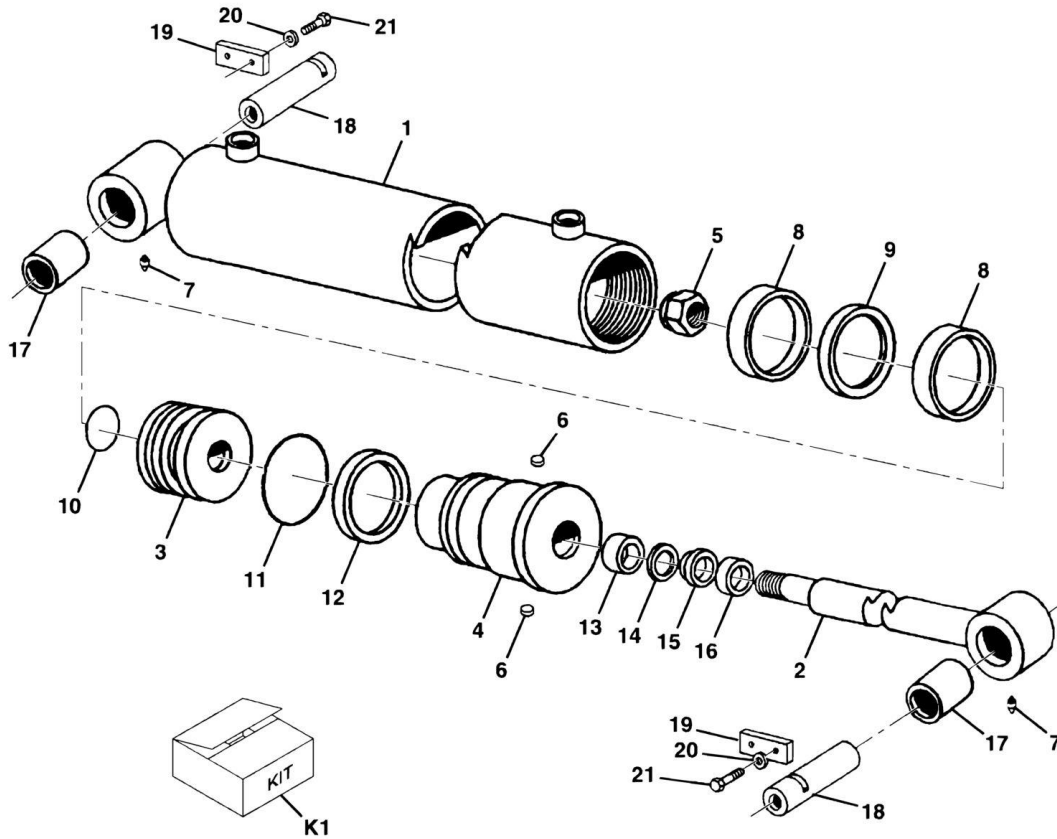
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-8. COMPENSATING CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160032630)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143003	1	COMPENSATING CYLINDER, (includes items 1 thru 18)	H
1	91144026	2	BUSHING	
2	88671001	2	GREASE FITTING	
3	91144027	1	CASE ASSY	
4	91144017	1	CAPSCREW, #8X32X0.375	
5	91034153	1	LOCKNUT, (torque 1300-1350 lb-ft)	
6	Kit	2	WEAR RING	
7	Kit	1	PISTON SEAL	
8	Kit	1	O-RING	
9	Kit	1	O-RING	
10	91034139	1	PISTON	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP RING	
13	91144024	1	CYLINDER HEAD	
14	Kit	1	WEAR RING	
15	Kit	1	STEP SEAL	
16	Kit	1	U-CAP	
17	Kit	1	WIPER	
18	91144028	1	ROD ASSY	
19	3423263	2	PIN	
20	91081313	2	PIN KEEPER	
21	88551013	4	LOCKWASHER, 1/2	
22	88201065	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
K1	91144004	1	SEAL KIT, (includes items 6, 7, 8, 9, 11, 12 & 14 thru 17)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-9. COMPENSATING CYLINDER (SN 0160033224 to Present)



PAP19380

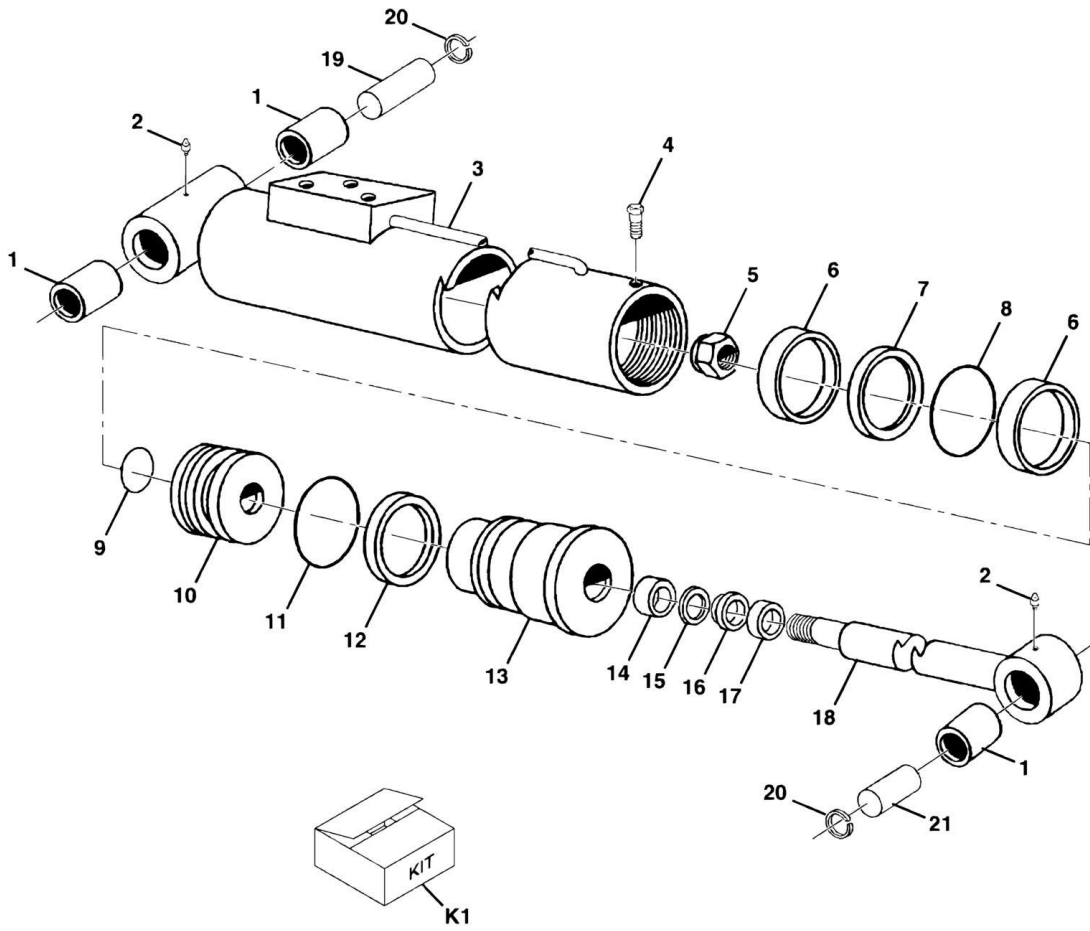
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-9. COMPENSATING CYLINDER (SN 0160033224 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91343228	1	COMPENSATING CYLINDER, (includes items 1 thru 17)	A
1	70021620	1	BARREL ASSY	
2	70021621	1	ROD ASSY	
3	70022536	1	PISTON ASSY	
4	70022537	1	ROD BEARING ASSY	
5	8035322	1	NUT	
6	70022119	2	LOCKING INSERT	
7	70022120	2	GREASE FITTING	
8	Kit	2	WEAR RING	
9	Kit	1	PISTON SEAL	
10	Kit	1	O-RING	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP RING	
13	Kit	1	WEAR RING	
14	Kit	1	BUFFER SEAL	
15	Kit	1	ROD SEAL	
16	Kit	1	ROD WIPER	
17	70021622	2	BUSHING	
18	3423263	2	PIN	
19	91081313	2	PIN KEEPER	
20	4761800	4	LOCKWASHER, 1/2	
21	0641808	4	HEX HD CAPSCREW, 1/2-13X1	
K1	70022538	1	SEAL KIT, (includes items 8 thru 16)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-10. SWAY CYLINDER (Prior to SN 0160033224)



PAP19620

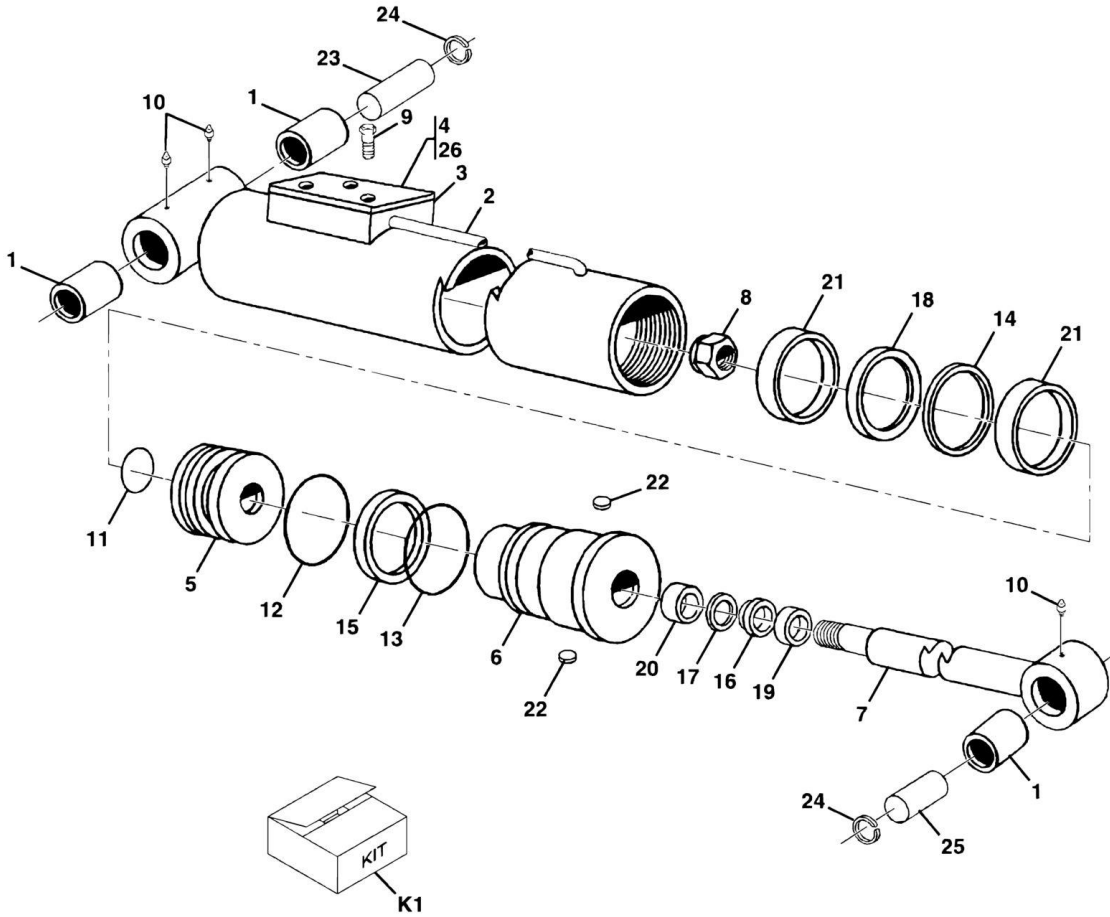
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-10. SWAY CYLINDER (Prior to SN 0160033224)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143007	1	SWAY CYLINDER, (includes items 1 thru 18)	G
1	91064016	3	BUSHING	
2	88671001	3	GREASE FITTING	
3	91144032	1	CASE ASSY	
4	91144017	1	CAPSCREW, #8X32X0.375	
5	91064017	1	LOCKNUT, (torque 650-700 lb-ft)	
6	Kit	2	WEAR RING	
7	Kit	1	PISTON SEAL	
8	Kit	1	O-RING	
9	Kit	1	O-RING	
10	91144033	1	PISTON	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP RING	
13	91144034	1	CYLINDER HEAD	
14	Kit	1	WEAR RING	
15	Kit	1	STEP SEAL	
16	Kit	1	U-CUP	
17	Kit	1	WIPER	
18	91144035	1	ROD ASSY	
19	91403226	1	PIN	
20	90028935	4	RETAINING RING	
21	91403225	1	PIN	
K1	91144005	1	SEAL KIT, (includes items 6, 7, 8, 9, 11, 12 & 14 thru 17)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-11. SWAY CYLINDER (SN 0160033224 to Present)



PAP19630

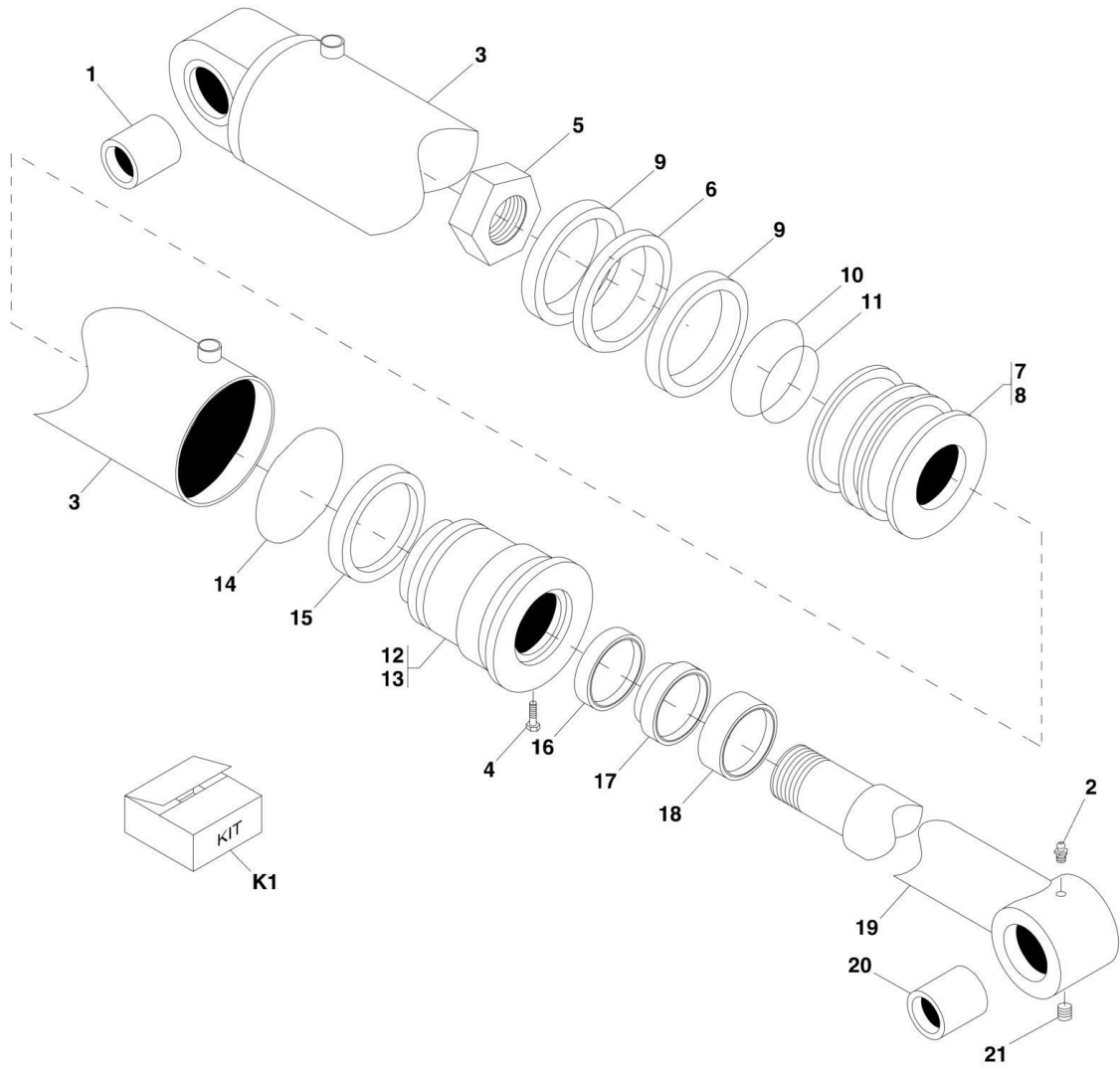
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-11. SWAY CYLINDER (SN 0160033224 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91343229	1	SWAY CYLINDER, (includes items 1 thru 22 & 26)	A
1	70022508	1	BUSHING	
2	70022509	1	TUBE WELDMENT	
3	70022811	1	SPACER PLATE, (requires item 26)	
4	70022511	1	COVER	
5	70022512	1	PISTON	
6	70022513	1	HEAD GLAND	
7	70022514	1	ROD WELDMENT	
8	8035865	1	LOCKNUT, 1-1/4, (torque 690-760 lb-ft)	
9		Ref	HEX HD CAPSCREW, 3/8-16X5/8, GR5	
10	70020375	3	GREASE FITTING	
11	Kit	1	O-RING	
12	Kit	1	O-RING	
13	Kit	1	O-RING	
14	Kit	1	SQUARE RING	
15	Kit	1	BACK-UP RING	
16	Kit	1	U-CUP	
17	Kit	1	SEAL	
18	Kit	1	PISTON SEAL	
19	Kit	1	WIPER	
20	Kit	1	WEAR BAND	
21	Kit	2	WEAR BAND	
22	Kit	2	LOCKING INSERT	
23	91403226	1	PIN	
24	90028935	4	RETAINING RING	
25	91403225	1	PIN	
26	70022812	2	O-RING	
K1	70022515	1	SEAL KIT, (includes items 11 thru 22)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-12. STEERING CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160001769, Excluding 0160001766)



PAP19480



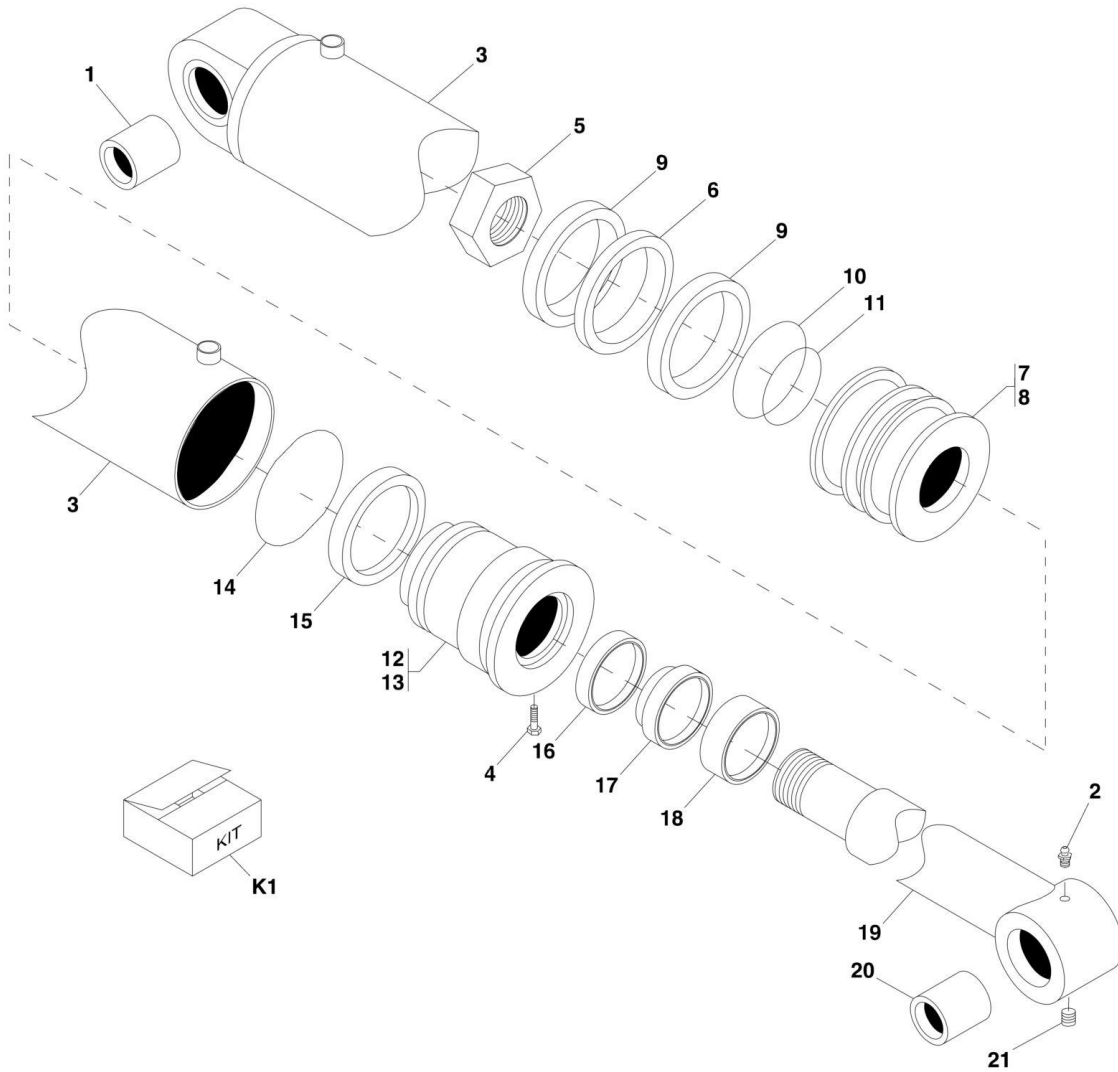
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-12. STEERING CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160001769, Excluding 0160001766)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163178	2	STEERING CYLINDER, (includes all items)	E
1	91164018	1	BUSHING	
2	91144128	1	GREASE FITTING	
3	91144037	1	CASE ASSY	
4	91124096	1	SELF-TAPPING SCREW	
5	91144038	1	LOCKNUT, (torque to 400-425 lb-ft)	
6	Kit	1	PISTON SEAL	
7	91554034	1	PISTON ASSY, (includes items 8 thru 11)	
8	91144039	1	PISTON	
9	Kit	2	WEAR RING	
10	Kit	1	O-RING	
11	Kit	1	O-RING	
12	91554035	1	CYLINDER HEAD ASSY, (includes items 13 thru 18)	
13	91144040	1	CYLINDER HEAD, (torque to 100-400 lb-ft)	
14	Kit	1	O-RING	
15	Kit	1	BACK-UP RING	
16	Kit	1	STEP SEAL	
17	Kit	1	U-CUP	
18	Kit	1	WIPER	
19	91164027	1	ROD ASSY	
20	8050001	1	BUSHING	
21	91404202	1	HEX HD PLUG, 1/8-27 NPT, (torque to 10-20 lb-ft)	
K1	91144006	1	SEAL KIT, (includes items 6, 9, 10, 11 & 14 thru 18)	

# SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-13. STEERING CYLINDER (SN 0160001770 through 0160033083, Including 0160001766, Excluding 0160032250, 0160032591, 0160032630, 0160032644 and 0160032679)**



PAP19480

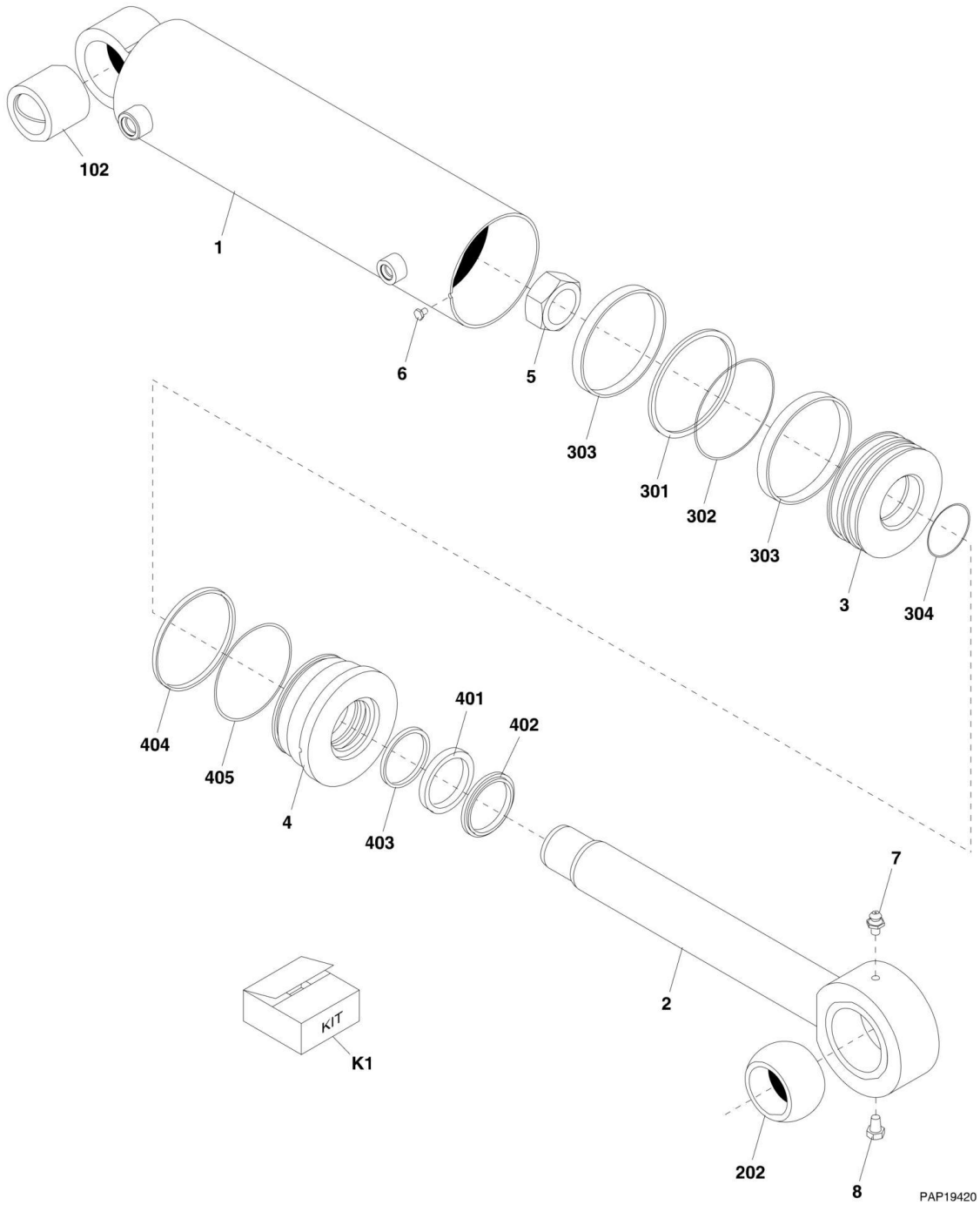
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-13. STEERING CYLINDER (SN 0160001770 through 0160033083, Including 0160001766, Excluding 0160032250, 0160032591, 0160032630, 0160032644 and 0160032679)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553056	2	STEERING CYLINDER, (includes all items), (included item quantities are per single cylinder)	B
1	91124087	1	BUSHING	
2	91144128	1	GREASE FITTING	
3	91554036	1	CASE ASSY	
4	91124096	1	SELF-TAPPING SCREW	
5	91144038	1	LOCKNUT, (torque 400-425 lb-ft)	
6	Kit	1	PISTON SEAL	
7	91554034	1	PISTON ASSY, (includes items 8 thru 11)	
8	91144039	1	PISTON	
9	Kit	2	WEAR RING	
10	Kit	1	O-RING	
11	Kit	1	O-RING	
12	91554035	1	CYLINDER HEAD ASSY, (includes items 13 thru 18)	
13	91144040	1	CYLINDER HEAD	
14	Kit	1	O-RING	
15	Kit	1	BACK-UP RING	
16	Kit	1	STEP SEAL	
17	Kit	1	U-CUP	
18	Kit	1	WIPER	
19	91164027	1	ROD ASSY	
20	8050001	1	BUSHING	
21	91404202	1	HEX HD PLUG, 1/8-27 NPT, (torque to 10-20 lb-ft)	
K1	91144006	1	SEAL KIT, (includes items 6, 9 thru 11 & 14 thru 18)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-14. STEERING CYLINDER (SN 0160033224 to Present, Including 0160032250, 0160032591, 0160032630, 0160032644 and 0160032679)



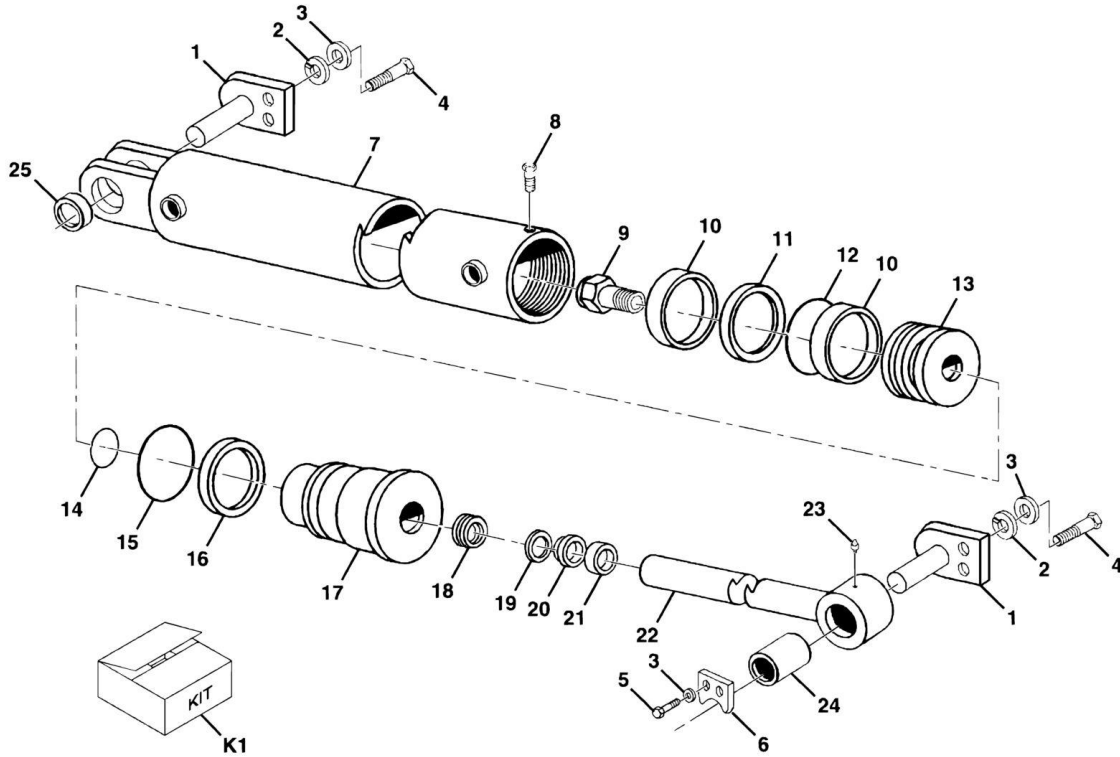
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-14. STEERING CYLINDER (SN 0160033224 to Present, Including 0160032250, 0160032591, 0160032630, 0160032644 and 0160032679)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91343233	2	STEERING CYLINDER, (includes all items), (included item quantities are per single cylinder)	A
1	70021901	1	BARREL ASSY	
2	70021902	1	ROD ASSY	
3	70021903	1	PISTON ASSY	
4	70021904	1	ROD BEARING ASSY	
5	8037146	1	NUT	
6	70022119	2	LOCKING INSERT	
7	70022120	1	GREASE FITTING	
8	70021905	1	HEX HD PIPE PLUG	
102	70021907	1	BUSHING	
202	70021908	1	SPHERICAL BUSHING	
301	Kit	1	PISTON SEAL	
302	Kit	1	O-RING	
303	Kit	2	WEAR RING	
304	Kit	1	O-RING	
401	Kit	1	ROD SEAL	
402	Kit	1	WIPER	
403	Kit	1	BUFFER SEAL	
404	Kit	1	O-RING	
405	Kit	1	BACK-UP RING	
K1	70021909	1	SEAL KIT, (includes items 301 thru 405)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-15. STABILIZER CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)



PAP20050

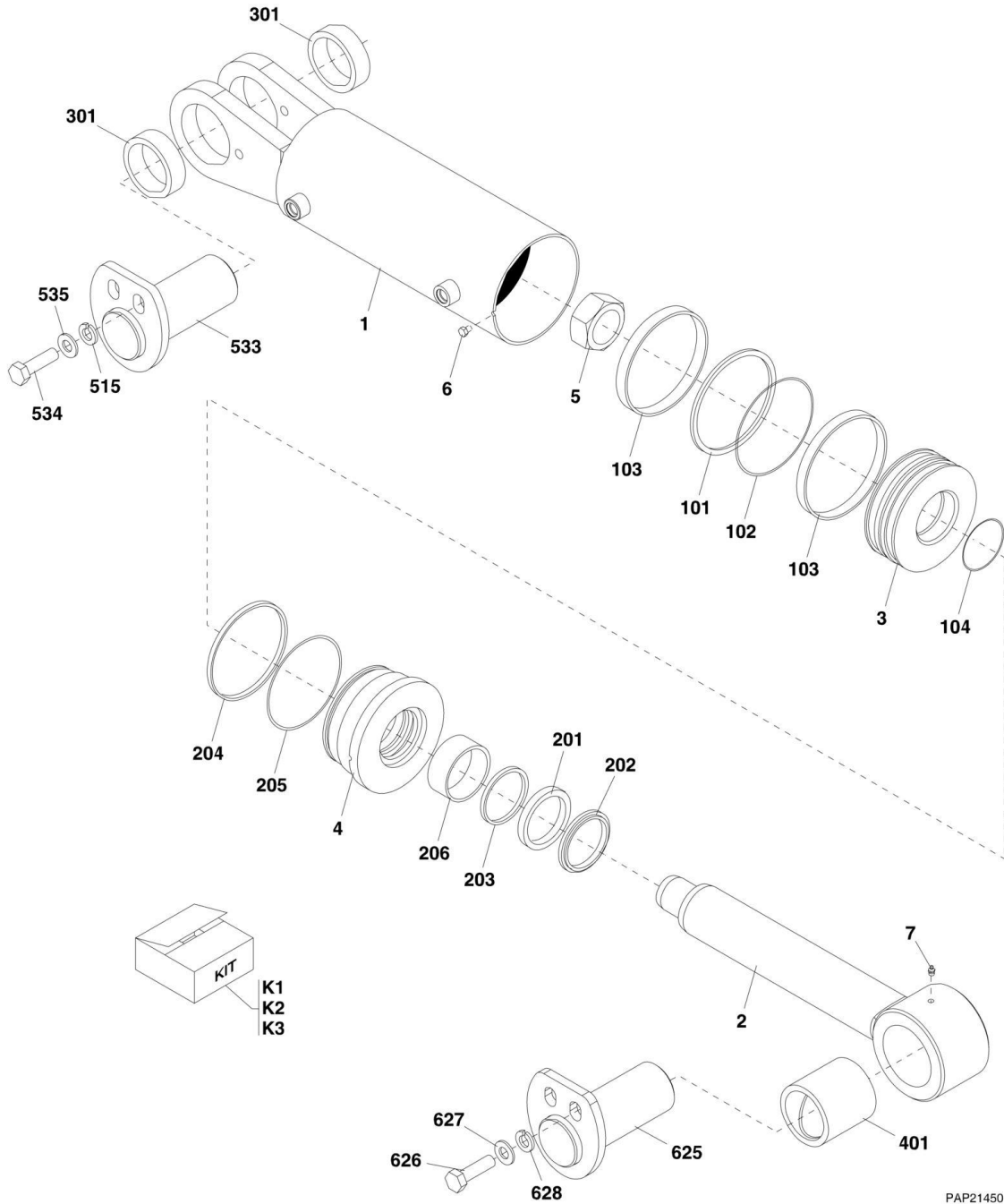
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-15. STABILIZER CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163045	1	STABILIZER CYLINDER, (includes items 7 thru 25)	J
1	91166062	2	CYLINDER PIN	
2	88551013	4	LOCKWASHER, 1/2	
3	88561111	6	FLAT WASHER, 1/2	
4	88201066	4	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
5	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
6	91161269	2	PIN KEEPER	
7	91164028	1	CASE ASSY	
8	91124096	1	CAPSCREW	
9	91064017	1	LOCKNUT	
10	Kit	2	WEAR RING	
11	Kit	1	PISTON SEAL	
12	Kit	1	O-RING	
13	91044033	1	PISTON	
14	Kit	1	O-RING	
15	Kit	1	O-RING	
16	Kit	1	BACK-UP RING	
17	91144034	1	CYLINDER HEAD	
18	Kit	1	WEAR RING	
19	Kit	1	STEP SEAL	
20	Kit	1	U-CUP	
21	91124103	1	WIPER	
22	91164029	1	SHAFT ASSY	
23	91144128	1	GREASE FITTING	
24	91164030	1	BUSHING	
25	91164031	2	BUSHING	
K1	91144005	1	SEAL KIT, (includes items 10, 11, 12, 14, 15, 16, 18, 19 & 20)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-16. STABILIZER CYLINDER (SN 0160017525 to Present)





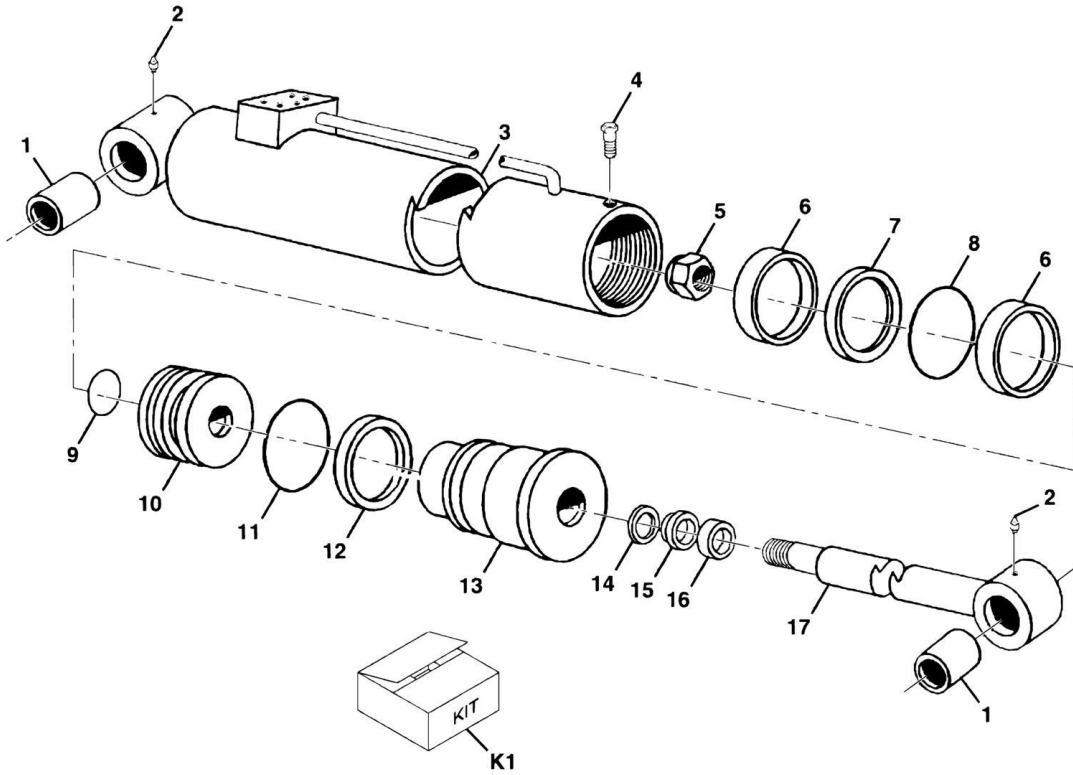
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-16. STABILIZER CYLINDER (SN 0160017525 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91343234	1	STABILIZER CYLINDER, (includes items 1 thru 401)	B
1	7029955	1	BARREL ASSY, (includes item 301)	
2	7029956	1	ROD ASSY, (includes item 401)	
3	7029957	1	PISTON ASSY, (includes items 101 thru 104)	
4	7029958	1	ROD BEARING ASSY, (includes items 201 thru 206)	
5	91044206	1	NUT	
6	7029760	1	CAPSCREW	
7	91044080	1	GREASE FITTING	
101	Kit	1	PISTON SEAL	
102	Kit	1	O-RING	
103	Kit	2	WEAR RING	
104	Kit	1	O-RING	
201	Kit	1	ROD SEAL	
202	Kit	1	WIPER	
203	Kit	1	BUFFER SEAL	
204	Kit	1	O-RING	
205	Kit	1	BACK-UP RING	
206	Kit	1	WEAR RING	
301	7029979	2	BUSHING	
401	7029978	1	BUSHING	
515	4761800	2	LOCKWASHER, 1/2	
533	91166062	2	CYLINDER PIN	
534	0641810	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
535	4711800	2	FLAT WASHER, 1/2	
625	91166062	1	CYLINDER PIN	
626	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
627	88551013	2	FLAT WASHER, 1/2	
628	88561111	2	LOCKWASHER, 1/2	
K1	7029976	1	PISTON SEAL KIT, (includes items 101 thru 104)	
K2	7029977	1	ROD BEARING SEAL KIT, (includes items 201 thru 206)	
K3	91144005	1	CYLINDER SEAL KIT, (includes items 101 thru 206)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-17. OUTRIGGER CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)



NOTE: See FRAME AND ATTACHING PARTS SECTION FOR MOUNTING PINS.

PAP23050

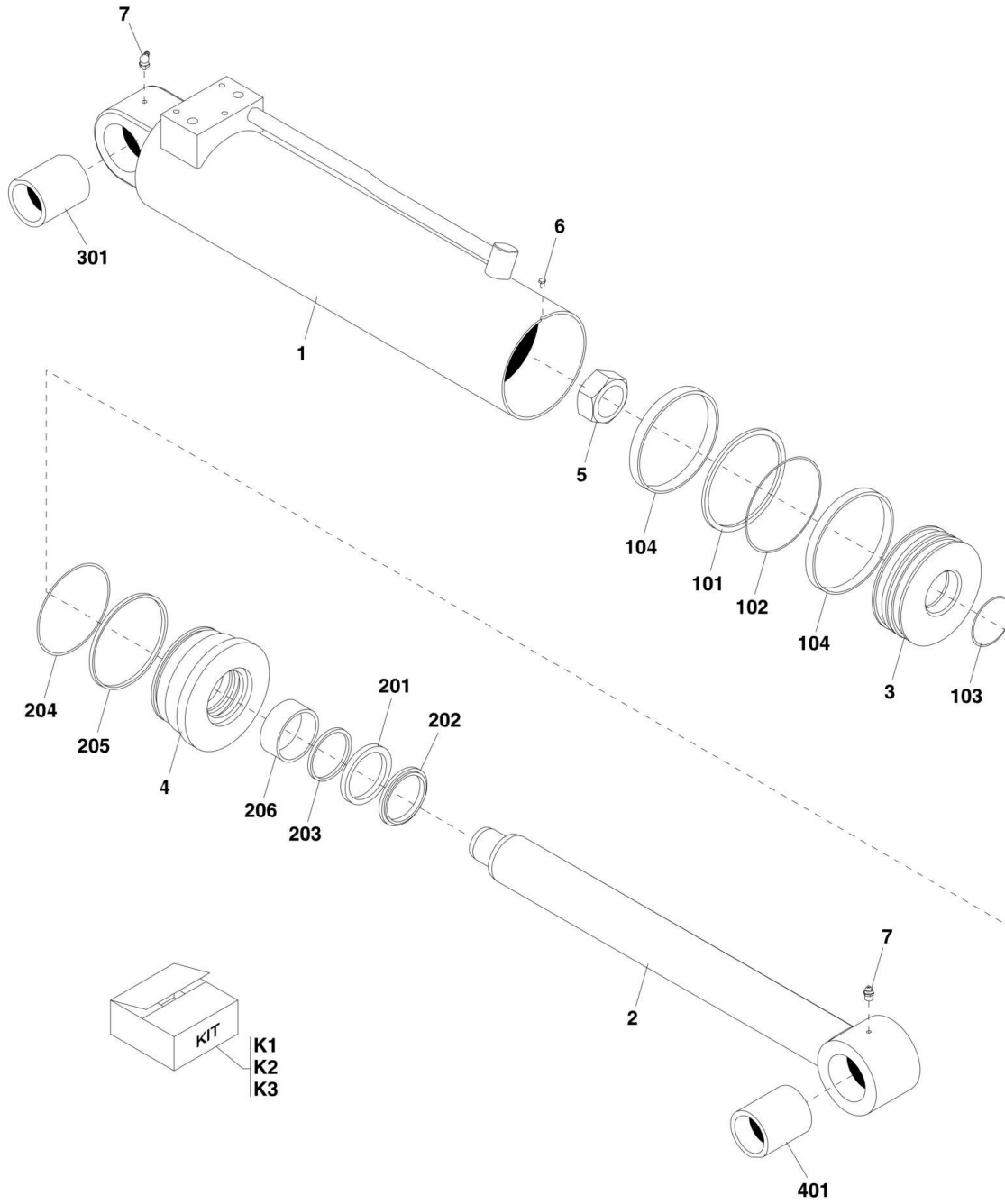
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-17. OUTRIGGER CYLINDER (SN 0355001 through 0455362, SN 0160000192 through 0160017472)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163016	2	OUTRIGGER CYLINDER, (includes all items)	G
1	91164032	2	BUSHING	
2	91144128	2	GREASE FITTING	
3	91164033	1	CASE ASSY	
4	91144017	1	CAPSCREW	
5	91034153	1	LOCKNUT, (lubricate and torque to 1300-1350 lb-ft)	
6	Kit	2	WEAR RING	
7	Kit	1	PISTON SEAL	
8	Kit	1	O-RING	
9	Kit	1	O-RING	
10	91164034	1	PISTON	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP RING	
13	91164035	1	CYLINDER HEAD	
14	Kit	1	STEP SEAL	
15	Kit	1	U-CUP	
16	Kit	1	WIPER	
17	91164036	1	SHAFT ASSY	
K1	91144004	1	SEAL KIT, (includes items 6, 7, 8, 9, 11, 12, 14, 15 & 16)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-18. OUTRIGGER CYLINDER (SN 0160017525 through 0160038794)



PAP17710

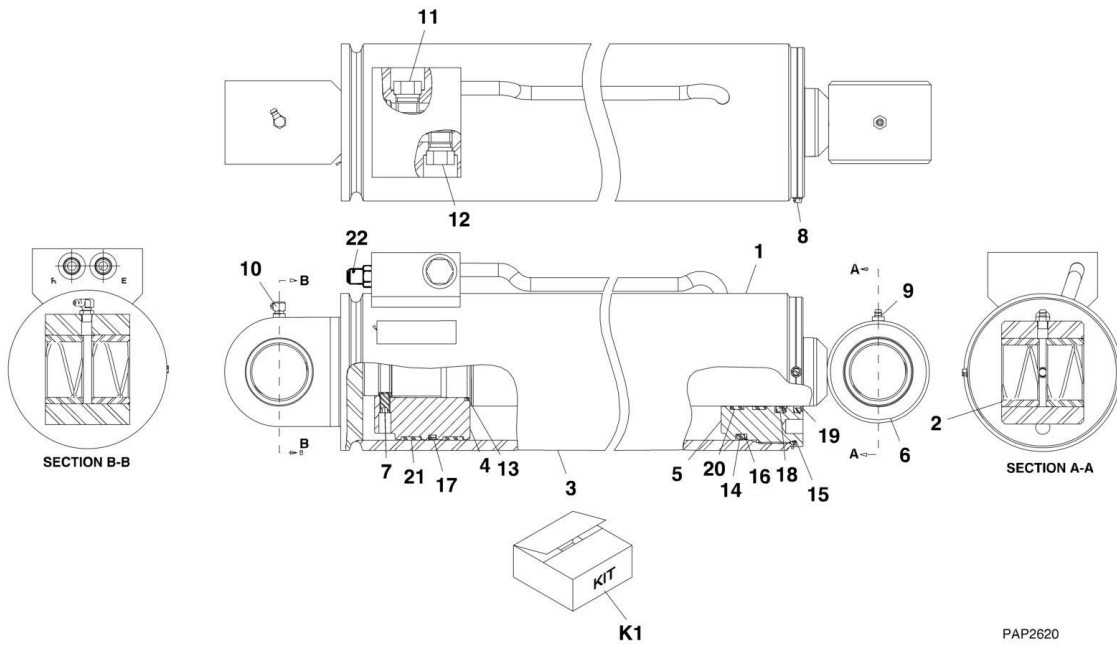
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-18. OUTRIGGER CYLINDER (SN 0160017525 through 0160038794)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91343235	NLA	OUTRIGGER CYLINDER ASSY, (no longer available, order 1001116439 for replacement or see items 1 thru 401 for service)	E
1	7029968	1	BARREL ASSY, (includes item 301)	
2	7029814	1	ROD ASSY, (includes item 401)	
3	7029815	1	PISTON ASSY, (includes items 101 thru 104)	
4	7029816	1	ROD BEARING ASSY, (includes items 201 thru 206)	
5	91014066	1	NUT	
6	7029760	1	CAPSCREW	
7	91044080	2	GREASE FITTING	
101	Kit	1	PISTON SEAL	
102	Kit	1	O-RING	
103	Kit	1	O-RING	
104	Kit	2	WEAR RING	
201	Kit	1	ROD SEAL	
202	Kit	1	WIPER	
203	Kit	1	BUFFER	
204	Kit	1	O-RING	
205	Kit	1	BACK-UP RING	
206	Kit	1	WEAR RING	
301	7029817	1	BUSHING	
401	7029817	1	BUSHING	
K1	7029959	1	PISTON SEAL KIT, (includes items 101 thru 104)	
K2	7029980	1	ROD BEARING ASSY, (includes items 201 thru 206)	
K3	91144004	1	CYLINDER SEAL KIT, (includes items 101 thru 206)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-19. OUTRIGGER CYLINDER (FOR SERVICE ONLY)



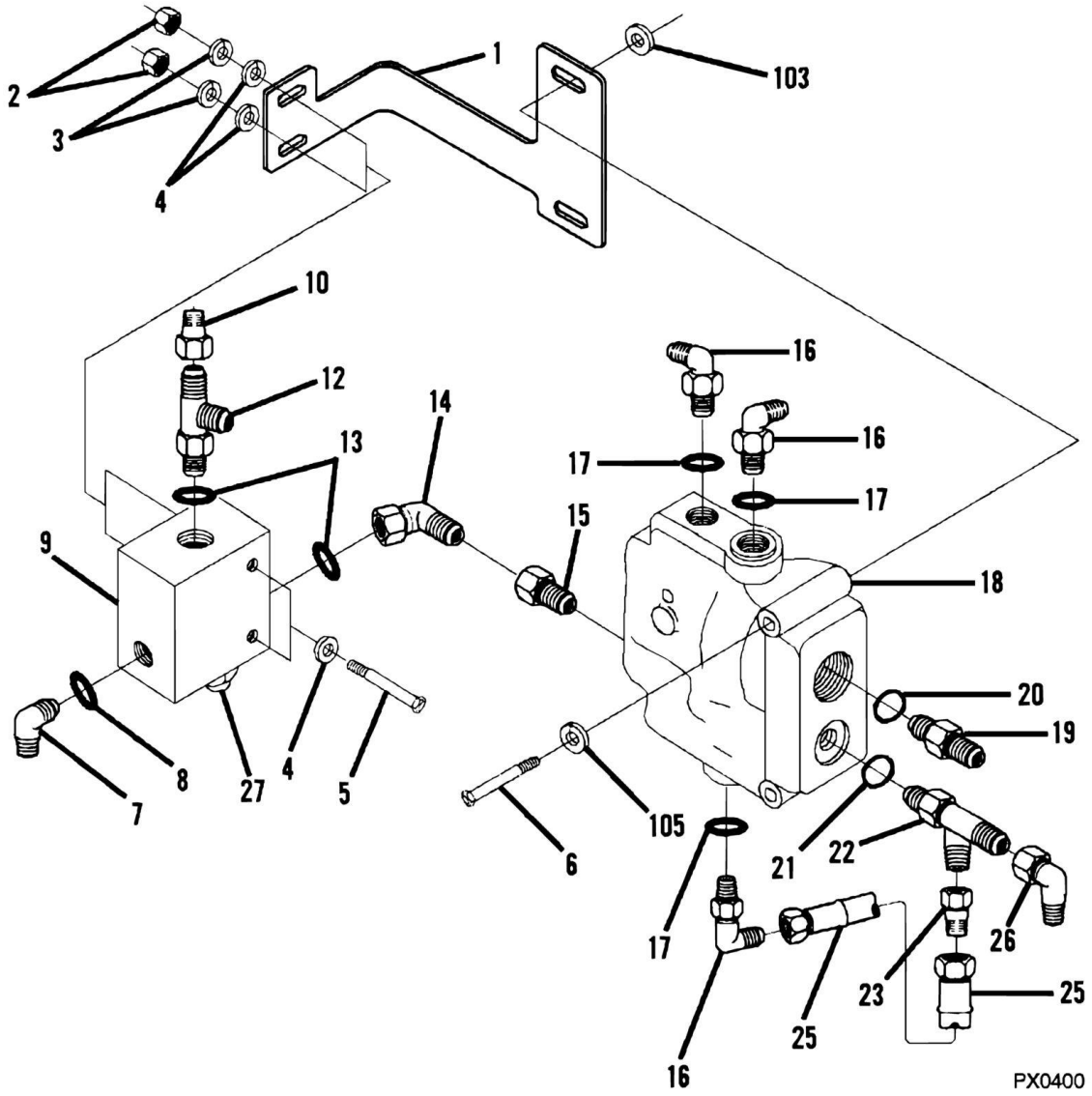
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-19. OUTRIGGER CYLINDER (FOR SERVICE ONLY)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165040	Ref	OUTRIGGER CYLINDER ASSY, (not available to order, see items 1 thru 22 for service)	E
1	1001116439	2	OUTRIGGER CYLINDER, (includes items 2 thru 21), (included item quantities are per single cylinder)	
2	70020370	4	BUSHING	
3	70023892	1	TUBE WELDMENT	
4	70023893	1	PISTON, (torque to 2350-2600 lb-ft)	
5	70023894	1	HEAD GLAND, (torque to 300-400 lb-ft)	
6	70023895	1	ROD WELDMENT	
7	8036629	1	SET SCREW, 3/8-16x3/4, (torque to 16-18 lb-ft)	
8	70023896	1	TAPPING SCREW	
9	70023897	1	LUBE FITTING	
10	8520021	1	LUBE FITTING, 90	
11	8036750	1	P.O. CHECK VALVE, (torque to 30-35 lb-ft)	
12	70023898	1	P.O. CHECK VALVE WITH THERMAL RELIEF, (torque to 30-35 lb-ft)	
13	Kit	1	O-RING	
14	Kit	1	O-RING	
15	Kit	1	O-RING	
16	Kit	1	BACK-UP RING	
17	Kit	1	PAC SEAL	
18	Kit	1	SEAL	
19	Kit	1	ROD WIPER	
20	Kit	2	WEAR BAND	
21	Kit	2	WEAR BAND	
22	2220371	2	ADAPTOR, (includes o-ring)	
K1	70023899	2	SEAL KIT, (includes items 13 thru 21)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-20. FLOW DIVIDER ASSEMBLY





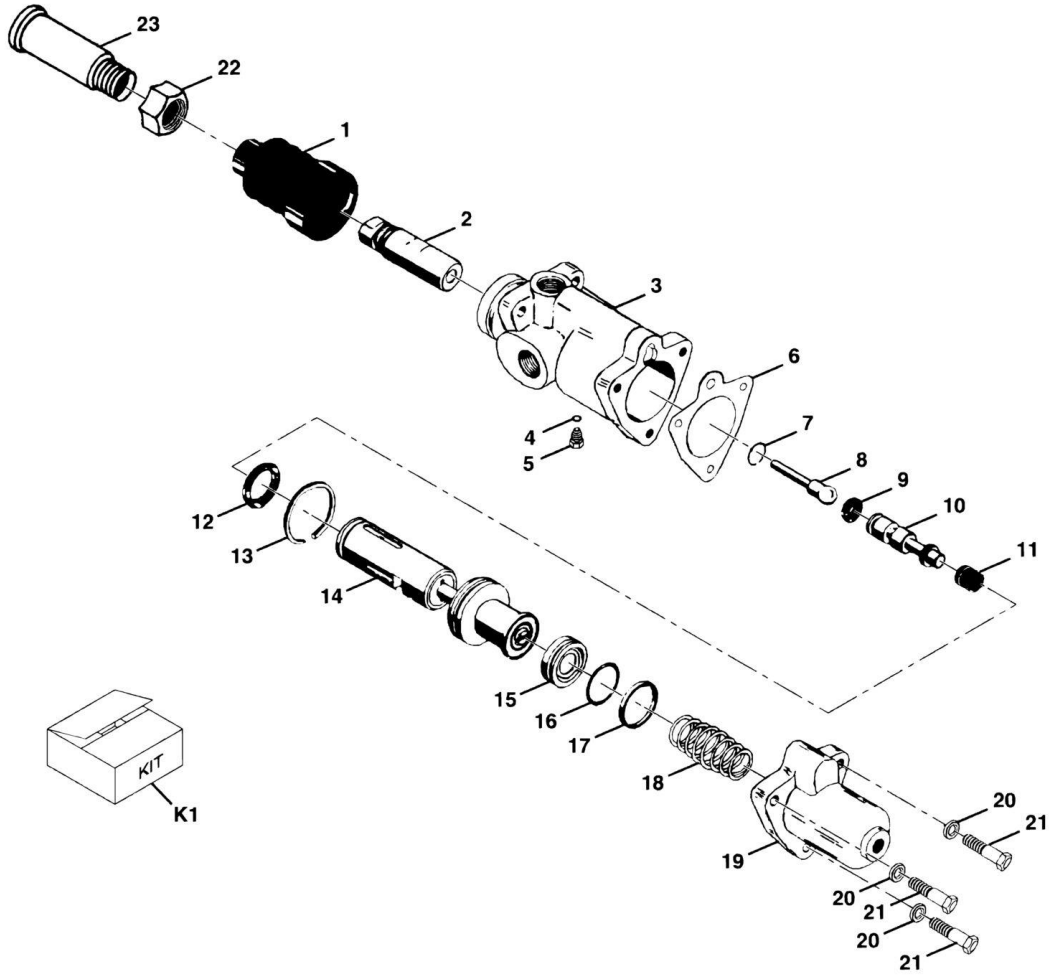
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-20. FLOW DIVIDER ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91155022	1	FLOW DIVIDER ASSY, (includes all items except item 6, 103 & 105)	D
1	91161272	1	FLOW DIVIDER BRACKET	
2	88501005	2	HEX NUT, 5/16-18	
3	88551010	2	LOCKWASHER, 5/16	
4	88561003	4	WASHER, 5/16	
5	88201027	2	HEX HD CAPSCREW, 5/16-18X2-3/4, GR5	
6	0641526	2	HEX HD CAPSCREW, 5/16-18X3-1/4, GR5	
7	2220473	1	ELBOW, 90, (includes item 8)	
8	88591204	1	O-RING	
9	91163211	1	FLOW DIVIDER, (includes item 27)	
10	2220623	1	REDUCER, (includes nut)	
12	2221026	1	RUN TEE, (includes item 13)	
13	88591209	2	O-RING	
14	2220465	1	ELBOW, 90, (includes item 13)	
15	2220594	1	SWIVEL NUT ADAPTER	
16	2220466	3	ELBOW, 90, (includes item 17)	
17	88591202	3	O-RING	
18	91163071	1	FLOW DIVIDER	
18	91144062	1	FLOW DIVIDER SEAL KIT	
19	2220376	1	ADAPTER, (includes item 20)	
20	88591207	1	O-RING	
21	88591205	1	O-RING	
22	2220602	1	RUN TEE, (includes item 21)	
23	2220618	1	REDUCER, (includes nut)	
25	84718692	1	HOSE ASSY	
26	8765204	1	ELBOW, 90, (swivel nut)	
27	91164103	1	CARTRIDGE	
27	91164106	1	CARTRIDGE SEAL KIT	
103	4751500	2	PLAIN WASHER, 5/16	
105	4761500	2	LOCKWASHER, 5/16	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-21. BRAKE VALVE (SN 0355001 through 0355947)



**NOTE:**

BRAKE VALVE (91413201) IS NO LONGER AVAILABLE FOR SERVICE.  
REPLACE WITH BRAKE VALVE (91413010) SHOWN ON BRAKE VALVE FOR BREAKDOWN (SN 0355948)  
AND ADAPTER (2220371) SHOWN ON CONTROLS SECTION FOR BREAKDOWN.

PAP20020

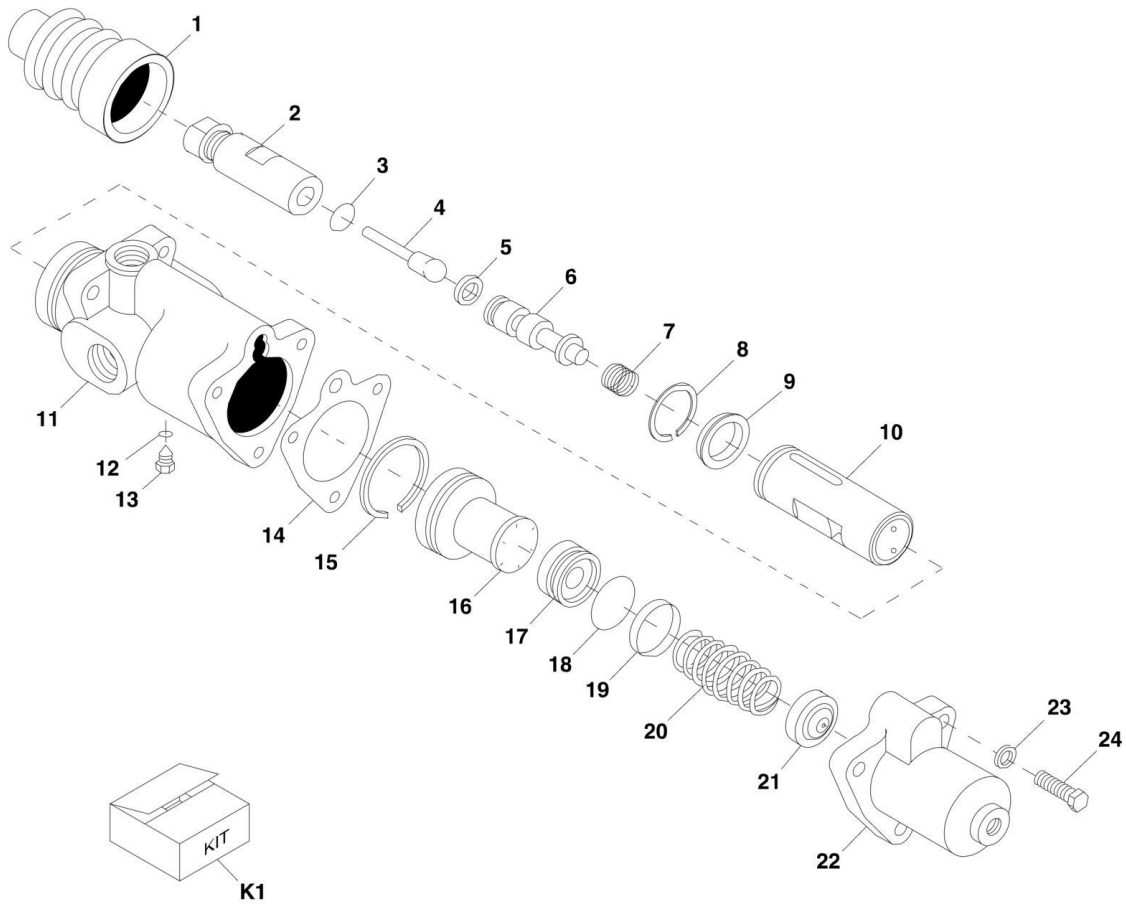
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-21. BRAKE VALVE (SN 0355001 through 0355947)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143201	NLA	POWER BRAKE VALVE, (no longer available, use 91365057 for replacement or see items 1 thru 21 for service)	
1	Kit	1	BOOT	
2	N.S.S.	1	PRESSURE REGULATING SPRING ASSY	
3	N.S.S.	1	HOUSING	
4	Kit	1	O-RING	
5	N.S.S.	1	CAPSCREW	
6	Kit	1	GASKET	
7	N.S.S.	1	RETAINING RING	
8	N.S.S.	1	PUSH ROD	
9	Kit	1	CUP	
10	N.S.S.	1	SPOOL	
11	N.S.S.	1	SPRING	
12	Kit	1	CUP	
13	Kit	1	PISTON RING	
14	N.S.S.	1	SLEEVE AND PISTON ASSY	
15	Kit	1	PISTON AND POPPET ASSY	
16	Kit	1	O-RING	
17	Kit	1	RING SEAL	
18	N.S.S.	1	SPRING	
19	N.S.S.	1	END CAP	
20	N.S.S.	3	LOCKWASHER	
21	N.S.S.	3	HEX HD CAPSCREW	
22	88501408	1	HEX JAM NUT, 1/2-20	
23	91081445	1	PUSH ROD	
K1	91084043	1	REPAIR KIT, (includes items 1, 4, 6, 9, 12, 13, 15, 16 & 17)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-22. BRAKE VALVE (SN 0355948 through 0455362)



PAP20030

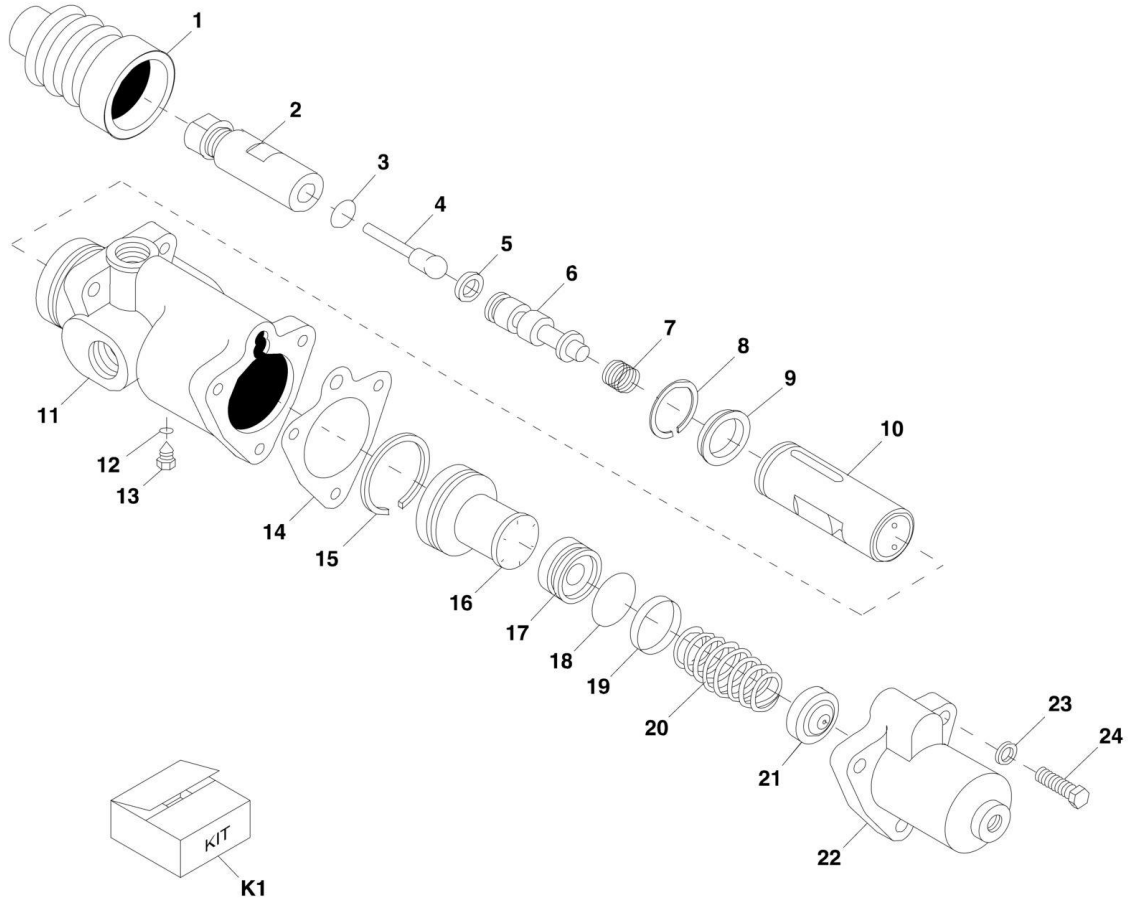
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-22. BRAKE VALVE (SN 0355948 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91413010	1	POWER BRAKE VALVE, (includes all items)	
1	Kit	1	BOOT	
2	N.S.S.	1	PRESSURE REGULATING SPRING ASSY	
3	N.S.S.	1	RETAINING RING	
4	N.S.S.	1	PUSH ROD	
5	Kit	1	CUP	
6	N.S.S.	1	SPOOL	
7	N.S.S.	1	SPRING	
8	N.S.S.	1	RETAINING RING	
9	Kit	1	CUP	
10	N.S.S.	1	SLEEVE	
11	N.S.S.	1	HOUSING	
12	Kit	1	O-RING	
13	N.S.S.	1	CAP SCREW	
14	Kit	1	GASKET	
15	Kit	1	PISTON RING	
16	N.S.S.	1	PISTON	
17	Kit	1	PISTON AND POPPET ASSY	
18	Kit	1	O-RING	
19	Kit	1	RING SEAL	
20	N.S.S.	1	SPRING	
21	Kit	1	RESIDUAL VALVE	
22	N.S.S.	1	END CAP	
23	N.S.S.	3	LOCKWASHER	
24	N.S.S.	3	HEX HD CAPSCREW	
K1	91084043	1	REPAIR KIT, (includes items 1, 5, 9, 12, 14, 15, 17, 18, 19 & 21)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-23. BRAKE VALVE (SN 0160000239 to Present)



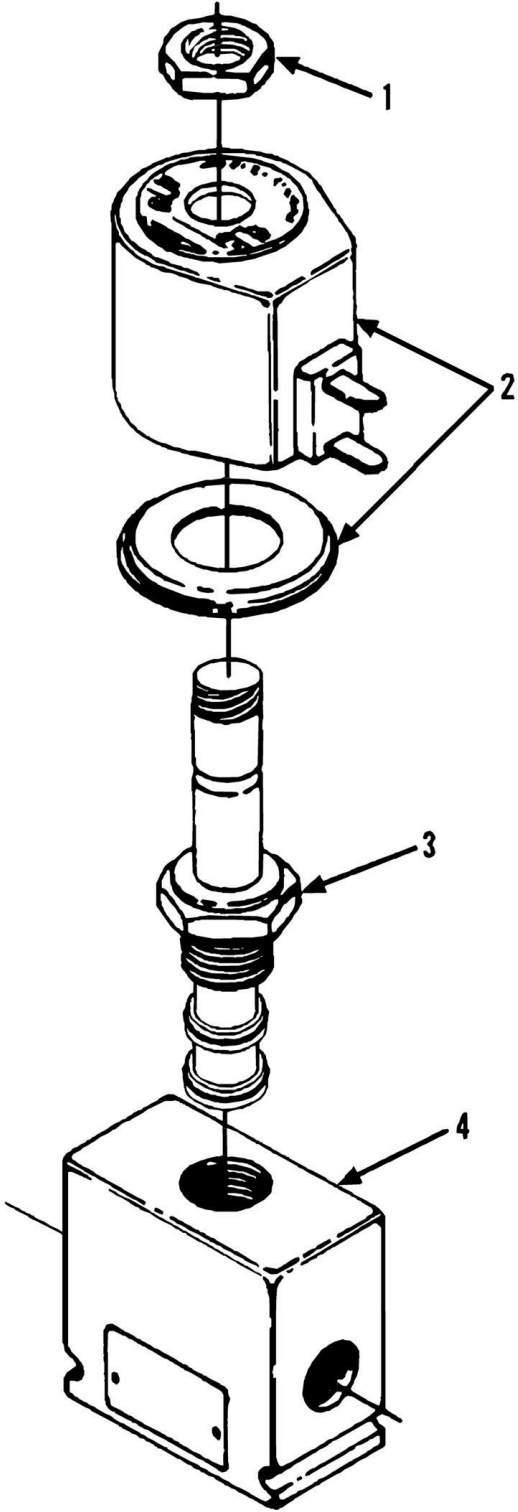
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-23. BRAKE VALVE (SN 0160000239 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403592	1	POWER BRAKE VALVE, (includes all items)	
1	Kit	1	BOOT	
2	N.S.S.	1	PRESSURE REGULATING SPRING ASSY	
3	N.S.S.	1	RETAINING RING	
4	N.S.S.	1	PUSH ROD	
5	Kit	1	CUP	
6	N.S.S.	1	SPOOL	
7	N.S.S.	1	SPRING	
8	N.S.S.	1	RETAINING RING	
9	Kit	1	CUP	
10	N.S.S.	1	SLEEVE	
11	N.S.S.	1	HOUSING	
12	Kit	1	O-RING	
13	N.S.S.	1	CAPSCREW	
14	Kit	1	GASKET	
15	Kit	1	PISTON RING	
16	N.S.S.	1	PISTON	
17	Kit	1	PISTON AND POPPET ASSY	
18	Kit	1	O-RING	
19	Kit	1	RING SEAL	
20	N.S.S.	1	SPRING	
21	Kit	1	RESIDUAL VALVE	
22	N.S.S.	1	END CAP	
23	N.S.S.	3	LOCKWASHER	
24	N.S.S.	3	HEX HD CAPSCREW	
K1	91084043	1	REPAIR KIT, (includes items 1, 5, 9, 12, 14, 15, 17, 18, 19 & 21)	

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-24. SOLENOID VALVE





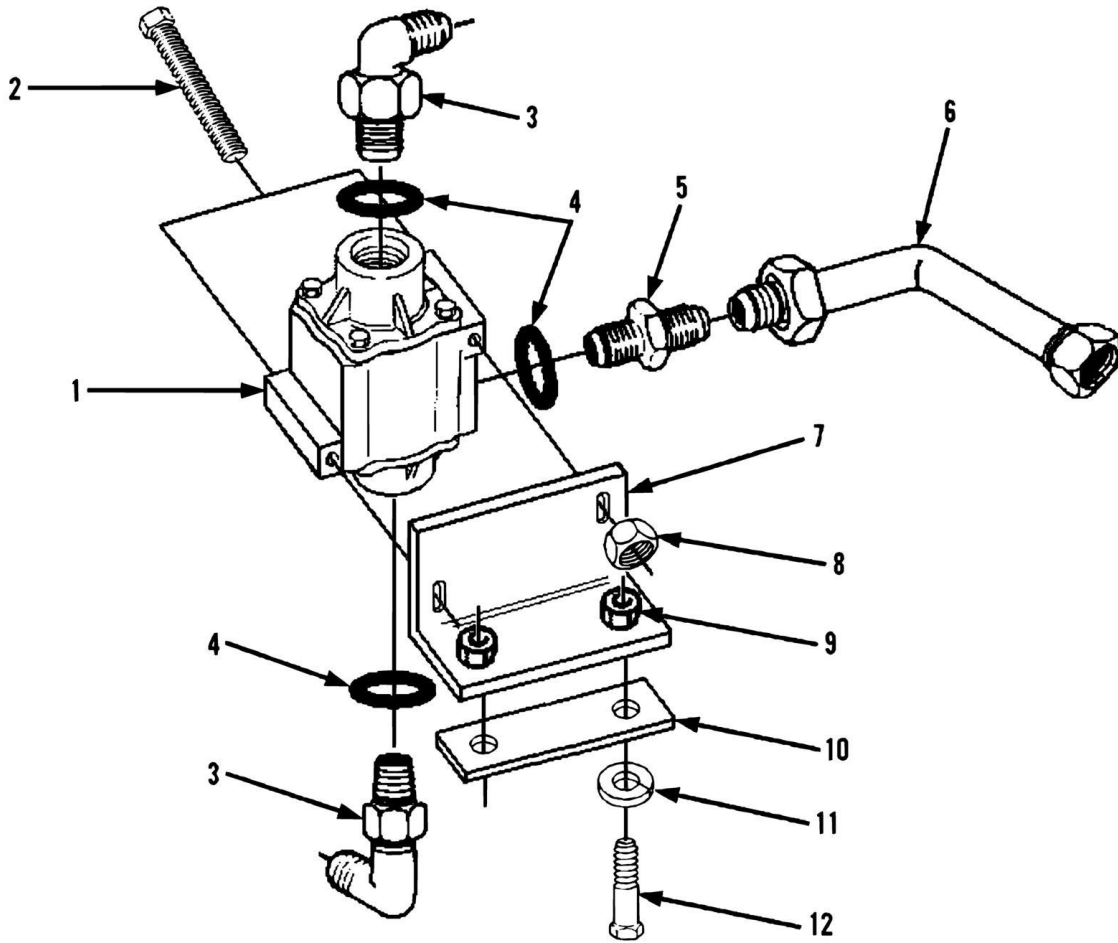
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-24. SOLENOID VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043446	1	3-WAY SOLENOID VALVE, (includes all items)	
1	7022390	1	NUT	
2	7021610	1	COIL	
3	7022394	1	CORE ASSY, (3-way, 2-position)	
4	N.S.S.	1	VALVE BODY	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-25. THERMAL BYPASS VALVE ASSEMBLY



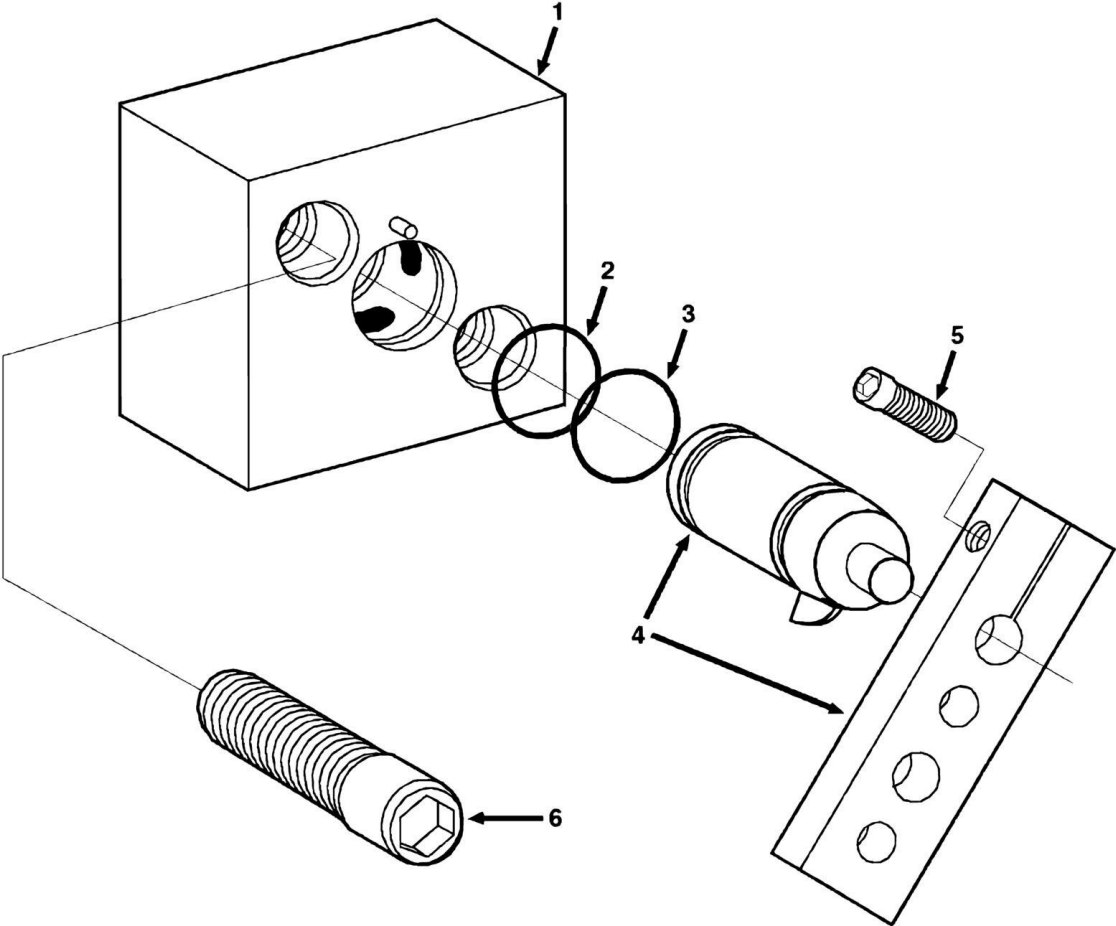
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-25. THERMAL BYPASS VALVE ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145067	1	THERMAL BYPASS VALVE ASSY, (includes items 1 thru 9)	D
1	91143338	1	BYPASS VALVE	
1	80974021	1	ELEMENT KIT	
2	88201045	2	HEX HD CAPSCREW, 3/8-16X3-1/2, GR5	
3	2220646	2	ELBOW, 90, (includes item 4)	
4	88591209	3	O-RING	
5	2220377	1	ADAPTER, (includes item 4)	
6	91143274	1	TUBE ASSY	
7	91146087	1	BRACKET, (includes item 9)	
8	77143015	2	WHIZ-LOCKNUT	
9	N.S.S.	2	WELD NUT	
10	91141432	1	RECTANGULAR WASHER	
11	4761600	2	LOCKWASHER, 3/8	
12	0641610	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	

**SECTION 9 - HYDRAULIC COMPONENTS**

**FIGURE 9-26. INCHING VALVE (SN 0355001 through 0455362, SN 0160000192 through 0160000238)**



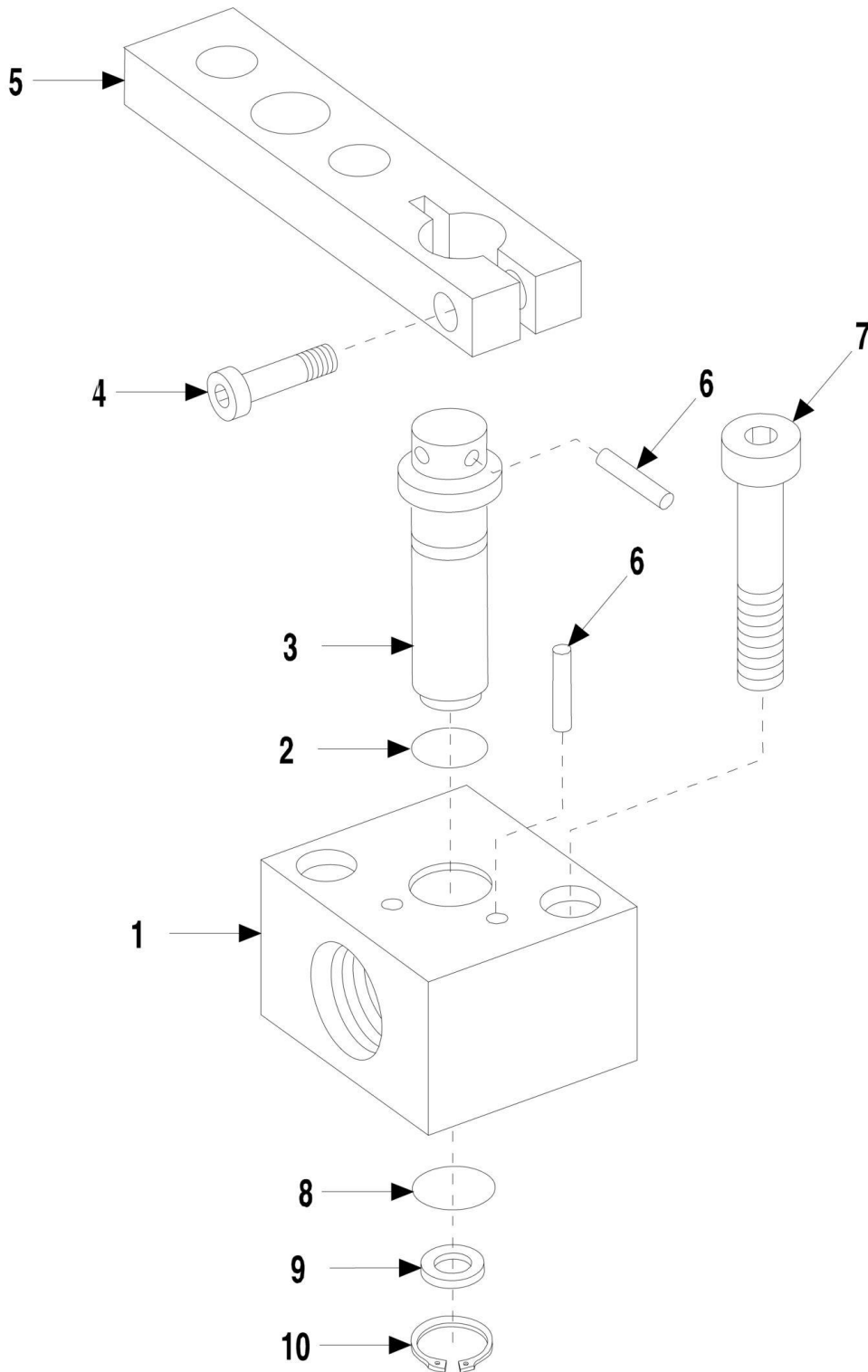
## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-26. INCHING VALVE (SN 0355001 through 0455362, SN 0160000192 through 0160000238)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91143140	NLA	INCHING VALVE, (no longer available, use 91143272 or see items 2 thru 6 for service)	
2	80934423	1	O-RING	
3	80934202	1	O-RING	
4	N.S.S.	1	ACTIVATING LEVER	
5	N.S.S.	1	SOCKET HD CAPSCREW	
6	88212228	2	SOCKET HD CAPSCREW	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-27. INCHING VALVE (SN 0160000239 to Present)



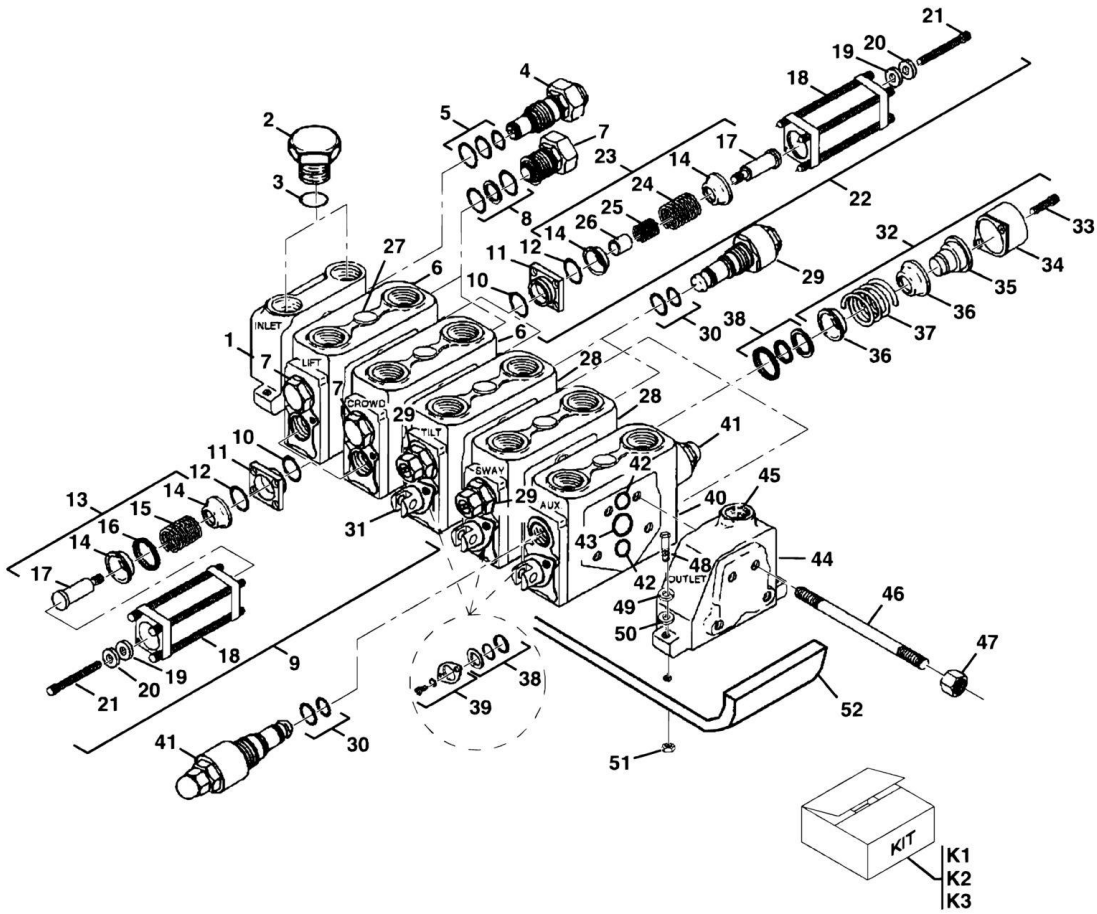
## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-27. INCHING VALVE (SN 0160000239 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143372	Ref	INCHING VALVE, (includes all items)	B
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	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-28. MAIN CONTROL VALVE (Prior to SN 0160037689)



PAP23060



## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-28. MAIN CONTROL VALVE (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163222	1	MAIN CONTROL VALVE ASSY, (includes all items except items 48 thru 52)	E
1	91144162	1	L.E. INLET COVER ASSY, (includes items 2 thru 5)	
2	91084017	2	PLUG, (includes item 3)	
3	91164105	2	O-RING	
4	70021683	1	MAIN RELIEF VALVE - 3500 PSI, (includes item 5)	
5	91034236	1	MAIN RELIEF SEAL KIT, (note: only external seals can be serviced in the field)	
6	91164066	2	LIFT AND CROWD SECTIONS, (includes four of item 7, plus two of items 9, 22 & 31)	
7	91164067	4	NO RELIEF PLUG KIT, (includes item 8)	
8	91044527	4	NR PLUG SEAL KIT	
9	91144258	2	HR POSITIONER ASSY 'A' END, (includes items 10 thru 21)	
10	N.S.S.	4	O-RING	
11	N.S.S.	4	SPACER	
12	N.S.S.	4	O-RING	
13	91164068	4	SPRING ASSY, (includes items 14, 15, 16 & 17)	
14	N.S.S.	8	STOP COLLAR	
15	N.S.S.	2	SPRING	
16	N.S.S.	2	SPACER	
17	N.S.S.	4	SPUD	
18	91164069	4	BONNET ASSY, (includes items 19, 20 & 21)	
19	N.S.S.	16	BEARING PLATE	
20	N.S.S.	16	LOCKWASHER	
21	N.S.S.	16	SCREW	
22	91144259	2	HR POSITIONER ASSY 'B' END, (includes items 10, 11, 12, 14, 17 thru 21, 24, 25 & 26)	
23	91164070	2	SPRING ASSY, (includes items 14, 17, 24, 25 & 26)	
24	N.S.S.	2	SPRING	
25	N.S.S.	2	SPRING	
26	N.S.S.	2	STOP COLLAR	
27	91164071	5	LOAD CHECK PLUG, (one needed per section)	
28	91164072	2	TILT AND SWAY SECTIONS, (includes items 29 & 30, two of items 31 & 32)	
29	91164073	4	RELIEF VALVE - 3000 PSI, (includes item 30)	
30	91144262	6	RELIEF VALVE SEAL KIT, (note: only external seal can be serviced in the field)	
31	N.S.S.	5	4-WAY SPOOL, (not available for service, order individual work sections as needed)	
32	91144265	3	SPOOL POSITIONER KIT, (includes items 33 thru 36)	
33	N.S.S.	6	SCREW	
34	N.S.S.	3	BONNET	
35	N.S.S.	3	SPOOL COLLAR	
36	N.S.S.	6	SPRING COLLAR	
37	N.S.S.	3	SPRING	
38	91144263	6	SPOOL SEAL KIT	
39	91144264	3	SPOOL RETAINER KIT	
40	91144194	1	AUXILIARY SECTION, (includes one each of items 31, 32 & 41)	
41	91164074	2	RELIEF VALVE - 2000 PSI, (includes item 30)	
42	Kit	12	O-RING, (included in section seal kit, six kits required to service entire valve)	

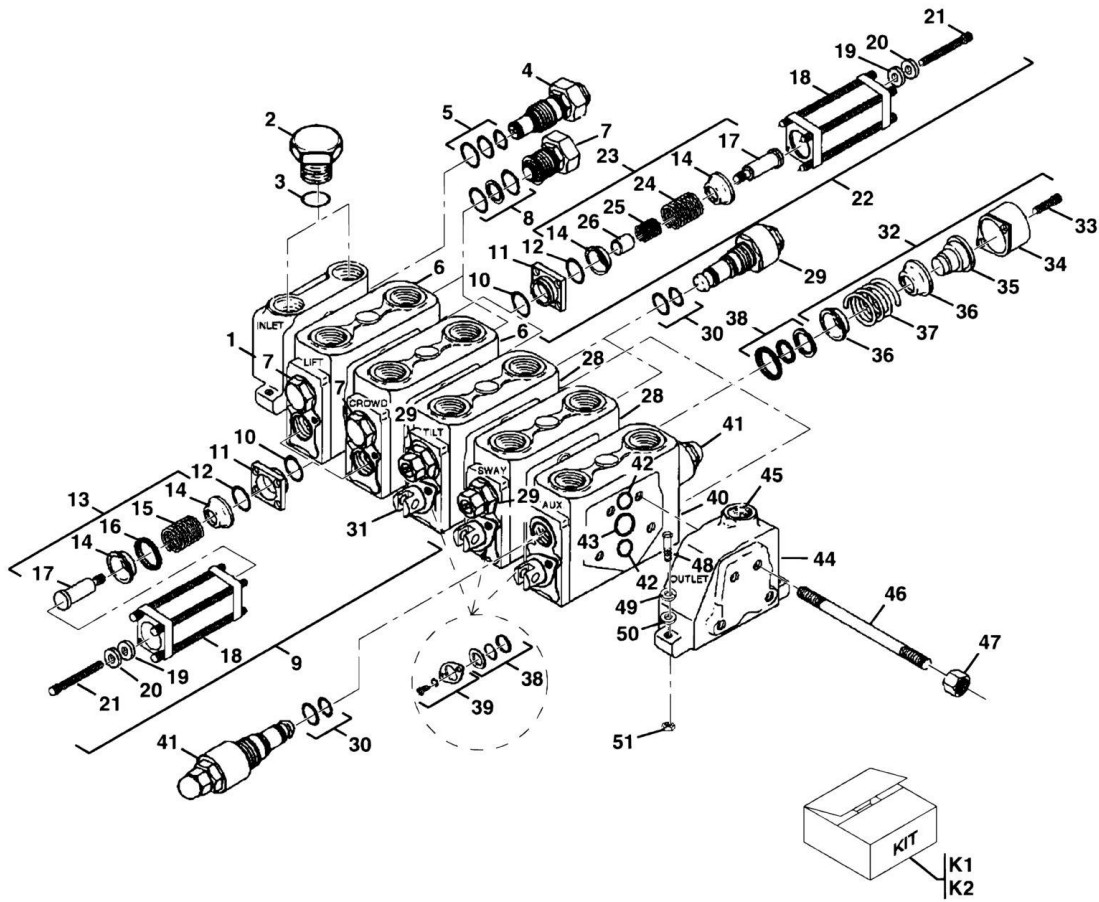
## SECTION 9 - HYDRAULIC COMPONENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	Kit	6	O-RING, (included in section seal kit, six kits required to service entire valve)	
44	91144163	1	R.E. OUTLET COVER, (includes item 45)	
45	91164075	1	INTERNAL PLUG, 3/4-18 NPT	
46	Kit	4	STUD, (included in 91034070)	
47	Kit	4	NUT, (included in 91034070)	
48	88201038	2	HEX HD CAPSCREW, 3/8-16X1-3/4, GR5, (outlet end only)	
48	88201040	1	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5, (inlet end only)	
49	88551011	3	LOCKWASHER, 3/8	
50	88561004	6	FLAT WASHER, 3/8	
51	88501006	3	HEX NUT, 3/8-16	
52	91161209	1	VALVE SUPPORT, (partially illustrated)	
K1	91034070	1	STUD KIT, (includes four each of items 46 & 47)	
K2	91164064	AR	SECTION SEAL KIT, (one kit needed per valve section), (includes two of item 42 & one of item 43, plus two spool seals per kit)	
K3	91144254	AR	WORK SECTION SEAL KIT, (includes all seals needed to service tilt, sway and aux sections only), (one kit needed per section)	



# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-29. MAIN CONTROL VALVE (SN 0160037964 to Present)



PAP21580

## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-29. MAIN CONTROL VALVE (SN 0160037964 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001109348	1	MAIN CONTROL VALVE ASSY, (includes all items except items 48 thru 51)	
1	91144162	1	L.E. INLET COVER ASSY, (includes items 2 thru 5)	
2	N.S.S.	2	PLUG, (includes item 3)	
3	N.S.S.	2	O-RING	
4	70021683	1	MAIN RELIEF VALVE - 3000 PSI, (includes item 5)	
5	91034236	1	MAIN RELIEF SEAL KIT, (note: only external seals can be serviced in the field)	
6	91164066	2	LIFT AND CROWD SECTIONS, (includes four of item 7, plus two of items 9, 22 & 31)	
7	91144256	4	PLUG KIT, (includes item 8)	
8	91144257	4	PLUG SEAL KIT	
9	N.S.S.	2	HR POSITIONER ASSY 'A' END, (includes items 10 thru 21)	
10	N.S.S.	4	O-RING	
11	N.S.S.	4	SPACER	
12	N.S.S.	4	O-RING	
13	N.S.S.	4	SPRING ASSY, (includes items 14, 15, 16 & 17)	
14	N.S.S.	8	STOP COLLAR	
15	N.S.S.	2	SPRING	
16	N.S.S.	2	SPACER	
17	N.S.S.	4	SPUD	
18	N.S.S.	4	BONNET ASSY, (includes items 19, 20 & 21)	
19	N.S.S.	16	BEARING PLATE	
20	N.S.S.	16	LOCKWASHER	
21	N.S.S.	16	SCREW	
22	N.S.S.	2	HR POSITIONER ASSY 'B' END, (includes items 10, 11, 12, 14, 17 thru 21, 24, 25 & 26)	
23	N.S.S.	2	SPRING ASSY, (includes items 14, 17, 24, 25 & 26)	
24	N.S.S.	2	SPRING	
25	N.S.S.	2	SPRING	
26	N.S.S.	2	STOP COLLAR	
28	91164066	2	TILT AND AUX SECTIONS, (includes items 29 & 30, two of items 31 & 32)	
29	91144255	4	RELIEF VALVE - 3000 PSI, (includes item 30)	
30	91034236	4	RELIEF VALVE SEAL KIT, (note: only external seal can be serviced in the field)	
31	N.S.S.	5	4-WAY SPOOL, (not available for service, order individual work sections as needed)	
32	N.S.S.	3	SPOOL POSITIONER KIT, (includes items 33 thru 36)	
33	N.S.S.	6	SCREW	
34	N.S.S.	3	BONNET	
35	N.S.S.	3	SPOOL COLLAR	
36	N.S.S.	6	SPRING COLLAR	
37	N.S.S.	3	SPRING	
38	N.S.S.	6	SPOOL SEAL KIT	
39	N.S.S.	3	SPOOL RETAINER KIT	
40	91164166	1	SWAY SECTION, (includes one each of items 31, 32 & 41)	
41	91144260	2	RELIEF VALVE, 3000 PSI, (includes item 30)	
42	Kit	12	O-RING, (included in section seal kit, six kits required to service entire valve)	
43	Kit	6	O-RING, (included in section seal kit, six kits required to service entire valve)	

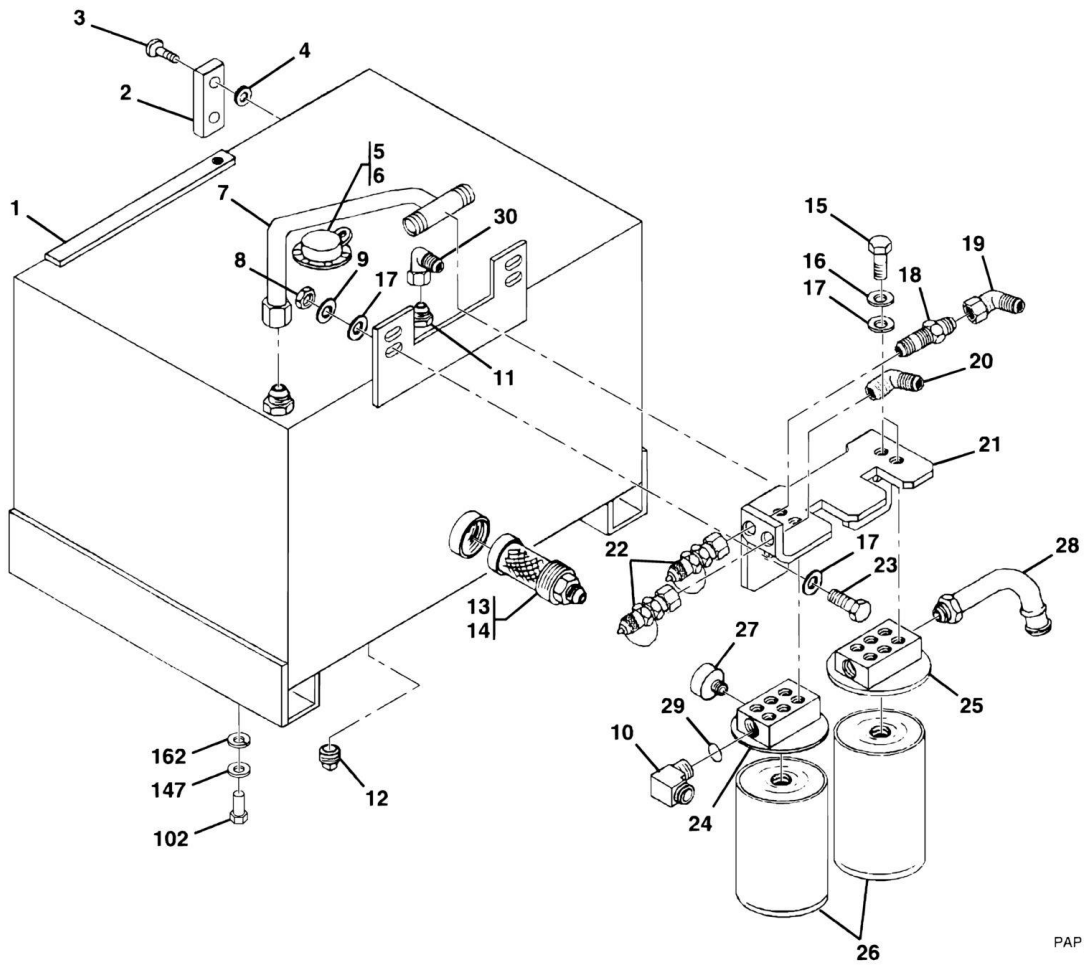
## SECTION 9 - HYDRAULIC COMPONENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	91033172	1	R.E. OUTLET COVER, (includes item 45)	
45	91164075	1	INTERNAL PLUG, 3/4-18 NPT	
46	Kit	4	STUD, (torque to 29-35 lb-ft)	
47	Kit	4	NUT	
48	88201038	2	HEX HD CAPSCREW, 3/8-16X1-3/4, GR5, (outlet end only)	
48	88201040	1	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5, (inlet end only)	
49	88551011	3	LOCKWASHER, 3/8	
50	88561004	6	FLAT WASHER, 3/8	
51	88501006	3	HEX NUT, 3/8-16	
K1	91044125	1	STUD KIT, (includes items 46 & 47)	
K2	91144193	AR	SECTION SEAL KIT, (one kit needed per valve section)	



# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-30. HYDRAULIC RESERVOIR AND FILTERS



PAP19570



## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-30. HYDRAULIC RESERVOIR AND FILTERS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165013	1	HYDRAULIC RESERVOIR ASSY, (includes all items)	K
1	91143133	1	HYDRAULIC OIL TANK, (includes item 12)	
2	91083070	1	FLUID LEVEL GAUGE, (includes items 3 & 4)	
3	N.S.S.	2	SCREW	
4	N.S.S.	2	WASHER	
5	91083069	1	FILLER BREATHER	
6	91333023	6	SLOTTED HEX WASHER HD MACHINE SCREW, #10-32X1/2	
7	91163141	1	TUBE ASSY	
8	88501006	4	HEX NUT, 3/8-16	
9	88551011	4	LOCKWASHER, 3/8	
10	88662070	1	ELBOW, 90, (includes item 29)	
11	2220345	1	MALE ADAPTER	
12	N.S.S.	1	PLUG	
13	91083301	1	TANK FILTER	
14	91083200	1	STRAIGHT CONNECTOR	
15	88201019	4	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
16	88551010	4	LOCKWASHER, 5/16	
17	88561003	12	WASHER, 5/16	
18	2230024	1	ADAPTER	
19	8760268	1	ELBOW, 90, (swivel nut)	
20	2230043	1	ELBOW, 90	
21	91161210	1	FILTER SUPPORT	
22	91143172	2	MINI CHECK COUPLING, (includes o-ring)	
22	88591210	2	O-RING	
23	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
24	91143218	1	RETURN FILTER, (includes one of item 26 & item 27)	
25	91083518	1	SUCTION FILTER, (includes one of item 26)	
26	2120168	2	FILTER ELEMENT	
27	91084022	1	COLOR CODED GAUGE	
28	80673009	1	ELBOW, 90	
29	88591210	1	O-RING	
30	8765204	1	ELBOW, 90, (swivel nut)	
102	0642012	4	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
147	4752000	4	WASHER, 5/8	
162	4762000	4	LOCKWASHER, 5/8	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-31. FRONT DRIVE MOTOR

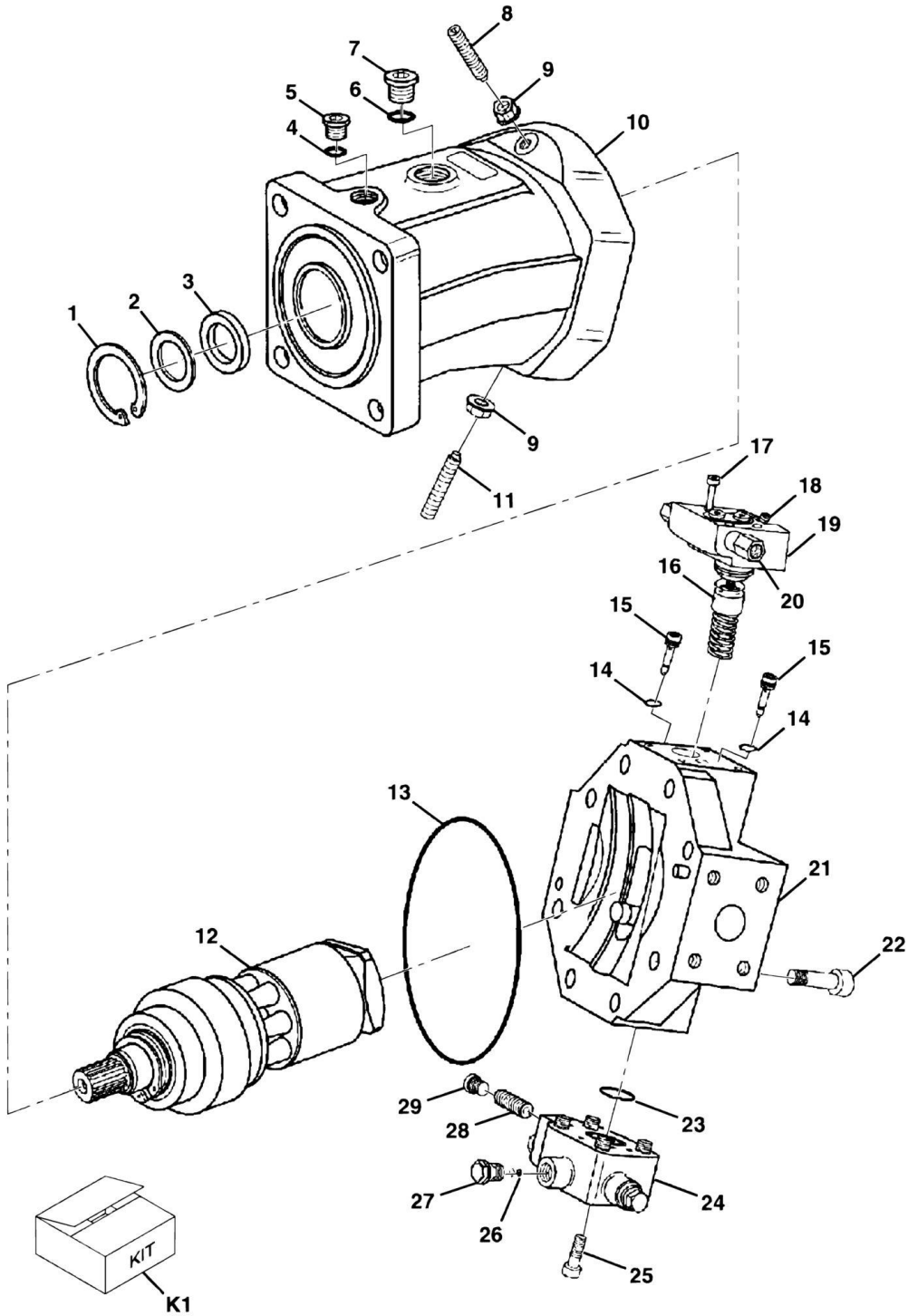


ILLUSTRATION IS INVERTED FROM  
MACHINE APPLICATION

PAP17790

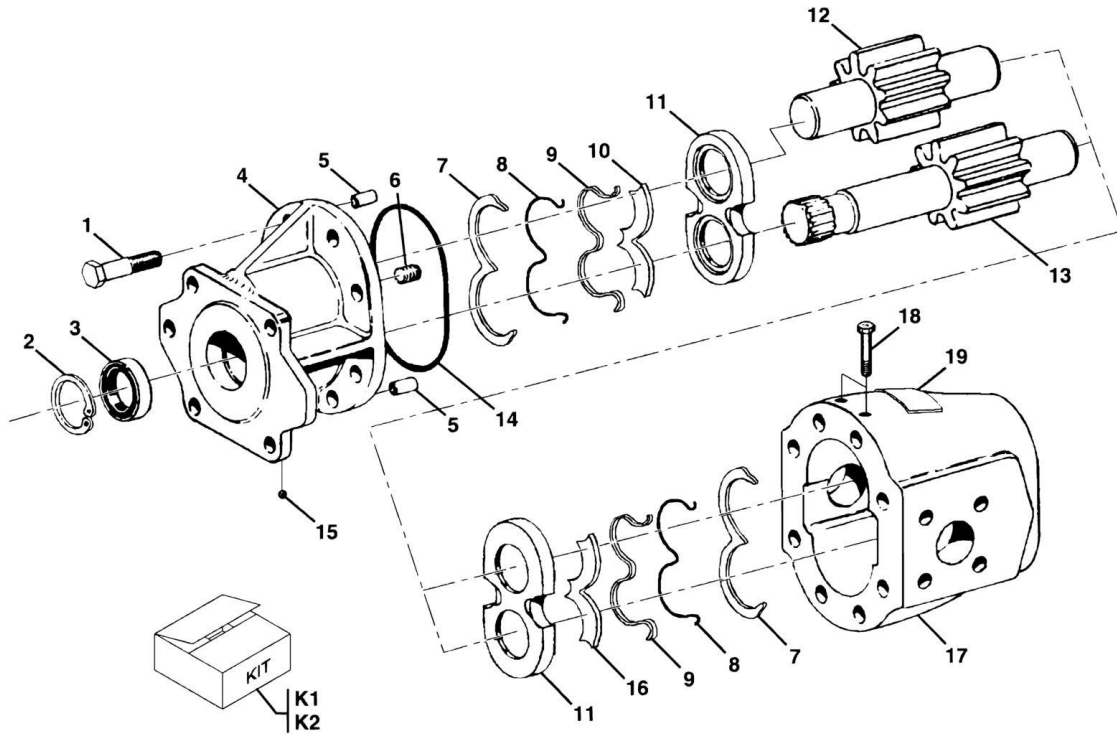
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-31. FRONT DRIVE MOTOR

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163044	1	FRONT DRIVE MOTOR ASSY, (includes all items)	E
1	91094026	1	SNAP RING	
2	91094027	1	SHIM	
3	Kit	1	SHAFT SEAL	
4	Kit	1	O-RING	
5	91094028	1	PLUG, (includes item 4)	
6	Kit	1	O-RING	
7	91094029	1	PLUG, (includes item 6)	
8	80914241	1	STOP SCREW, M12X90	
9	Kit	2	SEAL NUT	
10	91094030	1	HOUSING	
11	91094031	1	STOP SCREW, M12X80	
12	91094032	1	ROTARY GROUP	
13	Kit	1	O-RING	
14	Kit	6	O-RING	
15	80914235	2	CHECK VALVE KIT, (includes o-rings)	
16	Kit	1	O-RING	
17	80934080	4	CAPSCREW	
18	Kit	1	SEAL NUT	
19	91094033	1	DA1 CONTROL KIT, (includes items 16, 17, 18 & 20)	
20	91144248	2	FITTING	
21	91094034	1	REAR COVER ASSY, (includes item 22)	
22	91094035	8	CAPSCREW, M16X45	
23	Kit	1	O-RING	
24	91164017	1	FLUSHING VALVE ASSY, (includes items 23, 25, 26, 27 & 29)	
25	91094037	4	CAPSCREW, M8X50	
26	91094038	1	FLUSHING ORIFICE	
27	91094039	1	PLUG	
28	83924123	1	SWIVEL TIME ORIFICE	
29	91094040	2	PLUG	
K1	7028820	1	SEAL KIT, (includes items 3, 4, 6, 9, 13, 14, 16, 18 & 23)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-32. MAIN HYDRAULIC PUMP



PAP19180

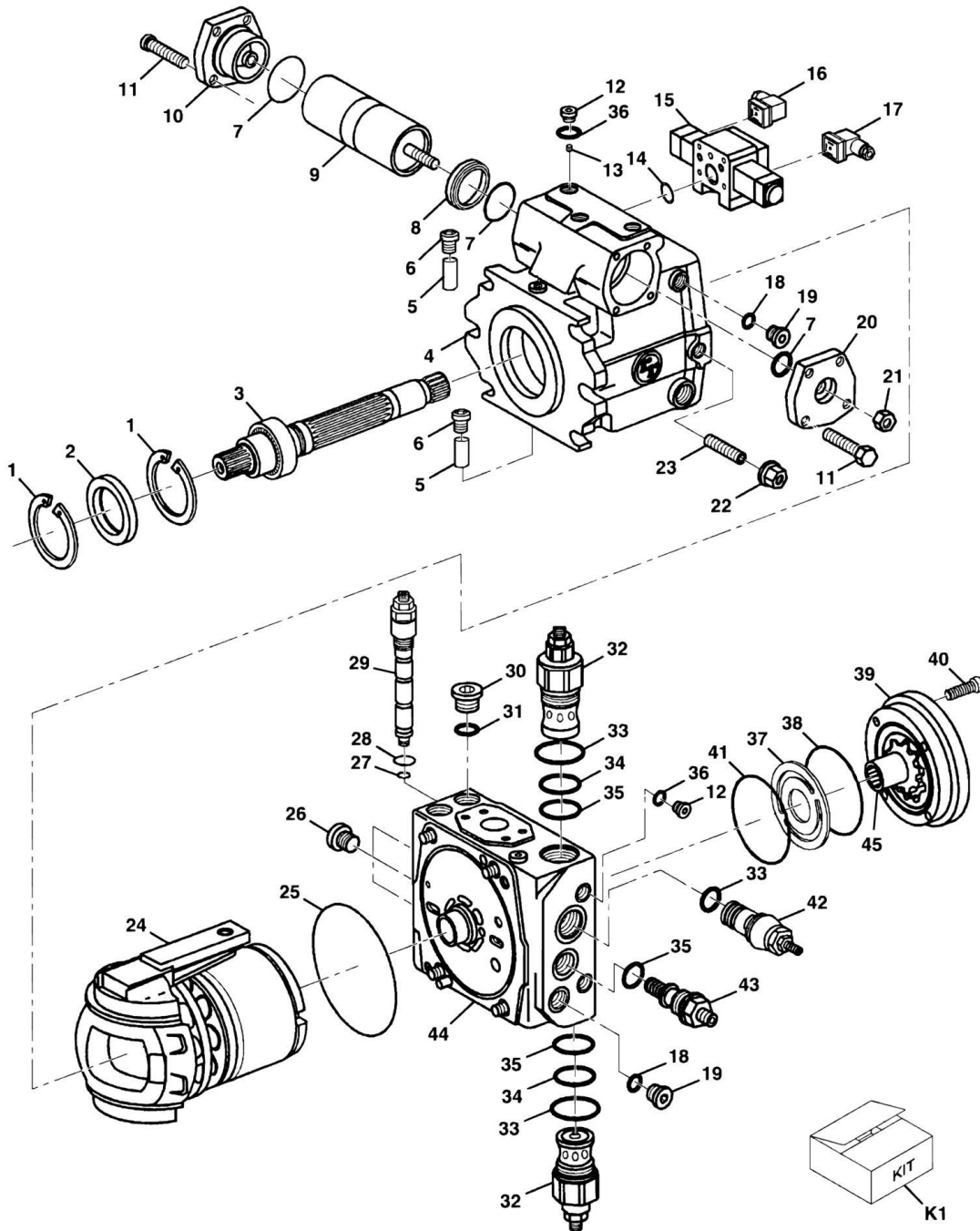
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-32. MAIN HYDRAULIC PUMP**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163068	1	MAIN HYDRAULIC PUMP, (includes all items)	B
1	91064021	8	CAPSCREW	
2	90202372	1	SNAP RING	
3	90202371	1	SHAFT SEAL	
4	91144169	1	FLANGE	
5	90202376	2	DOWEL	
6	91144171	1	PIPE PLUG	
7	90202405	2	RING RETAINER	
8	90202403	2	O-RING	
9	90202404	2	BACK-UP RING	
10	90202406	1	ISOLATION PLATE, (UPPER)	
11	90202399	2	PRESSURE PLATE	
12	91047061	1	IDLER GEAR	
13	91164049	1	DRIVE GEAR	
14	90202379	1	O-RING	
15	91164050	1	BALL	
16	90202407	1	ISOLATION PLATE, (LOWER)	
17	91164051	1	BODY	
18	91144172	2	DRIVE SCREW	
19	91144173	1	LABEL	
K1	91014058	AR	SHAFT SEAL KIT, (includes items 2, 3 & 14)	
K2	91144174	AR	SEAL KIT, (includes items 2, 3, 7, 8, 9 & 14)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-33. HYDROSTATIC TRANSMISSION (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



PAP19170

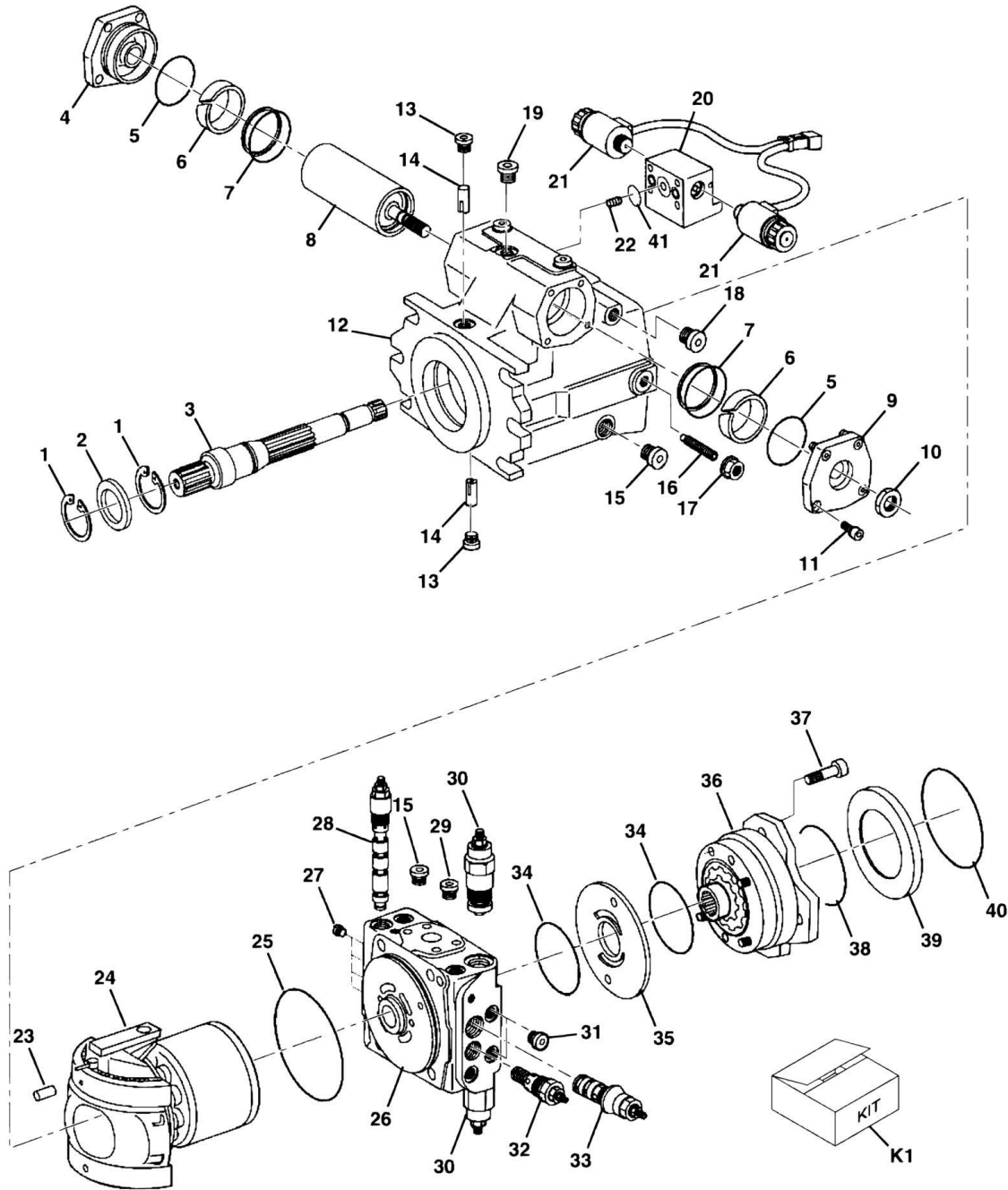
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-33. HYDROSTATIC TRANSMISSION (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163048	1	HYDROSTATIC TRANSMISSION PUMP, (includes all items)	B
1	Kit	2	SNAP RING	
2	Kit	1	SHAFT SEAL	
3	91144413	1	SHAFT ASSY	
4	91084319	1	HOUSING ASSY	
5	91084320	2	PIN	
6	Kit	4	PLUG	
7	Kit	4	O-RING	
8	91084321	2	BUSHING	
9	91084322	1	STROKING PISTON ASSY	
10	91084323	1	STROKING PISTON COVER KIT, (includes items 7 & 11)	
11	70020334	8	CAPSCREW, M8X20	
12	80934084	5	PLUG, (includes item 36)	
13	91144093	2	STROKING ORIFICE	
14	Kit	1	O-RING	
15	91084324	1	DA CONTROL ASSY, (includes items 16 & 17)	
16	91084038	1	HERSHMAN ADAPTER, (black)	
17	91084039	1	HERSHMAN ADAPTER, (gray)	
18	Kit	2	O-RING	
19	80934082	2	PLUG, (includes item 18)	
20	91084325	1	STROKING PISTON COVER KIT, (includes items 7 & 11)	
21	91144094	1	JAM NUT	
22	Kit	1	SEAL NUT	
23	91144095	1	ECCENTRIC SCREW	
24	91084326	1	ROTARY GROUP ASSY	
25	Kit	1	O-RING	
26	91084327	3	PLUG	
27	Kit	1	O-RING	
28	Kit	1	O-RING	
29	91084328	1	POR ASSY, (includes items 27 & 28)	
30	80934340	1	PLUG, (includes item 31)	
31	Kit	1	O-RING	
32	70022729	2	RELIEF VALVE, (includes one each of items 33 thru 35)	
33	Kit	3	O-RING	
34	Kit	2	O-RING	
35	Kit	3	O-RING	
36	Kit	5	O-RING	
37	91084329	1	WEAR PLATE	
38	91144412	1	O-RING	
39	91084330	1	THRU CHARGE PUMP ASSY, (includes items 37, 38, 40 & 41)	
40	91084331	4	CAPSCREW, M12X35	
41	91144411	1	O-RING	
42	91144099	1	DA CARTRIDGE ASSY	
43	91144098	1	CHARGE PRESSURE RELIEF VALVE, (includes item 35)	
44	91084332	1	PORT BLOCK ASSY, (includes items 25 thru 29)	
45	91144410	1	REAR BUSHING	
K1	91364143	AR	SEAL KIT, (includes items 1, 2, 6, 7, 12, 14, 18, 19, 22, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 38, 41, 42 & additional items not illustrated)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-34. HYDROSTATIC TRANSMISSION (SN 0160000976 to Present)



PAP19160



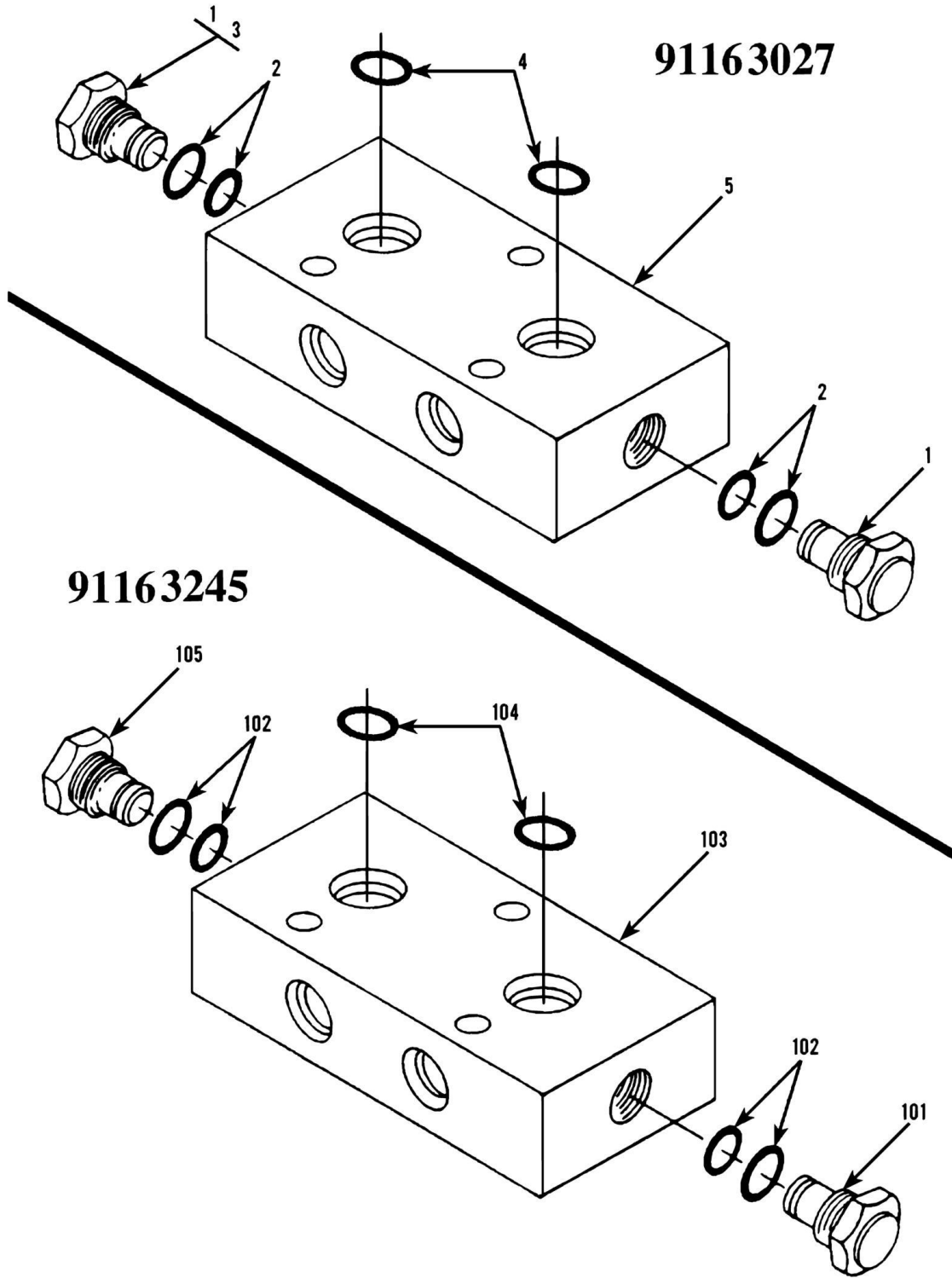
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-34. HYDROSTATIC TRANSMISSION (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91363211	1	HYDROSTATIC TRANSMISSION PUMP, (includes all items)	D
1	Kit	2	RETAINING RING	
2	Kit	1	SHAFT SEAL RING	
3	91404018	1	DRIVE SHAFT	
4	91404019	1	COVER	
5	Kit	2	O-RING	
6	91404020	2	GUIDE RING	
7	Kit	2	TURCON-GLYD RING AND O-RING	
8	91364144	1	STROKING PISTON ASSY	
9	91404028	1	COVER	
10	91404030	1	HEX NUT	
11	70020334	8	SOCKET HD SCREW, M8X20	
12	91404023	1	HOUSING	
13	Kit	2	PLUG	
14	91404021	2	JOINT PIN	
15	Kit	2	PLUG	
16	91404031	1	ECCENTRIC SCREW	
17	Kit	1	SEAL LOCKNUT, M12X1	
18	Kit	1	LOCKING SCREW	
19	Kit	4	LOCKING SCREW	
20	91364145	1	4/3-WAY DIRECTIONAL VALVE, (includes item 21)	
21	91364146	1	SOLENOID PAIR	
22	Kit	1	THROTTLE SCREW	
23	91404027	2	CLAMPING PIN	
24	91404032	1	ROTARY GROUP, (includes items 1, 2 & 3)	
25	Kit	1	O-RING	
26	91404033	1	PORT BLOCK WITH VALVES, (includes items 25 & 27 thru 32)	
27	Kit	4	LOCKING SCREW	
28	91404034	1	P.O.R. VALVE	
29	Kit	1	LOCKING SCREW	
30	70022729	2	RELIEF VALVE	
31	Kit	2	LOCKING SCREW	
32	91144098	1	PRESSURE RELIEF VALVE	
33	91144099	1	CONTROL CARTRIDGE	
34	Kit	2	O-RING	
35	Kit	1	WEAR PLATE	
36	91164098	1	CHARGE PUMP, (includes items 34, 35 & 37 thru 40)	
37	Kit	4	SOCKET HD SCREW, M12X30	
38	Kit	1	O-RING	
39	91364148	1	ADAPTER	
40	Kit	1	O-RING	
41	Kit	1	O-RING	
K1	91364143	AR	SEAL KIT, (includes items 1, 2, 5, 7, 13, 15, 17, 18, 19, 22, 25, 27, 29, 31, 34, 35, 37, 38, 40, 41 & additional items not illustrated)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-35. SWAY AND OUTRIGGER CYLINDER VALVES



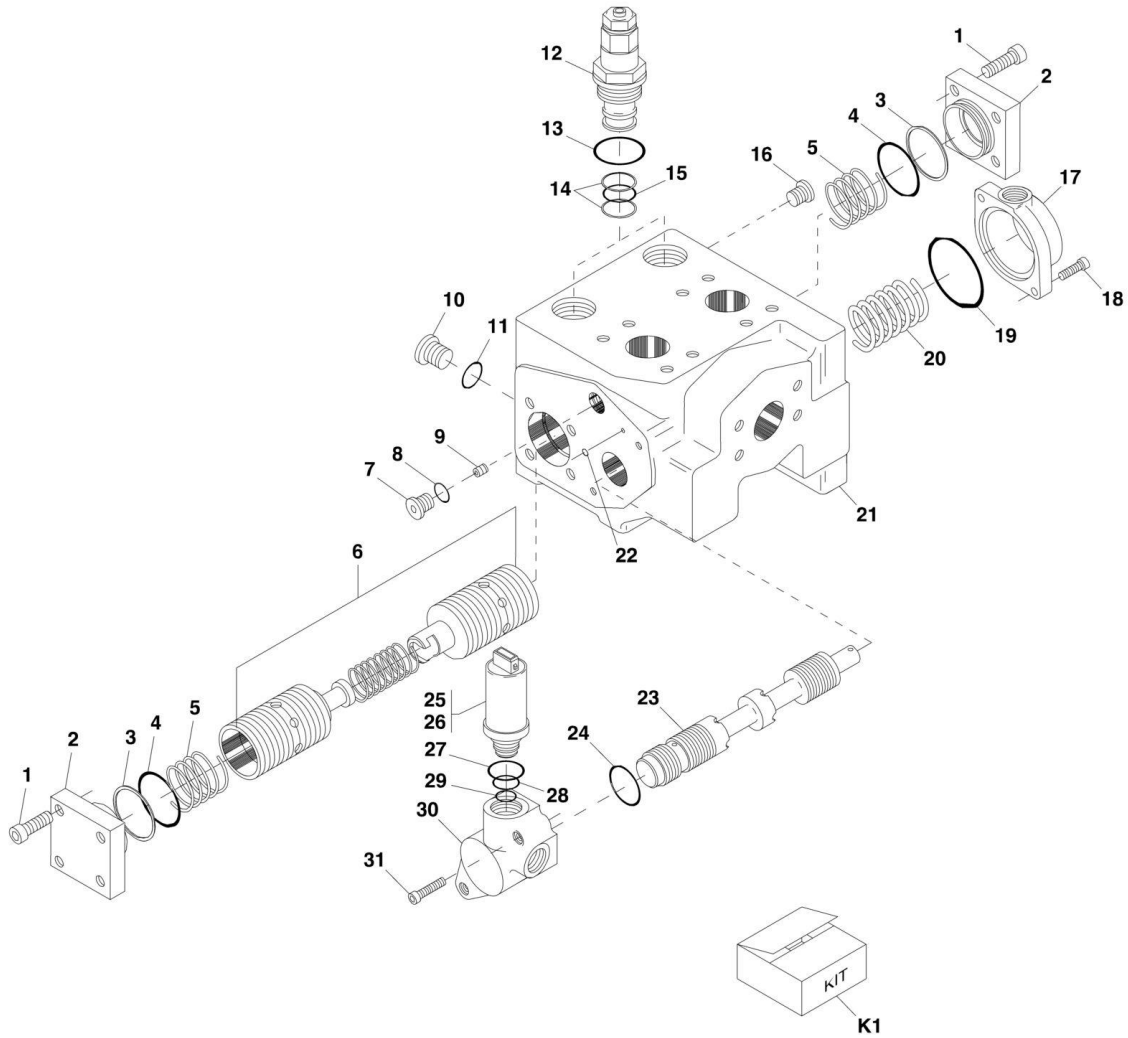
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-35. SWAY AND OUTRIGGER CYLINDER VALVES**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163027	1	SWAY CYLINDER VALVE, (includes items 1, 2, 3 & 5)	
1	4641192	2	VALVE CARTRIDGE	
2	7017496	2	VALVE SEAL KIT	
3	7024881	1	PISTON	
4	88591012	2	O-RING	
5	N.S.S.	1	VALVE BODY	
	91163245	2	OUTRIGGER CYLINDER VALVE, (includes items 101 thru 105)	
101	91034107	1	THERMAL RELIEF VALVE	
102	91164083	2	VALVE SEAL KIT	
103	N.S.S.	1	VALVE BODY	
104	91034118	2	O-RING	
105	91164107	1	CHECK CARTRIDGE	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-36. TRACTION LOCK VALVE



PAP19120

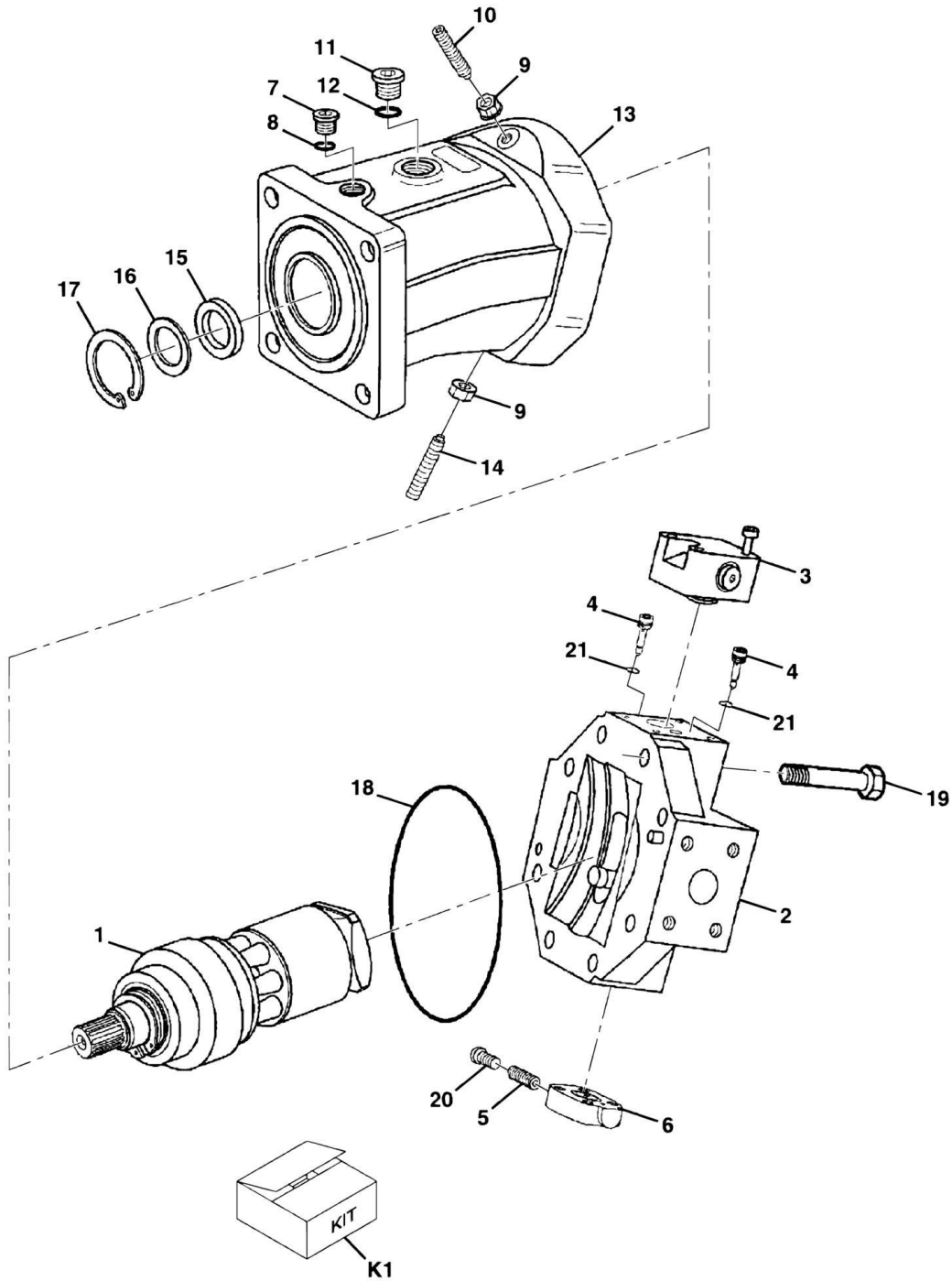
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-36. TRACTION LOCK VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143049	1	TRACTION LOCK VALVE, (includes all items)	I
1	91084285	8	HEX HD CAPSCREW, M10X30	
2	91084286	2	COVER	
3	Kit	2	BACK-UP RING	
4	Kit	2	O-RING	
5	91084289	2	SPRING	
6	Kit	1	SPOOL, (not sold separately, order 91143049)	
7	91084298	1	PLUG, (includes item 8)	
8	Kit	1	O-RING	
9	91084299	1	ORIFICE	
10	91084290	2	PLUG, (includes item 11)	
11	Kit	2	O-RING	
12	91084362	2	RELIEF VALVE CARTRIDGE, (set at 6800 PSI), (includes items 13, 14 & 15)	
13	Kit	2	O-RING	
14	Kit	4	BACK-UP RING	
15	Kit	2	O-RING	
16	Kit	1	PLUG	
17	91144475	1	COVER	
18	91084291	2	HEX HD CAPSCREW, M6X16	
19	Kit	1	O-RING	
20	91084294	1	SPRING	
21	Kit	1	VALVE BODY, (not sold separately, order 91143049)	
22	Kit	1	O-RING	
23	Kit	1	SPOOL, (not sold separately, order 91143049)	
24	Kit	1	O-RING	
25	91084302	1	SOLENOID VALVE, (include items 27, 28 & 29)	
26	91144015	1	ADAPTER	
27	Kit	1	O-RING	
28	Kit	1	O-RING	
29	Kit	1	O-RING	
30	91144474	1	COVER	
31	80934205	2	HEX HD CAPSCREW, M6X30	
K1	91084284	1	SEAL KIT, (includes items 3, 4, 8, 11, 13 thru 16, 19, 22, 24, 27, 28 & 29)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-37. REAR DRIVE MOTOR



PAP19530

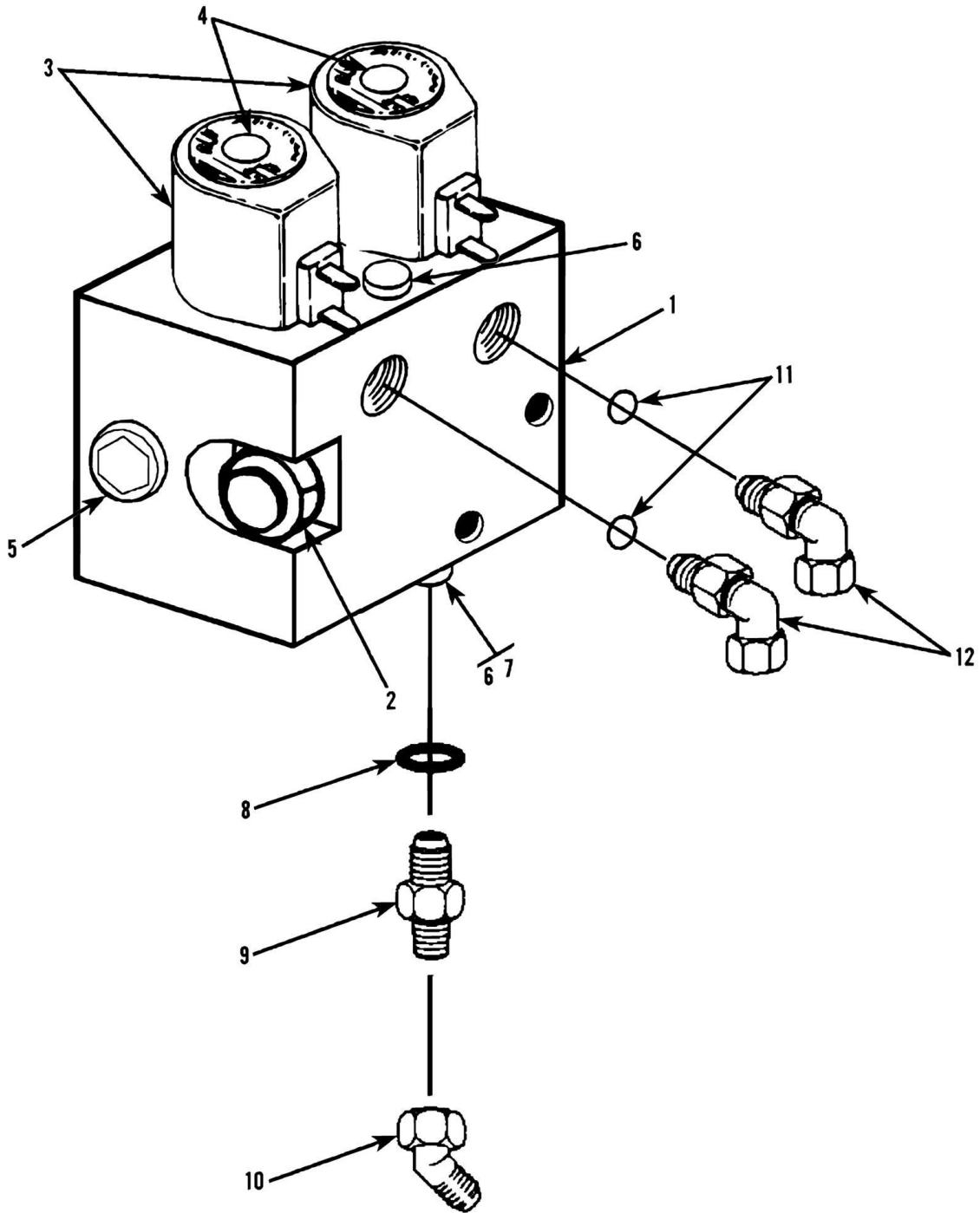
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-37. REAR DRIVE MOTOR

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163023	Ref	REAR DRIVE MOTOR, (includes all items)	B
1	91144415	1	ROTARY GROUP	
2	91144416	1	REAR COVER ASSY, (includes item 19)	
3	91144417	1	HZ CONTROL KIT	
4	91144418	2	THREADED PIN	
5	91144419	1	SWIVEL TIME ORIFICE	
6	91144420	1	STROKING PISTON ASSY, (includes item 20)	
7	91094028	1	PLUG, (includes item 8)	
8	Kit	1	O-RING	
9	Kit	2	SEAL NUT, M10	
10	83924121	1	STOP SCREW, (min disp)	
11	91094029	1	PLUG, (includes item 12)	
12	Kit	1	O-RING	
13	91144421	1	HOUSING	
14	83924121	1	STOP SCREW, (max disp)	
15	Kit	1	SHAFT SEAL	
16	91144422	1	SHIM	
17	91144423	1	SNAP RING	
18	Kit	1	O-RING	
19	91144424	8	CAPSCREW, M10X60	
20	91144425	1	PLUG, (includes o-ring)	
21	80434095	2	LOCKNUT SEAL	
K1	91144414	AR	SEAL KIT, (includes items 8, 9, 12, 15, 18, 21 & items not illustrated)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-38. OPTIONAL STABILIZER VALVE ASSEMBLY (SN 0355001 through 0355496)





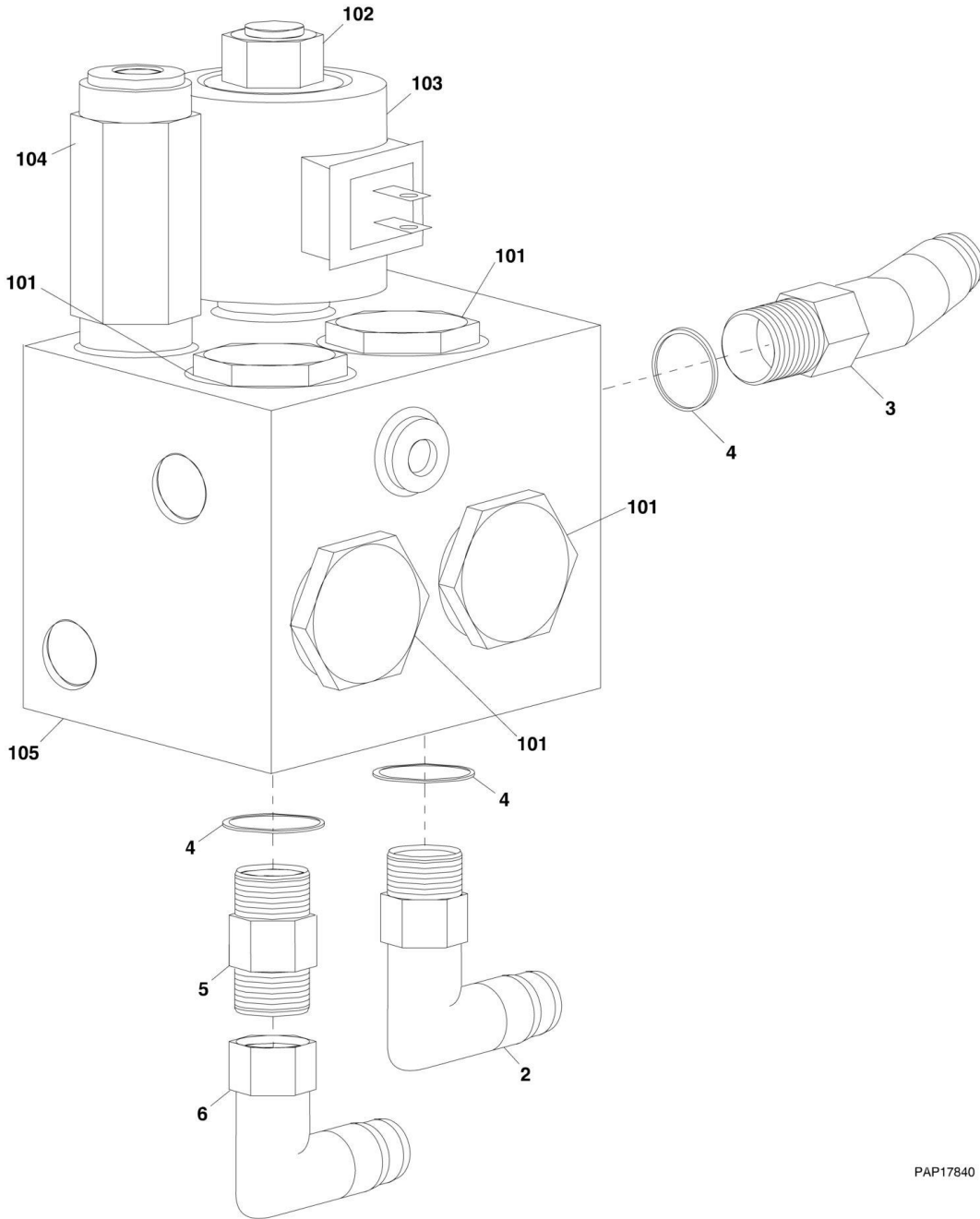
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-38. OPTIONAL STABILIZER VALVE ASSEMBLY (SN 0355001 through 0355496)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165031	1	STABILIZER VALVE ASSY, (includes all items)	
	91163164	1	STABILIZER VALVE, (includes items 1 thru 7)	
1		Ref	VALVE BODY, (not sold separately, order 91163164)	
2	10837580	1	CHECK VALVE	
2	7010543	1	CHECK VALVE SEAL KIT	
3	8036581	2	SOLENOID VALVE	
3	7017496	2	SOLENOID VALVE SEAL KIT	
4	7021610	2	COIL	
5	91164057	1	PORT PLUG	
5	91164058	1	PORT PLUG SEAL	
6	91164059	2	PORT PLUG	
6	91164060	2	PORT PLUG SEAL	
7	91164063	1	ORIFICE PLUG	
8	88591206	1	O-RING	
9	2220374	1	ADAPTER, (includes item 8)	
10	2220683	1	ELBOW, 45, (swivel nut)	
11	88591205	2	O-RING	
12	2220596	2	ELBOW, 90, (includes item 11)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-39. OPTIONAL STABILIZER VALVE ASSEMBLY (SN 0355497 through 0455362, SN 0160000192 to Present)



PAP17840

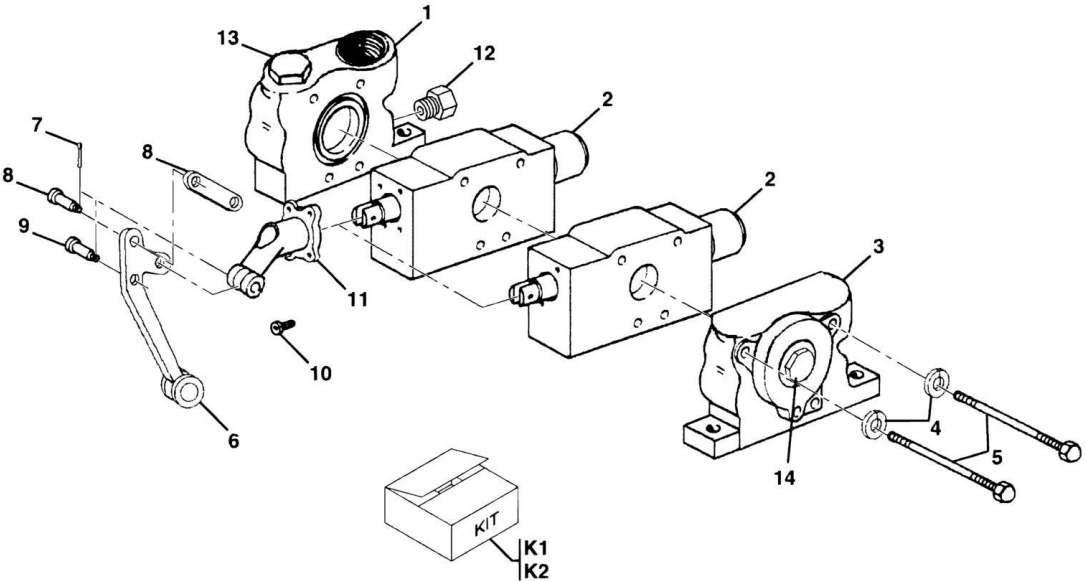
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-39. OPTIONAL STABILIZER VALVE ASSEMBLY (SN 0355497 through 0455362, SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365028	1	STABILIZER VALVE ASSY, (includes all items)	C
	91113003	1	STABILIZER VALVE, (includes items 2 thru 4 & 101 thru 105)	F
2	2220596	1	ELBOW, 90, (includes item 4)	
3	2220500	1	ELBOW, 45, (includes item 4)	
4	88591205	3	O-RING	
5	2220373	1	CONNECTOR, (includes item 4)	
6	8765204	1	ELBOW, 90, (swivel nut)	
101	7017478	4	CARTRIDGE	
101	7017477	4	SEAL KIT	
102	7012910	1	CARTRIDGE	
102	7017496	1	SEAL KIT	
103	7000645	1	COIL, 12V, DUAL SPADES	
104	70024348	1	RELIEF VALVE	
104	7017496	1	SEAL KIT	
	N.S.S.	1	VALVE BODY	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-40. OUTRIGGER VALVE



PAP19340

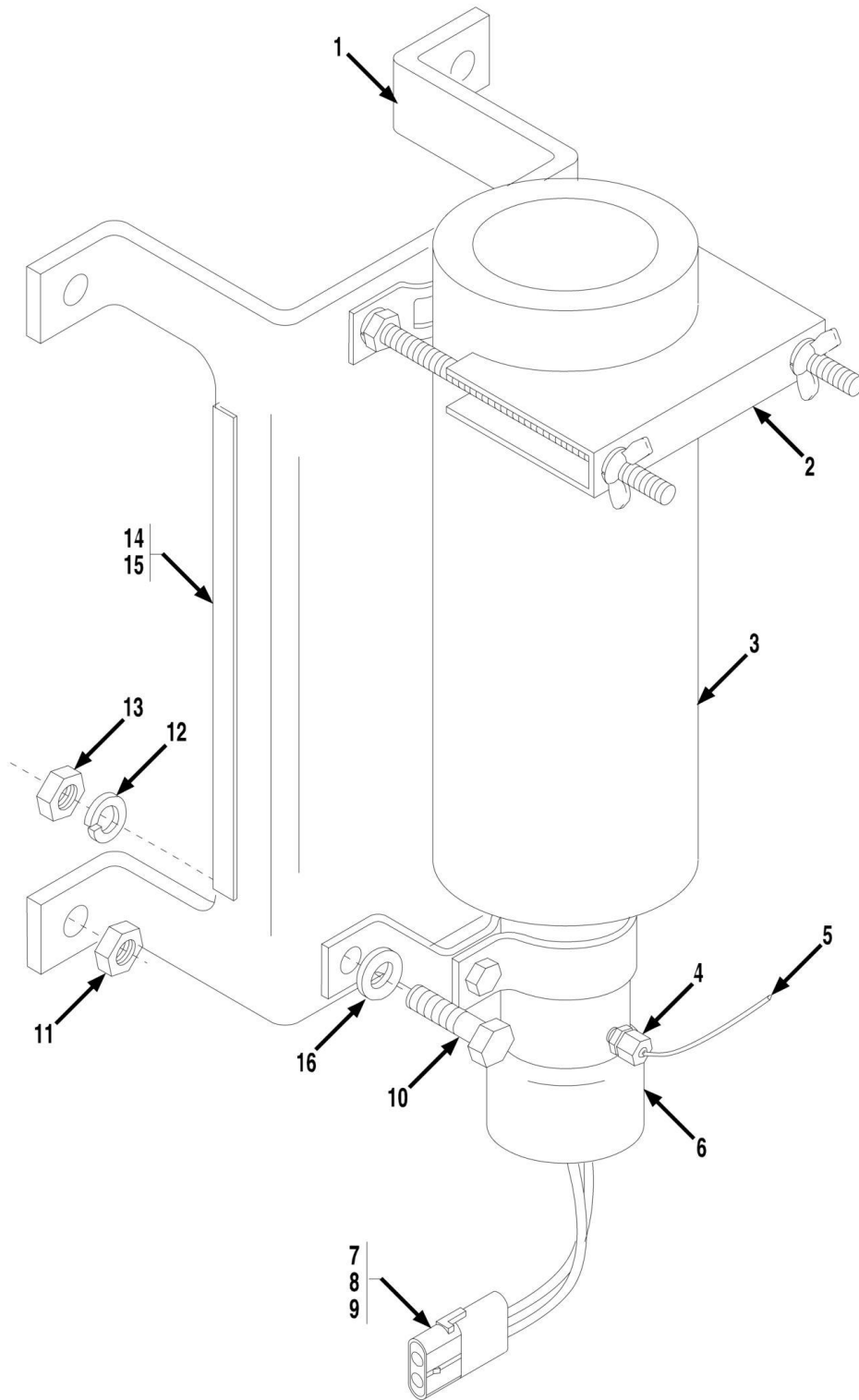
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-40. OUTRIGGER VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143161	1	OUTRIGGER CONTROL VALVE ASSY, (includes all items)	H
1	91144132	1	LEFT END COVER ASSY, (includes items 12 & 13)	
2	91144133	2	VALVE SECTION AND SPOOL ASSY, (not sold separately)	
3	91144134	1	RIGHT END COVER ASSY, (includes item 14)	
4	91144131	4	LOCKWASHER	
5	91144130	4	BOLT	
6	91154007	2	VERTICAL HANDLE	
7	91144136	6	COTTER PIN	
8	10719505	2	MOUNTING PLATE AND PINS	
9	91144138	2	HANDLE PIN	
10	91144139	8	FILLISTER HD MACHINE SCREW	
11	91144140	2	HANDLE BRACKET	
12	91144480	1	MAIN RELIEF PLUG	
12	91034236	1	SEAL KIT	
13	2220242	1	PLUG	
13	88591209	1	O-RING	
14	7006831	1	PLUG	
K1	91154006	2	HANDLE KIT, (includes items 6 thru 11)	
K2	90206417	AR	VALVE SECTION SEAL KIT, (one kit per section)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-41. QUICK START CYLINDER AND VALVE ASSEMBLY (SN 035507 through 0160000973)



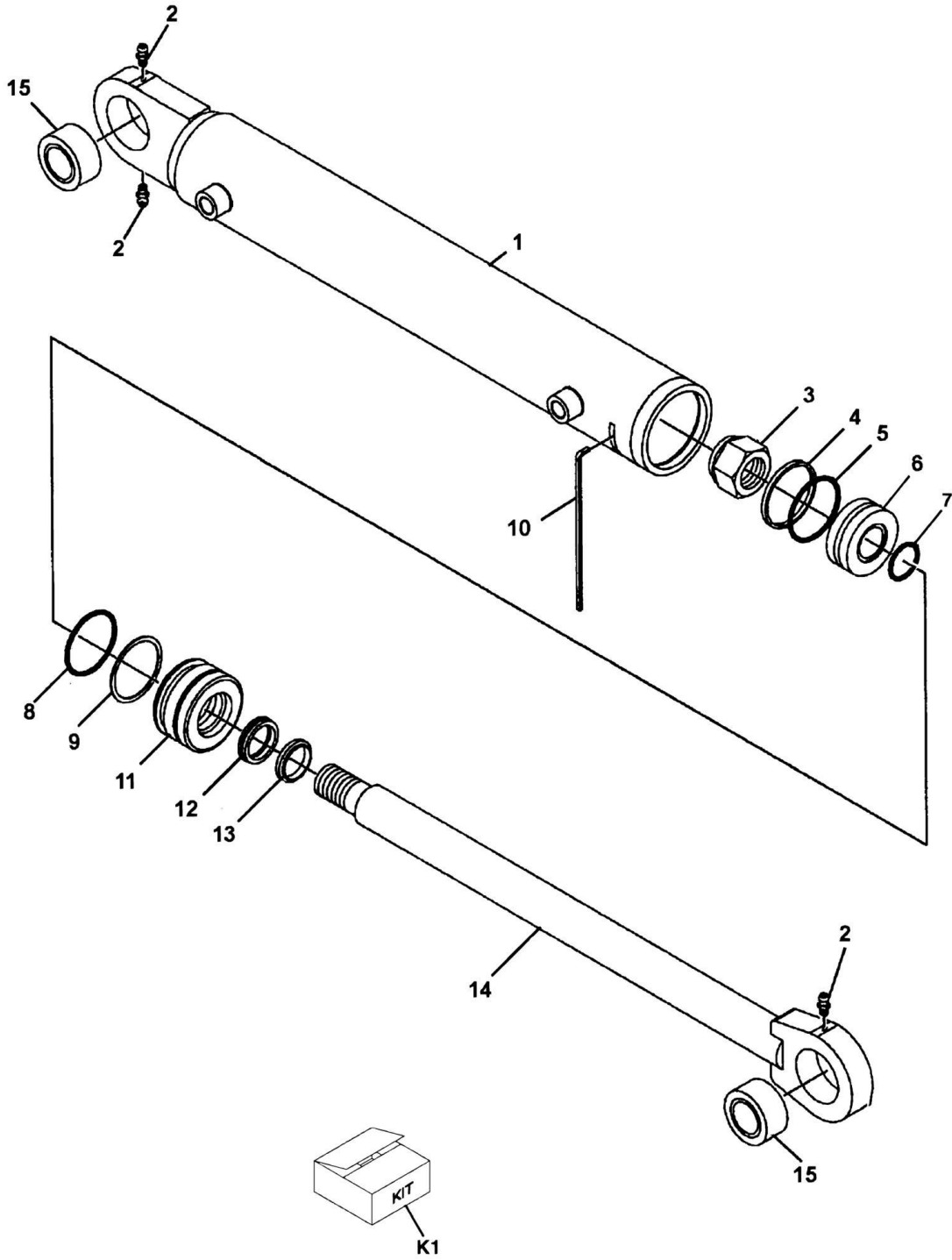
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-41. QUICK START CYLINDER AND VALVE ASSEMBLY (SN 035507 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365015	1	QUICK START CYLINDER AND VALVE ASSY, (includes items 3, 4 & 6 thru 9)	
1	91161283	1	MOUNTING BRACKET	
2	91363027	1	CYLINDER CLAMP	
3	83953028	1	CYLINDER	
4	91363026	1	VALVE FITTING, STRAIGHT	
5	91363028	1	NYLON TUBE	
6	91363030	1	VALVE	
7	80963058	1	SHROUD ADAPTER, 2-WIRE	
8	4460475	2	MALE PIN TERMINAL	
9	80963065	2	CABLE SEAL	
10	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
11	77143006	4	WHIZ-LOCKNUT, 5/16-18	
12	88551009	2	LOCKWASHER, 1/4	
13	88501004	2	HEX NUT, 1/4-20	
14	90206198	15 in	TRIM-LOK	
15	14402248	AR	3M ADHESIVE	
16	88561107	2	FLAT WASHER, 1/4	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-42. 180, SWING CARRIAGE CYLINDER



PAP2470



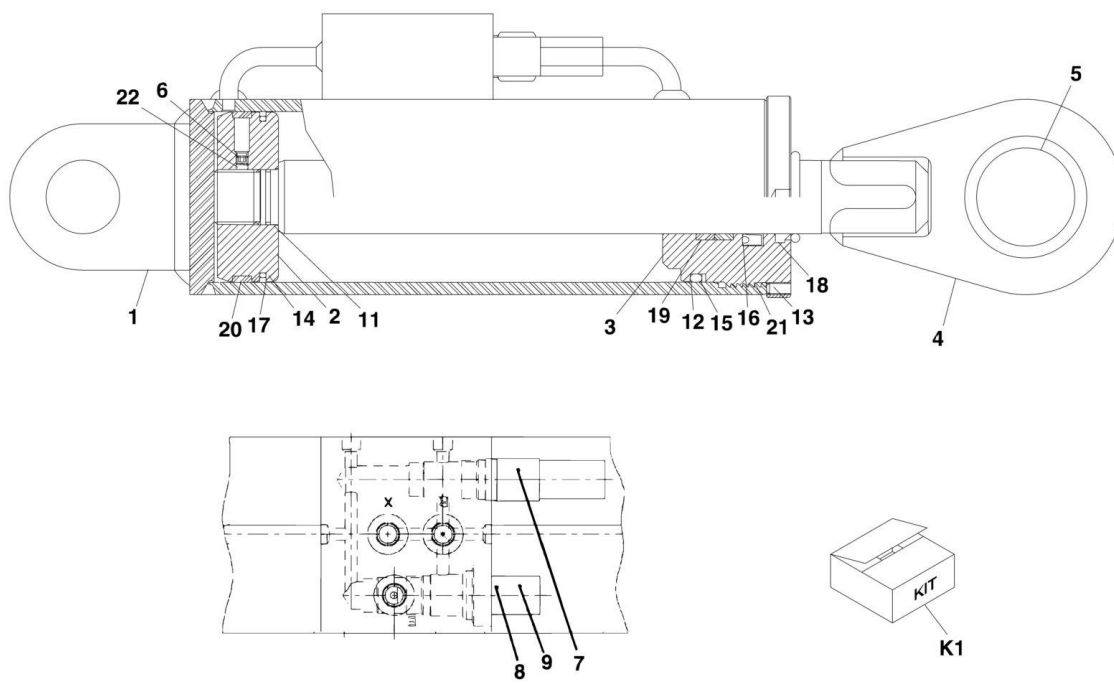
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-42. 180, SWING CARRIAGE CYLINDER**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	7029995	1	180, SWING CARRIAGE CYLINDER, (includes all items)	A
1	70021441	1	BARREL ASSY	
2	90554045	3	GREASE FITTING	
3	70021440	1	HEX NUT	
4	Kit	1	PISTON RING	
5	Kit	1	O-RING	
6	70021976	1	PISTON	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	Kit	1	BACK-UP WASHER	
10	Kit	1	RETAINER RING	
11	70021443	1	GLAND	
12	Kit	1	POLYPAK SEAL, TYPE B	
13	Kit	1	ROD WIPER	
14	70021442	1	ROD ASSY	
15	90554046	2	BUSHING	
K1	70021453	1	SEAL KIT, (includes items 4, 5, 7 thru 10, 12 & 13)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-43. 72 IN 90, SWING CARRIAGE CYLINDER



PAP11180

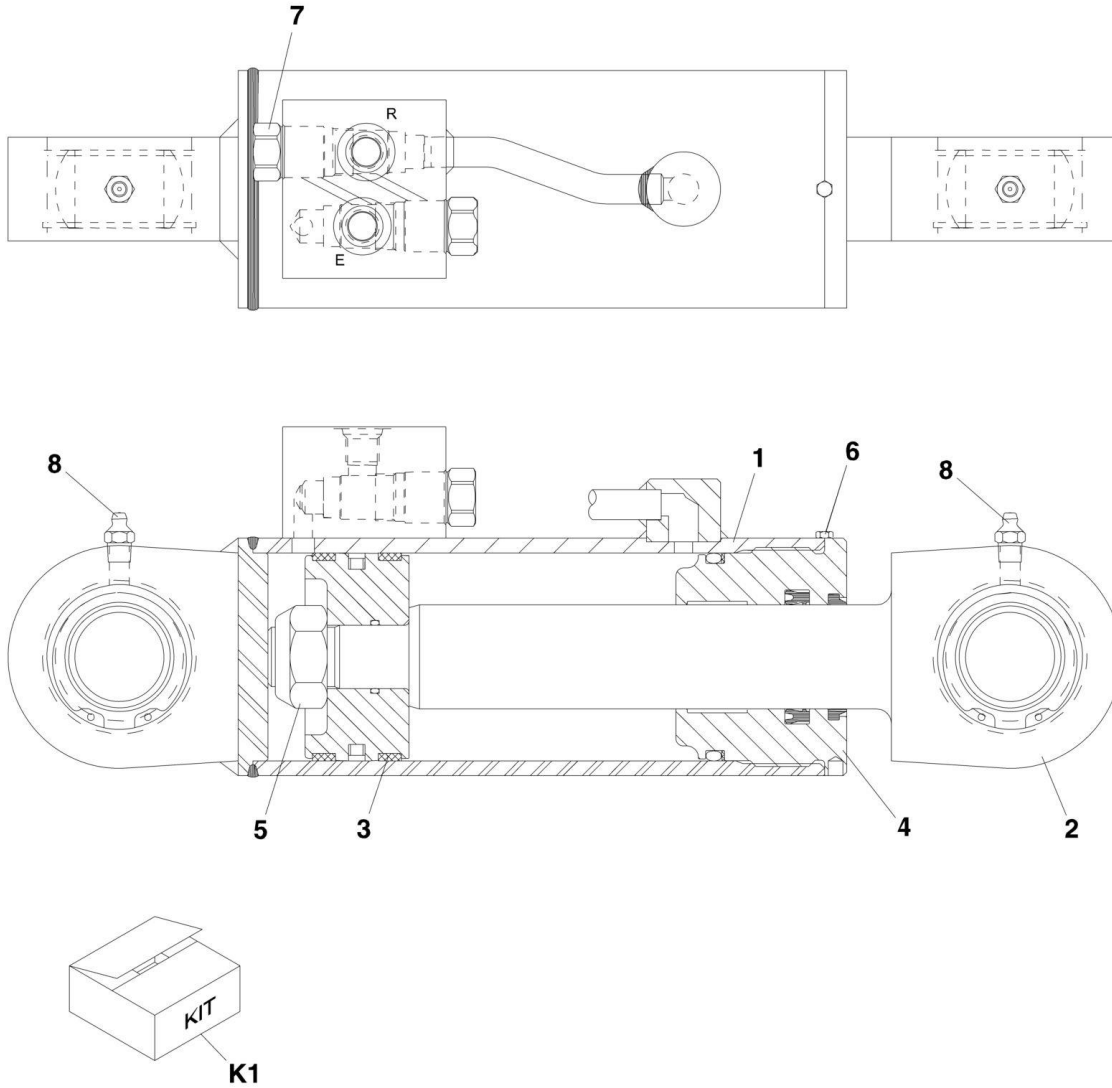
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-43. 72 IN 90, 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)	
7	7024574	1	SEAL KIT	
8	8033786	1	COUNTER BALANCE VALVE, (preset to 3000 psi)	
8	8205655	1	SEAL KIT	
9	70021812	1	TAMPERROOF CAP	
11	Kit	1	O-RING	
12	Kit	1	O-RING	
13	Kit	1	O-RING	
14	Kit	1	SQUARE RING	
15	Kit	1	BACK-UP RING	
16	Kit	1	SEAL	
17	Kit	1	PISTON SEAL	
18	Kit	1	ROD WIPER	
19	Kit	2	WEAR BAND	
20	Kit	1	WEAR BAND	
21	Kit	2	LOCKING INSERT	
22	Kit	2	LOCKING INSERT	
K1	2915023	1	SEAL KIT, (includes items 11 thru 22)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-44. SIDE TILT CARRIAGE CYLINDER



PAP23010

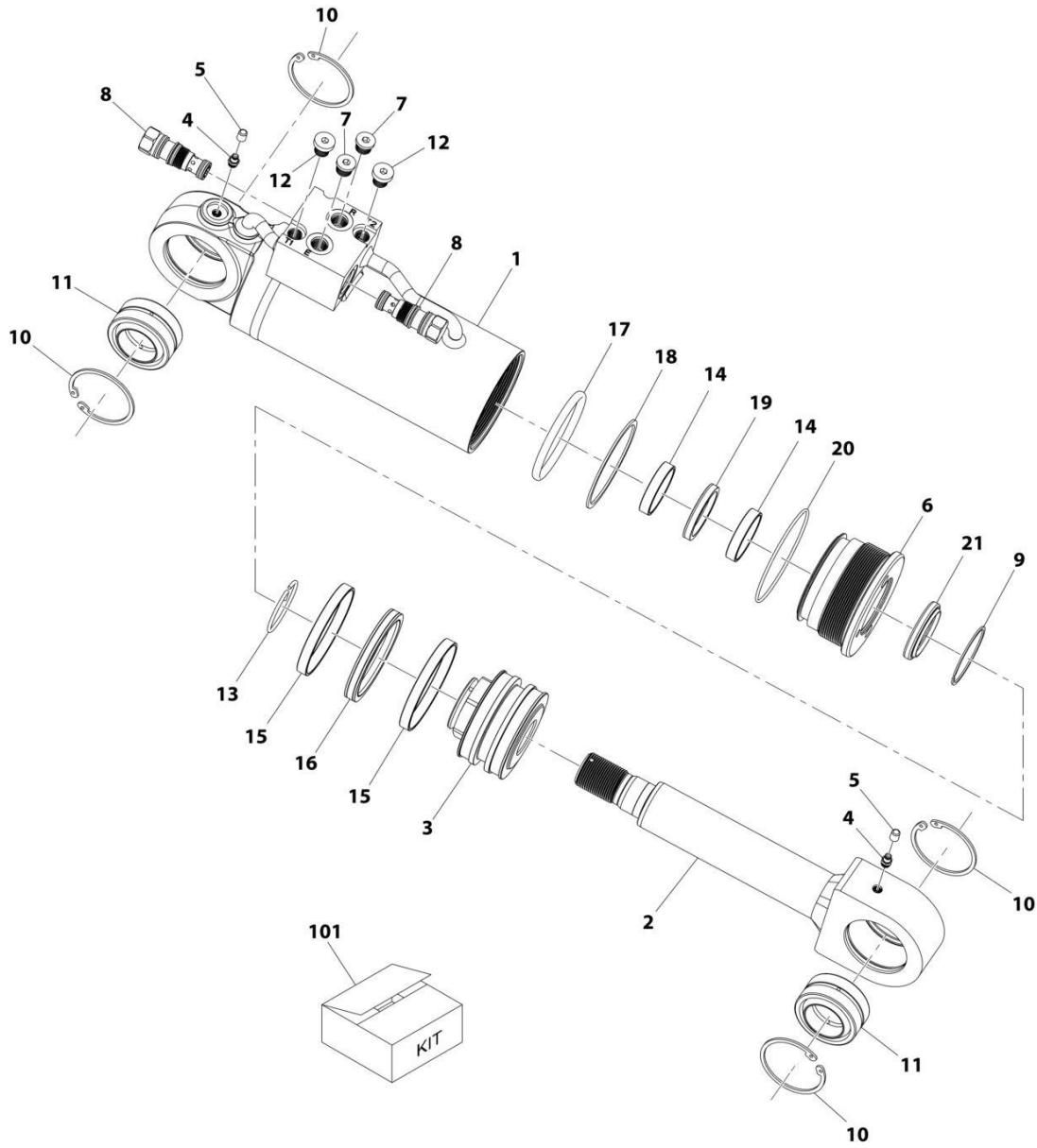
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-44. SIDE TILT CARRIAGE CYLINDER**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001090134	NLA	SIDE TILT CARRIAGE CYLINDER, (no longer available, see items 1 through 8 for service or 1001163414 for replacement)	C
1	70022038	1	BARREL ASSY	
2	70022039	1	ROD ASSY	
3	70022040	1	PISTON	
3	70022042	1	SEAL KIT	
4	70021908	1	ROD BEARING	
4	70022043	1	SEAL KIT	
5	90022230	1	HEX NUT	
6	7029760	1	CAPSCREW	
7	4640438	2	CHECK VALVE	
7	2900770	1	SEAL KIT	
8	91044080	2	GREASE FITTING	
K1	70022041	1	SEAL KIT, (contains 70022042 & 70022043)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-45. SIDE TILT CARRIAGE CYLINDER



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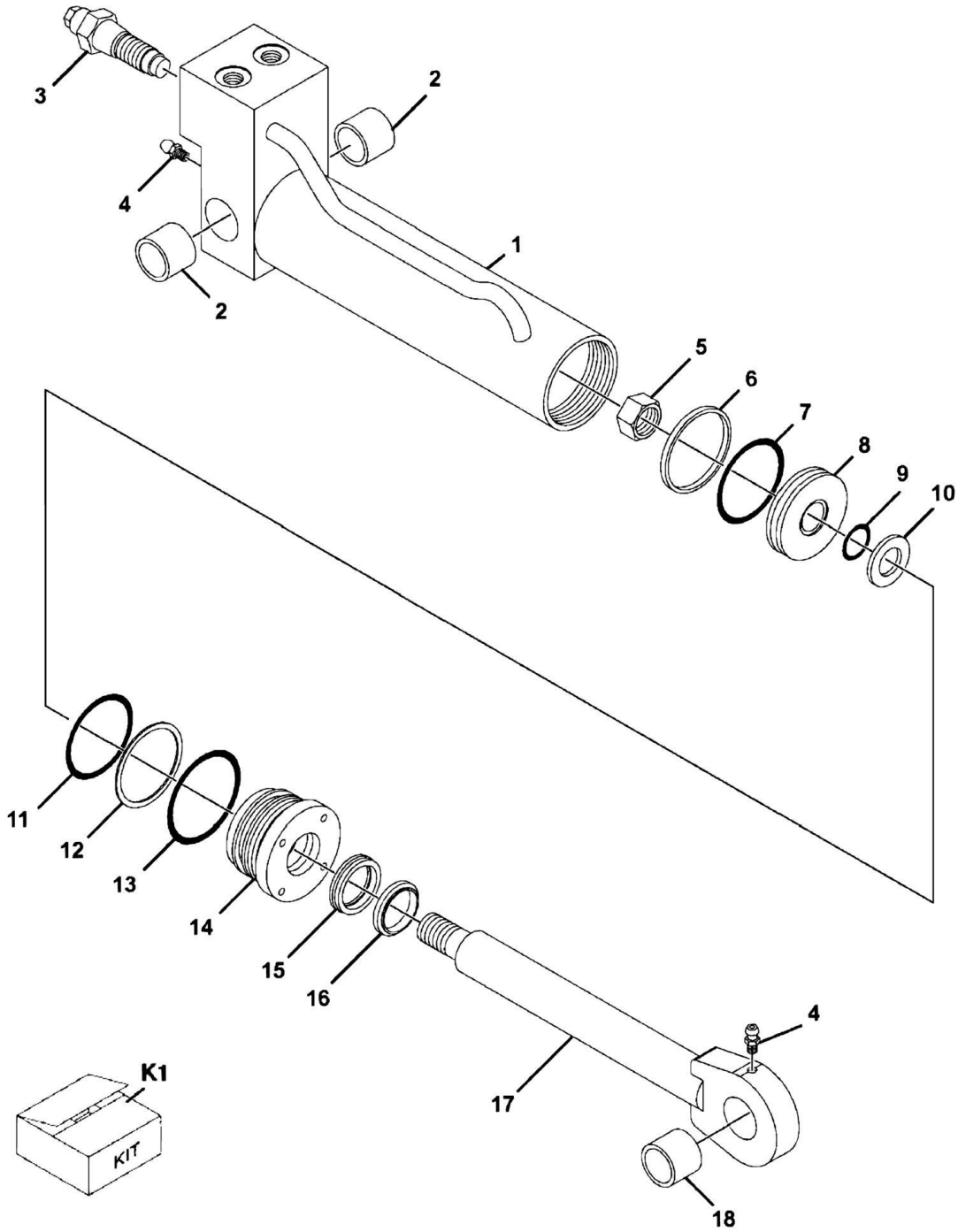
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-45. SIDE TILT CARRIAGE CYLINDER**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001163414	Ref	SIDE TILT CYLINDER	A
1	70026056	1	BARREL	
2	70026057	1	ROD	
3	70026058	1	HEAD, PISTON	
4	70025606	2	NIPPLE, GREASE	
5	70024020	2	FITTING, GREASE	
6	70003849	1	GLAND	
7	70025959	2	PLUG	
8	70026059	2	VALVE, P.O. CHECK	
9	70002219	1	RING, INTERNAL SNAP	
10	70026060	4	RING, INTERNAL SNAP	
11	70026061	2	BEARING, SPHERICAL	
12	70024262	2	PLUG	
13	70002224	1	RING, LOCKING	
14	Kit	2	RING, ROD BEARING	
15	Kit	2	RING, PISTON BEARING	
16	Kit	1	SEAL, PISTON	
17	Kit	1	O-RING	
18	Kit	1	RING, BACK-UP	
19	Kit	1	SEAL, ROD	
20	Kit	1	O-RING	
21	Kit	1	SEAL, WIPER	
101	70026062	1	SEAL KIT, (includes items 14 thru 21)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-46. GRAPPLE BUCKET CYLINDER



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## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-46. GRAPPLE BUCKET CYLINDER

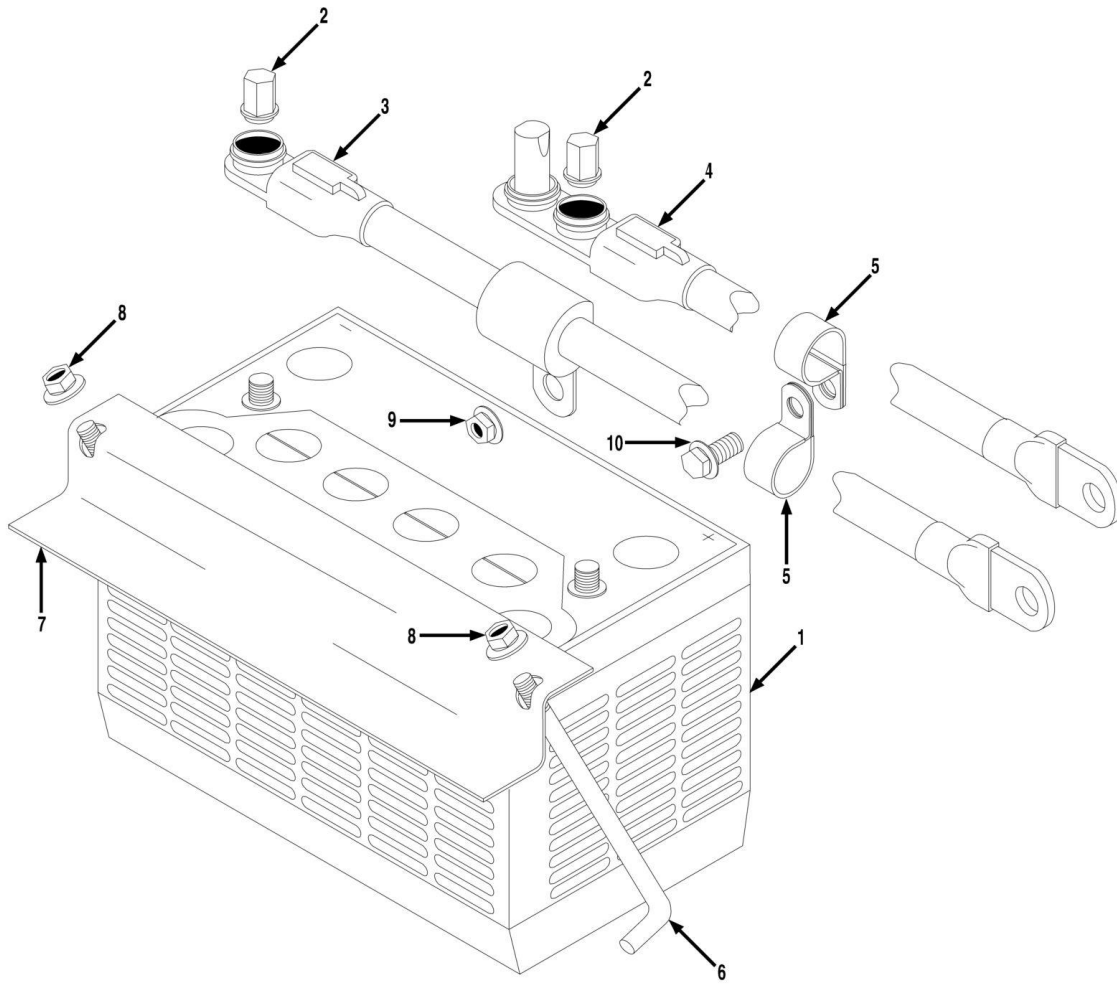
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	70021393	1	GRAPPLE BUCKET CYLINDER, (includes all items)	
1	70021465	1	CYLINDER TUBE	
2	70021448	2	BUSHING	
3	70021464	2	VALVE CARTRIDGE	
4	90554045	2	GREASE FITTING	
5	70021440	1	HEX NUT	
6	Kit	1	PISTON RING	
7	Kit	1	O-RING	
8	70021451	1	PISTON	
9	Kit	1	O-RING	
10	70021444	1	WASHER	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP WASHER	
13	Kit	1	O-RING	
14	70021446	1	CYLINDER GLAND	
15	Kit	1	POLYPAK SEAL	
16	Kit	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)	



**SECTION 10 - ELECTRICAL**

# SECTION 10 - ELECTRICAL

FIGURE 10-1. BATTERY AND CABLES (Prior to SN 0160035037, Including 0160035922)



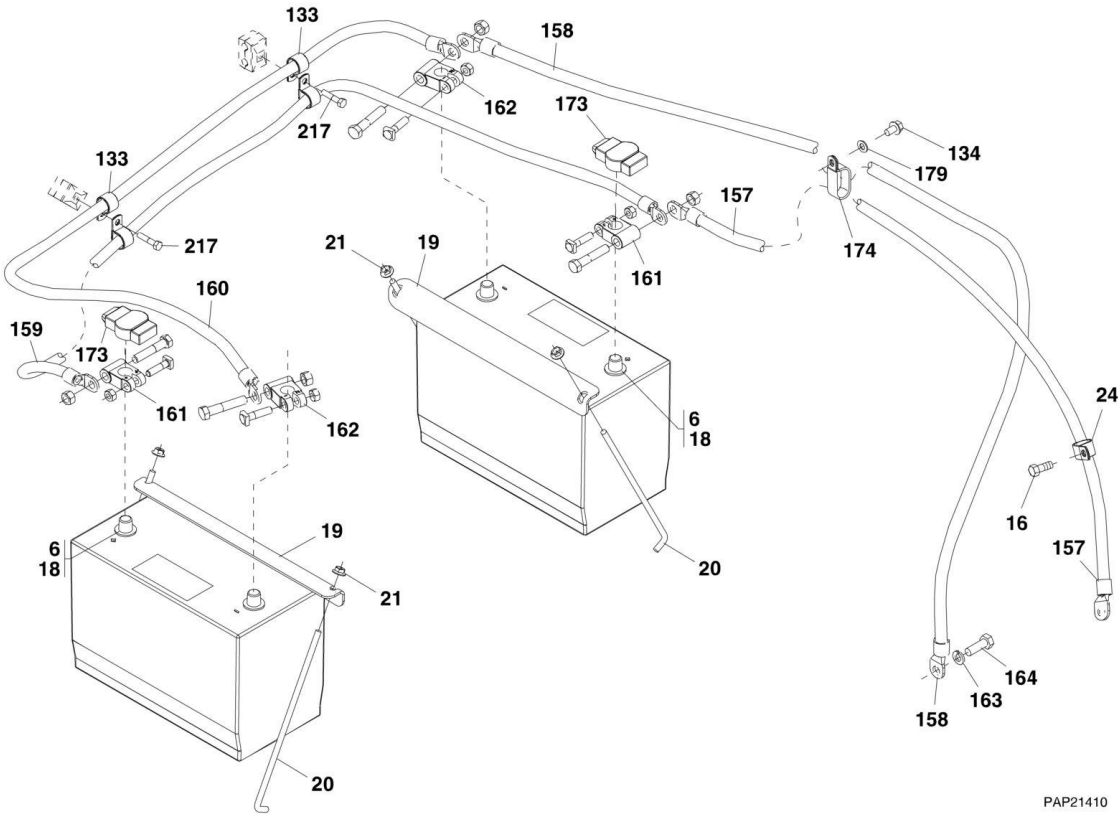
## SECTION 10 - ELECTRICAL

**FIGURE 10-1. BATTERY AND CABLES (Prior to SN 0160035037, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083483	1	BATTERY, (12 volt, 1000 amps), TOP STUD, 3/8-16 UNC THREAD, BCI GROUP 31	C
2	77383567	2	BATTERY POST TERMINAL	
3	91143124	1	NEGATIVE BATTERY CABLE (SN 0355001 through 0160000973)	
3	91553025	1	NEGATIVE BATTERY CABLE (SN 0160000976 to Present)	
4	91143099	1	POSITIVE BATTERY CABLE (SN 0355001 through 0160000973)	
4	91553026	1	POSITIVE BATTERY CABLE (SN 0160000976 through <b>0160006990</b> )	
4	91553065	1	POSITIVE BATTERY CABLE (SN 0160006997 to Present)	
5	85941017	4	SUPPORT CLAMP	
6	91081640	2	HOLD DOWN STUD	
7	91141429	1	BATTERY HOLD DOWN	
8	77143006	2	WHIZ-LOCKNUT, 5/16-18	
9	77143015	1	WHIZ-LOCKNUT, 3/8-16	
10	77143003	2	WHIZ-LOCK SCREW, 5/16-18X5/8	
10	14403416	AR	DI-ELECTRIC GREASE, (add to caps of jump terminals on battery cables)	

# SECTION 10 - ELECTRICAL

FIGURE 10-2. BATTERY AND CABLES (SN 0160035037 to Present, Excluding 0160035922)



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## SECTION 10 - ELECTRICAL

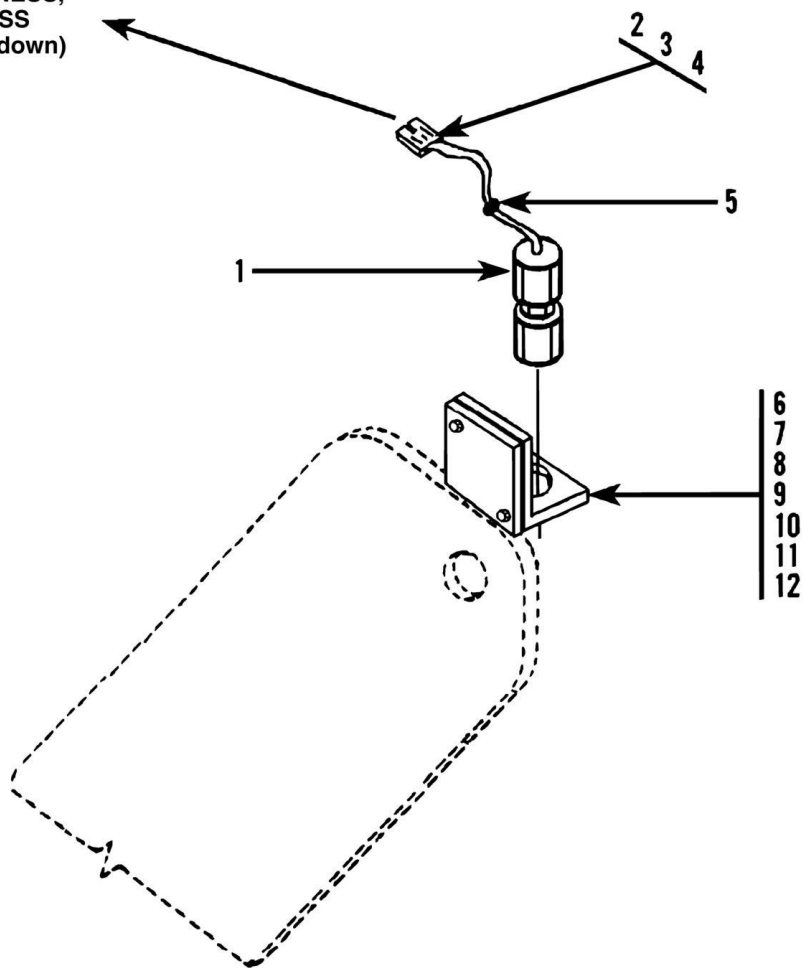
**FIGURE 10-2. BATTERY AND CABLES (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
6	14403416	AR	DI-ELECTRIC GREASE	
16	0791605	1	SCREW, 3/8-16X5/8	
18	0400075	2	BATTERY, (12 volt)	
19	91401281	2	BATTERY HOLD DOWN	
20	91081640	4	HOLD DOWN BOLT	
21	77143006	4	WHIZ-LOCKNUT, 5/16-18	
24	85841150	1	SUPPORT CLAMP	
133	85941017	4	P-CLAMP	
134	0791605	2	WHIZ-LOCK SCREW, 3/8-16X5/8	
157	1001099177	1	BATTERY CABLE, (positive)	
158	1001099178	1	BATTERY CABLE, (negative)	
159	1001099222	1	BATTERY CABLE, (positive)	
160	1001099265	1	BATTERY CABLE, (negative)	
161	8270148	2	BATTERY CLAMP, (positive)	
162	8270147	2	BATTERY CLAMP, (negative)	
163	83191010	1	LOCKWASHER, 12mm	
164	0761215	1	HEX HD CAPSCREW, 12X35mm	
173	7301893	2	BATTERY TERMINAL, INSULATOR	
174	10837368	1	DOUBLE TUBE CLAMP	
179	4751600	3	WASHER, 3/8	
217		Ref	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5, (See HYDRAULIC CIRCUITS SECTION for Breakdown)	

# SECTION 10 - ELECTRICAL

## FIGURE 10-3. STABILIZER PROXIMITY SENSOR

TO STABILIZER HARNESS,  
(See DASH HARNESS  
ASSEMBLY for Breakdown)



NOTE:  
ADJUST STABILIZER SENSOR TO OPERATE WHEN BOOM ANGLE IS  $45 \pm 2$



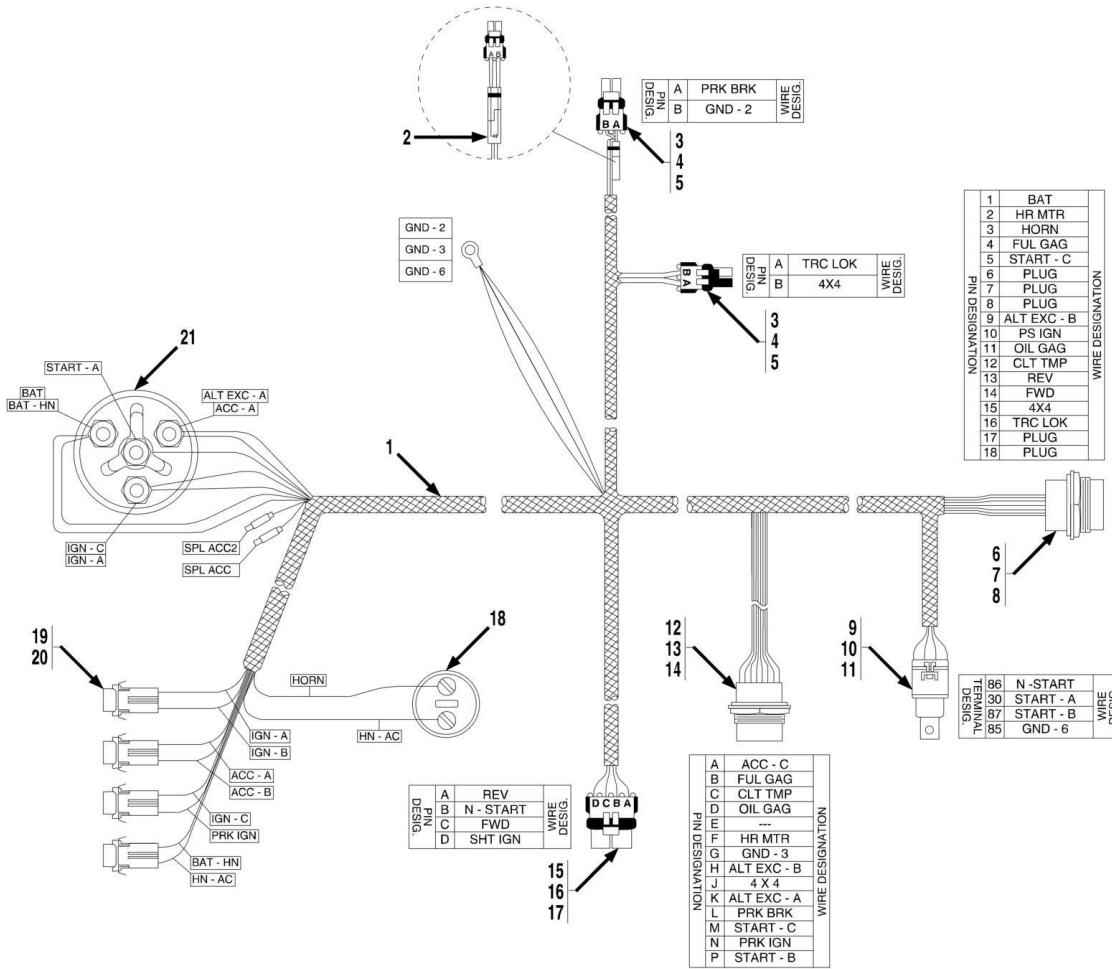
## SECTION 10 - ELECTRICAL

### FIGURE 10-3. STABILIZER PROXIMITY SENSOR

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165006	NLA	STABILIZER PROXIMITY SENSOR ASSY, (includes items 1 thru 5), (no longer available, use 91365037 for service)	B
	91365037	1	STABILIZER PROXIMITY SENSOR ASSY, (includes items 1 thru 5)	B
1	91143155	1	PROXIMITY SENSOR SWITCH	
2	80963062	1	WEATHERPROOF SHROUD, (4-wire)	
3	4460475	4	MALE PIN TERMINAL	
4	80963065	4	CABLE SEALS	
5	91053419	1	TIE WRAP	
6	91161185	1	STABILIZER SENSOR BRACKET	
7	77143016	2	WHIZ-LOCK SCREW, #10-24X3/4	
8	4761000	2	LOCKWASHER, #10	
9	88561001	4	FLAT WASHER, 3/16	
10	77143017	2	WHIZ-LOCKNUT, #10-24	
11	90027187	4	TIE WRAP	
12	90021705	1	SUPPORT CLAMP	

# SECTION 10 - ELECTRICAL

## FIGURE 10-4. DASH HARNESS ASSEMBLY (SN 0355001 through 0355069)



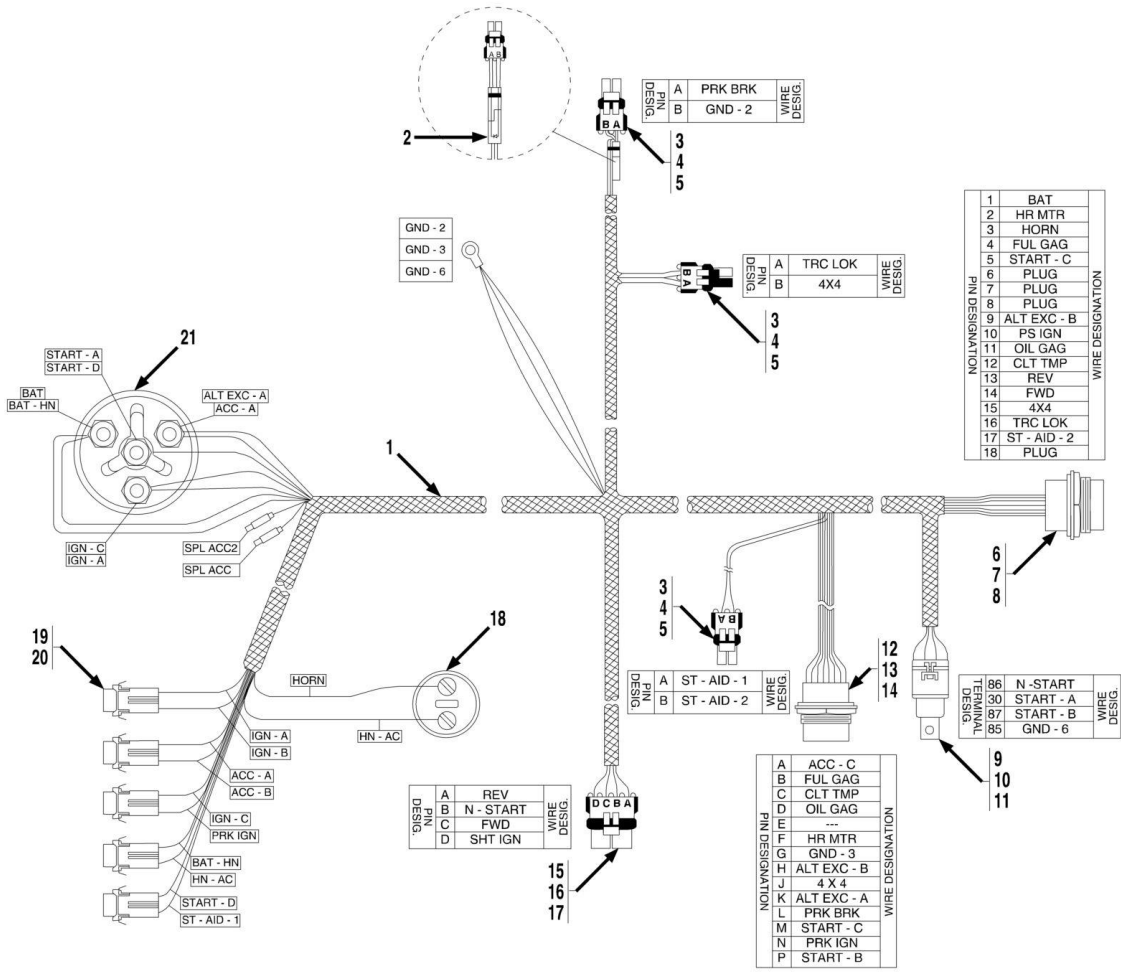
## SECTION 10 - ELECTRICAL

**FIGURE 10-4. DASH HARNESS ASSEMBLY (SN 0355001 through 0355069)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145092	1	DASH HARNESS ASSY, (includes all items)	
1	91143349	1	DASH HARNESS, (includes items 2 thru 17 & 19)	
2	91363021	1	MOLDED DIODE	
3	80963057	2	TOWER	
4	80963068	4	FEMALE PIN TERMINAL	
5	91364009	4	CABLE SEAL	
6	91364010	1	RECEPTACLE CONNECTOR	
7	83481286	1	PANEL NUT	
8	83481285	1	LOCKWASHER	
9	91363054	1	RELAY	
10	4460374	1	CONNECTOR	
11	91364012	4	TERMINAL END	
12	77363225	1	RECEPTACLE CONNECTOR	
13	77363264	1	PANEL NUT	
14	77363263	1	LOCKWASHER	
15	91364013	1	CONNECTOR	
16	91364014	4	FEMALE PIN TERMINAL	
17	80963065	4	CABLE SEAL	
18	24771004	1	HORN BUTTON	
19	91143108	4	SNAP-IN FUSE HOLDER	
20	77363268	4	15 AMP FUSE	
21	91033317	1	IGNITION SWITCH	
21	77384578	1	KEY	

# SECTION 10 - ELECTRICAL

FIGURE 10-5. DASH HARNESS ASSEMBLY (SN 0355070 through 0455362, SN 0160000192 through 0160000973)



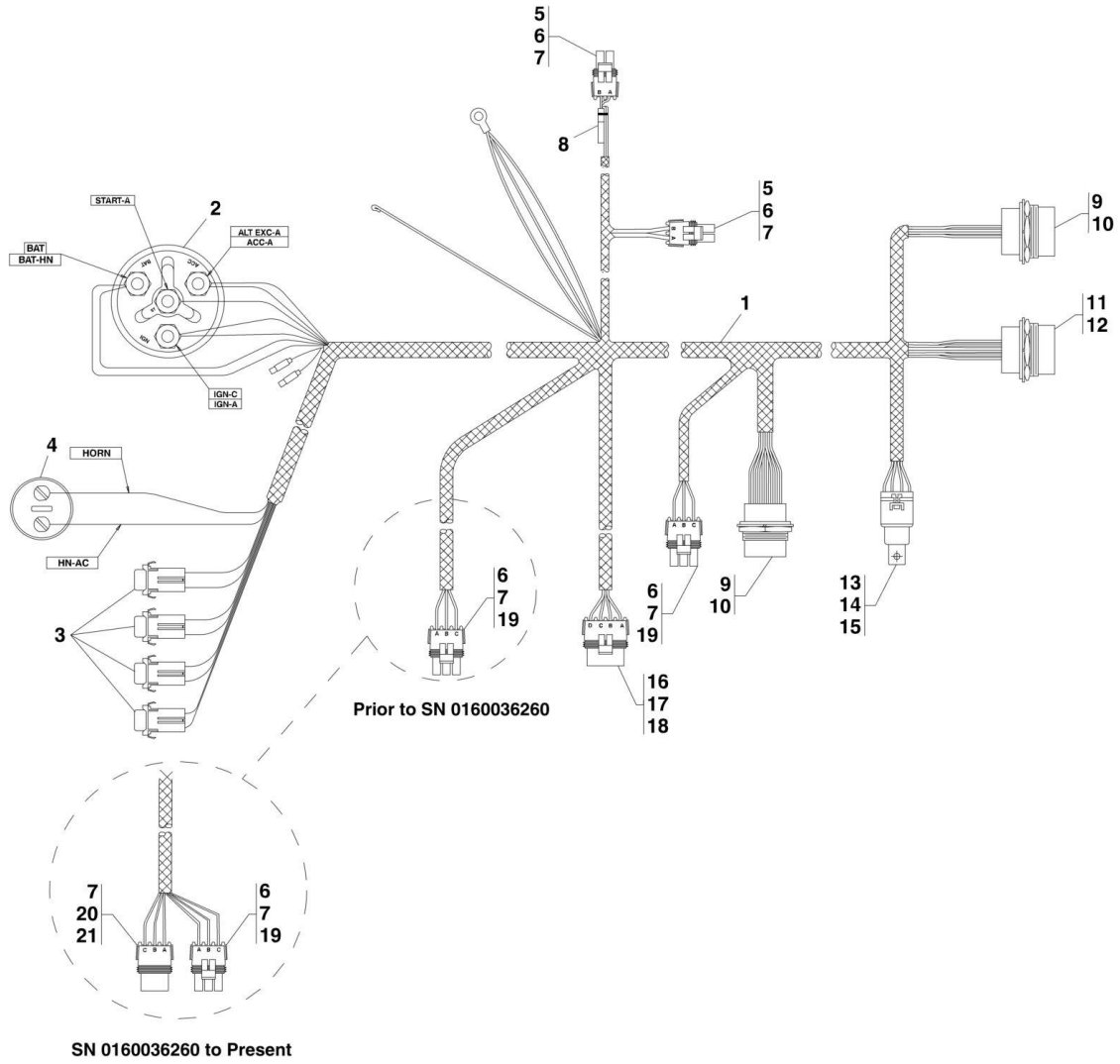
## SECTION 10 - ELECTRICAL

**FIGURE 10-5. DASH HARNESS ASSEMBLY (SN 0355070 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365013	1	DASH HARNESS ASSY, (includes all items)	
1	91363035	1	DASH HARNESS, (includes items 2 thru 17 & 19)	
2	91363021	1	MOLDED DIODE	
3	80963057	3	TOWER	
4	80963068	6	FEMALE PIN TERMINAL	
5	91364009	6	CABLE SEAL	
6	91364010	1	RECEPTACLE CONNECTOR	
7	83481286	1	PANEL NUT	
8	83481285	1	LOCKWASHER	
9	91363054	1	RELAY	
10	4460374	1	CONNECTOR	
11	91364012	4	TERMINAL END	
12	77363225	1	RECEPTACLE CONNECTOR	
13	77363264	1	PANEL NUT	
14	77363263	1	LOCKWASHER	
15	91364013	1	CONNECTOR	
16	91364014	4	FEMALE PIN TERMINAL	
17	80963065	4	CABLE SEAL	
18	24771004	1	HORN BUTTON	
19	91143108	5	SNAP-IN FUSE HOLDER	
20	77363268	5	15 AMP FUSE	
21	91033317	1	IGNITION SWITCH	
21	77384578	1	KEY	

# SECTION 10 - ELECTRICAL

FIGURE 10-6. DASH HARNESS ASSEMBLY (SN 016000976 to Present)



PAP23070

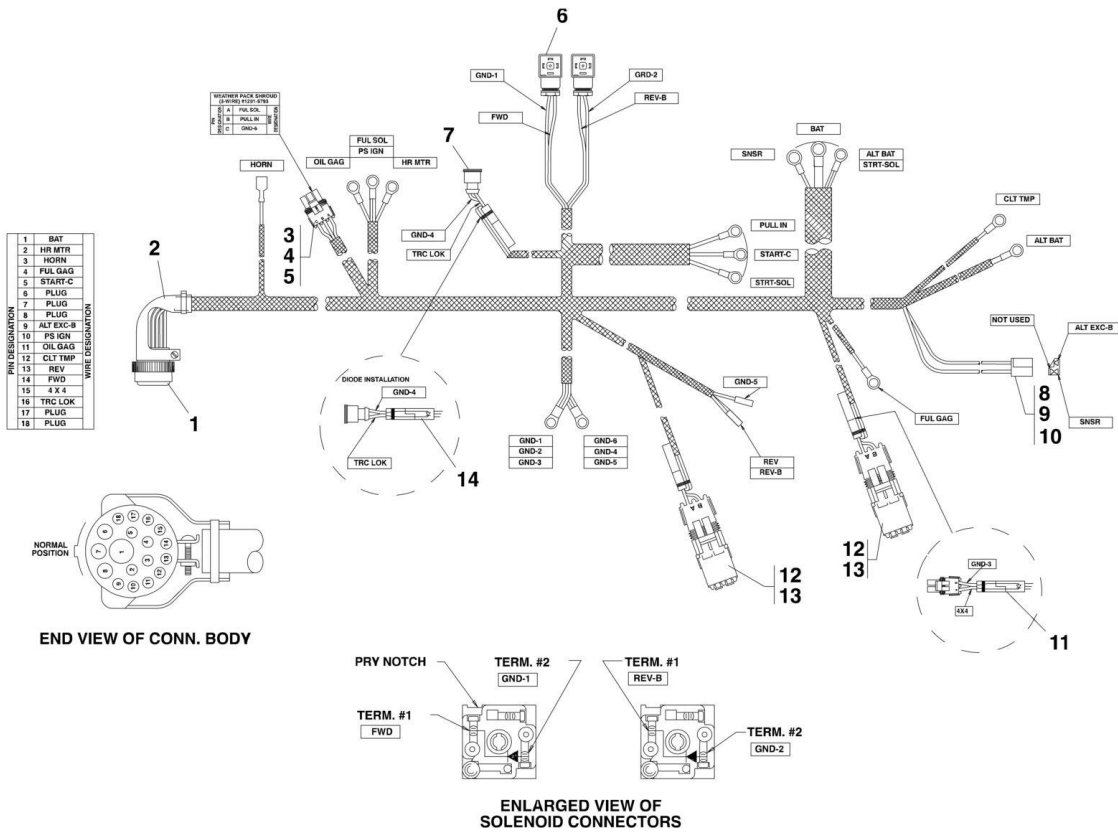
## SECTION 10 - ELECTRICAL

**FIGURE 10-6. DASH HARNESS ASSEMBLY (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555009	Ref	DASH HARNESS ASSY, (enclosed cab), (includes item 1) <b>(Prior to SN 0160036260)</b>	B
	1001101493	Ref	DASH HARNESS ASSY, (enclosed cab), (includes item 1) <b>(SN 0160036260 to Present)</b>	B
1	91553024	1	DASH HARNESS, (open cab), (includes items 5 thru 19) <b>(Prior to SN 0160036260)</b>	D
1	1001095326	1	DASH HARNESS, (open cab), (includes items 5 thru 21) <b>(SN 0160036260 to Present)</b>	C
2	91033317	1	IGNITION SWITCH	
3	77363268	4	FUSE, 15 AMP	
4	24771004	1	BUTTON	
5	80963057	2	WEATHER PACK CONNECTOR	
6	4460457	11	FEMALE PIN TERMINAL	
7	91364009	5	CABLE SEAL	
8	91363021	1	MOLDED DIODE	
9	77363225	2	RECEPTACLE CONNECTOR	
10	77363264	2	PANEL NUT	
11	91364010	1	PANEL NUT	
12	83481286	1	PANEL NUT	
13	91363054	1	RELAY	
14	4460374	1	CONNECTOR	
15	91364012	1	TERMINAL	
16	91364013	1	WEATHER PACK CONNECTOR	
17	91364014	1	FEMALE PIN TERMINAL	
18	80963065	1	CABLE SEAL	
19	80963059	2	WEATHER PACK CONNECTOR	
20	4460475	3	MALE PIN TERMINAL	
21	4460476	1	WEATHER PACK CONNECTOR	

# SECTION 10 - ELECTRICAL

FIGURE 10-7. ENGINE HARNESS ASSEMBLY (SN 0355001 through 0355140)



PAP23040



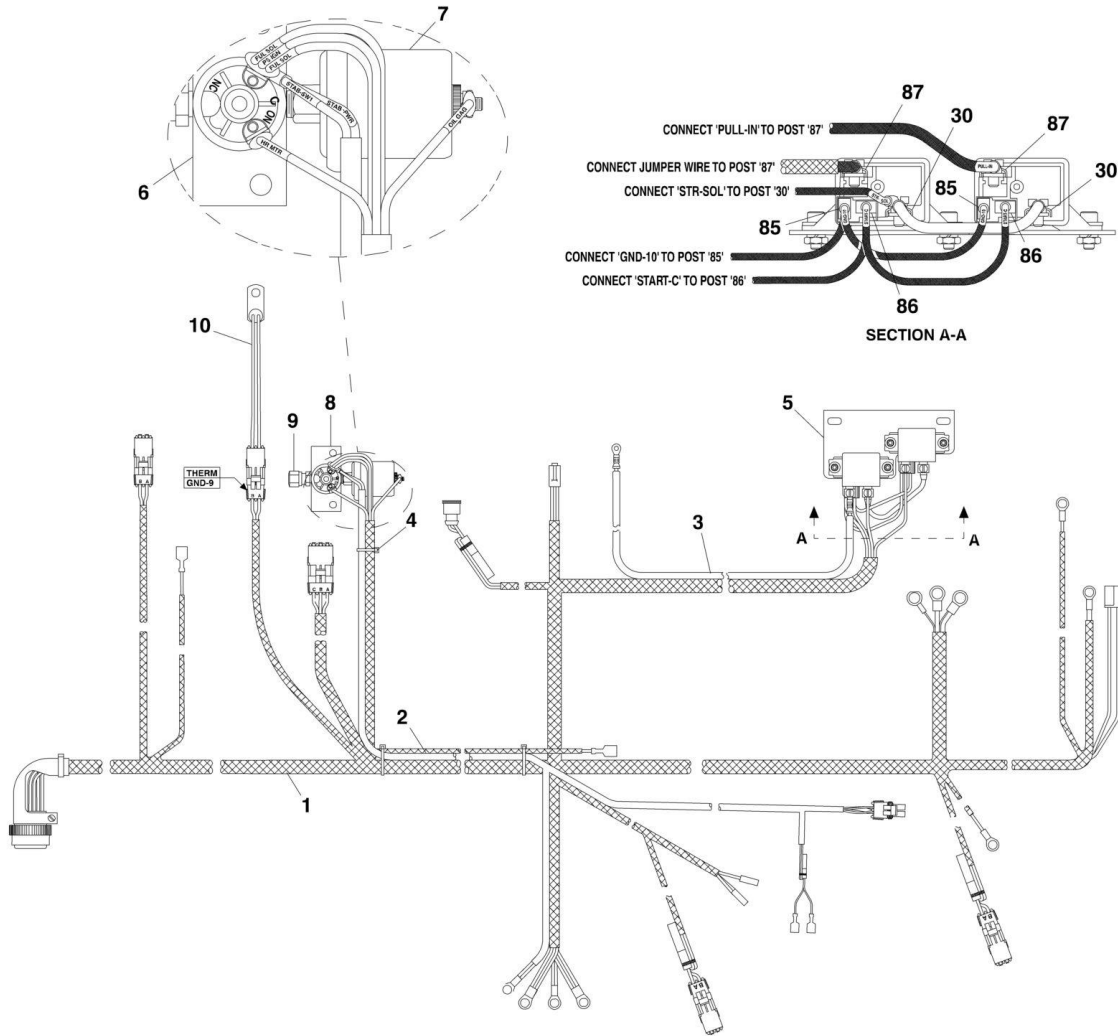
## SECTION 10 - ELECTRICAL

**FIGURE 10-7. ENGINE HARNESS ASSEMBLY (SN 0355001 through 0355140)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143302	1	ENGINE HARNESS ASSEMBLY, (includes all items)	
1	91334038	1	CONNECTOR	
2	91474463	1	90, STRAIN RELIEF	
3	4460459	1	CONNECTOR	
4	80963068	1	FEMALE PIN TERMINAL	
5	80963066	1	CABLE SEAL	
6	91084038	1	PLUG CONNECTOR	
7	91083440	1	SOLENOID CONNECTOR	
8	83683254	1	3 CONTACT PLUG	
9	83683254	1	ALTERNATOR HOOKUP	
10	90026803	1	CONNECTOR	
11	91363021	1	MOLDED DIODE	
12	80963058	1	CONNECTOR	
13	80963058	1	SHROUD	
14	91363021	1	MOLDED DIODE	

# SECTION 10 - ELECTRICAL

FIGURE 10-8. ENGINE HARNESS ASSEMBLY (SN 0355141 through 0455362, SN 016000192 through 016000973)



PAP21740

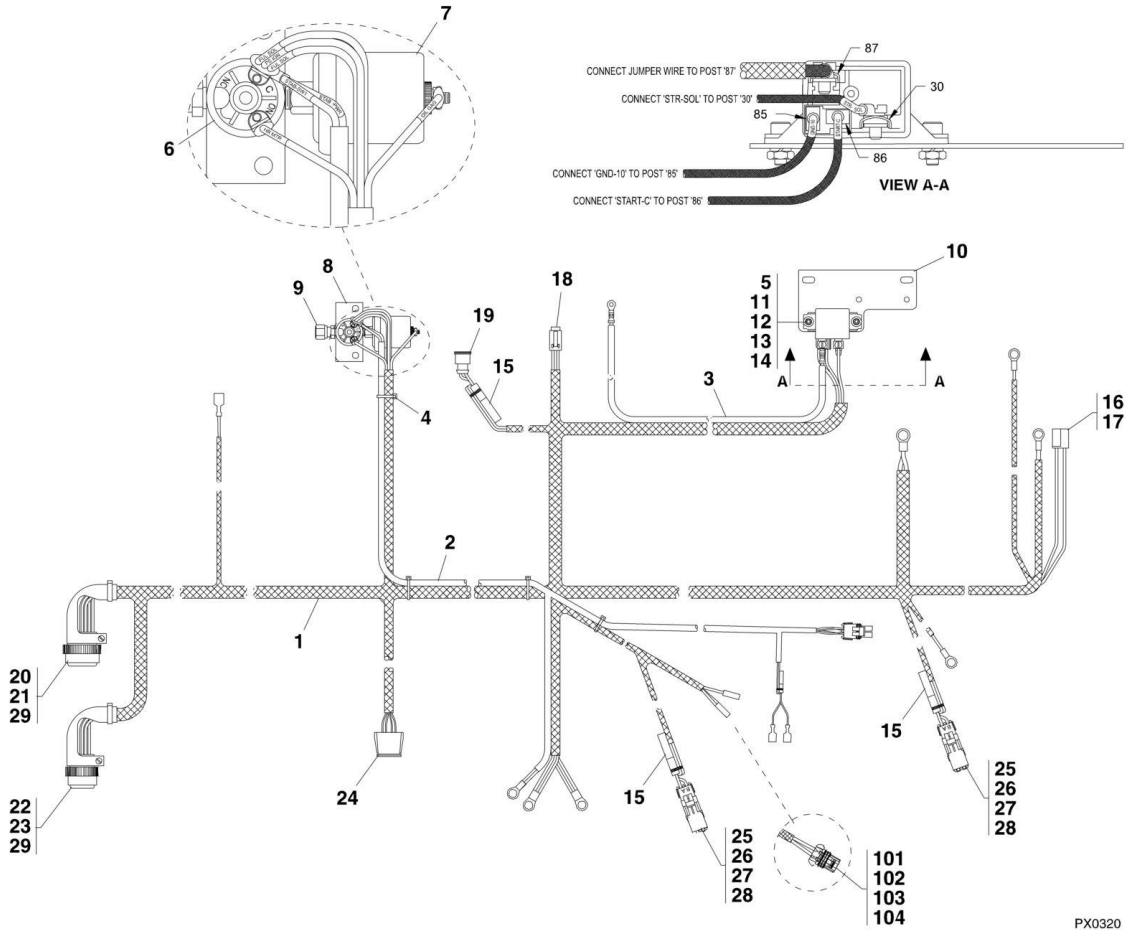
## SECTION 10 - ELECTRICAL

**FIGURE 10-8. ENGINE HARNESS ASSEMBLY (SN 0355141 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365036	1	ENGINE HARNESS ASSY, (includes all items) <b>(Prior to SN 0160000937)</b>	A
	91365072	1	ENGINE HARNESS ASSY, (includes all items) <b>(SN 0160000937 to Present)</b>	
1	91333013	1	ENGINE HARNESS <b>(Prior to SN 0160000937)</b>	
1	91343221	1	ENGINE HARNESS <b>(SN 0160000937 to Present)</b>	
2	91363081	1	STABILIZER HARNESS	
3	91363066	1	JUMPER WIRE <b>(SN 0160000192 through 0160006685)</b>	
4	90027187	3	TIE WRAP	
5	91345008	1	STARTER RELAY ASSY, (includes the following items)	A
5	77383377	2	RELAY	
5	91331014	1	RELAY MOUNTING PLATE	
5	88211028	4	HEX HD CAPSCREW, #10-24X1/2	
5	88501612	4	HEX NUT, #10-24	
5	88561105	4	FLAT WASHER, #10	
5	88551007	4	LOCKWASHER, #10	
5	91373009	1	JUMPER WIRE	
6	24741047	1	PRESSURE SWITCH	
7	91143315	1	OIL PRESSURE SENDER	
8	91081388	1	TAPPED BAR	
9	86883075	1	TUBE FITTING	
10	91365014	1	QUICK START THERMOSTAT ASSY, (includes the following items)	A
10	91363031	1	THERMOSTAT	
10	80963058	1	SHROUD CONNECTOR 2-WIRE	
10	4460475	2	MALE PIN TERMINAL	
10	80963065	2	CABLE SEAL	

# SECTION 10 - ELECTRICAL

## FIGURE 10-9. ENGINE HARNESS ASSEMBLY (SN 016000976 through 0160034720, Including 0160035922)



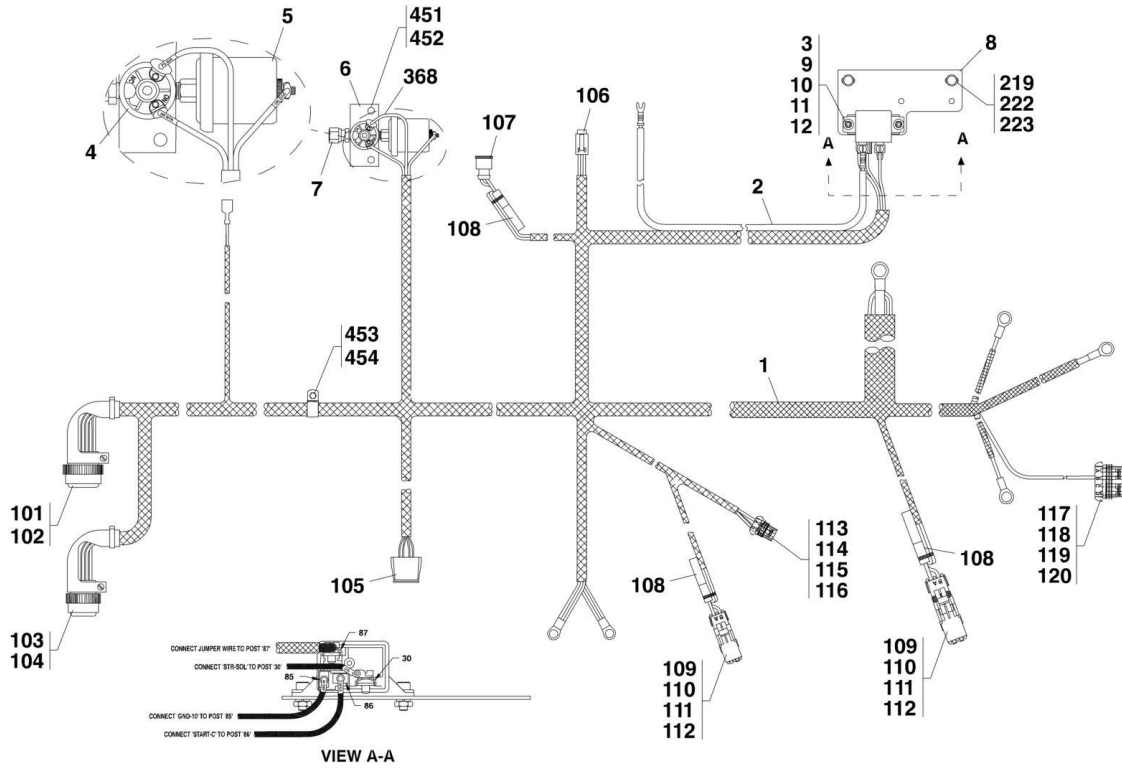
## SECTION 10 - ELECTRICAL

**FIGURE 10-9. ENGINE HARNESS ASSEMBLY (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555008	1	ENGINE HARNESS ASSY, (includes all items)	C
1	91553005	1	ENGINE HARNESS, (includes items 15 thru 28) <b>(Prior to SN 0160016754)</b>	D
1	4923398	1	ENGINE HARNESS , (includes items 15 thru 28 & 101 thru 104) <b>(SN 0160016754 through 0160034720, Including 0160035922)</b>	B
2	91363081	1	STABILIZER HARNESS	
3	91363066	1	JUMPER WIRE <b>(SN 0160000192 through 0160006685)</b>	
3	91553066	1	JUMPER WIRE <b>(SN 0160006698 to Present)</b>	
4	90027187	3	TIE WRAP	
5	77383377	1	RELAY	
6	24741047	1	PRESSURE SWITCH	
7	91553045	1	OIL PRESSURE SENDER	
8	91081388	1	TAPPED BAR	
9	86883075	1	TUBE FITTING	
10	91331014	1	RELAY MOUNTING PLATE	
11	88211028	2	SOCKET HD CAPSCREW, #10-24X1/2, GR8	
12	88501612	2	HEX NUT, #10-24	
13	88561105	2	FLAT WASHER, #10	
14	88551007	2	LOCKWASHER, #10	
15	91363021	3	MOLDED DIODE	
16	83683254	1	PLUG	
17	90026803	3	CONNECTOR	
18	91554011	1	PLUG	
19	91083440	1	CONNECTOR	
20	91334038	1	CONNECTOR	
21	91474463	1	STRAIN RELIEF	
22	86984559	1	CONNECTOR	
23	91554012	1	STRAIN RELIEF	
24	8220524	1	CONNECTOR	
25	80963068	2	FEMALE PIN TERMINAL	
26	91364009	2	CABLE SEALS	
27	80963057	2	CONNECTOR	
28	80963058	2	SHROUD	
29	0100048	AR	DI-ELECTRIC GREASE	
101	1001117021	1	CONNECTOR	
102	7029755	1	SECONDARY LOCK	
103	4460746	1	TERMINAL	
104	4460789	1	SEAL	

# SECTION 10 - ELECTRICAL

FIGURE 10-10. ENGINE HARNESS ASSEMBLY (SN 0160035037 to Present, Excluding 0160035922)



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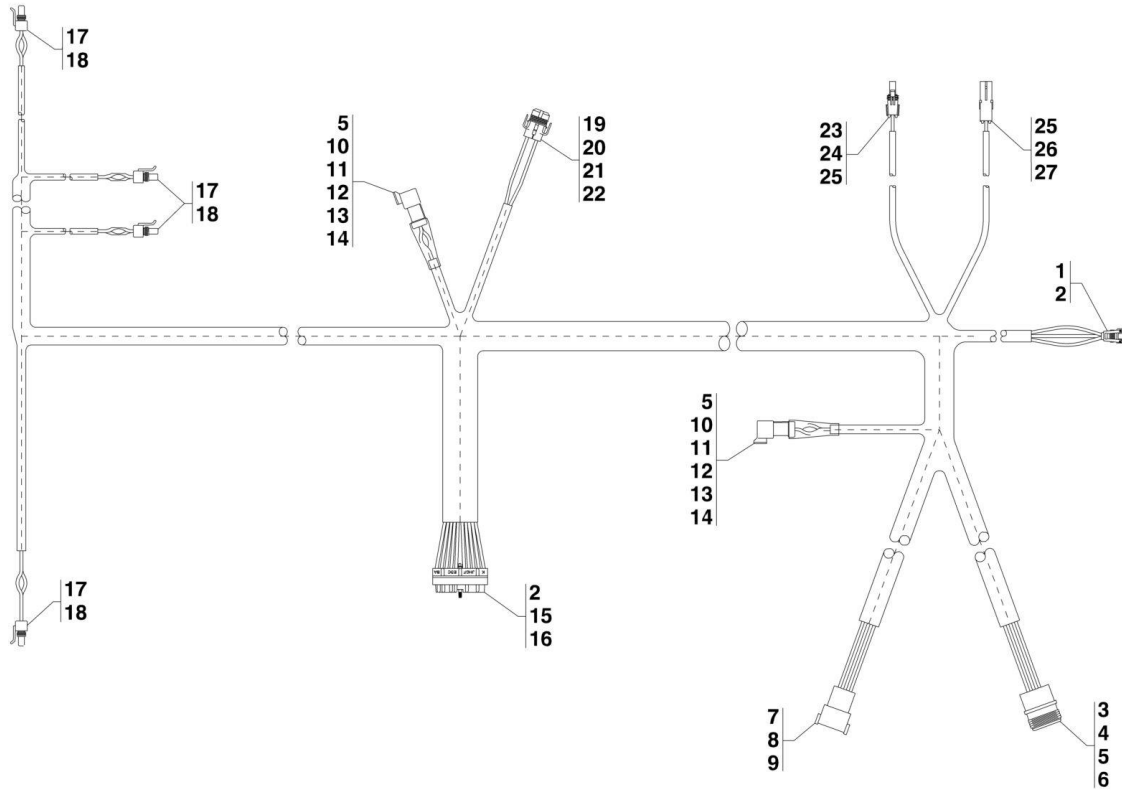
## SECTION 10 - ELECTRICAL

**FIGURE 10-10. ENGINE HARNESS ASSEMBLY (SN 0160035037 to Present, Excluding 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001101524	1	ENGINE HARNESS ASSY, (includes items 1 thru 120)	D
1	1001097989	1	ENGINE HARNESS, (includes items 101 thru 120)	D
2	91553066	1	JUMPER WIRE	
3	77383377	1	RELAY	
4	24741047	1	PRESSURE SWITCH	
5	91553045	1	OIL PRESSURE SENDER	
6	91081388	1	TAPPED BAR	
7	2220574	1	TUBE FITTING	
8	91331014	1	RELAY MOUNTING PLATE	
9	88211028	2	HEX HD CAPSCREW, #10-24X1/2	
10	88501612	2	HEX NUT, #10-24	
11	88561105	2	FLAT WASHER, #10	
12	88551007	2	LOCKWASHER, #10	
101	91334038	1	PLUG CONNECTOR	
102	91474463	1	STRAIN RELIEF	
103	86984559	1	PLUG CONNECTOR	
104	91554012	1	STRAIN RELIEF	
105	7026425	1	CONNECTOR	
106	91554011	1	PLUG	
107	91083440	1	CONNECTOR	
108	91363021	3	MOLDED DIODE	
109	80963068	2	FEMALE PIN TERMINAL	
110	91364009	2	CABLE SEAL	
111	80963057	2	CONNECTOR	
112	80963058	2	SHROUD	
113	1001117021	1	CONNECTOR	
114	7029755	1	SECONDARY LOCK	
115	4460746	1	TERMINAL	
116	4460789	1	SEAL	
117	4460590	1	CONNECTOR	
118	4460591	1	SECONDARY LOCK	
119	4460589	1	TERMINAL	
120	70021824	1	SEAL	
219	4711400	2	FLAT WASHER, 1/4	
222	0641404	2	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
223	4761400	2	LOCKWASHER, 1/4	
368	91363081	1	STABILIZER HARNESS	
451	0641414	2	HEX HD CAPSCREW, 1/4-20X1-3/4	
452	4761400	2	LOCKWASHER, 1/4	
453	85941017	2	SUPPORT CLAMP	
454	0641511	2	HEX HD CAPSCREW, 5/16-18X1-3/8	

# SECTION 10 - ELECTRICAL

FIGURE 10-11. ECU ENGINE HARNESS (SN 0160000976 through 0160034720, Including 0160035922)



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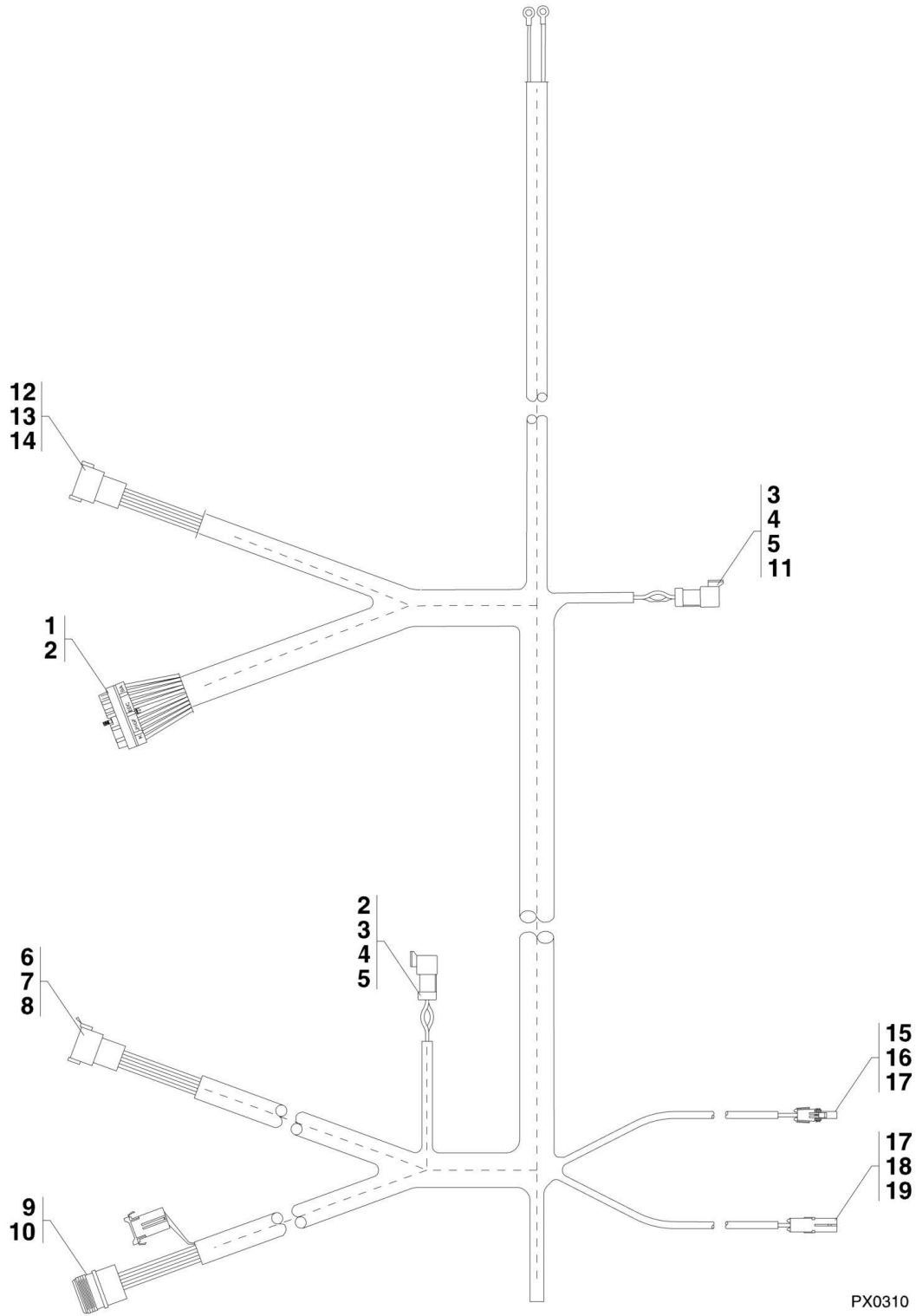
## SECTION 10 - ELECTRICAL

**FIGURE 10-11. ECU ENGINE HARNESS (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91553028	1	ECU ENGINE HARNESS, (includes all items)	E
1	1001120899	1	CONNECTOR	
2	91554014	23	FEMALE TERMINAL	
3	1001116975	1	CONNECTOR	
4	4460943	5	CONTACT	
5	4460466	6	SEALING PLUG	
6	77363246	1	CONNECTOR COVER	
7	91554017	1	CONNECTOR	
8	91503106	1	WEDGE LOCK	
9	77363228	8	PIN CONT, #16	
10	77363242	2	CONNECTOR	
11	91554019	2	LOCK	
12	4460944	4	CONTACTS	
13	8220553	2	TERMINAL	
14	91554022	2	LOCK	
15	91504086	1	CONNECTOR ASSY	
16	91554023	10	CONNECTOR PLUG	
17	4460955	4	TOWER	
18	4460842	8	MALE TERMINAL	
19	91554026	1	TOWER	
20	91554027	2	TERMINAL	
21	80963065	2	CABLE SEAL, GREEN	
22	1001103564	1	SECONDARY LOCK	
23	80963055	1	TOWER	
24	4460790	1	TERMINAL	
25	80963067	2	CABLE SEAL, BLUE	
26	80963056	1	SHROUD	
27	4460850	1	TERMINAL	

# SECTION 10 - ELECTRICAL

FIGURE 10-12. ECU ENGINE HARNESS (SN 0160035037 to Present, Excluding 0160035922)



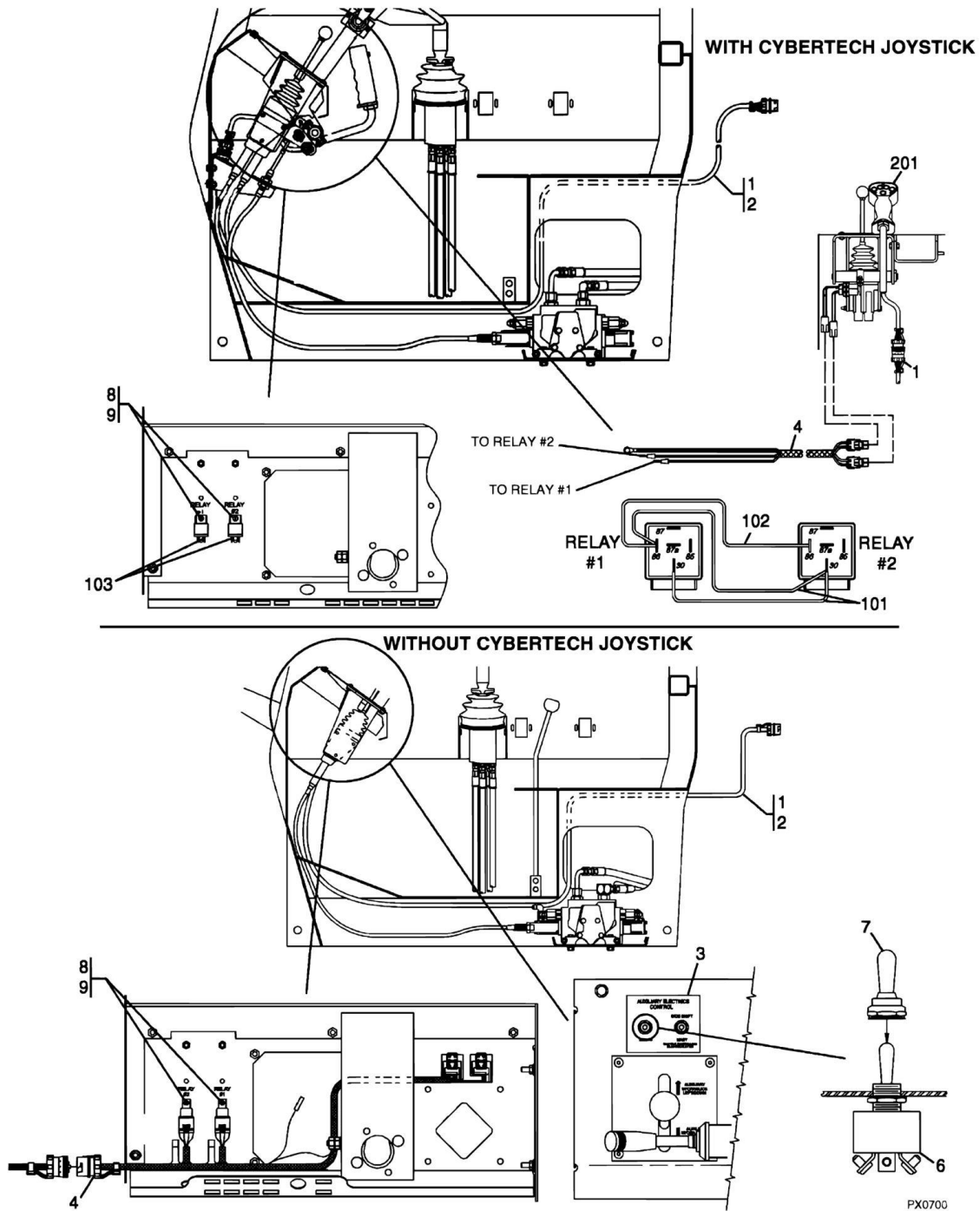
## SECTION 10 - ELECTRICAL

**FIGURE 10-12. ECU ENGINE HARNESS (SN 0160035037 to Present, Excluding 0160035922)**

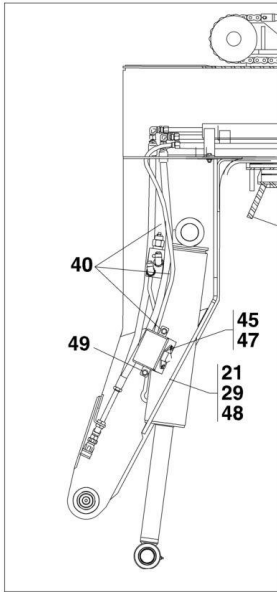
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001095327	1	ECU ENGINE HARNESS, (includes items 1 thru 19)	D
1	1001116821	1	CONNECTOR	
2	70021824	1	TERMINAL	
3	91554018	2	CONNECTOR	
4	70021825	2	WEDGE LOCK	
5	8220553	2	TERMINAL	
6	4460532	1	CONNECTOR	
7	91503106	1	WEDGE LOCK	
8	77363228	1	TERMINAL	
9	1001116975	1	CONNECTOR	
10	77363246	1	DUST CAP	
11	70020891	1	TERMINAL	
12	1001096188	1	PLUG	
13	70020890	1	TERMINAL SOCKET	
14	70021826	1	SECONDARY LOCK WEDGE	
15	1001119106	1	CONNECTOR	
16	1001116729	1	TERMINAL	
17	80963067	2	SEAL	
18	8220883	1	CONNECTOR	
19	1001116747	1	TERMINAL	

# SECTION 10 - ELECTRICAL

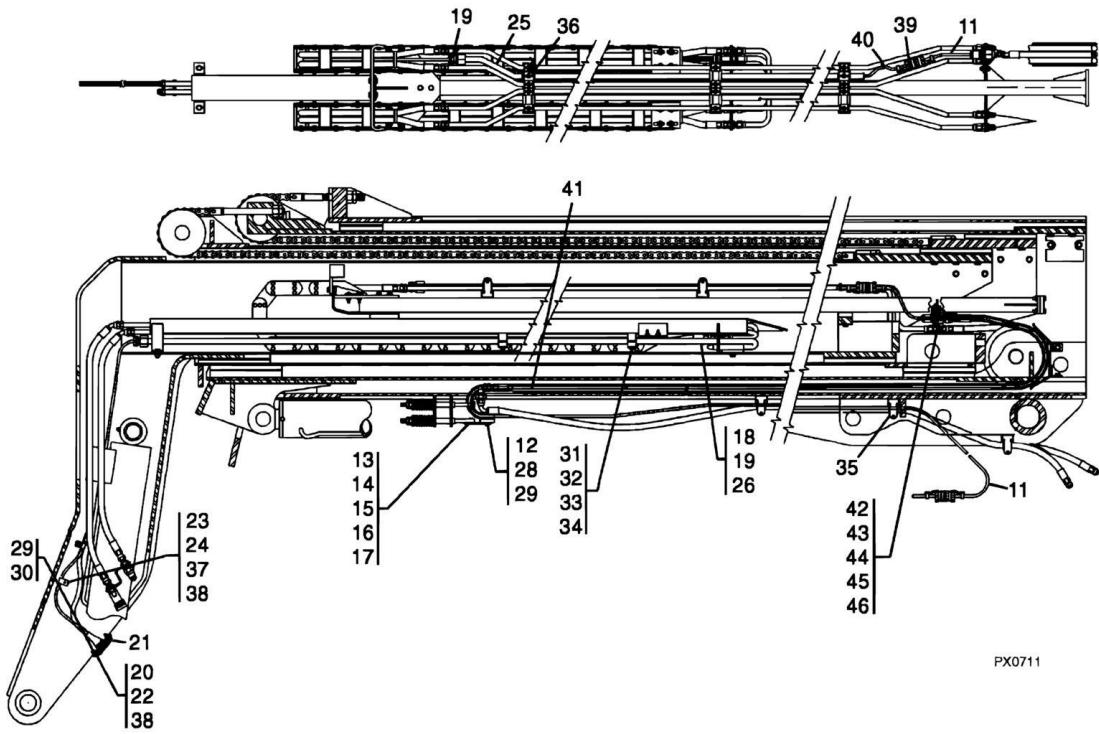
## FIGURE 10-13. AUXILIARY ELECTRICAL INSTALLATION (SN 0160024648 to Present)



# SECTION 10 - ELECTRICAL



SN 0160037689 TO PRESENT



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# SECTION 10 - ELECTRICAL

**FIGURE 10-13. AUXILIARY ELECTRICAL INSTALLATION (SN 0160024648 to Present)**

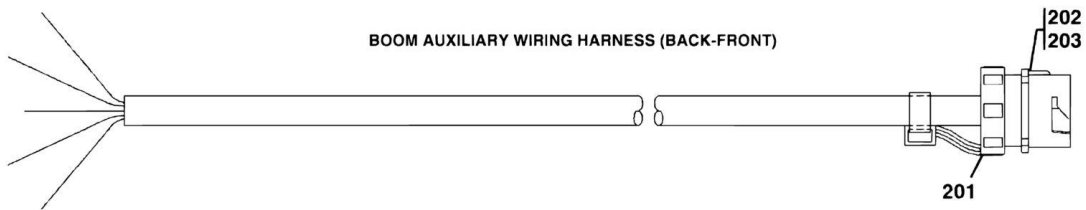
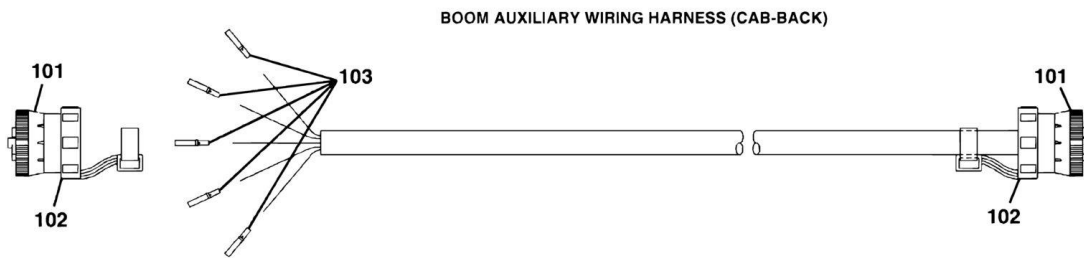
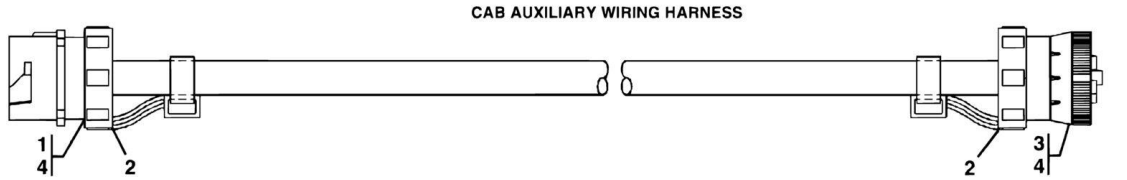
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165036	Ref	AUX ELECTRICAL ASSY, (if equipped), (includes items 1 thru 46) <b>(SN 0160024648 through 0160037688)</b>	F
	1001106843	Ref	AUX ELECTRICAL ASSY, (if equipped), (includes items 1 thru 49) <b>(SN 0160037689 to Present)</b>	A
		Ref	AUX ELECTRICAL ASSY, (if equipped w/ cybertech joystick), (includes items 1, 2, 4, 8, 9, 11 thru 46 & 101 thru 103)	L
1		Ref	CAB AUXILIARY WIRING HARNESS, (See AUXILIARY ELECTRICAL HARNESES for Breakdown)	
2	90027187	14	TY-RAP	
3	91123155	1	DECAL	
4	91123154	1	AUXILIARY DASH HARNESS, (W/ OUT CYBERTECH JOYSTICK)	
4	91343054	1	AUXILIARY DASH HARNESS, (W/ CYBERTECH JOYSTICK)	
6	77163204	2	SWITCH	
7	77383470	2	SWITCH BOOT	
8	88301088	2	ROUND HD MACHINE SCREW, #10-24X3/8	
9	4711000	2	FLAT WASHER, #10	
11		Ref	AUXILIARY BOOM WIRING HARNESS, (cab-back), (See AUXILIARY ELECTRICAL HARNESES for Breakdown)	
12	91366015	1	HOSE TAKE UP WELDMENT	
13	91126032	1	CABLE TAKE UP SUPPORT	
14	91123054	1	COMPRESSION SPRING	
15	91121134	1	SPRING RETAINER	
16	88501008	1	HEX NUT, 1/2-13 <b>(SN 0160024648 through 0160037688)</b>	
16	3311801	1	HEX NUT, 1/2-13 <b>(SN 0160037689 to Present)</b>	
17	88501108	1	HEAVY HEX JAM NUT, 1/2-13 <b>(SN 0160024648 through 0160037688)</b>	
17	3311802	1	HEAVY HEX JAM NUT, 1/2-13 <b>(SN 0160037689 to Present)</b>	
18	91163100	2	ADAPTER	
19	91143141	3	CORD CONNECTOR	
20	91361025	1	PLATE <b>(SN 0160024648 through 0160037688)</b>	
21	90207661	1	6 CONTACT SOCKET	
22	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5 <b>(SN 0160024648 through 0160037688)</b>	
23	88561107	2	FLAT WASHER, 1/4 <b>(SN 0160024648 through 0160037688)</b>	
24	88501004	2	HEX NUT, 1/4-20 <b>(SN 0160024648 through 0160037688)</b>	
25	91363068	1	TUBE ASSY	
26	91163066	1	TUBE ASSY	
27	88201017	2	HEX HD CAPSCREW, 5/16-18X5/8, GR5 <b>(SN 0160024648 through 0160037688)</b>	
27	0641505	2	HEX HD CAPSCREW, 5/16-18X5/8, GR5 <b>(SN 0160037689 to Present)</b>	
28	4761500	2	LOCKWASHER, 5/16	
29	0641408	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
30	88521304	2	HEX LOCKNUT, 1/4-20 <b>(SN 0160024648 through 0160037688)</b>	
31	77133389	3	STACK BOLT	
32	77133136	3	TUBE CLAMP	
33	77133137	3	COVER PLATE	
34	88201023	3	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5 <b>(SN 0160024648 through 0160037688)</b>	
34	0641514	3	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5 <b>(SN 0160037689 to Present)</b>	

## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
35	91043120	4	CUSHION CLAMP	
36	90207463	3	CUSHION CLAMP	
37	91203039	2	CLAMP <b>(SN 0160024648 through 0160037688)</b>	
38	88551009	4	LOCKWASHER, 1/4 <b>(SN 0160024648 through 0160037688)</b>	
39		Ref	AUXILIARY BOOM WIRING HARNESS, (back-front), (See AUXILIARY ELECTRICAL HARNESSES for Breakdown)	
40	90027187	1	NYLON TIE <b>(SN 0160024648 through 0160037688)</b>	
40	8584003	4	NYLON TIE <b>(SN 0160037689 to Present)</b>	
41	84719455	1	HOSE ASSY	
42	91361032	1	DISCONNECT PLATE	
44	2220346	1	ADAPTER	
45	0641608	2	HEX HD CAPSCREW, 3/8-16X1 <b>(SN 0160024648 through 0160037688)</b>	
45	0641608	4	HEX HD CAPSCREW, 3/8-16X1 <b>(SN 0160037689 to Present)</b>	
46	4761600	2	LOCKWASHER, 3/8	
47	4711600	2	FLAT WASHER, 3/8 <b>(SN 0160037689 to Present)</b>	
48	4711400	2	FLAT WASHER, 1/4 <b>(SN 0160037689 to Present)</b>	
49	1001099812	1	COVER <b>(SN 0160037689 to Present)</b>	
101	91341021	2	JUMPER WIRE	
102	91341022	1	JUMPER WIRE	
103	77383410	2	RELAY	
201		Ref	CYBERTECH JOYSTICK, (See CONTROLS SECTION for Breakdown)	

# SECTION 10 - ELECTRICAL

## FIGURE 10-14. AUXILIARY ELECTRICAL HARNESSSES (SN 0160024648 to Present)



PAP21800



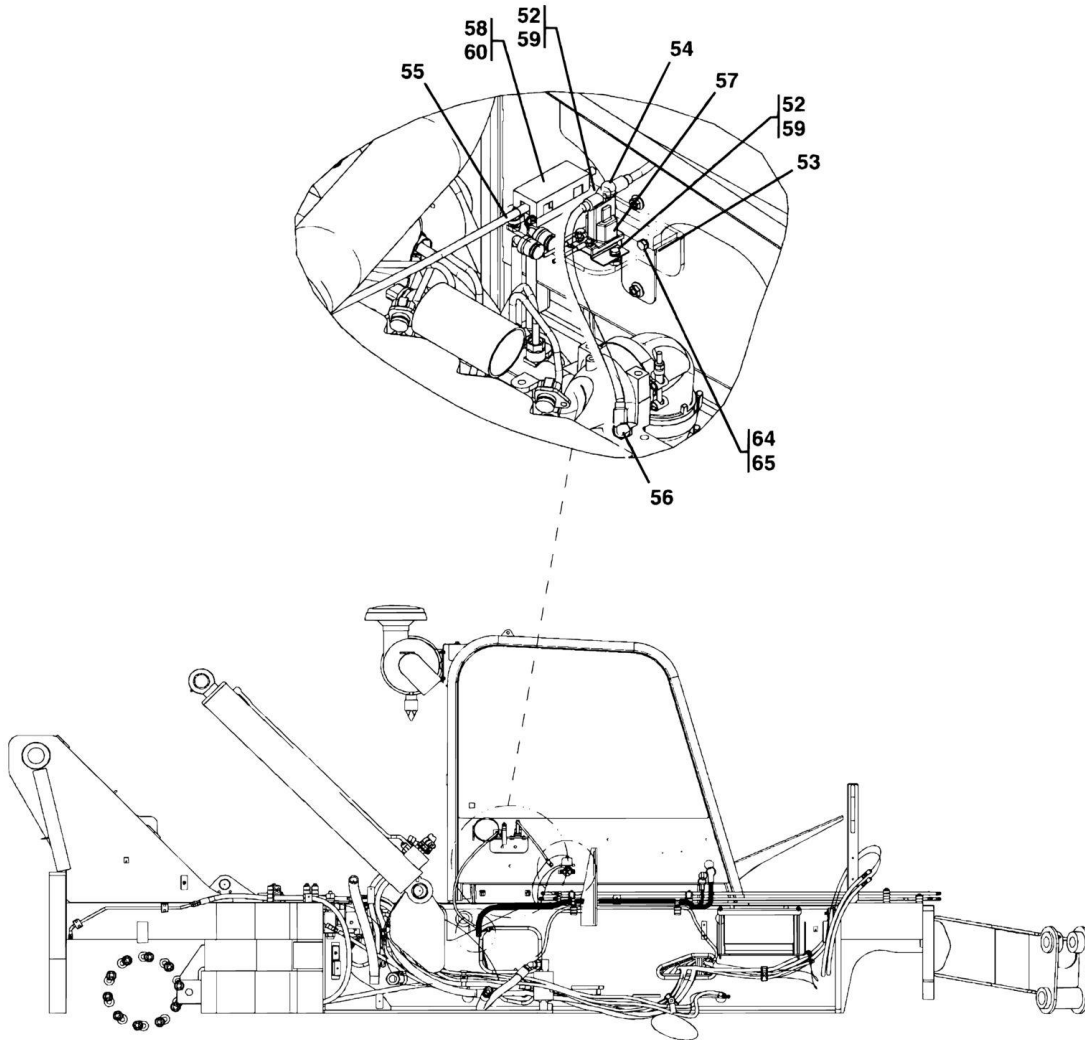
## SECTION 10 - ELECTRICAL

**FIGURE 10-14. AUXILIARY ELECTRICAL HARNESSSES (SN 0160024648 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143105	1	CAB AUXILIARY WIRING HARNESS, (includes items 1 thru 4)	
1	77363232	1	CONNECTOR	
2	91143107	2	STRAIN RELIEF	
3	77363233	1	CONNECTOR	
4	4460466	2	SEALING PLUG	
	91363151	1	BOOM AUXILIARY WIRING HARNESS, (cab-back), (includes items 101 thru 103)	
101	77363233	2	CONNECTOR	
102	91143107	2	STRAIN RELIEF	
103	77363229	5	CONTACTS	
	91363185	NLA	BOOM AUXILIARY WIRING HARNESS, (back-front), (includes items 201 & 202), (no longer available to order, use 1001126834 for replacement or items below for service)	
	1001126834	1	BOOM AUXILIARY WIRING HARNESS, (back-front), (includes items 201 thru 203)	
201	91143107	1	RELIEF STRAIN	
202	77363232	1	CONNECTOR	
203	70024058	1	HOSE CONDUIT	

# SECTION 10 - ELECTRICAL

FIGURE 10-15. COLD START (SN 0160035037 to Present, Excluding 0160035922)



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## SECTION 10 - ELECTRICAL

**FIGURE 10-15. COLD START (SN 0160035037 to Present, Excluding 0160035922)**

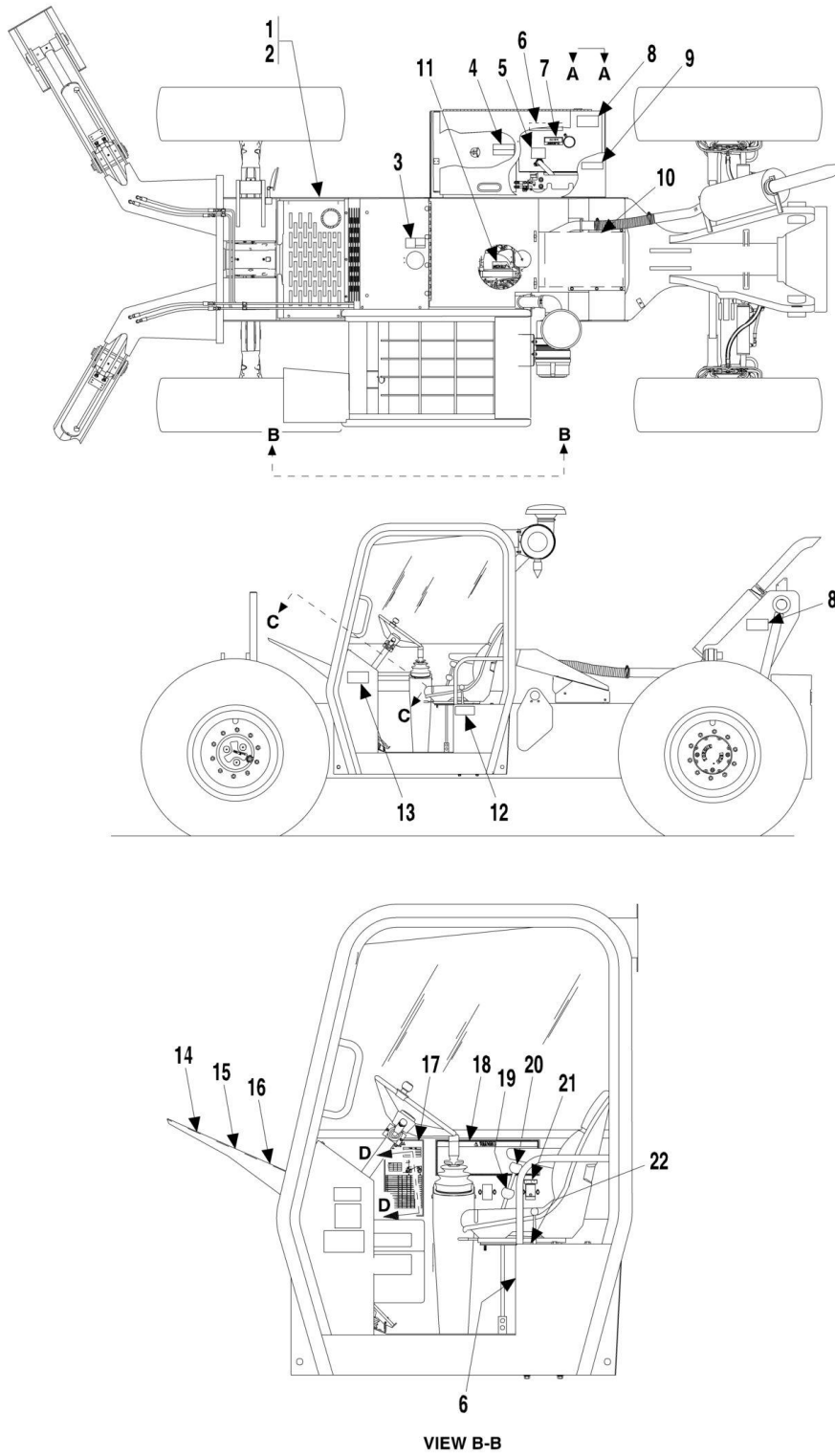
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
52	8307219	4	WASHER, M6	
53	1001102112	1	COLD START RELAY BRACKET	
54	7301448	1	GRID HEATER CABLE, FUSE TO RELAY	
55	7301524	1	GRID HEATER CABLE, BATTERY TO FUSE	
56	7301525	1	GRID HEATER CABLE, RELAY TO GRID HEATER	
57	8225122	1	RELAY, 12VDC	
58	8229260	1	FUSE HOLDER	
59	8303545	4	HEX HD CAPSCREW, M6X1X14	
60	1001095336	1	FUSE, 150A	
64	0641405	2	HEX HD CAPSCREW, 1/4-20X5/8	
65	4761400	2	LOCKWASHER, 1/4	



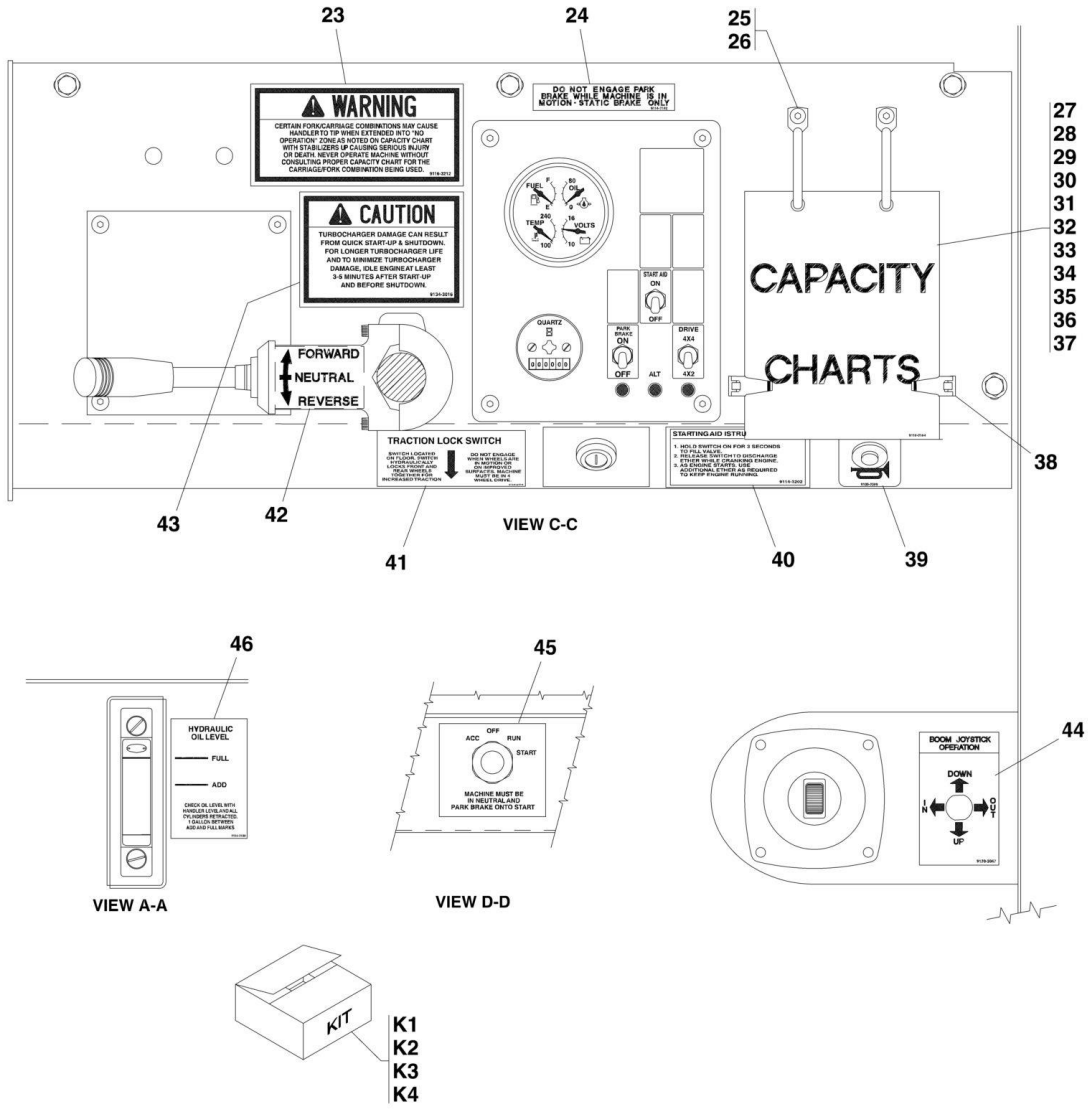
**SECTION 11 - DECALS**

# SECTION 11 - DECALS

FIGURE 11-1. FRAME DECALS (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



# SECTION 11 - DECALS



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## SECTION 11 - DECALS

FIGURE 11-1. FRAME DECALS (SN 0355001 through 0455362, SN 0160000192 through 0160000973)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91143284	1	WARNING DECAL	
2	91143285	1	INSTRUCTION DECAL	
3	80603026	1	CAUTION DECAL	
4	91143286	1	WARNING DECAL	
5	91143162	1	TEST PORT DECAL	
6	91083492	2	OIL WARNING DECAL	
7	91143288	1	HYDRAULIC DECAL	
8	91143282	3	WARNING DECAL	
9	91143281	1	WARNING DECAL	
10	91143280	1	WARNING DECAL	
11	91163256	1	INSTRUCTION DECAL	
12	77333027	1	MADE IN USA DECAL	
13	91143283	1	WARNING DECAL	
14	80603022	1	DANGER DECAL	
15	91343010	1	WARNING DECAL (SN 0355001 through 0455026)	
15	90553027	1	WARNING DECAL (SN 0455027 through 0160000973)	
16	91363064	1	SERVICE INSTRUCTION PLATE (SN 0355001 through 0355579)	
16	91363142	1	SERVICE INSTRUCTION PLATE (SN 0355580 through 0160000973)	
17	N.S.S.	1	S/N AND ATTACHMENT PLATE	
18	91143287	1	WARNING DECAL (SN 0355001 through 0455026)	
18	90553028	1	WARNING DECAL (SN 0455027 through 0160000973)	
19	91083318	1	SWAY DECAL	
20	91083317	1	TILT DECAL	
21	91143292	1	DIPSTICK DECAL	
22	91023006	1	STABILIZER DECAL	
23	91163212	1	WARNING DECAL	
24	91143182	1	PARK BRAKE DECAL	
25	91163087	2	LOAD CHART BRACKET	
26	88261017	2	SOCKET BUTTON HD CAPSCREW, 1/4-20X7/8	
27	91163184	1	CAPACITY CHART COVER	
28	91363012	1	LOAD CHART INSTRUCTIONS	
29	91363013	1	LOAD CHART - CARRIAGES/WINCH	
30	91363016	1	LOAD CHART - TRUSS BOOM	
31	91363023	1	LOAD CHART - SLOPE PILER	
32	91363072	1	LOAD CHART - 180, SWING CARRIAGE	
33	91363046	1	LOAD CHART - 100, SWING CARRIAGE	
34	91363042	1	LOAD CHART - 6 FT MAST	
35	91363053	1	LOAD CHART - 6 FT SWING MAST	
36	91363149	1	LOAD CHART - 6 FT SWING MAST WITH 60 IN FORKS	
37	91363189	1	LOAD CHART - WORK PLATFORM	
38	91363070	2	HINGED CLAMP	
39	91033089	1	HORN DECAL	
40	91143202	1	INSTRUCTION DECAL	
41	91083314	1	TRACTION DECAL	
42	91163028	1	SHIFTER DECAL	
43	91343016	1	TURBOCHARGER DECAL	
44	91303047	1	BOOM OPERATION DECAL	
45	91143120	1	INSTRUMENT PANEL DECAL	
46	91163130	1	OIL LEVEL DECAL	

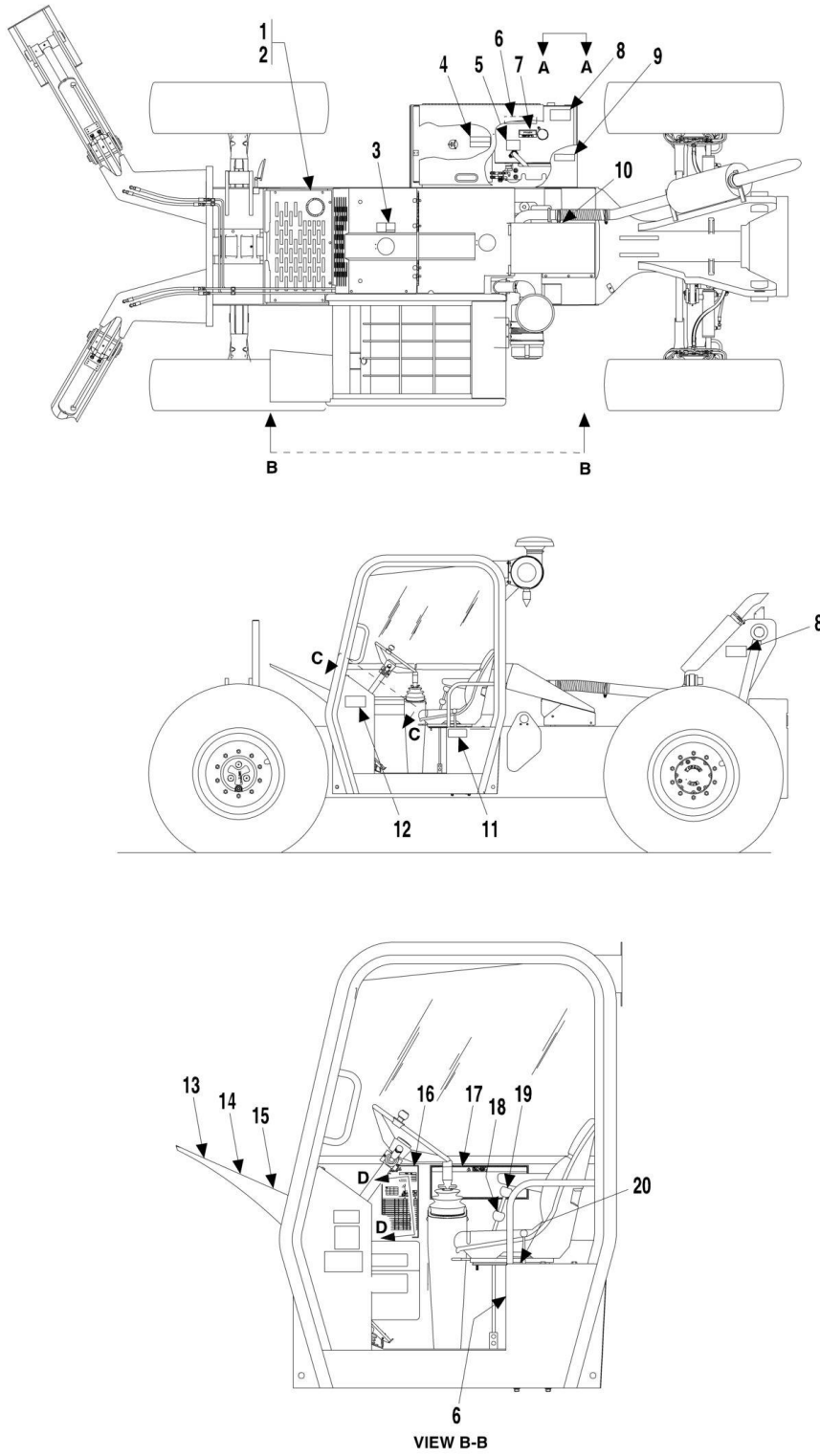


## SECTION 11 - DECALS

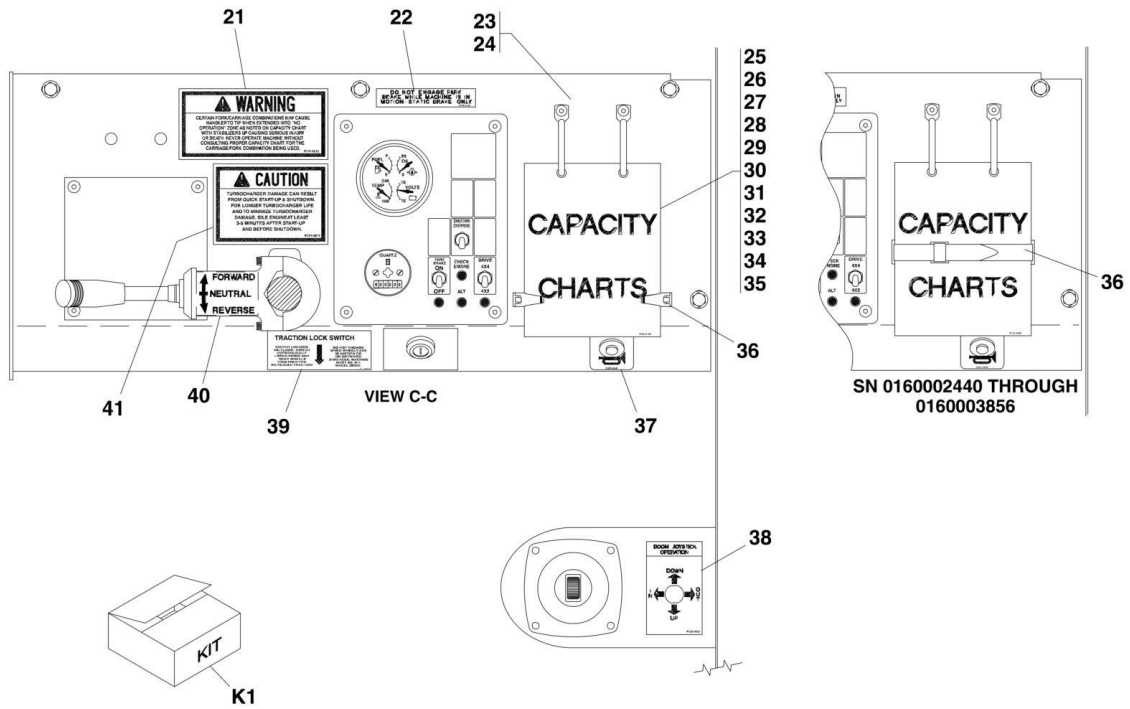
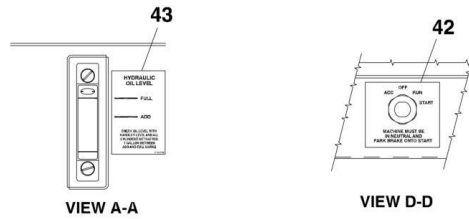
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
K1	91165038	1	DECAL KIT, (includes all items except 11, 17 & 25 thru 37 on FRAME DECALS and all items except 1 thru 4 on BOOM DECALS) <b>(SN 0355001 through 0355579)</b>	
K2	91365041	1	DECAL KIT, (includes all items except 11, 17 & 25 thru 37 on FRAME DECALS and all items except 1 thru 4 on BOOM DECALS) <b>(SN 0355580 through 0455026)</b>	
K3	91365059	1	DECAL KIT, (includes all items except 11, 17 & 25 thru 37 on FRAME DECALS and all items except 1 thru 4 on BOOM DECALS) <b>(SN 0455027 through 0160000973)</b>	
K4	91565088	1	NES DECAL KIT	

# SECTION 11 - DECALS

FIGURE 11-2. FRAME DECALS (SN 016000976 through 0160003956, Excluding 0160003856)



# SECTION 11 - DECALS



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## SECTION 11 - DECALS

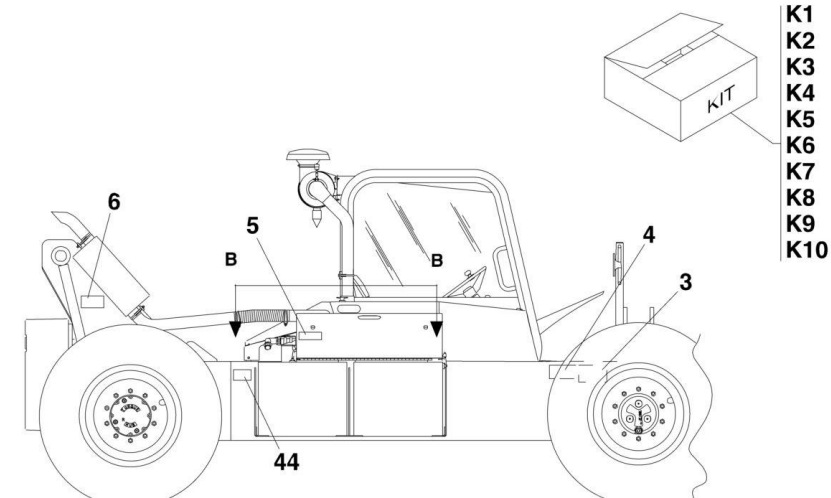
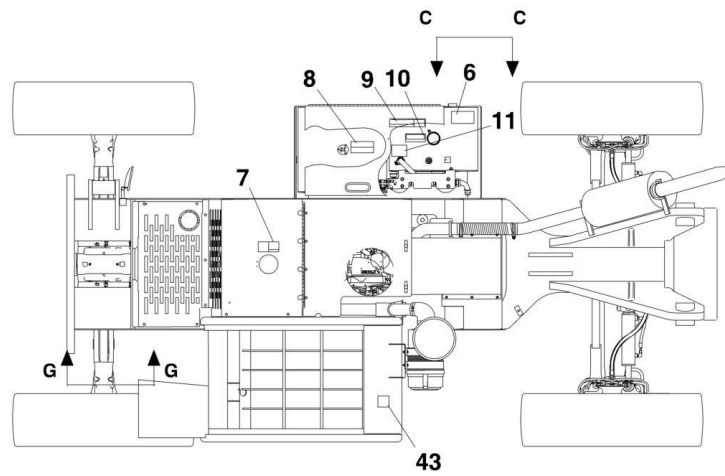
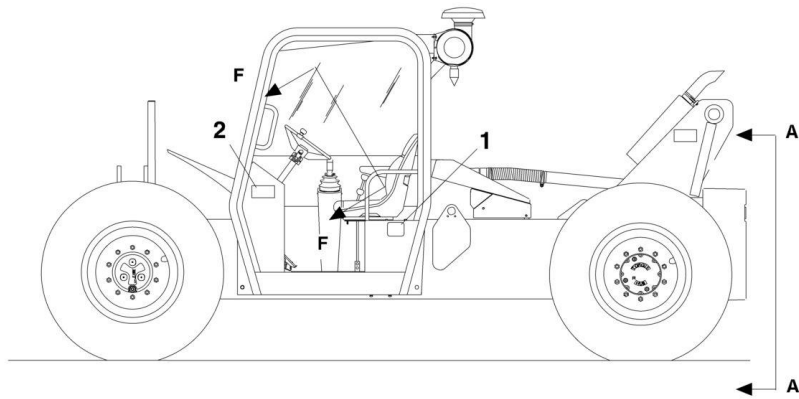
FIGURE 11-2. FRAME DECALS (SN 016000976 through 0160003956, Excluding 0160003856)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91143284	1	WARNING DECAL	
2	91143285	1	INSTRUCTION DECAL	
3	80603026	1	CAUTION DECAL	
4	91143286	1	WARNING DECAL	
5	91143162	1	TEST PORT DECAL	
6	91083492	2	OIL WARNING DECAL	
7	91143288	1	HYDRAULIC DECAL	
8	91143282	3	WARNING DECAL	
9	91143281	1	WARNING DECAL	
10	91143280	1	WARNING DECAL	
11	3251813	1	MADE IN USA DECAL	
12	91143283	1	WARNING DECAL	
13	80603022	1	DANGER DECAL	
14	90553027	1	WARNING DECAL	
15	91363142	1	SERVICE INSTRUCTION PLATE	
16	N.S.S.	1	S/N AND ATTACHMENT PLATE	
17	90553028	1	WARNING DECAL	
18	91083318	1	SWAY DECAL	
19	91083317	1	TILT DECAL	
20	91023006	1	STABILIZER DECAL	
21	91163212	1	WARNING DECAL	
22	91143182	1	PARK BRAKE DECAL	
23	91163087	2	LOAD CHART BRACKET	
24	88261017	2	SOCKET BUTTON HD CAPSCREW, 1/4-20X7/8	
25	91163184	1	CAPACITY CHART COVER	
26	91363012	1	LOAD CHART INSTRUCTIONS	
27	91363013	1	LOAD CHART - CARRIAGES/WINCH	
28	91363016	1	LOAD CHART - TRUSS BOOM	
29	91363023	1	LOAD CHART - SLOPE PILER	
30	91363072	1	LOAD CHART - 180, SWING CARRIAGE	
31	91363046	1	LOAD CHART - 100, SWING CARRIAGE	
32	91363042	1	LOAD CHART - 6 FT MAST	
33	91363053	1	LOAD CHART - 6 FT SWING MAST	
34	91363149	1	LOAD CHART - 6 FT SWING MAST WITH 60 IN FORKS	
35	91363189	1	LOAD CHART - WORK PLATFORM	
36	91363070	2	HINGED CLAMP (Prior to SN 0160002440)	
36	91553063	1	VELCRO STRAP (SN 0160002440 through 0160003856)	
37	91033089	1	HORN DECAL	
38	91303047	1	BOOM OPERATION DECAL	
39	91083314	1	TRACTION DECAL	
40	91163028	1	SHIFTER DECAL	
41	91343016	1	TURBOCHARGER DECAL	
42	91143120	1	INSTRUMENT PANEL DECAL	
43	91163130	1	OIL LEVEL DECAL	
K1	91555007	1	DECAL KIT, (includes all items except 16 & 23 thru 36 on FRAME DECALS and all items except 1 thru 4 & 10 on BOOM DECALS)	A



# SECTION 11 - DECALS

FIGURE 11-3. FRAME DECALS (SN 0160003969 to Present, Including 0160003856)



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## SECTION 11 - DECALS

FIGURE 11-3. FRAME DECALS (SN 0160003969 to Present, Including 0160003856)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	3251813	1	MADE IN USA DECAL	
2	91143283	1	WARNING DECAL	
3	91143285	1	INSTRUCTIONAL DECAL	
4	91143284	1	WARNING DECAL	
5	91143281	1	WARNING DECAL	
6	91143282	3	WARNING DECAL	
7	80603026	1	CAUTION DECAL	
8	91143286	1	WARNING DECAL	
9	91083492	1	OIL WARNING DECAL (SN 0160003969 through 0160034720, Including 0160035922)	
10	91143288	1	HYDRAULIC DECAL (SN 0160003969 through 0160034720, Including 0160035922)	
11	91143162	1	TEST PORT DECAL	
12	1704885	1	WEBSITE DECAL	
13	1706194	2	544D DECAL (544D) (SN 0160006435 to Present)	
14	91303047	1	BOOM OPERATOR DECAL	
15	91143120	1	INSTRUMENT PANEL DECAL	
16	91163130	1	OIL LEVEL DECAL	
17	80603022	1	DANGER DECAL	
18	90553027	1	WARNING DECAL	
19	91363142	1	SERVICE INSTRUCTION PLATE	
20	91363128	1	NON SKID FLOOR DECAL	
21	90553028	1	WARNING DECAL	
22	91083318	1	SWAY DECAL	
23	91083317	1	TILT DECAL	
27	91343016	1	TURBOCHARGER DECAL	
28	91163028	1	SHIFTER DECAL	
29	91083314	1	TRACTION DECAL	
30	91163212	1	WARNING DECAL	
31	91143182	1	PARK BRAKE DECAL	
34	91033089	1	HORN DECAL	
35	91553063	1	VELCRO STRAP	
36	91163087	2	LOAD CHART BRACKET	
37	88261017	2	SOCKET BUTTON HD CAPSCREW, 1/4-20X7/8	
38	N.S.S.	1	S/N PLATE	
40	91023006	1	STABILIZER DECAL	
41	91363140	1	NON SKID FLOOR DECAL	
42	1001102721	Ref	LOAD CHART KIT, (includes all items) (Prior to SN 0160037689)	2
42	91163184	1	CAPACITY CHART COVER	
42	91363012	1	LOAD CHART INSTRUCTIONS	
42	91363013	1	CAPACITY CHART, CARRIAGE AND WINCH	
42	91363016	1	CAPACITY CHART, 10 FT TRUSS BOOM	
42	91363023	1	CAPACITY CHART, SLOPE PILER	
42	91553075	1	CAPACITY CHART, 180, SWING CARRIAGE	
42	91363046	1	CAPACITY CHART, 100, DRYWALL/SWING CARRIAGE	
42	91363042	1	CAPACITY CHART, 6 FT MAST	
42	91363053	1	CAPACITY CHART, 100, SWING MAST	
42	91363149	1	CAPACITY CHART, 100, SWING MAST WITH 60 IN FORKS	
42	91363189	1	CAPACITY CHART, PERSONNEL PLATFORM	

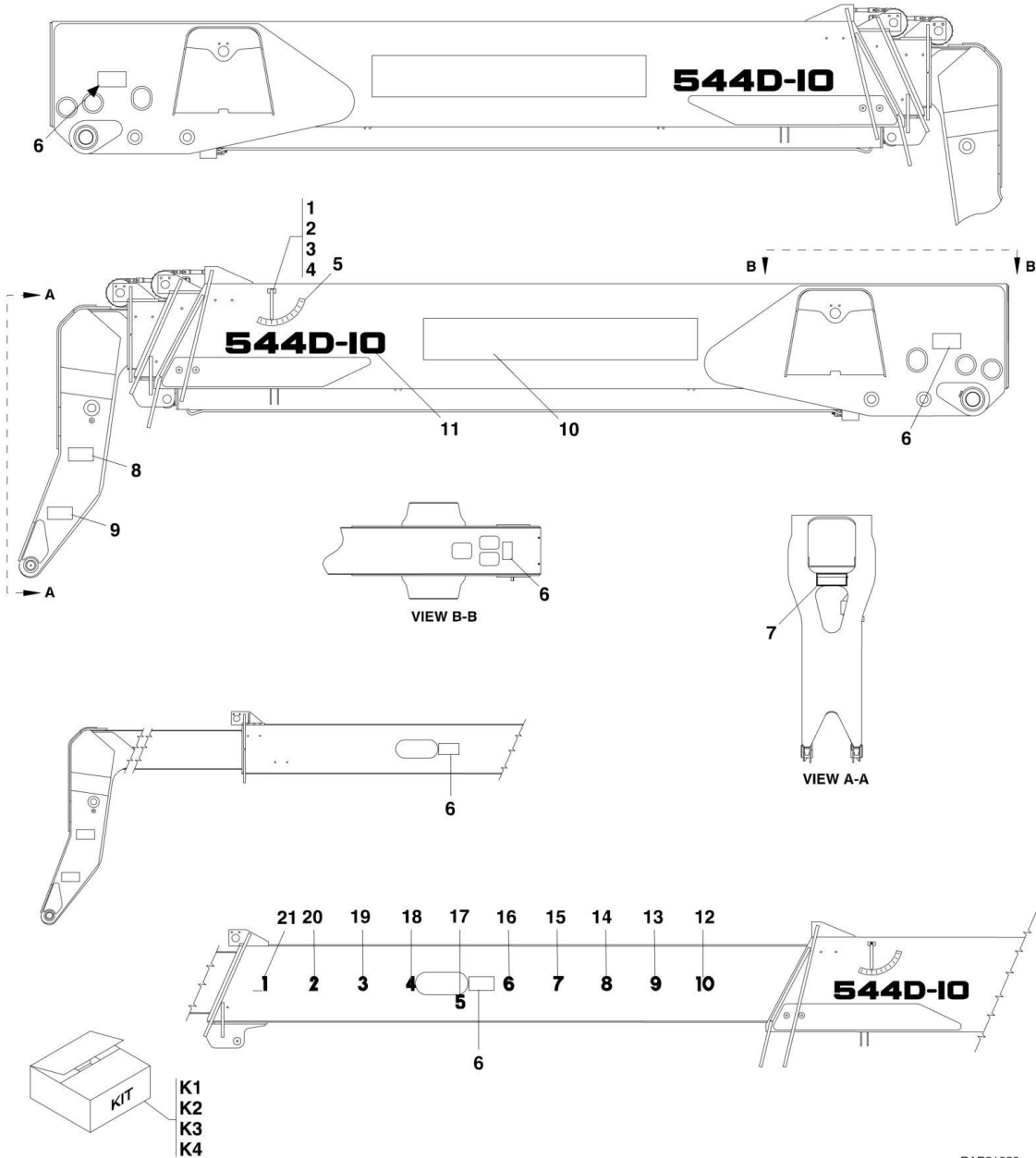


## SECTION 11 - DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	1001106008	1	LOAD CHART BOOKLET, (includes all items) <b>(SN 0160037689 to Present)</b>	4
42	1001106040	1	CAPACITY CHART, STD CARRIAGE	
42	1001106065	1	CAPACITY CHART, TILT CARRIAGE	
42	1001106090	1	CAPACITY CHART, SWING CARRIAGE	
42	1001106115	1	CAPACITY CHART, 102 IN BUCKET	
42	1001106140	1	CAPACITY CHART, 15 FT TRUSS BOOM	
42	1001106165	1	CAPACITY CHART, PERSONNEL PLATFORM	
42	1001110408	1	LOAD CHART BOOKLET, (includes following five items) <b>(SN 0160037964 to Present)</b>	3
42	1001106194	1	GRAPPLE BUCKET	
42	1001106229	1	TRUSS BOOM WITH WINCH	
42	1001106299	1	VERTICAL MAST	
42	1001106186	1	SWING CARRIAGE	
42	1001111252	1	VERTICAL MAST WITH SIDE TILT ELECTRIC	
43	1706300	1	ETHER DECAL <b>(SN 0160035037 to Present, Excluding 0160035922)</b>	
44	91143280	1	WARNING DECAL <b>(SN 0160003969 through 0160027141)</b>	
K1	91555007	1	DECAL KIT, (includes items 1 thru 19, 21 thru 23, 27 thru 31, 34, 40 plus items 2, 6 thru 9, 21 & 91553072 on BOOM DECALS)	E
K2	91365056	1	544D-10 DECAL KIT, (Spanish)	
K3	91365055	1	544D-10 DECAL KIT, (Portuguese)	
K4	91555026	1	NATIONS RENT DECAL KIT	
K5	91555027	1	NES RENTALS DECAL KIT	
K6	91365051	1	SUNBELT RENTALS DECAL KIT	
K7	91365074	1	UNITED RENTALS DECAL KIT	
K8	91555029	1	CORPORATE LOGOS DECAL KIT	
K9	91555028	1	H AND E RENTALS DECAL KIT	
K10	1001094648	1	RSC DECAL KIT	

# SECTION 11 - DECALS

FIGURE 11-4. BOOM DECALS (SN 0355001 through 0455362, SN 0160000192 through 0160012544)



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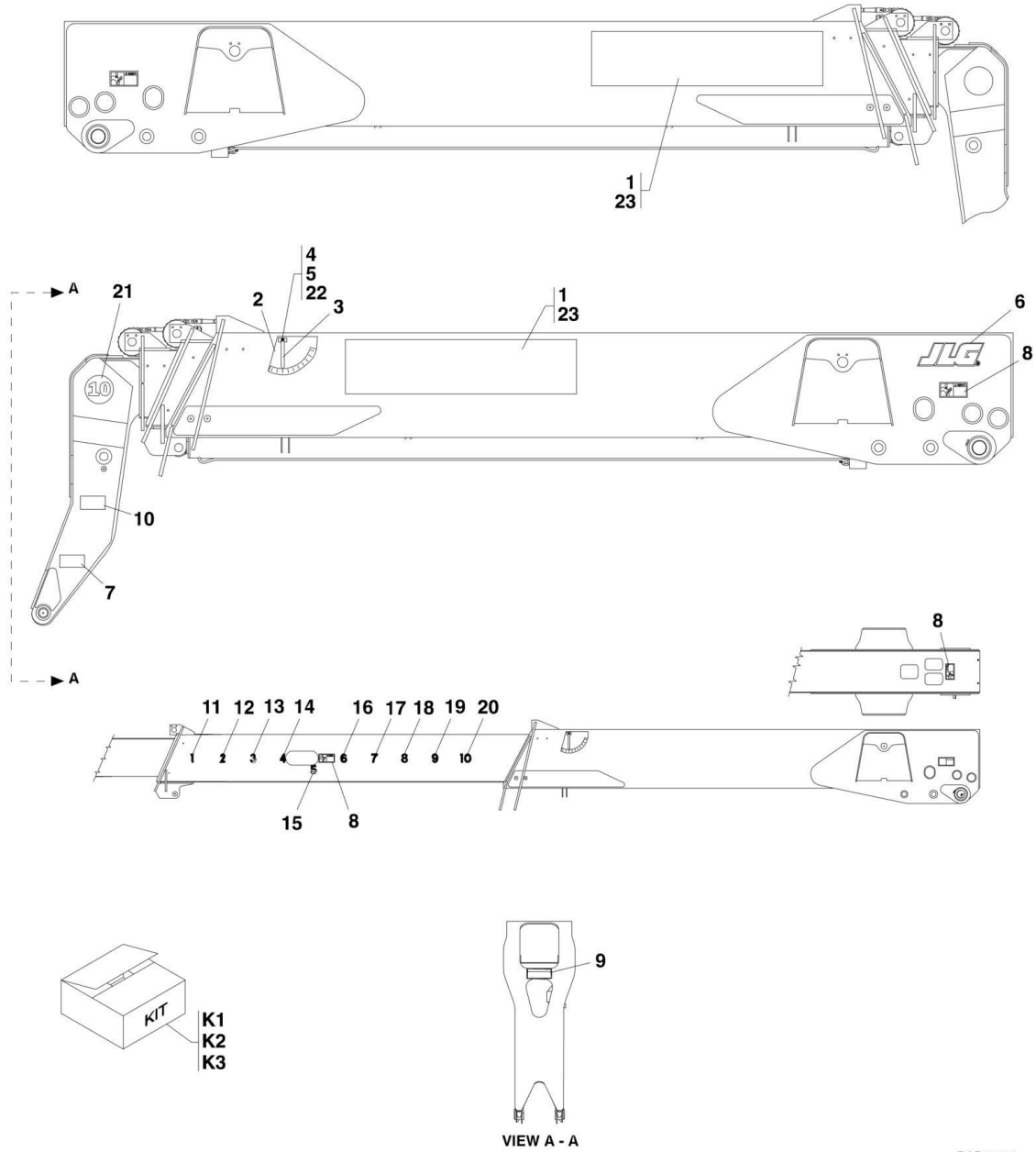
## SECTION 11 - DECALS

**FIGURE 11-4. BOOM DECALS (SN 0355001 through 0455362, SN 0160000192 through 0160012544)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90200445	1	PENDULUM	
2	90200688	1	BEARING	
3	90026491	1	SHOULDER BOLT, 1/4-20	
4	91333036	1	SPECIAL WASHER	
5	91003031	1	BOOM ANGLE DECAL	
6	80603037	7	HOLE WARNING DECAL	
7	91343010	1	WARNING DECAL (SN 0355001 through 0455026)	
7	90553026	1	WARNING DECAL (SN 0455027 through 0160012544)	
8	91143282	2	WARNING DECAL	
9	91143290	1	WARNING DECAL	
10	91123037	2	GRADALL DECAL, (std), (not supplied with decal kit)	
10	91123038	2	GRADALL DECAL, (opt), (not supplied with decal kit)	
11	91163228	2	544D-10 DECAL, (std) (544D) (Prior to SN 0160006435)	
11	91163229	2	544D-10 DECAL, (opt) (544D) (Prior to SN 0160006435)	
11	1706194	2	544D DECAL (544D) (SN 0160006435 through 0160012544)	
12	91163085	1	"10" DECAL, (std)	
12	91163086	1	"10" DECAL, (opt)	
13	91163083	1	"9" DECAL, (std)	
13	91163084	1	"9" DECAL, (opt)	
14	91163081	1	"8" DECAL, (std)	
14	91163082	1	"8" DECAL, (opt)	
15	91163079	1	"7" DECAL, (std)	
15	91163080	1	"7" DECAL, (opt)	
16	91163077	1	"6" DECAL, (std)	
16	91163078	1	"6" DECAL, (opt)	
17	91123044	1	"5" DECAL, (std)	
17	91123045	1	"5" DECAL, (opt)	
18	91003020	1	"4" DECAL, (std)	
18	91043136	1	"4" DECAL, (opt)	
19	91123042	1	"3" DECAL, (std)	
19	91123043	1	"3" DECAL, (opt)	
20	91003018	1	"2" DECAL, (std)	
20	91043135	1	"2" DECAL, (opt)	
21	91003016	1	"1" DECAL, (std)	
21	91043134	1	"1" DECAL, (opt)	
K1	91165038	1	DECAL KIT, (includes all items except 11, 17 & 25 thru 37 on FRAME DECALS and all items except 1 thru 4 on BOOM DECALS) (SN 0355001 through 0355579)	
K2	91365041	1	DECAL KIT, (includes all items except 11, 17 & 25 thru 37 on FRAME DECALS and all items except 1 thru 4 on BOOM DECALS) (SN 0355580 through 0455026)	
K3	91365059	1	DECAL KIT, (includes all items except 11, 17 & 25 thru 37 on FRAME DECALS and all items except 1 thru 4 on BOOM DECALS) (SN 0455027 through 0160000973)	
K4	91555007	1	DECAL KIT, (includes all items except 16 & 23 thru 36 on FRAME DECALS and all items except 1 thru 4 & 10 on BOOM DECALS) (SN 0160000976 through 0160012544)	A

# SECTION 11 - DECALS

FIGURE 11-5. BOOM DECALS (SN 0160012602 to Present, Including 0160012298)



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## SECTION 11 - DECALS

**FIGURE 11-5. BOOM DECALS (SN 0160012602 to Present, Including 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	1706184	2	12 IN GRADALL DECAL, WHITE, (no longer supplied with decal kit)	
2	4105262	1	BOOM ANGLE DECAL, WHITE	
3	7075611	1	PENDULUM (SN 0160003969 through 0160034720, Including 0160035922)	
3	1001098769	1	PENDULUM (SN 0160035037 to Present, Excluding 0160035922)	
4	8305647	1	NUT (SN 0160003969 through 0160034720, Including 0160035922)	
4	8305645	1	NUT (SN 0160035037 to Present, Excluding 0160035922)	
5	8307113	3	WASHER (SN 0160003969 through 0160034720, Including 0160035922)	
5	4711700	1	WASHER (SN 0160035037 to Present, Excluding 0160035922)	
6	1706101	2	7 IN JLG DECAL	
7	91143290	1	WARNING DECAL	
8	80603037	7	WARNING DECAL	
9	90553026	1	WARNING DECAL	
10	91143282	2	WARNING DECAL	
11	91003016	1	"1" DECAL, WHITE, (std)	
11	91043134	1	"1" DECAL, BLACK, (opt)	
12	91003018	1	"2" DECAL, WHITE, (std)	
12	91043135	1	"2" DECAL, BLACK, (opt)	
13	91123042	1	"3" DECAL, WHITE, (std)	
13	91123043	1	"3" DECAL, BLACK, (opt)	
14	91003020	1	"4" DECAL, WHITE, (std)	
14	91043136	1	"4" DECAL, BLACK, (opt)	
15	91123044	1	"5" DECAL, WHITE, (std)	
15	91123045	1	"5" DECAL, BLACK, (opt)	
16	91163077	1	"6" DECAL, WHITE, (std)	
16	91163078	1	"6" DECAL, BLACK, (opt)	
17	91163079	1	"7" DECAL, WHITE, (std)	
17	91163080	1	"7" DECAL, BLACK, (opt)	
18	91163081	1	"8" DECAL, WHITE, (std)	
18	91163082	1	"8" DECAL, BLACK, (opt)	
19	91163083	1	"9" DECAL, WHITE, (std)	
19	91163084	1	"9" DECAL, BLACK, (opt)	
20	91163085	1	"10" DECAL, WHITE, (std)	
20	91163086	1	"10" DECAL, BLACK, (opt)	
21	1706100	2	GOOSENECK DECAL, 10	
22	1001096404	1	SPACER (SN 0160035037 to Present, Excluding 0160035922)	
23	1001106733	2	JLG DECAL	
K1	91555007	1	DECAL KIT, (includes items 1 thru 19, 21 thru 23, 27 thru 31, 34 & 40 on FRAME DECALS plus items 2, 6 thru 10, 21 & 91553072 on BOOM DECALS)	E
K2	91553072	1	BOOM NUMBERS DECAL KIT, (white), (includes items 11 thru 20)	
K3	91365051	1	SUNBELT RENTALS DECAL KIT	

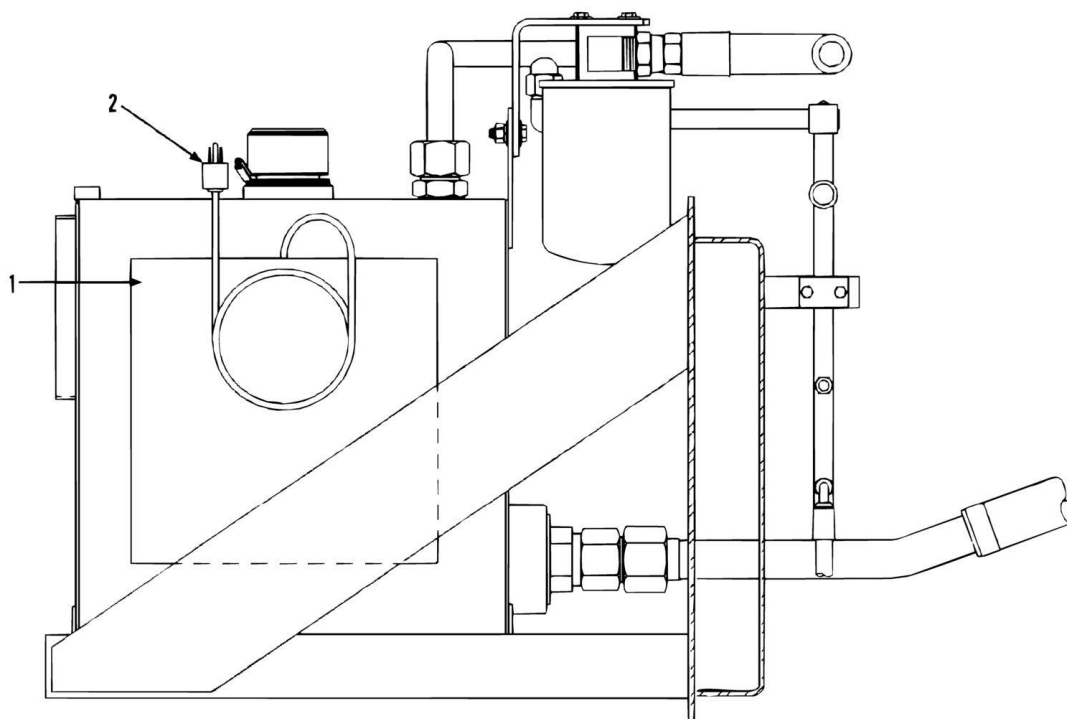


**SECTION 12 - OPTIONS**

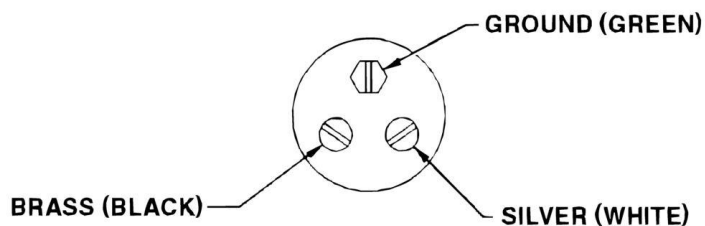
## SECTION 12 - OPTIONS

FIGURE 12-1. HYDRAULIC RESERVOIR HEATER INSTALLATION

1. INSTALL BLANKET AFTER PAINT ONLY.
2. BLANKET TO BE INSTALLED ON HYDRAULIC TANK WALL, BETWEEN HYDRAULIC TANK AND FUEL TANK.
3. POSITION BLANKET AS CLOSE TO CENTER OF TANK AS POSSIBLE.
4. STOW AWAY ELECTRICAL CORD BETWEEN TANKS.



SECTION VIEW THROUGH FRAME SHOWING INSIDE WALL OF HYDRAULIC TANK





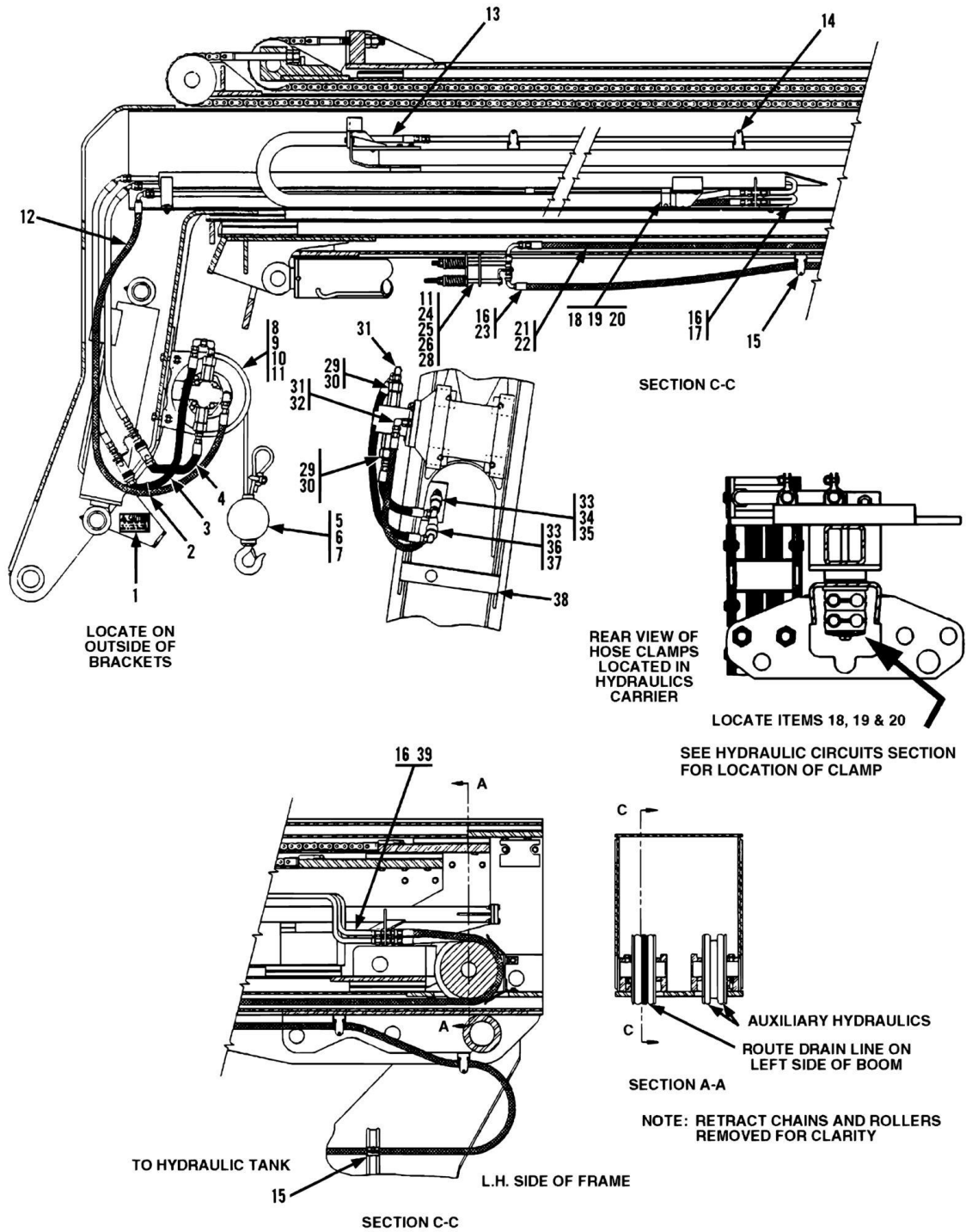
## SECTION 12 - OPTIONS

**FIGURE 12-1. HYDRAULIC RESERVOIR HEATER INSTALLATION**

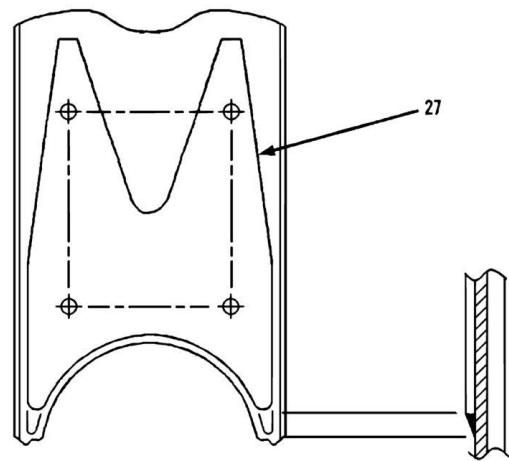
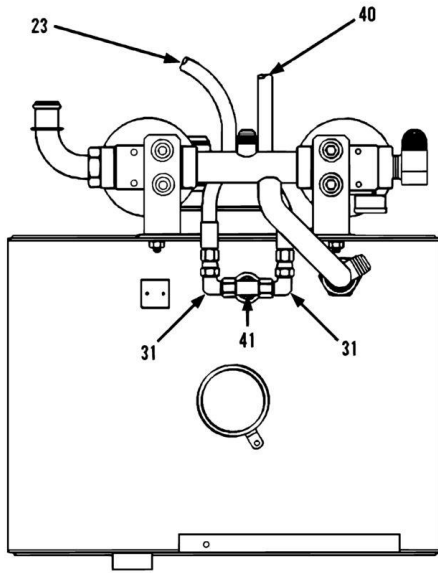
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91085073	1	HYDRAULIC RESERVOIR HEATER, (includes all items)	
1	91083574	1	HEATING BLANKET	
2	91083430	1	PLUG	

# SECTION 12 - OPTIONS

## FIGURE 12-2. WINCH INSTALLATION



# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

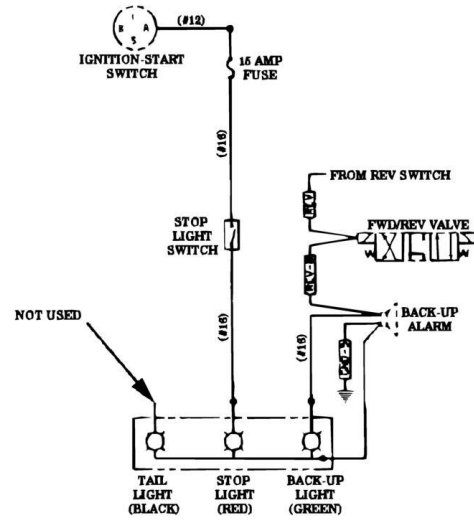
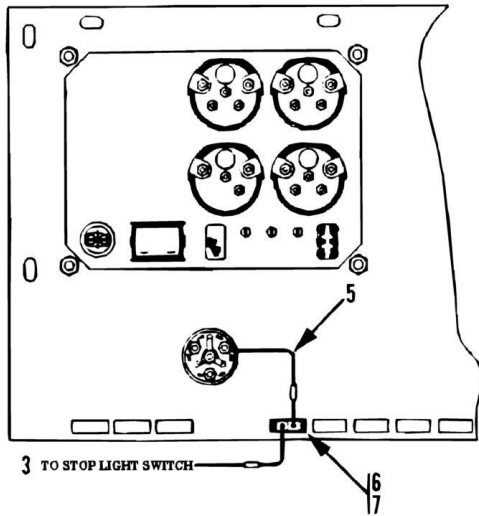
### FIGURE 12-2. WINCH INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165011	Ref	WINCH INSTALLATION, (includes all items except item 40)	M
1	91083535	1	CAUTION DECAL	
2	90027187	5	TIE WRAP, (locate as required)	
3	84716148	1	HOSE ASSY	
4	84718046	1	HOSE ASSY	
5	90207882	1	CABLE	
6	90201443	1	HOOK AND BALL	
7	90028990	1	WIRE ROPE CLIP	
8	91363079	1	WINCH	
9	88201070	4	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5	
10	90027471	8	HARDENED WASHER, 1/2	
11	88501008	5	HEX NUT, 1/2-13	
12	84719474	1	HOSE ASSY	
13	84718959	1	HOSE ASSY	
14	91083217	3	CUSHION CLAMP	
15	90207463	5	CUSHION CLAMP	
16	2230025	3	BULKHEAD UNION, 3/4-16X1/2 TUBE	
17	91163064	1	TUBE ASSY	
18	77133389	3	STACK BOLT	
19	77133139	3	TUBE CLAMP	
20	77133390	3	SAFETY CLIP	
21	84719455	1	HOSE ASSY	
22	2220386	1	ELBOW, 90, (swivel nut)	
23	84718427	1	HOSE ASSY	
24	91121134	1	SPRING RETAINER	
25	91123054	1	COMPRESSION SPRING	
26	91166072	1	HOSE TAKE-UP WELDMENT	
27	91141194	1	WINCH MOUNTING PLATE	
28	88501108	1	HEAVY HEX JAM NUT, 1/2-13	
29	91033161	2	FLOW REGULATOR	
30	2220624	2	ADAPTER	
31	8765204	4	ELBOW, 90, (swivel nut)	
32	2220342	1	MALE ADAPTER, 1/4X1/2 TUBE	
33	88661113	2	ELBOW, 90 <b>(Prior to SN 0160030009)</b>	
33	2220659	2	ELBOW, 90 <b>(SN 0160030009 to Present)</b>	
34	91163139	1	FEMALE COUPLER <b>(Prior to SN 0160030009)</b>	
34	91403413	1	ADAPTER <b>(SN 0160030009 to Present)</b>	
35	91043125	1	DUST PLUG	
36	91163138	1	MALE COUPLER <b>(Prior to SN 0160030009)</b>	
36	91403414	1	ADAPTER <b>(SN 0160030009 to Present)</b>	
37	91043126	1	DUST CAP	
38	91121159	1	STOWAGE BRACKET	
39	91163063	1	TUBE ASSY	
40	84718164	1	HOSE ASSY	
41	2220383	1	TEE FITTING	

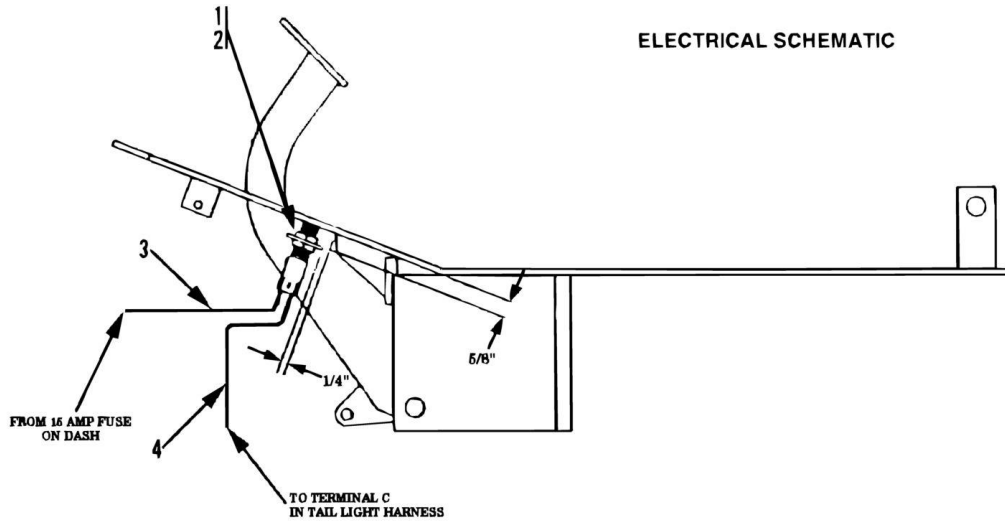


# SECTION 12 - OPTIONS

## FIGURE 12-3. STOP LIGHT INSTALLATION

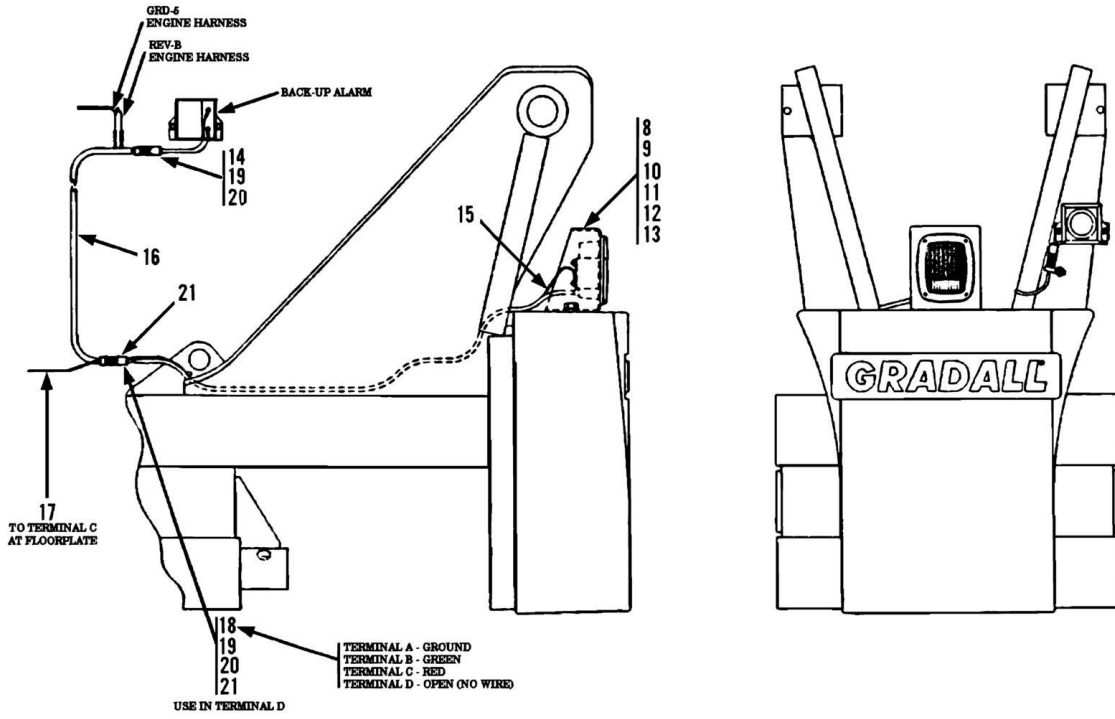


ELECTRICAL SCHEMATIC



STOPLIGHT SWITCH MOUNTING ON BRAKE PEDAL

# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

**FIGURE 12-3. STOP LIGHT INSTALLATION**

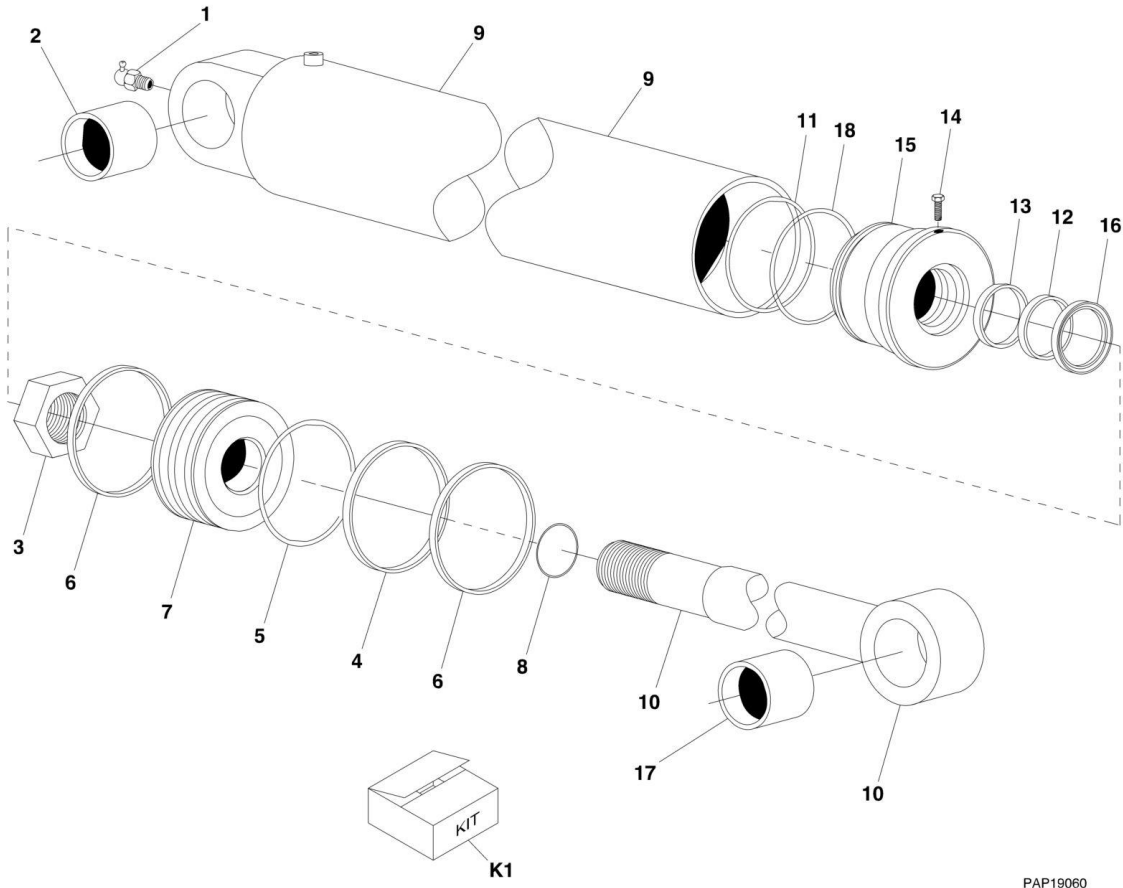
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125055	Ref	STOP LIGHT INSTALLATION, (includes all items)	
1	91141197	1	MOUNTING TAB	
2	91143117	1	STOPLIGHT SWITCH	
3	91141256	1	JUMPER WIRE	
4	91141257	1	JUMPER WIRE	
5	91141259	1	JUMPER WIRE	
6	91143108	1	FUSE HOLDER	
7	77363268	1	15 AMP FUSE	
8	91121145	1	TAIL LIGHT HOUSING	
9	91121146	1	TAIL LIGHT BRACKET	
10	91123065	1	STOP/TAIL/TURN/BACK-UP LAMP	
11	88201108	1	HEX HD CAPSCREW, 3/4-10X1 1/4, GR5	
12	88561115	1	FLAT WASHER, 3/4	
13	88551016	1	LOCKWASHER, 3/4	
14	80963058	1	WEATHER PACK SHROUD	
15	91141364	1	JUMPER WIRE	
16	91143210	1	TAIL LIGHT HARNESS	
17		Ref	JUMPER WIRE, (shown for Ref only, see item 4)	
18	80963062	1	WEATHER PACK SHROUD	
19	4460475	5	MALE PIN TERMINAL	
20	80963066	5	CABLE SEAL	
21	80963070	2	CAVITY PLUG	





# SECTION 12 - OPTIONS

## FIGURE 12-4. SWING CYLINDER



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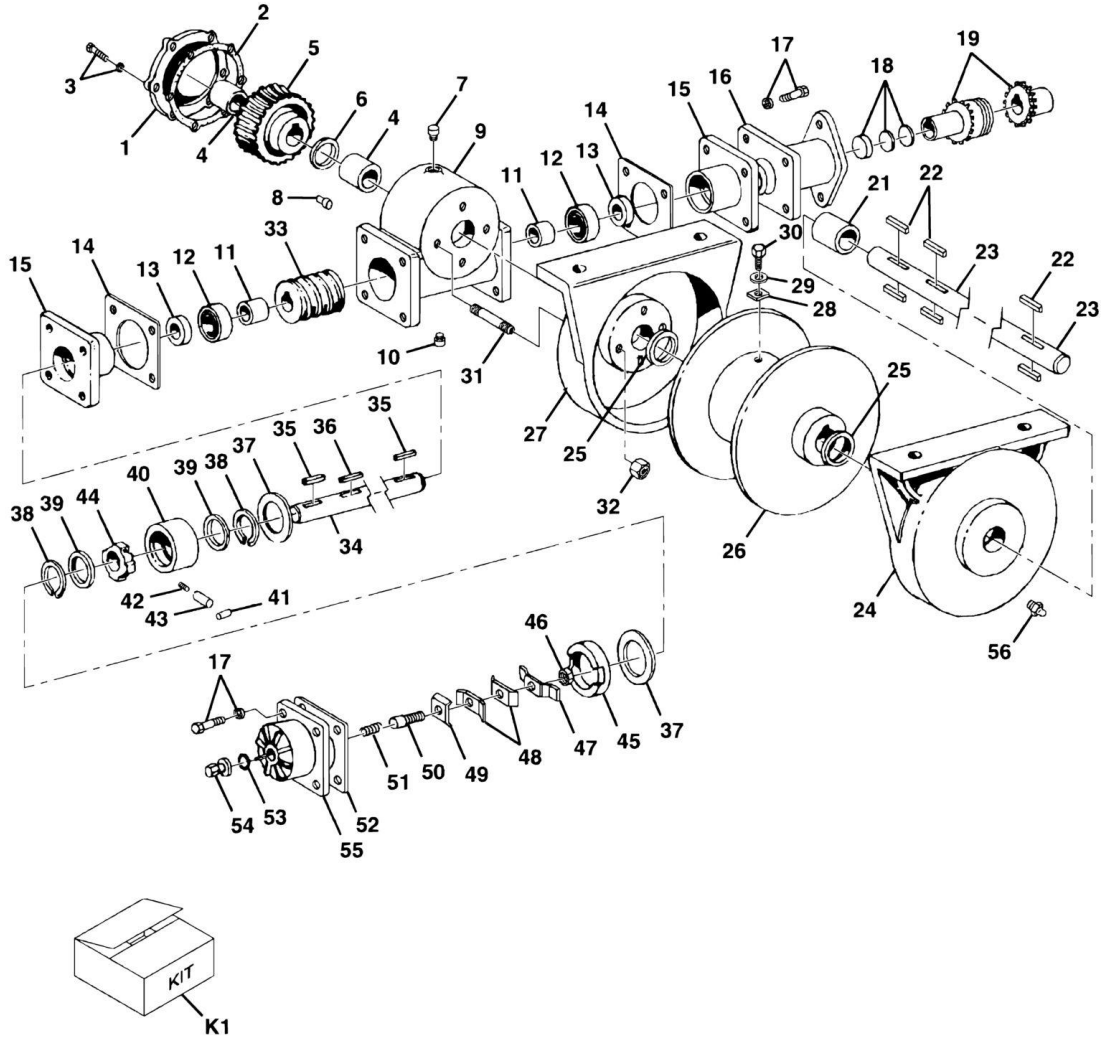
## SECTION 12 - OPTIONS

### FIGURE 12-4. 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	Kit	1	PISTON SEAL	
5	Kit	1	O-RING	
6	Kit	2	WEAR RING	
7	91554034	1	PISTON ASSY	
8	Kit	1	O-RING	
9	91034435	1	BARREL	
10	91034436	1	PISTON ROD	
11	Kit	1	BACK-UP RING	
12	Kit	1	U-CUP	
13	Kit	1	STEP SEAL	
14	91124096	1	SELF-TAPPING SCREW	
15	91144040	1	CYLINDER HEAD	
16	Kit	1	WIPER	
17	91124087	1	BUSHING	
18	Kit	1	O-RING	
K1	91144006	1	SEAL KIT, (includes items 4 thru 6, 8, 11 thru 13, 16 & 18)	

# SECTION 12 - OPTIONS

## FIGURE 12-5. TRUSS BOOM WINCH (Prior to SN 0160037689)



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## SECTION 12 - OPTIONS

**FIGURE 12-5. TRUSS BOOM WINCH (Prior to SN 0160037689)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90453050	Ref	TRUSS BOOM WINCH, (includes all items on this page and on WINCH MOTOR)	B
1	91404388	1	GEAR CASE COVER	
2	91404409	1	GEAR CASE GASKET	
3	88201035	6	HEX HD CAPSCREW, 3/8-16X1, GR5	
3	88551011	6	LOCKWASHER, 3/8	
4	91404394	2	BUSHING	
5	N.S.S.	1	WORM GEAR	
6	91404412	1	BUSHING	
7	N.S.S.	1	OIL FILL PLUG	
8	91404418	1	OIL LEVEL PLUG	
9	91404383	1	GEAR CASE	
10	91404419	1	OIL DRAIN PLUG	
11	91404396	2	COLLAR	
12	91404416	2	BEARING	
13	91404421	2	OIL SEAL	
14	91404408	2	BEARING HUB GASKET	
15	91404420	2	BEARING HUB	
16	N.S.S.	1	MOTOR MOUNT ADAPTER	
17	88201037	12	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
17	88551011	8	LOCKWASHER, 3/8	
18	90208187	AR	COUPLER SPACER	
19	90208181	1	COUPLER WINCH SHAFT	
21	N.S.S.	1	LOCK SEAT BUSHING	
22	91404392	6	CABLE DRUM SHAFT KEY	
23	90208148	1	CABLE DRUM SHAFT, 5 IN	
24	N.S.S.	1	LOCK SET, 8 IN	
25	91404411	2	WASHER	
26	91404386	1	CABLE DRUM, 5 IN	
27	90208143	1	LOCK SET, 5 IN	
28	N.S.S.	1	WIRE ROPE LOCK	
29	88551011	1	LOCKWASHER, 3/8	
30	88201036	1	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
31	91404395	4	STUD BOLT, 1/2-13X1-1/2	
32	88501008	4	HEX NUT, 1/2-13	
33	N.S.S.	1	WORM	
34	91404389	1	WORM SHAFT, (includes item 33)	
35	91404413	2	WORM SHAFT KEY	
36	N.S.S.	1	WORM SHAFT KEY	
37	Kit	2	BRAKE LINING	
38	Kit	2	LOCK RING, (V.C. type)	
39	Kit	2	SEAL	
40	Kit	1	BRAKE HOUSING	
41	Kit	1	ROLLER	
42	Kit	1	BRAKE DRUM HOUSING	
43	Kit	1	SPRING SET	
44	Kit	1	BRAKE DRUM	
45	Kit	1	BRAKE PLATE	
46	88501006	1	HEX NUT, 3/8-16	
47	Kit	1	BRAKE PLATE	

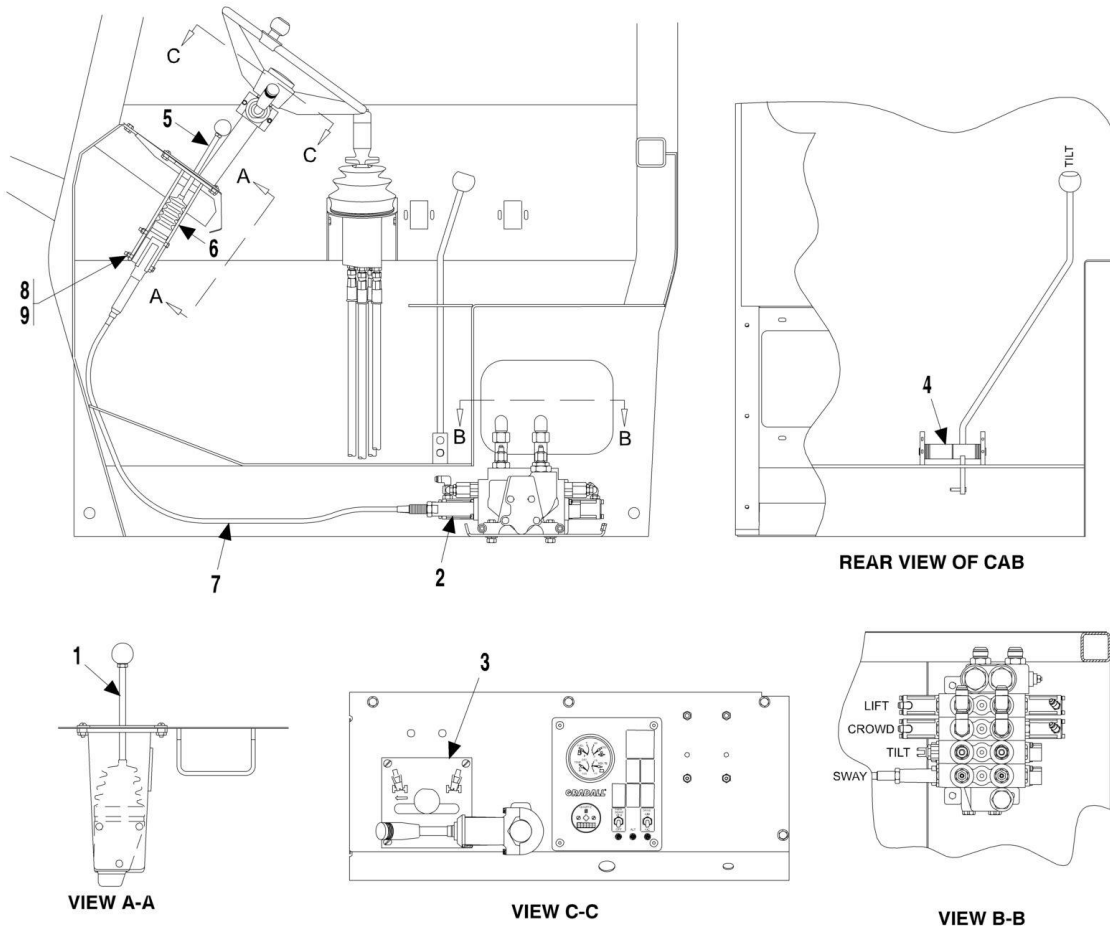
## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	Kit	2	BRAKE PLATE	
49	Kit	1	FIXING PLATE	
50	Kit	1	ADJUSTING BOLT	
51	Kit	1	SPRING	
52	Kit	1	BRAKE COVER GASKET	
53	Kit	1	O-RING	
54	Kit	1	ADJUSTING NUT	
55	Kit	1	BRAKE DRUM	
56	88671001	1	STRAIGHT LUBE FITTING, 1/8	
K1	70020227	1	BRAKE KIT, (includes items 37 thru 45 & 47 thru 55)	



# SECTION 12 - OPTIONS

## FIGURE 12-6. LH SWAY ASSEMBLY (Prior to SN 0160024648)





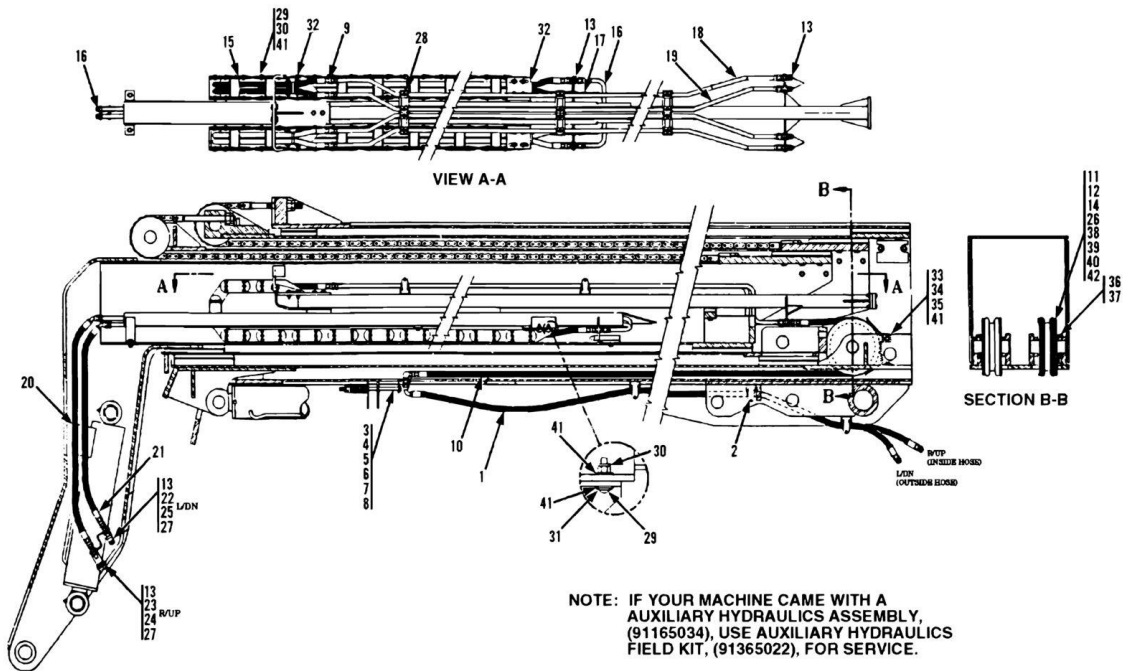
## SECTION 12 - OPTIONS

**FIGURE 12-6. LH SWAY ASSEMBLY (Prior to SN 0160024648)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145079	1	LH SWAY ASSY, (includes all items)	
1	91335014	1	REMOTE VALVE CONTROL ASSY, (includes items 5 thru 9)	
2	91123062	1	CABLE ADAPTER BONNET	
3	91143371	1	GUIDE PLATE	
4	91301020	1	SPACER	
5	91303019	1	REMOTE VALVE CONTROL	
6	91146119	1	LEVER BRACKET	
7	91363043	1	CONTROL CABLE	
8	88201012	3	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
9	88521304	3	HEX LOCKNUT, 1/4-20	

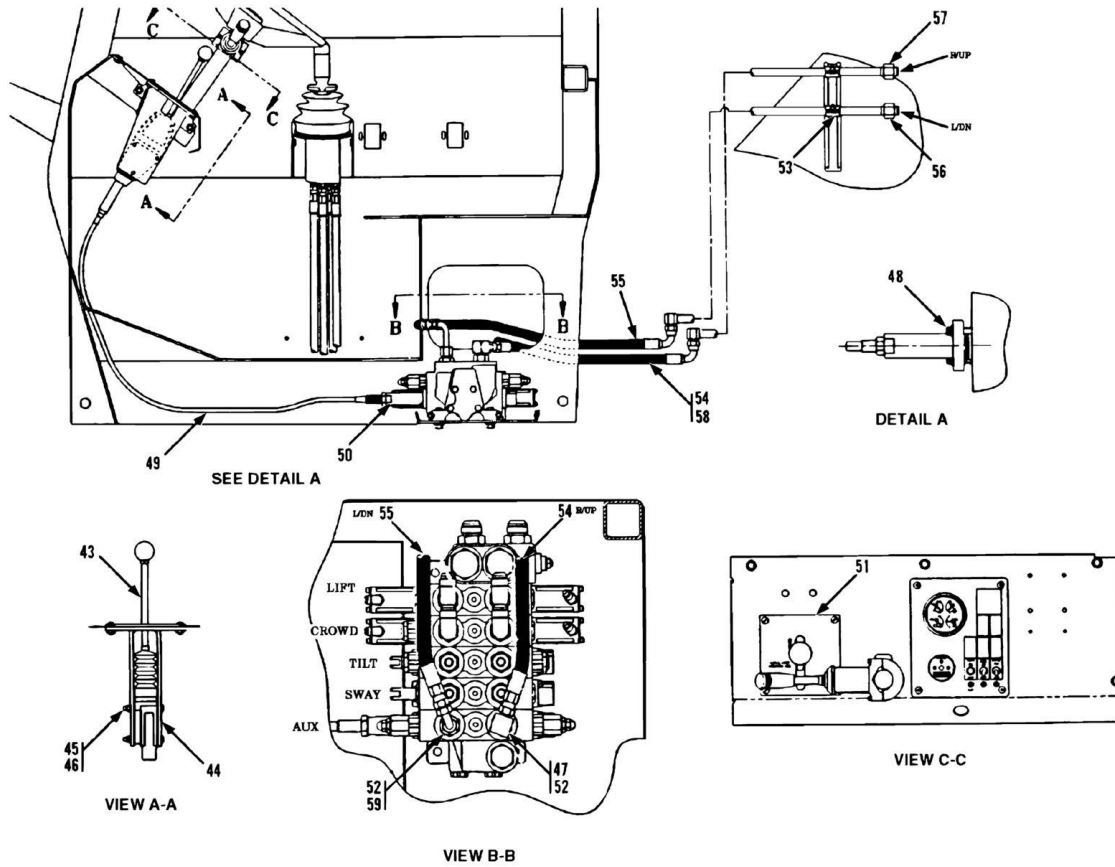
# SECTION 12 - OPTIONS

FIGURE 12-7. AUXILIARY HYDRAULIC FIELD KIT (Prior to SN 0160024648)



NOTE: IF YOUR MACHINE CAME WITH A  
 AUXILIARY HYDRAULICS ASSEMBLY,  
 (91165034), USE AUXILIARY HYDRAULICS  
 FIELD KIT, (91365022), FOR SERVICE.

# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

**FIGURE 12-7. AUXILIARY HYDRAULIC FIELD KIT (Prior to SN 0160024648)**

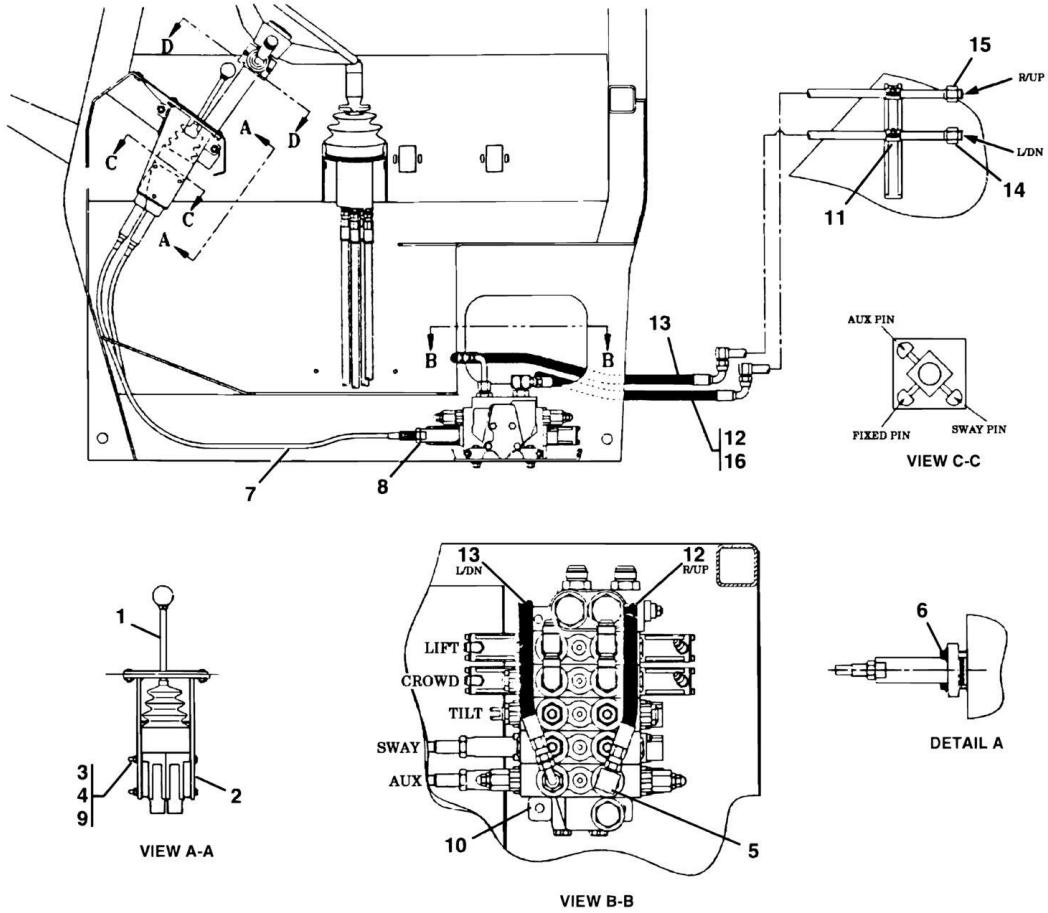
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365022	Ref	AUX HYDRAULICS FIELD KIT, (includes all items)	I
	91345010	1	REMOTE VALVE CONTROL ASSY, (includes items 43 thru 46 & 49)	A
1	84719018	2	HOSE ASSY	
2	90207463	8	CUSHION CLAMP	
3	91166068	2	HOSE TAKE UP WELDMENT	
4	91123054	2	COMPRESSION SPRING	
5	91121134	2	SPRING RETAINER	
6	88501008	2	HEX NUT, 1/2-13	
7	88501108	2	JAM NUT, 1/2-13	
8	2230044	2	BULKHEAD FITTING, 90	
9	84718959	2	HOSE ASSY	
10	84719455	2	HOSE ASSY	
11	3423301	1	HOSE SHEAVE PIN	
12	91143024	1	HOSE SHEAVE	
13	88661085	6	BULKHEAD FITTING	
14	91041451	2	THRUST WASHER	
15	91363203	1	HOSE CARRIER	
16	91163059	1	TUBE ASSY	
17	91163060	1	TUBE ASSY	
18	91163061	1	TUBE ASSY	
19	91163062	1	TUBE ASSY	
20	84718637	1	HOSE ASSY	
21	84718943	1	HOSE ASSY	
22	91163138	1	MALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
22	91403414	1	MALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
23	91163139	1	FEMALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
23	91403413	1	FEMALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
24	91043125	1	DUST PLUG	
25	91043126	1	DUST CAP	
26	88671001	1	STRAIGHT LUBE FITTING, 1/8	
27	88712304	2	PIPE BUSHING, (Prior to SN 2005283-01)	
27	91083335	2	STRAIGHT THREAD ADAPTER, (SN 2005283-01 to Present)	
28	91083217	6	TUBE CLAMP	
29	88261030	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
30	88521306	8	LOCKNUT, 3/8-16	
31	88561109	4	FLAT WASHER, 3/8	
32	90027187	4	TIE WRAP	
33	91566043	1	HOSE GUIDE BRACKET	
34	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
35	88551011	3	LOCKWASHER, 3/8	
36	88201074	1	HEX HD CAPSCREW, 1/2-13X3-1/4, GR5	
37	88551013	1	LOCKWASHER, 1/2	
38	91041449	2	THRUST WASHER	
39	91041450	2	THRUST WASHER	
40	91041596	2	THRUST WASHER	
41	88561004	15	FLAT WASHER, 3/8	
42	14404793	AR	UNION MEGAPLEX GREASE	
43	91303019	1	REMOTE VALVE CONTROL	
44	91366007	1	LEVER BRACKET	

## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	88201012	3	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
46	88521304	3	HEX LOCKNUT, 1/4-20	
47	8765204	1	ELBOW, 90, (swivel nut)	
48	88211044	2	SOCKET HD CAPSCREW, 1/4-20X1-1/2	
49	91363043	1	CONTROL CABLE	
50	91123062	1	CABLE ADAPTER BONNET	
51	91363045	1	GUIDE PLATE	
52	2220375	2	CONNECTOR, (includes o-ring)	
52	88591207	2	O-RING	
53	90207463	2	CUSHION CLAMP	
54	84718685	1	HOSE ASSY	
55	84718686	1	HOSE ASSY	
56	91163096	1	TUBE ASSY	
57	91163097	1	TUBE ASSY	
58	90027187	2	NYLON TIE	
59	2220471	1	ELBOW, 90	

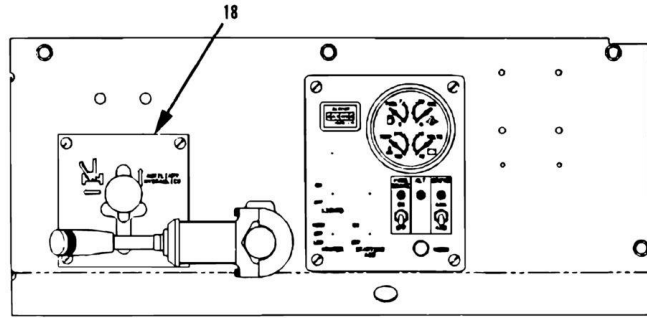
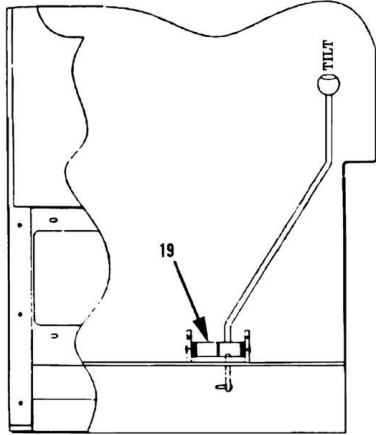
# SECTION 12 - OPTIONS

FIGURE 12-8. AUXILIARY HYDRAULICS AND SWAY ASSEMBLY (Prior to SN 0160024648)

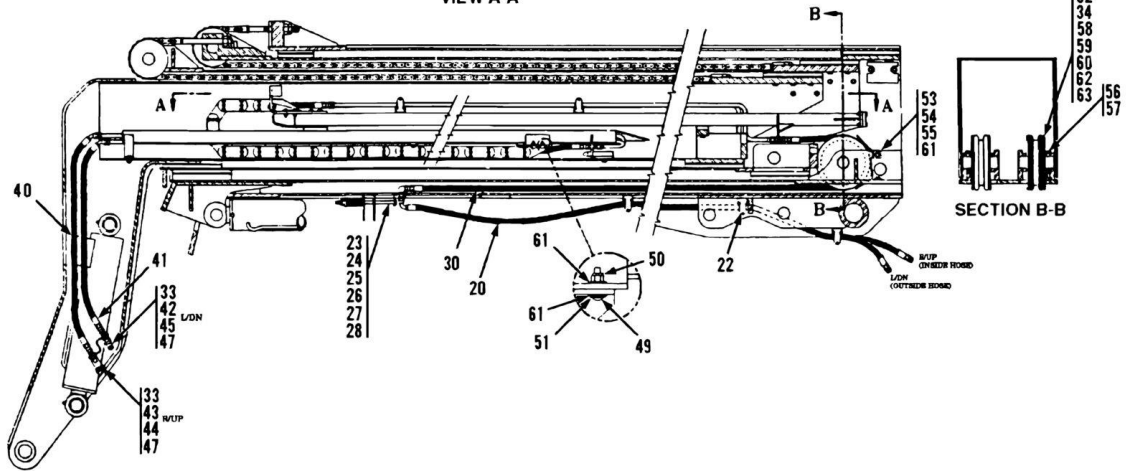
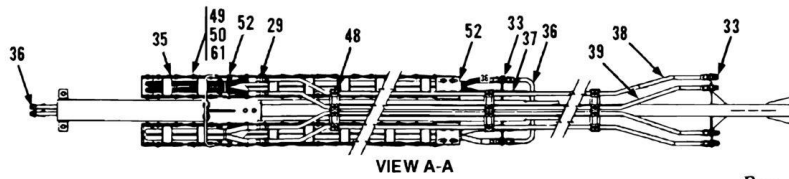


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# SECTION 12 - OPTIONS



REAR VIEW OF CAB



## SECTION 12 - OPTIONS

**FIGURE 12-8. AUXILIARY HYDRAULICS AND SWAY ASSEMBLY (Prior to SN 0160024648)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91165035	1	AUX HYDRAULICS AND SWAY ASSY, (includes all items)	P
	1001100466	1	AUX HYDRAULICS ASSY, (See HYDRAULIC CIRCUITS SECTION for Breakdown)	B
	1001106839	1	AUX HYDRAULICS INSTALLATION	A
1	91083107	1	REMOTE VALVE CONTROL	
1	91084282	1	KNOB	
1	91084359	1	BOOT	
2	91366008	1	LEVER BRACKET	
3	11002410	3	HEX HD CAPSCREW, 1/4-28X4-1/2	
4	88501404	3	HEX NUT, 1/4-28	
5	8765204	1	ELBOW, 90, (swivel nut)	
6	88211044	4	SOCKET HD CAPSCREW, 1/4-20X1-1/2	
7	91363043	2	CONTROL CABLE	
8	91123062	2	CABLE ADAPTER BONNET	
9	88551009	3	LOCKWASHER, 1/4	
10	91365020	1	MAIN CONTROL VALVE ASSY	
11	90207463	2	CUSHION CLAMP	
12	84718685	1	HOSE ASSY	
13	84718686	1	HOSE ASSY	
14	91163096	1	TUBE ASSY	
15	91163097	1	TUBE ASSY	
16	90027187	2	NYLON TIE	
18	91363044	1	GUIDE PLATE	
19	91301020	1	SPACER	
20	84719018	2	HOSE ASSY	
22	90207463	8	CUSHION CLAMP	
23	91166068	2	HOSE TAKE UP WELDMENT	
24	91123054	2	COMPRESSION SPRING	
25	91121134	2	SPRING RETAINER	
26	88501008	2	HEX NUT, 1/2-13	
27	88501108	2	JAM NUT, 1/2-13	
28	2230044	2	BULKHEAD FITTING, 90	
29	84718959	2	HOSE ASSY	
30	84719455	2	HOSE ASSY	
31	3423301	1	HOSE SHEAVE PIN	
32	91143024	1	HOSE SHEAVE	
33	88661085	6	BULKHEAD FITTING	
34	91041451	2	THRUST WASHER	
35	91363203	1	HOSE CARRIER	
36	91163059	1	TUBE ASSY	
37	91163060	1	TUBE ASSY	
38	91163061	1	TUBE ASSY	
39	91163062	1	TUBE ASSY	
40	84718637	1	HOSE ASSY	
41	84718943	1	HOSE ASSY	
42	91163138	1	MALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
42	91403414	1	MALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
43	91163139	1	FEMALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
43	91403413	1	FEMALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
44	91043125	1	DUST PLUG	

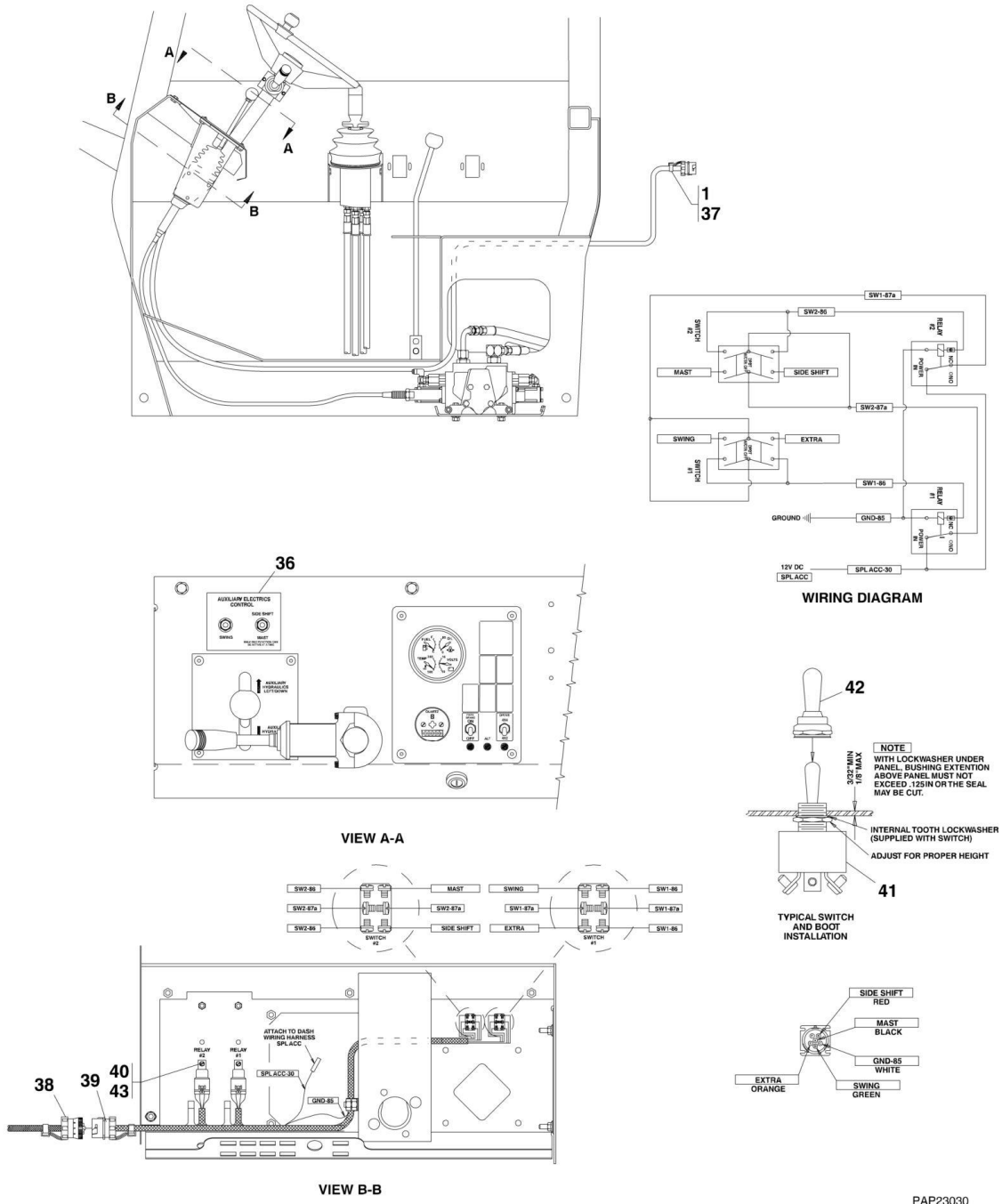


## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	91043126	1	DUST CAP	
47	88712304	2	PIPE BUSHING, (Prior to SN 2005283-01)	
47	91083335	2	STRAIGHT THREAD ADAPTER, (SN 2005283-01 to Present)	
48	91083217	6	TUBE CLAMP	
49	88261030	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
50	88521306	8	LOCKNUT, 3/8-16	
51	88561109	4	FLAT WASHER, 3/8	
52	90027187	4	TIE WRAP	
53	91566043	1	HOSE GUIDE BRACKET	
54	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
55	88551011	3	LOCKWASHER, 3/8	
56	88201074	1	HEX HD CAPSCREW, 1/2-13X3-1/4, GR5	
57	88551013	1	LOCKWASHER, 1/2	
58	91041449	AR	THRUST WASHER	
59	91041450	AR	THRUST WASHER	
60	91041596	AR	THRUST WASHER	
61	88561004	15	FLAT WASHER, 3/8	
62	14404793	AR	UNION MEGAPLEX GREASE	
63	88671001	1	STRAIGHT LUBE FITTING, 1/8	

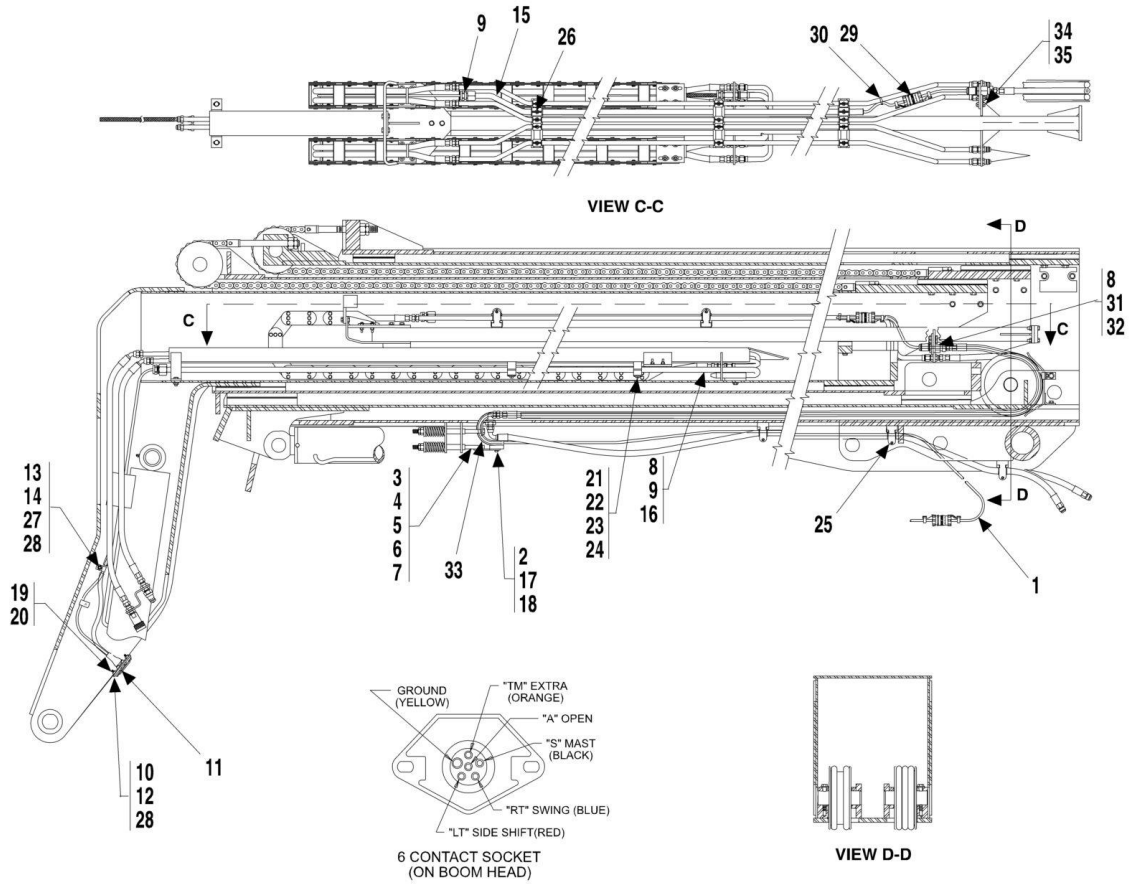
# SECTION 12 - OPTIONS

## FIGURE 12-9. AUXILIARY ELECTRICS ASSEMBLY (Prior to SN 0160024648)



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# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

**FIGURE 12-9. AUXILIARY ELECTRICS ASSEMBLY (Prior to SN 0160024648)**

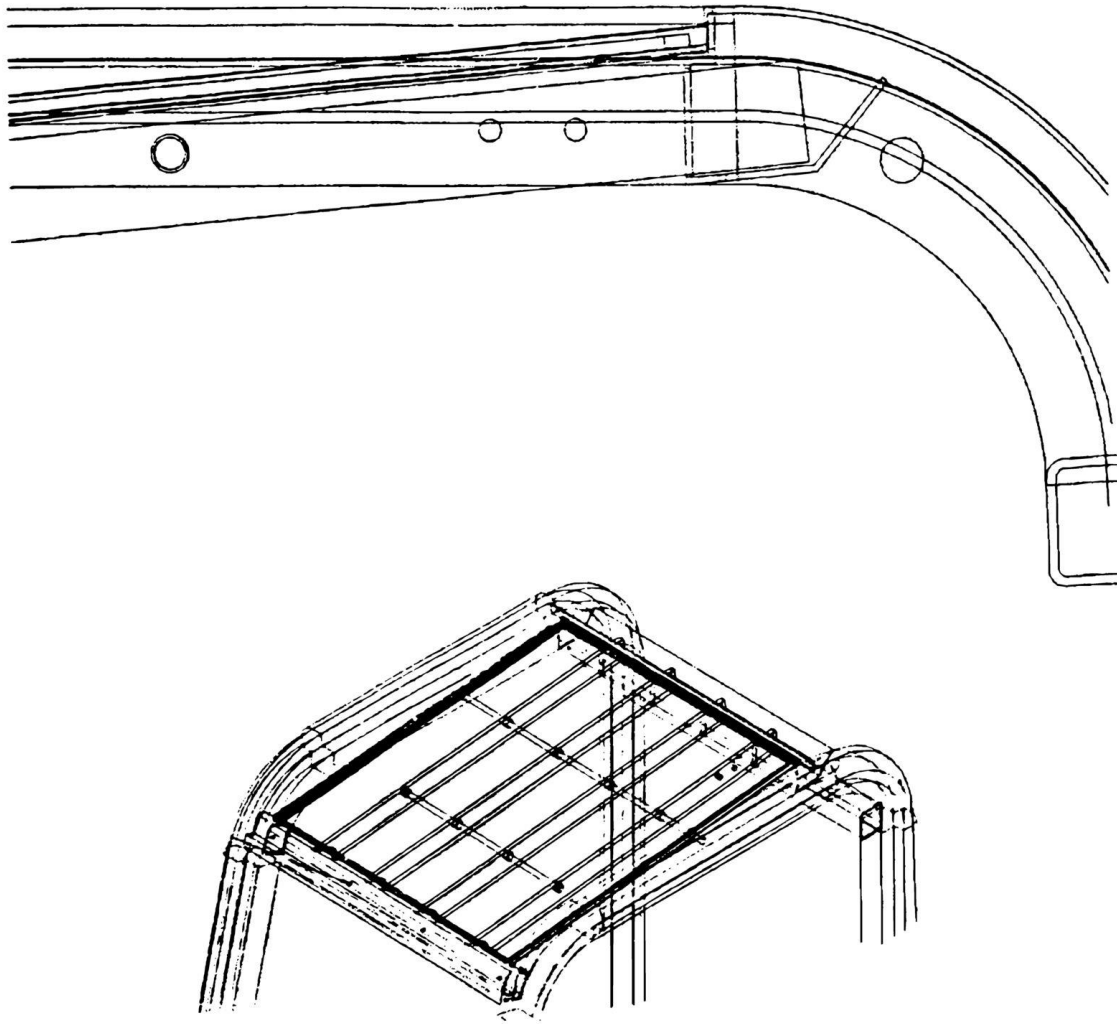
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	AUX ELECTRICS ASSY, (includes all items)	
1	91363151	1	AUX BOOM WIRING HARNESS	
2	91366015	1	HOSE TAKE UP WELDMENT	
3	91126032	1	CABLE TAKE UP SUPPORT	
4	91123054	1	COMPRESSION SPRING	
5	91121134	1	SPRING RETAINER	
6	88501008	1	HEX NUT, 1/2-13	
7	88501108	1	HEAVY HEX JAM NUT, 1/2-13	
8	91163100	2	STRAIGHT THREAD BULKHEAD FITTING	
9	91143141	3	CORD CONNECTOR	
10	91361025	1	PLATE	
11	90207661	1	6 CONTACT SOCKET	
12	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
13	88561107	2	FLAT WASHER, 1/4	
14	88501004	2	HEX NUT, 1/4-20	
15	91363068	1	TUBE ASSY	
16	91163066	1	TUBE ASSY	
17	88201017	2	HEX HD CAPSCREW, 5/16-18X5/8, GR5	
18	88551010	2	LOCKWASHER, 5/16	
19	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
20	88521304	2	HEX LOCKNUT	
21	77133389	3	STACK BOLT	
22	77133136	3	TUBE CLAMP	
23	77133137	3	COVER PLATE	
24	88201023	3	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
25	91043120	4	CUSHION CLAMP	
26	90207463	3	CUSHION CLAMP	
27	91203039	2	CLAMP	
28	88551009	4	LOCKWASHER, 1/4	
29	91363185	NLA	BOOM AUXILIARY WIRING HARNESS, (back-front), (no longer available to order, use 1001126834 for replacement or items below for service)	
29	91143137	1	STRAIN RELIEF	
29	77363232	1	CONNECTOR	
29	1001126834	1	BOOM AUXILIARY WIRING HARNESS, (back-front)	
29	91143137	1	STRAIN RELIEF	
29	77363232	1	CONNECTOR	
29	70024058	1	HOSE CONDUIT	
30	90027187	1	TIE WRAP	
31	88661014	1	ADAPTER	
32	91361032	1	DISCONNECT PLATE	
33	84719455	1	HOSE ASSY	
34	88201035	2	HEX HD CAPSCREW, 3/8-16X1	
35	88551011	2	LOCKWASHER, 3/8	
36	91123155	1	DECAL	
37	90027187	14	NYLON TIE	
38	91143105	1	AUX WIRING HARNESS	
39	91123154	1	AUX DASH HARNESS	
39		Ref	AUX WIRING HARNESS, (See AUXILIARY ELECTRICS ASSEMBLY for Breakdown)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
40	88561105	2	FLAT WASHER, #10	
41	77163204	2	SWITCH	
42	77383470	2	SWITCH BOOT	
43	88301088	2	ROUND HD MACHINE SCREW, #10-24X3/8	

# SECTION 12 - OPTIONS

## FIGURE 12-10. OVERHEAD WINDOW



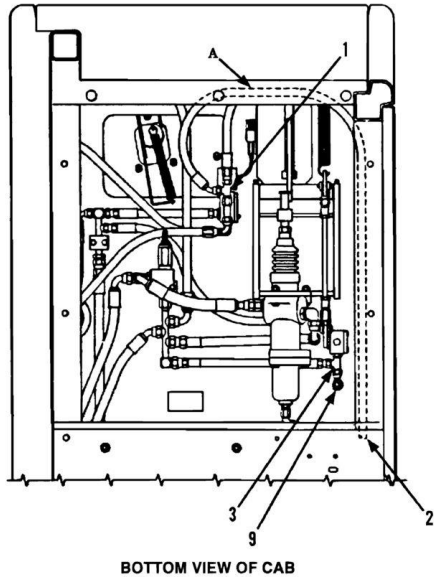
## SECTION 12 - OPTIONS

**FIGURE 12-10. OVERHEAD WINDOW**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91363019	1	OVERHEAD WINDOW	

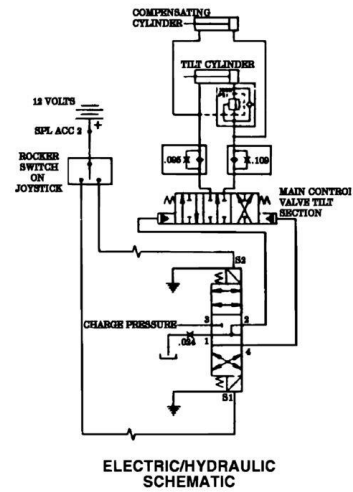
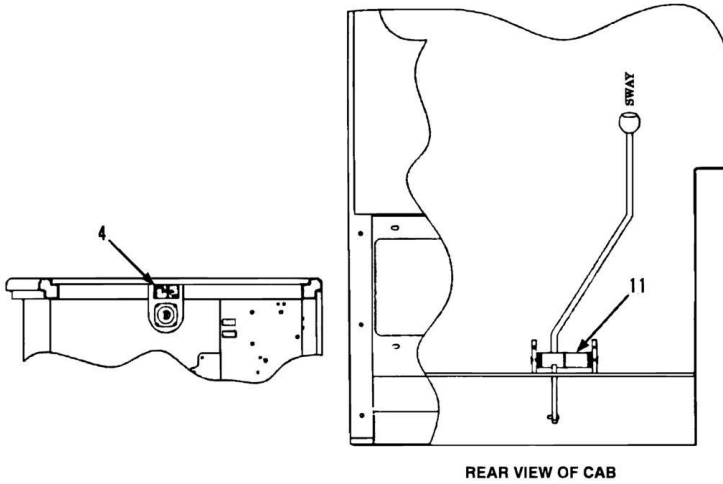
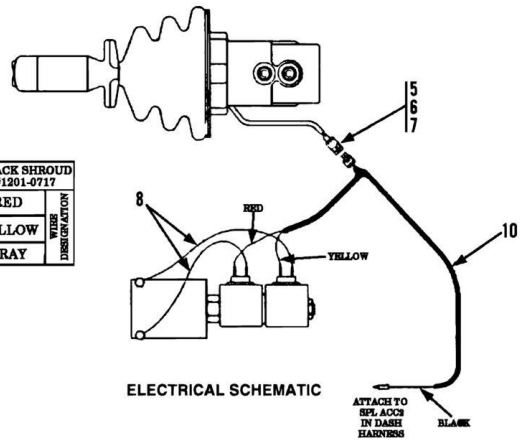
# SECTION 12 - OPTIONS

## FIGURE 12-11. TILT ON JOYSTICK INSTALLATION



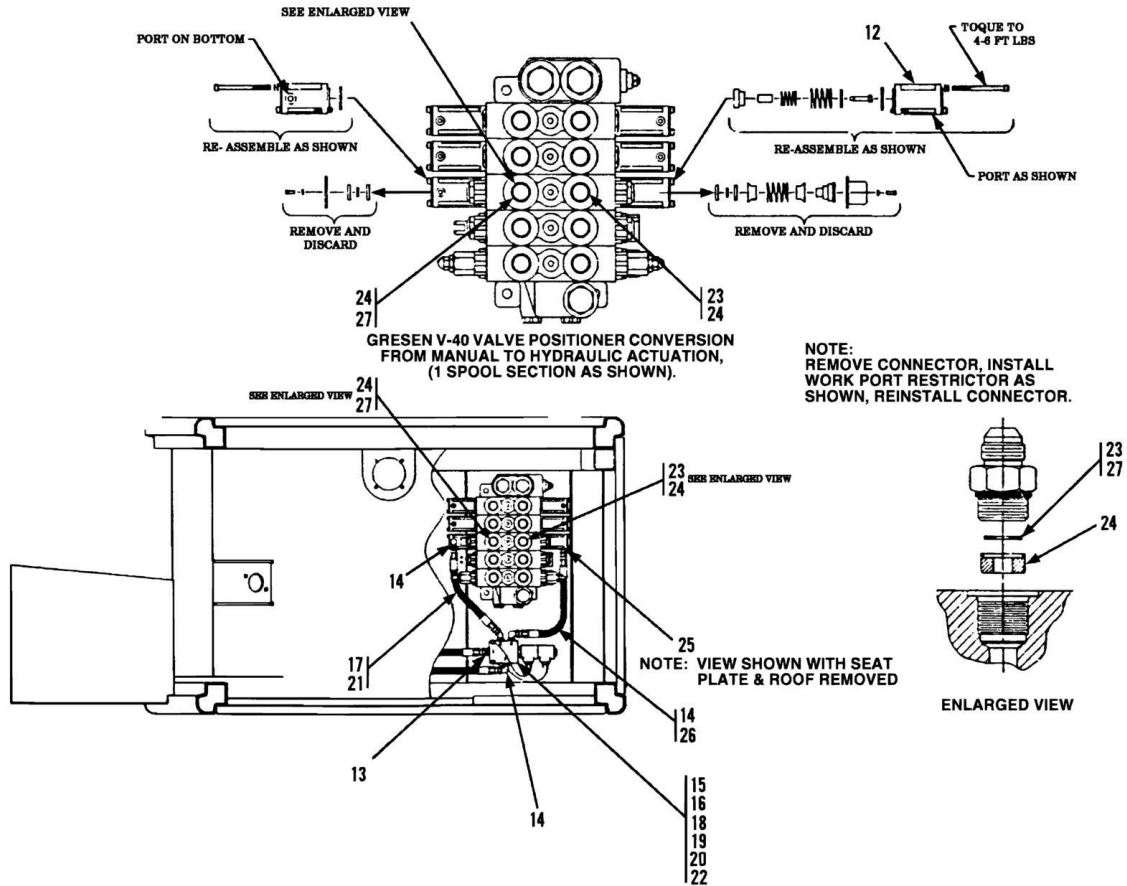
NOTE: IF YOUR MACHINE CAME WITH JOYSTICK INSTALLATION, (91365005), USE JOYSTICK FIELD KIT, (91365024), FOR SERVICE.

WEATHER PACK SHROUD (3-WIRE) #1201-0717		
PIN DESIGNATION	COLOR	WIRE DESIGNATION
A	RED	
B	YELLOW	
C	GRAY	





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## SECTION 12 - OPTIONS

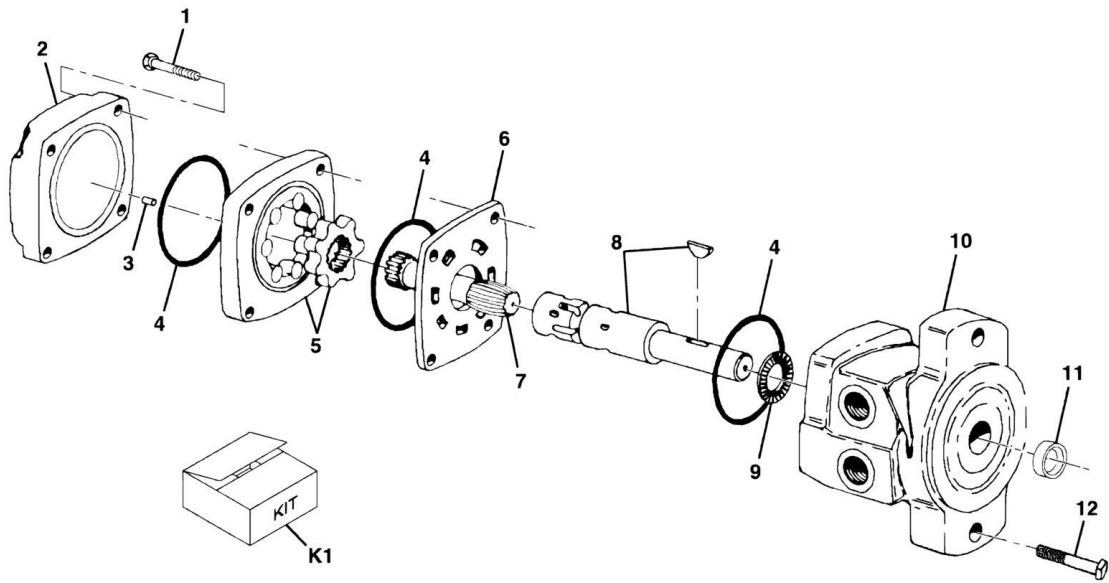
FIGURE 12-11. TILT ON JOYSTICK INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365024	Ref	JOYSTICK FIELD KIT, (includes all items) <b>(Prior to SN 0160024648)</b>	
	91365005	Ref	TILT ON JOYSTICK INSTALLATION, (if equipped), (includes all items) <b>(SN 0160024648 to Present)</b>	B
1	2220635	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
2	84717306	1	HOSE ASSY	
3	2220606	1	RUN TEE, (includes o-ring)	
3	88591204	1	O-RING	
4	91303041	1	BOOM CONTROL DECAL	
5	4460476	1	WEATHER PACK SHROUD	
6	4460475	3	W.P. MALE PIN TERMINAL	
7	91143187	3	W.P. CABLE SEAL	
8	90207719	2	GREEN JUMPER WIRE	
9	84717893	1	HOSE ASSY	
10	91083490	1	JOYSTICK HARNESS	
11	91301020	1	SPACER	
12	91033483	1	HYD VALVE POSITIONER KIT	
13	91085071	1	MODIFIED CONNECTOR	
14	2220473	2	ELBOW, 90, (includes o-ring)	
14	88591204	2	O-RING	
15	91303038	1	SOLENOID VALVE, (includes coil)	
15	80934037	1	COIL	
16	88561107	2	FLAT WASHER, 1/4	
17	88662084	1	ELBOW, 45, (includes o-ring)	
17	88591204	1	O-RING	
18	88201012	2	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
19	88551009	2	LOCKWASHER, 1/4	
20	88501004	2	HEX NUT, 1/4-20	
21	84717537	1	HOSE ASSY	
22	91141331	1	SPACER	
23	91143146	1	ORIFICE PLATE, (0.109)	
24	91033487	2	CHECK VALVE PLATE	
25	2220371	2	CONNECTOR, (includes o-ring)	
25	88591204	2	O-RING	
26	84718847	1	HOSE ASSY	
27	91143147	1	ORIFICE PLATE, (0.095)	



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## FIGURE 12-12. WINCH MOTOR



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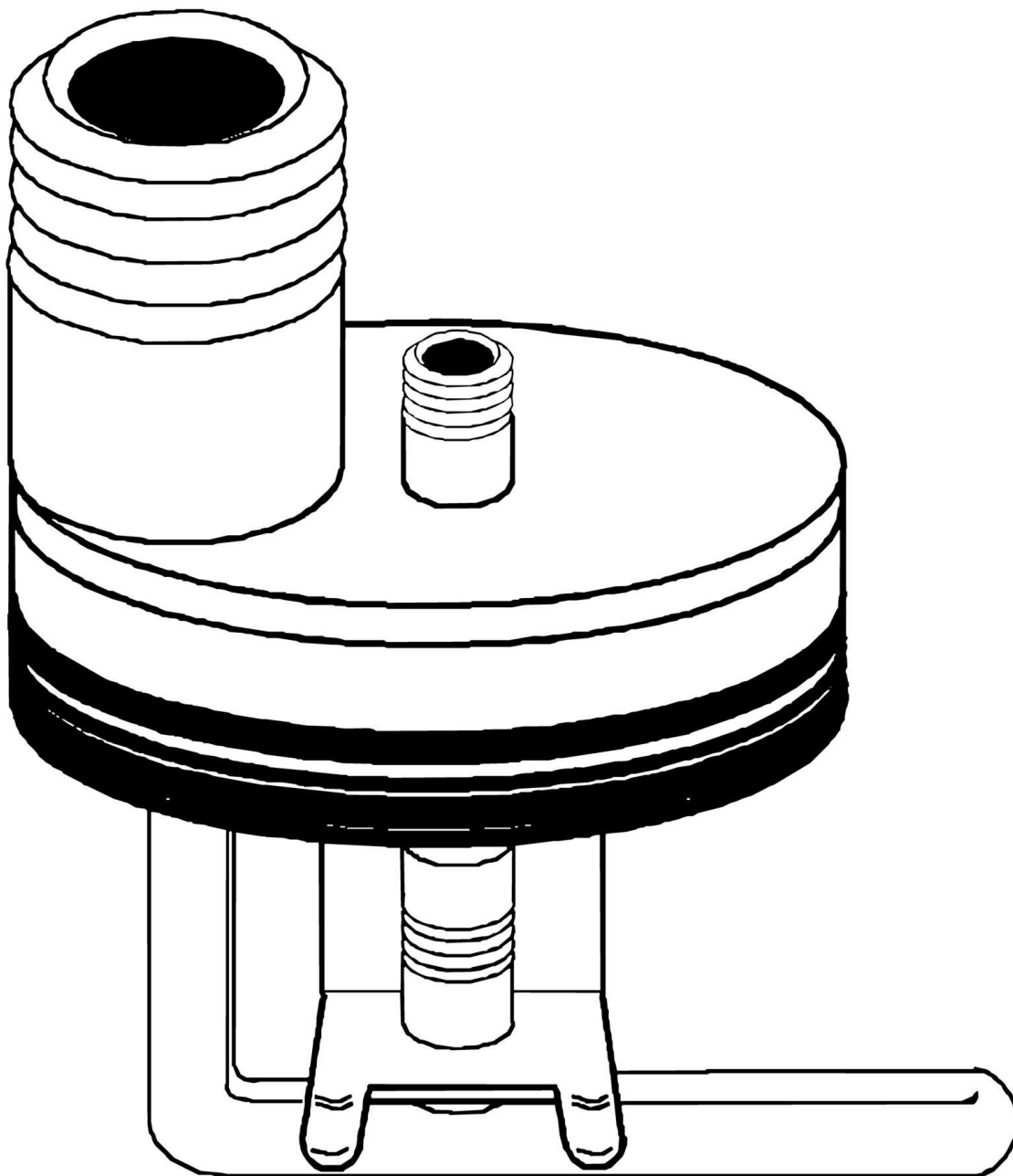
## SECTION 12 - OPTIONS

### FIGURE 12-12. WINCH MOTOR

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90207879	1	WINCH MOTOR, (includes all items)	C
1	83201057	4	HEX HD CAPSCREW, 3/8-16X2, GR8	
2	7005874	1	END COVER	
3	N.S.S.	1	PIN	
4	Kit	3	SEAL	
5	N.S.S.	1	ROLLER-STATOR ASSY	
6	7005845	1	WEAR PLATE	
7	7005811	1	DRIVE LINK	
8	N.S.S.	1	SHAFT	
9	7005842	1	THRUST BEARING	
10	90208211	1	FRONT HOUSING	
11	Kit	1	SHAFT SEAL	
12	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
K1	90208212	1	SHAFT SEAL KIT (includes items 4 & 11)	

## SECTION 12 - OPTIONS

FIGURE 12-13. ENGINE BLOCK HEATER (SN 0355001 through 0455362, SN 0160000192 through 0160000973)



**REPLACES FROST PLUG AT REAR OF ENGINE**

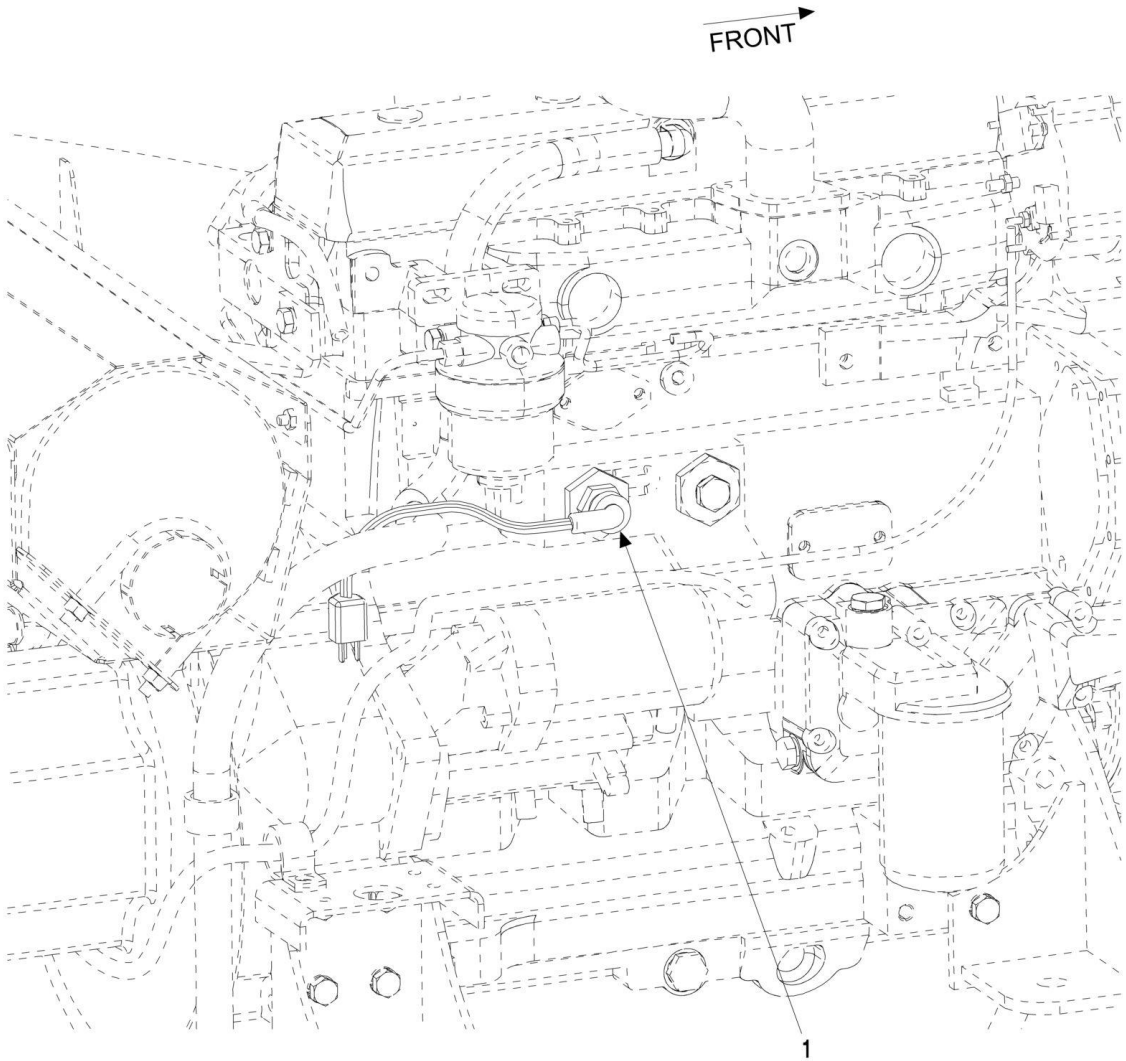
## SECTION 12 - OPTIONS

**FIGURE 12-13. ENGINE BLOCK HEATER (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043353	1	BLOCK HEATER	

**SECTION 12 - OPTIONS**

**FIGURE 12-14. ENGINE BLOCK HEATER (SN 0160000976 to Present)**





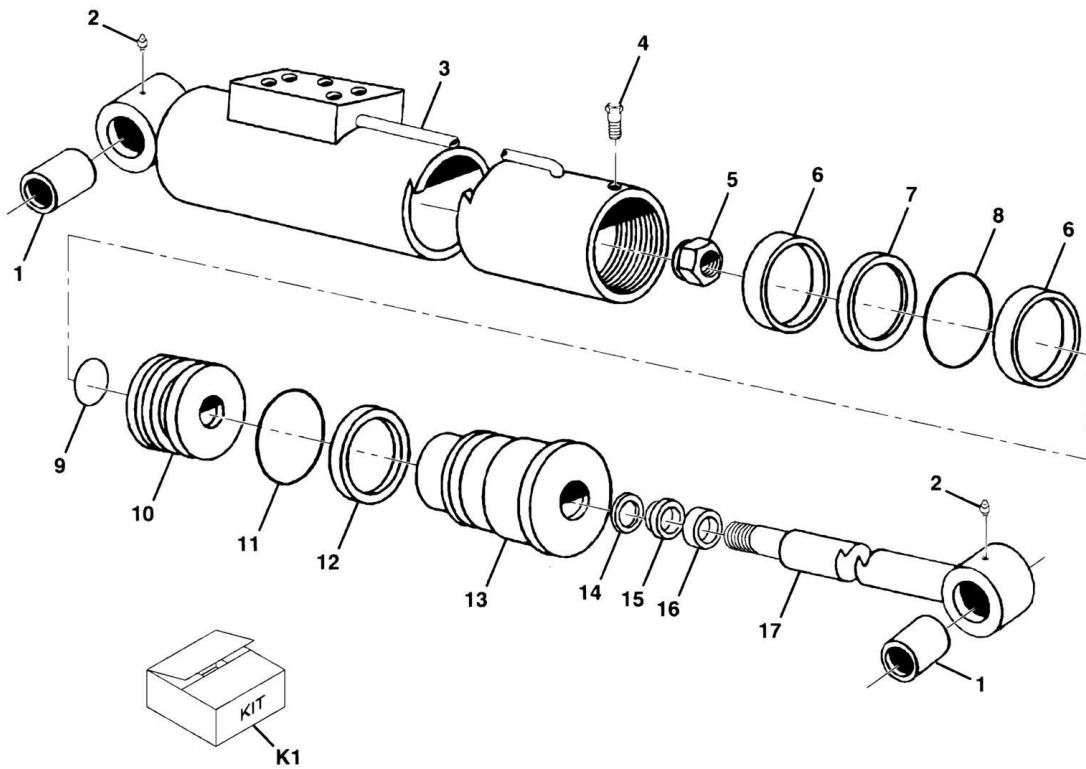
## SECTION 12 - OPTIONS

**FIGURE 12-14. ENGINE BLOCK HEATER (SN 0160000976 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	80375012	1	BLOCK HEATER INSTALLATION, (includes item 1)	
	80373088	1	BLOCK HEATER	

# SECTION 12 - OPTIONS

## FIGURE 12-15. SWAY CYLINDER



PAP19610

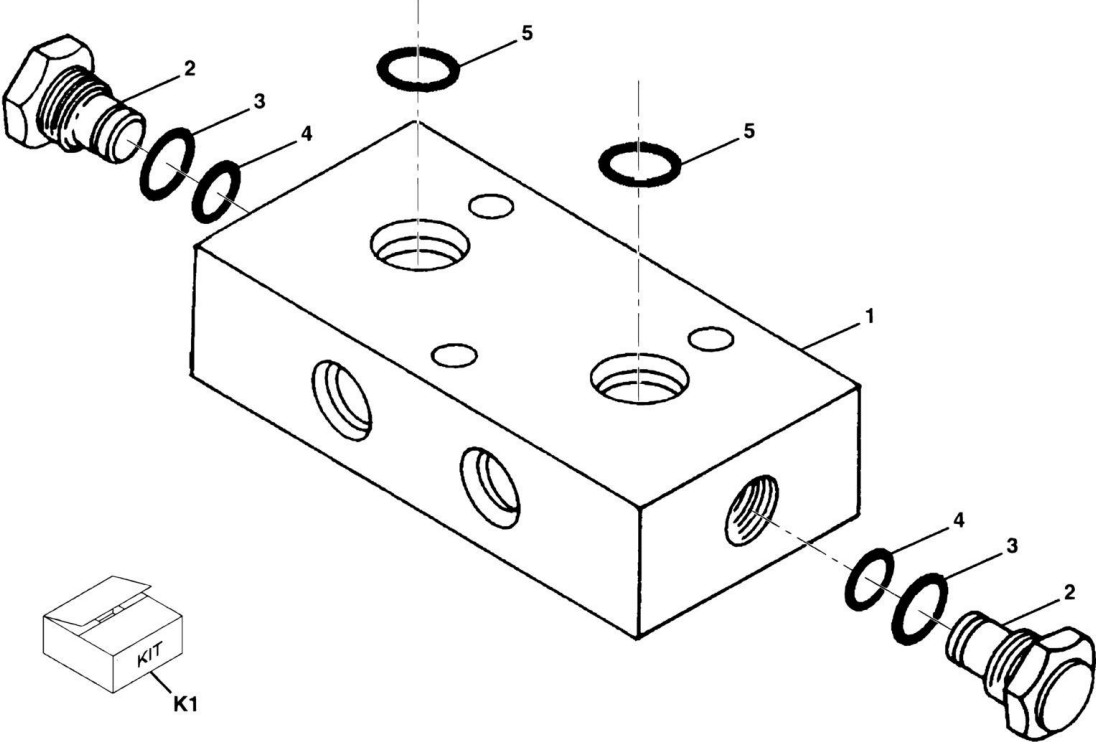
## SECTION 12 - OPTIONS

### FIGURE 12-15. SWAY CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083471	1	SWAY CYLINDER ASSY, (includes all items)	D
1	91064016	2	BUSHING	
2	91144128	2	GREASE FITTING	
3	91124083	1	CASE ASSY	
4	91144017	1	CAPSCREW, #8X32X0.375	
5	91034156	1	LOCKNUT, (lubricate and torque to 350-400 lb-ft)	
6	Kit	2	WEAR RING	
7	Kit	1	PISTON SEAL	
8	Kit	1	O-RING	
9	Kit	1	O-RING	
10	91124084	1	PISTON	
11	Kit	1	O-RING	
12	Kit	1	BACK-UP RING	
13	91124085	1	CYLINDER HEAD	
14	Kit	1	STEP SEAL	
15	Kit	1	U-CUP	
16	Kit	1	WIPER	
17	91124086	1	ROD ASSY	
K1	91084308	1	SEAL KIT, (includes items 6 thru 9, 11, 12 & 14 thru 16)	

SECTION 12 - OPTIONS

FIGURE 12-16. DUAL P.O. CHECK VALVE



PAP19870

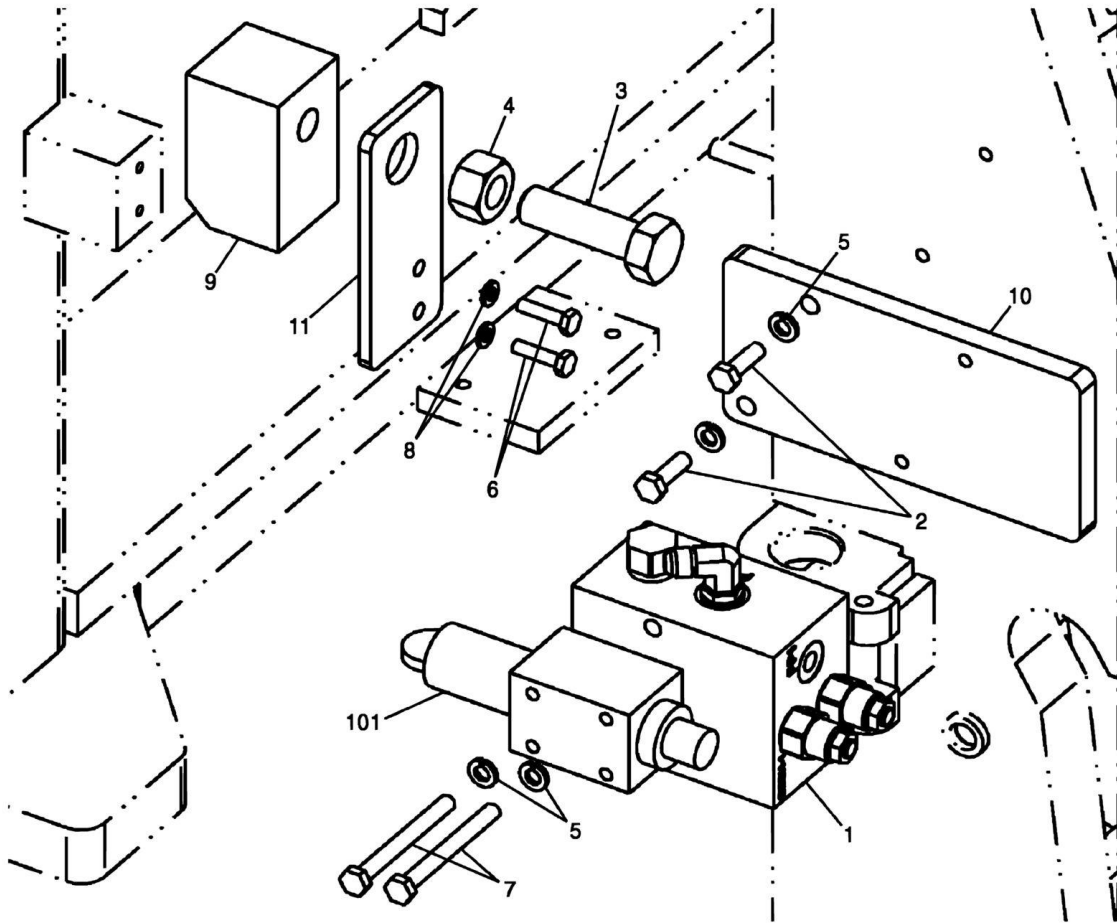
## SECTION 12 - OPTIONS

### FIGURE 12-16. DUAL P.O. CHECK VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083262	1	DUAL P.O. CHECK VALVE ASSY, (includes all items)	B
1	N.S.S.	1	BODY	
2	77133248	2	CHECK VALVE	
3	91084227	2	O-RING	
4	91084228	2	O-RING	
5	88591009	2	O-RING	
K1	91044002	1	SEAL KIT, (includes items 3 & 4)	

# SECTION 12 - OPTIONS

## FIGURE 12-17. SWING VALVE KIT



PX0630

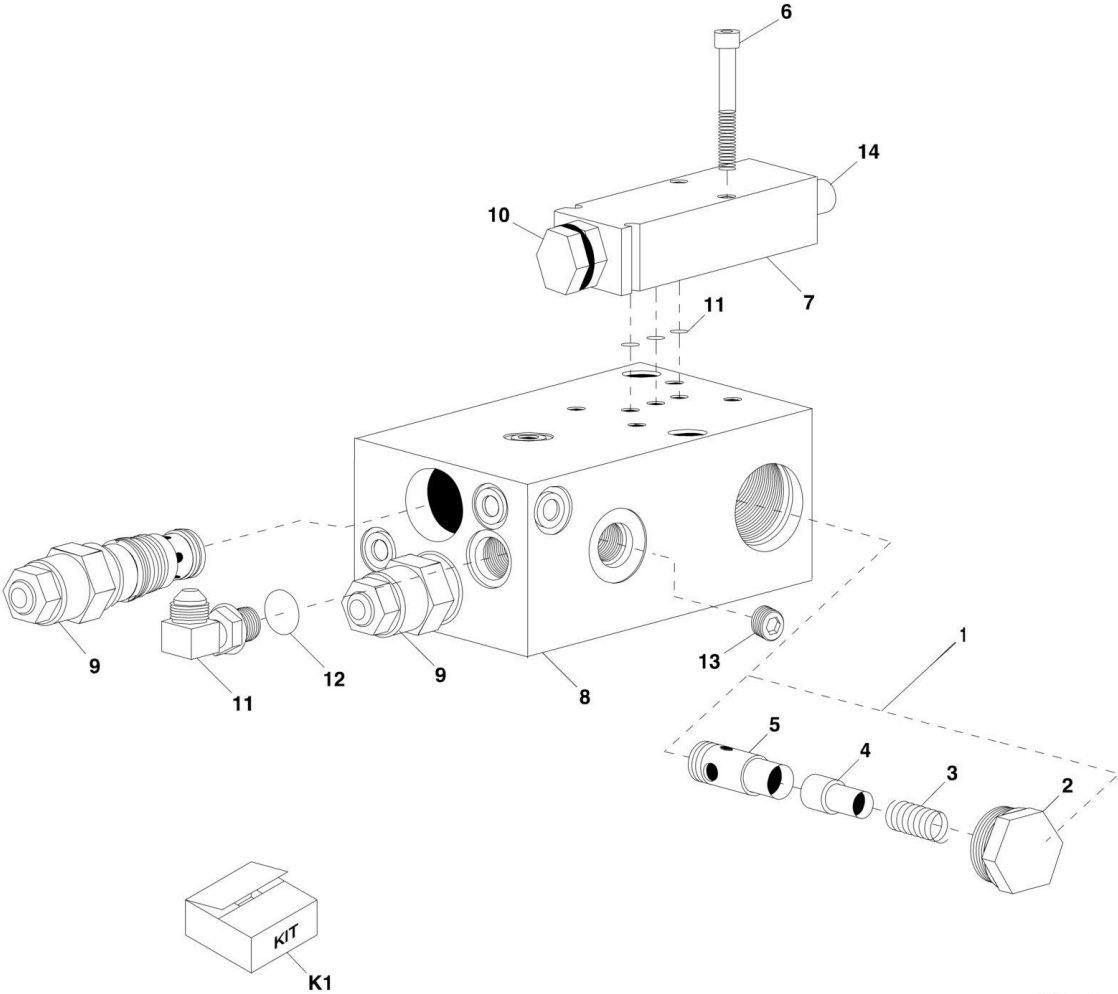
## SECTION 12 - OPTIONS

### FIGURE 12-17. SWING VALVE KIT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2915037	2	SWING VALVE KIT, (includes items 1 thru 11)	A
1	91564003	1	VALVE, (includes item 101)	
2		Ref	HEX HD CAPSCREW, 5/16-18X1, GR8	
3		Ref	HEX HD CAPSCREW, 3/4-10X2-1/2, GR8	
4	90554056	1	HEX NUT, 3/4	
5		Ref	LOCKWASHER, 5/16	
6		Ref	HEX HD CAPSCREW, 1/4-20X1, GR8	
7	90554070	2	HEX HD CAPSCREW, 5/16-18X3, GR8	
8		Ref	LOCKWASHER, 1/4	
9	70022048	1	MOUNTING PLATE	
10	70022049	1	MOUNTING PLATE	
11	70022047	1	MOUNTING PLATE	
101	70020383	1	VALVE, (includes o-rings and mounting hardware)	

SECTION 12 - OPTIONS

FIGURE 12-18. SWING VALVE KIT



PAP23020



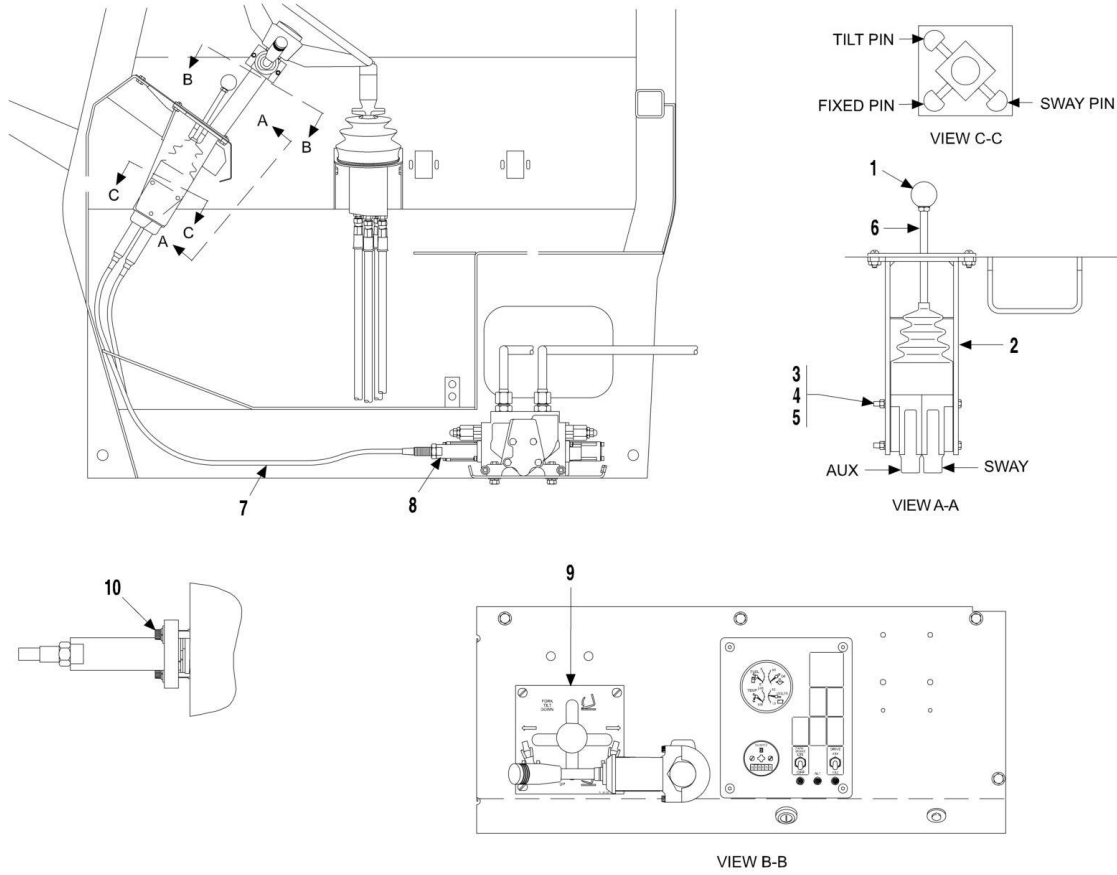
## SECTION 12 - OPTIONS

**FIGURE 12-18. SWING VALVE KIT**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90553023	2	SWING VALVE ASSY, (includes all items)	
1	90554015	1	CHECK VALVE ASSY, (includes items 3 thru 5)	
2	N.S.S.	1	RETAINER	
3	N.S.S.	1	SPRING	
4	N.S.S.	1	BALL AND SPRING GUIDE ASSY	
5	N.S.S.	1	CAGE	
6	88211034	4	SOCKET HD CAPSCREW, #10-24X1-1/2, GR8	
7	90553014	1	PILOT VALVE, (includes items 10 & 14)	
8	N.S.S.	1	VALVE BODY	
9	90554004	2	COUNTERBALANCE VALVE ASSY	
10	N.S.S.	1	CARTRIDGE	
11	2220466	1	ELBOW, 90, (includes item 12)	
12	88591202	1	O-RING	
13	N.S.S.	1	ORIFICE	
14	N.S.S.	1	PISTON	
K1	90554002	1	SWING VALVE SEAL KIT, (contains enough seals needed to service one swing valve assembly)	

# SECTION 12 - OPTIONS

## FIGURE 12-19. LH TILT/SWAY ASSEMBLY (Prior to SN 0160024648)



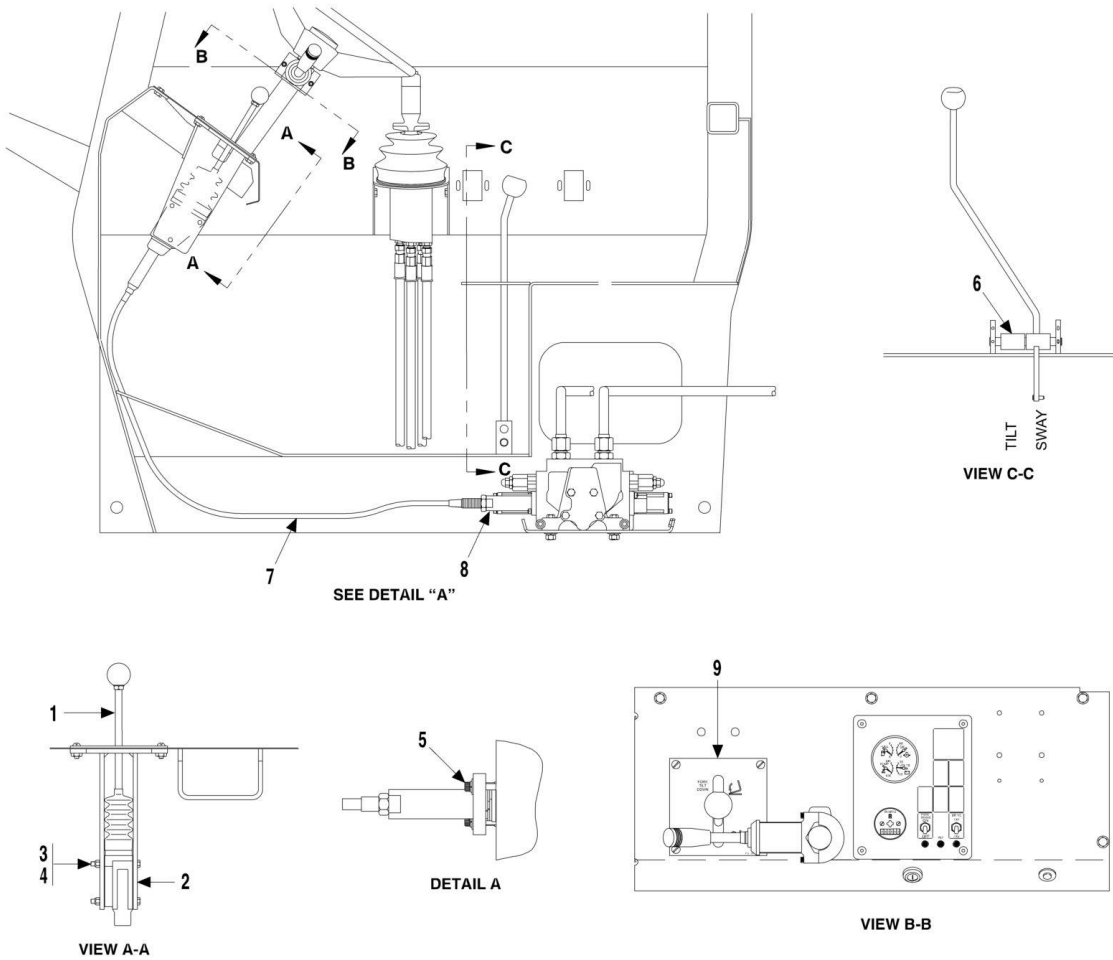
## SECTION 12 - OPTIONS

**FIGURE 12-19. LH TILT/SWAY ASSEMBLY (Prior to SN 0160024648)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365002	1	LH TILT/SWAY ASSY, (includes all items)	F
1	91335013	1	REMOTE VALVE CONTROL ASSY, (includes items 2 thru 7)	B
2	91366008	1	LEVER BRACKET	
3	11002410	3	HEX HD CAPSCREW, 1/4-28X4-1/2	
4	88501404	3	HEX JAM NUT, 1/4-28	
5	88551009	3	LOCKWASHER, 1/4	
6	91083107	1	REMOTE VALVE CONTROL	
6	91084282	1	KNOB	
6	91084359	1	BOOT	
7	91363043	2	CONTROL CABLE	
8	91123062	2	CABLE ADAPTER BONNET	
9	91363041	1	TILT/SWAY GUIDE PLATE	
10	88211044	4	SOCKET HD CAPSCREW, 1/4-20X1-1/2, GR8	

# SECTION 12 - OPTIONS

## FIGURE 12-20. LH TILT ASSEMBLY (Prior to SN 0160024648)



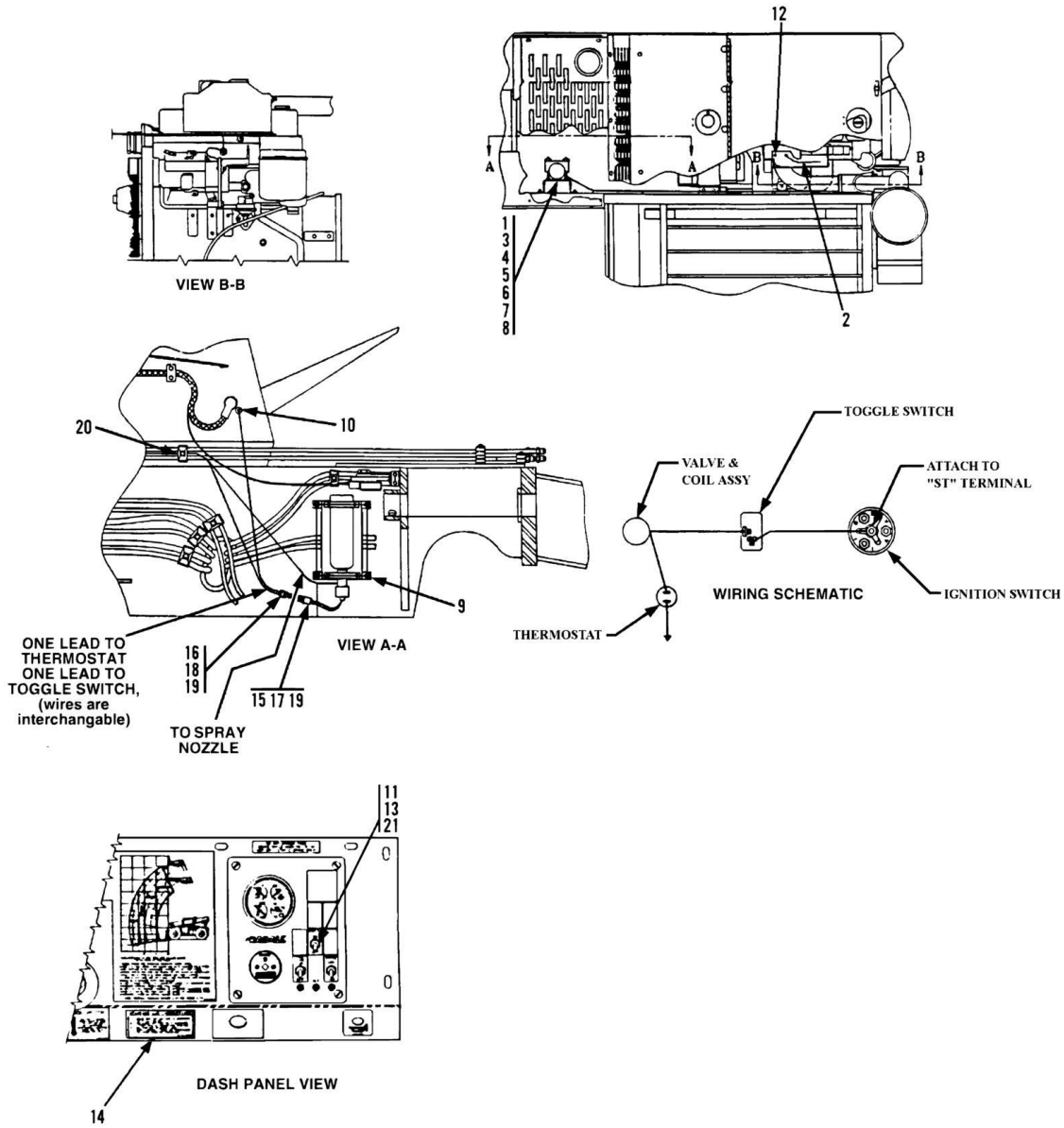
## SECTION 12 - OPTIONS

**FIGURE 12-20. LH TILT ASSEMBLY (Prior to SN 0160024648)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365001	1	LH TILT ASSY, (includes all items)	E
1	91303019	1	REMOTE VALVE CONTROL	
2	91366007	1	LEVER BRACKET	
3	88201012	3	HEX HD CAPSCREW, 1/4-20X2-3/4, GR5	
4	88521304	3	HEX LOCKNUT, 1/4-20	
5	88211044	2	SOCKET HD CAPSCREW, 1/4-20X1-1/2, GR8	
6	91301020	1	SPACER	
7	91363043	1	CONTROL CABLE	
8	91123062	1	CABLE ADAPTER BONNET	
9	91363040	1	TILT GUIDE PLATE	

# SECTION 12 - OPTIONS

FIGURE 12-21. ETHER START (SN 0355001 through 0355069)



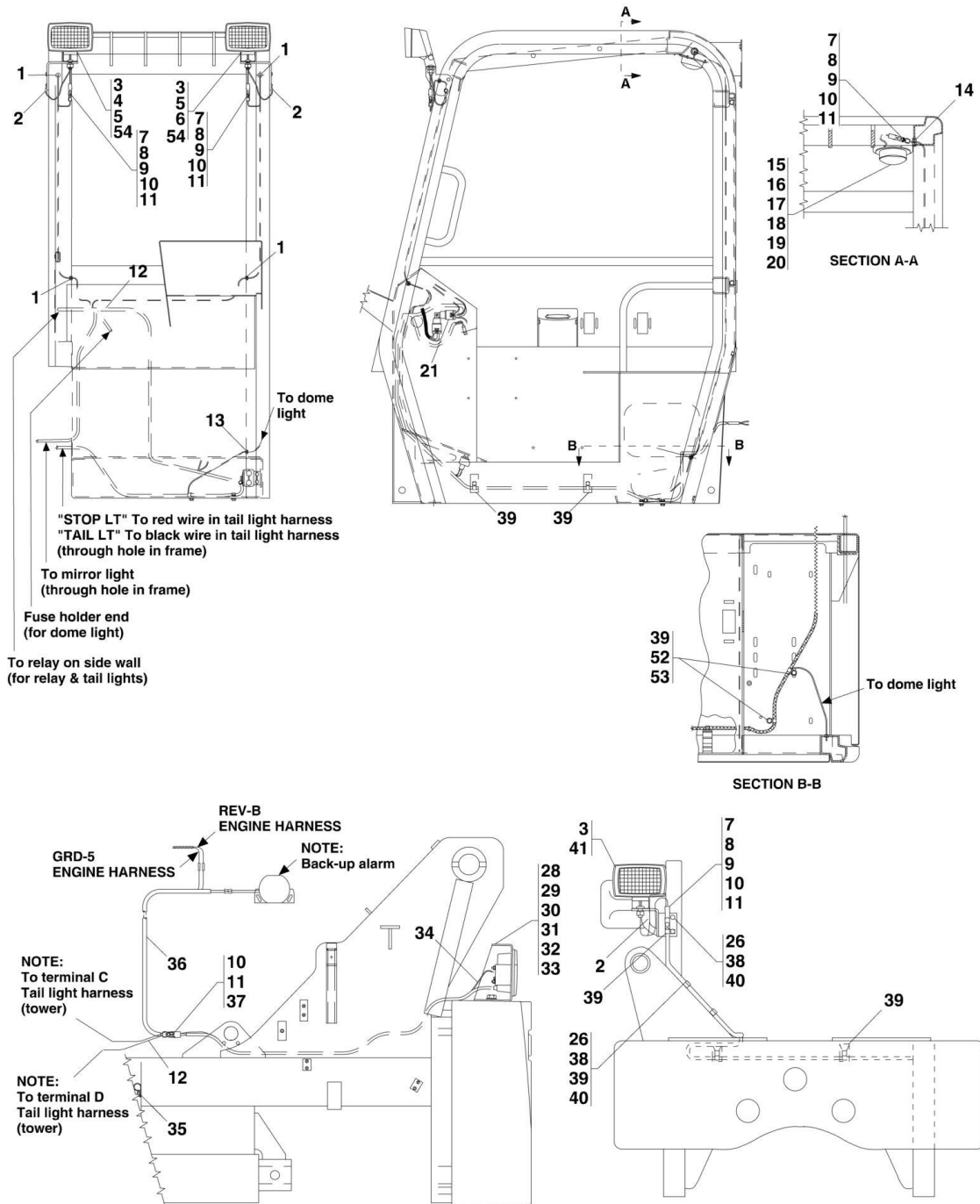
## SECTION 12 - OPTIONS

**FIGURE 12-21. ETHER START (SN 0355001 through 0355069)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365007	1	ETHER START, (includes all items)	
1	91143362	1	QUICK START KIT	
2	86983202	1	WIRE CONNECTOR	
3	91161283	1	MOUNTING BRACKET	
4	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
5	88551009	2	LOCKWASHER, 1/4	
6	88501004	2	HEX NUT, 1/4-20	
7	90206198	15 in	TRIM-LOCK	
8	14402248	AR	3M ADHESIVE	
9	77143006	4	WHIZ-LOCKNUT, 5/16-18	
10	77163117	1	RUBBER GROMMET	
11	91143163	1	TOGGLE SWITCH, SPST	
12	83191038	1	HEX HD CAPSCREW, M10X1.5X20	
13	77383470	1	BOOT	
14	91143202	1	INSTRUCTION DECAL	
15	80963058	1	2-WAY SHROUD CONNECTOR	
16	80963057	1	2-WAY TOWER CONNECTOR	
17	4460475	2	MALE PIN TERMINAL	
18	80963068	2	FEMALE PIN TERMINAL	
19	80963065	4	CABLE SEAL	
20	86621230	2	SUPPORT CLAMP	
21	91123176	1	START AID DECAL	

# SECTION 12 - OPTIONS

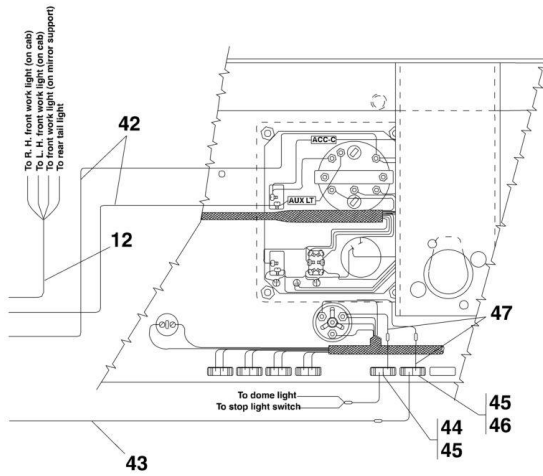
**FIGURE 12-22. WORK LIGHT PACKAGE (SN 0355001 through 0455497, SN 0160000192 through 0160012366, Excluding 0160012298)**



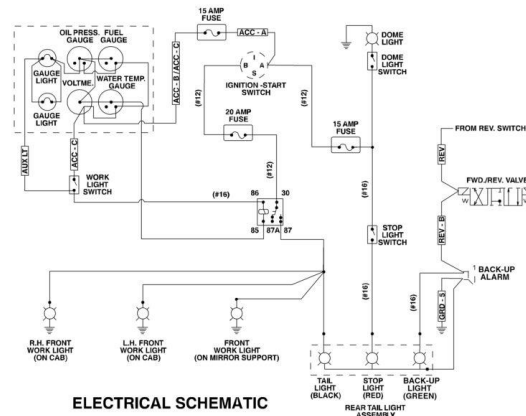
PAP21790



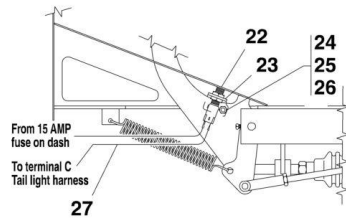
# SECTION 12 - OPTIONS



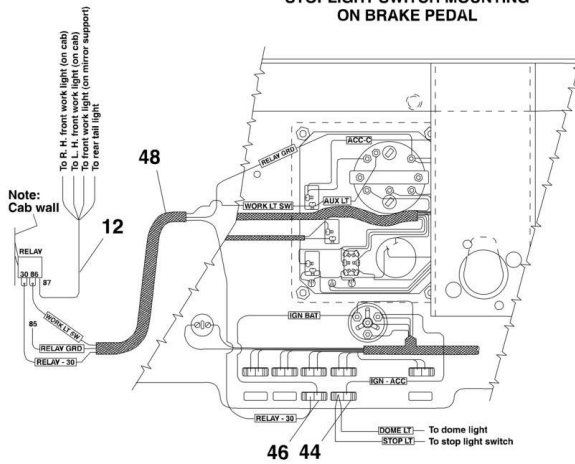
SEE NOTE #1 BEFORE ORDERING PARTS FROM THIS ILLUSTRATION



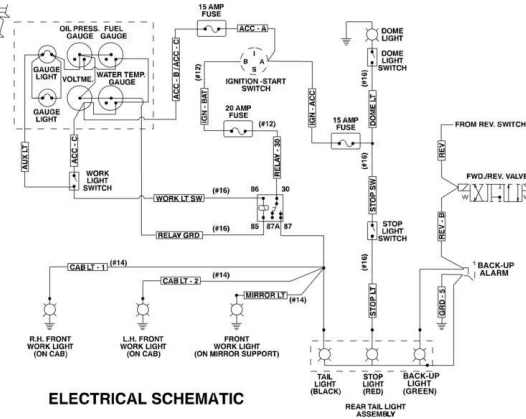
ELECTRICAL SCHEMATIC



STOPLIGHT SWITCH MOUNTING ON BRAKE PEDAL



SEE NOTE #2 BEFORE ORDERING PARTS FROM THIS ILLUSTRATION



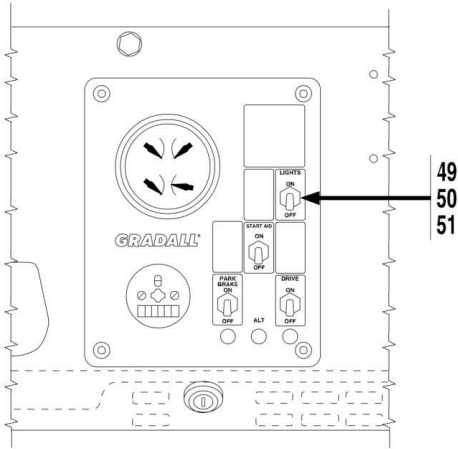
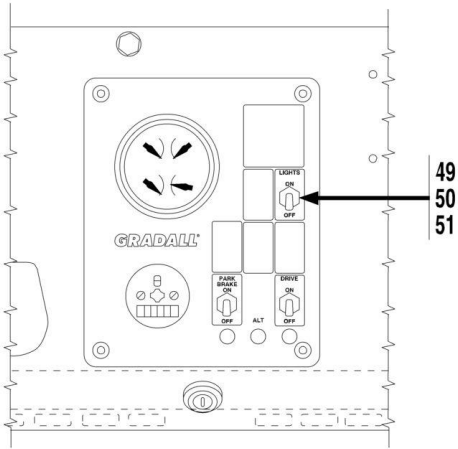
ELECTRICAL SCHEMATIC

**NOTES:**

1. Prior to SN 0355040 USE ITEMS 42, 43, 45 & 47.
2. SN 0355040 to Present USE ITEM 48.

PAP21720

**SECTION 12 - OPTIONS**



## SECTION 12 - OPTIONS

**FIGURE 12-22. WORK LIGHT PACKAGE (SN 0355001 through 0455497, SN 0160000192 through 0160012366, Excluding 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365003	1	WORK LIGHT PACKAGE, (includes all items except items 42, 43, 45 & 47)	J
1	90027214	4	RUBBER GROMMET	
2	86883260	3	EYELET	
3	80963050	3	UTILITY FLOOD LIGHT	
4	91361001	1	RH LIGHT SUPPORT	
5	90027319	4	DR. AND TAP SCREW, 1/4-20X1	
6	91361002	1	LH LIGHT SUPPORT	
7	80963055	4	WEATHER PACK CONNECTOR, (tower)	
8	80963056	4	WEATHER PACK CONNECTOR, (shroud)	
9	80963068	4	WEATHER PACK CONNECTOR, (female pin)	
10	4460475	8	WEATHER PACK CONNECTOR, (male pin)	
11	80963066	12	WEATHER PACK CONNECTOR, (cable seal)	
12	91363008	1	LIGHT HARNESS	
13	91033425	1	RUBBER GROMMET	
14	91033380	1	RUBBER GROMMET	
15	24861167	1	INTERIOR LIGHT	
16	91361003	1	MOUNTING BRACKET	
17	88321022	2	SELF-TAPPING SCREW, #8-32X3/8	
18	90029955	1	RUBBER GROMMET	
19	89981036	3	PAN HD SCREW, #8-32X3/8	
20	88501610	3	HEX NUT, #8-32	
21	77383410	1	RELAY	
22	91143117	1	STOPLIGHT SWITCH	
23	91141512	1	TAB	
24	88201002	1	HEX HD CAPSCREW, 1/4-20X5/8, GR5	
25	88561107	1	FLAT WASHER, 1/4	
26	88551009	6	LOCKWASHER, 1/4	
27	82033996	AR	WIRE LOOM, (use on all wires)	
28	91121145	1	TAIL LIGHT HOUSING	
29	91121146	1	TAIL LIGHT BRACKET	
30	91365045	1	TAIL LIGHT ASSY, (includes the following seven items)	
30	91123065	1	TAIL LIGHT	
30	86661147	38 in	WIRE, 16 GAUGE, (black)	
30	86661149	38 in	WIRE, 16 GAUGE, (green)	
30	86661152	38 in	WIRE, 16 GAUGE, (red)	
30	86683480	3	BUTT CONNECTOR	
30	82033996	45 in	WIRE LOOM	
30	86683122	2	TIE WRAP	
31	88201108	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
32	88561115	1	FLAT WASHER, 3/4	
33	88551016	1	LOCKWASHER, 3/4	
34	91141364	1	JUMPER WIRE	
35	85941017	1	SUPPORT CLAMP	
36	91363087	1	TAIL LIGHT HARNESS	
37	80963062	1	WEATHER PACK CONNECTOR, (shroud)	
38	85611274	5	WELD STUD, 1/4-20X5/8	
39	86621230	10	SUPPORT CLAMP	
40	88501004	5	HEX NUT, 1/4-20	

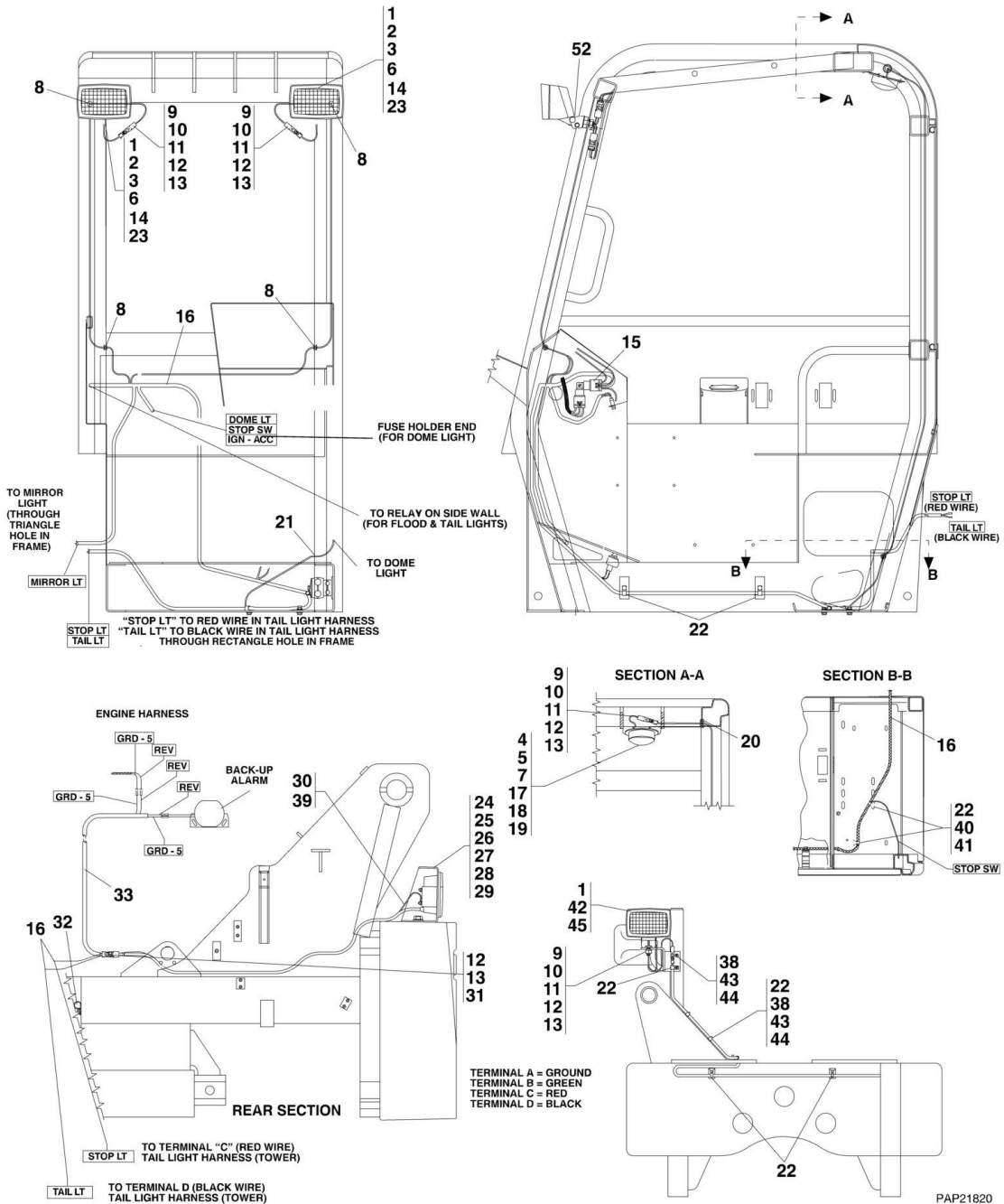
## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41	91361004	1	LIGHT SUPPORT	
42	91141265	2	JUMPER WIRE, (see note #1)	
43	91141266	1	JUMPER WIRE, (see note #1)	
44	77363268	1	FUSE, 15 AMP	
45	91143108	2	FUSE HOLDER, (see note #1)	
46	77363302	1	FUSE, 20 AMP	
47	91141259	2	JUMPER WIRE, (see note #1)	
48	91363073	1	WORK LIGHT DASH HARNESS	
49	77383467	1	LIGHT SWITCH	
50	77383470	1	BOOT	
51	91363009	1	LIGHTS ON/OFF DECAL	
52	77143006	2	WHIZ-LOCKNUT, 5/16-18	
53	77143003	2	WHIZ-LOCK SCREW, 5/16-18X5/8	
54	91413052	2	MTG BOLT WORK LIGHT	

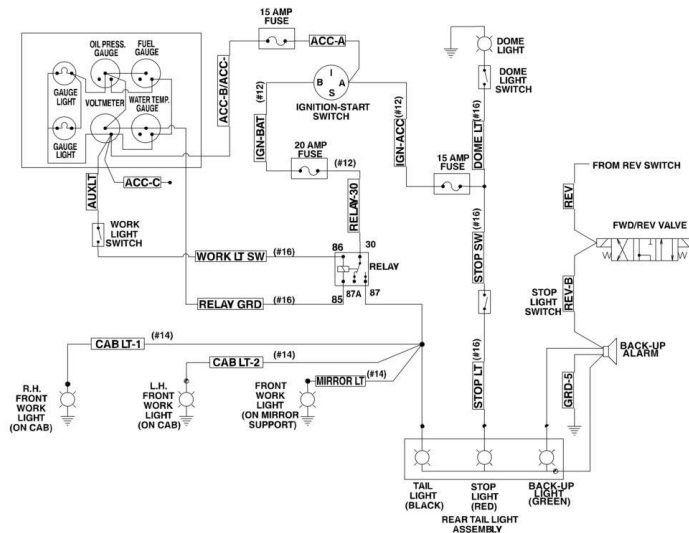
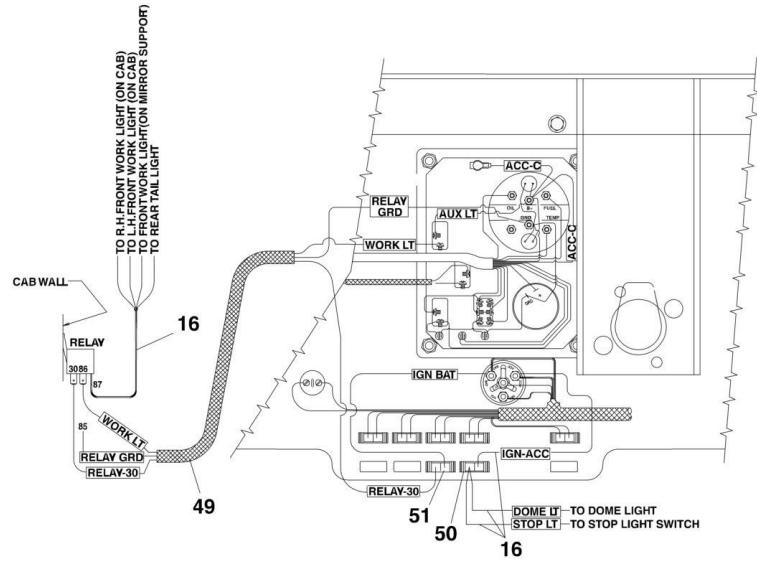
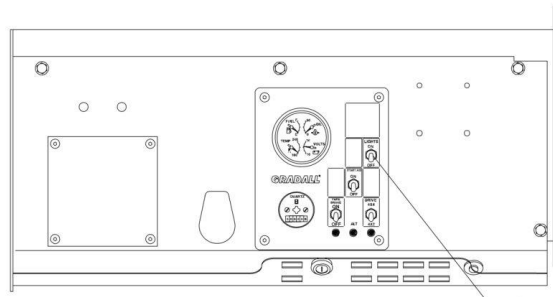
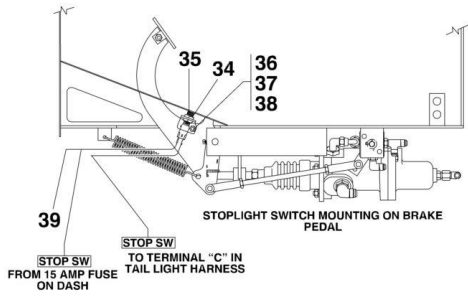


# SECTION 12 - OPTIONS

FIGURE 12-23. WORK LIGHT PACKAGE (SN 0160012437 to Present, Including 0160012298)



# SECTION 12 - OPTIONS



PAP21810

## SECTION 12 - OPTIONS

FIGURE 12-23. WORK LIGHT PACKAGE (SN 0160012437 to Present, Including 0160012298)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0274495	1	WORK LIGHT PACKAGE, (includes all items)	E
1	80963050	3	UTILITY FLOOD LIGHT	
2	8307028	2	EXTERNAL TOOTH WASHER, 1/2	
3	91403503	2	SPACER	
4	24861167	1	INTERIOR LIGHT	
5	91361003	1	MOUNTING BRACKET	
6	90027319	4	DR. AND TAP SCREW, 1/4-20X1	
7	88321022	2	SELF-TAPPING SCREW, #8-32X3/8	
8	90027214	4	RUBBER GROMMET	
9	80963055	3	WEATHER PACK, TOWER	
10	80963056	3	WEATHER PACK, SHROUD	
11	80963068	3	FEMALE PIN TERMINAL	
12	4460475	3	MALE PIN TERMINAL	
13	80963066	6	CABLE SEAL	
14	91083333	2	SCREW EYELET, 1/2	
15	77383410	1	RELAY	
16	91363008	1	LIGHT HARNESS	
17	90029955	1	RUBBER GROMMET	
18	89981036	3	PAN HD SCREW, #8-32X3/8	
19	88501610	3	HEX NUT, #8-32	
20	91033380	1	RUBBER GROMMET	
21	91033425	1	RUBBER GROMMET	
22	86621230	10	SUPPORT CLAMP	
23	91413052	2	MTG BOLT WORK LIGHT	
24	91121145	1	TAIL LIGHT HOUSING	
25	91121146	1	TAIL LIGHT BRACKET	
26	91365045	1	TAIL LIGHT ASSY, (includes the following seven items)	B
26	91123065	1	TAIL LIGHT	
26	86661147	38 in	WIRE, 16 GAUGE, (black)	
26	86661149	38 in	WIRE, 16 GAUGE, (green)	
26	86661152	38 in	WIRE, 16 GAUGE, (red)	
26	4460035	3	BUTT CONNECTOR	
26	82033996	45 in	WIRE LOOM	
26	86683122	2	TIE WRAP	
27	88201108	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
28	88561115	1	FLAT WASHER, 3/4	
29	88551016	1	LOCKWASHER, 3/4	
30	91141364	1	JUMPER WIRE	
31	80963062	1	WEATHER PACK, SHROUD	
32	85941017	1	SUPPORT CLAMP	
33	91363087	1	TAIL LIGHT HARNESS (Prior to SN 0160020087)	
33	4923525	1	TAIL LIGHT HARNESS (SN 0160020087 to Present)	
34	91141512	1	TAB	
35	91143117	1	STOP LIGHT SWITCH	
36	88201002	1	HEX HD CAPSCREW, 1/4-20X5/8, GR5	
37	88561107	1	FLAT WASHER, 1/4	
38	88551009	6	LOCKWASHER, 1/4	
39	82033996	258 in	FLEX WIRE LOOM	
40	77143003	2	WHIZ-LOCK SCREW, 5/16-18X5/8	
41	77143006	2	WHIZ-LOCKNUT, 5/16-18	



## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	91361004	1	LIGHT SUPPORT	
43	85611274	5	WELD STUD, 1/4-20X3/4	
44	88501004	5	HEX NUT, 1/4-20	
45	86883260	1	SCREW EYELET, 3/8	
46	77383467	1	TOGGLE SWITCH, SPST	
47	77383470	1	BOOT	
48	91363009	1	LIGHTS ON/OFF DECAL	
49	91363073	1	WORK LIGHT DASH HARNESS	
50	77363268	1	FUSE, (15 amp)	
51	77363302	1	FUSE, (20 amp)	
52	14401473	AR	SILICON SEALANT	

**SECTION 12 - OPTIONS**

**FIGURE 12-24. CROSSOVER RELIEF VALVE**

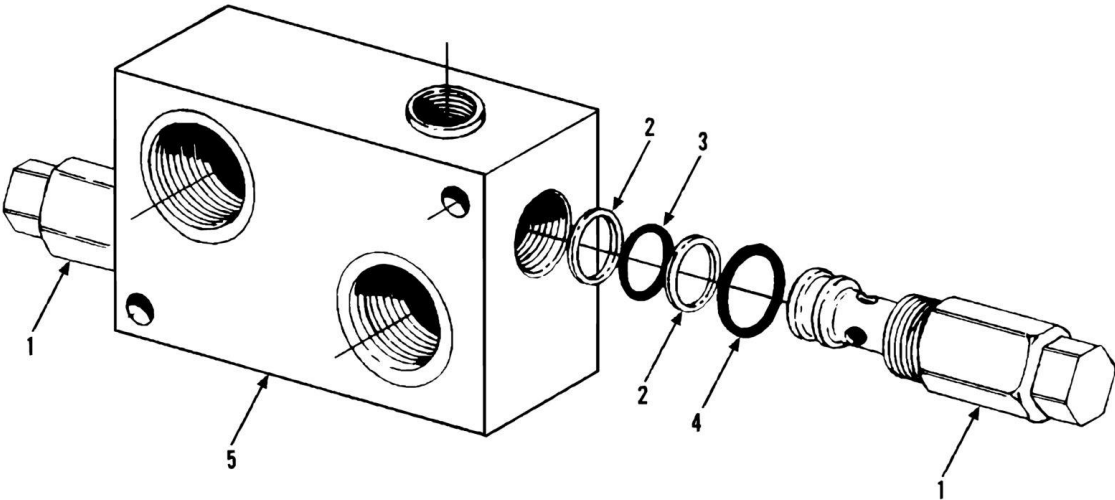
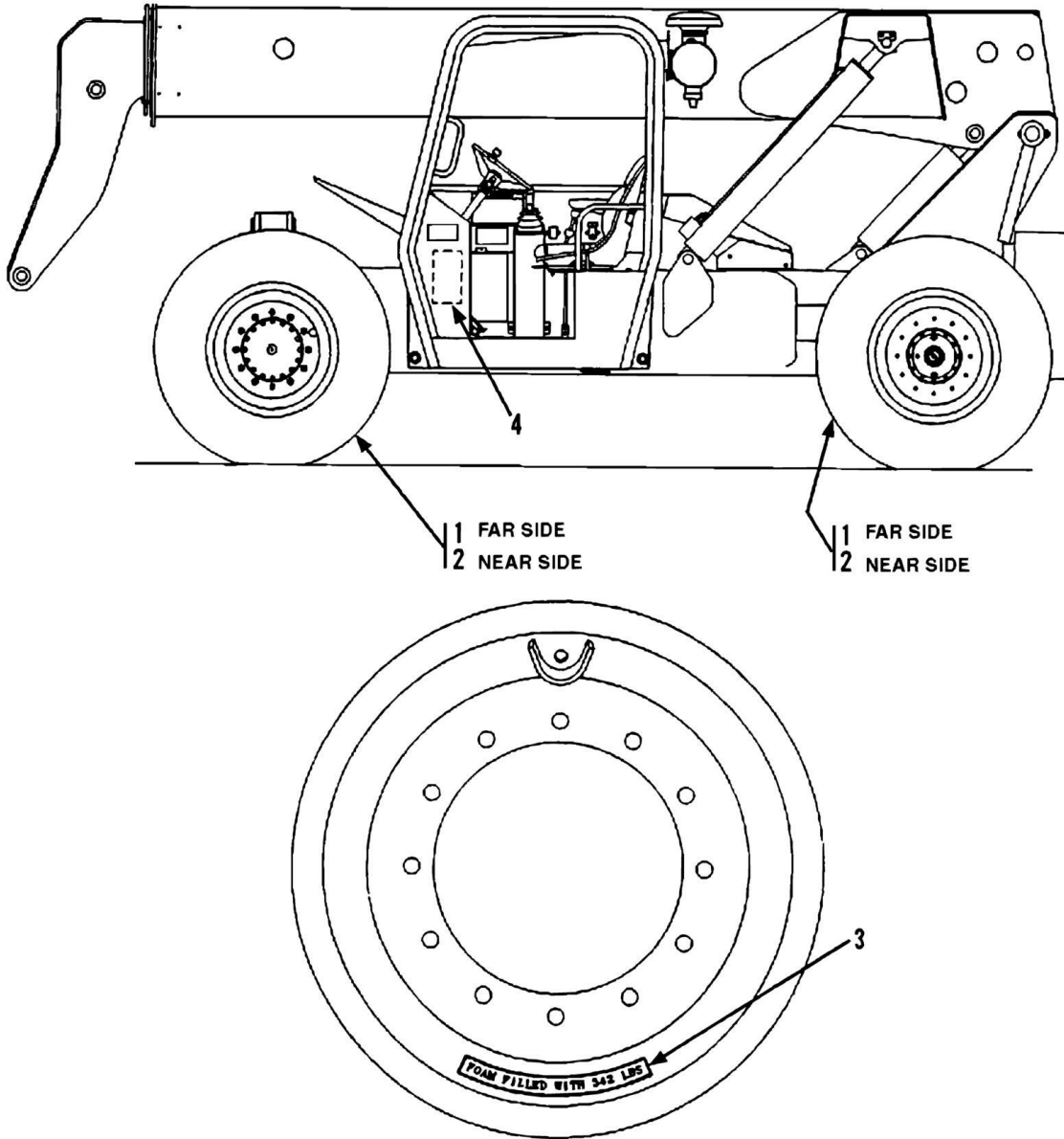


FIGURE 12-24. CROSSOVER RELIEF VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90602706	1	CROSSOVER RELIEF VALVE, (includes all items)	C
1	90203440	2	RELIEF CARTRIDGE, (includes items 2 thru 4)	
2	N.S.S.	4	BACK-UP RING, (2/cartridge)	
3	N.S.S.	2	O-RING, (1/cartridge)	
4	N.S.S.	2	O-RING, (1/cartridge)	
5	N.S.S.	1	BODY	

# SECTION 12 - OPTIONS

## FIGURE 12-25. FOAM TIRE OPTION



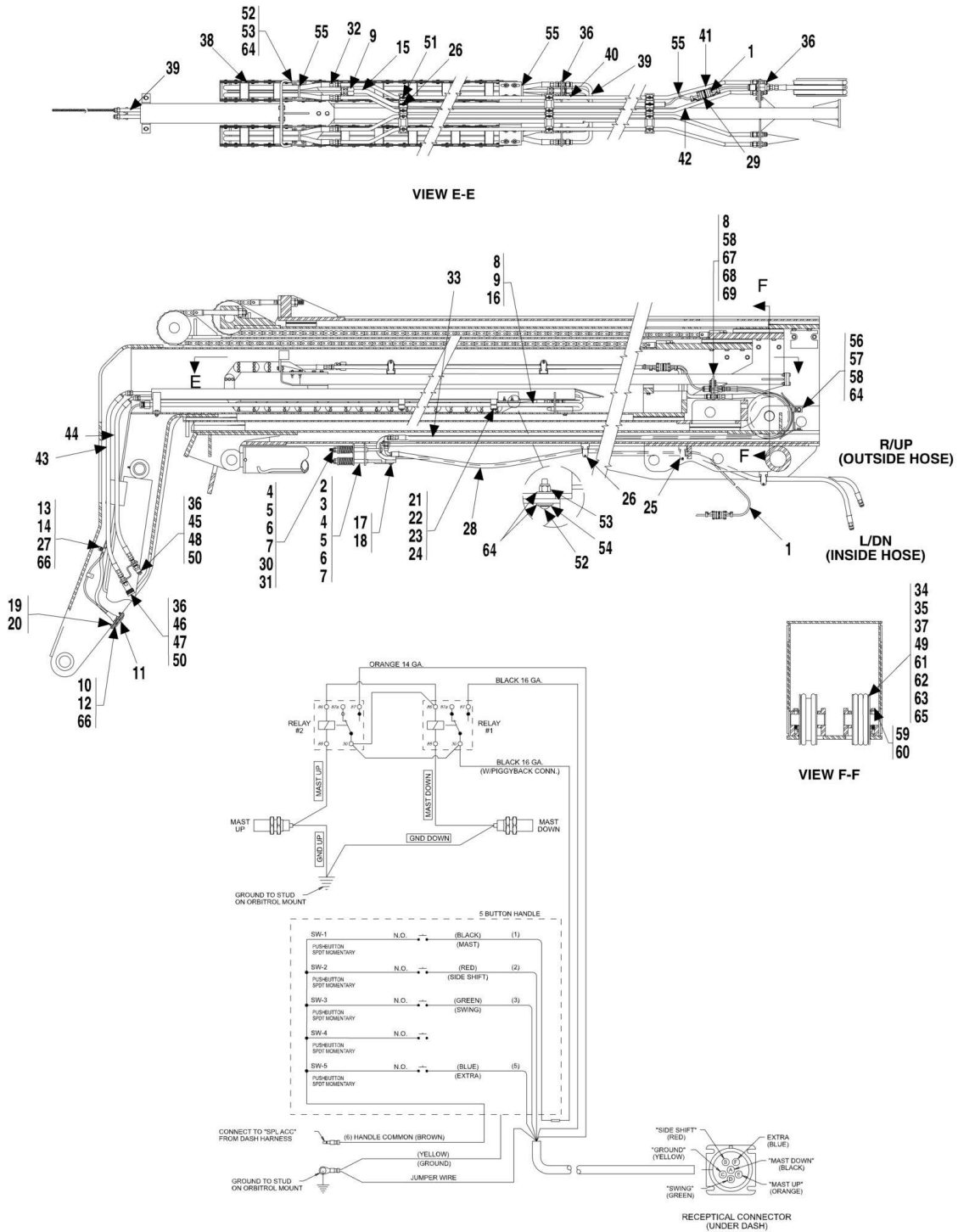
## SECTION 12 - OPTIONS

### FIGURE 12-25. FOAM TIRE OPTION

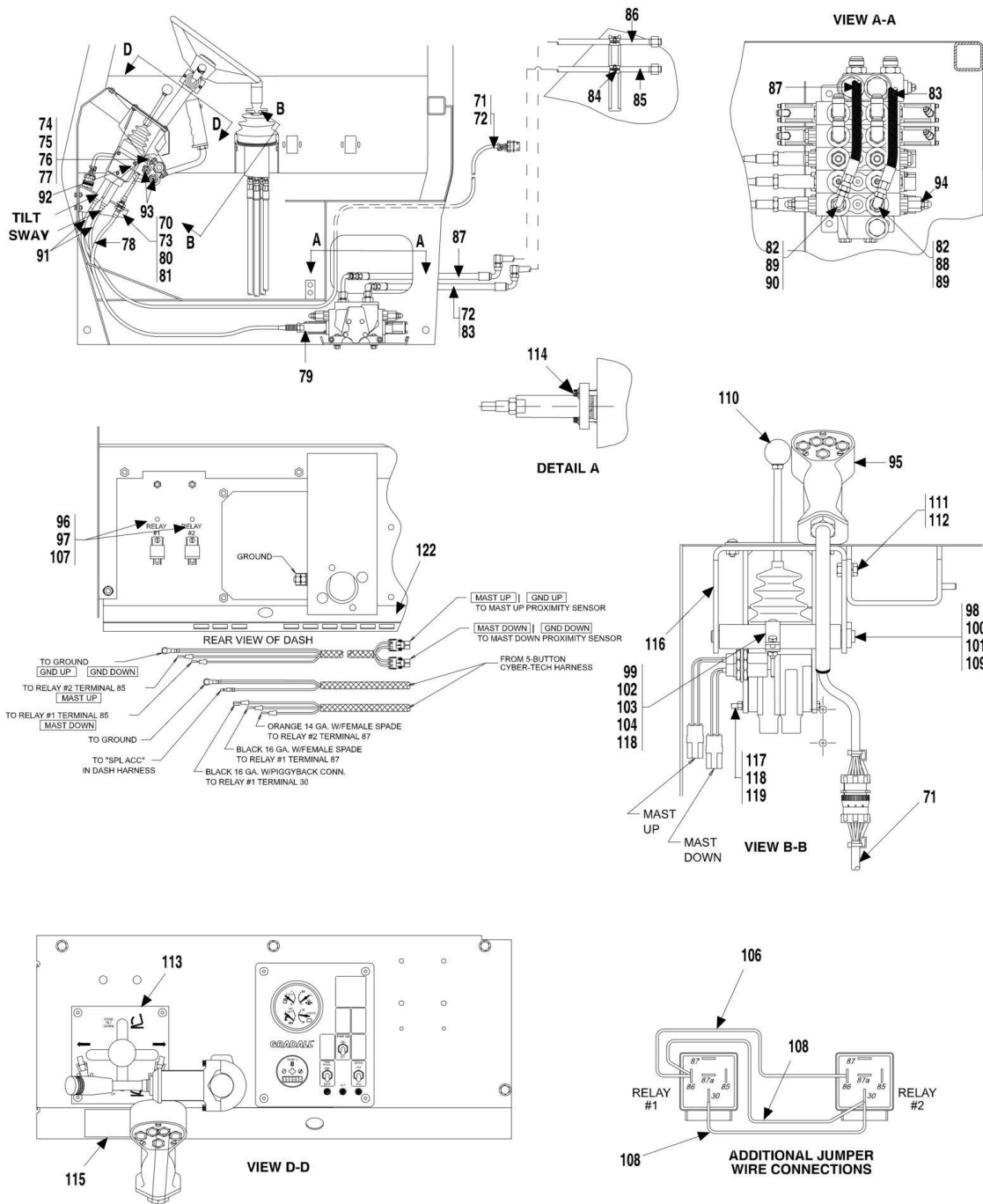
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365004	1	FOAM TIRE OPTION, (includes items 1 thru 4)	A
1	91045058	2	FOAM FILLED TIRE ASSY	
2	91045059	2	FOAM FILLED TIRE ASSY	
3	91153050	4	TIRE DECAL	
4	N.S.S.	1	S/N AND ATTACHMENT PLATE	

# SECTION 12 - OPTIONS

FIGURE 12-26. AUX. HYDRAULICS/ELECTRIC W/LH TILT AND SWAY (Prior to SN 0160024648)



# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

FIGURE 12-26. AUX. HYDRAULICS/ELECTRIC W/LH TILT AND SWAY (Prior to SN 0160024648)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	AUX HYD/ELEC WITH LH TILT/SWAY, (includes all items)	K
1	91363151	1	AUX BOOM WIRING HARNESS	
2	91366015	1	HOSE TAKE-UP WELDMENT	
3	91126032	1	CABLE TAKE-UP SUPPORT	
4	91123054	3	COMPRESSION SPRING	
5	91121134	3	SPRING RETAINER	
6	88501008	3	HEX NUT, 1/2-13	
7	88501108	3	HEAVY HEX JAM NUT, 1/2-13	
8	91163100	2	STRAIGHT THREAD BULKHEAD FITTING	
9	91143141	3	CORD CONNECTOR	
10	91361025	1	PLATE	
11	90207661	1	6 CONTACT SOCKET	
12	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
13	88561107	2	FLAT WASHER, 1/4	
14	88501004	2	HEX NUT, 1/4-20	
15	91363068	1	TUBE ASSY	
16	91163066	1	TUBE ASSY	
17	88201017	2	HEX HD CAPSCREW, 5/16-18X5/8, GR5	
18	88551010	2	LOCKWASHER, 5/16	
19	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
20	88521304	2	HEX LOCKNUT, 1/4-20, (nylok)	
21	77133389	3	STACK BOLT	
22	77133136	3	TUBE CLAMP, 3/4	
23	77133137	3	COVER PLATE	
24	88201023	3	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
25	91043120	4	CUSHION CLAMP	
26	90207463	11	CUSHION CLAMP	
27	91203039	2	CLAMP SUPPORT	
28	84719018	2	HOSE ASSY	
29	91363185	NLA	BOOM AUXILIARY WIRING HARNESS, (back-front), (no longer available to order, use 1001126834 for replacement)	
29	91143137	1	STRAIN RELIEF	
29	77363232	1	CONNECTOR	
29	1001126834	1	BOOM AUXILIARY WIRING HARNESS, (back-front)	
29	91143137	1	STRAIN RELIEF	
29	77363232	1	CONNECTOR	
29	70024058	1	HOSE CONDUIT	
30	91166068	2	HOSE TAKE-UP WELDMENT	
31	2230044	2	BULKHEAD FITTING, 90	
32	84718959	2	HOSE ASSY	
33	84719455	2	HOSE ASSY	
34	3423301	1	HOSE SHEAVE PIN	
35	91143024	1	HOSE SHEAVE	
36	88661085	6	BULKHEAD UNION, 3/4-16X1/2 TUBE	
37	91041451	2	THRUST WASHER	
38	91363203	1	HOSE CARRIER	
39	91163059	1	TUBE ASSY	
40	91163060	1	TUBE ASSY	
41	91163061	1	TUBE ASSY	
42	91163062	1	TUBE ASSY	



## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	84718637	1	HOSE ASSY	
44	84718943	1	HOSE ASSY	
45	91163138	1	MALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
45	91403414	1	MALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
46	91163139	1	FEMALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
46	91403413	1	FEMALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
47	91043125	1	DUST PLUG	
48	91043126	1	DUST CAP	
49	88671001	1	STRAIGHT LUBE FITTING, 1/8	
50	88712304	2	PIPE BUSHING, (Prior to SN 2005283-01)	
50	91083335	2	STRAIGHT THREAD ADAPTER, (SN 2005283-01 to Present)	
51	91083217	6	TUBE CLAMP	
52	88261030	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
53	88521306	8	HEX LOCKNUT, 3/8-16, (nylok)	
54	88561109	4	FLAT WASHER, 3/8	
55	90027187	5	TIE WRAP	
56	91566043	1	HOSE GUIDE BRACKET	
57	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
58	88551011	5	LOCKWASHER, 3/8	
59	88201074	1	HEX HD CAPSCREW, 1/2-13X3-1/4, GR5	
60	88551013	1	LOCKWASHER, 1/2	
61	91041449	AR	THRUST WASHER	
62	91041450	AR	THRUST WASHER	
63	91041596	AR	THRUST WASHER	
64	88561004	15	FLAT WASHER, 3/8	
65	14404793	AR	MYSTIK TETRIMOLY GREASE	
66	88551009	4	LOCKWASHER, 1/4	
67	88201035	2	HEX HD CAPSCREW, 3/8-16X1	
68	88661014	1	MALE CONNECTOR	
69	91361032	1	DISCONNECT PLATE	
70	88551010	2	LOCKWASHER, 5/16	
71	91143105	1	AUX WIRING HARNESS	
72	90027187	16	NYLON TIE	
73	88501005	2	HEX NUT, 5/16-18	
74	88821002	1	YOKE END	
75	88633001	1	YOKE PIN, 1/4	
76	88631302	1	COTTER PIN, 1/16X3/4	
77	88501404	1	HEX JAM NUT, 1/4-28	
78	91123050	1	PUSH-PULL CABLE	
79	91123062	3	CABLE ADAPTER BONNET	
80	91341007	1	CABLE BRACKET	
81	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
82	88591207	2	O-RING	
83	84718685	1	HOSE ASSY	
84	90207463	2	CUSHION CLAMP	
85	91163096	1	TUBE ASSY	
86	91163097	1	TUBE ASSY	
87	84718686	1	HOSE ASSY	
88	8765204	1	ELBOW, 90, (swivel nut)	
89	2220375	2	CONNECTOR, (includes item 82)	
90	2220471	1	ELBOW, 90, (long)	

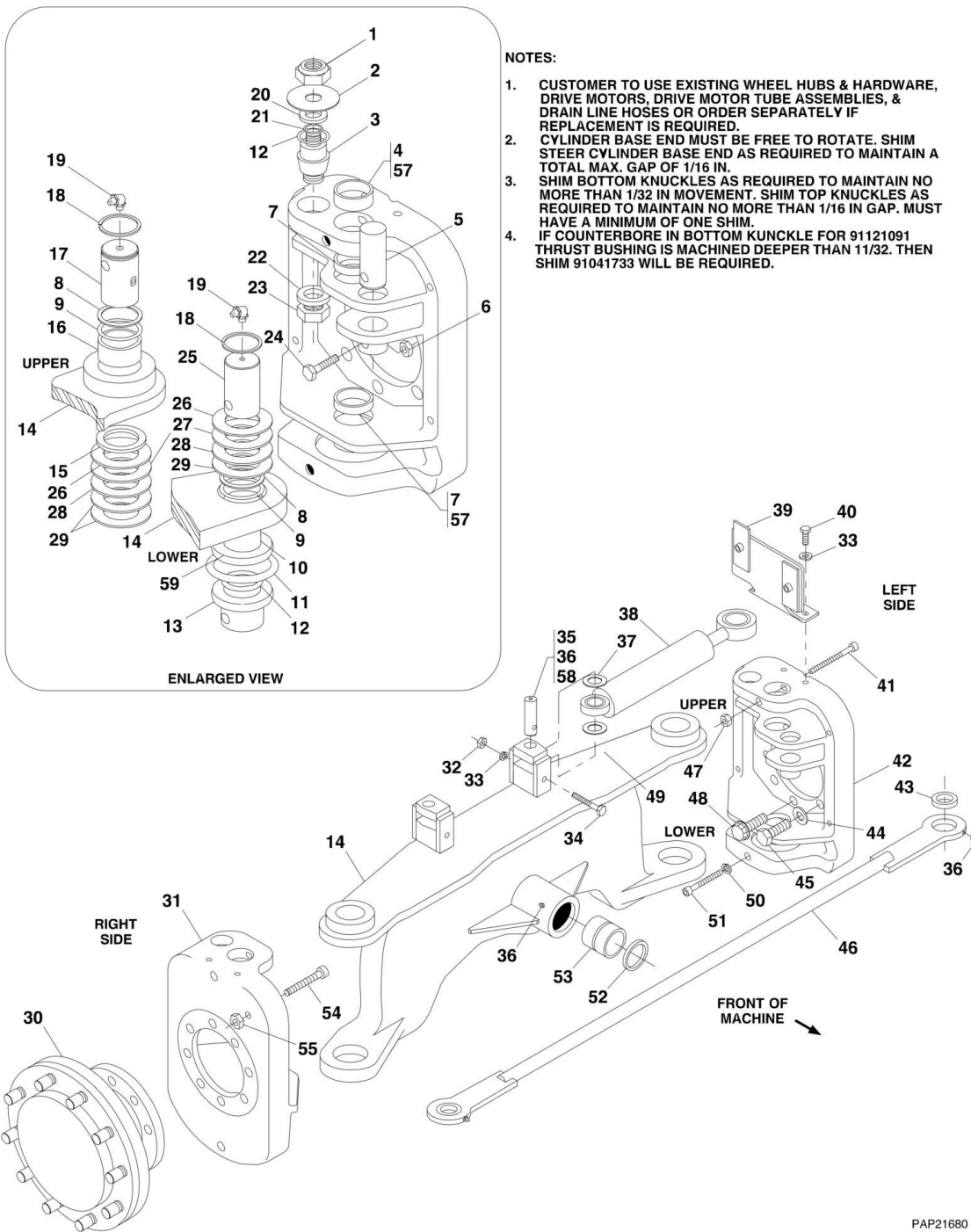
## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
91	91363043	2	CONTROL CABLE	
92	91341019	1	SENSOR PLATE	
93	80363036	2	PROXIMITY SENSOR	
94		Ref	MAIN CONTROL VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
95		Ref	5 BUTTON HANDLE, (See 5-BUTTON AUXILIARY HANDLE ASSEMBLY for Breakdown)	
96	88561105	2	FLAT WASHER, #10	
97	88301088	2	ROUND HD MACHINE SCREW, #10-24X3/8	
98	91346004	1	PIN WELDMENT	
99	88501004	2	HEX NUT, 1/4-20	
100	88201018	1	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
101	88551010	1	LOCKWASHER, 5/16	
102	88201005	2	HEX HD CAPSCREW, 1/4-20X1	
103	91341018	1	CLAMP HALF	
104	91346010	1	ACTUATOR WELDMENT	
105	91343054	1	WIRING HARNESS	
106	91341022	1	JUMPER WIRE	
107	77383410	2	RELAY	
108	91341021	2	JUMPER WIRE	
109	90028662	2	WAVE BEND WASHER	
110	91083107	1	REMOTE VALVE CONTROL	
110	91084282	1	KNOB	
110	91084359	1	BOOT	
111	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
112	88551011	2	LOCKWASHER, 3/8	
113	91363041	1	TILT/SWAY GUIDE PLATE	
114	88211044	6	SOCKET HD CAPSCREW, 1/4-20X1-1/2, GR8	
115	91343026	1	AUX CONTROL DECAL	
116	91346003	1	TILT/SWAY BRACKET WELDMENT	
117	11002410	3	HEX HD CAPSCREW, 1/4-28X4-1/2, GR5	
118	88551009	5	LOCKWASHER, 1/4	
119	88501404	3	HEX JAM NUT, 1/4-28	
	91345020	Ref	REMOTE VALVE CONTROL ASSY, (includes items 91, 110 & 116 thru 119)	



# SECTION 12 - OPTIONS

FIGURE 12-27. REAR AXLE ADVANTAGE KIT (SN 0355001 through 0455362)



## SECTION 12 - OPTIONS

**FIGURE 12-27. REAR AXLE ADVANTAGE KIT (SN 0355001 through 0455362)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145042	Ref	REAR AXLE ADVANTAGE KIT, (includes all items except 30, 44, 45 & 48)	E
1	88521312	2	HEX LOCKNUT, 3/4-10, (torque to 160-175 lb-ft)	
2	91081415	2	DIRT SHIELD	
3	91041481	2	STEERING CYLINDER PIN, (knuckle end)	
4	91121239	2	BUSHING	
5	91041439	2	TIE ROD PIN	
6	88521306	2	LOCKNUT, 3/8-16	
7	91121240	4	BUSHING	
8	91123030	4	BACK-UP RING	
9	88591032	4	O-RING	
10	91123027	2	BUSHING, (lower)	
11	91123029	2	O-RING	
12	88591104	4	O-RING	
13	91121091	2	THRUST BUSHING	
14	91166013	1	REAR AXLE WELDMENT, (includes items 10, 16, 53 & 56)	R
15	86921268	2	LIP SEAL	
16	91123028	2	UPPER BUSHING	
17	91081693	2	UPPER KING PIN	
18	88581323	4	RETAINING RING	
19	88671022	4	LUBE FITTING, 90, 1/8	
20	91041732	AR	SPACER	
21	88591019	2	O-RING	
22	91041459	2	WASHER	
23	88501416	2	HEX JAM NUT, 1-14, (torque to 225-250 lb-ft)	
24	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
25	91141424	2	LOWER KING PIN	
26	91041596	AR	SHIM, (20 gauge, see note #3)	
27	91041449	AR	SHIM, (0.060 thick, see note #3)	
28	91041450	AR	SHIM, (0.0478 thick, see note #3)	
29	91041451	AR	SHIM, (0.106 thick, see note #3)	
30		Ref	DRIVE HUB, (use existing hubs), (See DRIVE TRAIN SECTION for Breakdown)	
31	91120004	1	RH STEERING KNUCKLE	
32	88501006	2	HEX NUT, 3/8-16	
33	88551011	6	LOCKWASHER, 3/8	
34	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR5	
35	91081695	2	STEERING CYLINDER PIVOT PIN, (axle end)	
36	88671001	6	STRAIGHT LUBE FITTING, 1/8	
37	91403066	AR	SHIM, (0.060 thick, see note #2)	
38		Ref	STEERING CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	91166056	1	LH TUBE SUPPORT	
39	91166055	1	RH TUBE SUPPORT	
40	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
41	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
42	91120003	1	LH STEERING KNUCKLE	
43	91043247	2	SELF-ALIGNING BUSHING	
44		Ref	HARDENED WASHER, 3/4, (use existing hardware), (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	

## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45		Ref	HEX HD CAPSCREW, 3/4-10X2, (use existing hardware), (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
46	91166063	1	TIE ROD, (includes items 43 & 2 of item 36)	
47	88521208	2	HEX LOCKNUT, 1/2	
48		Ref	CAPSCREW 12 PT., 3/4-10X2, GR8, (use existing hardware), (See FRAME AND ATTACHING PARTS SECTION for Breakdown)	
49	91403065	AR	SHIM, (10 gauge, see note #2)	
50	88551153	2	LOCKWASHER, 5/8	
51	88212321	2	SLOT HD CAPSCREW, 5/8-11X3-3/4, GR8	
52	24601570	2	LIP SEAL	
53	91123031	2	BUSHING	
54	88212321	2	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
55	88501110	2	HEAVY HEX JAM NUT, 5/8-11	
56	91163019	2	BUSHING, (stabilizer support, not shown)	
57	14404978	AR	LOCTITE 641, (apply to items 4 & 7)	
58	14404595	AR	MEGAPLEX GREASE	
59	91041733	2	SHIM, (if equipped)	







## SECTION 12 - OPTIONS

**FIGURE 12-28. REAR AXLE ADVANTAGE KIT (SN 0160000192 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001131548	1	REAR AXLE ADVANTAGE KIT, (includes all items)	A
1	91346009	1	REAR AXLE WELDMENT, (includes items 51 thru 54)	
2	91550003	1	LH KNUCKLE, (includes items 102 thru 105)	
3	91550004	1	RH KNUCKLE, (includes items 102 thru 105)	
4		Ref	STEERING CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
5	91406021	1	TIE ROD WELDMENT, (includes item 8 & 50)	
6	91406098	1	LH TUBE SUPPORT	
6	91406099	1	RH TUBE SUPPORT	
8	88671001	2	STRAIGHT LUBE FITTING, 1/8	
9	0641608	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
10	4761600	8	LOCKWASHER, 3/8	
11	91403145	8	WIPER SEAL	
12	4711600	4	PLAIN WASHER, 3/8	
13	88212321	2	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
14	88501110	2	HEX NUT, 5/8-11	
15	91403082	2	TIE ROD PIN	
16	83201021	2	HEX HD CAPSCREW, 3/8-16X3	
17	88521306	2	HEX LOCKNUT, 3/8-16, (nylok)	
18	91403078	2	LOWER KINGPIN	
19	91403079	2	UPPER KINGPIN	
20	91343052	2	ROD END STEER CYLINDER PIN	
21	91403372	2	BASE END STEER CYLINDER PIN	
22	91401081	2	THRUST BUSHING	
23	91403146	2	O-RING	
24	1001099173	2	FLANGE NUT, (torque to 280-305 lb-ft)	
25	91403163	AR	KINGPIN SHIM, (see note #2)	
25	91403164	AR	KINGPIN SHIM, (see note #2)	
25	91403165	AR	KINGPIN SHIM, (see note #2)	
25	91403166	AR	KINGPIN SHIM, (see note #2)	
29	91403065	AR	KINGPIN SHIM, (see note #1)	
29	91403066	AR	KINGPIN SHIM, (see note #1)	
31	91403067	2	RETAINING WASHER	
32	88211068	2	SOCKET HD CAPSCREW, 3/8-16X5/8, GR8	
33	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4	
34	88501006	2	HEX NUT, 3/8-16	
35	88212285	2	SOCKET HD CAPSCREW, 3/4-10X5, GR8	
36	88551154	2	LOCKWASHER, 3/4, (hi-collar)	
37	88212272	2	SOCKET HD CAPSCREW, 5/8-11X8, GR8	
38	88521210	2	HEX LOCKNUT, 5/8, (nylok)	
39	88581325	2	SNAP RING	
40	3790230	2	O-RING	
41	80933066	2	O-RING	
42	3790226	2	O-RING	
43	91081415	2	DIRT SHIELD	
44	91041732	2	SPACER	
45	88521312	2	LOCKNUT, 3/4-10, (torque to 160-175 lb-ft)	
47	88711280	2	HEX SOCKET PIPE PLUG, 1/8	
48	88701021	2	NIPPLE, 1/8X2	
49	90028740	2	FEMALE GREASE FITTING	

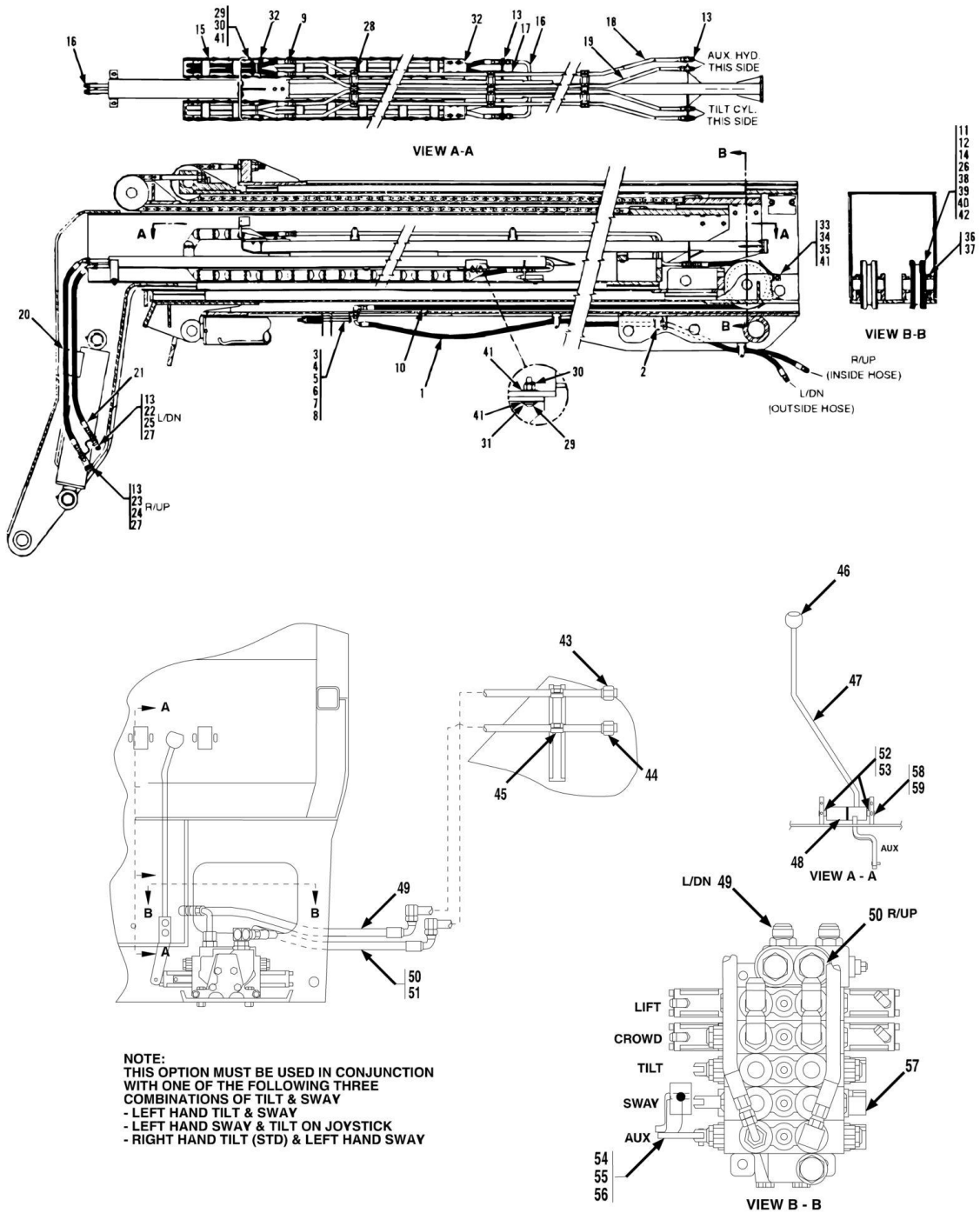
## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	8050001	2	SELF-ALIGNING BUSHING, (tie rod)	
51	91403034	2	LOWER BUSHING	
52	91403031	2	UPPER BUSHING	
53	91403033	2	PIVOT TUBE BUSHING	
54	91163019	2	BUSHING, (not shown)	
102	91403354	2	BUSHING	
103	91403355	1	BUSHING	
104	91551039	1	BUSHING	
105	14404978	AR	LOCTITE 641	



# SECTION 12 - OPTIONS

FIGURE 12-29. R.H. AUX. HYDRAULIC ASSEMBLY (Prior to SN 0160024648)



**NOTE:**  
 THIS OPTION MUST BE USED IN CONJUNCTION WITH ONE OF THE FOLLOWING THREE COMBINATIONS OF TILT & SWAY  
 - LEFT HAND TILT & SWAY  
 - LEFT HAND SWAY & TILT ON JOYSTICK  
 - RIGHT HAND TILT (STD) & LEFT HAND SWAY

## SECTION 12 - OPTIONS

**FIGURE 12-29. R.H. AUX. HYDRAULIC ASSEMBLY (Prior to SN 0160024648)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	RH AUX HYDRAULIC ASSY, (includes all items)	M
1	84719018	2	HOSE ASSY	
2	90207463	8	CUSHION CLAMP	
3	91166068	2	HOSE TAKE UP WELDMENT	
4	91123054	2	COMPRESSION SPRING	
5	91121134	2	SPRING RETAINER	
6	88501008	2	HEX NUT, 1/2-13	
7	88501108	2	JAM NUT, 1/2-13	
8	2230044	2	ELBOW, 90	
9	84718959	2	HOSE ASSY	
10	84719455	2	HOSE ASSY	
11	3423301	1	HOSE SHEAVE PIN	
12	91143024	1	HOSE SHEAVE	
13	2230025	6	ADAPTER	
14	91041451	2	THRUST WASHER	
15	91363203	1	HOSE CARRIER	
16	91163059	1	TUBE ASSY	
17	91163060	1	TUBE ASSY	
18	91163061	1	TUBE ASSY	
19	91163062	1	TUBE ASSY	
20	84718637	1	HOSE ASSY	
21	84718943	1	HOSE ASSY	
22	91163138	1	MALE ADAPTER, (Prior to SN 2005283-01)	
22	91403414	1	MALE ADAPTER, (SN 2005283-01 to Present)	
23	91163139	1	FEMALE ADAPTER, (Prior to SN 2005283-01)	
23	91403413	1	FEMALE ADAPTER, (SN 2005283-01 to Present)	
24	91043125	1	DUST PLUG	
25	91043126	1	DUST CAP	
26	88671001	1	LUBE FITTING, STRAIGHT, 1/8	
27	88712304	2	PIPE BUSHING, (Prior to SN 2005283-01)	
27	2220651	2	ADAPTER, (SN 2005283-01 to Present)	
28	91083217	6	TUBE CLAMP	
29	3900232	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
30	88521306	8	LOCKNUT, 3/8-16	
31	4751600	4	FLAT WASHER, 3/8	
32	90027187	4	TY-RAP	
33	91566043	1	HOSE GUIDE BRACKET	
34	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
35	88551011	3	LOCKWASHER, 3/8	
36	88201074	1	HEX HD CAPSCREW, 1/2-13X3-1/4, GR5	
37	88551013	1	LOCKWASHER, 1/2	
38	91041449	AR	THRUST WASHER	
39	91041450	AR	THRUST WASHER	
40	91041596	AR	THRUST WASHER	
41	88561004	15	FLAT WASHER, 3/8	
42	14404793	AR	UNION MEGAPLEX GREASE	
43	91163097	1	TUBE ASSY	
44	91163096	1	TUBE ASSY	
45	90207463	2	CUSHION CLAMP	
46	91083547	1	AUX DECAL	

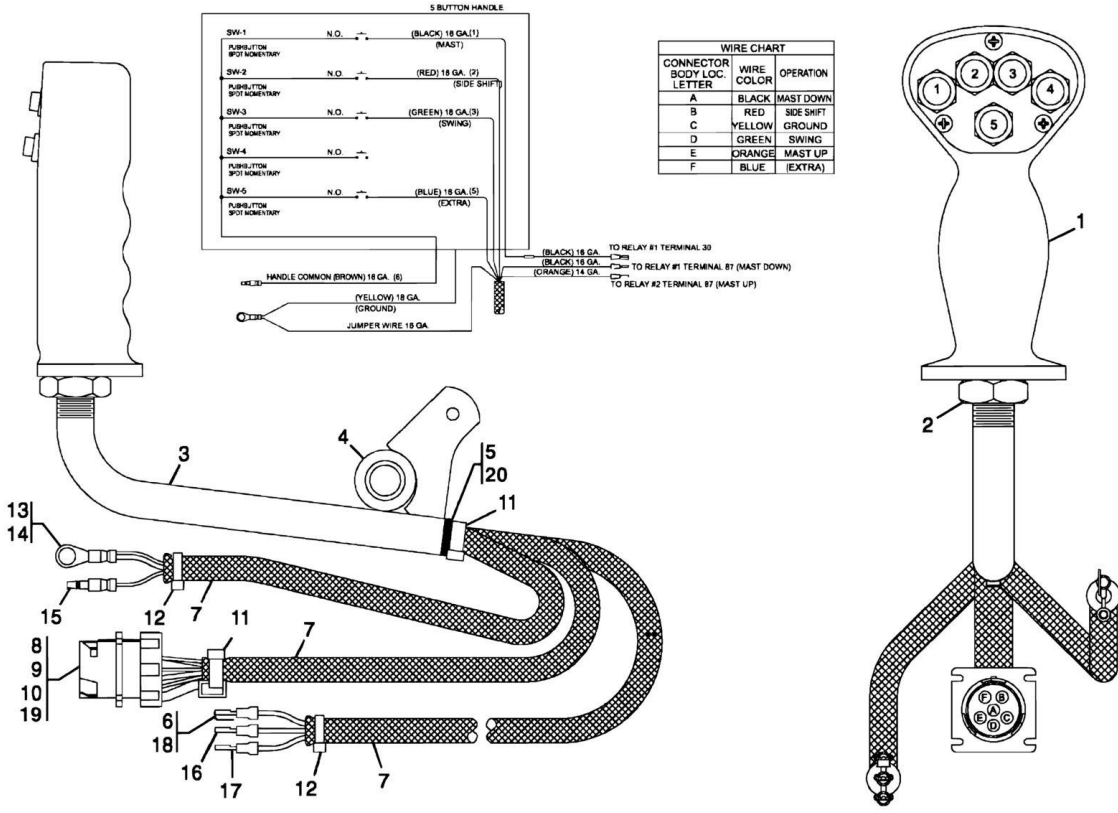
## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	91365019	1	RH AUX LEVER ASSY	
48	91301020	1	SPACER	
49	84718686	1	HOSE ASSY	
50	84718685	1	HOSE ASSY	
51	90027187	2	NYLON TIE	
52	90028662	3	WAVE BEND WASHER	
53	88561113	9	FLAT WASHER, 5/8	
54	91361023	1	LINK	
55	90021552	1	CLEVIS PIN	
56	91363036	2	HITCH PIN CLIP	
57	91365020	1	MAIN CONTROL VALVE	
58	91081354	1	SHAFT	
59	88631338	1	COTTER PIN	



# SECTION 12 - OPTIONS

## FIGURE 12-30. 5-BUTTON AUXILIARY HANDLE ASSEMBLY (Prior to SN 0160024648)



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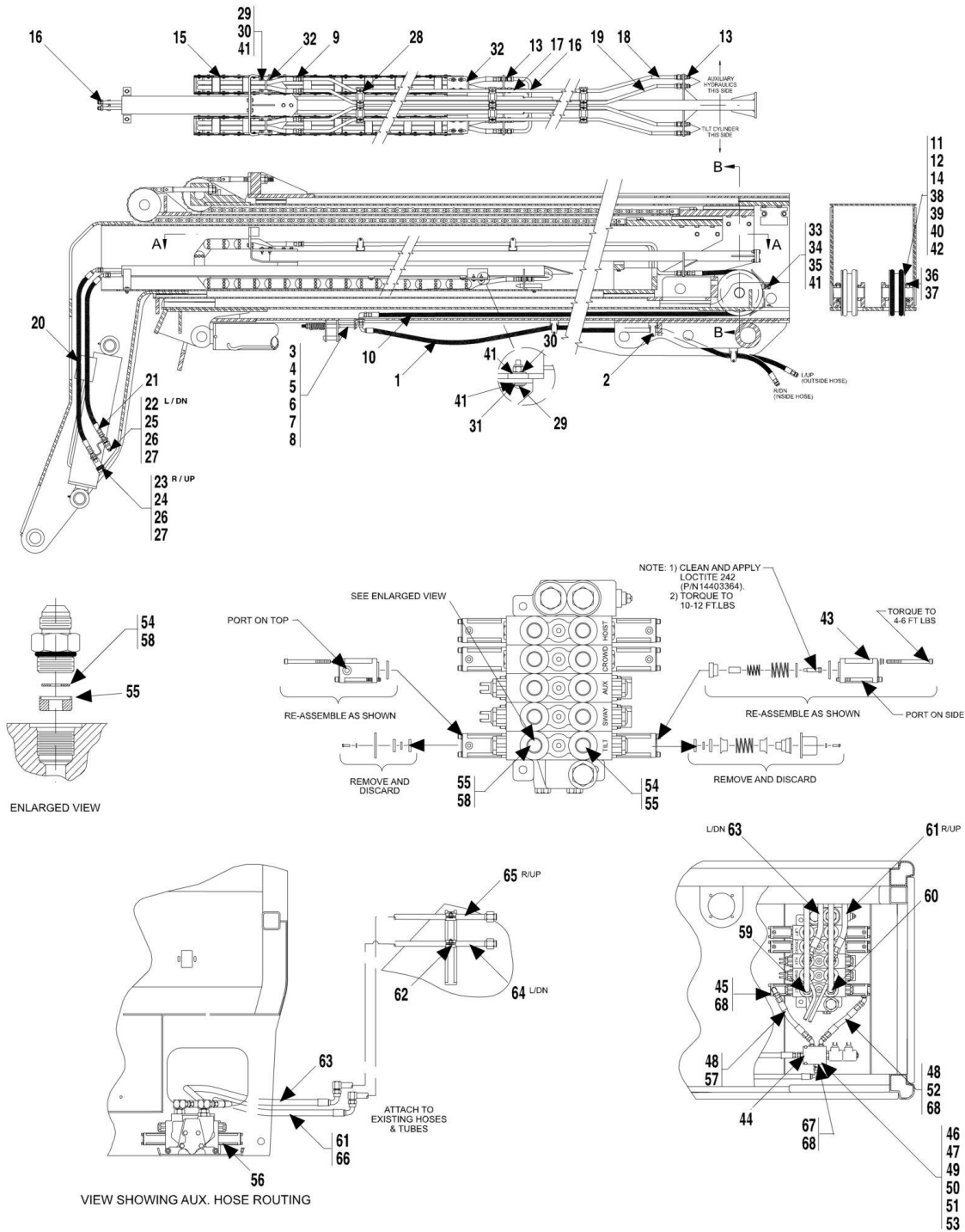
## SECTION 12 - OPTIONS

**FIGURE 12-30. 5-BUTTON AUXILIARY HANDLE ASSEMBLY (Prior to SN 0160024648)**

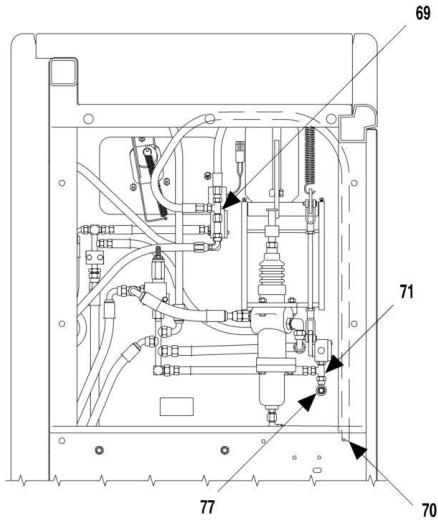
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91345022	1	5-BUTTON AUX. HANDLE ASSY, (includes all items)	C
1	91033387	1	5-BUTTON HANDLE	
2	88501112	1	HEX JAM NUT, 3/4-16	
3	91346002	1	LEVER WELDMENT	
4	91083136	2	BUSHING	
5	91123051	1	MOLDED RUBBER BUSHING	
6	86683480	1	BUTT CONNECTOR	
7	82033996	50 in	WIRE LOOM	
8	77363232	1	RECEPTACLE CONNECTOR	
9	77363228	5	PIN CONTACT	
10	91143107	1	STRAIN RELIEF	
11	90027187	2	TIE WRAP	
12	86683122	2	TIE WRAP	
13	91341015	1	JUMPER WIRE	
14	83683363	1	INSULATED RING TERMINAL	
15	86983193	1	MALE BULLET	
16	91341026	1	JUMPER WIRE	
17	91341027	1	JUMPER WIRE	
18	91341020	1	JUMPER WIRE	
19	77363345	1	PIN CONTACT	
20	14402248	AR	3M ADHESIVE	

# SECTION 12 - OPTIONS

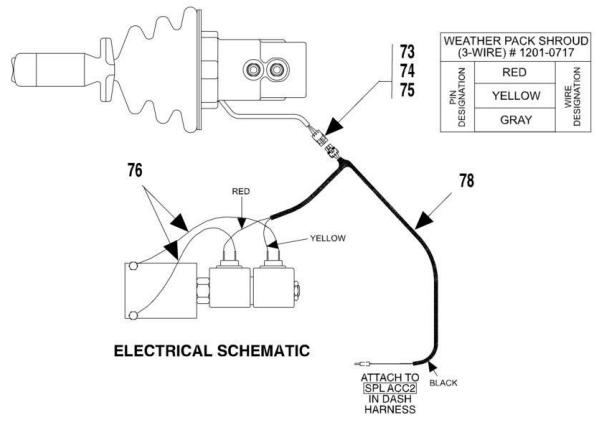
## FIGURE 12-31. RH AUX/TILT ON JOYSTICK (Prior to SN 0160024648)



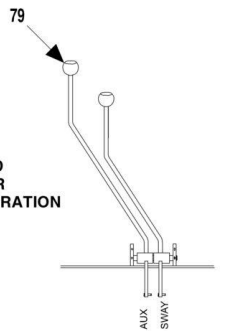
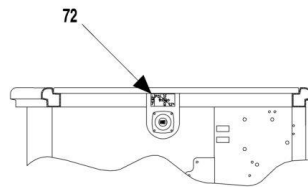
# SECTION 12 - OPTIONS



**BOTTOM VIEW OF CAB**

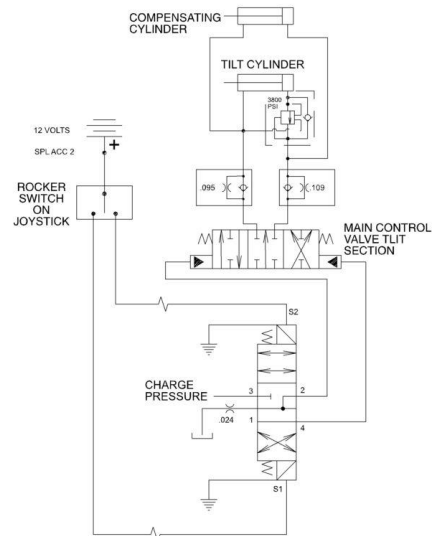


**ELECTRICAL SCHEMATIC**



**NOTE: USE STANDARD  
TILT LEVER FOR  
AUXILIARY OPERATION**

**VIEW FROM INSIDE OF CAB**



**ELECTRIC/HYDRAULIC  
SCHEMATIC**

## SECTION 12 - OPTIONS

**FIGURE 12-31. RH AUX/TILT ON JOYSTICK (Prior to SN 0160024648)**

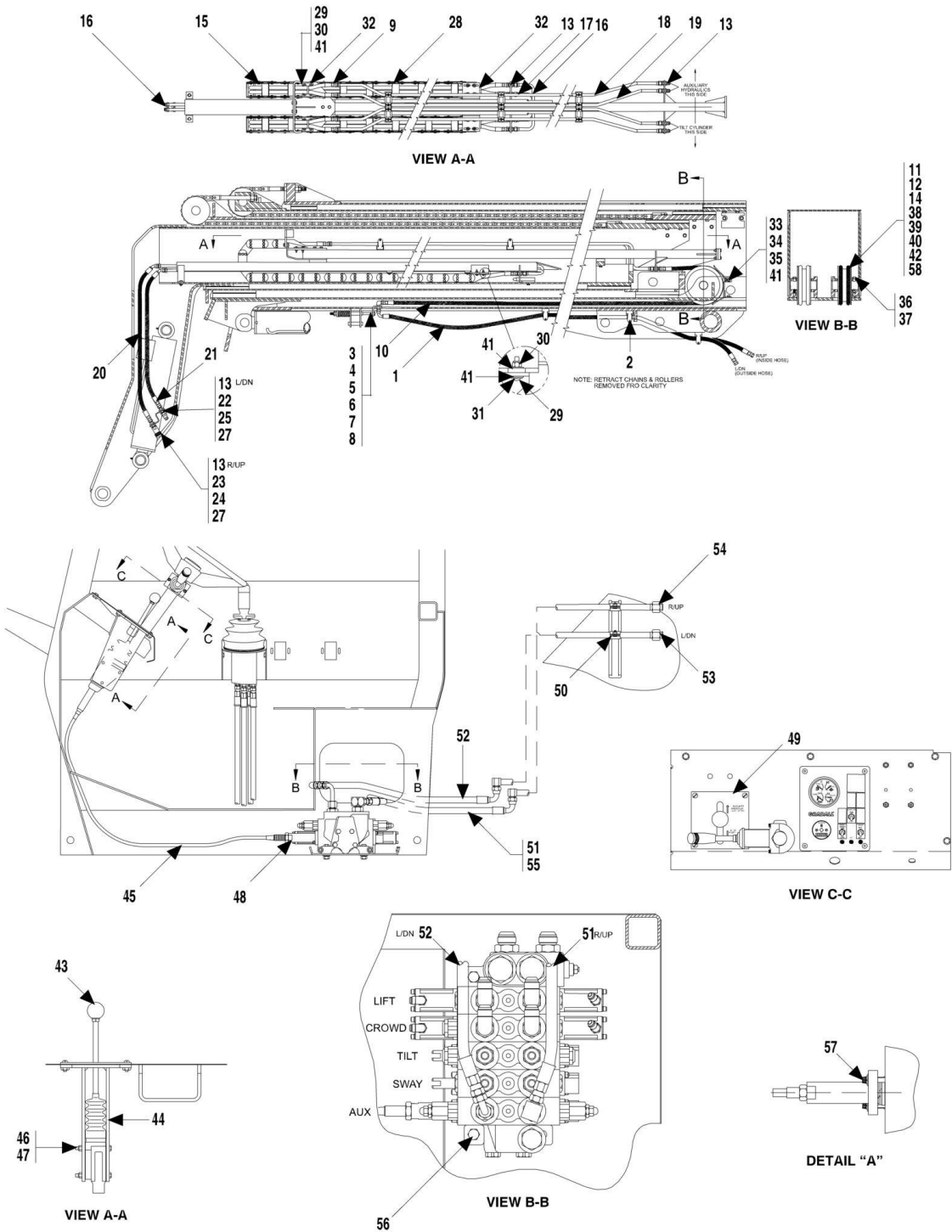
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	RH AUX/TILT ON JOYSTICK, (includes all items)	
1	84719018	2	HOSE ASSY	
2	90207463	8	CUSHION CLAMP	
3	91166068	2	HOSE TAKE UP WELDMENT	
4	91123054	2	COMPRESSION SPRING	
5	91121134	2	SPRING RETAINER	
6	88501008	2	HEX NUT, 1/2-13	
7	88501108	2	JAM NUT, 1/2-13	
8	2230044	2	BULKHEAD FITTING, 90	
9	84718959	2	HOSE ASSY	
10	84719455	2	HOSE ASSY	
11	91161138	1	HOSE SHEAVE PIN	
12	91143024	1	HOSE SHEAVE	
13	88661085	4	BULKHEAD FITTING	
14	91041451	2	THRUST WASHER	
15	91363203	1	HOSE CARRIER	
16	91163059	1	TUBE ASSY	
17	91163060	1	TUBE ASSY	
18	91163061	1	TUBE ASSY	
19	91163062	1	TUBE ASSY	
20	84718637	1	HOSE ASSY	
21	84718943	1	HOSE ASSY	
22	90204244	1	MALE HYDRAULIC COUPLER	
23	90204245	1	FEMALE HYDRAULIC COUPLER	
24	91043125	1	DUST PLUG	
25	91043126	1	DUST CAP	
26	91043321	2	STRAIGHT BULKHEAD FITTING	
27	88712304	2	PIPE BUSHING	
28	91083217	6	TUBE CLAMP	
29	88261030	8	SOCKET BUTTON HD CAPSCREW, 3/8-16 X1-1/4	
30	88521306	8	LOCKNUT, 3/8-16	
31	88561109	4	FLAT WASHER, 3/8	
32	90027187	4	TIE WRAP	
33	91166038	1	HOSE GUIDE BRACKET	
34	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
35	88551011	3	LOCKWASHER, 3/8	
36	88201074	1	HEX HD CAPSCREW, 1/2-13X3-1/4, GR5	
37	88551013	1	LOCKWASHER, 1/2	
38	91041449	AR	THRUST WASHER	
39	91041450	AR	THRUST WASHER	
40	91041596	AR	THRUST WASHER	
41	88561004	15	FLAT WASHER, 3/8	
42	14404793	AR	MYSTIC TETRIMOLY GREASE	
43	91033483	1	HYD VALVE POSITIONER KIT	
44	91085071	1	MODIFIED CONNECTOR	
45	2220473	1	ELBOW, 90, (includes item 68)	
46	91303038	1	SOLENOID VALVE	
47	88561107	2	FLAT WASHER, 1/4	
48	2220501	3	ELBOW, 45, (includes item 68)	
49	88201012	2	HEX HD CAPSCREW, 1/4-20X2-3/4	

## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	88551009	2	LOCKWASHER, 1/4	
51	88501004	2	HEX NUT, 1/4-20	
52	84718969	1	HOSE ASSY	
53	91141331	1	SPACER	
54	91143146	1	ORIFICE PLATE	
55	91033487	2	CHECK VALVE PLATE	
56	91365011	1	MODIFIED CONTROL VALVE	
57	84718975	1	HOSE ASSY	
58	91143147	1	ORIFICE PLATE	
59	91163231	1	TUBE ASSY	
60	91163232	1	TUBE ASSY	
61	84718976	1	HOSE ASSY	
62	90207463	2	CUSHION CLAMP	
63	84718977	1	HOSE ASSY	
64	91163096	1	TUBE ASSY	
65	91163097	1	TUBE ASSY	
66	90027187	2	NYLON TIE	
67	2220371	1	CONNECTOR, (includes item 68)	
68	88591204	5	O-RING	
69	2220635	1	SWIVEL NUT RUN TEE - 3/8 TUBE	
70	84717306	1	HOSE ASSY	
71	2220606	1	RUN TEE, (includes o-ring)	
71	88591204	1	O-RING	
72	91303041	1	BOOM CONTROL DECAL	
73	4460476	1	WEATHER PACK SHROUD	
74	4460475	3	W.P. MALE PIN TERMINAL	
75	91143187	3	W.P. CABLE SEAL	
76	90207719	2	JUMPER WIRE-GREEN	
77	84717893	1	HOSE ASSY	
78	91083490	1	JOYSTICK HARNESS	
79	91083547	1	AUXILIARY DECAL	

# SECTION 12 - OPTIONS

## FIGURE 12-32. AUXILIARY HYDRAULIC ASSEMBLY (Prior to SN 0160024648)



## SECTION 12 - OPTIONS

**FIGURE 12-32. AUXILIARY HYDRAULIC ASSEMBLY (Prior to SN 0160024648)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	AUX HYDRAULIC ASSY, (includes all items)	N
1	84719018	2	HOSE ASSY	
2	90207463	8	CUSHION CLAMP	
3	91166068	2	HOSE TAKE-UP WELDMENT	
4	91123054	2	COMPRESSION SPRING	
5	91121134	2	SPRING RETAINER	
6	88501008	2	HEX NUT, 1/2-13	
7	88501108	2	JAM NUT, 1/2-13	
8	2230044	2	BULKHEAD FITTING, 90	
9	84718959	2	HOSE ASSY	
10	84719455	2	HOSE ASSY	
11	3423301	1	HOSE SHEAVE PIN	
12	91143024	1	HOSE SHEAVE	
13	88661085	6	BULKHEAD FITTING, 3/4-16X1/2 TUBE	
14	91041451	2	THRUST WASHER	
15	91363203	1	HOSE CARRIER	
16	91163059	1	TUBE ASSY	
17	91163060	1	TUBE ASSY	
18	91163061	1	TUBE ASSY	
19	91163062	1	TUBE ASSY	
20	84718637	1	HOSE ASSY	
21	84718943	1	HOSE ASSY	
22	91163138	1	MALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
22	91403414	1	MALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
23	91163139	1	FEMALE HYDRAULIC COUPLER, (Prior to SN 2005283-01)	
23	91403413	1	FEMALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
24	91043125	1	DUST PLUG	
25	91043126	1	DUST CAP	
27	88712304	2	PIPE BUSHING, 1/2X3/8, (Prior to SN 2005283-01)	
27	91083335	2	STRAIGHT THREAD ADAPTER, (SN 2005283-01 to Present)	
28	91083217	6	TUBE CLAMP	
29	88261030	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
30	88521306	8	LOCKNUT, 3/8-16 UNC	
31	88561109	4	FLAT WASHER, 3/8	
32	90027187	4	TIE WRAP	
33	91566043	1	HOSE GUIDE BRACKET	
34	88201034	3	HEX HD CAPSCREW, 3/8-16x7/8	
35	88551011	3	LOCKWASHER, 3/8	
36	88201074	1	HEX HD CAPSCREW, 1/2-13x3-1/4	
37	88551013	1	LOCKWASHER, 1/2	
38	91041449	AR	THRUST WASHER	
39	91041450	AR	THRUST WASHER	
40	91041596	AR	THRUST WASHER	
41	88561004	15	FLAT WASHER, 3/8	
42	14404793	AR	MYSTIK TETRIMOLY GREASE	
42	91345010	Ref	REMOTE CONTROL VALVE ASSY, (includes items 43 thru 47)	
43	91303019	1	REMOTE VALVE CONTROL	
44	91366007	1	LEVER BRACKET	
45	91363043	1	CONTROL CABLE	
46	88201012	3	HEX HD CAPSCREW, 1/4-20X2-3/4	

## SECTION 12 - OPTIONS

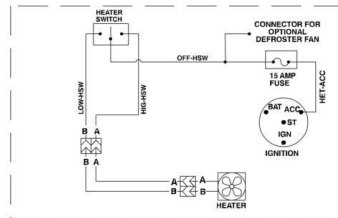
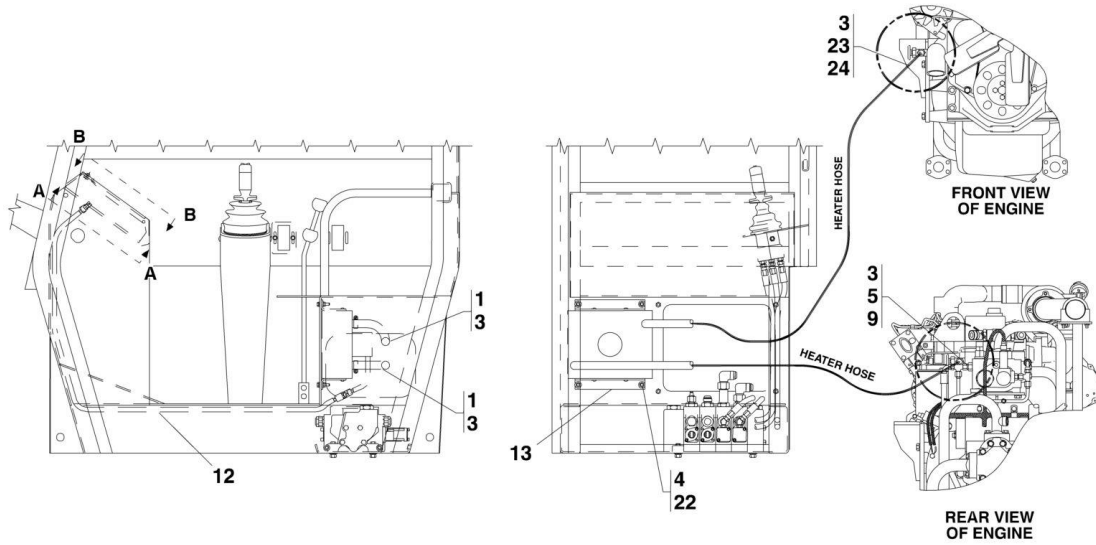
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	88521304	3	HEX LOCKNUT, 1/4-20	
48	91123062	1	CABLE ADAPTER BONNET	
49	91363045	1	GUIDE PLATE	
50	90207463	2	CUSHION CLAMP	
51	84718685	1	HOSE ASSY	
52	84718686	1	HOSE ASSY	
53	91163096	1	TUBE ASSY	
54	91163097	1	TUBE ASSY	
55	90027187	2	NYLON TIE	
56	91365020	1	MAIN CONTROL VALVE ASSY	
57	88211044	2	SOCKET HD CAPSCREW, 1/4-20X1-1/2	
58	88671001	1	STRAIGHT LUBE FITTING, 1/8	



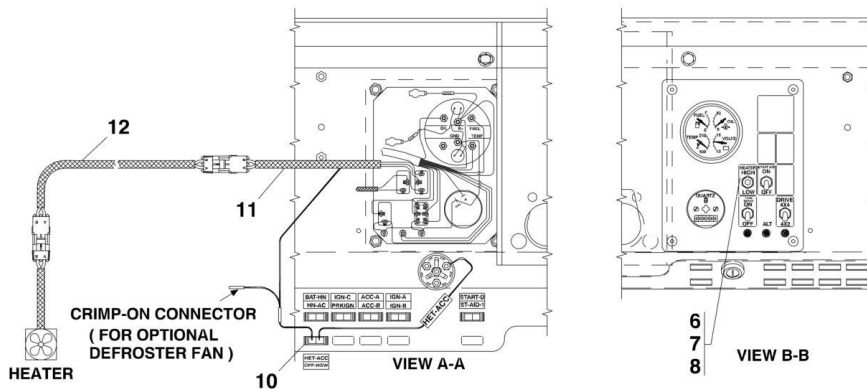


# SECTION 12 - OPTIONS

**FIGURE 12-33. CAB HEATER OPTION (SN 0355001 through 0455362, SN 016000192 through 016000973)**



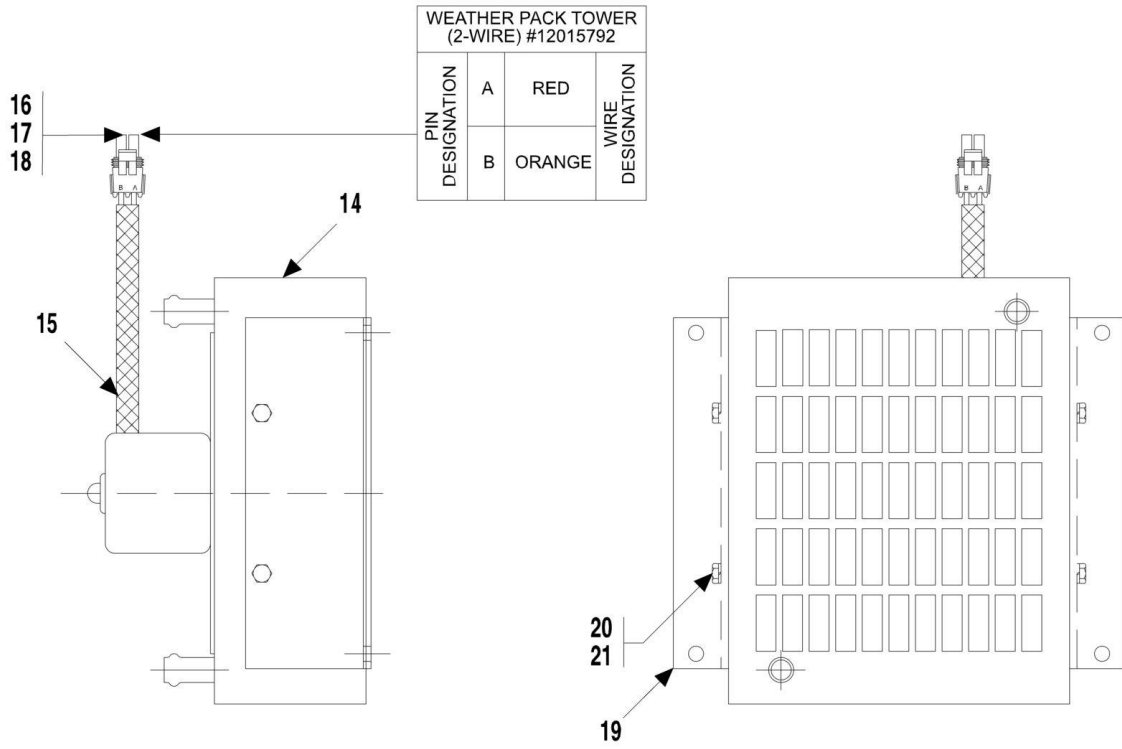
**ELECTRICAL SCHEMATIC FOR CAB HEATER OPTION ITEMS**



**LIP OF DASH PANEL SHOWN FLAT & DASH HARNESS REMOVED FOR EASIER INTERPRETATION**

PAP21560

# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

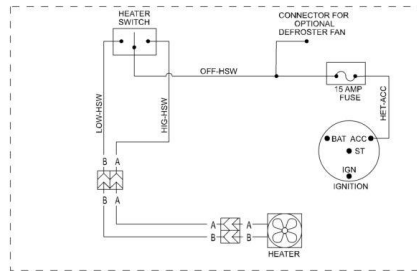
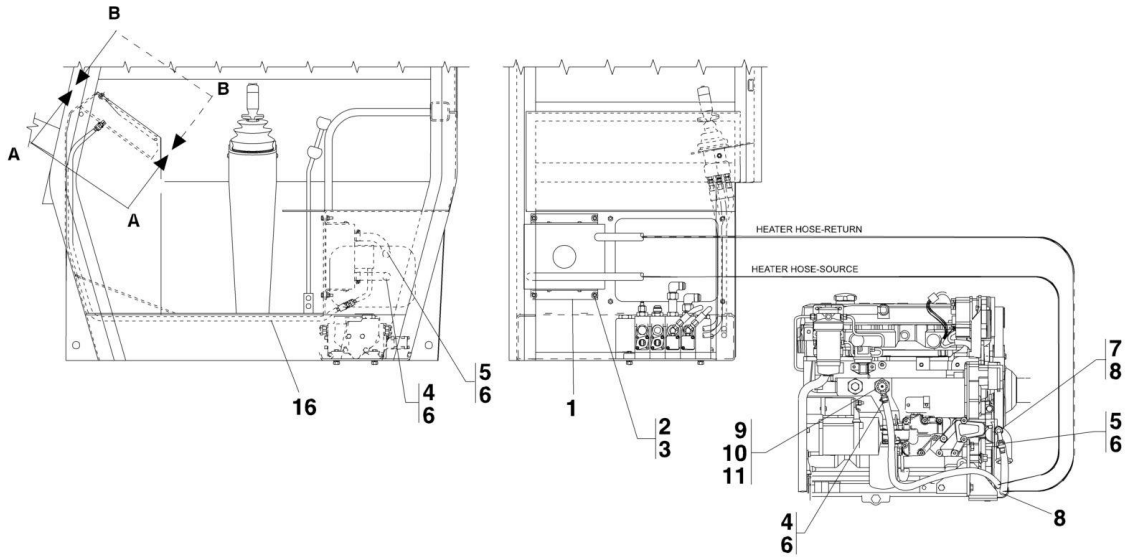
**FIGURE 12-33. CAB HEATER OPTION (SN 0355001 through 0455362, SN 0160000192 through 0160000973)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365017	1	CAB HEATER OPTION, (includes all items)	G
1	82033995	135 in	HEATER HOSE	
3	86683193	4	HOSE CLAMP	
4	77143006	4	WHIZ-LOCKNUT	
5	91083155	2	TRUCK VALVE	
6	91143361	1	HEATER DECAL	
7	77383470	1	BOOT	
8	77383744	1	TOGGLE SWITCH	
9	77383540	1	COOLANT RESTRICTOR ORIFICE	
10	77363268	1	FUSE, 15 AMP	
11	91343040	1	HEATER HARNESS	
12	91123182	1	HEATER HARNESS	
13	91125106	1	HEATER ASSY, (includes items 14 thru 21)	C
14	91043429	1	HEATER	
15	82033996	6 in	FLEX LOOM	
16	80963057	1	TOWER	
17	80963068	2	FEMALE PIN TERMINAL	
18	80963067	2	CABLE SEALS	
19	91031521	2	HEATER MTG. BRACKET	
20	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
21	88551009	4	LOCKWASHER, 1/4	
22	77143004	4	WHIZ-LOCK SCREW	
23	88711383	1	PIPE BUSHING, 1/2X3/8	
24	24641328	1	SHUT OFF VALVE	

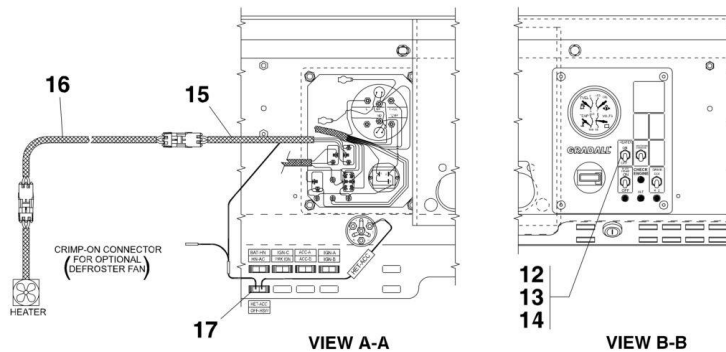


# SECTION 12 - OPTIONS

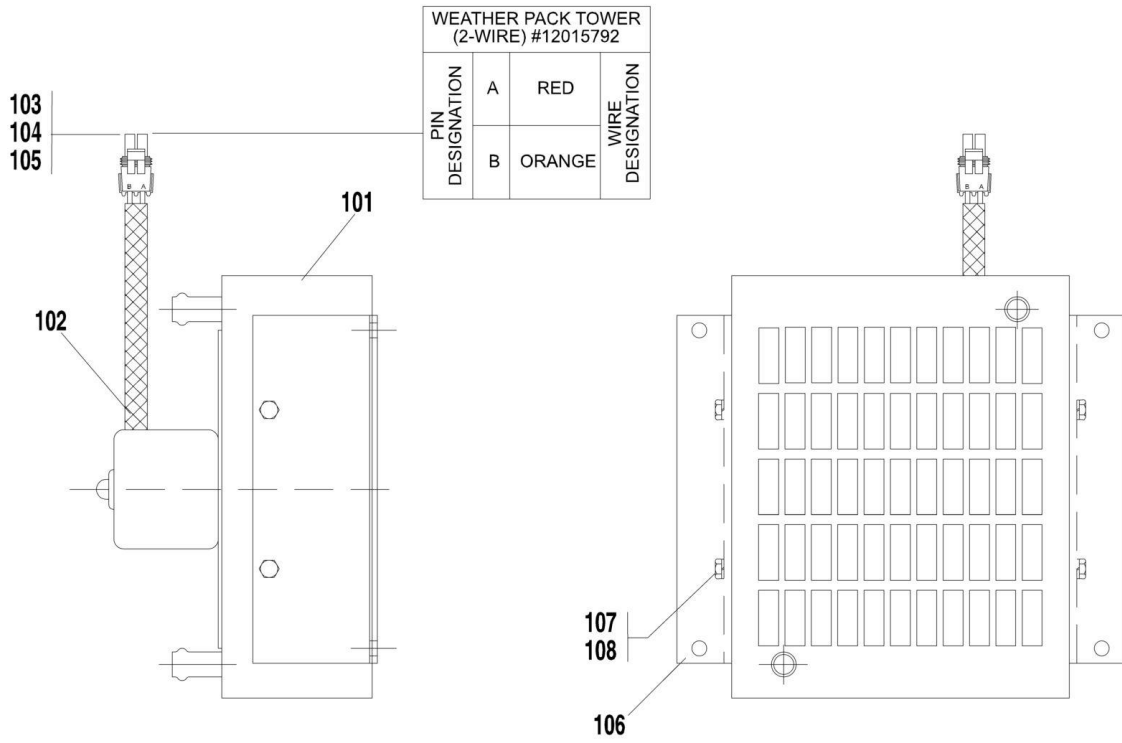
FIGURE 12-34. CAB HEATER OPTION (SN 016000976 through 0160035922)



ELECTRICAL SCHEMATIC FOR CAB HEATER OPTION ITEMS



# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

FIGURE 12-34. CAB HEATER OPTION (SN 0160000976 through 0160035922)

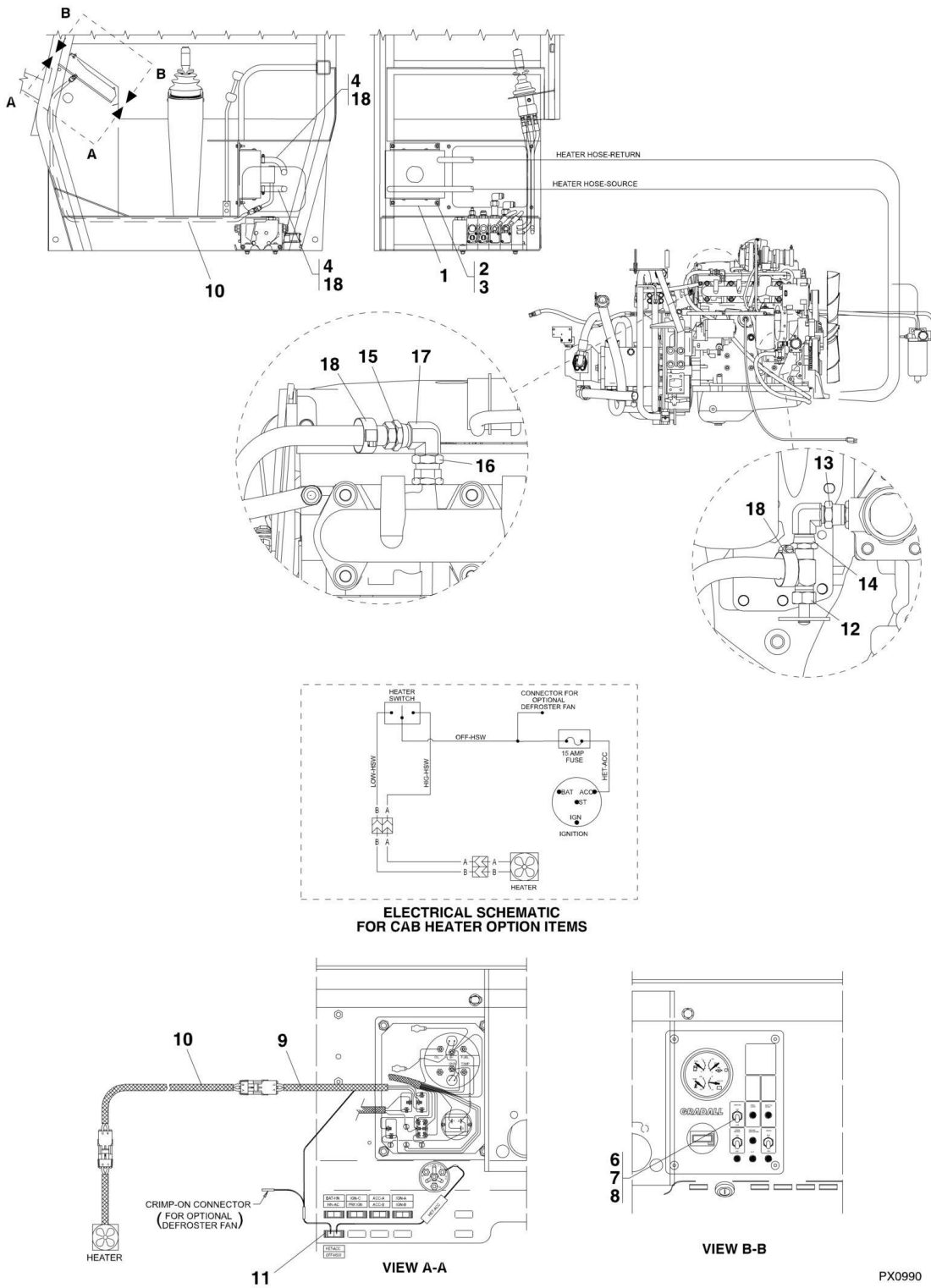
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91535013	1	CAB HEATER OPTION, (includes items 1 thru 17)	B
1	91125106	1	HEATER ASSY, (includes items 101 thru 108)	C
2	77143004	4	WHIZ-LOCK SCREW	
3	77143006	4	WHIZ-LOCKNUT	
4	90206169	1	HEATER HOSE	
5	91141459	1	HEATER HOSE	
6	86683193	4	HOSE CLAMP	
7	80683073	1	ADAPTER FITTING	
8	91403443	1	BARBED FITTING, 90	
9	80373046	1	FITTING	
10	77383540	1	COOLANT RESTRICTOR ORIFICE	
11	91083155	1	TRUCK VALVE	
12	91143361	1	HEATER DECAL	
13	77383470	1	BOOT	
14	77383744	1	TOGGLE SWITCH	
15	91343040	1	HEATER HARNESS	
16	91123182	1	HEATER HARNESS	
17	77363268	1	FUSE, 15A	
101	91043429	1	HEATER	
102	82033996	6 in	FLEX LOOM	
103	80963057	1	TOWER	
104	80963068	2	FEMALE PIN TERMINAL	
105	80963067	2	CABLE SEALS	
106	91031521	2	HEATER MTG. BRACKET	
107	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
108	88551009	4	LOCKWASHER, 1/4	





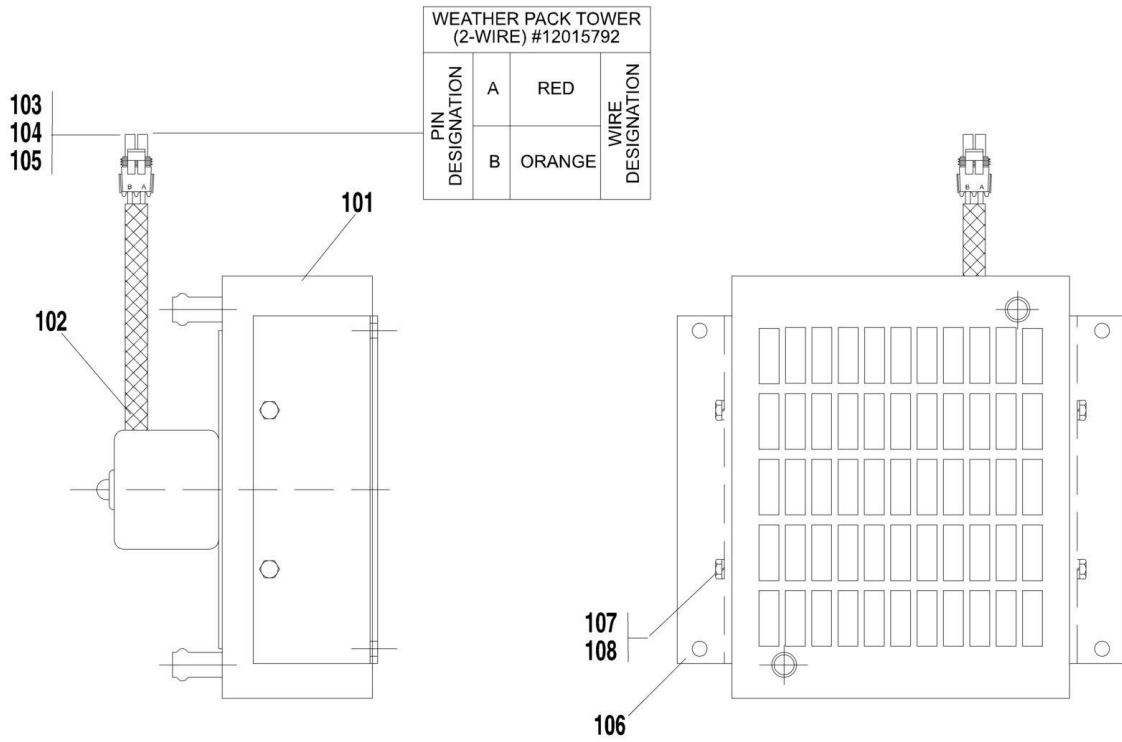
# SECTION 12 - OPTIONS

FIGURE 12-35. CAB HEATER OPTION (SN 0160036260 to Present)



PX0990

# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

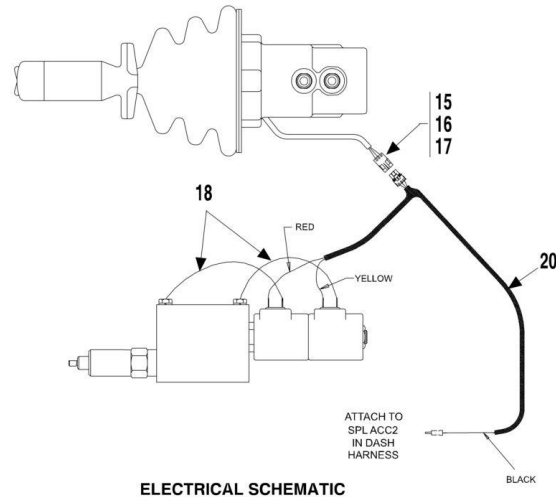
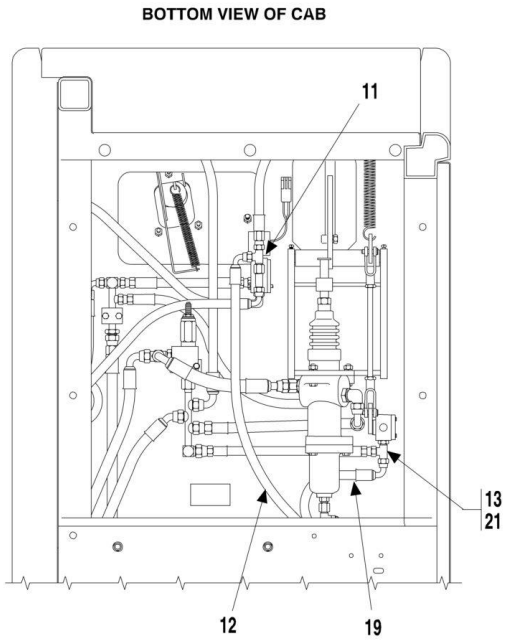
FIGURE 12-35. CAB HEATER OPTION (SN 0160036260 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001103700	1	CAB HEATER OPTION, (includes items 1 thru 18)	B
1	91125106	1	HEATER ASSY, (includes items 101 thru 108)	C
2	77143004	4	WHIZ-LOCK SCREW	
3	77143006	4	WHIZ-LOCKNUT	
4	90206170	2	HEATER HOSE	
6	91143361	1	HEATER DECAL	
7	77383470	1	BOOT	
8	77383744	1	TOGGLE SWITCH	
9	91343040	1	HEATER HARNESS	
10	91123182	1	HEATER HARNESS	
11	77363268	1	FUSE, 15A	
12	8360005	1	SHUT OFF VALVE	
13	2220008	1	FITTING	
14	2220067	1	FITTING	
15	8430048	1	REDUCER	
16	2220009	1	FITTING	
17	2220070	1	FITTING	
18	8405007	4	CLAMP	
101	91043429	1	HEATER	
102	82033996	6 in	FLEX LOOM	
103	80963057	1	TOWER	
104	80963068	2	FEMALE PIN TERMINAL	
105	80963067	2	CABLE SEALS	
106	91031521	2	HEATER MTG. BRACKET	
107	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
108	88551009	4	LOCKWASHER, 1/4	



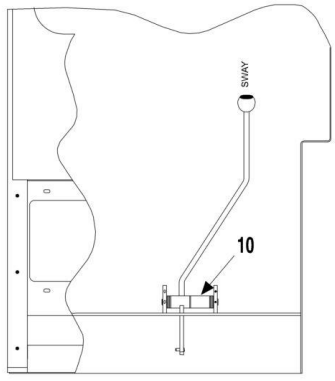
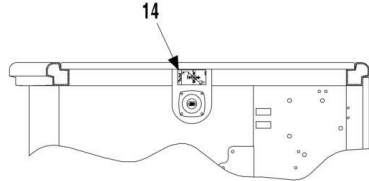
# SECTION 12 - OPTIONS

## FIGURE 12-36. ADJUSTABLE TILT ON JOYSTICK

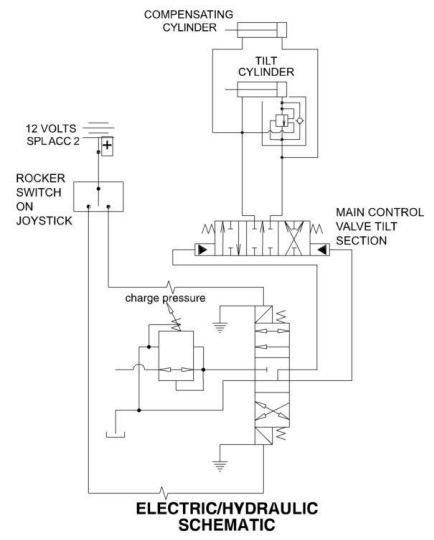


**ELECTRICAL SCHEMATIC**

WEATHER PACK SHROUD (3-WIRE) #1201-0717		
PIN DESIGNATION	WIRE DESIGNATION	WIRE DESIGNATION
A	RED	
B	YELLOW	
C	GRAY	

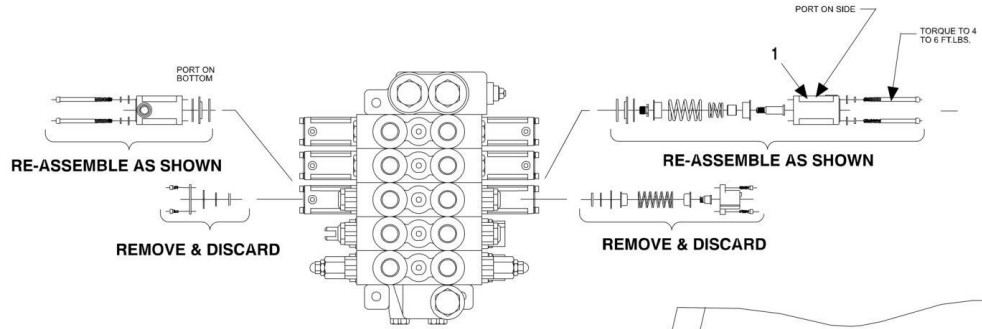


**REAR VIEW OF CAB**

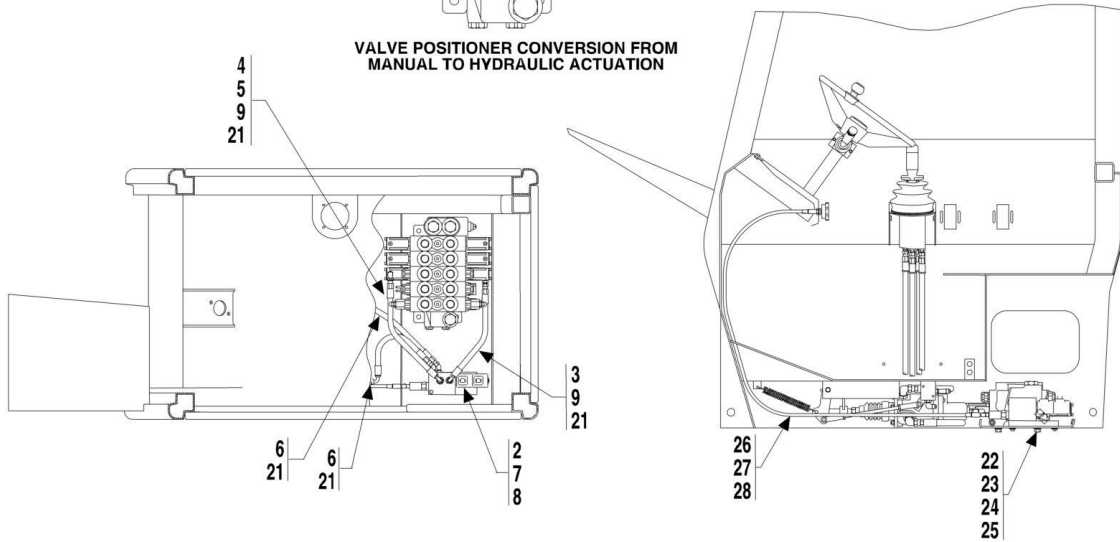


**ELECTRIC/HYDRAULIC SCHEMATIC**

# SECTION 12 - OPTIONS



**VALVE POSITIONER CONVERSION FROM MANUAL TO HYDRAULIC ACTUATION**



## SECTION 12 - OPTIONS

FIGURE 12-36. ADJUSTABLE TILT ON JOYSTICK

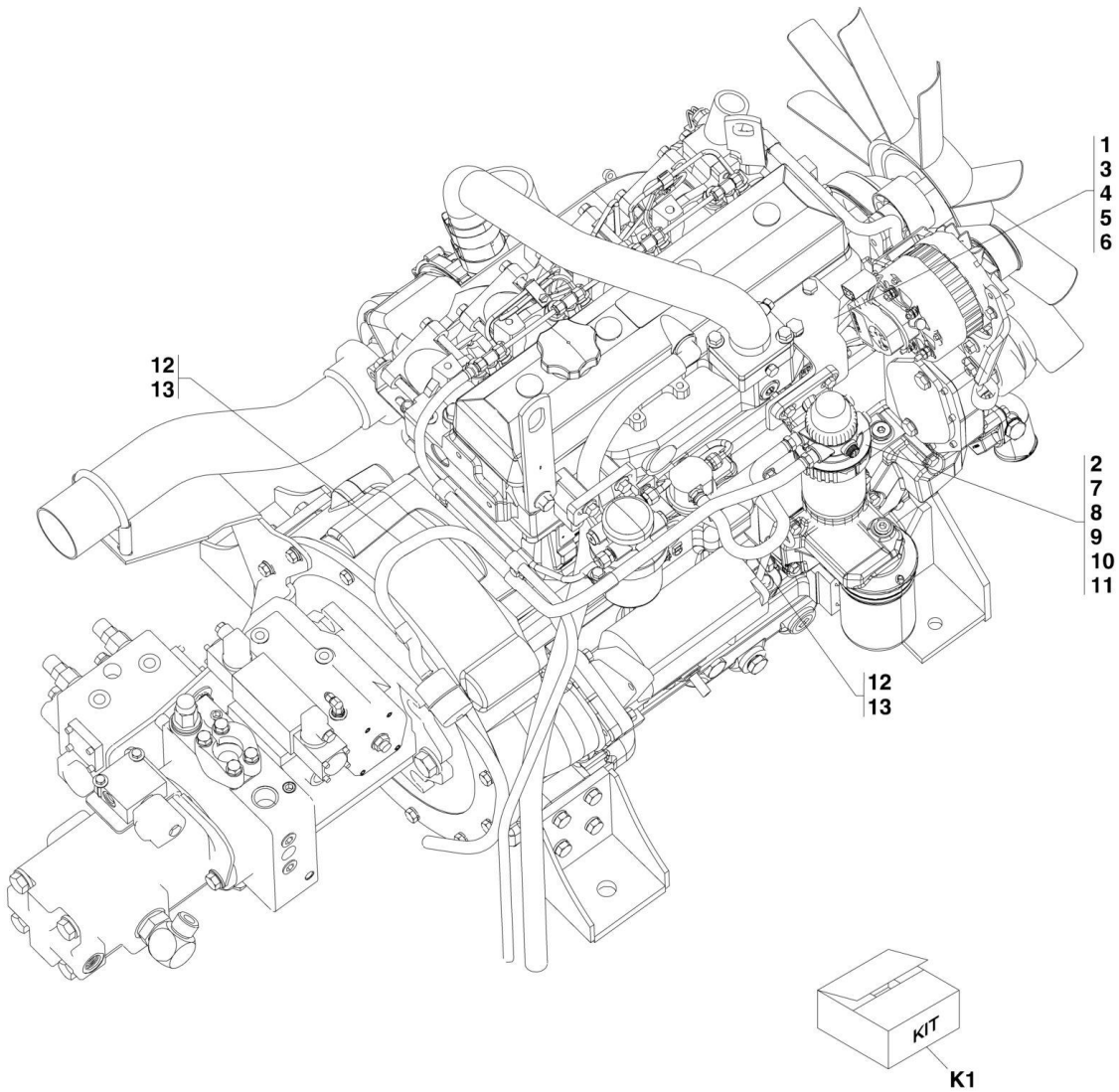
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91365021	1	ADJUSTABLE TILT ON JOYSTICK, (if equipped), (includes all items)	C
1	91033483	1	HYD VALVE POSITION KIT	
2	91163236	1	COMBINATION VALVE	
3	84719163	1	HOSE ASSY	
4	84719167	1	HOSE ASSY	
5	2220473	1	ELBOW, 90, (includes item 21)	
6	2220501	2	ELBOW, 45, (includes item 21)	
7	88201015	2	HEX HD CAP SCREW, 1/4-20X3-1/2, GR5	
8	88551009	2	LOCKWASHER, 1/4	
9	2220371	3	CONNECTOR, (includes item 21)	
10	91301020	1	SPACER	
11	2220635	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
12	84719166	1	HOSE ASSY	
13	2220606	1	RUN TEE, (includes item 21)	
14	91303041	1	BOOM CONTROL DECAL	
15	4460476	1	WEATHER PACK CONNECTOR, (shroud)	
16	4460475	3	WEATHER PACK CONNECTOR, (male pin)	
17	91143187	3	WEATHER PACK CONNECTOR, (cable seal)	
18	90207719	2	JUMPER WIRE-GREEN	
19	84717295	1	HOSE ASSY	
20	91083490	1	JOYSTICK HARNESS	
21	88591204	7	O-RING	
22	91361019	1	MOUNTING PLATE	
23	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
24	88551010	2	LOCKWASHER, 5/16	
25	88561003	2	FLAT WASHER, 5/16	
26	91163242	1	PANEL MOUNT FLEXIBLE SHAFT	
27	91363055	1	CONTROL KNOB	
28	91363056	1	CONTROL DECAL	





# SECTION 12 - OPTIONS

## FIGURE 12-37. FUEL/WATER SEPARATOR INSTALLATION



PAP21500

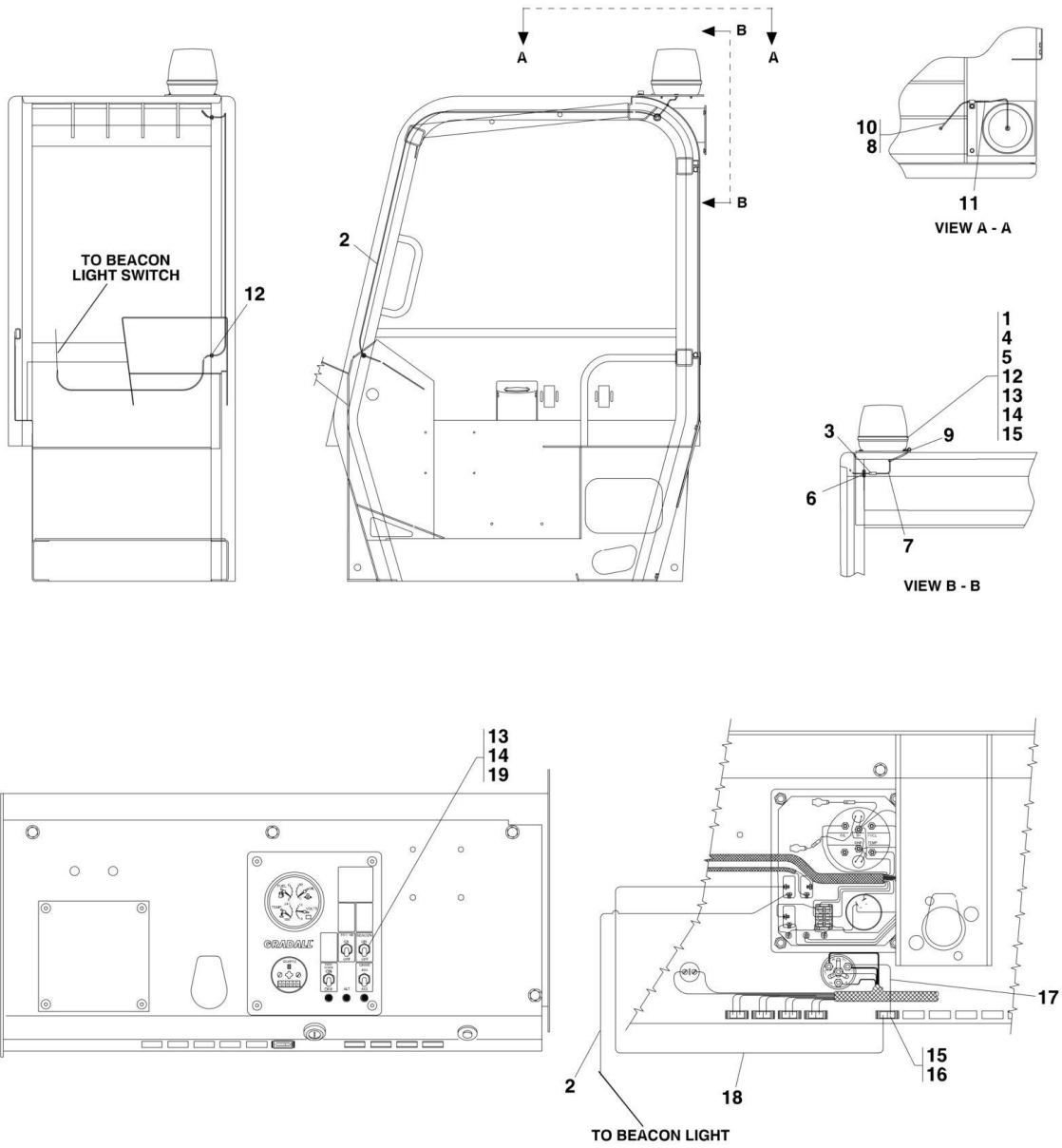
## SECTION 12 - OPTIONS

### FIGURE 12-37. 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	
2	91474633	1	FUEL/WATER SEPARATOR ELEMENT	
2	91474634	1	WATER COLLECTION BOWL	
2	91474635	1	REVERSE FLOW HAND PRIMER	
3	4832000	1	LOCKWASHER, 10mm	
4	4832100	1	LOCKWASHER, 12mm	
5	0761012	1	HEX HD CAPSCREW, M10X1.5X25, GR5	
6	0761212	1	HEX HD CAPSCREW, M12X1.75X25, 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	
K1	2915112	1	FUEL/WATER SEPARATOR KIT	

# SECTION 12 - OPTIONS

FIGURE 12-38. BEACON LIGHT PACKAGE (SN 0355001 through 0455497, SN 0160000192 through 0160012665, Excluding 0160012298)



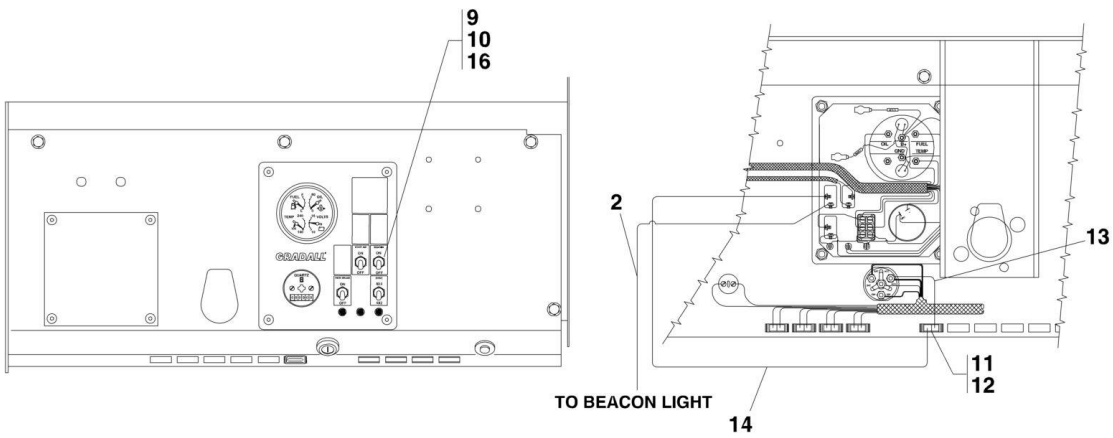
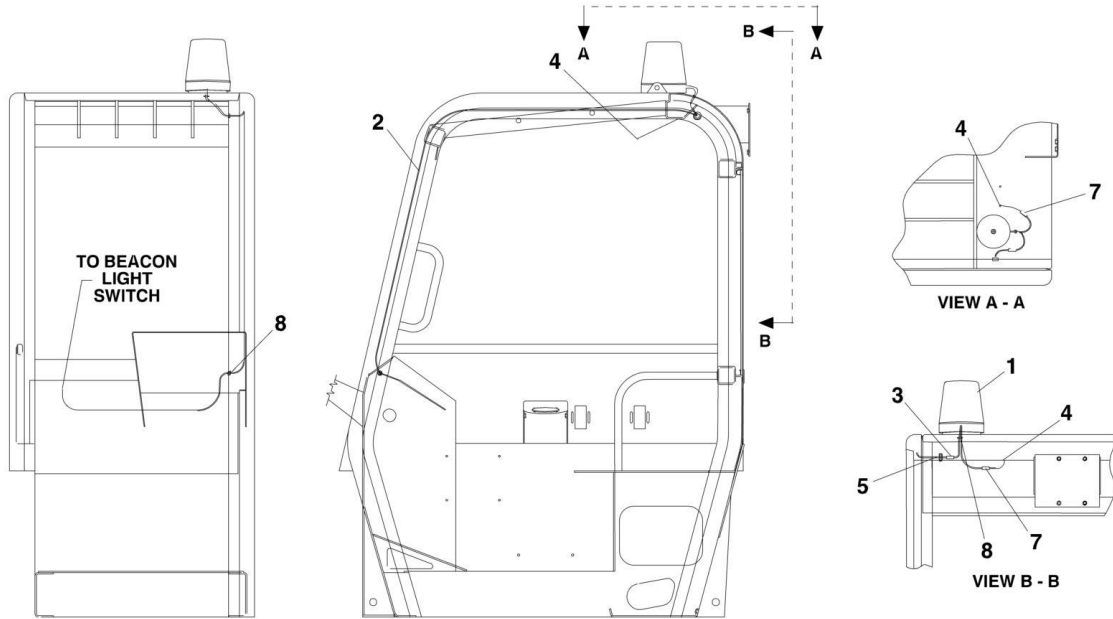
## SECTION 12 - OPTIONS

**FIGURE 12-38. BEACON LIGHT PACKAGE (SN 0355001 through 0455497, SN 0160000192 through 0160012665, Excluding 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91345013	1	BEACON LIGHT PACKAGE, (includes all items)	G
1	91343031	1	ROTATING BEACON	
1	91344053	1	BULB	
2	91121151	1	JUMPER WIRE	
3	86683480	1	BUTT CONNECTOR	
4	91341012	1	BEACON BRACKET	
5	90027319	2	SELF TAPPING SCREW, 1/4-20X1	
6	91033380	1	RUBBER GROMMET	
7	90029955	1	RUBBER GROMMET	
8	82033996	12 in	WIRE LOOM	
9	90021705	1	SUPPORT CLAMP	
10	91053419	2	TIEWRAP	
11	91341013	1	JUMPER WIRE	
12	90027214	2	RUBBER GROMMET	
13	77383467	1	TOGGLE - SPST	
14	77383470	1	BOOT	
15	91143108	1	FUSE HOLDER	
16	77363267	1	FUSE, 10 AMP	
17	91141259	1	JUMPER WIRE	
18	91121216	1	JUMPER WIRE	
19	91123177	1	BEACON DECAL	

# SECTION 12 - OPTIONS

FIGURE 12-39. BEACON LIGHT PACKAGE (SN 0160012842 to Present, Including 0160012298)



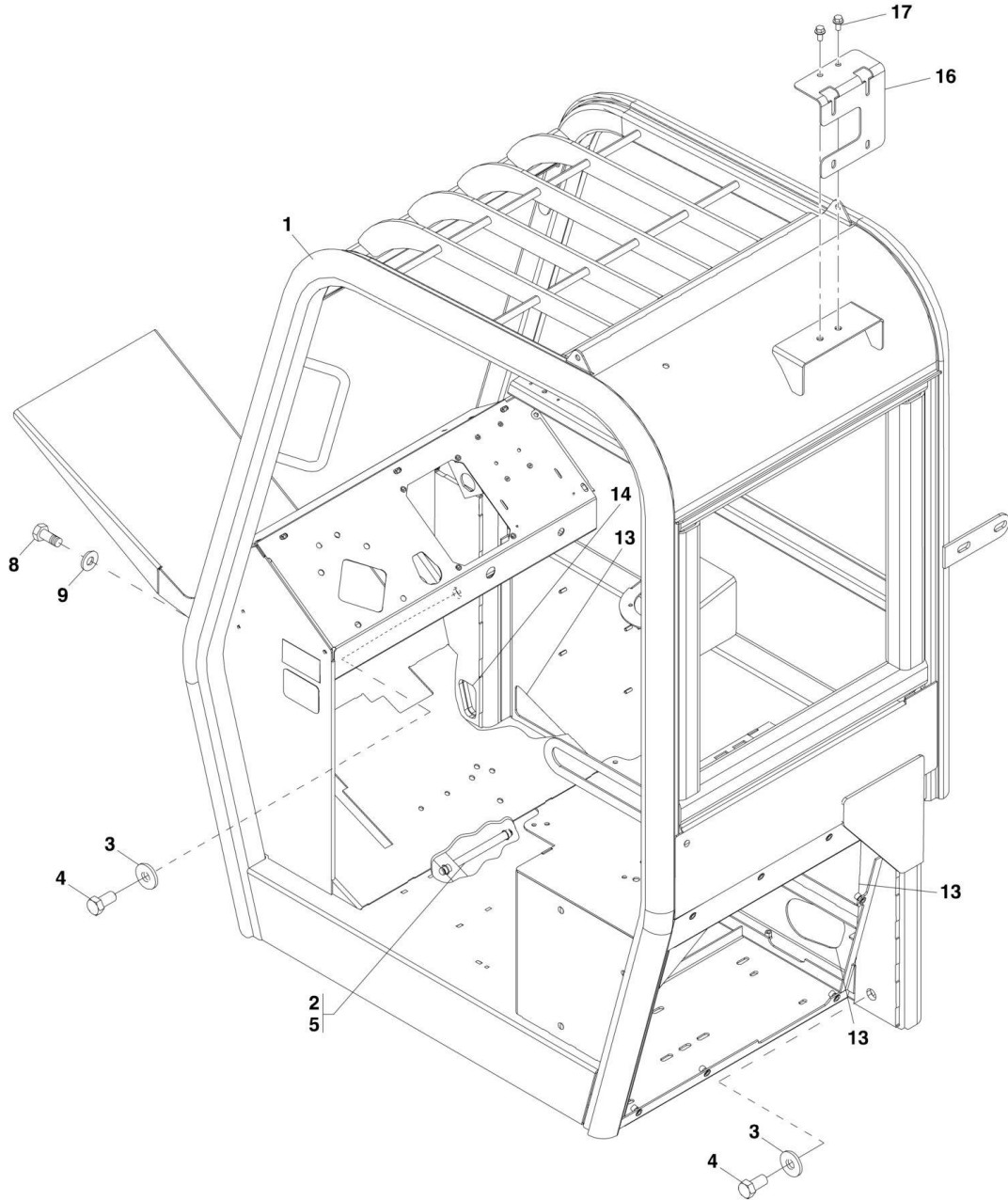
## SECTION 12 - OPTIONS

**FIGURE 12-39. BEACON LIGHT PACKAGE (SN 0160012842 to Present, Including 0160012298)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0274689	1	BEACON LIGHT PACKAGE, (includes all items)	A
1	8500066	1	ROTATING BEACON	
1	7029524	1	BULB	
2	91121151	1	JUMPER WIRE	
3	86683480	1	BUTT CONNECTOR	
4	88321022	1	SELF TAPPING SCREW, #8-32X3/8	
5	91033380	1	RUBBER GROMMET	
6	91053419	2	TIEWRAP	
7	4923310	1	JUMPER WIRE	
8	91033425	2	RUBBER GROMMET	
9	77383467	1	TOGGLE - SPST	
10	77383470	1	BOOT	
11	91143108	1	FUSE HOLDER	
12	77363267	1	FUSE, 10 AMP	
13	91141259	1	JUMPER WIRE	
14	91121216	1	JUMPER WIRE	
16	91123177	1	BEACON DECAL	

# SECTION 12 - OPTIONS

## FIGURE 12-40. CAB REPLACEMENT SERVICE KIT



ART\_91364001-12-40



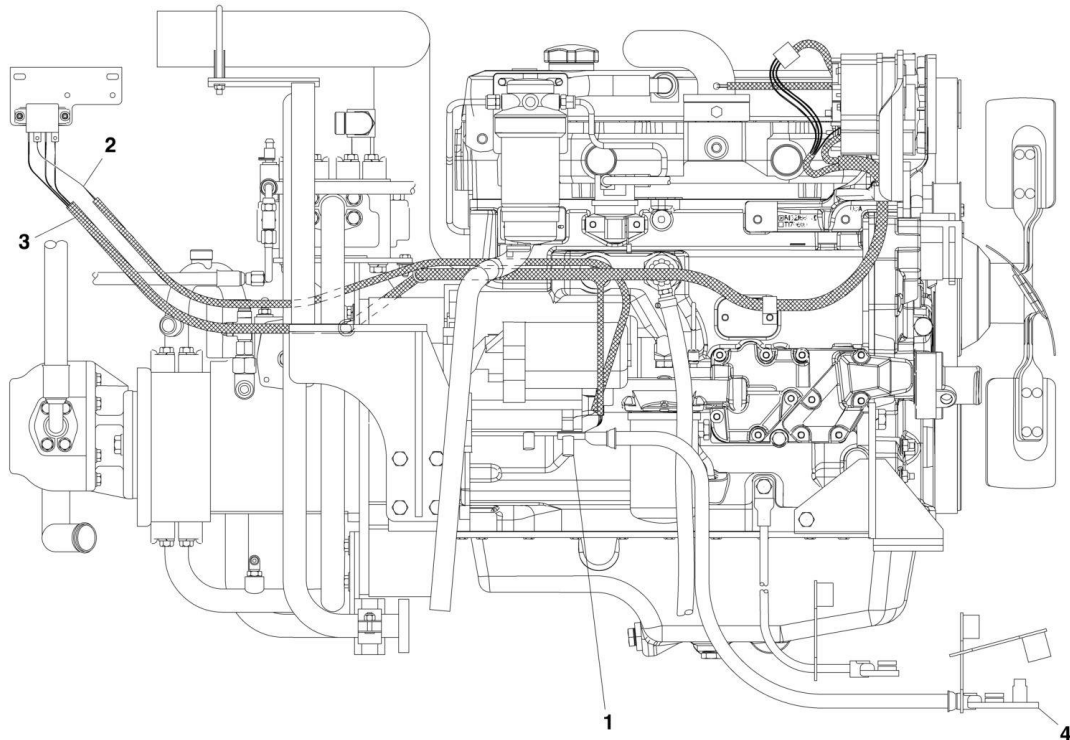
## SECTION 12 - OPTIONS

### FIGURE 12-40. CAB REPLACEMENT SERVICE KIT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2915047	1	OPEN CAB REPLACEMENT SERVICE KIT, (includes items 1 thru 5, 8, 9, 13, 14, 16 & 17)	E
	2915048	1	CLOSED CAB REPLACEMENT SERVICE KIT, (includes all items)	E
1		Ref	OPEN CAB WELDMENT (See CAB SECTION for Breakdown)	
2	3423212	1	BRAKE PEDAL PIVOT PIN	
3	4892500	4	FLAT WASHER, 7/8	
4	83201158	4	HEX HD CAPSCREW, 7/8-9X1-3/4, GR8	
5	88581303	2	INVERTED EXT RETAINING RING	
6		Ref	CAB ENCLOSURE KIT , (not shown), (See CAB SECTION for Breakdown) <b>(SN 0160012437 to Present, Including 0160012298)</b>	
8	0641510	4	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
9	4751500	4	FLAT WASHER, 5/16	
13	90206196	68	TRIM-LOCK, 1/8 IN	
14	90206202	17	TRIM-LOCK, 3/8 IN	
16	1001104436	1	AIR CLEANER SUPPORT BRACKET	
17	0791606	2	SCREW, 3/8-16X3/4	

## SECTION 12 - OPTIONS

FIGURE 12-41. STARTER KIT (SN 0160008321 to Present)



**NOTE:**

STARTER (91553030) IS NO LONGER AVAILABLE, ORDER STARTER KIT (91555025) FOR REPLACEMENT.

PAP19940

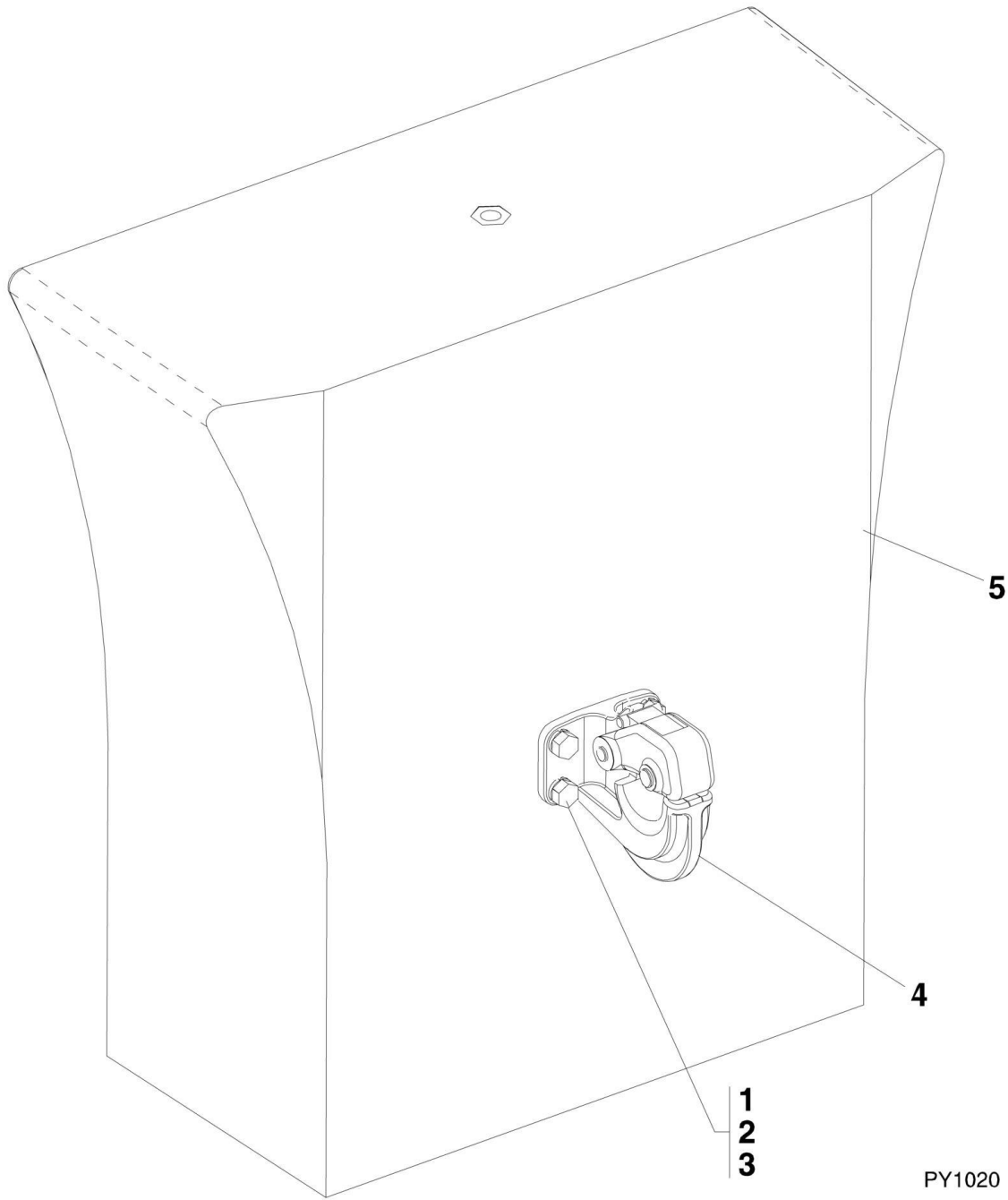
## SECTION 12 - OPTIONS

**FIGURE 12-41. STARTER KIT (SN 0160008321 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555025	1	STARTER KIT, (includes all items)	C
1	91534010	1	JOHN DEERE/DENSO STARTER	
2	91553066	1	WIRE JUMPER	
3		Ref	ENGINE HARNESS, (See ELECTRICAL SECTION for Breakdown)	
4		Ref	POSITIVE BATTERY CABLE, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	

# SECTION 12 - OPTIONS

## FIGURE 12-42. PINTLE HOOK INSTALLATION



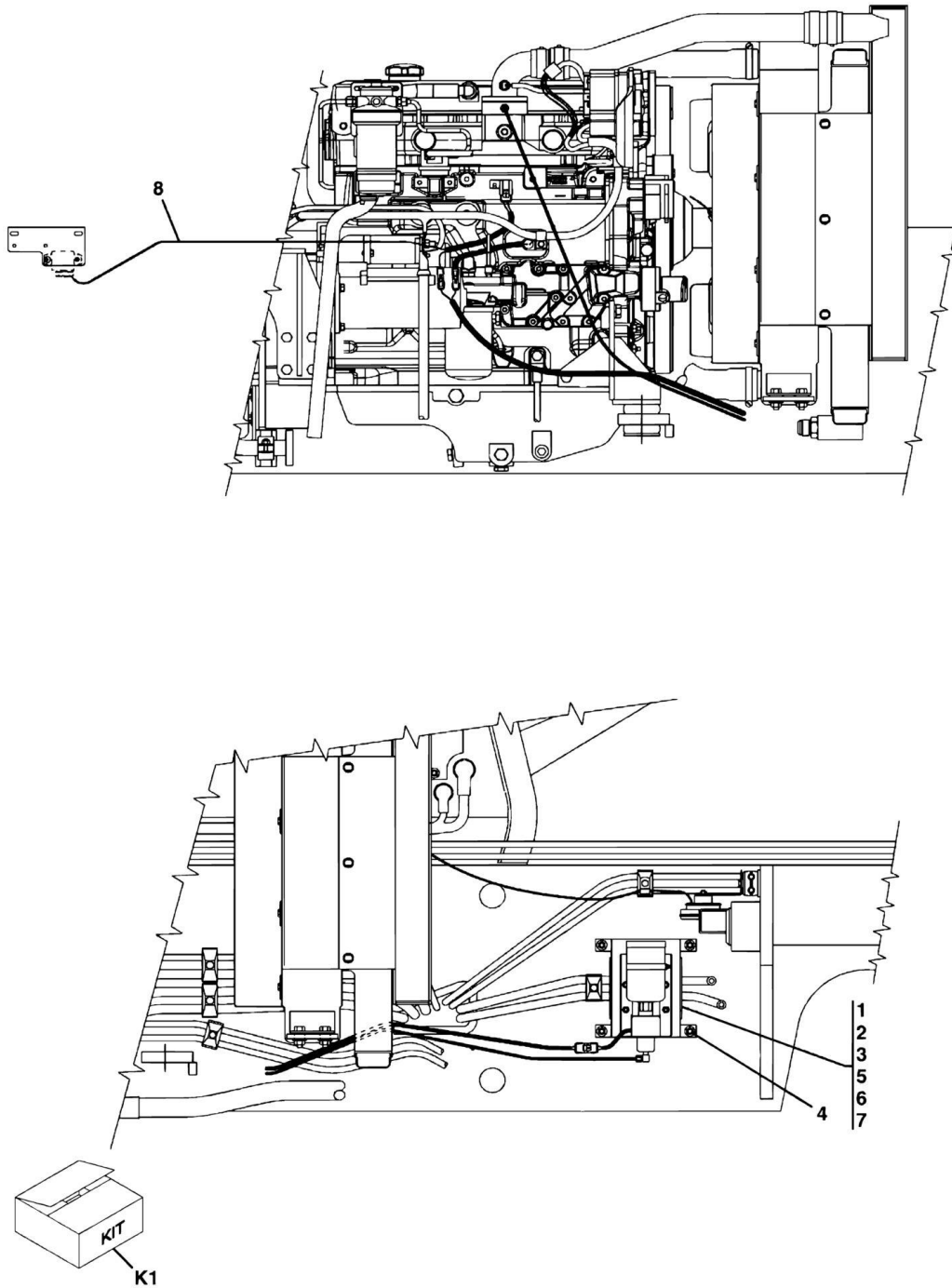
## SECTION 12 - OPTIONS

### FIGURE 12-42. PINTLE HOOK INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001097095	1	PINTLE HOOK INSTALLATION, (includes all items)	B
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 FRAME AND ATTACHING PARTS SECTION for Breakdown)	

# SECTION 12 - OPTIONS

FIGURE 12-43. COLD START INSTALLATION (SN 0160000976 through 0160034720, Including 0160035922)



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## SECTION 12 - OPTIONS

**FIGURE 12-43. COLD START INSTALLATION (SN 0160000976 through 0160034720, Including 0160035922)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91555016	1	COLD START INSTALLATION, (includes items 1 thru 8)	B
1	91551036	1	COLD START MOUNTING BRACKET	
2	90206198	10 in	TRIM-LOCK	
3	14402248	AR	3M ADHESIVE	
4	77143006	4	WHIZ-LOCKNUT, 5/16-18	
5	88201004	4	HEX HD CAPSCREW, 1/4-20X7/8	
6	88501004	4	HEX NUT, 1/4-20	
7	88551009	4	LOCKWASHER, 1/4	
8	91553071	1	WIRE COLD START	
K1	91403295	1	COLD START KIT, (includes the following)	
K1	70023156	1	VALVE, 12VDC	
K1	7024399	1	FLUID CYLINDER	





## **SECTION 13 - RECOMMENDED SPARE PARTS**

### **SECTION 13 - RECOMMENDED SPARE PARTS**

# SECTION 13 - RECOMMENDED SPARE PARTS

## FIGURE 13-1. RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	<b>Note: 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.</b>	
		Ref	<b>SN 016000976 to Present (Illustration and Parts List Usage)</b>	
		Ref	<b>BOOM ASSEMBLY</b>	
	84718632	2	Tilt Cyl Hose	
	84718959	2	Boom Hose	
	84719455	2	Boom Hose	
	91143024	1	Hose Sheave	
	91033186	12	Bearing Pad	
	91033187	1	Bearing Pad	
	91033187	1	Bearing Pad, Boom Hydraulics	
	91163188	6	Bearing Pad	
	91033189	6	Bearing Pad	
	91163214	2	Bearing Pad	
	91361050	2	Shim, 0.0598 <b>(Prior to SN 0160012437)</b>	
	91161184	2	Shim, 0.0598 <b>(SN 0160012437 to Present)</b>	
	90205870	AR	Shim, 0.0598	
	91121082	AR	Shim, 0.0598	
	91141302	AR	Shim, 0.0598	
	91361048	AR	Shim, 0.0598	
	91161183	4	Spacer, 0.0598	
	91031236	24	Spacer, 0.0598	
	91511094	2	Spacer, 0.0598	
	91141303	12	Spacer, 0.0598	
	91166068	2	Hose Take-Up Weldment	
	91123054	2	Hose Take-Up Springs	
	91086151	1	Plunger Weldment <b>(Prior to SN 0160037689)</b>	
	90207902	1	Quick Release Pin <b>(Prior to SN 0160037689)</b>	
	1001105441	1	Quick Switch Lock Pin <b>(SN 0160037689 to Present)</b>	
	2940074	1	Latch	
		Ref	<b>ENGINE</b>	
	91535011	1	250 Hour John Deere Engine Filter Kit, (9 in air cleaner ) <b>(SN 016000976 through 0160034720, Including 0160035922)</b>	
	2915180	1	1000 Hour John Deere Engine Filter Kit, (9 in air cleaner ) <b>(SN 016000976 through 0160034720, Including 0160035922)</b>	
	1001113510	1	1000 Hour John Deere Engine Filter Kit, (10 in air cleaner ) <b>(SN 016000976 through 0160034720, Including 0160035922)</b>	
	1001113718	1	250 Hour Cummins Filter Kit <b>(SN 0160035037 to Present, Excluding 0160035922)</b>	
	1001113719	1	1000 Hour Cummins Filter Kit <b>(SN 0160035037 to Present, Excluding 0160035922)</b>	
	86541381	1	Fuel Tank Cap	
	91553009	1	Fan <b>(SN 016000976 through 0160034720, Including 0160035922)</b>	
	2060045	1	Fan <b>(SN 0160035037 to Present, Excluding 0160035922)</b>	
	80374015	1	Alternator Belt <b>(SN 016000976 through 0160034720, Including 0160035922)</b>	

## SECTION 13 - RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	70021807	1	Alternator Belt (SN 0160035037 to Present, Excluding 0160035922)	
	91404085	1	Dipstick, John Deere (SN 0160035037 to Present, Excluding 0160035922)	
	70023299	1	Dipstick, Cummins, (used with 800mm dipstick) (SN 0160035037 to Present, Excluding 0160035922)	
	70021798	1	Dipstick, Cummins, (used with 200mm dipstick ) (SN 0160035037 to Present, Excluding 0160035922)	
		Ref	<b>DRIVE TRAIN</b>	
	91363025	1	F-N-R Shifter	
	91364036	2	Bushing (SN 0160000192 to Present)	
	91364035	2	Sealing Ring (SN 0160000192 to Present)	
	91364079	2	Hub Seal (SN 0160000192 to Present)	
	91364080	4	Hub Bearing (SN 0160000192 to Present)	
	91474155	2	Hub O-Ring (SN 0160000192 to Present)	
	91414004	2	Rear Boot Seal (SN 0160000192 to Present)	
	91414005	2	Rear Hub Oil Seal (SN 0160000192 to Present)	
		Ref	<b>HYDRAULIC SYSTEM</b>	
	91303037	1	Boom Joystick Assy	
	80934656	1	Boom Joystick Handle Assy	
	91164005	1	Lift Cyl Seal Kit (SN 0355001 through 0455362, SN 0160000192 through 0160017472)	
	70024391	1	Lift Cyl Seal Kit (SN 0160017525 to Present)	
	91164004	1	Crowd Cyl Seal Kit	
	91144004	1	Tilt Cyl Seal Kit (SN 0355001 through 0455362, SN 0160000192 through 0160032630)	
	70022538	1	Tilt Cyl Seal Kit (SN 0160033224 through 0160037688)	
	70022125	1	Tilt Cyl Seal Kit (SN 0160037689 to Present)	
	91144004	1	Comp Cyl Seal Kit (SN 0355001 through 0455362, SN 0160000192 through 0160032630)	
	70022538	1	Comp Cyl Seal Kit (SN 0160033224 to Present)	
	91144005	1	Sway Cyl Seal Kit (Prior to SN 0160033224)	
	70022515	1	Sway Cyl Seal Kit (SN 0160033224 to Present)	
	91144006	1	Steering Cyl Seal Kit (SN 0355001 through 0455362, SN 0160000192 through 0160033083, Excluding 0160032250, 0160032591, 0160032630, 0160032644 and 0160032679)	
	70021909	1	Steering Cyl Seal Kit (SN 0160033224 to Present, Including 0160032250, 0160032591, 0160032630, 0160032644 and 0160032679)	
	91144005	2	Stabilizer Cyl Seal Kit	
	91144004	1	Outrigger Cyl Seal Kit (SN 0355001 through 0455362, SN 0160000192 through 0160038794)	
	70023899	1	Outrigger Cyl Seal Kit, (For Service Only)	
	2120168	2	Hydraulic Filter Element	
	91083301	2	Tank Filter	
	91083069	1	Filler/Breather	
	91083070	1	Fluid Level Gauge	
	91084022	1	Color Coded Gauge	
		Ref	<b>ELECTRICAL</b>	
	91553044	1	Accelerator Pedal (Prior to SN 0160036625, Including 0160036854, 0160037074 and 0160037964)	
	3400022	1	Accelerator Pedal (SN 0160036625 to Present, Excluding 0160036854, 0160037074 and 0160037964)	
	91143314	1	Water Temp, Sender	

## SECTION 13 - RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	24741047	1	Oil Press, Switch	
	91553045	1	Oil Press. Sender (SN 0160000976 to Present)	
	91143316	1	Fuel Level Sender	
	77383377	1	Starter Relay	
	91033317	1	Ignition Switch	
	1001108293	1	Alternator	
	1001108291	1	Regulator	
	91553030	1	Starter (SN 0160000976 through 0160034720, Including 0160035922)	
	91554031	1	Starter Solenoid (SN 0160000976 through 0160034720, Including 0160035922)	
	91403574	1	Back-up Alarm (Prior to SN 0160016754)	
	8270621	1	Back-up Alarm (SN 0160016754 to Present)	
	91143357	1	Horn	
		Ref	<b>MISC.</b>	
	77384578	1	Ignition Key	
	80904003	1	Hydraulic Test Kit	
	24604083	1	ORS O-Ring Kit	
	90214009	1	O-Ring Kit	
	91364142	1	Owner/Operator Manual (SN 0355001 through 0455632, SN 0160000192 through 0160003968, Excluding 0160003856)	
	31200172	1	Operation and Safety Manual (SN 0160003696 to Present, Including 0160003856)	
	91364003	1	Service Manual (SN 0355001 through 0455362)	
	31200170	1	Service Manual (SN 0160000192 to Present)	
		Ref	<b>SPECIAL TOOLS</b>	
		Ref	<b>Carraro Axles</b>	
	8035818	1	Wrench	
	70020309	1	Handle	
	7027857	1	Wrench	
	7027856	1	Wrench	
	8035819	1	Wrench	
	70020308	1	Backlash Measurement Tool	
	7029577	1	Driver	
	7029576	1	False Differential Box	
	7029578	1	Wrench	
	7029575	1	False Pinion	
	7029574	1	Bearing Insertion Kit	

# SECTION 13 - RECOMMENDED SPARE PARTS

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## SECTION 13 - RECOMMENDED SPARE PARTS

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