

GRADALL®

Illustrated Parts Manual

Models
522
524

SN 0177005 THROUGH 0177427

PN - 9108-4020

Revised July 6, 2007



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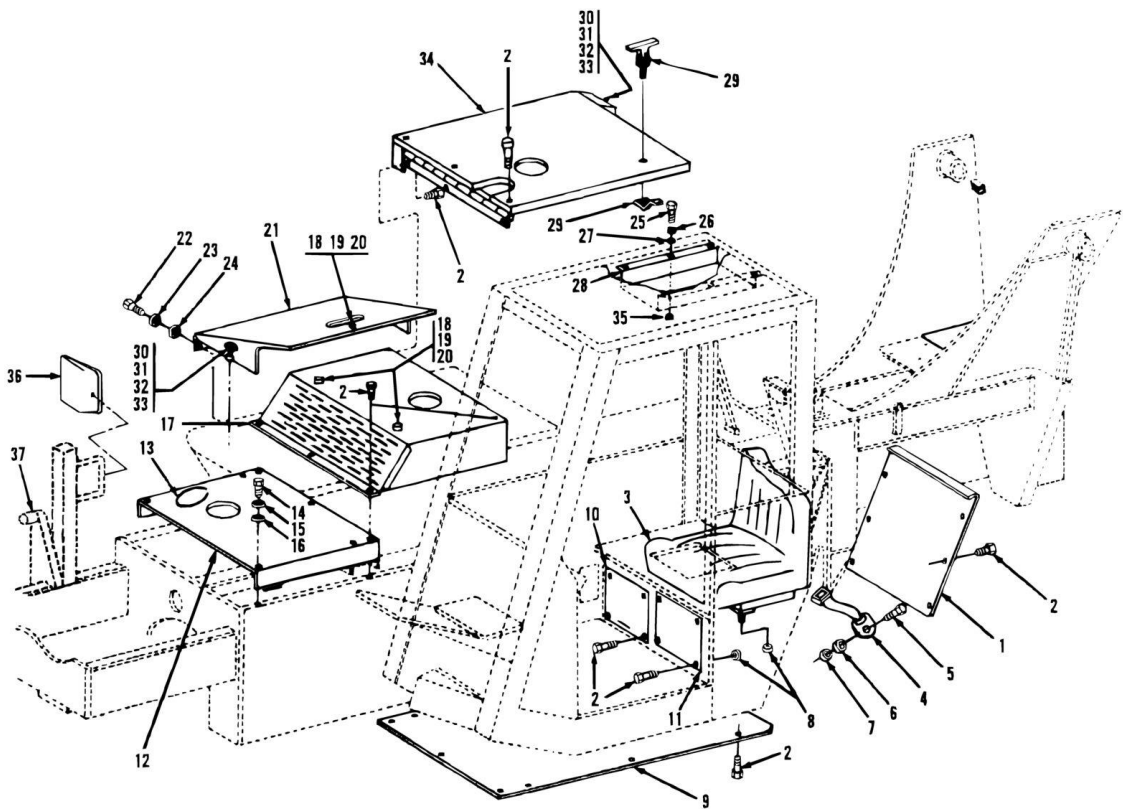
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SECTION 1 - CHASSIS AND ATTACHING PARTS

SECTION 1 - CHASSIS AND ATTACHING PARTS

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FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0177005 to Present)



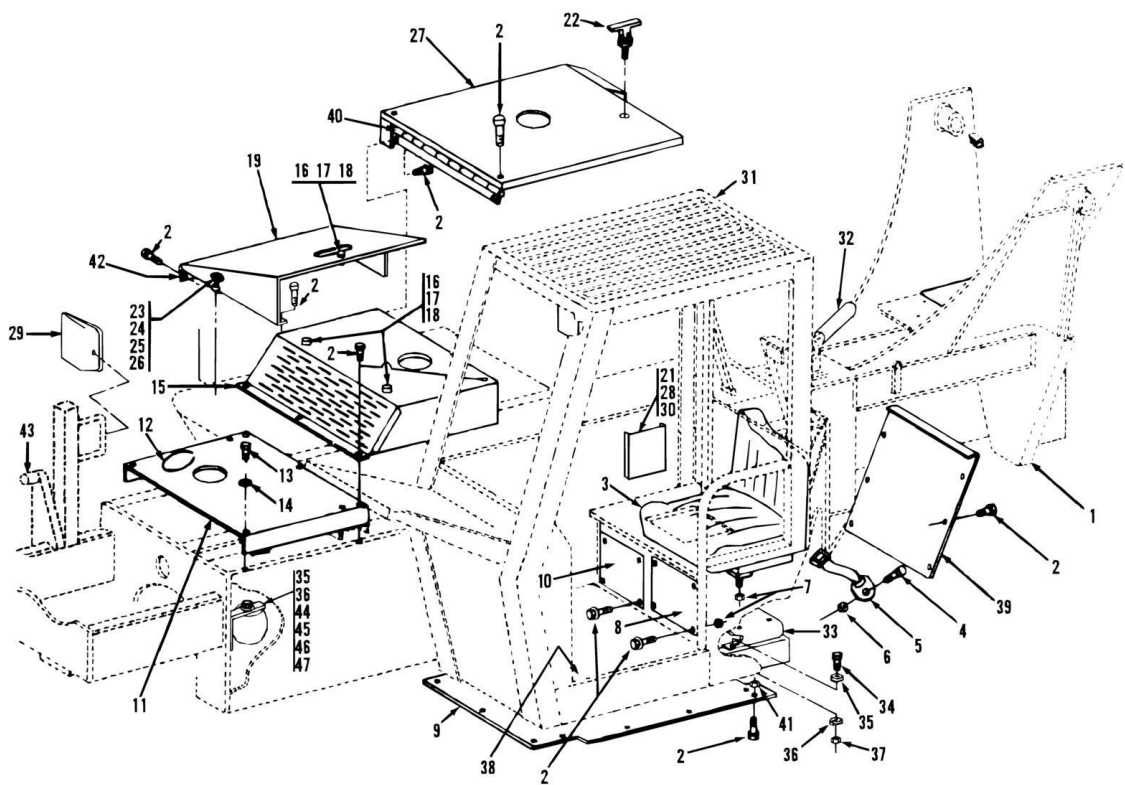
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91081259	1	REAR CAB COVER	
2	77143003	33	WHIZ-LOK SCREW, 5/16-18X5/8	
3	91033485	1	SEAT	
3	91124107	1	SLIDE ADJ. KIT	
4	91033029	1	SEAT BELT	
5	88201050	2	HEX HD CAPSCREW, 7/16-14X1, GR5	
6	86671164	2	SPACER	
7	88501007	2	HEX NUT, 7/16-14	
8	77143006	8	WHIZ-LOK NUT	
9	91081258	1	BELLY PAN	
10	91081210	1	VALVE ACCESS COVER	
11	91081475	1	HEATER COVER PLATE	
12	91081626	1	MAINTENANCE DECK	
13	90206194	16 IN	TRIM-LOK	
13	14402248	AR	3M ADHESIVE	
14	88201017	4	HEX HD CAP SCREW, 5/16-18X5/8, GR5	
15	88551010	4	LOCKWASHER, 5/16	
16	88561003	4	FLAT WASHER, 5/16	
17	91086060	1	FRONT ENGINE COVER	
18	91083173	3	RUBBER HD SCREW BUMPER	
19	88551007	3	LOCKWASHER, #10	
20	88501612	3	HEX NUT, #10-24	
21	91086088	1	TANK COVER WELDMENT	
22	88201017	2	HEX HD CAPSCREW, 5/16-18X5/8, GR5	
23	88551010	2	LOCKWASHER, 5/16	
24	88561003	2	FLAT WASHER, 5/16	
25	88301093	4	ROUND HD MACHINE SCREW, #10-24X3/4	
26	88554900	4	INTERNAL TOOTH WASHER	
27	88591200	4	O-RING	
28	91033102	1	MANUAL HOLDER	
29	91303021	1	"T" HANDLE	
30	90207458	3	DRAW LATCH	
31	88301193	3	ROUND HD MACHINE SCREW, #10-32X1/2	
32	88551007	3	LOCKWASHER, #10	
33	88501613	3	HEX NUT, #10-32	
34	91086054	1	REAR ENGINE COVER	
35	88501612	4	HEX NUT, #10-24	
36	83683291	1	MIRROR (For earlier models use service kit 9108-5099) (SN 0177103 to Present)	
37	91143051	1	BUSHING	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-2. (91086155) FRAME SHROUDING AND TRIM (SN 0177122 to Present)



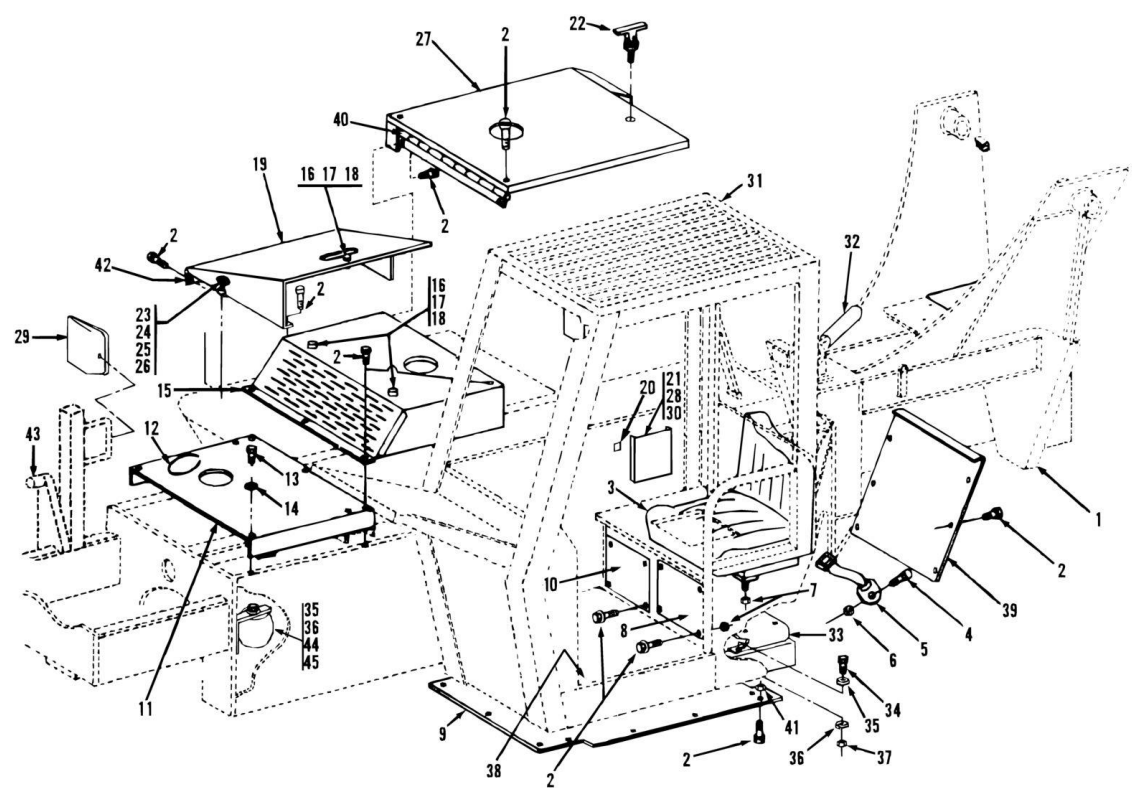
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-2. (91086155) FRAME SHROUDING AND TRIM (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91086155	1	FRAME WELDMENT (includes item 32)	
2	77143003	42	WHIZ-LOK SCREW	
3	91033485	1	SEAT (w/armrest)	
3	91124107	1	SLIDE ADJ. KIT	
4	88201050	2	HEX HD CAPSCREW, 7/16-14 x 1	
5	91033029	1	SEAT BELT	
6	88501007	2	HEX NUT, 7/16-14	
7	77143006	4	WHIZ-LOK NUT	
8	91081475	1	HEATER COVER PLATE	
9	91081709	1	BELLY PAN (includes weld nut)	
9	88971003	3	WELD NUT	
10	91141329	1	VALVE ACCESS COVER	
11	91081681	1	DECK COVER	
12	90206194	AR	TRIM-LOK	
13	91123124	4	WHIZ-LOC SCREW, 5/16-18 x 5/8	
14	88561003	4	FLAT WASHER, 5/16	
15	91086060	1	FRONT ENGINE COVER	
16	91083173	5	RUBBER HD SCREW BUMPER	
17	88551007	5	LOCKWASHER, #10	
18	88501612	5	HEX NUT, #10-24	
19	91086162	1	TANK COVER WELD (includes item 42)	
21	91033102	1	MANUAL HOLDER	
22	91303021	1	T-HANDLE	
23	90207458	3	DRAW LATCH	
24	88301193	12	ROUND HD MACHINE SCREW, #10-32X1/2	
25	88551007	17	LOCKWASHER, #10	
26	88501613	6	HEX NUT, #10	
27	91081276	1	REAR SHEET METAL	
28	88321030	4	SELF-TAP SCREW	
29	83683291	1	MIRROR (includes attachment hardware)	
30	88554900	4	INTERNAL TOOTH WASHER	
31	91146012	1	CAB WELDMENT	
32	71492134	45 IN	SPLIT LOOM, 3/4	
33	91121212	1	VALVE SUPPORT	
34	88201020	4	HEX HD CAPSCREW, 5/16-18 x 1	
35	88561003	5	FLAT WASHER, 5/16	
36	88551010	5	LOCKWASHER, 5/16	
37	88501005	4	HEX NUT, 5/16-18	
38		Ref	FLOOR PLATE ASSY (See CONTROLS SECTION for Breakdown)	
39	91141198	1	REAR CAB COVER	
40	91141218	1	HINGE	
41	91143189	3	NUT RETAINER	
42	91141232	1	HINGE	
43	91143051	1	BUSHING	
44	24921393	1	HORN	
45	24921394	1	HORN BRACKET	
46	24921395	1	NUT	
47	88201017	1	HEX HD CAPSCREW, 5/16-18X5/8 GR5	

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FIGURE 1-3. (91086155) FRAME SHROUDING AND TRIM (SN 0177368 to Present)



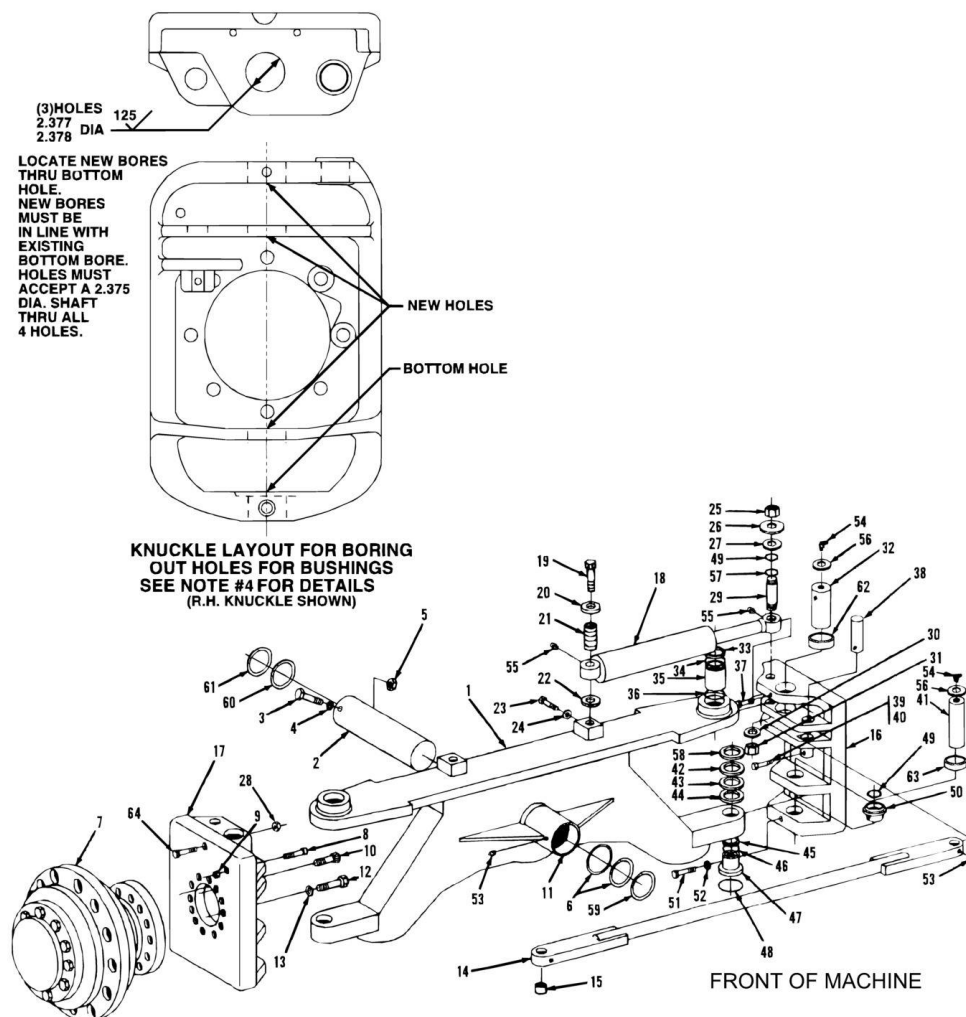
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-3. (91086155) FRAME SHROUDING AND TRIM (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91086155	1	FRAME WELDMENT(includes item 32)	
2	77143003	34	WHIZ-LOK SCREW,5/16-18X-5/8	
3	91033485	1	SEAT (w/ armrest)	
3	91124107	1	SLIDE ADJ. KIT	
4	88201050	2	HEX HD CAPSCREW, 7/16-14 x 1	
5	91033029	1	SEAT BELT	
6	88501007	2	HEX NUT, 7/16-14	
7	77143006	4	WHIZ-LOK NUT	
8	91081475	1	HEATER COVER PLATE	
9	91081709	1	BELLY PAN	
10	91081329	1	VALVE ACCESS COVER	
11	91081681	1	DECK COVER	
12	90206194	AR	TRIM-LOK	
13	91123124	4	WHIZ-LOC SCREW, 5/16-18 x 1/2	
14	88561003	4	FLAT WASHER, 5/16	
15	91086060	1	FRONT ENGINE COVER	
16	91083173	5	RUBBER HD SCREW BUMPER	
17	88551007	5	LOCKWASHER, #10	
18	88501612	5	HEX NUT, #10-24	
19	91086175	1	TANK COVER WELD (includes item 42)	
20	85211040	1	BUTTON PLUG	
21	91033102	1	MANUAL HOLDER	
22	91303021	1	T-HANDLE	
23	90207458	3	DRAW LATCH	
24	88301193	12	ROUND HD MACHINE SCREW, #10-32 x 1/2	
25	88551007	17	LOCKWASHER, #10	
26	88501613	6	HEX NUT, #10-32	
27	91081276	1	REAR SHEET METAL	
28	88321030	4	SELF-TAP SCREW	
29	83683291	1	MIRROR (includes attachment hardware)	
30	88554900	4	INTERNAL TOOTH WASHER	
31	91146012	1	CAB WELDMENT	
32	71492134	45 IN	SPLIT LOOM, 3/4	
33	91121212	1	VALVE SUPPORT	
34	88201020	4	HEX HD CAPSCREW, 5/16-18 x 1	
35	88561003	5	FLAT WASHER, 5/16	
36	88551010	5	LOCKWASHER,5/16	
37	88501005	4	HEX NUT, 5/16-18	
38	91095024	1	FLOOR PLATE ASSY (522)	
38	91085111	1	FLOOR PLATE ASSY (524)	
39	91141198	1	REAR CAB COVER	
40	91141218	1	HINGE	
41	91143189	3	NUT RETAINER	
42	91143307	1	HINGE	
43	91143051	1	BUSHING	
44	91143357	1	HORN ASSY (includes horn and bracket)	
44	91144438	1	HORN	
44	91144439	1	BRACKET	
45	88201017	1	HEX HD CAPSCREW , 5/16-18x5/8, GR5	

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FIGURE 1-4. REAR AXLE AND ATTACHING PARTS (SN 0177005 to Present)



* NOTE #1: When 91081384 Pivot Pin breaks, order part number 91085077 Steer Cylinder Pivot Block Kit for the replacement parts needed to accommodate new pivot pins.

* NOTE #2: Cylinder base end must be free to rotate. Shim steer cylinder base end as required to maintain a total max. gap of 1/16 in.

* NOTE #3: Shim bottom knuckles as required to maintain no more than 1/32 in movement. Shim top knuckles as required to maintain no more than 1/16 in gap. Must have a minimum of one shim.

* NOTE #4: All machines need to bore Steering Knuckles to use items 62 & 63. See diagram on previous page. Unless you have purchased new Steering Knuckles part number, 91120003 & 91120004.

* NOTE #5: You may have to use item 37 in place of items 28 & 64, unless you have purchased new Steering Knuckles part number, 91120003 & 91120004. See engineering print that comes with the Steering Knuckle Kit for details.

* NOTE #6: See option section for details on the Rear Axle Rework Kit and the Rear Axle Advantage Kit.

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FIGURE 1-4. REAR AXLE AND ATTACHING PARTS (SN 0177005 to Present)

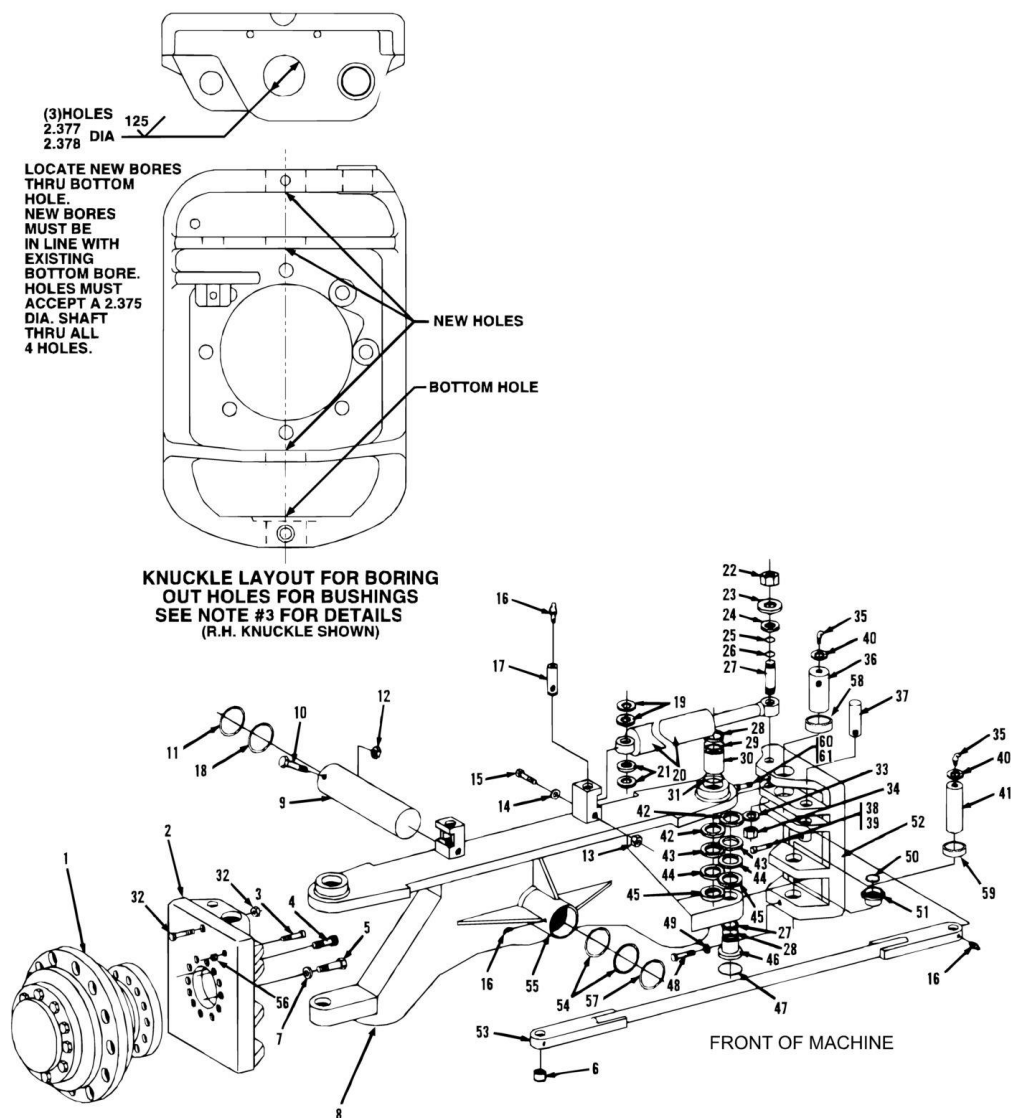
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035240	Ref	STEERING KNUCKLE KIT (includes items 26 thru 28; 32 thru 37; 41 thru 52; four of item 54, 56, 57, 58, 62, 63 & 64 - one kit does both sides)	
	91045152	Ref	STEERING CYLINDER PIN KIT (includes one each of items 25, 26, 27, 29, 30, 31, 49 & 57 - one kit needed for each side)	
1	91166012	1	REAR AXLE, (includes items 11, 35 & 47)	
2	91081177	1	REAR AXLE PIN	
3	90020247	1	HEX HD CAPSCREW, 1-1/4-7X6	
4	88561119	1	FLATWASHER, 1-1/4	
5	85101098	1	HEX NUT, 1-1/4-7	
6	24601570	2	LIP SEAL	
7		Ref	DRIVE HUB (See DRIVE TRAIN SECTION for Breakdown) (524)	
7		Ref	NON DRIVING HUB (See DRIVE TRAIN SECTION for Breakdown) (522)	
8	88212321	2	SOCKET HEAD CAPSCREW, 5/8-11X3-3/4, GR8	
9	88501110	2	HEX NUT, 5/8-11	
10	91043222	4	12 PT SCREW, 3/4-10X2, (torque to 270-290 ft lbs)	
11	91123031	2	BUSHING	
12	83201006	12	HEX HD CAPSCREW, 3/4-10X2, (torque to 270-290 ft lbs)	
13	86681572	12	HARDENED WASHER, 3/4	
14	91166063	1	TIE ROD, (includes item 15)	
15	91043247	2	SELF ALIGNING BUSHING	
16	91120003	1	L.H. STEERING KNUCKLE	
17	91120004	1	R.H. STEERING KNUCKLE	
18		Ref	STEERING CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	88201065	2	HEX HD CAP SCREW, 1/2-13X1, GR5	
20	91081461	2	WASHER, 3/16IN	
21	91081384	2	STEERING CYLINDER PIVOT PIN	
22	90201918	2	SHIM, (10 gauge)	
23	88221701	2	SET SCREW, 3/8-16X1/2IN	
24	88551013	2	LOCKWASHER, 1/2	
25	88521312	2	HEX LOCKNUT, 3/4-10, (torque to ft lbs)	
26	91081415	2	DIRT SHIELD	
27	91041732	2	SPACER	
28	88521208	2	HEX LOCKNUT, 1/2, 13	
29	91041481	2	STEERING CYLINDER PIN	
30	91041459	2	WASHER	
31	88501416	2	HEX JAM NUT, 1-14, (torque to 225-250 ft lbs)	
32	91081693	2	UPPER KING PIN	
33	91123030	4	BACK-UP RING	
34	88591032	4	O-RING	
35	91123028	2	BUSHING	
36	86921268	2	LIP SEAL	
37	88211117	2	SOCKET HD CAPSCREW, 1/2-13X4-1/2, GR8	
37	88551109	2	LOCKWASHER, 1/2	
38	91041439	2	TIE ROD PIN	
39	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
40	88521306	2	LOCKNUT, 3/8-16	
41	91141424	2	LOWER KING PIN	
42	91041449	4	SHIM, (.060 thick)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	91041450	4	SHIM, (.0478 thick)	
44	91041451	6	SHIM, (.106 thick)	
45	91123030	2	BACK-UP RING	
46	88591032	2	O-RING	
47	91123027	2	BUSHING	
48	91123029	2	O-RING	
49	88591104	4	O-RING	
50	91121091	2	THRUST BUSHING	
51	88212321	2	SLOT HD CAPSCREW, 5/8-11X3-3/4, GR8	
52	88551153	2	LOCKWASHER, 5/8	
53	88671001	4	LUBE FITTING, STRAIGHT, 1/8	
54	88671022	4	LUBE FITTING, 30, 1/8	
55	88671033	4	LUBE FITTING, STRAIGHT, 1/4-28	
56	88581323	4	RETAINING RING	
57	88591019	2	O-RING	
58	91041596	4	SHIM, (20 gauge)	
59	91031009	1	SHIM, (.0500 thick)	
60	91081691	1	SHIM, (.1046 thick)	
61	90206846	1	SHIM, (.1345 thick)	
62	91121239	2	BUSHING	
63	91121240	4	BUSHING	
64	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2	

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FIGURE 1-5. REAR AXLE AND ATTACHING PARTS (SN 0177069 to Present)



* NOTE #1: Cylinder base end must be free to rotate. Shim steer cylinder base end as required to maintain a total max. gap of 1/16 in.

* NOTE #2: Shim bottom knuckles as required to maintain no more than 1/32 in movement. Shim top knuckles as required to maintain no more than 1/16 in gap. Must have a minimum of one shim.

* NOTE #3: All machines need to bore Steering Knuckles to use items 58 & 59. See diagram on previous page. Unless you have purchased new Steering Knuckles part number, 91120003 & 91120004.

* NOTE #4: You may have to use items 60 & 61 in place of item 32, unless you have purchased new Steering Knuckles part number, 91120003 & 91120004. See engineering print that comes with the Steering Knuckle Kit for details.

* NOTE #5: See option section for details on the Rear Axle Rework Kit and the Rear Axle Advantage Kit.

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-5. REAR AXLE AND ATTACHING PARTS (SN 0177069 to Present)

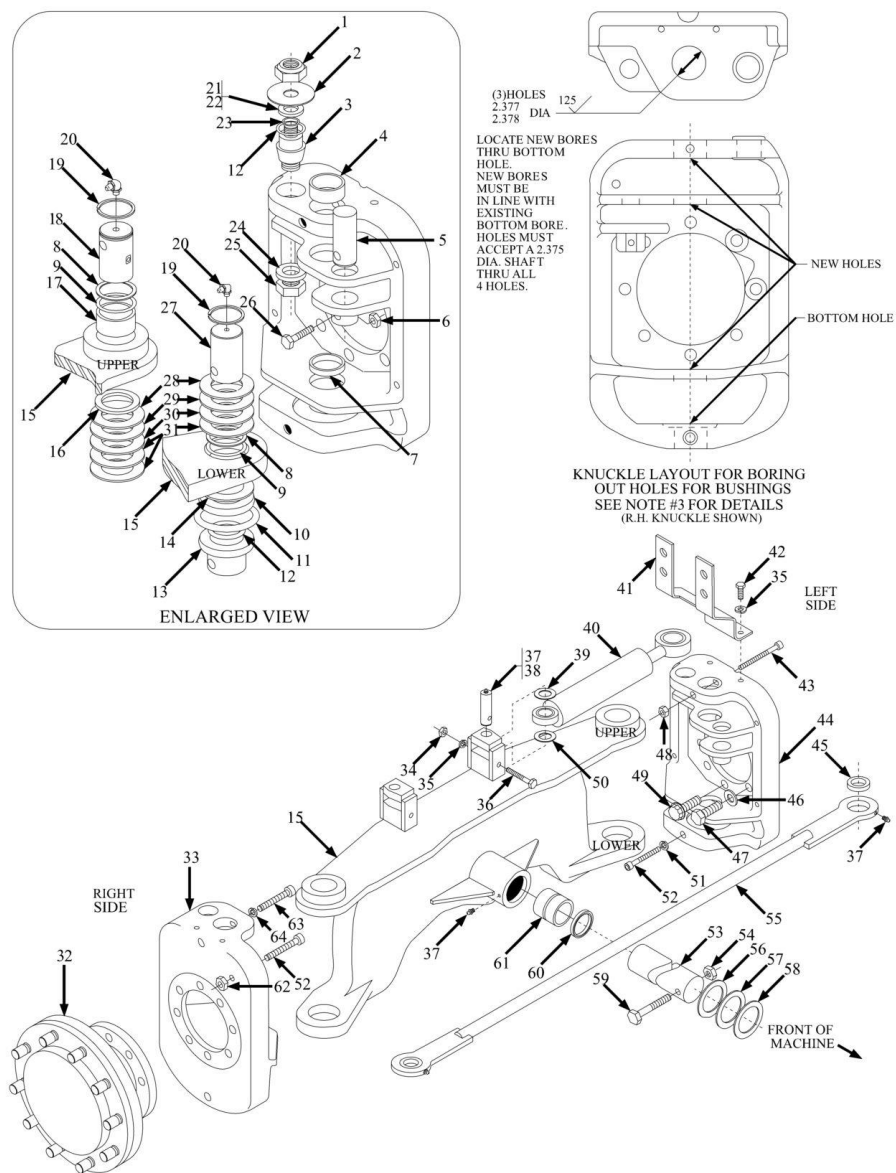
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035240	1	STEERING KNUCKLE KIT (includes items 26 thru 28; 32 thru 37; 41 thru 52; four of item 54, 56, 57, 58, 62, 63, & 64 one kit does both sides)	
	91045152	Ref	STEERING CYLINDER PIN KIT (includes one each of items 22 thru 27, 33 & 34 -one kit needed for each side)	
1		Ref	DRIVE HUB (See DRIVE TRAIN SECTION for Breakdown) (524)	
1		Ref	NON DRIVE HUB (See DRIVE TRAIN SECTION for Breakdown) (522)	
2	91120004	1	R.H. STEERING KNUCKLE	
3	88212321	2	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
4	91043222	4	CAPSCREW, 12PT, 3/4-10X2, (torque to 270-290 ft lbs)	
5	83201006	12	HEX HD CAP SCREW, 3/4-10X2, (torque to 270-290 ft lbs)	
6	91043247	2	SELF-ALIGNING BUSHING	
7	86681572	12	HARDENED WASHER, 3/4	
8	91166012	1	REAR AXLE WELDMENT, (includes items 30, 46 & 55)	
9	91081177	1	REAR AXLE MOUNTING PIN	
10	90020247	1	HEX HD CAPSCREW, 1-1/4-7X6	
11	90206846	1	SHIM, (.1345 thick)	
12	85101098	1	HEX NUT, 1-1/4-7	
13	88501006	2	HEX NUT, 3/8-16	
14	88551011	2	LOCKWASHER, 3/8	
15	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR5	
16	88671001	6	LUBE FITTING, STRAIGHT, 1/8	
17	91081695	2	STEERING CYLINDER PIVOT PIN	
18	91081691	1	SHIM, (.1046 thick)	
19	91041598	2	SHIM	
20		Ref	STEERING CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
21	90201918	2	SHIM, (10 gauge)	
22	88521312	2	HEX LOCKNUT, 3/4-10, (torque to 160-175 ft lbs)	
23	91081415	2	DIRT SHIELD	
24	91041732	2	SPACER	
25	88591019	2	O-RING	
26	88591104	2	O-RING	
27	91041481	2	STEERING CYLINDER PIN	
28	91123030	4	BACK-UP RING	
29	88591032	4	O-RING	
30	91123028	2	BUSHING	
31	86921268	2	LIP SEAL	
32	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
32	88521208	2	LOCKNUT, 1/2	
33	91041459	2	WASHER	
34	88501416	2	HEX JAM NUT, 1-14, (torque to 225-250 ft lbs)	
35	86671022	4	LUBE FITTING, 30, 1/8	
36	91081693	2	UPPER KING PIN	
37	91041439	2	TIE ROD PIN	
38	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
39	88521306	2	LOCKNUT, 3/8-16	
40	88581323	4	RETAINING RING	
41	91141424	2	LOWER KING PIN	
42	91041596	4	SHIM, (20 gauge)	

SECTION 1 - CHASSIS AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	91041449	4	SHIM, (.060 thick)	
44	91041450	4	SHIM, (.0478 thick)	
45	91041451	6	SHIM, (.106 thick)	
46	91123027	2	BUSHING	
47	91123029	2	O-RING	
48	88212321	2	SLOT HD CAPSCREW, 5/8-11X3-3/4, GR8	
49	88551153	2	LOCKWASHER, 5/8	
50	88591104	2	O-RING	
51	91121091	2	THRUST BUSHING	
52	91120003	1	L.H.STEERING KNUCKLE	
53	91166063	1	TIE ROD, (includes item 6)	
54	24601570	2	LIP SEAL	
55	91123031	2	BUSHING	
56	88501110	2	HEAVY HEX JAM NUT, 5/8-11	
57	91031009	1	SHIM, (.0500thick)	
58	91121239	2	BUSHING	
59	91121240	4	BUSHING	
60	88211117	2	SOCKET HD CAPSCREW, 1/2-13X4-1/2, GR8	
61	88551109	2	LOCKWASHER, (hicollar), 1/2	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-6. REAR AXLE AND ATTACHING PARTS (SN 0177368 to Present)



NOTE #1: Cylinder base end must be free to rotate. Shim steer cylinder base end as required to maintain a total max. gap of 1/16in.

NOTE #2: 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.

NOTE #3: All machines need to bore Steering Knuckles to use items 4 & 7. See diagram on previous page. Unless you have purchased new Steering Knuckles part number, 91120003 & 91120004.

NOTE #4: You may have to use items 63 & 64 in place of items 43 & 48, unless you have purchased new Steering Knuckles part number, 91120003 & 91120004. See engineering print that comes with Steering Knuckle Kit for details

NOTE #5: See option section for details on the Rear Axle Rework Kit and the Rear Axle Advantage Kit.

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FIGURE 1-6. REAR AXLE AND ATTACHING PARTS (SN 0177368 to Present)

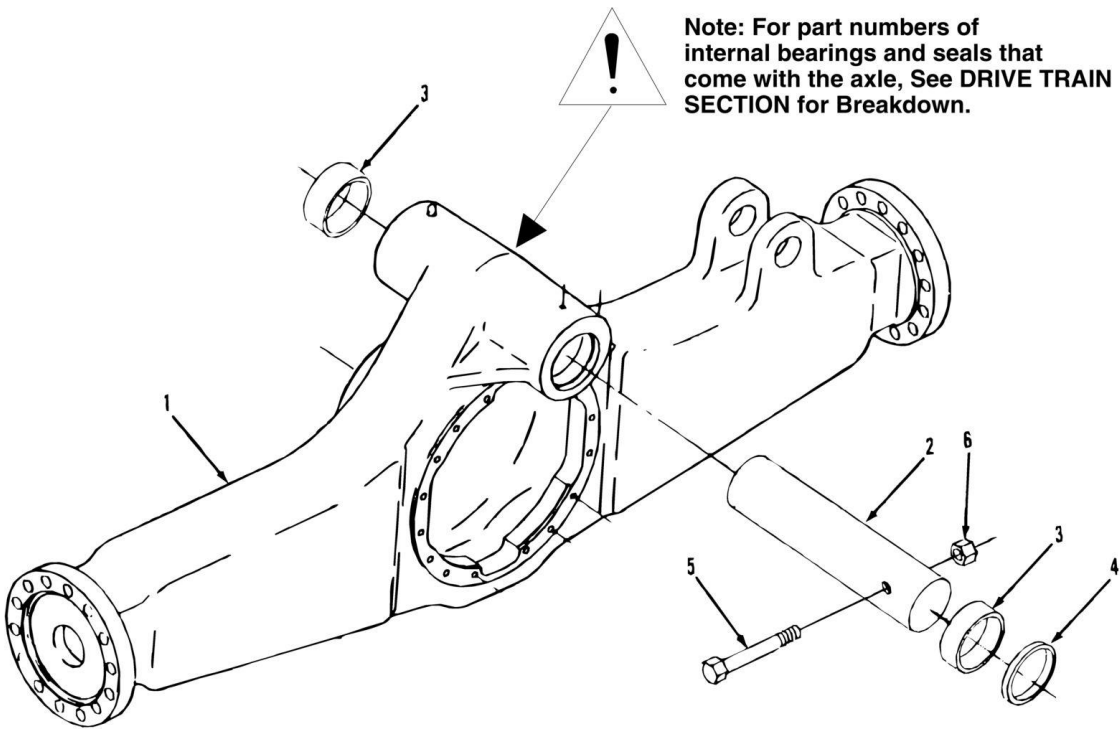
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91035240	1	STEERING KNUCKLE KIT (includes items 2, 4, 7 thru 14, 16 thru 23, 27 thru 31, 43, 48, 51, two of item 52 63 & 64, one kit does both sides)	
	91045152	AR	STEERING CYLINDER PIN KIT (includes one each of items 1, 2, 3, 12 21 thru 25, one kit needed for each side)	
1	88521312	2	HEX LOCK NUT, 3/4-10, (torque to 160-175 ft lbs)	
2	91081415	2	DIRT SHIELD	
3	91041481	2	STEERING CYLINDER PIN	
4	91121239	2	BUSHING	
5	91041439	2	TIE ROD PIN	
6	88521306	2	LOCK NUT, 3/8-16	
7	91121240	4	BUSHING	
8	91123030	4	BACK-UP RING	
9	88591032	4	O-RING	
10	91123027	2	BUSHING	
11	91123029	2	O-RING	
12	88591104	4	O-RING	
13	91121091	2	THRUST BUSHING	
14	91041733	AR	SHIM, (.032 thick)	
15	91166012	1	REAR AXLE WELDMENT, (includes items 10, 17 & 61)	
16	86921268	2	LIPSEAL	
17	91123028	2	BUSHING	
18	91081693	2	UPPER KING PIN	
19	88581323	4	RETAINING RING	
20	88671022	4	LUBE FITTING, 90, 1/8	
21	91041732	2	SPACER	
22	91041438	AR	SPACER	
23	88591019	2	O-RING	
24	91041459	2	WASHER	
25	88501416	2	HEX JAM NUT, 1-14, (torque to 225-250 ft lbs)	
26	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
27	91141424	2	LOWER KING PIN	
28	91041449	AR	SHIM, (.060 thick)	
29	91041450	AR	SHIM, (.0478 thick)	
30	91041451	AR	SHIM, (.106 thick)	
31	91041596	AR	SHIM, (.0359 thick)	
32		Ref	DRIVE HUB (See DRIVE TRAIN SECTION for Breakdown) (524)	
32		Ref	NON DRIVE HUB (See DRIVE TRAIN SECTION for Breakdown) (522)	
33	91120004	1	R.H. STEERING KNUCKLE	
34	88501006	2	HEX NUT, 3/8-16	
35	88551011	6	LOCK WASHER, 3/8	
36	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR8	
37	88671001	6	LUBE FITTING, STRAIGHT, 1/8	
38	91081695	2	STEERING CYLINDER PIVOT PIN	
39	91041598	AR	SHIM, .060 thick	
40		Ref	STEERING CYLINDER ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
41	91081523	1	L.H. TUBE SUPPORT (524)	
41	91081522	1	R.H. TUBE SUPPORT (524)	
42	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
44	91120003	1	L.H.STEERING KNUCKLE	
45	91043247	2	SELF-ALIGNING BUSHING	
46	86681572	12	HARDENED WASHER,3/4	
47	83201006	12	HEX HD CAPSCREW, 3/4-10X2, GR8, (torque to 270-290 ft lbs)	
48	88521208	2	HEX LOCKNUT, 1/2-13	
49	91043222	4	CAPSCREW 12PT, 3/410X2, GR8, (torque to 270-290 ft lbs)	
50	90201918	AR	SHIM, 10 gauge	
51	88551153	2	LOCK WASHER,5/8	
52	88212321	4	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
53	91081177	1	REAR AXLE MOUNTING PIN	
54	85101098	1	HEX NUT, 1-1/4-7	
55	91166063	1	TIE ROD, (includes item 45)	
56	91031009	AR	SHIM, (.0598 thick)	
57	91081691	AR	SHIM, (.1046 thick)	
58	90206846	AR	SHIM, (.1345 thick)	
59	90020247	1	HEX HD CAPSCREW, 1-1/4-7X6, GR5	
60	24601570	2	LIPSEAL	
61	91123031	2	BUSHING	
62	88501110	2	HEX NUT,5/8-11	
63	88211117	2	SOCKET HD CAPSCREW, 1/2-13X4-1/2, GR8	
64	88551109	2	LOCKWASHER, (hi collar), 1/2	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-7. FRONT AXLE MOUNTING (SN 0177005 to Present)



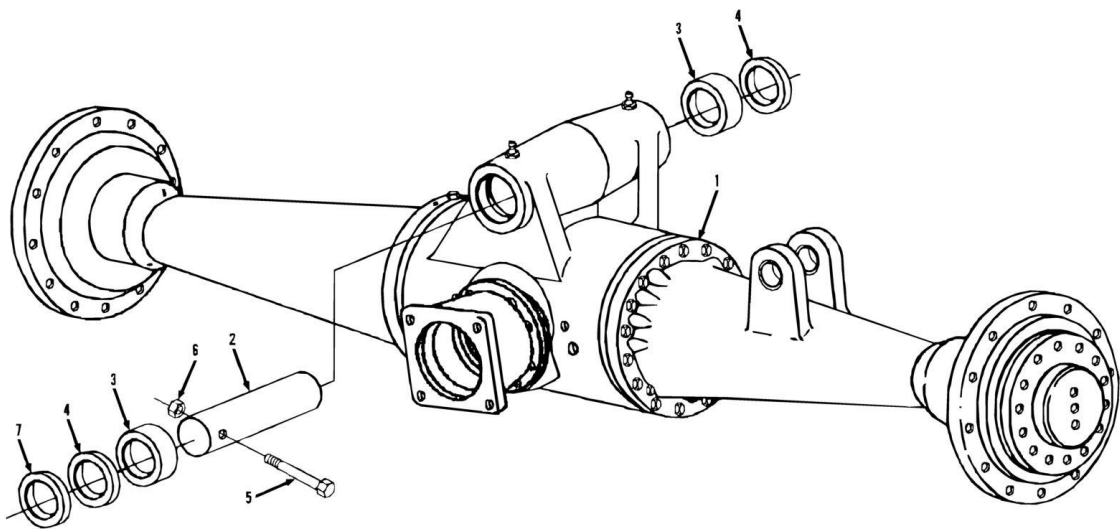
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-7. FRONT AXLE MOUNTING (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT AXLE HOUSING ASSEMBLY (See DRIVE TRAIN SECTION for Breakdown)	
2	91081176	1	FRONT SWAY PIN	
3	90205891	2	SPACER	
4	91031014	1	SHIM WASHER	
5	83201031	1	HEX HD CAPSCREW, 1IN-8X5IN	
6	88521016	1	HEX LOCKNUT, 1IN-8	

SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-8. FRONT AXLE MOUNTING (SN 0177165 to Present)



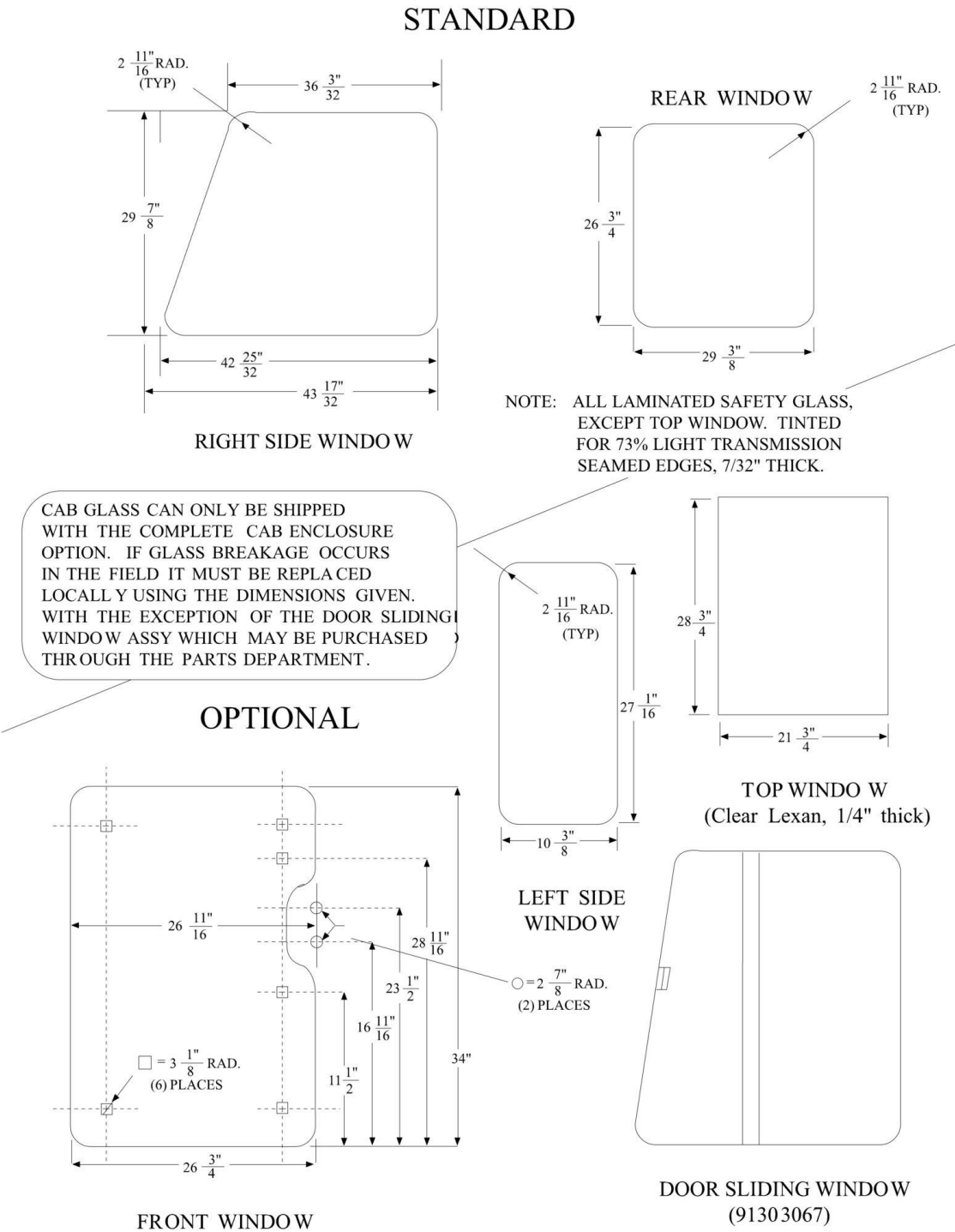
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-8. FRONT AXLE MOUNTING (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT AXLE (See DRIVE TRAIN SECTION for Breakdown)	
2	91081176	1	FRONT SWAY PIN	
3	90205891	2	SPACER	
4	91031014	2	SHIM WASHER	
5	83201031	1	HEX HD CAPSCREW, 1IN-8X5IN	
6	88521016	1	HEX LOCKNUT, 1IN-8	
7	91083480	1	SHIM WASHER	

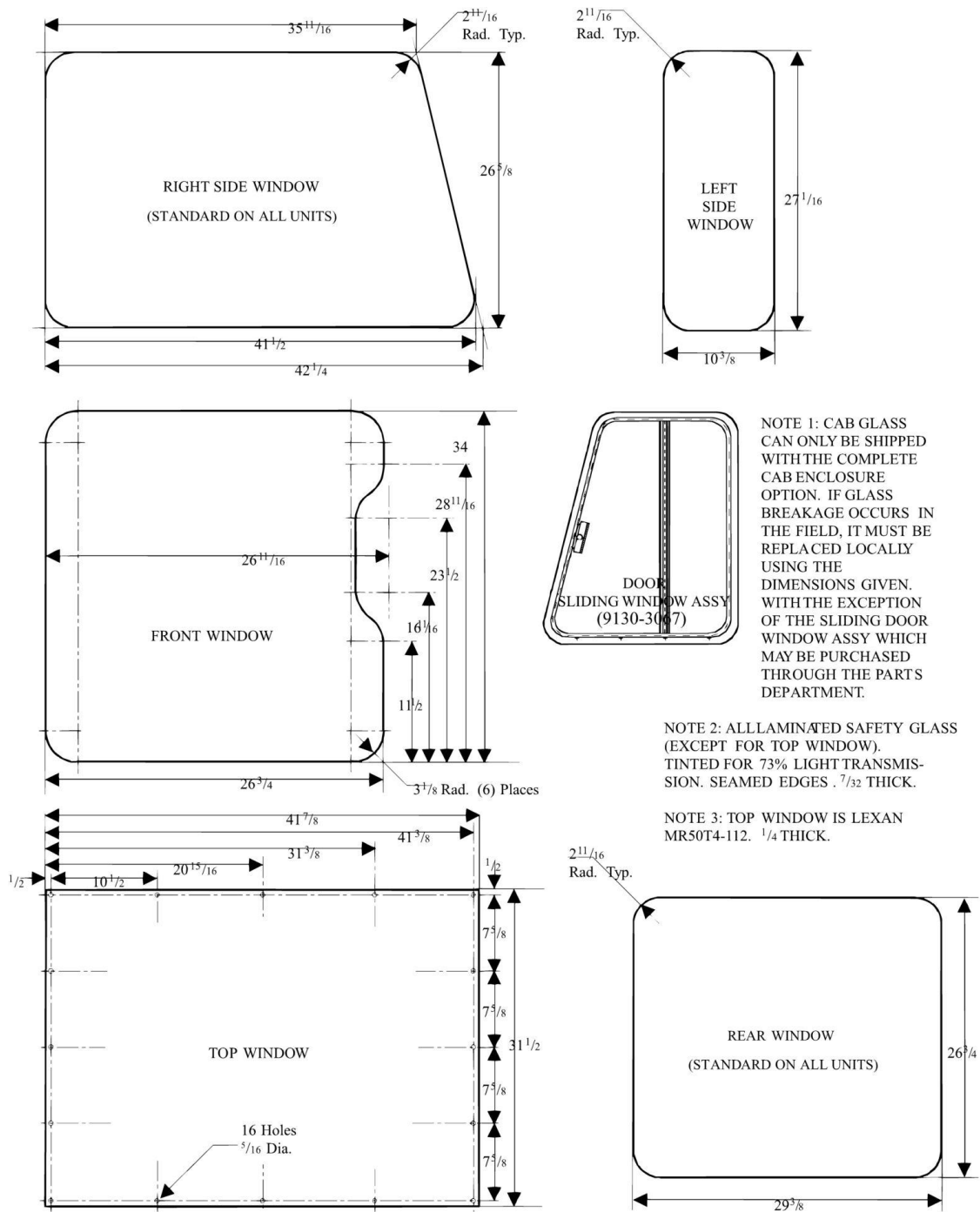
SECTION 1 - CHASSIS AND ATTACHING PARTS

FIGURE 1-9. CAB GLASS (SN 0177079 to Present)



SECTION 1 - CHASSIS AND ATTACHING PARTS

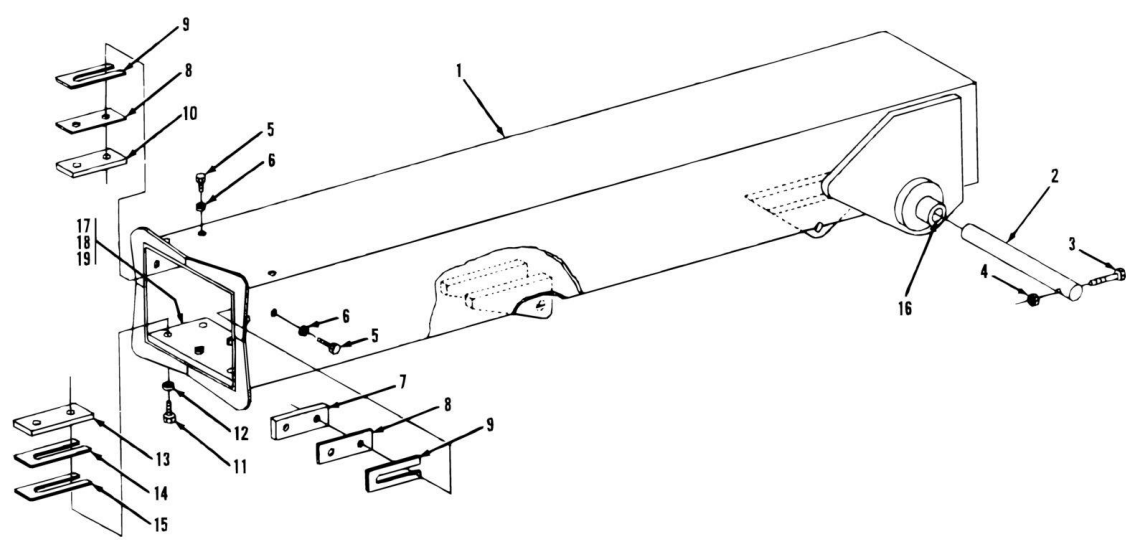
FIGURE 1-10. CAB GLASS (SN 0177122 to Present)



SECTION 2 - BOOM

SECTION 2 - BOOM

FIGURE 2-1. FIRST BOOM SECTION (SN 0177005 to Present)



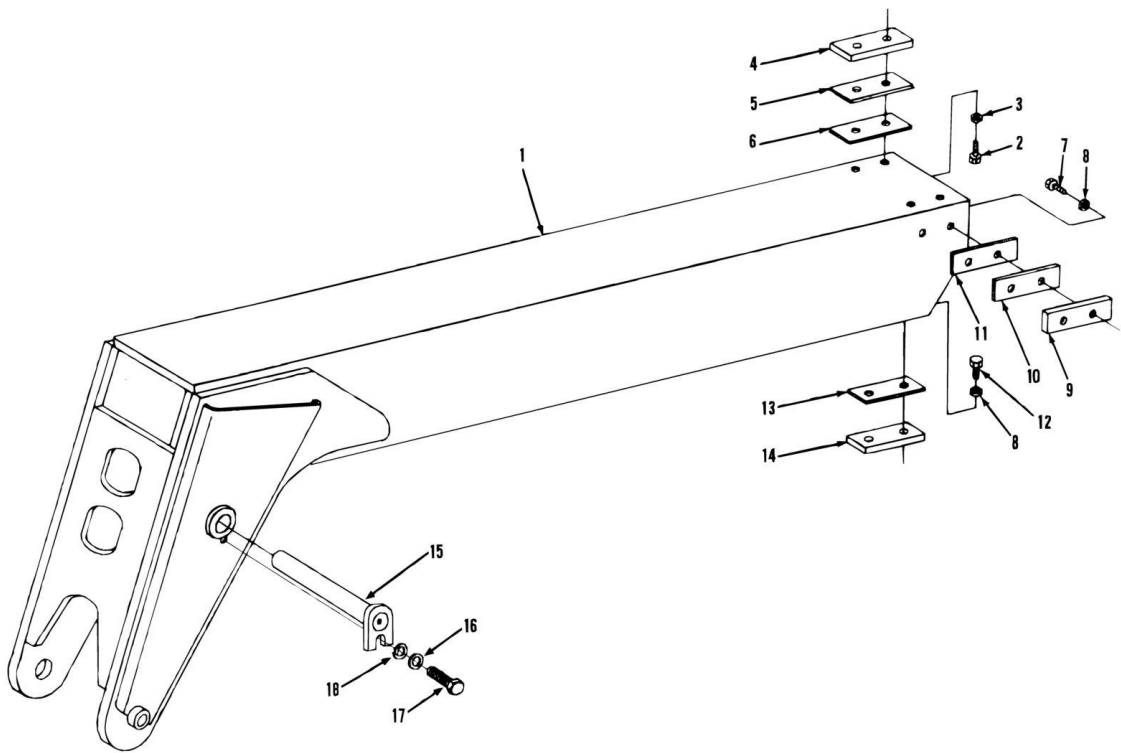
SECTION 2 - BOOM

FIGURE 2-1. FIRST BOOM SECTION (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91086101	1	FIRST BOOM SECTION	
2	91081148	1	PIN	
3	88201107	1	HEX HD CAPSCREW, 5/8-11X5	
4	88501010	1	HEX NUT, 5/8-11	
5	88201532	8	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
5	88201533	AR	HEX HD CAPSCREW, 3/8-24X7/8, GR5	
6	90027470	8	HARDENED FLATWASHER, 3/8	
7	91033186	2	BEARING PAD	
8	91031236	4	SPACER	
9	90205870	4	SHIM	
10	91033189	2	BEARING PAD	
11	88201568	4	HEX HD CAPSCREW, 1/2-20X2, GR5	
11	88201569	AR	HEX HD CAPSCREW, 1/2-20X2-1/4, GR5	
12	90027471	4	HARDENED FLATWASHER, 1/2	
13	91083063	2	BEARING PAD	
14	91081172	2	SPACER	
15	91081171	2	SHIM	
16	91083298	2	BUSHING	
17	91081397	1	BEARING PLATE	
18	88201607	2	HEX HD CAPSCREW, 3/4-16X1-1/4, GR5	
19	90027473	2	WASHER	

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FIGURE 2-2. SECOND BOOM SECTION (SN 0177005 to Present)



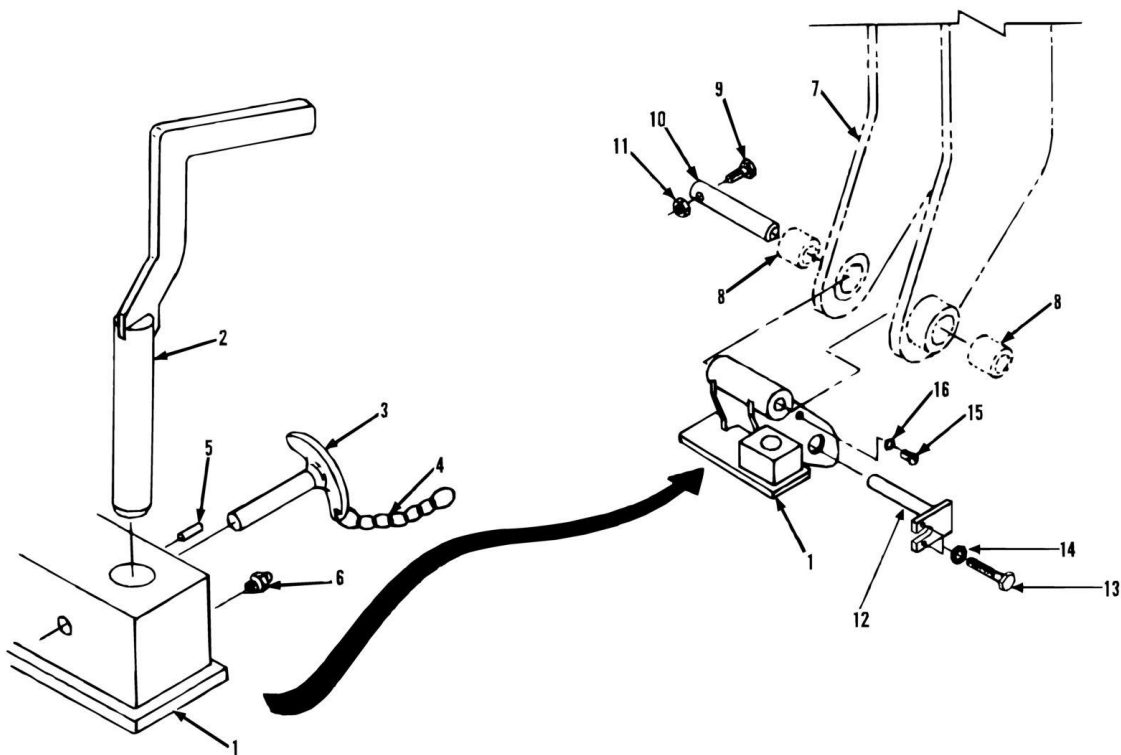
SECTION 2 - BOOM

FIGURE 2-2. SECOND BOOM SECTION (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91086102	1	SECOND BOOM SECTION	
2	88201564	4	HEX HD CAPSCREW, 1/2-20X1, GR5	
3	90027471	4	HARDENED WASHER	
4	91083297	2	BEARING PAD	
5	91081447	2	SPACER	
6	91081448	AR	SHIM	
7	88201532	4	HEX HD CAPSCREW, 3/8-24X3/4, GR5	
7	88201533	AR	HEX HD CAPSCREW, 3/8-24X7/8, GR5	
8	90027470	4	HARDENED FLAT WASHER	
9	91033186	2	BEARING PAD	
10	91031236	2	SPACER	
11	90205870	AR	SHIM	
12	88201537	4	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5	
13	91081457	2	SPACER	
14	91083307	2	BEARING PAD	
15	91146052	1	PIN WELDMENT	
16	88551013	1	LOCKWASHER, 1/2	
17	88201065	1	HEX HD CAPSCREW, 1/2-13 x 1	
18	83621283	1	SPECIAL WASHER	

SECTION 2 - BOOM

FIGURE 2-3. (91085049) QUICK SWITCH OPTION (SN 0177005 through 0177090)



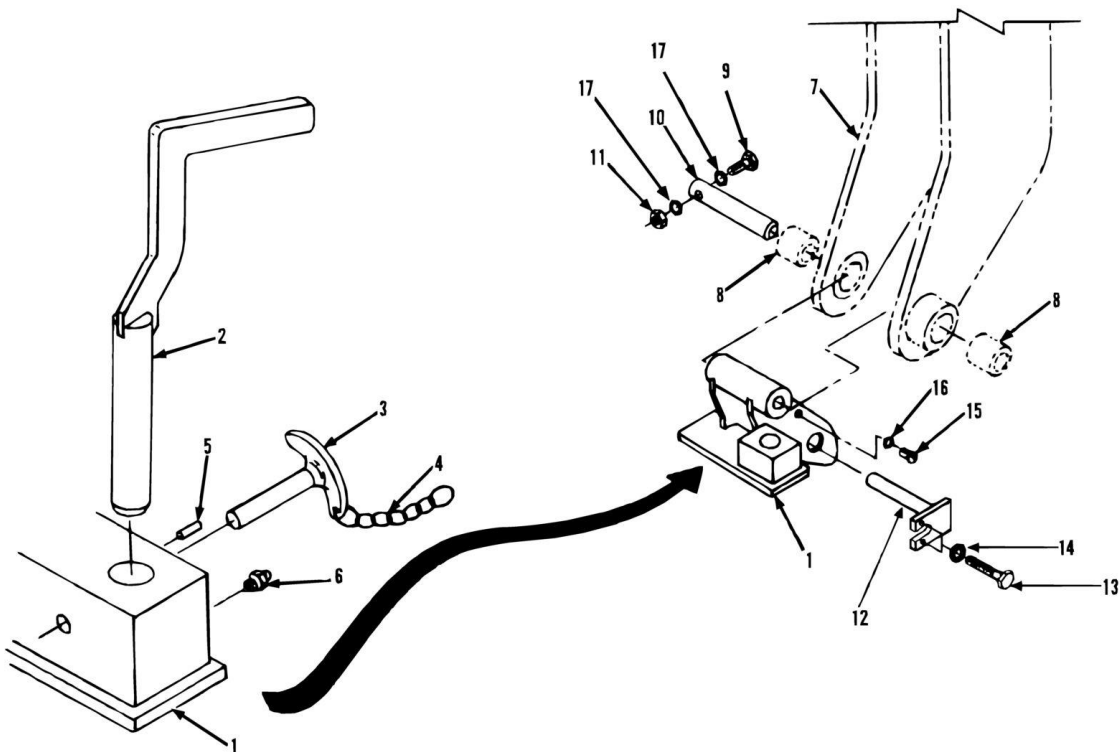
SECTION 2 - BOOM

FIGURE 2-3. (91085049) QUICK SWITCH OPTION (SN 0177005 through 0177090)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085049	Ref	QUICK SWITCH OPTION (includes 9104-5095 plus items 9,10, & 11)	
	91045095	1	QUICK SWITCH ASSY (includes items 1 thru 6, 15 & 16)	
1	91046074	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	ROLLPIN, 1/4inX2	
6	88671008	1	LUBE FITTING, STRAIGHT, 1/4-28	
7		Ref	SECOND BOOM SECTION (See SECOND BOOM SECTION for Breakdown)	
8	91031136	2	BUSHING	
9	88201107	1	HEX HD CAPSCREW, 5/8-11X5, GR5	
10	91081324	1	PIN	
11	88501010	1	HEX NUT, 5/8-11	
12	90207046	1	TILT CYLINDER PIN	
13	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
14	88551013	2	LOCKWASHER, 1/2	
15	88301193	1	ROUND HD MACHINE SCREW, #10-32X1/2	
16	88561105	1	FLATWASHER, #10	

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FIGURE 2-4. (91085049) QUICK SWITCH OPTION (SN 0177091 to Present)



SECTION 2 - BOOM

FIGURE 2-4. (91085049) QUICK SWITCH OPTION (SN 0177091 to Present)

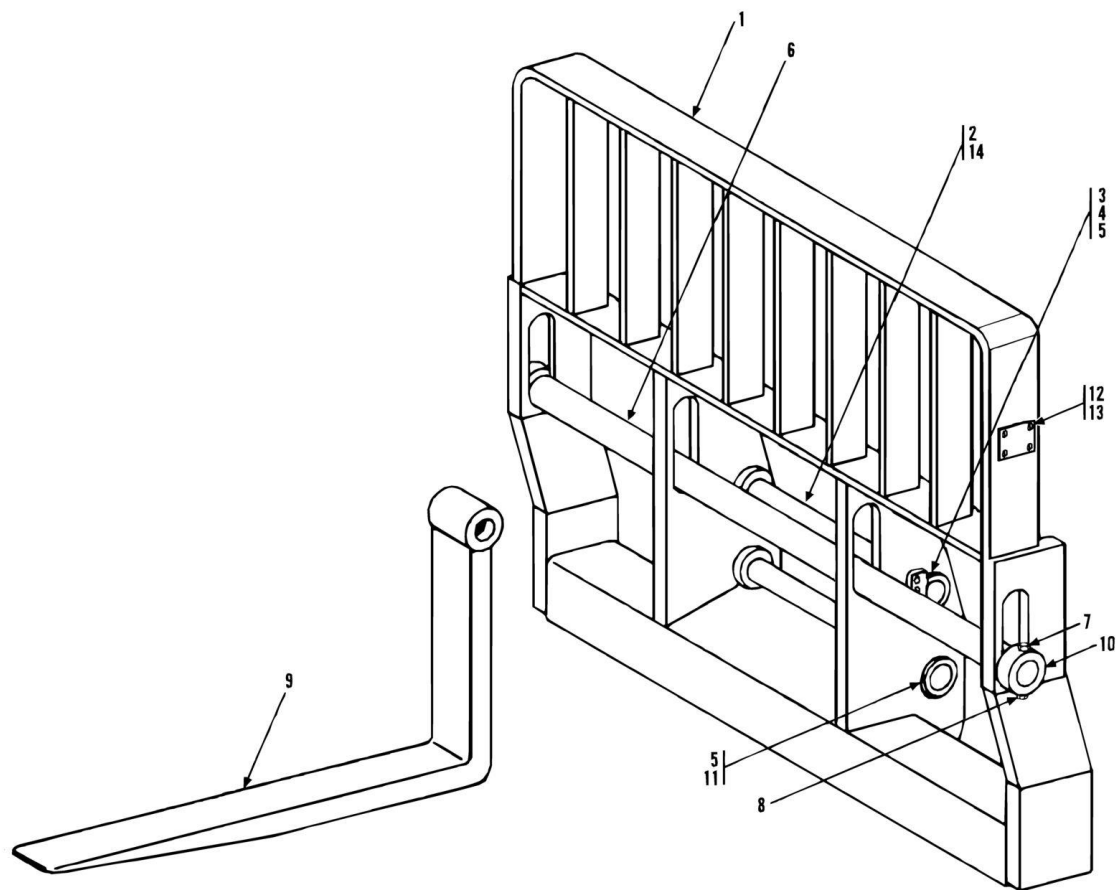
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085049	Ref	QUICK SWITCH OPTION (includes 9108-5091 plus items 9, 10, & 11)	
	91085091	1	QUICK SWITCH ASSY (includes items 1 thru 6, 15 & 16)	
1	91086152	1	QUICK SWITCH WELDMENT	
2	91086151	1	PLUNGER WELDMENT	
3	90207902	1	QUICK RELEASE PIN	
4	91033038	1	JACK CHAIN, 5in LONG, SIZE 12	
5	88631509	1	ROLLPIN, 1/4inX2	
6	88671008	1	LUBE FITTING, STRAIGHT, 1/4-28	
7		Ref	SECOND BOOM SECTION (See SECOND BOOM SECTION 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	FLATWASHER, #10	
17	91121310	2	WASHER, 5/8	

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FIGURE 3-1. (91085033) CARRIAGE ASSEMBLY (SN 0177005 to Present)

NOTE: MANY DIFFERENT FORK ASSEMBLIES ARE AVAILABLE FOR THE CARRIAGE ASSEMBLIES USED ON 522/524C. PLEASE SEE FORK INFORMATION FOR LIST OF FORKS.



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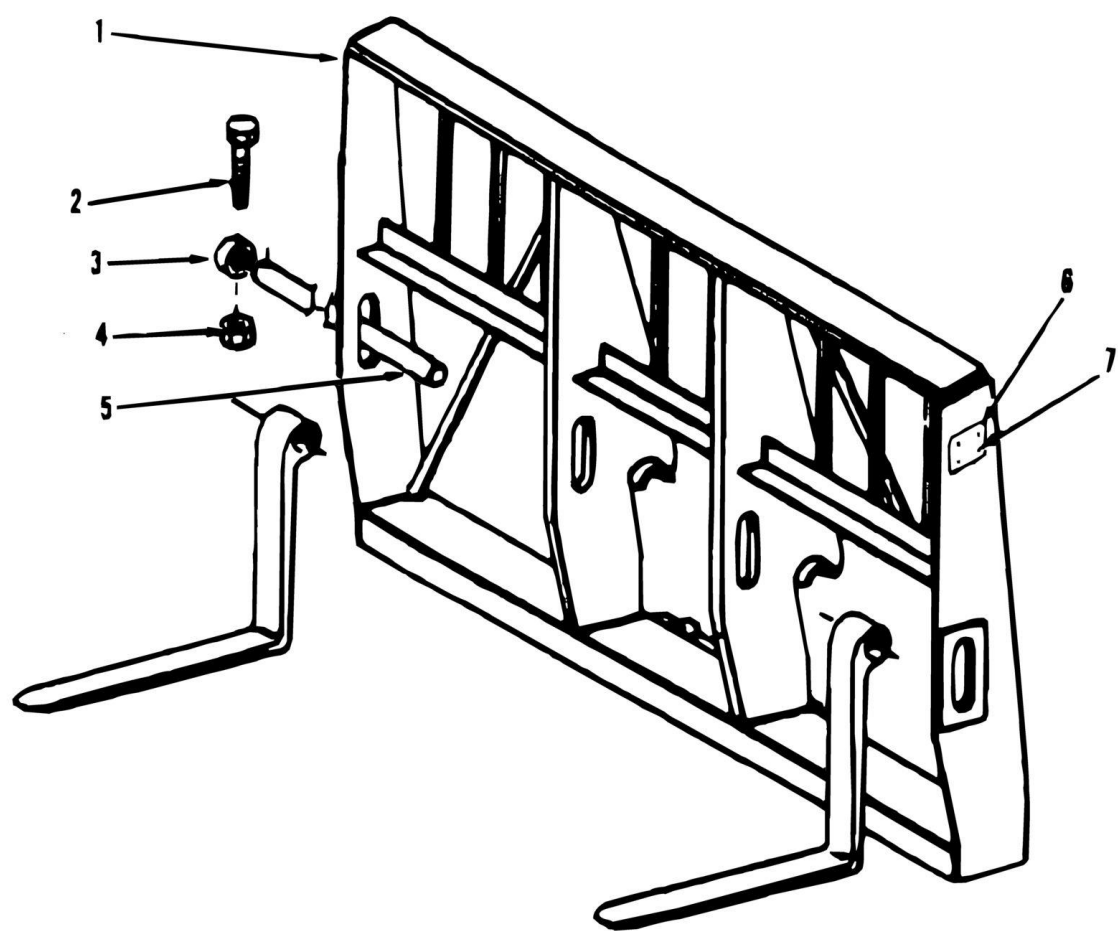
FIGURE 3-1. (91085033) CARRIAGE ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085033	Ref	CARRIAGE ASSY, (includes items 1 thru 8 & 10 thru 14)	
1	91086116	1	CARRIAGE	
2	91081369	1	HEAD PIN	
3	91081368	1	RETAINER BAR	
4	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
5	88551013	2	LOCKWASHER, 1/2	
6	90451058	1	FORK PIN	
7	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
8	88521310	2	HEX LOCKNUT, 5/8-11	
9	90453002	2	FORK	
9	90600390		CUBING FORK	
10	90200003	2	COLLAR	
11	90207046	Ref	TILT PIN	
12	90153001	1	SERIAL NUMBER PLATE	
13	88341022	4	DRIVE SCREW, #10X3/8	
14	91121124	1	SLEEVE	

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FIGURE 3-2. (90455007) Q.S. CARRIAGE ASSEMBLIES (SN 0177005 to Present)

NOTE: MANY DIFFERENT FORK ASSEMBLIES ARE AVAILABLE FOR THE CARRIAGE ASSEMBLIES USED ON 522/524C. PLEASE SEE FORK INFORMATION FOR LIST OF FORKS.



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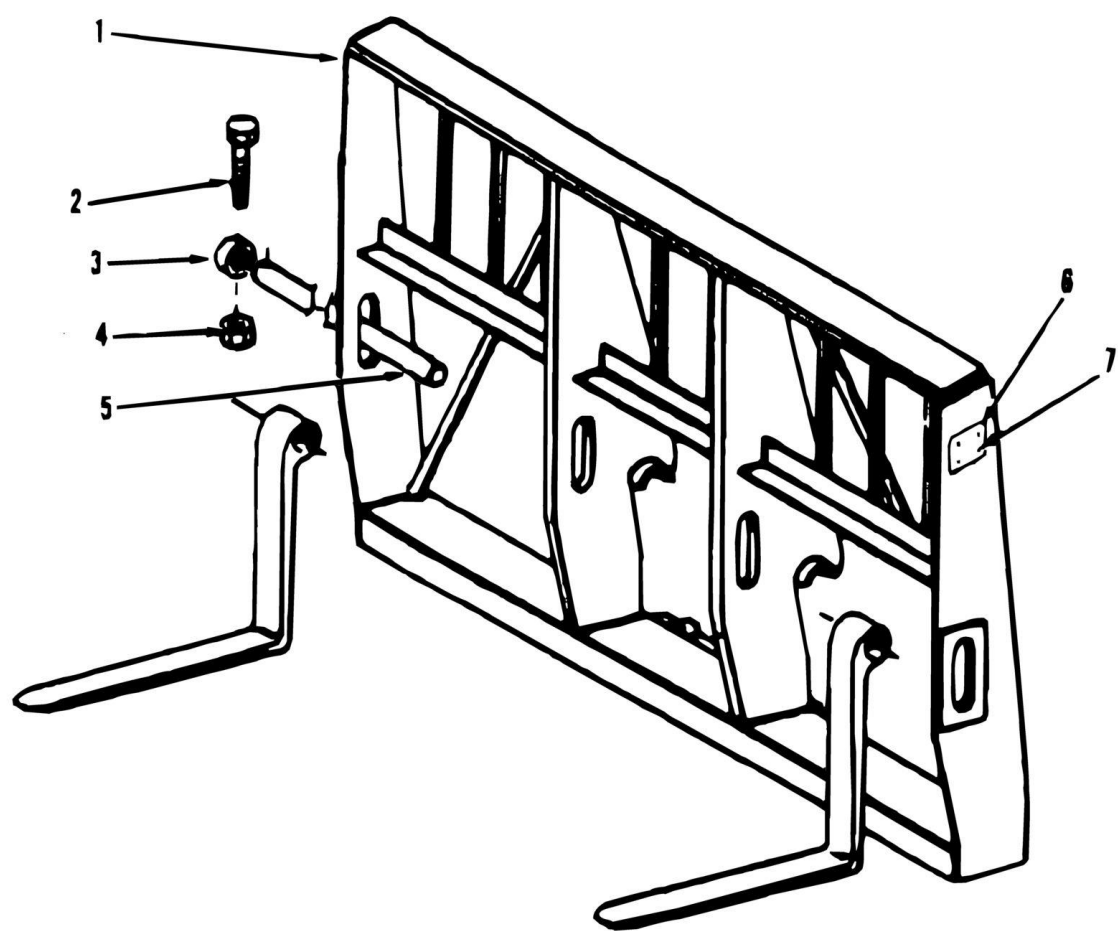
FIGURE 3-2. (90455007) Q.S. CARRIAGE ASSEMBLIES (SN 0177005 to Present)

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

SECTION 3 - ATTACHMENTS

FIGURE 3-3. (90455008) Q.S. CARRIAGE ASSEMBLIES (SN 0177005 to Present)

NOTE: MANY DIFFERENT FORK ASSEMBLIES ARE AVAILABLE FOR THE CARRIAGE ASSEMBLIES USED ON 522/524C. PLEASE SEE FORK INFORMATION FOR LIST OF FORKS.



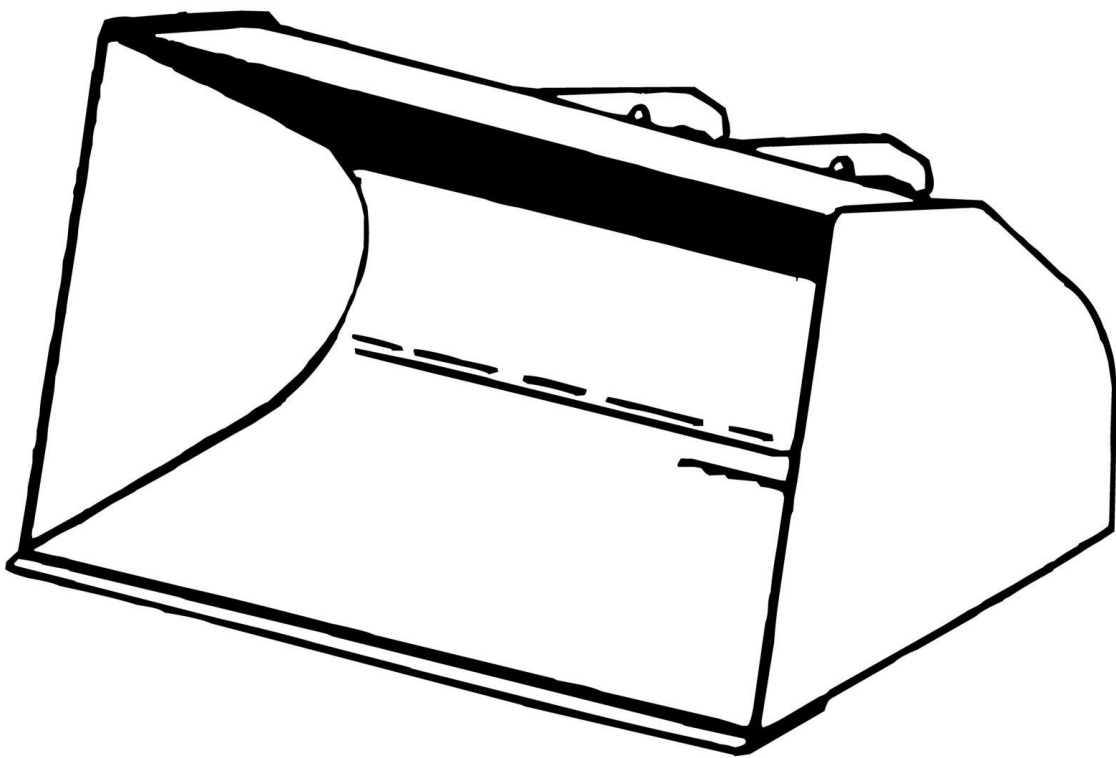
SECTION 3 - ATTACHMENTS

FIGURE 3-3. (90455008) Q.S. CARRIAGE ASSEMBLIES (SN 0177005 to Present)

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

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FIGURE 3-4. BUCKETS (SN 0177005 to Present)



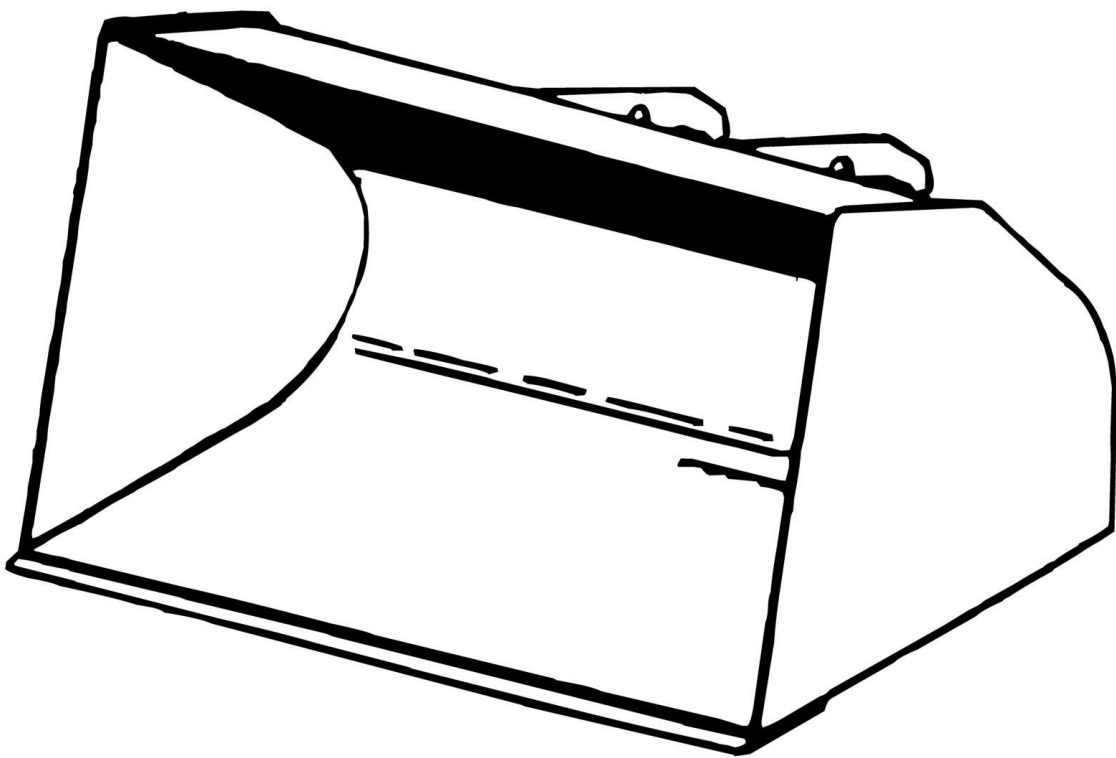
SECTION 3 - ATTACHMENTS

FIGURE 3-4. BUCKETS (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90455049	1	60IN BUCKET (3/4yard capcity)	

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FIGURE 3-5. BUCKETS (SN 0177005 to Present)



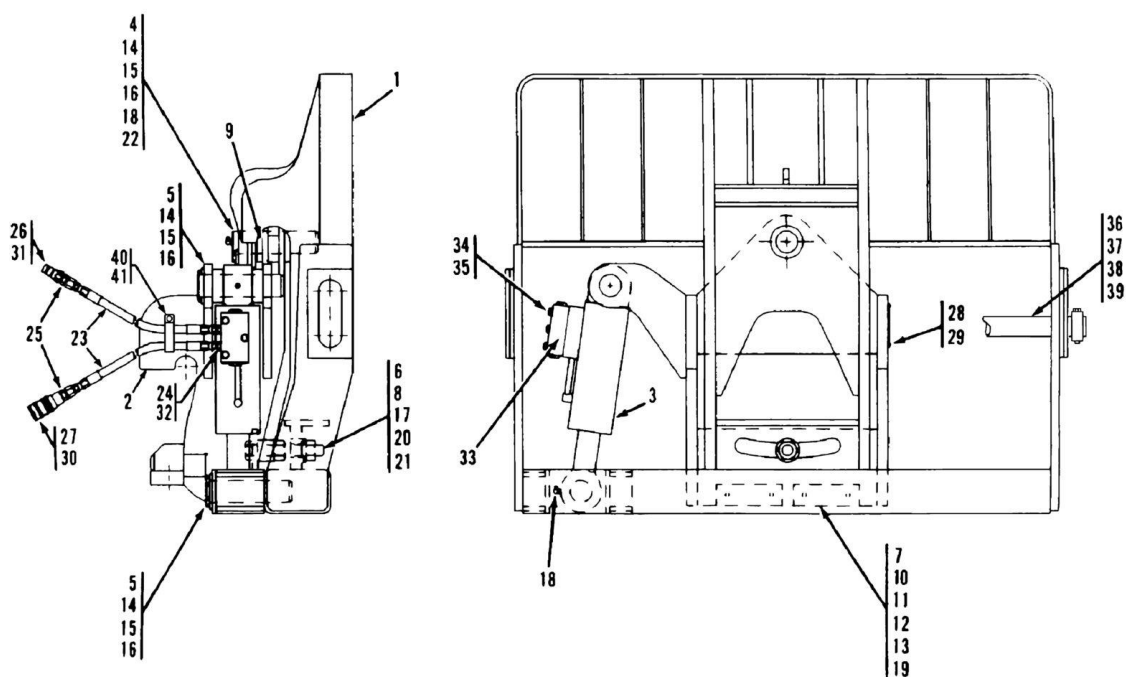
SECTION 3 - ATTACHMENTS

FIGURE 3-5. BUCKETS (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90555020	1	74IN BUCKET (1-1/4 yard capacity)	

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FIGURE 3-6. (91305016) 66IN SLOPE PILER CARRIAGE (SN 0177005 to Present)



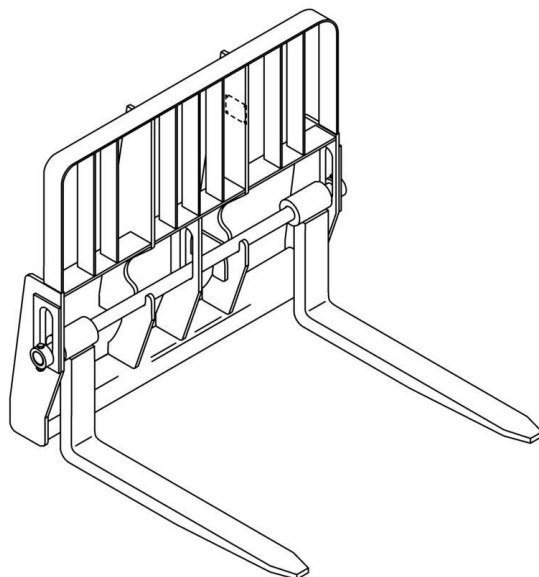
SECTION 3 - ATTACHMENTS

FIGURE 3-6. (91305016) 66IN SLOPE PILER CARRIAGE (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91305016	Ref	66IN SLOPE PILER CARRIAGE, includes all items	
	91083405	1	CAPACITY DECAL (not shown) (522,524)	
	91083474	1	CAPACITY DECAL (not shown) (3S) (522,524)	
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, 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 SN 2005283-01)	
26	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
27	91163139	1	FEMALE QUICK DISCONNECT (Prior to SN 2005283-01)	
27	91403413	1	FEMALE QUICK DISCONNECT, (SN-2005283-01 to Present)	
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

FIGURE 3-7. 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.

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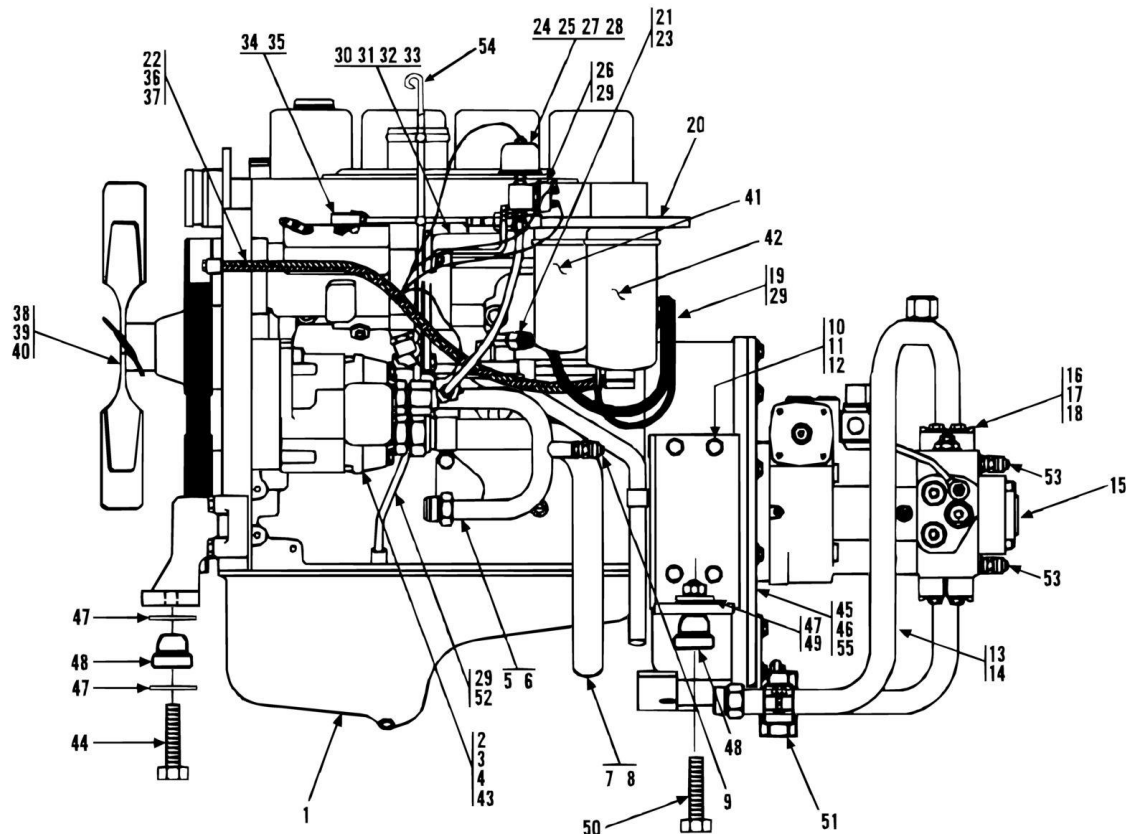
FIGURE 3-7. FORK INFORMATION

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/N90455047)	
	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/N90455054)	
	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	
	90601873	2	48IN PALLET FORK, 2-1/4X7, 15,000 lbs	
	90600833	2	60IN PALLET FORK, 2-1/4X8, 16,000 lbs	
	90601219	2	60IN PALLET FORK, 2-1/2X8, 16,000 lbs	
	90601874	2	60IN PALLET FORK, 2-1/4X7, 15,000 lbs	
	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. (91085074) ENGINE LEFT SIDE VIEW (522) (SN 0177005 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-1. (91085074) ENGINE LEFT SIDE VIEW (522) (SN 0177005 to Present)

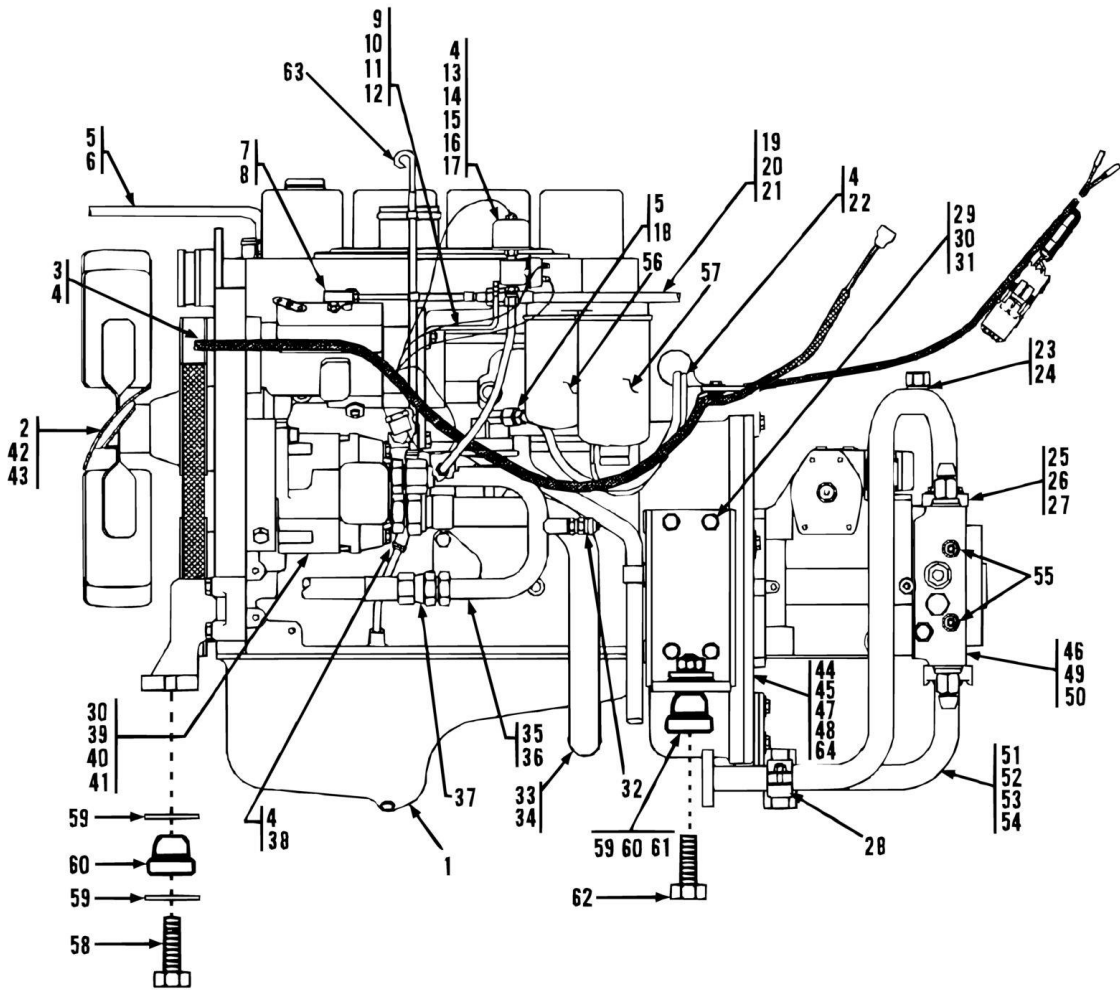
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083012	1	CUMMINS ENGINE	
2		Ref	MAIN HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	91083143	2	HEX HD CAPSCREW, M12X1.75X75	
4	83191010	2	LOCKWASHER, M12	
5	91083233	1	TUBE ASSY	
6	88662010	1	CONNECTOR (includes o-ring)	
6	88591209	1	O-RING	
7	91083144	1	SUCTION TUBE	
8	88662011	1	CONNECTOR (includes o-ring)	
8	88591210	1	O-RING	
9	77133089	1	TEST FITTING	
10	91086034	2	REAR ENGINE MOUNT	
11	83191032	8	HEX HD CAPSCREW, M12X1.75X35 (torque to 58-68 ft lbs)	
12	83191010	8	LOCKWASHER, M12	
13	91083419	1	TUBE ASSY	
14	91083106	1	O-RING	
15		Ref	HYDROSTATIC TRANS. PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	84712738	2	SPLIT FLANGE CLAMP	
17	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
18	88551012	4	LOCKWASHER, 7/16	
19	Bulk	52 in	FUEL LINE HOSE, 7/32IN I.D.	
20	91083404	1	THROTTLE CABLE	
21	Bulk	56 in	FUEL LINE HOSE, 5/16IN I.D.	
22	24861170	1	SUPPORT CLAMP	
23	90030271	1	HOSE NIPPLE	
24	24741047	1	OIL PRESSURE SWITCH	
25	91081388	1	TAPPED BAR	
26	91033246	1	OIL PRESSURE SENDER	
27	86883075	2	TUBE FITTING	
28	Bulk	18 in	3/8 NYLON TUBE	
29	90027187	5	TY-RAP	
30	91081243	1	THROTTLE CABLE BRACKET	
31	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
32	88551009	2	LOCKWASHER, 1/4	
33	88501616	2	HEX NUT, 1/4-20	
34	90027908	1	BALL JOINT	
35	88501613	1	HEX NUT, #10-32	
36		Ref	ENGINE WIRING HARNESS (See ELECTRICAL SECTION for Breakdown)	
37	90027187	1	TY-RAP	
38	91303056	1	FAN ASSY	
39	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
40	88561108	4	FLATWASHER, 5/16	
41	77383202	1	PRIMARY FUEL FILTER ELEMENT	
42	77383203	1	SECONDARY FUEL FILTER ELEMENT	
43	90027471	2	WASHER	
44	91083338	1	HEX HD CAPSCREW, M16X2X120	
45	91344048	1	PUMP MOUNT PLATE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	91084312	1	COUPLING ASSY, (bolts included)	
47	91081158	4	SPECIAL WASHER	
48	86881227	3	LORD MOUNT	
49	88521010	2	LOCKNUT, 5/8-11	
50	88201106	2	HEX HD CAPSCREW, 5/8-11X4-1/2, GR5	
51	90205792	1	CUSHION CLAMP	
52	91083493	10 in	SPLIT LOOM, 1/2in I.D.	
53	91083475	2	STAUFF TEST COUPLING	
54	91124125	1	DIPSTICK	
55	91083019	1	PUMP MOUNT AND FLYWHEEL COUPLING (includes items 45 & 46)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-2. (91095025) ENGINE LEFT SIDE VIEW (522) (SN 0177189 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-2. (91095025) ENGINE LEFT SIDE VIEW (522) (SN 0177189 to Present)

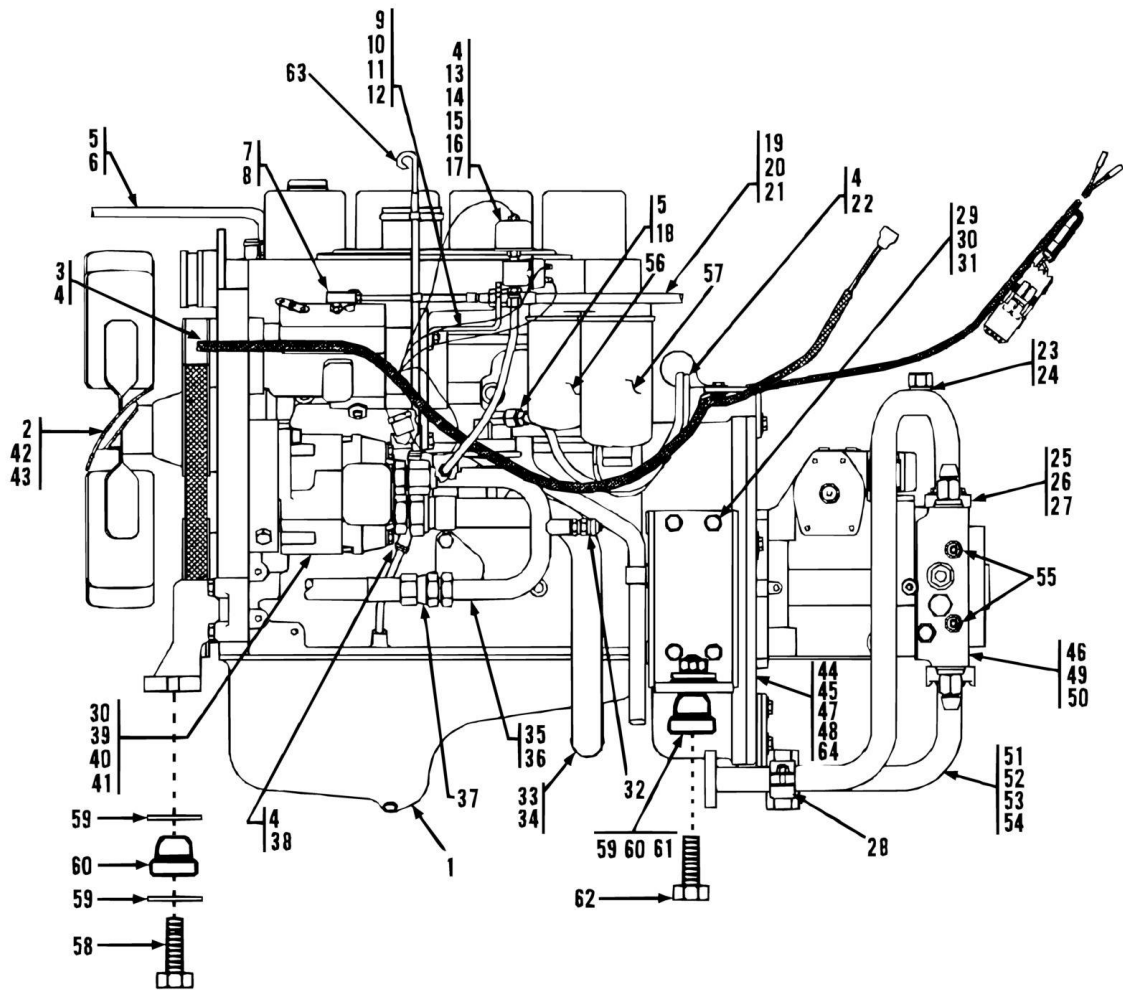
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	1	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
	91095025	Ref	ENGINE ASSY (includes items on ENGINE LEFT SIDE VIEW AND ENGINE RIGHT SIDE VIEW)	
1	91083012	1	CUMMINS ENGINE	
2	91303056	1	FAN ASSY	
3	91143192	1	WIRING HARNESS (engine)	
4	90027187	6	TY-RAP	
5	Bulk	78 in	FUEL LINE HOSE, 5/16	
6	86883106	2	HOSE CLAMP	
7	90027908	1	BALL JOINT	
8	88501613	1	HEX NUT, #10-32	
9	91081243	1	THROTTLE CABLE BRACKET	
10	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1	
11	88551009	2	LOCKWASHER, 1/4	
12	88501616	2	HEX NUT 1/4-20	
13	24741047	1	PRESSURE SWITCH	
14	91033246	1	OIL PRESSURE SENDER	
15	91081388	1	TAPPED BAR	
16	86883075	2	TUBE FITTING	
17	Bulk	18 in	NYLON TUBE, 3/8	
18	90030271	1	HOSE NIPPLE	
19	91083404	1	THROTTLE CABLE	
20	90028977	1	YOKE END	
21	90021552	1	CLEVIS PIN	
22	Bulk	56 in	FUEL LINE HOSE, 7/32	
23	91143055	1	TUBE ASSY	
24	91083106	1	O-RING	
25	84712738	2	SPLIT FLANGE CLAMP	
26	83201135	4	HEX HD CAPSCREW, 7/16-14 x 1 1/2	
27	88551012	4	LOCKWASHER, 7/16	
28	90205792	1	CUSHION CLAMP	
29	91086034	2	REAR ENGINE MOUNTING BRACKET	
30	83191010	10	LOCKWASHER, M12	
31	83191032	8	HEX HD CAPSCREW, M12 x 1.75 x 35	
32	77133089	1	TEST FITTING	
33	91083144	1	SUCTION TUBE	
34	88662011	1	CONNECTOR (includes o-ring)	
34	88591210	1	O-RING	
35	91083233	1	TUBE ASSY	
36	88662010	1	CONNECTOR (includes o-ring)	
36	88591209	1	O-RING	
37	84717851	1	HOSE ASSY	
38	91083493	10 in	SPLIT FLEX LOOM, 1/2 ID	
39		Ref	MAIN PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
40	83191057	2	SOCKET HD CAPSCREW, M12 x 1.75 x 75	
41	90027471	2	HARDENED WASHER	
42	83191041	4	HEX HD CAPSCREW, M8 x 1.25 x 70	
43	88561108	4	WASHER, 5/16	
44	91344048	1	PUMP MOUNT PLATE	
45	91084312	1	COUPLING ASSY, (bolts included)	
46		Ref	HYDROSTATIC TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
47	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8 (torque to 40-45 ft lbs)	
48	88551011	8	LOCKWASHER, 3/8	
49	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4 (torque to 240-265 ft lbs)	
50	88551016	2	LOCKWASHER, 3/4	
51	88662011	1	CONNECTOR (includes o-ring)	
51	88591210	1	O-RING	
52	91083246	1	HOSE	
53	90028695	2	BAND CLAMP	
54	91143087	1	INTAKE TUBE	
55	91053020	2	TEST COUPLING	
56	77383202	1	PRIMARY FUEL FILTER ELEMENT	
57	77383203	1	SECONDARY FUEL FILTER ELEMENT	
58	91083338	1	HEX HD CAPSCREW, M16X2X120	
59	91081158	4	SPECIAL WASHER	
60	86881227	3	LORD MOUNT	
61	88521010	2	LOCKNUT, 5/8-11	
62	88201106	2	HEX HD CAPSCREW, 5/8-11X4-1/2	
63	91124125	1	DIPSTICK	
64	91083019	1	PUMP MOUNT AND FLYWHEEL COUPLING (includes items 44 & 45)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-3. (91095036) ENGINE LEFT SIDE VIEW (522) (SN 0177368 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-3. (91095036) ENGINE LEFT SIDE VIEW (522) (SN 0177368 to Present)

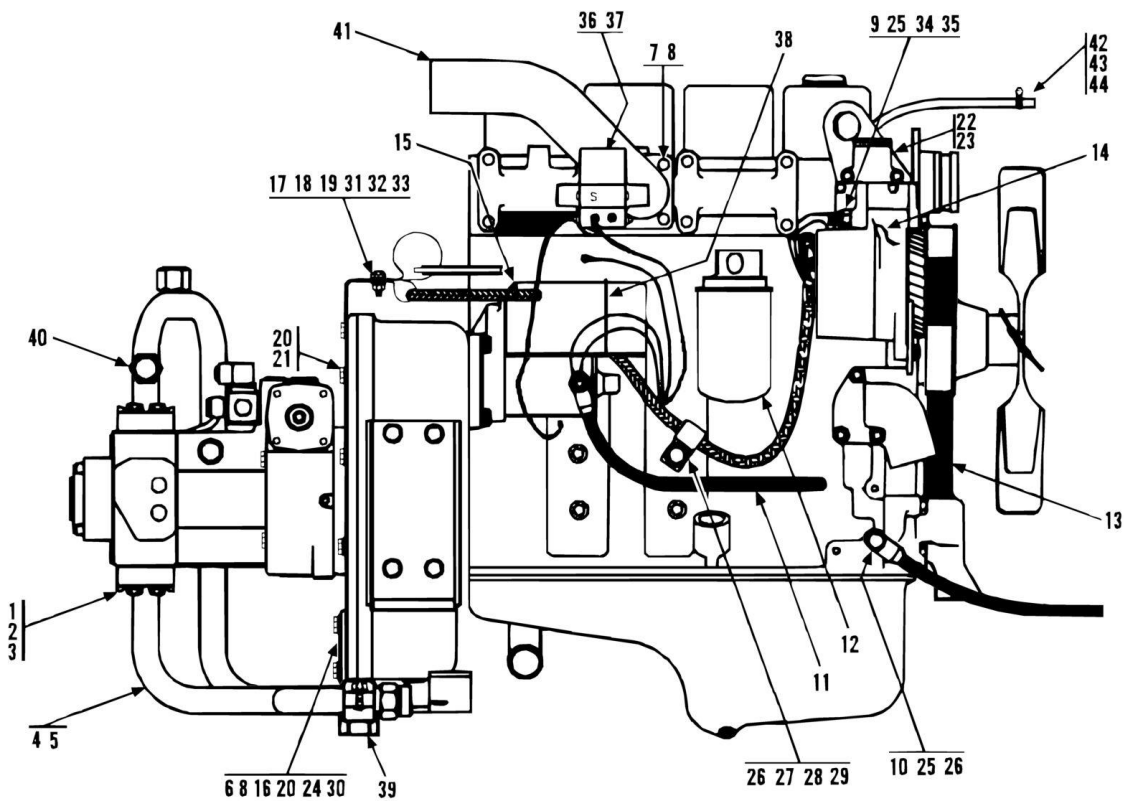
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095036	Ref	ENGINE ASSY (includes items 1 thru 57 & 63 on ENGINE LEFT SIDE VIEW AND ENGINE RIGHT SIDE VIEW)	
1	91083012	1	CUMMINS ENGINE	
2	91303056	1	FAN ASSY	
3	91123166	1	WIRING HARNESS(engine)	
4	90027187	6	TY-RAP	
5	Bulk	78 in	FUEL LINE HOSE, 5/16	
6	86883106	2	HOSE CLAMP	
7	90027908	1	BALL JOINT	
8	88501613	1	HEX NUT, #10-32	
9	91081243	1	THROTTLE CABLE BRACKET	
10	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1	
11	88551009	2	LOCKWASHER, 1/4	
12	88501616	2	HEX NUT 1/4-20	
13	24741047	1	PRESSURE SWITCH	
14	91143315	1	OIL PRESSURE SENDER	
15	91081388	1	TAPPED BAR	
16	86883075	2	TUBE FITTING	
17	Bulk	18 in	NYLON TUBE, 3/8	
18	90030271	1	HOSE NIPPLE	
19	91083404	1	THROTTLE CABLE	
20	90028977	1	YOKE END	
21	90021552	1	CLEVIS PIN	
22	Bulk	56 in	FUEL LINE HOSE, 7/32	
23	91143055	1	TUBE ASSY	
24	91083106	1	O-RING	
25	84712738	2	SPLIT FLANGE CLAMP	
26	83201135	4	HEX HD CAPSCREW, 7/16-14 x 1 1/2	
27	88551012	4	LOCKWASHER, 7/16	
28	90205792	1	CUSHION CLAMP	
29	91086034	2	REAR ENGINE MOUNTING BRACKET	
30	83191010	10	LOCKWASHER, M12	
31	83191032	8	HEX HD CAPSCREW, M12 x 1.75 x 35	
32	77133089	1	TEST FITTING	
33	91083144	1	SUCTION TUBE	
34	88662011	1	CONNECTOR (includes o-ring)	
34	88591210	1	O-RING	
35	91083233	1	TUBE ASSY	
36	88662010	1	CONNECTOR (includes o-ring)	
36	88591209	1	O-RING	
37	84717851	1	HOSE ASSY	
38	91083493	10 in	SPLIT FLEX LOOM, 1/2 ID	
39		Ref	MAIN PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
40	83191057	2	HEX SOCKET HD CAPSCREW, M12x 1.75 x80	
41	90027471	2	HARDENED WASHER	
42	83191041	4	HEX HD CAPSCREW, M8 x 1.25 x 70	
43	88561108	4	WASHER, 5/16	
44	91344048	1	PUMP MOUNT PLATE	
45	91084312	1	COUPLING ASSY, (bolts included)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46		Ref	HYDROSTATIC TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
47	88211068	8	SOCKET HD CAPSREW, 3/8-16X5/8 (torque to 40-45 ft lbs)	
48	88551011	8	LOCKWASHER, 3/8	
49	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4 (torque to 240-265 ft lbs)	
50	88551016	2	LOCKWASHER, 3/4	
51	88662011	1	CONNECTOR (includes o-ring)	
51	88591210	1	O-RING	
52	91083246	1	HOSE	
53	90028695	2	BAND CLAMP	
54	91143087	1	INTAKE TUBE	
55	91053020	2	TEST COUPLING	
56	77383202	1	PRIMARY FUEL FILTER ELEMENT	
57	77383203	1	SECONDARY FUEL FILTER ELEMENT	
58	91083338	1	HEX HD CAPSCREW, M16X2X120	
59	91081158	4	SPECIAL WASHER	
60	86881227	3	LORD MOUNT	
61	88521010	2	LOCKNUT, 5/8-11	
62	88201106	2	HEX HD CAPSCREW, 5/8-11X4-1/2	
63	91124125	1	DIPSTICK	
64	91083019	1	PUMP MOUNT AND FLYWHEEL COUPLING (includes items 44 & 45)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-4. ENGINE RIGHT SIDE VIEW (522) (SN 0177005 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-4. ENGINE RIGHT SIDE VIEW (522) (SN 0177005 to Present)

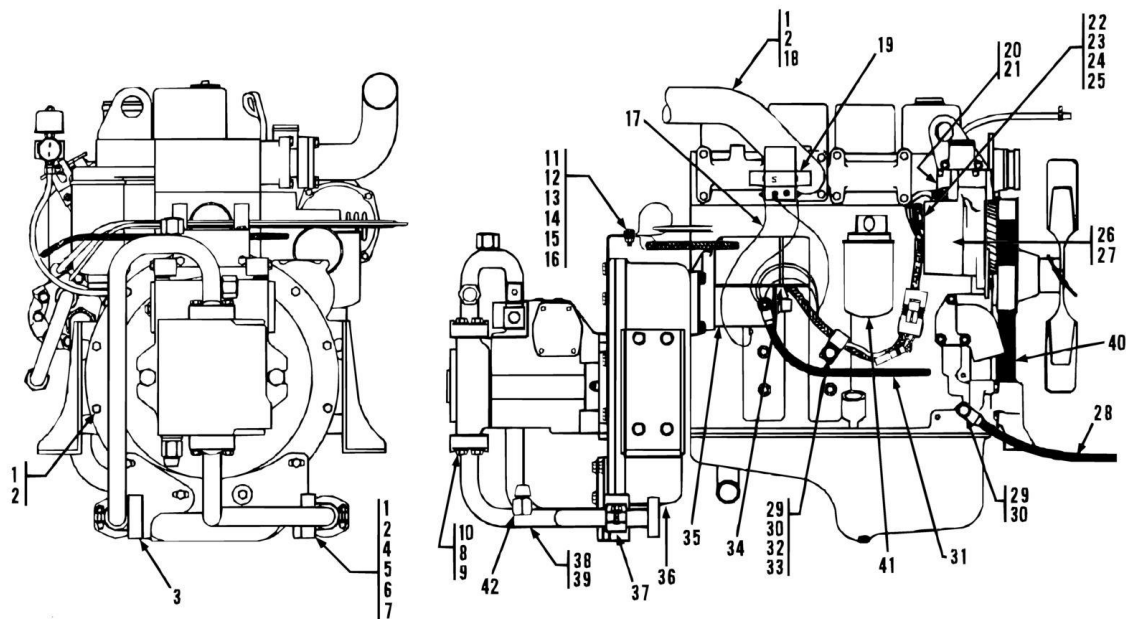
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	1	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
1	84712738	2	SPLIT FLANGE CLAMP	
2	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
3	88551012	4	LOCKWASHER, 7/16	
4	91093008	1	TUBE ASSY	
5	91083106	1	O-RING	
6	91086130	1	TUBE SUPPORT (shown)	
6	91086131	1	TUBE SUPPORT (not shown)	
7	83191021	4	HEX HD CAPSCREW, M10X1.5X30	
8	83191013	8	LOCKWASHER M10	
9	88561108	1	WASHER, 5/16	
10	91123032	1	NEG BATTERY CABLE	
11	91123033	1	POS BATTERY CABLE	
12	91084001	1	OIL FILTER ELEMENT	
13	91084162	1	FAN/ALT. BELT	
14	91083503	1	ALTERNATOR	
14	91083504	1	REGULATOR (supplied with alternator)	
15	91083456	1	STARTER	
16	83191006	1	HEX HD CAPSCREW, M10X1.5X40	
17	91091001	1	CLAMP SUPPORT	
18	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
19	24861170	2	SUPPORT CLAMP	
20	83191021	9	HEX HD CAPSCREW, M10X1.5X30	
21	83191013	8	LOCKWASHER, M10	
22	90206124	1	WATER TEMP. SENDER	
23	88711384	1	REDUCING BUSHING, 1/2X1/4	
24	88561109	3	FLAT WASHER, 3/8	
25	83191011	1	LOCKWASHER, M8	
26	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
27	83191010	2	LOCKWASHER, M12	
28	88561111	1	FLATWASHER, 1/2	
29	85841150	1	SUPPORT CLAMP	
30	83191005	2	HEX HD CAPSCREW, M10X1.5X45	
31	88501005	2	HEX NUT, 5/16-18	
32	90028660	2	INSULATED HOSE CLIP	
33	88551010	2	LOCKWASHER, 5/16	
34	83191007	1	HEX HD CAPSCREW, M8X1.25X16	
35	85941016	1	SUPPORT CLAMP	
36	90205205	1	JUMPER WIRE	
37	90402427	1	STARTER SOLENOID	
38	90027187	1	TIE WRAP	
39	90205792	1	CUSHION CLAMP	
40	84714006	2	ORS CAP	
41	91086055	1	EXHAUST TUBING	
42	82092118	18 in	HOSE, 5/16	

SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	90030271	1	HOSE BARB	
44	86883106	2	HOSE CLAMP	

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FIGURE 4-5. (91095025) ENGINE RIGHT SIDE VIEW (522) (SN 0177189 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-5. (91095025) ENGINE RIGHT SIDE VIEW (522) (SN 0177189 to Present)

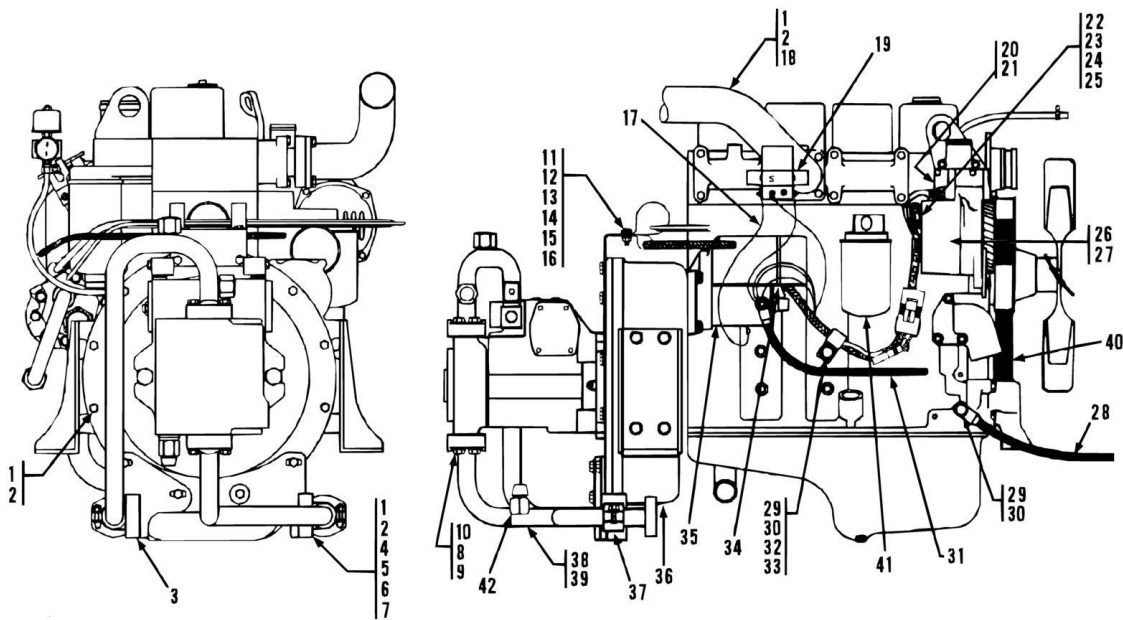
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	1	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER ELEMENT	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
	91095025	Ref	ENGINE ASSY,(includes all items on ENGINE LEFT SIDE VIEW AND ENGINE RIGHT SIDE VIEW)	
1	83191021	13	HEX HD CAPSCREW, M10X1.5X30	
2	83191013	16	LOCKWASHER, M10	
3	91086131	1	TUBE SUPPORT	
4	91086130	1	TUBE SUPPORT	
5	88561109	3	FLATWASHER, 3/8	
6	83191006	1	HEX HD CAPSCREW,M10 X1.5X40	
7	83191005	2	HEX HD CAPSCREW,M10 X1.5X45	
8	84712738	2	SPLIT FLANGE CLAMP	
9	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2	
10	88551012	4	LOCKWASHER, 7/16	
11	88551010	2	LOCKWASHER, 5/16	
12	90028660	2	INSULATED HOSE CLIP	
13	88501005	2	HEX NUT, 5/16-18	
14	24861170	2	SUPPORT CLAMP	
15	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
16	91091001	1	CLAMP SUPPORT	
17	90205205	1	JUMPER WIRE	
18	91086055	1	EXHAUST TUBING	
19	90402427	1	STARTER RELAY	
20	90206124	1	WATER TEMPERATURE SENDER	
21	88711384	1	REDUCER BUSHING	
22	88561108	1	FLATWASHER, 5/16	
23	83191011	1	LOCKWASHER, M8	
24	83191007	1	HEX HD CAPSCREW, M8X1.25X16	
25	85941016	1	SUPPORT CLAMP	
26	91083503	1	ALTERNATOR, (includes item 27)	
27	91083504	1	REGULATOR	
28	91083481	1	NEGATIVE BATTERY CABLE	
29	83191004	2	HEX HD CAPSCREW, M12X1.75X30	
30	83191010	2	LOCKWASHER, M12	
31	91083482	1	POSITIVE BATTERY CABLE	
32	88561111	1	FLATWASHER, 1/2	
33	91143122	1	SUPPORT CLAMP	
34	90027187	1	TIE WRAP	
35	91083456	1	STARTER	
36	88711284	1	HEX SOCKET PIPE PLUG, 3/4	
37	90205792	1	CUSHION CLAMP	
38	91093017	1	TUBE ASSY	
39	91083106	1	O-RING	
40	91084162	1	FAN/ALTERNATOR BELT	
41	91084001	1	OIL FILTER ELEMENT	
42	88662064	1	ELBOW - 90, (includes o-ring)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	88591204	1	O-RING	

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FIGURE 4-6. (91095036) ENGINE RIGHT SIDE VIEW (522) (SN 0177368 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-6. (91095036) ENGINE RIGHT SIDE VIEW (522) (SN 0177368 to Present)

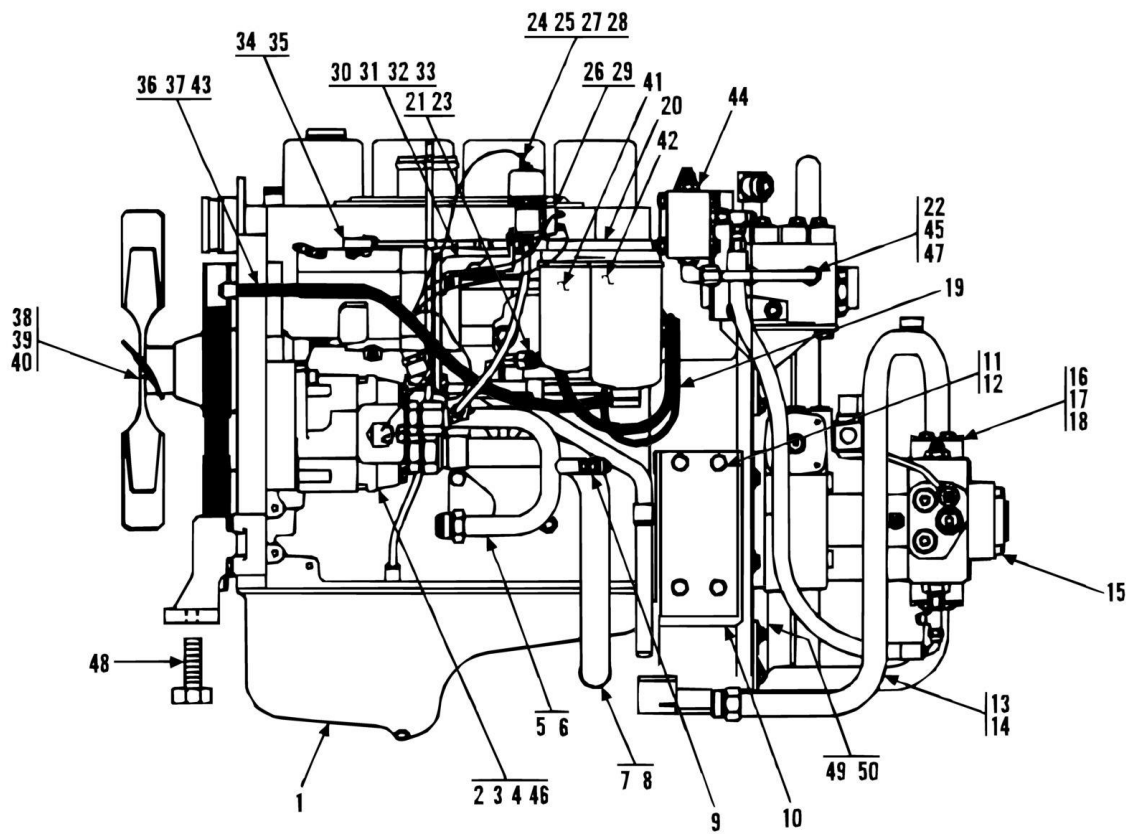
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	1	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER ELEMENT	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
	91095036	Ref	ENGINE ASSY(includes items 1 thru 57 & 63 on ENGINE LEFT SIDE VIEW and all on ENGINE RIGHT SIDE VIEW)	
1	83191021	13	HEX HD CAPSCREW, M10 x 1.5 x 30	
2	83191013	16	LOCKWASHER, M10	
3	91086131	1	TUBE SUPPORT	
4	91086130	1	TUBE SUPPORT	
5	88561109	3	WASHER, 3/8	
6	83191006	1	HEX HD CAPSCREW, M10 x 1.5 x 40	
7	83191005	2	HEX HD CAPSCREW, M10 x 1.5 x 45	
8	84712738	2	SPLIT FLANGE CLAMP	
9	83201135	4	HEX HD CAPSCREW, 7/16-14 x 1-1/2	
10	88551012	4	LOCKWASHER, 7/16	
11	88551010	2	LOCKWASHER, 5/16	
12	90028660	2	INSULATED HOSE CLIP	
13	88501005	2	HEX NUT, 5/16-18	
14	24861170	2	SUPPORT CLAMP	
15	88201018	2	HEX HD CAPSCREW, 5/16-18 x 3/4	
16	91091001	1	CLAMP SUPPORT	
17	90205205	1	JUMPER WIRE	
18	91086055	1	EXHAUST TUBING	
19	90402427	1	STARTER RELAY	
20	91143314	1	WATER TEMPERATURE SENDER	
21	88711384	1	REDUCER BUSHING	
22	88561108	1	WASHER, 5/16	
23	83191011	1	LOCKWASHER, M8	
24	83191007	1	HEX HD CAPSCREW, M8 x 1.25 x 16	
25	85941016	1	SUPPORT CLAMP	
26	91083503	1	ALTERNATOR (includes item 27)	
27	91083504	1	REGULATOR	
28	91083481	1	NEGATIVE BATTERY CABLE	
29	83191004	2	HEX HD CAPSCREW, M12 x 1.75 x 30	
30	83191010	2	LOCKWASHER, M12	
31	91083482	1	POSITIVE BATTERY CABLE	
32	88561111	1	WASHER, 1/2	
33	91143122	1	SUPPORT CLAMP	
34	90027187	1	TY-RAP	
35	91083456	1	STARTER	
36	88711284	1	PIPE PLUG, 3/4	
37	90205792	1	CUSHION CLAMP	
38	91093017	1	TUBE ASSY	
39	91083106	1	O-RING	
40	91084162	1	FAN/ALTERNATOR BELT	
41	91084001	1	OIL FILTER ELEMENT	
42	88662064	1	ELBOW, 90, (includes o-ring)	

SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	88591204	1	O-RING	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-7. ENGINE LEFT SIDE VIEW (SN 0177005 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-7. ENGINE LEFT SIDE VIEW (SN 0177005 to Present)

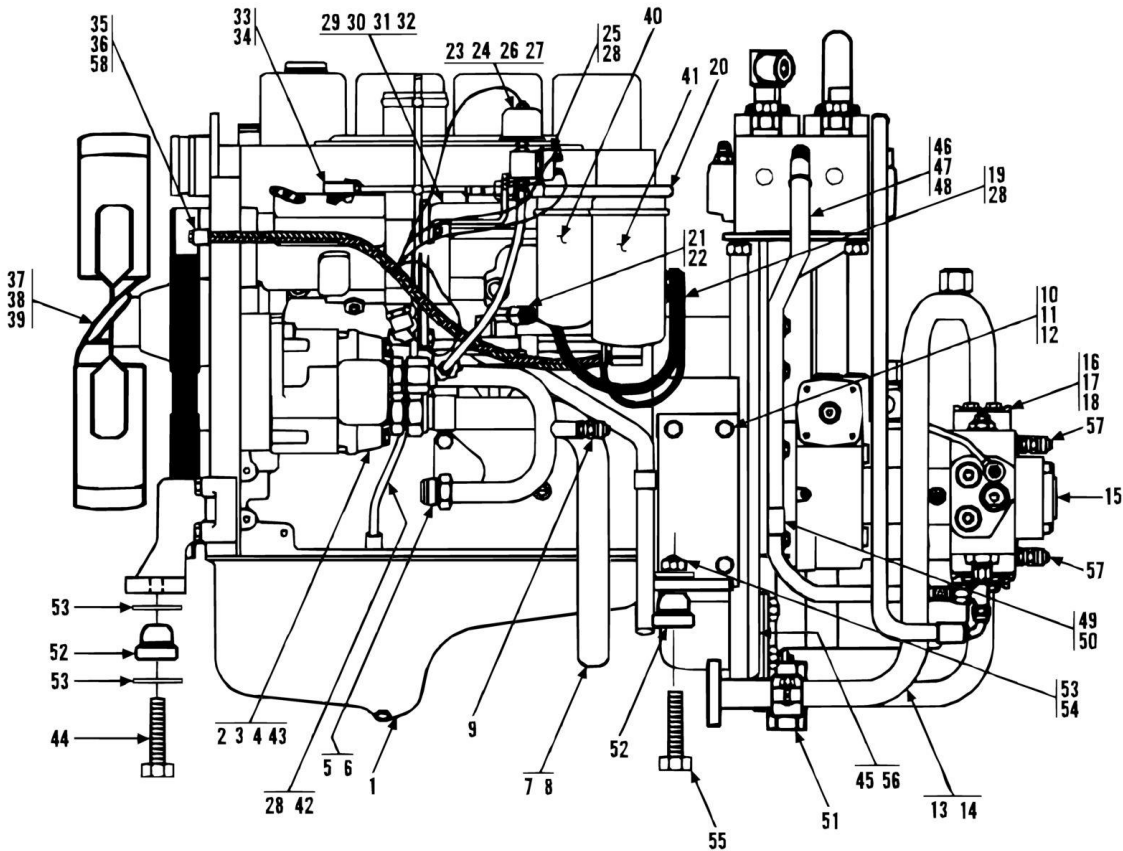
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083012	1	CUMMINS ENGINE	
2		Ref	MAIN HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	91083143	2	HEX HD CAPSCREW, M12X1.75X75	
4	83191010	2	LOCKWASHER, M12	
5	91083233	1	TUBE ASSY	
6	88662010	1	CONNECTOR (includes o-ring)	
6	88591209	1	O-RING	
7	91083144	1	SUCTION TUBE	
8	88662011	1	CONNECTOR (includes o-ring)	
8	88591210	1	O-RING	
9	77133089	1	TEST FITTING	
10	91086034	2	REAR ENGINE MOUNT	
11	83191004	8	HEX HD CAPSCREW, M12X1.75X30	
12	83191010	8	LOCKWASHER, M12	
13	91083419	1	TUBE ASSY	
14	91083106	1	O-RING	
15		Ref	HYDROSTATIC TRANS PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	84712738	2	SPLIT FLANGE CLAMP	
17	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
18	88551012	4	LOCKWASHER, 7/16	
19	Bulk	52 in	FUEL LINE HOSE, 7/32IN I.D.	
20	91083404	1	THROTTLE CABLE	
21	Bulk	56 in	FUEL LINE HOSE, 5/16IN I.D.	
22	84718129	1	HOSE ASSY	
23	90030271	1	HOSE NIPPLE	
24	24741047	1	OIL PRESSURE SWITCH	
25	91081388	1	TAPPED BAR	
26	91033246	1	OIL PRESSURE SENDER	
27	86883075	2	TUBE FITTING	
28	Bulk	18 in	3/8 NYLON TUBE	
29	90027187	1	TY-RAP	
30	91081243	1	THROTTLE CABLE BRACKET	
31	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
32	88551009	2	LOCKWASHER, 1/4	
33	88501616	2	HEX NUT, 1/4-20	
34	90027908	1	BALLJOINT	
35	88501613	1	HEX NUT, #10-32	
36		Ref	ENGINE WIRING HARNESS (See ELECTRICAL SECTION for Breakdown)	
37	90027187	1	TY-RAP	
38	91083072	1	FAN ASSY	
39	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
40	88561108	4	FLATWASHER, 5/16	
41	77383202	1	PRIMARY FUEL FILTER ELEMENT	
42	77383203	1	SECONDARY FUEL FILTER ELEMENT	
43	24861170	2	SUPPORT CLAMP	
44		Ref	MANIFOLD ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	84718129	2	HOSE ASSY	
46	85401340	2	WASHER	
47	88591506	4	O-RING	
48	91083338	1	HEX HD CAPSCREW, M16X2X120	
49	91084311	1	MOUNTING PLATE	
50	91084312	1	COUPLER (bolts included)	
51	88662440	2	STRAIGHT THREAD CONNECTOR, (includes o-ring)	
51	88591506	2	O-RING	
52	88662330	2	ELBOW, 90, (includes o-ring)	
52	88591506	2	O-RING	
53	84717597	1	HOSE ASSEMBLY	
54	88662018	1	STRAIGHT THREAD CONNECTOR, (includes o-ring)	
54	88591205	1	O-RING	
55	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	

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FIGURE 4-8. (91085074) ENGINE LEFT SIDE VIEW (524) (SN 0177074 to Present)



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FIGURE 4-8. (91085074) ENGINE LEFT SIDE VIEW (524) (SN 0177074 to Present)

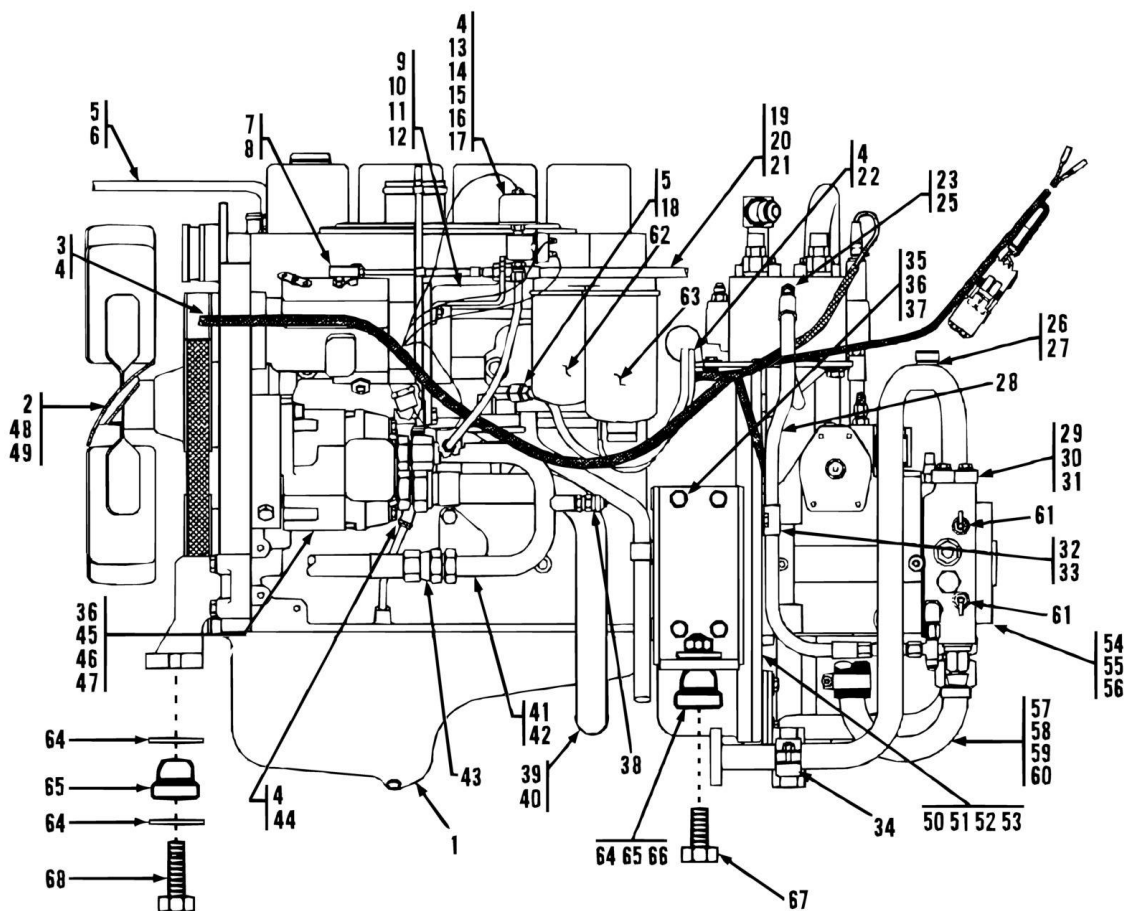
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085074	Ref	ENGINE ASSY (includes all items on ENGINE LEFT SIDE VIEW and ENGINE RIGHT SIDE VIEW)	
1	91083012	1	CUMMINS ENGINE	
2		Ref	MAIN HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	91083143	2	HEX HD CAPSCREW, M12X1.75X75	
4	83191010	2	LOCKWASHER, M12	
5	91083233	1	TUBE ASSY	
6	88662010	1	CONNECTOR (includes o-ring)	
6	88591209	1	O-RING	
7	91083144	1	SUCTION TUBE	
8	88662011	1	CONNECTOR (includes o-ring)	
8	88591210	1	O-RING	
9	77133089	1	TEST FITTING	
10	91086034	2	REAR ENGINE MOUNT	
11	83191032	8	HEX HD CAPSCREW, M12X1.75X35	
12	83191010	8	LOCKWASHER, M12	
13	91083419	1	TUBE ASSY	
14	91083106	1	O-RING	
15		Ref	HYDROSTATIC TRANS. PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	84712738	2	SPLIT FLANGE CLAMP	
17	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
18	88551012	4	LOCKWASHER, 7/16	
19	Bulk	52 in	FUEL LINE HOSE, 7/32IN I.D.	
20	91083404	1	THROTTLE CABLE	
21	Bulk	56 in	FUEL LINE HOSE, 5/16IN I.D.	
22	90030271	1	HOSE NIPPLE	
23	24741047	1	OIL PRESSURE SWITCH	
24	91081388	1	TAPPED BAR	
25	91033246	1	OIL PRESSURE SENDER	
26	86883075	2	TUBE FITTING	
27	Bulk	18 in	3/8 NYLON TUBE	
28	90027187	5	TY-RAP	
29	91081243	1	THROTTLE CABLE BRACKET	
30	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
31	88551009	2	LOCKWASHER, 1/4	
32	88501616	2	HEX NUT, 1/4-20	
33	90027908	1	BALL JOINT	
34	88501613	1	HEX NUT, #10-32	
35		Ref	ENGINE WIRING HARNESS (See ELECTRICAL SECTION for Breakdown)	
36	90027187	1	TY-RAP	
37	91303056	1	FAN ASSY	
38	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
39	88561108	4	FLAT WASHER, 5/16	
40	77383202	1	PRIMARY FUEL FILTER ELEMENT	
41	77383203	1	SECONDARY FUEL FILTER ELEMENT	
42	91083493	10 in	FLEX LOOM, 1/2in I.D.	
43	90027471	2	WASHER	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	91083338	1	HEX HD CAPSCREW, M16X2X120	
45	91084311	1	MOUNTING PLATE	
46	84718207	1	HOSE ASSY	
47	91083306	1	STRAIGHT THREAD CONNECTOR	
48	88591206	1	O-RING	
49	85941017	1	SUPPORT CLAMP	
50	88561109	1	WASHER, 3/8	
51	90205792	1	CUSHION CLAMP	
52	86881227	3	SHOCK MOUNT	
53	91081158	4	SPECIAL WASHER	
54	88521010	2	LOCKNUT	
55	88201106	2	HEX HD CAPSCREW, 5/8-11X4-1/2, GR5	
56	91084312	1	COUPLER (bolts included)	
57	91083475	2	TEST COUPLING	
58	24861170	2	SUPPORT CLAMP	

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FIGURE 4-9. (91085109) ENGINE LEFT SIDE VIEW (524) (SN 0177189 to Present)



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FIGURE 4-9. (91085109) ENGINE LEFT SIDE VIEW (524) (SN 0177189 to Present)

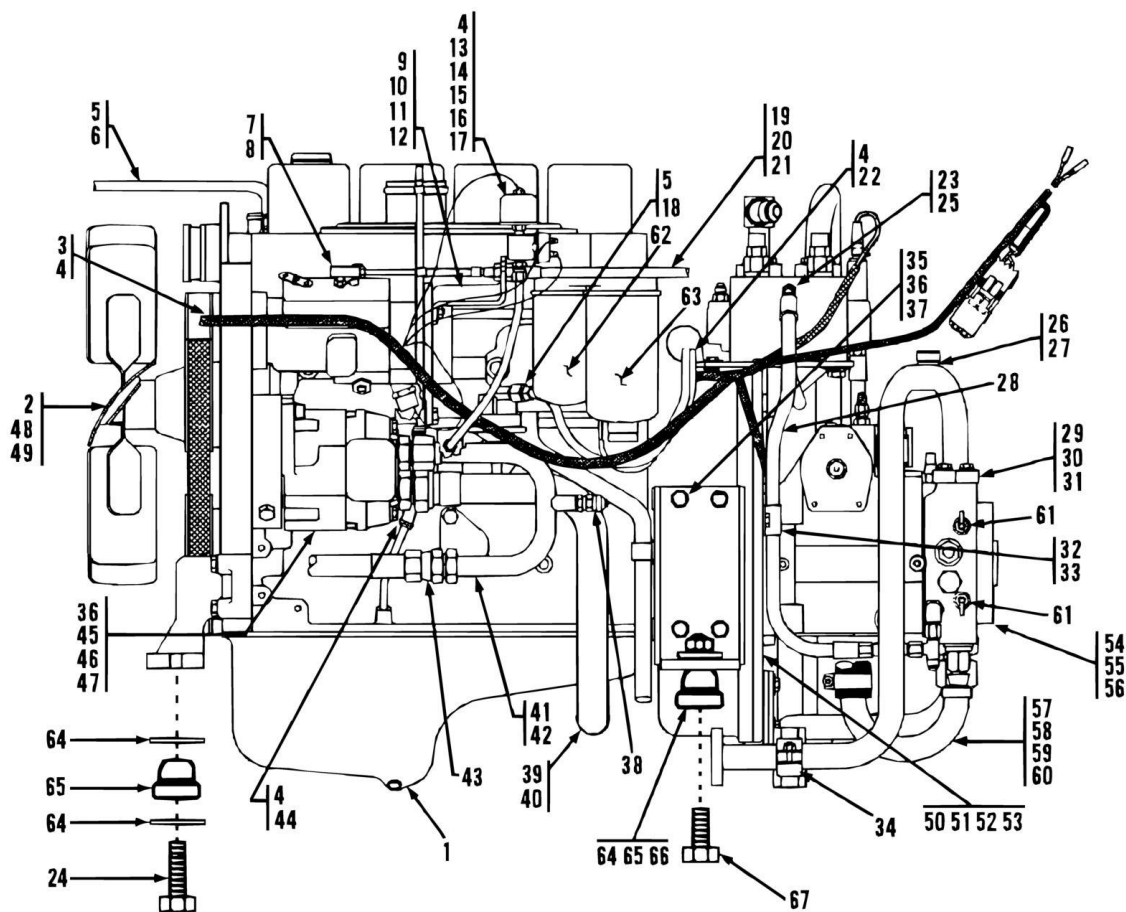
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	1	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
	91085109	Ref	ENGINE ASSY(includes items on ENGINE LEFT SIDE VIEW AND ENGINE RIGHT SIDE VIEW)	
1	91083012	1	CUMMINS ENGINE	
2	91303056	1	FAN ASSY	
3	91143192	1	WIRING HARNESS(engine)	
4	90027187	6	TY-RAP	
5	Bulk	78 in	FUEL LINE HOSE, 5/16	
6	86883106	2	HOSE CLAMP	
7	90027908	1	BALL JOINT	
8	88501613	1	HEX NUT, #10-32	
9	91081243	1	THROTTLE CABLE BRACKET	
10	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1	
11	88551009	2	LOCKWASHER, 1/4	
12	88501616	2	HEX NUT 1/4-20	
13	24741047	1	PRESSURE SWITCH	
14	91033246	1	OIL PRESSURE SENDER	
15	91081388	1	TAPPED BAR	
16	86883075	2	TUBE FITTING	
17	Bulk	18 in	NYLON TUBE, 3/8	
18	90030271	1	HOSE NIPPLE	
19	91083404	1	THROTTLE CABLE	
20	90028977	1	YOKE END	
21	90021552	1	CLEVIS PIN	
22	Bulk	56 in	FUEL LINE HOSE, 7/32	
23	91083306	1	CONNECTOR	
25	88591206	1	O-RING	
26	91143055	1	TUBE ASSY	
27	91083106	1	O-RING	
28	77133447	1	HOSE ASSY	
29	84712738	2	SPLIT FLANGE CLAMP	
30	83201135	4	HEX HD CAPSCREW, 7/16-14 x 1-1/2	
31	88551012	4	LOCKWASHER, 7/16	
32	85941017	1	SUPPORT CLAMP	
33	88561109	1	WASHER, 3/8	
34	90205792	1	CUSHION CLAMP	
35	91086034	2	REAR ENGINE MOUNTING BRACKET	
36	83191010	10	LOCKWASHER, M12	
37	83191032	8	HEX HD CAPSCREW M12 x 1.75 x 35	
38	77133089	1	TEST FITTING	
39	91083144	1	SUCTION TUBE	
40	88662011	1	CONNECTOR (includes o-ring)	
40	88591210	1	O-RING	
41	91083233	1	TUBE ASSY	
42	88662010	1	CONNECTOR (includes o-ring)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	88591210	1	O-RING	
43	84717851	1	HOSE ASSY	
44	91083493	10 in	SPLIT FLEX LOOM, 1/2 ID	
45		Ref	MAIN PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
46	83191057	2	SOCKET HD CAPSCREW, M12x1.75x75	
47	90027471	2	HARDENED WASHER	
48	83191041	4	HEX HD CAPSCREW, M8 x 1.25 x 70	
49	88561108	4	WASHER, 5/16	
50	91084311	1	FLEX PLATE	
51	91084312	1	COUPLER (bolts included)	
52	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8 (torque to 40-45 ft lbs)	
53	88551011	8	LOCKWASHER, 3/8	
54		Ref	HYDROSTATIC TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
55	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, (torque to 240-265 ft lbs)	
56	88551016	2	LOCKWASHER, 3/4	
57	88662011	1	CONNECTOR (includes o-ring)	
57	88591210	1	O-RING	
58	91143087	1	INTAKE TUBE	
59	91083246	1	HOSE	
60	90028695	2	BAND CLAMP	
61	91053020	2	TEST COUPLING	
62	77383202	1	PRIMARY FUEL FILTER	
63	77383203	1	SECONDARY FUEL FILTER	
64	91081158	4	SPECIAL WASHER	
65	86881227	3	LORD MOUNT	
66	88521010	2	LOCKNUT, 5/8-11	
67	88201106	2	HEX HD CAPSCREW, 5/8-11X4-1/2	
68	91083338	1	HEX HD CAPSCREW, M16X2X120	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 4-10. (91085143) ENGINE LEFT SIDE VIEW (524) (SN 0177368 to Present)



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FIGURE 4-10. (91085143) ENGINE LEFT SIDE VIEW (524) (SN 0177368 to Present)

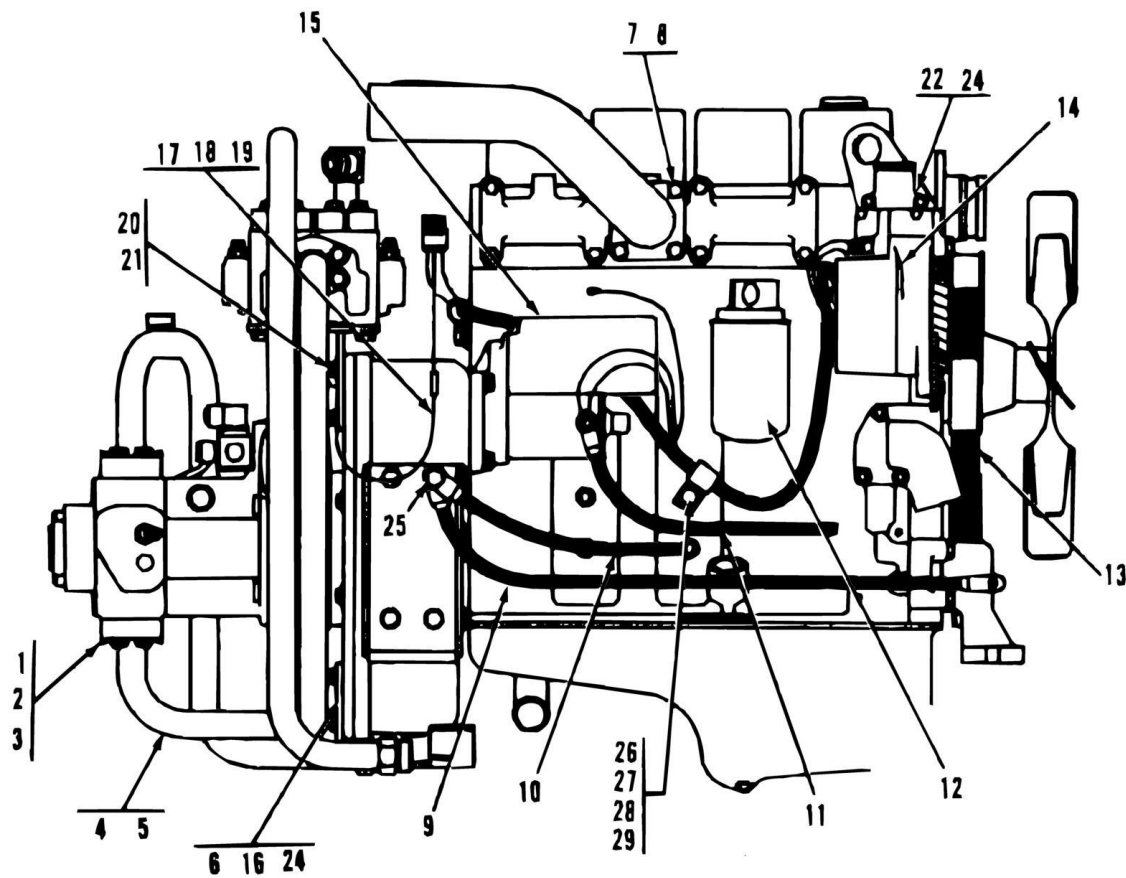
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085143	Ref	ENGINE ASSY(includes items 1 thru 63 & 68 on ENGINE LEFT SIDE VIEW and all on ENGINE RIGHT SIDE VIEW)	
1	91083012	1	CUMMINS ENGINE	
2	91303056	1	FAN ASSY	
3	91123166	1	WIRING HARNESS (engine)	
4	90027187	6	TY-RAP	
5	Bulk	78 in	FUEL LINE HOSE, 5/16	
6	86883106	2	HOSE CLAMP	
7	90027908	1	BALL JOINT	
8	88501613	1	HEX NUT, #10-32	
9	91081243	1	THROTTLE CABLE BRACKET	
10	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1	
11	88551009	2	LOCKWASHER, 1/4	
12	88501616	2	HEX NUT 1/4-20	
13	24741047	1	PRESSURE SWITCH	
14	91143315	1	OIL PRESSURE SENDER	
15	91081388	1	TAPPED BAR	
16	86883075	2	TUBE FITTING	
17	Bulk	18 in	NYLON TUBE, 3/8	
18	90030271	1	HOSE NIPPLE	
19	91083404	1	THROTTLE CABLE	
20	90028977	1	YOKE END	
21	90021552	1	CLEVIS PIN	
22	Bulk	56 in	FUEL LINE HOSE, 7/32	
23	91083306	1	CONNECTOR	
24	91083338	1	HEX HD CAPSREW, M16X22X120	
25	88591206	1	O-RING	
26	91143055	1	TUBE ASSY	
27	91083106	1	O-RING	
28	77133447	1	HOSE ASSY	
29	84712738	2	SPLIT FLANGE CLAMP	
30	83201135	4	HEX HD CAPSCREW, 7/16-14 x 1-1/2	
31	88551012	4	LOCKWASHER, 7/16	
32	85941017	1	SUPPORT CLAMP	
33	88561109	1	WASHER, 3/8	
34	90205792	1	CUSHION CLAMP	
35	91086034	2	REAR ENGINE MOUNTING BRACKET	
36	83191010	10	LOCKWASHER, M12	
37	83191032	8	HEX HD CAPSCREW M12 x 1.75 x 35	
38	77133089	1	TEST FITTING	
39	91083144	1	SUCTION TUBE	
40	88662011	1	CONNECTOR (includes o-ring)	
40	88591210	1	O-RING	
41	91083233	1	TUBE ASSY	
42	88662010	1	CONNECTOR (includes o-ring)	
42	88591210	1	O-RING	
43	84717851	1	HOSE ASSY	
44	91083493	10 in	SPLIT FLEX LOOM, 1/2 ID	
45		Ref	MAIN PUMP (see HYDRAULIC COMPONENTS SECTION for Breakdown)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	83191057	2	HEX SOC HD CAPSCREW, M12 x 1.75 x 75	
47	90027471	2	HARDENED WASHER	
48	83191041	4	HEX HD CAPSCREW, M8 x 1.25 x 70	
49	88561108	4	WASHER, 5/16	
50	91344048	1	PUMP MOUNT PLATE	
51	91084312	1	COUPLING ASSY, (bolts included)	
52	88211068	8	SOCKET HD CAPSCREW, 3/8-16X5/8 (torque to 40-45 ft lbs)	
53	88551011	8	LOCKWASHER, 3/8	
54		Ref	HYDROSTATIC TRANSMISSION (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
55	88201112	2	HEX HD CAPSCREW, 3/4-10X2-1/4, (torque to 240-265 ft lbs)	
56	88551016	2	LOCKWASHER, 3/4	
57	88662011	1	CONNECTOR (includes o-ring)	
57	88591210	1	O-RING	
58	91143087	1	INTAKE TUBE	
59	91083246	1	HOSE	
60	90028695	2	BAND CLAMP	
61	91053020	2	TEST COUPLING	
62	77383202	1	PRIMARY FUEL FILTER	
63	77383203	1	SECONDARY FUEL FILTER	
64	91081158	4	SPECIAL WASHER	
65	86881227	3	LORD MOUNT	
66	88521010	2	LOCKNUT, 5/8-11	
67	88201106	2	HEX HD CAPSCREW, 5/8-11X4-1/2	
68	91083019	1	PUMP MOUNT AND FLYWHEEL COUPLING (includes items 50 & 51)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 4-11. ENGINE RIGHT SIDE VIEW (524) (SN 017705 to Present)



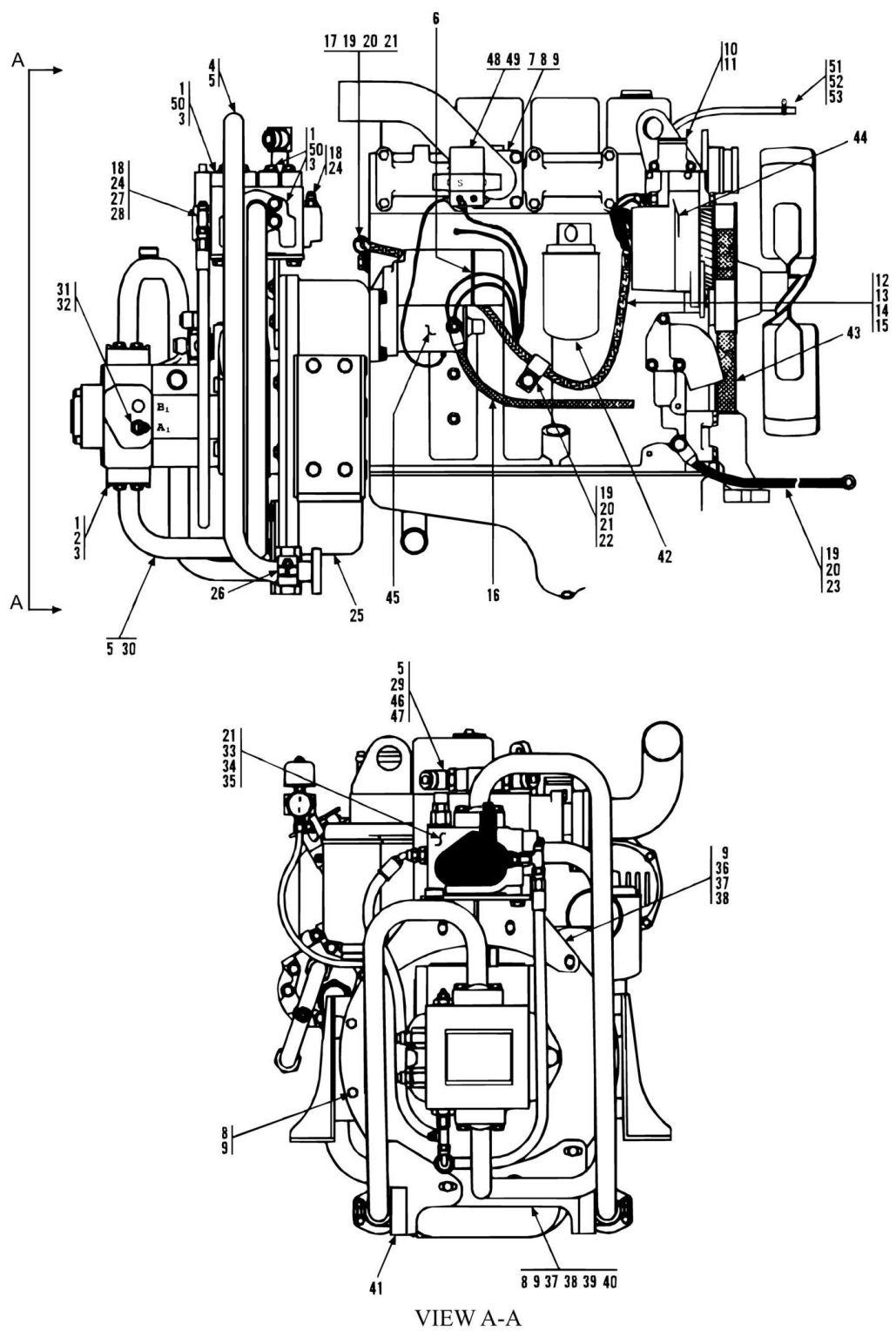
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-11. ENGINE RIGHT SIDE VIEW (524) (SN 017705 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	Ref	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
1	84712738	2	SPLIT FLANGE CLAMP	
2	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
3	88551012	4	LOCKWASHER, 7/16	
4	91093001	1	TUBE ASSY	
5	91083106	1	O-RING	
6	91081285	1	TUBE SUPPORT	
7	83191021	9	HEX HD CAPSCREW, M10X1.5X30	
8	83191013	4	LOCKWASHER, M10	
9	91083115	1	NEG. GROUND CABLE	
10	91083113	1	NEG. BATTERY CABLE	
11	91083114	1	POS. BATTERY CABLE	
12	91084001	1	OIL FILTER ELEMENT	
13	91084162	1	FAN/ALT. BELT	
14	91084002	1	ALTERNATOR	
15	91084003	1	STARTER	
16	83191006	4	HEX HD CAPSCREW, M10X1.5X40	
17	86683480	1	BUTT CONNECTOR	
18	86883260	1	3/8 EYELET	
19		Ref	WIRE, #16 RED	
20	83191021	8	HEX HD CAPSCREW, M10X1.5X30	
21	83191013	8	LOCKWASHER, M10	
22	90206124	1	WATER TEMPERATURE SENDER	
23	88711384	1	REDUCING BUSHING, 1/2X1/4	
24	88561109	4	FLATWASHER, 3/8	
25	83191032	1	HEX HD CAPSCREW, M12X1.75X35	
26	83191004	1	HEX HD CAPSCREW, M12X1.75X30	
27	83191010	1	LOCKWASHER, M12	
28	88561111	1	FLATWASHER, 1/2	
29	85841150	1	SUPPORT CLAMP	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-12. (91085074) ENGINE RIGHT SIDE VIEW (SN 0177074 to Present)



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FIGURE 4-12. (91085074) ENGINE RIGHT SIDE VIEW (SN 0177074 to Present)

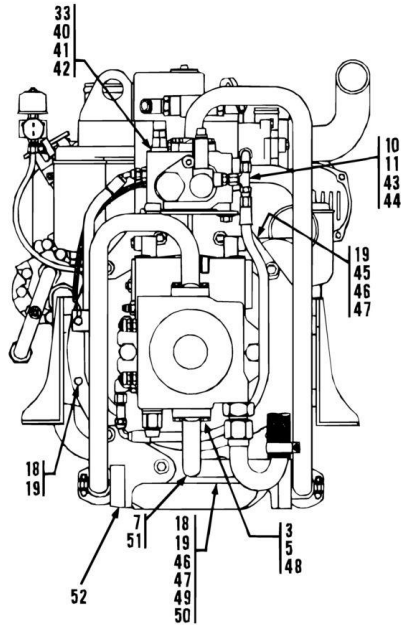
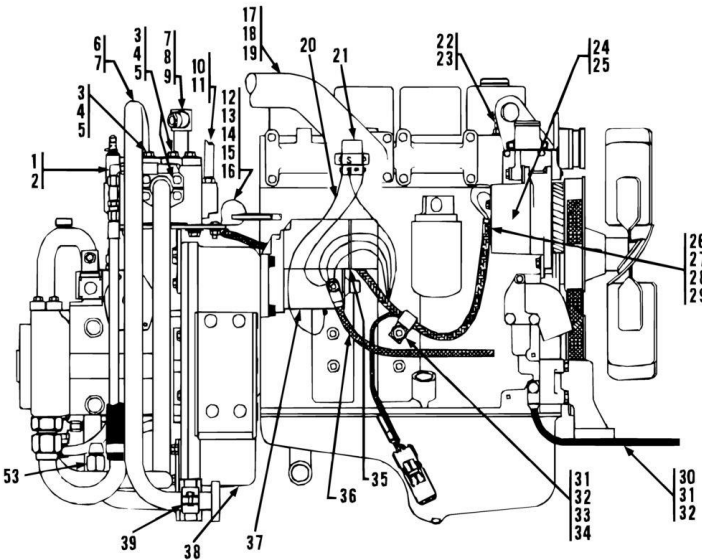
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	Ref	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER	
	77383202	1	PRIMARY FUEL FILTER ELEMENT	
	77383203	1	SECONDARY FUEL FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
	91085074	Ref	ENGINE ASSY (includes all items on ENGINE LEFT SIDE VIEW AND ENGINE RIGHT SIDE VIEW)	
1	84712738	8	SPLIT FLANGE CLAMP	
2	83201135	16	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
3	88551012	16	LOCKWASHER, 7/16	
4	91083418	1	TUBE ASSY	
5	91083106	3	O-RING	
6	90027187	1	TY-RAP	
7	91086055	1	EXHAUST TUBING	
8	83191021	9	HEX HD CAPSCREW, M10X1.5X30	
9	83191013	16	LOCKWASHER, M10	
10	90206124	1	WATER TEMPERATURE SENDER	
11	88711384	1	REDUCING BUSHING, 1/2X1/4	
12	83191007	1	HEX HD CAPSCREW, M8X1.25X16	
13	85941016	1	SUPPORT CLAMP	
14	88561108	1	FLAT WASHER, 5/16	
15	83191011	1	LOCKWASHER, M8	
16	91083482	1	POSITIVE BATTERY CABLE	
17	90028660	2	SUPPORT CLAMP	
18	88662005	2	CONNECTOR (includes item 24)	
19	83191004	4	HEX HD CAPSCREW, M12X1.75X30	
20	83191010	4	LOCKWASHER, M12	
21	88561111	3	FLATWASHER, 1/2	
22	85841150	1	SUPPORT CLAMP, 1-1/16	
23	91083481	1	NEGATIVE BATTERY CABLE	
24	88591204	2	O-RING	
25	88711284	1	PIPE PLUG, 3/4	
26	90205792	1	CUSHION CLAMP	
27	88662224	1	SWIVEL NUT BRANCH TEE	
28	84718221	1	HOSE ASSY	
29	91083266	1	TUBE ASSY	
30	91083095	1	TUBE ASSY	
31	88662018	1	STRAIGHT THREAD CONNECTOR	
32	88662119	1	ELBOW, 45, (swivel nut)	
33		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
34	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
35	88551013	2	LOCKWASHER, 1/2	
36	91086133	1	FLOW DIVIDER BRACKET	
37	83191006	5	HEX HD CAPSCREW, M10X1.50X40	
38	88561109	7	FLATWASHER, 3/8	
39	91086130	1	TUBE SUPPORT	
40	83191005	2	HEX HD CAPSCREW, M10X1.5X45	
41	91086131	1	TUBE SUPPORT	

SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	91084001	1	OIL FILTER	
43	91084162	1	FAN/ALTERNATOR BELT	
44	91083455	1	ALTERNATOR	
45	91083456	1	STARTER	
46	88662421	2	ELBOW, 45, (includes item 47)	
47	88591207	2	O-RING	
48	90402427	1	STARTER SOLENOID	
49	90205205	1	JUMPER WIRE	
50	83201155	12	HEX HD CAPSCREW, 7/16-14 x 1 3/4	
51	82092118	18 in	HOSE, 5/16	
52	90030271	1	HOSE BARB	
53	86883106	2	HOSE CLAMP	

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FIGURE 4-13. (91085109) ENGINE RIGHT SIDE VIEW (SN 0177189 to Present)



SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-13. (91085109) ENGINE RIGHT SIDE VIEW (SN 0177189 to Present)

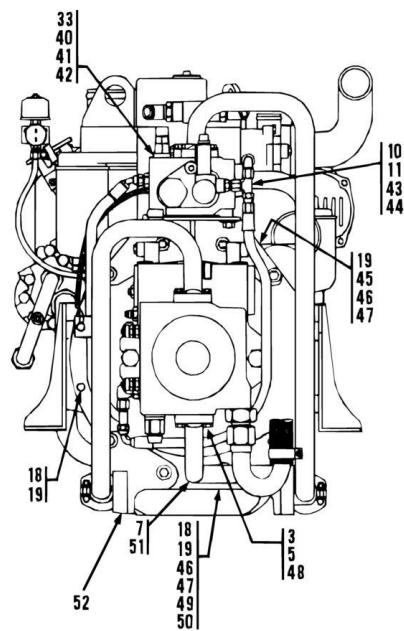
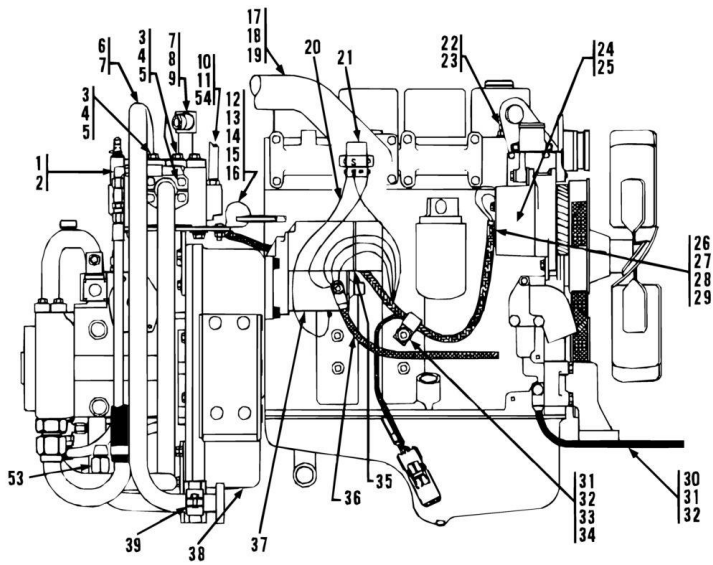
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	1	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER ELEMENT	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
	91085109	Ref	ENGINE ASSY(includes items on ENGINE LEFT SIDE VIEW AND ENGINE RIGHT SIDE VIEW)	
1	88662105	1	ELBOW, 90, (swivel nut)	
2	84718208	1	HOSE ASSY	
3	84712738	8	SPLIT FLANGE CLAMP	
4	83201155	12	HEX HD CAPSCREW, 7/16-14 x 1-3/4	
5	88551012	16	LOCKWASHER, 7/16	
6	91083418	1	TUBE ASSY	
7	91083106	4	O-RING	
8	91083266	1	TUBE ASSY	
9	88662421	2	CONNECTOR , 45, (includes o-ring)	
9	88591207	2	O-RING	
10	88662005	2	CONNECTOR (includes item 11)	
11	88591204	2	O-RING	
12	90028660	2	SUPPORT CLAMP	
13	88501005	2	HEX NUT, 5/16-18	
14	24861170	2	SUPPORT CLAMP	
15	88201020	2	HEX HD CAPSCREW, 5/16-18 x 1	
16	88551010	2	LOCKWASHER, 5/16	
17	91086055	1	EXHAUST TUBING	
18	83191021	9	HEX HD CAPSCREW, M10 x 1.5 x 30	
19	83191013	16	LOCKWASHER, M10	
20	90205205	1	JUMPER WIRE	
21	90402427	1	STARTER SOLENOID	
22	90206124	1	WATER TEMP SENDER	
23	88711384	1	REDUCER BUSHING	
24	91083503	1	ALTERNATOR (includes item 25)	
25	91083504	1	REGULATOR	
26	85941016	1	SUPPORT CLAMP	
27	83191007	1	HEX HD CAPSCREW, M8 x 1.25 x 16	
28	88561108	1	WASHER, 5/16	
29	83191011	1	LOCKWASHER, M8	
30	91083481	1	NEGATIVE BATTERY CABLE	
31	83191004	2	HEX HD CAPSCREW, M12 x 1.75 x 30	
32	83191010	2	LOCKWASHER, M12	
33	88561111	3	WASHER, 1/2	
34	91143122	1	SUPPORT CLAMP, 5/8	
35	90027187	1	TY-RAP	
36	91083482	1	POSITIVE BATTERY CABLE	
37	91083456	1	STARTER	
38	88711284	1	PIPE PLUG, 3/4	
39	90205792	1	CUSHION CLAMP	
40		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41	88201066	2	HEX HD CAPSCREW, 1/2-13 x 1-1/4	
42	88551013	2	LOCKWASHER, 1/2	
43	88662224	1	SWIVEL NUT BRANCH TEE	
44	84718221	1	HOSE ASSY	
45	91146058	1	FLOW DIVIDER BRACKET	
46	83191006	5	HEX HD CAPSCREW, M10 x 1.5 x 40	
47	88561109	7	WASHER, 3/8	
48	83201135	4	HEX HD CAPSCREW, 7/16-14 x 1-1/2	
49	91086130	1	TUBE SUPPORT	
50	83191005	2	HEX HD CAPSCREW, M10 x 1.5 x 45	
51	91163201	1	TUBE ASSY	
52	91086131	1	TUBE SUPPORT	
53	88662064	1	ELBOW, 90, (includes o-ring)	
53	88591209	1	O-RING	

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FIGURE 4-14. (91085143) ENGINE RIGHT SIDE VIEW (SN 0177368 to Present)



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FIGURE 4-14. (91085143) ENGINE RIGHT SIDE VIEW (SN 0177368 to Present)

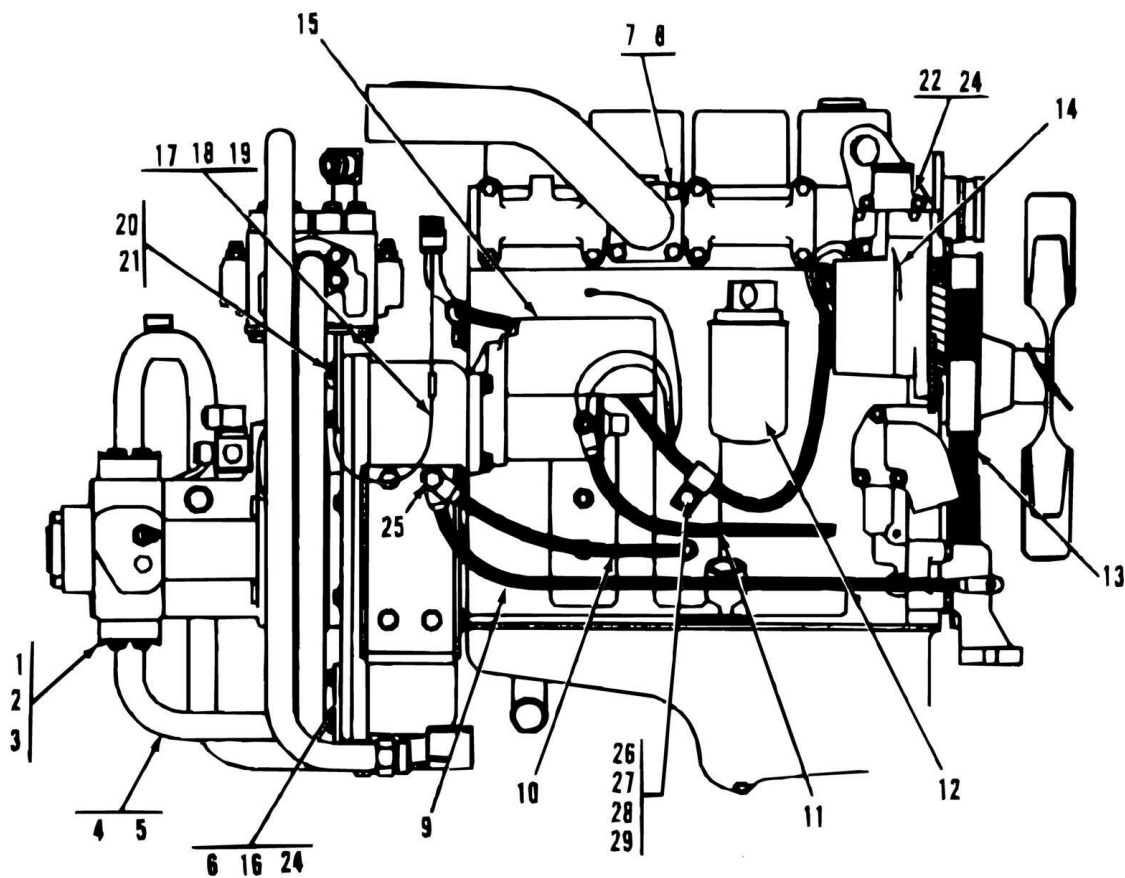
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085053	1	CUMMINS ENGINE FILTER KIT	
	91084001	1	OIL FILTER ELEMENT	
	77383202	1	PRIMARY FUEL, FILTER ELEMENT	
	77383203	1	SECONDARY FUEL, FILTER ELEMENT	
	91083218	1	FUEL FILTER	
	90206262	1	AIR FILTER ELEMENT	
	91085143	Ref	ENGINE ASSY(includes items 1 thru 63 & 68 on ENGINE LEFT SIDE VIEW and all on ENGINE RIGHT SIDE VIEW)	
1	88662105	1	ELBOW, 90, (swivel nut)	
2	84718208	1	HOSE ASSY	
3	84712738	8	SPLIT FLANGE CLAMP	
4	83201155	12	HEX HD CAPSCREW, 7/16-14 x 1-3/4	
5	88551012	16	LOCKWASHER, 7/16	
6	91083418	1	TUBE ASSY	
7	91083106	4	O-RING	
8	91083266	1	TUBE ASSY	
9	88662421	2	CONNECTOR, 45, (includes o-ring)	
9	88591207	2	O-RING	
10	88662005	2	CONNECTOR (includes item 11)	
11	88591204	2	O-RING	
12	90028660	2	SUPPORT CLAMP	
13	88501005	2	HEX NUT, 5/16-18	
14	24861170	2	SUPPORT CLAMP	
15	88201020	2	HEX HD CAPSCREW, 5/16-18 x 1	
16	88551010	2	LOCKWASHER, 5/16	
17	91086055	1	EXHAUST TUBING	
18	83191021	9	HEX HD CAPSCREW, M10 x 1.5 x 30	
19	83191013	16	LOCKWASHER, M10	
20	90205205	1	JUMPER WIRE	
21	90402427	1	STARTER SOLENOID	
22	91143314	1	WATER TEMP SENDER	
23	88711384	1	REDUCER BUSHING	
24	91083503	1	ALTERNATOR (includes item 25)	
25	91083504	1	REGULATOR	
26	85941016	1	SUPPORT CLAMP	
27	83191007	1	HEX HD CAPSCREW, M8 x 1.25 x 16	
28	88561108	1	WASHER, 5/16	
29	83191011	1	LOCKWASHER,M8	
30	91083481	1	NEGATIVE BATTERY CABLE	
31	83191004	2	HEX HD CAPSCREW, M12 x 1.75 x 30	
32	83191010	2	LOCKWASHER,M12	
33	88561111	3	WASHER, 1/2	
34	91143122	1	SUPPORT CLAMP, 5/8	
35	90027187	1	TY-RAP	
36	91083482	1	POSITIVE BATTERY CABLE	
37	91083456	1	STARTER	
38	88711284	1	PIPE PLUG, 3/4	
39	90205792	1	CUSHION CLAMP	
40		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41	88201066	2	HEX HD CAPSCREW, 1/2-13 x 1-1/4	
42	88551013	2	LOCKWASHER, 1/2	
43	88662224	1	SWIVEL NUT BRANCH TEE	
44	84718221	1	HOSE ASSY	
45	91146058	1	FLOW DIVIDER BRACKET	
46	83191006	5	HEX HD CAPSCREW, M10 x 1.5 x 40	
47	88561109	7	WASHER, 3/8	
48	83201135	4	HEX HD CAPSCREW, 7/16-14 x 1-1/2	
49	91086130	1	TUBE SUPPORT	
50	83191005	2	HEX HD CAPSCREW, M10 x 1.5 x 45	
51	91163201	1	TUBE ASSY	
52	91086131	1	TUBE SUPPORT	
53	88662064	1	ELBOW, 90, (includes o-ring)	
53	88591209	1	O-RING	
54	84717930	1	HOSE ASSY	

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FIGURE 4-15. FUEL TANK AND LINES (SN 0177368 to Present)



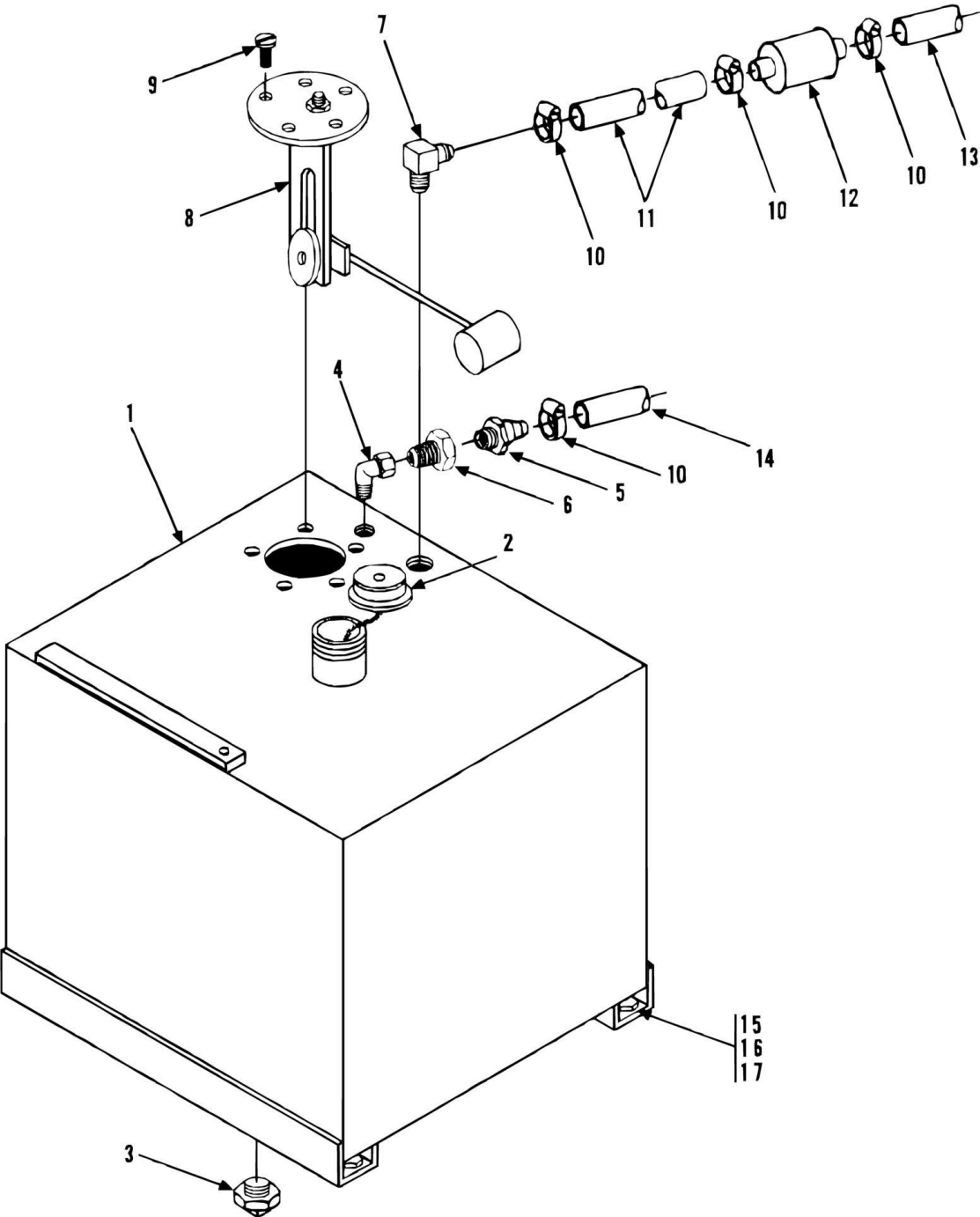
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-15. FUEL TANK AND LINES (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91155016	1	FUEL TANK ASSY (includes items 1 thru 4, & item 10)	
1	91153031	1	FUEL TANK (includes items 4 & 11)	
2	91143316	1	FUEL LEVEL SENDER (includes item 3)	
3		Ref	SCREW	
4	86541381	1	FUEL TANK CAP (w/chain)	
5	86883106	3	HOSE CLAMP	
6	Bulk	14 in	FUEL LINE HOSE, 5/16 I.D.	
7		Ref	FUEL FILTER (I/L)(See ENGINE RIGHT SIDE VIEW for Breakdown, item 12)	
8	83483497	1	HOSE CLAMP	
9	Bulk	60 in	FUEL LINE HOSE, 5/16 I.D.	
10	84712746	2	HOSE NIPPLE, 90, 1/2X3/8	
11	88711283	1	HEX SOCKET PIPE PLUG, 1/2	
12	88201095	4	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
13	88561008	4	WASHER, 5/8	
14	88551015	4	LOCKWASHER, 5/8	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 4-16. (91085016) FUEL TANK AND LINES (SN 0177148 to Present)



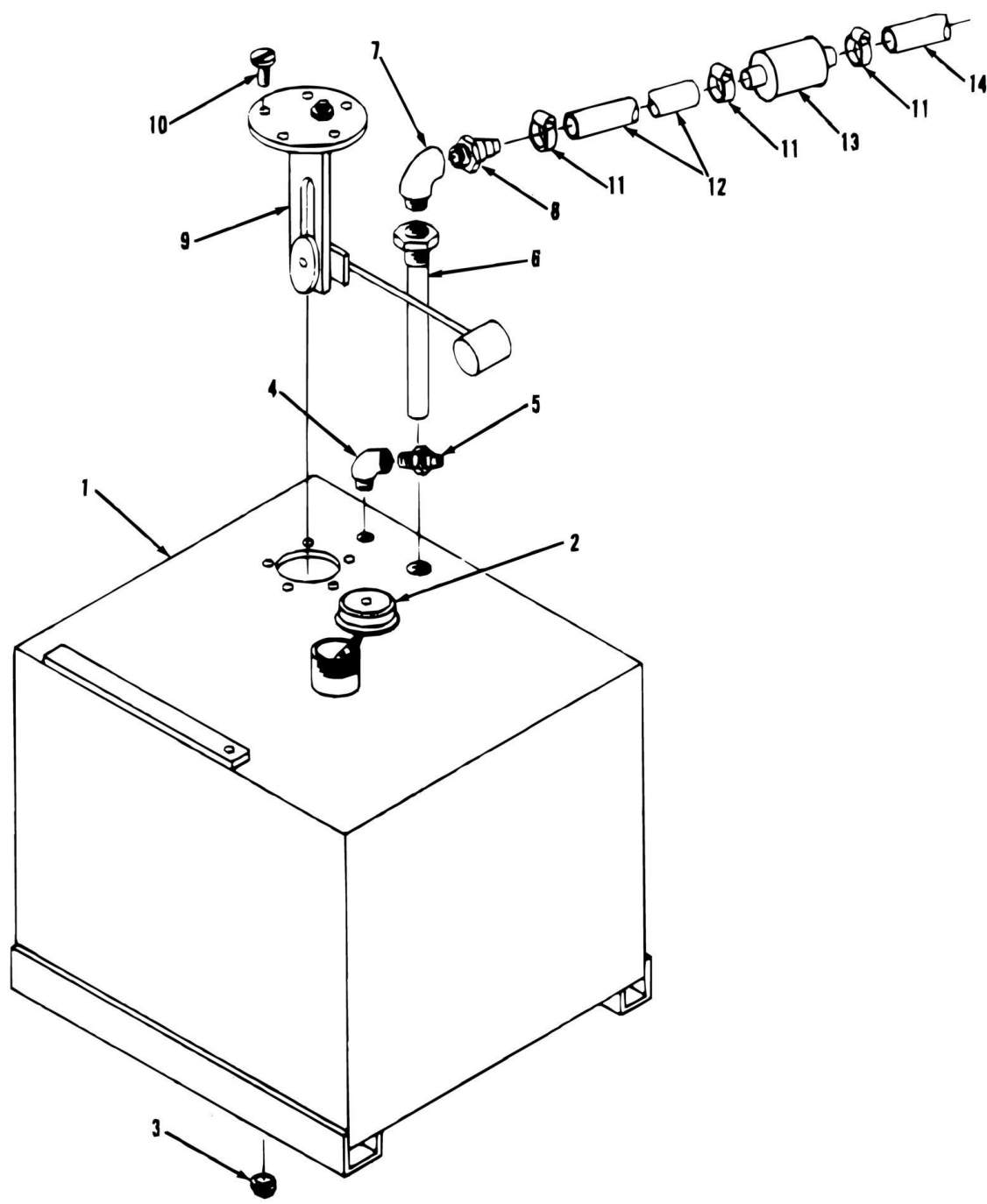
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-16. (91085016) FUEL TANK AND LINES (SN 0177148 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085016	Ref	FUEL TANK ASSY, (includes items 1 thru 9)	
1	91083501	1	FUEL TANK, (includes items 2 & 3)	
2	86541381	1	FUEL TANK CAP, (w/chain)	
3	88711283	1	HEX SOCKET PIPE PLUG, 1/2	
4	88712011	1	STREET ELBOW, 90, 1/8	
5	88741805	1	HOSE NIPPLE	
6	88711385	1	REDUCING BUSHING, 1/2X1/8	
7	84712746	1	HOSE NIPPLE, 90, 1/2X3/8	
8	90400654	1	FUEL SENDER, (includes item 9)	
9		Ref	SCREW	
10	83483497	4	HOSE CLAMP	
11	Bulk	11 in	FUEL LINE HOSE, 5/16IN I.D.	
12	91083218	1	FUEL FILTER	
13	Bulk	56 in	FUEL LINE HOSE, 5/16IN I.D.	
14	Bulk	56 in	FUEL LINE HOSE, 3/16IN I.D.	
15	88201095	4	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
16	88561008	4	WASHER, 5/8	
17	88551015	4	LOCKWASHER, 5/8	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 4-17. FUEL TANK AND LINES (SN 0177005 to Present)



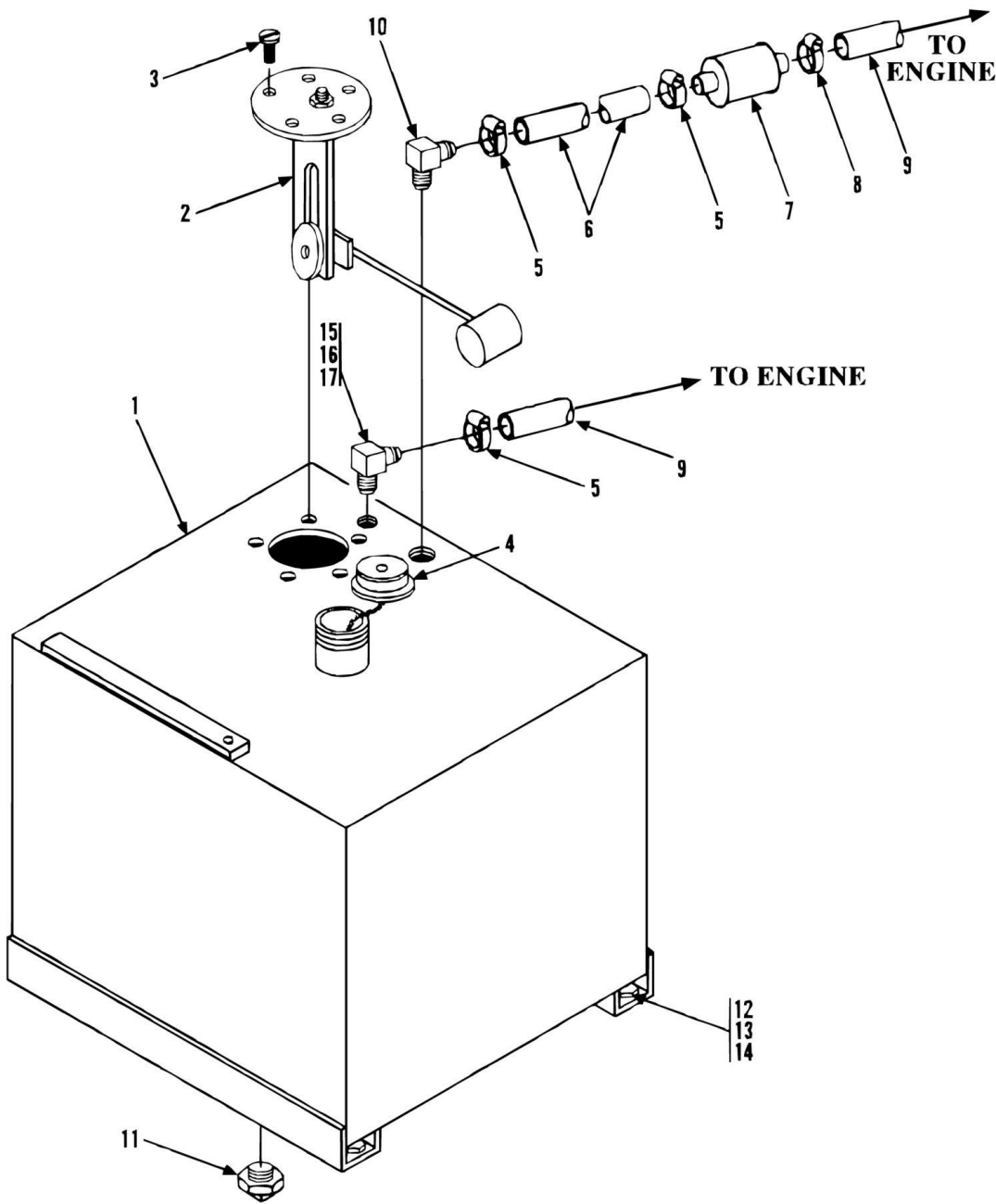
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-17. FUEL TANK AND LINES (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083323	1	FUEL TANK (includes items 2 & 3)	
2	86541381	1	FUEL TANK CAP, (w/chain)	
3	88711283	1	HEX SOCKET PIPE PLUG, 1/2	
4	88712011	1	STREET ELBOW, 90, 1/8	
5	88741805	1	HOSE NIPPLE	
6	77386065	1	PICK-UP TUBE	
7	88712013	1	STREET ELBOW, 90, 3/8	
8	90027331	1	HOSE NIPPLE	
9	90400654	1	FUEL SENDER (includes item 10)	
10		Ref	SCREW	
11	83483497	3	HOSE CLAMP	
12	Bulk	11 in	FUEL LINE HOSE, 5/16IN I.D.	
13	91083218	1	FUEL FILTER	
14	Bulk	56 in	FUEL LINE HOSE, 5/16IN I.D.	

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FIGURE 4-18. (91125104) FUEL TANK AND LINES (SN 0177368 to Present)



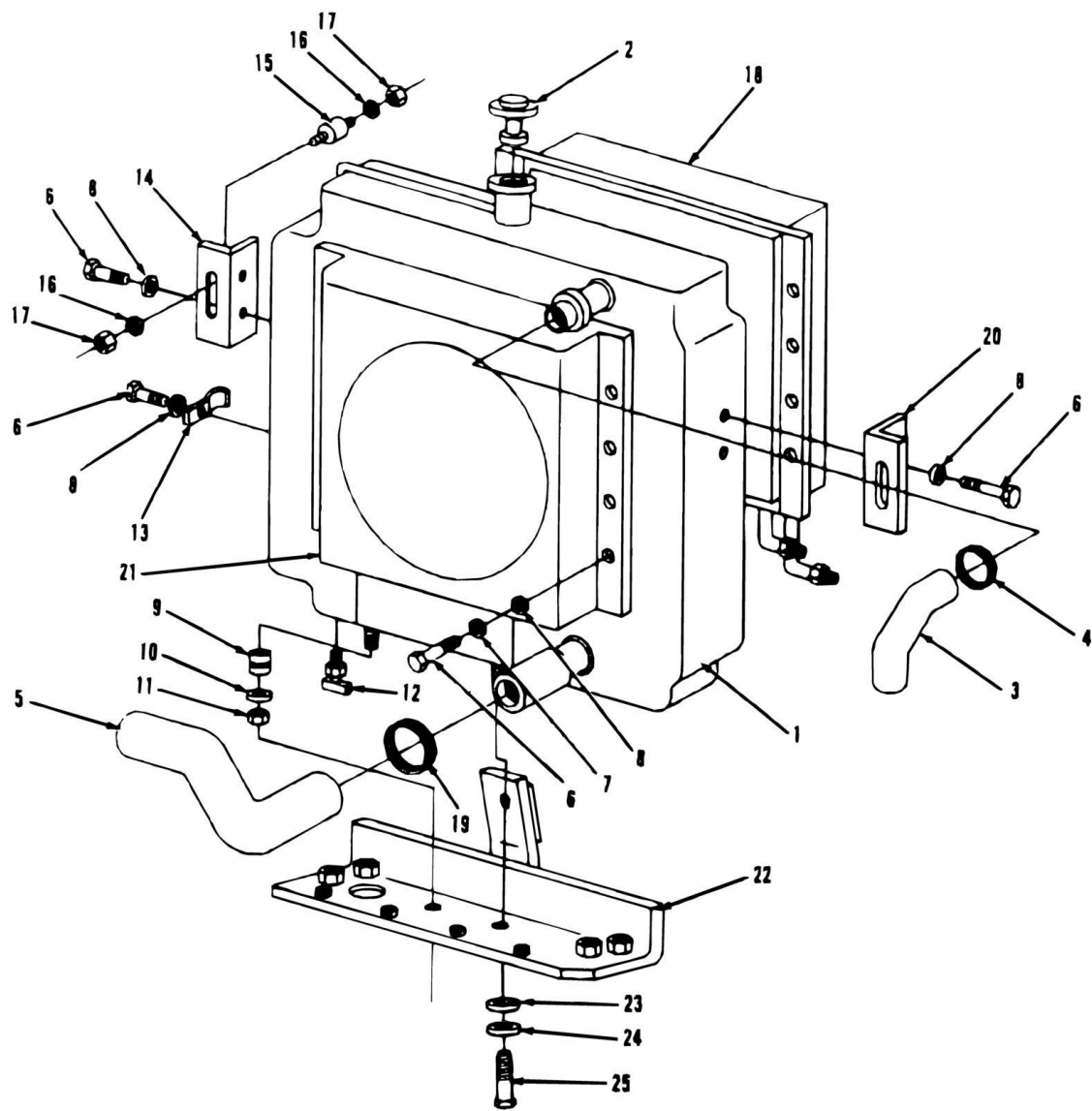
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-18. (91125104) FUEL TANK AND LINES (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125104	1	FUEL TANK ASSY (includes items 1 thru 4, & item 10)	
1	91153031	1	FUEL TANK (includes items 4 & 11) (38 gal)	
2	91143316	1	FUEL LEVEL SENDER (includes item 3)	
3	91083491	5	SCREW	
4	86541381	1	FUEL TANK CAP (w/chain)	
5	86883106	3	HOSE CLAMP	
6	Bulk	14 in	FUEL LINE HOSE, 3/8 I.D.	
7		Ref	FUEL FILTER (I/L)(See ENGINE RIGHT SIDE VIEW for Breakdown, item 12)	
8	83483497	1	HOSE CLAMP	
9	Bulk	60 in	FUEL LINE HOSE, 5/16 I.D.	
10	84712746	1	HOSE NIPPLE, 90, 1/2X3/8	
11	88711283	1	HEX SOCKET PIPE PLUG, 1/2	
12	88201095	4	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
13	88561008	4	WASHER, 5/8	
14	88551015	4	LOCKWASHER, 5/8	
15	88712011	1	STREET ELBOW, 90, 1/8	
16	88741805	1	HOSE NIPPLE, 1/8	
17	88711385	1	PIPE BUSHING, 1/2X1/8	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 4-19. (91085013) RADIATOR ASSEMBLY (SN 017005 to Present)



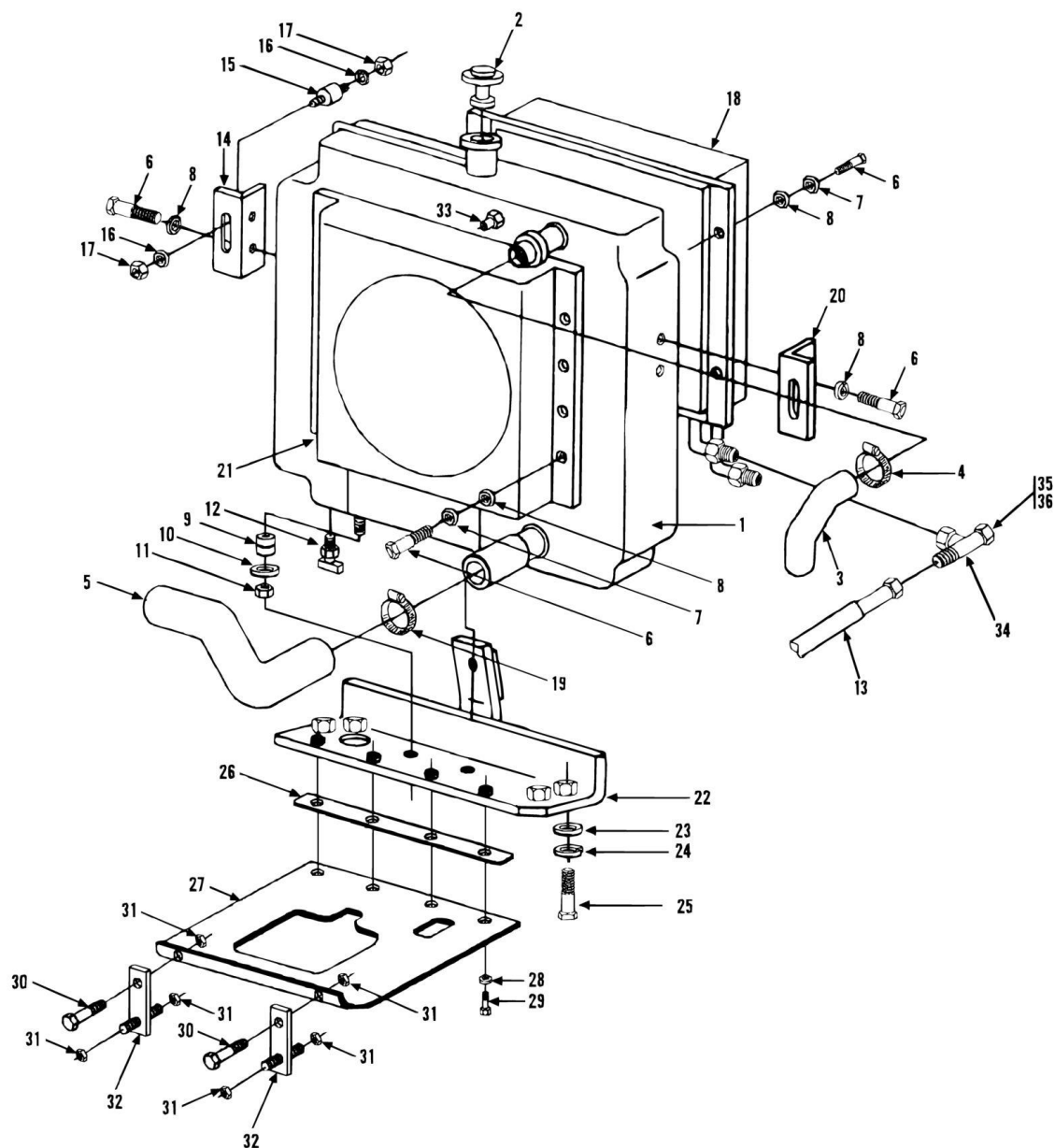
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-19. (91085013) RADIATOR ASSEMBLY (SN 017005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085013	Ref	RADIATOR ASSY (includes items 1, 2, 6, thru 14, 19, 20, 21 & 22)	
1	91083065	1	RADIATOR (includes item 2)	
2	91084198	1	RADIATOR CAP, 15 PS1	
3	91083094	1	UPPER RADIATOR HOSE	
4	85071128	2	HOSE CLAMP	
5	91083364	1	LOWER RADIATOR HOSE	
6	88201016	17	HEX HD CAPSCREW, 5/16-18x1/2, GR5	
7	88561108	12	FLATWASHER, 5/16	
8	88551010	17	LOCKWASHER, 5/16	
9	83683308	2	SHOCK MOUNT	
10	90205918	2	WASHER	
11	88521206	2	HEX LOCKNUT, 3/8-16	
12	84521056	1	DRAIN COCK	
13	24861170	1	CLAMP	
14	91081181	1	MOUNTING BRACKET	
15	91033137	1	SHOCK MOUNT	
16	88561003	2	FLATWASHER, 5/16	
17	88521205	2	HEX LOCKNUT, 5/16-18	
18	NLA	1	OIL COOLER (no longer available)	
18	91125109	1	OIL COOLER KIT (includes one 91083573 oil cooler and one 84719110 hose assy)	
19	86883327	2	HOSE CLAMP	
20	91081541	1	MOUNTING BRACKET	
21	91083085	1	RADIATOR SHROUD	
22	91086041	1	RADIATOR MOUNT	
23	88561006	4	FLATWASHER, 1/2	
24	88551013	4	LOCKWASHER, 1/2	
25	88201067	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	

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FIGURE 4-20. (91085013) RADIATOR ASSEMBLY (SN 0177069 to Present)



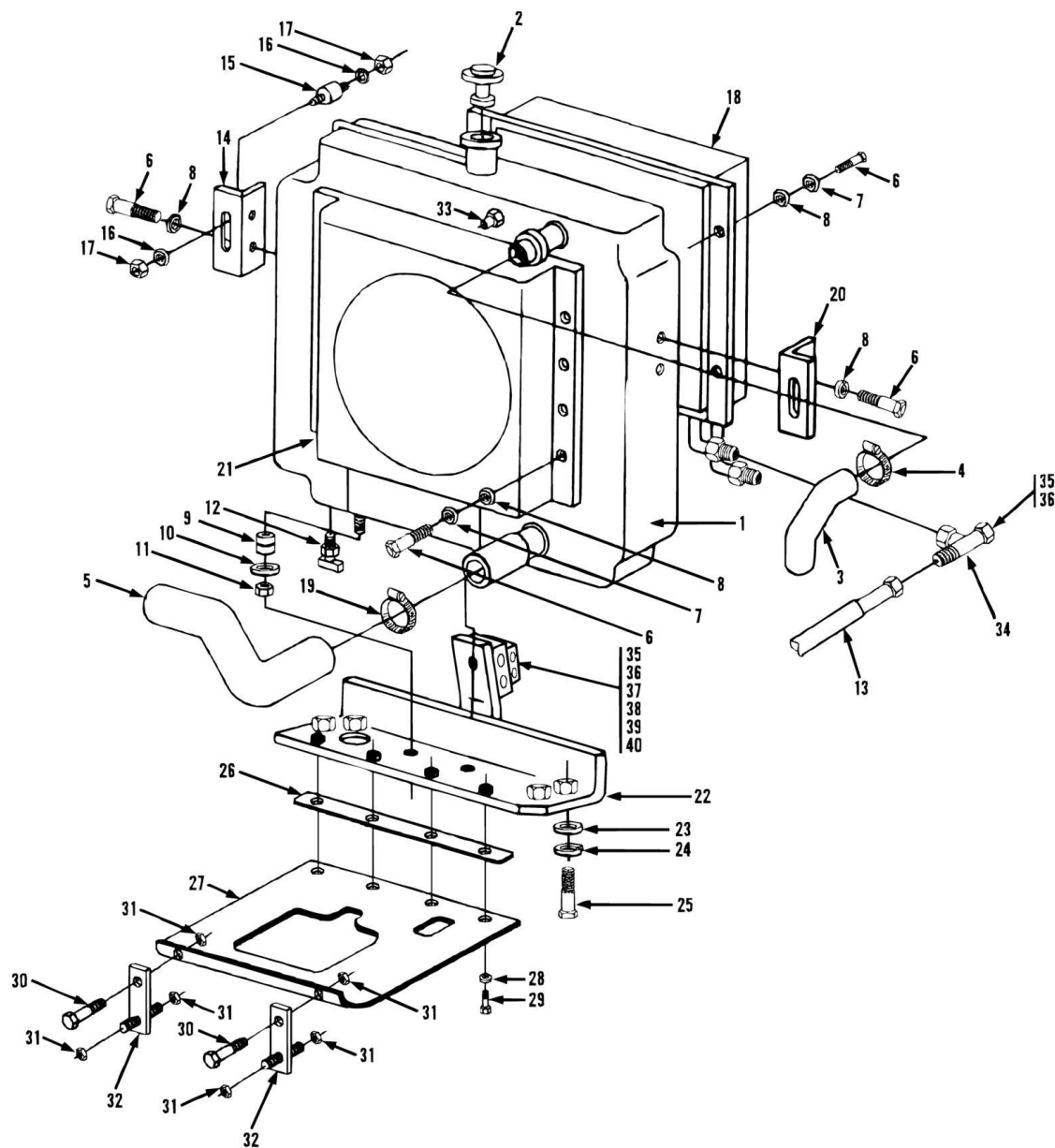
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FIGURE 4-20. (91085013) RADIATOR ASSEMBLY (SN 0177069 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085013	Ref	RADIATOR ASSY (includes items 1, 2, 6, thru 14, 19, 20, 21 & 22)	
1	91083065	1	RADIATOR (includes item 2)	
2	91084198	1	RADIATOR CAP, 15 PSI	
3	91083094	1	UPPER RADIATOR HOSE	
4	85071128	2	HOSE CLAMP	
5	91083364	1	LOWER RADIATOR HOSE	
6	88201016	16	HEX HD CAPSCREW, 5/16-18x1/2, GR5	
7	88561003	12	WASHER, 5/16	
8	88551010	16	LOCKWASHER, 5/16	
9	83683308	2	SHOCK MOUNT	
10	90205918	2	WASHER	
11	88521206	2	HEX LOCKNUT, 3/8-16	
12	84521056	1	DRAIN COCK	
13	84717872	1	HOSE ASSY	
14	91081181	1	MOUNTING BRACKET	
15	91033137	1	SHOCK MOUNT	
16	88561003	2	FLAT WASHER, 5/16	
17	88521205	2	HEX LOCKNUT, 5/16-18	
18	NLA	1	OIL COOLER (no longer available)	
18	91125109	1	OIL COOLER KIT (includes one 91083573 oil cooler and one 84719110 hose assy)	
19	86883327	2	HOSE CLAMP	
20	91081541	1	MOUNTING BRACKET	
21	91083085	1	RADIATOR SHROUD	
22	91086041	1	RADIATOR MOUNT	
23	88561006	4	FLAT WASHER, 1/2	
24	88551013	4	LOCKWASHER, 1/2	
25	88201067	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
26	91301086	1	FLAT BAR	
27	91303057	1	DUST SHIELD	
28	88561003	4	FLATWASHER, GR5	
29	88201021	4	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
30	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
31	77143006	6	WHIZ LOCKNUT, 5/16-18	
32	91081654	2	BAR	
33	90030271	1	FITTING	
34	88662227	1	SWIVEL NUT BRANCH TEE, 3/4 TUBE	
35	88661345	1	TUBE END REDUCER, 3/4X3/8	
36	88661408	1	NUT	

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FIGURE 4-21. (91085139) RADIATOR ASSEMBLY (SN 0177368 to Present)



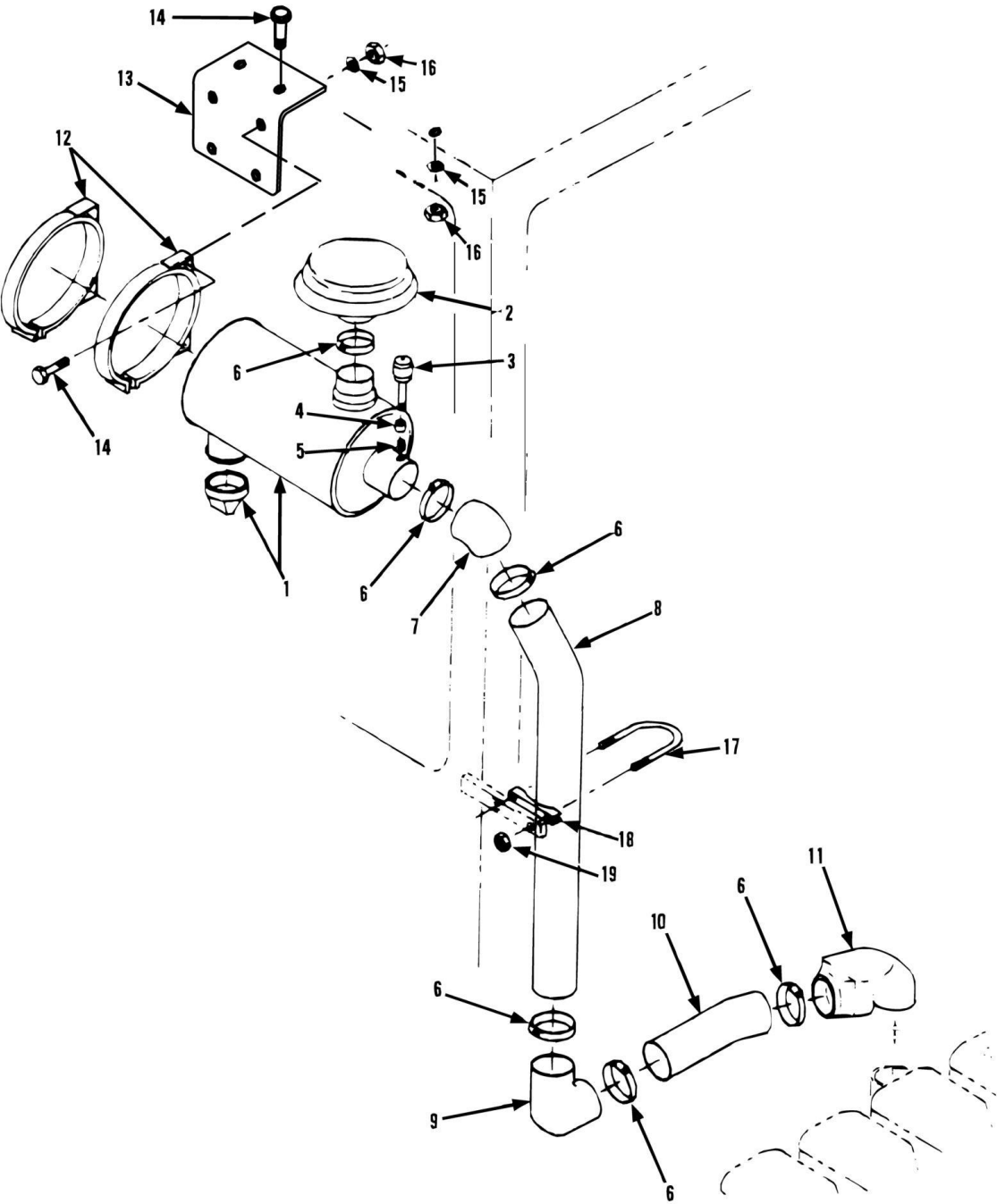
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-21. (91085139) RADIATOR ASSEMBLY (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085139	Ref	RADIATOR ASSY, (includes items 1 thru 6,12 of item 7, 8, 12, 13, 14, 16, 18 thru 21, 28, 33 & 34)	
1	91143269	1	RADIATOR, (includes item 2)	
2	91084198	1	RADIATOR CAP, 15 PSI	
3	91083094	1	UPPER RADIATOR HOSE	
4	85071128	2	HOSE CLAMP	
5	91083364	1	LOWER RADIATOR HOSE	
6	88201016	16	HEX HD CAPSCREW, 5/16-18x1/2, GR5	
7	88561003	20	FLATWASHER, 5/16	
8	88551010	16	LOCKWASHER, 5/16	
9	83683308	2	SHOCK MOUNT	
10	90205918	2	WASHER	
11	88521206	2	HEX LOCKNUT, 3/8-16	
12	84521056	1	DRAIN COCK	
13	84719109	1	HOSE ASSY	
14	91081181	1	MOUNTING BRACKET	
15	91033137	2	SHOCK MOUNT	
16	88661408	1	NUT	
17	88521205	4	HEX LOCKNUT, 5/16-18	
18	91083573	1	OIL COOLER	
19	86883327	2	HOSE CLAMP	
20	91081541	1	MOUNTING BRACKET	
21	91083085	1	RADIATOR SHROUD	
22	91086174	1	RADIATOR MOUNT	
23	88561006	4	FLATWASHER, 1/2	
24	88551013	4	LOCKWASHER, 1/2	
25	88201067	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
26	91301086	1	FLAT BAR	
27	91303057	1	DUST SHIELD	
28	88661345	1	REDUCER ADAPTER	
29	88201021	4	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
30	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
31	77143006	6	WHIZ LOCKNUT, 5/16-18	
32	91081654	2	BAR	
33	90030271	1	FITTING	
34	88662227	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
35	77133306	1	STACK BOLT	
36	77133139	1	HOSE CLAMP	
37	77323029	1	HOSE CLAMP	
38	77133140	1	COVER PLATE	
39	77133390	1	SAFETY CLIP	
40	77133177	1	HEX HD CAPSCREW, 5/16-18X1-3/8	

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FIGURE 4-22. AIR CLEANER PIPING (SN 0177005 to Present)



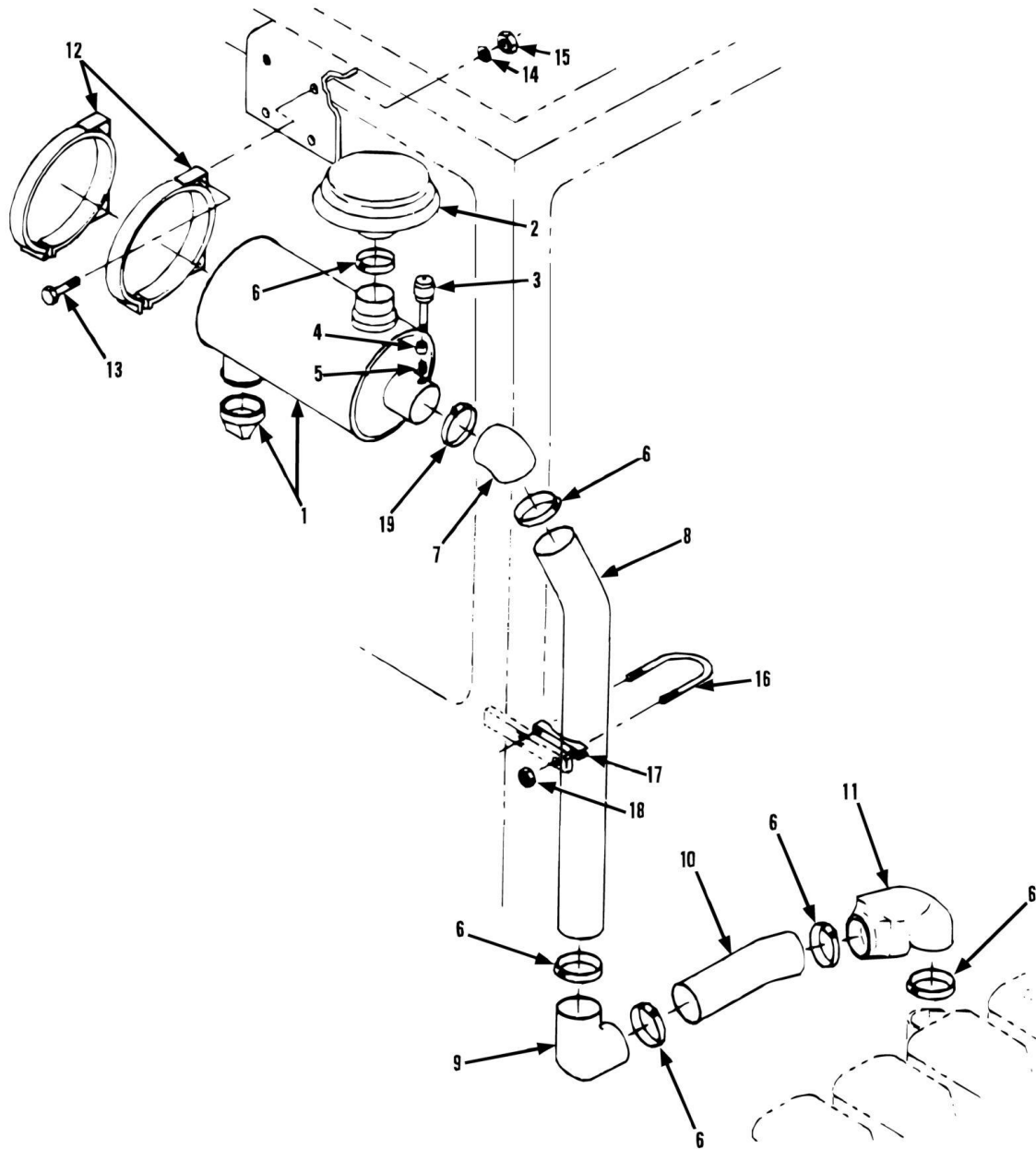
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-22. AIR CLEANER PIPING (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	AIR CLEANER (See AIR CLEANER for Breakdown)	
2	91033028	1	INLET CAP	
3	77383154	1	SERVICE INDICATOR	
4	88711210	1	PIPE COUPLING, 1/8	
5	88701023	1	CLOSE NIPPLE, 1/8X3	
6	90027713	6	HOSE CLAMP	
7	91083129	1	REDUCING ELBOW	
8	91083127	1	AIR INTAKE TUBE	
9	91083128	1	AIR INTAKE ELBOW	
10	91083124	1	AIR INTAKE TUBE	
11	91083126	1	AIR INTAKE ELBOW	
12	77103138	2	MOUNTING BAND	
13	91081327	1	BRACKET	
14	88201020	6	HEX HD CAPSCREW, 5/16-18X1, GR5	
15	88561108	8	FLATWASHER, 5/16	
16	88521305	6	HEX LOCKNUT, 5/16-18	
17	24921332	1	MUFFLER CLAMP	
18		Ref	BRIDGE	
19		Ref	NUT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-23. AIR CLEANER PIPING (SN 0177122 to Present)



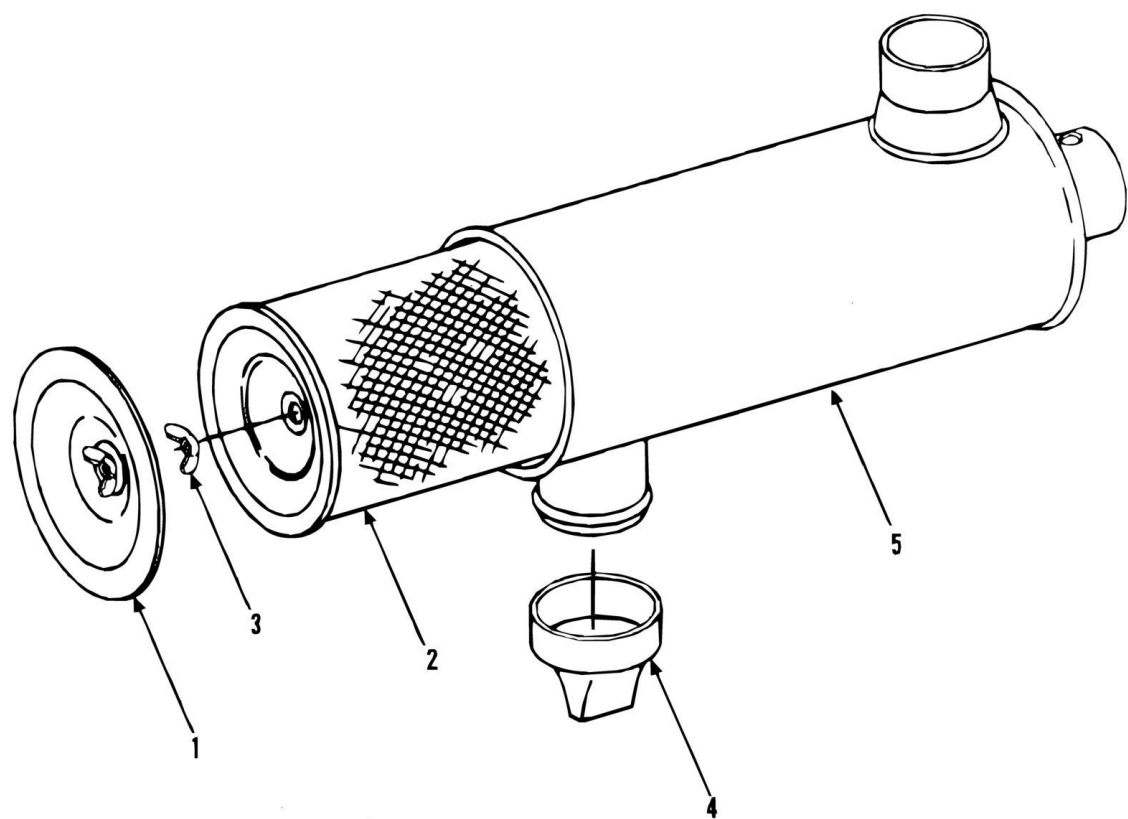
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-23. AIR CLEANER PIPING (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	AIR CLEANER (See AIR CLEANER for Breakdown)	
2	91033028	1	INLET CAP	
3	77383154	1	SERVICE INDICATOR	
4	88711210	1	PIPE COUPLING, 1/8	
5	88701023	1	CLOSE NIPPLE, 1/8X3	
6	91163129	6	HOSE CLAMP	
7	91083129	1	REDUCING ELBOW	
8	91083127	1	AIR INTAKE TUBE	
9	91083128	1	AIR INTAKE ELBOW	
10	91083124	1	AIR INTAKE TUBE	
11	91083126	1	AIR INTAKE ELBOW	
12	77103138	2	MOUNTING BAND	
13	88201018	4	HEX HD CAPSCREW, 5/16-18 x 3/4	
14	88561108	4	FLATWASHER, 5/16	
15	88521305	4	HEX LOCKNUT, 5/16-18	
16	24921332	1	MUFFLER CLAMP (includes 17 & 18)	
17		Ref	BRIDGE	
18		Ref	NUT	
19	91163137	1	BAND CLAMP	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-24. AIR CLEANER (SN 0177005 to Present)



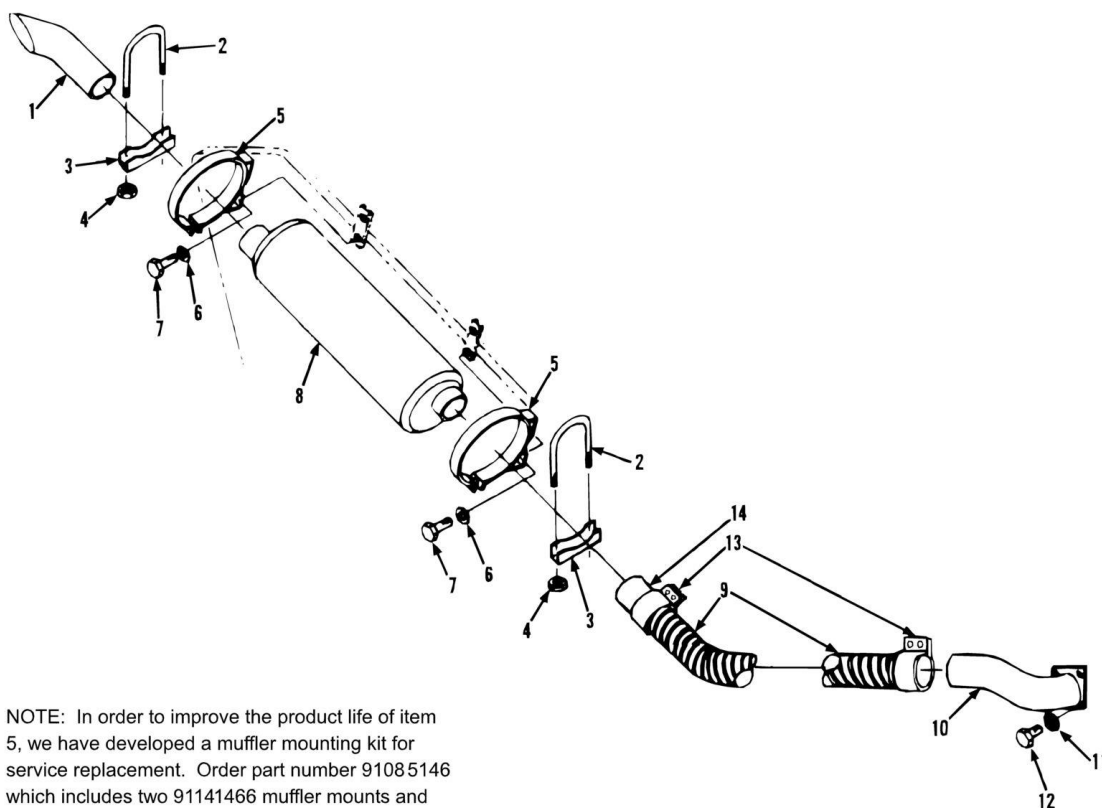
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-24. AIR CLEANER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90205663	1	AIR CLEANER (includes items 1 thru 5)	
1	90206606	1	COVER W/NUT	
2	90206262	1	ELEMENT	
3	90201414	1	WING NUT W/SEAL	
4	90200807	1	VACUATOR	
5		Ref	BODY (not sold separately order P/N 90205663)	

SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-25. EXHAUST SYSTEM (SN 0177005 to Present)



NOTE: In order to improve the product life of item 5, we have developed a muffler mounting kit for service replacement. Order part number 91085146 which includes two 91141466 muffler mounts and two 83683175 muffler clamps.

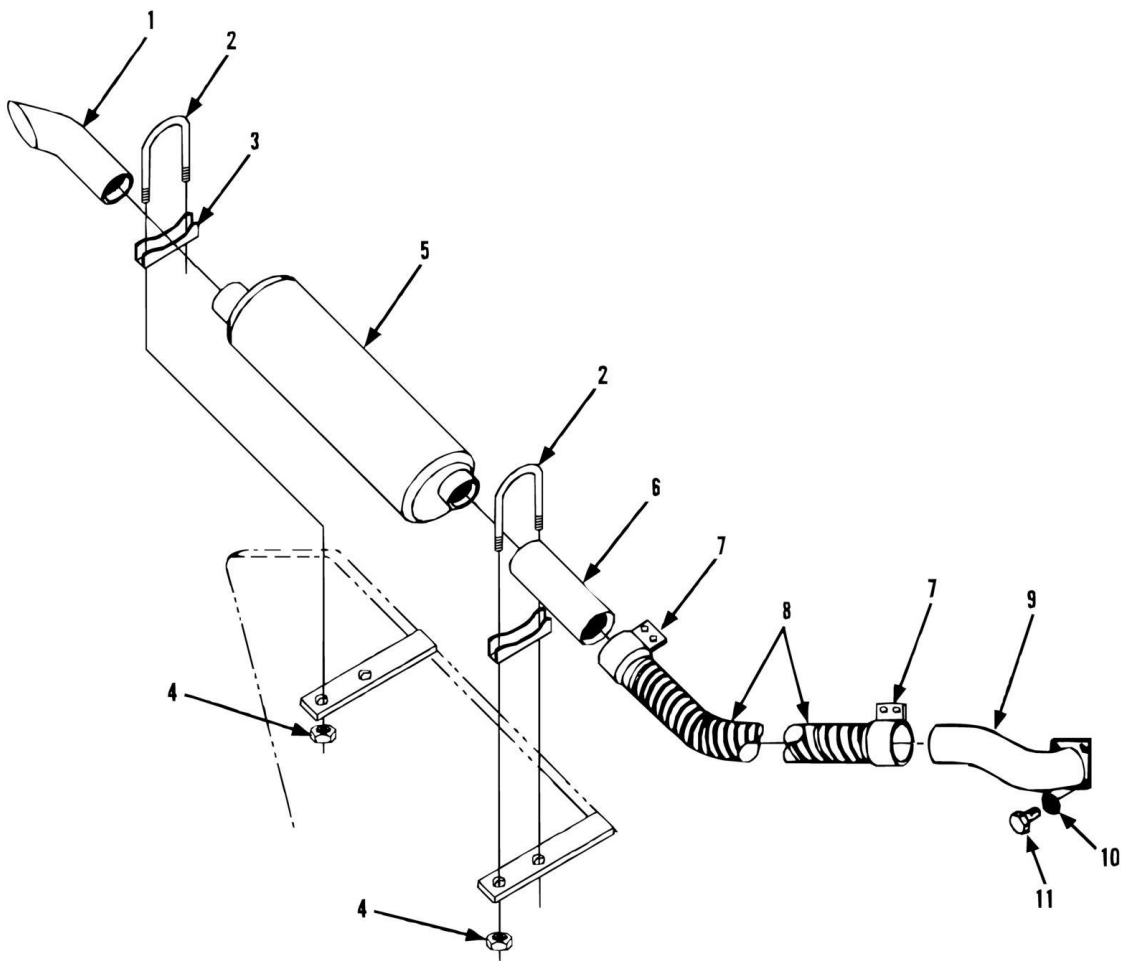
SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-25. EXHAUST SYSTEM (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083560	1	TAIL PIPE	
2	83683175	2	MUFFLER CLAMP (includes items 3 & 4)	
3		Ref	BRIDGE	
4		Ref	NUT	
5	91083253	2	MUFFLER BRACKET	
6	88551011	4	LOCKWASHER, 3/8	
7	88201031	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
8	91083250	1	MUFFLER	
9	91083427	1	FLEXIBLE CONNECTOR	
10	91086055	1	EXHAUST TUBE	
11	83191013	4	LOCKWASHER M10	
12	83191021	4	HEX HD CAPSCREW, M10X1.5X30	
13	91041016	1	EXHAUST SLEEVE	
14	77213031	2	SEAL CLAMP	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 4-26. EXHAUST SYSTEM (SN 0177329 to Present)



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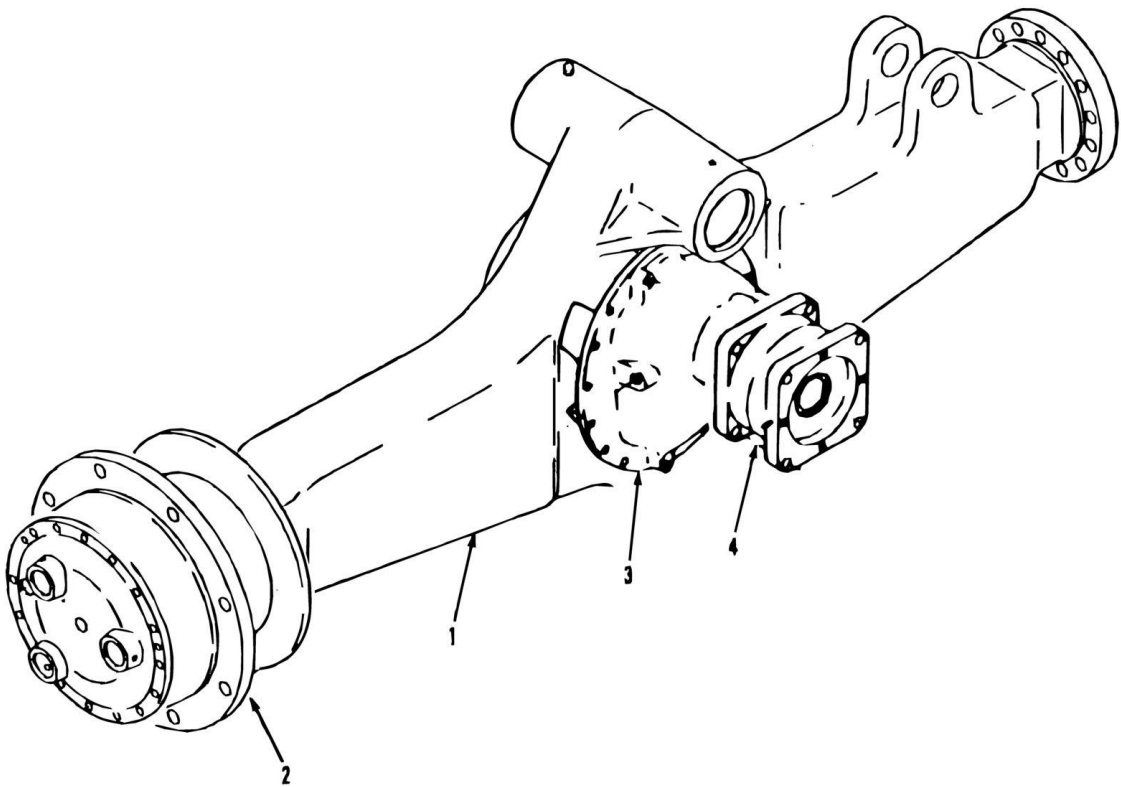
FIGURE 4-26. EXHAUST SYSTEM (SN 0177329 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083560	1	TAIL PIPE	
2	24921332	3	MUFFLER CLAMP (includes items 3 & 4)	
3		Ref	BRIDGE	
4		Ref	NUT	
5	91083250	2	MUFFLER	
6	91123165	1	EXHAUST PIPE	
7	77213031	2	CLAMP (includes hardware)	
8	91043150	1	FLEXIBLE TUBING	
9	91086055	1	EXHAUST TUBE	
10	83191013	4	LOCKWASHER, M10	
11	83191021	4	HEX HD CAPSCREW, M10X1.5X30	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 5 - DRIVE TRAIN

SECTION 5 - DRIVE TRAIN

FIGURE 5-1. (91083267) FRONT AXLE ASSEMBLY (SN 0177005 to Present)



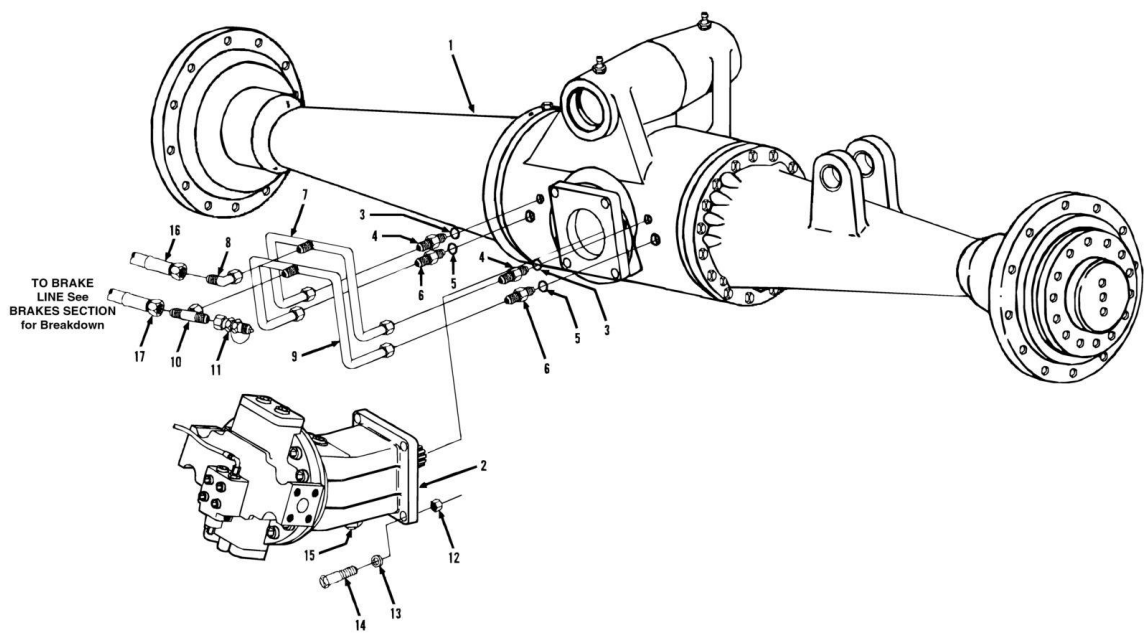
SECTION 5 - DRIVE TRAIN

FIGURE 5-1. (91083267) FRONT AXLE ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083267	1	FRONT AXLE ASSY (includes items 1 thru 4)	
		Ref	AXLE HOUSING ASSY (See FRONT AXLE HOUSING for Breakdown)	
2		Ref	WHEEL END ASSY (See FRONT AXLE SHAFT AND PLANETARY WHEEL END for Breakdown)	
3		Ref	CARRIER ASSY (See CARRIER ASSEMBLY for Breakdown)	
4		Ref	BRAKE ASSY (See BRAKE ASSEMBLY for Breakdown)	

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FIGURE 5-2. (91095023) (91125047) FRONT AXLE ASSEMBLY (SN 0177165 to Present)



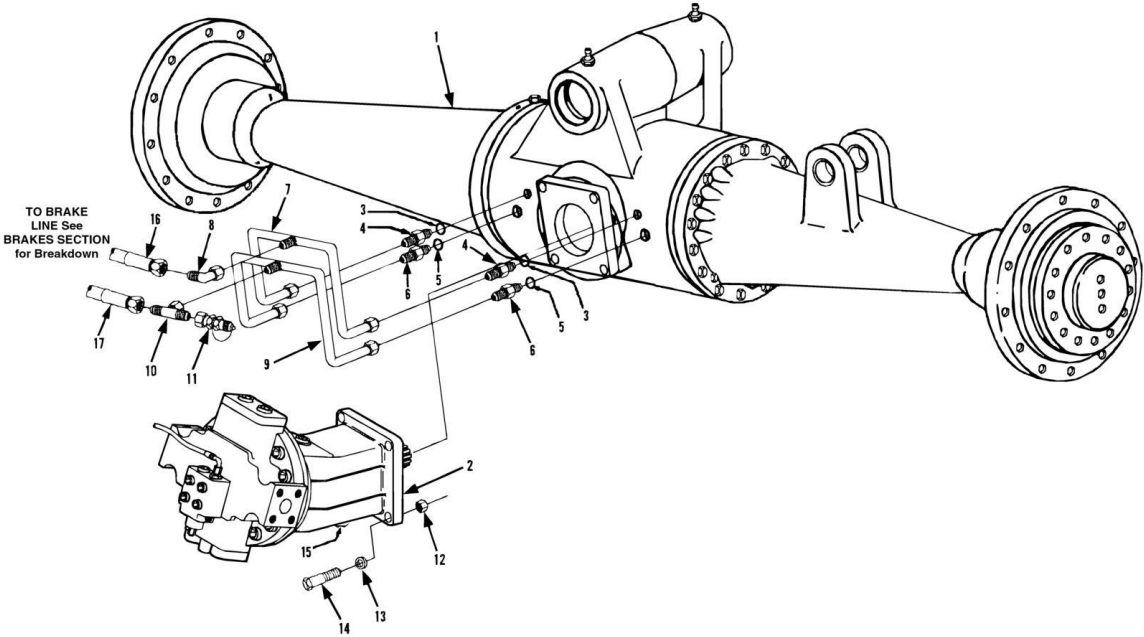
SECTION 5 - DRIVE TRAIN

FIGURE 5-2. (91095023) (91125047) FRONT AXLE ASSEMBLY (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095023	1	FRONT AXLE ASSY (includes items 1 thru 15) (522)	
	91125047	1	FRONT AXLE ASSY (includes items 1 thru 15) (524)	
1		Ref	FRONT AXLE (See FRONT AXLE for Breakdown)	
2		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown) (522)	
2		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown) (524)	
3	88591205	2	O-RING	
4	88662006	2	CONNECTOR (includes item 3)	
5	88591204	2	O-RING	
6	88662005	2	CONNECTOR (includes item 5)	
7	91123130	1	PARK BRAKE TUBE LINE	
8	88662106	1	ELBOW, 90, (swivel nut)	
9	91123127	1	SERVICE BRAKE TUBE LINE	
10	88662224	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
11	91143172	1	MINI CHECK VALVE	
12	88501012	4	HEX NUT, 3/4-10	
13	90027473	4	HARD WASHER, 3/4	
14	83201058	4	HEX HD CAPSCREW, 3/4-10X3-3/4, GR8	
15	88662194	1	HEX SOCKET HD PLUG, (includes o-ring)	
15	88591206	1	O-RING	
16	84718153	1	HOSE ASSY	
17	84718021	1	HOSE ASSY	

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FIGURE 5-3. (91095020) (91085110) FRONT AXLE ASSEMBLY (SN 0177189 to Present)



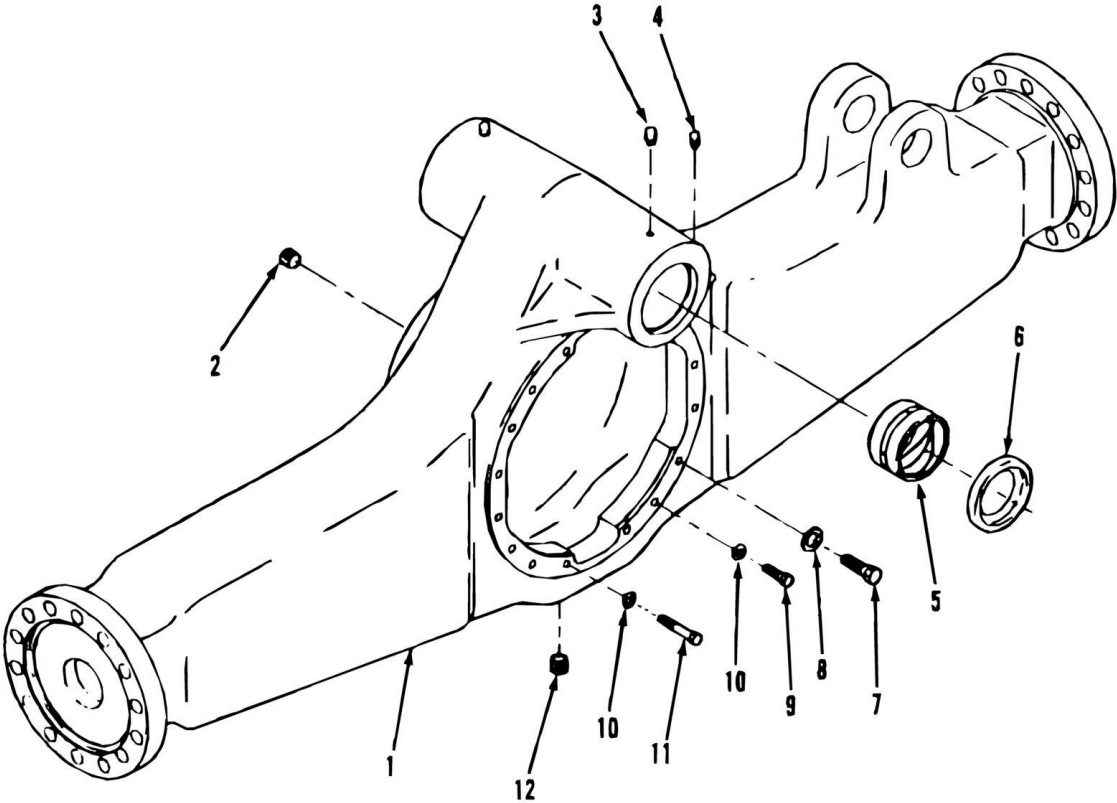
SECTION 5 - DRIVE TRAIN

FIGURE 5-3. (91095020) (91085110) FRONT AXLE ASSEMBLY (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095020	1	FRONT AXLE ASSY (includes items 1 thru 15) (522)	
	91085110	1	FRONT AXLE ASSY (includes items 1 thru 15) (524)	
1		Ref	FRONT AXLE (See FRONT AXLE for Breakdown)	
2		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown) (522)	
2		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown) (524)	
3	88591205	2	O-RING	
4	88662006	2	CONNECTOR (includes item 3)	
5	88591204	2	O-RING	
6	88662005	2	CONNECTOR (includes item 5)	
7	91123130	1	PARK BRAKE TUBE LINE	
8	88662106	1	ELBOW, 90, (swivel nut)	
9	91123127	1	SERVICE BRAKE TUBE LINE	
10	88662224	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
11	91143172	1	MINI CHECK VALVE	
12	88501012	4	HEX NUT, 3/4-10	
13	90027473	4	HARD WASHER, 3/4	
14	83201058	4	HEX HD CAPSCREW, 3/4-10X3-3/4, GR8	
15	88662194	1	HEX SOCKET HD PLUG, (includes o-ring)	
15	88591206	1	O-RING	
16	84718903	1	HOSE ASSY	
17	84718077	1	HOSE ASSY	

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FIGURE 5-4. (91084044) FRONT AXLE HOUSING (SN 0177005 to Present)



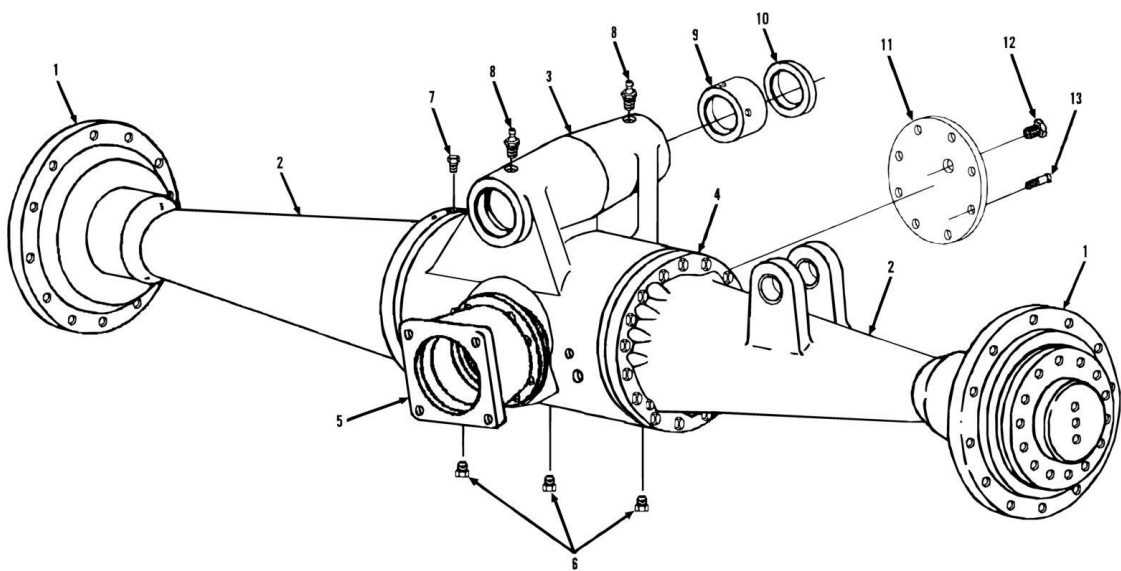
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FIGURE 5-4. (91084044) FRONT AXLE HOUSING (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084044	1	AXLE HOUSING ASSY (includes items 2, 3, 5, 6, & 12)	
1		Ref	AXLE HOUSING	
2	83073699	1	FILLER PLUG	
3	91084045	2	GREASE FITTING	
4	77104289	1	BREATHER	
5	91084046	2	INNER BEARING RACE	
6	91084047	2	OIL SEAL	
7	91084048	12	CAPSCREW	
8	91084049	12	WASHER	
9	91084050	2	CAPSCREW	
10	91084051	4	WASHER	
11	91084052	2	CAPSCREW	
12	77104343	1	DRAIN PLUG	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-5. (91123119) FRONT AXLE (SN 0177165 to Present)



SERVICE NOTE: When servicing this axle, it is recommended that on machines with starting serial numbers prior to 0177336, that you:

- 1). Replace the old style cover plate with the new cover plate ,kit, p/n 91145130.
- 2). Then refill the axle with 40 pints of mobil 424 fluid instead of 33 pints.

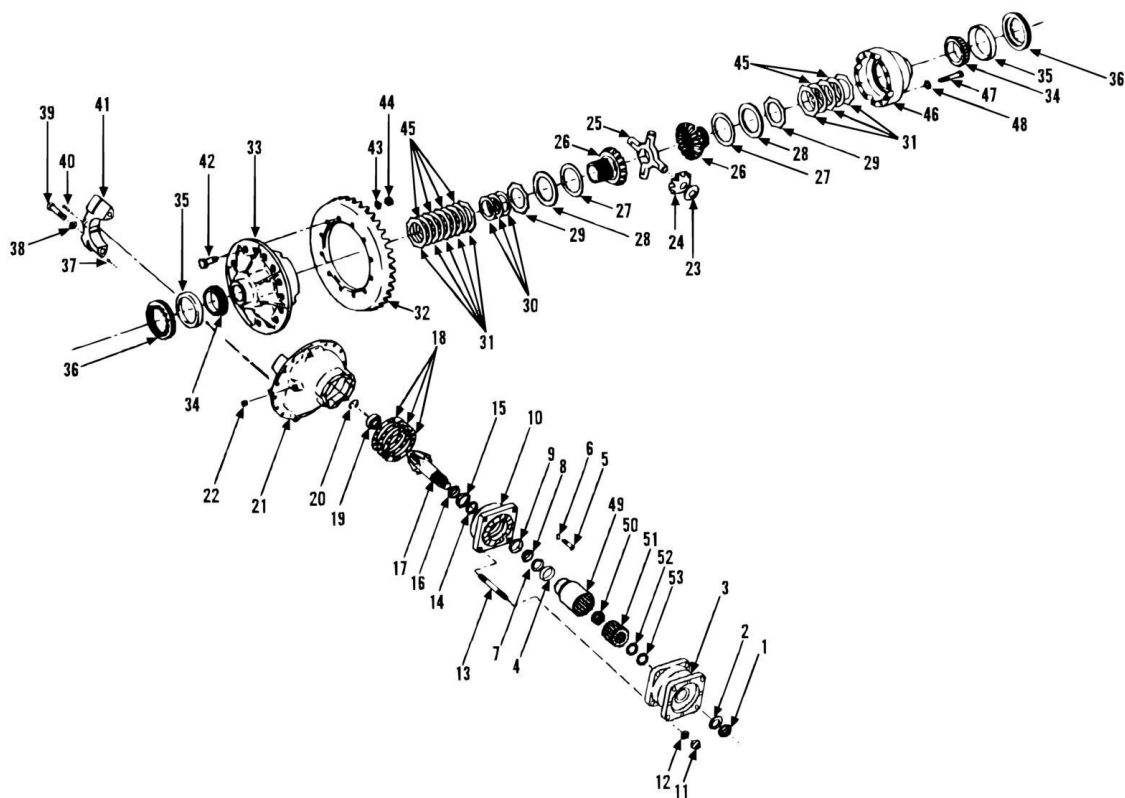
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FIGURE 5-5. (91123119) FRONT AXLE (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91123119	1	FRONT AXLE, (includes all items on pages 6-2, 6-3, 6-4 & 6-5)	
	91145130	1	COVER PLATE KIT, (includes new style items 11 & 12)	
		Ref	WHEEL FLANGE ASSY, (See AXLE SHAFT AND WHEEL FLANGE ASSEMBLY for Breakdown)	
2		Ref	LEFT AND RIGHT HOUSING ASSY, (See LEFT AND RIGHT HOUSING ASSEMBLY for Breakdown)	
3	91144326	1	CENTER HOUSING ASSY, (includes item 9)	
4		Ref	BRAKE ASSY, (See BRAKE ASSEMBLY for Breakdown)	
5		Ref	CARRIER ASSY, (See CARRIER ASSEMBLY for Breakdown)	
6	91144327	3	DRAIN PLUG	
7	91144328	1	VENT PLUG	
8	91144329	2	LUBE FITTING	
9	91084046	2	BUSHING	
10	91084047	2	TRUNNION OIL SEAL	
11	No Longer Available	NLA	COVER-OLD STYLE, NO LONGER AVAILABLE (SN 0177165 to Present)	
11	91141511	1	COVER-NEW STYLE, (SN 0177336 to Present)	
12	91144331	1	LEVEL PLUG-OLD STYLE, (SN 0177165 to Present)	
12	88711284	1	LEVEL PLUG-NEWSTYLE, (SN 0177336 to Present)	
13	91144332	8	CAPSCREW, M8X1.25X16.0	

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FIGURE 5-6. (91084163) FRONT AXLE DIFFERENTIAL CARRIER (SN 0177005 to Present)



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FIGURE 5-6. (91084163) FRONT AXLE DIFFERENTIAL CARRIER (SN 0177005 to Present)

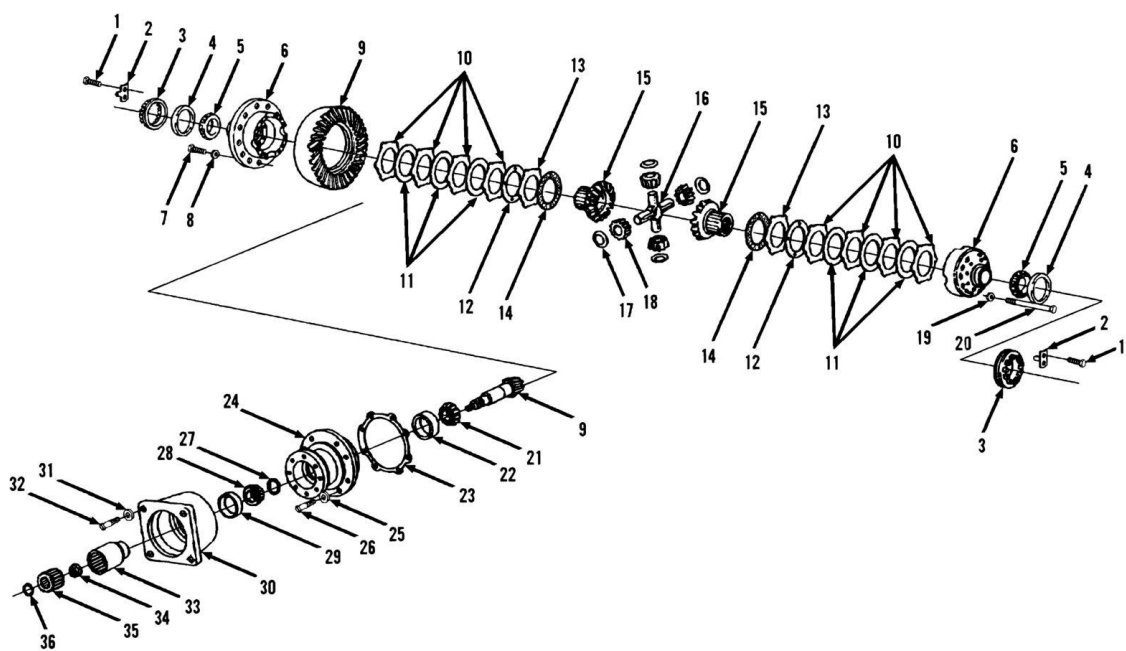
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084163	Ref	CARRIER ASSY, (includes all items)	
1	91084053	1	NUT	
2	91084054	1	WASHER	
3		Ref	BRAKE ASSY, (See BRAKE ASSEMBLY for Breakdown)	
4	91084056	1	OIL SEAL	
5	91084057	8	CAPSCREW	
6		Ref	WASHER	
7	91084058	1	THRUSTWASHER	
8	91084059	1	PINION BEARING CONE, (outer)	
9		Ref	PINION BEARING CAP, (outer)	
10	91084060	1	PINION BEARING CAGE, (includes items 9 & 15)	
11	91084061	4	NUT	
12	91084062	4	WASHER	
13	91084063	4	STUD	
14	91084064	AR	.125 SPACER	
14	91084065	AR	.126 SPACER	
14	91084066	AR	.127 SPACER	
14	91084067	AR	.128 SPACER	
14	91084068	AR	.129 SPACER	
14	91084069	AR	.130 SPACER	
14	91084070	AR	.136 SPACER	
14	91084071	AR	.142 SPACER	
14	91084072	AR	.148 SPACER	
14	91084073	AR	.154 SPACER	
14	91084074	AR	.158 SPACER	
15		Ref	PINION BEARING CUP	
16	91084059	1	PINION BEARING CONE	
17		Ref	PINION	
18	91084075	AR	.003 SHIM	
18	91084076	AR	.005 SHIM	
18	91084077	AR	.010 SHIM	
19	91084078	1	REAR PINION BEARING	
20	91084079	1	REAR PINION LOCKRING	
21	91084080	1	DIFFERENTIAL CARRIER ASSY	
22	83073699	1	PLUG	
23	91084081	4	THRUSTWASHER	
24	91084082	4	PINION	
25	91084083	1	SPIDER	
26	91084084	2	GEAR	
27	91084085	2	THRUSTWASHER	
28	91084086	2	CLUTCH SPACER	
29	91084087	2	CLUTCH DISC	
30	91084088	AR	.005 SHIM	
30	91084089	AR	.010 SHIM	
30	91084090	AR	.013 SHIM	
30	91084091	AR	.015 SHIM	
31	91084092	16	CLUTCH DISC	
32	91084093	1	GEAR ASSY, (includes item 17)	
33	91084094	1	FLANGE HALF DIFF CASE ASSY, (includes items 1, 19, 20, 23 thru 31, 33 & 42 thru 48)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
33	91084095	1	DIFFERENTIAL CASE ASSY, (includes items 23 thru 31, 45 thru 48)	
34	91084097	2	BEARING CONE	
35	91084098	2	BEARING CUP	
36	91084099	2	ADJUSTING RING	
37		Ref	DOWEL PIN	
38		Ref	WASHER	
39		Ref	CAPSCREW	
40	83483441	2	COTTER PIN	
41		Ref	BEARING CAP, (includes item 37)	
42	91084101	12	CAPSCREW	
43	91084102	12	WASHER	
44	77104297	12	NUT	
45	91084103	14	CLUTCH DISC	
46		Ref	PLAIN HALF DIFF CASE	
47	91084104	12	CAPSCREW	
48	91084102	12	WASHER	
49	91084360	1	SPLINED SHAFT	
50	91084354	1	INNER SPLINE ADAPTER	
51	91084355	1	OUTER COLLAR	
52	91084356	1	EXTERNAL SNAP RING	
53	91084357	1	INTERNAL SNAP RING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-7. CARRIER ASSEMBLY (SN 0177165 to Present)



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FIGURE 5-7. CARRIER ASSEMBLY (SN 0177165 to Present)

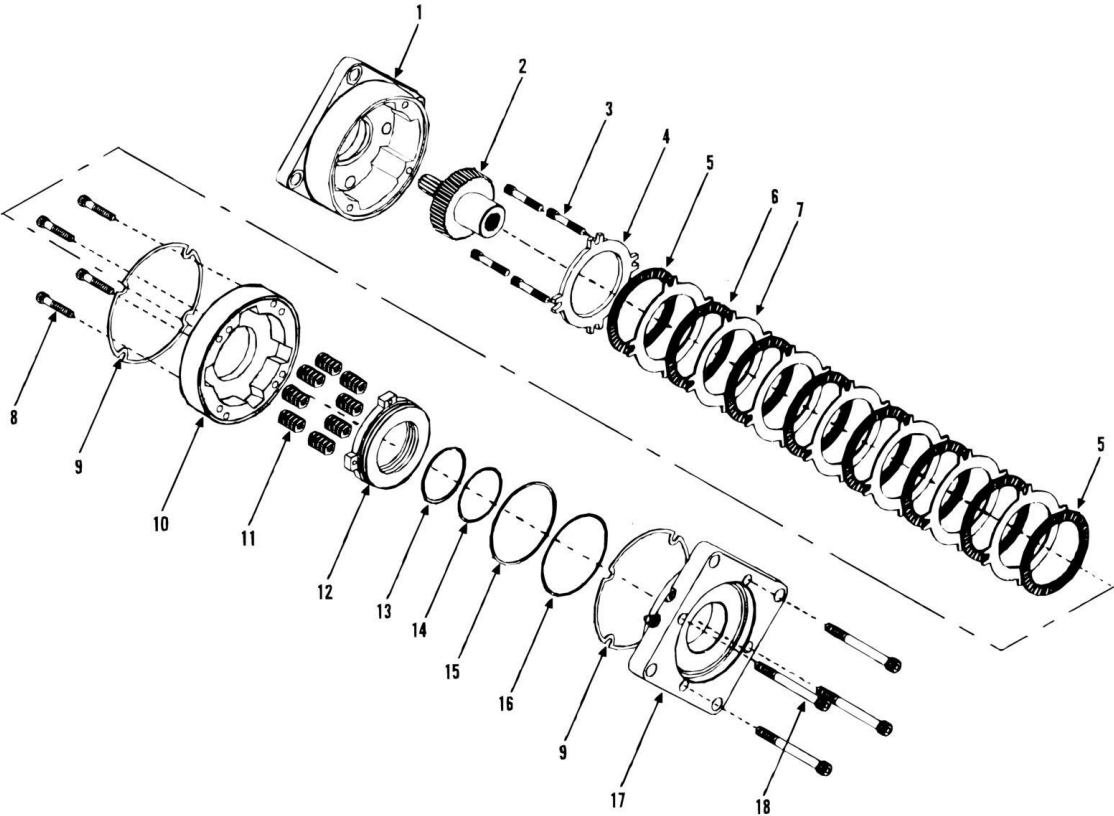
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91144382	Ref	LIMITED SLIP PLATE STACK KIT (includes items 10, 11, 12, 13 & 14)	
	91144383	Ref	PINION CAGE SHIM KIT (includes item 23)	
	91144384	Ref	DRIVE PINION SHIM KIT (includes item 27)	
	91144385	Ref	LIMITED SLIP SHIM KIT (includes item 12)	
1	91144386	4	CAPSCREW	
2	91144387	2	ADJUSTER RING LOCK	
3	91144388	2	ADJUSTER RING	
4	83073828	2	BEARING CUP	
5	91144389	2	BEARING CONE	
6	91144390	1	DIFFERENTIAL CASE	
7	91144391	12	CAPSCREW, M10X1.0X30.0	
8	83483584	12	WASHER	
9	91144392	1	SPIRAL GEAR AND PINION	
10	Kit	8	DRIVE FRICTION DISC (included in 91144382 kit)	
11	Kit	6	DRIVEN FRICTION DISC (included 91144382 kit)	
12	Kit	2	SHIM (0.33) (included in shim kit)	
12	Kit	2	SHIM (0.38) (included in shim kit)	
12	Kit	2	SHIM (0.25) (included in shim kit)	
12	Kit	2	SHIM (0.13) (included in shim kit)	
13	Kit	2	COMPRESSION DISC (included in 91144382 kit)	
14	Kit	2	THRUSTWASHER (included in 91144382 kit)	
15	91144393	2	SIDE GEAR	
16	91144394	1	SPIDER	
17	91144395	4	THRUSTWASHER	
18	91144396	4	PINION GEAR	
19	83483584	12	WASHER	
20	91144397	12	CAPSCREW, M10X1.5X80.0	
21	90207204	1	BEARING CONE	
22	90200440	1	BEARING CUP	
23	Kit	4	SHIM (0.05) (included in shim kit)	
23	Kit	2	SHIM (0.125) (included in shim kit)	
23	Kit	3	SHIM (0.20) (included in shim kit)	
23	Kit	1	SHIM (0.50) (included in shim kit)	
24	91144398	1	PINION CAGE ASSY (includes items 22 & 29)	
25	91144399	8	WASHER	
26	91144400	8	CAPSCREW, M12X1.75X40.0	
27	Kit	1	SHIM (1.20) (included in shim kit)	
27	Kit	1	SHIM (1.25) (included in shim kit)	
27	Kit	1	SHIM (1.30) (included in shim kit)	
27	Kit	1	SHIM (1.35) (included in shim kit)	
27	Kit	1	SHIM (1.40) (included in shim kit)	
27	Kit	1	SHIM (1.45) (included in shim kit)	
27	Kit	1	SHIM (1.50) (included in shim kit)	
28	91144401	1	BEARING CONE	
29	91144402	1	BEARING CUP	
30	91144403	1	MOTOR ADAPTER FLANGE	
31	83483584	8	WASHER	
32	91144404	8	CAPSCREW, .3750-16UNC-2AX1.25	
33	91144405	1	DRIVEN SLEEVE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
34	91144406	1	PINION NUT, M24X1.5	
35	91144407	1	DRIVE SLEEVE	
36	91144408	1	SNAP RING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-8. (91084055) BRAKE ASSEMBLY (SN 0177005 to Present)



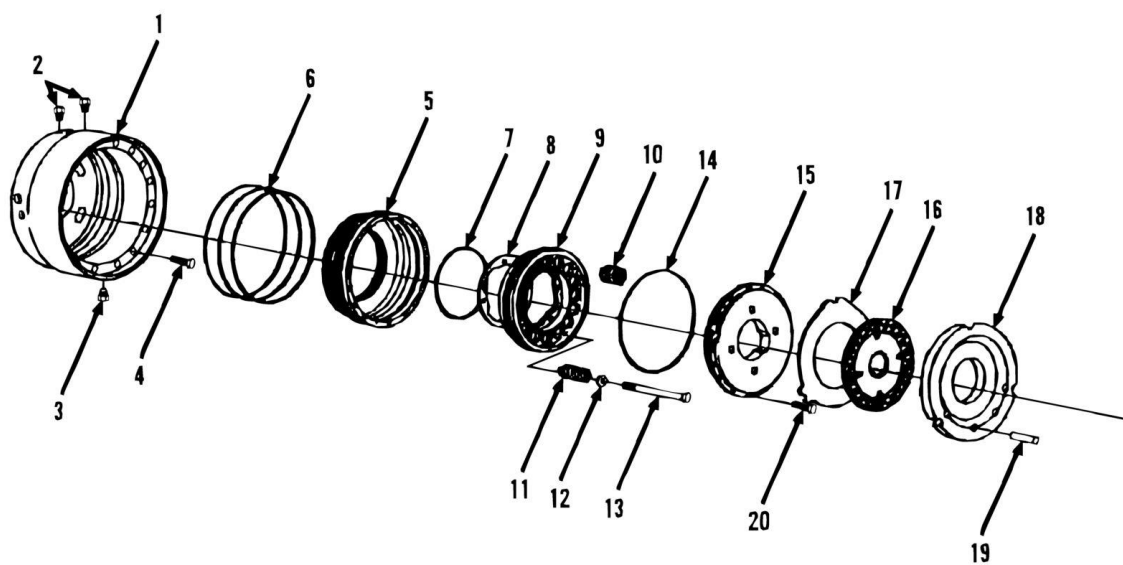
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FIGURE 5-8. (91084055) BRAKE ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084055	1	BRAKE ASSY (includes items 1 thru 18)	
	91084211	1	SPRING KIT (includes items 9 & 11)	
	91084212	1	SEAL KIT (includes items 9, & items 13 thru 18)	
	91084213	1	LINING KIT (includes items 4, 5, 6, 7 & 9)	
1		Ref	COVER PLATE	
2		Ref	SPLINED SHAFT	
3		Ref	SOCKET HD SHOULDER BOLT	
4	Kit	1	PRIMARY DISC	
5	Kit	2	ROTOR DISC (thick)	
6	Kit	6	ROTOR DISC	
7	Kit	7	STATOR DISC	
8		Ref	SOCKET HD CAPSCREW	
9	Kit	2	CASE GASKET	
10	Kit	1	SPRING PLATE	
11	Kit	8	SPRING	
12		Ref	PISTON	
13	Kit	1	BACK-UP RING	
14	Kit	1	O-RING	
15	Kit	1	BACK-UP RING	
16	Kit	1	O-RING	
17	Kit	1	PRESSURE PLATE	
18	Kit	4	SOCKET HD BOLT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	
		Ref	NOTE: ALL REPAIR KITS CONTAIN TWO TYPES OF GASKETS (ITEM 9). BE SURE TO USE THE CORRECT GASKETS FOR YOUR MODEL.	

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FIGURE 5-9. BRAKE ASSEMBLY (SN 0177165 to Present)



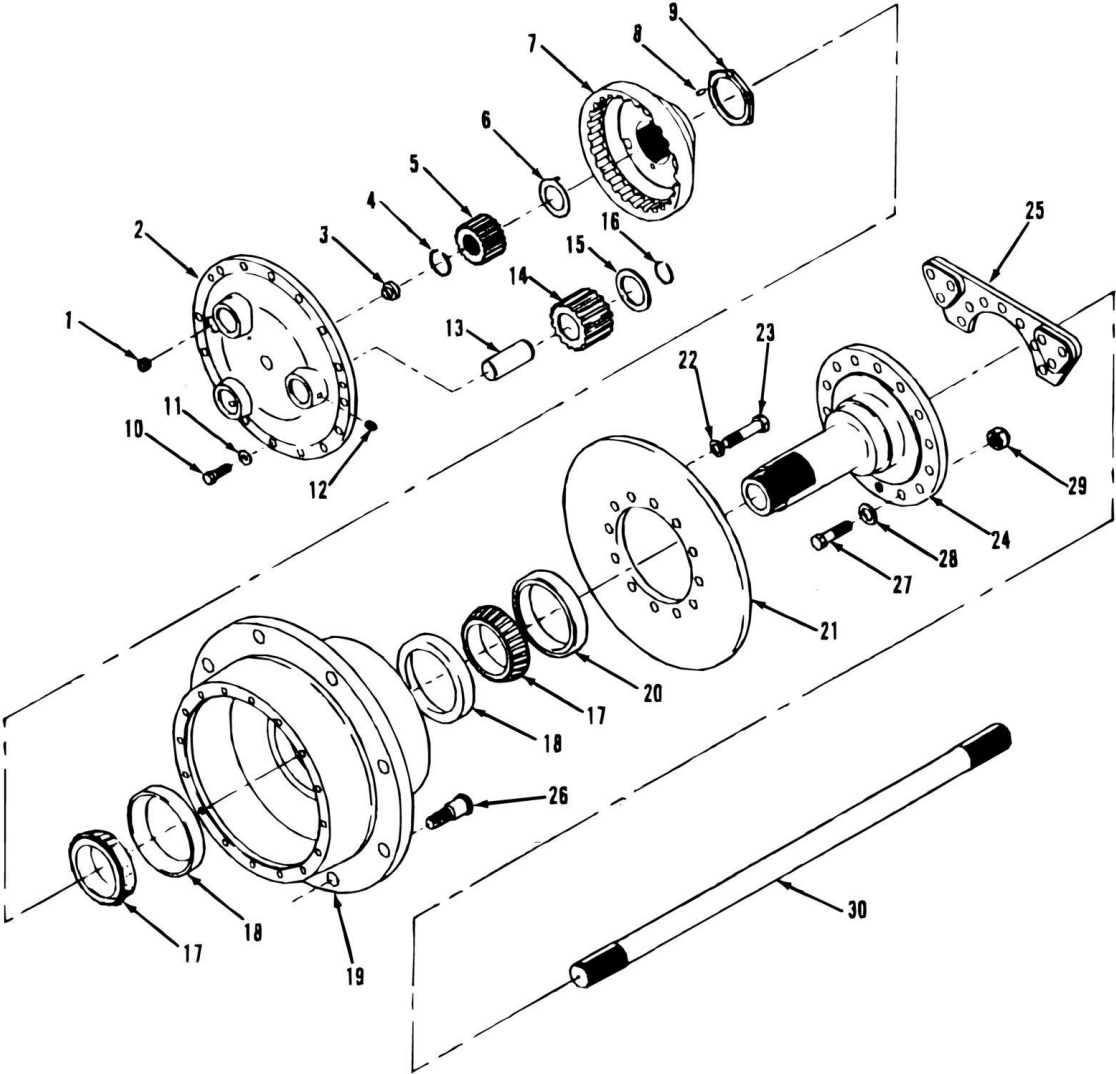
SECTION 5 - DRIVE TRAIN

FIGURE 5-9. BRAKE ASSEMBLY (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91144442	Ref	BRAKE SEAL KIT (includes items 6, 7, & 14), (services both sides)	
	91144369	Ref	BRAKE PISTON PLATE KIT (includes items 15, 16, 17 & 18), (services one side)	
	91144370	Ref	BRAKE PLATE AND SEAL KIT (includes items 6, 7, 14, 15, 16, 17 & 18), (services one side)	
	91144371	Ref	PISTON BRAKE SHIM KIT (includes item 8), (services one side)	
	91144372	1	BRAKE HOUSING (right side only - left side included in center housing)	
	91144373	4	HYDRAULIC LINE BLEEDER	
		Ref	DRAIN PLUG (See FRONT AXLE for Breakdown)	
	91144374	3	CAPSCREW - RIGHT SIDE ONLY, M8X1.25X40.0	
	91124094	2	BRAKE PISTON AND PLATE ASSY (includes items 6, 7, 9, 10, 14, 15, & 20)	
	91124110	6	O-RING	
	91124111	2	O-RING	
	Kit	8	SHIM (0.075) (included in shim kit)	
	Kit	8	SHIM (0.125) (included in shim kit)	
	Kit	8	SHIM (0.255) (included in shim kit)	
	Kit	8	SHIM (0.555) (included in shim kit)	
	91144376	2	BRAKE PISTON	
	91144377	24	SPRING	
	91144378	16	SPRING	
	86881421	16	WASHER	
	91144379	16	RETURN SPRING BOLT	
	91124112	2	O-RING	
15	Kit	2	BRAKE ACTUATING PLATE	
16	Kit	8	FRICTION DISC	
17	Kit	8	STATIONARY DISC	
18	Kit	2	BRAKE REACTION PLATE	
19	91144380	6	BRAKE DISC LOCKPIN	
20	91144381	42	CAPSCREW, M6X1.0X12.0 (allen)	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR BOTH SIDES.	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-10. (91084164) FRONT AXLE SHAFT AND PLANETARY WHEEL END (SN 0177005 to Present)



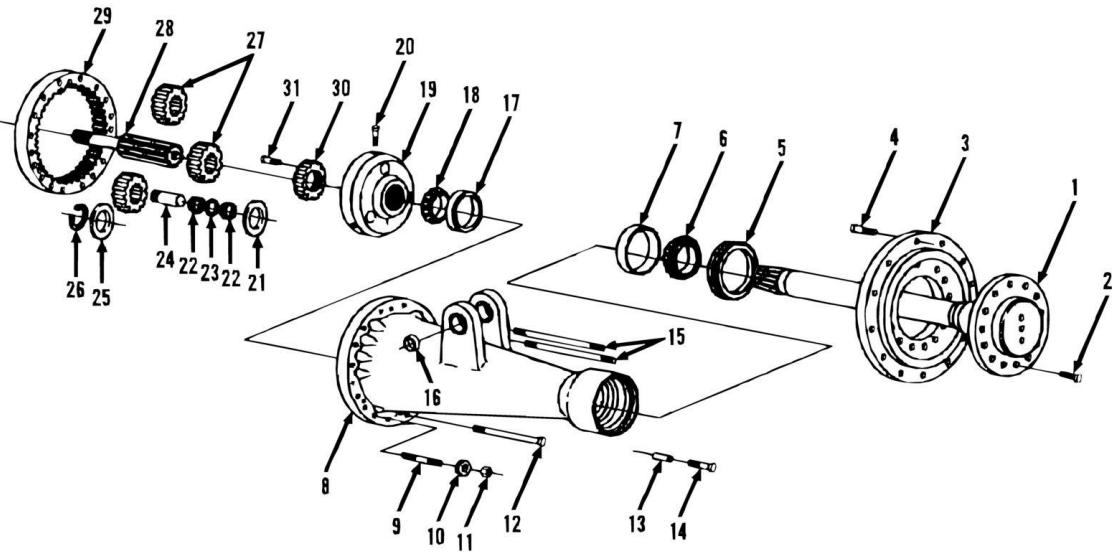
SECTION 5 - DRIVE TRAIN

FIGURE 5-10. (91084164) FRONT AXLE SHAFT AND PLANETARY WHEEL END (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084164	2	WHEEL END ASSY (includes all items)	
1	77104343	2	FILLER LEVEL PLUG	
2	91084105	2	PINION SPIDER	
3	91084106	2	THRUST BUTTON	
4	91084107	2	SNAP RING	
5	91084108	2	SUN GEAR	
6	91084109	2	THRUSTWASHER	
7	91084110	2	RING GEAR	
8		Ref	PIN	
9	91084111	2	ADJUSTABLE LOCKNUT (includes item 8)	
10	91084112	32	CAPSCREW	
11	91084113	32	WASHER	
12	91084114	6	SET SCREW	
13	91084115	6	PINION SHAFT	
14	91084116	6	PINION GEAR	
15	91084117	6	THRUSTWASHER	
16	91084118	6	SNAP RING	
17	91084119	2	BEARING CONE	
18	83684127	2	BEARING CUP (pressed into hub)	
19	91084120	2	WHEEL HUB (includes item 18)	
20	91084121	2	OIL SEAL	
21	91084122	2	BRAKE DISC	
22	83081152	24	WASHER	
23	91084123	24	CAPSCREW	
24	91084124	2	SPINDLE	
25	91084125	2	BRAKE ADAPTER	
26	91084126	24	WHEEL STUD	
27	91084127	14	CAPSCREW	
27	91084128	14	CAPSCREW (w/o brake adapter)	
28	91084129	28	WASHER	
29	91084130	28	NUT	
30	91084131	2	AXLE SHAFT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-11. (91144339) (91144337) LEFT/RIGHT HOUSING ASSEMBLY & (91144333) (91144335) AXLE SHAFT AND WHEEL FLANGE ASSEMBLY (SN 0177165 to Present)



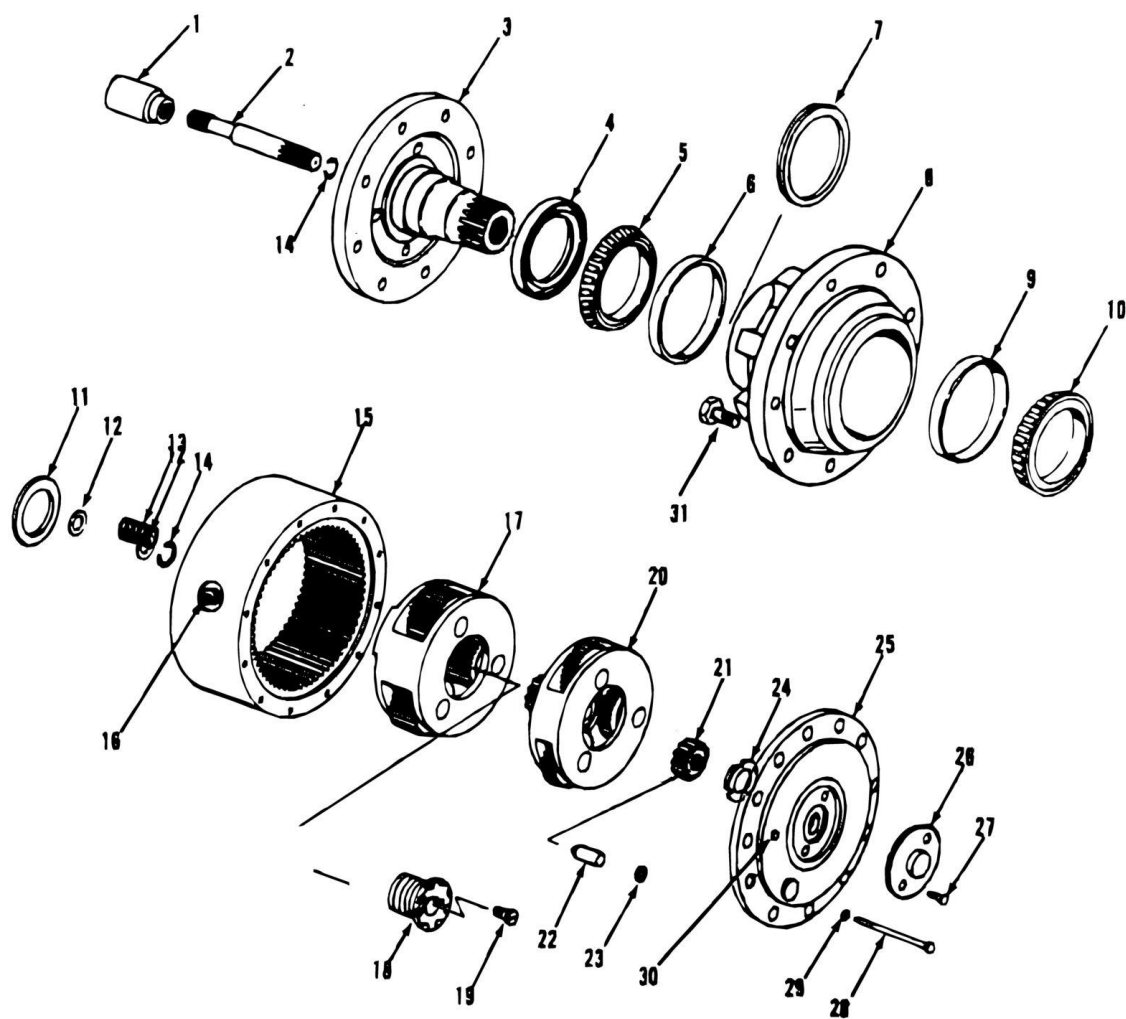
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FIGURE 5-11. (91144339) (91144337) LEFT/RIGHT HOUSING ASSEMBLY & (91144333) (91144335) AXLE SHAFT AND WHEEL FLANGE ASSEMBLY (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91144333	2	AXLE SHAFT ASSY (includes items 2, 3, 4 & 5)	
2	91144334	28	CAPSCREW, M20X1.5X50.0	
3	91144335	2	WHEEL FLANGE ASSY (includes item 4)	
4	90203543	24	WHEEL BOLT	
5	91144336	2	SHAFT OIL SEAL	
6	86984451	2	BEARING CONE	
7	86984452	2	BEARING CUP	
8	91144337	1	HOUSING ASSY - RIGHT SIDE (shown) (includes items 7, 16 & 17)	
8	91144338	Ref	RING GEAR AND HOUSING ASSY - RIGHT SIDE (shown) (includes items 7, 16, 17 & 29)	
8	91144339	1	HOUSING ASSY - LEFT SIDE (not shown) (includes items 7 & 17)	
8	91144340	Ref	RING GEAR AND HOUSING ASSY - LEFT SIDE (not shown) (includes items 7, 17 & 29)	
9	91144341	4	SET SCREW	
10	91144342	32	WASHER	
11	91144343	8	NUT, M14X1.5-6H	
12	91144344	14	CAPSCREW - RIGHT SIDE, M14X1.5X212.0	
12	91144345	14	CAPSCREW - LEFT SIDE, M14X1.5X120.0	
13	91144346	2	SPACER - 19mm	
13	91144347	4	SPACER - 26mm	
14	91144348	4	CAPSCREW - USE W/26mm SPACER, M14x1.5x85 (position at 7 & 5 o'clock)	
14	91144349	2	CAPSCREW - USE W/19mm SPACER, M14x1.5x78 (position at 12 o'clock)	
15	91144350	2	STUD - RIGHT SIDE, M14X1.5X232.0	
15	91144351	2	STUD - LEFT SIDE, M14X1.5X112.0	
16	91144352	2	BUSHING	
17	91144353	2	BEARING CUP	
18	91144354	2	BEARING CONE	
19	91144355	2	SPIDER ASSY (includes items 20 & 24)	
20	91144356	6	CAPSCREW, M10X23.0	
21	91144357	6	THRUSTWASHER	
22	91144358	6	KIT ROLLER	
23	91144359	6	SPACER	
24	91144360	6	PLANETARY PINION SHAFT	
25	91144361	6	WASHER	
26	91144362	6	SNAP RING	
27	91144363	6	PLANETARY PINION	
28	91144364	1	SUN GEAR (287.0mm) - RIGHT SIDE (shown)	
28	91144365	1	SUN GEAR (247.0mm) - LEFT SIDE (not shown)	
29	91144366	2	RING GEAR	
30	91144367	2	ADJUSTING NUT	
31	91144368	2	CAPSCREW (adjusting nut lock)	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR BOTH SIDES.	

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FIGURE 5-12. (91123024) REAR STEERING AXLE DRIVE HUB (524) (SN 0177005 to Present)



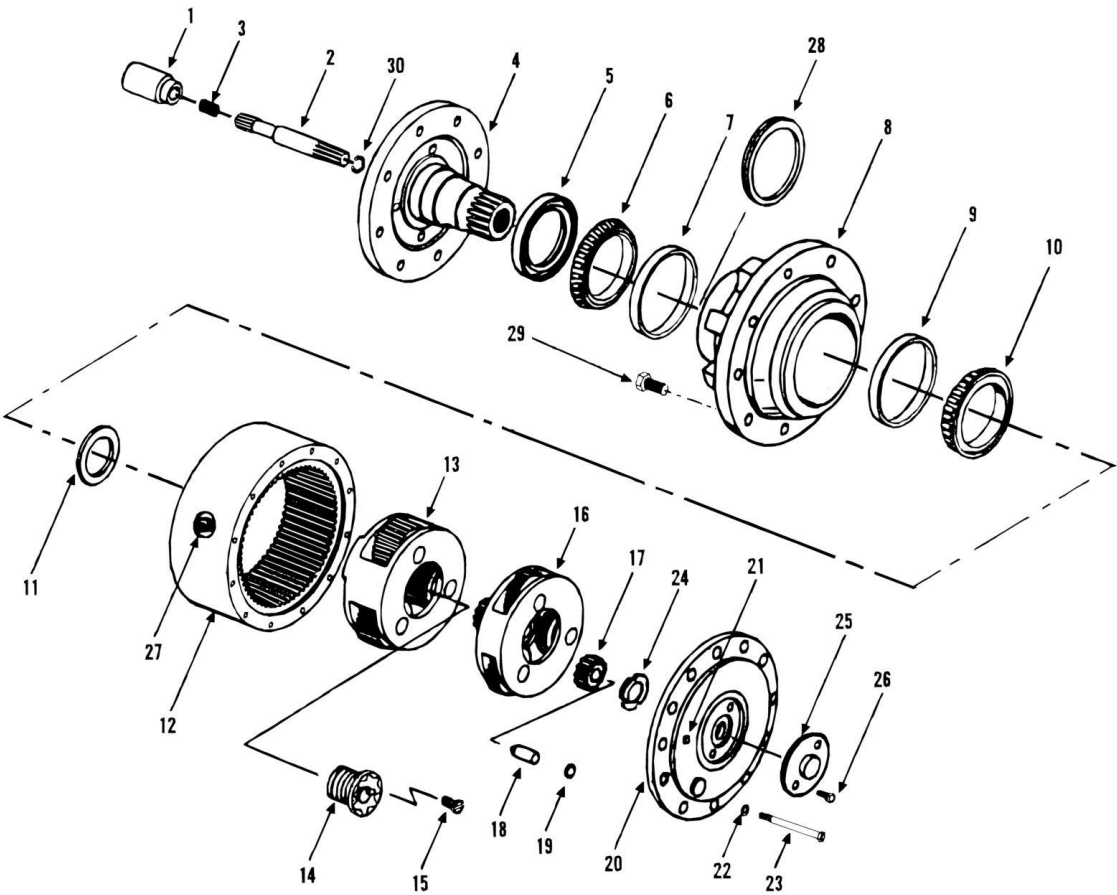
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FIGURE 5-12. (91123024) REAR STEERING AXLE DRIVE HUB (524) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91123024	1	REAR DRIVE HUB (includes all items)	
	91044462	Ref	SEAL KIT (includes items 4, 7 & 19)	
1	91124001	1	COUPLING	
2	91124002	1	INPUT SHAFT	
3		Ref	SPINDLE	
4	91124004	1	OIL SEAL	
5	91124010	1	BEARING CONE	
6	91124009	1	BEARING CUP	
7	91124007	1	SEAL	
8	91124008	1	HUB	
9	91124006	1	BEARING CUP	
10	91124005	1	BEARING CONE	
11	91124011	1	THRUSTWASHER	
12	91124012	2	THRUSTWASHER	
13	91124013	1	SPRING	
14	91124014	2	RETAINING RING	
15	91124015	1	RING GEAR	
16	91124016	1	MAGNETIC PLUG	
17	91124017	1	SECONDARY CARRY ASSY, (includes items 18 & 19)	
18	91094003	1	LOCKNUT	
19	91064010	1	LOCKSCREW	
20	91124018	1	PRIMARY CARRIER ASSY	
21	91124019	1	PRIMARY SUN GEAR	
22	91124020	1	DISENGAGE PLUNGER	
23	91124021	1	O-RING	
24	91044105	1	THRUSTWASHER	
25	91124023	1	COVER	
26	91124024	1	DISENGAGE COVER	
27	91124025	2	BOLT	
28	91124026	12	BOLT	
29	91124027	12	FLATWASHER	
30	91124028	1	PIPE PLUG	
31	91044311	12	WHEEL BOLT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-13. (91083462) REAR STEERING AXLE DRIVE HUB (524) (SN 0177106 to Present)



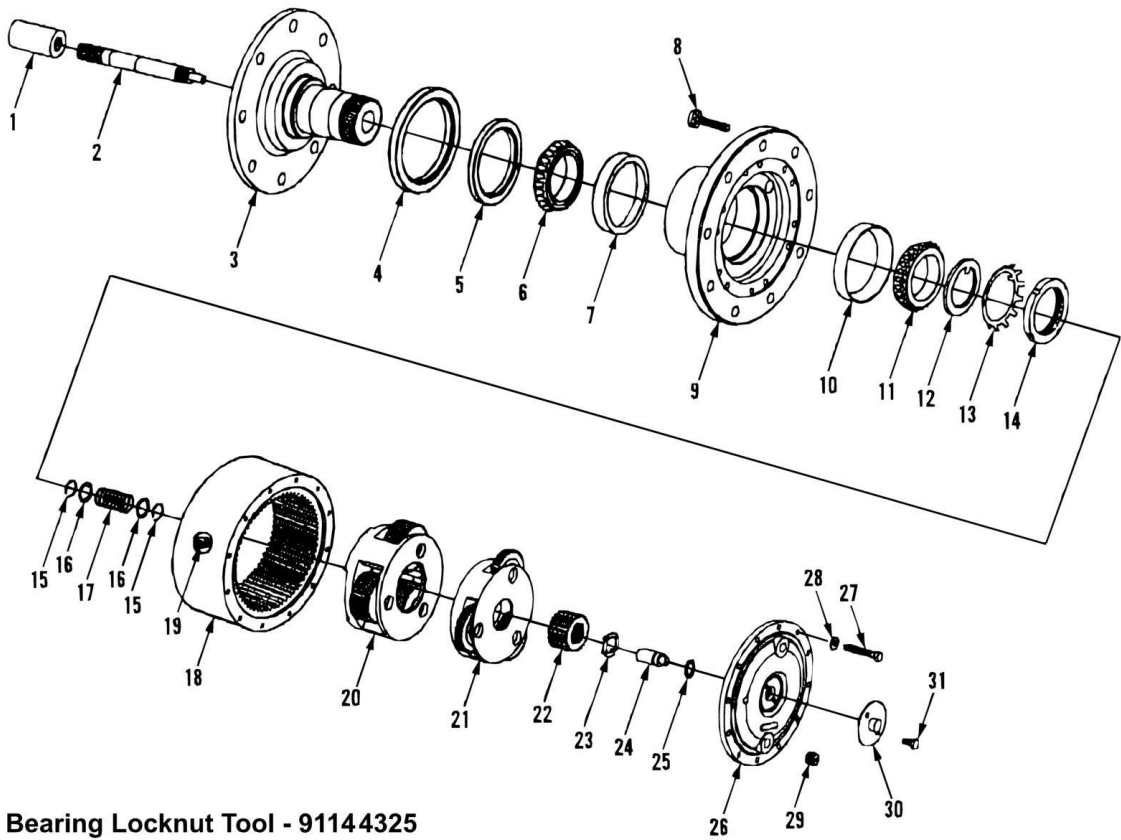
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FIGURE 5-13. (91083462) REAR STEERING AXLE DRIVE HUB (524) (SN 0177106 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083462	1	REAR DRIVE HUB (includes all items)	
	91044462	Ref	SEAL KIT (includes items 5, 15 & 28)	
1	91124001	1	COUPLING, 8IN	
2	91124002	1	INPUT SHAFT	
3	91044278	1	SPRING	
4		Ref	SPINDLE	
5	Kit	1	OIL SEAL	
6	90202501	1	BEARING CONE	
7	90202500	1	BEARING CUP	
8	91044360	1	HUB	
9	91064006	1	BEARING CUP	
10	91064005	1	BEARING CONE	
11	91064007	1	THRUSTWASHER	
12	91044100	1	RING GEAR	
13	91044282	1	SECONDARY CARRIER ASSY (includes items 14 & 15)	
14	91094003	1	LOCKNUT	
15	91064010	1	LOCKSCREW	
16	91044103	1	PRIMARY CARRIER ASSY	
17	91044104	1	PRIMARY SUN GEAR	
18	91044106	1	DISENGAGE PLUNGER	
19	91044107	1	O-RING	
20	91044109	1	COVER	
21	91044361	1	PIPE PLUG	
22	91124027	12	FLAT WASHER	
23	91044111	12	HEX HD CAPSCREW, 3/8-16	
24	91044105	1	THRUSTWASHER	
25	91044112	1	DISENGAGE COVER	
26	91044113	2	HEX HD BOLT, 5/16-18X1/2	
27	91044101	1	MAGNETIC PLUG	
28	Kit	1	SEAL	
29	91044311	12	WHEEL BOLT	
30	91044099	1	RETAINING RING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 5-14. (91123145) REAR STEERING AXLE DRIVE HUB (SN 0177419 to Present)



Bearing Locknut Tool - 91144325

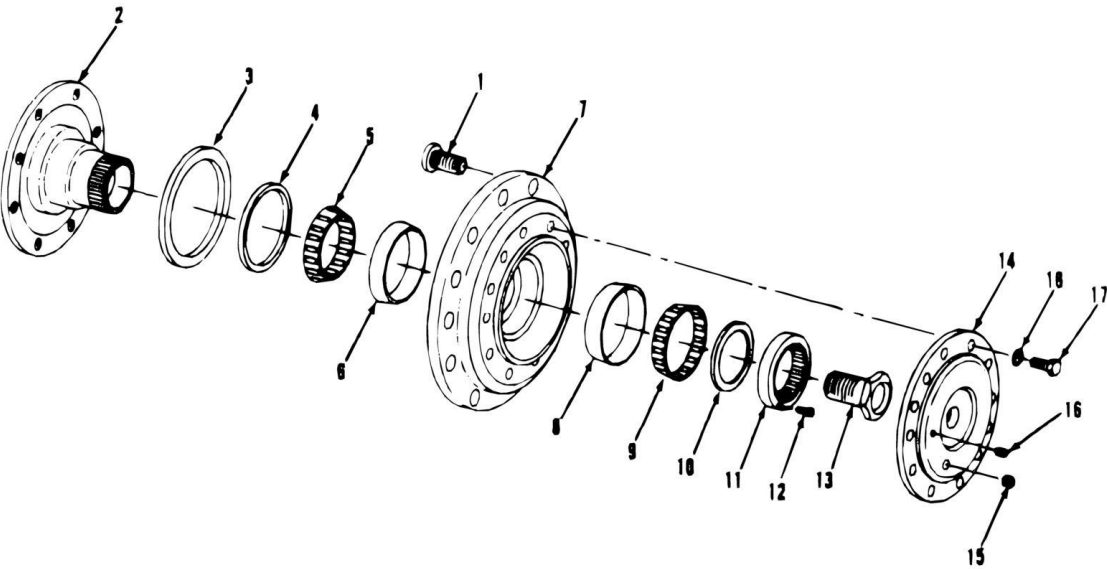
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FIGURE 5-14. (91123145) REAR STEERING AXLE DRIVE HUB (SN 0177419 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91123145	2	REAR DRIVE HUB (includes all items)	
		Ref	SEAL KIT	
1	91124001	1	COUPLING, 8IN	
2	91124113	1	INPUT SHAFT	
3	91124114	1	SPINDLE	
4	91124007	1	BOOT SEAL	
5	91124004	1	OIL SEAL	
6	91124010	1	BEARING CONE	
7	91124009	1	BEARING CUP	
8	91044311	12	WHEEL BOLT, 3/4-16	
9	91144178	1	HUB	
10	91144179	1	BEARING CUP	
11	91144180	1	BEARING CONE	
12	91144181	1	THRUSTWASHER	
13	91144182	1	LOCKWASHER	
14	91144183	1	BEARING LOCKNUT	
15	91124014	2	RETAINING RING	
16	91034390	2	THRUSTWASHER	
17	91144175	1	DISENGAGE SPRING	
18	91144184	1	RING GEAR	
19	91044101	1	MAGNETIC PLUG	
20	91144185	1	SECONDARY CARRIER ASSY	
21	91144186	1	PRIMARY CARRIER ASSY	
22	91144187	1	PRIMARY SUN GEAR	
23	91044105	1	THRUSTWASHER	
24	91044106	1	PLUNGER	
25	91044107	1	O-RING	
26	91144188	1	COVER	
27	91144189	12	HEX HD BOLT, GR8	
28	91124027	12	FLATWASHER	
29	91124028	1	PIPE PLUG	
30	91124024	1	DISENGAGE COVER	
31	91124025	2	HEX HD BOLT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	
		Ref	QUANTITIES SHOWN ARE FOR ONE HUB ASSEMBLY ONLY.	

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FIGURE 5-15. (91093006) REAR STEERING AXLE NON DRIVE HUB (522) (SN 0177005 to Present)



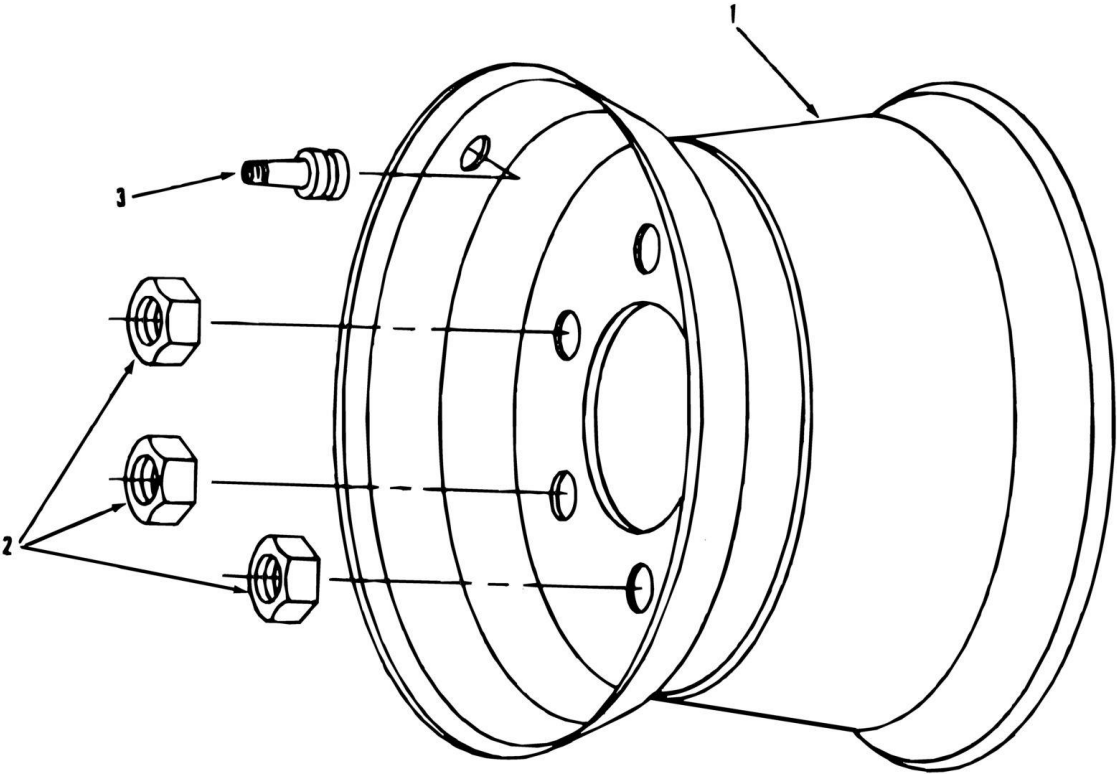
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FIGURE 5-15. (91093006) REAR STEERING AXLE NON DRIVE HUB (522) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91093006	1	NON-DRIVING HUB ASSY (includes all items)	
1	91044311	12	WHEEL BOLT	
2	91094008	1	OUTPUT SHAFT	
3	91124007	1	SEAL BOOT	
4	91124004	1	OIL SEAL	
5	91124010	1	BEARING CONE	
6	91124009	1	BEARING CUP	
7	91124008	1	HUB	
8	91124005	1	BEARING CONE	
9	91124006	1	BEARING CUP	
10	91124011	1	THRUSTWASHER	
11	91094004	1	SPLINED SPACER	
12	91094015	1	LOCKSCREW	
13	91094003	1	LOCKNUT	
14	91094001	1	COVER	
15	91124016	1	MAGNETIC PLUG	
16	91124028	1	PIPE PLUG	
17	91094013	12	HEX HD BOLT	
18	91124027	12	WASHER	

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FIGURE 5-16. WHEELS AND TIRES (SN 0177005 to Present)



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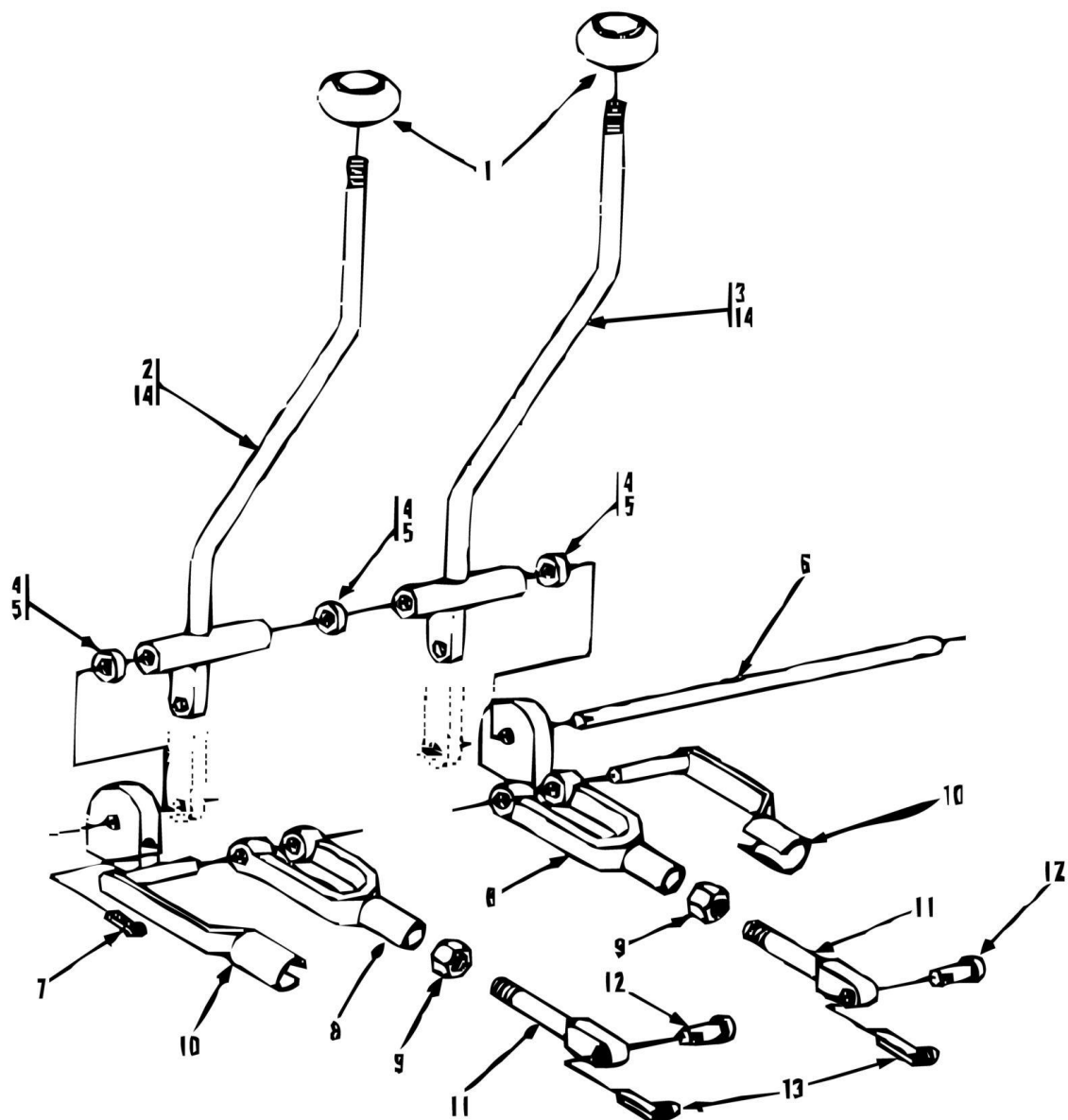
FIGURE 5-16. WHEELS AND TIRES (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125002	1	R.H. TIRE ASSY (includes items 1,3, & 4)	
	91125003	1	L.H. TIRE ASSY (includes items 1,3, & 4)	
1	91043298	1	WHEEL	
2	91043146	12	LUG NUT	
3	91083385	1	VALVE	
4	91033104	1	TIRE (not illustrated)	

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FIGURE 6-1. TILT AND SWAY (SN 0177005 to Present)



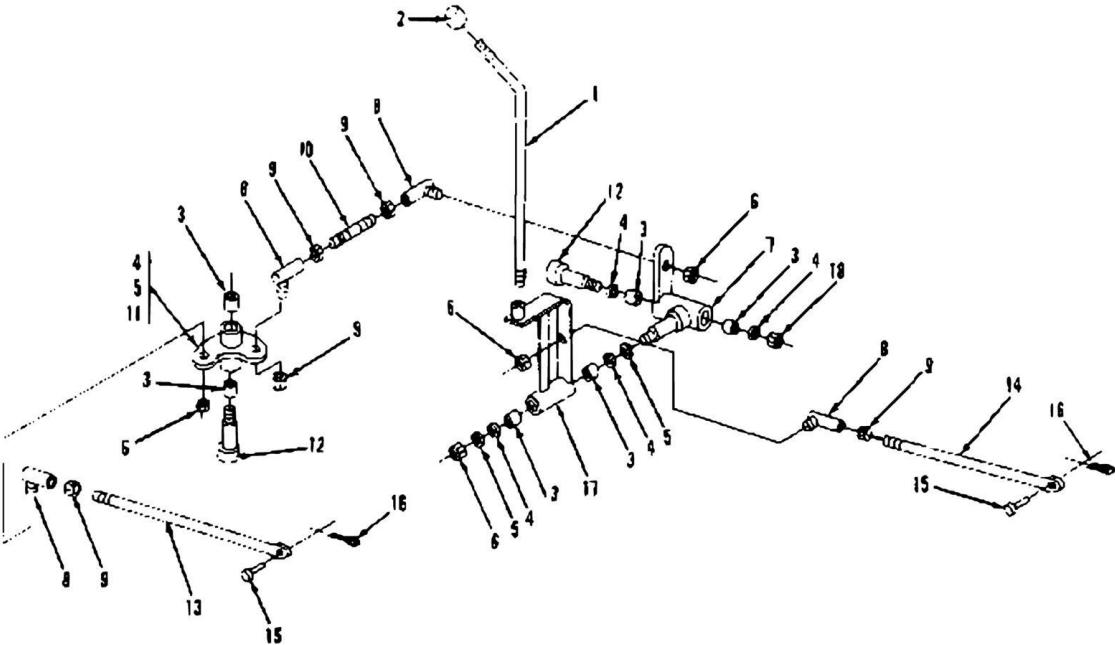
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FIGURE 6-1. TILT AND SWAY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90200638	2	KNOB	
2	91086111	1	LEVER ASSY, SWAY	
3	91086112	1	LEVER ASSY TILT	
4	90028662	3	WAVE BEND WASHER	
5	88561113	AR	FLAT WASHER, 5/8	
6	91081354	1	SHAFT	
7	88631338	1	COTTER PIN, 3/16X1-3/4	
8	88821004	2	YOKE END	
9	88501406	2	HEX JAM NUT, 3/8-24	
10	90027987	2	SPRING CLEVIS	
11	91086081	2	ROD LINKAGE	
12	90021552	2	CLEVIS PIN	
13	88631301	2	COTTER PIN, 1/16X1/2	
14	91083136	4	BUSHING	

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FIGURE 6-2. LIFT AND CROWD (SN 0177005 to Present)



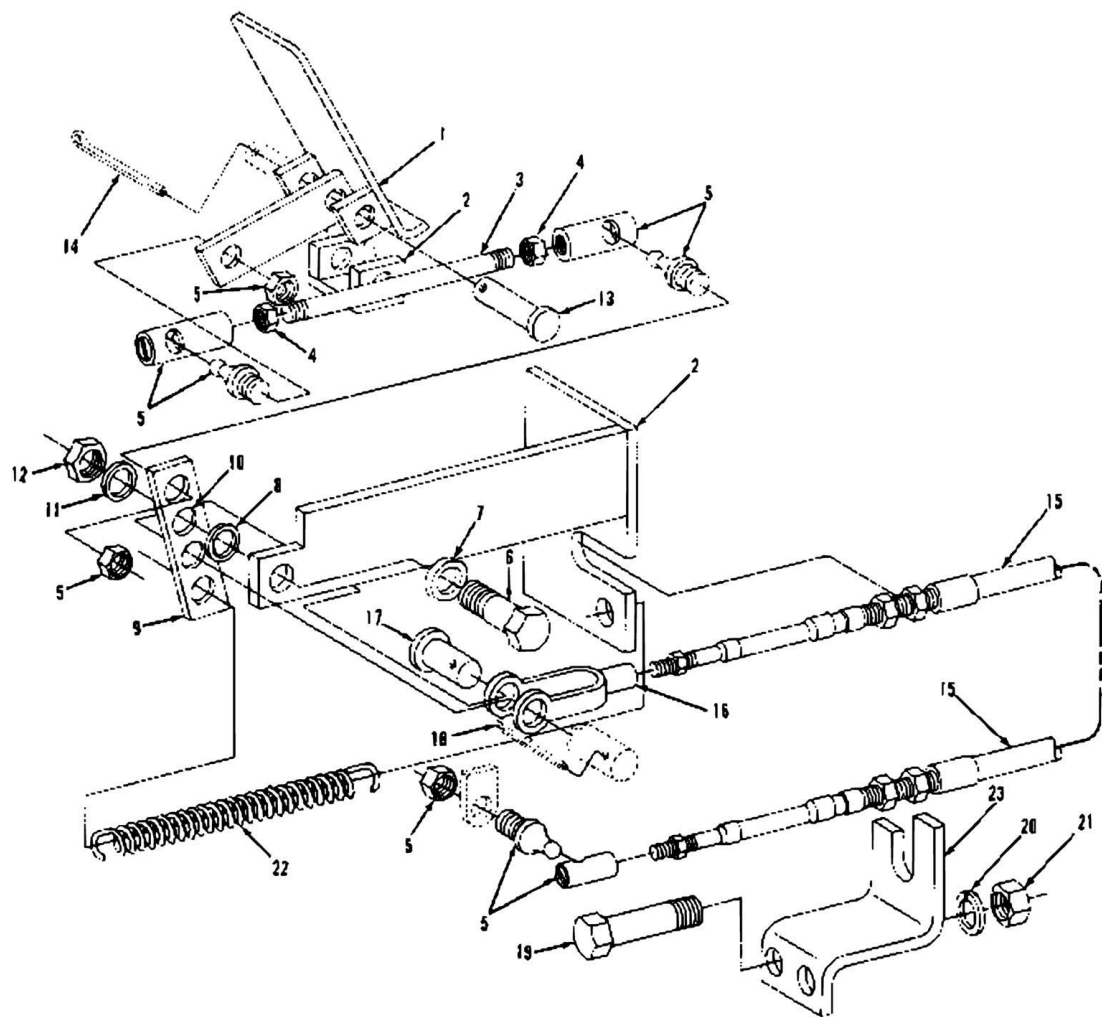
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FIGURE 6-2. LIFT AND CROWD (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91086113	1	HANDLE WELDMENT	
2	90200638	1	KNOB	
3	91083136	6	BUSHING	
4	90028662	3	WAVE BEND WASHER	
5	88561113	AR	FLAT WASHER, 5/8	
6	88501008	1	HEX NUT, 1/2-13	
7	91086064	1	BELLCRANK	
8	90200406	3	BALL JOINT	
9	88501406	4	HEX JAM NUT, 3/8-24	
10	90400543	1	ROD	
11	91086031	1	BELL CRANK	
12	90203502	2	SOCKET HD SHOULDER BOLT	
13	91066021	1	LINKAGE ROD	
14	91066020	1	LINKAGE ROD	
15	90021152	2	CLEVIS PIN	
16	88631301	2	COTTER PIN, 1/16X1/2	
17	91086063	1	BELLCRANK	
18	88501108	1	HEX JAM NUT, 1/2-13	

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FIGURE 6-3. ACCELERATOR LINKAGE (SN 0177005 to Present)



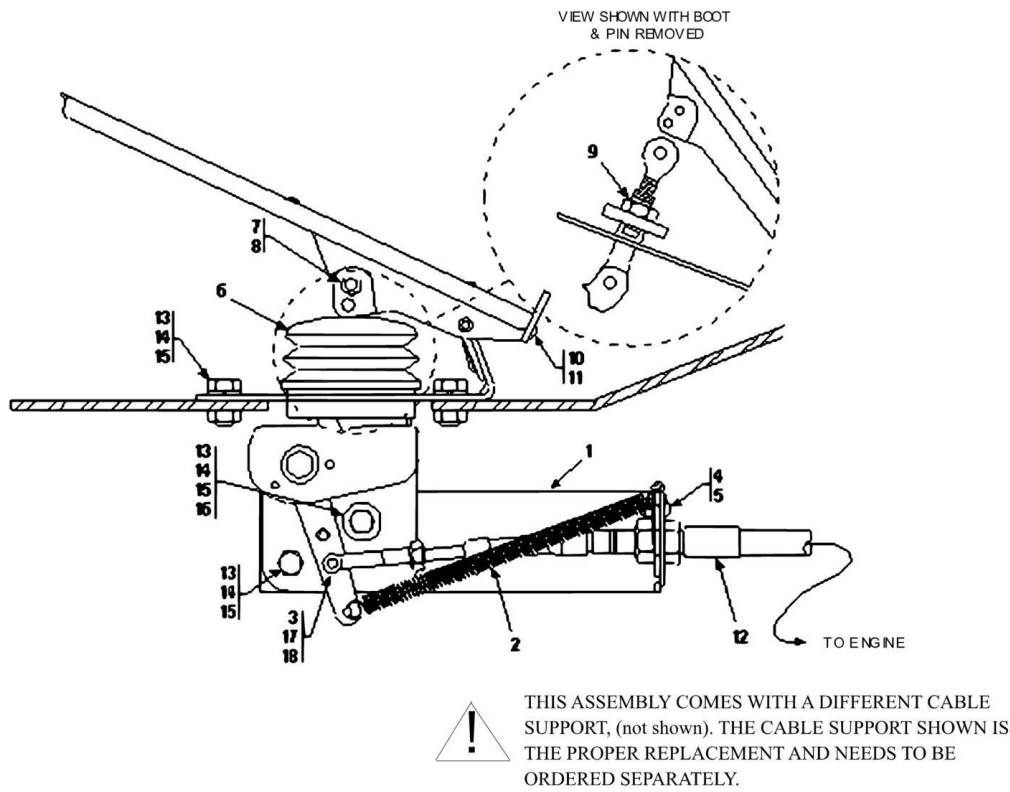
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FIGURE 6-3. ACCELERATOR LINKAGE (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91036022	1	ACCELERATOR PEDAL WELDMENT	
2	91086132	1	FLOOR PLATE WELDMENT	
3	91031088	1	ROD	
4	88501404	2	HEX JAM NUT, 1/4-28	
5	86683118	3	BALL JOINT	
6	88251018	1	SOCKET HEAD SHOULDER SCREW, 3/8X1/2	
7	90028946	2	WAVE BEND WASHER	
8	88561111	1	FLATWASHER, 1/2	
9	91031087	1	BELLCRANK	
10	91033281	1	BEARING (not shown)	
11	88561109	1	FLATWASHER, 3/8	
12	88501105	1	HEAVY HEX JAM NUT, 5/16-18	
13	90021584	1	CLEVIS PIN	
14	88631318	1	COTTER PIN 1/8X1	
15	91083404	1	THROTTLE CABLE	
16	90028977	1	YOKE	
17	88633001	1	YOKE PIN, 1/4	
18	88631301	1	COTTER PIN, 1/16X1/2	
19	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
20	88551009	2	LOCKWASHER, 1/4	
21	88501616	2	HEX NUT, 1/4-20	
22	90207801	1	SPRING	
23	91081243	1	THROTTLE CABLE BRACKET	

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FIGURE 6-4. (91143118) ACCELERATOR PEDAL ASSY (SN 0177122 to Present)



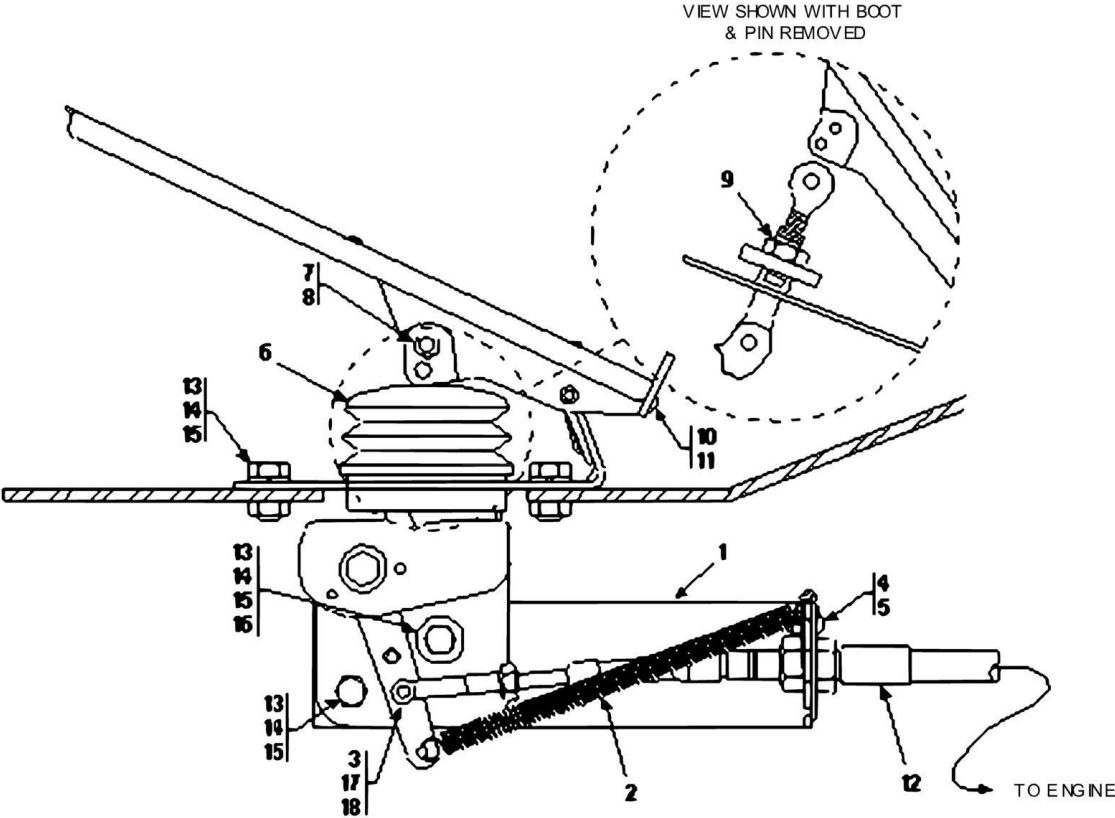
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FIGURE 6-4. (91143118) ACCELERATOR PEDAL ASSY (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143118	1	ACCELERATOR PEDAL ASSY, (includes items 3 thru 11)	
	91144196	1	CABLE ATTACH KIT, (includes items 3 thru 5), (discard clevis and clevis pin, not shown, and replace with items 17 & 18)	
	91144197	1	BOOT KIT, (includes items 6 thru 9)	
	91144198	1	HEEL REST KIT, (includes items 10 & 11)	
1	91121210	1	THROTTLE CABLE SUPPORT	
2	90207801	1	SPRING	
3	Kit	1	HAIRPIN COTTER	
4	Kit	1	LOCK PLATE	
5	Kit	1	CAPSCREW	
6	Kit	1	BOOT	
7	Kit	1	PIN	
8	Kit	1	HAIRPIN COTTER	
9	Kit	1	JAM NUT	
10	Kit	1	HEEL REST	
11	Kit	2	SCREW, (self tap)	
12		Ref	THROTTLE CABLE, (See ENGINE AND ATTACHING PARTS for Breakdown)	
13	88201003	5	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
14	88551009	5	LOCKWASHER, 1/4	
15	88501004	5	HEX NUT, 1/4-20	
16	88561107	1	FLATWASHER, 1/4	
17	90028977	1	CLEVIS	
18	90021552	1	CLEVIS PIN	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 6-5. (91143342) ACCELERATOR PEDAL ASSY (SN 0177368 to Present)



THIS ASSEMBLY COMES WITH A DIFFERENT CABLE SUPPORT, (not shown). THE CABLE SUPPORT SHOWN IS THE PROPER REPLACEMENT AND NEEDS TO BE ORDERED SEPARATELY.

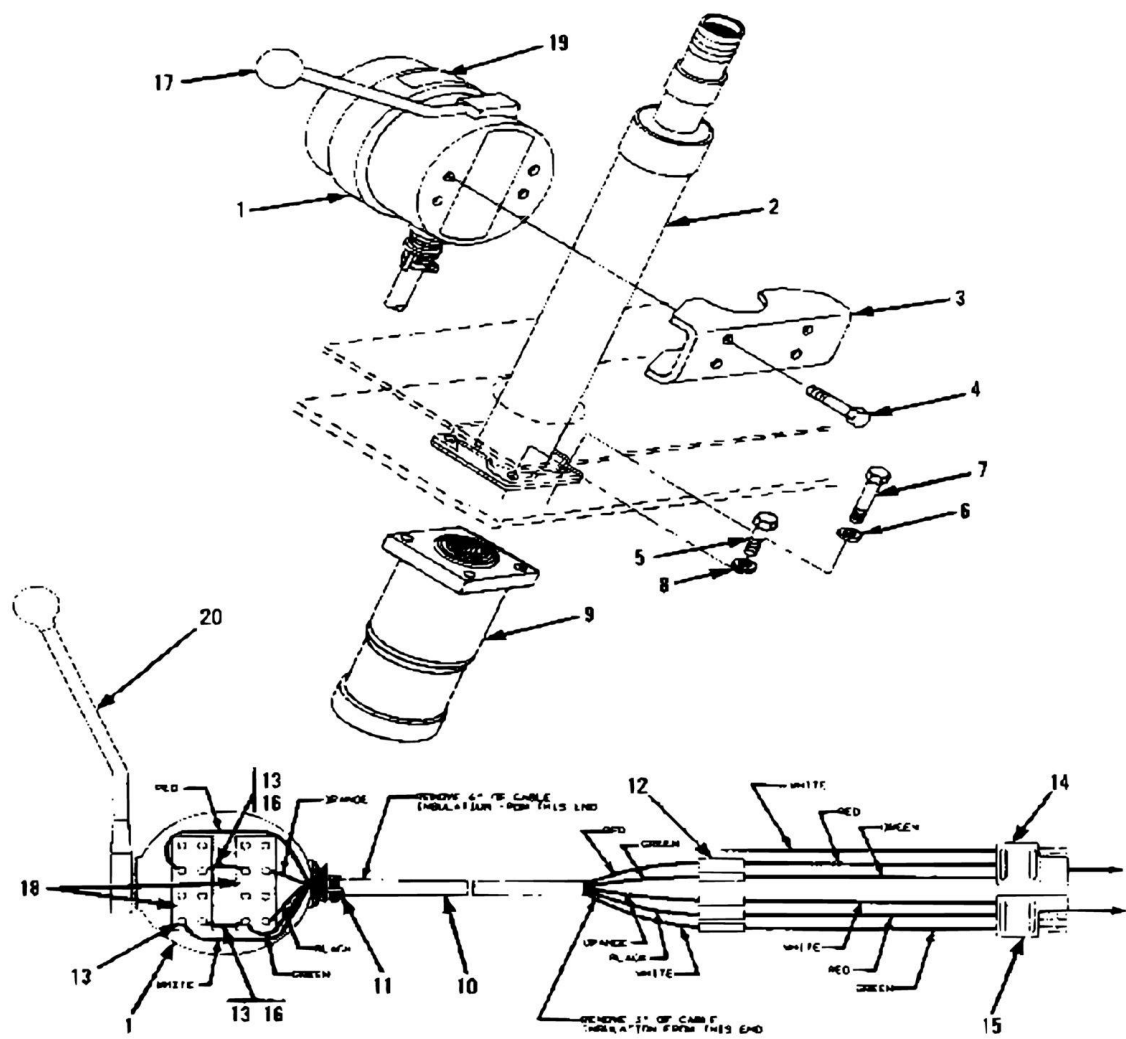
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FIGURE 6-5. (91143342) ACCELERATOR PEDAL ASSY (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143342	1	ACCELERATOR PEDAL ASSY, (includes items 3 thru 11)	
	91144432	1	CABLE ATTACH KIT, (includes items 3 thru 5), (discard clevis and clevis pin, not shown, and replace with items 17 & 18)	
	91144197	1	BOOT KIT, (includes items 6 thru 9)	
	91144433	1	HEEL REST KIT, (includes items 10 & 11)	
1	91121210	1	THROTTLE CABLE SUPPORT	
2	90207801	1	SPRING	
3	Kit	1	HAIRPIN COTTER	
4	Kit	1	LOCK PLATE	
5	Kit	1	CAPSCREW	
6	Kit	1	BOOT	
7	Kit	1	PIN	
8	Kit	1	HAIRPIN COTTER	
9	Kit	1	JAM NUT	
10	Kit	1	HEEL REST	
11	Kit	2	SCREW, (self tap)	
12		Ref	THROTTLE CABLE, (See ENGINE AND ATTACHING PARTS for Breakdown)	
13	88201003	5	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
14	88551009	5	LOCKWASHER, 1/4	
15	88501004	5	HEX NUT, 1/4-20	
16	88561107	1	FLATWASHER, 1/4	
17	90028977	1	CLEVIS	
18	90021552	1	CLEVIS PIN	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 6-6. STEERING COLUMN (SN 0177005 to Present)



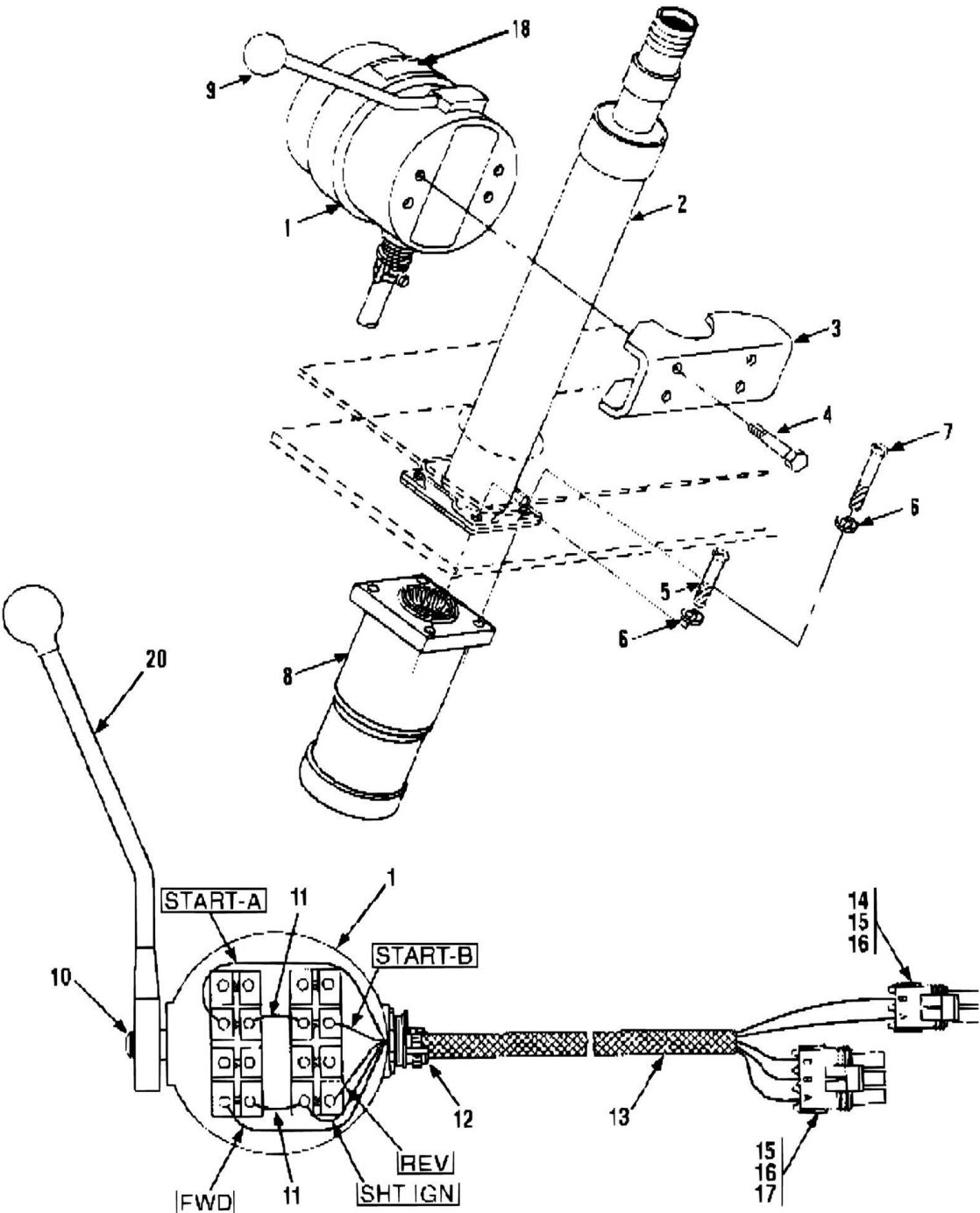
SECTION 6 - CONTROLS

FIGURE 6-6. STEERING COLUMN (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083081	1	REVERSING MASTER SWITCH ASSY (includes items 18, 19 & 20)	
2		Ref	STEERING COLUMN (See STEERING COLUMN for Breakdown)	
3	91081264	1	SHIFT BRACKET	
4	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
5	88201037	2	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
6	88551011	2	LOCKWASHER, 3/8	
7	88201033	2	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
8	88551011	2	LOCKWASHER, 3/8	
9		Ref	STEERING ORBITROL, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10	90204057	30 in	MULTIPLE CONDUCTOR CABLE	
11	91083235	1	ROMEX CONNECTOR	
12	86683480	5	BUTT CONNECTOR	
13	89031196	9	PRESSURE TERMINAL	
14	83483113	1	3-WAY CONNECTOR (female)	
15	83483114	1	3-WAY CONNECTOR (male)	
16	Bulk	6 in	16 GA WIRE	
17	91084240	1	KNOB	
18	91084268	2	FORWARD/REVERSE SWITCH	
19	91083428	1	FORWARD/REVERSE DECAL	
20	91084345	1	HANDLE ASSY W/KNOB	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE	

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FIGURE 6-7. STEERING COLUMN (SN 0177122 to Present)



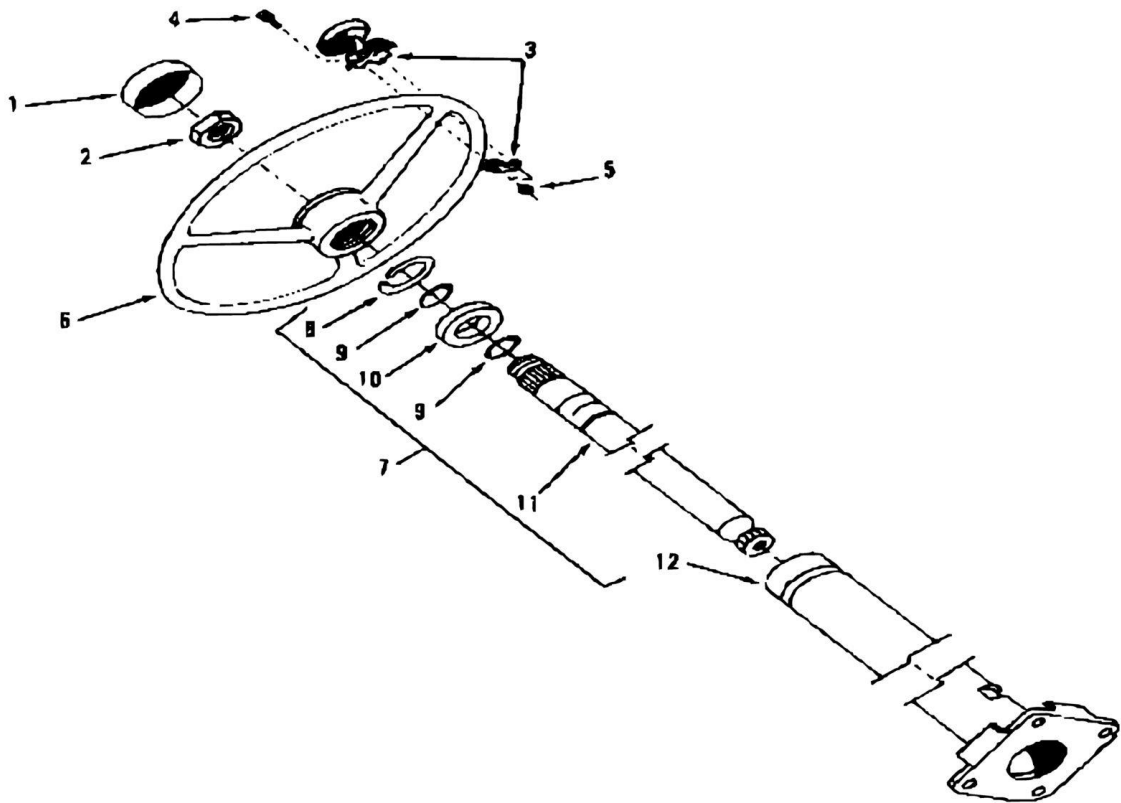
SECTION 6 - CONTROLS

FIGURE 6-7. STEERING COLUMN (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145030	1	REVERSING MASTER SWITCH ASSY (includes items 1 & 9 thru 20)	
1	91083081	1	REVERSING MASTER SWITCH (includes items 18, 19 & 20)	
2		Ref	STEERING COLUMN (See STEERING COLUMN for Breakdown)	
3	91081264	1	SHIFT BRACKET	
4	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
5	88201035	2	HEX HD CAPSCREW, 3/8-16 x 1, GR5	
6	88551011	4	LOCKWASHER, 3/8	
7	88201033	2	HEX HD CAPSCREW, 3/8-16 x 3/4, GR5	
8		Ref	STEERING ORBITROL, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9	91084240	1	KNOB	
10	91083491	1	GASKETED SCREW	
11	91083454	2	BUS BAR WIRE	
12	91083235	1	ROMEX CONNECTOR	
13	91143134	1	FWD/REV HARNESS	
14	80963057	1	2-WAY CONNECTOR (tower end)	
15	80963068	5	FEMALE PIN TERMINAL	
16	80963066	5	CABLE SEAL	
17	80963059	1	3-WAY CONNECTOR (tower end) (includes 3 of items 15 & 16)	
18	91083428	1	FORWARD/REVERSE DECAL	
19	91084268	2	FORWARD/REVERSE SWITCH	
20	91084345	1	HANDLE ASSY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE	

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FIGURE 6-8. STEERING COLUMN (SN 0177005 to Present)



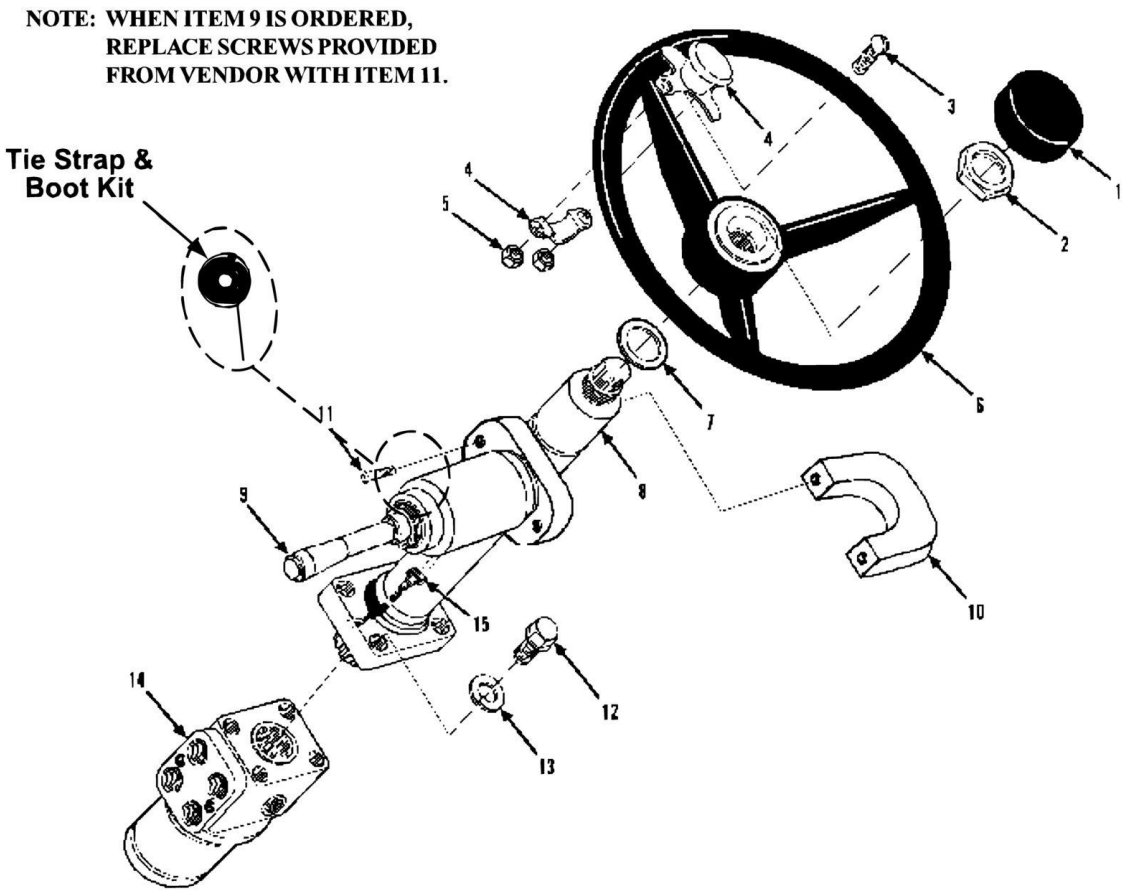
SECTION 6 - CONTROLS

FIGURE 6-8. STEERING COLUMN (SN 0177005 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	88301311	2	FLAT HD MACHINE SCREW, 1/4-20X1	
5	88501616	2	HEX NUT, 1/4-20	
6	90600273	1	STEERING WHEEL	
7	90600267	1	STEERING COLUMN ASSY (includes items 8 thru 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	

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FIGURE 6-9. STEERING COLUMN AND ATTATCHING PARTS (SN 0177368 to Present)



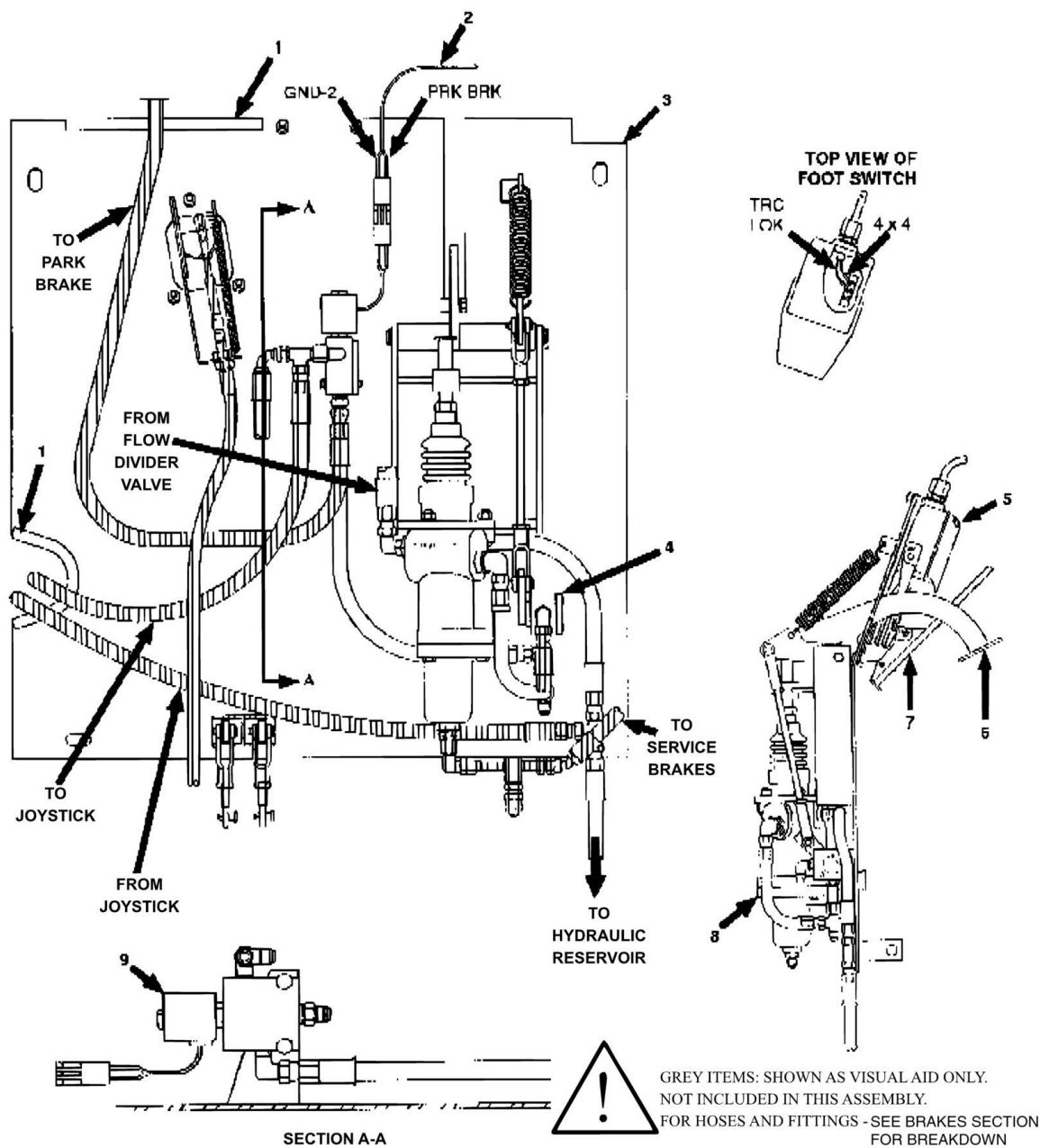
SECTION 6 - CONTROLS

FIGURE 6-9. STEERING COLUMN AND ATTATCHING PARTS (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91144190	Ref	STEERING CONTROL UNIT SEAL KIT	
	91144448	1	TIE STRAP AND BOOT KIT	
1	90600274	1	STEERING CAP	
2	91144191	1	STEERING WHEEL NUT	
3	88301311	2	FLAT HD MACHINE SCREW, 1/4-20X1	
4	90202230	1	SPINNER KNOB	
5	88501616	2	HEX NUT, 1/4-20	
6	90600273	1	STEERING WHEEL	
7	91144192	1	WASHER	
8	91163012	1	STEERING COLUMN (includes items 2 & 7)	
9	91363025	1	F/N/R SHIFTER (includes item 10)	
10	91144458	1	CLAMP SET	
11	83191059	2	HEX SOC CAPSCREW, M5X0.8, (torque to 30-35 in-lbs)	
12	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
13	88551011	2	LOCKWASHER, 3/8	
14	91123126	1	STEERING CONTROL UNIT	
15		Ref	DASH WIRING HARNESS (See ELECTRICAL SECTION for Breakdown)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 6-10. (91095053) (91315010) FLOORPLATE ASSEMBLY (522,524) (SN 0177122 to Present)



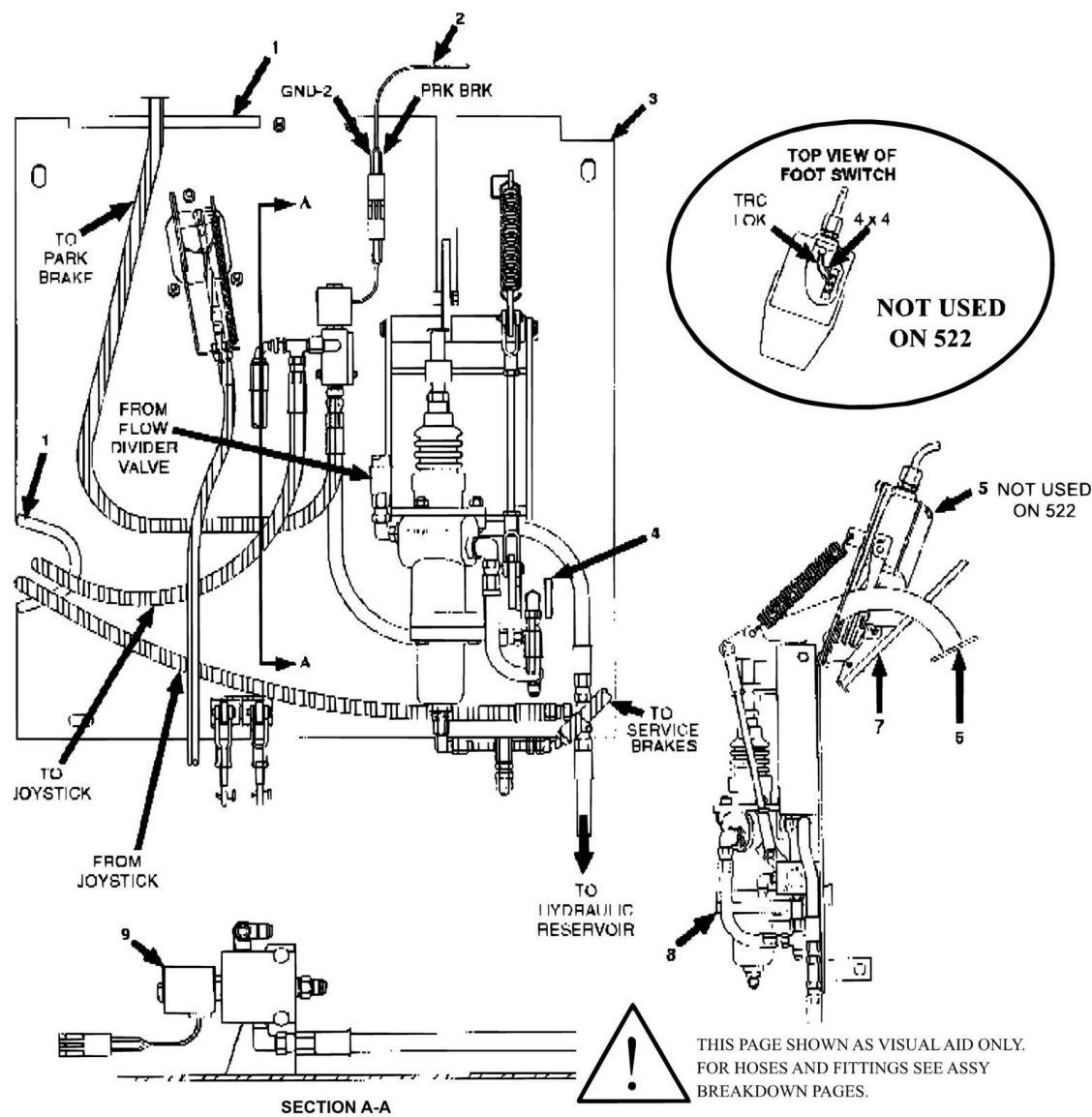
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FIGURE 6-10. (91095053) (91315010) FLOORPLATE ASSEMBLY (522,524) (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095053	1	FLOORPLATE ASSY (includes items 1, 3 thru 9)	
1	90206198	AR	TRIM-LOK	
2		Ref	DASH HARNESS(See ELECTRICAL SECTION for Breakdown)	
3	91126051	1	FLOORPLATE WELDMENT (524)	
3	91126050	1	FLOORPLATE WELDMENT (522)	
4		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
5		Ref	FOOT SWITCH (See BRAKE AND INCHING LINKAGE for Breakdown) (524)	
6		Ref	BRAKE PEDAL AND LINKAGE (See BRAKE AND INCHING LINKAGE for Breakdown)	
7		Ref	ACCELERATOR ASSY (See ACCELERATOR PEDAL ASSY for Breakdown)	
8		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

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FIGURE 6-11. (91095022) (91125053) FLOORPLATE ASSEMBLY (522,524) (SN 0177165 to Present)



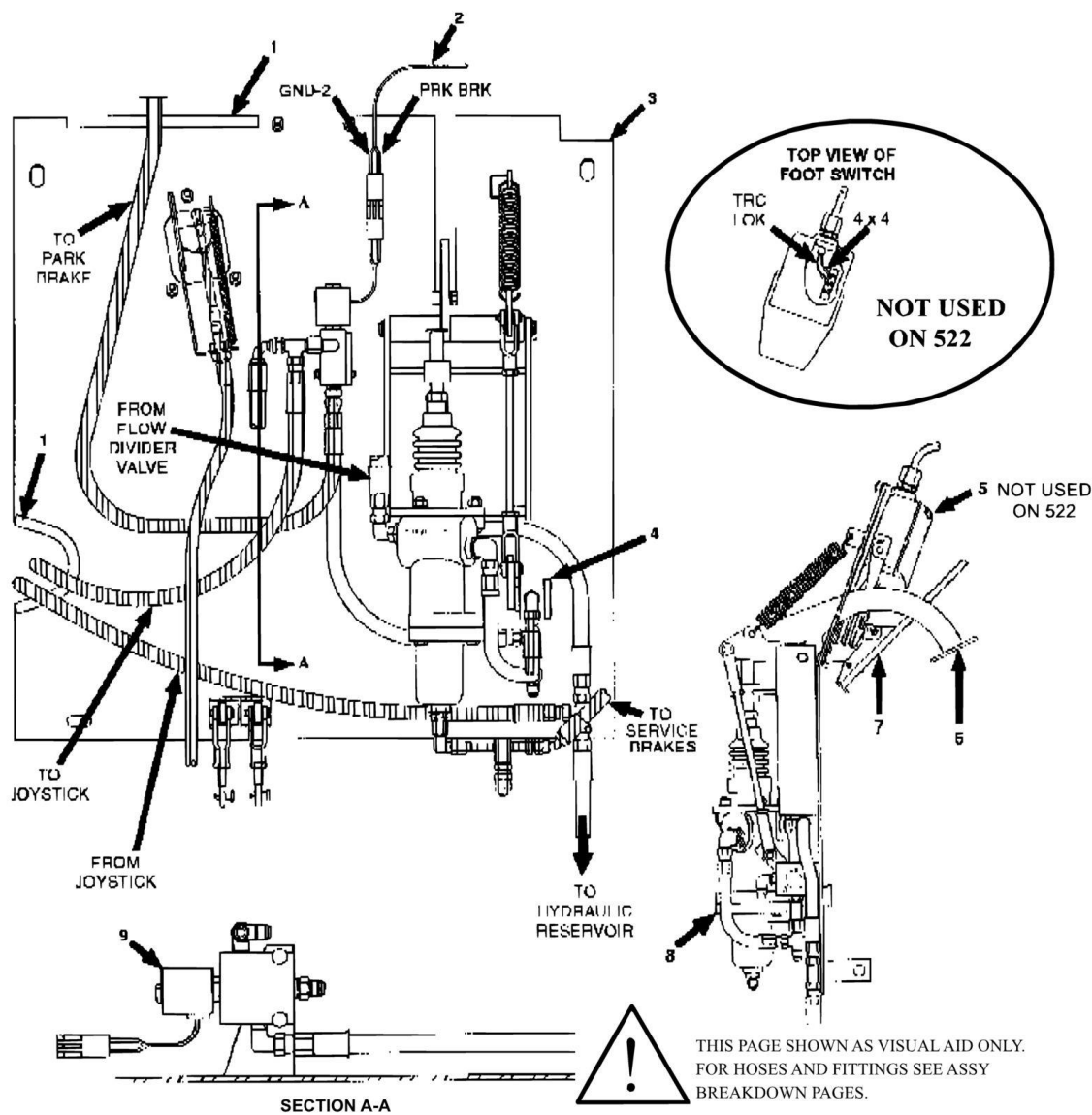
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FIGURE 6-11. (91095022) (91125053) FLOORPLATE ASSEMBLY (522,524) (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095022	1	FLOORPLATE ASSY (includes items 1, 2, 3, 4, 6 thru 9, plus various items on see pages) (522)	
	91125053	1	FLOORPLATE ASSY (includes items 1 thru 9, plus various items on see pages) (524)	
1	90206198	AR	TRIM-LOK	
2		Ref	DASH HARNESS (See ELECTRICAL SECTION for Breakdown)	
3	91126051	1	FLOORPLATE WELDMENT	
4		Ref	INCHING VALVE(See HYDRAULIC COMPONENTS SECTION for Breakdown)	
5		Ref	FOOT SWITCH (See BRAKE AND INCHING LINKAGE for Breakdown) (524)	
6		Ref	BRAKE PEDAL AND LINKAGE (See BRAKE AND INCHING LINKAGE for Breakdown)	
7		Ref	ACCELERATOR ASSY (See ACCELERATOR LINKAGE for Breakdown)	
8		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

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FIGURE 6-12. (91095024) (91085111) FLOORPLATE ASSEMBLY (522,524) (SN 0177189 to Present)



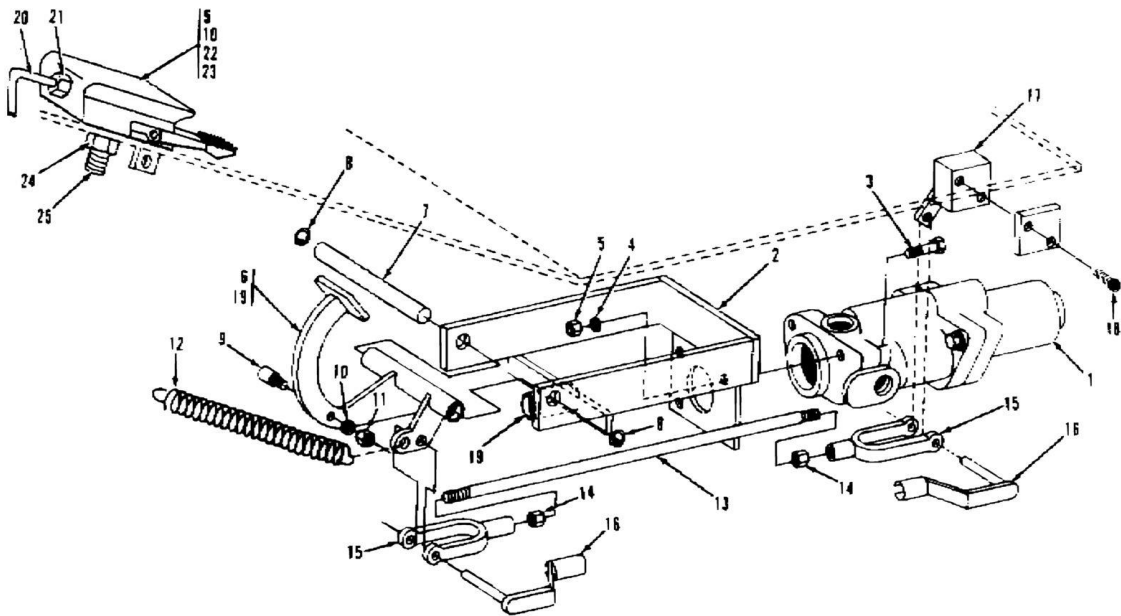
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FIGURE 6-12. (91095024) (91085111) FLOORPLATE ASSEMBLY (522,524) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095024	1	FLOORPLATE ASSY (includes items 1, 2, 3, 4, 6 thru 9, plus various items on see pages) (522)	
	91085111	1	FLOORPLATE ASSY (includes items 1 thru 9, plus various items on see pages) (524)	
1	90206198	AR	TRIM-LOK	
2		Ref	DASH HARNESS (See ELECTRICAL SECTION for Breakdown)	
3	91126051	1	FLOORPLATE WELDMENT	
4		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
5		Ref	FOOT SWITCH (See BRAKE AND INCHING LINKAGE for Breakdown) (524)	
6		Ref	BRAKE PEDAL AND LINKAGE (See BRAKE AND INCHING LINKAGE for Breakdown)	
7		Ref	ACCELERATOR ASSY (See ACCELERATOR PEDAL ASSY for Breakdown)	
8		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

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FIGURE 6-13. BRAKE AND INCHING LINKAGE (SN 0177005 to Present)



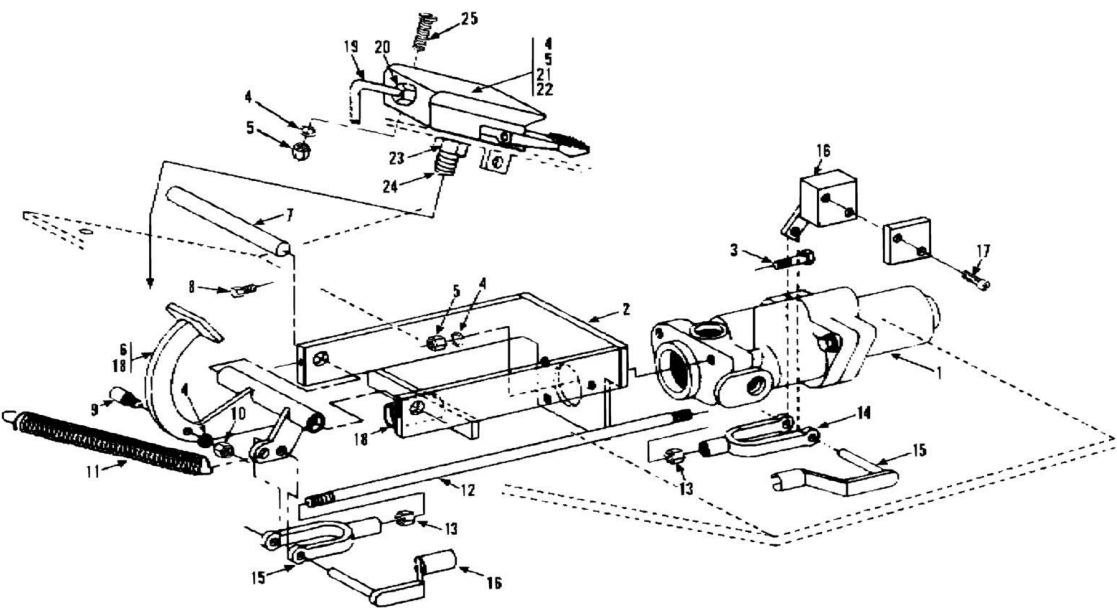
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FIGURE 6-13. BRAKE AND INCHING LINKAGE (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91086132	1	FLOOR PLATE WELDMENT	
3	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
4	88551010	3	LOCKWASHER, 5/16	
5	88501005	6	HEX NUT, 5/16-18	
6	91086090	1	BRAKE PEDAL	
7	91081322	1	PIVOT PIN	
8	88581303	2	RETAINING RING	
9	91083312	1	CAM ROLLER	
10	88551010	7	LOCKWASHER, 5/16	
11	88501405	1	HEX JAM NUT, 5/16-24	
12	91043286	1	SPRING	
13	91081332	1	LINKAGE ROD	
14	88501406	2	HEX JAM NUT, 3/8-24	
15	88221004	2	YOKE END	
16	90027987	2	CLEVIS PIN	
17		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	88212228	2	SOC HD CAP SCR, 5/16-18 X 1 LG	
19	91083136	4	BUSHING	
20	91085045	1	SWITCH CABLE	
21	91083336	1	CORD CONNECTOR	
22	91083311	1	FOOT SWITCH	
23	88201020	3	HEX HD CAPSCREW, 5/16-18X1, GR5	
24	88501110	2	JAM NUT, 5/8-11	
25	88201103	1	HEX HD CAPSCREW, 5/8-11X3-1/2, GR5	

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FIGURE 6-14. BRAKE AND INCHING LINKAGE (SN 0177122 to Present)



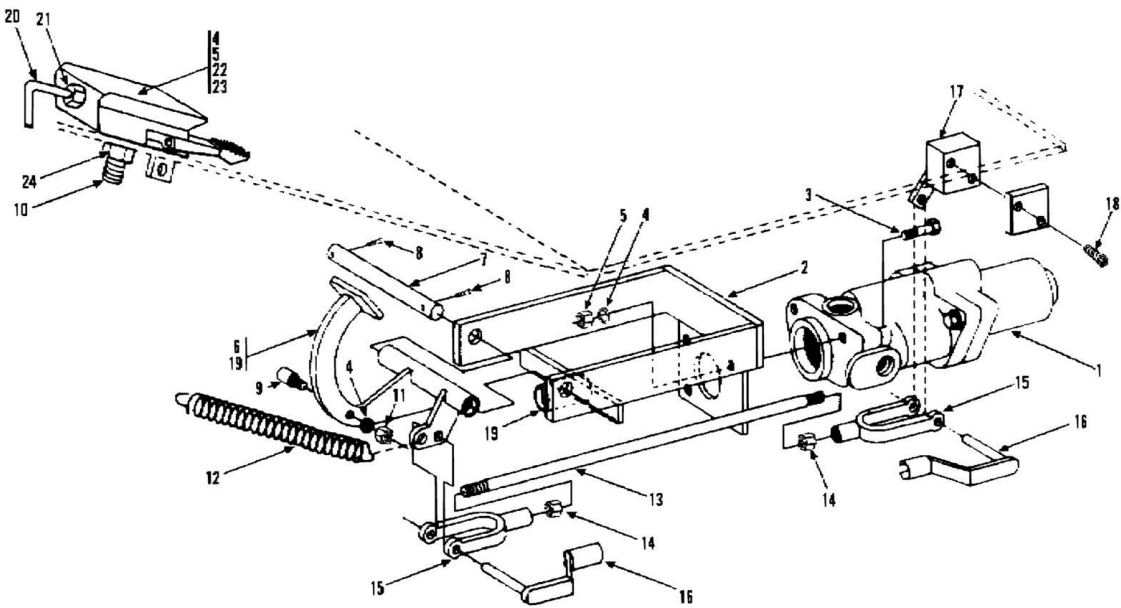
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FIGURE 6-14. BRAKE AND INCHING LINKAGE (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91126051	1	FLOOR PLATE WELDMENT	
3	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
4	88551010	7	LOCKWASHER, 5/16	
5	88501005	6	HEX NUT 5/16-18	
6	91146059	1	BRAKE PEDAL	
7	90200284	1	SHAFT	
8	88441001	2	SQUARE HD CAPSCREW, 1/4-20X1/2	
9	91083312	1	CAM ROLLER	
10	88501405	1	HEX JAM NUT, 5/16-24	
11	91043286	1	SPRING	
12	91081332	1	LINKAGE ROD	
13	88501406	2	HEX JAM NUT, 3/8-24	
14	88821004	2	YOKE END	
15	90027987	2	CLEVIS PIN	
16		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	88212228	2	SOC HD CAP SCR, 5/16-18 X 1 LG	
18	91083136	4	BUSHING	
19		Ref	DASH HARNESS (See ELECTRICAL SECTION for Breakdown)	
20	91083336	1	CORD CONNECTOR (524)	
21	91083311	1	FOOT SWITCH (524)	
22	88201024	3	BUTTON HD CAPSCREW, 5/16-18X1, GR5 (524)	
23	88501110	2	JAM NUT, 5/8-11 (524)	
24	88201103	1	HEX HD CAPSCREW, 5/8-11X3-1/2, GR5 (524)	
25	88261024	3	BUTTON HD CAPSCREW, 5/16-11x 3 1/2, GR5 (524)	

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FIGURE 6-15. BRAKE AND INCHING LINKAGE (SN 0177165 to Present)



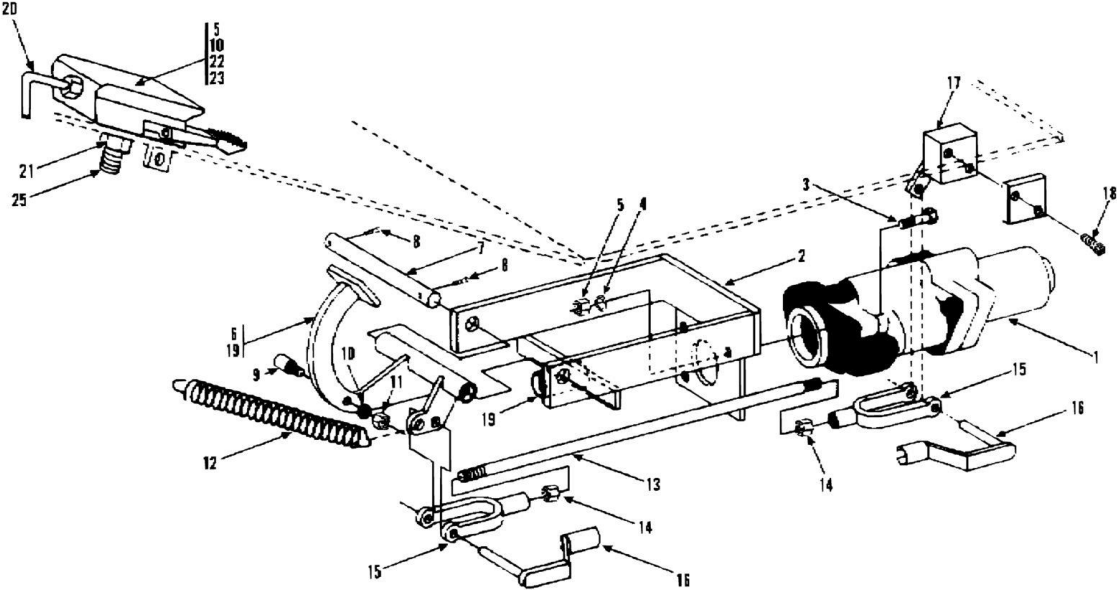
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FIGURE 6-15. BRAKE AND INCHING LINKAGE (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91126051	1	FLOOR PLATE WELDMENT	
3	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
4	88551010	7	LOCKWASHER, 5/16	
5	88501005	6	HEX NUT 5/16-18	
6	91146059	1	BRAKE PEDAL	
7	90200284	1	SHAFT	
8	88441001	2	SQUARE HD SET SCREW, 1/4-20X1/2	
9	91083312	1	CAM ROLLER	
10	88201103	1	HEX HD CAPSCREW, 5/8-11X3-1/2, GR5 (524)	
11	88501405	1	HEX JAM NUT, 5/16-24	
12	91043214	1	SPRING	
13	91081332	1	LINKAGE ROD	
14	88501406	2	HEX JAM NUT, 3/8-24	
15	88821004	2	YOKE END	
16	90027987	2	CLEVIS PIN	
17		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	88212228	2	SOC HD CAP SCR,5/16-18 X 1 LG	
19	91083136	4	BUSHING	
20		Ref	DASH HARNESS (See ELECTRICAL SECTION for Breakdown)	
21	91143141	1	CORD CONNECTOR (524)	
22	91083311	1	FOOT SWITCH (524)	
23	88261024	3	BUTTON HD CAPSCREW, 5/16-18X1, GR5 (524)	
24	88501110	2	JAM NUT, 5/8-11 (524)	

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FIGURE 6-16. BRAKE AND INCHING LINKAGE (SN 0177368 to Present)



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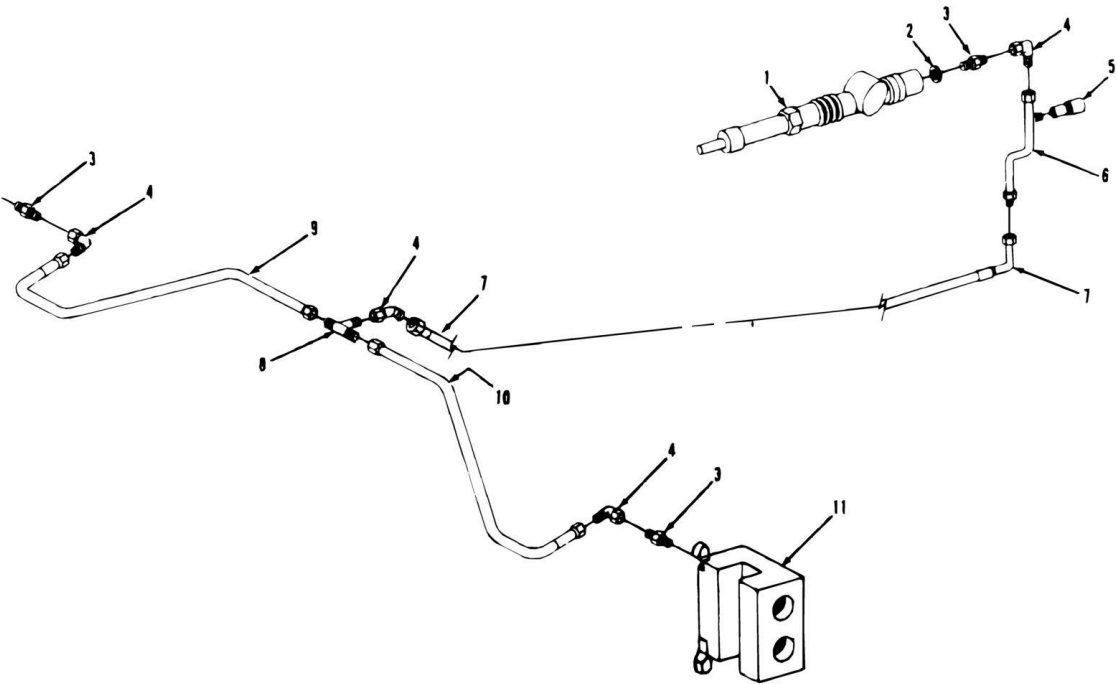
FIGURE 6-16. BRAKE AND INCHING LINKAGE (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91126051	1	FLOOR PLATE WELDMENT	
3	88201022	3	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
4	88551010	7	LOCKWASHER, 5/16	
5	88501005	6	HEX NUT 5/16-18	
6	91146059	1	BRAKE PEDAL	
7	90200284	1	SHAFT	
8	88441001	2	SQUARE HD SET SCREW, 1/4-20X1/2	
9	91083312	1	CAM ROLLER	
10	88201103	1	HEX HD CAPSCREW, 5/8-11X3-1/2, GR5 (524)	
11	88501405	1	HEX JAM NUT, 5/16-24	
12	91043214	1	SPRING	
13	91081332	1	LINKAGE ROD	
14	88501406	2	HEX JAM NUT, 3/8-24	
15	88821004	2	YOKE END	
16	90027987	2	CLEVIS PIN	
17		Ref	INCHING VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	88212228	2	SOC HD CAP SCR,5/16-18 X 1 LG	
19	91083136	4	BUSHING	
20		Ref	DASH HARNESS (See ELECTRICAL SECTION for Breakdown)	
21	88501110	2	JAM NUT, 5/8-11 (524)	
22	91163093	1	FOOT SWITCH (524)	
23	88261024	3	BUTTON HD CAPSCREW, 5/16-18X1, GR5 (524)	

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FIGURE 7-1. SERVICE BRAKE LINES (SN 0177005 to Present)



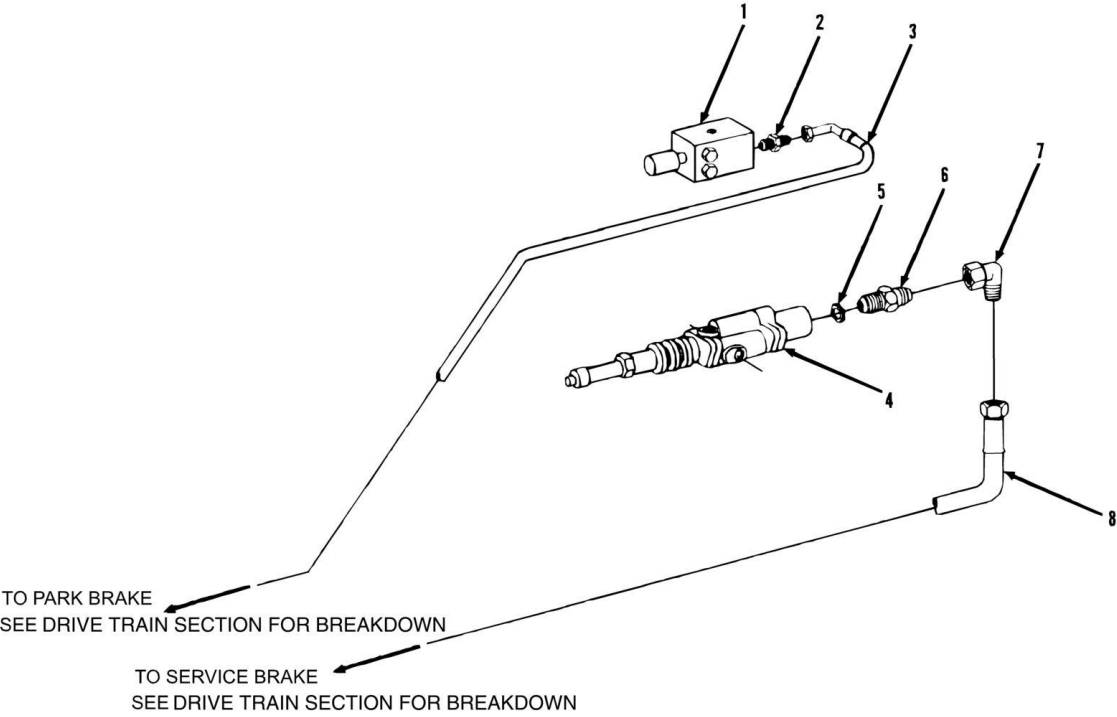
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FIGURE 7-1. SERVICE BRAKE LINES (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	BRAKE VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	90207856	1	COPPER GASKET	
3	83633002	3	STRAIGHT ADAPTER	
4	88662105	3	ELBOW, 90, (swivel nut)	
5	77133089	1	TEST FITTING	
6	91043163	1	TUBE	
7	84718021	1	HOSE ASSY	
8	88661305	1	UNION TEE, 1/4 TUBE	
9	91083303	1	BRAKE LINE	
10	91083302	2	BRAKE LINE	
11		Ref	BRAKE ASSY (see SERVICE BRAKE for Breakdown)	

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FIGURE 7-2. SERVICE/PARK BRAKE LINES (SN 0177165 to Present)



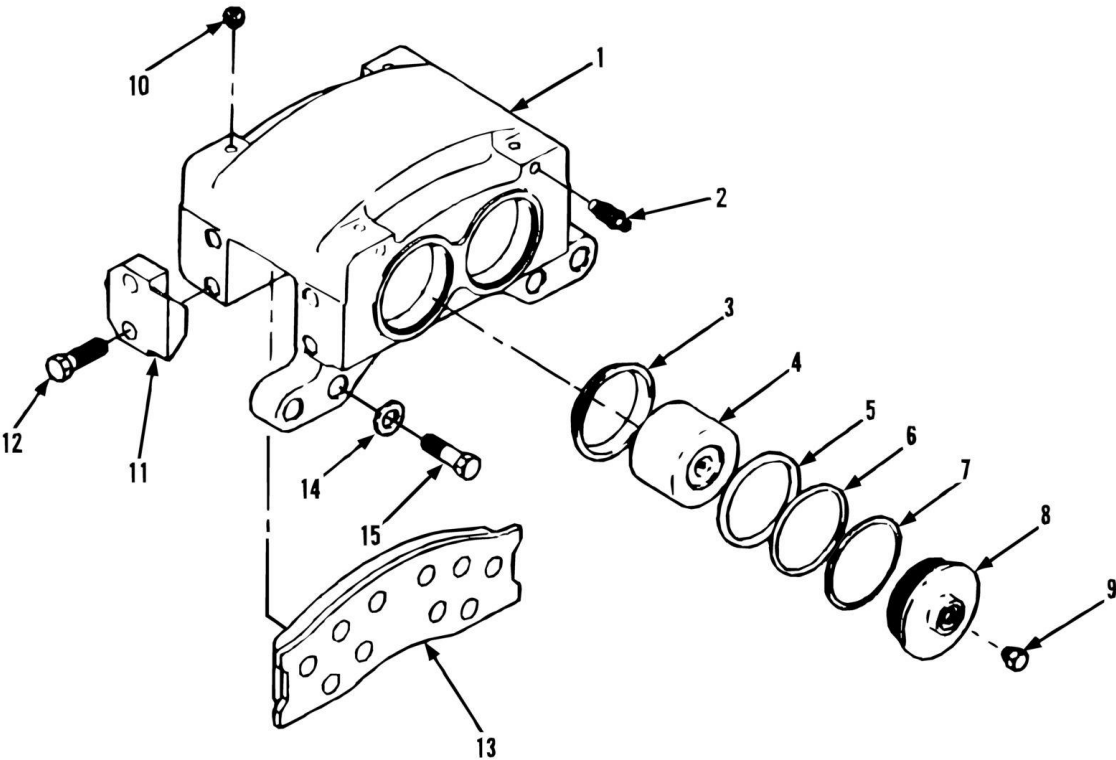
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FIGURE 7-2. SERVICE/PARK BRAKE LINES (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SOLENOID VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662005	1	CONNECTOR (includes o-ring)	
2	88591204	1	O-RING	
3	84718903	1	HOSE ASSY	
4		Ref	BRAKE VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
5	90207856	1	COPPER GASKET	
6	83633002	1	STRAIGHT ADAPTER	
7	88662105	1	ELBOW, 90, (swivel nut)	
8	84718077	1	HOSE ASSY	

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FIGURE 7-3. SERVICE BRAKE (SN 0177005 through 0177164)



NOTE: FOR MACHINES WITH SN 0177165 TO PRESENT,
SEE DRIVE TRAIN SECTION FOR BREAKDOWN

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FIGURE 7-3. SERVICE BRAKE (SN 0177005 through 0177164)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084151	Ref	BRAKE CALIPER ASSY (includes items 1 thru 13)	
1	91084152	1	HOUSING	
2	91024051	2	BLEEDER SCREW	
3	91024052	4	DUST SEAL	
4	91024053	4	PISTON	
5	91024054	4	BACK-UP RING	
6	91024055	4	O-RING	
7	91024056	2	O-RING	
8	91024057	2	CAP	
9	91024058	1	PLUG	
10	91024059	4	PLUG	
11	91024060	4	HOUSING PLATE	
12	91024061	8	CAPSCREW	
13	91024062	2	LINING ASSY (includes lining compound and backing plate) (enough to service one caliper)	
14	91084153	8	WASHER	
15	91084154	8	CAPSCREW	

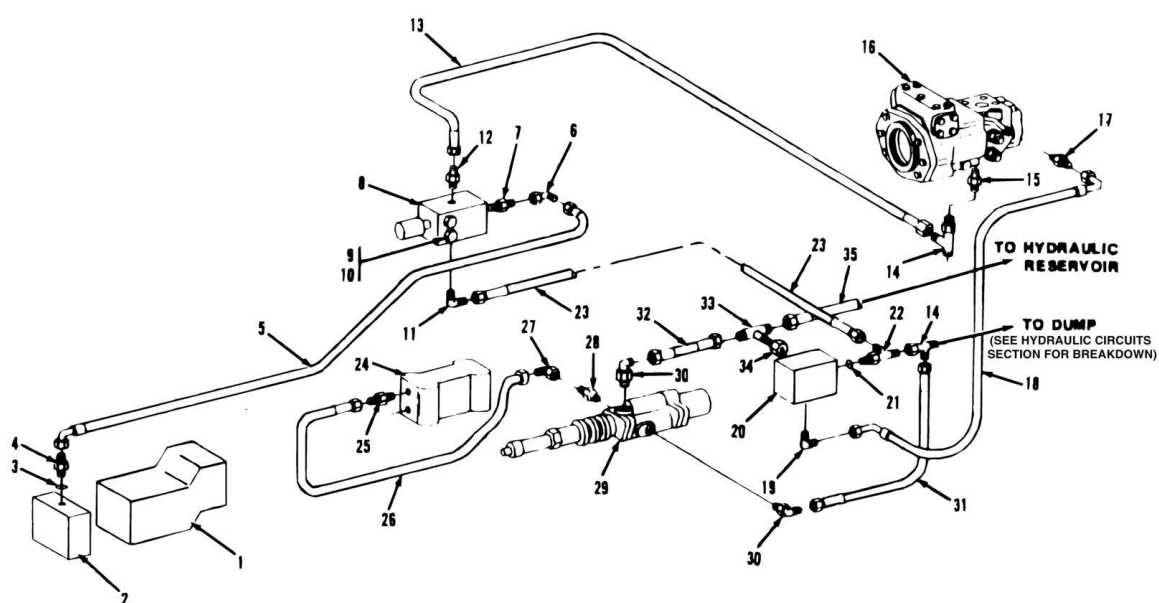
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FIGURE 7-4. BRAKE AND INCHING LINKAGE (SN 0177005 to Present)

**GO TO THE CONTROLS
SECTION FOR DETAILS**

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FIGURE 7-5. INCHING AND PARKING BRAKE (522) (SN 0177005 to Present)



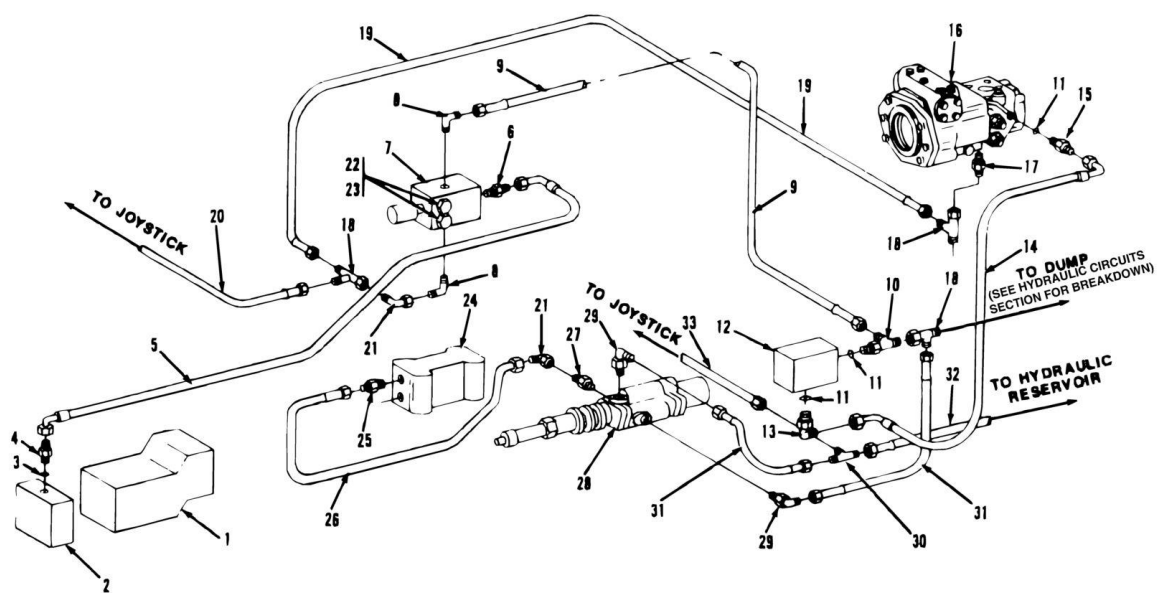
SECTION 7 - BRAKES

FIGURE 7-5. INCHING AND PARKING BRAKE (522) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT AXLE DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	BRAKE ASSY (See DRIVE TRAIN SECTION for Breakdown)	
3	88591202	1	O-RING	
4	88662003	1	CONNECTOR (includes item 3)	
5	84717869	1	HOSE ASSY	
6	88662103	1	ELBOW, 90, (swivel nut)	
7	88662017	1	CONNECTOR (includes o-ring)	
7	88591204	1	O-RING	
8		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9	88201008	2	HEX HD CAPSCREW, 1/4-10x1-3/4, GR5	
10	88551009	2	LOCKWASHER, 1/4	
11	88662064	2	ELBOW, 90, (includes o-ring)	
11	88591204	1	O-RING	
12	88662005	1	CONNECTOR (includes o-ring)	
12	88591204	1	O-RING	
13	84717852	1	HOSE ASSY	
14	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
15	91053426	1	CONNECTOR	
16		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	91083213	1	CONNECTOR	
18	84717817	1	HOSE ASSY	
19	88661109	1	ELBOW, 90, (includes o-ring)	
20		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
21	88591204	1	O-RING	
22	88662139	1	RUN TEE (includes item 21)	
23	84717889	1	HOSE ASSY	
24		Ref	FLOW DIVIDER VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	91053426	1	CONNECTOR	
26	84717853	1	HOSE ASSY	
27	88662105	1	ELBOW, 90, (swivel nut)	
28	91083306	1	CONNECTOR	
29		Ref	BRAKE VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
30	91083310	2	ELBOW, 90	
31	84717892	1	HOSE ASSY	
32	84717890	1	HOSE ASSY	
33	88661305	1	UNION TEE, 3/8 TUBE	
34	88661364	1	CAP	
35	84716358	1	HOSE ASSY	

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FIGURE 7-6. INCHING AND PARKING BRAKE LINES (522) (SN 0177064 to Present)



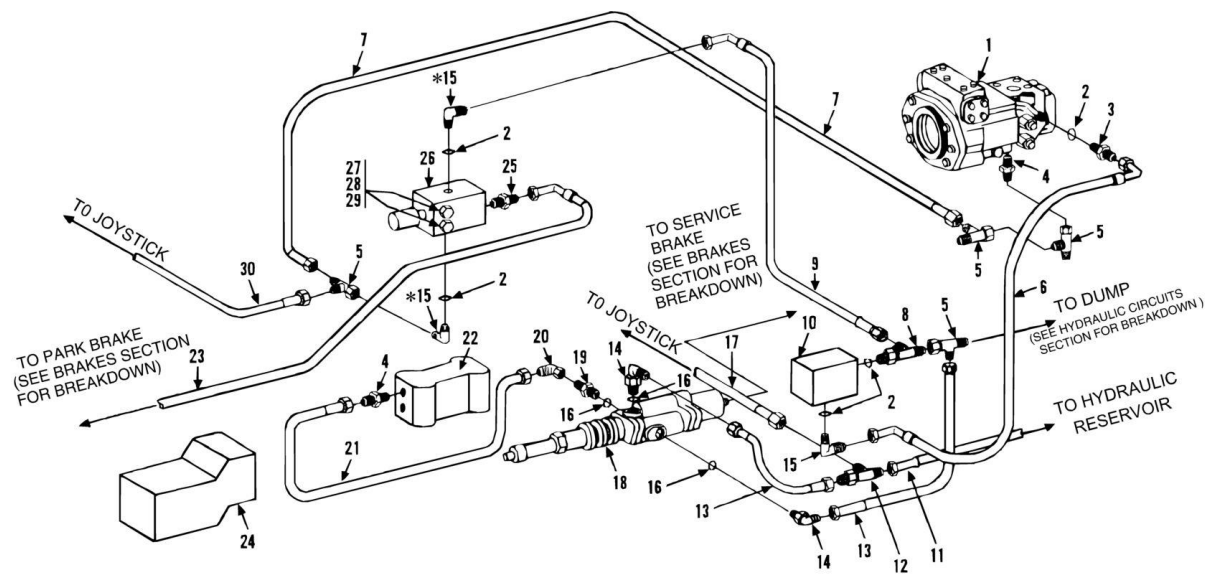
SECTION 7 - BRAKES

FIGURE 7-6. INCHING AND PARKING BRAKE LINES (522) (SN 0177064 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT AXLE DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	BRAKE ASSY (See DRIVE TRAIN SECTION for Breakdown)	
3	88591202	1	O-RING	
4	88662003	1	CONNECTOR (includes item 3)	
5	84717869	1	HOSE ASSY	
6	88662017	1	CONNECTOR (includes o-ring)	
6	88591204	1	O-RING	
7		Ref	SOLENOID VALVE (See DRIVE TRAIN SECTION for Breakdown)	
8	88662064	2	ELBOW, 90, (includes o-ring)	
8	88591204	1	O-RING	
9	84717889	1	HOSE ASSY	
10	88662139	1	RUN TEE (includes item 11)	
11	88591204	3	O-RING	
12		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
13	88613064	1	ELBOW, 90, (includes item 11)	
14	84717817	1	HOSE ASSY	
15	88662017	1	CONNECTOR (includes item 11)	
16		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	91053426	1	CONNECTOR	
18	88662239	1	CONNECTOR	
19	84717852	1	HOSE ASSY	
20	90204096	1	HOSE ASSY	
21	88662105	1	ELBOW, 90, (swivel nut)	
22	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
23	88551009	2	LOCKWASHER, 1/4	
24		Ref	FLOW DIVIDER VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	91053426	1	CONNECTOR	
26	84717853	1	HOSE ASSY	
27	91083306	1	CONNECTOR	
28		Ref	BRAKE VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	91083310	2	ELBOW, 90	
30	88661305	1	UNION TEE, 3/8 TUBE	
31	84717890	2	HOSE ASSY	
32	84716358	1	HOSE ASSY	
33	77133197	1	HOSE ASSY	

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FIGURE 7-7. INCHING AND PARKING BRAKE LINES (522) (SN 0177165 to Present)



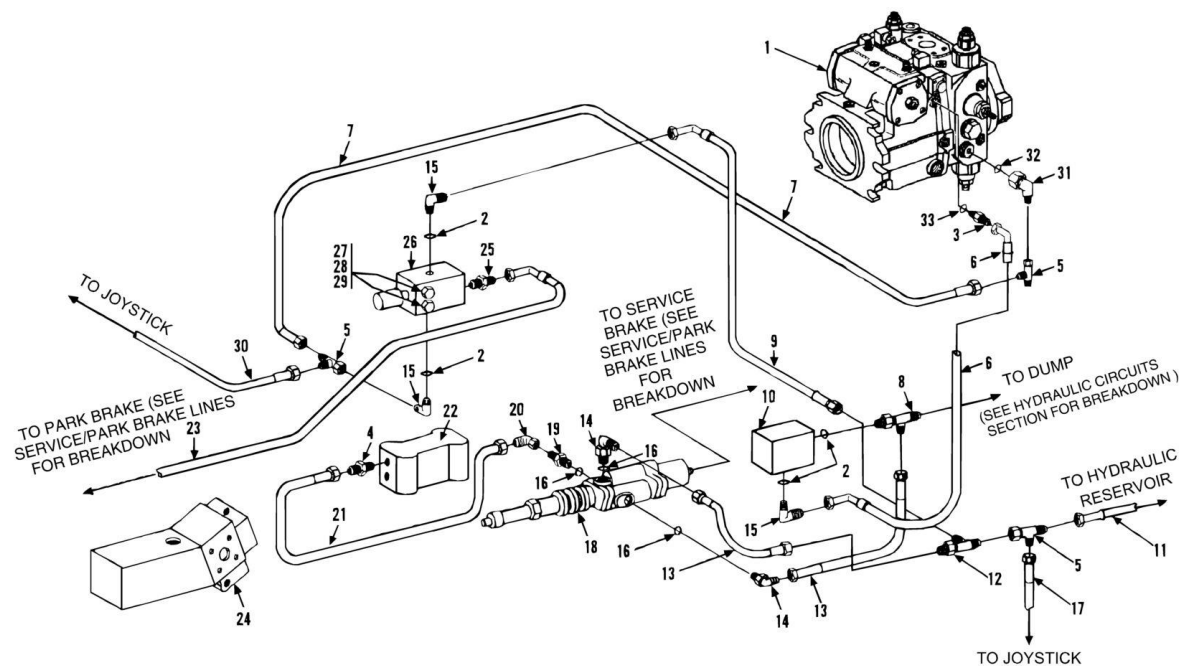
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FIGURE 7-7. INCHING AND PARKING BRAKE LINES (522) (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591204	5	O-RING	
3	88662017	1	CONNECTOR (includes item 2)	
4	91053426	2	CONNECTOR (includes o-ring)	
4	88591207	2	O-RING	
5	88662239	3	SWIVEL NUT RUN TEE, 3/8 TUBE	
6	84717905	1	HOSE ASSY	
7	84717852	1	HOSE ASSY	
8	88662139	1	RUN TEE (includes item 2)	
9	84717889	1	HOSE ASSY	
10		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	84716726	1	HOSE ASSY	
12	88661305	1	UNION TEE, 3/8 TUBE	
13	84717890	2	HOSE ASSY	
14	91083310	2	ELBOW, 90, (includes item 16)	
15	88662064	3	ELBOW, 90, (includes item 2)	
16	88591206	3	O-RING	
17	77133197	1	HOSE ASSY	
18		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	91083306	1	CONNECTOR (includes item 16)	
20	88662105	1	ELBOW, 90, (swivel nut)	
21	84717853	1	HOSE ASSY	
22		Ref	FLOW DIVIDER VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
23	84718153	1	HOSE ASSY	
24		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88662005	1	CONNECTOR (includes o-ring)	
25	88591204	1	O-RING	
26		Ref	SOLENOID VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
28	88561107	2	FLAT WASHER	
29	88551009	2	LOCKWASHER, 1/4	
30	90204096	1	HOSE ASSY	

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FIGURE 7-8. INCHING AND PARKING BRAKE LINES (522) (SN 0177189 to Present)



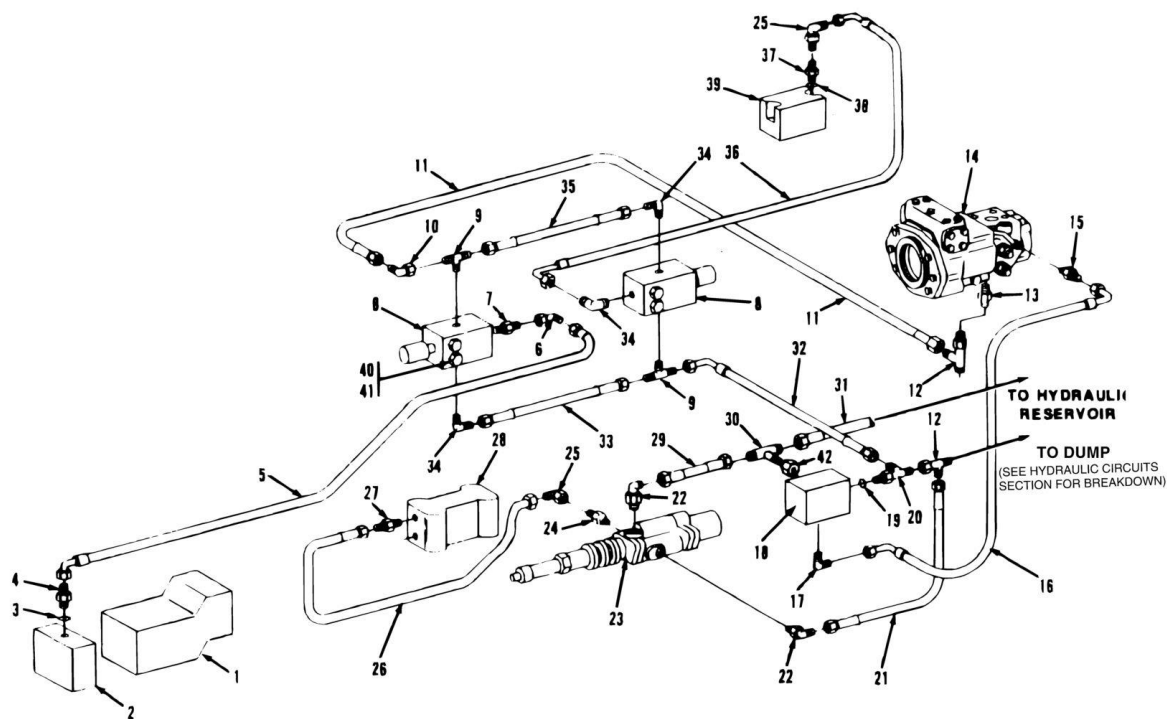
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FIGURE 7-8. INCHING AND PARKING BRAKE LINES (522) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591204	4	O-RING	
3	88662018	1	CONNECTOR (includes item 33)	
4	91053426	1	CONNECTOR (includes o-ring)	
4	88591207	1	O-RING	
5	88662239	3	SWIVEL NUT RUN TEE, 3/8 TUBE	
6	84717460	1	HOSE ASSY	
7	84717852	1	HOSE ASSY	
8	88662139	1	RUN TEE (includes item 2)	
9	84717889	1	HOSE ASSY	
10		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	84716726	1	HOSE ASSY	
12	88661305	1	UNION TEE, 3/8 TUBE	
13	84717890	2	HOSE ASSY	
14	91083310	2	ELBOW, 90, (includes item 16)	
15	88662064	3	ELBOW, 90, (includes item 2)	
16	88591206	3	O-RING	
17	77133197	1	HOSE ASSY	
18		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	91083306	1	CONNECTOR (includes item 16)	
20	88662105	1	ELBOW, 90, (swivel nut)	
21	84717853	1	HOSE ASSY	
22		Ref	FLOW DIVIDER VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
23	84718903	1	HOSE ASSY	
24		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88662005	1	CONNECTOR (includes o-ring)	
25	88591204	1	O-RING	
26		Ref	SOLENOID VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
28	88561107	2	FLAT WASHER	
29	88551009	2	LOCKWASHER, 1/4	
30	90204096	1	HOSE ASSY	
31	91083222	1	STRAIGHT THREAD REDUCING CONNECTOR (includes item 32)	
32	88591207	1	O-RING	
33	88591205	1	O-RING	

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FIGURE 7-9. INCHING AND PARKING BRAKE LINES (524) (SN 0177005 to Present)



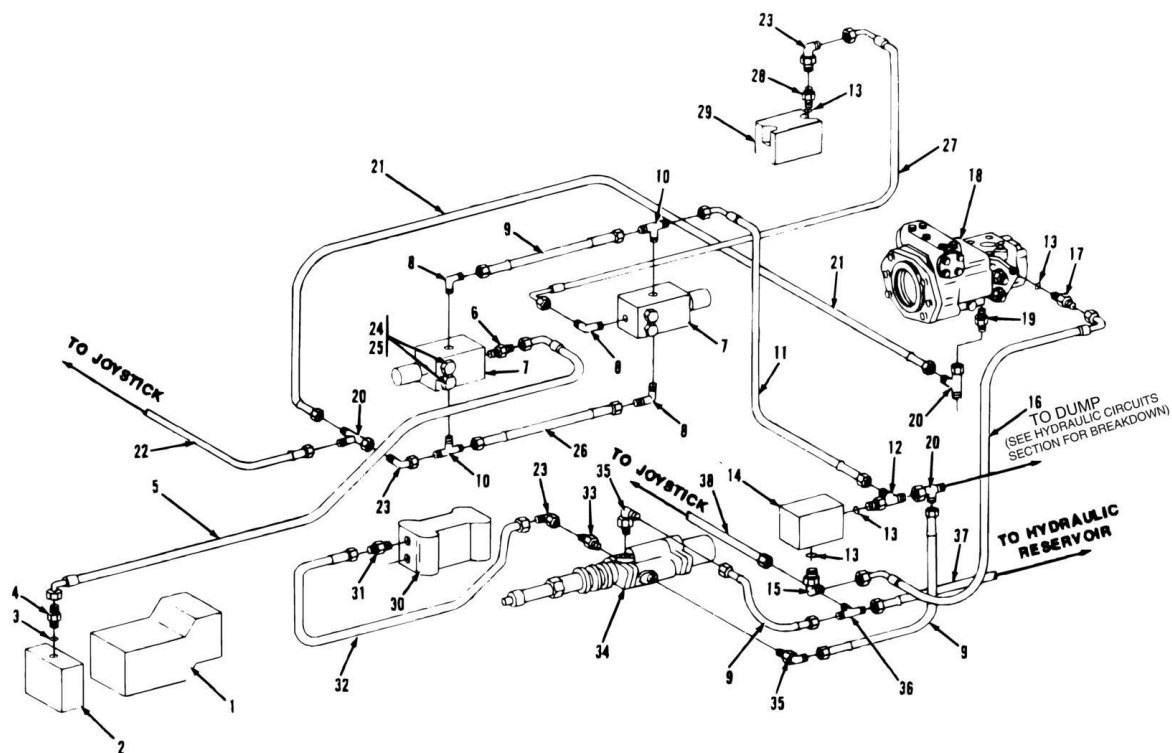
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FIGURE 7-9. INCHING AND PARKING BRAKE LINES (524) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	BRAKE ASSY (See DRIVE TRAIN SECTION for Breakdown)	
3	88591202	1	O-RING	
4	88662003	1	CONNECTOR (includes item 3)	
5	84717869	1	HOSE ASSY	
6	88662103	1	ELBOW, 90, (swivel nut)	
7	88662017	1	CONNECTOR (includes o-ring)	
7	88591204	1	O-RING	
8		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9	91083212	2	MALE BRANCH TEE	
10	88662105	1	ELBOW, 90, (swivel nut)	
11	84717852	1	HOSE ASSY	
12	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
13	91053426	1	CONNECTOR	
14		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	91083213	1	CONNECTOR	
16	84717817	1	HOSE ASSY	
17	88661109	1	ELBOW, 90	
18		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	88591204	1	O-RING	
20	88662139	1	RUN TEE (includes item 19)	
21	84717890	1	HOSE ASSY	
22	91083310	2	ELBOW, 90	
23		Ref	BRAKE VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24	91083306	1	CONNECTOR	
25	88662105	2	ELBOW, 90, (swivel nut)	
26	84717853	1	HOSE ASSY	
27	91053426	1	CONNECTOR	
28		Ref	FLOW DIVIDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	84717890	1	HOSE ASSY	
30	88661305	1	UNION TEE, 3/8 TUBE	
31	84716358	1	HOSE ASSY	
32	84717893	1	HOSE ASSY	
33	84717890	1	HOSE ASSY	
34	88662064	3	ELBOW, 90, (includes o-ring)	
34	88591204	1	O-RING	
35	84717537	1	HOSE ASSY	
36	77133430	1	HOSE ASSY	
37	88662005	1	CONNECTOR (includes item 38)	
38	88591204	1	O-RING	
39	91123026	1	DIFFERENTIAL LOCK VALVE (9108-3424)	
40	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
41	88551009	4	LOCKWASHER, 1/4	
42	88661364	1	CAP	

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FIGURE 7-10. INCHING AND PARKING BRAKE LINES (524) (SN 0177064 to Present)



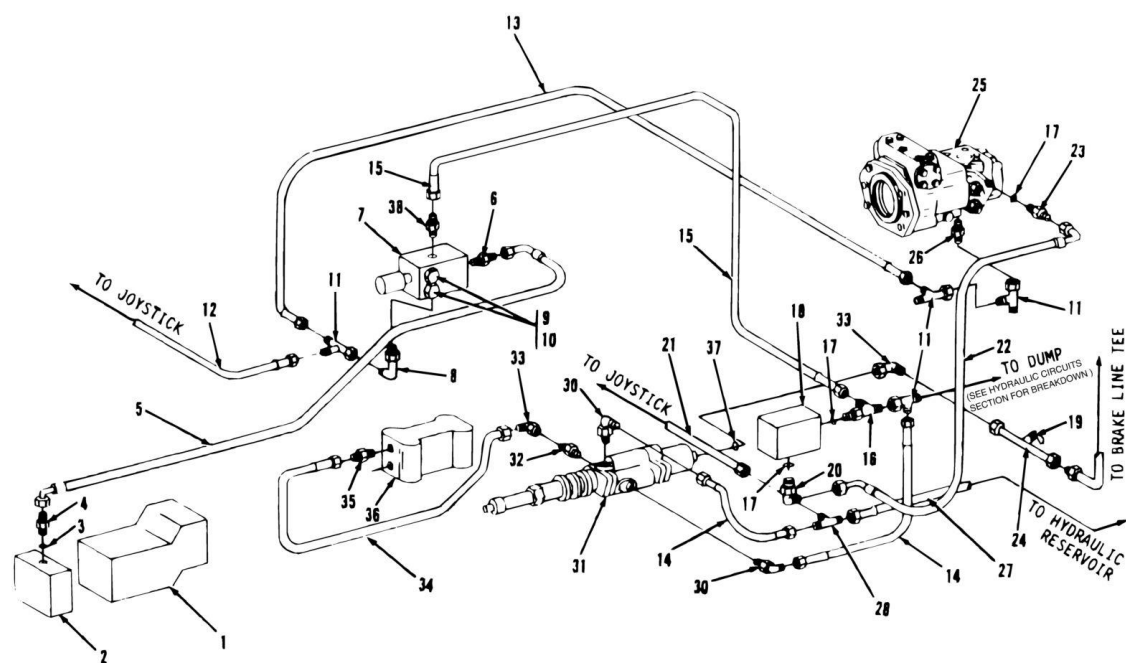
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FIGURE 7-10. INCHING AND PARKING BRAKE LINES (524) (SN 0177064 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	BRAKE ASSY (See DRIVE TRAIN SECTION for Breakdown)	
3	88591202	1	O-RING	
4	88662003	1	CONNECTOR (includes item 3)	
5	84717869	1	HOSE ASSY	
6	88662017	1	CONNECTOR (includes o-ring)	
6	88591204	1	O-RING	
7		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88662064	2	ELBOW, 90, (includes o-ring)	
8	88591204	1	O-RING	
9	84717890	3	HOSE ASSY	
10	91083213	2	MALE BRANCH TEE	
11	84717893	1	HOSE ASSY	
12	88662139	1	RUN TEE (includes item 13)	
13	88591204	4	O-RING	
14		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	88662064	1	ELBOW, 90, (includes item 13)	
16	84717817	1	HOSE ASSY	
17	88662017	1	CONNECTOR (includes item 13)	
18		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	91053426	1	CONNNECTOR	
20	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
21	84717852	1	HOSE ASSY	
22	90204096	1	HOSE ASSY	
23	88662105	3	ELBOW, 90, (swivel nut)	
24	88201008	4	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
25	88551009	4	LOCKWASHER, 1/4	
26	84717537	1	HOSE ASSY	
27	77133430	1	HOSE ASSY	
28	88662005	1	CONNECTOR (includes item 13)	
29	91123026	1	DIFFERENTIAL LOCK VALVE (9108-3424)	
30		Ref	FLOW DIVIDER VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	91053426	1	CONNECTOR	
32	84717853	1	HOSE ASSY	
33	91083306	1	CONNECTOR	
34		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
35	91083310	2	ELBOW, 90	
36	88661305	1	UNION TEE, 3/8 TUBE	
37	84716358	1	HOSE ASSY	
38	77133197	1	HOSE ASSY	

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FIGURE 7-11. INCHING AND PARKING BRAKE LINES (524) (SN 0177074 to Present)



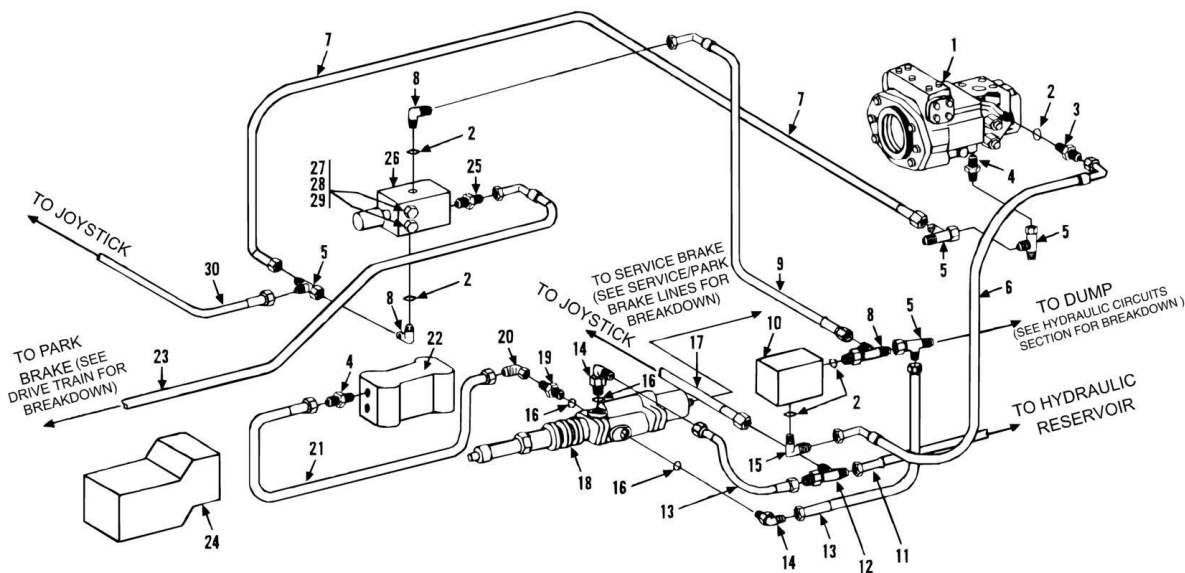
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FIGURE 7-11. INCHING AND PARKING BRAKE LINES (524) (SN 0177074 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	BRAKE ASSY (See DRIVE TRAIN SECTION for Breakdown)	
3	88591202	1	O-RING	
4	88662003	1	CONNECTOR (includes item 3)	
5	84717869	1	HOSE ASSY	
6	88662017	1	CONNECTOR (includes o-ring)	
6	88591204	1	O-RING	
7		Ref	SOLENOID VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	88662064	1	ELBOW, 90, (includes o-ring)	
8	88591204	1	O-RING	
9	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
10	88551009	2	LOCKWASHER, 1/4	
11	88662239	3	SWIVEL NUT RUN TEE, 3/8 TUBE	
12	90204096	1	HOSE ASSY	
13	84717852	1	HOSE ASSY	
14	84717890	2	HOSE ASSY	
15	84717889	1	HOSE ASSY	
16	88662139	1	RUN TEE (includes item 17)	
17	88591204	3	O-RING	
18		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	77133089	1	TEST FITTING	
20	88662064	1	ELBOW, 90, (includes item 17)	
21	77133197	1	HOSE ASSY	
22	84717817	1	HOSE ASSY	
23	88662017	1	CONNECTOR (includes item 17)	
24	91043163	1	TUBE ASSY	
25		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
26	91053426	1	CONNECTOR	
27	84716726	1	HOSE ASSY	
28	88661305	1	UNION TEE, 3/8 TUBE	
29	84718021	1	HOSE ASSY	
30	91083310	2	ELBOW, 90	
31		Ref	BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
32	91083306	1	CONNECTOR	
33	88662105	2	ELBOW, 90, (swivel nut)	
34	84717853	1	HOSE ASSY	
35	91053426	1	CONNECTOR	
36		Ref	FLOW DIVIDER VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
37	90207856	1	COPPER GASKET	
38	88662005	1	CONNECTOR (includes o-ring)	
38	88591204	1	O-RING	

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FIGURE 7-12. INCHING AND PARKING BRAKE LINES (524) (SN 0177165 to Present)



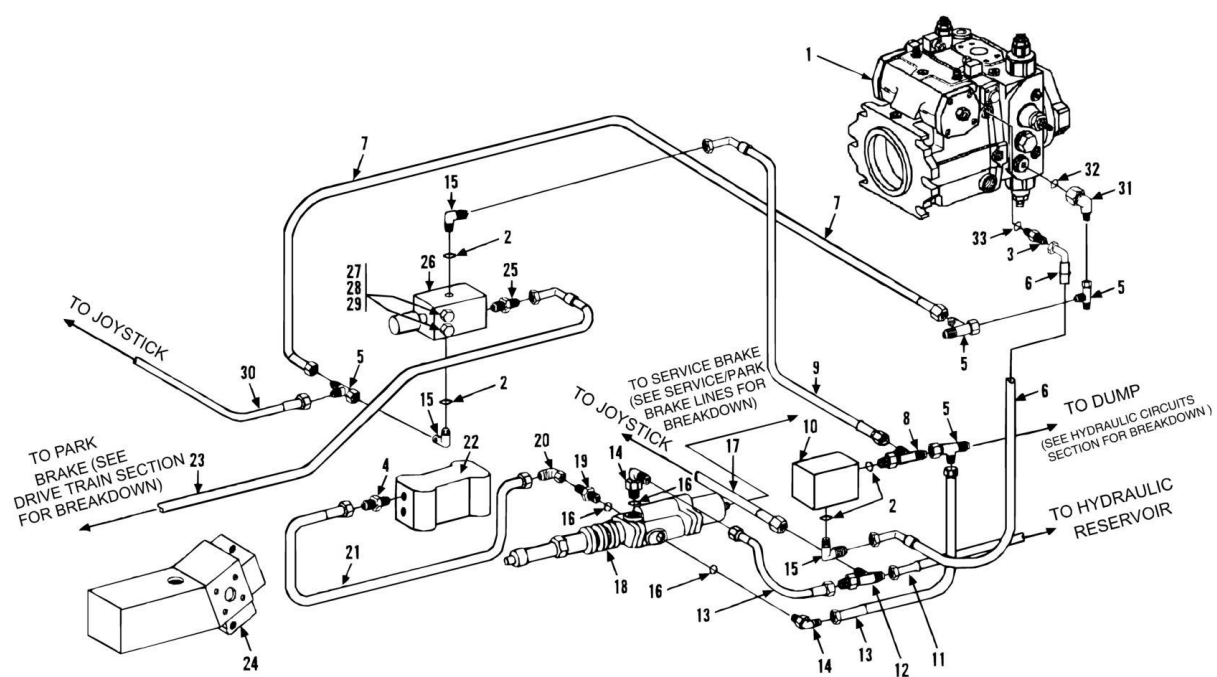
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FIGURE 7-12. INCHING AND PARKING BRAKE LINES (524) (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591204	5	O-RING	
3	88662017	1	CONNECTOR (includes item 2)	
4	91053426	2	CONNECTOR (includes o-ring)	
4	88591207	2	O-RING	
5	88662239	3	SWIVEL NUT RUN TEE, 3/8 TUBE	
6	84717817	1	HOSE ASSY	
7	84717852	1	HOSE ASSY	
8	88662139	1	RUN TEE (includes item 2)	
9	84717889	1	HOSE ASSY	
10		Ref	INCHING VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	84716726	1	HOSE ASSY	
12	88661305	1	UNION TEE, 3/8 TUBE	
13	84717890	2	HOSE ASSY	
14	91083310	2	ELBOW, 90, (includes item 16)	
15	88662064	3	ELBOW, 90, (includes item 2)	
16	88591206	3	O-RING	
17	77133197	1	HOSE ASSY	
18		Ref	BRAKE VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	91083306	1	CONNECTOR (includes item 16)	
20	88662105	1	ELBOW, 90, (swivel nut)	
21	84717853	1	HOSE ASSY	
22		Ref	FLOW DIVIDER VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
23	84718153	1	HOSE ASSY	
24		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88662005	1	CONNECTOR (includes o-ring)	
25	88591204	1	O-RING	
26		Ref	SOLENOID VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
28	88561107	2	FLAT WASHER	
29	88551009	2	LOCKWASHER, 1/4	
30	90204096	1	HOSE ASSY	

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FIGURE 7-13. INCHING AND PARKING BRAKE LINES (524) (SN 0177189 to Present)



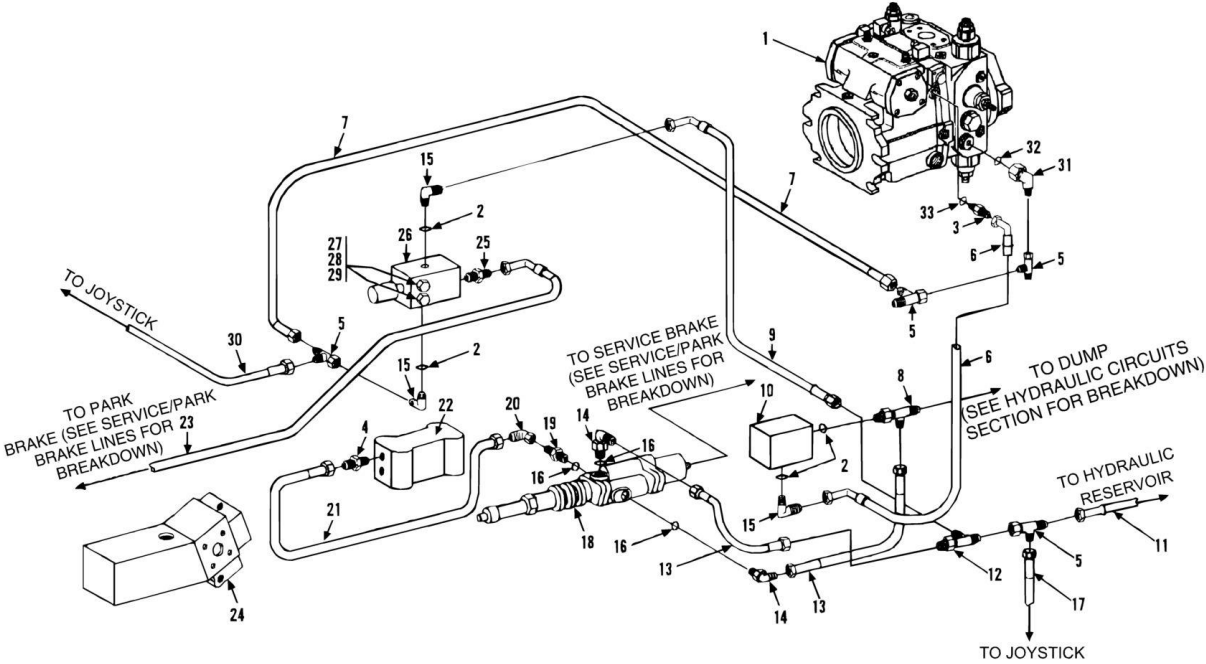
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FIGURE 7-13. INCHING AND PARKING BRAKE LINES (524) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION ASSY (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591204	4	O-RING	
3	88662018	1	CONNECTOR (includes item 33)	
4	91053426	1	CONNECTOR (includes o-ring)	
4	88591207	1	O-RING	
5	88662239	3	SWIVEL NUT RUN TEE, 3/8 TUBE	
6	84717460	1	HOSE ASSY	
7	84717852	1	HOSE ASSY	
8	88662139	1	RUN TEE (includes item 2)	
9	84717889	1	HOSE ASSY	
10		Ref	INCHING VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	84716726	1	HOSE ASSY	
12	88661305	1	UNION TEE, 3/8 TUBE	
13	84717890	2	HOSE ASSY	
14	91083310	2	ELBOW, 90, (includes item 16)	
15	88662064	3	ELBOW, 90, (includes item 2)	
16	88591206	3	O-RING	
17	77133197	1	HOSE ASSY	
18		Ref	BRAKE VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	91083306	1	CONNECTOR (includes item 16)	
20	88662105	1	ELBOW, 90, (swivel nut)	
21	84717853	1	HOSE ASSY	
22		Ref	FLOW DIVIDER VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
23	84718153	1	HOSE ASSY	
24		Ref	FRONT DRIVE MOTOR (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88591204	1	O-RING	
25	88662005	1	CONNECTOR (includes o-ring)	
26		Ref	SOLENOID VALVE ASSY (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
28	88561107	2	FLAT WASHER	
29	88551009	2	LOCKWASHER, 1/4	
30	90204096	1	HOSE ASSY	
31	91083222	1	STRAIGHT THREAD REDUCING CONNECTOR (includes item 32)	
32	88591207	1	O-RING	
33	88591205	1	O-RING	

SECTION 7 - BRAKES

FIGURE 7-14. INCHING AND PARKING BRAKE LINES (524) (SN 0177189 to Present)



SECTION 7 - BRAKES

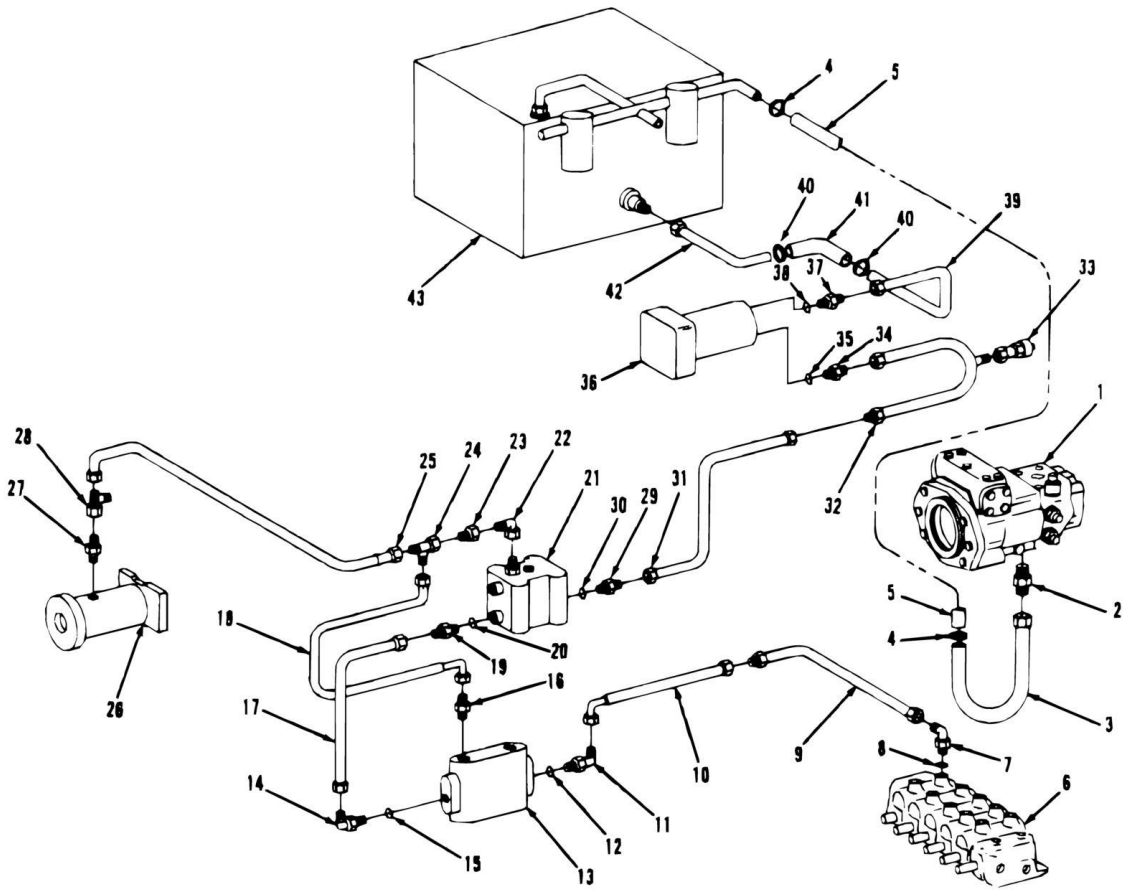
FIGURE 7-14. INCHING AND PARKING BRAKE LINES (524) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION ASSY (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591204	4	O-RING	
3	88662018	1	CONNECTOR (includes item 33)	
4	91053426	1	CONNECTOR (includes o-ring)	
4	88591207	1	O-RING	
5	88662239	4	SWIVEL NUT RUN TEE, 3/8 TUBE	
6	84717460	1	HOSE ASSY	
7	84717852	1	HOSE ASSY	
8	88662139	1	RUN TEE (includes item 2)	
9	84717889	1	HOSE ASSY	
10		Ref	INCHING VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	84716726	1	HOSE ASSY	
12	88661305	1	UNION TEE, 3/8 TUBE	
13	84717890	2	HOSE ASSY	
14	91083310	2	ELBOW, 90, (includes item 16)	
15	88662064	3	ELBOW, 90, (includes item 2)	
16	88591206	3	O-RING	
17	77133197	1	HOSE ASSY	
18		Ref	BRAKE VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	91083306	1	CONNECTOR (includes item 16)	
20	88662105	1	ELBOW, 90, (swivel nut)	
21	84717853	1	HOSE ASSY	
22		Ref	FLOW DIVIDER VALVE (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
23	84718903	1	HOSE ASSY	
24		Ref	FRONT DRIVE MOTOR (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88662005	1	CONNECTOR (includes o-ring)	
25	88591204	1	O-RING	
26		Ref	SOLENOID VALVE ASSY (see HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
28	88561107	2	FLAT WASHER	
29	88551009	2	LOCKWASHER, 1/4	
30	90204096	1	HOSE ASSY	
31	91083222	1	STRAIGHT THREAD REDUCING CONNECTOR (includes item 32)	
32	88591207	1	O-RING	
33	88591205	1	O-RING	

SECTION 8 - HYDRAULIC CIRCUITS

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-1. OIL SUPPLY AND PRESSURE LINES (SN 0177005 to Present)



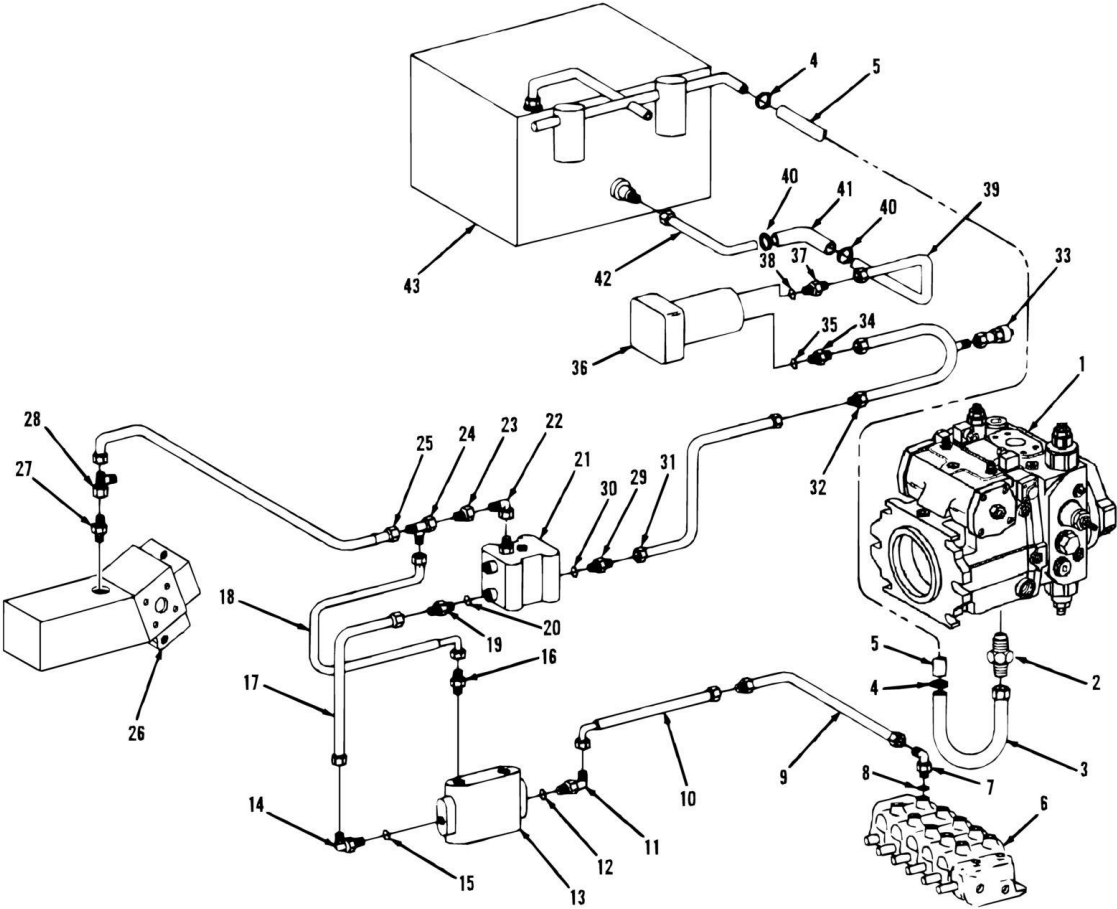
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-1. OIL SUPPLY AND PRESSURE LINES (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91083245	1	STR THREAD CONNECTOR	
3	91083118	1	INTAKE TUBE	
4	90028695	2	BAND CLAMP	
5	91083246	1	HOSE ASSY	
6		Ref	MAIN HYDRAULIC CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7	88662067	1	ELBOW, 90, (includes item 8)	
8	88591207	1	O-RING	
9	91083232	1	TUBE ASSY	
10	84717931	1	HOSE ASSY	
11	88662061	1	ELBOW, 90, (includes item 12)	
12	88591209	1	O-RING	
13		Ref	PRIORITY FLOW CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
14	88662061	1	ELBOW, 90, (includes item 15)	
15	88591209	1	O-RING	
16	83661316	1	STR THREAD CONNECTOR	
17	91083293	1	TUBE ASSY	
18	84717803	1	HOSE ASSY	
19	83662008	1	STR THREAD CONNECTOR (includes item 20)	
20	88591207	1	O-RING	
21		Ref	FLOW DIVIDER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88662106	1	ELBOW, 90, (swivel nut)	
23	86883469	1	REDUCER	
24	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
25	84717832	1	HOSE ASSY	
26		Ref	FRT DRIVE MOTOR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	91083306	1	ADAPTER	
28	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
29	88662008	1	CONNECTOR, (includes item 30)	
30	88591207	1	O-RING	
31	84717851	1	HOSE ASSY	
32	91083233	1	TUBE ASSY	
33	77133089	1	TEST FITTING	
34	88662010	1	CONNECTOR, (includes item 35)	
35	88591209	1	O-RING	
36		Ref	MAIN HYDRAULIC PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
37	88662011	1	CONNECTOR, (includes item 38)	
38	88591210	1	O-RING	
39	91083144	1	SUCTION TUBE	
40	90028482	2	HOSE CLAMP	
41	77133166	1	HOSE ASSY	
42	91083145	1	SUCTION TUBE	
43		Ref	HYDRAULIC RESERVOIR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-2. OIL SUPPLY AND PRESSURE LINES (SN 0177189 to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-2. OIL SUPPLY AND PRESSURE LINES (SN 0177189 to Present)

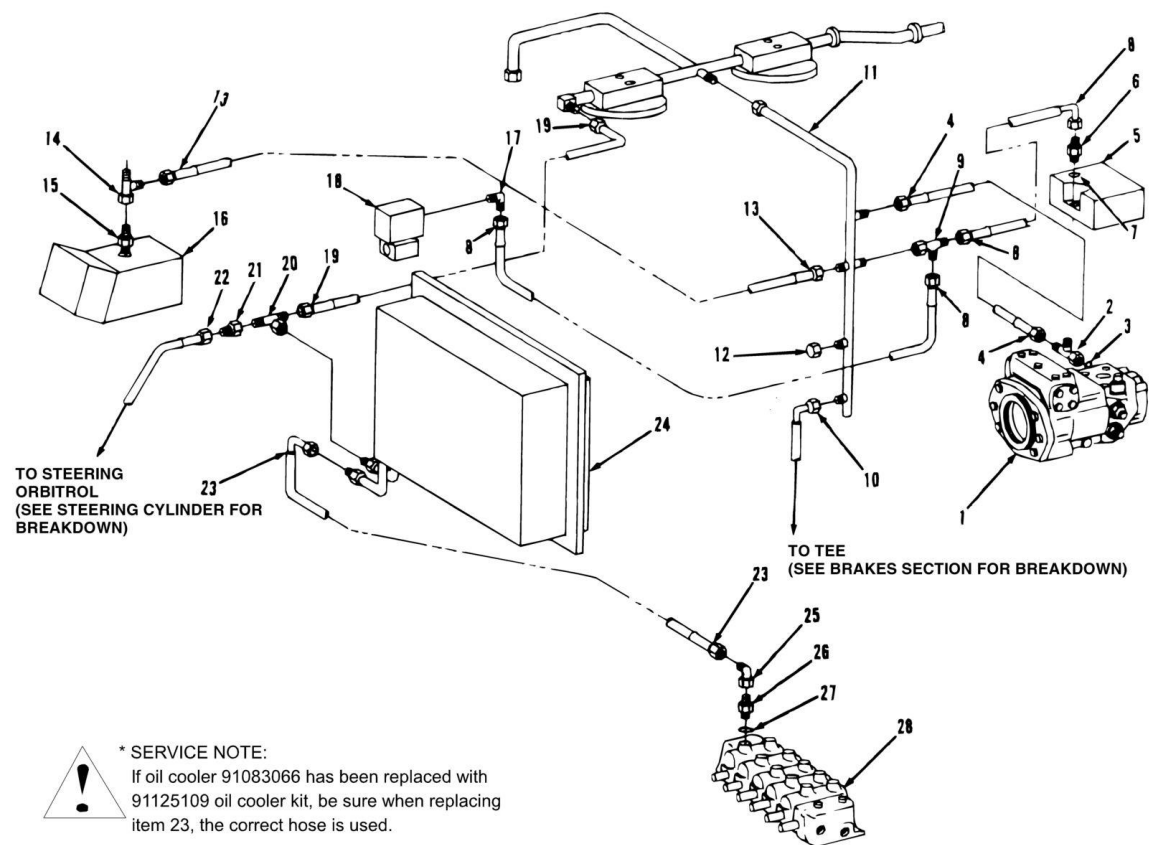
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662011	1	STR THREAD CONNECTOR, (includes o-ring)	
2	88591210	1	O-RING	
3	91143087	1	INTAKE TUBE	
4	90028695	2	BAND CLAMP	
5	91083246	1	HOSE ASSY	
6		Ref	MAIN HYDRAULIC CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7	88662067	1	ELBOW, 90, (includes item 8)	
8	88591207	1	O-RING	
9	91083232	1	TUBE ASSY	
10	84717931	1	HOSE ASSY	
11	88662061	1	ELBOW, 90, (includes item 12)	
12	88591209	1	O-RING	
13		Ref	PRIORITY FLOW CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
14	88662061	1	ELBOW, 90, (includes item 15)	
15	88591209	1	O-RING	
16	83661316	1	STR THREAD CONNECTOR	
17	91083293	1	TUBE ASSY	
18	84717803	1	HOSE ASSY	
19	83662008	1	STR THREAD CONNECTOR (includes item 20)	
20	88591207	1	O-RING	
21		Ref	FLOW DIVIDER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88662106	1	ELBOW, 90, (swivel nut)	
23	86883469	1	REDUCER	
24	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
25	84717832	1	HOSE ASSY	
26		Ref	FRT DRIVE MOTOR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	91053426	1	STR THREAD ADAPTER (includes o-ring)	
27	88591207	1	O-RING	
28	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
29	88662008	1	CONNECTOR, (includes item 30)	
30	88591207	1	O-RING	
31	84717851	1	HOSE ASSY	
32	91083233	1	TUBE ASSY	
33	77133089	1	TEST FITTING	
34	88662010	1	CONNECTOR, (includes item 35)	
35	88591209	1	O-RING	
36		Ref	MAIN HYDRAULIC PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
37	88662011	1	CONNECTOR, (includes item 38)	
38	88591210	1	O-RING	
39	91083144	1	SUCTION TUBE	
40	90028482	2	HOSE CLAMP	
41	77133166	1	HOSE ASSY	
42	91083145	1	SUCTION TUBE	

SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43		Ref	HYDRAULIC RESERVOIR ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-3. DUMP CIRCUIT (524) (SN 0177005 to Present)



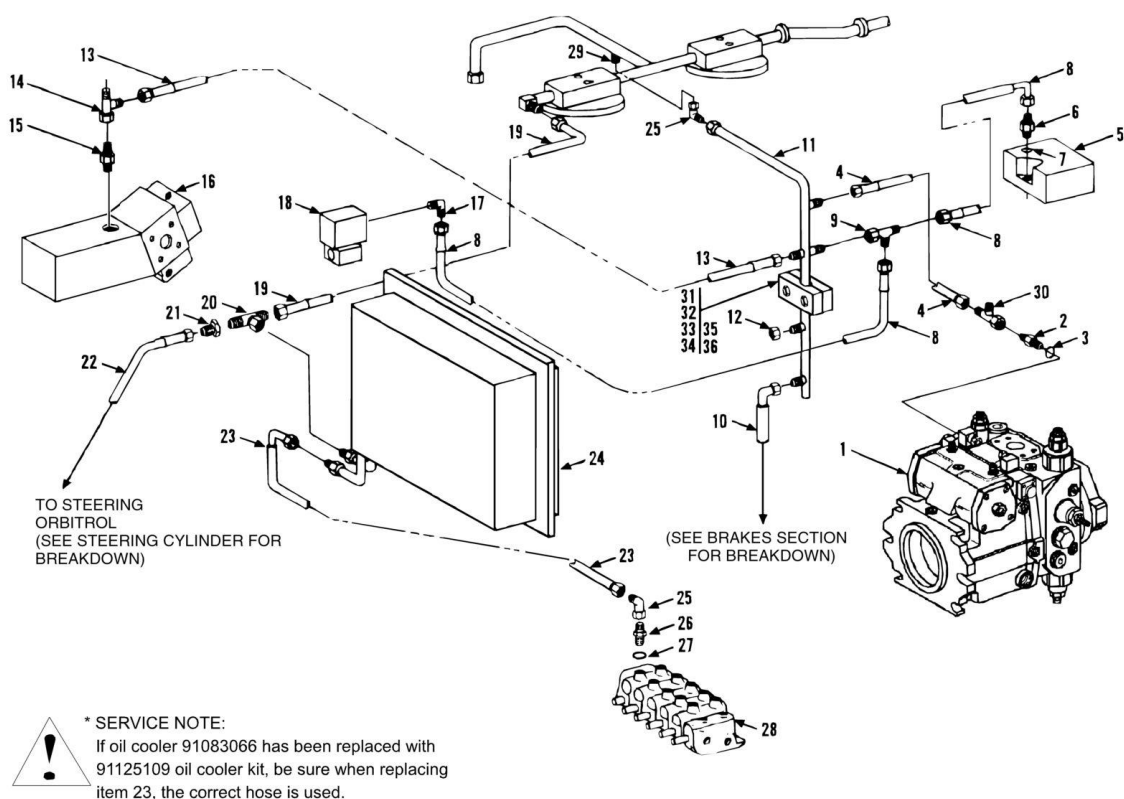
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-3. DUMP CIRCUIT (524) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662142	1	RUN TEE (includes item 3)	
3	88591207	1	O-RING	
4	84717839	1	HOSE ASSY	
5	91083424	1	DIFFERENTIAL-LOCK VALVE	
6	88662005	1	CONNECTOR (includes item 7)	
7	88591204	1	O-RING	
8	84717930	2	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
10	84717816	1	HOSE ASSY	
11	91303059	1	TUBE ASSY	
12	88661362	1	HEX CAP- 1/4 TUBE	
13	84717835	1	HOSE ASSY	
14	88662239	1	SWIVEL NUT RUN TEE-1/4 TUBE	
15	91083306	1	STRAIGHT THREAD ADAPTER	
16		Ref	FRONT DRIVE MOTOR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	88662064	1	MALE ELBOW, 90	
18		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	84717872	1	HOSE ASSY	
20	88662227	1	SWIVEL NUT BRANCH TEE, 3/4 TUBE	
21	88661345	1	TUBE END REDUCER, 3/4X3/8	
22	84717810	1	HOSE ASSY	
23	84717906	1	HOSE ASSY (use with 91083066)	
23	84719110	1	HOSE ASSY (use with oil cooler kit, 91125109)	
24		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
25	88662108	1	ELBOW, 90, SWIVEL NUT	
26	88662008	1	CONNECTOR, (includes item 27)	
27	88591207	1	O-RING	
28		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-4. DUMP CIRCUIT (524) (SN 0177189 to Present)



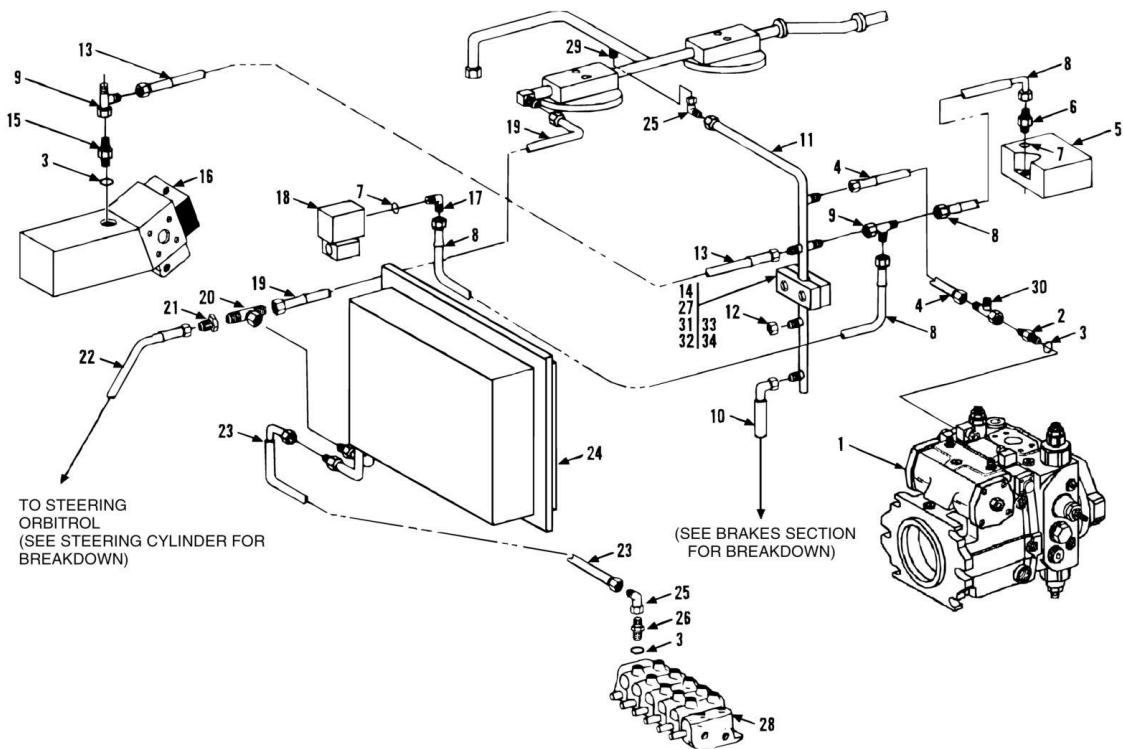
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-4. DUMP CIRCUIT (524) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662008	1	CONNECTOR (includes item 3)	
3	88591207	1	O-RING	
4	84717839	1	HOSE ASSY	
5		Ref	DIFFERENTIAL-LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	88662005	1	CONNECTOR (includes item 7)	
7	88591204	1	O-RING	
8	84717930	2	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
10	84717908	1	HOSE ASSY	
11	91303059	1	TUBE ASSY	
12	88661362	1	HEX CAP- 1/4 TUBE	
13	84717835	1	HOSE ASSY	
14	88662239	1	SWIVEL NUT RUN TEE-1/4 TUBE	
15	91053426	1	STRAIGHT THREAD ADAPTER, (includes o-ring)	
15	88591207	1	O-RING	
16		Ref	FRONT DRIVE MOTOR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	88662064	1	ELBOW, 90, (includes o-ring)	
17	88591204	1	O-RING	
18		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	84717872	1	HOSE ASSY	
20	88662227	1	SWIVEL NUT BRANCH TEE, 3/4 TUBE	
21	88661345	1	TUBE END REDUCER, 3/4X3/8, (includes nut)	
21	88661408	1	NUT	
22	84717810	1	HOSE ASSY	
23	84717906	1	HOSE ASSY (use with 91083066)	
23	84719110	1	HOSE ASSY (use with oil cooler kit, 91125109)	
24		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
25	88662108	2	ELBOW, 90, SWIVEL NUT	
26	88662008	1	CONNECTOR, (includes item 27)	
27	88591207	1	O-RING	
28		Ref	MAIN CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	88661010	1	MALE CONNECTOR, 3/8X1/2 TUBE	
30	88662242	1	SWIVEL NUT RUN TEE	
31	77133053	1	CLAMP SET	
32	77133052	1	COVER PLATE	
33	88201010	2	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5	
34	88501004	2	HEX NUT, 1/4-20	
35	88551009	2	LOCKWASHER, 1/4	
36	88561107	2	FLAT WASHER, 1/4	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-5. DUMP CIRCUIT (524) (SN 0177368 to Present)



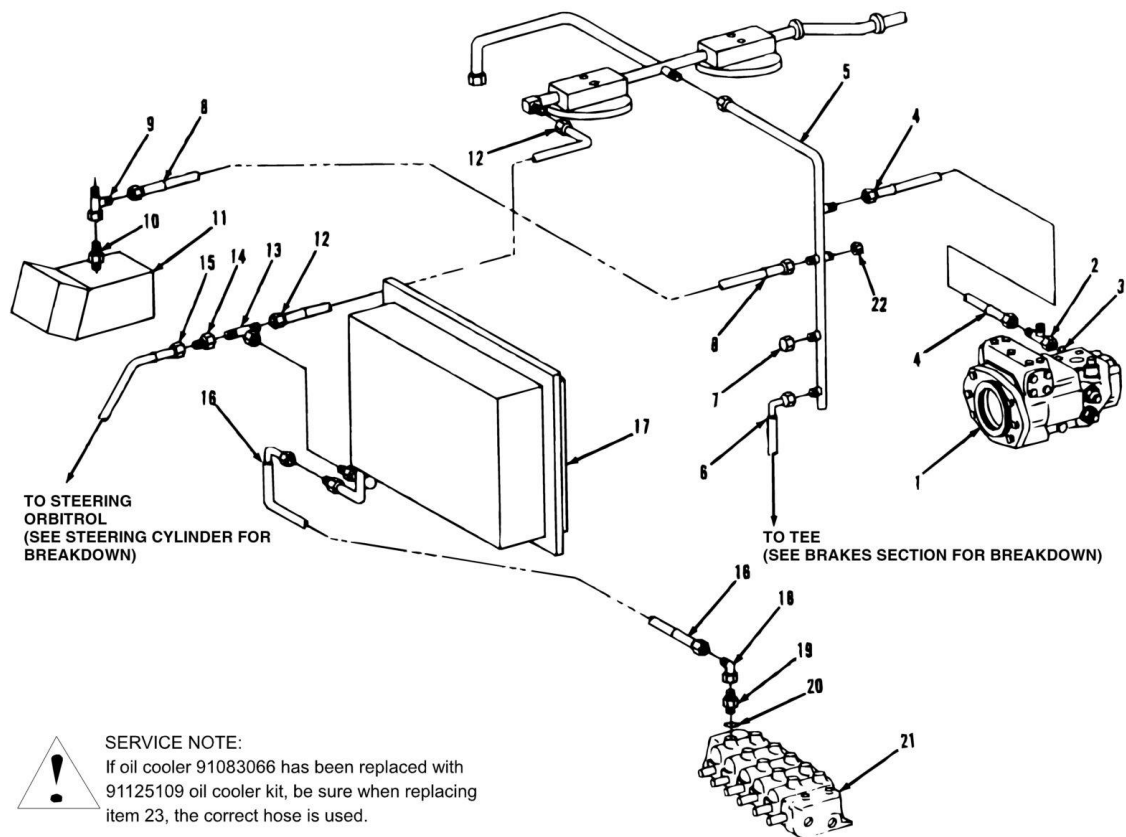
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-5. DUMP CIRCUIT (524) (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662008	1	CONNECTOR, (includes item 3)	
3	88591207	3	O-RING	
4	84717839	1	HOSE ASSY	
5		Ref	DIFFERENTIAL-LOCKVALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	88662005	1	CONNECTOR, (includes item 7)	
7	88591204	2	O-RING	
8	84717930	2	HOSE ASSY	
9	88662239	9	SWIVEL NUT RUN TEE, 3/8 TUBE	
10	84717908	1	HOSE ASSY	
11	91303059	1	TUBE ASSY	
12	88661362	1	HEX CAP, 1/4 TUBE	
13	84717835	1	HOSE ASSY	
14	88561107	2	FLATWASHER, 1/4	
15	91053426	1	STRAIGHT THREAD ADAPTER, (includes item 3)	
16		Ref	FRONT DRIVE MOTOR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	88662064	1	ELBOW, 90, (includes item 7)	
18		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	84719109	1	HOSE ASSY	
20	88662227	1	SWIVEL NUT BRANCH TEE, 3/4 TUBE	
21	88661345	1	TUBE END REDUCER, 3/4X3/8, (includes nut)	
21	88661408	1	NUT	
22	84717810	1	HOSE ASSY	
23	84719110	1	HOSE ASSY	
24		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
25	88662108	2	ELBOW, 90, (swivelnut)	
26	88662008	1	CONNECTOR, (includes item 3)	
27	88551009	2	LOCKWASHER, 1/4	
28		Ref	MAIN CONTROL VALVE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	88661010	1	MALE CONNECTOR, 3/8X1/2 TUBE	
30	88662242	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
31	77133053	1	CLAMP SET	
32	77133052	1	COVER PLATE	
33	88201010	2	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5	
34	88501004	2	HEX NUT, 1/4-20	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-6. DUMP CIRCUIT (522) (SN 0177005 to Present)



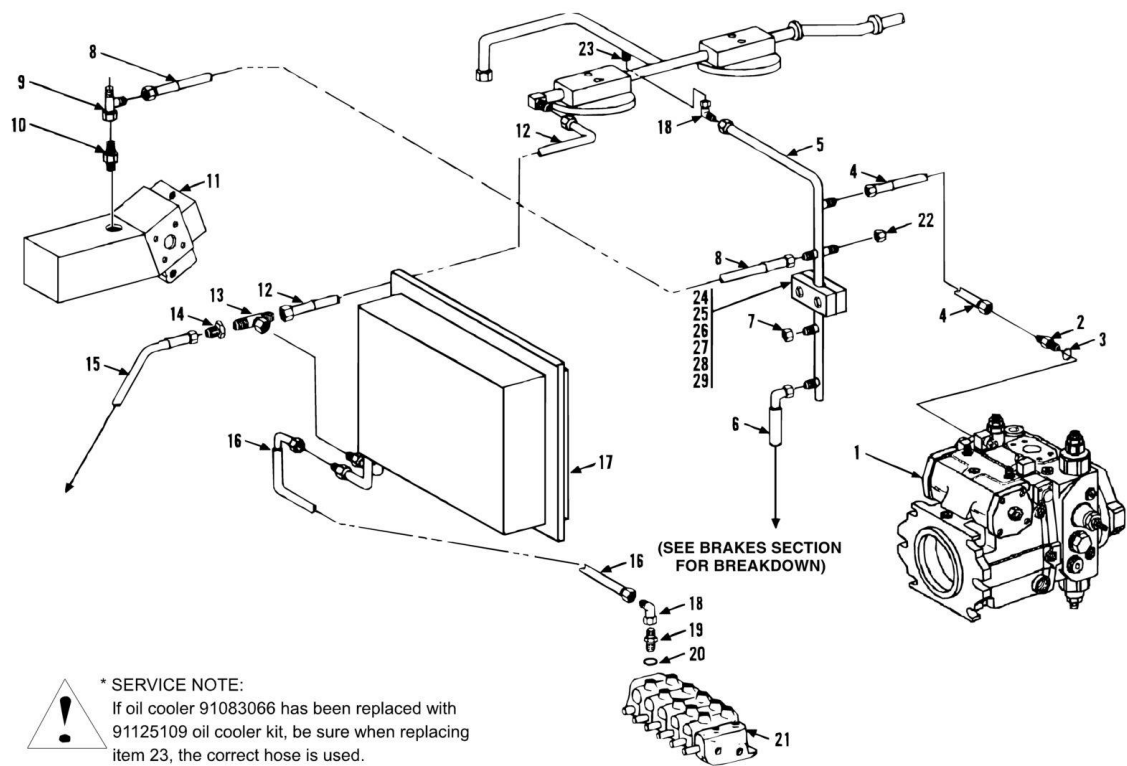
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-6. DUMP CIRCUIT (522) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662142	1	RUN TEE (includes item 3)	
3	88591207	1	O-RING	
4	84717839	1	HOSE ASSY	
5	91083189	1	TUBE ASSY	
6	84717816	1	HOSE ASSY	
7	88661362	1	HEX CAP-1/4 TUBE	
8	84717835	1	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
10	91083306	1	STRAIGHT THREAD ADAPTER	
11		Ref	FRONT DRIVE MOTOR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12	84717872	1	HOSE ASSY	
13	88662227	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
14	88661345	1	TUBE END REDUCER, 3/4X3/8	
15	84717810	1	HOSE ASSY	
16	84717906	1	HOSE ASSY (use with 91083066)	
16	84719110	1	HOSE ASSY (use with oil cooler kit, 91125109)	
17		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
18	88662108	1	ELBOW, 90, (swivel nut)	
19	88662008	1	CONNECTOR (includes item 20)	
20	88591207	1	O-RING	
21		Ref	MAIN HYDRAULIC CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88661364	1	HEX CAP, 3/8 TUBE	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-7. DUMP CIRCUIT (522) (SN 0177189 to Present)



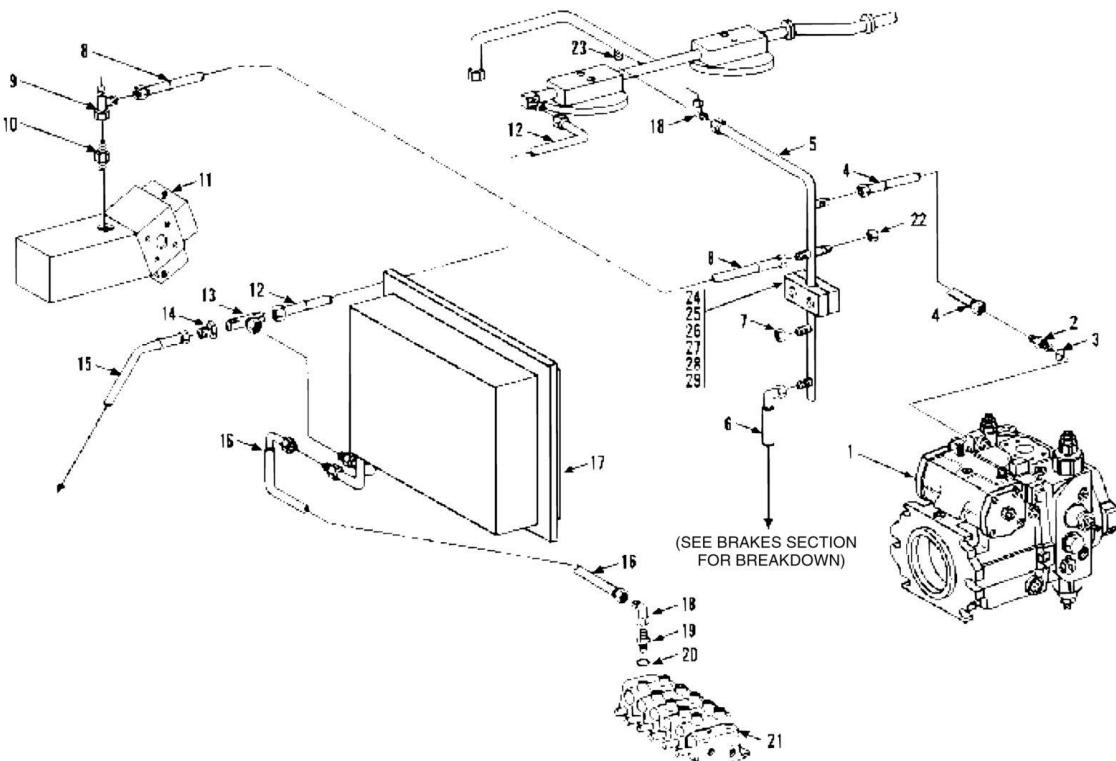
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-7. DUMP CIRCUIT (522) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662008	1	CONNECTOR (includes item 3)	
3	88591207	1	O-RING	
4	84717839	1	HOSE ASSY	
5	91303059	1	TUBE ASSY	
6	84717908	1	HOSE ASSY	
7	88661362	1	HEX CAP-1/4 TUBE	
8	84717835	1	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
10	91053426	1	STRAIGHT THREAD ADAPTER (includes o-ring)	
10	88591207	1	O-RING	
11		Ref	FRONT DRIVE MOTOR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12	84717872	1	HOSE ASSY	
13	88662227	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
14	88661345	1	TUBE END REDUCER, 3/4X3/8, (includes nut)	
14	88661408	1	NUT	
15	84717810	1	HOSE ASSY	
16	84717906	1	HOSE ASSY (use with 91083066)	
16	84719110	1	HOSE ASSY (use with oil cooler kit, 91125109)	
17		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
18	88662108	2	ELBOW, 90, (swivel nut)	
19	88662008	1	CONNECTOR (includes item 20)	
20	88591207	1	O-RING	
21		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88661364	1	HEX CAP, 3/8 TUBE	
23	88661010	1	MALE CONNECTOR, 3/8X1/2 TUBE	
24	77133053	1	CLAMP SET	
25	77133052	1	COVER PLATE	
26	88201010	2	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5	
27	88501004	2	HEX NUT, 1/4-20	
28	88551009	2	LOCKWASHER, 1/4	
29	88561107	2	FLAT WASHER, 1/4	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-8. DUMP CIRCUIT (522) (SN 0177368 to Present)



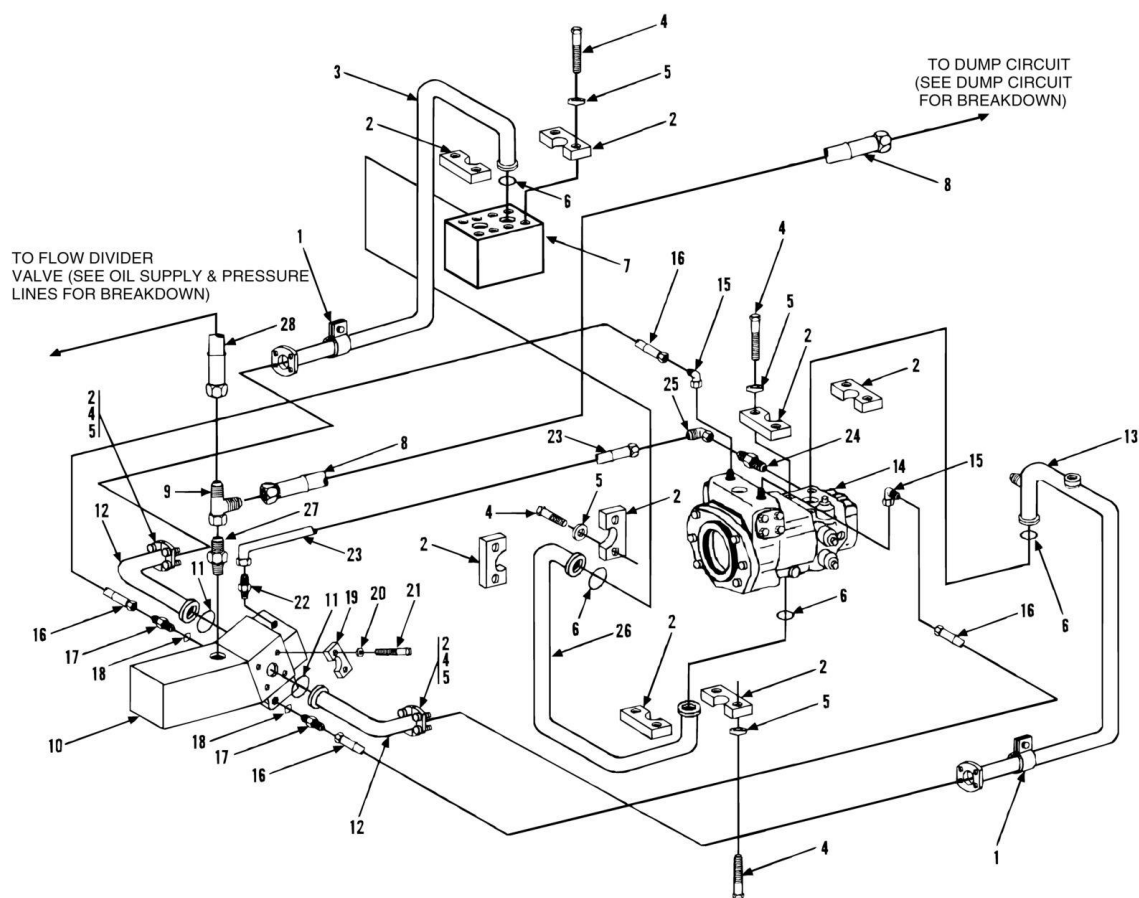
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-8. DUMP CIRCUIT (522) (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC DRIVE TRANSMISSION (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662008	1	CONNECTOR (includes item 3)	
3	88591207	1	O-RING	
4	84717839	1	HOSE ASSY	
5	91303059	1	TUBE ASSY	
6	84717908	1	HOSE ASSY	
7	88661362	1	HEX CAP-1/4 TUBE	
8	84717835	1	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
10	91053426	1	STRAIGHT THREAD ADAPTER (includes o-ring)	
10	88591207	1	O-RING	
11		Ref	FRONT DRIVE MOTOR ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12	84717872	1	HOSE ASSY	
13	88662227	1	SWIVEL NUT RUN TEE- 1/4 TUBE	
14	88661345	1	TUBE END REDUCER, 3/4X3/8, (includes nut)	
14	88661408	1	NUT	
15	84717810	1	HOSE ASSY	
16	84719110	1	HOSE ASSY	
17		Ref	OIL COOLER ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
18	88662108	2	ELBOW, 90, (swivel nut)	
19	88662008	1	CONNECTOR (includes item 20)	
20	88591207	1	O-RING	
21		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88661364	1	HEX CAP, 3/8 TUBE	
23	88661010	1	MALE CONNECTOR, 3/8X1/2 TUBE	
24	77133053	1	CLAMP SET	
25	77133052	1	COVER PLATE	
26	88201010	2	HEX HD CAPSCREW, 1/4-20X2-1/4, GR5	
27	88501004	2	HEX NUT, 1/4-20	
28	88551009	2	LOCKWASHER, 1/4	
29	88561107	2	FLAT WASHER, 1/4	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-9. DRIVE CIRCUIT - FRONT (524) (SN 0177005 to Present)



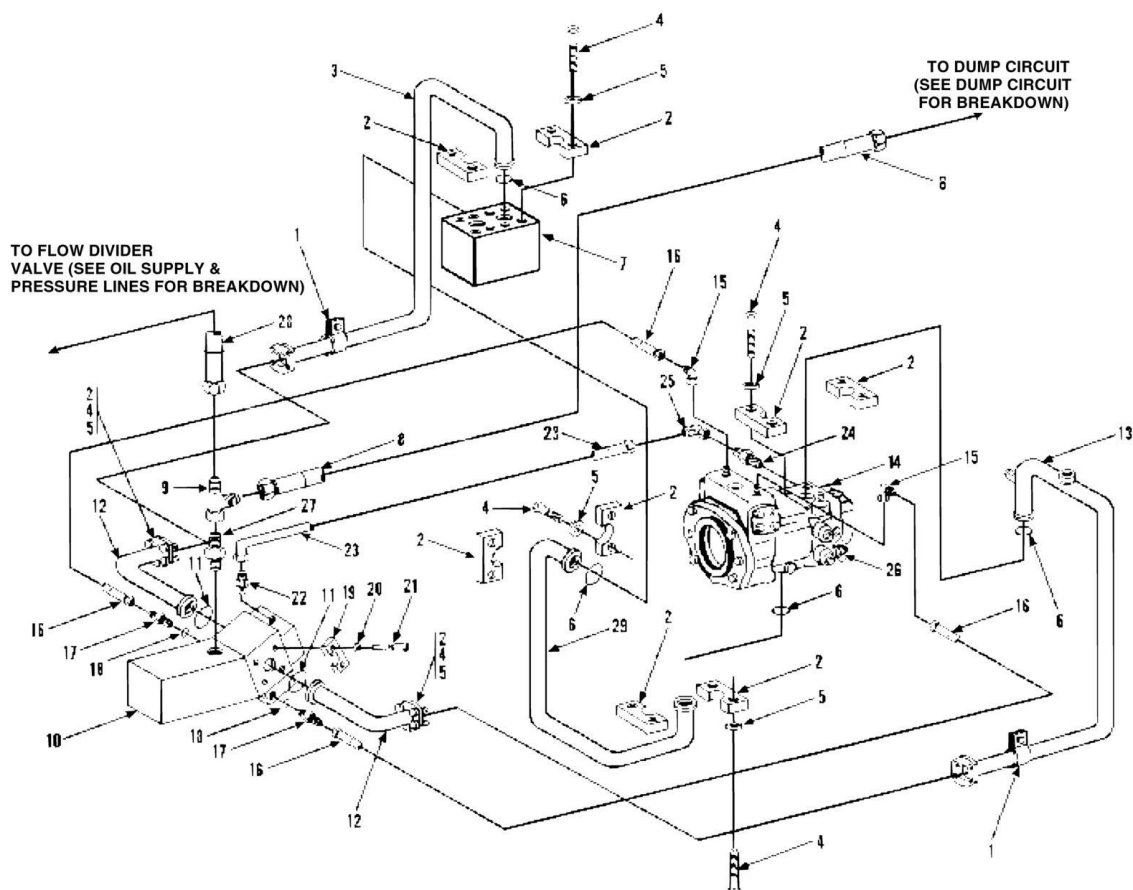
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-9. DRIVE CIRCUIT - FRONT (524) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90205792	2	CUSHION CLAMP	
2	84712738	10	SPLIT FLANGE CLAMP	
3	91083418	1	TUBE ASSY	
4	83201135	20	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
5	88551012	20	LOCKWASHER, 7/16	
6	91083106	3	O-RING	
7		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	84717911	1	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
10		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	91083339	2	O-RING	
12	84717866	2	HOSE ASSY	
13	91083419	1	TUBE ASSY	
14		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	88662062	2	ELBOW, 90, (includes o-ring)	
15	88591202	2	O-RING	
16	84717856	2	HOSE ASSY	
17	88662003	2	CONNECTOR (includes item 18)	
18	88591202	2	O-RING	
19	84712739	4	SPLIT FLANGE CLAMP	
20	88561013	8	LOCKWASHER, 1/2	
21	83201120	8	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
22	91083342	1	STRAIGHT THREAD CONNECTOR	
23	84717946	1	HOSE ASSY	
24	88662018	1	CONNECTOR (includes o-ring)	
24	88591205	1	O-RING	
25	88662119	1	ELBOW, 45, (swivel nut)	
26	91083095	1	TUBE ASSY	
27	91083306	1	STRAIGHT THREAD ADAPTER	
28	84717832	1	HOSE ASSY	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-10. DRIVE CIRCUIT - FRONT (524) (SN 0177074 to Present)



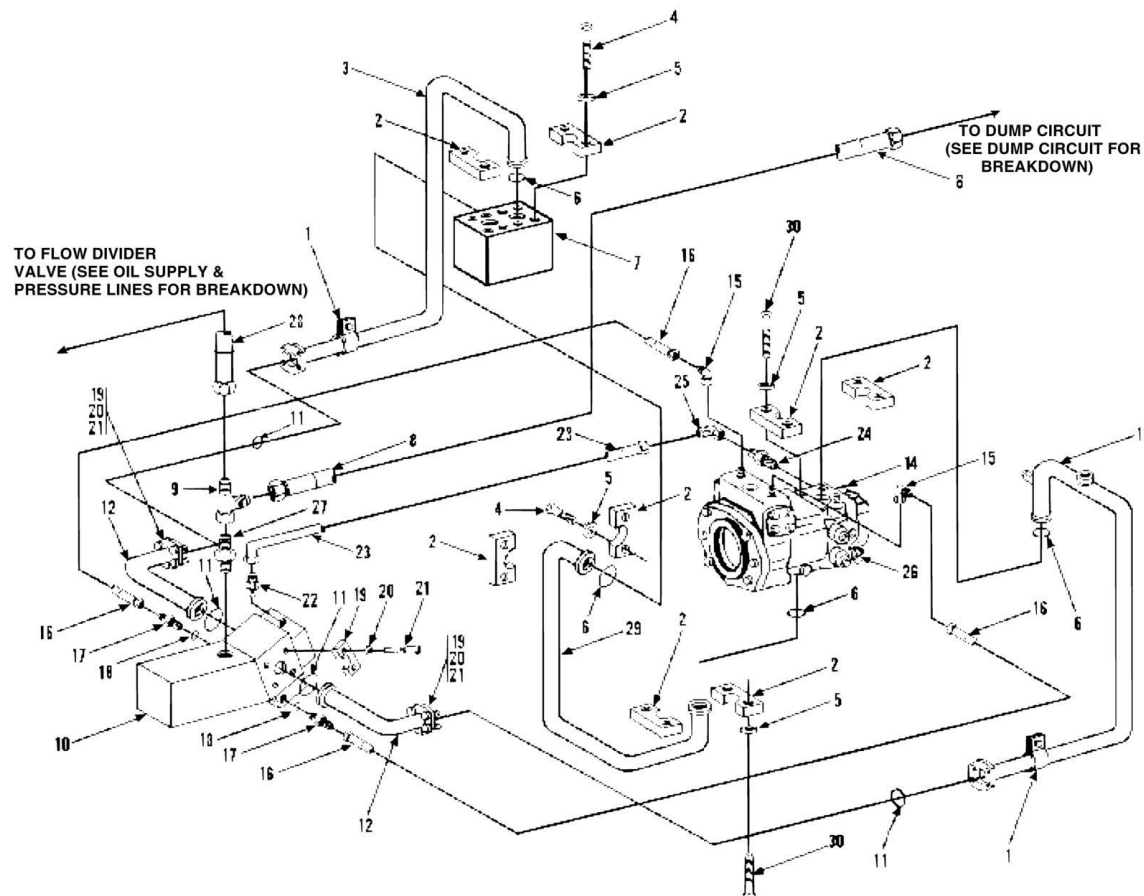
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-10. DRIVE CIRCUIT - FRONT (524) (SN 0177074 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90205792	2	CUSHION CLAMP	
2	84712738	10	SPLIT FLANGE CLAMP	
3	91083418	1	TUBE ASSY	
4	83201135	20	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
5	88551012	20	LOCKWASHER, 7/16	
6	91083106	3	O-RING	
7		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	84717835	1	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
10		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	91083339	2	O-RING	
12	84718476	2	HOSE ASSY	
13	91083419	1	TUBE ASSY	
14		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	88662062	2	ELBOW, 90, (includes o-ring)	
15	88591202	2	O-RING	
16	84717865	2	HOSE ASSY	
17	88662003	2	CONNECTOR (includes item 18)	
18	88591202	2	O-RING	
19	84712739	4	SPLIT FLANGE CLAMP	
20	88561013	8	LOCKWASHER, 1/2	
21	83201120	8	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
22	91083342	1	STRAIGHT THREAD CONNECTOR	
23	84717946	1	HOSE ASSY	
24	88662018	1	CONNECTOR (includes o-ring)	
24	88591205	1	O-RING	
25	88662119	1	ELBOW, 45, (swivel nut)	
26	91083475	2	TEST COUPLING	
27	91083306	1	STRAIGHT THREAD ADAPTER	
28	84717832	1	HOSE ASSY	
29	91083095	1	TUBE ASSY	

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FIGURE 8-11. DRIVE CIRCUIT - FRONT (524) (SN 0177165 to Present)



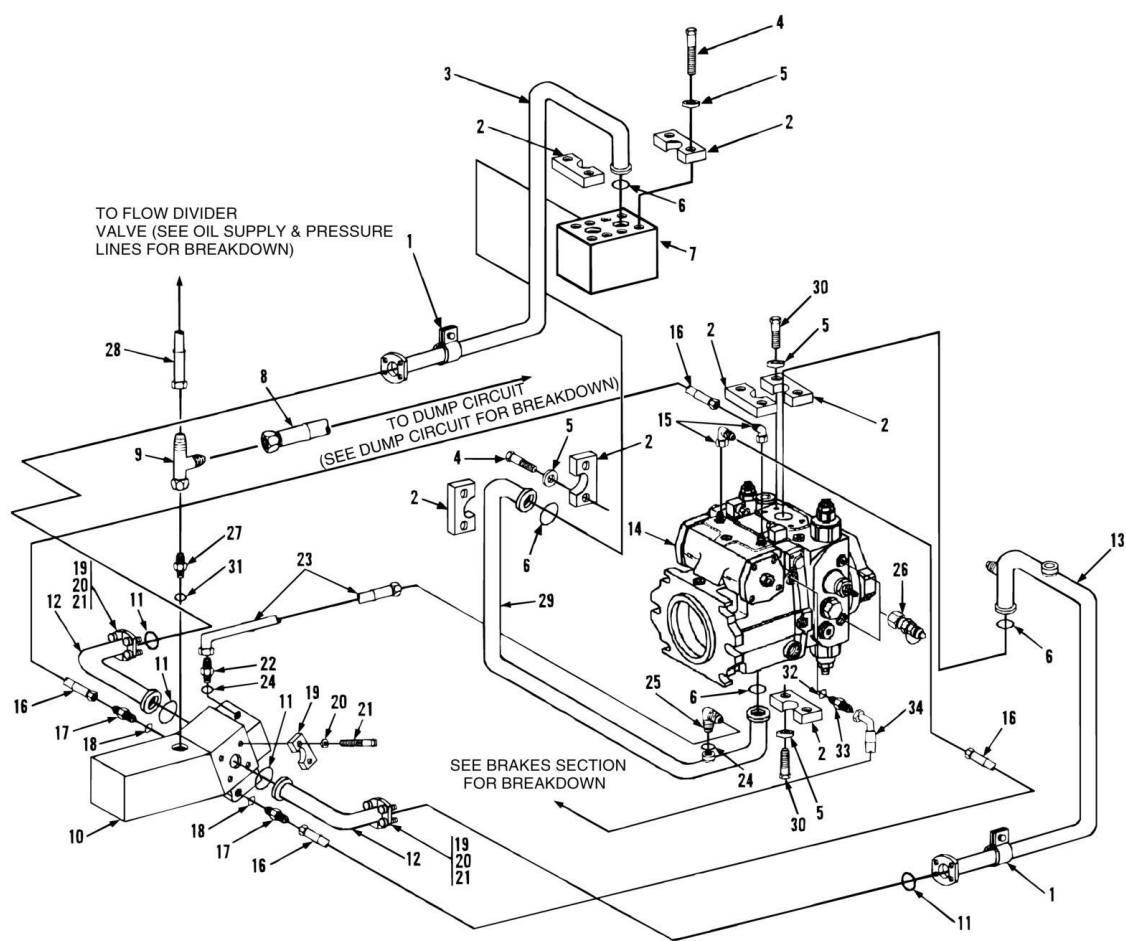
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-11. DRIVE CIRCUIT - FRONT (524) (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90205792	2	CUSHION CLAMP	
2	84712738	10	SPLIT FLANGE CLAMP	
3	91083418	1	TUBE ASSY	
4	83201155	8	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
5	88551012	20	LOCKWASHER, 7/16	
6	91083106	3	O-RING	
7		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	84717835	1	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
10		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	91083339	2	O-RING	
12	84718760	2	HOSE ASSY	
13	91083419	1	TUBE ASSY	
14		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	88662062	2	ELBOW, 90, (includes o-ring)	
15	88591202	2	O-RING	
16	84717865	2	HOSE ASSY	
17	88662003	2	CONNECTOR (includes item 18)	
18	88591202	2	O-RING	
19	84712739	8	SPLIT FLANGE CLAMP	
20	88561013	16	LOCKWASHER, 1/2	
21	83201120	16	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
22	91083342	1	STRAIGHT THREAD CONNECTOR	
23	84717946	1	HOSE ASSY	
24	88662018	1	CONNECTOR (includes o-ring)	
24	88591205	1	O-RING	
25	88662119	1	ELBOW, 45, (swivel nut)	
26	91053020	2	TEST COUPLING	
27	91083306	1	STRAIGHT THREAD ADAPTER	
28	84717832	1	HOSE ASSY	
29	91083095	1	TUBE ASSY	
30	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-12. DRIVE CIRCUIT - FRONT (524) (SN 0177189 to Present)



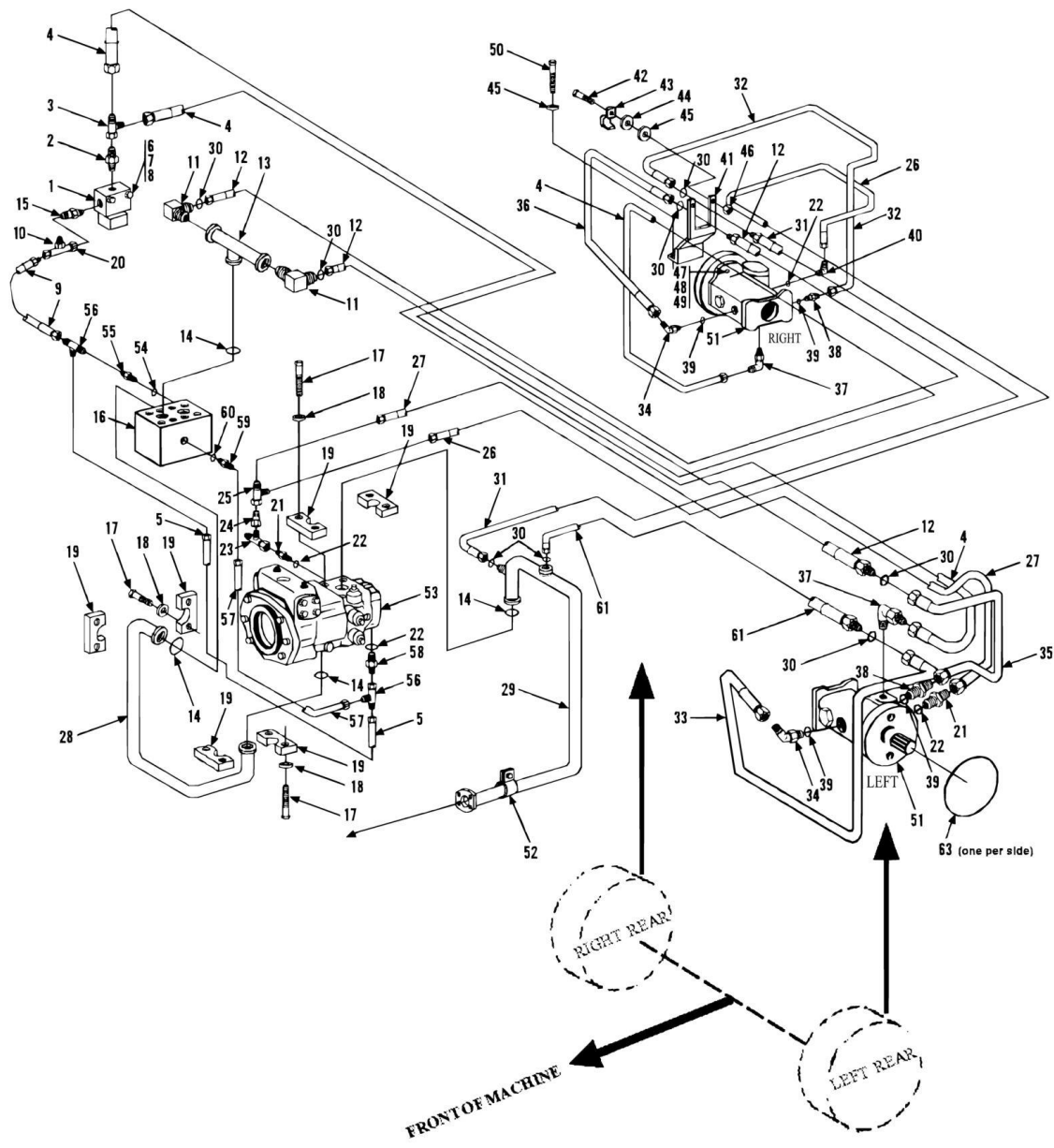
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-12. DRIVE CIRCUIT - FRONT (524) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90205792	2	CUSHION CLAMP	
2	84712738	10	SPLIT FLANGE CLAMP	
3	91083418	1	TUBE ASSY	
4	83201155	8	HEX HD CAPSCREW, 7/16-14X1-3/4, GR8	
5	88551012	20	LOCKWASHER, 7/16	
6	91083106	4	O-RING	
7		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
8	84717835	1	HOSE ASSY	
9	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
10		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	91083339	4	O-RING	
12	84718657	2	HOSE ASSY	
13	91143055	1	TUBE ASSY	
14		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	90027906	2	ELBOW, 90, (includes o-ring)	
15	88591204	2	O-RING	
16	84718861	2	HOSE ASSY	
17	88662003	2	CONNECTOR (includes item 18)	
18	88591202	2	O-RING	
19	84712739	8	SPLIT FLANGE CLAMP	
20	88561013	16	LOCKWASHER, 1/2	
21	83201120	16	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
22	88662017	1	CONNECTOR (includes item 24)	
23	84718930	1	HOSE ASSY	
24	88591204	2	O-RING	
25	88662064	1	ELBOW, 90, (includes item 24)	
26	91053020	2	TEST COUPLING	
27	91053426	1	STRAIGHT THREAD ADAPTER (includes item 31)	
28	84717832	1	HOSE ASSY	
29	91163201	1	TUBE ASSY	
30	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
31	88591207	1	O-RING	
32	88591205	1	O-RING	
33	88662018	1	CONNECTOR (includes item 32)	
34	84717460	1	HOSE ASSY	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-13. DRIVE CIRCUIT - REAR (524) (SN 0177005 to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-13. DRIVE CIRCUIT - REAR (524) (SN 0177005 to Present)

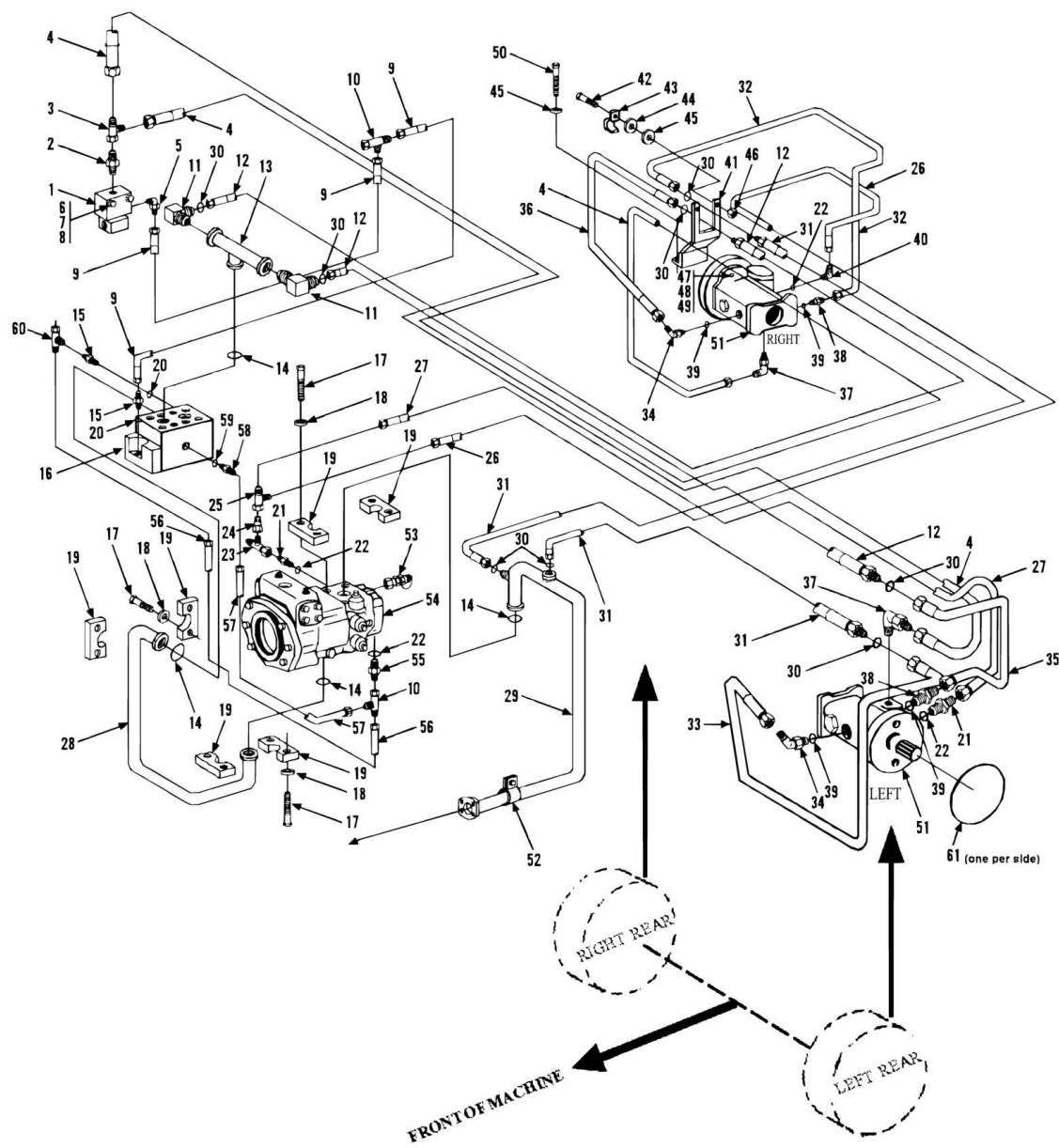
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91083213	1	ADAPTER, 1/4 TUBE	
3	88662237	1	SWIVEL NUT RUN TEE, 1/4 TUBE	
4	84718181	2	HOSE ASSY	
5	84717597	1	HOSE ASSY	
6	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
7	88561001	2	PLAIN WASHER, 1/4	
8	88551009	2	LOCKWASHER, 1/4	
9	84717830	1	HOSE ASSY	
10	77133089	1	TEST FITTING	
11	88662421	2	ELBOW, 45, (includes o-ring)	
11	88591020	2	O-RING	
12	84717878	2	HOSE ASSY	
13	91083266	1	TUBE ASSY	
14	91083106	4	O-RING	
15	88661009	1	MALE CONNECTOR, 3/8X3/8 TUBE	
16		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	83201135	20	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
18	88551012	20	LOCKWASHER, 7/16	
19	84712738	10	SPLIT FLANGE CLAMP	
20	91043163	1	TUBE ASSY	
21	88662008	2	CONNECTOR (includes item 22)	
22	88591207	4	O-RING	
23	88662142	1	RUN TEE (includes item 22)	
24	83651133	1	REDUCER, W/ADAPTER	
25	88662240	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
26	84718182	1	HOSE ASSY	
27	84718183	1	HOSE ASSY	
28	91083095	1	TUBE ASSY	
29	91083419	1	TUBE ASSY	
30	88591508	10	O-RING	
31	91083194	1	TUBE ASSY	
32	91083465	1	TUBE ASSY	
33	91083040	1	TUBE ASSY	
34	88662425	2	ELBOW, 45, (includes item 39)	
35	91083463	1	TUBE ASSY	
36	91083466	1	TUBE ASSY	
37	91085064	2	RESTRICTOR	
38	88662306	2	CONNECTOR, (includes item 39)	
39	88591209	4	O-RING	
40	88662087	1	ELBOW, 45, (includes item 22)	
41	91081522	1	R.H. TUBE SUPPORT	
41	91081523	1	L.H. TUBE SUPPORT	
42	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
43	91081201	4	TUBE CLAMP	
44	90027470	4	HARDENED WASHER, 3/8	
45	88551011	12	LOCKWASHER, 3/8	
46	88501006	4	HEX NUT, 3/8-16	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	91123092	4	STUD	
48	90027470	4	HARD WASHER	
49	91083449	4	HEX NUT, 1/2-13	
50	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
51		Ref	REAR DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
52	90205792	1	CUSHION CLAMP	
53		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
54	88591205	1	O-RING	
55	88662018	1	CONNECTOR (includes item 54)	
56	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
57	84717597	1	HOSE ASSY	
58	91053426	1	STRAIGHT THREAD REDUCING CONNECTOR (includes item 22)	
59	91083306	1	STRAIGHT THREAD CONNECTOR	
60	88591206	1	O-RING	
61	91083191	1	TUBE ASSY	
62	84717824	2	HOSE ASSY	
63	90023155	2	O-RING (one each side)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-14. DRIVE CIRCUIT - REAR (524) (SN 0177074 to Present)



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-14. DRIVE CIRCUIT - REAR (524) (SN 0177074 to Present)

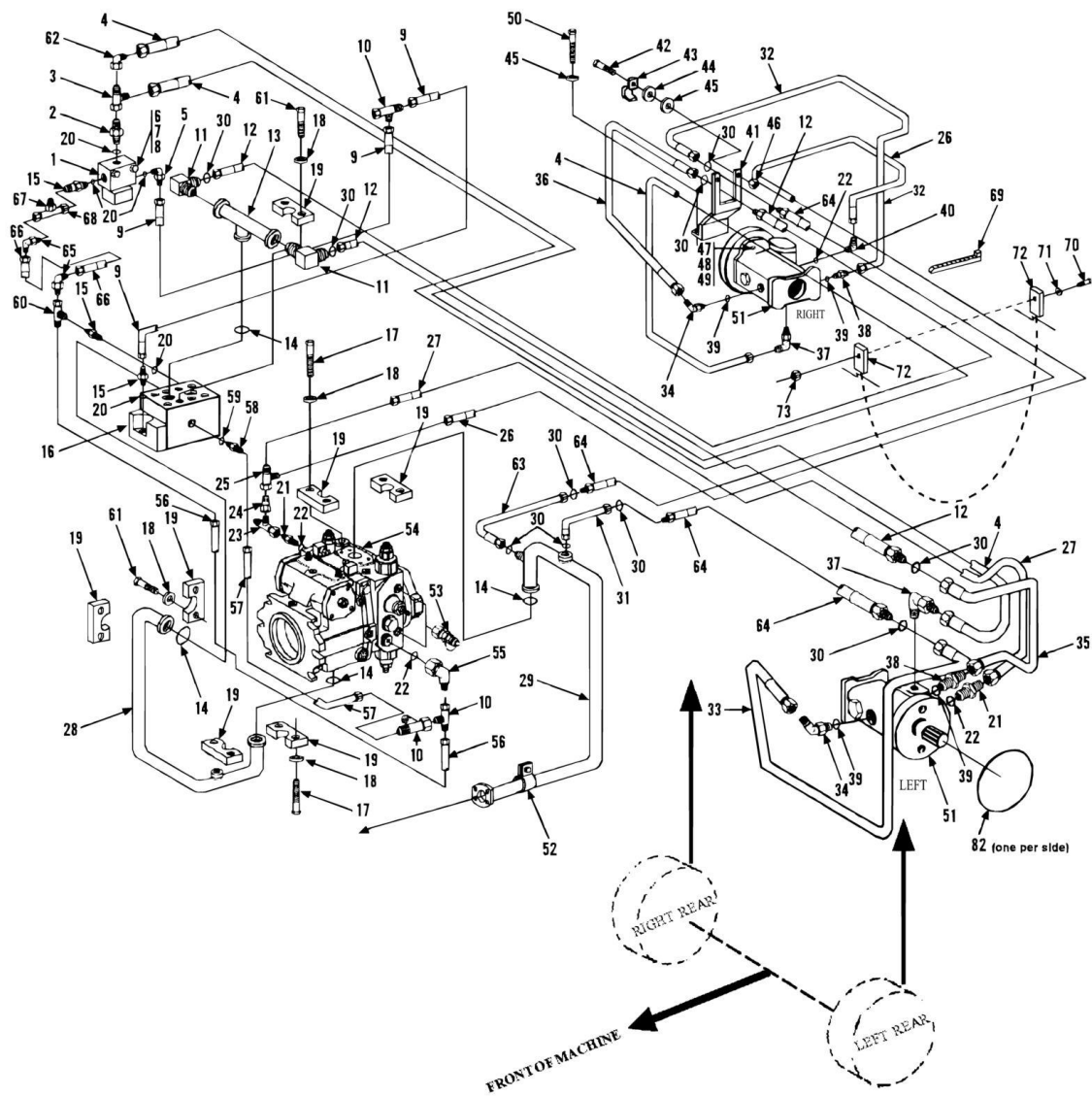
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662017	1	ADAPTER, 1/4 TUBE	
3	88662237	1	SWIVEL NUT RUN TEE, 1/4 TUBE	
4	84718181	2	HOSE ASSY	
5	88661109	1	ELBOW, 90	
6	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
7	88561001	2	PLAIN WASHER, 1/4	
8	88551009	2	LOCKWASHER, 1/4	
9	84717930	2	HOSE ASSY	
10	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
11	88662421	2	ELBOW, 45, (includes o-ring)	
11	88591020	2	O-RING	
12	84717878	2	HOSE ASSY	
13	91083266	1	TUBE ASSY	
14	91083106	4	O-RING	
15	88662005	2	STRAIGHT THREAD CONNECTOR (includes item 20)	
16		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	83201135	20	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
18	88551012	20	LOCKWASHER, 7/16	
19	84712738	10	SPLIT FLANGE CLAMP	
20	88591204	2	O-RING	
21	88662008	2	CONNECTOR (includes item 22)	
22	88591207	4	O-RING	
23	88662242	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
24	83651133	1	REDUCER, W/ADAPTER	
25	88662240	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
26	84718182	1	HOSE ASSY	
27	84718183	1	HOSE ASSY	
28	91083095	1	TUBE ASSY	
29	91083419	1	TUBE ASSY	
30	88591508	10	O-RING	
31	84717824	2	HOSE ASSY	
32	91083465	1	TUBE ASSY	
33	91083464	1	TUBE ASSY	
34	88662425	2	ELBOW, 45, (includes item 39)	
35	91083463	1	TUBE ASSY	
36	91083466	1	TUBE ASSY	
37	91085064	2	RESTRICTOR	
38	88662306	2	CONNECTOR (includes item 39)	
39	88591209	4	O-RING	
40	88662087	1	ELBOW, 45, (includes item 22)	
41	91081522	1	R.H. TUBE SUPPORT	
41	91081523	1	L.H. TUBE SUPPORT	
42	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
43	91081201	4	TUBE CLAMP	
44	90027470	4	HARDENED WASHER, 3/8	
45	88551011	12	LOCKWASHER, 3/8	
46	88501006	4	HEX NUT, 3/8-16	

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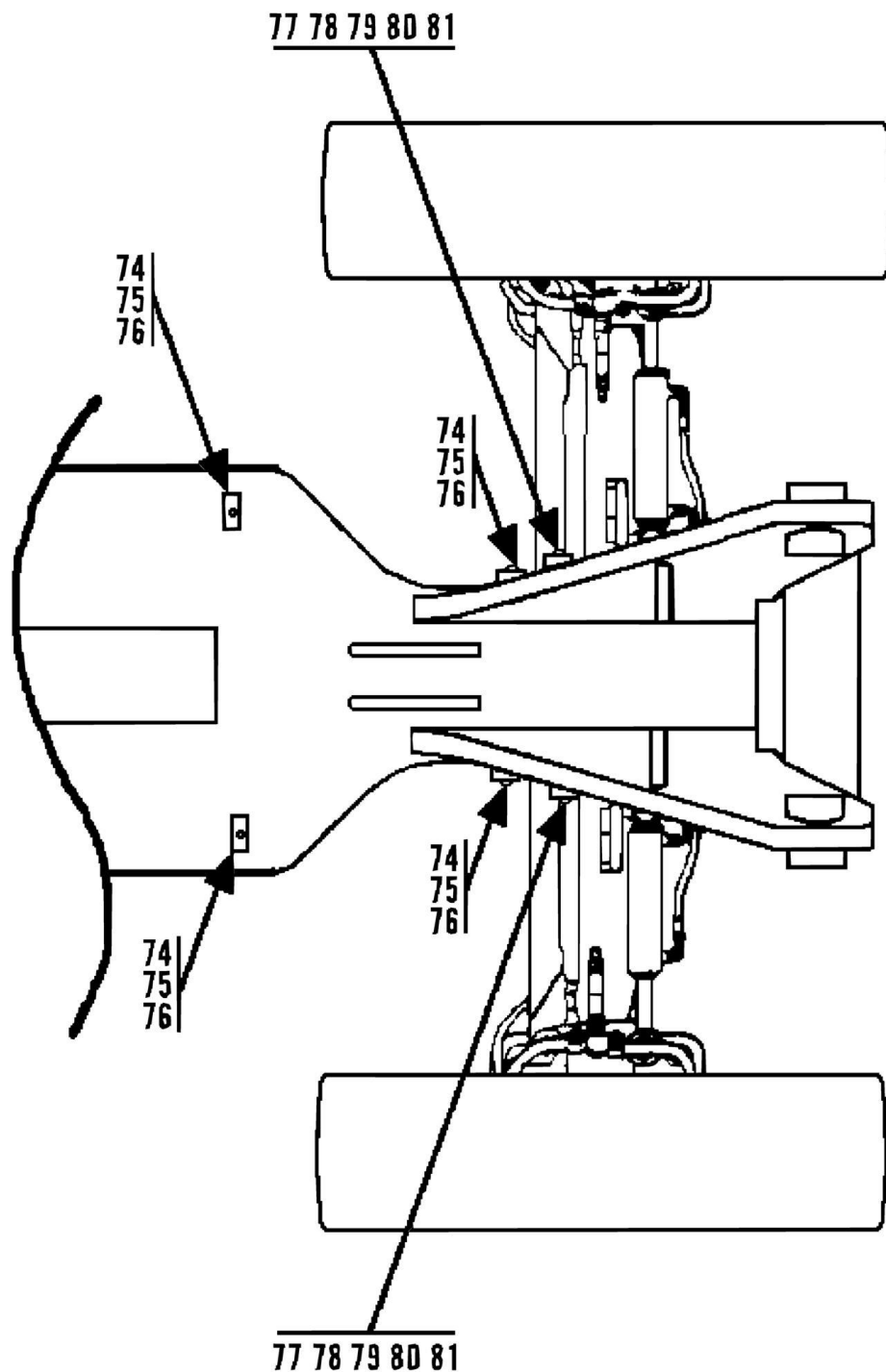
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	91123092	4	STUD	
48	90027471	4	HARD WASHER	
49	91083449	4	HEX NUT, 1/2-13	
50	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
51		Ref	REAR DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
52	90205792	1	CUSHION CLAMP	
53	91083475	2	TEST COUPLING	
54		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
55	91053426	1	STRAIGHT THREAD REDUCING CONNECTOR (includes item 18)	
56	84718221	1	HOSE ASSY	
57	84718207	1	HOSE ASSY	
58	91083306	1	STRAIGHT THREAD CONNECTOR	
59	88591206	1	O-RING	
60	88662224	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
61	90023155	2	O-RING (one each side)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-15. DRIVE CIRCUIT - REAR (524) (SN 0177189 to Present)



REAR DRIVE HOSE CLAMP LOCATIONS



SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-15. DRIVE CIRCUIT - REAR (524) (SN 0177189 to Present)

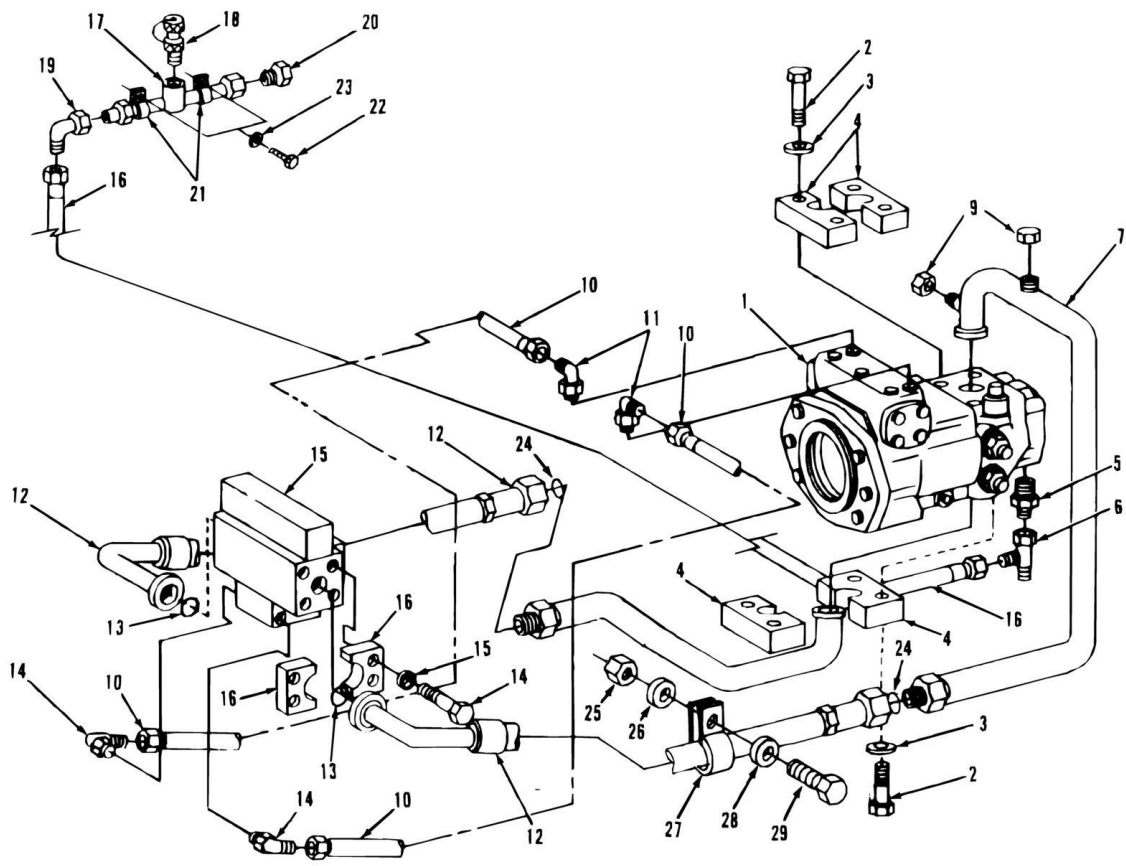
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SOLENOID VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662017	1	ADAPTER, 1/4 TUBE	
3	88662237	1	SWIVEL NUT RUN TEE, 1/4 TUBE	
4	84718181	2	HOSE ASSY	
5	88662064	1	ELBOW, 90, (includes o-ring)	
5	88591204	1	O-RING	
6	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
7	88561001	2	PLAIN WASHER, 1/4	
8	88551009	2	LOCKWASHER, 1/4	
9	84717930	2	HOSE ASSY	
10	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
11	88662421	2	ELBOW, 45, (includes o-ring)	
11	88591207	2	O-RING	
12	84717878	2	HOSE ASSY	
13	91083266	1	TUBE ASSY	
14	91083106	4	O-RING	
15	88662005	3	STRAIGHT THREAD CONNECTOR (includes item 20)	
16		Ref	TRACTION LOCK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
18	88551012	16	LOCKWASHER, 7/16	
19	84712738	8	SPLIT FLANGE CLAMP	
20	88591204	3	O-RING	
21	88662008	2	CONNECTOR (includes item 22)	
22	88591207	4	O-RING	
23	88662242	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
24	83651133	1	REDUCER, W/ADAPTER	
25	88662240	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
26	84718182	1	HOSE ASSY	
27	84718183	1	HOSE ASSY	
28	91163201	1	TUBE ASSY	
29	91143055	1	TUBE ASSY	
30	88591508	10	O-RING	
31	91083191	2	HOSE ASSY	
32	91083465	1	TUBE ASSY	
33	91083464	1	TUBE ASSY	
34	88662425	2	ELBOW, 45, (includes item 39)	
35	91083463	1	TUBE ASSY	
36	91083466	1	TUBE ASSY	
37	91085064	2	RESTRICTOR	
38	88662306	2	CONNECTOR (includes item 39)	
39	88591209	4	O-RING	
40	88662087	1	ELBOW, 45, (includes item 22)	
41	91081522	1	R.H. TUBE SUPPORT	
41	91081523	1	L.H. TUBE SUPPORT	
42	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
43	91081201	4	TUBE CLAMP	
44	90027470	4	HARDENED WASHER, 3/8	
45	88551011	12	LOCKWASHER, 3/8	

SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	88501006	4	HEX NUT, 3/8-16	
47	91123092	4	STUD	
48	90027471	4	HARD WASHER	
49	91083449	4	HEX NUT, 1/2-13	
50	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
51		Ref	REAR DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
52	90205792	1	CUSHION CLAMP	
53	91053020	2	TEST COUPLING	
54		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
55	91083222	1	STRAIGHT THREAD REDUCING CONNECTOR (includes item 22)	
56	84718221	1	HOSE ASSY	
57	77133447	1	HOSE ASSY	
58	91083306	1	STRAIGHT THREAD CONNECTOR	
59	88591206	1	O-RING	
60	88662224	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
61	83201155	8	HEX HD CAPSCREW, 7/16-14X1-3/4	
62	88662103	1	ELBOW, 90, (swivel nut)	
63	91083194	1	TUBE ASSY	
64	84717824	2	HOSE ASSY	
65	88662105	2	ELBOW, 90, (swivel nut)	
66	84718208	1	HOSE ASSY	
67	77133089	1	TEST FITTING	
68	91043163	1	TUBE ASSY	
69	90027187	12	NYLON TIE	
70	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
71	88561108	4	WASHER	
72	91303049	2	HOSE SUPPORT (one each side)	
73	88501005	2	HEX NUT	
74	77133053	4	CLAMP SET	
75	77133052	4	COVER PLATE	
76	77133209	8	HEX HD CAPSCREW, 1/4-20X1-3/8	
77	77133306	2	STACK BOLT	
78	77133390	2	SAFETY CLIP	
79	88201023	2	HEX HD CAPSCREW, 5/16-18X1-3/4, GR6	
80	77323029	4	HOSE CLAMP	
81	77133137	2	COVER PLATE	
82	90023155	2	O-RING (one each side)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-16. DRIVE CIRCUIT (522) (SN 0177005 to Present)



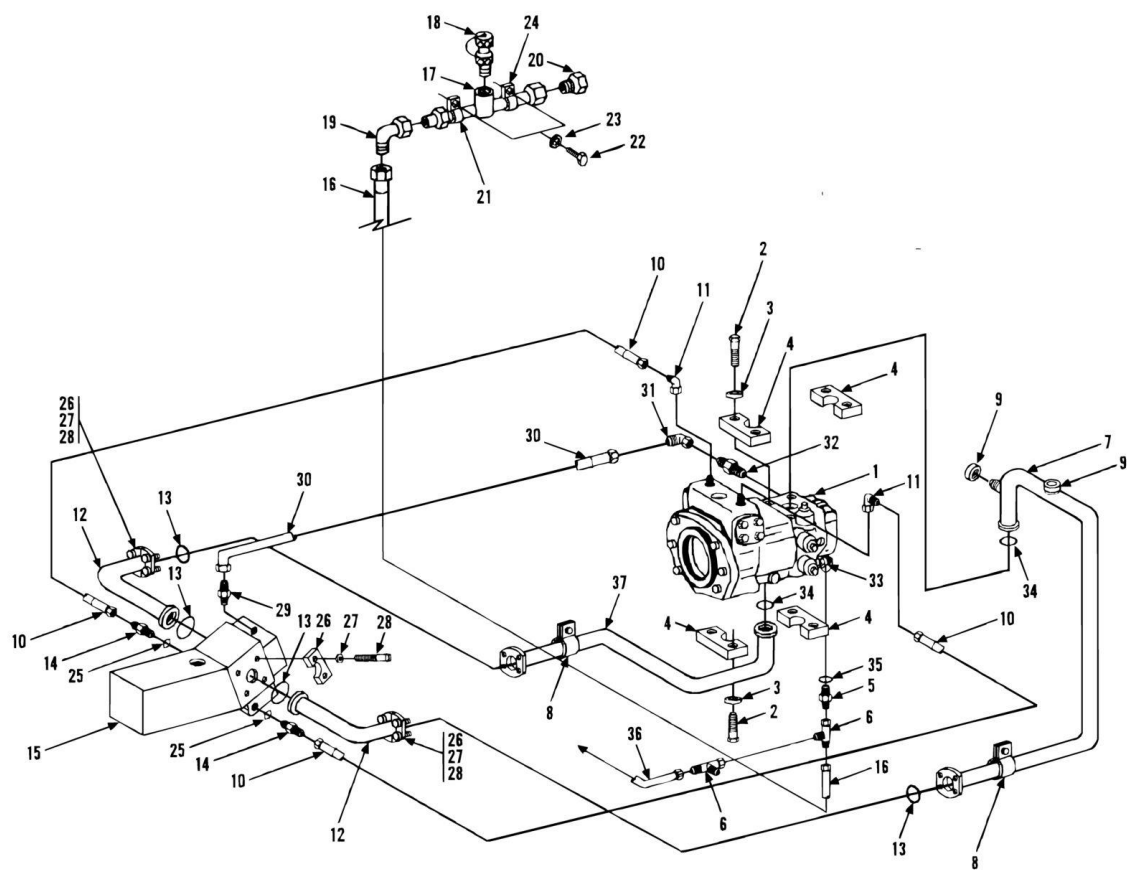
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-16. DRIVE CIRCUIT (522) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION PUMP (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
3	88551012	8	LOCKWASHER, 7/16	
4	84712738	4	FLANGE HALF	
5	91083426	1	CONNECTOR	
6	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
7	91083104	1	TUBE ASSY	
8	91093001	1	TUBE ASSY	
9	84714006	2	CAP	
10	84717865	2	HOSE ASSY	
11	88662062	2	ELBOW, 90, (includes o-ring)	
11	88591202	2	O-RING	
13	91083339	2	O-RING	
14	88662062	2	ELBOW, 90, (includes o-ring)	
14	88591202	2	O-RING	
15		Ref	FRONT DRIVE MOTOR (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	84717830	1	HOSE ASSY	
17	91043163	1	TUBE ASSY	
18	77133089	1	TEST COUPLING	
19	88662105	1	ELBOW, 90, (swivel nut)	
20	88661384	2	HEX PLUG, 1/4 TUBE	
21	24861170	2	TUBE CLIP	
22	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
23	88551009	2	LOCKWASHER, 1/4	
24	88591509	2	O-RING	
25	88501008	2	HEX NUT, 1/2-13	
26	88551013	2	LOCKWASHER, 1/2	
27	90028660	2	SUPPORT CLAMP	
28	88561111	2	FLAT WASHER, 1/2	
29	88201066	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-17. DRIVE CIRCUIT (522) (SN 0177165 to Present)



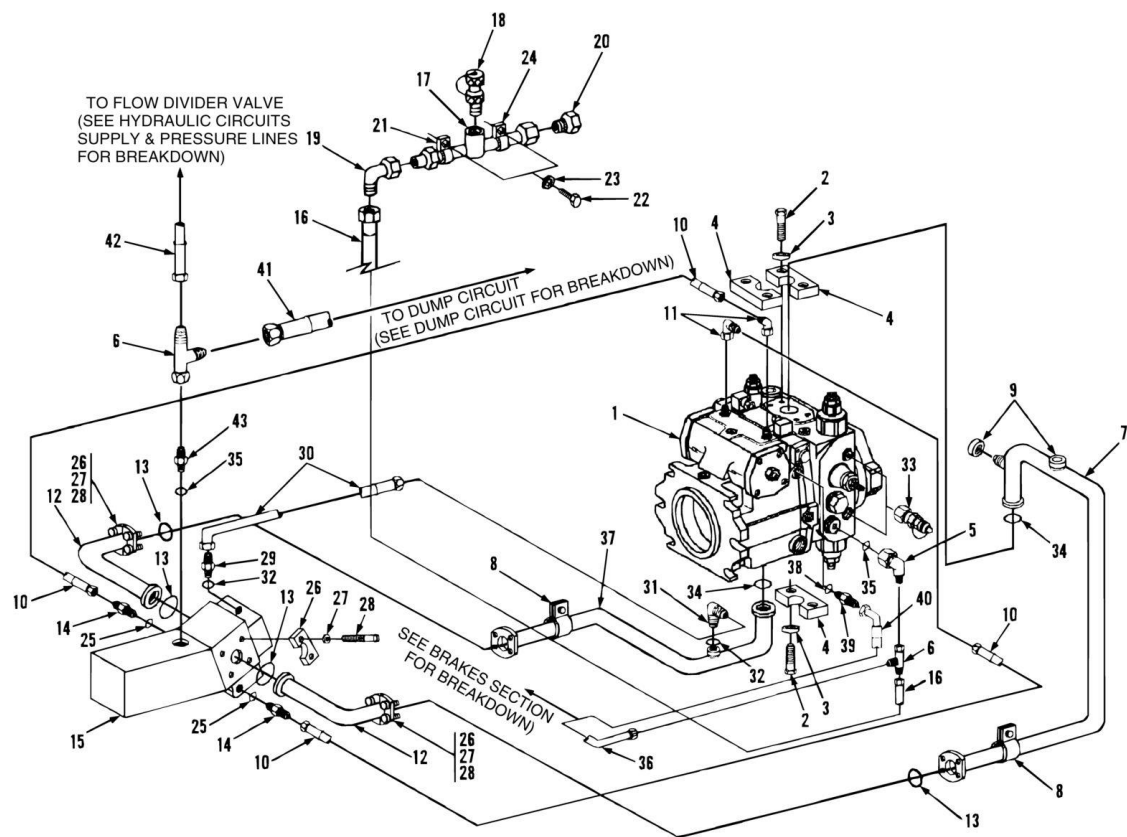
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-17. DRIVE CIRCUIT (522) (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
3	88551012	8	LOCKWASHER, 7/16	
4	84712738	4	FLANGE HALF	
5	91053426	1	CONNECTOR (includes item 35)	
6	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
7	91083419	1	TUBE ASSY	
8	90205792	2	CUSHION CLAMP	
9	84714006	2	CAP	
10	84717865	2	HOSE ASSY	
11	88662062	2	ELBOW, 90, (includes o-ring)	
11	88591202	2	O-RING	
12	84718760	2	HOSE ASSY	
13	91083339	4	O-RING	
14	88662003	2	CONNECTOR (includes item 25)	
15		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	84717830	1	HOSE ASSY	
17	91043163	1	TUBE ASSY	
18	77133089	1	TEST COUPLING	
19	88662105	1	ELBOW, 90, (swivel nut)	
20	88661384	2	HEX CAP, 3/8 TUBE	
21	24861170	2	TUBE CLIP	
22	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
23	88551009	2	LOCKWASHER, 1/4	
24	86621230	1	TUBE CLIP	
25	88591202	2	O-RING	
26	84712739	8	FLANGE HALF	
27	88561013	16	LOCKWASHER, 1/2	
28	83201120	16	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
29	91083342	1	STRAIGHT THREAD CONNECTOR	
30	84717946	1	HOSE ASSY	
31	88662119	1	ELBOW, 45, (swivel nut)	
32	88662018	1	CONNECTOR (includes o-ring)	
32	88591205	1	O-RING	
33	91053020	2	STAUFF TEST COUPLING	
34	91083106	2	O-RING	
35	88591207	1	O-RING	
36	84717852	1	HOSE ASSY	
37	91083095	1	TUBE ASSY	

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FIGURE 8-18. DRIVE CIRCUIT (522) (SN 0177189 to Present)



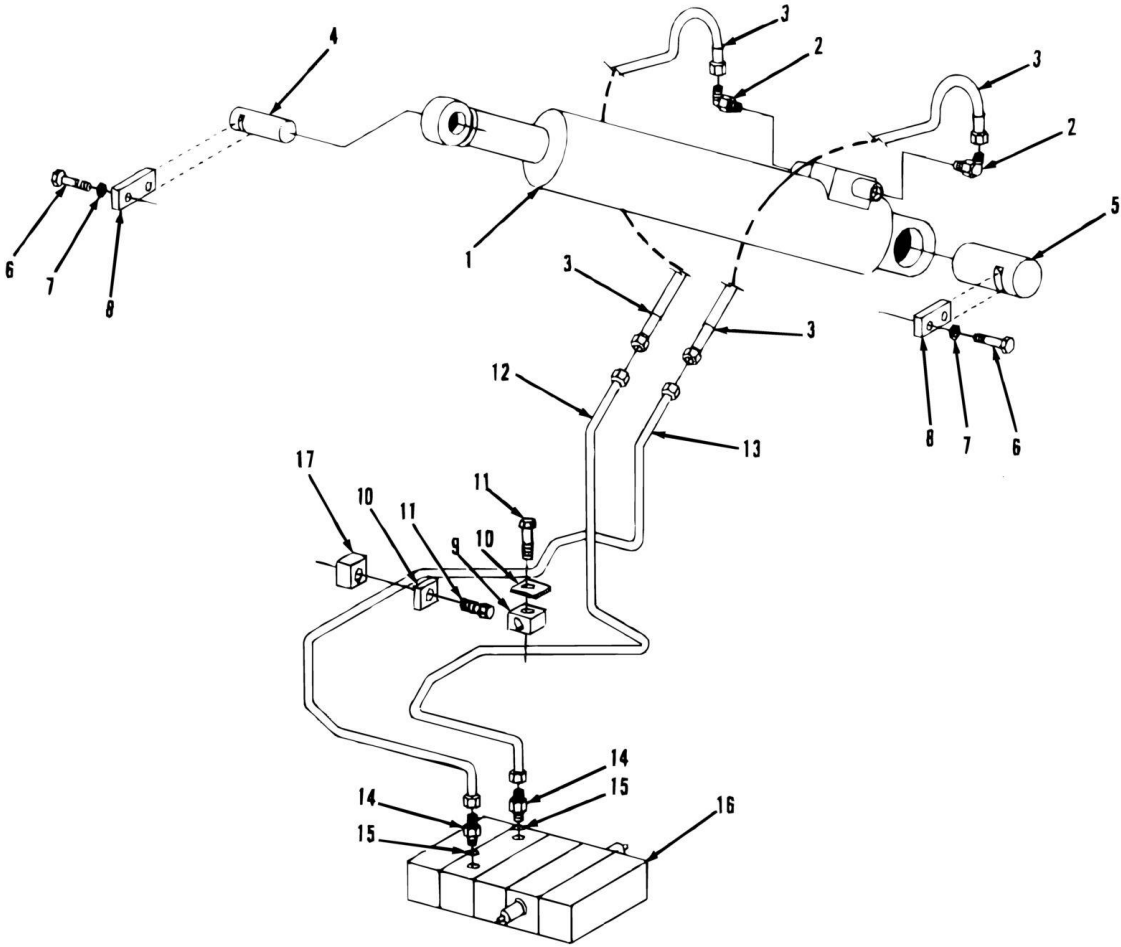
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-18. DRIVE CIRCUIT (522) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDROSTATIC TRANSMISSION ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	83201135	8	HEX HD CAPSCREW, 7/16-14X1-1/2, GR8	
3	88551012	8	LOCKWASHER, 7/16	
4	84712738	4	FLANGE HALF	
5	91083222	1	CONNECTOR (includes item 35)	
6	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
7	91143055	1	TUBE ASSY	
8	90205792	2	CUSHION CLAMP	
9	84714006	2	CAP	
10	84718861	2	HOSE ASSY	
11	90027906	2	ELBOW, 90, (includes o-ring)	
11	88591204	2	O-RING	
12	84718657	2	HOSE ASSY	
13	91083339	4	O-RING	
14	88662003	2	CONNECTOR (includes item 25)	
15		Ref	FRONT DRIVE MOTOR, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16	84717830	1	HOSE ASSY	
17	91043163	1	TUBE ASSY	
18	77133089	1	TEST COUPLING	
19	88662105	1	ELBOW, 90, (swivel nut)	
20	88661384	2	HEX CAP, 3/8 TUBE	
21	24861170	2	TUBE CLIP	
22	88201003	2	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
23	88551009	2	LOCKWASHER, 1/4	
24	86621230	1	TUBE CLIP	
25	88591202	2	O-RING	
26	84712739	8	FLANGE HALF	
27	88561013	16	LOCKWASHER, 1/2	
28	83201120	16	HEX HD CAPSCREW, 1/2-13X1-3/4, GR5	
29	88662017	1	STRAIGHT THREAD CONNECTOR (includes item 32)	
30	84718930	1	HOSE ASSY	
31	88662064	1	ELBOW, 90, (includes item 32)	
32	88591204	2	O-RING	
33	91053020	2	STAUFF TEST COUPLING	
34	91083106	2	O-RING	
35	88591207	2	O-RING	
36	84717852	1	HOSE ASSY	
37	91093017	1	TUBE ASSY	
38	88591205	1	O-RING	
39	88662018	1	CONNECTOR (includes item 38)	
40	84717460	1	HOSE ASSY	
41	84717835	1	HOSE ASSY	
42	84717832	1	HOSE ASSY	
43	91053426	1	STRAIGHT THREAD ADAPTER (includes item 35)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-19. LIFT CYLINDER (SN 0177005 to Present)



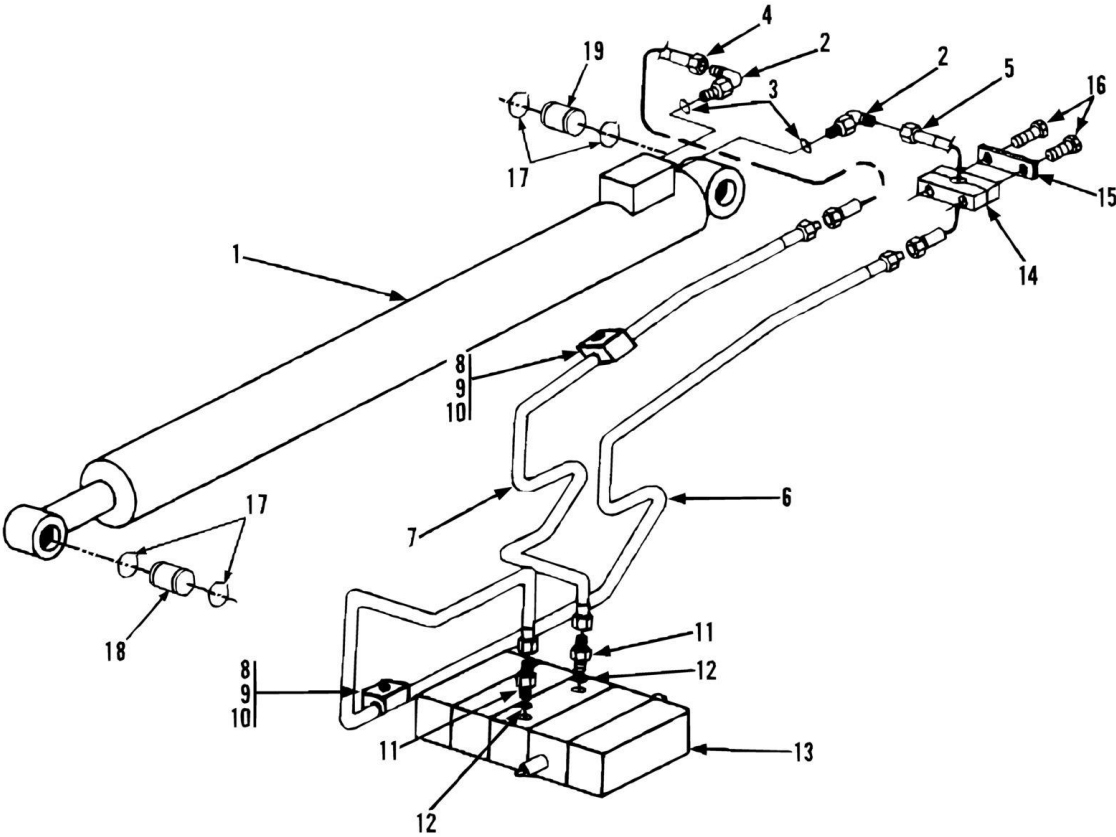
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-19. LIFT CYLINDER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	LIFT CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91083050	2	HYDRAULIC SWIVEL	
3	84717860	2	HOSE ASSY	
4	91081432	1	PIN	
5	91081433	1	PIN	
6	88201065	2	HEX HD CAPSCRREW, 1/2-13X1, GR5	
7	88551013	2	LOCKWASHER, 1/2	
8	91081313	2	KEEPER PLATE	
9	77133139	1	CLAMP SET	
10	77133140	2	COVER PLATE	
11	77133177	2	HEX HD CAPSCREW	
12	91083224	1	TUBE ASSY	
13	91083225	1	TUBE ASSY	
14	88662007	2	CONNECTOR (includes item 15)	
15	88591206	2	O-RING	
16		Ref	MAIN HYDRAULIC CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	77133240	1	CLAMP SET	

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FIGURE 8-20. CROWD CYLINDER (SN 0177005 to Present)



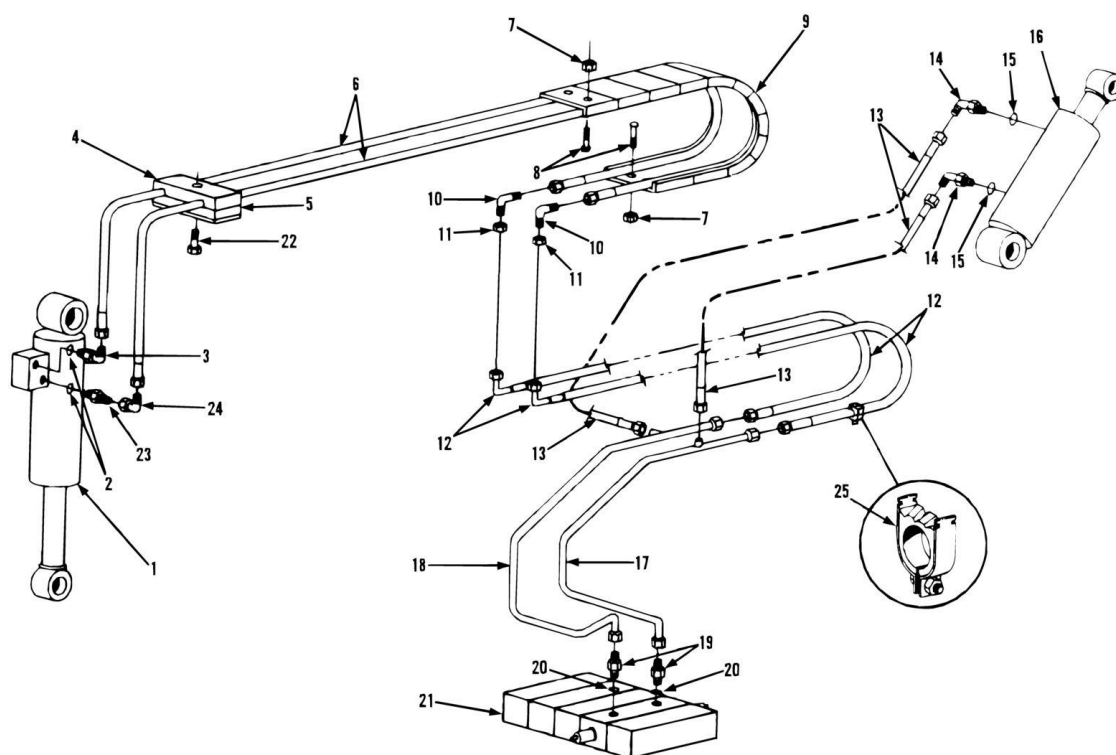
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-20. CROWD CYLINDER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	HYDRAULIC CYLINDER ASSY CROWD (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662065	2	ELBOW, 90, (includes item 3)	
3	88591205	2	O-RING	
4	84717885	1	HOSE ASSY	
5	84717884	1	HOSE ASSY	
6	91083226	1	TUBE ASSY	
7	91083230	1	TUBE ASSY	
8	77133139	2	CLAMP SET	
9	77133140	2	COVER PLATE	
10	77133177	2	HEX HD CAPSCREW	
11	88662007	2	CONNECTOR (includes item 12)	
12	88591206	2	O-RING	
13		Ref	MAIN HYDRAULIC CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
14	77133893	2	CLAMP SET	
15	77133052	2	COVER PLATE	
16	77133209	4	HEX HD CAPSCREW, 1/4-20X1-3/8	
17	88581140	4	RETAINING RING	
18	91081437	1	CROWD CYLINDER PIN	
19	91081438	1	CROWD CYLINDER PIN	

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FIGURE 8-21. TILT AND TILT COMPENSATING CYLINDER (SN 0177005 to Present)



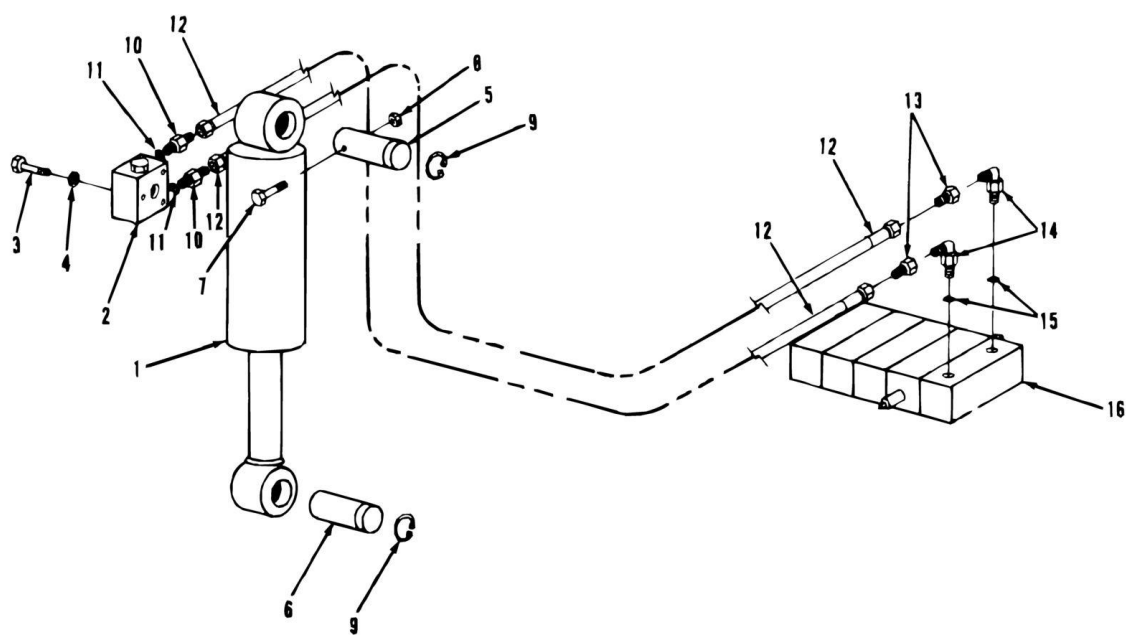
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-21. TILT AND TILT COMPENSATING CYLINDER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	TILT CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88591207	2	O-RING	
3	91053450	1	STR THREAD ELBOW, 90	
4	77133136	3	CLAMP SET	
5	77133137	3	COVER PLATE	
6	84717886	2	HOSE ASSY	
7	88521205	2	HEX LOCKNUT, 5/16-18	
8	88411036	2	ROUND HD CARRIAGE BOLT, 5/16-18X3/4	
9	91083290	1	HOSE CARRIER	
10	90027179	2	BULKHEAD FITTING (includes item 11)	
11		Ref	BULKHEAD FITTING NUT	
13	84717563	2	HOSE ASSY	
14	88662065	2	ELBOW, 90, (includes item 15)	
15	88591205	2	O-RING	
16		Ref	TILT COMPENSATION CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
17	91083227	1	TUBE ASSY	
18	91083228	1	TUBE ASSY	
19	88662019	2	CONNECTOR (includes item 20)	
20	88591206	2	O-RING	
21		Ref	MAIN CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88201023	3	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
23	91053426	1	CONNECTOR	
24	88662105	1	ELBOW, 90, (swivel nut)	
25	90207463	2	CUSHION CLAMP	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-22. SWAY CYLINDER (SN 0177005 to Present)



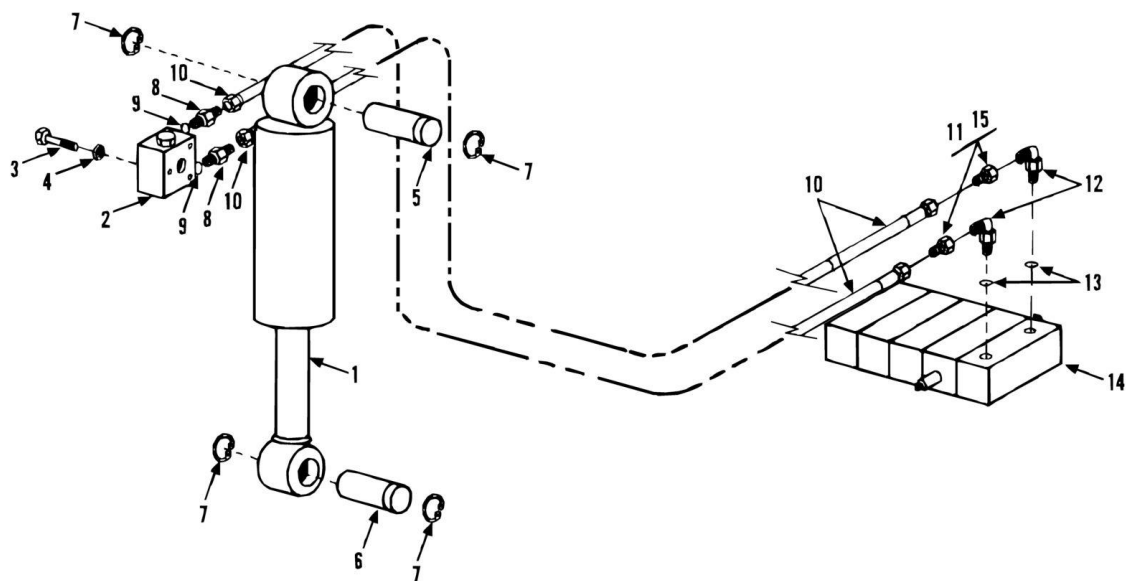
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-22. SWAY CYLINDER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SWAY CYLINDER (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	DUAL P.O. CHECK VALVE,(See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88201040	3	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
4	88551011	3	LOCKWASHER, 3/8	
5	91081396	1	PIN	
6	90207352	1	PIN	
7	88201104	1	HEX HD CAPSCREW, 3/8-16X3-3/4, GR5	
8	88501010	1	HEX NUT, 5/8-11	
9	90028935	2	RETAINING RING	
10	88662003	2	CONNECTOR, (includes item 11)	
11	88591202	2	O-RING	
13	88661341	2	TUBE END REDUCER (1/2X1/4)	
14	88662059	2	ADAPTER, 90, 5/8-12 (includes item 15)	
15	88591206	2	O-RING	
16		Ref	MAIN HYDRAULIC CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-23. SWAY CYLINDER (SN 0177165 to Present)



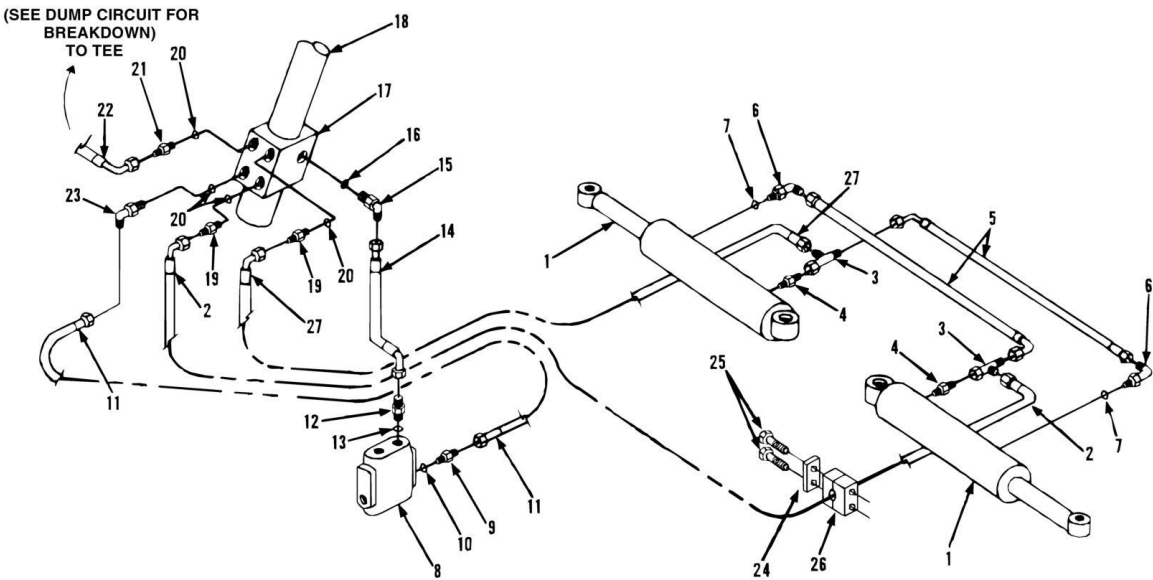
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-23. SWAY CYLINDER (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SWAY CYLINDER - IOWA (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	DUAL P.O. CHECK VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88201040	3	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
4	88551011	3	LOCKWASHER, 3/8	
5	91141316	1	PIN	
6	90207352	1	PIN	
7	90028935	4	RETAINING RING	
8	88662082	2	CONNECTOR (includes item 9)	
9	88591202	2	O-RING	
10	84717861	2	HOSE ASSY	
11	88661341	2	TUBE-END REDUCER, 1/2x1/4	
12	88662059	2	ADAPTER, 90, 5/8-1/2 (includes item 13)	
13	88591206	2	O-RING	
14		Ref	MAIN HYDRAULIC CONTROL VALVE (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	88661406	2	NUT (used with item 11)	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-24. STEERING CYLINDER (SN 0177005 to Present)



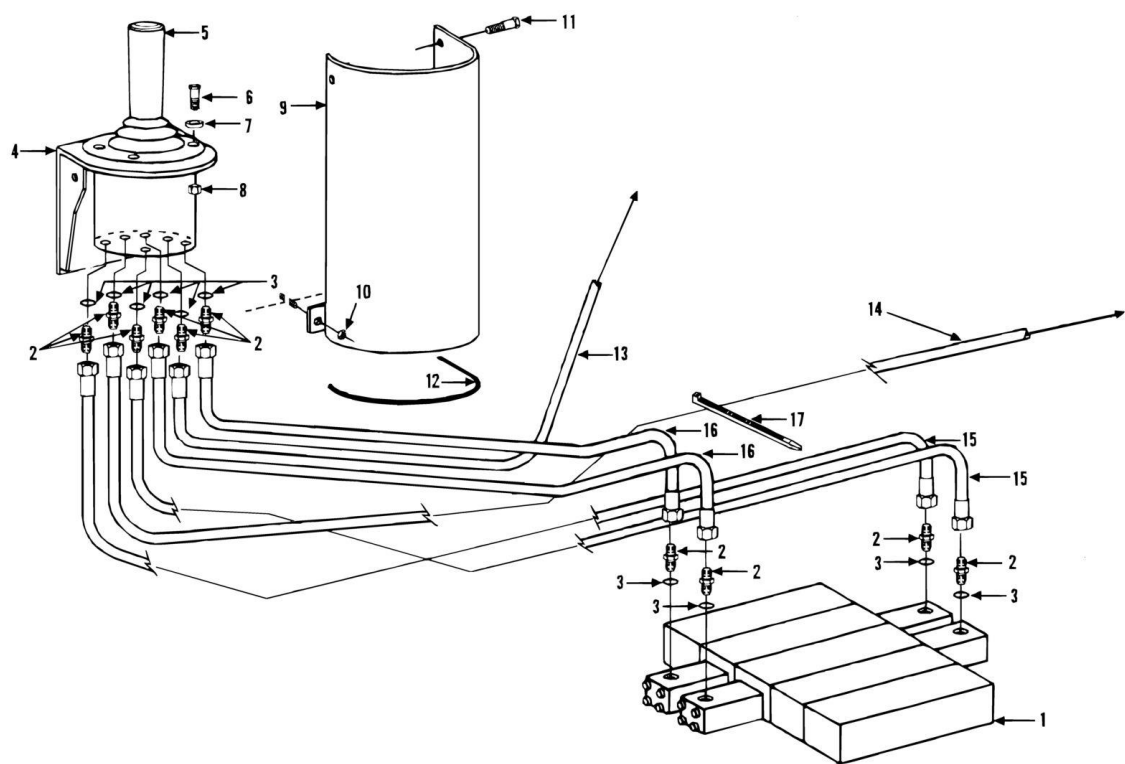
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-24. STEERING CYLINDER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	STEERING CYLINDER (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	84718187	1	HOSE ASSY	
3	88662240	2	SWIVEL NUT RUN TEE, 1/2 TUBE	
4	88662026	2	CONNECTOR (includes o-ring)	
4	88591015	2	O-RING	
5	84718202	2	HOSE ASSY	
6	88662064	2	ELBOW, 90, (includes item 7)	
7	88591204	2	O-RING	
8		Ref	PRIORITY FLOW CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9	88662019	1	CONNECTOR (includes item 10)	
10	88591206	1	O-RING	
11	84717854	1	HOSE ASSY	
12	88662003	1	CONNECTOR (includes item 13)	
13	88591202	1	O-RING	
14	84717858	1	HOSE ASSY	
15	88662062	1	ELBOW, 90, (includes item 16)	
16	88591202	1	O-RING	
17		Ref	STEERING ORBITROL (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18		Ref	STEER COLUMN (See CONTROLS SECTION for Breakdown)	
19	88662006	2	CONNECTOR (includes item 20)	
20	88591205	4	O-RING	
21	88662018	1	CONNECTOR (includes item 20)	
22	84717810	1	HOSE ASSY	
23	88662065	1	ELBOW, 90, (includes item 20)	
24	77133052	2	COVER PLATE	
25	77133209	4	HEX HD CAPSCREW, 1/4-20X1-3/8	
26	77133053	2	CLAMP SET	
27	84718188	1	HOSE ASSY	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-25. JOYSTICK CIRCUIT (SN 0177122 to Present)



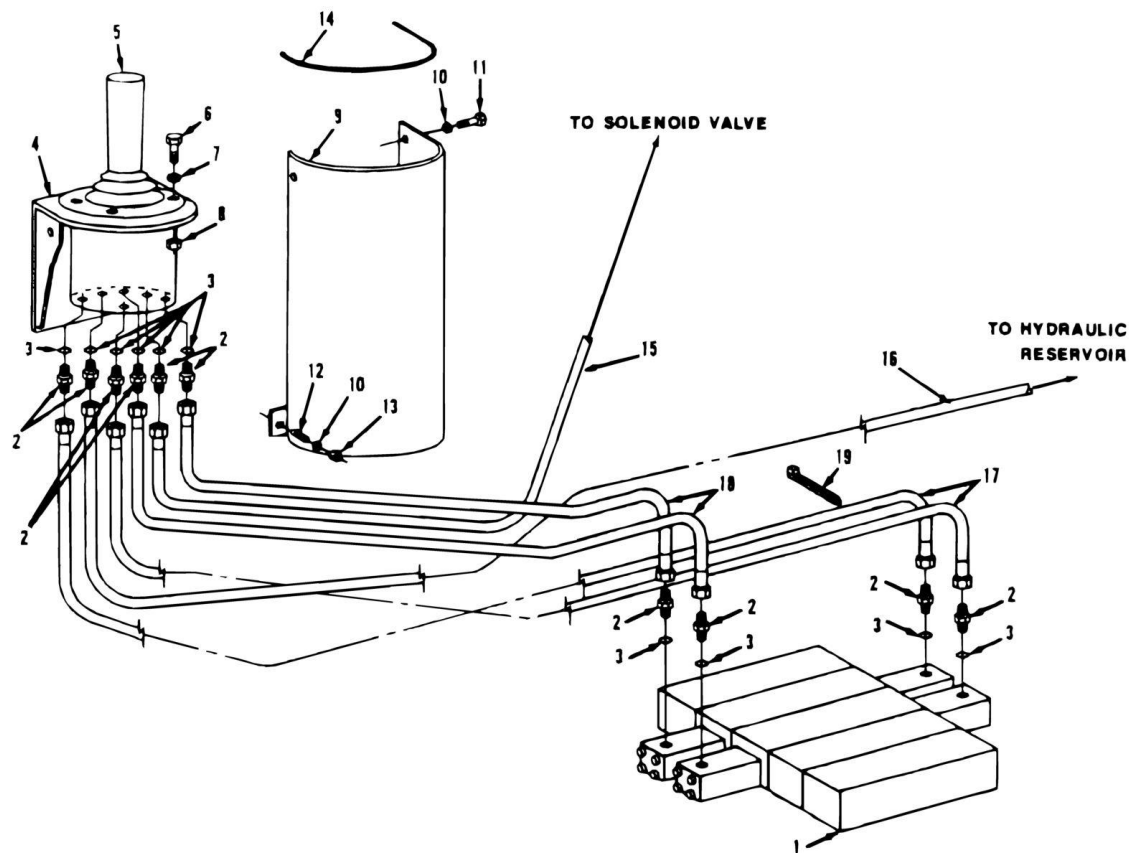
SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-25. JOYSTICK CIRCUIT (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662005	10	CONNECTOR (includes item 3)	
3	88591204	10	O-RING	
4	91141307	1	JOYSTICK MOUNT WELDMENT	
5		Ref	JOYSTICK (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	88261017	4	SOCKET BUTTON HD CAPSCREW, 1/4-20X7/8, GR5	
7	88551009	4	LOCKWASHER, 1/4	
8	88501004	4	HEX NUT, 1/4-20	
9	91146047	1	COVER	
10	77143006	2	WHIZ LOCKNUT, 5/16-18	
11	77143003	2	WHIZ-LOC SCREW, 5/16-18X5/8	
12	90206199	AR	TRIM LOK	
13	90204096	1	HOSE ASSY	
14	77133197	1	HOSE ASSY	
15	84717458	2	HOSE ASSY	
16	84717519	2	HOSE ASSY	
17	90027187	AR	TIE WRAP	

SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-26. JOYSTICK CIRCUIT (SN 0177064 to Present)



SECTION 8 - HYDRAULIC CIRCUITS

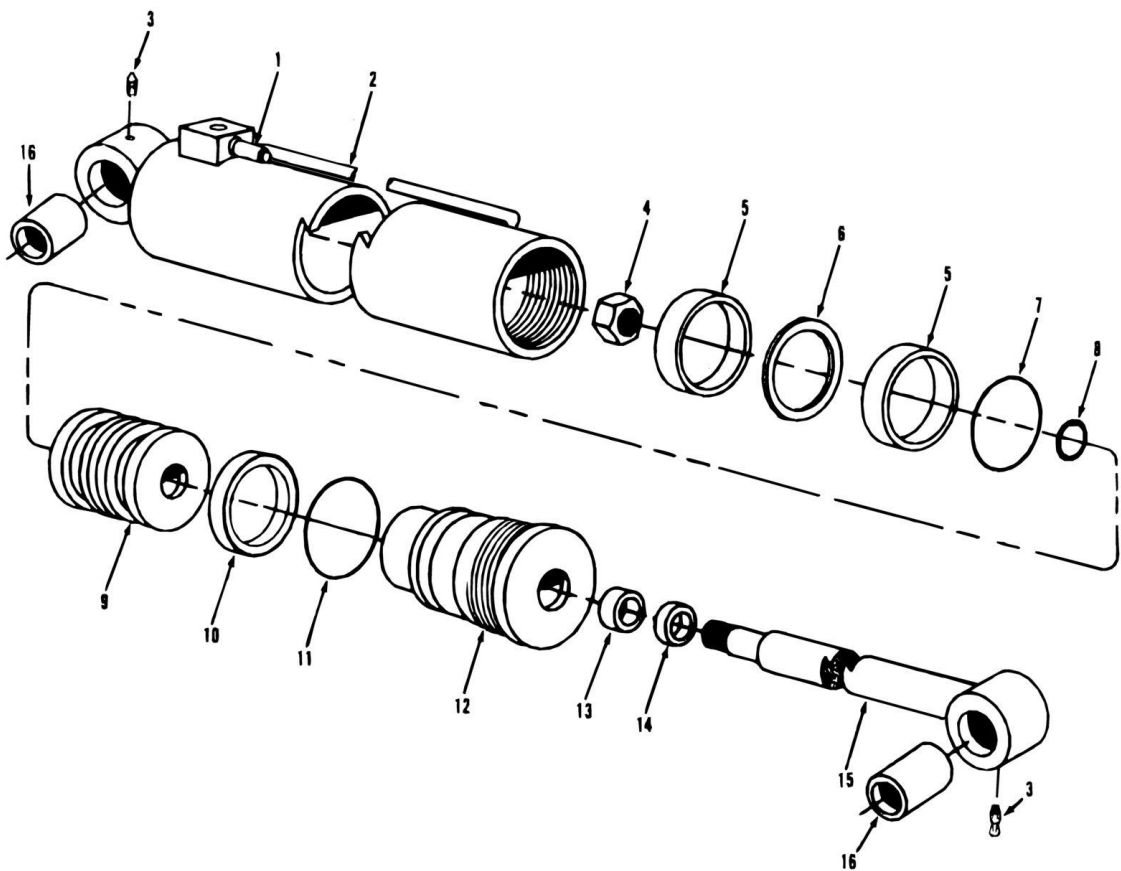
FIGURE 8-26. JOYSTICK CIRCUIT (SN 0177064 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	MAIN HYDRAULIC CONTROL VALVE ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662005	10	CONNECTOR (includes item 3)	
3	88591204	10	O-RING	
4	91126035	1	JOYSTICK MOUNT WELDMENT	
5		Ref	JOYSTICK (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
6	88261017	4	SOCKET BUTTON HD CAPSCREW, 1/4-20X7/8, GR5	
7	88551009	4	LOCKWASHER, 1/4	
8	88501004	4	HEX NUT, 1/4-20	
9	91046056	1	COVER	
10	88551010	4	LOCKWASHER, 5/16	
11	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
12	85051384	2	WELD STUD, 5/16-18	
13	88501005	2	HEX NUT, 5/16-18	
14	90206194	AR	TRIM LOK	
15	90204096	1	HOSE ASSY	
16	77133197	1	HOSE ASSY	
17	84717458	2	HOSE ASSY	
18	84717519	2	HOSE ASSY	
19	90027187	AR	TIE WRAP	

SECTION 9 - HYDRAULIC COMPONENTS

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-1. (91083283) LIFT CYLINDER ASSEMBLY (SN 0177005 to Present)



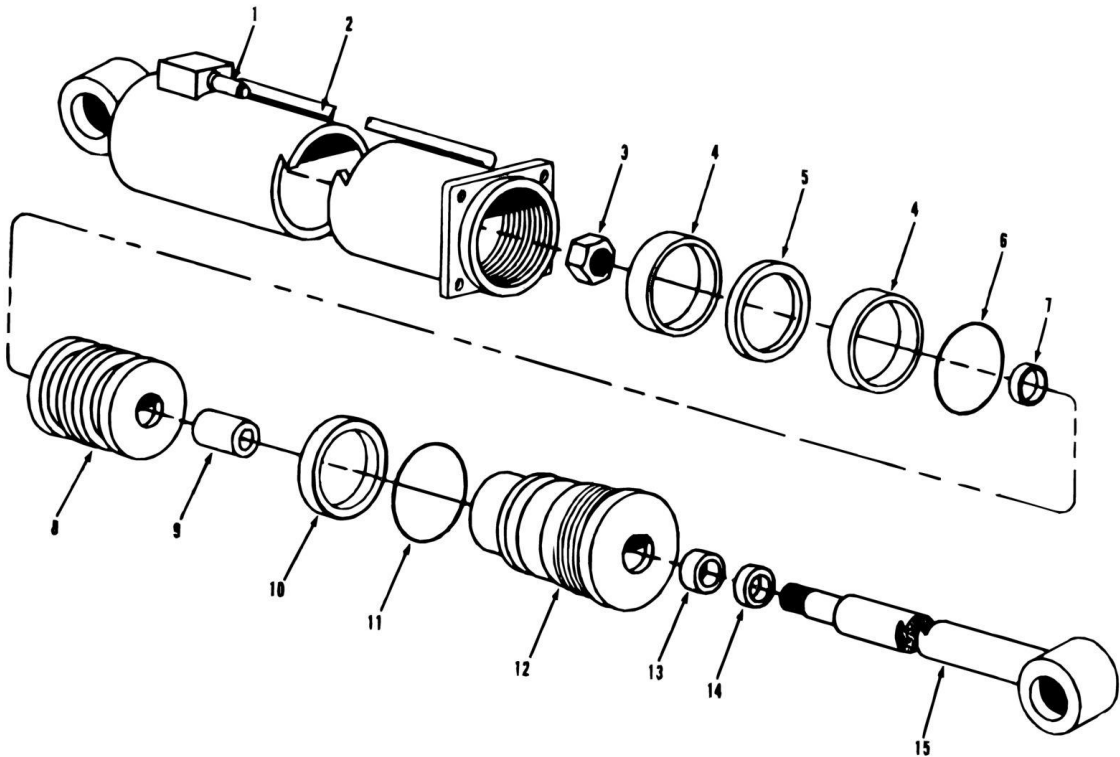
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-1. (91083283) LIFT CYLINDER ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083283	1	LIFT CYLINDER ASSY (includes all items)	
	91084173	Ref	SEAL KIT, (includes items 5, 6, 7, 8, 10, 11, 13 & 14	
1	91033430	1	COUNTERBALANCE VALVE	
2	91084170	1	TUBE ASSY	
3	88671033	2	LUBE FITTING, STRAIGHT, 1/4-28	
4	91034280	1	NUT	
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	91084172	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91084171	1	ROD ASSY	
16	91084167	2	BUSHING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-2. (91083282) CROWD CYLINDER ASSEMBLY (SN 0177005 to Present)



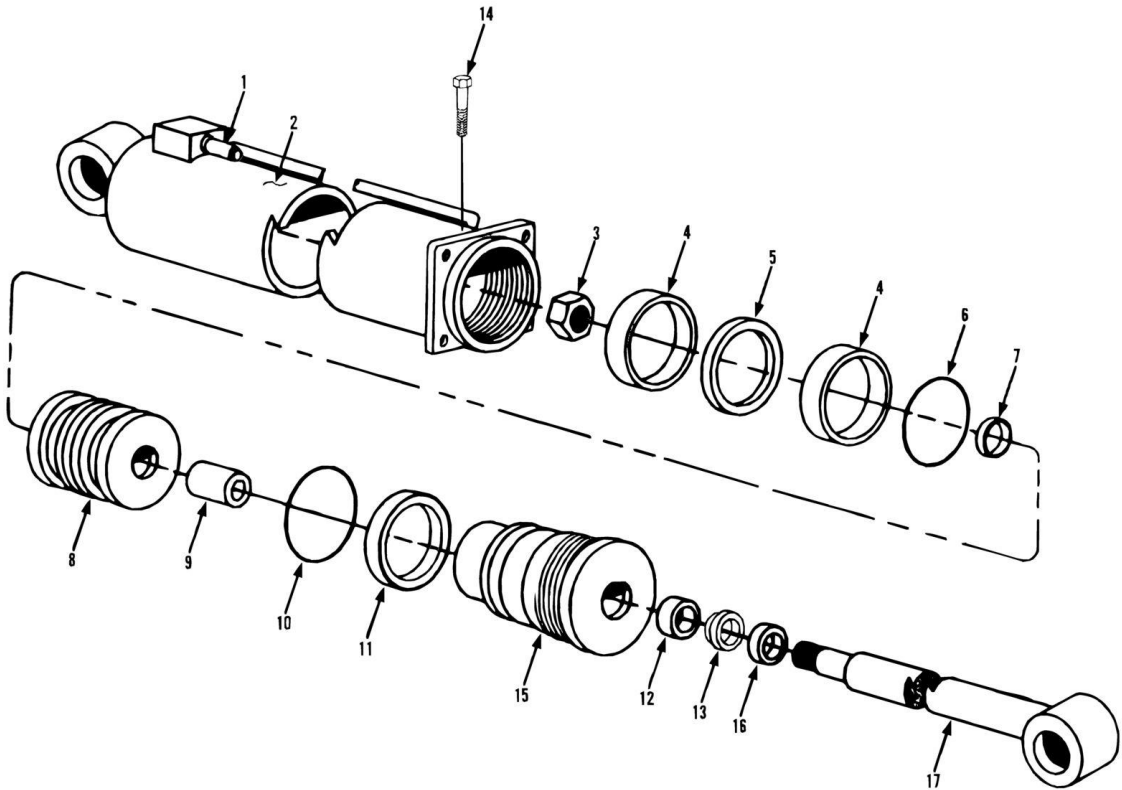
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-2. (91083282) CROWD CYLINDER ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083282	1	CROWD CYLINDER ASSY (includes all items)	
	91044320	Ref	SEAL KIT, (includes items 4, 5, 6, 7, 10, 11, 13 & 14)	
1	91033430	1	COUNTERBALANCE VALVE	
2	91084190	1	TUBE ASSY	
3	91034303	1	NUT	
4	Kit	2	WEAR RING	
5	Kit	1	SEAL	
6	Kit	1	O-RING	
7	Kit	1	O-RING	
8	91034304	1	PISTON	
9	91084193	1	STOP TUBE	
10	Kit	1	BACK-UP RING	
11	Kit	1	O-RING	
12	91084192	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91084191	1	ROD ASSY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-3. (91083468) CROWD CYLINDER ASSEMBLY (SN 0177382 to Present)



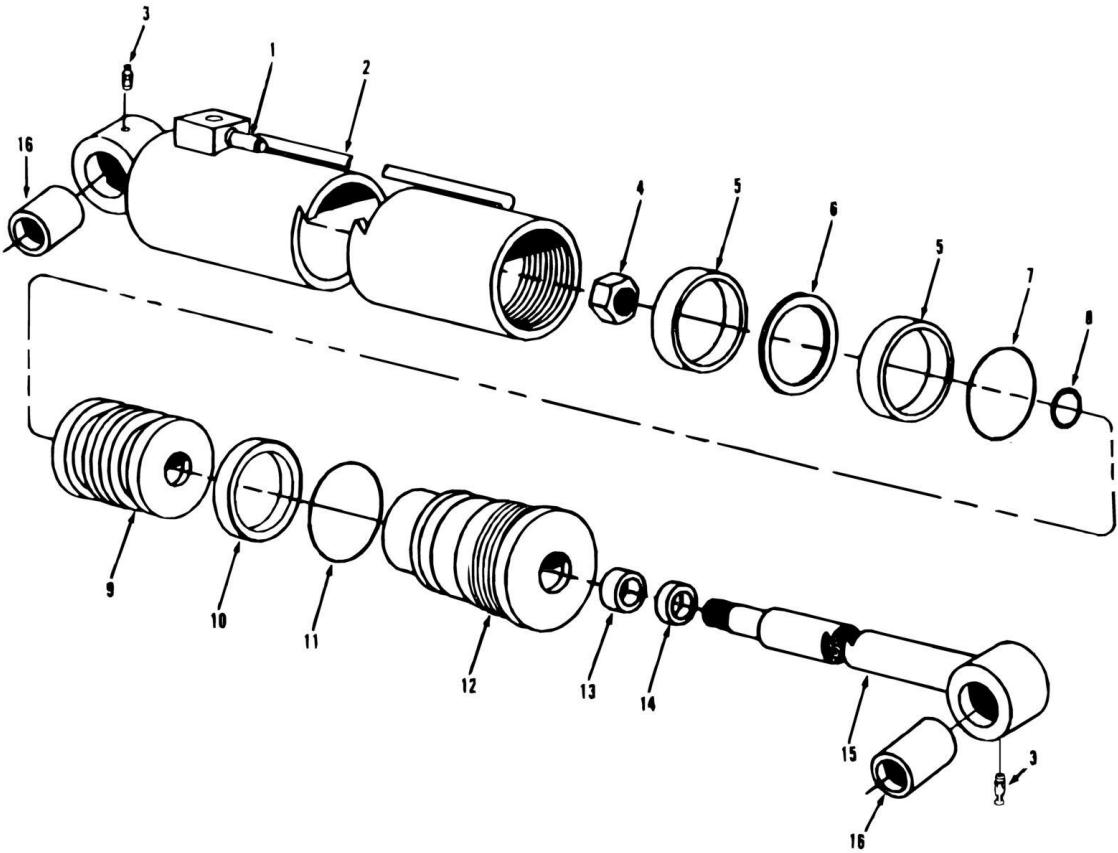
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-3. (91083468) CROWD CYLINDER ASSEMBLY (SN 0177382 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083468	1	CROWD CYLINDER ASSY (includes all items)	
	91084306	Ref	SEAL KIT, (includes items 4 thru 7, 10 thru 13 & 16)	
1	91084347	1	COUNTER BALANCE VALVE	
2	91084348	1	CASE ASSY	
3	91204460	1	LOCKNUT (torque to 200-250 ft-lbs)	
4	Kit	2	WEAR RING	
5	Kit	1	PISTON SEAL	
6	Kit	1	O-RING	
7	Kit	1	O-RING	
8	91084349	1	PISTON	
9	91084350	1	SPACER	
10	91164023	1	O-RING	
11	Kit	1	BACKUP	
12	Kit	1	STEP SEAL	
13	Kit	1	U-CUP	
14	91144017	1	CAPSCREW	
15	91084351	1	HEAD	
16	Kit	1	WIPER	
17	91084352	1	SHAFT ASSY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-4. (91083379) TILT CYLINDER ASSEMBLY (SN 0177005 to Present)



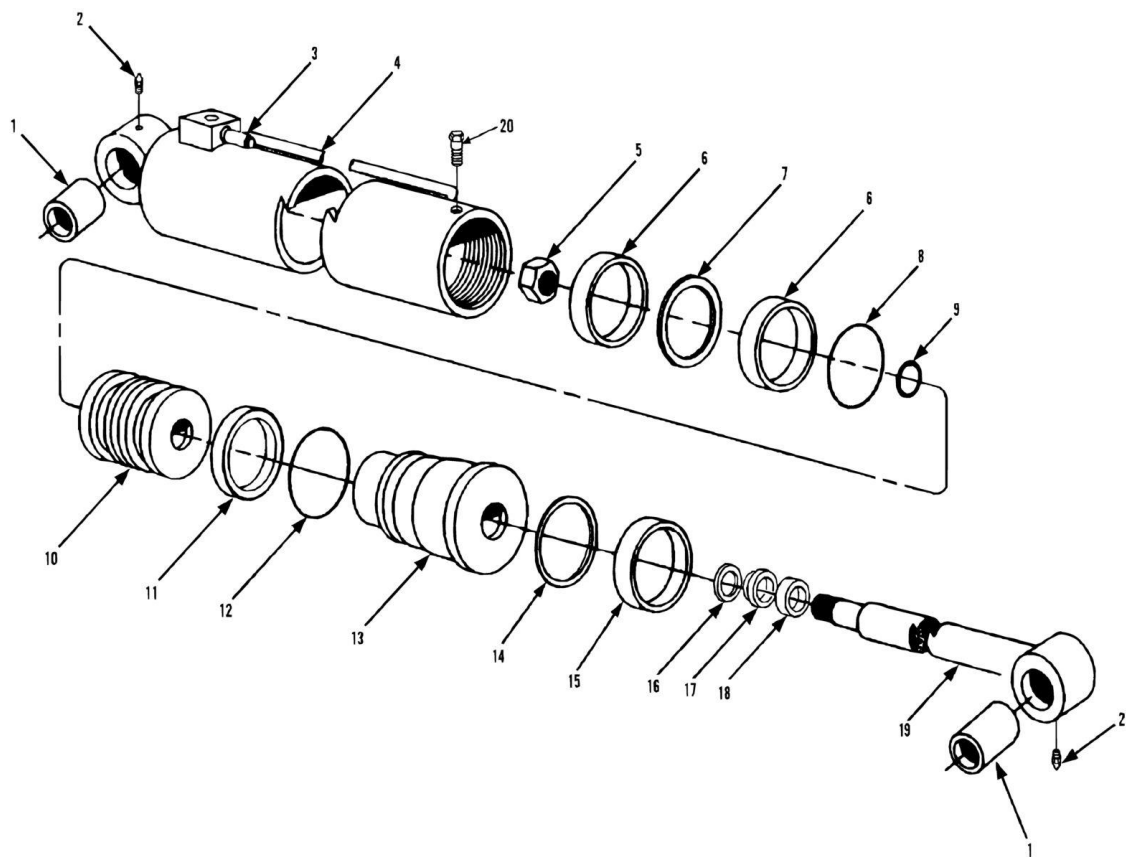
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-4. (91083379) TILT CYLINDER ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083379	1	TILT CYLINDER ASSY (includes all items)	
	91034297	Ref	SEAL KIT, (includes items 5, 6, 7, 10, 11, 13 & 14)	
1	91033430	1	COUNTERBALANCE VALVE	
2	91084216	1	TUBE ASSY	
3	88671033	2	LUBE FITTING-STRAIGHT, 1/4-28	
4	91034286	1	NUT	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91084291	1	PISTON	
10	Kit	1	BACK-UP RING	
11	Kit	1	O-RING	
12	91084299	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91084217	1	ROD ASSY	
16	91084176	2	BUSHING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-5. (91083513)TILT CYLINDER - IOWA (SN 0177382 to Present)



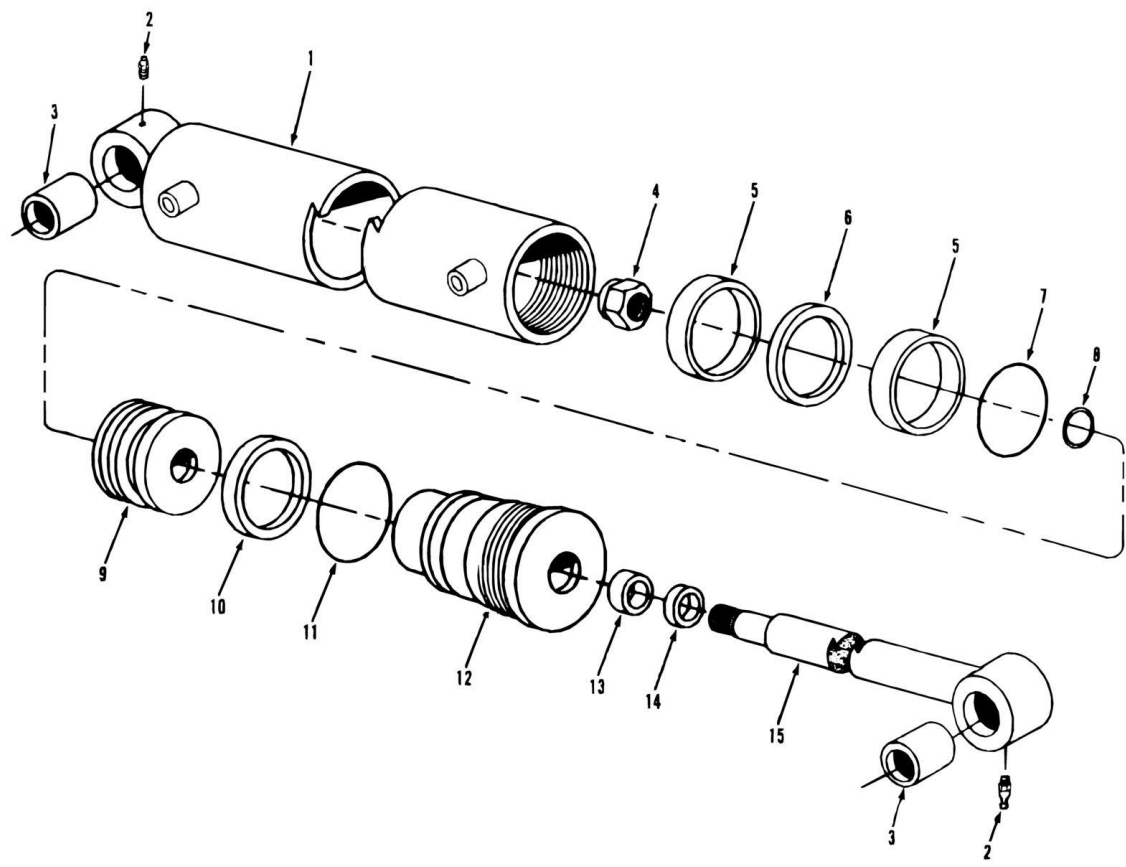
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-5. (91083513)TILT CYLINDER - IOWA (SN 0177382 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083513	1	TILT CYLINDER ASSY (includes all items)	
	91084370	1	SEAL KIT (includes items 6 thru 9, 11, 12 & 14 thru 16)	
1	91404352	2	BUSHING	
2	91144128	2	GREASE FITTING	
3	91083473	1	COUNTERBALANCE VALVE	
4	91124076	1	CASE ASSY	
5	91064017	1	LOCKNUT (torque to 650-750 ft.lbs.)	
6	Kit	2	WEAR RING	
7	Kit	1	SEAL	
8	Kit	1	O-RING	
9	Kit	1	O-RING	
10	91044274	1	PISTON	
11	Kit	1	BACK-UP RING	
12	Kit	1	O-RING	
13	91084371	1	GLAND	
14	91084372	1	SNAP RING	
15	91084373	1	WEAR RING	
16	Kit	1	STEP SEAL	
17	Kit	1	U-CUP	
18	Kit	1	WIPER	
19	91124078	1	SHAFT ASSY	
20	91124096	1	SELF TAPPING SCREW, #10-24	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-6. (91083285) COMPENSATING CYLINDER ASSEMBLY (SN 0177005 to Present)



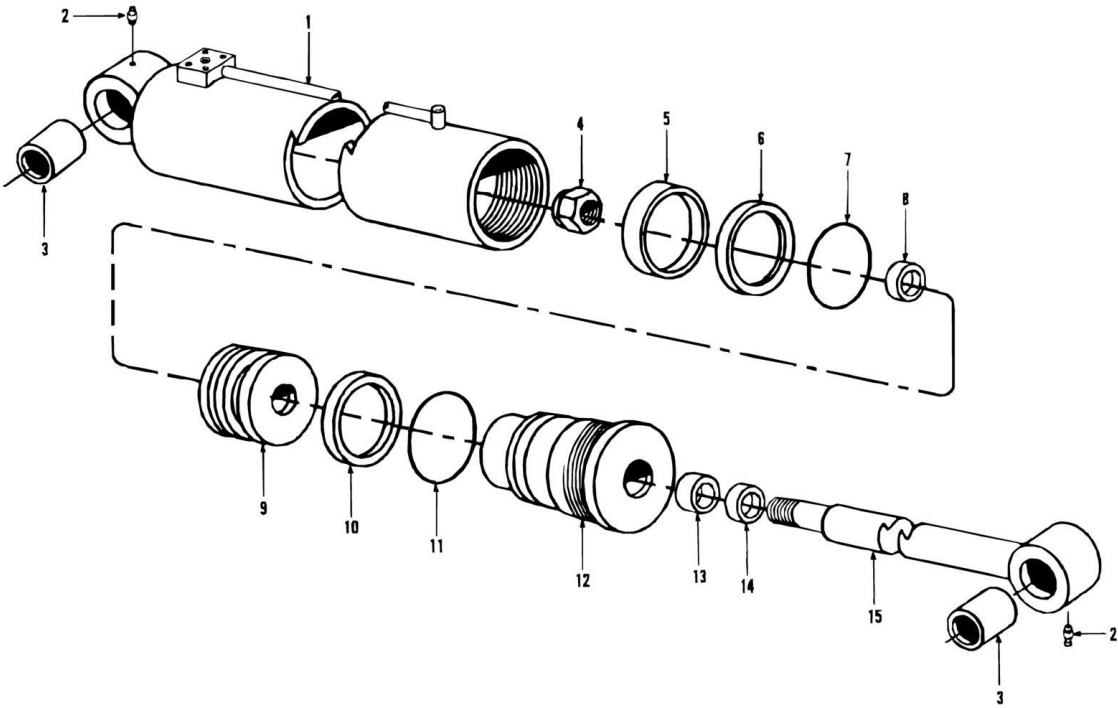
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-6. (91083285) COMPENSATING CYLINDER ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083285	1	TILT COMPENSATING CYLINDER ASSY	
	91084169	Ref	SEAL KIT, (includes items 5, 6, 7, 8, 10, 11, 13 & 14)	
1	91034168	1	TUBE ASSY	
2	88671033	2	LUBE FITTING-STRAIGHT, 1/4-28	
3	91084167	2	BUSHING	
4	91034280	1	NUT	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91084165	1	PISTON	
10	Kit	1	BACK-UP RING	
11	Kit	1	O-RING	
12	91084282	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91084166	1	ROD ASSY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-7. (91083286) SWAY CYLINDER ASSEMBLY (SN 0177005 to Present)



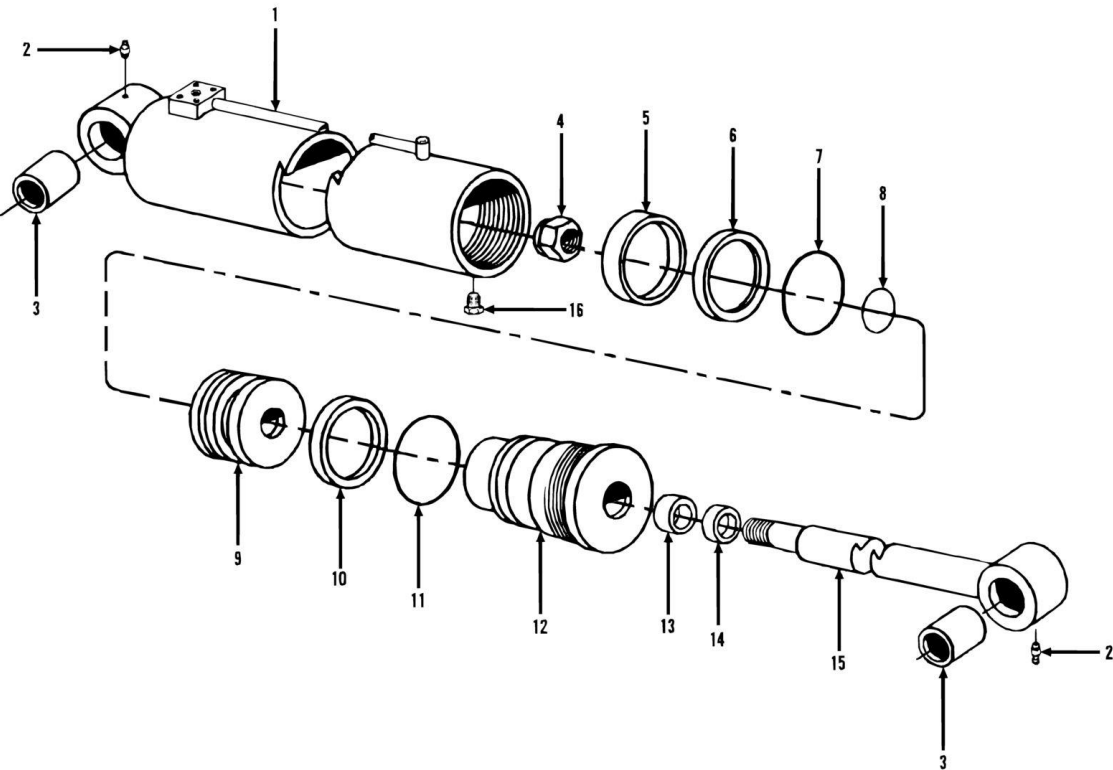
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-7. (91083286) SWAY CYLINDER ASSEMBLY (SN 0177005 to Present)

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	4	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 9-8. (91083520) SWAY CYLINDER ASSEMBLY (SN 0177165 to Present)



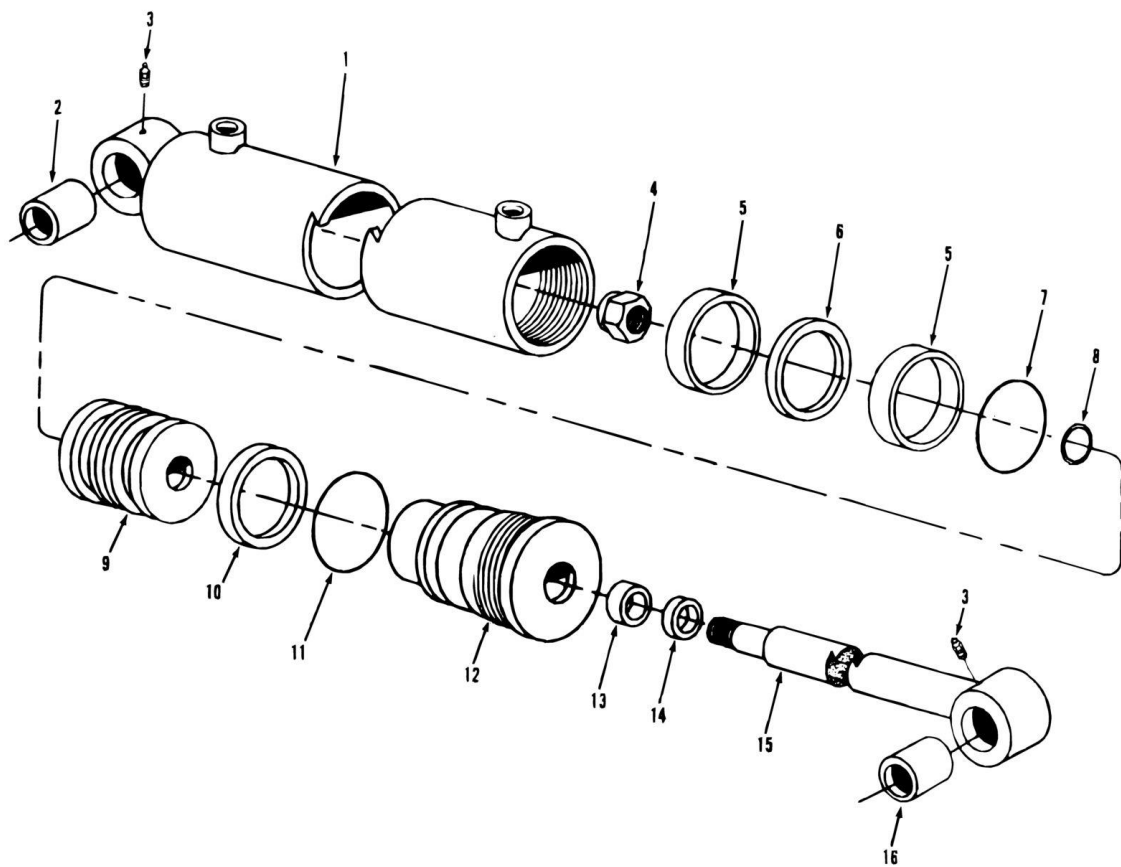
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FIGURE 9-8. (91083520) SWAY CYLINDER ASSEMBLY (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083520	1	SWAY CYLINDER ASSY (includes all items)	
	91084189	Ref	SEAL KIT (includes items 5, 6, 7, 8, 10, 11, 13 & 14)	
1	91084342	1	TUBE ASSY	
2	88674343	2	LUBE FITTING, STRAIGHT, 1/4-28	
3	91084176	4	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	91084344	1	ROD ASSY	
16	91084332	1	LOCKING SCREW	

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FIGURE 9-9. (91083281) STEERING CYLINDER ASSEMBLY (SN 0177005 to Present)



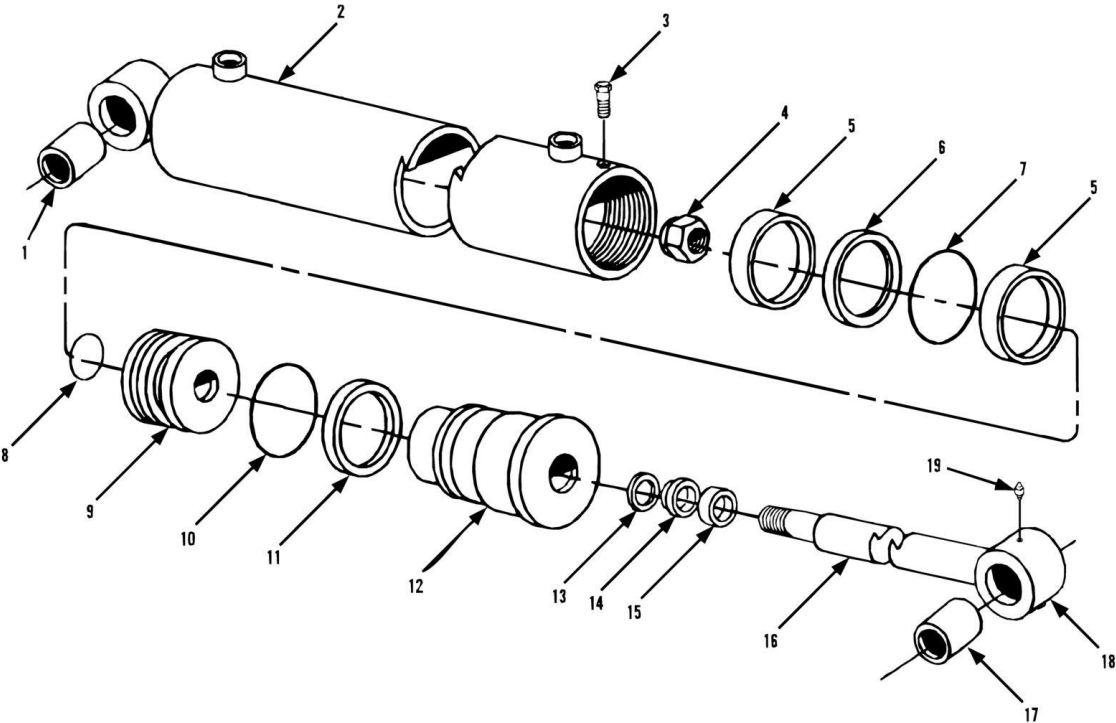
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FIGURE 9-9. (91083281) STEERING CYLINDER ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083281	2	STEERING CYLINDER ASSY (includes all items)	
	91084183	Ref	SEAL KIT, (includes items 5, 6, 7, 8, 10, 11, 13 & 14)	
1	91034178	1	TUBE ASSY	
2	91084194	1	BUSHING	
3	88671033	2	LUBE FITTING-STRAIGHT, 1/4-28	
4	91084177	1	NUT	
5	Kit	2	WEAR RING	
6	Kit	1	SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91084179	1	PISTON	
10	Kit	1	BACK-UP RING	
11	Kit	1	O-RING	
12	91084181	1	GLAND	
13	Kit	1	SEAL	
14	Kit	1	WIPER	
15	91084180	1	ROD ASSY	
16	91084182	1	BUSHING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-10. (91083532) STEERING CYLINDER - IOWA (SN 0177368 to Present)



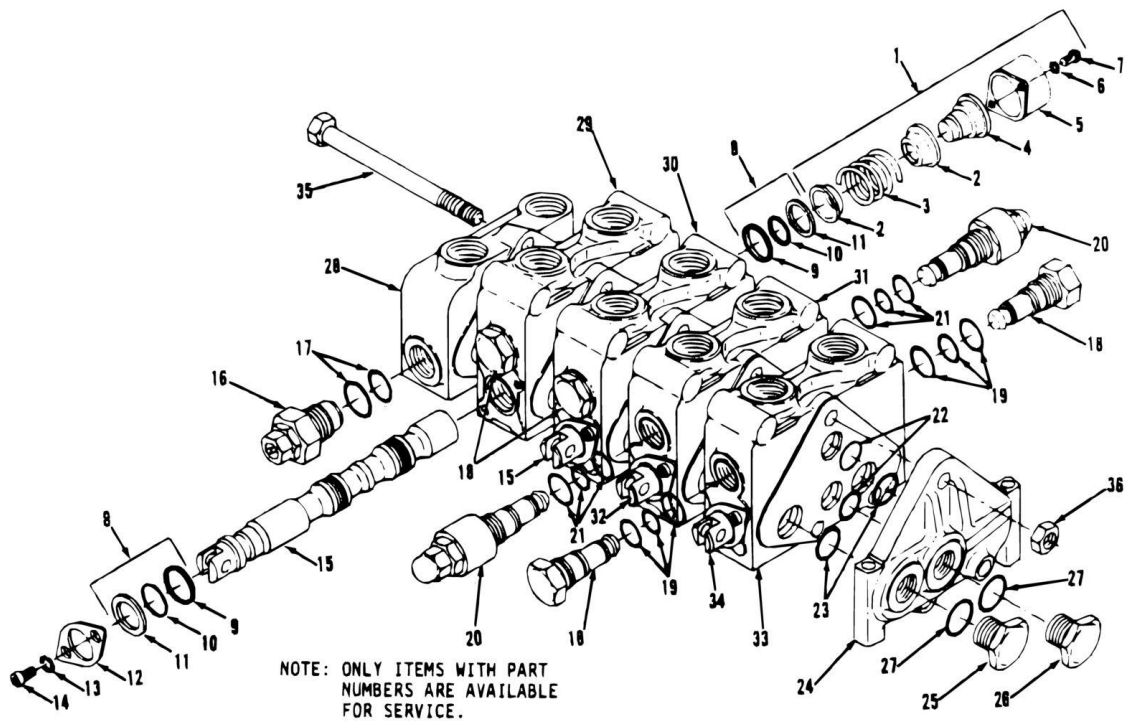
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FIGURE 9-10. (91083532) STEERING CYLINDER - IOWA (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083532	2	STEERING CYLINDER ASSY (includes all items)	
	91084305	1	SEAL KIT (includes items 5 thru 8, 10, 11 & 13 thru 15)	
1	91124087	1	BUSHING	
2	91124088	1	CASE ASSY	
3	91124096	1	SELF-TAPPING SCREW	
4	91204460	1	LOCKNUT (lubricate and torque to 350-370 ft lbs)	
5	Kit	2	WEAR RING	
6	Kit	1	PISTON SEAL	
7	Kit	1	O-RING	
8	Kit	1	O-RING	
9	91124089	1	PISTON	
10	Kit	1	O-RING	
11	Kit	1	BACK-UP RING	
12	91124090	1	CYLINDER HEAD	
13	Kit	1	STEP SEAL	
14	Kit	1	U-CUP	
15	Kit	1	WIPER	
16	91124108	1	ROD ASSY	
17	91043246	1	BUSHING	
18	91144128	1	GREASE FITTING	
19		Ref	HEX HD PLUG, 1/8-27 NPT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-11. (91083055) MAIN HYDRAULIC CONTROL VALVE ASSEMBLY (SN 0177005 to Present)



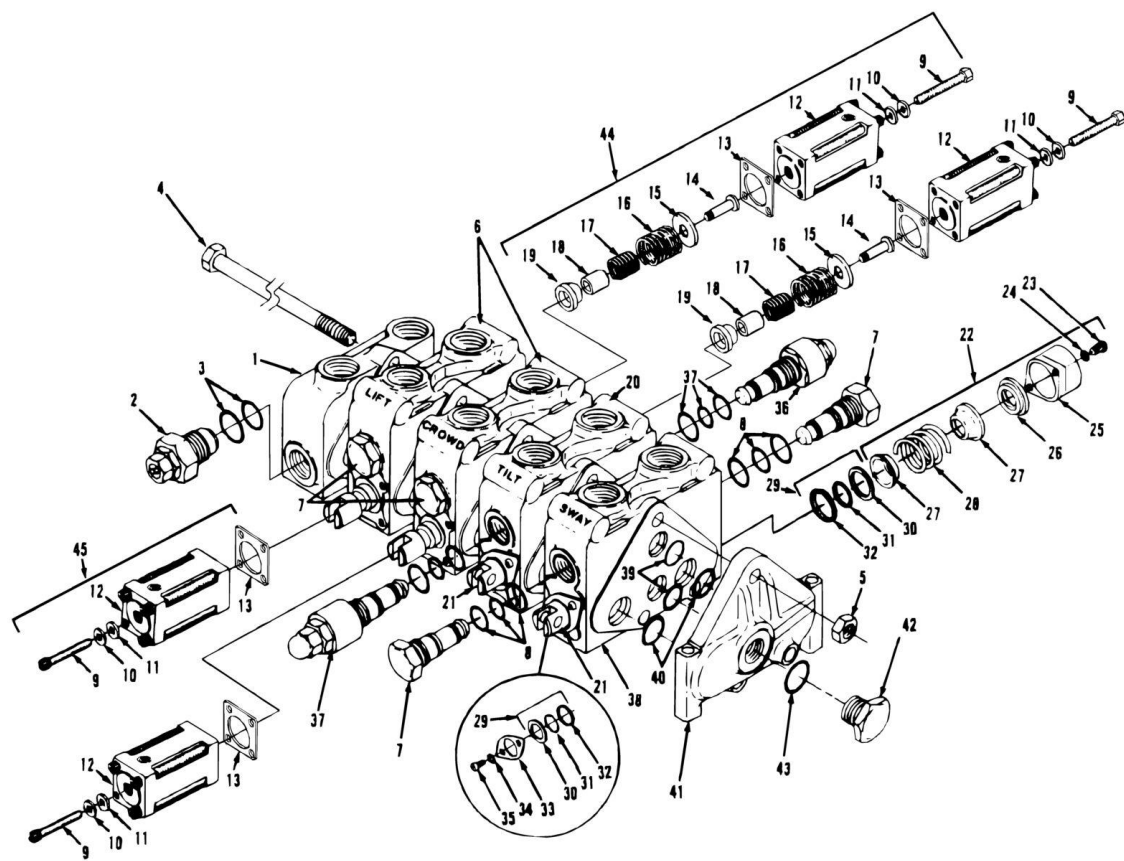
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FIGURE 9-11. (91083055) MAIN HYDRAULIC CONTROL VALVE ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083055	Ref	MAIN HYDRAULIC CONTROL VALVE ASSY	
1	91084004	1	SPOOL POSITIONER (includes items 2 thru 7)	
2		Ref	COLLAR	
3		Ref	SPRING	
4		Ref	POSITIONER	
5		Ref	BONNET	
6		Ref	WASHER	
7		Ref	SCREW	
8	91084005	4	SPOOL SEAL KIT (includes item 9 thru 11)	
9	Kit	2	SEAL	
10	Kit	2	WASHER	
11	Kit	2	RETAINER	
12	91084006	4	SPOOL RETAINER (includes item 13 & 14)	
13		Ref	WASHER	
14		Ref	SCREW	
15	91084007	2	SPOOL	
16	91084009	1	MAIN RELIEF (includes item 17)	
17	91084206	1	O-RING (inner)	
17	91084207	1	O-RING (outer)	
18	91084010	6	LOAD CHECK PLUG (includes one of item 19)	
19	91084202	6	LOAD CHECK PLUG SEAL KIT (one required/ check plug)	
20	91084199	2	RELIEF - 2800 PSI (includes one of item 21)	
21	91084201	2	RELIEF SEAL KIT (one required/relief)	
21	91084200	AR	RELIEF SERVICE KIT	
21	91084015	5	VALVE SECTION SEAL KIT (includes items 22 & 23)	
22	Kit	2	PRESSURE SEAL	
23	Kit	2	EXHAUST SEAL	
24	91084016	1	R.H. END COVER ASSY (includes items 25 thru 27)	
25	91084017	1	PLUG	
26	91084018	1	PLUG	
27	91084204	2	O-RING (1 required plug)	
28	91084008	1	L.H. END COVER ASSY (includes items 16 & 17)	
29	91084011	1	VALVE SECTION ASSY (includes one of each items 1,8,12,15, and two of item 18)	
30	91084011	1	VALVE SECTION ASSY (includes one of each items 1,8,12,15 and two of item 18)	
31	91084012	1	VALVE SECTION ASSY (includes items 1,8,12,20 & 32)	
32	91084013	1	SPOOL	
33	91084014	1	VALVE SECTION ASSY (includes one of each items 1,8,12 & 34 and two of item 32)	
34	91084013	1	SPOOL	
34	91084019	1	STUD KIT (includes items 35 & 36)	
35	Kit	3	STUD	
36	Kit	3	NUT	

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FIGURE 9-12. (91083417) MAIN HYDRAULIC CONTROL VALVE ASSEMBLY (SN 0177064 to Present)



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FIGURE 9-12. (91083417) MAIN HYDRAULIC CONTROL VALVE ASSEMBLY (SN 0177064 to Present)

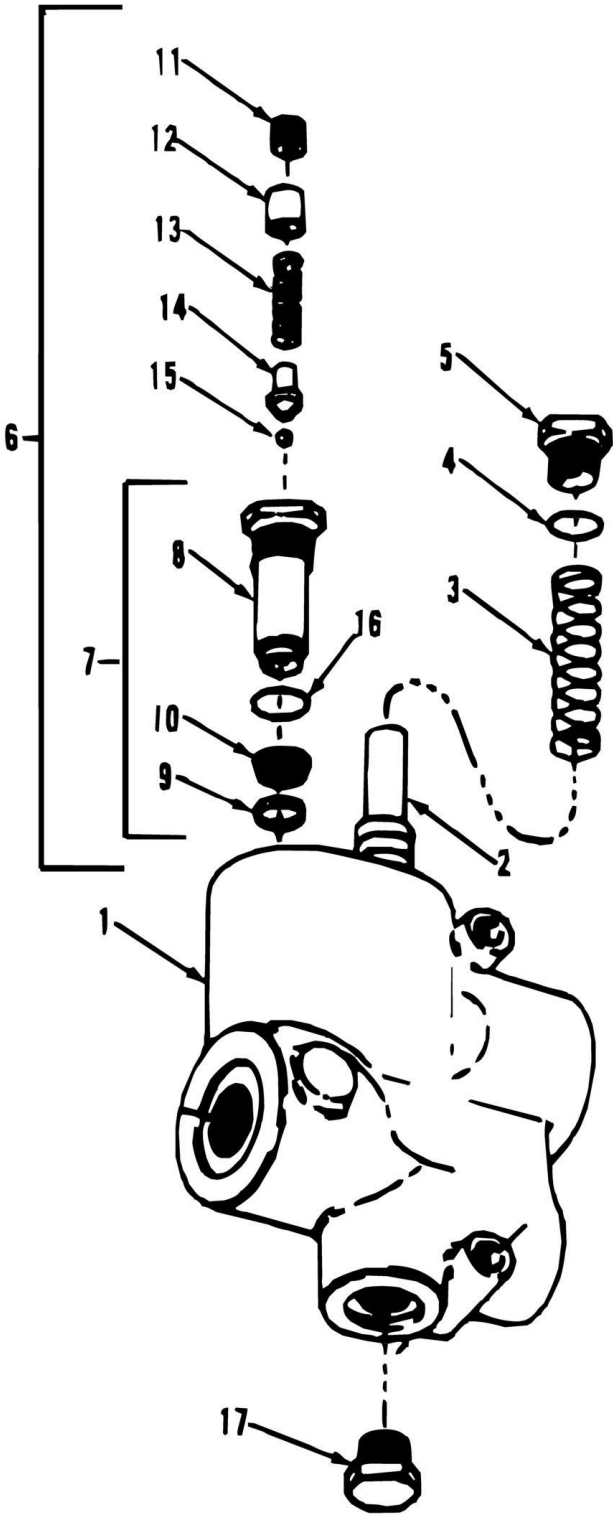
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083417	1	MAIN HYDRAULIC CONTROL VALVE ASSY (includes all items)	
	91084019	1	STUD KIT (includes items 4 & 5)	
	91084015	5	VALVE SECTION SEAL KIT (includes items 39 & 40)	
1	91084008	1	L.H. END COVER ASSY (includes items 2 & 3)	
2	91084009	1	MAIN RELIEF (includes item 3)	
3	91084206	1	O-RING (inner)	
3	91084207	1	O-RING (outer)	
4	Kit	3	STUD	
5	Kit	3	NUT	
6	91084277	2	VALVE SECTION ASSY (Hoist and Crowd) (includes two of item 7, plus items 9 thru 19)	
7	91084010	6	LOAD CHECK PLUG (includes item 8)	
8	91084202	6	LOAD CHECK PLUG SEAL KIT (one required per check plug)	
9	91084230	16	SOCKET HEAD CAPSCREW, 1/4-20x3	
10	91084231	16	LOCKWASHER, 1/4	
11	91084232	4	BEARING PLATE	
12	91084229	4	BONNET	
13	91084233	4	SEAL	
14	91084234	2	SPUD POSITIONER	
15	91084235	2	WASHER	
16	91084236	2	SPRING	
17	91084237	2	SPRING	
18	91084238	2	STOP SLEEVE	
19	91084239	2	STOP COLLAR	
20	91084012	1	VALVE SECTION ASSY (Tilt) (includes items 21,22,29 & 33, plus two of item 36)	
21	91084013	2	SPOOL	
22	91084004	2	SPOOL POSITIONER (includes items 23 thru 29)	
23		Ref	SCREW	
24		Ref	WASHER	
25		Ref	BONNET	
26		Ref	SPOOL COLLAR	
27		Ref	SPRING COLLAR	
28		Ref	SPRING	
29	91084005	4	SPOOL SEAL KIT (includes items 30,31 & 32)	
30	Kit	4	RETAINER	
31	Kit	4	WASHER	
32	Kit	4	SEAL	
33	91084006	2	SPOOL RETAINER (includes items 34 & 35)	
34		Ref	WASHER	
35		Ref	SCREW	
36	91084199	2	RELIEF-2800 P.S.I. (includes one of item 38)	
37	91084201	2	RELIEF SEAL KIT (one required per relief)	
37	91084200	AR	RELIEF SERVICE KIT, NOT ILLUSTRATED (includes relief poppet and piston ring)	
38	91084014	1	VALVE SECTION ASSY (Sway) (includes 2 of item 7, plus items 21,22,29 & 33)	
39	Kit	2	PRESSURE SEAL	
40	Kit	2	PRESSURE SEAL	
41	91084278	1	R.H. END COVER ASSY (includes item 42)	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	91084279	1	PLUG (includes item 43)	
43		Ref	O-RING	
44	91094024	2	HYDRAULIC REMOTE POSITIONER (includes items 9 thru 19)	
45	91094023	2	HYDRAULIC REMOTE POSITIONER (includes items 9 thru 13)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-13. PRIORITY FLOW CONTROL VALVE (SN 0177005 to Present)



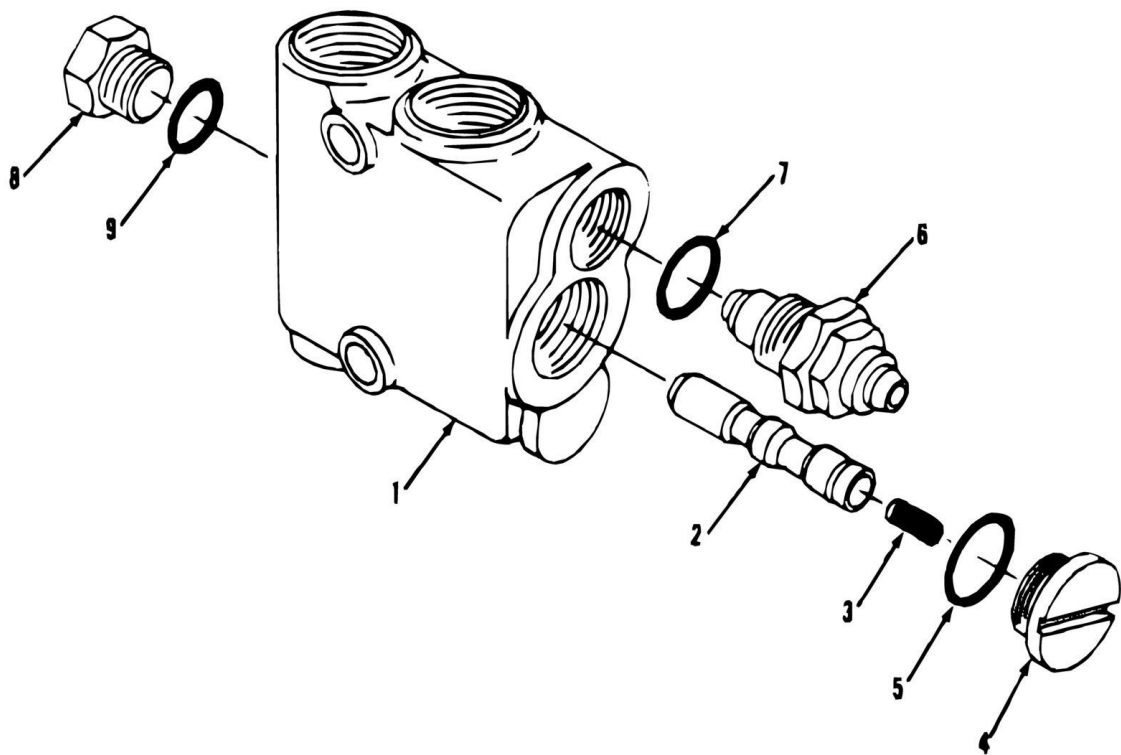
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FIGURE 9-13. PRIORITY FLOW CONTROL VALVE (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033240	1	PRIORITY VALVE (includes all items) 2500 PSI RELIEF SETTING	
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 thru 16)	
7	90206554	1	RELIEF VALVE SUB BODY (includes items 8 thru 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 9-14. (91083292) FLOW DIVIDER VALVE (SN 0177005 to Present)



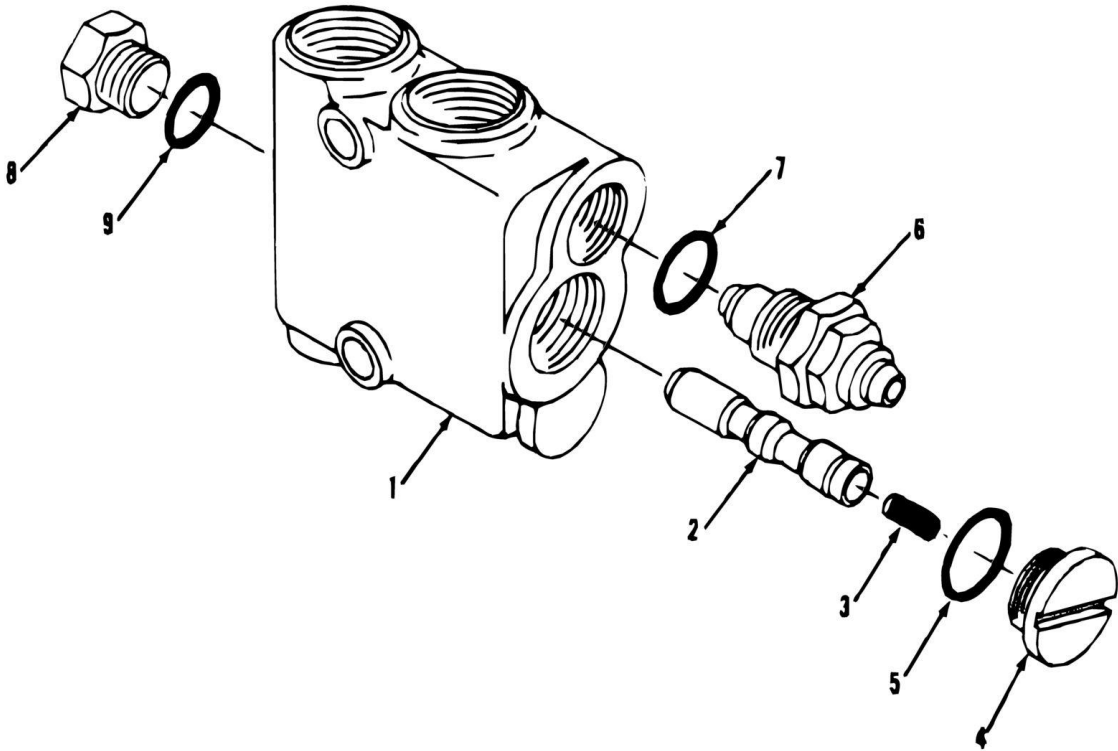
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FIGURE 9-14. (91083292) FLOW DIVIDER VALVE (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083292	1	FLOW DIVIDER VALVE - 850 PSI (includes items 2 thru 9)	
2	91084155	1	SPOOL	
3	91084156	1	SPRING	
4	91084160	1	PLUG (includes item 5)	
5	91084158	1	O-RING	
6	91084159	1	RELIEF (includes item 7)	
7		Ref	O-RING	
8	91084157	1	PLUG (includes item 9)	
9	91084161	1	O-RING	

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FIGURE 9-15. (91083521) FLOW DIVIDER VALVE (SN 0177165 to Present)



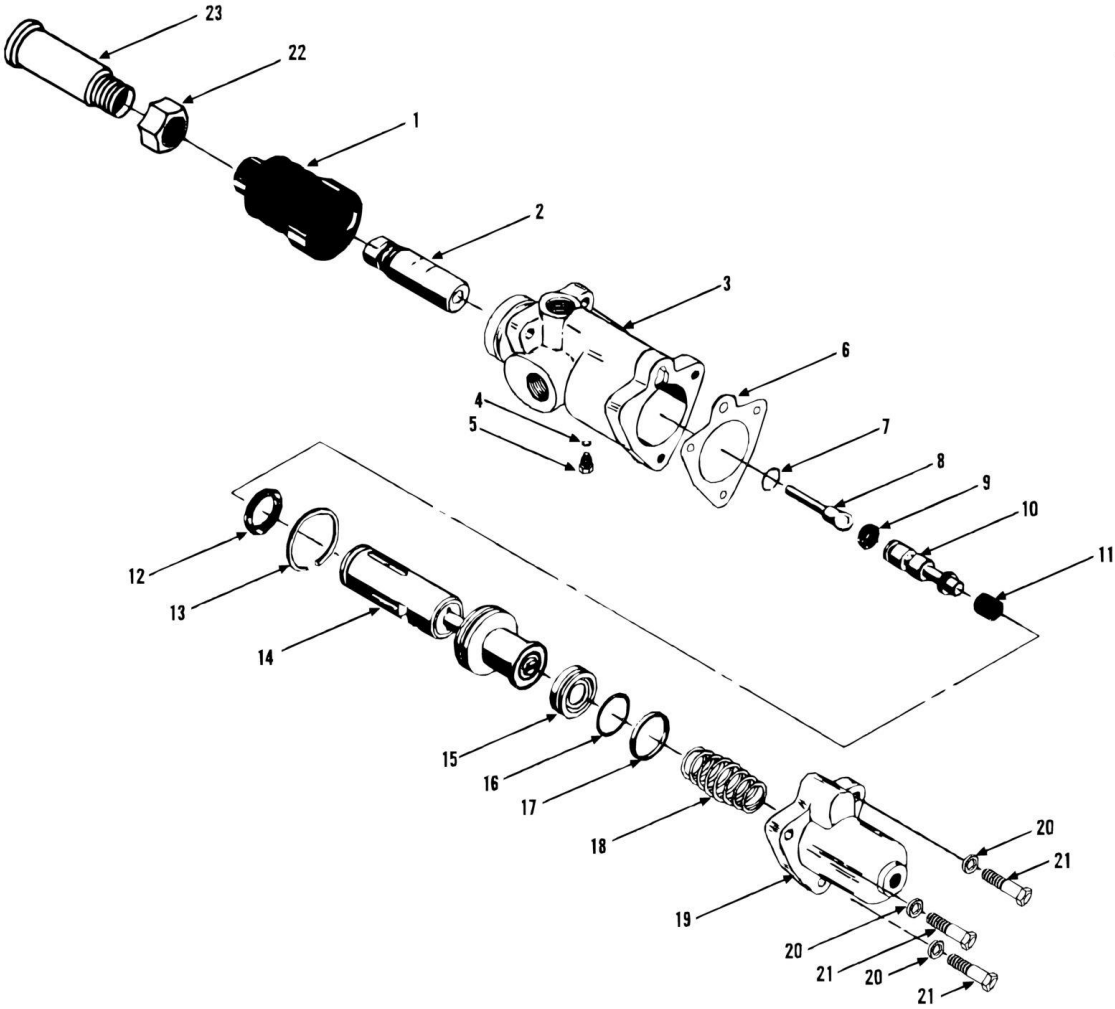
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FIGURE 9-15. (91083521) FLOW DIVIDER VALVE (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083521	1	FLOW DIVIDER VALVE - 625 PSI (includes items 2 thru 9)	
2	91084155	1	SPOOL	
3	91084156	1	SPRING	
4	91084160	1	PLUG (includes item 5)	
5	91084158	1	O-RING	
6	91084159	1	RELIEF (includes item 7)	
7		Ref	O-RING	
8	91084157	1	PLUG (includes item 9)	
9	91084161	1	O-RING	

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FIGURE 9-16. (91123131) BRAKE VALVE (SN 0177005 to Present)



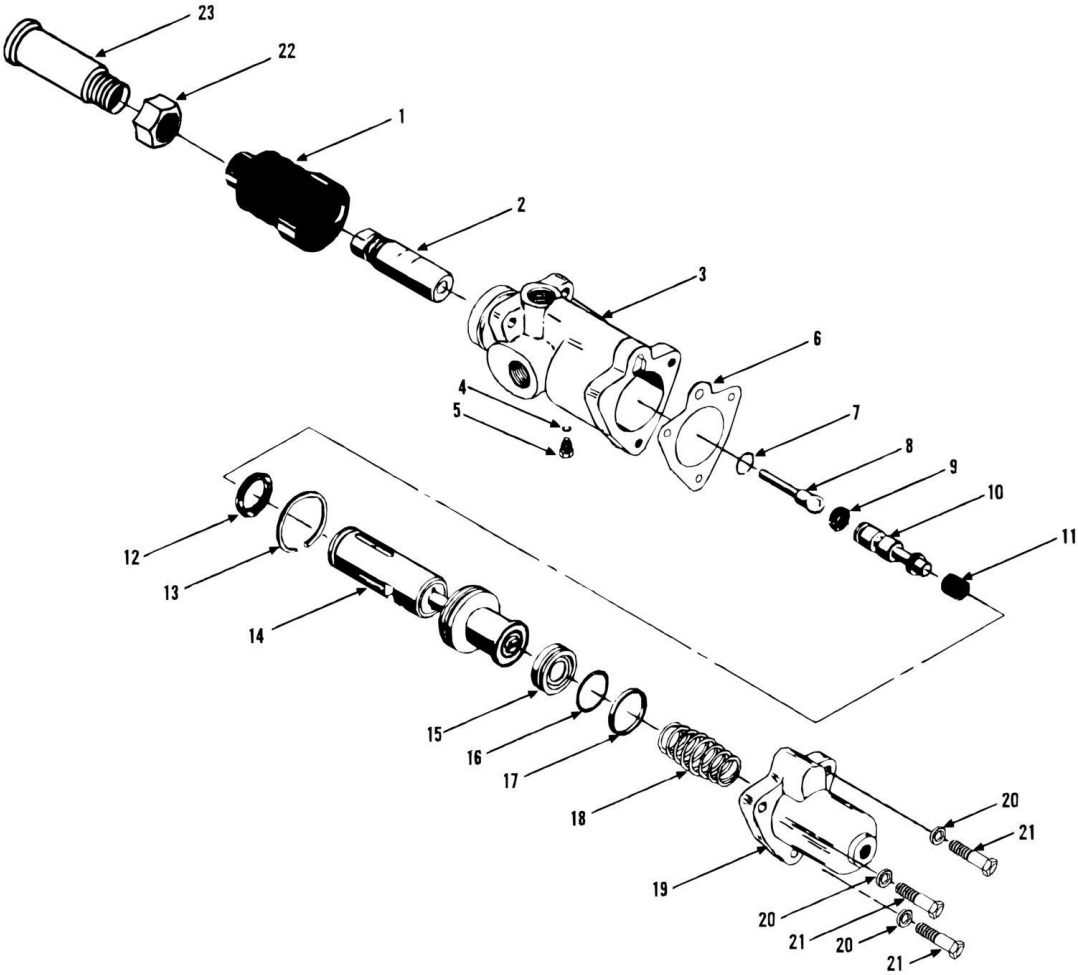
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FIGURE 9-16. (91123131) BRAKE VALVE (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083294	1	DISCONTINUED - POWER BRAKE VALVE, ORDER P/N 91123131 (service items interchange)	
	91123131	1	POWER BRAKE VALVE (includes items 1 thru 21)	
	91084043	1	REPAIR KIT (includes items 1, 4, 6, 9, 12, 13, 15, 16 & 17)	
1	91084042	1	BOOT	
2		Ref	PRESSURE REGULATING SPRING ASSY	
3		Ref	HOUSING	
4	Kit	1	O-RING	
5		Ref	CAPSCREW	
6	Kit	1	GASKET	
7		Ref	RETAINING RING	
8		Ref	PUSH ROD	
9	Kit	1	CUP	
10		Ref	SPOOL (not available for service, order 91123131)	
11		Ref	SPRING	
12	Kit	1	CUP	
13	Kit	1	PISTON RING	
14		Ref	SLEEVE AND PISTON ASSY	
15	Kit	1	PISTON AND POPPET ASSY	
16	Kit	1	O-RING	
17	Kit	1	RING SEAL	
18		Ref	SPRING	
19		Ref	END CAP	
20		Ref	LOCKWASHER	
21		Ref	HEX HD CAPSCREW	
22	88501408	1	HEX JAM NUT, 1/2-20	
23	91081445	1	PUSH ROD	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-17. (91143201) BRAKE VALVE (SN 0177165 to Present)



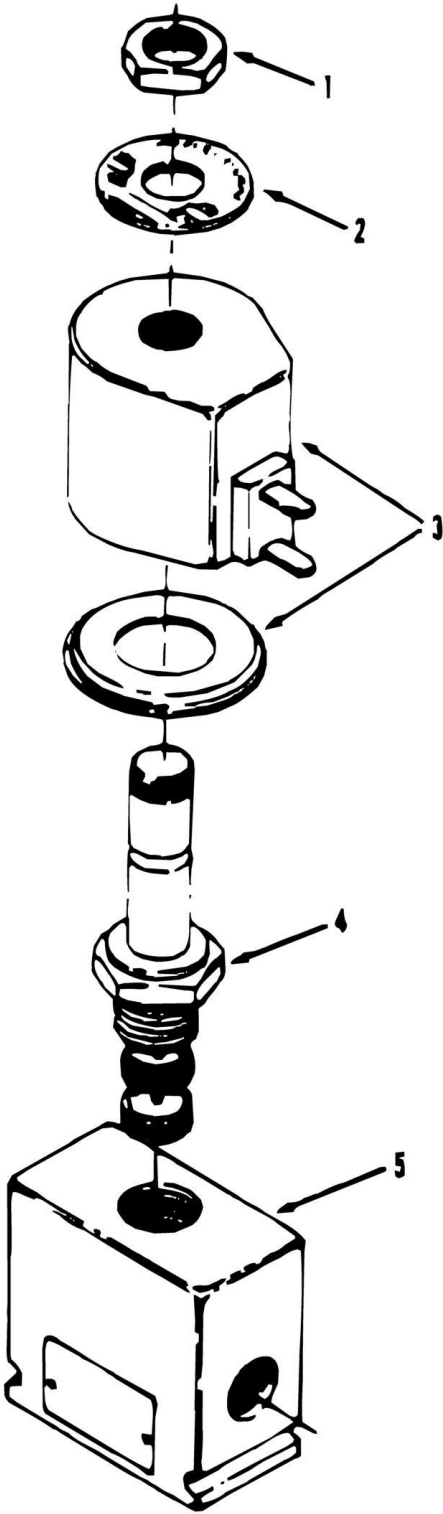
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-17. (91143201) BRAKE VALVE (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143201	1	POWER BRAKE VALVE (includes items 1 thru 21)	
	91084043	1	REPAIR KIT (includes items 1, 4, 6, 9, 12, 13, 15, 16 & 17)	
1	91084042	1	BOOT	
2		Ref	PRESSURE REGULATING SPRING ASSY	
3		Ref	HOUSING	
4	Kit	1	O-RING	
5		Ref	CAPSCREW	
6	Kit	1	GASKET	
7		Ref	RETAINING RING	
8		Ref	PUSH ROD	
9	Kit	1	CUP	
10		Ref	SPOOL (not available for service, order 91143201)	
11		Ref	SPRING	
12	Kit	1	CUP	
13	Kit	1	PISTON RING	
14		Ref	SLEEVE AND PISTON ASSY	
15	Kit	1	PISTON AND POPPET ASSY	
16	Kit	1	O-RING	
17	Kit	1	RING SEAL	
18		Ref	SPRING	
19		Ref	END CAP	
20		Ref	LOCKWASHER	
21		Ref	HEX HD CAPSCREW	
22	88501408	1	HEX JAM NUT, 1/2-20	
23	91081445	1	PUSH ROD	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-18. SOLENOID VALVE (SN 0177005 to Present)



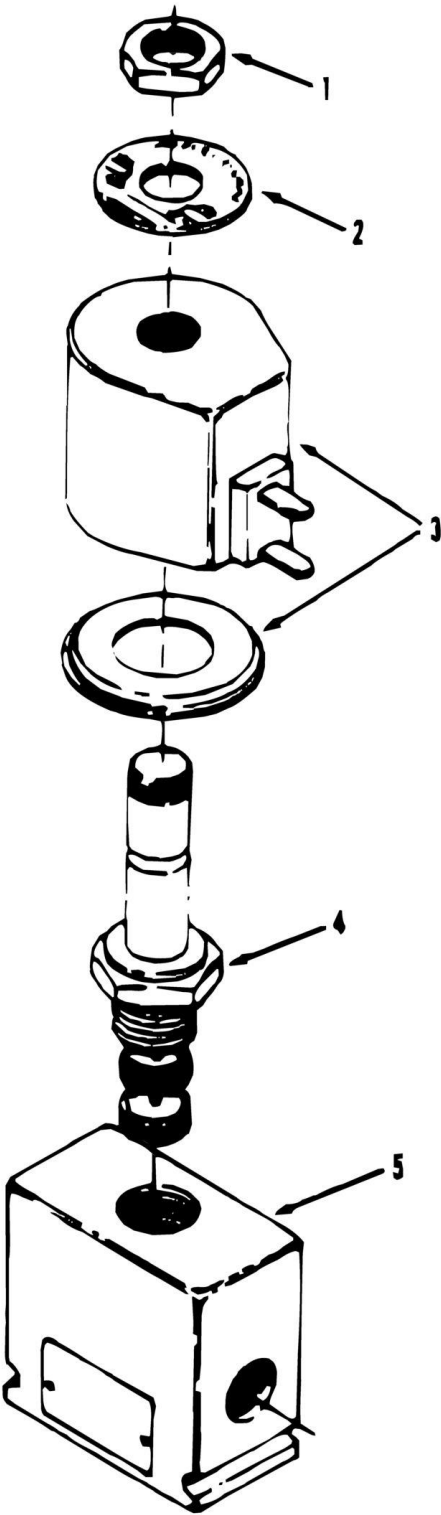
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-18. SOLENOID VALVE (SN 0177005 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	

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FIGURE 9-19. (91043446) SOLENOID VALVE (SN 0177122 to Present)



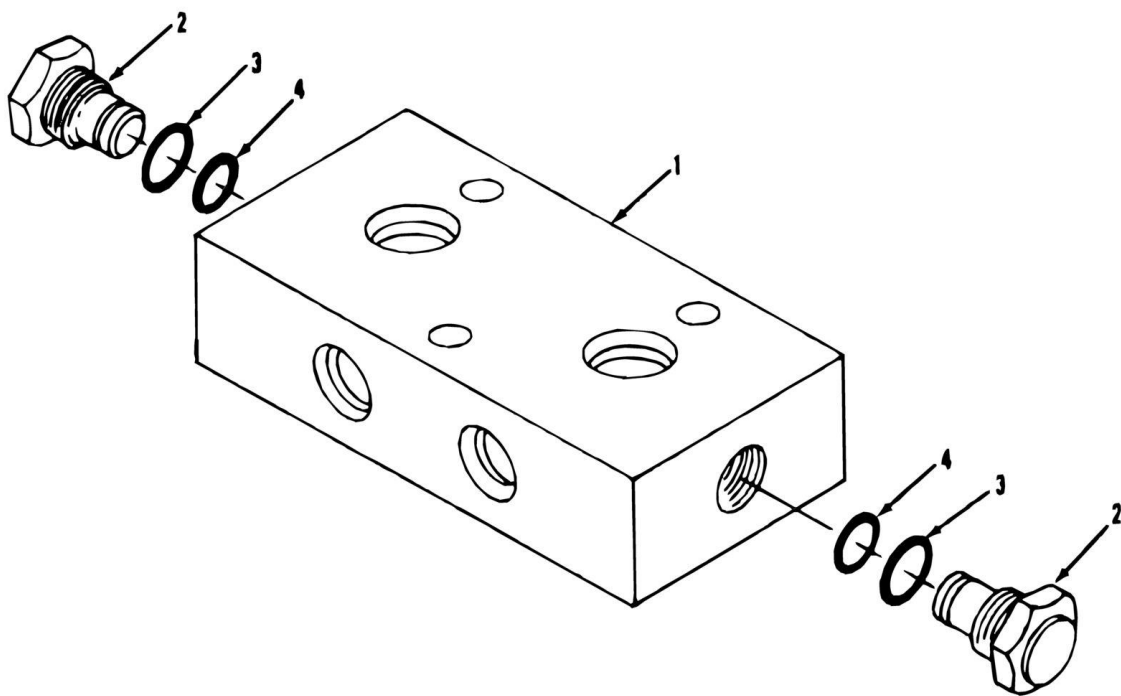
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-19. (91043446) SOLENOID VALVE (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043446	1	3-WAY SOLENOID VALVE (includes all items)	
1	90208066	1	NUT	
2	91144158	1	COIL	
3	91144159	1	CORE ASSY (3-way, 2-position)	
4	80934035	1	VALVE BODY	

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FIGURE 9-20. (91083262) DUAL P.O. CHECK VALVE (SN 0177005 to Present)



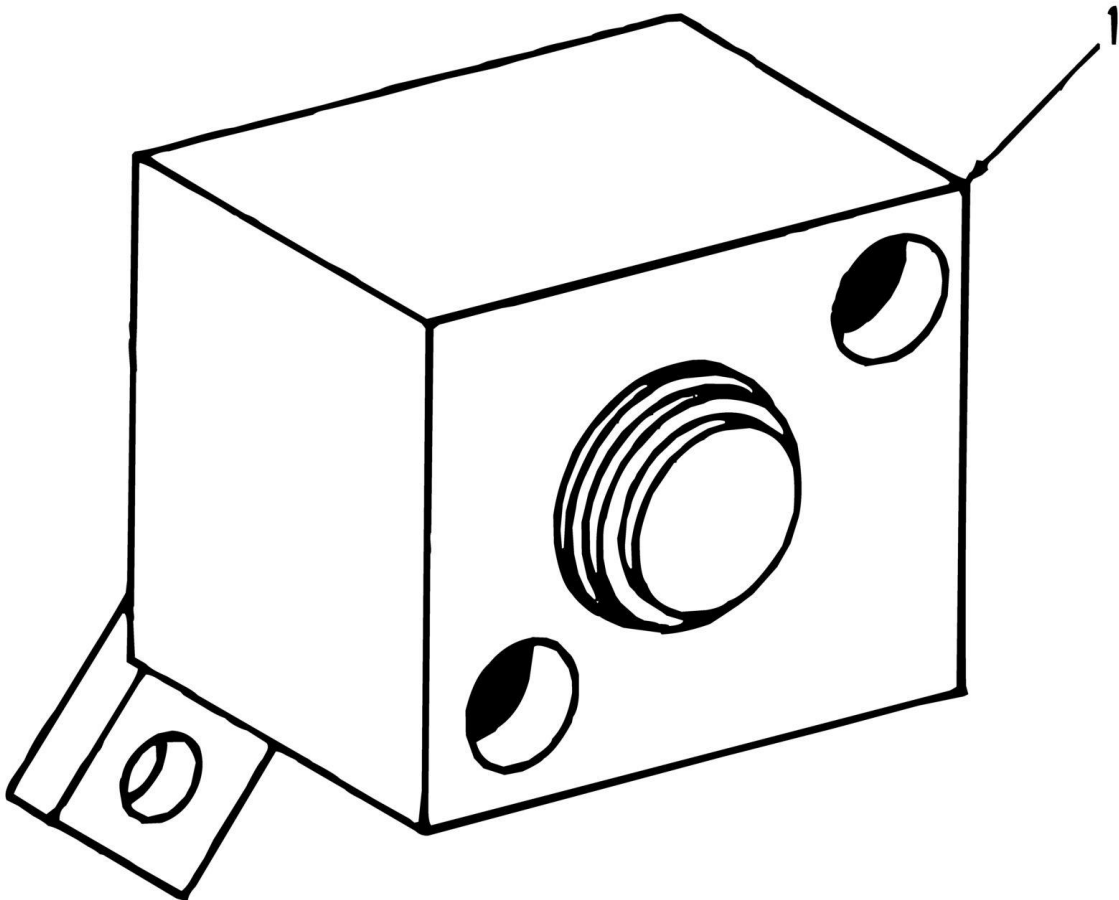
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-20. (91083262) DUAL P.O. CHECK VALVE (SN 0177005 to Present)

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 9-21. INCHING VALVE (SN 0177005 to Present)



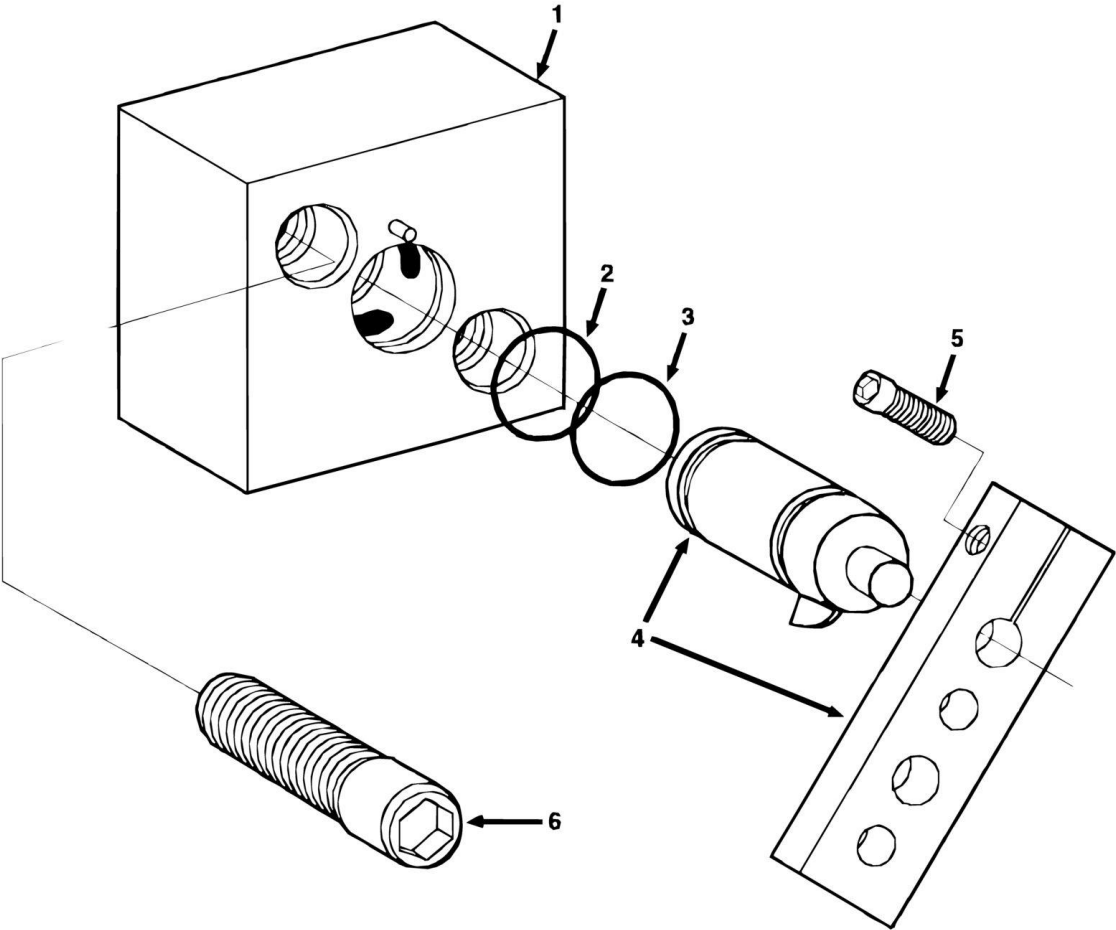
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-21. INCHING VALVE (SN 0177005 to Present)

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

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FIGURE 9-22. INCHING VALVE (SN 0177189 to Present)



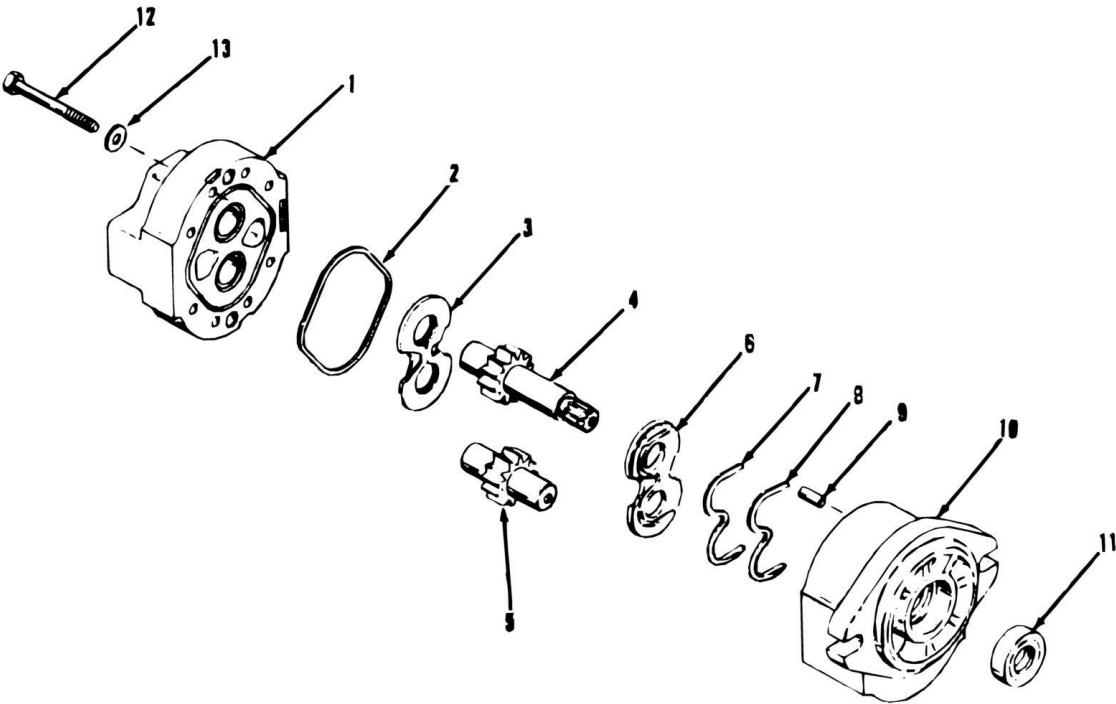
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-22. INCHING VALVE (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91143140	1	INCHING VALVE (includes all items)	
2	80934423	1	O-RING	
3	80934202	1	O-RING	
4		Ref	ACTIVATING LEVER	
5		Ref	SOCKET HD CAPSCREW	
6	88212228	2	SOC HD CAP SCR,5/16-18 X 1 LG	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-23. MAIN HYDRAULIC PUMP (SN 0177005 to Present)



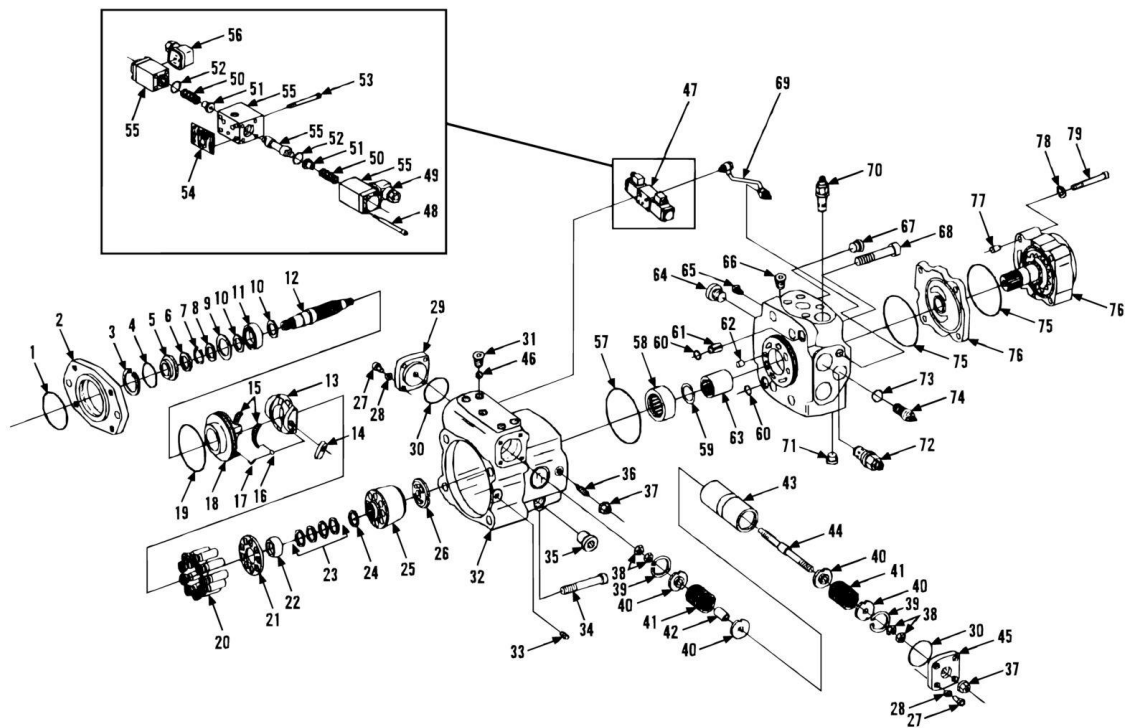
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FIGURE 9-23. MAIN HYDRAULIC PUMP (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083296	1	MAIN HYDRAULIC PUMP	
	91084218	1	SEAL KIT (includes items 2, 3, 6, 7, 8 & 11)	
1	91084144	1	REAR COVER	
2	91084137	1	SEAL	
3	91084138	1	THRUST PLATE	
4	91084146	1	DRIVE GEAR	
5	91084145	1	DRIVEN GEAR	
6	91084139	1	WEAR PLATE	
7	91084140	1	SEAL	
8	91084142	1	SEAL SPACER	
9	91084143	2	DOWEL PIN	
10	91084147	1	BODY	
11	91084141	1	SHAFT SEAL	
12	91084135	8	HEX HD CAPSCREW	
13	91084136	8	FLATWASHER	

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FIGURE 9-24. (91083013) HYDROSTATIC TRANSMISSION PUMP (SN 0177005 to Present)



SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-24. (91083013) HYDROSTATIC TRANSMISSION PUMP (SN 0177005 to Present)

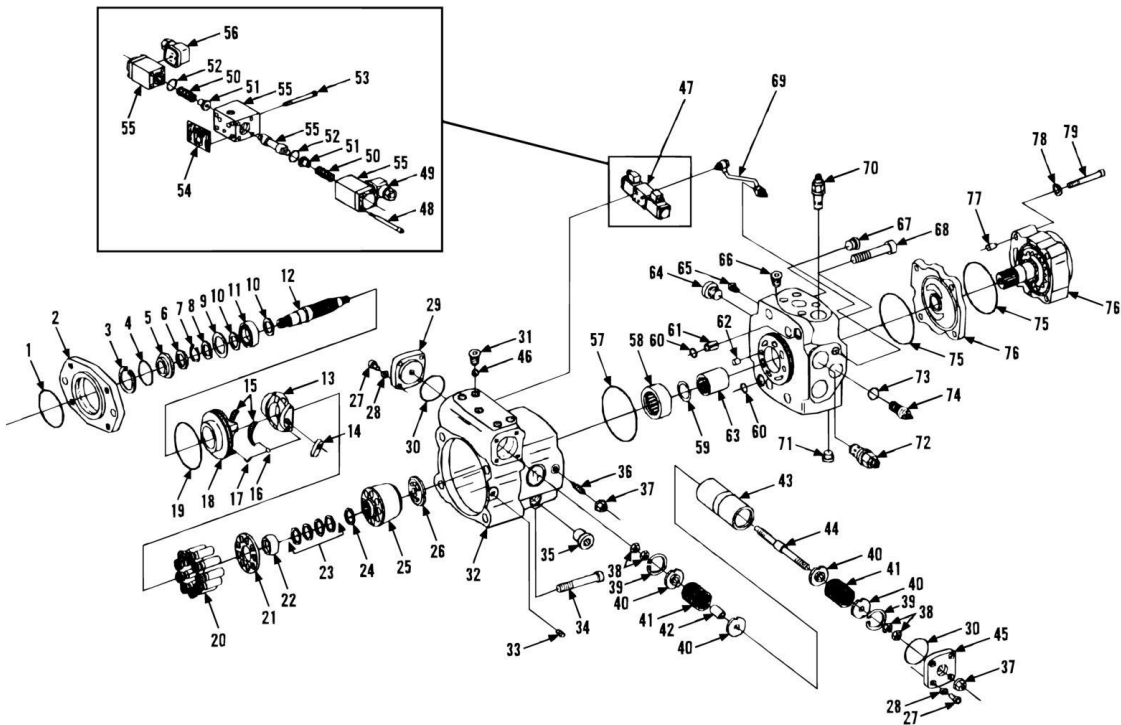
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083013	1	HYDROSTATIC TRANSMISSION PUMP (includes all items)	
	91084132	1	SEAL KIT (includes items 1, 4, 6, 19, 30 37, 52, 57, 60, 73 & 75)	
	91084269	1	ROTARY GROUP KIT (includes items 13, 20, 21, 22, 23, 25 & 26)	
	91084023	1	ROTARY GROUP ASSY (includes items 3 thru 26, except item 14)	
	91084270	1	HOUSING ASSY (includes items 27 thru 45)	
	91084271	1	STROKING PISTON ASSY (includes items 38 thru 44)	
	91084272	1	PORT BLOCK ASSY (includes items 57 thru 68)	
1	91084273	1	O-RING	
2	91084024	1	FRONT FLANGE	
3		Ref	RETAINING RING	
4	Kit	1	O-RING	
5		Ref	FRONT COVER	
6	Kit	1	SHAFT SEAL	
7		Ref	RETAINING RING	
8		Ref	SHIM	
9		Ref	SHIM	
10		Ref	SUPPORTING DISC	
11		Ref	ROLLER BEARING	
12		Ref	SHAFT	
13	Kit	1	SWASH PLATE	
14	91084274	1	SLIDE BLOCK	
15		Ref	CAGE BEARING SET	
16		Ref	BEARING RETAINER BUSHING	
17		Ref	WIRE	
18		Ref	BEARING FLANGE	
19	Kit	1	O-RING	
20	Kit	9	PISTON	
21	Kit	1	RETAINING PLATE	
22	Kit	1	RETAINING BALL	
23	Kit	1	BELLEVILLE WASHER SET	
24		Ref	PRELOAD SHIM	
25	Kit	1	BARREL	
26	Kit	1	CONTROL PLATE	
27		Ref	SOCKET HD CAPSCREW, M6X12	
28		Ref	LOCKWASHER, M6	
29		Ref	STROKING PISTON COVER	
30	Kit	2	O-RING	
31		Ref	PLUG	
32		Ref	HOUSING	
33		Ref	TORSION PIN	
34		Ref	SOCKET HD CAPSCREW, M16X80	
35		Ref	PLUG	
36	91084029	1	ECCENTRIC SCREW	
37	Kit	2	SEAL LOCKNUT, M12X1.5	
38		Ref	JAM NUT, M12X1.5	
39		Ref	O-RING	
40		Ref	SPRING COLLAR W/ BUSHING	
41		Ref	SPRING	
42		Ref	SPACER BUSHING	
43		Ref	PISTON	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44		Ref	PISTON ROD	
45		Ref	STROKING PISTON COVER	
46	80934416	2	STROKING TIME ORIFICE	
47	91084036	1	CONTROL VALVE ASSY (includes items 48 thru 56)	
48		Ref	SOCKET HD CAPSCREW, M4X65	
49	91084038	1	PLUG IN CONNECTOR (solenoid B-Blk)	
50		Ref	SPRING	
51		Ref	SPRING RETAINER	
52	Kit	2	O-RING	
53		Ref	SOCKET HD CAPSCREW, M6X45	
54	91084134	1	CONTROL MODULE GASKET	
55		Ref	VALVE HOUSING	
56	91084039	1	PLUG IN CONNECTOR (solenoid A-Gray)	
57	Kit	1	O-RING	
58		Ref	REAR SHAFT BEARING	
59		Ref	RETAINING RING	
60	Kit	2	O-RING	
61		Ref	SPRING PIN	
62		Ref	PIN	
63		Ref	PUMP COUPLING	
64		Ref	PLUG	
65		Ref	PRESSURE OVER RIDE VALVE	
66		Ref	PLUG	
67		Ref	PLUG	
68		Ref	SOCKET HD CAPSCREW, M16X90	
69	91084035	1	CONTROL PIPE KIT (includes fittings)	
70	91084031	1	RELIEF VALVE	
71	88662195	1	PLUG	
72	91084032	2	HIGH PRESSURE RELIEF VALVE (5000 PSI)	
73	91084276	1	O-RING	
74	91084033	1	CONTROL CARTRIDGE	
75	Kit	2	O-RING	
76	91084034	1	CHARGE PUMP ASSY (includes items 75, 77, 78 & 79)	
77		Ref	PIN	
78		Ref	LOCKWASHER, M8	
79		Ref	SOCKET HD CAPSCREW, M8X50	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-25. (91083461) HYDROSTATIC TRANSMISSION PUMP (SN 0177107 to Present)



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FIGURE 9-25. (91083461) HYDROSTATIC TRANSMISSION PUMP (SN 0177107 to Present)

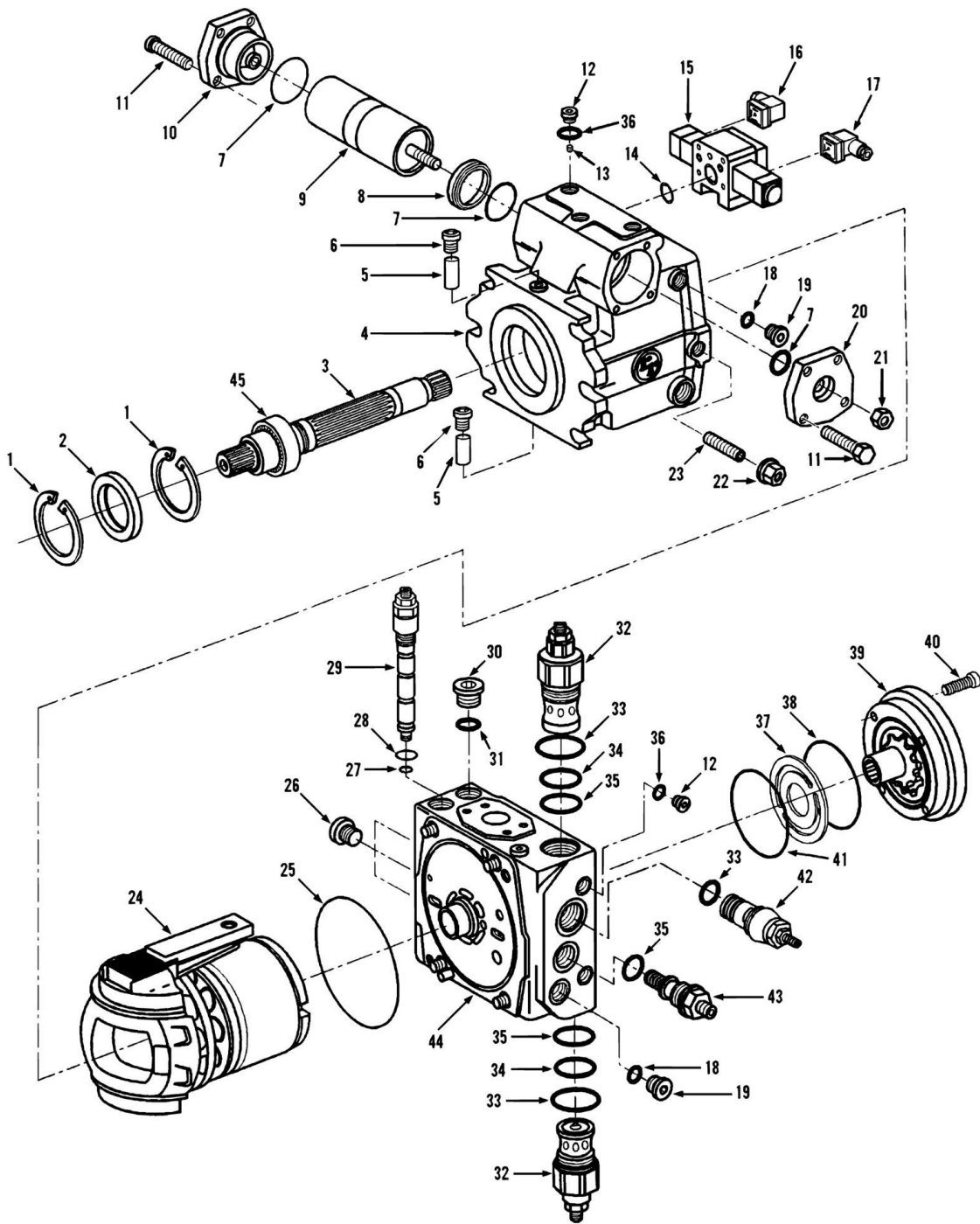
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083461	1	HYDROSTATIC TRANSMISSION PUMP (includes all items)	
	91084132	1	SEAL KIT (includes items 1, 4, 6, 19, 30, 37, 52, 57, 60, 73 & 75)	
	91084269	1	ROTARY GROUP KIT (includes items 13, 20, 21, 22, 23, 25 & 26)	
	91084023	1	ROTARY GROUP ASSY (includes items 3 thru 26, except item 14)	
	91084270	1	HOUSING ASSY (includes items 27 thru 45)	
	91084271	1	STROKING PISTON ASSY (includes items 38 thru 44)	
	91084272	1	PORT BLOCK ASSY (includes items 57 thru 68)	
1	91084273	1	O-RING	
2	91084024	1	FRONT FLANGE	
3		Ref	RETAINING RING	
4	Kit	1	O-RING	
5		Ref	FRONT COVER	
6	Kit	1	SHAFT SEAL	
7		Ref	RETAINING RING	
8		Ref	SHIM	
9		Ref	SHIM	
10		Ref	SUPPORTING DISC	
11		Ref	ROLLER BEARING	
12		Ref	SHAFT	
13	Kit	1	SWASH PLATE	
14	91084274	1	SLIDE BLOCK	
15		Ref	AGE BEARING SET	
16		Ref	BEARING RETAINER BUSHING	
17		Ref	WIRE	
18		Ref	BEARING FLANGE	
19	Kit	1	O-RING	
20	Kit	9	PISTON	
21	Kit	1	RETAINING PLATE	
22	Kit	1	RETAINING BALL	
23	Kit	1	BELLEVILLE WASHER SET	
24		Ref	PRELOAD SHIM	
25	Kit	1	BARREL	
26	Kit	1	CONTROL PLATE	
27		Ref	SOCKET HD CAPSCREW, M6X12	
28		Ref	LOCKWASHER, M6	
29		Ref	STROKING PISTON COVER	
30	Kit	2	O-RING	
31		Ref	PLUG	
32		Ref	HOUSING	
33		Ref	TORSION PIN	
34		Ref	SOCKET HD CAPSCREW, M16X80	
35		Ref	PLUG	
36	91084029	1	ECCENTRIC SCREW	
37	Kit	2	SEAL LOCKNUT, M12X1.5	
38		Ref	JAM NUT, M12X1.5	
39		Ref	O-RING	
40		Ref	SPRING COLLAR W/ BUSHING	
41		Ref	SPRING	
42		Ref	SPACER BUSHING	
43		Ref	PISTON	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44		Ref	PISTON ROD	
45		Ref	STROKING PISTON COVER	
46	80934416	2	STROKING TIME ORIFICE	
47	91084036	1	CONTROL VALVE ASSY (includes items 48 thru 56)	
48		Ref	SOCKET HD CAPSCREW, M4X65	
49	91084038	1	PLUG IN CONNECTOR (solenoid B-Blk)	
50		Ref	SPRING	
51		Ref	SPRING RETAINER	
52	Kit	2	O-RING	
53		Ref	SOCKET HD CAPSCREW, M6X45	
54	91084134	1	CONTROL MODULE GASKET	
55		Ref	VALVE HOUSING	
56	91084039	1	PLUG IN CONNECTOR (solenoid A-Gray)	
57	Kit	1	O-RING	
58		Ref	REAR SHAFT BEARING	
59		Ref	RETAINING RING	
60	Kit	2	O-RING	
61		Ref	SPRING PIN	
62		Ref	PIN	
63		Ref	PUMP COUPLING	
64		Ref	PLUG	
65		Ref	PRESSURE OVERRIDE VALVE	
66		Ref	PLUG	
67		Ref	PLUG	
68		Ref	SOCKET HD CAPSCREW, M16X90	
69	91084035	1	CONTROL PIPE KIT (includes fittings)	
70	91084031	1	RELIEF VALVE	
71	88662195	1	PLUG	
72	91084032	2	HIGH PRESSURE RELIEF VALVE (5500 PSI)	
73	91084276	1	O-RING	
74	91084033	1	CONTROL CARTRIDGE	
75	Kit	2	O-RING	
76	91084034	1	CHARGE PUMP ASSY (includes items 75, 77, 78 & 79)	
77		Ref	PIN	
78		Ref	LOCKWASHER,M8	
79		Ref	SOCKET HD CAPSCREW, M8X50	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-26. (91083499) HYDROSTATIC TRANSMISSION PUMP (SN 0177189 to Present)



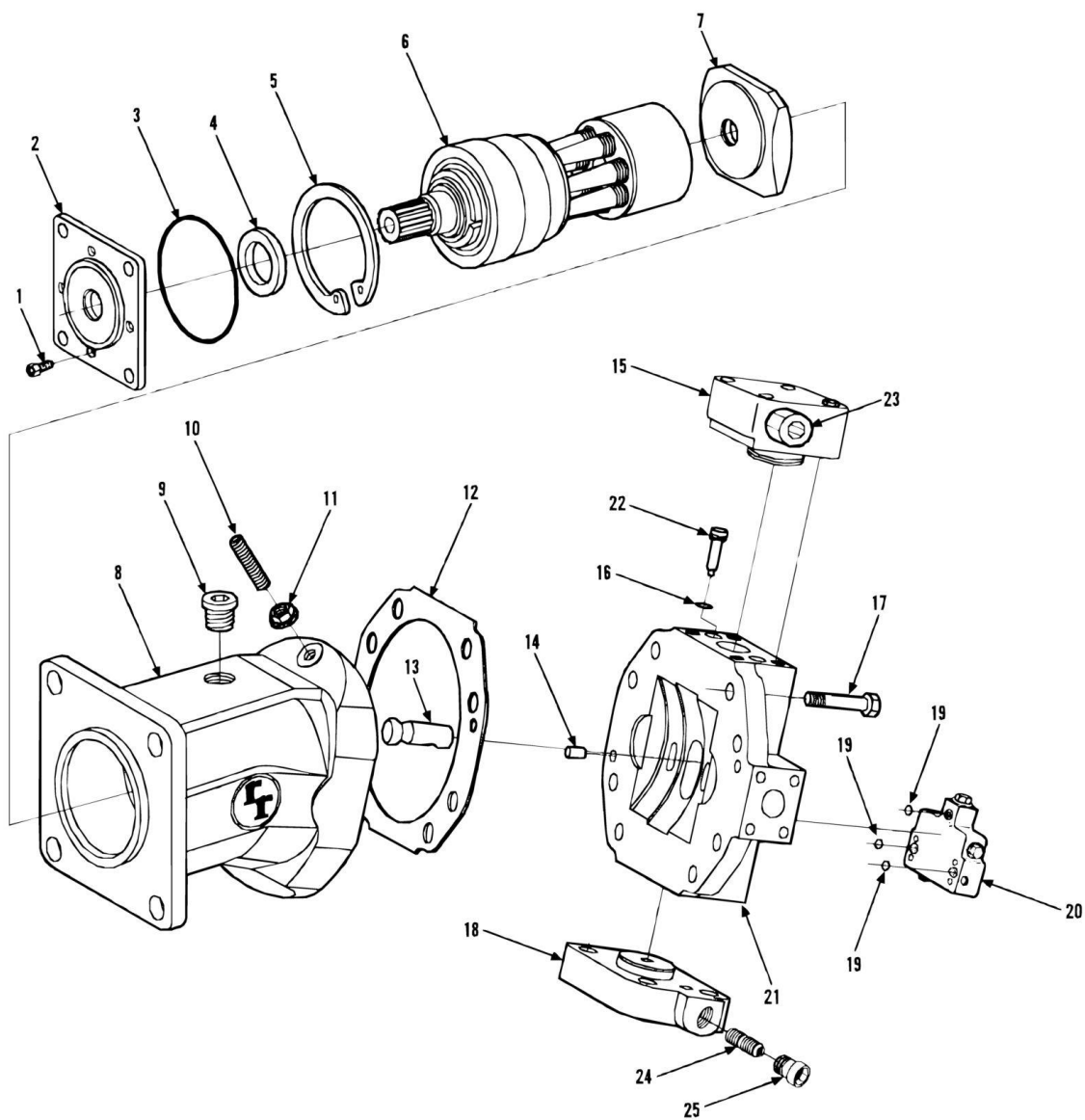
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-26. (91083499) HYDROSTATIC TRANSMISSION PUMP (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083499	1	HYDROSTATIC TRANSMISSION PUMP (includes all items)	
	91084317	AR	SEAL KIT (includes items 2, 6, 7, 14, 15, 22, 25, 27, 28, 31, 32, 33, 34, 35, 36, 38, 41 plus additional items not illustrated)	
1	80934052	2	SNAP RING	
2	91084389	1	SHAFT SEAL	
3	91084318	1	SHAFT ASSY	
4	91084319	1	HOUSING ASSY	
5	91084320	2	PIN	
6	Kit	4	PLUG	
7	Kit	4	O-RING	
8	91084321	2	BUSHING	
9	91084322	1	STROKING PISTON ASSY	
10	91084323	1	STROKING PISTON COVER KIT (includes items 7 & 11)	
11	80934077	8	CAPSCREW, M8X20	
12	80934084	5	PLUG (includes item 36)	
13	91144093	2	STROKING ORIFICE	
14	Kit	1	O-RING	
15	91084324	1	DA CONTROL ASSY (includes items 16 & 17)	
16	91084038	1	HERSHMAN CONNECTOR (black)	
17	91084039	1	HERSHMAN CONNECTOR (gray)	
18		Ref	O-RING	
19	80934082	2	PLUG (includes item 18)	
20	91084325	1	STROKING PISTON COVER KIT (includes items 7 & 11)	
21	91144094	1	JAM NUT	
22	Kit	1	SEAL NUT	
23	91144095	1	ECCENTRIC SCREW	
24	91084326	1	ROTARY GROUP ASSY	
25	Kit	1	O-RING	
26	91084327	3	PLUG	
27	Kit	1	O-RING	
28	Kit	1	O-RING	
29	91084328	1	POR ASSY (includes items 27 & 28)	
30	80934340	1	PLUG (includes item 31)	
31	Kit	1	O-RING	
32	91084032	2	RELIEF VALVE (includes one each of items 33 thru 35)	
33	Kit	3	O-RING	
34	Kit	2	O-RING	
35	Kit	3	O-RING	
36	Kit	5	O-RING	
37	91084329	1	WEAR PLATE	
38	Kit	1	O-RING	
39	91084330	1	CHARGE PUMP ASSY (includes items 37, 38, 40 & 41)	
40	91084331	4	CAPSCREW, M12X35	
41	Kit	1	O-RING	
42	91144099	1	DA CARTRIDGE ASSY	
43	91144098	1	CHARGE PRESSURE RELIEF VALVE (includes item 35)	
44	91084332	1	PORT BLOCK ASSY (includes items 25, 26, 27, 28 & 29)	
45	91084390	1	ROLLER BEARING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-27. FRONT DRIVE MOTOR (524) (SN 0177005 to Present)



*FOR OUR APPLICATION THIS DRIVE
MOTOR IS UTILIZED IN A 180 DEGREE
INVERSION.*

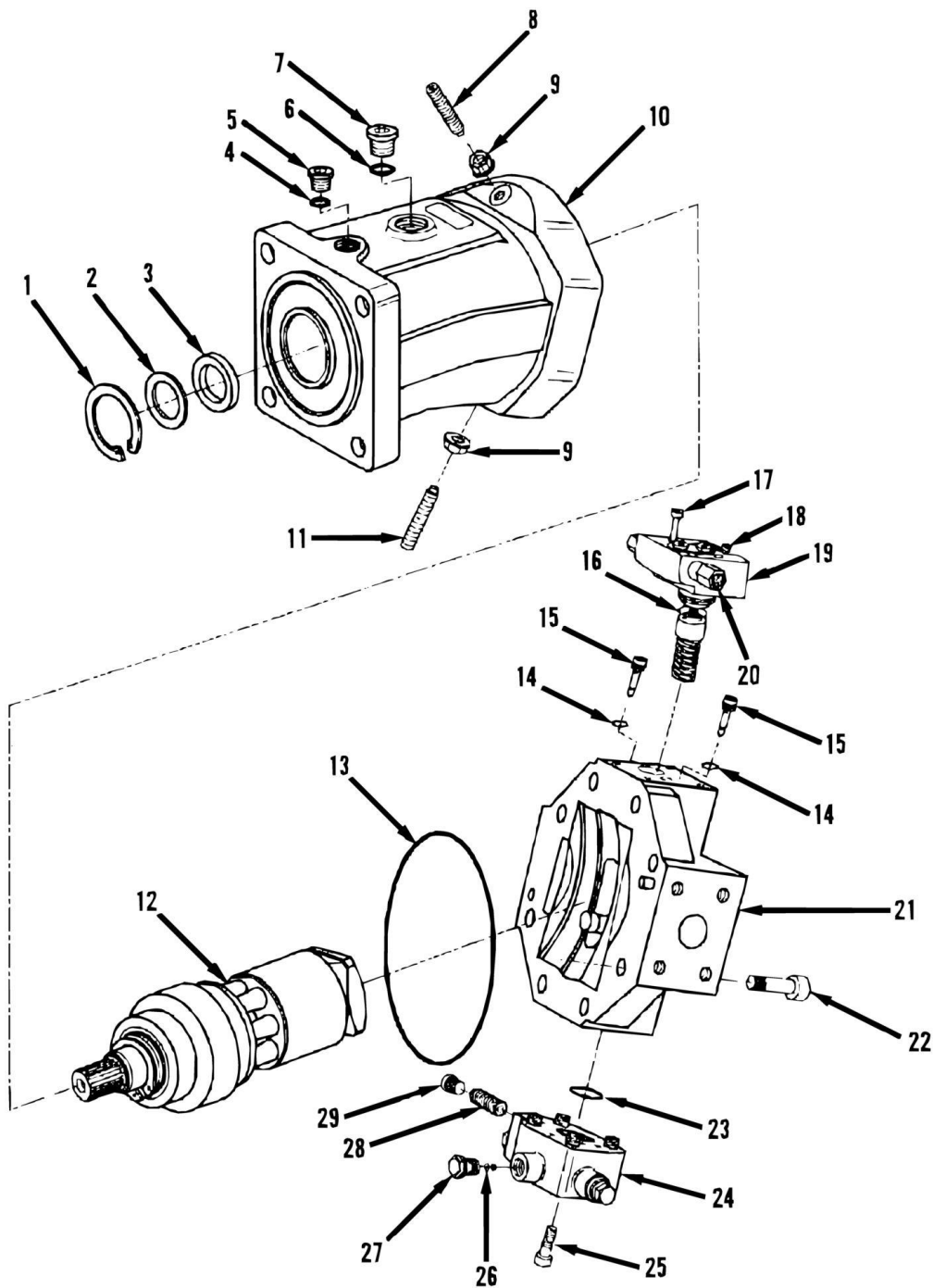
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-27. FRONT DRIVE MOTOR (524) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083044	1	FRONT DRIVE MOTOR ASSY (includes all items)	
	91144152	1	FRONT DRIVE MOTOR SEAL KIT	
1		Ref	CAPSCREW, M8X16	
2	91084314	1	FRONT COVER	
3	Kit	1	O-RING (included in seal kit)	
4	Kit	1	SHAFT SEAL (included in seal kit)	
5		Ref	SNAP RING	
6	91144150	1	ROTARY GROUP (includes item 5)	
7	91084315	1	CONTROL LENS	
8	91144149	1	HOUSING	
9		Ref	PLUG	
10		Ref	STOP SCREW	
11	Kit	1	SEAL NUT (included in seal kit)	
12	Kit	1	GASKET (included in seal kit)	
13		Ref	SWIVEL TRUNNION (included with item 21)	
14		Ref	DOWEL PIN (included with item 21)	
15	91144153	1	DA CONTROL ASSY (includes item 23)	
16		Ref	O-RING (included with item 21)	
17		Ref	CAPSCREW (included with item 21)	
18	91144157	1	STROKING PISTON COVER (includes item 25)	
19	Kit	3	O-RING (included in seal kit)	
20	91094020	1	FLUSHING VALVE	
21	91144151	1	PORTING BLOCK ASSY (includes items 13, 14, 16 & 17)	
22	83924135	2	CHECK VALVE KIT	
23	91144248	2	FITTING	
24	83924123	1	SHUTTLE ORIFICE KIT	
25		Ref	PLUG (included with item 18)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-28. (91163044) FRONT DRIVE MOTOR (524) (SN 0177189 to Present)



FOR OUR APPLICATION THIS DRIVE
MOTOR IS UTILIZED IN A 180 DEGREE
INVERSION.

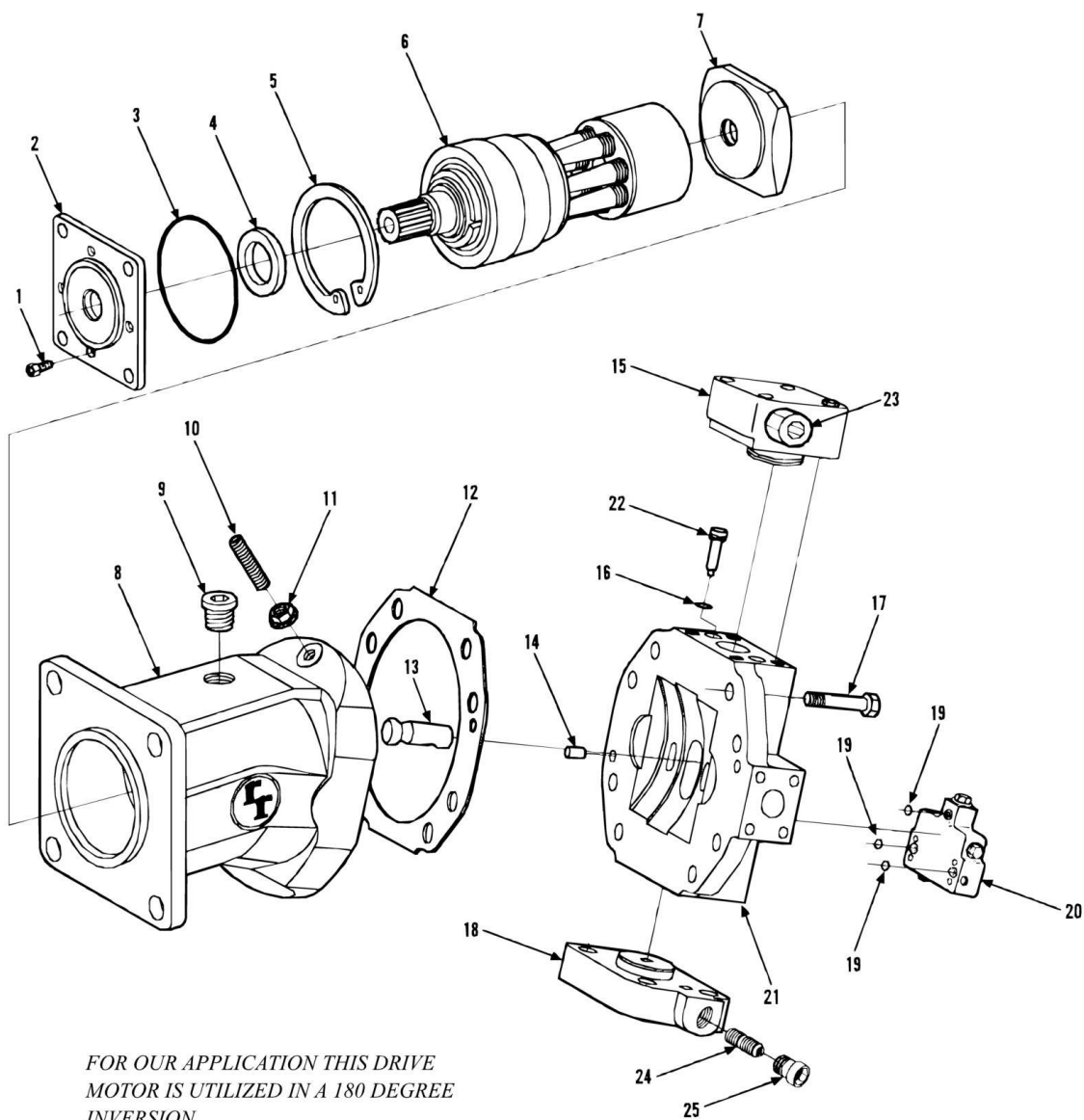
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-28. (91163044) FRONT DRIVE MOTOR (524) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91163044	1	FRONT DRIVE MOTOR ASSY (includes all items)	
	91094025	AR	SEAL KIT (includes items 3,4, 6, 9, 13, 14, 16, 18, 23)	
1	91094026	1	SNAP RING	
2	91094027	1	SHIM	
3	Kit	1	SHAFT SEAL	
4	Kit	1	O-RING	
5	91094028	1	PLUG (includes item 5)	
6	Kit	1	O-RING	
7	91094029	1	PLUG (includes item 6)	
8	80914241	1	STOP SCREW, M12X90	
9	Kit	2	SEAL NUT	
10	91094030	1	HOUSING	
11	91094031	1	STOP SCREW, M12X80	
12	91094032	1	ROTARY GROUP	
13	Kit	1	O-RING	
14	Kit	6	O-RING	
15	80914235	2	CHECK VALVE KIT (includes o-rings)	
16	Kit	1	O-RING	
17	80934080	4	CAPSCREW	
18	Kit	1	SEAL NUT	
19	91094033	1	DA1 CONTROL KIT (includes items 16, 17, 18 & 20)	
20	91144248	2	FITTING	
21	91094034	1	REAR COVER ASSY (includes item 22)	
22	91094035	8	CAPSCREW,M16X45	
23	Kit	1	O-RING	
24	91164017	1	FLUSHING VALVE ASSY (includes items 23, 25, 26, 27 & 29)	
25	91094037	4	CAPSCREW,M8X50	
26	91094038	1	FLUSHING ORIFICE	
27	91094039	1	PLUG	
28	83924123	1	SWIVEL TIME ORIFICE	
29	91094040	2	PLUG	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-29. FRONT DRIVE MOTOR (522) (SN 0177005 to Present)



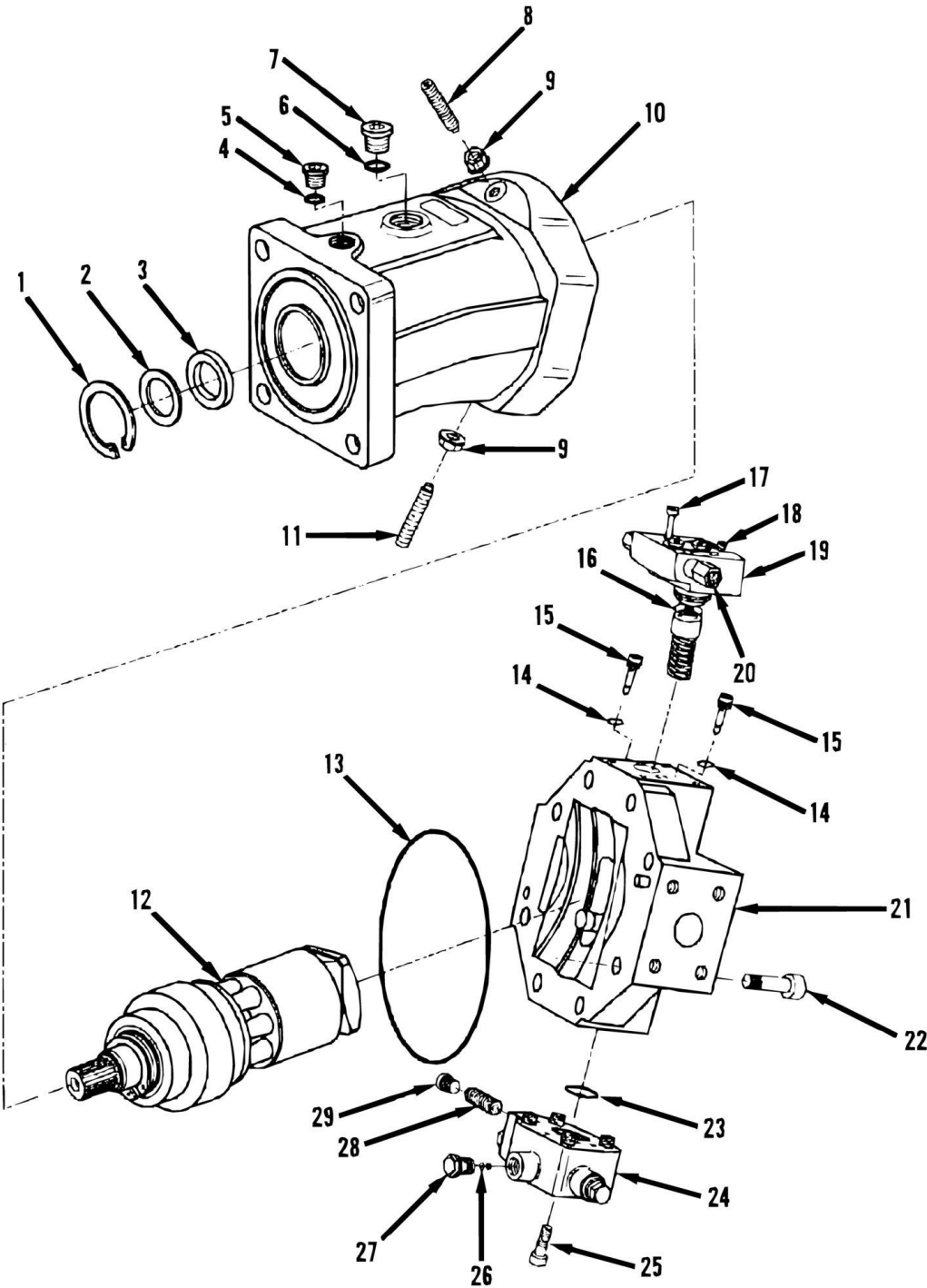
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-29. FRONT DRIVE MOTOR (522) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91093002	1	FRONT DRIVE MOTOR ASSY (includes all items)	
	91144152	1	FRONT DRIVE MOTOR SEAL KIT	
1		Ref	CAPSCREW, M8X16	
2	91084314	1	FRONT COVER	
3	Kit	1	O-RING (included in seal kit)	
4	Kit	1	SHAFT SEAL (included in seal kit)	
5		Ref	SNAP RING	
6	91144150	1	ROTARY GROUP (includes item 5)	
7	91084315	1	CONTROL LENS	
8	91144149	1	HOUSING	
9		Ref	PLUG	
10		Ref	STOP SCREW	
11	Kit	1	SEAL NUT (included in seal kit)	
12	Kit	1	GASKET (included in seal kit)	
13		Ref	SWIVEL TRUNNION (included with item 21)	
14		Ref	DOWEL PIN (included with item 21)	
15	91144153	1	DA CONTROL ASSY (includes item 23)	
16		Ref	O-RING (included with item 21)	
17		Ref	CAPSCREW (included with item 21)	
18	91144157	1	STROKING PISTON COVER (includes item 25)	
19	Kit	3	O-RING (included in seal kit)	
20	91094021	1	FLUSHING VALVE	
21	91144151	1	PORTING BLOCK ASSY (includes items 13, 14, 16 & 17)	
22	83924135	2	CHECK VALVE KIT	
23	91144248	2	FITTING	
24	83924123	1	SHUTTLE ORIFICE KIT	
25		Ref	PLUG (included with item 18)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-30. (91093016) FRONT DRIVE MOTOR (522) (SN 0177189 to Present)



FOR OUR APPLICATION THIS DRIVE
MOTOR IS UTILIZED IN A 180 DEGREE
INVERSION.

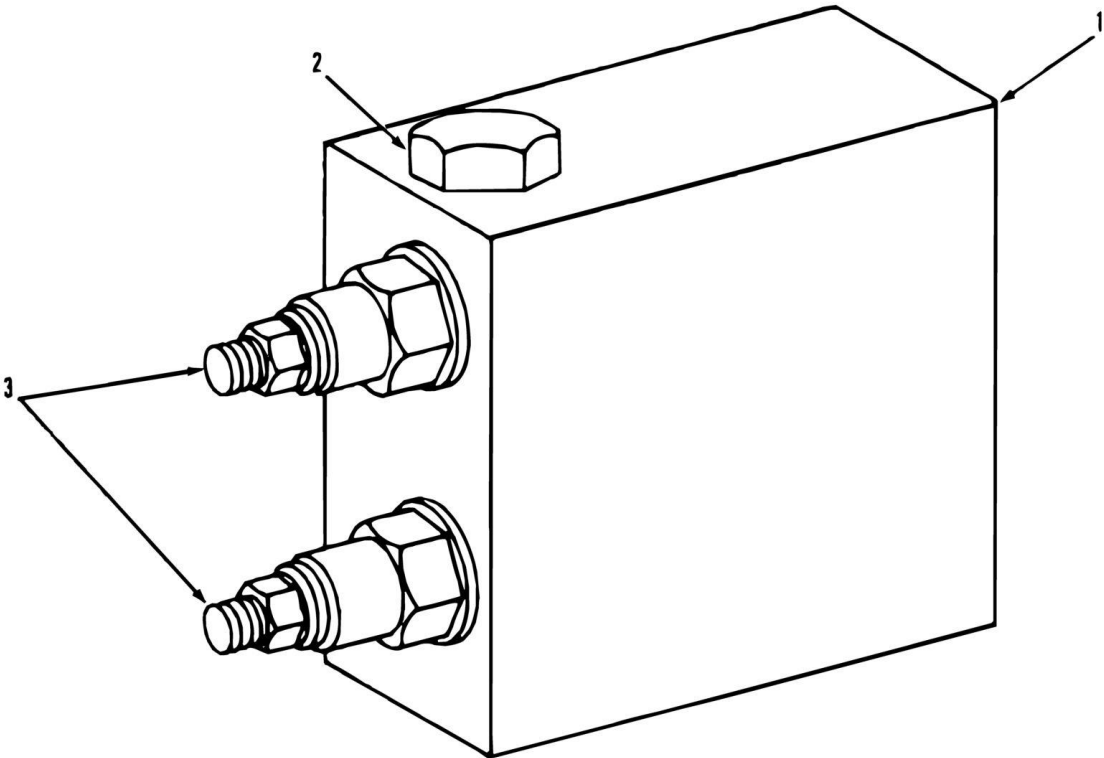
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-30. (91093016) FRONT DRIVE MOTOR (522) (SN 0177189 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91093016	1	FRONT DRIVE MOTOR ASSY (includes all items)	
	91094025	AR	SEAL KIT (includes items 3,4, 6, 9, 13, 14, 16, 18 & 23)	
1	91094026	1	SNAP RING	
2	91094027	1	SHIM	
3	Kit	1	SHAFT SEAL	
4	Kit	1	O-RING	
5	91094028	1	PLUG (includes item 5)	
6	Kit	1	O-RING	
7	91094029	1	PLUG (includes item 6)	
8	80914241	1	STOP SCREW, M12X90	
9	Kit	2	SEAL NUT	
10	91094030	1	HOUSING	
11	91094031	1	STOP SCREW, M12X80	
12	91094032	1	ROTARY GROUP	
13	Kit	1	O-RING	
14	Kit	6	O-RING	
15	80914235	2	CHECK VALVE KIT (includes o-rings)	
16	Kit	1	O-RING	
17	80934080	4	CAPSCREW	
18	Kit	1	SEAL NUT	
19	91094033	1	DA1 CONTROL KIT (includes items 16, 17, 18 & 20)	
20	91144248	2	FITTING	
21	91094034	1	REAR COVER ASSY (includes item 22)	
22	91094035	8	CAPSCREW, M16X45	
23	Kit	1	O-RING	
24	91094036	1	FLUSHING VALVE ASSY (includes items 23, 25, 27 & 29)	
25	91094037	4	CAPSCREW, M8X50	
26	91094038	1	FLUSHING ORIFICE	
27	91094039	1	PLUG	
28	83924123	1	SWIVEL TIME ORIFICE	
29	91094040	2	PLUG	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-31. MANIFOLD ASSEMBLY (SN 0177005 to Present)



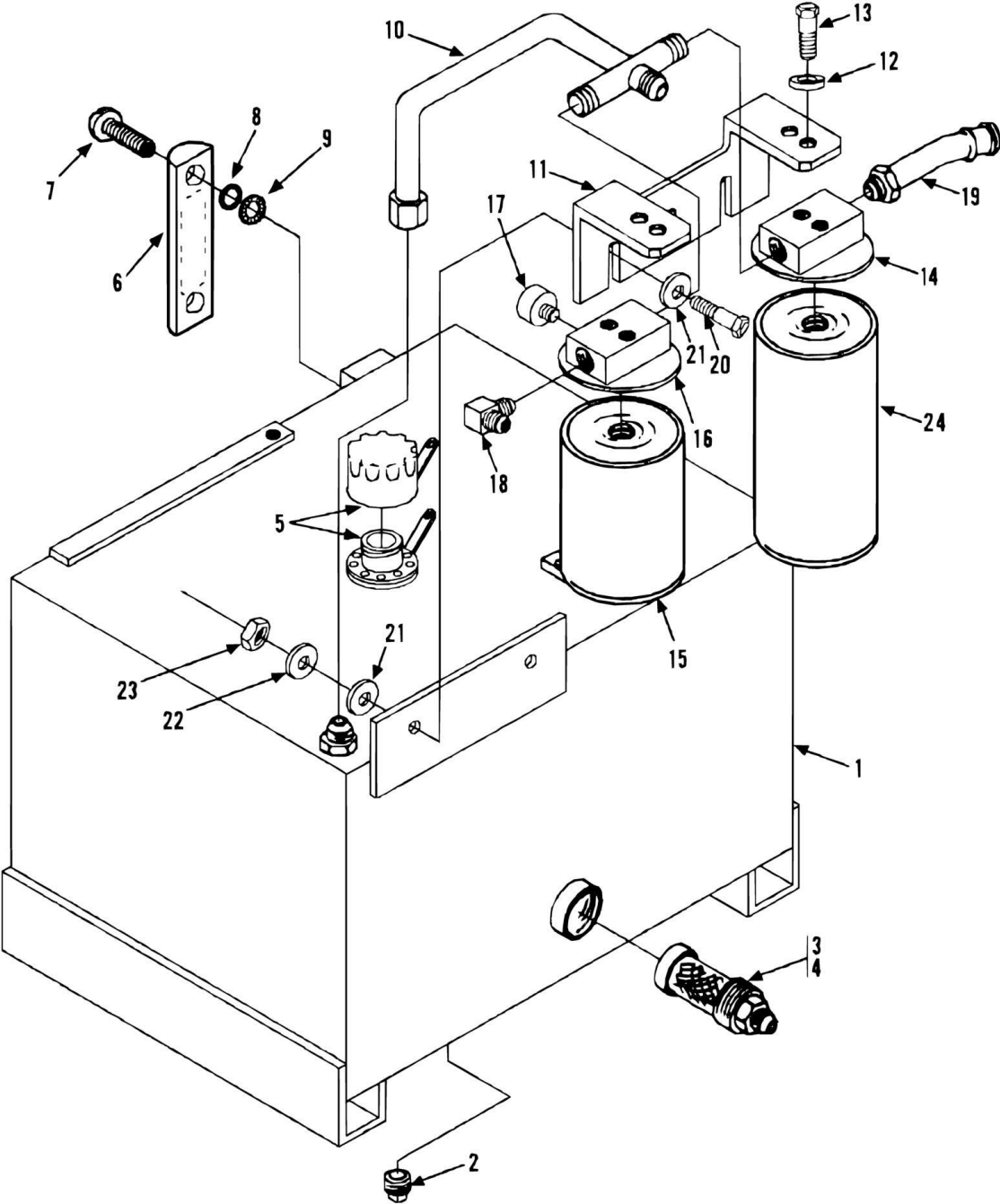
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-31. MANIFOLD ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085051	1	MANIFOLD ASSY (includes all items)	
1	91081491	1	MANIFOLD BLOCK	
2	88662175	1	HEX HD PLUG (includes o-ring)	
2	88591205	1	O-RING	
3	91083345	2	RELIEF CARTRIDGE	

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FIGURE 9-32. (91085015) HYDRAULIC RESERVOIR AND FILTER (SN 0177005 to Present)



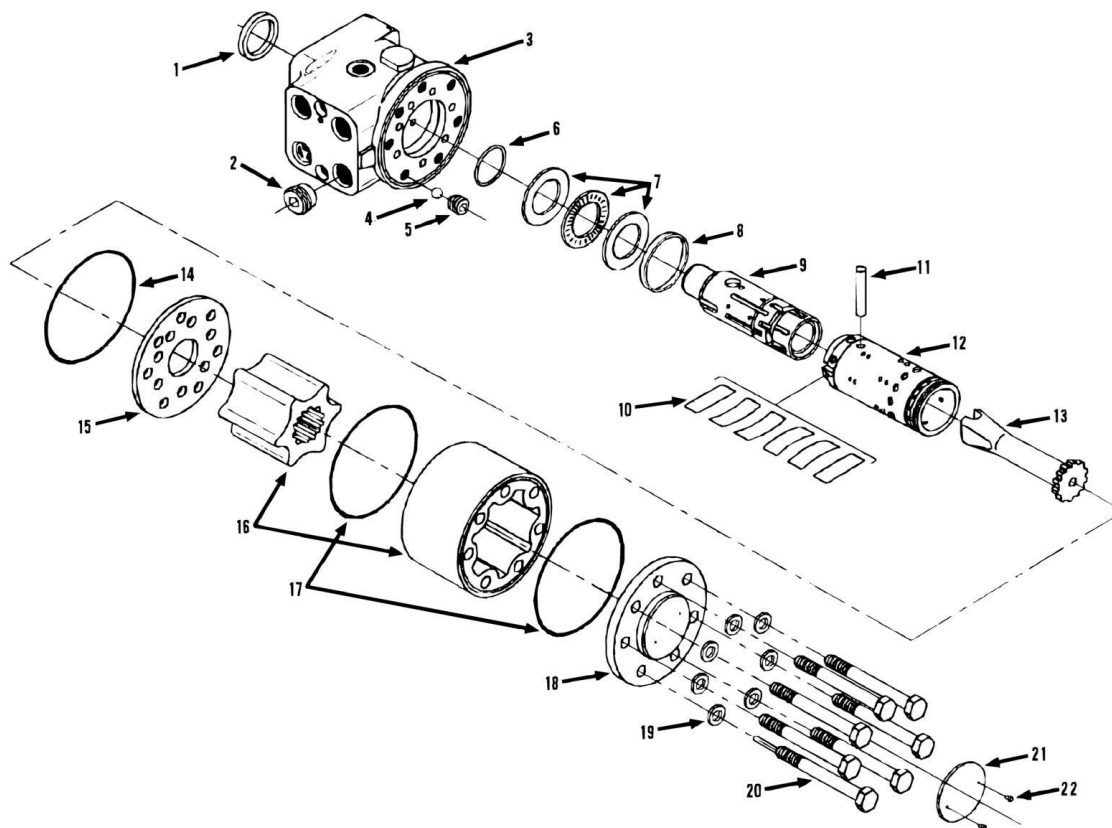
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-32. (91085015) HYDRAULIC RESERVOIR AND FILTER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085015	1	HYDRAULIC RESERVOIR ASSY (includes all items)	
1	91143133	1	HYDRAULIC OIL TANK, (includes item 2)	
2		Ref	PLUG	
3	91083301	1	TANK FILTER	
4	91083200	1	STRAIGHT CONNECTOR	
5	91083069	1	FILLER BREATHER	
6	91083070	1	FLUID LEVEL GAUGE, (includes items 7,8 & 9)	
7		Ref	ROUND HD SCREW, PORTED	
8		Ref	LOCKWASHER	
9		Ref	O-RING	
10	91303058	1	RESERVOIR RETURN TUBE	
11	91081679	1	FILTER SUPPORT	
12	88561003	4	FLAT WASHER, 1/2	
13	88201020	4	HEX HD CAPSCREW, 5/16-18X1, GR5	
14	91143160	1	SUCTION FILTER (includes item 24)	
15	91084021	1	FILTER ELEMENT	
16	91083077	1	RETURN FILTER (includes item 15 & 17)	
17	91084022	1	COLOR CODED GAUGE	
18	91083241	1	90, CONNECTOR	
19	91083242	1	45, CONNECTOR	
20	88201036	3	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
21	88561004	6	FLAT WASHER, 3/8	
22	88551011	3	LOCKWASHER,3/8	
23	88501006	3	HEX NUT, 3/8-16	
24	91143144	1	FILTER ELEMENT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-33. (91123126) STEERING ORBITROL (SN 0177122 to Present)



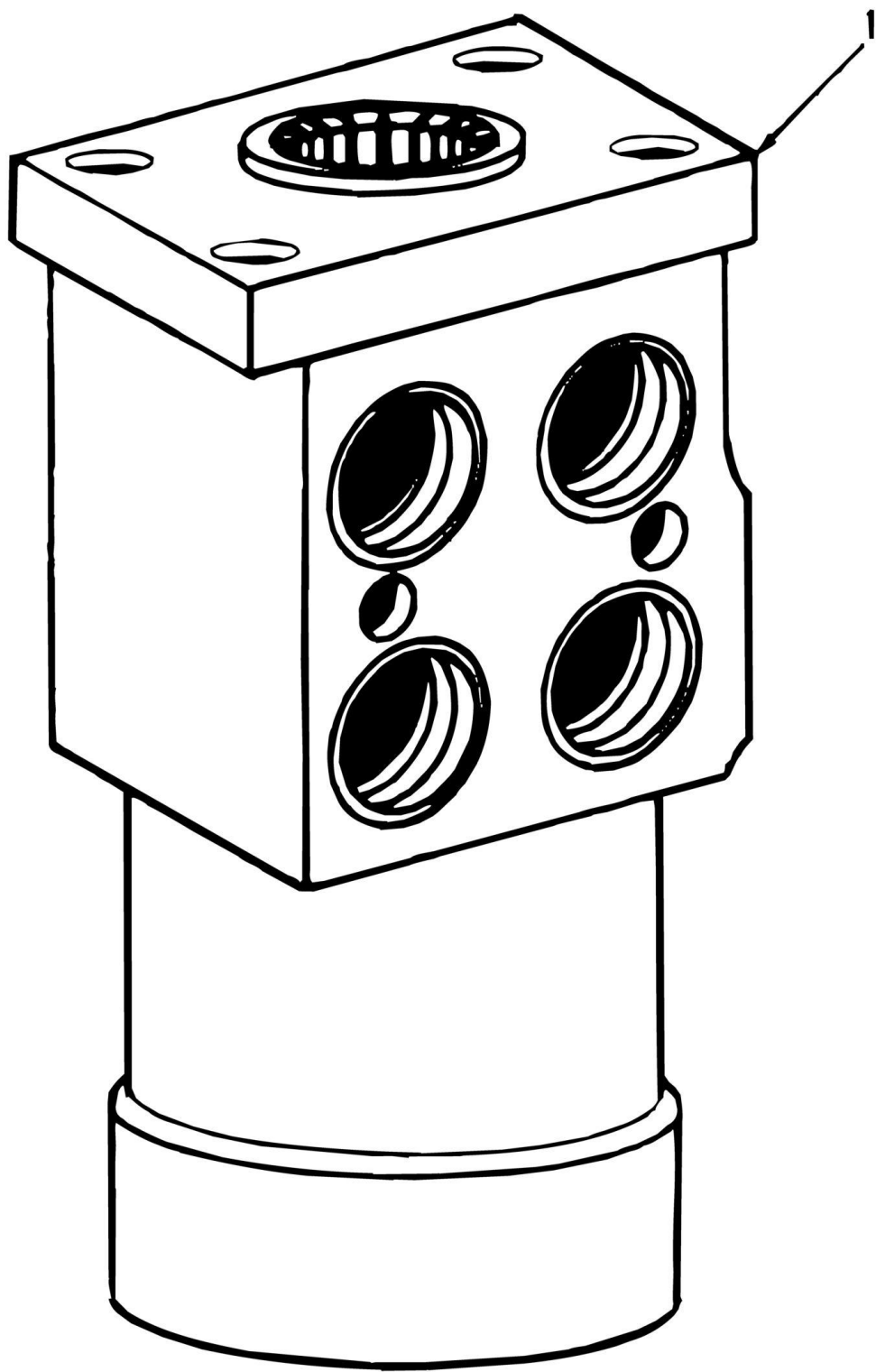
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-33. (91123126) STEERING ORBITROL (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91123126	1	STEERING ORBITROL (includes all items)	
	91124092	1	SEAL KIT (includes items 1, 6, 14, 17 & 19)	
1	Kit	1	DUST SEAL RING	
2	91124093	1	CHECK VALVE	
3		Ref	HOUSING (includes items 9 & 12)	
4		Ref	BALL, 8.5MM	
5		Ref	THREAD BUSHING	
6	Kit	1	O-RING/KIN-RING, O-RING/ROTO GLYD RING	
7		Ref	BEARING ASSY	
8		Ref	RING	
9		Ref	SPOOL	
10		Ref	SPRING SET	
11		Ref	CROSS PIN	
12		Ref	SLEEVE	
13		Ref	CARDON SHAFT	
14	Kit	1	O-RING	
15		Ref	DISTRIBUTOR PLSTE	
16		Ref	GEAR WHEEL SET	
17	Kit	2	O-RING	
18		Ref	END COVER	
19	Kit	7	WASHER	
20		Ref	SCREW W/PIN	
21		Ref	SCREW	
22		Ref	NAME PLATE	
23		Ref	DRIVE SCREW	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-34. STEERING ORBITROL (SN 0177005 to Present)



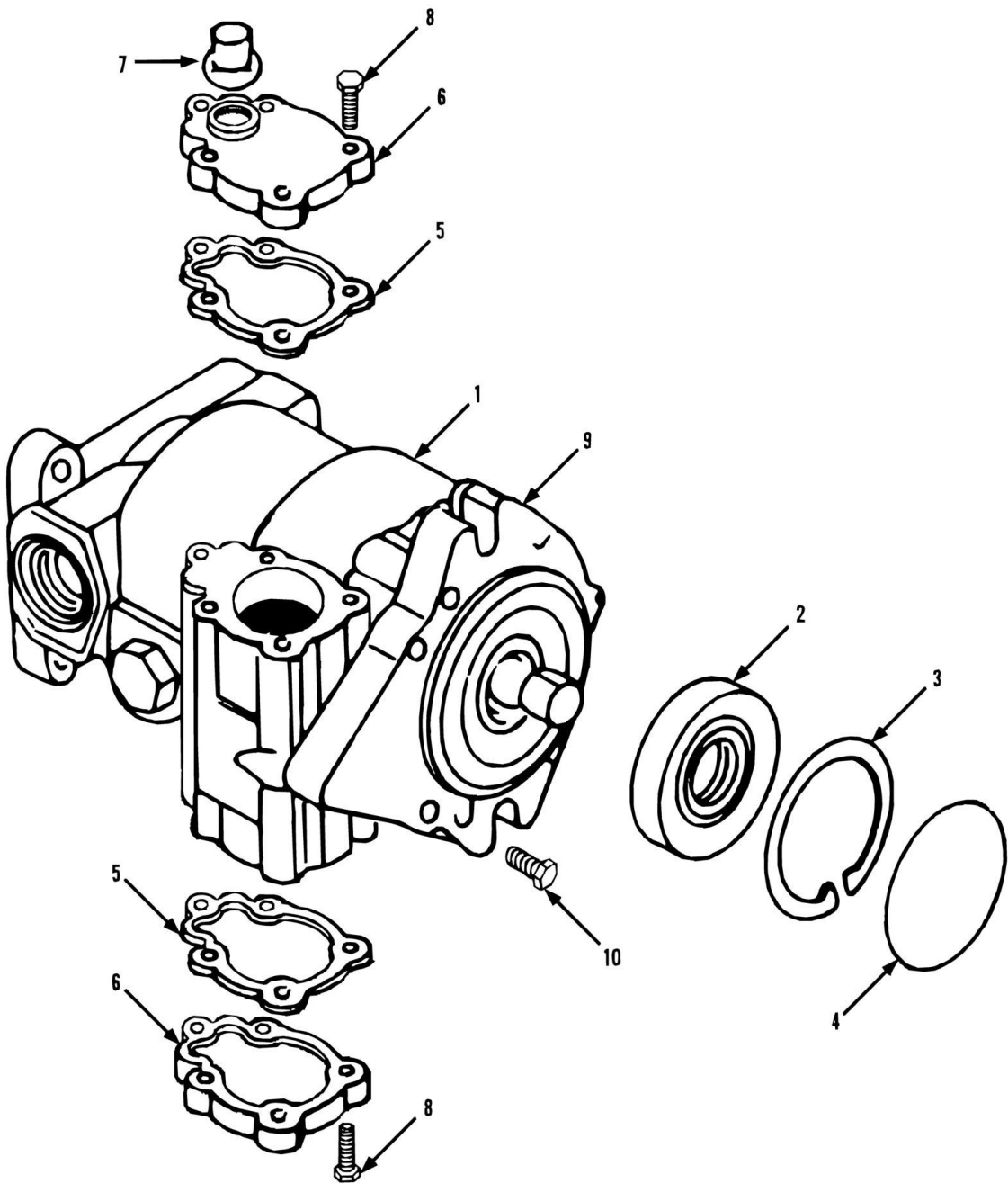
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-34. STEERING ORBITROL (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083053	Ref	STEERING ORBITROL ASSEMBLY	
1	90206567	Ref	SEAL KIT	

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FIGURE 9-35. (91083401) REAR DRIVE MOTOR (SN 0177005 to Present)



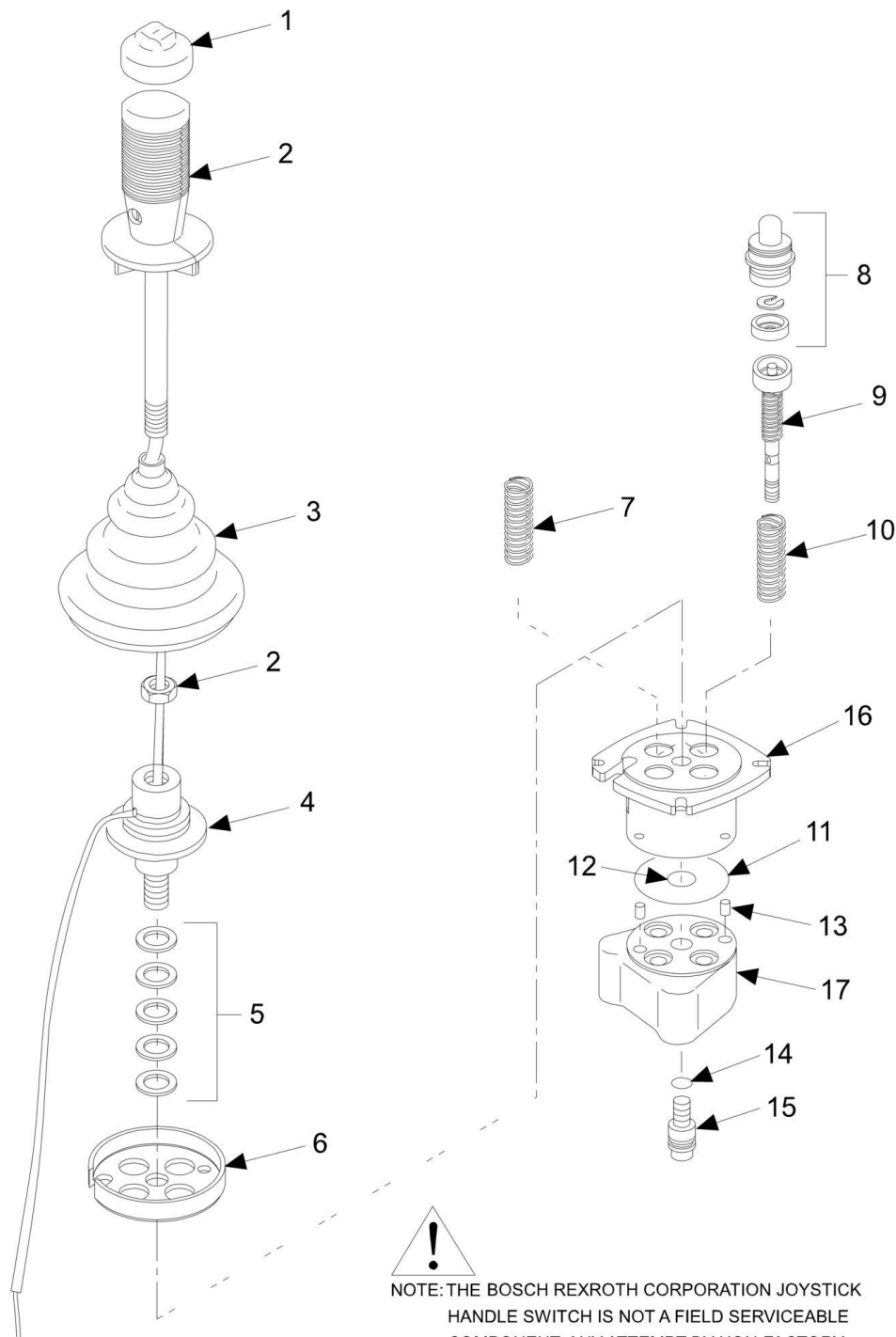
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-35. (91083401) REAR DRIVE MOTOR (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083401	1	REAR DRIVE MOTOR, (includes all items)	
1	91084358		SEAL KIT	
2	91084214	1	LIP SEAL	
3	91084215	2	RETAINING RING	
4	90023155	1	O-RING	
5	91084365	2	GASKET	
6	91084364	2	5 BOLT COVER	
7	91084366	1	PLUG	
8		Ref	BOLT, (torque to 4 ft lbs)	
9	91084367	1	7 BOLT COVER	
10		Ref	BOLT	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-36. (91303037) JOYSTICK ASSEMBLY (SN 0177064 to Present)



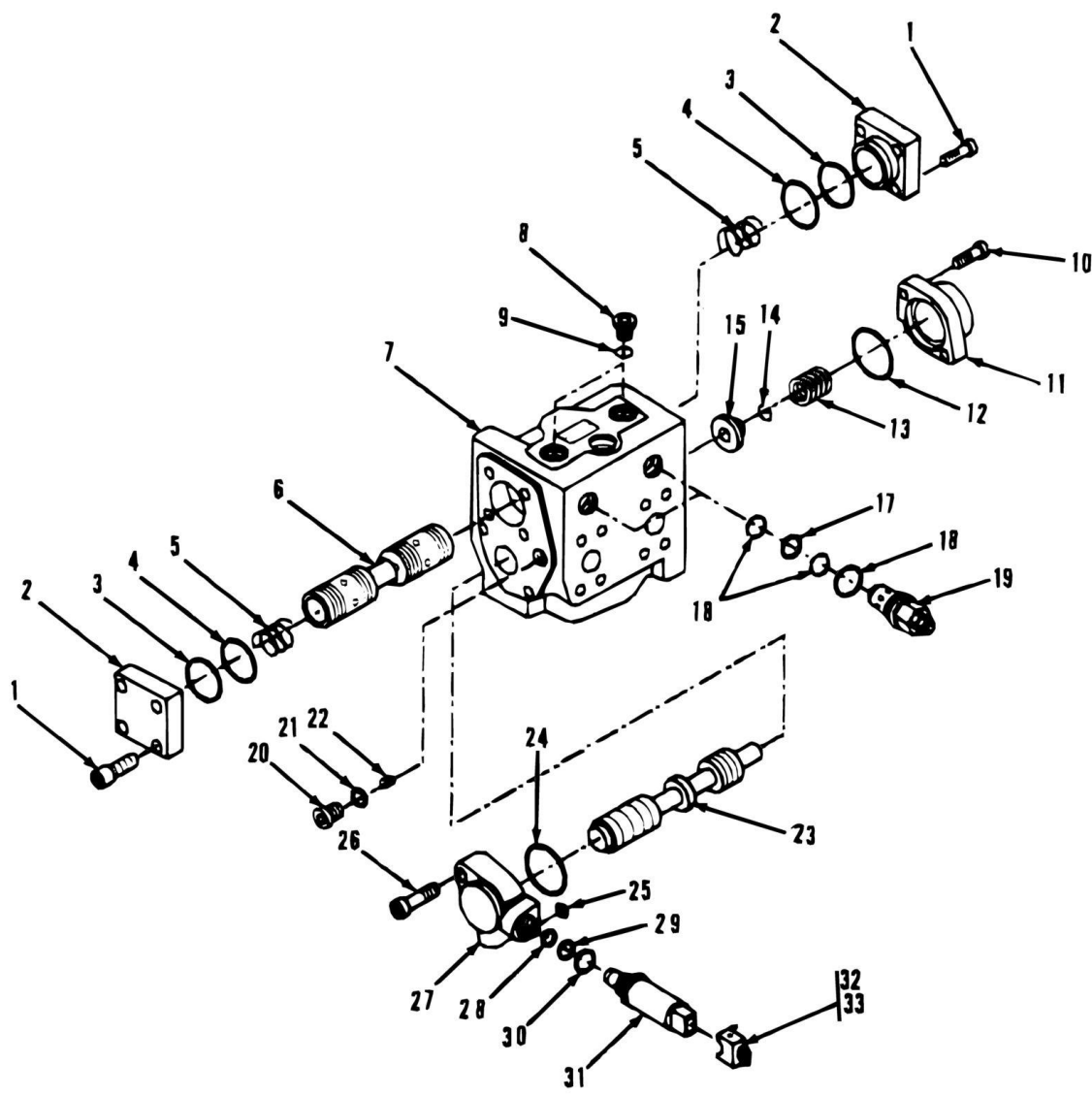
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FIGURE 9-36. (91303037) JOYSTICK ASSEMBLY (SN 0177064 to Present)

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

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FIGURE 9-37. (91083424) TRACTION LOCK VALVE (524) (SN 0177074 to Present)



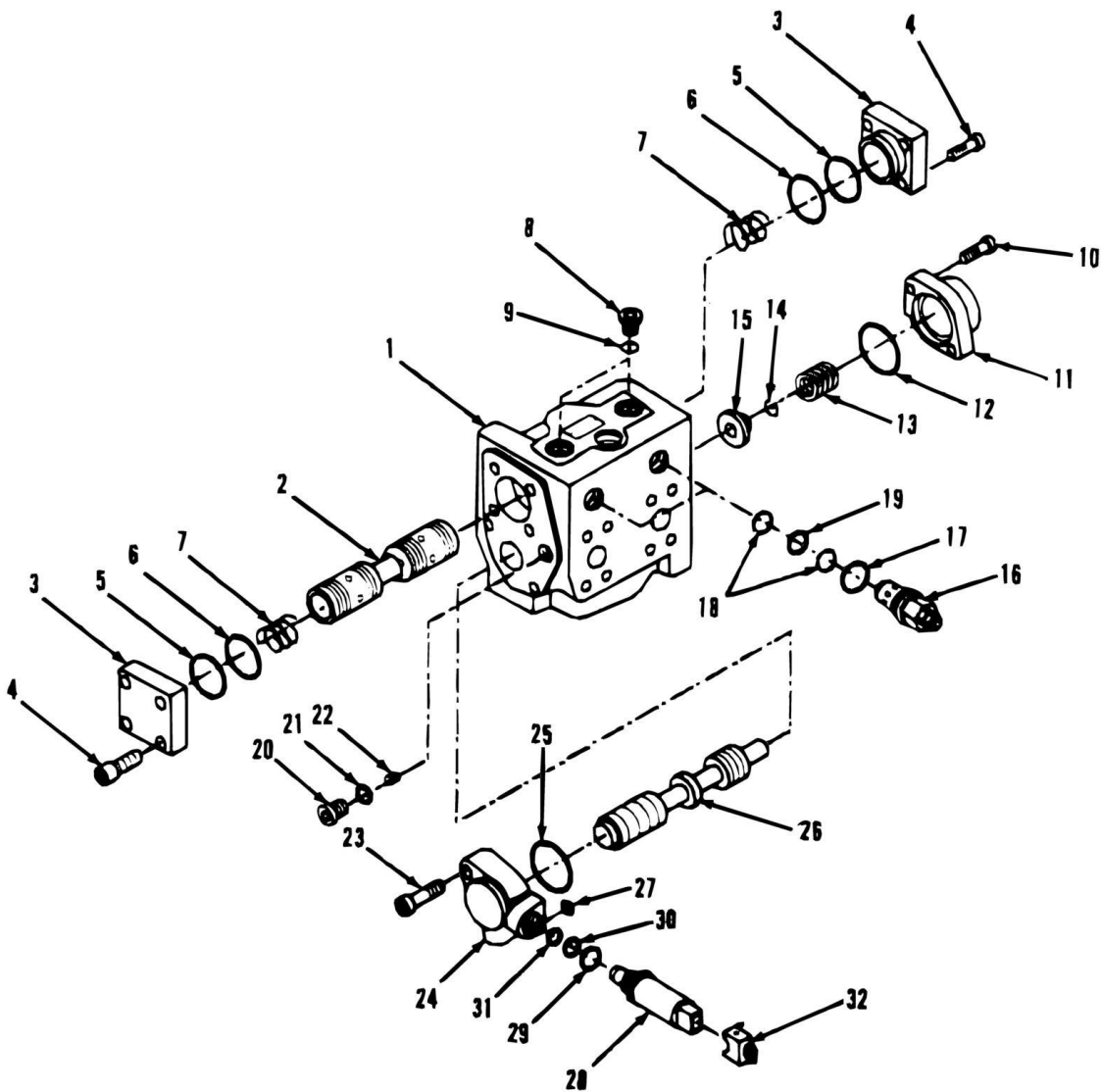
SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-37. (91083424) TRACTION LOCK VALVE (524) (SN 0177074 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083424	1	TRACTION LOCK VALVE (includes all items)	
	91084284	Ref	SEAL KIT (includes items 3, 4, 9, 12, 16 17, 18, 21, 24, 25, 28, 29 & 30)	
1	91084285	8	HEX HD CAPSCREW, M10X30	
2	91084286	2	COVER	
3	91084287	2	BACK-UP RING	
4	91084288	2	O-RING	
5	91084289	2	SPRING	
6	N.S.S.	1	SPOOL (not sold separately, order P/N 91083424)	
7	N.S.S.	1	HOUSING (not sold separately, order P/N 91083424)	
8	91084290	2	PLUG(includes item 9)	
9	Kit	2	O-RING	
10	91084291	2	HEX HD CAPSCREW, M6 x 16	
11	91084292	1	COVER	
12	91084293	1	O-RING	
13	91084294	1	SPRING	
14	91084295	1	RETAINING RING	
15	91084296	1	SPRING RETAINER	
16	Kit	4	BACK-UP RING	
17	Kit	2	O-RING	
18	Kit	2	O-RING	
19	91084297	2	RELIEF VALVE CARTRIDGE (includes items 16, 17 & 18)	
20	91084298	1	PLUG(includes item 21)	
21	Kit	1	O-RING	
22	91084299	1	ORIFICE	
23	N.S.S.	1	SPOOL (not sold separately,order P/N91083424)	
24	91084300	1	O-RING	
25	91084303	1	O-RING	
26	80934205	2	HEX HD CAPSCREW, M6 x 30	
27	91084301	1	COVER	
28	Kit	1	O-RING	
29	Kit	1	O-RING	
30	Kit	1	O-RING	
31	91084302	1	SOLENOID VALVE(includes items 28, 29 & 30)	
32	91083441	1	CONNECTOR	
33	91083442	2	TERMINAL	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 9-38. (91083459) TRACTION LOCK VALVE (524) (SN 0177105 to Present)



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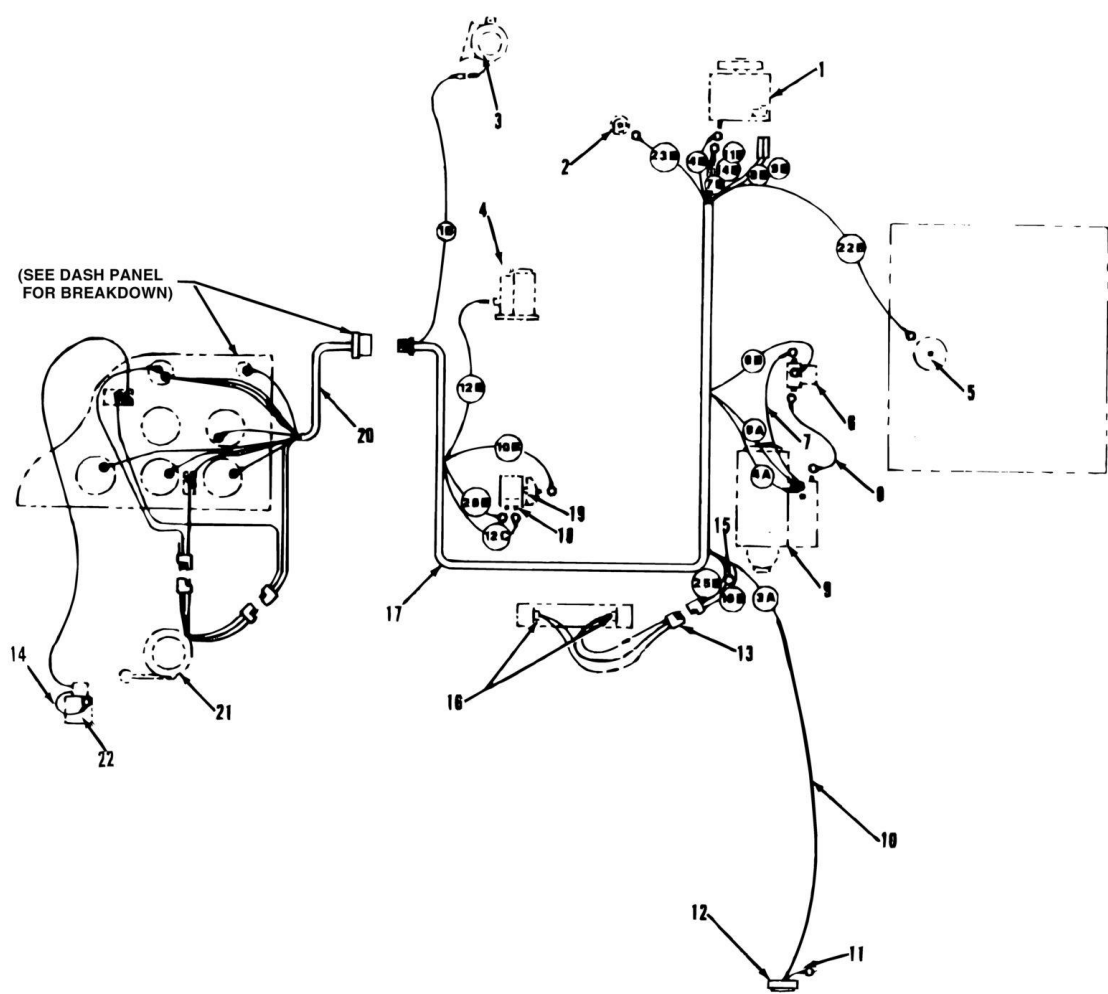
FIGURE 9-38. (91083459) TRACTION LOCK VALVE (524) (SN 0177105 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083459	1	TRACTION LOCK VALVE (includes all items)	
	91084284	Ref	SEAL KIT (includes items 5, 6, 9, 12, 17, 18, 19, 21, 25, 27, 29, 30 & 31)	
1	N.S.S.	1	VALVE BODY (not sold separately, order P/N 91083459)	
2	N.S.S.	1	SPOOL (not sold separately, order P/N 91083459)	
3	91084286	2	COVER	
4	91084285	8	HEX HD CAPSCREW, M10X30	
5	91084287	2	BACK-UP RING	
6	91084288	2	O-RING	
7	91084289	2	SPRING	
8	91084290	2	PLUG (includes item 9)	
9	91144009	2	O-RING	
10	91084291	2	HEX HD CAPSCREW, M6X16	
11	91084292	1	COVER	
12	91084293	1	O-RING	
13	91084294	1	SPRING	
14	91084295	1	RETAINING RING	
15	91084296	1	SPRING RETAINER	
16	91084297	2	RELIEF VALVE CARTRIDGE (set at 5800 PSI) (includes items 17, 18 & 19)	
17	83814056	2	O-RING	
18	91144010	4	BACK-UP RING	
19	83814054	2	O-RING	
20	91084298	1	PLUG (includes item 21)	
21	91144011	1	O-RING	
22	91084299	1	ORIFICE	
23	80934205	2	HEX HD CAPSCREW, M6X30	
24	91084301	1	COVER	
25	91084300	1	O-RING	
26	N.S.S.	1	SPOOL (not sold separately, order P/N 91083459)	
27	91084303	1	O-RING	
28	91084302	1	SOLENOID VALVE (includes items 29, 30 & 31)	
29	91144012	1	O-RING	
30	91144013	1	O-RING	
31	91144014	1	O-RING	
32	91144015	1	CONNECTOR	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 10-1. ENGINE WIRING (522) (SN 0177005 to Present)



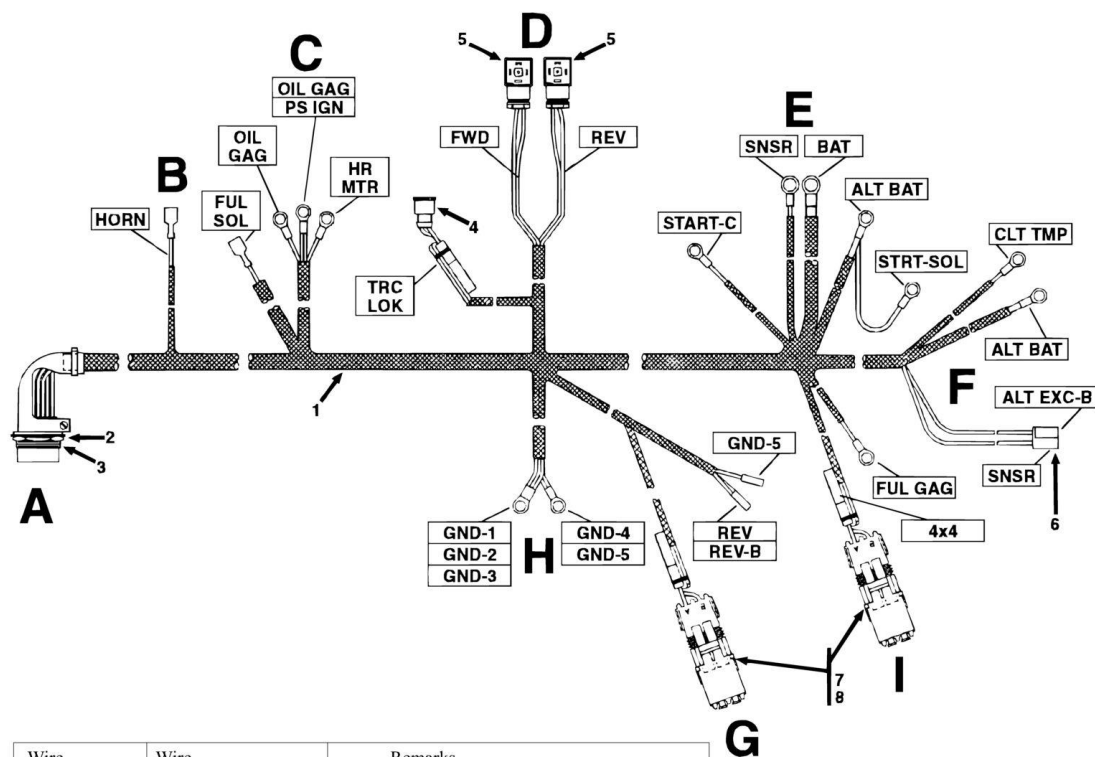
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FIGURE 10-1. ENGINE WIRING (522) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91084002	Ref	ALTERNATOR	
2	90206124	Ref	WATER TEMP. SENDER	
3	24921393	Ref	HORN	
4		Ref	FUEL SHUT-OFF VALVE (included w/ engine)	
5	90400654	Ref	FUEL LEVEL SENDER	
6	90402427	Ref	STARTER SOLENOID RELAY	
7	91081462	1	JUMPER WIRE	
8	90205205	1	JUMPER WIRE	
9	91084003	Ref	STARTER	
10	82033996	57 IN	WIRE LOOM	
11		Ref	TRAVEL ALARM GROUND WIRE (included w/ travel alarm)	
12	91233012	Ref	TRAVEL ALARM	
13	91083406	1	PUMP HARNESS	
14	90207319	1	JUMPER WIRE	
15		Ref	FWD/REV. SWITCH GROUND	
16		Ref	PLUG-IN CONNECTORS	
17	91083048	1	ENGINE WIRING HARNESS (includes item 15)	
18	24741047	Ref	PRESSURE SWITCH	
19	91033246	Ref	OIL PRESSURE SENDER	
20	91083111	1	DASH WIRING HARNESS	
21	91085025	Ref	FWD/REV. SWITCH	
22	90206739	2	VALVE	

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FIGURE 10-2. (91143192) ENGINE WIRING (SN 0177122 to Present)



Wire Designation	Wire Color/Stripe	Remarks
BAT	RED	ALT.(BAT.) TO IGN. SW. (BAT.)
HR MTR	BLU/RED	OIL PRESS. SW. TO HR. METER
HORN	VIOLET/YELO	HORN
FUL GAG	BLU/BLK	FUEL GAUGE
START-C	VIOLET/BRN	STARTER RELAY
ALT EXC-B	VIOLET/RED	ALTERNATOR EXCITER (ALT. PLUG)
PS IGN	ORNG/YELO	OIL PRESS. SW.
OIL GAG	BLU/BRN	OIL PRESS. GAUGE
CLT TMP	BLU/VIOLET	WATER TEMP. GAUGE
REV	BRN/YELO	FWD/REV VALVE
FWD	BRN/WHITE	FWD/REV VALVE
4x4	BRN	4x4 VALVE
TRC LOK	BRN/GREY	TRACTION LOCK VALVE
FUL SOL	VIOLET	FUEL SOLENOID
REV-B	BLU	BACKUP ALARM
SNSR	RED/BLK	SNSR (ALT. PLUG)
ALT BAT	RED/WHITE	ALTRNTR TO STARTER BAT. POST
GND-1	BLK	FWD/REV VALVE TO GROUND
GND-2	BLK	FWD/REV VALVE TO GROUND
GND-3	BLK	4x4 VALVE TO GROUND
GND-4	BLK	TRACTION LOCK VLV TO GROUND
GND-5	BLK	BACKUP ALARM TO GROUND
STRT-SOL	RED/VIOLET	ALT BAT TO STARTER SOLENOID

11-1

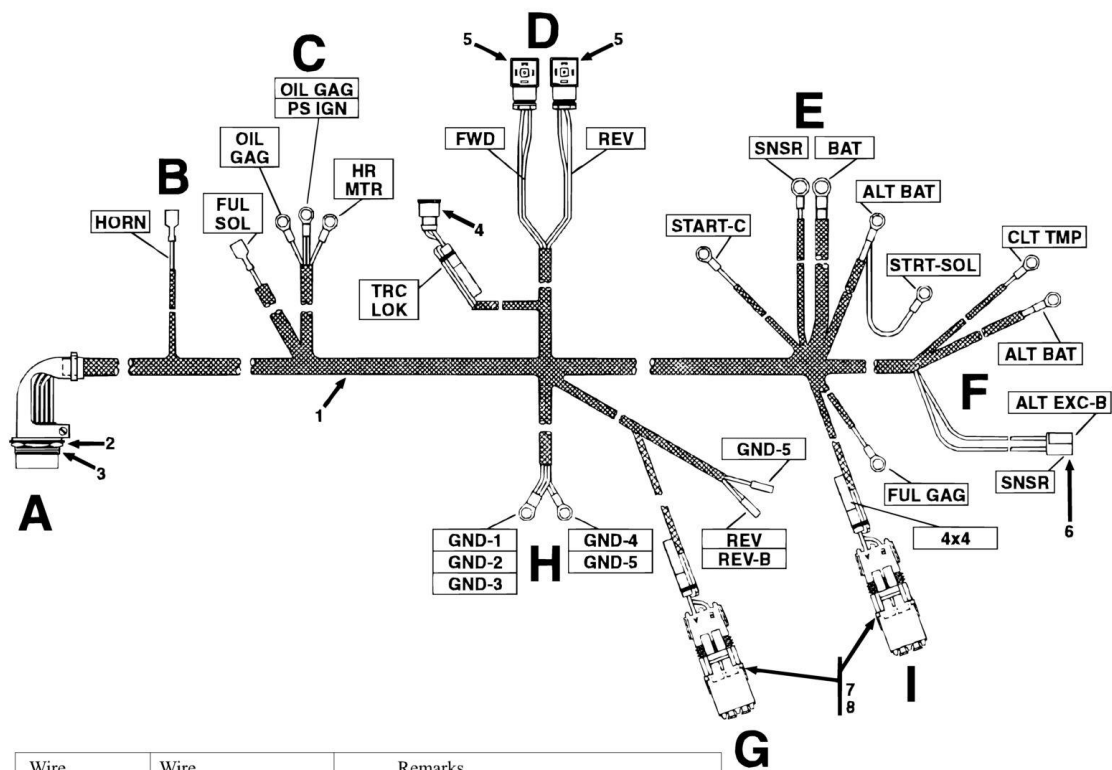
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FIGURE 10-2. (91143192) ENGINE WIRING (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91143192	1	ENGINE WIRING HARNESS (includes all items)	
2	83481286	1	PANEL NUT	
3	83481285	1	LOCKWASHER	
4	91083440	1	ELECTRICAL CONNECTOR	
5	91084038	2	RECEPTACLE	
6	83683254	1	3 CONTACT PLUG (includes pins)	
6	90026803	3	PIN	
7	80963057	2	TOWER	
8	80963058	2	SHROUD	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 10-3. (91143192) ENGINE WIRING (SN 0177122 to Present)



Wire Designation	Wire Color/Stripe	Remarks
BAT	RED	ALT.(BAT.) TO IGN. SW. (BAT.)
HR MTR	BLU/RED	OIL PRESS. SW. TO HR. METER
HORN	VIOLET/YELO	HORN
FUL GAG	BLU/BLK	FUEL GAUGE
START-C	VIOLET/BRN	STARTER RELAY
ALT EXC-B	VIOLET/RED	ALTERNATOR EXCITER (ALT. PLUG)
PS IGN	ORNG/YELO	OIL PRESS. SW.
OIL GAG	BLU/BRN	OIL PRESS. GAUGE
CLT TMP	BLU/VIOLET	WATER TEMP. GAUGE
REV	BRN/YELO	FWD/REV VALVE
FWD	BRN/WHITE	FWD/REV VALVE
4x4	BRN	4x4 VALVE
TRC LOK	BRN/GREY	TRACTION LOCK VALVE
FUL SOL	VIOLET	FUEL SOLENOID
REV-B	BLU	BACKUP ALARM
SNSR	RED/BLK	SNSR (ALT. PLUG)
ALT BAT	RED/WHITE	ALTRNTR TO STARTER BAT. POST
GND-1	BLK	FWD/REV VALVE TO GROUND
GND-2	BLK	FWD/REV VALVE TO GROUND
GND-3	BLK	4x4 VALVE TO GROUND
GND-4	BLK	TRACTION LOCK VLV TO GROUND
GND-5	BLK	BACKUP ALARM TO GROUND
STRT-SOL	RED/VIOLET	ALT BAT TO STARTER SOLENOID

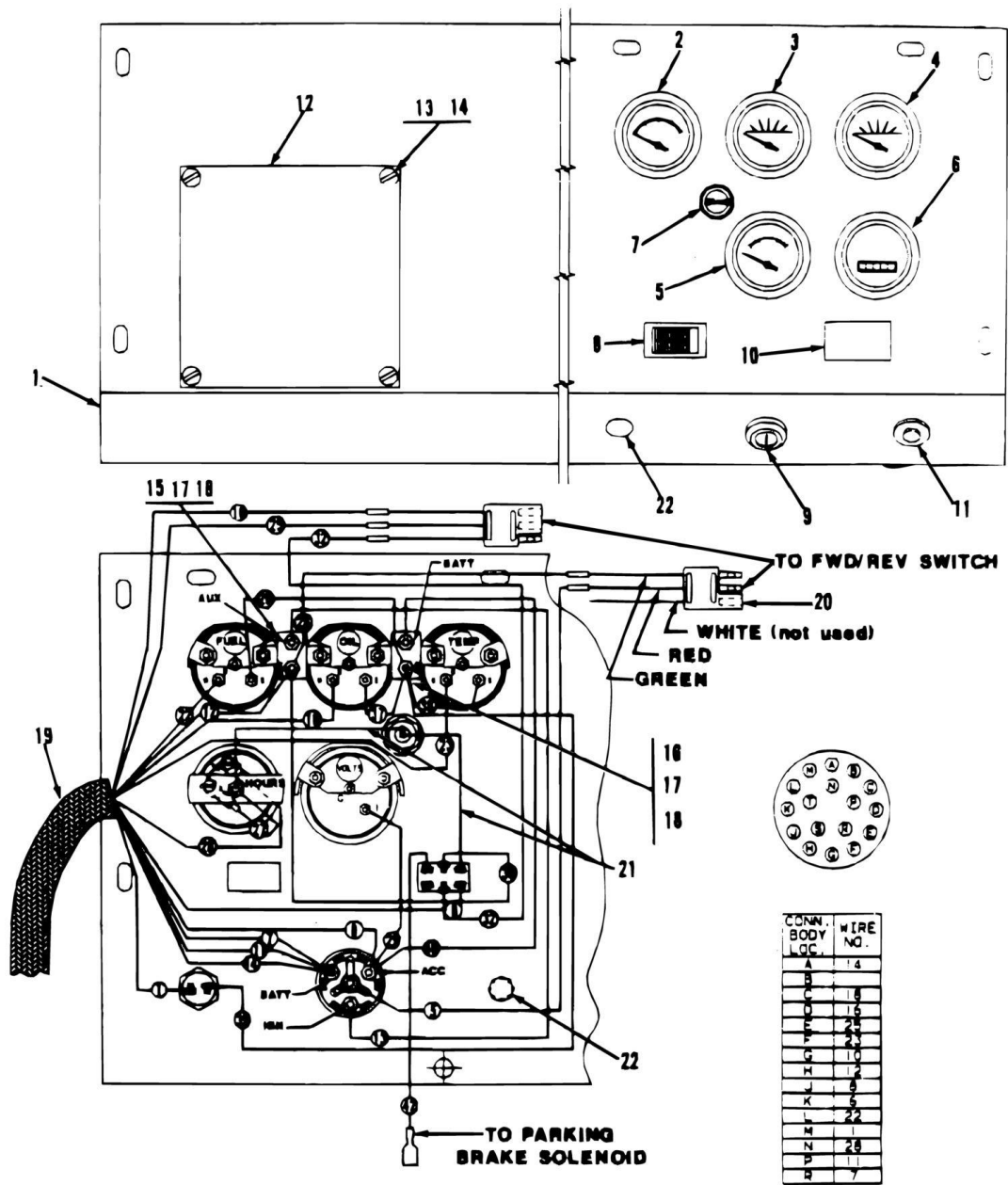
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FIGURE 10-3. (91143192) ENGINE WIRING (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91143192	1	ENGINE WIRING HARNESS (includes all items)	
2	83481286	1	PANEL NUT	
3	83481285	1	LOCKWASHER	
4	91083440	1	ELECTRICAL CONNECTOR	
5	91084038	2	RECEPTACLE	
6	83683254	1	3 CONTACT PLUG (includes pins)	
6	90026803	3	PIN	
7	80963057	2	TOWER	
8	80963058	2	SHROUD	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 10-4. DASH PANEL (522) (SN 0177005 to Present)



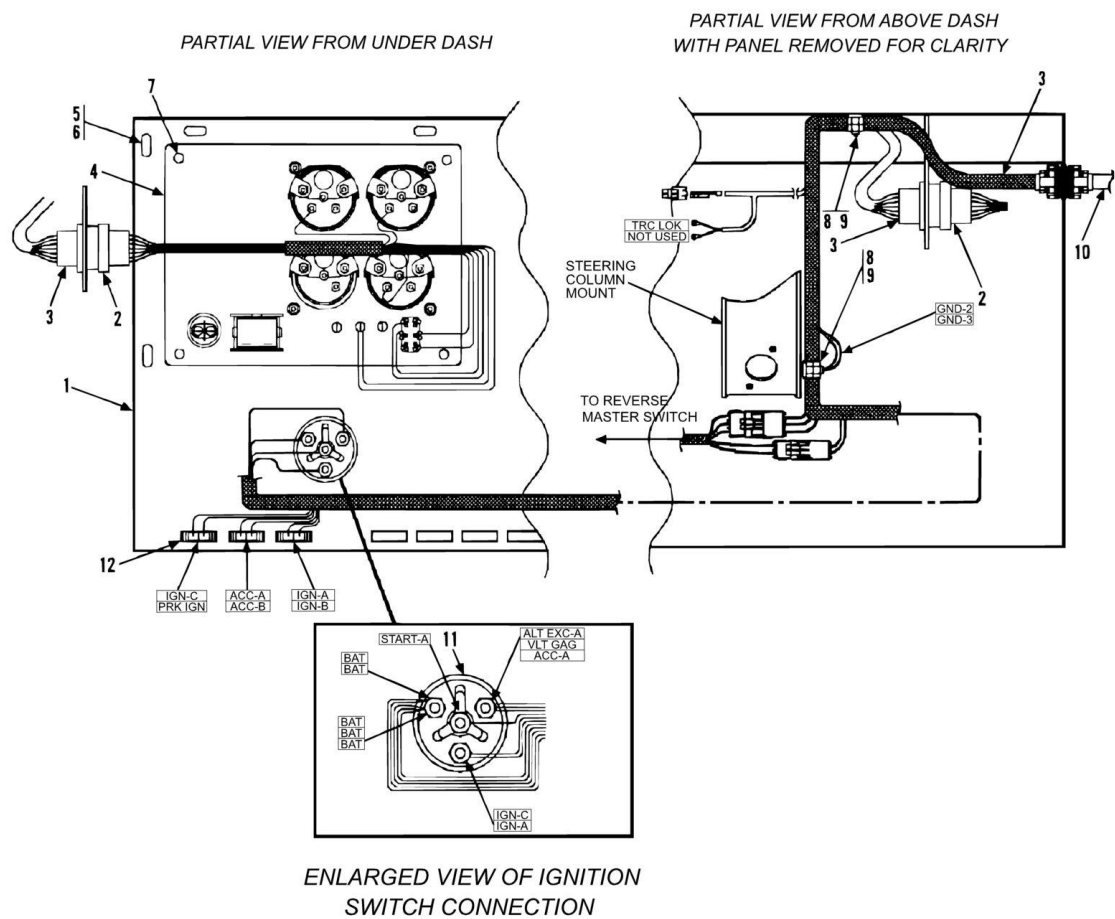
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FIGURE 10-4. DASH PANEL (522) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91081371	1	DASH PANEL	
2	90205687	1	WATER TEMP. GAUGE	
3	91033247	1	OIL PRESSURE GAUGE	
4	90205686	1	FUEL GAUGE	
5	77383709	1	VOLTMETER	
6	90205688	1	HOURLMETER	
7	91033084	1	BRAKE WARNING LIGHT	
8	91083259	1	ROCKER SWITCH	
9	91033317	1	IGN. START SWITCH	
9	77384578	1	KEY	
10	77163144	1	BLANK PLUG	
11	90200434	1	BUTTON SWITCH	
12	91081480	1	COVER PLATE	
13	88301141	4	ROUND HD MACHINE SCREW, 5/16-18X3/4	
14	88551010	4	LOCKWASHER, 5/16	
15	91083260	1	15A CIRCUIT BREAKER	
16	91033111	1	10A CIRCUIT BREAKER	
17	88554917	4	LOCKWASHER, #10	
18	88501613	4	HEX NUT, #10-32	
19	91083110	1	DASH WIRING HARNESS	
20	83483114	1	3-WAY CONNECTOR	
21	86983188	16	EYELET #10	
22	91083221	1	BUTTON PLUG	

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FIGURE 10-5. DASH PANEL (SN 0177122 to Present)



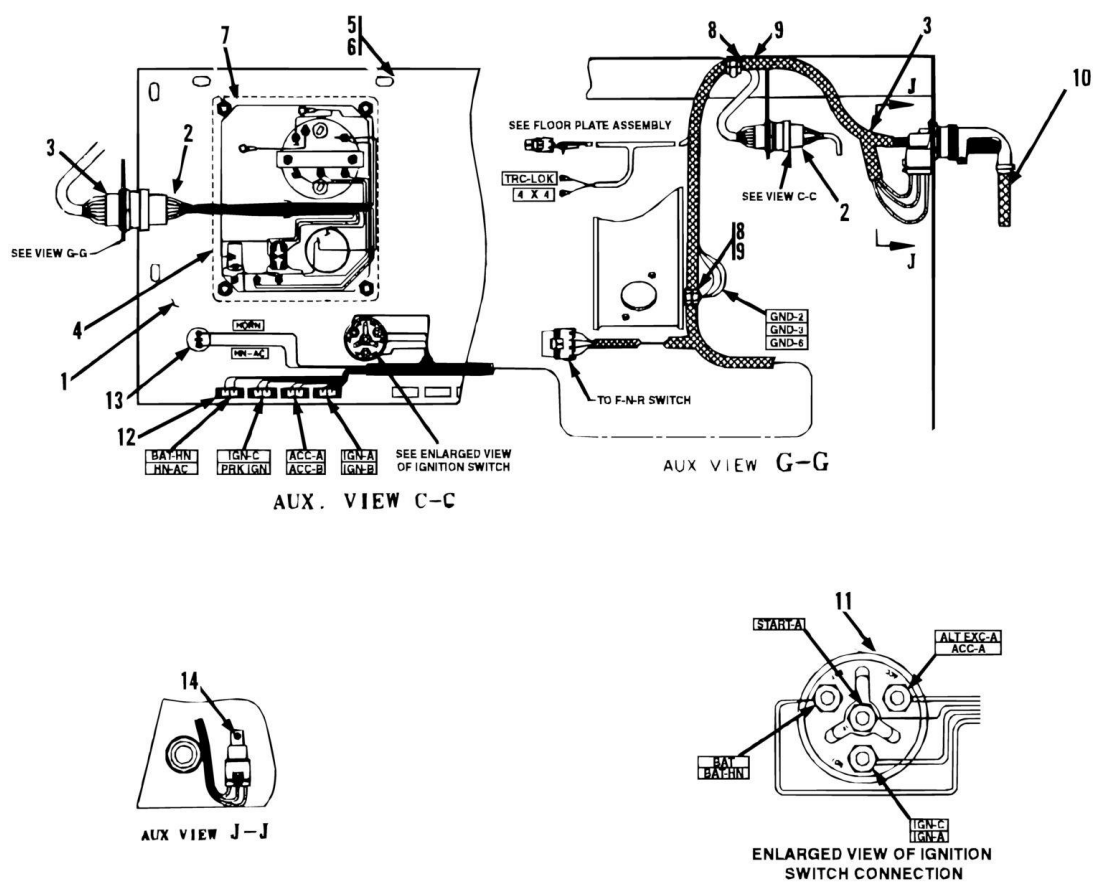
SECTION 10 - ELECTRICAL

FIGURE 10-5. DASH PANEL (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91141193	1	DASH PANEL	
2		Ref	GAUGE PANEL WIRING HARNESS (See GAUGE PANEL ASSEMBLY for Breakdown)	
3	91143193	1	DASH PANEL WIRING HARNESS	
4		Ref	GAUGE PANEL (See GAUGE PANEL ASSEMBLY for Breakdown)	
5	77143003	7	WHIZ-LOCK SCREW	
6	77143006	4	WHIZ-LOCK NUT	
7	88261022	4	HEX HD CAPSCREW, 5/16-18 x 3/4	
8	24861170	2	CLAMP	
9	88501006	3	HEX NUT, 3/8-16	
10		Ref	ENGINE WIRING HARNESS (See ENGINE WIRING for Breakdown)	
11	91033317	1	IGNITION SWITCH	
11	77384578	1	KEY	
12	77363268	3	15 AMP FUSE	

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FIGURE 10-6. DASH PANEL (522) (SN 0177368 to Present)



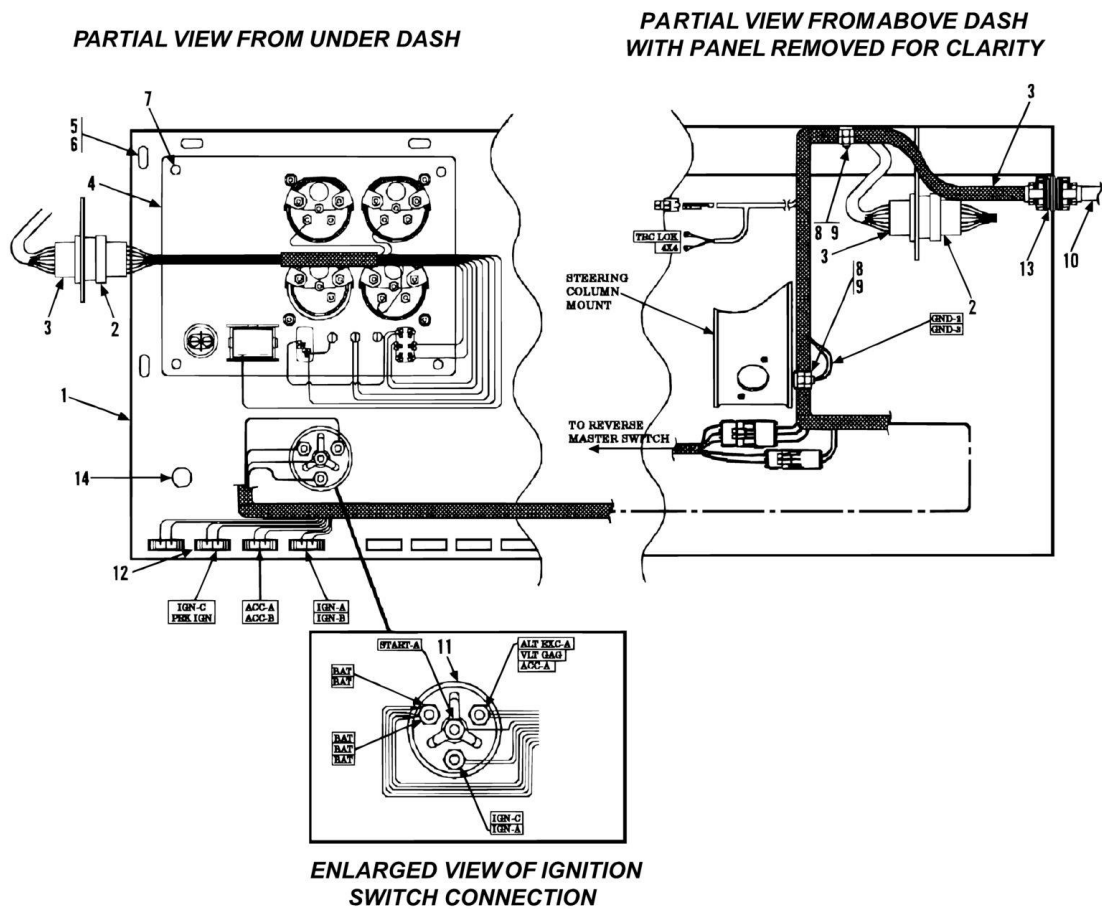
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FIGURE 10-6. DASH PANEL (522) (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91141513	1	DASH PANEL	
2		Ref	GAUGE PANEL WIRING HARNESS (See GAUGE PANEL ASSEMBLY for Breakdown)	
3	91143349	1	DASH PANEL WIRING HARNESS	
4		Ref	GAUGE PANEL (See GAUGE PANEL ASSEMBLY for Breakdown)	
5	77143003	7	WHIZ-LOCK SCREW	
6	77143006	4	WHIZ-LOCK NUT, 5/16	
7	88261022	4	HEX HD CAPSCREW, 5/16-18 x 3/4	
8	24861170	2	CLAMP	
9	88501006	3	HEX NUT, 3/8-16	
10		Ref	ENGINE WIRING HARNESS (See ENGINE WIRING for Breakdown)	
11	91033317	1	IGNITION SWITCH	
11	77384578	1	KEY	
12	77363268	4	15 AMP FUSE	
13	24771004	1	HORN BUTTON	
14	88321029	1	SELF TAP SCREW, #10-24X5/16	

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FIGURE 10-7. DASH PANEL (SN 0177122 to Present)



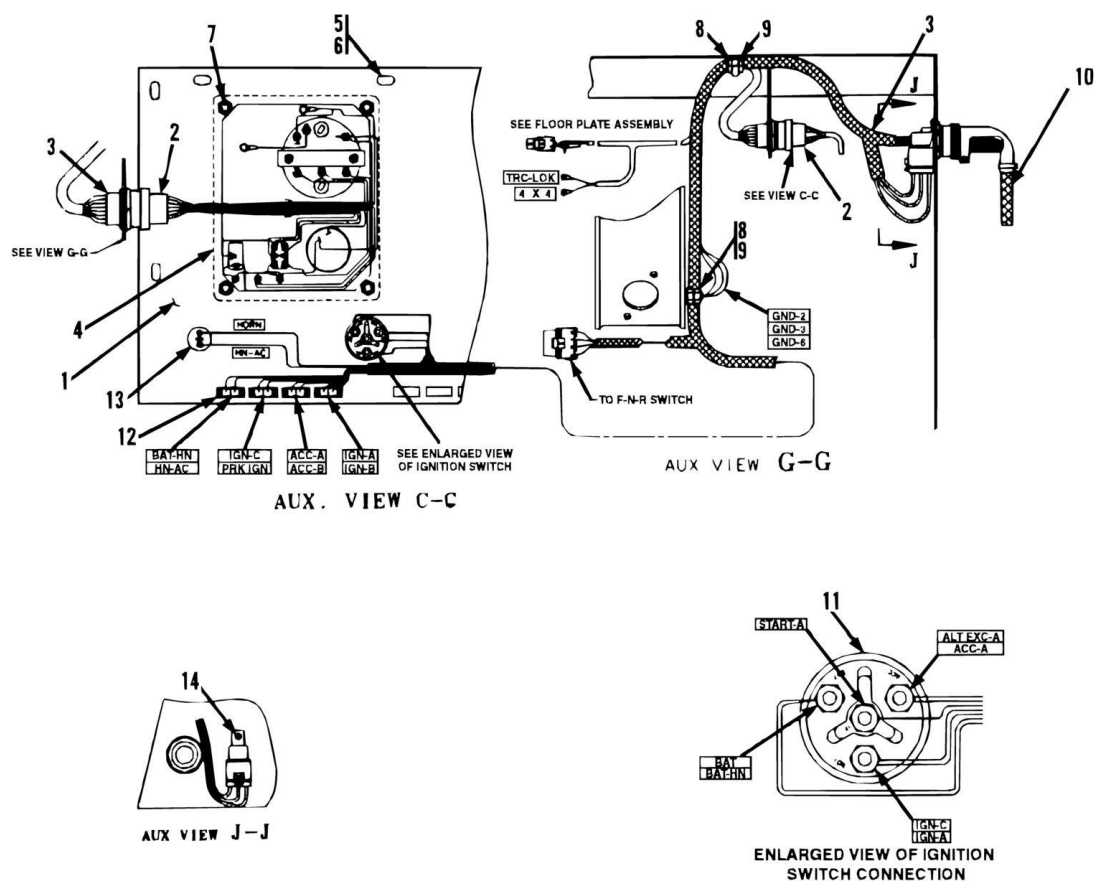
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FIGURE 10-7. DASH PANEL (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91141193	1	DASH PANEL	
2		Ref	GAUGE PANEL WIRING HARNESS (See GAUGE PANEL ASSEMBLY for Breakdown)	
3	91143193	1	DASH PANEL WIRING HARNESS	
4		Ref	GAUGE PANEL (See GAUGE PANEL ASSEMBLY for Breakdown)	
5	77143003	7	WHIZ-LOCK SCREW	
6	77143006	4	WHIZ-LOCK NUT	
7	88261022	4	HEX HD CAPSCREW, 5/16-18 x 3/4	
8	24861170	2	CLAMP	
9	88501006	3	HEX NUT, 3/8-16	
10		Ref	ENGINE WIRING HARNESS (See ENGINE WIRING for Breakdown)	
11	91033317	1	IGNITION SWITCH	
11	77384578	1	KEY	
12	77363268	3	15 AMP FUSE	

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FIGURE 10-8. DASH PANEL (524) (SN 0177368 to Present)



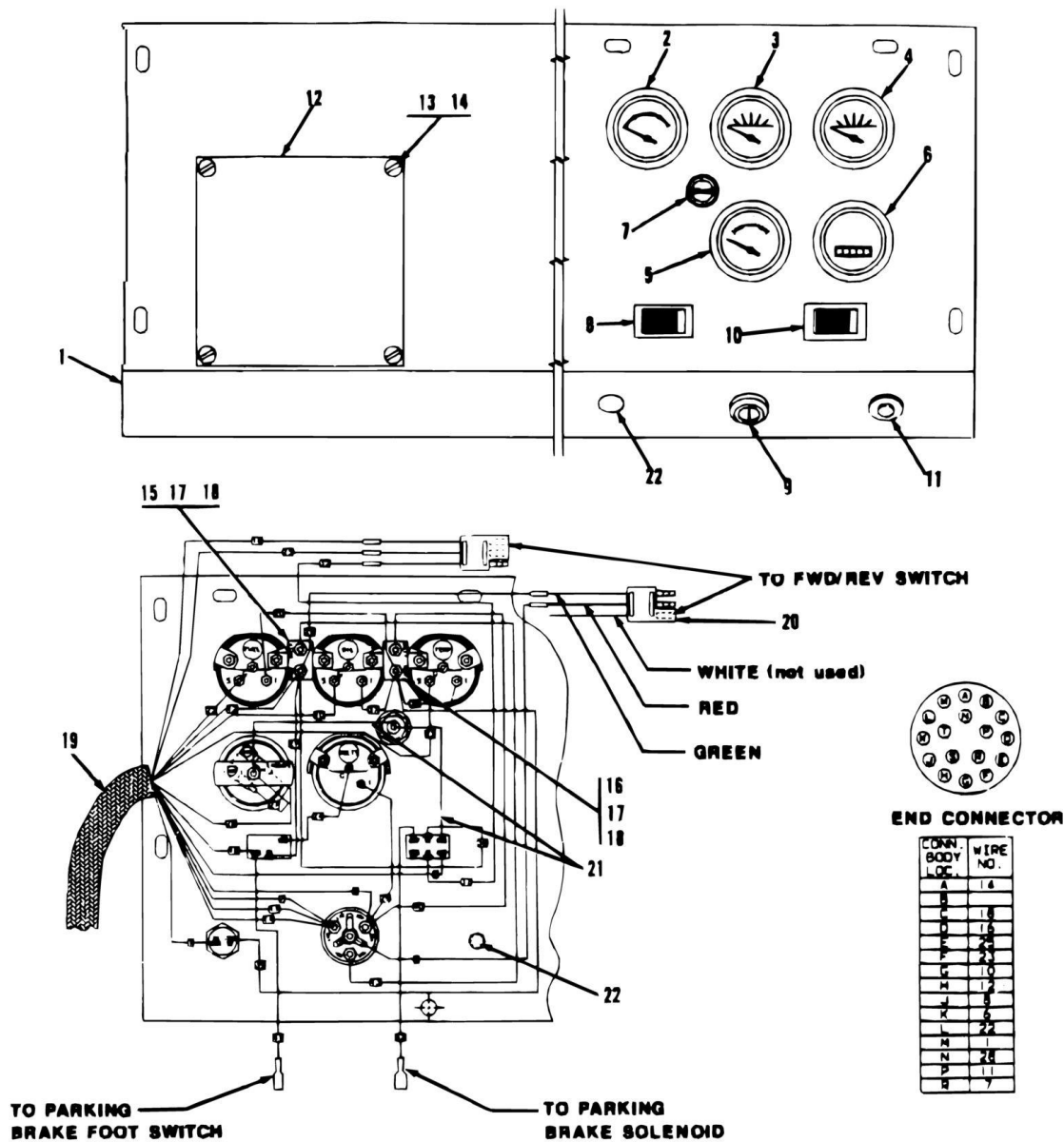
SECTION 10 - ELECTRICAL

FIGURE 10-8. DASH PANEL (524) (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91141513	1	DASH PANEL	
2		Ref	GAUGE PANEL WIRING HARNESS (See GAUGE PANEL ASSEMBLY for Breakdown)	
3	91143349	1	DASH PANEL WIRING HARNESS	
4		Ref	GAUGE PANEL (See GAUGE PANEL ASSEMBLY for Breakdown)	
5	77143003	7	WHIZ-LOCK SCREW	
6	77143006	4	WHIZ-LOCK NUT, 5/16	
7	88261022	4	HEX HD CAPSCREW, 5/16-18 x 3/4	
8	24861170	2	CLAMP	
9	88501006	3	HEX NUT, 3/8-16	
10		Ref	ENGINE WIRING HARNESS (See ENGINE WIRING for Breakdown)	
11	91033317	1	IGNITION SWITCH	
11	77384578	1	KEY	
12	77363268	4	15 AMP FUSE	
13	24771004	1	HORN BUTTON	
14	88321029	1	SELF TAP SCREW, #10-24X5/16	

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FIGURE 10-9. DASH PANEL (524) (SN 0177005 to Present)



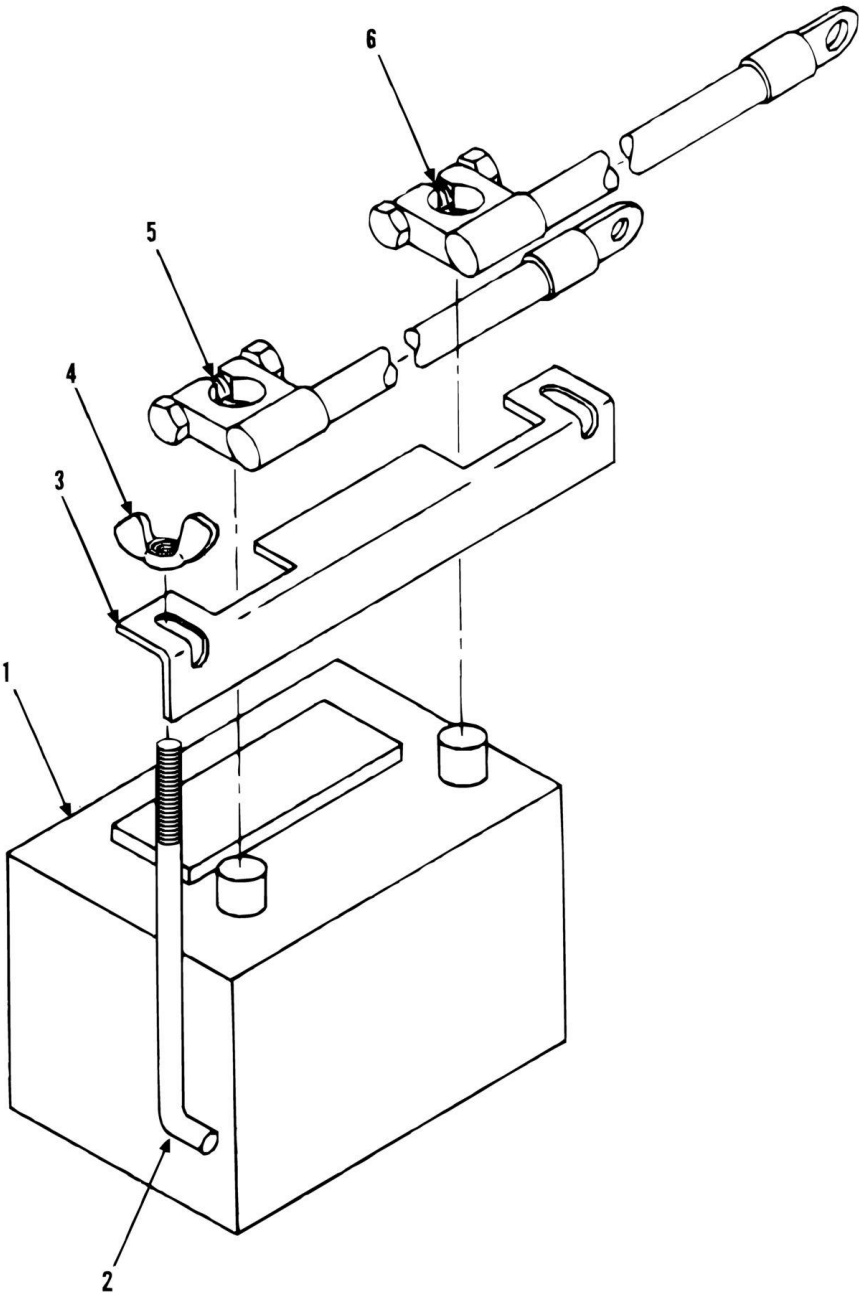
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FIGURE 10-9. DASH PANEL (524) (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91081371	1	DASH PANEL	
2	90205687	1	WATER TEMP. GAUGE	
3	91033247	1	OIL PRESSURE GAUGE	
4	90205686	1	FUEL GAUGE	
5	77383709	1	VOLTMETER	
6	90205688	1	HOURLMETER	
7	91033084	1	BRAKE WARNING LIGHT	
8	91083259	1	ROCKER SWITCH	
9	91033317	1	IGN. START SWITCH	
10	91083084	1	ROCKER SWITCH	
11	90200434	1	BUTTON SWITCH	
12	91081480	1	COVER PLATE	
13	88301141	4	ROUND HD MACHINE SCREW,5/16-18X3/4	
14	88551010	4	LOCKWASHER, 5/16	
15	91083260	1	15A CIRCUIT BREAKER	
16	91033111	1	10A CIRCUIT BREAKER	
17	88554917	4	LOCKWASHER, #10	
18	88501613	4	HEX NUT, #10-32	
19	91083110	1	DASH WIRING HARNESS	
20	83483114	1	3-WAY CONNECTOR	
21	86983188	16	EYELET #10	
22	91083221	1	BUTTON PLUG	

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FIGURE 10-10. BATTERY AND CABLES (SN 0177005 to Present)



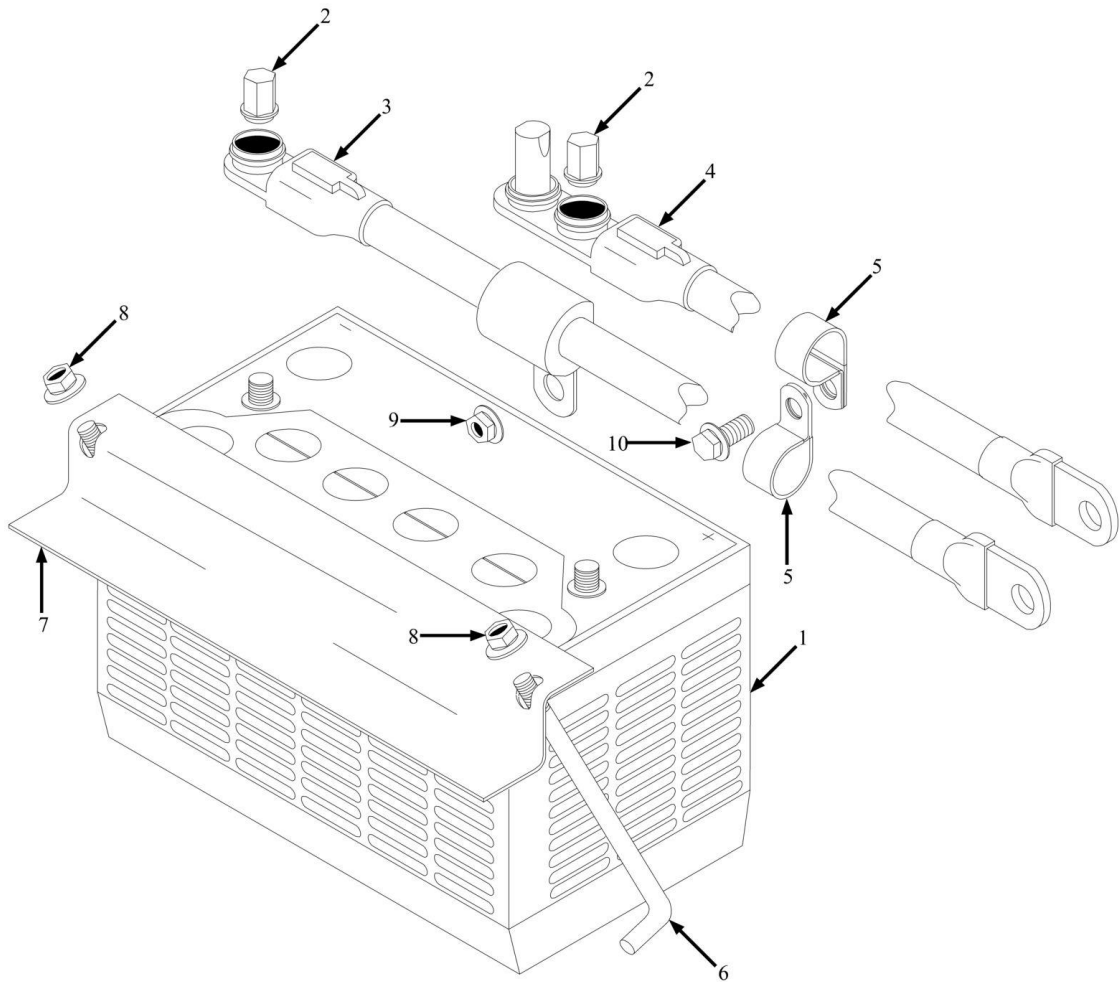
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FIGURE 10-10. BATTERY AND CABLES (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083291	1	BATTERY	
2	91081640	2	HOLD-DOWN STUD	
3	91081517	1	BATTERY HOLD-DOWN	
4	77143006	2	WHIZ LOCKNUT 5/16-18	
5	91083114	1	POSITIVE BATTERY CABLE	
6	91083115	1	NEGATIVE BATTERY CABLE	

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FIGURE 10-11. BATTERY AND CABLES (SN 0177122 to Present)



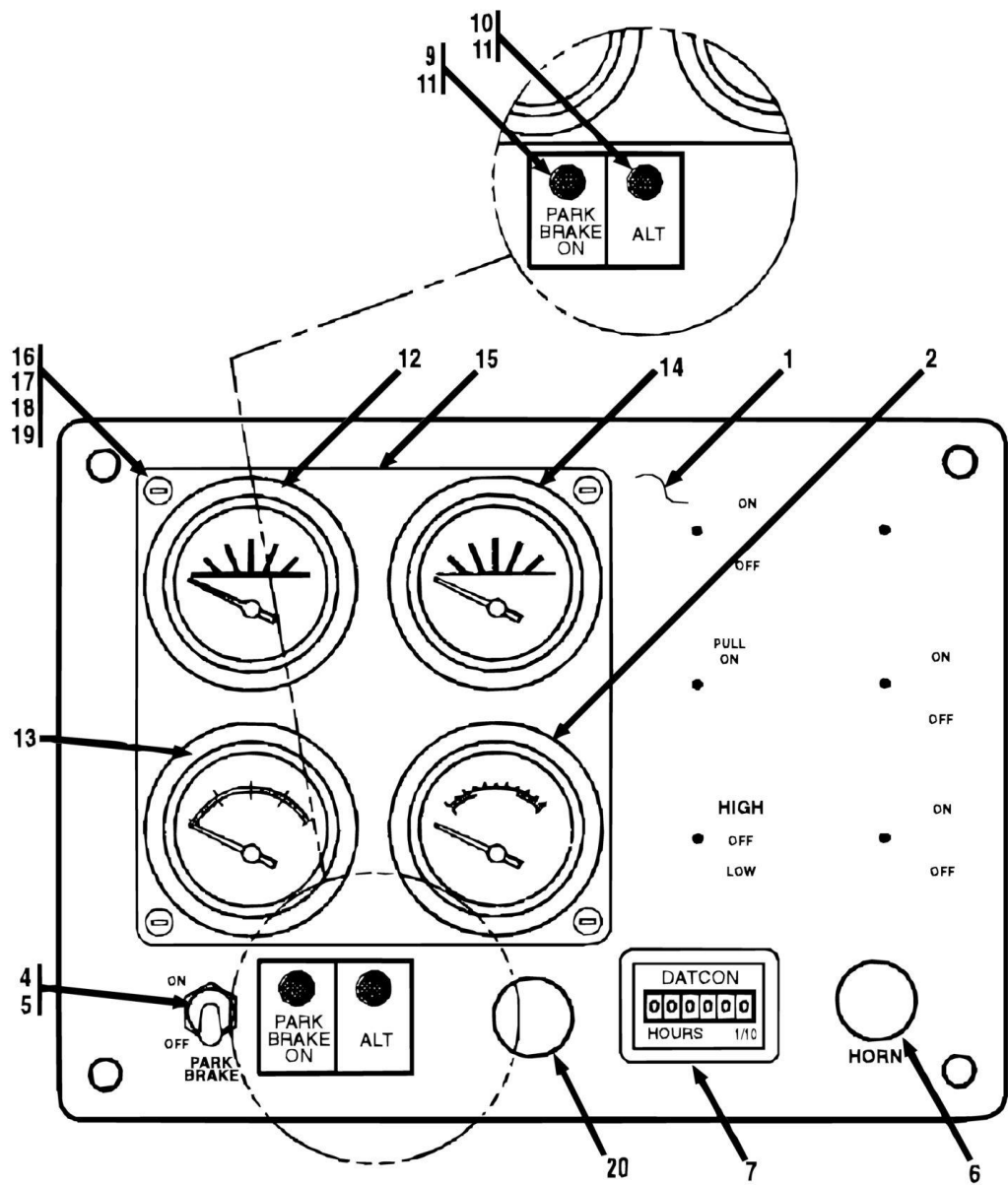
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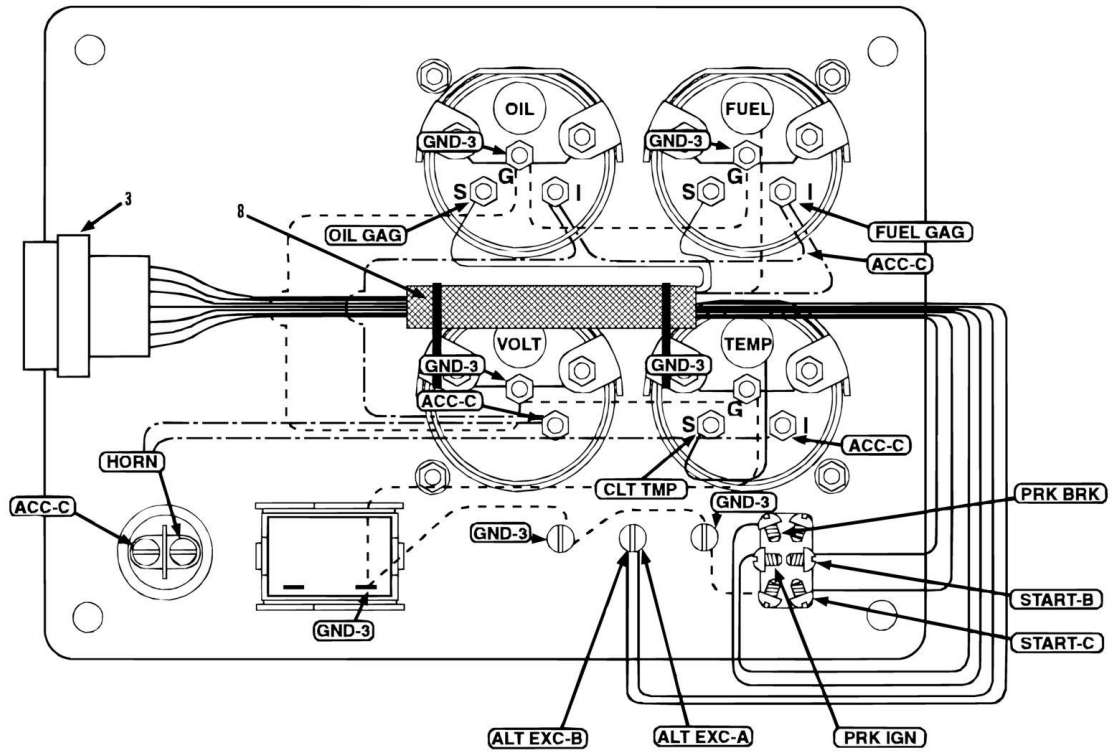
FIGURE 10-11. BATTERY AND CABLES (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	80973021	1	BATTERY (12 volt, 1000 CCA) TOP STUD, 3/8-16 UNC THREAD, BCI GROUP 31	
2	77383567	2	BATTERY POST TERMINAL	
3	91143124	1	NEGATIVE BATTERY CABLE	
4	91143099	1	POSITIVE BATTERY CABLE	
5	85941017	4	SUPPORT CLAMP	
6	91081640	2	HOLD DOWN STUD	
7	91141429	1	BATTERY HOLD DOWN	
8	77143006	2	WHIZ LOCKNUT, 5/16-18	
9	77143015	1	WHIZ LOCKNUT, 3/8-16	
10	77143003	2	WHIZ LOCK SCREW, 5/16-18X5/8	
10	14403416	AR	DI-ELECTRIC GREASE (add to caps of jump terminals on battery cables)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 10-12. (91315007) GAUGE PANEL ASSEMBLY (522) (SN 0177122 to Present)





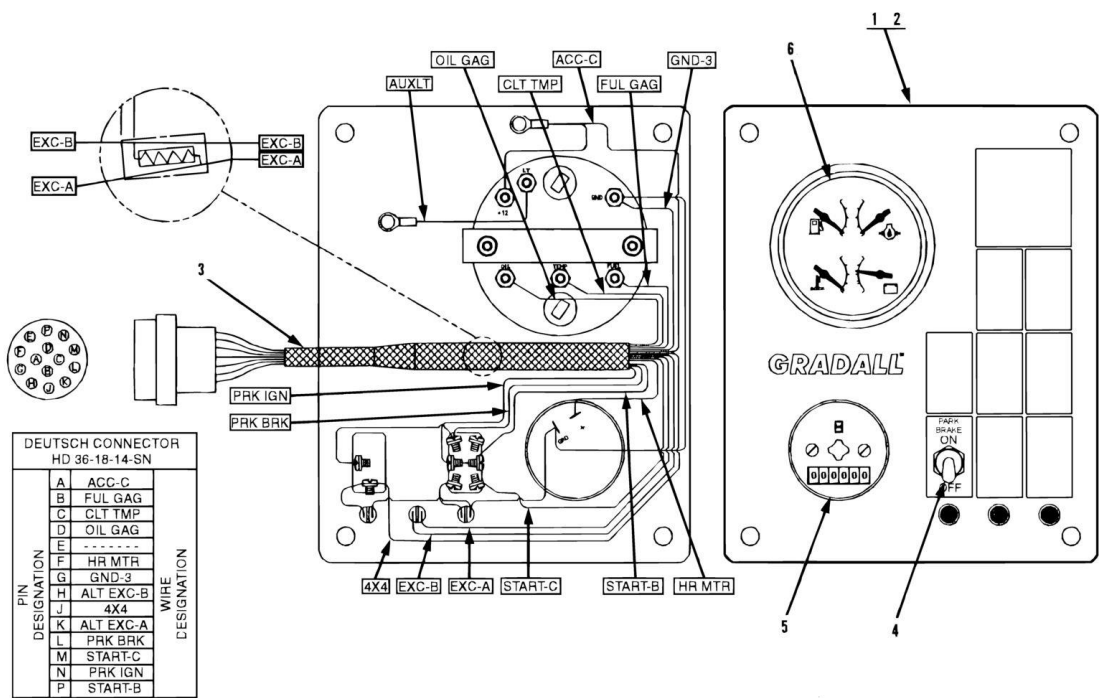
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FIGURE 10-12. (91315007) GAUGE PANEL ASSEMBLY (522) (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91315007	1	GAUGE PANEL ASSY (includes all items)	
1	91143138	1	FORMICA DASH PANEL	
1	91143137	1	PANEL WIRING HARNESS	
2	77383709	1	VOLTMETER	
3	91143137	1	PANEL WIRING HARNESS	
4	91143114	1	TOGGLE - DPDT	
5	77383470	2	BOOT	
6	24771004	1	BUTTON	
7	91143130	1	HOURLY METER	
8	91053419	2	TIE WRAP	
9	91143128	2	AMBER DASH LIGHT	
10	91143127	1	RED DASH LIGHT	
11	91143129	3	TINNERMAN NUT	
12	90205686	1	FUEL GAUGE	
13	90205687	1	WATER TEMP. GAUGE	
14	91033247	1	OIL PRESSURE GAUGE	
15	91143221	1	GAUGE PROTECTOR	
16	91143277	4	RUBBER SPACER	
17	88301075	4	MACHINE SCREW, #8-32X1"	
18	88561104	4	STEEL PUNCHED WASHER	
19	88501610	4	HEX NUT, #8-32	
20	91003065	1	PLUG BUTTON	

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FIGURE 10-13. (91093037) GAUGE PANEL ASSEMBLY (SN 0177368 to Present)



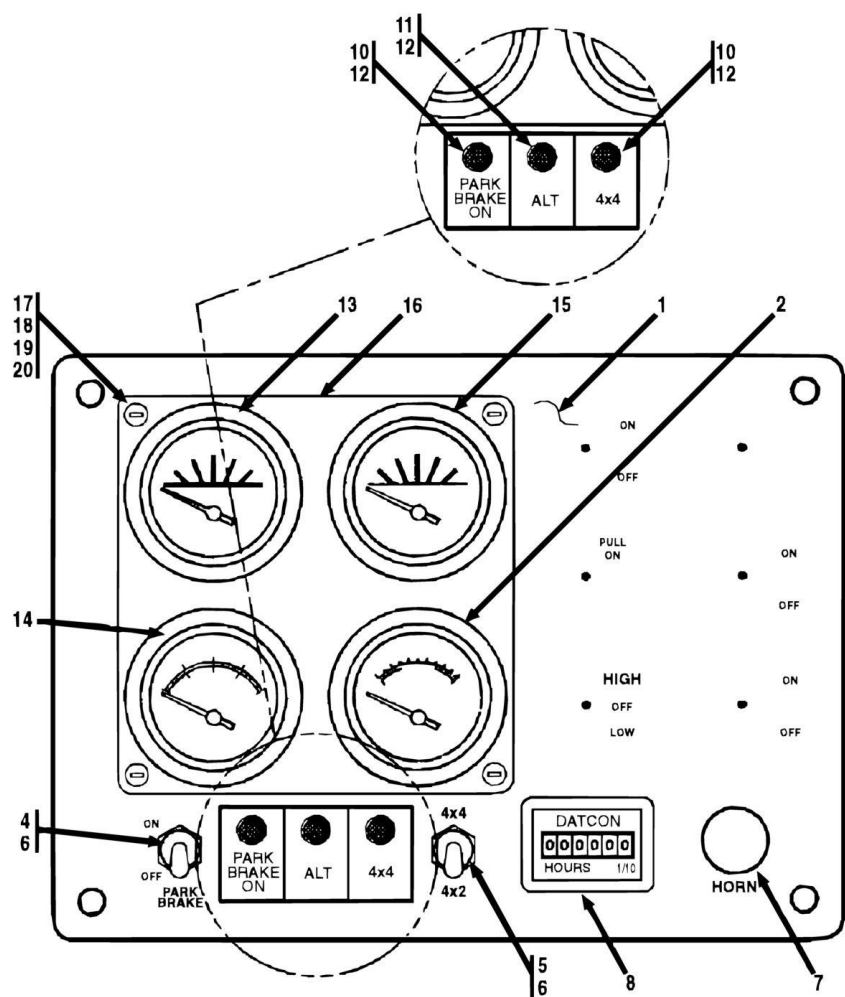
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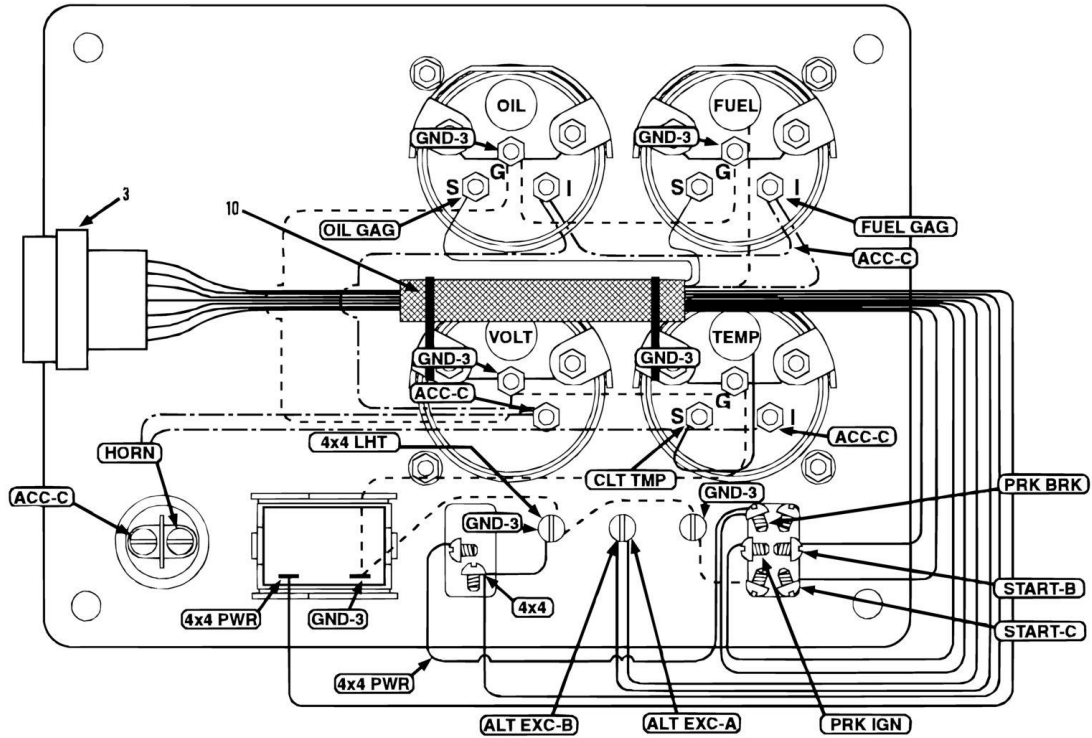
FIGURE 10-13. (91093037) GAUGE PANEL ASSEMBLY (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91093037	1	GAUGE PANEL (includes all items)	
	91364004	1	PANEL ASSY (includes front and back plates, acrylic lens and std. labels)	
2	91364005	1	RUBBER BOOT	
3	91364008	1	WIRE HARNESS	
4	91143114	1	PARK BRAKE SWITCH	
5	91364006	1	HOURLMETER	
6	91364007	1	4-IN-1 GAUGE (oil, fuel, temp, volts)	

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FIGURE 10-14. (91145031) GAUGE PANEL ASSEMBLY (SN 0177122 to Present)





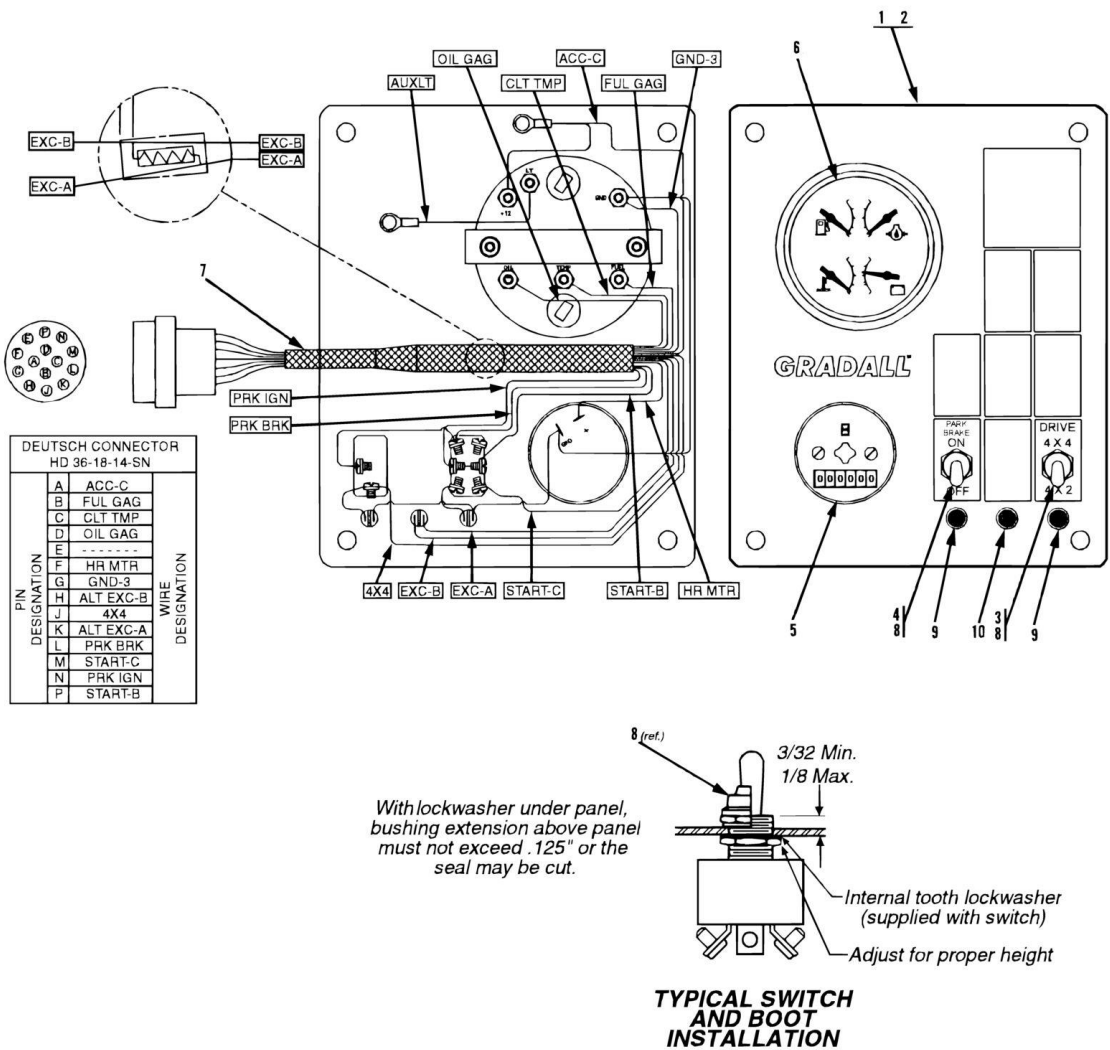
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FIGURE 10-14. (91145031) GAUGE PANEL ASSEMBLY (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145031	1	GAUGE PANEL ASSY (includes all items)	
1	91143138	1	FORMICA DASH PANEL	
1	91143137	1	PANEL WIRING HARNESS	
2	77383709	1	VOLTMETER	
3	91143137	1	PANEL WIRING HARNESS	
4	91143114	1	TOGGLE - DPDT	
5	77383467	1	TOGGLE - SPST	
6	77383470	2	BOOT	
7	24771004	1	BUTTON	
8	91143130	1	HOUR METER	
9	91053419	2	TIE WRAP	
10	91143128	2	AMBER DASH LIGHT	
11	91143127	1	RED DASH LIGHT	
12	91143129	3	TINNERMAN NUT	
13	90205686	1	FUEL GAUGE	
14	90205687	1	WATER TEMP. GAUGE	
15	91033247	1	OIL PRESSURE GAUGE	
16	91143221	1	GAUGE PROTECTOR	
17	91143277	4	RUBBER SPACER	
18	88301077	4	MACHINE SCREW, #8-32X1IN	
19	88561104	4	STEEL PUNCHED WASHER	
20	88501610	4	HEX NUT, #8-32	

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FIGURE 10-15. (91143331) GAUGE PANEL ASSEMBLY (SN 0177368 to Present)



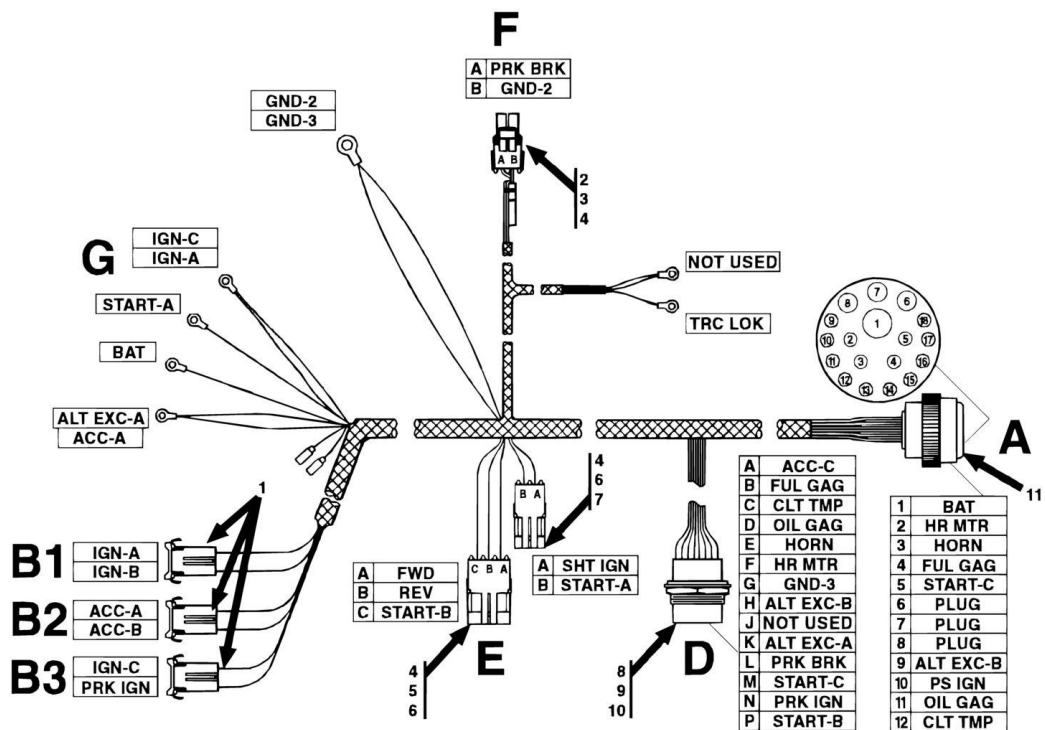
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FIGURE 10-15. (91143331) GAUGE PANEL ASSEMBLY (SN 0177368 to Present)

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

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FIGURE 10-16. (91143193) DASH HARNESS (SN 0177122 to Present)



Wire Designation	Wire Color/Stripe	Remarks
BAT	RED	ALT.(BAT.) TO IGN. SW. (BAT.)
HR MTR	BLU/RED	OIL PRESS. SW. TO HR. METER
HORN	VIOLET/YELO	HORN
FUL GAG	BLU/BLK	FUEL GAUGE
START-C	VIOLET/BRN	STARTER RELAY
ALT EXC-B	VIOLET/RED	ALTERNATOR EXCITER (ALT. PLUG)
PS IGN	ORNG/YELO	OIL PRESS. SW.
OIL GAG	BLU/BRN	OIL PRESS. GAUGE
CLT TMP	BLU/VIOLET	WATER TEMP. GAUGE
REV	BRN/YELO	FWD/REV VALVE
FWD	BRN/WHITE	FWD/REV VALVE
4x4	BRN	4x4 VALVE
TRC LOK	BRN/GREY	TRACTION LOCK VALVE
PRK BRK	VIOLET	PARK BRAKE VALVE
GND-2	BLK	FWD/REV VALVE TO GROUND
GND-3	BLK	2/4x4 VALVE TO GROUND
SPL ACC	ORANGE	FREE, FUSED ACC
SHT IGN	ORNG/BRN	POWER TO SHIFTER
PRK IGN	ORNG/BLK	POWER TO PARK BRAKE
ACC-C	ORNG/RED	ACCESSORY POWER
ACC-A	ORNG/TAN	POWER TO ACC FUSE
ACC-B	ORNG/BLU	FUSED POWER TO ACC
IGN-A	ORNG/GREY	POWER TO IGN FUSE
IGN-B	ORNG/LT.GRN	FUSED POWER TO IGN
START-A	VIOLET/BRN	PARK BRAKE SWITCH
START-B	VIOLET/BRN	PARK BRAKE SWITCH
ALT EXC-A	VIOLET/RED	INDICATOR LIGHT
IGN-C	ORNG/DK.GRN	FUSED POWER TO IGN
SFL ACC2	ORNG/VIOLET	FREE, FUSED ACC

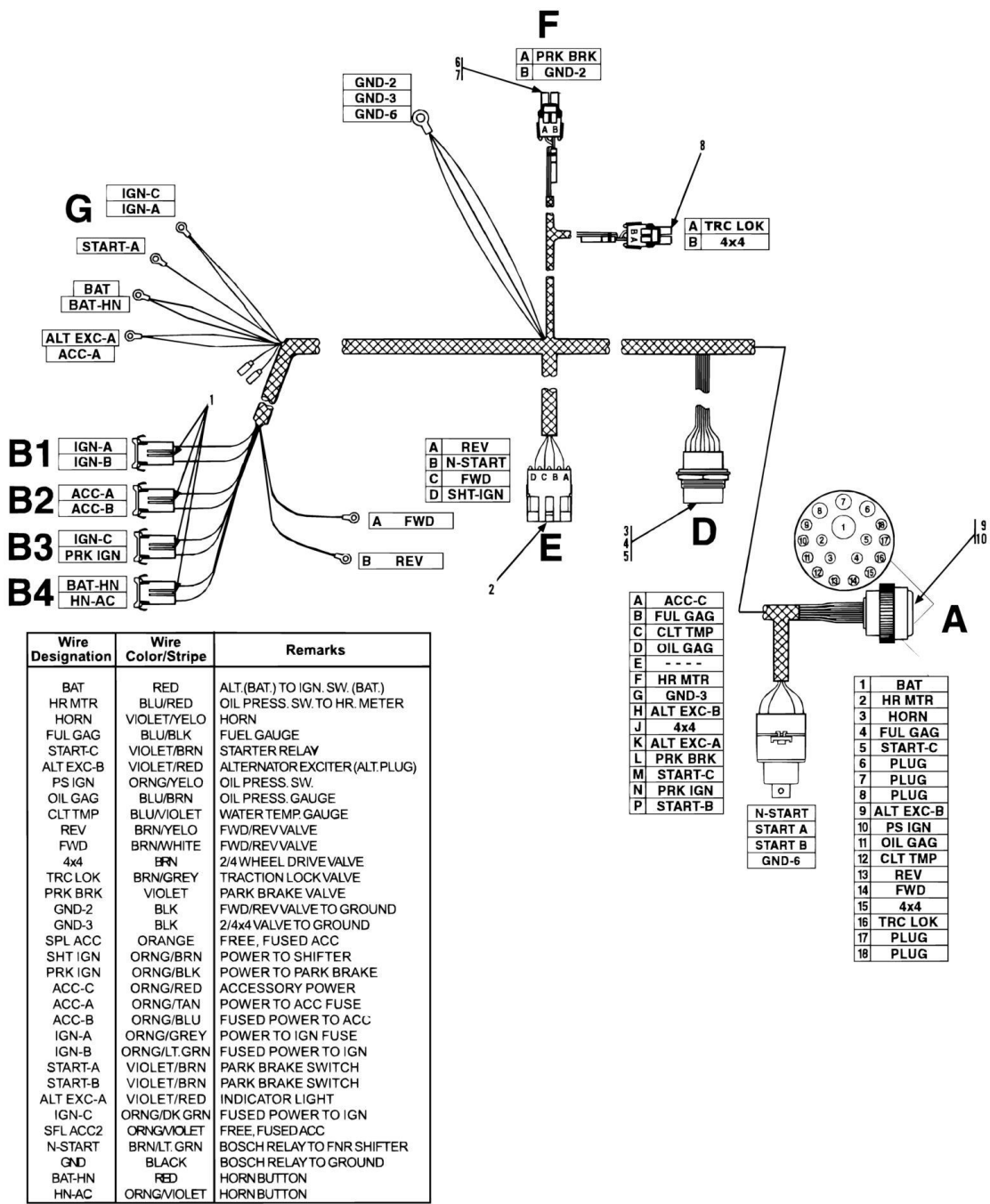
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FIGURE 10-16. (91143193) DASH HARNESS (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143193	1	DASH HARNESS (includes all items)	
1	91143108	3	FUSE HOLDER	
2	80963057	1	TOWER (includes items 3 and 4)	
3	80963068	2	FEMALE PIN TERMINALS	
4	80963066	3	CABLE SEALS	
5	80963060	1	SHROUD (includes items 4 & 6)	
6	80963069	5	MALE PIN TERMINALS	
7	80963058	1	SHROUD (includes items 4 & 6)	
8	77363225	1	RECEPTACLE (includes items 9 & 10)	
9	77363264	1	PANEL NUT	
10	77363263	1	LOCKWASHER	
11	83481289	1	PLUG CONNECTOR	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 10-17. (91143349) DASH HARNESS (522) (SN 0177368 to Present)



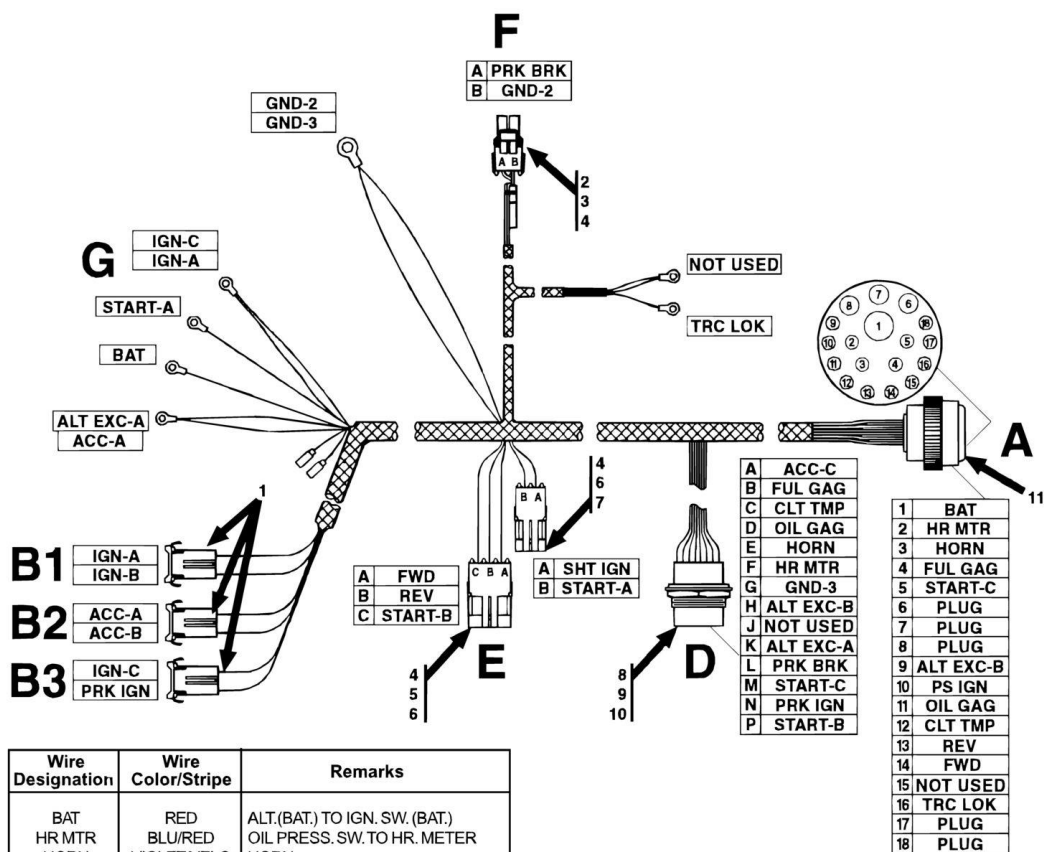
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FIGURE 10-17. (91143349) DASH HARNESS (522) (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143349	1	DASH HARNESS, (includes all items)	
1	91143108	3	FUSE HOLDER	
2	80963065	1	CABLE SEAL	
3	77363225	1	RECEPTACLE CONNECTOR	
4	77363264	1	PANEL NUT	
5	77363263	1	LOCKWASHER	
6	80963057	1	WEATHER PACK CONN., (tower end)	
7	80963068	1	FEMALE PIN TERMINAL	
8	80963057	2	WEATHER PACK TOWER	
9	83481286	1	PANEL NUT	
10	83481285	1	LOCKWASHER	

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FIGURE 10-18. (91143193) DASH HARNESS (SN 0177122 to Present)



Wire Designation	Wire Color/Stripe	Remarks
BAT	RED	ALT.(BAT.) TO IGN. SW. (BAT.)
HR MTR	BLU/RED	OIL PRESS. SW. TO HR. METER
HORN	VIOLET/YELO	HORN
FUL GAG	BLU/BLK	FUEL GAUGE
START-C	VIOLET/BRN	STARTER RELAY
ALT EXC-B	VIOLET/RED	ALTERNATOR EXCITER (ALT.PLUG)
PS IGN	ORNG/YELO	OIL PRESS. SW.
OIL GAG	BLU/BRN	OIL PRESS. GAUGE
CLT TMP	BLU/VIOLET	WATER TEMP. GAUGE
REV	BRN/YELO	FWD/REV VALVE
FWD	BRN/WHITE	FWD/REV VALVE
4x4	BRN	4x4 VALVE
TRC LOK	BRN/GREY	TRACTION LOCK VALVE
PRK BRK	VIOLET	PARK BRAKE VALVE
GND-2	BLK	FWD/REV VALVE TO GROUND
GND-3	BLK	2/4x4 VALVE TO GROUND
SPL ACC	ORANGE	FREE, FUSED ACC
SHT IGN	ORNG/BRN	POWER TO SHIFTER
PRK IGN	ORNG/BLK	POWER TO PARK BRAKE
ACC-C	ORNG/RED	ACCESSORY POWER
ACC-A	ORNG/TAN	POWER TO ACC FUSE
ACC-B	ORNG/BLU	FUSED POWER TO ACC
IGN-A	ORNG/GREY	POWER TO IGN FUSE
IGN-B	ORNG/LT.GRN	FUSED POWER TO IGN
START-A	VIOLET/BRN	PARK BRAKE SWITCH
START-B	VIOLET/BRN	PARK BRAKE SWITCH
ALT EXC-A	VIOLET/RED	INDICATOR LIGHT
IGN-C	ORNG/DK GRN	FUSED POWER TO IGN
SFL ACC2	ORNG/VIOLET	FREE, FUSED ACC

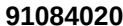
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FIGURE 10-18. (91143193) DASH HARNESS (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143193	1	DASH HARNESS (includes all items)	
1	91143108	3	FUSE HOLDER	
2	80963057	1	TOWER (includes items 3 and 4)	
3	80963068	2	FEMALE PIN TERMINALS	
4	80963066	3	CABLE SEALS	
5	80963060	1	SHROUD (includes items 4 & 6)	
6	80963069	5	MALE PIN TERMINALS	
7	80963058	1	SHROUD (includes items 4 & 6)	
8	77363225	1	RECEPTACLE (includes items 9 & 10)	
9	77363264	1	PANEL NUT	
10	77363263	1	LOCKWASHER	
11	83481289	1	PLUG CONNECTOR	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

430

522/524



SECTION 10 - ELECTRICAL

FIGURE 10-19. (91143349) DASH HARNESS (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91143349	1	DASH HARNESS (includes all items)	
1	91143108	3	FUSE HOLDER	
2	80963065	1	CABLE SEAL	
3	77363225	1	RECEPTACLE CONNECTOR	
4	77363264	1	PANEL NUT	
5	77363263	1	LOCKWASHER	
6	80963057	1	WEATHER PACK CONN. (tower end)	
7	80963068	1	FEMALE PIN TERMINAL	
8	80963057	2	WEATHER PACK TOWER	
9	83481286	1	PANEL NUT	
10	83481285	2	LOCKWASHER	

SECTION 11 - MISCELLANEOUS

SECTION 11 - MISCELLANEOUS

FIGURE 11-1. COMPLETE DECAL LISTS BY MODEL FOR SERVICE ONLY (522)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	(All items combine to make a complete set of decals)	
	91084283	AR	COMMON DECAL KIT	
1	91083321	1	CAPACITY DECAL	
2	91093004	2	MODEL DECAL (522)	

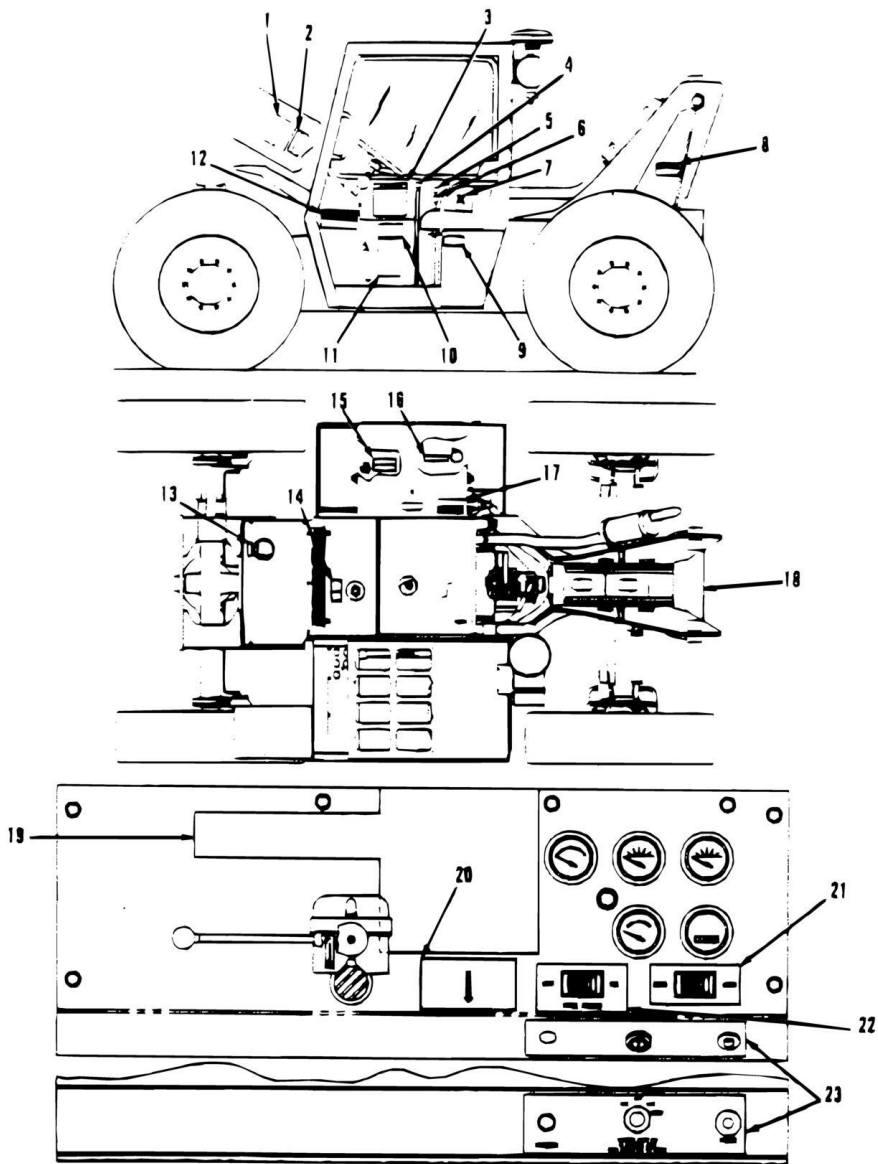
SECTION 11 - MISCELLANEOUS

FIGURE 11-2. COMPLETE DECAL LISTS BY MODEL FOR SERVICE ONLY (524)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91084283	AR	COMMON DECAL KIT	
	91083321	1	CAPACITY DECAL	

SECTION 11 - MISCELLANEOUS

FIGURE 11-3. FRAME DECALS (SN 0177005 to Present)



NOTE: KITS 91095010 & 91095043 INCLUDE ALL ITEMS LISTED BELOW, EXCEPT ITEM 11, PLUS THE APPROPRIATE ITEMS ON MISCELLANEOUS FRAME DECALS.

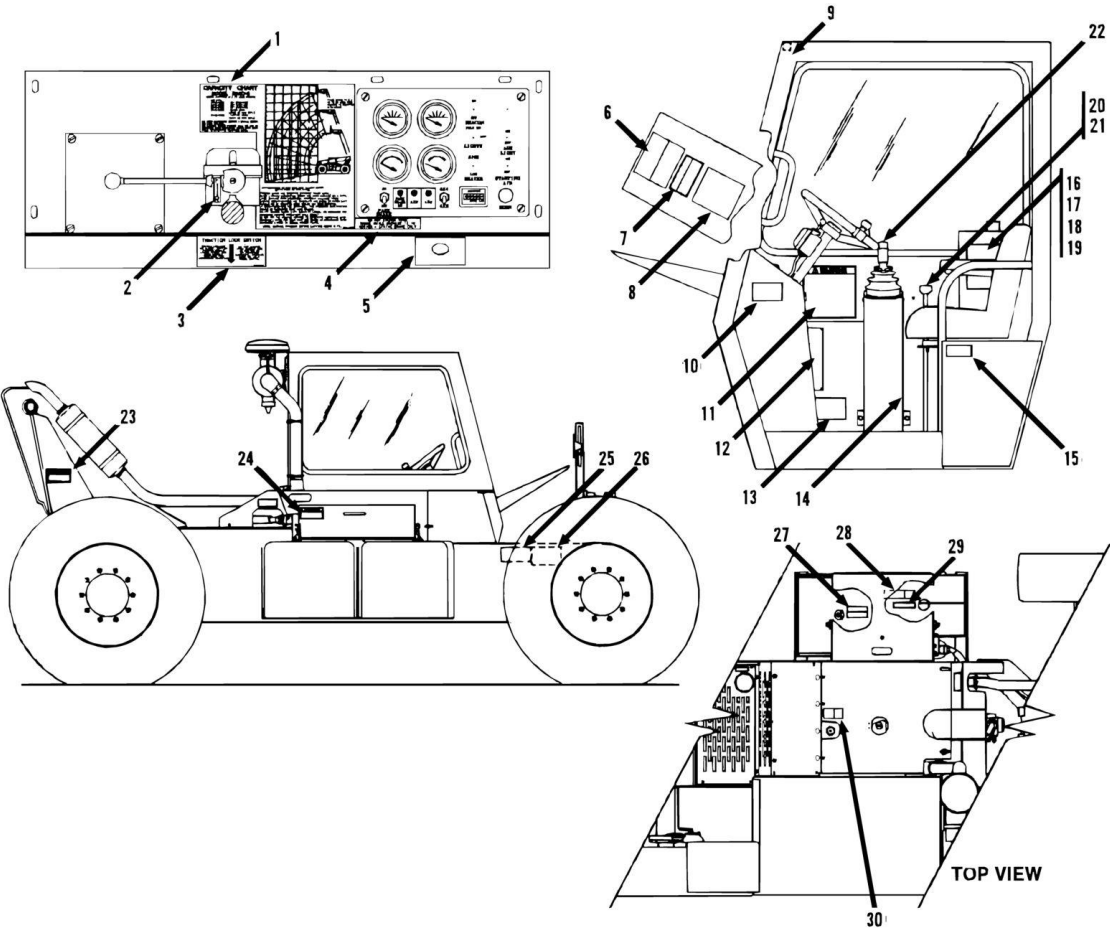
SECTION 11 - MISCELLANEOUS

FIGURE 11-3. FRAME DECALS (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095010	Ref	DECAL KIT (see note) (522)	
	91095043	Ref	DECAL KIT (see note) (524)	
1	83601011	1	ACCIDENT PREVENTION DECAL	
2	91043215	1	LIFTING PERSONNEL DECAL	
3	91063047	1	WARNING DECAL	
4	91003044	1	BOOM OPERATION DECAL	
5	91083317	1	TILT DECAL	
6	91083318	1	SWAY DECAL	
7	91083324	1	SERVICE INSTRUCTION DECAL	
8	91043209	2	PINCH POINT DECAL	
9	77333027	1	MADE IN U.S.A. DECAL	
10	91003030	1	PATENT DECAL	
11	91093005	1	SERIAL NO. AND ATTACHMENTS PLATE (522)	
11	91083325	1	SERIAL NO. AND ATTACHMENTS PLATE (524)	
12	91043211	1	RIDER'S WARNING DECAL	
13	77023007	1	INSTRUCTION DECAL	
14	91043210	1	COOLING SYSTEM CAUTION DECAL	
15	91003052	1	FUEL WARNING DECAL	
16	77023006	1	HYDRAULIC OIL DECAL	
17	91033011	1	WARNING DECAL	
18	83641675	2	GRADALL DECAL (white)	
19	91083321	1	CAPACITY DECAL	
20	91083314	1	TRACTION DECAL (524)	
21	91083270	1	2WD-4WD DECAL (524)	
22	91083269	1	PARK BRAKE DECAL	
23	91083268	1	INSTRUMENT PANEL DECAL	
		Ref	NOTE: KITS 91095010 & 91095043 INCLUDE ALL ITEMS LISTED BELOW, EXCEPT ITEM 11, PLUS THE APPROPRIATE ITEMS ON THE FOLLOWING PAGE.	

SECTION 11 - MISCELLANEOUS

FIGURE 11-4. FRAME DECALS (SN 0177122 to Present)



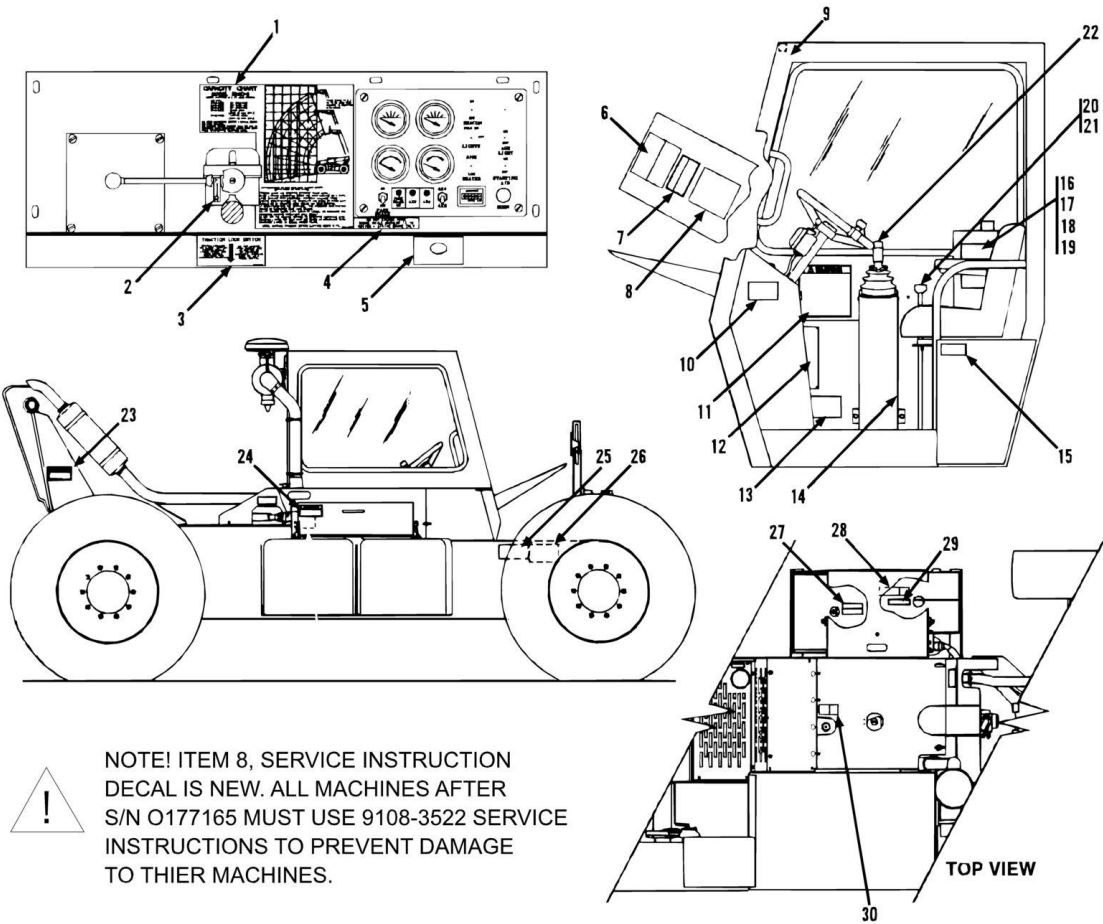
SECTION 11 - MISCELLANEOUS

FIGURE 11-4. FRAME DECALS (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084283	1	COMMON DECAL KIT (includes all items except 8, 9 & 11 on FRAME DECALS and includes all items on BOOM DECALS)	
1	91123117	1	CAPACITY CHART	
2	91083428	1	FWD/REV DECAL	
3	91083314	1	TRACTION DECAL	
4	91143182	1	PARK BRAKE DECAL	
5	91143120	1	INSTRUMENT PANEL DECAL	
6	83601011	1	ACCIDENT PREVENTION DECAL	
7	91043215	1	LIFTING PERSONNEL DECAL	
8	91083324	1	SERVICE INSTRUCTION DECAL	
9	91033320	1	TILT GAUGE	
10	91043211	1	RIDERS WARNING DECAL	
11	91063047	1	WARNING DECAL	
12	91123110	1	SERIAL NO. AND ATTACH PLATE	
13	91003030	1	PATENT DECAL	
14	91083492	1	OIL WARNING DECAL	
15	77333027	1	MADE IN USA DECAL	
16	91033102	1	MANUAL HOLDER	
17	91034001	1	SAFETY MANUAL	
18	91031268	1	SAFETY MANUAL	
19	91084210	1	OPERATOR MANUAL	
20	91083318	1	SWAY DECAL	
21	91083317	1	TILT DECAL	
22	91303047	1	BOOM OPERATION DECAL	
23	91043209	2	PINCH POINT DECAL	
24	91033011	1	WARNING DECAL	
25	91083494	1	BATTERY WARNING	
26	91083497	1	JUMP START WARNING	
27	91083510	1	FUEL WARNING PLATE	
28	91083492	1	OIL WARNING DECAL	
29	91083509	1	HYDRAULIC OIL PLATE	
30	91043210	1	COOLING SYSTEM CAUTION DECAL	
30	14404645	AR	BOESHIELD METAL PROTECTANT, 12 OZ SPRAY CAN	
30	14404646	AR	BOESHIELD METAL PROTECTANT, 1 GAL CAN	

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FIGURE 11-5. FRAME DECALS (SN 0177165 to Present)



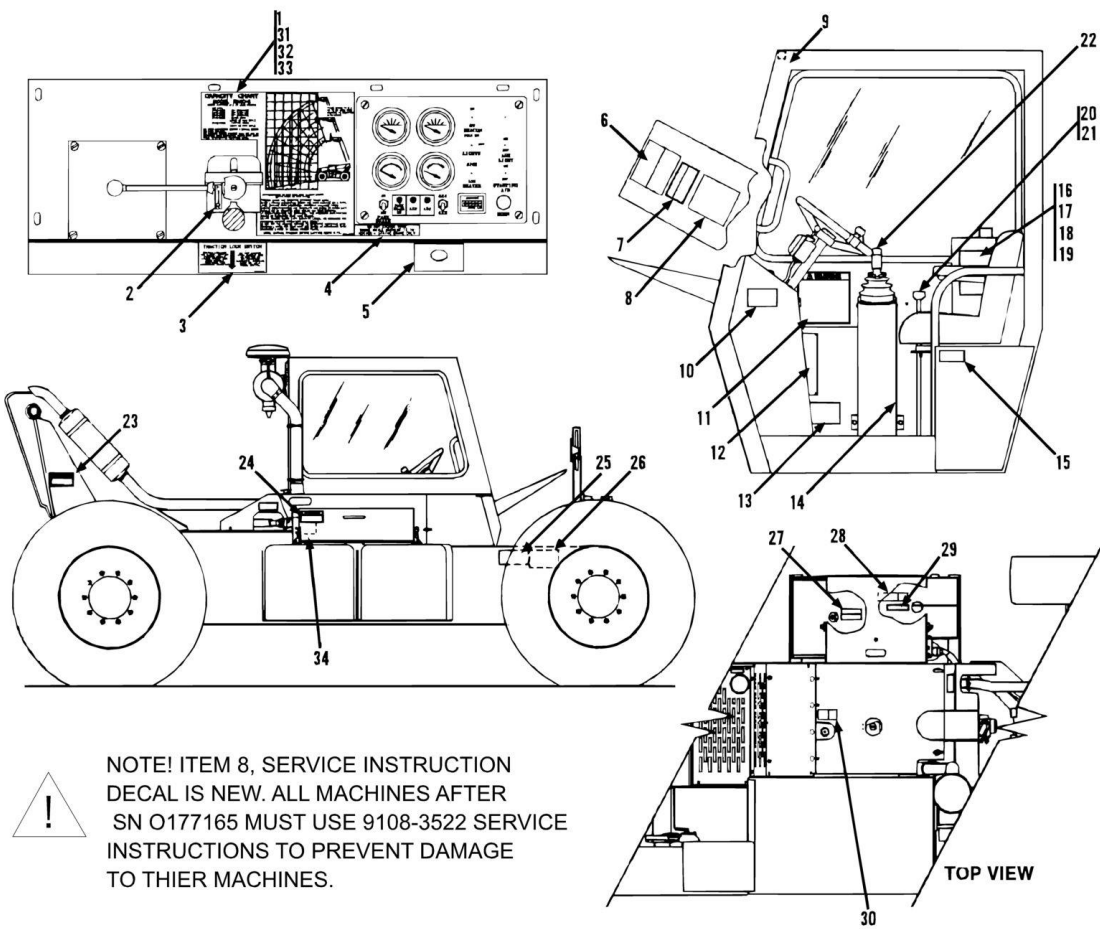
SECTION 11 - MISCELLANEOUS

FIGURE 11-5. FRAME DECALS (SN 0177165 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084283	1	COMMON DECAL KIT (includes all items except 8, 9 & 11 on FRAME DECALS and includes all items on BOOM DECALS)	
1	91123117	1	CAPACITY CHART	
2	91083428	1	FWD/REV DECAL	
3	91083314	1	TRACTION DECAL	
4	91143182	1	PARK BRAKE DECAL	
5	91143120	1	INSTRUMENT PANEL DECAL	
6	83601011	1	ACCIDENT PREVENTION DECAL	
7	91043215	1	LIFTING PERSONNEL DECAL	
8	91083522	1	SERVICE INSTRUCTION DECAL	
9	91033320	1	TILT GAUGE	
10	91043211	1	RIDERS WARNING DECAL	
11	91063047	1	WARNING DECAL	
12	91123110	1	SERIAL NO AND ATTACH PLATE	
13	91003030	1	PATENT DECAL	
14	91083492	1	OIL WARNING DECAL	
15	77333027	1	MADE IN USA DECAL	
16	91033102	1	MANUAL HOLDER	
17	91034001	1	SAFETY MANUAL	
18	91031268	1	SAFETY MANUAL	
19	91084210	1	OPERATOR MANUAL	
20	91083318	1	SWAY DECAL	
21	91083317	1	TILT DECAL	
22	91303047	1	BOOM OPERATION DECAL	
23	91043209	2	PINCH POINT DECAL	
24	91033011	1	WARNING DECAL	
25	91083494	1	BATTERY WARNING	
26	91083497	1	JUMP START WARNING	
27	91083510	1	FUEL WARNING PLATE	
28	91083492	1	OIL WARNING DECAL	
29	91143288	1	HYDRAULIC OIL PLATE	
30	91043210	1	COOLING SYSTEM CAUTION DECAL	
30	14404645	AR	BOESHIELD METAL PROTECTANT, 12 OZ SPRAY CAN	
30	14404646	AR	BOESHIELD METAL PROTECTANT, 1 GAL CAN	

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FIGURE 11-6. FRAME DECALS (SN 0177368 to Present)



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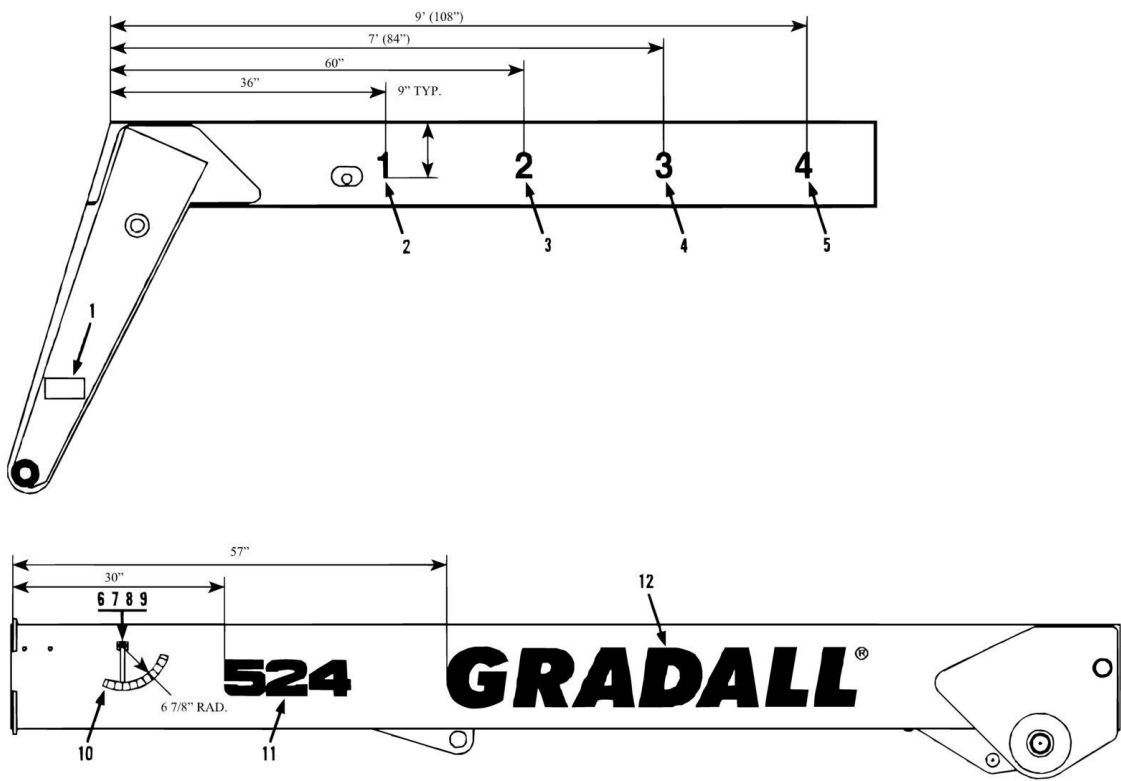
FIGURE 11-6. FRAME DECALS (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91084283	1	COMMON DECAL KIT (includes all items except 8, 9 & 11 on FRAME DECALS and includes all items on BOOM DECALS)	
1	91083486	1	CAPACITY CHART (std)	
2	91083428	1	FWD/REV DECAL	
3	91083314	1	TRACTION DECAL	
4	91143182	1	PARK BRAKE DECAL	
5	91143120	1	INSTRUMENT PANEL DECAL	
6	80603022	1	ACCIDENT PREVENTION DECAL	
7	91143289	1	LIFTING PERSONNEL DECAL	
8	91083539	1	SERVICE INSTRUCTION DECAL	
9	91033320	1	TILT GAUGE	
10	91143283	1	RIDERS WARNING DECAL	
11	91143287	1	WARNING DECAL	
12	91083548	1	SERIAL NO AND ATTACH PLATE	
13	91003030	1	PATENT DECAL	
14	91083492	1	OIL WARNING DECAL	
15	77333027	1	MADE IN USA DECAL	
16	91033102	1	MANUAL HOLDER	
17	91034001	1	SAFETY MANUAL	
18	91031268	1	SAFETY MANUAL	
19	24604126	1	OPERATOR MANUAL	
20	91083318	1	SWAY DECAL	
21	91083317	1	TILT DECAL	
22	91303047	1	BOOM OPERATION DECAL	
23	91143282	3	PINCH POINT DECAL	
24	91143281	1	WARNING DECAL	
25	91143284	1	BATTERY WARNING	
26	91143285	1	JUMP START WARNING	
27	91143286	1	FUEL WARNING PLATE	
28	91083492	1	OIL WARNING DECAL	
29	91143288	1	HYDRAULIC OIL PLATE	
30	80603026	1	COOLING SYSTEM CAUTION DECAL	
31	91093012	1	CAPACITY CHART (std) (522)	
32	91083487	1	3s CAPACITY CHART (opt) (524)	
33	91093013	1	3s CAPACITY CHART (opt) (522)	
34	91143280	1	WARNING DECAL	
34	14404645	AR	BOESHIELD METAL PROTECTANT, 12 OZ SPRAY CAN	
34	14404646	AR	BOESHIELD METAL PROTECTANT, 1 GAL CAN	

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FIGURE 11-7. BOOM DECALS (SN 0177005 to Present)

2 SECTION BOOM
(3 SECTION BOOM ON NEXT PAGE)



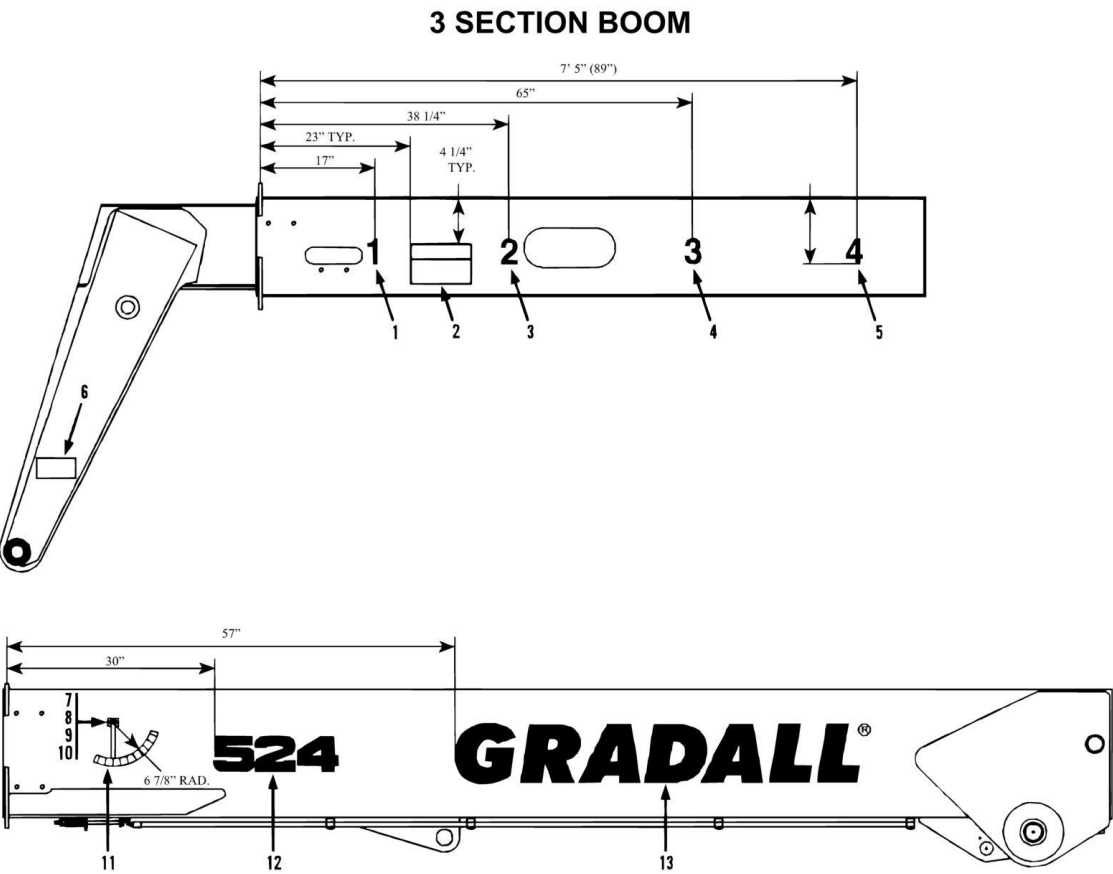
SECTION 11 - MISCELLANEOUS

FIGURE 11-7. BOOM DECALS (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91033023	1	QUICK SWITCH DECAL	
2	91003016	1	"1" DECAL, WHITE	
2	91043134	1	"1" DECAL, BLACK	
3	91003018	1	"2" DECAL, WHITE	
3	91043135	1	"2" DECAL, BLACK	
4	91123042	1	"3" DECAL, WHITE	
4	91123043	1	"3" DECAL, BLACK	
5	91003020	1	"4" DECAL, WHITE	
5	91043136	1	"4" DECAL, BLACK	
6	90200445	1	PENDULUM	
7	90200688	1	BEARING	
8	90026491	1	SHOULDER BOLT, 1/4-20	
9	88561108	1	FLAT WASHER, 5/16	
10	91003031	1	ANGLE INDICATOR DECAL	
11	91083320	2	MODEL DECAL, WHITE (524)	
11	91083319	2	MODEL DECAL, BLACK (524)	
11	91093004	2	MODEL DECAL, WHITE (522)	
11	91093003	2	MODEL DECAL, BLACK (522)	
12	91123037	2	"GRADALL" DECAL, WHITE	
12	91123038	2	"GRADALL" DECAL, BLACK	

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FIGURE 11-8. BOOM DECALS (SN 0177005 to Present)



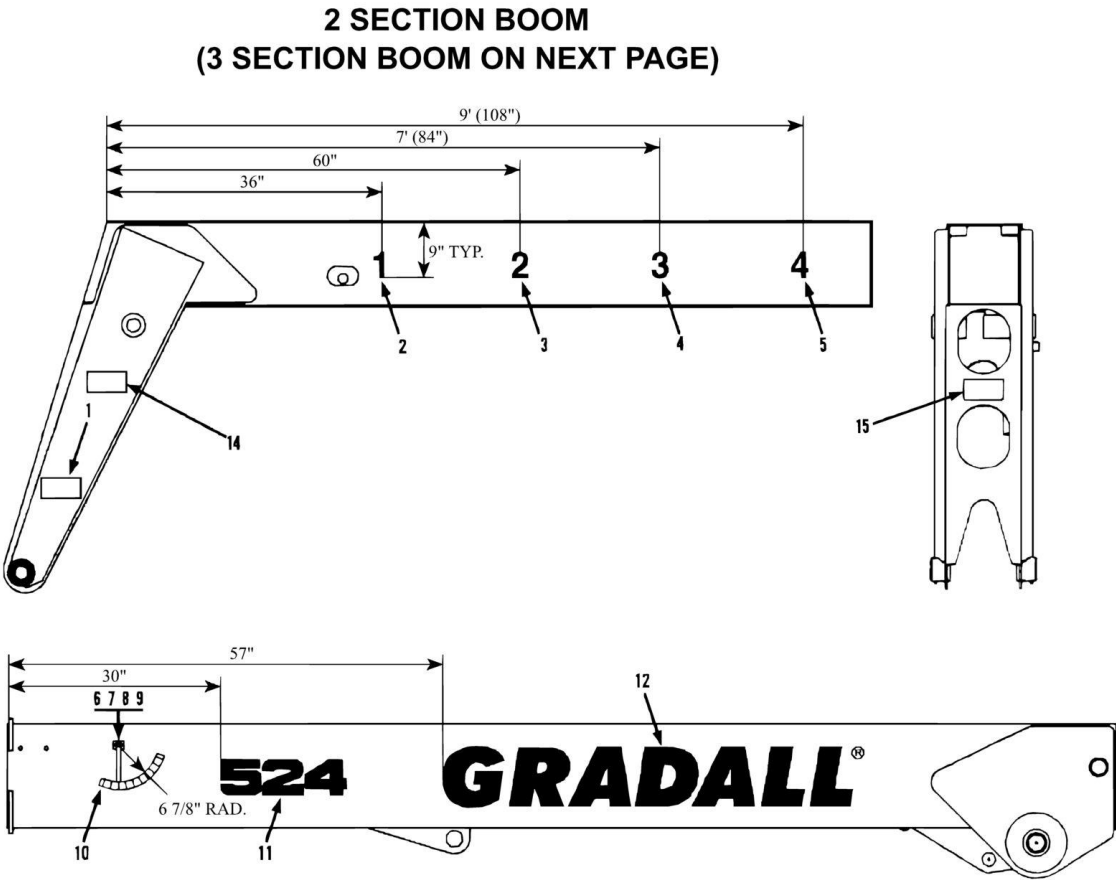
SECTION 11 - MISCELLANEOUS

FIGURE 11-8. BOOM DECALS (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91003016	1	"1" DECAL, WHITE (standard)	
1	91043134	1	"1" DECAL, BLACK (optional)	
2	77023009	2	HOLE WARNING DECAL	
3	91003018	1	"2" DECAL, WHITE (standard)	
3	91043135	1	"2" DECAL, BLACK (optional)	
4	91123042	1	"3" DECAL, WHITE (standard)	
4	91123043	1	"3" DECAL, BLACK (optional)	
5	91003020	1	"4" DECAL, WHITE (standard)	
5	91043136	1	"4" DECAL, BLACK (OPTIONAL)	
6	91033023	1	QUICK SWITCH DECAL	
7	90200445	1	PENDULUM	
8	90200688	1	BEARING	
9	90026491	1	SHOULDER BOLT, 1/4-20	
10	88561108	1	SAE WASHER, 5/16	
11	91003031	1	BOOM ANGLE DECAL, WHITE (standard)	
12	91083320	2	MODEL DECAL, WHITE (524)	
12	91083319	2	MODEL DECAL, BLACK (524)	
12	91093004	2	MODEL DECAL, WHITE (522)	
12	91093003	2	MODEL DECAL, BLACK (522)	
13	91123037	2	GRADALL DECAL, WHITE (standard)	
13	91123038	2	GRADALL DECAL, BLACK (optional)	

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FIGURE 11-9. BOOM DECALS (SN 0177368 to Present)



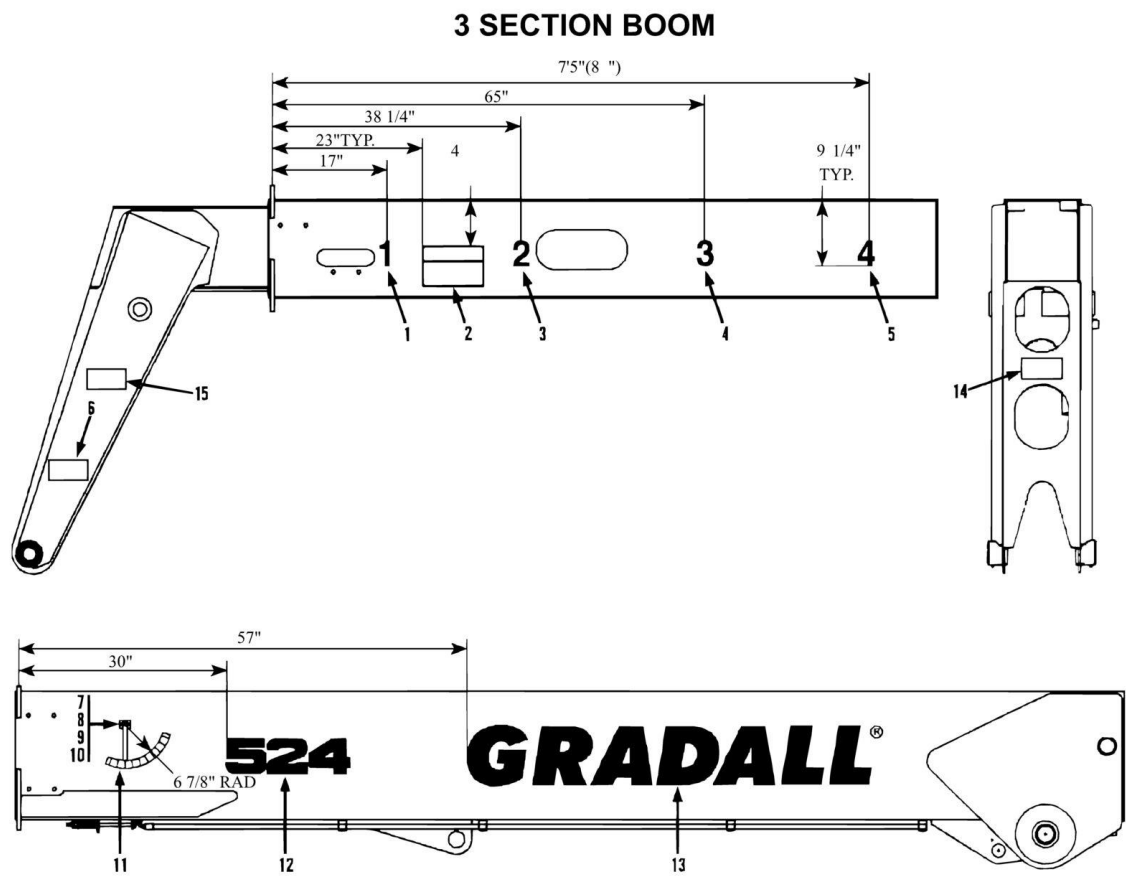
SECTION 11 - MISCELLANEOUS

FIGURE 11-9. BOOM DECALS (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91143290	1	QUICK SWITCH DECAL	
2	91003016	1	"1" DECAL, WHITE	
2	91043134	1	"1" DECAL, BLACK	
3	91003018	1	"2" DECAL, WHITE	
3	91043135	1	"2" DECAL, BLACK	
4	91123042	1	"3" DECAL, WHITE	
4	91123043	1	"3" DECAL, BLACK	
5	91003020	1	"4" DECAL, WHITE	
5	91043136	1	"4" DECAL, BLACK	
6	90200445	1	PENDULUM	
7	90200688	1	BEARING	
8	90026491	1	SHOULDER BOLT, 1/4-20	
9	88561108	1	FLAT WASHER, 5/16	
10	91003031	1	ANGLE INDICATOR DECAL	
11	91083320	2	MODEL DECAL, WHITE (524)	
11	91083319	2	MODEL DECAL, BLACK (524)	
11	91093004	2	MODEL DECAL, WHITE (522)	
11	91093003	2	MODEL DECAL, BLACK (522)	
12	91123037	2	"GRADALL" DECAL, WHITE	
12	91123038	2	"GRADALL" DECAL, BLACK	
13	91143283	1	WARNING DECAL	
14	91143282	2	WARNING DECAL	

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FIGURE 11-10. BOOM DECALS (SN 0177368 to Present)



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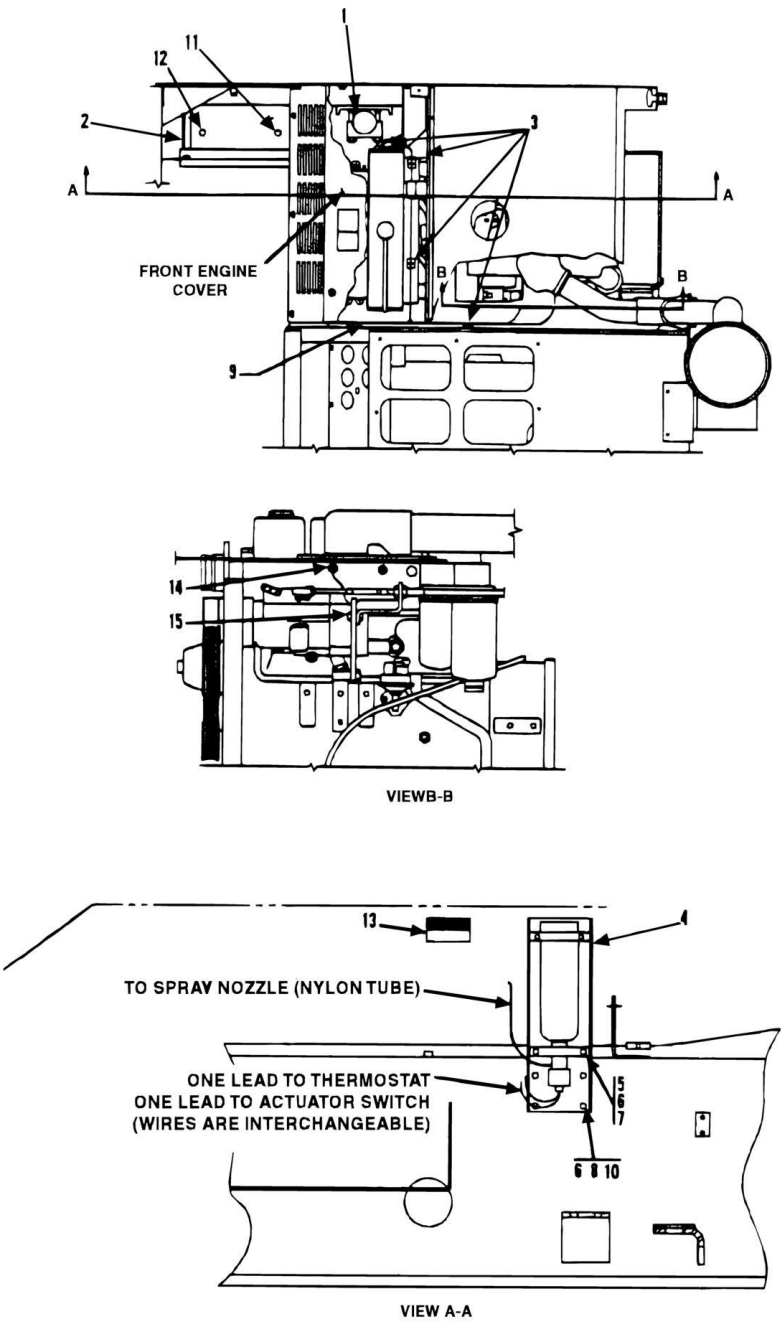
FIGURE 11-10. BOOM DECALS (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91003016	1	"1" DECAL, WHITE (standard)	
1	91043134	1	"1" DECAL, BLACK (optional)	
2	80603019	2	HOLE WARNING DECAL	
3	91003018	1	"2" DECAL, WHITE (standard)	
3	91043135	1	"2" DECAL, BLACK (optional)	
4	91123042	1	"3" DECAL, WHITE (standard)	
4	91123043	1	"3" DECAL, BLACK (optional)	
5	91003020	1	"4" DECAL, WHITE (standard)	
5	91043136	1	"4" DECAL, BLACK (OPTIONAL)	
6	91143290	1	QUICK SWITCH DECAL	
7	90200445	1	PENDULUM	
8	90200688	1	BEARING	
9	90026491	1	SHOULDER BOLT, 1/4-20	
10	88561108	1	SAE WASHER, 5/16	
11	91003031	1	BOOM ANGLE DECAL, WHITE (standard)	
12	91083320	2	MODEL DECAL, WHITE (524)	
12	91083319	2	MODEL DECAL, BLACK (524)	
12	91093004	2	MODEL DECAL, WHITE (522)	
12	91093003	2	MODEL DECAL, BLACK (522)	
13	91123037	2	GRADALL DECAL, WHITE (standard)	
13	91123038	2	GRADALL DECAL, BLACK (optional)	
14	91143283	1	WARNING DECAL	
15	91143282	2	WARNING DECAL	

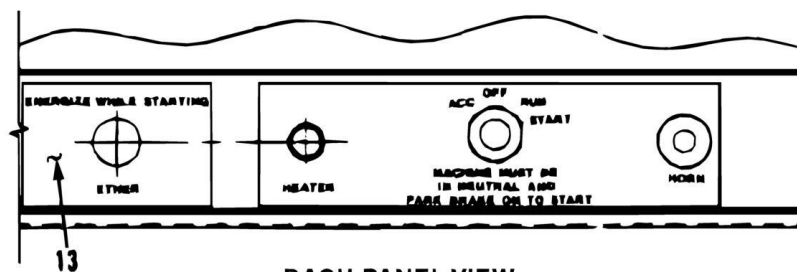
SECTION 12 - OPTIONAL EQUIPMENT

SECTION 12 - OPTIONAL EQUIPMENT

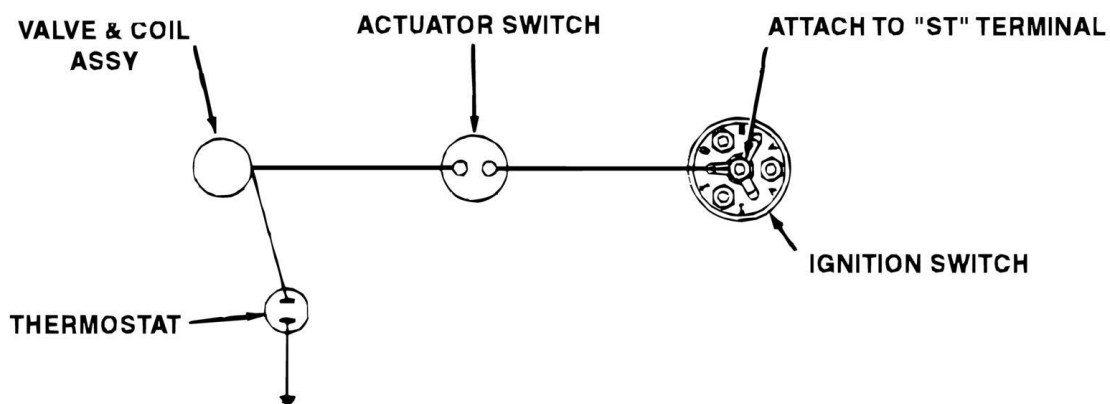
FIGURE 12-1. (91085054) ETHER STARTING KIT (SN 0177005 to Present)



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DASH PANEL VIEW



WIRING SCHEMATIC :

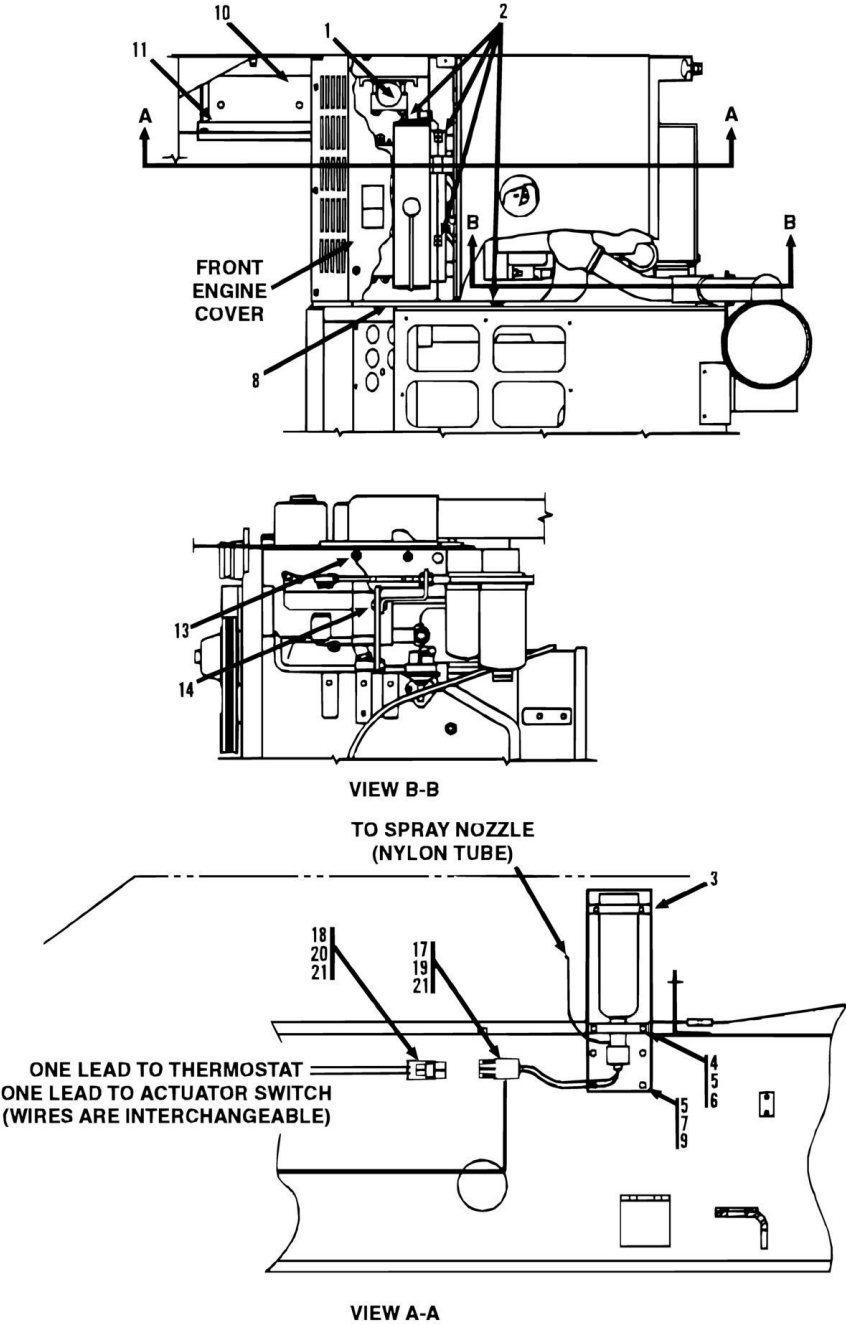
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-1. (91085054) ETHER STARTING KIT (SN 0177005 to Present)

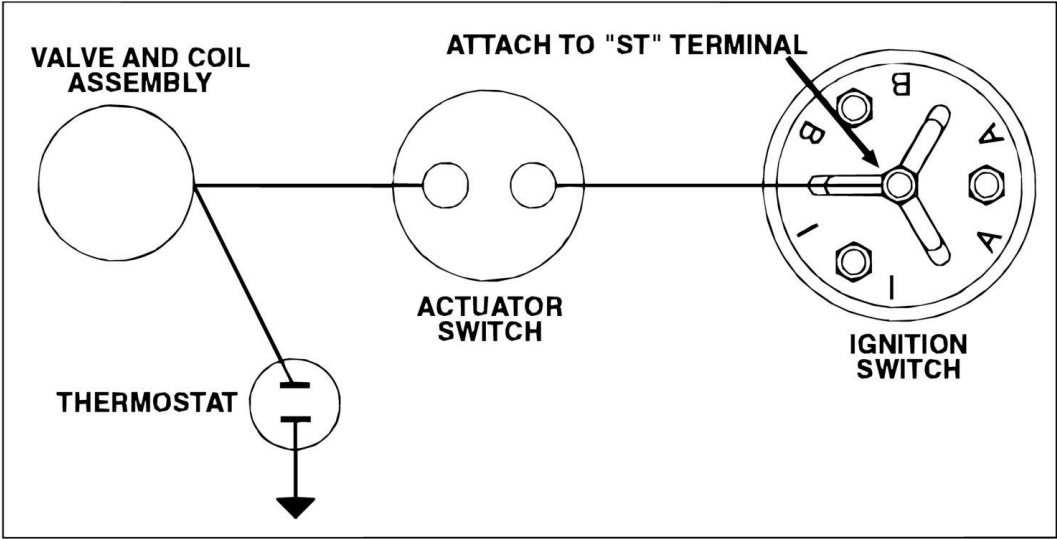
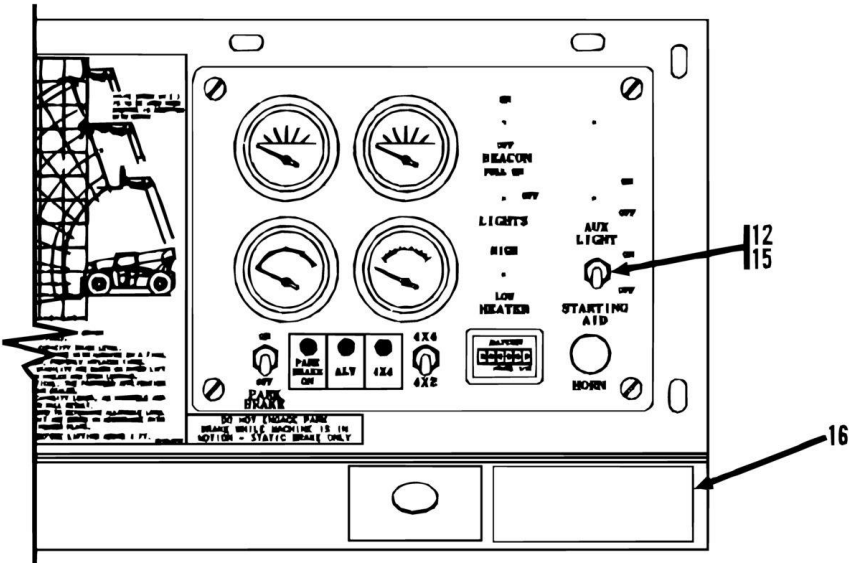
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085054	Ref	ETHER STARTING KIT (includes all items)	
1	91083361	1	QUICK START KIT	
2	91081640	2	HOLD DOWN STUD	
3	90027187	4	TY-RAP	
4	91081601	1	MOUNTING BRACKET	
5	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1, GR5	
6	88551009	6	LOCKWASHER, 1/4	
7	88501004	2	HEX NUT, 1/4-20	
8	88201002	4	HEX HD CAPSCREW, 1/4-20 x 1/8, GR5	
9	77163117	1	RUBBER GROMMET	
10	88561107	3	FLAT WASHER, 1/4	
11	Kit	1	BATTERY (purchase locally)	
12	91081517	1	BATTERY HOLD DOWN	
13	91083363	1	ETHER DECAL	
14	86983195	1	WIRE CONNECTOR	
15	86983202	1	WIRE CONNECTOR	

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FIGURE 12-2. (91085105) ETHER STARTING KIT (SN 0177122 to Present)



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WIRING SCHEMATIC

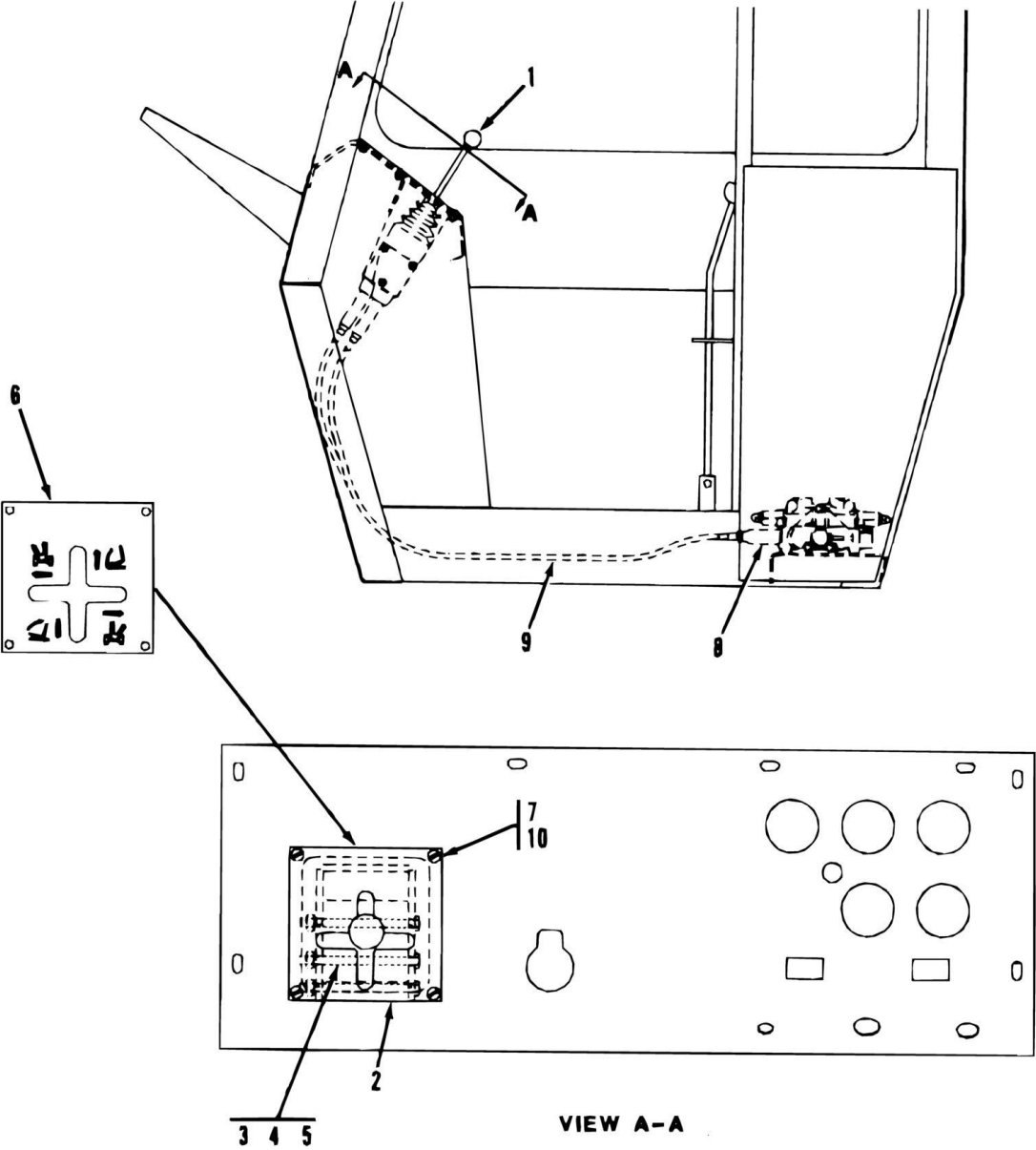
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-2. (91085105) ETHER STARTING KIT (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085105	1	ETHER STARTING KIT (includes all items)	
1	91083361	1	QUICK START KIT	
2	90027187	4	TY-WRAP	
3	91081601	1	MOUNTING BRACKET	
4	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1, GR5	
5	88551009	6	LOCKWASHER, 1/4	
6	88501004	2	HEX NUT, 1/4-20	
7	88201002	4	HEX HD CAPSCREW, 1/4-20 x 5/8, GR5	
8	77163117	1	RUBBER GROMMET	
9	88561107	3	FLAT WASHER, 1/4	
10	Kit	1	BATTERY (purchase locally)	
11	91081517	1	BATTERY HOLDDOWN	
12	91143163	1	TOGGLE SWITCH	
13	86983195	2	WIRE CONNECTOR	
14	86983202	1	WIRE CONNECTOR	
15	77383470	1	BOOT	
16	91143202	1	INSTRUCTION DECAL	
17	80963058	1	2-WAY SHROUD CONNECTOR	
18	80963057	1	2-WAY TOWER CONNECTOR	
19	80963069	2	MALE PIN TERMINAL	
20	80963068	2	FEMALE PIN TERMINAL	
21	80963065	4	CABLE SEAL	

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FIGURE 12-3. (91085046) L.H. TILT SWAY CONTROL (SN 0177005 to Present)



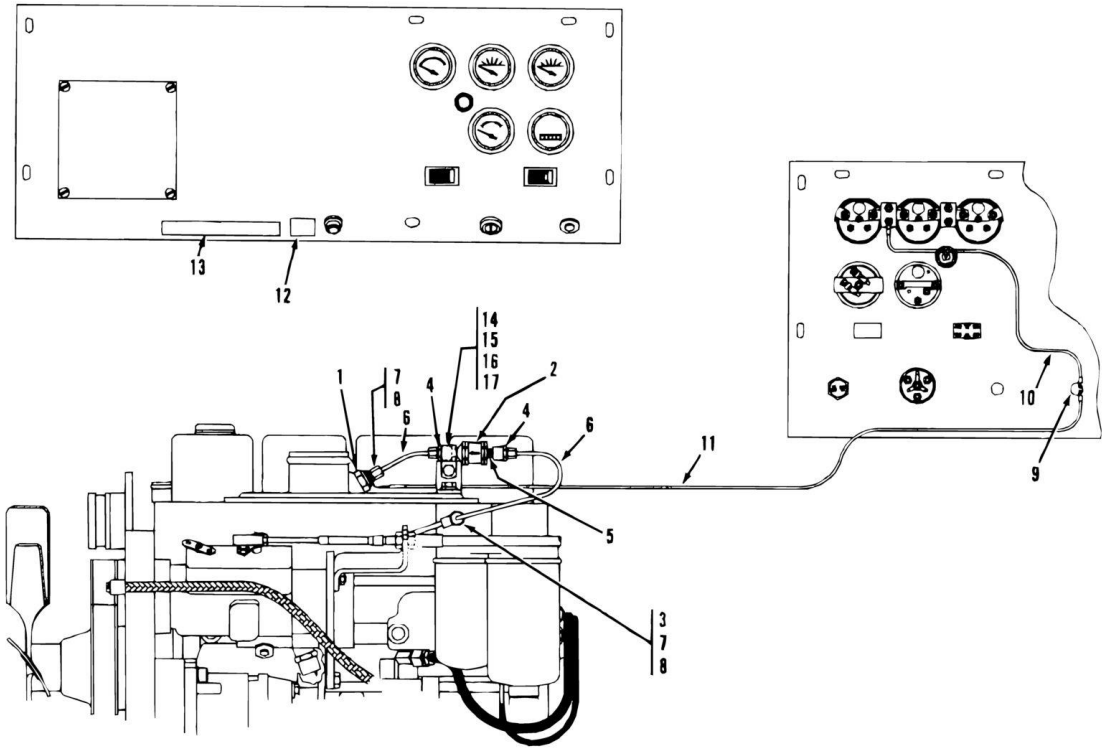
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-3. (91085046) L.H. TILT SWAY CONTROL (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085046	Ref	L.H. TILT SWAY CONTROL LEVER ASSY (includes all items except four of item 4, item 7 & item 10)	
1	91083107	1	REMOTE VALVE CONTROL	
1	91084282	1	KNOB	
1	91084359	1	BOOT	
2	91086089	1	BRACKET	
3	11002410	3	HEX HD CAPSCREW, 1/4-28X4-1/2, GR5	
4	88551009	7	LOCKWASHER, 1/4	
5	88501304	3	HEX NUT, 1/4-28	
6	91083341	1	TILT/SWAY CONTROL PLATE	
7	88261022	4	ROUND HD MACHINE SCREW, 5/16-18X3/4	
8	91123062	2	CABLE ADAPTER	
9	91083393	2	CONTROL CABLE	

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FIGURE 12-4. (91085059) GLOW PLUG INSTALLATION



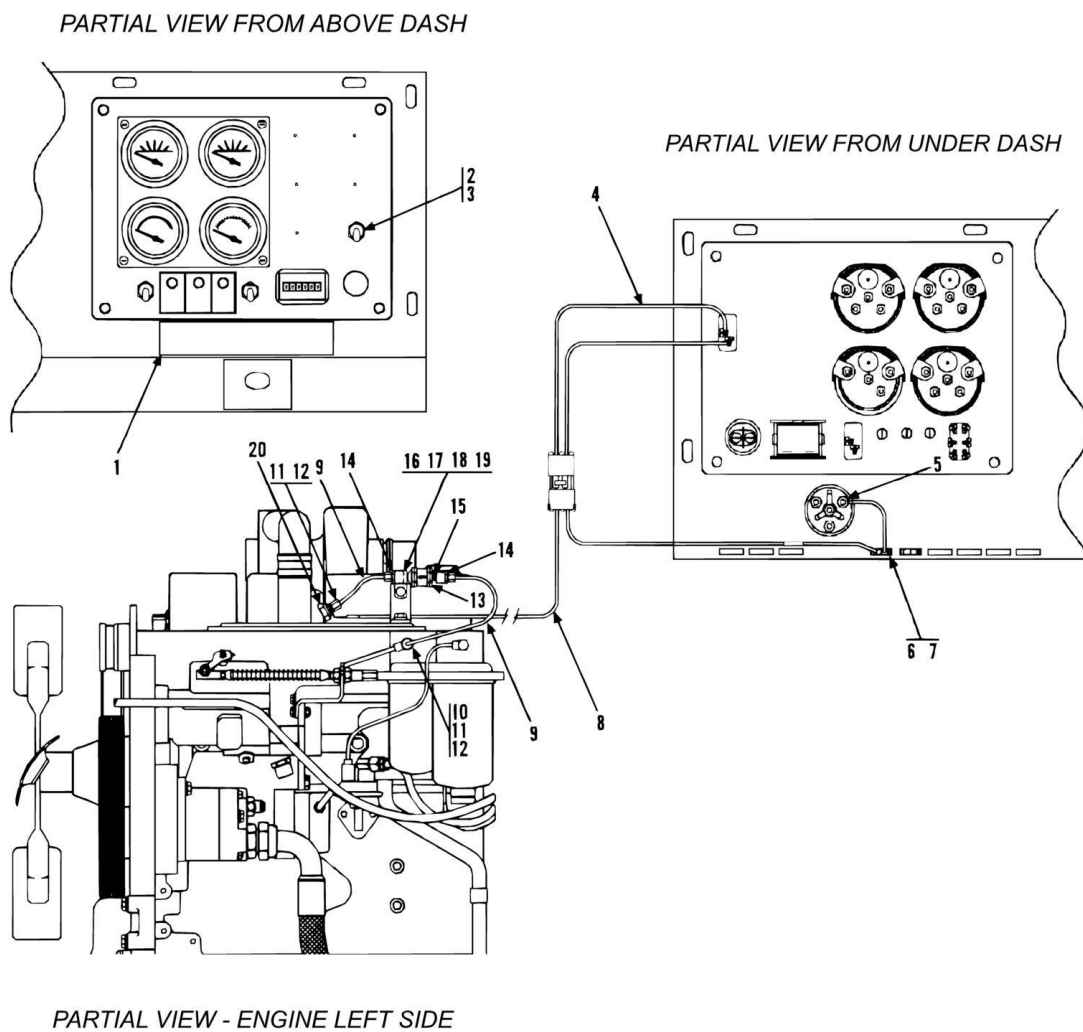
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-4. (91085059) GLOW PLUG INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085059	Ref	GLOW PLUG INSTALLATION (includes all items)	
1	91083372	1	THERMOSTAT	
2	86683330	1	FUEL CHECK VALVE	
3	91083374	1	BANJO CONNECTOR	
4	91083380	2	BRASS ADAPTER	
5	88701002	1	CLOSE NIPPLE, 1/4X7/8	
6	Bulk	18 in	STEEL TUBE, 3/16IN O.D.	
7	91083375	2	OLIVE	
8	91083371	2	TUBE NUT	
9	24771004	1	PUSH BUTTON SWITCH	
10	91031495	1	JUMPER WIRE	
11	91031278	1	JUMPER WIRE	
12	91033251	1	BUTTON DECAL	
13	91033252	1	INSTRUCTION DECAL	
14	91081582	1	SUPPORT BRACKET	
15	24861170	1	CLIP	
16	88201016	1	HEX HD CAPSCREW, 5/16-18x1/2, GR5	
17	88551010	1	LOCKWASHER, 5/16	

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FIGURE 12-5. (91145033) GLOW PLUG INSTALLATION (SN 0177122 to Present)



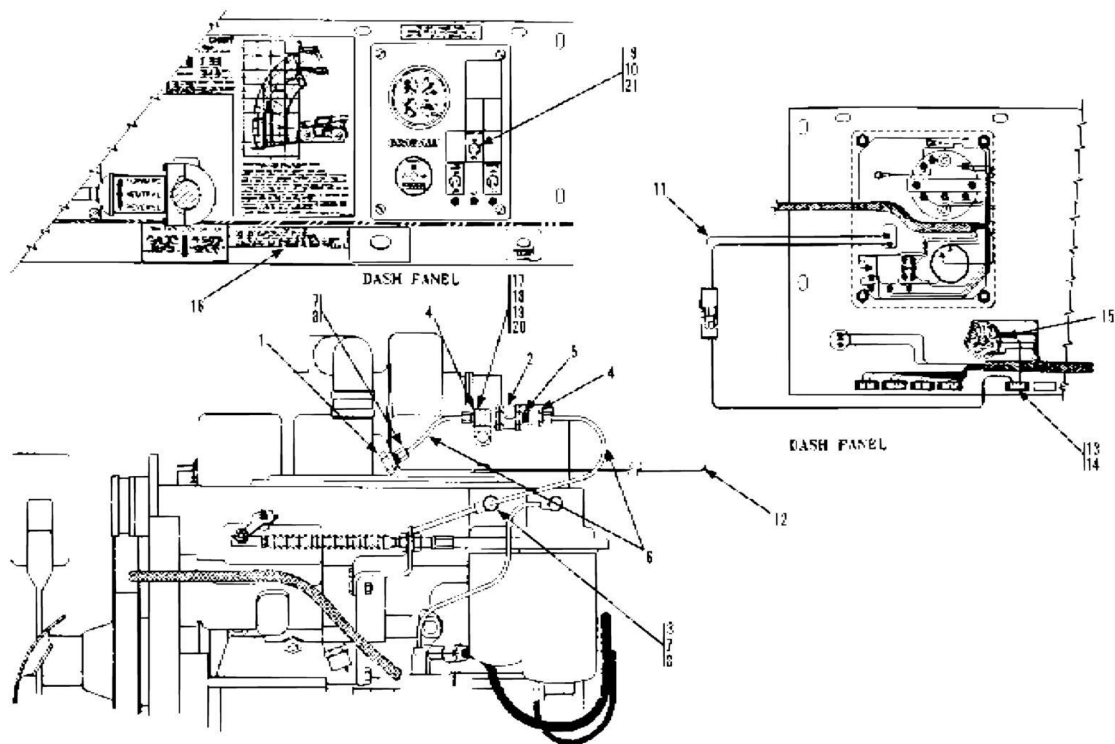
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-5. (91145033) GLOW PLUG INSTALLATION (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145033	1	GLOW PLUG INSTALLATION (includes all items)	
1	91143164	1	INSTRUCTION DECAL	
2	91143163	1	TOGGLE SWITCH	
3	77383470	1	BOOT	
4	91145034	1	WIRING HARNESS	
5	86983190	1	#10 EYELET	
6	91143108	1	FUSE HOLDER	
7	77363268	1	15 AMP FUSE	
8	91145035	1	WIRING HARNESS	
9	91081676	1	STEEL TUBE (cut and bend as req'd.)	
10	91083374	1	BANJO CONNECTOR	
11	91083375	2	OLIVE	
12	91083371	2	TUBE NUT	
13	86683330	1	FUEL CHECK VALVE	
14	91083380	2	BRASS ADAPTER (includes nut and sleeve)	
15	88701002	1	CLOSE NIPPLE	
16	91081582	1	SUPPORT BRACKET	
17	24861170	1	CLIP	
18	88201016	1	HEX HD CAPSCREW, 5/16-18 X 1/2, GR5	
19	88551010	1	LOCKWASHER, 5/16	
20	91083372	1	THERMOSTAT	

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FIGURE 12-6. (91125101) GLOW PLUG INSTALLATION (SN 0177368 to Present)



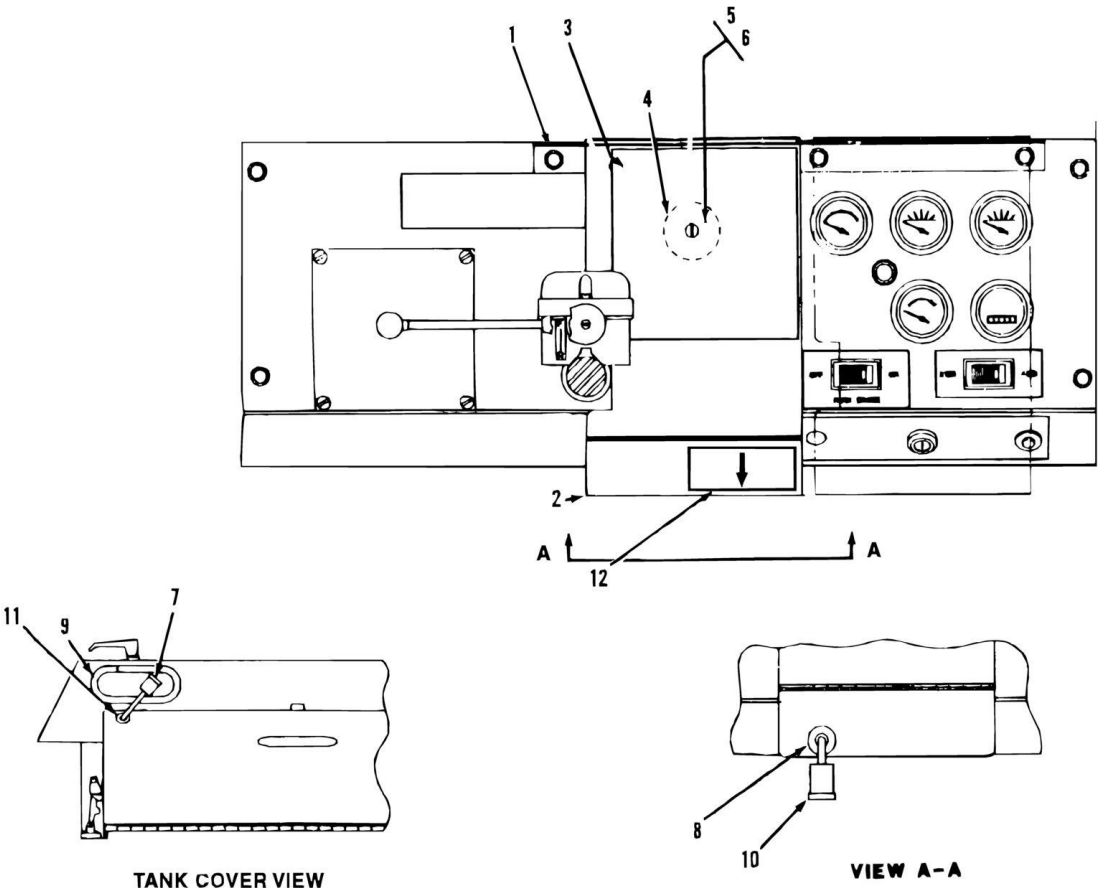
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FIGURE 12-6. (91125101) GLOW PLUG INSTALLATION (SN 0177368 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125101	1	GLOW PLUG INSTALLATION, (includes all items)	
1	91083372	1	THERMOSTAT	
2	86683330	1	FUEL CHECK VALVE	
3	91083374	1	BANJO CONNECTOR	
4	91083380	2	BRASS ADAPTER, (includes nut and sleeve)	
5	88701002	1	CLOSE NIPPLE	
6	91081676	1	STEEL TUBE	
7	91083375	2	OLIVE	
8	91083371	2	TUBE NUT	
9	91123181	1	TOGGLE SWITCH	
10	77383470	1	BOOT	
11	91145034	1	WIRING HARNESS	
12	91145035	1	WIRING HARNESS	
13	91143108	1	FUSE HOLDER	
14	77363268	1	15A FUSE	
15	86983190	1	#10 EYELET	
16	91143164	1	INSTRUCTION DECAL	
17	91081582	1	SUPPORT BRACKET	
18	24861170	1	CLIP	
19	88201016	1	HEX HD CAPSCREW, 5/16-18x1/2, GR5	
20	88551010	1	LOCKWASHER, 5/16	
21	91123176	1	START AID DECAL	

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FIGURE 12-7. (91085055) VANDAL COVER (SN 0177005 to Present)



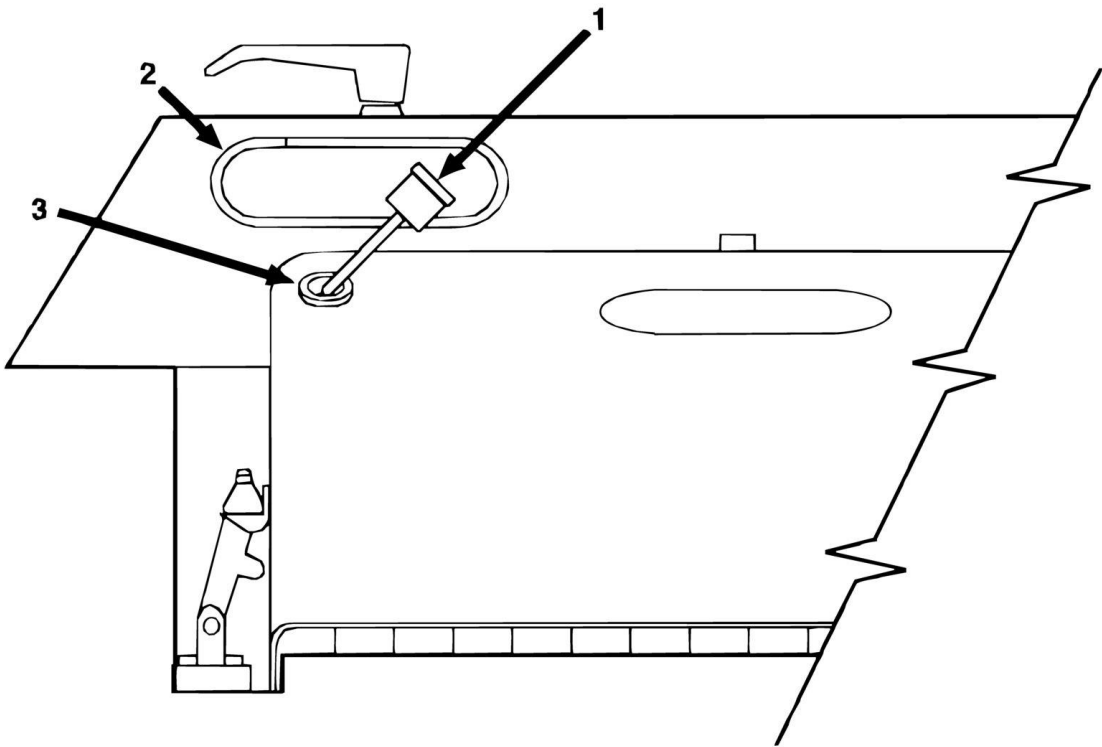
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FIGURE 12-7. (91085055) VANDAL COVER (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085055	Ref	VANDAL COVER OPTION (includes all items)	
1	91081603	1	MOUNTING BRACKET	
2	91081602	1	COVER	
3	91083321	1	CAPACITY DECAL	
4	91083366	1	VIBRATION MOUNT	
5	88301126	1	ROUND HD MACHINE, 1/4-20X3/4	
6	88521304	1	HEX LOCKNUT, 1/4-20	
7	91083365	1	PADLOCK	
8	83641359	2	RUBBER GROMMET	
9	90206194	12 IN	TRIM LOK	
10	85641094	1	PADLOCK	
11	86961044	3	RUBBER GROMMET	
12	91083314	1	TRACTION DECAL	

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FIGURE 12-8. (91085102) VANDAL KIT (SN 0177122 to Present)



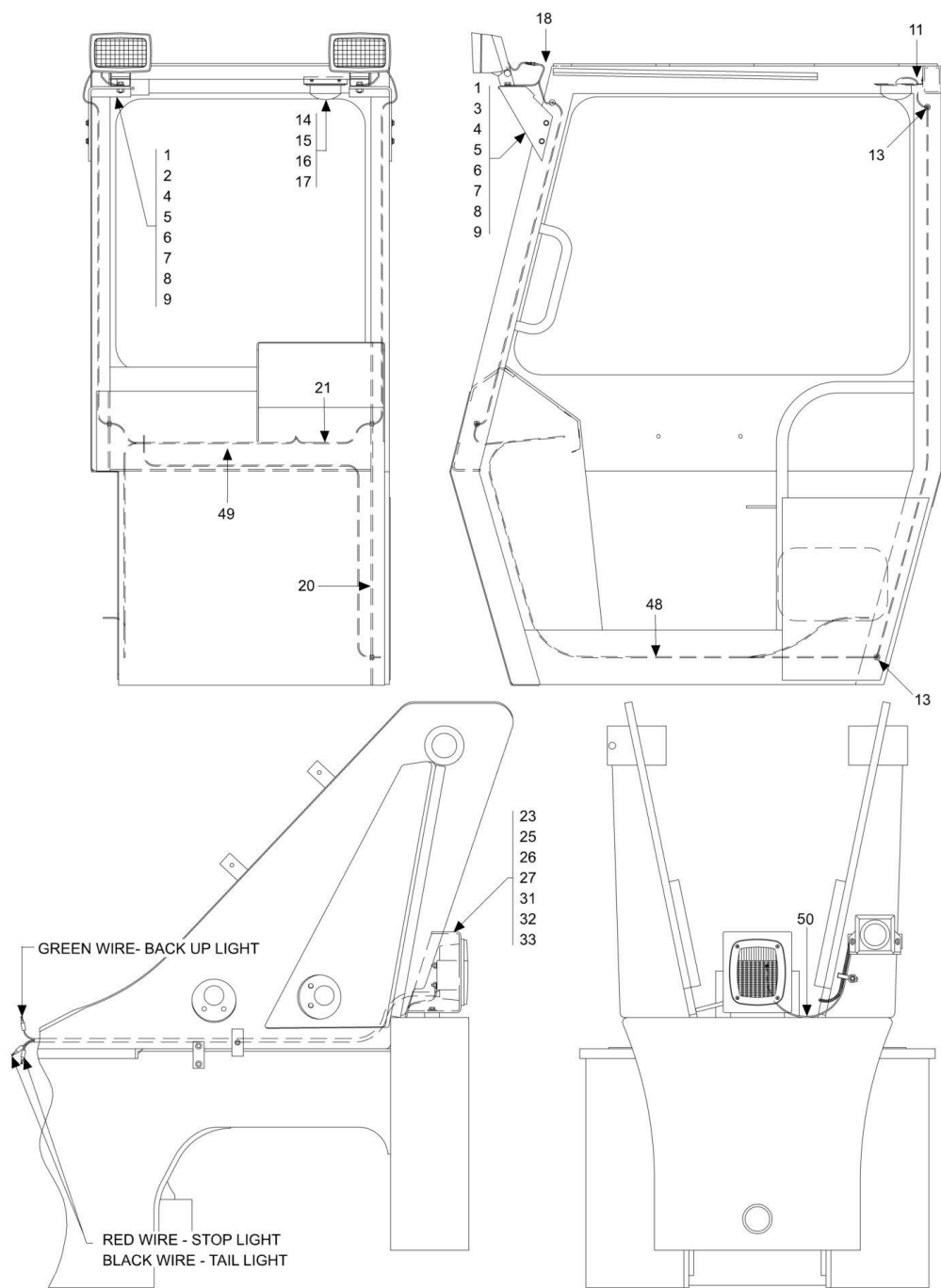
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-8. (91085102) VANDAL KIT (SN 0177122 to Present)

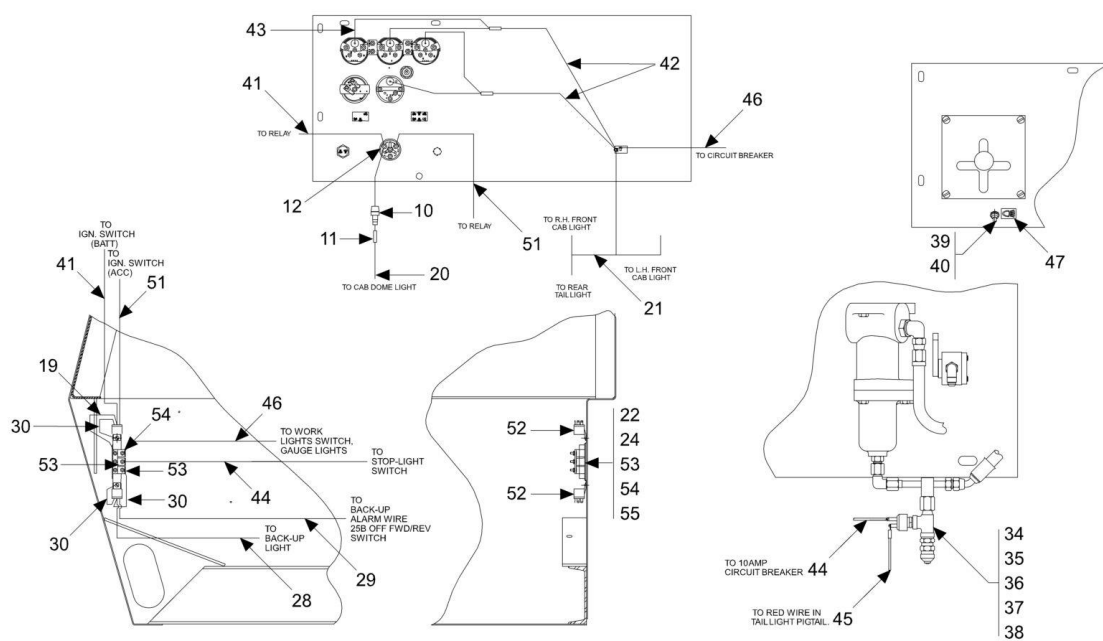
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085102	1	VANDAL KIT (includes all items)	
1	91083365	1	PADLOCK	
2	90206194	12 IN	TRIM-LOK	
3	86961044	3	RUBBER GROMMET	

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FIGURE 12-9. (91125018) WORK LIGHT PACKAGE



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FIGURE 12-9. (91125018) WORK LIGHT PACKAGE

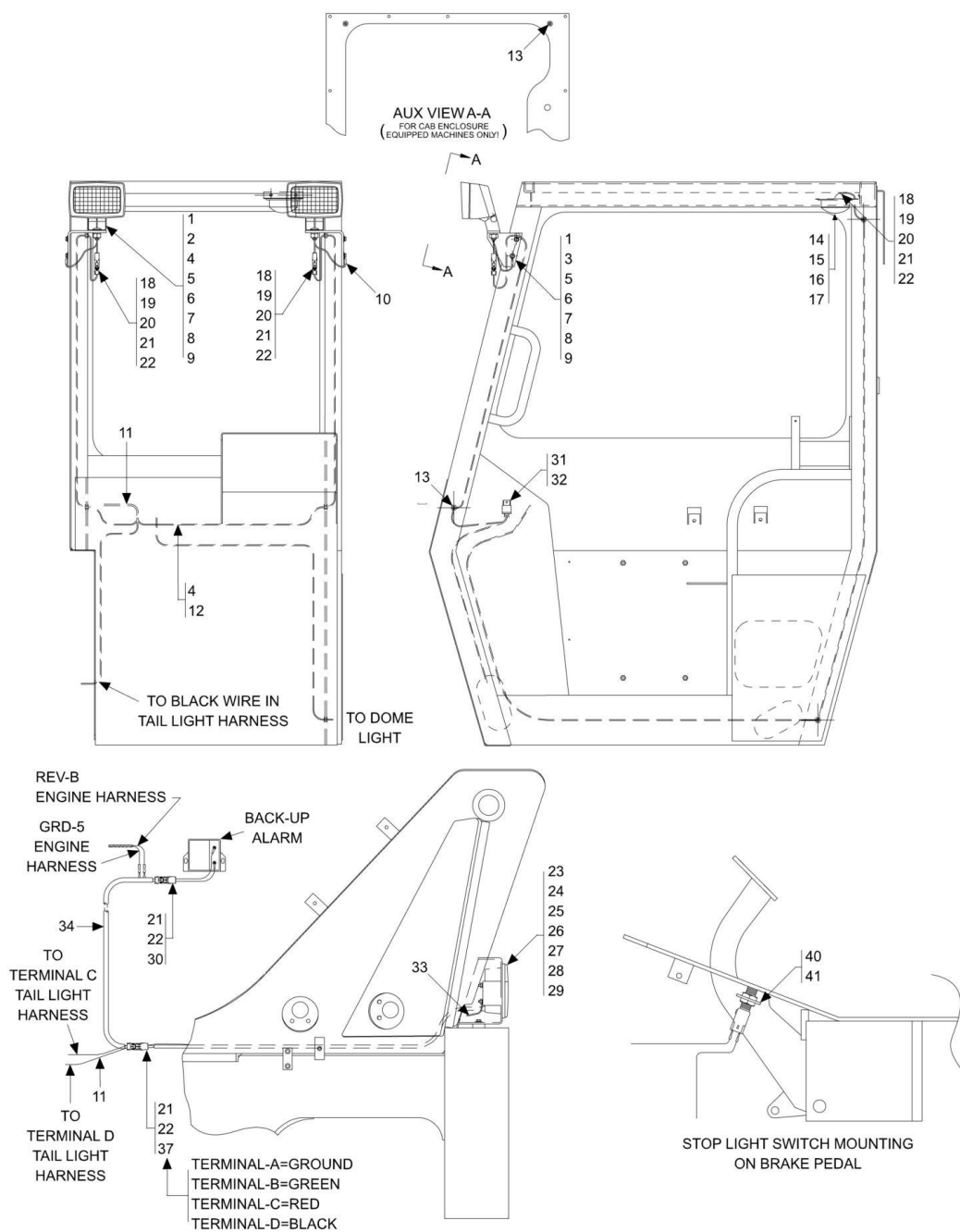
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125018	1	WORK LIGHT PACKAGE, (includes all items)	
1	91125110	2	HALOGEN WORK LIGHT KIT, (includes the following two items)	
1	80963050	1	UTILITY FLOOD LIGHT	
1	90028960	2	MALE TERMINAL	
2	91121148	1	R.H. LIGHT SUPPORT	
3	91121149	1	L.H. LIGHT SUPPORT	
4	91121150	2	JUMPER WIRE	
5	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
6	88561109	2	FLAT WASHER, 3/8	
7	88551011	2	LOCKWASHER, 3/8	
8	88501006	2	HEX NUT, 3/8-16	
9	90027319	4	SELF TAPPING SCREW	
10	90203376	1	IN LINE FUSE	
11	86683480	2	BUTT CONNECTOR	
12	86983188	1	EYELET	
13	90027214	6	RUBBER GROMMET	
14	91011009	1	MOUNTING BRACKET	
15	90029955	1	RUBBER GROMMET	
16	88321022	2	SELF TAPPING SCREW, #8-32X3/8	
17	24861167	1	INTERIOR LIGHT	
18	77163102	2	SLIP-ON ELECTRICAL CONNECTOR	
19	91121188	1	JUMPER WIRE	
20	91121151	1	JUMPER WIRE	
21	91123066	1	LIGHT HARNESS	
22	88321039	2	SELF TAPPING SCREW, 10-32X1/2	
23	90207220	1	MOUNTING BAR	
24	86981178	1	BUSS BAR	
25	91121145	1	TAIL LIGHT HOUSING	
26	91121146	1	TAIL LIGHT BRACKET	
27	91365045	2	TAIL LIGHT ASSEMBLY, (includes the following seven items)	
27	91123065	1	TAIL LIGHT	
27	86661147	38 IN	WIRE, 16 GAUGE, (black)	
27	86661149	38 IN	WIRE, 16 GAUGE, (green)	
27	86661152	38 IN	WIRE, 16 GAUGE, (red)	
27	86683480	3	BUTT CONNECTOR	
27	82033996	45 IN	WIRE LOOM	
27	86683122	2	TIE WRAP	
28	91121193	1	JUMPER WIRE	
29	91121192	1	JUMPER WIRE	
30	91121191	3	JUMPER WIRE	
31	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
32	88561108	2	WASHER, 5/16	
33	88551010	2	LOCKWASHER, 5/16	
34	86561326	1	ADAPTER, 3/8 TUBEX1/4 PIPE	
35	91033032	1	TEST COUPLING	
36	88712232	1	STREET TEE	
37	88711380	1	REDUCING BUSHING, 1/4X1/8	
38	83663097	1	STOP LIGHT SWITCH	
39	77383467	1	LIGHT SWITCH	
40	77383470	1	BOOT	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41	91121186	1	JUMPER WIRE	
42	91121152	2	JUMPER WIRE	
43	91033360	4	GAUGE LIGHTING KIT	
44	91121190	1	JUMPER WIRE	
45	91121154	1	JUMPER WIRE	
46	91121189	1	JUMPER WIRE	
47	91003055	1	LIGHTS DECAL	
48	86683122	8	TIE WRAP, (use as needed to tie wires to hoses under floor and in frame)	
49	91053419	3	TIE WRAP, (use as needed to tie wires up under dash)	
50	91121181	1	JUMPER WIRE	
51	91121187	1	JUMPER WIRE	
52	77383410	2	RELAY	
53	86883071	2	CIRCUIT BREAKER, 10 AMP	
54	86983041	1	CIRCUIT BREAKER, 20 AMP	
55	77363191	1	CIRCUIT BREAKER BRACKET	

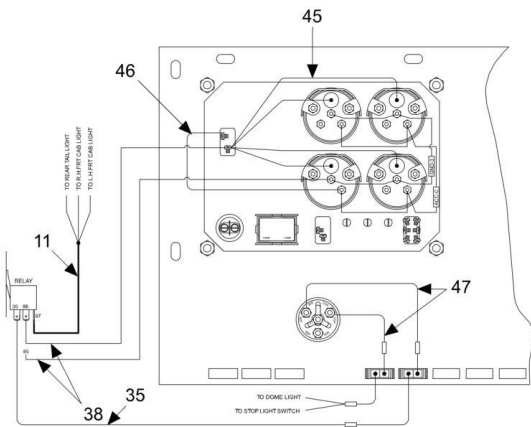
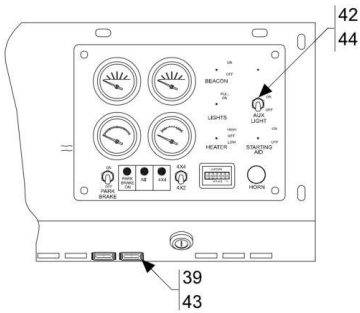
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FIGURE 12-10. (91085103) WORK LIGHT PACKAGE (SN 0177122 to Present)

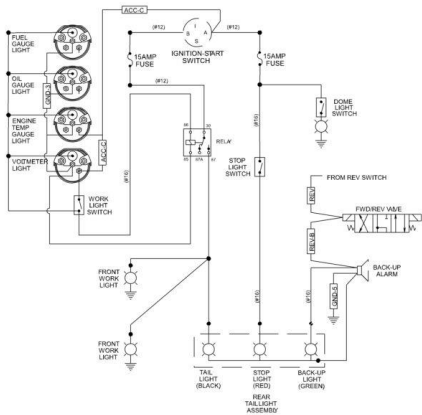


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PARTIAL VIEW FROM ABOVE DASH



PARTIAL VIEW FROM UNDER DASH



ELECTRICAL SCHEMATIC

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FIGURE 12-10. (91085103) WORK LIGHT PACKAGE (SN 0177122 to Present)

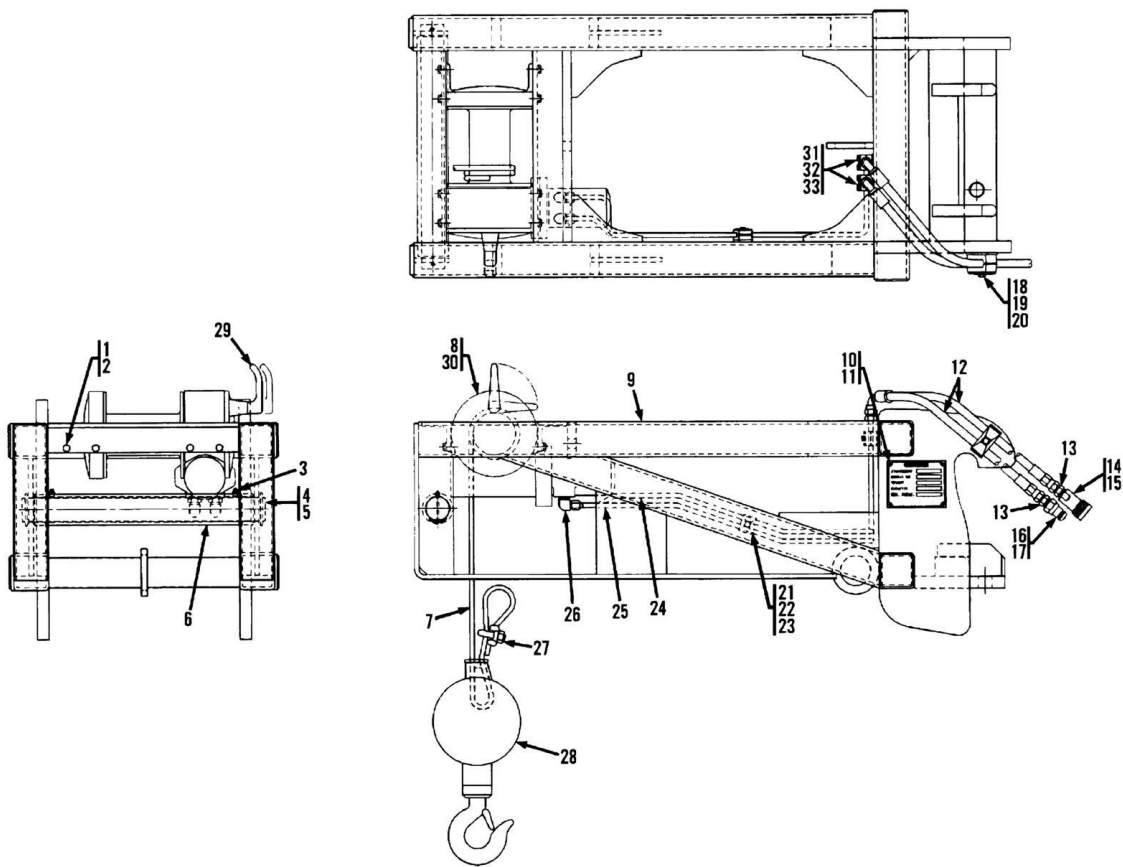
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085103	1	WORK LIGHT PACKAGE, (includes all items)	
1	80963050	2	UTILITY FLOOD LIGHT	
2	91141182	1	R.H. LIGHT SUPPORT	
3	91141183	1	L.H. LIGHT SUPPORT	
4	91053419	AR	TIE WRAP	
5	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
6	88561109	2	FLAT WASHER, 3/8	
7	88551011	2	LOCKWASHER, 3/8	
8	88501006	2	HEX NUT, 3/8-16	
9	90027319	4	TAP SCREW, 1/4-20X1	
10	86883260	2	EYELET	
11	91143270	1	LIGHT HARNESS	
12	86683122	AR	TIE WRAP	
13	90027214	8	RUBBER GROMMET	
14	91011009	1	MOUNTING BRACKET	
15	90029955	1	RUBBER GROMMET	
16	88321022	2	SELF TAPPING SCREW, #8-32X3/8	
17	24861167	1	INTERIOR LIGHT	
18	80963055	3	W. PACK CONNECTOR, (tower)	
19	80963056	3	W. PACK CONNECTOR, (shroud)	
20	80963068	3	W. PACK CONNECTOR, (female pin)	
21	80963069	9	W. PACK CONNECTOR, (male pin)	
22	80963066	12	W. PACK CONNECTOR, (cable seal)	
23	90207220	1	MOUNTING BAR	
24	91121145	1	TAIL LIGHT HOUSING	
25	91121146	1	TAIL LIGHT BRACKET	
26	91365045	2	TAIL LIGHT ASSEMBLY, (includes the following seven items)	
26	91123065	1	TAIL LIGHT	
26	86661147	38 IN	WIRE, 16 GAUGE, (black)	
26	86661149	38 IN	WIRE, 16 GAUGE, (green)	
26	86661152	38 IN	WIRE, 16 GAUGE, (red)	
26	86683480	3	BUTT CONNECTOR	
26	82033996	45 IN	WIRE LOOM	
26	86683122	2	TIE WRAP	
27	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
28	88561108	2	FLATWASHER, 5/16	
29	88551010	2	LOCKWASHER, 5/16	
30	80963058	1	W. PACK CONNECTOR, (shroud)	
31	77383410	1	RELAY	
32	88321039	1	SELFTAPPING SCREW, #10-32X1/2	
33	91141364	1	JUMPER WIRE	
34	91143210	1	TAIL LIGHT HARNESS	
35	91141266	1	JUMPER WIRE	
36		Ref	WIRE LOOM, (use on all wires)	
37	80963062	1	W. PACK CONNECTOR, (shroud)	
38	91141265	2	JUMPER WIRE	
39	77363268	2	FUSE,15 AMP	
40	91141197	1	MOUNTING TAB	
41	91143117	1	STOP LIGHT SWITCH	
42	77383467	1	LIGHT SWITCH	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	91143108	2	FUSE HOLDER	
44	77383470	1	BOOT	
45	91033360	4	GUAGE LIGHTING KIT	
46	91141258	1	JUMPER WIRE	
47	91141259	2	JUMPER WIRE	

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FIGURE 12-11. (91085056) QUICK HOOK ASSEMBLY (SN 0177005 to Present)



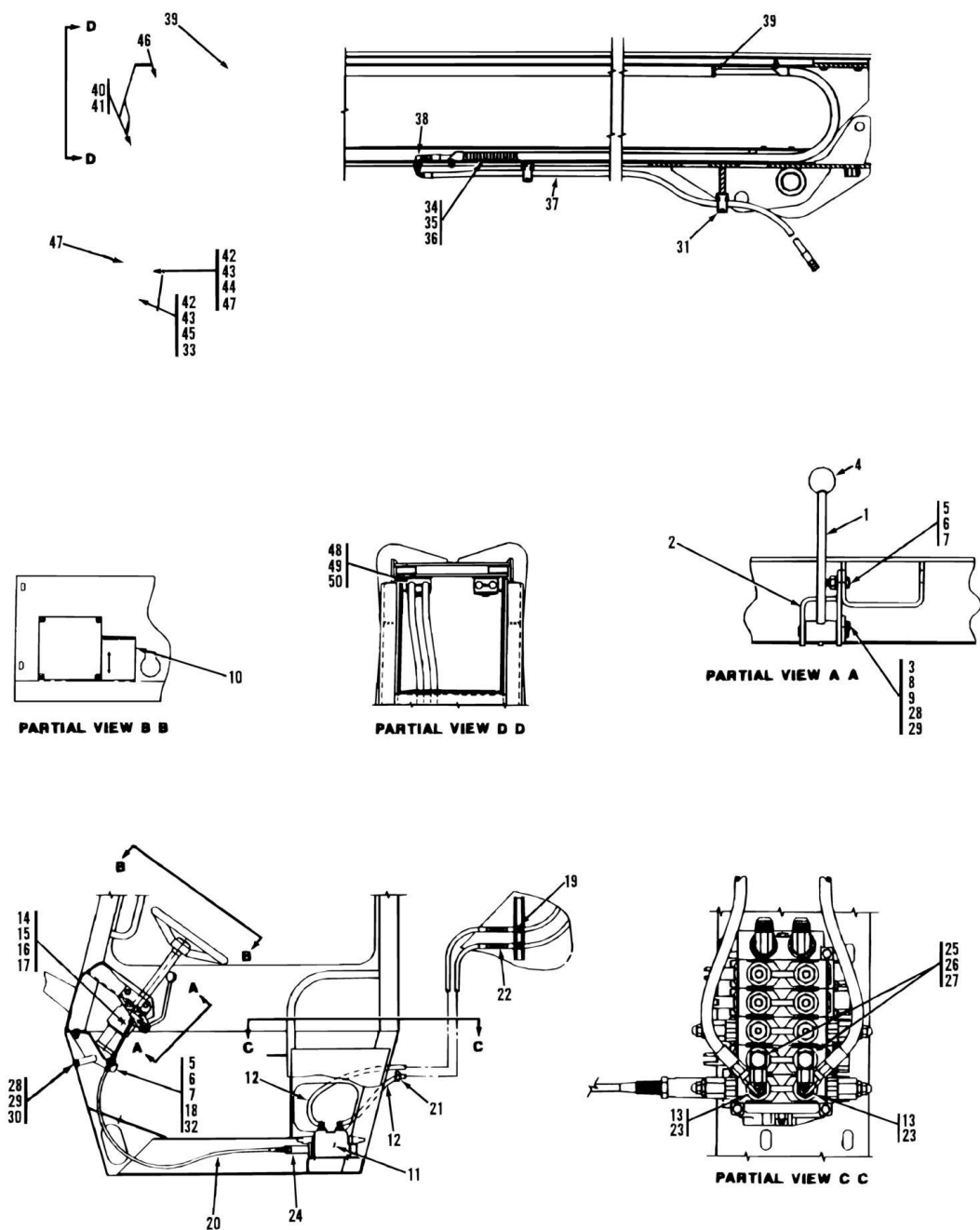
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FIGURE 12-11. (91085056) QUICK HOOK ASSEMBLY (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085056	Ref	QUICK HOOK ASSY, (includes all items)	
1	88551011	8	LOCKWASHER, 3/8	
2	88201034	8	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
3	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
4	91081574	1	PIN	
5	88631343	2	COTTER PIN	
6	91081573	1	ROLLER	
7	91083368	1	WIRE ROPE, (7/16IN Dia.)	
8	91083367	1	WINCH	
9	91086119	1	QUICK HOOK WELDMENT	
10	90153001	1	SERIAL NO. PLATE	
11	88341022	4	ROUND HD DRIVE SCREW, #10X3/8	
12	90205126	2	HOSE ASSY	
13	77363079	2	STRAIGHT THREAD CONNECTOR (Prior to SN 2005283-01)	
13	88662006	2	CONNECTOR, (includes 88591205 o-ring), (SN 2005283-01 to Present)	
14	91043125	1	DUST CAP	
15	91163139	1	FEMALE HYDRAULIC COUPLING (Prior to SN 2005283-01)	
15	91403413	1	FEMALE HYDRAULIC COUPLING, (SN 2005283-01 to Present)	
16	91043126	1	DUST CAP	
17	91163138	1	MALE HYDRAULIC COUPLING (Prior to SN 2005283-01)	
17	91403414	1	MALE HYDRAULIC COUPLING, (SN 2005283-01 to Present)	
18	77133136	1	STAUFF CLAMP SET	
19	77133137	1	STAUFF COVER PLATE	
20	88201023	1	HEX BOLT	
21	77133270	1	STAUFF CLAMP SET	
22	88561002	1	STAUFF COVER PLATE	
23	88201005	1	HEX BOLT	
24	91143276	1	TUBE ASSY	
25	91143275	1	TUBE ASSY	
26	88661110	2	MALE ELBOW, 90, 3/8X1/2 TUBE	
27	90029999	1	WIRE ROPE CLAMP, 7/16	
28	90201443	1	HOOK AND BALL	
29	91143277	1	L-HANDLE	
30	91081737	1	WEDGE	
31	91063040	2	CLAMP SET	
32	91063039	2	COVER PLATE	
33	88201006	4	HEX BOLT	

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FIGURE 12-12. (91085047) AUXILIARY HYDRAULICS (SN 0177005 to Present)



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FIGURE 12-12. (91085047) AUXILIARY HYDRAULICS (SN 0177005 to Present)

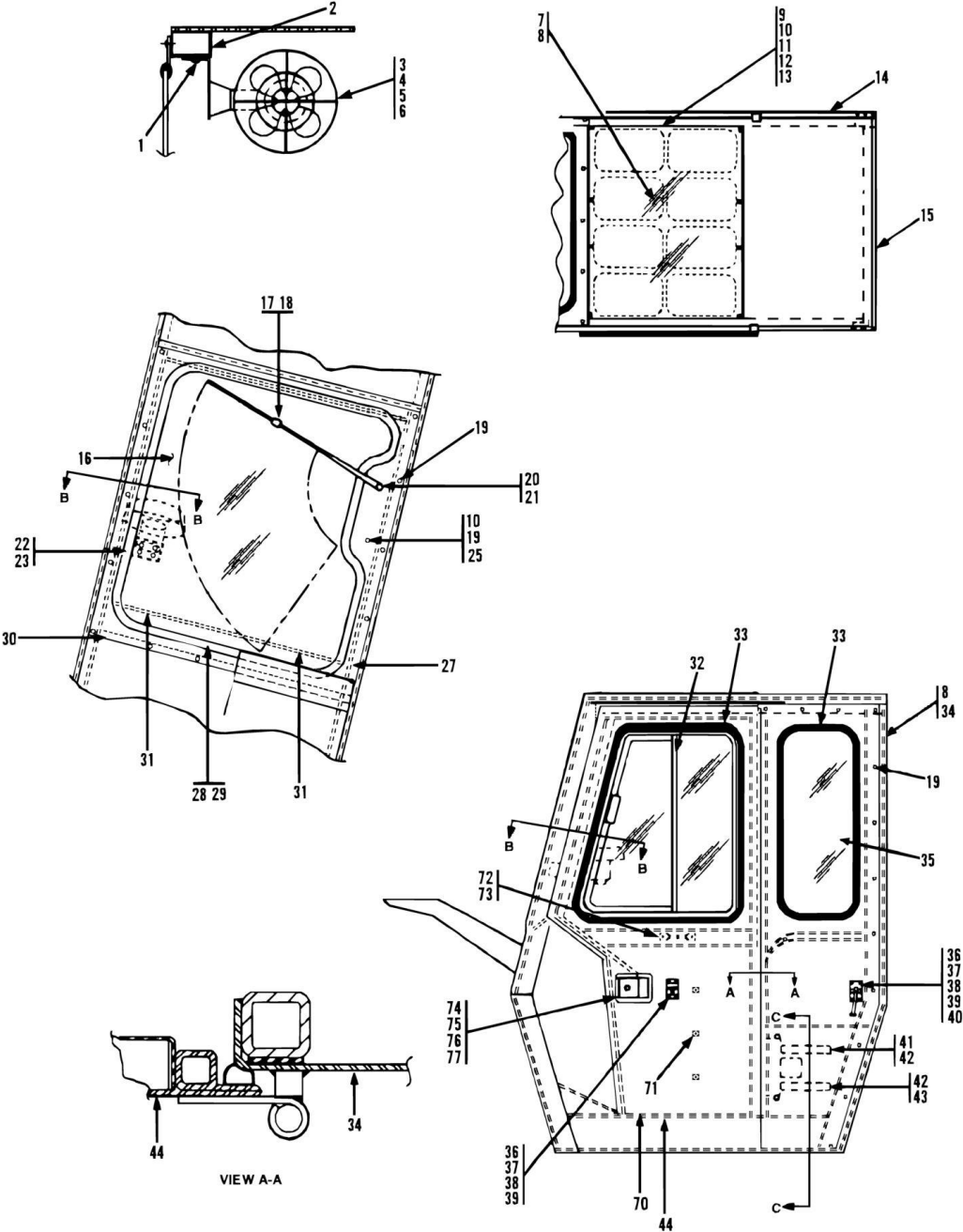
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085047	Ref	AUXILIARY HYDRAULIC ASSY (includes all items)	
1	91126026	1	HANDLE WELDMENT	
2	91126025	1	LEVER BRACKET	
3	91126027	1	PIN WELDMENT	
4	90200299	1	KNOB	
5	88201036	4	HEX HD CAPSCREW, 3/8-16 x 1-1/4, GR5	
6	88501006	4	HEX NUT, 3/8-16	
7	88551011	4	LOCK WASHER, 3/8	
8	91083136	2	BUSHING	
9	90028662	2	WAVE BEND WASHER	
10	91033417	1	AUXILIARY CONTROL DECAL	
11	91083420	1	MAIN CONTROL VALVE	
12	84718026	2	HOSE ASSY	
13	91083310	2	ELBOW, 90	
14	88821002	1	ADJUSTABLE YOKE END	
15	88633001	1	YOKE PIN, 1/4	
16	88631302	1	COTTER PIN, 1/16 x 3/4	
17	88501404	1	HEX JAM NUT, 1/4-28	
18	91126023	1	CABLE BRACKET WELDMENT	
19	90207464	2	CUSHION CLAMP	
20	91123050	1	PUSH-PULL CABLE	
21	90027187	10	TIE WRAP	
22	88661065	2	UNION, 1/2 TUBE	
23	88591206	2	O-RING	
24	91123062	1	CABLE ADAPTER BONNET	
25	91083343	2	LONG ELBOW, 90	
26	88661348	2	TUBE END REDUCER, 5/8 x 1/4	
27	88661407	2	NUT, 5/8	
28	88201018	2	HEX HD CAPSCREW, 5/16-18 x 3/4, GR5	
29	88551010	2	LOCK WASHER, 5/16	
30	88501005	1	HEX NUT, 5/16-18	
31	90207463	4	CUSHION CLAMP	
32	88561004	2	FLATWASHER, 3/8	
33	91043125	1	DUST PLUG	
34	91083290	1	HOSE CARRIER	
35	88411037	4	ROUND HD CARRIAGE BOLT, 5/16-18 x 1	
36	88521205	4	HEX LOCKNUT, 5/16-18	
37	84717563	2	HOSE ASSY	
38	90027179	4	90, BULKHEAD FITTING	
39	90206194	AR	TRIM-LOCK	
40	14402248	AR	ADHESIVE	
41	90206199	13 IN	TRIM-LOCK	
42	91123061	2	BULKHEAD FITTING	
43	88712305	2	REDUCING BUSHING, 1/2 x 1/4	
44	90204244	1	MALE HYDRAULIC COUPLER	
45	90204245	1	FEMALE HYDRAULIC COUPLER	
46	84718032	2	HOSE ASSY	
47	91043126	1	DUST CAP	
48	77133139	1	STAUFF CLAMP SET	
49	77133140	1	STAUFF COVER PLATE	

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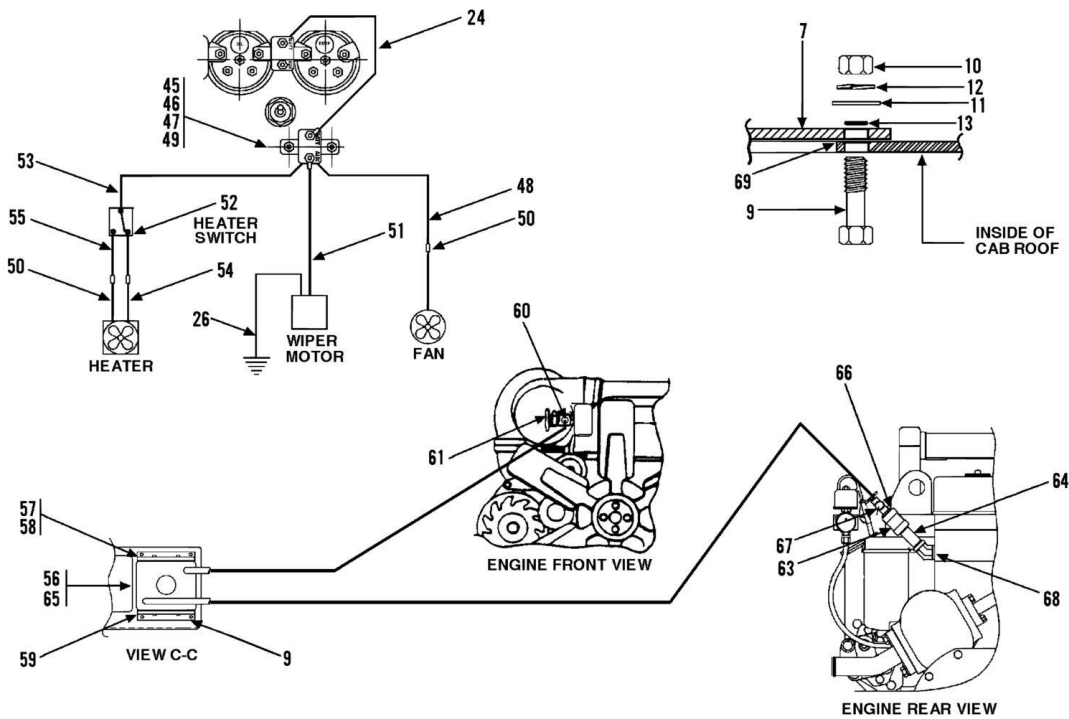
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	77133177	1	HEX HD CAPSCREW, 5/16-18 x 1 3/8	

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FIGURE 12-13. (91085050) CAB ENCLOSURE (SN 0177005 to Present)



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FIGURE 12-13. (91085050) CAB ENCLOSURE (SN 0177005 to Present)

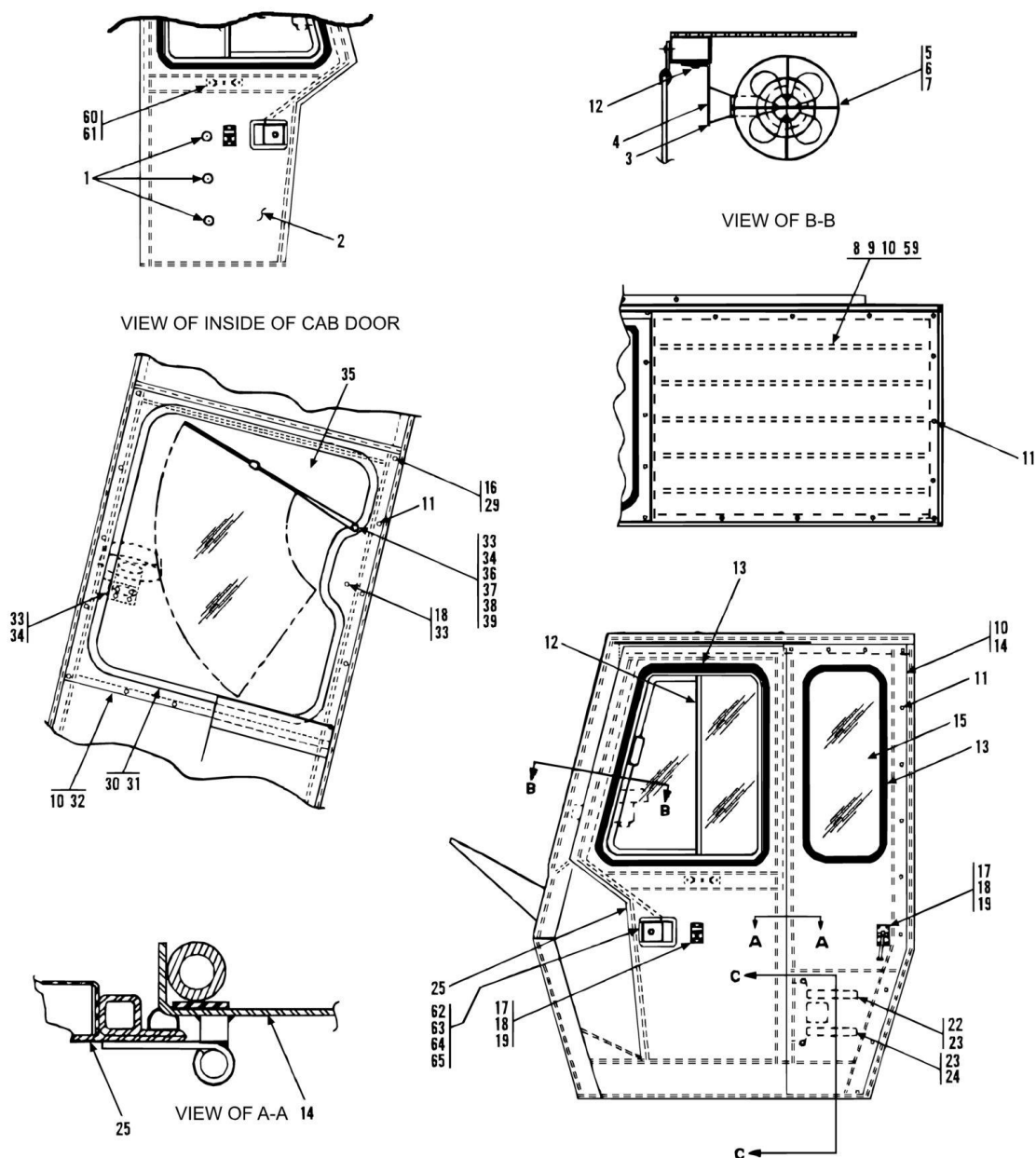
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085050	1	CAB ENCLOSURE (includes all items)	
1	90027319	2	SELF TAPPING SCREW, 1/4-20X1	
2	91081499	1	MOUNTING ANGLE	
3	90200680	1	DEFROSTER FAN	
4	88211510	4	SOCKET HEAD CAPSCREW, #10-32X5/8	
5	88501613	4	HEX NUT, #10-32	
6	88551007	4	LOCKWASHER, #10	
7		Ref	TOP WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
8	14403190	AR	CAULKING	
9	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
10	88501004	1	HEX NUT, 1/4-20	
11	88561107	10	FLAT WASHER, 1/4	
12	88551009	10	LOCKWASHER, 1/4	
13	88591005	10	O-RING	
14		Ref	RIGHT SIDE WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
15		Ref	REAR WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
16		Ref	FRONT WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
17	91303465	1	WIPER BLADE 15IN	
18	91033464	1	WINDSHIELD WIPER ARM	
19	90027319	34	SELF-TAPPING SCREW, 1/2-20X1	
20	90206023	1	WIPER MOTOR	
21	90027214	2	BUTTON GROMMET	
22	88691387	1	SINGLE TUBE CLIP	
23	88321020	1	TAPPING SCREW, 8-32X1/4	
24	90200381	1	JUMPER WIRE	
25	88201003	1	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
27	91083376	1	EMERGENCY EXIT DECAL	
28	91083348	AR	CHANNEL MOLDING	
29	91083392	AR	RELEASE FILLER STRIP	
30	91081671	1	FRONT WINDOW FRAME	
31	90029955	1	GROMMET	
32	91303067	1	DOOR SLIDING WINDOW	
33	83661145	AR	WEATHER STRIP	
34	91086115	1	LEFT SIDE WINDOW FRAME	
35	91086115	1	LEFT SIDE WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
36	91081545	1	DOOR HOLDER	
37	88301193	8	ROUND HD MACHINE SCREW, 10-32X1/2	
38	88501613	8	HEX NUT, #10-32	
39	88551007	8	LOCKWASHER, #10	
40	88561104	4	FLAT WASHER, #8	
41	90206169	1	HEATER HOSE	
42	86883193	4	HOSE CLAMP	
43	90206170	1	HEATER HOSE	
44	91085057	1	CAB DOOR (includes 72 thru 77)	
45	91083260	1	15 AMP CIRCUIT BREAKER	
46	88554917	2	LOCKWASHER, #10	

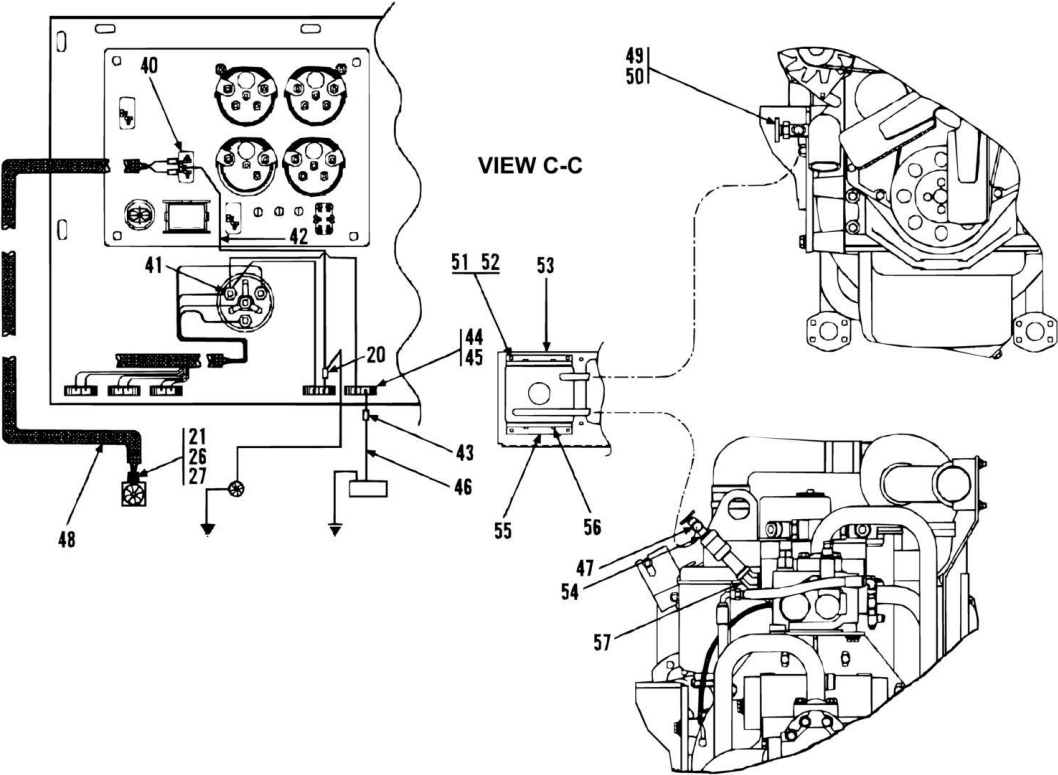
SECTION 12 - OPTIONAL EQUIPMENT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	88501613	2	HEX NUT, #10-32	
48	91081680	1	JUMPER WIRE	
49	88301193	2	ROUND HD MACHINE SCREW, #10-32X1/2	
50	86683480	3	CRIMP-ON CONNECTOR	
51	91081675	1	JUMPER WIRE	
52	77383744	1	HEATER SWITCH	
53	91031490	1	JUMPER WIRE	
54	90206134	1	JUMPER WIRE	
55	91031494	1	JUMPER WIRE	
56	91003053	1	HEATER DECAL	
57	77143004	4	WHIZ LOCK SCREW	
58	77143006	4	WHIZ LOCK NUT	
59	91031521	2	HEATER MOUNTING BRACKET	
60	77383540	1	COOLANT RESTRICTOR ORIFICE	
61	91083155	1	TRUCK VALVE	
63	88711213	1	COUPLING, 1/2IN	
64	88701070	1	PIPE NIPPLE, 1/2X2-1/2IN	
65	91043429	1	HEATER	
66	88711383	1	PIPE BUSHING, 1/2X3/8IN	
67	24641328	1	SHUT-OFF VALVE	
68	88712034	1	STREET ELBOW, 45, 1/2	
69	90200755	AR	WEATHER STRIP	
70	91083378	1	INSULATION PANEL	
71	91053559	3	PUSH ON INSULATION CAP	
72	90203840	1	PULL HANDLE (on inside of cab door)	
73	88321039	2	SELF TAPPING SCREW	
74	91083263	1	FLUSH LOCK	
75	88301070	4	RD.HD. MACHINE SCREW, #8-32X1/2	
76	88521604	4	LOCKNUT, #8-32	
77	88561104	4	FLATWASHER, #8	

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FIGURE 12-14. (91145050) CAB ENCLOSURE (SN 0177122 to Present)





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FIGURE 12-14. (91145050) CAB ENCLOSURE (SN 0177122 to Present)

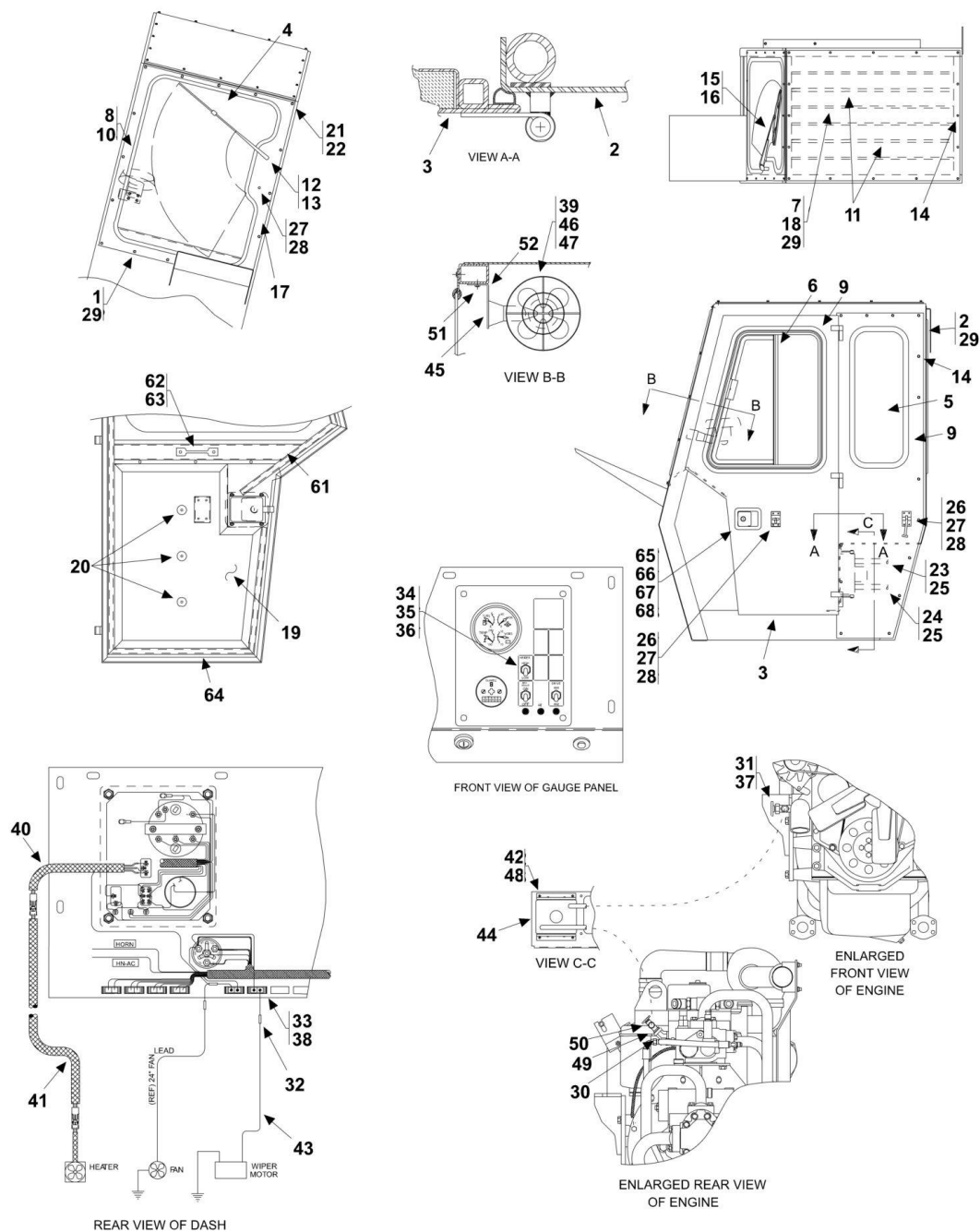
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145050	1	CAB ENCLOSURE (includes all items)	
1	91053559	3	INSULATION CAP	
2	91083378	1	INSULATION PANEL	
3	90029955	1	RUBBER GROMMET	
4	91081499	1	MOUNTING ANGLE	
5	90200680	1	DEFROSTER FAN	
6	88211030	4	HEX HD CAPSCREW, 5/16-18X3-1/2 GR5	
7	77143017	4	WHIZ-LOCK NUT, #10-24	
8		Ref	TOP WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
9	91143190	AR	GASKA-TAPE	
10	14403190	AR	VULKEM CAULK	
11	90027319	43	SELF-TAPPING SCREW, 1/4-20X1	
12		Ref	DOOR SLIDING WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
13	83661145	14	WEATHER STRIP	
14	91086115	2	LEFT SIDE WINDOW FRAME	
15		Ref	LEFT SIDE WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
16	88201001	5	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
17	91081545	1	DOOR HOLDER	
18	77143016	9	WHIZ-LOCK SCREW, #10-24X3/4	
19	77143017	9	HEX NUT, #10-32	
20	83483078	1	CRIMP ON CONNECTOR	
21	80963058	1	SHROUD	
22	90206169	1	HEATER HOSE	
23	86683193	4	HOSE CLAMP	
24	91141459	1	HEATER HOSE	
25	91085057	1	CAB DOOR (includes 60 thru 65)	
26	80963069	1	MALE PIN TERMINAL	
27	80963067	2	CABLE SEAL	
29	88561107	5	WASHER, 1/4	
30	91083348	10 FT	CHANNEL MOULDING	
31	91083392	10	RELEASE FILLER STRIP (locate release cord just below wiper motor with knot located at loose end of cord)	
32	91141332	1	FRONT WINDOW FRAME	
33	91053419	3	TY-RAP	
34	83683181	3	TY-RAP BASE	
35		Ref	FRONT WINDOW (See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
36	90206023	1	WIPER MOTOR	
37	90027214	2	BUTTON GROMMET	
38	91033464	1	WINDSHIELD WIPER ARM	
39	91033465	1	WIPER BLADE, 15IN	
40	77383744	1	HEATER SWITCH	
41	86983188	1	RING TERMINAL	
42	91081680	1	JUMPER WIRE	
43	86683480	1	CRIMP ON CONNECTOR	
44	91143108	2	FUSE HOLDER	
45	77363268	2	15 AMP FUSE	
46	91141374	1	JUMPER WIRE	

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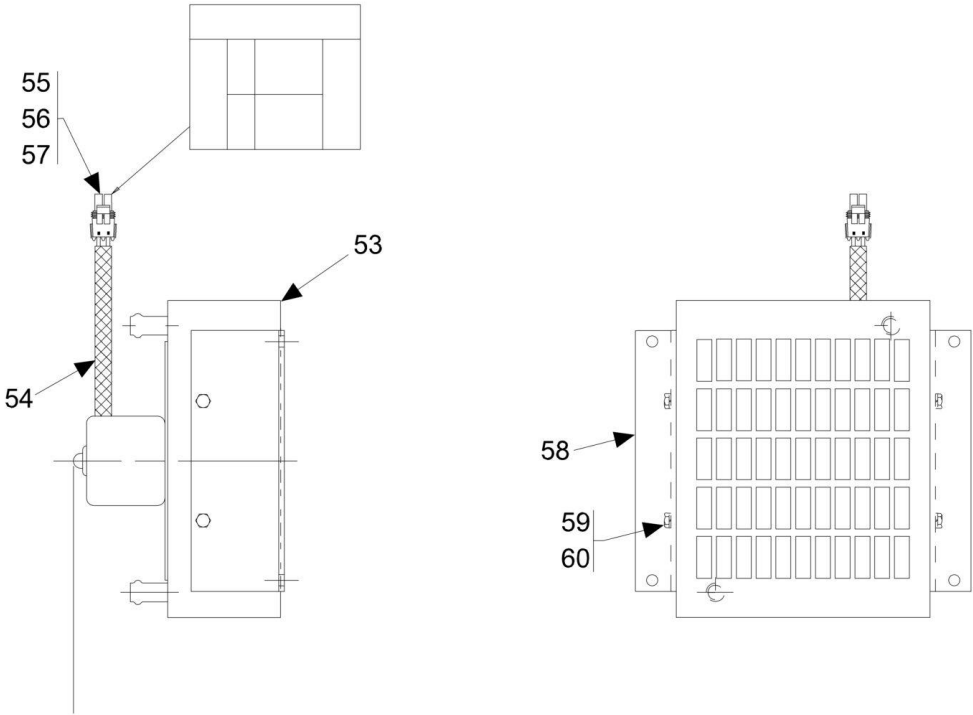
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	24641328	1	SHUT-OFF VALVE	
48	91123125	1	HEATER HARNESS	
49	77383540	1	ORIFICE	
50	91083155	1	TRUCK VALVE	
51	77143004	4	WHIZ-LOCK SCREW	
52	77143006	4	WHIZ-LOCK NUT	
53	91043429	1	HEATER	
54	88711383	1	PIPE BUSHING, 1/2X3/8	
55	91031521	2	HEATER MOUNTING BRACKET	
56	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
57	88712034	1	STREET ELBOW, 1/2X45	
58	91083376	1	EMERGENCY EXIT DECAL (not shown)(located on corner post of cab next to emergency release cord)	
59	91143220	78 FT	TRIM - LOCK	
60	90203840	1	PULL HANDLE (on inside of door)	
61	88321039	2	SELF TAPPING SCREW	
62	91083263	1	FLUSH LOCK	
63	88301070	4	RD.HD. MACHINE SCREW, #8-32X1/2IN	
64	88521604	4	LOCKNUT, #8-32	
65	88561104	4	FLATWASHER, #8	

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FIGURE 12-15. (91145096) CAB ENCLOSURE (SN 0277368 to Present)



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FIGURE 12-15. (91145096) CAB ENCLOSURE (SN 0277368 to Present)

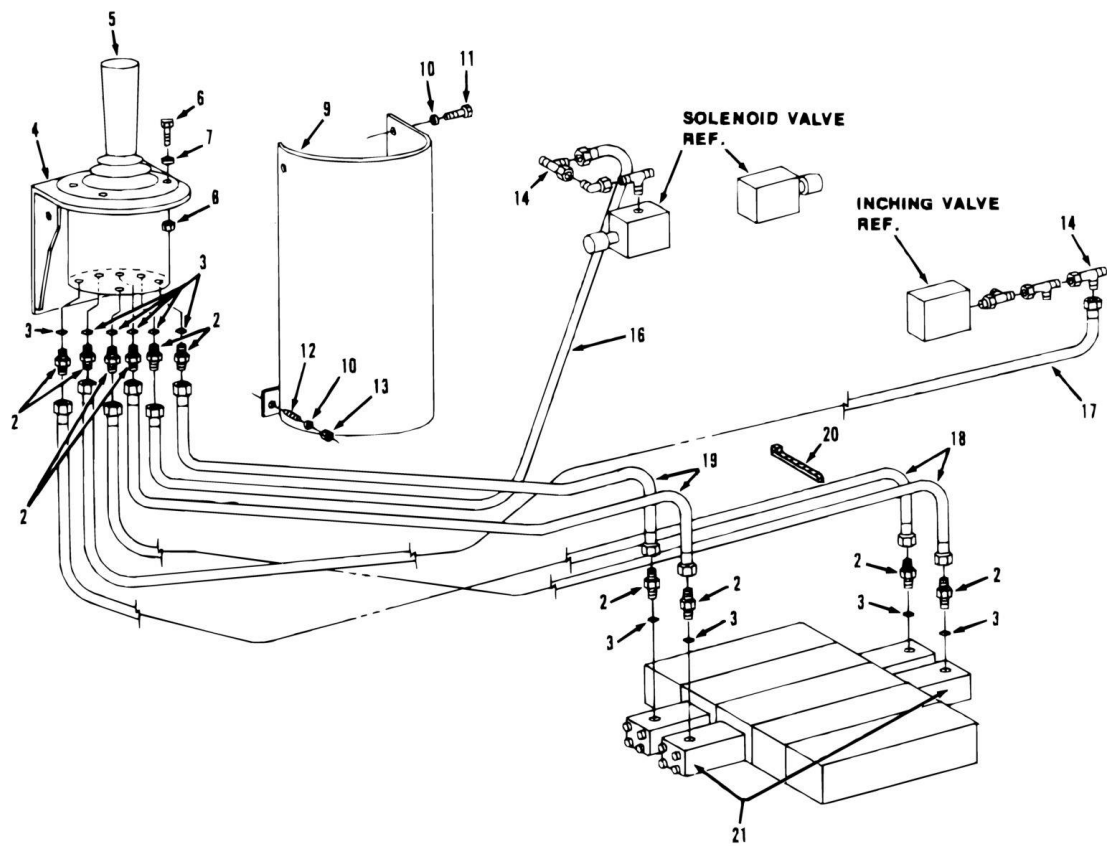
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145096	1	CAB ENCLOSURE, (includes all items)	
1	91141332	1	FRONT WINDOW FRAME	
2	91086115	1	LEFT SIDE WINDOW FRAME	
3	91085057	1	CAB DOOR ASSY, (includes items 61 thru 68)	
4	91083450	1	FRONT WINDOW	
5	91083434	1	LEFT SIDE WINDOW	
6	91303067	1	DOOR SLIDING WINDOW	
7	91143090	1	TOP WINDOW	
8	91083392	10 FT	RELEASE FILLER STRIP	
9	83661145	14 FT	WEATHER STRIP	
10	91083348	10 FT	CHANNEL MOLDING	
11	91143220	78 IN	TRIM-LOCK	
12	90206023	1	WIPER MOTOR	
13	90027214	2	BUTTON GROMMET	
14	90027319	41	SELF TAPPING SCREW, 1/4-20X1	
15	91033464	1	WINDSHIELD WIPER ARM	
16	91033465	1	15IN WIPER BLADE	
17	91083376	1	EMERGENCY EXIT DECAL	
18	91143190	12.2 FT	GASKA-TAPE	
19	91083378	1	INSULATION PANEL	
20	91053559	3	PUSH ON INSULATION CAP	
21	88201001	5	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
22	88561107	5	FLAT WASHER, 1/4	
23	90206169	1	HEATER HOSE	
24	91141459	1	HEATER HOSE	
25	86683193	4	HOSE CLAMP	
26	91081545	1	DOOR HOLDER	
27	77143016	9	WHIZ LOCK SCREW, #10-24X3/4	
28	77143017	9	WHIZ LOCK NUT, #10-24	
29	14403190	AR	VULKEM CAULK	
30	88712034	1	STREET ELBOW - 45, 1/2	
31	91083155	1	TRUCK VALVE	
32	86683480	1	CRIMP ON CONNECTOR	
33	91143108	2	FUSE HOLDER	
34	91143361	2	HEATER DECAL	
35	77383470	2	BOOT	
36	77383744	2	TOGGLE SWITCH	
37	77383540	1	COOLANT RESTRICTOR ORIFICE	
38	77363268	2	FUSE, 15 AMP	
39	90200680	1	FAN	
40	91343040	1	CRIMP-ON CONNECTOR	
41	91123182	1	HEATER HARNESS	
42	77143004	4	WHIZ LOCK SCREW	
43	91141374	1	JUMPER WIRE	
44	91125106	1	HEATER ASSY, (includes items 53 thru 60)	
45	90029955	1	RUBBER GROMMET	
46	77143017	4	WHIZ LOCK NUT, #10-24	
47	88211030	4	SOCKET HD CAPSCREW, #10-24X 3/4, GR8	
48	77143006	4	WHIZ LOCK NUT	
49	88711383	1	REDUCING BUSHING	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	24641328	1	SHUT OFF VALVE	
51	90027319	2	SELF TAPPING SCREW, 1/4-20X1	
52	91081499	1	MOUNTING ANGLE	
53	91043429	1	HEATER	
54	82033996	6 IN	FLEX LOOM	
55	80963057	1	TOWER	
56	80963068	2	FEMALE PIN TERMINAL	
57	80963067	2	CABLE SEALS	
58	91031521	2	HEATER MOUNTING BRACKET	
59	88201003	4	HEX HD CAPSCREW, 1/4-20X3/4, GR5	
60	88551009	4	LOCKWASHER, 1/4	
61	91086124	1	DOOR PLATE WELDMENT	
62	90203480	1	HANDLE	
63	88321039	2	SELF TAPPING SCREW, #10-32X1/2	
64	77163064	169 in	WEATHER STRIP	
65	91083263	1	FLUSH LOCK	
66	88301070	4	ROUND HD MACHINE SCREW, #8-32X1/2	
67	88521604	4	HEX LOCKNUT, #8-32	
68	88561104	4	FLATWASHER, #8	

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FIGURE 12-16. (91125023) JOYSTICK INSTALLATION



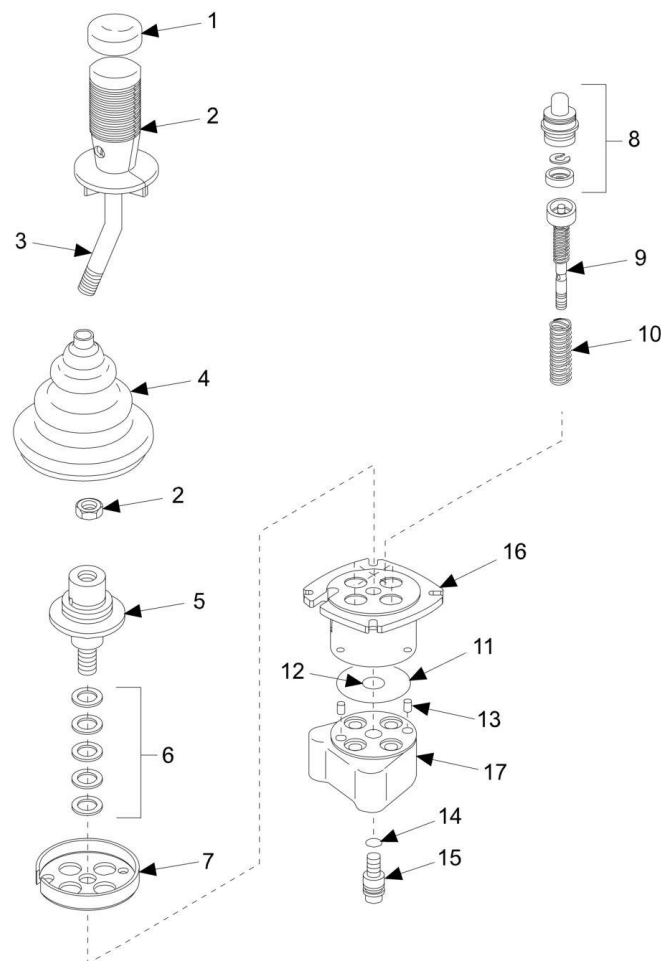
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FIGURE 12-16. (91125023) JOYSTICK INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125023	1	JOYSTICK INSTALLATION ASSY (includes all items)	
1	91043063	1	SEAT (not illustrated)	
2	88662005	10	CONNECTOR (includes item 3)	
3	88591204	10	O-RING	
4	91126035	1	JOYSTICK MOUNT WELDMENT	
5		Ref	JOYSTICK ASSY (See JOYSTICK for Breakdown)	
6	88201004	4	HEX HD CAPSCREW, 1/4-20X7/8, GR5	
7	88551009	4	LOCKWASHER, 1/4	
8	88501004	4	HEX NUT, 1/4-20	
9	91046056	1	COVER	
10	88551010	4	LOCKWASHER, 5/16	
11	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
12	85051384	2	WELD STUD, 5/16-18	
13	88501005	2	HEX NUT, 5/16-18	
14	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
15	90206194	AR	TRIM LOK	
16	90204096	1	HOSE ASSY	
17	77133197	1	HOSE ASSY	
18	84717458	2	HOSE ASSY	
19	84717519	2	HOSE ASSY	
20	90027187	AR	TIE-WRAP	
21	91123075	2	VALVE POSITIONER KIT	

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FIGURE 12-17. (91123078) JOYSTICK



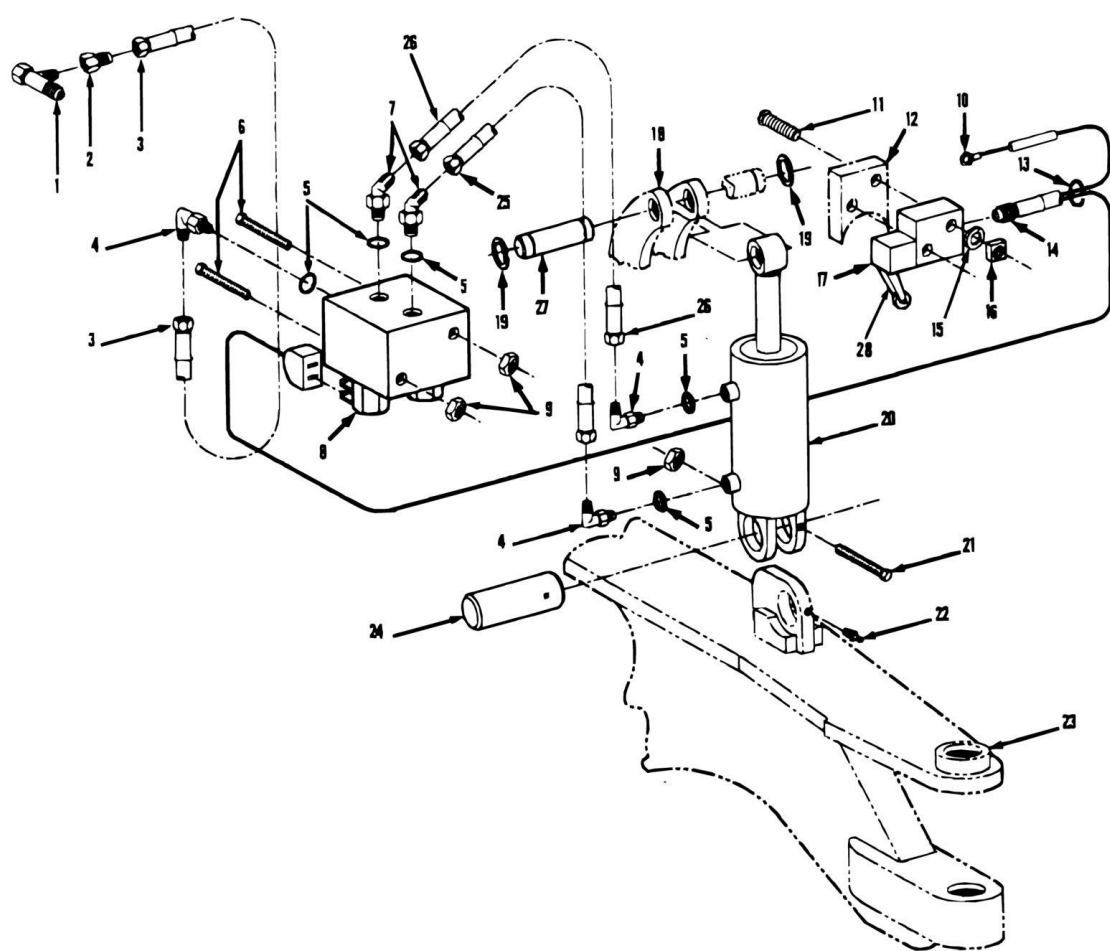
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-17. (91123078) JOYSTICK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91123078	1	JOYSTICK CONTROLLER, (includes all items)	
	91404326	AR	SEAL KIT, (includes items 11 thru 15)	
1	80934658	1	CAP	
2	91124128	1	HANDLE GRIP KIT	
3	91124127	1	HANDLE TUBE	
4	80934241	1	BOOT	
5	80264140	1	CARDAN KIT, (includes item 6)	
6	Kit	AR	SHIM	
7	91304026	1	RETAINING PLATE	
8	80934498	4	PLUNGER AND GUIDE KIT	
9	91404327	4	REGULATING UNIT	
10	80934259	1	SPRING, (pack of four)	
11	Kit	1	O-RING	
12	Kit	1	O-RING	
13	Kit	2	DOWELL PIN	
14	Kit	1	O-RING	
15	Kit	1	SCREW	
16		Ref	UPPER BODY	
17		Ref	LOWER BODY	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-18. (91125007) REAR AXLE STABILIZER OPTION



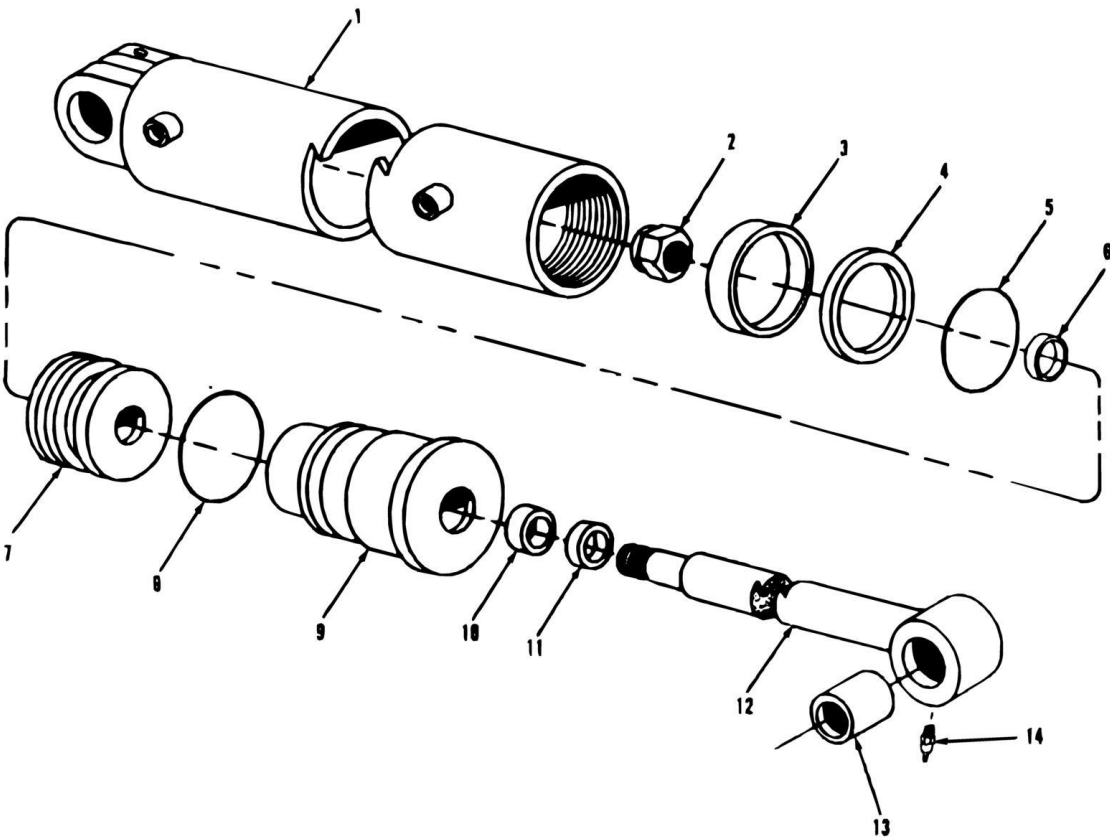
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-18. (91125007) REAR AXLE STABILIZER OPTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125007	Ref	REAR AXLE STABILIZER (includes all items)	
1	88662244	1	SWIVEL NUT RUN TEE, 1IN TUBE	
2	91033230	1	REDUCER	
3	84716426	1	HOSE ASSY	
4	88662065	3	ELBOW, 90, (includes item 5)	
5	88591205	5	O-RING	
6	83201073	2	HEX HD SCREW, 3/8-16X4-1/2, GR5	
7	88662085	2	ELBOW, 45, (includes item 5)	
8	91113003	1	STABALIZER	
9	88521206	3	HEX LOCKNUT, 3/8-16	
10	91111002	1	JUMPER WIRE	
11	88301099	2	ROUND HD MACHINE SCREW, #10-24X 1-3/4	
12	91121018	1	BRACKET	
13	90027187	4	TY-RAP	
14	91045034	1	BOOM SWITCH HARNESS	
15	88551007	2	LOCKWASHER, #10	
16	91043199	2	SQUARE NUT	
17	91043123	1	SWITCH (includes item 28)	
18	91121013	1	STABILIZER BRACKET	
19	88581140	2	SNAP RING	
20		Ref	STABALIZER CYLINDER (See STABILIZER CYLINDER ASSEMBLY for Breakdown)	
21	88201044	1	HEX HD CAPSCREW, 3/8-16X3-1/4, GR5	
22	88671008	1	LUBE FITTING, STRAIGHT 1/4-28	
23	91046114	1	REAR AXLE WELDMENT	
24	91121017	1	PIN	
25	84717888	1	HOSE ASSY	
26	84717887	1	HOSE ASSY	
27	91041227	1	PIN	
28	91044475	1	LEVER/ ROLLER ASSY	

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FIGURE 12-19. (91043303) STABILIZER CYLINDER ASSEMBLY



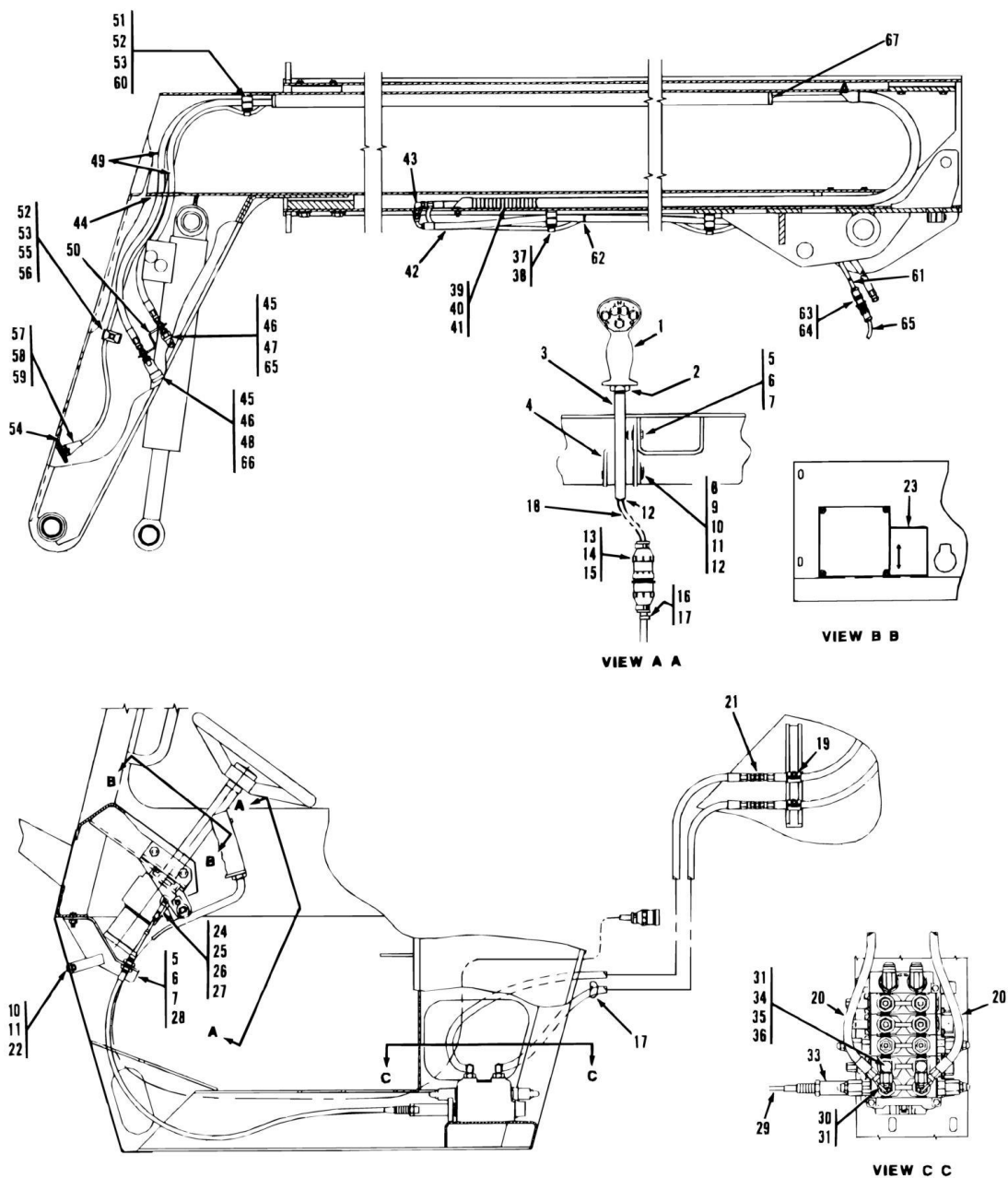
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-19. (91043303) STABILIZER CYLINDER ASSEMBLY

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 12-20. (91085060) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRICS



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FIGURE 12-20. (91085060) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRICS

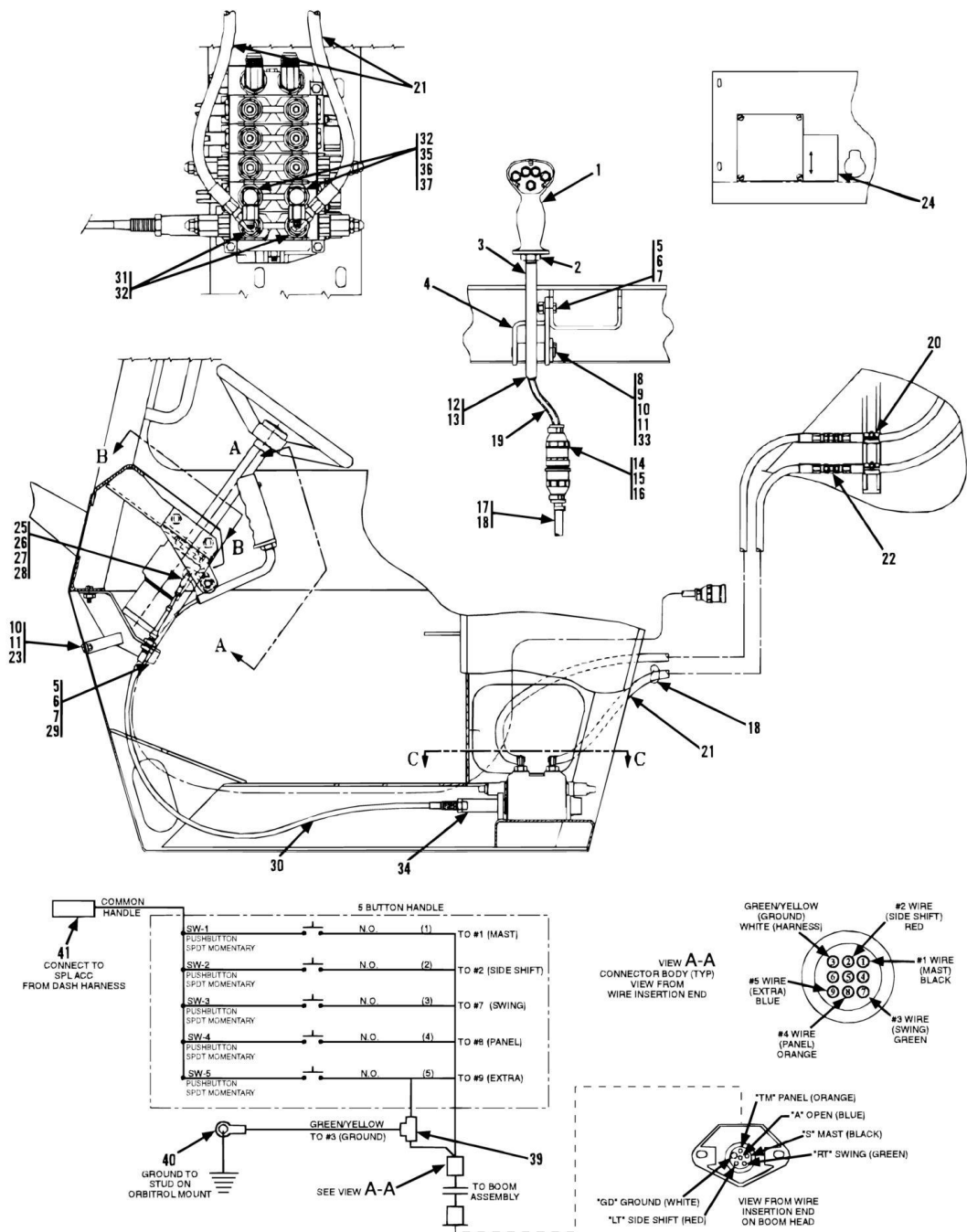
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085060	Ref	AUXILIARY HYDRAULIC ASSY (includes all items)	
1		Ref	5-BUTTON HANDLE (See 5-BUTTON HANDLE for Breakdown)	
2	88501112	1	HEAVY HEX JAM NUT, 3/4-10	
3	91126024	1	LEVER WELDMENT	
4	91126025	1	LEVER BRACKET	
5	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
6	88501006	4	HEX NUT, 3/8-16	
7	88551011	4	LOCKWASHER, 3/8	
8	91126027	1	PIN WELDMENT	
9	91083136	2	BUSHING	
10	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
11	88551010	2	LOCKWASHER, 5/16	
12	91123051	1	RUBBER BUSHING	
13	90028956	1	CONNECTOR BODY	
14	90028958	6	TERMINAL	
15	90028978	1	CABLE CLAMP	
16	90403396	1	AUXILIARY WIRING HARNESS	
17	90027187	14	TY-RAP	
18	Bulk	12 in	LOOM (5/16IN I.D)	
19	90207464	2	CUSHION CLAMP	
20	84718040	2	HOSE ASSEMBLY	
21	88661065	2	UNION, 1/2 TUBE	
22	88501005	1	HEX NUT, 5/16-18	
23	91033394	1	AUXILIARY CONTROL DECAL	
24	88821002	1	ADJUSTABLE YOKE END	
25	88633001	1	YOKE PIN, 1/4	
26	88631302	1	COTTER PIN, 1/16X3/4	
27	88501404	1	HEX JAM NUT, 1/4-28	
28	91126023	1	CABLE BRACKET WELDMENT	
29	91123050	1	PUSH-PULL CABLE	
30	91083310	2	ELBOW, 90	
31	88591206	2	O-RING	
32	90028662	2	WAVE END WASHER	
33	91123062	1	CABLE ADAPTER BONNET	
34	91083343	2	ELBOW, 90	
35	88661348	2	TUBE END REDUCER, 5/8X3/4 TUBE	
36	88661407	2	NUT	
37	90207463	4	CUSHION CLAMP	
38	91083216	2	CUSHION CLAMP	
39	91083290	1	HOSE CARRIER	
40	88411037	4	ROUND HEAD CARRIAGE BOLT, 5/16-18X1	
41	88521205	4	HEX LOCKNUT, 5/16-18	
42	84717563	2	HOSE ASSY	
43	90027179	2	BULKHEAD FITTING	
44	90206199	28 IN	TRIM-LOK	
45	91123061	1	BULK HEAD ELBOW	
46	88712305	2	REDUCING BUSHING	
47	90204244	1	MALE HYDRAULIC COUPLER	
48	90204245	1	FEMALE HYDRAULIC COUPLER	
49	84718032	2	HOSE ASSY	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	91121138	1	BRACKET	
51	99133139	1	STAUFF CLAMP SET	
52	77133140	1	STAUFF COVER PLATE	
53	77133177	2	HEX HD CAPSCREW, 5/16-18X1-3/8	
54	91121139	1	RECEPTICAL	
55	77133141	1	WELS PLATE	
56	77133168	1	CLAMP SET	
57	90207661	1	CONTACT SOCKET	
58	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
59	88521304	2	HEX LOCKNUT, 1/4-20	
60	85941016	1	SUPPORT CLAMP	
61	91083383	1	WIRING HARNESS	
62	78683122	10	TY-WRAP	
63	90028955	1	CONNECTOR BODY	
64	90028978	1	CABLE CLAMP	
65	91043126	1	DUST CAP	
66	91043125	1	DUST PLUG	
67	90206194	8 IN	TRIM-LOCK	

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FIGURE 12-21. (91085106) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC (SN 0177122 to Present)



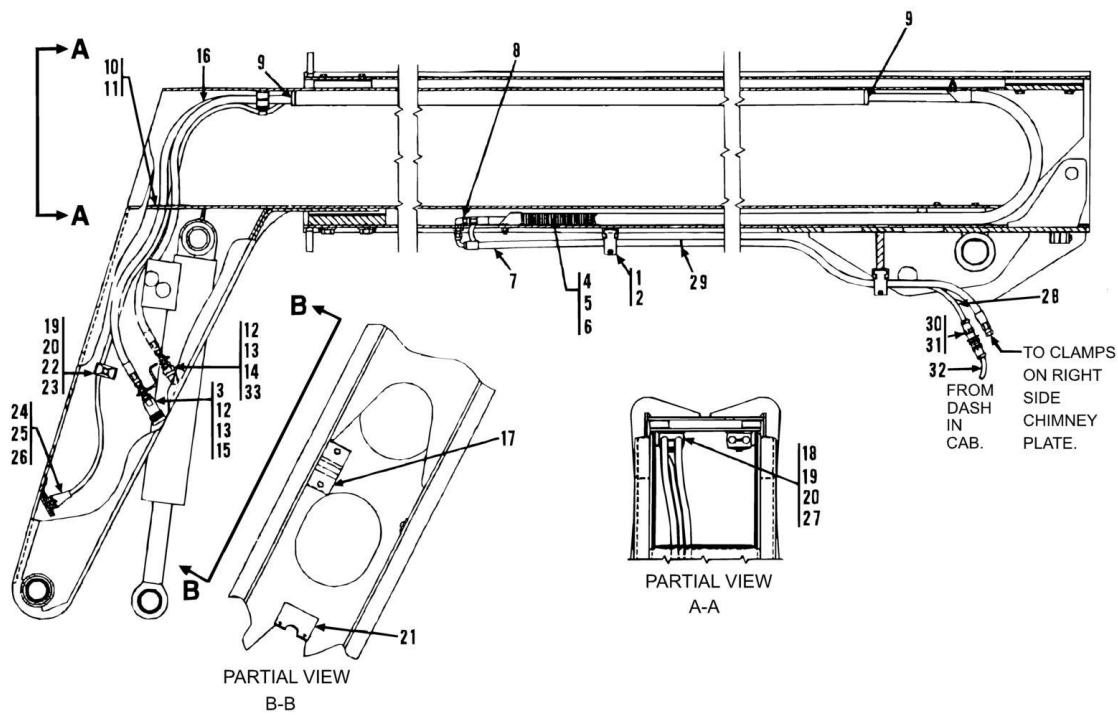
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-21. (91085106) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91085106	Ref	AUXILIARY HYDRAULICS ASSY (includes all items on both pages)	
1		Ref	5 BUTTON HANDLE (see OPTIONAL EQUIPMENT SECTION for Breakdown)	
2	88501112	1	HEX JAM NUT, 3/4-16	
3	91126024	1	LEVER WELDMENT	
4	91126025	1	LEVER BRACKET	
5	88201036	4	HEX HD CAPSCREW, 3/8-16 x 1 1/4	
6	88501006	4	HEX NUT, 3/8-16	
7	88551011	4	LOCKWASHER, 3/8	
8	91126027	1	PIN WELDMENT	
9	91083136	2	BUSHING	
10	88201018	2	HEX HD CAPSCREW, 5/16-18 x 3/4	
11	88551010	2	LOCKWASHER, 5/16	
12	91123051	1	MOLDED RUBBER BUSHING	
13	14402248	AR	3M ADHESIVE	
14	90028956	1	CONNECTOR BODY	
15	90028958	6	TERMINAL	
16	90028978	1	CABLE CLAMP	
17	90403396	1	AUXILIARY WIRING HARNESS	
18	90027187	14	TIE WRAP	
19	82033993	12 in	LOOM, 5/16 I.D.	
20	90207464	2	CUSHION CLAMP, 3/4	
21	84718040	2	HOSE ASSY	
22	88661065	2	UNION, 1/2 TUBE	
23	88501005	1	HEX NUT, 5/16	
24	91033394	1	AUXILIARY CONTROL DECAL	
25	88821002	1	YOKE END	
26	88633001	1	CLEVIS PIN	
27	88631302	1	COTTER PIN, 1/16 x 3/4	
28	88501404	1	HEX JAM NUT, 1/4-28	
29	91126023	1	CABLE BRACKET WELDMENT	
30	91123050	1	PUSH-PULL CABLE	
31	91083310	2	ELBOW, 90, (includes item 32)	
32	88591206	2	O-RING	
33	90028662	2	WAVE BEND WASHER	
34	91123062	1	CABLE ADAPTER BONNET	
35	91083343	2	ELBOW, 90	
36	88661348	2	TUBE END REDUCER, 5/8 TO 3/4	
37	88661407	2	NUT, 5/8	
38	90028968	1	CONNECTOR	
39	91033391	1	INSULATED RING TERMINAL	
40	86983193	1	MALE BULLET	

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FIGURE 12-22. (91085106) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC (SN 0177122 to Present)



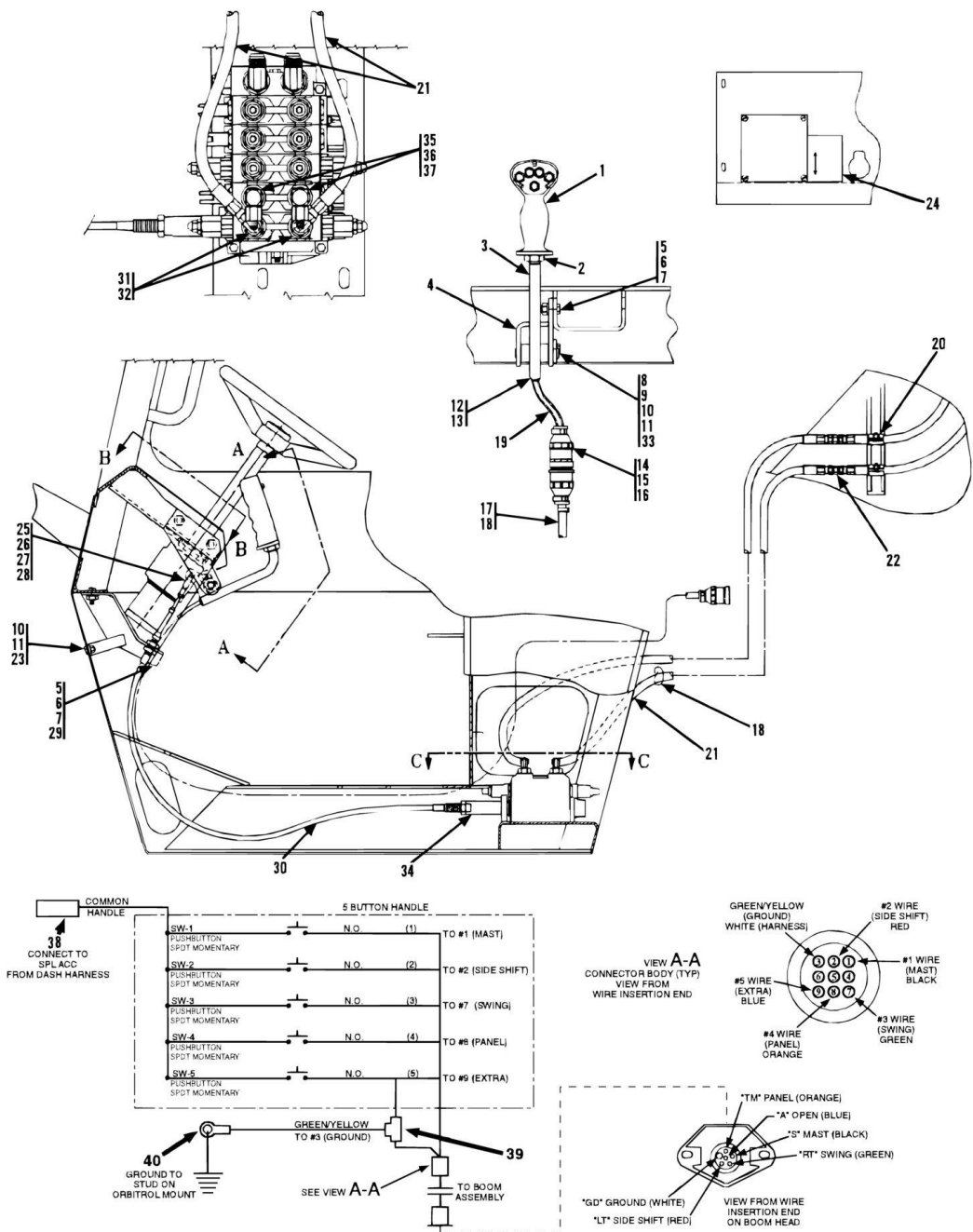
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-22. (91085106) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085106	Ref	AUXILIARY HYDRAULICS ASSY (includes all items on both pages)	
1	90207463	4	CUSHION CLAMP	
2	91083216	2	CUSHION CLAMP	
3	91043125	1	DUST PLUG	
4	91083290	1	HOSE CARRIER	
5	88411037	4	R.H. CARRIAGE BOLT, 5/16-18 x 1	
6	88521205	4	LOCKNUT, 5/16-18	
7	84717563	2	HOSE ASSY	
8	90027179	2	ELBOW, 90, BLKHD	
9	90206194	AR	TRIM-LOCK	
10	14402248	AR	3M ADHESIVE	
11	90206199	AR	TRIM-LOCK	
12	91123061	2	BULKHEAD FITTING	
13	88712305	2	PIPE BUSHING, 1/2 x 1/4	
14	90204244	1	MALE HYDRAULIC COUPLER	
15	90204245	1	FEMALE HYDRAULIC COUPLER	
16	84718032	2	HOSE ASSY	
17	91121138	1	QUICK DISCONNECT BRACKET	
18	77133139	1	STAUFF CLAMP SET, 5/8	
19	77133140	2	STAUFF COVER PLATE	
20	77133177	2	HEX HD CAPSCREW, 5/16-18 x 1 3/8	
21	91121139	1	RECEPTACLE BRACKET	
22	77133141	1	WELD PLATE	
23	77133168	1	CLAMP SET	
24	90207661	1	6 CONTACT SOCKET	
25	88201005	2	HEX HD CAPSCREW, 1/4-20 x 1	
26	88521304	2	FLEX LOCKNUT, 1/4-20	
27	85941016	1	SUPPORT CLAMP	
28	91083383	1	WIRING HARNESS	
29	86683122	10	TY-WRAP	
30	90028955	1	CONNECTOR BODY	
31	90028978	1	CABLE CLAMP	
32	90403396	Ref	AUXILIARY WIRING HARNESS	
33	91043126	1	DUST CAP	

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FIGURE 12-23. (91085083) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC 3S-BOOM (SN 0177005 to Present)



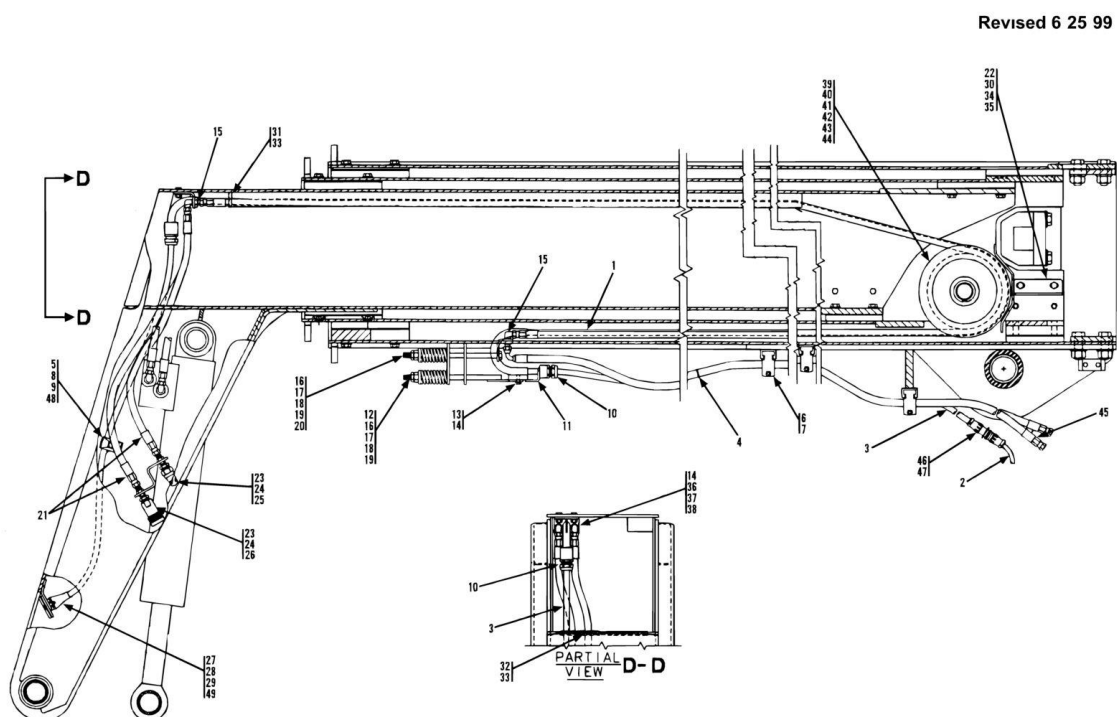
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-23. (91085083) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC 3S-BOOM (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	5 BUTTON HANDLE (see OPTIONAL EQUIPMENT SECTION for Breakdown)	
2	88501112	1	HEX JAM NUT, 3/4-16	
3	91126024	1	LEVER WELDMENT	
4	91126025	1	LEVER BRACKET	
5	88201036	4	HEX HD CAPSCREW, 3/8-16 x 1 1/4	
6	88501006	4	HEX NUT, 3/8-16	
7	88551011	4	LOCKWASHER, 3/8	
8	91126027	1	PIN WELDMENT	
9	91083136	2	BUSHING	
10	88201018	2	HEX HD CAPSCREW, 5/16-18 x 3/4	
11	88551010	2	LOCKWASHER, 5/16	
12	91123051	1	MOLDED RUBBER BUSHING	
13	14402248	1	3M ADHESIVE	
14	90028956	1	CONNECTOR BODY	
15	90028958	6	TERMINAL	
16	90028978	1	CABLE CLAMP	
17	90403396	1	AUXILIARY WIRING HARNESS	
18	90027187	14	TIE WRAP	
19	82033993	12 in	LOOM, 5/16 I.D.	
20	90207464	2	CUSHION CLAMP, 3/4	
21	84718026	2	HOSE ASSY	
22	88661065	2	UNION, 1/2 TUBE	
23	88501005	1	HEX NUT, 5/16	
24	91033394	1	AUXILIARY CONTROL DECAL	
25	88821002	1	YOKE END	
26	88633001	1	CLEVIS PIN	
27	88631302	1	COTTER PIN, 1/16 x 3/4	
28	88501404	1	HEX JAM NUT, 1/4-28	
29	91126023	1	CABLE BRACKET WELDMENT	
30	91123050	1	PUSH-PULL CABLE	
31	91083310	2	ELBOW, 90, (includes item 32)	
32	88591206	2	O-RING	
33	90028662	2	WAVE BEND WASHER	
35	91083343	2	ELBOW, 90	
34	91123062	1	CABLE ADAPTER BONNET	
37	88661407	2	NUT, 5/8	
36	88661348	2	TUBE END REDUCER, 5/8 TO 3/4	
38	86983193	1	MALE BULLET	
39	90028968	1	CONNECTOR	
40	91033391	1	INSULATED RING TERMINAL	

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FIGURE 12-24. (91085083) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC 3S BOOM (SN 0177005 to Present)



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FIGURE 12-24. (91085083) AUXILIARY HYDRAULIC ASSEMBLY W/ ELECTRIC 3S BOOM (SN 0177005 to Present)

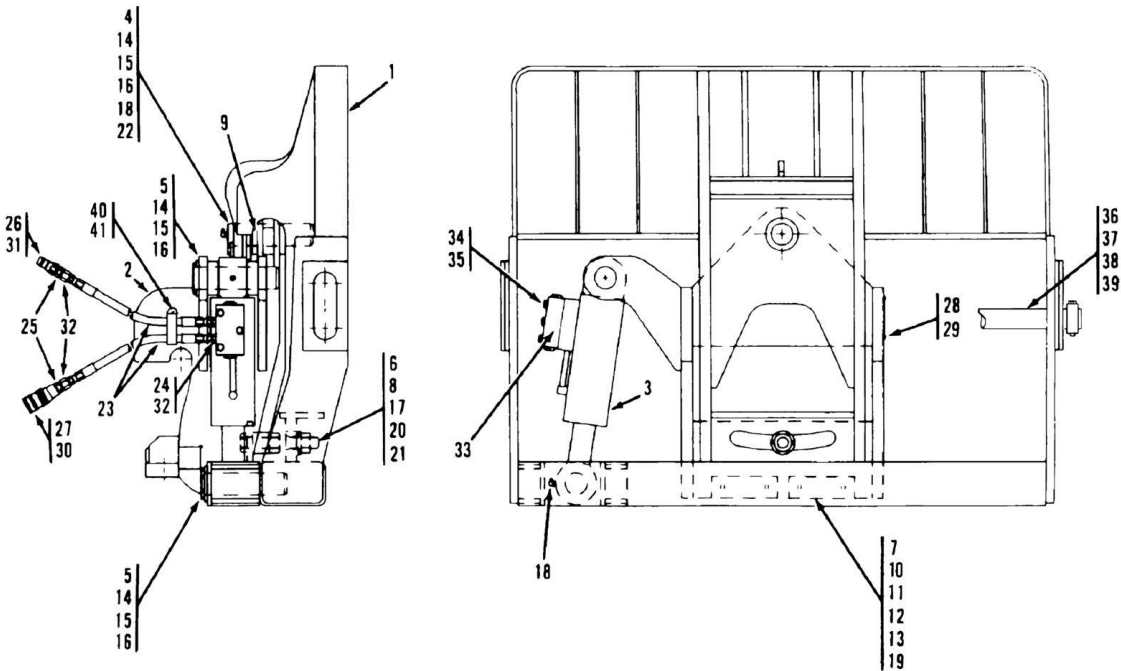
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085083	Ref	AUXILIARY HYDRAULICS ASSY (includes all items on both pages)	
1	84718281	2	HOSE ASSY	
2	90403396	1	AUX. WIRING HARNESS	
3	91083437	1 1	AUX. WIRING HARNESS	
4	90027187	8	NYLON TIES	
5	77133168	1	STAUFF CLAMP SET	
6	91083216	4	CUSHION CLAMP	
7	90207463	8	CUSHION CLAMP	
8	77133140	1	STAUFF COVER PLATE	
9	77133177	1	HEX BOLT	
10	91123055	2	STRAIN RELIEF FITTING	
11	91126031	1	CABLE TAKE-UP WELD	
12	91126032	1	CABLE TAKE-UP SUPPORT	
13	88201017	2	HEX HD CAPSCREW, 5/16-18X5/8, GR5	
14	88551010	4	LOCKWASHER, 5/16	
15	90027179	4	BULKHEAD FITTING, 90	
16	91123054	3	COMPRESSION SPRING	
17	91121134	3	SPRING RETAINER	
18	88501008	3	HEX NUT, 1/2-13	
19	88501108	3	HEAVY HEX JAM NUT, 1/2-13	
20	91126008	2	HOSE TAKE-UP WELD	
21	84718041	2	HOSE ASSY	
22	91126080	2	HOSE GUARD	
23	91123061	2	BULKHEAD FITTING	
24	88712305	2	REDUCING BUSHING	
25	90204244	1	MALE HYDRAULIC COUPLER	
26	90204245	1	FEMALE HYDRAULIC COUPLER	
27	90207661	1	6 CONTACT SOCKET	
28	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
29	88521304	2	HEX LOCKNUT, 1/4-20	
30	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
31	90206194	3.5 IN	TRIM LOCK	
32	90206199	13 IN	TRIM LOCK	
33	14402248	AR	3M ADHESIVE	
34	88561109	2	FLATWASHER, 3/8	
35	88551011	2	LOCKWASHER, 3/8	
36	91126029	1	HOSE AND CABLE SUPPORT	
37	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
38	88501005	2	HEX NUT, 5/16-18	
39	91123056	1	AUX. HOSE SHEAVE	
40	91081326	1	HOSE REEL SUPPORT	
41	90203040	1	THRUSTWASHER	
42	88581320	1	RETAINING RING EXT.	
43	83201123	3	HEX HD CAPSCREW, 1/2-13X1,GR5	
44	90027471	3	HARDENED FLAT WASHER, 1/2	
45	84718280	2	HOSE ASSY	
46	90028955	1	CONNECTOR BODY	
47	90028978	1	CABLE CLAMP	
48	77133141	1	STAUFF BASE PLATE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	91121139	1	RECEPTICAL BRACKET	

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FIGURE 12-25. (91085058) 48IN SLOPE PILER CARRIAGE



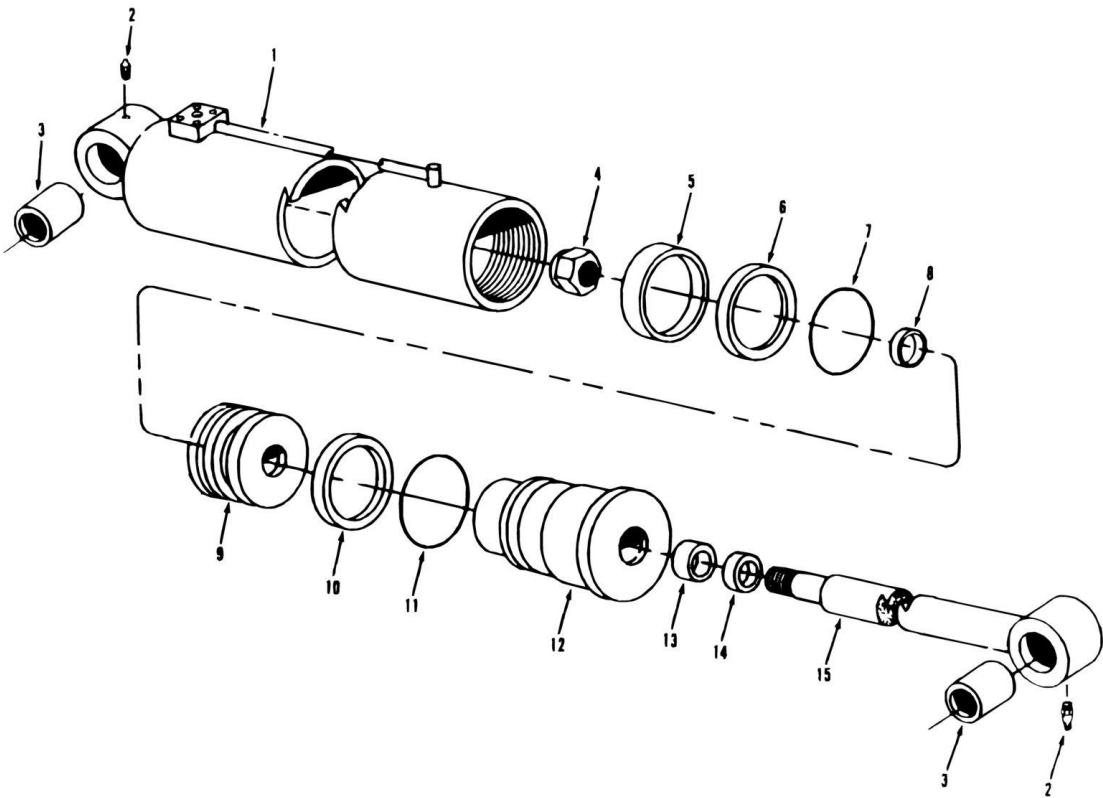
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-25. (91085058) 48IN SLOPE PILER CARRIAGE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125083	Ref	AUXILIARY HYDRAULICS ASSY (includes all items on both pages)	
	91085058	Ref	48IN SLOPE PILER CARRIAGE, (includes all items)	
	91083405	1	CAPACITY DECAL (not shown)	
		Ref	CAPACITY DECAL (3s) (not shown) (524)	
1	91086121	1	CARRIAGE WELDMENT	
2	91086122	1	ADAPTER WELDMENT	
3		Ref	SWAY CYLINDER, (See SWAY CYLINDER ASSEMBLY 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 SN 2005283-01)	
26	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
27	91163139	1	FEMALE QUICK DISCONNECT (Prior to SN 2005283-01)	
27	91403413	1	FEMALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
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 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 12-26. (91083286) SWAY CYLINDER ASSEMBLY (SN 0177005 through 0177159)



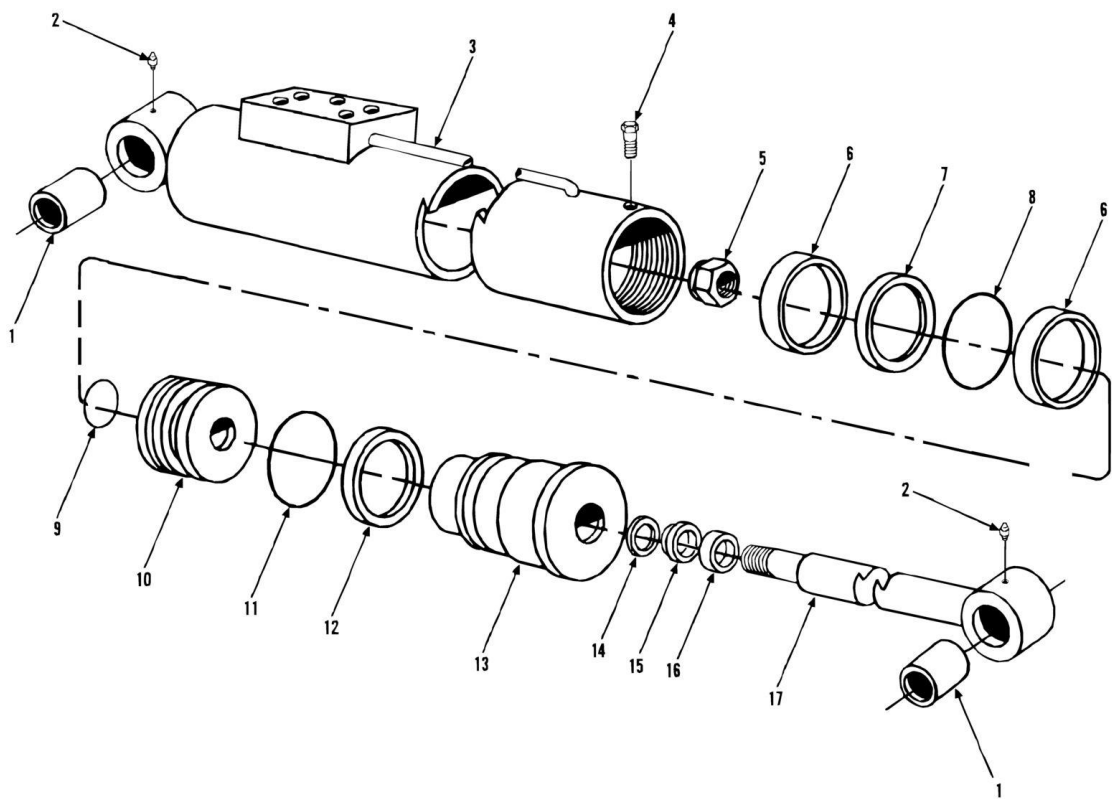
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FIGURE 12-26. (91083286) SWAY CYLINDER ASSEMBLY (SN 0177005 through 0177159)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083286	1	SWAY CYLINDER ASSY (includes all items)	
	91084189	1	SEAL KIT (includes items 5,6,7,8,10 thru 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	2	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 12-27. (91083471) SWAY CYLINDER ASSEMBLY (SN 0177160 to Present)



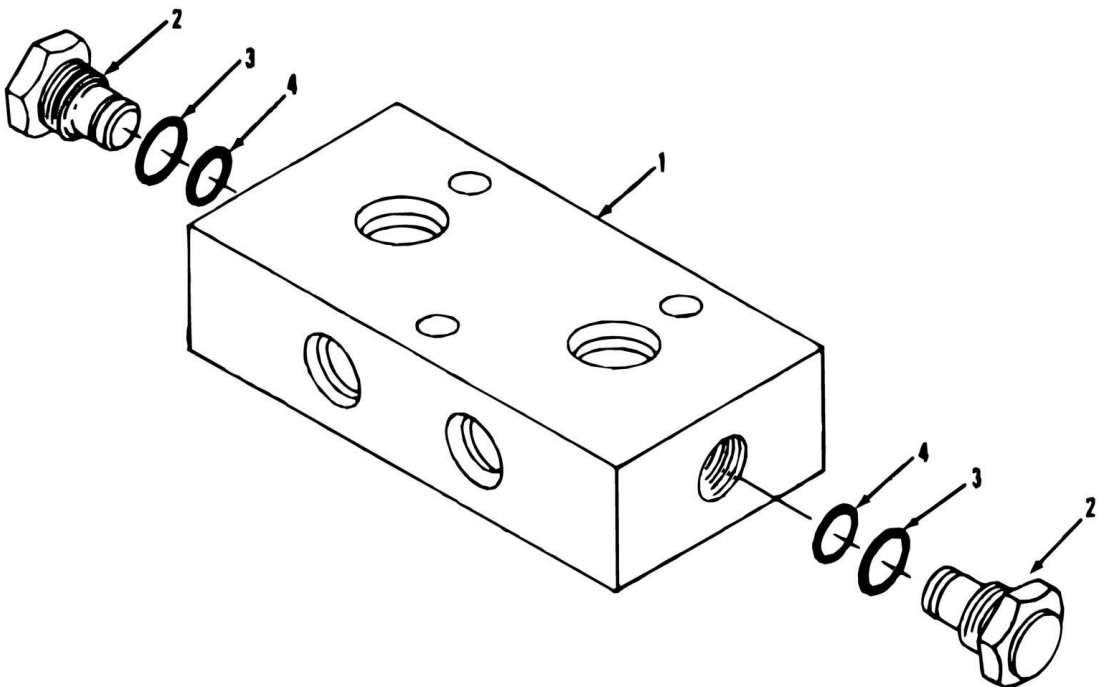
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FIGURE 12-27. (91083471) SWAY CYLINDER ASSEMBLY (SN 0177160 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083471	1	SLOPE PILER CARRIAGE SWAY CYLINDER ASSY (includes all items)	
	91084308	1	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 12-28. (91083262) DUAL P.O. CHECK VALVE



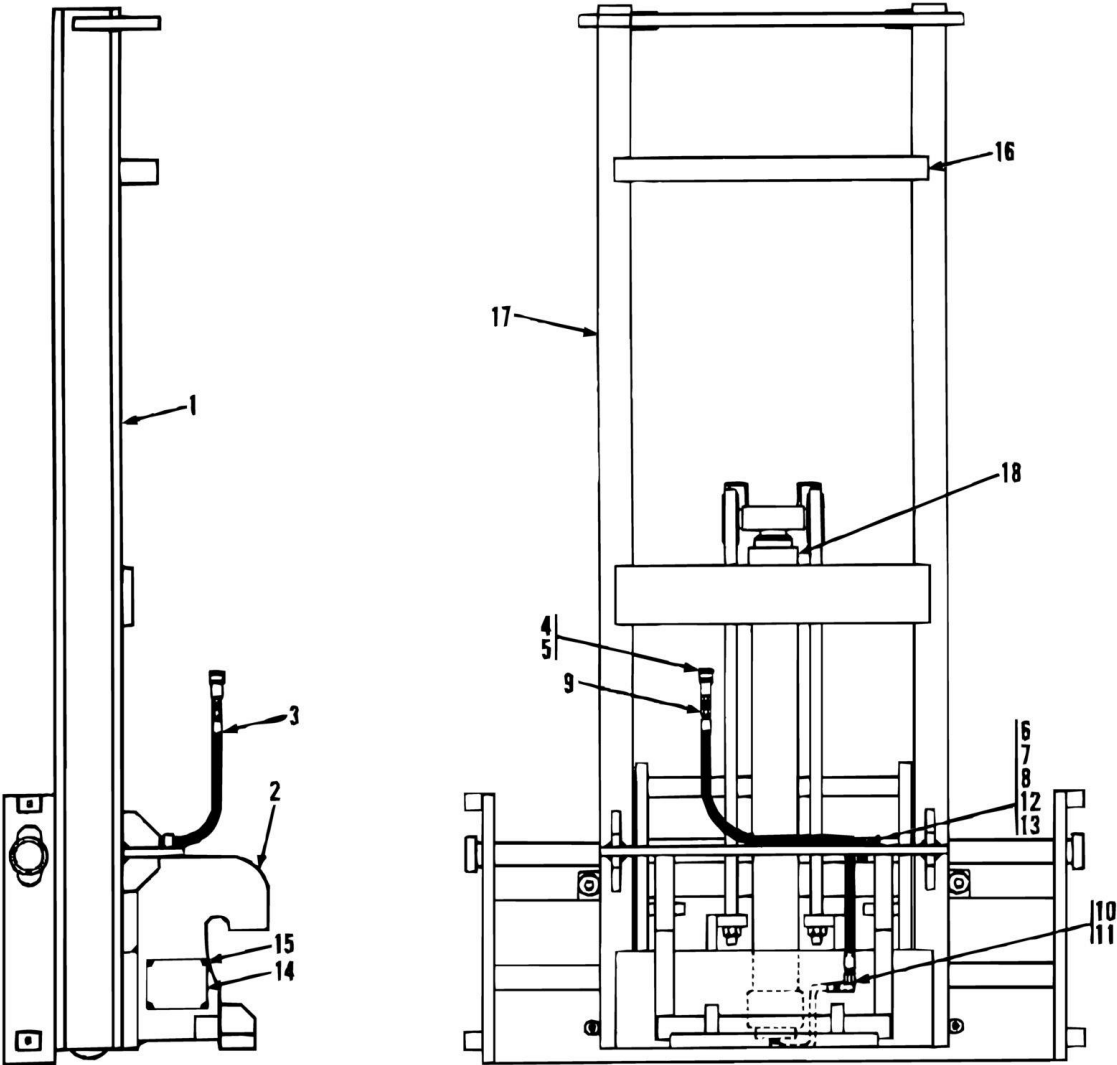
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-28. (91083262) 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 12-29. (90455035) AND (90455037) 6 FT MAST ASSEMBLIES



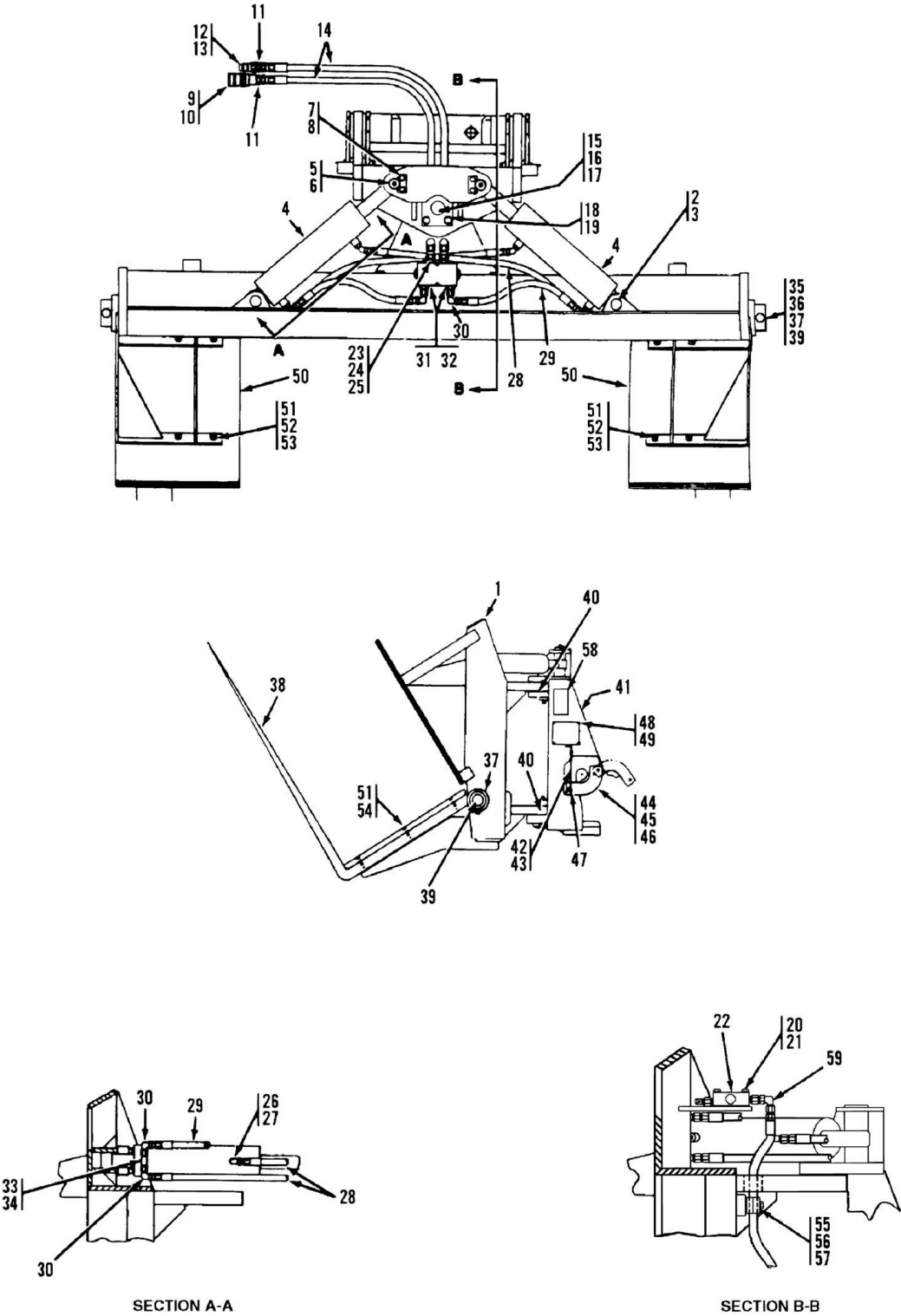
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FIGURE 12-29. (90455035) AND (90455037) 6 FT MAST ASSEMBLIES

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90455035	1	6FT MAST ASSY (48IN carriage), (includes all items)	
	90455037	1	6FT MAST ASSY (66IN carriage), (includes all items)	
	91083384	1	CAPACITY CHART (located in cab)	
1		Ref	CARRIAGE WELDMENT - 48IN, (See CARRIAGE ASSEMBLIES for Breakdown)	
1		Ref	CARRIAGE WELDMENT - 66IN, (See CARRIAGE ASSEMBLIES for Breakdown)	
2	90456002	1	ADAPTER WELDMENT	
3	84717640	1	HOSE ASSY	
4	91163138	1	MALE HYDRAULIC COUPLING (Prior to SN 2005283-01)	
4	91403414	1	MALE HYDRAULIC COUPLING, (SN 2005283-01 to Present)	
5	91043126	1	DUST CAP	
6	24431386	2	CLAMP	
7	88201037	2	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
8	88561004	2	FLAT WASHER, 3/8	
9	88661013	1	MALE CONNECTOR, 1/2X1/2 TUBE (Prior to SN 2005283-01)	
9	88662006	1	CONNECTOR, (includes 8859-1205 oring), (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		Ref	OUTER RAIL ASSY, (See OUTER RAIL ASSEMBLY for Breakdown)	
18		Ref	RAIL CYLINDER ASSY, (See RAIL CYLINDER ASSEMBLY for Breakdown)	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR ONE MAST ASSY ONLY.	

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FIGURE 12-30. (90555013) 100, DRYWALL SWING FORK ASSEMBLY



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FIGURE 12-30. (90555013) 100, DRYWALL SWING FORK ASSEMBLY

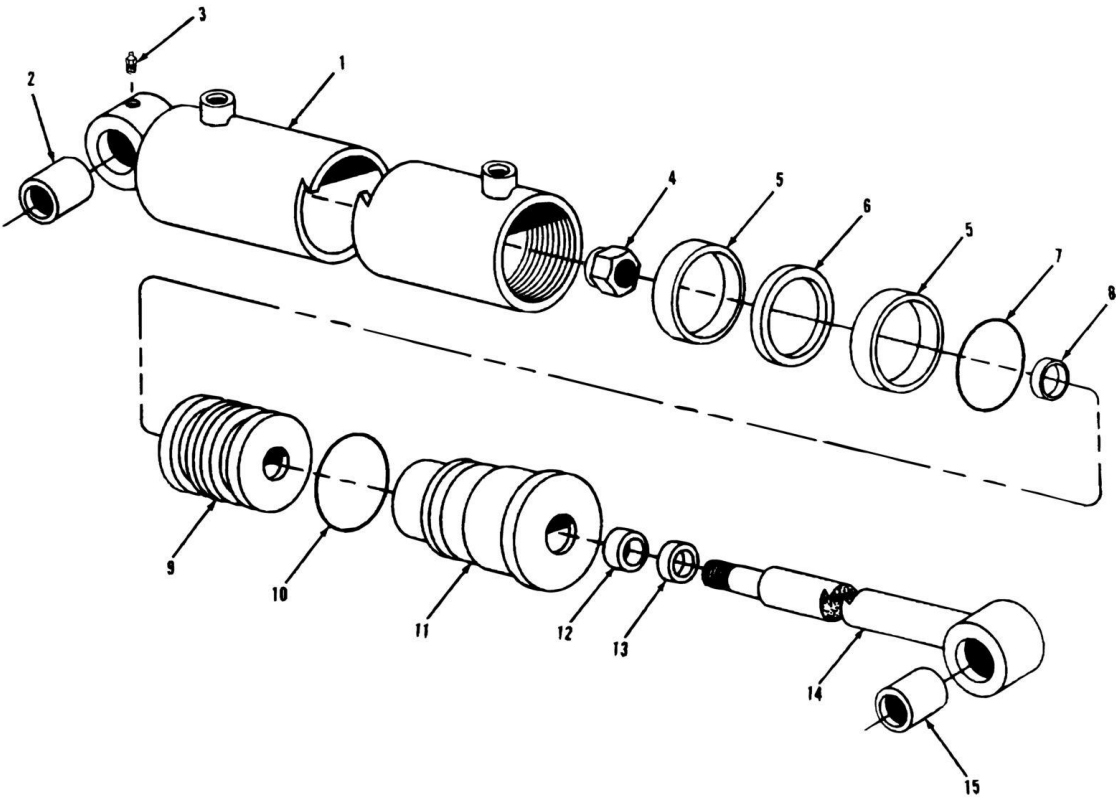
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90555013	1	100, DRYWALL SWING FORK ASSY, (includes all items)	
1	90556004	1	DRYWALL CARRIAGE WELDMENT	
2	91041326	2	PIVOT PIN	
3	88581136	4	EXTERNAL RETAINING RING	
4	90453034	2	HYDRAULIC CYLINDER ASSY	
5	91041324	2	PIVOT PIN	
6	88671008	2	LUBE FITTING, STRAIGHT, 1/4-28	
7	91411073	2	LOCKING PLATE	
8	83201024	4	HEX HD CAPSCREW, 3/8-16X1, GR8	
9	91043125	1	DUST CAP	
10	91163139	1	HYDRAULIC COUPLER, FEMALE (Prior to SN 2005283-01)	
10	91403413	1	HYDRAULIC COUPLER, FEMALE, (SN 2005283-01 to Present)	
11	88661013	2	MALE CONNECTOR, 1/2X1/2 TUBE (Prior to SN 2005283-01)	
11	88662006	2	CONNECTOR, (includes 8859-1205 o-ring), (SN 2005283-01 to Present)	
12	91043126	1	DUST CAP	
13	91163138	1	HYDRAULIC COUPLER, MALE (Prior to SN 2005283-01)	
13	91403414	1	HYDRAULIC COUPLER, MALE, (SN 2005283-01 to Present)	
14	84718067	2	HOSE ASSY	
15	91041325	2	PIVOT PIN	
16	91041327	2	BUSHING	
17	88671022	2	LUBE FITTING, 90, 1/8	
18	91041322	2	LOCKING PLATE	
19	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
20	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
21	88561002	2	FLAT WASHER, 1/4	
22	91043186	1	DOUBLE PILOT CHECK VALVE	
23	91041361	2	FITTING	
24	91041362	2	ORIFICE FITTING	
25	88591205	2	O-RING	
26	88662084	2	ELBOW, 45, (includes item 27)	
27	88591204	2	O-RING	
28	90204097	2	HOSE ASSY	
29	77133201	2	HOSE ASSY	
30	88662105	6	ELBOW, 90, (swivel nut)	
31	88662018	2	CONNECTOR, (includes item 32)	
32	88591205	2	O-RING	
33	88662152	2	BRANCH TEE, (includes item 34)	
34	88591204	2	O-RING	
35	88201105	4	HEX HD CAPSCREW, 5/8-11X4, GR5	
36	88521310	4	HEX LOCKNUT, 5/8-11	
37	90200003	4	COLLAR	
38	90453013	2	DRYWALL FORK	
39	90451020	2	FORK PIN	
40	91041356	6	SPACER	
41	91046062	1	PIVOT WELDMENT	
42	91033038	1	CHAIN, 24IN	
43	91033039	2	CHAIN CONNECTION	
44	88631449	2	ROLL PIN, 1/8X1-1/2	
45	91141350	2	PIN	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	91146053	1	SUPPORT BRACKET, L.H.	
46	91146054	1	SUPPORT BRACKET, R.H.	
47	91043221	2	DETENT PIN	
48	90153001	1	SERIAL NO. PLATE	
49	88341022	4	DRIVE SCREW, #10X3/8	
50	90553012	2	SIDE DRYWALL GUARD	
51	88241053	14	SOCKET FLAT HD CAPSCREW, 3/8-16X1-1/2	
52	88551011	8	LOCKWASHER, 3/8	
53	88501006	8	HEX NUT, 3/8-16	
54	90553013	2	BOTTOM DRYWALL GUARD	
55	91083249	1	CLAMP SET	
56	77133140	1	COVER PLATE	
57	77133177	1	HEX HD CAPSCREW, 5/16-18X1-3/8	
58	91143282	2	PINCH POINT DECAL	
59	88662106	2	ELBOW, 90, (swivel nut)	

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FIGURE 12-31. (91033366) SWING CYLINDER ASSEMBLY



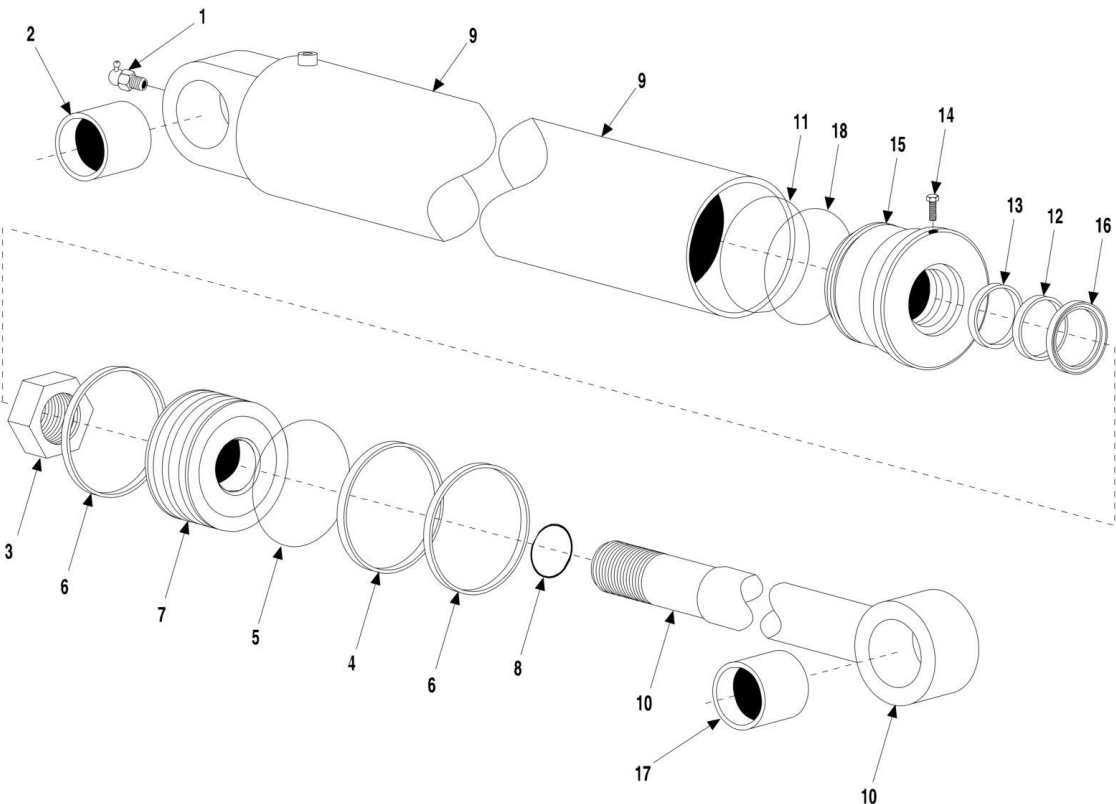
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FIGURE 12-31. (91033366) SWING CYLINDER ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033366	2	SWING CYLINDER ASSY (includes all items)	
	91034301	Ref	SEAL KIT (includes items 5,6,7,8,10,12 & 13)	
1	91034302	1	TUBE ASSY	
2	91084194	1	BUSHING	
3	88671033	1	LUBE FITTING, STRAIGHT, 1/4-28	
4	91034303	1	LOCKNUT (torque to 235 ft lbs)	
5	91044463	2	WEAR RING	
6	91044464	1	SEAL	
7	91044465	1	O-RING	
8	91044466	1	O-RING	
9	91034304	1	PISTON	
10	91044467	1	O-RING	
11	91034305	1	GLAND	
12	91044468	1	SEAL	
13	91044469	1	WIPER	
14	91034306	1	ROD ASSY	
15	91044470	1	BUSHING	

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FIGURE 12-32. (90453034) SWING CYLINDER ASSEMBLY



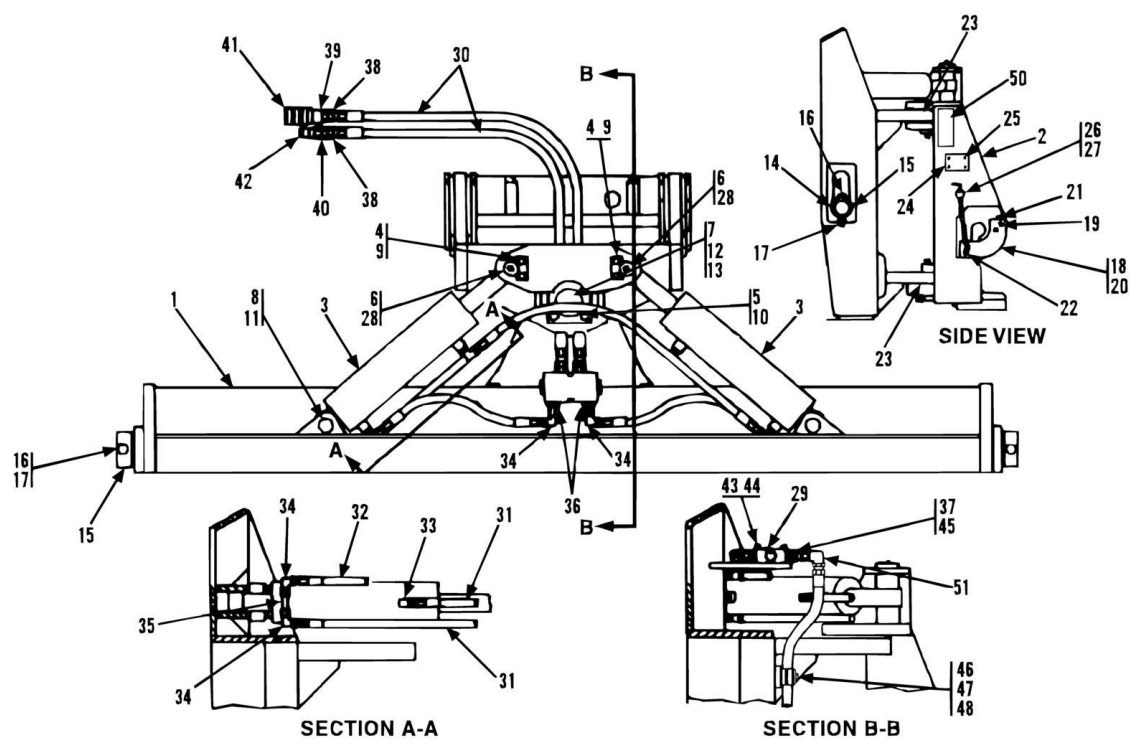
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-32. (90453034) SWING CYLINDER ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90453034	1	SWING CYLINDER, (includes all items)	
	91144006	1	SEAL KIT, (includes items 4 thru 6, 8, 11 thru 13, 16 & 18)	
1	91144125	1	GREASE FITTING	
2	91034157	1	BUSHING	
3	91144038	1	LOCKNUT	
4	91164020	1	PISTON SEAL	
5	91164021	1	O-RING	
6	91164019	2	WEAR RING	
7	91144039	1	PISTON	
8	91164022	1	O-RING	
9	91034435	1	BARREL	
10	91034436	1	PISTON ROD	
11	91164024	1	BACK-UP RING	
12	91204468	1	U-CUP	
13	91164025	1	STEP SEAL	
14	91124096	1	SELF TAPPING SCREW	
15	91144040	1	CYLINDER HEAD	
16	91204469	1	WIPER	
17	91124087	1	BUSHING	
18	91034437	1	O-RING	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-33. (90455044) 100, SWING FORK ASSEMBLY



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FIGURE 12-33. (90455044) 100, SWING FORK ASSEMBLY

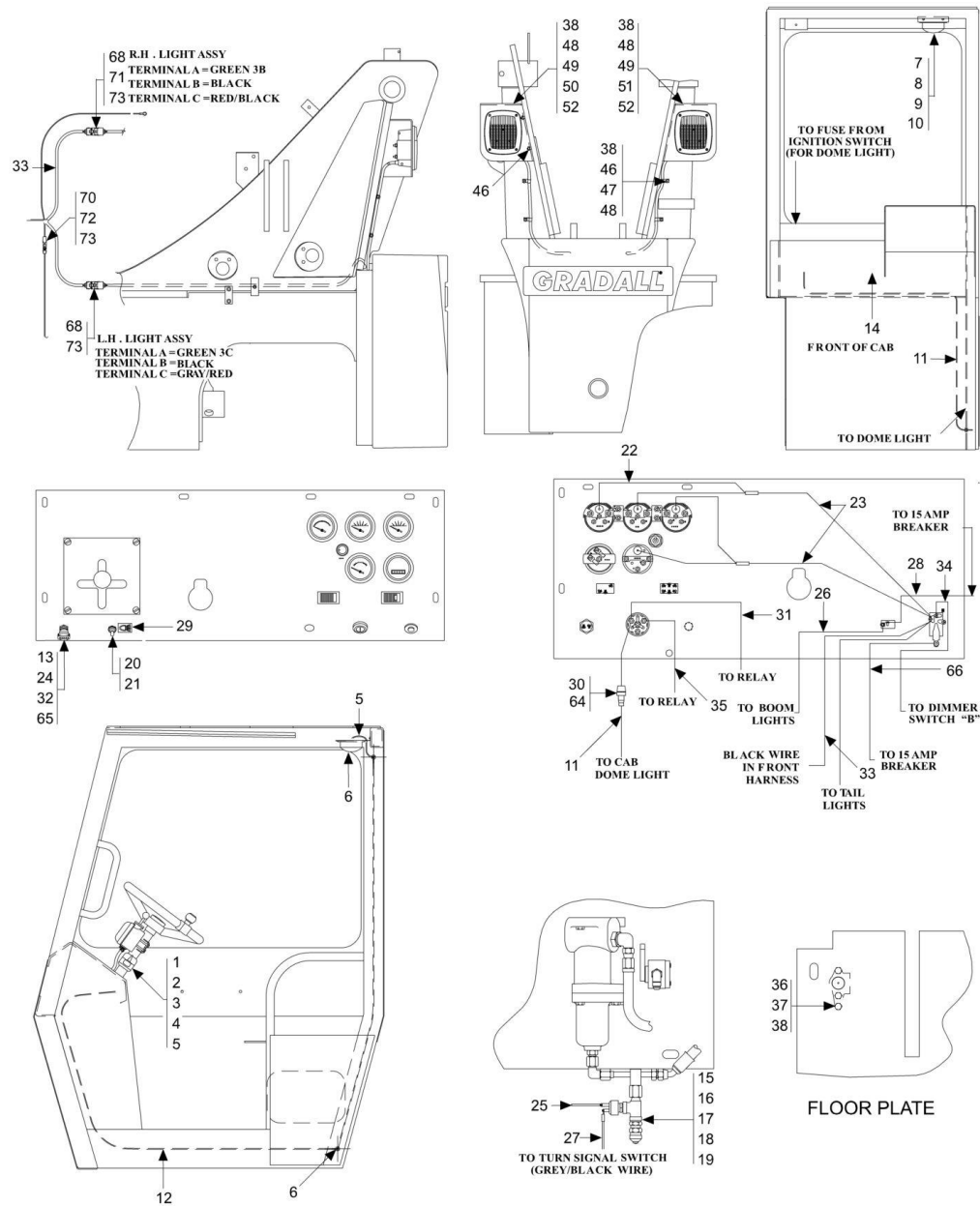
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455044	Ref	100, SWING FORK ASSY, (includes all items)	
1	91046061	1	CARRIAGE WELDMENT	
2	91046062	1	PIVOT PIN	
3		Ref	CYLINDER ASSY, (See SWING CYLINDER ASSEMBLY for Breakdown)	
4	91041322	2	LOCKING PLATE	
5	91411073	2	LOCKING PLATE	
6	91041324	2	PIVOT PIN	
7	91041325	2	PIVOT PIN	
8	91041326	2	PIVOT PIN	
9	83201024	4	HEX HD CAPSCREW, 3/8-16X1	
10	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2	
11	88581136	4	SNAP RING	
12	88671022	2	LUBE FITTING, 90, 1/8	
13	91041327	2	BUSHING	
14	90551013	1	FORK PIN	
15	90200003	2	COLLAR	
16	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
17	88521310	2	HEX LOCKNUT, 5/8-11	
18	91146053	1	L.H. SUPPORT BRACKET	
19	91141350	2	PIN	
20	91146054	1	R.H. SUPPORT BRACKET	
21	88631449	2	ROLL PIN, 1/8X1-1/2	
22	91043221	2	DETENT PIN	
23	91041356	6	SPACER	
24	90153001	1	SERIAL NUMBER PLATE	
25	88341022	4	DRIVE SCREW	
26	91033039	2	CHAIN CONNECTION	
27	91033038	24 IN	CHAIN	
28	88671008	2	LUBE FITTING, STRAIGHT, 1/4-28	
29	91043186	1	DOUBLE PILOT CHECK VALVE	
30	84718067	2	HOSE ASSY	
31	90204097	2	HOSE ASSY	
32	77133201	2	HOSE ASSY	
33	88662084	2	ELBOW, 45, (includes o-ring)	
33	88591204	2	O-RING	
34	88662105	6	ELBOW, 90, (swivel nut)	
35	88662152	2	BRANCH TEE, (includes o-ring)	
35	88591204	2	O-RING	
36	88662018	2	CONNECTOR, (includes o-ring)	
37	91041361	2	FITTING	
38	88661013	2	MALE CONNECTOR, 3/8X5/8 TUBE (Prior to SN 2005283-01)	
38	88662006	2	CONNECTOR, (includes 8859-1205 o-ring), (SN 2005283-01 to Present)	
39	91163139	1	FEMALE QUICK DISCONNECT (Prior to SN 2005283-01)	
39	91403413	1	FEMALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
40	91163138	1	MALE QUICK DISCONNECT (Prior to SN 2005283-01)	
40	91403414	1	MALE QUICK DISCONNECT, (SN 2005283-01 to Present)	
41	91043125	1	DUST CAP	
42	91043126	1	DUST CAP	

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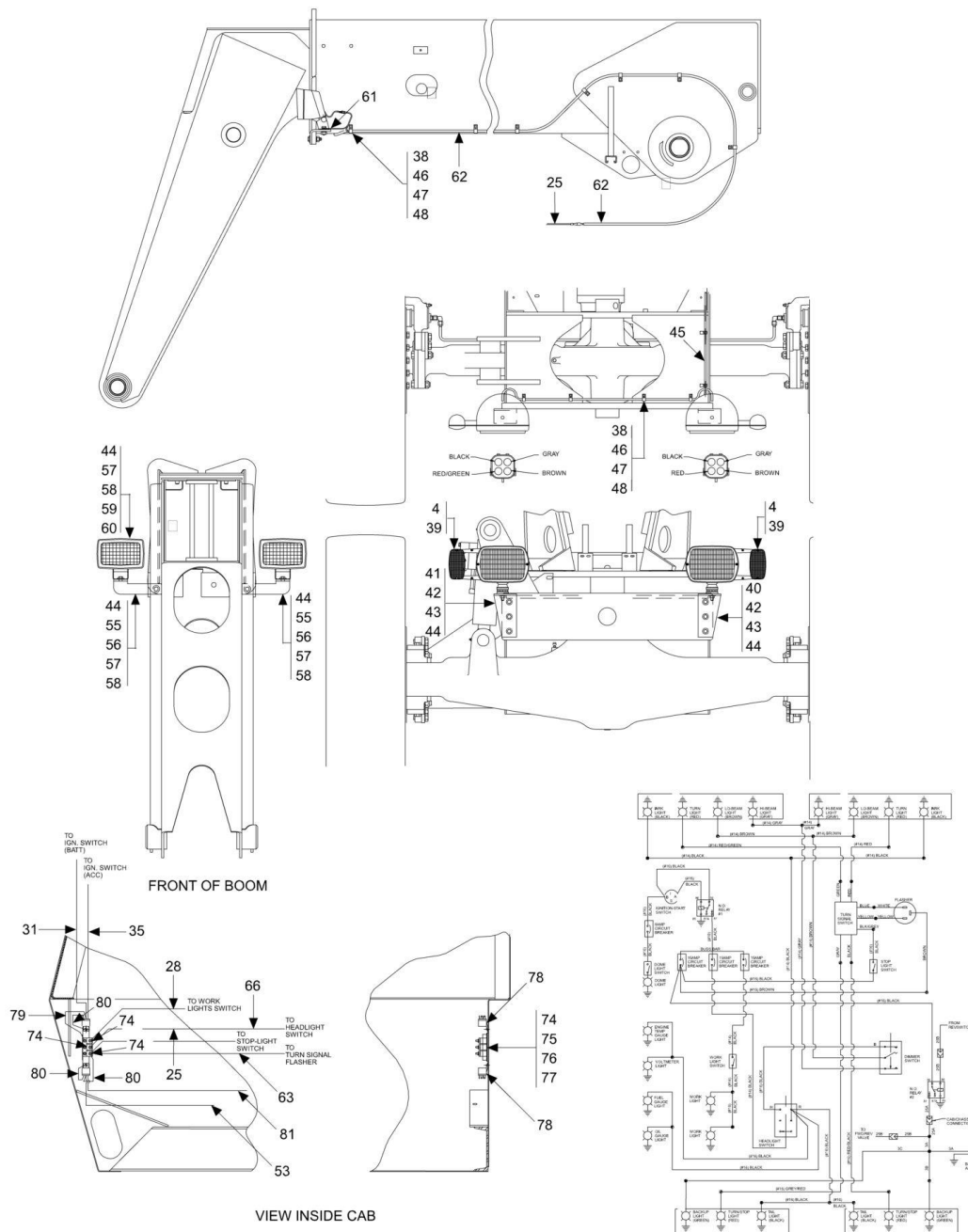
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	88201008	2	HEX HD CAPSCRW, 1/4-20X1-3/4, GR5	
44	88561002	2	FLAT WASHER, 1/4	
45	91041362	2	ORIFICE FITTING	
46	91083249	1	CLAMP SET	
47	77133140	1	COVER PLATE	
48	77133177	1	HEX HD CAPSCREW	
49	91083386	1	CAPACITY DECAL, (inside cab)	
50	91143282	2	PINCH POINT DECAL	
51	88662106	2	ELBOW, 90, (swivel nut)	

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FIGURE 12-34. (91085062) DELUXE LIGHT PACKAGE (SN 0177005 through 0177121)



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FIGURE 12-34. (91085062) DELUXE LIGHT PACKAGE (SN 0177005 through 0177121)

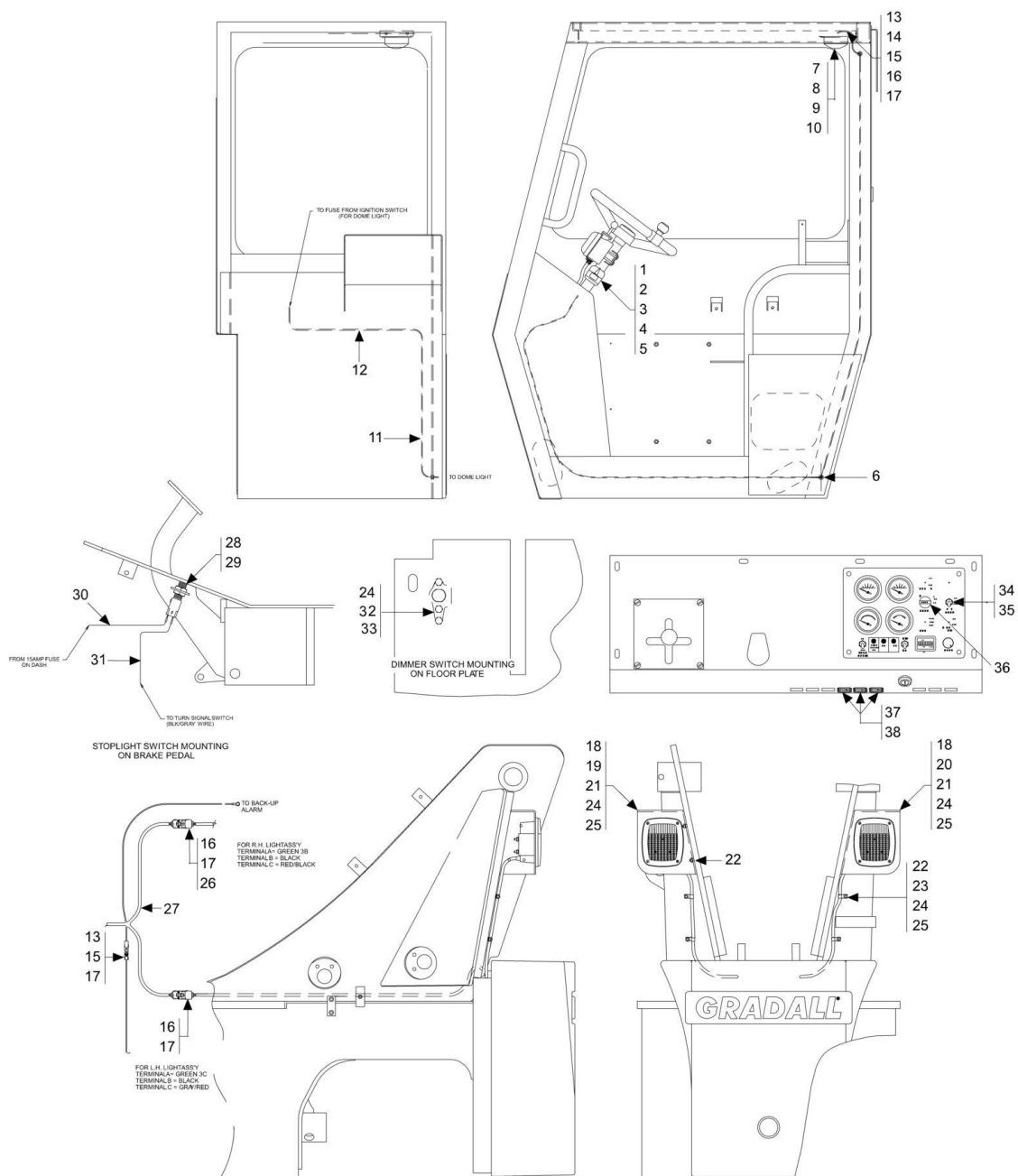
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085062	1	DELUXE LIGHT PACKAGE, (includes all items)	
1	90200999	1	TURN SIGNAL SWITCH	
2	80983168	1	FLASHER SWITCH	
3	91013026	1	PIG TAIL CONNECTOR	
4	86983193	14	BULLET CONNECTOR	
5	86683480	4	BUTT CONNECTOR	
6	90027214	2	RUBBER GROMMET	
7	91011009	1	MOUNTING BRACKET	
8	90029955	1	RUBBER GROMMET	
9	88321022	2	SELF TAPPING SCREW, #8-32X3/8	
10	24861167	1	INTERIOR LIGHT	
11	91121151	1	JUMPER WIRE	
12	86683122	18	TIE-RAP	
13	88301191	1	RD HD MACH SCREW, #10-32X3/8	
14	91053419	13	TIE-WRAP	
15	86561326	1	ADAPTER	
16	91033032	1	TEST COUPLING	
17	88712232	1	STREET TEE, 1/4	
18	88711380	1	REDUCING BUSHING, 1/4X1/8	
19	83663097	1	STOPLIGHT SWITCH	
20	77383467	1	LIGHT SWITCH	
21	77383470	1	BOOT	
22	91033360	4	GAUGE LIGHTING KIT	
23	91121152	2	JUMPER WIRE	
24	88551007	1	LOCKWASHER, #10	
25	91121190	1	JUMPER WIRE	
26	91081613	1	JUMPER WIRE	
27	91121154	1	JUMPER WIRE	
28	91121189	1	JUMPER WIRE	
29	91003055	1	LIGHTS DECAL	
30	90203376	1	IN-LINE FUSE, 6 AMP	
31	91121186	1	JUMPER WIRE	
32	86683127	1	HEADLAMP SWITCH	
33	91083400	1	REAR WIRING HARNESS	
34	91081614	1	JUMPER WIRE	
35	91121187	1	JUMPER WIRE	
36	86683136	1	DIMMER SWITCH	
37	88201002	3	HEX HD CAPSCREW, 1/4-20X5/8,GR5	
38	88551009	30	LOCKWASHER, 1/4	
39	91083398	1	LAMP KIT	
40	91081610	1	L.H. FRONT BRACKET	
41	91081612	1	R.H. FRONT BRACKET	
42	88201036	6	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
43	88561004	6	FLAT WASHER, 3/8	
44	88551011	10	LOCKWASHER, 3/8	
45	91083399	1	FRONT WIRING HARNESS	
46	83661336	27	WELD STUD, 1/4-20X5/8	
47	86621230	21	SUPPORT CLAMP	
48	88501004	27	HEX NUT, 1/4-20	
49	91365045	2	TAIL LIGHT ASSEMBLY, (includesthe following seven items)	

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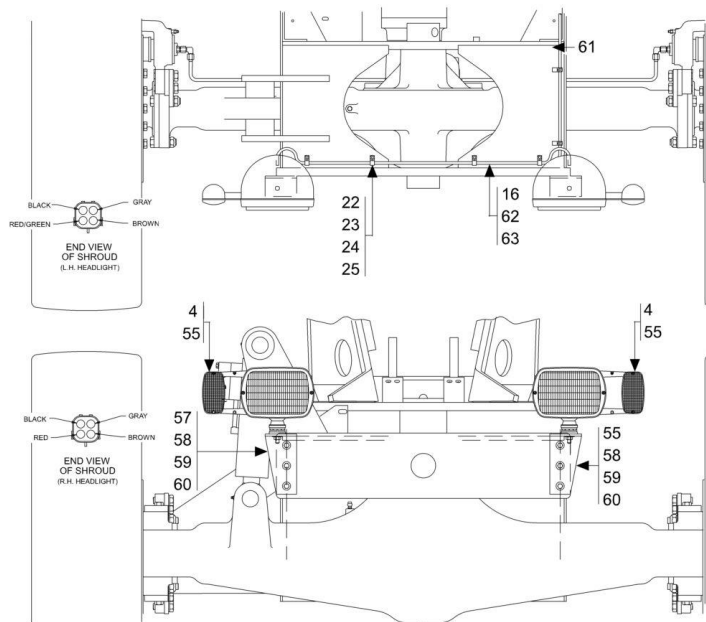
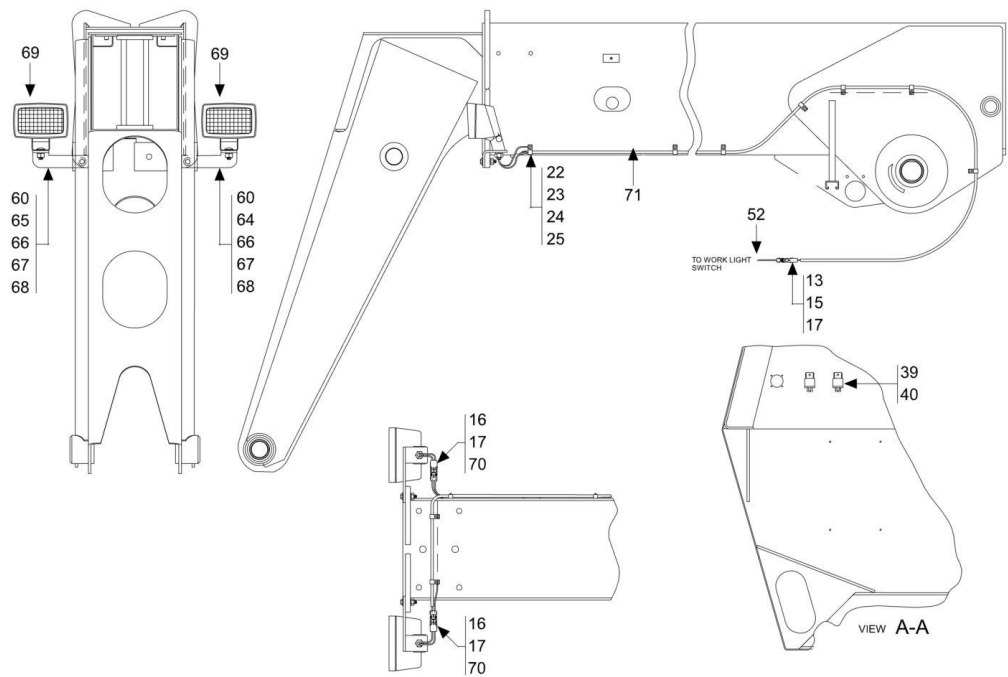
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	91123065	1	TAIL LIGHT	
49	86661147	38 IN	WIRE, 16 GAUGE, (black)	
49	86661149	38 IN	WIRE, 16 GAUGE, (green)	
49	86661152	38 IN	WIRE, 16 GAUGE, (red)	
49	86683480	3	BUTT CONNECTOR	
49	82033996	45 IN	WIRE LOOM	
49	86683122	2	TIE WRAP	
50	91081608	1	L.H. REAR LIGHT BRACKET	
51	91081609	1	R.H. REAR LIGHT BRACKET	
52	91121146	2	TAIL LIGHT BRACKET	
53	91121193	1	JUMPER WIRE	
54	91081606	1	L.H. LIGHT BRACKET	
55	91081607	1	R.H. LIGHT BRACKET	
56	88201037	2	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
57	88561109	4	FLAT WASHER, 3/8	
58	88501006	4	HEX NUT, 3/8-16	
59	91125110	2	HALOGEN WORKLIGHT KIT, (includes the following two items)	
59	80963050	1	UTILITY FLOOD LIGHT	
59	90028960	2	MALE TERMINAL	
60	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
61	91121150	2	JUMPER WIRE	
62	91083397	1	WIRING HARNESS	
63	91081661	1	JUMPER WIRE	
64	86983188	1	EYELET	
65	88501613	1	HEX NUT, #10-32	
66	91081660	1	JUMPER WIRE	
67	80963062	2	W. PACK CONNECTOR, (shroud)	
68	80963069	14	W. PACK CONNECTOR, (male pin)	
69	80963067	8	W. PACK CONNECTOR, (cable seal)	
70	80963055	1	W. PACK CONNECTOR, (tower)	
71	80963060	2	W. PACK CONNECTOR, (shroud)	
72	80963068	1	W. PACK CONNECTOR, (female pin)	
73	80963066	7	W. PACK CONNECTOR, (cable seal)	
74	91033462	3	CIRCUIT BREAKER,15 AMP	
75	77363191	1	CIRCUIT BREAKER BRACKET	
76	86981178	1	BUSS BAR	
77	88321039	2	SELF TAPPING SCREW, #10-32X1/2	
78	77383410	2	RELAY	
79	91121188	1	JUMPER WIRE	
80	91121191	3	JUMPER WIRE	
81	91081665	1	JUMPER WIRE	

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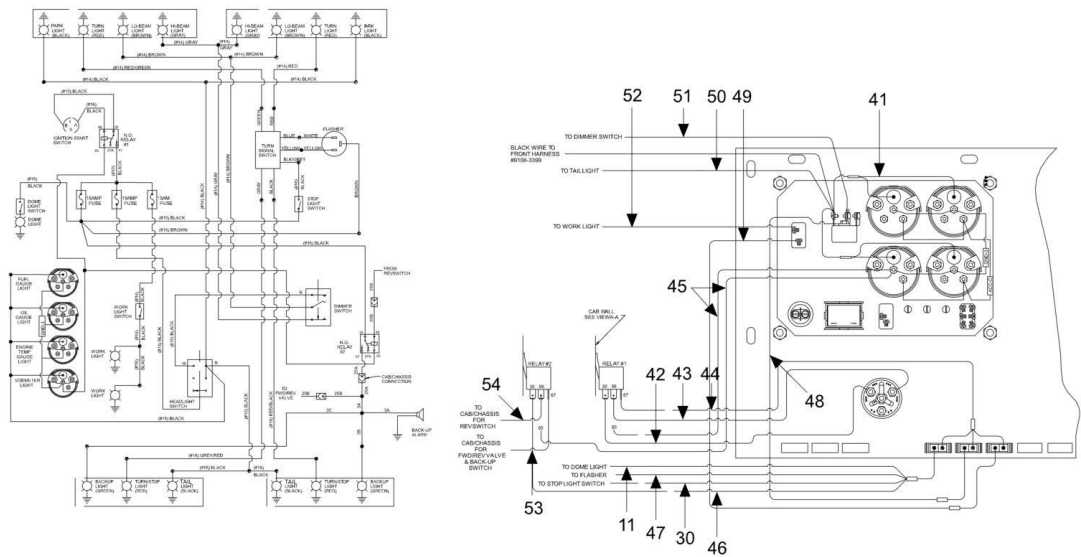
FIGURE 12-35. (91085104) DELUXE LIGHT PACKAGE (SN 0177122 to Present)



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FIGURE 12-35. (91085104) DELUXE LIGHT PACKAGE (SN 0177122 to Present)

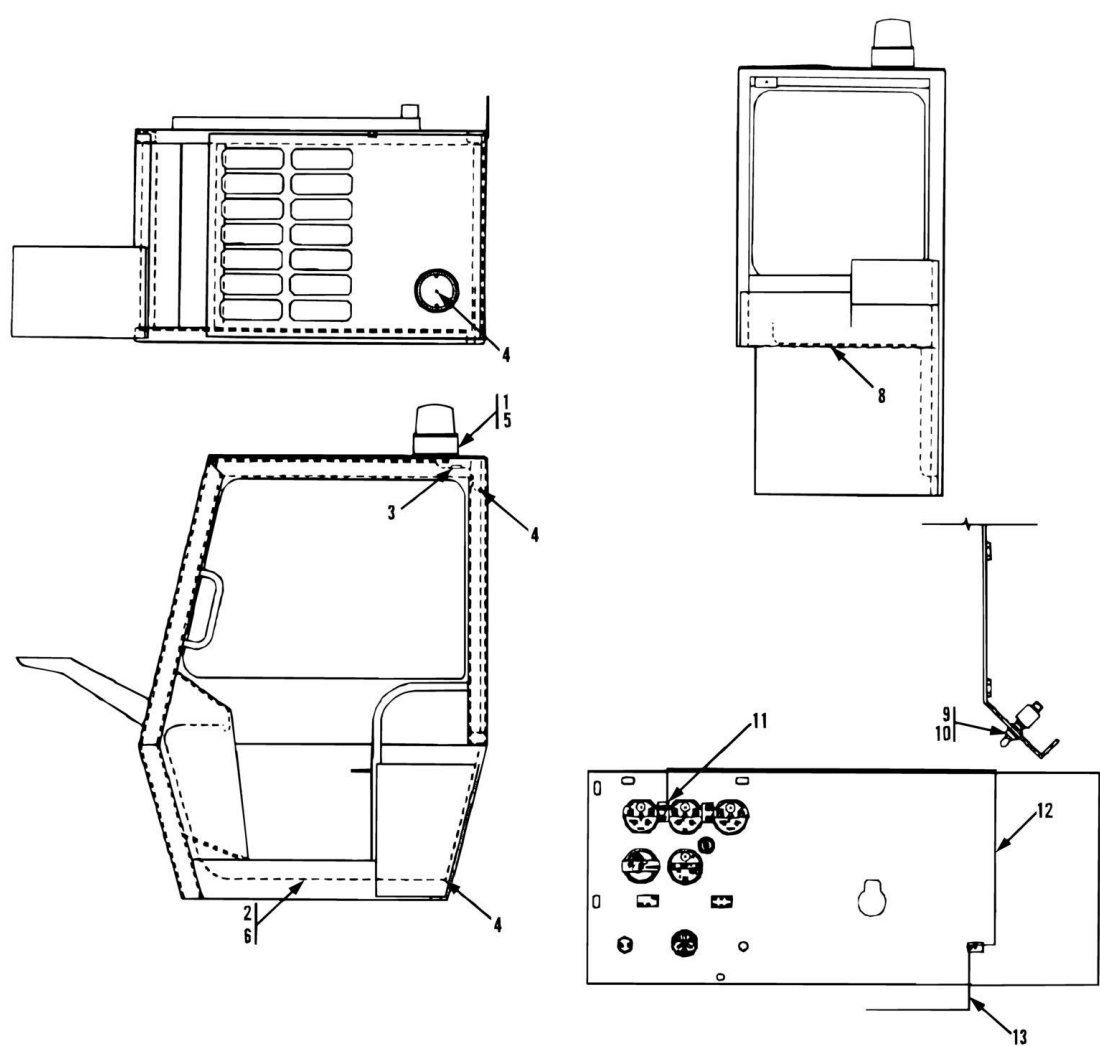
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085104	1	DELUXE LIGHT PACKAGE,(includes all items)	
1	90200999	1	TURN SIGNAL SWITCH	
2	86683381	1	FLASHER SWITCH	
3	91013026	1	PIG TAIL CONNECTOR	
4	86983193	14	BULLET CONNECTOR	
5	86683480	3	BUTT CONNECTOR	
6	90027214	2	RUBBER GROMMET	
7	91011009	1	MOUNTING BRACKET	
8	90029955	1	RUBBER GROMMET	
9	88321022	2	SELF-TAPPING SCREW, #8-32 x 3/8	
10	24861167	1	INTERIOR LIGHT	
11	91121151	1	JUMPER WIRE	
12	91053419	7	TIE WRAP	
13	80963055	3	W. PACK CONNECTOR,(tower)	
14	80963056	1	W. PACK CONNECTOR, (shroud)	
15	80963068	3	W. PACK CONNECTOR, (female pin)	
16	80963069	7	W. PACK CONNECTOR, (male pin)	
17	80963066	2	W. PACK CONNECTOR, (cable seal)	
18	91365045	2	TAIL LIGHT ASSEMBLY, (includes the following seven items)	
18	91123065	1	TAIL LIGHT	
18	86661147	38 IN	WIRE, 16 GAUGE, (black)	
18	86661149	38 IN	WIRE, 16 GAUGE, (green)	
18	86661152	38 IN	WIRE, 16 GAUGE, (red)	
18	86683480	3	BUTT CONNECTOR	
18	82033996	45 IN	WIRE LOOM	
18	86683122	2	TIE WRAP	
19	91081608	1	L.H. REAR LIGHT BRACKET	
20	91081609	1	R.H. REAR LIGHT BRACKET	
21	91121146	1	TAIL LIGHT BRACKET	
22	83661336	27	WELD STUD, 1/4-20 x 5/8	
23	86621230	21	SUPPORT CLAMP	
24	88551009	30	LOCKWASHER, 1/4	
25	88501004	27	HEX NUT, /4-20	
26	80963060	2	W. PACK CONNECTOR, (shroud)	
27	91083400	1	REAR WIRING HARNESS	
28	91141197	1	MOUNTING TAB	
29	91143117	1	STOPLIGHT SWITCH	
30	91141256	1	JUMPER WIRE	
31	91141257	1	JUMPER WIRE	
32	86683136	1	DIMMER SWITCH	
33	88201002	3	HEX HD CAPSCREW, 1/4-20 x 5/8, GR5	
34	77383467	1	LIGHT SWITCH	
35	77383470	1	BOOT	
36	86683127	1	HEAD LAMP SWITCH	
37	91143108	3	FUSE HOLDER	
38	77363268	3	FUSE,15 AMP	
39	77383410	2	RELAY	
40	88321039	2	SELF-TAPPING SCREW, #10-32 x1/2	
41	91033360	4	GAUGE LIGHTING KIT	
42	91121186	1	JUMPER WIRE	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
43	91121187	1	JUMPER WIRE	
44	91081686	1	JUMPER WIRE	
45	91141265	2	JUMPER WIRE	
46	91081687	1	JUMPER WIRE	
47	91081688	1	JUMPER WIRE	
48	91081689	1	JUMPER WIRE	
49	91121216	1	JUMPER WIRE	
50	91083400	1	REARWIRING HARNESS	
51	91081614	1	JUMPER WIRE	
52	91081613	2	JUMPER WIRE	
53	91081665	1	JUMPER WIRE	
54	91121193	1	JUMPER WIRE	
55	91083398	1	HEAD/TURN/PARK/LAMP KIT	
56	91081610	1	L.H. FRONT BRACKET	
57	91081612	1	R.H. FRONT BRACKET	
58	88201036	6	HEXHD CAPSCREW, 3/8-16 x 1-1/4, GR5	
59	88561004	6	FLAT WASHER, 3/8	
60	88551011	8	LOCKWASHER, 3/8	
61	91083399	1	FRONT WIRING HARNESS	
62	80963062	2	W. PACK CONNECTOR, (shroud)	
63	80963067	8	W. PACK CONNECTOR, (cable seal)	
64	91081606	1	L.H. LIGHT BRACKET	
65	91081607	1	R.H. LIGHT BRACKET	
66	88201037	2	HEX HD CAPSCREW, 3/8-16 x 1-1/2, GR5	
67	88561109	2	FLATWASHER, 3/8	
68	88501006	2	HEX NUT, 3/8-16	
69	80963050	2	UTILITY FLOOD LIGHT	
70	80963058	2	W. PACK CONNECTOR, (shroud)	
71	91083397	1	WIRING HARNESS	

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FIGURE 12-36. (91125021) BEACON LIGHT PACKAGE



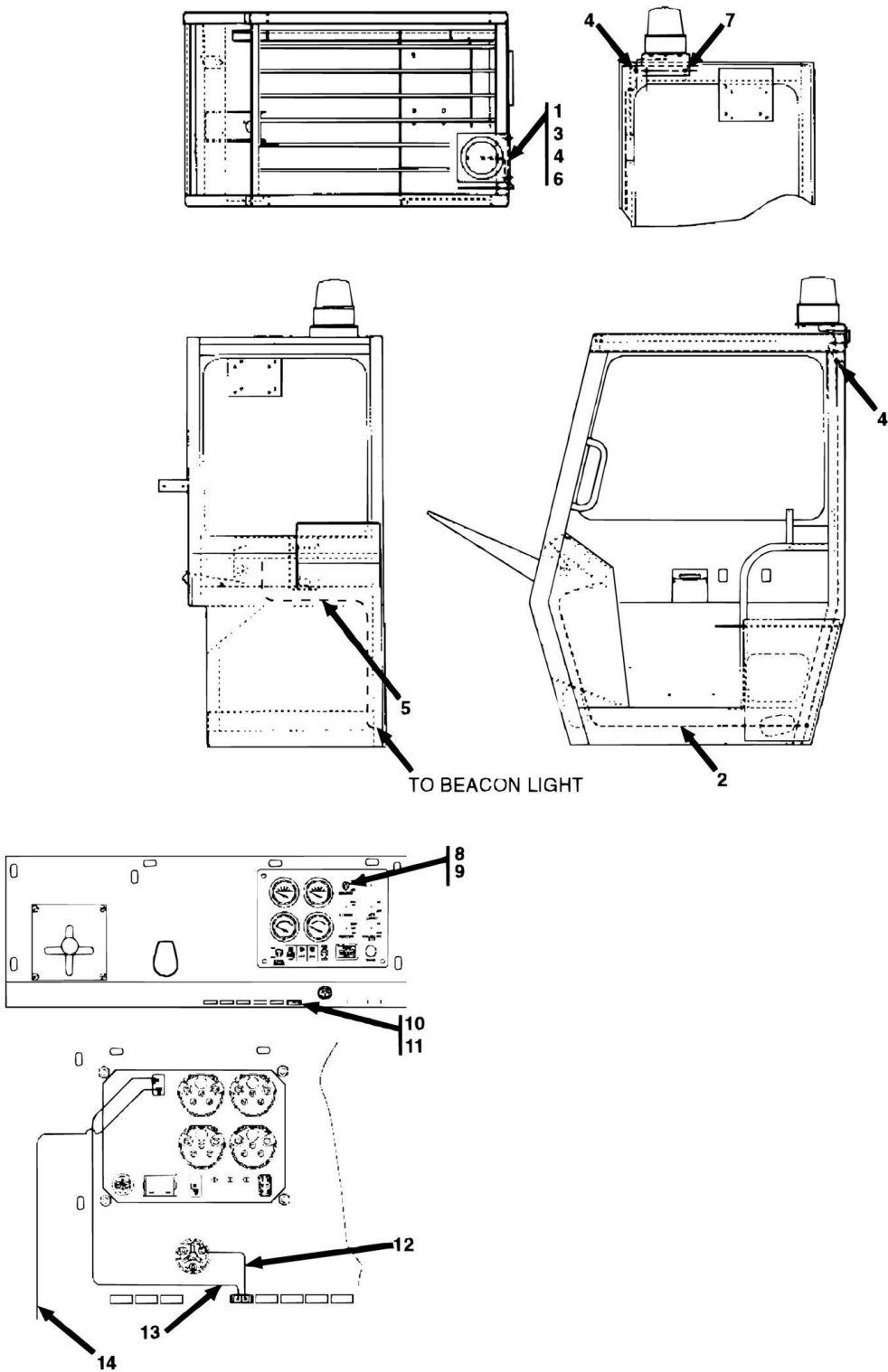
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FIGURE 12-36. (91125021) BEACON LIGHT PACKAGE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125021	Ref	BEACON LIGHT PACKAGE, (includes all items)	
1	90200685	1	ROTATING BEACON	
2	91121151	1	JUMPER WIRE	
3	86683480	1	BUTT CONNECTOR	
4	90027214	3	RUBBER GROMMET	
5	88501004	2	HEX NUT, 1/4-20	
6	86683122	6	TY-WRAP	
8	91053419	6	TY-WRAP	
9	90200171	1	LIGHT SWITCH	
10	91003056	1	BEACON DECAL	
11	90200506	1	CIRCUIT BREAKER, (30 amp)	
12	91121153	1	JUMPER WIRE	
13	91121151	1	JUMPER WIRE	

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FIGURE 12-37. (91125042) BEACON LIGHT PACKAGE (SN 0177122 to Present)



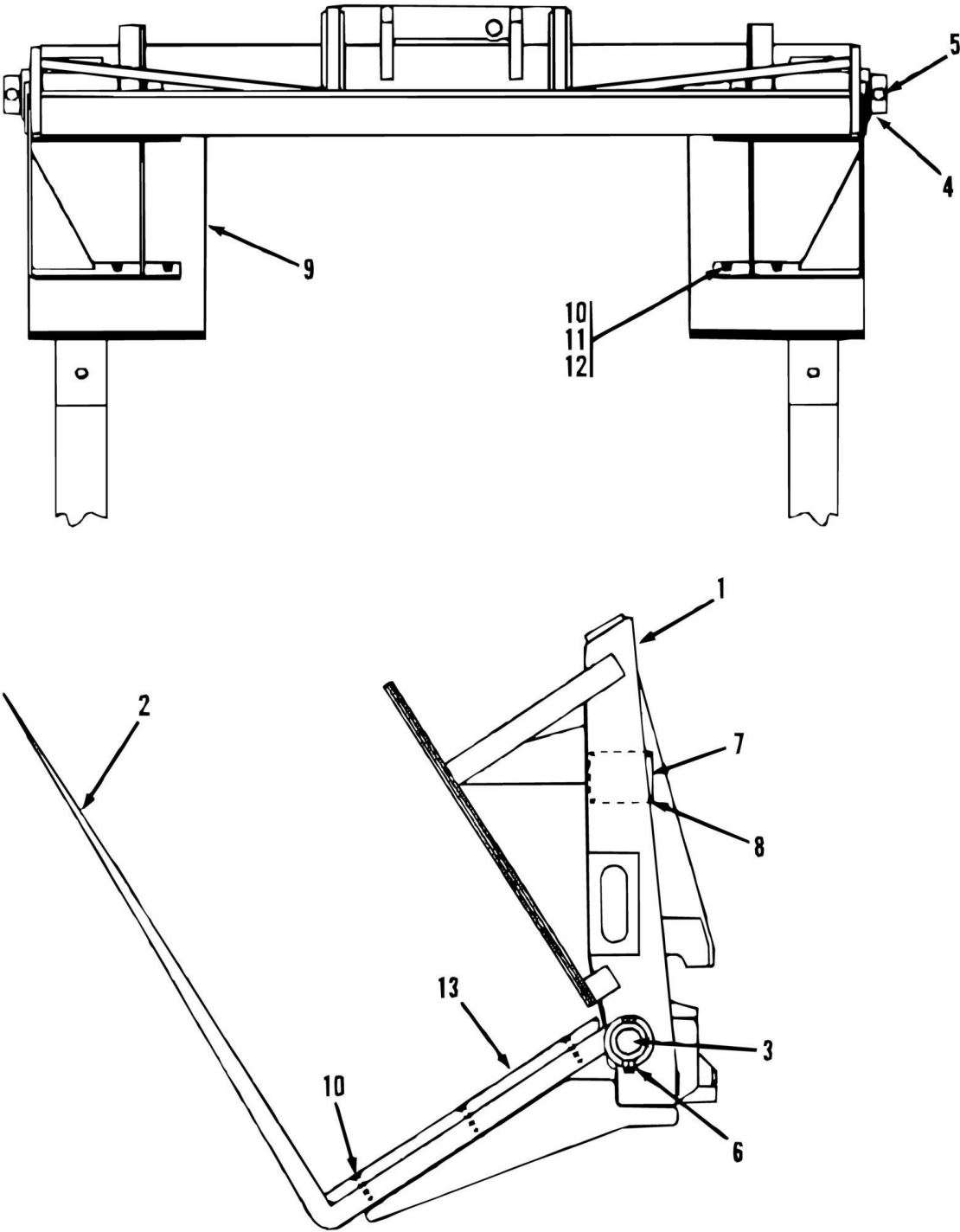
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-37. (91125042) BEACON LIGHT PACKAGE (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125042	Ref	BEACON LIGHT PACKAGE (includes all items)	
1	90200685	1	ROTATING BEACON	
2	91121151	1	JUMPER WIRE	
3	86683480	1	BUTT CONNECTOR	
4	90027214	5	RUBBER GROMMET	
5	91053419	6	TIE WRAP	
6	91121215	1	BRACKET	
7	90027319	2	DRILL AND TAP SCREW, 1/4-20 x 1	
8	77383467	1	TOGGLE-SPST	
9	77383470	1	BOOT	
10	91143108	1	FUSE HOLDER	
11	77363268	1	15 AMP FUSE	
12	91141259	1	JUMPER WIRE	
13	91121216	1	JUMPER WIRE	
14	91121151	1	JUMPER WIRE	

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FIGURE 12-38. (90455043) DRYWALL CARRIAGE ASSEMBLY



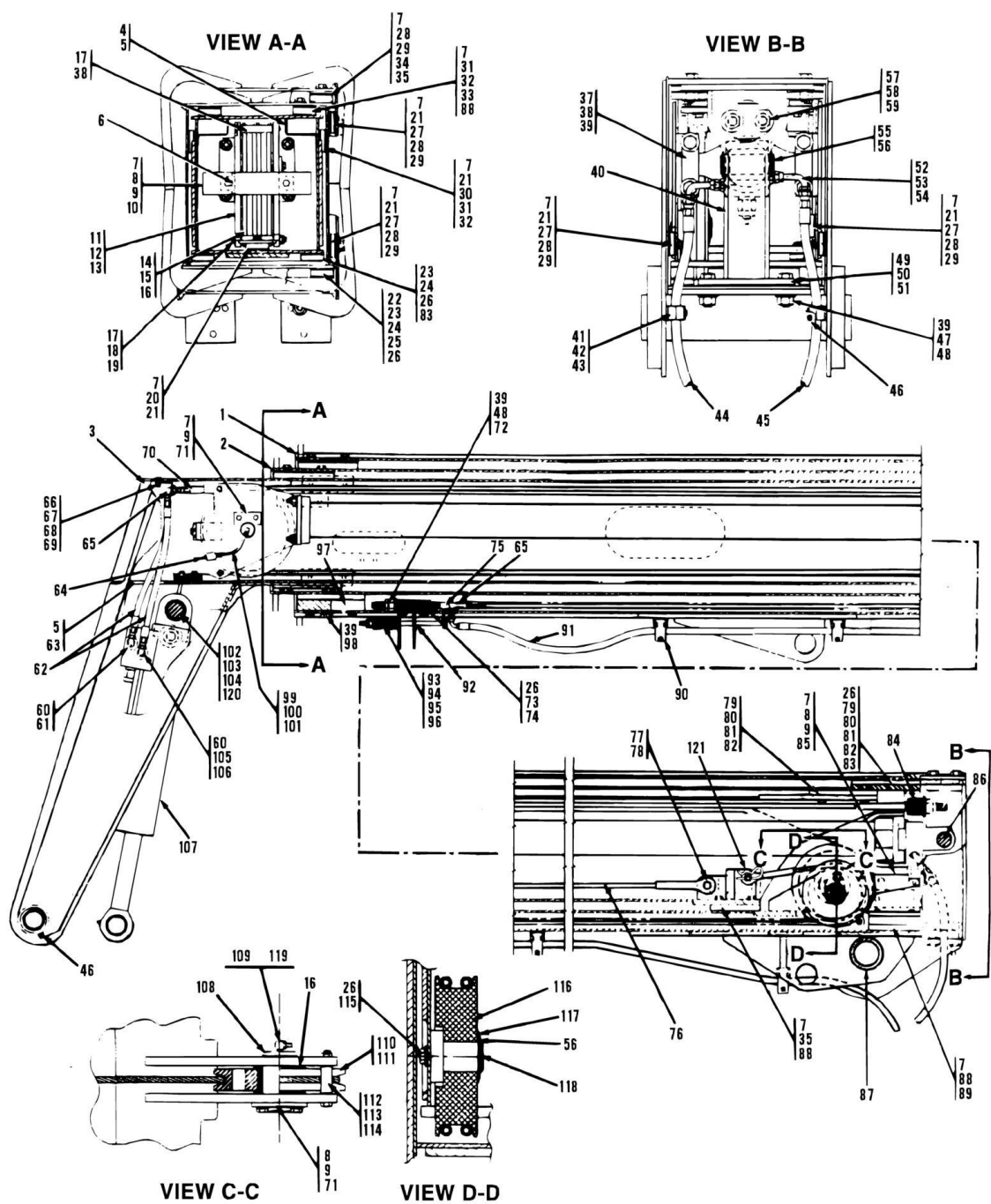
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-38. (90455043) DRYWALL CARRIAGE ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90455043	Ref	DRYWALL CARRIAGE ASSY (includes all items)	
1	90456004	1	DRYWALL CARRIAGE WELDMENT	
2	90453013	2	DRYWALL FORK	
3	90451020	2	FORK PIN	
4	90200003	4	COLLAR TUBE	
5	88201105	4	HEX HD CAPSCREW 5/8-11X4, GR5	
6	88521310	4	HEX LOCKNUT, 5/8-11	
7	90153001	1	ATTACHMENT SERIAL NUMBER PLATE	
8	88341022	4	DRIVE SCREW, #10-32	
9	90553012	2	SIDE DRYWALL GUARD	
10	88241053	14	SOCKET FLAT HD SCREW, 3/8-16X1-1/2	
11	88551011	8	LOCKWASHER, 3/8	
12	88501006	8	HEX NUT, 3/8-16	
13	90553013	2	BOTTOM DRYWALL GUARD	

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FIGURE 12-39. (91085081) THREE SECTION BOOM



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FIGURE 12-39. (91085081) THREE SECTION BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085081	1	THREE SECTION BOOM ASSEMBLY (includes all items)	
1	91086140	1	BOOM WELDMENT, FIRST SECTION	
2	91086141	1	BOOM WELDMENT, SECOND SECTION	
3	91086142	1	BOOM WELDMENT, THIRD SECTION	
4	90206194	AR	TRIM-LOCK	
5	14402248	AR	3M-ADHESIVE	
6	91121196	1	EXTEND CABLE PIN	
7	88561109	42	FLAT WASHER, 3/8	
8	88551011	8	LOCKWASHER, 3/8	
9	88201034	8	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
10	91121122	8	GUIDE BAR	
11	88561111	4	WASHER, 1/2	
12	91126009	1	EXTEND CABLE BRACKET	
13	88521208	4	HEAVY LOCKNUT, 1/2-13 (nylok)	
14	91125030	2	EXTEND SHEAVE ASSY (includes item 15)	
15	91123102	2	BUSHING	
16	91041451	5	THRUST WASHER(SHIM)	
17	91121045	2	RETAINER ROLLER	
18	83201073	1	HEX HD CAPSCREW, 3/8-16X4-1/2,GR5	
19	88521306	1	HEX LOCKNUT, 3/8-6 (nylok)	
20	91033187	1	BEARING PAD	
21	88201532	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5 torque to 32-37 ft lbs	
21	88201534	22	HEX HD CAPSCREW, 3/8-24X1, GR5 (torque to 32-37 ft lbs)	
22	91081171	2	SHIM	
23	91083063	4	BEARING PAD	
24	91081172	4	SPACER (.132 thick)	
25	88201568	4	HEX HD CAPSCREW,1/2-20X2, GR5 (torque to 68-78 ft lbs)	
25	88201564	AR	HEX HD CAPSCREW,1/2-20X1, GR5 (torque to 68-78 ft lbs)	
26	90027471	18	FLAT WASHER, 1/2	
27	91033186	8	BEARING PAD	
28	91031236	10	SPACER (.06 thick)	
29	90205870	24	SHIM (.06 thick)	
30	91123021	2	BEARING PAD	
31	91121083	4	SPACER (.06 thick)	
32	91121082	8	SHIM (.06 thick)	
33	88201534	4	HEX HD CAPSCREW, 3/8-24X1,GR5 (torque to 32-37 ft lbs)	
33	88201535	AR	HEX HD CAPSCREW, 3/8-24X1-1/4, GR5 (torque to 32-37 ft lbs)	
34	91033185	2	BEARING PAD	
35	88201535	8	HEX HD CAPSCREW, 3/8-24X1-1/4, GR5 (torque to 32-37 ft lbs)	
35	88201536	AR	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5 (torque to 32-37 ft lbs)	
36	88201046	1	HEX HD CAPSCREW, 3/8-16X3-3/4	
37	91121066	2	CROWD CYLINDER RETAINER	
38	83201017	4	HEX HD CAPSCREW, 3/4-10X2-3/4,GR8, SELF-LOCKING (nylok), (torque to 340 (+25-0) ft lbs)	
39	90027473	15	WASHER, 3/4	
40	91126010	1	CROWD CYLINDER MOUNTING BRACKET	
41	77133893	2	STAUFF CLAMP SET	
42	77133052	2	STAUFF COVER PLATE	
43	77133209	4	HEX HD CAPSCREW,1/4-20X1-3/8	
44	84717862	1	HOSE ASSY	

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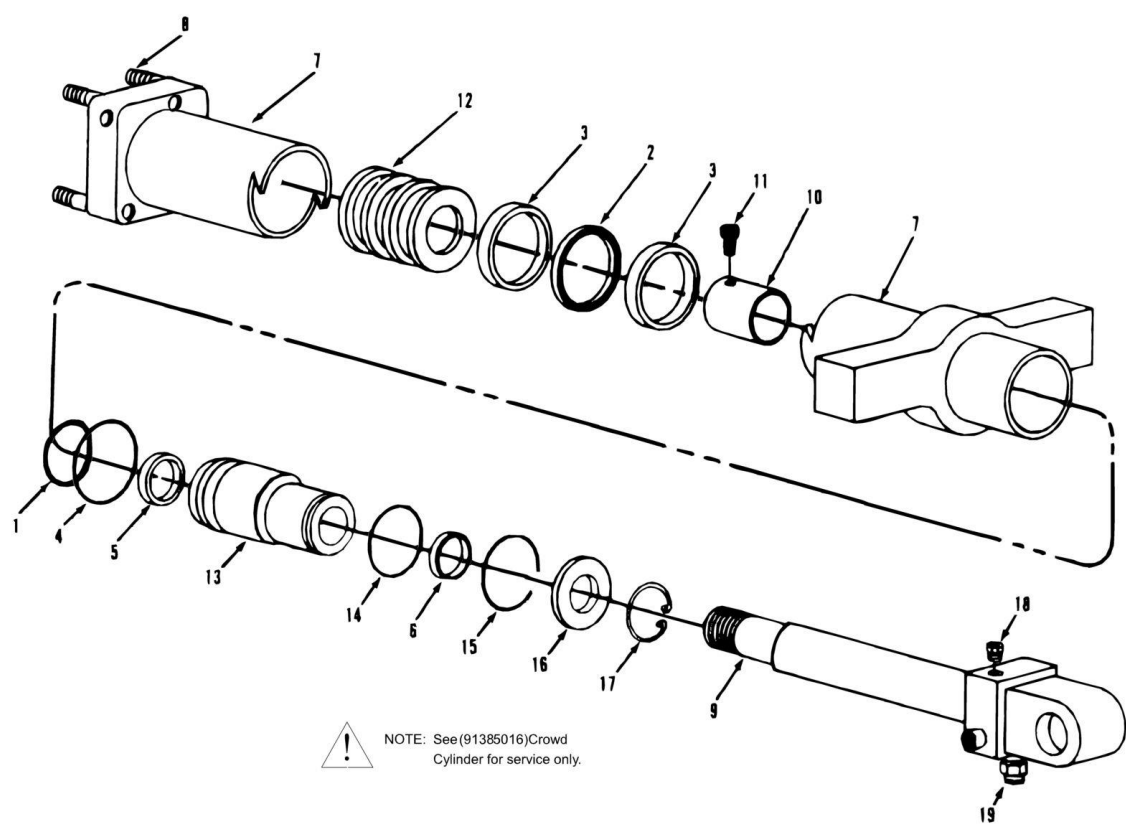
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	84717863	1	HOSE ASSY	
46	88671001	4	LUBE FITTING, 1/8	
47	83201039	8	HEX HD CAPSCREW, 3/4-10X2-1/2, GR8, SELF-LOCKING (nylok) (torque to 240-265 ft)	
48	88501012	9	HEX NUT, 3/4-10	
49	91121023	2	SHIM (.0598 thick)	
50	91121024	2	SHIM (.0359 thick)	
51	91121157	2	SHIM (.134 thick)	
52	86561308	2	STRAIGHT THREAD ADAPTER	
53	91123022	2	ADAPTER, 90	
54	88591205	2	O-RING	
55	91121041	1	CROWD CYLINDER PIN	
56	88581320	3	RETAINING RING	
57	91121079	2	WASHER, 7/8	
58	88501314	2	HEX NUT, 7/8-14	
59	88501414	2	HEX JAM NUT, 7/8-14	
60	88591207	3	O-RING	
61	91053450	1	STRAIGHT FITTING, 90	
62	84717896	2	HOSE ASSY	
63	90206199	AR	TRIM LOCK	
64	86881002	2	LUBE FITTING	
65	90027179	4	BULKHEAD FITTING, 90	
66	91121125	1	BULKHEAD BRACKET	
67	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
68	88551010	2	LOCKWASHER, 5/16	
69	88501005	2	HEX NUT, 5/16-18	
70	84718281	2	HOSE ASSY	
71	86641158	1	PIN KEEPER	
72	88501112	1	HEAVY HEX JAM NUT	
73	91081087	1	CABLE ADJUSTMENT BLOCK	
74	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8, SELF LOCKING (nylok) (torque to 68-78 ft lbs)	
75	91083432	1	RETRACTION CABLE	
76	91083431	2	EXTENSION CABLE	
77	91121080	1	EXTENSION CABLE PIN	
78	88581310	2	RETAINING RING	
79	91083297	4	BEARING PAD	
80	91081447	4	SPACER (.132 thick)	
81	91121081	6	SHIM (.06 thick)	
82	88201565	6	HEX HD CAPSCREW, 1/2-20X1-1/4, GR5 (torque to 68 -78ft lbs)	
82	88201566	AR	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5 (torque to 68 -78ft lbs)	
83	88201562	6	HEX HD CAPSCREW, 1/2-20X3/4, GR5 (torque to 68-78 ft lbs)	
83	88201563	AR	HEX HD CAPSCREW, 1/2-20X7/8, GR5, (torque to 68 - 78 ft lbs)	
84	91123018	2	SPRING	
85	91126071	1	HOSE GUARD	
86		Ref	CROWD CYLINDER (See CROWD CYLINDER for Breakdown)	
87	91083298	2	BUSHING	
88	91123019	6	BEARING PAD	
89	88201538	4	HEX HD CAPSCREW, 3/8-24X2, GR5 (torque to 32-37 ft lbs)	
90	90207463	8	CUSHION CLAMP	
91	84718280	2	HOSE ASSY	
92	91126008	2	HOSE TAKE UP WELDMENT	

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ITEM	PART NUMBER	QTY	DESCRIPTION	REV
93	91123054	2	COMPRESSION SPRING	
94	91121134	2	SPRING RETAINER	
95	88501008	2	HEX NUT, /2-13	
96	88501108	2	HEX JAM NUT,1/2-13	
97	91121022	1	BEARING PLATE	
98	88201608	2	HEX HD CAPSCREW, 3/4-16X1-1/2	
99	86881276	2	TUBE FITTING, 90	
100	86881273	2	STRAIGHT TUBE FITTING	
101	Bulk	AR	NYLON TUBING, 1/4	
102	91146052	1	PIN WELDMENT	
103	88201065	1	HEX HD CAPSCREW, 1/2-13 x 1	
104	83621283	1	SPECIAL WASHER	
105	91053426	1	STRAIGHT THREAD CONNECTOR	
106	88662105	1	ELBOW, 90, (swivel nut)	
107		Ref	TILT CYLINDER (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
108	91121197	1	RETRACTION SHEAVE PIN	
109	91033445	1	LUBE FITTING, STRAIGHT,1/8	
110	91125031	1	REFRACTION SHEAVE ASSEMBLY (includes item 111)	
111	91123102	1	BUSHING	
112	91121056	2	RETAINER ROLLER	
113	88201043	2	HEX HD CAPSCREW, 3/8-16X3, GR5	
114	88521306	2	HEX LOCKNUT, 3/8-16 (nylok)	
115	83201123	3	HEX HD CAPSCREW,1/2-13X11, GR8 SELF-LOCKING (nylok) (torque to 68 to 78 ft lbs)	
116	91123016	1	HOSE SHEAVE	
117	90203040	1	THRUST WASHER	
118	91081326	1	HOSE REEL SUPPORT	
119	88712011	1	STREET ELBOW, 90	
120	88551013	1	LOCKWASHER, 1/2	
121	91123116	1	HITCH PIN CLIP	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-40. (91085080) CROWD CYLINDER ASSEMBLY



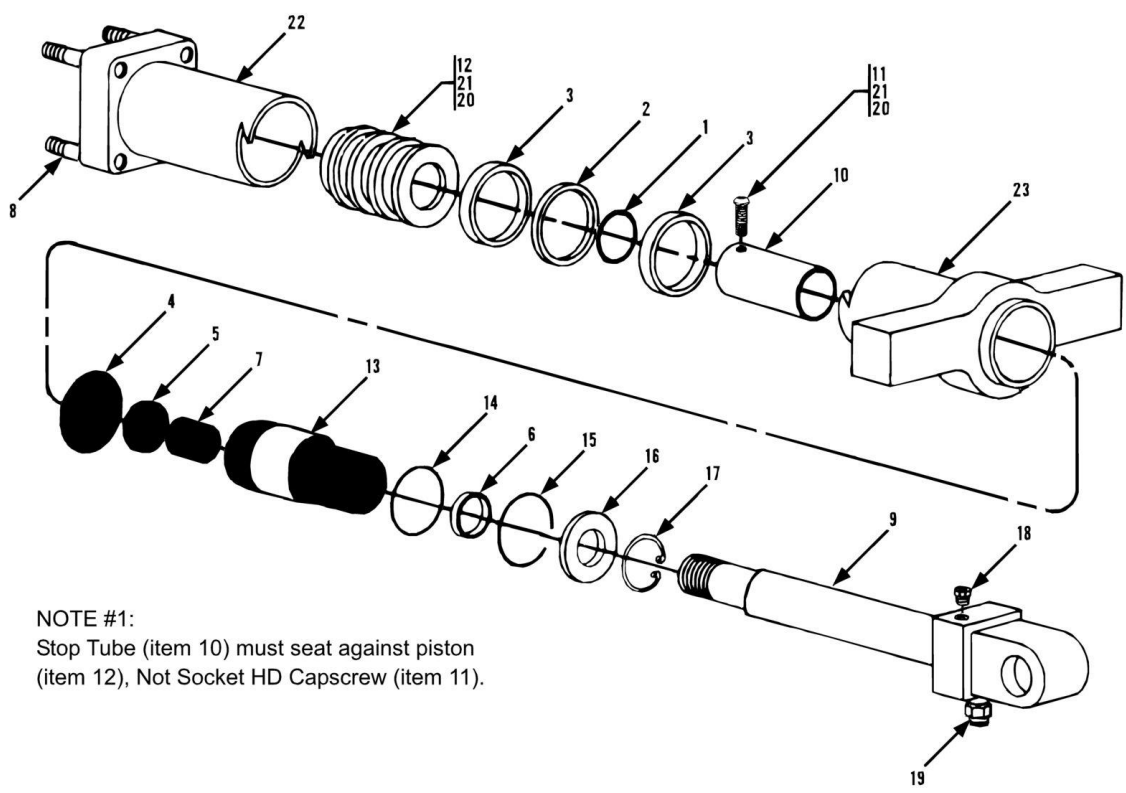
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-40. (91085080) CROWD CYLINDER ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085080	1	CROWD CYLINDER ASSY (includes all items)	
	91123080	1	PACKING KIT (includes items 1 thru 6)	
1	88591036	1	O-RING	
2	91123081	1	PISTON SEAL	
3	91123082	1	PISTON WEAR RING	
4	91123084	4	STATIC SEAL	
5	91123083	1	ROD SEAL	
6	77363179	1	ROD WIPER	
7	91086139	1	TUBE WELDMENT	
8	91121180	4	STUD	
9	91086138	1	ROD WELDMENT	
10	91121178	1	STOP WELDMENT	
11	88211068	1	SOCKET HD CAPSCREW,3/8-16X5/8, GR8	
12	91121176	1	PISTON	
13	91121171	1	CYLINDER HEAD	
14	91123086	1	RETAINING RING	
15	80003152	12 IN	NEOPRENE CORD	
16	91121179	1	SNAP RING WASHER	
17	91123085	1	SNAP RING	
18	88662193	1	HEX HD PLUG (includes o-ring)	
18	88591205	1	O-RING	
19	91123089	1	LOAD CONTROL VALVE	

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FIGURE 12-41. (91385016) CROWD CYLINDER FOR SERVICE ONLY



NOTE #1:
Stop Tube (item 10) must seat against piston
(item 12), Not Socket HD Capscrew (item 11).

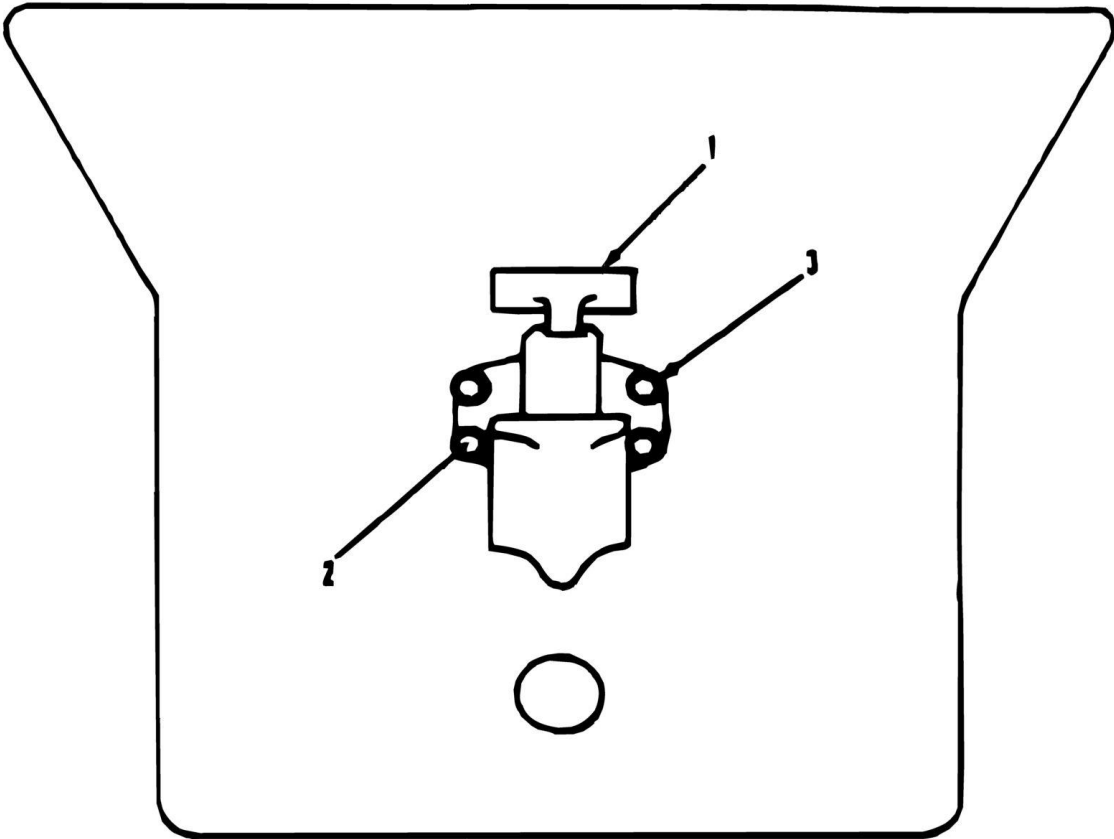
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-41. (91385016) CROWD CYLINDER FOR SERVICE ONLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91385016	1	CROWD CYLINDER ASSY (includes all items)	
	91333029	Ref	PACKING KIT (includes items 1 thru 7)	
1	88591036	1	O-RING	
2	91123081	1	PISTON SEAL	
3	91123082	2	PISTON WEAR RING	
4	91123137	1	STATIC SEAL	
5	80003082	1	ROD SEAL	
6	80003337	1	ROD WIPER	
7	80003227	1	ROD BEARING	
8	91121180	4	STUD	
9	91086138	1	ROD WELDMENT	
10	91121178	1	STOP TUBE	
11	88211068	1	SOCKET HD CAPSCREW, 3/8-16x5/8, GR8 (hand torque to 40-45 ft lbs)	
12	91121176	1	PISTON (hand torque to 450-475 ft lbs)	
13	91121307	1	CYLINDER HEAD	
14	91123086	1	RETAINING RING	
15	80003152	2 IN	NEOPRENE CORD	
16	91121179	1	SNAP RING WASHER	
17	91123085	1	SNAP RING	
18	88662193	1	HEX HD PLUG (includes o-ring)	
18	88591205	1	O-RING	
19	91123089	1	COUNTER BALANCE VALVE	
19	91034276	1	COUNTER BALANCE VALVE SEAL KIT	
20	14403426	AR	LOCTITE PRIMER	
21	14404102	AR	LOCTITE 277 (red)	
22	91086139	1	TUBE WELDMENT	

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FIGURE 12-42. (91035101) PINTLE HOOK INSTALLATION



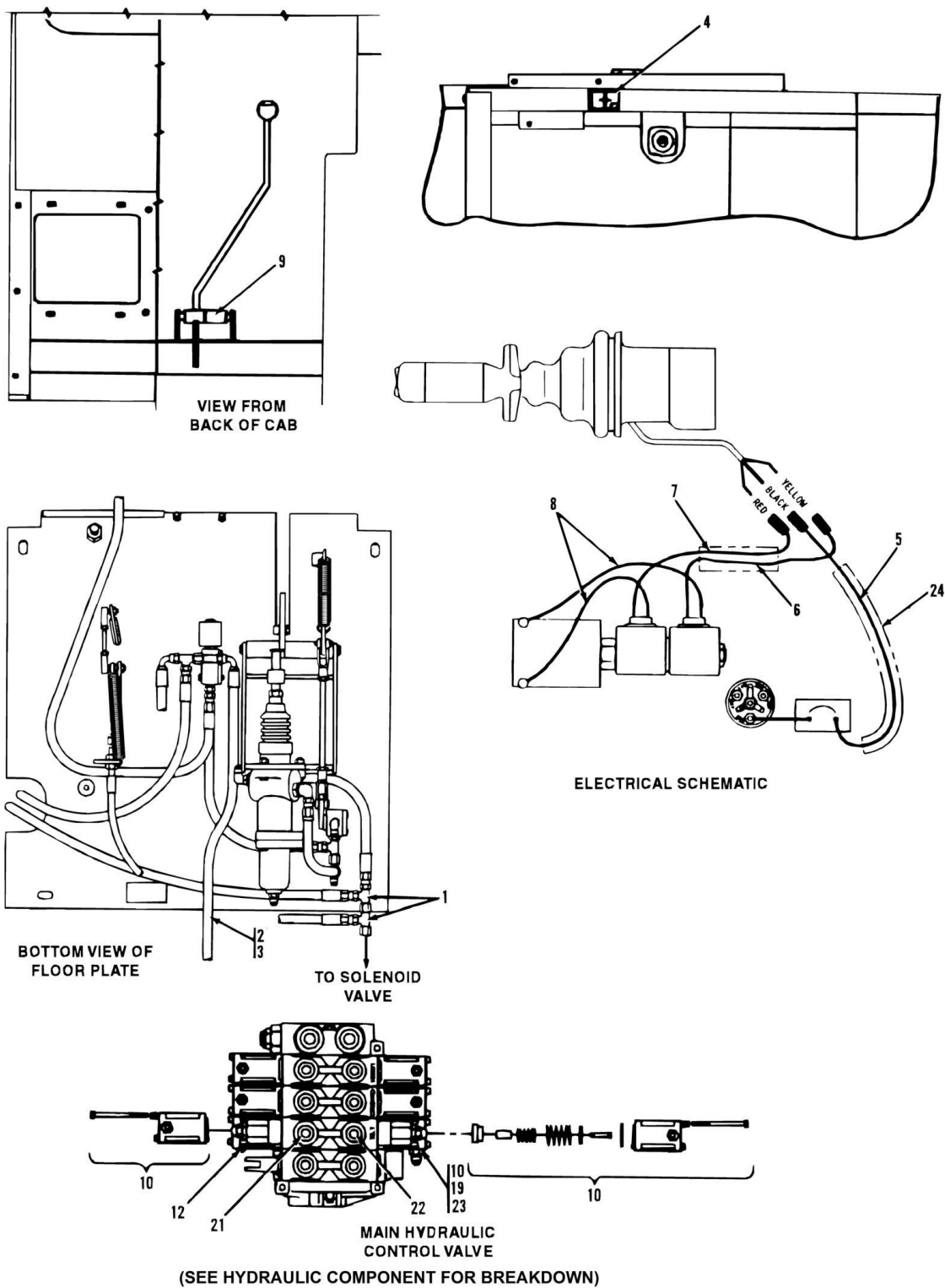
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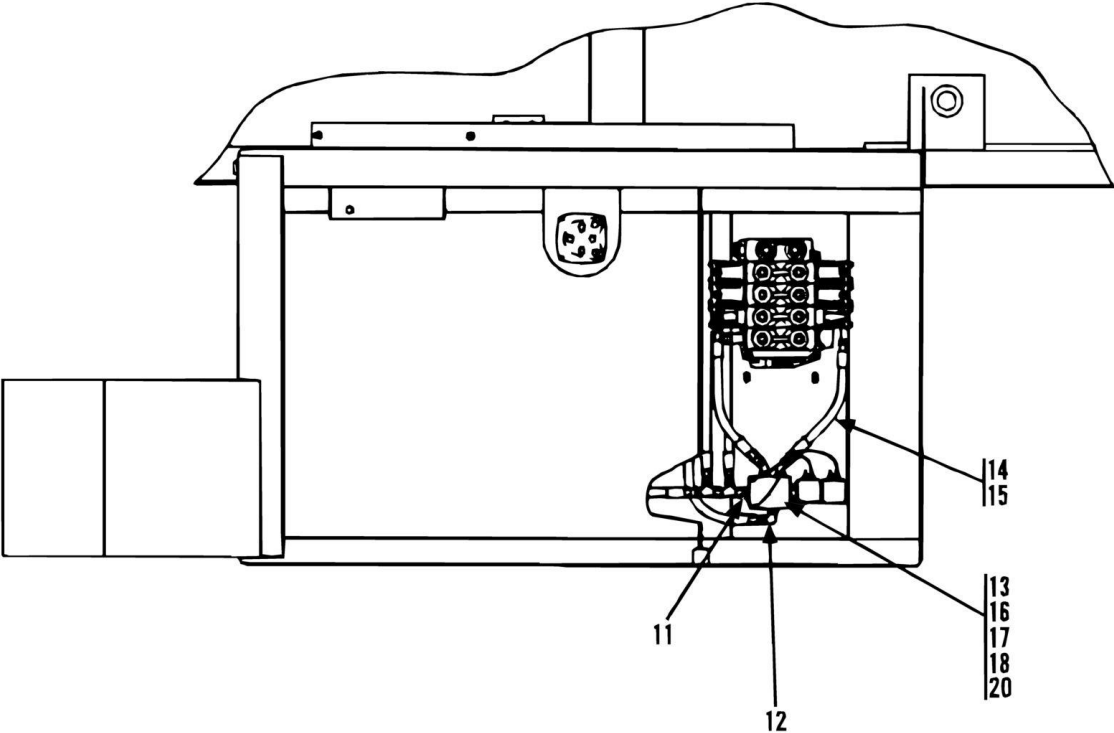
FIGURE 12-42. (91035101) PINTLE HOOK INSTALLATION

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, 1/2-13X1-3/4,GR8	
3	88551013	4	LOCKWASHER, 1/2	

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FIGURE 12-43. (91085072) TILT ON JOYSTICK





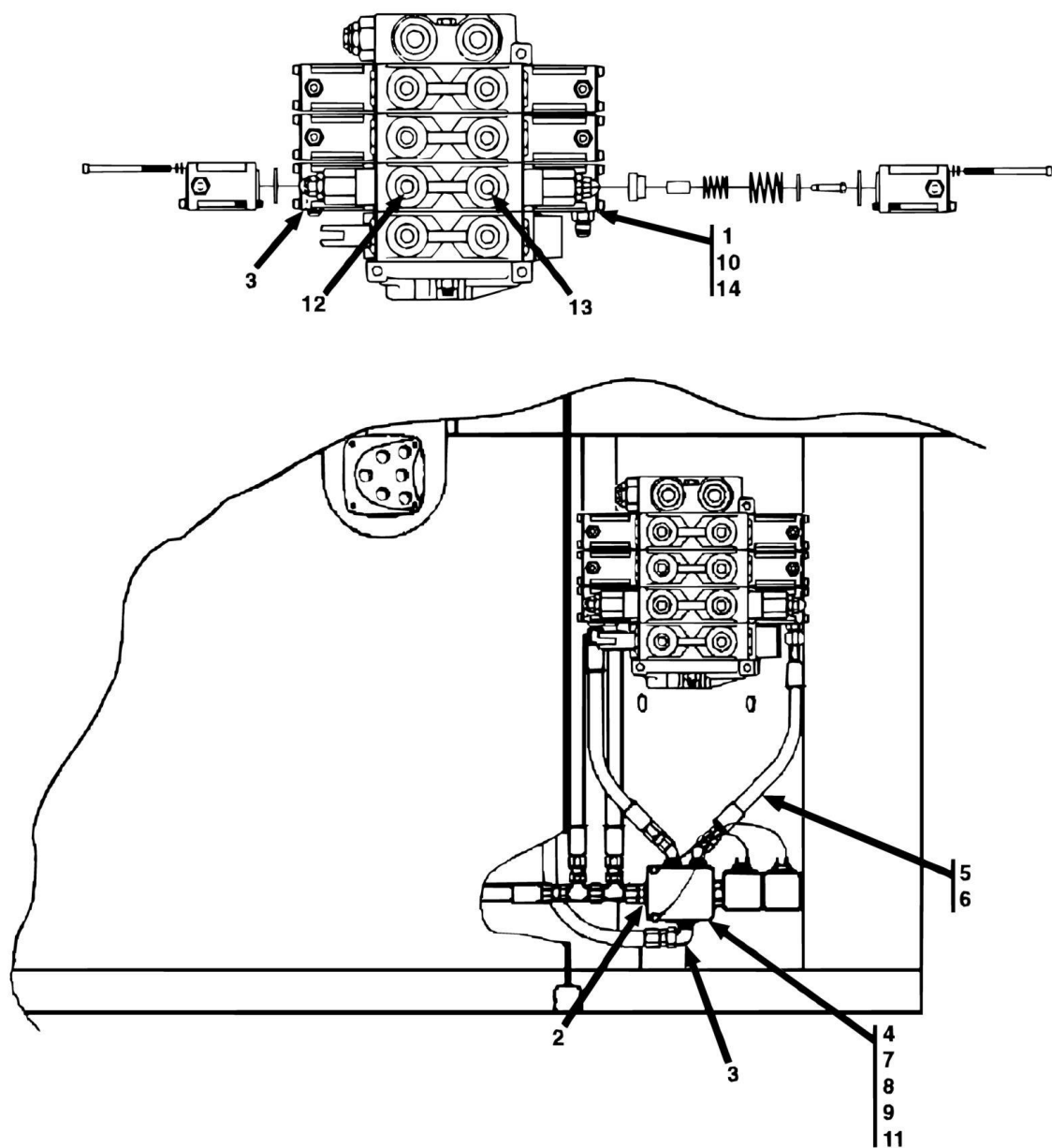
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FIGURE 12-43. (91085072) TILT ON JOYSTICK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085072	Ref	TILT ON JOYSTICK (includes all items)	
1	88662239	2	SWIVEL NUT RUN TEE (3/8 TUBE)	
2	84718221	1	HOSE ASSY	
3	91083212	1	MALE BRANCH TEE	
4	91303041	1	BOOM CONTROL DECAL	
5	80963060	1	JUMPER WIRE (black)	
6	80963069	1	JUMPER WIRE (yellow)	
7	80963067	1	JUMPER WIRE (red)	
8	90207719	2	JUMPER WIRE (green)	
9	91301020	1	SPACER	
10	91301064	1	HYDRAULIC VALVE POSITIONER KIT	
11	91085071	1	MODIFIED CONNECTOR	
12	88662064	2	ELBOW, 90, (includes o-ring)	
12	88591204	2	O-RING	
13	91303038	1	SOLENOID VALVE	
14	88662084	2	ELBOW, 45, (includes o-ring)	
14	88591204	2	O-RING	
15	84717537	2	HOSE ASSY	
16	88201011	2	HEX HD CAPSCREW, 1/4-20X2-1/2, GR5	
17	88551004	2	LOCKWASHER, 1/4	
18	88501004	2	HEX NUT, 1/4-20	
19	88662174	1	HEX HD PLUG (includes o-ring)	
19	88591204	1	O-RING	
20	91301065	1	SPACER	
21	91083425	1	WORK PORT RESTRICTOR (.062)	
22	91083426	1	WORK PORT RESTRICTOR (.070)	
23	88662005	1	CONNECTOR (includes o-ring)	
23	88591204	1	O-RING	
24	91303076	1	JOYSTICK HARNESS	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-44. (91085107) JOYSTICK INSTALLATION (TILT ON JOYSTICK) (SN 0177122 to Present)



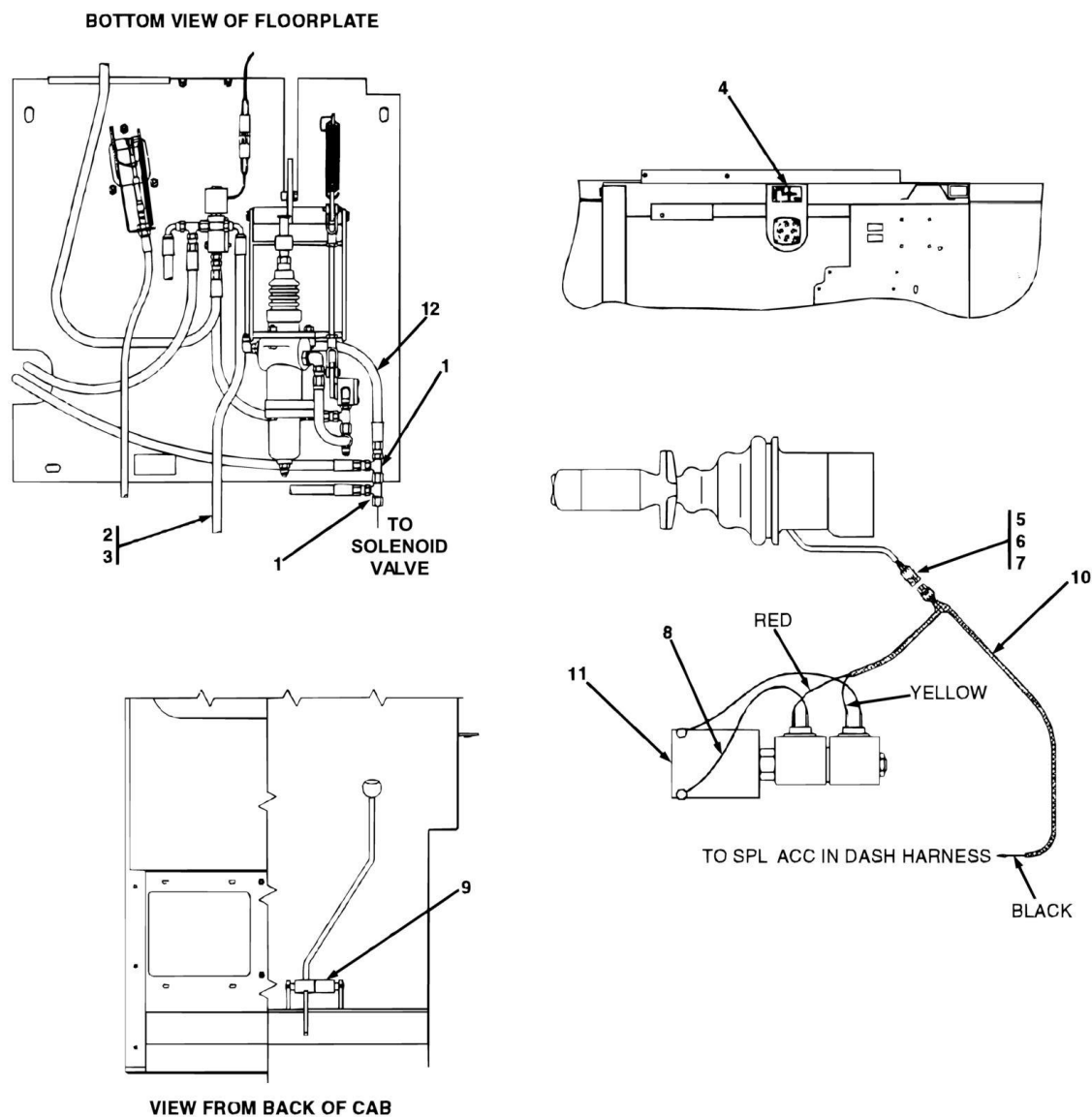
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FIGURE 12-44. (91085107) JOYSTICK INSTALLATION (TILT ON JOYSTICK) (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085107	1	TILT ON JOYSTICK (includes all items both pages)	
1	91301064	1	HYDRAULIC VALVE POSITIONER KIT	
2	91085071	1	MODIFIED CONNECTOR	
3	88662064	2	ELBOW, 90, (includes o-ring)	
4	91303038	1	SOLENOID VALVE (includes coil)	
	80934037	1	COIL (included w/valve)	
5	88662084	2	ELBOW, 45, (includes o-ring)	
6	84717537	2	HOSE ASSY	
7	88201011	2	HEX HD CAPSCREW, 1/4-20 x 2 1/2	
8	88551004	2	LOCKWASHER, 1/4	
9	88501004	2	HEX NUT, 1/4-20	
10	88662174	1	PLUG, (includes o-ring)	
	88591204	1	O-RING	
11	91301065	1	SPACER	
12	91083425	1	WORK PORT RESTRICTOR, .062	
13	91083426	1	WORK PORT RESTRICTOR, .070	
14	88662005	1	CONNECTOR	

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FIGURE 12-45. (91085107) JOYSTICK INSTALLATION (TILT ON JOYSTICK) (SN 0177122 to Present)



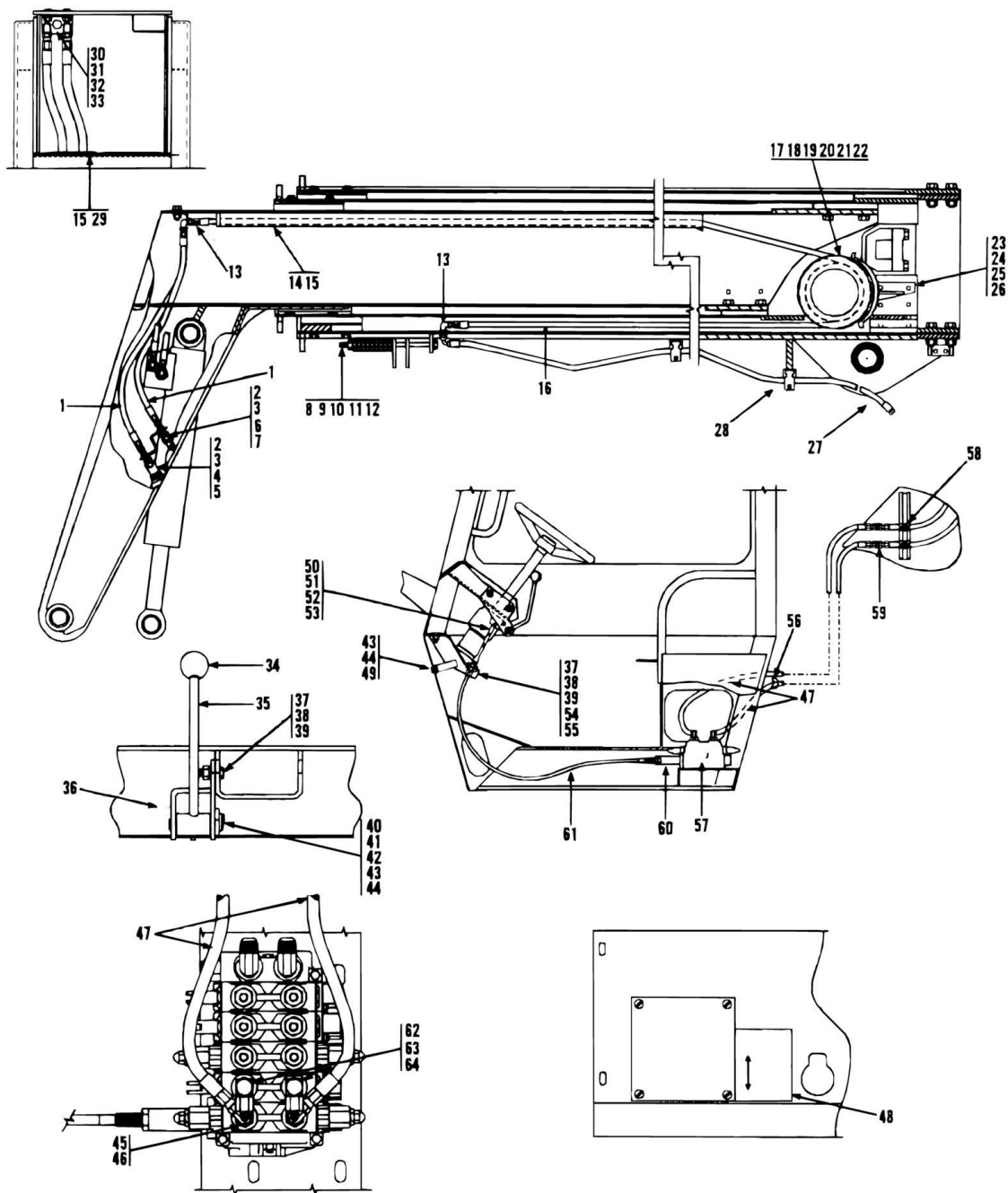
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FIGURE 12-45. (91085107) JOYSTICK INSTALLATION (TILT ON JOYSTICK) (SN 0177122 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085107	Ref	TILT ON JOYSTICK (includes all items both pages)	
1	91083534	1	SWIVEL NUT RUN TEE	
2	84718221	1	HOSE ASSY	
3	88662152	1	MALE BRANCH TEE	
4	91303041	1	BOOM CONTROL DECAL	
5	80963060	1	WEATHER PACK SHROUD	
6	80963069	3	W.P. MALE PIN TERMINAL	
7	80963067	3	W.P. CABLE SEAL	
8	90207719	2	JUMPER WIRE, GREEN	
9	91301020	1	SPACER	
10	91083490	1	JOYSTICK HARNESS	
11	91303038	Ref	SOLENOID VALVE(see previous page)	
11	80934037	1	COIL (included w/valve)	
12	84717893	1	HOSE ASSY	

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FIGURE 12-46. (91085082) AUXILIARY HYDRAULICS - 3S BOOM



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FIGURE 12-46. (91085082) AUXILIARY HYDRAULICS - 3S BOOM

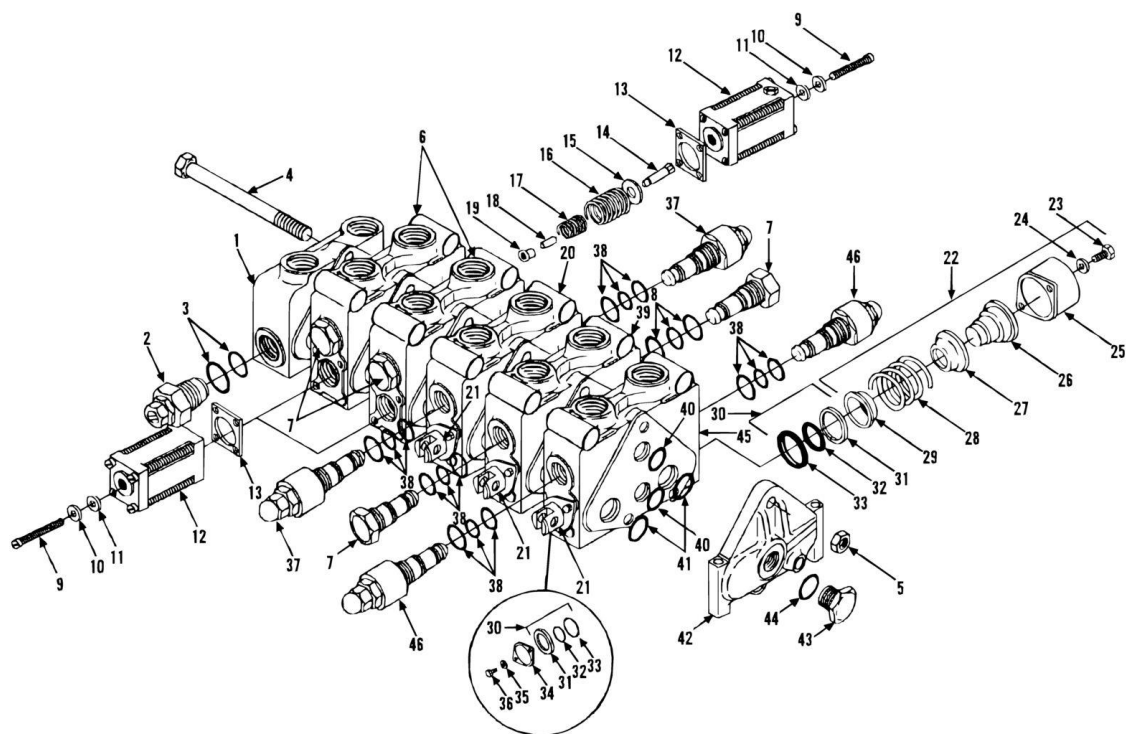
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085082	Ref	AUXILIARY HYDRAULICS (3S Boom) (includes all items)	
1	84718041	2	HOSE ASSY	
2	91123061	2	BULKHEAD FITTING	
3	88712305	2	BUSHING, 1/2-1/4	
4	90204245	1	FEMALE COUPLER	
5	91043125	1	DUST PLUG	
6	90204244	1	MALE COUPLER	
7	91043126	1	DUST CAP	
8	91126008	2	HOSE TAKE-UP WELDMENT	
9	91123054	2	COMPRESSION SPRING	
10	91121134	2	SPRING RETAINER	
11	88501008	2	HEX NUT, 1/2-13	
12	88501108	2	HEX JAM NUT, 1/2-13	
13	90027179	4	BULK HEAD FITTING, 90	
14	90206194	3.5	TRIM LOCK	
15	14402248	AR	3M ADHESIVE	
16	84718281	2	HOSE ASSY	
17	91123016	1	HOSE SHEAVE	
18	91081326	1	HOSE REEL SUPPORT	
19	90203040	1	THRUST WASHER	
20	88581320	1	RETAINING RING	
21	83201123	3	HEX HD CAPSCREW, 1/2-13X1, (lubricate and torque to 68-78 ft.lbs.)	
22	90027471	3	HARDENED FLATWASHER, 1/2	
23	91126080	1	HOSE GUARD	
24	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
25	88551011	2	LOCKWASHER, 3/8	
26	88561109	2	FLATWASHER, 3/8	
27	84718280	2	HOSE ASSY	
28	90207463	8	CUSHION CLAMP, 3/4 IN. I.D.	
29	90206199	13 in	TRIM LOCK	
30	91121125	1	BULKHEAD BRACKET	
31	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
32	88551010	2	LOCKWASHER, 5/16	
33	88501005	2	HEX NUT, 5/16-18	
34	90200299	1	KNOB	
35	91126026	1	HANDLE	
36	91126025	1	LEVER BRACKET	
37	88201036	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
38	88501006	4	HEX NUT, 3/8	
39	88551011	4	LOCKWASHER, 3/8	
40	91126027	1	PIN	
41	91083136	2	BUSHING	
42	90028662	2	WAVE BEND WASHER	
43	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
44	88551010	2	LOCKWASHER, 5/16-18	
45	91083310	2	STRAIGHT THREAD ELBOW, 90	
46	88591206	2	O-RING	
47	84718026	2	HOSE ASSY	
48	91033417	1	AUXILIARY CONTROL DECAL	

SECTION 12 - OPTIONAL EQUIPMENT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	88501005	1	HEX NUT, 5/16-18	
50	88821002	1	YOKE END	
51	88633001	1	CLEVIS PIN	
52	88631302	1	COTTER PIN	
53	88501404	1	HEX JAM NUT, 1/4-28	
54	91126023	1	CABLE BRACKET WELDMENT	
55	88561004	2	FLATWASHER, 3/8	
56	90027187	1	TY WRAP	
57		Ref	MAIN CONTROL VALVE (See HYDRAULIC CONTROL VALVE ASSEMBLY for Breakdown)	
58	90207464	2	CUSHION CLAMP	
59	88661065	2	UNION, 1/2 FLARE	
60	91123062	1	CABLE ADAPTER BONNET	
61	91123050	1	PUSH-PULL CABLE	
62	91083343	2	LONG ELBOW, 90	
63	88661348	2	TUBE END REDUCER, 5/8-1/4	
64	88661407	2	NUT	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-47. (91083420) HYDRAULIC CONTROL VALVE ASSEMBLY



SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-47. (91083420) HYDRAULIC CONTROL VALVE ASSEMBLY

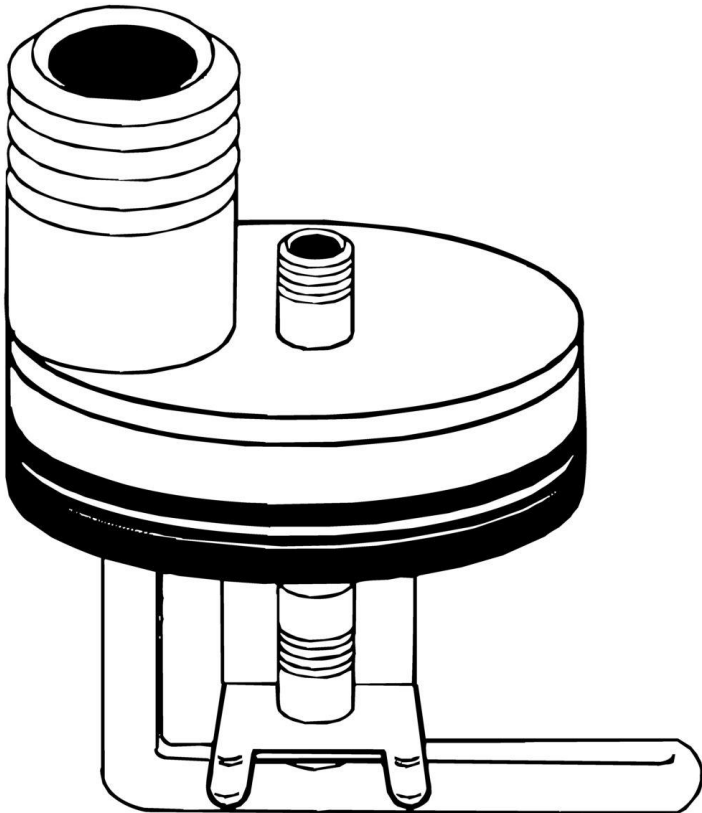
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91083420	1	MAIN HYDRAULIC CONTROL VALVE ASSY (includes all items)	
	91123075	2	SPOOL POSITIONER KIT (includes items 9 thru 19)	
	91084203	1	STUD KIT (includes items 4 & 5)	
	91084015	5	VALVE SECTION SEAL KIT (includes items 40 & 41)	
1	91084008	1	L.H. END COVER ASSY (includes items 2 & 3)	
2	91084009	1	MAIN RELIEF (includes item 3)	
3	91084206	1	O-RING (inner)	
3	91084207	1	O-RING (outer)	
4	Kit	3	STUD	
5	Kit	3	NUT	
6	91084277	2	VALVE SECTION ASSY (includes two of item 7, plus items 9 thru 19)	
7	91084010	6	LOAD CHECK PLUG (includes item 8)	
8	91084202	6	LOAD CHECK PLUG SEAL KIT (one required per check plug)	
9	91084230	16	SOCKET HD CAPSCREW, 1/4-20X3	
10	91084231	16	LOCKWASHER, 1/4	
11	91084232	4	BEARING PLATE	
12	91084229	4	BONNET	
13	91084233	4	SEAL	
14	91084234	2	SPUD POSITIONER	
15	91084235	2	WASHER	
16	91084236	2	SPRING	
17	91084237	2	SPRING	
18	91084238	2	STOP SLEEVE	
19	91084239	2	STOP COLLAR	
20	91084012	1	VALVE SECTION ASSY (includes items 21, 22, 30 & 34, plus two of item 37)	
21	91084013	3	SPOOL	
22	91084004	3	SPOOL POSITIONER (includes items 23 thru 29)	
23		Ref	SCREW	
24		Ref	WASHER	
25		Ref	BONNET	
26		Ref	POSITIONER	
27		Ref	COLLAR	
28		Ref	SPRING	
29		Ref	COLLAR	
30	91084005	6	SPOOL SEAL KIT (includes items 31, 32 & 33)	
31		Ref	RETAINER	
32		Ref	WASHER	
33		Ref	SEAL	
34	91084006	3	SPOOL RETAINER (includes items 35 & 36)	
35		Ref	SCREW	
36		Ref	WASHER	
37	91084199	2	RELIEF - 2800 P.S.I. (includes one of item 38)	
38	91084201	4	RELIEF SEAL KIT (one required per relief)	
38	91084200	AR	RELIEF SERVICE KIT, NOT ILLUSTRATED (includes relief poppet and piston ring)	
39	91084014	AR	VALVE SECTION ASSY (includes 2 of item 7, plus items 21, 22, 30 & 34)	
40	Kit	2	PRESSURE SEAL	

SECTION 12 - OPTIONAL EQUIPMENT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41	Kit	2	PRESSURE SEAL	
42	91084278	1	R.H. END COVER ASSY (includes item 43)	
43	91084279	1	PLUG (includes item 44)	
44		Ref	O-RING	
45	91084280	1	VALVE SECTION ASSY (includes items 21, 22, 30, 34 & 46)	
46	91084281	2	RELIEF, 1500 P.S.I. (includes one of item 38)	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-48. (91043353) ENGINE BLOCK HEATER



REPLACES FROST PLUG ON RIGHT SIDE OF ENGINE.

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-48. (91043353) ENGINE BLOCK HEATER

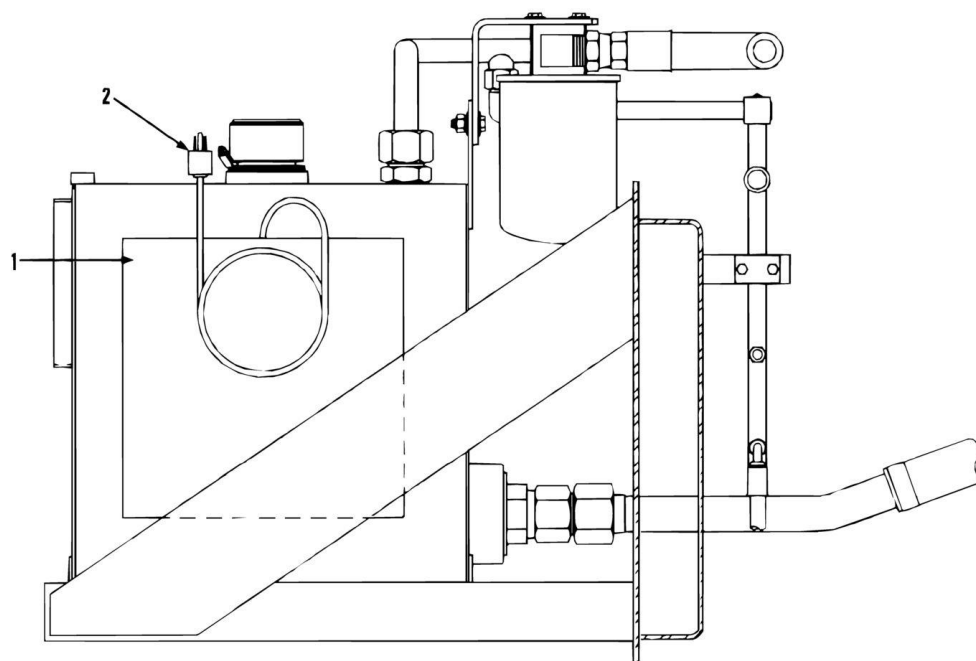
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91043353	1	BLOCK HEATER	

SECTION 12 - OPTIONAL EQUIPMENT

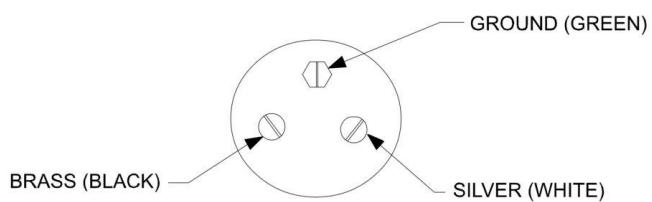
FIGURE 12-49. (91085073) HYDRAULIC RESERVOIR HEATER INSTALLATION



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



SECTION VIEW THRU FRAME SHOWING INSIDE WALL OF HYDRAULIC TANK



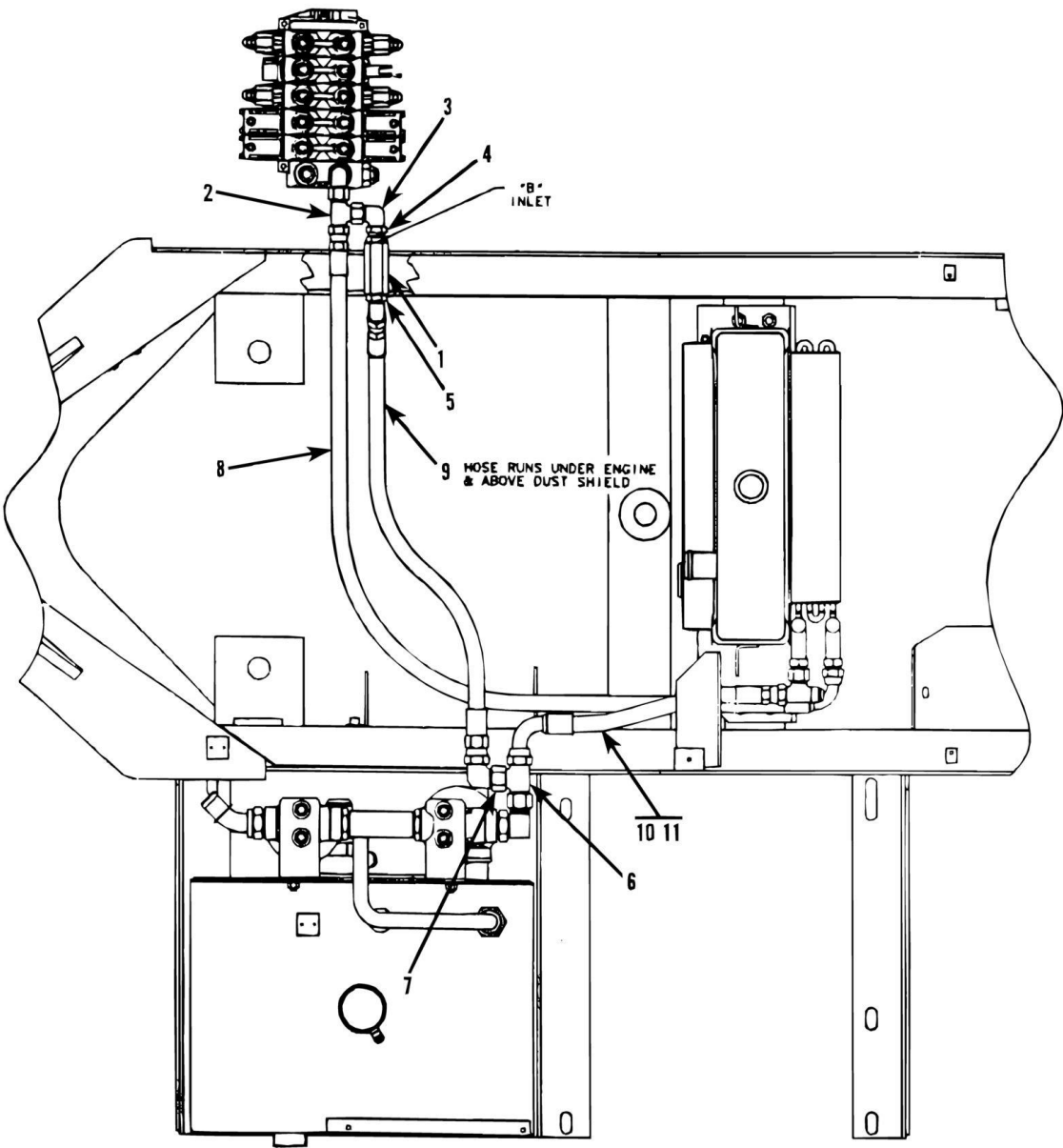
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-49. (91085073) HYDRAULIC RESERVOIR HEATER INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91085073	1	HYDRAULIC RESERVOIR HEATER (includes all items)	
1	91083429	1	HEATING BLANKET	
2	91083484	1	PLUG	

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FIGURE 12-50. (91125056) INLINE BYPASS



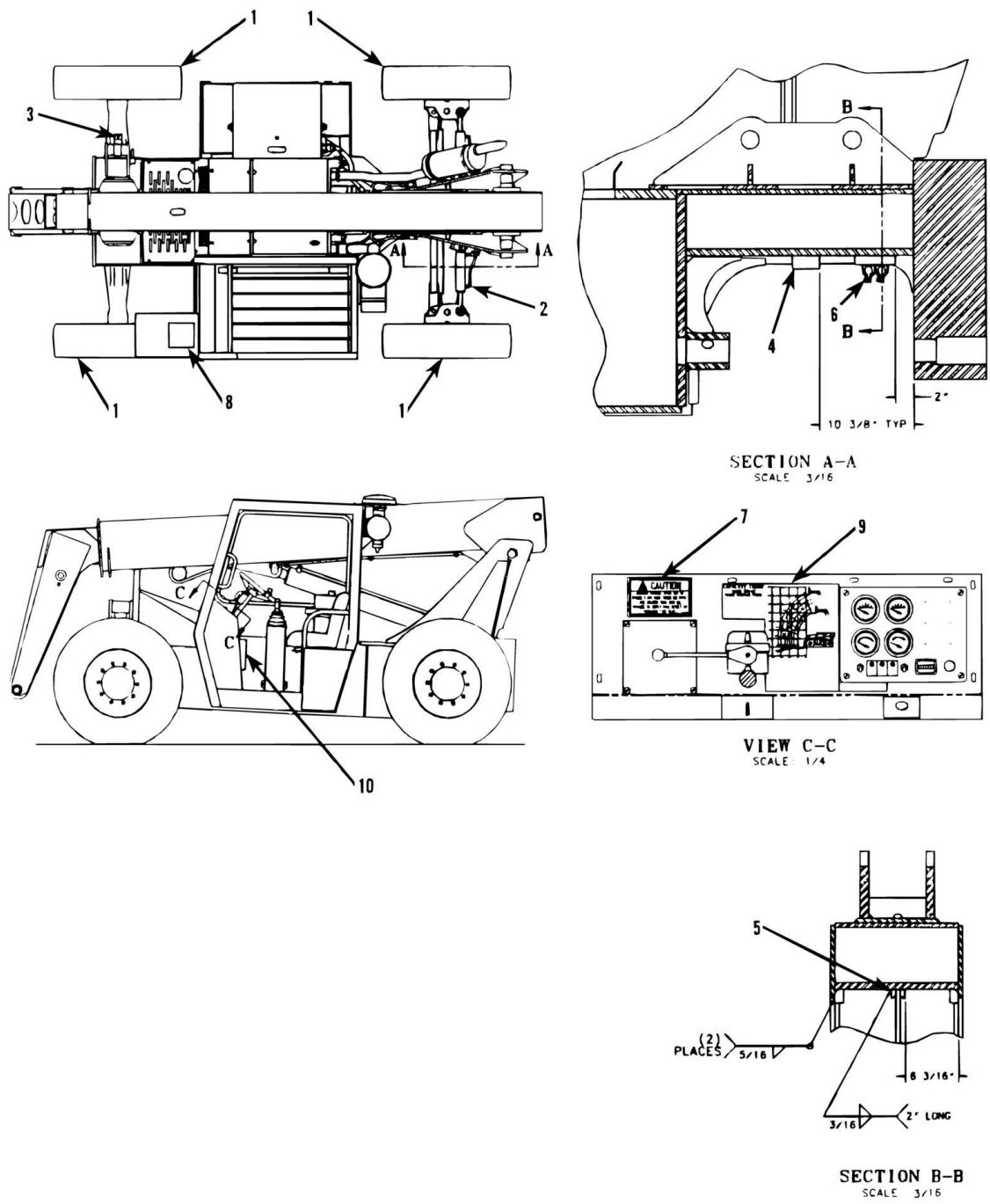
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-50. (91125056) INLINE BYPASS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125056	1	INLINE BYPASS (includes all items)	
1	91163191	1	INLINE VALVE	
2	88662242	1	SWIVEL NUT RUN TEE, 3/4 TUBE	
3	88662108	1	ELBOW, 90, (swivel nut)	
4	91163121	1	STRAIGHT THREAD ADAPTER, (includes o-ring)	
4	88591207	1	O-RING	
5	88662087	1	ELBOW, 45, (includes o-ring)	
5	88591207	1	O-RING	
6	88662244	1	SWIVEL NUT RUN TEE, 1IN TUBE	
7	88662110	1	ELBOW, 90, (swivel nut)	
8	84717906	1	HOSE ASSY (included in standard machine assy)	
9	84718925	1	HOSE ASSY	
10	84718926	1	HOSE ASSY	
11	84717872	1	HOSE ASSY (remove from std. build)	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-51. (91095027) LOW PROFILE MACHINE PACKAGE



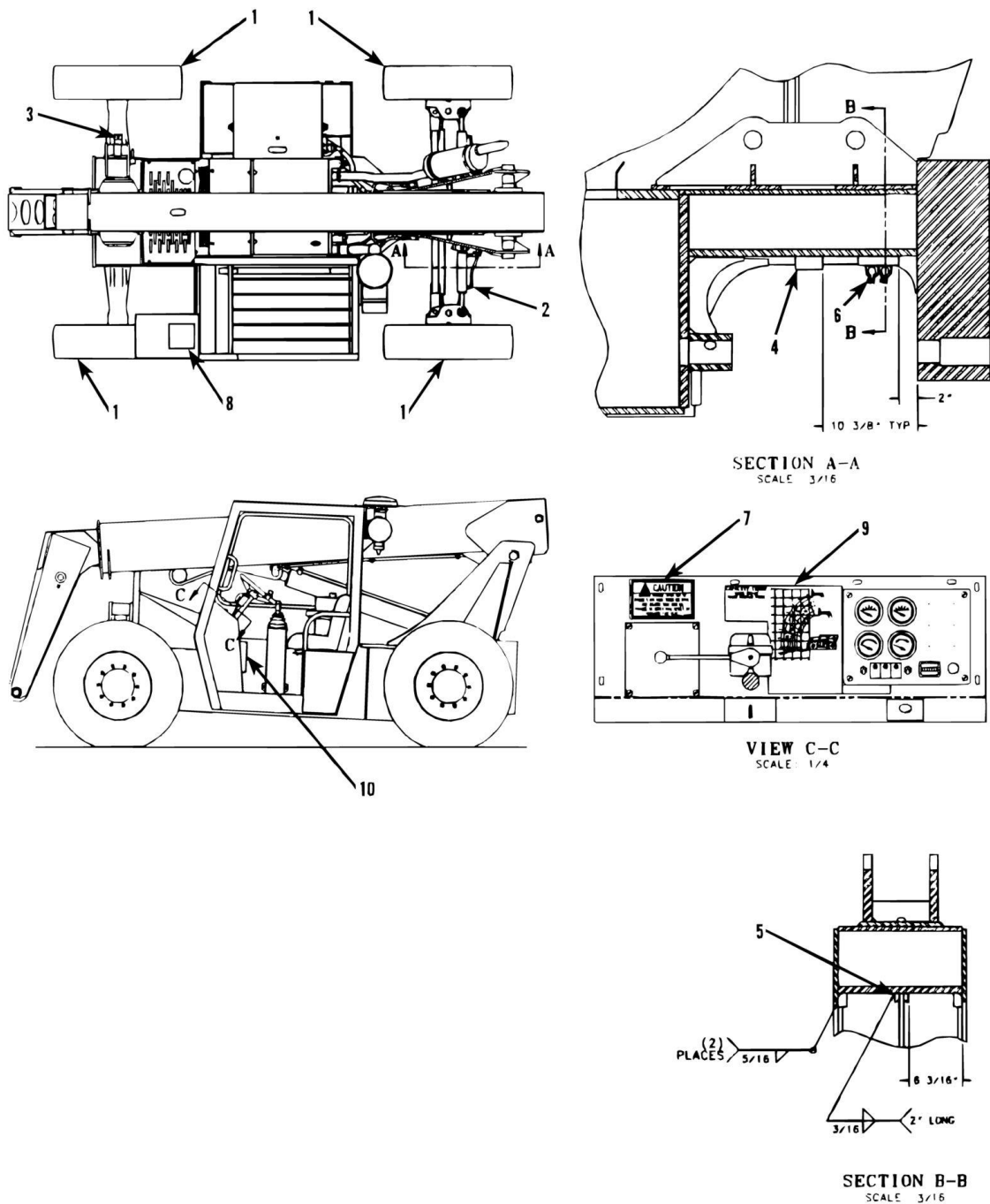
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-51. (91095027) LOW PROFILE MACHINE PACKAGE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91095027	Ref	LOW PROFILE MACHINE PACKAGE	
1	91095026	4	TIRE ASSY	
2	91315001	1	REAR AXLE ASSY	
3	91083543	1	SWAY CYLINDER	
4	91011002	2	STOP BLOCK	
5	90206090	1	ANCHOR CHANNEL	
6	90207463	2	CUSHION CLAMP	
7	91093021	1	CAUTION DECAL	
8	91093024	1	SERVICE INSTRUCTION DECAL	
9	91093022	1	CAPACITY CHART	
10	91093023	1	SERIAL NUMBER PLATE	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-52. (91085120) LOW PROFILE MACHINE PACKAGE



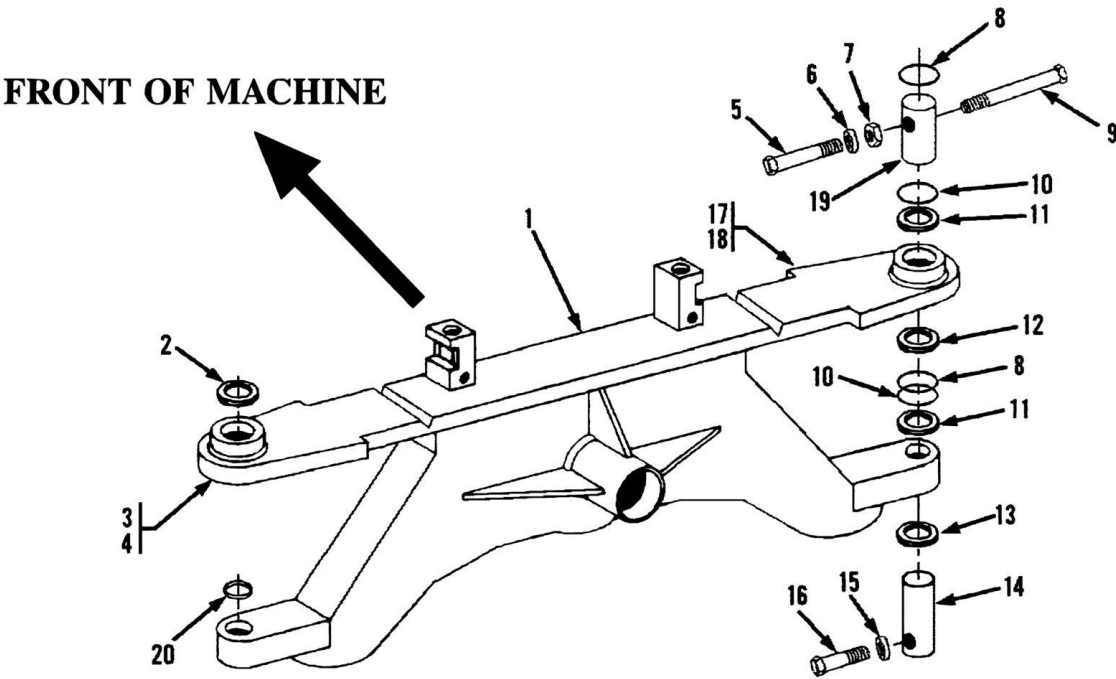
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-52. (91085120) LOW PROFILE MACHINE PACKAGE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91095026	4	TIRE ASSY	
2	91315001	1	REAR AXLE ASSY	
3	91083543	1	SWAY CYLINDER	
4	91011002	2	STOP BLOCK	
5	90206090	1	ANCHOR CHANNEL	
6	90207463	2	CUSHION CLAMP	
7	91093021	1	CAUTION DECAL	
8	91083540	1	SERVICE INSTRUCTION DECAL	
9	91083541	1	CAPACITY CHART	
10	91083542	1	SERIAL NUMBER PLATE	
11	90207514	2	TAPPED BAR	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-53. (91145136) REAR AXLE REWORK KIT FOR SERVICE ONLY



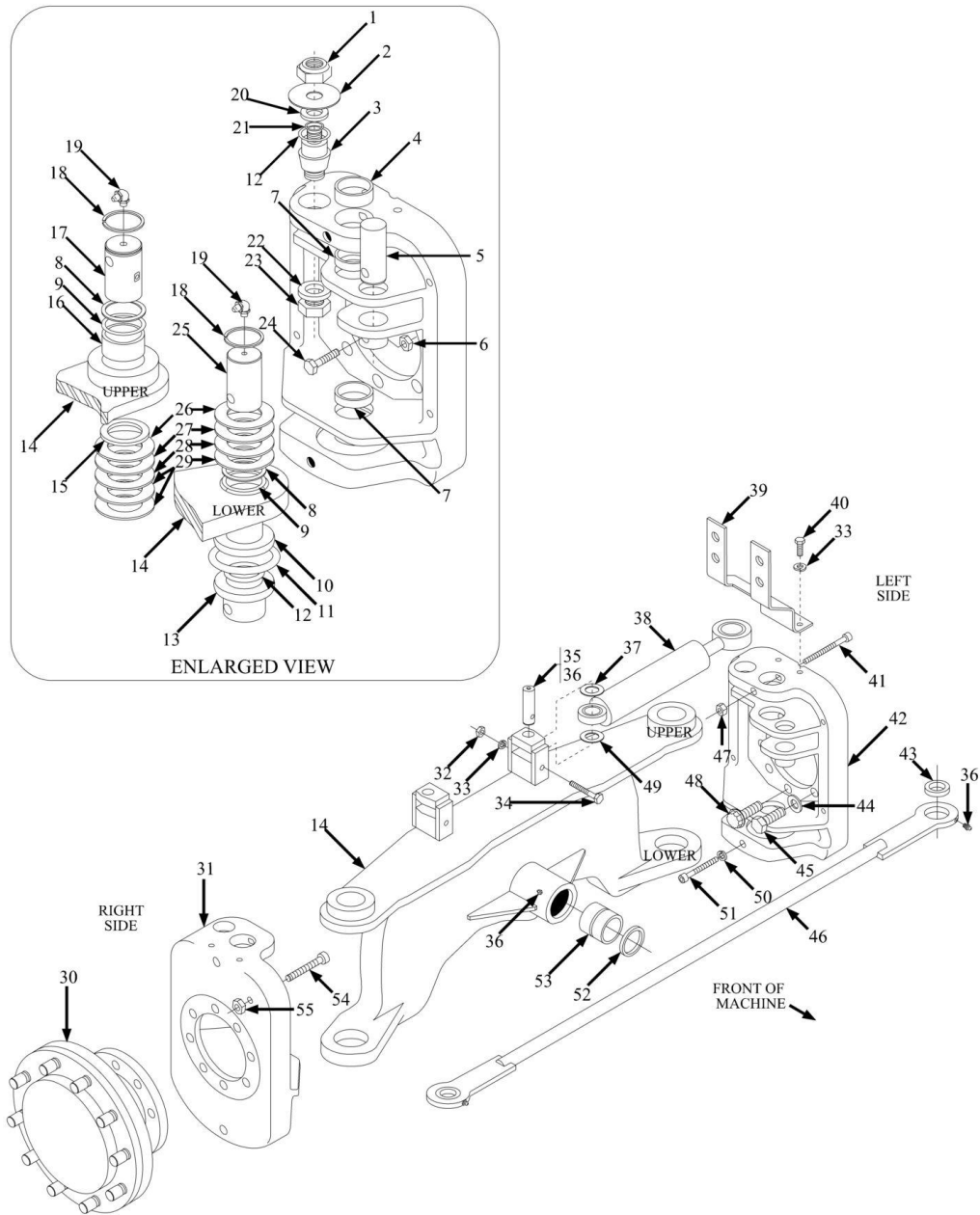
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-53. (91145136) REAR AXLE REWORK KIT FOR SERVICE ONLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91145136	1	REAR AXLE REWORK KIT (includes all items)	
1		Ref	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	2	LUG REWORK ASSY (includes items 2 & 18)	
18	91146112	1	LUG WELD	
19	91081693	2	UPPER KING PIN	
20	91123027	2	BUSHING	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-54. (91335026) REAR AXLE ADVANTAGE KIT FOR SERVICE ONLY



NOTE #1: Customer to use existing wheel hubs & hardware, drive motors, drive motor tube assemblies, and drain line hoses or order separately if replacement is required.

NOTE #2: Cylinder base end must be free to rotate. Shim steer cylinder base end as required to maintain a total max. gap of 1/16".

NOTE #3: Shim bottom knuckles as required to maintain no more than 1/32" movement. Shim top knuckles as required to maintain no more than 1/16" gap. Must have a minimum of one shim.

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-54. (91335026) REAR AXLE ADVANTAGE KIT FOR SERVICE ONLY

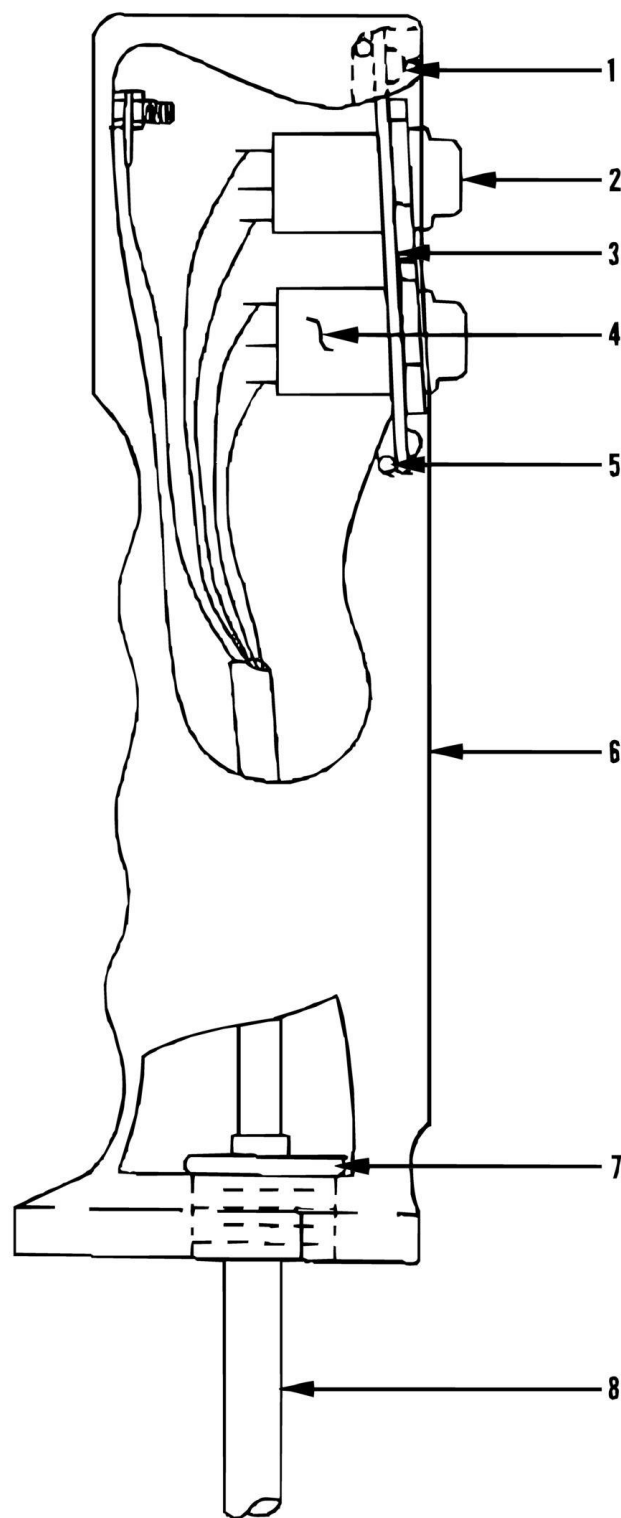
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91335026	Ref	REAR AXLE ADVANTAGE KIT (includes all items except 30, 44, 45 & 48)	
1	88521312	2	HEX LOCKNUT, 3/4-10 (torque to 160-175 ftlbs)	
2	91081415	2	DIRT SHIELD	
3	91041481	2	STEERING CYLINDER PIN (knuckle end)	
4	91121239	2	BUSHING	
5	91041439	2	TIE ROD PIN	
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	91166012	2	REAR AXLE WELDMENT (includes items 10, 16 & 53)	
15	86921268	2	LIP SEAL	
16	91123028	2	BUSHING (upper)	
17	91081693	2	UPPER KING PIN	
18	88581323	4	RETAINING RING	
19	88671022	4	LUBE FITTING, 30, 1/8	
20	91041732	AR	SPACER	
21	88591019	2	O-RING	
22	91041459	2	WASHER	
23	88501416	2	HEX JAM NUT, 1-14 (torque to 225-250 ft lbs)	
24	83201140	2	HEX HD CAPSCREW, 3/8-16X2-3/4, GR8	
25	91141424	2	LOWER KING PIN	
26	91041596	AR	SHIM (20 gauge, Note: Shim bottom knuckles as required to maintain no more than 1/32in movement. Shim top knuckles as required to maintain no more than 1/16" gap. Must have a minimum of one shim.)	
27	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 1/16" gap. Must have a minimum of one shim.)	
28	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 1/16" gap. Must have a minimum of one shim.)	
29	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 1/16" gap. Must have a minimum of one shim.)	
30		Ref	DRIVE HUB (use existing hubs, See CHASSIS AND ATTACHING PARTS AND DRIVE TRAIN SECTION for Breakdown)	
31	91120004	1	R.H. STEERING KNUCKLE	
32	88501006	2	HEX NUT, 3/8-16	
33	88551011	6	LOCKWASHER, 3/8	
34	83201144	2	HEX HD CAPSCREW, 3/8-16X5-3/4, GR5	
35	91081695	2	STEERING CYLINDER PIVOT PIN (axle end)	
36	88671001	6	LUBE FITTING, STRAIGHT, 1/8	

SECTION 12 - OPTIONAL EQUIPMENT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
37	91041598	AR	SHIM (.060 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.)	
38	Kit	2	STEERING CYLINDER ASSY (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
39	91081523	1	L.H. TUBE SUPPORT	
39	91081522	1	R.H. TUBE SUPPORT	
40	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
41	88211121	2	SOCKET HD CAPSCREW, 1/2-13X6-1/2, GR8	
42	91120003	1	L.H. STEERING KNUCKLE	
43	91043247	2	SELF-ALIGNING BUSHING	
44		Ref	HARDENED WASHER, 3/4 (use existing hardware, See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
45		Ref	HEX HD CAPSCREW, 3/4-10X2 (use existing hardware, See CHASSIS AND ATTACHING PARTS for Breakdown)	
46	91166063	1	TIE ROD (includes item 43)	
47	88521208	2	HEX LOCKNUT, 1/2	
48		Ref	CAPSCREW 12PT., 3/4-10X2, GR8 (use existing hardware, See CHASSIS AND ATTACHING PARTS SECTION for Breakdown)	
49	90201918	AR	SHIM (10 gauge, 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.))	
50	88551153	2	LOCKWASHER, 5/8	
51	88212321	2	SLOT HD CAPSCREW, 5/8-11X3-3/4, GR8	
52	24601570	2	LIP SEAL	
53	91123031	2	BUSHING	
54	88212321	2	SOCKET HD CAPSCREW, 5/8-11X3-3/4, GR8	
55	88501110	2	HEAVY HEX JAM NUT, 5/8-11	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-55. (91033387) 5-BUTTON HANDLE (SN 0355001 to Present)



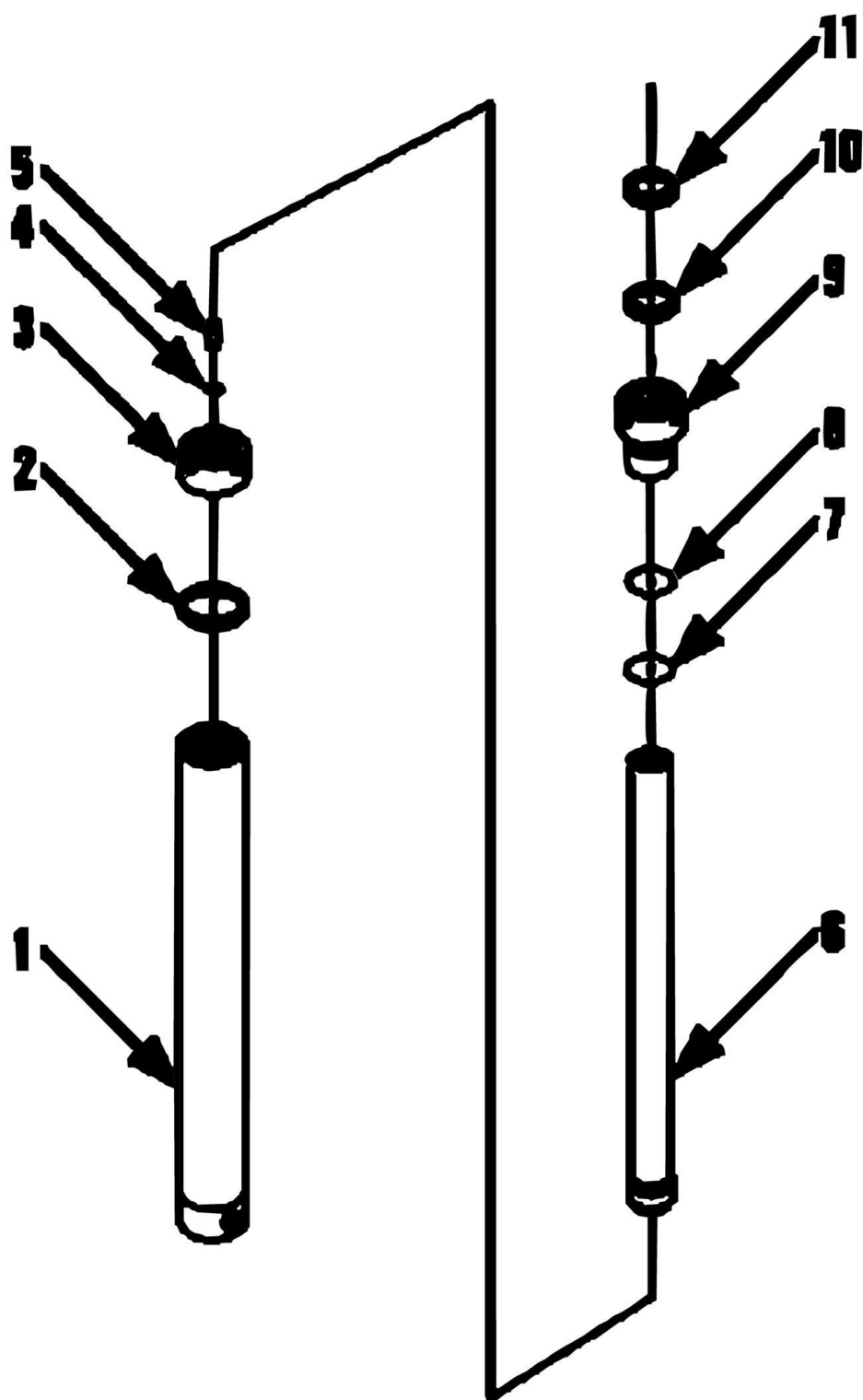
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-55. (91033387) 5-BUTTON HANDLE (SN 0355001 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91033387	1	5-BUTTON HANDLE (includes all items)	
1	91364015	3	FACEPLATE SCREW	
2	91364016	5	PUSH BUTTON BOOT	
3	91364017	1	FACEPLATE	
4	91364018	5	PUSHBUTTON SWITCH	
5	91364019	1	FACEPLATE GASKET	
6	91364020	1	HOUSING	
7	91364021	1	CABLE STOP	
8	91364022	1	CABLE(2.75 ft)	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-56. (91034404) RAIL CYLINDER ASSEMBLY (SN 0355001 to Present)



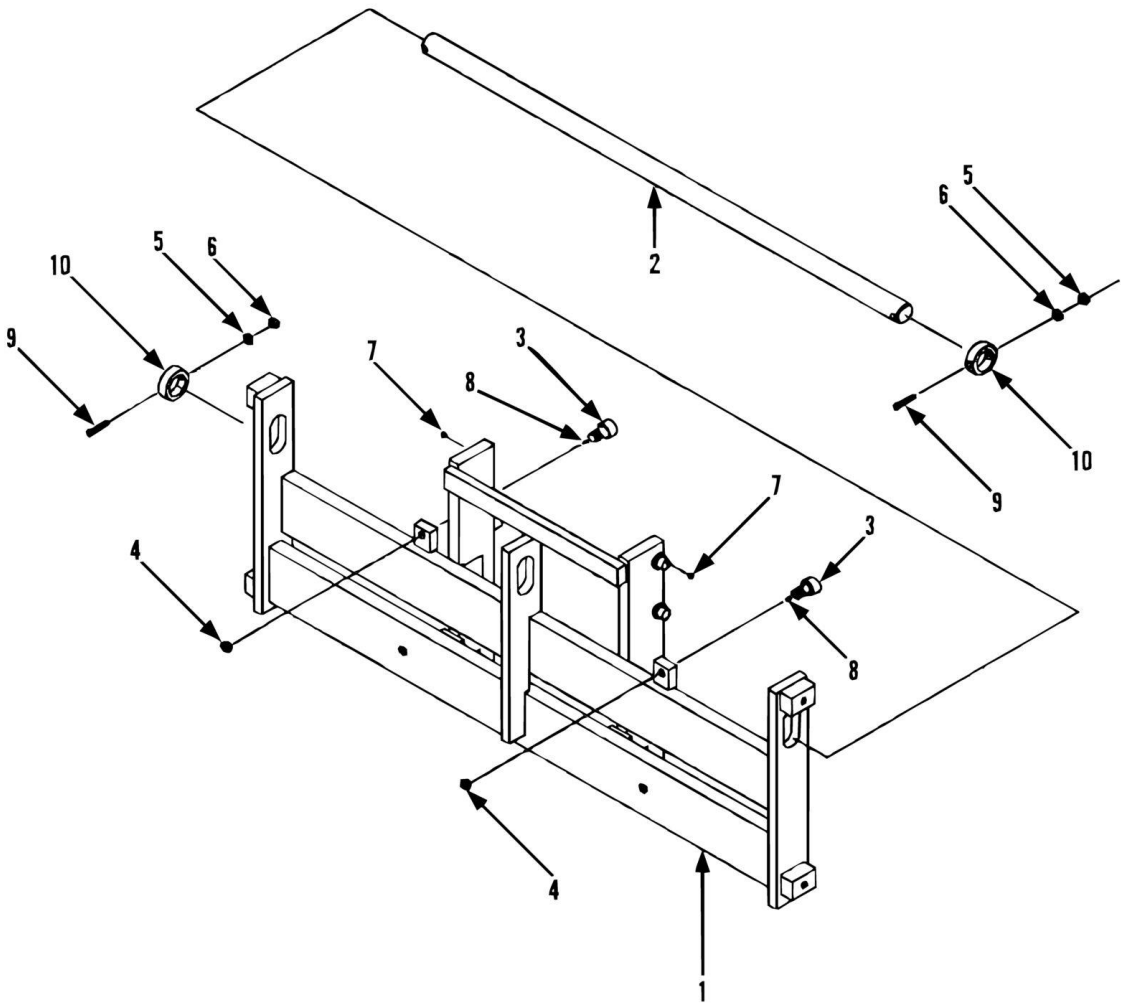
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-56. (91034404) RAIL CYLINDER ASSEMBLY (SN 0355001 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91034404	1	RAIL CYLINDER ASSY (includes all items)	
	00083046	Ref	PACKING KIT (includes items 2,3, 7, 8, 10, & 11)	
1	91034405	1	OUTER TUBE	
2	Kit	1	U-CUP (piston)	
3	Kit	1	WEAR RING	
4	91034406	1	RETAINING RING	
5	91034407	1	CHECK VALVE	
6	91034408	1	PISTON AND RAM	
7	Kit	1	O-RING	
8	Kit	1	BACK-UP RING	
9	91034409	1	GLAND NUT	
10	Kit	1	U-CUP (gland nut)	
11	Kit	1	WIPER	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-57. (90453031) & (90453032) CARRIAGE ASSEMBLIES (SN 0355001 to Present)



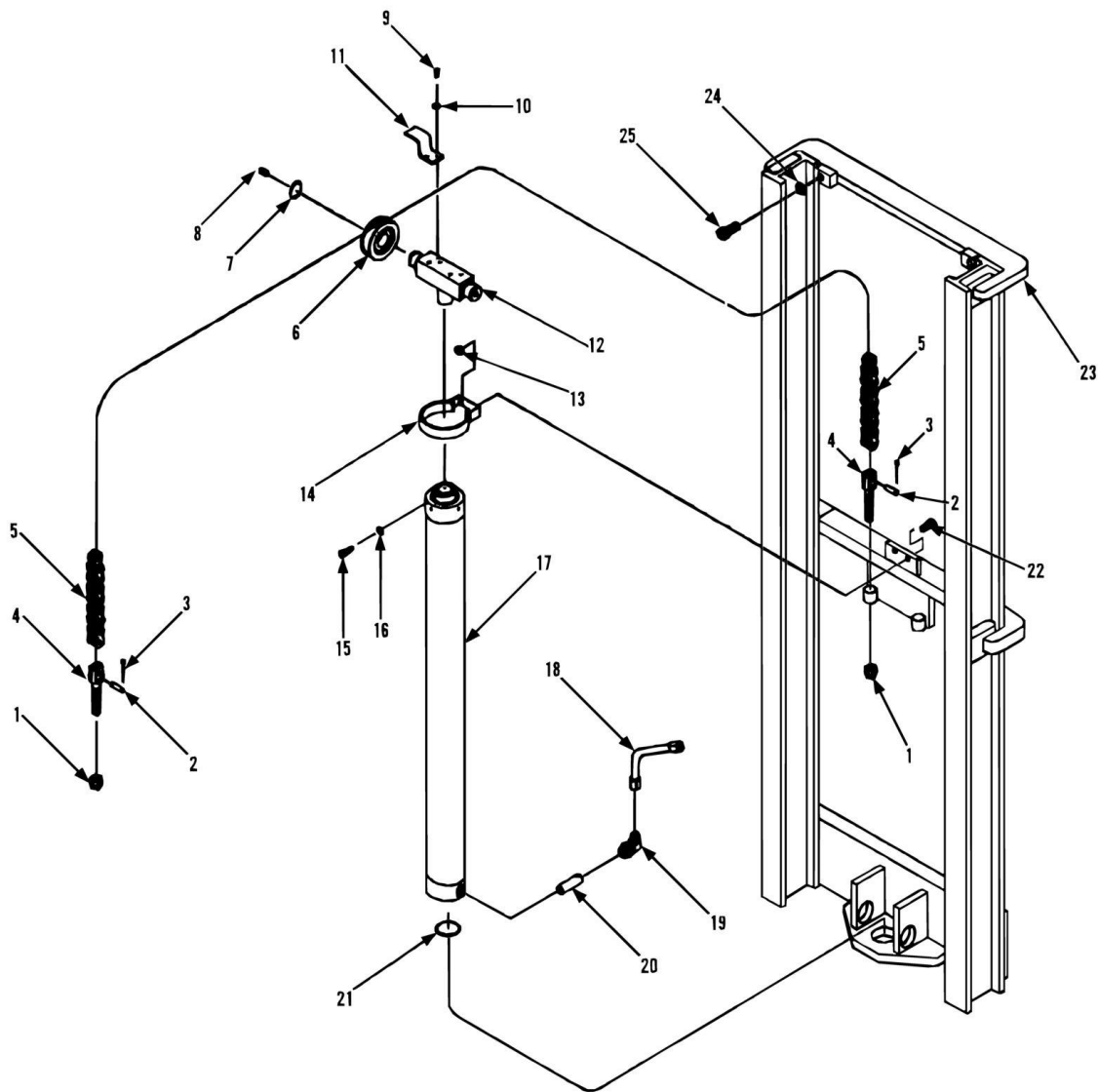
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-57. (90453031) & (90453032) CARRIAGE ASSEMBLIES (SN 0355001 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	90453031	1	CARRIAGE ASSY, 48IN, (includes all items)	
1	90453032	1	CARRIAGE ASSY, 66IN, (includes all items)	
2	91034410	1	SHAFT, (48IN)	
2	91034432	1	SHAFT, (6IN)	
3	91034376	4	THRUST ROLLER	
4	91034411	2	NUT	
5	8033686	2	LOCKWASHER	
6	91034413	2	NUT	
7	91034377	2	FLAT HD SCREW	
8	91034414	2	GREASE FITTING	
9	91034415	2	BOLT	
10	91034416	2	END RING	

SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-58. (90453030) OUTER RAIL ASSEMBLY (SN 0355001 to Present)



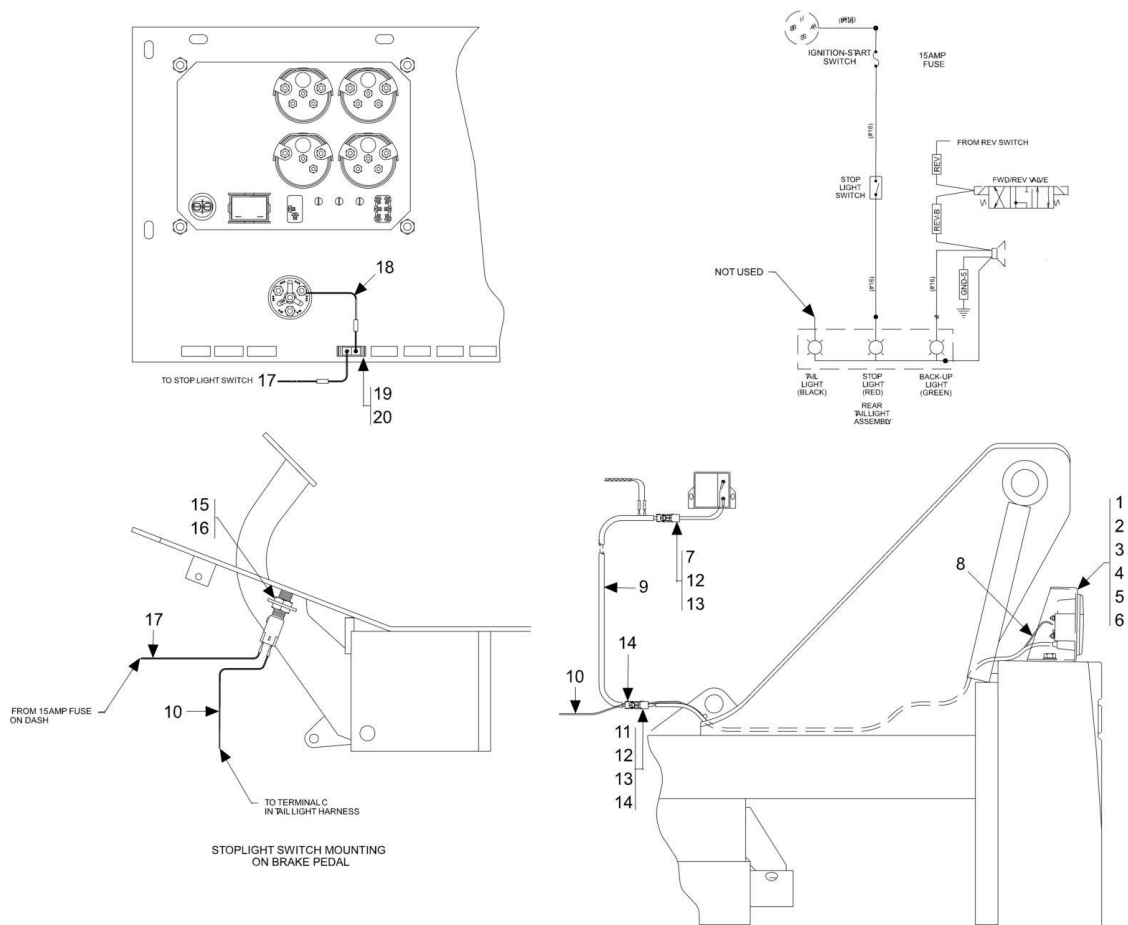
SECTION 12 - OPTIONAL EQUIPMENT

FIGURE 12-58. (90453030) OUTER RAIL ASSEMBLY (SN 0355001 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90453030	1	OUTER RAIL ASSY, (includes all items)	
	91034417	2	CHAIN ASSY, (includes items 1 thru 5)	
1		Ref	NUT	
2		Ref	PIN, (chain connect)	
3		Ref	COTTER PIN	
4		Ref	CHAIN ANCHOR	
5	91034392	2	CHAIN	
6	91034373	2	CHAIN SHEAVE	
7	91034372	2	CYLINDER RETAINER	
8	91034418	2	PLUG	
9	91034419	4	SCREW	
10	91034420	4	LOCKWASHER	
11	91034421	2	GUARD	
12	91034393	1	LIFT CYLINDER HEAD	
13	91034422	2	NUT	
14	91034423	1	CYLINDER RETAINING RING	
15	91034424	1	SCREW	
16	8033686	1	LOCKWASHER	
17		Ref	RAIL CYLINDER ASSY (See RAIL CYLINDER ASSEMBLY for Breakdown)	
18	91034426	1	TUBE	
19	91034427	1	FITTING	
20	91034428	1	FLOW VALVE	
21	91034429	1	RETAINING RING	
22	91034430	2	BOLT	
23	91034431	1	OUTER RAIL	
24	91034433	2	LOCKWASHER	
25	91034434	2	SCREW	
		Ref	NOTE: ONLY ITEMS WITH PART NUMBERS ARE AVAILABLE FOR SERVICE.	

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FIGURE 12-59. (91125055) STOP LIGHT INSTALLATION (SN 0177005 to Present)



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FIGURE 12-59. (91125055) STOP LIGHT INSTALLATION (SN 0177005 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91125055	1	STOP LIGHT INSTALLATION, (includes all items)	
1	91121145	1	TAIL LIGHT HOUSING	
2	91121146	1	TAIL LIGHT BRACKET	
3	91365045	1	TAIL LIGHT ASSEMBLY, (includes the following seven items)	
3	91123065	1	TAIL LIGHT	
3	86661147	38 IN	WIRE, 16 GAUGE, (black)	
3	86661149	38 IN	WIRE, 16 GAUGE, (green)	
3	86661152	38 IN	WIRE, 16 GAUGE, (red)	
3	86683480	3	BUTT CONNECTOR	
3	82033996	45 IN	WIRE LOOM	
3	86683122	2	TIE WRAP	
4	88201108	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
5	88561115	1	FLAT WASHER, 3/4	
6	88551016	1	LOCKWASHER, 3/4	
7	80963058	1	W. PACK CONNECTOR, (shroud)	
8	91141364	1	JUMPER WIRE	
9	91143210	1	TAIL LIGHT HARNESS	
10	91141257	1	JUMPER WIRE	
11	80963062	1	W. PACK CONNECTOR, (shroud)	
12	80963069	5	W. PACK CONNECTOR, (male pin)	
13	80963066	5	W. PACK CONNECTOR, (cable seal)	
14	80963070	2	W. PACK CONNECTOR, (cavity plug)	
15	91141197	1	MOUNTING TAB	
16	91143117	1	STOPLIGHT SWITCH	
17	91141256	1	JUMPER WIRE	
18	91141259	1	JUMPER WIRE	
19	91143108	1	FUSE HOLDER	
20	77363268	1	FUSE, 15 AMP	

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An Oshkosh Corporation Company

Corporate Office
JLG Industries, Inc.
1 JLG Drive
McConnellsburg PA. 17233-9533
USA

☎ (717) 485-5161

☎ (717) 485-6417

JLG Worldwide Locations

JLG Industries (Australia)
P.O. Box 5119
11 Bolwarra Road
Port Macquarie
N.S.W. 2444
Australia

☎ +61 2 65 811111

☎ +61 2 65 813058

JLG Latino Americana Ltda.
Rua Eng. Carlos Stevenson,
80-Suite 71
13092-310 Cam inas-SP
Brazil

☎ +55 19 3295 0407

☎ +55 19 3295 1025

JLG Industries (UK) Ltd
Bentley House
Bentley Avenue
Middleton
Greater Manchester
M24 2GP - England

☎ +44 (0)161 654 1000

☎ +44 (0)161 654 1001

JLG France SAS
Z.I. de Baulieu
47400 Fauillet
France

☎ +33 (0)5 53 88 31 70

☎ +33 (0)5 53 88 31 79

JLG Deutschland GmbH
Max-Planck-Str. 21
D - 27721 Ritterhude - Ihlpohl
Germany

☎ +49 (0)421 69 350 20

☎ +49 (0)421 69 350 45

JLG Equipment Services Ltd.
Rm 1107 Landmark North
39 Lung Sum Avenue
Sheung Shui N. T.
Hong Kong

☎ (852) 2639 5783

☎ (852) 2639 5797

JLG Industries (Italia) s.r.l.
Via Po. 22
20010 Pregnana Milanese - MI
Italy

☎ +39 029 359 5210

☎ +39 029 359 5845

Oshkosh-JLG Singapore
Technology Equipment Pte Ltd
29 Tuas Ave 4,
Jurong Industrial Estate
Singapore, 639379

☎ +65-6591 9030

☎ +65-6591 9031

Oshkosh-JLG (Tianjin) Equipment
Technology, Ltd
Pudong Kerry Parkside
Room 3705
1155 Fang Dian Road
Pudong, Shanghai 201204
China

☎ +0086 21 60311575

☎ +0086 21 60311599

Plataformas Elevadoras
JLG Iberica, S.L.
Trapadella, 2
P.I. Castellbisbal Sur
08755 Castellbisbal, Barcelona
Spain

☎ +34 93 772 4700

☎ +34 93 771 1762

JLG Sverige AB
Enkopingsvagen 150
Box 704
SE - 176 27 Jarfalla
Sweden

☎ +46 (0)850 659 500

☎ +46 (0)850 659 534

www.jlg.com