

GRADALL[®]

Illustrated Parts Manual

Models
534B-9

Starting
SN 0144860S

P/N - 9103-4312

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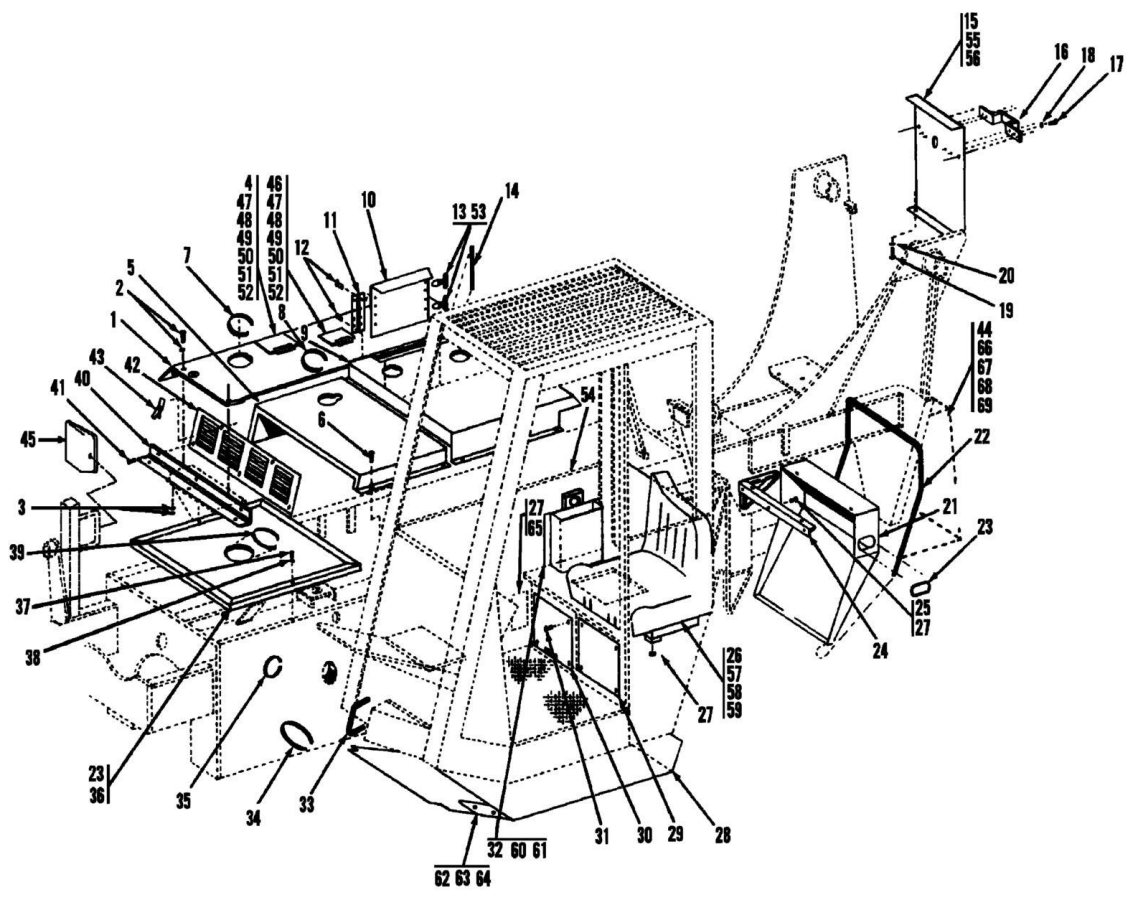
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SECTION 1 - CHASSIS AND ATTACHING PARTS

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0144860S to Present)



SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0144860S to Present)

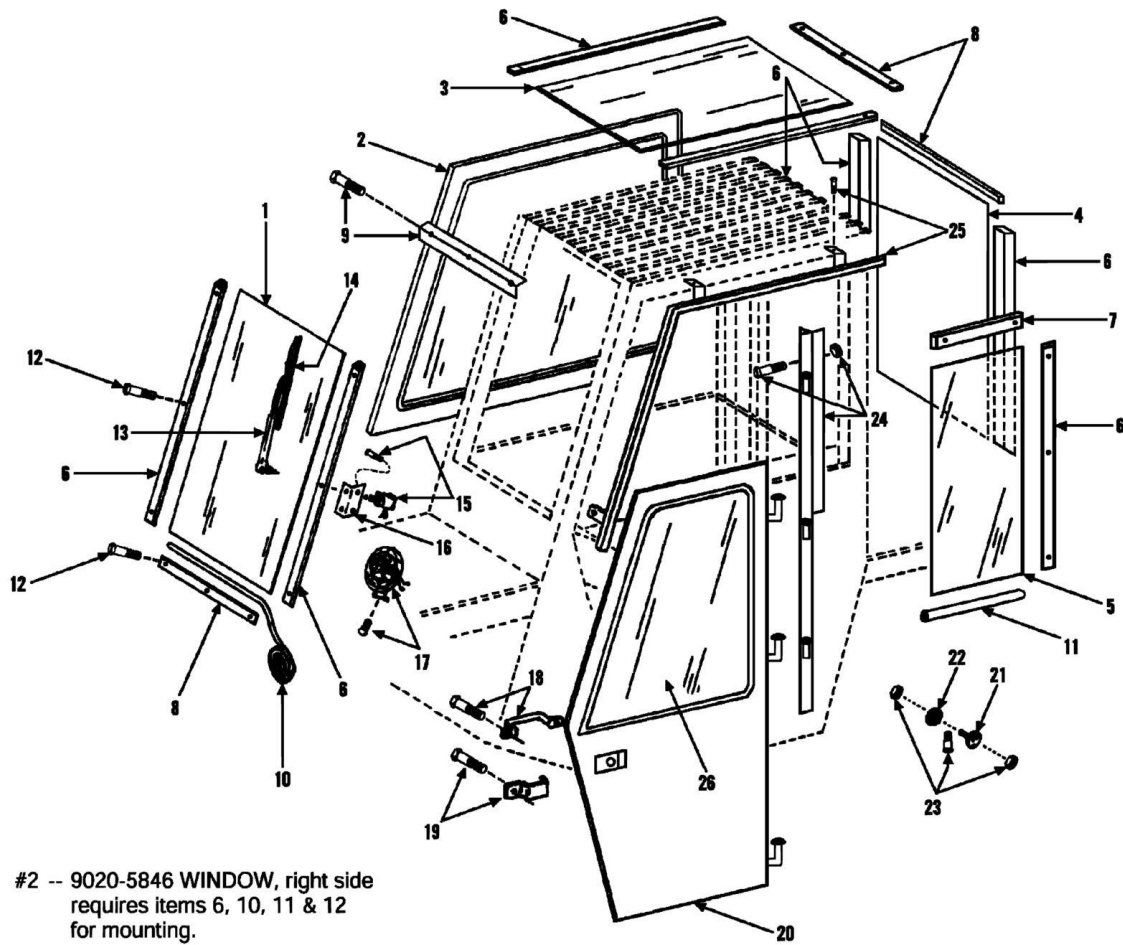
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91031260	1	TANK COVER	
2	88201066	4	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
3	85401340	8	HARDENED WASHER, 1/2	
3	88521308	4	HEX LOCKNUT, 1/2-13	
4	91031456	1	HYD. DOOR COVER	
5	91036016	1	FRONT HOOD	
6	88201003	8	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
6	88551009	8	LOCKWASHER, 1/4	
6	88561107	8	FLAT WASHER, 1/4	
7	90206196	AR	TRIM	
8	90206196	AR	TRIM	
9	91045027	1	REAR HOOD ASSY (includes items 10, 11 & 12)	
10	91031067	1	SERVICE DOOR	
11	91033077	1	DOOR HINGE	
12	88261009	8	BUTTON HD CAPSCREW, 10-24X5/8	
12	88561105	8	FLAT WASHER, #10	
13	90207458	2	DRAW LATCH	
14	90206196	AR	TRIM	
15	90403352	1	REAR BOOM COVER	
16	91041510	1	BOOM CABLE GUARD	
17	88201067	4	HEX HD CAPSCREW, 1/2-13X1-1/2	
18	88551013	4	LOCKWASHER, 1/2	
18	88561111	6	FLAT WASHER, 1/2	
19	88201033	2	HEX HD CAPSCREW, 3/8-16X3/4	
20	88551011	2	LOCKWASHER, 3/8	
20	88561004	2	FLAT WASHER, 3/8	
21	91036079	1	REAR CAB COVER	
22	90206196	AR	TRIM	
23	90206194	AR	TRIM	
24	90602885	1	REAR WINDOW BRACKET	
25	77143004	3	WHIZ LOK SCREW, 5/16-18X1-1/4	
26	91033485	1	SEAT	
26	91124107	1	SLIDE ADJ. KIT (use with std. seat)	
27	77143006	9	WHIZ LOK NUT	
28	91031363	1	CAB BOTTOM COVER	
29	90205746	1	HEATER COVER	
29	77143003	4	WHIZ LOK SCREW	
29	77143006	4	WHIZ LOK NUT	
30	90205730	1	VALVE COVER	
31	77143003	4	WHIZ LOK SCREW	
32	91033102	1	MANUAL HOLDER	
33	90206196	AR	TRIM	
34	90206196	AR	TRIM	
35	90206200	AR	TRIM	
36	91035096	1	MAINTENANCE DECK	
37	88201021	2	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
38	88551010	2	LOCKWASHER, 5/16	
39	90206200	AR	TRIM	
40	91031075	1	HINGE	
41	88321047	3	SELF-TAPPING SCREW, 1/4-20X3/8	

SECTION 1 - CHASSIS AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	91031261	1	FRONT SERVICE DOOR	
43	91033214	1	DRAW LATCH	
44	91040002	1	COUNTERWEIGHT	
45	83683291	1	MIRROR (starting S/N 0244219. For earlier models, use service kit 91035271)	
46	91031457	1	FUEL DOOR COVER	
47	85071132	2	SEMI OFFSET HINGE	
48	85071028	2	SPRING AND BRACKET	
49	88301092	8	ROUND HD MACHINE SCREW, #10-24X5/8	
50	88501612	8	HEX NUT, #10-24	
51	88551007	8	LOCKWASHER, #10	
52	88561105	8	FLAT WASHER, #10	
53	88641401	8	POP RIVET	
54	83661145	AR	WEATHER STRIP	
55	88561109	2	WASHER	
56	90203959	2	WING BOLT	
57	91033029	1	SEAT BELT	
58	88201050	2	HEX HD CAPSCREW, 5/8-11X1, GR5	
59	88501007	2	HEX NUT	
60	88301193	4	ROUND HEAD CAPSCREW	
61	88554900	4	WASHER	
62	91031365	1	COVER	
63	80973025	1	WHIZ LOK SCREW, 3/8-16X1	
64	83683307	1	RETAINER NUT	
65	91031439	1	COVER PLATE	
66	88201118	2	HEX HD CAPSCREW, 3/4-10X3-1/4, GR5 (use in bottom slot)	
67	86921163	2	FLAT WASHER (use in bottom slot)	
68	88201115	3	HEX HD CAPSCREW, 3/4-10X3, GR5 (use in top slot)	
69	88561009	3	WASHER (use in top slot)	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-2. CAB ENCLOSURE, WIPER AND DEFROSTER (SN 0144860S to Present)



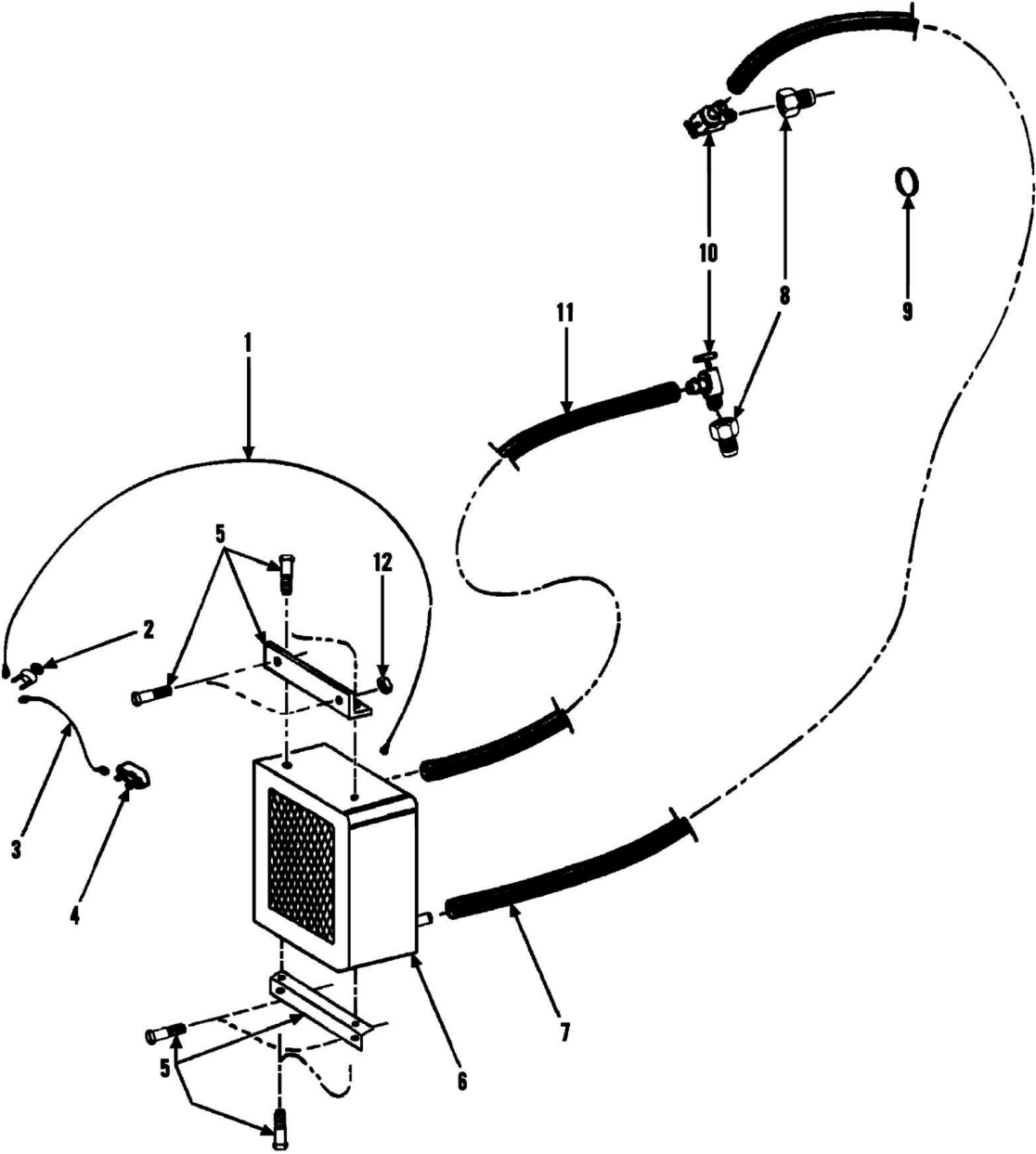
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-2. CAB ENCLOSURE, WIPER AND DEFROSTER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90403036	1	FRONT WINDOW	
2	90205846	1	RIGHT SIDE WINDOW	
3	90403034	1	TOP WINDOW	
4	90403035	1	REAR WINDOW	
5	90403033	1	LEFT SIDE WINDOW	
6	90206019	AR	WINDOW HOLD DOWN BAR	
7	90206017	1	HOLD DOWN BAR (left top)	
8	90206018	3	HOLD DOWN BAR	
9	90206613	1	SUPPORT ANGLE (window to cab)	
9	88201031	2	HEX HD CAPSCREW, 3/8-16X1/2, GR5	
9	88551011	2	LOCKWASHER, 1/2	
10	90200755	50 in	WEATHER STRIPPING (bulk)	
11	90206100	AR	RUBBER GLAZING STRIP	
12	90027319	AR	SELF TAPPING SCREW, 1/4-14X1-1/4 (window bar hold down)	
13	91033464	1	WINDSHIELD WIPER ARM	
14	91033465	1	WIPER BLADE	
15	90206023	1	WIPER MOTOR	
15	90027214	1	WIPER SHAFT GROMMET (not shown)	
16	90206025	1	WIPER MOTOR MOUNTING ANGLE	
16	88201003	1	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
16	88501004	1	HEX NUT, 1/4-20	
17	90200680	1	DEFROSTER FAN	
17	88321015	4	SELF TAPPING SCREW, #6-32X1/2	
18	90203840	1	DOOR PULL HANDLE	
18	88321039	2	SELF TAPPING SCREW, #10-32X1/2	
19	90203627	1	HANDLE	
19	88201031	1	HEX HD CAPSCREW, 3/8-16X1/2, GR5	
20	90801238	1	DOOR ASSY	
20	91034033	1	DOOR LATCH	
21	90205886	1	DOOR HOLD PLUNGER	
22	90205888	1	PLUNGER SOCKET	
23	88301309	4	FLAT HD MACHINE SCREW, 1/4-20X3/4	
23	88521304	4	HEX NUT, 1/4-20	
24	90403082	1	DOOR POST	
24	88201039	4	HEX HD CAPSCREW, 3/8-16X2, GR5	
24	88501006	4	HEX NUT, 3/8-16	
25	90403032	1	DOOR TROUGH	
25	90027319	3	SELF TAPPING SCREW, 1/4 NC X 1	
26	90410229	1	DOOR WINDOW	
26	83661145	8 ft	WEATHER STRIPPING (bulk)	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-3. HEATER AND PIPING (SN 0144860S to Present)



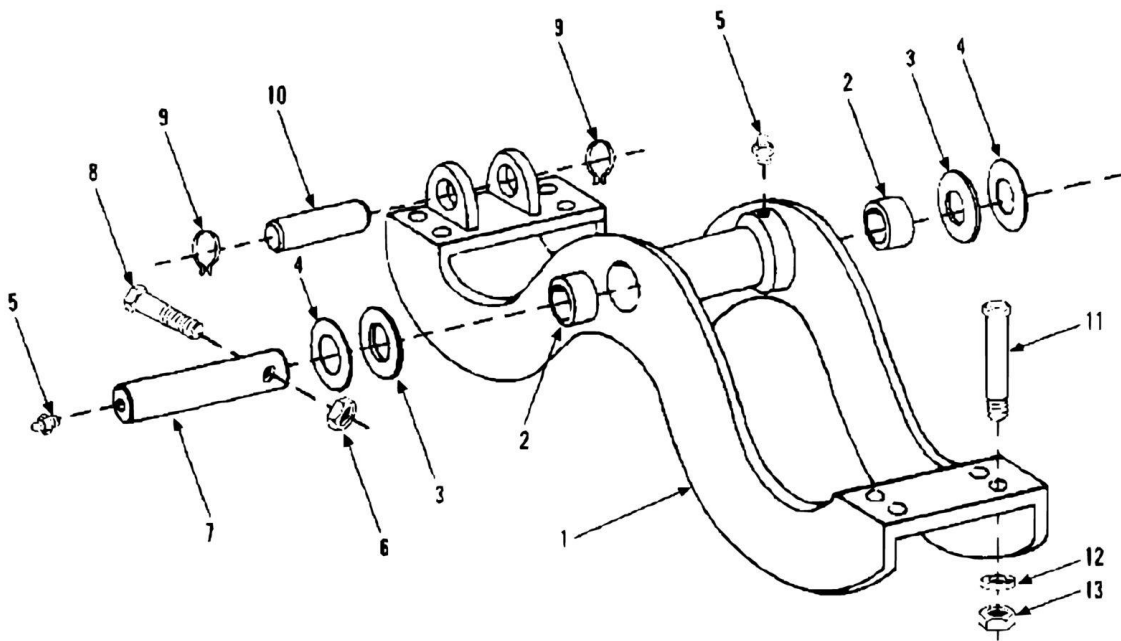
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-3. HEATER AND PIPING (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90206134	1	JUMPER WIRE	
2	91034098	1	SWITCH (comes with heater)	
3	90206133	1	JUMPER WIRE	
4	90206131	1	CIRCUIT BREAKER	
5	90205731	2	MOUNTING BRACKET	
5	88201005	8	HEX HD CAPSCREW, 1/4-20X1, GR5	
6	90200679	1	HEATER (includes item #2 switch)	
7		Ref	HOSE, 5/8IN I.D.	
8	88711383	2	REDUCING BUSHING, 1/2X3/8	
9	86683193	4	CLAMP	
10	24641328	2	SHUT-OFF VALVE	
11		Ref	HOSE, 5/8IN I.D.	
12	88501004	4	HEX NUT, 1/4-20	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-4. FRONT AXLE CRADLE AND MOUNTING (SN 0144860S to Present)



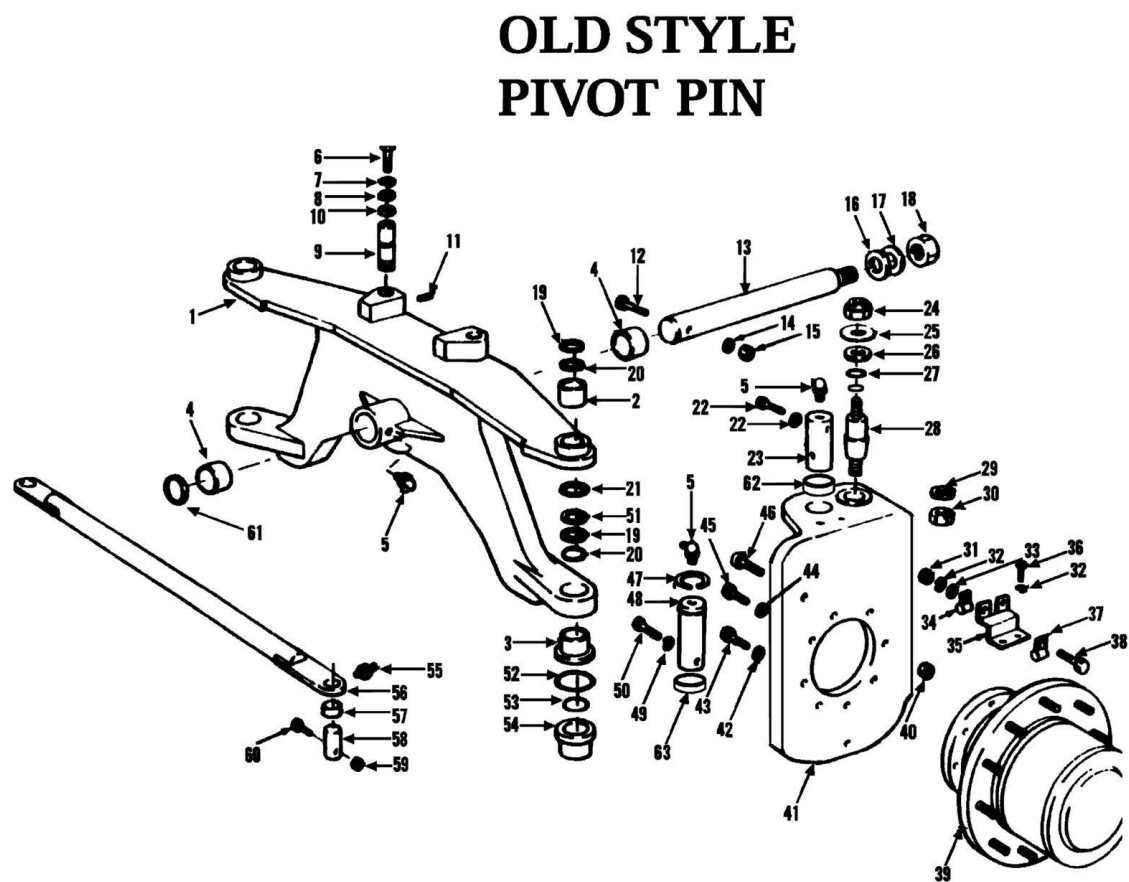
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-4. FRONT AXLE CRADLE AND MOUNTING (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90801303	1	FRONT AXLE CRADLE	
2	91031096	2	BUSHING	
3	90205891	2	SPACER	
4	91031014	AR	SHIM	
5	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
6	88521016	1	HEX LOCKNUT, 1-8 (stover)	
7	91031243	1	FRAME PIN	
8	83201031	1	HEX HD CAPSCREW	
9	90028935	2	RETAINING RING	
10	90207352	1	SWAY CYLINDER ROD PIN	
11	83201107	8	HEX HD CAPSCREW (lubricate and torque to 545-595 ft lbs)	
12	90027475	8	WASHER	
13	88521216	8	HEX LOCKNUT, 1-8	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-5. REAR STEERING AXLE AND ATTACHING PARTS (SN 0144860S to Present)



SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-5. REAR STEERING AXLE AND ATTACHING PARTS (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	1	NOTE #1: When 91081384 Pivot Pin breaks, order part number 91085077 Steer Cylinder Pivot Block Kit for the replacement parts needed to accomodate new Pivot Pins.	
	Note	1	NOTE #2: All machines must bore out Steering Knuckles to use items 62 & 63. Unless you have purchased new Steering Knuckles part number 91120003 & 91120004. See engineering print that comes with the Steering Knuckle Kit for details.	
	91035240	1	STEERING KNUCKLE KIT, (includes items 2 & 3, four of item 5, items 19 thru 23, 25, 26, 27, 46 thru 54, 62, 63, & 64), (one kit will do both sides)	
	91045152	AR	STEERING CYLINDER PIN KIT,(includes one each of items 24 thru 30, one kit needed for each side)	
1	91086082	1	REAR AXLE WELDMENT, (includes items 2 thru 4)	
2	91123028	2	FRAME UPPER BUSHING	
3	91123027	2	FRAME LOWER BUSHING	
4	91123031	2	FRAME AXLE PIN BUSHING	
5	88671022	1	LUBE FITTING, 90, 1/8	
6	88201065	1	HEX HD CAPSCREW,1/2-13X1,GR5	
7	88551013	1	LOCKWASHER, 1/2	
8	91081461	1	WASHER	
9	91081384	1	STEERING CYLINDER PIVOT PIN	
10	90201918	1	WASHER	
11	88221701	1	SOCKET SET SCREW,3/8-16X1/2, SELF-LOCKING, (cup point)	
12	90020247	1	HEX HD CAPSCREW	
13	91031440	1	AXLE MOUNTING PIN	
14	88561119	1	FLAT WASHER, 1-1/4	
15	85101098	1	HEX NUT	
16	90206846	AR	SHIM, (1/8 thick)	
17	91031009	AR	SHIM, (1/4 thick)	
18	90022234	1	HEX LOCKNUT	
19	91123030	4	BACK-UP RING	
20	88591032	4	O-RING	
21	86921268	2	LIP SEAL	
22	88211117	2	SOCKET HD CAPSCREW, 1/2-13X4-1/2, GR8	
23	91081693	2	UPPER KING PIN	
24	88521312	2	HEX LOCKNUT, 3/4-10	
25	91081415	2	DIRT SHIELD	
26	91041438	2	SPACER	
27	88591105	2	O-RING	
28	91041481	2	STEERING CYLINDER PIN	
29	91041459	2	WASHER	
30	88501416	2	HEX JAM NUT, 1-14, (lubricate and torque to 570-620 ft lbs)	
31	88501006	4	HEX NUT, 3/8-16	
32	88551011	8	LOCKWASHER, 3/8	
33	90027470	4	HARDENED WASHER	
34	86521144	2	CLAMP	
35	91081387	2	TUBE SUPPORT	
36	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
37	90202343	4	TUBE CLAMP	
38	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
39		Ref	WHEEL DRIVE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	

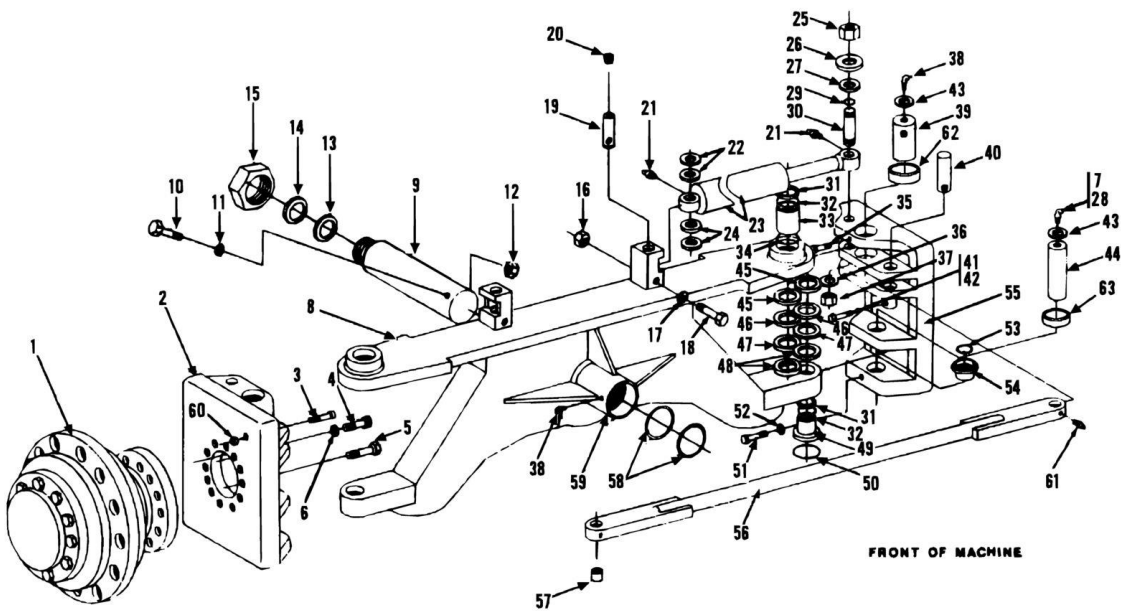
SECTION 1 - CHASSIS AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
40	88501110	2	HEAVY HEX JAM NUT, 5/8-11	
41	91120003	1	STEERING KNUCKLE, L.H.	
41	91120004	1	STEERING KNUCKLE, R.H.	
42	91041403	4	MODIFIED WASHER	
43	91043222	4	CAPSCREW, 12PT. HD, 3/4-10X2, GR8, (lubricate and torque to 270-290 ft lbs)	
44	86681572	12	HARDENED WASHER, 3/4	
45	83201006	12	HEX HD CAPSCREW, 3/4-10X2, GR8, (lubricate and torque to 270-290 ft lbs)	
46	88212321	2	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
47	88581323	2	RETAINING RING	
48	91141424	2	LOWER KING PIN	
49	88551153	2	LOCKWASHER, 5/8, (hi-collar)	
50	88212321	2	SOCKET HEAD CAPSCREW, 5/8-11X3-3/4, GR8	
51	91041450	4	SHIM, (.0478 thick, use as required)	
51	91041449	4	SHIM, (.060 thick, use as required)	
51	91041451	6	SHIM, (.106 thick, use as required)	
51	91041596	4	SHIM, (20 gauge, use as required)	
52	91123029	2	O-RING	
53	88591104	2	O-RING	
54	91121091	2	THRUST BEARING	
55	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
56	91086083	1	TIE ROD ASSY, (includes item 57)	
57	91043247	2	SELF-ALIGNING BUSH	
58	91041439	2	TIE ROD PIN	
59	88521306	2	HEX LOCKNUT, 3/8-16	
60	86241716	2	HEX HD CAPSCREW, 3/8-16X3, GR8	
61	24601570	2	LIP SEAL	
62	91121239	2	BUSHING	
63	91121240	4	BUSHING	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-6. REAR STEERING AXLE AND ATTACHING PARTS (SN 0144860S to Present)

NEW STYLE
PIVOT PIN



SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-6. REAR STEERING AXLE AND ATTACHING PARTS (SN 0144860S to Present)

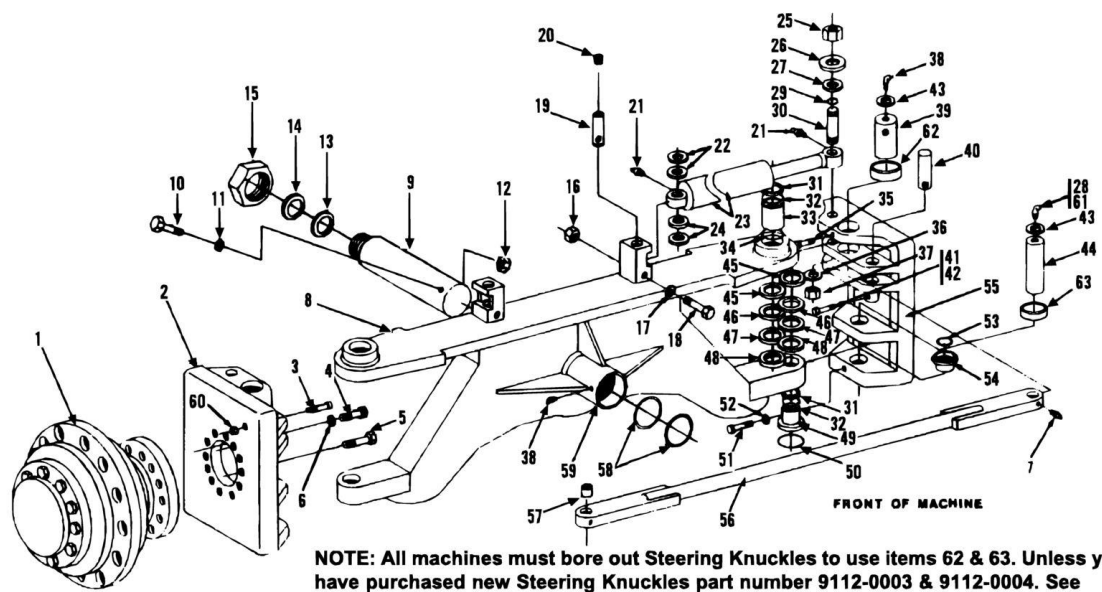
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	1	NOTE #1: When 91081384 Pivot Pin breaks, order part number 91085077 Steer Cylinder Pivot Block Kit for the replacement parts needed to accomodate new Pivot Pins.	
	Note	1	NOTE #2: All machines must bore out Steering Knuckles to use items 62 & 63. Unless you have purchased new Steering Knuckles part number 91120003 & 91120004. See engineering print that comes with the Steering Knuckle Kit for details.	
	91035240	1	STEERING KNUCKLE KIT, (includes items 26, 27, 29, 31 thru 35, 38, 39, 43 thru 54, 62, & 63, one kit does both sides)	
	91045152	AR	STEERING CYLINDER PIN KIT, (includes one each of items 25, 26, 27, 29, 30, 36, & 37, one kit needed for each side)	
1		Ref	DRIVE HUB, (See DRIVE TRAIN SECTION for Breakdown)	
2	91120004	1	R.H. STEERING KNUCKLE	
3	88212262	2	SOCKET HD CAPSCREW, 5/8-11X3, GR8	
4	83201006	12	HEX HD CAPSCREW, 3/4-10X2, GR8, (lubricate and torque to 270-290 ft lbs)	
5	91043222	4	CAPSCREW, 12 PT. 3/4-10X2, (lubricate and torque to 270-290 ft lbs)	
6	86681572	12	HARDENED WASHER, 3/4	
7	91033444	2	STREET ELBOW	
8	91166012	1	REAR AXLE WELDMENT, (includes items 33, 49, & 59)	
9	91031440	1	REAR AXLE MOUNTING PIN	
10	90020247	1	HEX HD CAPSCREW, 1-1/4-7X6	
11	88561119	1	FLAT WASHER, 1-1/4	
12	85101098	1	HEX NUT, 1-1/4-7	
13	90206846	AR	SHIM, (1/8 thick)	
14	91031009	AR	SHIM, (1/4 thick)	
15	90022234	1	HEX LOCKNUT	
16	88501006	2	HEX NUT, 3/8-16	
17	88551011	2	LOCKWASHER, 3/8	
18	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR5	
19	91081695	2	STEERING CYLINDER PIVOT PIN	
20	88711280	2	PIPE PLUG	
21	88671033	4	LUBE FITTING, STRAIGHT, 1/4-28	
22	91041598	AR	SHIM	
23		Ref	STEERING CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	90201918	AR	SHIM, (10 gauge thick)	
25	88521312	2	HEX LOCKNUT, 3/4-10	
26	91081415	2	DIRT SHIELD	
27	91041732	2	SPACER	
28	91033445	2	LUBE FITTING	
29	88591019	2	O-RING	
30	91041481	2	STEERING CYLINDER PIN	
31	91123030	4	BACK-UP RING	
32	88591032	4	O-RING	
33	91123028	2	BUSHING	
34	86921268	2	LIP SEAL	
35	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
	88521208	2	HEX LOCKNUT, 1/2	
36	91041459	2	WASHER	
37	88501416	2	HEX JAM NUT, 1-14, (lubricate and torque to 425-475 ft lbs)	

SECTION 1 - CHASSIS AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
38	88671022	4	LUBE FITTING, 30, 1/8	
39	91081693	2	UPPER KING PIN	
40	91041439	2	TIE ROD PIN	
41	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4,GR8	
42	88521306	2	LOCKNUT, 3/8-16	
43	88581323	4	RETAINING RING	
44	91141424	2	LOWER KING PIN	
45	91041596	4	SHIM, (20 gauge, use as required)	
46	91041449	4	SHIM, (.060 thick, use as required)	
47	91041450	4	SHIM, (.0478 thick, use as required)	
48	91041451	6	SHIM, (.106 thick, use as required)	
49	91123027	2	BUSHING	
50	91123029	2	O-RING	
51	88212321	2	SLOT HD CAPSCREW, 5/8-11X3-3/4, GR8	
52	88551153	2	LOCKWASHER, 5/8	
53	88591104	2	O-RING	
54	91121091	2	THRUST BUSHING	
55	91120003	1	L.H. STEERING KNUCKLE	
56	91166063	1	TIE ROD, (includes item 57)	
57	91043247	2	SELF-ALIGNING BUSHING	
58	24601570	2	LIP SEAL	
59	91123031	2	BUSHING	
60	88501110	2	HEAVY HEX JAM NUT, 5/8-11	
61	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
62	91121239	2	BUSHING	
63	91121240	4	BUSHING	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-7. REAR STEERING AXLE AND ATTACHING PARTS (SN 0244051 to Present)



NOTE: All machines must bore out Steering Knuckles to use items 62 & 63. Unless you have purchased new Steering Knuckles part number 9112-0003 & 9112-0004. See engineering print that comes with the Steering Knuckle Kit for details.

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-7. REAR STEERING AXLE AND ATTACHING PARTS (SN 0244051 to Present)

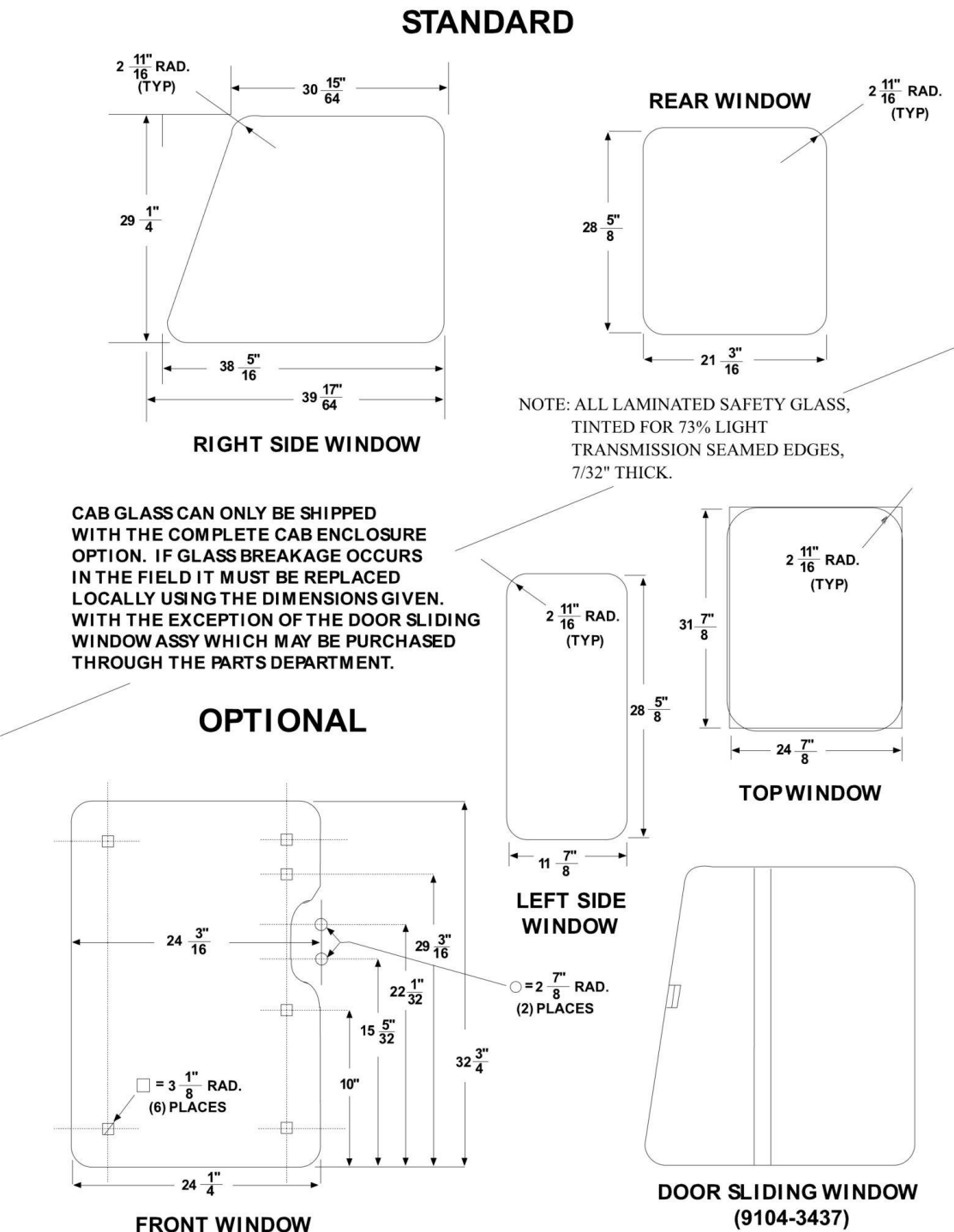
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035240	1	STEERING KNUCKLE KIT (includes items 26, 27, 29, 31, 32, 33, 34, 35, 38, 39, 43 thru 54, 61 & 62) (one kit does both sides)	
	91045152	AR	STEERING CYLINDER PIN KIT (includes one each of items 25, 26, 27, 29, 30, 36 & 37, one kit needed for each side)	
1		Ref	DRIVE HUB (See DRIVE TRAIN SECTION for Breakdown)	
2	91120004	1	R.H. STEERING KNUCKLE	
3	88212262	2	SOCKET HD CAPSCREW, 5/8-11X3, GR8	
4	83201006	12	HEX HD CAPSCREW, 3/4-10X2, GR8 (lubricate and torque to 270-290 ft lbs)	
5	91043222	4	CAPSCREW, 12PT.3/4-10X2 (lubricate and torque to 270-290 ft lbs)	
6	86681572	12	HARDENED WASHER, 3/4	
7	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
8	91166012	1	REAR AXLE WELDMENT (includes items 33, 49 & 59)	
9	91031440	1	REAR AXLE MOUNTING PIN	
10	90020247	1	HEX HD CAPSCREW, 1-1/4-7X6	
11	88561119	1	FLATWASHER, 1-1/4	
12	85101098	1	HEX NUT, 1-1/4-7	
13	90206846	AR	SHIM (1/8 thick)	
14	91031009	AR	SHIM (1/4 thick)	
15	90022234	1	HEX LOCKNUT	
16	88501006	2	HEX NUT, 3/8-16	
17	88551011	2	LOCKWASHER, 3/8	
18	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR5	
19	91081695	2	STEERING CYLINDER PIVOT PIN	
20	88711280	2	PIPE PLUG	
21	88671033	4	LUBE FITTING, STRAIGHT, 1/4-28	
22	91041598	AR	SHIM	
23		Ref	STEERING CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	90201918	AR	SHIM (10 gauge thick)	
25	88521312	2	HEX LOCKNUT, 3/4-10	
26	91081415	2	DIRT SHIELD	
27	91041732	2	SPACER	
28	91033445	2	LUBE FITTING	
29	88591019	2	O-RING	
30	91041481	2	STEERING CYLINDER PIN	
31	91123030	4	BACK-UP RING	
32	88591032	4	O-RING	
33	91123028	2	BUSHING	
34	86921268	2	LIP SEAL	
35	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
35	88521208	2	HEX LOCKNUT, 1/2	
36	91041459	2	WASHER	
37	88501416	2	HEX JAM NUT, 1-14 (lubricate and torque to 425-475 ft lbs)	
38	88671022	2	LUBE FITTING, 30, 1/8	
39	91081693	2	UPPER KING PIN	
40	91041439	2	TIE ROD PIN	
41	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
42	88521306	2	LOCKNUT, 3/8-16	
43	88581323	4	RETAINING RING	

SECTION 1 - CHASSIS AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	91141424	2	LOWER KING PIN	
45	91041596	4	SHIM (20 gauge, use as required)	
46	91041449	4	SHIM (.060 thick, use as required)	
47	91041450	4	SHIM (.0478 thick, use as required)	
48	91041451	6	SHIM (.106 thick, use as required)	
49	91123027	2	BUSHING	
50	91123029	2	O-RING	
51	88212321	2	SLOT HD CAPSCREW, 5/8-11X3/4, GR8	
52	88551153	2	LOCKWASHER, 5/8	
53	88591104	2	O-RING	
54	91121091	2	THRUST BUSHING	
55	91120003	1	L.H. STEERING KNUCKLE	
56	91166063	1	TIE ROD (includes item 57)	
57	91043247	2	SELF-ALIGNING BUSHING	
58	24601570	2	LIP SEAL	
59	91123031	2	BUSHING	
60	88501110	2	HEAVY HEX JAM NUT, 5/8-11	
61	91033444	2	STREET ELBOW	
62	91121239	2	BUSHING	
63	91121240	4	BUSHING	

SECTION 1 - CHASSIS AND ATTACHING PARTS

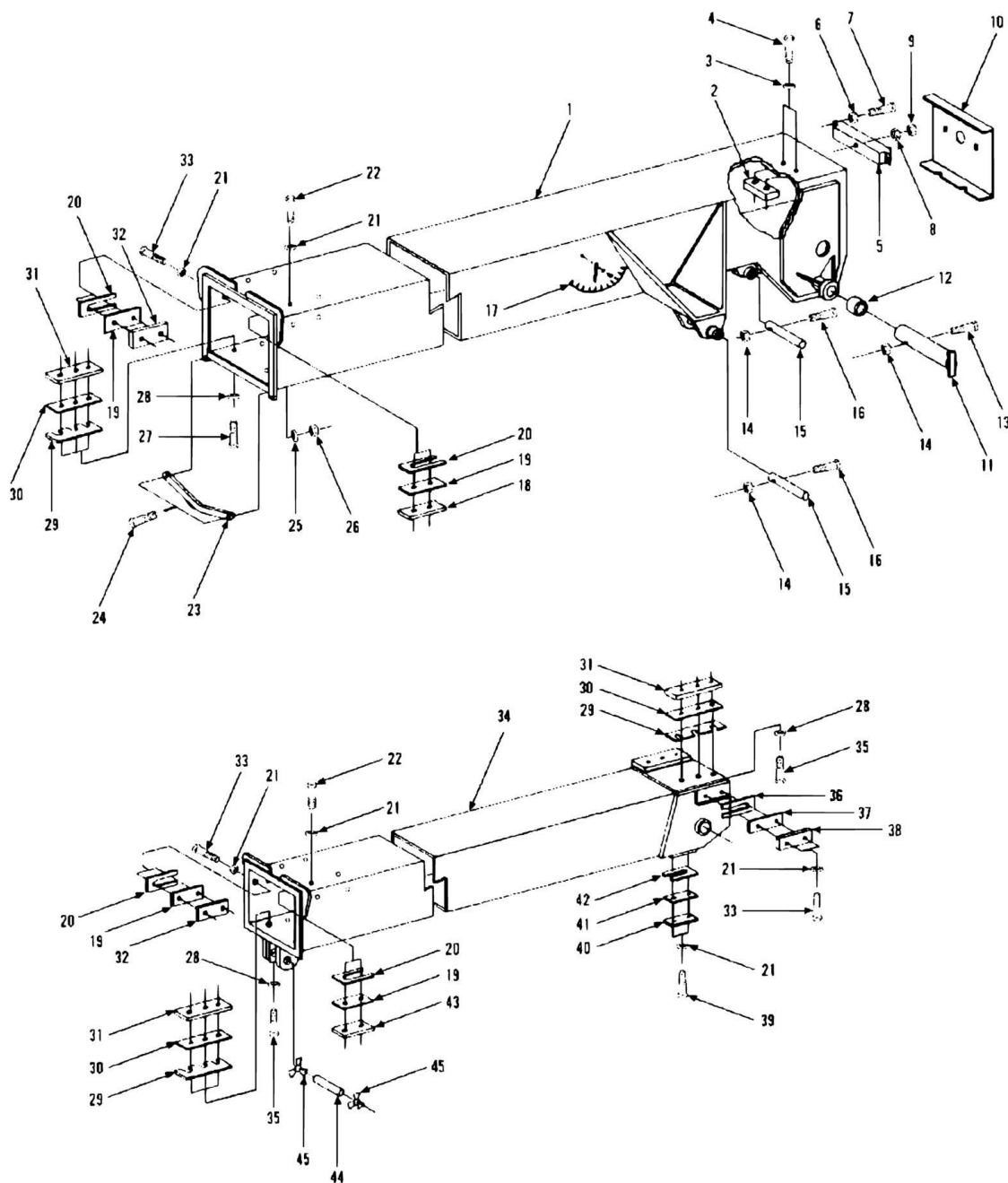
FIGURE 1-8. CAB GLASS (SN 0244114S to Present)



SECTION 2 - BOOMS

SECTION 2 - BOOMS

FIGURE 2-1. 1ST AND 2ND BOOM SECTIONS (SN 0144860S to Present)



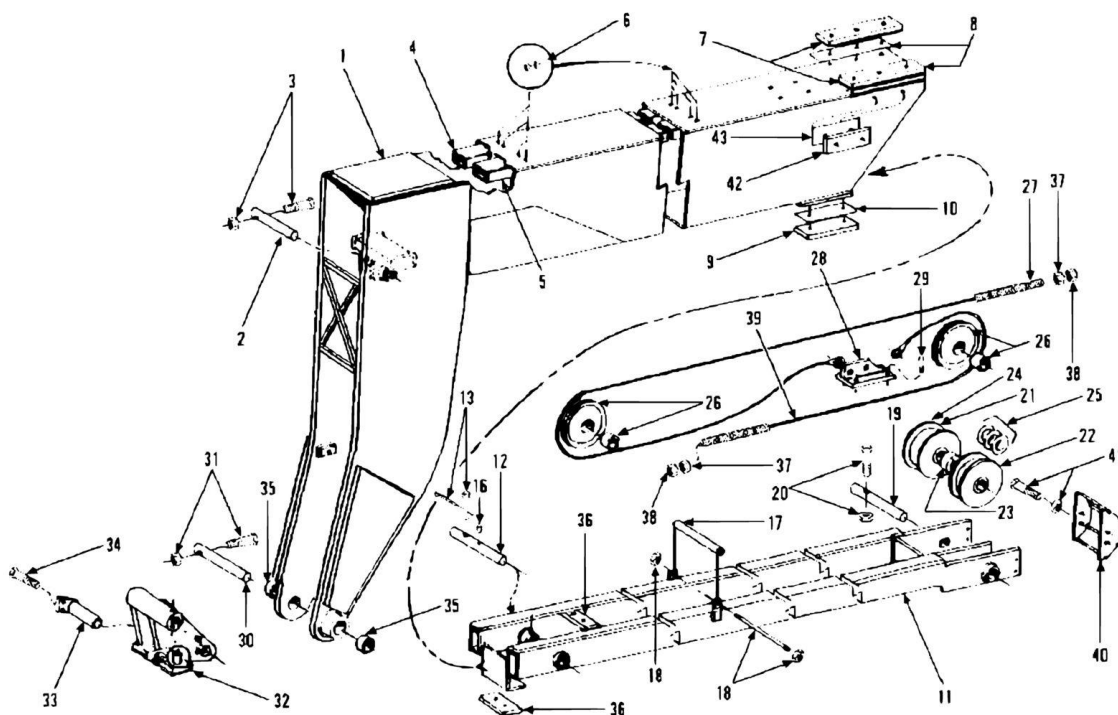
SECTION 2 - BOOMS

FIGURE 2-1. 1ST AND 2ND BOOM SECTIONS (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036070	1	1ST BOOM SECTION	
2	91031163	1	STOP BAR	
3	05101441	2	HARDENED WASHER	
4	83201053	3	HEX HD CAPSCREW, 1-8X3, GR8	
5	90602842	1	STRONGBACK	
6	85401340	2	WASHER	
7	88201069	2	HEX HD CAPSCREW, 1/2-13X2, GR5	
8	90028965	1	HEX NUT, 1-8	
9	88501116	1	HEAVY HEX JAM NUT, 1-8	
10	90403352	1	BOOM END COVER	
10	88561109	4	FLAT WASHER, 3/8	
10	90203959	4	WING BOLT	
11	91031389	1	BOOM BASE PIN	
12	91031371	2	BUSHING	
13	83481645	1	HEX HD CAPSCREW, 5/8-11X6, GR8	
14	88521010	4	HEX LOCKNUT, 5/8-11	
15	90206892	3	CROWD BASE AND LIFT ROD PIN	
16	83201044	3	HEX HD CAPSCREW, 5/8-11X4, GR8	
17	90200445	1	BOOM ANGLE INDICATOR	
17	90200688	1	BEARING	
17	88561108	1	FLAT WASHER, 1/2	
17	90026491	1	SHOULDER BOLT	
18	91033185	2	BEARING PAD	
19	91031236	12	PUNCHED HOLE SHIM	
20	90205870	12	SLOTTED SHIM	
21	88561109	48	FLAT WASHER, 3/8	
22	88201533	8	HEX HD CAPSCREW, 3/8-24X7/8, GR5	
23	90403212	1	CROWD CYLINDER HANGER	
24	88201067	2	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
25	88551013	2	LOCKWASHER, 1/2	
26	88501008	2	HEX NUT, 1/2-13	
27	88201567	6	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5	
28	88561111	18	FLAT WASHER, 1/2	
29	90205497	12	SLOTTED SHIM	
30	91031237	12	PUNCHED HOLE SHIM	
31	91033190	6	BEARING PAD	
32	91033186	4	BEARING PAD	
33	88201532	12	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
34	91036036	1	2ND BOOM SECTION	
35	88201563	12	HEX HD CAPSCREW, 1/2-20X7/8, GR5	
36	90207030	4	SLOTTED SHIM	
37	91031235	4	PUNCHED HOLE SHIM	
38	91033184	2	BEARING PAD	
39	88201534	4	HEX HD CAPSCREW, 3/8-24X1, GR5	
40	91033188	2	BEARING PAD	
41	91031234	2	PUNCHED HOLE SHIM	
42	90207029	2	SLOTTED SHIM	
43	91033189	2	BEARING PAD	
44	90207352	1	CROWD CYLINDER PIN	
45	90028935	2	SNAP RING	

SECTION 2 - BOOMS

FIGURE 2-2. 3RD BOOM SECTION, PUSH BEAM AND CABLE (SN 0144860S to Present)



SECTION 2 - BOOMS

FIGURE 2-2. 3RD BOOM SECTION, PUSH BEAM AND CABLE (SN 0144860S to Present)

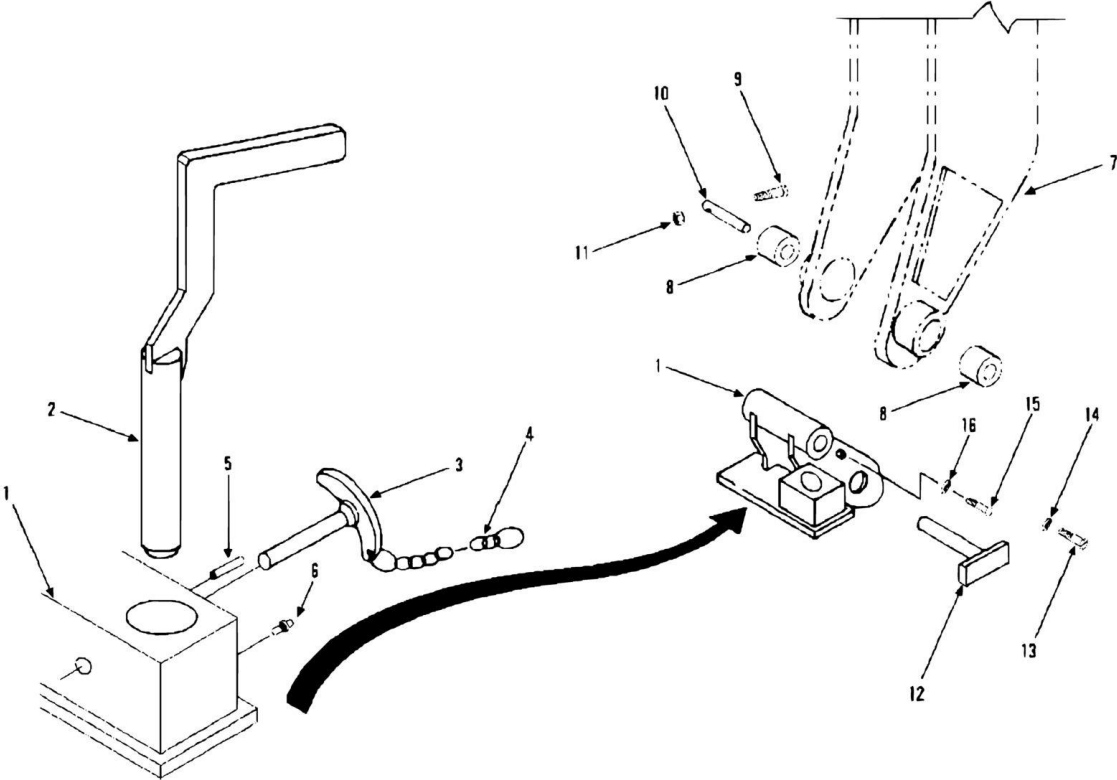
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036037	1	3RD BOOM SECTION	
2	90206892	1	TILT CYLINDER BASE PIN	
3	83201044	1	HEX HD CAPSCREW, 5/8-11X4, GR8	
3	88521010	1	HEX NUT, 5/8-11	
4	90403350	1	TUBE (auxiliary hose)	
5	90403203	1	TUBE (tilt hose)	
6	88501005	12	HEX NUT, 5/16-18	
6	88561108	12	FLATWASHER, 5/16	
7	91033190	2	BEARING (top rear)	
8	90205497	4	SLOTTED SHIM	
8	91031237	4	PUNCHED HOLE SHIM	
8	88201564	6	HEX HD CAPSCREW, 1/2-20X1, GR5	
8	88561111	6	FLAT WASHER, 1/2	
9	91033184	2	BEARING (lower rear)	
10	90207030	4	SLOTTED SHIM	
10	91031235	4	PUNCHED HOLE SHIM	
10	88201536	4	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5	
11	90801349	1	PUSH BEAM	
12	91031445	1	PIN	
13	90021608	1	CLEVIS PIN	
13	88631310	1	COTTER PIN, 3/32X1	
16	88671001	1	GREASE FITTING	
17	90207215	1	ROLLER (not required after serial #8444459)	
18	90207302	1	STUD	
18	88521305	2	HEX LOCKNUT, 5/16-18	
19	90207710	1	PIN	
20	88201045	1	HEX HD CAPSCREW, 3/8-16X3-1/2, GR5	
20	88501106	1	HEAVY HEX JAM NUT, 3/8-16	
21	91043101	1	SHEAVE	
22	91043100	1	SHEAVE	
22A	90602830	1	SHEAVE (old sheave used with quantity of tow 90206046 bushings)	
22B	91043100	1	SHEAVE (plastic sheave, replaced old 90602830; no bushings required)	
23	90206046	4	BUSHING	
24	90207043	1	SPACER (if item 21 is not used)	
25	90200253	AR	SHIM	
25	90203039	AR	SHIM	
25	90203040	AR	SHIM	
26	91035147	2	SHEAVE ASSY (includes sheave and bushing)	
26	91031373	2	CABLE SHEAVE	
26	91031374	2	BUSHING	
27	90206886	1	CABLE (includes pins)	
28	91036001	1	CABLE ANCHOR (6 hole)	
29	83201003	1	HEX HD CAPSCREW, 5/8-11X1-3/4	
30	91041365	1	PIN (boom to male coupler)	
31	88201107	1	HEX HD CAPSCREW, 5/8-11X5, GR5	
31	88521310	1	HEX LOCKNUT, 5/8-11	
32	90602838	1	MALE COUPLER	
33	90207046	1	TILT CYLINDER ROD PIN	
34	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	

SECTION 2 - BOOMS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
35	91031136	2	BUSHING CABLE	
36	91033187	2	BEARING	
36	91031111	4	SLOTTED SHIM	
36	91031233	4	PUNCHED HOLE SHIM	
36	88201533	2	HEX HD CAPSCREW, 3/8-24X7/8, GR5	
36	88201532	2	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
36	88561109	4	FLAT WASHER, 3/8	
37	90028965	2	NUT	
38	88501116	2	HEAVY HEX JAM NUT, 1IN-8	
39	90206887	1	CABLE (includes pins)	
40	91036069	1	HOSE RETAINER	
41	88201033	4	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
41	88561109	4	FLAT WASHER, 3/8	
42	91033186	2	BEARING (side)	
43	90205870	4	SLOTTED SHIM	
43	91031236	4	PUNCHED HOLE SHIM	

SECTION 2 - BOOMS

FIGURE 2-3. QUICK SWITCH ASSEMBLY (SN 0144860S through 0244182S)



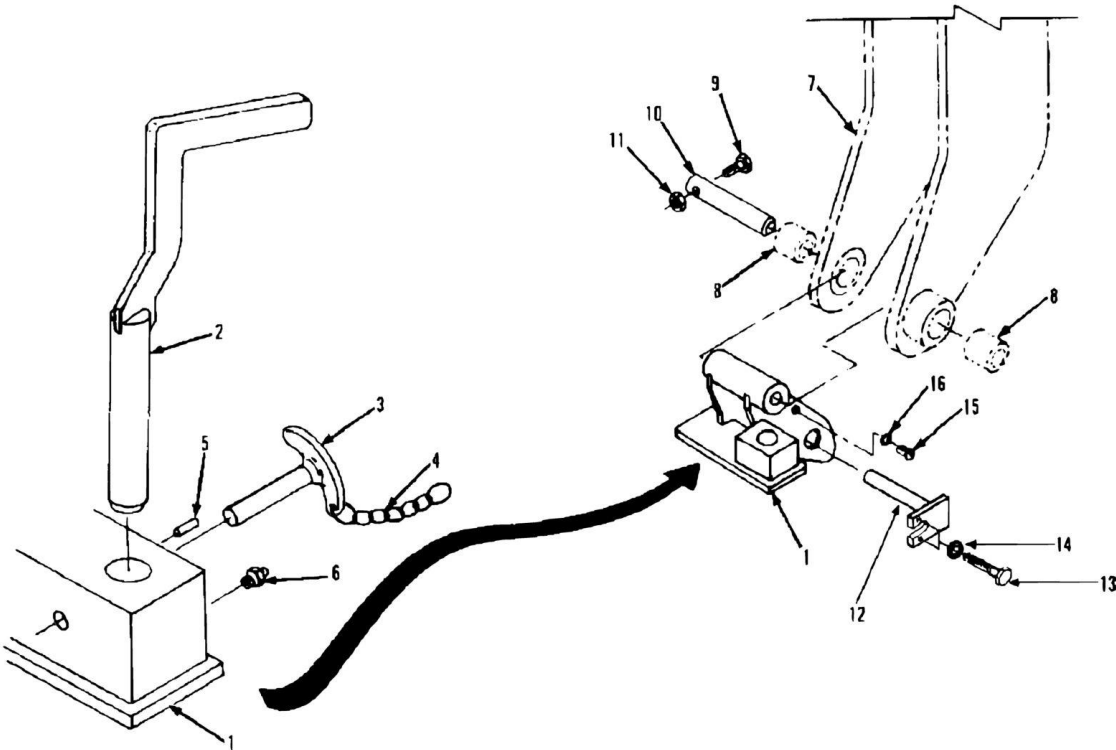
SECTION 2 - BOOMS

FIGURE 2-3. QUICK SWITCH ASSEMBLY (SN 0144860S through 0244182S)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91045095	1	QUICK SWITCH ASSEMBLY	
1	91086074	1	QUICK SWITCH WELDMENT	
2	91086073	1	PLUNGER WELDMENT	
3	90207902	1	QUICK RELEASE PIN	
4	91033038	1	JACK CHAIN, 8IN LONG, SIZE 12	
5	88631509	1	ROLL PIN, 1/4INX2	
6	88671008	1	LUBE FITTING, STRAIGHT, 1/4-28	
7		Ref	THIRD BOOM SECTION (See 3RD BOOM SECTION, PUSH BEAM AND CABLE for Breakdown)	
8	91031136	2	BUSHING	
9	88641057	1	HEX HD CAPSCREW	
10	91041365	1	HEAD PIN	
11	88521010	1	HEX LOCKNUT, 5/8-11	
12	90207046	1	TILT CYLINDER ROD END PIN	
13	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
14	88551013	2	LOCKWASHER, 1/2	
15	88301090	1	ROUND HD MACHINE SCREW, #10-24X1/2	
16	88561105	1	FLATWASHER, #10	

SECTION 2 - BOOMS

FIGURE 2-4. QUICK SWITCH ASSEMBLY (SN 0244183S to Present)



SECTION 2 - BOOMS

FIGURE 2-4. QUICK SWITCH ASSEMBLY (SN 0244183S to Present)

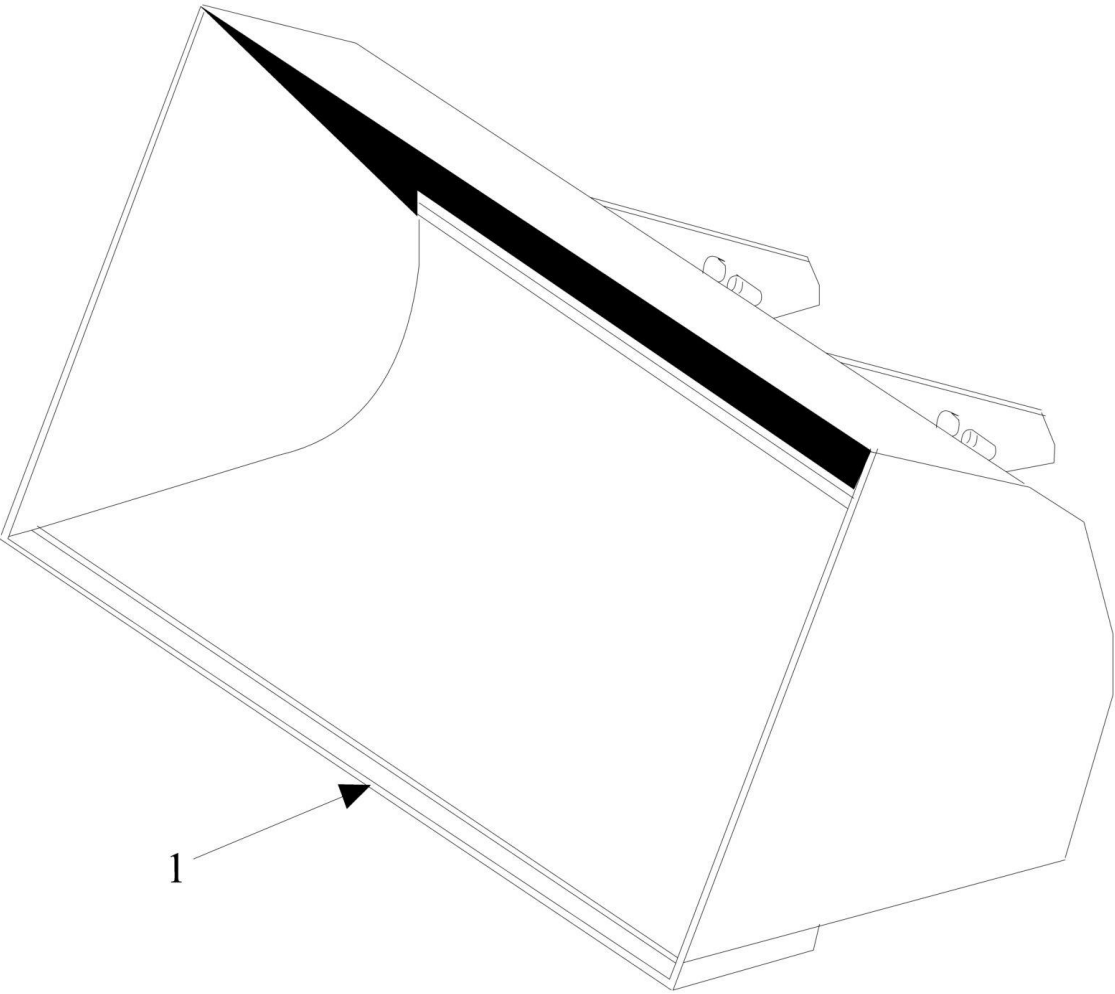
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085049	Ref	QUICK SWITCH OPTION (includes 91085091 plus items 9,10, & 11)	
	91085091	1	QUICK SWITCH ASSY (includes items 1 thru 6, 15 & 16)	
1	91086152	1	QUICK SWITCH WELDMENT	
2	91086151	1	PLUNGER WELDMENT	
3	90207902	1	QUICK RELEASE PIN	
4	91033038	1	JACK CHAIN, 5IN LONG, SIZE 12	
5	88631509	1	ROLLPIN, 1/4INX2	
6	88671008	1	LUBE FITTING, STRAIGHT, 1/4-28	
7		Ref	THIRD BOOM SECTION (See 3RD BOOM SECTION, PUSH BEAM AND CABLE for Breakdown)	
8	91031136	2	BUSHING	
9	91121308	1	HEX HD CAPSCREW, 5/8-11X5, GR5	
10	91041365	1	PIN	
11	91121309	1	HEX NUT, 5/8-11 (torque to 185-200 ft lbs)	
12	91166062	1	TILT CYLINDER PIN	
13	83201123	2	HEX HD CAPSCREW, 1/2-13X1, GR8	
14	88561111	2	WASHER,1/2	
15	88301193	1	ROUND HD MACHINE SCREW, #10-32X1/2	
16	88561105	1	FLAT WASHER, #10	
17	91121310	2	WASHER, 5/8	

SECTION 3 - ATTACHMENTS AND ACCESSORIES

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FIGURE 3-1. BUCKETS AND CARRIAGES (SN 0144860S to Present)



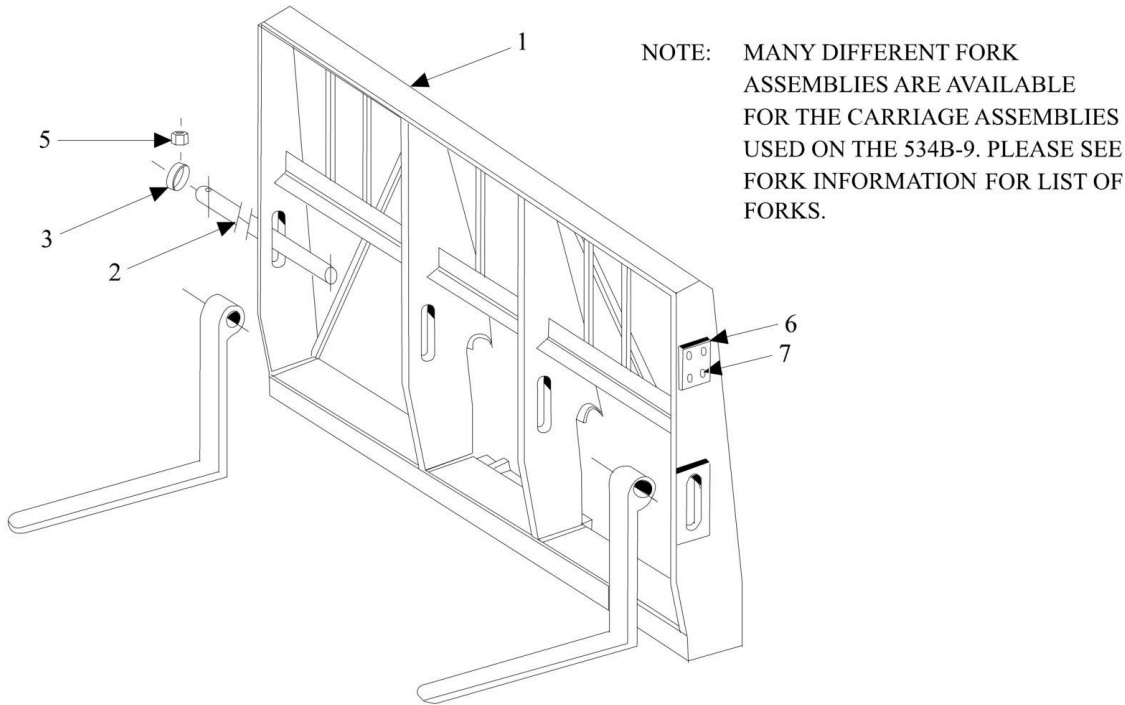
SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-1. BUCKETS AND CARRIAGES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90455049	1	3/4 YARD MATERIAL BUCKET	
1	90555020	1	1-1/4 YARD MATERIAL BUCKET	

SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-2. BUCKETS AND CARRIAGES (SN 0144860S to Present)



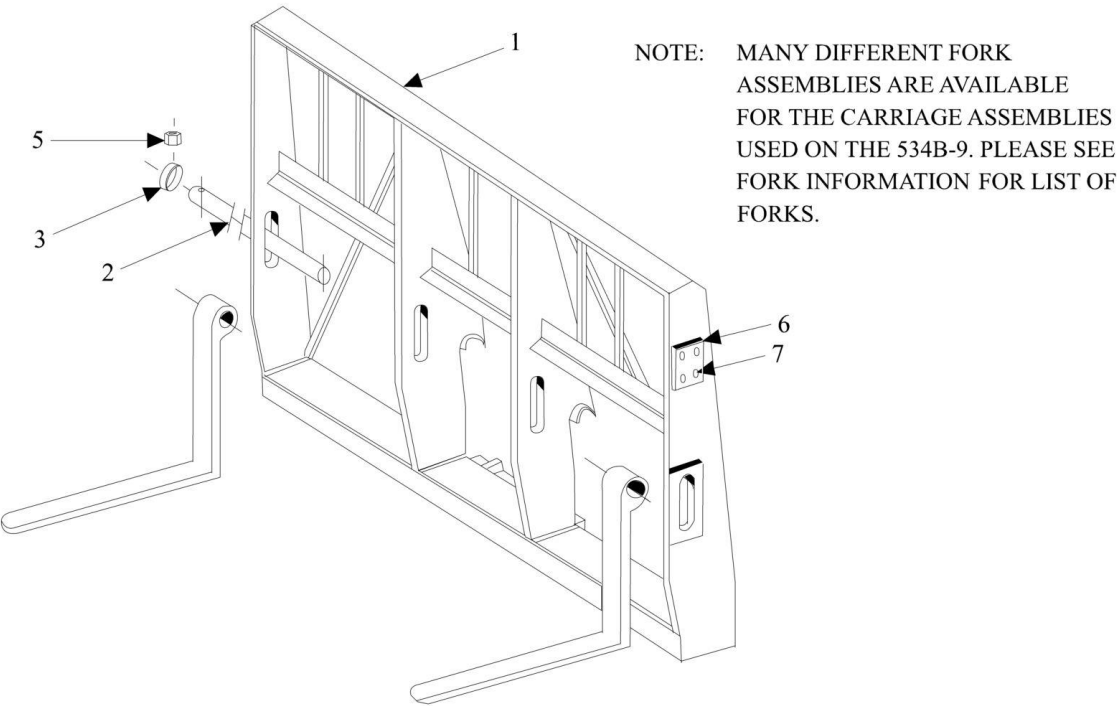
SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-2. BUCKETS AND CARRIAGES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455007	1	48IN CARRIAGE ASSY, (includes all items)	
1	90801315	1	CARRIAGE WELDMENT	
2	90402477	1	FORK PIN	
3	90200003	2	COLLAR	
4	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
5	88521310	2	HEX LOCKNUT, 5/8-11	
6	90153001	1	SERIAL NUMBER PLATE	
7	88341022	4	DRIVE SCREW, #10X3/8	

SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-3. BUCKETS AND CARRIAGES (SN 0144860S to Present)



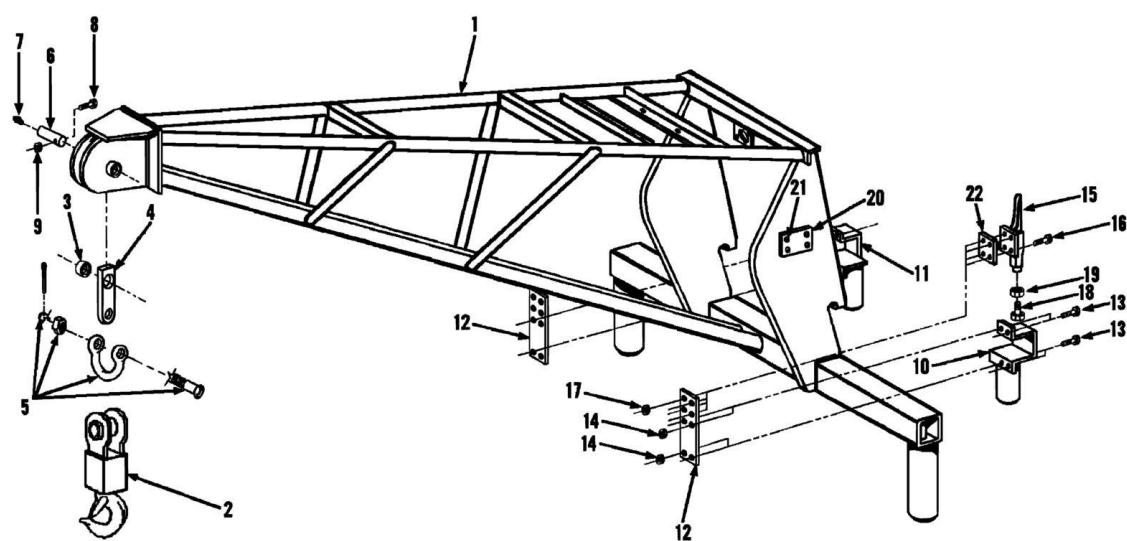
SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-3. BUCKETS AND CARRIAGES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455008	1	66IN CARRIAGE ASSY, (includes all items)	
1	90801314	1	CARRIAGE WELDMENT	
2	90402478	1	FORK PIN	
3	90200003	2	COLLAR	
4	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
5	88521310	2	HEX LOCKNUT, 5/8-11	
6	90153001	1	SERIAL NUMBER PLATE	
7	88341022	4	DRIVE SCREW, #10X3/8	

SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-4. (90455011) TRUSS BOOM (SN 0144860S to Present)



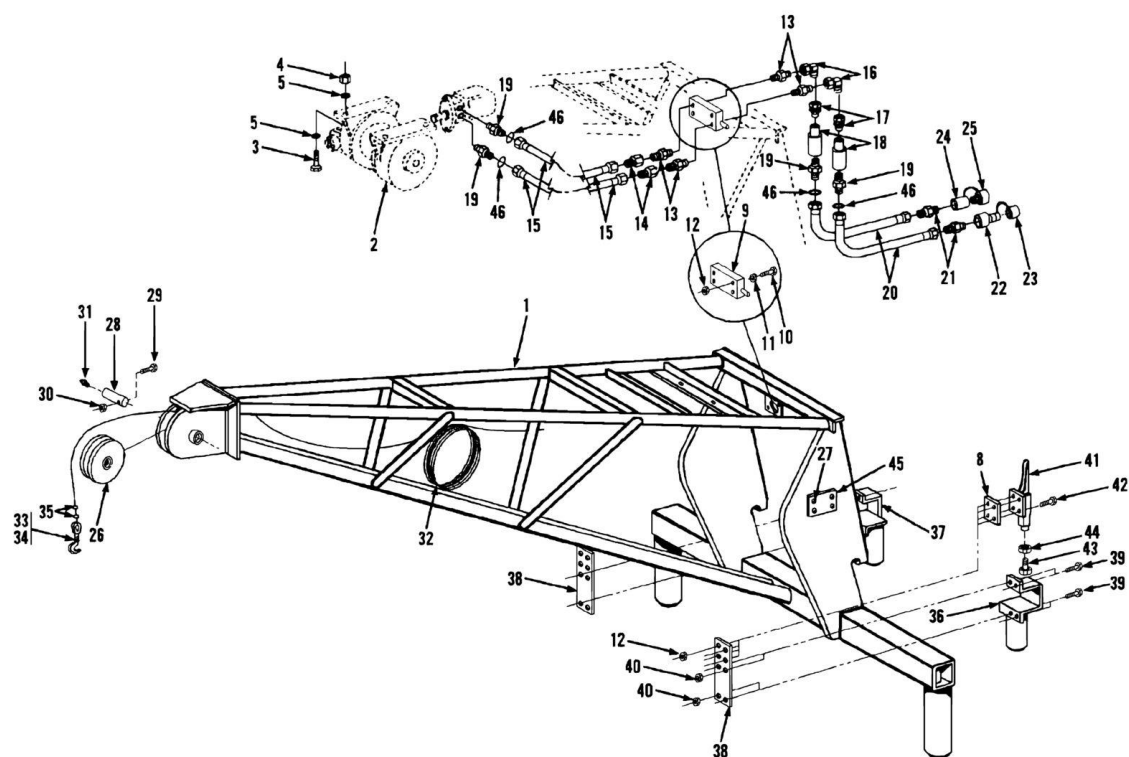
SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-4. (90455011) TRUSS BOOM (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455011	1	TRUSS BOOM, (includes all items)	
1	90801353	1	TRUSS BOOM WELDMENT	
2	90453040	1	SWIVEL HOOK	
3	90206046	1	BUSHING	
4	90451053	1	HANGER	
5	90453041	1	SHACKLE, (includes attachment hardware)	
5	90453041	1	BOLT	
5	90453041	1	NUT	
5	90453041	1	COTTER PIN	
6	90402948	1	PIN	
7	88671001	1	LUBE FITTING, STRAIGHT, 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	90153001	1	SERIAL NO. PLATE	
21	88341022	4	DRIVE SCREW, #10X3/8	
22	90451047	2	SPACER	

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FIGURE 3-5. TRUSS BOOM WITH WINCH (SN 0144860S to Present)



SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-5. TRUSS BOOM WITH WINCH (SN 0144860S to Present)

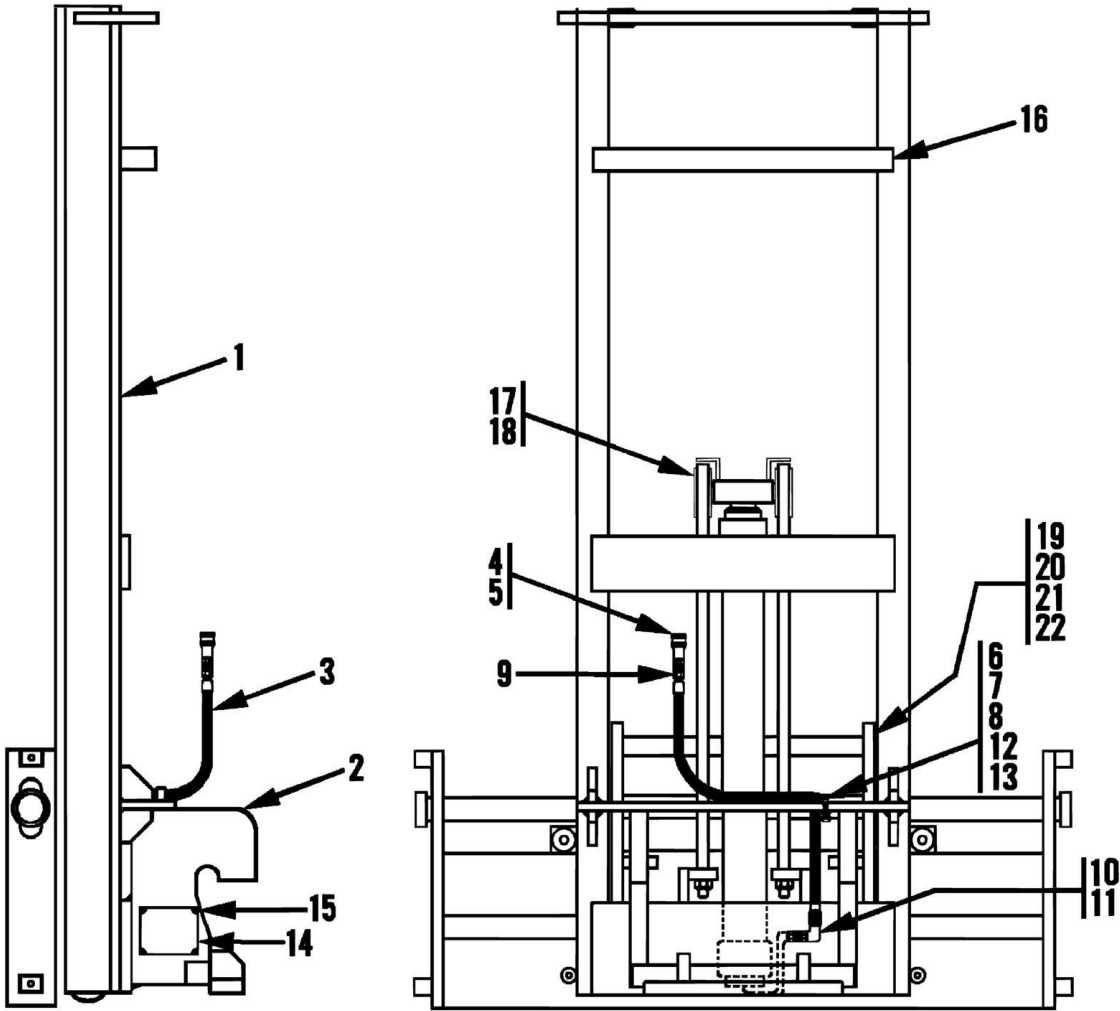
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455012	1	TRUSS BOOM ASSY W/WINCH, (includes all items)	
1	90801353	1	TRUSS BOOM WELDMENT	
2		Ref	WINCH W/MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88201096	4	HEX HD CAPSCREW, 5/8-11X1-3/4, GR5	
4	88501010	4	HEX NUT, 5/8-11	
5	88561113	8	FLAT WASHER, 5/8	
8	90451047	2	SPACER	
9		Ref	CROSSOVER VALVE, (See HYDRAULIC COMPONENTS 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	90029935	2	TUBE REDUCER, 7/8X3/4	
15	90205121	2	HOSE ASSY	
16	88662107	2	ELBOW, 90, (swivel nut)	
17	90453016	2	ADAPTER	
18	90207880	2	FLOW LIMITER	
19	88662019	4	CONNECTOR, (includes item 46)	
20	84717644	2	HOSE ASSY	
21	88661013	2	MALE CONNECTOR, 1/2X1/2 (Prior to SN 2005283-01 to Present)	
21	88662006	2	CONNECTOR, (includes 8859-1205 o-ring), (SN 2005283-01 to Present)	
22	91163138	1	MALE TIP COUPLER (Prior to SN 2005283-01 to Present)	
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 to Present)	
24	91403413	1	FEMALE COUPLER, (SN 2005283-01 to Present)	
25	91043125	1	DUST PLUG	
26	90403056	1	SHEAVE	
27	88341022	4	DRIVE SCREW, #10X3/8	
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	LUBE FITTING, STRAIGHT, 1/8	
32	90207882	1	WIRE ROPE, 3/8IN 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	90153001	1	SERIAL NO. PLATE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	88591206	4	O-RING	

SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-6. 6 FT VERTICAL MAST (SN 0144860S to Present)



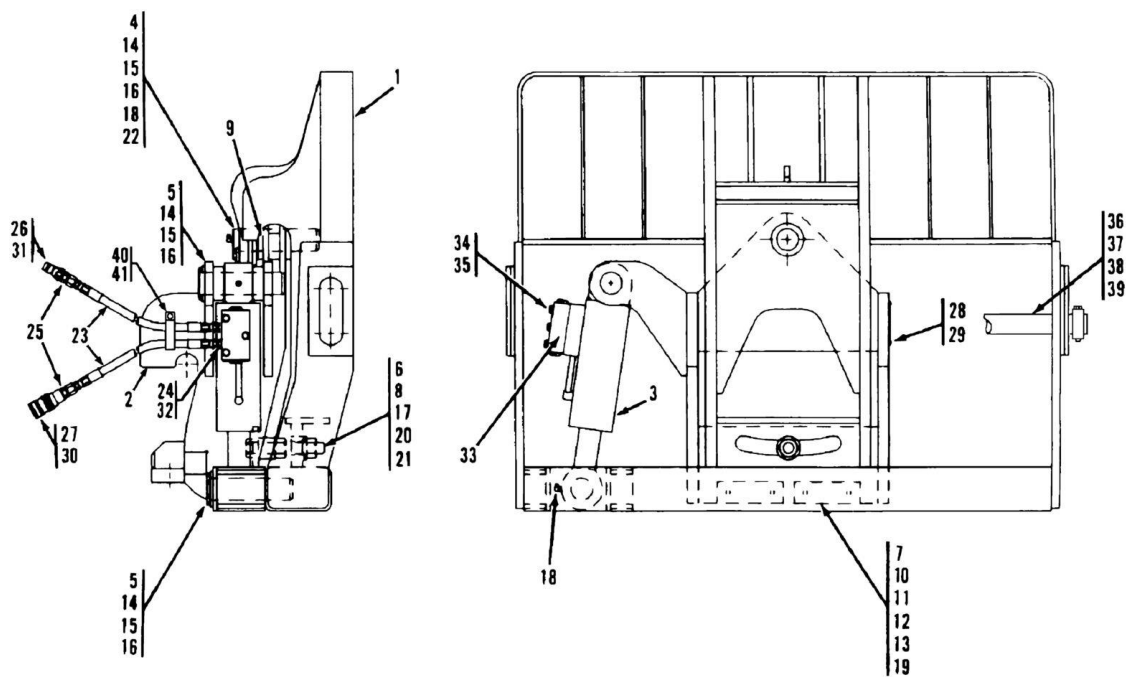
SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-6. 6 FT VERTICAL MAST (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455035	1	6 FT MAST ASSY, (48in carriage), (includes all items)	
	90455037	1	6 FT MAST ASSY, (66in carriage), (includes all items)	
	91043399	1	534B-9 CAPACITY CHART, (located in cab)	
1	90453031	1	CARRIAGE WELDMENT - 48IN	
1	90453032	1	CARRIAGE WELDMENT - 66IN	
2	90456002	1	ADAPTER WELDMENT	
3	84717640	1	HOSE ASSY	
4	91163138	1	MALE HYDRAULIC COUPLING (Prior to 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 CONNECTOR, 1/2X1/2 TUBE (Prior to 2005283-01)	
9	88662006	1	CONNECTOR, (includes 88591205 o-ring), (SN 2005283-01 to Present)	
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	90153001	1	SERIAL NO. PLATE	
15	88341022	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	

SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-7. (91305016) 66IN SLOPE PILER CARRIAGE (SN 0144860S to Present)



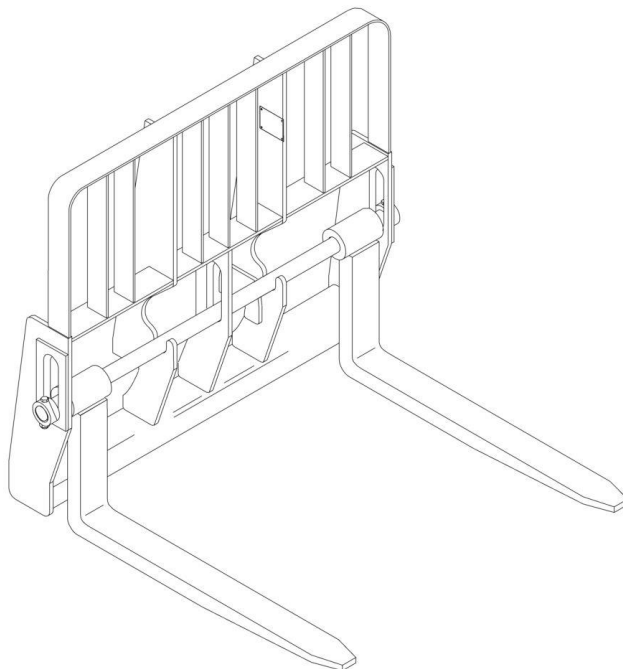
SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-7. (91305016) 66IN SLOPE PILER CARRIAGE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91305016	Ref	66IN SLOPE PILER CARRIAGE, (includes all items)	
	91033053	1	CAPACITY DECAL, (not shown)	
1	91306030	1	CARRIAGE WELDMENT	
2	91086122	1	ADAPTER WELDMENT	
3		Ref	SWAY CYLINDER, (See OPTIONAL EQUIPMENT 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	88662018	2	CONNECTOR, (SN 2005283-01 to Present)	
26	91163138	1	MALE QUICK DISCONNECT (Prior to 2005283-01)	
26	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
27	91163139	1	FEMALE QUICK DISCONNECT (Prior to 2005283-01)	
27	91403413	1	FEMALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
28	88341022	4	DRIVE SCREW, #10X3/8	
29	90153001	1	SERIAL NUMBER PLATE	
30	91043125	1	DUST PLUG	
31	91043126	1	DUST CAP	
32	88662105	2	ELBOW, 90, (swivel nut)	
33		Ref	DUAL P.O. CHECK VALVE, (See OPTIONAL EQUIPMENT 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-LOK NUT, 3/8-16	

SECTION 3 - ATTACHMENTS AND ACCESSORIES

FIGURE 3-8. FORK INFORMATION



NOTE: FORKS RATED LESS THAN THE ATTACHMENT OR MACHINE'S CAPACITY DECREASE 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.

NOTE: PLEASE CONSULT THE GRADALL PARTS DEPARTMENT TO DETERMINE THE CORRECT FORKS APPLICABLE TO YOUR SPECIFIC CARRIAGE ASSEMBLY AND APPLICATION.

SECTION 3 - ATTACHMENTS AND ACCESSORIES

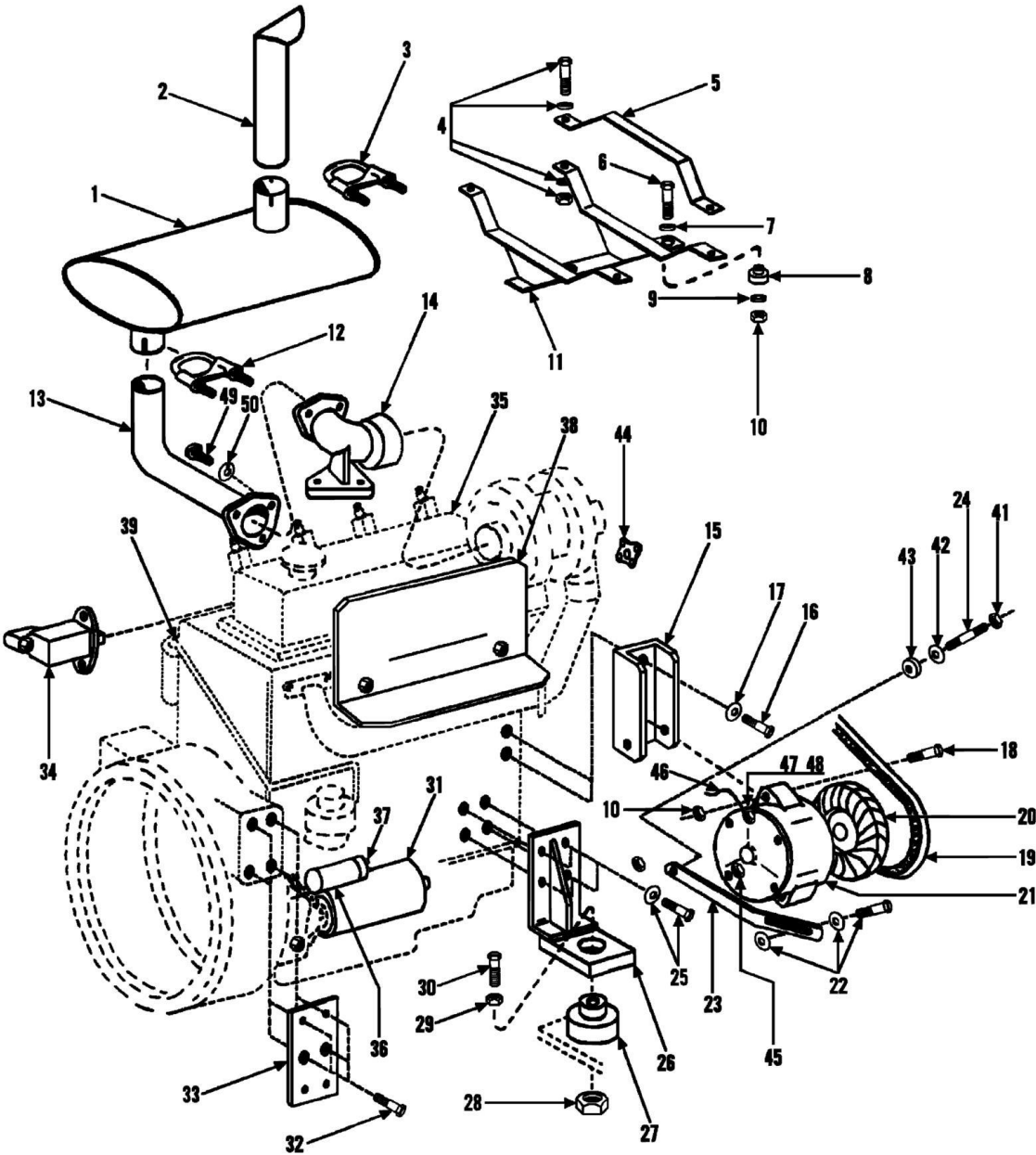
FIGURE 3-8. FORK INFORMATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90600390	2	48IN CUBING FORK, 2X2, 3000 lbs, (B, C and D series)	
	90601819	2	48IN PALLET FORK, 1-3/4X6, 9000 lbs, (B, C and D series)	
	90453002	2	48IN PALLET FORK, 2X4, 8000 lbs, (B, C and D series)	
	90553005	2	48IN PALLET FORK, 2X6, 10,000 lbs, (B, C and D series)	
	90553008	2	48IN PALLET FORK, 1-3/4X4, 5000 lbs, (used on 6ft swing mast only, P/N 90455047)	
	90601015	2	60IN PALLET FORK, 2X6, 10,000 lbs, (B, C and D series)	
	91163269	2	60IN PALLET FORK, 2X6, 11,300 lbs, (B, C and D series)	
	90453045	2	60IN PALLET FORK, 2X6, 11,300 lbs, (used on 6ft swing mast only, P/N 90455054)	
	90553018	2	72IN PALLET FORK, 2X6, 10,000 lbs, (B, C and D series)	
	91123132	2	72IN PALLET FORK, 2X6, 10,000 lbs, (B, C and D series)	
	90600832	2	48IN PALLET FORK, 2-1/4X8, 16,000 lbs, (used on the 542, 552 & 554)	
	90601873	2	48IN PALLET FORK, 2-1/4X7, 15,000 lbs, (used on the 542, 552 & 554)	
	90600833	2	60IN PALLET FORK, 2-1/4X8, 16,000 lbs, (used on the 542, 552 & 554)	
	90601219	2	60IN PALLET FORK, 2-1/2X8, 16,000 lbs, (used on the 542, 552 & 554)	
	90601874	2	60IN PALLET FORK, 2-1/4X7, 15,000 lbs, (used on the 542, 552 & 554)	
	H0453002	2	96IN PALLET FORK, 2X6, 7500 lbs loaded center, (B, C and D series)	
	90553018	2	72IN PALLET FORK, 2X6, 10,000 lbs, (B, C and D series)	

SECTION 4 - ENGINE AND ATTACHING PARTS

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-1. PERKINS DIESEL ENGINE MOUNTING (SN 0144860S to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-1. PERKINS DIESEL ENGINE MOUNTING (SN 0144860S to Present)

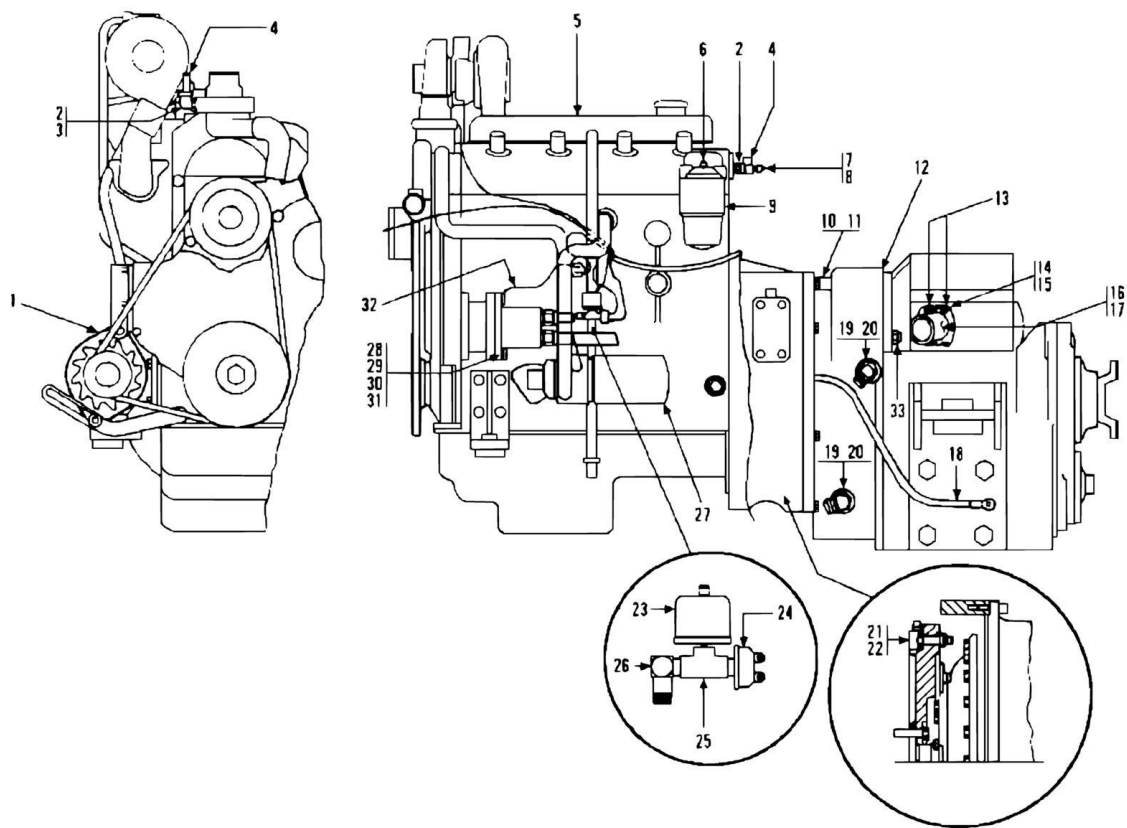
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035141	1	ENGINE AND TRANSMISSION FILTER KIT (includes 1 each of the following)	
	90204732	1	TRANSMISSION FILTER	
	90206262	1	AIR FILTER	
	91034005	1	FUEL FILTER	
	91034006	1	OIL FILTER	
1	91033053	1	MUFFLER	
2	91033381	1	STACK CAP	
3	24921332	1	CLAMP	
4	88201009	4	HEX HD CAPSCREW, 1/4-20X2, GR5	
4	88561107	8	FLATWASHER, 1/4	
4	88521304	4	HEX LOCKNUT, 1/4-20	
5	91031045	2	MUFFLER STRAP	
6	88201037	2	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
7	83681481	2	WASHER	
8	83683308	2	SHOCK MOUNT	
9	88561109	2	FLATWASHER, 3/8	
10	88521306	3	HEX LOCKNUT, 3/8-16	
11	91036072	1	MUFFLER SUPPORT	
12	83683175	1	CLAMP	
13	91036099	1	HEADER PIPE	
14	91036012	1	EXHAUST MANIFOLD	
14	88201534	3	HEX HD CAPSCREW, 3/8-24X1, GR5	
14	88551011	3	LOCKWASHER, 3/8	
15	91031395	1	ALTERNATOR BRACKET	
16	88201534	2	HEX HD CAPSCREW, 3/8-24X1, GR5	
17	12001234	2	HARDENED WASHER, 3/8	
18	88201045	1	HEX HD CAPSCREW, 3/8-16X3-1/2, GR5	
19	91033248	1	FAN BELT	
20	91033074	1	ALTERNATOR FAN	
21	91033234	1	ALTERNATOR	
22	83191028	1	BOLT, M8X1.25, GR8	
22	83191011	1	LOCKWASHER, M8	
22	90027469	1	HARDENED WASHER	
23	91031404	1	ALTERNATOR ADJUSTMENT STRAP	
24	91033329	1	STUD	
25	88201549	8	HEX HD CAPSCREW, 7/16-20X1, GR5	
25	88551012	8	LOCKWASHER, 7/16	
26	91036009	2	MOTOR MOUNT	
27	90205032	2	SHOCK MOUNT	
28	88521208	2	HEX LOCKNUT, 1/2-13	
29	90205031	2	SPECIAL WASHER	
30	88201072	2	HEX HD CAPSCREW, 1/2-13X2-3/4, GR5	
31	91033323	1	STARTER MOTOR	
31	91033268	3	MOUNTING STUD	
32	88201066	2	HEX HD CAPSCREW, 1/2-13X3, GR5	
32	88551013	2	LOCKWASHER, 1/2	
33	91031041	1	MOUNTING PLATE	
34		Ref	PILOT PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
35	91033258	1	PERKINS DIESEL ENGINE (See separate engine manual for parts information)	
36	91033133	2	NUT, M5X.08	
37	91033134	1	NUT, M10X1.5	
38	91031152	1	HEAT SHIELD	
39	91033136	1	1/4IN X 3IN TUBE (Fuel Filter)	
40	91033246	1	OIL PRESSURE SENDER (100 PSI) (not shown)	
41	88501005	1	HEX NUT, 5/16-18	
42	88551010	1	LOCKWASHER, 5/16	
43	86671164	2	SPACER	
44	91033256	1	FAN BLADE SPACER	
45	83191019	1	HEX NUT, M6X1	
46	90207497	1	JUMPER WIRE	
47	83191007	1	HEX HD CAPSCREW, M8X1.25, GR8	
48	83191011	1	LOCKWASHER, M8	
49	88201534	3	HEX HD CAPSCREW, 3/8-24X1, GR5	
50	88551011	3	LOCKWASHER, 3/8	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-2. ENGINE RIGHT SIDE VIEW (SN 0144860S to Present)



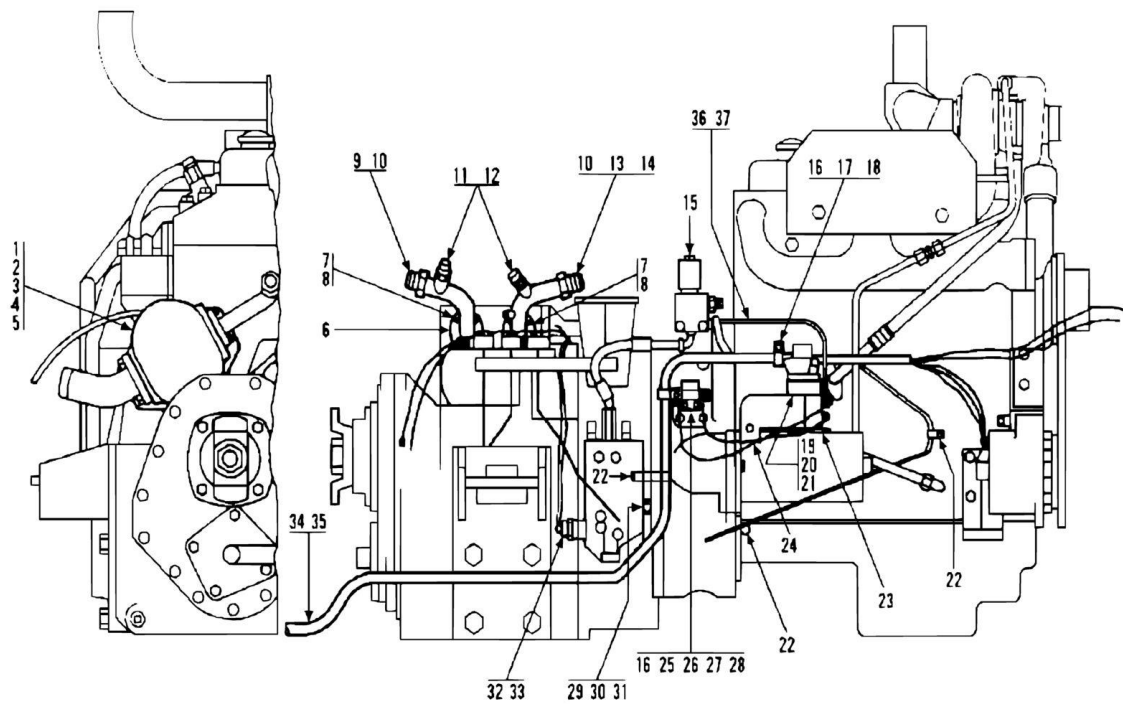
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-2. ENGINE RIGHT SIDE VIEW (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91035141	1	PERKINS ENGINE/TRANSMISSION FILTER KIT (includes all items)	
	90206262	1	AIR FILTER	
	91034006	1	OIL FILTER	
	91034005	1	FUEL FILTER	
	90204732	1	TRANSMISSION FILTER	
2	91033234	Ref	ALTERNATOR (See PERKINS DIESEL ENGINE MOUNTING for Breakdown)	
3	88711383	2	REDUCING BUSHING, 1/2 X 3/8	
4	88711102	1	STREET ELBOW, 90, 3/8	
5	24641328	2	SHUT-OFF VALVE	
6	91033258	1	PERKINS DIESEL ENGINE (For Parts Information see Separate Engine Manual)	
7	91033136	1	FUEL FILTER TUBE, 1/4 X 3	
8	88711381	1	REDUCING BUSHING, 3/8 X 1/4	
9	90206124	1	WATER TEMPERATURE SENDER	
10	91034005	1	FUEL FILTER ELEMENT	
11	88201037	11	HEX HD CAPSCREW, 3/8-16 x 1-1/2, GR5	
12	88551011	11	LOCK WASHER, 3/8	
13	91033319	Ref	TRANSMISSION ASSY (See DRIVE TRAIN SECTION for Breakdown)	
14	91031079	2	FLANGE HALF	
15	88201067	4	HEX HD CAPSCREW, 1/2-13 X 1-1/2, GR5	
16	88551013	4	LOCK WASHER, 1/2	
17	91033049	1	SUCTION TUBE	
18	90028225	1	O-RING	
19	90200811	1	GROUND CABLE	
20	88662067	2	ELBOW, 90, (includes item 20)	
21	88591207	2	O-RING	
22	88201538	8	HEX HD CAPSCREW, 3/8-24 X 2, GR5 (lubricate and torque to 25-30 ft lbs)	
23	88561003	8	FLAT WASHER, 3/8	
24	91033246	1	OIL PRESSURE SENDER	
25	24741047	1	SWITCH	
26	88712231	1	STREET TEE, 1/8	
27	88691345	1	CONNECTOR, 90, 1/8	
28	91034006	1	OIL FILTER ELEMENT	
29	88201535	2	HEX HD CAPSCREW, 3/8-24 X 1-1/4, GR5	
30	88551011	2	LOCKWASHER, 3/8	
31	91043297	Ref	PILOT PUMP ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
32	86671112	1	PUMP GASKET	
33	91031197	1	JUMPER WIRE	
	91033283	1	OIL TEMPERATURE SENDER	

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FIGURE 4-3. ENGINE LEFT SIDE VIEW (SN 0144860S to Present)



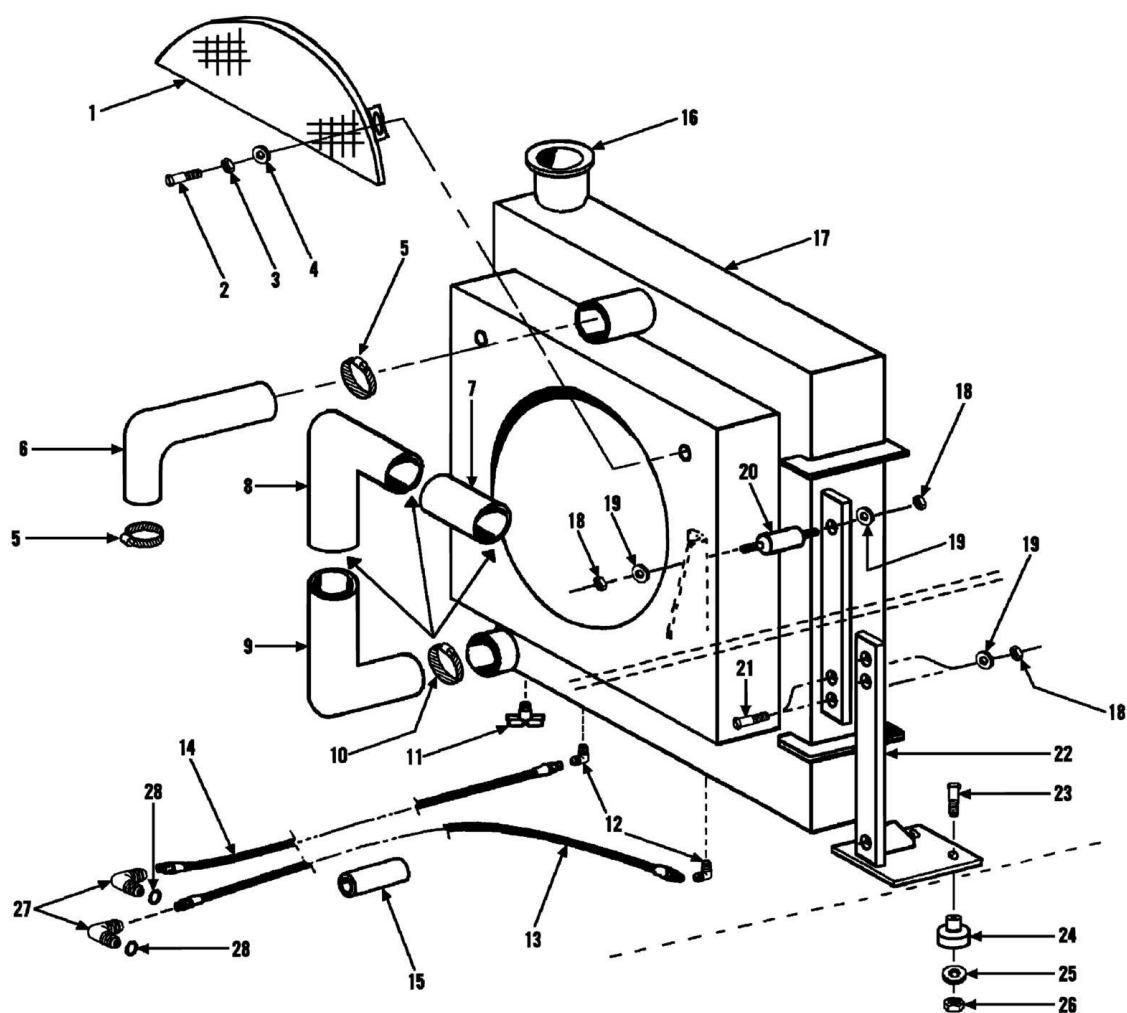
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-3. ENGINE LEFT SIDE VIEW (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91033226	Ref	MAIN HYDRAULIC PUMP ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	77134059	1	PUMP GASKET	
3	88201067	2	HEX HD CAPSCREW, 1/2-13 X 1-1/2, GR5	
4	85401340	2	HARDENED WASHER	
5	88551013	2	LOCKWASHER, 1/2	
6	84711369	2	FLANGE HALF	
7	88201036	8	HEX HD CAPSCREW, 3/8-16 x 1-1/4, GR5	
8	88551011	8	LOCKWASHER, 3/8	
9	91033407	1	TUBE LINE	
10	85031525	2	O-RING	
11	77133089	2	MINI-CHECK COUPLING	
12	88591204	2	O-RING	
13	84711369	2	FLANGE HALF	
14	91033407	1	TUBE LINE	
15	90206739	Ref	SOLENOID VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	86521144	2	SUPPORT CLAMP	
17	88201031	1	HEX HD CAPSCREW, 3/8-16 X 1/2, GR5	
18	88561109	1	FLAT WASHER, 3/8	
19		Ref	HOSE, 5/16 O.D., 8FT LONG	
20	91033131	1	CONNECTOR	
21	83483497	1	CLAMP	
22	85941017	3	HOSE CLAMP	
23	90205205	1	JUMPER WIRE	
24	90207497	1	JUMPER WIRE	
25	90402427	1	STARTER SOLENOID	
26	88201001	2	HEX HD CAPSCREW, 1/4-20 X 1/2, GR5	
27	88561107	2	FLAT WASHER, 1/4	
28	88551009	2	LOCKWASHER, 1/4	
29	90205002	1	STUD	
30	88501006	1	HEX NUT, 3/8-16	
31	88551011	1	LOCKWASHER, 3/8	
32	89981036	2	PAN HD MACHINE SCREW, #8-32 X 3/8	
33	88561006	2	LOCKWASHER, #8	
34	91033079	1	WIRING HARNESS	
35	90027187	5	NYLON TY-RAP	
36	71492134	84 in	LOOM	
37	86683122	7	TY-RAP	

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FIGURE 4-4. RADIATOR AND HOSES (SN 0144860S to Present)



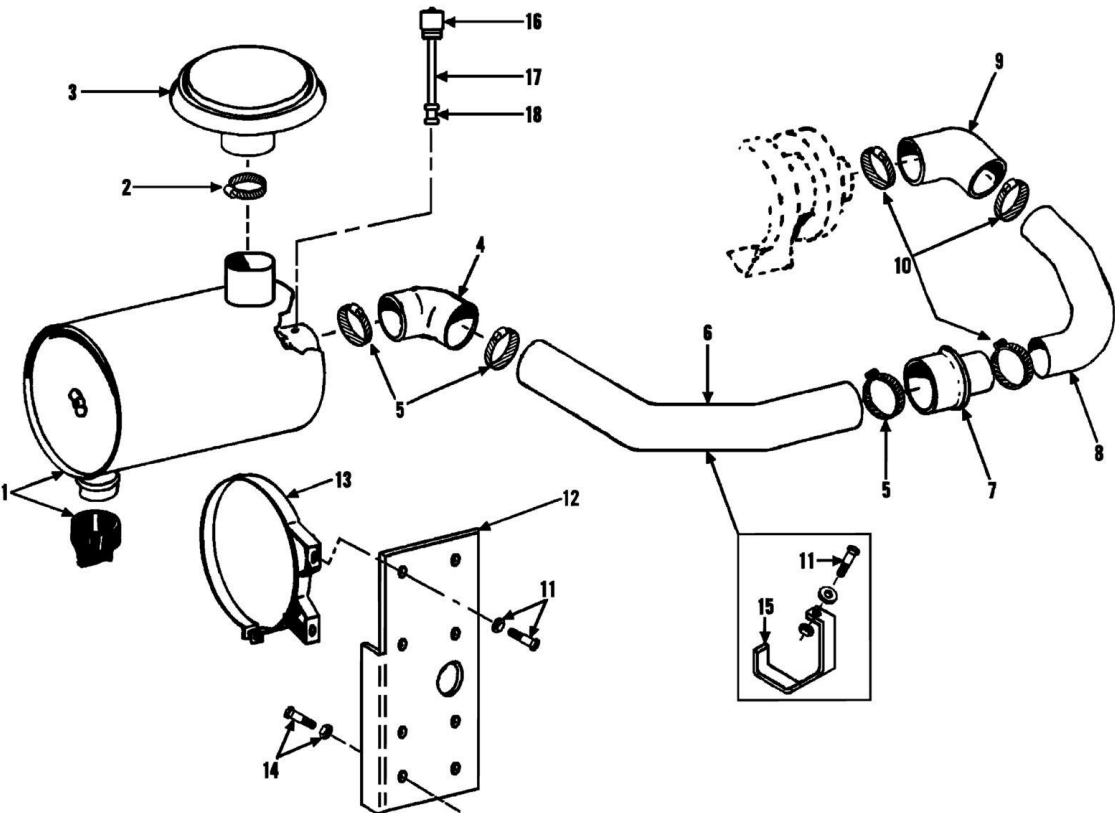
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-4. RADIATOR AND HOSES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036051	1	FAN GUARD	
2	88201003	2	HEX HD CAPSCREW, 1/4-20 x 3/4, GR5	
3	88551009	2	LOCK WASHER, 1/4	
4	88561107	2	FLAT WASHER, 1/4	
5	85071128	2	HOSE CLAMP	
6	91033132	1	UPPER RADIATOR HOSE	
7	91033062	1	HOSE CONNECTOR	
8	91033061	1	LOWER WATER PIPE	
9	91033063	1	LOWER RADIATOR HOSE	
10	85041654	4	HOSE CLAMP	
11	84521056	1	DRAIN PETCOCK	
12	88661118	2	MALE ELBOW, 90, 3/4 TUBE	
13	84717570	1	HOSE ASSY	
14	84717571	1	HOSE ASSY	
15	90207622	1	HOSE GUARD	
16	91034160	1	RADIATOR CAP	
17	91033254	1	RADIATOR	
18	88521305	8	HEX LOCKNUT, 5/16 - 18	
19	88561108	8	FLAT WASHER, 5/16	
20	91033137	2	SHOCK MOUNT	
21	88201021	4	HEX HD CAPSCREW, 5/16-18 X 1-1/4, GR5	
22	91006016	1	LEFT RADIATOR MOUNT	
22	91006017	1	RIGHT RADIATOR MOUNT	
23	88201039	4	HEX HD CAPSCREW, 3/8-16 X 2, GR5	
24	83683308	4	SHOCK MOUNT	
25	90205918	8	SPECIAL WASHER	
26	88521206	4	HEX LOCKNUT, 3/8-16	
27	88662067	2	ELBOW, 90, (includes item #28)	
28	88591207	2	O RING	

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FIGURE 4-5. AIR CLEANER PIPING (SN 0144860S to Present)



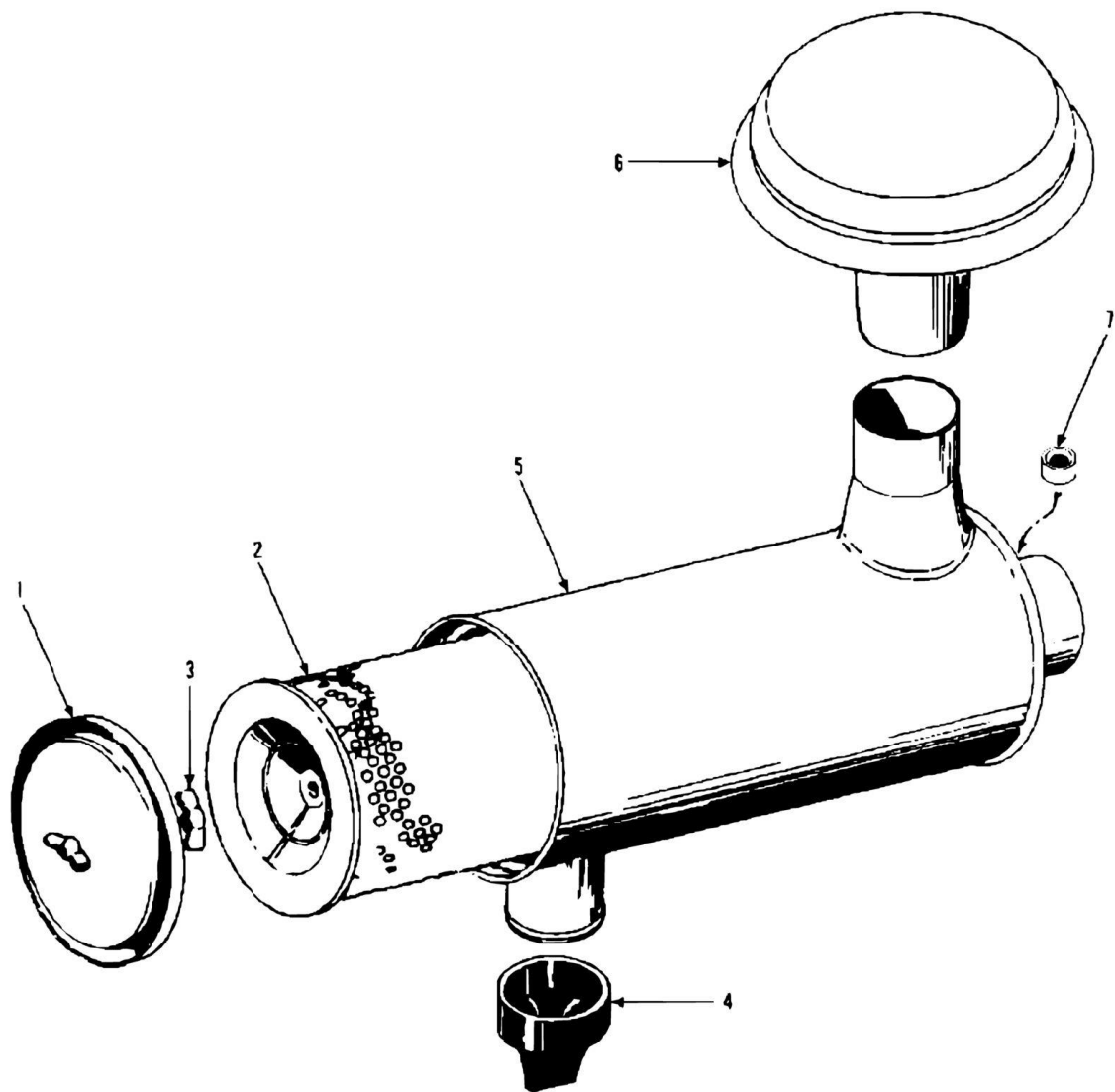
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-5. AIR CLEANER PIPING (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90205663	1	AIR CLEANER	
2	85031160	1	CLAMP	
3	91033028	1	INLET CAP	
4	91033056	1	ELBOW - 90	
5	90027713	3	HOSE CLAMP	
6	91033060	1	INTAKE TUBE	
7	91033055	1	REDUCER	
8	91033059	1	INTAKE TUBE	
9	91033058	1	REDUCING ELBOW	
10	86883327	3	CLAMP	
11	88201020	5	HEX HD CAPSCREW, 5/16-18 x 1, GR5	
11	88561108	5	FLAT WASHER, 5/16	
11	88521205	5	HEX LOCKNUT, 5/16-18	
12	91031042	1	AIR CLEANER BRACKET	
13	77103138	2	MOUNTING BANDS	
14	88201018	4	HEX HD CAPSCREW, 5/16-18 x 3/4, GR5	
14	88551010	4	LOCKWASHER, 5/16	
15	91031154	1	BRACKET	
16	77383154	1	SERVICE INDICATOR	
17	88701023	1	NIPPLE, 1/8 X 3	

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FIGURE 4-6. AIR CLEANER (SN 0144860S to Present)



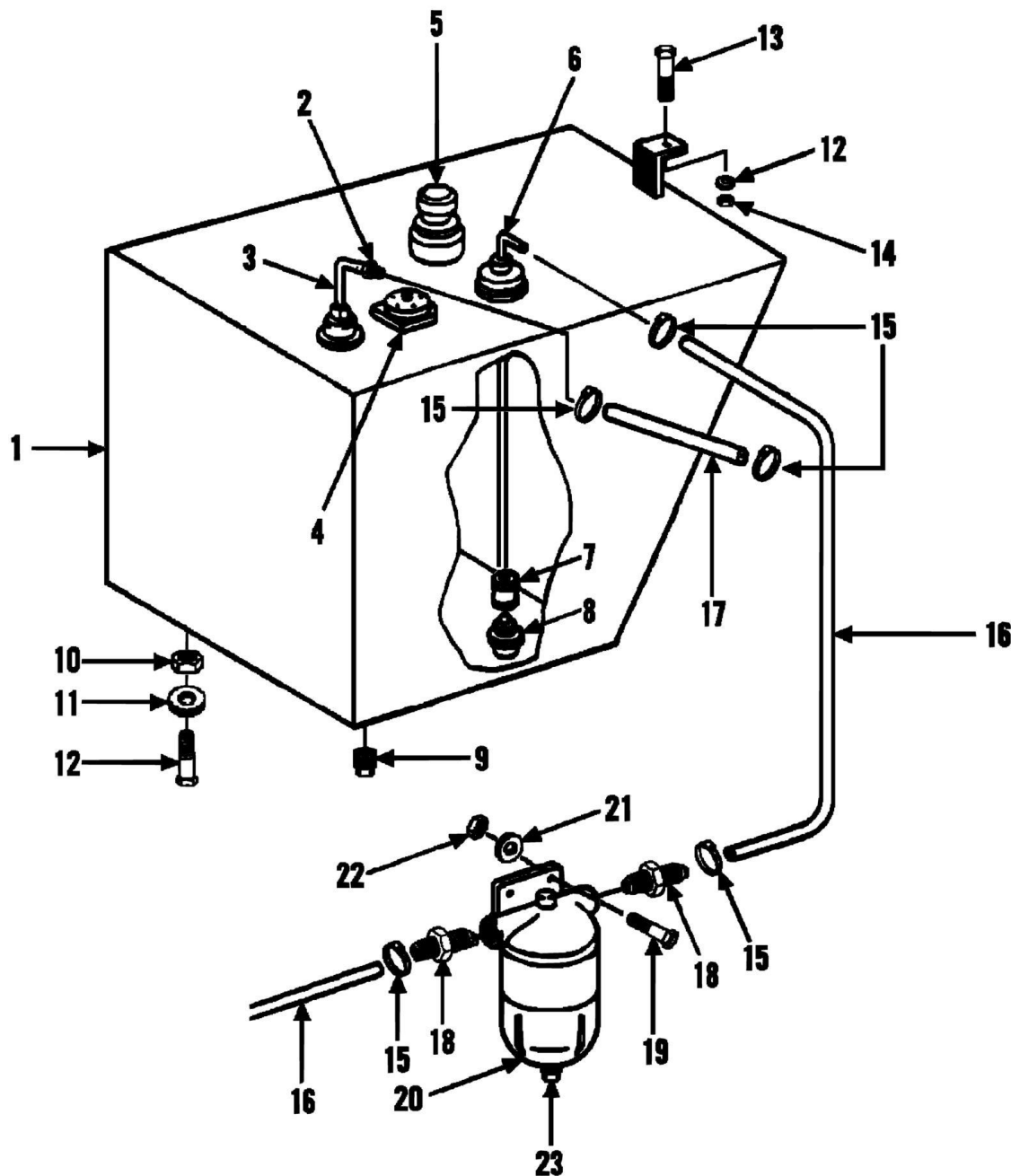
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-6. AIR CLEANER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90205663	1	AIR CLEANER (includes items 1 through 5)	
1	90206606	1	COVER W/NUT	
2	90206262	1	ELEMENT	
3	90201414	1	WING NUT	
4	90200807	1	VACUATOR	
5	N.S.S.	1	BODY (not sold separately order P/N 90205663)	
6	91033028	1	AIR INLET CAP	
7	90028682	1	CAP, 1/8IN NPT	

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FIGURE 4-7. FUEL TANK AND LINES (SN 0144860S to Present)



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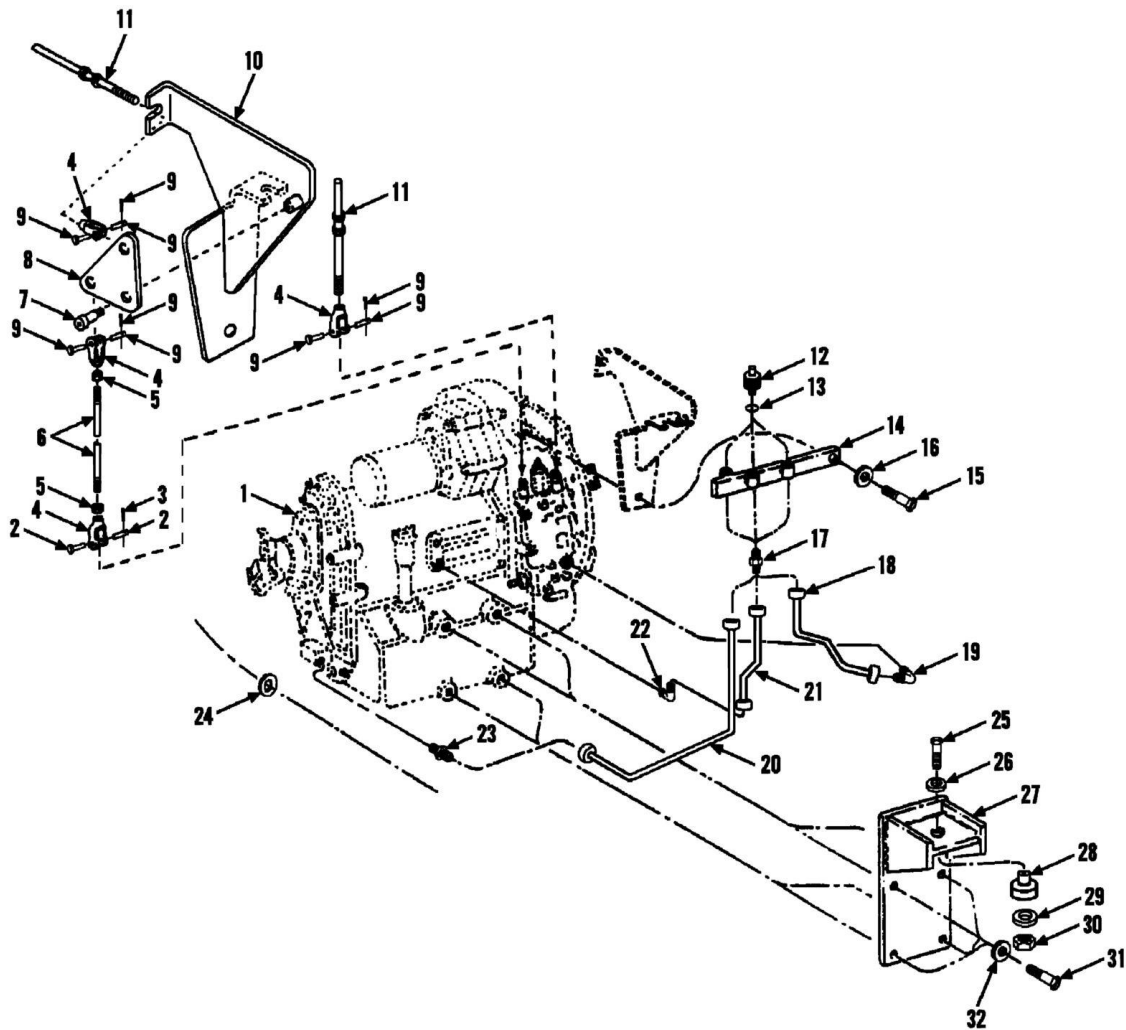
FIGURE 4-7. FUEL TANK AND LINES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035093	1	FUEL TANK ASSY (includes items 1 thru 9)	
1	91036047	1	FUEL TANK WELDMENT	
2	90028674	1	PUSH LOCK FITTING	
3	90402827	1	STAND PIPE WELDMENT	
4	90400654	1	FUEL LEVEL SENDER (includes gasket and mounting hardware)	
5	91003186	1	FILLER - BREATHER (includes gasket and mounting hardware)	
5	86541381	1	SCREW ON GAS CAP	
6	91056106	1	STAND PIPE WELDMENT	
7	88711212	1	PIPE COUPLING, 1/4	
8	90205223	1	SUCTION SCREEN	
9	88711255	1	SQUARE HD PIPE PLUG, 1IN	
10	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
11	88551013	2	LOCKWASHER, 1/2	
12	88561111	4	FLAT WASHER, 1/2	
13	88201070	1	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5	
14	88521208	1	HEX LOCKNUT, 1/2-13	
15	86683106	6	HOSE CLAMP	
16		Ref	HOSE, 5/16 I.D.	
17		Ref	HOSE, 1/4 I.D.	
18	91033131	2	BARB CONNECTOR	
19	88201021	2	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
20	91033054	1	WATER SEPARATOR	
21	88561108	2	FLAT WASHER, 5/16	
22	88521305	2	HEX LOCKNUT, 5/16-18	
23	91034396	1	SCREW ASSY (push-on type)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 5 - DRIVE TRAIN

SECTION 5 - DRIVE TRAIN

FIGURE 5-1. TRANSMISSION MOUNTING AND CONTROLS (SN 0144860S to Present)



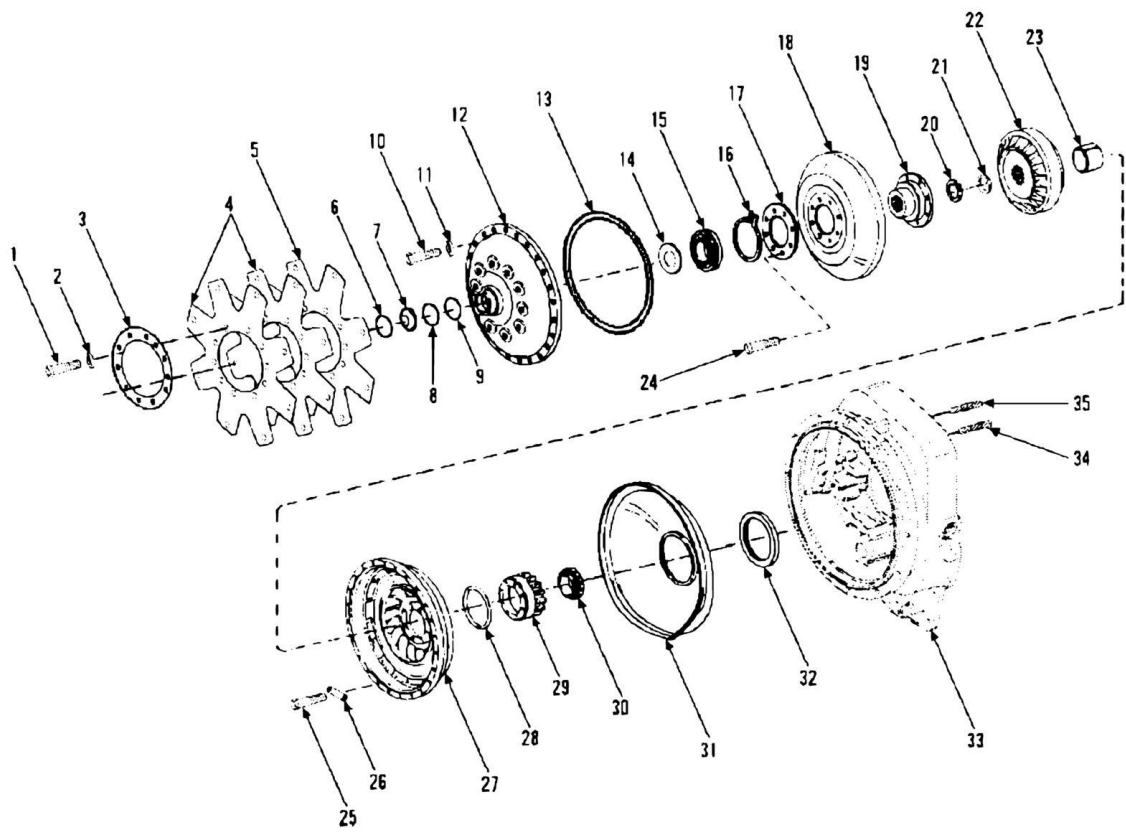
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FIGURE 5-1. TRANSMISSION MOUNTING AND CONTROLS (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91034326	1	TRANSMISSION O-RING KIT	
	91034327	1	TORQUE CONVERTER O-RING KIT	
	91033319	1	TRANSMISSION ASSY, (includes all items shown on FLEX PLATE AND TORQUE CONVERTER thru PROPELLER SHAFT)	
2	88633002	2	YOKE PIN, 5/16	
3	88631308	2	COTTER PIN, 3/32X1/2	
4	88821003	4	ADJUSTABLE YOKE END, 5/16-24	
5	88501405	2	HEX JAM NUT, 5/16-24	
6	91061094	1	THREADED ROD	
7	88251017	1	SOCKET HD SHOULDER SCREW, 3/8x3/8, (5/16-18 thread)	
8	91061095	1	BELL CRANK	
9	90027720	2	YOKE PIN ASSY	
10	91066035	1	TRANSMISSION SHIFT BRACKET	
11	90203374	2	PUSH-PULL CONTROL CABLE	
12	91035112	3	PRESSURE SWITCH	
13	88591201	3	O-RING	
14	90403349	1	SWITCH BRACKET	
15	88201066	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
16	88551013	1	LOCKWASHER, 1/2	
17	88743000	3	MALE ADAPTER, 1/8X1/4 TUBE	
18	90207258	1	TUBE LINE	
19	88743041	1	MALE ADAPTER, 90, 1/8X1/4	
20	90207256	1	TUBE LINE	
21	90207257	1	TUBE LINE	
22	88743055	1	MALE ELBOW, 90, 1/4X1/4 TUBE	
23	90028750	1	ADAPTER	
24	90202303	2	CABLE GROMMET	
25	88201120	2	HEX HD CAPSCREW, 3/4-10X4-1/2, GR5	
26	90207219	2	WASHER	
27	91036008	2	MOUNTING BRACKET	
28	90600097	2	SHOCK MOUNT	
29	88561115	2	FLATWASHER, 3/4	
30	88521012	2	HEX LOCKNUT, 3/4-10	
31	88201110	8	HEX HD CAPSCREW, 3/4-10X1-3/4, GR5	
32	88551016	8	LOCKWASHER, 3/4	
33		Ref	OIL TEMP SENDOR, (not shown, See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
34		Ref	TRANS. TEMP GAGE, (not shown, See ELECTRICAL SECTION for Breakdown)	

SECTION 5 - DRIVE TRAIN

FIGURE 5-2. FLEX PLATE AND TORQUE CONVERTER (SN 0144860S to Present)



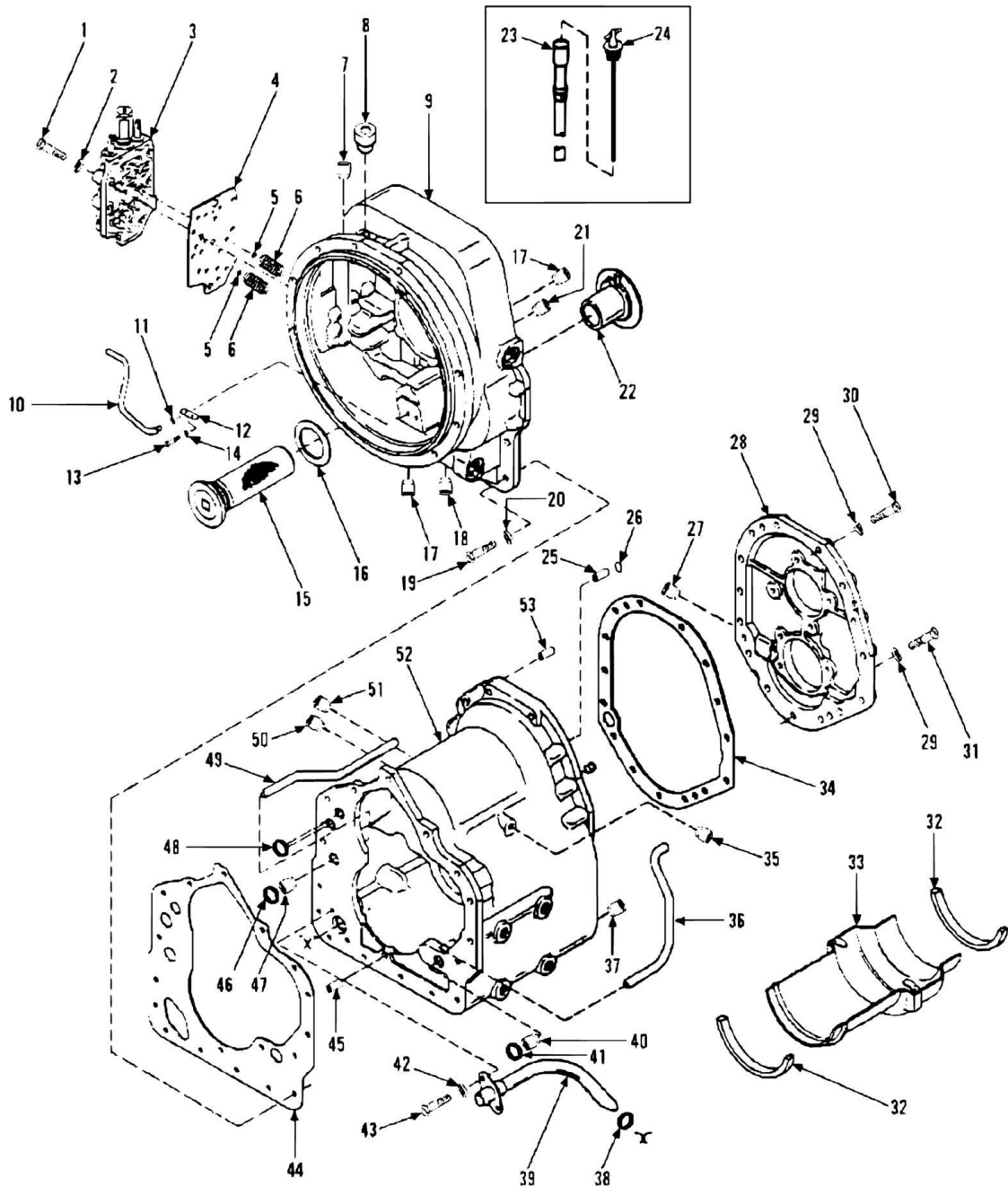
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FIGURE 5-2. FLEX PLATE AND TORQUE CONVERTER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91034238	1	DRIVE PLATE KIT ASSY (includes items 1 through 5)	
1	77104045	10	HEX HD CAPSCREW AND LOCK WASHER ASSY (includes item 2)	
2	Kit	10	LOCK WASHER	
3	77104044	1	DRIVE PLATE BACKING RING	
4	90204784	2	DRIVE PLATE	
5	77104042	1	DRIVE PLATE ASSY	
6	77104041	1	BORE PLUG RETAINING RING	
7	77104040	1	BORE PLUG	
8	77104039	1	O-RING	
9	77104032	1	TURBINE RETAINING RING	
10	77104046	24	HEX HD CAPSCREW AND LOCK WASHER ASSY (includes item 11)	
11		Ref	LOCKWASHER	
12	90204779	1	IMPELLER COVER ASSY (includes item 6)	
13	77104037	1	O-RING	
14	77104036	1	BEARING RETAINING WASHER	
15	77104035	1	TURBINE HUB BEARING	
16	77104034	1	BEARING LOCATING RING	
17	91034239	1	TURBINE RING	
18	91034240	1	TURBINE	
19	91034241	1	TURBINE HUB	
20	77104032	1	TURBINE RETAINING RING	
21	77104031	1	RETAINING RING	
22	77104030	1	REACTION MEMBER	
23	91034242	1	SPACER	
24	91034243	12	HEX HD CAPSCREW	
25	91034244	8	HEX HD CAPSCREW	
26	77104027	4	LOCK TAB	
27	90204767	1	IMPELLER	
28	77104012	1	O-RING	
29	90206386	1	IMPELLER HUB GEAR	
30	90206385	1	IMPELLER HUB GEAR BEARING	
31	90204756	1	OIL BAFFLE ASSY	
32	90204755	1	OIL SEAL	
33	91034246	Ref	CONVERTER HOUSING (See CASE AND CONVERTER HOUSING for Breakdown)	
34	90206378	1	PUMP MOUNTING STUD	
35	90206379	1	PUMP MOUNTING STUD	

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FIGURE 5-3. CASE AND CONVERTER HOUSING (SN 0144860S to Present)



SECTION 5 - DRIVE TRAIN

FIGURE 5-3. CASE AND CONVERTER HOUSING (SN 0144860S to Present)

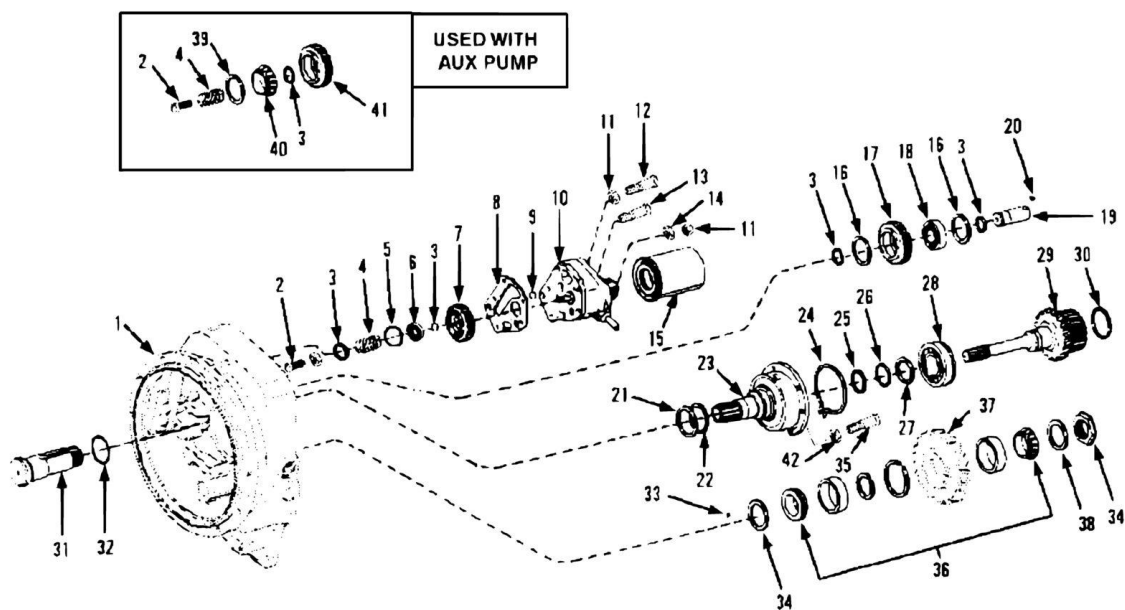
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88201046	9	HEX HD CAPSCREW, 3/8-16 X3-3/4, GR5	
2	88551011	9	LOCK WASHER, 3/8	
3	91034260	Ref	CONTROL VALVE ASSY (See CONTROL VALVE for Breakdown)	
4	91034245	1	GASKET	
5	77104284	2	DETENT BALL	
6	77104285	2	DETENT SPRING	
7	77104112	1	PIPE PLUG	
8	77104096	1	AIR BREATHER	
9	91034246	1	CONVERTER HOUSING ASSY (includes items 10 through 14)	
10	91044050	1	LUBE BYPASS TUBE	
11	91044051	1	O-RING	
12	91044052	1	TUBE CLIP	
13	77104102	1	HEX HD CAPSCREW	
14	77104103	1	LOCKWASHER	
15	90204800	1	SCREEN ASSY	
16	90204799	1	SCREEN GASKET	
17	90027267	2	PIPE PLUG	
18	77104116	1	PIPE PLUG	
19	77104086	16	HEX HD CAPSCREW	
20	77104085	16	LOCKWASHER	
21	77104116	1	PIPE PLUG	
22	77104097	1	CONVERTER HOUSING SLEEVE	
23	90204823	1	DIPSTICK TUBE	
24	90204824	1	DIPSTICK	
25	77104109	1	TUBE SLEEVE	
26	77104111	1	O-RING	
27	77104116	1	COVER PIPE PLUG	
28	90204798	1	COVER AND PLUG ASSY (includes item 27)	
29	77104085	15	LOCKWASHER	
30	88201053	9	HEX HD CAPSCREW, 7/16-14X1-3/4, GR5	
31	77104086	6	HEX HD CAPSCREW	
32	90204806	2	OIL BAFFLE SEAL	
33	90204807	1	OIL BAFFLE	
34	90204802	1	GASKET	
35	77104112	2	PIPE PLUG	
36	90204804	1	CLUTCH LUBE TUBE	
37	77104119	1	MAGNETIC DRAIN PLUG	
38	77104057	1	O-RING	
39	90204809	1	SUCTION TUBE ASSY	
40	77104107	1	TUBE SLEEVE	
41	77104111	1	O-RING	
42	88551010	2	LOCKWASHER, 5/16	
43	88201017	2	HEX HD CAPSCREW, 5/16-18X 5/8, GR5	
44	77104098	1	GASKET	
45	77104113	1	DOWEL PIN	
46	77104116	1	O-RING	
47	77104109	1	TUBE SLEEVE	
48	77104048	2	O-RING	
49	77104110	1	LOW SPEED CLUTCH PRESSURE TUBE	
50	77104112	1	PIPE PLUG	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
51	77104118	1	PIPE PLUG	
52	90204817	1	TRANSMISSION CASE ASSY (includes items 25,32,33, 36, 38, 39, 40, 42, 43,47, 49)	
53	77104113	2	DOWEL PIN	

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FIGURE 5-4. CONVERTER HOUSE ATTACHING PARTS (SN 0144860S to Present)



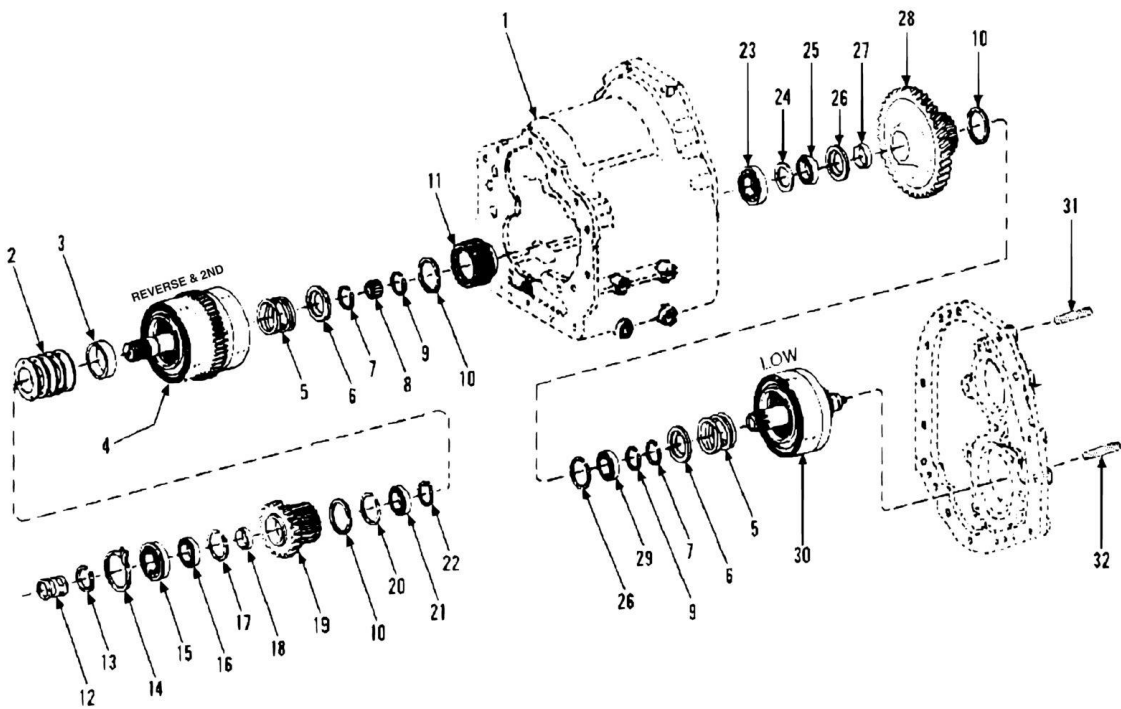
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FIGURE 5-4. CONVERTER HOUSE ATTACHING PARTS (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	CONVERTER HOUSING (See CASE AND CONVERTER HOUSING for Breakdown)	
2	91034247	4	BEARING SUPPORT SCREW AND LOCKWASHER	
3	90204733	AR	BEARING LOCATING RING	
4	90204734	AR	PUMP DRIVE BEARING SUPPORT	
5	90204735	1	BEARING RETAINING RING	
6	90204793	1	PUMP DRIVE GEAR BEARING	
7	90204737	1	PUMP DRIVE GEAR	
8	90204730	1	GASKET	
9	77104048	1	O-RING	
10	90204731	1	CHARGING PUMP ASSY	
10	91034331	1	CHARGE PUMP SEAL KIT	
11	77104085	3	LOCKWASHER	
12	90028641	1	HEX HD CAPSCREW	
13	88201062	2	HEX HD CAPSCREW, 7/16-14 X 4, GR5	
14	77104204	2	HEX NUT	
15	90204732	1	FILTER	
16	77104181	2	BEARING RETAINING RING	
17	90204740	1	IDLER GEAR	
18	90204741	1	IDLER STUB SHAFT BEARING	
19	90204738	1	IDLER GEAR SHAFT	
20	90205047	1	LOCK BALL	
21	90206377	1	PISTON RING	
22	77104016	1	PISTON RING EXPANDER SPRING	
23	91034248	1	STATOR SUPPORT	
24	90204749	1	SNAP RING	
25	90204748	1	PISTON RING	
26	77104164	1	BEARING RETAINING RING	
27	77104197	1	BEARING LOCATING WASHER	
28	77104022	1	TURBINE SHAFT BEARING	
29	90204744	1	TURBINE SHAFT ASSY (includes item 30)	
30	91034255	1	RETAINING RING	
31	91034249	1	REVERSE IDLER SHAFT	
32	91034250	1	O-RING	
33	91034251	1	LOCK BALL	
34	91034252	2	THRUST PLATE	
35	91034253	6	HEX HD CAPSCREW	
36	77104255	1	BEARING ASSY	
37	90206382	1	REVERSE IDLER GEAR	
38	91034254	1	RETAINING PLATE NUT	
39	90204787	1	BEARING RETAINING RING	
40	90204788	1	AUXILIARY PUMP GEAR BEARING	
41	90204790	1	AUXILIARY PUMP DRIVE GEAR	
42	77104007	6	LOCKWASHER	

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FIGURE 5-5. CLUTCH AND GEAR GROUP (REVERSE, 2ND AND LOW) (SN 0144860S to Present)



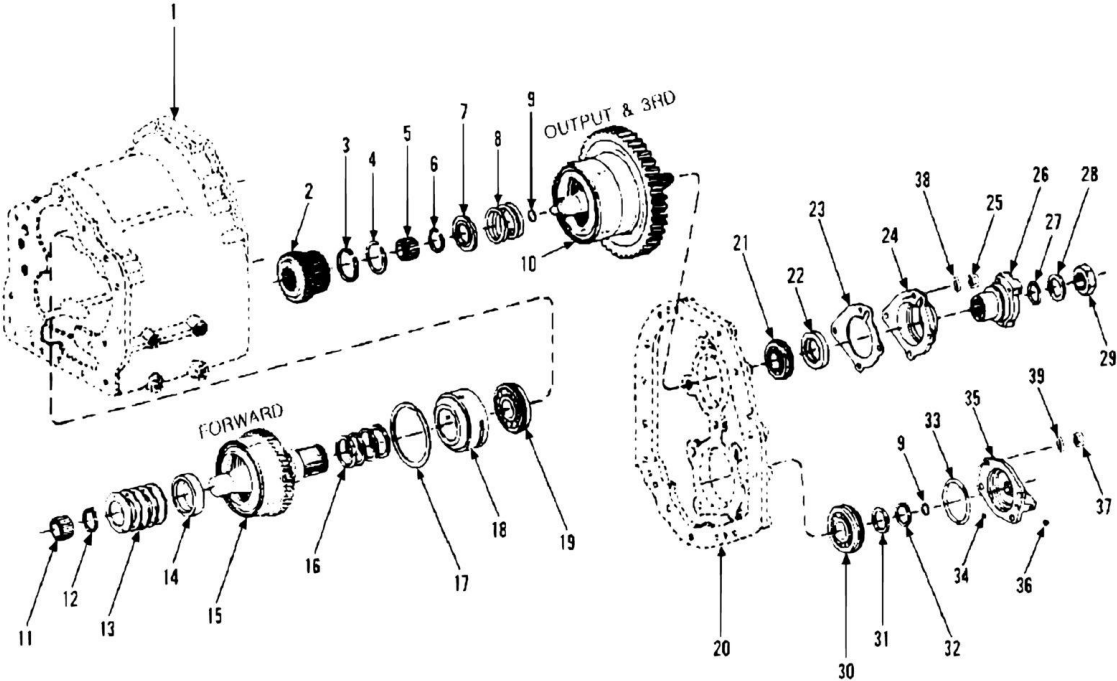
SECTION 5 - DRIVE TRAIN

FIGURE 5-5. CLUTCH AND GEAR GROUP (REVERSE, 2ND AND LOW) (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90204817	Ref	TRANSMISSION CASE ASSY (See CASE AND CONVERTER HOUSING for Breakdown)	
2	77104207	5	PISTON RETURN SPRING	
3	77104208	1	RETURN SPRING SPACER	
4	90204944	Ref	REVERSE AND 2ND SHAFT DRUM AND PLUG ASSY (See CLUTCH ASSEMBLIES for Breakdown)	
5	77104187	1	PISTON RETURN SPRING	
6	77104186	2	SPRING RETAINER	
7	77104185	2	SNAP RING	
8	77104231	1	REVERSE AND 2ND SHAFT REAR BEARING	
9	77104184	2	RETAINING RING	
10	91034255	3	RETAINING RING	
11	90204855	1	CLUTCH DISC HUB (includes item 10)	
12	77104219	3	PISTON RING	
13	77104220	1	RETAINING RING	
14	77104221	1	SNAP RING	
15	77104222	1	REVERSE AND 2ND SHAFT FRONT BEARING	
16	77104223	1	CLUTCH DRIVEN GEAR BEARING	
17	77104224	1	RETAINING RING	
18	77104225	1	SPACER	
19	77104226	1	REVERSE CLUTCH GEAR AND HUB ASSY (includes item 10)	
20	77104224	1	RETAINING RING	
21	77104227	1	CLUTCH DRIVEN GEAR BEARING	
22	77104206	1	SNAP RING	
23	77104158	1	LOW SPEED SHAFT FRONT BEARING	
24	77104179	1	SPACER	
25	77104180	1	LOW SPEED GEAR BEARING	
26	77104181	2	LOCATING RING	
27	77104182	1	SPACER	
28	91034256	1	LOW GEAR AND HUB ASSY (includes item 10)	
29	77104180	1	LOW SPEED GEAR BEARING	
30	90204935	Ref	LOW CLUTCH DRUM AND BLEED VALVE ASSY (See CLUTCH ASSEMBLIES for Breakdown)	
31	77104177	4	BEARING CAP STUD	
32	77104203	4	BEARING CAP STUD	

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FIGURE 5-6. CLUTCH AND GEAR GROUP (FORWARD, OUTPUT AND 3RD) (SN 0144860S to Present)



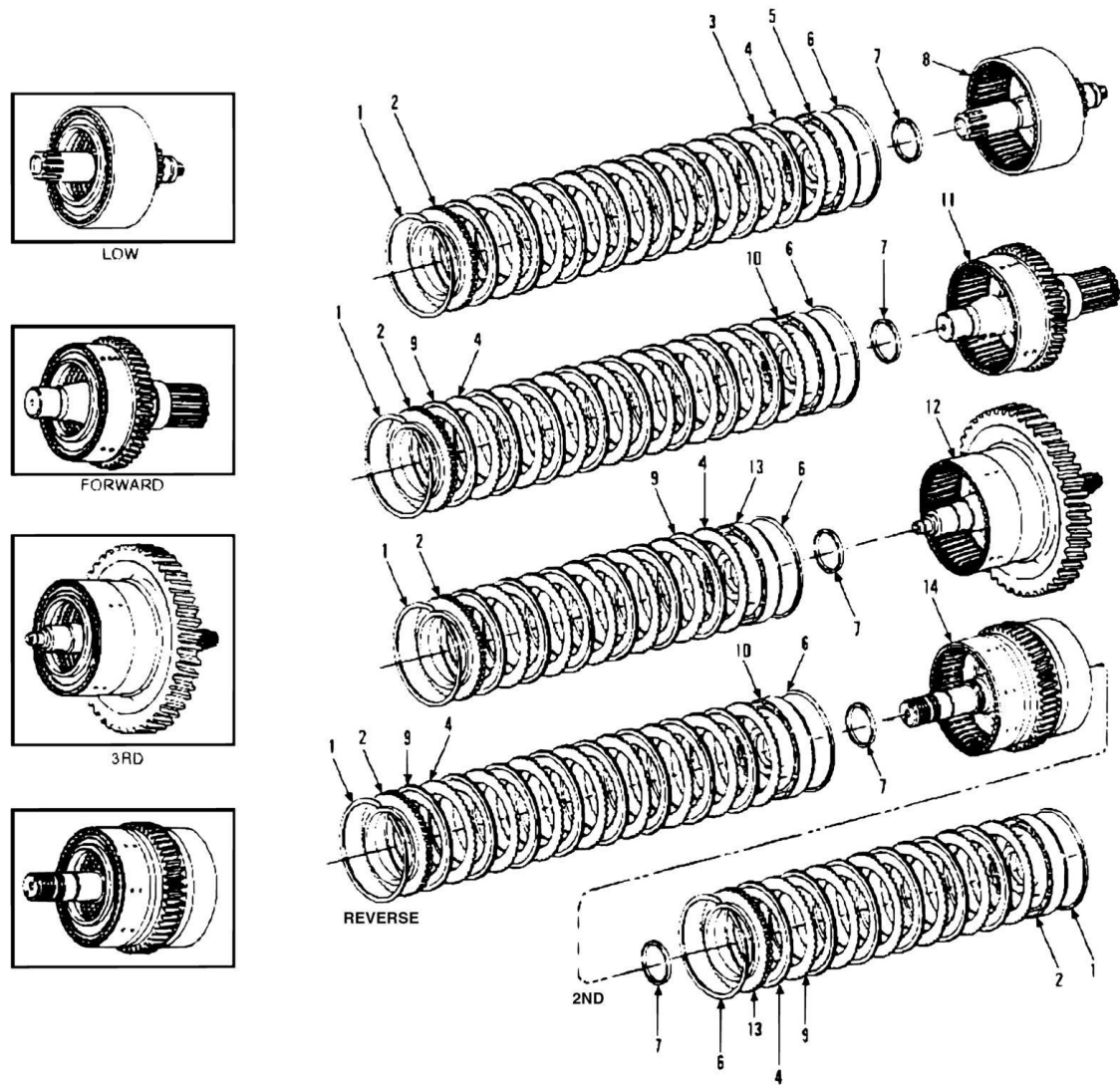
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FIGURE 5-6. CLUTCH AND GEAR GROUP (FORWARD, OUTPUT AND 3RD) (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	TRANSMISSION CASE ASSY (See CASE AND CONVERTER HOUSING for Breakdown)	
2	91034257	1	THIRD GEAR AND HUB ASSY	
3	91034255	1	RETAINING RING	
4	77104217	1	RETAINING RING	
5	90204862	1	PILOT BEARING	
6	77104185	1	SNAP RING	
7	77104186	1	SPRING RETAINER	
8	77104187	1	PISTON RETURN SPRING	
9	77104198	2	PISTON RING	
10		Ref	CLUTCH PISTON - 2ND AND 3RD (See CLUTCH ASSEMBLIES for Breakdown)	
11	77104205	1	SHAFT PILOT BEARING	
12	77104206	1	SNAP RING	
13	77104207	5	PISTON RETURN SPRING	
14	77104208	1	SPACER	
15		Ref	FORWARD SHAFT DRUM AND PLUG ASSY (See CLUTCH ASSEMBLIES for Breakdown)	
16	77104211	4	PISTON RING	
17	77104212	1	RETAINER RING	
18	77104213	1	PISTON RING SLEEVE	
19	91034258	1	FORWARD SHAFT BEARING	
20		Ref	COVER AND PLUG ASSY (See CASE AND CONVERTER HOUSING for Breakdown)	
21	90204829	1	OUTPUT SHAFT BEARING	
22	90204831	1	OIL SEAL	
23	90206394	1	GASKET	
24	90206395	1	CAP	
25	77104142	4	HEX NUT	
26	90206396	1	OUTPUT FLANGE	
27	77104128	1	O-RING	
28	77104088	1	FLANGE WASHER	
29	77104087	1	FLANGE NUT	
30	90204842	1	LOW SPEED SHAFT BEARING	
31	77104197	1	BEARING SUPPORT WASHER	
32	77104184	1	BEARING RING	
33	77104202	1	O-RING	
34	77104199	1	O-RING	
35	91034259	1	REAR BEARING CAP ASSY (includes item 36)	
36	77104201	1	PIPE PLUG	
37	77104204	4	HEX NUT	
38	77104143	4	LOCK WASHER	
39	77104085	4	LOCK WASHER	

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FIGURE 5-7. CLUTCH ASSEMBLIES (SN 0144860S to Present)



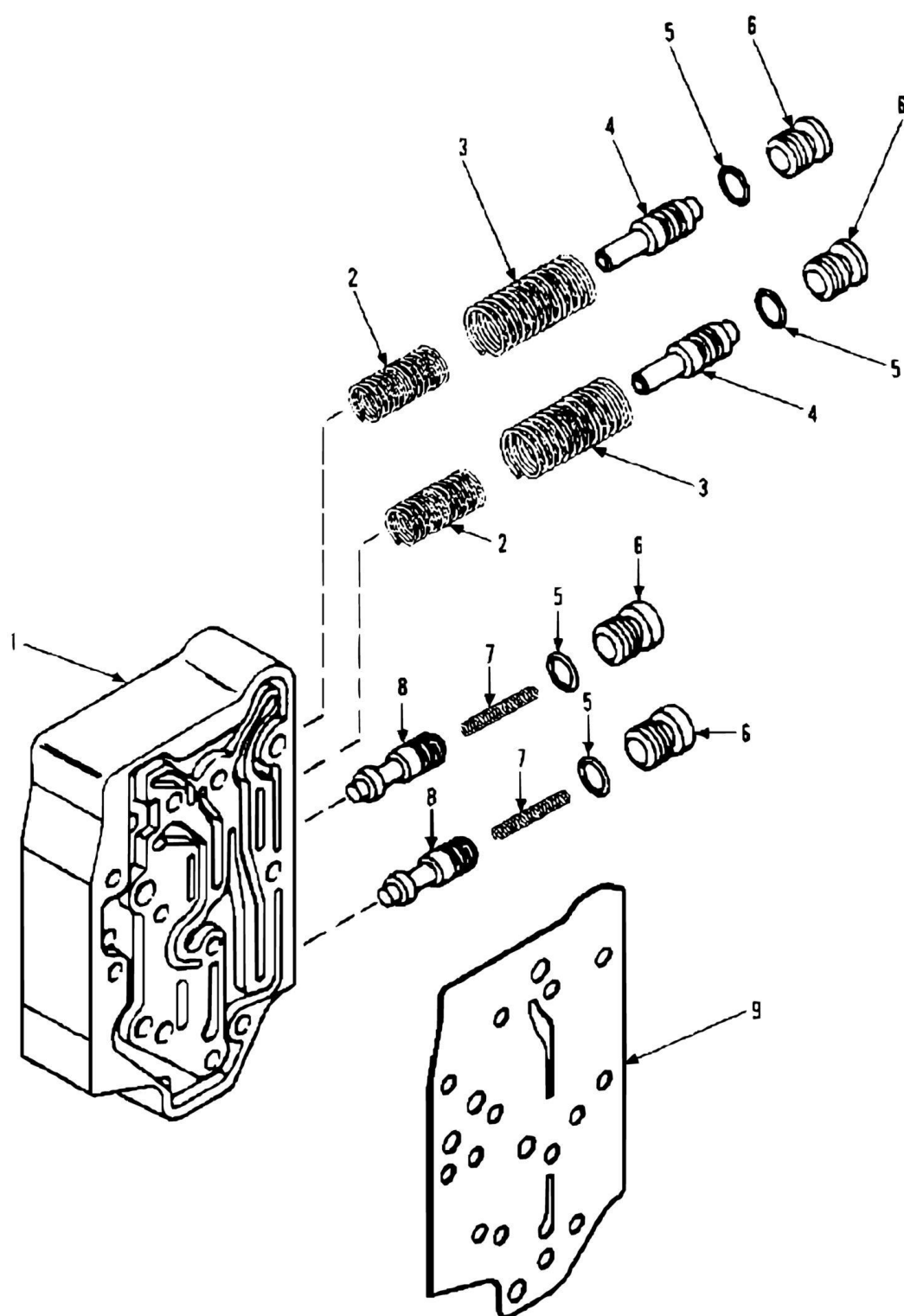
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FIGURE 5-7. CLUTCH ASSEMBLIES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	77104188	5	SNAP RING	
2	77104189	5	CLUTCH DISC BACKING PLATE	
3	77104190	8	CLUTCH INNER DISC (low)	
4	77104191	36	CLUTCH OUTER DISC	
5	77104192	1	CLUTCH PISTON (low)	
6	77104193	5	OUTER CLUTCH PISTON RING	
7	77104194	5	INNER CLUTCH PISTON RING	
8	90204935	1	LOW CLUTCH SHAFT, DRUM AND BLEED VALVE ASSY	
9	77104209	28	CLUTCH INNER DISC (forward, 3rd, reverse and second)	
10	90204938	2	CLUTCH PISTON (forward, reverse and 2nd)	
11	90204939	1	FORWARD SHAFT, DRUM AND PLUG ASSY	
12	90206403	1	THIRD CLUTCH SHAFT, DRUM AND PLUG ASSY	
13	77104230	2	CLUTCH PISTON (3rd & 2nd)	
14	90204944	1	REVERSE AND 2ND SHAFT, DRUM AND PLUG ASSY	

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FIGURE 5-8. MODULATOR VALVE (SN 0144860S to Present)



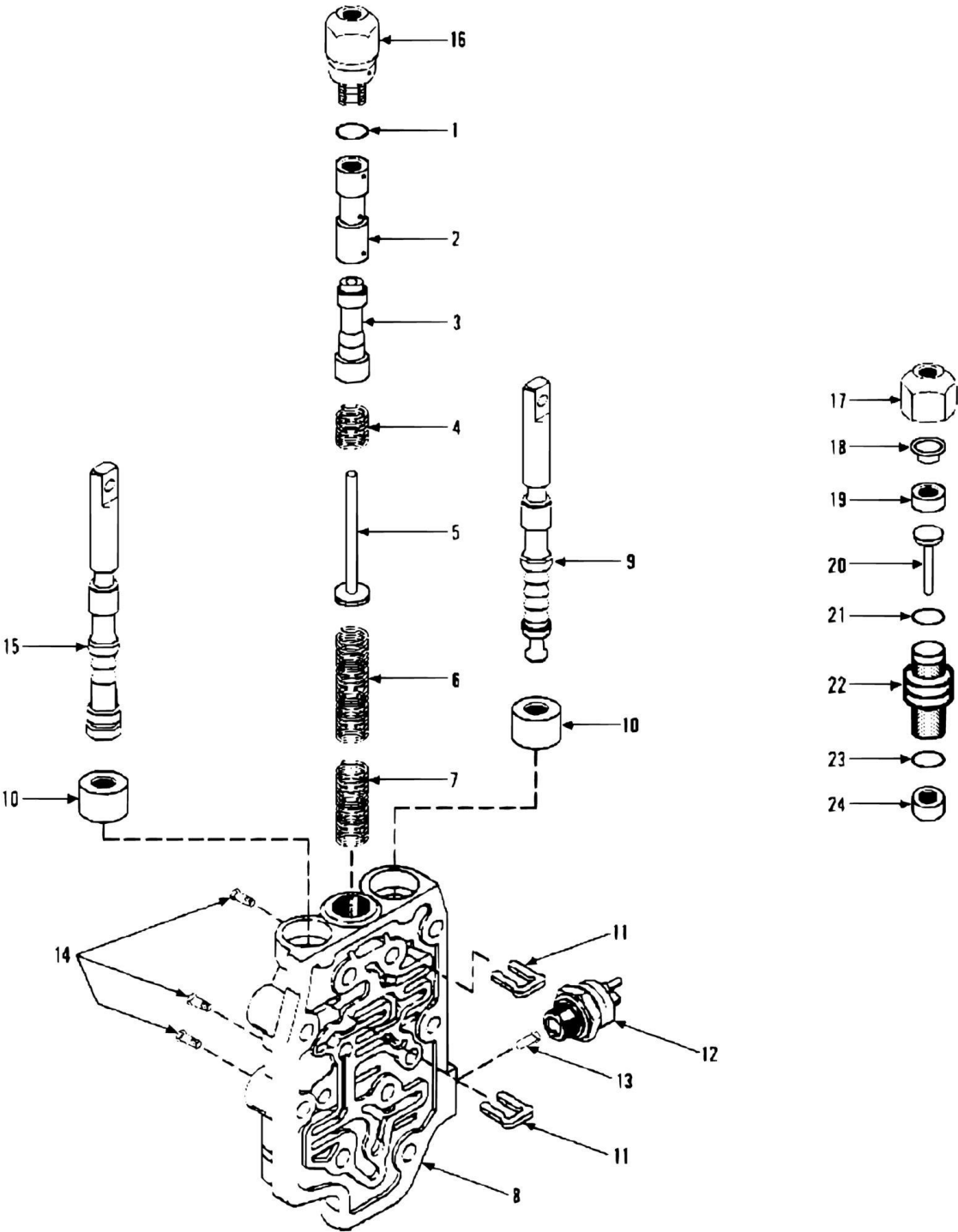
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FIGURE 5-8. MODULATOR VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90204990	1	MODULATOR VALVE (includes items 1 through 8)	
1		Ref	VALVE HOUSING	
2	91034263	1	ACCUMULATOR SPRING (inner)	
3	90204992	1	ACCUMULATOR SPRING (outer)	
4		Ref	ACCUMULATOR VALVE (part of valve assy)	
5	90205056	4	O-RING	
6	90205057	4	SPOOL STOP PLUG (includes item 6)	
7	91034264	2	REGULATOR SPRING	
8		Ref	REGULATOR SPOOL (part of valve assy)	
9	90204820	1	GASKET (modulator valve to converter housing)	

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FIGURE 5-9. CONTROL VALVE (SN 0144860S to Present)



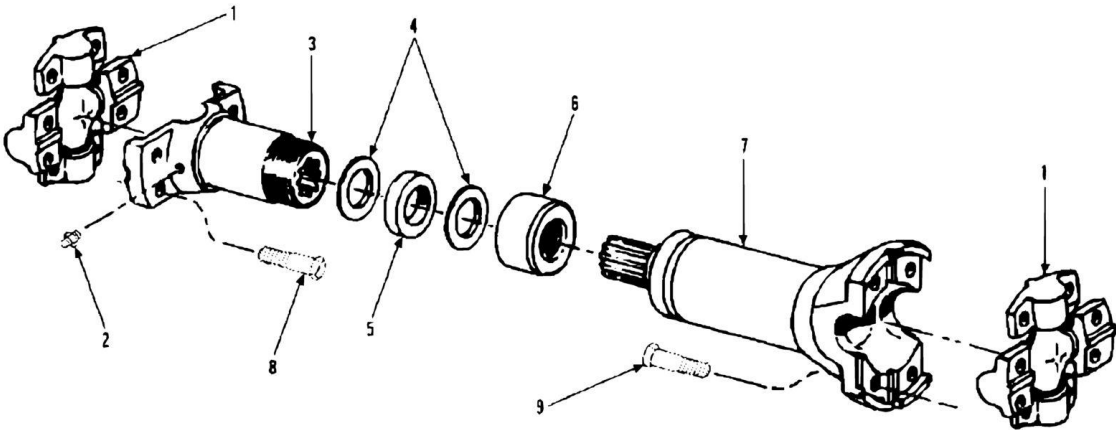
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FIGURE 5-9. CONTROL VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91034260	1	CONTROL VALVE ASSY (includes all items)	
1	90204957	1	RETAINING RING	
2	90204959	1	INCHING VALVE SLEEVE	
3	90204969	1	VALVE SPOOL	
4	91034261	1	BALANCING SPRING	
5	90204964	1	ROD	
6	90204966	1	INNER SPRING	
7	90204968	1	OUTER SPRING	
8		Ref	VALVE HOUSING	
9	77104276	1	FORWARD AND REVERSE SPOOL	
10	77104275	2	OIL SEAL	
11	77104277	2	SPOOL STOP	
12	77104278	1	NEUTRAL SWITCH	
13	77104279	1	SWITCH ACTUATING PIN	
14	77104008	3	PIPE PLUG	
15	77104273	1	SPEED SELECTOR SPOOL AND PLUG ASSY	
16	91034262	1	INCHING SLAVE CYLINDER ASSY (includes items 17 through 24)	
17	90204980	1	CAP	
18	90204981	1	PISTON CUP STOP	
19	90207872	1	PISTON CUP	
20	90204983	1	PISTON	
21	90205058	1	O-RING	
22	90204984	1	PISTON HOUSING AND FILTER DISC ASSY	
23	90203115	1	O-RING	
24	90204986	1	OIL SEAL	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-10. PROPELLER SHAFT (SN 0144860S to Present)



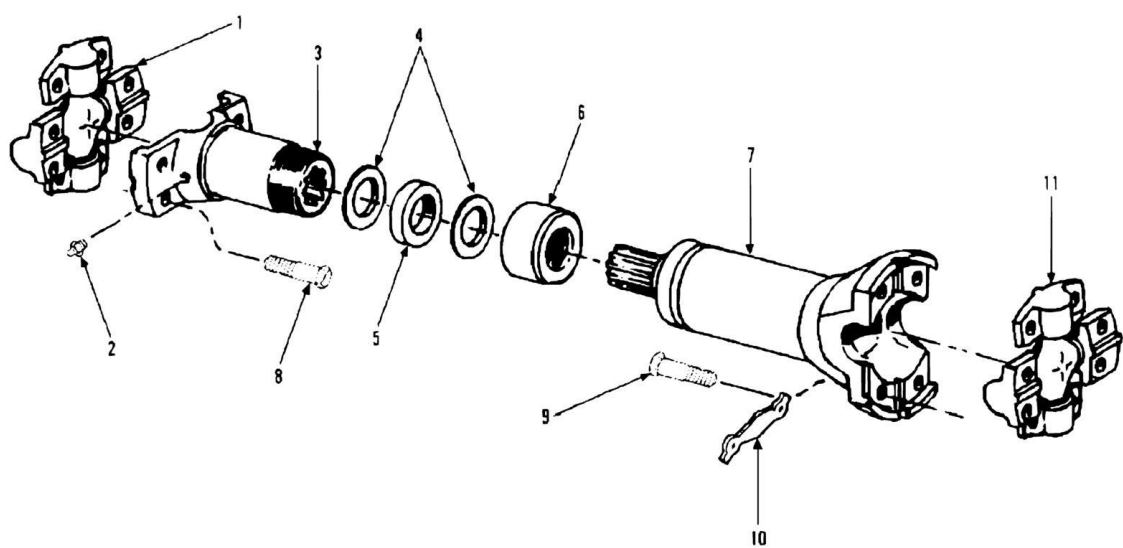
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FIGURE 5-10. PROPELLER SHAFT (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043032	1	DRIVE SHAFT ASSY (includes all items)	
1	90201058	2	SPIDER AND BEARING ASSY	
2	88671008	1	LUBE FITTING - STRAIGHT - 1/8	
3	91044008	1	SLIP YOKE ASSY (includes items 4 through 6)	
4	90206545	2	WASHER	
5	90206546	1	FELT SEAL	
6	90206544	1	CAP	
7		Ref	TUBE ASSY	
8	91044009	8	HEX HD CAPSCREW	
9	91044010	8	HEX HD CAPSCREW	
10	91031194	8	LOCKSTRAP	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-11. PROPELLER SHAFT (SN 0144900S to Present)



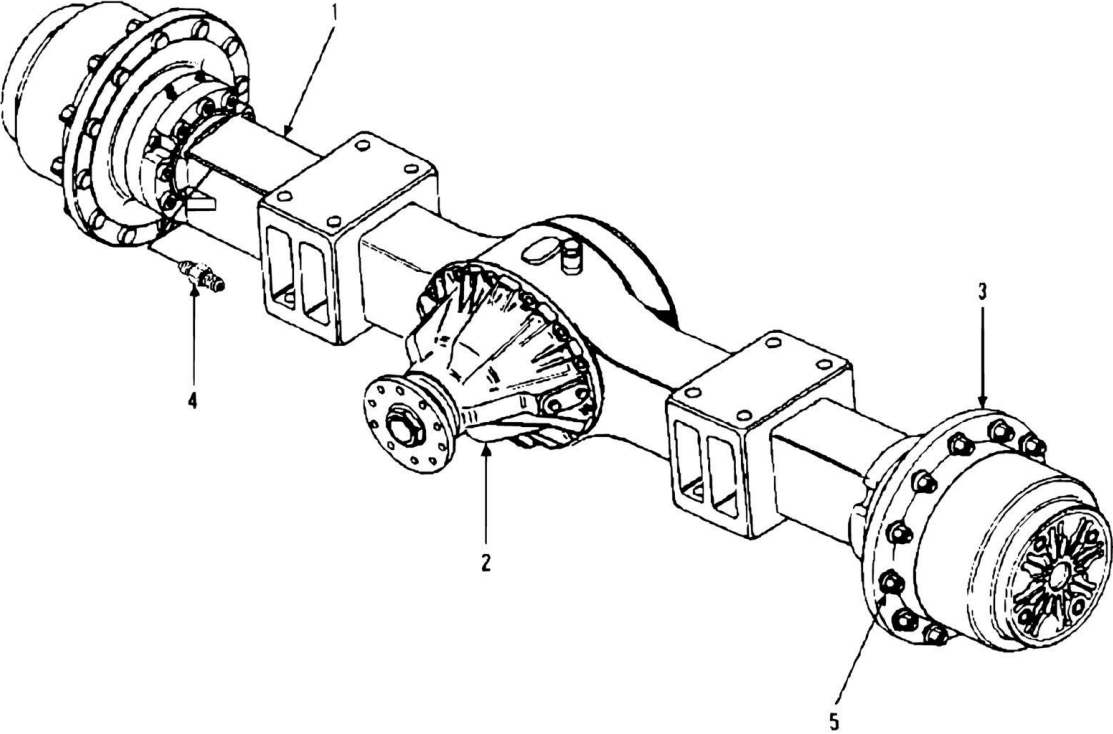
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FIGURE 5-11. PROPELLER SHAFT (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033390	1	DRIVE SHAFT ASSY (includes all items)	
1	90201058	1	SPIDER AND BEARING ASSY	
2	90022218	1	LUBE FITTING	
3	91044008	1	SLIP YOKE ASSY (includes items 4 through 6)	
4	90206545	2	WASHER	
5	90206546	1	FELT SEAL	
6	90206544	1	CAP	
7	No Number	1	TUBE ASSY	
8	91044009	8	HEX HD CAPSCREW	
9	91044010	8	HEX HD CAPSCREW	
10	91031194	8	LOCKSTRAP	
11	91034311	1	SPIDER AND BEARING ASSY	

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FIGURE 5-12. FRONT AXLE ASSEMBLY (SN 0144860S to Present)



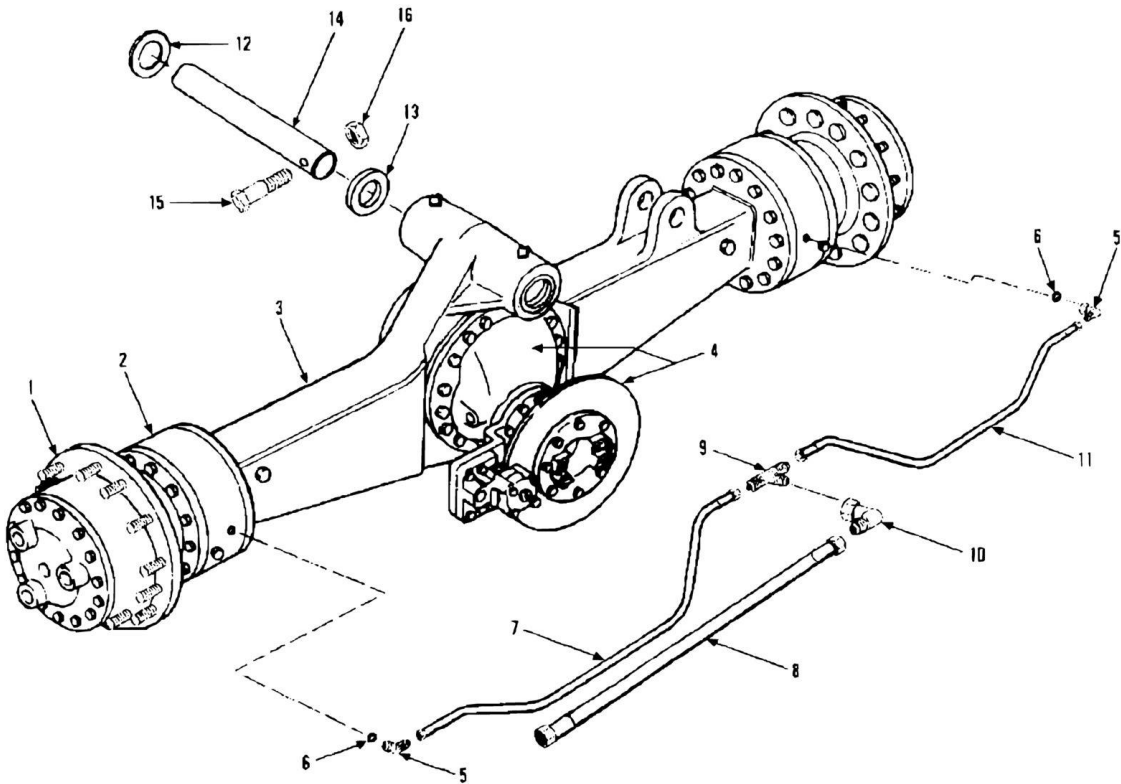
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FIGURE 5-12. FRONT AXLE ASSEMBLY (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043291	1	FRONT AXLE ASSY (includes items 1 through 4)	
	91044444	1	AXLE HOUSING ASSY (See FRONT AXLE HOUSING for Breakdown)	
2	91044448	1	DIFFERENTIAL CARRIER ASSY (See FRONT AXLE PARKING BRAKE for Breakdown)	
3		Ref	AXLE SHAFT AND PLANETARY WHEEL END ASSY (See FRONT AXLE HOUSING for Breakdown)	
4	83193009	4	FITTING	
5	91043146	24	LUG NUT (lubricate and torque to 350-400 ft lbs)	
		Ref	NOTE: ITEM #3 IS NOT AVAILABLE AS A SERVICE ASSEMBLY.	

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FIGURE 5-13. FRONT AXLE ASSEMBLY (SN 0144900S to Present)



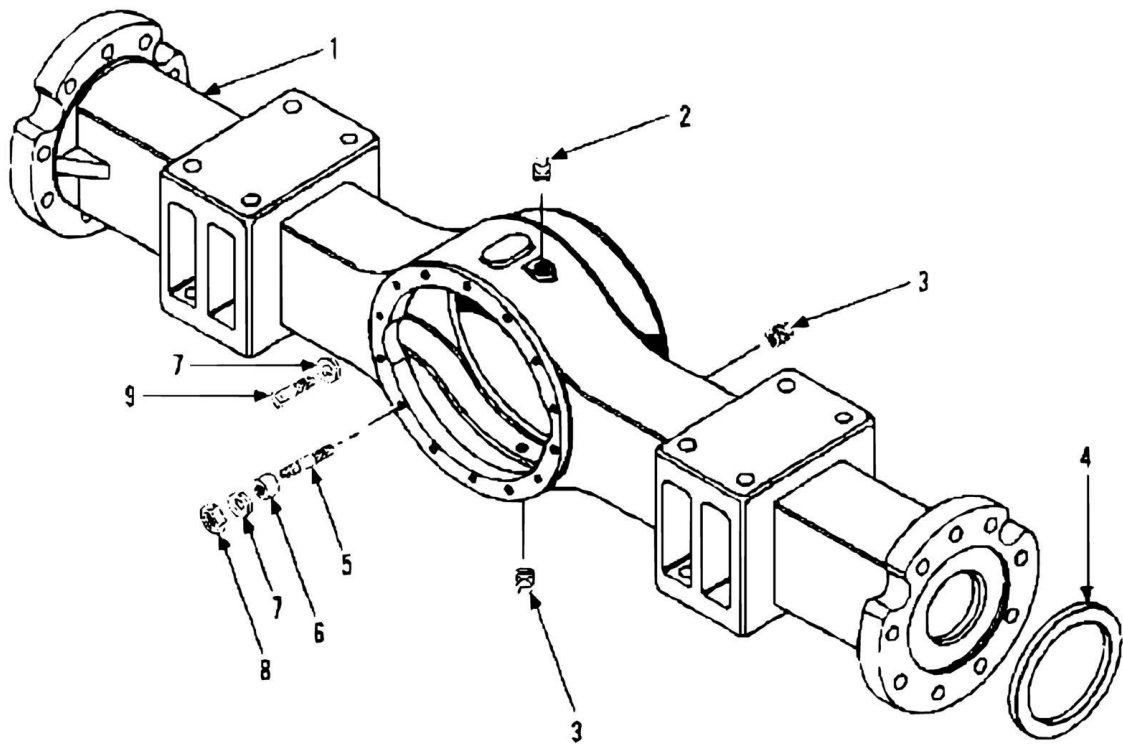
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FIGURE 5-13. FRONT AXLE ASSEMBLY (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91035208	1	FRONT AXLE ASSY (includes items 1 through 11)	
	91033359	1	FRONT AXLE ASSY (includes items 1 through 4)	
		Ref	WHEEL END ASSY (See FRONT AXLE SHAFT AND PLANETARY WHEEL END for Breakdown)	
		Ref	WET DISC BRAKE ASSY (See FRONT AXLE PARKING BRAKE for Breakdown)	
2		Ref	HOUSING ASSY (See FRONT AXLE HOUSING for Breakdown)	
3		Ref	DIFFERENTIAL CARRIER ASSY AND PARKING BRAKE (See FRONT AXLE DIFFERENTIAL CARRIER for Breakdown)	
4		Ref		
5	88662064	2	ELBOW, 90, (includes item 6)	
6	88591204	2	O-RING	
7	91033374	1	BRAKE LINE, L.H.	
8	84717524	1	HOSE ASSY	
9	88661305	1	UNION TEE, 3/8 TUBE	
10	88662105	1	ELBOW, 90, (swivel nut)	
11	91033373	1	BRAKE LINE, R.H.	
12	91031014	1	SHIM WASHER	
13	90205891	1	SPACER	
14	91081176	1	FRONT SWAY PIN	
15	83201031	1	HEX HD CAPSCREW, 1-8 X 5, GR8	
16	88521016	1	HEX LOCKNUT, 1-8	

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FIGURE 5-14. FRONT AXLE HOUSING (SN 0144860S to Present)



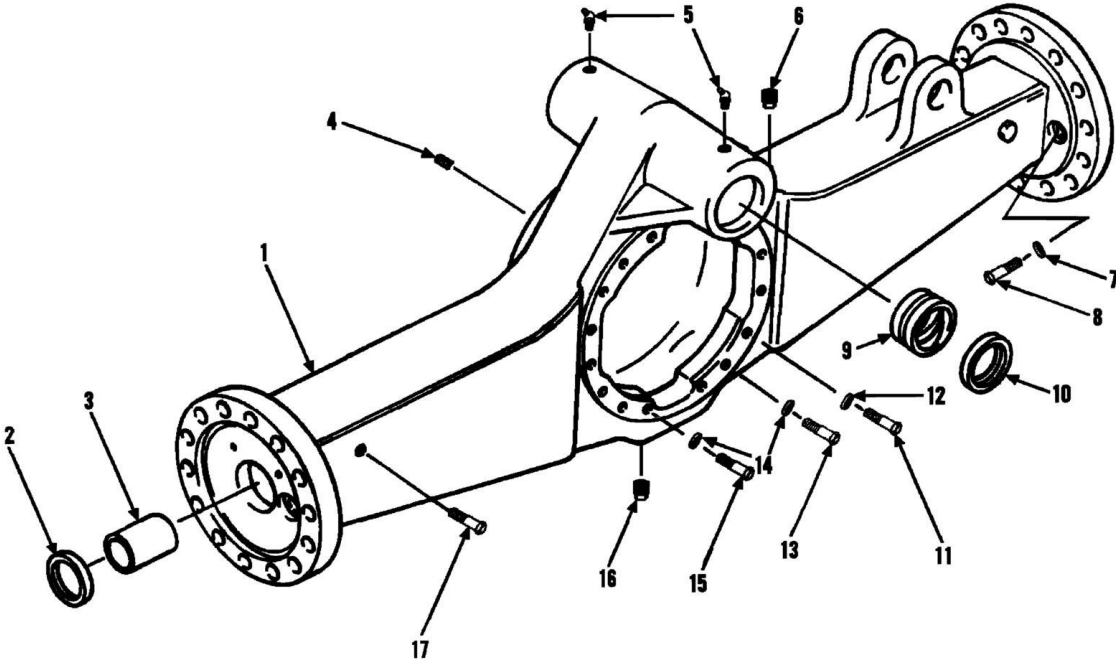
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FIGURE 5-14. FRONT AXLE HOUSING (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91044447	1	DIFFERENTIAL CARRIER FASTENING SET (includes items 5 through 9)	
1	91044444	1	AXLE HOUSING	
2	91044445	1	BREATHER	
3	91044446	2	FILLER AND DRAIN PLUG	
4	91044138	2	THRUST WASHER	
5	91044139	3	STUD	
6	91044140	3	CENTERING CONE	
7	91044141	14	FLAT WASHER	
8	91044142	3	HEX NUT	
9	91044143	11	HEX HD CAPSCREW	

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FIGURE 5-15. FRONT AXLE HOUSING (SN 0144900S to Present)



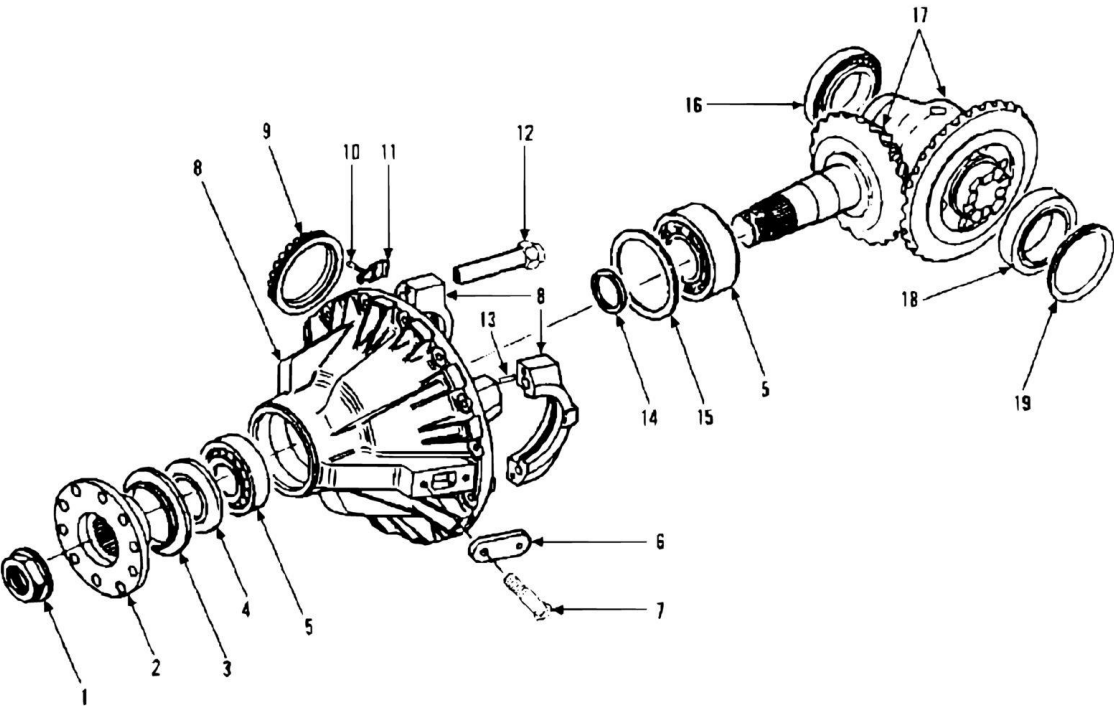
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FIGURE 5-15. FRONT AXLE HOUSING (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91044422	1	AXLE HOUSING ASSY (includes items 2, 3, 4, 5, 7, 8, 9, 10, 16, 17)	
2	91044423	4	AXLE SHAFT OIL SEAL	
3	91044424	2	AXLE SHAFT BUSHING	
4	83073699	1	OIL FILLER PLUG	
5	91084045	2	LUBE FITTING	
6	77104289	1	HOUSING BREATHER	
7	91044425	2	WASHER	
8	91044426	2	HEX HD CAPSCREW	
9	91084046	2	INNER RACE BEARING	
10	91084047	2	TRUNNION OIL SEAL	
11	91084048	12	HEX HD CAPSCREW, SHORT	
12	91084049	12	WASHER	
13	91084050	2	HEX HD CAPSCREW, SHORT	
14	91084051	4	WASHER	
15	91084052	2	HEX HD CAPSCREW, LONG	
16	77104343	1	DRAIN PLUG	
17	91044419	4	COOLING PLUG	

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FIGURE 5-16. FRONT AXLE DIFFERENTIAL CARRIER (SN 0144860S to Present)



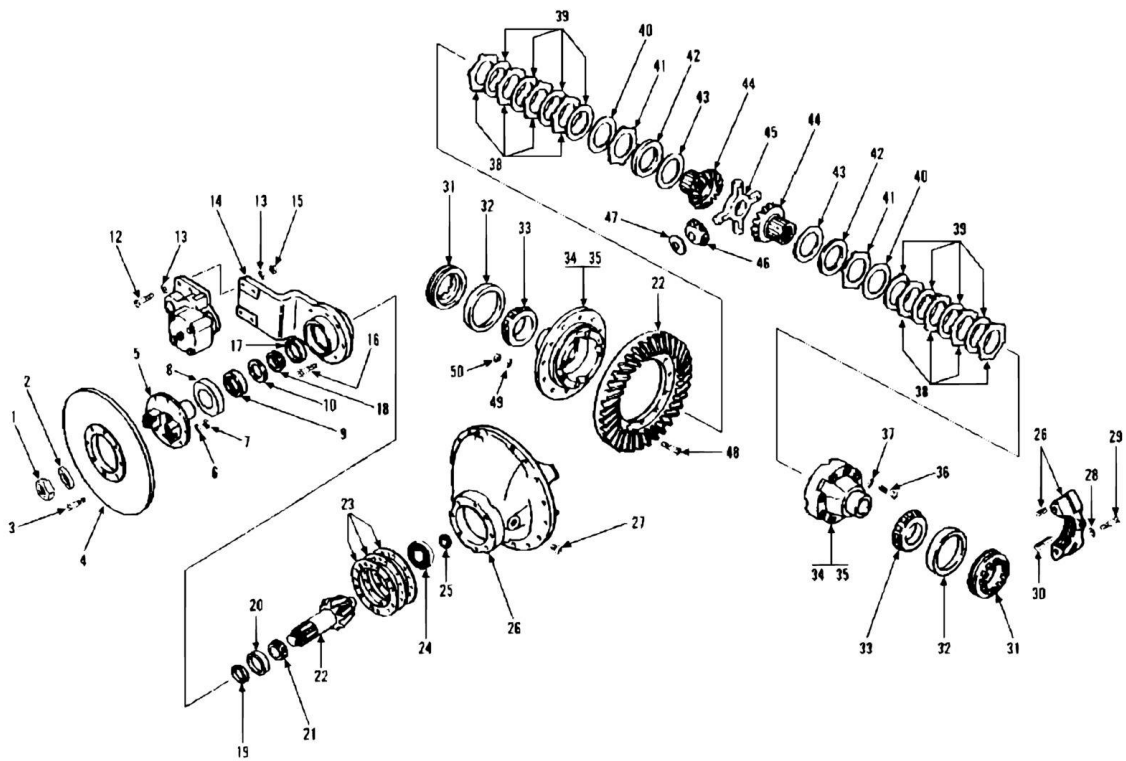
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FIGURE 5-16. FRONT AXLE DIFFERENTIAL CARRIER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91044448	1	DIFFERENTIAL CARRIER ASSY (includes all items)	
1	91044145	1	PINION NUT	
2	91044452	1	FLANGE ASSY (includes item 3)	
3	91044147	1	DUST SHIELD	
4	91044451	1	OIL SEAL	
5	91044450	1	TAPER BEARING KIT	
6	91044150	1	COVER PLATE	
7	91044151	2	HEX HD CAPSCREW	
8	91044152	1	DIFFERENTIAL HOUSING ASSY (includes items 9 through 13)	
9	91044153	1	ADJUSTING NUT	
10	91044154	1	ADJUSTING NUT LOCK BOLT	
11	91044155	1	ADJUSTING NUT LOCK	
12	91044156	4	DIFFERENTIAL CAP BOLT	
13	91044157	4	LOCATING PIN	
14	91044158	1	SHIM KIT	
15	91044159	1	SHIM KIT	
16	91044161	1	BEARING ASSY	
17	91044449	1	DIFFERENTIAL AND BEVEL GEAR SET	
18	91044163	1	BEARING ASSY	
19	91044164	1	ADJUSTING SHIM KIT	

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FIGURE 5-17. (91034328) FRONT AXLE DIFFERENTIAL CARRIER (SN 0144900S to Present)



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FIGURE 5-17. (91034328) FRONT AXLE DIFFERENTIAL CARRIER (SN 0144900S to Present)

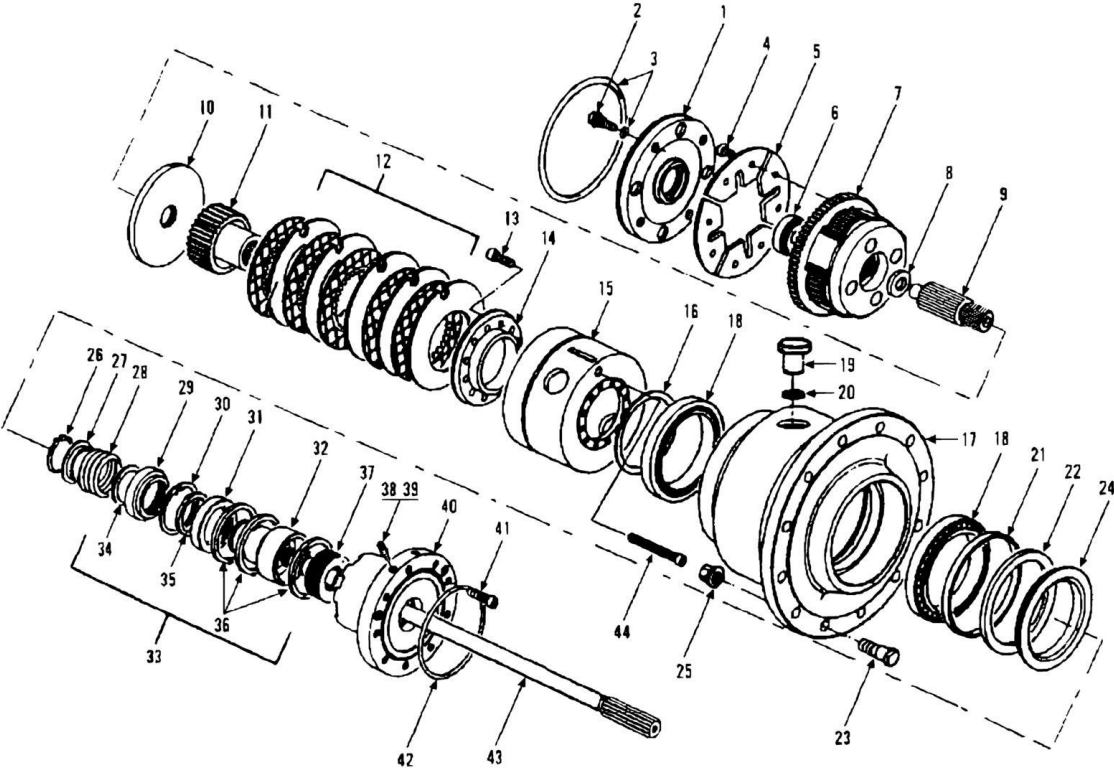
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91034328	Ref	DIFFERENTIAL CARRIER ASSY (includes all items)	
1	91084053	1	BEVEL PINION NUT	
2	91084054	1	WASHER	
3	77104303	8	HEX HD CAPSCREW	
4	91044372	1	BRAKE DISC	
5	91044373	1	FLANGE ASSY (includes item #8)	
6	91084051	8	WASHER	
7	77104439	8	HEX NUT	
8	91044374	1	DEFLECTOR	
9	91084056	1	OIL SEAL	
10	91044375	1	THRUST WASHER	
11		Ref	PARKING BRAKE ASSY (See FRONT AXLE PARKING BRAKE for Breakdown)	
12	86881704	4	HEX HD CAPSCREW	
13	91084113	4	WASHER	
14	91044376	1	PINION BEARING CAGE ASSY (includes items 17 & 20)	
15	83384172	4	HEX NUT	
16	77104303	8	HEX HD CAPSCREW	
17	90200440	1	OUTER BEARING CUP	
18	91084059	1	OUTER BEARING CONE	
19	91044377	AR	SHIM (.125 thick)	
19	91084065	AR	SHIM (.126 thick)	
19	91084066	AR	SHIM (.127 thick)	
19	91084067	AR	SHIM (.128 thick)	
19	91084068	AR	SHIM (.129 thick)	
19	91084069	AR	SHIM (.130 thick)	
19	91084070	AR	SHIM (.136 thick)	
19	91084071	AR	SHIM (.142 thick)	
19	91084072	AR	SHIM (.148 thick)	
19	91084073	AR	SHIM (.154 thick)	
19	91084074	AR	SHIM (.158 thick)	
20	90200440	1	INNER BEARING CUP	
21	91084059	1	INNER BEARING CONE	
22	91044378	1	RING GEAR AND PINION SET	
23	91044379	AR	SHIM (.003 thick)	
23	91084076	AR	SHIM (.005 thick)	
23	91084077	AR	SHIM (.010 thick)	
24	91084078	1	PINION REAR BEARING	
25	91084079	1	PINION BEARING LOCK RING	
26	91044380	1	DIFFERENTIAL CARRIER ASSY (includes items 28 & 29)	
27	83073699	1	OIL LEVEL AND FILLER PLUG	
28	83081182	4	WASHER	
29	91044381	4	HEX HD CAPSCREW	
30	83483441	2	ADJUSTING RING COTTER PIN	
31	91084099	2	BEARING ADJUSTING RING	
32	91084098	2	BEARING CUP	
33	91084097	2	BEARING CONE	
34	91084094	1	DIFFERENTIAL CASE ASSY (includes items 1, 22, 24, 25, 36 through 50)	
35	91084095	1	DIFFERENTIAL CASE ASSY (includes items 36 through 47)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
36	91044382	12	HEX HD CAPSCREW	
37	91084113	12	WASHER	
38	91084103	8	CLUTCH DRIVEN DISC	
39	91084092	8	CLUTCH DRIVE DISC	
40	91084088	AR	SHIM (.005 thick)	
40	91084089	AR	SHIM (.010 thick)	
40	91084090	AR	SHIM (.013 thick)	
40	91084091	AR	SHIM (.015 thick)	
41	91084087	2	CLUTCH DRIVE DISC	
42	91084086	2	CLUTCH SPACER	
43	91084085	2	SIDE GEAR THRUST WASHER	
44	91084084	2	DIFFERENTIAL SIDE GEAR	
45	91084083	1	DIFFERENTIAL SPIDER	
46	91084082	4	DIFFERENTIAL PINION	
47	91084081	4	THRUST WASHER	
48	91084101	12	HEX HD CAPSCREW	
49	91084113	12	WASHER	
50	91084102	12	HEX NUT	

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FIGURE 5-18. FRONT AXLE SHAFT AND PLANETARY WHEEL END (SN 0144860S to Present)



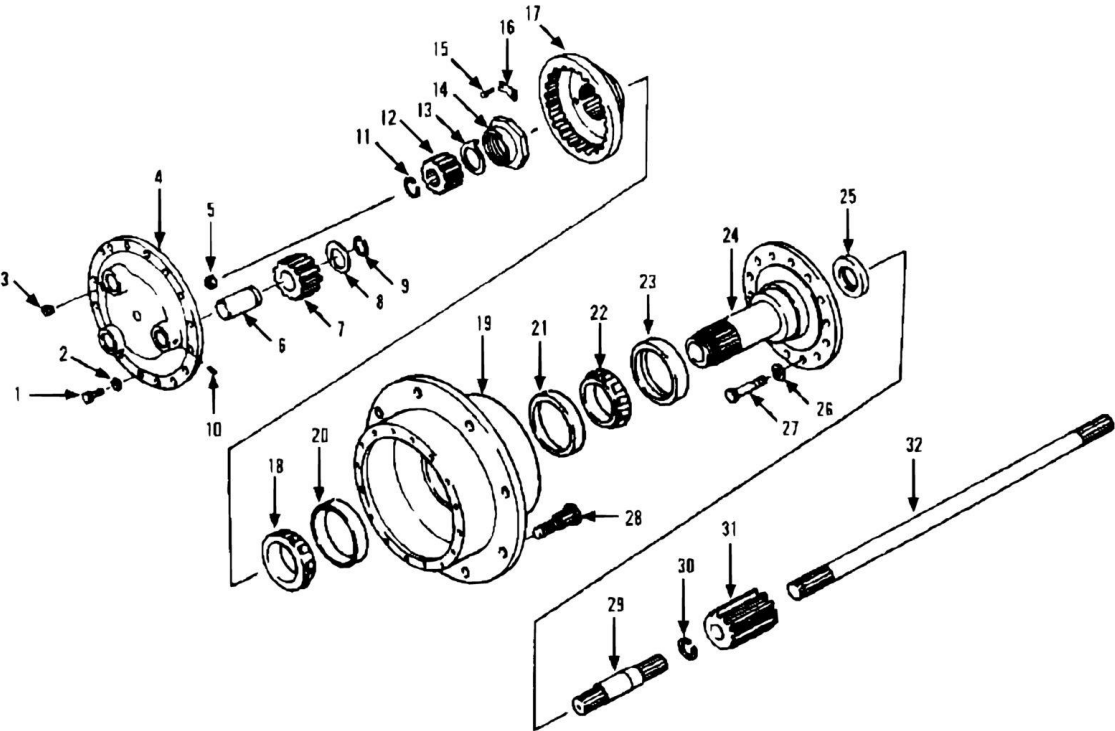
SECTION 5 - DRIVE TRAIN

FIGURE 5-18. FRONT AXLE SHAFT AND PLANETARY WHEEL END (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91034309	1	BRAKE WHEEL END ASSY (includes all items)	
1	91044166	1	COVER ASSY (includes items 2 thru 6)	
2	91044167	4	HEX HD CAPSCREW	
3	91044168	1	O-RING KIT	
4	91044169	4	HEX HD CAPSCREW	
5	91044170	4	SECTOR PLATE	
6	91044171	1	BEARING ASSY	
7	91044460	1	PLANETARY CARRIER ASSY	
8	91044173	4	SPACER	
9	91044174	1	MID-SHAFT	
10	91044175	1	ROTATING BRAKE DISC STOP	
11	91044176	1	DISC HUB	
12	91044177	1	BRAKE DISC ASSY	
13	91044178	10	SOCKET HEAD CAPSCREW	
14	91044179	1	FIXED BRAKE DISC STOP	
15	91044180	1	RING GEAR AND CARRIER ASSY	
16	91044181	1	ADJUSTING SHIM KIT	
17	91044459	1	WHEEL HUB ASSY (includes items 18 thru 23)	
18	91044183	2	BEARING ASSY	
19	91044184	1	PLUG	
20	91044185	1	SEALING WASHER	
21	91044186	1	SPACER	
22	91044187	1	HUB SEAL	
23	91044189	12	WHEEL STUD	
24	91044458	1	SEAL RACE	
25	91043146	12	SWIVEL NUT	
26	91044191	1	SNAP RING	
27	91044192	1	THRUST WASHER	
28	91044193	1	SPRING	
29	91044194	1	SERVICE BRAKE PISTON	
30	91044195	1	SNAP RING	
31	91044196	1	PARK BRAKE SEAL RING	
32	91044197	1	PARK BRAKE PISTON	
33	91044335	1	SEALING KIT (includes items 34,35 & 36)	
34	Kit	1	OIL SEAL	
35	Kit	1	OIL SEAL	
36	Kit	3	OIL SEAL	
37	91044453	1	SPRING WASHER KIT	
38	91044200	2	BLEEDER SCREW	
39	91044298	2	BLEEDER SCREW CAP	
40	91044201	1	SPINDLE ASSY	
41	91044461	9	SOCKET HD CAPSCREW	
42	91044203	1	O-RING	
43	91044204	1	AXLE SHAFT	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR ONE BRAKE WHEEL END ASSEMBLY ONLY.	

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FIGURE 5-19. FRONT AXLE SHAFT AND PLANETARY WHEEL END (SN 0144900S to Present)



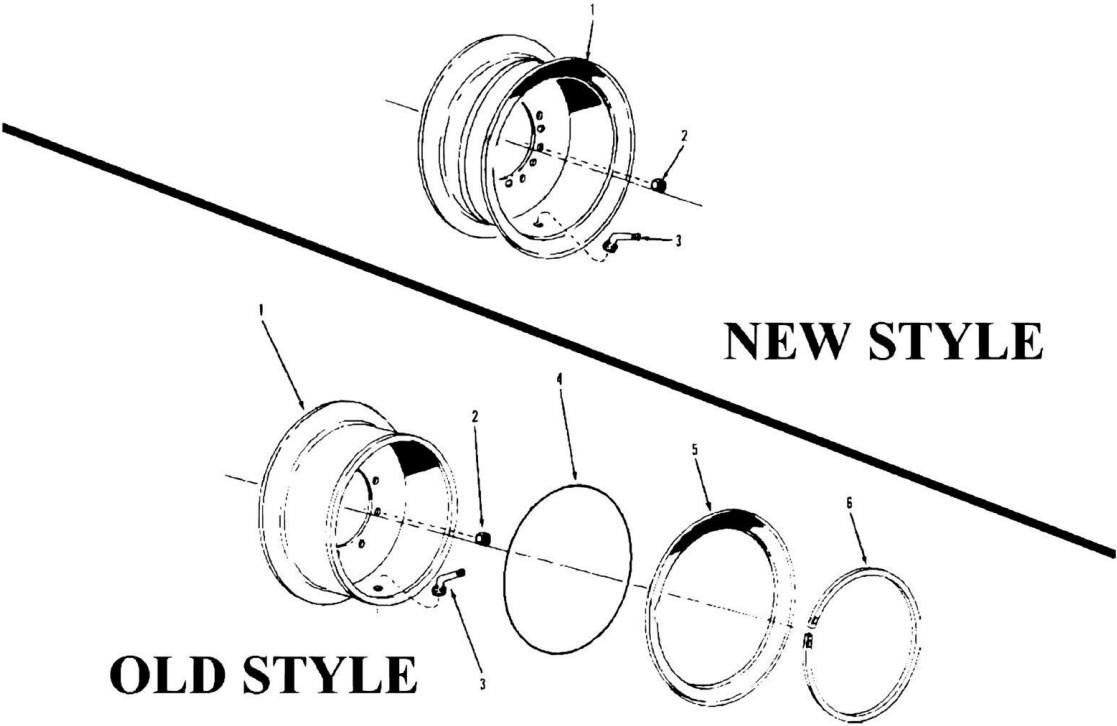
SECTION 5 - DRIVE TRAIN

FIGURE 5-19. FRONT AXLE SHAFT AND PLANETARY WHEEL END (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91084112	48	HEX HD CAPSCREW	
2	91084113	48	WASHER	
3	77104343	2	OIL LEVEL PLUG	
4	91044383	2	PLANET GEAR SPIDER ASSY (includes item 5 thru 9)	
5	91084106	2	THRUST BUTTON	
6	91044385	6	PLANET PINION SHAFT	
7	91044384	6	PLANET PINION	
8	91044386	6	THRUST WASHER	
9	91084107	6	SNAP RING	
10	91084114	6	PINION SHAFT SET SCREW	
11	91084107	2	AXLE SHAFT SNAP RING	
12	91044387	2	PLANETARY SUN GEAR	
13	91084109	2	SUN GEAR THRUST	
14	91044388	2	HUB BEARING NUT	
15	91044389	4	HEX HD CAPSCREW	
16	91044390	2	WHEEL BEARING NUT LOCK	
17	91044391	2	PLANET RING GEAR	
18	91044392	2	HUB BEARING, OUTER CONE	
19	91044393	2	WHEEL HUB ASSY (includes items 20, 21)	
20	91044394	1	HUB BEARING, OUTER CUP	
21	77104444	1	HUB BEARING, INNER CUP	
22	77104445	2	HUB BEARING, INNER CONE	
23	91044395	2	OIL SEAL	
24	91044396	2	SPINDLE ASSY (includes items 25)	
25	91044397	1	OIL SEAL	
26	83081182	28	WASHER	
27	91044398	28	HEX HD CAPSCREW	
28	91084126	24	WHEEL STUD	
29	91044399	2	OUTER AXLE SHAFT	
30	91044400	2	COUPLING SNAP RING	
31	91044401	2	AXLE SHAFT COUPLING ASSY (includes item 30)	
32	91044402	2	INNER AXLE SHAFT	

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FIGURE 5-20. WHEELS AND TIRES FRONT-STANDARD (SN 0144860S to Present)



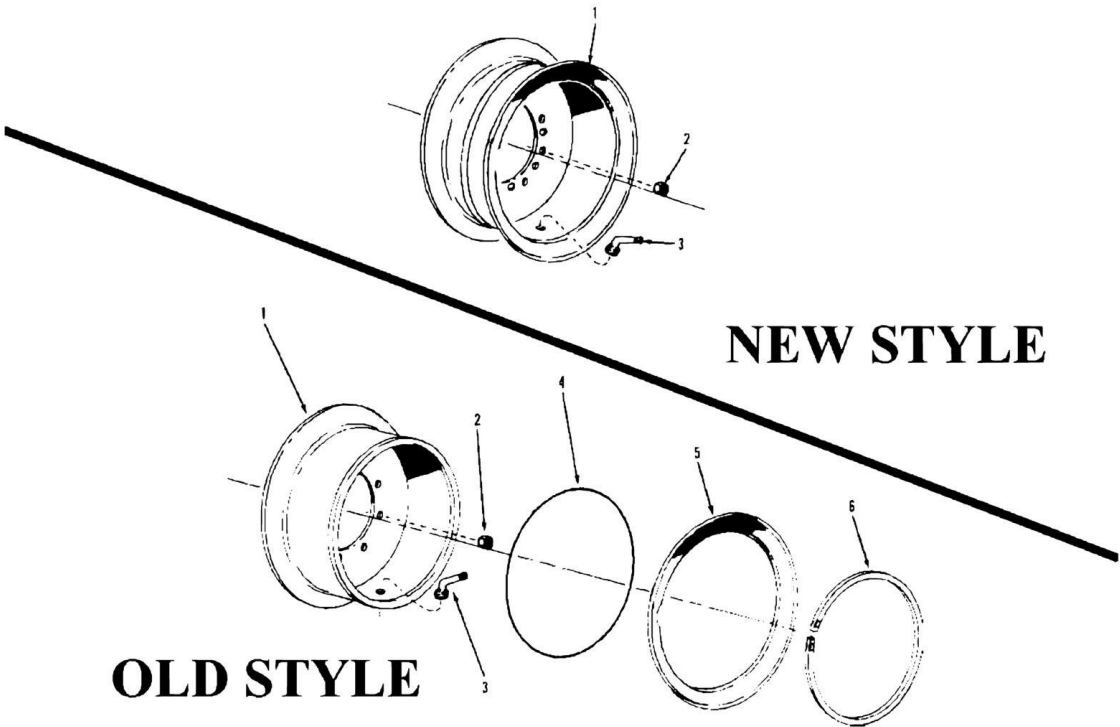
SECTION 5 - DRIVE TRAIN

FIGURE 5-20. WHEELS AND TIRES FRONT-STANDARD (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043276	1	RIM, 8.00 TG X 24 NOTE: (NO LONGER AVAILABLE, REPLACED BY 91043430)	
1	91043430	1	RIM, 9.00 X 24 (New One Piece Style)	
2	91043146	12	LUG NUT (lubricate and torque to 350- 400 ft lbs)	
3	90200339	1	VALVE (air / liquid) (USE WITH 91043276 ONLY)	
3	91083385	1	VALVE (air/liquid) (Use with 91043430)	
4	90200561	1	O-RING	
5	90200772	1	GUTTER RING	
6	90201615	1	LOCK RING	
7	91033104	1	TIRE, 13.00 X 24-12 PLY (not illustrated)	

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FIGURE 5-21. WHEELS AND TIRES REAR-STANDARD (SN 0144860S to Present)



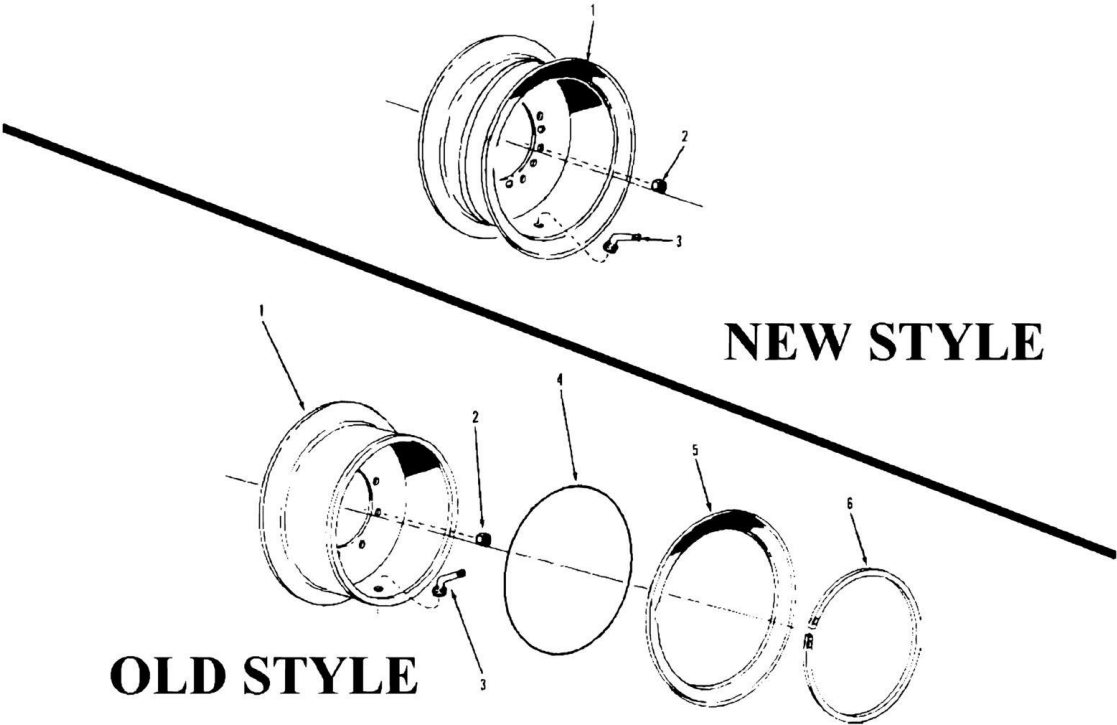
SECTION 5 - DRIVE TRAIN

FIGURE 5-21. WHEELS AND TIRES REAR-STANDARD (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90602638	1	RIM, 8.00 TG X 24 NOTE: (NO LONGER AVAILABLE REPLACED BY 91033467)	
1	91033467	1	RIM, 9.00 X 24 (New One Piece Style)	
2	90202141	10	LUG NUTS	
3	90200339	1	VALVE (air/liquid) (USE WITH 90602638 ONLY)	
3	91083385	1	VALVE (air/liquid) (Use with 91033467)	
4	90200561	1	O-RING	
5	90200772	1	GUTTER RING	
6	90201615	1	LOCK RING	
7	90602040	1	TIRE, 13.00 X 24, 8 PLY (not illustrated)	
7	91033104	1	TIRE, 13.00 X 24, 12 PLY (not illustrated)	

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FIGURE 5-22. WHEELS AND TIRES FRONT-FLOATATION (SN 0144860S to Present)



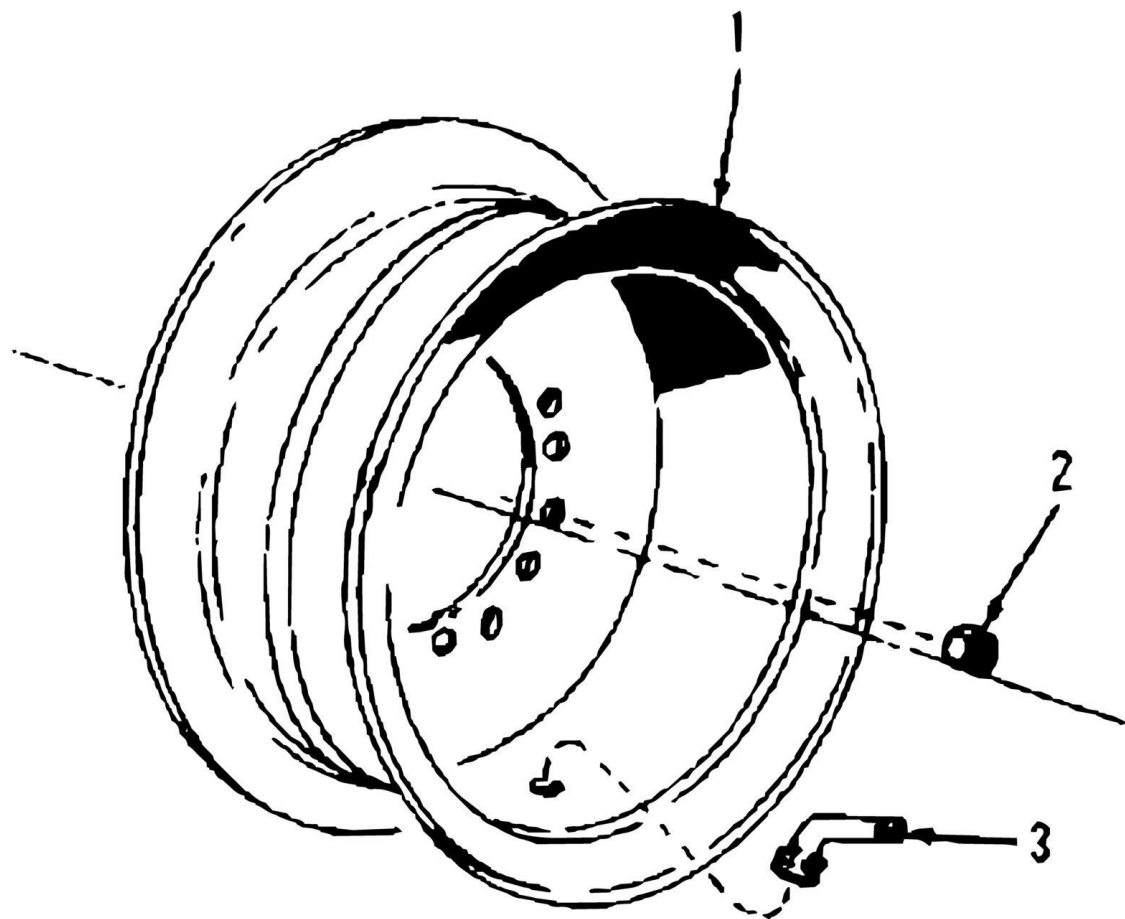
SECTION 5 - DRIVE TRAIN

FIGURE 5-22. WHEELS AND TIRES FRONT-FLOATATION (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043081	1	RIM, 14.00 X 25	
2	91043146	10	LUG NUT (lubricate and torque to 350-400 ft lbs)	
3	90201452	1	VALVE (air / liquid)	
4	90201441	1	O-RING	
5	90201762	1	GUTTER RING	
6	90201766	1	LOCK RING	
7	90201439	1	TIRE, 17.5 X 25,14 PLY (L-2 TRACTION REGULAR TREAD)	

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FIGURE 5-23. WHEELS AND TIRES FRONT-STANDARD (SN 0144900S to Present)



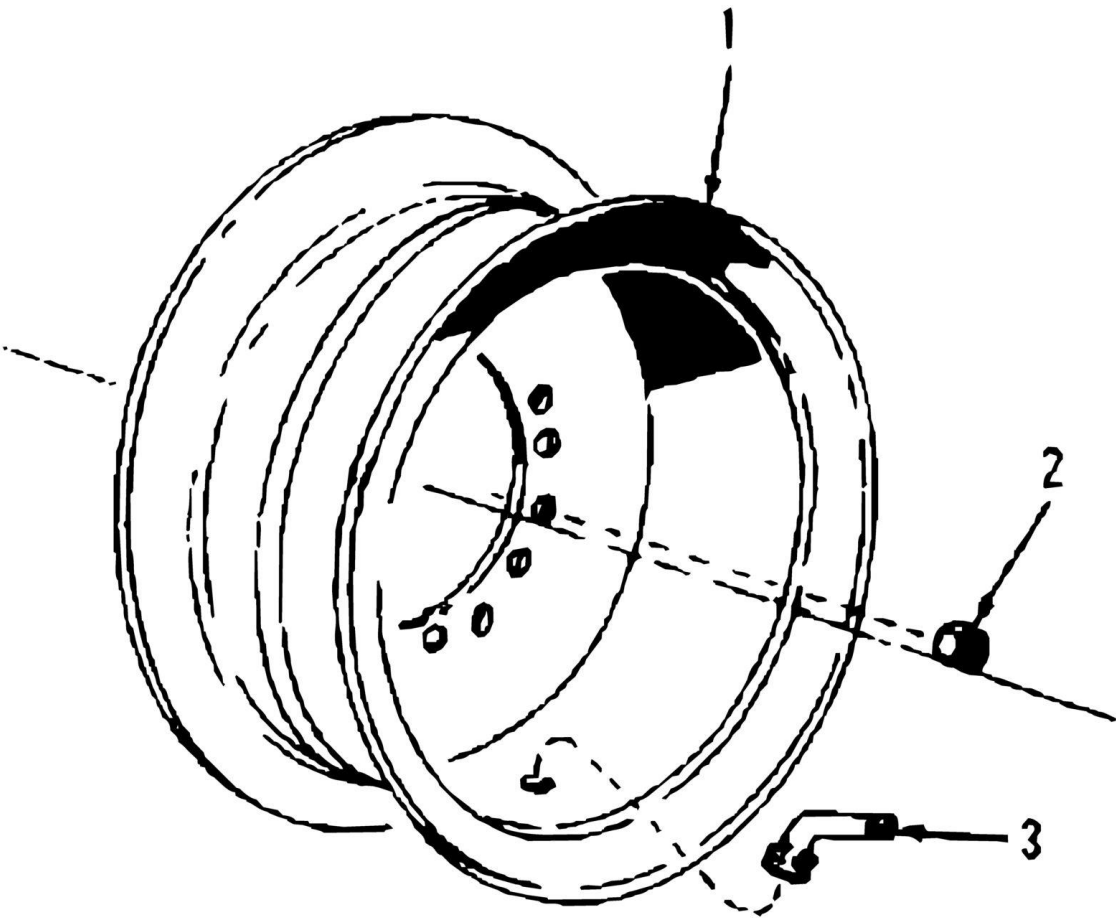
SECTION 5 - DRIVE TRAIN

FIGURE 5-23. WHEELS AND TIRES FRONT-STANDARD (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043298	1	RIM, 9.00 X 24	
2	91043146	12	LUG NUT (lubricate and torque to 350-400 ft lbs)	
3	91083385	1	VALVE	
4	91033104	1	TIRE, 13.00 X 24, 12 PLY (G-2 traction regular tread) (not illustrated)	

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FIGURE 5-24. WHEELS AND TIRES REAR-STANDARD (SN 0144900S to Present)



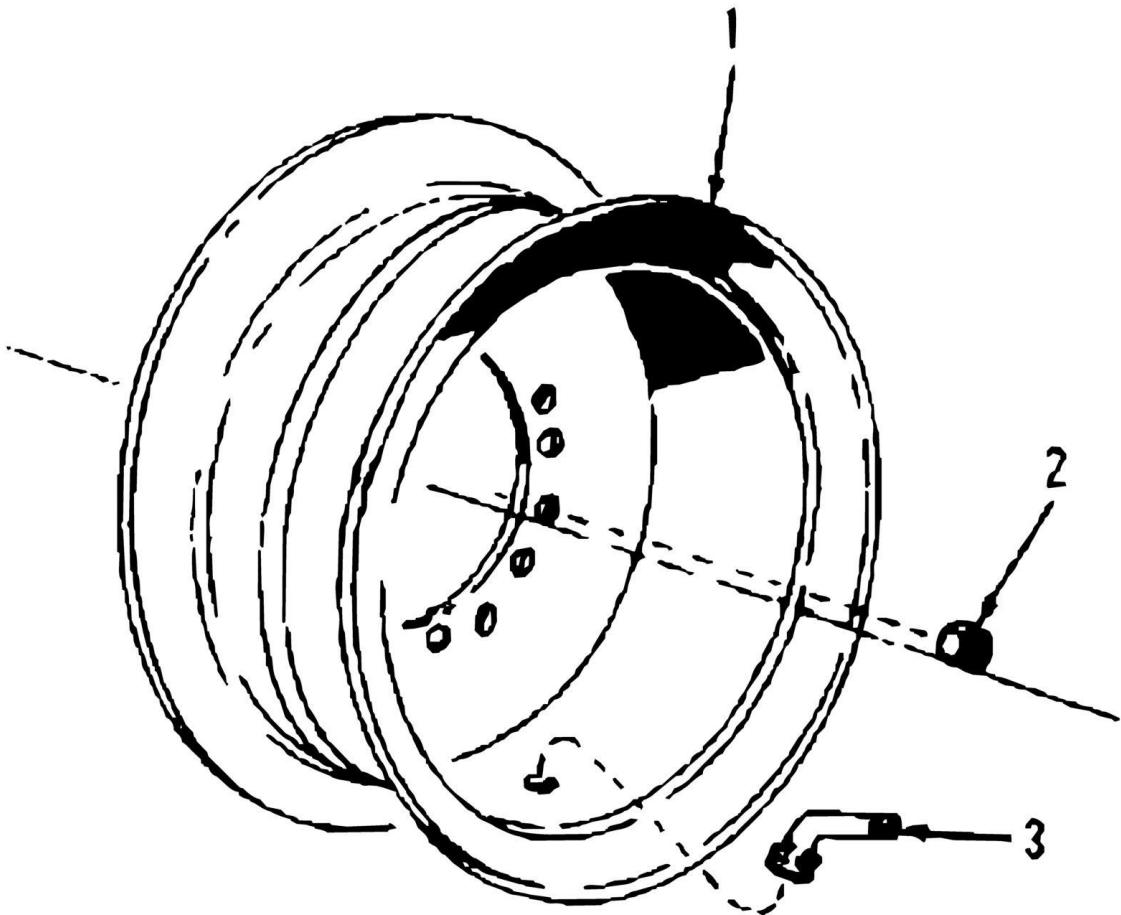
SECTION 5 - DRIVE TRAIN

FIGURE 5-24. WHEELS AND TIRES REAR-STANDARD (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043298	1	RIM, 9.00 X 24	
2	91043146	12	LUG NUT (lubricate and torque to 350- 400 ft lbs)	
3	91083385	1	VALVE	
4	91033104	1	TIRE, 13.00 X 24, 12 PLY (G-2 traction regular tread) (not illustrated)	

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FIGURE 5-25. WHEELS AND TIRES FRONT-FLOATATION (SN 0144900S to Present)



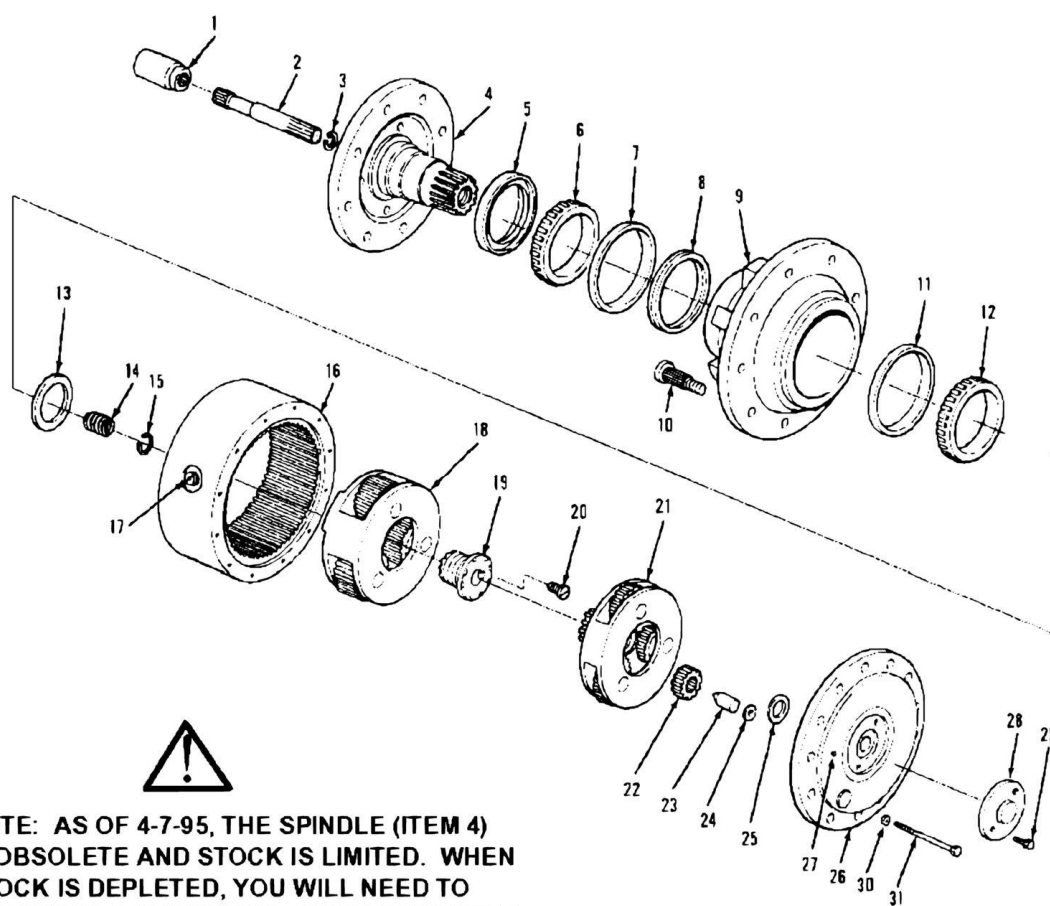
SECTION 5 - DRIVE TRAIN

FIGURE 5-25. WHEELS AND TIRES FRONT-FLOATATION (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043292	1	RIM, 14.00 x 25	
2	91043146	12	LUG NUT (lubricate and torque to 350-400 ft lbs)	
3	90201452	1	VALVE	
4	91033361	1	TIRE, 17.5 x 25, (L-2 Michelin radial) (not illustrated)	

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FIGURE 5-26. (91033382) REAR DRIVE HUB ASSY (SN 0144860S to Present)



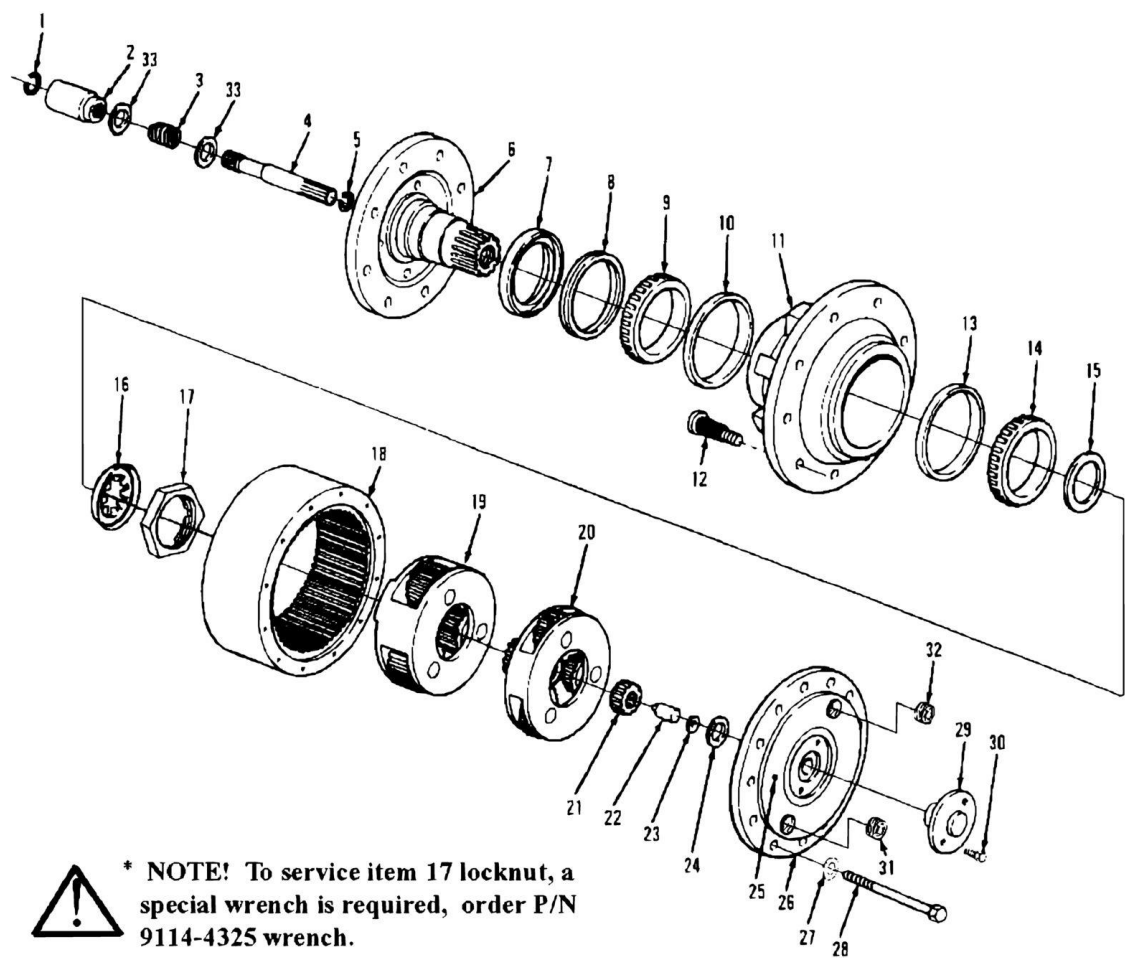
SECTION 5 - DRIVE TRAIN

FIGURE 5-26. (91033382) REAR DRIVE HUB ASSY (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033382	2	REAR DRIVE HUB ASSY (includes all items)	
	91044462	1	SEAL KIT (includes items 5, 8 & 20)	
1	91044277	1	COUPLING	
2	91044279	1	INPUT SHAFT	
3	91044099	1	RETAINING RING	
4	91044280	1	SPINDLE	
5	Kit	1	OIL SEAL	
6	90202501	1	BEARING CONE	
7	90202500	1	BEARING CUP	
8	Kit	1	BOOT SEAL	
9	91044360	1	HUB	
10	91044311	12	WHEEL BOLT	
11	91064005	1	BEARING CUP	
12	91064006	1	BEARING CONE	
13	91044105	1	THRUSTWASHER	
14	91044278	1	SPRING	
15	91044276	1	RETAINING RING	
16	91124015	1	RING GEAR	
17	91044101	1	MAGNETIC PLUG	
18	91124017	1	SECONDARY CARRIER (includes items 19 & 20)	
19	91094003	1	LOCKNUT	
20	91064010	1	LOCK SCREW	
21	91124018	1	PRIMARY CARRIER	
22	91124019	1	PRIMARY SUN GEAR	
23	91044106	1	PLUNGER	
24	91044107	1	O-RING	
25	91064007	1	THRUSTWASHER	
26	91044109	1	COVER	
27	91044361	1	PIPE PLUG	
28	91044112	1	DISENGAGE COVER	
29	91044113	2	HEX HD BOLT	
30	91124027	12	FLAT WASHER	
31	91044111	12	HEX HD CAPSCREW, 3/8-16	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR ONE HUB ASSY ONLY.	

SECTION 5 - DRIVE TRAIN

FIGURE 5-27. (91033504) REAR STEERING AXLE DRIVE HUB; FOR SERVICE ONLY



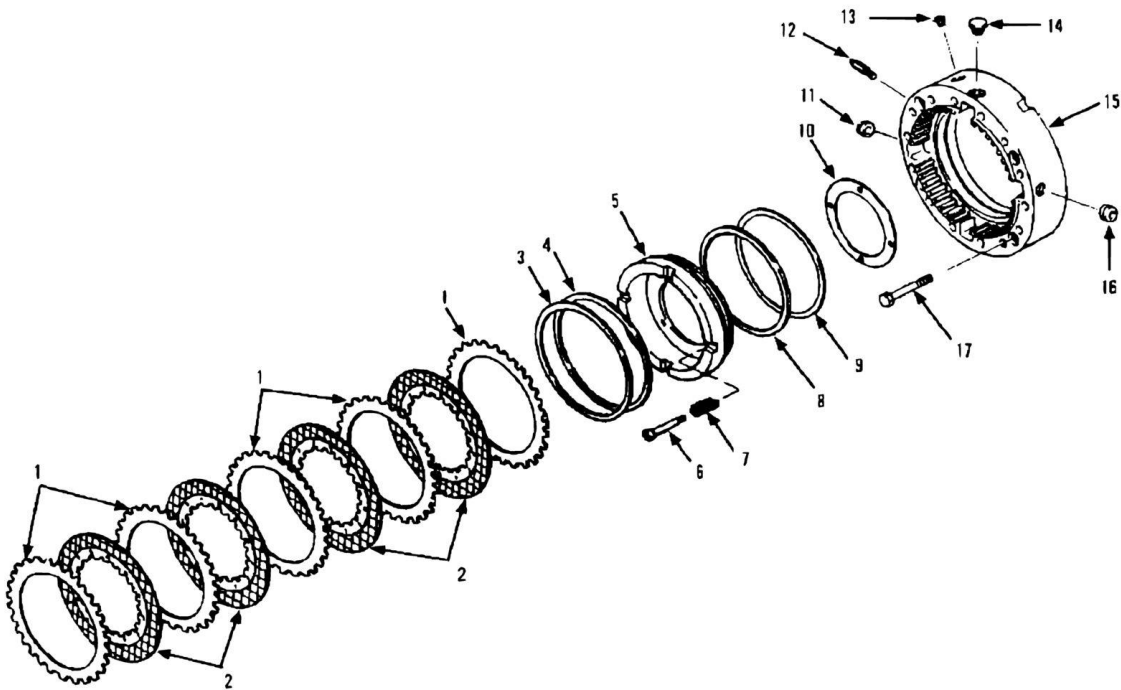
SECTION 5 - DRIVE TRAIN

FIGURE 5-27. (91033504) REAR STEERING AXLE DRIVE HUB; FOR SERVICE ONLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033504	2	REAR STEERING AXLE DRIVE HUB	
	91044462	Ref	REPAIR KIT (includes items 7, 8 & 30)	
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	
9	90202501	1	OUTER BEARING CONE	
10	90202500	1	OUTER BEARING CUP	
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	LOCK NUT	
18	91034385	1	RING GEAR	
19	91034386	1	SECONDARY CARRIER ASSY	
20	91034387	1	PRIMARY CARRIER ASSY	
21	91034388	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	91124027	12	FLAT WASHER	
28	91144189	12	HEX HD BOLT	
39	91044112	1	DISENGAGE COVER	
30	Kit	1	LOCK SCREW	
31	91044101	1	MAGNETIC PLUG	
32	91034389	1	PIPE PLUG	
33	91034390	2	THRUSTWASHER	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR ONE HUB ASSY ONLY.	

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FIGURE 5-28. FRONT AXLE SERVICE BRAKES (SN 0144900S to Present)



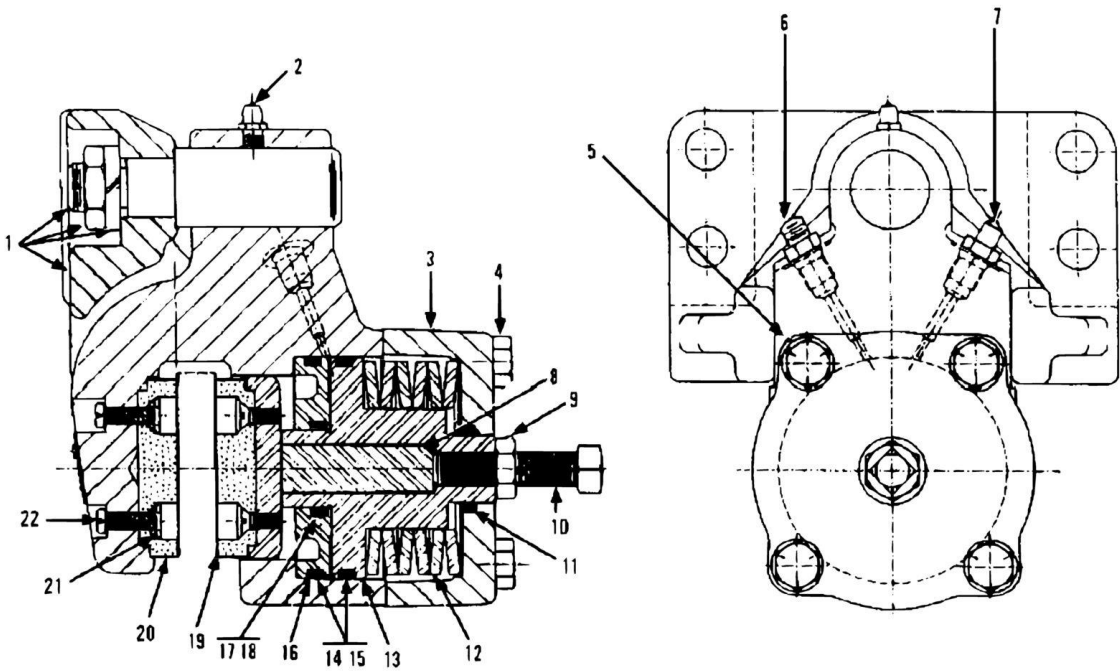
SECTION 5 - DRIVE TRAIN

FIGURE 5-28. FRONT AXLE SERVICE BRAKES (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91044403	10	STATIONARY DISC	
2	91044404	8	FRICTION DISC	
3	91044405	2	PISTON OUTER BACK-UP RING	
4	91044406	2	PISTON OUTER QUAD RING	
5	91044407	2	BRAKE PISTON	
6	91044408	8	SHOULDER BOLT	
7	91044409	8	SHOULDER BOLT SPRING	
8	91044410	2	PISTON INNNER QUAD RING	
9	91044411	2	PISTON INNER BACK-UP RING	
10	91044412	AR	SHIM (.003 thick)	
10	91044413	AR	SHIM (.005 thick)	
10	91044414	AR	SHIM (.010 thick)	
10	91044415	AR	SHIM (.020 thick)	
11	91044416	2	DRAIN PLUG	
12	91044417	2	BLEEDER SCREW	
13	91044418	2	INLET PLUG	
14	91044419	4	COOLING PLUG	
15	91044420	2	BRAKE HOUSING	
16	83073699	2	FILLER PLUG	
17	91044421	8	HEX HD CAPSCREW	

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FIGURE 5-29. FRONT AXLE PARKING BRAKE (SN 0144900S to Present)



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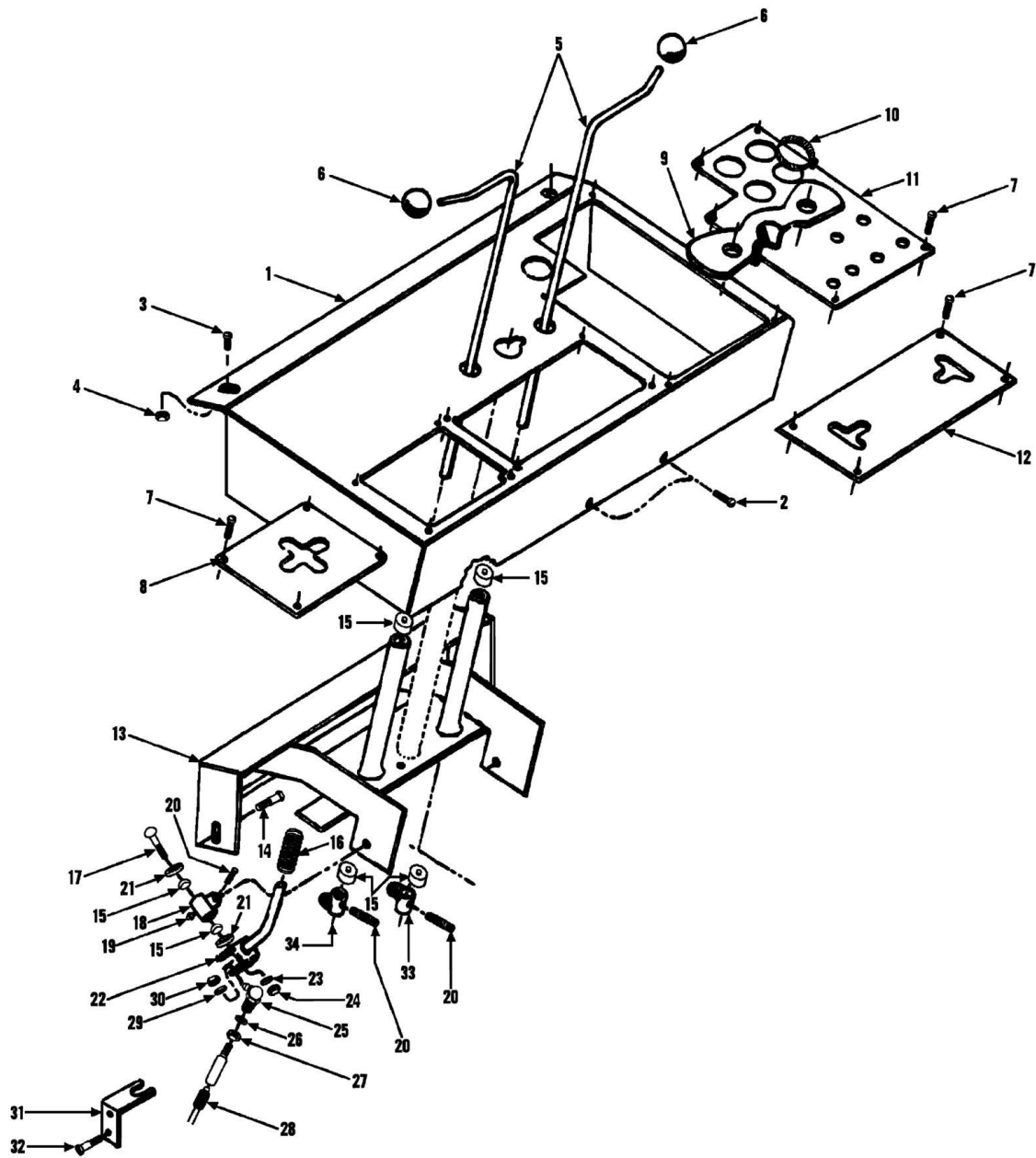
FIGURE 5-29. FRONT AXLE PARKING BRAKE (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91053540	1	PARKING BRAKE ASSY (includes all items)	
	91044427	AR	REPAIR KIT (includes items 11, 14, 17, & 18)	
	91044428	AR	LINING KIT (includes item 19 thru 22)	
1	91044429	1	MOUNTING ASSY	
2	91044430	1	LUBE FITTING	
3	91044431	1	COVER	
4	91044432	4	HEX HD CAPSCREW	
5	91044433	4	LOCKWASHER	
6	91044434	1	CONNECTOR	
7	91004021	1	BLEEDER SCREW	
8	91044435	1	PUSH ROD	
9	91044436	1	HEX JAM NUT	
10	91044437	1	SQUARE HD SET SCREW	
11	Kit	1	WIPER SEAL	
12	91044438	6	BELL VILLE SPRING	
13	91044439	1	PISTON	
14	Kit	2	BACK-UP RING	
15		Ref	O-RING	
16	91044440	1	PISTON	
17	Kit	1	O-RING	
18	Kit	1	BACK-UP RING	
19	Kit	1	LINING ASSY	
20	Kit	1	LINING	
21	Kit	2	BUSHING	
22	Kit	2	SLOTTED SCREW	
		Ref	NOTE: ONLY ITEMS WITH PARTS NUMBERS ARE AVAILABLE FOR SERVICE	

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FIGURE 6-1. TRANSMISSION AND SWAY (SN 0144860S to Present)



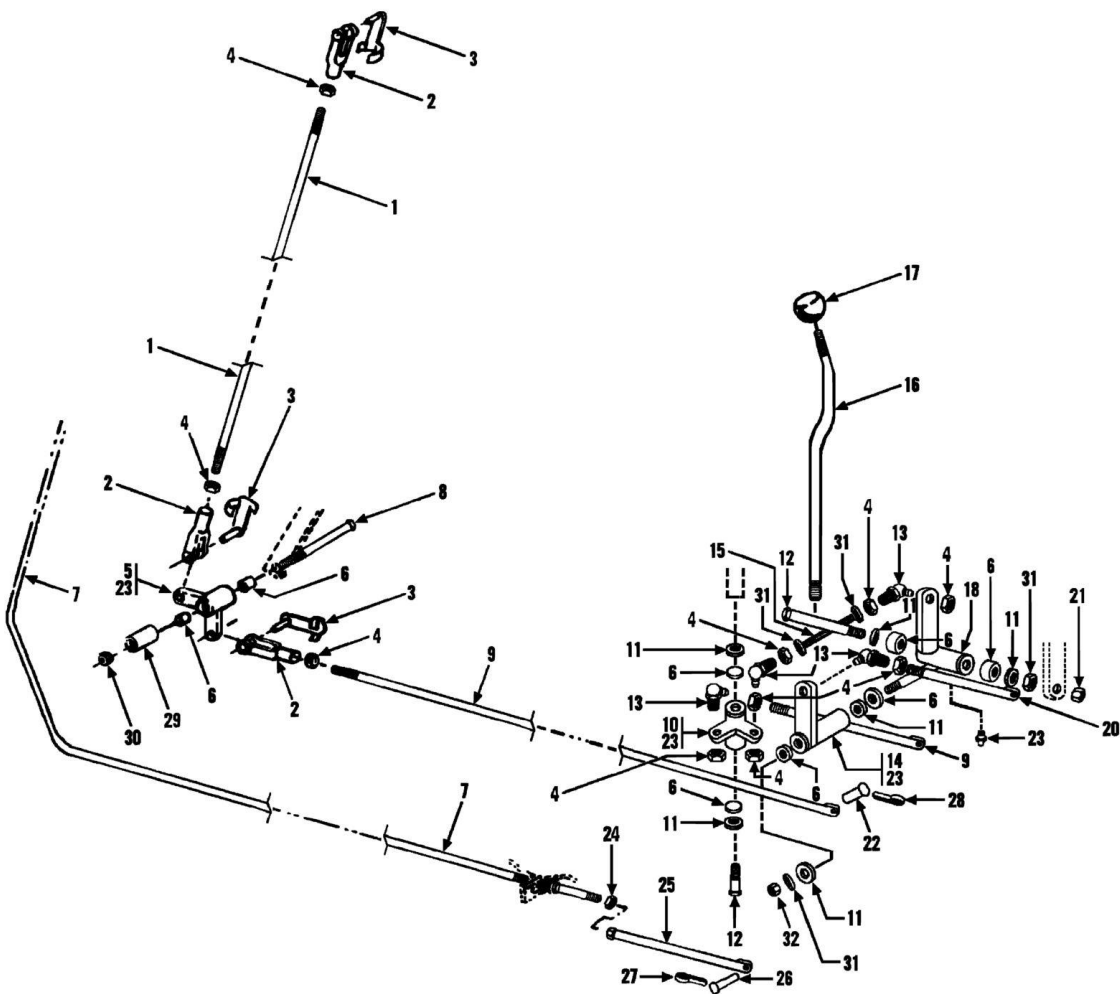
SECTION 6 - CONTROLS

FIGURE 6-1. TRANSMISSION AND SWAY (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91031463	1	CONTROL AND INSTRUMENT PANEL	
2	90027319	2	SELF-TAPPING SCREW	
3	77143004	2	WHIZ-LOK SCREW, 5/16-18 X 1-1/4	
4	77143006	2	WHIZ-LOK NUT	
5	90205542	2	CONTROL ROD	
6	90200299	2	KNOB	
7	88321015	13	SELF-TAPPING SCREW, #6-32 X 1/2	
8	91033310	1	COVER PLATE	
9	90402903	1	CONTROL ROD BRACKET	
10	90028695	1	CLAMP (bracket to steering column)	
11	91035068	1	INSTRUMENT PANEL PLATE	
12	91031470	1	CONTROL PANEL	
13	90801213	1	CONTROL BRACKET	
14	88201065	2	HEX HD CAPSCREW, 1/2-13 X 1, GR5	
15	90200290	6	NEEDLE BEARING	
16	90200774	1	HANDLE GRIP	
17	90203502	1	SHOULDER BOLT	
18	90206859	1	BELL CRANK	
19	88671008	1	LUBE FITTING, STRAIGHT, 1/4-28	
20	88631479	3	ROLL PIN, 3/16 X 1-1/4	
21	88561113	2	FLAT WASHER, #4	
21	90028662	2	WAVE BEND WASHER	
22	90403406	1	HANDLE WELDMENT	
23	88551013	1	LOCKWASHER, 1/2 X .171 X .125	
24	88501008	1	HEX NUT, 1/2-13	
25	86683117	1	BALL JOINT ASSEMBLY	
26	88551011	1	LOCKWASHER, 3/8 X .141 X .94	
27	88501006	1	HEX NUT, 3/8-16	
28	90206861	1	CABLE ASSEMBLY	
29	88551010	1	LOCKWASHER, 5/16 X .125 X .078	
30	88501305	1	HEX NUT, 5/16-24	
31	91031013	1	CABLE BRACKET	
32	88261030	2	SOCKET BUTTON HD CAPSCREW, 3/8-16 X 1-1/4	
33	90205973	1	BELL CRANK	
34	91036042	1	BELL CRANK	

SECTION 6 - CONTROLS

FIGURE 6-2. BOOM, TILT AND SWAY (SN 0144860S to Present)



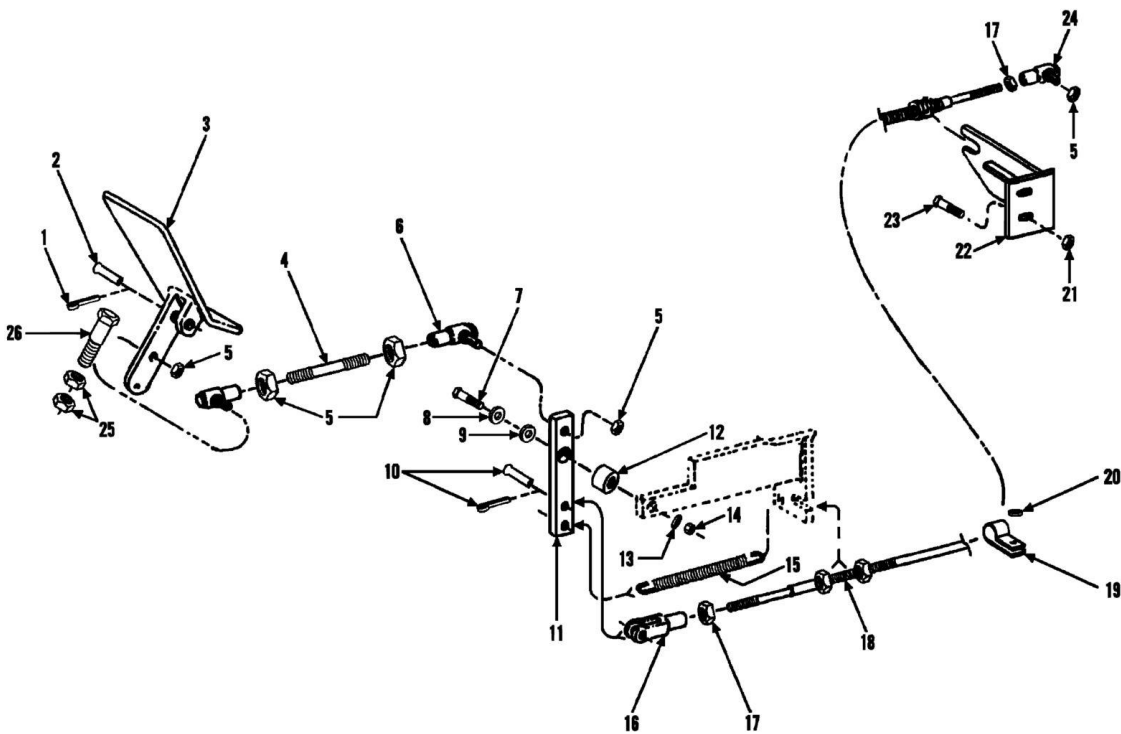
SECTION 6 - CONTROLS

FIGURE 6-2. BOOM, TILT AND SWAY (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90202361	1	CONTROL LINKAGE ROD (tilt)	
2	88821004	3	ADJUSTABLE YOKE END	
3	90027987	3	SPRING CLEVIS	
4	88501406	AR	HEX NUT, 3/8 - 24	
5	90205533	1	BELL CRANK	
6	90200290	8	NEEDLE BEARING	
7	90206861	1	TILT, SWAY CONTROL CABLE	
8	88201328	1	HEX HD CAPSCREW, 5/8-11 X 6-1/2, GR5	
9	91046051	1	LINKAGE ROD	
10	90205534	1	BELL CRANK	
11	90028662	6	WAVE WASHER	
12	90203502	2	SHOULDER BOLT	
13	90200406	4	BALL JOINT	
14	90205765	1	BELL CRANK	
15	90400543	1	STUD	
16	90205759	1	BOOM CONTROL HANDLE	
17	90200638	1	KNOB	
18	90205558	1	BELL CRANK	
19	91066020	1	LINKAGE ROD	
20	91066021	1	LINKAGE ROD	
21	88501108	1	HEX JAM NUT, 1/2-13	
22	90021552	4	CLEVIS PIN	
23	88671008	4	LUBE FITTING, STRAIGHT, 1/4-28	
24	88501305	1	HEX NUT, 5/16-24	
25	91041236	1	CABLE END	
26	90021552	1	CLEVIS PIN	
27	88631302	1	COTTER PIN, 1/16 x 3/4	
28	88631301	4	COTTER PIN, 1/16 X 1/2	
29	90205580	1	SPACER (not required with auxiliary hydraulics option)	
30	88501010	2	HEX NUT, 5/8-11	
31	88561113	9	FLAT WASHER, #4	
32	88501110	1	HEX JAM NUT, 5/8-11	

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FIGURE 6-3. ACCELERATOR LINKAGE (SN 0144860S to Present)



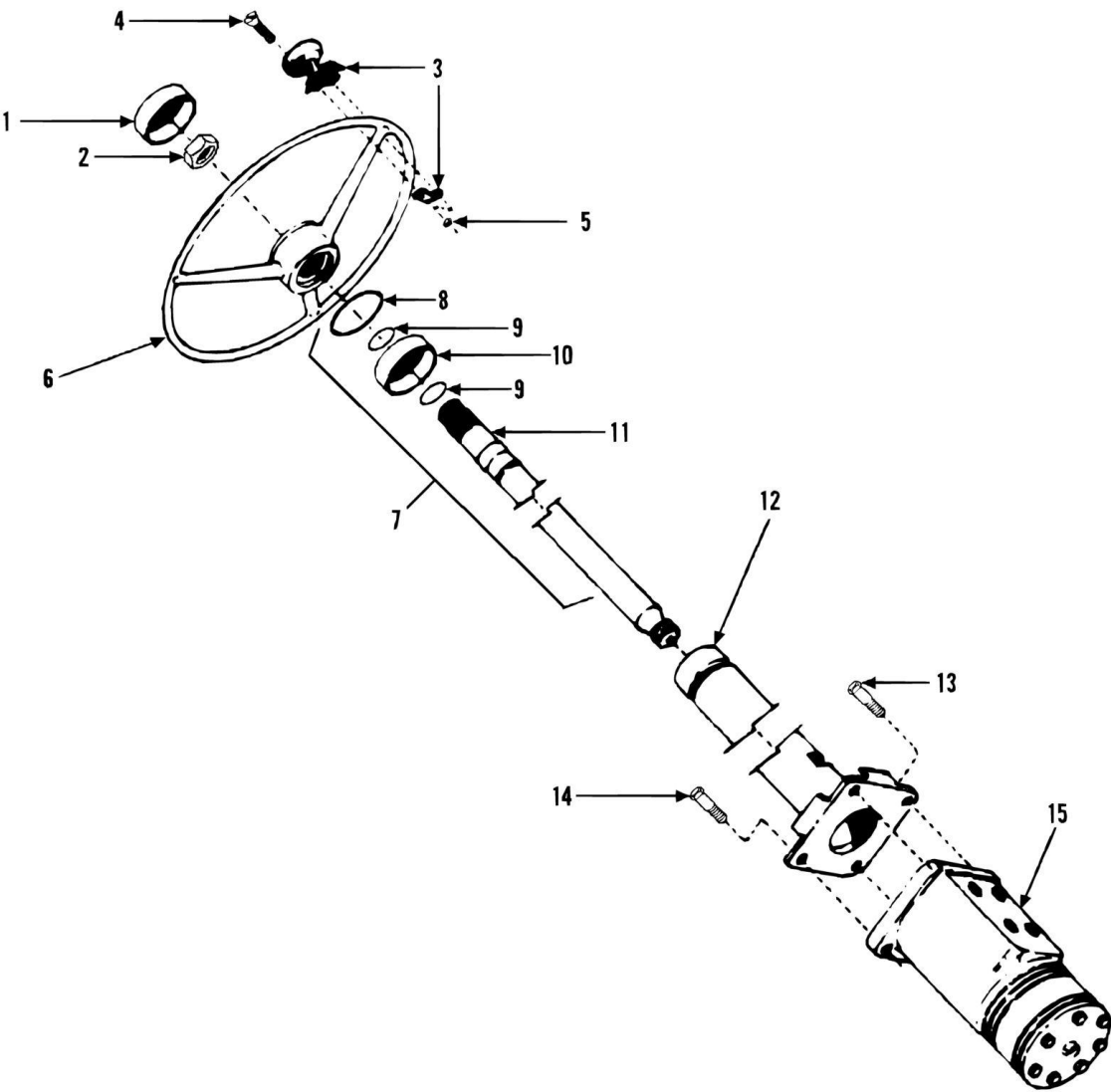
SECTION 6 - CONTROLS

FIGURE 6-3. ACCELERATOR LINKAGE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	88631318	1	COTTER PIN, 1/8 X 1	
2	90021584	1	CLEVIS PIN	
3	91036022	1	ACCELERATOR PEDAL	
4	91031088	1	LINKAGE ROD	
5	88501404	5	HEX NUT, 1/4-28	
6	86683118	2	BALL JOINT	
7	88251018	1	SOCKET HD SHOULDER SCREW, 3/8 X 1/2 (5/16-18 THREAD)	
8	88561109	1	FLAT WASHER, 3/8	
9	90028946	AR	WAVY WASHER	
10	90027685	1	CLEVIS AND COTTER PIN	
11	91031087	1	BELL CRANK	
12	91033281	1	BEARING	
13	88561111	1	FLAT WASHER, 1/2	
14	88501105	1	HEAVY HEX JAM NUT, 5/16-18	
15	90207801	1	SPRING	
16	90028977	1	YOKE	
17	88501613	2	HEX NUT, #10-32	
18	90200795	1	ACCELERATOR CABLE	
19	90028660	1	HOSE CLIP	
20	77104085	1	LOCKWASHER	
21	88521305	2	HEX LOCKNUT, 5/16-18	
22	91031388	1	CABLE BRACKET	
23	88201021	2	HEX HD CAPSCREW, 5/16-18 X 1-1/4, GR5	
24	90027908	1	BALL JOINT	
25	88501110	2	HEAVY HEX JAM NUT, 5/8-11	
26	88201106	1	HEX HD CAPSCREW, 5/8-11 X 4-1/2, GR5	

SECTION 6 - CONTROLS

FIGURE 6-4. STEERING COLUMN (SN 0144860S to Present)



SECTION 6 - CONTROLS

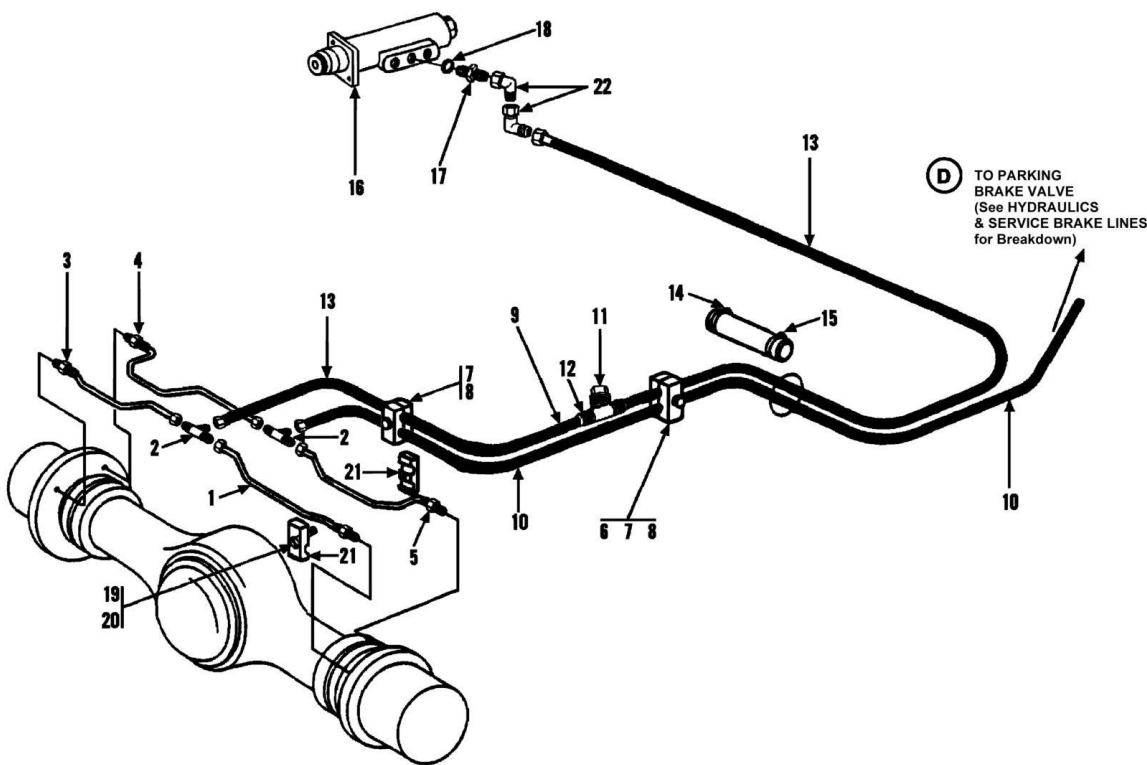
FIGURE 6-4. STEERING COLUMN (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90600274	1	STEERING CAP	
2	90200266	1	STEERING WHEEL NUT	
3	90202230	1	SPINNER KNOB (includes items 4 & 5)	
4	90020397	2	FLAT HD SCREW, 1/4NC X 1	
5	88501004	2	HEX NUT, 1/4-20	
6	90600273	1	STEERING WHEEL	
7	90600267	1	STEERING COLUMN (includes items 8 through 12)	
8	90201347	1	RETAINING RING	
9	90201346	2	RETAINING RING	
10	90201348	1	BEARING	
11	90201349	1	SHAFT	
12	90201350	1	TUBE AND FLANGE	
13	88201037	2	HEX HD CAPSCREW, 3/8-16 x 1-1/2, GR5	
14	88201033	2	HEX HD CAPSCREW, 3/8-16 x 3/4, GR5	
15	90206762	1	ORBITROL	
15	90206567	AR	SEAL KIT	

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SECTION 7 - BRAKES

FIGURE 7-1. HYDRAULICS AND SERVICE BRAKE LINES (SN 0144860S to Present)



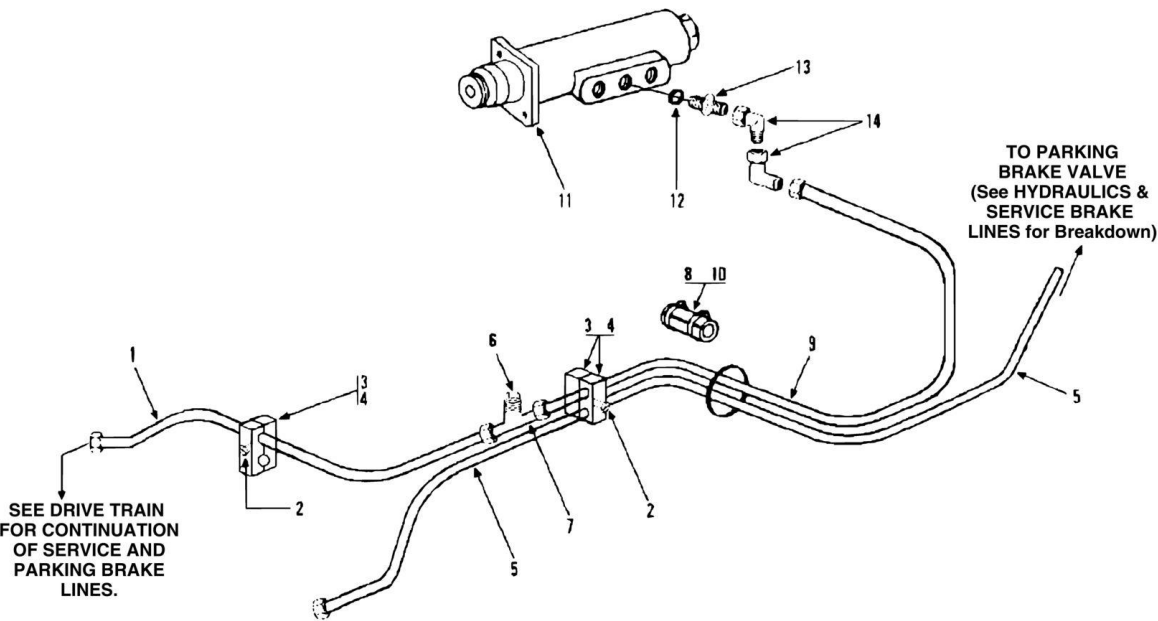
SECTION 7 - BRAKES

FIGURE 7-1. HYDRAULICS AND SERVICE BRAKE LINES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043293	1	TUBE ASSY	
2	88661305	2	UNION TEE, 3/8 TUBE	
3	91043294	1	TUBE ASSY	
4	91043189	1	TUBE ASSY	
5	91043190	1	TUBE ASSY	
6	77133177	2	HEX HD CAPSCREW	
7	77133140	2	COVER PLATE	
8	77133139	2	CLAMP SET	
9	84717524	1	HOSE ASSY	
10	84717522	1	HOSE ASSY	
11	91033032	1	MINI-CHECK COUPLING	
12	91043091	1	FEMALE BRANCH TEE	
13	84717523	1	HOSE ASSY	
14	90027178	6	NYLON HOSE TIE	
15	91041258	3	SLOTTED HOSE	
16	91083154	Ref	BRAKE VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	88662018	1	CONNECTOR (includes item #18)	
18	88591205	1	O-RING	
19	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1, GR5	
20	88561002	2	FLAT WASHER, 1/4	
21	77133270	2	CLAMP SET	
22	88662105	2	ELBOW, 90, (swivel nut)	

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FIGURE 7-2. HYDRAULICS AND SERVICE BRAKE LINES (SN 0144900S to Present)



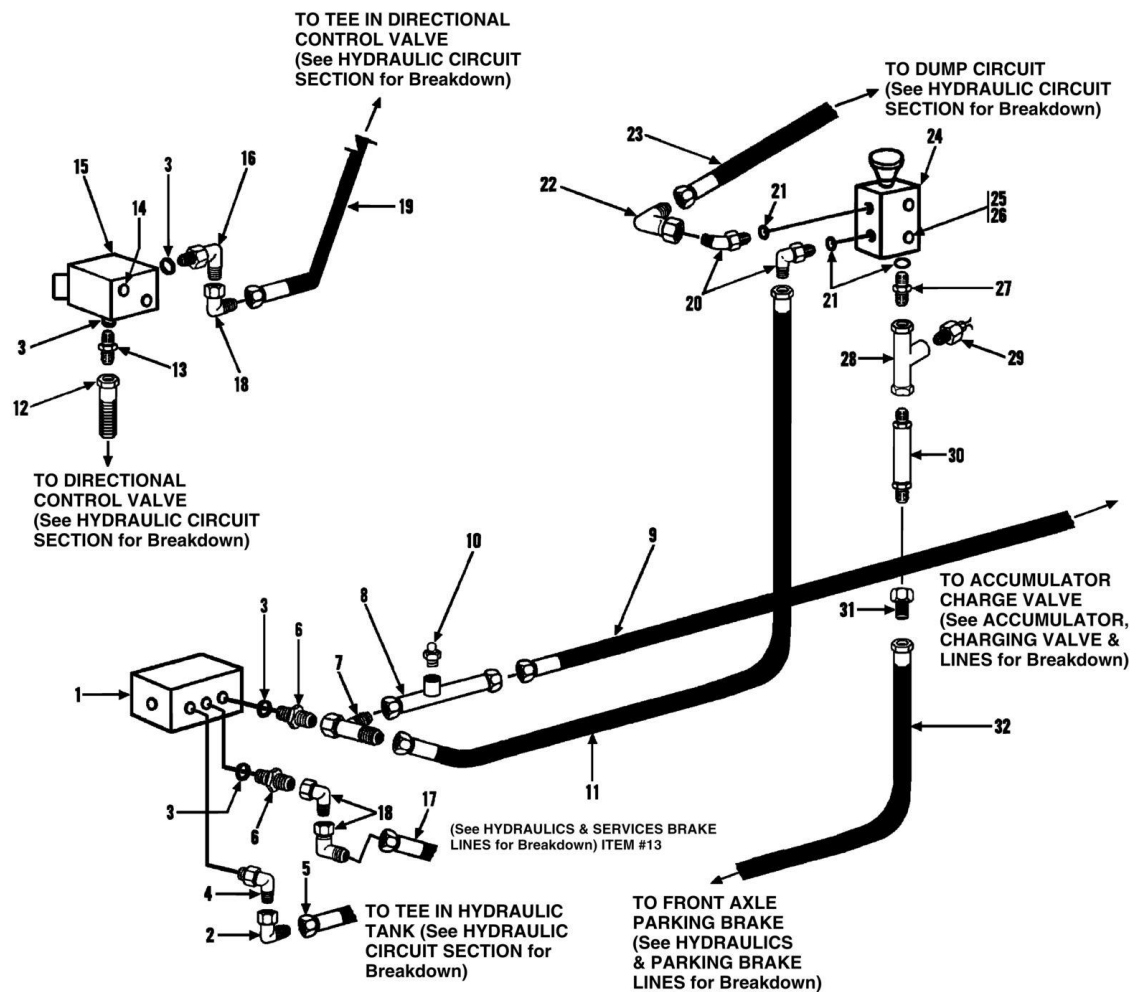
SECTION 7 - BRAKES

FIGURE 7-2. HYDRAULICS AND SERVICE BRAKE LINES (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84717524	Ref	HOSE ASSY (See DRIVE TRAIN SECTION for Breakdown)	
2	77133177	2	HEX HD CAPSCREW	
3	77133140	2	COVER PLATE	
4	77133139	2	CLAMP SET	
5	84717987	1	HOSE ASSY	
6	91033032	1	MINI-CHECK COUPLING	
7	91043091	1	FEMALE BRANCH TEE	
8	91041258	1	HOSE	
9	84717523	1	HOSE ASSY	
10	90027187	AR	NYLON HOSE TIE	
11	91083154	Ref	BRAKE VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12	88591205	1	O-RING	
13	88662018	1	CONNECTOR (includes item #12)	
14	88662105	2	ELBOW, 90, (swivel nut)	

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FIGURE 7-3. HYDRAULICS AND PARKING BRAKE LINES (SN 0144860S to Present)



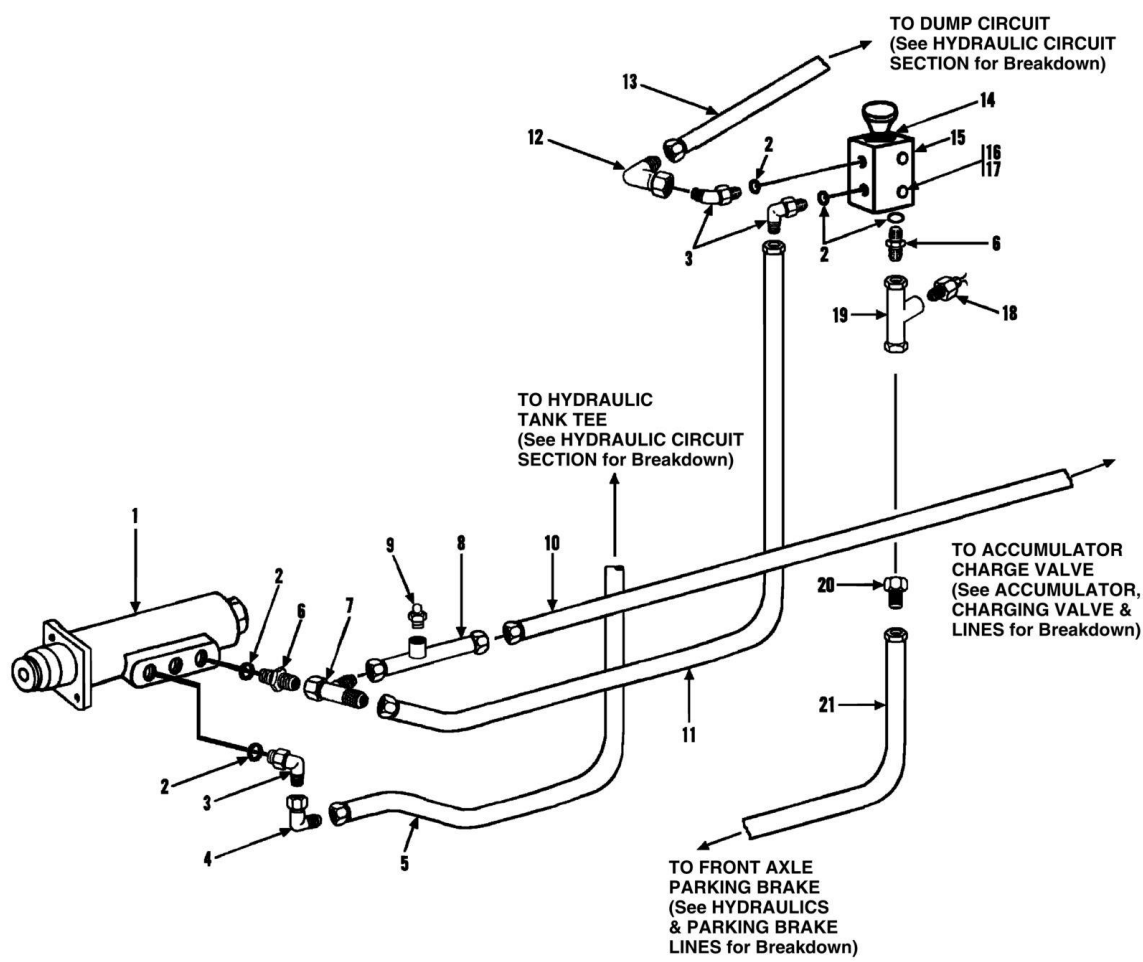
SECTION 7 - BRAKES

FIGURE 7-3. HYDRAULICS AND PARKING BRAKE LINES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083154	Ref	BRAKE VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662106	1	ELBOW - 90, (swivel nut)	
3	88591204	6	O-RING	
4	77131088	1	ELBOW - 90	
5	90207842	1	HOSE ASSY	
6	88662005	2	CONNECTOR (includes item #3)	
7	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
8	91043163	1	TUBE ASSY	
9	84717561	1	HOSE ASSY (see page 9-14)	
10	77103089	1	MINI-CHECK COUPLING	
11	84717508	1	HOSE ASSY	
12	77133342	1	HOSE ASSY	
13	88662005	1	CONNECTOR (includes item #3)	
14	88212228	2	SOCKET HD CAPSCREW, 5/16-18 X 1-1/4, GR8	
15	91033096	1	INCHING VALVE ASSY	
15	91034018	AR	SEAL KIT	
16	88662064	2	ELBOW, 90, (includes item #3)	
17	84717523	1	HOSE ASSY	
18	88662105	3	ELBOW, 90, (swivel nut)	
19	84717466	1	HOSE ASSY	
20	88662065	2	ELBOW, 90, (includes item #21)	
21	88591205	3	O-RING	
22	88662105	1	ELBOW, 90, (swivel nut)	
23	77133167	1	HOSE ASSY	
24	91043090	Ref	PARK BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88261021	2	SOCKET BUTTON HD CAPSCREW, 5/16-18 X 5/8	
26	88551010	2	LOCKWASHER, 5/16	
27	88662018	1	CONNECTOR (includes item #21)	
28	91043131	1	TUBE ASSY	
29	91043077	1	PRESSURE SWITCH	
30	91043143	1	CHECK VALVE	
31	88661342	1	TUBE END REDUCER, 1/2 X 3/8	
32	84717522	Ref	HOSE ASSY (See HYDRAULICS AND SERVICE BRAKE LINES for Breakdown)	

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FIGURE 7-4. HYDRAULICS AND PARKING BRAKE LINES (SN 0144900S to Present)



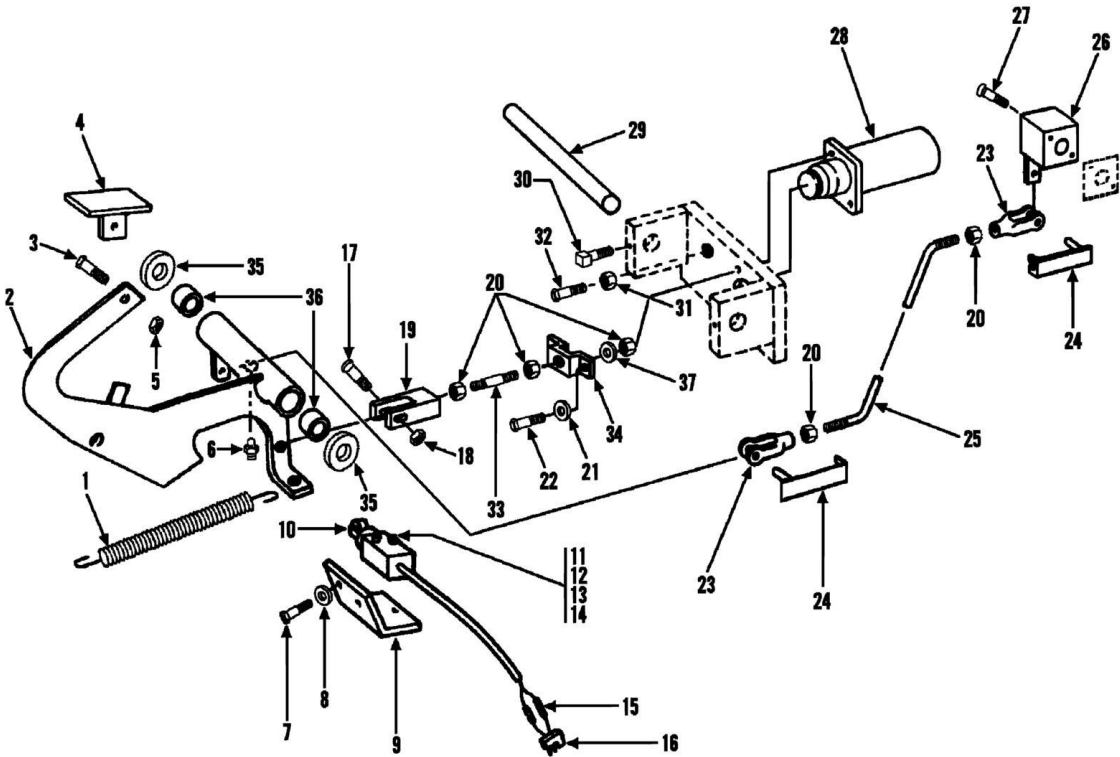
SECTION 7 - BRAKES

FIGURE 7-4. HYDRAULICS AND PARKING BRAKE LINES (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083154	Ref	BRAKE VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591205	5	O-RING	
3	88662065	3	ELBOW, 90, (includes item #2)	
4	88662106	1	ELBOW, 90, (swivel nut)	
5	84717842	1	HOSE ASSY	
6	88662018	2	CONNECTOR (includes item #2)	
7	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
8	91043163	1	TUBE ASSY	
9	77133089	1	MINI-CHECK COUPLING	
10	84717317	1	HOSE ASSY	
11	84717508	1	HOSE ASSY	
12	88662105	1	ELBOW, 90, (swivel nut)	
13	77133167	1	HOSE ASSY	
14	91033378	1	BOOT	
15	91043090	Ref	PARK BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	88261021	2	SOCKET BUTTON HD CAPSCREW, 5/16-18 X 5/8	
17	88551010	2	LOCKWASHER, 5/16	
18	91033416	1	PRESSURE SWITCH	
19	91043131	1	TUBE ASSY	
20	88661342	1	TUBE END REDUCER, 1/2 X 3/8	
21	84717987	1	HOSE ASSY	

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FIGURE 7-5. BRAKE PEDAL AND INCHING LINKAGE (SN 0144860S to Present)



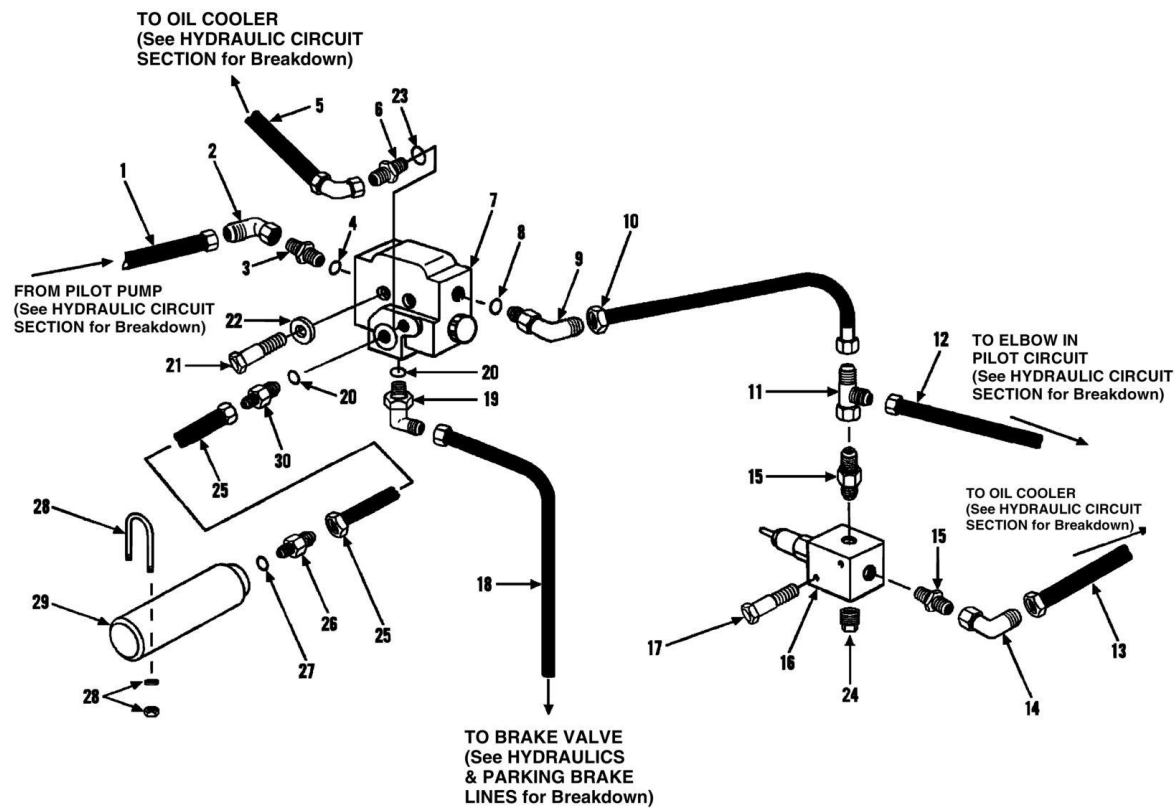
SECTION 7 - BRAKES

FIGURE 7-5. BRAKE PEDAL AND INCHING LINKAGE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043214	1	SPRING	
2	91046101	1	BRAKE LEVER WELDMENT	
3	88201068	1	HEX HD CAPSCREW, 1/2-13 X 1-3/4, GR5	
4	91046104	1	PEDAL WELDMENT	
5	88521208	1	HEX LOCKNUT, 1/2-13	
6	88671008	1	LUBE FITTING, STRAIGHT, 1/4-28	
7	88201003	2	HEX HD CAPSCREW, 1/4-20 x 3/4, GR5	
8	88551009	2	LOCKWASHER, 1/4	
9	91041431	1	SWITCH MOUNTING BRACKET	
10	91033439	1	TRANSMISSION DISCONNECT SWITCH	
11	88211032	2	SOCKET HD CAPSCREW, #10-24 X 1, GR8	
12	88561105	2	FLAT WASHER, #10	
13	88551007	2	LOCKWASHER, #10	
14	88501612	2	HEX NUT, #10-24	
15	86683480	2	CRIMP-ON CONNECTOR	
16	83483114	1	MALE CONNECTOR	
17	88251021	1	SOCKET HD SHOULDER SCREW, 3/8 X 1, 5/16-18 THREAD	
18	88521205	1	HEX LOCKNUT, 5/16-18	
19	91041521	1	SPECIAL CLEVIS	
20	88501406	5	HEX JAM NUT, 3/8-24	
21	88551011	2	LOCKWASHER, 3/8	
22	88201036	2	HEX HD CAPSCREW, 3/8-16 X 1-1/4	
23	88821004	2	ADJUSTABLE YOKE END, 3/8-24	
24	90027987	2	SPRING CLEVIS	
25	91041522	1	ROD	
26		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	88212228	2	SOC HD CAP SCR, 5/16-18 X 1 LG	
28		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	90201562	1	PIN	
30	88441001	2	SQUARE HD SET SCREW, 1/4-20 X 1/2 (cup point)	
31	88501106	1	HEX JAM NUT, 3/8-16	
32	83201073	1	HEX HD CAPSCREW, 3/8-16 X 4-1/2	
33	91041536	1	PUSH ROD	
34	91041520	1	BRAKE VALVE RETAINER	
35	90028662	2	WASHER	
36	90200290	2	BEARING	
37	88561004	1	FLAT WASHER, 3/8	

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FIGURE 7-6. ACCUMULATOR, CHARGING VALVE AND LINES (SN 0144860S to Present)



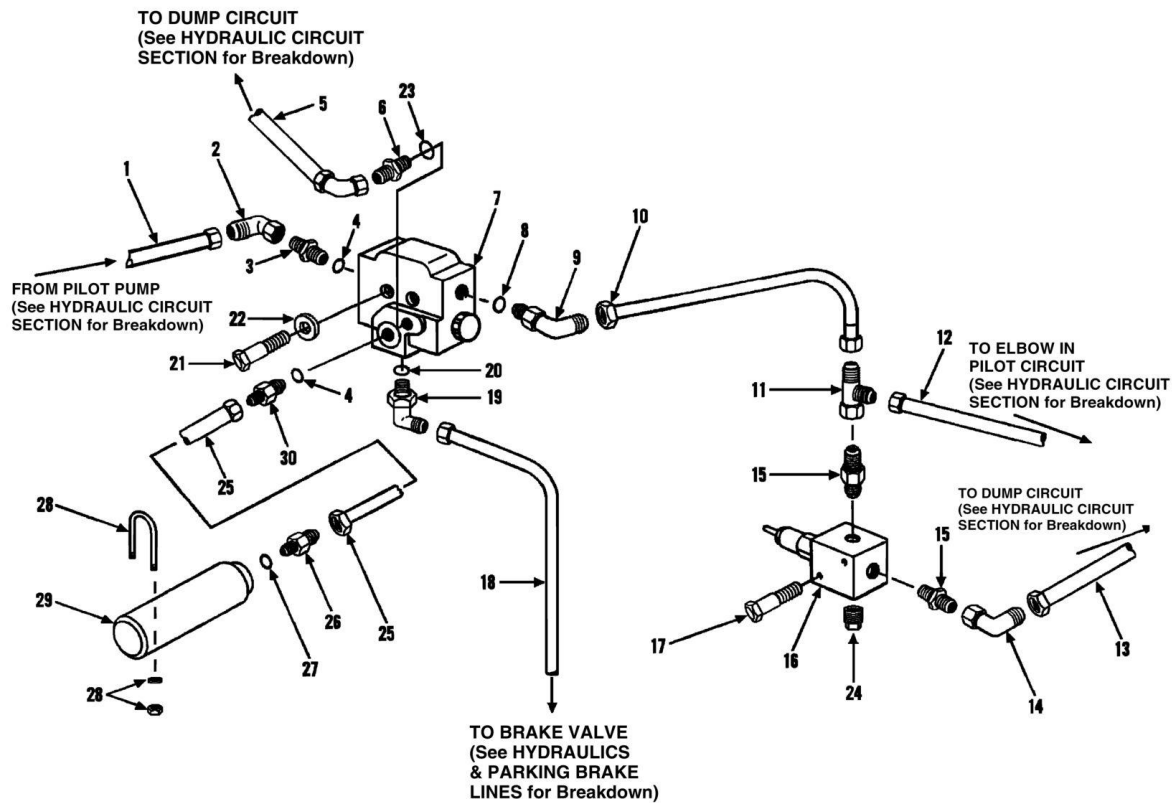
SECTION 7 - BRAKES

FIGURE 7-6. ACCUMULATOR, CHARGING VALVE AND LINES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84716251	1	HOSE ASSY	
2	88662108	1	ELBOW, 90, (swivel nut)	
3	88662023	1	CONNECTOR (includes item #4)	
4	88591205	2	O-RING	
5	84717638	1	HOSE ASSY	
6	88662003	1	CONNECTOR (includes item #23)	
7	91043296	Ref	ACCUMULATOR CHARGE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88591205	1	O-RING	
9	88662085	1	ELBOW, 45, (includes item #8)	
10	90207360	1	HOSE ASSY	
11	88662240	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
12	84717413	1	HOSE ASSY	
13	84717518	1	HOSE ASSY	
14	88662120	1	ELBOW, 45, (swivel nut)	
15	88743003	2	MALE ADAPTER, 3/8 X 1/2 TUBE	
16	91033128	1	RELIEF VALVE ASSY	
17	88201009	2	HEX HD CAPSCREW, 1/4-20 X 2, GR5	
18	84717561	1	HOSE ASSY	
19	88662065	1	ELBOW, 90, (includes item #20)	
20	88591205	1	O-RING	
21	88211046	2	SOCKET HD CAPSCREW, 1/4-20x2, GR8	
22	88551105	2	LOCK WASHER, 1/4 (hi-collar)	
23	88591202	1	O-RING	
24	88711282	1	SOCKET HD PIPE PLUG, 3/8	
25	84717610	1	HOSE ASSY	
26	88662020	1	CONNECTOR (includes item #27)	
27	88591207	1	O-RING	
28	83683175	2	CLAMP	
29	91053380	1	ACCUMULATOR	
29	91054003	1	ACCUMULATOR (uncharged)	
30	88662006	1	CONNECTOR (includes item #4)	

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FIGURE 7-7. ACCUMULATOR, CHARGING VALVE AND LINES (SN 0144900S to Present)



SECTION 7 - BRAKES

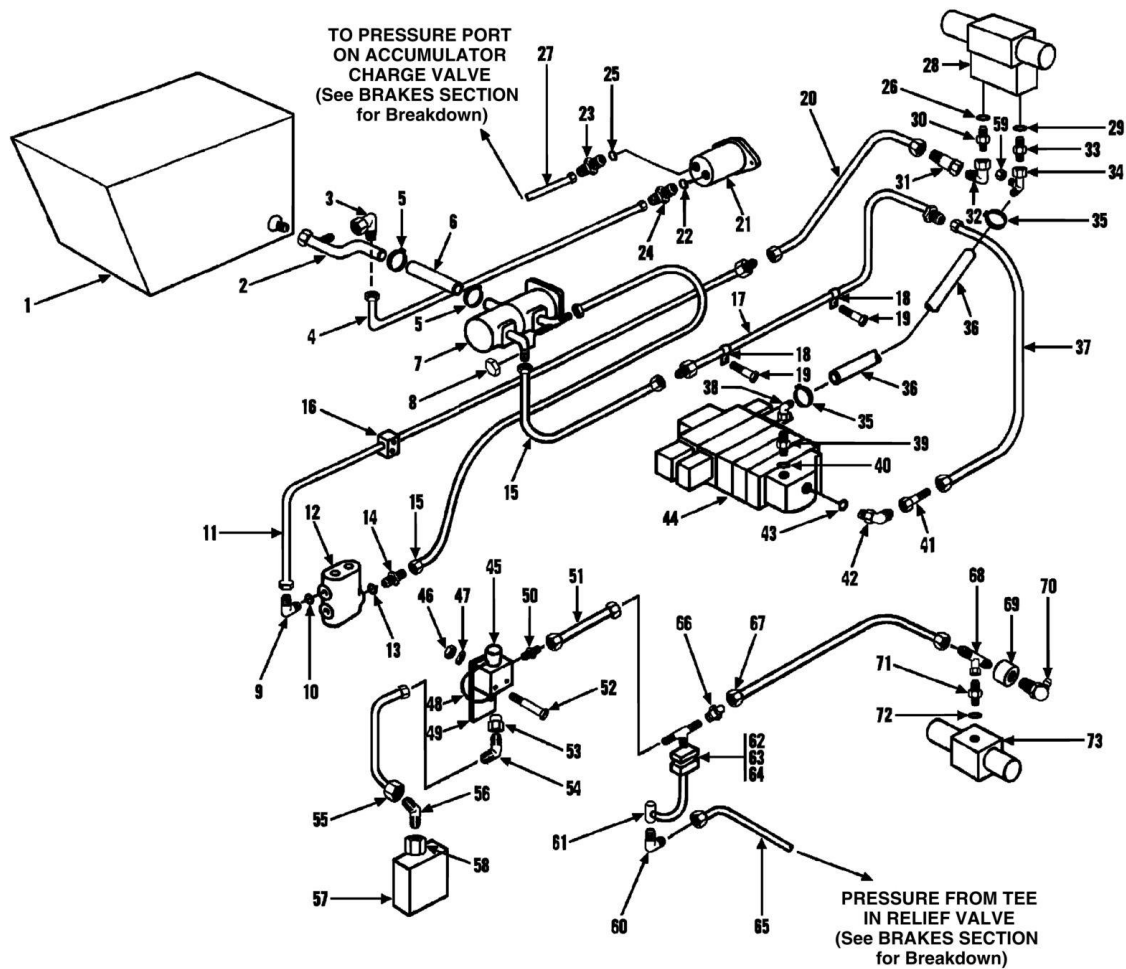
FIGURE 7-7. ACCUMULATOR, CHARGING VALVE AND LINES (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84716251	1	HOSE ASSY	
2	88662108	1	ELBOW, 90, (swivel nut)	
3	88662023	1	CONNECTOR (includes item #4)	
4	88591205	2	O-RING	
5	84717489	1	HOSE ASSY	
6	88662003	1	CONNECTOR (includes item #23)	
7	91083239	Ref	ACCUMULATOR CHARGE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88591205	1	O-RING	
9	88662085	1	ELBOW, 45, (includes item #8)	
10	90207360	1	HOSE ASSY	
11	88662240	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
12	84717413	1	HOSE ASSY	
13	84717518	1	HOSE ASSY	
14	88662120	1	ELBOW, 45, (swivel nut)	
15	88743003	2	MALE ADAPTER, 3/8 X 1/2 TUBE	
16	91033128	1	RELIEF VALVE ASSY	
17	88201009	2	HEX HD CAPSCREW, 1/4-20 X 2, GR5	
18	84717561	1	HOSE ASSY	
19	88662065	1	ELBOW, 90, (includes item #20)	
20	88591205	1	O-RING	
21	88211047	2	SOCKET HD CAPSCREW, 1/4-20 X 2-1/4, GR8	
22	88551105	2	LOCK WASHER, 1/4 (hi-collar)	
23	88591202	1	O-RING	
24	88711282	1	SOCKET HD PIPE PLUG, 3/8	
25	77133171	1	HOSE ASSY	
26	88662020	1	CONNECTOR (includes item #27)	
27	88591207	1	O-RING	
28	83683175	2	CLAMP	
29	91053380	1	ACCUMULATOR	
29	91054003	1	ACCUMULATOR (uncharged)	
30	88662006	1	CONNECTOR (includes item #4)	

SECTION 8 - HYDRAULIC CIRCUITS

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-1. OIL SUPPLY AND PRESSURE LINES (SN 0144860S to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-1. OIL SUPPLY AND PRESSURE LINES (SN 0144860S to Present)

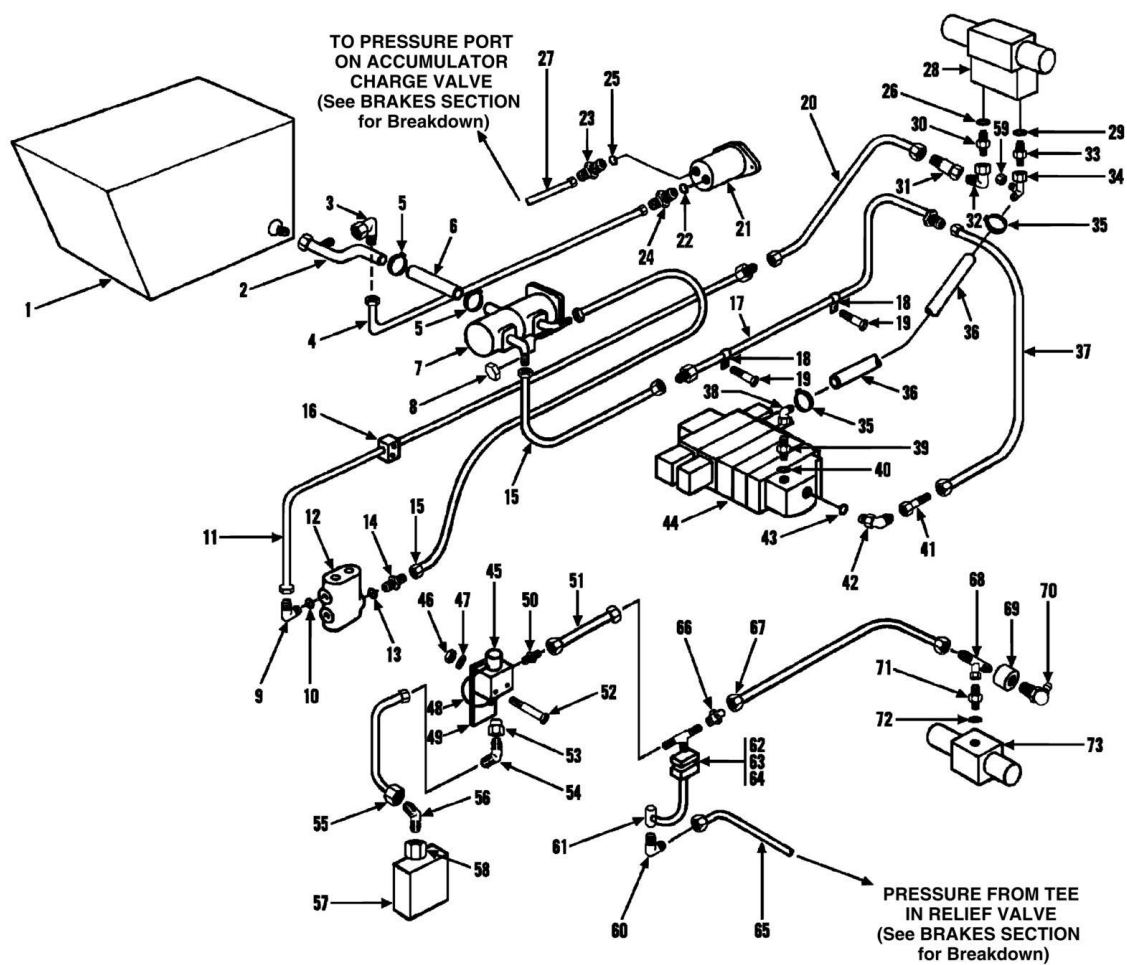
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036002	Ref	OIL RESERVOIR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91033257	1	ELBOW	
3	88662110	1	ELBOW, 90, (swivel nut)	
4	77133875	1	HOSE ASSY	
5	90028720	2	HOSE CLAMP	
6	91033125	1	SUCTION HOSE	
7	91033226	Ref	MAIN HYDRAULIC PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88661366	1	HEX CAP, 5/8 TUBE	
9	88662069	1	ELBOW, 90, (includes item #10)	
10	88591209	1	O-RING	
11	90207690	1	TUBE ASSY	
12	91033240	Ref	PRIORITY FLOW CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
13	88591209	1	O-RING	
14	88662010	1	CONNECTOR (includes item #13)	
15	90022045	2	HOSE ASSY	
16	90205792	1	CLAMP ASSY	
17	91033069	1	TUBE ASSY	
18	90200481	3	CLAMP	
19	88201033	3	HEX HD CAPSCREW, 3/8-16 x 3/4, GR5	
20	90022045	1	HOSE ASSY	
21	91043297	Ref	PILOT PUMP ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88591206	1	O-RING	
23	88662024	1	CONNECTOR (includes item #22)	
24	88662027	1	CONNECTOR, STRAIGHT (includes item #25)	
25	88591207	1	O-RING	
26	88591210	1	O-RING	
27	84716251	1	HOSE ASSY	
28	90206737	Ref	FORWARD-REVERSE CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	88591210	1	O-RING	
30	88662028	1	CONNECTOR (includes item #26)	
31	88662124	1	ELBOW, 45, (swivel nut)	
32	88662110	1	ELBOW, 90, (swivel nut)	
33	88662011	1	CONNECTOR (includes item #29)	
34	91033142	1	TUBE ASSY	
35	90028482	2	HOSE CLAMP	
36	91043153	1	HOSE	
37	90022045	1	HOSE ASSY	
38	90205783	1	TUBE ASSY	
39	88662011	1	CONNECTOR (includes item #40)	
40	88591210	1	O-RING	
41	83251262	1	REDUCER	
42	88662070	1	ELBOW, 90, (includes item #43)	
43	88591210	1	O-RING	
44	91033296	Ref	MAIN CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	90206739	Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
46	88521304	2	HEX LOCKNUT, 1/4-20	
47	88561107	2	FLAT WASHER, 1/4	
48	90207719	1	JUMPER WIRE	
49	91031041	1	MOUNTING PLATE	
50	88743003	1	MALE ADAPTER, 3/8 X 1/2 TUBE	
51	84717468	1	HOSE ASSY	
52	88201009	2	HEX HD CAPSCREW, 1/4-20 X 2, GR5	
53	88711381	1	REDUCING BUSHING, 3/8 X 1/4	
54	88743042	1	MALE ELBOW, 90, 1/4 X 5/16 TUBE	
55	84716238	1	HOSE ASSY	
56	88743036	1	MALE ELBOW, 45, 1/8 X 5/16 TUBE	
57	91034260	Ref	TRANSMISSION CONTROL VALVE (See DRIVE TRAIN SECTION for Breakdown)	
58	90207872	1	HYDRAULIC CUP	
59	88661367	1	HEX CAP, 3/4 TUBE	
60	88661206	1	UNION ELBOW	
61	91033073	1	TUBE ASSY	
62	77133499	4	HEX HD CAPSCREW	
63	77133498	2	COVER PLATE	
64	91033138	2	CLAMP	
65	84717413	1	HOSE ASSY	
66	91033100	1	IN-LINE STRAINER	
67	77133147	1	HOSE ASSY	
68	88662225	1	SWIVEL NUT RUN TEE	
69	77241003	1	ADAPTER	
70	77133089	1	MINI-CHECK COUPLING	
71	88662026	1	CONNECTOR (includes item #72)	
72	88591204	1	O-RING	
73	91033097	Ref	DIRECTIONAL CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-2. OIL SUPPLY AND PRESSURE LINES (SN 0144900S to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-2. OIL SUPPLY AND PRESSURE LINES (SN 0144900S to Present)

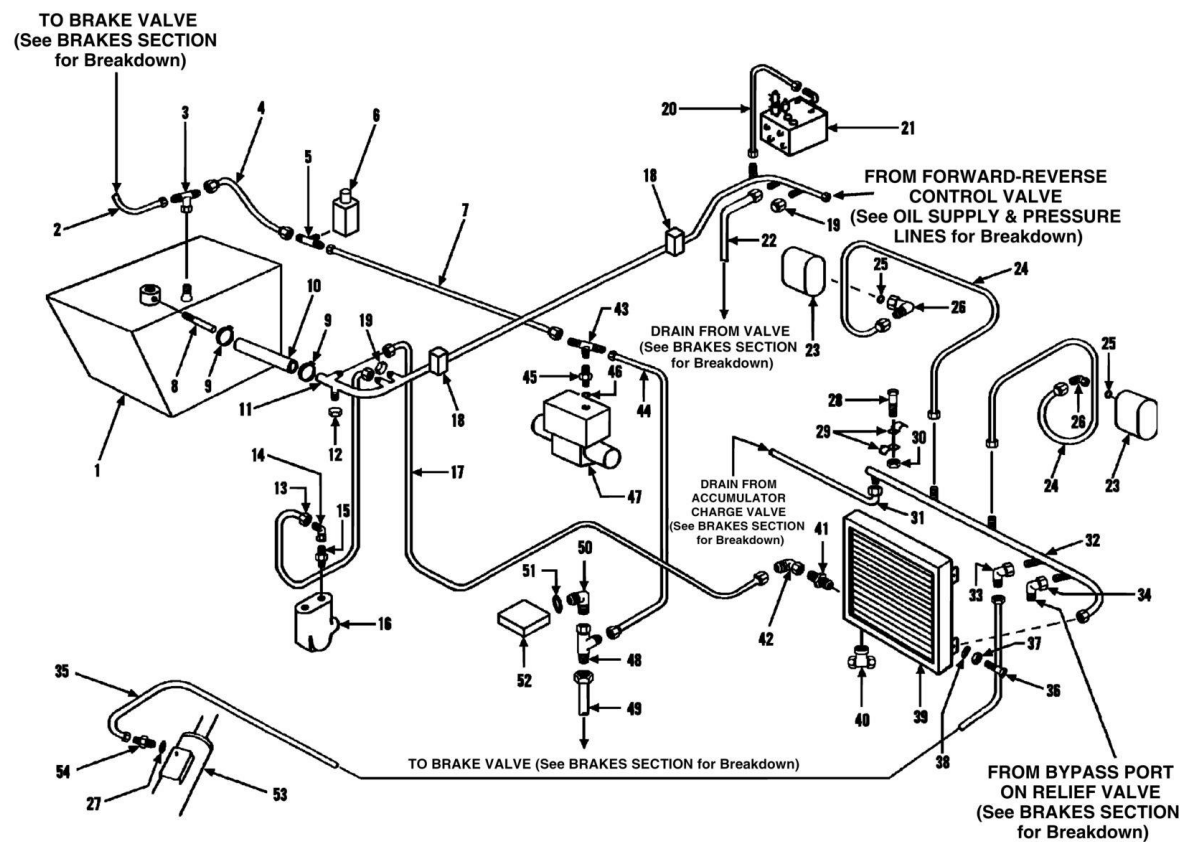
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	OIL RESERVOIR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91033257	1	ELBOW	
3	88662110	1	ELBOW, 90, (swivel nut)	
4	77133875	1	HOSE ASSY	
5	90028720	2	HOSE CLAMP	
6	91033125	1	SUCTION HOSE	
7		Ref	MAIN HYDRAULIC PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88661366	1	HEX CAP, 5/8 TUBE	
9	88662069	1	ELBOW, 90, (includes item #10)	
10	88591209	1	O-RING	
11	90207690	1	TUBE ASSY	
12		Ref	PRIORITY FLOW CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
13	88591209	1	O-RING	
14	88662010	1	CONNECTOR (includes item #13)	
15	90022045	2	HOSE ASSY	
16	90205792	1	CLAMP ASSY	
17	91033069	1	TUBE ASSY	
18	90200481	3	CLAMP	
19	88201033	3	HEX HD CAPSCREW, 3/8-16 x 3/4, GR5	
20	90022045	1	HOSE ASSY	
21		Ref	PILOT PUMP ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88591206	1	O-RING	
23	88662024	1	CONNECTOR (includes item #22)	
24	88662027	1	CONNECTOR, STRAIGHT (includes item #25)	
25	88591207	1	O-RING	
26	88591210	1	O-RING	
27	84716251	1	HOSE ASSY	
28		Ref	FORWARD-REVERSE CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	88591210	1	O-RING	
30	88662028	1	CONNECTOR (includes item #26)	
31	88662124	1	ELBOW, 45, (swivel nut)	
32	88662110	1	ELBOW, 90, (swivel nut)	
33	88662011	1	CONNECTOR (includes item #29)	
34	91033142	1	TUBE ASSY	
35	90028482	2	HOSE CLAMP	
36	91043153	1	HOSE	
37	90022045	1	HOSE ASSY	
38	90205783	1	TUBE ASSY	
39	88662011	1	CONNECTOR (includes item #40)	
40	88591210	1	O-RING	
41	83251262	1	REDUCER	
42	88662070	1	ELBOW, 90, (includes item #43)	
43	88591210	1	O-RING	
44		Ref	MAIN CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
46	88521304	2	HEX LOCKNUT, 1/4-20	
47	88561107	2	FLAT WASHER, 1/4	
48	90207719	1	JUMPER WIRE	
49	91031041	1	MOUNTING PLATE	
50	88743003	1	MALE ADAPTER, 3/8 X 1/2 TUBE	
51	84717468	1	HOSE ASSY	
52	88201009	2	HEX HD CAPSCREW, 1/4-20 X 2, GR5	
53	88711381	1	REDUCING BUSHING, 3/8 X 1/4	
54	88743042	1	MALE ELBOW, 90, 1/4 X 5/16 TUBE	
55	84716238	1	HOSE ASSY	
56	88743036	1	MALE ELBOW, 45, 1/8 X 5/16 TUBE	
57		Ref	TRANSMISSION CONTROL VALVE (See DRIVE TRAIN SECTION for Breakdown)	
58	90207872	1	HYDRAULIC CUP	
59	88661367	1	HEX CAP, 3/4 TUBE	
60	88661206	1	UNION ELBOW	
61	91033073	1	TUBE ASSY	
62	77133499	4	HEX HD CAPSCREW	
63	77133498	2	COVER PLATE	
64	91033138	2	CLAMP	
65	84717413	1	HOSE ASSY	
66	91033100	1	IN-LINE STRAINER	
67	77133147	1	HOSE ASSY	
68	88662225	1	SWIVEL NUT RUN TEE	
69	77241003	1	ADAPTER	
70	77133089	1	MINI-CHECK COUPLING	
71	88662026	1	CONNECTOR (includes item #72)	
72	88591204	1	O-RING	
73		Ref	DIRECTIONAL CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-3. DUMP CIRCUIT (SN 0144860S to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-3. DUMP CIRCUIT (SN 0144860S to Present)

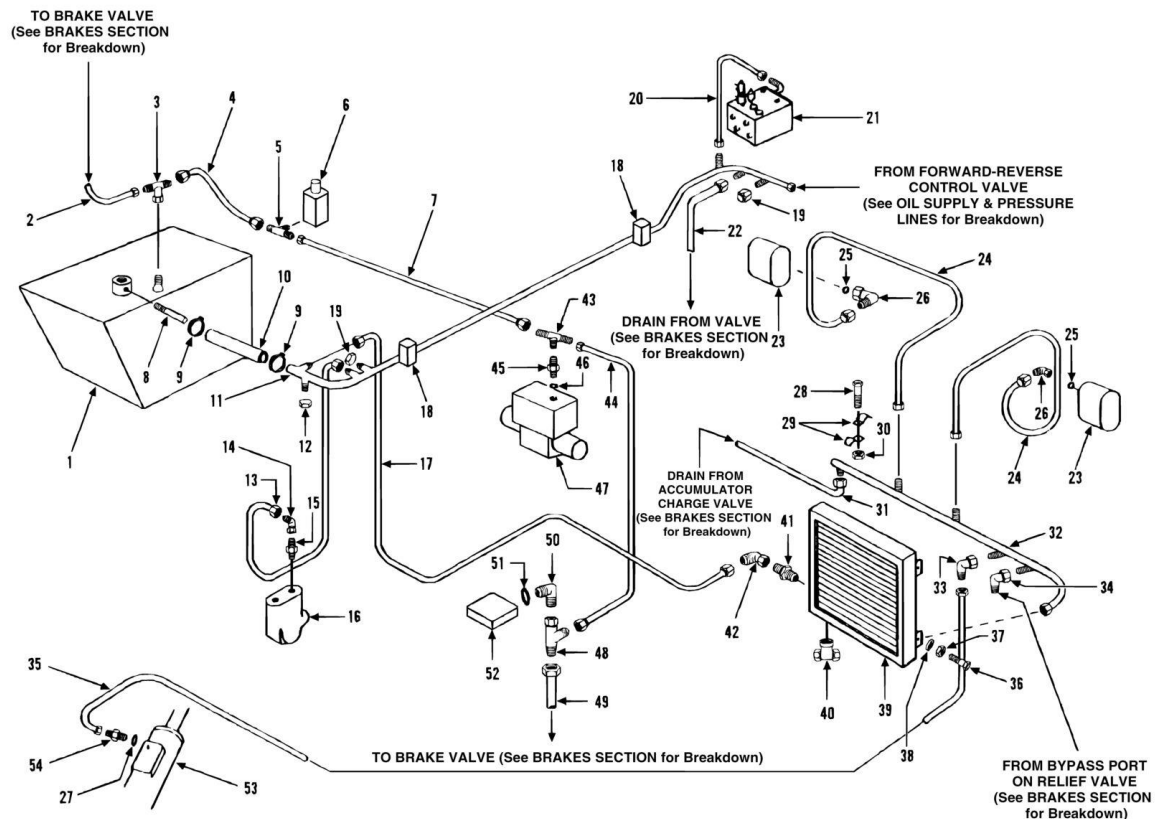
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036002	Ref	OIL RESERVOIR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	84717842	1	HOSE ASSY	
3	88662225	1	SWIVEL NUT BRANCH TEE	
4	90207599	1	HOSE ASSY	
5	88661245	1	MALE OUTLET TEE, 3/8 X 1/2 TUBE	
6	90206739	1	SOLENOID VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7	84717520	1	HOSE ASSY	
8	90205776	1	ADAPTER	
9	90028482	2	HOSE CLAMP	
10	90207365	1	HOSE	
11	91043144	1	TUBE ASSY	
12	88661365	1	HEX CAP, 1/2 TUBE	
13	77133447	1	HOSE ASSY	
14	88662105	1	ELBOW, 90, (swivel nut)	
15	83661316	1	CONNECTOR	
16	91033240	Ref	PRIORITY FLOW CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	84717797	1	HOSE ASSY	
18	90205793	2	CLAMP ASSY	
19	88661364	2	HEX CAP, 3/8 TUBE	
20	84717900	1	HOSE ASSY	
21	91045097	Ref	SERIES - PARALLEL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	77133167	1	HOSE ASSY	
23	90206748	Ref	REAR DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	84717577	2	HOSE ASSY	
25	88591204	2	O-RING	
26	88662064	2	ELBOW, 90, (includes item #25)	
27	88591205	1	O-RING	
28	88201035	1	HEX HD CAPSCREW, 3/8-16 x 1, GR5	
29	91043147	2	SUPPORT CLAMP	
30	88521006	1	HEX LOCKNUT, 3/8-16	
31	84717489	1	HOSE ASSY	
32	91043145	1	DRAIN MANIFOLD	
33	88662106	1	ELBOW, 90, (swivel nut)	
34	84717518	1	HOSE ASSY	
35	84717521	1	HOSE ASSY	
36	88201031	4	HEX HD CAPSCREW, 3/8-16 X 1/2, GR5	
37	88551011	4	LOCKWASHER, 3/8	
38	88561109	4	FLAT WASHER, 3/8	
39	91033050	1	OIL COOLER ASSY	
40	84521056	1	DRAIN VALVE	
41	86923006	1	ADAPTER	
42	88662107	1	ELBOW, 90, (swivel nut)	
43	88662224	1	SWIVEL NUT RUN TEE	
44	84717466	1	HOSE ASSY	
45	88662005	1	CONNECTOR (includes item #46)	
46	88591204	1	O-RING	

SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	91033097	Ref	DIRECTIONAL CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
48	88662239	1	SWIVEL NUT RUN TEE	
49	84717341	1	HOSE ASSY	
50	88662064	1	ELBOW, 90, (includes item #51)	
51	88591204	1	O-RING	
52	91033096	Ref	INCHING VALVE (See BRAKES SECTION for Breakdown)	
53	90601762	Ref	ORBITROL (See CONTROLS SECTION for Breakdown)	
54	88662006	1	CONNECTOR (includes item #27)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-4. DUMP CIRCUIT (SN 0144900S to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-4. DUMP CIRCUIT (SN 0144900S to Present)

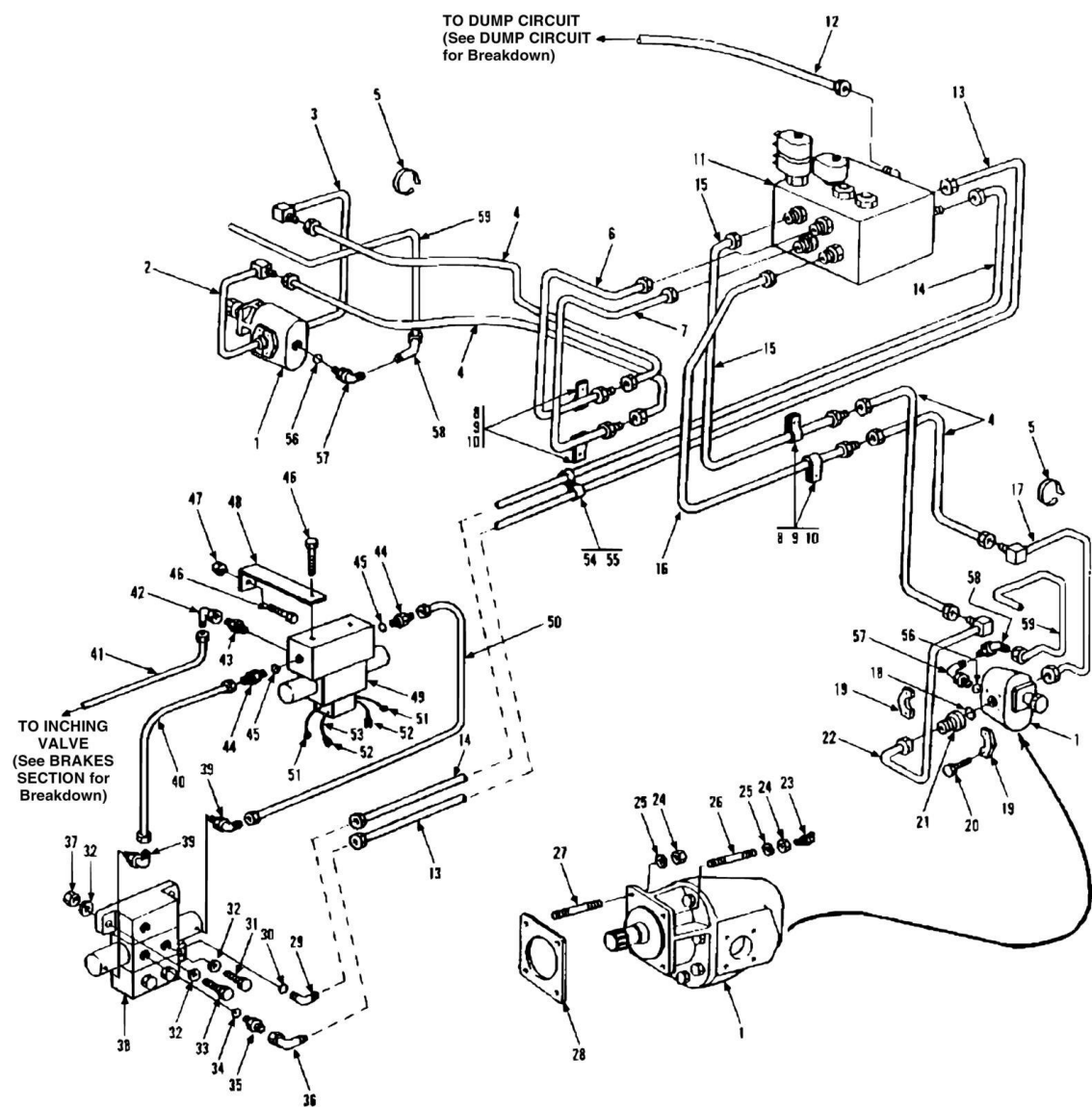
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036002	Ref	OIL RESERVOIR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	84717842	1	HOSE ASSY	
3	88662225	1	SWIVEL NUT BRANCH TEE	
4	90207599	1	HOSE ASSY	
5	88661245	1	MALE OUTLET TEE, 3/8 X 1/2 TUBE	
6	90206739	1	SOLENOID VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7	84717520	1	HOSE ASSY	
8	90205776	1	ADAPTER	
9	90028482	2	HOSE CLAMP	
10	90207365	1	HOSE	
11	91043144	1	TUBE ASSY	
12	88661365	1	HEX CAP, 1/2 TUBE	
13	77133447	1	HOSE ASSY	
14	88662105	1	ELBOW, 90, (swivel nut)	
15	83661316	1	CONNECTOR	
16	91033240	Ref	PRIORITY FLOW CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	84717797	1	HOSE ASSY	
18	90205793	2	CLAMP ASSY	
19	88661364	2	HEX CAP, 3/8 TUBE	
20	84717900	1	HOSE ASSY	
21	91045097	Ref	SERIES - PARALLEL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	77133167	1	HOSE ASSY	
23	90206748	Ref	REAR DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	84717577	2	HOSE ASSY	
25	88591204	2	O-RING	
26	88662064	2	ELBOW, 90, (includes item #25)	
27	88591205	1	O-RING	
28	88201035	1	HEX HD CAPSCREW, 3/8-16 x 1, GR5	
29	91043147	2	SUPPORT CLAMP	
30	88521006	1	HEX LOCKNUT, 3/8-16	
31	84717489	1	HOSE ASSY	
32	91043145	1	DRAIN MANIFOLD	
33	88662106	1	ELBOW, 90, (swivel nut)	
34	84717518	1	HOSE ASSY	
35	84717521	1	HOSE ASSY	
36	88201031	4	HEX HD CAPSCREW, 3/8-16 X 1/2, GR5	
37	88551011	4	LOCKWASHER, 3/8	
38	88561109	4	FLAT WASHER, 3/8	
39	91033050	1	OIL COOLER ASSY	
40	84521056	1	DRAIN VALVE	
41	86923006	1	ADAPTER	
42	88662107	1	ELBOW, 90, (swivel nut)	
43	88662224	1	SWIVEL NUT RUN TEE	
44	84717466	1	HOSE ASSY	
45	88662005	1	CONNECTOR (includes item #46)	
46	88591204	1	O-RING	

SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	91033097	Ref	DIRECTIONAL CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
48	88662239	1	SWIVEL NUT RUN TEE	
49	84717341	1	HOSE ASSY	
50	88662064	1	ELBOW, 90, (includes item #51)	
51	88591204	1	O-RING	
52	91033096	Ref	INCHING VALVE (See BRAKES SECTION for Breakdown)	
53	90601762	Ref	ORBITROL (See CONTROLS SECTION for Breakdown)	
54	88662006	1	CONNECTOR (includes item #27)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-5. REAR DRIVE (SN 0144860S to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-5. REAR DRIVE (SN 0144860S to Present)

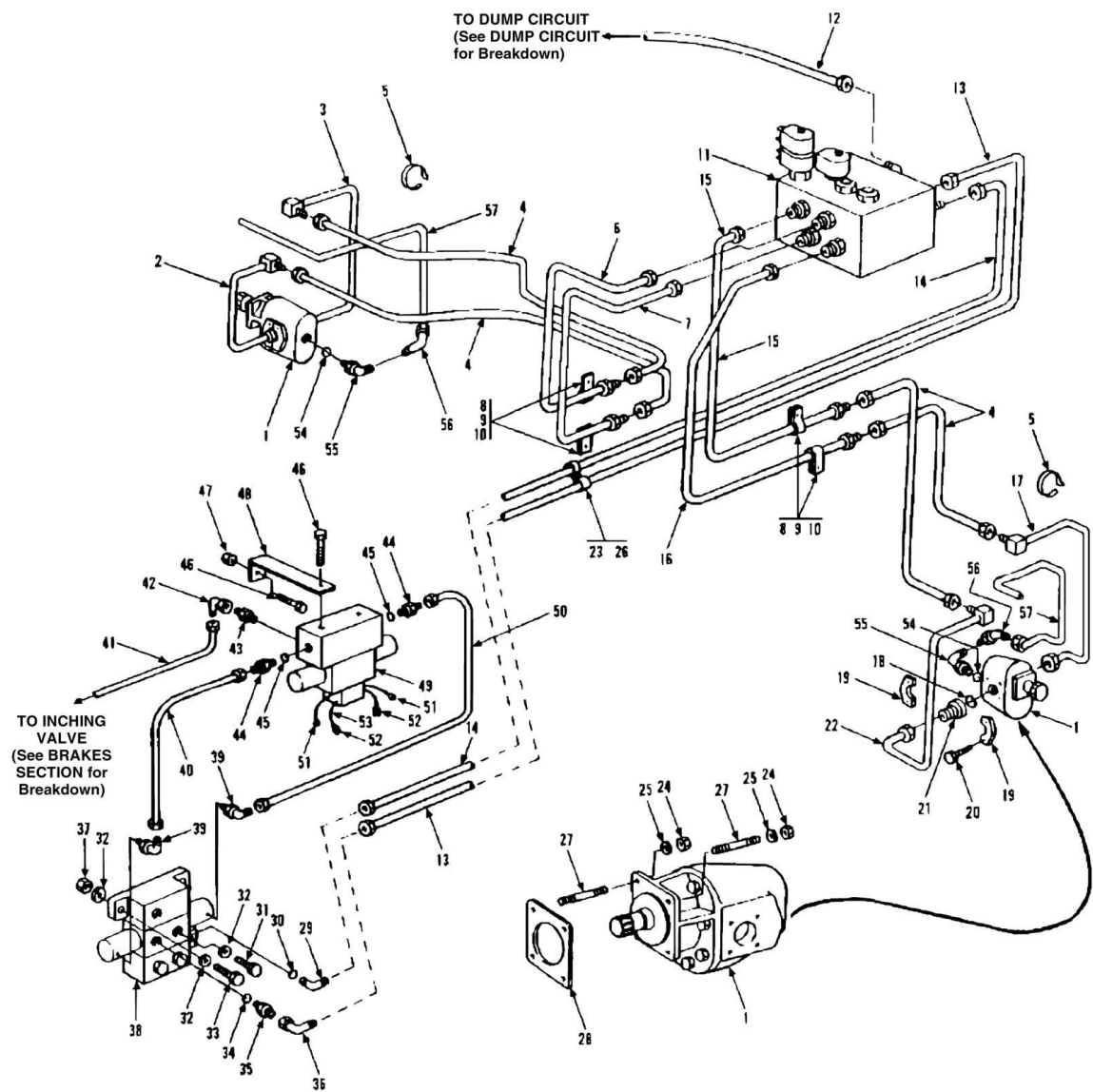
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	REAR DRIVE MOTOR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91043113	1	TUBE ASSY	
3	91043116	1	TUBE ASSY	
4	90207290	4	HOSE ASSY	
5	90027187	AR	NYLON TY-RAP	
6	91043308	1	TUBE ASSY	
7	91043309	1	TUBE ASSY	
8	90202343	4	TUBE CLAMP	
9	88201033	4	HEX HD CAPSCREW, 3/8-16 x 3/4, GR5	
10	88561109	4	FLAT WASHER, 3/8	
11		Ref	SERIES - PARALLEL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12	84717900	1	HOSE ASSY	
13	91043312	1	TUBE ASSY	
14	91043311	1	TUBE ASSY	
15	91043307	1	TUBE ASSY	
16	91043310	1	TUBE ASSY	
17	91043115	1	TUBE ASSY	
18	90028225	4	O-RING	
19	84711342	8	FLANGE HALF	
20	88201067	16	HEX HD CAPSCREW, 1/2-13 X 1-1/2, GR5	
21	90207372	4	ADAPTER	
22	91043114	1	TUBE ASSY	
23	88671027	2	LUBE FITTING, 90, 1/8	
24	88501008	8	HEX NUT, 1/2-13	
25	90203506	8	FLAT WASHER, 1/2	
26	90206750	2	HOLLOW STUD	
27	90202327	6	STUD	
28	85681076	2	GASKET	
29	88662069	1	ELBOW, 90, (includes item 30)	
30	88591209	1	O-RING	
31	88201070	1	HEX HD CAPSCREW, 1/2-13 X2-1/4, GR5	
32	88561111	6	FLAT WASHER, 1/2	
33	88201068	2	HEX HD CAPSCREW, 1/2-13 X1-3/4, GR5	
34	88591209	1	O-RING	
35	88662010	1	CONNECTOR (includes item 34)	
36	88662110	1	ELBOW, 90, (swivel nut)	
37	88501008	3	HEX NUT, 1/2-13	
38		Ref	FORWARD-REVERSE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	90027906	2	ELBOW, 90, (swivel nut)	
40	84717464	1	HOSE ASSY	
41	77133342	1	HOSE ASSY	
42	88662105	1	ELBOW, 90, (swivel nut)	
43	83661316	1	CONNECTOR	
44	88662003	2	CONNECTOR (includes item 45)	
45	88591202	2	O-RING	
46	88201005	4	HEX HD CAPSCREW, 1/4-20 x 1, GR5	
47	88501004	4	HEX NUT, 1/4-20	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	91031086	2	MOUNTING BRACKET	
49		Ref	DIRECTIONAL CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
50	90027485	1	HOSE ASSY	
51	86983191	2	TERMINAL, 1/4 SCREW SIZE	
52	90028959	2	FEMALE TERMINAL	
53		Ref	WIRE, 14 GA. BLACK, 40IN LONG	
54	90200482	1	TUBE CLAMP	
55	88201036	1	HEX HD CAPSCREW, 3/8-16 x 1-1/4, GR5	
56	88591204	2	O-RING	
57	88662064	2	ELBOW, 90, (includes item 56)	
58	88662119	2	ELBOW, 45, (swivel nut)	
59	84717577	2	HOSE ASSY	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-6. REAR DRIVE (SN 0144900S to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-6. REAR DRIVE (SN 0144900S to Present)

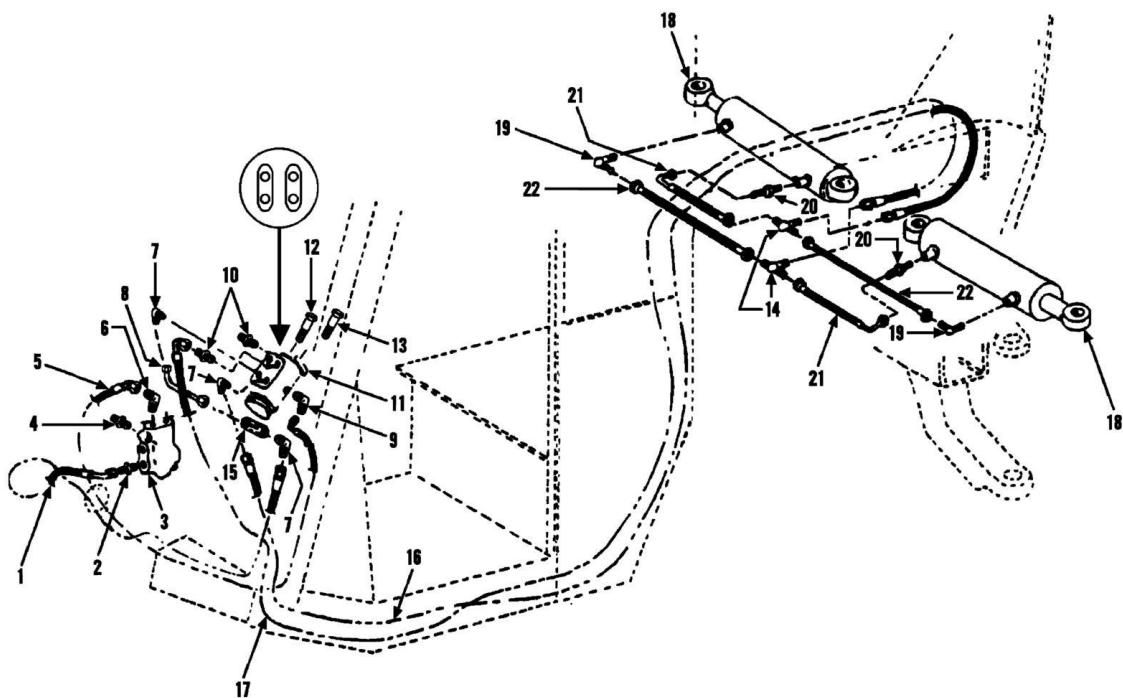
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	REAR DRIVE MOTOR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91043113	1	TUBE ASSY	
3	91043116	1	TUBE ASSY	
4	90207290	4	HOSE ASSY	
5	90027187	AR	NYLON TY-RAP	
6	91043308	1	TUBE ASSY	
7	91043309	1	TUBE ASSY	
8	90202343	4	TUBE CLAMP	
9	88201033	4	HEX HD CAPSCREW, 3/8-16 x 3/4, GR5	
10	88561109	4	FLAT WASHER, 3/8	
11		Ref	SERIES - PARALLEL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12	84717900	1	HOSE ASSY	
13	91043312	1	TUBE ASSY	
14	91043311	1	TUBE ASSY	
15	91043307	1	TUBE ASSY	
16	91043310	1	TUBE ASSY	
17	91043115	1	TUBE ASSY	
18	90028225	4	O-RING	
19	84711342	8	FLANGE HALF	
20	88201067	16	HEX HD CAPSCREW, 1/2-13 X 1-1/2, GR5	
21	90207372	4	ADAPTER	
22	91043114	1	TUBE ASSY	
23	90200482	1	TUBE CLAMP	
24	88501008	8	HEX NUT, 1/2-13	
25	90203506	8	FLAT WASHER, 1/2	
26	88201036	1	HEX HD CAPSCREW, 3/8-16 x 1-1/4, GR5	
27	91033481	8	STUD	
28	85681076	2	GASKET	
29	88662069	1	ELBOW, 90, (includes item 30)	
30	88591209	1	O-RING	
31	88201070	1	HEX HD CAPSCREW, 1/2-13 X2-1/4, GR5	
32	88561111	6	FLAT WASHER, 1/2	
33	88201068	2	HEX HD CAPSCREW, 1/2-13 X1-3/4, GR5	
34	88591209	1	O-RING	
35	88662010	1	CONNECTOR (includes item 34)	
36	88662110	1	ELBOW, 90, (swivel nut)	
37	88501008	3	HEX NUT, 1/2-13	
38		Ref	FORWARD-REVERSE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	90027906	2	ELBOW, 90, (swivel nut)	
40	84717464	1	HOSE ASSY	
41	77133342	1	HOSE ASSY	
42	88662105	1	ELBOW, 90, (swivel nut)	
43	83661316	1	CONNECTOR	
44	88662003	2	CONNECTOR (includes item 45)	
45	88591202	2	O-RING	
46	88201005	4	HEX HD CAPSCREW, 1/4-20 x 1, GR5	
47	88501004	4	HEX NUT, 1/4-20	

SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	91031086	2	MOUNTING BRACKET	
49		Ref	DIRECTIONAL CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
50	90027485	1	HOSE ASSY	
51	86983191	2	TERMINAL, 1/4 SCREW SIZE	
52	90028959	2	FEMALE TERMINAL	
53		Ref	WIRE, 14 GA. BLACK, 40IN LONG	
54	88591204	2	O-RING	
55	88662064	2	ELBOW, 90, (includes item 54)	
56	88662119	2	ELBOW, 45, (swivel nut)	
57	84717577	2	HOSE ASSY	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-7. STEERING (SN 0144860S to Present)



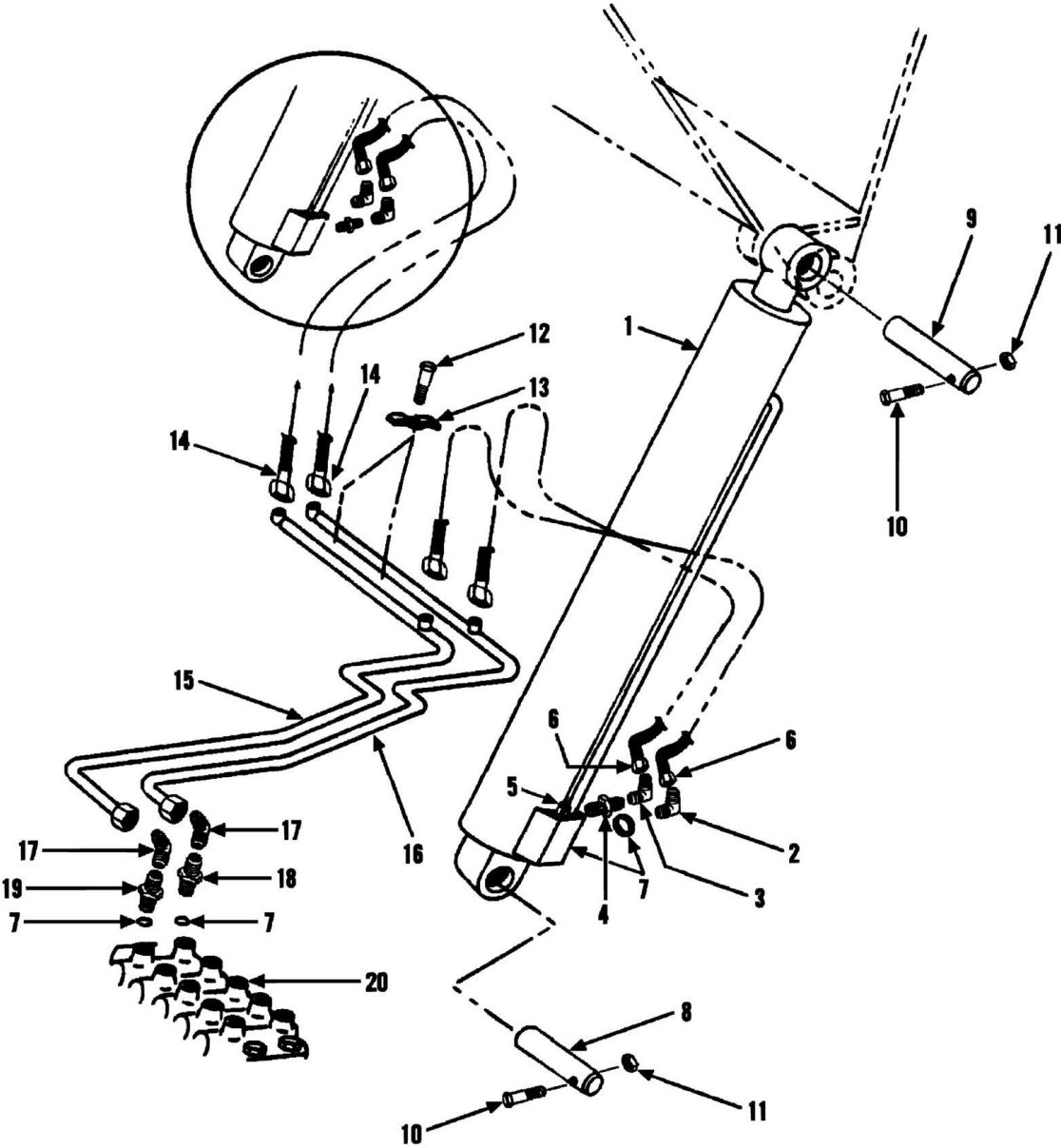
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-7. STEERING (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	84717550	1	HIGH PRESSURE HOSE	
2	88662007	1	CONNECTOR (includes O-ring)	
2	88591206	1	O-RING	
3	91033240	1	LOAD SENSING FLOW CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
4	88201028	2	HEX HD CAPSCREW, 5/16-18 X 3, GR5	
5	84717547	1	HIGH PRESSURE HOSE	
6	83661316	1	CONNECTOR	
7	88662065	3	ELBOW, 90, (includes O-ring)	
7	88591205	3	O-RING	
8	90206003	1	TUBE ASSY	
9	90028499	2	ELBOW, 90, (straight)	
10	88662006	2	CONNECTOR (includes O-ring)	
11	90206762	1	STEERING ORBITROL	
12	88201033	2	HEX HD CAPSCREW, 3/8-16 X 3/4, GR5 (column to orbitrol)	
13	88201037	2	HEX HD CAPSCREW, 3/8-16 X 1-1/2, GR5 (orbitrol to instrument panel)	
14	90027913	2	STRAIGHT TEE	
15	90202926	1	CHECK VALVE	
16	84717882	1	HIGH PRESSURE HOSE	
17	84717548	1	HIGH PRESSURE HOSE	
18	91043316	2	STEERING CYLINDER (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	77131088	2	ELBOW, 90, (adjustable)	
20	88662035	2	CONNECTOR (includes O-ring)	
20	88591204	2	O-RING	
21	84717546	1	HIGH PRESSURE HOSE	
22	84717553	1	HIGH PRESSURE HOSE	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-8. LIFT CYLINDER (SN 0144860S to Present)



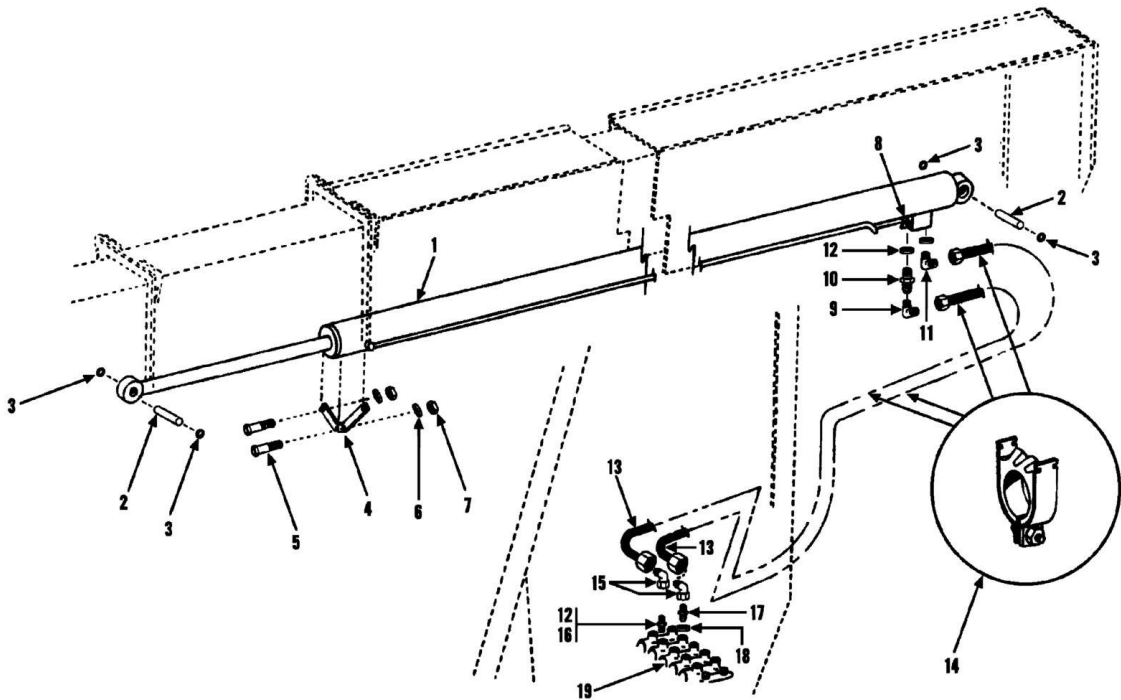
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-8. LIFT CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	LIFT CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	86821248	2	ELBOW, 90, (includes item #7)	
3	88662107	2	ELBOW, 90, (swivel nut)	
4	88662022	2	CONNECTOR (includes item #7)	
5	91034308	1	COUNTERBALANCE VALVE	
6	84717799	2	HOSE ASSY	
7	88591207	6	O-RING	
8	90402875	1	PIN	
9	90206892	1	PIN	
10	83201044	4	HEX HD CAPSCREW, 5/8-11 X 4, GR8	
11	88501010	4	HEX NUT, 5/8-11	
12	88201035	4	HEX HD CAPSCREW, 3/8-16 x 1, GR5	
13	90200483	2	TUBE CLAMP	
14	84716448	2	HOSE ASSY	
15	91043096	1	TUBE ASSY	
16	91043095	1	TUBE ASSY	
17	88662108	2	ELBOW, 90, (swivel nut)	
18	88662008	1	CONNECTOR (includes item #7)	
19	88662038	1	CONNECTOR (includes item #7)	
20		Ref	MAIN CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-9. CROWD CYLINDER (SN 0144860S to Present)



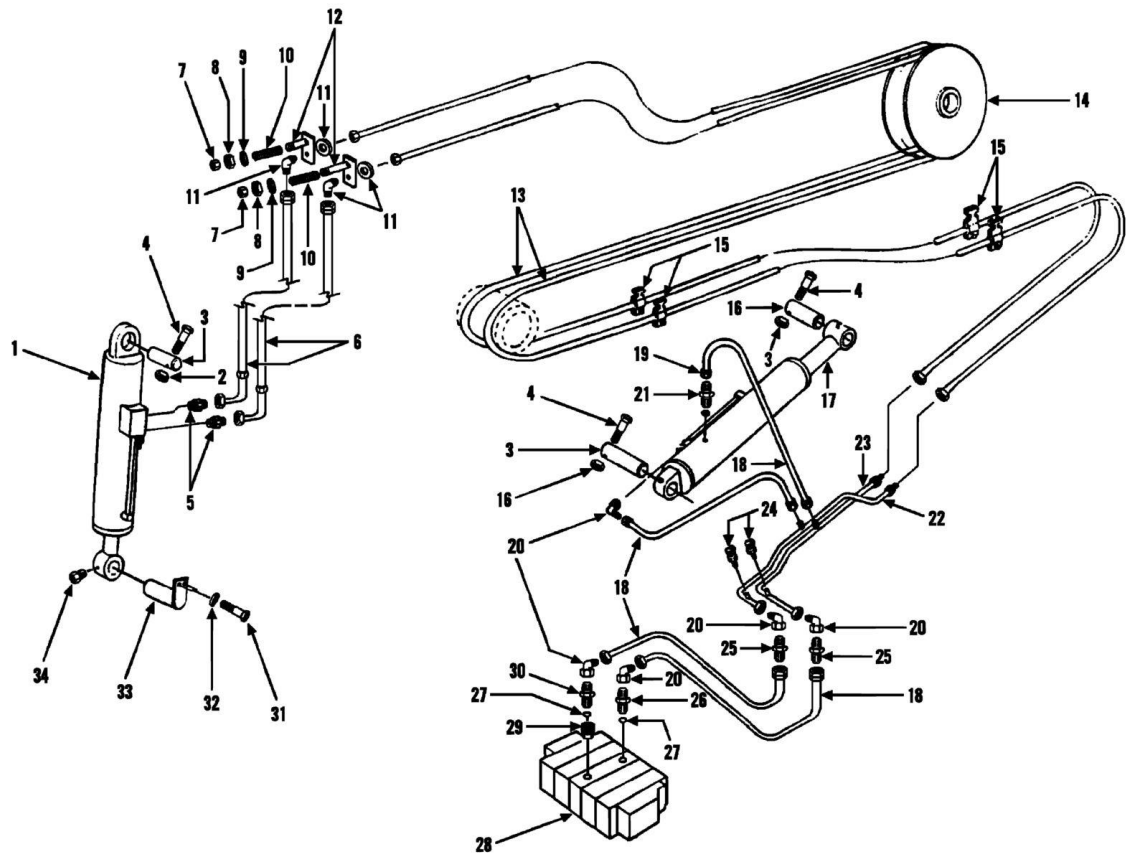
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-9. CROWD CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	CROWD CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	90207352	2	PIN	
3	90028935	4	RETAINING RING	
4	90403212	1	CROWD CYLINDER SUPPORT	
5	88201008	2	HEX HD CAPSCREW, 1/4-20 x 1-3/4, GR5	
6	88561107	2	FLAT WASHER, 1/4	
7	88501004	2	HEX NUT, 1/4-20	
8	91034308	1	COUNTERBALANCE VALVE (includes O-ring)	
9	88662108	1	ELBOW, 90, (swivel nut)	
10	88662008	1	CONNECTOR (includes item #12)	
11	88662067	1	ELBOW, 90, (includes item #12)	
12	88591207	3	O-RING	
13	84717608	2	HOSE ASSY	
14	90205792	4	HOSE CLAMP	
15	88662108	2	ELBOW, 90, (swivel nut)	
16	88662038	1	CONNECTOR (includes item #12)	
17	88662025	1	CONNECTOR (includes item #18)	
18	88591209	1	O-RING	
19		Ref	MAIN CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-10. TILT AND TILT COMPENSATING CYLINDER (SN 0144860S to Present)



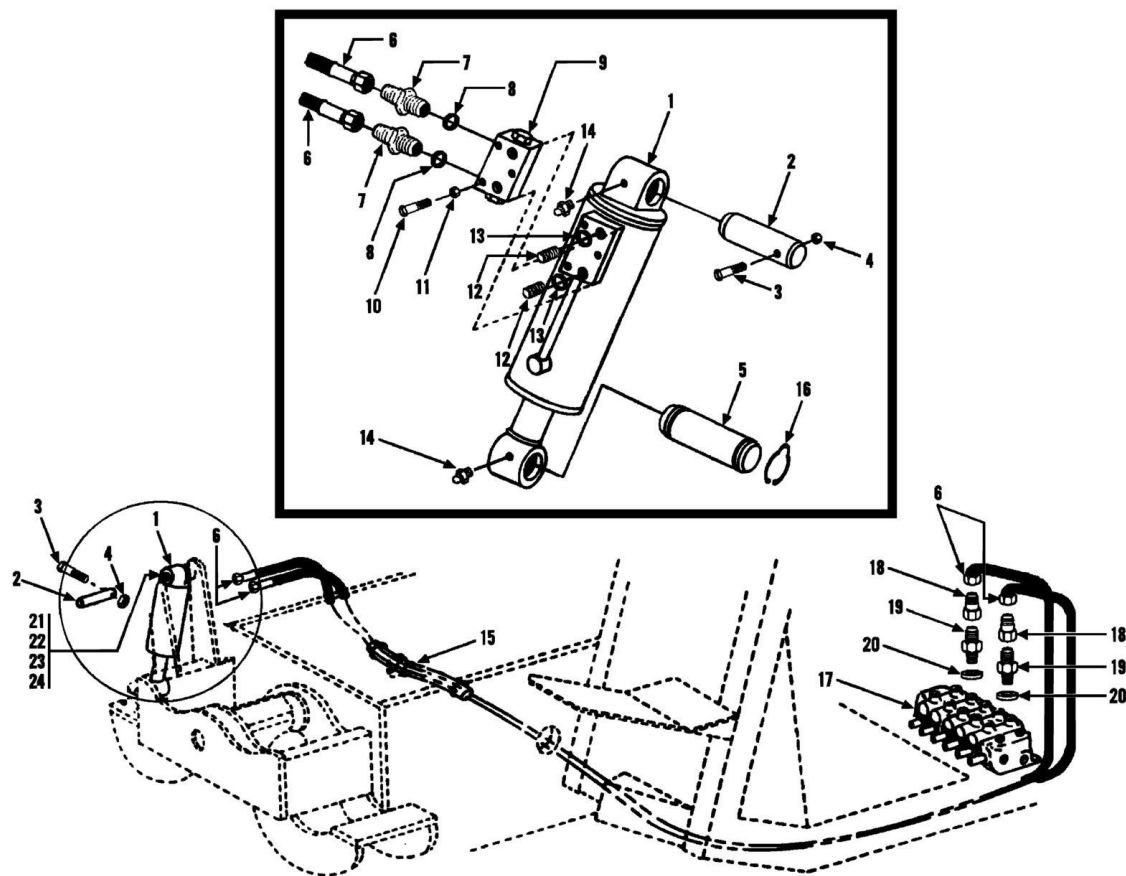
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-10. TILT AND TILT COMPENSATING CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91033369	Ref	TILT CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88521010	1	HEX LOCKNUT, 5/8-11	
3	90206892	3	PIN	
4	83201044	3	HEX HD CAPSCREW, 5/8-11 X 4, GR8	
5	88662020	2	CONNECTOR (includes o-ring)	
5	88591207	2	O-RING	
6	84717922	2	HOSE ASSY	
7	88501108	2	HEAVY HEX JAM NUT, 1/2-13	
8	88501008	2	HEX NUT, 1/2-13	
9	90207041	2	SPRING RETAINER	
10	90200313	2	SPRING	
11	90027180	2	BULKHEAD FITTING	
12	90403249	2	HOSE TAKE-UP WELDMENT	
13	90206888	2	HOSE ASSY	
14	91043100	1	SHEAVE	
15	90207463	5	HOSE CLAMP	
16	88501010	2	HEX NUT, 5/8-11	
17	91043304	Ref	COMPENSATING CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	90022043	4	HOSE ASSY	
19	88662021	1	CONNECTOR (includes item #21)	
20	88662107	5	ELBOW, 90, (swivel nut)	
21	88591205	1	O-RING	
22	90207386	1	TUBE ASSY	
23	91043195	1	TUBE ASSY	
24	91033032	2	CHECK COUPLING	
25	90029939	2	BULKHEAD ADAPTER (with nut)	
26	88662022	1	CONNECTOR (includes item #27)	
27	88591207	2	O-RING	
28	91033296	Ref	MAIN CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	86923006	1	REDUCER FITTING	
30	88662008	1	CONNECTOR (includes item #27)	
31	88201065	2	HEX HD CAPSCREW, 1/2-13 X 1, GR5	
32	88551013	2	LOCKWASHER, 1/2	
33	90207046	1	PIN WELDMENT	
34	88671033	4	LUBE FITTING, STRAIGHT, 1/4-28	

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FIGURE 8-11. SWAY CYLINDER (SN 0144860S to Present)



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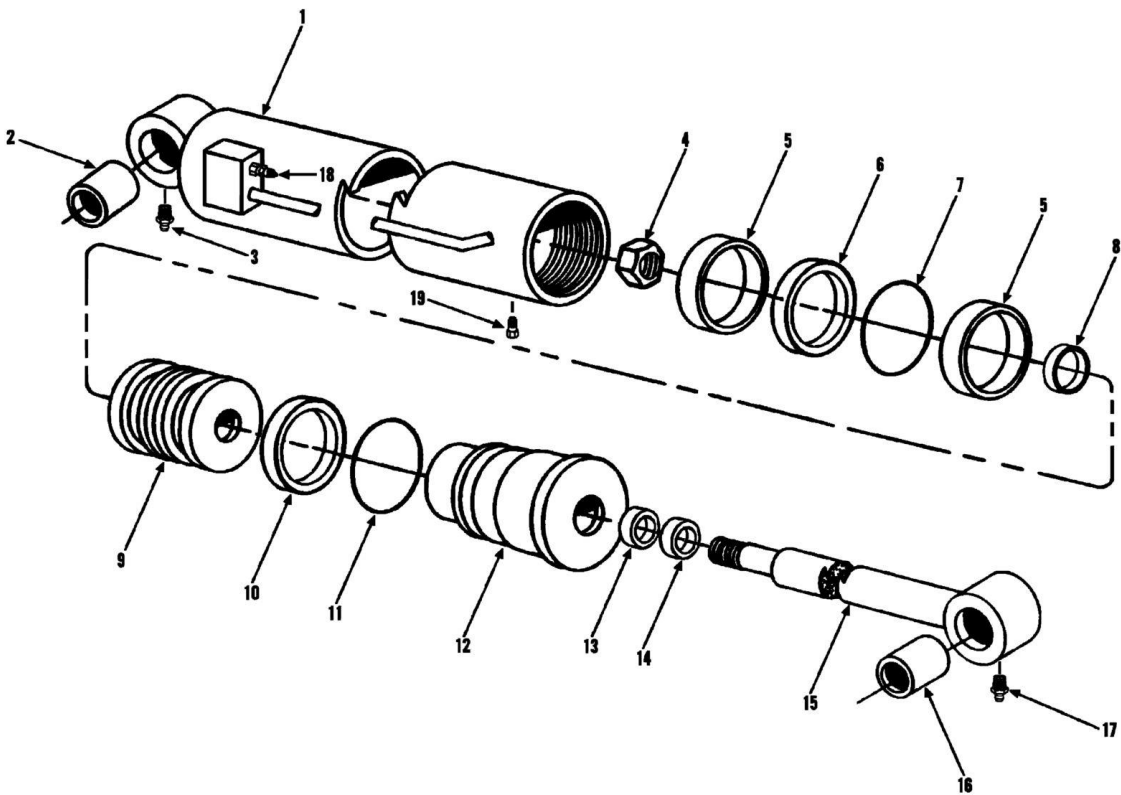
FIGURE 8-11. SWAY CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SWAY CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	90402876	1	PIN	
3	83201044	1	HEX HD CAPSCREW, 5/8-11 X4, GR8	
4	88501010	1	HEX NUT, 5/8-11	
5	90207352	1	PIN	
6	91033224	1	HOSE ASSY	
7	88662006	2	CONNECTOR (includes item #8)	
8	88591205	2	O-RING	
9		Ref	DUAL P.O. CHECK VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	88201041	3	HEX HD CAPSCREW, 3/8-16 X 2-1/2, GR5	
11	88551011	3	LOCKWASHER, 3/8	
12	91041387	2	ORIFICE PLUG	
13	88591012	2	O-RING	
14	88671033	2	LUBE FITTING, STRAIGHT, 1/4-28	
15	91033043	1	HOSE	
16	90028935	2	RETAINING RING	
17		Ref	MAIN CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	83651133	2	REDUCER	
19	88662008	2	CONNECTOR (includes item #20)	
20	88591207	2	O-RING	
21	90207730	AR	SHIM (1/4IN thick)	
22	90207729	AR	SHIM (10 gauge)	
23	90207728	AR	SHIM (16 gauge)	
24	90207727	AR	SHIM (20 gauge)	

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FIGURE 9-1. (91033371) LIFT CYLINDER (SN 0144860S to Present)



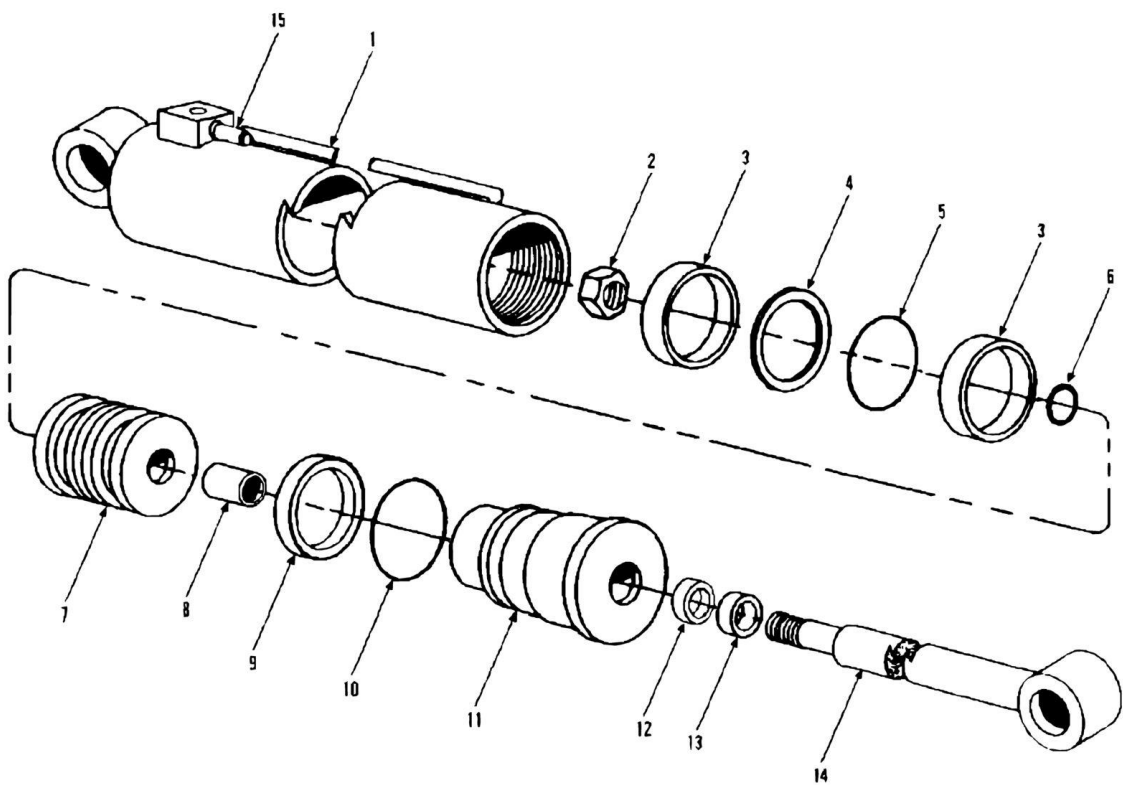
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-1. (91033371) LIFT CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033371	2	LIFT CYLINDER ASSY (includes all items)	
	91034278	AR	SEAL KIT (includes items 5, 6, 7, 8, 10, 11, 13, 14)	
1	91034279	1	TUBE ASSY (includes item #2)	
2	91084176	1	BUSHING	
3	88671027	1	LUBE FITTING, 90, 1/4-28	
4	91034280	1	LOCKNUT (torque to 1100 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91034281	1	PISTON	
10	Kit	1	BACKUP RING	
11	Kit	1	O-RING	
12	91034282	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91034283	1	ROD ASSY (includes item #16)	
16	91044370	1	BUSHING	
17	88671033	1	LUBE FITTING, STRAIGHT, 1/4-28	
18	91033430	1	COUNTERBALANCE VALVE	
19	91034332	1	SET SCREW	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-2. (91033368) CROWD CYLINDER (SN 0144860S to Present)



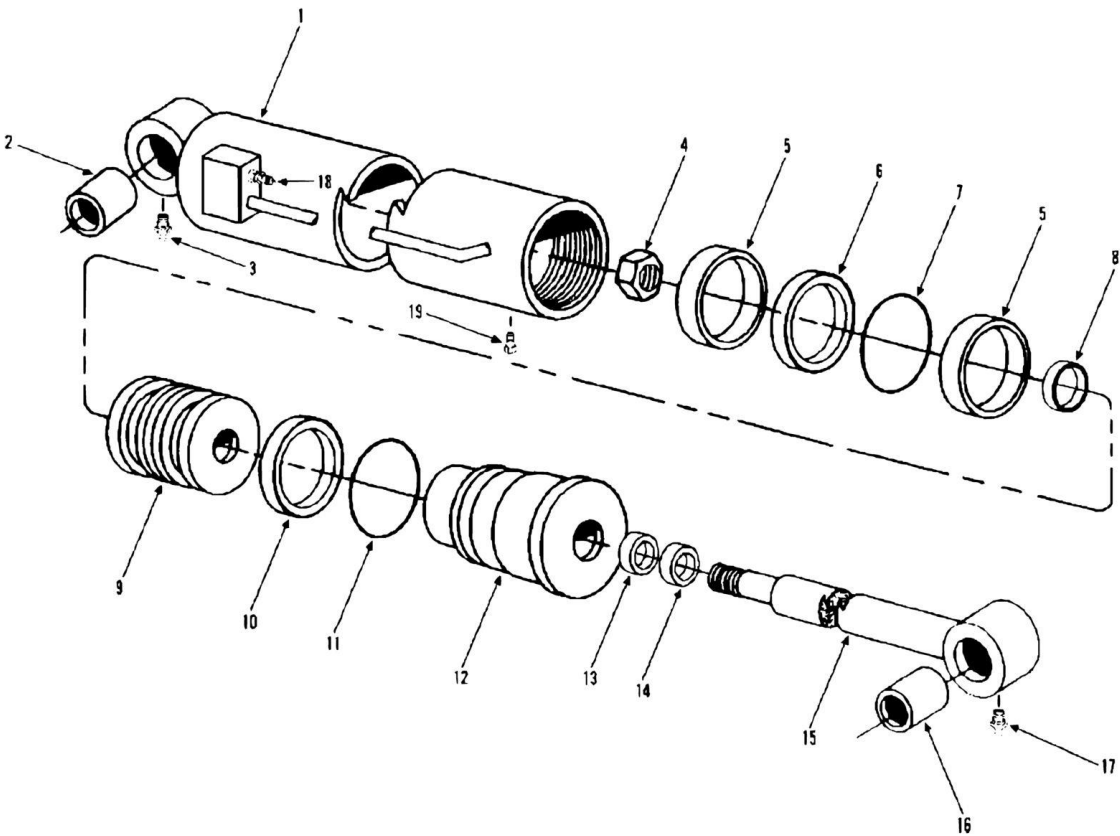
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-2. (91033368) CROWD CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033368	1	CROWD CYLINDER ASSY (includes all items)	
	91034290	AR	SEAL KIT (includes items 3, 4, 5, 6, 9, 10, 12 & 13)	
1		Ref	TUBE ASSY	
2	91034286	1	LOCKNUT (torque to 590 ft lbs)	
3	Kit	2	WEAR RING	
4	Kit	1	SEAL	
5	Kit	1	O-RING	
6	Kit	1	O-RING	
7	91034291	1	PISTON	
8	91034292	1	STOP TUBE	
9	Kit	1	BACKUP RING	
10	Kit	1	O-RING	
11	91034293	1	GLAND	
12	Kit	1	SEAL	
13	Kit	1	WIPER	
14	91034294	1	ROD ASSY	
15	91034308	1	COUNTERBALANCE VALVE	
15	91044524	1	COUNTERBALANCE VALVE SEAL KIT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-3. (91033369) TILT CYLINDER (SN 0144860S to Present)



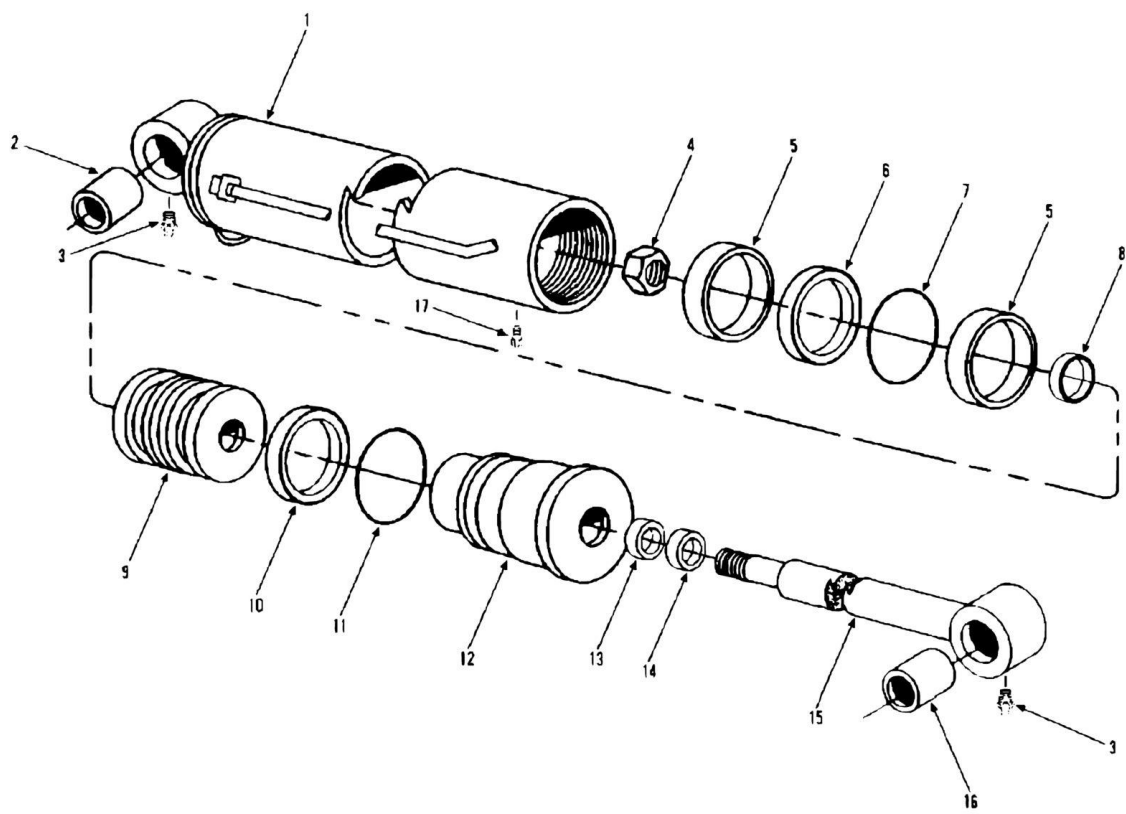
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-3. (91033369) TILT CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033369	1	TILT CYLINDER ASSY (includes all items)	
	91034278	AR	SEAL KIT (includes items 5, 6, 7, 8, 10, 11, 13 & 14)	
1	91034295	1	TUBE ASSY (includes item #2)	
2	91084176	1	BUSHING	
3	88671027	1	LUBE FITTING, 90, 1/4-28	
4	91034280	1	LOCKNUT (torque to 1100 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91034281	1	PISTON	
10	Kit	1	BACK-UP RING	
11	Kit	1	O-RING	
12	91034282	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91034296	1	ROD ASSY (includes item #16)	
16	91084176	1	BUSHING	
17	88671033	1	LUBE FITTING, STRAIGHT, 1/4-28	
18	91033430	1	COUNTERBALANCE VALVE	
19	91034332	1	SET SCREW	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-4. (91033304) COMPENSATING CYLINDER (SN 0144860S to Present)



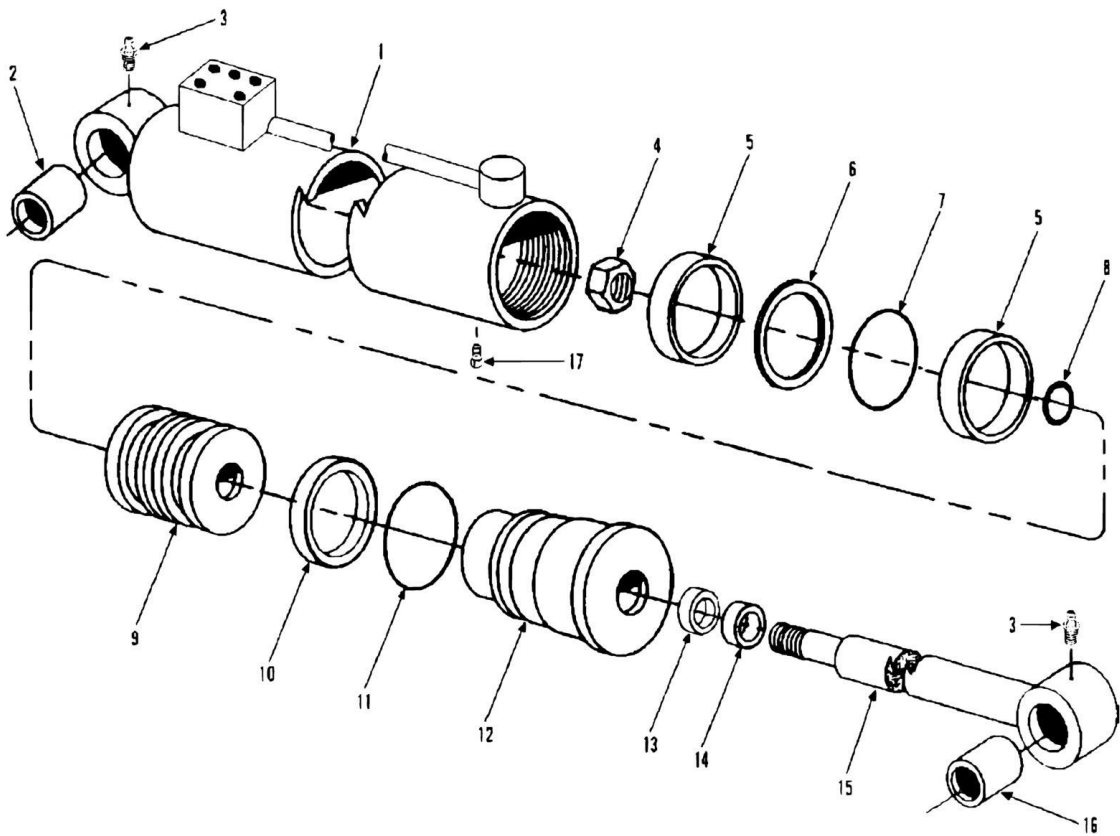
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-4. (91033304) COMPENSATING CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033304	1	COMPENSATING CYLINDER ASSY (includes all items)	
	91034278	AR	SEAL KIT (includes items 5, 6, 7, 8, 10, 11, 13, 14)	
1	91044313	1	TUBE ASSY (includes item #2)	
2	91084176	1	BUSHING	
3	88671033	2	LUBE FITTING, STRAIGHT, 1/4-28	
4	91034280	1	LOCKNUT (torque to 1100 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91034281	1	PISTON	
10	Kit	1	BACKUP RING	
11	Kit	1	O-RING	
12	91034314	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91044315	1	ROD ASSY (includes item #16)	
16	91084176	1	BUSHING	
17	91034332	1	SET SCREW	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-5. (91033367) SWAY CYLINDER (SN 0144860S to Present)



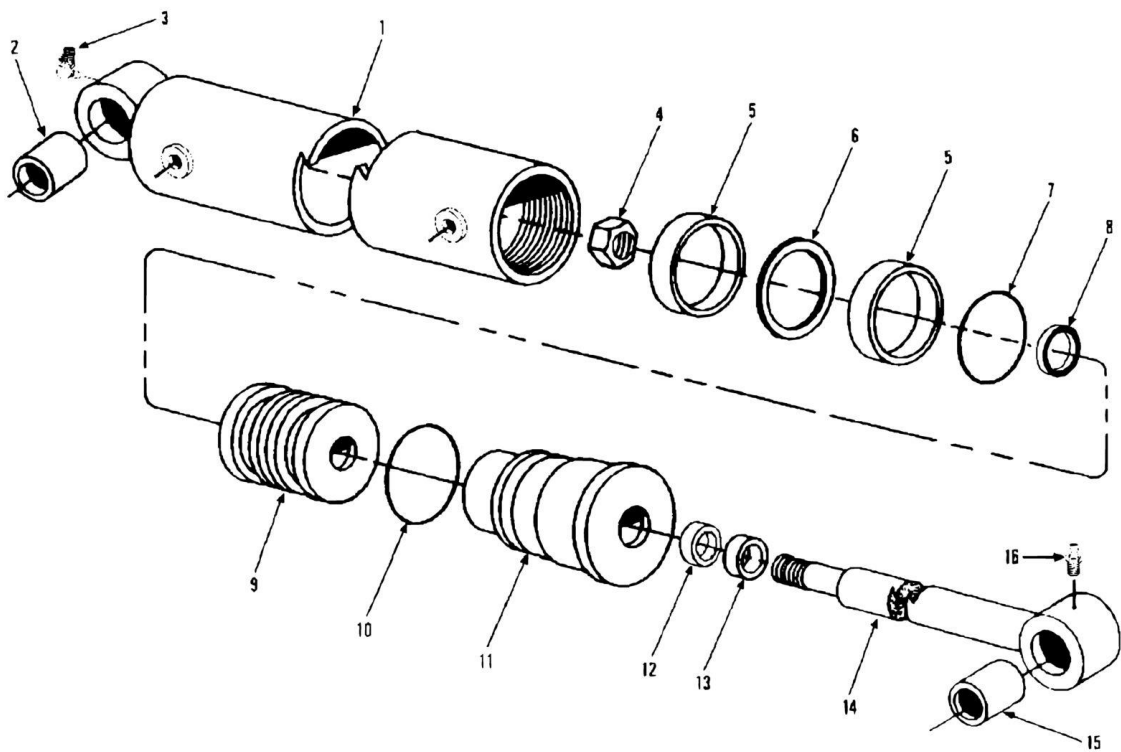
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FIGURE 9-5. (91033367) SWAY CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033367	1	SWAY CYLINDER ASSY (includes all items)	
	91034297	AR	SEAL KIT (includes items 5, 6, 7, 8, 10, 11, 13, 14)	
1	91034298	1	TUBE ASSY (includes item #2)	
2	91084176	1	BUSHING	
3	88671033	2	LUBE FITTING, STRAIGHT, 1/4-28	
4	91034286	1	LOCKNUT (torque to 590 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91034291	1	PISTON	
10	Kit	1	BACKUP RING	
11	Kit	1	O-RING	
12	91034299	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91044300	1	ROD ASSY (includes item #16)	
16	91084176	1	BUSHING	
17	91034332	1	SET SCREW	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-6. (91043316) STEERING CYLINDER (SN 0144860S to Present)



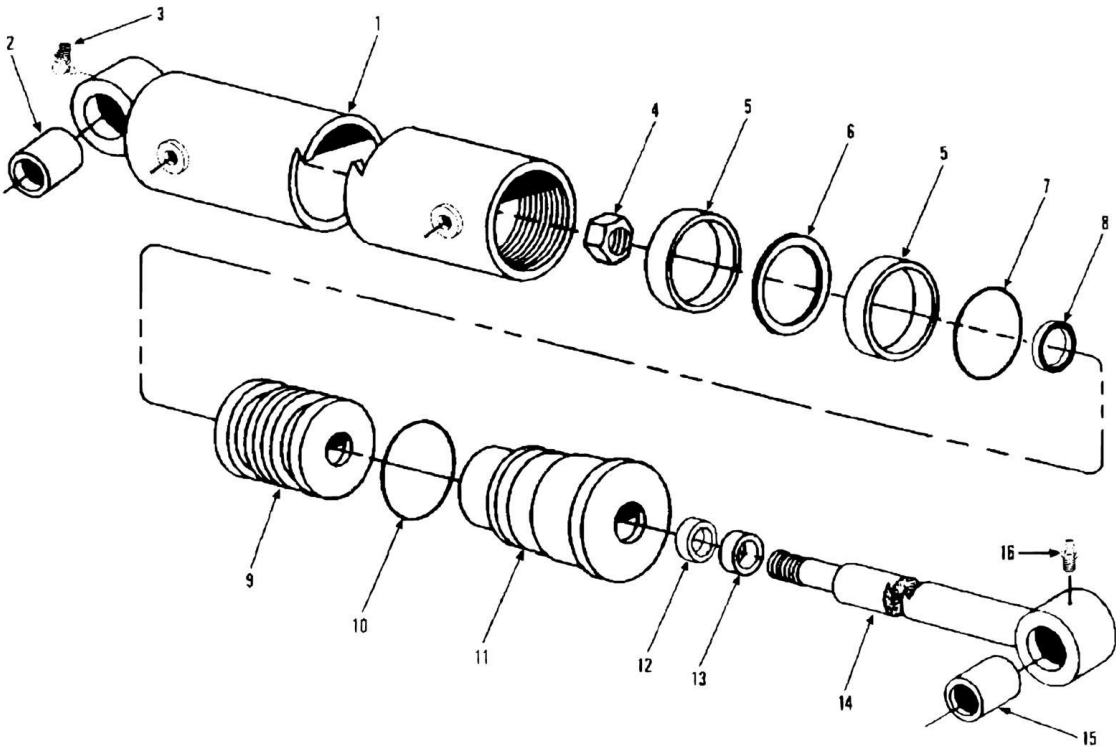
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FIGURE 9-6. (91043316) STEERING CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043316	2	STEERING CYLINDER ASSY (includes all items)	
	91034301	AR	SEAL KIT (includes items 5, 6, 7, 8, 10, 12, 13)	
1	91034302	1	TUBE ASSY	
2	91084194	1	BUSHING	
3	88671022	1	LUBE FITTING, 90	
4	91034303	1	LOCKNUT (torque to 235 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91034304	1	PISTON	
10	Kit	1	O-RING	
11	91034305	1	GLAND	
12	Kit	1	SEAL	
13	Kit	1	WIPER	
14	91044368	1	ROD ASSY (includes item #15)	
15	91043246	1	BUSHING	
16	88671001	1	LUBE FITTING, STRAIGHT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-7. (91033478) STEERING CYLINDER (SN 0244089S to Present)



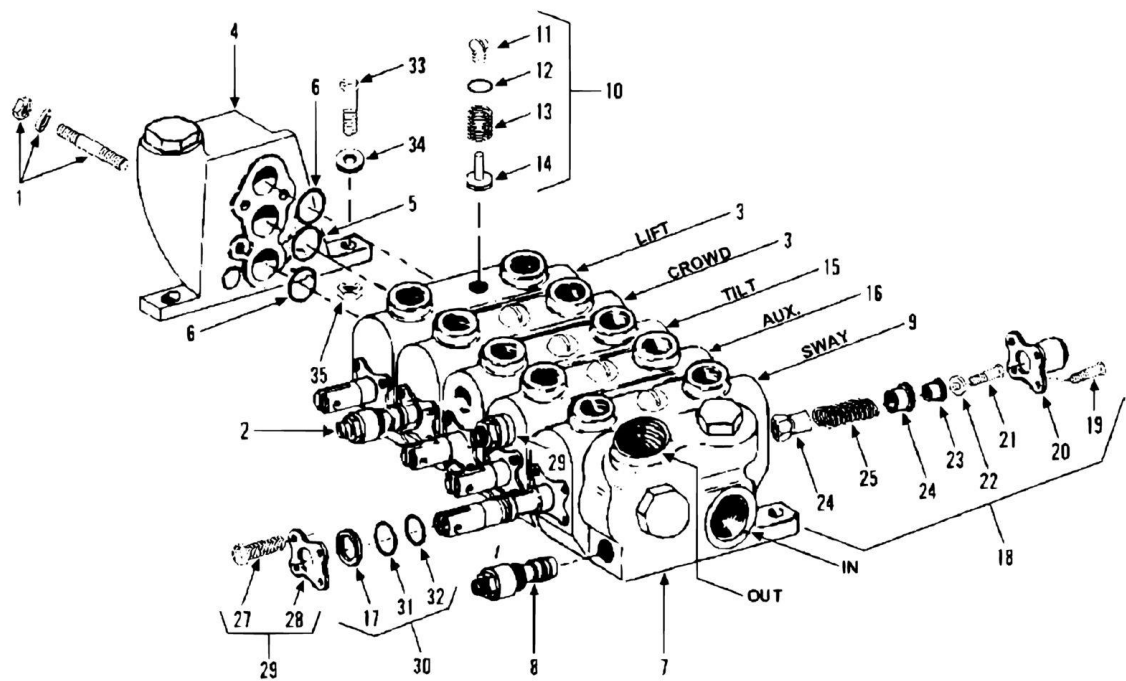
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-7. (91033478) STEERING CYLINDER (SN 0244089S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033478	2	STEERING CYLINDER ASSY (includes all items)	
	91034301	AR	SEAL KIT (includes items 5, 6, 7, 8, 10, 12, 13)	
1		Ref	TUBE ASSY	
2	91084194	1	BUSHING	
3	88671022	1	LUBE FITTING, 90	
4	91034303	1	LOCKNUT (torque to 235 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91034304	1	PISTON	
10	Kit	1	O-RING	
11	91034305	1	GLAND	
12	Kit	1	SEAL	
13	Kit	1	WIPER	
14	91044368	1	ROD ASSY (includes item #15)	
15	91043246	1	BUSHING	
16	88671001	1	LUBE FITTING, STRAIGHT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-8. MAIN CONTROL VALVE (SN 0144860S to Present)



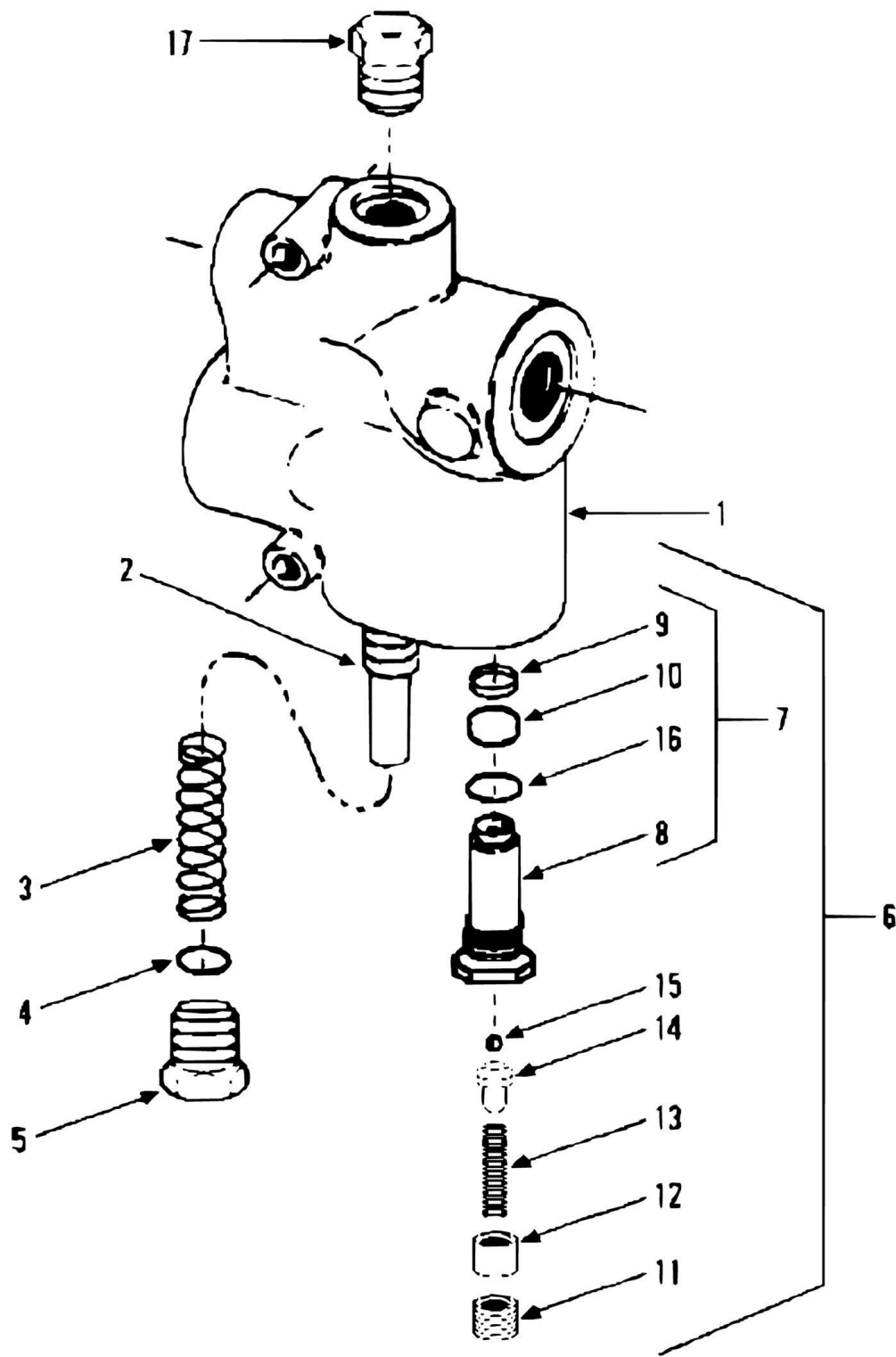
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FIGURE 9-8. MAIN CONTROL VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033296	1	CONTROL VALVE ASSY (includes all items)	
1	91034070	AR	STUD KIT	
2	90206415	1	PORT RELIEF	
	91034237	AR	STUD KIT	
3	91034102	2	VALVE SECTION (includes items 10 through 14)	
4	91034104	1	COVER PLATE ASSY (right end)	
5	90206422	1	O-RING	
6	90206423	2	O-RING	
7	91044114	1	COVER PLATE ASSY (left end; includes item #8)	
8	90208136	1	MAIN RELIEF VALVE ASSY (3,000 PSI)	
8	91034236	AR	SEAL KIT	
9	90206421	1	VALVE SECTION (includes items 10 through 14)	
10	90206413	AR	LOAD CHECK POPPET ASSY (includes items 11 through 14)	
11		Ref	LOAD CHECK PLUG	
12	Kit	1	O-RING	
13		Ref	SPRING	
14		Ref	POPPET	
15	90206420	1	VALVE SECTION (with port relief; includes item #2)	
16	91034072	1	VALVE SECTION (includes item #29)	
17	90206418	AR	SEAL PLATE	
18	90206427	AR	NEUTRAL POSITIONER (consists of items 19 through 25)	
19	88301548	4	FILLISTER HD MACHINE SCREW, 1/4-20 X 1	
20	90206431	1	BONNET	
21	88211069	1	SOCKET HD CAPSCREW, 3/8-16 X 3/4, GR8	
22	88551011	1	LOCKWASHER, 3/8	
23	90206430	1	SPOOL COLLAR	
24	90206428	2	STOP COLLAR	
25	90206429	1	SPRING	
26	90206419	AR	RETAINER PLATE KIT (consists of items 27 & 28)	
27	Kit	1	SCREW	
28	Kit	1	RETAINER PLATE	
29	91034074	1	PORT RELIEF	
30	91034159	AR	SPOOL SEAL KIT (consists of items 17, 31, 32)	
31	Kit	1	O-RING	
32	Kit	1	O-RING	
33	88201072	3	HEX HD CAPSCREW, 1/4-20 X 1-3/4, GR5	
34	88561107	3	FLAT WASHER, 1/4	
35	88501008	3	HEX NUT, 1/2-13	
36	90206417	AR	SECTION SEAL KIT (consists of items 5, 6, 12, 17, 31, 32)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-9. PRIORITY FLOW CONTROL VALVE (SN 0144860S to Present)



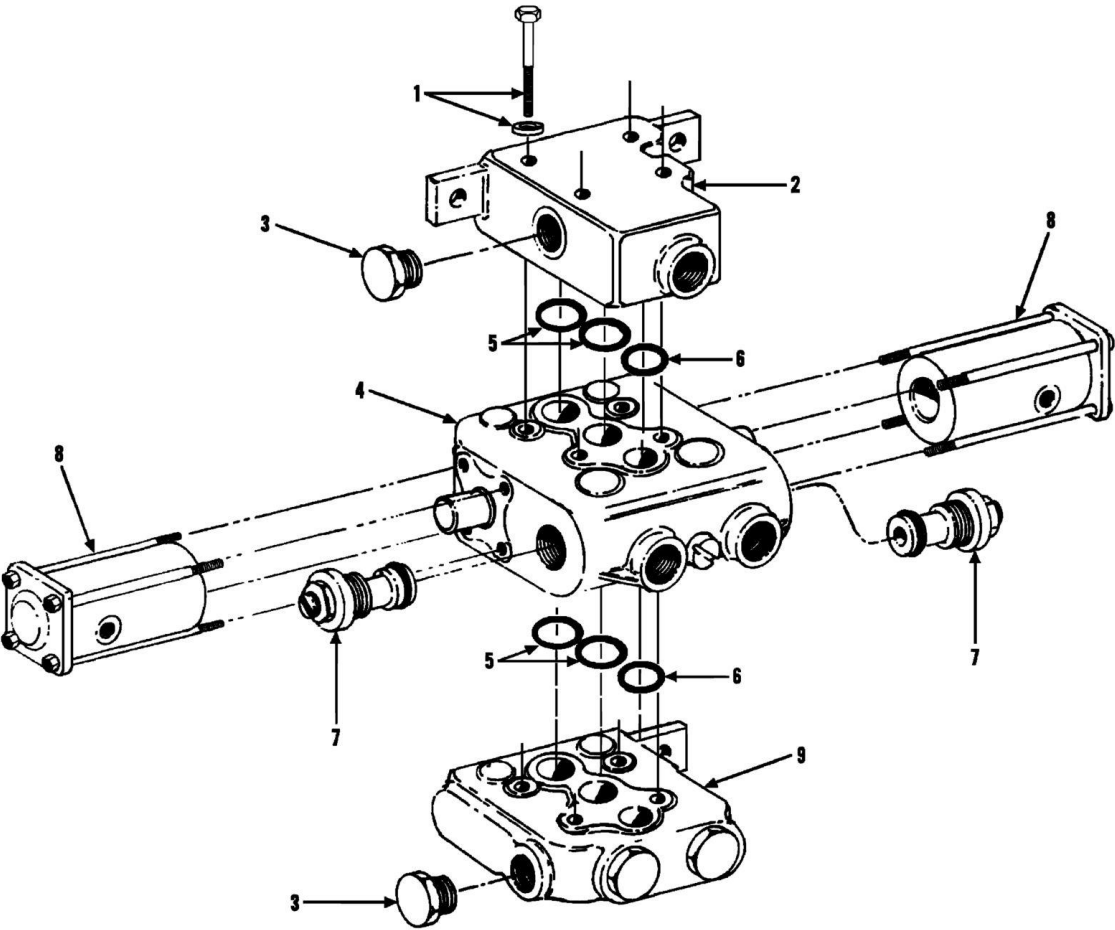
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FIGURE 9-9. PRIORITY FLOW CONTROL VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033240	1	PRIORITY VALVE (2,500 PSI relief setting; includes all items)	
1	90206548	1	HOUSING (includes item #2)	
2	90206549	1	SPOOL	
3	90206550	1	SPRING	
4	88591206	1	O-RING	
5	90206552	1	PLUG	
6	90206553	1	RELIEF CARTRIDGE (includes items 7 through 16)	
7	90206554	1	RELIEF VALVE SUB BODY (includes items 8 through 10)	
8	90206555	1	BODY	
9	90206556	1	RING	
10	90206557	1	SCREEN	
11	90206558	1	RELIEF VALVE ADJUSTING SCREW	
12	90206559	1	SPRING GUIDE	
13	90206560	1	SPRING	
14	90206561	1	BALL HOLDER	
15	90206562	1	BALL	
16	88591205	1	O-RING	
17	90206564	1	PLUG	

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FIGURE 9-10. FORWARD-REVERSE CONTROL VALVE (SN 0144860S to Present)



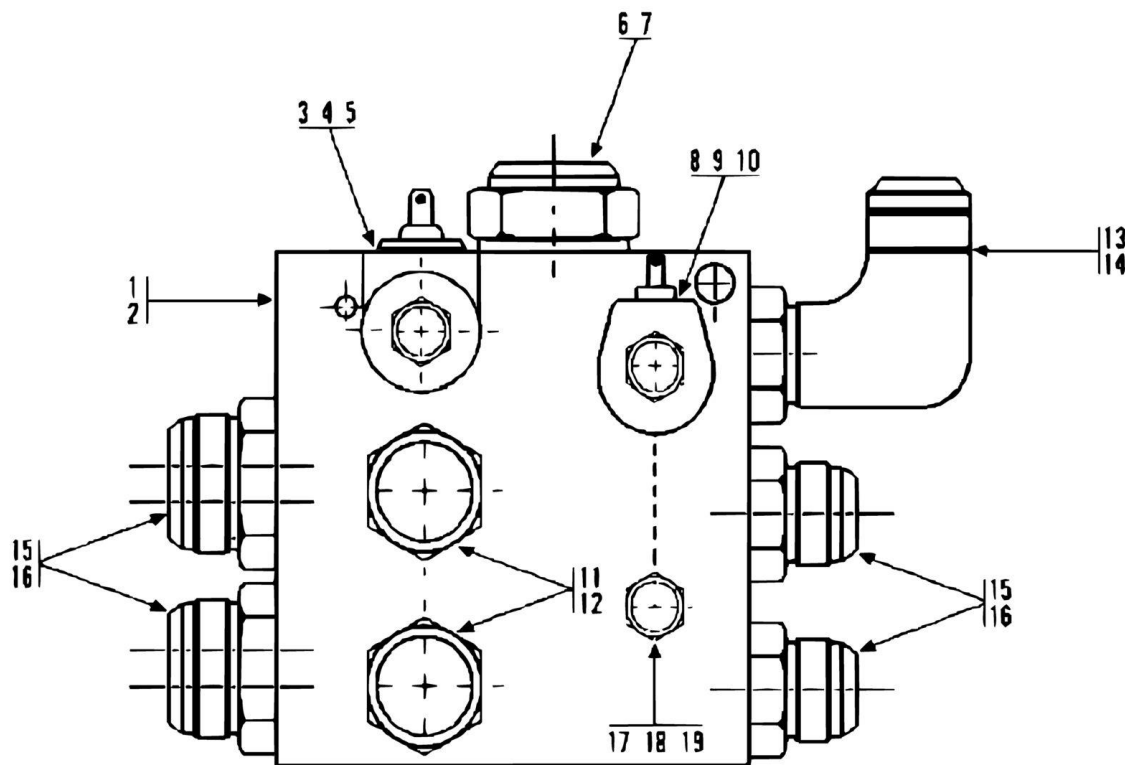
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FIGURE 9-10. FORWARD-REVERSE CONTROL VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90206737	1	FORWARD-REVERSE CONTROL VALVE (includes all items)	
1	90026155	4	HEX HD CAPSCREW, 3/8-16X5	
1	88551011	4	LOCKWASHER, 3/8	
2	90208137	1	OUTLET SECTION	
3	88662180	2	HEX HD PLUG (includes O-ring)	
3	88591210	2	O-RING	
4	90208191	1	WORK SECTION	
5	90206423	4	O-RING	
6	90206422	2	O-RING	
7	90208139	2	PORT RELIEF CARTRIDGE (two backup and one O-ring)	
8	90208140	2	REMOTE HYDRAULIC ACTUATOR	
9	90208141	1	INLET SECTION	
10	91033040		PLUG (not shown; replaces anticavitation check)	

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FIGURE 9-11. SERIES-PARALLEL CONTROL VALVE (SN 0144860S to Present)



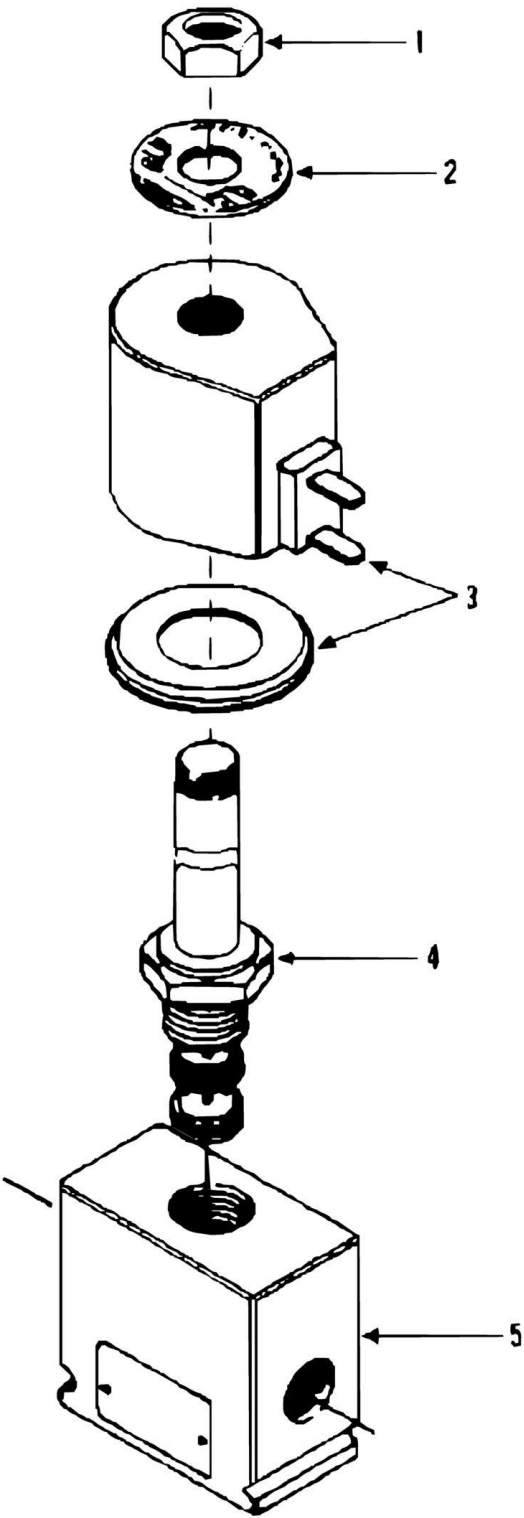
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FIGURE 9-11. SERIES-PARALLEL CONTROL VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91045097	1	SERIES-PARALLEL VALVE ASSY (includes items 1 through 16)	
	91043264	1	SERIES-PARALLEL CONTROL VALVE ASSY (includes items 2 through 12)	
2		Ref	VALVE BODY	
3	91044341	1	SOLENOID VALVE ASSY, FOUR-WAY (includes item #5)	
4	77384264	AR	SEAL KIT	
5	91044012	2	SOLENOID COIL	
6	91044342	1	DIFFERENTIAL PRESSURE SENSING VALVE	
7	91044343	AR	SEAL KIT	
8	77363121	1	SOLENOID VALVE ASSY, TWO-WAY (includes item #10)	
9	91044002	AR	SEAL KIT	
10	91044012	1	SOLENOID COIL	
11	91044344	2	DIFFERENTIAL PRESSURE SENSING VALVE	
12	91044345	AR	SEAL KIT	
13	88662067	1	ELBOW, 90, (includes item #14)	
14	88591207	1	O-RING	
15	88662010	6	CONNECTOR (includes item #16)	
16	88591209	6	O-RING	
17	83201048	2	HEX HD CAPSCREW, 3/8-16 X 5-1/4, GR5	
18	88561109	2	FLAT WASHER, 3/8	
19	88501006	2	HEX NUT, 3/8-16	

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-12. SOLENOID VALVE (SN 0144860S to Present)



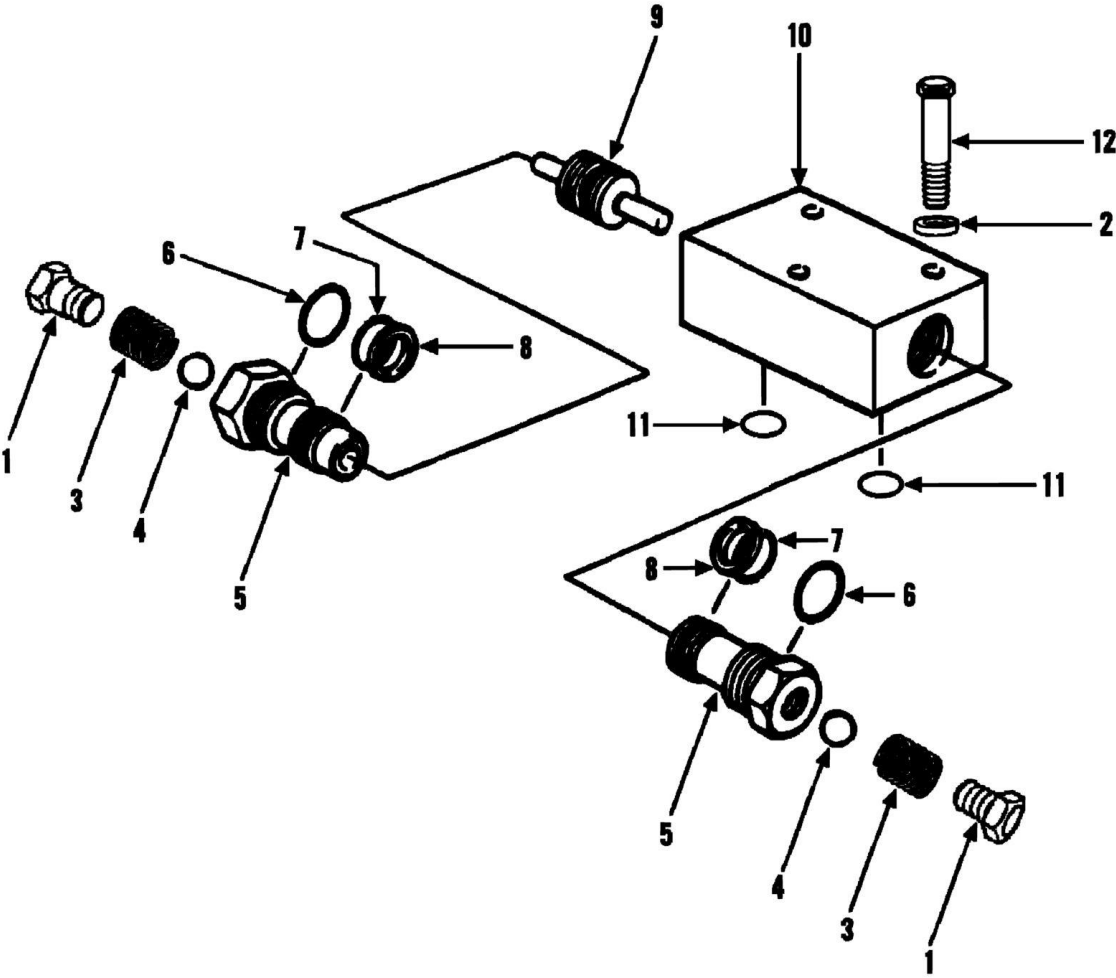
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-12. SOLENOID VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90206739	1	3-WAY SOLENOID VALVE (includes all items)	
1	90208066	1	NUT	
2	90208067	1	NAME PLATE	
3	77384267	1	COIL	
4	90208071	1	VALVE ASSY (3-way, 2-pos.)	
5	90208072	1	VALVE BODY	

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-13. DUAL P.O. CHECK VALVE (SN 0144860S to Present)



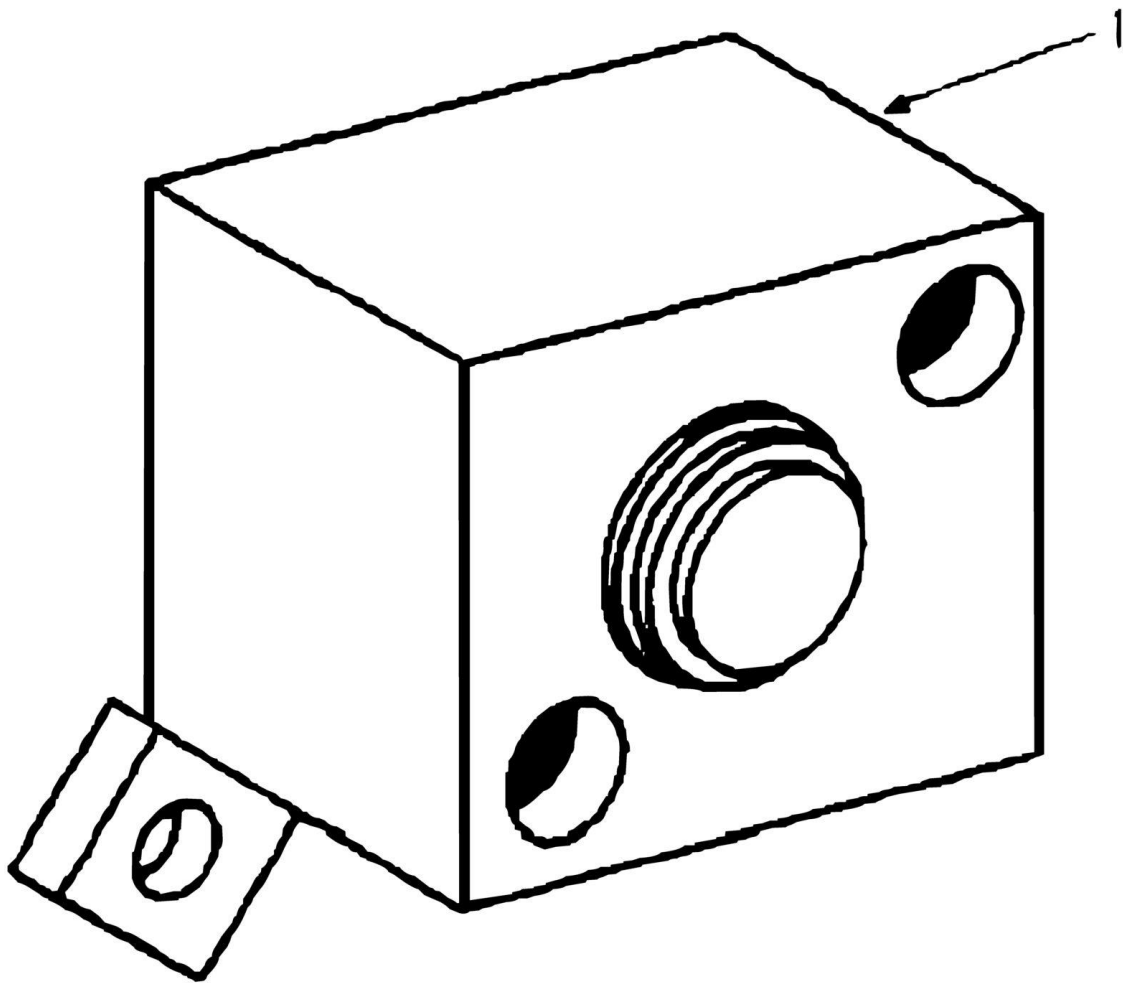
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-13. DUAL P.O. CHECK VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91053354	2	DUAL P.O. CHECK VALVE ASSY (includes items 1, 3 through 11)	
1	91034272	1	PLUG	
2	88551011	3	LOCKWASHER, 3/8	
3	91034110	1	SPRING	
4	91034111	1	BALL	
5	91034112	1	CARTRIDGE BODY	
6	91034113	1	O-RING	
7	91034114	1	O-RING	
8	91034115	1	BACKUP RING	
9	91034116	1	PISTON	
10	91034117	1	BODY	
11	91034273	2	O-RING	
12	88201041	3	HEX HD CAPSCREW, 3/8-16 X 2-1/2, GR5	

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-14. INCHING VALVE (SN 0144860S to Present)



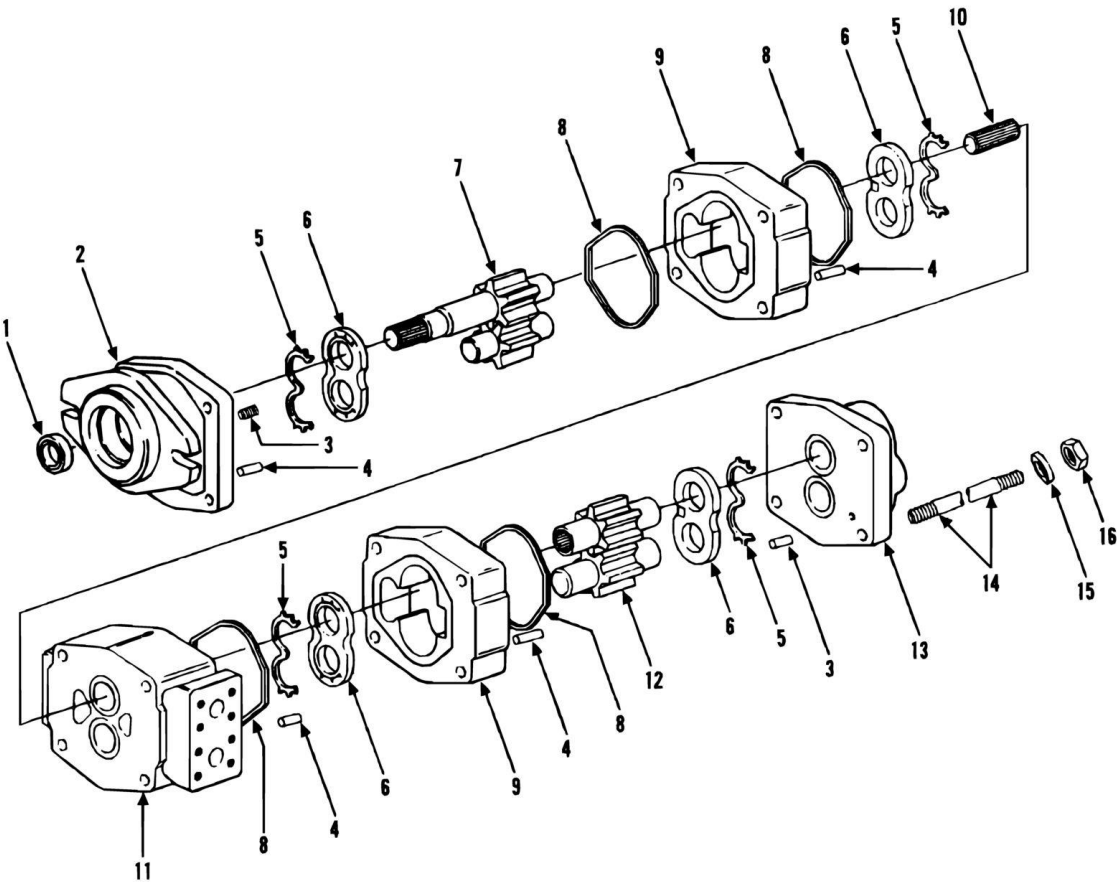
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-14. INCHING VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91033096	1	INCHING VALVE	
1	91034018	Ref	SEAL KIT	

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FIGURE 9-15. MAIN HYDRAULIC PUMP (SN 0144860S to Present)



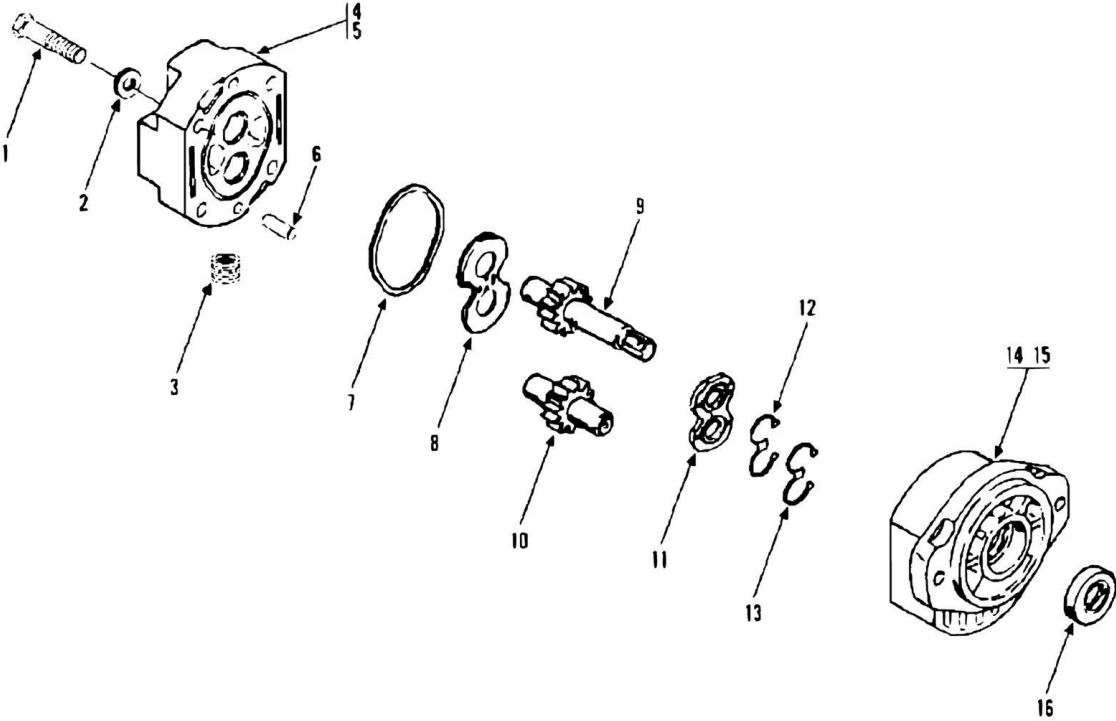
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-15. MAIN HYDRAULIC PUMP (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033226	1	MAIN HYDRAULIC PUMP ASSY (includes all items)	
	91034315	1	SEAL KIT (includes items 1, 5, 8)	
1	Kit	1	LIP SEAL	
2	91034316	1	SHAFT END COVER ASSY (includes bushings)	
3	77134028	2	PLUG	
4	83671037	8	DOWEL PIN	
5	Kit	4	CHANNEL SEAL	
6	91034317	4	THRUST PLATE	
7	91034318	1	GEAR SET	
8	Kit	4	GASKET SEAL	
9	91034319	2	GEAR HOUSING	
10	91034320	1	CONNECTING SHAFT	
11	91034321	1	BEARING CARRIER ASSY (includes bushings)	
12	91034322	1	GEAR SET	
13	91034323	1	PORT END COVER	
14	91034324	4	STUD	
15	77134044	4	FLAT WASHER	
16	85941045	4	HEX NUT	

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FIGURE 9-16. PILOT PUMP (SN 0144860S to Present)



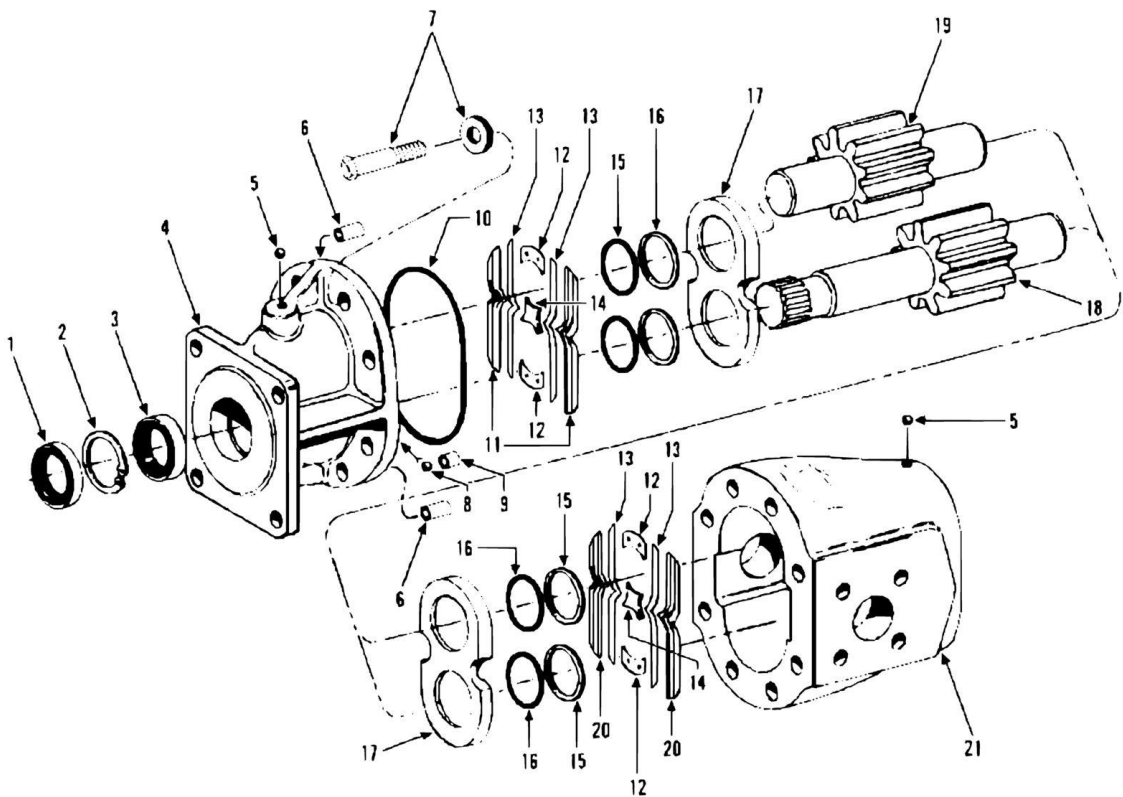
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-16. PILOT PUMP (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043297	1	PILOT PUMP ASSY (includes all items)	
	91044441	1	MAJOR KIT (includes items 7, 8, 11, 12, 13, 16)	
	91044442	1	SEAL KIT (includes items 7, 12, 13, 16)	
	88201038	4	HEX HD CAPSCREW, 3/8-16 X 1-3/4, GR5 (lubricate and torque to 34-38 ft lbs)	
2	91034058	4	WASHER	
3	91034059	1	PIPE PLUG	
4	91044355	1	REAR COVER ASSY (includes item #5)	
5		Ref	SLEEVE BUSHING	
6	91034062	2	DOWEL PIN	
7	Kit	1	GASKET	
8	91034063	1	THRUST PLATE (install with bronze side facing gears)	
9	91044443	1	DRIVE GEAR ASSY	
10	91044357	1	DRIVEN GEAR	
11	Kit	1	WEAR PLATE	
12	Kit	1	SPACER	
13	Kit	1	LOADING SEAL	
14	91044358	1	BODY ASSY (includes item #15)	
15		Ref	SLEEVE BUSHING	
16	91044359	1	SHAFT SEAL	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-17. REAR DRIVE MOTOR (SN 0144860S to Present)



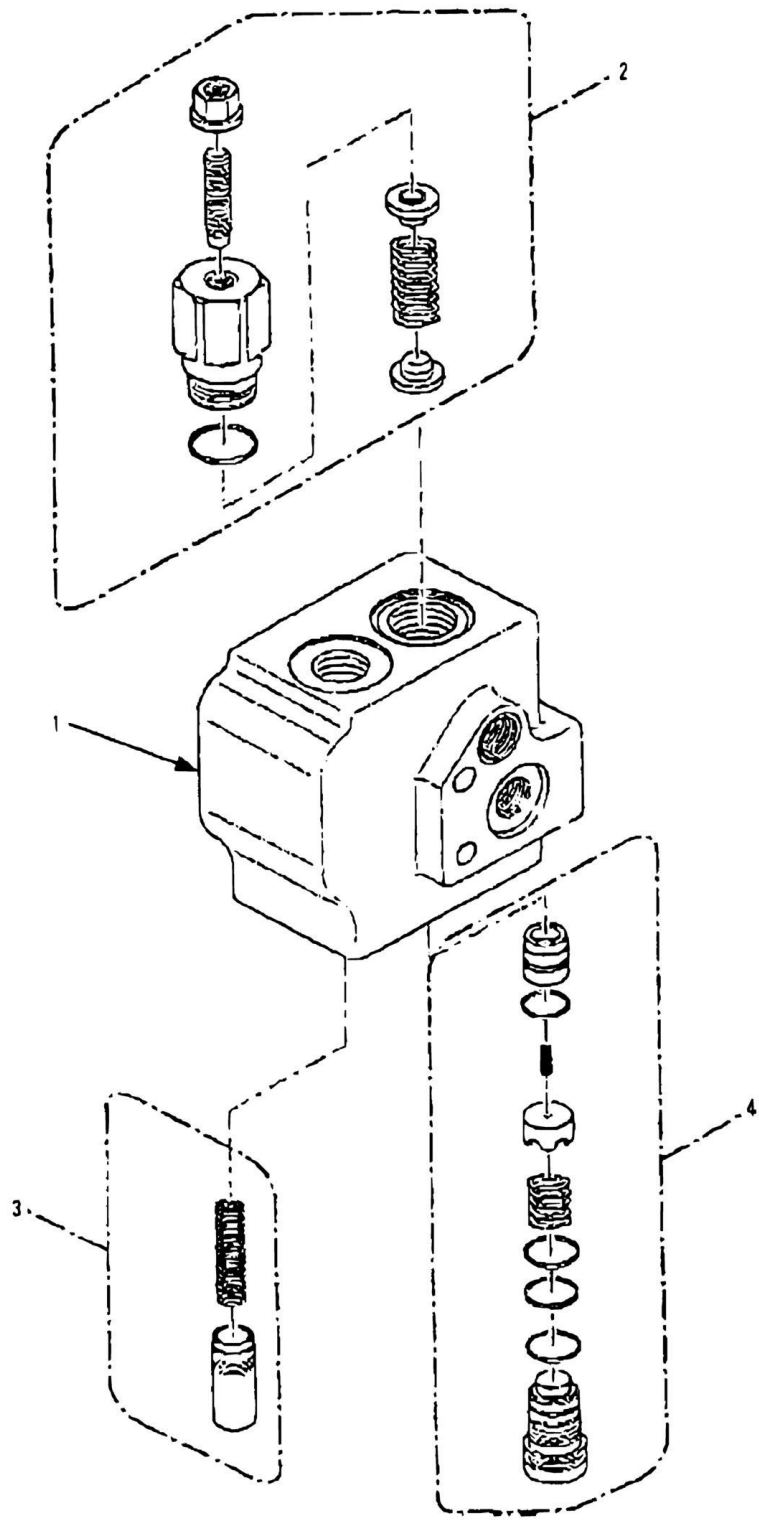
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-17. REAR DRIVE MOTOR (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90206748	2	REAR DRIVE MOTOR (includes all items)	
1	90202371	1	SHAFT SEAL (outer)	
2	90202372	1	SNAP RING	
3	90205716	1	SHAFT SEAL (inner)	
4	90208193	1	FLANGE (with bushings)	
5	90202435	2	BALL, 1/4IN	
6	90202376	2	DOWEL	
7	90027736	8	HEX HD CAPSCREW, 1/2-13 X 1-1/4, GR8	
8	90202377	2	CHECK BALL, 1/2IN	
9	90202378	2	CHECK BALL RETAINER	
10	90202379	1	O-RING	
11	90202390	2	TOP ISOLATION PLATE	
12	90202391	4	END SEPARATOR	
13	90202393	4	SEALING STRIP	
14	90202392	2	CENTER SEPARATOR	
15	90208194	4	O-RING	
16	90202381	4	BACKUP RING	
17	90202382	2	PRESSURE PLATE	
18	90208196	1	DRIVE GEAR	
19	90208197	1	IDLER GEAR	
20	90202389	2	BOTTOM ISOLATION PLATE	
21	90208198	1	BODY (with bushings)	
22	91044222	8	WASHER	

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FIGURE 9-18. (91043296) ACCUMULATOR CHARGE VALVE (SN 0144860S to Present)



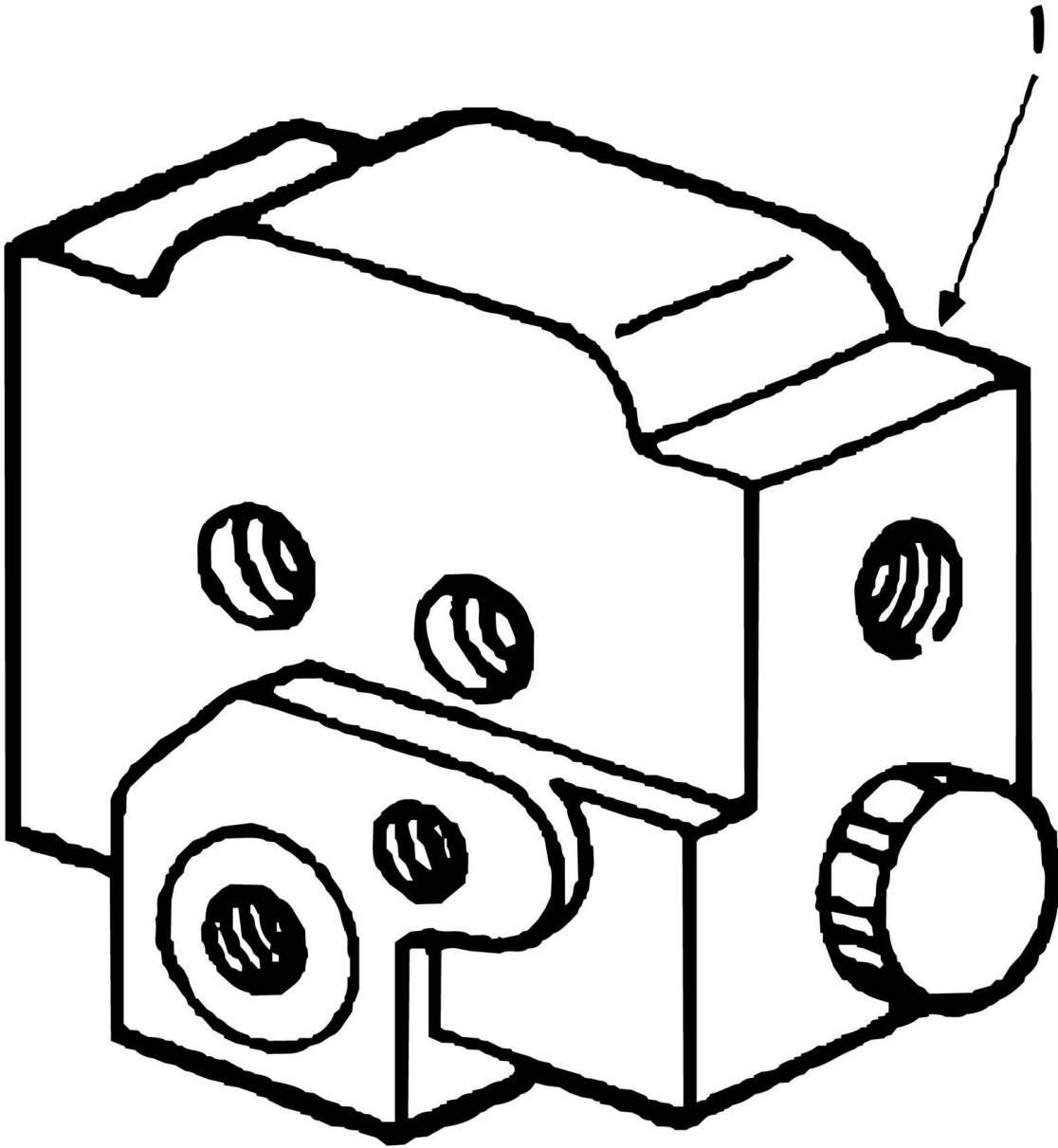
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-18. (91043296) ACCUMULATOR CHARGE VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91043296	1	ACCUMULATOR CHARGE VALVE	
2	91044538	1	LG. SPRING REPAIR KIT	
3	91044539	1	SPOOL AND SM. SPRING REPAIR KIT	
4	91044540	1	ELEMENT AND SEAL KIT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-19. ACCUMULATOR CHARGE VALVE (SN 0144900S to Present)



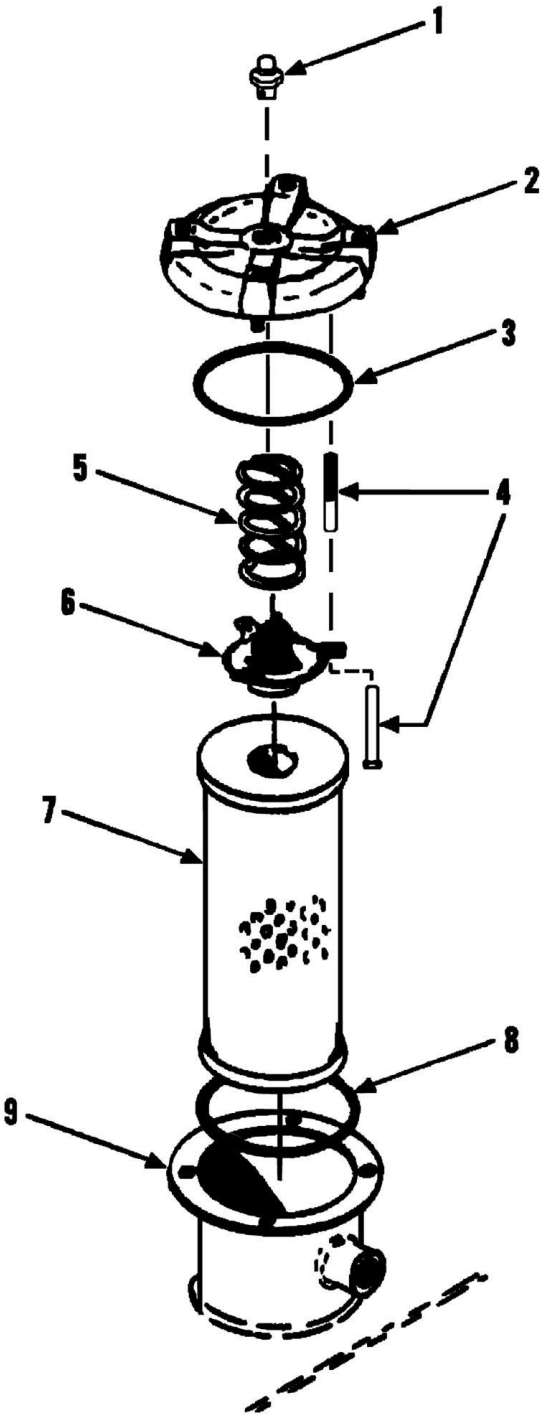
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-19. ACCUMULATOR CHARGE VALVE (SN 0144900S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083239	1	ACCUMULATOR CHARGE VALVE ASSY (no service parts available)	

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FIGURE 9-20. OIL RESERVOIR FILTER (SN 0144860S to Present)



UNIT WITH POP-UP INDICATOR

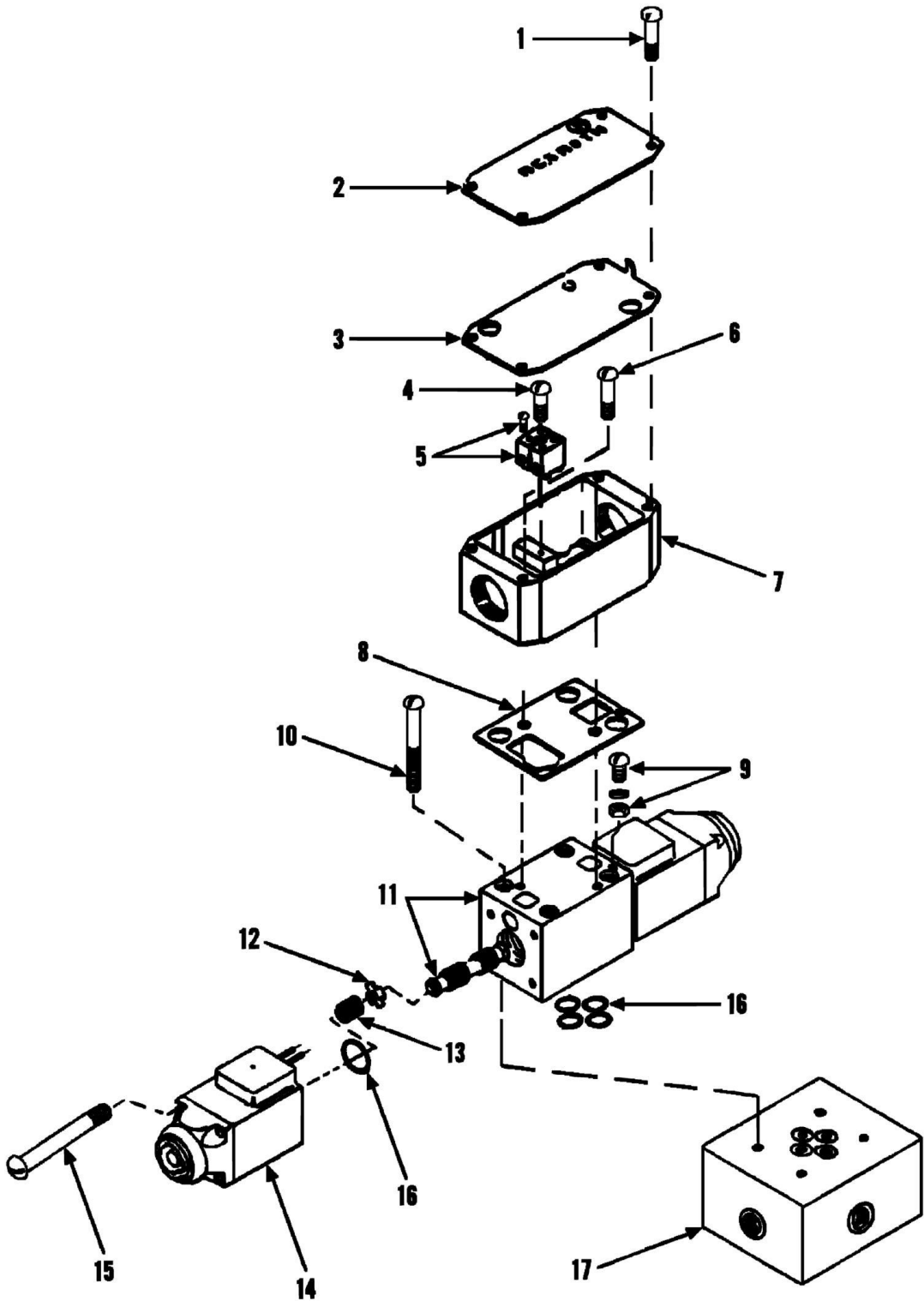
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-20. OIL RESERVOIR FILTER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91034009	1	POP-UP INDICATOR	
2	91034007	1	CAP ASSY (includes items 3 & 4)	
3	91034329	1	O-RING	
4	91034330	4	BOLT	
5	91034010	1	SPRING	
6	91034008	1	BYPASS VALVE	
7	91033318	1	ELEMENT	
8	90023246	1	O-RING	
9		Ref	BODY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-21. DIRECTIONAL CONTROL VALVE (SN 0144860S to Present)



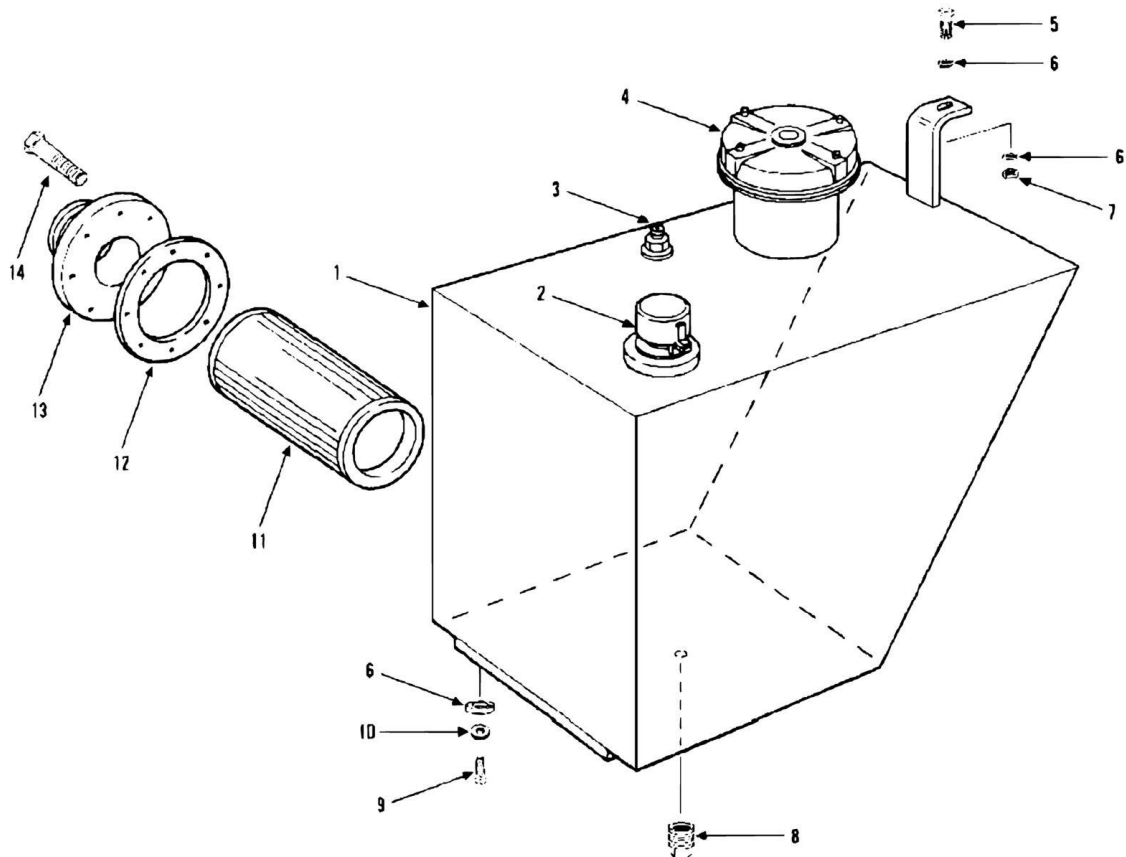
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FIGURE 9-21. DIRECTIONAL CONTROL VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033097	1	DIRECTIONAL CONTROL VALVE (includes all items)	
1		Ref	SCREW, M4 X 16 X 16	
2		Ref	NAME PLATE	
3	91034011	1	GASKET	
4		Ref	SCREW	
5	91034012	2	TERMINAL BLOCK	
6		Ref	SCREW, M4 X 15	
7		Ref	TERMINAL BOX	
8	91034013	1	GASKET	
9		Ref	GROUND SCREW, M4 X 6	
10		Ref	MOUNTING BOLT, 10-24 X 2	
11		Ref	SPOOL AND HOUSING	
12	91034014	2	SPACER	
13	91034015	2	SPRING	
14	91034016	2	SOLENOID	
15		Ref	SCREW, M4 X 65	
16	91034017	1	O-RING KIT	
17		Ref	MANIFOLD	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-22. HYDRAULIC OIL RESERVOIR (SN 0144860S to Present)



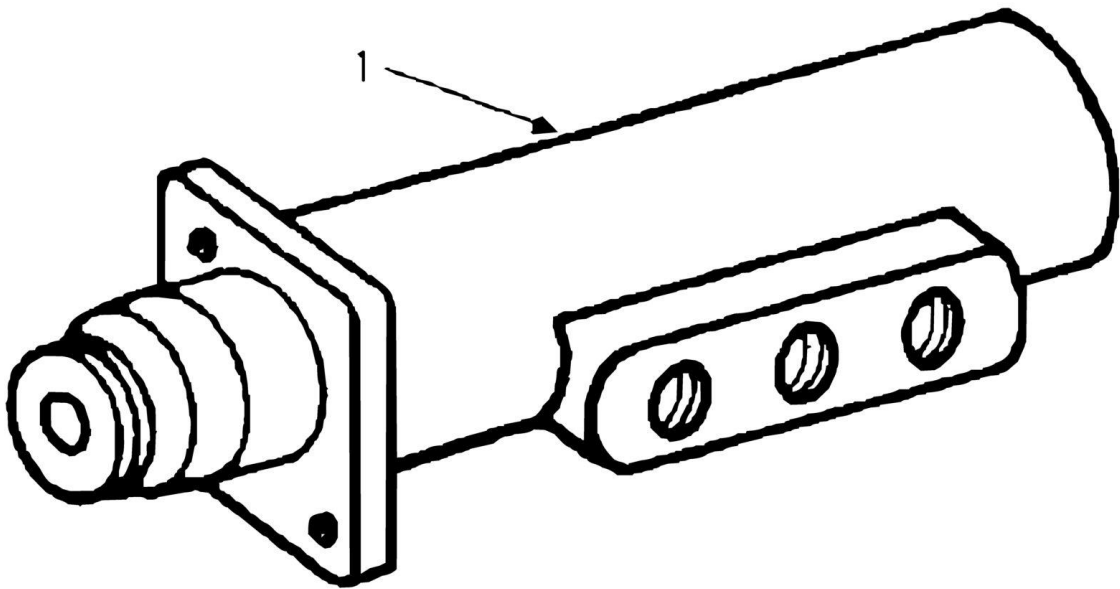
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-22. HYDRAULIC OIL RESERVOIR (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036002	1	HYDRAULIC OIL TANK	
2	90205222	1	FILLER-BREATHER ASSY (includes gasket and mounting hardware)	
3	90403419	1	STANDPIPE WELDMENT	
4	91033318	Ref	OIL RESERVOIR FILTER (See OIL RESERVOIR FILTER for Breakdown)	
5	88201070	1	HEX HD CAPSCREW, 1/2-13 X 2-1/4, GR5	
6	88561111	4	FLAT WASHER, 1/2	
7	88521208	1	HEX LOCKNUT, 1/2-13	
8	88711255	1	SQUARE HD PIPE PLUG, 1IN	
9	88201066	2	HEX HD CAPSCREW, 1/2-13 X 1-1/4, GR5	
10	88551013	2	LOCKWASHER, 1/2	
11	90410295	1	SUCTION FILTER	
12	90410294	1	GASKET	
13	91036003	1	FLANGE WELDMENT	
14	88201035	8	HEX HD CAPSCREW, 3/8-16 x 1, GR5	

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FIGURE 9-23. BRAKE VALVE (SN 0144860S to Present)



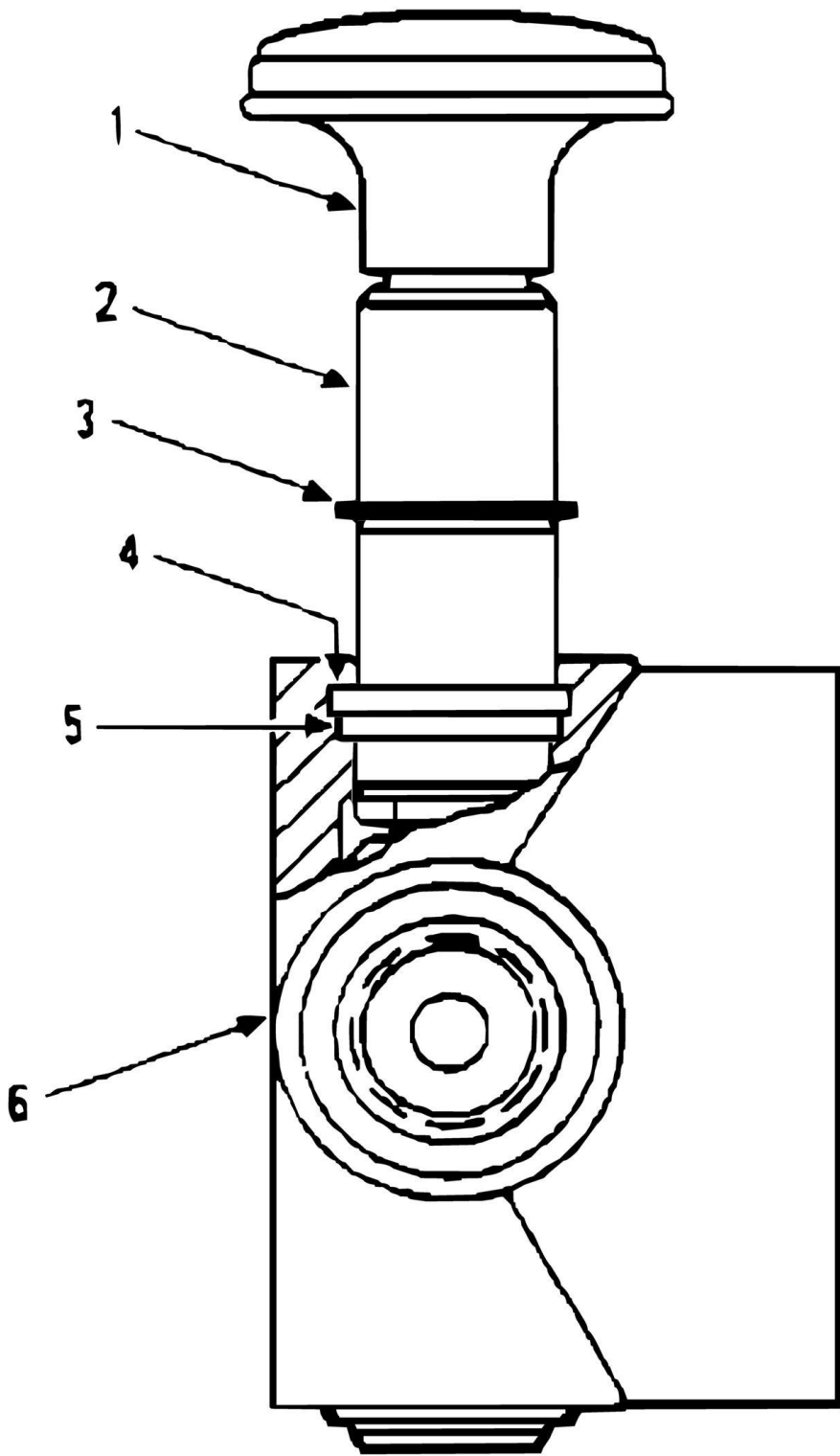
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FIGURE 9-23. BRAKE VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083154	1	BRAKE VALVE ASSY	
1	91064057	Ref	REPAIR KIT	

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FIGURE 9-24. PARKING BRAKE VALVE (SN 0144860S to Present)



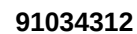
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FIGURE 9-24. PARKING BRAKE VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043090	1	PARKING BRAKE VALVE (includes items 1 through 6)	
1	91044297	1	KNOB	
2	91044126	1	SPOOL	
3	91044127	1	RETAINING RING	
4	91044128	1	BACKUP RING	
5	91044129	1	O-RING	
6	91044130	1	HOUSING	
7	91033378	1	RUBBER BOOT (not shown)	

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FIGURE 9-25. (90453050) TRUSS BOOM WINCH (SN 0144860S to Present)

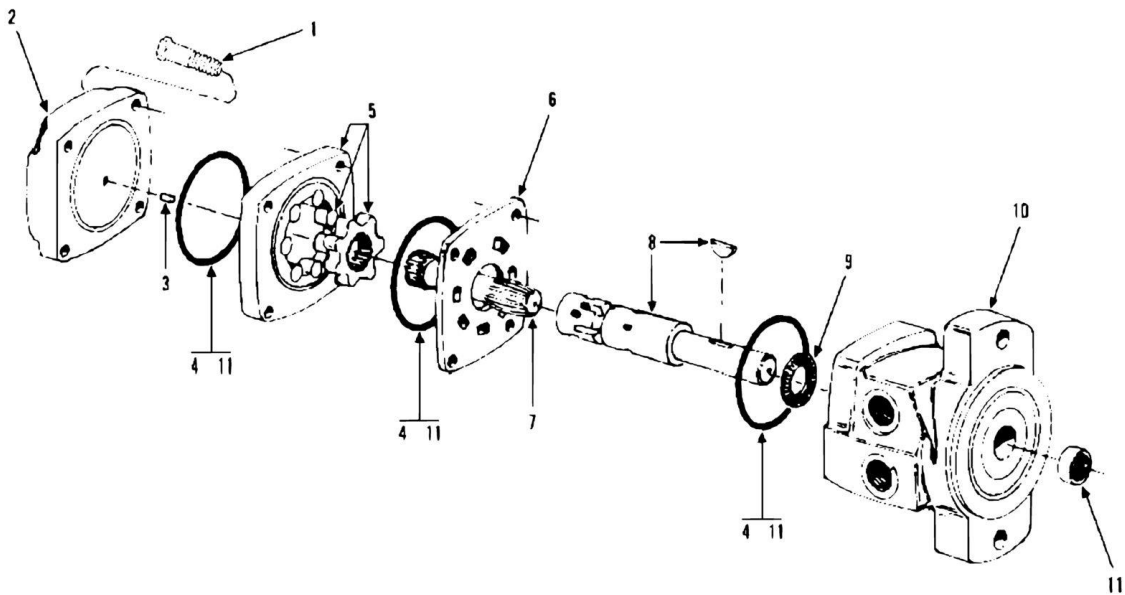
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90453050	1	TRUSS BOOM WINCH, (includes all items on TRUSS BOOM WINCH and WINCH MOTOR)	
1	90208147	1	GEAR CASE COVER	
2	90208171	1	GEAR CASE GASKET	
3	88201035	6	HEX HD CAPSCREW, 3/8-16 x 1, GR5	
4	90208154	2	BUSHING	
5	90208150	1	WORM GEAR	
6	90208174	1	BUSHING	
7	90208168	1	OIL FILL PLUG	
8	90208185	1	OIL LEVEL PLUG	
9	90208142	1	GEAR CASE	
10	90208186	1	OIL DRAIN PLUG	
11	90208156	2	COLLAR	
12	90208183	2	BEARING	
13	90208189	2	OIL SEAL	
14	90208170	2	BEARING HUB GASKET	
15	90208188	2	BEARING HUB	
16	90208180	1	MOTOR MOUNT ADAPTER	
17	88201037	4	HEX HD CAPSCREW, 3/8-16 x 1-1/2, GR5	
17	88551011	4	LOCKWASHER, 3/8	
18	90208187	AR	COUPLER SPACER	
19	90208181	1	COUPLER WINCH SHAFT	
21	90208153	1	LOCK SEAT BUSHING	
22	90208152	6	CABLE DRUM SHAFT KEY	
23	90208148	1	CABLE DRUM SHAFT	
24	91404384	1	LOCK SEAT	
25	90208173	2	WASHER	
26	90208145	1	CABLE DRUM	
27	90208143	1	LOCK SEAT	
28	90208169	1	WIRE ROPE LOCK	
29	88551011	1	LOCKWASHER, 3/8	
30	88201036	1	HEX HD CAPSCREW, 3/8-16 x 1-1/4, GR5	
31	90208155	4	STUD BOLT, 1/2-13 X 1-1/2	
32	88501008	4	HEX NUT, 1/2-13	
33	90208151	1	WORM	
34	90208149	1	WORM SHAFT	
35	90208176	2	WORM SHAFT KEY	
36	90208177	1	WORM SHAFT KEY	
37	90208164	2	BRAKE LINING	
38	90208184	2	LOCK RING, (V.C. type)	
39	90208175	2	SEAL	
40	90208158	1	BRAKE HOUSING	
41	90208163	1	ROLLER	
42	90208179	1	BRAKE DRUM SPRING	
43	90208162	1	SPRING SEAT	
44	90208159	1	BRAKE DRUM	
45	90208157	1	BRAKE PLATE	
46	88501006	1	HEX NUT, 3/8-16	
47	90208165	1	BRAKE PLATE	
48	90208166	2	BRAKE PLATE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	90208167	1	FIXING PLATE	
50	90208160	1	ADJUSTING BOLT	
51	90208178	1	SPRING	
52	90208190	1	BRAKE COVER GASKET	
53	90208172	1	O-RING	
54	90208161	1	ADJUSTING NUT	
55	88201037	8	HEX HD CAPSCREW, 3/8-16 x 1-1/2, GR5	
55	88551011	4	LOCKWASHER, 3/8	
56	90208146	1	BRAKE DRUM	
57	88671001	1	LUBE FITTING, STRAIGHT, 1/8	

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FIGURE 9-26. WINCH MOTOR (SN 0144860S to Present)



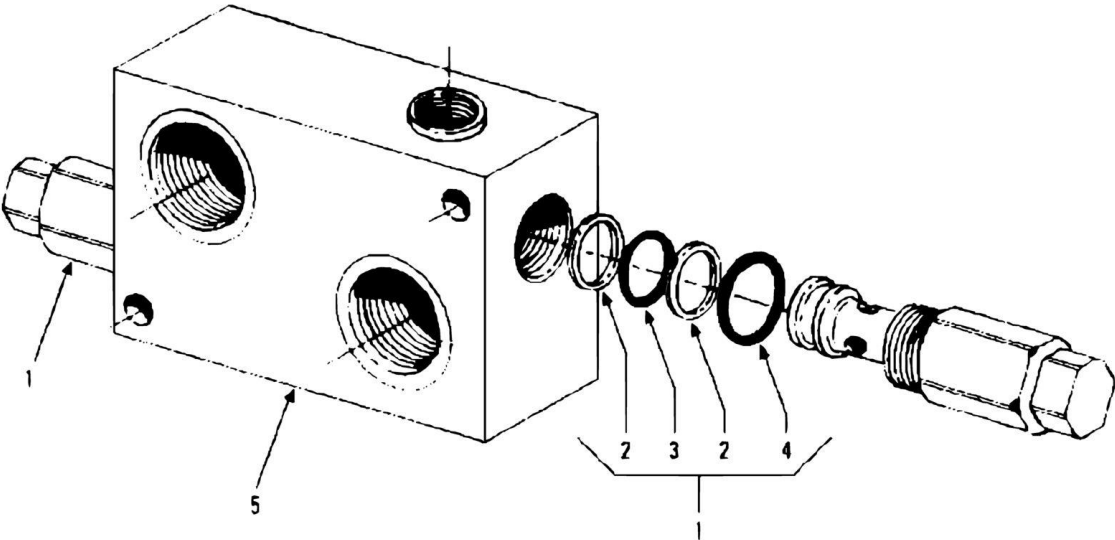
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FIGURE 9-26. WINCH MOTOR (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90207879	1	WINCH MOTOR (includes all items)	
1	83201057	4	HEX HD CAPSCREW, 3/8-16 X 2, GR8	
2	90208203	1	END COVER	
3	90208204	1	PIN	
4	90208205	3	SEAL	
5	90208206	1	ROLLER-STATOR ASSY	
6	90208207	1	WEAR PLATE	
7	90208208	1	DRIVE LINK	
8	90208209	1	SHAFT	
9	90208210	1	THRUST BEARING	
10	90208211	1	FRONT HOUSING	
11	90208212	1	SHAFT SEAL KIT (includes item #4)	

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FIGURE 9-27. CROSSOVER VALVE (SN 0144860S to Present)



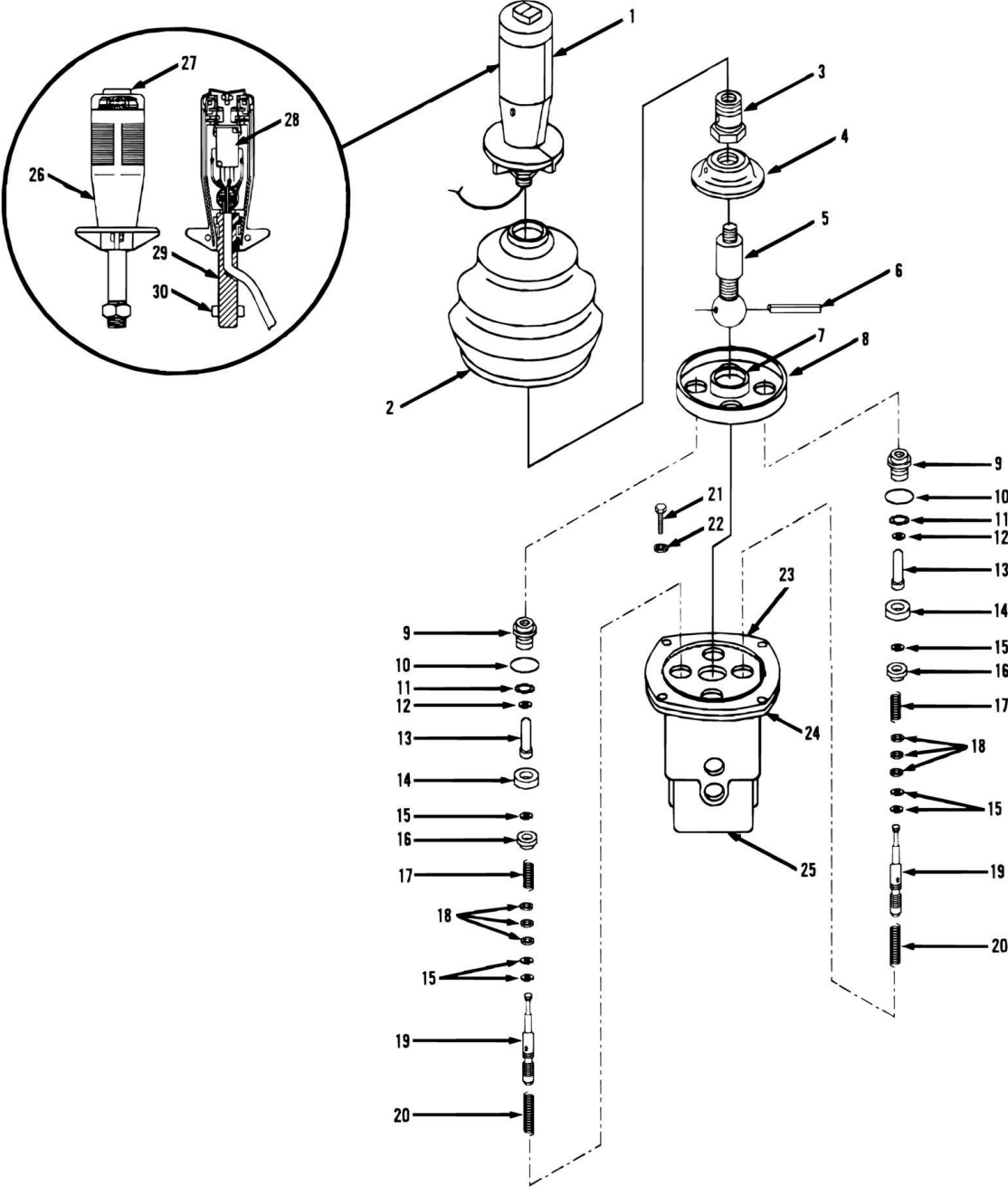
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FIGURE 9-27. CROSSOVER VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90602706	1	CROSSOVER RELIEF VALVE (includes all items)	
1	90203440	2	RELIEF CARTRIDGE (with seals)	
2	90203437	4	BACKUP RING (2 per cartridge)	
3	90203438	2	O-RING (1 per cartridge)	
4	90203439	2	O-RING (1 per cartridge)	
5		Ref	BODY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-28. (91033482) JOYSTICK ASSEMBLY (SN 0244109S to Present)



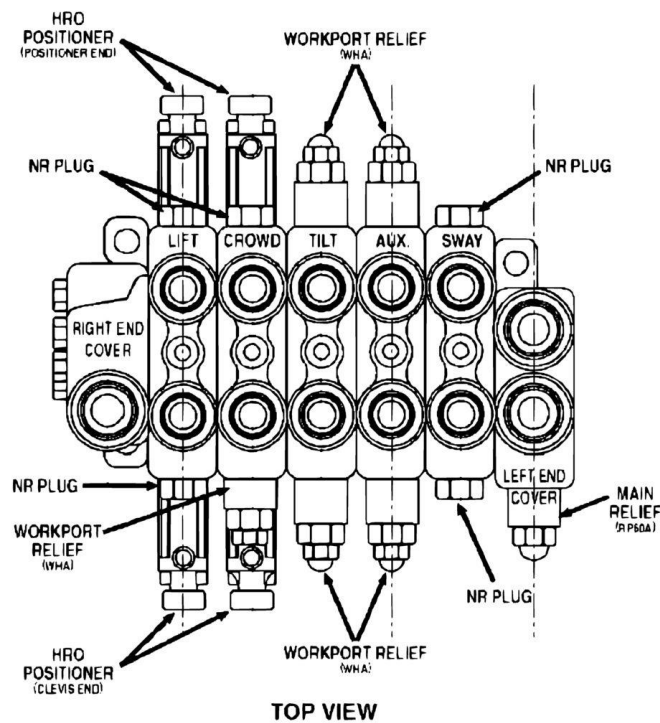
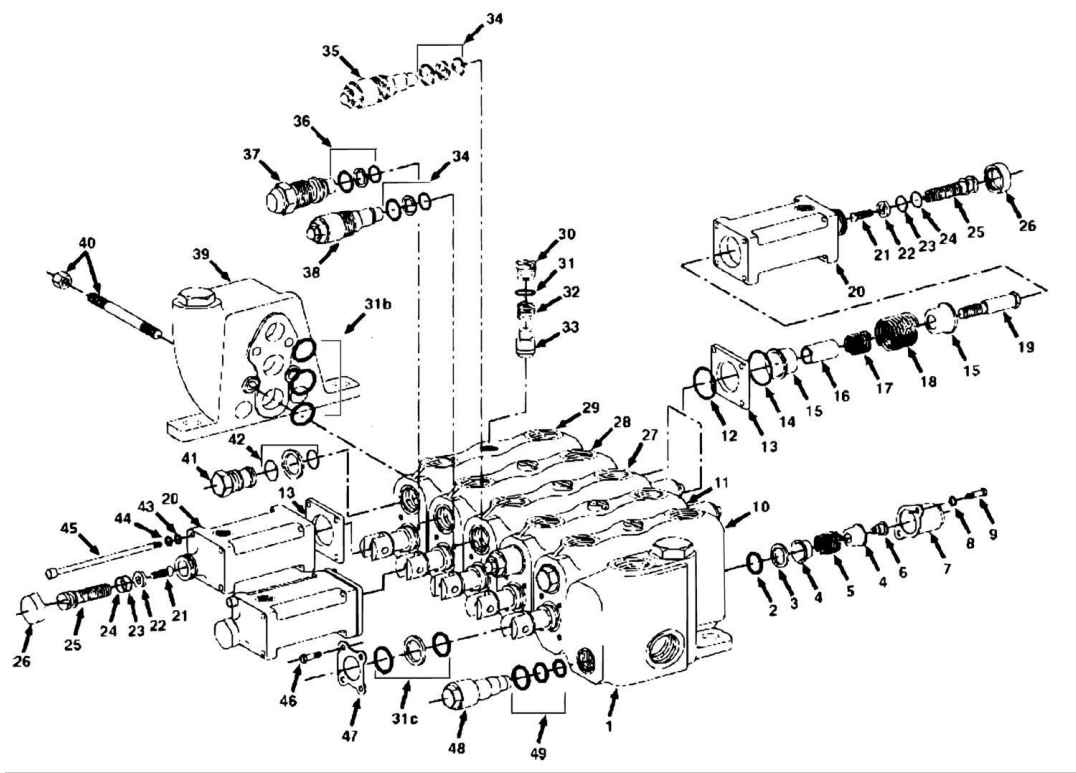
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-28. (91033482) JOYSTICK ASSEMBLY (SN 0244109S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91033482	1	JOYSTICK ASSY (includes all items)	
	91034344	4	SPOOL ASSY (includes items 15, 16, 18, 19, 20)	
	99007524	AR	PLUNGER SEAL KIT (includes items 10 & 11)	
	91034343	NLA	HANDLE ASSY, NO LONGER AVAILABLE (for service order P/N 91034378 handle assy which has serviceable component parts, items 26 through 30)	
1	91034378	1	HANDLE ASSY (includes items 26 through 30)	
2	91034346	1	BOOT	
3	91034347	1	HANDLE ADAPTER	
4	91034348	1	CAM PLATE	
5	91034349	1	PIVOT BALL	
6	91034350	1	PIVOT PIN	
7	91034351	1	PIVOT BALL RACE	
8	91034352	1	BOOT PLATE	
9	91034353	4	PLUNGER GUIDE	
10	91034354	4	O-RING	
11	91034355	4	U-CUP SEAL	
12	91034356	4	RETAINING RING	
13	91034357	4	PLUNGER PIN	
14	91034358	4	RACE	
15	91034359	12	RETAINING RING	
16	91034360	4	SPRING RETAINER	
17	91034361	4	SPRING	
18	91034362	AR	SHIM (.010 thick)	
18	91034363	AR	SHIM (.020 thick)	
18	91034364	AR	SHIM (.060 thick)	
19	91034365	4	SPOOL	
20	91034366	4	SPRING	
21	91034367	4	HEX HD CAPSCREW, 1/4-20 X .75	
22	91034368	4	LOCKWASHER	
23	91034369	1	TOP MOUNTING PLATE	
24	91034370	1	BOTTOM MOUNTING PLATE	
25	91034371	1	HOUSING	
26	91034379	1	GRIP ASSY (includes item #27)	
27	91034380	1	BOOT (rocket assy)	
28	91034381	2	MICRO SWITCH	
29	91034382	1	HANDLE ROD	
30	91034383	1	HEX JAM NUT, 1/2-13	

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FIGURE 9-29. (91043065) MAIN CONTROL VALVE ASSEMBLY



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FIGURE 9-29. (91043065) MAIN CONTROL VALVE ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043065	1	MAIN CONTROL VALVE ASSY, (includes all items)	
	90206417	AR	SEAL KIT, (includes items 31, 31b & 31c)	
	91044123	AR	SECTION SEAL KIT, (includes item 31b)	
	91034159	AR	SPOOL SEAL KIT, (includes item 31c)	
	90206419	AR	RETAINER PLATE ASSY, (includes items 46 & 47)	
	91044509	AR	HRO POSITIONER SEAL KIT, (includes items 12, 14, 23 & 24)	
	91044526	AR	NR PLUG KIT, (includes items 41 & 42)	
	91044527	AR	NR PLUG SEAL KIT, (includes item 42)	
	90206427	3	NEUTRAL POSITIONER KIT, (includes items 2 thru 9)	
	91044510	2	HRO POSITIONER KIT, SPOOL POSITIONER END, (includes items 12 thru 26)	
	91044534	2	HRO POSITIONER KIT, CLEVIS END, (includes items 13, 20 thru 26, 43, 44 & 45)	
	91044530	AR	WH TYPE PORT RELIEF VALVE SEAL KIT, (includes items 36)	
	91044533	AR	WHA PORT RELIEF VALVE SEAL KIT, (includes item 34)	
	91034236	AR	MAIN RELIEF VALVE SEAL KIT, (includes item 49)	
1	91044114	1	COVER PLATE ASSY, (left end), (includes items 48 & 49)	
2	Kit	3	O-RING	
3	Kit	3	WASHER	
4	Kit	3	SPRING COLLAR	
5	Kit	3	SPRING	
6	Kit	3	SPOOL COLLAR	
7	Kit	3	BONNET	
8	Kit	6	LOCKWASHER	
9	Kit	6	SCREW	
10	90206421	1	SWAY SECTION	
11	91044117	1	AUXILIARY SECTION	
12	Kit	4	O-RING	
13	91044516	4	SEAL PLATE	
14	Kit	2	O-RING	
15	91044521	2	STOP COLLAR	
16	91044520	2	STOP SLEEVE	
17	91044519	2	SPRING	
18	91044518	2	SPRING	
19	91044517	2	POSITIONER SPUD	
20	91044515	4	BONNET	
21	91044513	4	SCREW, COUNTER SUNK	
22	91044514	4	TRAVEL STOP	
23	Kit	4	O-RING	
24	Kit	4	BACK-UP RING	
25	91044512	2	SCREW	
26	91044511	4	BOOT	
27	91044119	1	TILT SECTION	
28	91044121	1	CROWD SECTION	
29	91044122	1	LIFT SECTION	
30	91044535	5	LOAD CHECK PLUG	
31	Kit	5	O-RING	
32		Ref	SPRING	
33		Ref	POPPET	
34	Kit	AR	WHA RELIEF SEALS	

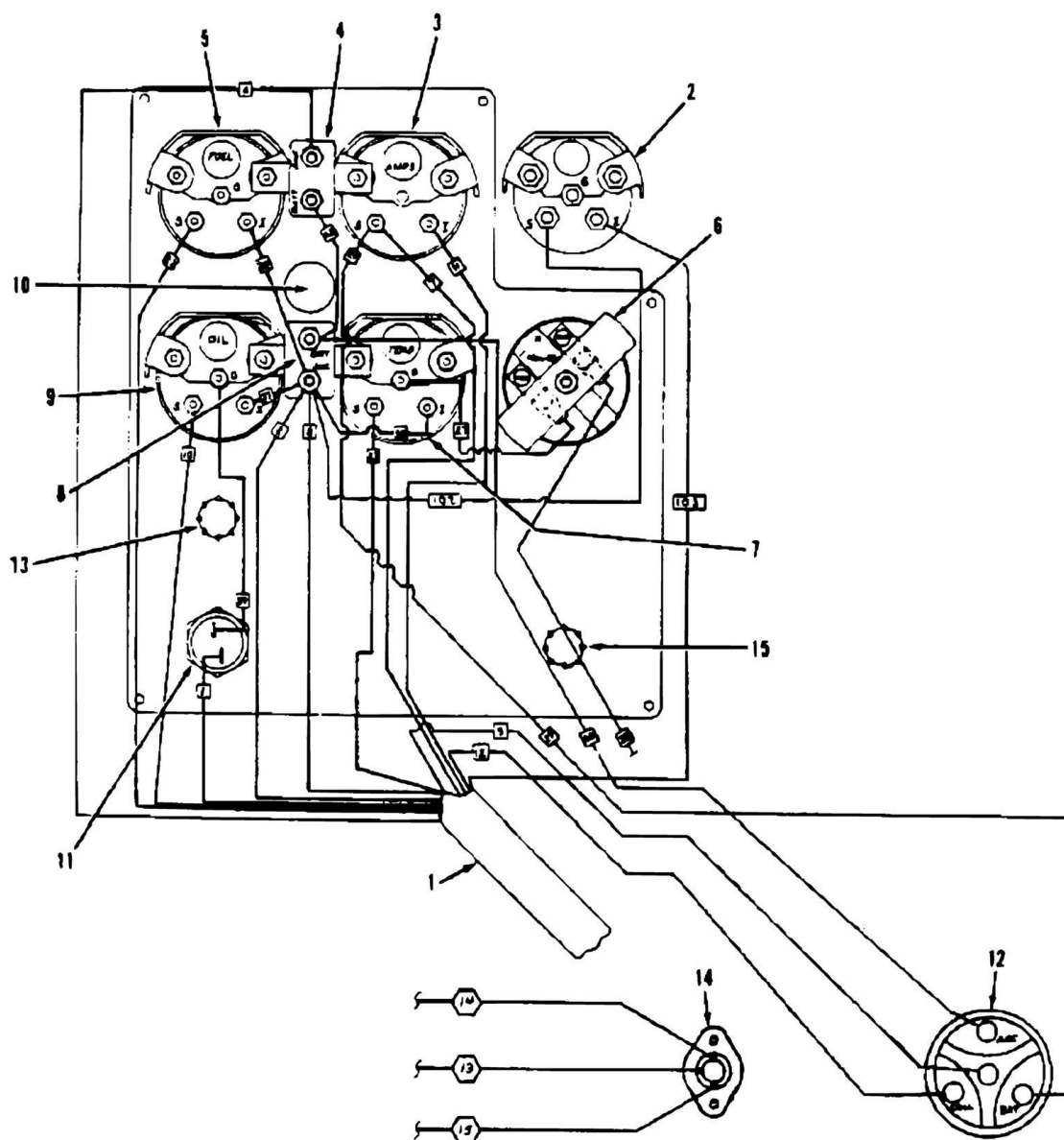
SECTION 9 - HYDRAULIC COMPONENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
35	91044531	2	WHA RELIEF, (1500 p.s.i.)	
36	Kit	AR	WH RELIEF SEALS	
37	91044529	1	WH RELIEF, (2650 p.s.i.)	
38	91044532	2	WHA RELIEF, (3250 p.s.i.)	
39	91044124	1	COVER PLATE ASSY, (right end)	
40	91044125	1	STUD ASSY, (includes four studs and four nuts), (lubricate and torque to 23-27 ft lbs)	
41	91044526	5	NR PLUG	
42	Kit	AR	NR PLUG SEALS	
43	91084232	16	BEARING PLATE	
44	91084231	16	LOCKWASHER	
45	91044522	16	HEX HD CAPSCREW, 1/4-20X3-1/2	
46		Ref	CAPSCREW	
47		Ref	RETAINER PLATE	
48	90208136	1	MAIN RELIEF VALVE ASSY	
49	91034236	1	MAIN RELIEF SEALS	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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SECTION 10 - ELECTRICAL

FIGURE 10-1. DASH WIRING (SN 0144860S to Present)



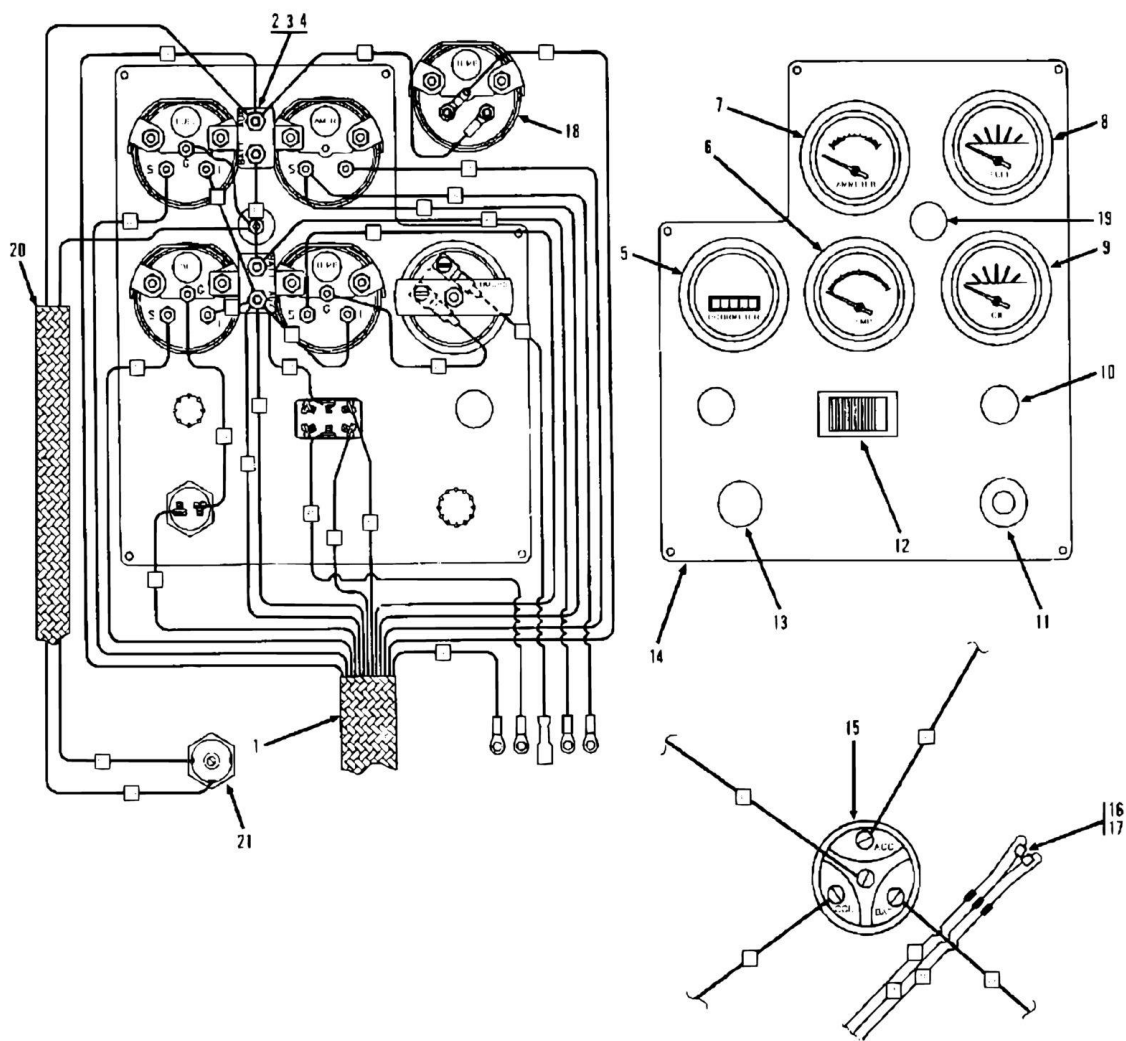
SECTION 10 - ELECTRICAL

FIGURE 10-1. DASH WIRING (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035068	1	INSTRUMENT PANEL ASSY, (includes all items except items 2, 12 & 14)	
1	91033112	1	INSTRUMENT PANEL HARNESS	
2	91033282	1	TRANSMISSION TEMPERATURE GAUGE	
3	90205685	1	AMP GAUGE	
4	91033111	1	CIRCUIT BREAKER	
5	90205686	1	FUEL GAUGE	
6	90205688	1	HOURLMETER	
7	90205687	1	WATER TEMPERATURE GAUGE	
8	90200506	1	CIRCUIT BREAKER	
9	91033247	1	OIL PRESSURE GAUGE	
10	85211041	1	PLUG BUTTON	
11	90200434	1	HORN SWITCH	
12	91033317	1	IGNITION SWITCH	
12	77384578	1	KEY	
13	86661083	1	PLUG BUTTON	
14	91033383	1	DIODE ASSEMBLY	
15	85211041	1	PLUG BUTTON	

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FIGURE 10-2. DASH WIRING (SN 0244091S to Present)



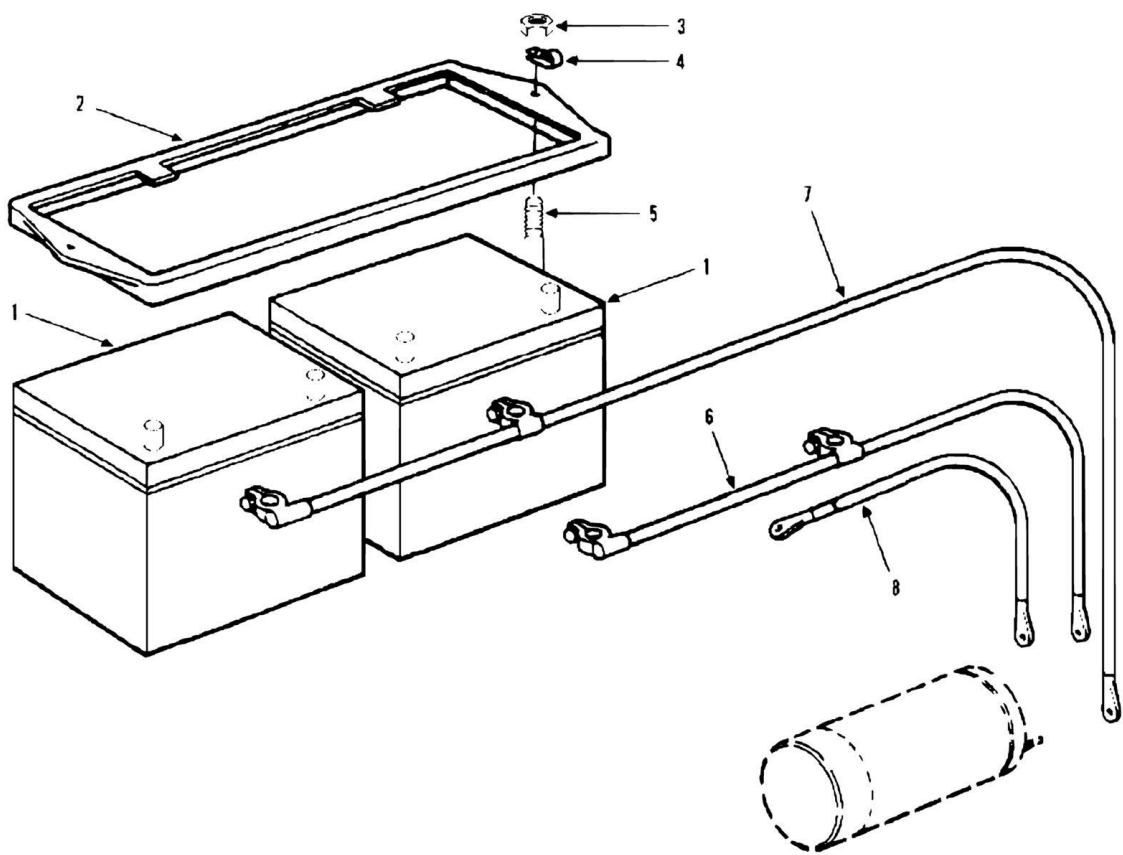
SECTION 10 - ELECTRICAL

FIGURE 10-2. DASH WIRING (SN 0244091S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035068	1	INSTRUMENT PANEL ASSY (includes all items except items 15 thru 21)	
1	91033112	1	INSTRUMENT PANEL HARNESS	
2	91033111	2	CIRCUIT BREAKER	
3	88554917	4	LOCKWASHER, #10X.062X.047	
4	88501613	4	HEX NUT, #10-32	
5	90205688	1	HOURLMETER	
6	90205687	1	WATER TEMP GAUGE	
7	90205685	1	AMMETER	
8	90205686	1	FUEL GAUGE	
9	91033247	1	OIL PRESSURE GAUGE	
10	91083221	1	PLUG BUTTON, 5/8 HOLE	
11	90200434	1	BUTTON SWITCH	
12	91083259	1	ROCKER SWITCH	
13	85211041	1	PLUG BUTTON, 3/4 HOLE	
14	91041632	1	INSTRUMENT PANEL	
15	91033317	1	IGNITION - START SWITCH	
15	77384578	1	KEY	
16	91033383	1	DIODE ASSY	
17	90027187	1	TY-RAP	
18	91033282	1	TRANSMISSION TEMP GAUGE	
19	91033084	1	BRAKE WARNING LIGHT	
20	91045033	1	BRAKE LIGHT HARNESS	
21	91033416	1	PRESSURE SWITCH	

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FIGURE 10-3. BATTERIES AND CABLES (SN 0144860S to Present)



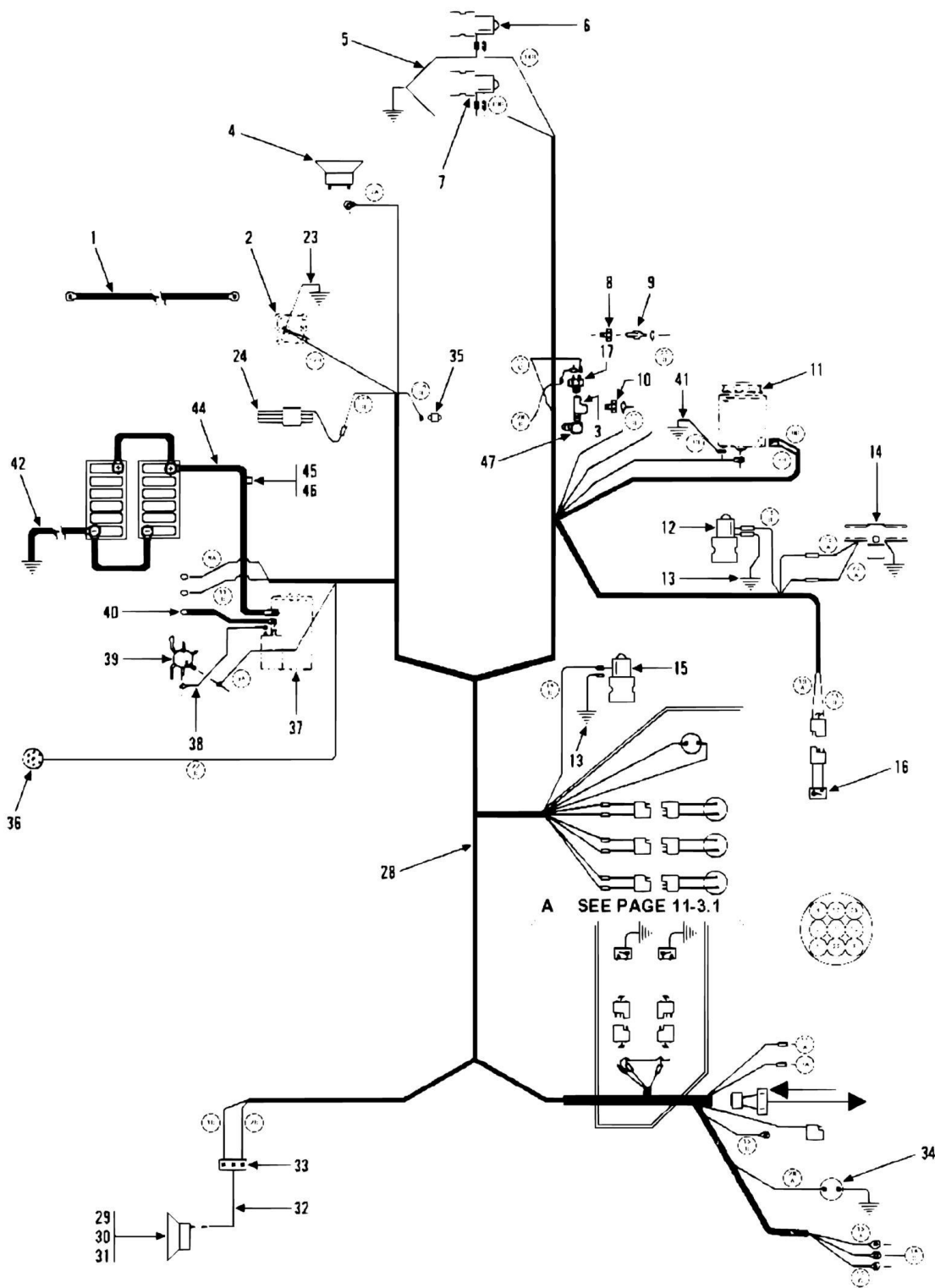
SECTION 10 - ELECTRICAL

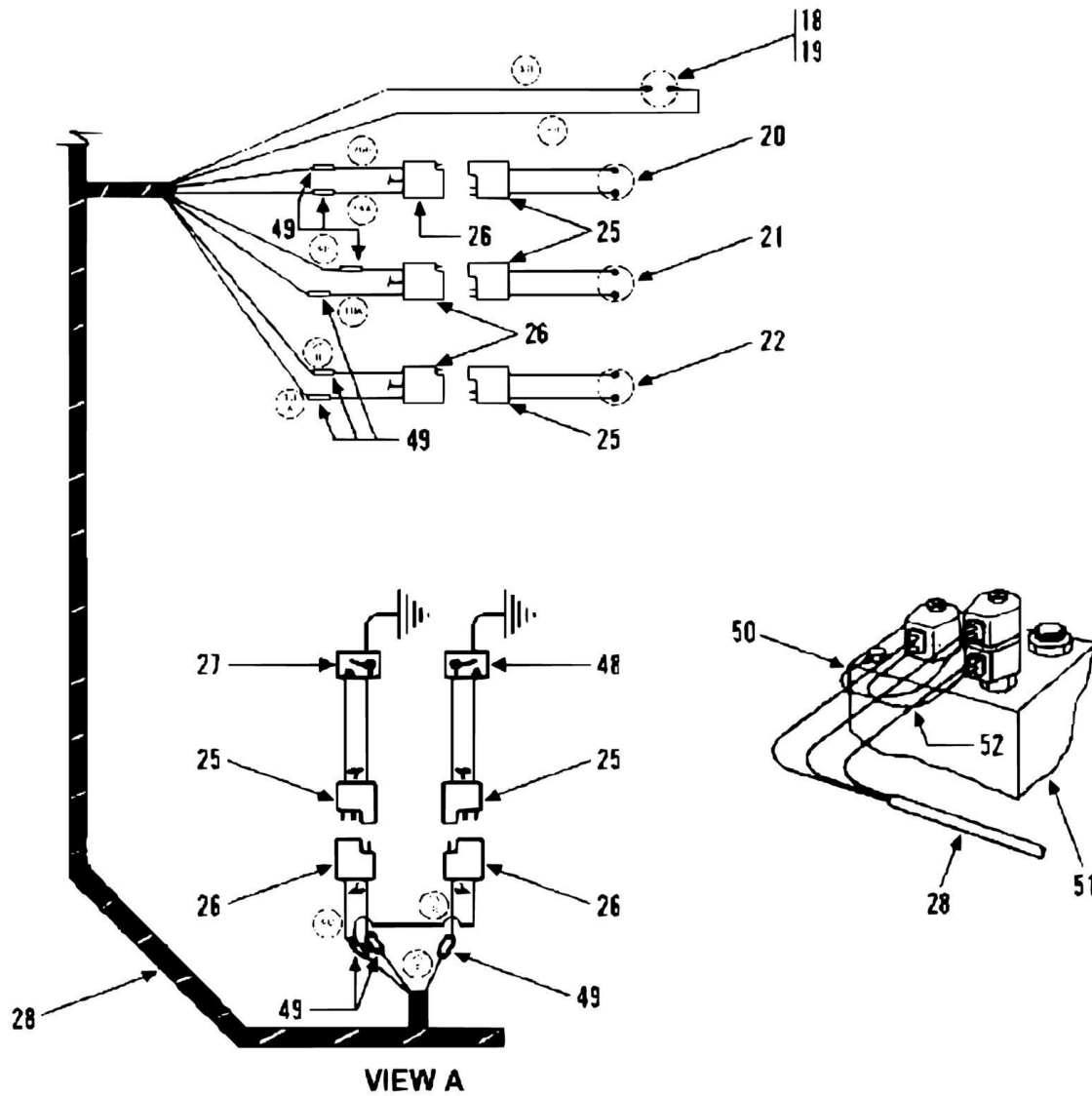
FIGURE 10-3. BATTERIES AND CABLES (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90203359	2	BATTERY, (12 volt, 590 amps),TOP STUD, BCI GROUP 27	
2	90403432	1	BATTERY HOLD DOWN	
3	77143006	2	LOCK NUT	
4	85841094	1	SUPPORT CLAMP	
5	90200382	2	HOLD-DOWN STUD	
6	91033042	1	NEGATIVE BATTERY CABLE	
7	91033086	1	POSITIVE BATTERY CABLE	
8	90200811	1	GROUND CABLE	

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FIGURE 10-4. WIRING - FRAME AND ENGINE (SN 0144860S to Present)





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FIGURE 10-4. WIRING - FRAME AND ENGINE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90200811	1	GROUND CABLE	
2		Ref	FUEL SHUT-OFF SWITCH (supplied with engine)	
3	88712231	1	STREET TEE, 1/8	
4	77223003	1	BACKUP ALARM	
5	90207717	1	JUMPER WIRE	
6	90206739	1	SERIES SOLENOID VALVE	
7	90206739	1	PARALLEL SOLENOID VALVE	
8	88711383	1	REDUCING BUSHING, 1/2 X 3/8	
9	90206124	1	WATER TEMPERATURE SENDER	
10	91033139	1	OIL PRESSURE SENDER	
11	91033234	1	ALTERNATOR	
12	90206739	1	CAVITATION SOLENOID VALVE	
13	90207719	1	JUMPER WIRE	
14	91033097	1	PILOT PRESSURE FORWARD/ REVERSE CONTROL VALVE	
15	90206739	1	LOW TORQUE INCHING SOLENOID	
16	91033202	1	TRANSMISSION DISCONNECT SWITCH	
17	24741047	1	HOURLMETER SWITCH	
18	90204973	1	NEUTRAL START SWITCH	
19	89981036	2	PAN HD SCREW	
20	91035112	1	SECOND GEAR SWITCH	
21	91035112	1	THIRD GEAR SWITCH	
22	91035112	1	FIRST GEAR SWITCH	
23	91031197	1	JUMPER WIRE	
24	91033270	1	PRIMER PUMP	
25	83483114	6	3-WAY CONNECTOR (male)	
26	83483113	6	3-WAY CONNECTOR (female)	
27	91033202	1	FORWARD SWITCH	
28	91033079	1	ENGINE FRAME HARNESS	
29	24921393	1	HORN	
30	24921394	1	BRACKET	
31	24921395	1	NUT	
32	90202886	1	JUMPER WIRE	
33	86661084	1	HORN RELAY	
34	90205688	1	HOURLMETER	
35	91033283	1	STARTING MOTOR	
36	90400654	1	FUEL LEVEL SENDER	
37	91033323	1	STARTING MOTOR	
38	90205205	1	JUMPER WIRE	
39	90402427	1	STARTER SOLENOID	
40	90207497	1	JUMPER CABLE	
41	90207630	1	JUMPER WIRE	
42	91033042	1	GROUND CABLE	
43		Ref	BATTERY (purchase locally)	
44	91033086	1	POSITIVE CABLE	
45	85841094	1	CLAMP	
46	77103006	2	NUT	
47	88691345	1	ELBOW, 90	
48	91033202	1	REVERSE SWITCH	
49	86683480	9	CRIMP-ON CONNECTOR	
50	91041554	1	JUMPER WIRE	

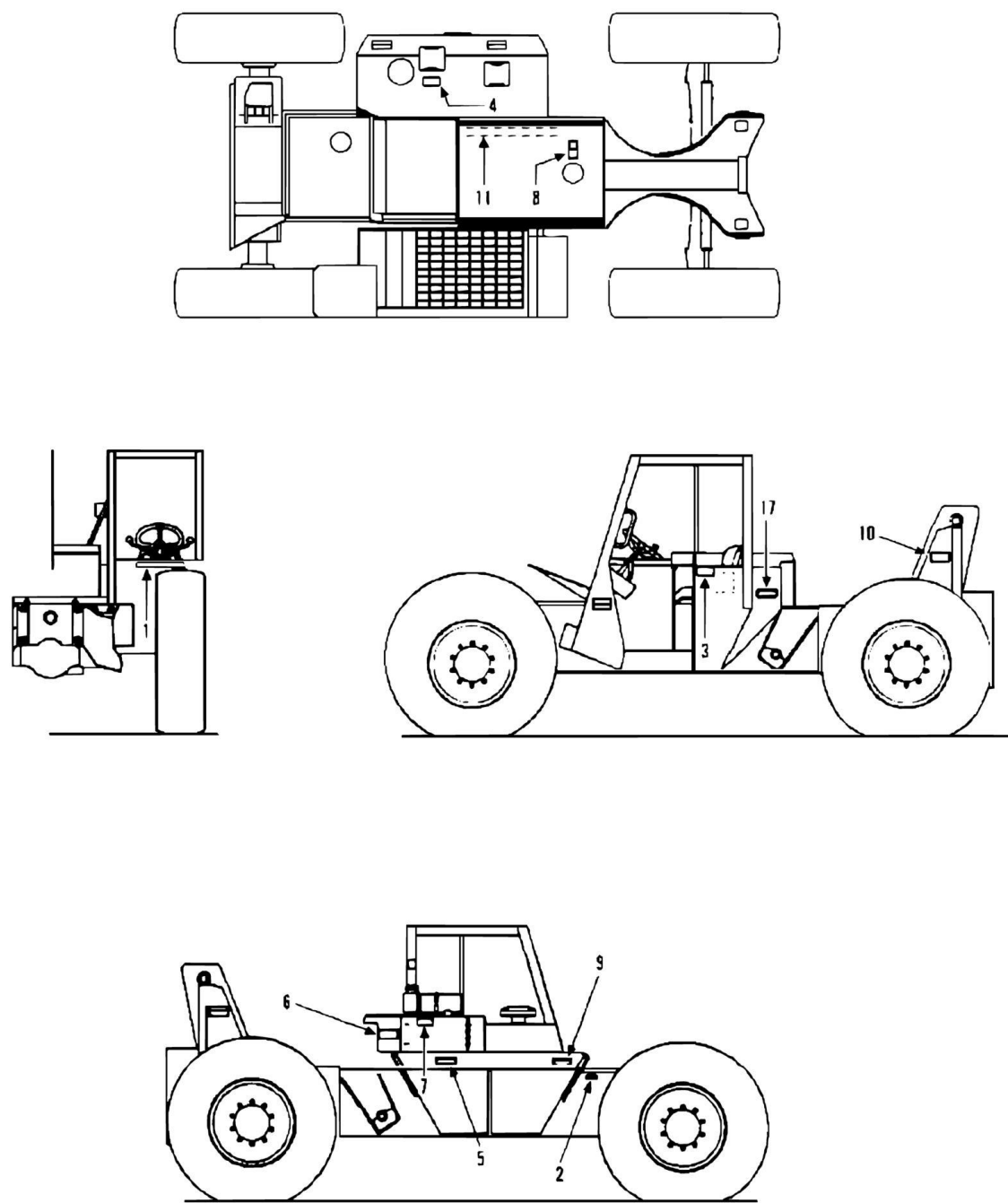
SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
51	91045097	1	SERIES-PARALLEL CONTROL VALVE (See HYDRAULIC COMPONENTS for Breakdown)	
52	91045035	1	JUMPER WIRE	

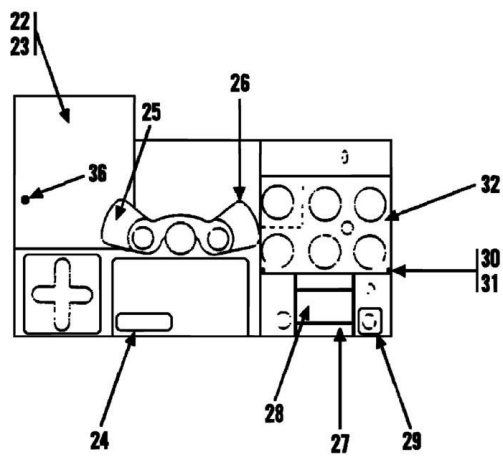
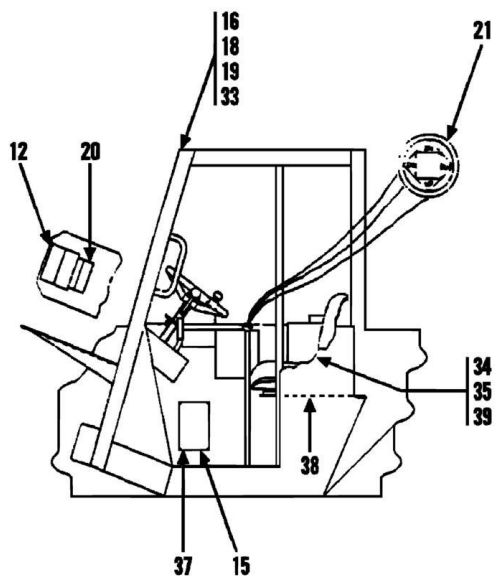
SECTION 11 - MISCELLANEOUS

SECTION 11 - MISCELLANEOUS

FIGURE 11-1. FRAME DECALS (SN 0144860S to Present)



NOTE: DECAL KIT 9103-5225 INCLUDES ALL
DECALS SHOWN ON FRAME DECALS



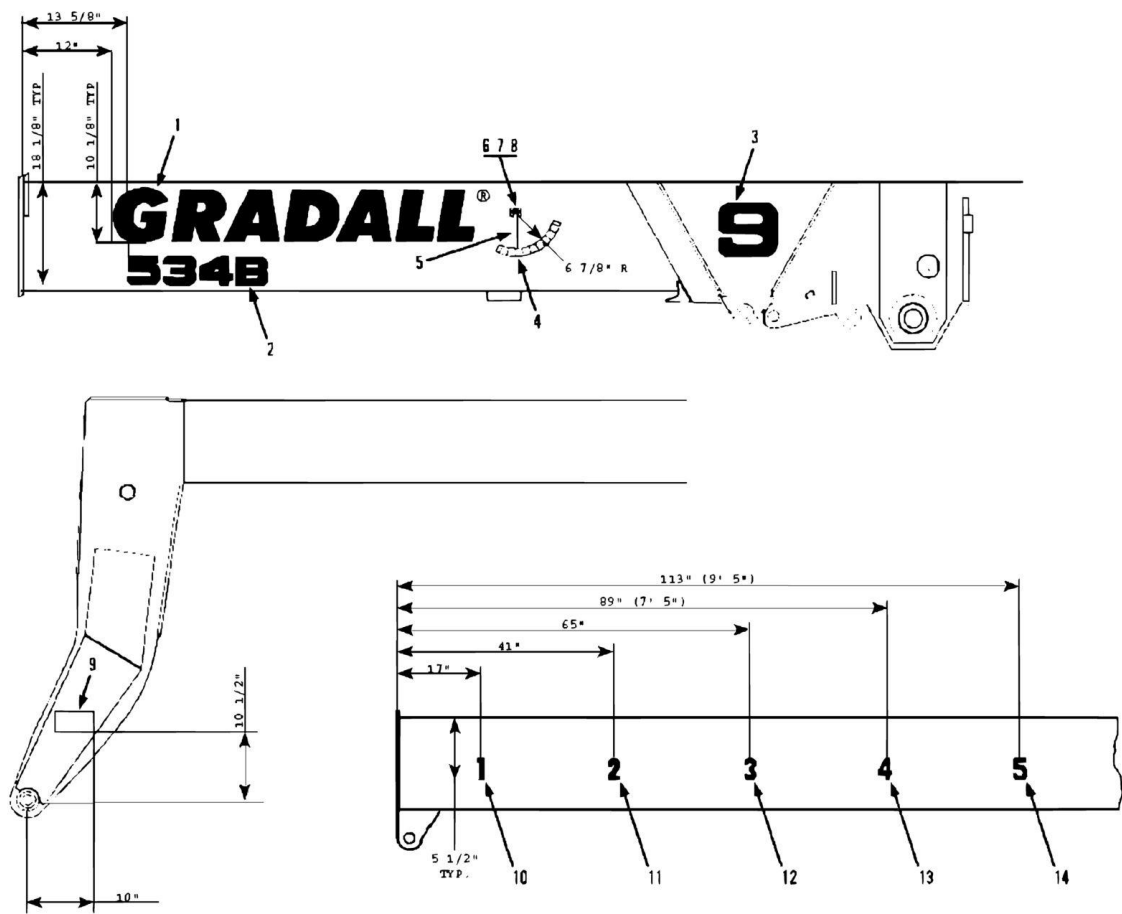
SECTION 11 - MISCELLANEOUS

FIGURE 11-1. FRAME DECALS (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	83641675	1	"GRADALL" DECAL, WHITE	
1	77333011	1	"GRADALL" DECAL, BLACK	
2	77023007	1	BATTERY DECAL	
3	77333027	1	MADE IN U.S.A. DECAL	
4	77023006	1	HYDRAULIC OIL DECAL	
5	91003052	1	WARNING DECAL	
6	91033011	1	HANDS WARNING DECAL	
7	77343018	1	HOT EXHAUST WARNING DECAL	
8	91043210	1	COOLING SYSTEM CAUTION DECAL	
9	91043211	2	RIDER WARNING DECAL	
10	91043209	2	PINCH POINT WARNING DECAL	
11	91043206	1	ACCUMULATOR CAUTION DECAL	
12	83601011	1	ACCIDENT PREVENTION	
13	91063047	1	WARNING DECAL	
14	91003030	1	PATENT	
15	91033279	1	SERIAL NO. AND ATTACHMENT PLATE	
16	88521204	1	HEX LOCKNUT, 1/4-20	
17	91033396	1	534B SERVICE DECAL	
18	88561107	1	FLAT WASHER, 1/4	
19	88204912	1	HEX HD CAPSCREW, 1/4-20 x 1, GR5	
20	91043215	1	WARNING DECAL	
21	91003044	1	BOOM DIRECTION DECAL	
22	91033395	1	534B-9 CAPACITY DECAL	
23	90207488	1	LOAD CHART MOUNTING PLATE	
24	91033418	1	TORQUE HUB DECAL	
25	91003040	1	FORWARD-REVERSE DECAL	
26	91003039	1	SHIFT DECAL	
27	91033431	1	CAUTION DECAL	
28	91033362	1	CAUTION DECAL	
29	91033089	1	HORN DECAL	
30	91033277	4	RUBBER SPACER	
31	88321019	4	SELF-TAPPING SCREW, #6-32 X 1	
32	91033255	1	GAUGE PROTECTOR	
33	91033320	1	TILT GAUGE	
34	88301193	4	ROUND HD MACHINE SCREW, #10- 32 x 1/2	
35	88554900	4	LOCKWASHER, 1/4	
36	88302128	2	ROUND HD MACHINE SCREW, 1/4- 20 X 1	
37	88344901	4	DRIVE SCREW, #10 X 1/2	
38	91043129	1	PARKING BRAKE DECAL	
39	91033102	1	MANUAL HOLDER	

SECTION 11 - MISCELLANEOUS

FIGURE 11-2. BOOM DECALS (SN 0144860S to Present)



SECTION 11 - MISCELLANEOUS

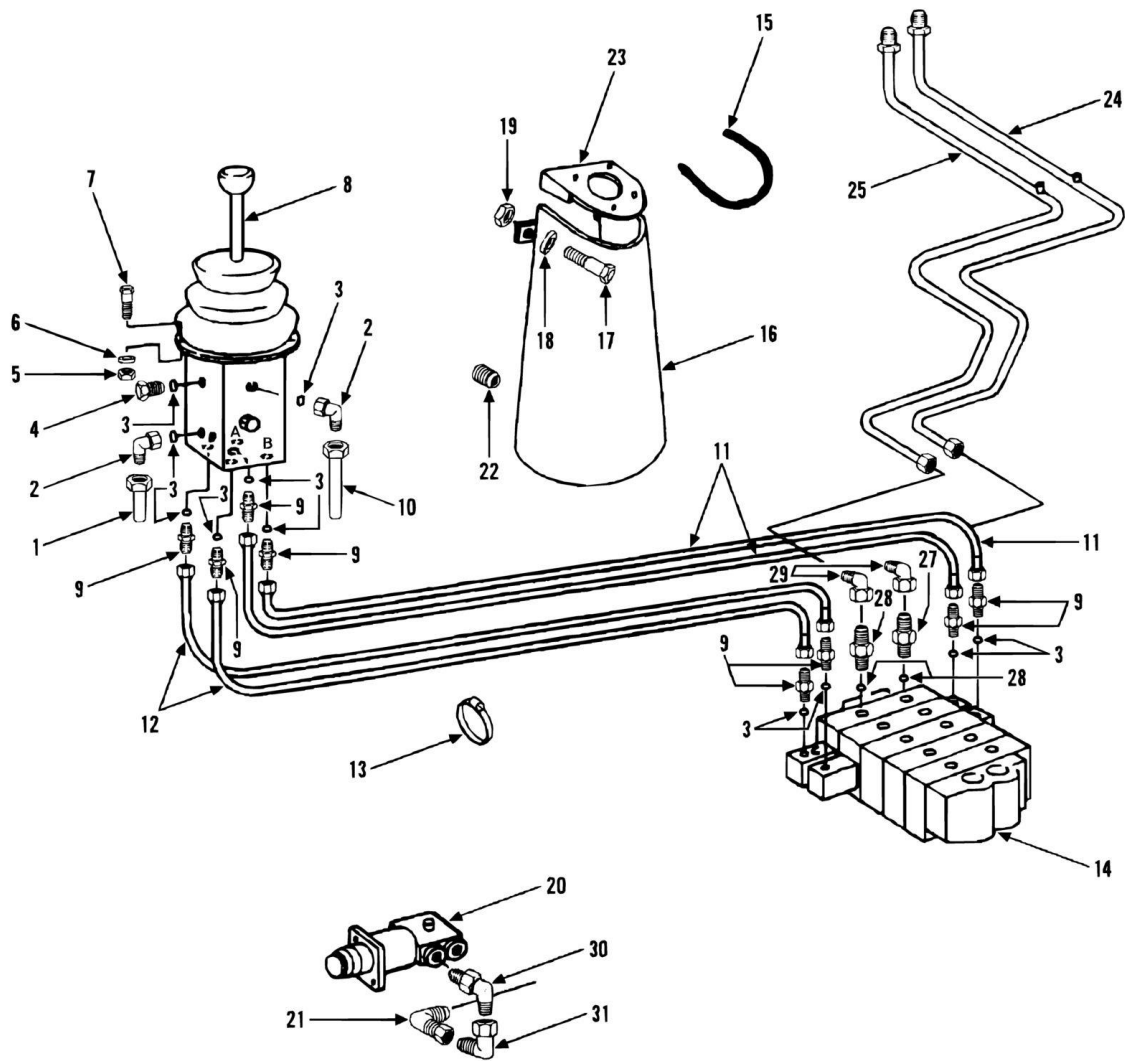
FIGURE 11-2. BOOM DECALS (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91123037	2	"GRADALL" DECAL, WHITE	
1	91123038	2	"GRADALL" DECAL, BLACK	
2	91033392	2	"534B" DECAL, WHITE	
2	91033393	2	"534B" DECAL, BLACK	
3	91033018	2	"9" DECAL, WHITE	
3	91033218	2	"9" DECAL, BLACK	
4	91003031	1	BOOM ANGLE DECAL, WHITE	
5	90200445	1	PENDULUM	
6	90200688	1	BEARING	
7	90026491	1	SHOULDER BOLT, 1/4-20	
8	88561108	1	FLAT WASHER, 5/16	
9	91033023	1	QUICK SWITCH DECAL	
10	91003016	1	"1" DECAL, WHITE	
10	91043134	1	"1" DECAL, BLACK	
11	91003018	1	"2" DECAL, WHITE	
11	91043135	1	"2" DECAL, BLACK	
12	91123042	1	"3" DECAL, WHITE	
12	91123043	1	"3" DECAL, BLACK	
13	91003020	1	"4" DECAL, WHITE	
13	91043136	1	"4" DECAL, BLACK	
14	91123044	1	"5" DECAL, WHITE	
14	91123045	1	"5" DECAL, BLACK	

SECTION 12 - OPTIONAL EQUIPMENT

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FIGURE 12-1. (91045173) JOYSTICK INSTALLATION (SN 0144860S to Present)



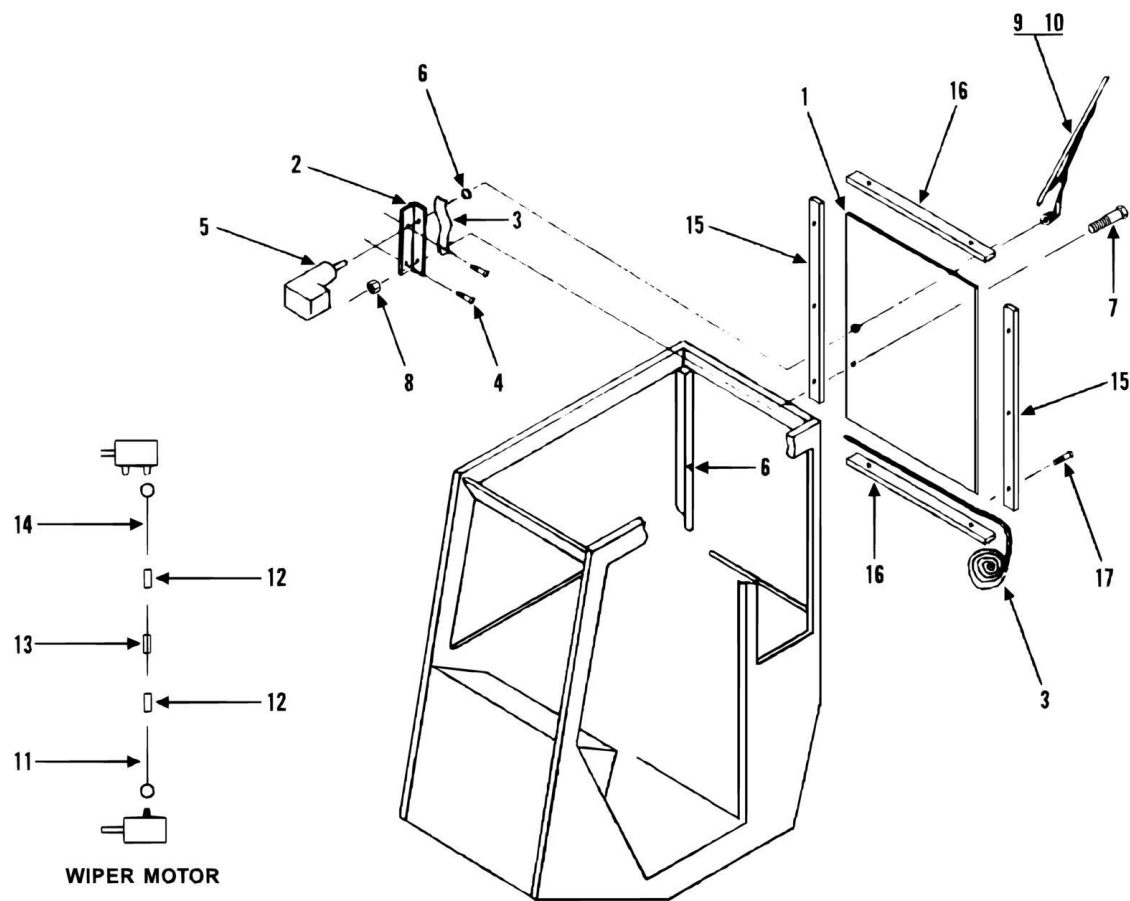
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-1. (91045173) JOYSTICK INSTALLATION (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91045173	Ref	JOYSTICK INSTALLATION, (includes all items)	
1	84717587	1	HOSE ASSY	
2	88662064	2	ELBOW, 90, (includes item #3)	
3	88591204	12	O-RING	
4	88662174	2	HEX HD PLUG, (includes item #3)	
5	88501004	4	HEX NUT, 1/4-20	
6	88551009	4	LOCKWASHER, 1/4	
7	88201004	4	HEX HD CAPSCREW, 1/4-20X 7/8, GR5	
8		Ref	HYDRAULIC CONTROLLER ASSY, (See HYDRAULIC CONTROLLER for Breakdown)	
9	88662005	8	CONNECTOR, (includes item #3)	
10	77133167	1	HOSE ASSY	
11	84717458	2	HOSE ASSY	
12	84717519	2	HOSE ASSY	
13	90027187	7	NYLON TIE WRAP	
14		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	90206194	17 in	TRIM LOK	
16	91046056	1	JOYSTICK COVER	
17	88201018	2	HEX HD CAPSCREW, 5/16-18X 3/4, GR5	
18	88501010	2	LOCKWASHER, 5/16	
19	88501005	2	HEX NUT, 5/16-18	
20	91083154	1	BRAKE VALVE	
21	88662105	1	ELBOW, 90, (swivel nut)	
22	85051384	2	WELD STUD, 5/16-18 X 1	
23	91046047	1	JOYSTICK MOUNT WELDMENT	
24	91043095	1	TUBE ASSY	
25	91043096	1	TUBE ASSY	
26	88662038	1	CONNECTOR, (includes item #28)	
27	88662008	1	CONNECTOR, (includes item #28)	
28	88591207	2	O-RING	
29	88662108	2	ELBOW, 90, (swivel nut)	
30	88662064	1	ELBOW, 90, (includes O-ring)	
30	88591204	1	O-RING	
31	77131088	1	ELBOW, 90	

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FIGURE 12-2. REAR WIPER INSTALLATION (SN 0144860S to Present)



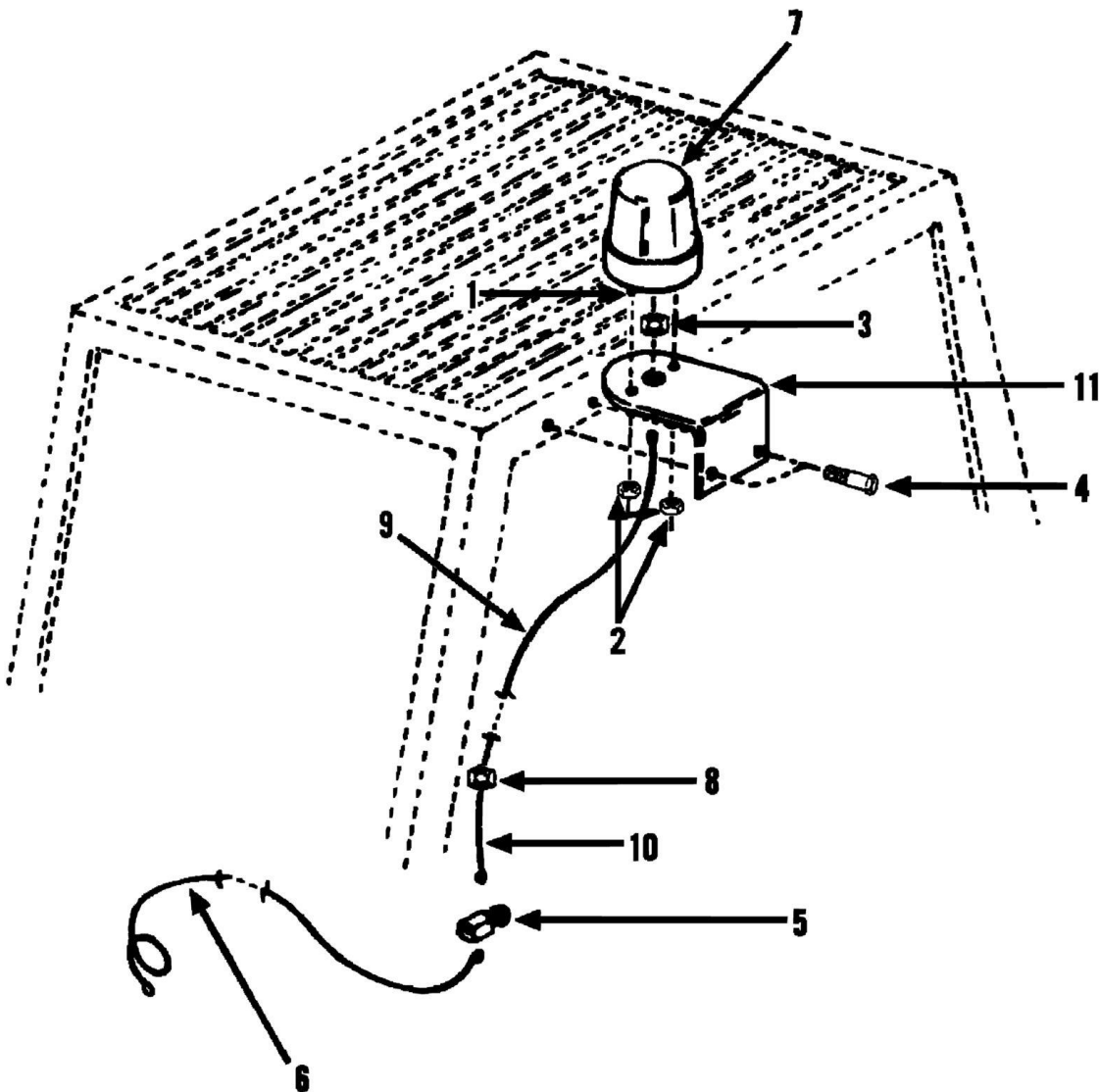
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-2. REAR WIPER INSTALLATION (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90403109		REAR WIPER INSTALLATION (includes items 2 through 14)	
1	90403025	Ref	REAR WINDOW	
2	90206025	1	WIPER MOTOR MOUNT	
3	90200755	AR	WEATHER STRIPPING	
4	90027319	2	SELF TAPPING SCREW, 1/4-20 X 1	
5	90206023	1	WIPER MOTOR	
6	90026024	1	WIPER BLADE	
7	88201003	1	HEX HD CAPSCREW, 1/4-20 x 3/4, GR5	
8	88501004	1	HEX NUT, 1/4-20	
9	90206024	1	WIPER BLADE	
10	90206374	1	WIPER ARM	
11	90206312	1	JUMPER WIRE	
12	86683480	2	CRIMP-ON CONNECTOR	
13	90203376	1	FUSE	
14	90200349	1	JUMPER WIRE	
15	90206019	Ref	WINDOW HOLD-DOWN BAR	
16	90206016	Ref	WINDOW HOLD-DOWN BAR	
17	90027315	Ref	SELF TAPPING SCREW, 1/4-20 X 1-1/4	

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FIGURE 12-3. ROTATING BEACON ASSEMBLY (SN 0144860S to Present)



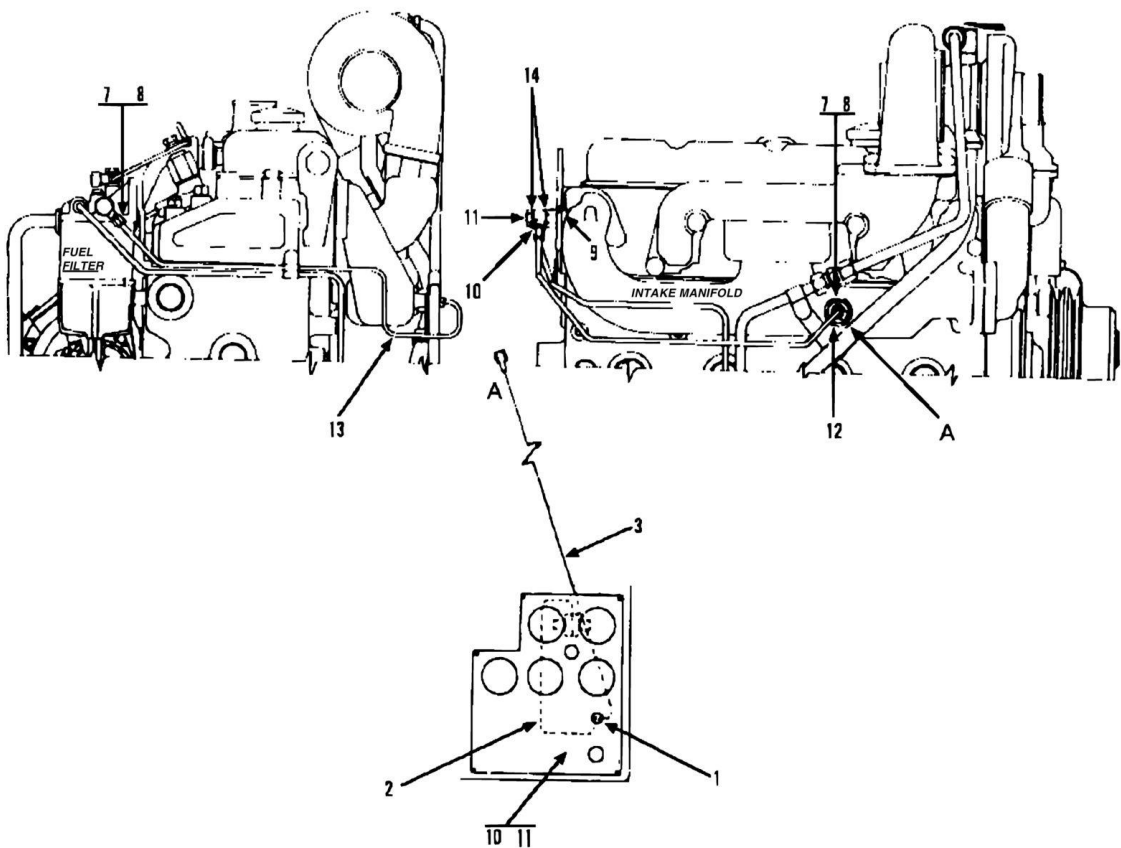
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-3. ROTATING BEACON ASSEMBLY (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035007		ROTATING BEACON ASSY (includes all items)	
1	88201014	2	HEX HD CAPSCREW, 1/4-20 X 3-1/4, GR5	
2	88501004	2	HEX NUT, 1/4-20	
3	90027214	2	BUTTON GROMMET	
4	90027316	3	SELF TAPPING SCREW	
5	90200171	1	SWITCH	
6	90200352	1	JUMPER WIRE	
7	90200685	1	ROTATING BEACON	
8	90202303	1	BUTTON GROMMET	
9	90206132	1	JUMPER WIRE	
10	90206133	1	JUMPER WIRE	
11	90400706	1	BEACON BRACKET	

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FIGURE 12-4. GLOW PLUG INSTALLATION (SN 0144860S to Present)



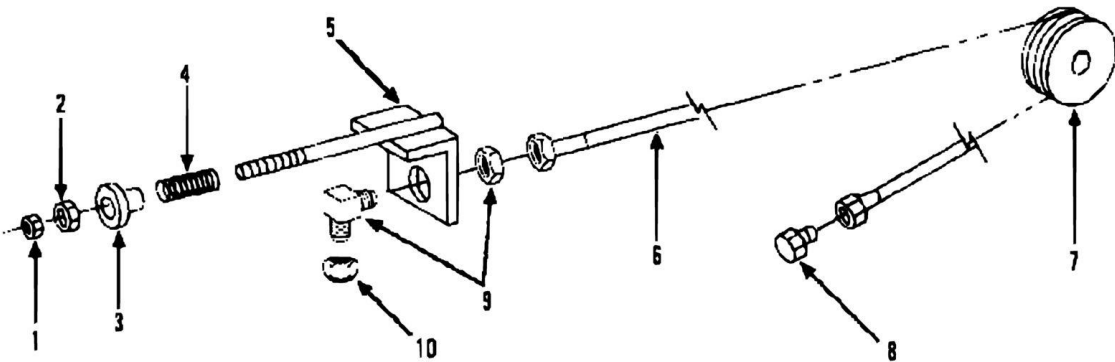
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-4. GLOW PLUG INSTALLATION (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035105		GLOW PLUG INSTALLATION (includes all items below)	
1	24771004	1	PUSH BUTTON SWITCH	
2	91031277	1	JUMPER WIRE	
3	91031278	1	JUMPER WIRE	
4	91033251	1	BUTTON DECAL	
5	91033252	1	INSTRUCTION DECAL	
6	91033250	1	GLOW PLUG KIT (consists of items 7 through 14)	
7	N.S.S.	2	TUBE NUT	
8	N.S.S.	2	RUBBER FERRULE	
9	N.S.S.	1	VALVE	
10	N.S.S.	1	CONNECTOR	
11	N.S.S.	1	BOLT	
12	N.S.S.	1	HEATER	
13	N.S.S.	1	TUBE	
14	N.S.S.	3	WASHER	
		Ref	NOTE: Switch assembly, switch plate, and decal sheet, which are part of the above kit, are not used in this installation.	

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FIGURE 12-5. WINCH DRAIN LINE (SN 0144860S to Present)



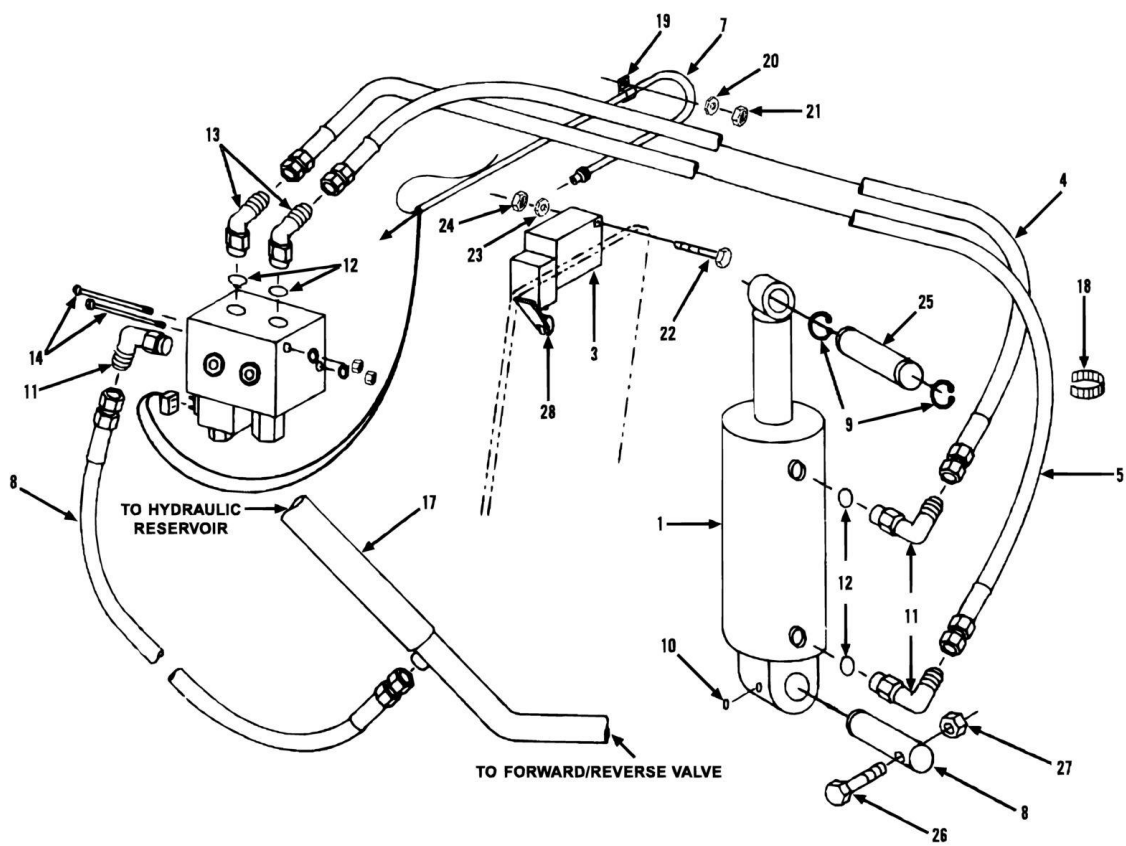
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-5. WINCH DRAIN LINE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035133	Ref	WINCH DRAIN LINE PARTS (includes all items)	
1	88501108	1	HEX JAM NUT, 1/2-13	
2	88501008	1	HEX NUT, 1/2-13	
3	90207041	1	SPRING RETAINER	
4	90200313	1	SPRING	
5	90403249	1	HOSE TAKE-UP WELDMENT	
6	90206888	1	HOSE ASSY	
7	91043101	1	HOSE TAKE-UP SHEAVE	
8	88661385	1	HEX HD PLUG, 1/2	
9	90027180	1	90, BULKHEAD FITTING (includes nut)	
10	88661365	1	HEX CAP, 1/2	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-6. STABILIZER OPTION (SN 0144860S to Present)



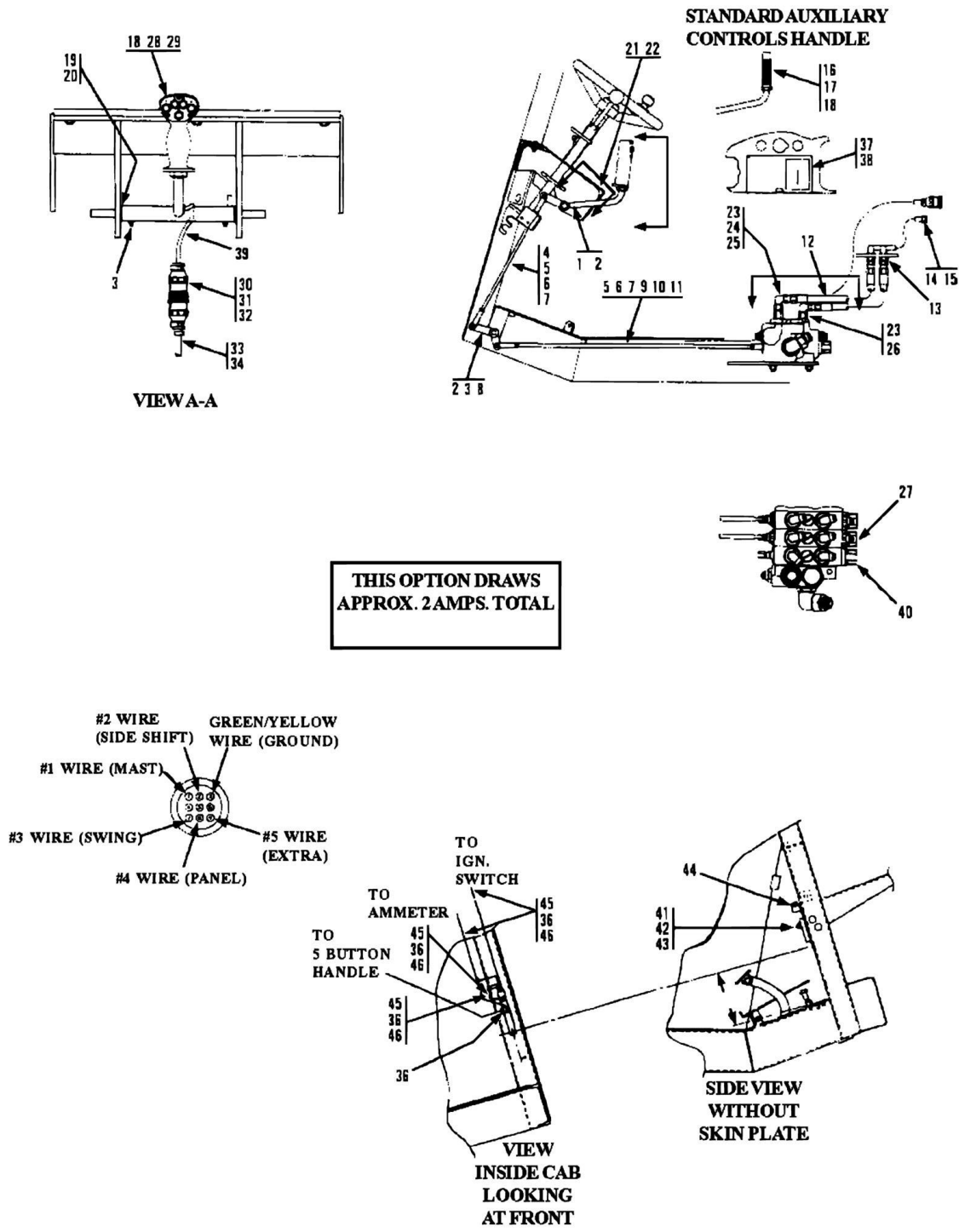
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-6. STABILIZER OPTION (SN 0144860S to Present)

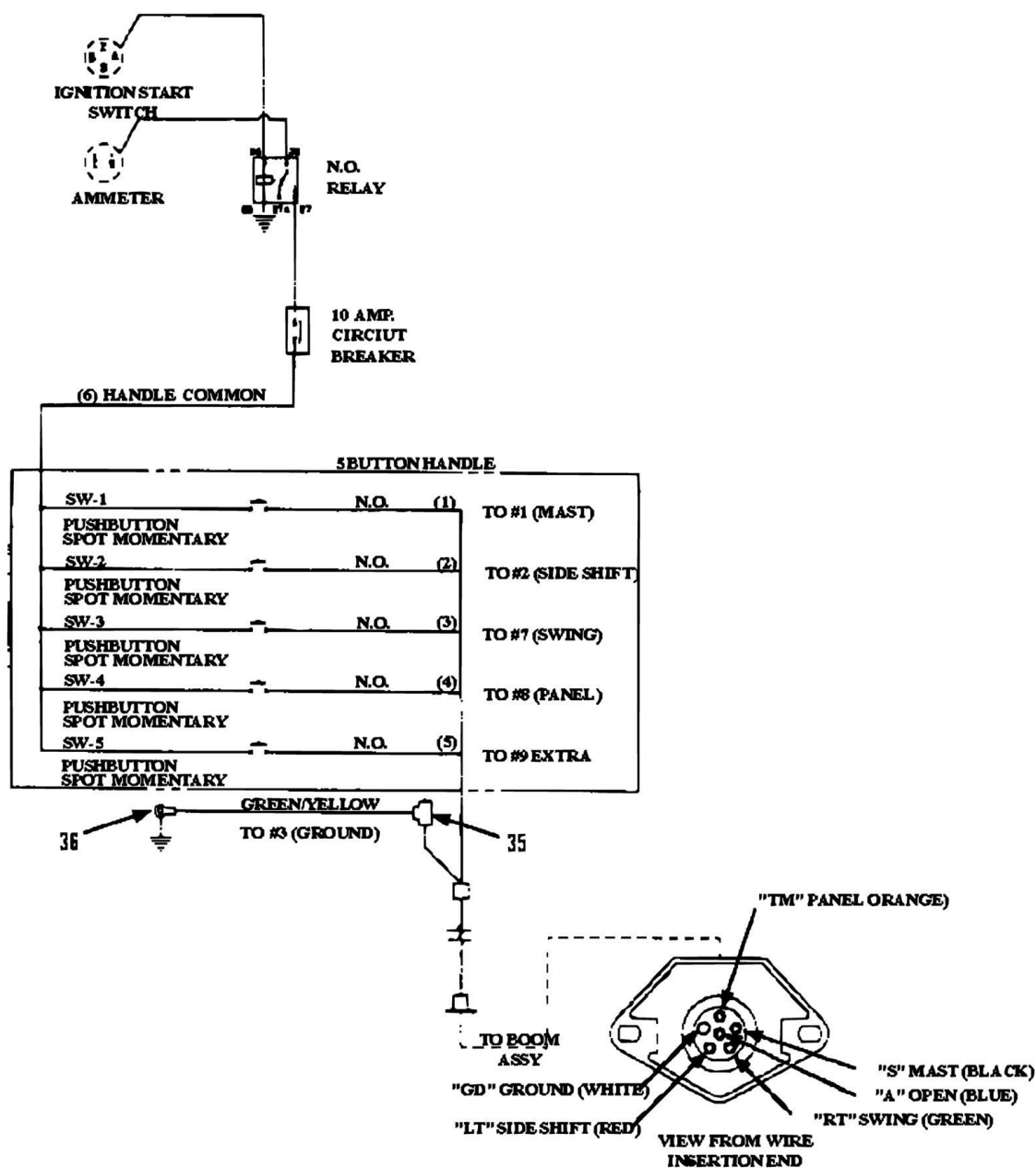
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91035236	1	STABILIZER OPTION (includes all items except #17)	
		Ref	STABILIZER CYLINDER ASSY (See STABILIZER CYLINDER for Breakdown)	
2	91113003	1	STABILIZER VALVE	
3	91043123	1	SWITCH (includes item #28)	
4	84717847	1	HOSE ASSY	
5	84717848	1	HOSE ASSY	
6	84716426	1	HOSE ASSY	
7	91045034	1	BOOM SWITCH HARNESS	
8	91121017	1	PIN	
9	88581140	2	RETAINING RING	
10	88671008	2	LUBE FITTING, STRAIGHT, 1/4-28	
11	88662065	3	ELBOW, 90, (includes item #12)	
12	88591205	5	O-RING	
13	88662085	2	ELBOW, 45, (includes item #12)	
14	83201073	2	HEX HD CAPSCREW, 3/8-16 X 4-1/2	
15	88551011	2	LOCKWASHER, 3/8	
16	88501006	2	HEX NUT, 3/8-16	
17	91043144	1	DUMP TUBE	
18	90027187	6	TIE WRAP	
19	90021705	1	TUBE CLAMP	
20	88561002	1	FLAT WASHER, 1/4	
21	88521204	1	HEX LOCKNUT, 1/4-20	
22	88301099	2	ROUND HD MACHINE SCREW, #10- 24 X 1-3/4	
23	88551007	2	LOCKWASHER, #10	
24	91043199	2	SQUARE NUT, #10-24	
25	91041227	1	PIN	
26	88201044	1	HEX HD CAPSCREW, 3/8-16 X 3-1/4, GR5	
27	88521206	1	HEX LOCKNUT, 3/8-16	
28	91044475	1	LEVER/ROLLER ASSY	

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FIGURE 12-7. AUXILIARY CONTROLS ASSEMBLY (SN 0144860S to Present)



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FIGURE 12-7. AUXILIARY CONTROLS ASSEMBLY (SN 0144860S to Present)

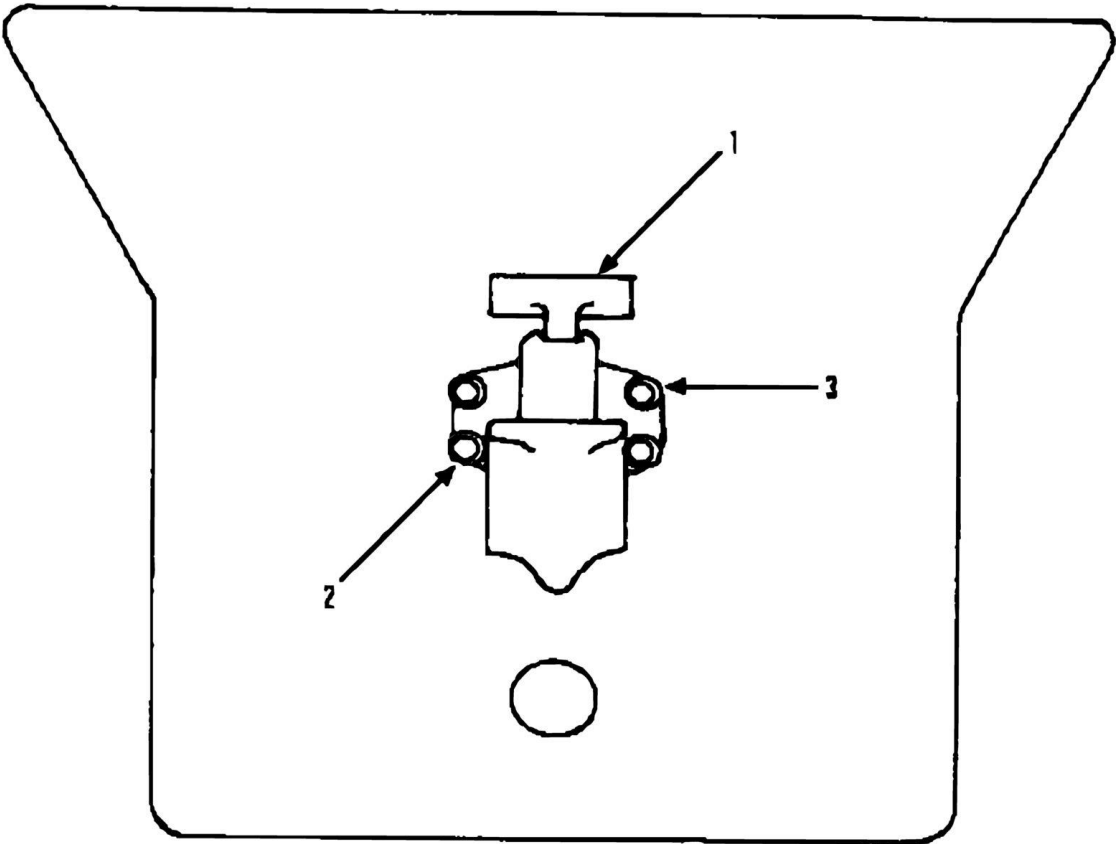
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035220	Ref	AUXILIARY CONTROLS ASSY (includes items 1 through 21, 23, 24, 25, 26 & 38)	
	91035221	Ref	AUXILIARY FIELD INSTALLATION (includes items 1 through 27 & item 40)	
	91035222	Ref	AUXILIARY ELECTRIC INSTALLATION (includes items 28 through 37, item 39 & items 41 through 46)	
1	91036107	1	AUXILIARY HANDLE WELDMENT	
2	90200290	4	BEARING	
3	88671008	3	LUBE FITTING, STRAIGHT, 1/4-28	
4	90202361	1	LINKAGE ROD	
5	88821004	3	ADJUSTABLE YOKE END	
6	90027987	3	SPRING CLEVIS	
7	88501406	3	HEX JAM NUT, 3/8-24	
8	90205533	1	BELL CRANK	
9	91046051	1	LINKAGE ROD	
10	90021552	1	CLEVIS PIN	
11	88631301	1	COTTER PIN, 1/16 X 1/2	
12	90022043	2	HOSE ASSY	
13	90029938	2	90, BULKHEAD ELBOW	
14	90007393	1	TUBE ASSY	
15	91043196	1	TUBE ASSY	
16	91031465	1	HANDLE INSERT	
17	90200774	1	HANDLE GRIP	
18	88501112	1	HEAVY HEX JAM NUT, 3/4-10	
19	88561113	4	FLAT WASHER, 3/4	
20	90028662	2	WAVE BEND WASHER	
21	91031464	1	COVER PANEL	
22	88321015	Ref	SELF-TAPPING SCREW, #6-32 X 1/2	
23	88662107	2	ELBOW, 90, (swivel nut)	
24	86923006	1	ADAPTER, 3/4 X 5/8	
25	88662008	1	CONNECTOR (includes o-ring)	
25	88591207	1	O-RING	
26	88662022	1	CONNECTOR (includes O-ring)	
26	88591207	1	O-RING	
27	91033239	1	CONVERSION KIT	
28	91033387	1	5-BUTTON HANDLE	
29	91033425	1	GROMMET	
30	90028956	1	CONNECTOR BODY	
31	90028958	6	TERMINAL	
32	90028978	1	CABLE CLAMP	
33	90403396	1	AUXILIARY WIRING HARNESS	
34	90027187	4	TY-RAP	
35	90028968	1	CONNECTOR	
36	91033391	6	INSULATED RING TERMINAL	
37	91033394	1	AUXILIARY CONTROL DECAL	
38	91033417	1	AUXILIARY CONTROL DECAL	
39	82033993	12 in	LOOM, 5/16IN I.D.	
40	91033168	1	MAIN CONTROL VALVE	
41	86883071	1	10 AMP CIRCUIT BREAKER	
42	77363191	1	CIRCUIT BREAKER BRACKET	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	88321039	2	PAN HD SELF TAPPING SCREW, #10-32 X 1/2IN	
44	77383410	1	RELAY	
45	86661147	AR	WIRE, BLACK 16 GAUGE	
46	77163102	4	INSULATED FEMALE SPADE	

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FIGURE 12-8. (91035101) PINTLE HOOK (SN 0144860S to Present)



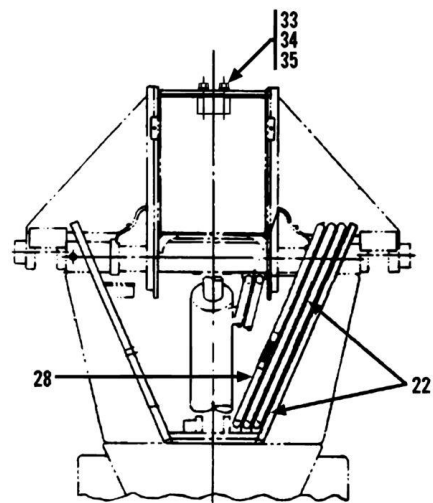
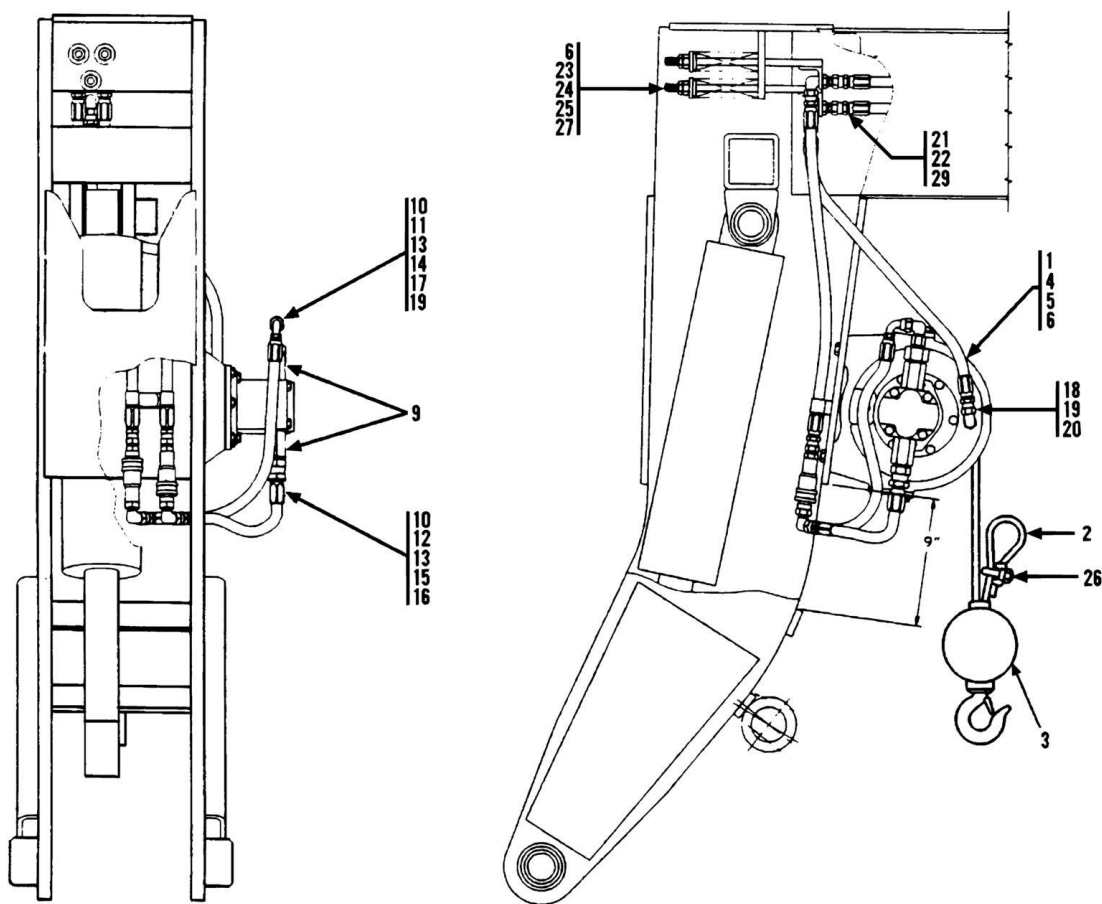
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-8. (91035101) PINTLE HOOK (SN 0144860S to Present)

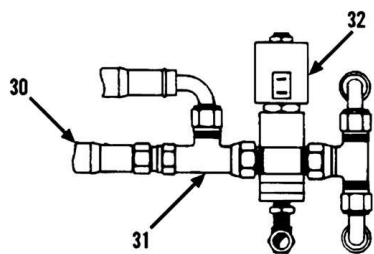
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035101	Ref	PINTLE HOOK INSTALLATION (includes all items)	
1	90200602	1	PINTLE HOOK	
2	83201120	4	HEX HD CAPSCREW, 1/2-13 X 1-3/4	
3	88551013	4	LOCKWASHER, 1/2	

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FIGURE 12-9. WINCH ASSEMBLY (SN 0144860S to Present)



AUXILIARY VIEW OF REAR OF BOOM



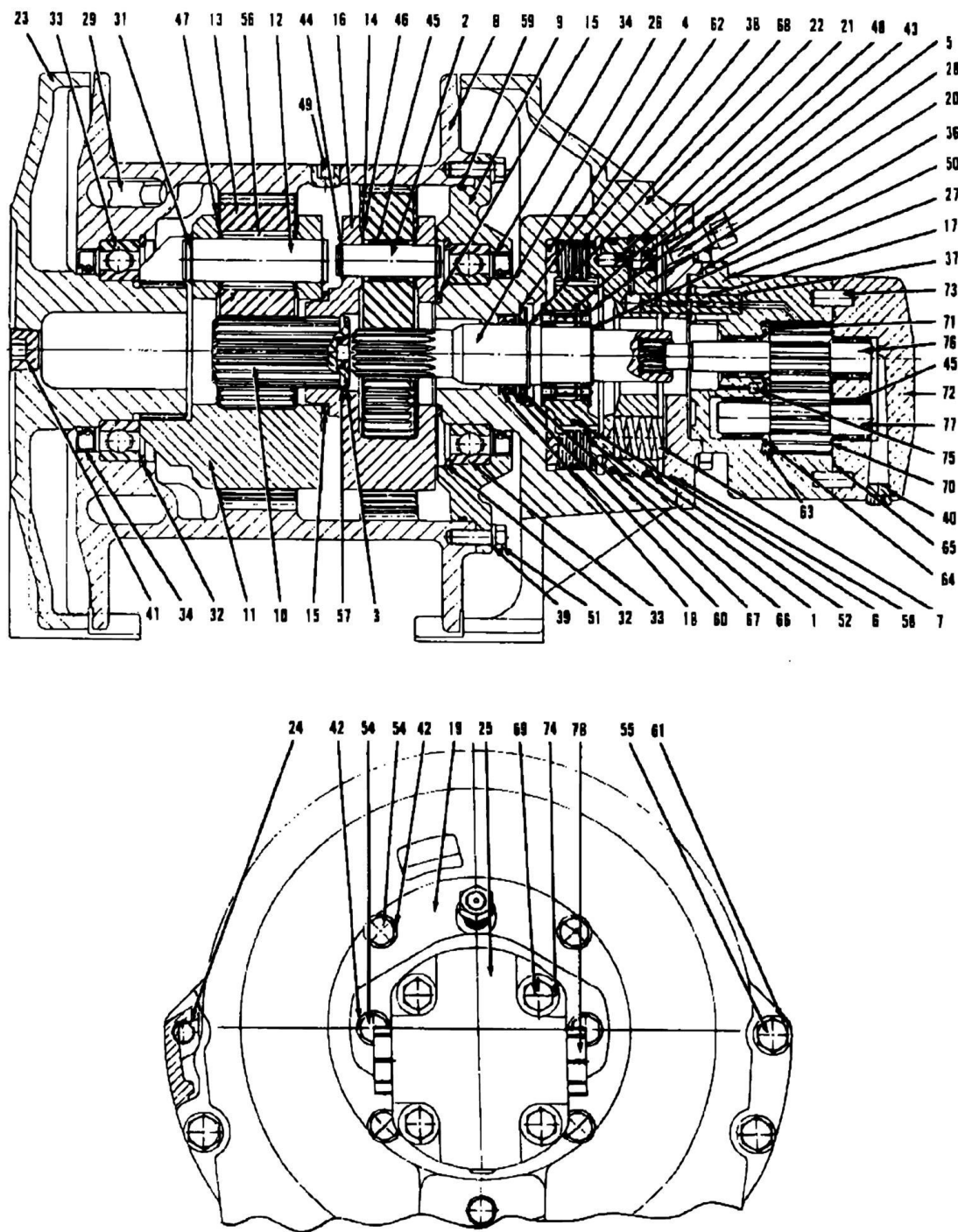
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-9. WINCH ASSEMBLY (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035079	1	WINCH ASSY, (includes all items)	
1	91033196	Ref	WINCH, (See WINCH for Breakdown)	
2	90207882	1	CABLE	
3	90201443	1	HOOK AND BALL	
4	88201069	4	HEX HD CAPSCREW, 1/2-13X2, GR5	
5	88551013	4	LOCKWASHER, 1/2	
6	88501008	5	HEX NUT, 1/2-13	
7	91031077	1	BAR, (not shown)	
8	91021009	1	RING, (not shown)	
9	91033161	2	FLOW REGULATOR	
10	88661113	2	MALE ELBOW, 90, 1/2X1/2 TUBE (Prior to 2005283-01)	
10	88662065	2	ELBOW, 90, (includes 8859-1205 o-ring), (SN 2005283-01 to Present)	
11	91163139	1	HYDRAULIC COUPLER, FEMALE (Prior to 2005283-01)	
11	91403413	1	HYDRAULIC COUPLER, FEMALE, (SN 2005283-01 to Present)	
12	91163138	1	HYDRAULIC COUPLER, MALE (Prior to 2005283-01)	
12	91403414	1	HYDRAULIC COUPLER, MALE (Prior to 2005283-01)	
13	91033230	2	REDUCER	
14	84718022	1	HOSE ASSY	
15	84717477	1	HOSE ASSY	
16	91043126	1	DUST CAP	
17	91043125	1	DUST PLUG	
18	88661011	1	MALE CONNECTOR, 1/4X1/2 TUBE	
19	88662106	1	ELBOW-90, (swivel nut)	
20	84717252	1	HOSE ASSY	
21	90027180	1	90, BULKHEAD FITTING	
22	90206888	1	HOSE ASSY	
23	90403249	1	HOSE TAKE-UP	
24	90200313	1	SPRING	
25	90207041	1	SPRING RETAINER	
26	90028990	1	WIRE ROPE CLIP	
27	88501108	1	HEAVY HEX JAM NUT, 1/2-13	
28	91043101	1	HOSE TAKE-UP SHEAVE	
29	88661065	1	UNION, 1/2 TUBE	
30	84716377	1	HOSE ASSY	
31	88662240	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
32	91035067	1	SOLENOID VALVE ASSY	
33	91031163	1	STOP BAR	
34	05101441	2	WASHER	
35	83201053	2	CAP SCREW	

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FIGURE 12-10. WINCH (SN 0144860S to Present)



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FIGURE 12-10. WINCH (SN 0144860S to Present)

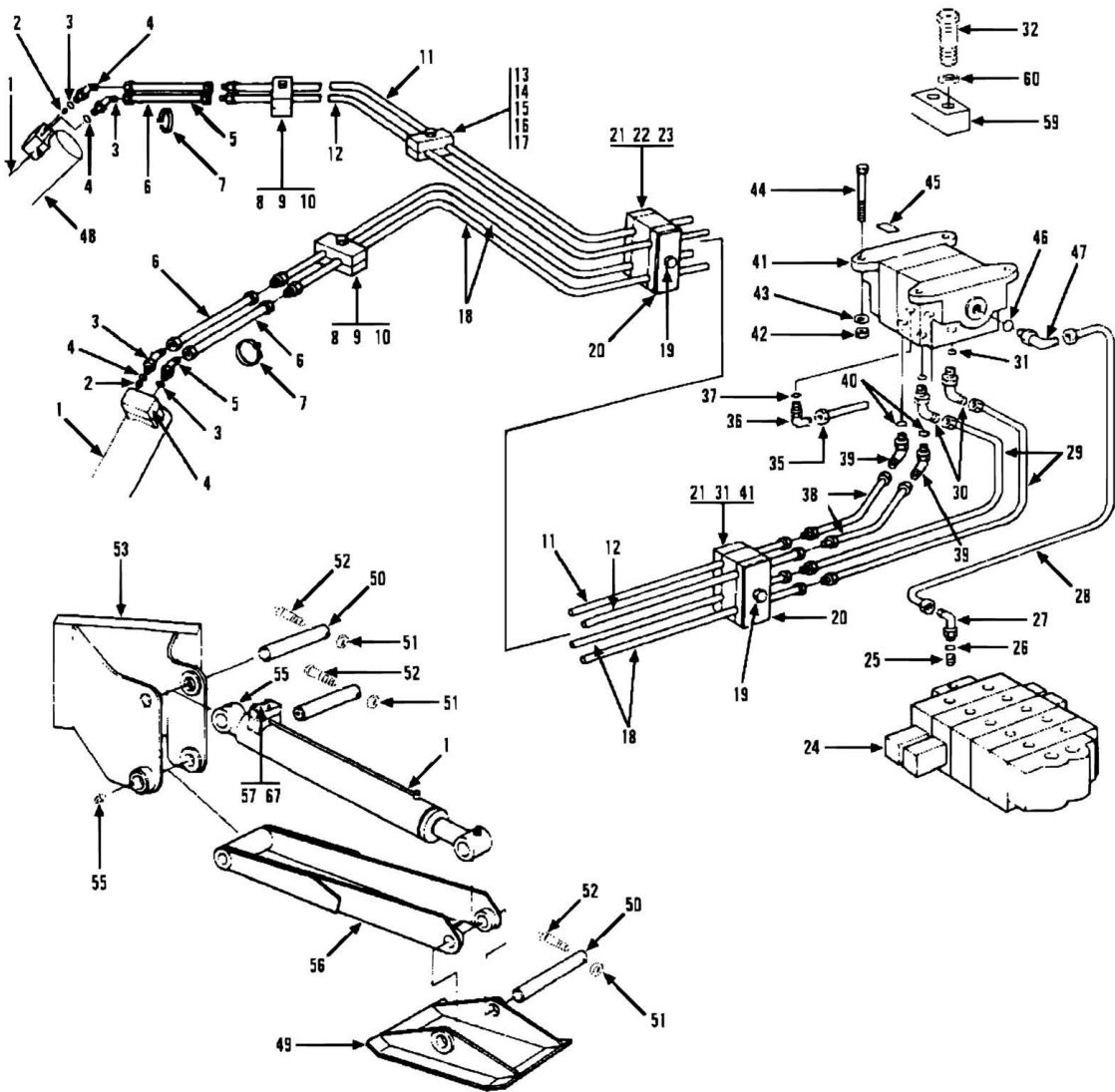
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033196	1	WINCH ASSY (includes all items)	
	91034161	1	SEAL REPLACEMENT KIT (includes items 34, 36, 37, 52, 58, 59, 60 & 66)	
	91034162	1	HYDRAULIC MOTOR SEAL KIT (includes items 63, 64 & 65)	
	91034164	1	PRIMARY PLANET HUB ASSY (includes items 2, 3, 10, 14, 15, 16, 44 45, 46 & 57)	
1	91034165	4	BRAKE PLATE	
2	91034166	3	PRIMARY PLANET PIN	
3	91034167	1	PRIMARY SUNGEAR STOPPER	
4	91034168	1	BRAKE SPACER	
5	91034169	2	SPRAG CLUTCH ALIGNER	
6	91034170	1	BRAKE HUB	
7	91034171	6	BRAKE SPRING	
8	91034172	1	CABLE DRUM	
9	91034173	1	BEARING FLANGE	
10	91034174	1	FINAL SUNGEAR	
11	91034175	1	FINAL PLANET HUB	
12	91034176	3	FINAL PLANET PIN	
13	91034177	3	FINAL PLANET GEAR	
14	91034178	3	PRIMARY PLANET GEAR	
15	91034179	2	NYLON SPACER	
16	91034180	1	PRIMARY PLANET HUB	
17	91034181	1	CONNECTING TUBE	
18	91034182	1	BACKUP WASHER	
19	91034183	1	MOTOR ADAPTER	
20	91034184	1	PISTON	
21	91034185	1	ORIFICE PLUG	
22	91034186	1	BRAKE HOUSING	
23	91034187	1	END HOUSING	
24	91034188	2	TIE BAR	
25	91034189	1	HYDRAULIC MOTOR ASSY (includes items 27, 40, 45, 64, 65, 69 through 77)	
26	91034190	1	PRIMARY SUNGEAR	
27	91034191	1	MOTOR BODY	
28	91034192	1	SAFETY VALVE	
29	91034193	1	WEDGE	
31	91034194	6	CIRCLIP	
32	91034195	2	CIRCLIP	
33	91034196	2	BALL BEARING	
34	Kit	2	OIL SEAL	
36	Kit	1	O-RING	
37	Kit	2	O-RING	
38	91034197	5	DIVIDER PLATE	
39	88551010	6	LOCK WASHER, 5/16	
40		Ref	HEX SOCKET PIPE PLUG	
41		Ref	HEX SOCKET PIPE PLUG	
42	88551011	6	LOCK WASHER, 3/8	
43		Ref	HEX SOCKET PIPE PLUG	
44	91034198	6	CIRCLIP	
45	91034199	7	NEEDLE BEARING	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	91034200	6	THRUSTWASHER	
47	91034201	6	THRUSTWASHER	
48	91034202	1	SPRAG CLUTCH	
49		Ref	HEX SOCKET PIPE PLUG	
50	91034203	1	CIRCLIP	
51	88201019	6	HEX HD CAPSCREW, 5/16-18 X 7/8, GR5	
52	Kit	1	O-RING	
54	88201035	6	HEX HD CAPSCREW, 3/8-16 x 1, GR5	
55	88201051	8	HEX HD CAPSCREW, 7/16-14 X 1-1/4, GR5	
56	91034204	60	NEEDLE ROLLER	
57	91034205	1	CIRCLIP	
58	Kit	1	O-RING	
59	Kit	1	O-RING	
60	Kit	1	OIL SEAL	
61	88551012	8	LOCK WASHER, 7/16	
62	91034206	2	THRUSTWASHER	
63	Kit	1	NYLATRON	
64	Kit	1	RUBBER SPACER	
65	Kit	1	SQUARE CUT SEAL RING	
66	Kit	1	O-RING	
67	91034207	1	THRUST BEARING	
68	91034208	1	CIRCLIP	
69	91034209	4	HEX HD CAPSCREW	
70	91034210	1	THRUST PLATE	
71	91034211	1	WEAR PLATE	
72	91034212	1	COVER	
73	91034213	2	DOWEL PIN	
74	91034214	4	WASHER	
75	91034215	2	STEEL BALL	
76	91034216	1	DRIVE GEAR	
77	91034217	1	DRIVEN GEAR	
78		Ref	CAPLUG	
		Ref	NOTE: Items 30, 35, 53 were removed from the assembly and are not illustrated or listed in the parts list.	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-11. OUTRIGGER INSTALLATION (SN 0144860S to Present)



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FIGURE 12-11. OUTRIGGER INSTALLATION (SN 0144860S to Present)

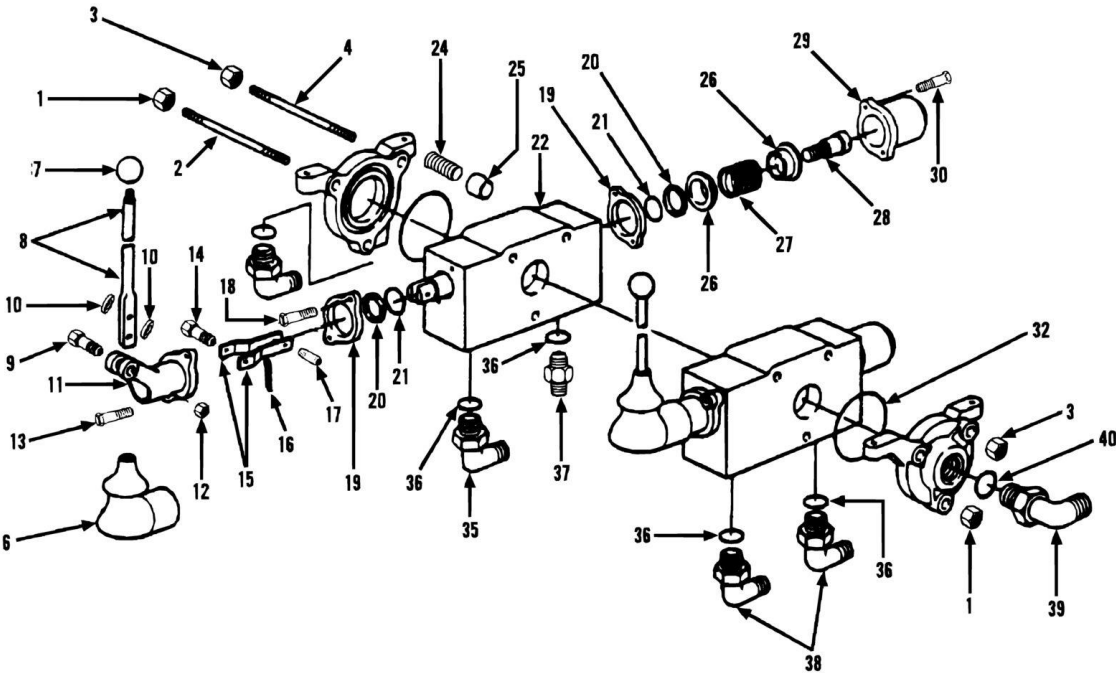
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035196	Ref	OUTRIGGER INSTALLATION, (includes all items)	
1		Ref	OUTRIGGER CYLINDER ASSY, (See OUTRIGGER CYLINDER for Breakdown)	
2	91033201	2	ORIFICE CHECK	
3	88662085	4	ELBOW, 45, (includes item #4)	
4	88591205	4	O-RING	
5	84717527	2	HOSE ASSY	
6	84717528	2	HOSE ASSY	
7	90027187	4	NYLON CLAMP	
8	77133168	2	CLAMP SET	
9	77133140	2	COVER PLATE	
10	77133177	2	HEX HD CAPSCREW	
11	91033141	1	TUBE ASSY	
12	91033198	1	TUBE ASSY	
13	77133499	2	HEX HD CAPSCREW	
14	77133498	1	COVER PLATE	
15	91033138	2	CLAMP	
16	91033199	1	SAFETY PLATE	
17	91033200	2	STACKING BOLT	
18	91033140	2	TUBE ASSY	
19	77133177	2	HEX HD CAPSCREW	
20	77133140	2	COVER PLATE	
21	77133168	4	CLAMP SET	
22	77133390	2	SAFETY CLIP	
23	77133389	2	STACK BOLT	
24		Ref	MAIN CONTROL VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88711284	1	SOCKET HD PIPE PLUG, 3/4	
26	88591209	1	O-RING	
27	88662061	1	ELBOW, 90, (includes item #26)	
28	84717474	1	HOSE ASSY	
29	84717479	2	HOSE ASSY	
30	88662065	2	ELBOW, 90, (includes item #31)	
31	88591205	2	O-RING	
32	83201053	8	HEX HD CAPSCREW, 1-8X3, GR8	
33	88662036	1	CONNECTOR, (includes item #34)	
34	88591205	1	O-RING	
35	84717473	1	HOSE ASSY	
36	88662060	1	ELBOW, 90, (includes item #37)	
37	88591206	1	O-RING	
38	84717477	2	HOSE ASSY	
39	88662085	2	ELBOW, 90, (includes item #40)	
40	88591205	2	O-RING	
41		Ref	OUTRIGGER VALVE ASSY, (See OUTRIGGER VALVE ASSEMBLY for Breakdown)	
42	88501006	4	HEX NUT, 3/8-16	
43	88551011	4	LOCKWASHER, 3/8	
44	88201037	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
45	91023006	1	STABILIZER DECAL	
46	88591207	1	O-RING	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	88662067	1	ELBOW, 90, (includes item #46)	
48		Ref	DUAL P.O. CHECK VALVE, (See DUAL P.O. CHECK VALVE for Breakdown)	
49	91036032	2	OUTRIGGER SHOE	
50	91031141	4	SHOE PIN	
51	88521206	6	HEX LOCKNUT, 3/8-16	
52	83201073	6	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
53	91046110	1	R.H. OUTRIGGER BRACKET	
53	91046111	1	L.H. OUTRIGGER BRACKET	
54	91031140	2	ARM PIN	
55	88671001	8	LUBE FITTING, STRAIGHT, 1/8	
56	91036041	2	ARM WELDMENT	
57	88201040	6	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
58	88551011	6	LOCKWASHER, 3/8	
59	91031163	1	STOP BAR	
60	05101441	2	WASHER	

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FIGURE 12-12. OUTRIGGER VALVE ASSEMBLY (SN 0144860S to Present)



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FIGURE 12-12. OUTRIGGER VALVE ASSEMBLY (SN 0144860S to Present)

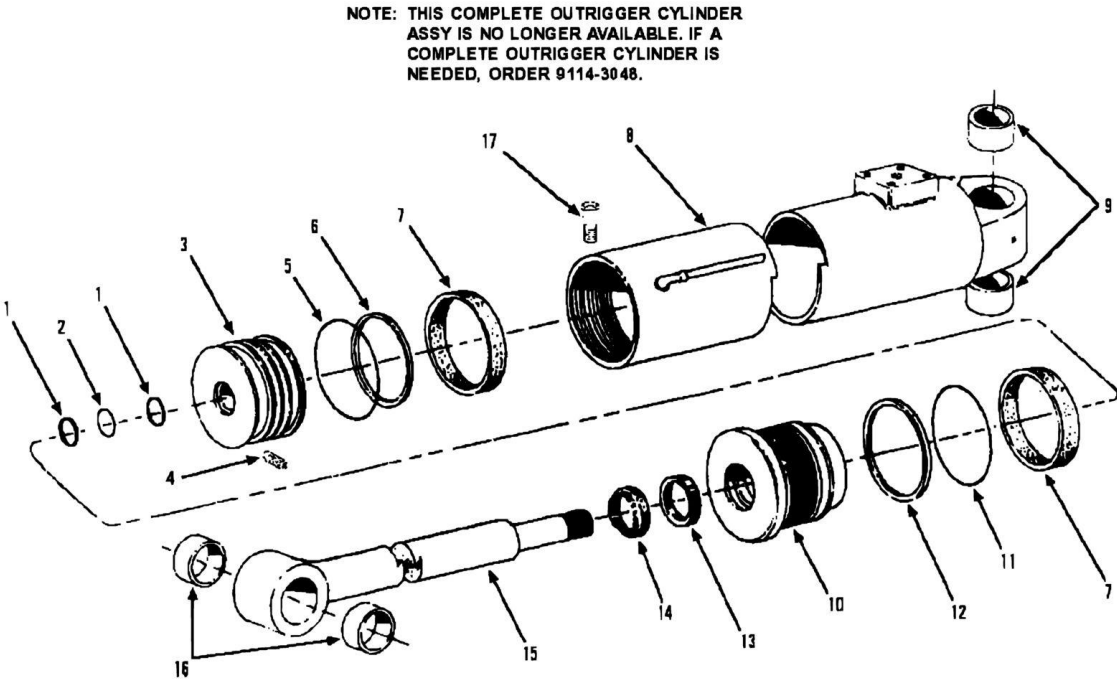
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035090	1	OUTRIGGER CONTROL VALVE ASSY (includes all items)	
	91033144	1	OUTRIGGER CONTROL VALVE ASSY (includes items 1 through 32)	
	91034124	1	TIE ROD KIT (includes items 1 through 4)	
	91034125	2	HANDLE ASSY (includes items 6 through 17)	
	91034126	2	SPOOL SECTION ASSY (includes items 18 through 30)	
1	Kit	2	SPECIAL NUT	
2	Kit	1	TIE ROD	
3	Kit	4	SPECIAL NUT	
4	Kit	2	TIE ROD	
5		Ref	OUTLET SECTION	
6	91034127	1	BOOT	
7	91034128	1	KNOB	
8	91034129	1	HANDLE	
9		Ref	PIVOT BOLT	
10		Ref	FLAT WASHER	
11		Ref	HANDLE BRACKET	
12		Ref	HEX NUT	
13		Ref	SOCKET HD CAPSCREW	
14		Ref	PIN	
15		Ref	LINK	
16		Ref	RETAINER	
17		Ref	ROLL PIN	
18		Ref	ROUND HD MACHINE SCREW	
19		Ref	SEAL PLATE	
20	91034130	2	WIPER	
21	91034131	2	O-RING	
22	N.S.S.	1	HOUSING AND SPOOL ASSY (NOT SOLD SEPARATELY, ORDER P/N 91034126)	
23	91034132	1	O-RING	
24	91034133	1	SPRING	
25	91034134	1	O-RING	
26		Ref	SPRING SEAT	
27	91034135	1	SPRING	
28		Ref	SPOOL END	
29		Ref	SPOOL CAP	
30		Ref	SOCKET HD CAPSCREW	
31		Ref	INLET HOUSING ASSY (includes item #32)	
32	91034132	1	O-RING	
33	88662060	1	ELBOW, 90, (includes item #34)	
34	88591206	1	O-RING	
35	88662085	1	ELBOW, 45, (includes item #36)	
36	88591205	4	O-RING	
37	88662036	1	CONNECTOR (includes item #36)	
38	88662065	2	ELBOW, 90, (includes item #36)	
39	88662067	1	ELBOW, 90, (includes item #40)	
40	88591207	1	O-RING	
		Ref	NOTE: QUANTITIES ARE SHOWN FOR ONE HANDLE ASSY AND ONE SPOOL SECTION ASSY.	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	NOTE: WHEN REPLACING A SPOOL SECTION, REMOVE SCREWS (18) AND REPLACE WITH SCREWS (13) TO SECURE THE BRACKET.	
		Ref	NOTE: ONLY PART NUMBERED PARTS ARE AVAILABLE FOR SERVICE REPLACEMENT.	

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FIGURE 12-13. (91033127) OUTRIGGER CYLINDER (SN 0144860J to Present)



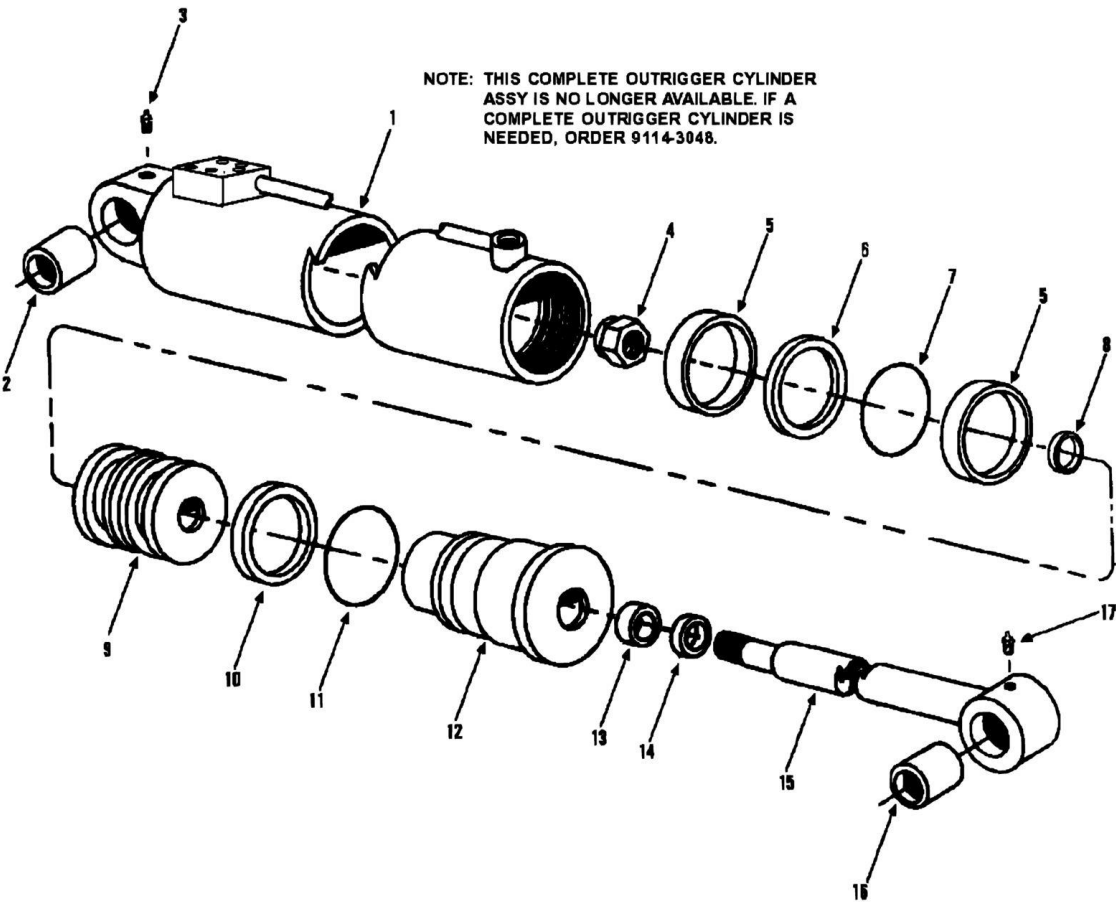
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-13. (91033127) OUTRIGGER CYLINDER (SN 0144860J to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033127	2	OUTRIGGER CYLINDER ASSY, (includes all items)	
	91044065	1	SEAL KIT, (includes items 1, 2, 5, 6, 7, 11, 12, 13 & 14)	
1	Kit	2	BACKUP RING	
2	Kit	1	O-RING	
3	91044066	1	PISTON ASSY, (includes items 5, 6 & 7; lubricate and torque to 1,450-1,550 ft lbs)	
4	91044067	1	SET SCREW, (lubricate and torque to 12-14 ft lbs)	
5	Kit	1	O-RING	
6	Kit	1	PISTON SEAL	
7	Kit	2	WEAR RING	
8	91044068	1	BARREL ASSY,(includes item 9)	
9	91044069	2	BUSHING	
10	91044070	1	ROD BEARING ASSY, (includes items 11 through 14; lubricate and torque to 250-300 ft lbs)	
11	Kit	1	O-RING	
12	Kit	1	BACKUP RING	
13	Kit	1	ROD SEAL	
14	90022280	1	WIPER	
15	91044071	1	PISTON ROD ASSY, (includes item16)	
16	91044072	2	BUSHING	
17	91044073	1	HEX HD SELF-TAPPING SCREW	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-14. (91043305) OUTRIGGER CYLINDER (SN 0244184S to Present)



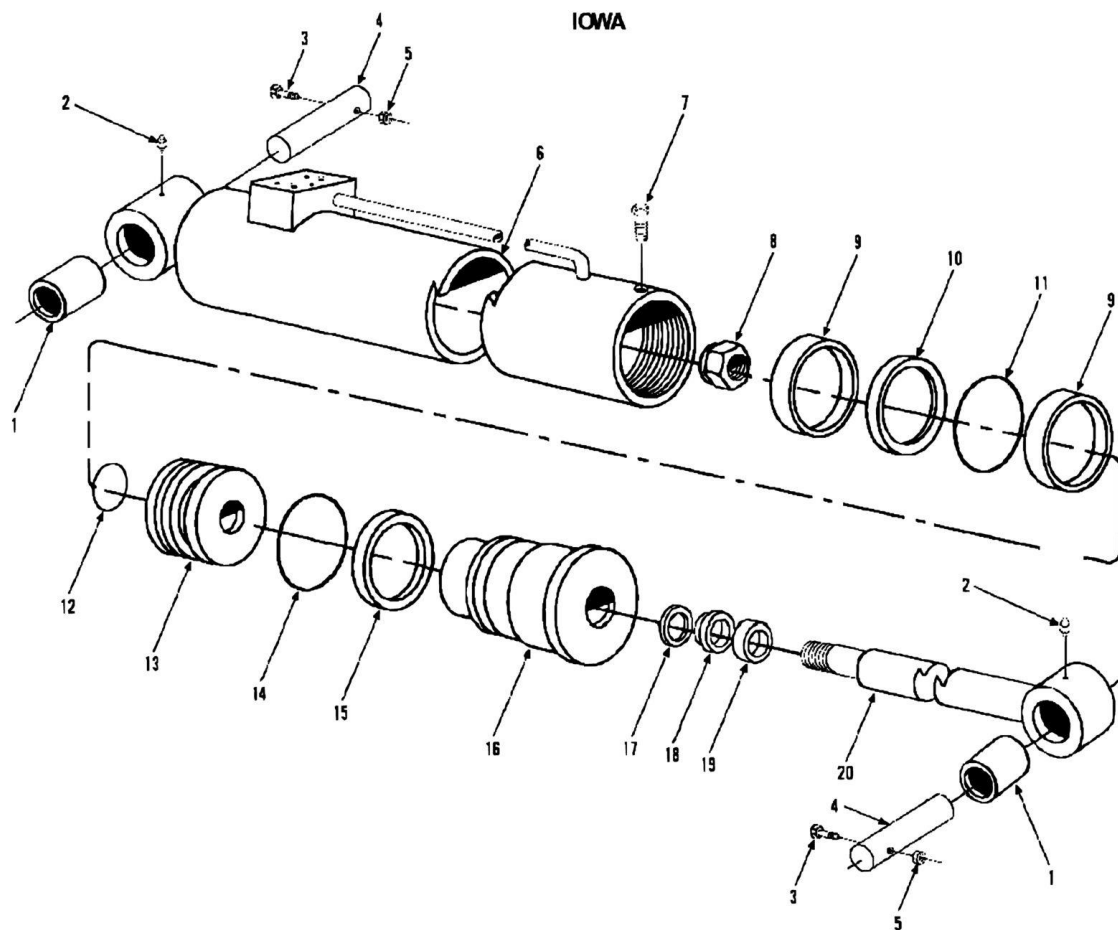
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-14. (91043305) OUTRIGGER CYLINDER (SN 0244184S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043305	2	OUTRIGGER CYLINDER ASSY, (includes all items)	
	91034278	1	SEAL KIT, (includes items 5, 6, 7, 8, 10, 11, 13, & 14)	
1	91044316	1	TUBE ASSY	
2	91044371	1	BUSHING	
3	88671018	1	LUBE FITTING, 45, 1/8	
4	91034280	1	LOCK NUT, (torque to 1100 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91034281	1	PISTON	
10	Kit	1	BACK-UP RING	
11	Kit	1	O-RING	
12	91034282	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91044317	1	ROD ASSY	
16	91044371	1	BUSHING	
17	88671033	1	LUBE FITTING, STRAIGHT 1/4-28	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-15. (91143048) OUTRIGGER CYLINDER; FOR SERVICE ONLY



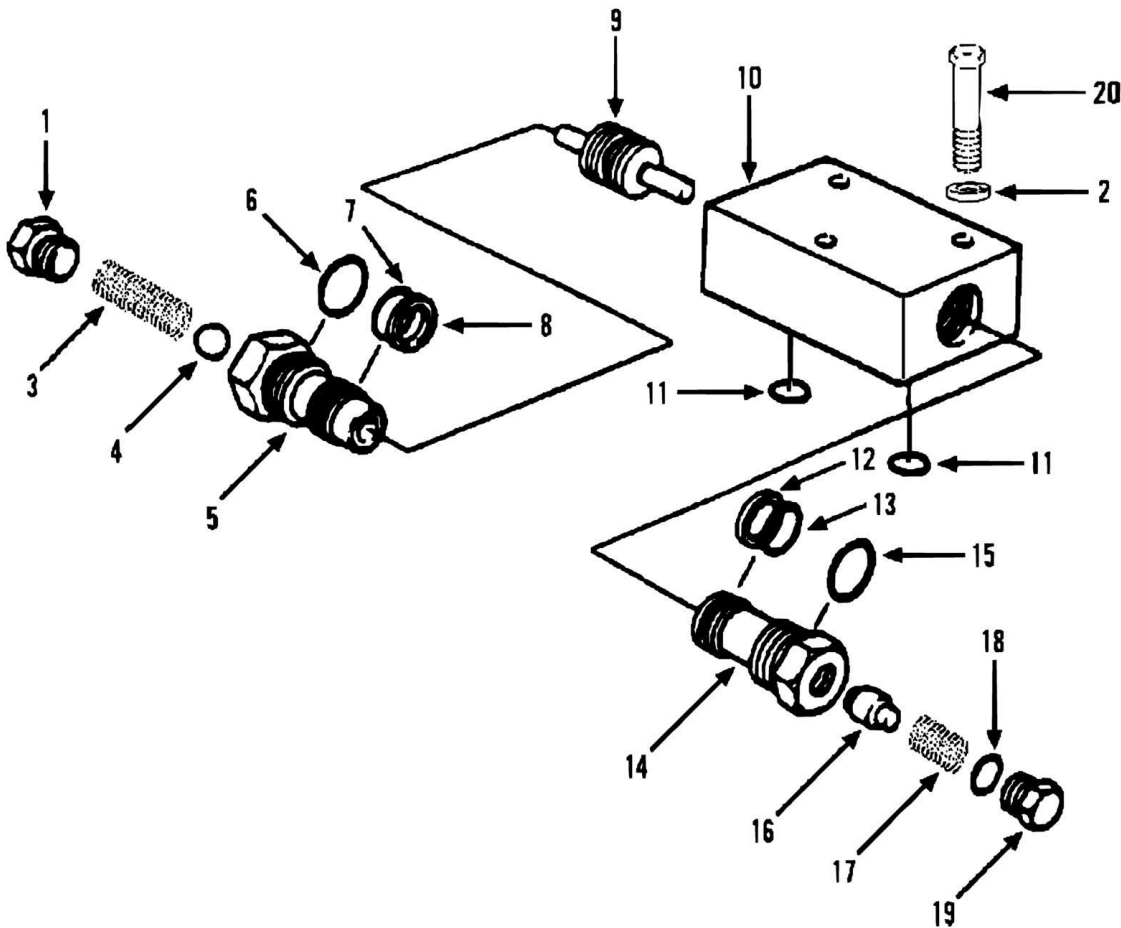
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-15. (91143048) OUTRIGGER CYLINDER; FOR SERVICE ONLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143048	2	OUTRIGGER CYLINDER, (includes items 1, 2) (SN 6 through 20)	
	91144004	1	SEAL KIT, (includes items 9, 10, 11, 12, 14, 15, 17, 18 & 19)	
1	91154002	2	BUSHING	
2	88671001	2	GREASE FITTING	
3	83201073	2	HEX HD CAPSCREW, 3/8-16X4-1/2, GR5	
4	91031141	2	SHOE PIN	
5	88521206	2	HEX LOCKNUT, 3/8-16, (nylok)	
6	91154003	1	CASE ASSY	
7	91144017	1	CAPSCREW, #8-32X.375	
8	91034153	1	LOCKNUT	
9	Kit	2	WEAR RING	
10	Kit	1	PISTON SEAL	
11	Kit	1	O-RING	
12	Kit	1	O-RING	
13	91034139	1	PISTON	
14	Kit	1	O-RING	
15	Kit	1	BACK-UP RING	
16	91144024	1	CYLINDER HEAD	
17	Kit	1	STEP SEAL	
18	Kit	1	U-CUP	
19	Kit	1	WIPER	
20	91154004	1	ROD ASSY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-16. DUAL P.O. CHECK VALVE (SN 0144860S to Present)



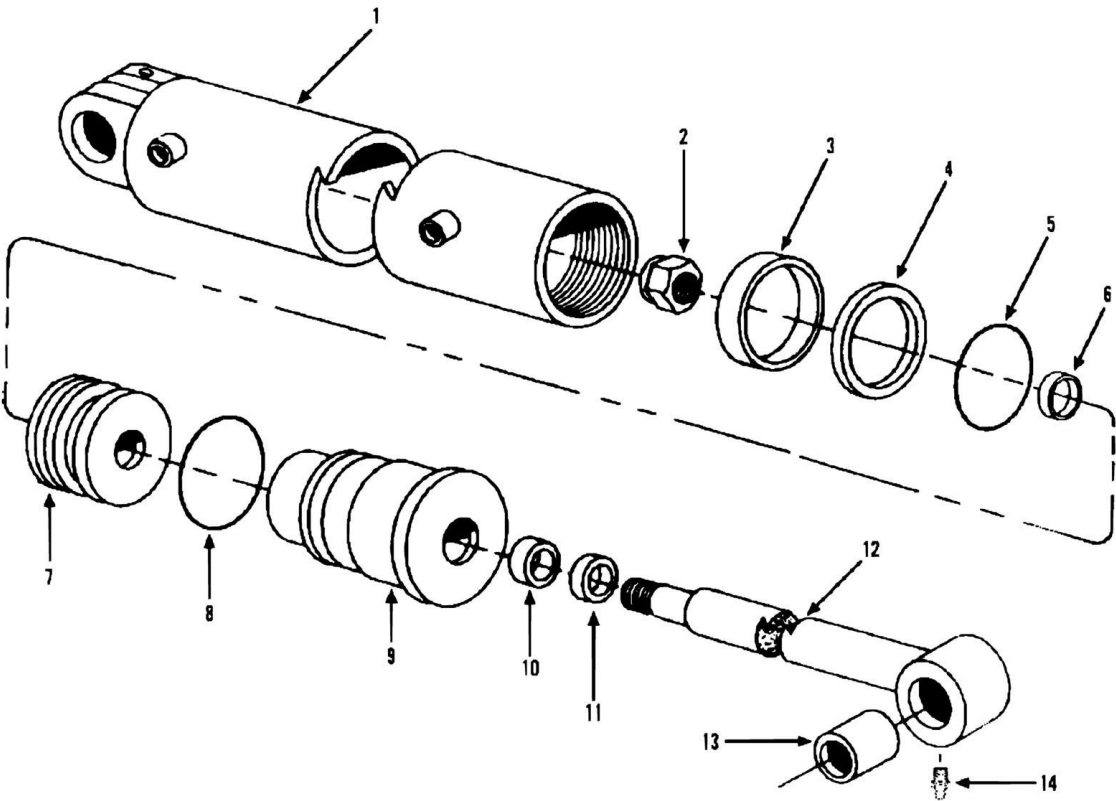
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-16. DUAL P.O. CHECK VALVE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043258		DUAL P.O. CHECK VALVE ASSY (includes all items except 2 & 20)	
	91044304		CHECK CARTRIDGE ASSY (includes items 1, 3 through 8)	
	91034107		CHECK CARTRIDGE ASSY W/ THERMAL RELIEF (includes items 12 through 19)	
1	91044308	1	PLUG	
2	88551011	3	LOCKWASHER, 3/8	
3	91044309	1	SPRING	
4	91034111	1	BALL	
5	91034112	1	CARTRIDGE BODY	
6	91044305	1	O-RING	
7	91044306	1	O-RING	
8	91044307	1	BACKUP RING	
9	91034116	1	PISTON	
10	91034117	1	BODY	
11	91034118	2	O-RING	
12	91034115	1	BACKUP RING	
13	91034114	1	O-RING	
14	91034112	1	CARTRIDGE BODY	
15	91034113	1	O-RING	
16	91034119	1	THERMAL RELIEF ASSY	
17	91034120	1	SPRING	
18	91034109	1	O-RING	
19	91034121	1	PLUG	
20	88201040	3	HEX HD CAPSCREW, 3/8-16 X 2-1/4, GR5	
21	88551011	3	LOCKWASHER, 3/8	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-17. STABILIZER CYLINDER (SN 0144860S to Present)



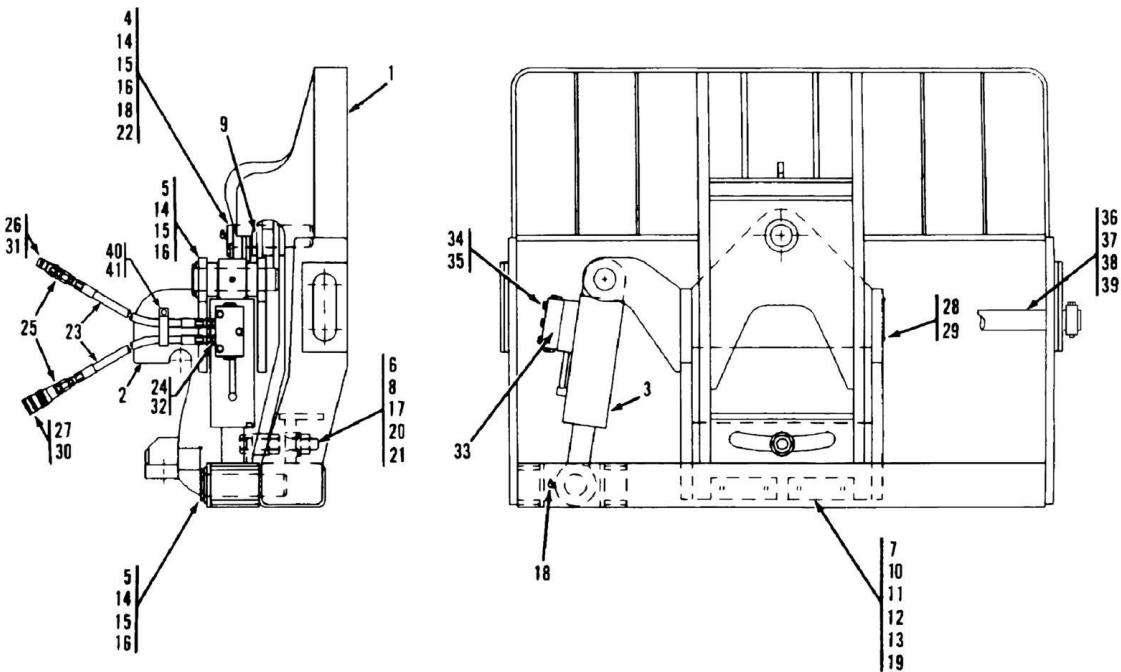
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-17. STABILIZER CYLINDER (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043303	1	STABILIZER CYLINDER ASSY (includes all items)	
	91044330	1	SEAL KIT (includes items 3, 4, 5, 6, 8, 10 & 11)	
1	91044334	1	TUBE ASSY	
2	91034286	1	LOCKNUT (torque to 590 ft lbs)	
3	Kit	1	WEAR RING	
4	Kit	1	SEAL	
5	Kit	1	O-RING	
6	Kit	1	O-RING	
7	91044331	1	PISTON	
8	Kit	1	O-RING	
9	91044332	1	GLAND	
10	Kit	1	SEAL	
11	Kit	1	WIPER	
12	91044333	1	ROD ASSY	
13	91044353	1	BUSHING	
14	88671033	1	LUBE FITTING, STRAIGHT, 1/4-28	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-18. (91085058) 48IN SLOPE PILER CARRIAGE



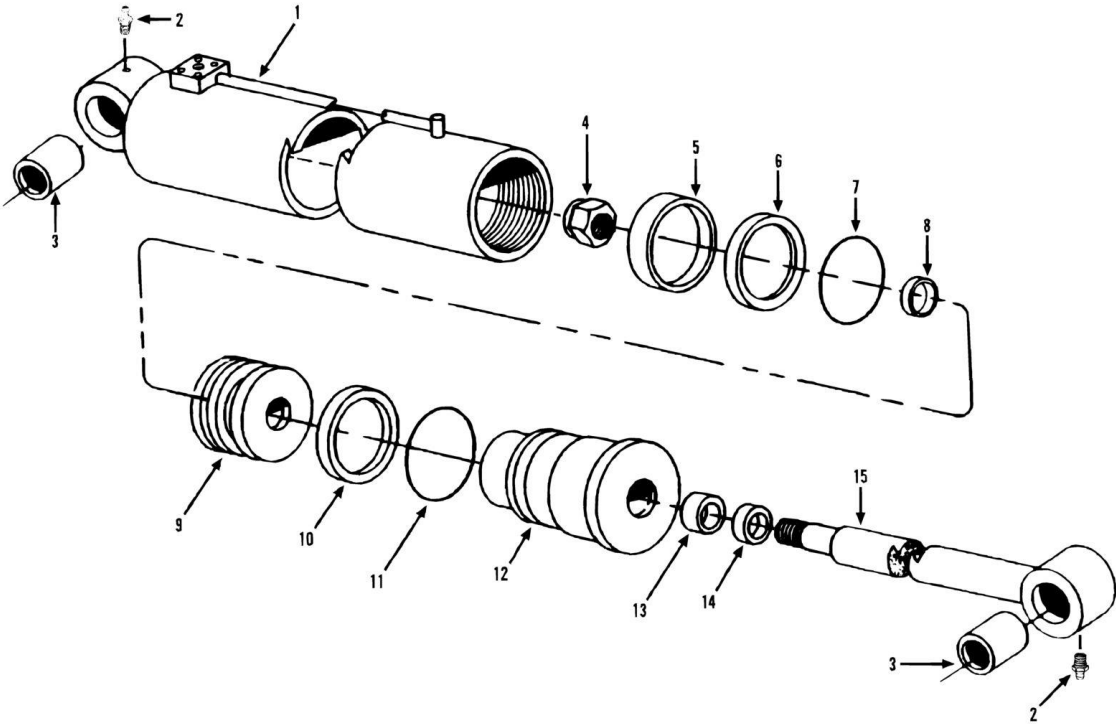
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-18. (91085058) 48IN SLOPE PILER CARRIAGE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085058	Ref	48IN SLOPE PILER CARRIAGE, (includes all items)	
	91033459	1	CAPACITY DECAL, (not shown)	
1	91086121	1	CARRIAGE WELDMENT	
2	91086122	1	ADAPTER WELDMENT	
3		Ref	SWAY CYLINDER, (See SWAY CYLINDER 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 2005283-01)	
25	88662018	2	CONNECTOR, (SN 2005283-01 to Present)	
26	91163138	1	MALE QUICK DISCONNECT (Prior to 2005283-01)	
26	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
27	91163139	1	FEMALE QUICK DISCONNECT (Prior to 2005283-01)	
27	91403413	1	FEMALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
28	88341022	4	DRIVE SCREW, #10X3/8	
29	90153001	1	SERIAL NUMBER PLATE	
30	91043125	1	DUST PLUG	
31	91043126	1	DUST CAP	
32	86883469	2	ADAPTER	
33		Ref	DUAL P.O. CHECK VALVE, (See DUAL P.O. CHECK VALVE 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-LOK NUT, 3/8-16	

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FIGURE 12-19. (91083286) SWAY CYLINDER



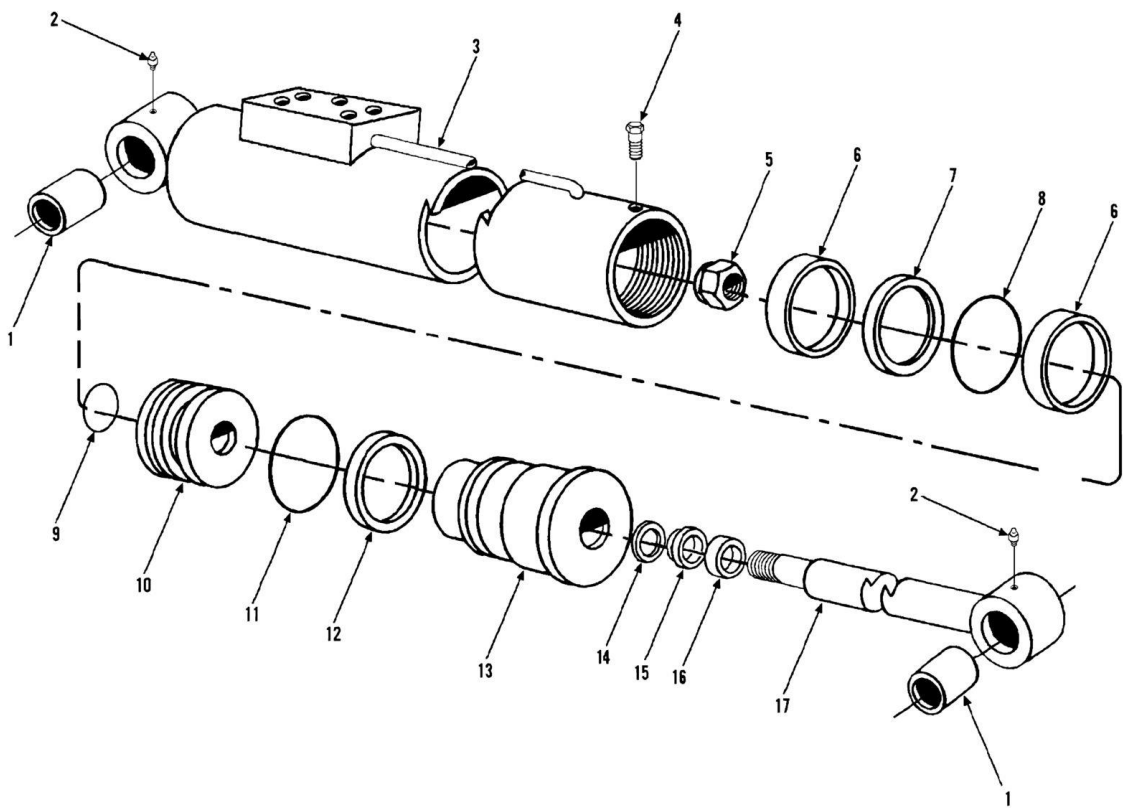
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FIGURE 12-19. (91083286) SWAY CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083286	1	SWAY CYLINDER ASSY (includes all items)	
	91084189	Ref	SEAL KIT (includes items 5, 6, 7, 8, 10, 11, 13 & 14)	
1	91084185	1	TUBE ASSY	
2	88671033	2	LUBE FITTING, STRAIGHT, 1/4-28	
3	91084176	2	BUSHING	
4	91084184	1	NUT	
5	91084219	1	WEAR RING	
6	91084220	1	SEAL	
7	91084221	1	O-RING	
8	91084222	1	O-RING	
9	91084186	1	PISTON	
10	91084223	1	BACKUP RING	
11	91084224	1	O-RING	
12	91084188	1	GLAND	
13	91084225	1	SEAL	
14	91084226	1	WIPER	
15	91084187	1	ROD ASSY	

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FIGURE 12-20. (91083471) SWAY CYLINDER



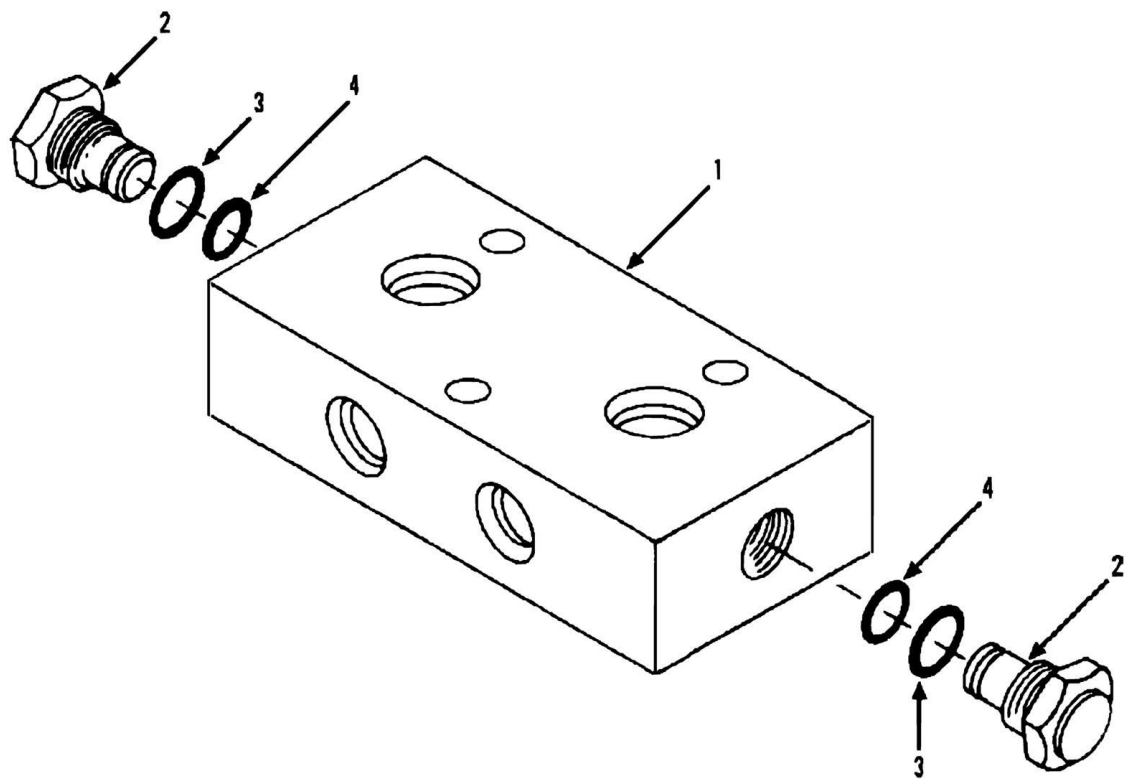
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-20. (91083471) SWAY CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083471	1	SWAY CYLINDER ASSY, (includes all items)	
	91084308	Ref	SEAL KIT, (includes items 6 thru 9, 11, 12 & 14 thru 16)	
1	91404352	2	BUSHING	
2	91144128	2	GREASE FITTING	
3	91124083	1	CASE ASSY	
4	91144017	1	CAPSCREW, #8X32X.375	
5	91034156	1	LOCKNUT, (lubricate and torque to 350-400 ft lbs)	
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	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE	

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FIGURE 12-21. (91083286) DUAL P.O. CHECK VALVE



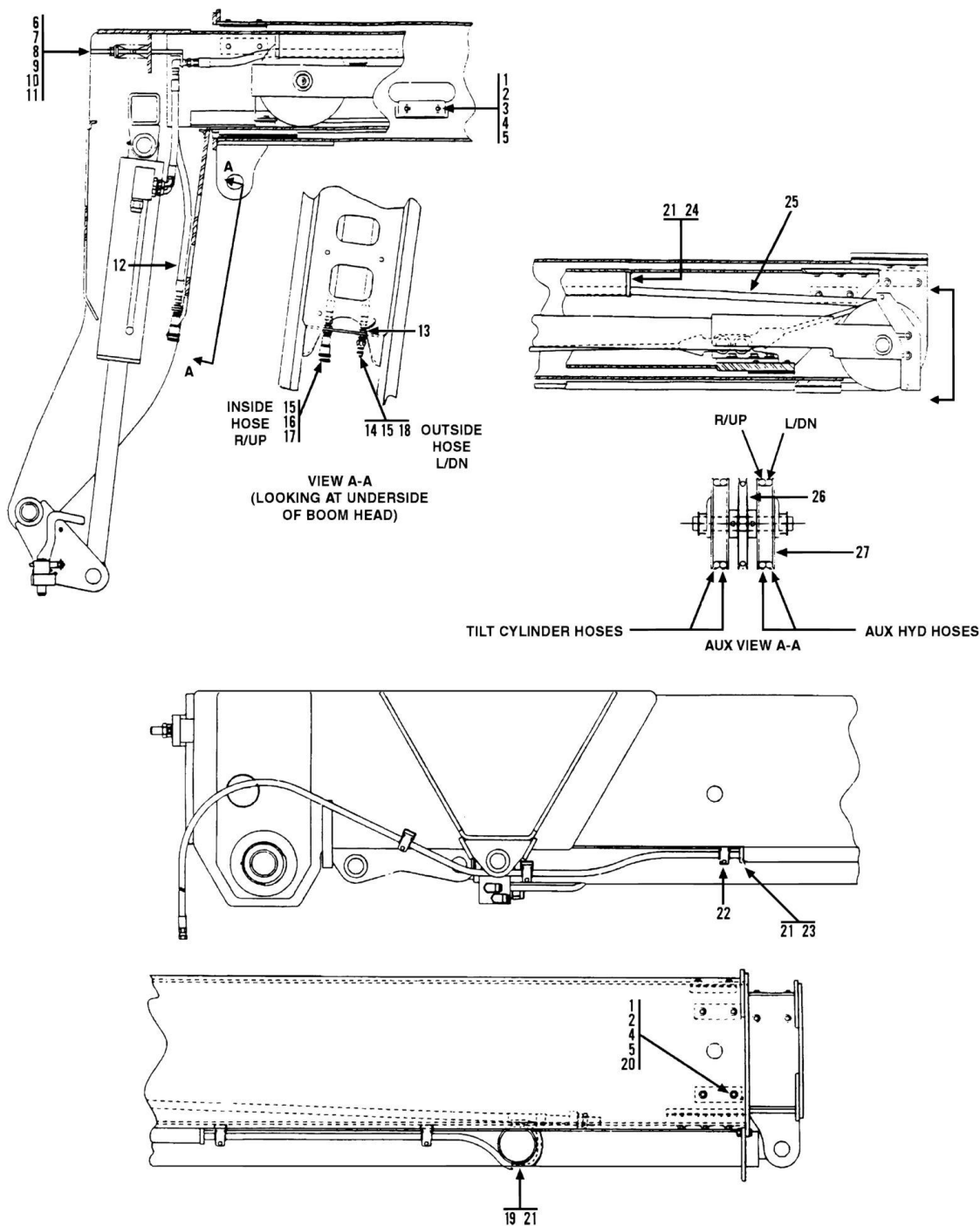
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FIGURE 12-21. (91083286) DUAL P.O. CHECK VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083262	1	DUAL P.O. CHECK VALVE ASSY (includes all items)	
	91044002	Ref	SEAL KIT (includes items 3 & 4)	
		Ref	BODY	
2	77133248	2	CHECK VALVE (includes items 3 & 4)	
3	91084227	2	O-RING	
4	91084228	2	O-RING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-22. (91035018) AUXILIARY HYDRAULICS



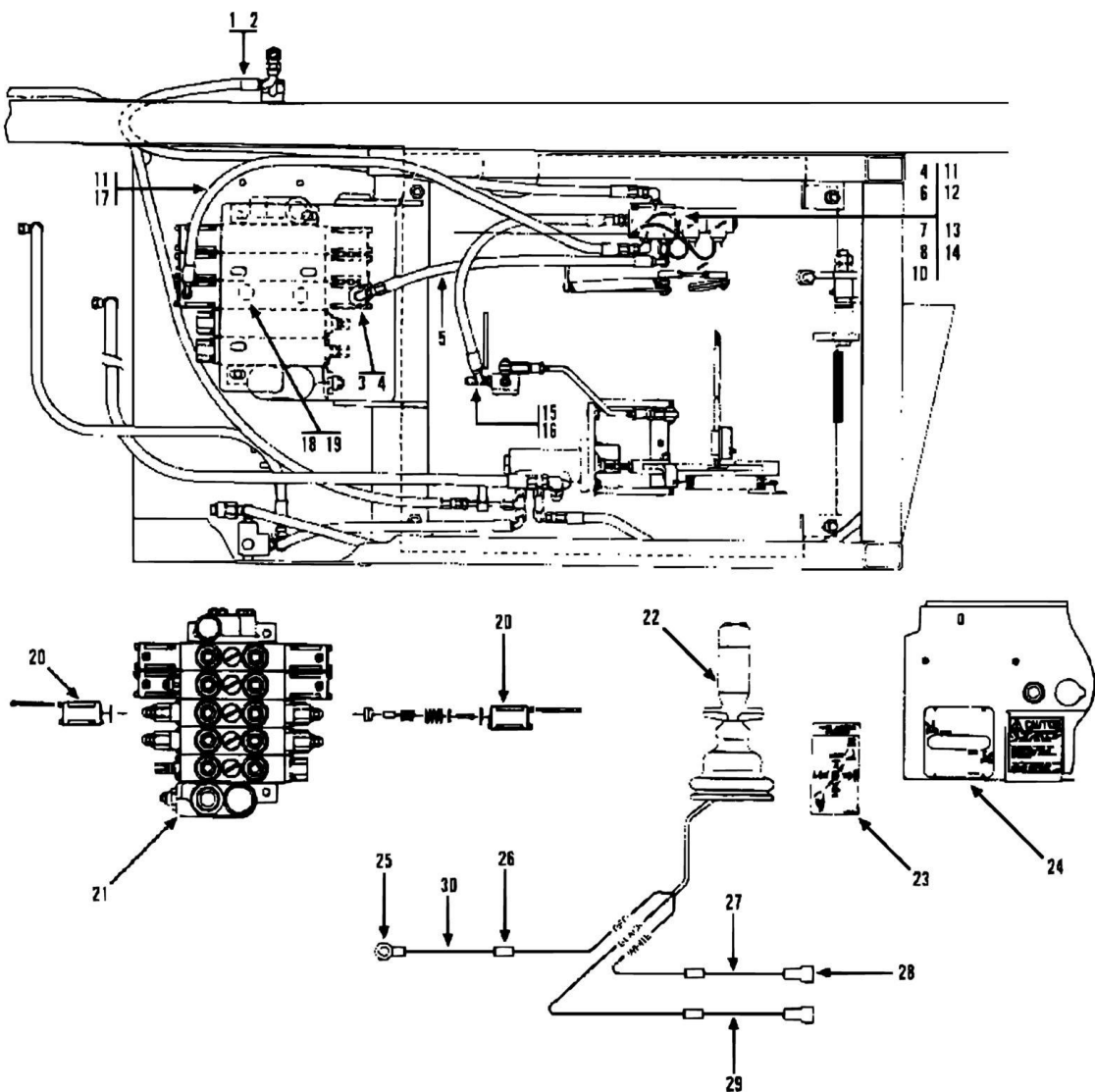
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FIGURE 12-22. (91035018) AUXILIARY HYDRAULICS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035018	1	AUXILIARY HYDRAULICS ASSY, (includes all items)	
1	91033186	4	BEARING PAD	
2	91031236	4	SHIM	
3	91051390	2	SHIM	
4	88201532	8	HEX HD CAPSCREW, 3/8-24 X 3/4, GR5	
5	88561109	8	FLAT WASHER, 3/8	
6	90403249	2	HOSE TAKE-UP WELDMENT	
7	90027180	2	90, BULKHEAD FITTING	
8	90200313	2	SPRING	
9	90207041	2	SPRING RETAINER	
10	88501008	2	HEX NUT, 1/2-13	
11	88501108	2	HEAVY HEX JAM NUT, 1/2-13	
12	84718025	2	HOSE ASSY	
13	91043321	2	BULKHEAD UNION (Prior to 2005283-01)	
13	88661085	2	BULKHEAD UNION, 3/4-16X1/2 TUBE, (SN 2005283-01 to Present)	
14	91163138	1	MALE HYDRAULIC COUPLER (Prior to 2005283-01)	
14	91403414	1	MALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
15	88712304	2	PIPE BUSHING, 1/2 X 3/8 (Prior to 2005283-01)	
15	91083335	2	ADAPTER, (SN 2005283-01 to Present)	
16	91043125	1	DUST PLUG	
17	91163139	1	FEMALE HYDRAULIC COUPLER (Prior to 2005283-01)	
17	91403413	1	FEMALE HYDRAULIC COUPLER, (SN 2005283-01 to Present)	
18	91043126	1	DUST CAP	
19	90206200	10 in	TRIM-LOK	
20	90205870	2	SHIM	
21	14402248	AR	3M ADHESIVE	
22	90207463	10	CUSHION CLAMP	
23	90206194	14 in	TRIM-LOK	
24	90206196	18 in	TRIM-LOK	
25	90206888	2	HOSE ASSY	
26	91031069	1	SPACER	
27	91043100	1	SHEAVE	

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FIGURE 12-23. (91035266) TILT ON JOYSTICK



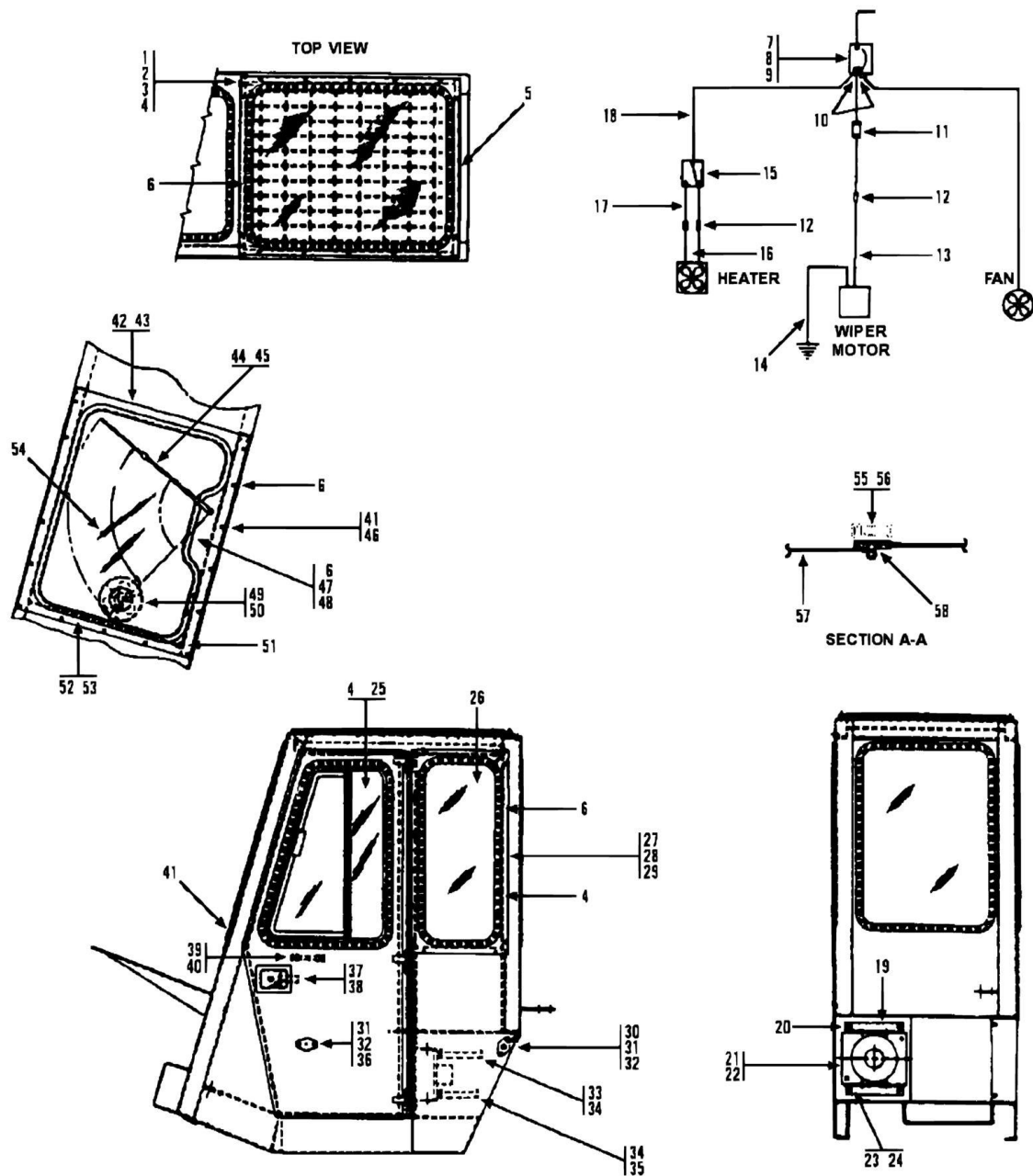
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FIGURE 12-23. (91035266) TILT ON JOYSTICK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035266	Ref	TILT ON JOYSTICK (includes all items)	
1	88661306	1	UNION TEE, 1/2 TUBE	
2	84718323	1	HOSE ASSY	
3	88662035	1	CONNECTOR (includes O-ring)	
3	88591204	1	O-RING	
4	88662105	2	ELBOW, 90, (swivel nut)	
5	77133196	1	HOSE ASSY	
6	91303038	1	FOUR-WAY SOLENOID VALVE	
7	88201009	2	HEX HD CAPSCREW, 1/4-20 X 2, GR5	
8	88561107	2	FLAT WASHER, 1/4	
9	88551009	2	LOCKWASHER ,1/4	
10	88501004	2	HEX NUT, 1/4-20	
11	88662005	2	CONNECTOR (includes o-ring)	
11	88591204	2	O-RING	
12	88662064	2	ELBOW, 90, (includes o-ring)	
12	88591204	2	O-RING	
13	91085071	1	ORIFICE FITTING	
14	90207719	2	JUMPER WIRE	
15	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
16	77133447	1	HOSE ASSY	
17	84717956	1	HOSE ASSY	
18	91033488	2	ORIFICE PLATE	
19	91033487	2	CHECK VALVE PLATE	
20	91033483	1	ACTUATOR ASSY KIT	
21		Ref	MAIN CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22		Ref	JOYSTICK ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
23	91303041	1	BOOM CONTROL DECAL	
24	91043431	1	SWAY CONTROL PLATE	
25	86983188	1	EYELET, #10 X 16-14	
26	86683480	3	BUTT CONNECTOR, 16-14	
27	Bulk	31 in	14 GAUGE WIRE, WHITE	
28	77163102	2	FEMALE BLADE, 16-14	
29	Bulk	31 in	14 GAUGE WIRE, BLACK	
30	Bulk	62 in	14 GAUGE WIRE, RED	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-24. (91035261) CAB ENCLOSURE



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FIGURE 12-24. (91035261) CAB ENCLOSURE

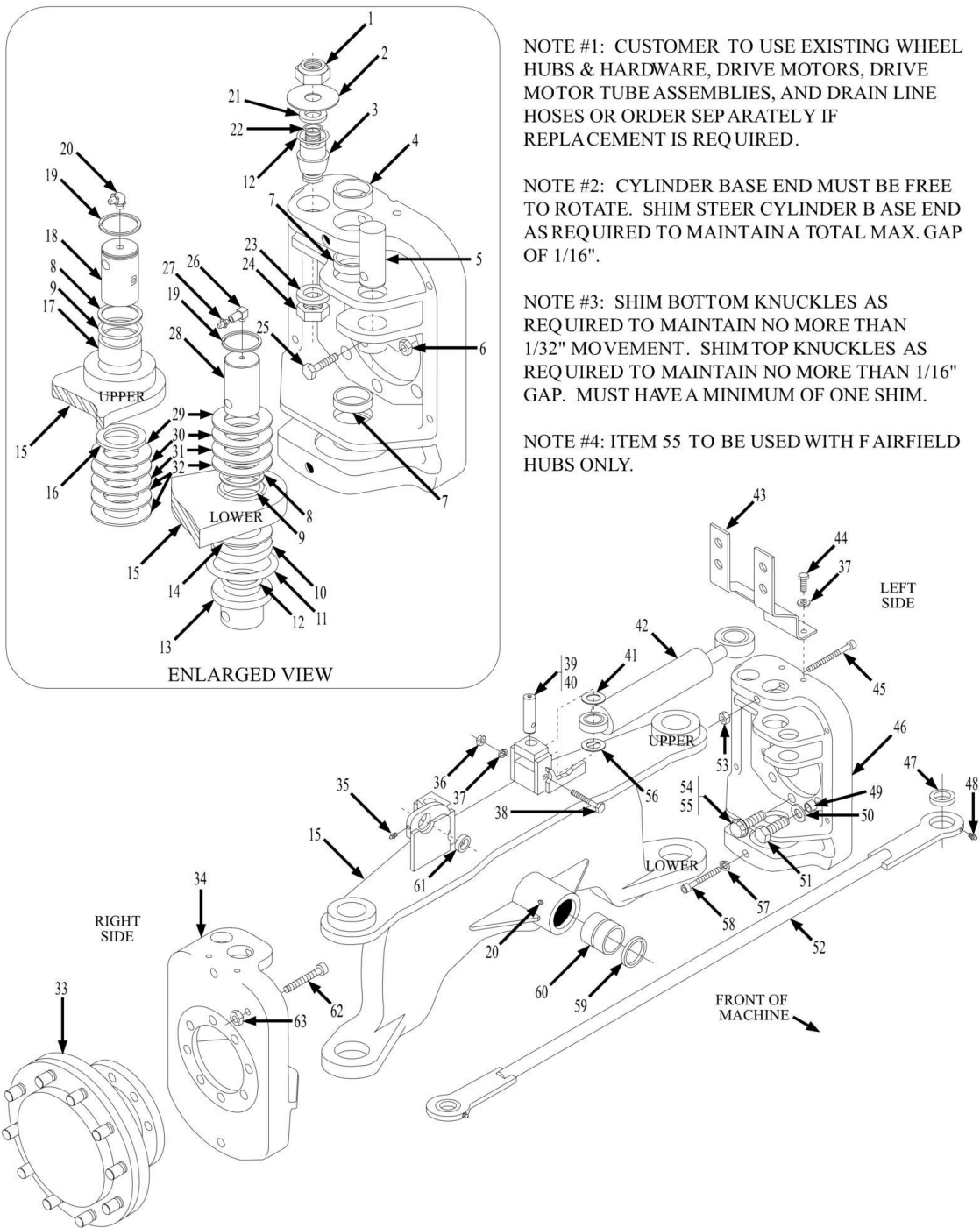
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035261	Ref	CAB ENCLOSURE (includes all items)	
1	91036119	1	TOP WINDOW FRAME	
2	Bulk	11 ft	WEATHER STRIP	
3		Ref	TOP WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
4	Bulk	24 ft	WEATHER STRIP	
5	90027315	13	SELF-TAPPING SCREW	
6	90027319	35	SELF-TAPPING SCREW	
7	90200506	1	CIRCUIT BREAKER, 30 AMP	
8	88501613	2	HEX NUT, 10-32	
9	88554917	2	LOCKWASHER, #10	
10	86983188	2	TERMINAL	
11	90203376	1	FUSE HOLDER	
12	86683480	3	CRIMP-ON CONNECTOR	
13	91031486	1	JUMPER WIRE	
14	91081599	1	JUMPER WIRE	
15	77383744	1	HEATER SWITCH	
16	90206134	2	JUMPER WIRE	
17	91031494	2	JUMPER WIRE	
18	91031490	1	JUMPER WIRE	
19	91031521	2	HEATER MOUNTING BRACKET	
20	88201005	4	HEX HD CAPSCREW, 1/4-20 x 1, GR5	
21	91043429	1	HEATER	
22	91003053	1	HEATER DECAL	
23	77143004	4	WHIZ-LOCK SCREW, 5/16-18 X 1-1/4	
24	77143006	4	WHIZ-LOCK NUT, 5/16-18	
25	91043437	1	SLIDING DOOR WINDOW	
26		Ref	LEFT SIDE WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
27	91031507	1	LEFT SIDE WINDOW FRAME	
28	14403190	AR	VULKEM CAULK	
29	Bulk	7 ft	WEATHER STRIP	
30	90205888	1	PLUNGER SOCKET	
31	88301309	4	FLAT HD MACHINE SCREW, 1/4-20 X 3/4	
32	88521304	4	HEX LOCKNUT, 1/4-20	
33	90206169	1	HEATER HOSE	
34	86683193	4	HOSE CLAMP	
35	90206170	1	HEATER HOSE	
36	90205886	1	DOOR HOLD PLUNGER	
37	90203627	1	HANDLE	
38	88201031	1	HEX HD CAPSCREW, 3/8-16 X 1/2, GR5	
39	90203840	1	PULL HANDLE	
40	88321039	2	SELF-TAPPING SCREW	
41	90027214	2	BUTTON GROMMET	
42	91031530	1	FRONT WINDOW FRAME	
43	14403190	AR	VULKEM CAULK	
44	91033464	1	WIPER ARM	
45	91033465	1	WIPER BLADE	
46	90206023	1	WIPER MOTOR	
47	88201003	1	HEX HD CAPSCREW, 1/4-20 x 3/4, GR5	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	88501004	1	HEX NUT, 1/4-20	
49	90200680	1	DEFROSTER FAN	
50	88321015	4	SELF-TAPPING SCREW	
51	91083376	1	EMERGENCY EXIT DECAL (located on corner post next to emergency release cord)	
52	Bulk	10 ft	CHANNEL MOULDING	
53	Bulk	10 ft	RELEASE FILLER STRIP	
54		Ref	FRONT WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
55	88201039	4	HEX HD CAPSCREW, 3/8-16 X 2, GR5	
56	88501006	4	HEX NUT, 3/8-16	
57	90801238	1	DOOR	
58	90403082	1	DOOR POST	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-25. (91045129) STEER AXLE ADVANTAGE KIT; FOR SERVICE ONLY



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FIGURE 12-25. (91045129) STEER AXLE ADVANTAGE KIT; FOR SERVICE ONLY

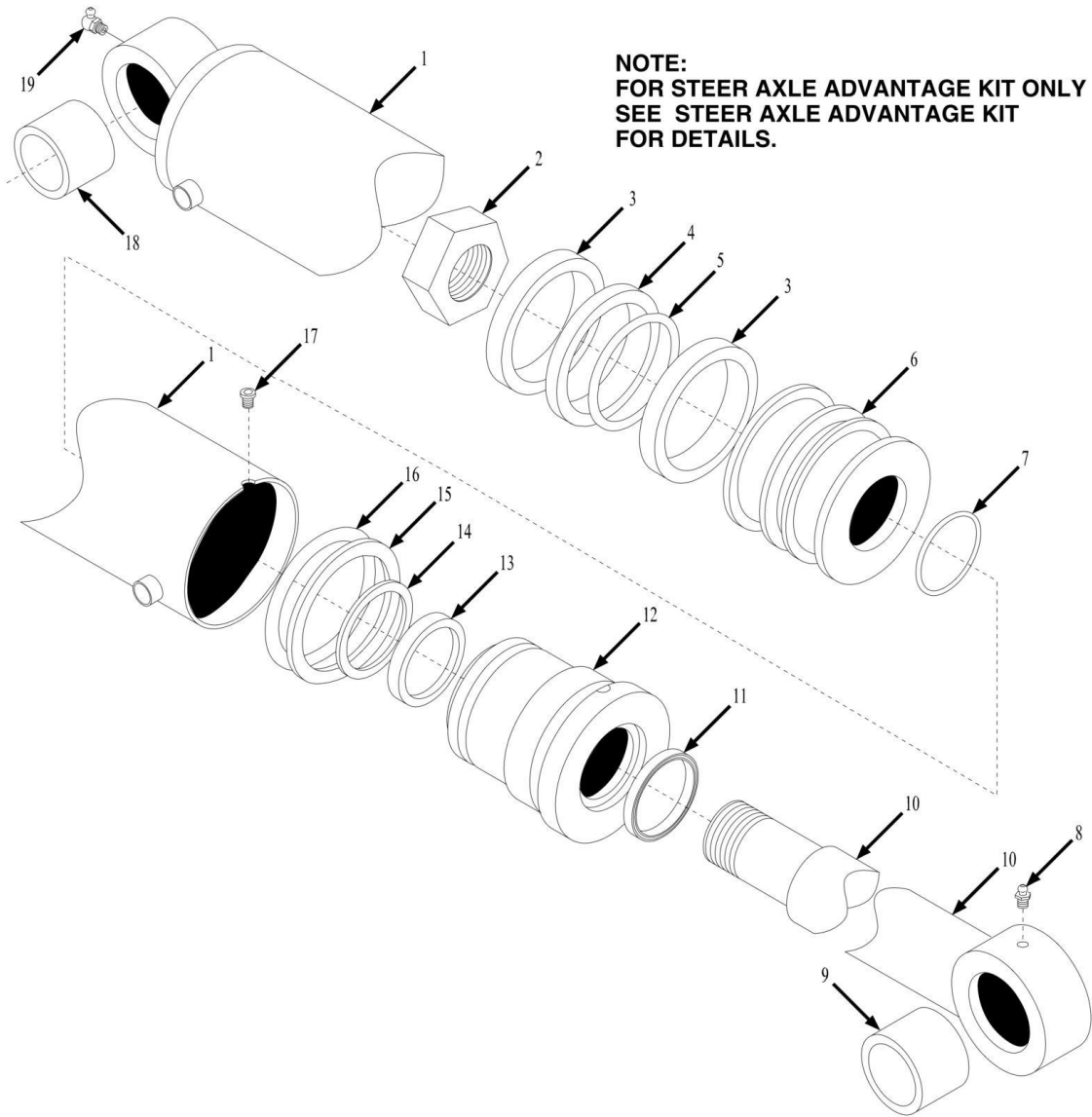
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91045129	Ref	STEER AXLE ADVANTAGE KIT (includes all items except 33, 50 & 51)	
	91035240	1	STEERING KNUCKLE KIT (includes items 2, 4, 7 thru 14, 16 thru 22, 28 thru 32, 45, 53, 57 & 58 - one kit does both sides)	
	91045152	Ref	STEERING CYLINDER PIN KIT (includes one each of items 1, 2, 3, 12 & 21 thru 24 - one kit needed for each side)	
1	88521312	2	HEX LOCKNUT, 3/4-10 (torque to 160-175 ft lbs)	
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	91041733	AR	SHIM	
15	91046126	1	REAR AXLE WELDMENT (includes items 10, 17, 60 & 61)	
16	86921268	2	LIP SEAL	
17	91123028	2	BUSHING (upper)	
18	91081693	2	UPPER KING PIN	
19	88581323	4	RETAINING RING	
20	88671022	4	LUBE FITTING, 30, 1/8	
21	91041732	AR	SPACER	
21	91041438	AR	SPACER	
22	88591019	2	O-RING	
23	91041459	2	WASHER	
24	88501416	2	HEX JAM NUT, 1-14 (torque to 225-250 ft lbs)	
25	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
26	91033444	2	STREET ELBOW	
27	91033445	2	LUBE FITTING	
28	91141424	2	LOWER KING PIN	
29	91041596	AR	SHIM (20 gauge thick, Note: shim bottom knuckles as required to maintain no more than 1/32in movement. shim top knuckles as required to maintain no more than 1/16in gap. must have a minimum of one shim.)	
30	91041449	AR	SHIM (.060 thick, Note: shim bottom knuckles as required to maintain no more than 1/32in movement. shim top knuckles as required to maintain no more than 1/16in gap. must have a minimum of one shim.)	
31	91041450	AR	SHIM (.0478 thick, Note: shim bottom knuckles as required to maintain no more than 1/32in movement. shim top knuckles as required to maintain no more than 1/16in gap. must have a minimum of one shim.)	
32	91041451	AR	SHIM (.106 thick, Note: shim bottom knuckles as required to maintain no more than 1/32in movement. shim top knuckles as required to maintain no more than 1/16in gap. must have a minimum of one shim.)	
33		Ref	DRIVE HUB (use existing hubs)	
34	91120004	1	R.H. STEERING KNUCKLE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
35	88671008	2	LUBE FITTING, STRAIGHT, 1/4-28	
36	88501006	2	HEX NUT, 3/8-16	
37	88551011	6	LOCKWASHER, 3/8	
38	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR5	
39	91081695	2	STEERING CYLINDER PIVOT PIN (axle end)	
40	88711280	2	HEX SOCKET PIPE PLUG, 1/8	
41	91041598	AR	SHIM (Note: cylinder base end must be free to rotate. shim steer cylinder base end as required to maintain a total max. gap of 1/16in.)	
42	Kit	2	STEERING CYLINDER ASSY (See STEERING CYLINDER STEER AXLE ADVANTAGE KIT (ONLY) for Breakdown)	
43	91081523	1	L.H. TUBE SUPPORT	
43	91081522	1	R.H. TUBE SUPPORT	
44	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
45	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
46	91120003	1	L.H.STEERING KNUCKLE	
47	91043247	2	SELF-ALIGNING BUSHING	
48	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
49	91041731	16	SPACER	
50		Ref	HARDENED WASHER, 3/4 (use existing hardware)	
51		Ref	HEX HD CAPSCREW, 3/4-10X2 (use existing hardware)	
52	91166063	1	TIE ROD (includes item 47)	
53	88521208	2	HEX LOCKNUT, 1/2	
54	91043222	2	12PT. SCREW, 3/4-10X2, GR8 (lubricate and torque to 270-290 ft lbs) (Note: item 55 to be used with fairfield hubs only.)	
55	91043494	2	12PT. SCREW, 5/8-1X2-1/4, GR8 (torque to 200 ft lbs) (Note: item 55 to be used with fairfield hubs only.)	
56	90201918	AR	SHIM (10 gauge thick, Note: cylinder base end must be free to rotate. shim steer cylinder base end as required to maintain a total max. gap of 1/16in.)	
57	88551153	2	LOCKWASHER, 5/8	
58	88212321	2	SLOT HD CAPSCREW, 5/8-11X3-3/4, GR8	
59	24601570	2	LIP SEAL	
60	91123031	2	BUSHING	
61	91041489	2	BUSHING	
62	88212321	2	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
63	88501110	2	HEAVY HEX JAM NUT, 5/8-11	

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FIGURE 12-26. (91033499) STEERING CYLINDER; STEER AXLE ADVANTAGE KIT (ONLY) FOR SERVICE ONLY



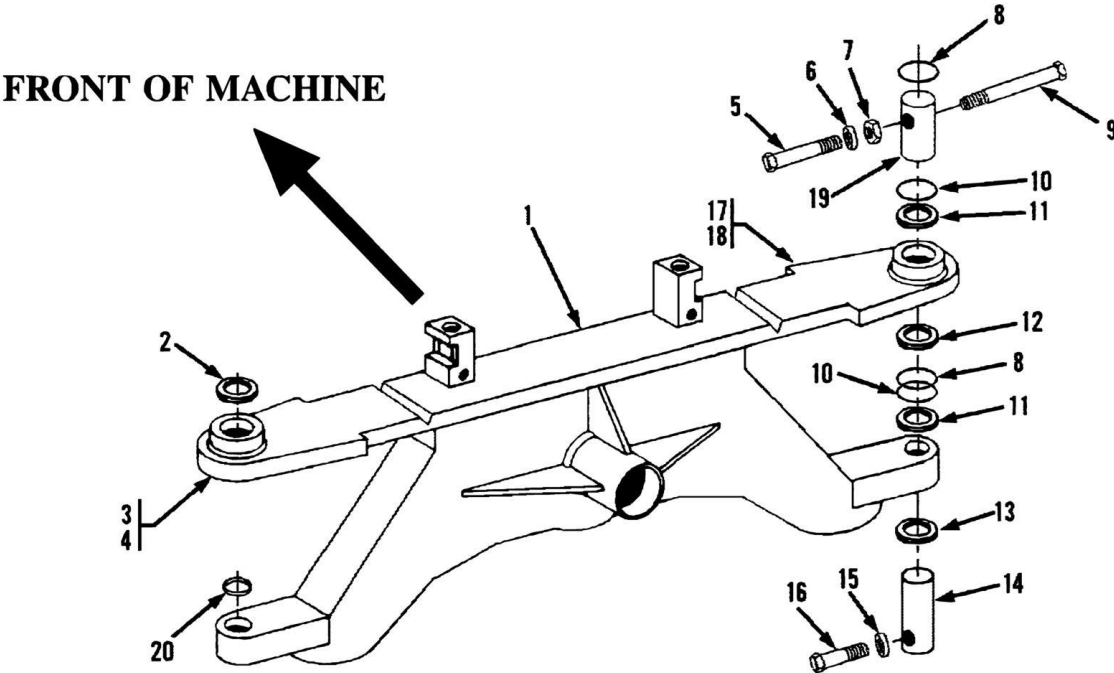
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FIGURE 12-26. (91033499) STEERING CYLINDER; STEER AXLE ADVANTAGE KIT (ONLY) FOR SERVICE ONLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033499	1	STEERING CYLINDER ASSY (includes all items)	
	91144006	1	SEAL KIT (includes items 3, 4, 5, 7, 11, 13 thru 16)	
1		Ref	CASE ASSY	
2	91144038	1	LOCKNUT (torque to 400-425 ft lbs)	
3	Kit	2	WEAR RING	
4	Kit	1	PISTON SEAL	
5	Kit	1	O-RING	
6	91144039	1	PISTON	
7	Kit	1	O-RING	
8	91144128	1	LUBE FITTING	
9	91144042	1	BUSHING	
10	91144041	1	ROD ASSY	
11	Kit	1	WIPER	
12	91144040	1	CYLINDER HEAD (torque to 100-400 ft lbs)	
13	Kit	1	U-CUP	
14	Kit	1	STEP SEAL	
15	Kit	1	BACK-UP RING	
16	Kit	1	O-RING	
17	91124096	1	SELF TAPPING SCREW	
18	91144267	1	BUSHING	
19	91144125	1	LUBE FITTING	
		Ref	NOTE:ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-27. (91145136) REAR AXLE REWORK KIT FOR SERVICE ONLY



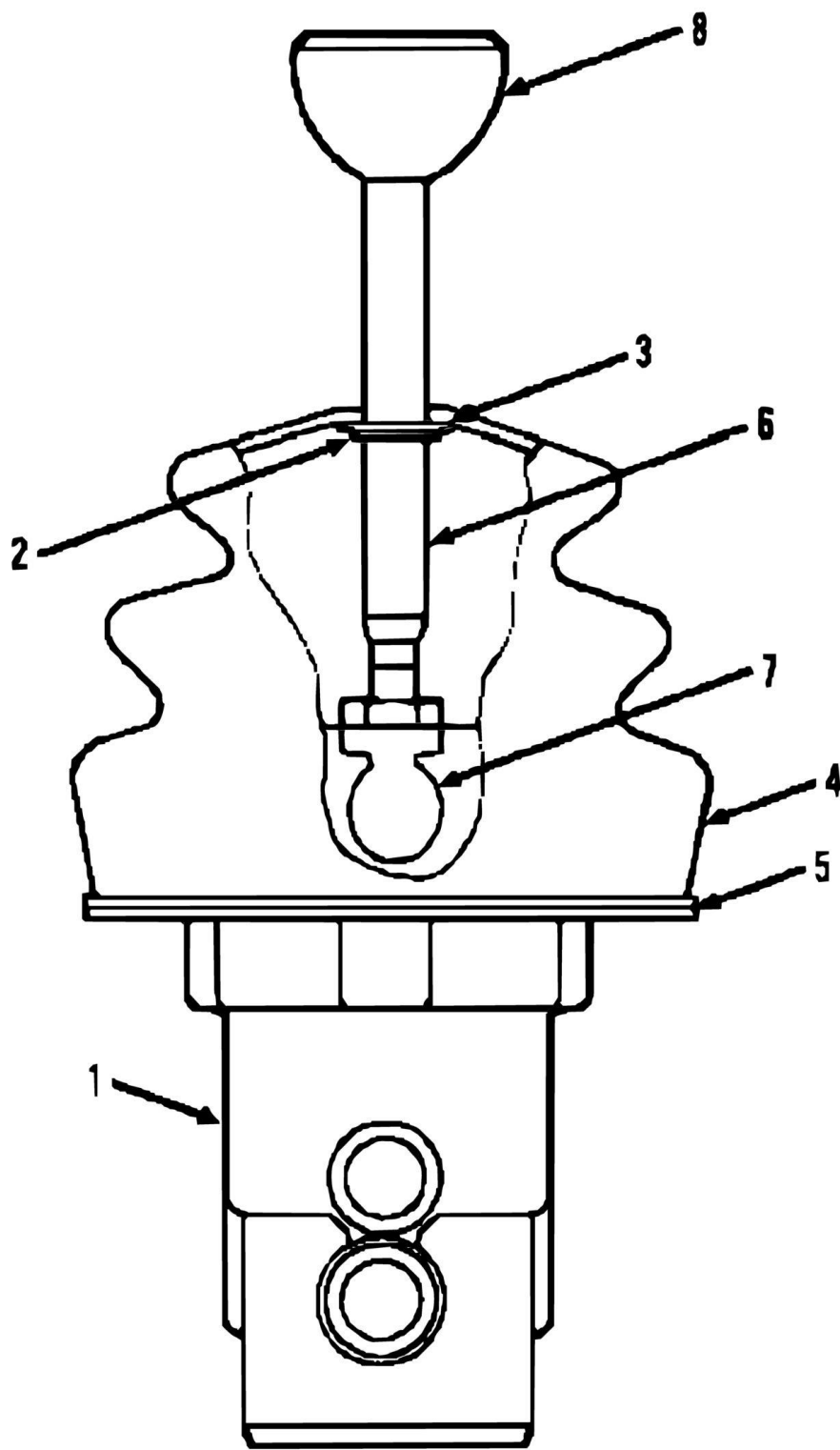
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FIGURE 12-27. (91145136) REAR AXLE REWORK KIT FOR SERVICE ONLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145136	1	REAR AXLE REWORK KIT (includes all items)	
1	Kit	1	REAR AXLE WELDMENT	
2	91123028	2	BUSHING	
3	91145134	1	LUG REWORK ASSY (includes items 2 & 4)	
4	91146111	1	LUG WELD	
5	88211117	2	SOCKET HEAD CAPSCREW, 1/2-13x4-1/2, GR8	
6	88551109	2	LOCKWASHER, 1/2	
7	88521208	2	HEX LOCKNUT, 1/2	
8	88581323	4	RETAINING RING	
9	88211121	2	SOCKET HEAD CAPSCREW, 1/2-13x6-1/2, GR8	
10	91123030	4	BACK-UP RING	
11	88591032	2	O-RING	
12	86921268	2	LIP SEAL	
13	91123029	2	O-RING	
14	91141424	2	LOWER KING PIN	
15	88551153	2	LOCKWASHER, 5/8	
16	88212321	2	SOCKET HEAD CAPSCREW, 5/8-11X3-3/4, GR8	
17	91145135	1	LUG REWORK ASSY (includes items 2 & 18)	
18	91146112	1	LUG WELD	
19	91081693	2	UPPER KING PIN	
20	91123027	2	BUSHING	

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FIGURE 12-28. HYDRAULIC CONTROLLER (SN 0144860S to Present)



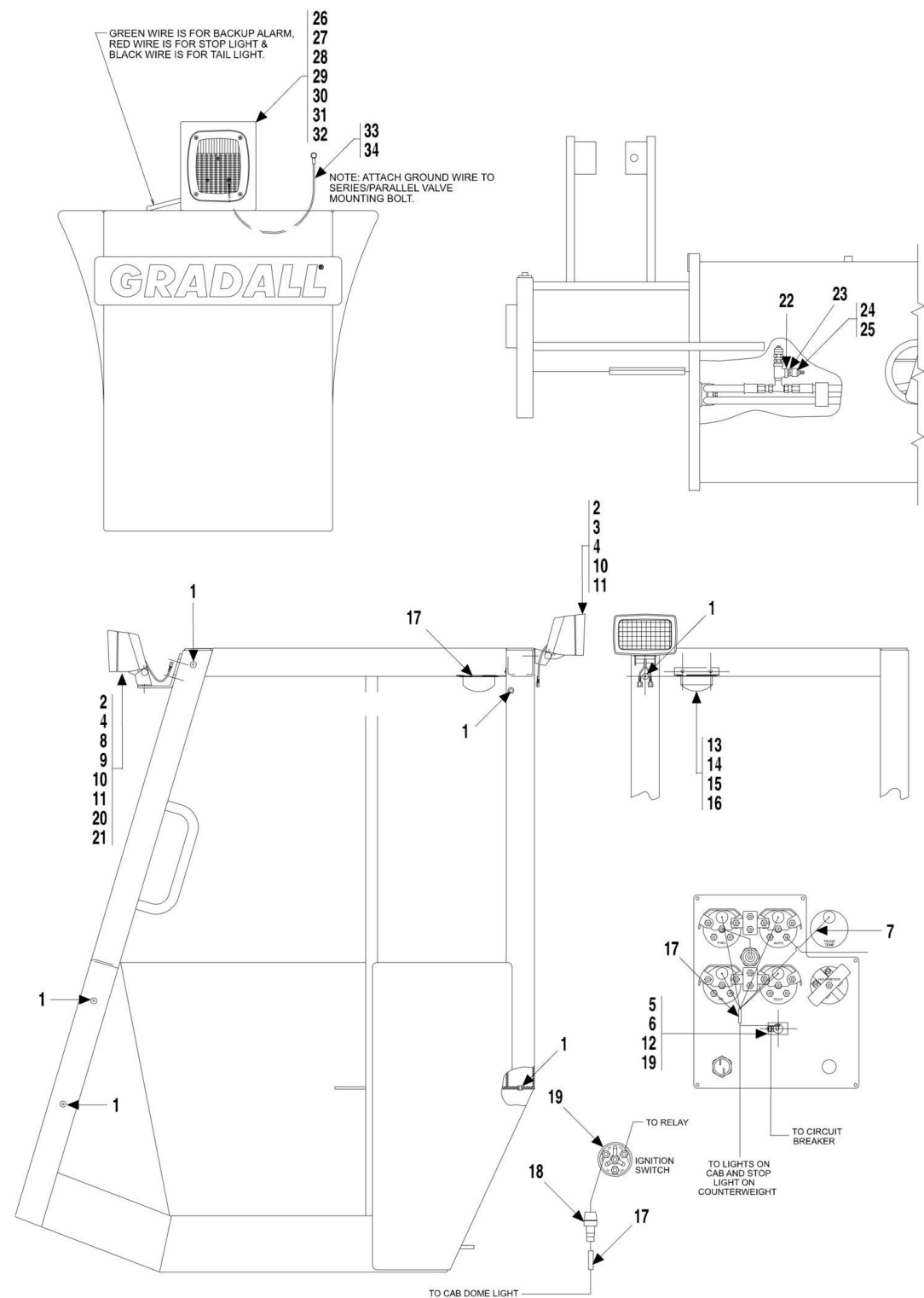
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FIGURE 12-28. HYDRAULIC CONTROLLER (SN 0144860S to Present)

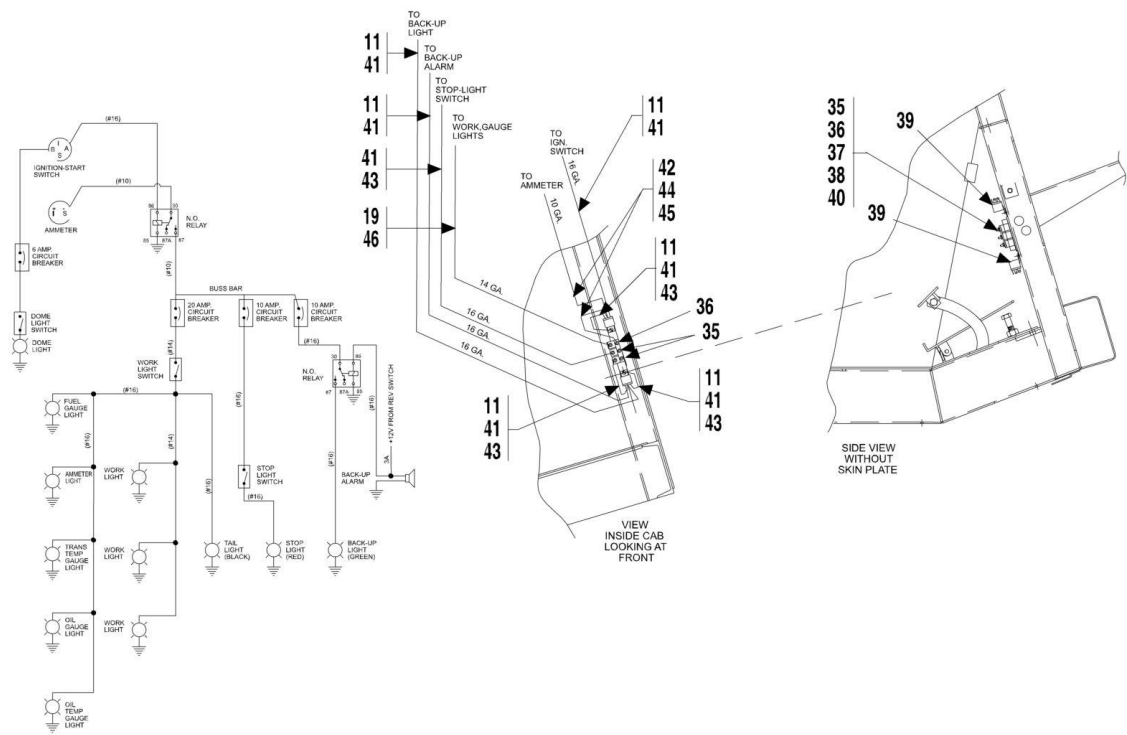
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043064	1	HYDRAULIC CONTROLLER ASSY (includes all items)	
	99007524	4	PLUNGER SEAL KIT (includes one each of the following; u-cup, o-ring seal, retainer and o-ring)	
1	91044131	1	HYDRAULIC CONTROLLER	
2	91044132	1	RETAINING RING	
3	91044133	1	WASHER	
4	91044134	1	BOOT	
5	91044135	1	RETAINER	
6	91044136	1	HANDLE ASSY (includes knob, handlerod and hex jam nut)(lubricate and tighten jam nut to 12-15 ft lbs)	
7	91044474	1	BALL ASSY (includes ball pivot race, ball pivot, cam plate, handle adapter and top mounting plate)	
8	91044525	1	KNOB	

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FIGURE 12-29. (91035253) WORK LIGHT PACKAGE (SN 0144860S to Present)



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FIGURE 12-29. (91035253) WORK LIGHT PACKAGE (SN 0144860S to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035253	1	WORK LIGHT PACKAGE, (includes all items)	
1	90027214	7	BUTTON GROMMET	
2	91125110	3	HALOGEN WORKLIGHT KIT, (includes the following two items)	
2	80963050	1	UTILITY FLOOD LIGHT	
2	90028960	2	MALE TERMINAL	
3	88201031	1	HEX HD CAPSCREW, 3/8-16X1/2, GR5	
4	88551011	3	LOCKWASHER, 3/8	
5	91003055	1	LIGHTS DECAL	
6	77383467	1	LIGHT SWITCH	
7	91033360	5	GAUGE LIGHTING KIT	
8	91031528	2	MOUNTING BRACKET	
9	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
10	91121150	3	JUMPER WIRE	
11	77163102	9	SLIP-ON ELECTRICAL CONNECTION	
12	77383470	1	BOOT	
13	91011009	1	MOUNTING BRACKET	
14	90029955	1	RUBBER GROMMET	
15	88321022	2	SELF TAPPING SCREW, #8-32X3/8	
16	24861167	1	INTERIOR LIGHT	
17	86683480	3	BUTT CONNECTOR	
18	90203376	1	IN-LINE FUSE, 6 AMP	
19	86983188	4	EYELET	
20	88501006	2	HEX NUT, 3/8-16	
21	90027319	4	DR AND TAP SCREW, 1/4-20X1	
22	88712232	1	STREET TEE, 1/4	
23	88711380	1	REDUCING BUSHING, 1/4X1/8	
24	83663097	1	STOP LIGHT SWITCH	
25	83483075	2	EYELET	
26	91121145	1	TAIL LIGHT HOUSING	
27	91121146	1	TAIL LIGHT BRACKET	
28	91365045	1	TAIL LIGHT ASSEMBLY, (includes the following seven items)	
28	91123065	1	TAIL LIGHT	
28	86661147	38 in	WIRE, 16 GAUGE, (black)	
28	86661149	38 in	WIRE, 16 GAUGE, (green)	
28	86661152	38 in	WIRE, 16 GAUGE, (red)	
28	86683480	3	BUTT CONNECTOR	
28	82033996	45 in	WIRE LOOM	
28	86683122	2	TIE WRAP	
29	88201108	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
30	88561115	1	FLAT WASHER, 3/4	
31	88551016	1	LOCKWASHER, 3/4	
32	77163105	3	BULLET RECEPTACLE	
33	86983191	1	EYELET	
34	86883260	1	EYELET	
35	86883071	2	CIRCUIT BREAKER, 10 AMP	
36	86983041	1	CIRCUIT BREAKER, 20 AMP	
37	77363191	1	CIRCUIT BREAKER BRACKET	
38	86981178	1	BUSS BAR	
39	77383410	2	RELAY	
40	88321039	2	SELF TAPPING SCREW, #10-32X1/2	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41	86661147	AR	WIRE, 16 GAUGE, (black)	
42	86661174	AR	WIRE, 10 GAUGE, (black)	
43	91033391	5	INSULATED RING TERMINAL	
44	91033463	2	INSULATED FEMALE SPADE	
45	86983190	2	INSULATED RING TERMINAL	
46	86661156	AR	WIRE, 14 GAUGE, (black)	

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