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# ***Illustrated Parts Manual***

## ***Model TF6-42***

SN 0192001 through 0192007  
& 0160000052 to Present

**91504001**

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September 29, 2017*





## EFFECTIVITY PAGE

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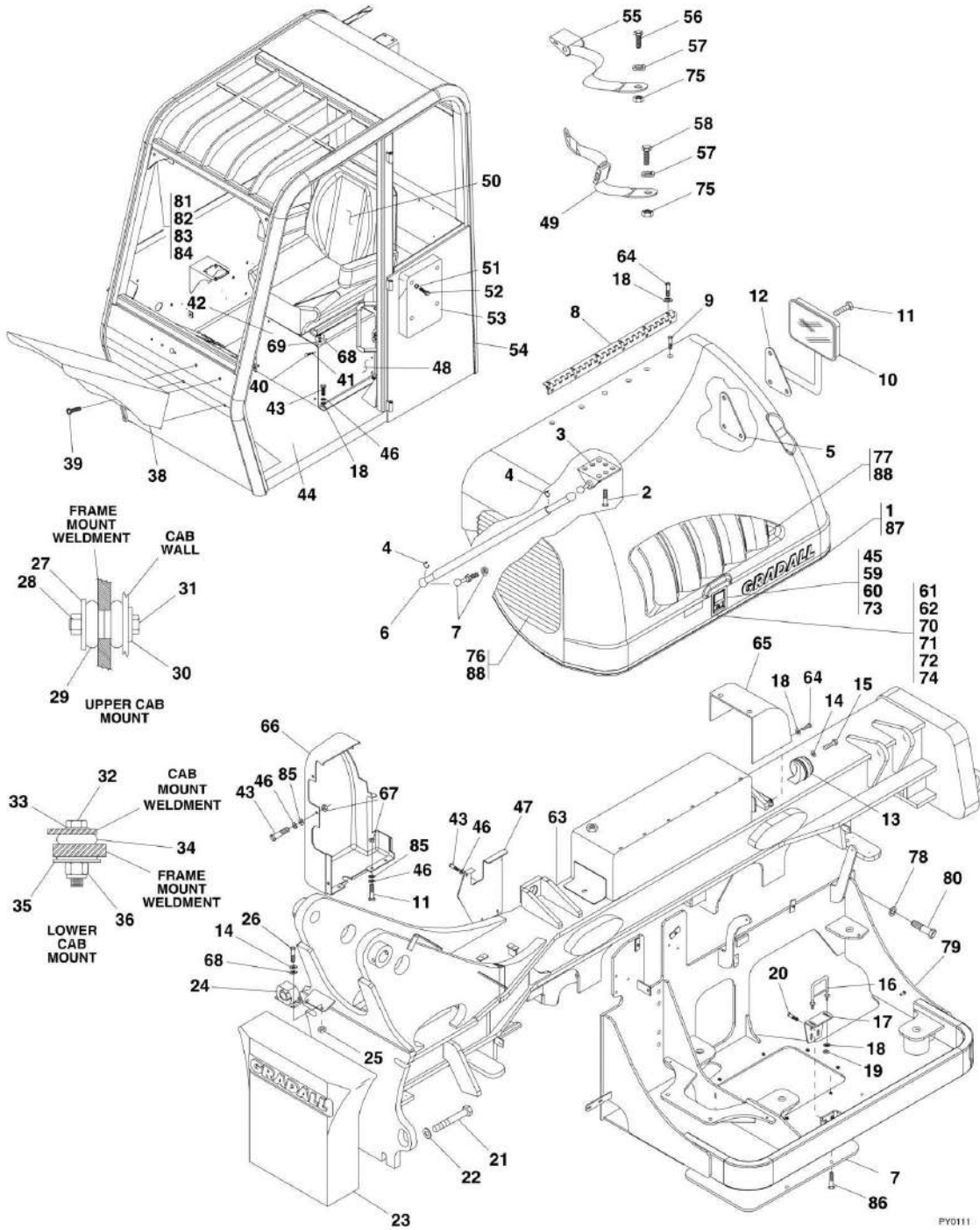


# SECTION 1 - FRAME AND ATTACHING PARTS

## SECTION 1 - FRAME AND ATTACHING PARTS

# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0192001 through 0192007, SN 016000052 through 016000622, Excluding 016000198 and 0160006286)



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## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-1. FRAME SHROUDING AND TRIM (SN 0192001 through 0192007, SN 016000052 through 016000622, Excluding 016000198 and 0160006286)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91473095	1	ENGINE COVER, (includes items 2, 3, 4, 6, 7, 8, 9, 59, 60, 61, 62, 70 thru 74, 76 & 77)	C
1	91404275	1	ENGINE COVER KEY	
2	91474411	23	HEX HD CAPSCREW, 8X3/4	
3	91474410	2	PROP BRACKETS	
4	91474425	4	PROP CLIPS	
5	91471200	1	MIRROR MOUNT BACK PLATE	
6	91474423	2	GAS PROP	
7	91474424	2	BALL STUD, (13mm)	
8	91474409	1	HINGE, 3/4IN	
9	91474420	6	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
10	80263053	1	MIRROR	
11	88201036	7	HEX HD CAPSCREW, 3/8-16X1-1/4	
12	91476035	1	MIRROR BRACKET WELDMENT	
13	91143357	1	HORN	
14	88551010	3	LOCKWASHER, 5/16	
15	88201016	1	HEX HD CAPSCREW, 5/16-18X1/2	
16	91403600	1	U-BOLT	
17	91471150	1	LATCH MOUNTING BRACKET	
18	88561004	16	WASHER, 3/8	
19	88501006	2	NUT, 3/8-16	
20	80973096	4	WHIZ-LOCK SCREW, 3/8-16X1-1/2	
21	83201030	4	HEX HD CAPSCREW, 1/8X3-1/2, (torque to 545-595 ft lbs)	
22	80241137	4	WASHER	
23	91140001	1	COUNTERWEIGHT	
24	91403574	1	BACK-UP ALARM	
25	88501005	2	HEX NUT, 5/16-18	
26	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4	
27	91403217	2	REBOUND WASHER	
28	88501014	2	HEX NUT, 7/8-9	
29	91403153	4	SHOCK MOUNT	
30	91403325	2	HARDENED WASHER	
31	77321274	2	HEX HD CAPSCREW, 7/8-9X5	
32	83201058	4	HEX HD CAPSCREW, 3/4-10X3-3/4	
33	86681572	4	HARDWASHER, 13/16	
34	91403097	4	CAB ISOLATOR MOUNT	
35	91403098	4	TAIL WASHER	
36	88521012	4	FLEX LOCKNUT, 3/4-10	
37	88201064	8	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
38	91401487	1	CAB FENDER	
39	80973025	4	WHIZ-LOCK BOLT, 3/8-16X1	
40	88261015	6	SOCKET BUTTON HD CAPSCREW, 1/4-20X5/8	
41	88551009	9	LOCKWASHER, 1/4	
42	91401415	1	ACCESS COVER	
43	88201035	13	HEX HD CAPSCREW, 3/8-16X1, GR5	
44	91473210	1	NON-SKID FLOOR	
45	91503090	1	PILOT VALVE COVER	
46	88551011	17	LOCKWASHER, 3/8	
47	88501307	4	HEX NUT, 7/16-20	

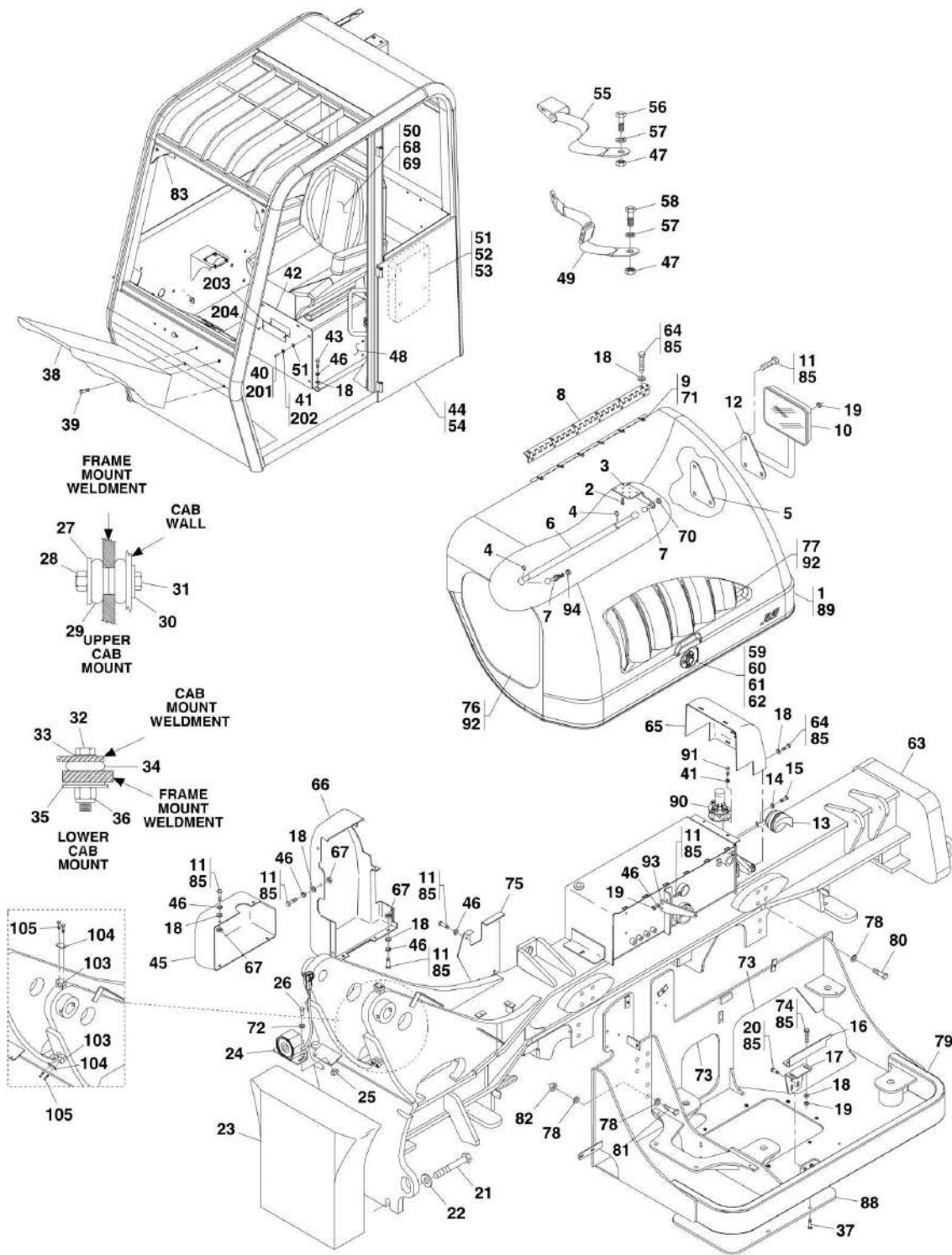
## SECTION 1 - FRAME AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
48	91406115	1	RISER WELDMENT	
49	91513099	1	TETHER, (includes items 47, 57 & 58)	
50		Ref	TRIMLINE SEAT, (no longer available; See OPTIONS SECTION for Breakdown) <b>(SN 0192001 through 0160006622)</b>	
51	88561002	10	FLAT WASHER, 1/4	
52	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
53	91403230	1	MANUAL CASE	
54		Ref	CAB ASSY, (See CAB SECTION for Breakdown)	
55	91033029	1	SEAT BELT, (not used with optional seat), (includes items 47, 56 & 57)	
56	88201549	2	HEX HD CAPSCREW, 7/16-20X1, GR5	
57	88551012	4	LOCKWASHER, 7/16	
58	88201551	2	HEX HD CAPSCREW, 7/16-20X1-1/2, GR5	
59	91474419	1	LOCKING PADDLE HANDLE	
60	91474417	1	PADDLE HANDLE GASKET	
61	91474418	1	ROTARY LATCH	
62	91474415	1	LINKAGE ROD	
63	91506012	1	FRAME WELDMENT	
64	88261027	10	SOCKET BUTTON HD CAPSCREW, 3/8-16X3/4	
65	91513121	1	FRONT COVER	
66	91473085	1	COVER MAIN VALVE	
67	88662523	10	NUT	
68	88561003	6	FLAT WASHER, 5/16 <b>(SN 0192001 through 0160006622)</b>	
69	77143006	4	WHIZ-LOCK NUT, 5/16-18 <b>(SN 0192001 through 0160006622)</b>	
70	91474414	2	BOLT, 5/16X1-1/4	
71	91474413	2	NUT, 5/16	
72	91474412	2	LOCKWASHER, 5/16	
73	91474427	1	LATCH BACKING PLATE	
74	91474416	4	RIVETS, 3/16	
75	91471191	1	VALVE COVER PLATE	
76		Ref	SCREEN	
77	91474422	1	EXHAUST SCREEN KIT	
78	90027473	16	HARDENED WASHER, 3/4	
79	91476044	1	ENGINE POD WELDMENT	
80	83201006	8	HEX HD CAPSCREW, 3/4-10X2, (torque to 240-255 ft lbs)	
81	83201001	4	HEX HD CAPSCREW, 3/4-10X4-1/2, GR8, (torque to 240-255 ft lbs)	
82	88501012	4	HEX NUT, 3/4-10	
83		Ref	TILT GAUGE, (no longer available) <b>(Prior to SN 0160006622)</b>	
83	8466306	1	TILT GAUGE, (w/adhesive), <b>(Including 0160006622)</b>	
84	88204912	1	HEX HD CAPSCREW, 1/4-20X1, GR5 <b>(Prior to SN 0160006622)</b>	
85	88561109	10	FLAT WASHER, 3/8	
86	88561107	1	FLAT WASHER, 1/4 <b>(Prior to SN 0160006622)</b>	
87	88521204	1	LOCKNUT, 1/4-20 <b>(Prior to SN 0160006622)</b>	
88	91471112	1	OIL PAN COVER	
89	91404437	13 ft	BULB SEAL	
90	91503046	1	LEVEL SENSOR	
91	83201013	3	HEX HD CAPSCREW, 1/4-20X3/8	
92	7027772	1	ADHESIVE KIT, (includes 3 tubes and applicator), (enough to do exhaust screen kit)	



# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-2. FRAME SHROUDING AND TRIM (SN 0160006707 to Present, Including 0160000198 and 0160006286)



ART\_91504001-1-2

## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-2. FRAME SHROUDING AND TRIM (SN 0160006707 to Present, Including 0160000198 and 0160006286)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91473241	1	ENGINE COVER, (includes items 2, 3, 4, 6, 7, 8, 9, 59, 60, 61, 62, 70, 71, 76, 77, 89 & 92)	B
2	91474411	14	HEX HD CAPSCREW, 8X3/4	
3	91514246	2	PROP BRACKETS	
4	91474425	2	PROP CLIPS	
5	91471200	1	MIRROR MOUNT BACK PLATE	
6	91474423	1	GAS PROP	
7	91474424	2	BALL STUD, (13mm)	
8	91474409	1	HINGE, 36IN	
9	91474420	6	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
10	80263053	1	MIRROR	
11	88201036	18	HEX HD CAPSCREW, 3/8-16X1-1/4	
12	91476035	1	MIRROR BRACKET WELDMENT	
13	91143357	1	HORN	
14	88551010	1	LOCKWASHER, 5/16	
15	88201016	1	HEX HD CAPSCREW, 5/16-18X1/2	
16	91501087	1	LATCH BRACKET	
17	91471150	1	LATCH MOUNTING BRACKET	
18	88561004	4	WASHER, 3/8	
19	88501006	5	NUT, 3/8-16	
20	80973096	4	WHIZ-LOCK SCREW, 3/8-16X1-1/2	
21	83201030	4	HEX HD CAPSCREW, 1/8X3-1/2, (torque to 545-595 ft lbs)	
22	80241137	4	WASHER	
23	91140001	1	COUNTERWEIGHT	
24	91403574	1	BACK-UP ALARM, (if equipped)	
24	8270621	1	BACK-UP ALARM, (if equipped)	
25	8305624	2	HEX NUT, 5/16-18	
26	0641406	2	HEX HD CAPSCREW, 1/4-20X3/4	
27	91403217	2	REBOUND WASHER	
28	88501014	2	HEX NUT, 7/8-9	
29	91403153	4	SHOCK MOUNT	
30	91403325	2	HARDENED WASHER	
31	77321274	2	HEX HD CAPSCREW, 7/8-9X5	
32	83201058	4	HEX HD CAPSCREW, 3/4-10X3-3/4	
33	86681572	4	HARDWASHER, 13/16	
34	91403097	4	CAB ISOLATOR MOUNT	
35	91403098	4	TAIL WASHER	
36	88501012	4	HEAVY HEX NUT, 3/4-10	
37	0641809	8	HEX HD CAPSCREW, 1/2-13X1-1/8, GR5	
38	91401487	1	CAB FENDER	
39	80973025	4	WHIZ-LOCK BOLT, 3/8-16X1	
40	88261015	6	SOCKET BUTTON HD CAPSCREW, 1/4-20X5/8	
41	88551009	9	LOCKWASHER, 1/4	
42	91401415	1	ACCESS COVER (SN 0160006707 through 0160013828)	
42	91561150	1	ACCESS COVER (SN 0160017549 to Present)	
43	88201035	4	HEX HD CAPSCREW, 3/8-16X1, GR5	
44	91473210	1	NON-SKID FLOOR	
45	91503090	1	PILOT VALVE COVER	
46	88551011	19	LOCKWASHER, 3/8	

## SECTION 1 - FRAME AND ATTACHING PARTS

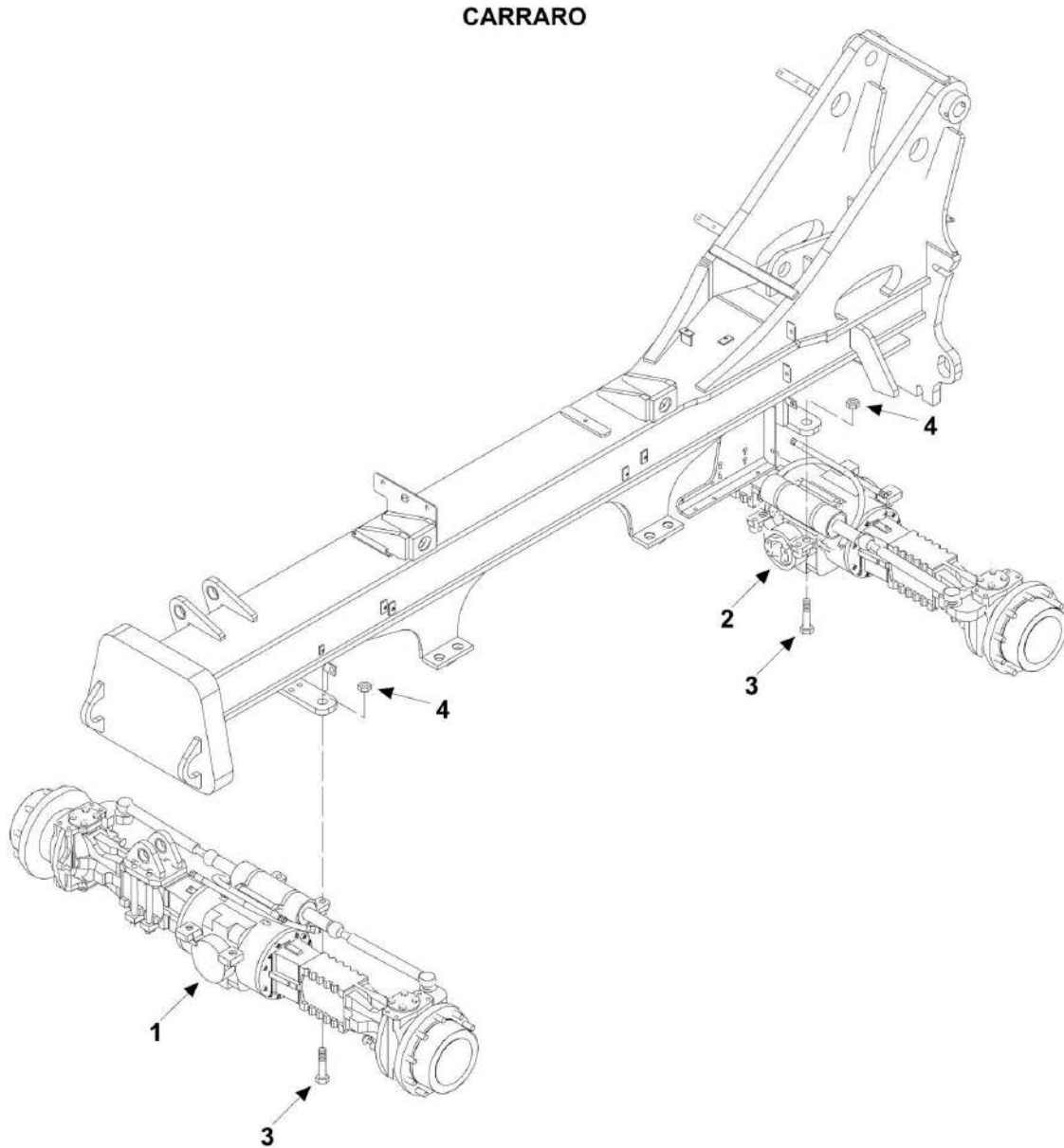
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	88501307	4	HEX NUT, 7/16-20 (SN 0160006707 through 0160013828)	
48	91406115	1	RISER WELDMENT (SN 0160006707 through 0160013828)	
48	91516044	1	RISER WELDMENT (SN 0160015460 to Present)	
49	91513099	1	TETHER, (includes items 47, 57 & 58) (SN 0160006707 through 0160013828)	
50		Ref	TRIMLINE SEAT, (no longer available; See OPTIONS SECTION for Breakdown) (SN 0160006707 through 0160013828)	
50		Ref	SUSPENSION SEAT w/2IN SEAT BELT, (See CAB SECTION for Breakdown) (SN 0160013983 to Present)	
51	88561002	10	FLAT WASHER, 1/4	
52	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
53	91403230	1	MANUAL CASE	
54		Ref	CAB ASSY, (See CAB SECTION for Breakdown)	
55	91033029	1	SEAT BELT, (not used with optional seat), (includes items 47, 56 & 57)	
56	88201549	2	HEX HD CAPSCREW, 7/16-20X1, GR5	
57	88551012	4	LOCKWASHER, 7/16 (SN 0160006707 through 0160013828)	
58	88201551	2	HEX HD CAPSCREW, 7/16-20X1-1/2, GR5 (SN 0160006707 through 0160013828)	
59	7029731	1	HOOD LATCH ASSEMBLY	
60	3900395	4	BUTTON HD CAPSCREW, M4X.7X25MM	
61	4811400	4	WASHER, M4	
62	3290401	4	HEX NUT, M4X.7	
63	91506012	1	FRAME WELDMENT	
64	88261027	10	SOCKET BUTTON HD CAPSCREW, 3/8-16X3/4	
65	91513121	1	FRONT COVER	
66	91473085	1	COVER MAIN VALVE	
67	88662523	10	NUT	
68	88561003	4	FLAT WASHER, 5/16 (SN 0160006707 through 0160013828)	
69	77143006	4	WHIZ-LOCK NUT, 5/16-18 (SN 0160006707 through 0160013828)	
70	77143006	1	WHIZ-LOCK NUT, 5/16-18	
71	3311605	6	LOCK NUT, 3/8-16	
72	4711400	1	WASHER, 1/4	
73	91143220	71 in	TRIM-LOK	
74	0791610	2	WHIZ-LOCK SCREW, 3/8-16X1-1/4	
75	91471191	1	VALVE COVER PLATE	
76	7029912	1	PERFORATED SCREEN	
77	91474422	1	EXHAUST SCREEN KIT	
78	90027473	16	HARDENED WASHER, 3/4	
79	N.S.S.	1	ENGINE POD WELDMENT	
80	83201006	8	HEX HD CAPSCREW, 3/4-10X2, (torque to 240-255 ft lbs)	
81	83201001	4	HEX HD CAPSCREW, 3/4-10X4-1/2, GR8, (torque to 240-255 ft lbs)	
82	88501012	4	HEX NUT, 3/4-10	
83	8466306	1	TILT GAUGE, (w/adhesive)	
85	14403364	AR	LOCTITE, #242	
88	91471112	1	OIL PAN COVER	
89	91404437	13 ft	BULB SEAL	
90	91503046	1	LEVEL SENSOR	
91	83201013	3	HEX HD CAPSCREW, 1/4-20X3/8	
92	7027772	1	ADHESIVE KIT, (includes 3 tubes and applicator), (enough to do exhaust screen kit)	
93	91471238	1	TANK STRUT BRACKET	
94	3311502	1	HEX NUT, 5/16-18	

## SECTION 1 - FRAME AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
103	77133053	3	CLAMP	
104	77133052	3	COVER PLATE	
105	77133209	6	HEX HD CAPSCREW, 1/4-20X1-3/8	
201	0630407	6	SOC-BUT HD CAP BOLT, 0-1/4-20X5/8	
202	4711400	6	FLAT WASHER, 1/4	
203	91561200	1	VENT COVER, PLATE (open cab)	
204	91413036	2	SELF-TAPPING SCREW	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-3. AXLE MOUNTING (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)





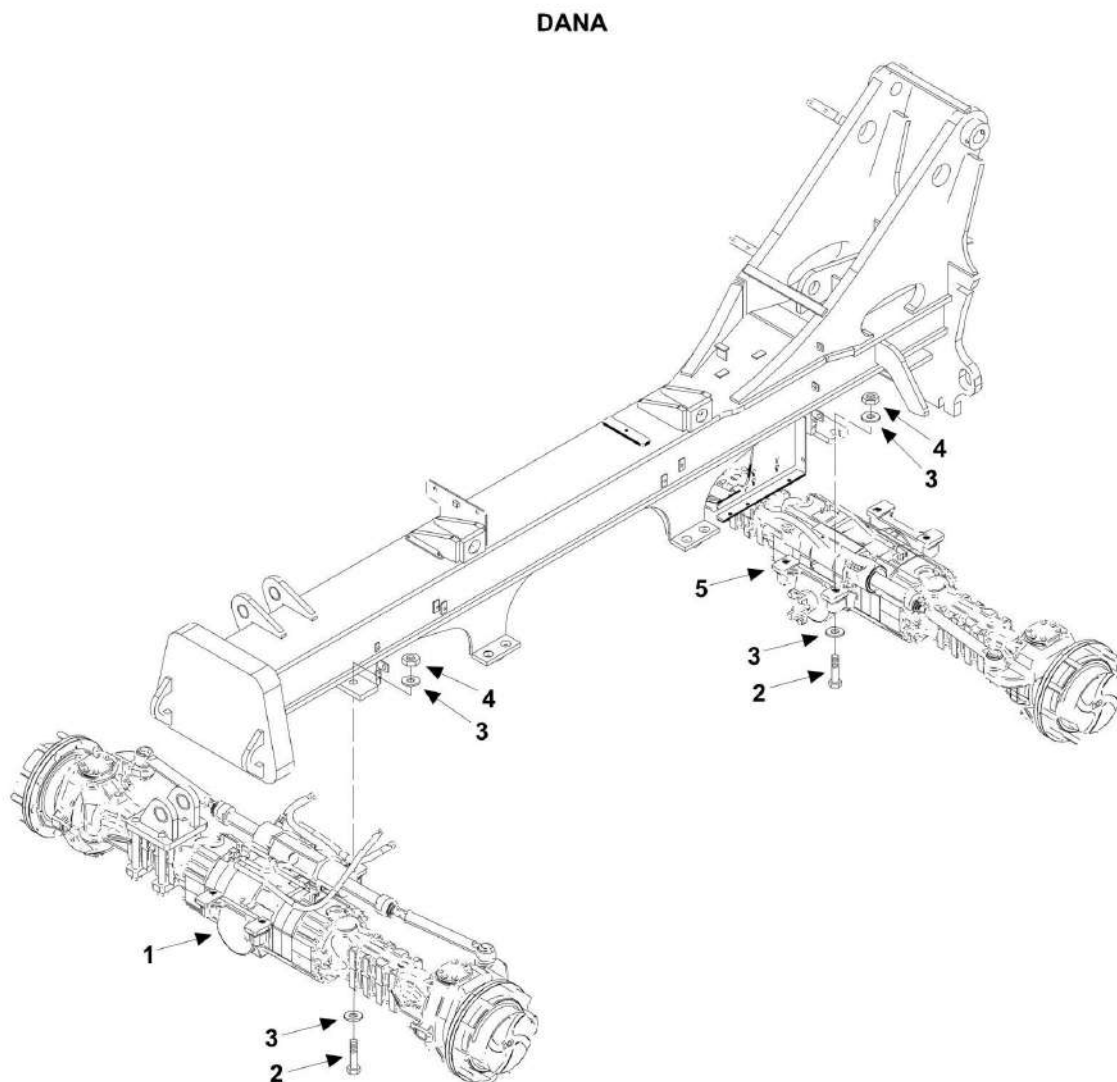
## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-3. AXLE MOUNTING (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	
2		Ref	REAR AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	
3	83201001	12	HEX HD CAPSCREW, 3/4-10X4-1/4, (loctite and torque to 340-365 ft lbs)	
4	88521012	12	HEX LOCKNUT, 3/4-10	

# SECTION 1 - FRAME AND ATTACHING PARTS

FIGURE 1-4. AXLE MOUNTING (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



## SECTION 1 - FRAME AND ATTACHING PARTS

**FIGURE 1-4. AXLE MOUNTING (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

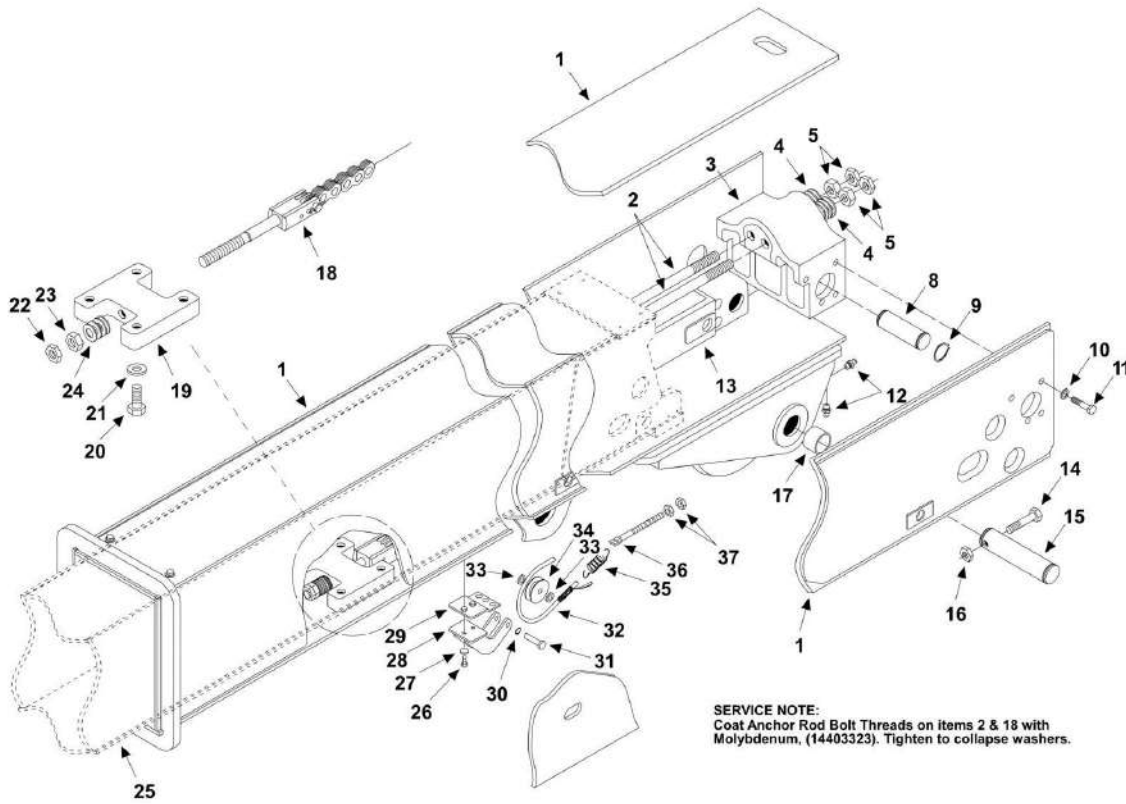
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FRONT AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	
2	91403412	8	HEX HD CAPSCREW, 1/2-13X6, (loctite and torque to 240-260 ft lbs)	
3	90027473	16	HARDENED FLAT WASHER, 3/4	
4	88501012	8	HEX NUT, 3/4-10	
5		Ref	REAR AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	



**SECTION 2 - BOOM**

# SECTION 2 - BOOM

## FIGURE 2-1. FIRST BOOM SECTION



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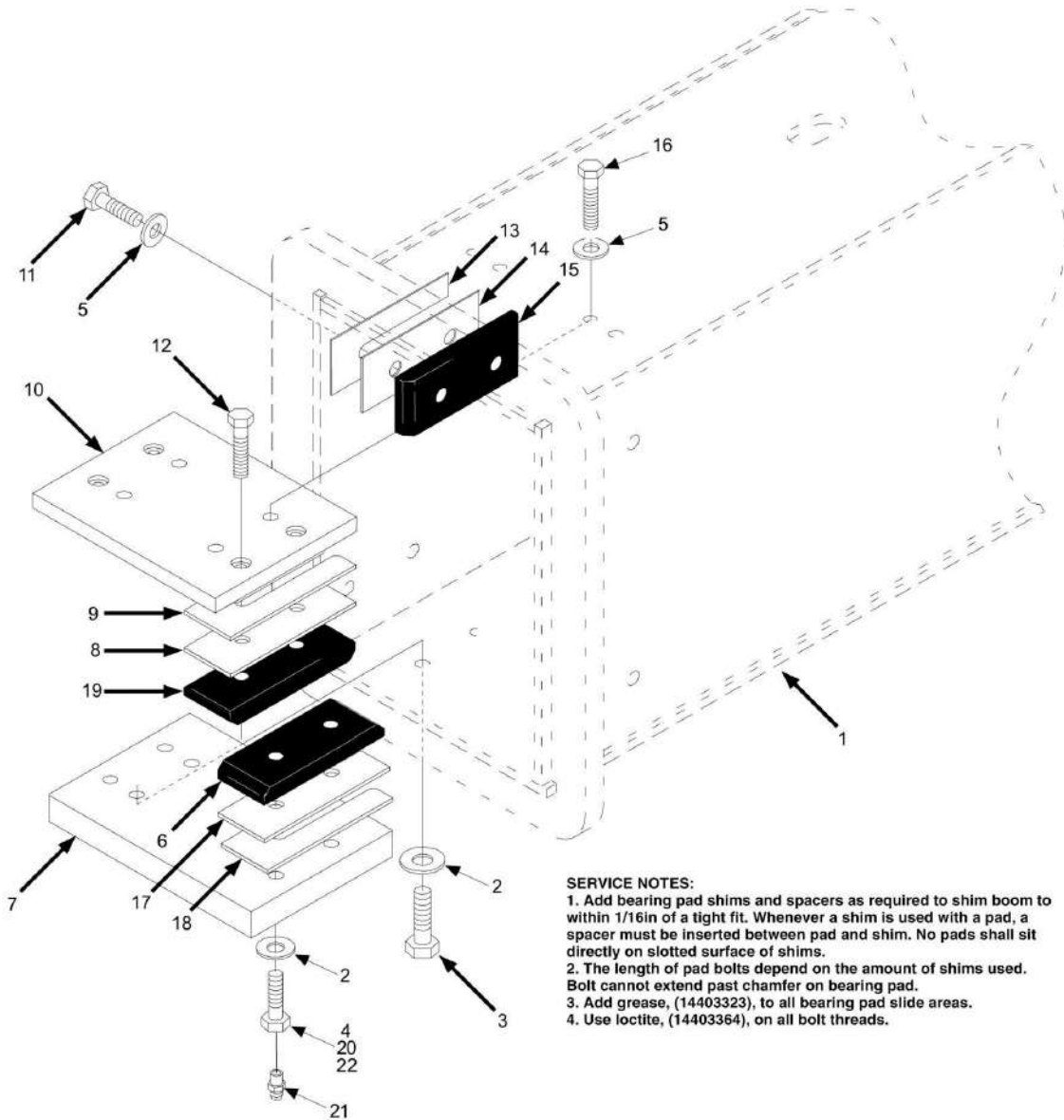
## SECTION 2 - BOOM

### FIGURE 2-1. FIRST BOOM SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91506008	1	FIRST BOOM SECTION	
2		Ref	CHAIN CLEVIS ROD, (See PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY, item 7 for Breakdown)	
3	91503005	1	STRONG BACK	
4	91413139	16	SPRING WASHER, 7/8	
5	91403493	4	HEAVY HEX NUT, 7/8-14, (torque to 100-110 ft lbs)	
8		Ref	CROWD CYLINDER PIN, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9	88581149	2	RETAINING RING	
10	88561113	8	FLAT WASHER, 5/8	
11	88201095	8	HEX HD CAPSCREW, 5/8-11X1-1/2, GR5	
12	88671001	4	LUBE FITTING, STRAIGHT, 1/8	
13		Ref	PUSH BEAM, (See PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY for Breakdown)	
14	83481645	1	HEX HD CAPSCREW, 5/8-11X6	
15	91403025	1	BOOM PIVOT PIN	
16	88501010	1	HEX NUT, 5/8-11	
17	91403114	1	BOOM PIVOT BUSHING	
18		Ref	CHAIN ANCHOR, (See SECOND BOOM, item 25 for Breakdown)	
19	91401193	1	ANCHOR PLATE	
20	88201066	4	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5	
21	88561111	4	FLAT WASHER, 1/2	
22	88501310	1	HEX NUT, 5/8-18	
23	88501410	1	HEX JAM NUT, 5/8-18, (torque to 100-110 ft lbs)	
24	91413138	8	SPRING WASHER, 5/8	
25		Ref	SECOND BOOM SECTION, (See SECOND BOOM for Breakdown)	
26	88201034	4	HEX HD CAPSCREW, 3/8-16X 7/8	
27	88561109	4	FLAT WASHER, 3/8	
28	91506001	2	SHEAVE MOUNT	
29	91401344	2	HOSE BRACKET	
30	88581417	2	RETAINING RING	
31	91501003	2	PIN	
32		Ref	BOOM HARNESS, (See ELECTRICAL SECTION for Breakdown)	
33	91503010	4	THRUST WASHER	
34	91503002	2	CABLE SHEAVE	
35	91503003	2	SPRING	
36	91503004	2	FLATTENED ANCHOR	
37	88501006	4	HEX NUT, 3/8-16	

## SECTION 2 - BOOM

FIGURE 2-2. BEARING PADS, SPACERS, AND SHIMS, (FIRST BOOM SECTION)



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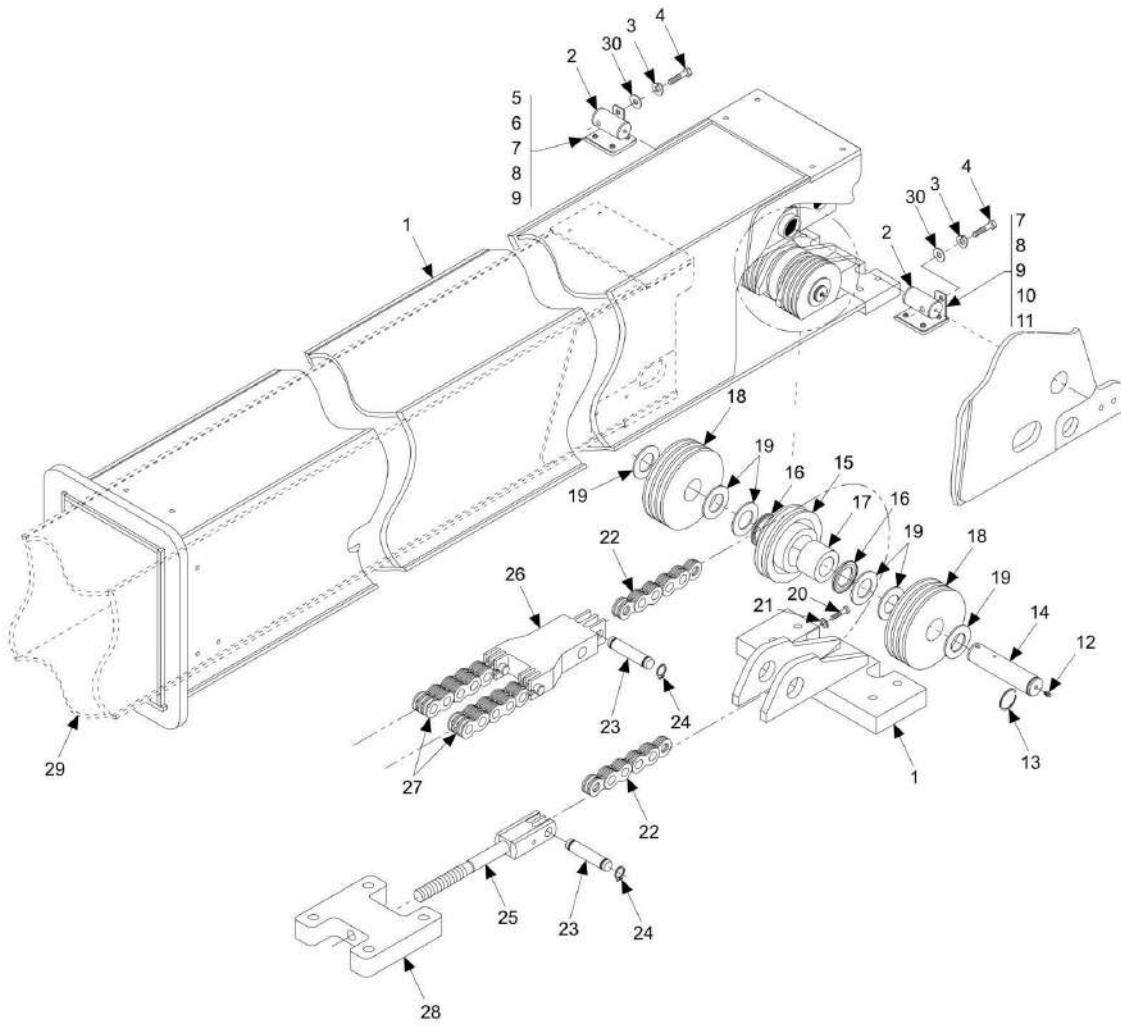
## SECTION 2 - BOOM

**FIGURE 2-2. BEARING PADS, SPACERS, AND SHIMS, (FIRST BOOM SECTION)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	FIRST BOOM SECTION, (See FIRST BOOM SECTION, for Breakdown)	
2	90027471	AR	HARDENED WASHER, 1/2	
3	88201065	4	HEX HD CAPSCREW, 1/2-13X1, GR5	
4	88201564	4	HEX HD CAPSCREW, 1/2-20X1, GR5, (torque to 76-86 ft lbs)	
5	90027470	AR	HARDENED WASHER, 3/8	
6	91503140	2	BEARING PAD	
7	91401469	1	MOUNT PLATE	
8	91401224	2	SHIM	
9	91401215	AR	SHIM	
9	91401216	AR	SHIM	
10	91401472	1	MOUNT PLATE	
11	88201533	AR	HEX HD CAPSCREW, 3/8-24X7/8, GR5, (torque to 32-37 ft lbs)	
12	88201534	AR	HEX HD CAPSCREW, 3/8-24X1, GR5, (torque to 32-37 ft lbs)	
13	91471226	AR	SHIM	
13	91471227	AR	SHIM	
14	91401223	4	SPACER	
15	91403530	4	BEARING PAD	
16	88201034	4	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
17	91401450	2	SPACER	
18	91401456	AR	SHIM	
18	91401457	AR	SHIM	
19	91403532	2	BEARING PAD	
20	91161222	AR	MODIFIED BOLT	
21	88671008	AR	GREASE FITTING STRAIGHT	
22	88991005	AR	MODIFIED BOLT	

# SECTION 2 - BOOM

## FIGURE 2-3. SECOND BOOM SECTION



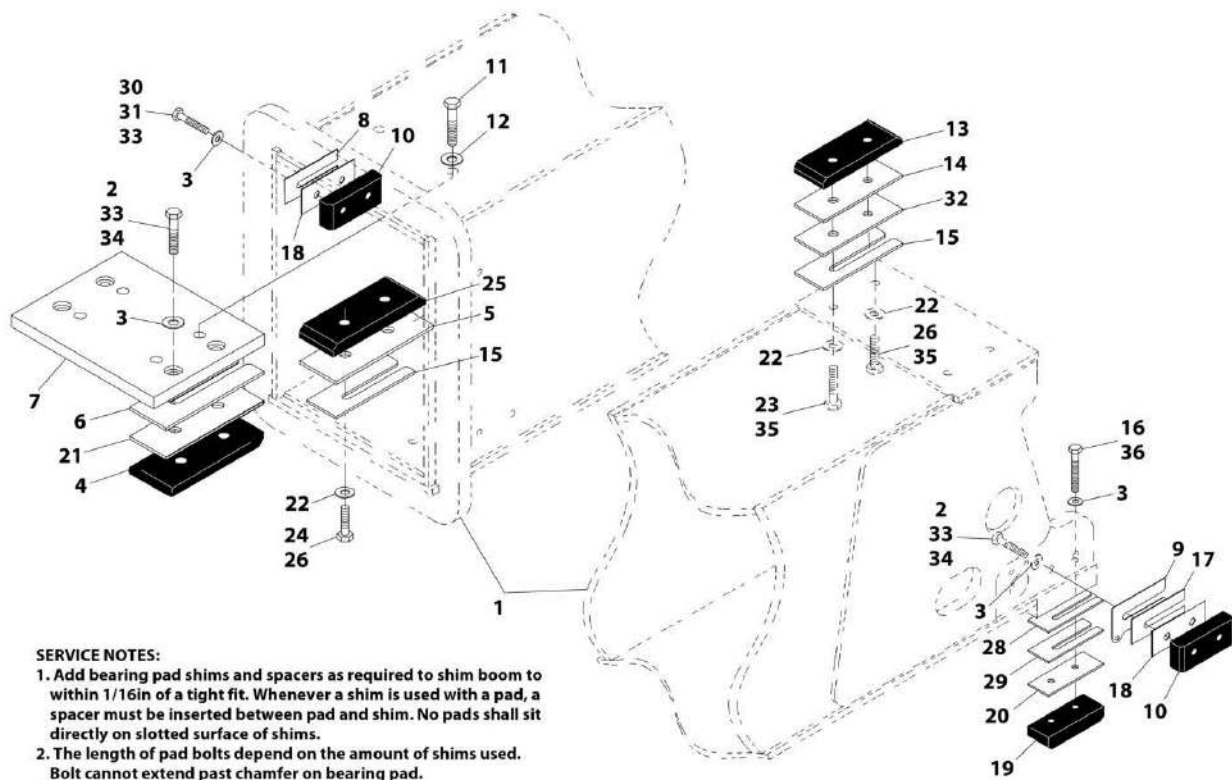
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FIGURE 2-3. SECOND BOOM SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91476042	1	SECOND BOOM SECTION	
2	91141128	2	PUSH BEAM PIN	
3	88551013	2	LOCKWASHER, 1/2	
4	0641829	2	HEX HD CAPSCREW, 1/2-13X3-5/8	
5	91405086	1	HOSE RETAINER ASSY, (includes items 6 thru 9)	
6	91401436	1	R.H. HOSE RETAINER	
7	91403499	2	PAD	
8	88241023	8	SOCKET FLAT HD CAPSCREW, #10-24X5/8	
9	88501612	8	HEX NUT, #10-24	
10	91401435	1	L.H. HOSE RETAINER	
11	91405085	1	HOSE RETAINER ASSY, (includes items 7 thru 10)	
12	88671001	2	LUBE FITTING, STRAIGHT, 1/8	
13	90028932	2	RETAINING RING	
14	91403019	1	RETRACT SHEAVE PIN	
	91403519	Ref	RETRACT ROLLER ASSY, (includes items 15 thru 17)	
15	91403518	1	RETRACT CHAIN ROLLER	
16	91403053	2	SEAL	
17	91403052	1	BUSHING	
18	91503001	2	HOSE SHEAVE	
19	91403126	AR	THRUST WASHER	
19	91403127	AR	THRUST WASHER	
20	88201047	1	HEX HD CAPSCREW, 3/8-16X4, GR5	
21	88551011	1	LOCKWASHER, 3/8	
22	91403433	1	LEAF CHAIN 634	
23	91413127	2	CHAIN PIN	
24	88681344	4	RETAINING RING	
25	91403013	1	CHAIN ANCHOR	
26		Ref	CLEVIS 844-634, (See PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY, item 11 for Breakdown)	
27		Ref	LEAF CHAIN 844, (See PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY, item 1 for Breakdown)	
28		Ref	ANCHOR PLATE, (See FIRST BOOM SECTION, item 19 for Breakdown)	
29		Ref	THIRD BOOM SECTION, (See THIRD BOOM SECTION for Breakdown)	
30	4751800	2	WASHER	

## SECTION 2 - BOOM

FIGURE 2-4. BEARING PADS, SPACERS AND SHIMS, (SECOND BOOM SECTION)



**SERVICE NOTES:**

1. Add bearing pad shims and spacers as required to shim boom to within 1/16in of a tight fit. Whenever a shim is used with a pad, a spacer must be inserted between pad and shim. No pads shall sit directly on slotted surface of shims.
2. The length of pad bolts depend on the amount of shims used. Bolt cannot extend past chamfer on bearing pad.
3. Add grease, (14404549), to all bearing pad slide areas.
4. Use loctite, (14403364), on all bolt threads.

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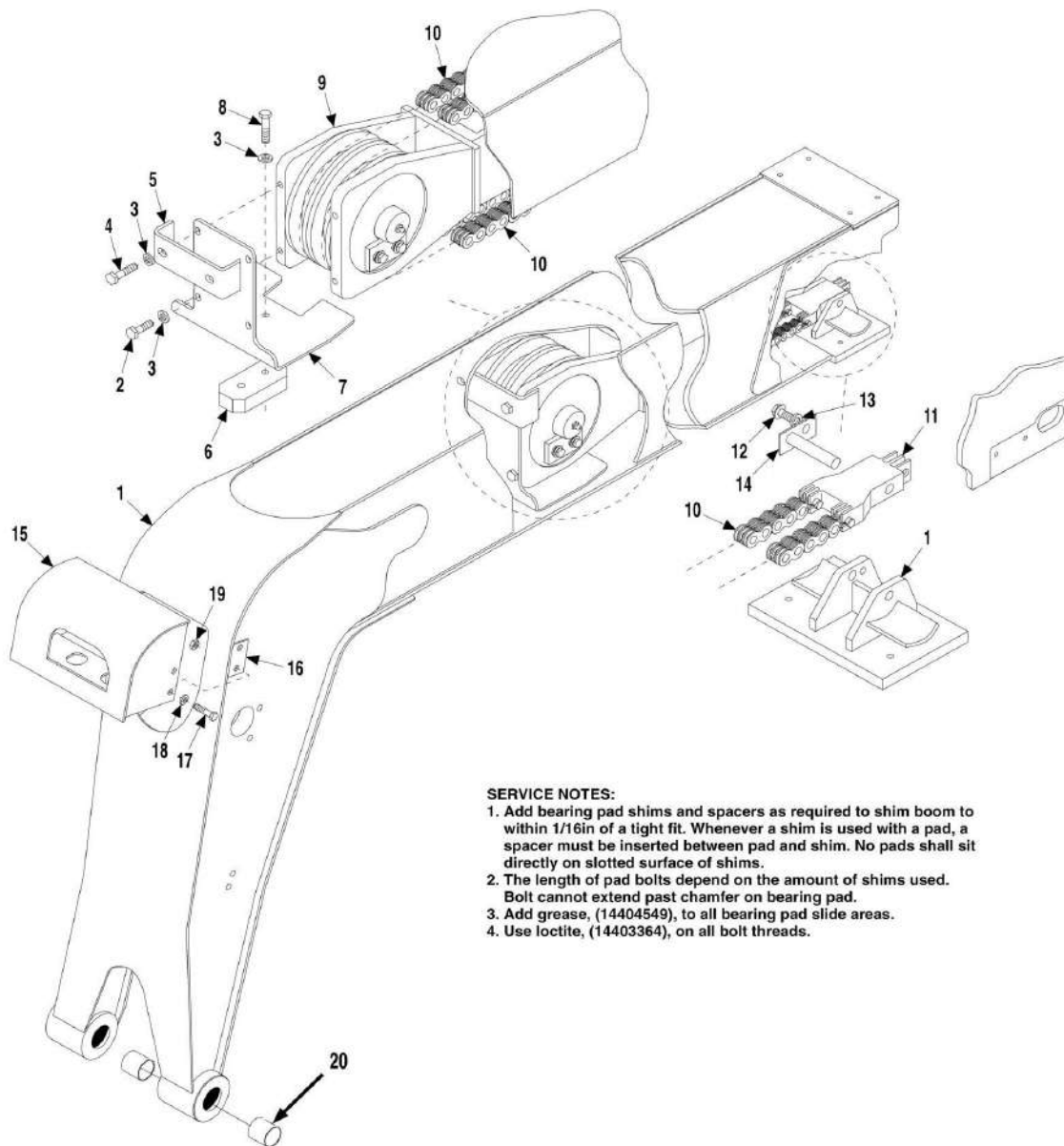
## SECTION 2 - BOOM

**FIGURE 2-4. BEARING PADS, SPACERS AND SHIMS, (SECOND BOOM SECTION)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SECOND BOOM SECTION, (See SECOND BOOM SECTION for Breakdown)	
2	88201533	AR	HEX HD CAPSCREW, 3/8-24X7/8, GR5, (torque to 32-37 ft lbs)	
3	90027470	AR	HARDENED WASHER, 3/8	
4	91403532	2	BEARING PAD	
5	91401450	2	SPACER	
6	91401215	AR	SHIM	
6	91401216	AR	SHIM	
7	91401197	1	MOUNT PLATE	
8	91471227	AR	SHIM	
8	91471226	AR	SHIM	
9	91471223	AR	SHIM	
10	91403530	6	BEARING PAD	
11	88201064	4	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
12	88561111	4	FLAT WASHER, 1/2	
13	91503141	2	BEARING PAD	
14	91401191	2	SPACER	
15	88201562	AR	SHIM	
15	91401453	AR	SHIM	
15	91401454	AR	SHIM	
16	88201537	AR	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5, (torque to 32-37 ft lbs)	
17	91471222	2	SHIM	
18	91401223	6	SPACER	
19	91403531	2	BEARING PAD	
20	91401225	2	SPACER	
21	91401224	2	SPACER	
22	90027471	AR	HARDENED WASHER, 1/2	
23	88201565	2	HEX HD CAPSCREW, 1/2-20X1-1/4, GR5, (torque to 76-86 ft lbs)	
24	91403630	AR	HEX HD CAPSCREW, 1/2-20X5/8, (torque to 76-86 ft lbs)	
25	91503140	2	BEARING PAD	
26	88201563	AR	HEX HD CAPSCREW, 1/2-20X7/8, GR5, (torque to 76-86 ft lbs)	
28	91471228	AR	SHIM	
29	91471229	AR	SHIM	
30	88201531	AR	HEX HD CAPSCREW, 3/8-24X 5/8	
31	88201530	AR	HEX HD CAPSCREW, 3/8-24X 1/2	
32	91401451	2	SPACER	
33	88201532	AR	HEX HD CAPSCREW, 3/8-24X 3/4	
34	88201534	AR	HEX HD CAPSCREW, 3/8-24X 1	
35	88201564	AR	HEX HD CAPSCREW, 1/2-20X 1	
36	88201538	AR	HEX HD CAPSCREW, 3/8-24X 2	

## SECTION 2 - BOOM

### FIGURE 2-5. THIRD BOOM SECTION



#### SERVICE NOTES:

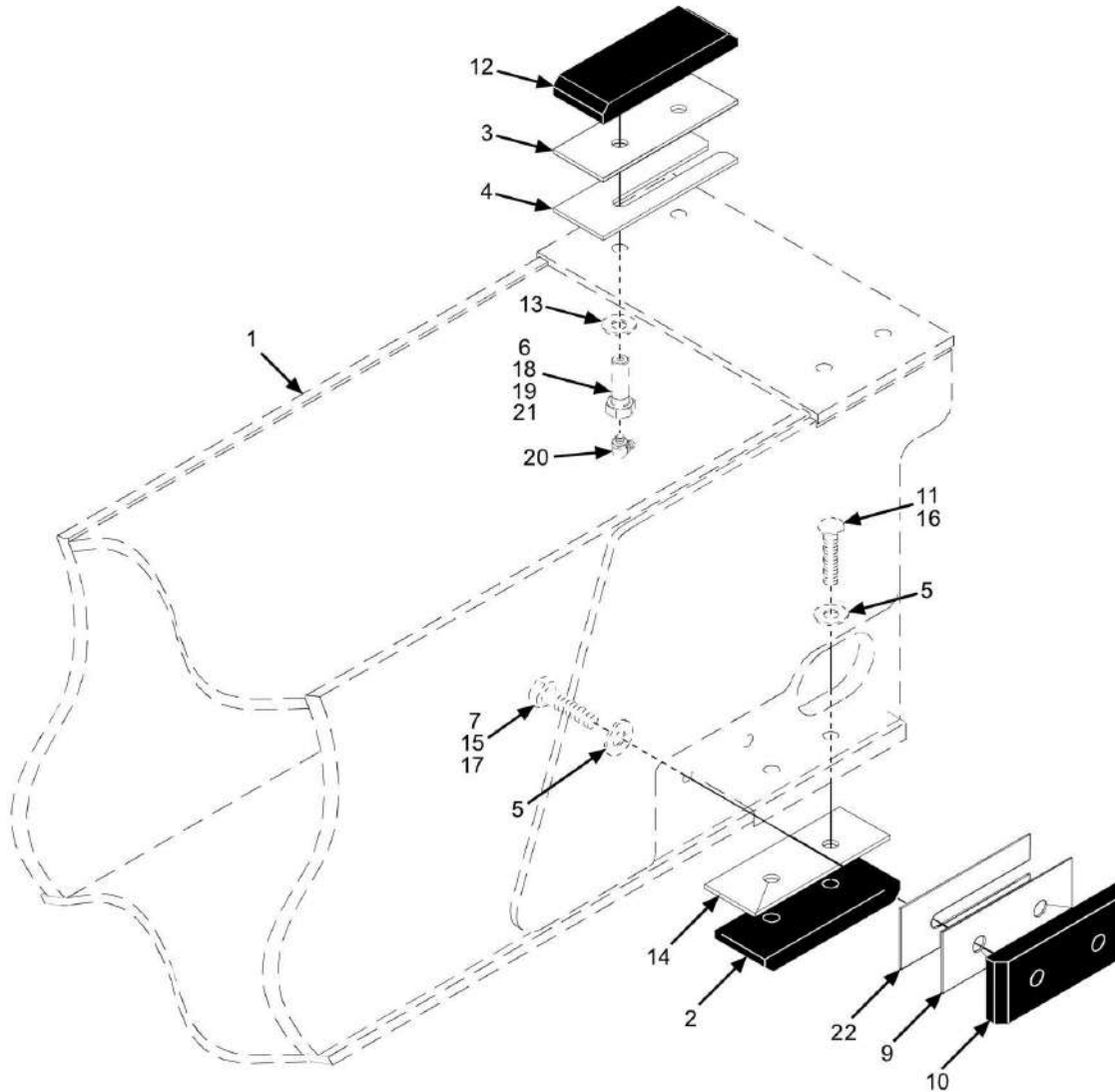
1. Add bearing pad shims and spacers as required to shim boom to within 1/16in of a tight fit. Whenever a shim is used with a pad, a spacer must be inserted between pad and shim. No pads shall sit directly on slotted surface of shims.
2. The length of pad bolts depend on the amount of shims used. Bolt cannot extend past chamfer on bearing pad.
3. Add grease, (14404549), to all bearing pad slide areas.
4. Use loctite, (14403364), on all bolt threads.

FIGURE 2-5. THIRD BOOM SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91506005	1	THIRD BOOM SECTION	
2	88201034	4	HEX HD CAPSCREW, 3/8-16X 7/8	
3	88561109	6	FLAT WASHER, 3/8	
4	83201115	2	HEX HD CAPSCREW, 3/8-16X1-1/4	
5	91501010	1	GUIDE BAR	
6	91403087	1	PUSH BEAM BEARING PAD	
7	91501005	1	CHAIN RETAINER	
8	88201537	2	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5	
9		Ref	PUSH BEAM ASSY, (See PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY for Breakdown)	
10		Ref	LEAF CHAIN 844, (See PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY for Breakdown)	
11		Ref	CLEVIS 844-634, (See PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY for Breakdown)	
12	88201033	1	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
13	88551011	1	LOCKWASHER, 3/8	
14	91403425	1	ANCHOR PIN	
15	91506019	1	BOOM HARNESS WELDMENT	
16	91501072	2	SPACER	
17	88201022	4	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
18	88561003	4	FLAT WASHER, 5/16	
19	88501005	4	HEX NUT, 5/16-18	
20	91403377	4	BUSHING	

## SECTION 2 - BOOM

FIGURE 2-6. BEARING PADS, SPACERS AND SHIMS, (THIRD BOOM SECTION)



### SERVICE NOTES:

1. Add bearing pad shims and spacers as required to shim boom to within 1/16in of a tight fit. Whenever a shim is used with a pad, a spacer must be inserted between pad and shim. No pads shall sit directly on slotted surface of shims.
2. The length of pad bolts depend on the amount of shims used. Bolt cannot extend past chamfer on bearing pad.
3. Add grease, (14404549), to all bearing pad slide areas including the inside of the Third Boom Section where the guide bar on the push beam slides, (2in wider at center line)
4. Use loctite, (14403364), on all bolt threads.

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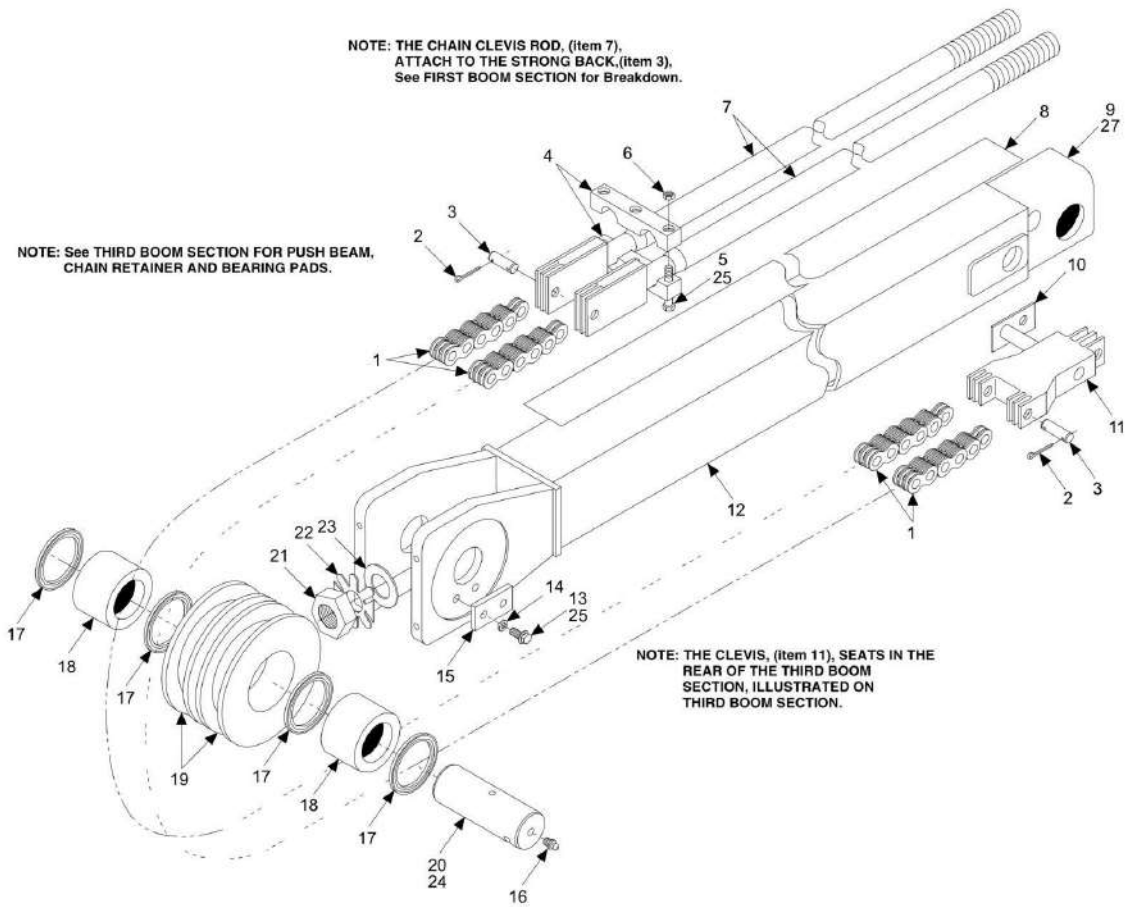
## SECTION 2 - BOOM

**FIGURE 2-6. BEARING PADS, SPACERS AND SHIMS, (THIRD BOOM SECTION)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	THIRD BOOM SECTION, (See THIRD BOOM SECTION for Breakdown)	
2	91403533	2	BEARING PAD	
3	91401451	2	SPACER	
4	91401453	AR	SHIM	
4	91401454	AR	SHIM	
5	90027470	AR	FLAT WASHER, 3/8	
6	88201566	AR	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5, (torque to 76-86 ft lbs)	
7	88201533	AR	HEX HD CAPSCREW, 3/8-24X7/8, GR5, (torque to 32-37 ft lbs)	
9	91401225	2	SPACER	
10	91403531	2	BEARING PAD	
11	88261128	AR	SOCKET BUTTON HD CAPSCREW, 3/8-24X1, (torque to 32-37 ft lbs)	
12	91503141	2	BEARING PAD	
13	90027471	AR	HARDENED WASHER, 1/2	
14	91401226	2	SPACER	
15	88201531	AR	HEX HD CAPSCREW, 3/8-24X 5/8	
16	88261129	AR	HEX HD CAPSCREW, 3/8-24X 1 1/4	
17	88201532	AR	HEX HD CAPSCREW, 3/8-24X 3/4	
18	88201565	AR	HEX HD CAPSCREW, 3/8-24X 1 1/4	
19	91161222	2	MODIFIED BOLT	
20	88671027	2	GREASE FITTING	
21	88991005	AR	MODIFIED BOLT	
22	91471228	AR	SHIM	

# SECTION 2 - BOOM

## FIGURE 2-7. PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY



ART\_91504001-2-7

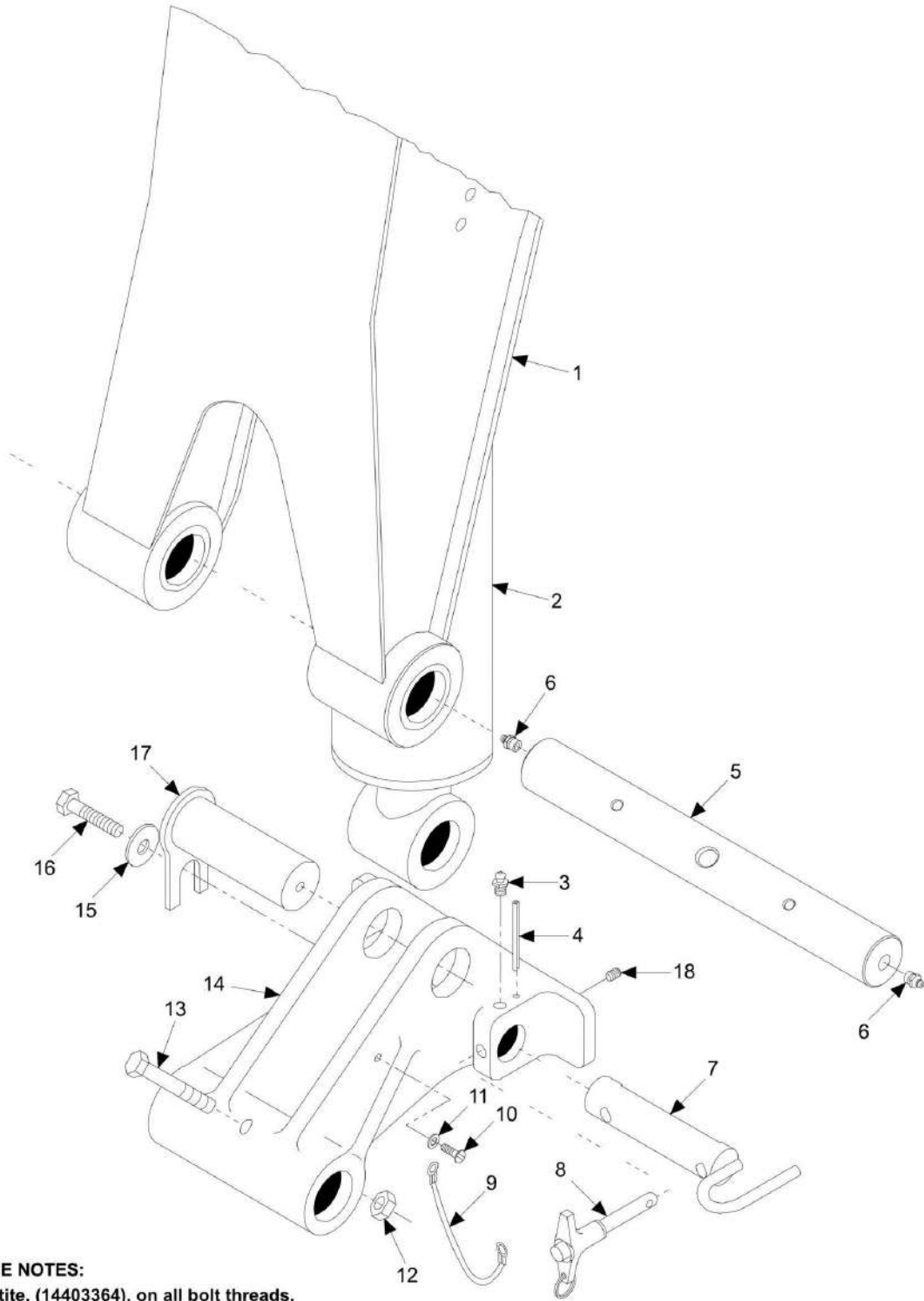
## SECTION 2 - BOOM

**FIGURE 2-7. PUSH BEAM/EXTEND CHAIN AND ROLLER ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91503007	2	LEAF CHAIN 844	
2	88581112	8	RETAINING RING	
3	91503139	4	CHAIN PIN	
4	91503011	2	CLAMP HALF	
5	88201006	3	HEX HD CAPSCREW, 1/4-20X1-1/4, GR5	
6	88501004	3	HEX NUT, 1/4-20	
7	91503012	2	CHAIN CLEVIS ROD	
8	91503016	13 ft	UHMW TAPE, (order by the ft)	
9		Ref	CROWD CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
10		Ref	ANCHOR PIN, (See THIRD BOOM SECTION for Breakdown)	
11	91503008	1	CLEVIS 844-634	
12	91506003	1	PUSH BEAM WELDMENT	
13	88201065	2	HEX HD CAPSCREW, 1/2-13X1, GR5	
14	88551013	2	LOCKWASHER, 1/2	
15	91401189	1	KEEPER	
16	88671001	2	LUBE FITTING, STRAIGHT 1/8	
17	91403119	4	SEAL	
18	91503006	2	BUSHING	
19	91505001	2	EXTEND CHAIN ROLLER ASSY, (includes items 17 & 18)	
20	91503017	1	EXTEND SHEAVE PIN	
21	88501322	1	HEX NUT, 1-3/8-12, (torque to 155-195 ft lbs)	
22	91501011	1	TAB WASHER, (bend two tabs against nut, item 21)	
23	91403065	1	HARDENED WASHER	
24	14404793	AR	MYSTIK GREASE	
25		Ref	LOCTITE 242	
26		Ref	LOCTITE 545 (not shown)	
27	14403323	AR	NEVER SEEZ LUBE	

# SECTION 2 - BOOM

## FIGURE 2-8. QUICK SWITCH ASSEMBLY



**SERVICE NOTES:**  
Use loctite, (14403364), on all bolt threads.

ART\_91504001-2-8

FIGURE 2-8. QUICK SWITCH ASSEMBLY

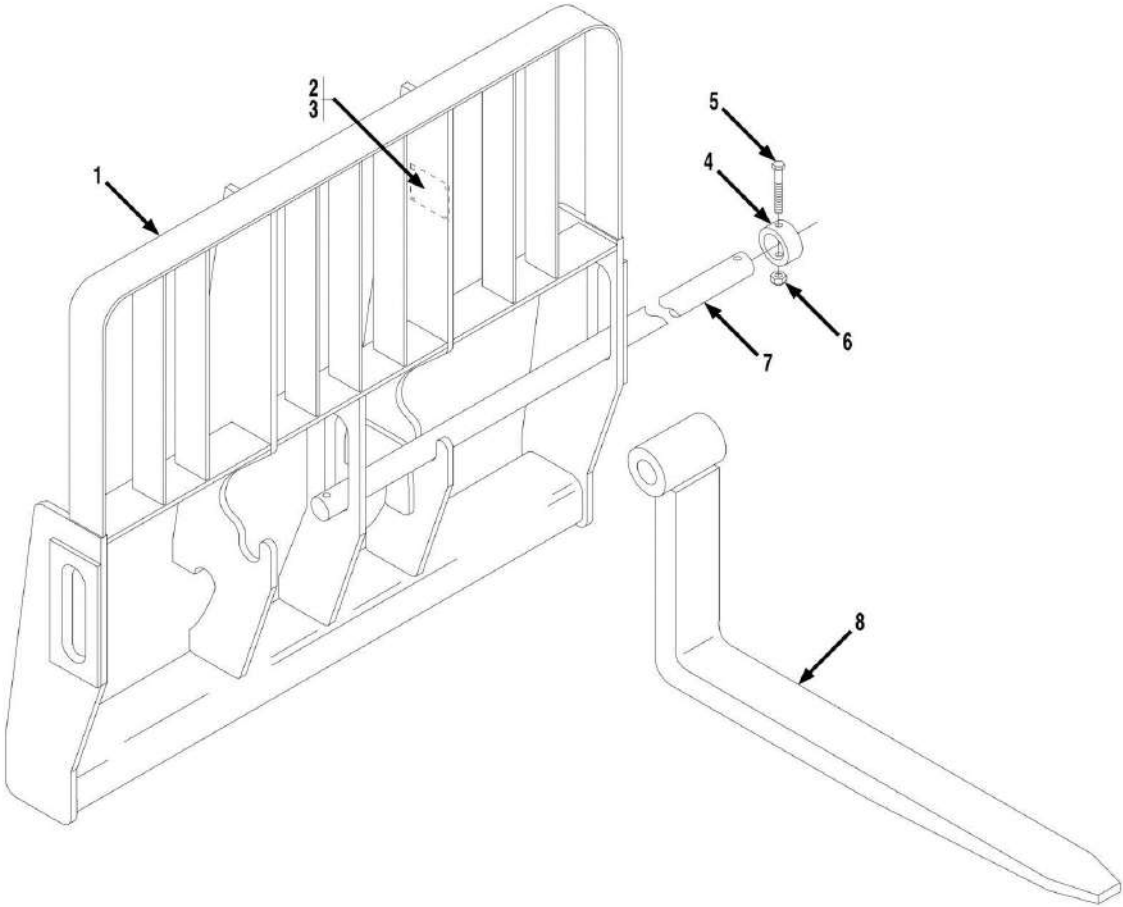
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91405032	1	QUICK SWITCH ASSY, (includes items 3, 4, 7 thru 11, 14 & 18)	F
		Ref	THIRD BOOM SECTION, (See THIRD BOOM SECTION for Breakdown)	
2		Ref	TILT CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88671008	1	LUBE FITTING, STRAIGHT, 1/4-28	
4	88631509	NLA	ROLL PIN, 1/4X2 (no longer available, use 3440832 for replacement)	
4	3440832	1	ROLL PIN, 1/4X2	
5	91503042	1	HEAD PIN	
6	88671001	2	LUBE FITTING	
7	91403404	1	QUICK SWITCH PIN	
8	91403407	1	QUICK RELEASE PIN	
9	91403411	1	TETHER CABLE	
10	88301193	1	ROUND HD MACHINE SCREW, #10-32X1/2	
11	88561105	1	FLAT WASHER, #10	
12	88521012	1	HEX LOCKNUT, 3/4-10	
13	83201118	1	HEX HD CAPSCREW, 3/4-10X5-1/2	
14	91403060	1	QUICK SWITCH CASTING	
15	88561006	1	FLAT WASHER, 1/2	
16	88201067	1	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
17	91403405	1	PIN WELDMENT	
18	88221276	1	SOCKET SET SCREW, (flat point), 1/2-13X1/2	



**SECTION 3 - ATTACHMENTS**

**SECTION 3 - ATTACHMENTS**

**FIGURE 3-1. 48IN AND 72IN CARRIAGE ASSEMBLY**





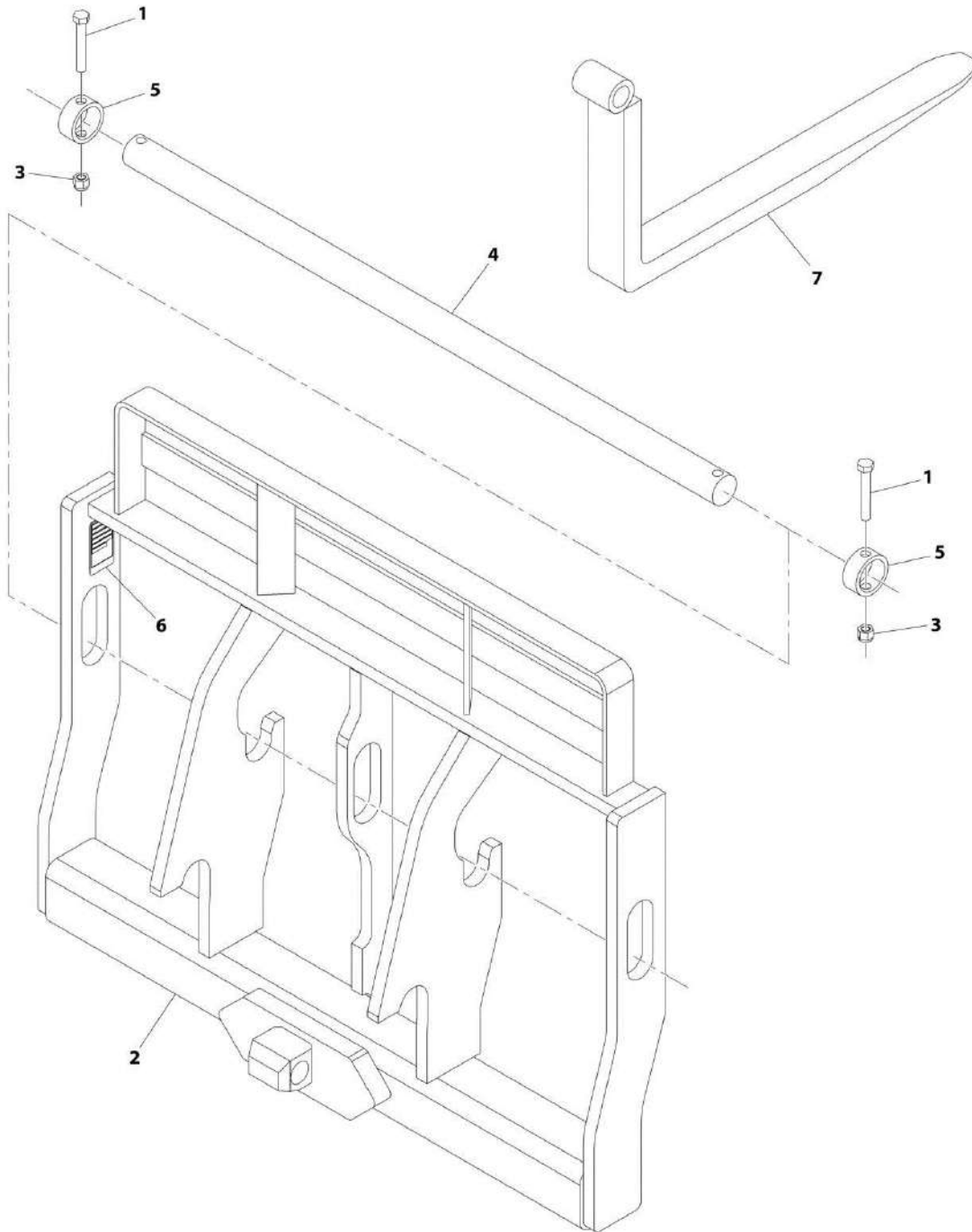
## SECTION 3 - ATTACHMENTS

**FIGURE 3-1. 48IN AND 72IN CARRIAGE ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405073	1	48IN CARRIAGE ASSY, (no longer available, use 1170019 for replacement or items 1 thru 7 for service)	C
	91405074	1	72IN CARRIAGE ASSY, (no longer available, use 1170025 for replacement or items 1 thru 7 for service)	C
1	N.S.S.	1	48IN CARRIAGE WELDMENT	
1	N.S.S.	1	72IN CARRIAGE WELDMENT	
2		Ref	SERIAL NUMBER PLATE	
3		Ref	DRIVE SCREW, #10X3/8	
4	90200003	2	COLLAR	
5	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
6	88521310	2	HEX LOCKNUT, 5/8-11, (nylok)	
7	91401303	1	FORK PIN, (48in carriage)	
7	91401324	1	FORK PIN, (72in carriage)	
8		Ref	FORK, (See FORKS for Breakdown)	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-2. 50IN AND 72IN CARRIAGE ASSEMBLY



ART\_91504001-3-2

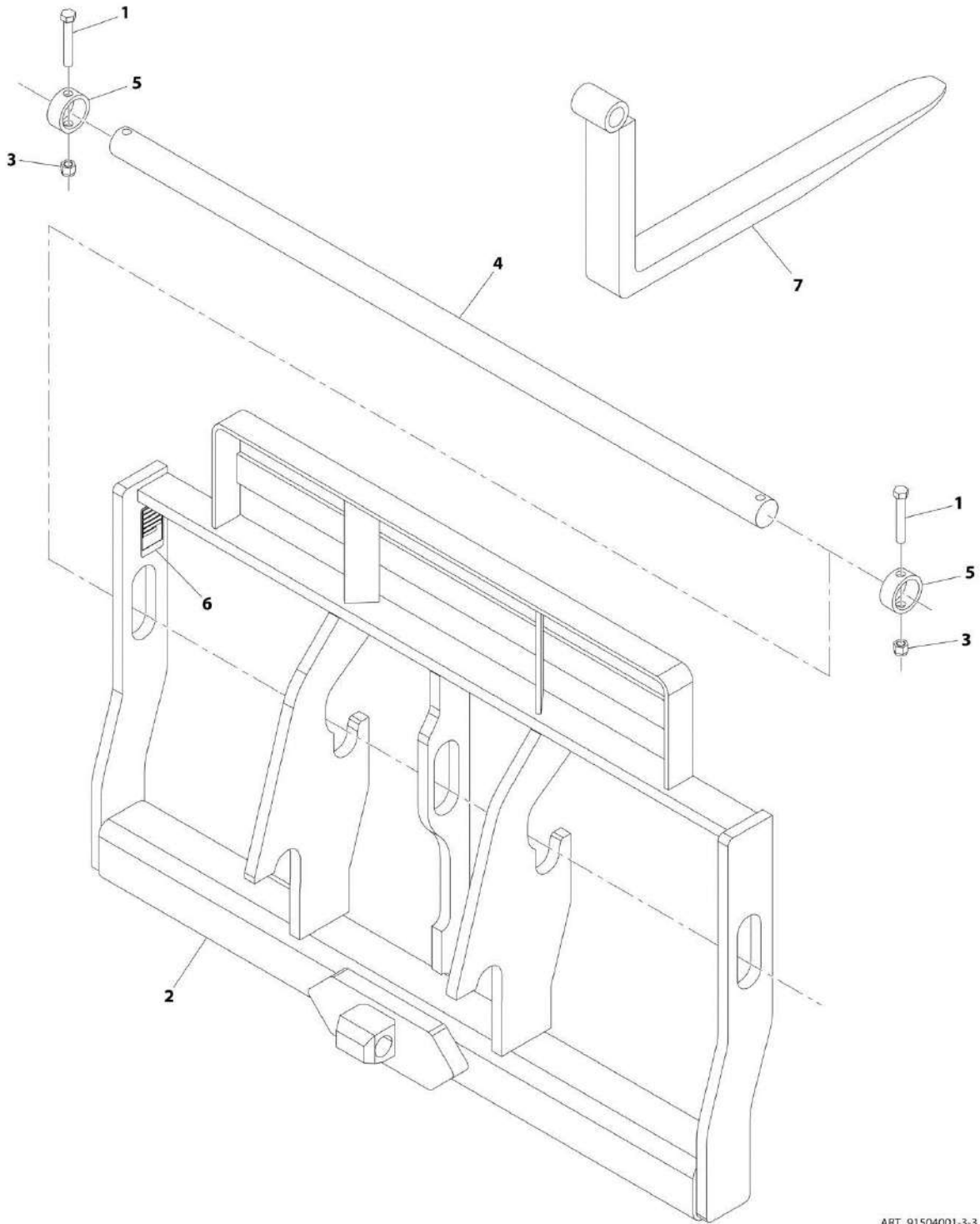
## SECTION 3 - ATTACHMENTS

**FIGURE 3-2. 50IN AND 72IN CARRIAGE ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1170019	1	50IN CARRIAGE ASSY, (includes items 1 thru 6)	C
	1170025	1	70IN CARRIAGE ASSY, (includes items 1 thru 6)	C
1	0642032	2	BOLT, 5/8-11X4	
2	N.S.S.	1	WELDMENT, CARRIAGE	
3	3300240	2	NUT, LOCK 5/8-11	
4	3423275	1	PIN, FORK (50in in carriage)	
4	3423276	1	PIN, FORK (70in in carriage)	
5	90200003	2	COLLAR, FORK PIN	
6	N.S.S.	1	SN PLATE	
7		Ref	FORK, (See FORKS for Breakdown)	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-3. 60IN CARRIAGE ASSEMBLY



ART\_91504001-3-3

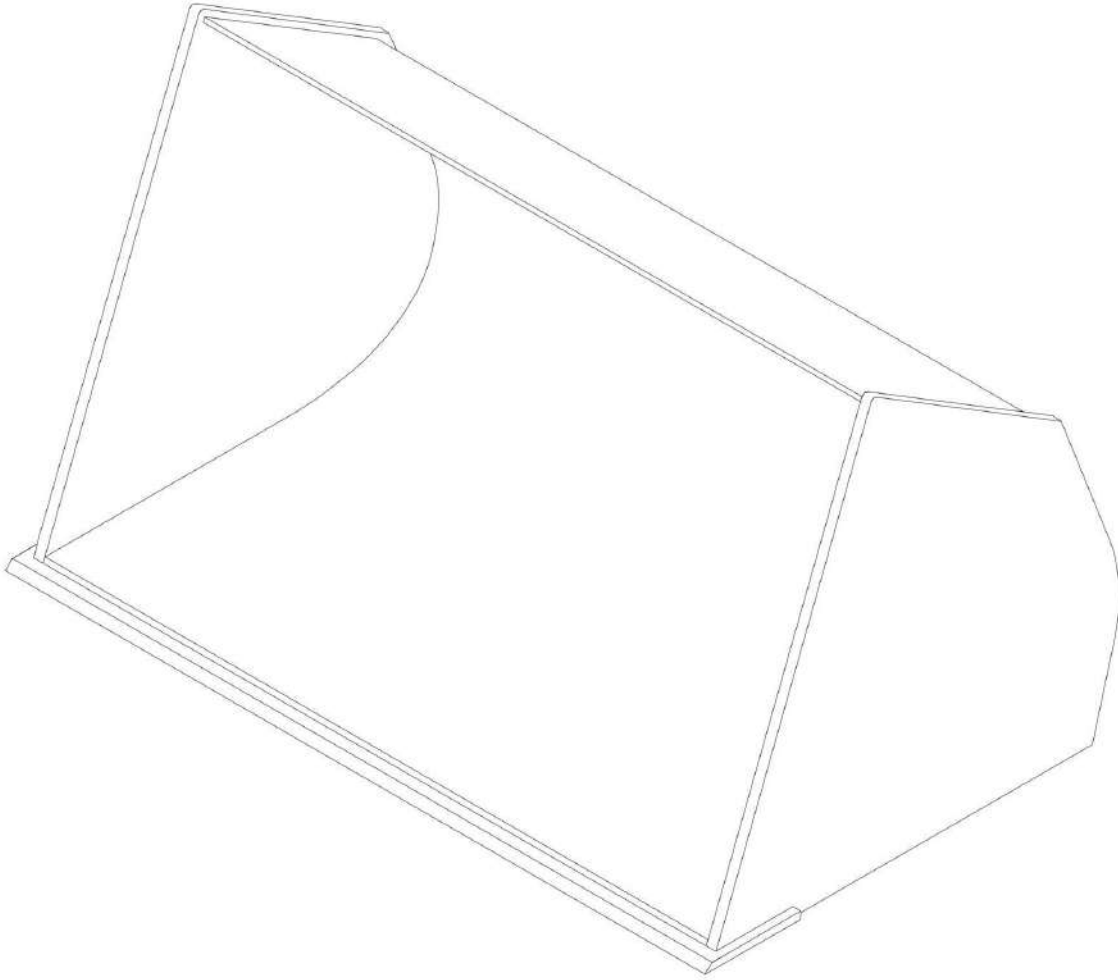
## SECTION 3 - ATTACHMENTS

### FIGURE 3-3. 60IN CARRIAGE ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1170022	1	60IN CARRIAGE ASSY, (includes items 1 thru 6)	C
1	0642032	2	BOLT, 5/8-11X4	
2	N.S.S.	1	WELDMENT, CARRIAGE	
3	3300240	2	NUT, LOCK 5/8-11	
4	3423242	1	PIN, FORK (60in in carriage)	
5	90200003	2	COLLAR, FORK PIN	
6	N.S.S.	1	SN PLATE	
7		Ref	FORK, (See FORKS for Breakdown)	

# SECTION 3 - ATTACHMENTS

FIGURE 3-4. BUCKETS



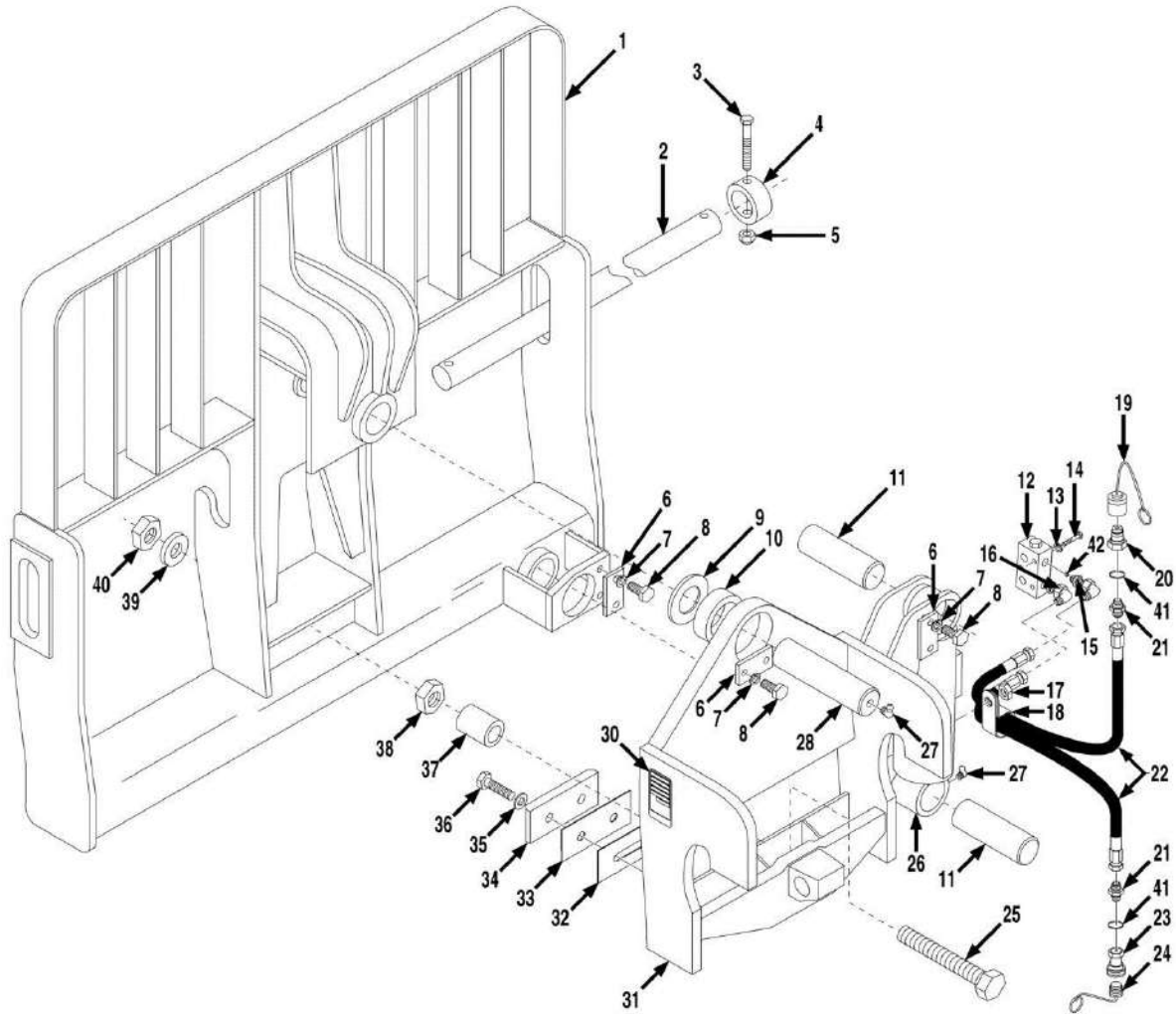
## SECTION 3 - ATTACHMENTS

### FIGURE 3-4. BUCKETS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405054	1	60IN BUCKET, 3/4 YARD	D
	91405055	1	74IN BUCKET, 1-1/4 YARD	D
	91405071	1	102IN BUCKET, 1-1/4 YARD	F

# SECTION 3 - ATTACHMENTS

## FIGURE 3-5. 48IN AND 72IN SLOPE PILER CARRIAGE



ART\_91504001-3-5



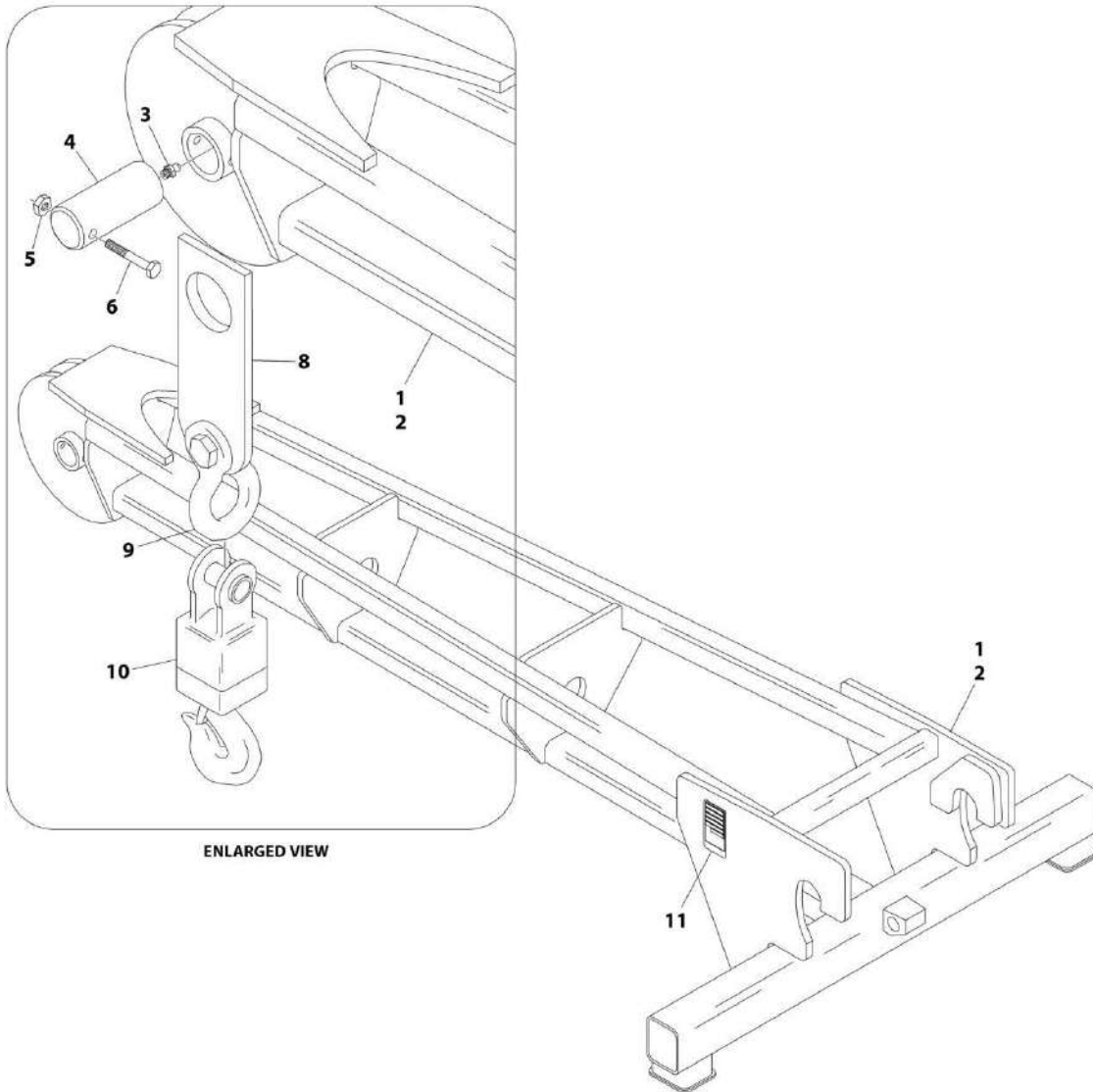
## SECTION 3 - ATTACHMENTS

**FIGURE 3-5. 48IN AND 72IN SLOPE PILER CARRIAGE**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405079	1	72IN SLOPE PILER CARRIAGE, (includes all items)	S
	91405101	1	48IN SLOPE PILER CARRIAGE, (includes all items)	N
1	N.S.S.	1	72IN CARRIAGE WELDMENT	
1	N.S.S.	1	48IN CARRIAGE WELDMENT	
2	91401324	1	FORK PIN, (72in carriage)	
2	91401303	1	FORK PIN, (48in carriage)	
3	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
4	90200003	2	COLLAR	
5	88521310	2	HEX LOCKNUT, 5/8-11, (nylok)	
6	91081313	3	KEEPER PLATE	
7	88551013	6	LOCKWASHER, 1/2	
8	88201065	6	HEX HD CAPSCREW, 1/2-13X1, GR5	
9	91081594	1	THRUST WASHER	
10	91083248	1	BUSHING	
11	3423263	2	PIN, (sway cyl)	
12		Ref	SWAY CYLINDER VALVE, (See Separate Breakdown in HYDRAULIC COMPONENTS Section)	
13	88551009	3	LOCKWASHER, 1/4	
14	88201008	3	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
15	91081630	2	MODIFIED CONNECTOR	
16	8760268	2	ELBOW, 90, (swivel nut)	
17	77143015	1	WHIZ-LOCK NUT, 3/8-16	
18	84521062	1	SUPPORT CLAMP	
19	91043126	1	DUST CAP	
20	91403414	1	MALE QUICK DISCONNECT	
21	2220372	2	CONNECTOR, (includes item 41)	
22	84719223	2	HOSE ASSY	
23	91403413	1	FEMALE QUICK DISCONNECT	
24	91043125	1	DUST PLUG	
25	91081577	1	TAP BOLT	
26		Ref	SWAY CYLINDER, (See Separate Breakdown in OPTIONS Section)	
27	88671022	2	LUBE FITTING, 90, 1/8	
28	91081622	1	PIN, (adapter weldment)	
30	N.S.S.	1	SN PLATE	
31	N.S.S.	1	ADAPTER WELDMENT	
32	90205870	AR	SHIM, (16 GA)	
33	91031236	2	SPACER, (.06 thick)	
34	91033186	2	BEARING PAD	
35	88561109	4	FLAT WASHER, 3/8	
36	88201534	4	HEX HD CAPSCREW, 3/8-24X1, GR5	
36	88201535	4	HEX HD CAPSCREW, 3/8-24X1-1/4, GR5	
37	90204007	1	TUBE	
38	88521016	1	HEX LOCKNUT, 1-8	
39	05101441	1	WASHER, 1-1/16	
40	88501016	1	HEX NUT, 1-8	
41	88591205	2	O-RING	
42	91041387	2	ORIFICE PLUG	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-6. 10FT AND 15FT TRUSS BOOM ASSEMBLY



ART\_91504001-3-6

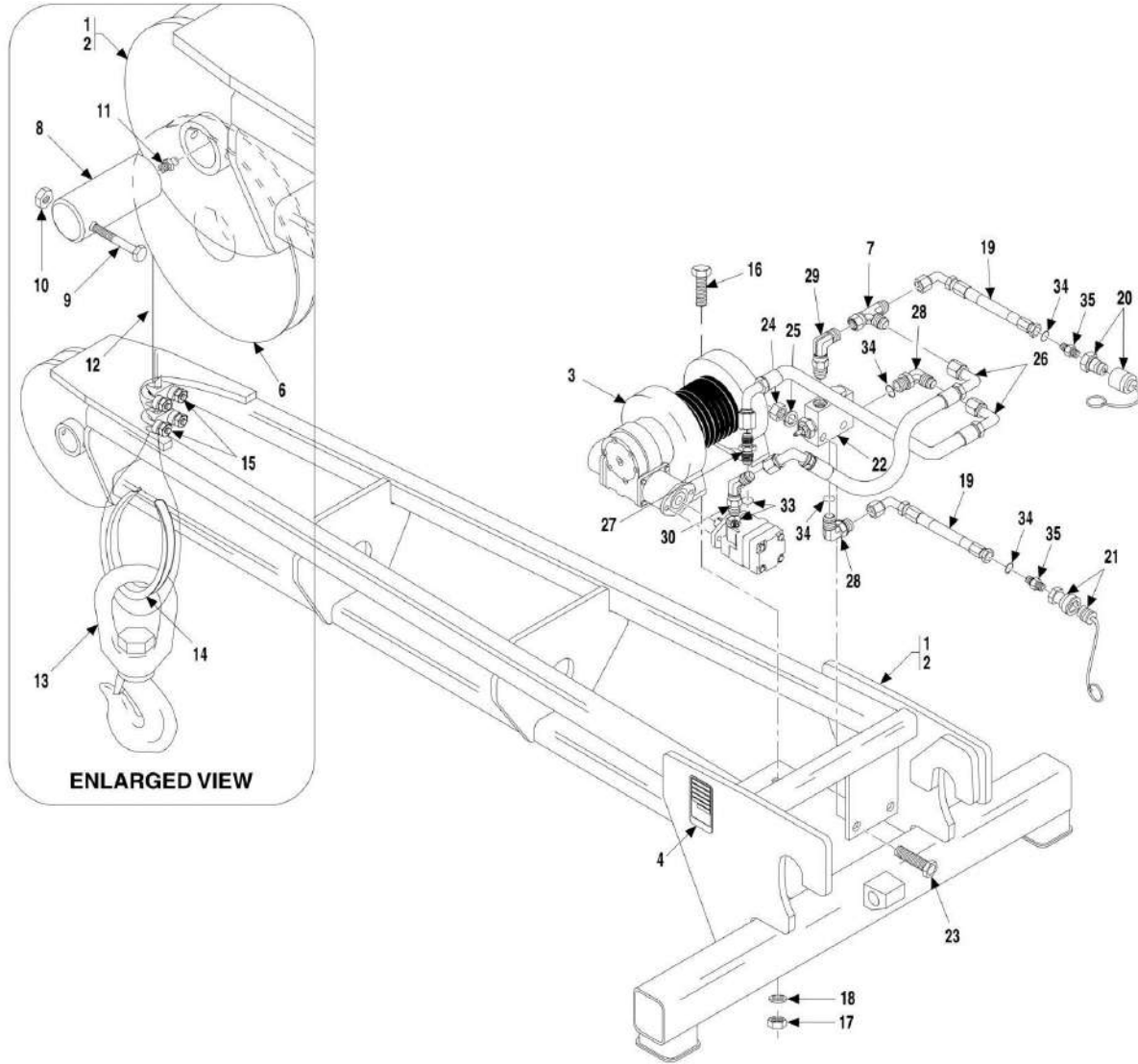
## SECTION 3 - ATTACHMENTS

**FIGURE 3-6. 10FT AND 15FT TRUSS BOOM ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405083	1	10FT TRUSS BOOM ASSY, (includes all items, except item 2)	C
	91405082	1	15FT TRUSS BOOM ASSY, (includes all items, except item 1)	C
1	N.S.S.	1	10FT TRUSS BOOM WELDMENT	
2	N.S.S.	1	15FT TRUSS BOOM WELDMENT	
3	88671001	1	LUBE FITTING, STRAIGHT, 1/8	
4	90402948	1	PIN	
5	88501008	1	HEX NUT, 1/2-13	
6	88201073	1	HEX HD CAPSCREW, 1/2-13X3, GR5	
8	90451053	1	HANGER	
9	90453041	1	SHACKLE	
10	90453040	1	SWIVEL HOOK	
10	91164440	1	SAFETY LATCH KIT	
11	N.S.S.	1	ATTACHMENT SN PLATE	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-7. 10FT AND 15FT TRUSS BOOM ASSEMBLY W/WINCH



ART\_91504001-3-7

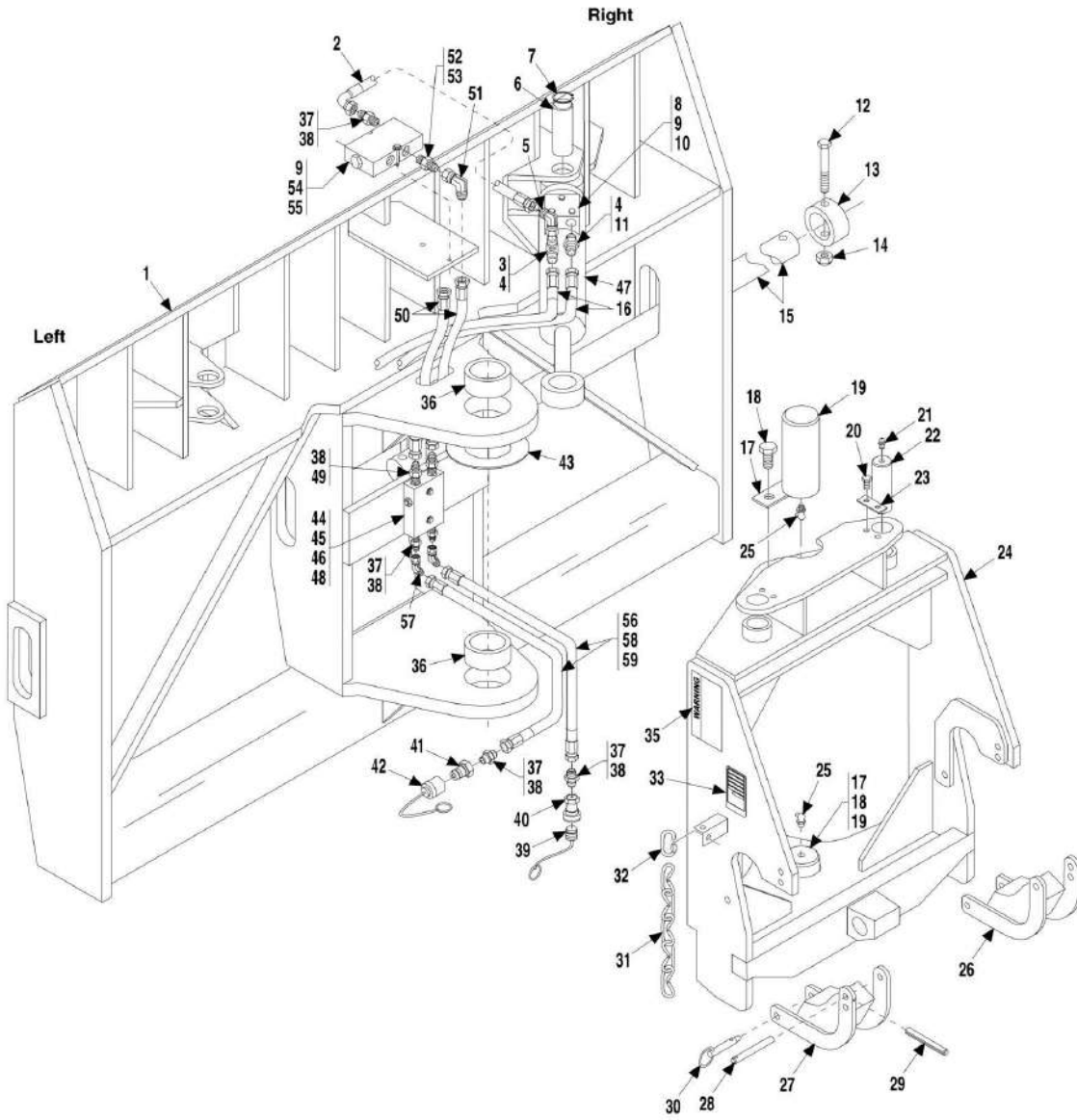
## SECTION 3 - ATTACHMENTS

**FIGURE 3-7. 10FT AND 15FT TRUSS BOOM ASSEMBLY W/WINCH**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405081	1	10FT TRUSS BOOM ASSY, (includes all items, except item 2)	N
	91405080	1	15FT TRUSS BOOM ASSY, (includes all items, except item 1)	N
1	N.S.S.	1	10FT TRUSS BOOM WELDMENT	
2	N.S.S.	1	15FT TRUSS BOOM WELDMENT	
3		Ref	WINCH W/MOTOR, (See Separate Breakdown in OPTIONS Section)	
4	N.S.S.	1	SN PLATE	
6	90403056	1	SHEAVE	
7	2220385	1	SWIVEL NUT RUN TEE, 1/2 TUBE	
8	90402948	1	PIN	
9	88201073	1	HEX HD CAPSCREW, 1/2-13X3, GR5	
10	88501008	1	HEX NUT, 1/2-13	
11	88671001	1	LUBE FITTING, STRAIGHT, 1/8	
12	90207882	1	WIRE ROPE, 3/8 IA	
13	91403448	1	SWIVEL HOOK	
14	90026965	1	THIMBLE	
15	90028990	2	WIRE ROPE CLIP	
16	83201062	4	HEX HD CAPSCREW, 5/8-11X2	
17	88501010	4	HEX NUT, 5/8-11	
18	90027472	4	HARDENED WASHER, 5/8	
19	84717593	2	HOSE ASSY	
20	91403414	1	MALE QUICK DISCONNECT	
21	91403413	1	FEMALE QUICK DISCONNECT	
22		Ref	TRUSS BOOM PRESSURE REDUCER VALVE, (See Separate Breakdown in OPTIONS Section)	
23	88201024	2	HEX HD CAPSCREW, 5/16-18X2, GR5	
24	88501005	2	HEX NUT, 5/16-18	
25	88551010	2	LOCKWASHER, 5/16	
26	84719732	2	HOSE ASSY	
27	2220374	1	CONNECTOR, (includes item 33)	
28	2220596	2	ELBOW, 90, (includes item 34)	
29	2220726	2	ELBOW, 90	
30	2220499	1	ELBOW, 45, (includes item 33)	
33	88591206	2	O-RING	
34	88591205	4	O-RING	
35	2220373	2	CONNECTOR, (includes item 34)	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-8. 100, SWING FORK ASSEMBLY



ART\_91405075-N

## SECTION 3 - ATTACHMENTS

### FIGURE 3-8. 100, SWING FORK ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405075	1	100, SWING FORK ASSY, (includes all items)	N
1	91406091	1	CARRIAGE WELDMENT	
2	84719167	2	HOSE ASSY	
3	2220606	2	RUN TEE, (includes item 4)	
4	88591204	4	O-RING	
5	8760268	2	ELBOW, 90, (swivel nut)	
6	91041326	2	PIVOT PIN, (swing cyl)	
7	88581136	4	SNAP RING	
8	91413100	2	MANIFOLD BLOCK	
9	88201008	8	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
10	88551009	6	LOCKWASHER, 1/4	
11	2220371	2	CONNECTOR, (includes item 4)	
12	88201105	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
13	90200003	2	COLLAR	
14	88521310	2	HEX LOCKNUT, 5/8-11	
15	91401324	1	FORK PIN	
16	84719197	2	HOSE ASSEMBLY	
17	91041322	2	LOCKING PLATE	
18	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
19	91041325	2	PIVOT PIN	
20	83201024	4	HEX HD CAPSCREW, 3/8-16X1, GR8	
21	88671008	2	LUBE FITTING, STRAIGHT, 1/4-28	
22	91041324	2	PIVOT PIN	
23	91411073	2	LOCKING PLATE	
24	N.S.S.	1	PIVOT WELDMENT	
25	88671018	2	LUBE FITTING, 45, 1/8	
26	91406070	1	R.H. SUPPORT BRACKET	
27	91406069	1	L.H. SUPPORT BRACKET	
28	91401266	2	PIN	
29	88631449	2	ROLL PIN, 1/8X1-1/2	
30	91043221	2	DETENT PIN	
31	91033038	24 in	CHAIN	
32	91033039	2	CHAIN CONNECTION	
33	N.S.S.	1	SN PLATE	
35	91143282	2	PINCH POINT DECAL	
36	91041327	2	BUSHING	
37	2220372	6	CONNECTOR, (includes item 38)	
38	88591205	8	O-RING	
39	91043125	1	DUST PLUG	
40	91403413	1	FEMALE QUICK DISCONNECT	
41	91403414	1	MALE QUICK DISCONNECT	
42	91043126	1	DUST CAP	
43	91041356	6	SPACER	
44	91413099	1	RELIEF VALVE	
45	88201029	2	HEX HD CAPSCREW, 5/16-18X3-1/4, GR5	
46	88551010	2	LOCKWASHER, 5/16	
47		Ref	SWING CYLINDER, (See Separate Breakdown in OPTIONS Section)	
48	88501005	2	HEX NUT, 5/16-18	
49	2220373	2	CONNECTOR, (includes item 38)	

### SECTION 3 - ATTACHMENTS

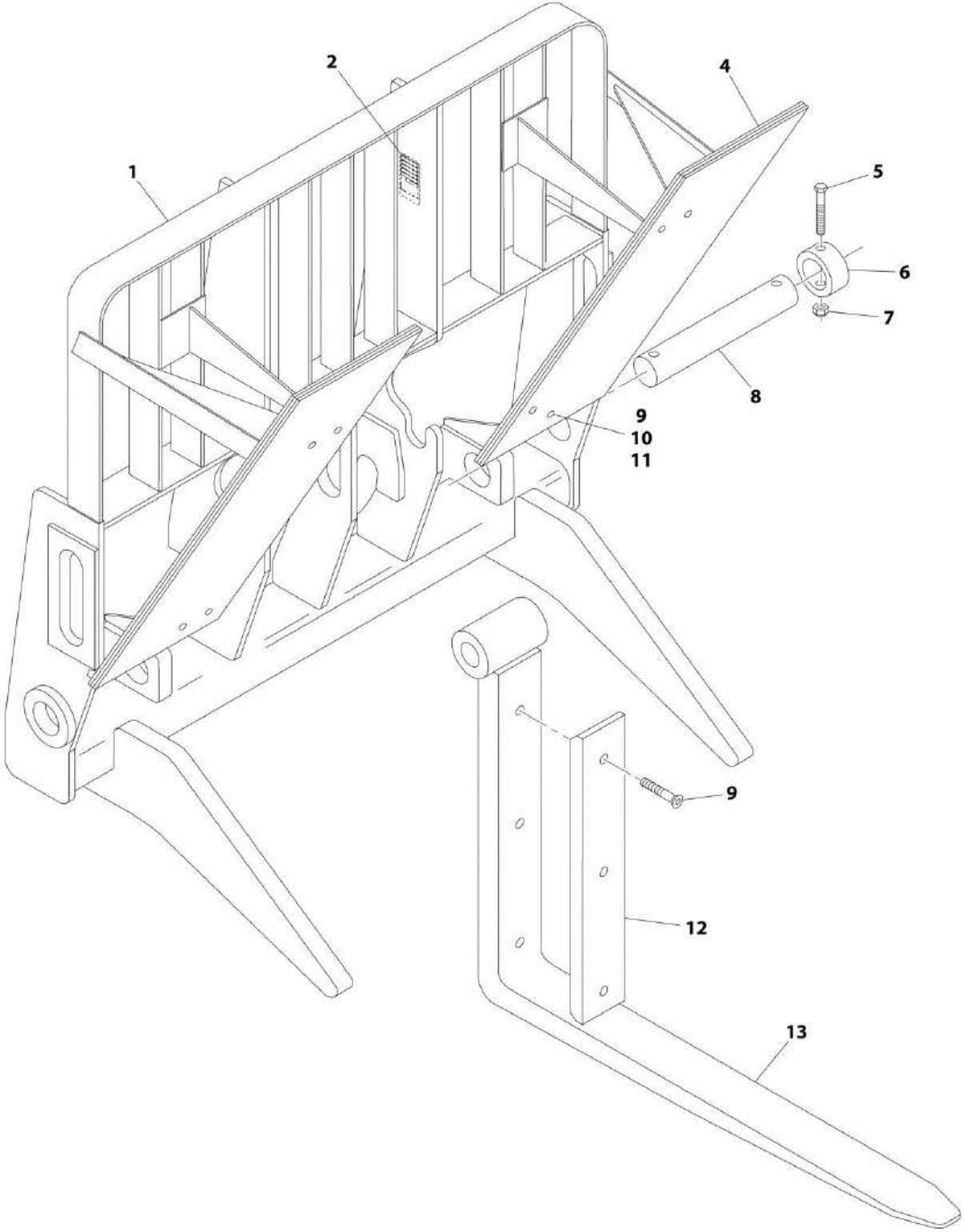
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	84719760	2	HOSE ASSY	
51	8765204	2	ELBOW, 90, (swivel nut)	
52	91041361	2	MODIFIED FITTING	
53	91411050	2	ORIFICE	
54	88561002	2	FLAT WASHER, 1/4	
55	91043186	1	DBL PILOT CHECK VALVE	
56	84718208	2	HOSE ASSY	
57	2220657	2	ELBOW, 45, (swivel nut)	
58	71492142	24 in	FLEX LOOM	
59	86683122	4	TIE WRAP	





**SECTION 3 - ATTACHMENTS**

**FIGURE 3-9. DRYWALL CARRIAGE ASSEMBLY**



ART\_91405077-D

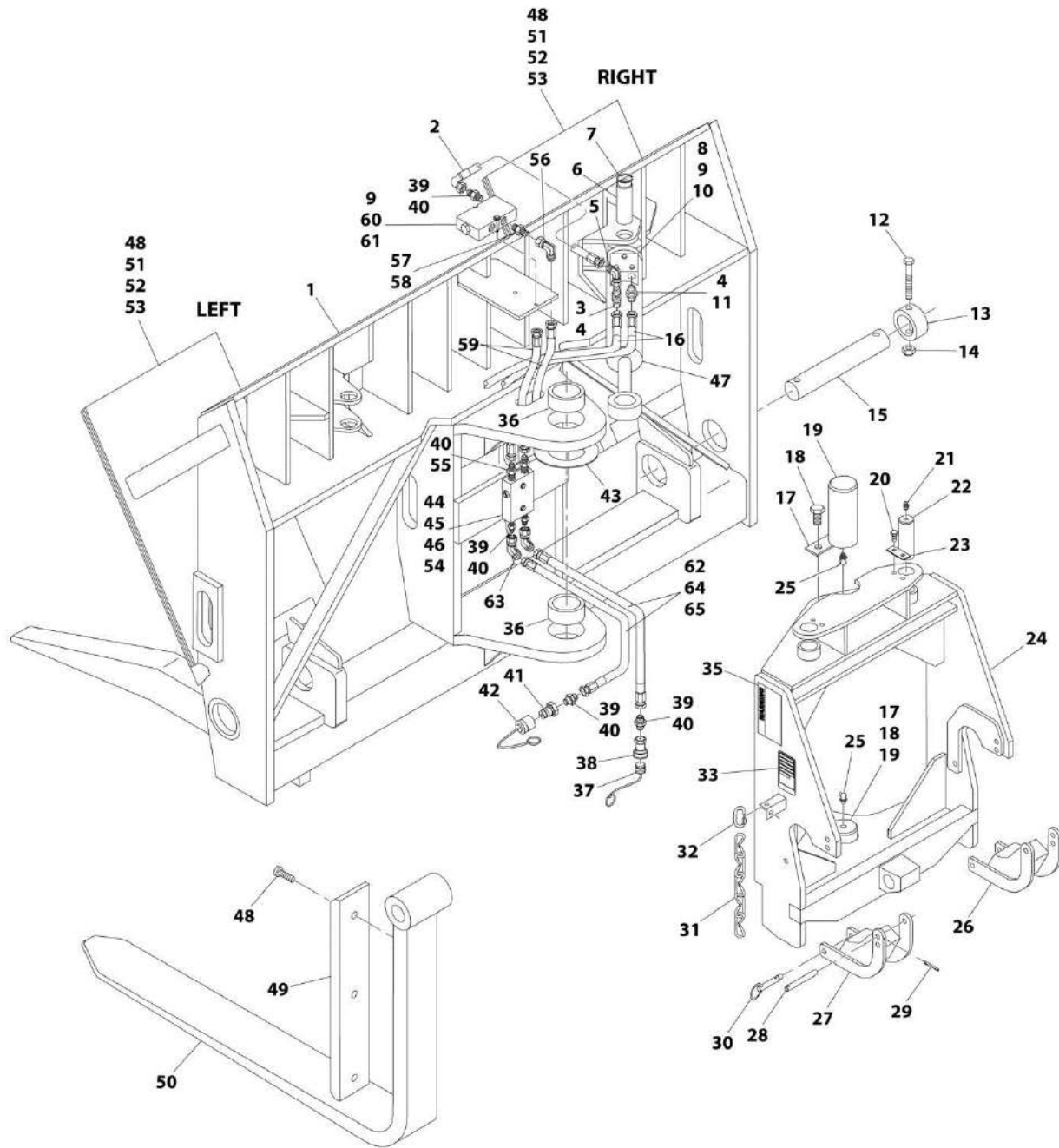
## SECTION 3 - ATTACHMENTS

**FIGURE 3-9. DRYWALL CARRIAGE ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405077	1	DRYWALL CARRIAGE ASSY, (includes all items)	D
1	N.S.S.	1	DRYWALL CARRIAGE WELDMENT	
2	N.S.S.	1	ATTACHMENT SERIAL NUMBER PLATE	
4	90553012	2	SIDE DRYWALL GUARD	
5	88201105	4	HEX HD CAPSCREW, 5/8-11X4, GR5	
6	90200003	4	COLLAR	
7	88521310	4	HEX LOCKNUT, 5/8-11, (nylok)	
8	91401340	2	FORK PIN	
9	88241053	14	SOCKET FLAT HD CAPSCREW, 3/8-16X1-1/2	
10	88551011	8	LOCKWASHER, 3/8	
11	88501006	8	HEX NUT, 3/8-16	
12	90553013	2	BOTTOM DRYWALL GUARD	
13	91403366	2	DRYWALL FORK	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-10. 100, DRYWALL SWING CARRIAGE ASSEMBLY



ART\_91504001-3-10

## SECTION 3 - ATTACHMENTS

**FIGURE 3-10. 100, DRYWALL SWING CARRIAGE ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405078	1	100, DRYWALL SWING CARRIAGE, (includes all items)	N
1	N.S.S.	1	DRYWALL CARRIAGE WELD	
2	84719167	2	HOSE ASSEMBLY	
3	2220606	2	RUN TEE, (includes item 4)	
4	88591204	4	O-RING	
5	8760268	2	ELBOW, 90, (swivel nut)	
6	91041326	2	PIVOT PIN	
7	88581136	4	SNAP RING	
8	91413100	2	MANIFOLD BLOCK	
9	88201008	8	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
10	88551009	6	LOCKWASHER, 1/4	
11	2220371	2	CONNECTOR, (includes item 4)	
12	88201105	4	HEX HD CAPSCREW, 5/8-11X4, GR5	
13	90200003	4	COLLAR	
14	88521310	4	HEX LOCKNUT, 5/8-11	
15	91401340	2	FORK PIN	
16	84719197	2	HOSE ASSEMBLY	
17	91041322	2	LOCKING PLATE	
18	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
19	91041325	2	PIVOT PIN	
20	83201024	4	HEX HD CAPSCREW, 3/8-16X1, GR8	
21	88671008	2	LUBE FITTING, STRAIGHT, 1/4-28	
22	91041324	2	PIVOT PIN	
23	91411073	2	LOCKING PLATE	
24	N.S.S.	1	PIVOT WELDMENT	
25	88671018	2	LUBE FITTING, 45, 1/8	
26	91406070	1	R.H. SUPPORT BRACKET	
27	91406069	1	L.H. SUPPORT BRACKET	
28	91401266	2	PIN	
29	88631449	2	ROLL PIN, 1/8X1-1/2	
30	91043221	2	DETENT PIN	
31	91033038	24 in	CHAIN	
32	91033039	2	CHAIN CONNECTION	
33	N.S.S.	1	SERIAL NUMBER PLATE	
35	91143282	2	PINCH POINT DECAL	
36	91041327	2	BUSHING	
37	91043125	1	DUST PLUG	
38	91403413	1	FEMALE QUICK DISCONNECT	
39	2220372	6	CONNECTOR, (includes item 40)	
40	88591205	8	O-RING	
41	91403414	1	MALE QUICK DISCONNECT	
42	91043126	1	DUST CAP	
43	91041356	6	SPACER	
44	91413099	1	RELIEF VALVE	
45	88201029	2	HEX HD CAPSCREW, 5/16-18X3-1/4, GR5	
46	88501005	2	HEX NUT, 5/16-18	
47		Ref	SWING CYLINDER, (See OPTIONS SECTION for Breakdown)	
48	88241053	14	SOCKET FLAT HD CAPSCREW, 3/8-16X1-1/2	
49	90553013	2	BOTTOM DRYWALL GUARD	
50	91403366	2	DRYWALL FORK	

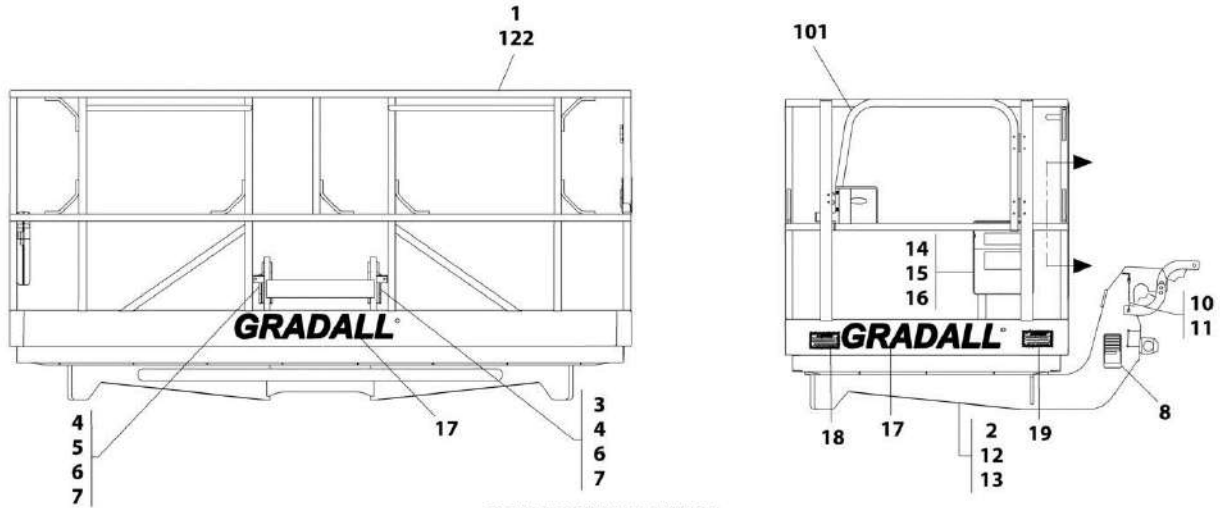
### SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
51	90553012	2	SIDE DRYWALL GUARD	
52	88551011	8	LOCKWASHER, 3/8	
53	88501006	8	HEX NUT, 3/8-16	
54	88551010	2	LOCKWASHER, 5/16	
55	2220373	2	CONNECTOR, (includes item 40)	
56	8765204	2	ELBOW, 90, (swivel nut)	
57	91041361	2	MODIFIED FITTING	
58	91411050	2	ORIFICE	
59	84719760	2	HOSE ASSY	
60	91043186	1	DBL PILOT CHECK VALVE	
61	88561002	2	FLAT WASHER, 1/4	
62	84718208	2	HOSE ASSY	
63	2220657	2	ELBOW, 45, (swivel nut)	
64	71492142	24 in	FLEX LOOM	
65	86683122	4	TIE WRAP	

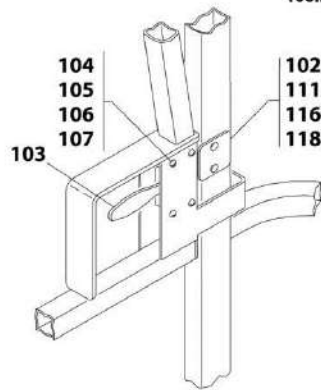


# SECTION 3 - ATTACHMENTS

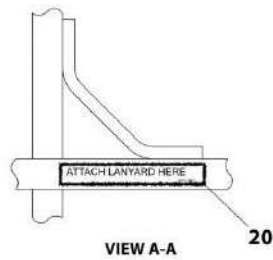
## FIGURE 3-11. PERSONNEL PLATFORM ASSEMBLY



106IN PERSONNEL PLATFORM

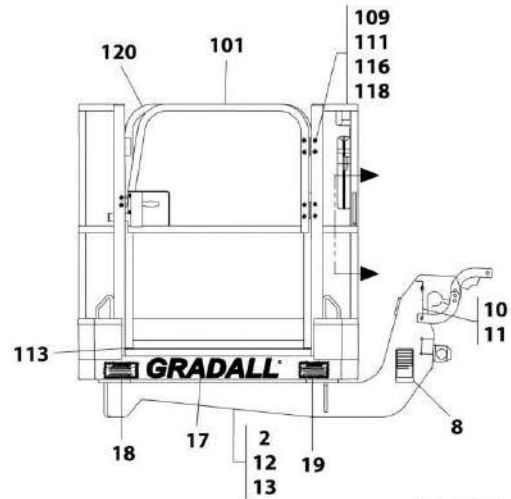
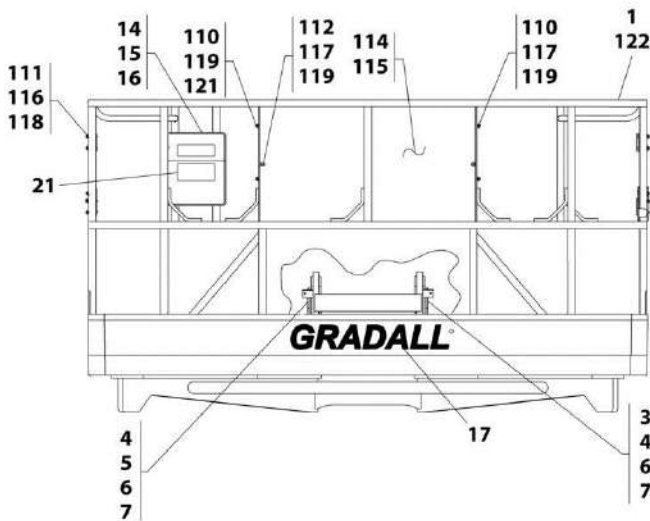


VIEW OF LATCH AREA ON GATE



VIEW A-A

96IN PERSONNEL PLATFORM



ART\_91415025-G



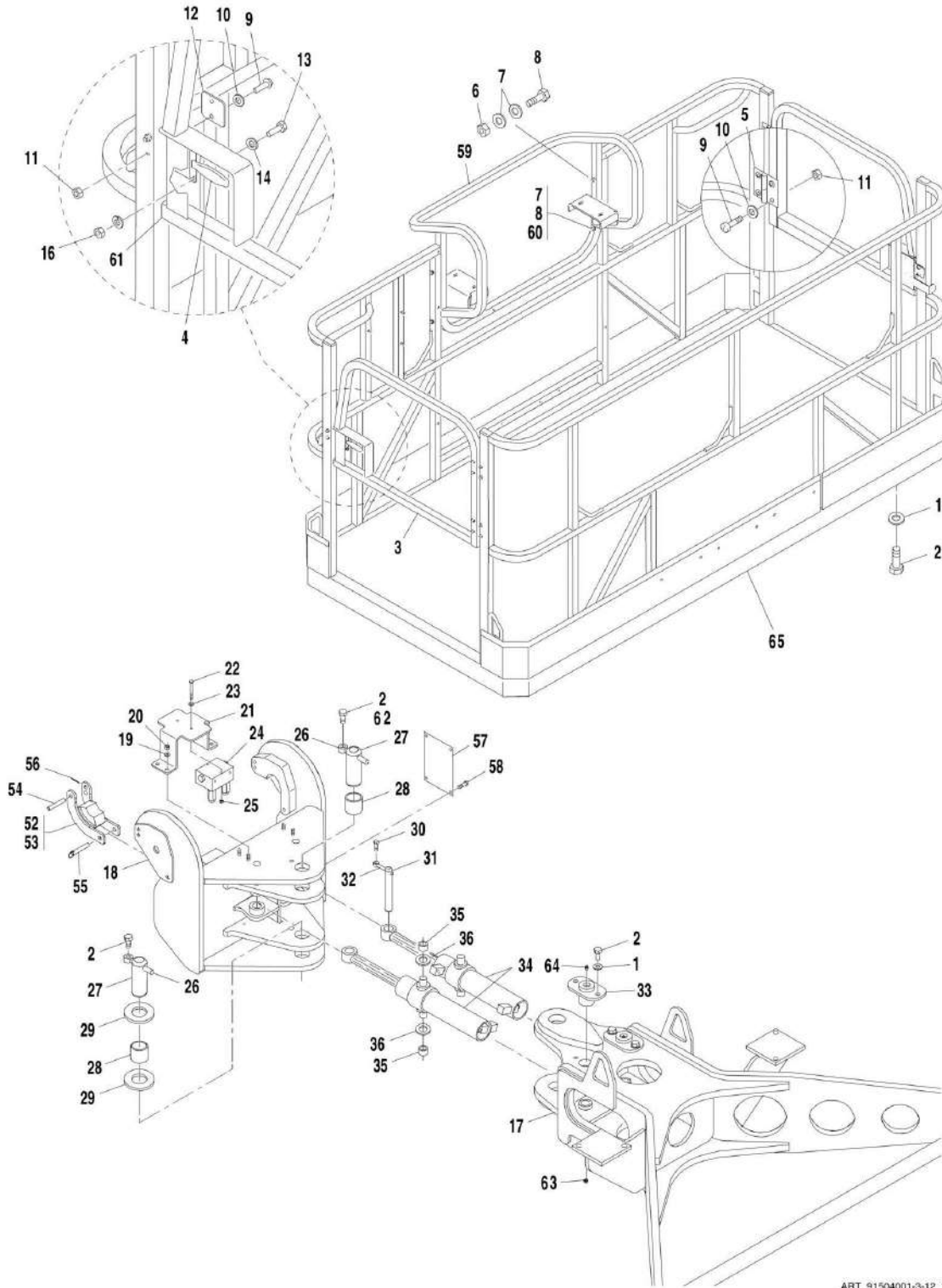
## SECTION 3 - ATTACHMENTS

**FIGURE 3-11. PERSONNEL PLATFORM ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91415025	1	PERSONNEL PLATFORM ASSY, (includes all items)	G
		Ref	106IN PERSONNEL PLATFORM, (includes items 101 through 109)	
1	90553034	NLA	96 IN PERSONNEL PLATFORM, (Includes items 101 through 107 & 109 through 121) (no longer available, use 3510809 for replacement)	B
1	3510809	1	96 IN PERSONNEL PLATFORM, (Includes items 101 through 122)	C
2	91406156	1	ADAPTER SUPPORT	
3	91406069	1	L.H. SUPPORT BRACKET	
4	91401266	2	PIN	
5	91406070	1	R.H. SUPPORT BRACKET	
6	88631449	2	ROLL PIN, 1/8X1-1/2	
7	91043221	2	DETENT PIN	
8	N.S.S.	1	SERIAL NUMBER PLATE	
10	91033039	2	CHAIN CONNECTION	
11	91033038	24 in	CHAIN	
12	0682012	8	HEX HD CAPSCREW, 5/8-11X1-1/2	
13	4762000	8	LOCKWASHER, 5/8	
14	91403230	1	MANUAL HOLDER	
15	8310382	4	WHIZ-LOCK NUT, 1/4-20	
16	31200160	1	PERSONNEL WORK PLATFORM MANUAL	
17	1702773	1	JLG DECAL	
18	1706893	1	WARNING DECAL	
19	1706892	1	WARNING DECAL	
20	1704277	6	LANYARD DECAL	
21	1701509	1	MANUAL DECAL	
101	4846265	1	GATE	
102	3539685	1	LATCH PLATE	
103	2940074	1	LATCH	
104	3911008	4	ROUND HD SCREW	
105	3311001	4	HEX NUT, #10-24	
106	4751000	4	WASHER, #10	
107	4761000	4	WASHER	
109	2600216	2	HINGE	
110	0641524	4	HEX HD CAPSCREW, 5/16-18X3	
111	2080063	16	NYLON LOCK NUT, 1/4-20	
112	2080064	14	NYLON LOCK NUT, 5/16-18	
113	3520072	5	CAP PLUG	
114	3573363	1	GUARD PLATE	
115	3641438	1	BENT RAIL	
116	3911428	16	ROUND HD SCREW, 1/4-20X3/4	
117	3911528	12	ROUND HD SCREW, 5/16-18X3/4	
118	4711400	16	WASHER, 1/4	
119	4711500	32	WASHER, 5/16	
120	4846528	1	BASKET END WELDMENT	
121	3311501	2	HEX NUT, 5/16-18	
122	3510807	1	PLATFORM, 8 FT	

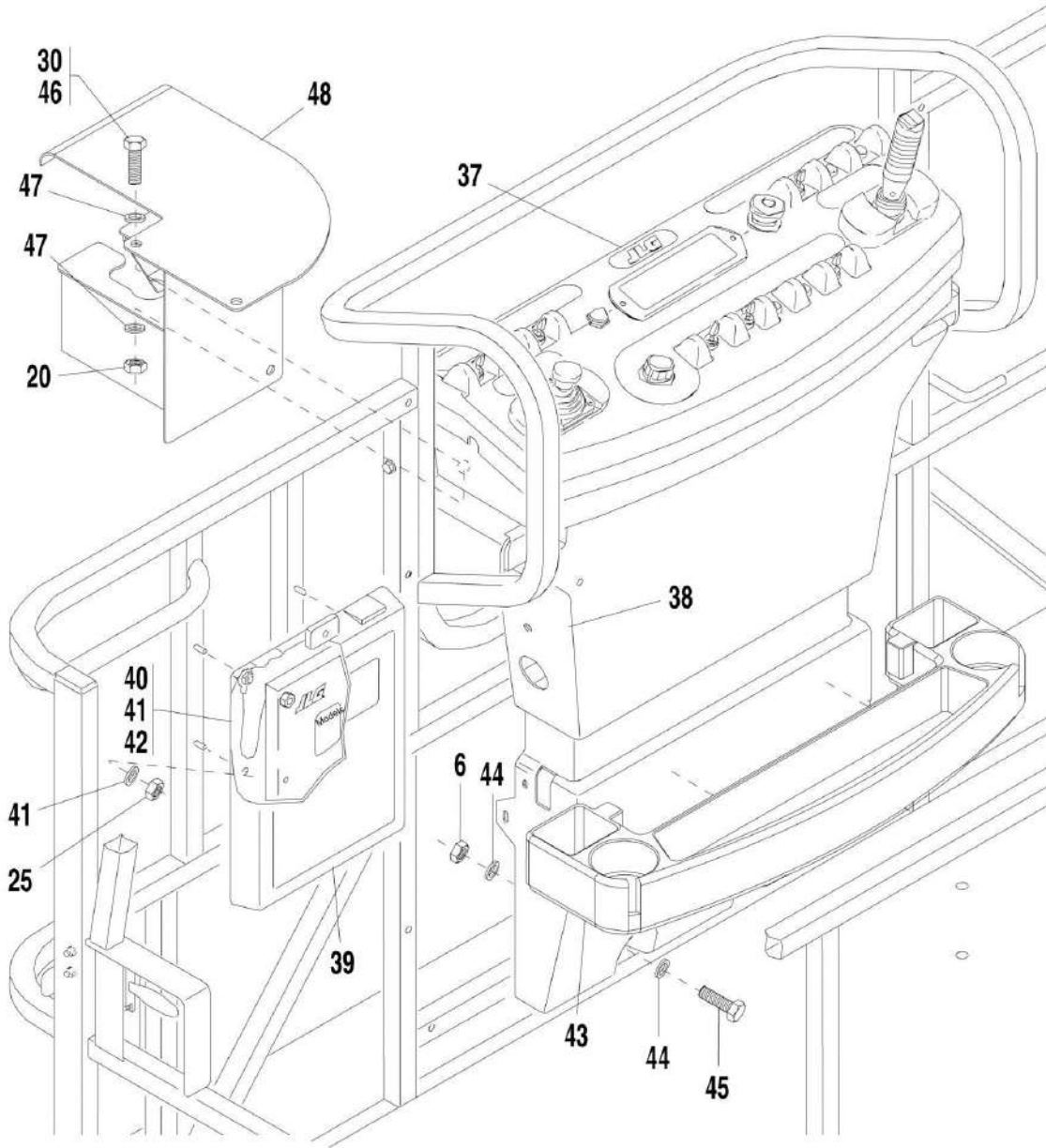
# SECTION 3 - ATTACHMENTS

## FIGURE 3-12. TRANSFORMER PLATFORM



ART\_91504001-3-12\_1

# SECTION 3 - ATTACHMENTS



VIEW OF PLATFORM CONTROLS

# SECTION 3 - ATTACHMENTS

## FIGURE 3-12. TRANSFORMER PLATFORM

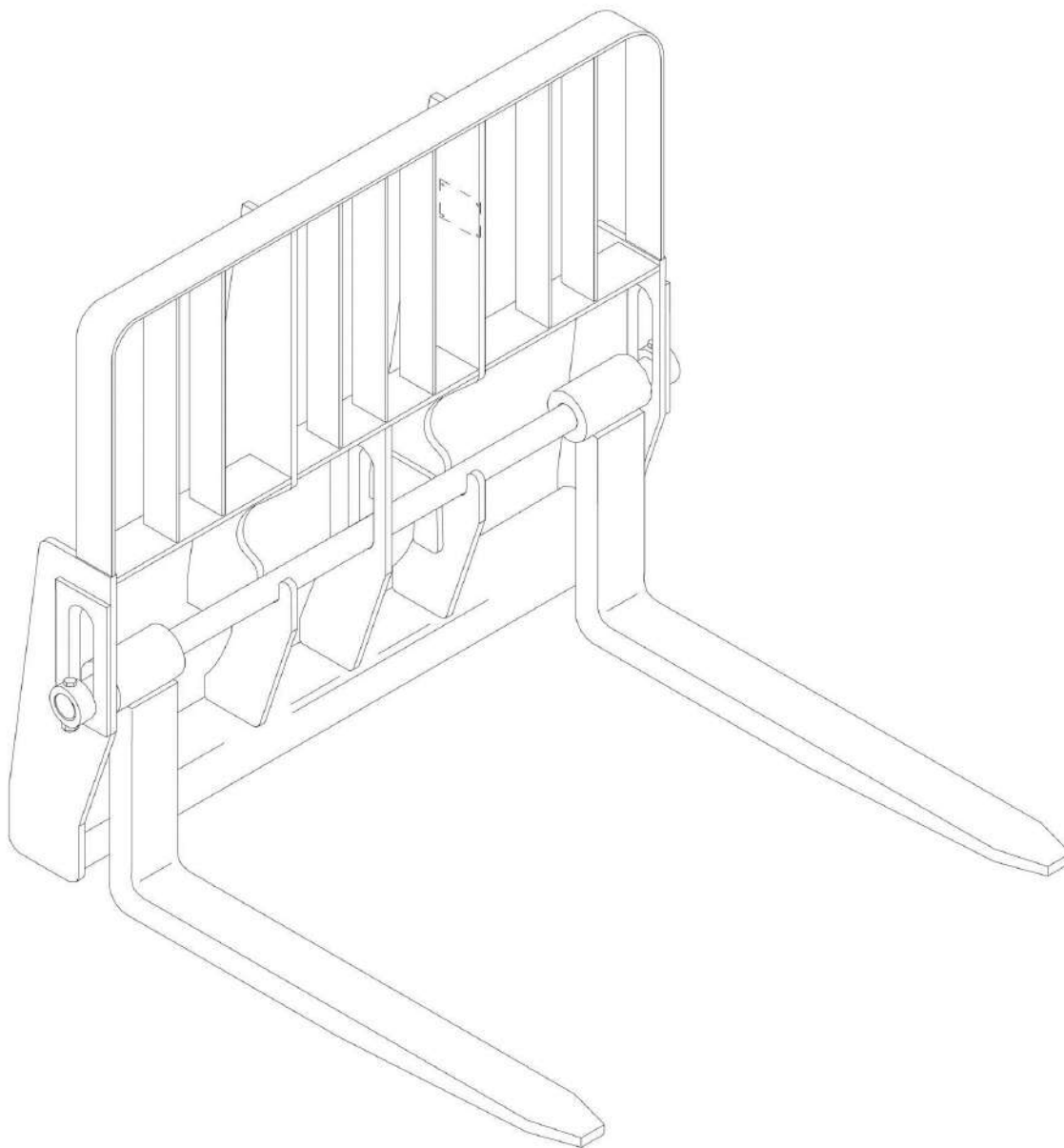
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503055	1	TRANSFORMER PLATFORM, (includes all items except items 52 thru 58)	F
1	4712000	12	WASHER, 5/8	
2	0642010	14	HEX HD CAPSCREW, 5/8-11X1-1/4	
3	4846265	2	GATE WELDMENT	
4	2940074	2	LATCH	
5	2600216	4	HINGE	
6	2080064	5	NYLON LOCKNUT, 5/16-18	
7	4711500	8	WASHER, 5/16	
8	0641524	4	HEX HD CAPSCREW, 5/16-18X3	
9	3911428	20	ROUND HEAD CAPSCREW, 1/4-20X1-3/4	
10	4711400	20	WASHER, 1/4	
11	2080063	20	NYLON LOCKNUT, 1/4-20	
12	3539685	2	LATCH PLATE	
13	3911008	8	ROUND HEAD SCREW	
14	4751000	8	WASHER, #10	
15	4761000	8	LOCKWASHER, #10	
16	3311001	8	HEX NUT, #10-24	
17	4846541	1	BASKET SUPPORT WELD	
18	4846342	1	QUICK SWITCH WELD	
19	4711600	4	WASHER, 3/8	
20	3311601	8	HEX LOCKNUT, 3/8-16	
21	3573157	1	VALVE MOUNT PLATE	
22	0641422	2	HEX HD CAPSCREW, 1/4-20X2-3/4	
23	4711400	2	WASHER, 1/4	
24		Ref	DOUBLE PILOTCHECK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	3311405	7	HEX LOCKNUT, 1/4-20	
26	3841258	2	KEEPER, 5/8	
27	3422967	2	HITCH-PIVOT PIN	
28	0962036	2	COMPOSITE BUSHING	
29	4740256	2	THRUST WASHER	
30	0641610	4	HEX HD CAPSCREW, 3/8-16X1-1/4	
31	3422995	2	ROTATE PIN	
32	3841143	2	KEEPER, 3/8	
33	4846358	2	BEARING CAP	
34		Ref	ROTATE CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
35	0961621	4	ALUMINUM BRONZE BUSHING	
36	4740307	4	THRUST WASHER	
37		Ref	PLATFORM CONTROL BOX ASSY, (See ELECTRICAL SECTION for Breakdown)	
38	3380434	1	DECAL MOUNT PANEL	
39	0860520	1	MANUAL STORAGE BOX	
40	1060279	1	LANYARD CABLE	
41	4751400	6	WASHER, 1/4	
42	0641408	1	HEX HD CAPSCREW, 1/4-20X1	
43	1580012	1	STORAGE TRAY CONTAINER	
44	4751500	6	WASHER, 5/16	
45	0641516	3	HEX HD CAPSCREW, 5/16-18X2	

## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	0641613	2	HEX HD CAPSCREW, 3/8-16X1-5/8, (used on L.H. side of control box weldment)	
47	4751600	8	WASHER, 3/8	
48	4846600	1	BOX WELDMENT	
52	91506015	1	PIN SUPPORT, L.H. WELDMENT	
53	91506016	1	PIN SUPPORT, R.H. WELDMENT	
54	91503065	2	PIN	
55	91503066	2	PIN DETENT	
56	88631449	2	ROLL PIN, 1/8-1-1/2	
57	91503111	1	SERIAL NUMBER PLATE	
58	88341022	4	DRIVE SCREW	
59	4846549	1	CONTROL BOX WELDMENT	
60	3311501	2	HEX NUT, 5/16-18	
61	3520072	2	CAP	
62	0100011	AR	LOCTITE, 242	
63	2160001	2	GREASE FITTING	
64	2160002	2	GREASE FITTING	
65	3510807	1	PLATFORM, 8 FT	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

## SECTION 3 - ATTACHMENTS

FIGURE 3-13. FORKS



## SECTION 3 - ATTACHMENTS

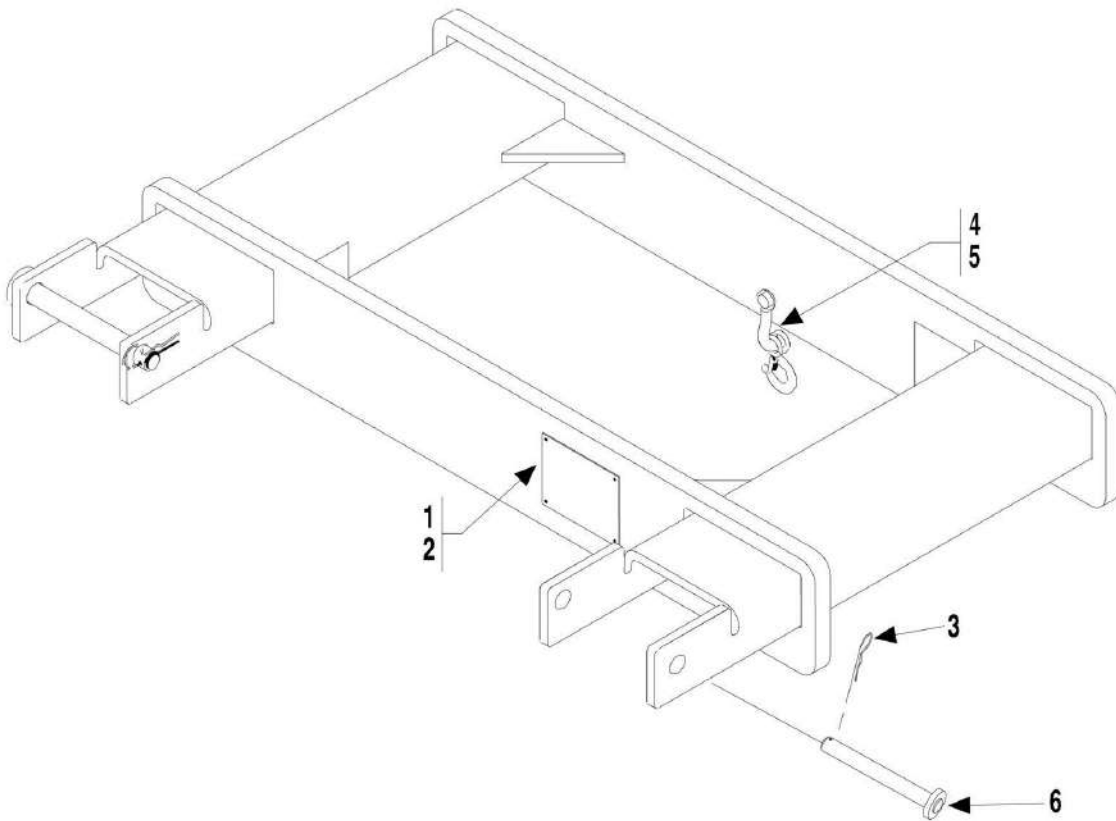
### FIGURE 3-13. FORKS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403359	2	48IN CUBING FORK, 2X2, 3,880 LBS	B
	91403364	2	48IN PALLET FORK, 1-3/4X4, 6,100 LBS, (only used with 100 Swing Carriage w/Side Shift, 91405070)	B
	91563141	2	48IN PALLET FORK, 2-1/4X5, 13,700 LBS	C
	91403366	2	48IN DRYWALL CARRIAGE FORK, 2X6, 5,000 LBS, (only used with Drywall Carriage, 91405077 or 100 Drywall Swing Carriage, 91405078)	B
	91513206	2	48IN PALLET FORK, 2-1/4X4, 10,950 LBS	D
	91403580	2	60IN PALLET FORK, 2X6, 11,300 LBS, (only used with 100 Swing Carriage w/Side Shift, 91405070)	B
	91563142	2	60IN PALLET FORK, 2-1/4X6, 16,300 LBS	C
	2340037	6	48IN CUBING FORK, 2X2, 11,640 LBS	A
	2340038	2	48IN PALLET FORK, 2.36X5, 13,700 LBS	B
	2340039	2	60IN PALLET FORK, 2.36X6, 16,300 LBS	C
	2340045	2	48IN PALLET FORK, 2.36X4, 10,950 LBS	B
	2340046	2	60IN LUMBER FORK, 1.75X7, 10,800 LBS	B
		Ref	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.	
		Ref	NOTE: PLEASE CONSULT THE JLG PARTS DEPARTMENT TO DETERMINE THE CORRECT FORKS APPLICABLE TO YOUR SPECIFIC CARRIAGE ASSEMBLY AND APPLICATION.	

## SECTION 3 - ATTACHMENTS

FIGURE 3-14. FORK MOUNTED LIFTING HOOK (PRIOR TO SN 2005134-01)

**NOTE: PALLET/LUMBER FORKS OF AN APPROPRIATE  
LOAD RATING MUST BE USED.**





## SECTION 3 - ATTACHMENTS

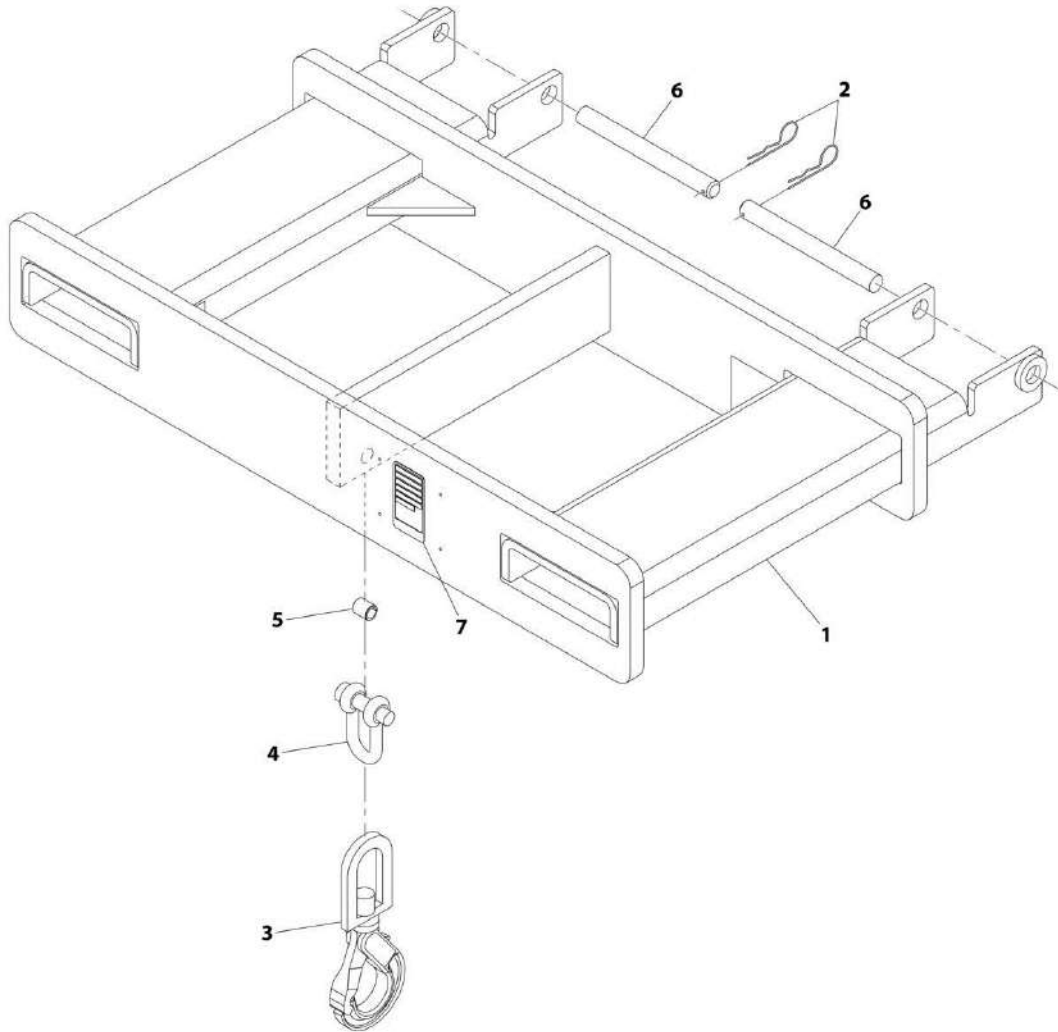
**FIGURE 3-14. FORK MOUNTED LIFTING HOOK (PRIOR TO SN 2005134-01)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	FORK MOUNTED LIFTING HOOK, (includes all items), (90553036 is no longer available, See FORK MOUNTED LIFTING SN 2005134-01 to Present for replacement)	D
1		Ref	SN ATTACHMENT PLATE	
2	88341022	4	DRIVE SCREW, 3/8	
3	90554078	2	HAIRPIN CLIP	
4	90554079	1	CLEVIS CONNECTOR	
5	90554080	1	HOOK	
6	90554081	2	PIN	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-15. FORK MOUNTED LIFTING HOOK (SN 2005134-01 TO PRESENT)

NOTE: PALLET/LUMBER FORKS OF AN APPROPRIATE LOAD RATING MUST BE USED.



ART\_91565094-F

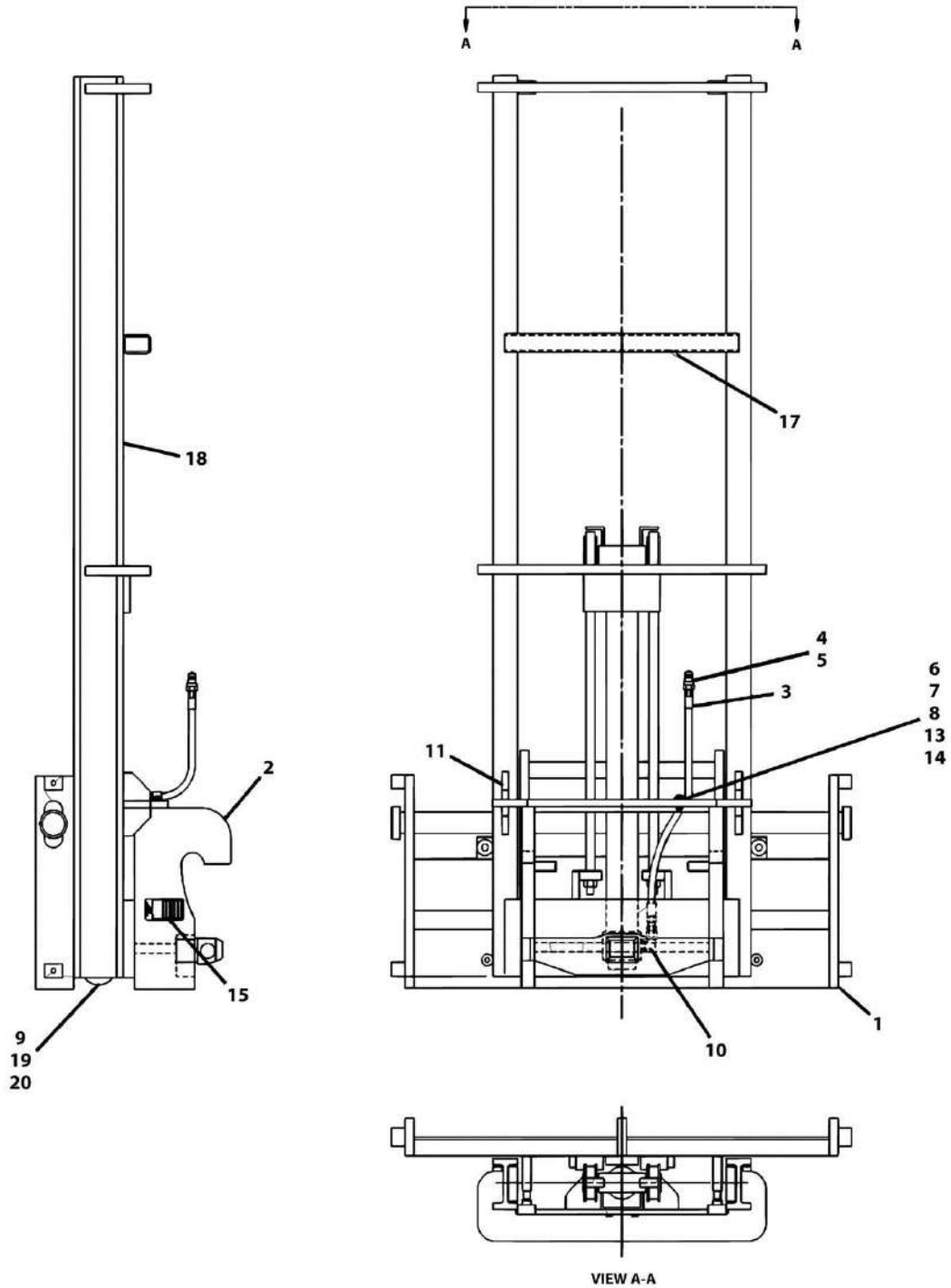
## SECTION 3 - ATTACHMENTS

**FIGURE 3-15. FORK MOUNTED LIFTING HOOK (SN 2005134-01 TO PRESENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91565094	1	FORK MOUNTED LIFTING HOOK, (INCLUDES ALL ITEMS)	F
2	7029520	2	HAIRPIN CLIP	
3	90554080	1	SLING HOOK	
4	7029521	1	CHAIN SHACKLE, 12,000LB	
5	70020555	1	SPRING BUSHING	
6	7029523	2	PIN	
7	N.S.S.	1	SN PLATE	

# SECTION 3 - ATTACHMENTS

## FIGURE 3-16. 6 FT MAST WITH 42 IN AND 72 IN CARRIAGE



ART\_91504001-3-16

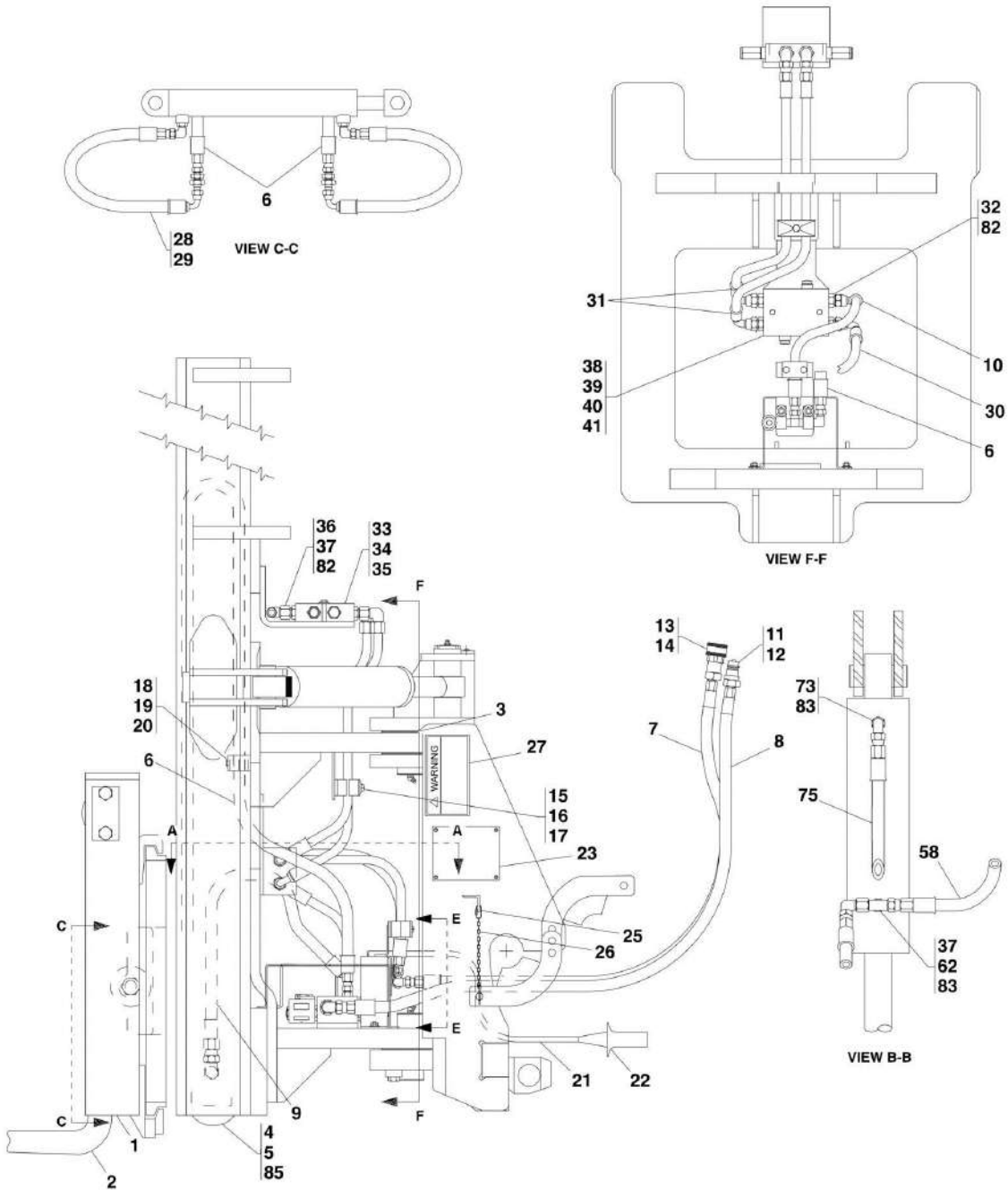
## SECTION 3 - ATTACHMENTS

**FIGURE 3-16. 6 FT MAST WITH 42 IN AND 72 IN CARRIAGE**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405060	1	6 FT MAST WITH 48 IN CARRIAGE, (includes all items)	K
	91405061	1	6 FT MAST WITH 72 IN CARRIAGE, (includes all items)	G
1	N.S.S.	1	45 1/2 IN CARRIAGE	
1	N.S.S.	1	69 1/2 IN CARRIAGE	
2	N.S.S.	1	ADAPTOR	
3	84719229	1	HOSE ASSY	
4	91403414	1	ADAPTOR	
5	91043126	1	DUST CAP	
6	24431386	1	CLAMP	
7	88201037	1	HEX HD SCREW, 3/8-16	
8	88561004	1	FLAT WASHER	
9	91034377	2	SCREW	
10	1001094695	1	ADAPTOR	
11	N.S.S.	1	GUSSET	
13	88501006	1	HEX NUT, 3/8-16	
14	88551011	1	LOCK WASHER, 3/8	
15	N.S.S.	1	SN PLATE	
17	N.S.S.	1	STOP TUBE	
18	91403339	1	6 FT MAST	
19	91034374	6	LOAD ROLLER	
20	91034375	12	SHIM	

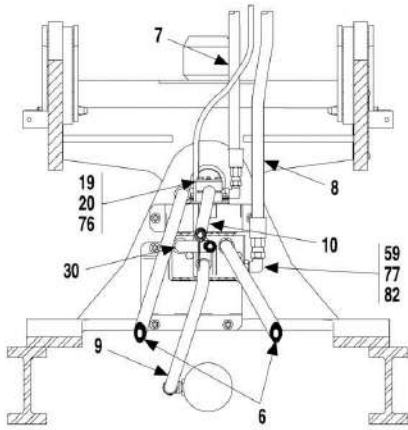
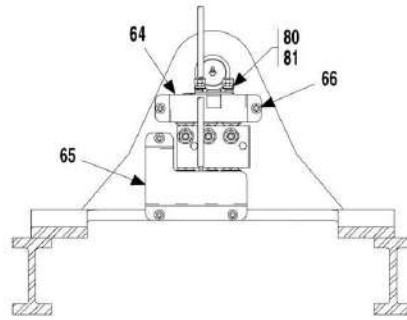
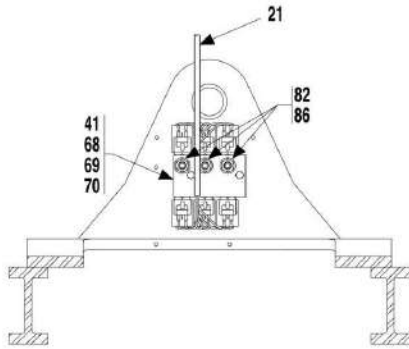
# SECTION 3 - ATTACHMENTS

## FIGURE 3-17. 100, SWING CARRIAGE WITH SIDE SHIFT

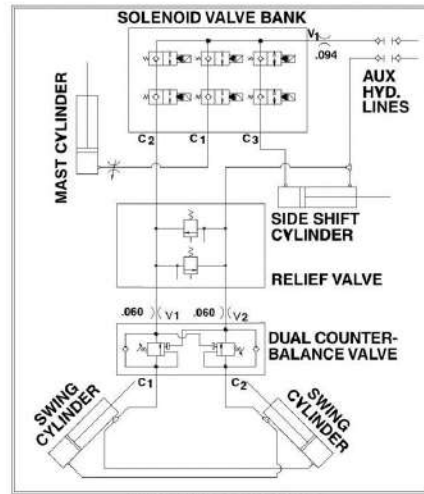


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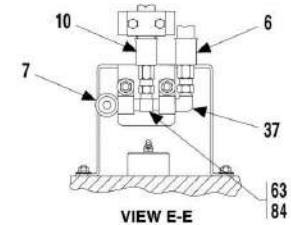
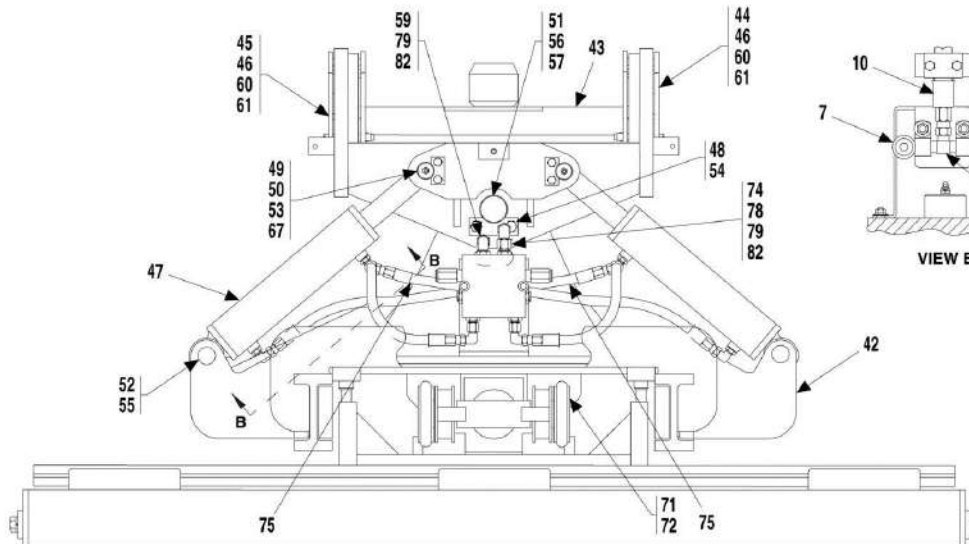
# SECTION 3 - ATTACHMENTS



VIEW A-A



HYDRAULIC SCHEMATIC



VIEW E-E

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## SECTION 3 - ATTACHMENTS

**FIGURE 3-17. 100, SWING CARRIAGE WITH SIDE SHIFT**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405070	1	100, SWING CARRIAGE WITH SIDE SHIFT, 48 IN FORKS, (includes all items)	M
1	N.S.S.	1	72 IN SIDE SHIFT CARRIAGE	
2	91403364	2	FORK, 1-3/4X4X48	
3	91041356	6	SPACER	
4	91034374	6	LOAD ROLLER	
5	91034375	12	SHIM	
6	84719060	2	HOSE ASSY	
7	84719229	1	HOSE ASSY	
8	84719499	1	HOSE ASSY	
9	84718737	1	HOSE ASSY	
10	84719765	1	HOSE ASSY	
11	91403414	1	MALE QUICK DISCONNECT COUPLING	
12	91043126	1	DUST CAP	
13	91403413	1	FEMALE QUICK DISCONNECT COUPLING	
14	91043125	1	DUST CAP	
15	77133136	1	CLAMP SET	
16	77133137	1	COVER PLATE	
17	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
18	77133810	2	STD CLAMP KIT	
19	77133052	3	COVER PLATE	
20	77133209	6	HEX HD CAPSCREW, 1/4-20X1-3/8	
21	90453023	1	WIRING HARNESS	
22	90207662	1	6 CONTACT PLUG	
23	N.S.S.	1	SN PLATE	
25	91033039	2	CHAIN CONNECTION	
26	91033038	24 in	CHAIN	
27	91143282	2	PINCH POINT DECAL	
28	84719185	2	HOSE ASSY	
29	2230024	2	BULKHEAD UNION, 9/16-18X3/8 TUBE	
30	84719766	1	HOSE ASSY	
31	84719767	2	HOSE ASSY	
32	2220373	4	CONNECTOR, (includes item 82)	
33	90453018	1	DUAL COUNTERBALANCE VALVE	
34	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
35	88561002	2	FLAT WASHER, 1/4	
36	2220372	2	CONNECTOR, (includes item 82)	
37	8760268	3	ELBOW, 90, SWIVEL NUT	
38	91413099	1	RELIEF VALVE	
39	88201029	2	HEX HD CAPSCREW, 5/16-18X3-1/4, GR5	
40	88501005	2	HEX NUT, 5/16-18	
41	88551010	4	LOCKWASHER, 5/16	
42	91406072	1	MAST WELDMENT	
43	91416018	1	SWING FORK PIVOT WELDMENT	
44	91406069	1	LH PIN SUPPORT WELDMENT	
45	91406070	1	RH PIN SUPPORT WELDMENT	
46	91401266	2	PIN	
47		Ref	SWING CYLINDER, (See Separate Breakdown in OPTIONS Section)	
48	91041322	2	LOCKING PLATE	



## SECTION 3 - ATTACHMENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	91411073	2	LOCKING PLATE	
50	91041324	2	PIVOT PIN	
51	91041325	2	PIVOT PIN	
52	91041326	2	PIVOT PIN	
53	83201024	4	HEX HD CAPSCREW, 3/8-16X1, GR8	
54	83201026	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR8	
55	88581136	4	SNAP RING	
56	88671018	2	LUBE FITTING, 45, 1/8	
57	91041327	2	BUSHING	
58	77133201	2	HOSE ASSY	
59	90203384	2	90, ELBOW, MODIFIED, (includes item 82)	
60	88631449	2	ROLL PIN, 1/8X1-1/2	
61	91043221	2	DETENT PIN	
62	2220899	2	BRANCH TEE, (includes item 83)	
63	2220490	1	UNION TEE, 3/8 TUBE	
64	91406155	1	FRONT COVER WELDMENT	
65	90451061	1	BACK COVER SOLENOID VALVE	
66	77143013	5	WHIZ-LOCK NUT, 1/4-20	
67	88671008	2	LUBE FITTING, STRAIGHT, 1/4-28	
68	91403338	1	SOLENOID VALVE BANK	
69	88201025	2	HEX HD CAPSCREW, 5/16-18X2-1/4, GR5	
70	88561108	2	FLAT WASHER, 5/16	
71	91034399	2	HOSE SHEAVE	
72	91034400	2	SHOULDER BOLT	
73	2220473	2	ELBOW, 90, (includes item 83)	
74	91041361	1	MODIFIED FITTING	
75	90204097	2	HOSE ASSY	
76	77133053	1	CLAMP SET	
77	91041362	1	ORIFICE FITTING	
78	8765204	1	ELBOW, 90, SWIVEL NUT, (includes item 82)	
79	91411050	2	ORIFICE	
80	86521144	2	SUPPORT CLAMP	
81	77143006	2	WHIZ-LOCK NUT, 5/16-18	
82	88591205	9	O-RING	
83	88591204	4	O-RING	
84	91403415	1	ELBOW, 90, SWIVEL NUT	
85	91034377	2	SCREW	
86	88662018	3	CONNECTOR, (includes item 82)	



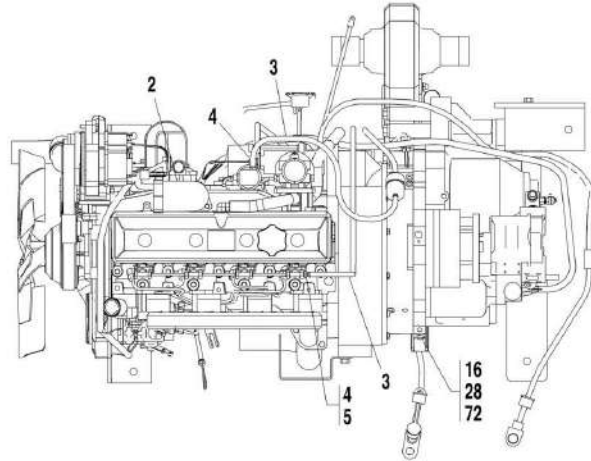
## **SECTION 4 - ENGINE AND ATTACHING PARTS**

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

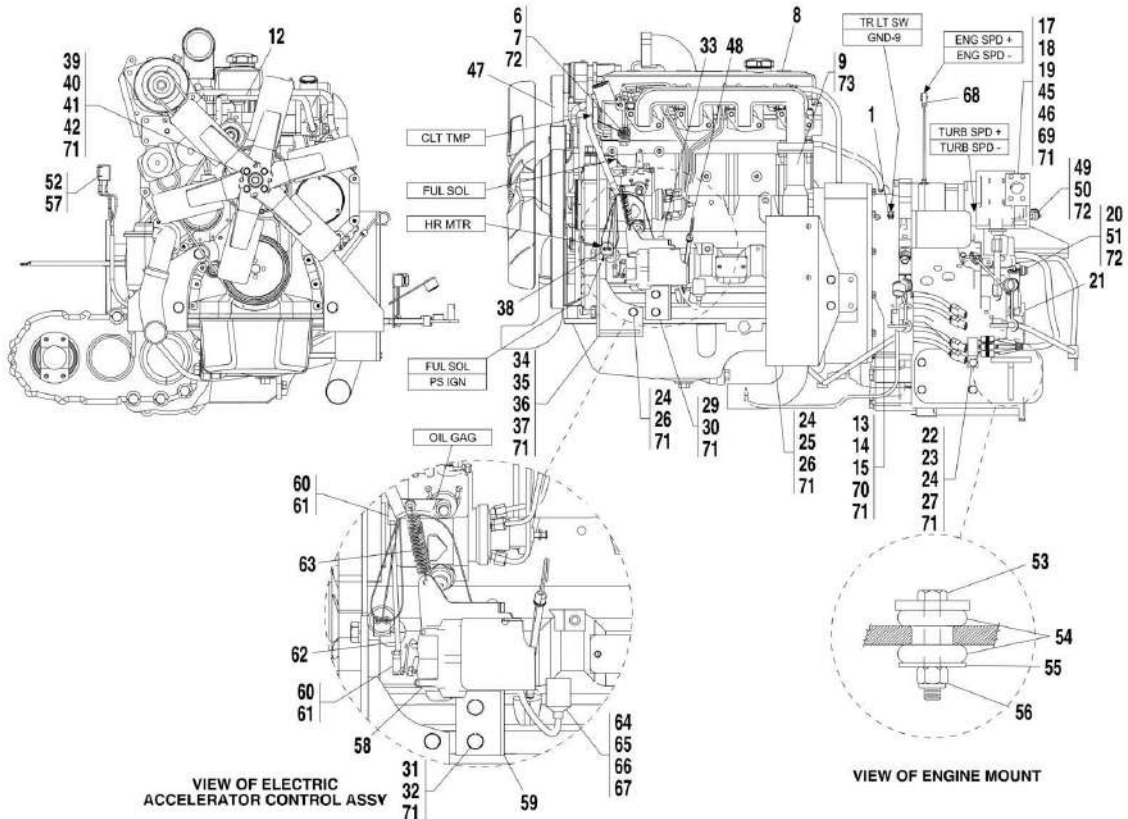
# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-1. ENGINE ASSEMBLY, L.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)

**SERVICE NOTES:**  
 1). Use loctite 242, (14403364), on all bolt threads.  
 2). Use loctite 545, (14404043), on all fittings.



NOTE: HYDRAULIC PUMP, (item 17), ROTATED 180° SN 0160000141 to Present



## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-1. ENGINE ASSEMBLY, L.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505012	1	ENGINE ASSY, (includes items 29, 31 & 32 on Figure 4-1 and items 10, 12 & 13 on Figure 4-2)	H
	91475010	1	ENGINE ASSY - STANDARD, (includes all items except 53 thru 57 & 68 on Figure 4-1 and all items on Figure 4-2)	S
1	91473115	1	TRANSMISSION TEMPERATURE SWITCH ( <b>SN 0192001 through 0160002052</b> )	
2		Ref	AIR INTAKE INSTALLATION, (See AIR CLEANER AND INSTALLATION for Breakdown)	
3	82092118	128 in	FUEL LINE, 5/16 ID	
4	86883106	1	HOSE CLAMP	
5	80373025	1	CONNECTOR	
6	91143314	1	WATER TEMPERATURE SENSOR	
7	91403265	1	CONNECTOR	
8		Ref	JOHN DEERE ENGINE, (See DEERE ENGINE for Breakdown)	
9		Ref	EXHAUST AND ATTACHING PARTS, (See EXHAUST INSTALLATION for Breakdown)	
12	90027187	6	TIE-WRAP	
13	83193026	10	HEX HD CAPSCREW, M10X1.5X30, (torque to 53-58 lb-ft)	
14	83191013	11	LOCKWASHER, M10	
15	88201537	8	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5, (torque to 26-29 lb-ft)	
16	88662024	1	CONNECTOR, (includes item 28)	
17		Ref	HYDRAULIC PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	88201067	2	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5, (see note at end of parts list)	
19	88551013	2	LOCKWASHER, 1/2, (see note at end of parts list)	
20	88662022	1	CONNECTOR, (includes item 51)	
21		Ref	TRANSMISSION, (See TRANSMISSION - CONVERTER HOUSING GROUP for Breakdown)	
22	91476028	1	TRANSMISSION MOUNT, L.H ( <b>Prior to SN 0160022326</b> )	
22	4341318	1	TRANSMISSION MOUNT, L.H ( <b>SN 0160022326 to Present</b> )	
23	83191032	4	HEX HD CAPSCREW, M12X1.75X35, (torque to 66-76 lb-ft)	
24	83191010	8	LOCKWASHER, M12	
25	91471146	1	HEAT SHIELD	
26	83191004	4	HEX HD CAPSCREW, M12X1.75X30, (torque to 66-76 lb-ft)	
27	90028660	1	SUPPORT CLAMP	
28	88591206	1	O-RING	
29	91505024	1	ELEC ACCELERATOR CONTROL ASSY, (includes items 58 thru 67)	
30	83191038	1	HEX HD CAPSCREW, M10X1.50X20, (located behind item 29)	
31	83191010	2	LOCKWASHER, M12	
32	83191004	2	HEX HD CAPSCREW, M12X1-3/4X30	
33	91143315	1	OIL PRESSURE SENDER	
34	91406026	1	FRONT ENGINE MOUNT, L.H.	
35	91406027	1	FRONT ENGINE MOUNT, R.H.	
36	83191043	4	HEX HD CAPSCREW, M16X2.00X30, (torque to 166-181 lb-ft)	
37	83783030	4	LOCKWASHER, M16	
38	24741047	1	OIL PRESSURE SWITCH	
39	91403105	1	FAN	
40	91403248	1	FAN SPACER	
41	83191041	4	HEX HD CAPSCREW, M8X1.25X70	

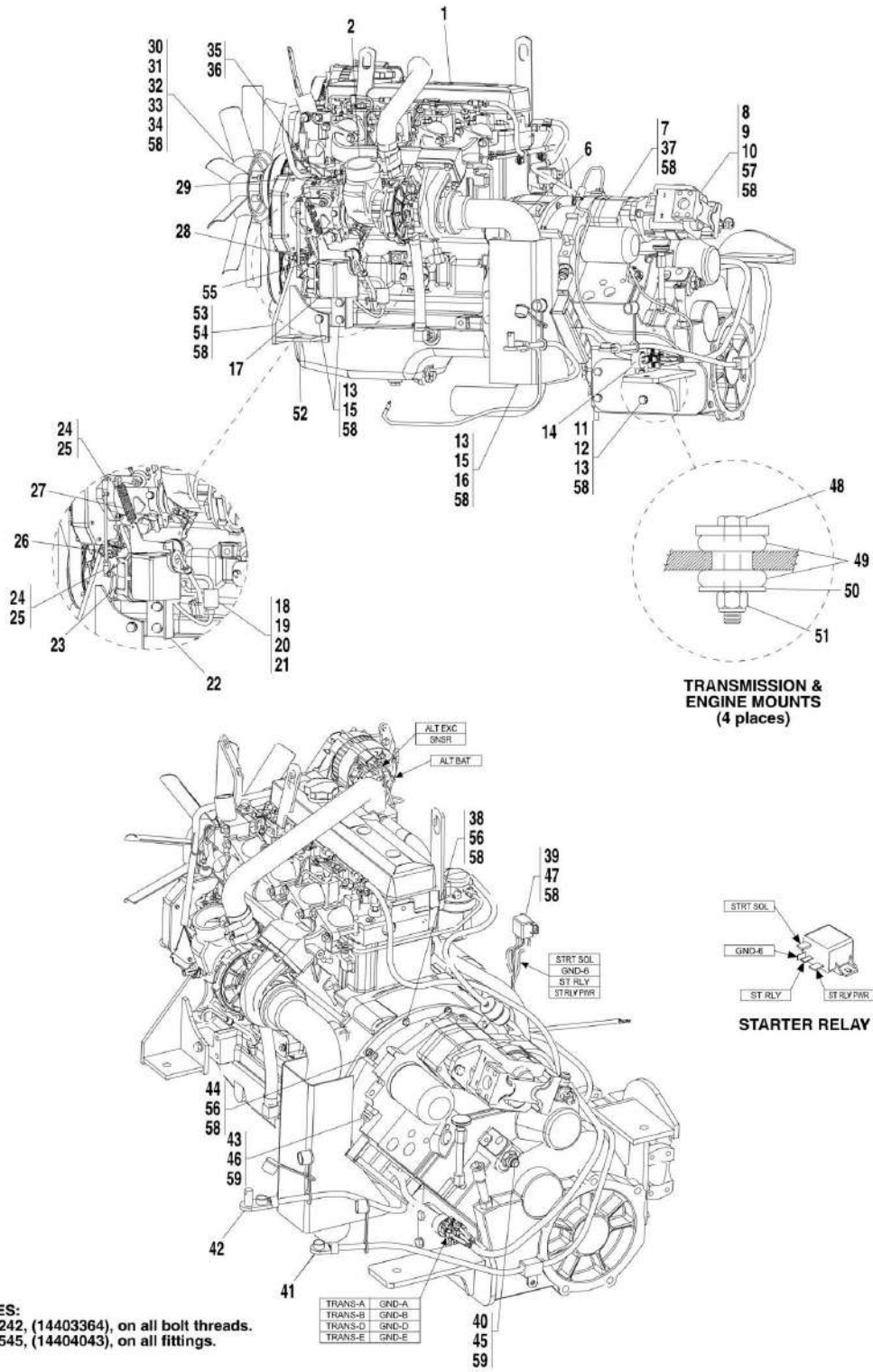
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	88561108	4	WASHER, 5/16	
45	88501008	4	HEX NUT, 1/2-13, (see note at end of parts list)	
46	90027471	4	WASHER, 1/2, (see note at end of parts list)	
47	91404086	1	FAN BELT	
48	91474171	1	DIPSTICK	
49	91413015	1	FITTING	
50	91053020	1	TEST COUPLING	
51	88591207	1	O-RING	
52	77383377	1	STARTER RELAY	
53	83201044	4	HEX HD CAPSCREW, 5/8-11X4	
54	91473093	4	SHOCK MOUNT	
55	91081158	4	ROUND WASHER SPECIAL	
56	88521010	4	HEX LOCKNUT, 5/8-11	
57	88201001	2	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
58	80363019	1	STM MOTOR	
59	80376009	1	MOUNTING BRACKET	
60	80373029	2	QD Ball Joint	
61	88501304	4	Hex Nut, 1/4-28	
62	80371043	1	THREADED LINKAGE	
63	80373034	1	THROTTLE SPRING	
64	91503105	1	DEUTSCH CONNECTOR	
65	91503106	1	DEUTSCH LOCK	
66	4460466	1	DEUTSCH PLUG	
67	77363228	7	DEUTSCH CONTACT	
68	91504117	2	SPEED SENSOR	
69	91471167	4	STUD, 1/2-13X3, (see note at end of parts list)	
70	91513234	1	SOCKET HD CAPSCREW, M10X1.5X30, GR 10.9 (torque to 53-58 lb-ft)	
71	14403364	AR	LOCTITE, 242	
72	14404043	AR	LOCTITE, 545	
73	91473222	1	EXHAUST GASKET	
	91415035		ENGINE FILTER KIT, (includes all items)	
	91404005		OIL FILTER ELEMENT	
	91404004		FUEL FILTER	
	80273042		AIR FILTER SAFETY ELEMENT	
	80273010		AIR FILTER ELEMENT	
	91083218		FUEL STRAINER	
		Ref	NOTE: HYDRAULIC PUMP MOUNTING HARDWARE ITEMS 45, 46 & 69 USED ON. (SN 0192001 through 0160000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
		Ref	ITEMS 18 & 19 USED ON . (SN 0160000141 through 0160002686, Excluding 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-2. ENGINE ASSEMBLY, L.H. VIEW (SN 0160003136 to Present)





## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-2. ENGINE ASSEMBLY, L.H. VIEW (SN 0160003136 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505061	1	ENGINE ASSY, (includes all items except items 47 thru 51 See ENGINE ASSEMBLY, L.H. VIEW and all items See ENGINE ASSEMBLY, R.H. VIEW)	I
1		Ref	JOHN DEERE ENGINE, (See DEERE ENGINE for Breakdown)	
2		Ref	AIR CLEANER AND INSTALLATION, (See AIR CLEANER AND INSTALLATION for Breakdown)	
6		Ref	EXHAUST TUBE, (See EXHAUST INSTALLATION for Breakdown)	
7		Ref	TRANSMISSION, (See TRANSMISSION - CONVERTER HOUSING GROUP for Breakdown)	
8		Ref	IMPLEMENT PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
9	88201067	2	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
10	88551013	2	LOCKWASHER, 1/2	
11	91476028	1	L.H. TRANSMISSION MOUNT	
12	83191032	4	HEX HD CAPSCREW, M12X1.75X35	
13	83191010	9	LOCKWASHER, M12	
14	90028660	1	SUPPORT CLAMP	
15	83191004	5	HEX HD CAPSCREW, M12X1.75X30	
16	91471145	1	HEAT SHIELD	
17	91505024	1	ELEC ACCELERATOR CONTROL ASSY, (includes items 18 thru 27)	
18	91503105	1	DEUTSCH CONNECTOR	
19	91503106	1	DEUTSCH LOCK	
20	4460466	1	DEUTSCH PLUG	
21	77363228	7	DEUTSCH CONTACT	
22	80376009	1	MOUNTING BRACKET	
23	80363019	1	STM MOTOR	
24	80373029	2	QD BALL JOINT	
25	88501304	4	HEX NUT, 1/4-28	
26	80371043	1	THREADED LINKAGE	
27	80373034	1	THROTTLE SPRING	
28	24741047	1	OIL PRESSURE SWITCH	
29	91473223	1	MALE SPADE TAB	
30	91513159	1	FAN	
31	91403248	1	FAN SPACER	
32	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
33	88551010	4	LOCKWASHER, 5/16	
34	88561108	4	FLAT WASHER, 5/16	
35	88712306	1	REDUCER BUSHING	
36	91143314	1	WATER TEMP SENDER	
37	88201537	8	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5, (torque converter mounting)	
38	83193026	10	HEX HD CAPSCREW, M10X1.5X30, GR10.9, (torque to 53-58 lb-ft)	
39	77383377	1	STARTER RELAY	
40	88662022	1	CONNECTOR, (includes item 45)	
41		Ref	NEGATIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
42		Ref	POSITIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
43	88662024	1	CONNECTOR, (includes item 46)	

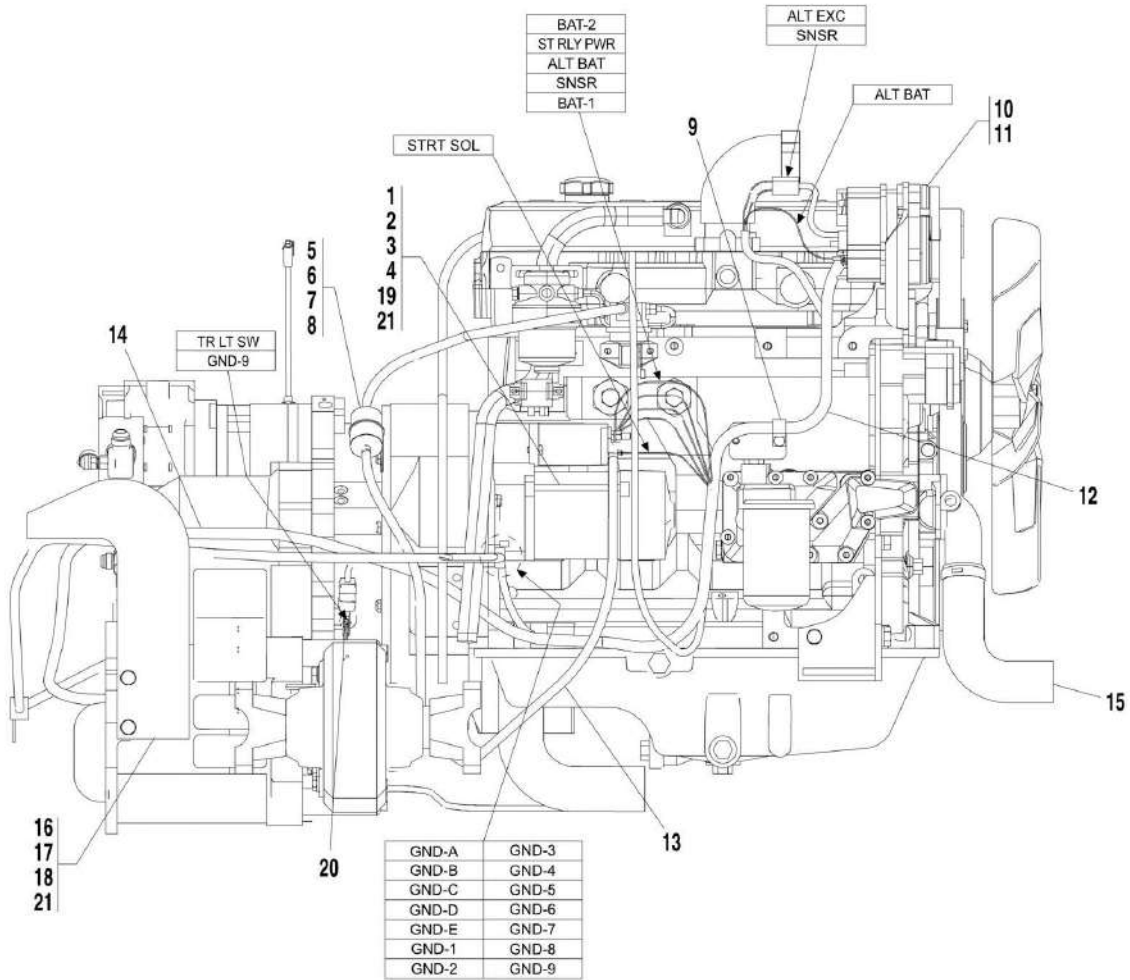
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	91513234	1	SOCKET HD CAPSCREW, M10X1.5X30, GR10.9, (torque to 53-58 lb-ft)	
45	88591207	1	O-RING	
46	88591206	1	O-RING	
47	88201001	2	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
48	83201044	4	HEX HD CAPSCREW, 5/8-11X4	
49	91473093	4	MOUNT SHOCK	
50	91081158	4	SPECIAL WASHER	
51	88521010	4	HEX LOCKNUT, 5/8-11	
52	91406026	1	LH FRONT ENGINE MOUNT	
53	83191043	2	HEX HD CAPSCREW, M16X2X30, (torque to 166-181 lb-ft)	
54	83783030	2	LOCKWASHER, M16	
55	91143315	1	OIL PRESSURE SENDER	
56	83191013	11	LOCKWASHER, M10	
57	88991001	1	O-RING	
58	14403364	AR	LOCTITE, 242	
59	14404043	AR	LOCTITE, 545	
	91415084	1	250 HOUR FILTER KIT, (includes all items)	
	91534005	1	OIL FILTER ELEMENT	
	91404004	1	FUEL FILTER	
	1101313	1	AIR FILTER SAFETY ELEMENT	
	1101312	1	AIR FILTER ELEMENT	
	91083218	1	FUEL STRAINER	
	91534006	1	OIL FILTER SEAL	
	2915175	1	1000 HOUR FILTER KIT, (includes 91415084 and the following)	
	1001093626	1	HYDRAULIC FILTER	
	1340021	1	HYDRAULIC BREATHER	
	91474250	1	TRANSMISSION FILTER	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	



# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-3. ENGINE ASSEMBLY, R.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)



**SERVICE NOTES:**  
 1). Use loctite 242, (14403364), on all bolt threads.  
 2). Use loctite 545, (14404043), on all fittings.

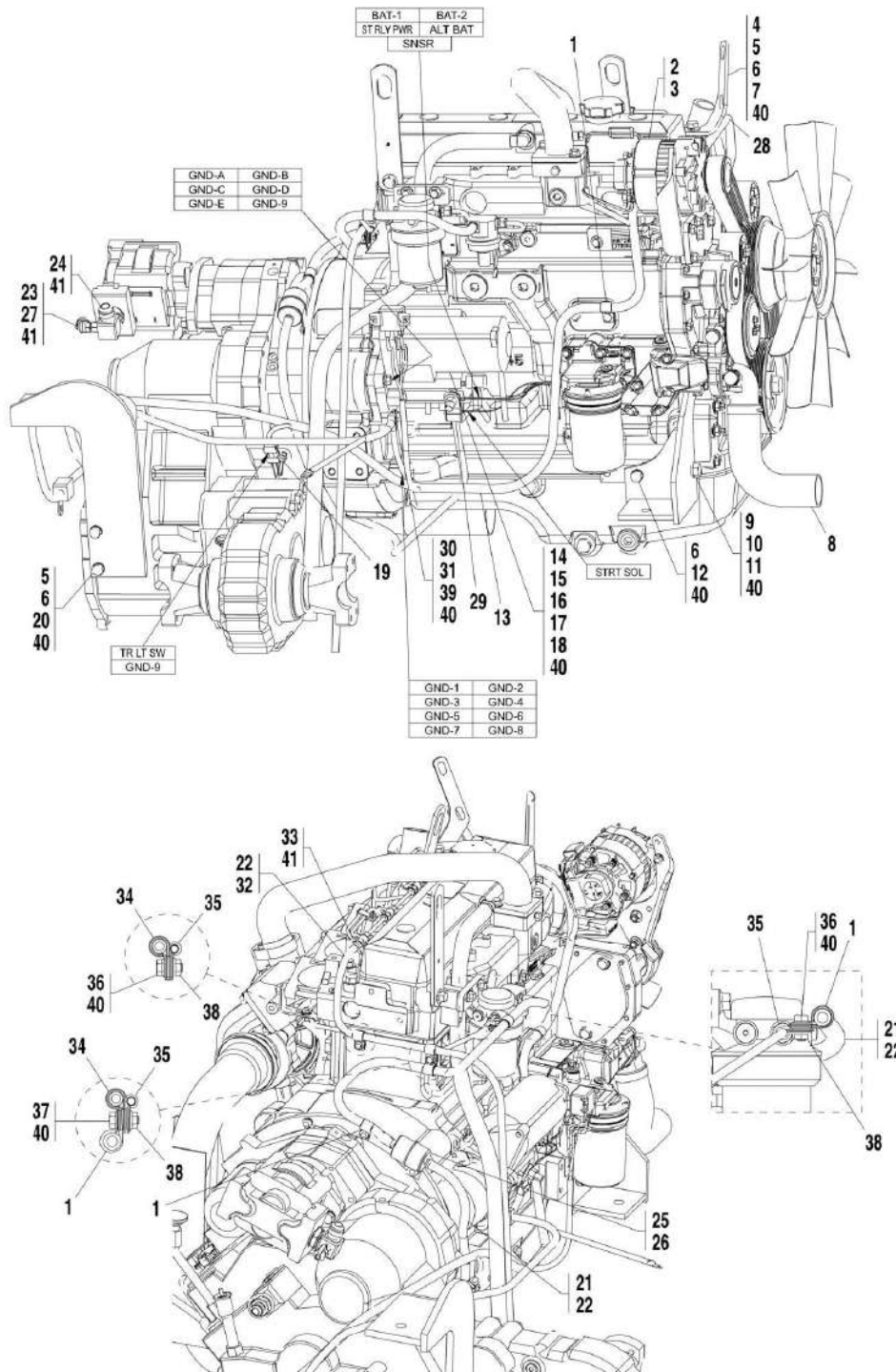
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-3. ENGINE ASSEMBLY, R.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505012	1	ENGINE ASSY, (includes items 29, 31 & 32 on Figure 4-1 and items 10, 12 & 13 on Figure 4-2)	H
	91475010	1	ENGINE ASSY - STANDARD, (includes all items except 53 thru 57 & 68 on Figure 4-1 and all items on Figure 4-2)	S
1	83191062	2	SOCKET HD CAPSCREW, M10X1.5X40	
2	83191013	3	LOCKWASHER, M10	
3		Ref	STARTER, (Prestolite), (includes item 19), (no longer available, See OPTIONS SECTION for Breakdown)	
4	83191040	1	SOCKET HD CAPSCREW, M10X1.5X30, (top inner mtg hole)	
5	90028660	1	SUPPORT CLAMP	
6	91083218	1	FUEL STRAINER	
7	82092118	72 in	FUEL LINE, 5/16	
8	86883106	2	HOSE CLAMP	
9	91143122	1	SUPPORT CLAMP	
10	1001108292	1	ALTERNATOR, (includes item 11)	
11	1001108291	1	REGULATOR	
12		Ref	WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
13		Ref	POSITIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
14		Ref	NEGATIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
15		Ref	LOWER RADIATOR HOSE, (See RADIATOR ASSEMBLY for Breakdown)	
16	91476022	1	TRANSMISSION MOUNT, R.H.	
17	83191032	2	HEX HD CAPSCREW, M12X1.75X35, (torque to 66-76 lb-ft)	
18	83191010	2	LOCKWASHER, M12	
19	91414040	1	STARTER SOLENOID	
20	91563121	1	TRANSMISSION TEMPERATURE SWITCH <b>(SN 0160002069 through 0160002686)</b>	
21	14403364	AR	LOCTITE, 242	
22	14404043	AR	LOCTITE, 545	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-4. ENGINE ASSEMBLY, R.H. VIEW (SN 0160003136 to Present)



**SERVICE NOTES:**  
 1). Use loctite 242, (14403364), on all bolt threads.  
 2). Use loctite 545, (14404043), on all fittings.

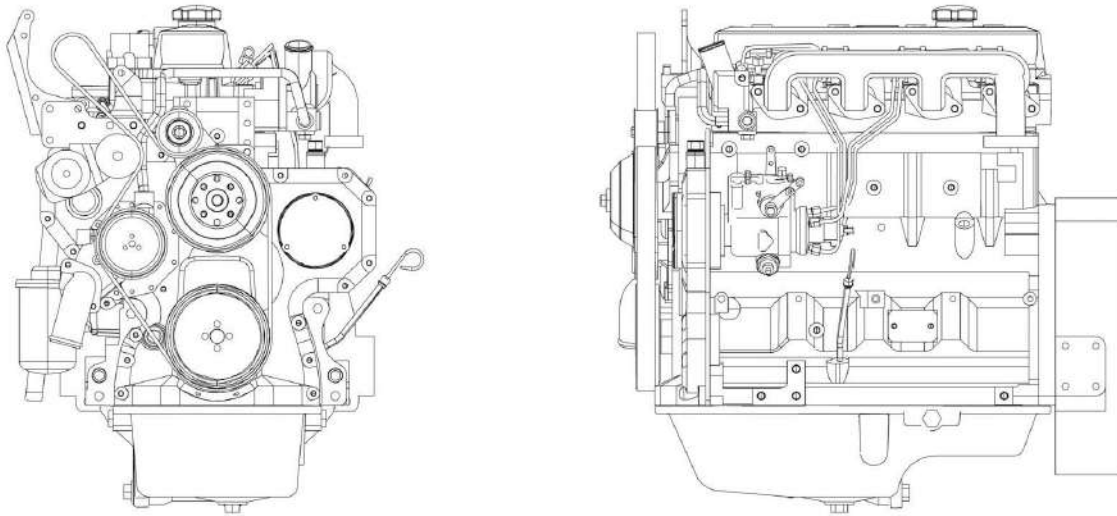
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-4. ENGINE ASSEMBLY, R.H. VIEW (SN 0160003136 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505061	1	ENGINE ASSY, (includes all items except items 47 thru 51 See ENGINE ASSEMBLY, L.H. VIEW and all items See ENGINE ASSEMBLY, R.H. VIEW)	I
1	91143122	4	SUPPORT CLAMP	
2	1001108292	1	ALTERNATOR, (includes item 3), (torque mounting bolts to 38-48 lb-ft)	
3	1001108291	1	REGULATOR	
4	91511166	1	AIR INTAKE BRACKET	
5	83191032	3	HEX HD CAPSCREW, M12X1.75X35, (torque to 66 lb-ft)	
6	83191010	4	LOCKWASHER, M12	
7	88561111	1	FLAT WASHER, 1/2	
8		Ref	LOWER RADIATOR HOSE, (See RADIATOR ASSEMBLY for Breakdown)	
9	83191043	2	HEX HD CAPSCREW, M16X2X30, (torque to 166-181 lb-ft)	
10	83783030	2	LOCKWASHER, M16	
11	91406027	1	RH FRONT ENGINE MOUNT	
12	83191004	1	HEX HD CAPSCREW, M12X1.75X30	
13		Ref	WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
14		Ref	STARTER, (Prestolite), (includes item 15 ), (no longer available, See OPTIONS SECTION for Breakdown) <b>(SN 0160003136 through 0160006622, Excluding 0160000198 and 0160006286)</b>	
15	91414040	1	STARTER SOLENOID	
16	83191062	2	SOCKET HD CAPSCREW, M10X1.5X40	
17	83191040	1	SOCKET HD CAPSCREW, M10X1.5X30, (top inner mtg hole)	
18	83191013	3	LOCKWASHER, M10	
19	91563121	1	TRANSMISSION TEMPERATURE SWITCH	
20	91476022	1	RH TRANSMISSION MOUNT	
21	2750532	102 in	FUEL LINE, 3/8	
22	86883106	4	HOSE CLAMP	
23	91053020	1	TEST COUPLING, (includes item 27)	
24	91413015	1	MODIFIED FITTING	
25	91083218	1	FUEL STRAINER	
26	90028660	1	SUPPORT CLAMP	
27	91054002	1	VITON O-RING, (lubricate lightly)	
28	90027187	6	TY-RAP	
29	3291201	1	HEX NUT, 12mm-1.75	
30	5251016	1	HEX FLANGE SCREW, 10-15X40mm	
31	5261000	1	HEX FLANGE NUT, 10mm	
32	2720058	100 in	FUEL LINE, 5/16	
33	80373025	1	PUSH LOCK FITTING	
34	24861170	2	CLAMP	
35	91203039	3	CLAMP	
36	77143003	2	WHIZ LOCK SCREW, 5/16-18X5/8	
37	0791506	1	WHIZ LOCK SCREW, 5/16-18X3/4	
38	77143006	3	WHIZ LOCK NUT, 5/16-18	
39	91043342	1	STUD	
40	14403364	AR	LOCTITE, 242	
41	14404043	AR	LOCTITE, 545	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-5. DEERE ENGINE (SN 0192001 through 0192007, SN 016000052 through 0160002686, Excluding 0160000198)





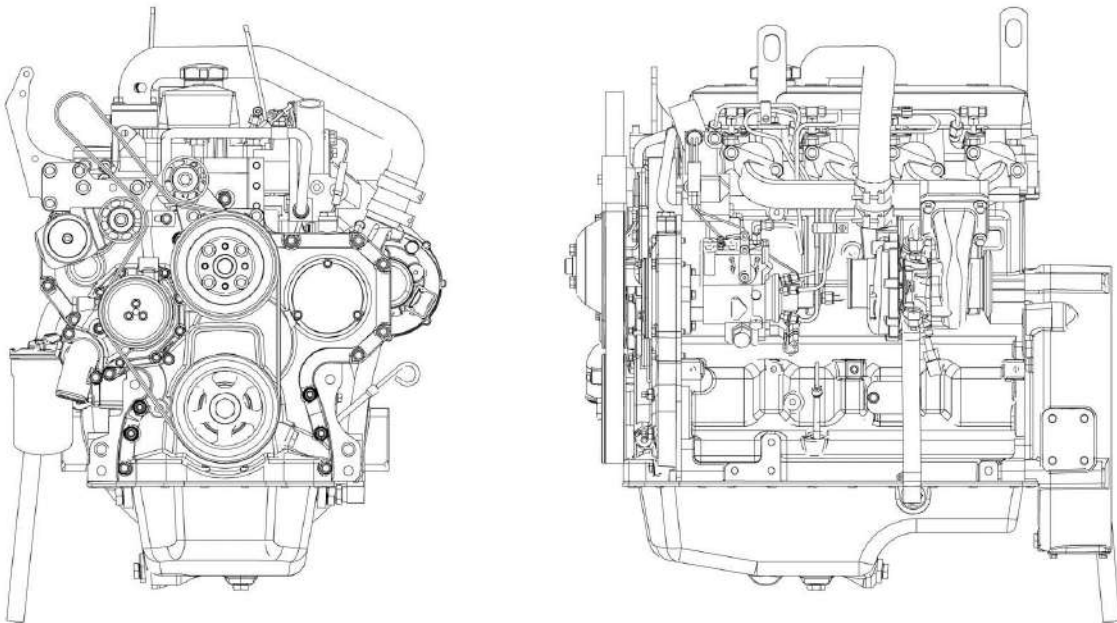
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-5. DEERE ENGINE (SN 0192001 through 0192007, SN 016000052 through 0160002686, Excluding 016000198)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473016	1	JOHN DEERE ENGINE, (includes all items)	
	91404219	1	GASKET OVERHAUL KIT	
	91404220	1	ENGINE CYLINDER HEAD GASKET	
	91404221	1	BOLT, BELT TENSIONER	
	91404222	1	SCREW, BELT TENSIONER	
	91404223	1	SHEAVE, BELT TENSIONER	
	91404224	1	OIL COOLER	
	91404225	1	GASKET, OIL COOLER	
	91404226	1	GASKET, OIL COOLER	
	91404227	2	O-RING, OIL COOLER	
	91404228	2	O-RING, OIL COOLER	
	91404229	1	O-RING, WATER PUMP INLET	
	91404230	1	KIT, WATER PUMP INLET	
	70023425	1	SEAL, FRONT MAIN SEAL	
	91404232	1	GASKET, WATER PUMP	
	91404233	1	WATER PUMP	
	91404234	4	GASKET, EXHAUST MANIFOLD	
	91404235	1	PULLEY, FAN	
	91404236	1	SCREW, FAN PULLEY	
	91404237	1	SPACER, FAN PULLEY	
	91404238	1	SLEEVE, FAN PULLEY	
	91404239	1	BEARING HOUSING W/BEARING	
	7026927	1	GASKET, THERMOSTAT	
	91404241	3	PLUG, OIL PAN	
	91404242	1	GASKET, OIL PAN	
	91404243	2	O-RING, OIL PAN	
	91404244	1	SEAL, INJECTOR	
	91404245	1	VALVE, INJECTOR	
	91404246	1	STEEL, INJECTOR	
	91404247	1	O-RING, INJECTOR	
	91404249	1	INJECTION NOLE	
	91474185	1	FLYWHEEL, W/RING GEAR	
	91404251	1	SEAL, REAR MAIN	
	91404252	1	PULLEY, MAIN	
	91404253	2	GASKET, OIL FILLER	
	91404254	1	PACKING, VALVE COVER NUT	
	91404255	1	PACKING, FILLER CAP	
	91404256	4	PLUG, VALVE COVER	
	91404257	1	GASKET, VALVE COVER	
	91404258	1	FILLER CAP, VALVE COVER	
	91404259	4	O-RING, VALVE COVER	
	91404260	1	COOLANT, PRE-MIX, (2.5 gal)	
	91404261	1	COOLANT CONDITIONER	
	91404262	1	FUEL TRANSFER PUMP	
	91404263	1	THERMOSTAT	
	91404264	1	THERMOSTAT COVER SEAL	
	91474629	1	ALTERNATOR BRACKET	
	91474630	1	ALTERNATOR SUPPORT	
	91474631	1	ALTERNATOR STRAP	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-6. DEERE ENGINE (SN 0160003136 through 0160006622, Excluding 0160006286)



## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-6. DEERE ENGINE (SN 0160003136 through 0160006622, Excluding 0160006286)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91513231	1	JOHN DEERE ENGINE, 99HP, (includes all items)	C
	91404257	1	GASKET, VALVE COVER	
	91404256	4	PLUG, VALVE COVER	
	91404259	4	O-RING, VALVE COVER PLUG	
	91404258	1	FILLER CAP, VALVE COVER, (includes Packing)	
	91404255	1	PACKING, FILLER CAP	
	91404253	2	GASKET, OIL FILLER	
	91404251	1	SEAL, REAR MAIN	
	91474185	1	FLYWHEEL, (includes Ring Gear)	
	80374031	1	RING GEAR	
	91514256	1	FUEL PUMP	
	7026919	1	GASKET, AIR INLET	
	7026918	1	GASKET, AIR INLET	
	91404242	1	GASKET, OIL PAN	
	80374037	1	O-RING, OIL PUMP INTAKE	
	7026927	1	GASKET, THERMOSTAT COVER	
	7026920	1	THERMOSTAT	
	91404086	1	BELT	
	91404234	4	GASKET, EXHAUST MANIFOLD	
	91404004	1	FUEL FILTER ELEMENT	
	80374054	1	KIT, FUEL FILTER	
	80374050	1	SEAL KIT, FUEL FILTER	
	91404262	1	FUEL PUMP, (includes o-ring)	
	7026923	1	O-RING, FUEL PUMP	
	91474171	1	DIPSTICK	
	80374033	1	DIPSTICK TUBE	
	91404233	1	WATER PUMP	
	91404232	1	GASKET, WATER PUMP	
	91404264	1	GASKET, WATER PUMP	
	70023425	1	SEAL, FRONT MAIN	
	91514260	1	GASKET, FRONT MAIN	
	91514257	1	O-RING, FRONT MAIN COVER	
	91514258	1	OIL PUMP	
	91404220	1	GASKET, CYLINDER HEAD	
	91404229	1	O-RING, WATER PUMP INLET	
	91404224	1	OIL COOLER	
	91404225	1	GASKET, OIL COOLER	
	91404226	1	GASKET, OIL COOLER	
	91514259	1	TURBOCHARGER	
	91404267	1	GASKET, TURBOCHARGER	
	91404265	1	GASKET, TURBOCHARGER	
	91534005	1	OIL FILTER	
	80374036	1	GASKET, OIL FILTER	
	91474506	1	DRAIN PLUG, OIL FILTER HEAD, (includes o-ring)	
	80374020	1	O-RING, DRAIN PLUG	
	91404221	1	BOLT, BELT TENSIONER	
	91404222	1	SCREW, BELT TENSIONER	
	91404223	1	SHEAVE, BELT TENSIONER	
	91474629	1	ALTERNATOR BRACKET	
	91474630	1	ALTERNATOR SUPPORT	

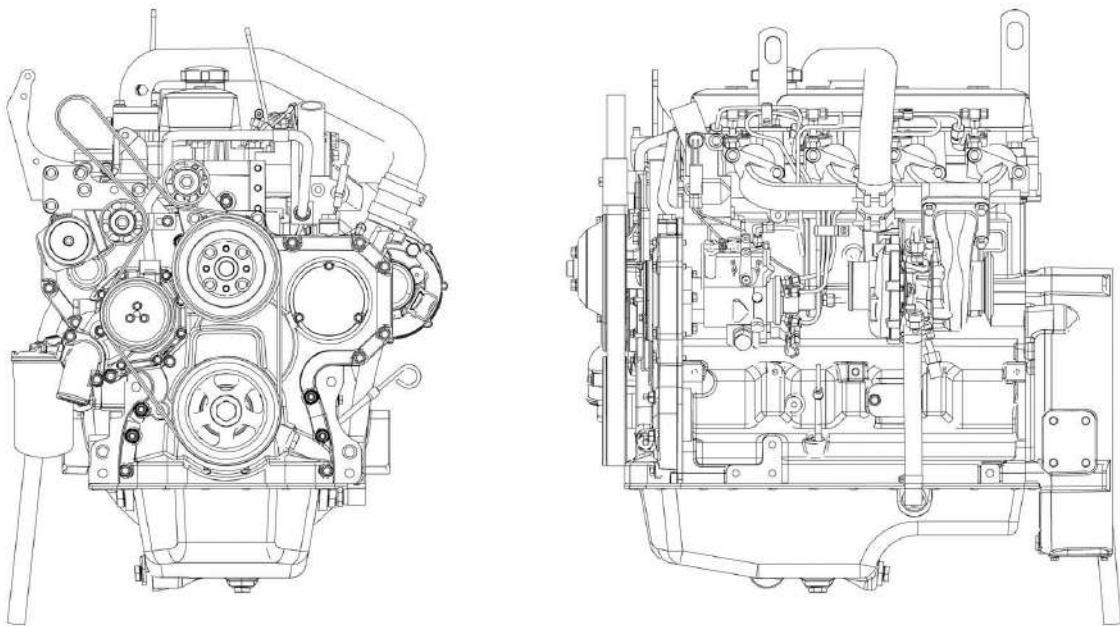
## SECTION 4 - ENGINE AND ATTACHING PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474631	1	ALTERNATOR STRAP	



## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-7. DEERE ENGINE (SN 0160006707 to Present, Including 0160000198 and 0160006286)



## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-7. DEERE ENGINE (SN 0160006707 to Present, Including 0160000198 and 0160006286)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91513271	1	JOHN DEERE ENGINE, 99HP, (includes all items)	B
	91404257	1	GASKET, VALVE COVER	
	91404256	4	PLUG, VALVE COVER	
	91404259	4	O-RING, VALVE COVER PLUG	
	91404258	1	FILLER CAP, VALVE COVER, (includes Packing)	
	91404255	1	PACKING, FILLER CAP	
	91404253	2	GASKET, OIL FILLER	
	91404251	1	SEAL, REAR MAIN	
	91474185	1	FLYWHEEL, (includes Ring Gear)	
	80374031	1	RING GEAR	
	91514256	1	FUEL PUMP	
	7026919	1	GASKET, AIR INLET	
	7026918	1	GASKET, AIR INLET	
	91404242	1	GASKET, OIL PAN	
	80374037	1	O-RING, OIL PUMP INTAKE	
	7026927	1	GASKET, THERMOSTAT COVER	
	7026920	1	THERMOSTAT	
	91404086	1	BELT	
	91404234	4	GASKET, EXHAUST MANIFOLD	
	91404004	1	FUEL FILTER ELEMENT	
	80374054	1	KIT, FUEL FILTER	
	80374050	1	SEAL KIT, FUEL FILTER	
	91404262	1	FUEL PUMP, (includes o-ring)	
	7026923	1	O-RING, FUEL PUMP	
	91474171	1	DIPSTICK	
	80374033	1	DIPSTICK TUBE	
	91404233	1	WATER PUMP	
	91404232	1	GASKET, WATER PUMP	
	91404264	1	GASKET, WATER PUMP	
	70023425	1	SEAL, FRONT MAIN	
	91514260	1	GASKET, FRONT MAIN	
	91514257	1	O-RING, FRONT MAIN COVER	
	91514258	1	OIL PUMP	
	91404220	1	GASKET, CYLINDER HEAD	
	91404229	1	O-RING, WATER PUMP INLET	
	91404224	1	OIL COOLER	
	91404225	1	GASKET, OIL COOLER	
	91404226	1	GASKET, OIL COOLER	
	91514259	1	TURBOCHARGER	
	91404267	1	GASKET, TURBOCHARGER	
	91404265	1	GASKET, TURBOCHARGER	
	91534005	1	OIL FILTER	
	80374036	1	GASKET, OIL FILTER	
	91474506	1	DRAIN PLUG, OIL FILTER HEAD, (includes o-ring)	
	80374020	1	O-RING, DRAIN PLUG	
	91404221	1	BOLT, BELT TENSIONER	
	91404222	1	SCREW, BELT TENSIONER	
	91404223	1	SHEAVE, BELT TENSIONER	
	7026921	1	STARTER	
	91474629	1	ALTERNATOR BRACKET	

## SECTION 4 - ENGINE AND ATTACHING PARTS

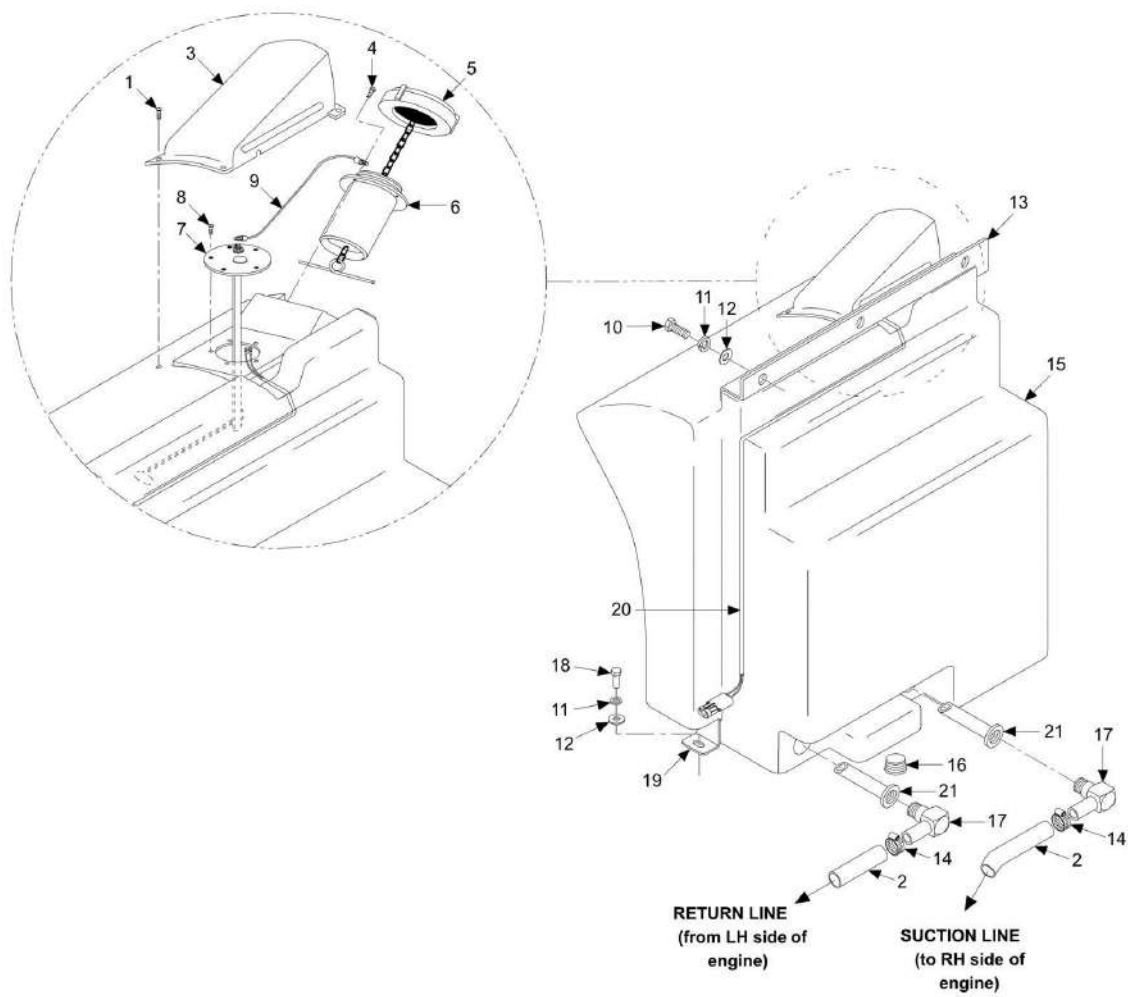
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474630	1	ALTERNATOR SUPPORT	
	91474631	1	ALTERNATOR STRAP	





# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-8. FUEL TANK AND LINES



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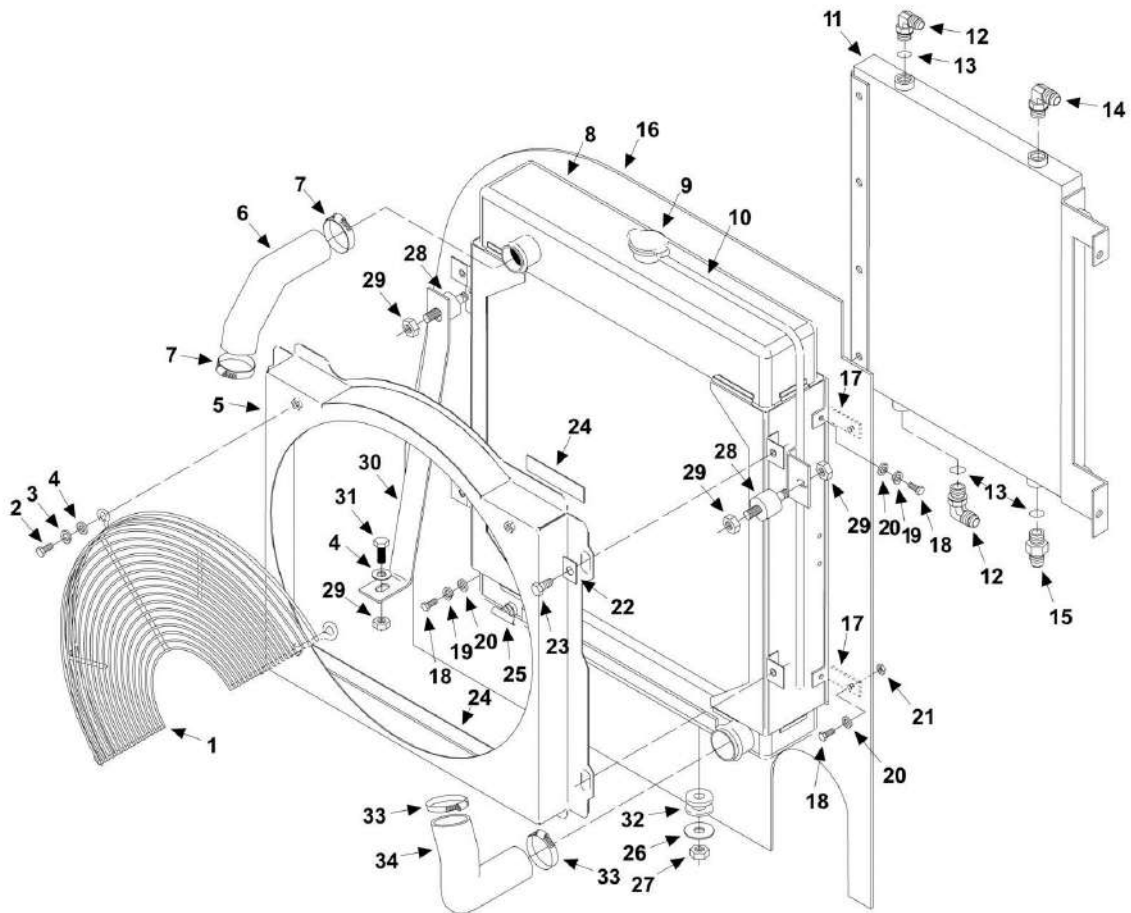
## SECTION 4 - ENGINE AND ATTACHING PARTS

### FIGURE 4-8. FUEL TANK AND LINES

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91405042	1	FUEL TANK ASSY, (includes items 4 thru 9, 15 & 20)	
1	77143003	4	WHIZ-LOK BOLT, 5/16-18X5/8	
2		Ref	FUEL LINE, 5/16 I.D.	
3	91403254	1	FUEL TANK HOOD	
4	88261014	4	SOCKET BUTTON HD CAPSCREW, 1/4-20X1/2	
5	91403513	1	FUEL TANK CAP, (w/chain)	
5	91403514	1	LOCKING FUEL TANK CAP, (optional), (includes key)	
5	91404443	1	KEY	
6	91403524	1	FILLER NECK	
7	91403609	1	FUEL LEVEL SENDER	
8	88301191	5	ROUND HD MACHINE SCREW, #10-32X3/8	
9	91401581	1	JUMPER WIRE	
10	88201036	3	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
11	88561004	5	FLAT WASHER, 3/8	
12	88551011	5	LOCKWASHER, 3/8	
13	91401198	1	FUEL TANK HOLD DOWN	
14	86883106	2	HOSE CLAMP	
15	91403176	1	FUEL TANK, (includes items 16, 17 & 21)	
16	88711283	1	HEX SOCKET PIPE PLUG, 1/2	
17	1001113251	2	ELBOW, 90	
18	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
19	91416014	1	FUEL TANK STRAP WELDMENT (no longer available, use 91511215 for replacement)	
19	91511215	1	FUEL TANK STRAP WELDMENT	
20	91403437	1	FUEL GAUGE HARNESS	
21	91404068	2	PICK-UP TUBE, 6IN	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-9. RADIATOR ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160002686)



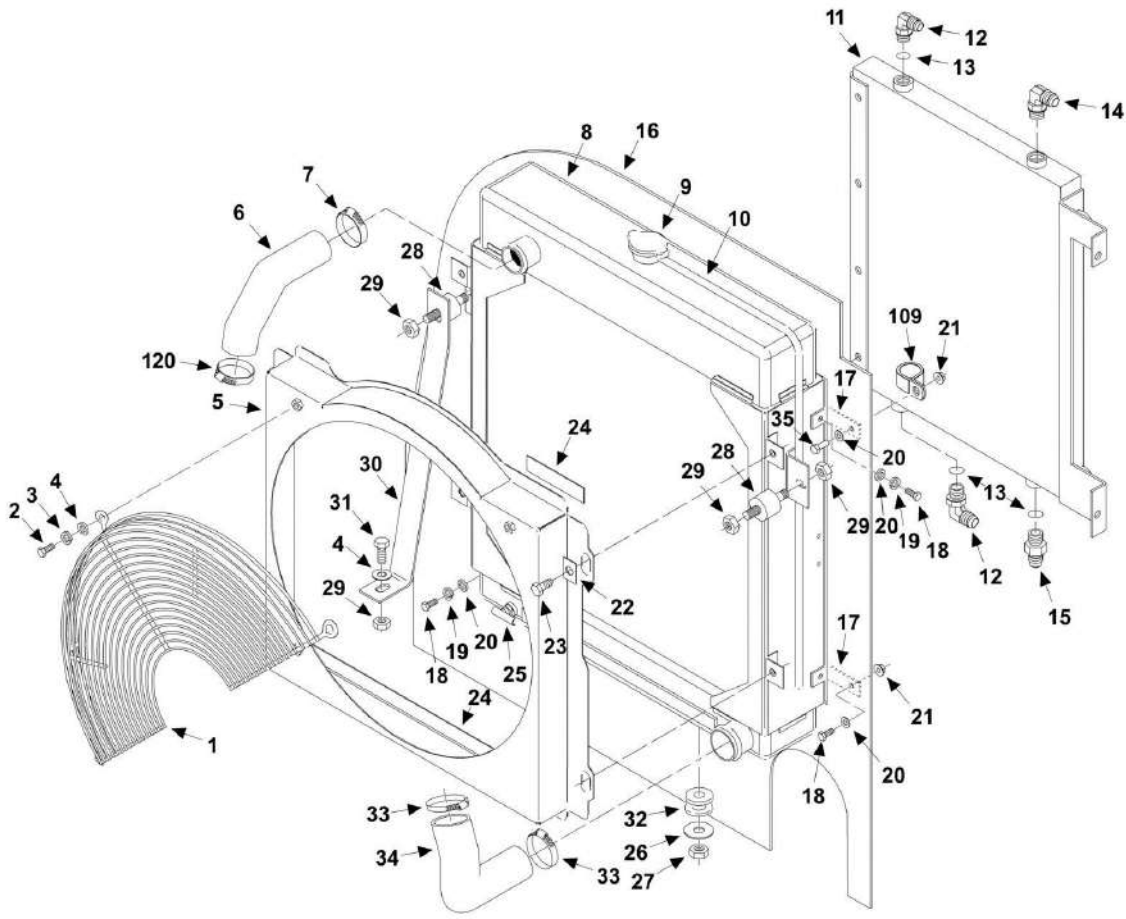
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-9. RADIATOR ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475016	1	RADIATOR ASSY, (includes items 5 thru 25)	
1	91473108	1	FAN GUARD	
2	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
3	88551011	3	LOCKWASHER, 3/8	
4	88561003	4	FLAT WASHER, 5/16	
5	91476033	1	FAN SHROUD	
6	91403095	1	UPPER RADIATOR HOSE	
7	85071128	2	HOSE CLAMP	
8	91403141	1	RADIATOR, (includes items 9 & 10)	
9	91404008	1	RADIATOR CAP, 10 PSI	
10	Bulk	38 in	OVERFLOW HOSE	
11	91473019	1	OIL COOLER	
12	88662067	2	ELBOW, 90, (includes item 13)	
13	88591207	3	O-RING	
14	83251198	1	ELBOW, 90	
15	88662008	1	CONNECTOR, (includes item 13)	
16	91473136	1	RUBBER AIR DAM	
17	91471132	2	AIR DAM BRACKET	
18	88201019	8	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
19	88551010	6	LOCKWASHER, 5/16	
20	88561108	8	FLAT WASHER, 5/16	
21	77143006	2	WHIZ-LOCKNUT, 5/16-18	
22	91143348	4	CLAMP BAR	
23	77143003	4	WHIZ-LOCK SCREW, 5/16-18X5/8	
24	Bulk	28 in	GASKA-TAPE	
25	84521056	1	DRAIN COCK	
26	90205918	2	HARDENED WASHER, 3/8	
27	88521206	2	HEX LOCKNUT, 3/8-16	
28	91033137	2	SHOCK MOUNT	
29	77143006	5	WHIZ-LOCKNUT, 5/16-18	
30	91471108	1	RADIATOR BRACKET	
31	88201021	1	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
32	83683308	2	PAD MOUNTING	
33	86883327	2	HOSE CLAMP	
34	91403096	1	LOWER RADIATOR HOSE	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-10. RADIATOR ASSEMBLY (SN 0160003136 to Present)



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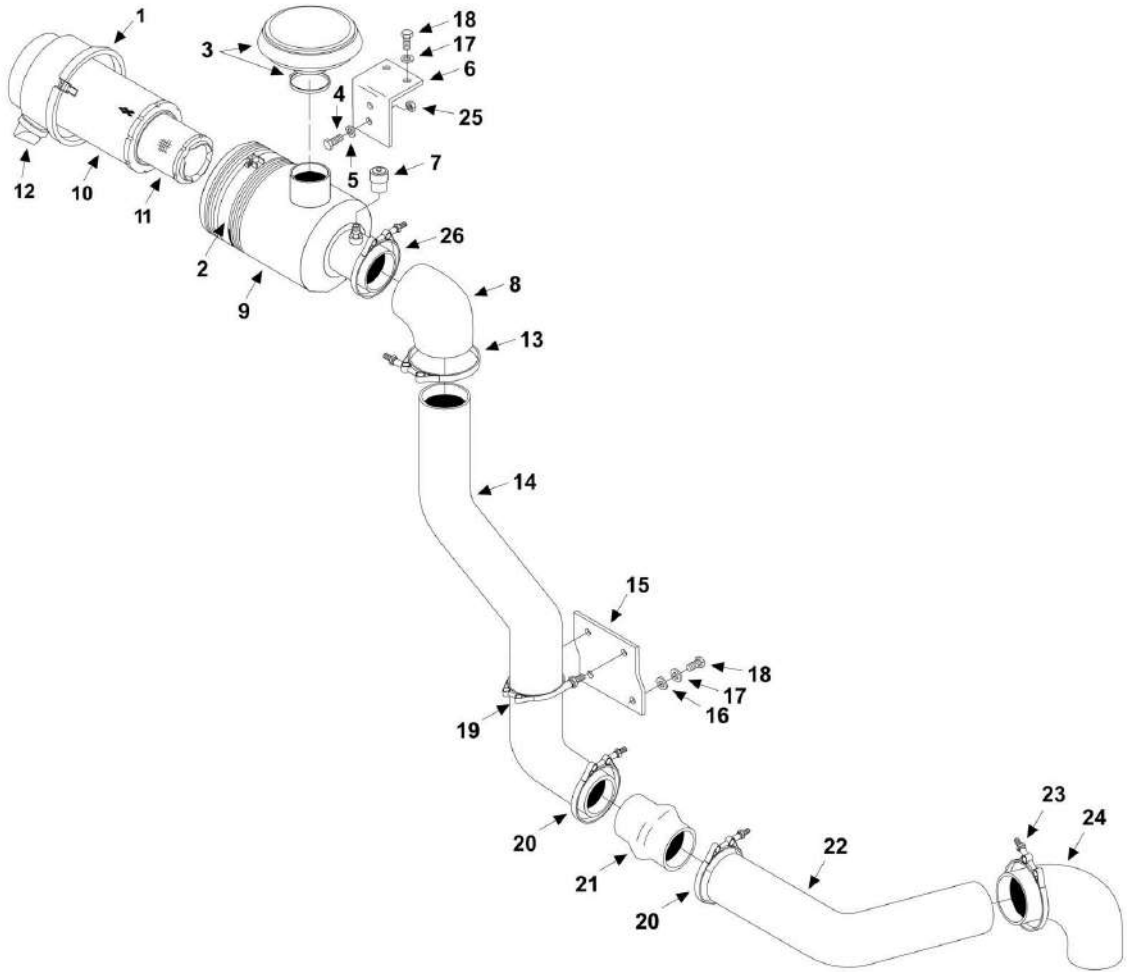
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-10. RADIATOR ASSEMBLY (SN 0160003136 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475017	1	RADIATOR ASSY, (includes items 5 thru 25 & 35)	H
1	91473108	1	FAN GUARD	
2	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
3	88551011	3	LOCKWASHER, 3/8	
4	88561003	4	FLAT WASHER, 5/16	
5	91476033	1	FAN SHROUD	
6	91403095	1	UPPER RADIATOR HOSE	
7	85071128	1	HOSE CLAMP	
8	91403142	1	RADIATOR, (includes items 9 & 10)	
9	91404008	1	RADIATOR CAP, 10 PSI	
10	N.S.S.	38 in	OVERFLOW HOSE	
11	91473019	1	OIL COOLER	
12	2220578	2	ELBOW, 90, (includes item 13)	
13	88591207	3	O-RING	
14	2220664	1	ELBOW, 90	
15	2220451	1	CONNECTOR, (includes item 13)	
16	91473136	1	RUBBER AIR DAM	
17	91471132	2	AIR DAM BRACKET	
18	88201019	7	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
19	88551010	6	LOCKWASHER, 5/16	
20	88561108	8	FLAT WASHER, 5/16	
21	77143006	2	WHIZ-LOCKNUT, 5/16-18	
22	91143348	4	CLAMP BAR	
23	77143003	4	WHIZ-LOCK SCREW, 5/16-18X5/8	
24	90200755	28 in	GASKA-TAPE	
25	84521056	1	DRAIN COCK	
26	90205918	2	HARDENED WASHER, 3/8	
27	88521206	2	HEX LOCKNUT, 3/8-16	
28	91033137	2	SHOCK MOUNT	
29	77143006	5	WHIZ-LOCKNUT, 5/16-18	
30	91471108	1	RADIATOR BRACKET	
31	88201021	1	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
32	83683308	2	PAD MOUNTING	
33	86883327	2	HOSE CLAMP	
34	91403096	1	LOWER RADIATOR HOSE	
35	88201022	1	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
109	24601710	1	SUPPORT CLAMP	
120	85071128	1	HOSE CLAMP	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-11. AIR CLEANER AND INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)





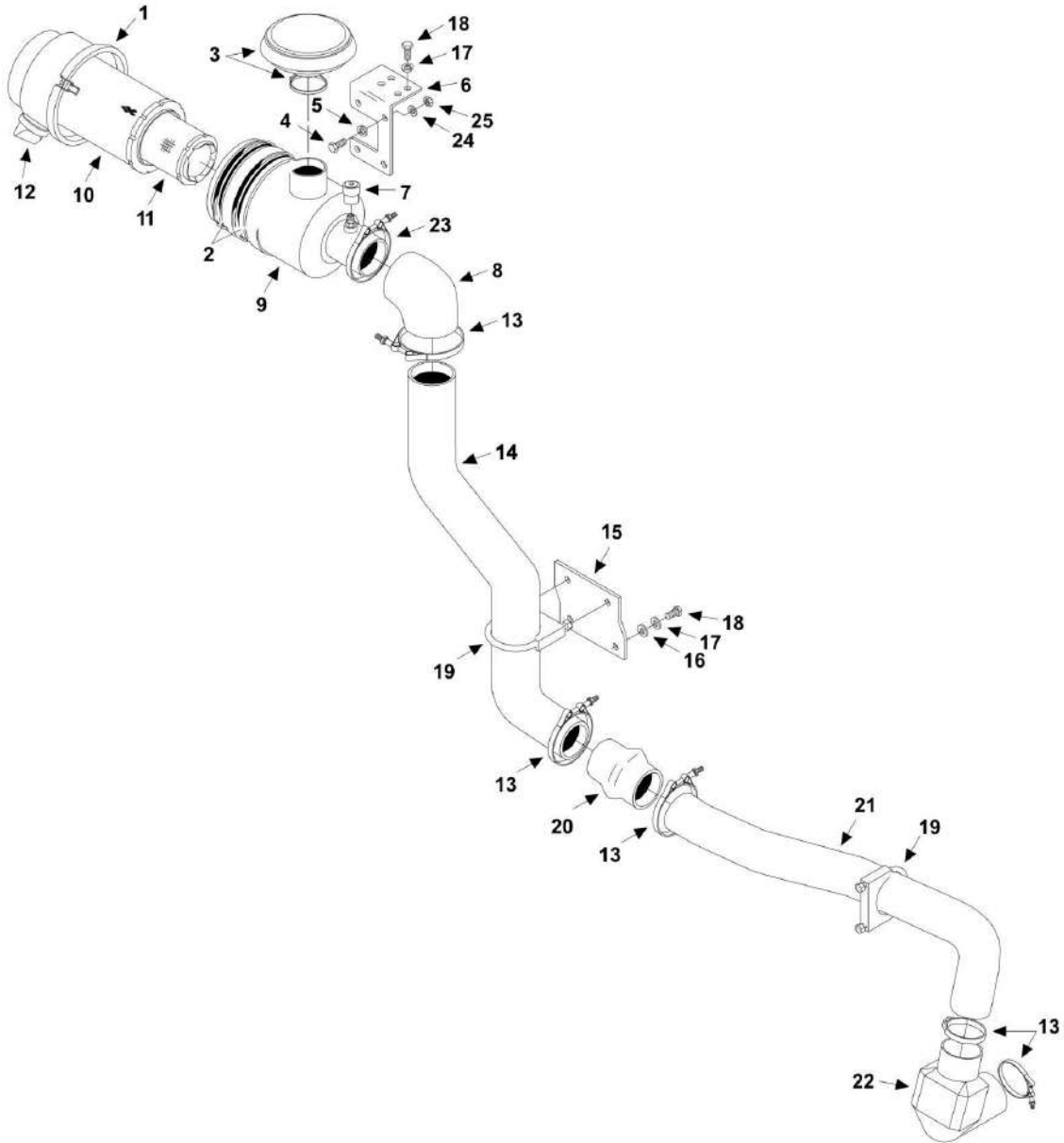
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-11. AIR CLEANER AND INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475046	Ref	AIR CLEANER ASSY, (includes items 1 thru 12, 25 & 26)	D
1	80274004	1	COVER ASSY	
2	80273011	1	BAND CLAMP	
3	91473100	1	AIR INTAKE HOOD, (includes clamp)	
4	88201018	2	HEX HD CAPSCREW, 5/16-18X3/4	
5	88551010	2	LOCKWASHER, 5/16	
6	91471181	1	CLAMP MOUNT BRACKET	
7	83671475	1	SERVICE INDICATOR	
8	91083129	1	ELBOW, 90	
9	91403101	NLA	AIR CLEANER, (includes items 1, 10, 11 & 12), (no longer available, use 10733141 for replacement)	
9	10733141	1	AIR CLEANER, (includes items 1, 10, 11 & 12)	
10	80273010	1	ELEMENT, (outer)	
11	80273042	1	ELEMENT, (inner)	
12	10733183	1	VACUATER	
13	91163129	1	BAND CLAMP	
14	91473104	1	AIR INTAKE TUBE	
15	91471133	1	INTAKE SUPPORT BRACKET	
16	88561004	2	FLAT WASHER, 3/8	
17	88551011	4	LOCKWASHER, 3/8	
18	88201033	4	HEX HD CAPSCREW, 3/8-16X3/4	
19	24921332	1	MUFFLER CLAMP	
20	91163129	2	BAND CLAMP	
21	91403244	1	STRAIGHT HUMP	
22	91473102	1	AIR INTAKE TUBE	
23	90028488	1	HOSE CLAMP	
24	91413096	1	RUBBER ELBOW	
25	77143006	2	WHIZ-LOCKNUT, 5/16-18	
26	91163137	1	BAND CLAMP	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-12. AIR CLEANER AND INSTALLATION (SN 0160003136 to Present)



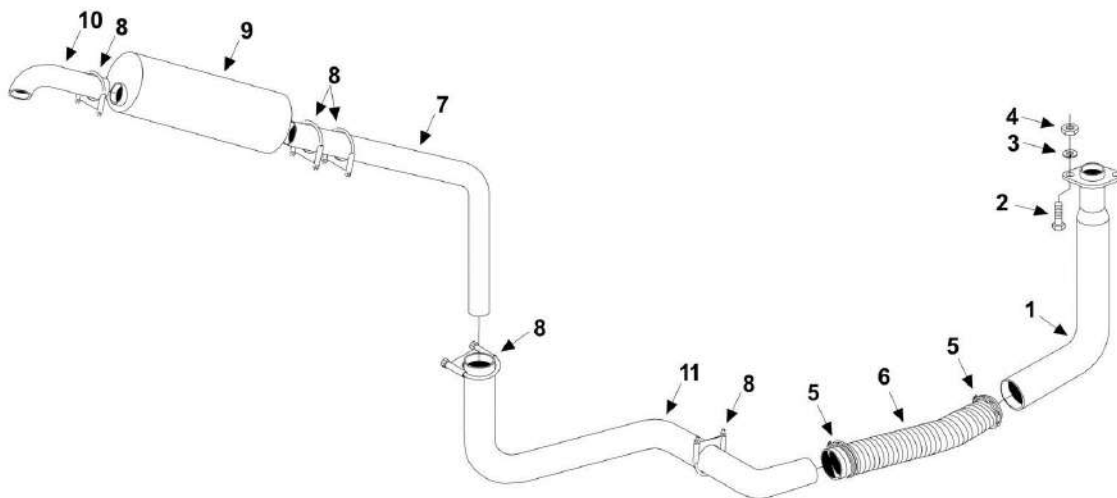
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-12. AIR CLEANER AND INSTALLATION (SN 0160003136 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91515041	Ref	AIR CLEANER ASSY, (includes items 1 thru 12, 23, 24 & 25)	
1	91364023	1	COVER ASSY	
2	10268516	2	MOUNTING BAND	
3	8273257	1	AIR INLET HOOD, (includes clamp)	
4	88201021	4	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
5	88551010	4	LOCKWASHER, 5/16	
6	91511144	1	MOUNTING BRACKET	
7	77383154	1	SERVICE INDICATOR	
8	91153007	1	ELBOW, 90	
9	8273029	1	AIR CLEANER, (includes items 1, 10, 11 & 12)	
10	1101312	1	ELEMENT, (outer)	
11	1101313	1	ELEMENT, (inner)	
12	80373094	1	VACTUATOR	
13	91163129	5	BAND CLAMP	
14	91473104	1	AIR INTAKE TUBE	
15	91471133	1	INTAKE SUPPORT BRACKET	
16	88561004	2	FLAT WASHER, 3/8	
17	88551011	4	LOCKWASHER, 3/8	
18	88201033	4	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
19	24921332	2	CLAMP	
20	91403244	1	STRAIGHT HUMP	
21	91473103	1	AIR INTAKE TUBE	
22	91083126	1	AIR INTAKE ELBOW	
23	77383790	1	BAND CLAMP	
24	88561108	4	FLAT WASHER, 5/16	
25	77143006	4	WHIZ-LOCKNUT, 5/16-18	

## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-13. EXHAUST INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)



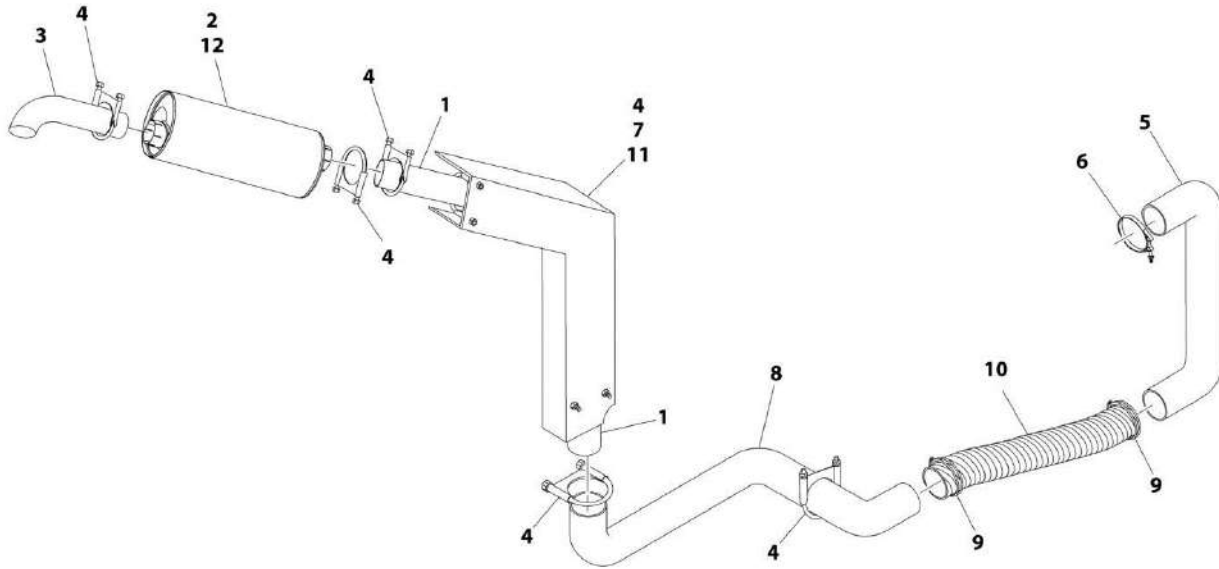
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-13. EXHAUST INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91473118	1	EXHAUST TUBE	
2	88201039	2	HEX HD CAPSCREW, 3/8-16X2, GR5	
3	88551011	2	LOCKWASHER, 3/8	
4	88501006	2	HEX NUT, 3/8-16	
5	91163268	2	FLEXIBLE TUBING CLAMP	
6	91473120	1	FLEXIBLE TUBING	
7	91503040	1	MUFFLER TUBE	
8	83683175	5	MUFFLER CLAMP	
9	91083250	1	MUFFLER	
10	91403488	1	TAIL PIPE	
11	91473037	1	MUFFLER TUBE	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-14. EXHAUST INSTALLATION (SN 0160003136 to Present)



ART\_91504001-4-14

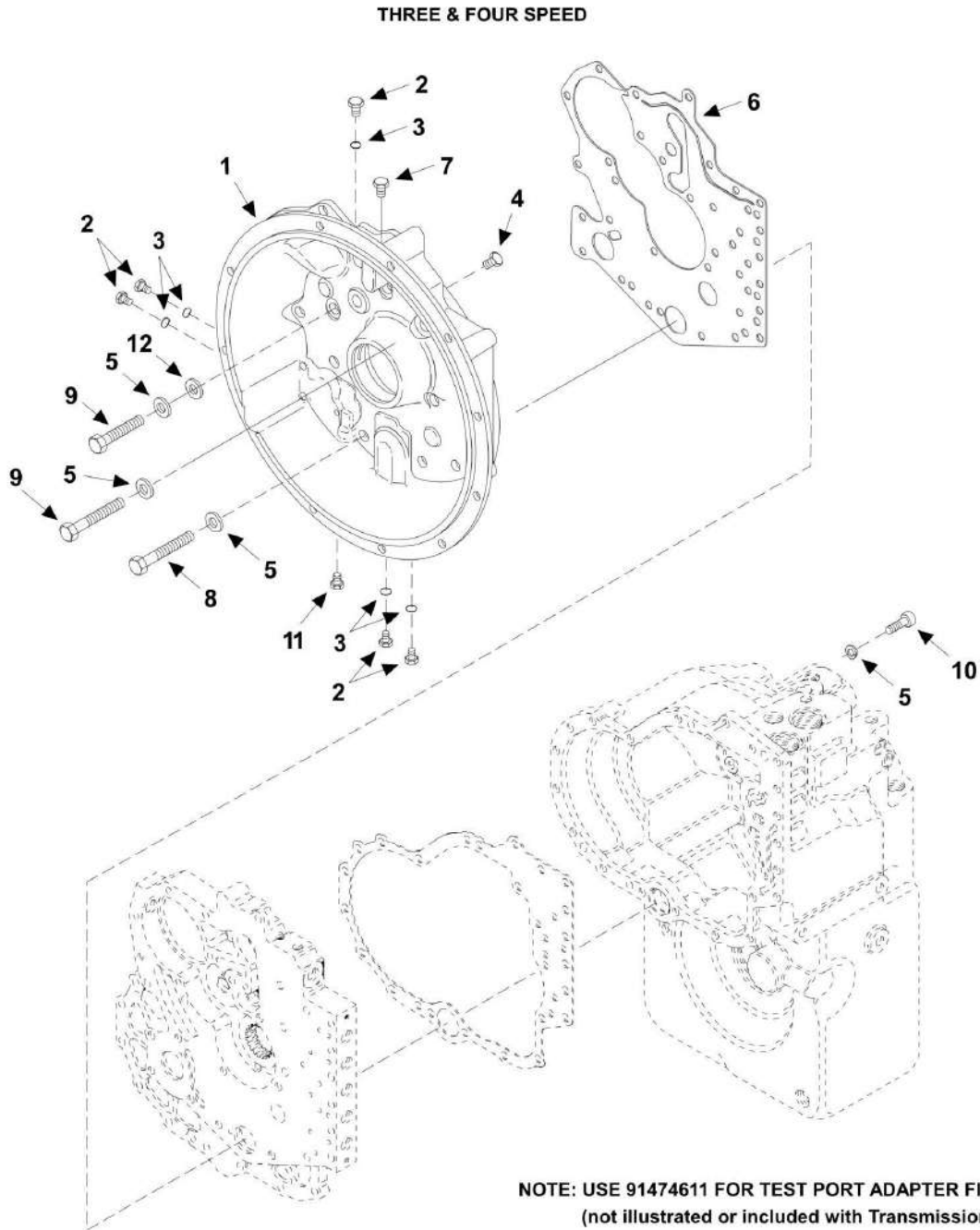
## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-14. EXHAUST INSTALLATION (SN 0160003136 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91503145	1	MUFFLER TUBE	
2	91163035	1	MUFFLER, (if equipped)	
3	91403489	1	TAIL PIPE	
4	24921332	7	MUFFLER CLAMP	
5	91473117	1	EXHAUST TUBE	
6	91403216	1	V-BAND CLAMP	
7	91506024	1	HEAT SHIELD	
8	91473036	1	MUFFLER TUBE	
9	91403601	2	CLAMP PIPE	
10	91473119	1	FLEX TUBE	
11	88561004	4	FLAT WASHER, 3/8	
12	H1533001	1	PURIMUFFLER, (if equipped)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-15. TRANSMISSION - CONVERTER HOUSING GROUP





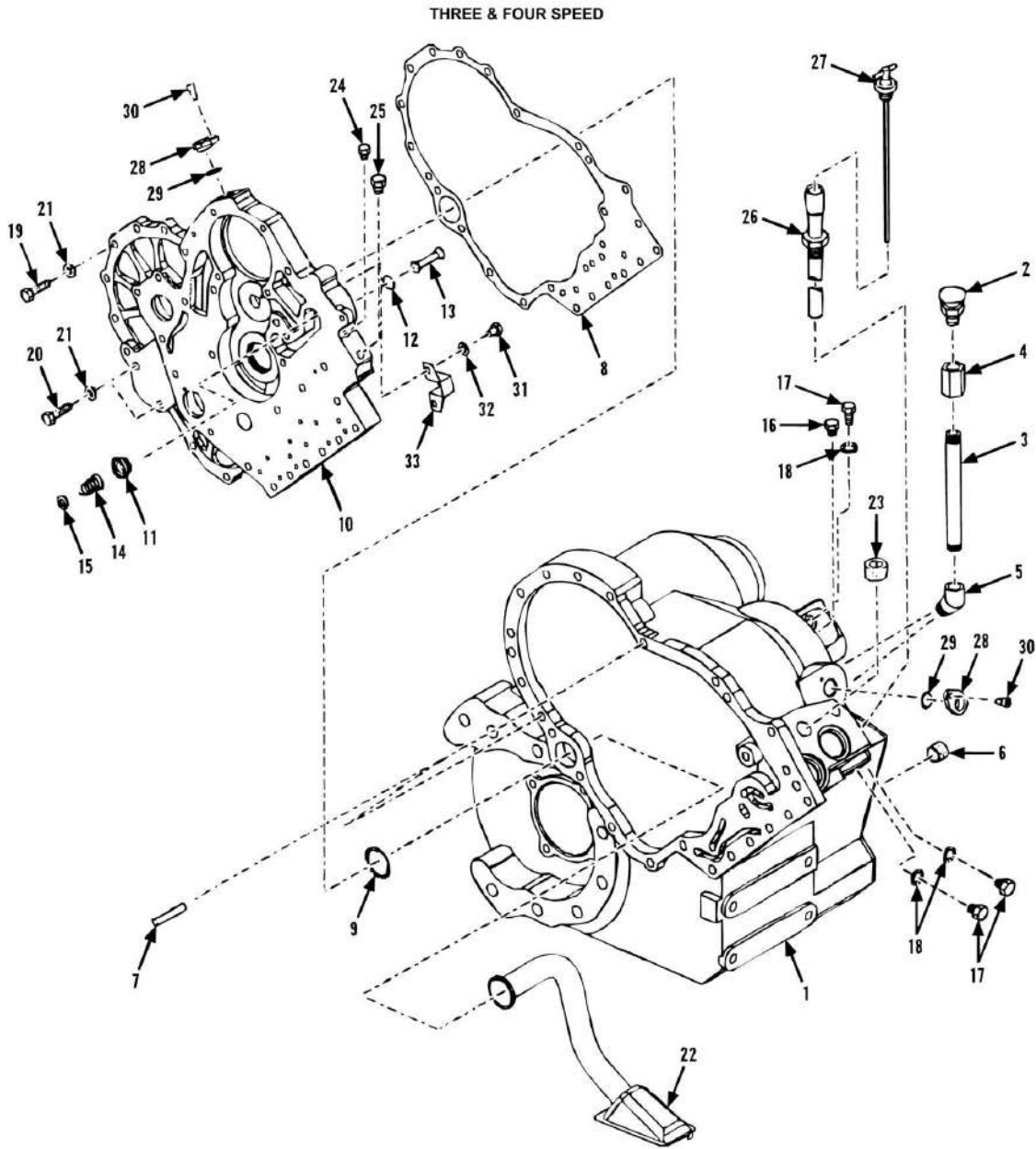
## SECTION 4 - ENGINE AND ATTACHING PARTS

### FIGURE 4-15. TRANSMISSION - CONVERTER HOUSING GROUP

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473179	1	THREE SPEED TRANSMISSION, (includes all items See TRANSMISSION - CONVERTER HOUSING GROUP thru TRANSMISSION - DROP BOX GROUP) ( <b>SN 0192001 through 0160000128</b> )	
	91473215	1	THREE SPEED TRANSMISSION, (includes all items See TRANSMISSION - CONVERTER HOUSING GROUP thru TRANSMISSION - DROP BOX GROUP) ( <b>SN 0160000141 through 0160002686</b> )	
	91513141	1	FOUR SPEED TRANSMISSION, (includes all items See TRANSMISSION - CONVERTER HOUSING GROUP thru TRANSMISSION - DROP BOX GROUP) ( <b>SN 0160000141 to Present</b> )	
1	91474186	1	CONVERTER HOUSING	
2	8032526	5	PLUG, (includes item 3)	
3	91474188	5	O-RING	
4	91474189	1	PLUG	
5	91474265	23	LOCKWASHER	
6	91474191	1	GASKET	
7	91474192	1	PLUG	
8	91474193	6	SCREW	
9	91474194	16	SCREW	
10	91474195	1	SCREW	
11	8035092	1	PLUG	
12	91474616	2	WASHER	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-16. TRANSMISSION - TRANSMISSION CASE AND PLATE GROUP



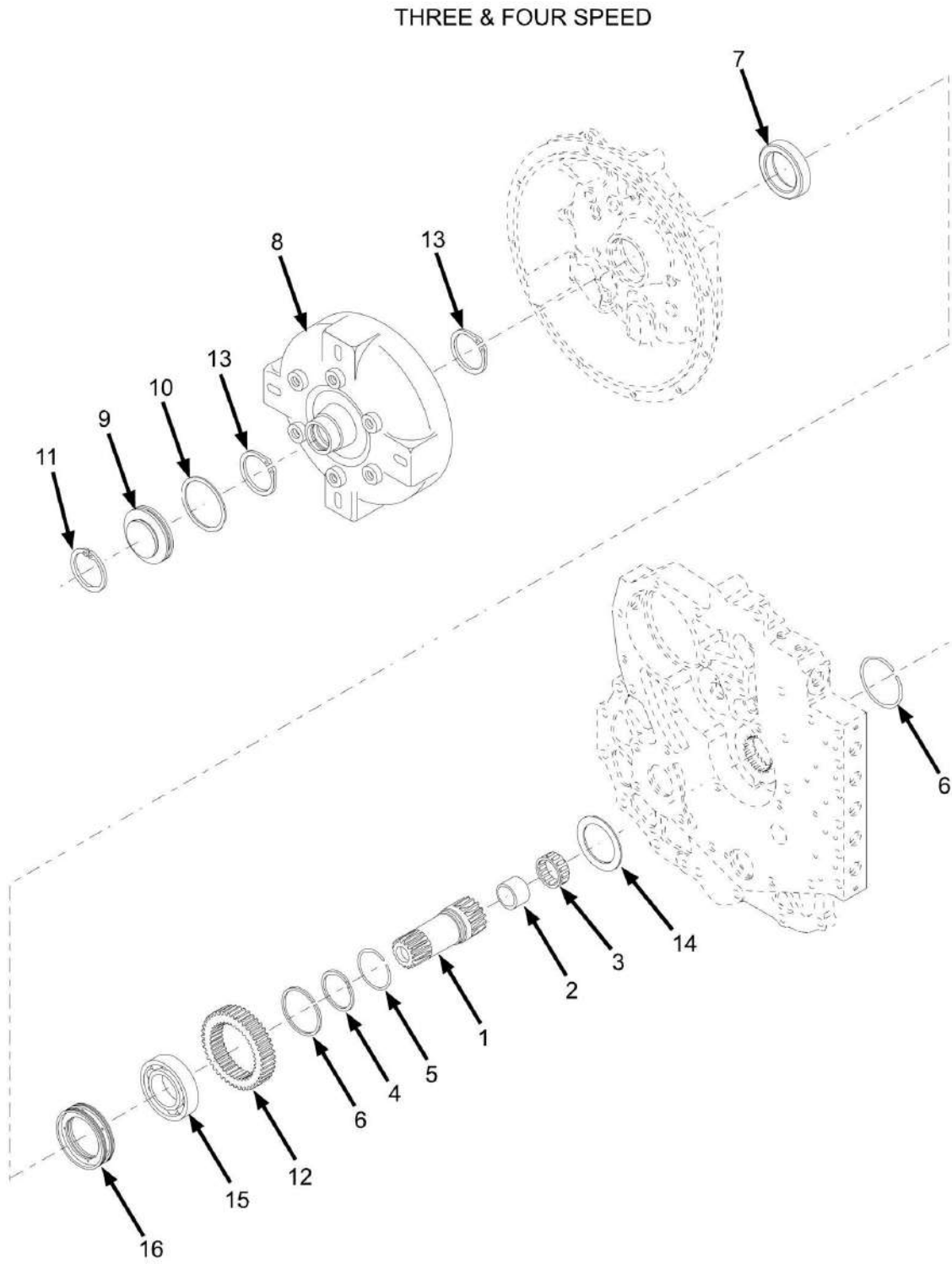
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-16. TRANSMISSION - TRANSMISSION CASE AND PLATE GROUP**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	TRANSMISSION CASE, TRANSMISSION CASE	
2	8032509	1	AIR BREATHER	
3	7028058	1	PIPE NIPPLE	
4	91474198	1	PIPE COUPLING	
5	91474199	1	FITTING	
6	8032528	2	MAGNETIC DRAIN PLUG	
7	91474200	2	PIN	
8	91474201	1	GASKET	
9	10837074	1	SEAL RING	
10	91474203	1	PLATE SPACER	
11	91474204	1	SAFETY VALVE PLATE	
12	91474205	1	SNAP RING	
13	91474206	1	POPPET	
14	77104056	1	SPRING	
15	91474207	1	WASHER	
16	91474189	1	PLUG	
17	8032526	3	PLUG, (includes item 18)	
18	91474188	3	O-RING	
19	91474208	7	SCREW	
20	91474209	2	SCREW	
21	91474265	9	LOCKWASHER	
22	91474210	1	TUBE AND SCREEN ASSY	
23	91474211	1	FILLER PLUG	
24	91474189	1	PLUG	
25	91474192	1	PLUG	
26	90204823	1	DIPSTICK TUBE ASSY	
27	91474212	1	DIPSTICK	
28	91474213	2	PLUG	
29	91474214	2	O-RING	
30	8034940	2	SCREW	
31	91474617	2	CAPSCREW	
32	91474618	2	WASHER	
33	91474619	1	SAFETY VALVE BAFFLE	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-17. TRANSMISSION - TORQUE CONVERTER GROUP



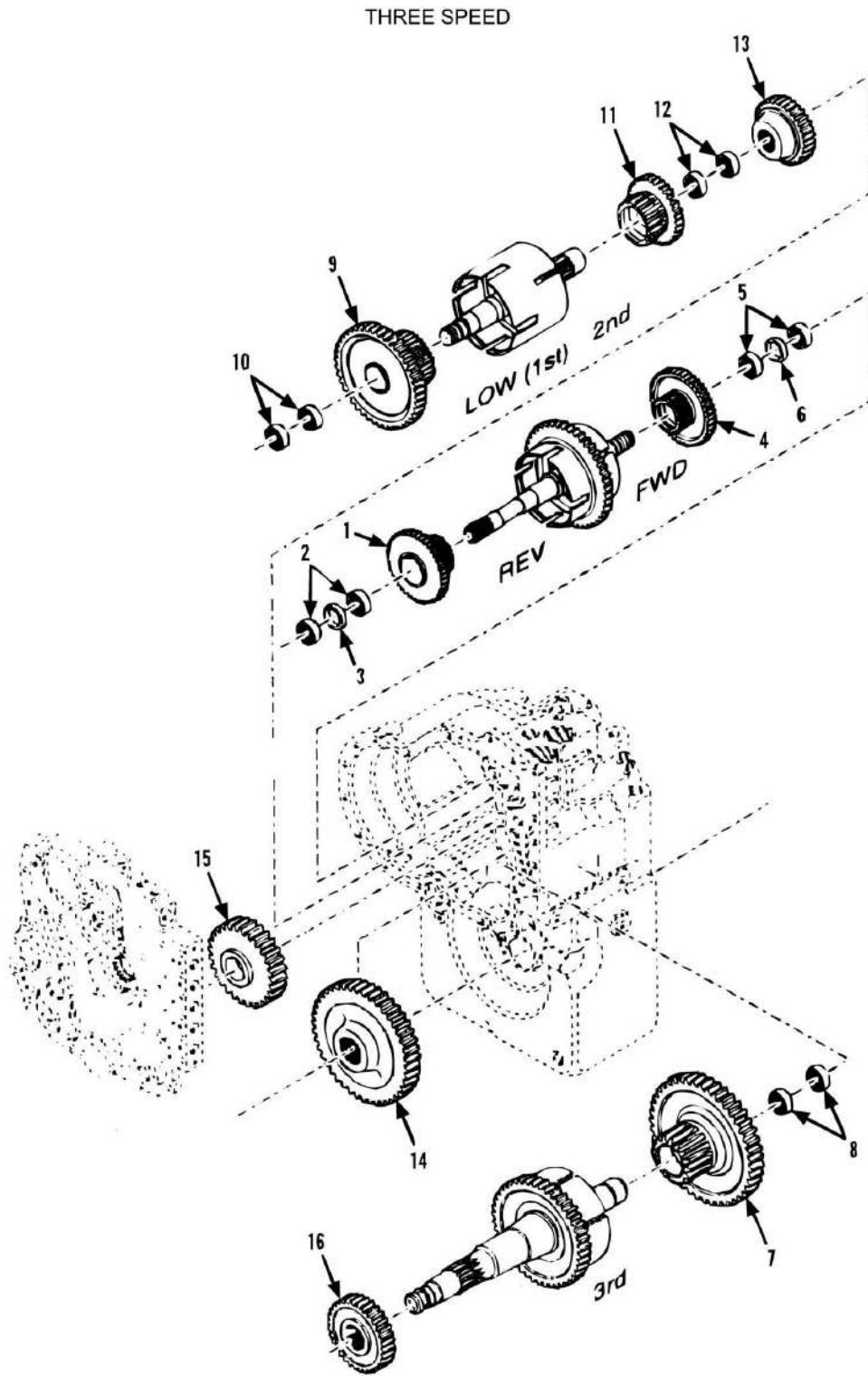
## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-17. TRANSMISSION - TORQUE CONVERTER GROUP

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474216	1	STATOR SUPPORT ASSY, (includes items 2 & 3)	
2	91474217	1	BUSHING	
3	91474218	1	BEARING	
4	91474219	1	RING	
5	91474220	1	EXPANDER	
6	91474221	2	SNAP RING	
7	10837072	1	OIL SEAL	
8	10868233	1	TORQUE CONVERTER ASSY, (three speed)	
8	91474385	1	TORQUE CONVERTER ASSY, (four speed)	
9	90204781	1	PLUG	
10	77104039	1	O-RING	
11	77104041	1	SNAP RING	
12	91474224	1	GEAR	
13	8034968	2	SNAP RING	
14	91474226	1	WASHER	
15	10868235	1	BEARING	
16	91474228	1	RING	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-18. TRANSMISSION - GEAR GROUP THREE SPEED



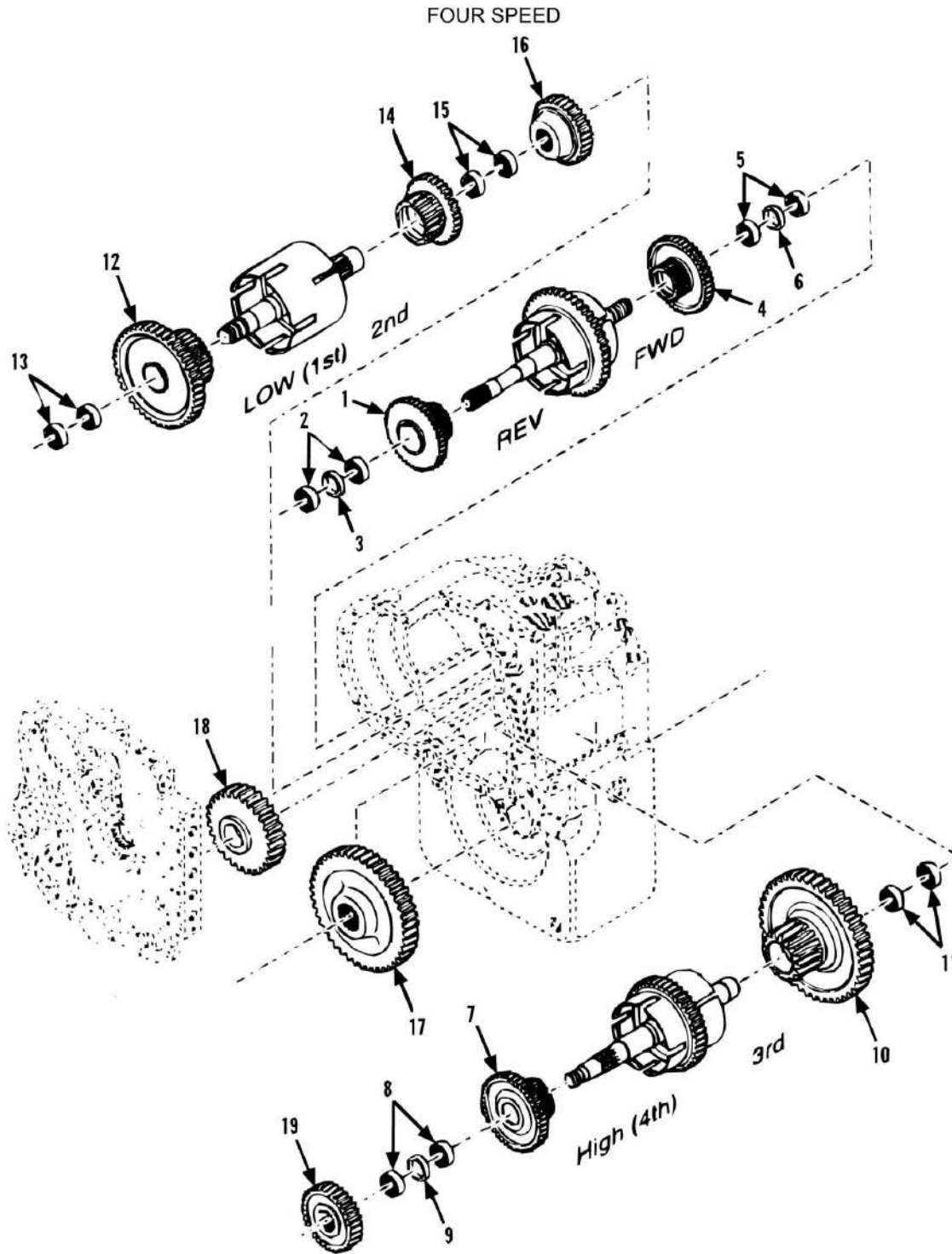
## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-18. TRANSMISSION - GEAR GROUP THREE SPEED

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474229	1	GEAR AND BEARING ASSY, (includes items 2 & 3)	
2	91474230	2	BEARING	
3	91474231	1	SPACER	
4	91474232	1	GEAR AND BEARING ASSY, (includes items 5 & 6)	
5	91474230	2	BEARING	
6	91474231	1	SPACER	
7	91474235	1	THIRD CLUTCH GEAR AND BEARING ASSY, (includes item 8)	
8	91474236	2	BEARING	
9	91474237	1	FIRST CLUTCH GEAR AND BEARING ASSY, (includes item 10)	
10	91474230	2	BEARING	
11	91474239	1	SECOND CLUTCH GEAR AND BEARING, (includes item 12)	
12	91474230	2	BEARING	
13	91474233	1	THIRD DRIVEN GEAR	
14	91474234	1	OUTPUT SHAFT GEAR	
15	91474238	1	REVERSE IDLER GEAR	
16	91474240	1	FIRST DRIVEN GEAR	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-19. TRANSMISSION - GEAR GROUP FOUR SPEED





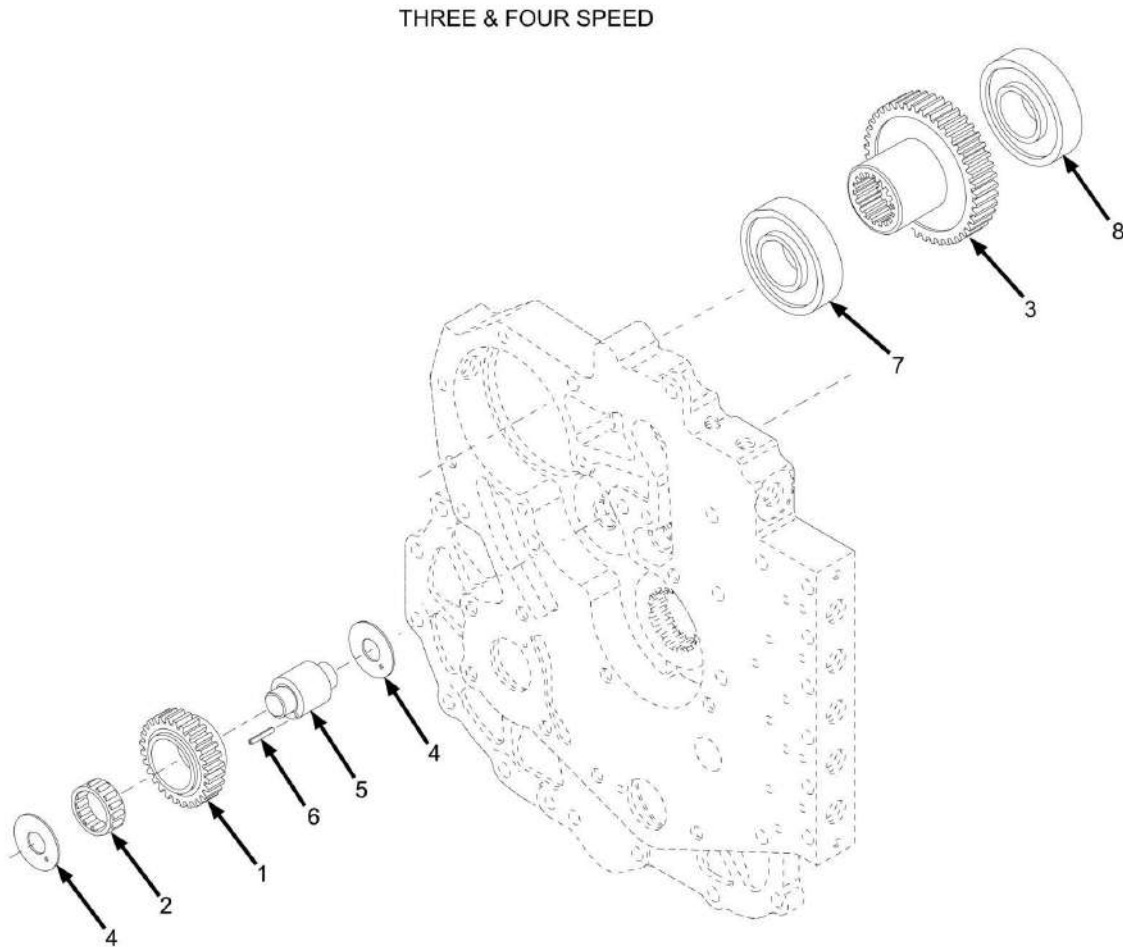
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-19. TRANSMISSION - GEAR GROUP FOUR SPEED**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	7028060	1	GEAR AND BEARING ASSY, (includes items 2 & 3)	
2	91474230	2	BEARING	
3	91474231	1	SPACER	
4	91474232	1	GEAR AND BEARING ASSY, (includes items 5 & 6)	
5	91474230	2	BEARING	
6	91474231	1	SPACER	
7	91474391	1	GEAR AND BEARING ASSY, (includes item 8 & 9)	
8	91474387	2	BEARING	
9	91474388	1	SPACER	
10	91474389	1	THIRD CLUTCH GEAR AND BEARING ASSY, (includes item 11)	
11	91474236	2	BEARING	
12	91474390	1	FIRST CLUTCH GEAR AND BEARING, (includes item 13)	
13	91474230	2	BEARING	
14	91474239	1	SECOND CLUTCH GEAR AND BEARING, (includes item 15)	
15	91474230	2	BEARING	
16	91474393	1	THIRD DRIVEN GEAR	
17	91474394	1	OUTPUT SHAFT GEAR	
18	91474395	1	REVERSE IDLER GEAR	
19	91474396	1	FIRST DRIVEN GEAR	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-20. TRANSMISSION - PUMP DRIVE GROUP



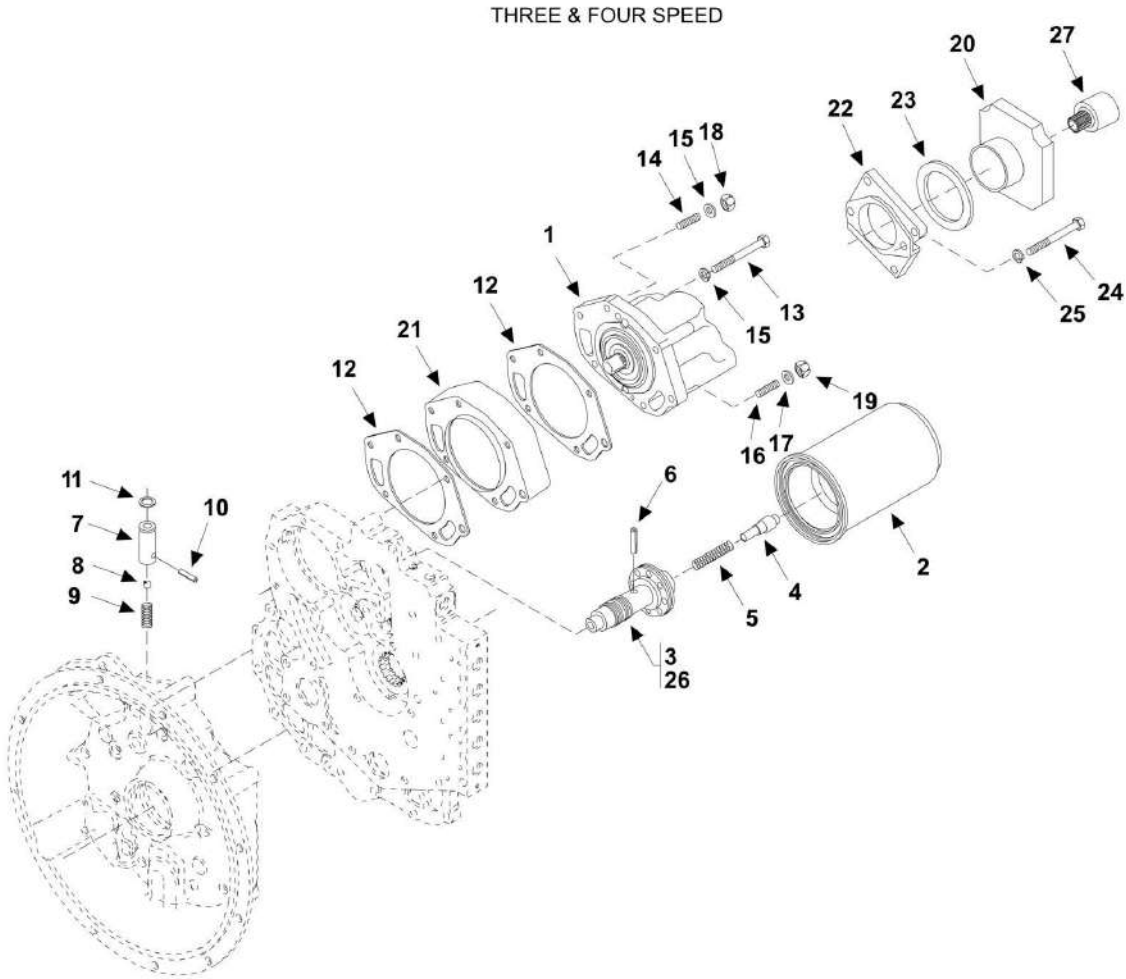
## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-20. TRANSMISSION - PUMP DRIVE GROUP

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474241	1	PUMP DRIVE IDLER GEAR	
2	91474242	1	BEARING	
3	91474243	1	GEAR	
4	10868243	2	THRUST WASHER	
5	91474245	1	RUMP DRIVE SHAFT AND PIN ASSY, (includes item 6)	
6	10868248	1	PIN	
7	91474247	1	BEARING	
8	91474248	1	BEARING	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-21. TRANSMISSION - CHARGING PUMP GROUP



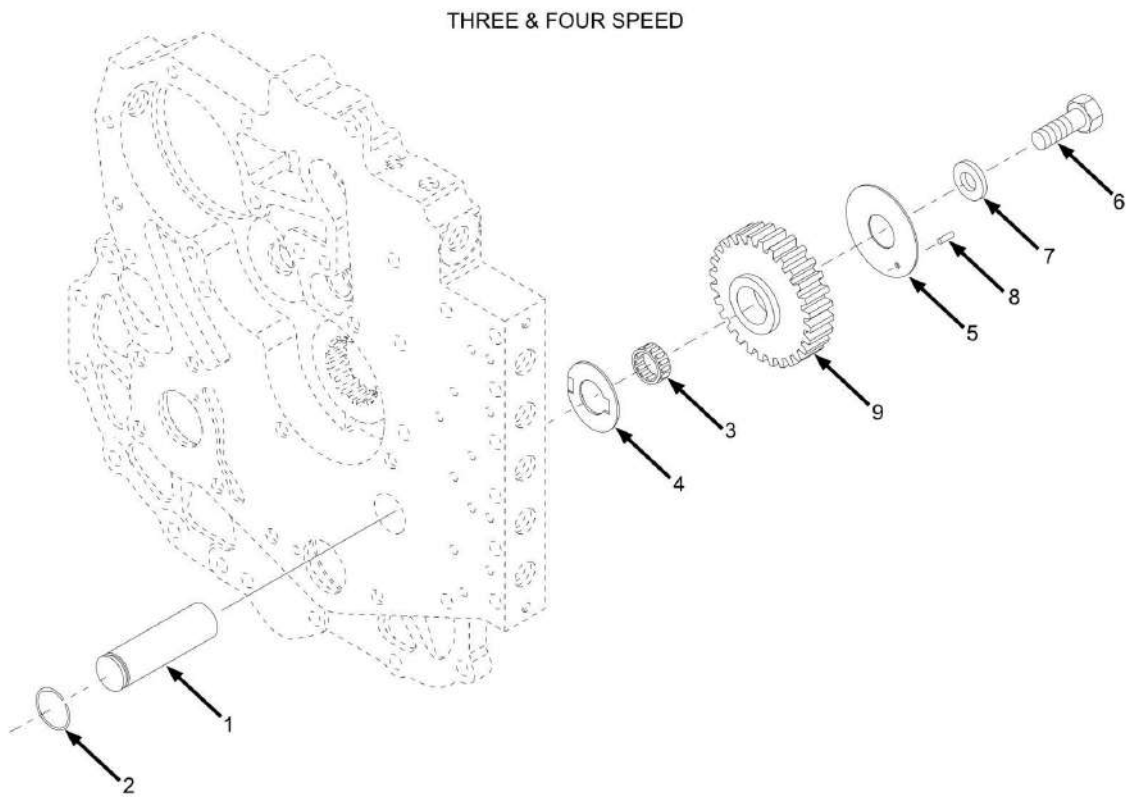
## SECTION 4 - ENGINE AND ATTACHING PARTS

### FIGURE 4-21. TRANSMISSION - CHARGING PUMP GROUP

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	70020407	1	CHARGING PUMP ASSY	
1	70021830	1	O-RING, (located between two halves of charge pump)	
2	91474250	1	FILTER ASSY	
3	91474251	1	REGULATOR VALVE SLEEVE	
4	91474252	1	REGULATOR VALVE PISTON	
5	91474253	1	REGULATOR VALVE SPRING	
6	91474254	1	PIN	
7	91474255	1	BALL CHECK VALVE, (includes items 8 thru 11)	
8	91474256	1	BALL	
9	91474257	1	CHECK VALVE SPRING	
10	91474258	1	CHECK VALVE PIN	
11	91474259	1	O-RING	
12	10868254	2	CHARGING PUMP GASKET	
13	7028063	4	SCREW	
14	91474262	1	STUD	
15	91474263	5	LOCKWASHER	
16	91474264	1	STUD	
17	91474190	1	LOCKWASHER	
18	91474266	1	NUT	
19	91474274	1	NUT	
20	91474267	1	ADAPTOR, (see note at end of parts list)	
21	91474268	1	ADAPTOR	
22	91474269	1	PLATE, (see note at end of parts list)	
23	91474270	1	O-RING, (see note at end of parts list)	
24	91474271	2	SCREW, (see note at end of parts list)	
25	91474272	2	LOCKWASHER, (see note at end of parts list)	
26	91474273	1	REGULATOR VALVE ASSY, (includes items 3 thru 6)	
27	91474602	1	DRIVE SLEEVE ADAPTER, (see note at end of parts list)	
Ref			Note: ITEMS 20, 22, 23, 24, 25 & 27 ONLY USED ON. (SN 0192001 through 016000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-22. TRANSMISSION - REVERSE IDLER GROUP



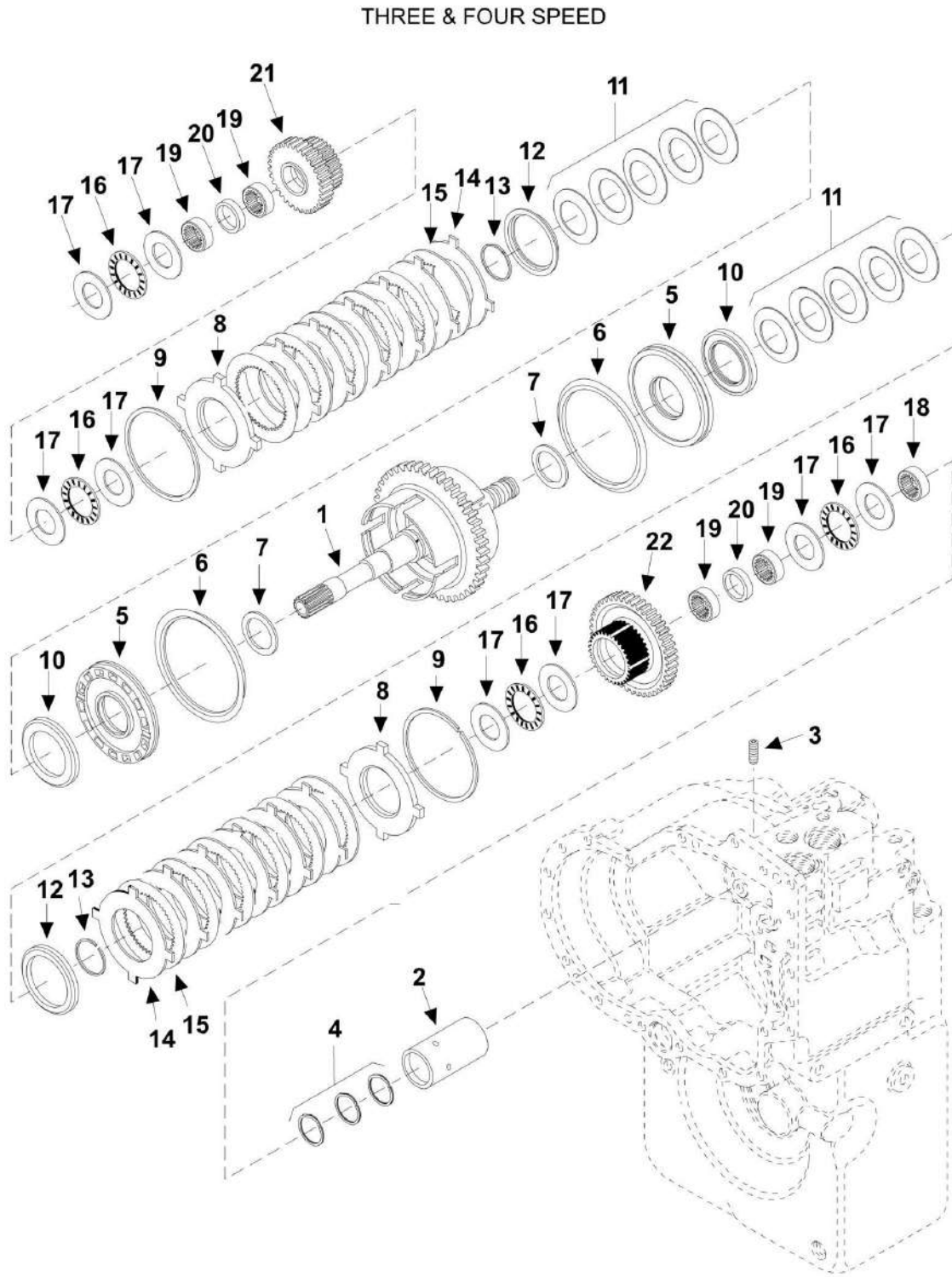
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-22. TRANSMISSION - REVERSE IDLER GROUP**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474275	1	IDLER AND PILOT SHAFT	
2	91474276	1	SNAP RING	
3	91474277	1	BEARING	
4	91474278	1	THRUST WASHER	
5	91474279	1	END PLATE	
6	91474280	1	CAPSCREW	
7	91474281	1	WASHER	
8	91474282	1	ROLL PIN	
9		Ref	GEAR, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
9		Ref	GEAR, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-23. TRANSMISSION - FORWARD AND REVERSE SHAFT GROUP





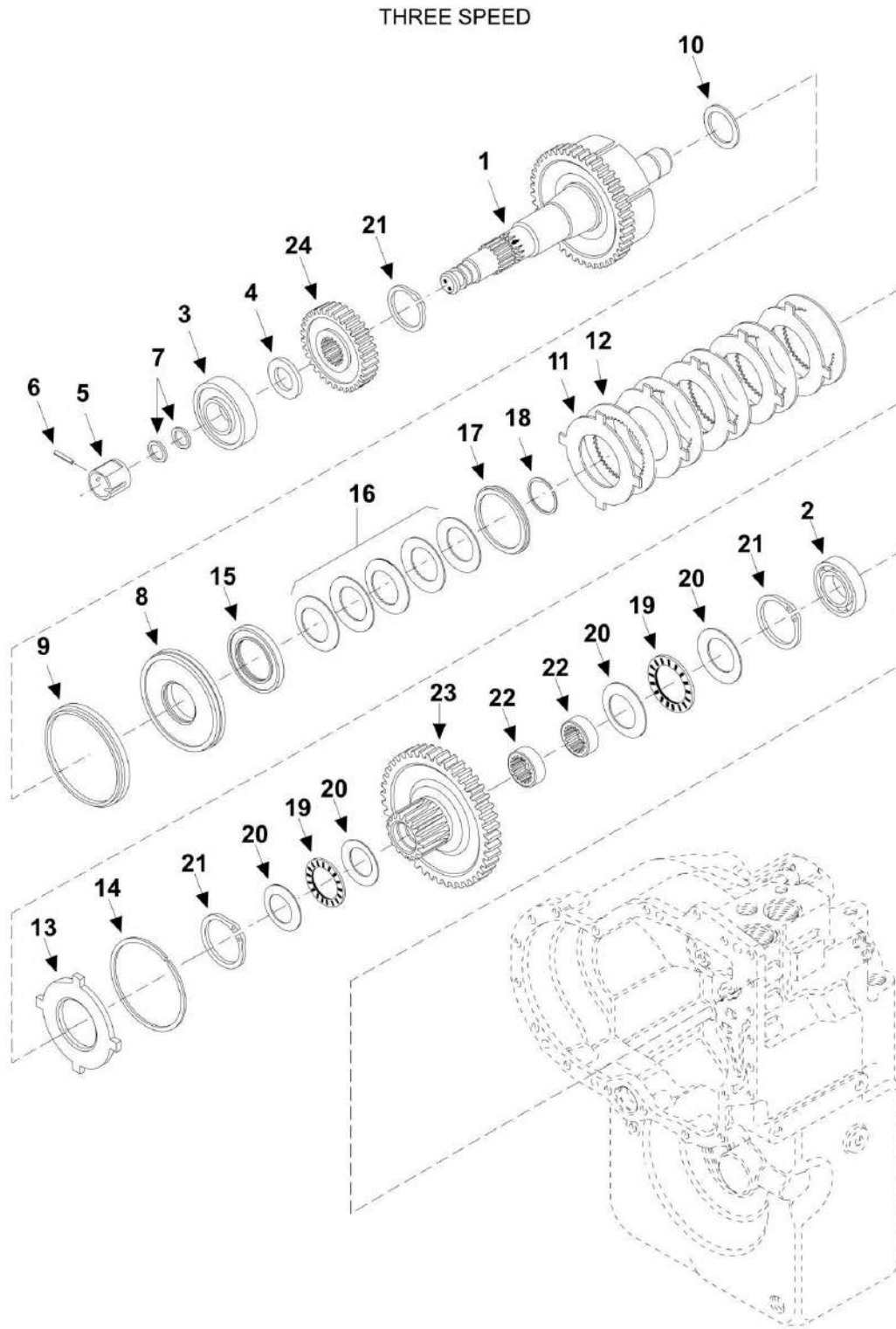
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-23. TRANSMISSION - FORWARD AND REVERSE SHAFT GROUP**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474283	1	TURBINE SHAFT DRUM AND PLUG ASSY, (three speed)	
1	91474398	1	TURBINE SHAFT DRUM AND PLUG ASSY, (four speed)	
2	91474284	1	OIL DISTRIBUTOR SLEEVE	
3	91474285	1	RETAINER SCREW	
4	10837060	3	PISTON RING	
5	91474287	2	PISTON AND SEAL ASSY, (includes items 6 & 7)	
6	91474288	2	OUTER SEAL	
7	91474289	2	INNER SEAL	
8	91474308	2	END PLATE	
9	91474309	2	SNAP RING	
10	10868277	2	WEAR PLATE	
11	91474310	2	DISC SPRING ASSY	
12	91474294	2	SNAP RING	
13	91474295	2	SNAP RING	
14	91474296	12	OUTER DISC	
15	91474297	12	INNER DISC	
16	91474298	4	BEARING	
17	91474299	8	THRUST WASHER	
18	91474300	1	BEARING	
19		Ref	BEARING, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
19		Ref	BEARING, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
20		Ref	SPACER, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
20		Ref	SPACER, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
21		Ref	GEAR, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
22		Ref	GEAR, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-24. TRANSMISSION - 3RD SHAFT GROUP THREE SPEED



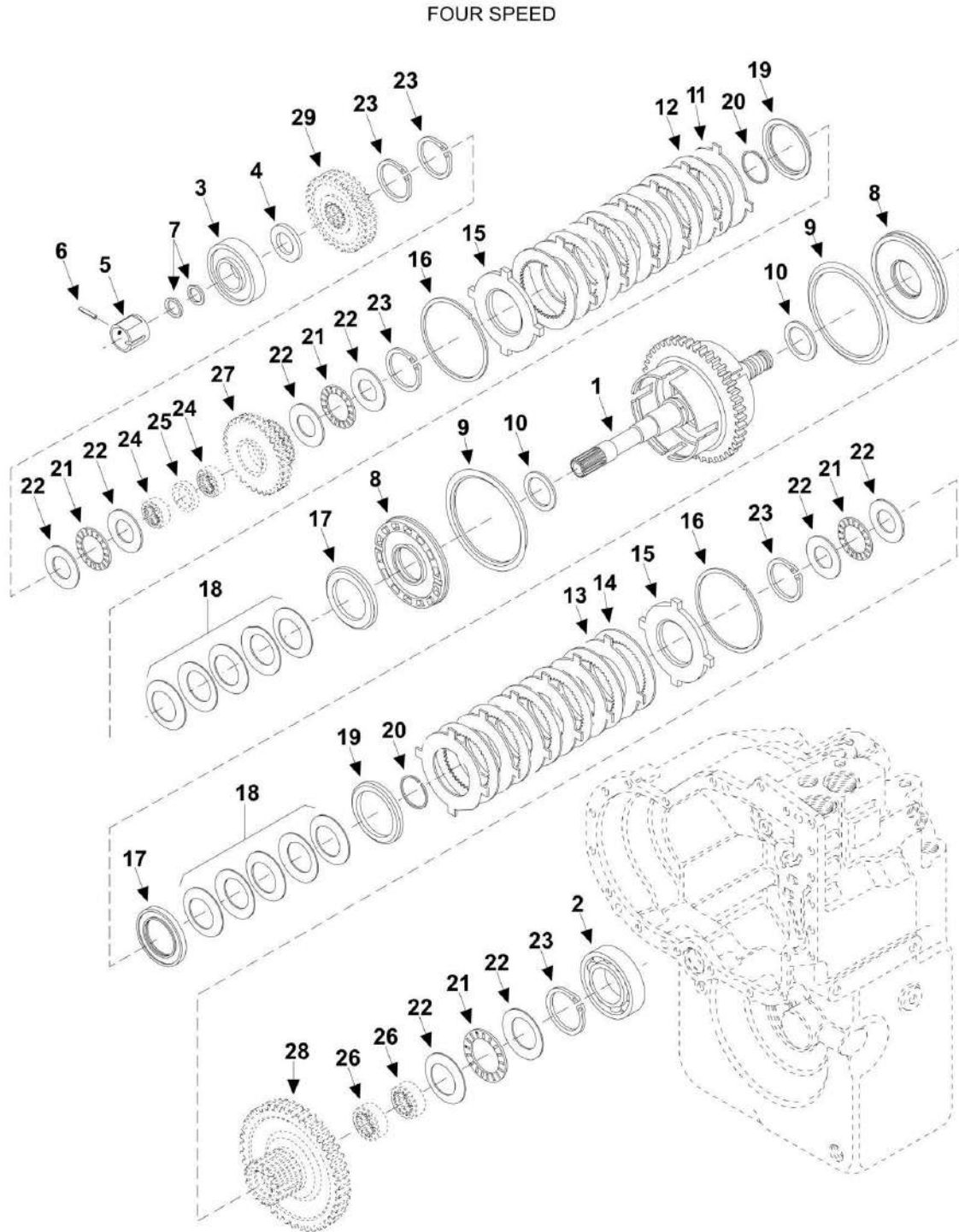
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-24. TRANSMISSION - 3RD SHAFT GROUP THREE SPEED**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474301	1	SHAFT DRUM AND PLUG ASSY	
2	91474302	1	ROLLER BEARING	
3	91474303	1	BEARING AND SEAL ASSY	
4	91474304	1	WASHER	
5	10868284	1	OIL DISTRIBUTOR SLEEVE	
6	91474306	1	SLEEVE RETAINING SCREW	
7	10837060	2	PISTON RING	
8	91474307	1	PISTON AND SEAL ASSY, (includes items 9 & 10)	
9	91474288	1	OUTER SEAL	
10	91474289	1	INNER SEAL	
11	91474296	5	OUTER DISC	
12	91474297	5	INNER DISC	
13	91474308	1	END PLATE	
14	91474309	1	SNAP RING	
15	10868277	1	WEAR PLATE	
16	91474310	1	DISC SPRING ASSY	
17	91474294	1	SNAP RING	
18	91474295	1	SNAP RING	
19	91474311	2	BEARING	
20	91474312	4	THRUST WASHER	
21	91474313	3	SNAP RING	
22		Ref	BEARING, (See TRANSMISSION - GEAR GROUP for Breakdown)	
23		Ref	GEAR, (See TRANSMISSION - GEAR GROUP for Breakdown)	
24		Ref	GEAR, (See TRANSMISSION - GEAR GROUP for Breakdown)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-25. TRANSMISSION - 3RD SHAFT GROUP FOUR SPEED



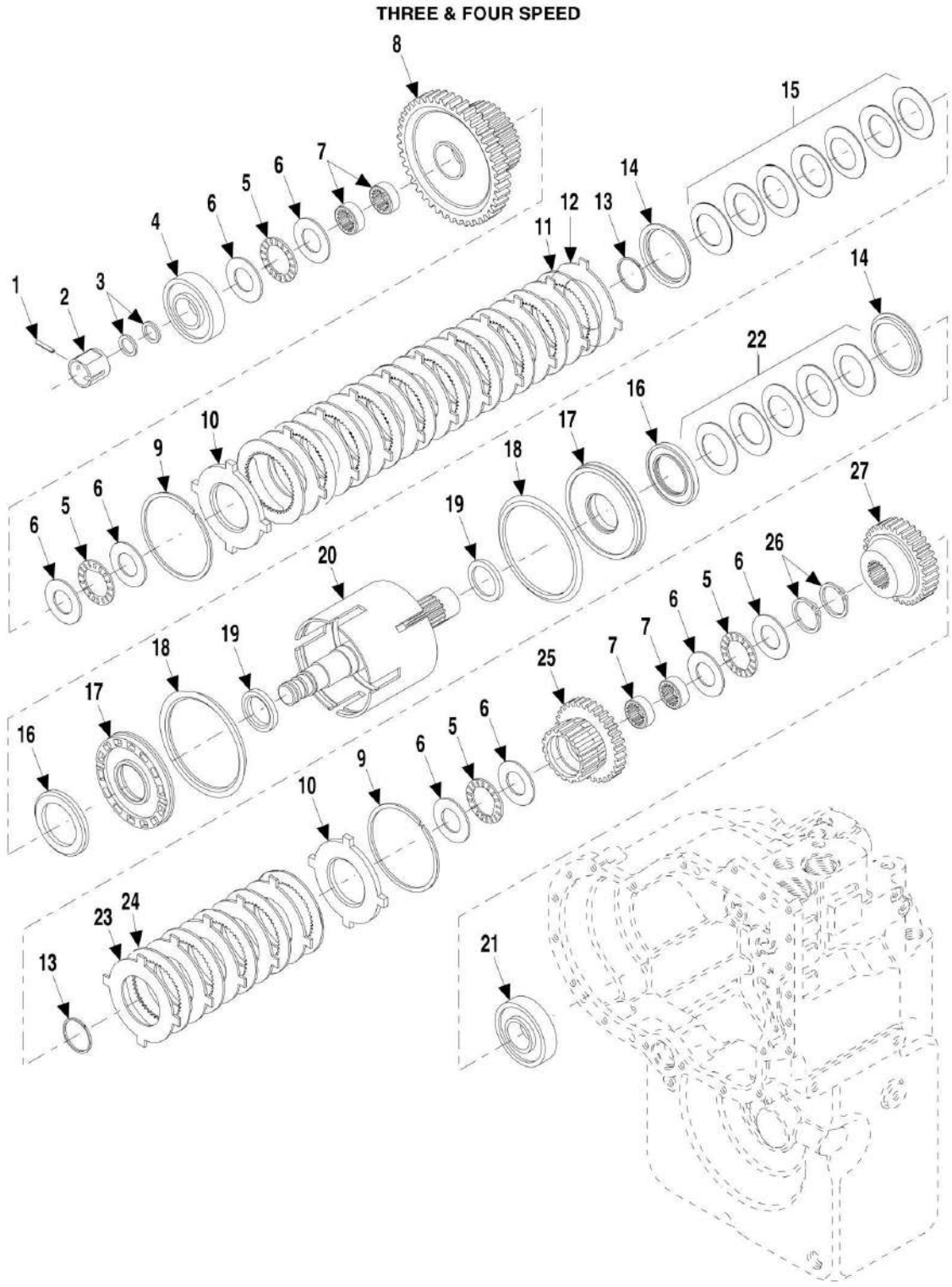
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-25. TRANSMISSION - 3RD SHAFT GROUP FOUR SPEED**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474399	1	SHAFT DRUM AND PLUG ASSY	
2	91474302	1	ROLLER BEARING	
3	91474303	1	BEARING AND SEAL ASSY	
4	91474304	1	WASHER	
5	10868284	1	OIL DISTRIBUTOR SLEEVE	
6	91474306	1	SLEEVE RETAINING SCREW	
7	10837060	2	PISTON RING	
8	91474307	2	PISTON AND SEAL ASSY, (includes items 9 & 10)	
9	91474288	2	OUTER SEAL	
10	91474289	2	INNER SEAL	
11	91474296	6	OUTER DISC	
12	91474297	6	INNER DISC	
13	91474296	5	OUTER DISC	
14	91474297	5	INNER DISC	
15	91474308	2	END PLATE	
16	91474309	2	SNAP RING	
17	10868277	2	WEAR PLATE	
18	91474310	2	DISC SPRING ASSY	
19	91474294	2	SNAP RING	
20	91474295	2	SNAP RING	
21	91474311	4	BEARING	
22	91474312	8	THRUST WASHER	
23	91474313	5	SNAP RING	
24		Ref	BEARING, (See TRANSMISSION - GEAR GROUP for Breakdown)	
25		Ref	SPACER, (See TRANSMISSION - GEAR GROUP for Breakdown)	
26		Ref	BEARING, (See TRANSMISSION - GEAR GROUP for Breakdown)	
27		Ref	GEAR, (See TRANSMISSION - GEAR GROUP for Breakdown)	
28		Ref	GEAR, (See TRANSMISSION - GEAR GROUP for Breakdown)	
29		Ref	GEAR, (See TRANSMISSION - GEAR GROUP for Breakdown)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-26. TRANSMISSION - FIRST AND SECOND SHAFT GROUP



## SECTION 4 - ENGINE AND ATTACHING PARTS

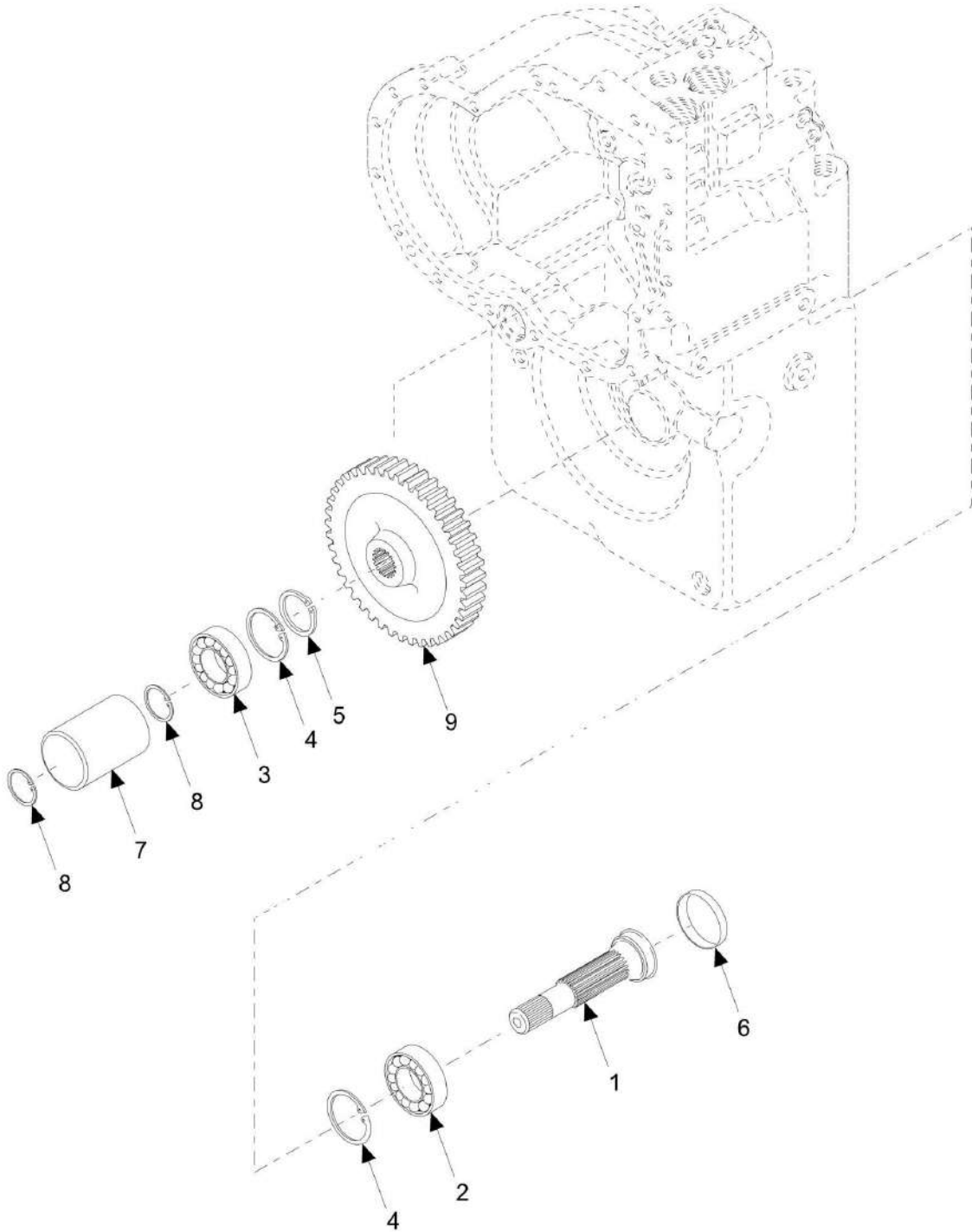
**FIGURE 4-26. TRANSMISSION - FIRST AND SECOND SHAFT GROUP**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474306	1	SLEEVE RETAINING SCREW	
2	91474319	1	OIL DISTRIBUTOR SLEEVE	
3	10837060	2	PISTON RING	
4	91474303	1	BEARING AND SEAL ASSY	
5	91474298	4	BEARING	
6	91474299	8	THRUST WASHER	
7		Ref	BEARING, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
7		Ref	BEARING, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
8		Ref	GEAR, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
8		Ref	GEAR, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
9	91474309	2	SNAP RING	
10	91474308	2	END PLATE	
11	91474297	10	INNER DISC	
12	91474296	10	OUTER DISC	
13	91474295	2	SNAP RING	
14	91474294	2	SNAP RING	
15	91474317	1	DISC SPRING ASSY	
16	10868277	2	WEAR PLATE	
17	91474316	2	PISTON AND SEAL ASSY	
18	91474288	2	OUTER SEAL	
19	91474289	2	INNER SEAL	
20	91474314	1	SHAFT, DRUM, PLUG AND SEAT ASSY	
21	91474315	1	ROLLER BEARING	
22	91474310	1	DISC SPRING ASSY	
23	91474296	5	OUTER DISC	
24	91474297	5	INNER DISC	
25		Ref	GEAR, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
25		Ref	GEAR, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
26	91474318	2	SNAP RING	
27		Ref	GEAR, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
27		Ref	GEAR, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-27. TRANSMISSION - OUTPUT SHAFT GROUP

THREE & FOUR SPEED





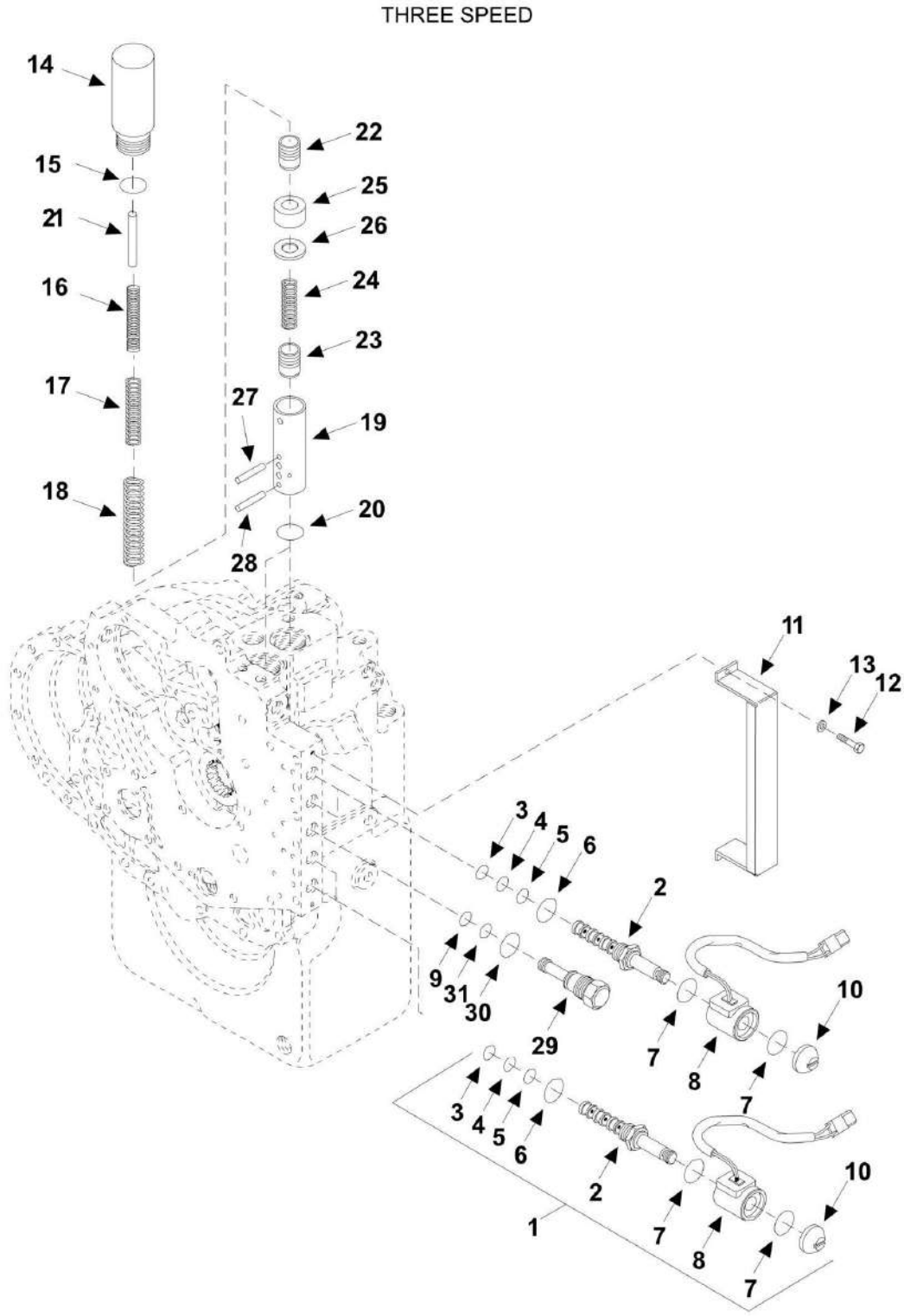
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-27. TRANSMISSION - OUTPUT SHAFT GROUP**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474320	1	OUTPUT SHAFT	
2	77104140	1	BEARING	
3	77104081	1	BEARING	
4	91474321	2	RETAINING RING	
5	91474322	1	RETAINING RING	
6	91474323	1	END PLUG	
7	91474324	1	DRIVE COUPLING	
8	91474313	2	SNAP RING	
9		Ref	GEAR, (three speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	
9		Ref	GEAR, (four speed), (See TRANSMISSION - GEAR GROUP for Breakdown)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-28. TRANSMISSION - ELECTRIC CONTROL GROUP THREE SPEED



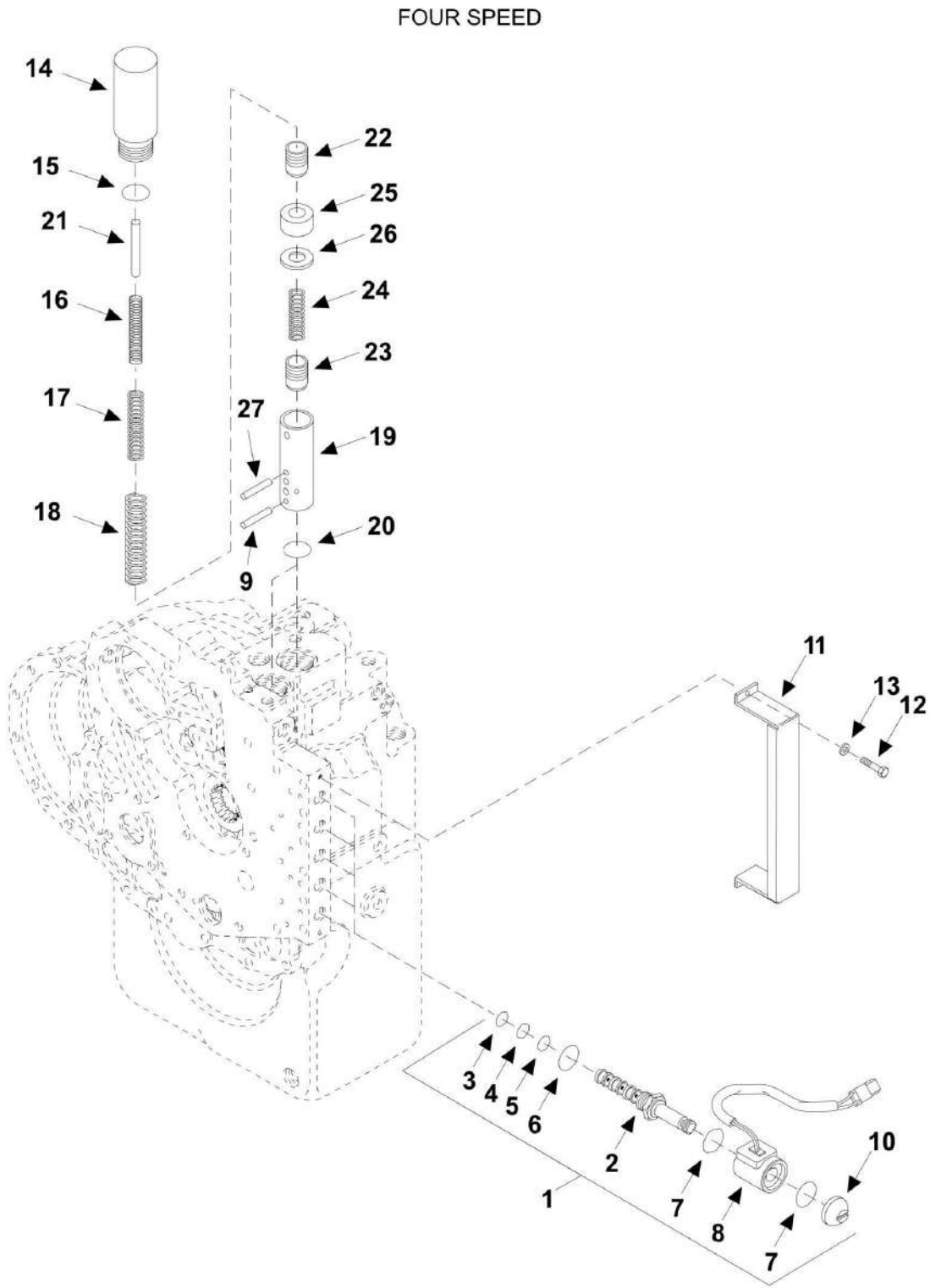
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-28. TRANSMISSION - ELECTRIC CONTROL GROUP THREE SPEED**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474325	4	SOLENOID ASSY, (includes items 2 thru 8 & 10)	
2	91474326	4	VALVE CARTRIDGE, (includes items 3 thru 6)	
3	8035081	4	O-RING	
4	8035082	4	O-RING	
5	10868329	4	O-RING	
6	10868330	4	O-RING	
7	91474331	8	O-RING	
8	91474332	4	SOLENOID COIL	
9	8035081	1	O-RING	
10	91474334	4	RETAINER NUT	
11	10868323	1	PROTECTIVE COVER	
12	91474336	2	SCREW	
13	8035075	2	LOCKWASHER	
14	91474338	2	HOUSING	
15	91474339	2	O-RING	
16	91474340	2	INNER SPRING	
17	91474341	2	MIDDLE SPRING	
18	91474342	2	OUTER SPRING	
19	91474343	2	SLEEVE	
20	91474344	2	O-RING	
21	91474345	2	PIN	
22	91474346	2	SPOOL	
23	91474347	2	SPOOL	
24	91474348	2	SPRING	
25	91474349	2	SPRING RETAINER	
26	91474350	2	SPRING SPACER	
27	91474351	2	UPPER PIN	
28	91474352	2	LOWER PIN	
29	91474353	1	PLUG	
30	10868330	1	O-RING	
31	10868329	1	O-RING	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-29. TRANSMISSION - ELECTRIC CONTROL GROUP FOUR SPEED



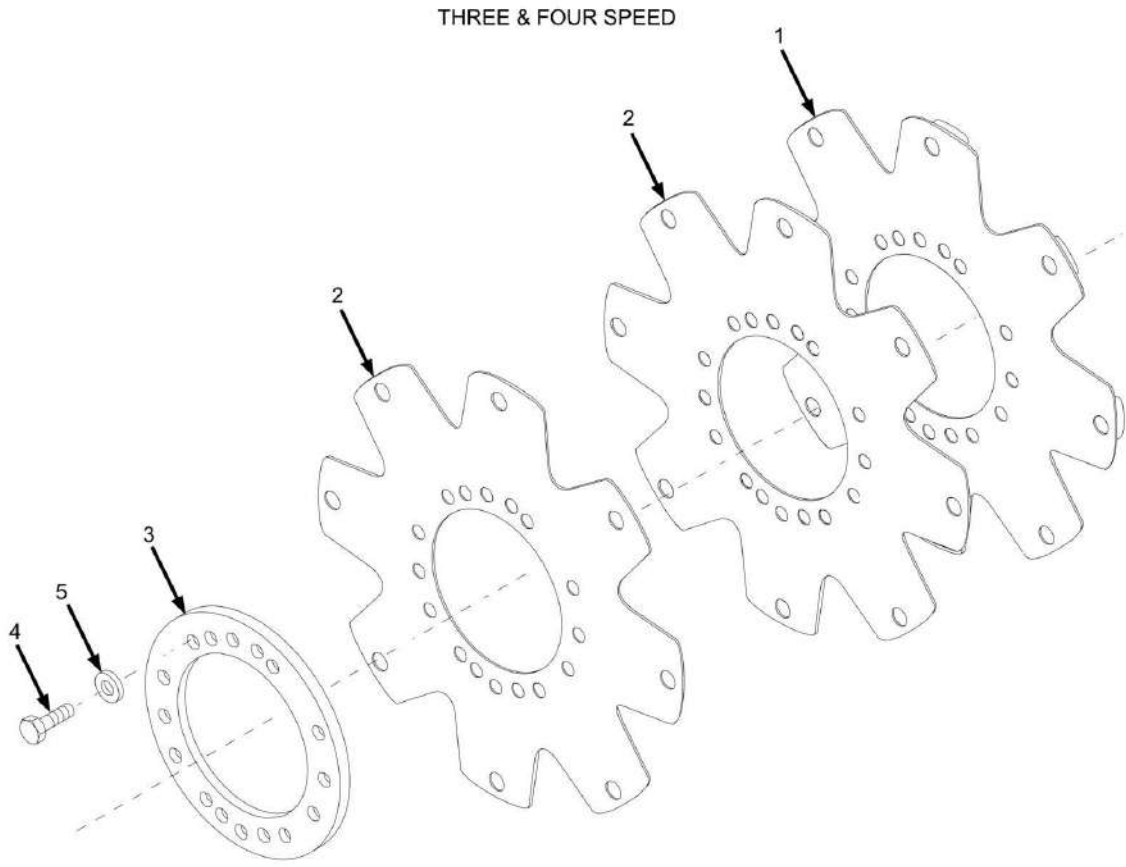
## SECTION 4 - ENGINE AND ATTACHING PARTS

**FIGURE 4-29. TRANSMISSION - ELECTRIC CONTROL GROUP FOUR SPEED**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474325	5	SOLENOID ASSY, (includes items 2 thru 8 & 10)	
2	91474326	5	VALVE CARTRIDGE, (includes items 3 thru 6)	
3	8035081	5	O-RING	
4	8035082	5	O-RING	
5	10868329	5	O-RING	
6	10868330	8	O-RING	
7	91474331	8	O-RING	
8	91474332	10	SOLENOID COIL	
9	91474352	2	LOWER PIN	
10	91474334	5	RETAINER NUT	
11	10868323	1	PROTECTIVE COVER	
12	91474336	2	SCREW	
13	8035075	2	LOCKWASHER	
14	91474338	2	HOUSING	
15	91474339	2	O-RING	
16	91474340	2	INNER SPRING	
17	91474341	2	MIDDLE SPRING	
18	91474342	2	OUTER SPRING	
19	91474343	2	SLEEVE	
20	91474344	2	O-RING	
21	91474345	2	PIN	
22	91474346	2	SPOOL	
23	91474347	2	SPOOL	
24	91474348	2	SPRING	
25	91474349	2	SPRING RETAINER	
26	91474350	2	SPRING SPACER	
27	91474351	2	UPPER PIN	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-30. TRANSMISSION - DRIVE PLATE GROUP



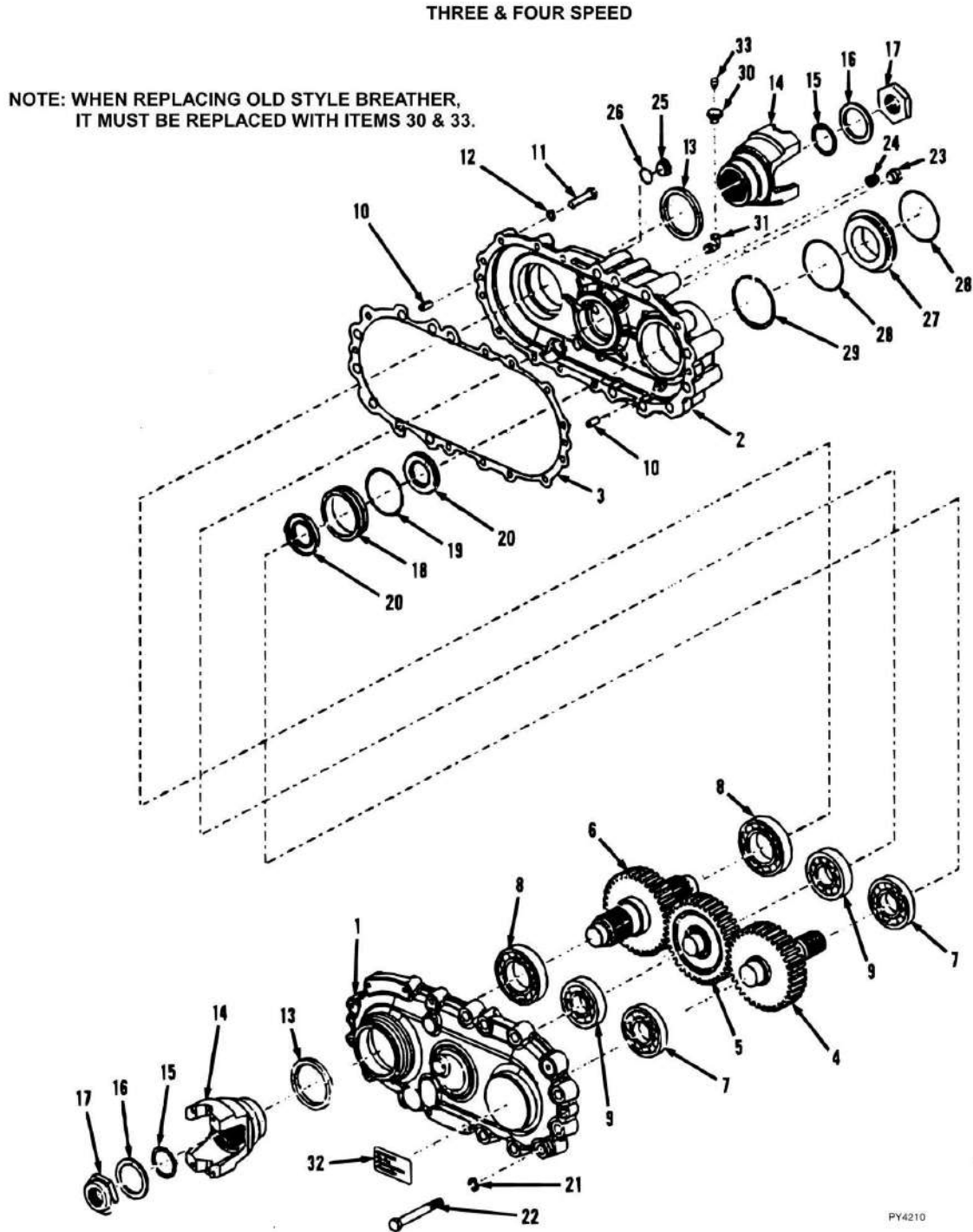
## SECTION 4 - ENGINE AND ATTACHING PARTS

FIGURE 4-30. TRANSMISSION - DRIVE PLATE GROUP

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	Kit	1	DRIVE PLATE ASSY	
2	Kit	2	DRIVE PLATE	
3	77104044	1	RING	
4	91474356	6	SCREW	
5	77104007	6	LOCKWASHER	
	10837075	1	DRIVE PLATE KIT, (includes items 1 thru 5)	

# SECTION 4 - ENGINE AND ATTACHING PARTS

## FIGURE 4-31. TRANSMISSION - DROP BOX GROUP





## SECTION 4 - ENGINE AND ATTACHING PARTS

### FIGURE 4-31. TRANSMISSION - DROP BOX GROUP

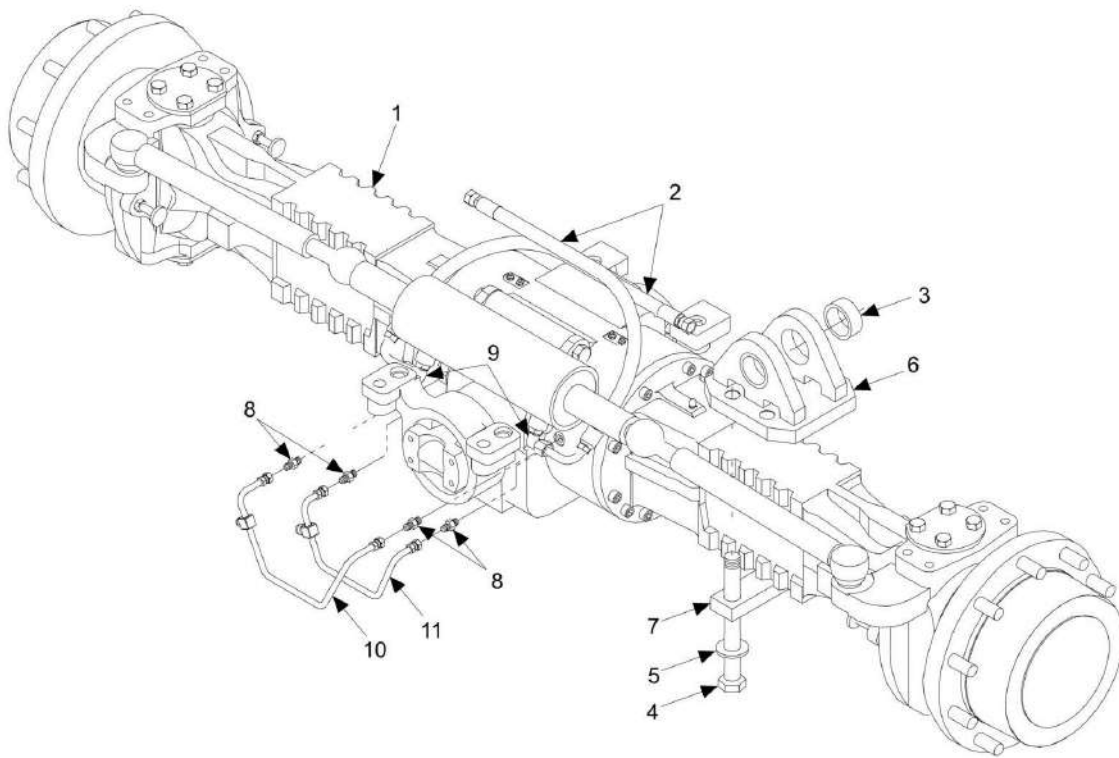
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474627	1	DROP BOX ASSY, (includes all items)	
1	91474358	1	REAR COVER	
2	91474359	1	FRONT COVER	
3	91474360	1	GASKET	
4	91474361	1	INPUT SHAFT	
5	91474362	1	IDLER GEAR	
6	91474363	1	OUTPUT SHAFT	
7	91474364	2	BEARING	
8	91474365	2	BEARING	
9	91474366	2	BEARING	
10	91474200	2	PIN	
11	91474209	10	SCREW	
12	91474265	10	LOCKWASHER	
13	91474367	2	SEAL	
14	91474368	2	FLANGE	
15	91474369	2	O-RING	
16	91474370	2	WASHER	
17	91474371	2	NUT	
18	91474372	1	SLEEVE	
19	91474373	1	O-RING	
20	91474374	2	SEAL	
21	91474375	8	LOCKWASHER	
22	91474376	8	SCREW	
23	91474377	1	OIL LEVEL GLASS	
24	8007824	1	MAGNETIC DRAIN PLUG	
25	91474623	1	PLUG, (includes item 26)	
26	91474380	1	O-RING	
27	91474381	1	SLEEVE	
28	91474382	2	O-RING	
29	91474321	1	RETAINING RING	
30	91474600	1	ADAPTER	
31	91474383	1	FITTING	
32		Ref	STICKER	
33	91474601	1	BREATHER	
	7028109	1	3-SHAFT DROP BOX GASKET AND SEAL KIT, (includes items 3, 13, 15, 19, 20 & 28)	



**SECTION 5 - DRIVE TRAIN**

## SECTION 5 - DRIVE TRAIN

FIGURE 5-1. FRONT AXLE ASSEMBLY - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



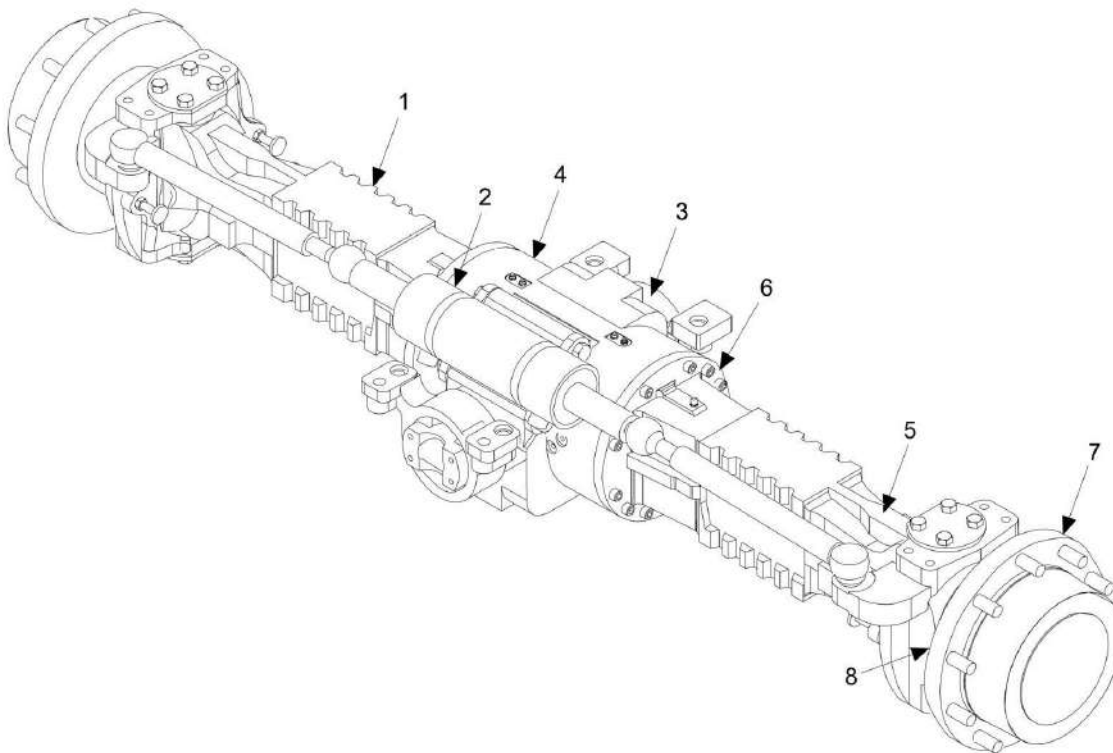
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-1. FRONT AXLE ASSEMBLY - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475003	1	FRONT AXLE ASSY, (includes all items)	
1		Ref	FRONT AXLE, (See FRONT AXLE - CARRARO for Breakdown)	
2	84719649	2	HOSE ASSY	
3	91143051	2	BUSHING	
4	77101143	4	HEX HD CAPSCREW, 1-8X10, (loctite and torque to 545-595 ft lbs)	
5	90027475	4	FLAT WASHER, 1	
6	91475044	1	SWAY LUG ASSY, (includes item 3)	
7	91471034	2	RETAINER PLATE	
8	80233141	4	CONNECTOR	
9	91473086	2	ELBOW, 90	
10	91473025	1	SERVICE BRAKE TUBE	
11	91473026	1	PARK BRAKE TUBE	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-2. FRONT AXLE - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



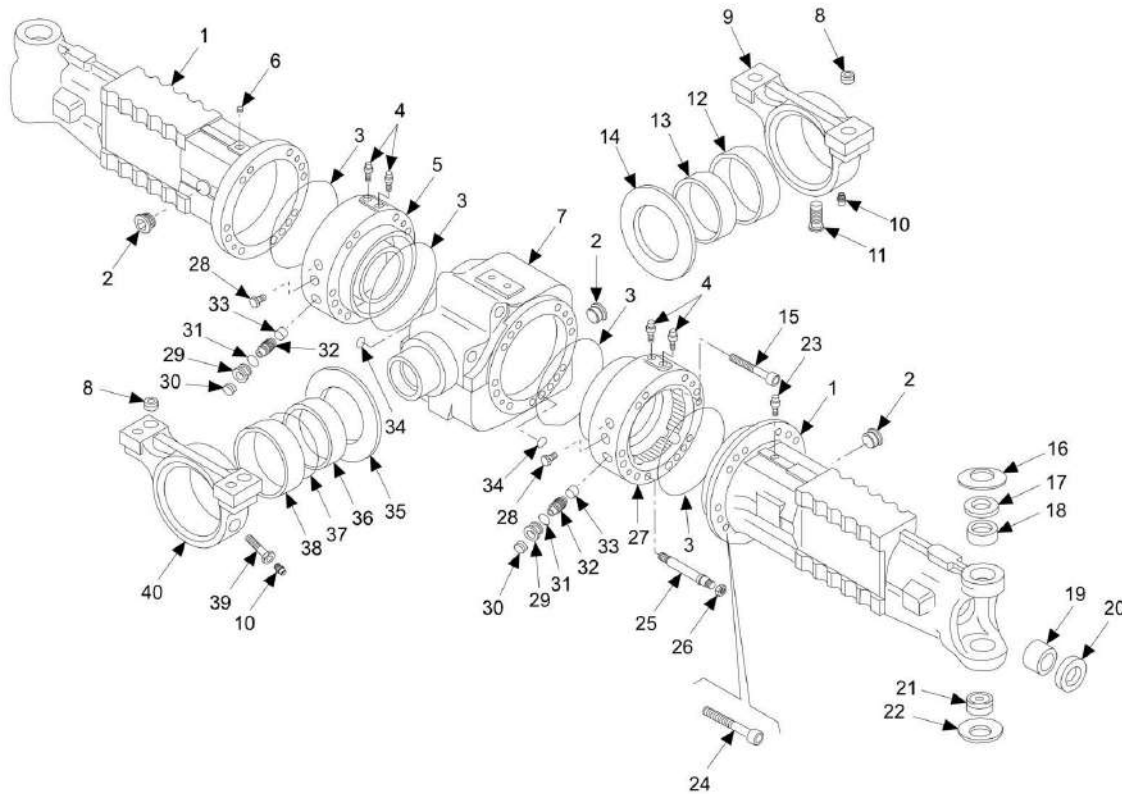
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-2. FRONT AXLE - CARRARO (SN 0192001 through 01920007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473003	1	FRONT AXLE, (includes all items)	
1		Ref	AXLE HOUSING ASSY, (See FRONT AXLE HOUSING ASSEMBLY - CARRARO for Breakdown)	
2		Ref	STEERING COMPONENTS, (See FRONT STEERING COMPONENTS - CARRARO for Breakdown)	
3		Ref	BEVEL GEAR SET, (See FRONT GEAR COMPONENTS - CARRARO for Breakdown)	
4		Ref	DIFFERENTIAL, (See FRONT DIFFERENTIAL - CARRARO for Breakdown)	
5		Ref	DOUBLE JOINT, (See FRONT DOUBLE JOINT - CARRARO for Breakdown)	
6		Ref	BRAKES, (See FRONT BRAKES - CARRARO for Breakdown)	
7		Ref	WHEEL HUB, (See FRONT WHEEL HUB - CARRARO for Breakdown)	
8		Ref	REDUCTION GEARS, (See FRONT REDUCTION GEARS - CARRARO for Breakdown)	
	91474614	1	R.H. WHEEL SIDE KIT, (includes items 7, 11, 12, 16, 17 & 22 on FRONT STEERING COMPONENTS - CARRARO, double joint assy and items 1, 7 & 8 on FRONT DOUBLE JOINT – CARRARO, items 2 thru 10 on FRONT BRAKES – CARRARO and items 1, 2, 4 thru 8 & 10 on FRONT REDUCTION GEARS - CARRARO)	
	91474615	1	L.H. WHEEL SIDE KIT, (includes items 6, 7, 11, 12, 16 & 17 on FRONT STEERING COMPONENTS - CARRARO, double joint assy and items 1, 7 & 8 on FRONT DOUBLE JOINT – CARRARO, items 2 thru 10 on FRONT WHEEL HUB – CARRARO and items 1, 2, 4 thru 8 & 10 on FRONT REDUCTION GEARS - CARRARO)	

# SECTION 5 - DRIVE TRAIN

**FIGURE 5-3. FRONT AXLE HOUSING ASSEMBLY - CARRARO (SN 0192001 through 0192007, SN 016000052 through 016000157, Including 016000198, 016000206, 016000338 and 0160000718)**





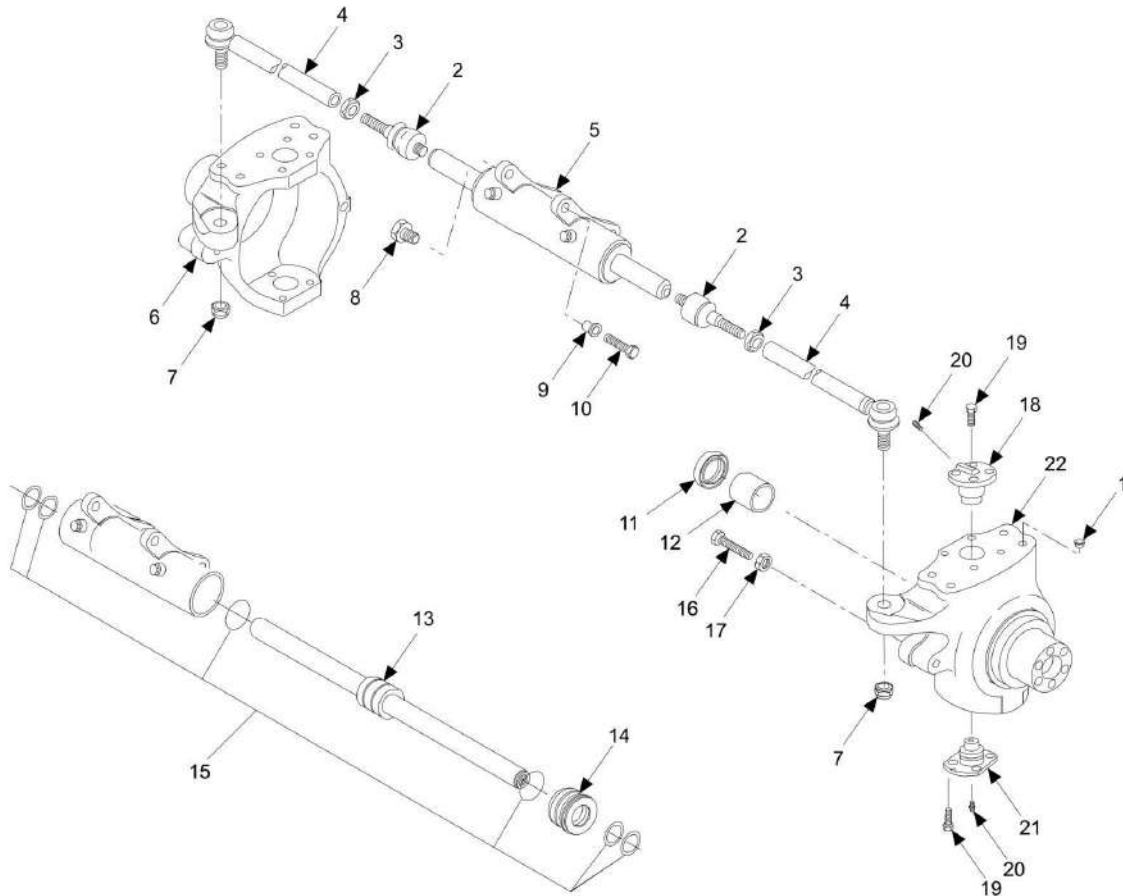
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-3. FRONT AXLE HOUSING ASSEMBLY - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474036	2	HOUSING	
2	91474037	3	PLUG, M30X2	
3	91474038	4	O-RING	
4	91474039	4	BREATHER, M10X1	
5	91474040	1	BRAKE CYLINDER, L.H.	
6	91474041	1	PLUG, M10X1	
7	91474042	1	CENTRAL BODY	
8	91474043	4	BUSHING	
9	91474044	1	FRONT SUPPORT	
10	91474045	2	GREASE FITTING, M8X1	
11	91474046	1	BOLT	
12	91474047	1	BUSHING	
13	91474048	1	BUSHING	
14	91474049	1	THRUST WASHER	
15	91474050	2	BOLT, M12X110	
16	91474051	2	WASHER	
17	91474052	2	SHIM	
18	91474053	2	BUSHING	
19	91474054	2	BUSHING	
20	91474055	2	SEAL RING	
21	91474056	2	BEARING	
22	91474057	2	WASHER	
23	91474058	1	BREATHER	
24	91474059	22	BOLT	
25	91474060	2	STUD, M16X2	
26	91474061	2	NUT, M16X2	
27	91474062	1	BRAKE CYLINDER, R.H.	
28	91474063	6	PLUG	
29	91474064	6	SCREW, M22X1.5	
30	91474075	6	PLUG, M16X1.5	
31	91474065	6	O-RING	
32	91474066	6	BOLT, M16X1.5	
33	91474067	6	PIN	
34	91474068	2	O-RING	
35	91474069	1	THRUST WASHER	
36	8035118	1	BUSHING	
37	91474071	1	O-RING	
38	91474072	1	BUSHING	
39	91474073	1	BOLT	
40	8035120	1	REAR SUPPORT	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-4. FRONT STEERING COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



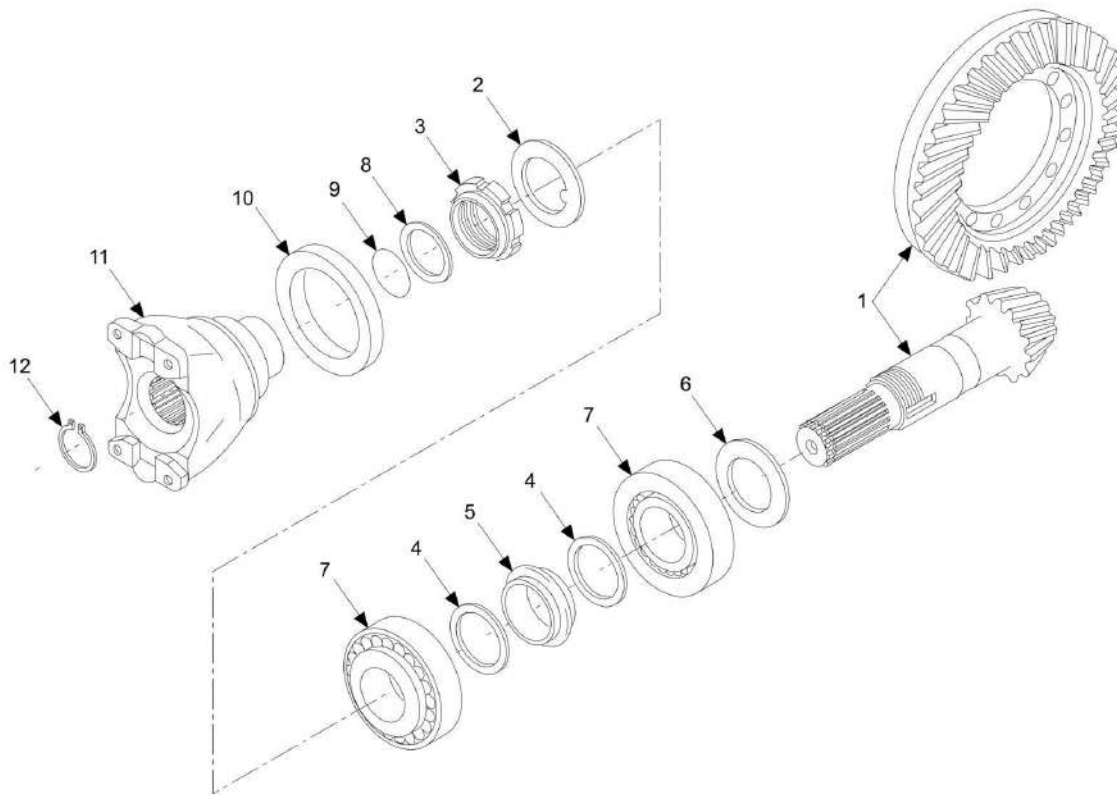
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-4. FRONT STEERING COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474076	1	STEERING ARM ASSY, (includes items 2, 3 & 4)	
1	91474098	8	PLUG	
2	91474077	2	BALL JOINT	
3	91474078	2	NUT, M24X1.5	
4	91474079	2	TIE ROD	
5	91474080	1	STEERING CYLINDER	
6	91474081	1	SWIVEL HOUSING, R.H.	
7	91474082	2	NUT, M24X1.5	
8	91474083	2	BOLT, M22X55	
9	91474084	2	BUSHING	
10	91474085	2	BOLT, M14X65	
11	91474086	2	SEAL RING	
12	91474087	2	BUSHING	
13	91474088	1	ROD	
14	91474089	1	CYLINDER HEAD	
15	91474090	1	SEAL KIT	
16	91474091	4	BOLT	
17	91474092	4	NUT, M16	
18	91474093	2	KING PIN	
19	91474094	16	BOLT, M16X38	
20	91474095	4	GREASE FITTING	
21	91474096	2	KING PIN	
22	91474097	1	SWIVEL HOUSING, L.H.	

## SECTION 5 - DRIVE TRAIN

**FIGURE 5-5. FRONT GEAR COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**



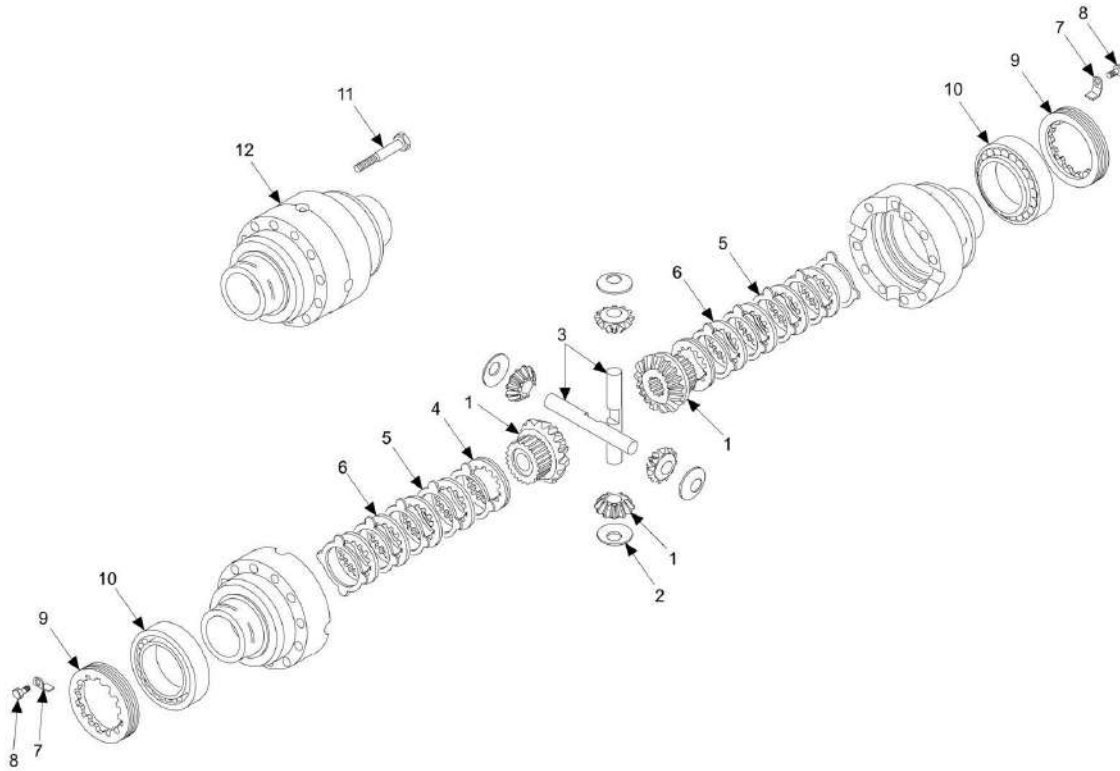
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-5. FRONT GEAR COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474099	1	BEVEL GEAR SET, (includes items 2, 3, 4 & 5)	
2	91474100	1	LOCKWASHER	
3	91474101	1	RING NUT, M40X1.5	
4	91474102	2	WASHER	
5	91474103	1	SPACER	
6	91474104	AR	SHIM, 2.50mm	
6	91474105	AR	SHIM, 2.60mm	
6	91474106	AR	SHIM, 2.70mm	
6	91474107	AR	SHIM, 2.80mm	
6	91474108	AR	SHIM, 2.90mm	
6	91474109	AR	SHIM, 3.00mm	
6	91474110	AR	SHIM, 3.10mm	
6	91474111	AR	SHIM, 3.20mm	
6	91474112	AR	SHIM, 3.30mm	
6	91474113	AR	SHIM, 3.40mm	
7	7028403	2	BEARING	
8	91474115	1	WASHER	
9	91474116	1	O-RING	
10	91474117	1	OIL SEAL	
11	91474118	1	FLANGE	
12	91474119	1	SNAP RING	

# SECTION 5 - DRIVE TRAIN

**FIGURE 5-6. FRONT DIFFERENTIAL - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**



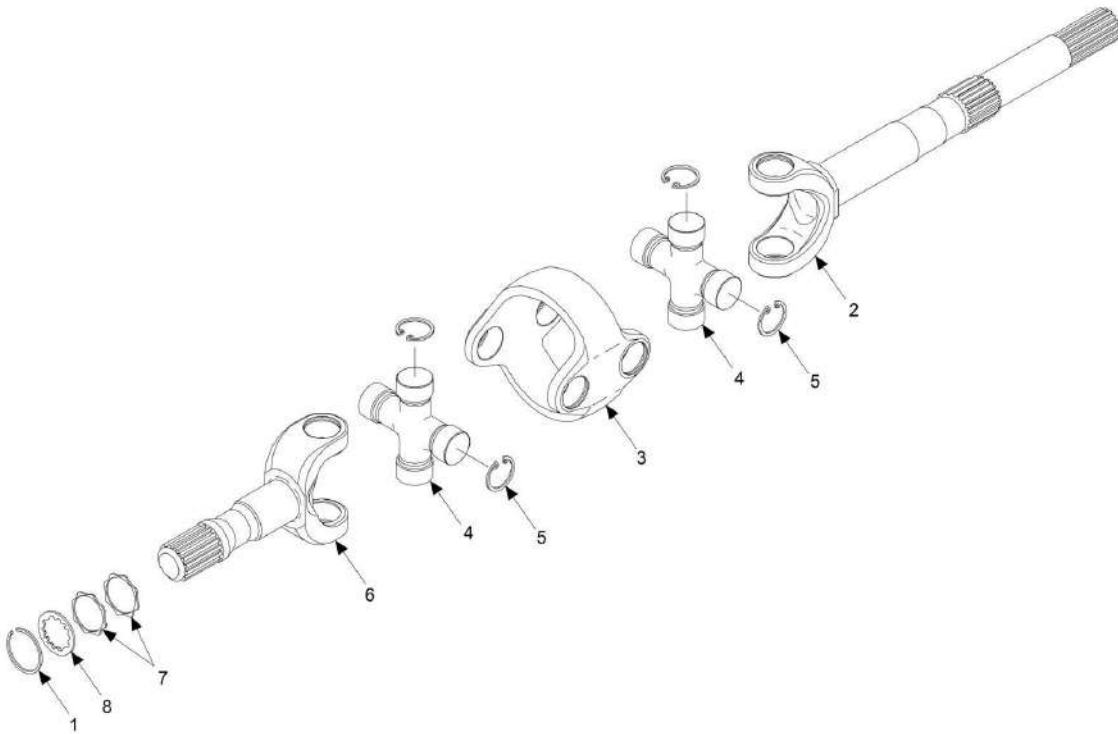
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-6. FRONT DIFFERENTIAL - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474120	1	DIFFERENTIAL KIT, (includes items 2 & 3)	
2	91474121	3	THRUST WASHER	
3	91474122	2	SHAFT	
4	91474123	2	DIFFERENTIAL COUNTER DISC	
5	91474124	10	DIFFERENTIAL DISC	
6	91474125	8	DIFFERENTIAL DISC	
7	91474126	2	LOCKING PLATE	
8	8035180	2	BOLT, M6X1X10	
9	91474128	2	RING NUT	
10	91474129	2	BEARING	
11	91474130	12	BOLT, M10X1.5X75	
12	91474131	1	DIFFERENTIAL HOUSING	

## SECTION 5 - DRIVE TRAIN

**FIGURE 5-7. FRONT DOUBLE JOINT - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**





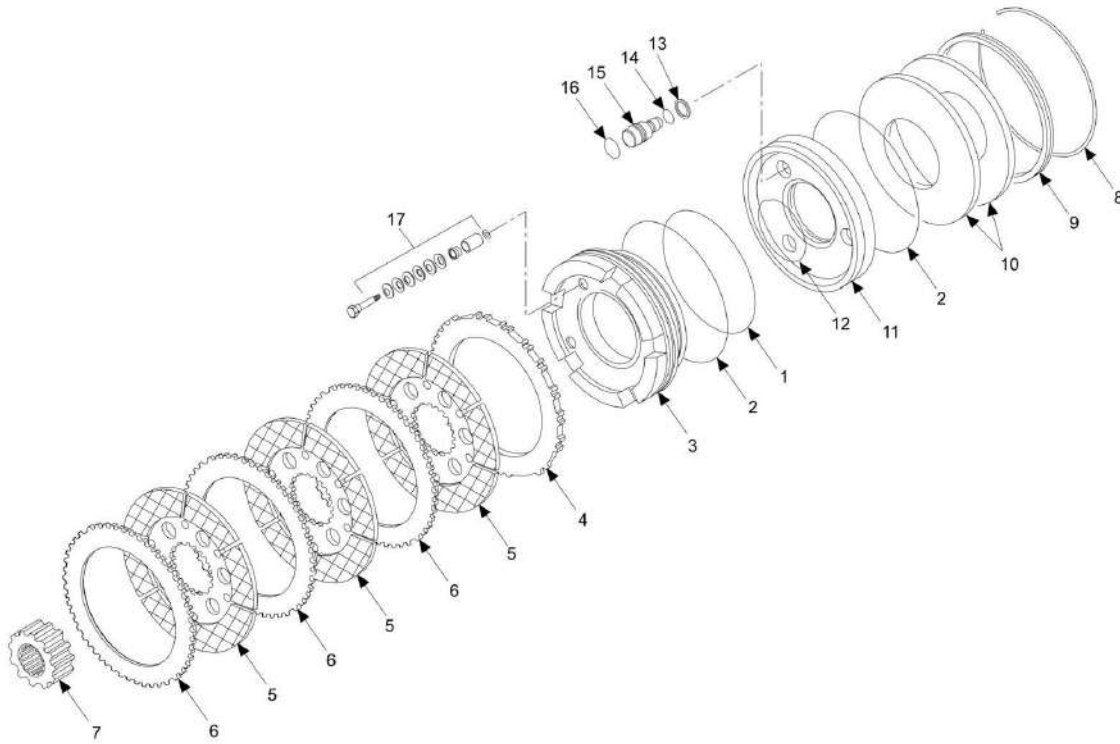
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-7. FRONT DOUBLE JOINT - CARRARO (SN 0192001 through 0192007, SN 0160000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474132	2	DOUBLE JOINT, (includes items 2 thru 6)	
1	91474135	2	RING	
2	7029835	1	FORK, (differential side)	
3	7029834	1	CENTRAL BODY	
4	91474632	2	SPIDER	
5	7029837	8	LOCK RING	
6	7029836	1	FORK, (wheel side)	
7	91474133	4	THRUST WASHER	
8	91474134	2	WASHER	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR ONE U-JOINT ASSEMBLY ONLY	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-8. FRONT BRAKES - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



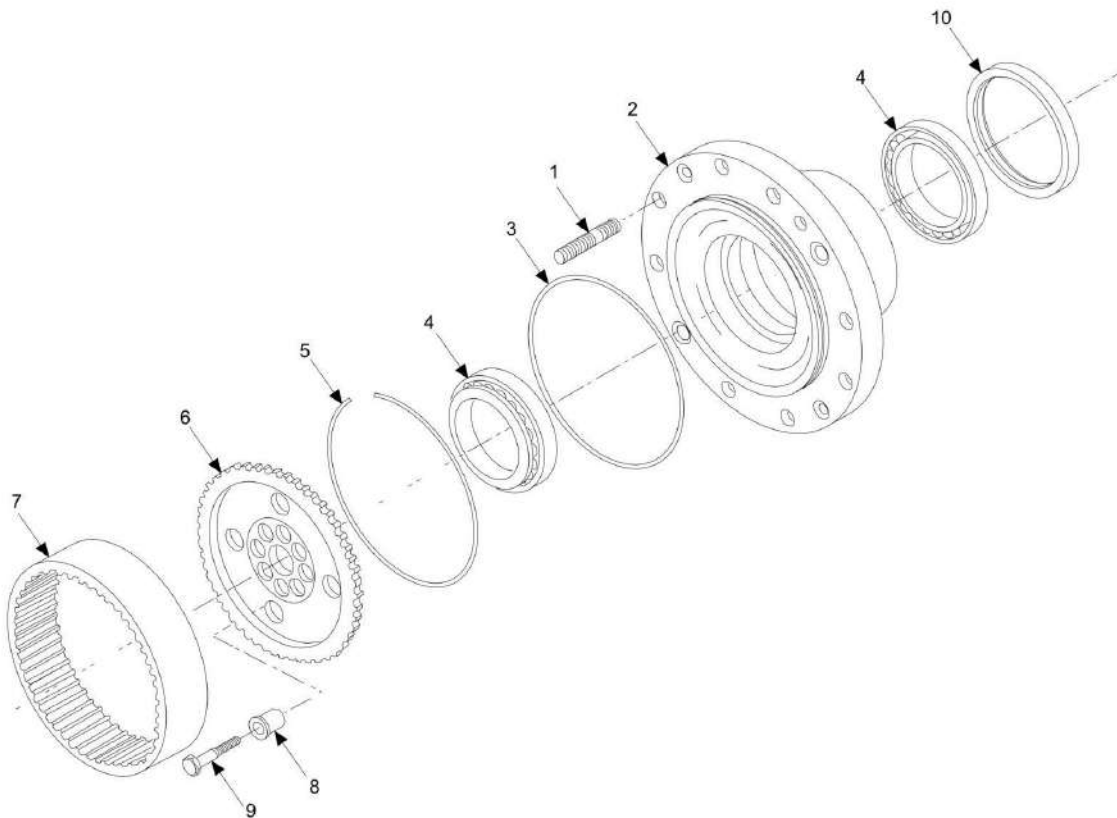
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-8. FRONT BRAKES - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474136	1	O-RING	
2	91474137	2	O-RING	
3	91474138	1	BRAKE PISTON	
4	91474139	1	DRIVE PLATE	
5	91474140	3	BRAKE DISC	
6	91474141	3	DRIVE PLATE	
7	91474142	1	SLEEVE	
8	91474143	1	RING	
9	91474144	1	SLEEVE	
10	91474145	2	WASHER	
11	91474146	1	BRAKE PISTON	
12	91474147	1	O-RING	
13	91474148	3	RING	
14	91474149	3	O-RING	
15	91474150	3	SHAFT	
16	91474151	3	O-RING	
17	91474152	1	SELF ADJUST-KIT	

## SECTION 5 - DRIVE TRAIN

**FIGURE 5-9. FRONT WHEEL HUB - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**



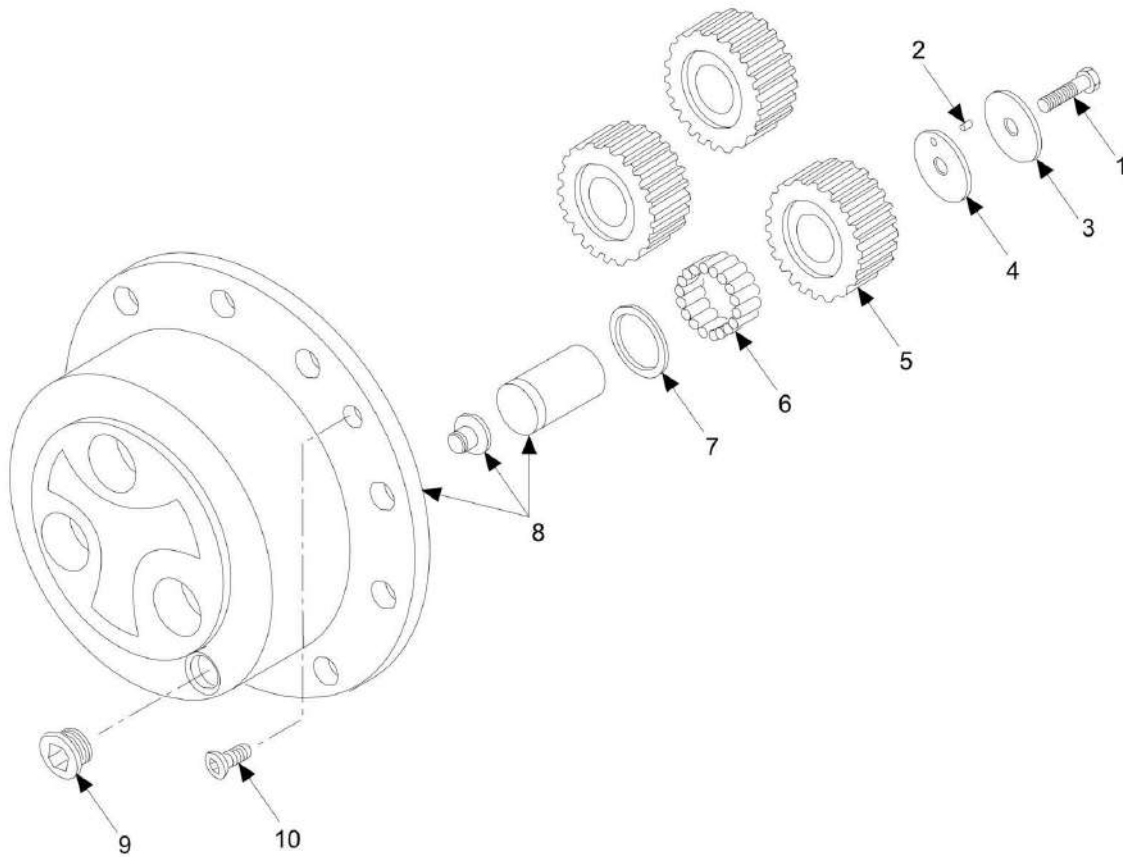
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-9. FRONT WHEEL HUB - CARRARO (SN 0192001 through 0192007, SN 0160000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474153	10	STUD	
2	91474154	1	WHEEL HUB	
3	91474155	1	O-RING	
4	91474156	2	BEARING	
5	91474157	1	LOCK RING	
6	91474158	1	WHEEL CARRIER	
7	91474159	1	CROWN GEAR	
8	91474160	8	BUSHING	
9	91474085	8	BOLT, M14X1.5X65	
10	7028486	1	SEAL	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-10. FRONT REDUCTION GEARS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



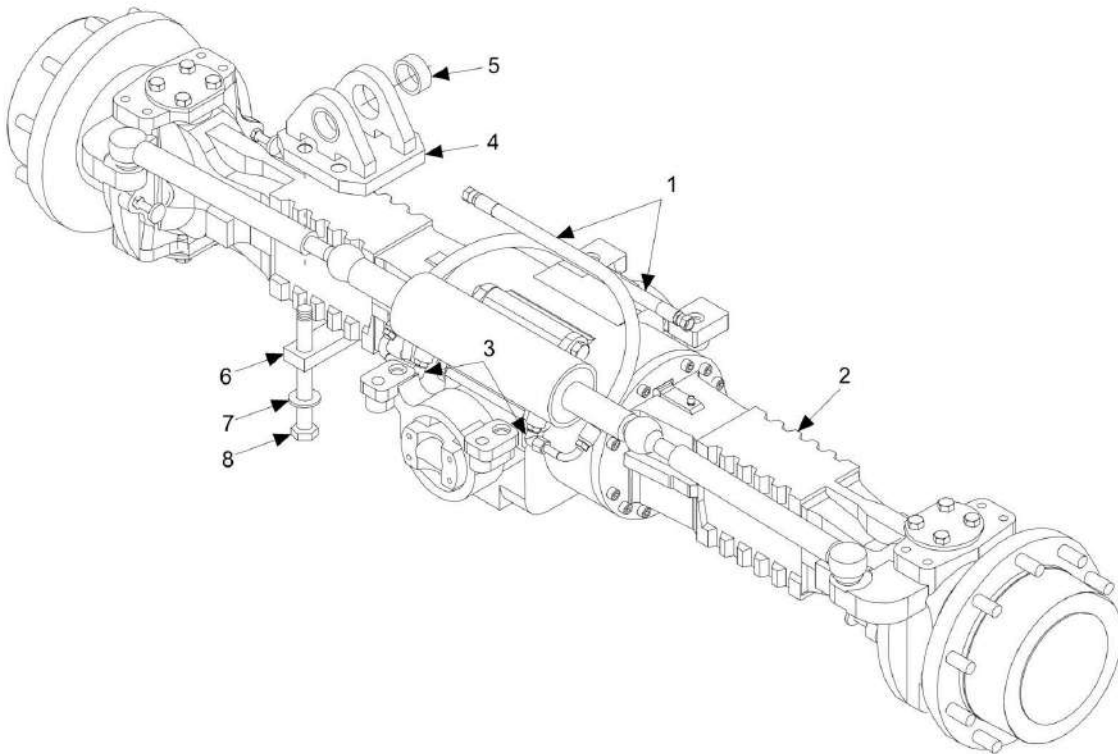
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-10. FRONT REDUCTION GEARS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474162	3	BOLT, M10X1.25X50	
2	91474163	3	PIN	
3	91474164	3	THRUST WASHER	
4	91474165	3	THRUST WASHER	
5	91474166	3	PLANETARY GEAR	
6	91474167	84	NEEDLE BEARING, (28 per gear)	
7	91474168	3	THRUST WASHER	
8	91474169	1	PLANETARY CARRIER ASSY	
9	91474037	1	OIL PLUG	
10	7028492	2	BOLT, M8X20	

## SECTION 5 - DRIVE TRAIN

**FIGURE 5-11. REAR AXLE ASSEMBLY - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**





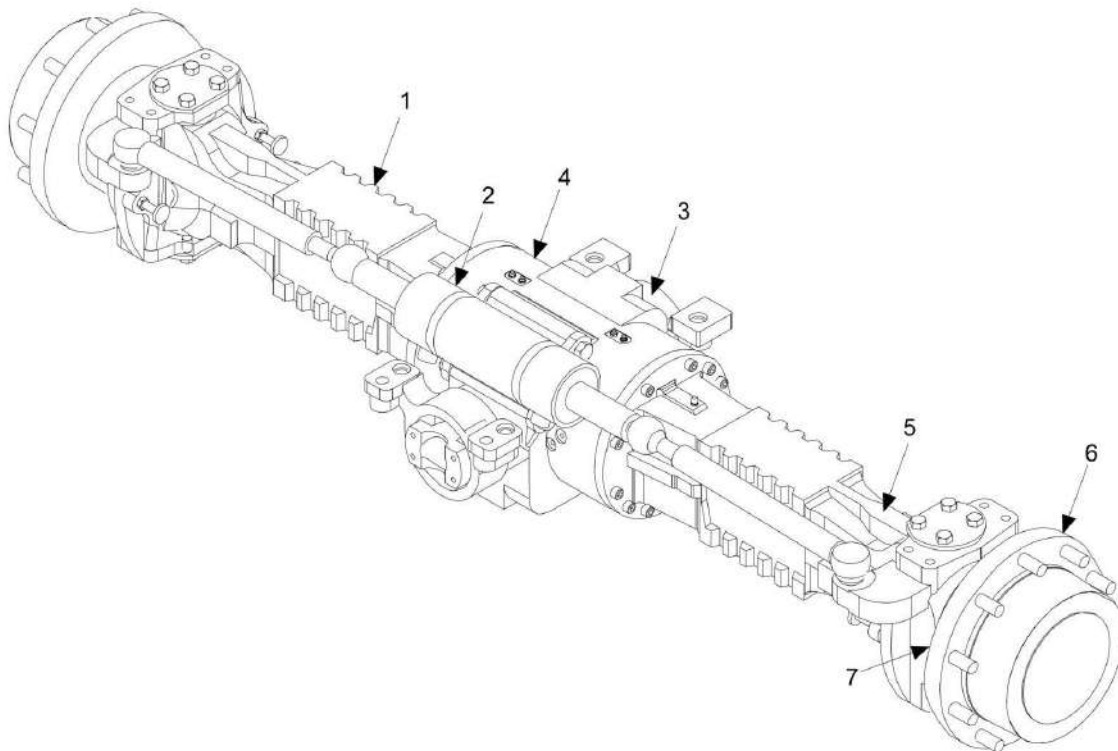
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-11. REAR AXLE ASSEMBLY - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505008	1	REAR AXLE ASSY, (includes all items)	
1	84719649	2	HOSE ASSY	
2		Ref	REAR AXLE, (See REAR AXLE - CARRARO for Breakdown)	
3	91473086	2	ELBOW, 90	
4	91475044	1	SWAY LUG ASSY, (includes item 5)	
5	91143051	2	BUSHING	
6	91471034	2	RETAINER PLATE	
7	90027475	4	FLAT WASHER, 1	
8	77101143	4	HEX HD CAPSCREW, 1-8X10, (loctite and torque to 545-595 ft lbs)	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-12. REAR AXLE - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



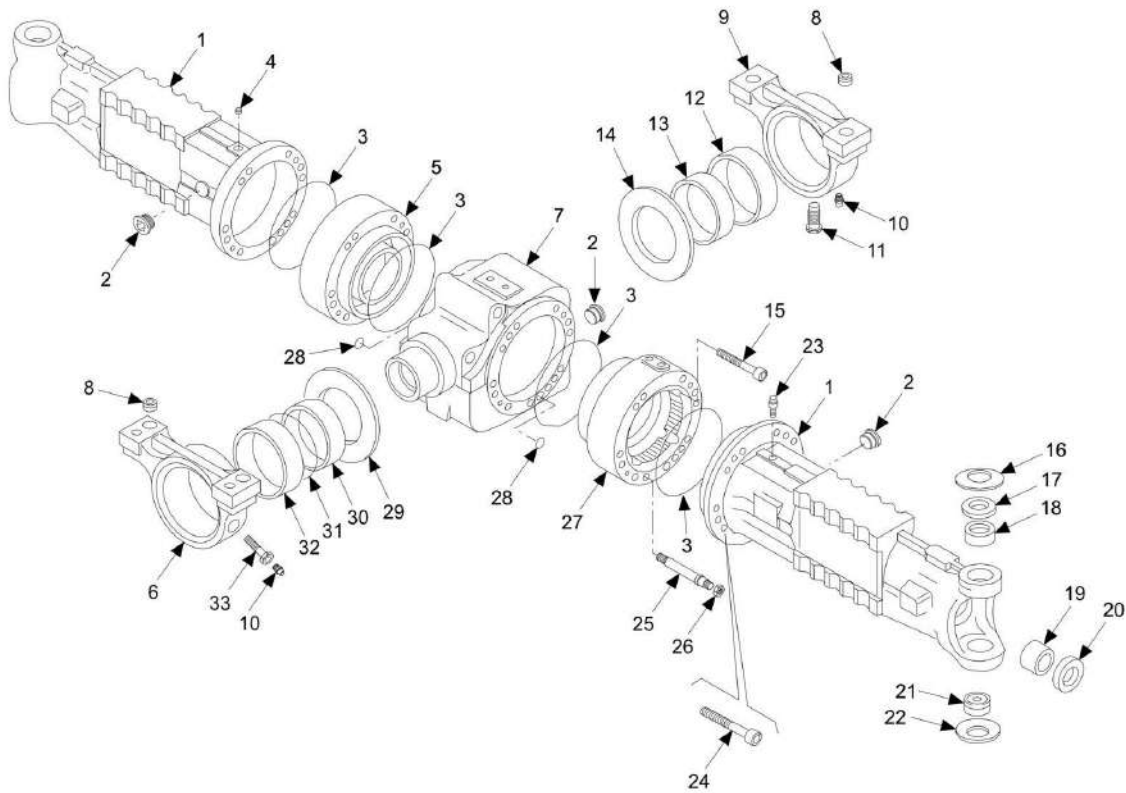
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-12. REAR AXLE - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473002	1	REAR AXLE, (includes all items)	
1		Ref	AXLE HOUSING ASSY, (See REAR AXLE HOUSING - CARRARO for Breakdown)	
2		Ref	STEERING COMPONENTS, (See REAR STEERING COMPONENTS - CARRARO for Breakdown)	
3		Ref	BEVEL GEAR SET, (See REAR GEAR COMPONENTS - CARRARO for Breakdown)	
4		Ref	DIFFERENTIAL, (See REAR DIFFERENTIAL - CARRARO for Breakdown)	
5		Ref	DOUBLE JOINT, (See REAR DOUBLE JOINT - CARRARO for Breakdown)	
6		Ref	WHEEL HUB, (See REAR WHEEL HUB - CARRARO for Breakdown)	
7		Ref	REDUCTION GEARS, (See REAR REDUCTION GEARS - CARRARO for Breakdown)	
	91474614	1	R.H. WHEEL SIDE KIT, (includes items 7, 11, 12, 16, 17 & 22 on REAR STEERING COMPONENTS – CARRARO, double joint assy and items 1, 7 & 8 on REAR DOUBLE JOINT – CARRARO, items 2 thru 10 on REAR WHEEL HUB - CARRARO and items 1, 2, 4 thru 8 & 10 on REAR REDUCTION GEARS - CARRARO)	
	91474615	1	L.H. WHEEL SIDE KIT, (includes items 6, 7, 11, 12, 16 & 17 on REAR STEERING COMPONENTS – CARRARO, double joint assy and items 1, 7 & 8 on REAR DOUBLE JOINT – CARRARO, items 2 thru 10 on REAR WHEEL HUB – CARRARO and items 1, 2, 4 thru 8 & 10 on REAR REDUCTION GEARS - CARRARO)	

# SECTION 5 - DRIVE TRAIN

**FIGURE 5-13. REAR AXLE HOUSING - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**



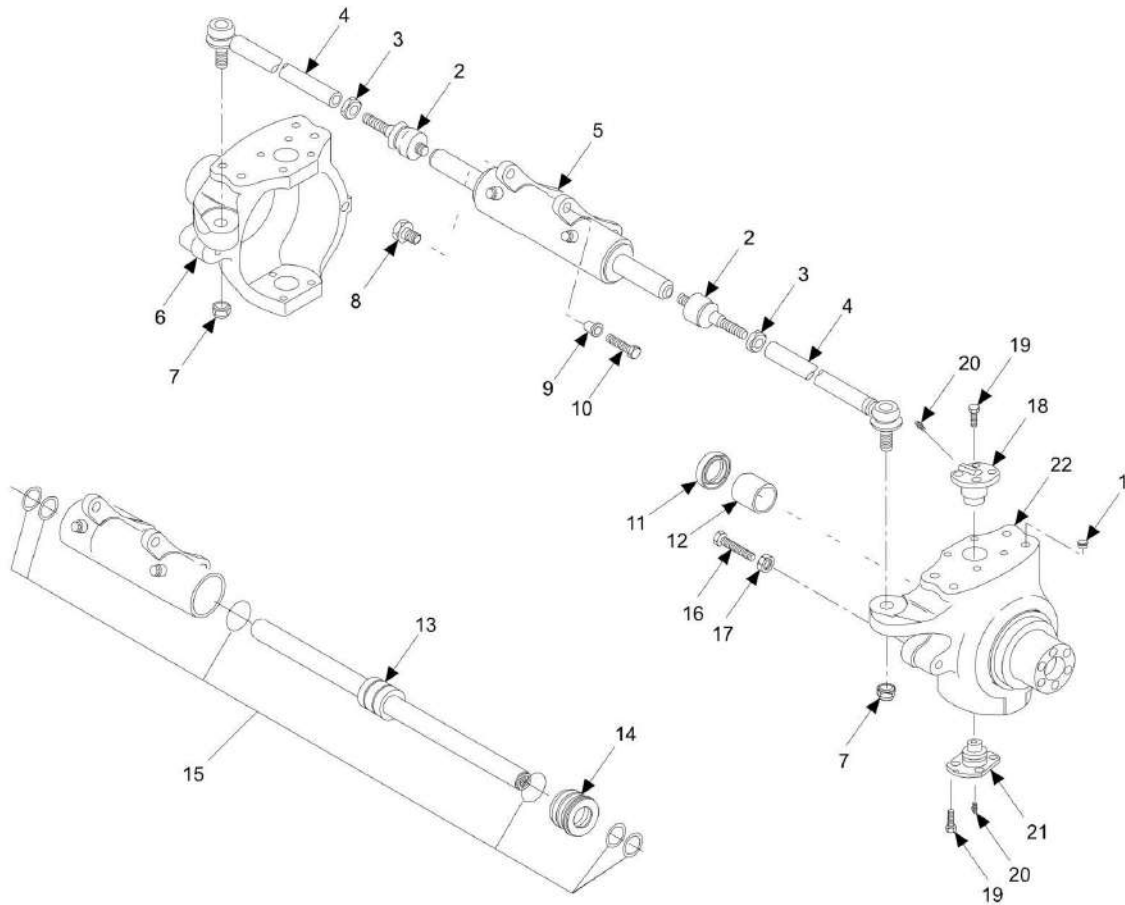
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-13. REAR AXLE HOUSING - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474036	2	AXLE HOUSING	
2	91474037	3	PLUG, M30X2	
3	91474038	4	O-RING	
4	91474041	1	PLUG, M10X1	
5	91474172	1	BRAKE CYLINDER, L.H.	
6	8035120	1	REAR SUPPORT	
7	91474042	1	CENTRAL BODY	
8	91474043	4	BUSHING	
9	91474044	1	FRONT SUPPORT	
10	91474045	2	GREASE FITTING	
11	91474046	1	BOLT	
12	91474047	1	BUSHING	
13	91474048	1	BUSHING	
14	91474049	1	THRUST WASHER	
15	91474050	2	BOLT, M12X110	
16	91474051	2	WASHER	
17	91474052	2	SHIM	
18	91474053	2	BUSHING	
19	91474054	2	BUSHING	
20	91474055	2	SEAL RING	
21	91474056	2	BEARING	
22	91474057	2	WASHER	
23	91474058	1	BREATHER	
24	91474059	22	BOLT	
25	91474060	2	STUD, M16X2	
26	91474061	2	NUT, M16X2	
27	91474173	1	BRAKE CYLINDER, R.H.	
28	91474068	2	O-RING	
29	91474069	1	WASHER	
30	8035118	1	BUSHING	
31	91474071	1	O-RING	
32	91474072	1	BUSHING	
33	91474073	1	BOLT	

# SECTION 5 - DRIVE TRAIN

**FIGURE 5-14. REAR STEERING COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**



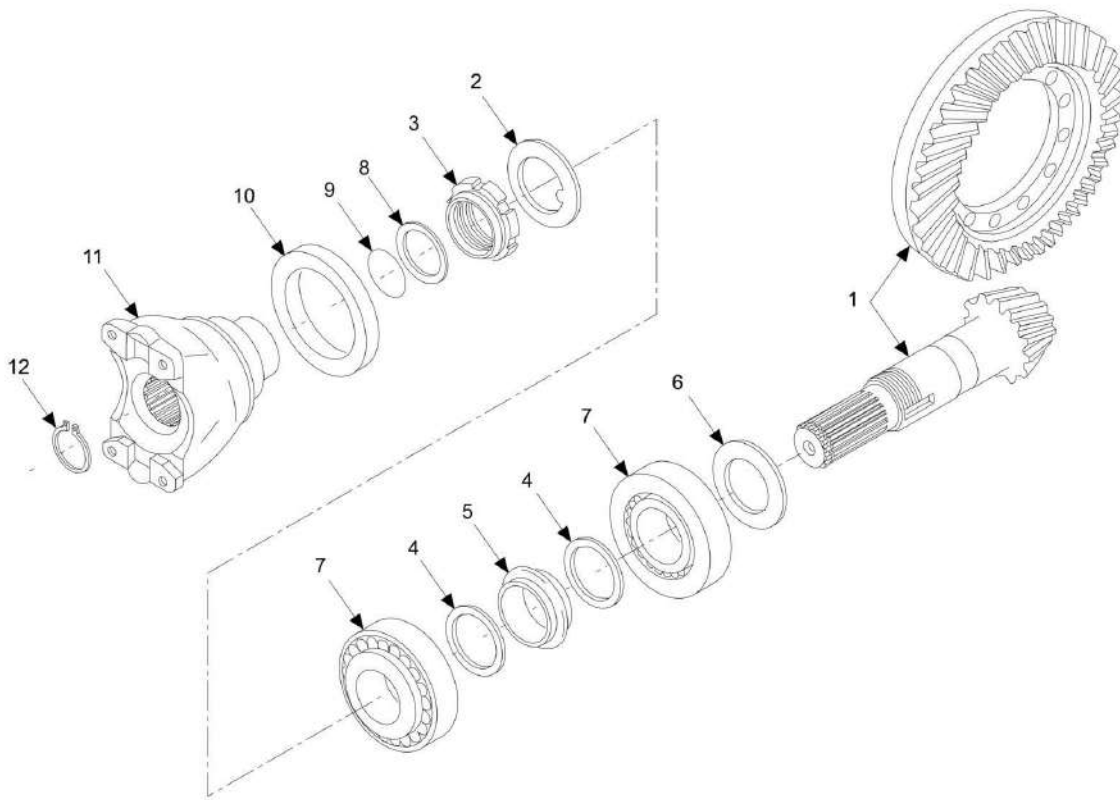
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-14. REAR STEERING COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474076	2	STEERING ARM ASSY, (includes items 2, 3 & 4)	
1	91474098	8	PLUG	
2	91474077	2	BALL JOINT	
3	91474078	2	NUT, M24X1.5	
4	91474079	2	TIE ROD	
5	91474080	1	STEERING CYLINDER	
6	91474081	1	SWIVEL HOUSING, L.H.	
7	91474082	2	NUT, M24X1.5	
8	91474083	2	BOLT, M22X55	
9	91474084	2	BUSHING	
10	91474085	2	BOLT, M14X65	
11	91474086	2	SEAL RING	
12	91474087	2	BUSHING	
13	91474088	1	ROD	
14	91474089	1	CYLINDER HEAD	
15	91474090	1	SEAL KIT	
16	91474091	4	BOLT	
17	91474092	4	NUT, M16	
18	91474093	2	KING PIN	
19	91474094	16	BOLT, M16X38	
20	91474095	4	GREASE FITTING	
21	91474096	2	KING PIN	
22	91474097	1	SWIVEL HOUSING, R.H.	

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FIGURE 5-15. REAR GEAR COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 016000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)





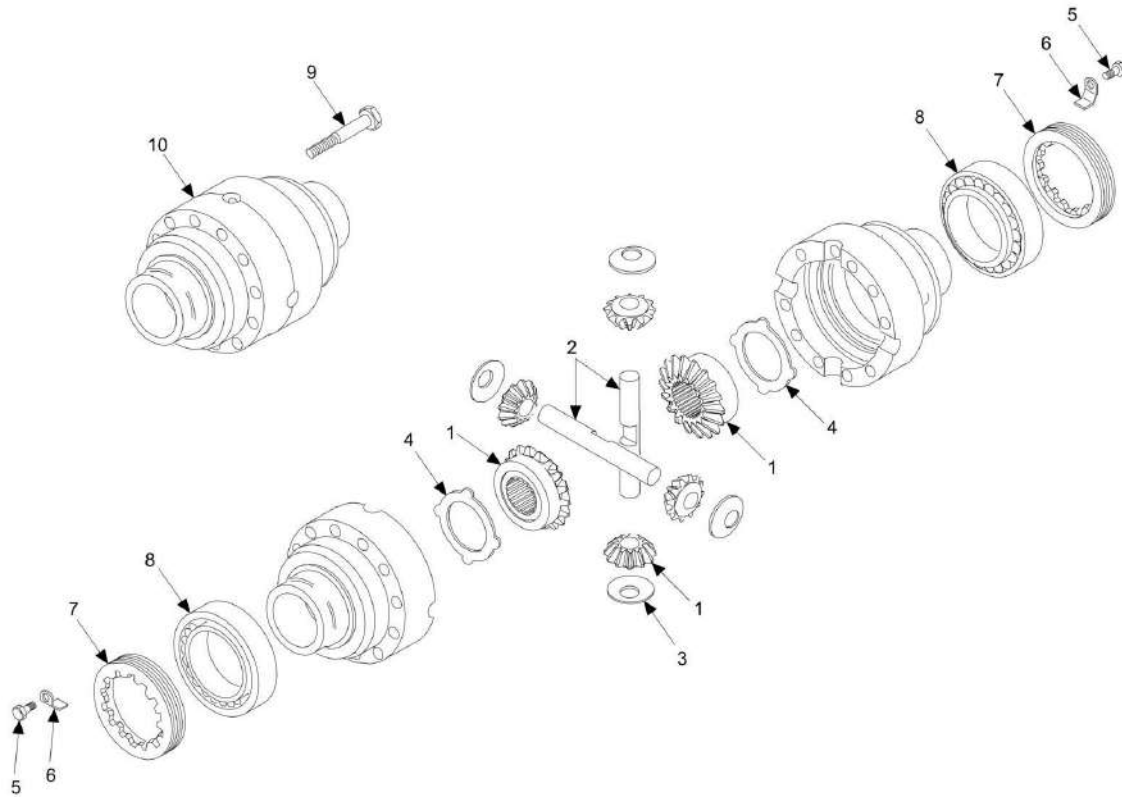
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-15. REAR GEAR COMPONENTS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474174	1	BEVEL GEAR SET, (includes items 2, 3, 4 & 5)	
2	91474100	1	LOCKWASHER	
3	91474101	1	RING NUT, M40X1.5	
4	91474102	2	WASHER	
5	91474103	1	SPACER	
6	91474104	AR	SHIM, 2.50MM	
6	91474105	AR	SHIM, 2.60MM	
6	91474106	AR	SHIM, 2.70MM	
6	91474107	AR	SHIM, 2.80MM	
6	91474108	AR	SHIM, 2.90MM	
6	91474109	AR	SHIM, 3.00MM	
6	91474110	AR	SHIM, 3.10MM	
6	91474111	AR	SHIM, 3.20MM	
6	91474112	AR	SHIM, 3.30MM	
6	91474113	AR	SHIM, 3.40MM	
7	7028403	2	BEARING	
8	91474115	1	WASHER	
9	91474116	1	O-RING	
10	91474117	1	OIL SEAL	
11	91474118	1	FLANGE	
12	91474119	1	SNAP RING	

# SECTION 5 - DRIVE TRAIN

**FIGURE 5-16. REAR DIFFERENTIAL - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**



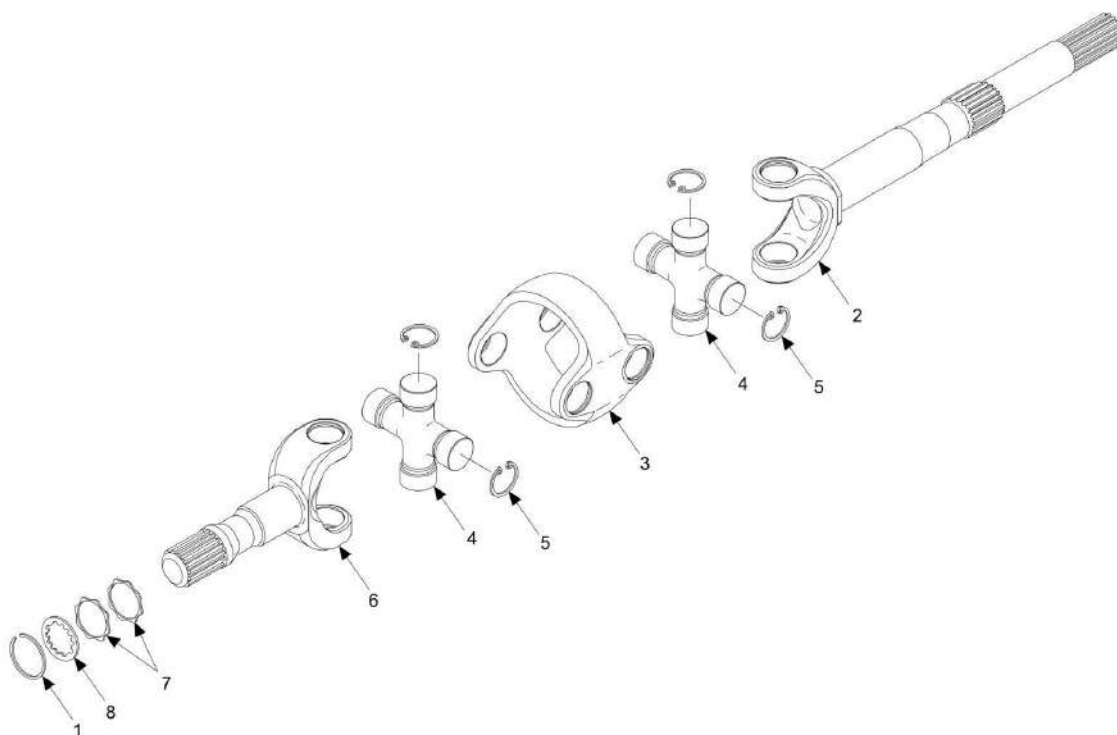
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-16. REAR DIFFERENTIAL - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474175	1	DIFFERENTIAL KIT, (includes items 2, 3 & 4)	
2	91474122	2	SHAFT	
3	91474121	4	THRUST WASHER	
4	91474176	2	DIFFERENTIAL COUNTER DISC	
5	8035180	2	BOLT	
6	91474126	2	LOCKING PLATE	
7	91474128	2	RING NUT	
8	91474129	2	BEARING	
9	91474130	2	BOLT	
10	91474131	2	DIFFERENTIAL HOUSING	

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FIGURE 5-17. REAR DOUBLE JOINT - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



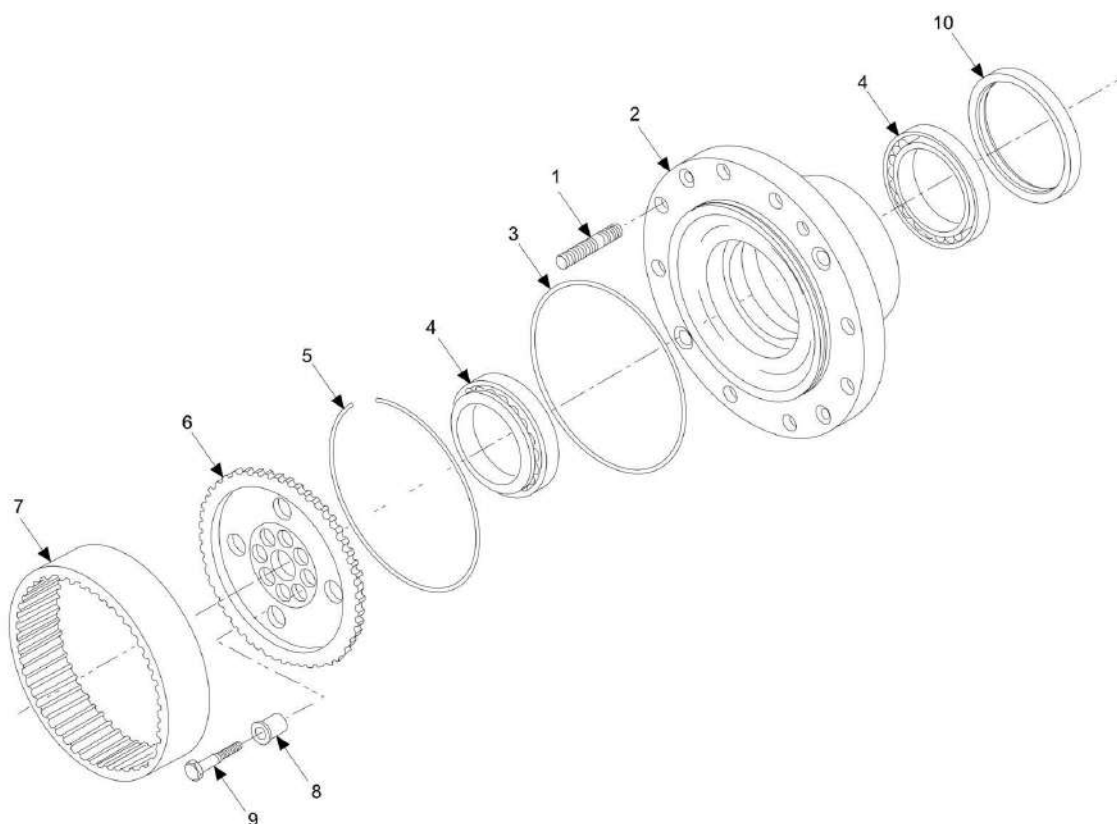
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-17. REAR DOUBLE JOINT - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474132	2	DOUBLE JOINT, (includes items 2 thru 6)	
1	91474135	2	RING	
2	7029835	1	FORK, (differential side)	
3	7029834	1	CENTRAL BODY	
4	91474632	2	SPIDER	
5	7029837	8	LOCK RING	
6	7029836	1	FORK, (wheel side)	
7	91474133	4	THRUST WASHER	
8	91474134	2	WASHER	
		Ref	NOTE: QUANTITIES SHOWN ARE FOR ONE U-JOINT ASSEMBLY ONLY	

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**FIGURE 5-18. REAR WHEEL HUB - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**



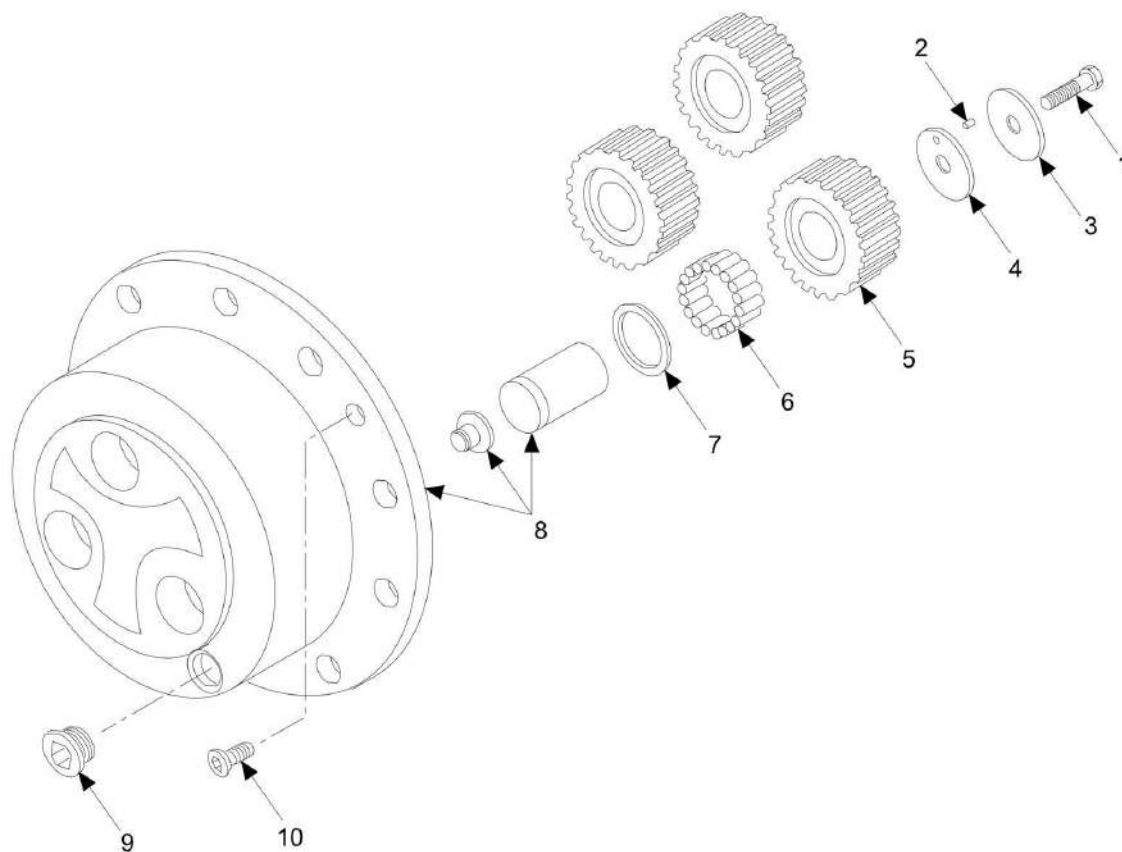
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-18. REAR WHEEL HUB - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474153	10	STUD	
2	91474154	1	WHEEL HUB	
3	91474155	1	O-RING	
4	91474156	2	BEARING	
5	91474157	1	LOCK RING	
6	91474158	1	WHEEL CARRIER	
7	91474159	1	CROWN GEAR	
8	91474160	8	BUSHING	
9	91474085	8	BOLT, M14X1.5X65	
10	91474161	1	SEAL	

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FIGURE 5-19. REAR REDUCTION GEARS - CARRARO (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)





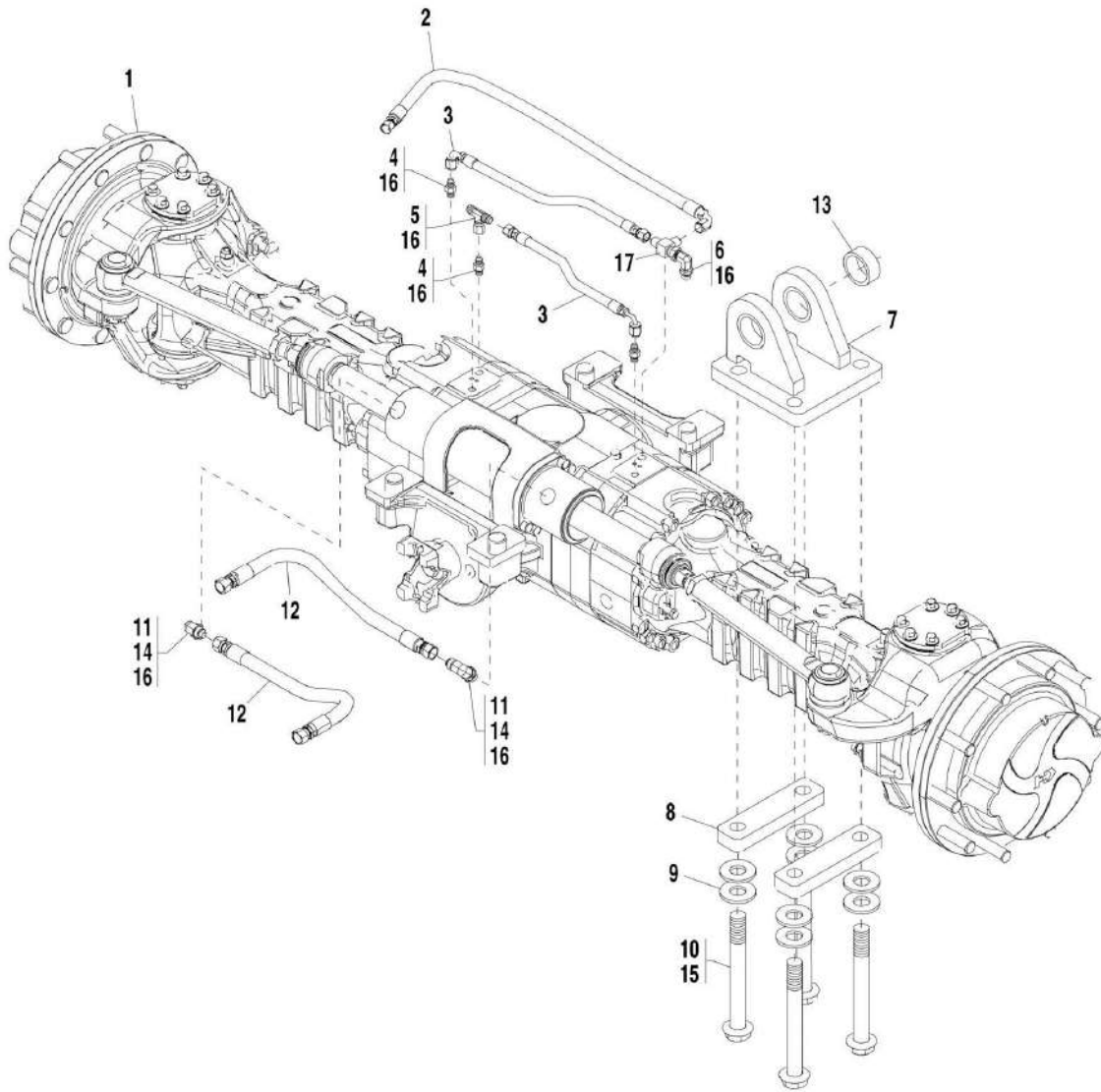
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-19. REAR REDUCTION GEARS - CARRARO (SN 0192001 through 0192007, SN 0160000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474162	3	BOLT, M10X1.25X50	
2	91474163	3	PIN	
3	91474164	3	THRUST WASHER	
4	91474165	3	THRUST WASHER	
5	91474166	3	PLANETARY GEAR	
6	91474167	84	NEEDLE BEARING, (28 per gear)	
7	91474168	3	THRUST WASHER	
8	91474169	1	PLANETARY CARRIER ASSY	
9	91474037	1	OIL PLUG	
10	7028492	2	BOLT, M8X20	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-20. FRONT AXLE ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



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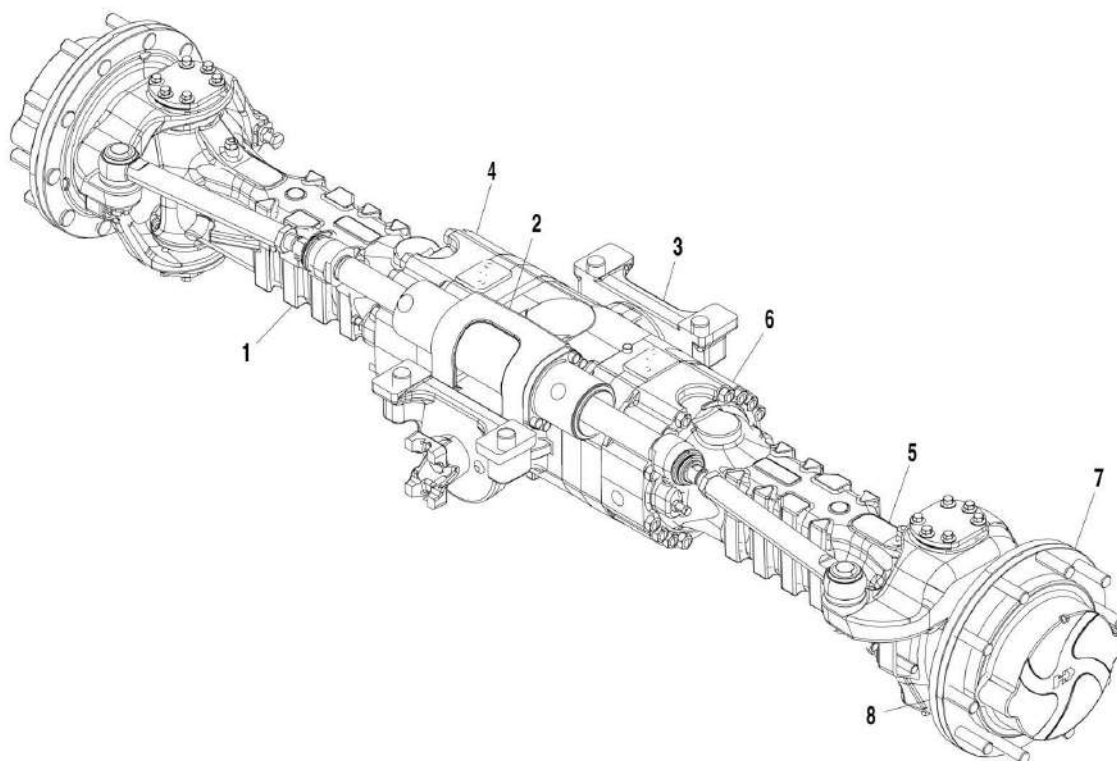
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-20. FRONT AXLE ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475075	1	FRONT AXLE ASSY, (includes all items)	F
1		Ref	FRONT AXLE, (See FRONT AXLE - DANA for Breakdown)	
2	84721061	1	HOSE ASSY	
3	84719846	2	HOSE ASSY	
4	8770064	3	ADAPTER	
5	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
6	2221262	1	ADAPTER	
7	91475074	1	SWAY LUG ASSY, (includes item 13)	
8	91471213	2	RETAINING PLATE	
9	90027475	8	HARDENED WASHER, 1	
10	91473196	4	HEX HD CAPSCREW, 1-8X9, GR8, (torque to 545-595 ft lbs)	
11	2220596	2	ELBOW, 90, (includes item 14)	
12	84719936	2	HOSE ASSY	
13	91143051	2	BUSHING	
14	88591205	2	O-RING	
15	14403364	AR	LOCTITE, 242	
16	14404043	AR	LOCTITE, 545	
17	2220635	1	ADAPTER	

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FIGURE 5-21. FRONT AXLE - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



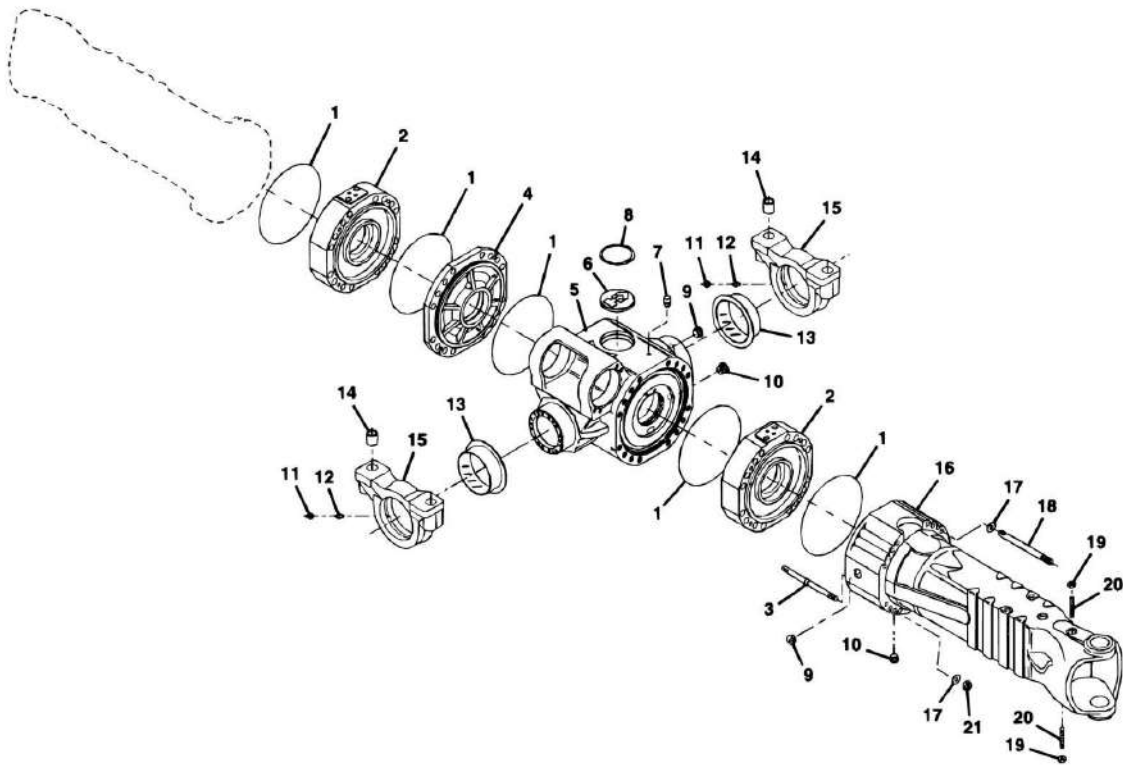
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-21. FRONT AXLE - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91473082	1	FRONT AXLE, (includes all items)	
1		Ref	AXLE HOUSING ASSY, (See FRONT AXLE HOUSING ASSEMBLY - DANA for Breakdown)	
2		Ref	STEERING COMPONENTS, (See FRONT STEERING COMPONENTS - DANA for Breakdown)	
3		Ref	BEVEL GEAR SET, (See FRONT GEAR COMPONENTS - DANA for Breakdown)	
4		Ref	DIFFERENTIAL, (See FRONT DIFFERENTIAL - DANA for Breakdown)	
5		Ref	DOUBLE JOINT, (See FRONT DOUBLE JOINT - DANA for Breakdown)	
6		Ref	BRAKES, (See FRONT BRAKES - DANA for Breakdown)	
7		Ref	WHEEL HUB, (See FRONT WHEEL HUB - DANA for Breakdown)	
8		Ref	REDUCTION GEARS, (See FRONT REDUCTION GEARS - DANA for Breakdown)	

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FIGURE 5-22. FRONT AXLE HOUSING ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



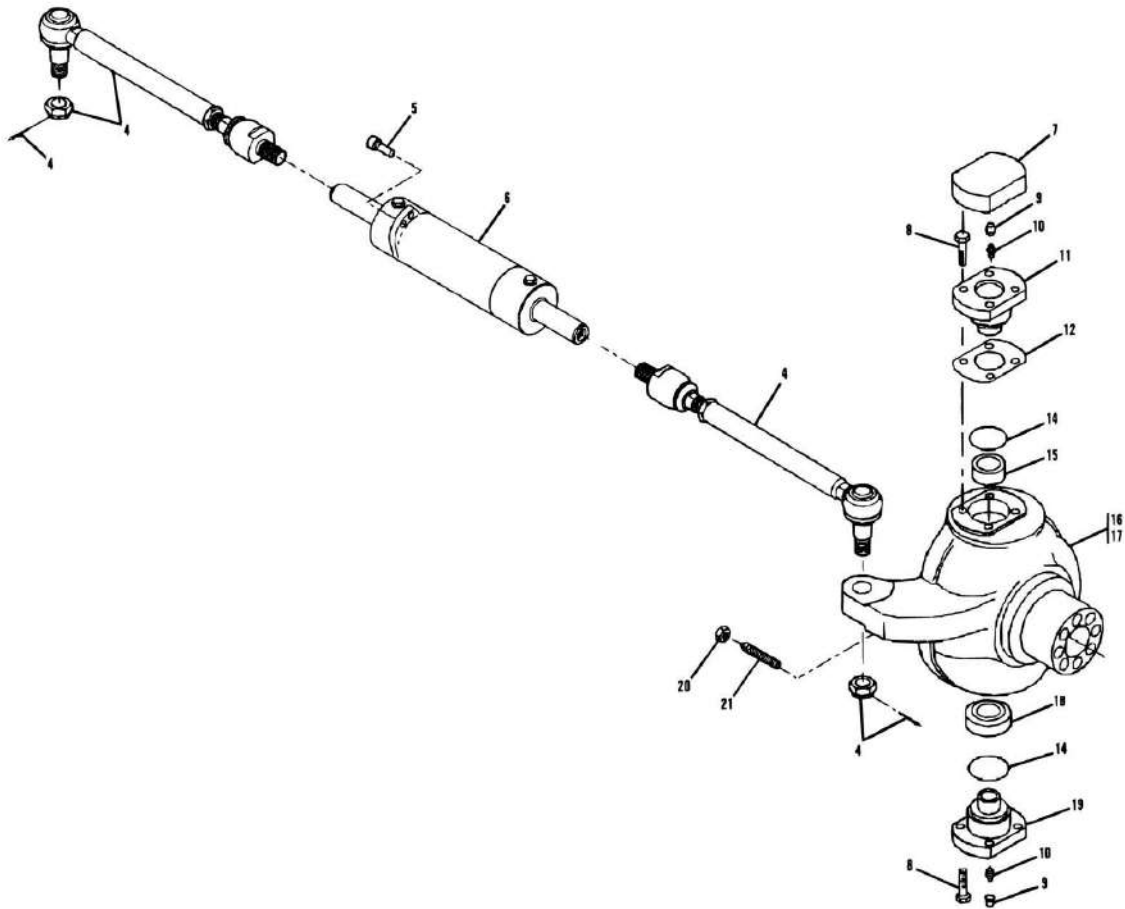
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-22. FRONT AXLE HOUSING ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474507	5	O-RING	A
2		Ref	COVER, (See FRONT BRAKES – DANA for Breakdown)	
3	91474508	8	STUD	
4	91474509	1	INTERMEDIATE COVER	
5	7029279	1	HOUSING	
6	91514098	1	PLUG	
7	91474512	1	VENT	
8	80204005	1	CIRCLIP	
9	91514188	3	PLUG	
10	7028706	3	MAGNET PLUG	
11	80204117	2	Plug	
12	91514099	2	GREASE FITTING	
13	91474515	2	THRUST BUSHING	
14	91474516	4	REDUCTION BUSHING	
15	7029280	1	SUPPORT, REAR	
15	7029281	1	SUPPORT, FRONT	
16	91474518	2	AXLE CASE	
17	91514084	32	WASHER	
18	91474519	24	STUD	
19	91514082	2	NUT	
20	91514081	2	BOLT	
21	91514083	32	NUT	
	7029282	1	SUPPORT ASSY, REAR, (includes items 11 thru 15)	
	7029283	1	SUPPORT ASSY, FRONT, (includes items 11 thru 15)	

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FIGURE 5-23. FRONT STEERING COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)





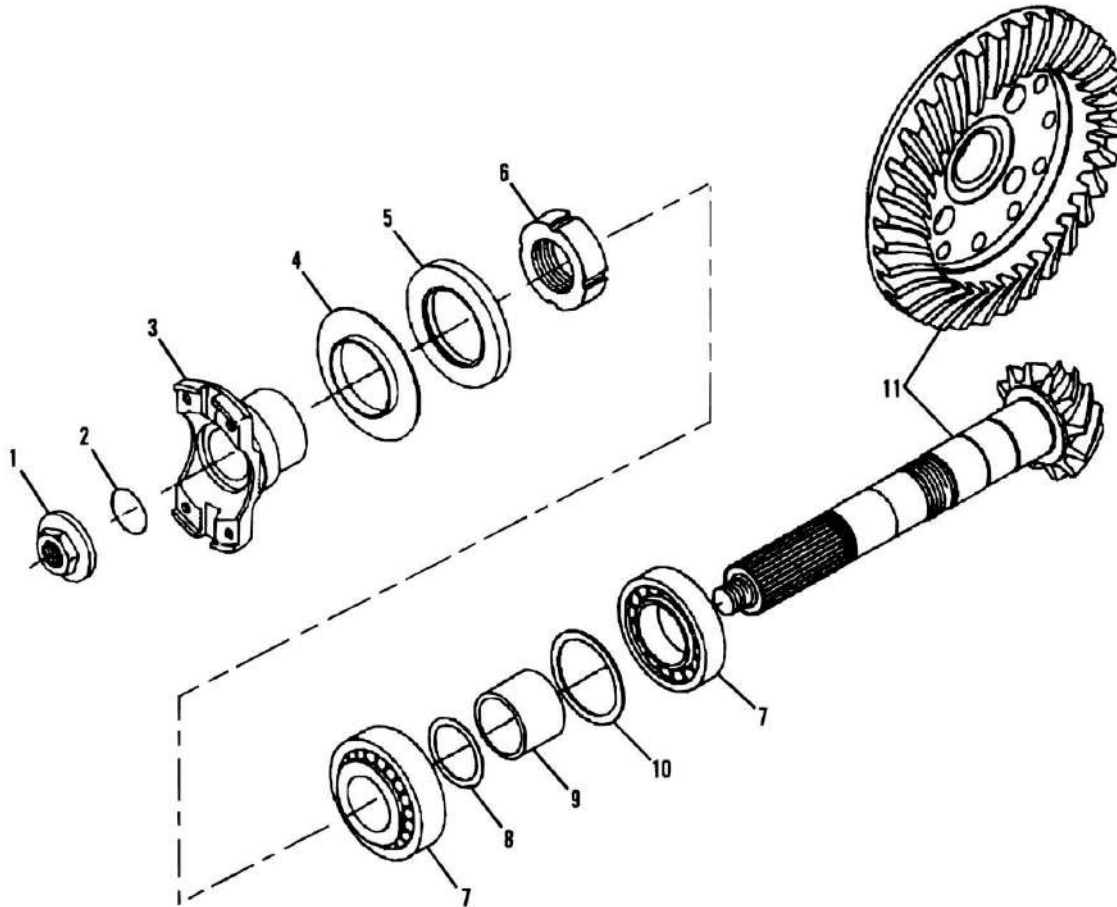
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-23. FRONT STEERING COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
4	91474521	2	TIE ROD, (includes hex nut)	A
5	91474522	4	CYLINDER BOLT	
6		Ref	CYLINDER, (no longer available), (axle) <b>(Prior to SN FITA709131)</b>	
6	7029527	1	SEAL KIT	
6	7029528	1	CYLINDER, (axle) <b>(SN FITA709131 to Present)</b>	
6	7029529	1	SEAL KIT	
7	91474524	2	COVER	
8	91514123	24	BOLT	
9	80204117	2	Plug	
10	91514099	4	GREASE FITTING	
11	91514112	2	PIVOT PIN, (includes item 10)	
12	91514113	2	SHIM	
12	91514114	2	SHIM	
12	91514115	2	SHIM	
14	7028716	4	DUST EXCLUDER	
15	7028714	2	OUTER RACE	
16	91474526	1	STEERING CASE, L.H.	
17	91474527	1	STEERING CASE, R.H.	
18	91514095	2	BEARING	
19	7028715	2	PIVOT PIN, (includes items 10, 14 & 18)	
20	80204065	4	NUT	
21	91514117	4	BOLT	
	7029285	1	STEERING CASE ASSY, L.H., (includes items 16 and thrust bushing 91514111)	
	7029284	1	STEERING CASE ASSY, R.H., (includes items 17 and thrust bushing 91514111)	
	7028733	4	STEERING ADJUST BOLT KIT, (includes items 20 & 21)	
	91514275	1	NUT AND COTTER PIN KIT	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

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FIGURE 5-24. FRONT GEAR COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



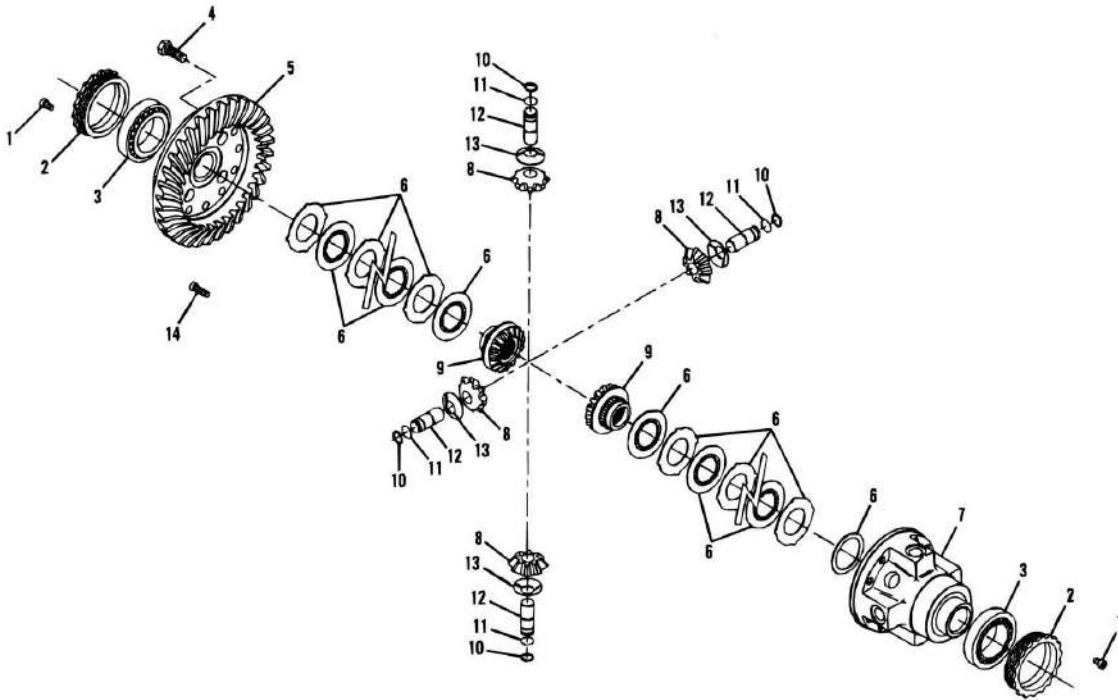
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-24. FRONT GEAR COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474528	1	NUT	
2	91474529	1	O-RING	
3	91474530	1	FLANGE	
4	91474531	1	COVERPLATE	
5	91474532	1	SEAL	
6	91474533	1	RING NUT	
7	3968141	2	TAPER ROLLER BEARING	
8	91474535	1	SHIM	
8	91474536	1	SHIM	
8	91474537	1	SHIM	
8	91474538	1	SHIM	
9	91474539	1	SPACER	
10	91474540	1	SHIM	
10	91474541	1	SHIM	
10	91474542	1	SHIM	
10	91474543	1	SHIM	
11	91474544	1	BEVEL GEAR SET	

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FIGURE 5-25. FRONT DIFFERENTIAL - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



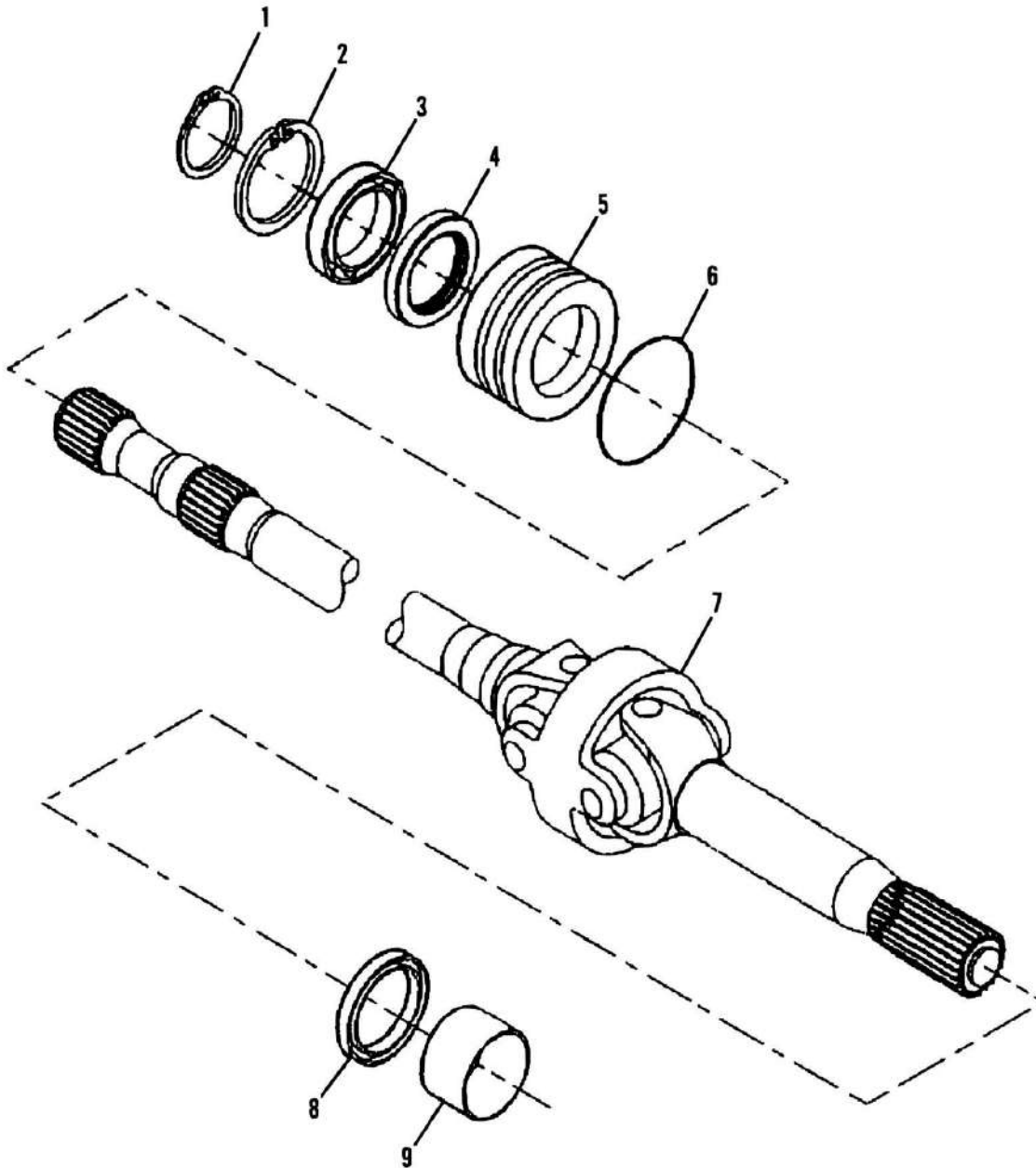
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-25. FRONT DIFFERENTIAL - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91514134	2	CYLINDER BOLT	A
2	91474547	2	RING NUT	
3	91474548	2	ROLLER BEARING	
4	91514123	12	BOLT	
5		Ref	BEVEL GEAR, (See FRONT GEAR COMPONENTS – DANA for Breakdown)	
6	8007755	1	CLUTCH DISC KIT	
7	8007751	1	DIFFERENTIAL CARRIER	
8	91474554	4	DIFFERENTIAL PINION, (Axle) <b>(Prior to SN FITA723106)</b>	
8	7028709	4	DIFFERENTIAL PINION, (Axle) <b>(SN FITA723106 through FITA780809)</b>	
8	7029129	4	DIFFERENTIAL PINION, (Axle) <b>(Including FITA780810)</b>	
9	91474549	2	DIFFERENTIAL SIDE GEAR	
10	91474550	4	CIRCLIP	
11	91474551	4	CIRCLIP	
12	91474552	4	PIN, (Axle) <b>(Prior to SN FITA780810)</b>	
12	7029131	4	PIN, (Axle) <b>(SN FITA780810 to Present)</b>	
13	91474553	4	FRICITION WASHER	
14	91474591	4	CYLINDER BOLT	
	8007752	1	DIFFERENTIAL KIT, (Axle), (includes items 6 thru 13) <b>(Prior to SN FITA723106)</b>	
	7028710	1	DIFFERENTIAL KIT, (Axle), (includes items 6 thru 13) <b>(SN FITA723106 to Present)</b>	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-26. FRONT DOUBLE JOINT - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



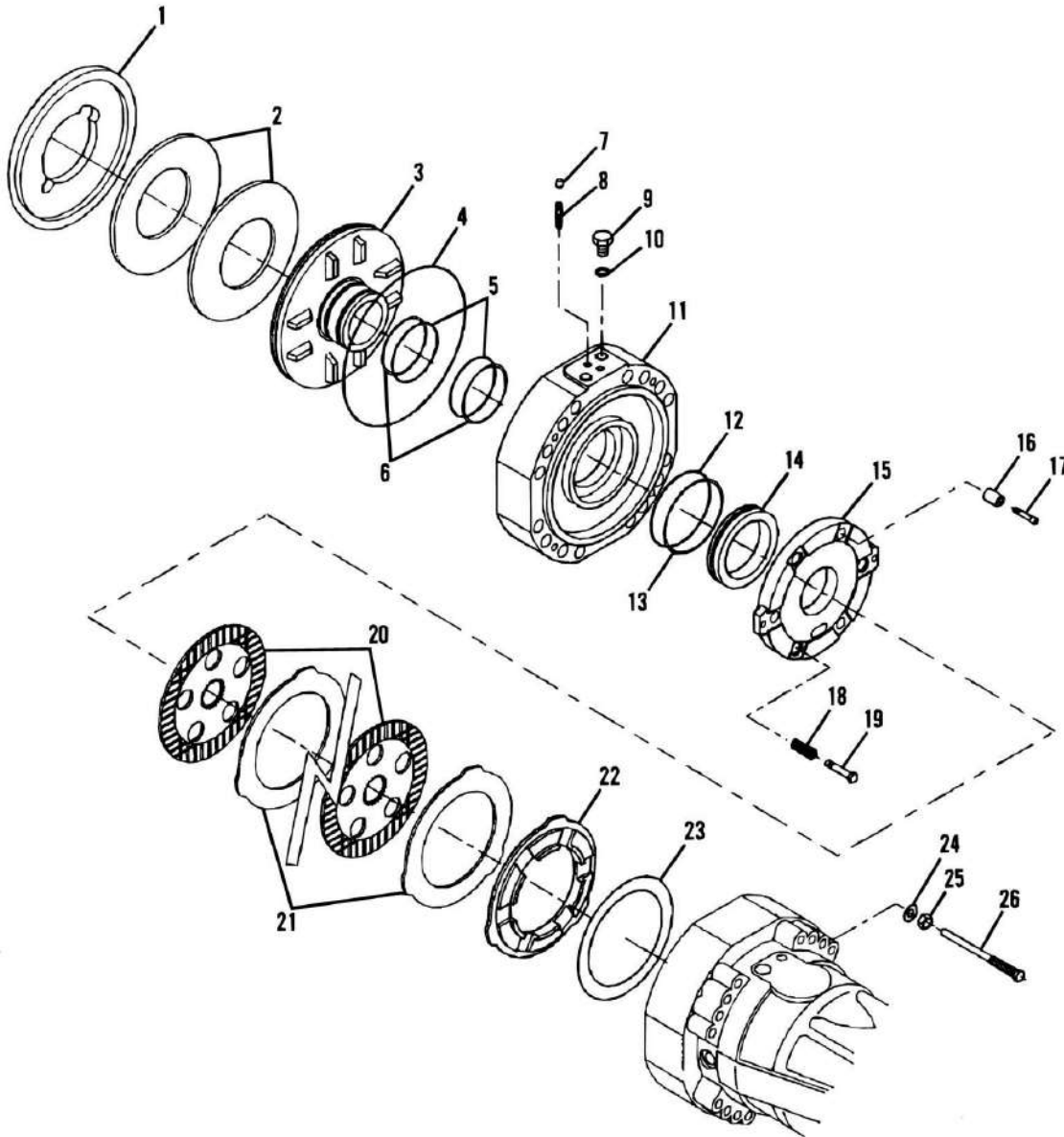
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-26. FRONT DOUBLE JOINT - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	80204071	2	CIRCLIP	A
2	80204005	2	CIRCLIP	
3	91514146	2	BALL BEARING	
4	91514147	2	SEAL	
5	91514149	2	REDUCTION BUSHING, (includes items 2, 3, 4 & 6)	
6	91514148	2	O-RING	
7	91474556	2	JOINT AND SHAFT ASSY	
8	91514110	2	SEAL, (Axle) <b>(Prior to SN FITA733977)</b>	
8	7028718	2	SEAL, (Axle) <b>(SN FITA733977 to Present)</b>	
9	91514111	2	THRUST BUSHING	
	7029811	1	CROSS KIT, (includes cross for double joint, circlips and needle bearings)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-27. FRONT BRAKES - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)





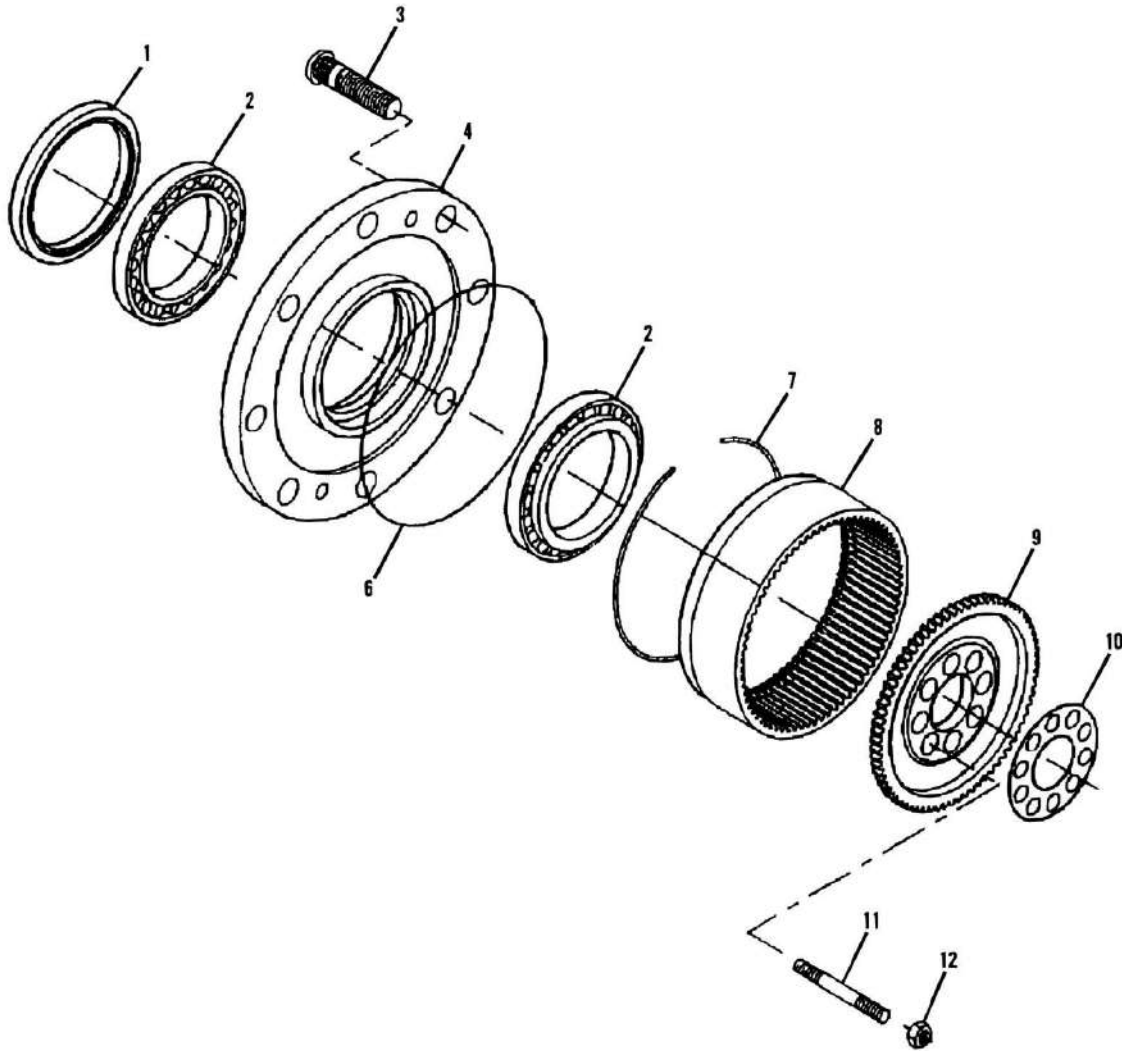
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-27. FRONT BRAKES - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474558	2	SPACER	
2	91474559	4	SPRING	
3	91474560	2	PISTON	
4	91474561	2	O-RING	
5	91514167	4	O-RING	
6	91514153	4	BACK-UP RING	
7	80204117	4	Plug	
8	80204281	4	BLEEDING BOLT	
9	91514154	4	BOLT	
10	91514155	4	SEAL WASHER	
11	91474590	2	INTERMEDIATE COVER	
12	91474562	2	O-RING	
13	91474563	2	BACK-UP RING	
14	91474564	2	PISTON	
15	91474565	2	INTERMEDIATE BRAKE DISC	
16	91514165	6	SPRING	
17		Ref	ADJUSTING BOLT, (Axle), (91474567 is no longer available; order qty. 6 of 7029788 for replacement) <b>(Prior to SN HITA)</b>	
17	7029788	6	ADJUSTING BOLT, (Axle) <b>(SN HITA through 725998)</b>	
18	91514159	6	SPRING	
19	91514160	6	ADJUSTING BOLT	
20	91474568	8	BRAKE DISC	
21	91474569	8	INTERMEDIATE BRAKE DISC	
22	91474570	2	SPACER	
23	91474571	2	SHIM	
23	91474572	2	SHIM	
23	91474573	2	SHIM	
24	80204108	4	LOCKWASHER	
25	80204060	4	NUT	
26	7028736	4	BOLT	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-28. FRONT WHEEL HUB - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



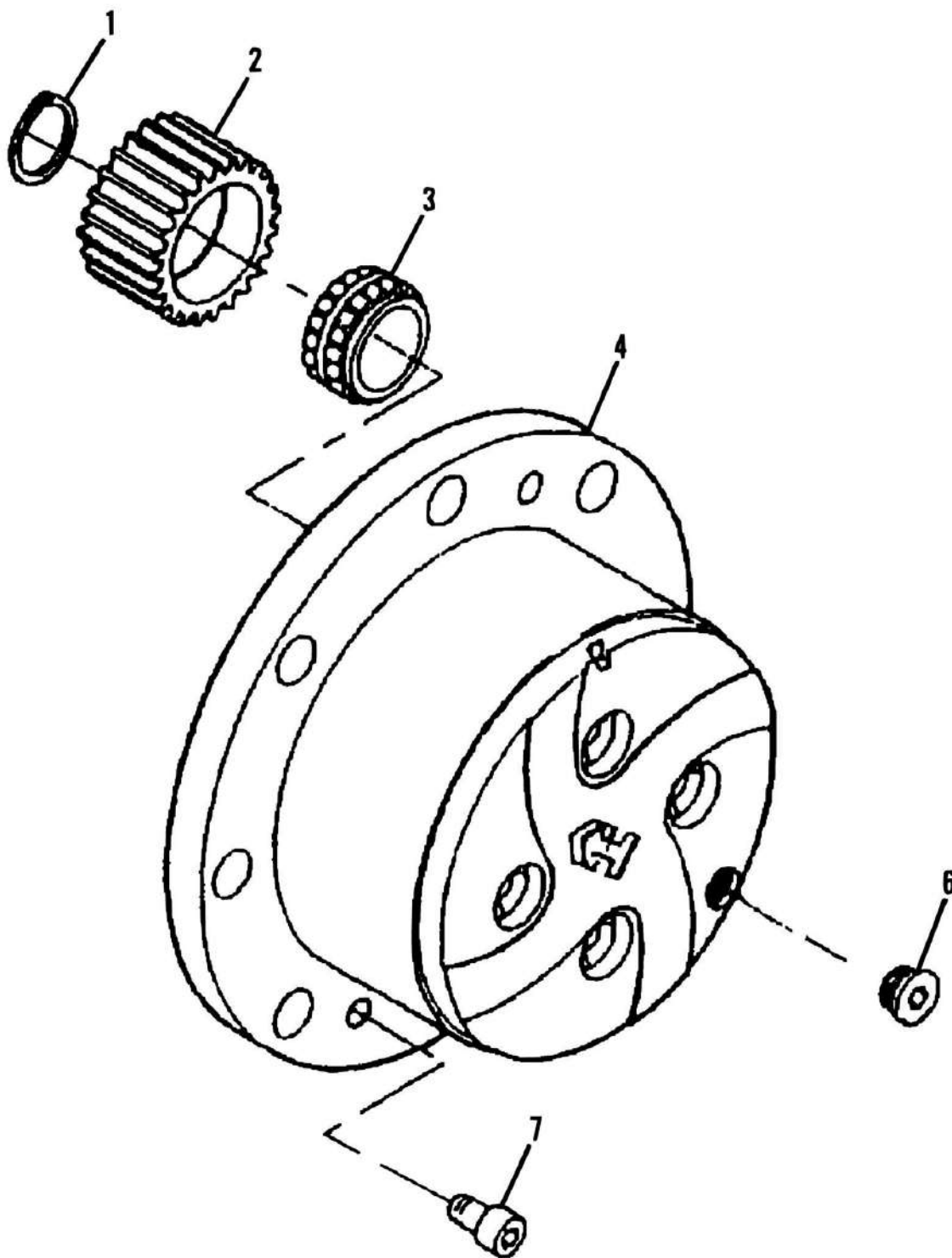
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-28. FRONT WHEEL HUB - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	7028721	2	SEAL	A
2	91474576	4	BEARING	
3	80214120	20	WHEEL STUD	
4	7029737	2	WHEEL HUB	
6	91514181	2	O-RING	
7	91474579	2	CIRCLIP	
8	91474580	2	RING GEAR	
9	91474581	2	RING GEAR SUPPORT	
10	91474582	2	LOCKING PLATE	
11	91474583	20	STUD	
12	91474584	20	NUT	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-29. FRONT REDUCTION GEARS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



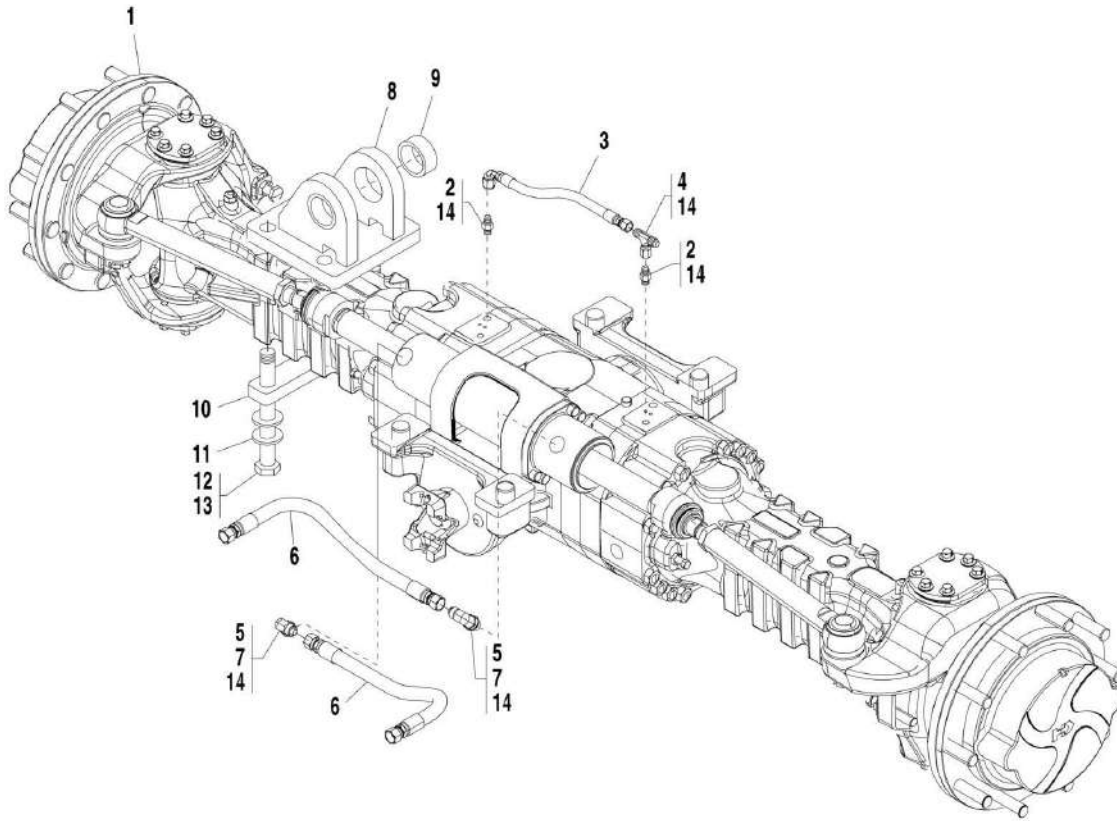
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-29. FRONT REDUCTION GEARS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474585	8	CIRCLIP	A
2	91474586	8	PLANETARY GEAR	
3	91474587	8	BEARING	
4	7029286	2	PLANETARY GEAR CARRIER	
6	91514188	2	PLUG	
7	91514189	4	COUNTERSUNK BOLT	
	7029287	2	PLANETARY CARRIER KIT, (Prior to Axle SN GITA705017), (includes items 1 thru 4 and items 7, 8 & 9 on FRONT WHEEL HUB - DANA)	
	7029431	2	PLANETARY CARRIER KIT, (Axle SN GITA705017 To Present), (includes items 1 thru 4)	
	7029736	2	RING GEAR SUPPORT, (Axle SN GITA705017 To Present), (includes items 7, 8 & 9 on FRONT WHEEL HUB - DANA)	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-30. REAR AXLE ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



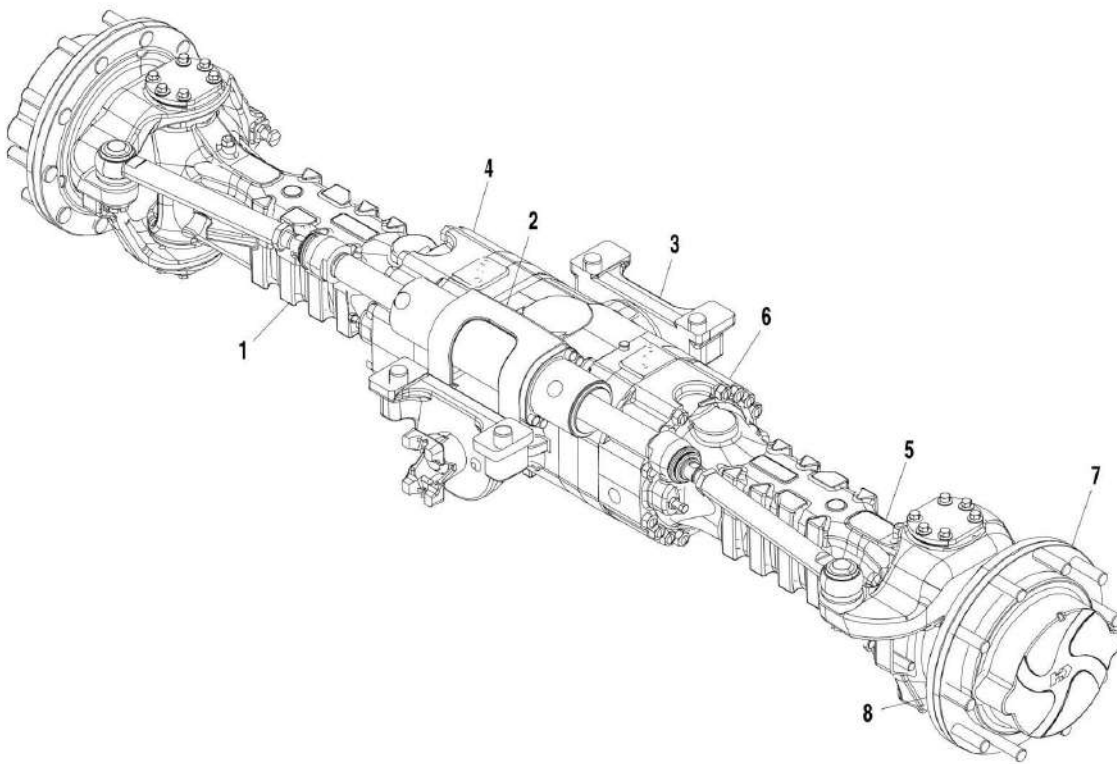
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-30. REAR AXLE ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505044	1	REAR AXLE ASSY, (includes all items)	C
1		Ref	REAR AXLE, (See REAR AXLE - DANA for Breakdown)	
2	8770064	2	ADAPTER, M14X1.5	
3	84719846	1	HOSE ASSY	
4	2220579	1	SWIVEL NUT BRANCH TEE, 3/8 TUBE	
5	2220596	2	ELBOW, 90, (includes item 7)	
6	84719936	2	HOSE ASSY	
7	88591205	2	O-RING	
8	91475074	1	SWAY LUG ASSY, (includes item 9)	
9	91143051	2	BUSHING	
10	91471213	2	RETAINER PLATE	
11	90027475	8	HARDENED WASHER	
12	91473196	4	HEX HD CAPSCREW, 1-8UNCX9, GR8, (torque to 545-595 ft lbs)	
13	14403364	AR	LOCTITE, 242	
14	14404043	AR	LOCTITE, 545	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-31. REAR AXLE - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)





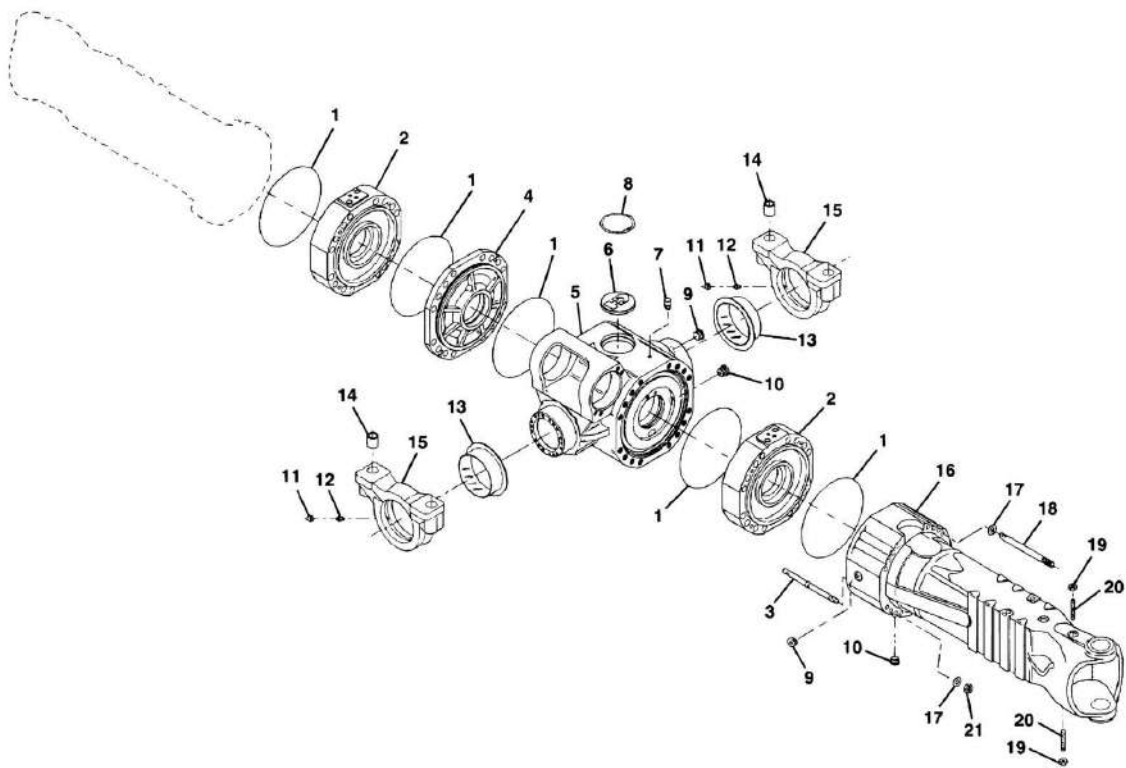
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-31. REAR AXLE - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473083	1	REAR AXLE, (includes all items)	
1		Ref	AXLE HOUSING ASSY, (See REAR AXLE HOUSING ASSEMBLY - DANA for Breakdown)	
2		Ref	STEERING COMPONENTS, (See REAR STEERING COMPONENTS – DANA for Breakdown)	
3		Ref	BEVEL GEAR SET, (See REAR GEAR COMPONENTS – DANA for Breakdown)	
4		Ref	DIFFERENTIAL, (See REAR DIFFERENTIAL – DANA for Breakdown)	
5		Ref	DOUBLE JOINT, (See REAR DOUBLE JOINT – DANA for Breakdown)	
6		Ref	REAR BRAKES, (See REAR BRAKES – DANA for Breakdown)	
7		Ref	WHEEL HUB, (See REAR WHEEL HUB – DANA for Breakdown)	
8		Ref	REDUCTION GEARS, (See REAR REDUCTION GEARS – DANA for Breakdown)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-32. REAR AXLE HOUSING ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



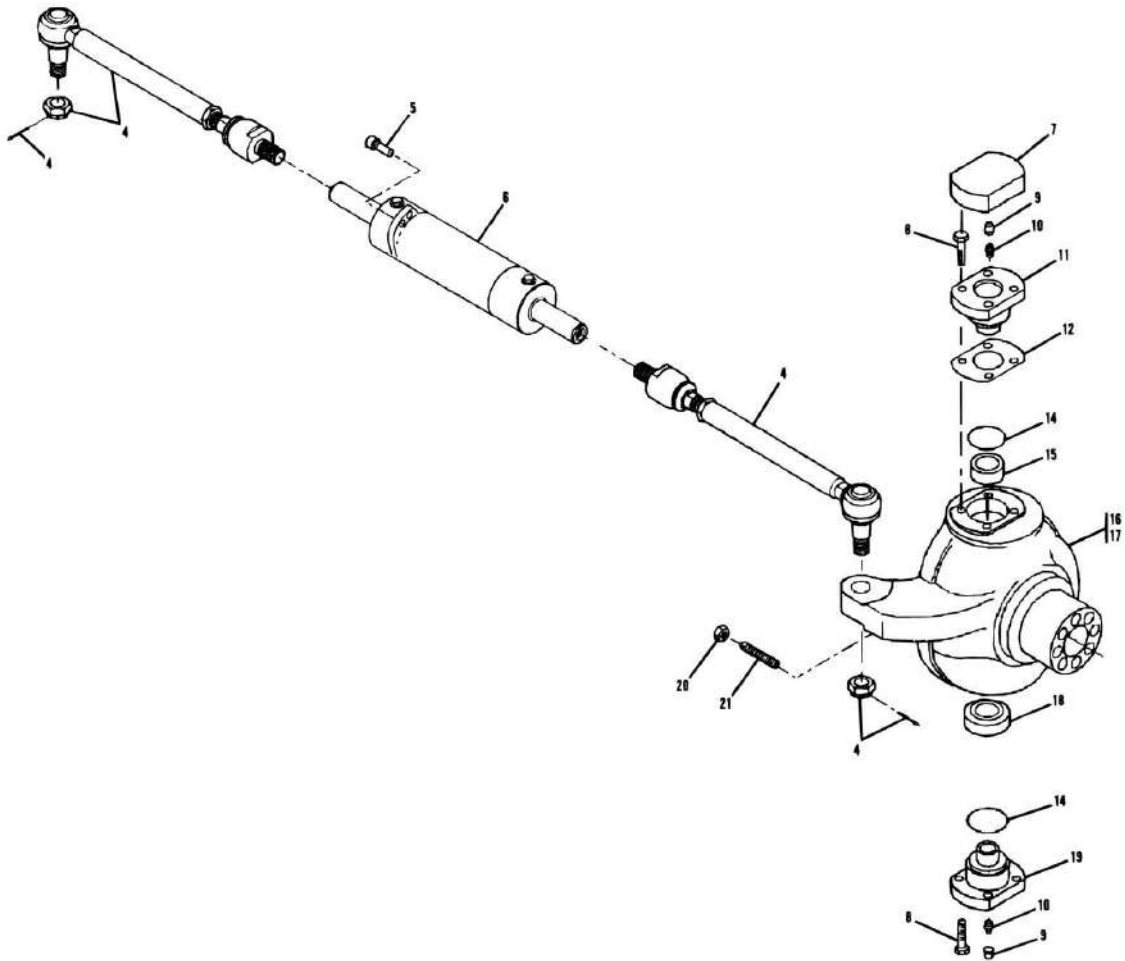
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-32. REAR AXLE HOUSING ASSEMBLY - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474507	5	O-RING	A
2		Ref	COVER, (See REAR BRAKES – DANA for Breakdown)	
3	91474508	8	STUD	
4	91474509	1	INTERMEDIATE COVER	
5	7029279	1	HOUSING	
6	91514098	1	CAP	
7	91474512	1	VENT	
8	80204005	1	CIRCLIP	
9	91514188	3	PLUG	
10	7028706	3	MAGNET PLUG	
11	80204117	2	PLUG	
12	91514099	2	GREASE FITTING	
13	91474515	2	THRUST BUSHING	
14	91474516	4	REDUCTION BUSHING	
15	7029280	1	SUPPORT, FRONT	
15	7029281	1	SUPPORT, REAR	
16	91474518	2	AXLE CASE	
17	91514084	32	WASHER	
18	91474519	24	STUD	
19	91514082	2	NUT	
20	91514081	2	BOLT	
21	91514083	32	NUT	
	7029282	1	FRONT SUPPORT ASSY, (includes items 11 thru 15)	
	7029283	1	REAR SUPPORT ASSY, (includes items 11 thru 15)	

# SECTION 5 - DRIVE TRAIN

**FIGURE 5-33. REAR STEERING COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**



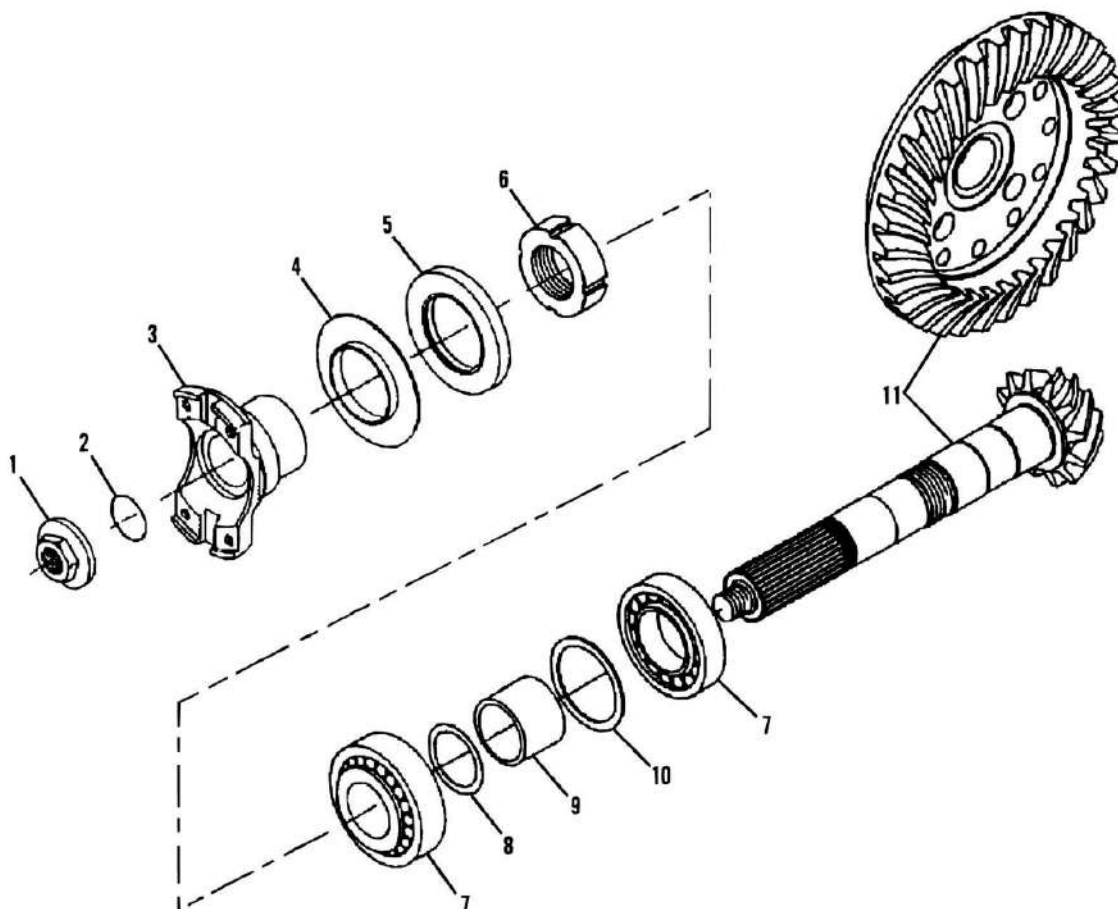
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-33. REAR STEERING COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
4	91474521	2	TIE ROD, (includes hex nut)	A
5	91474522	4	CYLINDER BOLT	
6		Ref	CYLINDER, (no longer available), (Prior to axle SN FITA709148)	
6	7029527	1	SEAL KIT	
6	7029528	1	CYLINDER, (Axle SN FITA709148 To Present)	
6	7029529	1	SEAL KIT	
7	91474524	2	COVER	
8	91514123	24	BOLT	
9	80204117	2	PLUG	
10	91514099	4	GREASE FITTING	
11	91514112	2	PIVOT PIN, (includes item 10)	
12	91514113	2	SHIM	
12	91514114	2	SHIM	
12	91514115	2	SHIM	
14	7028716	4	DUST EXCLUDER	
15	7028714	2	OUTER RACE	
16	91474527	1	STEERING CASE, L.H.	
17	91474526	1	STEERING CASE, R.H.	
18	91514095	2	BEARING	
19	7028715	2	PIVOT PIN, (includes items 10, 14 & 18)	
20	80204065	4	NUT	
21	91514117	4	BOLT	
	7029285	1	STEERING CASE ASSY, R.H., (includes items 17 and thrust bushing 91514111)	
	7029284	1	STEERING CASE ASSY, L.H., (includes items 16 and thrust bushing 91514111)	
	7028733	4	STEERING ADJUST BOLT KIT, (includes items 20 & 21)	
	91514275	1	NUT AND COTTER PIN KIT	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-34. REAR GEAR COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



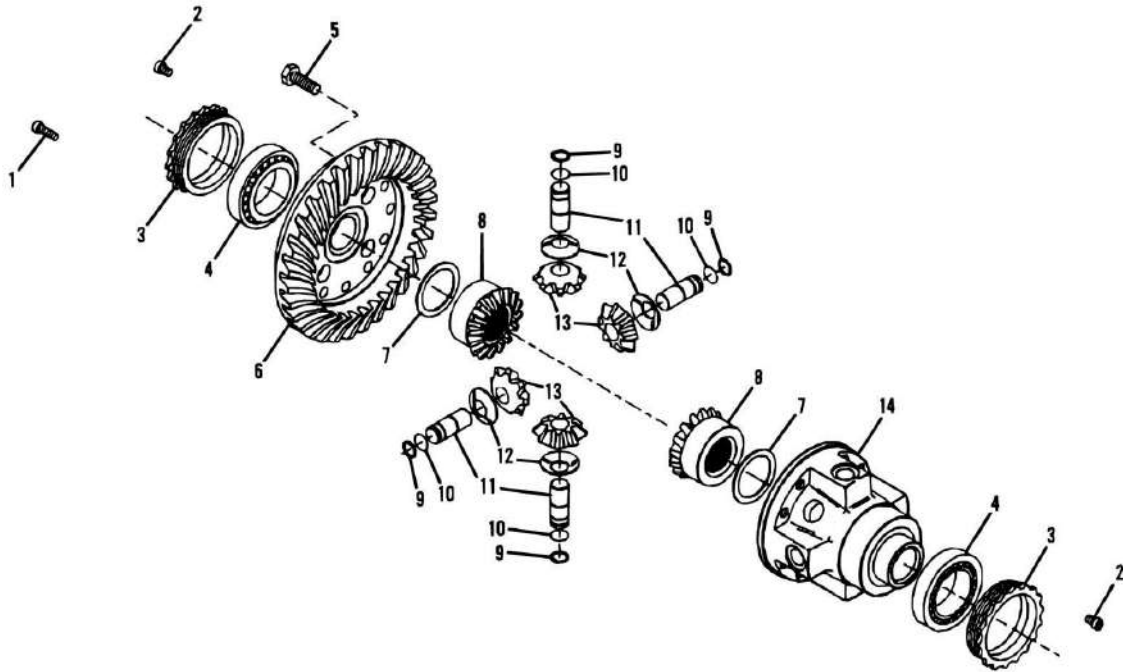
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-34. REAR GEAR COMPONENTS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474528	1	NUT	
2	91474529	1	O-RING	
3	91474530	1	FLANGE	
4	91474531	1	COVERPLATE	
5	91474532	1	SEAL	
6	91474533	1	RING NUT	
7	3968141	2	TAPER ROLLER BEARING	
8	91474535	1	SHIM	
8	91474536	1	SHIM	
8	91474537	1	SHIM	
8	91474538	1	SHIM	
9	91474539	1	SPACER	
10	91474540	1	SHIM	
10	91474541	1	SHIM	
10	91474542	1	SHIM	
10	91474543	1	SHIM	
11	91474592	1	BEVEL GEAR SET	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-35. REAR DIFFERENTIAL - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)





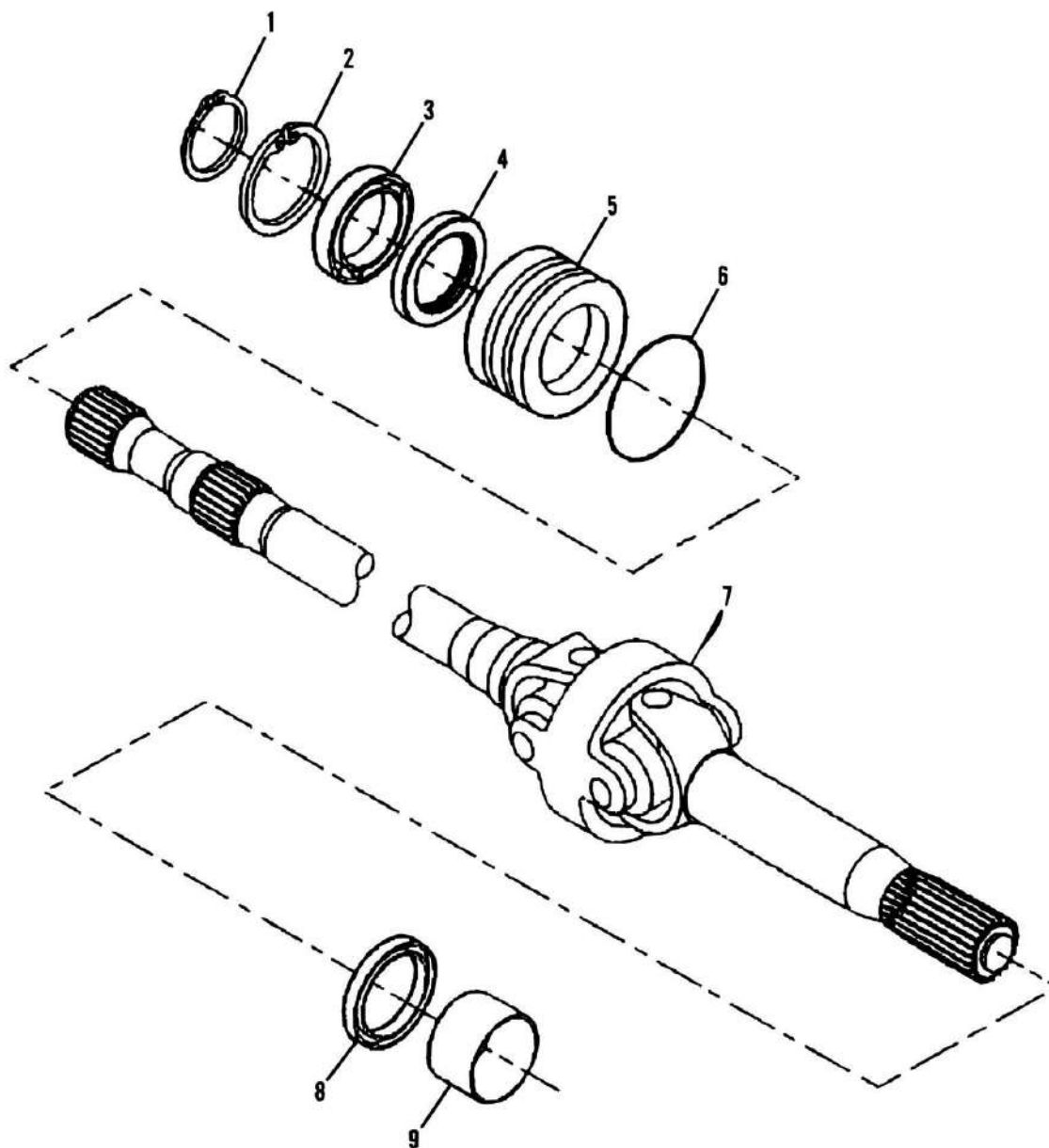
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-35. REAR DIFFERENTIAL - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474591	4	CYLINDER BOLT	A
2	91514134	2	CYLINDER BOLT	
3	91474547	2	RING NUT	
4	91474548	2	ROLLER BEARING	
5	91514123	12	BOLT	
6		Ref	BEVEL GEAR, (See REAR GEAR COMPONENTS - DANA for Breakdown)	
7	Kit	2	FRICITION WASHER	
8	Kit	2	DIFFERENTIAL SIDE GEAR	
9	Kit	4	CIRCLIP	
10	91474551	4	CIRCLIP	
11	Kit	4	PIN	
12	Kit	4	FRICITION WASHER	
13	Kit	4	DIFFERENTIAL PINION	
14	Kit	1	DIFFERENTIAL CARRIER	
	91474596	1	DIFFERENTIAL KIT, (Prior to axle SN GITA705034), (includes items 7 thru 14)	
	70021140	1	DIFFERENTIAL ASSY, (Axle SN IITA769001 To Present), (includes items 7, 8, 9 & 11 thru 14)	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-36. REAR DOUBLE JOINT - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



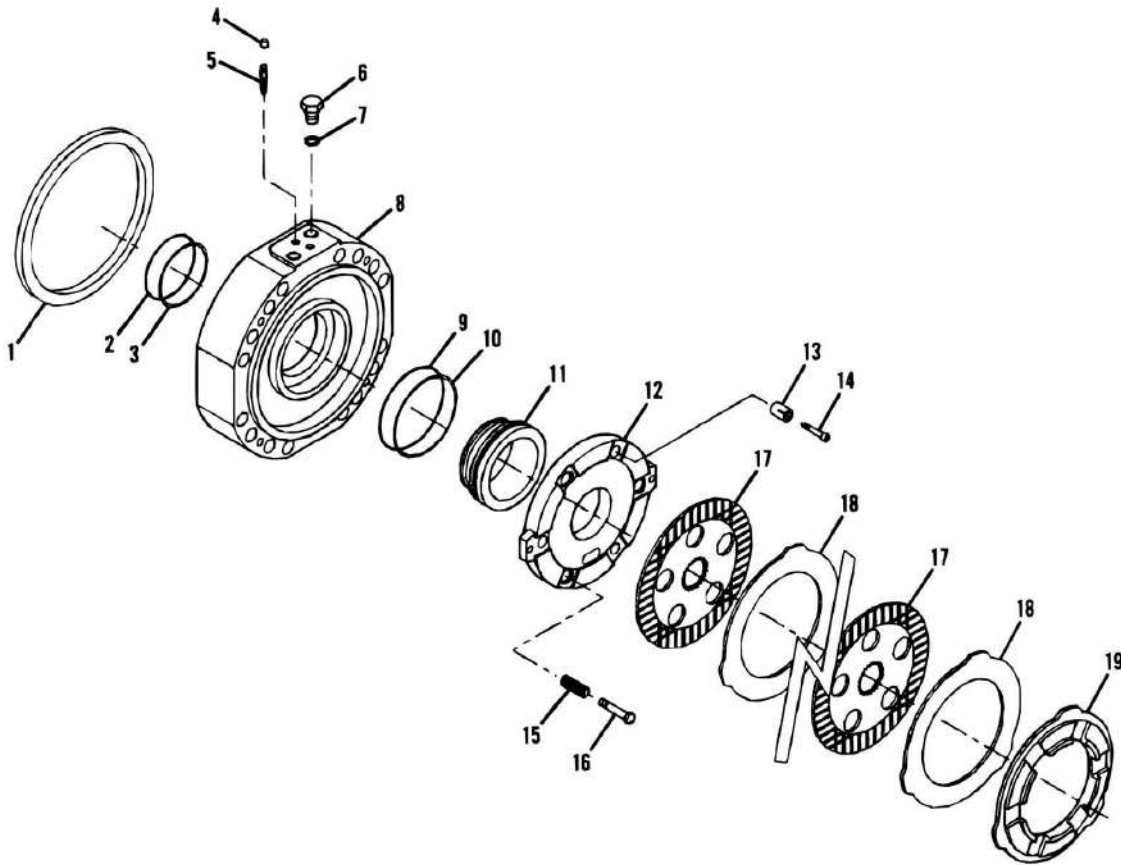
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-36. REAR DOUBLE JOINT - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	80204071	2	CIRCLIP	A
2	80204005	2	CIRCLIP	
3	91514146	2	BALL BEARING	
4	91514147	2	SEAL	
5	91514149	2	REDUCTION BUSHING, (includes items 2, 3, 4 & 6)	
6	91514148	2	O-RING	
7	91474556	2	JOINT AND SHAFT ASSY	
8	91514110	2	SEAL, (Prior to Axle SN FITA733994)	
8	7028718	2	SEAL, (Axle SN FITA733994 To Present)	
9	91514111	2	THRUST BUSHING	
	7029811	1	CROSS KIT, (includes cross for double joint, circlips and needle bearings)	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-37. REAR BRAKES - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



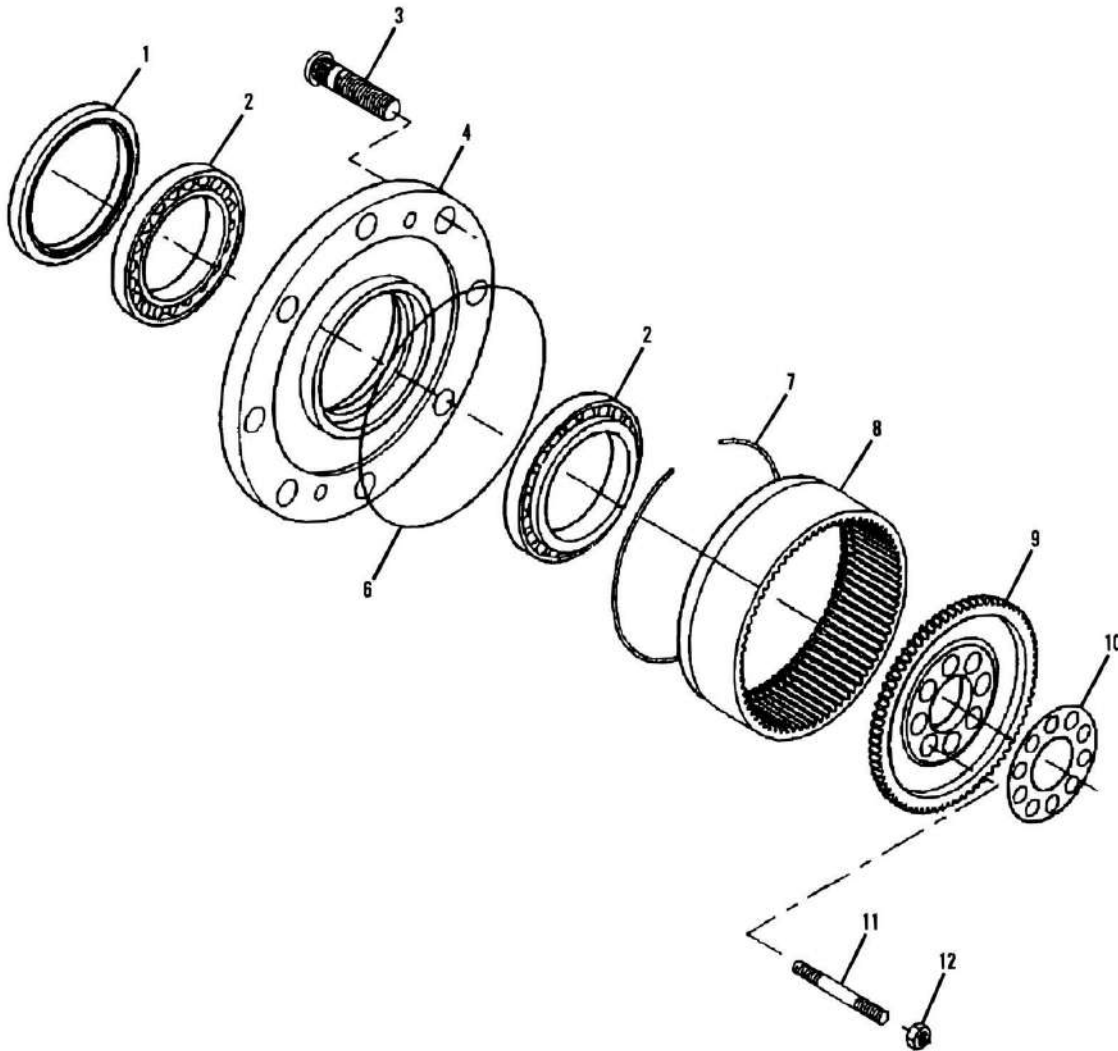
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-37. REAR BRAKES - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474597	2	SPACER	
2	91514153	2	BACK-UP RING	
3	91514167	2	O-RING	
4	80204117	2	PLUG	
5	80204281	2	BLEEDING BOLT	
6	91514154	2	BOLT	
7	91514155	2	SEAL WASHER	
8	91474598	2	INTERMEDIATE COVER	
9	91474562	2	O-RING	
10	91474563	2	BACK-UP RING	
11	91474599	2	PISTON	
12	91474565	2	INTERMEDIATE BRAKE DISC	
13	91514165	6	SPRING	
14		Ref	ADJUSTING BOLT, (Prior to Axle SN HITA-726032), (91474567 is no longer available; order qty. 6 of 7029788 for replacement)	
14	7029788	6	ADJUSTING BOLT, (Axle SN HITA-726032 To Present)	
15	91514159	6	SPRING	
16	91514160	6	ADJUSTING BOLT	
17	91474568	8	BRAKE DISC	
18	91474569	8	INTERMEDIATE BRAKE DISC	
19	91474570	2	SPACER	

# SECTION 5 - DRIVE TRAIN

FIGURE 5-38. REAR WHEEL HUB - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



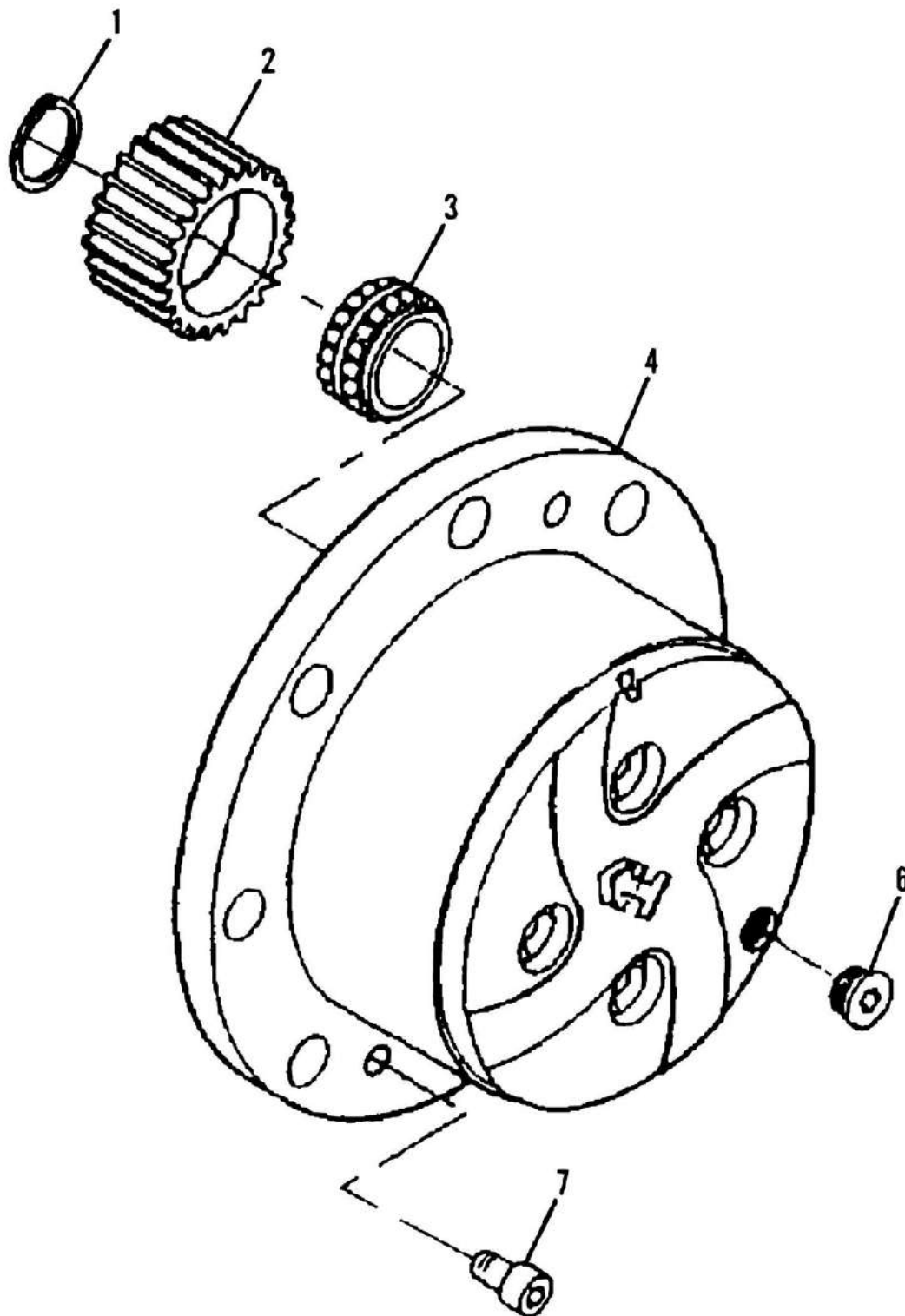
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-38. REAR WHEEL HUB - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	7028721	2	SEAL	A
2	91474576	4	BEARING	
3	80214120	20	WHEEL STUD	
4	7029737	2	WHEEL HUB	
6	91514181	2	O-RING	
7	91474579	2	CIRCLIP	
8	91474580	2	RING GEAR	
9	91474581	2	RING GEAR SUPPORT	
10	91474582	2	LOCKING PLATE	
11	91474583	20	STUD	
12	91474584	20	NUT	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-39. REAR REDUCTION GEARS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)





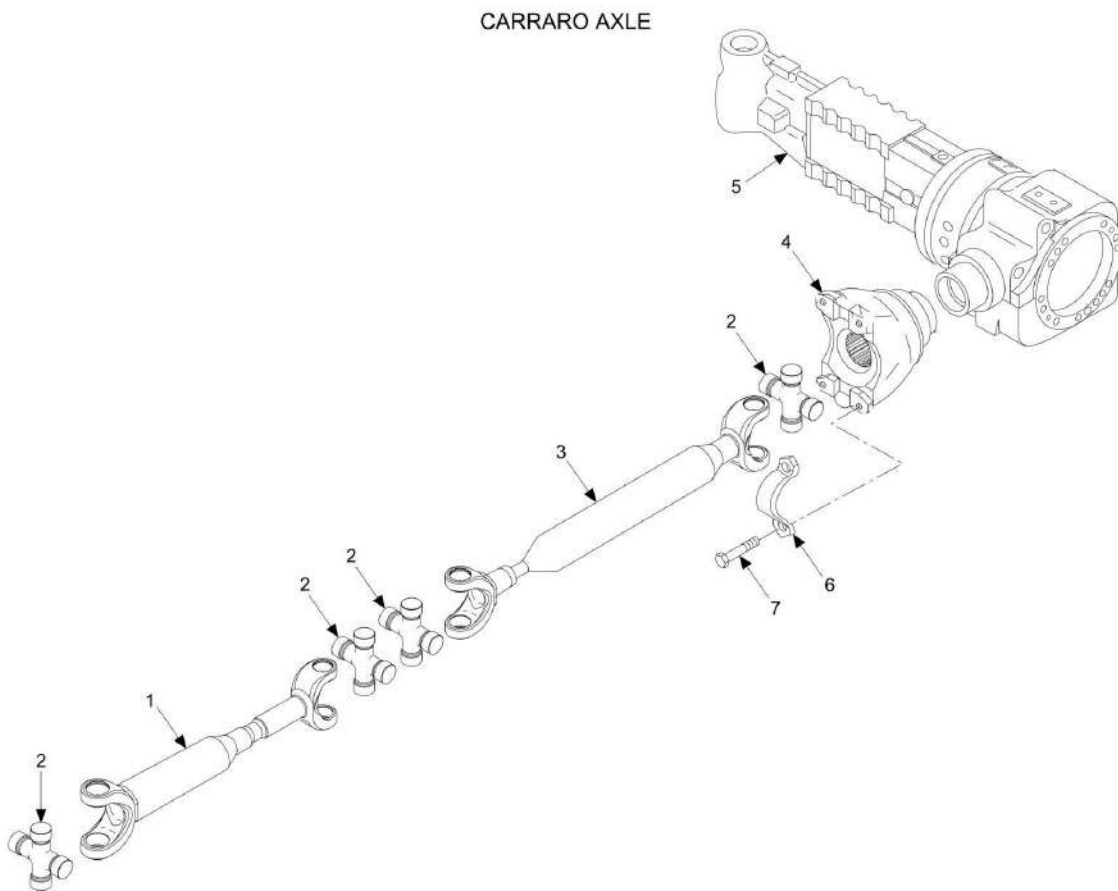
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-39. REAR REDUCTION GEARS - DANA (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91474585	8	CIRCLIP	A
2	91474586	8	PLANETARY GEAR	
3	91474587	8	BEARING	
4	7029286	2	PLANETARY GEAR CARRIER	
6	91514188	2	PLUG	
7	91514189	4	COUNTERSUNK BOLT	
	7029287	2	PLANETARY CARRIER KIT, (Prior to Axle SN GITA705034), (includes items 1 thru 4 and items 7, 8 & 9 on REAR WHEEL HUB - DANA)	
	7029431	2	PLANETARY CARRIER KIT, (Axle SN GITA705034 To Present), (includes items 1 thru 4)	
	7029736	2	RING GEAR SUPPORT, (Axle SN GITA705034 To Present), (includes items 7, 8 & 9 on REAR WHEEL HUB - DANA)	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-40. DRIVE SHAFT ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



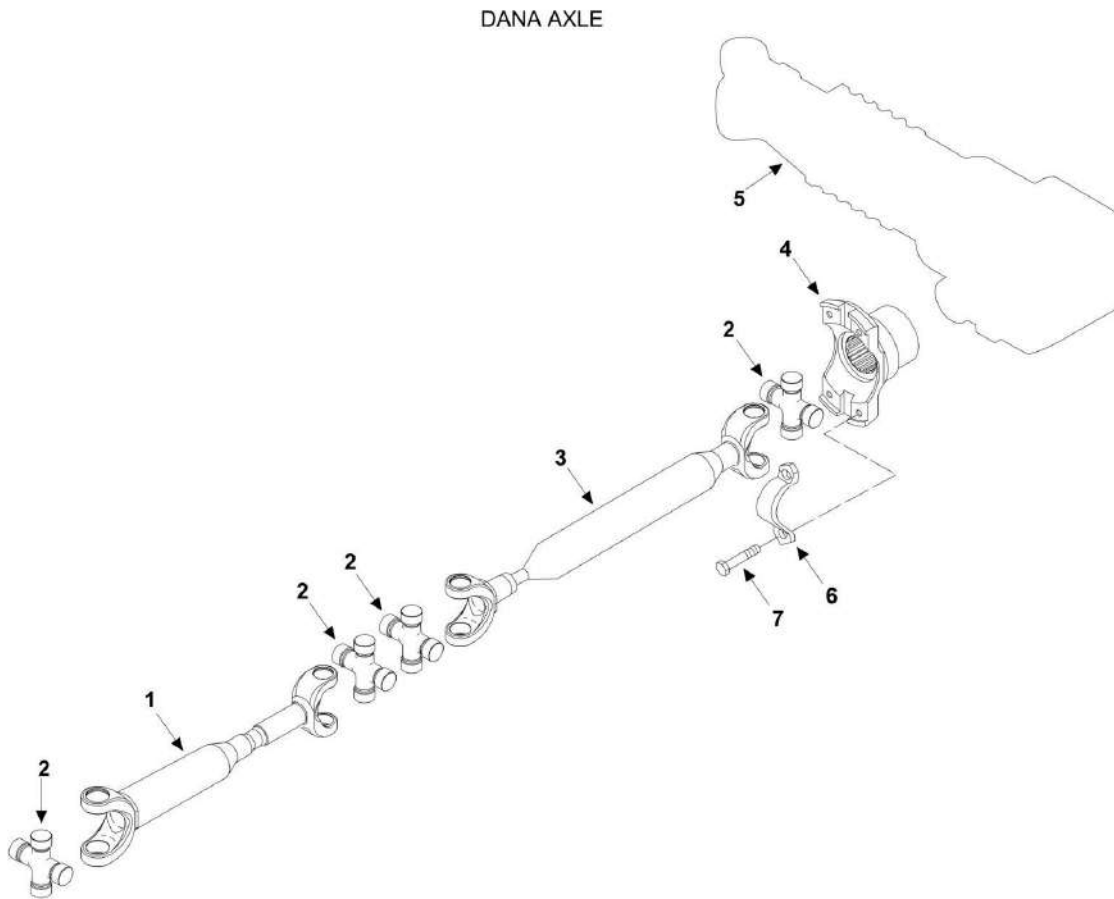
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-40. DRIVE SHAFT ASSEMBLY (SN 0192001 through 0192007, SN 0160000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91473029	1	DRIVESHAFT, (front), (includes item 2)	
2	91474035	4	UNIVERSAL JOINT KIT	
3	91473150	1	DRIVESHAFT, (rear), (includes item 2)	
4		Ref	FLANGE, (See REAR GEAR COMPONENTS – CARRARO for Breakdown)	
5		Ref	REAR AXLE ASSY, (See REAR AXLE ASSEMBLY – CARRARO for Breakdown)	
6	91473027	8	BEARING STRAP	
7	91473028	16	STRAP BOLT	

## SECTION 5 - DRIVE TRAIN

FIGURE 5-41. DRIVE SHAFT ASSEMBLY (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



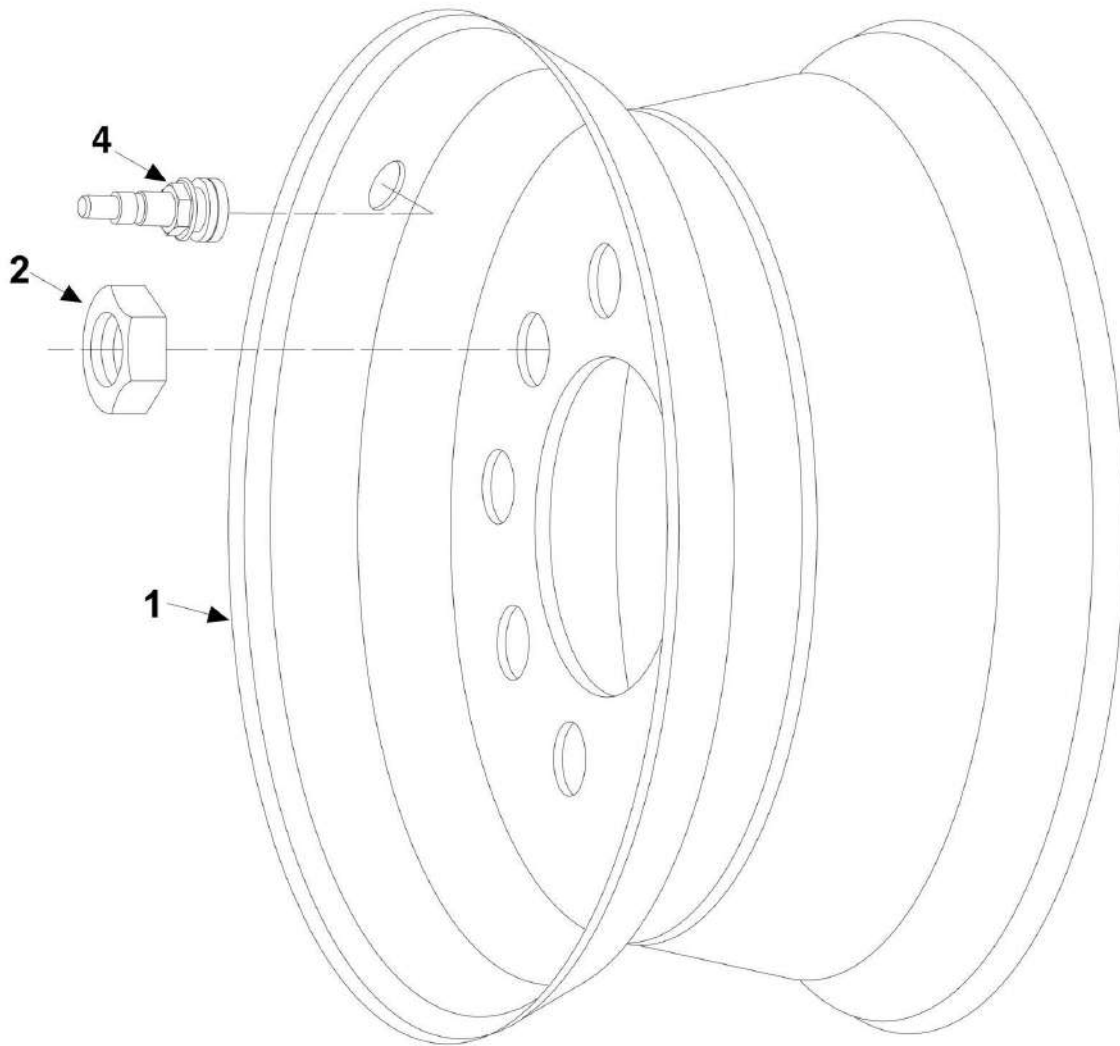
## SECTION 5 - DRIVE TRAIN

**FIGURE 5-41. DRIVE SHAFT ASSEMBLY (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91473151	1	DRIVESHAFT, (front), (includes item 2) <b>(Prior to SN 0160024089)</b>	
1	4040295	1	DRIVESHAFT, (front), (includes item 2) <b>(SN 0160024089 to Present)</b>	
2	91474035	4	UNIVERSAL JOINT KIT	
3	91473152	1	DRIVESHAFT, (rear), (includes item 2) <b>(Prior to SN 0160024089)</b>	
3	4040294	1	DRIVESHAFT, (rear), (includes item 2) <b>(SN 0160024089 to Present)</b>	
4		Ref	FLANGE, (See REAR GEAR COMPONENTS – DANA for Breakdown)	
5		Ref	REAR AXLE ASSY, (See REAR AXLE ASSEMBLY – DANA for Breakdown)	
6	91473027	8	BEARING STRAP	
7	91473028	16	STRAP BOLT	

# SECTION 5 - DRIVE TRAIN

## FIGURE 5-42. TIRES AND RIMS



ART\_91504001-5-42

## SECTION 5 - DRIVE TRAIN

### FIGURE 5-42. TIRES AND RIMS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505019	2	R.H. TIRE ASSY, (includes items 1, 3 & 4)	C
	91505018	2	L.H. TIRE ASSY, (includes items 1, 3 & 4)	C
1	91503048	4	WHEEL	
2	91403193	40	LUG NUT, (torque to 350-400 ft lbs)	
3	91503047	4	TIRE, (not illustrated), 13.00-33.5/12, TITAN LSW, G-2 TRACTION	
4	91083385	4	VALVE, TIRE	





**SECTION 6 - CAB**

# SECTION 6 - CAB

## FIGURE 6-1. OPEN CAB

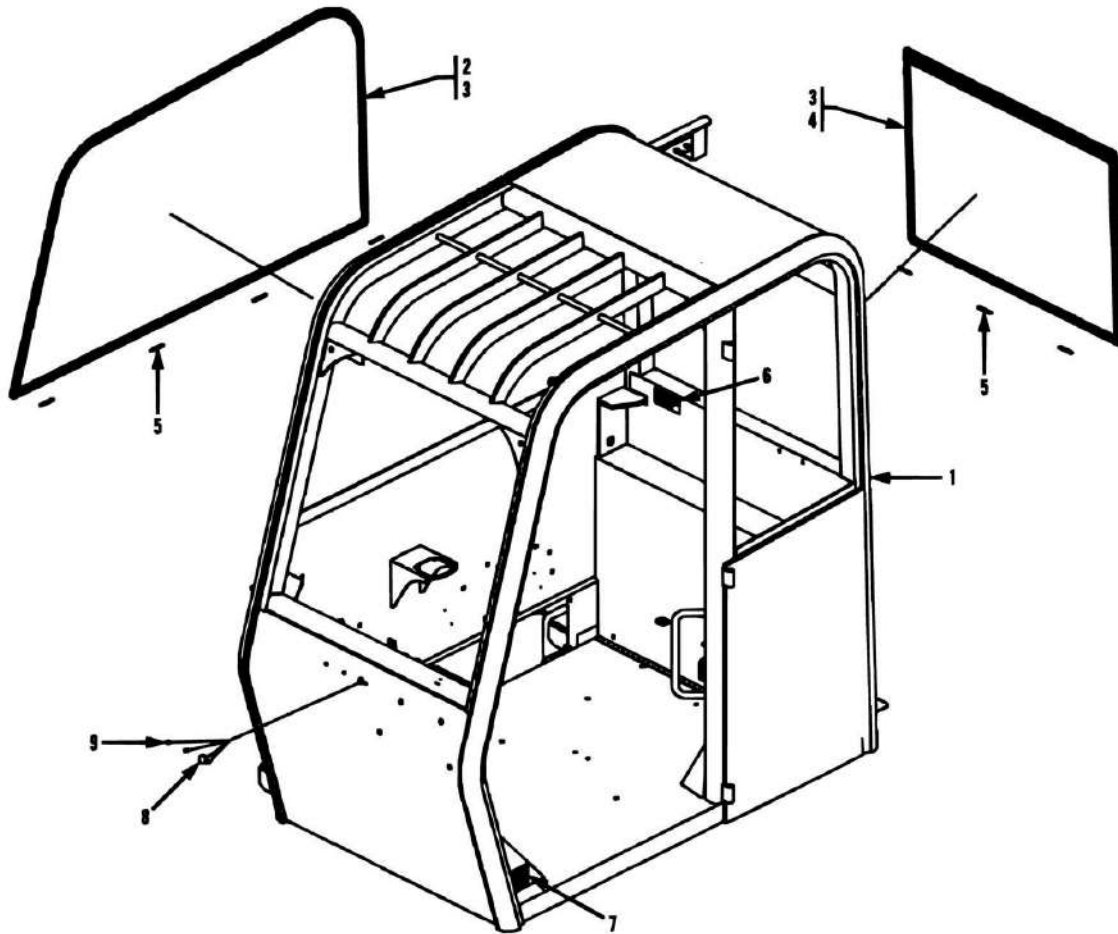
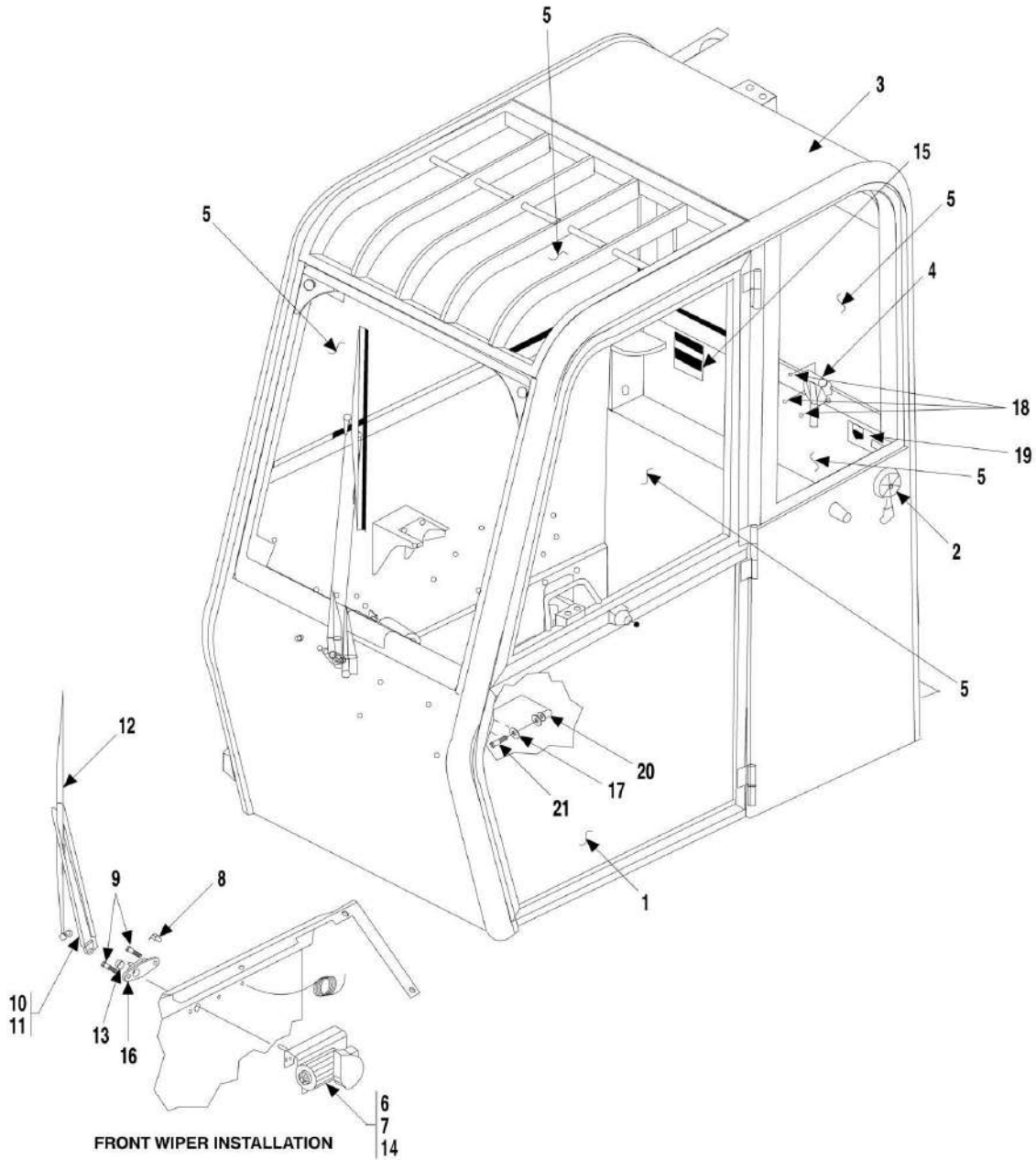


FIGURE 6-1. OPEN CAB

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91513186	1	OPEN CAB, (includes all items)	R
1		Ref	CAB WELDMENT	
2	91404109	1	R.H. SIDE WINDOW, W/BORDER	
3	80364009	AR	URETHANE SEALANT	
4	91404110	1	REAR WINDOW, W/BORDER	
5	80264031	7	SETTING BLOCK, 1/8X1/4X2	
6	91514243	1	SERIAL TAG	
7	91164094	1	ROPS WARNING DECAL	
8	91164087	1	HOLE PLUG, .75	
9	91164086	3	HOLE PLUG, .375	

# SECTION 6 - CAB

FIGURE 6-2. CAB ENCLOSURE W/HEATER OPTION (SN 0192001 through 0192007, SN 016000052 through 0160013828)



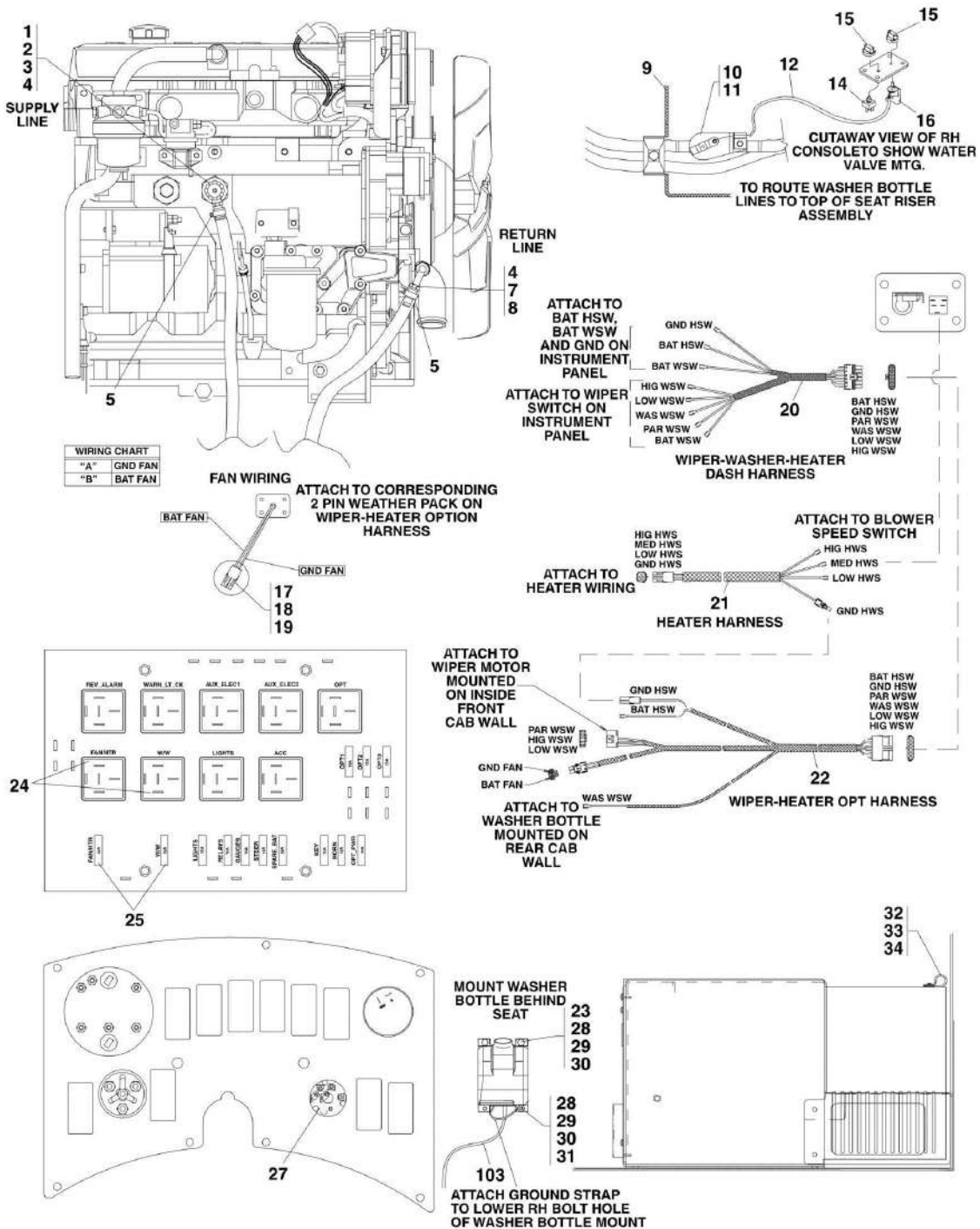
## SECTION 6 - CAB

**FIGURE 6-2. CAB ENCLOSURE W/HEATER OPTION (SN 0192001 through 0192007, SN 016000052 through 0160013828)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475066	1	CAB ENCLOSURE W/HEATER OPTION, (includes Cab Enclosure, 91473156, shown below and Heater Option Assy, 91405056, shown See OPTIONS SECTION)	
	91473156	1	CAB ENCLOSURE, (includes all items See CAB ENCLOSURE W/HEATER OPTION thru CAB ENCLOSURE)	
1		Ref	L.H. SIDE ASSY, (See CAB ENCLOSURE for Breakdown)	
2		Ref	DOOR HOLD OPEN ASSY, (See CAB ENCLOSURE for Breakdown)	
3	91404295	1	HEADLINER, 1IN, (inside cab)	
4	91404301	1	EMERGENCY HAMMER W/CABLE	
5		Ref	CAB GLASS, (See CAB ENCLOSURE for Breakdown)	
6	91404293	1	WIPER MOTOR ASSY, (includes items 7 & 14)	
6	7029860	1	WIPER MOTOR, 12V	
7	91144478	1	SHAFT AND PIVOT ASSY	
8	1001081310	1	WET ARM SPACER	
9	80384207	2	HEX SCREW, .25-28X.75	
10	1001081311	1	WET ARM KIT	
11	1001081308	1	WIPER ARM	
12	80384213	1	WIPER BLADE	
13	91334135	1	SPACER	
14	80384203	1	WIPER DRIVE ARM	
15	91474483	1	SERIAL TAG	
16	1001081307	1	WIPER ARM ADAPTOR	
17	91404297	2	WASHER	
18	91404298	3	RIVET	
19	91404299	1	EMERGENCY EXIT DECAL	
20	80364023	1	STRIKER BOLT	
21	91334024	1	HEX BOLT, .375-16X.875	

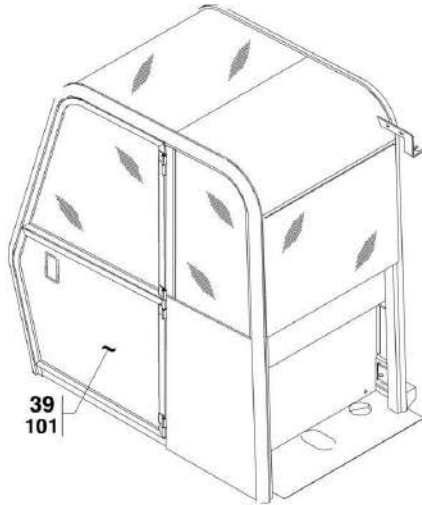
# SECTION 6 - CAB

FIGURE 6-3. CAB ENCLOSURE W/HEATER OPTION (SN 0160013983 to Present)

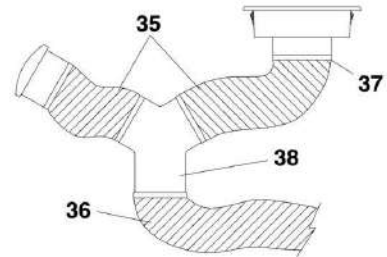


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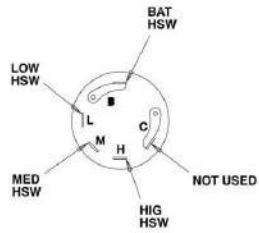
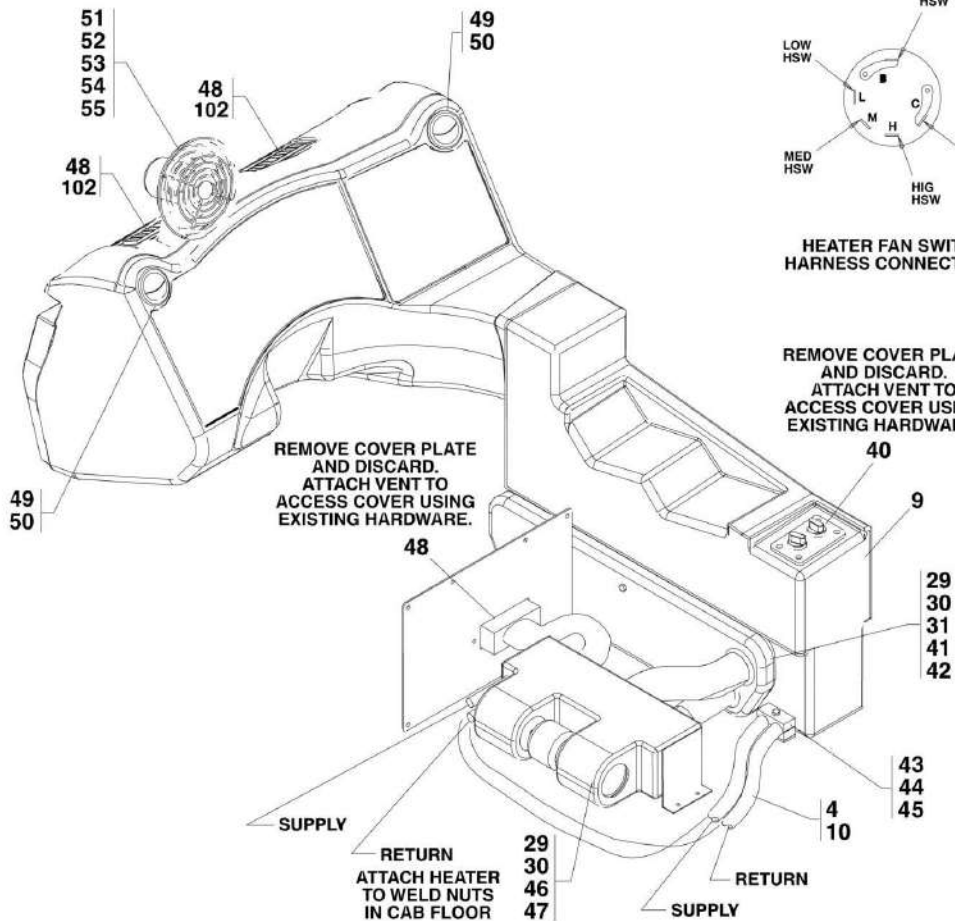
# SECTION 6 - CAB



USE THIS CLAMP TO ATTACH VENT HOSE TO VENTS, PLENUM AND HEATER



ATTACH HOSES FROM 3-WAY CONNECTORS TO FRONT OPENING ON THE PLENUM.



HEATER FAN SWITCH HARNESS CONNECTIONS

REMOVE COVER PLATE AND DISCARD. ATTACH VENT TO ACCESS COVER USING EXISTING HARDWARE.

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## SECTION 6 - CAB

FIGURE 6-3. CAB ENCLOSURE W/HEATER OPTION (SN 0160013983 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475108	1	CAB ENCLOSURE KIT INSTALLATION, (includes items 1 thru 55)	B
1	80373046	1	FITTING	
2	91083155	1	TRUCK VALVE	
3	77383540	1	COOLANT RESTRICTOR ORIFICE	
4	82033995	17 ft	HEATER HOSE, 5/8IN	
5	86671187	2	HEATER HOSE CLAMP	
6	86683122	1	TIE WRAP, (not shown)	
7	80683073	1	ADAPTER FITTING	
8	91403443	1	BARBED FITTING, 90	
9		Ref	R.H. CONSOLE, (See CAB for Breakdown)	
10	86683193	4	HOSE CLAMP	
11	83683182	1	WATER VALVE	
12	91413038	1	HEATER CABLE	
14	80964001	1	BLOWER SWITCH	
15	80363069	2	KNOB, 3/16 SHAFT	
16	80363028	1	ROTARY CONTROL	
17	80963058	1	WEATHERPACK SHROUD	
18	80963069	2	WEATHERPACK PINS	
19	80963065	2	WEATHERPACK SEALS	
20	91403351	1	WIPER/WASHER HARNESS	
21	91403352	1	HEATER HARNESS	
22	91403350	1	WIPER/HEATER HARNESS	
23	83683085	1	WASHER BOTTLE	
24	77363265	1	RELAY	
25	80964009	2	AUTO FUSE, 25 AMP	
27	80963101	1	WIPER SWITCH	
28	88201005	3	HEX HD CAPSCREW, 1/4-20X1	
29	88561002	9	FLAT WASHER, 1/4	
30	88551009	8	LOCKWASHER, 1/4	
31	88501004	2	HEX NUT, 1/4-20	
32	91413036	2	SELF TAPPING SCREW, #6X1/2	
33	24861170	2	CLAMP	
34	88561105	2	FLATWASHER, #10	
35	71492150	10 ft	VENT HOSE, 2IN DIAMETER	
36	71492152	10.5 ft	VENT HOSE, 2 1/2IN DIAMETER	
37	84231107	18	HOSE CLAMP	
38	91403539	2	3 WAY CONNECTOR	
39	91473156	1	CAB ENCLOSURE, (includes all items See CAB ENCLOSURE W/HEATER OPTION thru CAB ENCLOSURE)	
40	91403445	1	HEATER CONTROL PANEL	
41	91403329	1	HEAT/AC PLENUM	
42	88201011	1	HEX HD CAPSCREW, 1/4-20X2 1/2	
43	77133279	1	CLAMP SET	
44	77133137	1	COVER PLATE	
45	88201023	1	HEX HD CAPSCREW, 5/16-18X1 3/4	
46	91403280	1	HEATER UNIT	
47	88261015	4	BUTTON HD CAPSCREW, 1/4-20X5/8	
48	91413053	3	RECTANGULAR VENT	
49	91403596	2	VENT REDUCER	
50	80363106	2	CIRCULAR VENT	



**SECTION 6 - CAB**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>REV</b>
51	91403608	1	DEFROSTER FAN	
52	91401443	1	FAN BASE PLATE	
53	91033425	1	RUBBER GROMMET	
54	88211030	4	SOCKET HD CAPSCREW, #10-24X3/4	
55	77143017	4	WHIZ-LOCK NUT, #10-24	
101	91513187	1	ENCLOSED CAB WELDMENT	
102	91413036	4	SELF TAPPING SCREW, 6X1/2	
103	82033997	AR	HOSE	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 6 - CAB

## FIGURE 6-4. CAB ENCLOSURE

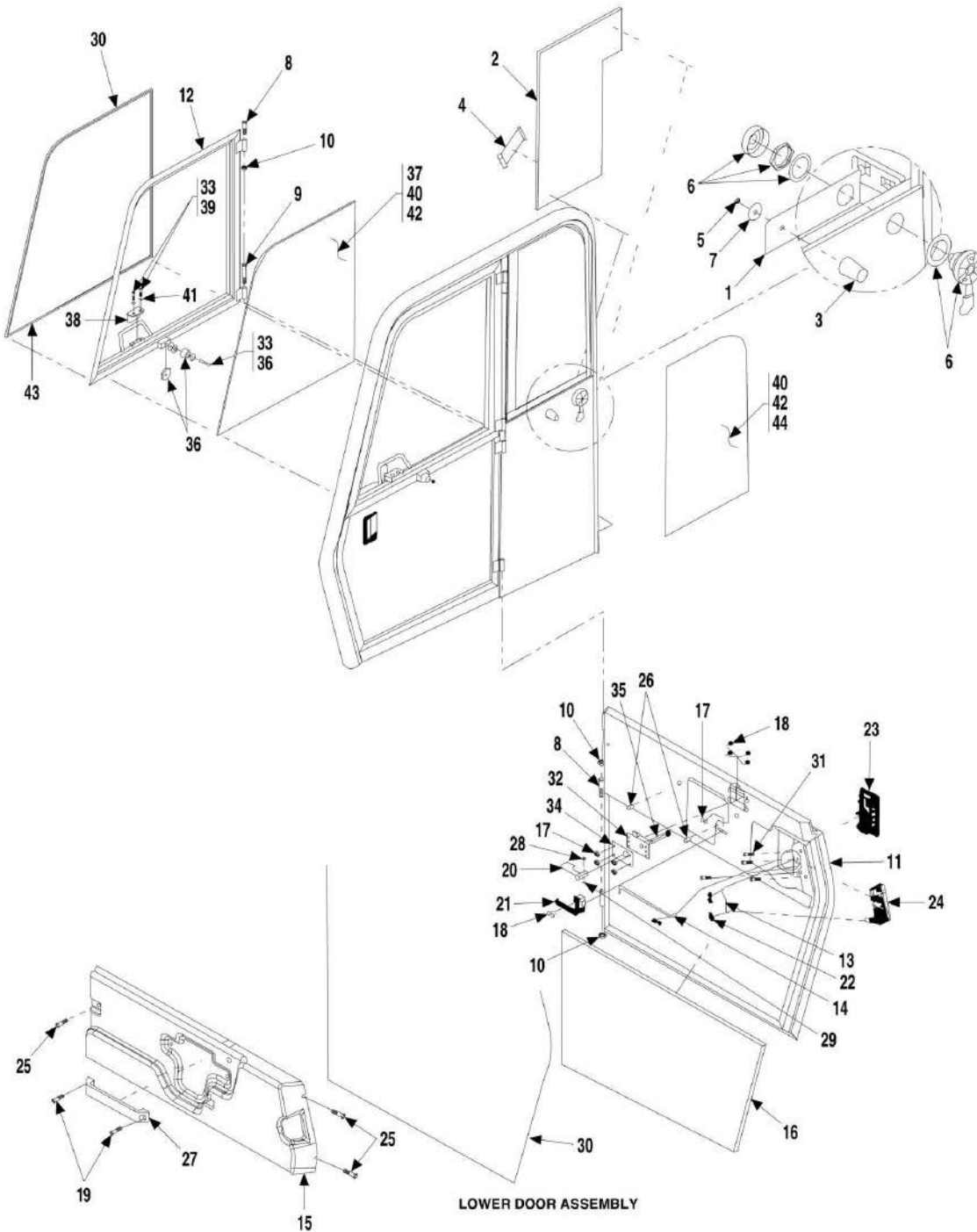


FIGURE 6-4. CAB ENCLOSURE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473156	1	CAB ENCLOSURE, (includes all items See OPEN CAB thru CAB ENCLOSURE)	
1	91404292	1	HOLD OPEN PLATE	
2	91404294	1	L.H. SIDE PANEL, FOAM	
3	91404300	1	RUBBER BUMPER	
4	80384218	1	DOOR STRAP	
5	91334031	1	HEX NUT, .312-18	
6	91404303	1	DOOR HOLD OPEN, FEMALE	
7	91404304	1	WASHER	
8	80384205	2	HEX BOLT, .375-16X4	
9	91404305	1	HEX BOLT, .375-16X5	
10	91404306	3	HEX NUT, .375-16	
11	91474481	1	LOWER DOOR ASSY, (includes items 13 thru 29, 8ft of item 30, items 31, 32, 34, & 35)	
11	70023193	1	LOWER DOOR WELDMENT, (includes hinges)	
12	91474482	1	UPPER DOOR ASSY, (includes 11ft of item 30, items 33 & 36 thru 43)	
13	91404309	1	DOOR ROD, EXT RELEASE	
14	91404310	1	DOOR ROD, INT RELEASE	
15	91404311	1	PLASTIC DOOR COVER	
16	91404312	1	FOAM, .50, LOWER DOOR	
17	91404313	6	CTR LOCKNUT, #10-24	
18	80384191	6	WHIZ LOCK SCREW, #10-24X.50	
19	91404314	2	FLAT HD SCREW, .25-20X1.25	
20	91404315	1	R.H. WINDOW RELEASE/L.H. DOOR LEVER	
21	80384192	1	HANDLE	
22	80384187	3	CLIP	
23	80384184	1	PADDLE LATCH	
24	80384186	1	CAM LATCH	
25	80264066	3	SCREW, M5X1X12 THD CUTTING	
26	80364088	2	INSERT NUT, .25-20	
27	91404316	1	DIE CAST GRAB HANDLE	
28	91404317	1	SCREW, #8-32X1.12	
29	91404318	1	NYLOCK NUT, #8-32	
30	80364001	19 ft	BULB SEAL, P-STEM	
31	80384189	4	HEX SCREW, .25-20X.75	
32	91404319	1	L.H. SLAM LATCH	
33	91344018	AR	LOCTITE, BLUE	
34	91404320	1	SLAM LATCH STIFFENER	
35	91404321	1	LOWER DOOR DRIVE BAR WELDMENT	
36	91474492	1	DOOR, HOLD OPEN	
37		Ref	GLASS, UPPER DOOR, (See CAB ENCLOSURE for Breakdown)	
38	91404323	1	SLAM LATCH STRIKER	
39	91404324	2	HEX BOLT, .312-18X.625	
40	91404302	AR	ACTIVATOR, SIKA	
41	91334032	2	FLAT WASHER, .313 ID.X.75 ID.X.06	
42	80364009	AR	SEALANT	
43	91344046	AR	SEALANT/ADHESIVE	
44		Ref	GLASS, L.H. SIDE WINDOW, (See CAB ENCLOSURE for Breakdown)	

SECTION 6 - CAB

FIGURE 6-5. CAB ENCLOSURE

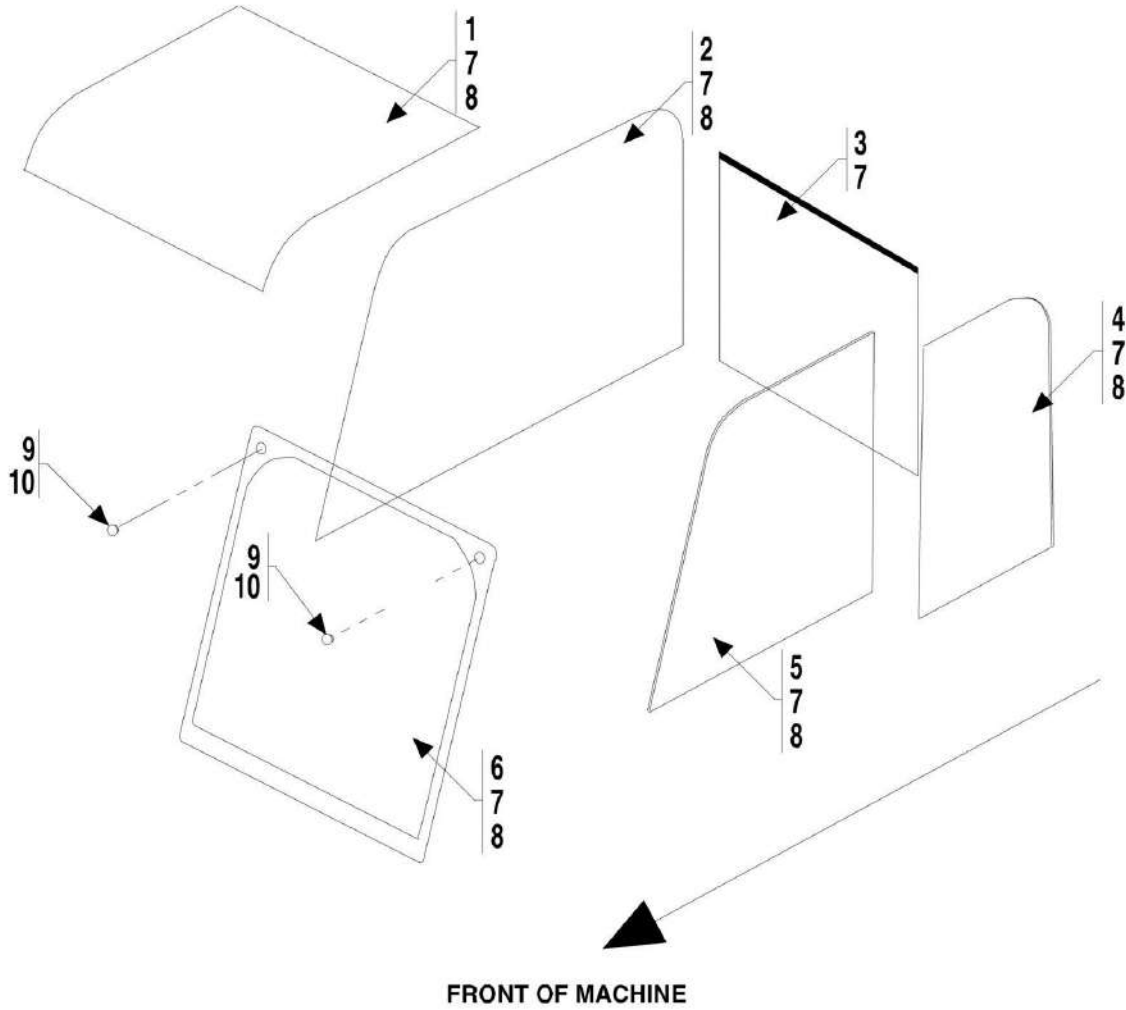
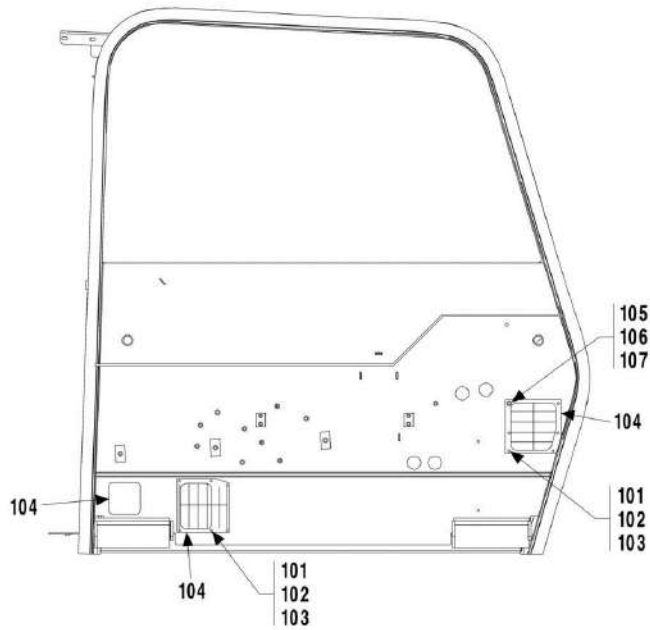
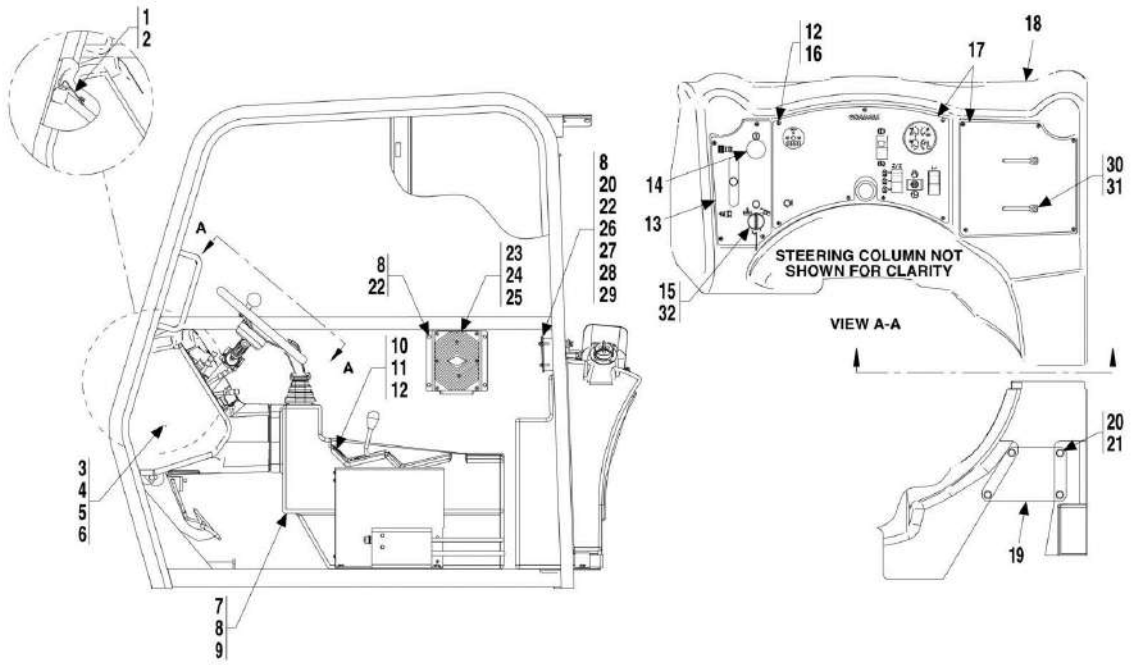


FIGURE 6-5. CAB ENCLOSURE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473156	1	CAB ENCLOSURE, (includes all items See OPEN CAB thru CAB ENCLOSURE)	
1	91404290	1	WINDOW, SKY LIGHT	
2	91404109	1	WINDOW, R.H. SIDE W/BORDER	
3	91404110	1	WINDOW, REAR W/BORDER	
4	80364030	1	WINDOW, L.H.	
5	91404322	1	WINDOW, UPPER DOOR	
6	91404291	1	WINDOW, FRONT	
7	80364009	AR	SEALANT	
8	91404302	AR	ACTIVATOR	
9	91404296	2	HOLE PLUG, 1.25	
10	80364012	AR	CLEAR SEALANT	

# SECTION 6 - CAB

## FIGURE 6-6. CAB



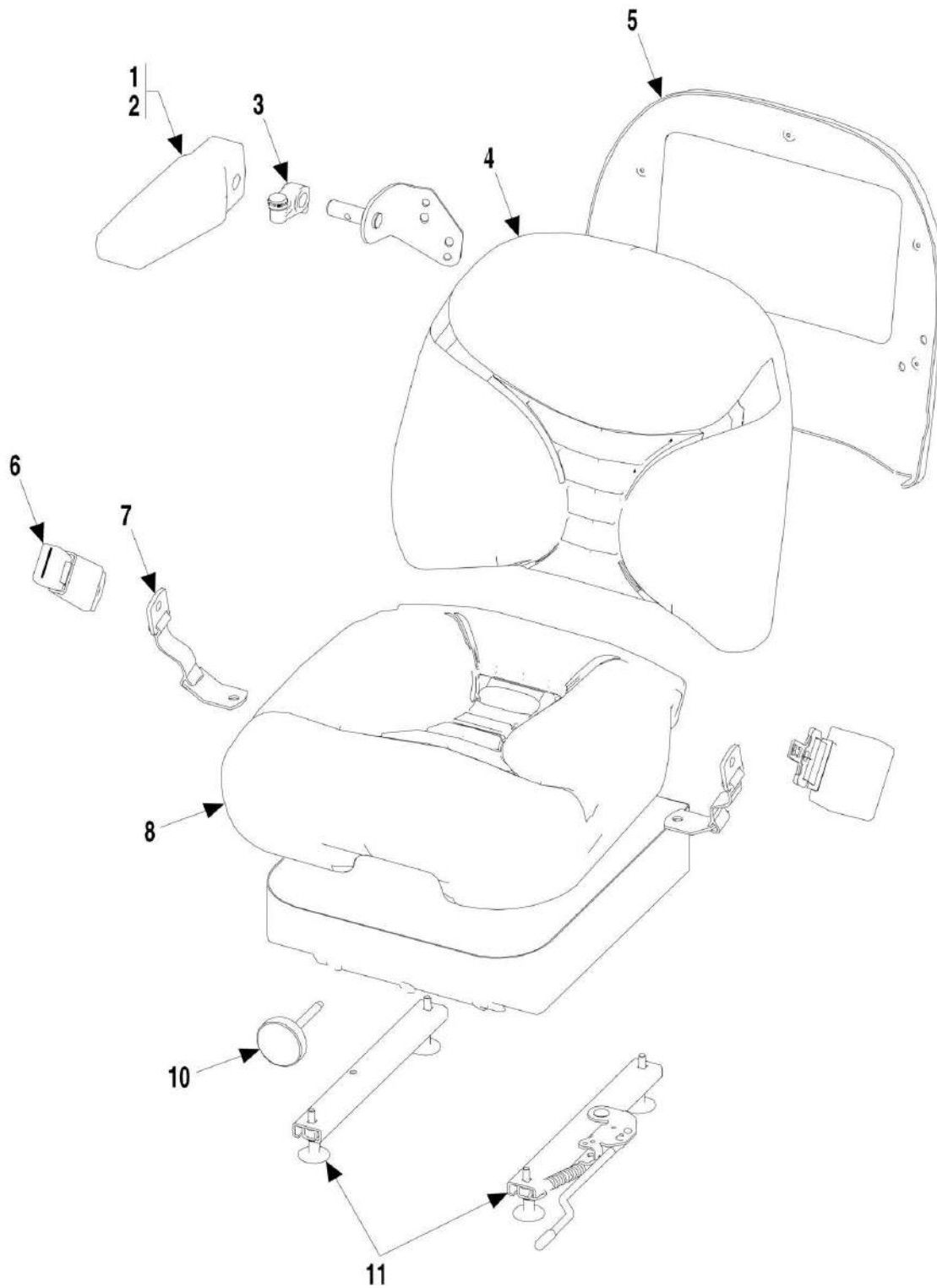
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FIGURE 6-6. CAB

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91401590	1	DASH CLAMP	
2	80973025	2	WHIZ-LOCK BOLT, 3/8-16X1	
3	88201020	4	HEX HD CAPSCREW, 5/16-18X1, GR5	
4	88201023	1	HEX HD CAPSCREW, 5/16-18X1 3/4	
5	88561003	5	FLAT WASHER, 5/16	
6	91083533	5	FENDER WASHER	
7	91403620	1	R.H. CONSOLE (SN 0192001 through 0160013828)	
7	91403288	1	R.H. CONSOLE (SN 0160013983 to Present)	
8	88201005	10	HEX HD CAPSCREW, 1/4-20X1, GR5	
9	91413050	2	FENDER WASHER	
10	91413111	1	TILT/SWAY PANEL	
11	91413051	6	SELF TAPPING SCREW, #10X3/4	
12	80363034	22	TINNERMAN NUT	
13	91503059	1	AUXILIARY DASH PANEL	
14	91503050	1	EMERGENCY STOP BUTTON	
15	91503049	1	SWITCH KEY, (includes item 32)	
16	80363033	16	FLAT HD CAPSCREW, #10-24X1	
17		Ref	INSTRUMENT PANEL, (See INSTRUMENT PANEL for Breakdown)	
18	91403298	1	DASH	
19	91401516	1	DASH BRACE	
20	88561002	8	FLAT WASHER, 1/4	
21	88201002	4	HEX HD CAPSCREW, 1/4-20X5/8, GR5	
22	88551009	8	LOCKWASHER, 1/4	
23	91503149	1	MICROPROCESSOR CONTROLLER (SN 0192001 through 0160002686)	
23	91503148	1	MICROPROCESSOR CONTROLLER (SN 0160003136 to Present)	
24	91506018	1	MICROPROCESSOR WELDMENT	
25	83191008	4	HEX HD CAPSCREW, M6X1X10MM	
26	91506017	1	FUSE RELAY WELDMENT	
27		Ref	CAB HARNESS, (See ELECTRICAL SECTION for Breakdown)	
28	88501613	6	HEX NUT, #10-32	
29	88501004	4	HEX NUT, 1/4-20	
30	91163087	2	LOAD CHART BRACKET	
31	88302125	2	ROUND HD MACHINE SCREW, 1/4-20X5/8	
32	7020174	1	REPLACEMENT KEY	
101	91413050	9	FENDER WASHER	
102	88521004	9	LOCKNUT 1/4-20	
103	91473163	2	RUBBER GUARD	
104	90206195	54 in	TRIM-LOK	
105	88201016	1	HEX HD CAPSCREW, #5/16-18 x 1/2 GR5	
106	91023098	1	FENDER WASHER 5/16	
107	88551010	1	WASHER 5/16	

# SECTION 6 - CAB

## FIGURE 6-7. SUSPENSION SEAT (SN 0160013983 to Present)



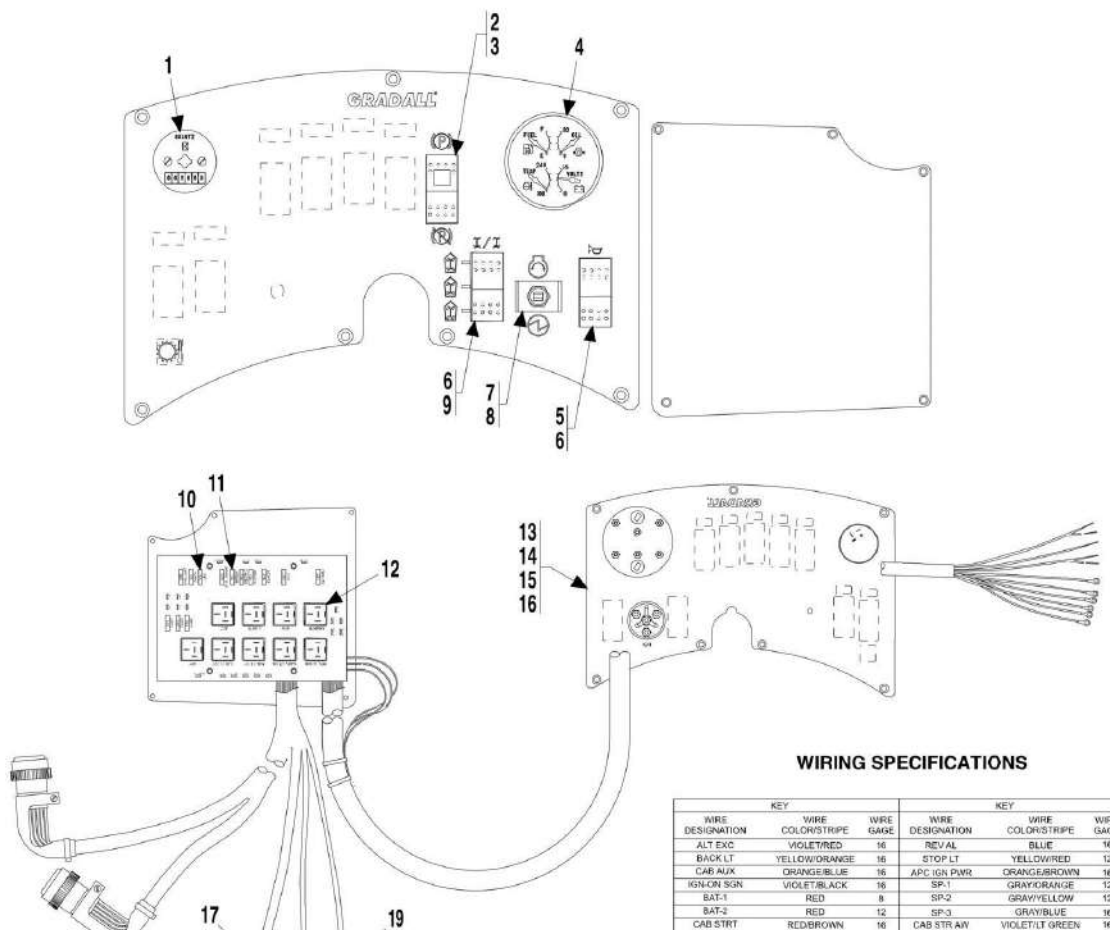


**FIGURE 6-7. SUSPENSION SEAT (SN 0160013983 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91563158	1	SUSPENSION SEAT, (includes all items)	G
1	7026904	1	ARMREST ASSY RH KIT, (includes items 2 & 3)	
2	Kit	1	ARMREST, MOLDED KIT	
3	Kit	1	ARMREST STOP ASSY	
4	7026900	1	BACK CUSHION KIT	
5	7026902	1	BACK PANEL KIT	
6	7026905	1	SEAT BELT KIT	
6	91563164	1	SEAT BELT, 3 IN, (California Only), (not included with 91563158)	
7	7026906	1	TETHER KIT	
8	7026901	1	SEAT CUSHION KIT	
10	7026799	1	KNOB KIT	
11	7026798	1	SLIDE KIT	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 6 - CAB

## FIGURE 6-8. INSTRUMENT PANEL



### WIRING SPECIFICATIONS

KEY			KEY		
WIRE DESIGNATION	WIRE COLOR/STRIPE	WIRE GAGE	WIRE DESIGNATION	WIRE COLOR/STRIPE	WIRE GAGE
ALT EXC	VIOLET/RED	16	REV AL	BLUE	16
BACK LT	YELLOW/ORANGE	16	STOP LT	YELLOW/RED	12
CAB ALX	ORANGE/BLUE	16	APC IGN PWR	ORANGE/BROWN	16
IGN-ON SGN	VIOLET/BLACK	16	SP-1	GRAY/YELLOW	12
BAT-1	RED	8	SP-2	GRAY/YELLOW	12
BAT-2	RED	12	SP-3	GRAY/BLUE	16
CAB STRT	RED/BROWN	16	CAB STR AW	VIOLET/LT GREEN	16
CLT TMP	BLUE/GRAY	16	CAB STR CRB	VIOLET/YELLOW	16
FLL GAG	BLUE/BLACK	16	STR PWR	ORANGE/WHITE	16
GND-1	BLACK	8	PB IND LT	BLUE/ORANGE	16
GND-2	BLACK	12	APC B11	BLUE/YELLOW	16
GAG PWR	ORANGE/TAN	16	APC SGN GND	BLACK	16
CAB SELECT	VIOLET/BROWN	16	MAN/AUTO SHFT	PINK	16
TR STR	BLUE/RED	16	PLAT SGN SGN	VIOLET/PINK	16
CAB HORN	ORANGE/YELLOW	16	ALM SGN 1	BLUE/GRAY	16
HRN PWR	ORANGE/VIOLET	16	TR LT	BLUE/WHITE	16
INST GND	BLACK	16	TR LT SW	BLUE/PINK	16
IGN-ON PWR	RED/BLUE	12	SHFT HI/LO	WHITE/RED	16
EMS PWR1	RED/ORANGE	12	SHFT FWD	WHITE/BLACK	16
EMS PWR2	RED/DK GREEN	12	ALM SGN 2	BLUE/DK GREEN	16
OL GAG	BLUE/BROWN	16	CNTRL PWR	RED/PINK	12
PS IGN	ORANGE/DK GREEN	16	WORK LT	YELLOW/BLUE	12
PLAT BAT PWR	ORANGE/RED	12			

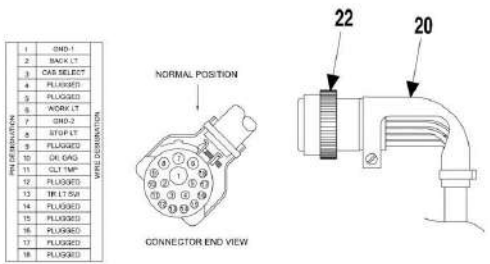
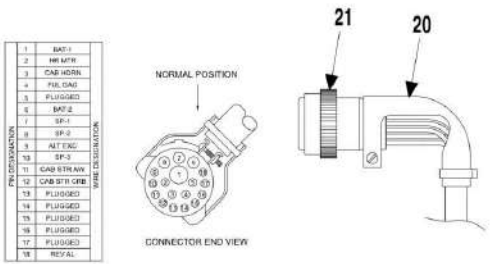
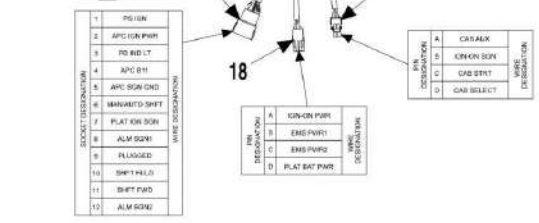


FIGURE 6-8. INSTRUMENT PANEL

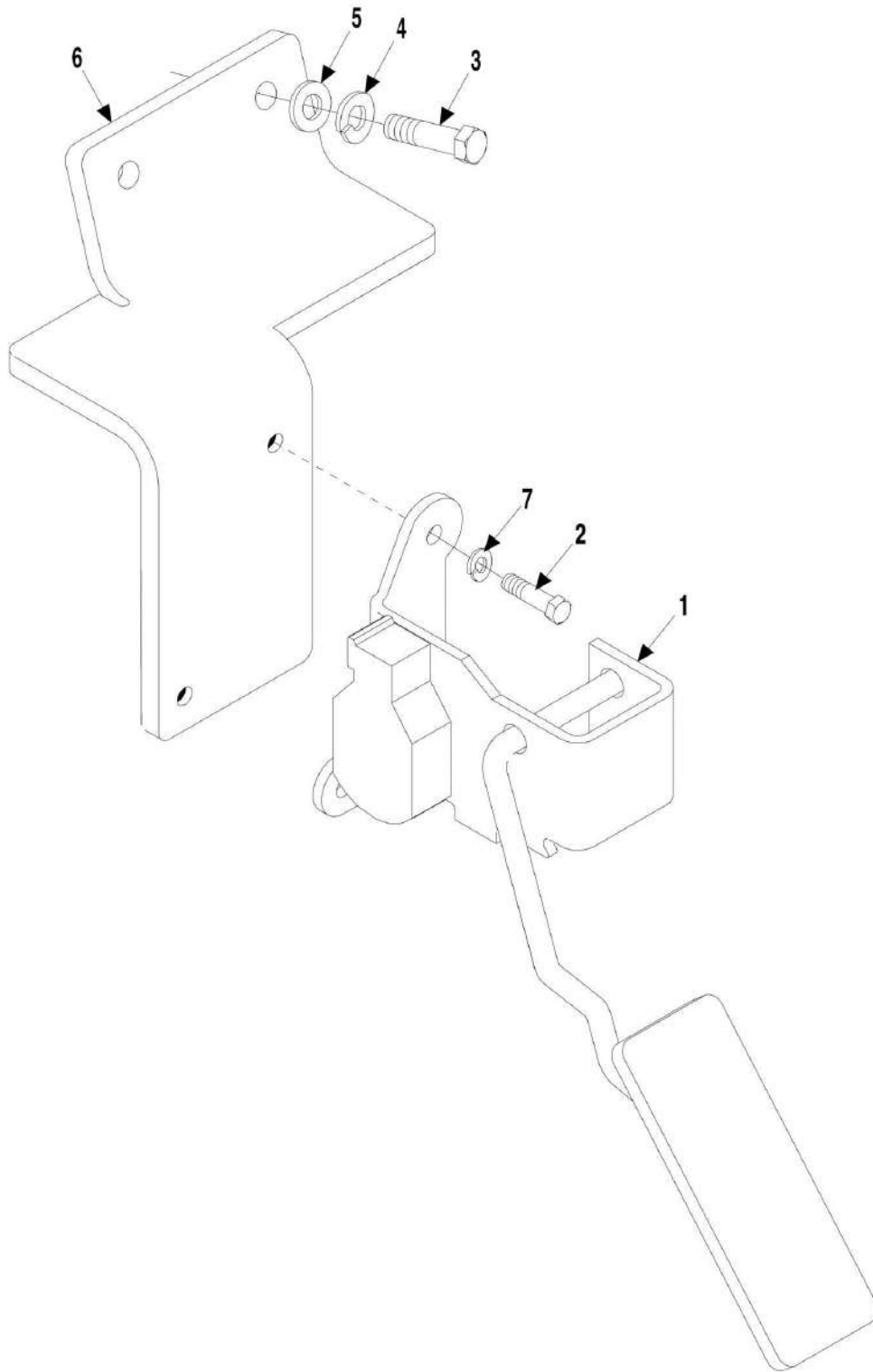
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503045	1	INSTRUMENT PANEL, (includes all items)	D
1	90205688	1	HOURMETER	
2	91504042	1	PARK BRAKE SWITCH, (includes item 3)	
3	91504043	1	ACTUATOR	
4	91404336	1	4-IN-1 GAUGE	
5	91404330	1	HORN SWITCH, (includes item 6)	
6	91404349	2	ACTUATOR	
7	91504044	1	START/AUX SWITCH	
8	91504045	1	START/AUX SHIELD	
9	91474464	1	STEER SELECT SWITCH, (includes item 6)	
10	77363268	AR	15 AMP FUSE	
11	77363267	AR	10 AMP FUSE	
12	77363265	AR	RELAY	
13	91404332	1	LARGE GAUGE BRACKET	
14	91404333	1	SMALL GAUGE BRACKET	
15	91404334	4	LAMP ASSY, (includes item 16)	
16	91404335	4	BULB	
17	7026425	1	PLUG CONNECTOR	
18	80963062	1	SHROUD	
19	80963061	1	TOWER	
20	91474463	2	STRAIN RELIEF, 90	
21	91404331	1	PLUG CONNECTOR	
22	91334038	1	PLUG CONNECTOR	



**SECTION 7 - CONTROLS**

# SECTION 7 - CONTROLS

## FIGURE 7-1. ACCELERATOR PEDAL ASSEMBLY



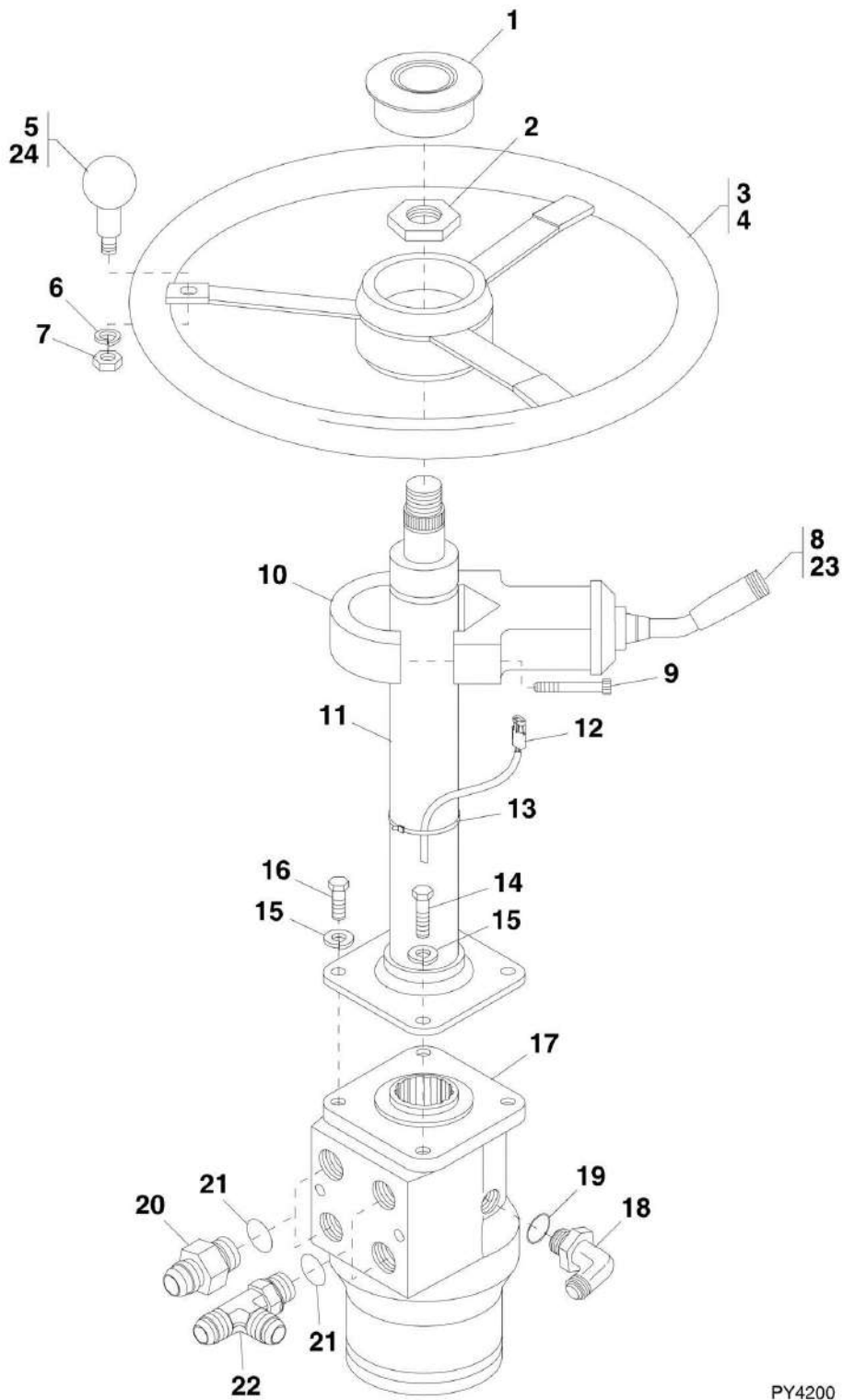
## SECTION 7 - CONTROLS

### FIGURE 7-1. ACCELERATOR PEDAL ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505016	1	ACCELERATOR PEDAL ASSY, (includes items 1, 2 & 6)	
1	80383076	1	MORSE ACCELERATOR PEDAL	
2	88201005	2	HEX HD CAPSCREW, 1/4-20X7/8, GR5	
3	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
4	88551010	2	LOCKWASHER, 5/16	
5	88561003	2	FLAT WASHER, 5/16	
6	91501027	1	ACCELERATOR PEDAL BRACKET	
7	88551009	2	LOCKWASHER, 1/4	

# SECTION 7 - CONTROLS

## FIGURE 7-2. STEERING COLUMN AND ATTACHING PARTS



PY4200



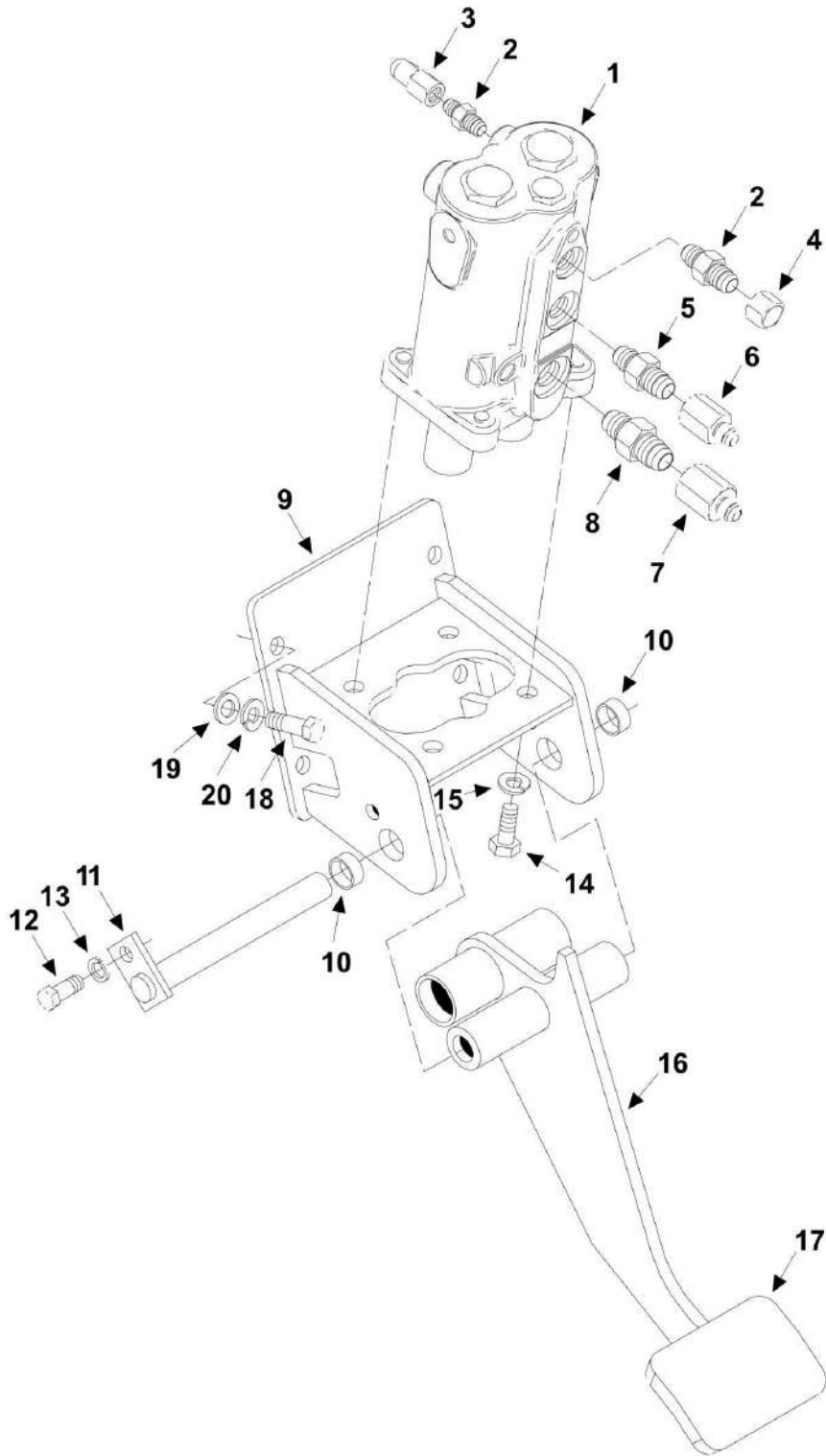
## SECTION 7 - CONTROLS

**FIGURE 7-2. STEERING COLUMN AND ATTACHING PARTS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505035	1	STEERING CONTROL ASSY, (includes items 11, 16, 17, 18, 20, 22 and two of item 15)	B
1	7026477	1	HORN CAP	
2	70020923	1	STEERING WHEEL NUT, (torque to 29-34 ft lbs)	
3	91475048	Ref	STEERING WHEEL ASSY, (includes item 5), (not available to order, see item 4 for service)	B
4	91563208	1	STEERING WHEEL, (includes items 1 & 24)	F
5	91413016	1	SPINNER KNOB, (includes items 6 & 7)	
6	91414028	1	LOCKWASHER, 1/2	
7	91414029	1	HEX NUT, 1/2-13	
8	91473061	1	SHIFTER, 3 SPEED, (includes items 9 & 10)	
8	91473031	1	SHIFTER, 4 SPEED, (includes items 9 & 10)	
9	N.S.S.	2	HEX HD CAPSCREW, M5X0.8, (torque to 30-35 ft lbs)	
10	N.S.S.	1	CLAMP SET	
11	91513125	1	STEERING COLUMN	
12		Ref	INSTRUMENT PANEL HARNESS, (See CAB SECTION for Breakdown)	
13	86683122	2	TIEWRAP	
14	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
15	88551011	4	LOCKWASHER, 3/8	
16	88201033	2	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
17	91123126	1	STEERING CONTROL UNIT	
18	88662062	1	ELBOW, 90, (includes item 19)	
19	88591202	1	O-RING	
20	88662006	2	CONNECTOR, (includes item 21)	
21	88591205	4	O-RING	
22	88662140	2	RUN TEE, (includes item 21)	
23	91471129	1	SHIFTER SPACER	
24	7026478	1	SPINNER KNOB	
	91144190	Ref	STEERING CONTROL UNIT SEAL KIT	

## SECTION 7 - CONTROLS

FIGURE 7-3. BRAKE PEDAL ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



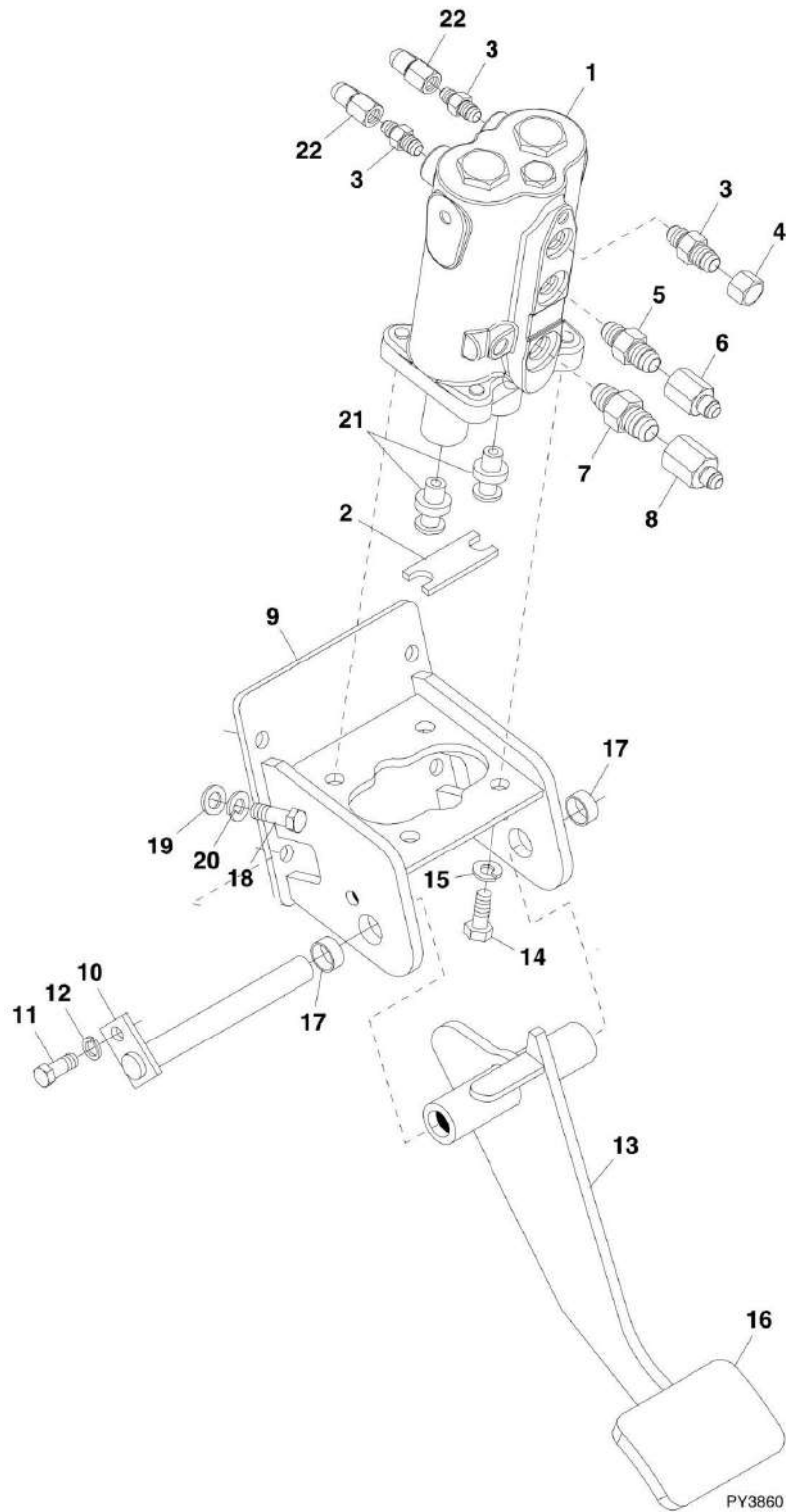
## SECTION 7 - CONTROLS

**FIGURE 7-3. BRAKE PEDAL ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91475042	1	POWER BRAKE ASSY, (includes all items except items 18 thru 20)	
		Ref	POWER BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	83193009	2	CONNECTOR	
3	88662105	1	ELBOW, 90, (swivel nut)	
4	88661364	1	HEX CAP	
5	83193018	1	CONNECTOR	
6	86883469	1	REDUCER FITTING	
7	88661343	1	REDUCER FITTING	
8	80233142	1	CONNECTOR	
9	91476037	1	BRAKE BRACKET	
10	91403247	2	BUSHING	
11	91476031	1	PIVOT PIN	
12	88201035	1	HEX HD CAPSCREW, 3/8-16X1, GR5	
13	88551011	1	LOCKWASHER, 3/8	
14	83191021	4	HEX HD CAPSCREW, M10-1.5X30	
15	83191013	4	LOCKWASHER, M10	
16	91476038	1	BRAKE PEDAL	
17	80263108	1	PEDAL PAD	
18	88201020	4	HEX HD CAPSCREW, 5/16-18X1, GR5	
19	88561003	4	FLAT WASHER, 5/16	
20	88551010	4	LOCKWASHER, 5/16	

# SECTION 7 - CONTROLS

FIGURE 7-4. BRAKE PEDAL ASSEMBLY (SN 0160000170 through 0160017549, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



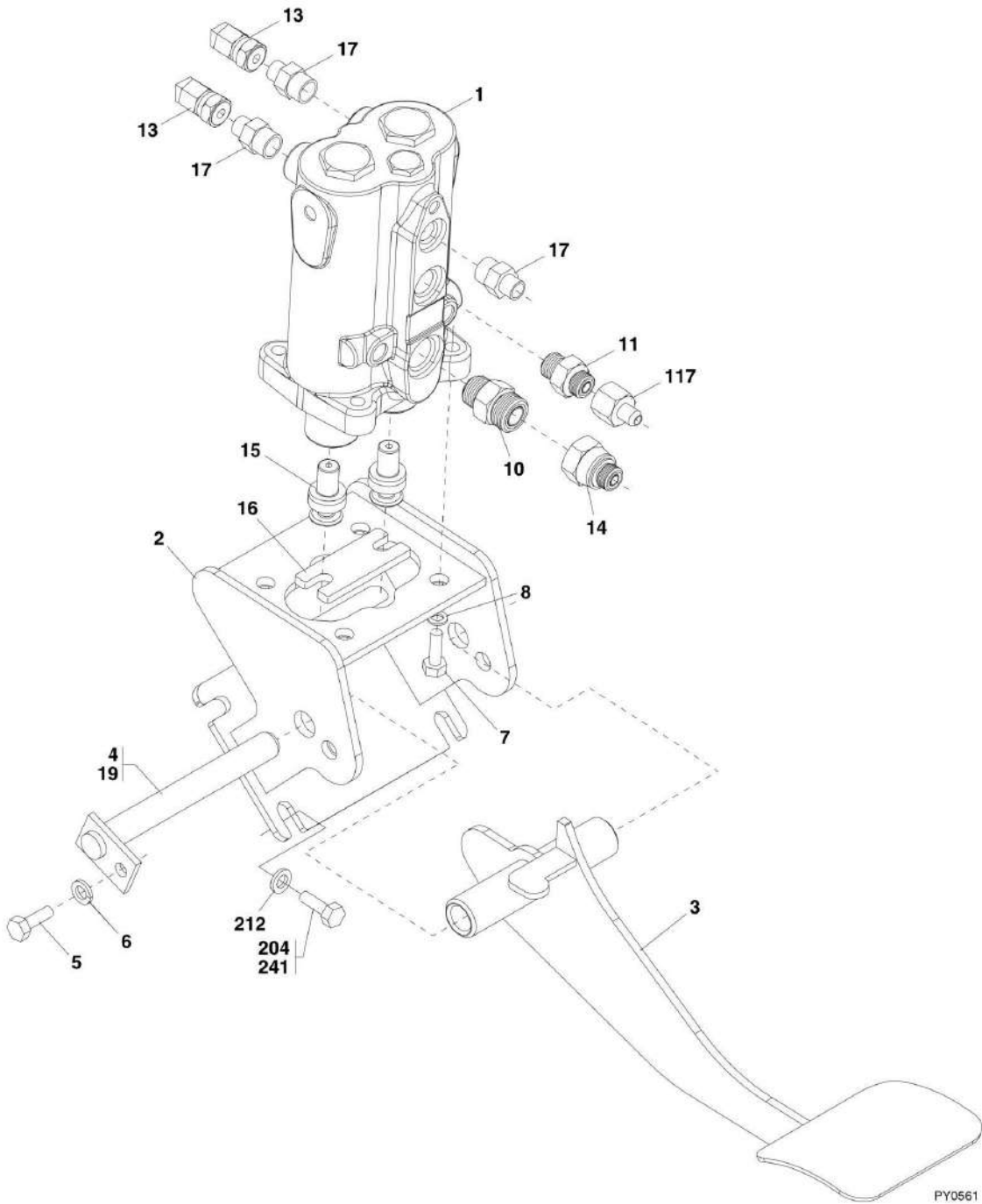
## SECTION 7 - CONTROLS

**FIGURE 7-4. BRAKE PEDAL ASSEMBLY (SN 0160000170 through 0160017549, Excluding  
0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91515048	1	POWER BRAKE ASSY, (includes all items except items 18 thru 20)	D
1		Ref	POWER BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91511145	1	TIE BAR	
3	8770064	3	CONNECTOR	
4	88661364	2	CAP FITTING	
5	83193018	1	CONNECTOR	
6	86883469	1	FITTING REDUCER	
7	80233142	1	CONNECTOR	
8	88661343	1	FITTING REDUCER	
9	91516029	1	BRAKE BRACKET	
10	91476031	1	PIVOT PIN	
11	88201035	1	HEX HD CAPSCREW, 3/8-16X1, GR5	
12	88551011	1	LOCKWASHER, 3/8	
13	91516030	1	BRAKE PEDAL	
14	83191021	4	HEX HD CAPSCREW, M10-1.5X30	
15	83191013	4	LOCKWASHER	
16	80263108	1	PEDAL PAD	
17	91403247	2	BUSHING	
18	88201020	4	HEX HD CAPSCREW, 5/16-8X1, GR5	
19	88561003	4	FLAT WASHER, 5/16	
20	88551010	4	LOCKWASHER, 5/16	
21	91513180	2	ACTUATOR	
22	88662105	2	ELBOW, 90	

# SECTION 7 - CONTROLS

FIGURE 7-5. BRAKE PEDAL ASSEMBLY (SN 0160019117 to Present)



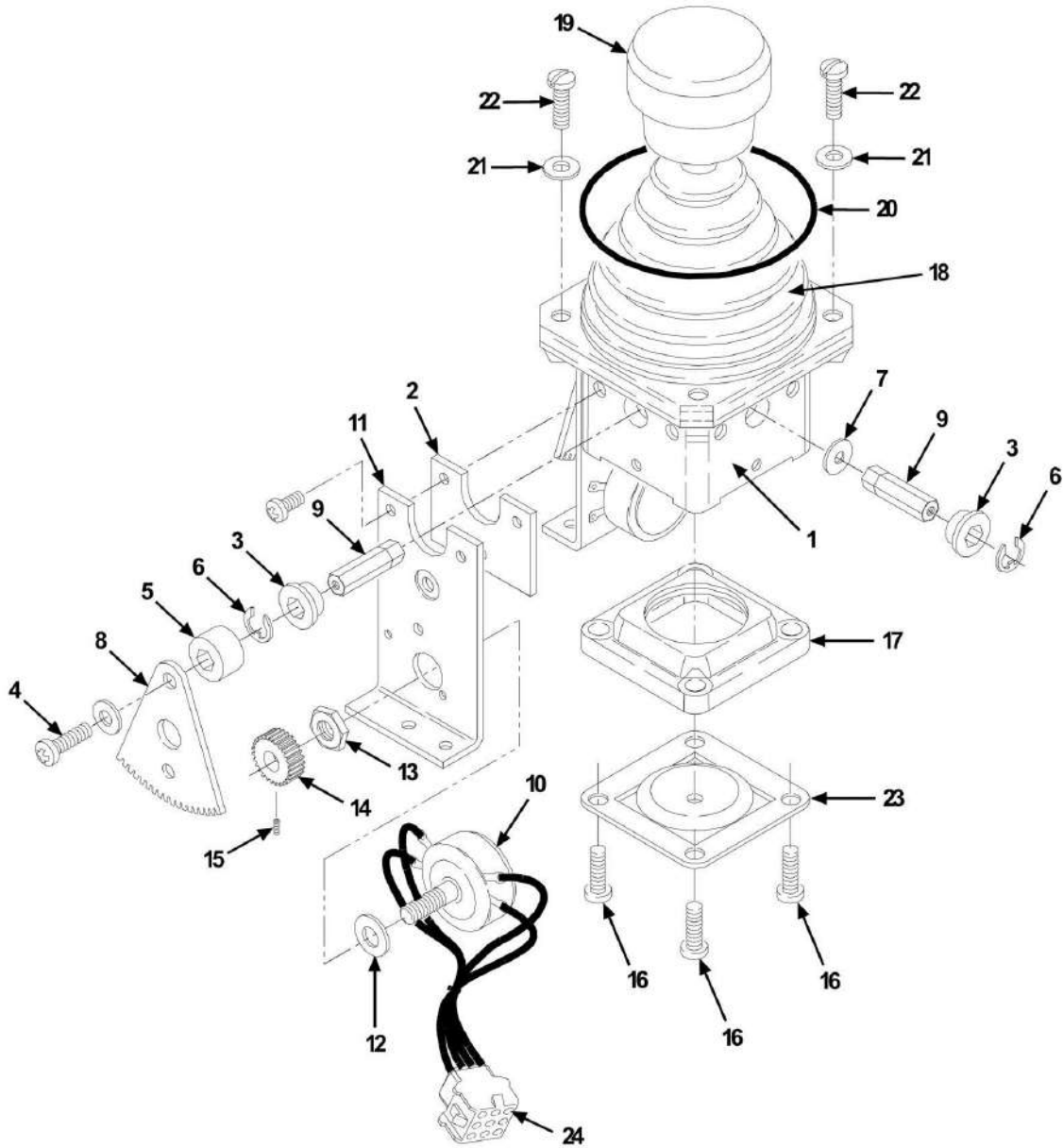
## SECTION 7 - CONTROLS

**FIGURE 7-5. BRAKE PEDAL ASSEMBLY (SN 0160019117 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	1001091359	1	POWER BRAKE ASSY, (includes items 1 thru 19 & 117)	D
1		Ref	POWER BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	1001091118	1	BRAKE BRAKET	
3	1001090741	1	BRAKE PEDAL	
4	91476031	1	PIVOT PIN	
5	0641608	1	HEX HD CAPSCREW, 3/8-16X1, GR5	
6	4761600	1	LOCKWASHER, 3/8	
7	0701014	4	HEX HD CAPSCREW, 10X30MM, GR8.8	
8	4832000	4	SPRING LOCKWASHER, 10MM	
10	80233142	1	CONNECTOR	
11	83193018	1	CONNECTOR	
13	8760268	2	ELBOW, 90, (swivel nut)	
14	2220620	1	ADAPTER	
15	91513180	2	ACTUATOR	
16	91511145	1	TIE BAR	
17	8770064	1	CONNECTOR	
19	3020039	AR	MOLY PASTE	
117	2220619	1	ADAPTER	
204	0641506	4	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
212	4711500	4	FLAT WASHER, 5/16	
241	0100011	AR	LOCTITE, #242	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 7 - CONTROLS

## FIGURE 7-6. TRANSFORMER PLATFORM SWING AND LIFT CONTROLLER ASSEMBLY





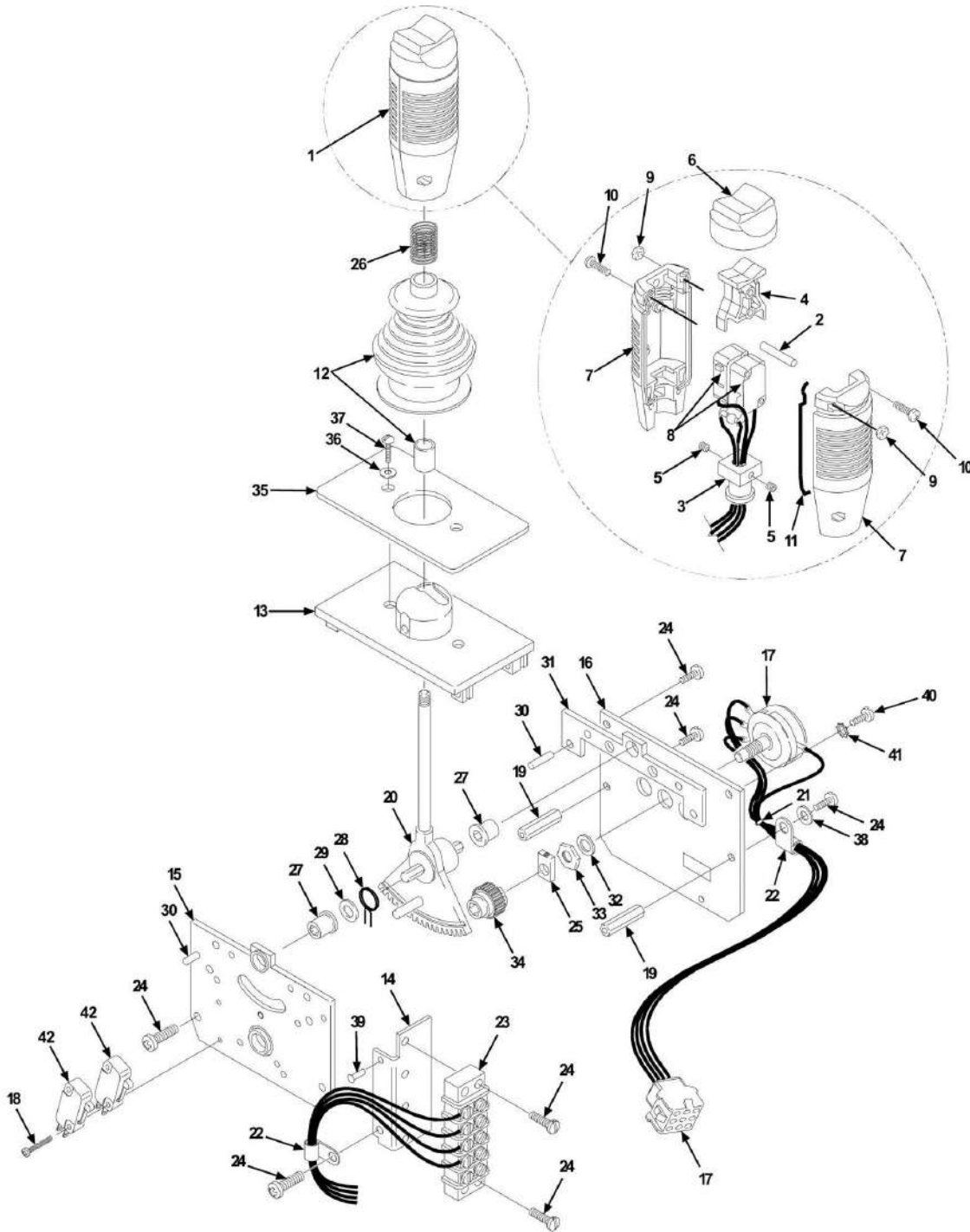
## SECTION 7 - CONTROLS

**FIGURE 7-6. TRANSFORMER PLATFORM SWING AND LIFT CONTROLLER ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1600284	1	TRANSFORMER PLATFORM SWING AND LIFT CONTROLLER ASSY, (includes all items)	
1	7019141	1	MECHANICAL ASSY, (includes the following two items & items 18 & 19)	
1	7003928	1	SPRING	
1	7022808	1	LIFT CAP	
2	7019171	2	PLATE	
3	7019111	4	GEAR BEARING	
4	7019143	2	SCREW	
5	7019144	2	CAM SPACER	
6	7019145	4	E-CLIP	
7	7019146	2	SPACER	
8	7003977	2	DRIVE GEAR	
9	7019147	4	SHAFT	
10	7003974	2	POTENTIOMETER	
11	7019142	2	PLATE	
12	7003992	2	WASHER	
13	7003993	2	NUT	
14	7003976	2	SLAVE GEAR	
15	7019149	2	SETSCREW	
16	7003952	4	SCREW	
17	7019150	1	GATE	
18	7022813	1	BOOT, (includes plastic plate)	
19	7019197	1	HANDLE CAP AND ROD	
20	7003956	1	O-RING	
21	7003953	4	WASHER	
22	7019137	4	SCREW	
23		Ref	DETENT CENTER	
24	4460266	1	CONNECTOR, (9-pin)	
24	4460268	8	FEMALE SOCKET	
24	4460265	1	PLUG, (9-pin)	
24	4460267	8	MALE PIN	

# SECTION 7 - CONTROLS

**FIGURE 7-7. TRANSFORMER PLATFORM DRIVE/STEER CONTROLLER ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 016000157, Including 016000198, 016000206, 016000338 and 016000718)**



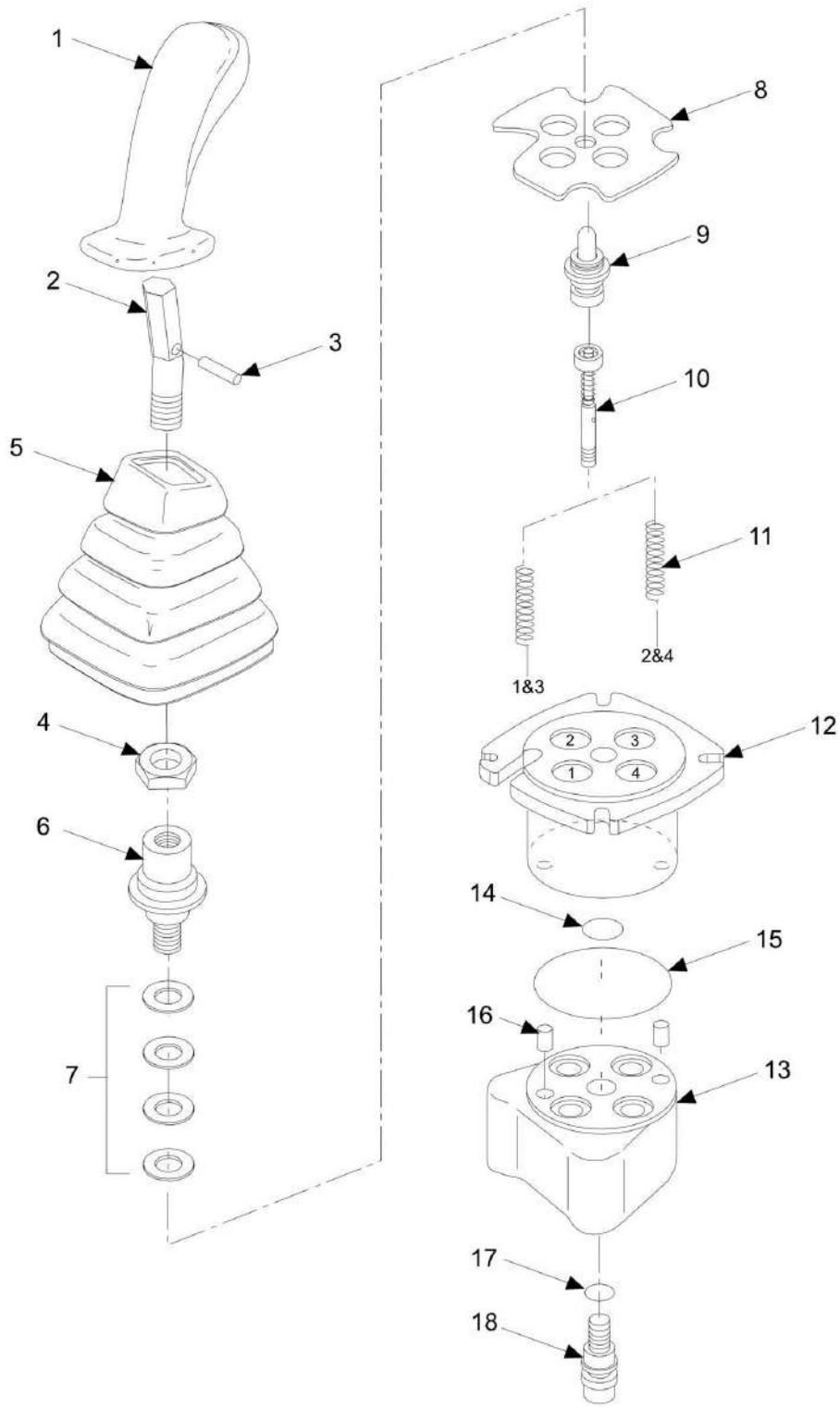
## SECTION 7 - CONTROLS

**FIGURE 7-7. TRANSFORMER PLATFORM DRIVE/STEER CONTROLLER ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 016000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1600334	1	TRANSFORMER PLATFORM DRIVE/STEER CONTROLLER ASSY, (includes all items)	
1	7022810	1	HANDLE, (includes items 2 thru 11)	
2	7019164	1	AXLE	
3	7019194	1	COUPLING	
4	7019165	1	ROCKER	
5	7003983	2	SET SCREWS	
6	7003972	1	BOOT SWITCH	
7	7003973	2	HANDLE	
8	7019166	1	SWITCH, MICRO KIT, (includes two microswitches and two diodes)	
9	7019167	4	NUT	
10	7003980	4	SCREW	
11	7003989	2	GASKETS	
12	7019161	1	CENTER ASSY	
13	7003950	1	CAST HOUSING	
14	7022823	1	MOUNTING BRACKET	
15	7019158	1	LEFT SIDE PLATE	
16	7022822	1	POT PLATE	
17	7019156	1	ELECTRONIC ASSY	
18		Ref	SCREW	
19	7019115	2	STAND OFF	
20	7019155	1	SHAFT	
21	7019151	AR	TYRAP	
22	7019154	2	WIRE CLAMP	
23	7022828	1	5 POLE TERMINAL BD.	
24	7019117	7	SCREW	
25	7019163	1	POT COUPLING ASSY	
26	7019162	1	SPRING	
27	7022827	2	BEARING	
28	7003946	1	SPRING RETURN, (includes item 29)	
29		Ref	BUSHING	
30	7019103	4	PIN	
31	7019168	1	RIGHT SIDE PLATE	
32	7003992	1	WASHER	
33	7003993	1	NUT	
34	7003935	1	SLAVE GEAR	
35	7003933	1	GASKET	
36	7003941	2	WASHER	
37	7003940	2	SCREW	
38	7022821	2	WASHER	
39		Ref	RIVET	
40		Ref	SCREW	
41		Ref	STAR WASHER	
42	7003961	1	MICROSWITCH	

# SECTION 7 - CONTROLS

FIGURE 7-8. BOOM JOYSTICK (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)



## SECTION 7 - CONTROLS

**FIGURE 7-8. BOOM JOYSTICK (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

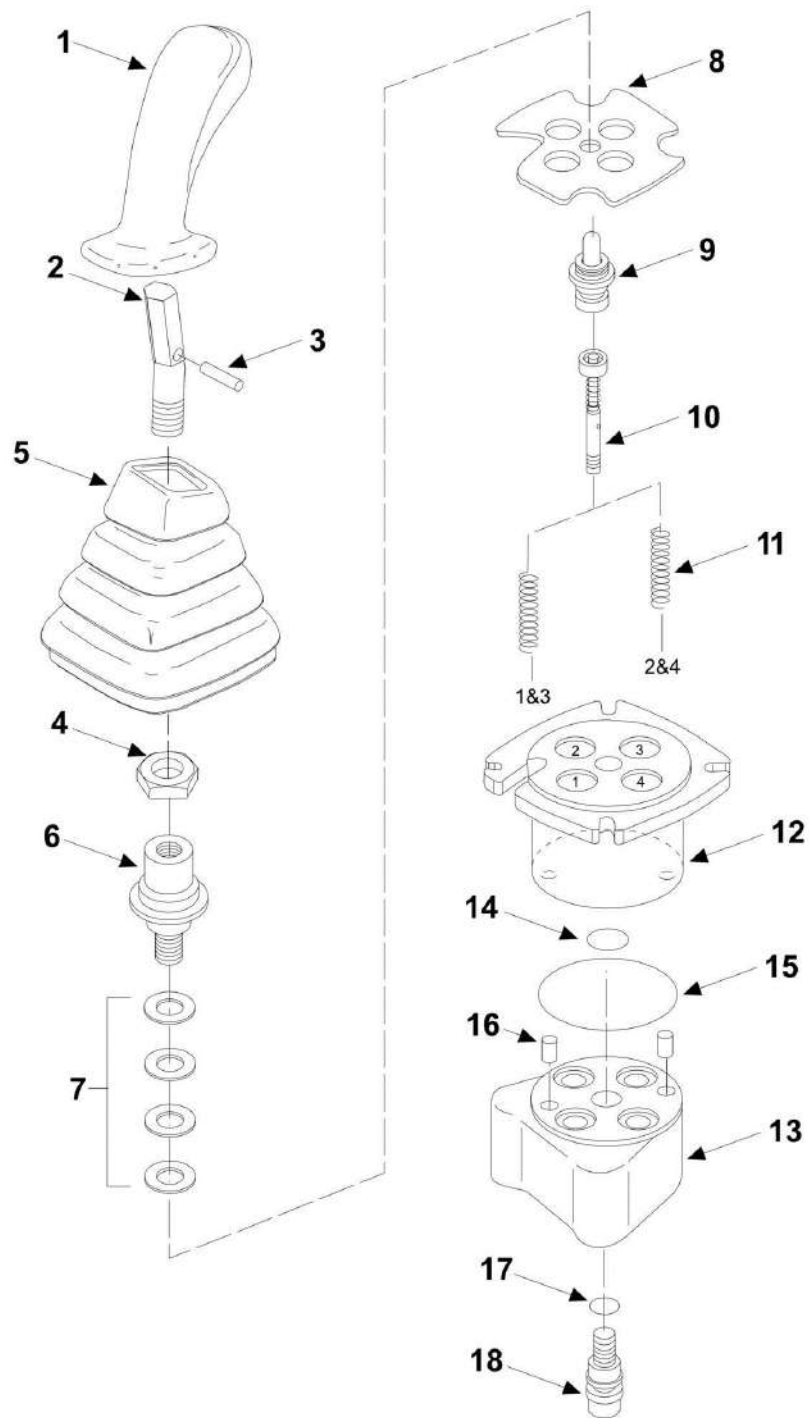
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403490	Ref	JOYSTICK ASSY, (includes all items)	
1	91404010	1	GRIP	
2	91404011	1	BENT LEVER KIT, (includes items 3 & 4)	
3	Kit	1	SPRING PIN	
4	Kit	1	HEX NUT	
5	80364095	1	BOOT	
6	80264138	1	CARDAN KIT, (includes item 7)	
	Kit	AR	SHIM	
8	91404013	1	RETAINING PLATE	
9	80934498	4	PLUNGER AND GUIDE KIT	
10	91404327	4	REGULATING UNIT	
11	91504028	1	SPRING, (ports 1 & 3), (pack of two)	
11	91504029	1	SPRING, (ports 2 & 4), (pack of two)	
12	91404016	1	UPPER BODY, (includes item 13)	
13		Ref	LOWER BODY	
14	Kit	1	O-RING	
15	Kit	1	O-RING	
	Kit	2	DOWEL PIN	
17	Kit	1	O-RING	
18	Kit	1	SCREW ASSEMBLY	
	91404326	AR	SEAL KIT, (includes items 14 thru 18)	

# SECTION 7 - CONTROLS

## FIGURE 7-9. BOOM JOYSTICK

### SERVICE NOTE:

1. USE LOCTITE 545, 14404043 ON ALL HYDRAULIC FITTING THREADS.



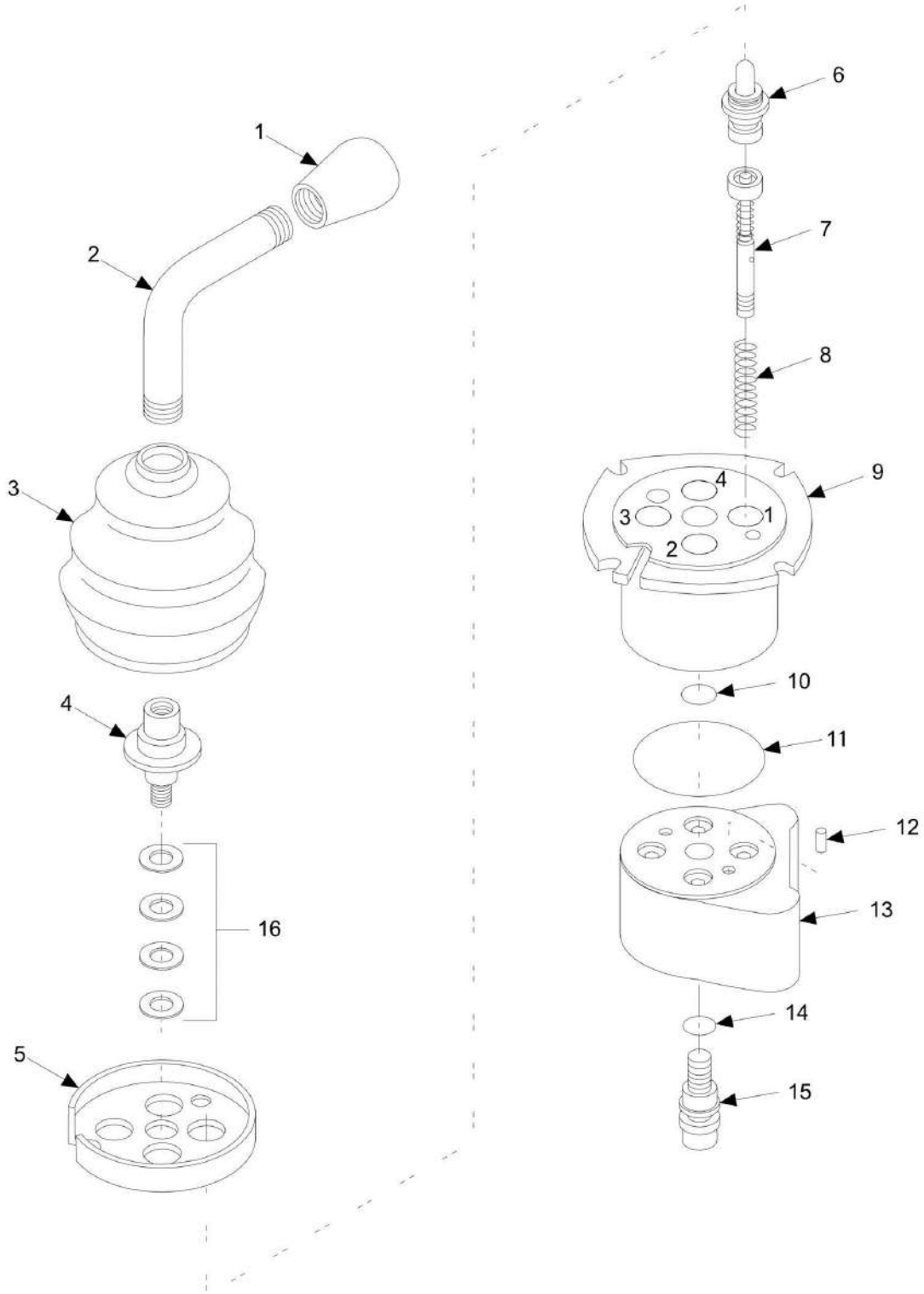
## SECTION 7 - CONTROLS

### FIGURE 7-9. BOOM JOYSTICK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91513211	Ref	BOOM JOYSTICK, (includes all items)	
1	91404010	1	GRIP	
2	91404011	1	BENT LEVER KIT, (includes items 3 & 4)	
3	Kit	1	SPRING PIN	
4	Kit	1	HEX NUT	
5	80364095	1	BOOT	
6	80264138	1	CARDAN KIT, (includes item 7)	
7	Kit	AR	SHIM	
8	91404013	1	RETAINING PLATE	
9	80934498	4	PLUNGER AND GUIDE KIT	
10	91514224	4	REGULATING UNIT	
11	91504028	1	SPRING, (ports 1 & 3), (pack of two)	
11	91504029	1	SPRING, (ports 2 & 4), (pack of two)	
12	91404016	1	UPPER BODY, (includes item 13)	
13		Ref	LOWER BODY	
14	Kit	1	O-RING	
15	Kit	1	O-RING	
16	Kit	2	DOWEL PIN	
17	Kit	1	O-RING	
18	Kit	1	SCREW ASSEMBLY	
	91404326	AR	SEAL KIT, (includes items 14 thru 18)	

# SECTION 7 - CONTROLS

## FIGURE 7-10. R.H. TILT/SWAY JOYSTICK





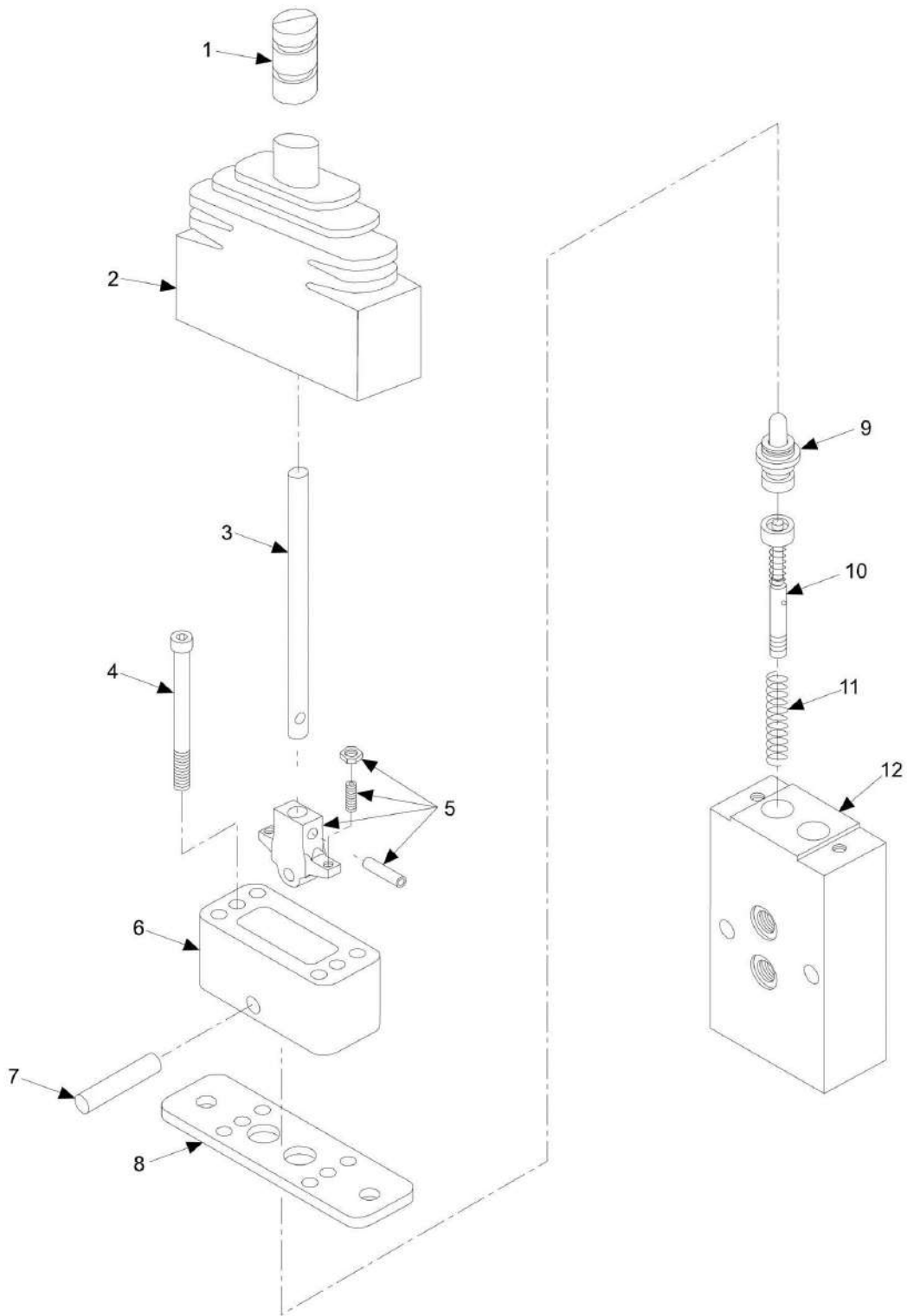
## SECTION 7 - CONTROLS

**FIGURE 7-10. R.H. TILT/SWAY JOYSTICK**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503023	1	R.H. TILT/SWAY JOYSTICK, (includes items 3 thru 15)	
1	91503027	1	KNOB	
2	91503025	1	ROD	
3	80934241	1	RUBBER BOOT	
4	80264140	1	CARDAN KIT, (includes item 16)	
5	91304026	1	RETAINING PLATE	
6	80934498	4	PLUNGER AND GUIDE KIT	
7	91404327	4	REGULATING UNIT	
8	80934259	1	HEAVY SPRING, (pack of four)	
9		Ref	UPPER BODY	
10	Kit	1	O-RING	
11	Kit	1	O-RING	
12	Kit	2	DOWEL PIN	
13		Ref	LOWER BODY	
14	Kit	1	O-RING	
15	Kit	1	O-RING	
16	Kit	AR	SHIM	
	91404326	AR	SEAL KIT, (includes items 10, 11, 12, 14 & 15)	

# SECTION 7 - CONTROLS

## FIGURE 7-11. L.H. AUXILIARY JOYSTICK



## SECTION 7 - CONTROLS

**FIGURE 7-11. L.H. AUXILIARY JOYSTICK**

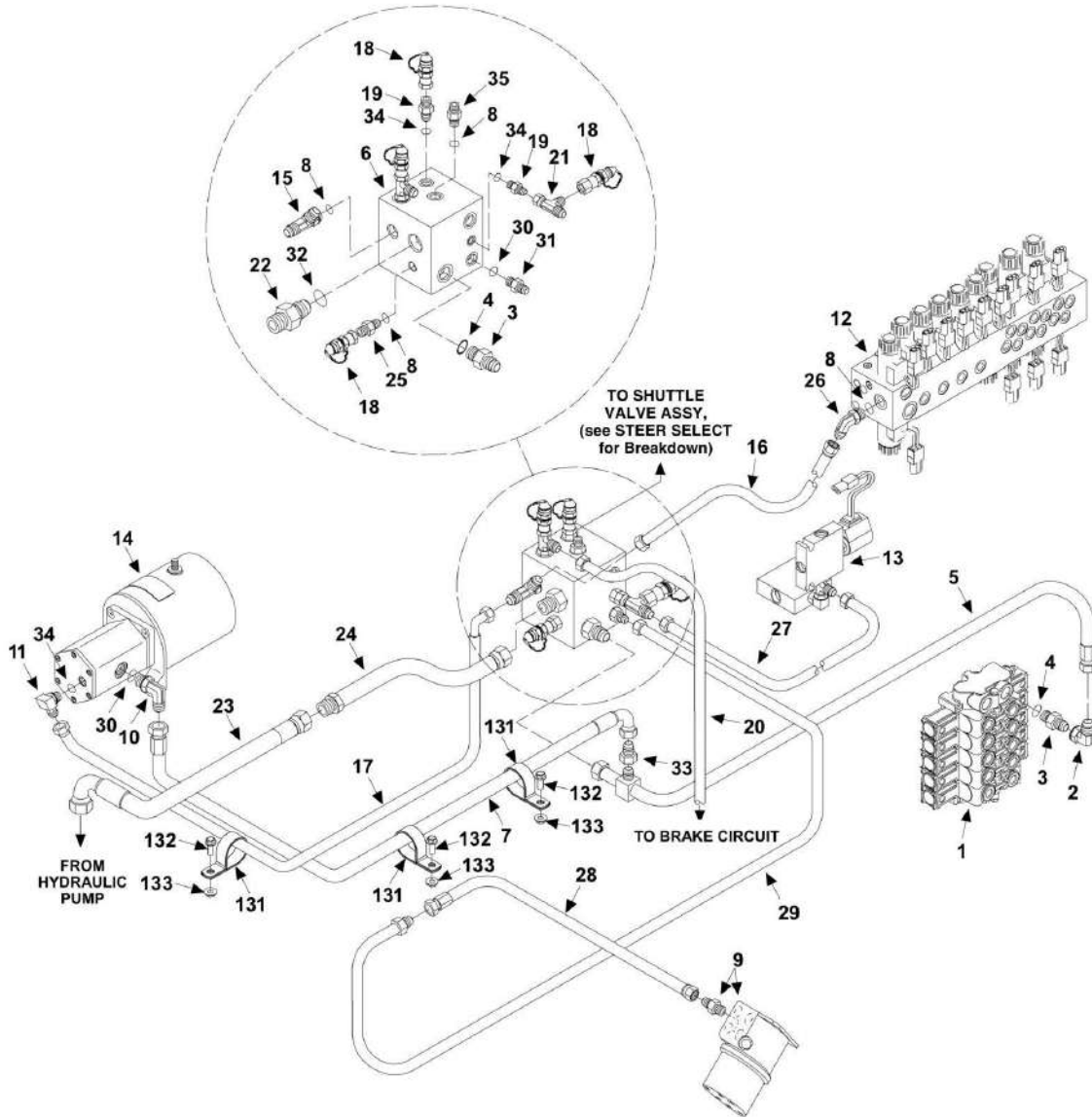
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503024	1	L.H. AUX JOYSTICK, (includes all items)	
1	91504030	1	GRIP	
2	91504031	1	BOOT	
3	Kit	1	STRAIGHT LEVER	
4	Kit	2	SOCKET HD CAPSCREW	
5	Kit	1	SWITCH PLATE	
6	Kit	1	COVER	
7	Kit	1	PIN	
8	91504032	1	RETAINING PLATE	
9	80934498	2	PLUNGER AND GUIDE KIT	
10	91504033	2	REGULATING UNIT	
11	80364110	2	RETURN SPRING	
12		Ref	BODY	
	91504034	1	OPERATION LEVER KIT, (includes items 3 thru 7)	



**SECTION 8 - HYDRAULIC CIRCUITS**

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-1. SUPPLY CIRCUIT



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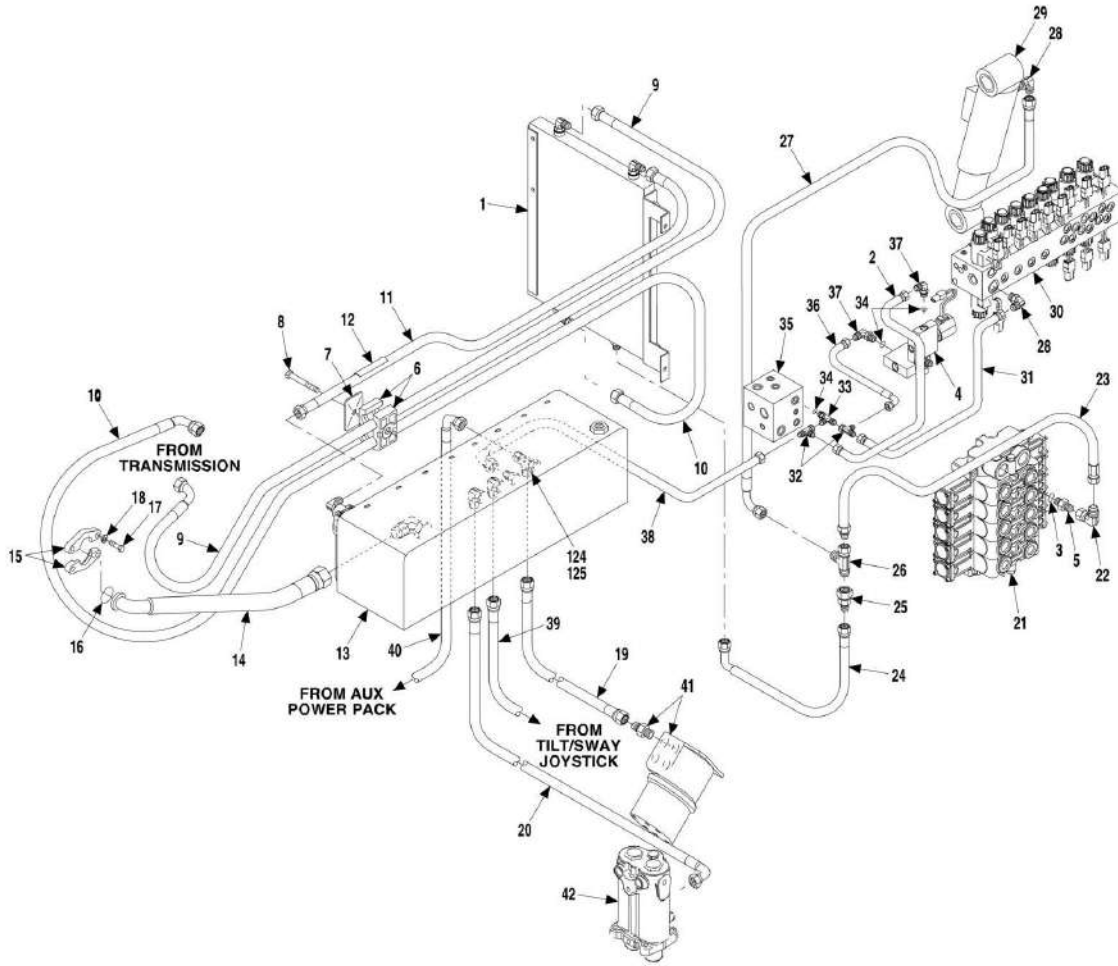
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-1. SUPPLY CIRCUIT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662108	1	ELBOW, 90, (swivel nut)	
3	88662008	2	CONNECTOR, (includes item 4)	
4	88591207	2	O-RING	
5	91503070	1	HOSE ASSY	
6		Ref	PRIORITY VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7	84721369	1	HOSE ASSY	
8	88591204	4	O-RING	
9		Ref	STEERING CONTROL ASSY, (See CONTROLS SECTION for Breakdown)	
10	88662065	1	ELBOW, 90, (includes item 30)	
11	88662525	1	ELBOW, 90, (includes item 34)	
12		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
13		Ref	REMOTE SHUTTLE, (See STEER SELECT for Breakdown)	
14		Ref	AUX POWER PACK, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	88662139	1	RUN TEE, (includes item 8)	
16	84719818	1	HOSE ASSY	
17	84721370	1	HOSE ASSY	
18	91143172	3	TEST COUPLING	
19	83661316	2	CONNECTOR, (includes item 34)	
20		Ref	HOSE ASSY, (See SERVICE/PARKING BRAKE for Breakdown) <b>(SN 0192001 through 0160000157)</b>	
20		Ref	HOSE ASSY, (See SERVICE/PARKING BRAKE for Breakdown) <b>(SN 0160000170 to Present)</b>	
21	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
22	88662025	1	CONNECTOR, (includes item 32)	
23	84719672	1	HOSE ASSY <b>(SN 0192001 through 0160000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)</b>	
23	84721029	1	HOSE ASSY <b>(SN 0160000141 to Present, Excluding 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)</b>	
24	91473094	1	TUBE ASSY	
25	88662005	1	CONNECTOR, (includes item 8)	
26	88662084	1	ELBOW, 45, (includes item 8)	
27	84719825	1	HOSE ASSY	
28	84719673	1	HOSE ASSY	
29	91473116	1	TUBE ASSY	
30	88591205	2	O-RING	
31	88662006	1	CONNECTOR, (includes item 30)	
32	88591209	1	O-RING	
33	83651133	1	STRAIGHT REDUCER	
34	88591202	3	O-RING	
35	88662017	1	CONNECTOR, (includes item 8)	
131	85941018	3	SUPPORT CLAMP	
132	80973025	3	WHIZ-LOCK BOLT, 3/8-16X1	
133	77143015	3	WHIZ-LOCK NUT, 3/8-16	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-2. DUMP CIRCUIT



ART\_91504001-8-2



## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-2. DUMP CIRCUIT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	OIL COOLER, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
2	84719833	1	HOSE ASSY	
3	88591207	1	O-RING	
4		Ref	REMOTE SHUTTLE, (See STEER SELECT for Breakdown)	
5	88662008	1	CONNECTOR, (includes item 3)	
6	77133133	4	CLAMP SET	
7	77133134	4	COVER PLATE	
8	88201024	4	HEX HD CAPSCREW, 5/16-18X2, GR5	
9	84719764	1	HOSE ASSY (SN 0192001 through 0160000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
9	84721016	1	HOSE ASSY (SN 0160000141 to Present, Excluding 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
10	84719762	1	HOSE ASSY	
11	84719763	1	HOSE ASSY (SN 0192001 through 0160000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
11	84721031	1	HOSE ASSY (SN 0160000141 to Present, Excluding 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
12	91403528	1	HOSE GUARD	
13		Ref	HYDRAULIC TANK ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
14	84719671	1	HOSE ASSY (SN 0192001 through 0160000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
14	84721030	1	HOSE ASSY (SN 0160000141 to Present, Excluding 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)	
15	84711334	2	SPLIT CLAMP HALF	
16	88591027	1	O-RING	
17	83201135	4	HEX HD CAPSCREW, 7/16-14X1-1/2	
18	88551012	4	LOCKWASHER, 7/16	
19	84717782	1	HOSE ASSY	
20	84719642	1	HOSE ASSY	
21		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
22	88662108	1	ELBOW, 90, (swivel nut)	
23	91473155	1	RETURN TUBE	
24	84719970	1	HOSE ASSY	
25	83251261	1	REDUCER	
26	91503120	1	BRENNAN FITTING	
27	84719831	1	HOSE ASSY	
28	91083222	2	ELBOW, 90	
29		Ref	REAR AXLE STABILIZER CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
30		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
31	84719817	1	HOSE ASSY	
32	88662239	2	SWIVEL NUT RUN TEE, 3/8 TUBE	
33	88662139	1	RUN TEE, (includes item 34)	

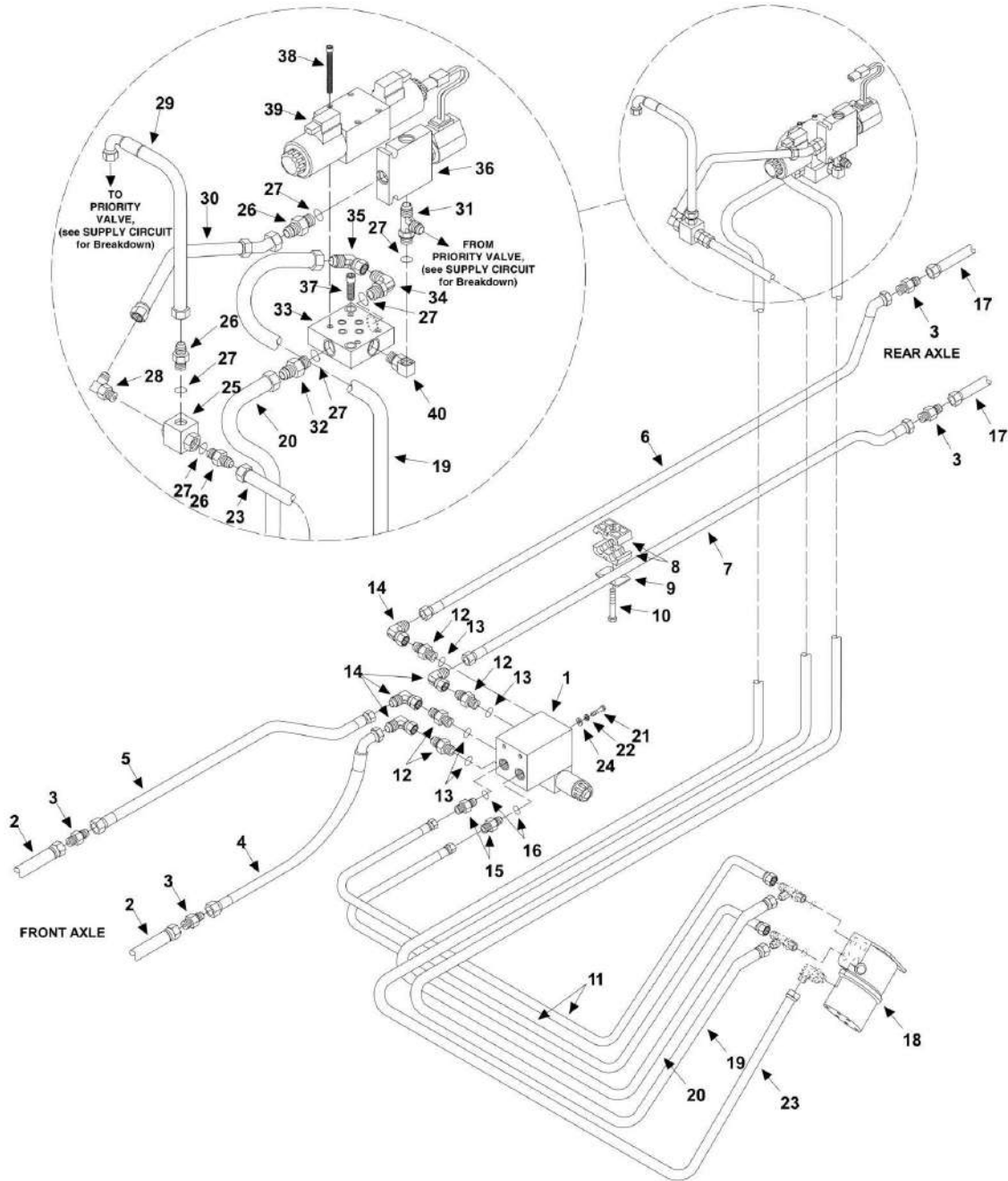
## SECTION 8 - HYDRAULIC CIRCUITS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
34	88591204	3	O-RING	
35		Ref	PRIORITY VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
36	84719824	1	HOSE ASSY	
37	88662064	2	ELBOW, 90, (includes item 34)	
38	84719634	1	HOSE ASSY	
39		Ref	HOSE ASSY, (See TILT/SWAY JOYSTICK for Breakdown)	
40	84721368	1	HOSE ASSY	
41		Ref	STEERING CONTROL ASSY, (See CONTROLS SECTION for Breakdown)	
42		Ref	BRAKE ASSY, (See CONTROLS SECTION for Breakdown)	
124	88662140	1	RUN TEE	
125	88591205	1	O-RING	



# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-3. STEER SELECT



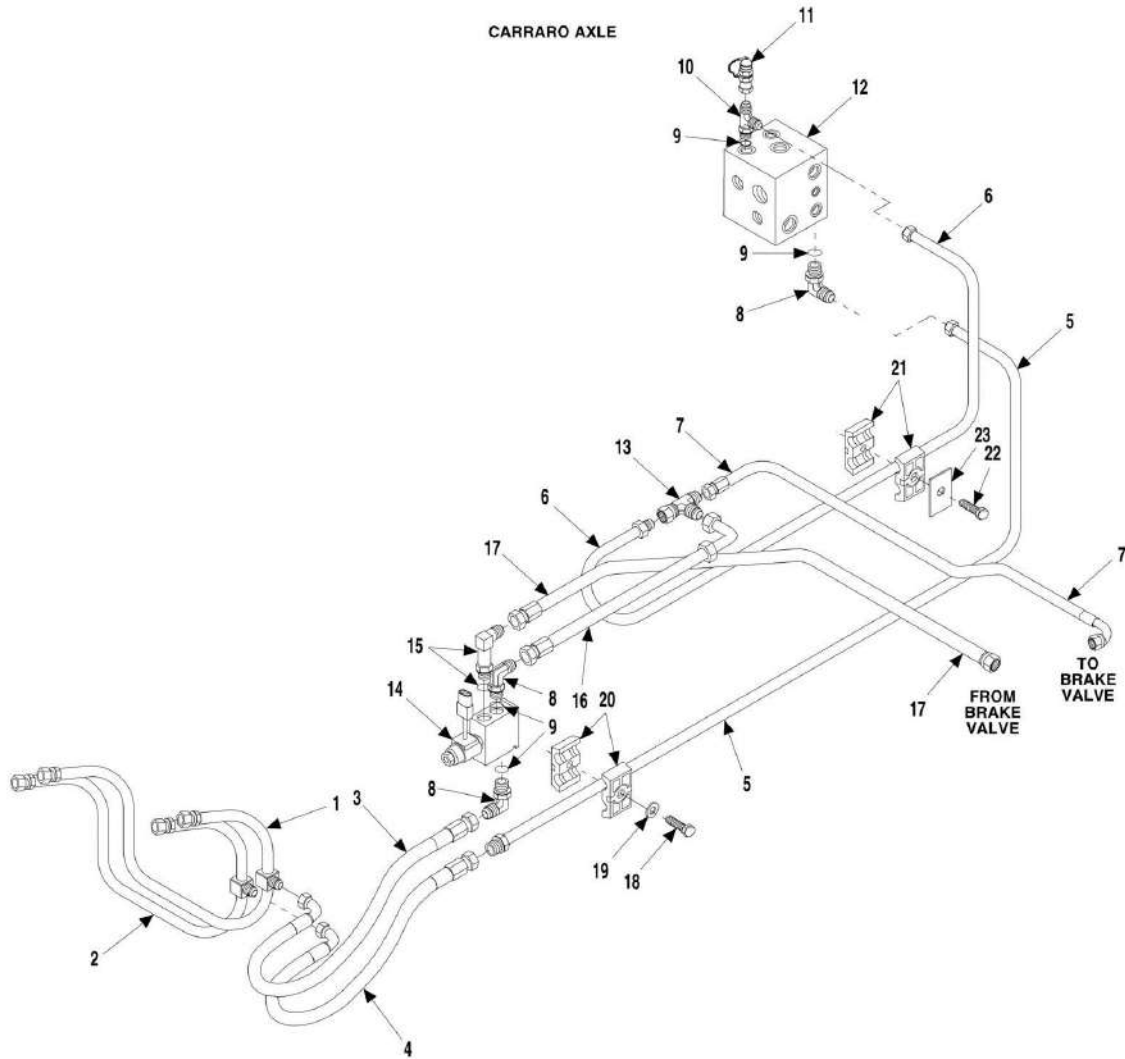
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-3. STEER SELECT

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	STEER SELECT VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	HOSE ASSY, (See DRIVE TRAIN SECTION for Breakdown) <b>(SN 0192001 through 0160000157)</b>	
2		Ref	HOSE ASSY, (See DRIVE TRAIN SECTION for Breakdown) <b>(SN 0160000170 to Present)</b>	
3	88661085	4	BULKHEAD UNION, 3/4-16X1/2	
4	84719782	1	HOSE ASSY	
5	84719781	1	HOSE ASSY	
6	84719621	1	HOSE ASSY	
7	84719622	1	HOSE ASSY	
8	77323029	1	CLAMP	
9	77133137	1	COVER	
10	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
11	84719614	2	HOSE ASSY	
12	88662006	4	CONNECTOR, (includes item 13)	
13	88591205	4	O-RING	
14	88662106	4	ELBOW, 90, (swivel nut)	
15	88662019	2	CONNECTOR, (includes item 16)	
16	88591206	2	O-RING	
17		Ref	HOSE ASSY, (See DRIVE TRAIN SECTION for Breakdown) <b>(SN 0192001 through 0160000157)</b>	
17		Ref	HOSE ASSY, (See DRIVE TRAIN SECTION for Breakdown) <b>(SN 0160000170 to Present)</b>	
18		Ref	STEERING CONTROL ASSY, (See CONTROLS SECTION for Breakdown)	
19	84719827	1	HOSE ASSY	
20	84719826	1	HOSE ASSY	
21	88201018	4	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
22	88551010	4	LOCKWASHER, 5/16	
23	84719835	1	HOSE ASSY	
24	88561108	4	FLAT WASHER, 5/16	
25	91503038	NLA	SHUTTLE VALVE (no longer available, use 8902175 for replacement)	
25	8902175	1	SHUTTLE VALVE	
26	88662017	3	CONNECTOR, (includes item 27)	
27	88591204	6	O-RING	
28	91503114	1	BRENNAN FITTING	
29	84719832	1	HOSE ASSY	
30	84719834	1	HOSE ASSY	
31	88662139	1	RUN TEE, (includes one of item 27)	
32	88662005	1	CONNECTOR, (includes item 27)	
33	91503039	1	DIRECTIONAL VALVE MANIFOLD	
34	88662064	1	ELBOW, 90, (includes item 27)	
35	88662105	1	ELBOW, 90, (swivel nut)	
36		Ref	SOLENOID VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
37	88211042	2	SOCKET HD CAPSCREW, 1/4-20X1, GR8	
38	88211036	4	SOCKET HD CAPSCREW, #10-24X2, GR8	
39		Ref	DIRECTIONAL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
40	91503119	1	BRENNAN FITTING	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-4. SERVICE/PARKING BRAKE (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



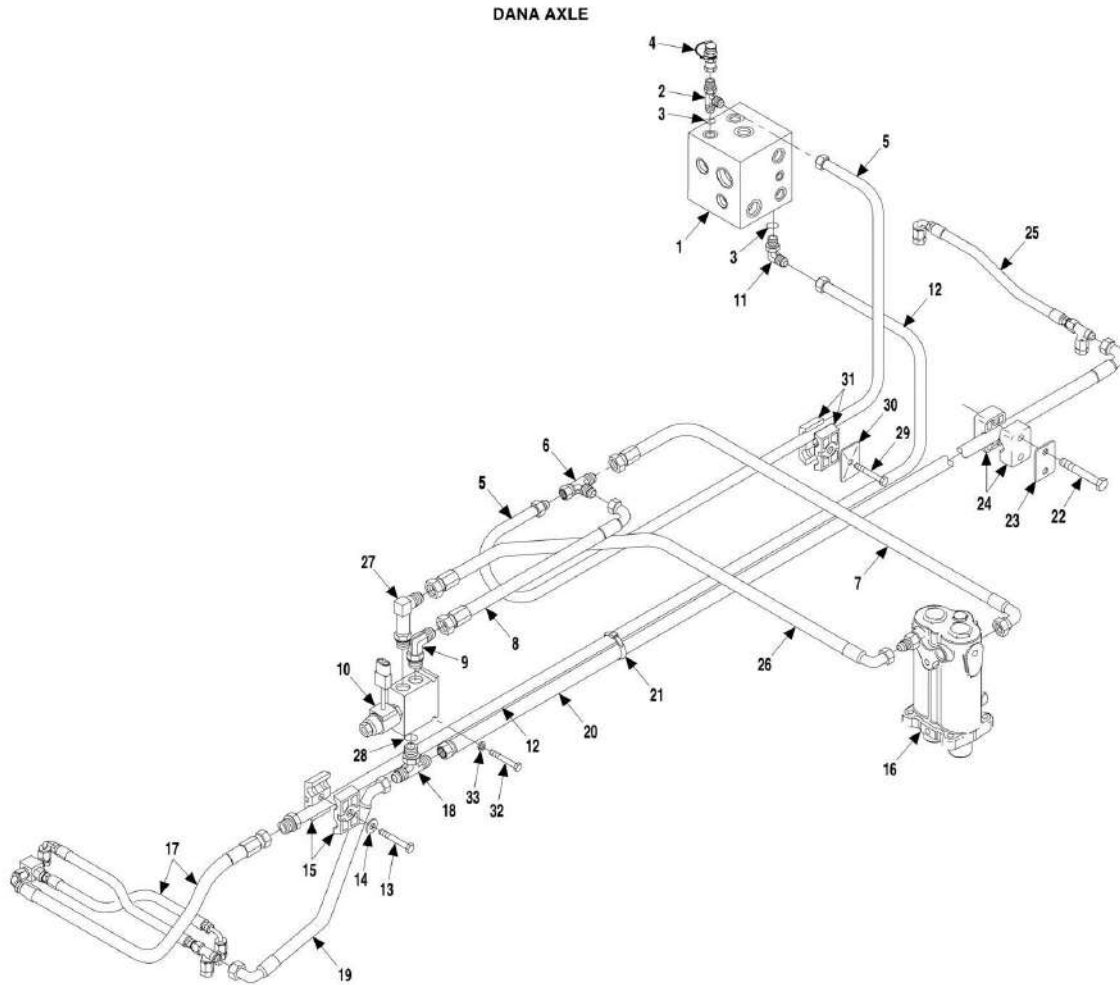
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-4. SERVICE/PARKING BRAKE (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SERVICE BRAKE TUBE, (See DRIVE TRAIN SECTION for Breakdown)	
2		Ref	PARK BRAKE TUBE, (See DRIVE TRAIN SECTION for Breakdown)	
3	84719838	1	HOSE ASSY	
4	84719756	1	HOSE ASSY	
5	91473134	1	TUBE ASSY	
6	91473067	1	TUBE ASSY	
7	84719630	1	HOSE ASSY	
8	88662064	3	ELBOW, 90, (includes item 9)	
9	88591204	4	O-RING	
10	88662139	1	RUN TEE, (includes item 9)	
11	91143172	1	TEST COUPLING	
12		Ref	PRIORITY VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
13	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
14		Ref	REMOTE BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15	86971355	1	FITTING	
16	84719836	1	HOSE ASSY	
17	84719604	1	HOSE ASSY	
18	88201005	1	HEX HD CAPSCREW, 1/4-20X1, GR5	
19	88561002	1	FLAT WASHER, 1/4	
20	77133270	1	CLAMP SET	
21	77133395	2	CLAMP SET	
22	77133177	2	HEX HD CAPSCREW, 5/16-18X1-3/8	
23	77133140	2	COVER PLATE	

# SECTION 8 - HYDRAULIC CIRCUITS

FIGURE 8-5. SERVICE/PARKING BRAKE, (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)





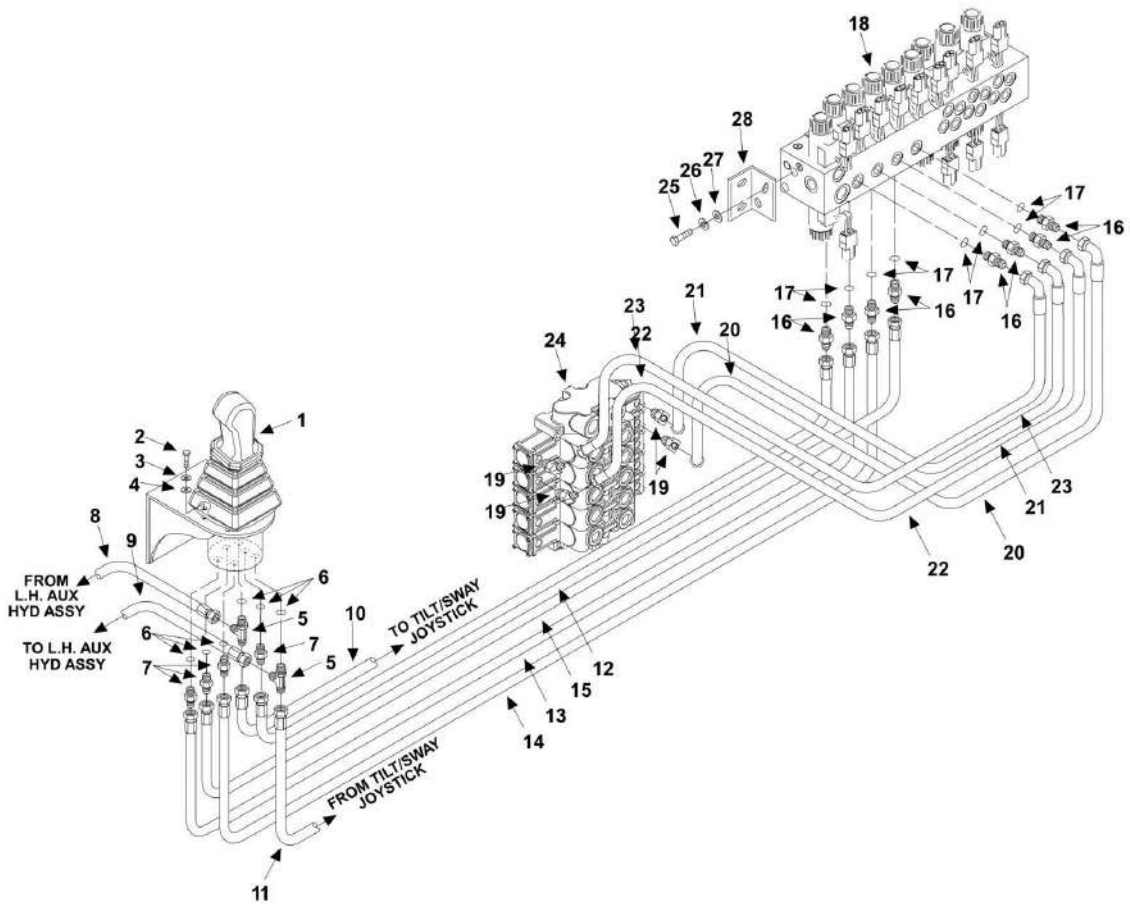
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-5. SERVICE/PARKING BRAKE, (SN 0160000170 to Present, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	PRIORITY VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662139	1	RUN TEE, (includes item 3)	
3	88591204	2	O-RING	
4	91143172	1	TEST COUPLING	
5	91473067	1	TUBE ASSY	
6	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
7	84719630	1	HOSE ASSY	
8	84719836	1	HOSE ASSY	
9	91083222	1	ELBOW, 90	
10		Ref	REMOTE BRAKE VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11	88662064	1	ELBOW, 90, (includes item 3)	
12	91473134	1	HOSE ASSY	
13	88201005	1	HEX HD CAPSCREW, 1/4-20X1, GR5	
14	88561002	1	FLAT WASHER, 1/4	
15	77133270	1	CLAMP SET	
16		Ref	BRAKE ASSY, (See CONTROLS SECTION for Breakdown)	
17		Ref	FRONT AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	
18	88662534	1	BRANCH TEE, (includes item 28)	
19	91503135	1	HOSE ASSY	
20	84719983	1	HOSE ASSY	
21	86683122	AR	TIE WRAP	
22	77133209	2	HEX HD CAPSCREW, 1/4-20X1-3/8	
23	77133498	1	COVER PLATE	
24	77133497	1	CLAMP	
25		Ref	REAR AXLE ASSY, (See DRIVE TRAIN SECTION for Breakdown)	
26	84719604	NLA	HOSE ASSY (no longer available, use 84717341 for replacement)	
26	84717341	1	HOSE ASSY	
27	91503133	1	ELBOW, 90, LONG	
28	88591205	1	O-RING	
29	77133177	4	HEX HD CAPSCREW, 5/16-18X1-3/8	
30	77133140	4	COVER PLATE	
31	77133395	4	CLAMP SET	
32	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
33	88551009	2	LOCKWASHER, 1/4	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-6. BOOM JOYSTICK



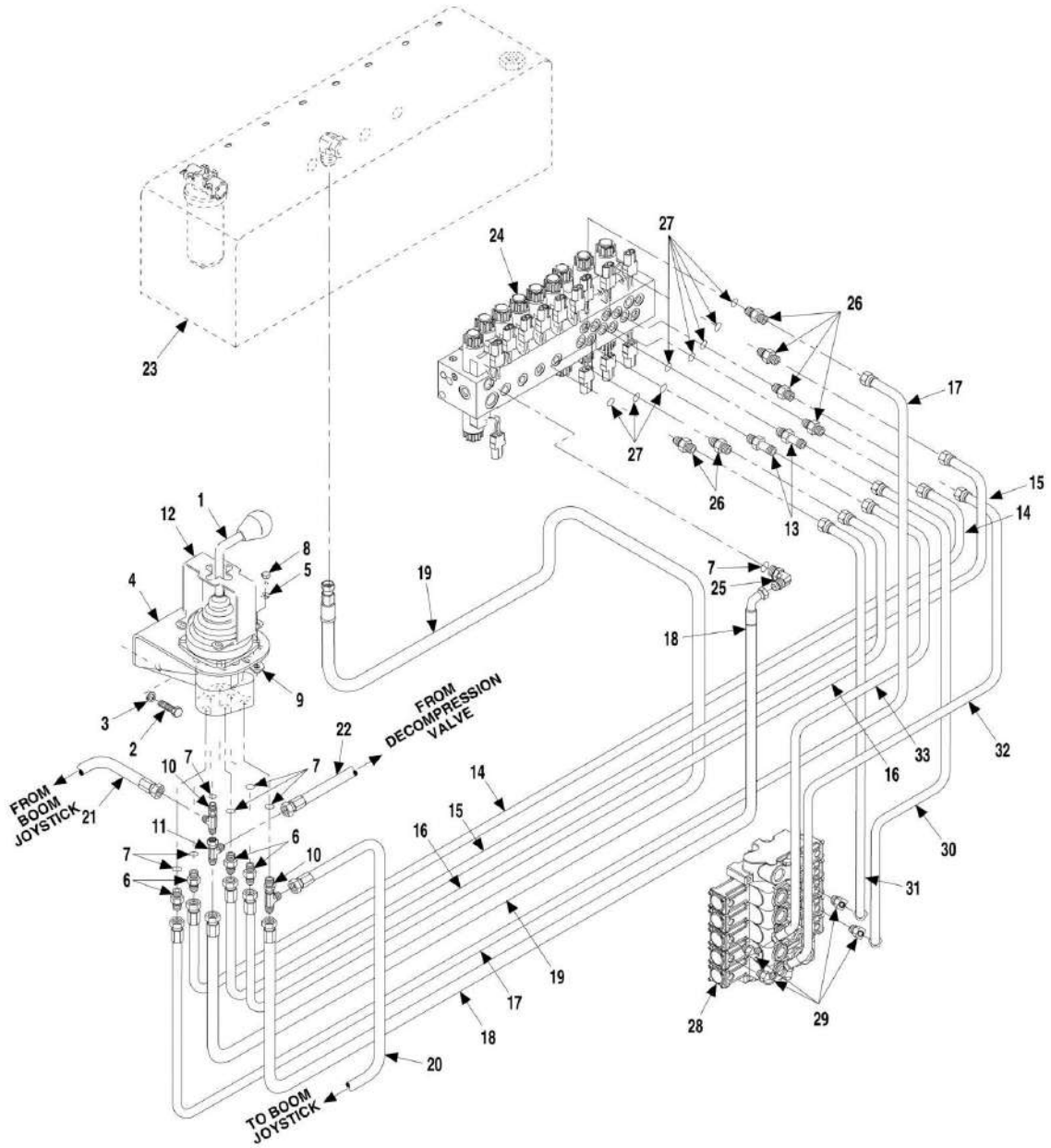
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-6. BOOM JOYSTICK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	BOOM JOYSTICK, (See CONTROLS SECTION for Breakdown)	
2	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
3	88551009	4	LOCKWASHER, 1/4	
4	88561002	4	FLAT WASHER, 1/4	
5	88662139	2	RUN TEE, (includes item 6)	
6	88591204	6	O-RING	
7	88662017	4	CONNECTOR, (includes item 6)	
8		Ref	HOSE ASSY, (See AUXILIARY JOYSTICK for Breakdown)	
9		Ref	HOSE ASSY, (See AUXILIARY JOYSTICK for Breakdown)	
10		Ref	HOSE ASSY, (See TILT/SWAY JOYSTICK for Breakdown)	
11		Ref	HOSE ASSY, (See TILT/SWAY JOYSTICK for Breakdown)	
12	84719815	1	HOSE ASSY	
13	84719813	1	HOSE ASSY	
14	84719811	1	HOSE ASSY	
15	84719809	1	HOSE ASSY	
16	88662003	8	CONNECTOR, (includes item 17)	
17	88591202	8	O-RING	
18		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
19	91503118	4	ELBOW, 45, (straight thread)	
20	84719808	1	HOSE ASSY	
21	84719812	1	HOSE ASSY	
22	84719810	1	HOSE ASSY	
23	84719814	1	HOSE ASSY	
24		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88201065	8	HEX HD CAPSCREW, 1/2-13X1, GR5	
26	88551013	8	LOCKWASHER, 1/2	
27	88561111	8	FLAT WASHER, 1/2	
28	91501040	2	PILOT BRACKET	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-7. TILT/SWAY JOYSTICK



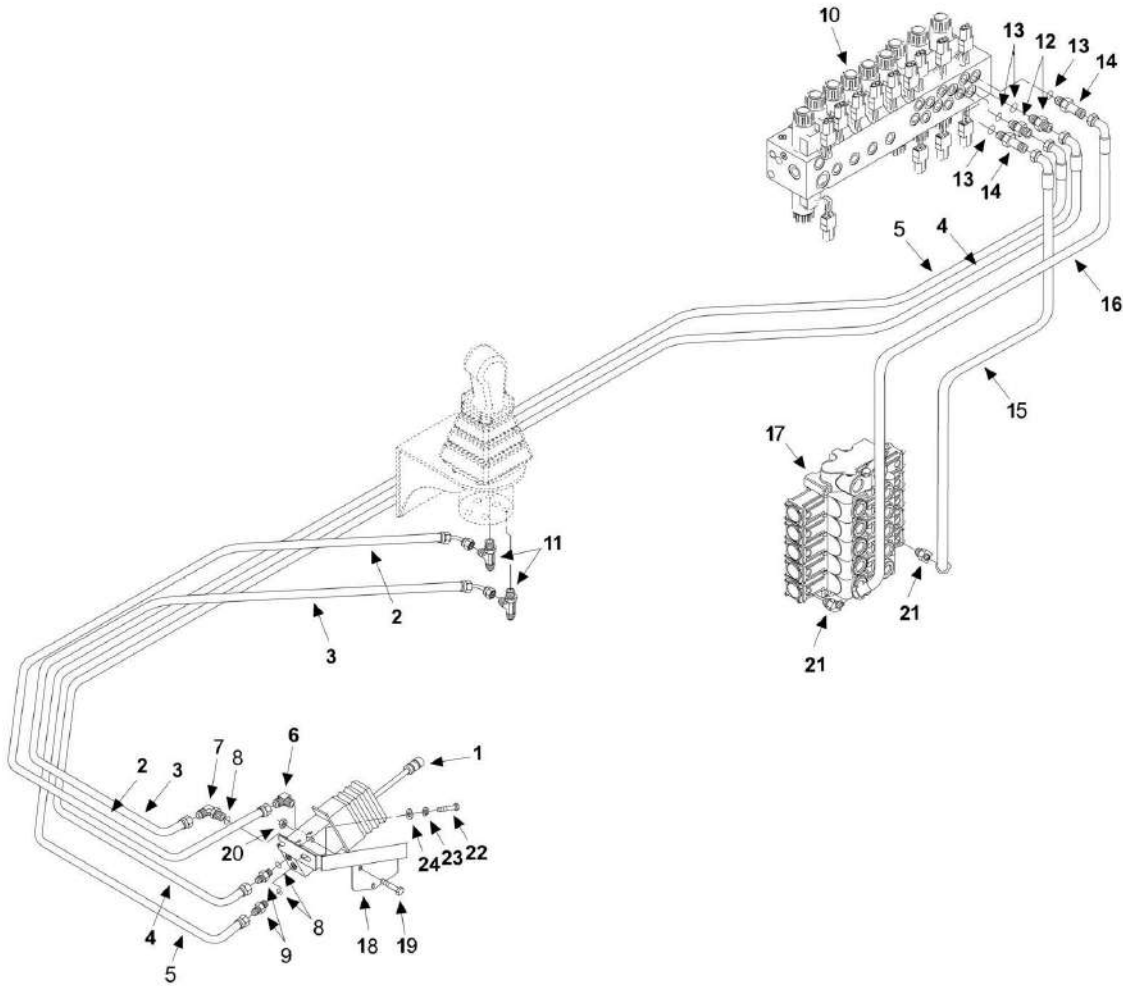
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-7. TILT/SWAY JOYSTICK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	R.H. TILT/SWAY JOYSTICK, (See CONTROLS SECTION for Breakdown)	
2	88201020	3	HEX HD CAPSCREW, 5/16-16X1, GR5	
3	88551010	3	LOCKWASHER, 5/16	
4	91416013	1	R.H. CONTROL BRACKET	
5	88551009	4	LOCKWASHER, 1/4	
6	88662017	4	CONNECTOR, (includes item 7)	
7	88591204	7	O-RING	
8	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
9	91506021	2	WELD NUT PLATE WELDMENT	
10	88662139	2	RUN TEE, (includes item 7)	
11	88662239	1	SWIVEL NUT RUN TEE, 3/8 TUBE	
12	91501075	1	R.H. CONTROL LEVER GUIDE	
13	88662033	2	CONNECTOR, (includes item 27)	
14	84719801	1	HOSE ASSY	
15	84719802	1	HOSE ASSY	
16	84719805	1	HOSE ASSY	
17	84719806	1	HOSE ASSY	
18	84719816	1	HOSE ASSY	
19	84719819	1	HOSE ASSY	
20		Ref	HOSE ASSY, (See SERVICE/PARKING BRAKE for Breakdown) <b>(SN 0192001 through 016000157)</b>	
20		Ref	HOSE ASSY, (See SERVICE/PARKING BRAKE for Breakdown) <b>(SN 016000170 to Present)</b>	
21		Ref	HOSE ASSY, (See SERVICE/PARKING BRAKE for Breakdown) <b>(SN 0192001 through 016000157)</b>	
21		Ref	HOSE ASSY, (See SERVICE/PARKING BRAKE for Breakdown) <b>(SN 016000170 to Present)</b>	
22		Ref	HOSE ASSY, (See AUXILIARY FUNCTION for Breakdown)	
23		Ref	HYDRAULIC TANK, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
24		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
25	88662064	1	ELBOW, 90, (includes item 7)	
26	88662003	6	CONNECTOR, (includes item 27)	
27	88591202	8	O-RING	
28		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
29	91503118	4	ELBOW, 45, (straight thread)	
30	84719803	1	HOSE ASSY	
31	84719807	1	HOSE ASSY	
32	84719800	1	HOSE ASSY	
33	84719804	1	HOSE ASSY	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-8. AUXILIARY JOYSTICK



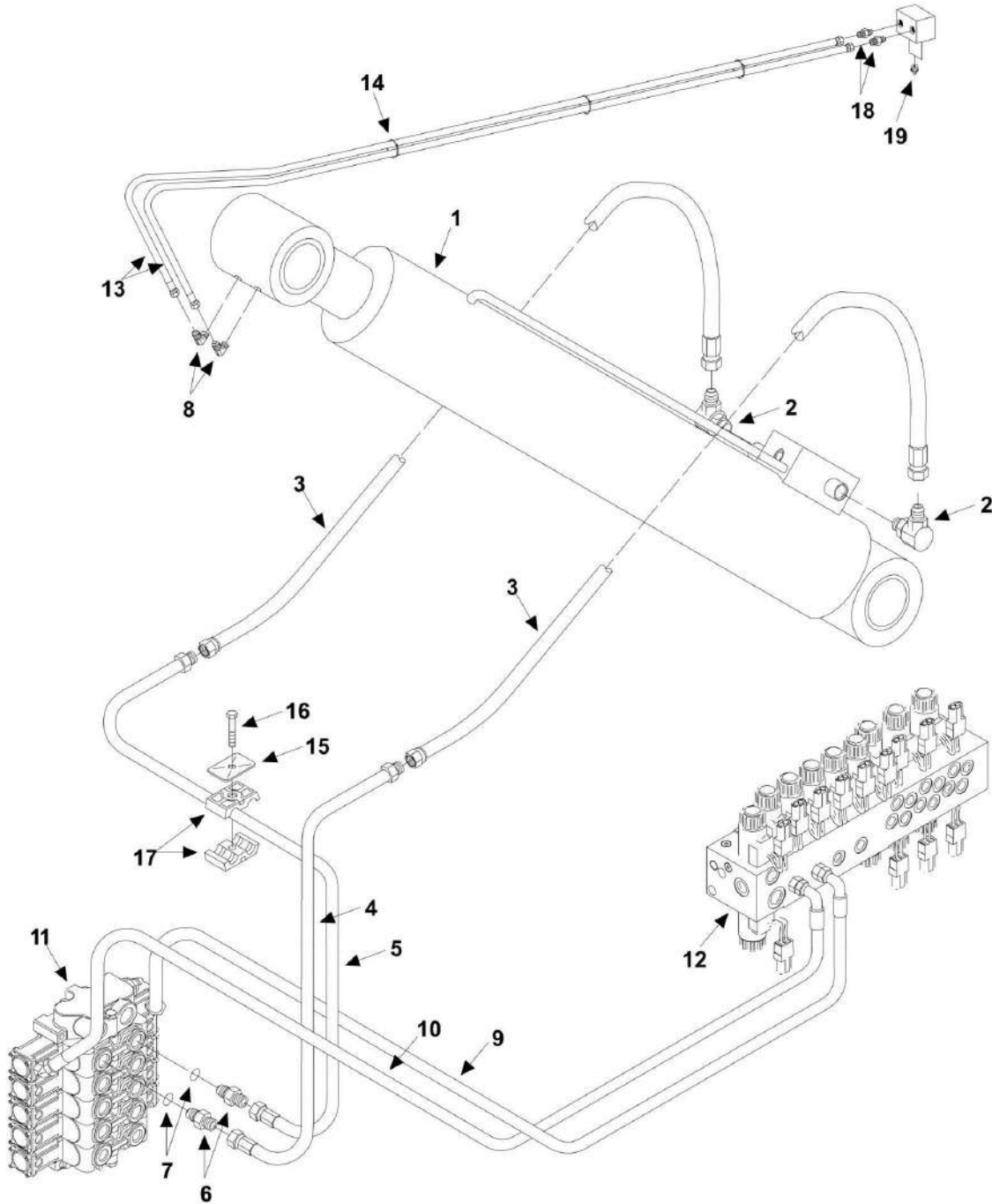
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-8. AUXILIARY JOYSTICK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	L.H. AUX JOYSTICK, (See CONTROLS SECTION for Breakdown)	
2	84719823	1	HOSE ASSY	
3	84719822	1	HOSE ASSY	
4	84719798	1	HOSE ASSY	
5	84719797	1	HOSE ASSY	
6	86971355	1	FITTING	
7	88662064	1	ELBOW, 90, (includes item 8)	
8	88591204	3	O-RING	
9	88662017	2	CONNECTOR, (includes item 8)	
10		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11		Ref	RUN TEE, (See BOOM JOYSTICK for Breakdown)	
12	88662003	2	CONNECTOR, (includes item 13)	
13	88591202	4	O-RING	
14	88662033	2	CONNECTOR, (includes item 13)	
15	84719799	1	HOSE ASSY	
16	84719796	1	HOSE ASSY	
17		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
18	91501054	1	L.H. AUX HYD BRACKET	
19	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
20	88521304	2	LOCKNUT, 1/4-20	
21	91503118	2	ELBOW, 45	
22	88201067	2	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
23	88551013	2	LOCKWASHER, 1/2	
24	88561006	2	FLAT WASHER, 1/2	

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## FIGURE 8-9. LIFT CYLINDER





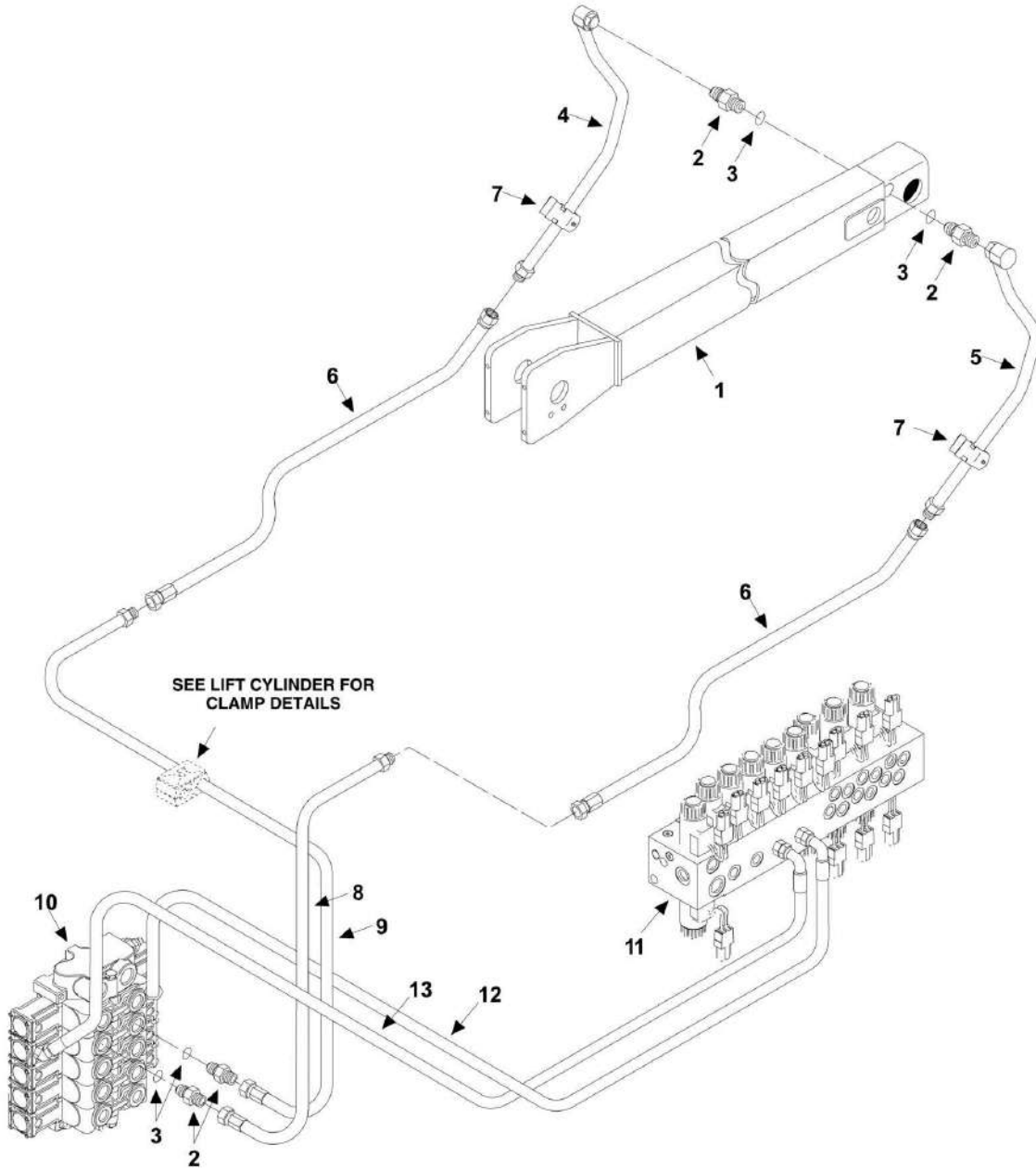
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-9. LIFT CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	LIFT CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	91413013	2	HYDRAULIC SWIVEL	
3	84719733	2	HOSE ASSY	
4	91473172	1	HYDRAULIC TUBE	
5	91473173	1	HYDRAULIC TUBE	
6	88662007	2	CONNECTOR, (includes item 7)	
7	88591206	2	O-RING	
8	88661102	2	MALE ELBOW, 90, 1/8X3/16 TUBE	
9		Ref	HOSE ASSY, (See BOOM JOYSTICK for Breakdown)	
10		Ref	HOSE ASSY, (See BOOM JOYSTICK for Breakdown)	
11		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
13	84718545	2	HOSE ASSY	
14	86883122	AR	TY-WRAP	
15	77133140	1	COVER PLATE	
16	77133177	1	HEX HD CAPSCREW, 5/16-18X1-3/8	
17	77133139	1	CLAMP SET, 5/8	
18	88661002	2	MALE CONNECTOR, 1/8X3/16 TUBE	
19	88671001	2	LUBE FITTING, STRAIGHT 1/8	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-10. CROWD CYLINDER



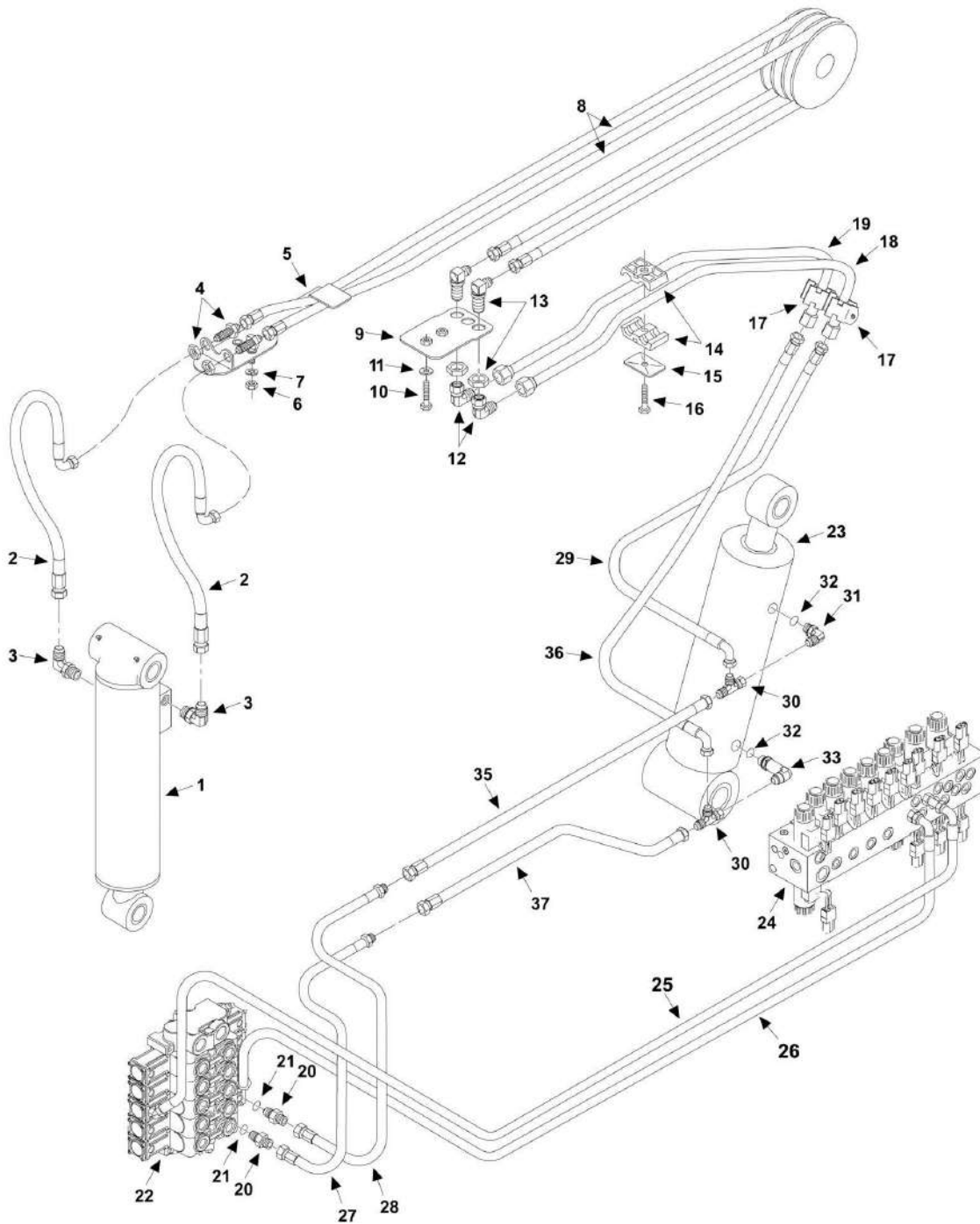
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-10. CROWD CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	CROWD CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662007	4	CONNECTOR, (includes item 3)	
3	88591206	4	O-RING	
4	91403507	1	TUBE ASSY	
5	91403506	1	TUBE ASSY	
6	84719685	2	HOSE ASSY	
7	91083217	2	CLAMP	
8	91473048	1	TUBE ASSY	
9	91473049	1	TUBE ASSY	
10		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
11		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
12		Ref	HOSE ASSY, (See BOOM JOYSTICK for Breakdown)	
13		Ref	HOSE ASSY, (See BOOM JOYSTICK for Breakdown)	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-11. TILT AND TILT COMPENSATING CYLINDER



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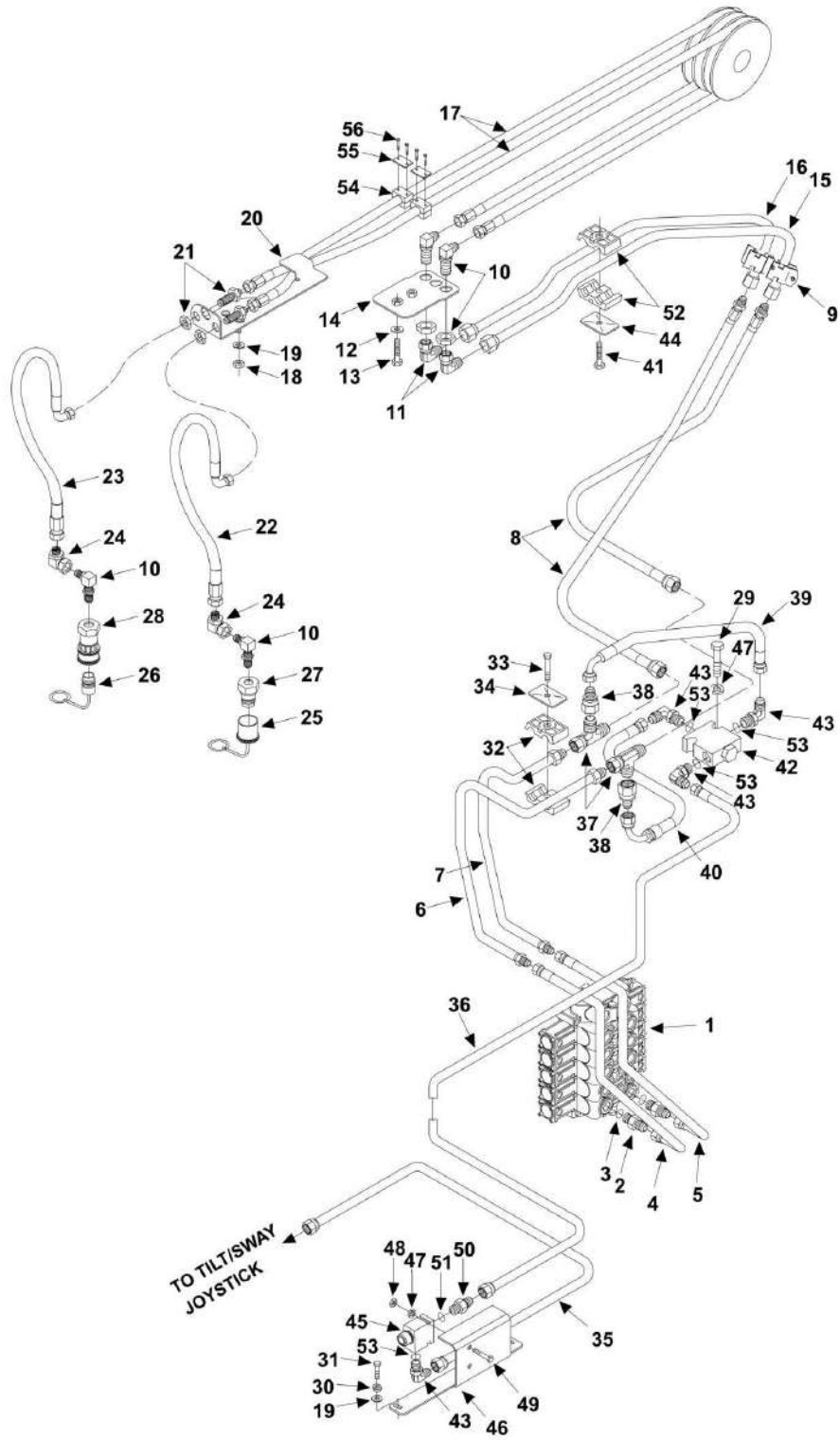
## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-11. TILT AND TILT COMPENSATING CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	TILT CYLINDER, (See ELECTRICAL SECTION for Breakdown)	
2	84717541	2	HOSE ASSY	
3	91083310	2	ELBOW, 90	
4	88661084	2	BULKHEAD UNION, 9/16-18X3/8 TUBE	
5	91406129	1	HOSE RETAINER	
6	88501006	2	HEX NUT, 3/8-16	
7	88551011	2	LOCKWASHER, 3/8	
8	84719168	2	HOSE ASSY	
9	91401344	1	HOSE BRACKET	
10	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
11	88561109	2	FLAT WASHER, 3/8	
12	91403415	2	ELBOW, 90	
13	90027179	2	ELBOW, 90, (bulkhead fitting)	
14	91213002	6	CLAMP SET	
15	77133137	6	COVER PLATE	
16	88201023	6	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
17	91083216	2	CLAMP	
18	91503019	1	TUBE ASSY	
19	91503091	1	TUBE ASSY	
20	88662019	2	CONNECTOR, (includes item 21)	
21	88591206	2	O-RING	
22		Ref	MAIN CONTROL VALVE, (See ELECTRICAL SECTION for Breakdown)	
23		Ref	COMPENSATING CYLINDER, (See ELECTRICAL SECTION for Breakdown)	
24		Ref	PILOT CONTROL VALVE, (See ELECTRICAL SECTION for Breakdown)	
25		Ref	HOSE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
26		Ref	HOSE ASSY, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
27	91473052	1	TUBE ASSY	
28	91473174	1	TUBE ASSY	
29	84719608	1	HOSE ASSY	
30	88662240	2	SWIVEL NUT RUN TEE, 1/2 TUBE	
31	88662065	1	ELBOW, 90, (includes item 32)	
32	88591205	2	O-RING	
33	2220474	1	ADAPTER, 90, (includes item 32)	
35	84719676	1	HOSE ASSY	
36	84719609	1	HOSE ASSY	
37	84719677	1	HOSE ASSY	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-12. AUXILIARY FUNCTION



ART\_91504001-8-12

## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-12. AUXILIARY FUNCTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2	88662019	2	CONNECTOR, (includes item 3)	
3	88591206	2	O-RING	
4	91473140	1	TUBE ASSY	
5	91473141	1	TUBE ASSY	
6	91473142	1	TUBE ASSY	
7	91473143	1	TUBE ASSY	
8	84719648	2	HOSE ASSY	
9	91083216	2	CLAMP, 1/2	
10	90027179	4	BULKHEAD FITTING, 90	
11	91403415	2	FITTING, 90	
12	88561109	2	FLAT WASHER, 3/8	
13	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
14	91401344	1	HOSE BRACKET	
15	91503092	1	TUBE ASSY	
16	91503022	1	TUBE ASSY	
17	84719168	2	HOSE ASSY	
18	88501006	2	HEX NUT, 3/8-16	
19	88551011	2	LOCKWASHER, 3/8	
20	91506002	1	HOSE RETAINER	
21	88661084	2	BULKHEAD UNION, 9/16-18X3/8 TUBE	
22	84719358	1	HOSE ASSY	
23	84719359	1	HOSE ASSY	
24	91403444	2	FITTING, 90	
25	91043126	1	DUST CAP	
26	91043125	1	DUST PLUG	
27	91403414	1	MALE QUICK DISCONNECT	
28	91403413	1	FEMALE QUICK DISCONNECT	
29	88201007	2	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
30	88561004	2	FLAT WASHER, 3/8	
31	88201035	2	HEX HD CAPSCREW, 3/8-16X1, GR5	
32	77133168	1	CLAMP SET, 1/2	
33	77133177	1	HEX HD CAPSCREW, 5/16-18X1-3/8, GR5	
34	77133140	1	COVER PLATE	
35	84719784	1	HOSE ASSY (Prior to SN 0160017549)	
35	2754630	1	HOSE ASSY (SN 0160017549 to Present)	
36	84719783	1	HOSE ASSY (Prior to SN 0160017549)	
36	2754629	1	HOSE ASSY (SN 0160017549 to Present)	
37	88662240	2	SWIVEL NUT RUN TEE, 1/2 TUBE	
38	88661341	2	REDUCER, 3/4-7/16	
39	84719843	1	HOSE ASSY	
40	84719842	1	HOSE ASSY	
41	88201023	6	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
42	91503094	1	DECOMPRESSION SHUTTLE VALVE	
43	90027906	4	ELBOW, 90, (includes item 53)	
44	77133137	6	COVER PLATE	
45		Ref	DECOMPRESSION VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
46	91501064	1	DECOMPRESSION PLATE	

## SECTION 8 - HYDRAULIC CIRCUITS

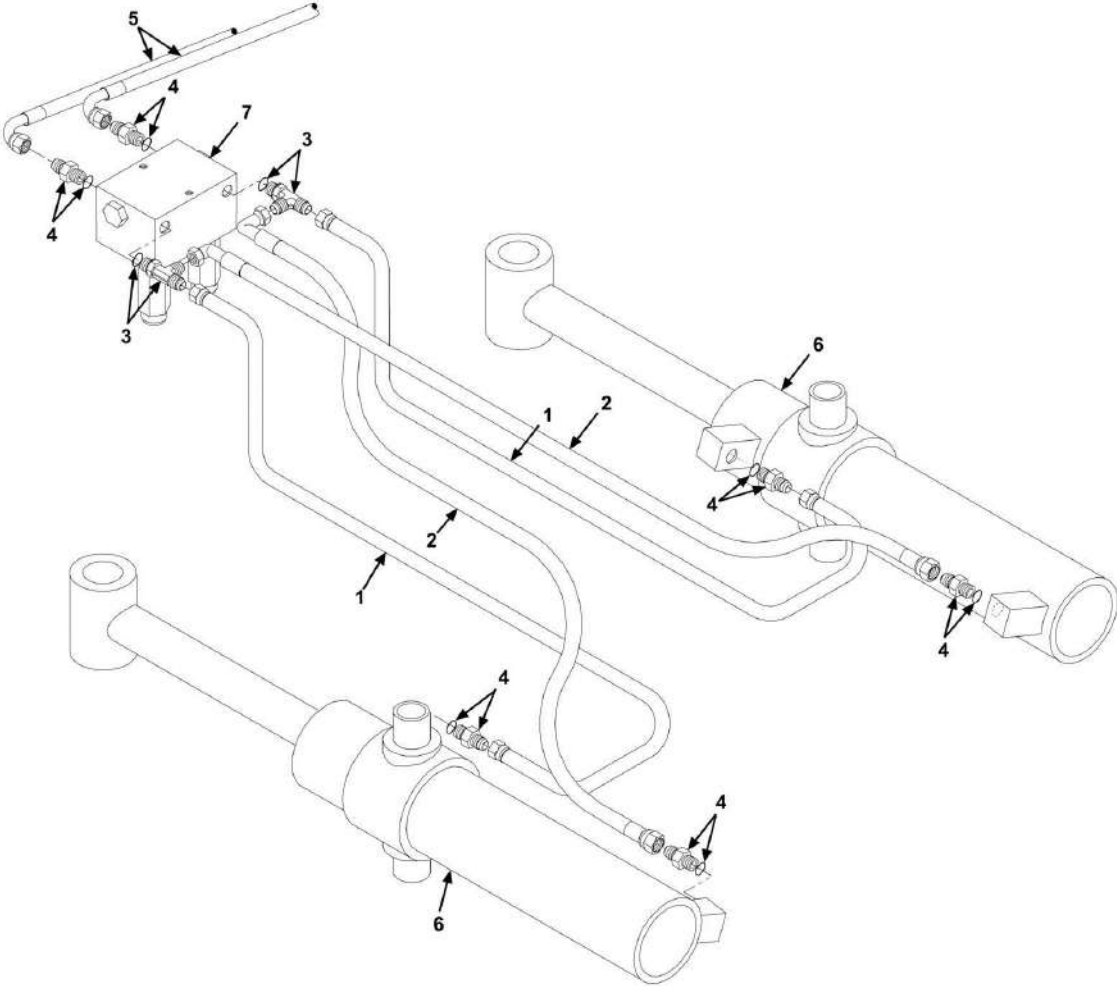
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	88551009	2	LOCKWASHER, 1/4	
48	88501004	2	HEX NUT, 1/4-20	
49	88201008	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
50	88662017	1	CONNECTOR, (includes item 51)	
51	88591204	1	O-RING	
52	91213002	6	CLAMP SET, 1/2-3/4	
53	88591202	4	O-RING	
54	91501037	4	SPECIAL CLAMP	
55	77133498	4	COVER PLATE	
56	77133499	8	HEX HD CAPSCREW, 1/4-20X 1 5/16	





**SECTION 8 - HYDRAULIC CIRCUITS**

**FIGURE 8-13. PLATFORM ROTATE CYLINDERS**



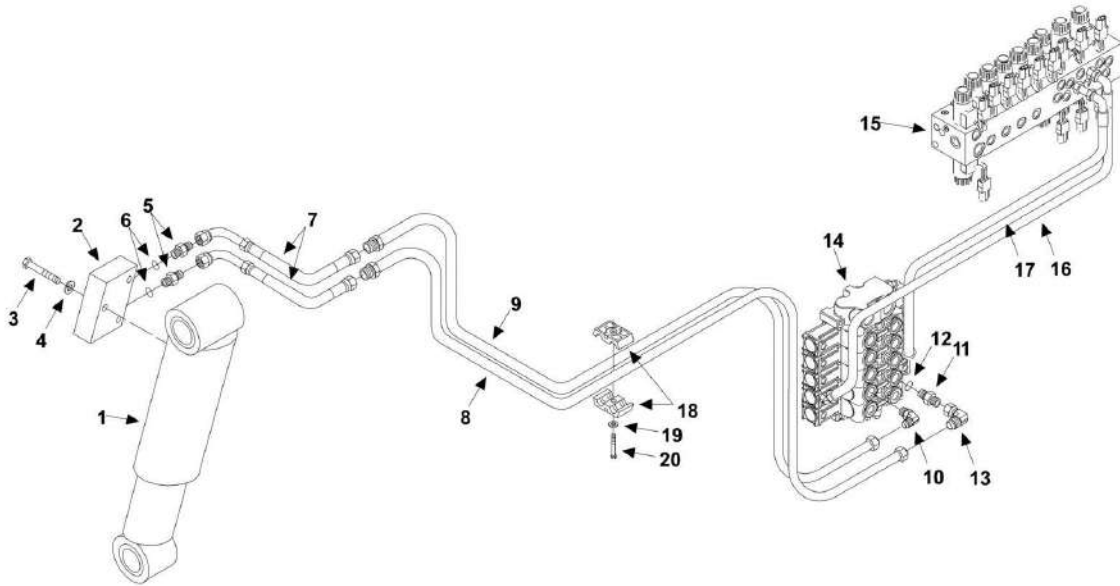
## SECTION 8 - HYDRAULIC CIRCUITS

**FIGURE 8-13. PLATFORM ROTATE CYLINDERS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	2753439	2	HOSE ASSY	
2	2753057	2	HOSE ASSY	
3	2220606	2	TEE, (includes o-ring)	
4	2220371	6	CONNECTOR, (includes o-ring)	
5	2753812	2	HOSE ASSY	
6		Ref	ROTATE CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7		Ref	DOUBLE PILOT CHECK VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	

# SECTION 8 - HYDRAULIC CIRCUITS

## FIGURE 8-14. SWAY CYLINDER



## SECTION 8 - HYDRAULIC CIRCUITS

### FIGURE 8-14. SWAY CYLINDER

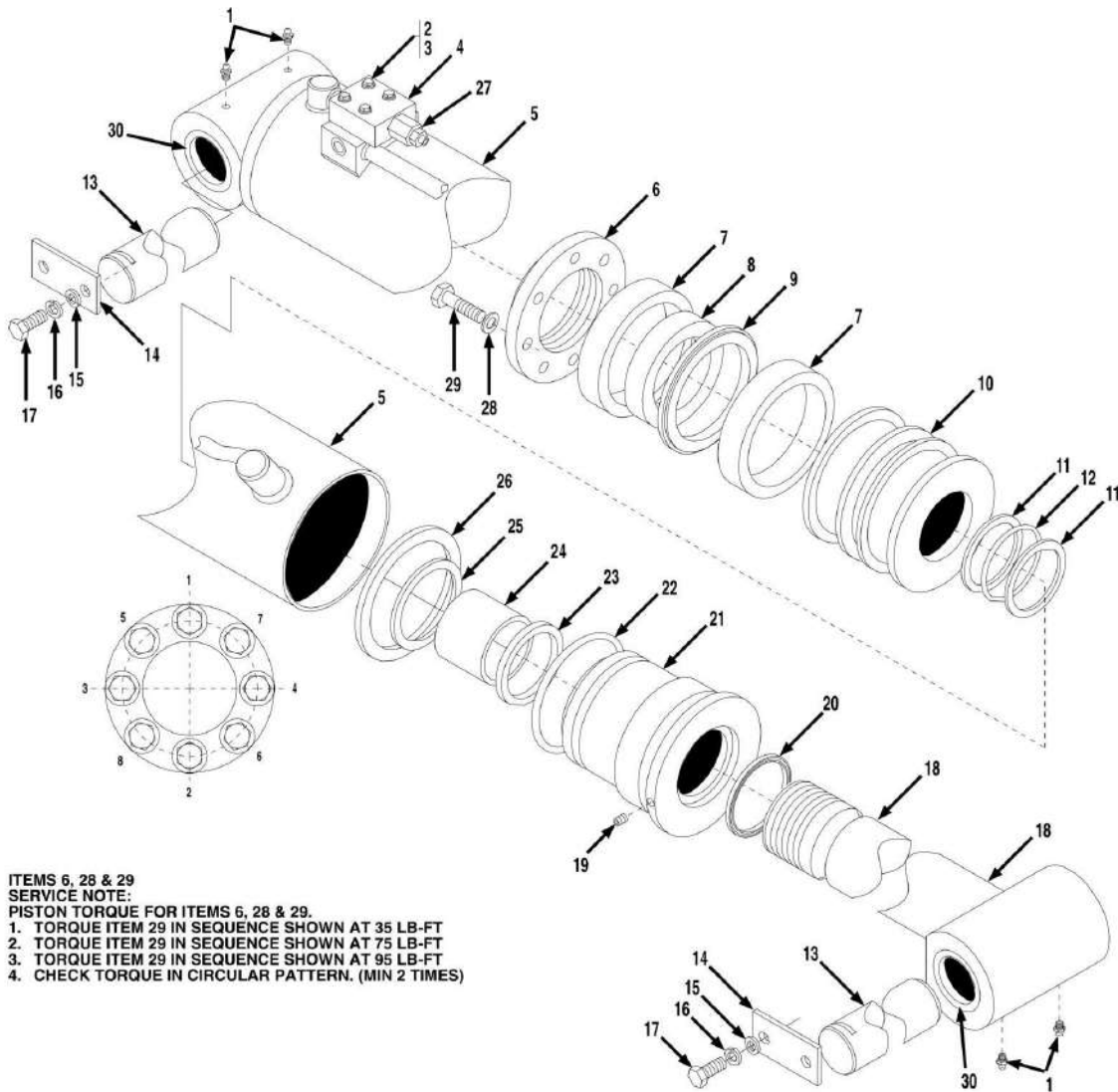
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	SWAY CYLINDER, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
2		Ref	SWAY CYLINDER VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
3	88201008	3	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5, (torque to 9-12 ft lbs)	
4	88551009	3	LOCKWASHER, 1/4	
5	88662005	2	CONNECTOR, (includes item 6)	
6	88591204	2	O-RING	
7	84719670	2	HOSE ASSY	
8	91473181	1	TUBE ASSY	
9	91473182	1	TUBE ASSY	
10	91083222	1	ELBOW, 90, (straight thread)	
11	88662018	1	CONNECTOR, (includes item 12)	
12	88591205	1	O-RING	
13	88662105	1	ELBOW, 90, (swivel nut)	
14		Ref	MAIN CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
15		Ref	PILOT CONTROL VALVE, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
16		Ref	HOSE ASSY, (See TILT/SWAY JOYSTICK for Breakdown)	
17		Ref	HOSE ASSY, (See TILT/SWAY JOYSTICK for Breakdown)	
18	77133270	3	CLAMP SET	
19	88561002	3	FLAT WASHER, 1/4	
20	88201005	3	HEX HD CAPSCREW, 1/4-20X1, GR5	



**SECTION 9 - HYDRAULIC COMPONENTS**

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-1. LIFT CYLINDER (SN 0192001 through 0192007, SN 016000052 through 0160007442)





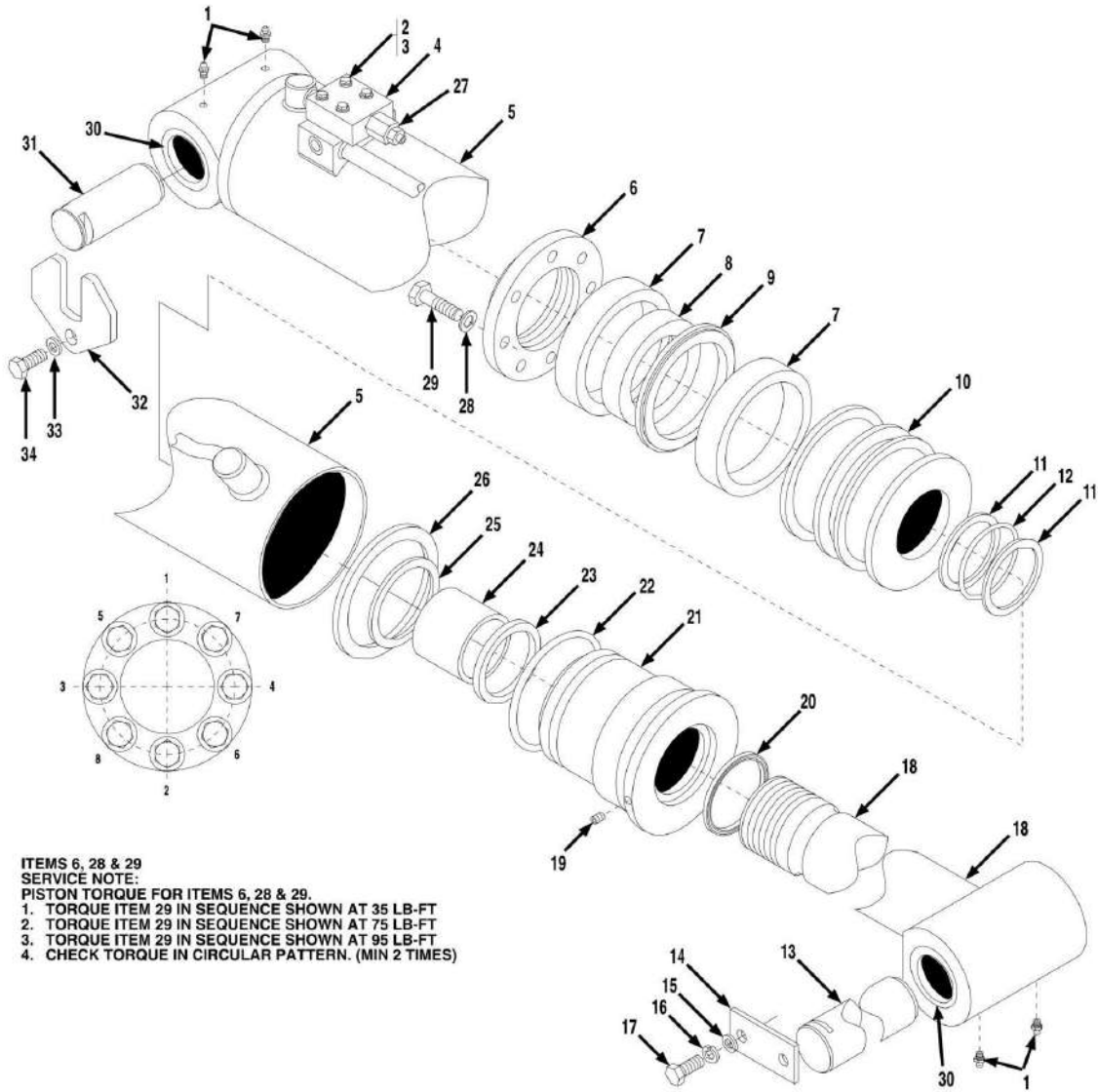
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-1. LIFT CYLINDER (SN 0192001 through 0192007, SN 016000052 through 0160007442)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503030	1	LIFT CYLINDER, (includes all items except items 13 thru 17)	
1	91144128	4	GREASE FITTING	
2	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
3	91404152	4	LOCKWASHER	
4	91404138	1	VALVE BLOCK, (includes item 27)	
5	91504006	1	CASE ASSY	
6	91404137	1	BOLT PLATE	
7	Kit	2	WEAR RING	
8	91404136	1	SPLIT RING	
9	Kit	1	PISTON SEAL	
10	91404134	1	PISTON	
11	Kit	2	BACKUP	
12	Kit	1	O-RING	
13	91403027	2	LIFT CYLINDER PIN	
14	91401189	2	KEEPER	
15	88561111	4	WASHER, 1/2	
16	88551013	4	LOCKWASHER, 1/2	
17	88201064	4	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
18	91404139	1	SHAFT ASSY	
19	91124096	1	SET SCREW, (torque to 11lb-ft)	
20	Kit	1	CANNED WIPER	
21	91504005	1	HEAD, (torque to 100 lb-ft)	
22	Kit	1	O-RING	
23	Kit	1	ROD SEAL	
24	Kit	1	WEAR RING	
25	Kit	1	STEP SEAL	
26	Kit	1	U-CUP	
27	1001109225	1	VALVE, (torque to 44 lb-ft)	
27	91404382	1	SEAL KIT	
28	91404131	8	WASHER	
29	91404151	8	CAPSCREW, (see service note for torque specifications)	
30	91404288	4	BUSHING	
	91504008	1	SEAL KIT, (includes items 7, 9, 11, 12, 20 & 22 thru 26)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-2. LIFT CYLINDER (Including 0160007897)



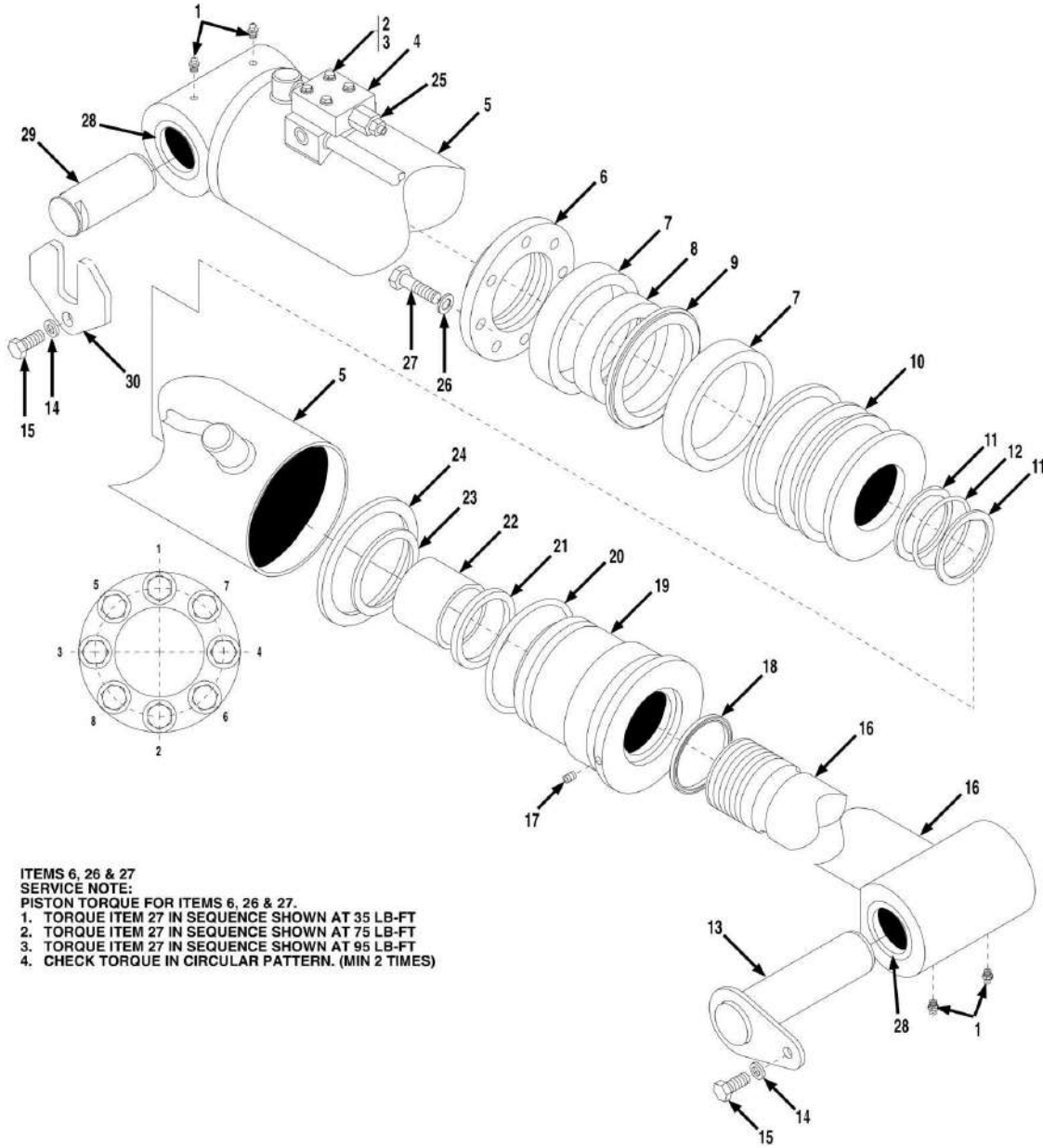
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-2. LIFT CYLINDER (Including 0160007897)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503030	1	LIFT CYLINDER, (includes all items except items 13 thru 17 & 31 thru 34)	
1	91144128	4	GREASE FITTING	
2	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
3	91404152	4	LOCKWASHER	
4	91404138	1	VALVE BLOCK, (includes item 27)	
5	91504006	1	CASE ASSY	
6	91404137	1	BOLT PLATE	
7	Kit	2	WEAR RING	
8	91404136	1	SPLIT RING	
9	Kit	1	PISTON SEAL	
10	91404134	1	PISTON	
11	Kit	2	BACKUP	
12	Kit	1	O-RING	
13	91403027	1	PIN	
14	91401189	1	KEEPER	
15	88561111	2	WASHER, 1/2	
16	88551013	2	LOCKWASHER, 1/2	
17	88201064	2	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
18	91404139	1	SHAFT ASSY	
19	91124096	1	SET SCREW, (torque to 11 lb-ft)	
20	91514032	1	CANNED WIPER	
21	91504005	1	HEAD, (torque to 100 lb-ft)	
22	Kit	1	O-RING	
23	Kit	1	ROD SEAL	
24	Kit	1	WEAR RING	
25	Kit	1	STEP SEAL	
26	Kit	1	U-CUP	
27	1001109225	1	VALVE, (torque to 44 lb-ft)	
27	91404382	1	SEAL KIT	
28	91404131	8	WASHER	
29	91404151	8	CAPSCREW, (see service note for torque specifications)	
30	91404288	4	BUSHING	
31	91473233	1	PIN	
32	91471240	1	KEEPER PLATE	
33	4891800	1	HARD WASHER, 1/2	
34	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, (torque to 100-110 lb-ft)	
	91504008	1	SEAL KIT, (includes items 7, 9, 11, 12, 20 & 22 thru 26)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-3. LIFT CYLINDER (SN 0160008040 through 0160009242)



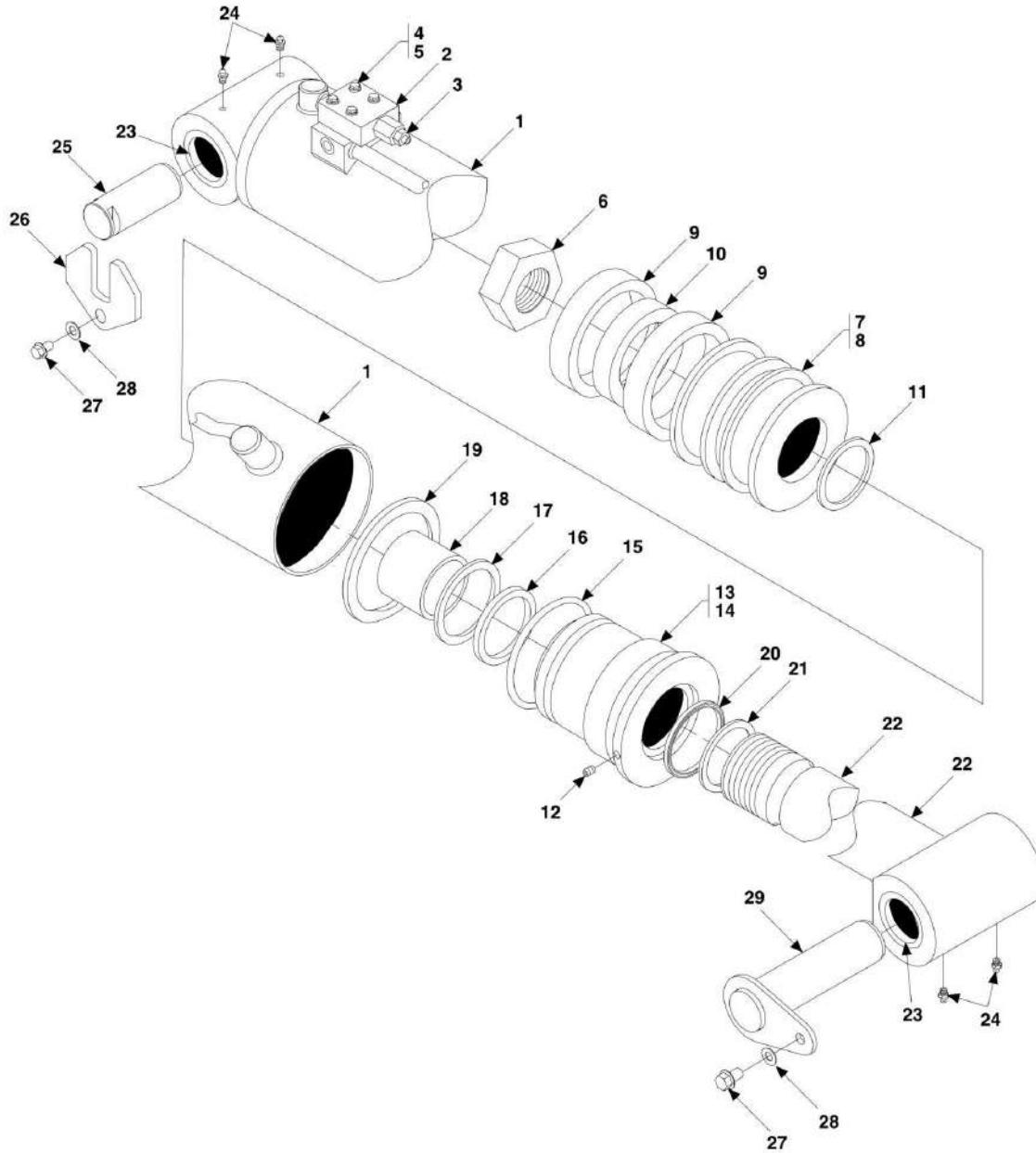
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-3. LIFT CYLINDER (SN 0160008040 through 0160009242)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503030	1	LIFT CYLINDER, (includes all items except items 13, 14, 15, 29 & 30)	
1	91144128	4	GREASE FITTING	
2	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
3	91404152	4	LOCKWASHER	
4	91404138	1	VALVE BLOCK, (includes item 27)	
5	91504006	1	CASE ASSY	
6	91404137	1	BOLT PLATE	
7	Kit	2	WEAR RING	
8	91404136	1	SPLIT RING	
9	Kit	1	PISTON SEAL	
10	91404134	1	PISTON	
11	Kit	2	BACKUP	
12	Kit	1	O-RING	
13	91473236	1	PIN	
14	1891800	2	HARD WASHER, 1/2	
15	0681810	2	HEX HD CAPSCREW, 1/2-13X1-1/4, (torque to 100-110 lb-ft)	
16	91404139	1	SHAFT ASSY	
17	91124096	1	SET SCREW, (torque to 11 lb-ft)	
18	Kit	1	CANNED WIPER	
19	91504005	1	HEAD, (torque to 100 lb-ft)	
20	Kit	1	O-RING	
21	Kit	1	ROD SEAL	
22	Kit	1	WEAR RING	
23	Kit	1	STEP SEAL	
24	Kit	1	U-CUP	
25	1001109225	1	VALVE, (torque to 44 lb-ft)	
25	91404382	1	SEAL KIT	
26	91404131	8	WASHER	
27	91404151	8	CAPSCREW, (see service note for torque specifications)	
28	91404288	4	BUSHING	
29	91473233	1	PIN	
30	91471240	1	KEEPER PLATE	
	91504008	1	SEAL KIT, (includes items 7, 9, 11, 12, 18 & 20 thru 24)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-4. LIFT CYLINDER (SN 0160010695 to Present)



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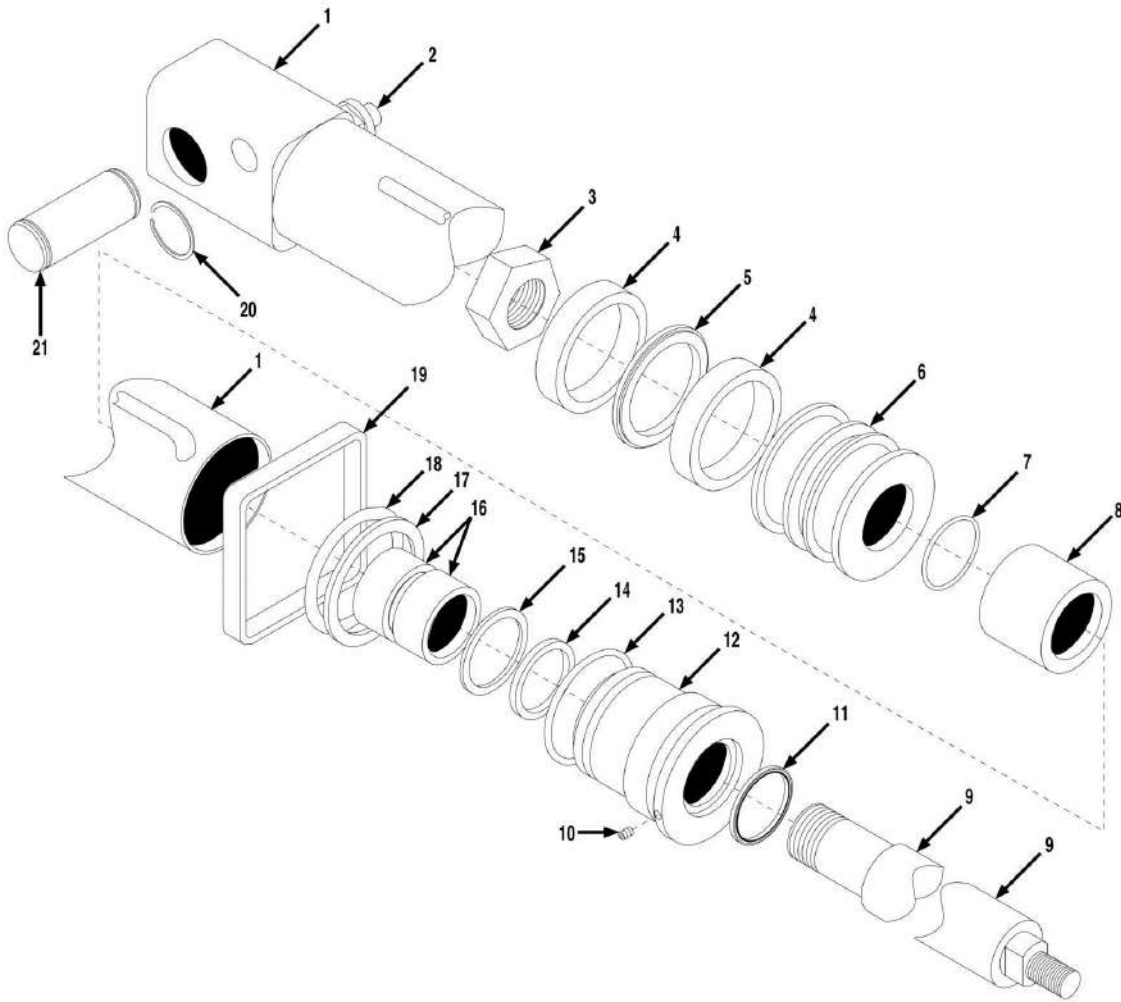
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-4. LIFT CYLINDER (SN 0160010695 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503160	1	LIFT CYLINDER, (includes items 1 thru 24)	A
1	91504006	1	CASE ASSY	
2	91404138	1	VALVE BLOCK ASSY, (includes item 3)	
3	1001109225	1	VALVE, (torque to 44 lb-ft)	
3	91404382	1	SEAL KIT	
4	91404132	4	CAPSCREW, (torque to 10-12 lb-ft)	
5	91404152	4	LOCKWASHER	
6	91034153	1	LOCKNUT	
7	91414065	1	PISTON ASSY, (includes items 8 thru 11)	
8	91414066	1	PISTON	
9	Kit	2	WEAR RING	
10	Kit	1	CAP SEAL	
11	Kit	1	O-RING	
12	91124096	1	SET SCREW	
13	91504118	1	HEAD ASSY, (includes items 14 thru 20)	
14	91504005	1	HEAD	
15	Kit	1	O-RING	
16	Kit	1	ROD SEAL	
17	Kit	1	STEP SEAL	
18	Kit	1	WEAR RING	
19	Kit	1	U-CUP	
20	Kit	1	CANNED WIPER	
21	7026458	1	O-RING	
22	91414068	1	SHAFT ASSY	
23	91404288	4	BUSHING	
24	91144128	4	GREASE FITTING	
25	91473233	1	LOWER LIFT CYLINDER PIN	
26	91471240	1	KEEPER PLATE	
27	0681810	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8, (torque to 100-110 lb-ft)	
28	4891800	2	HARD WASHER, 1/2	
29	91473236	NLA	UPPER LIFT CYLINDER PIN (no longer available, use 1001101703 for replacement)	
29	1001101703	1	UPPER LIFT CYLINDER PIN	
	91504119	1	SEAL KIT, (includes items 9 thru 11 & 15 thru 20)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-5. CROWD CYLINDER - IOWA





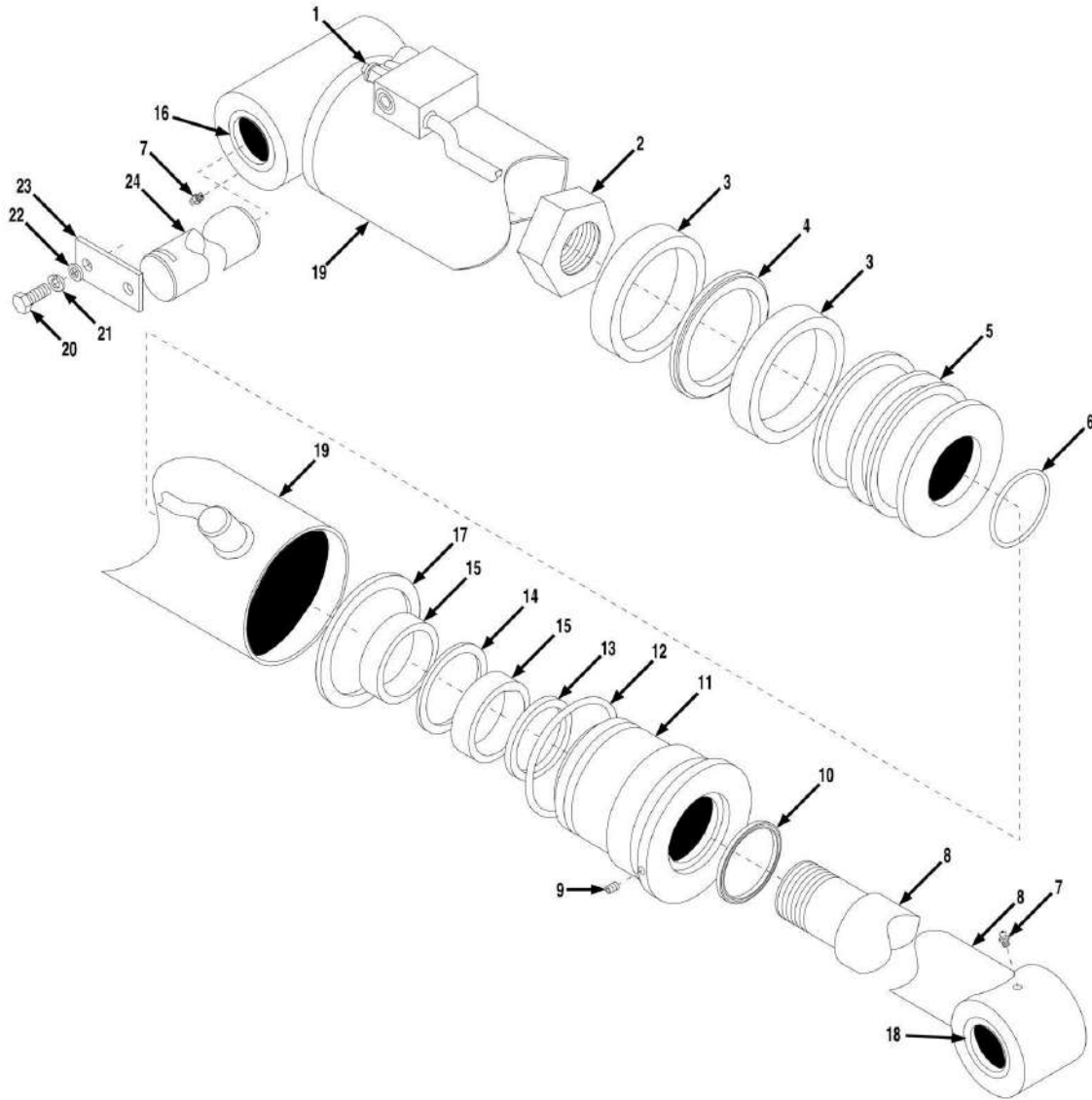
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-5. CROWD CYLINDER - IOWA

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503032	1	CROWD CYLINDER, (includes all items except items 20 & 21)	
1	91504009	1	CASE ASSY	
2	1001109225	1	VALVE, (torque to 40-45 ft lbs)	
2	91404382	1	SEAL KIT	
3	91034267	1	LOCK NUT, (torque to 600-650 ft lbs)	
4	Kit	2	WEAR RING	
5	Kit	1	PISTON SEAL	
6	70020494	1	PISTON ASSY, (includes items 4, 5 & 7)	
7	Kit	1	O-RING	
8	91404113	1	SPACER	
9	91404114	1	SHAFT	
10	91404380	1	SET SCREW, (torque to 11 ft lbs)	
11	Kit	1	CANNED WIPER	
12	70020495	1	HEAD ASSY, (includes items 11 & 13 thru 18), (torque to 100 ft lbs)	
13	Kit	1	O-RING	
14	Kit	1	U-CUP	
15	Kit	1	STEP SEAL	
16	Kit	2	WEAR RING	
17	Kit	1	BACKUP	
18	Kit	1	O-RING	
19	91404117	1	WEAR BAND	
20	88581149	2	RETAINING RING	
21	91403022	1	CROWD CYLINDER PIN	
	70020432	1	SEAL KIT, (includes items 4, 5, 7, 11 & 13 thru 18)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-6. TILT CYLINDER - IOWA



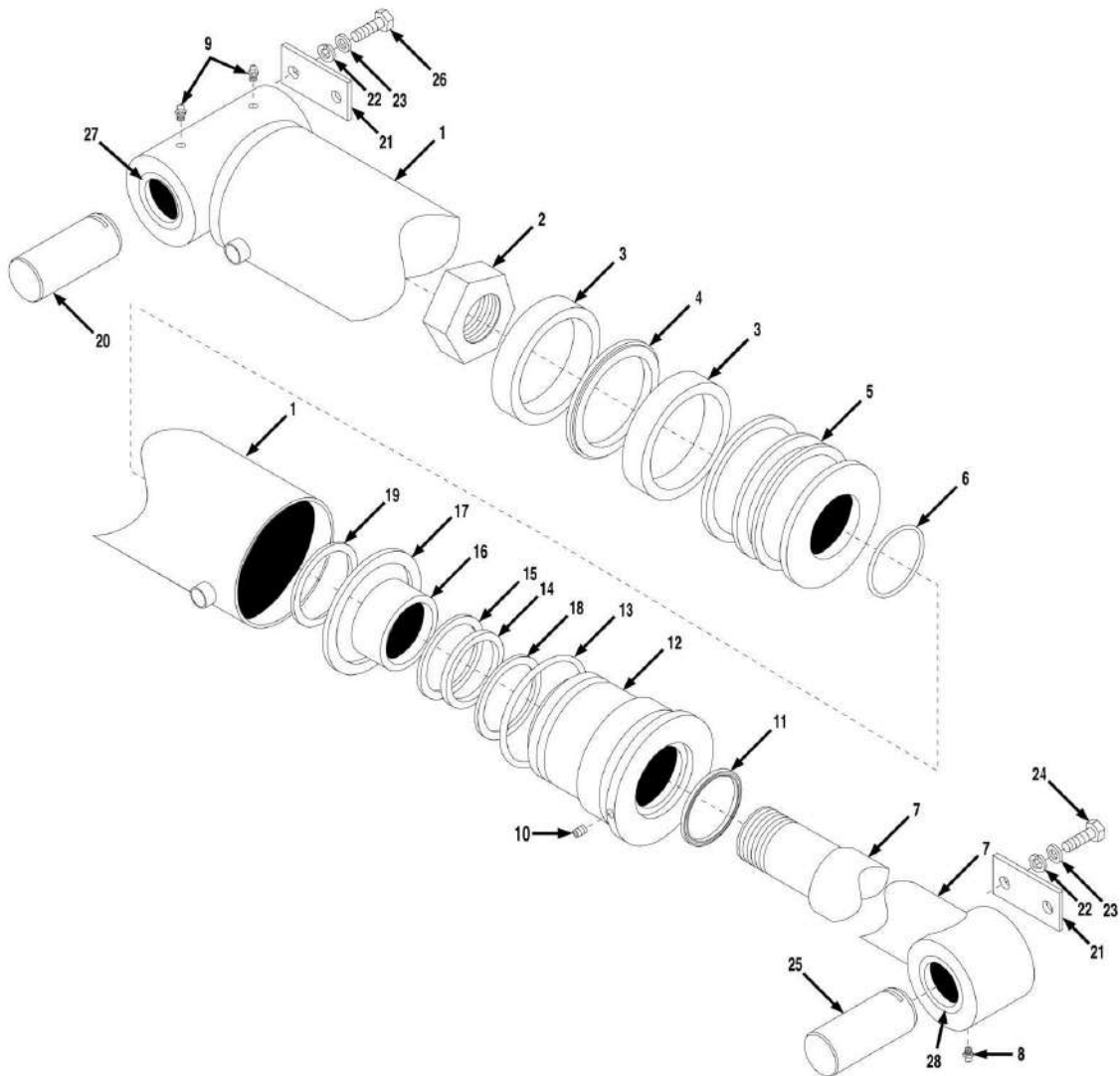
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-6. TILT CYLINDER - IOWA

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503029	1	TILT CYLINDER, (includes all items except items 20 thru 24)	
1	1001109225	1	VALVE, (torque to 45-50 ft lbs)	
1	91404382	1	SEAL KIT	
2	91034267	1	LOCK NUT, (torque to 1250-1300 ft lbs)	
3	Kit	2	WEAR RING	
4	Kit	1	PISTON SEAL	
5	91404153	1	PISTON	
6	Kit	1	O-RING	
7	91144128	3	GREASE FITTING	
8	91404156	1	SHAFT ASSY	
9	91124096	1	SET SCREW, (torque to 11 ft lbs)	
10	Kit	1	CANNED WIPER	
11	91504011	1	HEAD, (torque to 200 ft lbs)	
12	Kit	1	O-RING	
13	Kit	1	U-CUP SEAL	
14	Kit	1	STEP SEAL	
15	Kit	2	WEAR RING	
16	Kit	2	BUSHING, (manganese phosphate coating)	
17	Kit	1	U-CUP	
18	91404287	1	BUSHING, (manganese phosphate coating)	
19	91504010	1	CASE ASSY	
20	88201064	2	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
21	88551013	2	LOCKWASHER, 1/2	
22	88561111	2	WASHER, 1/2	
23	91401189	1	KEEPER	
24	91403021	1	TILT CYLINDER PIN	
	91504016	1	SEAL KIT, (includes items 3, 4, 6, 10 & 12 thru 17)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-7. COMPENSATING CYLINDER (SN 0192001 through 0192007, SN 016000052 through 0160007442)



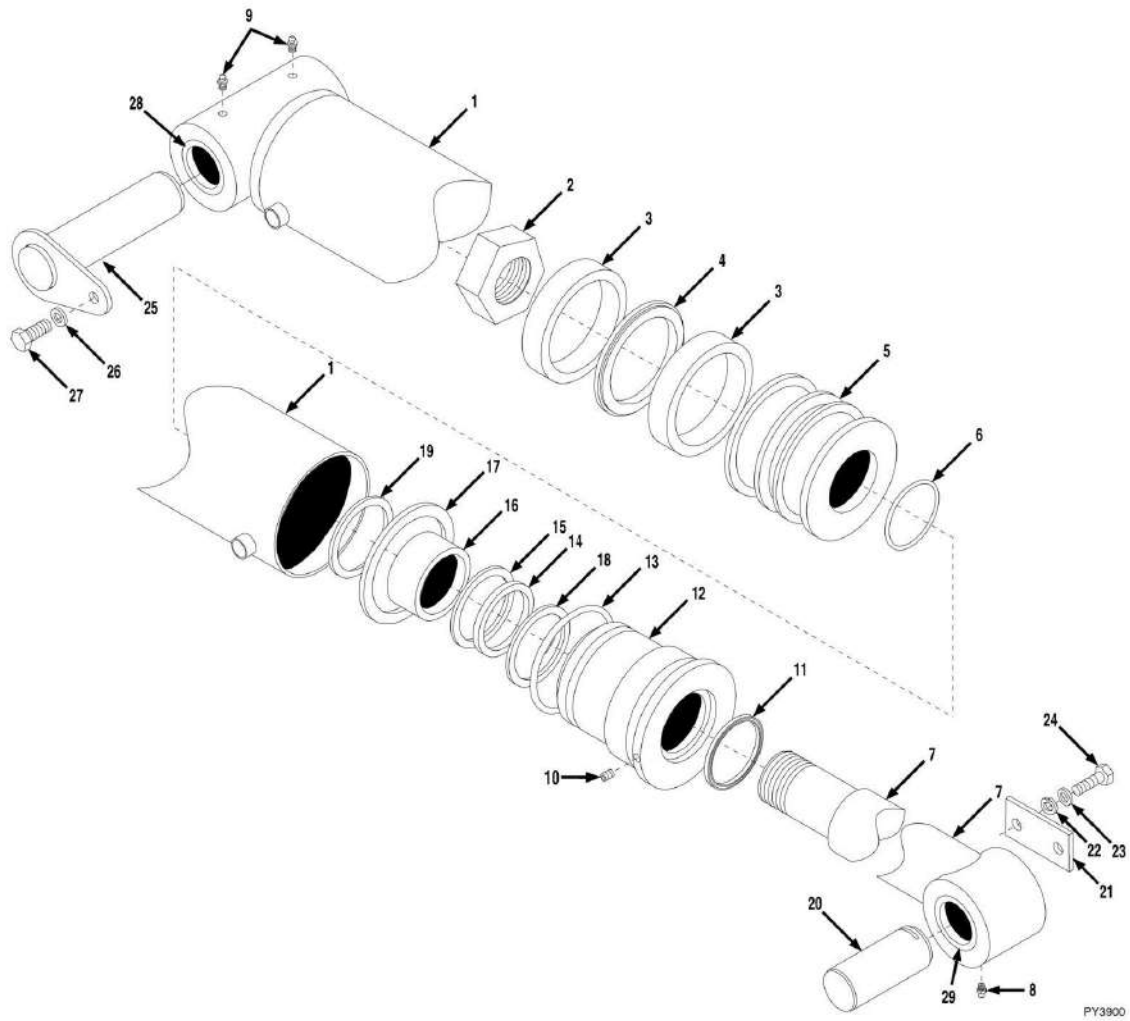
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-7. COMPENSATING CYLINDER (SN 0192001 through 0192007, SN 016000052 through 0160007442)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403585	1	COMPENSATING CYLINDER, (includes all items except 20 thru 26)	
1	91404204	1	CASE ASSY	
2	91034267	1	LOCK NUT, (torque to 1250-1300 lb-ft)	
3	Kit	2	WEAR RING	
4	Kit	1	PISTON SEAL	
5	91404153	1	PISTON	
6	Kit	1	O-RING	
7	91404205	1	SHAFT ASSY	
8	91144128	1	GREASE FITTING	
9	91404203	2	GREASE FITTING	
10	91124096	1	SET SCREW, (torque 11 lb-ft)	
11	Kit	1	CANNED WIPER	
12	91404154	1	HEAD, (torque 200 lb-ft)	
13	Kit	1	O-RING	
14	Kit	1	U-CUP SEAL	
15	Kit	1	STEP SEAL	
16	Kit	1	WEAR RING	
17	Kit	1	U-CUP	
18	Kit	1	O-RING	
19	Kit	1	RETAINING RING	
20	91403108	1	COMPENSATING CYLINDER PIN	
21	91401189	2	KEEPER	
22	88561111	4	WASHER, 1/2	
23	88551013	4	LOCKWASHER, 1/2	
24	88211105	2	SOCKET HD CAPSCREW, 1/2-13X1, GR8	
25	91403026	1	PIN	
26	88201064	2	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
27	91404286	2	BUSHING, (manganese phosphate coating)	
28	91404287	1	BUSHING, (manganese phosphate coating)	
	91404206	1	SEAL KIT, (includes items 3, 4, 6, 11 & 13 thru 19)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-8. COMPENSATING CYLINDER SN 0160007897 (Including 0160007897)



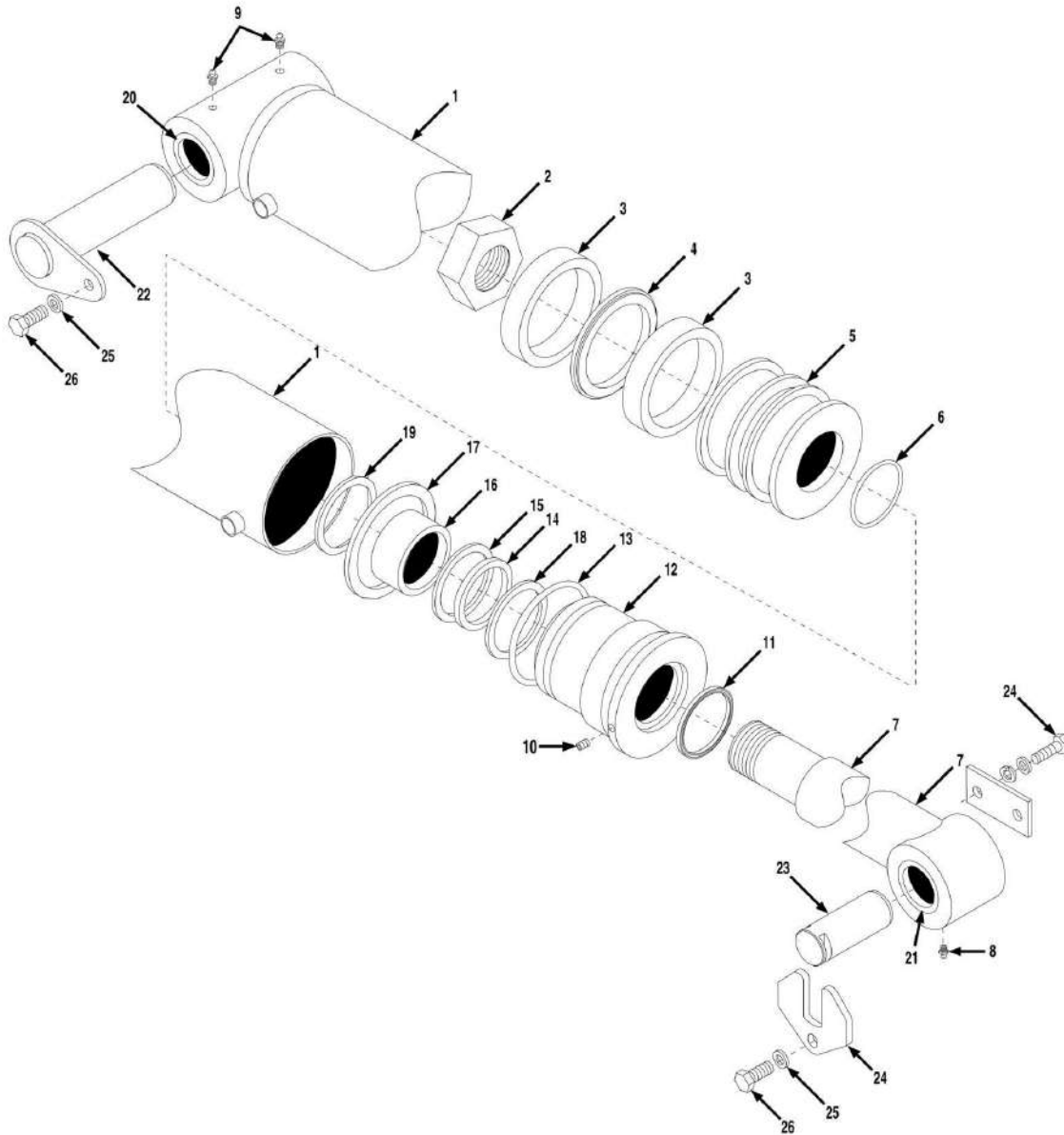
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-8. COMPENSATING CYLINDER SN 0160007897 (Including 0160007897)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403585	1	COMPENSATING CYLINDER, (includes all items except 20 thru 27)	
1	91404204	1	CASE ASSY	
2	91034267	1	LOCK NUT, (torque to 1250-1300 lb-ft)	
3	Kit	2	WEAR RING	
4		Ref	PISTON SEAL	
5	91404153	1	PISTON	
6	Kit	1	O-RING	
7	91404205	1	SHAFT ASSY	
8	91144128	1	GREASE FITTING	
9	91404203	2	GREASE FITTING	
10	91124096	1	SET SCREW, (torque 11 lb-ft)	
11		Ref	CANNED WIPER	
12	91404154	1	HEAD, (torque 200 lb-ft)	
13	Kit	1	O-RING	
14	Kit	1	U-CUP SEAL	
15	Kit	1	STEP SEAL	
16	Kit	1	WEAR RING	
17	Kit	1	U-CUP	
18	Kit	1	O-RING	
19	Kit	1	RETAINING RING	
20	91403026	1	PIN	
21	91401189	1	KEEPER	
22	88561111	2	WASHER, 1/2	
23	88551013	2	LOCKWASHER, 1/2	
24	88201064	1	HEX HD CAPSCREW, 1/2-13X7/8, GR5	
25	91473235	1	PIN	
26	4891800	1	HARD WASHER, 1/2	
27	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8, (torque to 100-110 lb-ft)	
28	91404286	2	BUSHING, (manganese phosphate coating)	
29	91404287	1	BUSHING, (manganese phosphate coating)	
	91404206	1	SEAL KIT, (includes items 3, 4, 6, 11 & 13 thru 19)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-9. COMPENSATING CYLINDER (SN 0160008040 through 0160013983, Including 0160000141)





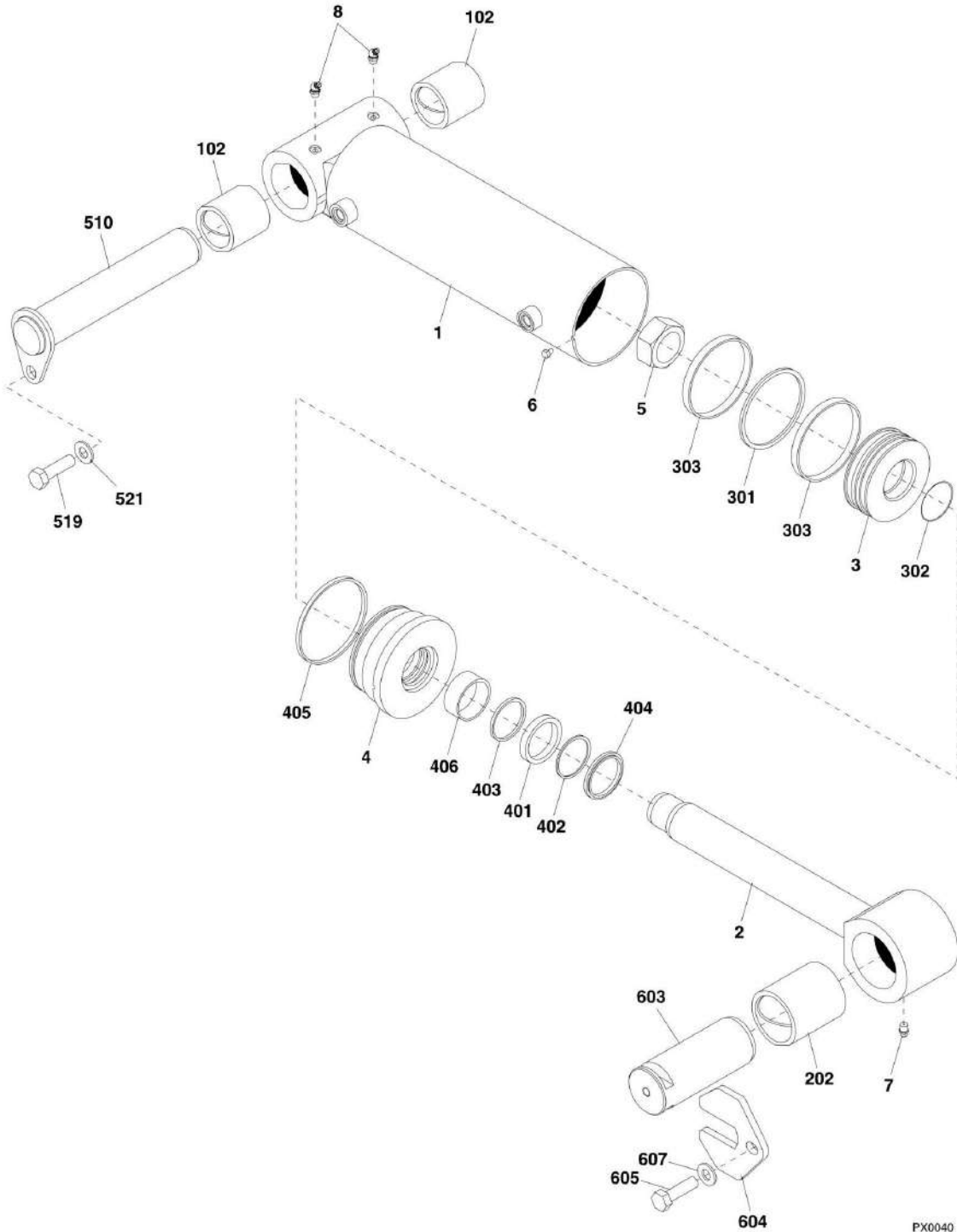
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-9. COMPENSATING CYLINDER (SN 0160008040 through 0160013983, Including 0160000141)**

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

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-10. COMPENSATING CYLINDER (SN 0160017549 to Present)



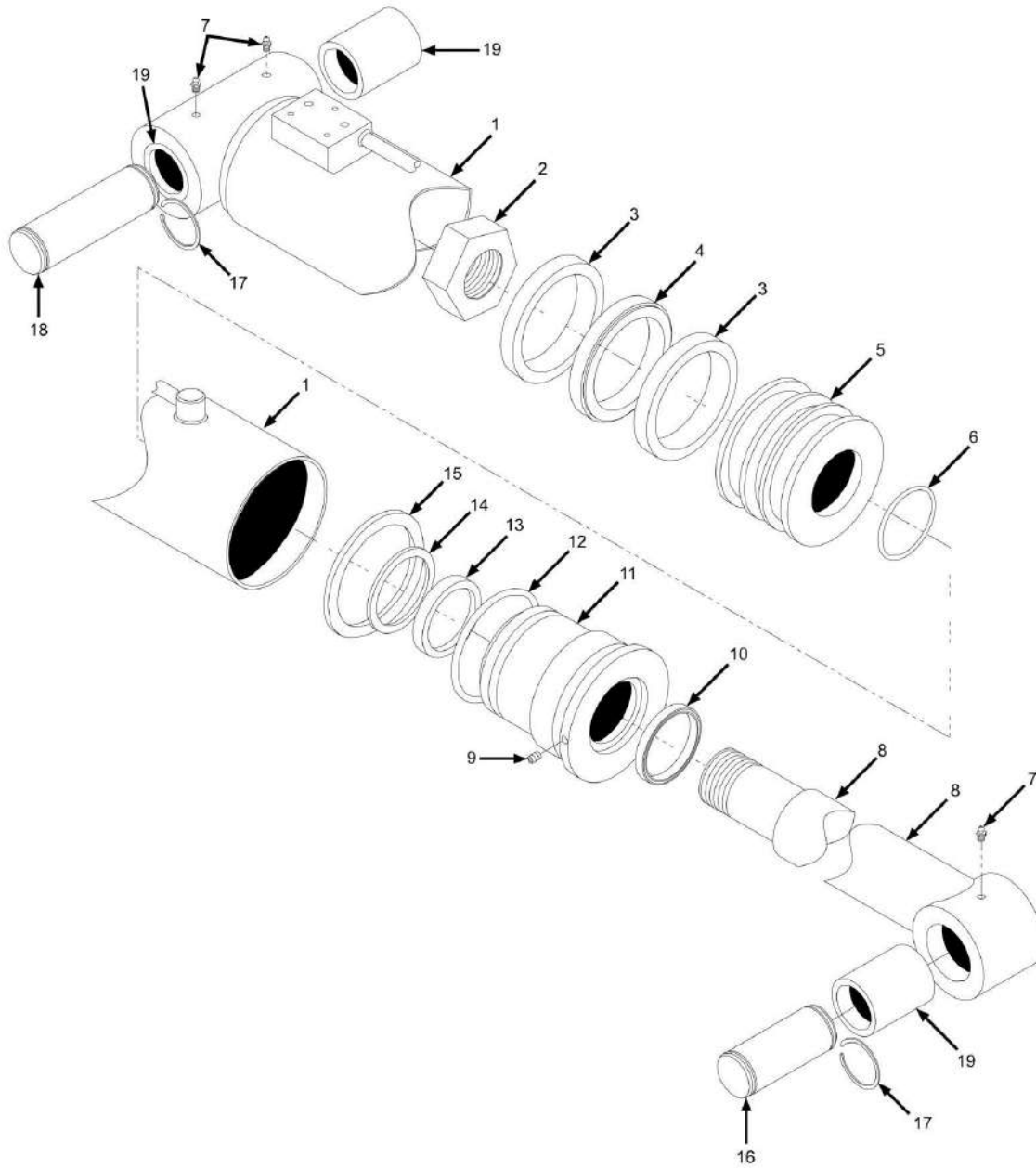
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-10. COMPENSATING CYLINDER (SN 0160017549 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91413154	1	COMPENSATING CYLINDER, (includes items 1 thru 406)	B
1	7029866	1	BARREL ASSY, (includes item 102)	
2	7029869	1	ROD ASSY, (includes item 202)	
3	7029868	1	PISTON ASSY, (includes items 301 thru 303)	
4	7029870	1	ROD BEARING ASSY, (includes items 401 thru 406)	
5	91014066	1	NUT	
6	7029760	1	CAPSCREW	
7	91044080	1	GREASE FITTING	
8	70021913	2	GREASE FITTING	
102	7029871	2	BUSHING	
202	7029872	1	BUSHING	
301	Kit	1	PISTON SEAL	
302	Kit	1	O-RING	
303	Kit	2	WEAR RING	
401	Kit	1	ROD SEAL	
402	Kit	1	BACK-UP	
403	Kit	1	BUFFER	
404	Kit	1	WIPER	
405	Kit	1	SEAL	
406	Kit	1	WEAR RING	
510	91473234	1	CYLINDER PIN	
519	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
521	4891800	1	HARD WASHER, 1/2	
603	91513282	1	CYLINDER PIN	
604	91471240	1	KEEPER PLATE	
605	0681810	1	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
607	4891800	1	HARD WASHER, 1/2	
	7029873	1	PISTON SEAL KIT, (includes items 301 thru 303)	
	7029874	1	ROD BEARING SEAL KIT, (includes items 401 thru 406)	
	7029821	1	CYLINDER SEAL KIT, (includes items 301 thru 406)	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-11. SWAY CYLINDER - IOWA



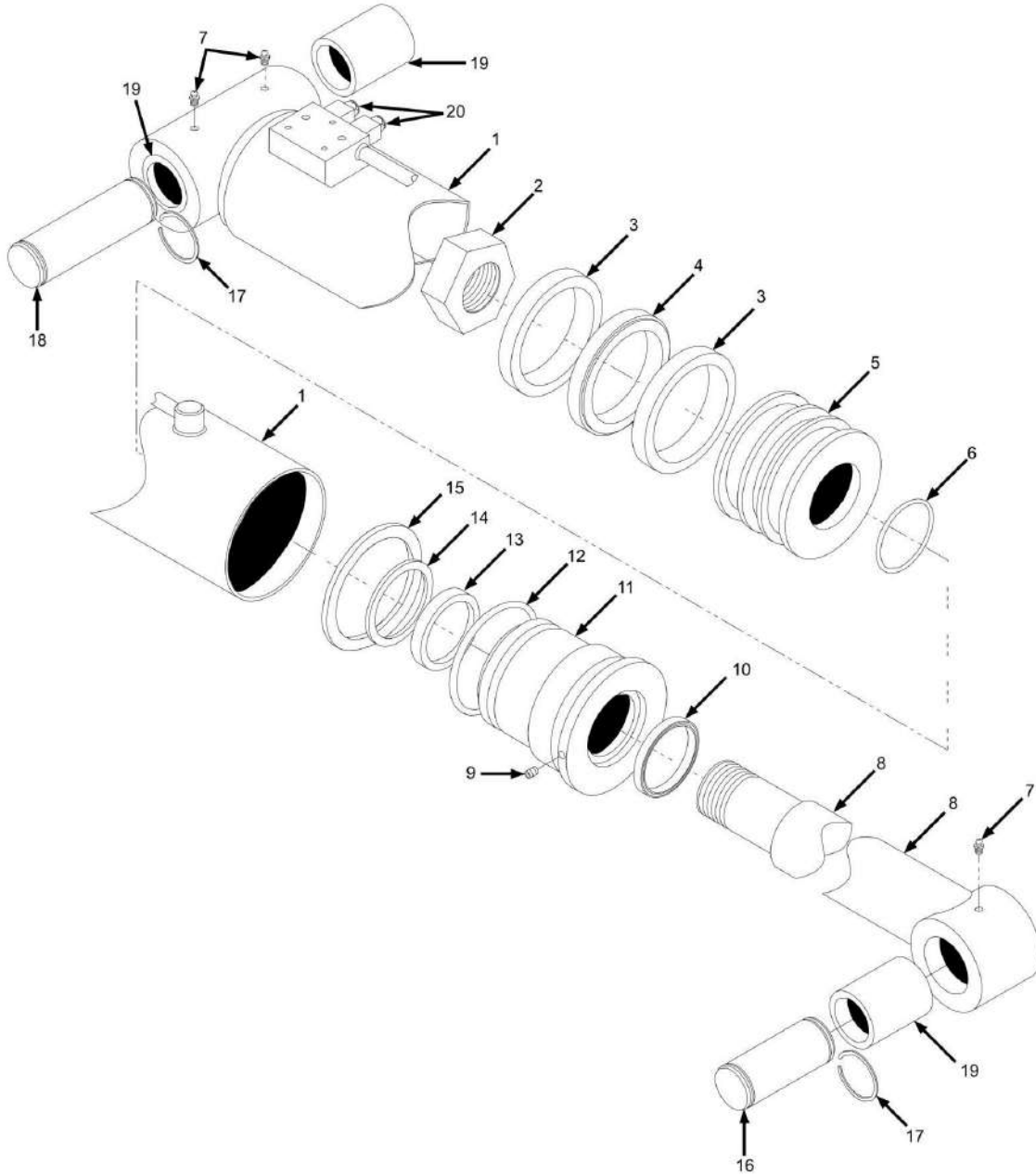
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-11. SWAY CYLINDER - IOWA

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503031	1	SWAY CYLINDER, (includes all items except 16, 17 & 18)	B
1	91504017	1	CASE ASSY	
2	91144038	1	LOCK NUT, (torque to 550-600 ft lbs)	
3	Kit	2	WEAR RING	
4	Kit	1	PISTON SEAL	
5	91404171	1	PISTON	
6	Kit	1	O-RING	
7	91144128	3	GREASE FITTING	
8	91504018	1	SHAFT ASSY	
9	91124096	1	SET SCREW, (torque 11 ft lbs)	
10	Kit	1	CANNED WIPER	
11	91404169	1	HEAD, (torque 100 ft lbs)	
12	91404176	1	O-RING	
13	Kit	1	U-CUP SEAL	
14	Kit	1	STEP SEAL	
15	Kit	1	BACKUP	
16	91403225	1	SWAY PIN	
17	90028935	4	RETAINING RING	
18	91403226	1	SWAY CYLINDER PIN	
19	91404352	3	BUSHING	
	91404172	1	SEAL KIT, (includes items 3, 4, 6, 10 & 13 thru 15)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-12. STABILIZER CYLINDER - IOWA



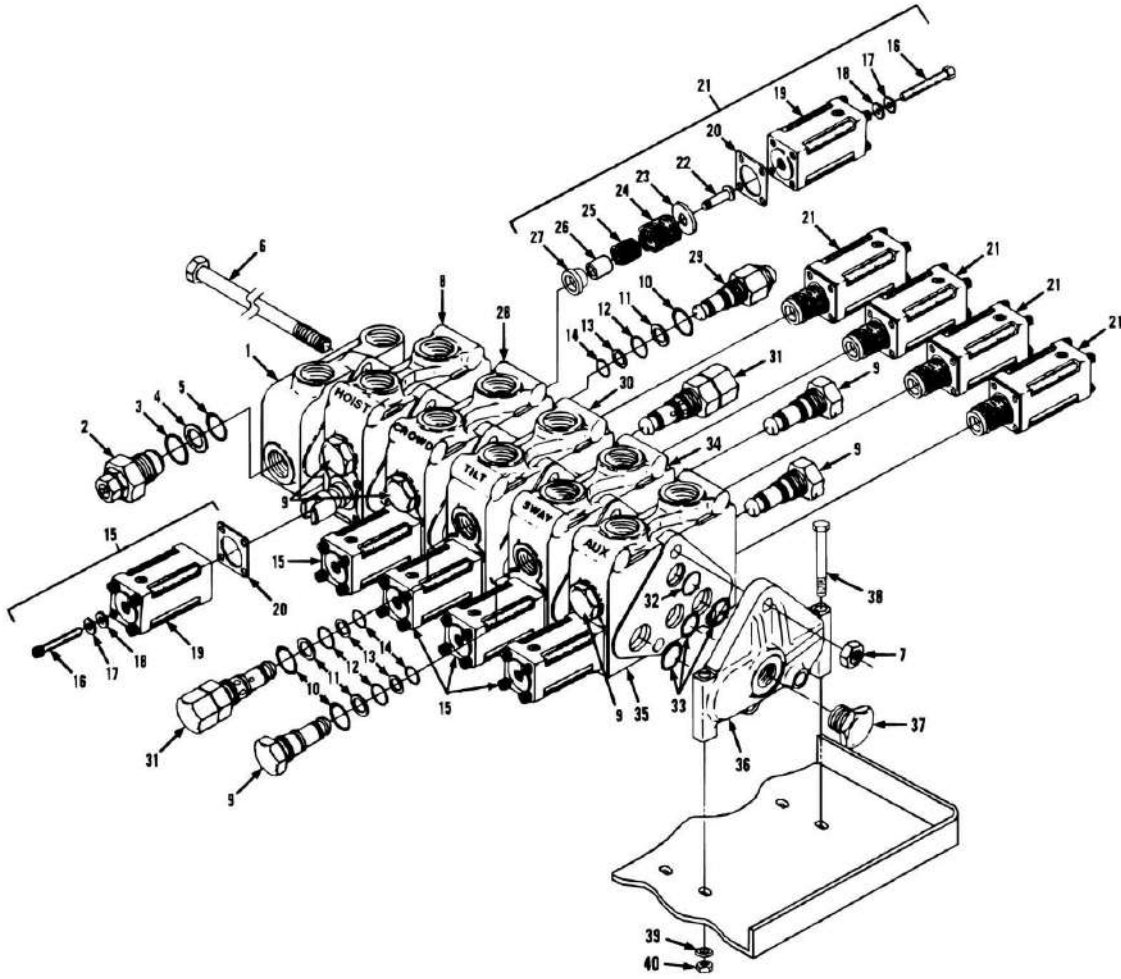
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-12. STABILIZER CYLINDER - IOWA

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503028	1	STABILIZER CYLINDER, (includes all items except 16, 17 & 18)	
1	91504019	1	CASE ASSY	
2	91144038	1	LOCK NUT, (torque to 550-600 ft lbs)	
3	Kit	2	WEAR RING	
4	Kit	1	PISTON SEAL	
5	91404171	1	PISTON	
6	Kit	1	O-RING	
7	91144128	3	GREASE FITTING	
8	91504020	1	SHAFT ASSY	
9	91124096	1	SET SCREW, (torque 11 ft lbs)	
10	Kit	1	CANNED WIPER	
11	91404169	1	HEAD, (torque 100 ft lbs)	
12	91404176	1	O-RING	
13	Kit	1	U-CUP SEAL	
14	Kit	1	STEP SEAL	
15	Kit	1	BACKUP	
16	91403225	1	SWAY PIN	
17	90028935	4	RETAINING RING	
18	91403226	1	SWAY CYLINDER PIN	
19	91404352	3	BUSHING	
20	91504021	2	SOLENOID VALVE	
	91404172	1	SEAL KIT, (includes items 3, 4, 6, 10 & 13 thru 15)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-13. MAIN CONTROL VALVE





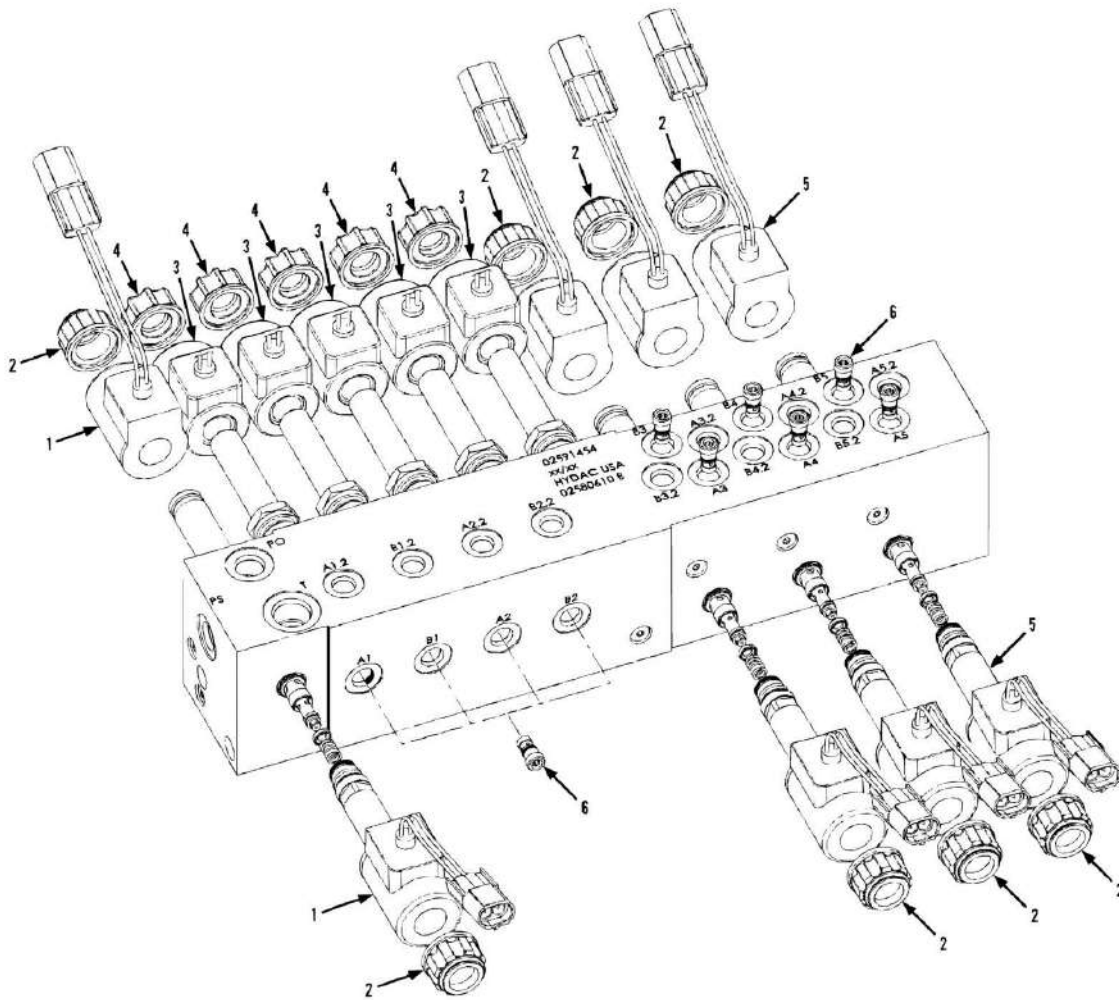
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-13. MAIN CONTROL VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503064	1	MAIN HYDRAULIC CONTROL VALVE, (includes items 1 thru 37)	
1	91084008	1	INLET COVER ASSY, (includes item 2)	
2	91084009	1	MAIN RELIEF, 4000 PSI, (includes items 3, 4 & 5)	
3	Kit	1	O-RING	
4	Kit	1	BACK UP RING	
5	Kit	1	O-RING	
6	Kit	3	HEX HD SCREW	
7	Kit	3	HEX NUT	
8	91404182	1	VALVE SECTION ASSY, (Hoist), (includes one of items 15 & 21 & two of item 9)	
9	91404183	7	LOAD CHECK PLUG, (includes items 10 thru 14)	
10	Kit	2	O-RING	
11	Kit	1	BACK UP RING	
12	Kit	1	O-RING	
13	Kit	1	O-RING	
14	Kit	2	BACK UP RING	
15	91404184	5	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20)	
16		Ref	SCREW	
17		Ref	LOCKWASHER	
18		Ref	BEARING PLATE	
19		Ref	BONNET	
20		Ref	SEAL	
21	91404185	5	HYDRAULIC REMOTE POSITIONER, (includes items 16 thru 20 & 22 thru 27)	
22		Ref	SPOOL POSITIONER	
23		Ref	WASHER	
24		Ref	SPRING, (large)	
25		Ref	SPRING, (small)	
26		Ref	STOP SLEEVE	
27		Ref	STOP COLLAR	
28	91404186	1	VALVE SECTION ASSY, (Crowd), (includes one of items 9, 15, 21 & 29)	
29	91404187	1	RELIEF CARTRIDGE, 3800 PSI, (includes items 10 thru 14)	
30	91504080	1	VALVE SECTION ASSY, (Tilt), (includes one of items 15 & 21 & two of item 31)	
31	91404189	2	RELIEF CARTRIDGE, 4300 PSI, (includes items 10 thru 14)	
32	Kit	1	O-RING	
33	Kit	3	O-RING	
34	91504081	1	VALVE SECTION ASSY, (Sway), (includes one of items 15 & 21 & two of item 9)	
35	91504082	1	VALVE SECTION ASSY, (Aux), (includes one of items 15 & 21 & two of item 9)	
36	91084278	1	OUTLET COVER ASSY, (includes item 37)	
37	91084279	1	PLUG	
38	88201028	3	HEX HD CAPSCREW, 5/16-18X3, GR5	
39	88561003	3	FLAT WASHER, 5/16	
40	88521305	3	HEX LOCKNUT, 5/16-18	
	91404178	6	VALVE SECTION SEAL KIT, (includes items 32 & 33)	
	91404179	1	MAIN RELIEF SEAL KIT, (includes items 3, 4 & 5)	
	91404177	1	STUD KIT, (includes items 6 & 7)	
	70020717	10	PLUG SEAL KIT, (includes items 10 thru 14)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-14. PILOT CONTROL VALVE



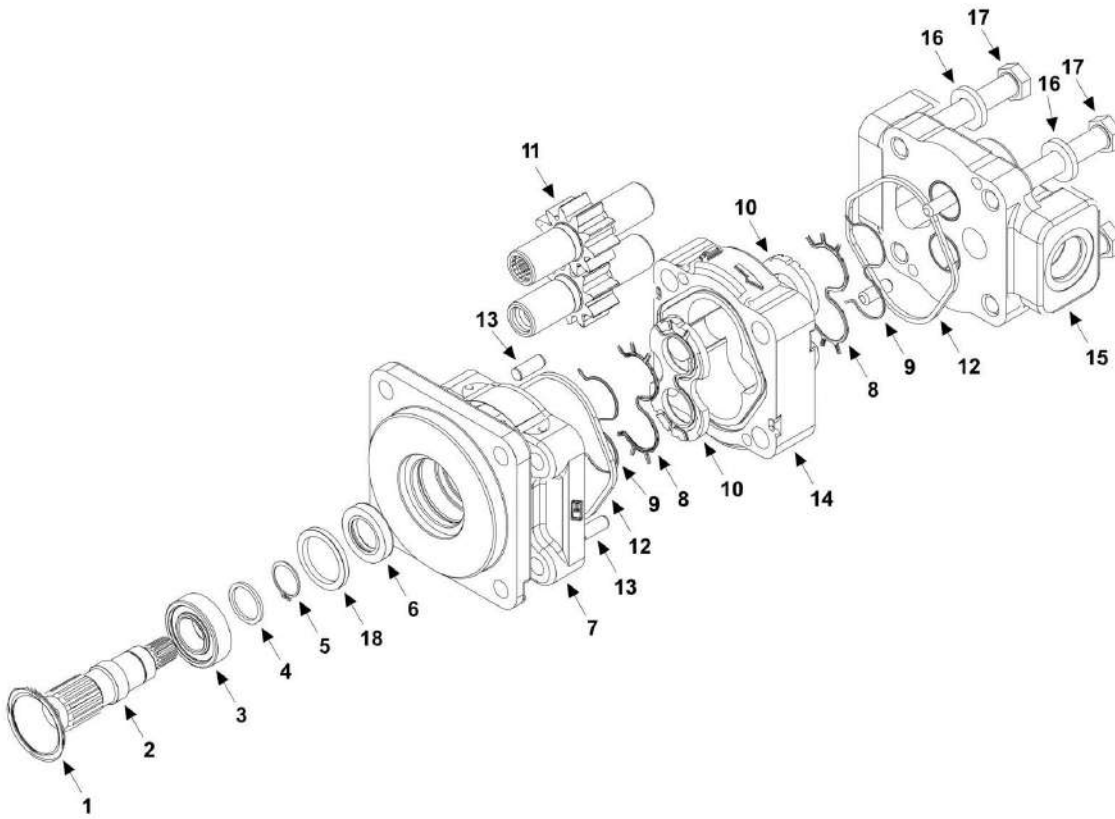
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-14. PILOT CONTROL VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503026	1	PILOT CONTROL VALVE, (includes all items)	
1	91504023	1	DIRECTIONAL SPOOL KIT, (E-spool)	
2	91504024	8	SOLENOID COIL	
3	91504022	5	PRESSURE REDUCING VALVE	
4	91504025	5	SOLENOID COIL	
5	91504026	3	DIRECTIONAL SPOOL KIT, (J-spool)	
6	91504027	10	SHUTTLE VALVE	

## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-15. IMPLEMENT PUMP (SN 0192001 through 0192007, SN 016000052 through 016000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)**



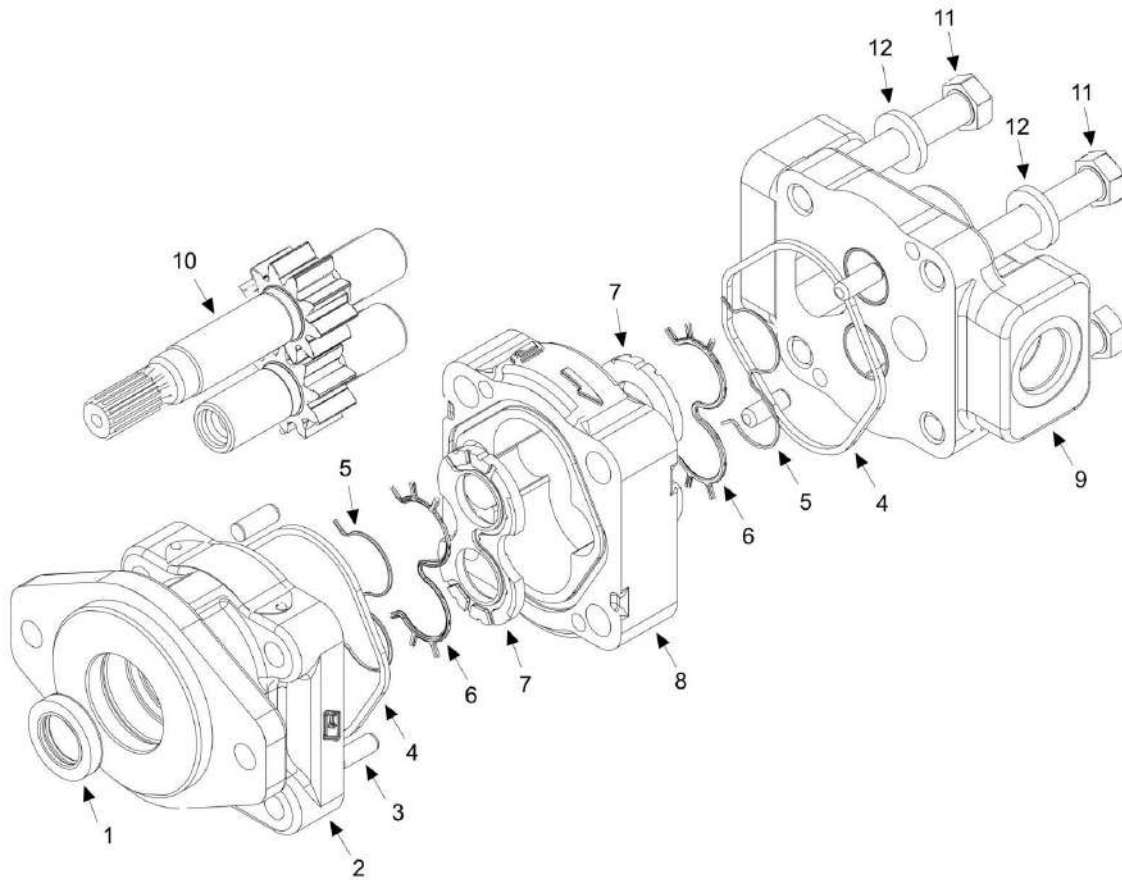
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-15. IMPLEMENT PUMP (SN 0192001 through 0192007, SN 016000052 through 0160000128, Including 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473075	1	IMPLEMENT PUMP, (includes all items)	
1	77134079	1	SNAP RING	
2	83674124	1	SHAFT	
3	7000505	1	BEARING	
4	77384004	1	BEARING RETAINER	
5	77364005	1	RETAINING RING	
6	7000478	1	SEAL	
7	83674126	1	SHAFT END COVER ASSY	
8	91474182	2	SEAL	
9	91414038	2	BACK-UP SEAL	
10	83674096	2	THRUST PLATE	
11	91474180	1	GEAR SET	
12	91474184	2	O-RING	
13	83671037	4	DOWEL PIN	
14	91474179	1	GEAR HOUSING	
15	91474178	1	PORT END COVER ASSY	
16	77134044	4	WASHER	
17	91474181	4	CAPSCREW	
18	77134081	1	SEAL RETAINER	

## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-16. IMPLEMENT PUMP (SN 0160000141 to Present, Excluding 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)



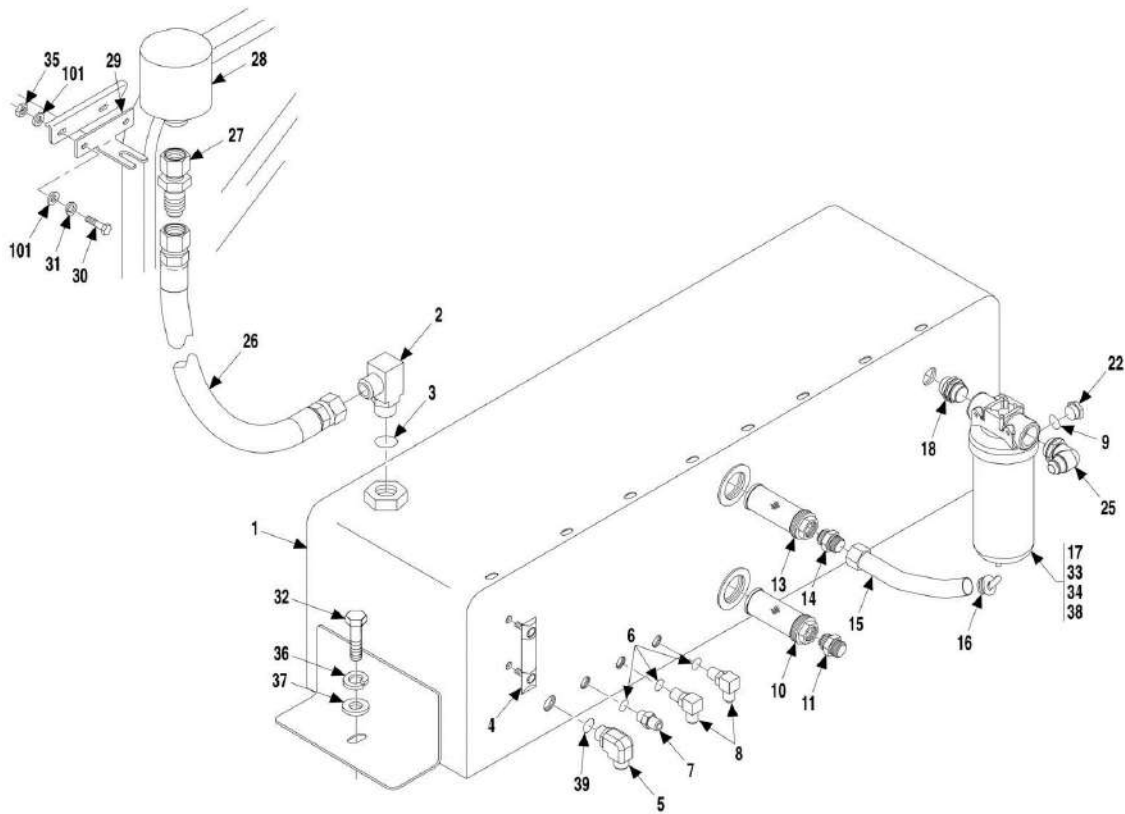
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-16. IMPLEMENT PUMP (SN 0160000141 to Present, Excluding 0160000152, 0160000157, 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473190	1	IMPLEMENT PUMP, (includes all items)	
1	77134026	1	LIP SEAL	
2	8035265	1	SHAFT END COVER ASSY	
3	83671037	4	DOWEL PIN	
4	91474184	2	O-RING	
5	91414038	2	BACK-UP SEAL	
6	91474182	2	CHANNEL SEAL	
7	83674096	2	THRUST PLATE	
8	91474179	1	GEAR HOUSING	
9	91474178	1	PORT END COVER ASSY	
10	91474626	1	GEAR SHAFT SET	
11	91474181	4	CAPSCREW	
12	8035261	4	WASHER	
	91474624	1	SEAL KIT, (includes items 1 & 4 thru 6)	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-17. HYDRAULIC TANK ASSEMBLY



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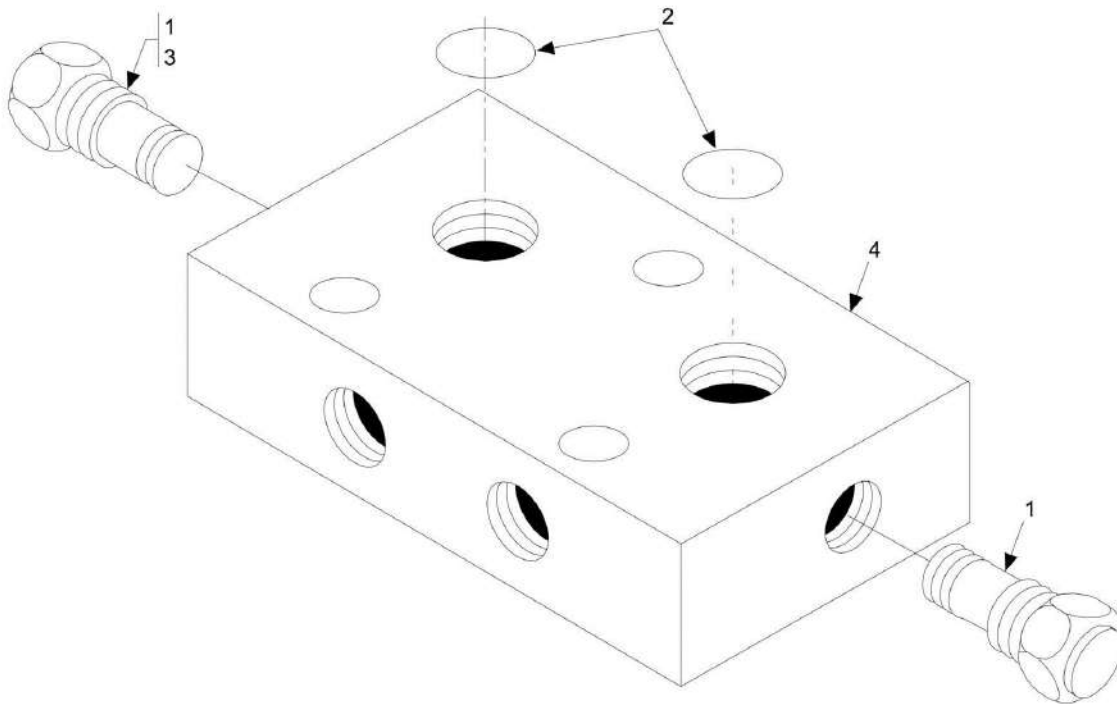
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-17. HYDRAULIC TANK ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475011	Ref	HYDRAULIC TANK ASSY, (includes items 1 thru 25, 33, 34 & 38)	G
1	91473009	1	HYDRAULIC RESERVOIR	
2	2220578	1	ELBOW, 90, (includes item 3)	
3	88591207	1	O-RING	
4	7024441	1	FLUID LEVEL GAUGE, (torque to 7 lb-ft), (includes mounting hardware)	
5	2220596	1	ELBOW, 90, (includes item 39)	
6	88591204	3	O-RING	
7	2220371	1	CONNECTOR, (includes item 6)	
8	2220473	2	ELBOW, 90, (includes item 6)	
9	88591210	1	O-RING	
10	91083301	1	TANK FILTER	
11	91403617	1	CONNECTOR	
13	91403575	1	TANK FILTER	
14	2220690	1	CONNECTOR	
15	91473060	1	FILL TUBE	
16	91403579	1	FILLER CAP	
17	91403158	1	OIL FILTER, (includes items 33, 34 & 38)	
18	2220893	1	CONNECTOR	
22	2220243	1	HEX HD PLUG, (includes item 9)	
25	2220464	1	ELBOW, 90	
26	84719610	1	BREATHER HOSE	
27	91163100	1	BULKHEAD	
28	1340021	1	BREATHER	
29	91471174	1	BREATHER BRACKET	
30	88201020	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
31	88551010	2	LOCKWASHER, 5/16	
32	88201065	3	HEX HD CAPSCREW, 1/2-13X1, GR5	
33	1001093626	1	FILTER ELEMENT	
34	91404084	1	BAR GAUGE	
35	88501005	2	HEX NUT, 5/16-18	
36	88551013	3	LOCKWASHER, 1/2	
37	88561111	3	FLAT WASHER, 1/2	
38	7029833	1	SEAL RING, (between element and housing)	
39	88591205	1	O-RING	
101	88561003	4	FLAT WASHER, 5/16	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-18. SWAY CYLINDER VALVE



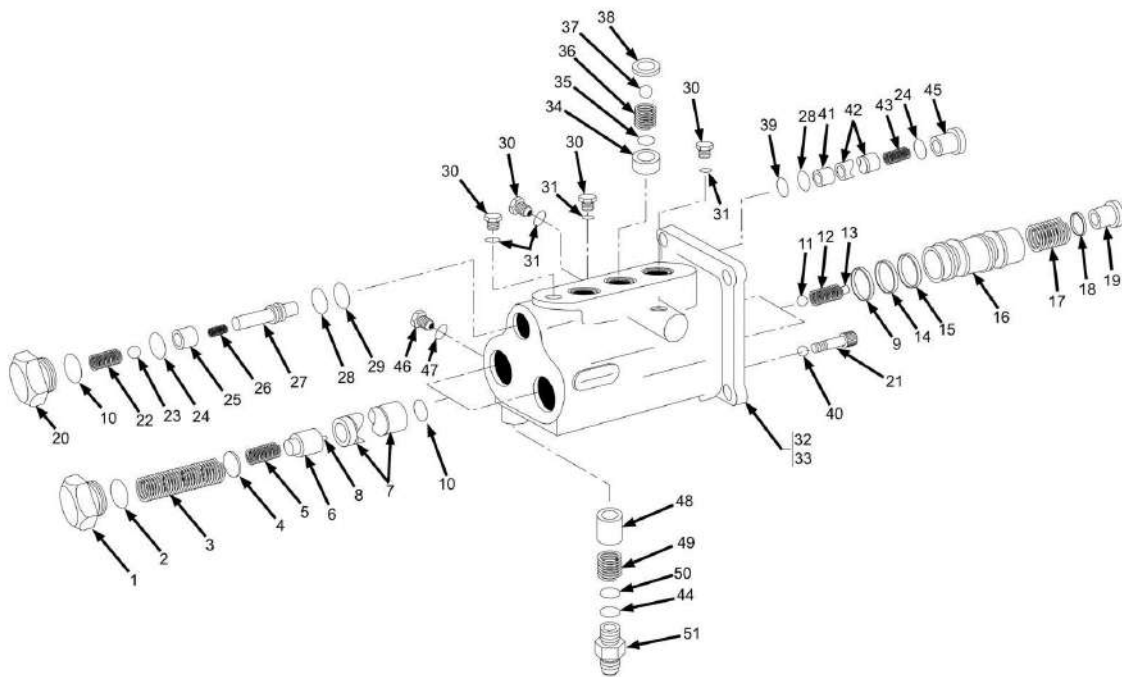
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-18. SWAY CYLINDER VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473188	1	SWAY CYLINDER VALVE ASSY, (includes all items)	
1	91474490	2	VALVE CARTRIDGE	
2	91404215	2	O-RING	
3	91404217	1	PISTON	
4	91474491	1	VALVE BODY	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-19. BRAKE VALVE (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)



## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-19. BRAKE VALVE (SN 0192001 through 0192007, SN 016000052 through 0160000157, Including 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473160	1	BRAKE VALVE ASSY, (includes all items)	
1	91474434	2	PLUG	
2	91474435	2	O-RING	
3	Kit	2	SPRING	
4	Kit	2	SPRING GUIDE	
5	Kit	2	SPRING	
6	Kit	2	MAKEUP CHECK	
7	91474436	2	SPOOL	
8	Kit	2	NEEDLE ROLLER	
9	Kit	2	SEAL RING	
10	91474437	3	O-RING	
11	Kit	2	BALL	
12	91474438	2	SPRING	
13	Kit	2	PIN	
14	91474439	2	QUAD RING	
15	91474440	2	WIPER RING	
16	Kit	2	PISTON	
17	Kit	2	SPRING	
18	91474441	2	WIPER RING	
19	91474442	2	ACTUATOR PIN	
20	91474443	1	PLUG	
21	91474454	1	SOCKET HD SCREW	
22	Kit	1	SPRING	
23	Kit	1	BALL	
24	91474445	2	O-RING	
25	91474446	1	SEAT	
26	Kit	1	SPRING	
27	91474447	1	PISTON	
28	91474448	2	BACKUP RING	
29	91474449	1	O-RING	
30	91474450	4	PLUG	
31	91474451	4	O-RING	
32	Kit	1	WIPER RETAINER COVER	
33	Kit	1	STROKE LIMITER COVER	
34	Kit	1	RETAINER	
35	Kit	1	O-RING	
36	Kit	1	SPRING	
37	91474452	1	BALL	
38	Kit	1	SEAT	
39	91474453	1	O-RING	
40	91474457	1	BALL	
41	91474455	1	PISTON DUMP	
42	91474456	1	SPOOL	
43	Kit	1	SPRING	
44	91474444	1	O-RING	
45	91474458	1	PLUG	
46	91474459	1	PLUG	
47	91474460	1	O-RING	
48	Kit	1	ORIFICE	

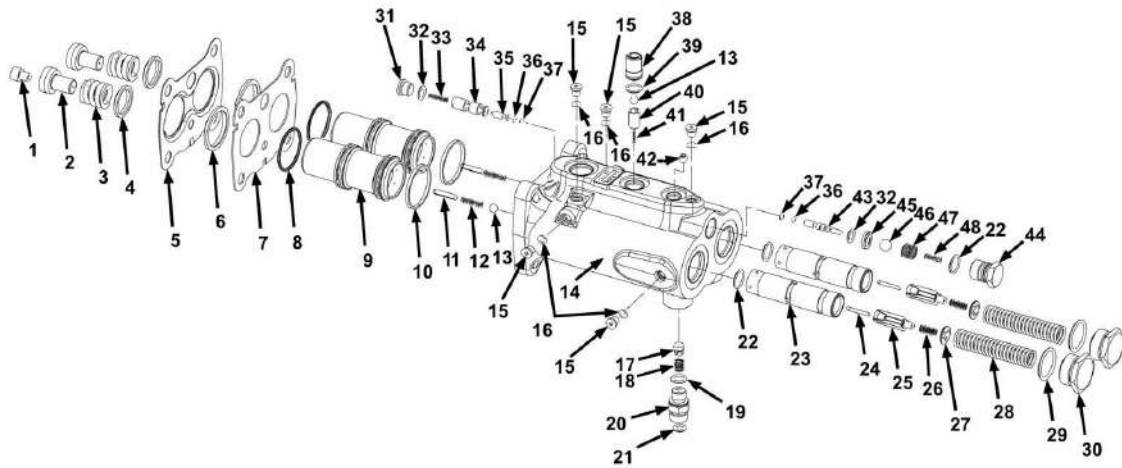
## SECTION 9 - HYDRAULIC COMPONENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
49	Kit	1	SPRING	
50	91474461	1	O-RING	
51	91474462	1	FITTING	
	91474428	1	PISTON KIT, (includes items 9, 13 & 16)	
	91474429	1	COVER KIT, (includes items 32 & 33)	
	91474430	1	MAKE-UP CHECK KIT, (includes 4, 5, 6 & 8)	
	91474431	1	INLET KIT, (includes items 11, 34, 35, 36 & 38)	
	91474433	1	ORIFICE KIT, (includes items 48 & 49)	
	91474432	1	HARDWARE KIT, (includes items 3, 17, 22, 23, 26, 43, 48 & 49)	



# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-20. BRAKE VALVE (SN 0160000170 through 0160017549, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)





## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-20. BRAKE VALVE (SN 0160000170 through 0160017549, Excluding 0160000198, 0160000206, 0160000338 and 0160000718)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91513072	1	POWER BRAKE VALVE, (includes all items)	D
1	91474454	1	BOLT	
2	91474442	2	PIN	
3	Kit	2	SPRING	
4	91474441	2	WIPER	
5	Kit	1	COVER	
6	91474440	2	WIPER	
7	Kit	1	COVER	
8	91474439	2	QUAD-RING	
9	Kit	2	PISTON	
10	Kit	2	RING	
11	Kit	2	SPRING	
12	91474438	2	SPRING	
13	91474452	2	BALL	
14	91514201	1	HOUSING	
15	91474450	5	PLUG	
16	91474451	5	O-RING	
17	Kit	1	ORIFICE	
18	Kit	1	SPRING	
19	91474461	1	O-RING	
20	91514196	1	FITTING	
21	91474444	1	O-RING	
22	91514197	3	O-RING	
23	91474436	2	SPOOL	
24	Kit	2	PIN	
25	Kit	2	MAKE-UP CHECK	
26	Kit	2	SPRING	
27	Kit	2	SPRING GUIDE	
28	Kit	2	SPRING	
29	91474435	2	O-RING	
30	91474434	2	PLUG	
31	91474458	1	PLUG	
32	91514198	2	O-RING	
33	Kit	1	SPRING	
34	91474456	1	SPOOL	
35	91474455	1	PISTON	
36	91514199	2	BACK-UP RING	
37	91474453	2	O-RING	
38	Kit	1	SEAT	
39	Kit	1	O-RING	
40	Kit	1	RETAINER	
41	Kit	1	SPRING	
42	91514202	1	ORIFICE	
43	91474447	1	PISTON	
44	91514200	1	PLUG	
45	91474446	1	SEAT	
46	Kit	1	BALL	
47	Kit	1	SPRING	
48	Kit	1	SPRING	

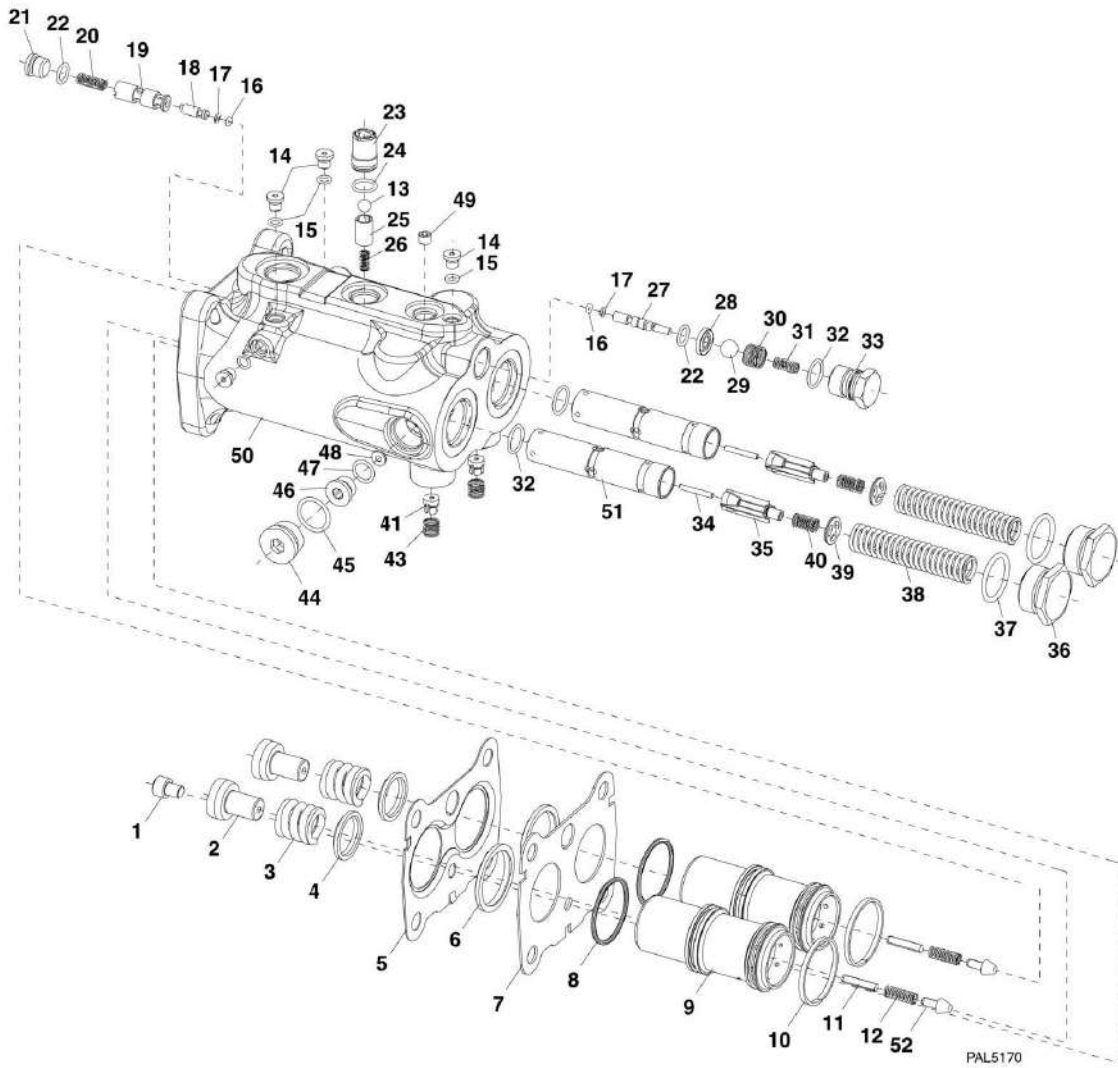
## SECTION 9 - HYDRAULIC COMPONENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474428	1	PISTON KIT, (includes items 9 thru 11)	
	91474429	1	COVER KIT, (includes items 5 & 7)	
	91474430	1	MAKE-UP CHECK KIT, (includes items 24 thru 27)	
	91474431	1	INLET CHECK KIT, (includes items 13 & 38 thru 41)	
	91474433	1	ORIFICE KIT, (includes items 17 & 18)	
	91474432	1	HARDWARE KIT, (includes items 3, 12, 13, 26, 28, 33, 46, 47 & 48)	



# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-21. BRAKE VALVE (SN 0160019117 to Present)



## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-21. BRAKE VALVE (SN 0160019117 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001106836	1	BRAKE VALVE, (includes items 1 thru 52)	A
1	91474454	1	SCREW	
2	91474442	2	PIN	
3	70020659	2	SPRING	
4	91474441	2	WIPER	
5	70020660	1	COVER	
6	91474440	2	WIPER	
7	70020661	1	COVER	
8	91474439	2	QUAD RING	
9	70020662	2	PISTON	
10	70020663	2	PISTON RING	
11	70023037	2	PIN	
12	91474438	2	SPRING	
13	91474452	1	BALL	
14	91474450	4	PLUG	
15	91474451	4	O-RING	
16	91474453	2	O-RING	
17	91514199	2	BACKUP RING	
18	91474455	1	DUMP PISTON	
19	91474456	1	DUMP SPOOL	
20	70020665	1	SPRING	
21	91474458	1	PLUG	
22	91514198	2	O-RING	
23	70020666	1	INLET SEAT	
24	70020667	1	O-RING	
25	70020668	1	RETAINER	
26	70020669	1	SPRING	
27	91474447	1	PISTON	
28	91474446	1	SEAT	
29	70020670	1	BALL	
30	70020671	1	SPRING	
31	70020672	1	SPRING	
32	91514197	3	O-RING	
33	91474443	1	PLUG	
34	70020673	2	NEEDLE ROLLER	
35	70020674	2	MAKE-UP CHECK	
36	91474434	2	PLUG	
37	91474435	2	O-RING	
38	70020675	2	SPRING	
39	70020676	2	SPRING GUIDE	
40	70020677	2	SPRING	
41	70020678	2	ORIFICE	
43	70020679	2	SPRING	
44	91474459	1	PLUG	
45	91474460	1	O-RING	
46	70020680	1	PLUG	
47	70020681	1	O-RING	
48	70020682	1	ORIFICE	
49	70023039	1	ORIFICE	
50		Ref	HOUSING	

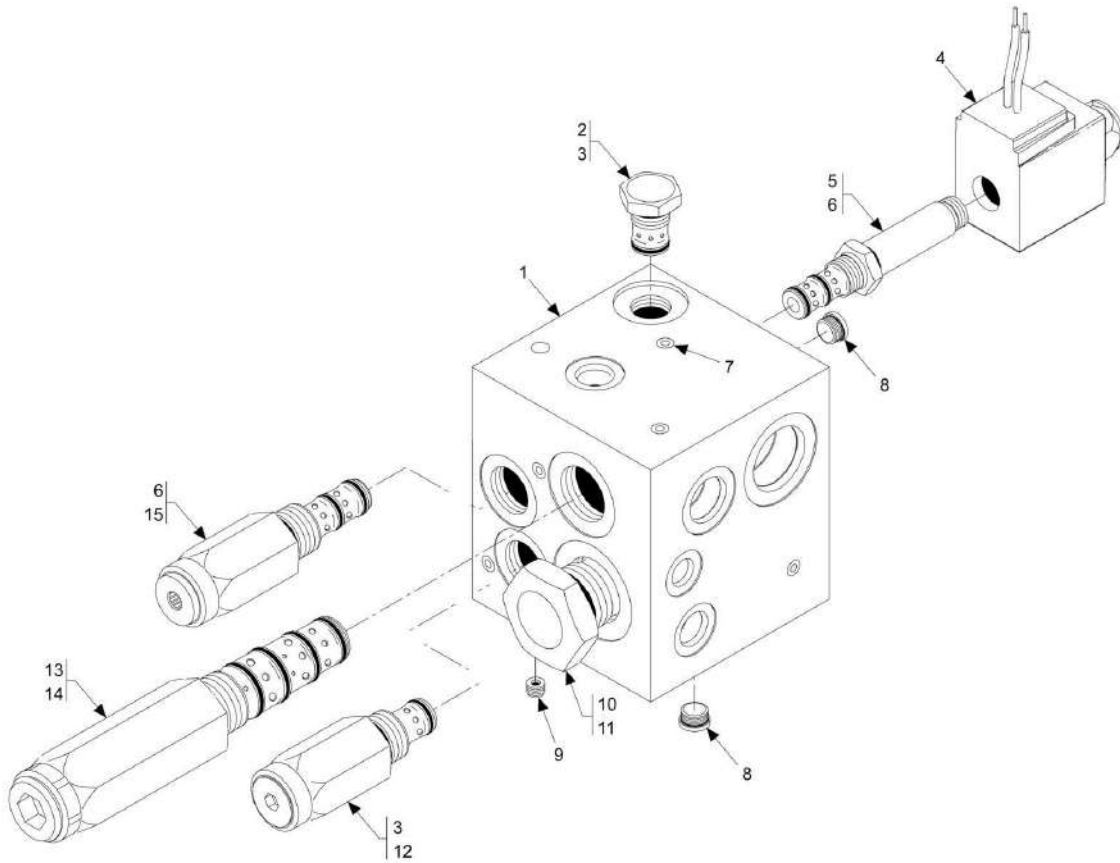
## SECTION 9 - HYDRAULIC COMPONENTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
51	70023038	Ref	SPOOL	
52		2	POPPET	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	



# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-22. PRIORITY VALVE (SN 0192001 through 0192007, SN 016000052 through 0160001857)





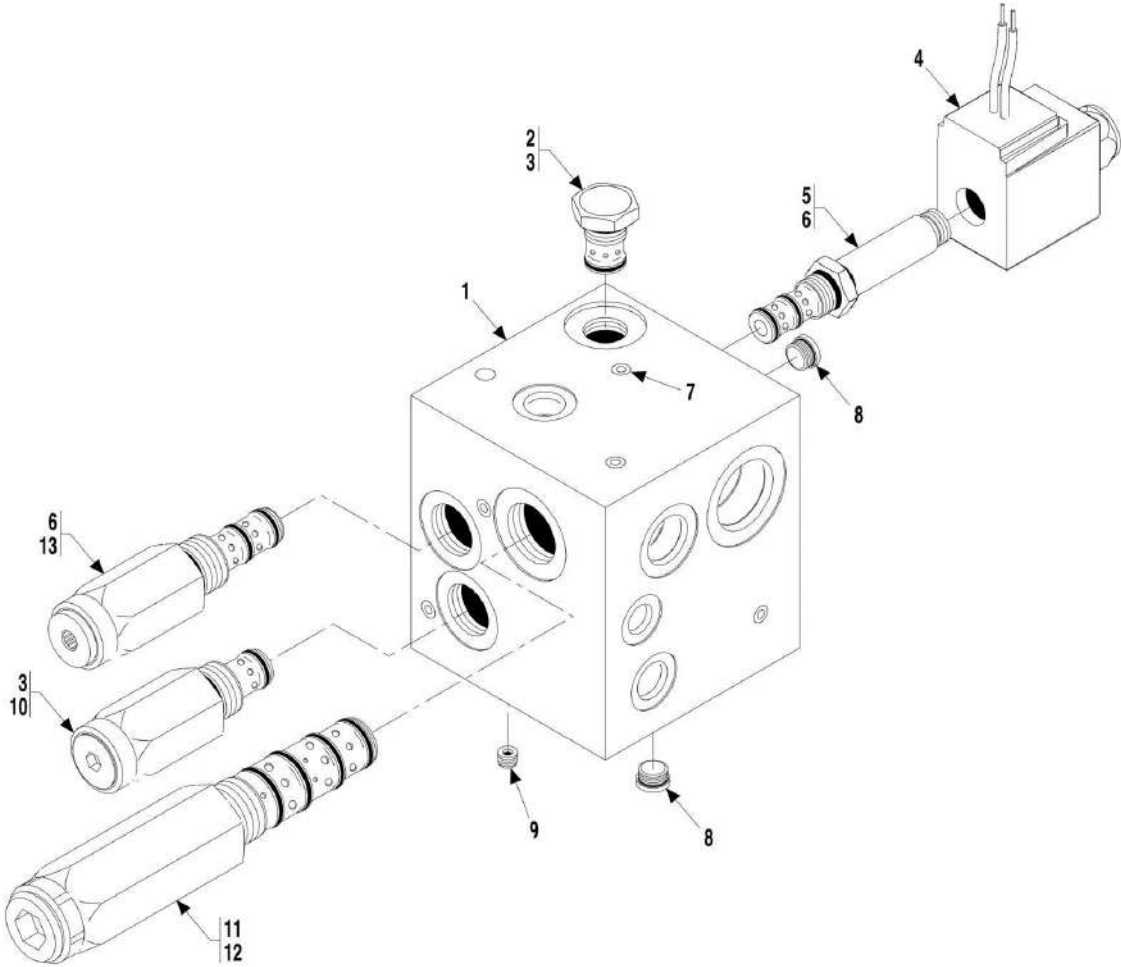
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-22. PRIORITY VALVE (SN 0192001 through 0192007, SN 016000052 through 0160001857)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473159	1	PRIORITY VALVE ASSY, (includes all items)	
1	91474022	1	VALVE BODY	
2	91474023	1	CHECK VALVE CARTRIDGE, (includes item 3)	
3	91474024	2	SEAL KIT	
4	91474484	1	COIL ASSY	
5	91474026	1	SOLENOID VALVE, (includes item 6)	
6	91474027	2	SEAL KIT	
7	91474028	12	EXPANDER PLUG	
8	91474485	2	PLUG	
9	91474486	1	ORIFICE PLUG	
10	91474487	1	SEQUENCE CARTRIDGE, (includes item 11)	
11	91474032	1	SEAL KIT	
12	91474033	1	RELIEF VALVE CARTRIDGE, (includes item 3)	
13	91474488	1	COMPENSATOR CARTRIDGE, (includes item 14)	
14	91474489	1	SEAL KIT	
15	91474034	1	REDUCING VALVE CARTRIDGE, (includes item 6)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-23. PRIORITY VALVE (SN 0160001868 to Present)



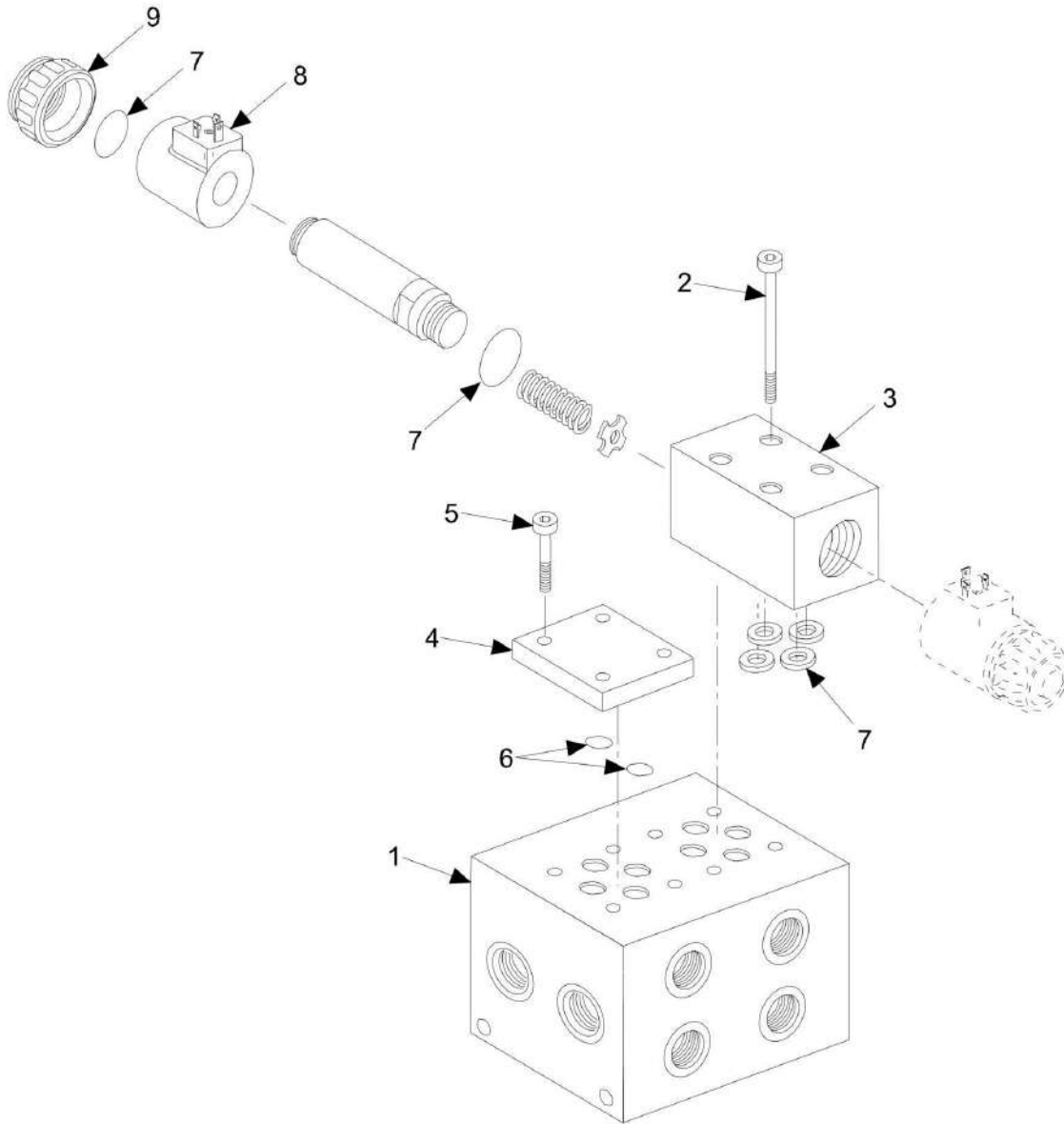
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-23. PRIORITY VALVE (SN 0160001868 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473191	1	PRIORITY VALVE ASSY, (includes all items)	
1		Ref	VALVE BODY	
2	91474023	1	CHECK VALVE CARTRIDGE, (includes item 3)	
3	91474024	2	SEAL KIT	
4	91474484	1	COIL ASSY	
5	91474026	1	SOLENOID VALVE, (includes item 6)	
6	91474027	2	SEAL KIT	
7	91474028	12	EXPANDER PLUG	
8	91474485	2	PLUG	
9	91474486	1	ORIFICE PLUG	
10	91474033	1	RELIEF VALVE CARTRIDGE, (includes item 3)	
11	91474488	1	COMPENSATOR CARTRIDGE, (includes item 12)	
12	91474489	1	SEAL KIT	
13	91474034	1	REDUCING VALVE CARTRIDGE, (includes item 6)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-24. STEER SELECT VALVE (Prior to SN 0160003771)



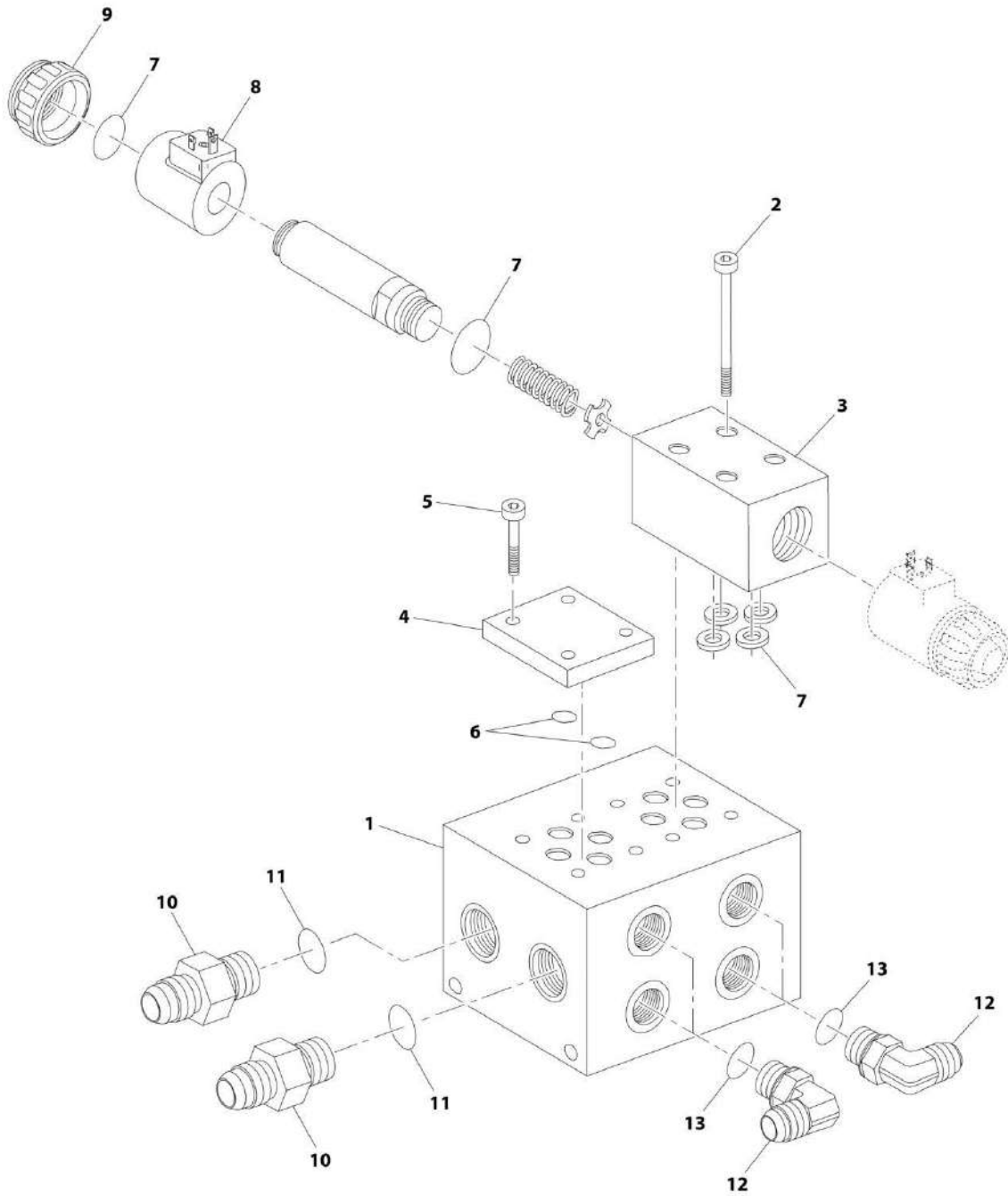
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-24. STEER SELECT VALVE (Prior to SN 0160003771)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473091	1	STEER SELECT VALVE, (includes all items)	D
1	91474400	1	STEERING MANIFOLD	
2	91474401	4	CAPSCREW	
3	91474402	1	STEERING CONTROL, (includes items 7 thru 9)	
4	91474403	1	COVER PLATE	
5	91474404	4	CAPSCREW	
6	91474405	2	O-RING	
7	91474406	1	SEAL KIT	
8	91474407	2	SOLENOID	
9	80334379	2	HAND NUT	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-25. STEER SELECT VALVE (SN 0160003771 to Present)



ART\_91475051-C

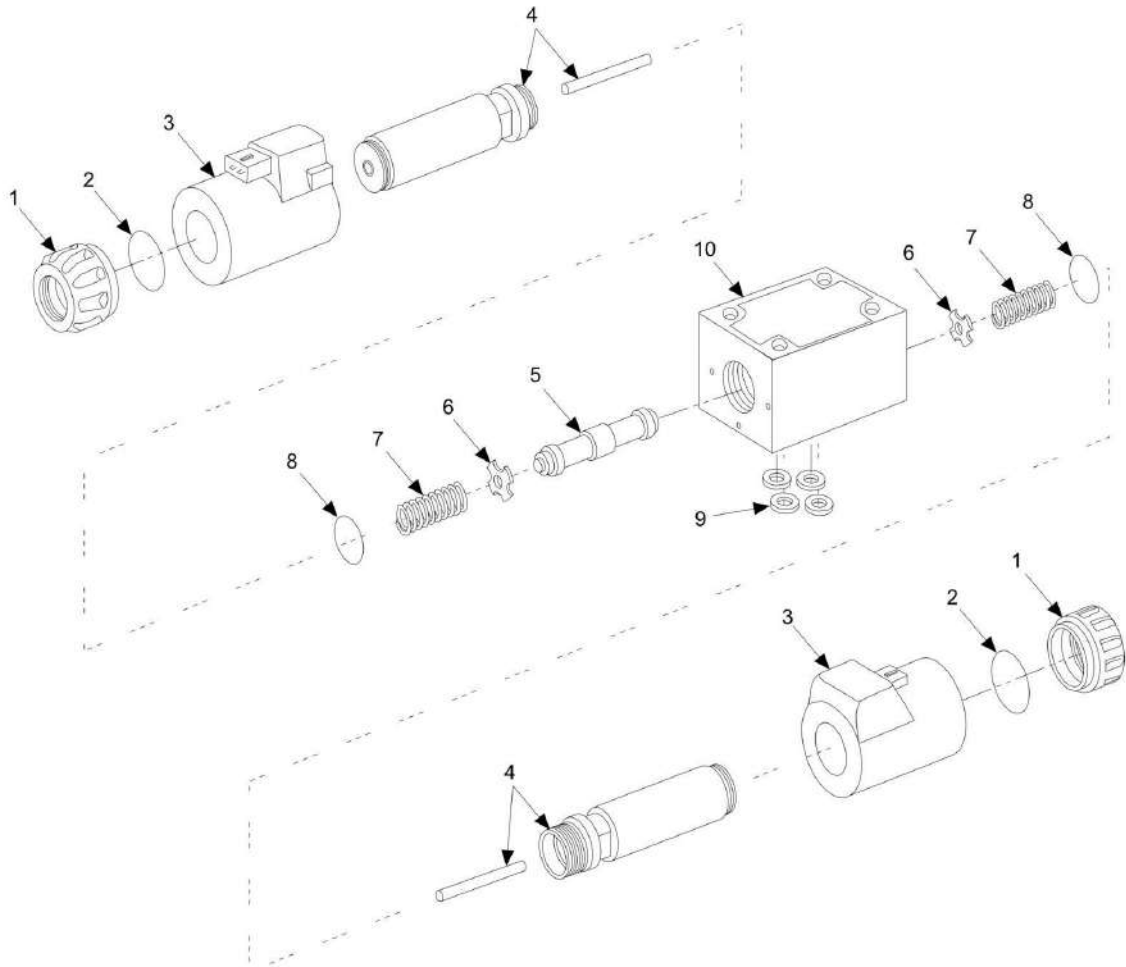
## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-25. STEER SELECT VALVE (SN 0160003771 to Present)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475051	1	STEER SELECT VALVE, (includes all items)	C
1	91474400	1	STEERING MANIFOLD	
2	91474401	4	CAPSCREW	
3	91474402	1	STEERING CONTROL, (includes items 7 thru 9)	
4	91474403	1	COVER PLATE	
5	91474404	4	CAPSCREW	
6	91474405	2	O-RING	
7	91474406	1	SEAL KIT	
8	91474407	2	SOLENOID	
9	80334379	2	HAND NUT	
10	2220374	2	CONNECTOR, (includes item 11)	
11	88591206	2	O-RING	
12	88662065	4	ELBOW, 90, (includes item 13)	
13	88591205	4	O-RING	

# SECTION 9 - HYDRAULIC COMPONENTS

## FIGURE 9-26. DIRECTIONAL VALVE





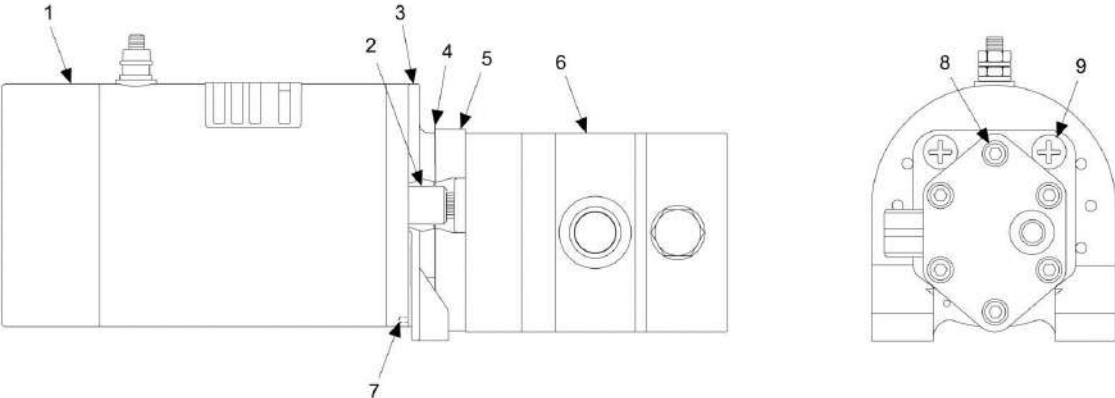
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-26. DIRECTIONAL VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503036	1	DIRECTIONAL VALVE, (includes all items)	
1	91504035	2	NUT	
2	Kit	2	O-RING	
3	91504036	2	COIL	
4	91504037	2	POLE TUBEL	
5		Ref	CONTROL SPOOL	
6		Ref	SPRING RETAINER	
7		Ref	SPRING	
8	Kit	2	O-RING	
9	Kit	4	O-RING	
10		Ref	BODY	
	91504041	AR	SEAL KIT, (includes items 2, 8 & 9)	

**SECTION 9 - HYDRAULIC COMPONENTS**

**FIGURE 9-27. AUXILIARY MOTOR/PUMP**



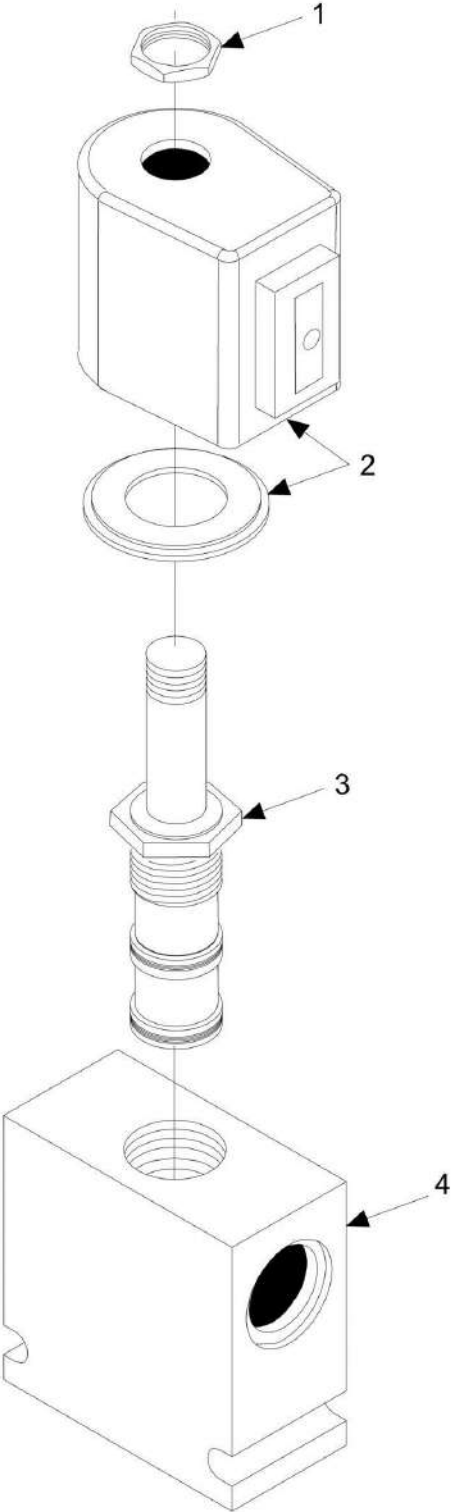
## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-27. AUXILIARY MOTOR/PUMP

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503034	1	AUXILIARY MOTOR/PUMP, (includes all items)	B
1	91504047	1	MOTOR	
2	7013711	1	COUPLING	
3	91504049	1	BRACKET	
4	91504050	1	GASKET	
5	91504051	1	MOUNTING ADAPTER	
6	91504052	1	PUMP	
7	91504053	1	PIN, 1/8X1/4	
8	91504054	2	SOCKET HD CAPSCREW, 5/16-24X5, GR8	
9	7016744	4	PHILIP FLAT-MACHINE HD SCREW, 5/16-18X1	

**SECTION 9 - HYDRAULIC COMPONENTS**

**FIGURE 9-28. SOLENOID VALVE**



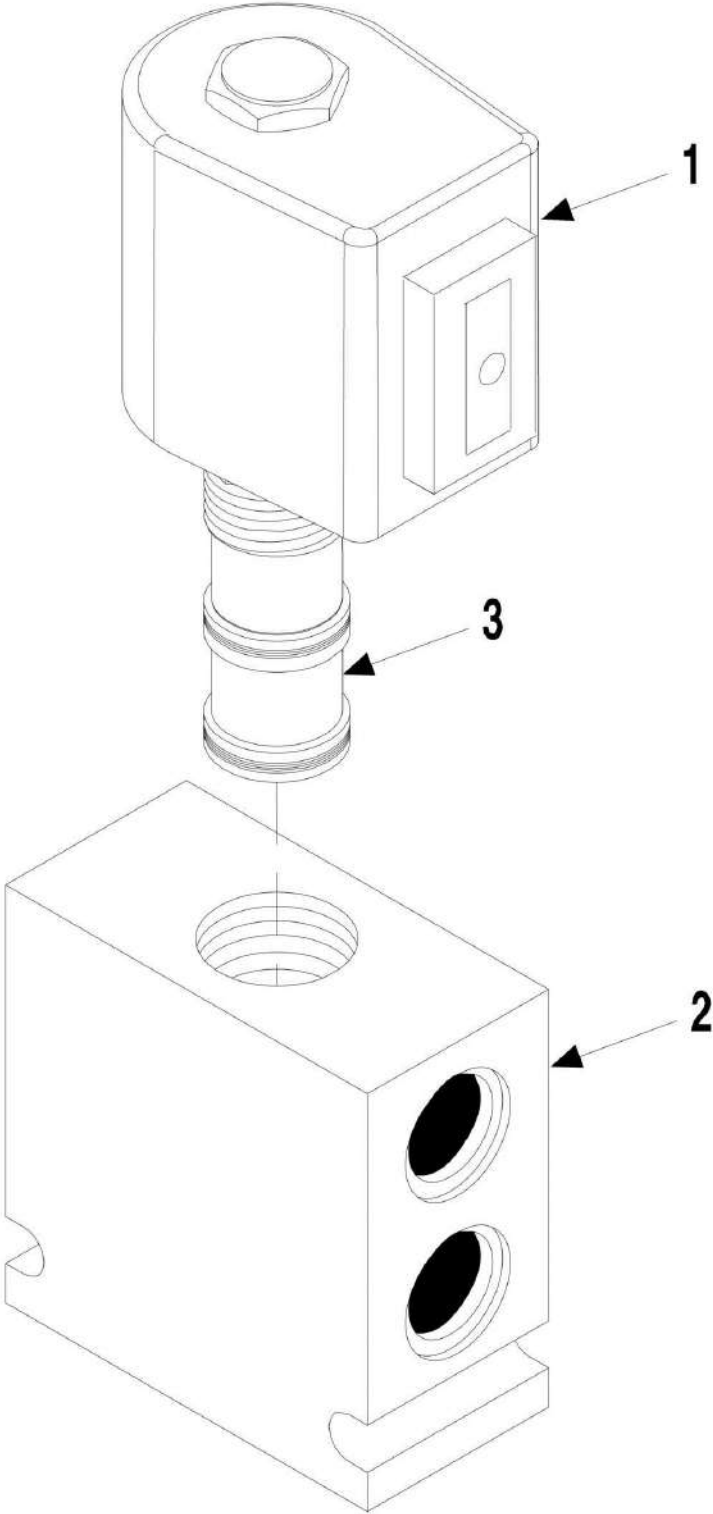
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-28. SOLENOID VALVE

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

**SECTION 9 - HYDRAULIC COMPONENTS**

**FIGURE 9-29. REMOTE BRAKE VALVE**



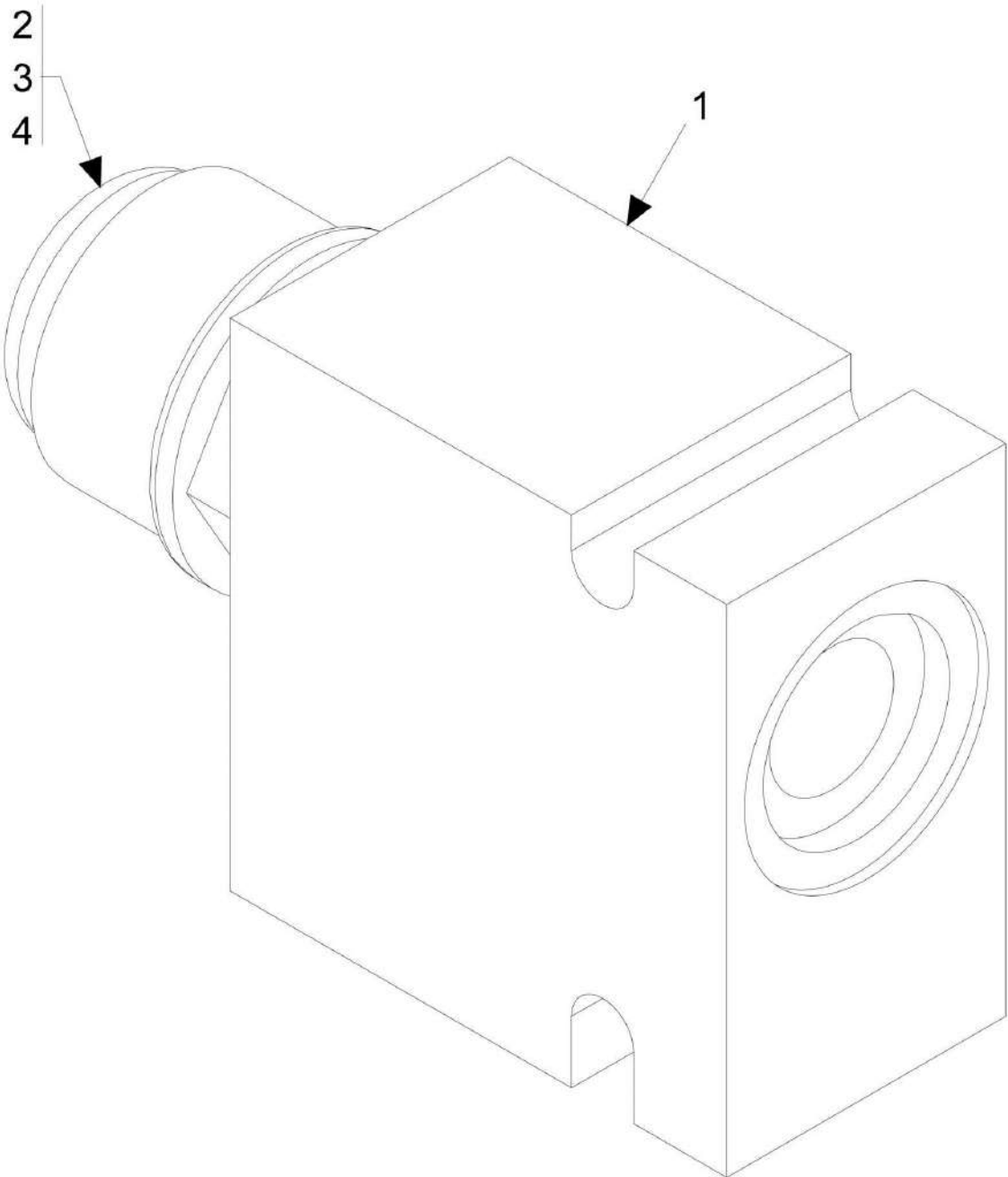
## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-29. REMOTE BRAKE VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503123	1	REMOTE BRAKE VALVE, (includes all items)	
1	91504115	1	COIL	
2	91504116	1	VALVE BODY	
3	70020782	1	CARTRIDGE VALVE	
	91044001	AR	SEAL KIT	

**SECTION 9 - HYDRAULIC COMPONENTS**

**FIGURE 9-30. DECOMPRESSION VALVE**





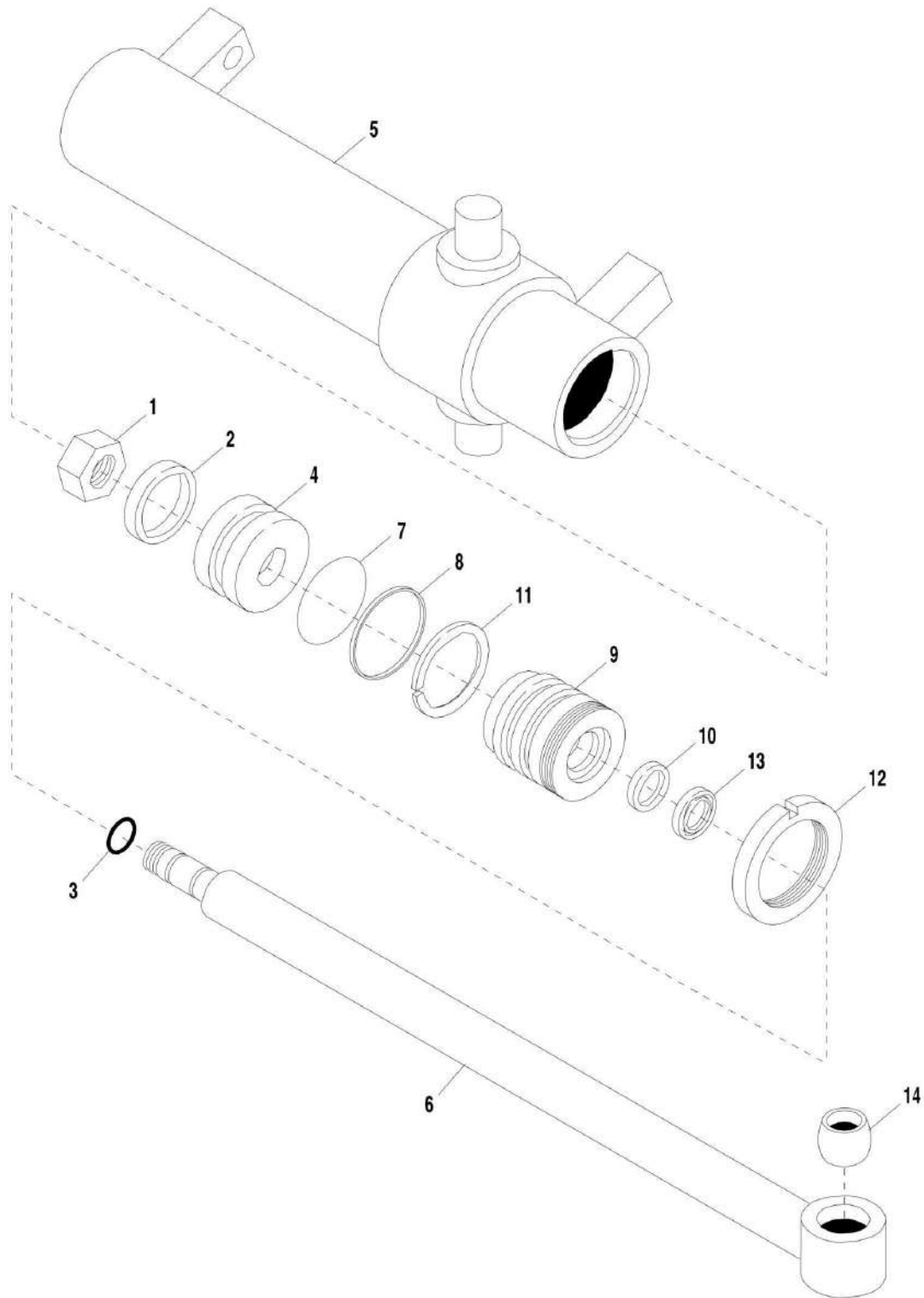
## SECTION 9 - HYDRAULIC COMPONENTS

### FIGURE 9-30. DECOMPRESSION VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503093	1	DECOMPRESSION VALVE, (includes all items)	
1	91504056	1	VALVE BODY	
2	91504057	1	VALVE, (includes items 3 & 4)	
3	91504058	1	SEAL KIT	
4	91504059	1	PUSH BUTTON	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-31. TRANSFORMER PLATFORM ROTATE CYLINDER (SN 0192001 through 0192007, SN 016000052 through 016000242, Including 016000267 and 016000322)



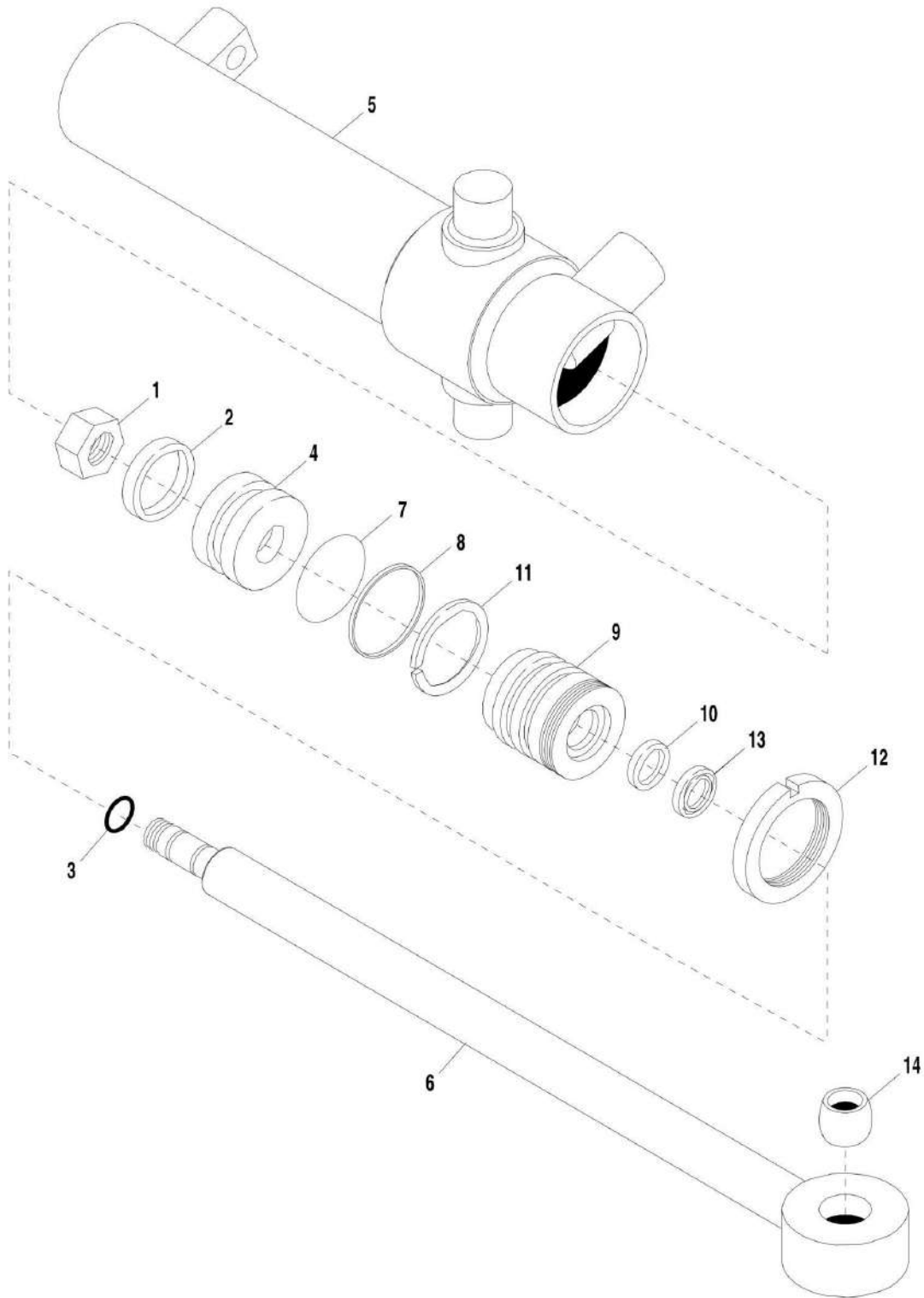
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-31. TRANSFORMER PLATFORM ROTATE CYLINDER (SN 0192001 through 0192007, SN 016000052 through 0160000242, Including 0160000267 and 0160000322)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1684252	1	TRANSFORMER PLATFORM ROTATE CYLINDER, (includes all items)	A
1	7001626	1	LOCKNUT	
2	Kit	1	PISTON SEAL	
3	Kit	1	O-RING	
4	7001627	1	PISTON	
5	7026332	1	BARREL	
6	7026333	1	ROD	
7	Kit	1	O-RING	
8	Kit	1	BACKUP RING	
9	7001629	1	GUIDE	
10	Kit	1	LIP	
11	Kit	1	RETAINING RING	
12	7001630	1	SPANNER NUT	
13	Kit	1	WIPER RING	
14	7023034	1	BUSHING	
	7001625	1	SEAL KIT, (includes items 2, 3, 7, 8, 10, 11 & 13)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-32. TRANSFORMER PLATFORM ROTATE CYLINDER (SN 0160000258 to Present,  
Excluding 0160000267 and 0160000322)



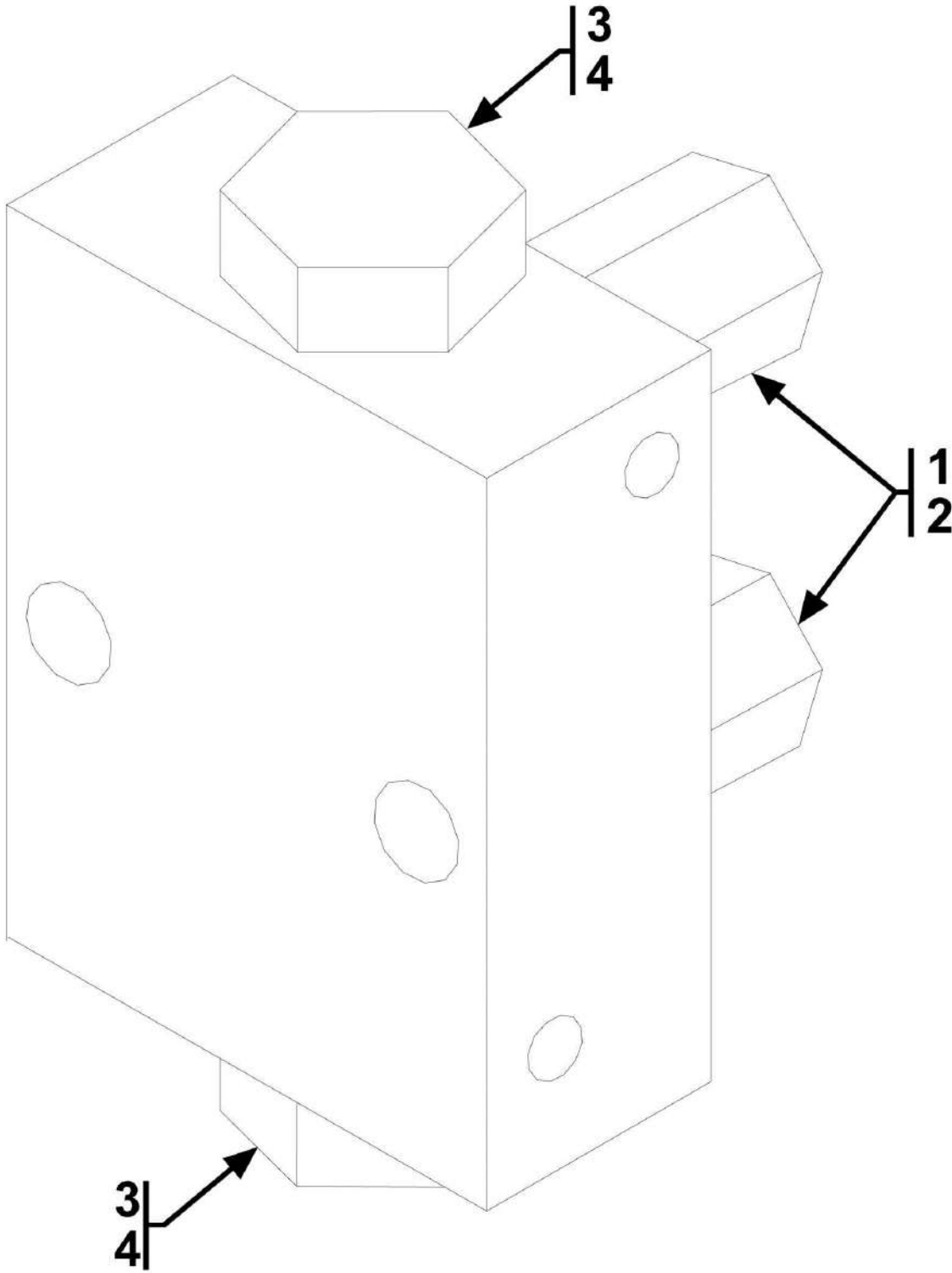
## SECTION 9 - HYDRAULIC COMPONENTS

**FIGURE 9-32. TRANSFORMER PLATFORM ROTATE CYLINDER (SN 0160000258 to Present,  
Excluding 0160000267 and 0160000322)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1684264	1	TRANSFORMER PLATFORM ROTATE CYLINDER, (includes all items)	B
1	7001626	1	LOCKNUT	
2	Kit	1	PISTON SEAL	
3	Kit	1	O-RING	
4	7001627	1	PISTON	
5	7029277	1	BARREL	
6	7029278	1	ROD	
7	Kit	1	O-RING	
8	Kit	1	BACKUP RING	
9	7001629	1	GUIDE	
10	Kit	1	LIP	
11	Kit	1	RETAINING RING	
12	7001630	1	SPANNER NUT	
13	Kit	1	WIPER RING	
14	7023034	1	BUSHING	
	7001625	1	SEAL KIT, (includes items 2, 3, 7, 8, 10, 11 & 13)	

# SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-33. TRANSFORMER PLATFORM DOUBLE PILOT CHECK VALVE



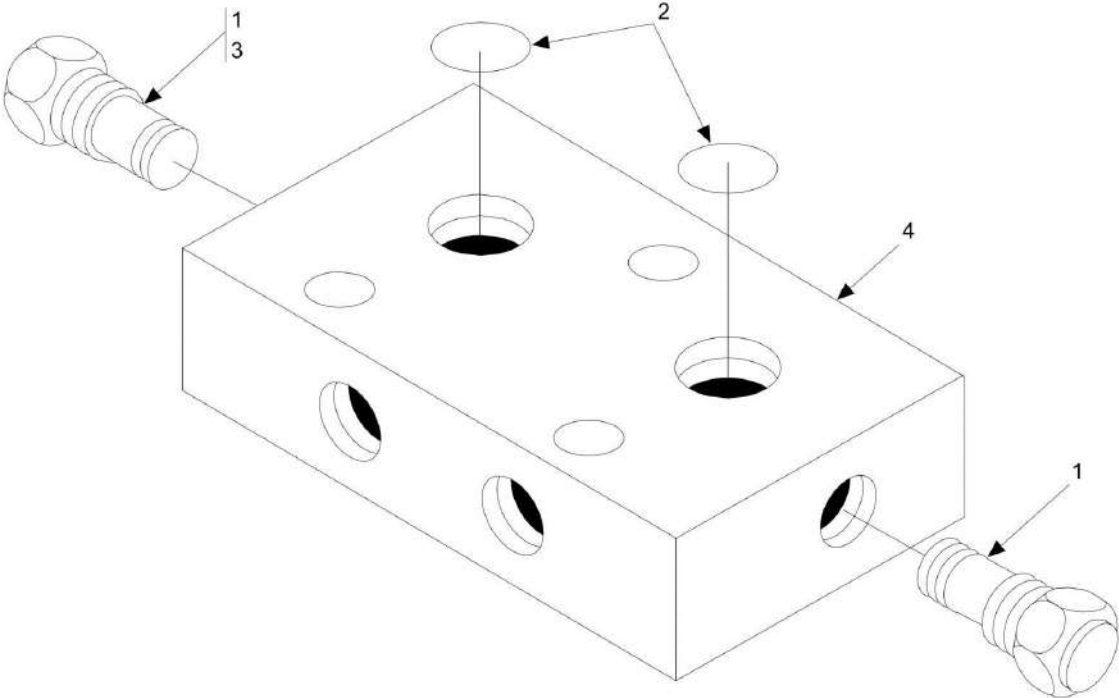
## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-33. TRANSFORMER PLATFORM DOUBLE PILOT CHECK VALVE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4641252	1	TRANSFORMER PLATFORM DOUBLE PILOT CHECK VALVE, (includes all items)	B
1	7024831	2	RELIEF VALVES, (includes item 2)	
2	7012998	2	SEAL KIT	
3	7012955	2	CHECK VALVE, (includes item 4)	
4	7012998	2	SEAL KIT	
5	7017498	1	PILOT PISTON, (not shown)	

**SECTION 9 - HYDRAULIC COMPONENTS**

**FIGURE 9-34. SWAY CYLINDER VALVE**





## SECTION 9 - HYDRAULIC COMPONENTS

FIGURE 9-34. SWAY CYLINDER VALVE

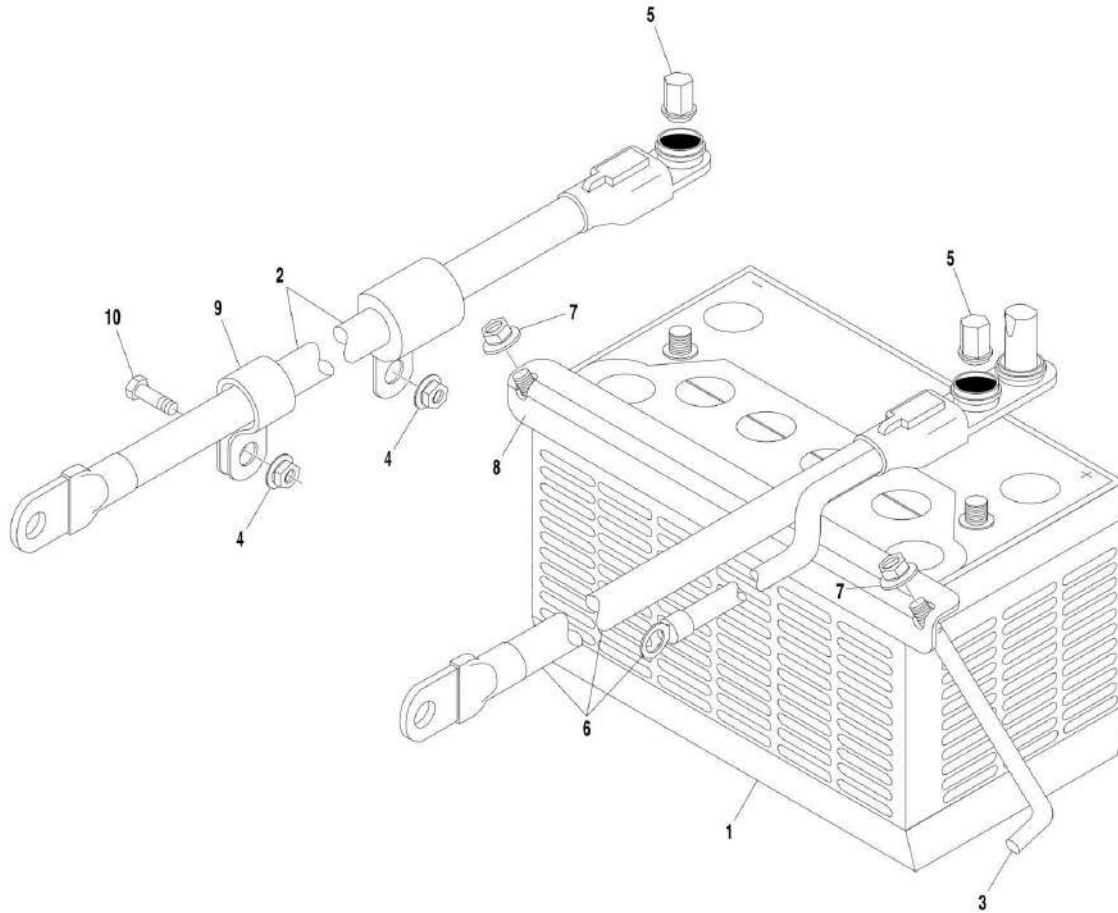
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403180	1	SWAY CYLINDER VALVE, (includes all items)	E
1	91404216	2	VALVE CARTRIDGE	
2	91404215	2	O-RING	
3	91404217	1	PISTON	
4	91404218	1	VALVE BODY	



**SECTION 10 - ELECTRICAL**

# SECTION 10 - ELECTRICAL

## FIGURE 10-1. BATTERY AND CABLES



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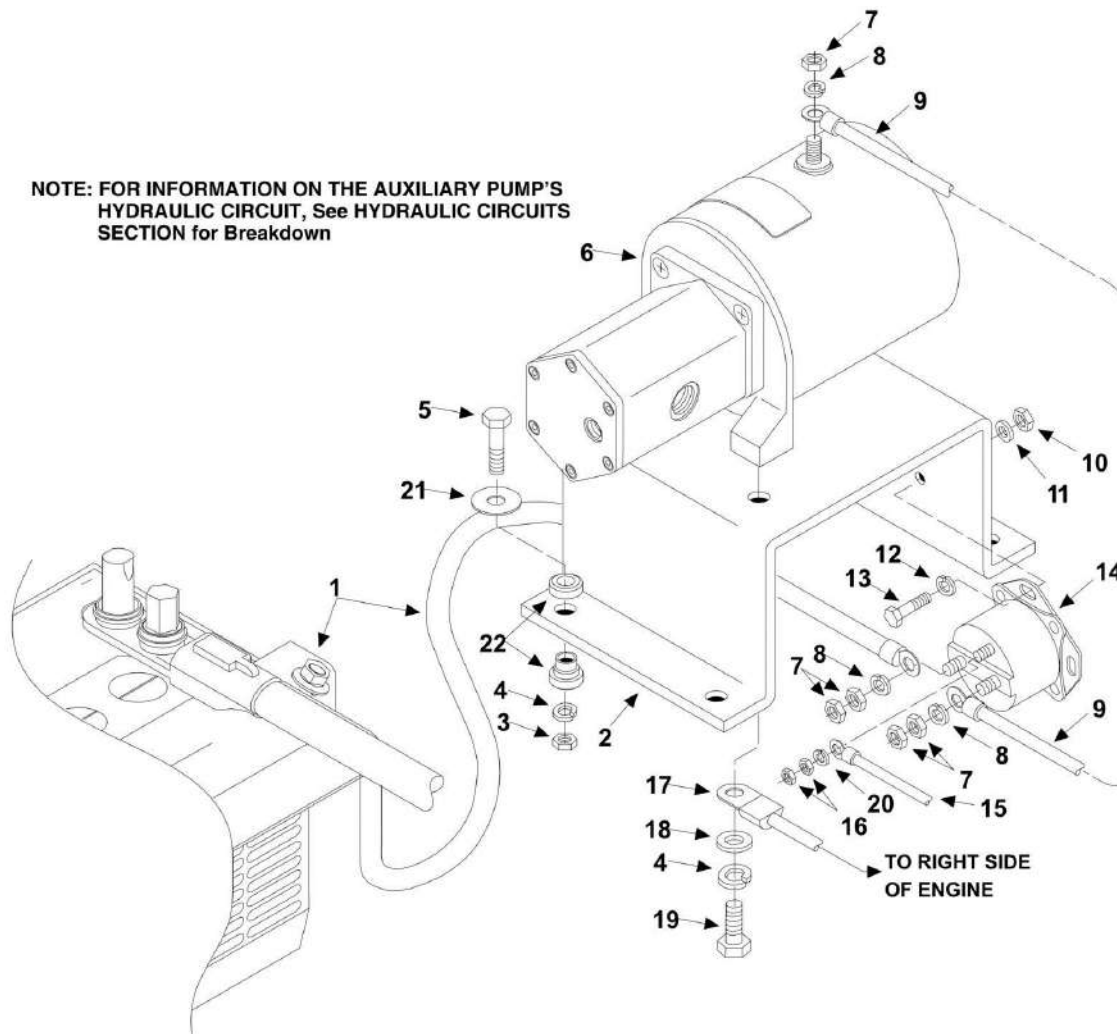
## SECTION 10 - ELECTRICAL

### FIGURE 10-1. BATTERY AND CABLES

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91083483	1	BATTERY, (12 volt, 1000 amps), TOP STUD, 3/8-16 UNC THREAD, BCI GROUP 31	
2	91473065	1	NEGATIVE BATTERY CABLE	
3	91081640	2	HOLD DOWN STUD, 5/16-18	
4	77143015	2	WHIZ-LOK NUT, 3/8-16	
5	77383567	2	TERMINAL NUT	
6	91503152	1	POSITIVE BATTERY CABLE	
7	77143006	2	WHIZ-LOK NUT, 5/16-18	
8	91401281	1	BATTERY HOLD DOWN	
9	91143122	1	SUPPORT CLAMP	
9	14403416	AR	DI-ELECTRIC GREASE, (add to caps on battery terminals)	
10	80973025	1	WHIZ-LOCK BOLT, 3/8X1	

# SECTION 10 - ELECTRICAL

## FIGURE 10-2. AUXILIARY MOTOR/PUMP



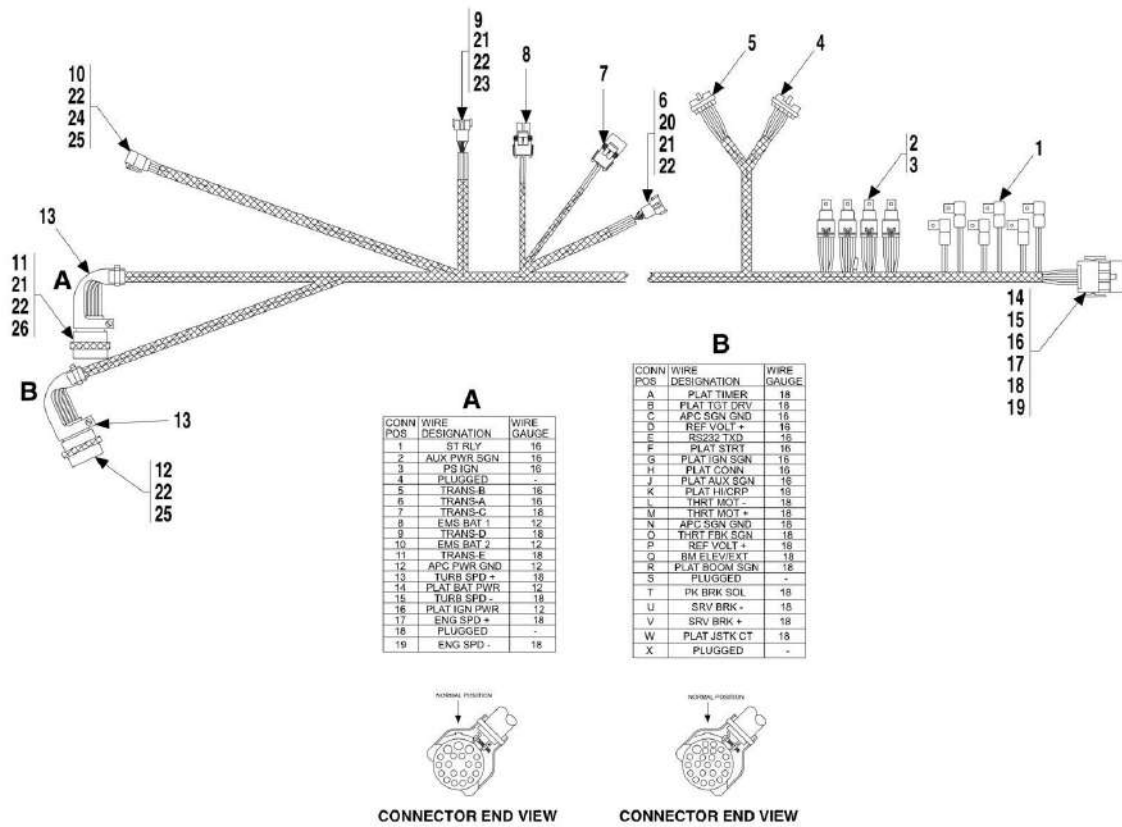
## SECTION 10 - ELECTRICAL

### FIGURE 10-2. AUXILIARY MOTOR/PUMP

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1		Ref	BATTERY AND CABLES, (See BATTERY AND CABLES for Breakdown)	
2	91501081	1	AUX POWER PACK MOUNT	
3	88501006	4	HEX NUT, 3/8-16	
4	88551011	6	LOCKWASHER, 3/8	
5	88201040	4	HEX HD CAPSCREW, 3/8-16X2-1/4, GR5	
6		Ref	AUX MOTOR/PUMP, (See HYDRAULIC COMPONENTS SECTION for Breakdown)	
7	88501005	5	HEX NUT, 5/16-18	
8	88551010	3	LOCKWASHER, 5/16	
9	91503057	1	JUMPER WIRE	
10	88501004	2	HEX NUT, 1/4-20	
11	88561002	2	FLAT WASHER, 1/4	
12	88551009	2	LOCKWASHER, 1/4	
13	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
14	91503041	1	SOLENOID	
15		Ref	ENGINE HARNESS, (See ENGINE HARNESS for Breakdown)	
16	88501613	2	HEX NUT, #10-32	
17	91503052	1	GROUND WIRE	
18	88561004	2	FLAT WASHER, 3/8	
19	88201034	2	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
20	88551007	1	LOCKWASHER, #10	
21	80473062	4	REBOUND WASHER	
22	80473061	4	SHOCK MOUNT	

# SECTION 10 - ELECTRICAL

## FIGURE 10-3. CAB HARNESS





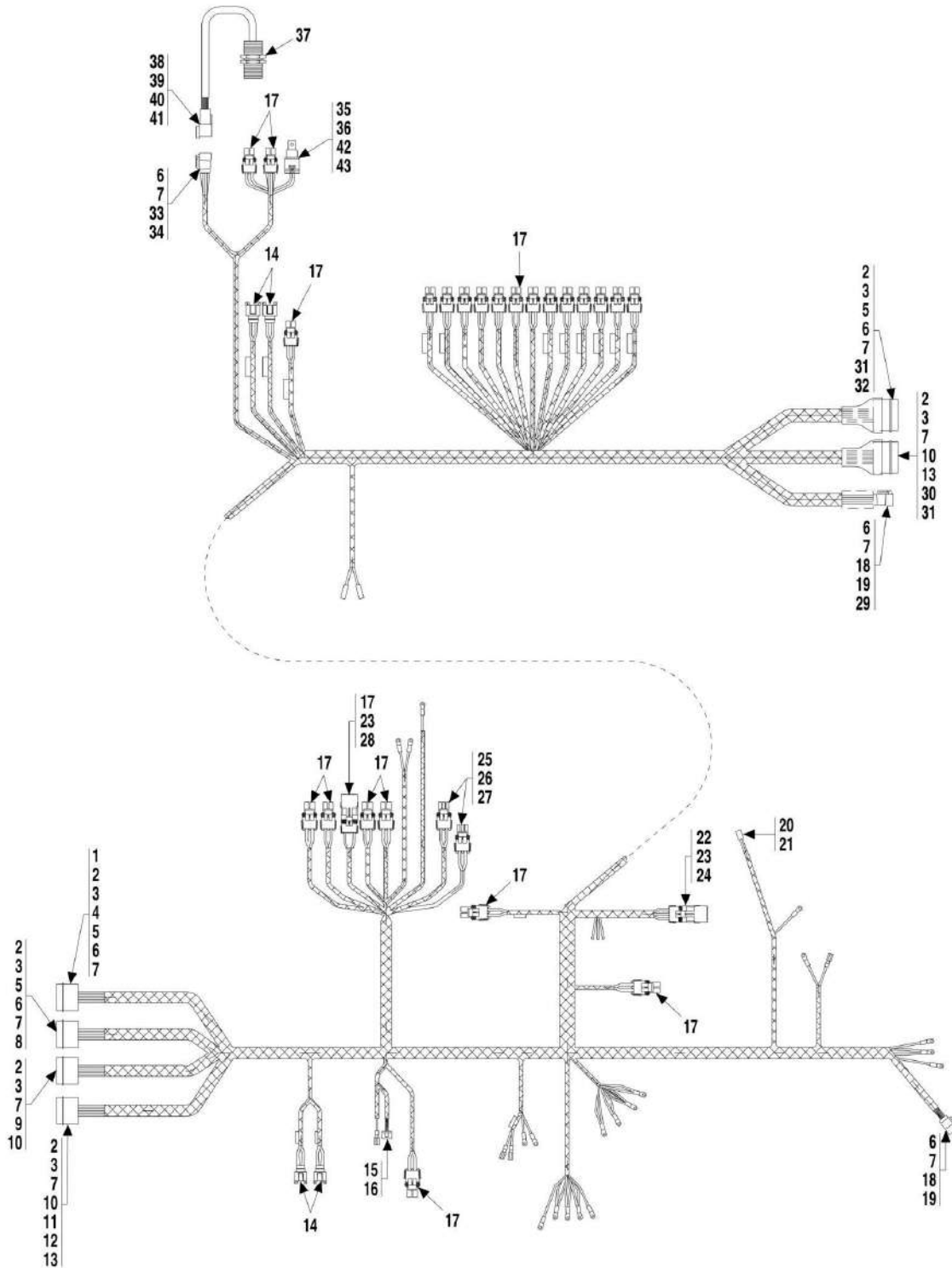
## SECTION 10 - ELECTRICAL

### FIGURE 10-3. CAB HARNESS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503077	1	CAB HARNESS, (includes all items)	
1	1001117019	6	CONNECTOR, (fuse not included)	
2	4460374	4	CONNECTOR ASSY	
3	3740080	4	RELAY	
4	91404086	1	CONNECTOR ASSY	
5	91504087	1	CONNECTOR ASSY	
6	80363178	1	CONNECTOR	
7	80963062	1	SHROUD	
8	80963061	1	TOWER	
9	91503105	1	8 PIN RECEPTACLE	
10	91504088	1	CONNECTOR	
11	91504089	1	CONNECTOR	
12	1001116939	1	CONNECTOR	
13	91474463	2	STRAIN RELIEF, 90	
14	4460761	1	CAP	
15	91504092	1	PIN	
16	91504093	5	SEALING PLUG	
17	91504094	2	WIRE SEAL	
18	1001119031	1	PLUG	
19	91504096	1	INTERFACE SEAL	
20	80363179	1	WEDGE LOCK	
21	77363228	3	PIN CONT, #16	
22	83481301	5	SEALING PLUG	
23	91503106	1	WEDGE LOCK	
24	91504107	1	WEDGE LOCK	
25	77363229	2	SKT CONT, #16	
26	77363345	1	12 AWG PIN	

# SECTION 10 - ELECTRICAL

FIGURE 10-4. ENGINE HARNESS (SN 0192001 through 0192007, SN 016000052 through 0160002052, Excluding 0160000198)



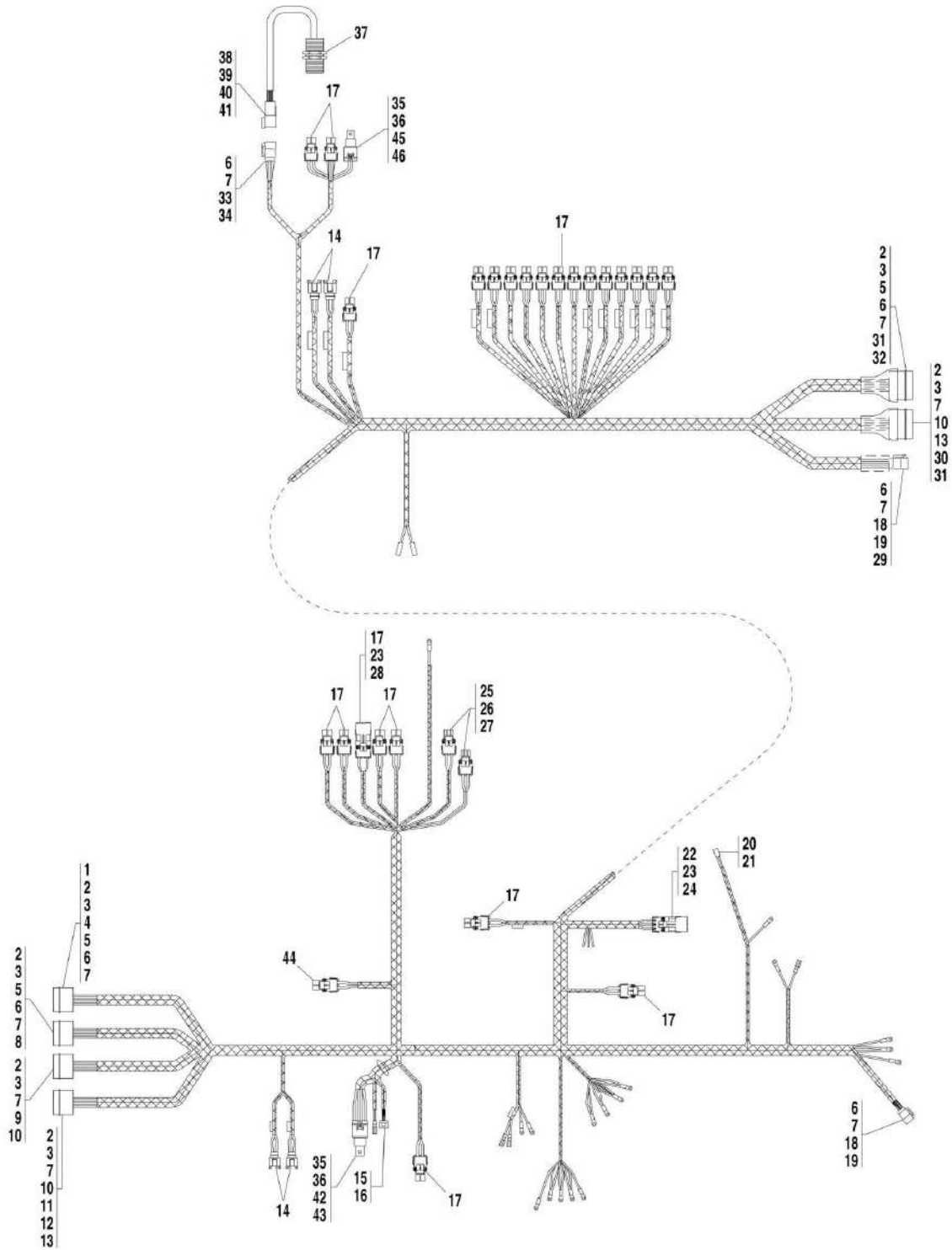
## SECTION 10 - ELECTRICAL

**FIGURE 10-4. ENGINE HARNESS (SN 0192001 through 0192007, SN 016000052 through 0160002052, Excluding 0160000198)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503060	1	ENGINE HARNESS, (includes items 1 thru 36)	
1	91404337	1	PLUG CONN	
2	83481286	6	PANEL NUT	
3	83481285	6	LOCKWASHER	
4	91143340	1	SOCKET CONTACT, #8	
5	77363347	3	12 AWG SOCKET	
6	77363229	6	SOCKET CONTACT, #16	
7	83481301	9	SEALING PLUG	
8	80204287	1	CONNECTOR	
9	91504097	1	PLUG CONN	
10	77363228	3	PIN CONTACT, #16	
11	91364010	1	RECEPTACLE CONN	
12	91143339	1	PIN CONTACT, #8	
13	77363345	2	12 AWG PIN	
14	91474468	4	CLIP AND SEAL	
15	91504098	1	AMP CONNECTOR	
16	4460225	1	AMP TERMINAL	
17	80963057	24	TOWER	
18	91504100	2	PLUG CONN	
19	80604025	2	WEDGE LOCK	
20	91504101	1	CONNECTOR	
21	1001116736	1	TERMINAL	
22	80963060	1	SHROUD	
23	80963070	2	CAVITY PLUG	
24	80963059	1	TOWER	
25	4461118	2	AMP CONN	
26	1001107854	2	AMP CONTACTS	
27	1001116763	2	AMP SEAL	
28	80963058	1	SHROUD	
29	4460942	1	SOCKET, #14-16	
30	86984562	1	CONNECTOR	
31	91504105	2	BOOT	
32	91504106	1	PLUG CONN	
33	91504088	1	PLUG CONN	
34	91504107	1	LOCK	
35	3740080	1	RELAY	
36	4460374	1	CONNECTOR ASSY	
37	91143155	1	PROXIMITY SENSOR SWITCH	
38	91503103	1	DEUTSCH CONN	
39	91503104	1	DEUTSCH LOCK	
40	4460466	1	DEUTSCH PLUG	
41	77363228	5	PIN CONTACT, #16	
42	88501004	1	HEX NUT, 1/4-20	
43	88551009	1	LOCKWASHER, 1/4	

# SECTION 10 - ELECTRICAL

FIGURE 10-5. ENGINE HARNESS (SN 0160002069 through 0160006622, Excluding 0160006286)



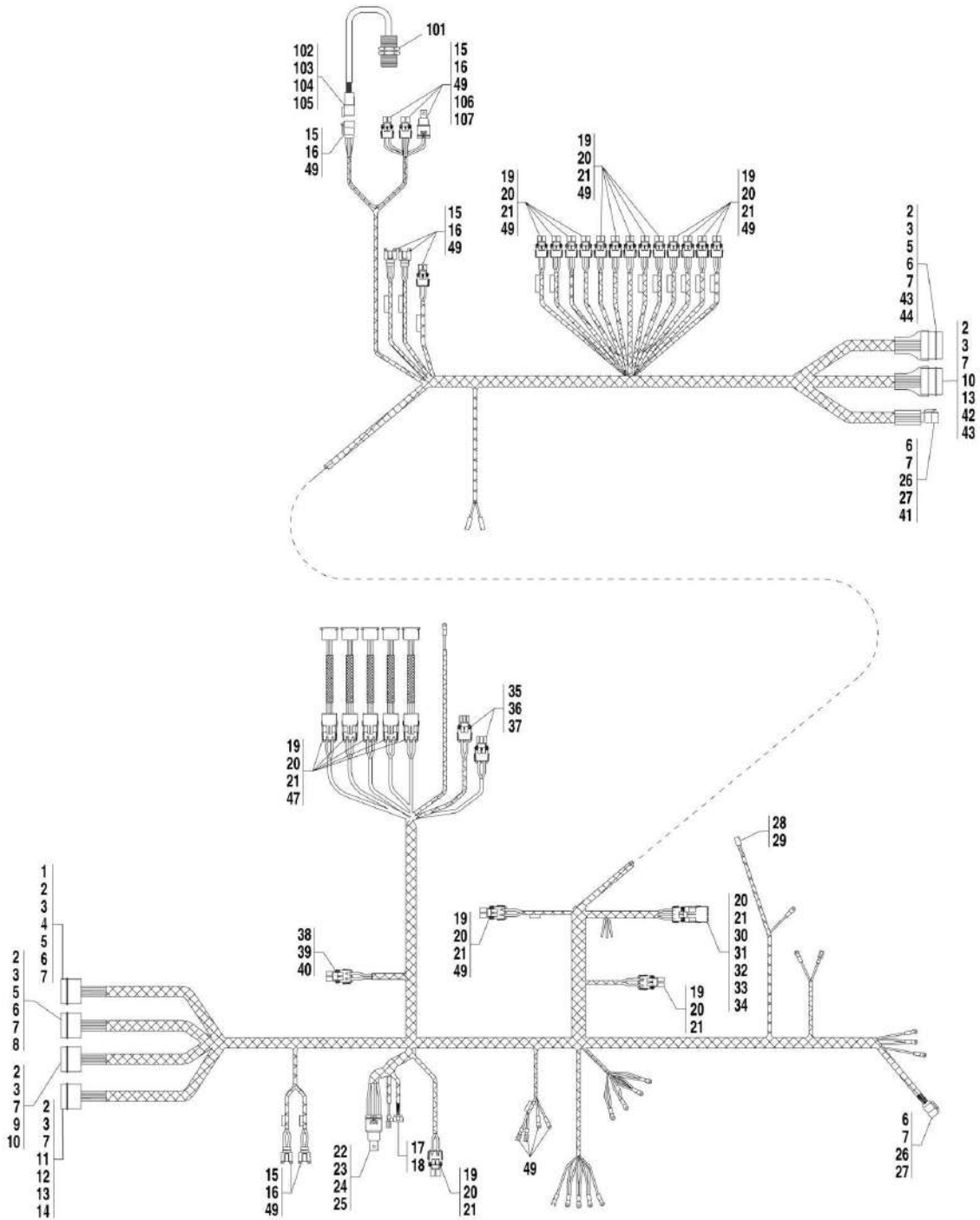
## SECTION 10 - ELECTRICAL

**FIGURE 10-5. ENGINE HARNESS (SN 0160002069 through 0160006622, Excluding 0160006286)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503147	1	ENGINE HARNESS, (includes all items except items 37 thru 41)	B
1	91404337	1	PLUG CONN	
2	83481286	6	PANEL NUT	
3	83481285	6	LOCKWASHER	
4	91143340	1	SOCKET CONTACT, #8	
5	77363347	3	12 AWG SOCKET	
6	77363229	6	SOCKET CONTACT, #16	
7	83481301	9	SEALING PLUG	
8	80204287	1	CONNECTOR	
9	91504097	1	PLUG CONN	
10	77363228	3	PIN CONTACT, #16	
11	91364010	1	RECEPTACLE CONN	
12	91143339	1	PIN CONTACT, #8	
13	77363345	2	12 AWG PIN	
14	91474468	4	CLIP AND SEAL	
15	91504098	1	AMP CONNECTOR	
16	4460225	1	AMP TERMINAL	
17	80963057	24	TOWER	
18	91504100	2	PLUG CONN	
19	80604025	2	WEDGE LOCK	
20	91504101	1	CONNECTOR	
21	1001116736	1	TERMINAL	
22	80963060	1	SHROUD	
23	80963070	2	CAVITY PLUG	
24	80963059	1	TOWER	
25	4461118	2	AMP CONN	
26	1001107854	2	AMP CONTACTS	
27	1001116763	2	AMP SEAL	
28	80963058	1	SHROUD	
29	4460942	1	SOCKET, #14-16	
30	86984562	1	CONNECTOR	
31	91504105	2	BOOT	
32	91504106	1	PLUG CONN	
33	91504088	1	PLUG CONN	
34	91504107	1	LOCK	
35	3740080	2	RELAY	
36	4460374	2	CONNECTOR ASSY	
37	91143155	1	PROXIMITY SENSOR SWITCH	
38	91503103	1	DEUTSCH CONN	
39	91503104	1	DEUTSCH LOCK	
40	4460466	1	DEUTSCH PLUG	
41	77363228	5	PIN CONTACT, #16	
42	1001116733	1	TERMINAL	
43	91554023	1	CONNECTOR ASSY	
44	1001117073	1	CONNECTOR	
45	88501004	1	HEX NUT, 1/4-20	
46	88551009	1	LOCKWASHER, 1/4	

# SECTION 10 - ELECTRICAL

FIGURE 10-6. ENGINE HARNESS (SN 0160006707 through 0160011949, Including 0160000198 and 0160006286)



## SECTION 10 - ELECTRICAL

**FIGURE 10-6. ENGINE HARNESS (SN 0160006707 through 0160011949, Including 0160000198 and 0160006286)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503153	1	ENGINE HARNESS, (includes items 1 thru 48)	C
1	91504118	1	CONNECTOR	
2	83481286	6	NUT	
3	83481285	6	LOCKWASHER	
4	91143340	1	SOCKET CONTACT, #8	
5	77363347	3	CONTACT	
6	77363229	6	CONTACT	
7	4460466	9	PLUG	
8	91504119	1	CONNECTOR	
9	91504097	1	CONNECTOR	
10	77363228	2	TERMINAL	
11	91504120	1	CONNECTOR	
12	91143339	1	PIN CONTACT, #8	
13	77363345	2	CONTACT	
14	77363228	1	TERMINAL	
15	91474468	4	CONNECTOR	
16	91474469	4	TERMINAL	
17	91504098	1	CONNECTOR	
18	4460225	1	TERMINAL PIN	
19	80963057	24	TOWER	
20	80963068	25	TERMINAL	
21	80963066	25	CABLE SEAL, GRAY	
22	3740080	2	RELAY	
23	4460374	2	CONNECTOR ASSY	
24	1001116733	2	TERMINAL	
25	91554023	1	PLUG	
26	91504100	2	CONNECTOR	
27	80604025	2	LOCK, CONNECTOR	
28	91504101	1	CONNECTOR	
29	1001116736	1	TERMINAL	
30	4460459	1	CONNECTOR	
31	4460790	1	TERMINAL	
32	80963067	1	SEAL	
33	80963060	1	SHROUD	
34	80963070	1	PLUG, DUST CAP	
35	4461118	2	CONNECTOR	
36	1001107854	2	CONTACTS	
37	1001116763	2	SEAL	
38	1001117073	1	CONNECTOR	
39	4460693	1	TERMINAL	
40	4460608	1	SEAL	
41	4460942	1	SOCKET, DEUTSCH	
42	86984562	1	CONNECTOR	
43	91504105	2	BOOT	
44	91504106	1	CONNECTOR	
45	91504088	1	CONNECTOR	
46	91504107	1	LOCK, CONNECTOR	
47	91513287	5	JUMPER WIRES	
48	91363021	15	MOLDED DIODE	

## SECTION 10 - ELECTRICAL

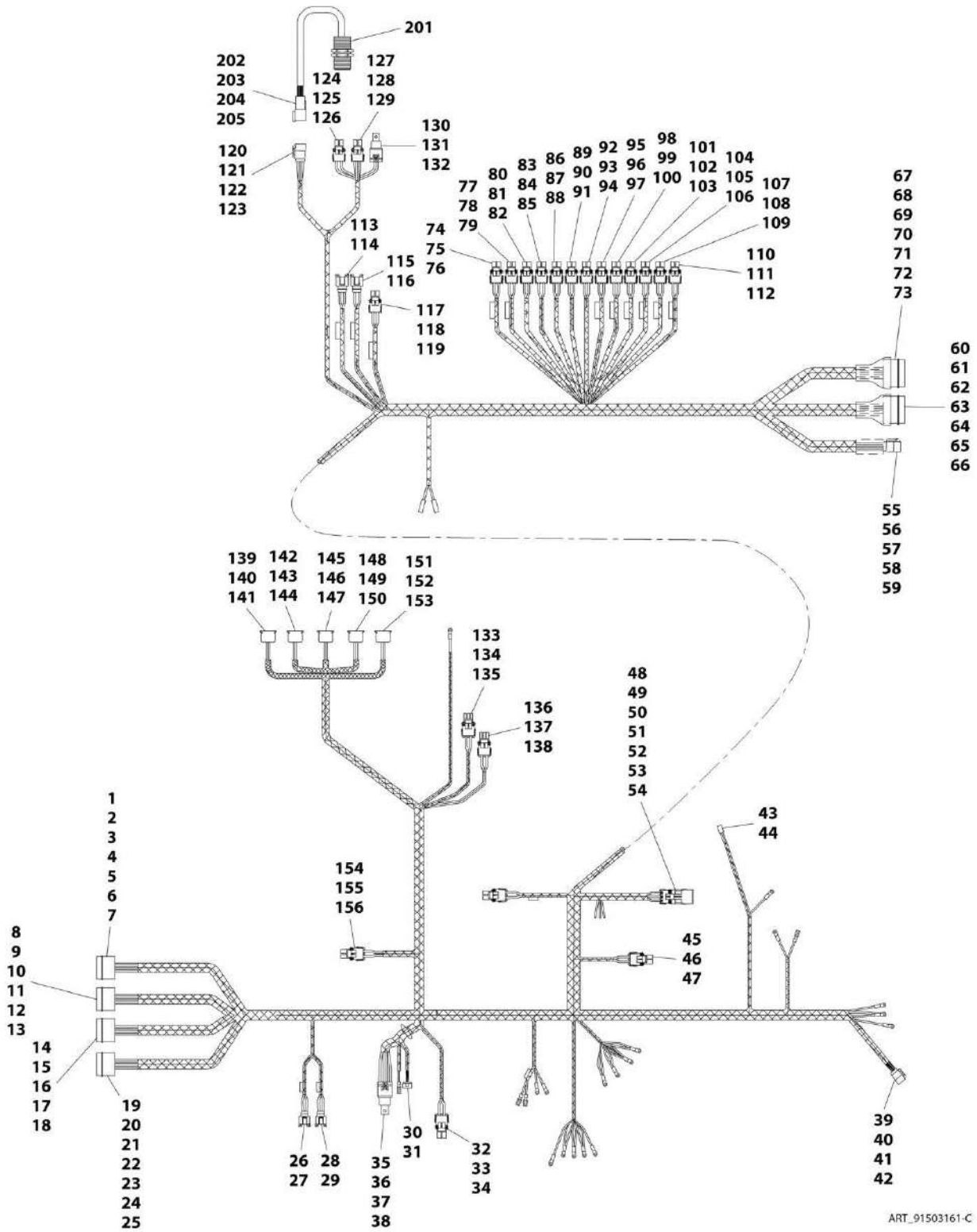
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
101	91143155	1	PROXIMITY SENSOR SWITCH	
102	91503103	1	DEUTSCH CONN	
103	91503104	1	DEUTSCH LOCK	
104	77363230	1	DEUTSCH PLUG	
105	77363228	5	DEUTSCH CONTACTS	
106	88501004	1	HEX NUT, 1/4-20	
107	88551009	1	LOCKWASHER, 1/4	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	





# SECTION 10 - ELECTRICAL

FIGURE 10-7. ENGINE HARNESS (SN 0160011949 through 0160019117)



## SECTION 10 - ELECTRICAL

**FIGURE 10-7. ENGINE HARNESS (SN 0160011949 through 0160019117)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503161	Ref	ENGINE HARNESS, (includes items 1 thru 156)	C
1	70028783	1	CONNECTOR	
2	83481286	1	NUT	
3	83481285	1	LOCKWASHER	
4	91143340	1	SOCKET CONTACT, #8	
5	77363347	3	SOCKET CONTACT, #12	
6	77363229	8	SOCKET CONTACT, #16	
7	4460466	6	PLUG	
8	80204287	1	CONNECTOR	
9	83481286	1	NUT	
10	83481285	1	LOCKWASHER	
11	77363347	5	SOCKET CONTACT, #12	
12	77363229	12	SOCKET CONTACT, #16	
13	4460466	2	PLUG	
14	4460463	1	CONNECTOR	
15	83481286	1	NUT	
16	83481285	1	LOCKWASHER	
17	77363228	21	TERMINAL	
18	4460466	2	PLUG	
19	70028784	1	CONNECTOR	
20	83481286	1	NUT	
21	83481285	1	LOCKWASHER	
22	91143339	1	PIN CONTACT, #8	
23	77363345	3	CONTACT	
24	77363228	5	TERMINAL	
25	4460466	9	PLUG	
26	91474468	1	CONNECTOR	
27	91474469	1	TERMINAL	
28	91474468	1	CONNECTOR	
29	91474469	1	TERMINAL	
30	4460267	1	CONNECTOR	
31	4460225	3	TERMINAL	
32	80963057	1	CONNECTOR	
33	80963068	2	TERMINAL	
34	4460789	2	SEAL	
35	3740080	1	RELAY	
36	4460374	1	CONNECTOR	
37	1001116733	4	TERMINAL	
38	91554023	1	PLUG	
39	8220524	1	CONNECTOR	
40	8220525	1	WEDGELOCK	
41	77363229	5	TERMINAL	
42	4460466	3	PLUG	
43	91504101	1	CONNECTOR	
44	1001116736	2	TERMINAL	
45	80963057	1	CONNECTOR	
46	80963068	2	TERMINAL	
47	4460789	2	SEAL	
48	4460459	1	CONNECTOR	
49	80963068	1	TERMINAL	

## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	4460790	2	TERMINAL	
51	4460789	1	SEAL	
52	80963067	2	SEAL	
53	80963060	1	SHROUD	
54	80963070	1	PLUG, DUST CAP	
55	8220524	1	CONNECTOR	
56	8220525	1	WEDGELOCK	
57	4460942	1	SOCKET	
58	77363229	6	CONTACT	
59	4460466	1	PLUG	
60	4460613	1	CONNECTOR	
61	83481286	1	NUT	
62	83481285	1	LOCKWASHER	
63	77363228	16	TERMINAL	
64	77363345	2	CONTACT	
65	4460466	3	PLUG	
66	91504105	1	BOOT	
67	4460938	1	CONNECTOR	
68	83481286	1	NUT	
69	83481285	1	LOCKWASHER	
70	77363229	16	CONTACT	
71	77363347	2	CONTACT	
72	4460466	3	PLUG	
73	91504105	1	BOOT	
74	80963057	1	CONNECTOR	
75	80963068	2	TERMINAL	
76	4460789	2	SEAL	
77	80963057	1	CONNECTOR	
78	80963068	2	TERMINAL	
79	4460789	2	SEAL	
80	80963057	1	CONNECTOR	
81	80963068	2	TERMINAL	
82	4460789	2	SEAL	
83	80963057	1	CONNECTOR	
84	80963068	2	TERMINAL	
85	4460789	2	SEAL	
86	80963057	1	CONNECTOR	
87	80963068	2	TERMINAL	
88	4460789	2	SEAL	
89	80963057	1	CONNECTOR	
90	80963068	2	TERMINAL	
91	4460789	2	SEAL	
92	80963057	1	CONNECTOR	
93	80963068	2	TERMINAL	
94	4460789	2	SEAL	
95	80963057	1	CONNECTOR	
96	80963068	2	TERMINAL	
97	4460789	2	SEAL	
98	80963057	1	CONNECTOR	
99	80963068	2	TERMINAL	
100	4460789	2	SEAL	

## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
101	80963057	1	CONNECTOR	
102	80963068	2	TERMINAL	
103	4460789	2	SEAL	
104	80963057	1	CONNECTOR	
105	80963068	2	TERMINAL	
106	4460789	2	SEAL	
107	80963057	1	CONNECTOR	
108	80963068	2	TERMINAL	
109	4460789	2	SEAL	
110	80963057	1	CONNECTOR	
111	80963068	2	TERMINAL	
112	4460789	2	SEAL	
113	91474468	1	CONNECTOR	
114	91474469	2	TERMINAL	
115	91474468	1	CONNECTOR	
116	91474469	2	TERMINAL	
117	80963057	1	CONNECTOR	
118	80963068	2	TERMINAL	
119	4460789	2	SEAL	
120	91504088	1	CONNECTOR	
121	91504107	1	LOCK, CONNECTOR	
122	77363229	5	CONTACT	
123	4460466	1	PLUG	
124	80963057	1	CONNECTOR	
125	80963068	2	TERMINAL	
126	4460789	2	SEAL	
127	80963057	1	CONNECTOR	
128	80963068	2	TERMINAL	
129	4460789	2	SEAL	
130	3740080	1	RELAY	
131	4460374	1	CONNECTOR	
132	1001116733	5	TERMINAL	
133	4461118	1	CONNECTOR	
134	1001107854	2	CONTACT	
135	1001116763	2	SEAL	
136	4461118	1	CONNECTOR	
137	1001107854	2	CONTACT	
138	1001116763	2	SEAL	
139	1001116983	1	CONNECTOR	
140	70022608	2	TERMINAL	
141	70022609	2	SEAL	
142	1001116983	1	CONNECTOR	
143	70022608	2	TERMINAL	
144	70022609	2	SEAL	
145	1001116983	1	CONNECTOR	
146	70022608	2	TERMINAL	
147	70022609	2	SEAL	
148	1001116983	1	CONNECTOR	
149	70022608	2	TERMINAL	
150	70022609	2	SEAL	
151	1001116983	1	CONNECTOR	

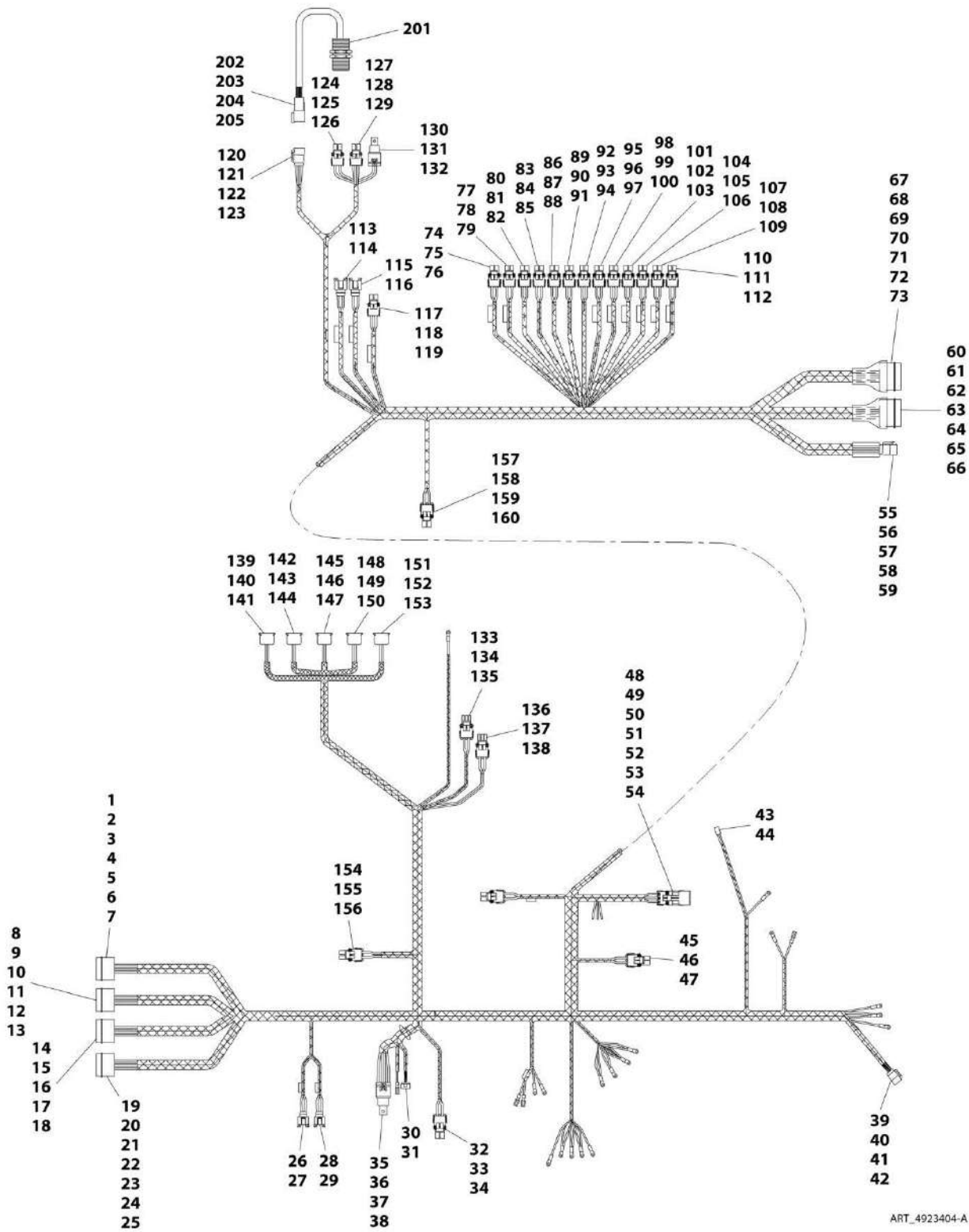
## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
152	70022608	2	TERMINAL	
153	70022609	2	SEAL	
154	1001117073	1	CONNECTOR	
155	4460693	2	TERMINAL	
156	4460608	2	SEAL	
201	91143155	1	PROXIMITY SENSOR SWITCH	
202	91503103	1	DEUTSCH CONN	
203	91503104	1	DEUTSCH LOCK	
204	4460466	1	DEUTSCH PLUG	
205	77363228	5	DEUTSCH CONTACTS	



# SECTION 10 - ELECTRICAL

FIGURE 10-8. ENGINE HARNESS (SN 0160019117 to Present)





## SECTION 10 - ELECTRICAL

**FIGURE 10-8. ENGINE HARNESS (SN 0160019117 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4923404	1	ENGINE HARNESS	A
1	70028783	1	CONNECTOR	
2	83481286	1	NUT	
3	83481285	1	LOCKWASHER	
4	91143340	1	SOCKET CONTACT, #8	
5	77363347	3	SOCKET CONTACT, #12	
6	77363229	8	SOCKET CONTACT, #16	
7	4460466	6	PLUG	
8	80204287	1	CONNECTOR	
9	83481286	1	NUT	
10	83481285	1	LOCKWASHER	
11	77363347	5	SOCKET CONTACT, #12	
12	77363229	12	SOCKET CONTACT, #16	
13	4460466	2	PLUG	
14	4460463	1	CONNECTOR	
15	83481286	1	NUT	
16	83481285	1	LOCKWASHER	
17	77363228	21	TERMINAL	
18	4460466	2	PLUG	
19	70028784	1	CONNECTOR	
20	83481286	1	NUT	
21	83481285	1	LOCKWASHER	
22	91143339	1	PIN CONTACT, #8	
23	77363345	3	CONTACT	
24	77363228	5	TERMINAL	
25	4460466	9	PLUG	
26	91474468	1	CONNECTOR	
27	91474469	1	TERMINAL	
28	91474468	1	CONNECTOR	
29	91474469	1	TERMINAL	
30	4460267	1	CONNECTOR	
31	4460225	3	TERMINAL	
32	80963057	1	CONNECTOR	
33	80963068	2	TERMINAL	
34	4460789	2	SEAL	
35	3740080	1	RELAY	
36	4460374	1	CONNECTOR	
37	1001116733	4	TERMINAL	
38	91554023	1	PLUG	
39	8220524	1	CONNECTOR	
40	8220525	1	WEDGELOCK	
41	77363229	5	TERMINAL	
42	4460466	3	PLUG	
43	91504101	1	CONNECTOR	
44	1001116736	2	TERMINAL	
45	80963057	1	CONNECTOR	
46	80963068	2	TERMINAL	
47	4460789	2	SEAL	
48	4460459	1	CONNECTOR	
49	80963068	1	TERMINAL	

## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	4460790	2	TERMINAL	
51	4460789	1	SEAL	
52	80963067	2	SEAL	
53	80963060	1	SHROUD	
54	80963070	1	DUST CAP PLUG	
55	8220524	1	CONNECTOR	
56	8220525	1	WEDGELOCK	
57	4460942	1	SOCKET	
58	77363229	6	CONTACT	
59	4460466	1	PLUG	
60	4460613	1	CONNECTOR	
61	83481286	1	NUT	
62	83481285	1	LOCKWASHER	
63	77363228	16	TERMINAL	
64	77363345	2	CONTACT	
65	4460466	3	PLUG	
66	91504105	1	BOOT	
67	4460938	1	CONNECTOR	
68	83481286	1	NUT	
69	83481285	1	LOCKWASHER	
70	77363229	16	CONTACT	
71	77363347	2	CONTACT	
72	4460466	3	PLUG	
73	91504105	1	BOOT	
74	80963057	1	CONNECTOR	
75	80963068	2	TERMINAL	
76	4460789	2	SEAL	
77	80963057	1	CONNECTOR	
78	80963068	2	TERMINAL	
79	4460789	2	SEAL	
80	80963057	1	CONNECTOR	
81	80963068	2	TERMINAL	
82	4460789	2	SEAL	
83	80963057	1	CONNECTOR	
84	80963068	2	TERMINAL	
85	4460789	2	SEAL	
86	80963057	1	CONNECTOR	
87	80963068	2	TERMINAL	
88	4460789	2	SEAL	
89	80963057	1	CONNECTOR	
90	80963068	2	TERMINAL	
91	4460789	2	SEAL	
92	80963057	1	CONNECTOR	
93	80963068	2	TERMINAL	
94	4460789	2	SEAL	
95	80963057	1	CONNECTOR	
96	80963068	2	TERMINAL	
97	4460789	2	SEAL	
98	80963057	1	CONNECTOR	
99	80963068	2	TERMINAL	
100	4460789	2	SEAL	

## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
101	80963057	1	CONNECTOR	
102	80963068	2	TERMINAL	
103	4460789	2	SEAL	
104	80963057	1	CONNECTOR	
105	80963068	2	TERMINAL	
106	4460789	2	SEAL	
107	80963057	1	CONNECTOR	
108	80963068	2	TERMINAL	
109	4460789	2	SEAL	
110	80963057	1	CONNECTOR	
111	80963068	2	TERMINAL	
112	4460789	2	SEAL	
113	91474468	1	CONNECTOR	
114	91474469	2	TERMINAL	
115	91474468	1	CONNECTOR	
116	91474469	2	TERMINAL	
117	80963057	1	CONNECTOR	
118	80963068	2	TERMINAL	
119	4460789	2	SEAL	
120	91504088	1	CONNECTOR	
121	91504107	1	LOCK, CONNECTOR	
122	77363229	5	CONTACT	
123	4460466	1	PLUG	
124	80963057	1	CONNECTOR	
125	80963068	2	TERMINAL	
126	4460789	2	SEAL	
127	80963057	1	CONNECTOR	
128	80963068	2	TERMINAL	
129	4460789	2	SEAL	
130	3740080	1	RELAY	
131	4460374	1	CONNECTOR	
132	1001116733	5	TERMINAL	
133	4461118	1	CONNECTOR	
134	1001107854	2	CONTACT	
135	1001116763	2	SEAL	
136	4461118	1	CONNECTOR	
137	1001107854	2	CONTACT	
138	1001116763	2	SEAL	
139	1001116983	1	CONNECTOR	
140	70022608	2	TERMINAL	
141	70022609	2	SEAL	
142	1001116983	1	CONNECTOR	
143	70022608	2	TERMINAL	
144	70022609	2	SEAL	
145	1001116983	1	CONNECTOR	
146	70022608	2	TERMINAL	
147	70022609	2	SEAL	
148	1001116983	1	CONNECTOR	
149	70022608	2	TERMINAL	
150	70022609	2	SEAL	
151	1001116983	1	CONNECTOR	

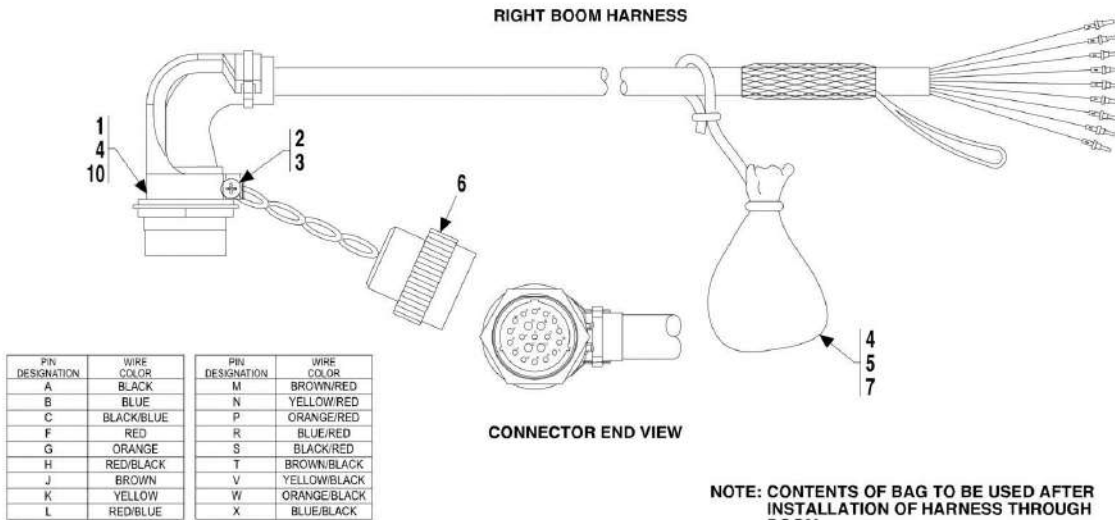
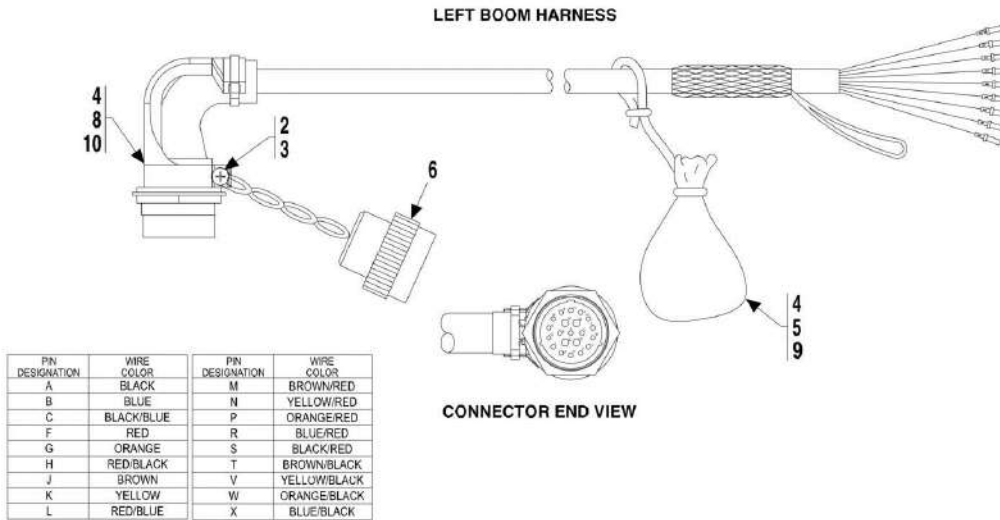
## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
152	70022608	2	TERMINAL	
153	70022609	2	SEAL	
154	1001117073	1	CONNECTOR	
155	4460693	2	TERMINAL	
156	4460608	2	SEAL	
157	1001117021	1	CONNECTOR ASSEMBLY	
158	8220890	1	SECONDARY LOCK	
159	4460746	2	TERMINAL	
160	4460789	2	SEAL	
201	91143155	1	PROXIMITY SENSOR SWITCH	
202	91503103	1	DEUTSCH CONN	
203	91503104	1	DEUTSCH LOCK	
204	4460466	1	DEUTSCH PLUG	
205	77363228	5	DEUTSCH CONTACTS	



# SECTION 10 - ELECTRICAL

## FIGURE 10-9. RIGHT AND LEFT BOOM HARNESS



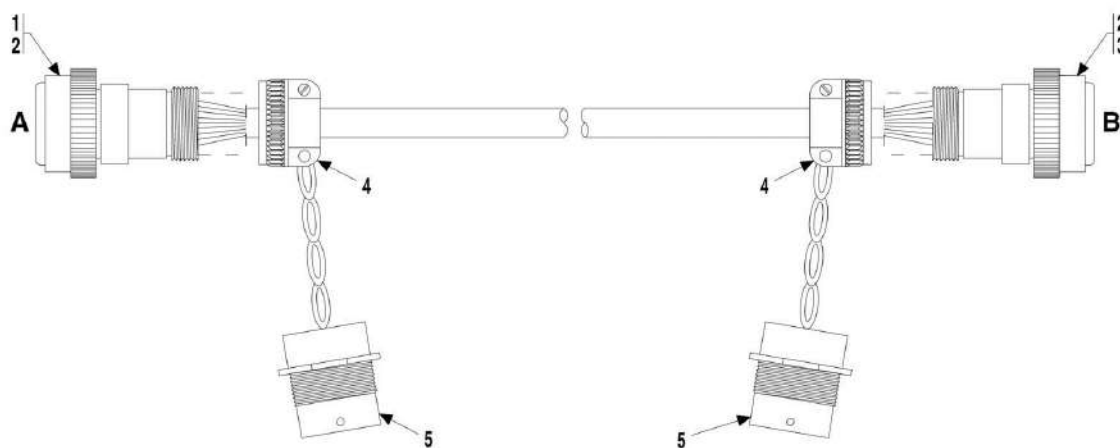
## SECTION 10 - ELECTRICAL

### FIGURE 10-9. RIGHT AND LEFT BOOM HARNESS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503051	1	RIGHT BOOM HARNESS, (includes items 1 & 7, one of items 2, 3, 5, 6 & 10 and two of item 4)	
	91503053	1	LEFT BOOM HARNESS, (includes items 8 & 9, one of items 2, 3, 5, 6 & 10 and two of item 4)	
1	91504112	1	RECEPTACLE	
2	83481286	2	PANEL NUT	
3	83481285	2	LOCKWASHER	
4	83481301	4	SEALING PLUG	
5	4460473	2	STRAIN RELIEF CLAMP	
6	91504110	2	PROTECTIVE CAP	
7	91504113	1	PLUG	
8	91504108	1	RECEPTACLE	
9	91504111	1	PLUG	
10	91474463	2	90, TRAIN RELIEF	

# SECTION 10 - ELECTRICAL

## FIGURE 10-10. TRANSFORMER PLATFORM HARNESS



**A**

PIN DESIGNATION	WIRE COLOR
A	BLACK
B	BLUE
C	BLACK/BLUE
F	RED
G	ORANGE
H	RED/BLACK
J	BROWN
K	YELLOW
L	RED/BLUE
M	BROWN/RED
N	YELLOW/RED
P	ORANGE/RED
R	BLUE/RED
S	BLACK/RED
T	BROWN/BLACK
V	YELLOW/BLACK
W	ORANGE/BLACK
X	BLUE/BLACK

**B**

PIN DESIGNATION	WIRE COLOR
A	BLACK
B	BLUE
C	BLACK/BLUE
F	RED
G	ORANGE
H	RED/BLACK
J	BROWN
K	YELLOW
L	RED/BLUE
M	BROWN/RED
N	YELLOW/RED
P	ORANGE/RED
R	BLUE/RED
S	BLACK/RED
T	BROWN/BLACK
V	YELLOW/BLACK
W	ORANGE/BLACK
X	BLUE/BLACK



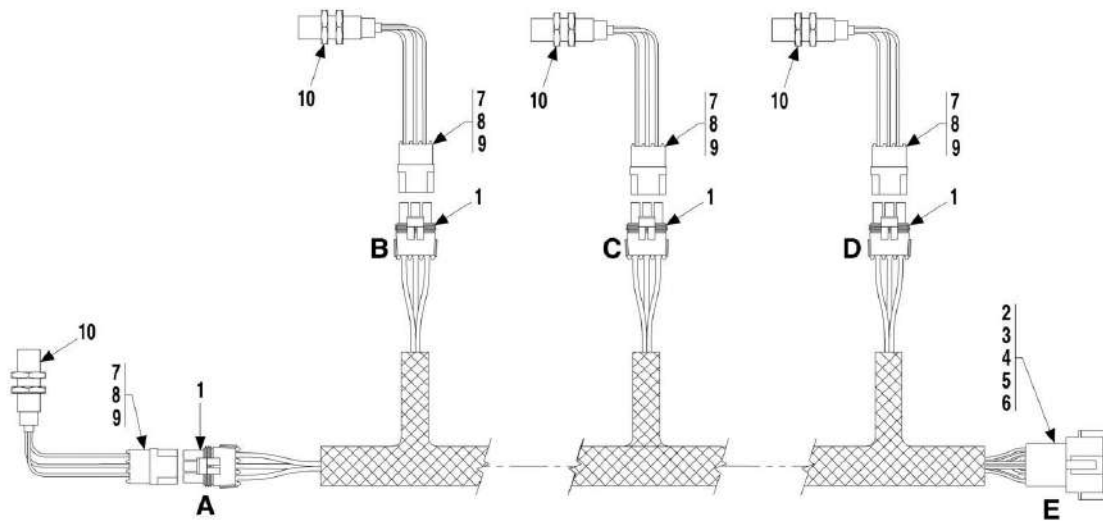
## SECTION 10 - ELECTRICAL

### FIGURE 10-10. TRANSFORMER PLATFORM HARNESS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503068	1	TRANSFORMER PLATFORM HARNESS, (includes all items)	
1	91504111	1	PLUG	
2	83481301	2	SEALING PLUG	
3	91504113	1	PLUG	
4	4460473	2	STRAIN RELIEF FITTING	
5	4460468	2	PROTECTIVE CAP	

# SECTION 10 - ELECTRICAL

## FIGURE 10-11. BOOM SENSOR HARNESS



WIRE DESIGNATION	WIRE COLOR/STRIPE	WIRE GAUGE	WIRE END	TERMINAL TYPE	WIRE END	TERMINAL TYPE	WIRE END	TERMINAL TYPE	WIRE END	TERMINAL TYPE	WIRE END	TERMINAL TYPE
PLAT 24 PWR	ORANGE/ST GREEN	14	A	3 WIRE W/P	B	3 WIRE W/P	D	3 WIRE W/P	E	DEUTSCH DT04-8P		
PLAT COM	WHITE/BROWN	16	A	3 WIRE W/P	B	3 WIRE W/P	C	3 WIRE W/P	D	3 WIRE W/P	E	DEUTSCH DT04-8P
BU BLEVEXT	BLUE/1 GREEN	18	E	DEUTSCH DT04-8P	-	SPLICE TO 2.7K AND 50K RESISTORS						
APC 80P W/R	BLACK	18	C	DEUTSCH DT04-8P	-	SPLICE TO 30K RESISTOR						
EXT LIGHT	WHITE/YELLOW	18	A	2 WIRE W/P	E	DEUTSCH DT04-8P						
1500K RANGE	YELLOW/BROWN	18	B	3 WIRE W/P	E	DEUTSCH DT04-8P						
BLEVE SEN	YELLOW/BLACK	18	C	3 WIRE W/P	D	3 WIRE W/P	E	DEUTSCH DT04-8P				
EXT 500 OHM	BROWN/PINK	18	C	3 WIRE W/P	-	SPLICE TO 2.7K RESISTOR						

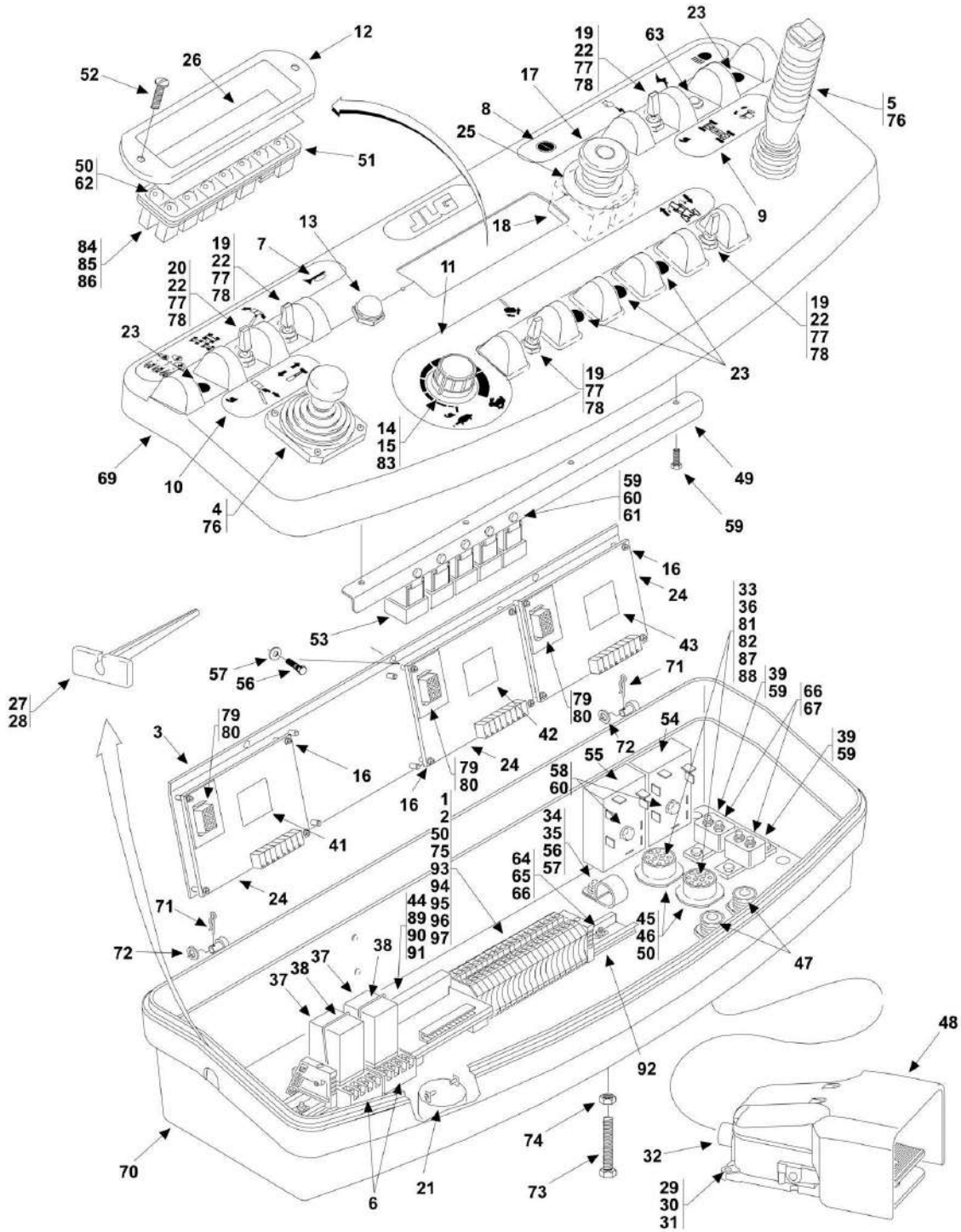
## SECTION 10 - ELECTRICAL

### FIGURE 10-11. BOOM SENSOR HARNESS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91503073	Ref	BOOM SENSOR HARNESS, (no longer available see items 1 thru 6 for service or use 91503154 for replacement)	B
	91503154	1	BOOM SENSOR HARNESS, (includes items 1 thru 6)	A
1	80963059	4	TOWER	
2	91503105	1	8 PIN RECEPTACLE	
3	91503106	1	WEDGELOCK	
4	83481301	1	SEALING PLUG	
5	4460941	1	ELECTRICAL KIT	
6	77363228	1	PIN CONT, #6	
7	80963060	4	SHROUD	
8	80963069	12	MALE PIN TERMINAL	
9	91143187	12	CABLE SEAL, GREEN	
10	80363166	4	PROXIMITY SENSOR, (includes items 7, 8 & 9)	

# SECTION 10 - ELECTRICAL

## FIGURE 10-12. TRANSFORMER PLATFORM CONTROL BOX ASSEMBLY



ART\_0601520-E

## SECTION 10 - ELECTRICAL

**FIGURE 10-12. TRANSFORMER PLATFORM CONTROL BOX ASSEMBLY**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0861520	1	TRANSFORMER PLATFORM CONTROL BOX ASSY, (includes all items)	E
	0861535	1	CONSOLE BOX, (includes items 69 thru 74)	
1	4460600	6	TERMINAL BLOCK	
2	4460632	4	TERMINAL MARKER, (1 thru 5)	
3	3538819	1	MOUNTING PLATE	
4		Ref	LIFT/SWING CONTROLLER, (See CONTROLS SECTION for Breakdown)	
5		Ref	DRIVE/STEER CONTROLLER, (See CONTROLS SECTION for Breakdown)	
6	4120013	2	SOCKET, RELAY	
7	1702676	1	HORN DECAL	
8	1705129	1	STOP DECAL	
9	1702565	1	DRIVE/STEER DECAL	
10	1705128	1	LIFT/TELESCOPE DECAL	
11	1705130	1	FUNCTION SPEED DECAL	
12	2760105	1	DISPLAY LIGHT HOUSING	
13	4360387	1	PUSH BUTTON SWITCH	
14	2560136	1	SPEED CONTROL KNOB	
15	4360407	1	POTENTIOMETER SWITCH	
16	3910610	12	ROUND HEAD MACHINE SCREW, #6-32X5/8	
17	4360475	1	EMERGENCY STOP SWITCH	
18	4360476	2	CONTACT BLOCK	
19	4360314	4	DPDT/MC/CO SWITCH	
20	4360331	1	CENTER OFF SWITCH	
21	0140026	1	ALARM	
22	3790012	5	O-RING	
23	3520028	5	HOLE PUNCH	
24	1600218	3	CONTROL CORD	
25	1704260	1	EMS DECAL	
26	1705184	1	PLATFORM DISPLAY DECAL	
27	4460467	1	BLUE EXTRACTION TOOL	
28	4460510	1	YELLOW EXTRACTION TOOL	
29	0641408	3	HEX HD CAPSCREW, 1/4-20X1	
30	3311405	3	LOCK NUT, 1/4-20	
31	4740362	3	FENDER WASHER, 1/4	
32	4460071	1	STRAIN RELIEF FITTING	
33	4460613	1	TERMINAL, 21 PIN CONNECTOR	
34	3311401	1	NUT, 1/4-20	
35	1320060	1	CLAMP, 1-1/4	
36	4460938	1	TERMINAL, 21 SOCKET CONNECTOR	
37	3740058	2	RELAY - 4 PDT	
38	3740063	2	SPRING RELAY	
39	4360232	2	CIRCUIT BREAKER, 15 AMP	
41	1703090	1	CONTROL CORD DECAL, (lift)	
42	1705183	1	CONTROL CORD DECAL, (telescope)	
43	1703092	1	CONTROL CORD DECAL, (flow control)	
44	0610156	1	PCB, DIODE MODULE	
45	4460470	2	NUT	
46	4460471	2	WASHER	

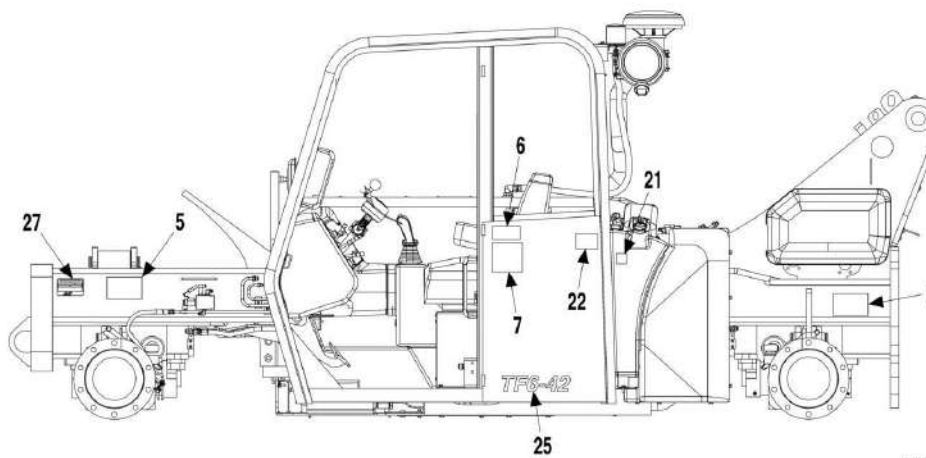
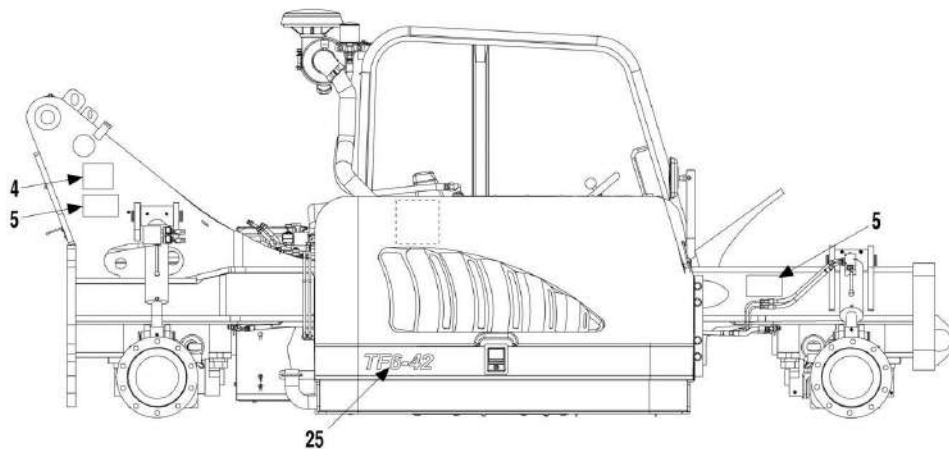
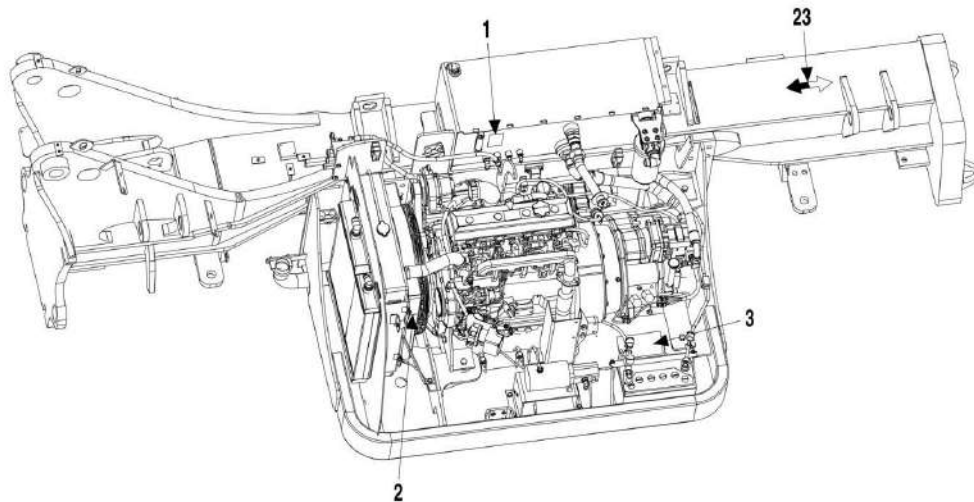
## SECTION 10 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	4460428	2	STRAIN RELIEF	
48	4360031	1	FOOT SWITCH	
49	3539275	1	RELAY MOUNTING PLATE	
50	4922689	1	HARNESS ASSY, (includes items 1, 2, 33, 36 & 75 thru 97)	
51	1670829	1	BEZEL	
52	0630464	2	BUTTON HEAD CAPSCREW	
53	3740049	8	BOSCH RELAY	
54	3740113	1	TIME DELAY RELAY	
55	3740115	1	TIME DELAY RELAY	
56	0641406	1	HEX HD CAPSCREW, 1/4-20X3/4	
57	4751400	4	FLAT WASHER, 1/4	
58	0721010	4	MACHINE SCREW INDENT HEX HD, #10-24X1-1/4	
59	0721003	12	MACHINE SCREW INDENT HEX HD, #10-24X3/8	
60	4751000	10	FLAT WASHER, #10	
61	3311005	8	LOCKNUT, #10-24	
62	2920129	6	LIGHT BULB	
63	2920151	1	LIGHT, 12 V LED	
64	0721004	2	HEX HD MACHINE SCREW, #10-32X1/2	
65	4711000	2	FLAT WASHER, #10	
66	4761000	6	LOCKWASHER	
67	3311001	4	NUT, 10-32	
68	4460488	4	WIRE TIE BASE, (not shown)	
69	1220100	1	BOX TOP CASTING	
70	1220101	1	BOX BOTTOM CASTING	
71	3470003	2	COTTER PIN, 3/32X1	
72	4711500	2	WASHER, 5/16	
73	3931672	1	SOCKET HD CAPSCREW, 3/8-16X4-1/2	
74	3311601	1	HEX NUT, 3/8-16	
75	4460631	1	TERMINAL MARKER, (neg)	
76	4460265	2	PLUG, 9 POS	
77	4460418	5	TERMINAL, 6 PIN SWITCH CONN	
78	4460419	27	TERMINAL, FEMALE	
79	4460720	3	TERMINAL, 15 PIN HOUSING	
80	4460721	18	TERMINAL, FEMALE - 16GA	
81	4460464	15	TERMINAL, PIN DEUTCH, 14-16	
82	4460508	3	TERMINAL, PIN DEUTCH, 10-12	
83	4460225	1	PLUG, 6 POS	
84	4120035	6	LIGHT SOCKET	
85	4460634	7	TERMINAL END, 14-16	
86	4460635	5	TERMINAL END, 10-12	
87	4460465	16	TERMINAL, SOCKET DEUTCH, 16-18	
88	4460509	2	TERMINAL, SOCKET DEUTCH, 12-14	
89	4460715	1	TERMINAL, 13 POS PHOENIX CONTACT - 7006751	
90	4460718	1	TERMINAL, 10 POS PHOENIX CONTACT - 7006754	
91	4460312	1	TERMINAL RING, 1/4 STUD, 10-12	
92	3641182	1	TRACK	
93	4460601	16	TERMINAL BLOCK	
94	4460607	2	TERMINAL END STOP	
95	4460602	1	TERMINAL END BARRIER	
96	4460629	2	TERMINAL MARKER, (6 thru 15)	
97	4460603	2	TERMINAL BUSS BAR, (10pos) CUT	

**SECTION 11 - DECALS**

# SECTION 11 - DECALS

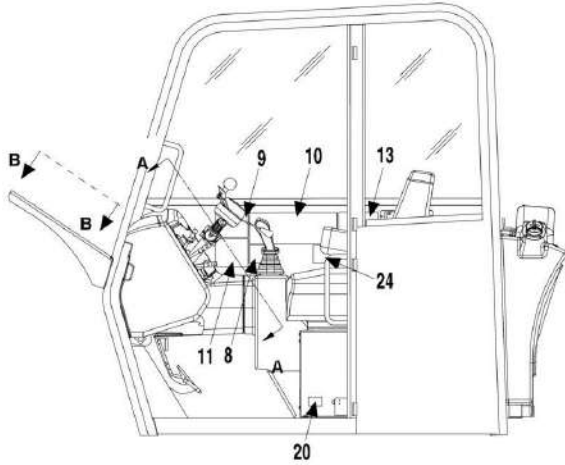
## FIGURE 11-1. CAB AND FRAME DECALS



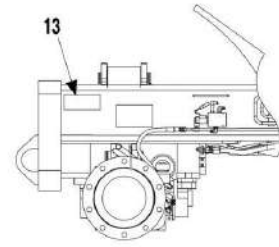
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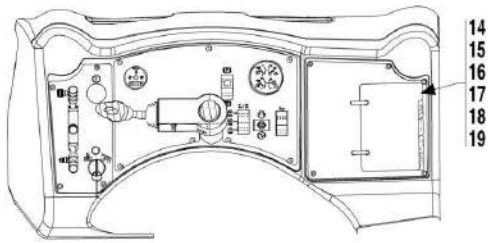
# SECTION 11 - DECALS



**VIEW OF LEFT HAND SIDE OF CAB  
ITEM 13 ONLY Prior to SN 0160004021**



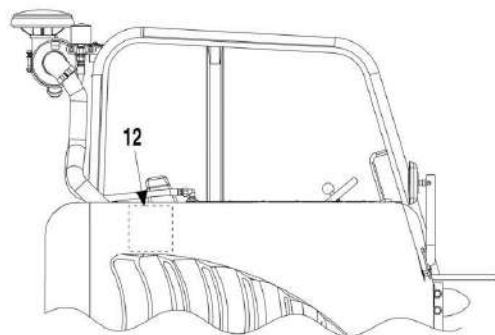
**VIEW OF LEFT HAND SIDE OF FRAME  
SN 0160004021 to Present**



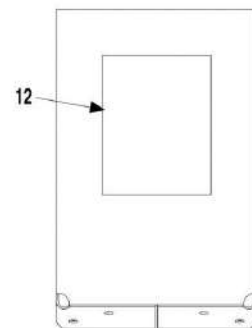
**VIEW A - A**



**VIEW OF COUNTERWEIGHT  
SN 0160006622 to Present**



**VIEW OF RIGHT HAND SIDE OF CAB  
Prior to SN 0160001868**



**PY3300  
VIEW B - B  
SN 0160001868 to Present**

# SECTION 11 - DECALS

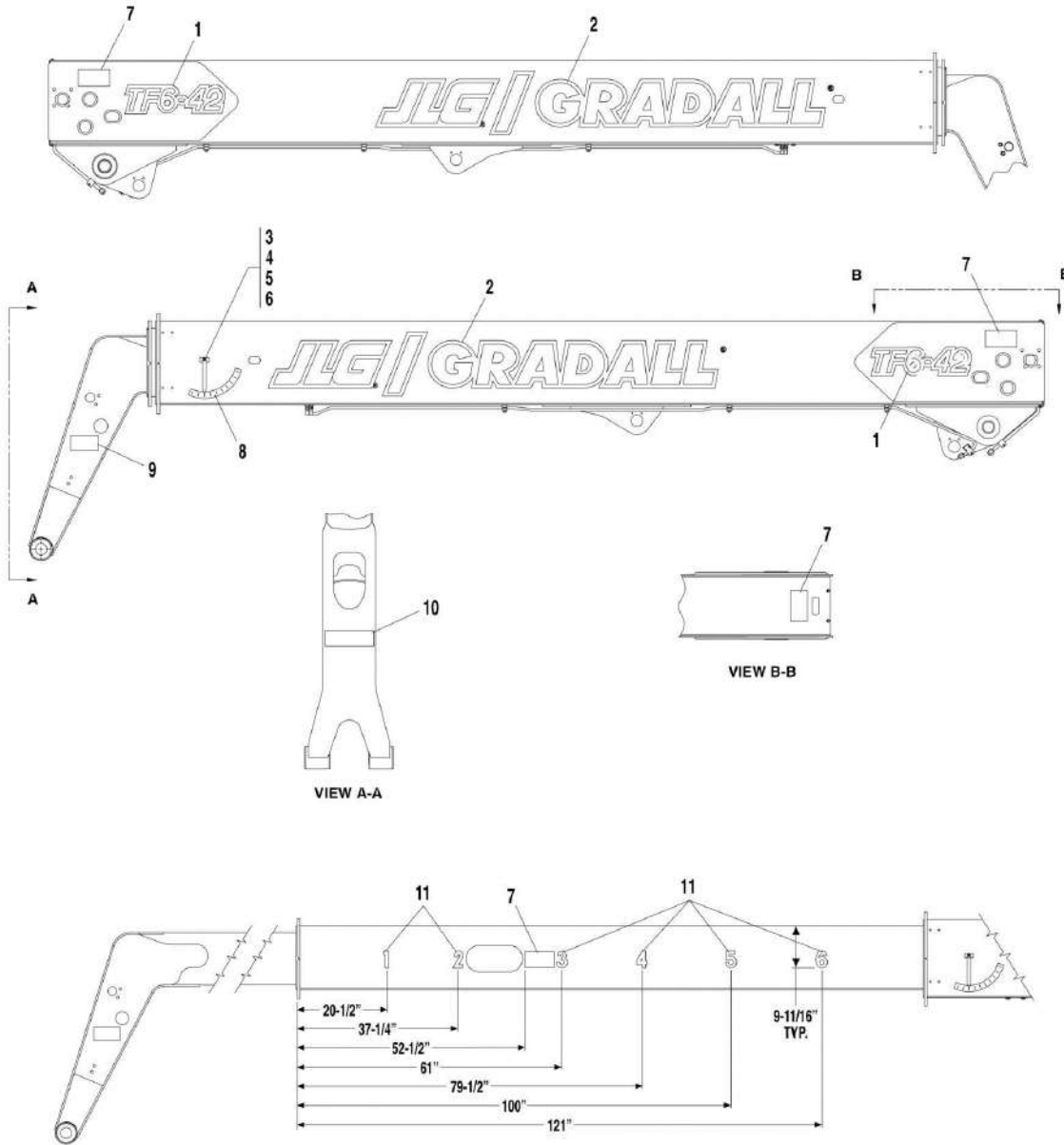
## FIGURE 11-1. CAB AND FRAME DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91503107	1	OIL LEVEL DECAL	
2	91503097	1	MOVING PARTS DECAL	
3	91503099	1	BATTERY WARNING DECAL	
4	91503101	1	INSPECTION DECAL	
5	91503108	4	WARNING DECAL	
6	3251813	1	USA DECAL	
7	91503109	1	WARNING DECAL	
8	91503102	1	BOOM CONTROL DECAL	
9	91503110	1	HIGH VOLTAGE DECAL	
10	91503098	1	SAFE OPERATION DECAL	
11	91503096	1	LIFTING PERSONNEL DECAL	
12	91503113	1	SERVICE INSTRUCTION PLATE	
13		Ref	SERIAL NUMBER AND ATTACHING PLATE	
14	91513207	1	LOAD CHART COVER	
15	91503083	1	CAPACITY CHART	
16	91503084	1	CAPACITY CHART	
17	91503085	1	CAPACITY CHART	
18	91503086	1	CAPACITY CHART	
19	91503087	1	CAPACITY CHART	
20	91503112	1	AUX HYD DE-PRESS DECAL	
21	1701505	1	DIESEL FUEL DECAL	
22	91143286	1	WARNING DECAL	
23	1701529	1	ARROW DECAL	
24	91343016	1	CAUTION DECAL (SN 0160003662 to Present)	
25	1706190	2	TF6-42 DECAL (SN 0160006622 to Present)	
26	1704885	1	WEBSITE DECAL (SN 0160006622 to Present)	
27	N.S.S.	1	SN PLATE	
	91505041	Ref	DECAL KIT, WHITE, (includes items 1 thru 12 & 20 thru 26 and items 1, 2 & 8 thru 13 See BOOM DECALS) (SN 0160006622 to Present)	B



# SECTION 11 - DECALS

FIGURE 11-2. BOOM DECALS (SN 0192001 through 0192007, SN 016000052 through 0160004021)



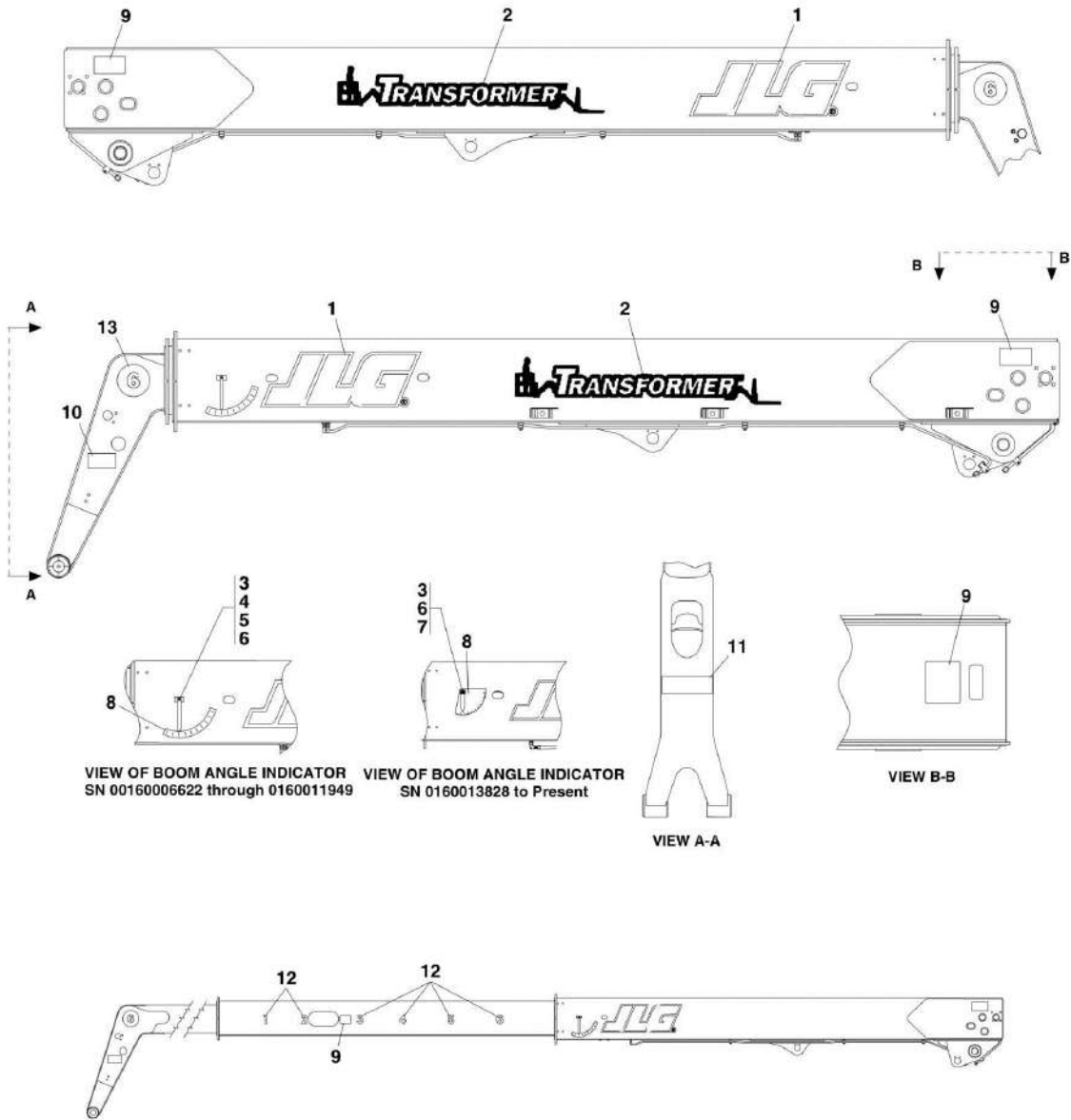
## SECTION 11 - DECALS

FIGURE 11-2. BOOM DECALS (SN 0192001 through 0192007, SN 016000052 through 0160004021)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91503128	2	TF6-42 DECAL	
2	91473132	2	JLG/GRADALL DECAL - WHITE	
3	90200445	1	PENDULUM	
4	90200688	1	BEARING	
5	90026491	1	SHOULDER BOLT, 1/4-20	
6	88561108	1	FLAT WASHER, 5/16	
7	91513210	5	WARNING DECAL	
8	91003031	1	BOOM ANGLE DECAL - WHITE	
9	91143282	2	WARNING DECAL	
10	91503096	1	WARNING DECAL	
11	91553072	1	BOOM NUMBERS DECAL KIT	

# SECTION 11 - DECALS

FIGURE 11-3. BOOM DECALS (SN 0160006622 to Present)



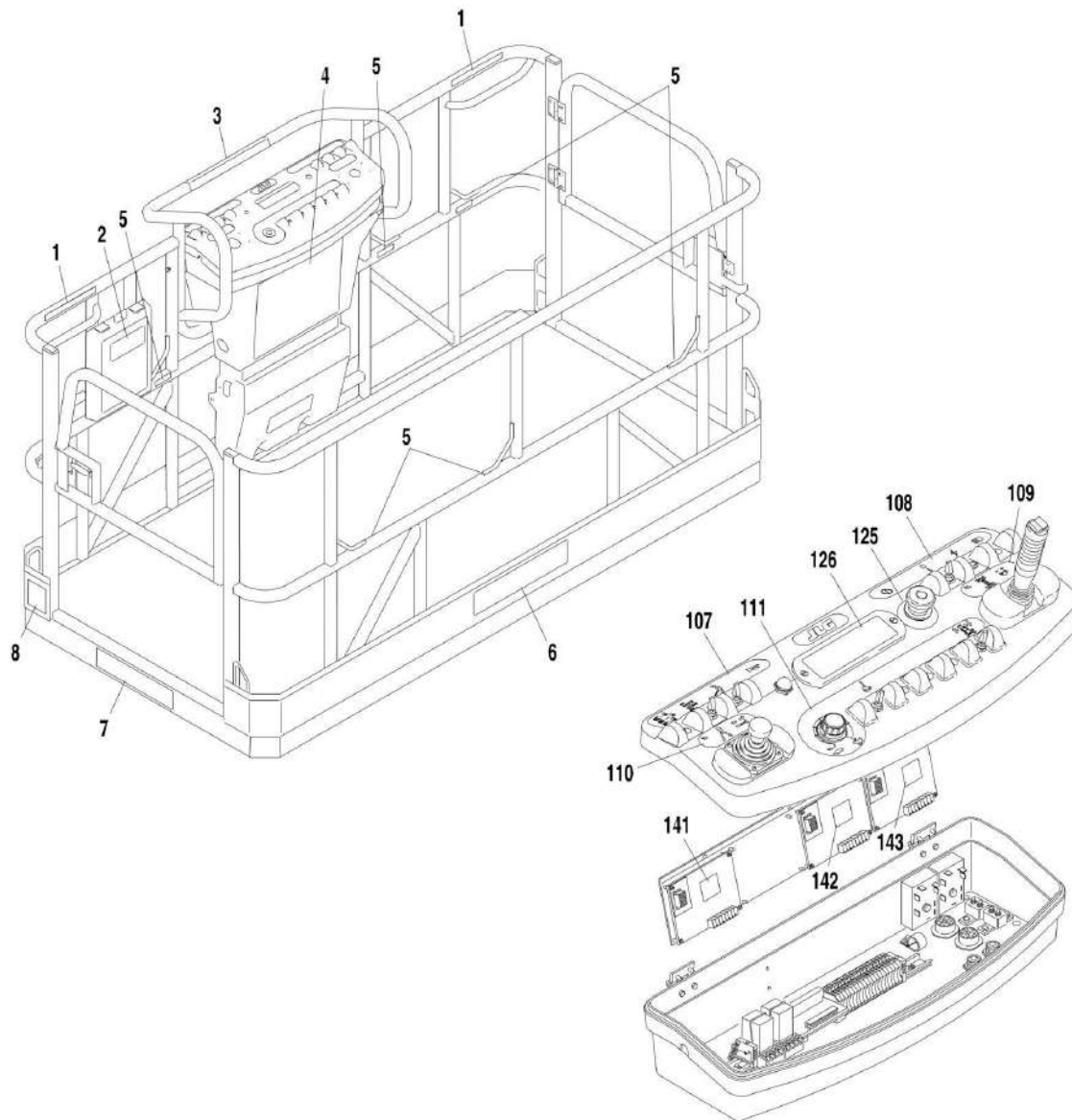
## SECTION 11 - DECALS

**FIGURE 11-3. BOOM DECALS (SN 0160006622 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	1705864	2	12IN JLG DECAL	
2	1706205	2	TRANSFORMER DECAL	
3	90200445	1	PENDULUM (SN 0160006622 through 0160011949)	
3	7075611	1	PENDULUM (SN 0160013828 to Present)	
4	90200688	1	BEARING (SN 0160006622 through 0160011949)	
5	90026491	1	SHOULDER BOLT, 1/4-20 (SN 0160006622 through 0160011949)	
6	88561108	1	FLATWASHER, 5/16 (SN 0160006622 through 0160011949)	
6	8307113	3	WASHER (SN 0160013828 to Present)	
7	8305647	1	NUT (SN 0160013828 to Present)	
8	91003031	1	BOOM ANGLE DECAL - WHITE (SN 0160006622 through 0160011949)	
8	4105262	1	BOOM ANGLE DECAL - WHITE (SN 0160013828 to Present)	
9	91513210	5	WARNING DECAL	
10	91143282	2	WARNING DECAL	
11	91503096	1	WARNING DECAL	
12	91553072	1	BOOM NUMBERS DECAL KIT	
13	1706170	2	GOOSENECK DECAL, 6	
	91505041	Ref	DECAL KIT, WHITE, (includes items 1, 2 & 8 thru 13 and items 1 thru 12 & 20 thru 26 See CAB AND FRAME DECALS)	B

# SECTION 11 - DECALS

## FIGURE 11-4. TRANSFORMER PLATFORM DECALS



EXPLODED VIEW OF CONTROL BOX



## SECTION 11 - DECALS

**FIGURE 11-4. TRANSFORMER PLATFORM DECALS**

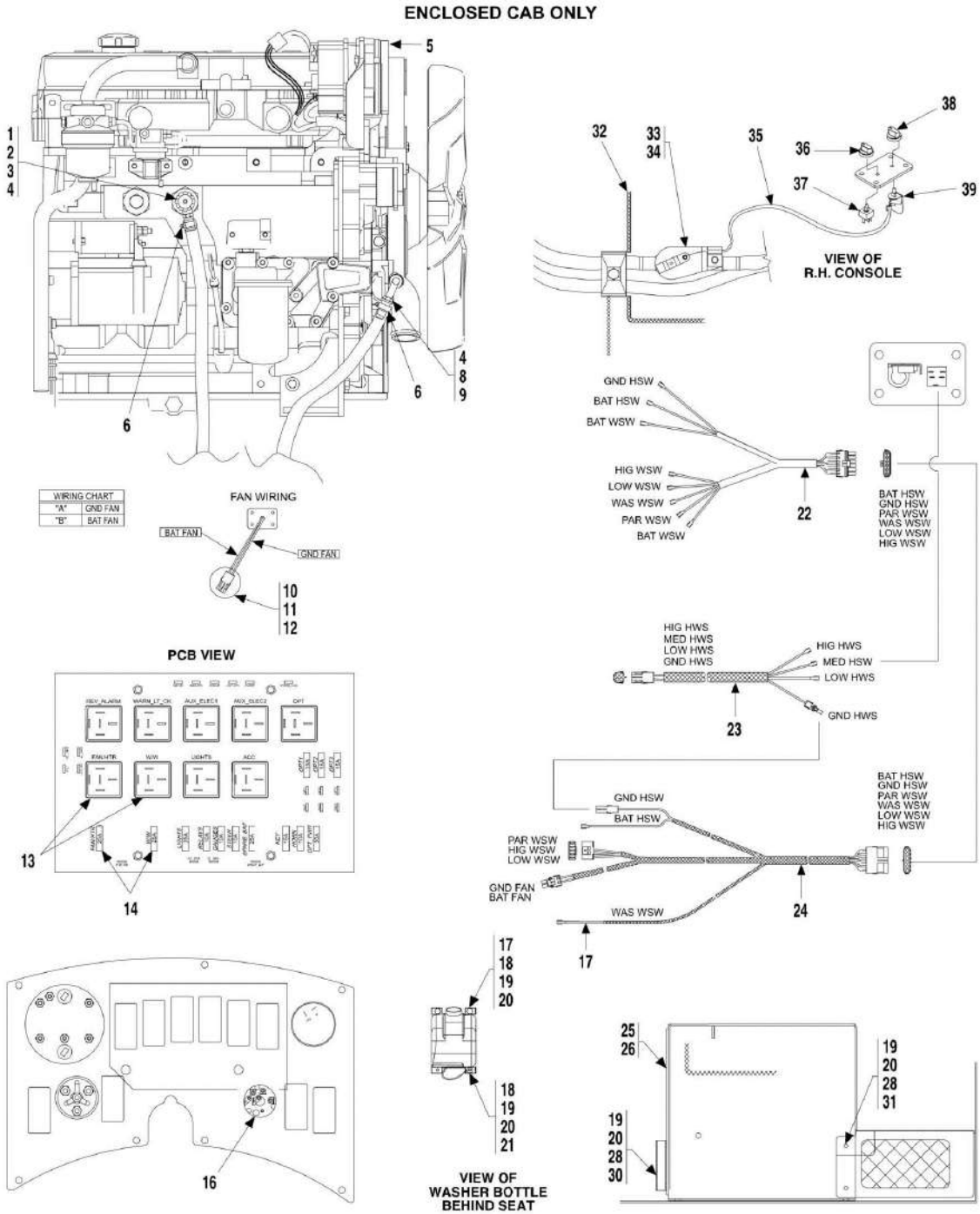
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0272098	1	TRANSFORMER PLATFORM DECAL INSTALLATION, (includes items 1 thru 8)	D
1	1701509	1	MANUAL DECAL	
2	1702868	2	NO HANDS DECAL	
3	1704277	6	LANYARD ATTACHMENT DECAL	
4	1705179	1	SAFETY PRECAUTION DECAL	
5	1705685	3	CAPACITY WARNING DECAL	
6	1705182	1	LEGEND DECAL	
7	1702773	1	JLG DECAL	
8	1705684	2	CAPACITY DECAL	
107	1702676	1	HORN DECAL	
108	1705129	1	STOP DECAL	
109	1702565	1	DRIVE AND STEER DECAL	
110	1705128	1	LIFT AND TELESCOPE DECAL	
111	1705130	1	FUNCTION SPEED DECAL	
125	1704260	1	EMS DECAL	
126	1705184	1	PLATFORM DISPLAY DECAL	
141	1703090	1	CONTROL CARD DECAL, (lift)	
142	1705183	1	CONTROL CARD DECAL, (telescope)	
143	1703092	1	CONTROL CARD DECAL, (flow control)	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	



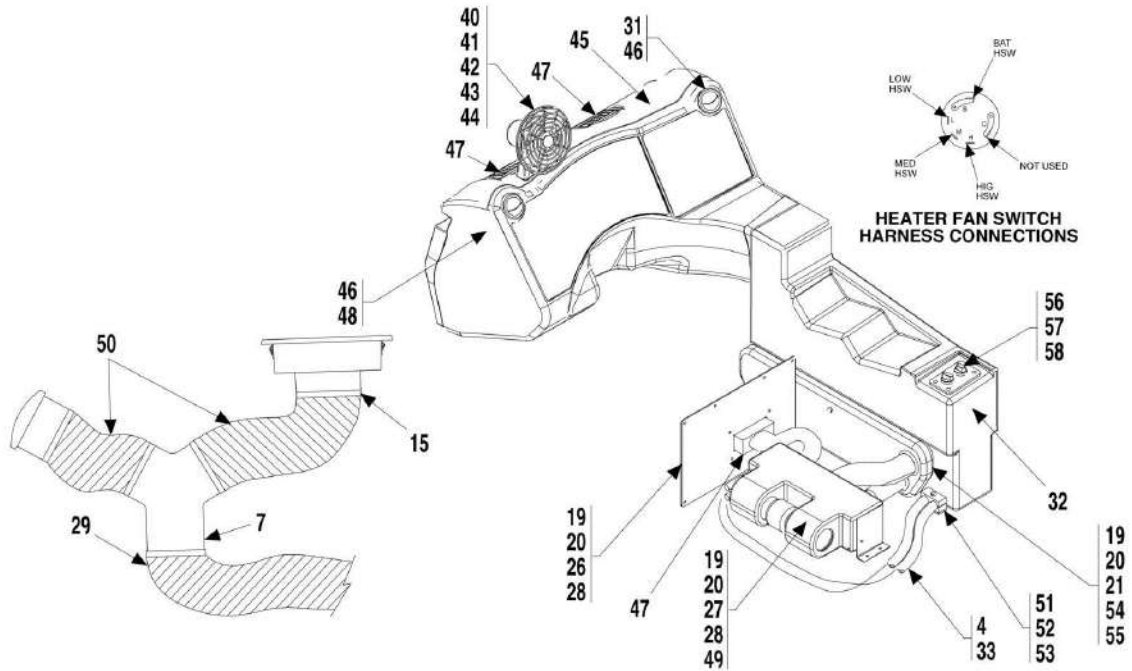
**SECTION 12 - OPTIONS**

# SECTION 12 - OPTIONS

FIGURE 12-1. HEATER OPTION ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160013828)



# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

**FIGURE 12-1. HEATER OPTION ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160013828)**

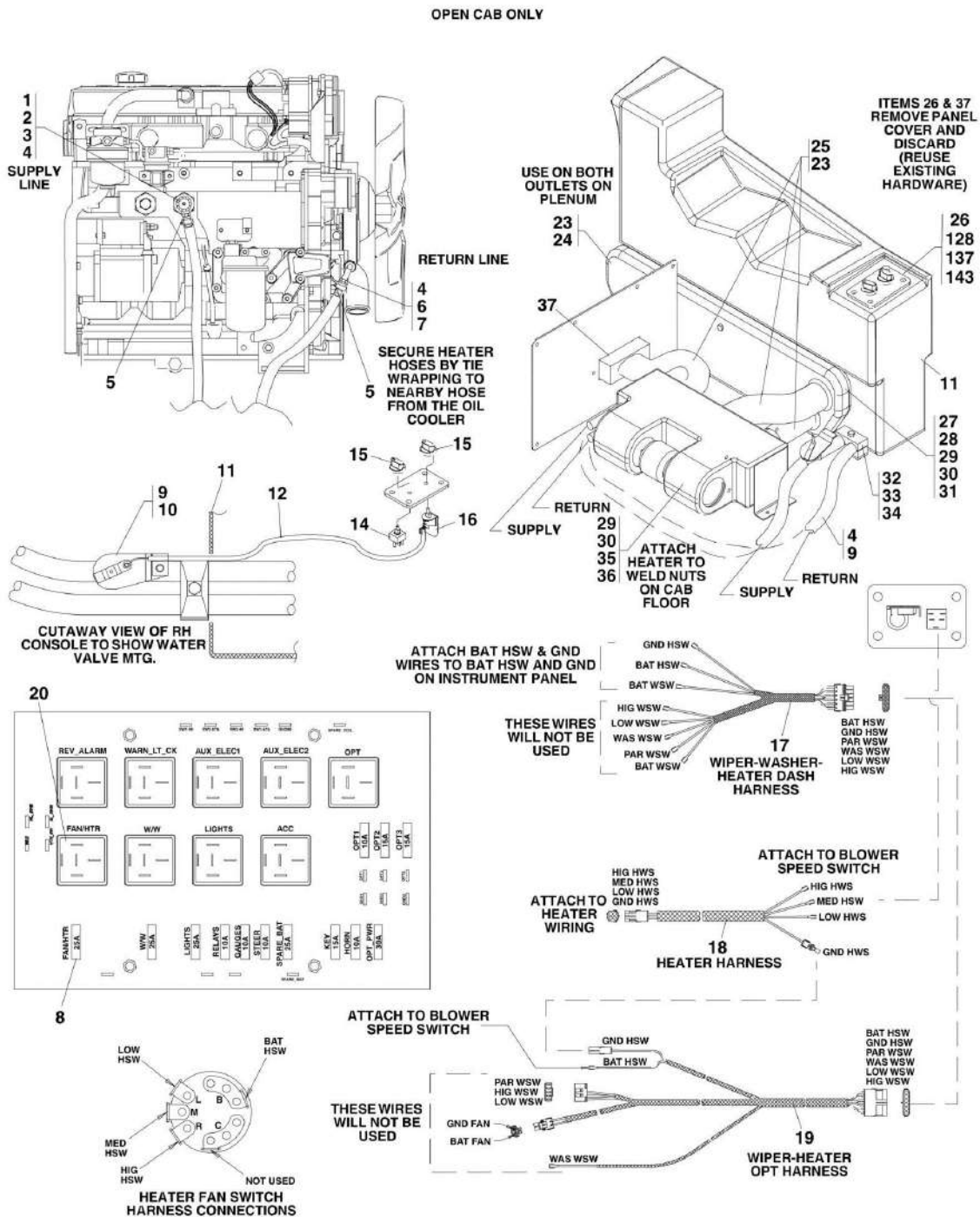
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475067	Ref	HEATER OPTION ASSY W/STANDARD SEAT, (includes items 1 thru 24 and items 26 thru 60)	
	91475068	Ref	HEATER OPTION ASSY W/SUSPENSION SEAT, (includes items 1 thru 25 and items 27 thru 60)	
1	80373046	1	FITTING	
2	91083155	1	TRUCK VALVE	
3	77383540	1	COOLANT RESTRICTER ORIFICE	
4	82033995	20 ft	HEATER HOSE, 5/8	
5		Ref	ENGINE ASSY, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
6	86671187	2	HEATER HOSE CLAMP	
7	91403539	2	CONNECTOR, 3 WAY	
8	80683073	1	FITTING, ADAPTER	
9	91403443	1	90, BARBED FITTING	
10	80963058	1	W. PACK CONNECTOR, (shroud)	
11	80963069	2	W. PACK CONNECTOR, (pins)	
12	80963065	2	W. PACK CONNECTOR, (seals)	
13	77363265	1	RELAY	
14	8229262	2	AUTO FUSE, 25 AMP	
15	84231107	18	HOSE CLAMP	
16	80963101	1	WIPER SWITCH	
17	83683085	1	WIPER BOTTLE	
18	88201005	3	HEX HD CAPSCREW, 1/4-20X1, GR5	
19	88561002	25	FLAT WASHER, 1/4	
20	88551009	24	LOCKWASHER, 1/4	
21	88501004	2	HEX NUT, 1/4-20	
22	91403351	1	WIPE/WASH HARNESS	
23	91403352	1	HEATER HARNESS	
24	91403350	1	WIPE/HEATER HARNESS	
25	91406114	1	HEATER COVER WELDMENT, (used with suspension seat option)	
26	91406113	1	ACCESS, BEZEL COVER, (used with standard seat)	
27	70022804	1	HEATER FAN MOTOR REPLACEMENT KIT	
28	88261015	20	SOCKET BUTTON HD CAPSCREW, 1/4-20X5/8	
29	71492152	1	VENT HOSE, 2-1/2	
30	91401421	1	VENT COVER	
31	91406119	1	HEATER COVER WELDMENT	
32	91403288	1	RH CONSOLE W/HEATER	
33	86971172	4	HOSE CLAMP	
34	83683182	1	WATER VALVE	
35	91413038	1	HEATER CONTROL CABLE	
36	80363029	1	KNOB, 1/4 SHAFT	
37	80964001	1	BLOWER SWITCH	
38	80363069	1	KNOB, 3/16 SHAFT	
39	80363028	1	ROTARY CONTROL	
40	91403608	1	DEFROSTER FAN	
41	91401443	1	FAN BASE PLATE	
42	91033425	1	RUBBER GROMMET	
43	88211030	4	SOCKET HD CAPSCREW, #10-24X3/4, GR8	
44	77143017	4	WHIZ-LOC NUT, #10-24	

## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
45	91403299	1	DASH, ENCLOSED CAB	
46	80363106	2	VENT, CIRCULAR	
47	91403538	3	VENT, RECTANGULAR	
48	91403596	2	VENT REDUCER	
49	91403280	1	HEATER UNIT, (includes item 27)	
50	71492150	1	VENT HOSE, 2	
51	77133279	1	CLAMP SET	
52	77133137	1	COVER PLATE	
53	88201023	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
54	91403329	1	PLENUM, HEAT/AC	
55	88201011	1	HEX HD CAPSCREW, 1/4-20X2-1/2, GR5	
56	80363034	4	TINNERMAN NUT	
57	91403445	1	HEATER CONTROL PANEL	
58	91413051	4	SOCKET FLAT HD CAPSCREW, #10-24X1-1/4	

# SECTION 12 - OPTIONS

## FIGURE 12-2. HEATER OPTION ASSEMBLY (SN 0160013983 to Present)



ART\_91504001-12-2



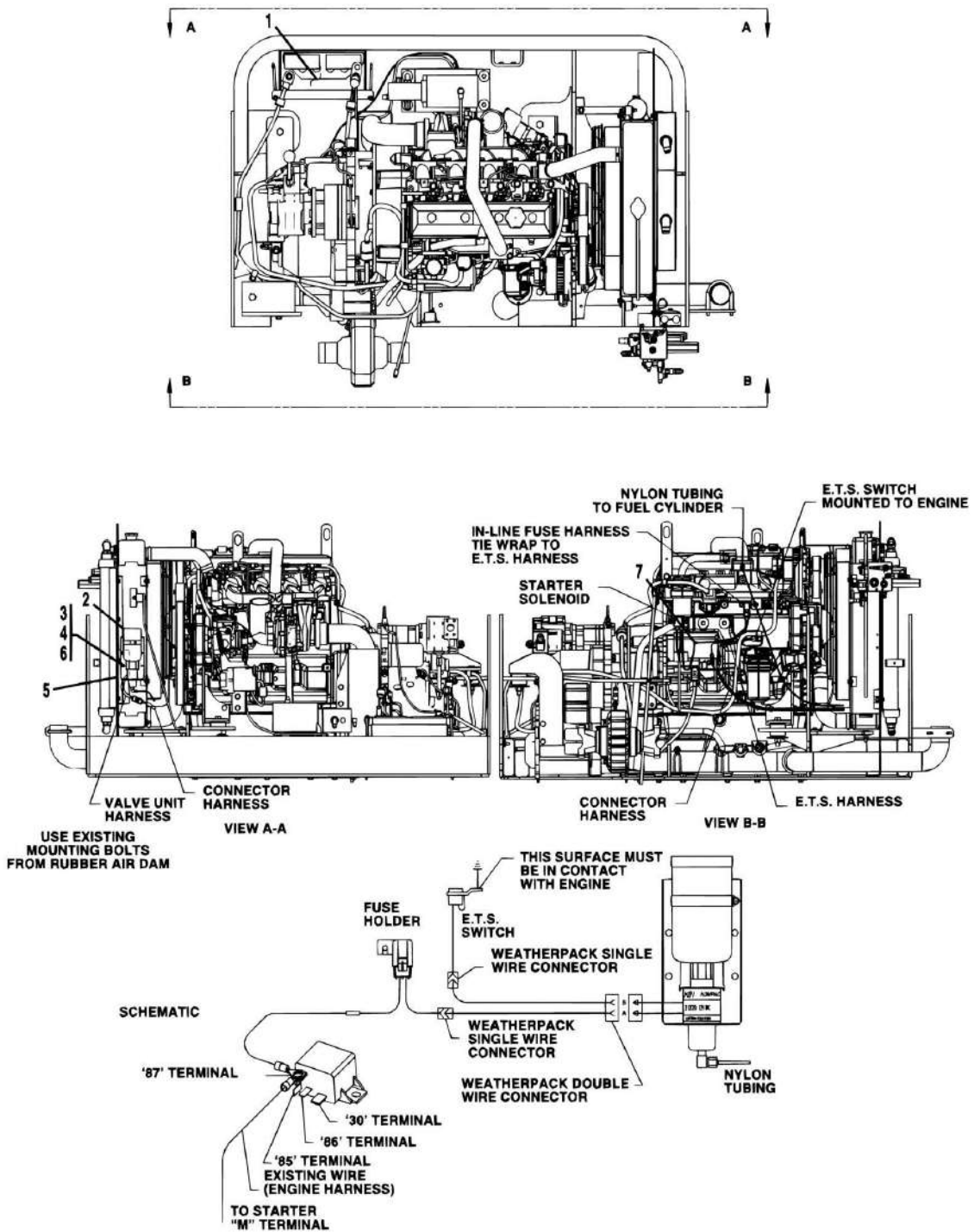
## SECTION 12 - OPTIONS

**FIGURE 12-2. HEATER OPTION ASSEMBLY (SN 0160013983 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475109	1	OPEN CAB HEATER OPTION, (includes items 1 thru 37)	C
1	80373046	1	FITTING	
2	91083155	1	TRUCK VALVE	
3	77383540	1	COOLANT RESTRICTOR ORIFICE	
4	82033995	26 ft	HEATER HOSE, 5/8IN	
5	86671187	2	HEATER HOSE CLAMP	
6	80683073	1	ADAPTER FITTING	
7	91403443	1	BARBED FITTING, 90	
8	80964009	1	AUTO FUSE, 25 AMP	
9	86683193	4	HOSE CLAMP	
10	83683182	1	WATER VALVE	
11		Ref	R.H. CONSOLE W/HEATER	
12	91413038	1	HEATER CONTROL CABLE	
14	80964001	1	BLOWER SWITCH	
15	80363069	2	KNOB, 3/16 SHAFT	
16	80363028	1	ROTARY CONTROL	
17	91403351	1	WIPER/WASHER HARNESS	
18	91403352	1	HEATER HARNESS	
19	91403350	1	WIPER/HEATER HARNESS	
20	77363265	1	RELAY	
23	84231107	8	HOSE CLAMP	
24	91416020	2	VENT WELDMENT	
25	71492152	5.5 ft	VENT HOSE, 2 1/2IN DIA	
26	91403445	1	HEATER CONTROL CABLE	
27	91403329	1	HEAT/AC PLENUM	
28	88201011	1	HEX HD CAPSCREW, 1/4-20X2 1/2	
29	88561002	6	FLAT WASHER, 1/4	
30	88551009	5	LOCKWASHER, 1/4	
31	88501004	1	HEX NUT, 1/4-20	
32	77133279	1	CLAMP SET	
33	77133137	1	COVER PLATE	
34	88201023	1	HEX HD CAPSCREW, 5/16-18X1 3/4	
35	91403280	1	HEATER UNIT	
36	88261015	4	BUTTON HD CAPSCREW, 1/4-20X5/8	
37	91413053	1	RECTANGULAR VENT	
128	91413051	4	SOCKET FLAT HD CAPSCREW, #10-24X1-1/4	
137	80363034	4	TINNERMAN NUT	
143	91471243	1	PANEL COVER	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

# SECTION 12 - OPTIONS

## FIGURE 12-3. COLD START INSTALLATION



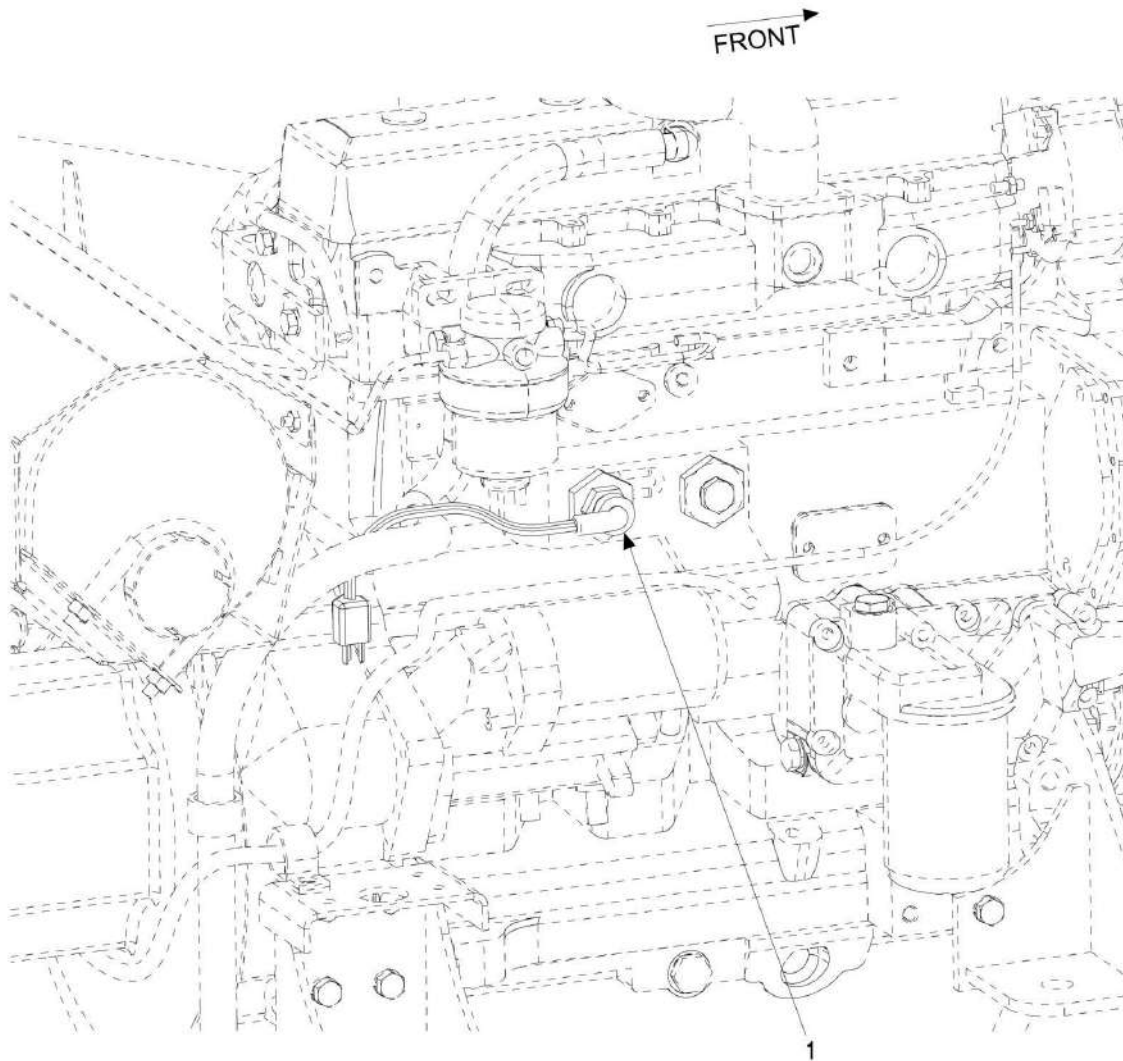
## SECTION 12 - OPTIONS

### FIGURE 12-3. COLD START INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91505042	1	COLD START INSTALLATION, (includes items 2 thru 7)	C
	91083483	1	BATTERY, (12 volt, 1000 amps), TOP STUD, 3/8-16 UNC THREAD, BCI GROUP 31	
2	91403295	1	COLD START KIT	
2	70023156	1	VALVE, 12VDC	
3	88501004	2	HEX NUT, 1/4-20	
4	88551009	2	LOCKWASHER, 1/4	
5	91471193	1	VALVE MOUNTING PLATE	
6	14403364	AR	LOCTITE, 242	
7	91473239	1	COLD START WIRE	

## SECTION 12 - OPTIONS

FIGURE 12-4. BLOCK HEATER INSTALLATION

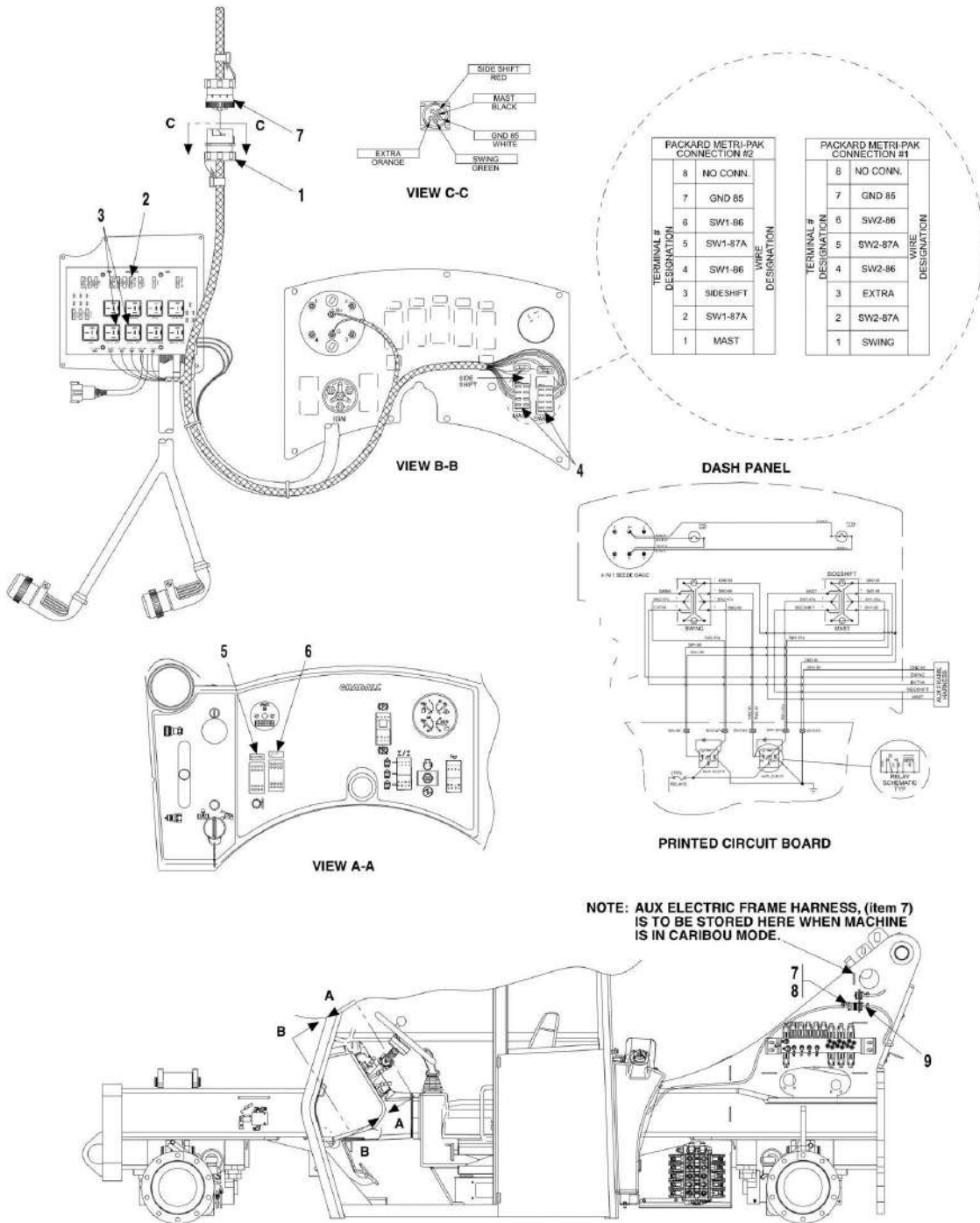


**FIGURE 12-4. BLOCK HEATER INSTALLATION**

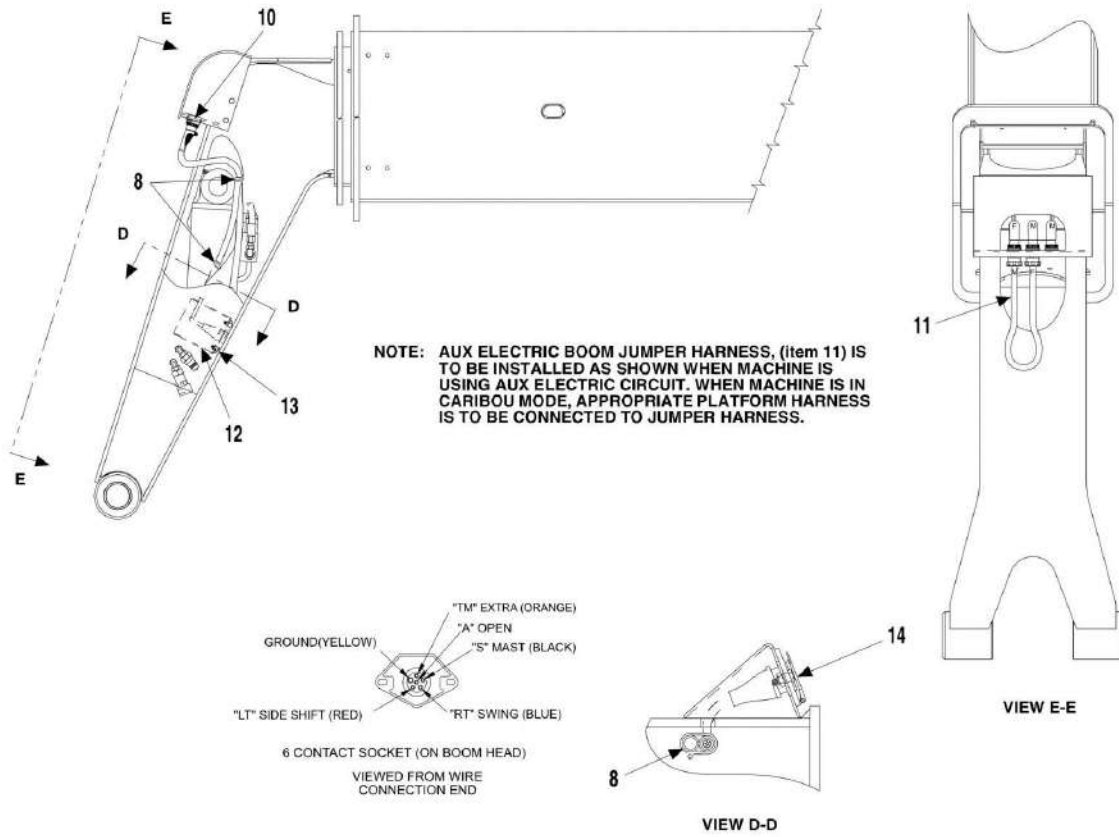
<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>REV</b>
1	80375012	1	BLOCK HEATER INSTALLATION, (includes item 1)	
	80373088	1	BLOCK HEATER	

# SECTION 12 - OPTIONS

## FIGURE 12-5. AUXILIARY ELECTRICS ASSEMBLY



# SECTION 12 - OPTIONS



ART\_91504001-12-5\_2

## SECTION 12 - OPTIONS

FIGURE 12-5. AUXILIARY ELECTRICS ASSEMBLY

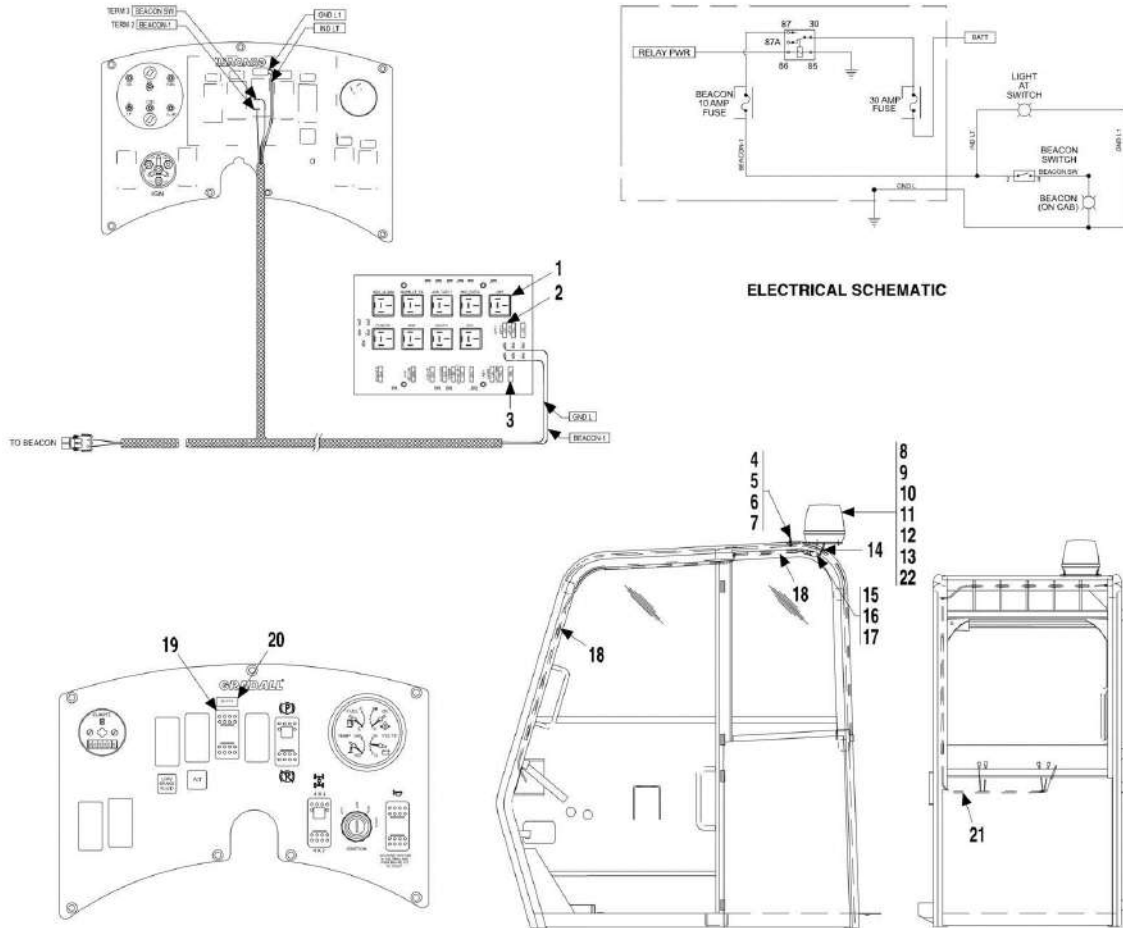
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505027	1	AUX ELECTRICS ASSY, (includes all items)	
1	91473125	1	AUX DASH HARNESS	
2	77363267	1	AUTO FUSE, 10 AMP	
3	77363265	2	RELAY	
4	91473127	2	SWITCH, DPDT	
5	91403607	1	SWING DECAL	
6	91403606	1	SHIFT MAST DECAL	
7	91503075	1	AUX FRAME HARNESS	
8	90027187	8	NYLON TIE	
9	91503051	1	HARNESS, RIGHT BOOM	
10	91503074	1	AUX ELECTRIC BOOM HARNESS	
11	91503131	1	AUX ELECTRIC BOOM JUMPER HARNESS	
12	91401276	1	CONNECTOR COVER	
13	88201005	2	HEX HD CAPSCREW, 1/4-20X1, GR5	
14	90207661	1	6 CONTACT SOCKET	





# SECTION 12 - OPTIONS

## FIGURE 12-6. BEACON LIGHT PACKAGE



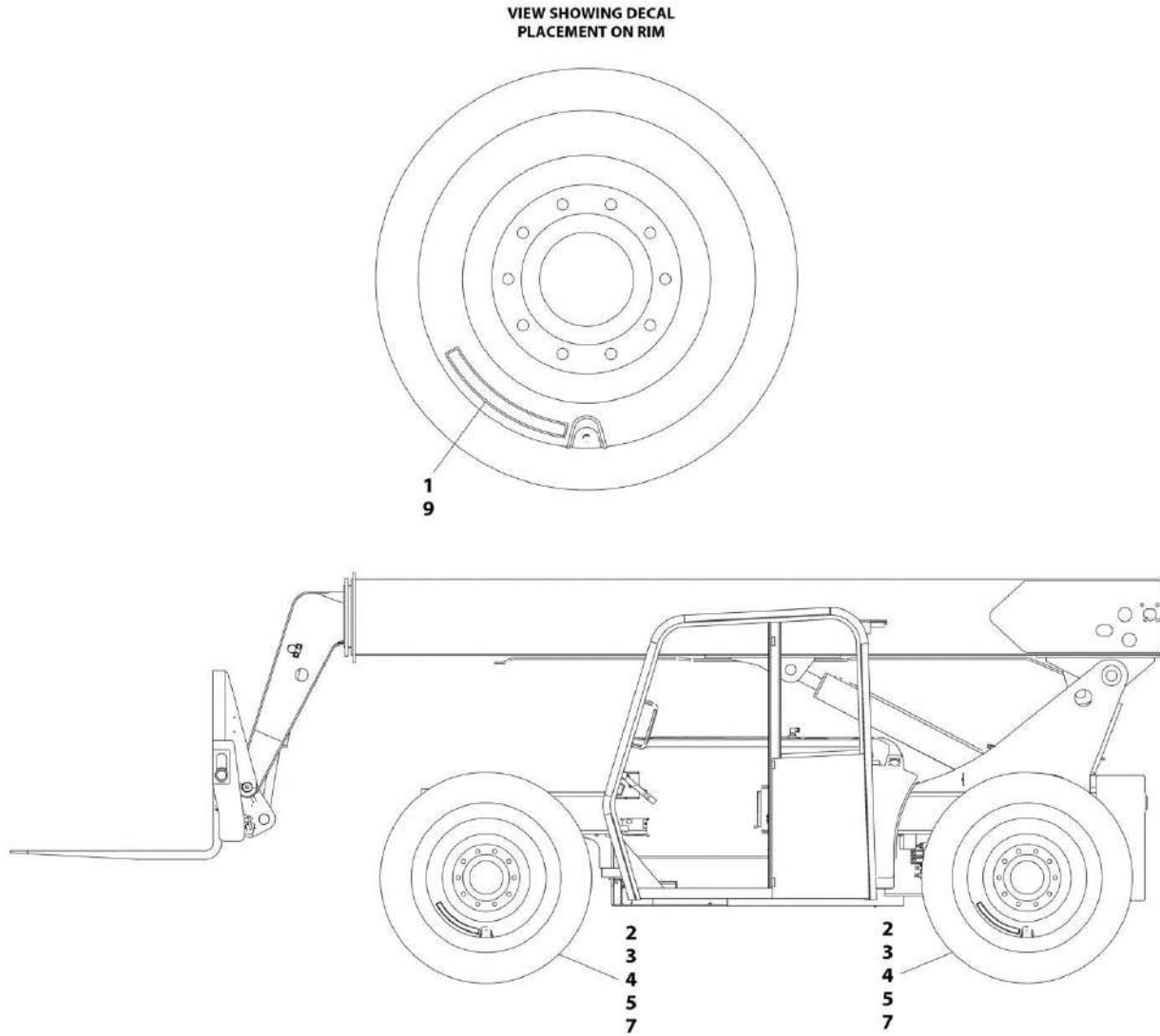
## SECTION 12 - OPTIONS

### FIGURE 12-6. BEACON LIGHT PACKAGE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475059	1	BEACON LIGHT PACKAGE, (includes all items)	
1	77363265	1	RELAY	
2	77363267	1	10 AMP FUSE	
3	77363269	1	30 AMP FUSE	
4	88201005	2	HEX HD CAPSCREW, 1/4-20X1-1/4, GR5	
5	88561002	2	FLAT WASHER, 1/4	
6	88551009	2	LOCKWASHER, 1/4	
7	88501004	2	HEX NUT, 1/4-20	
8	91343031	1	ROTATING BEACON, (includes item 22)	
9	91511206	1	BEACON BRACKET	
10	90027214	1	RUBBER GROMMET	
11	88301093	3	ROUND HD MACHINE SCREW, #10-24X3/4	
12	88551007	3	LOCKWASHER, #10	
13	88501612	3	HEX NUT, #10-24	
14	90029955	1	RUBBER GROMMET	
15	80963058	1	WEATHER PACK, (shroud)	
16	80963069	2	WEATHER PACK, (male pin terminal)	
17	80963065	2	WEATHER PACK, (cable seal)	
18	8096D097	1	ECONOMY WIRING DUCT, 79IN	
19	91403304	1	TOGGLE SWITCH	
20	91413045	1	DECAL BEACON	
21	91413044	1	BEACON HARNESS	
22	91344053	1	BULB	

# SECTION 12 - OPTIONS

## FIGURE 12-7. TIRE SEALANT OPTION



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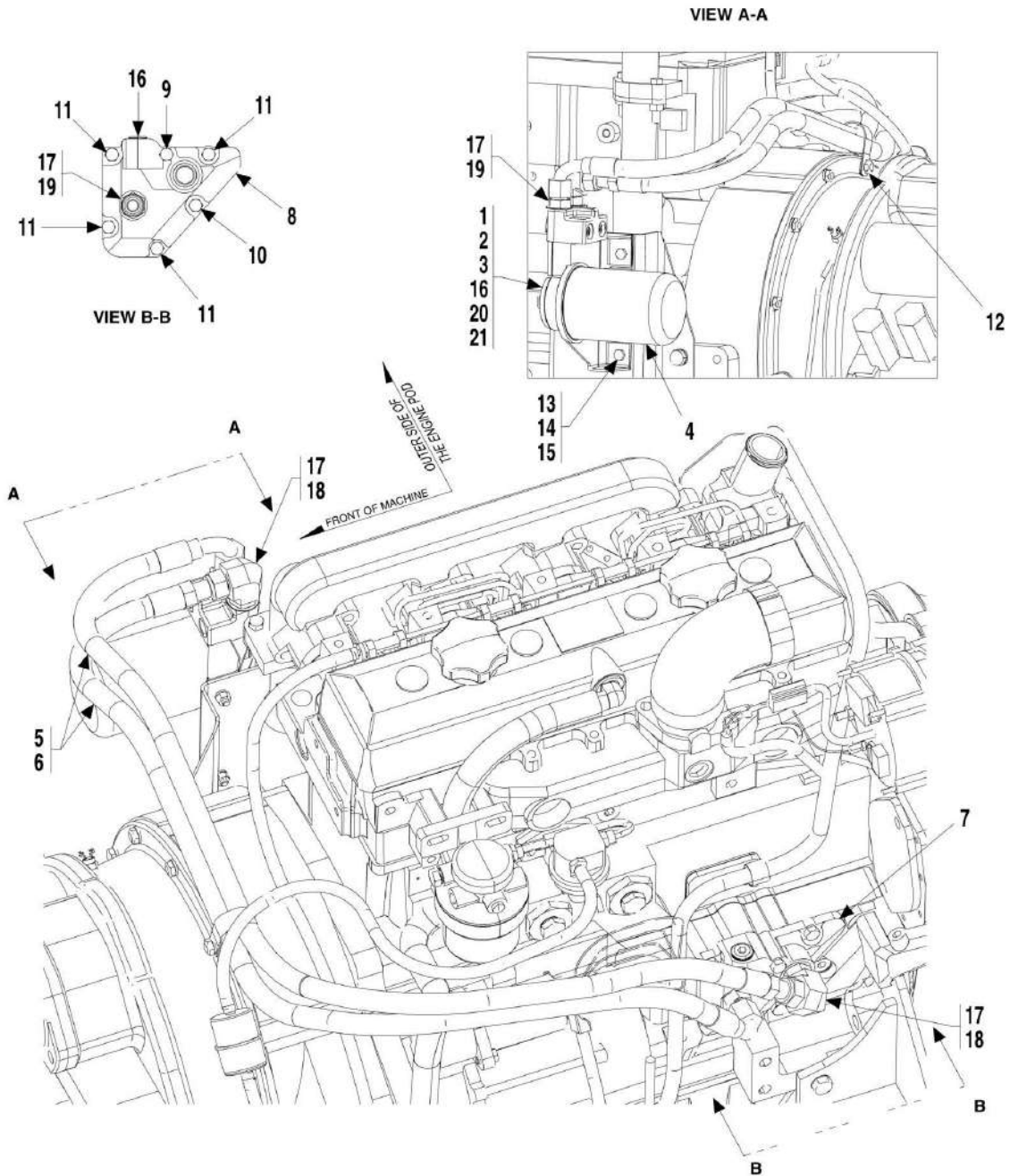
## SECTION 12 - OPTIONS

### FIGURE 12-7. TIRE SEALANT OPTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505040	1	TIRE SEALANT OPTION, (includes items 1 thru 7)	B
	91505049	2	L.H. TIRE and WHEEL ASSY, (includes items 4, 5, 8 & 9)	D
	91505050	2	R.H. TIRE and WHEEL ASSY, (includes items 4, 5, 8 & 9)	D
1	91343217	4	TIRE SEALANT DECAL	
2	91505038	2	RH WHEEL ASSY, (includes items 4 & 5)	E
3	91505039	2	LH WHEEL ASSY, (includes items 4 & 5)	E
4	91503047	4	TIRE, 13X33.5, 12 PLY TITAN LSW G-2	
5	91503048	4	WHEEL, 10X33.5	
6	1300019	AR	MULTI-SEAL SEALANT, (not shown)	
7	1705364	4	TIRE SEALANT DECAL SMALL	
8	8526203	395 lb	FOAM FILL, BALLAST FLATPROOFING, (not shown)	
9	91503142	4	TIRE DECAL, FORM FILLED, 395 LBS	

# SECTION 12 - OPTIONS

## FIGURE 12-8. REMOTE OIL FILTER KIT



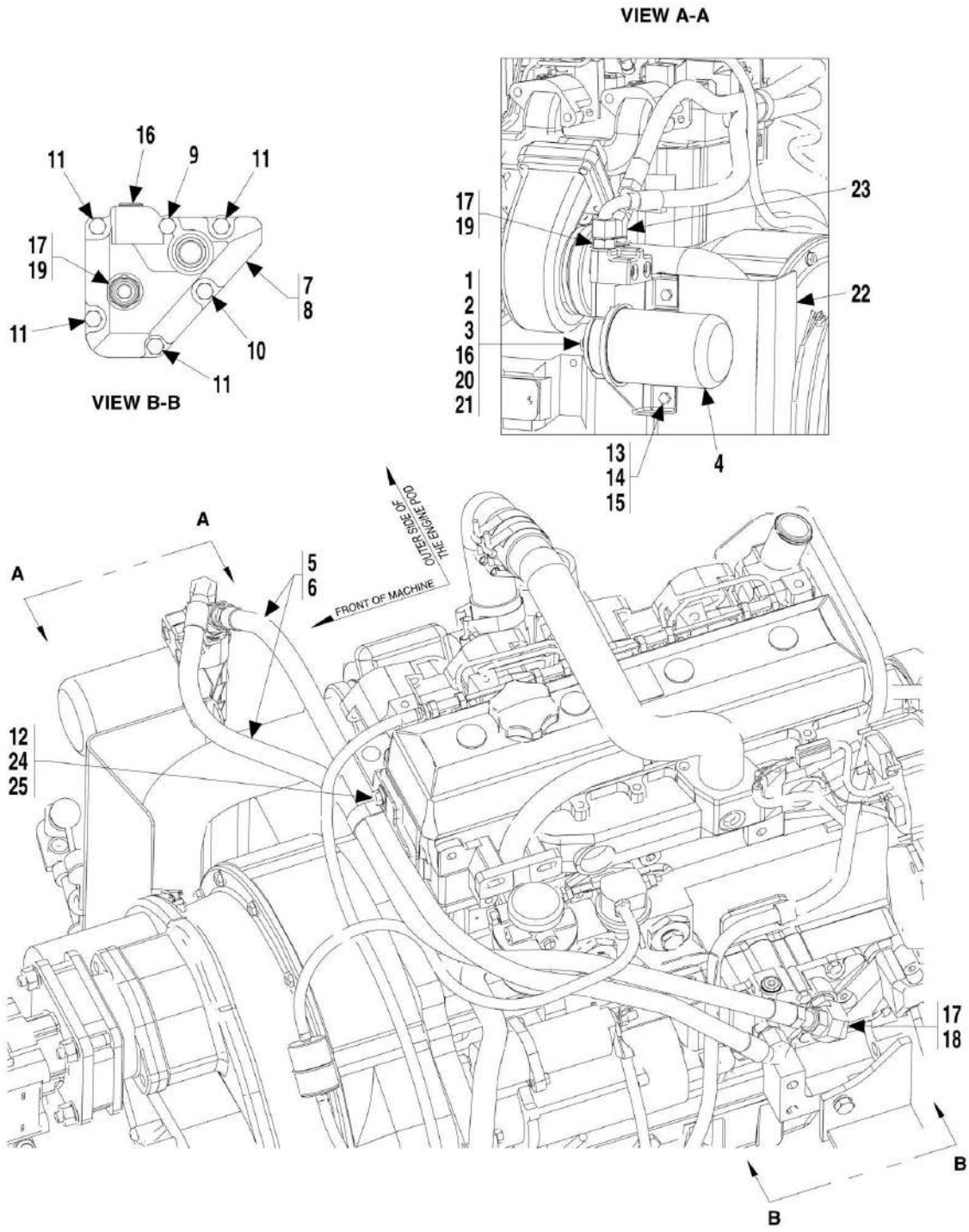
## SECTION 12 - OPTIONS

**FIGURE 12-8. REMOTE OIL FILTER KIT**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475069	1	REMOTE OIL FILTER OPTION, (includes all items)	
1	91473189	1	REMOTE OIL FILTER KIT, (includes items 2 thru 11 & 16 thru 21)	
2	91474500	1	FILTER HEAD, (includes items 20, 21, one of items 6, 16, 18, 19 and two of item 17), (Prior to Engine SN 793940)	
2	91474493	1	ADAPTER, (includes items 20, 21, one of items 6, 16, 18, 19 and two of item 17), (Engine SN 793940 to Present)	
3	91474505	1	SCREW	
4	91404005	1	OIL FILTER	
5	91474494	2	HYDRAULIC HOSE	
6	91474495	4	O-RING	
7	91474496	1	ADAPTER, (includes item 16, 18, 19 and two of item 17)	
8	80374025	1	GASKET	
9	91474497	1	SCREW, M8X90	
10	91474498	1	SCREW, M8X20	
11	91474499	4	SCREW, M8X65	
12	85841150	1	SUPPORT CLAMP	
13	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
14	88551010	2	LOCKWASHER, 5/16	
15	88501005	2	HEX NUT, 5/16-18	
16	91474501	2	PLUG, (Prior to Engine SN 793940)	
16	91474506	1	PLUG, (Engine SN 793940 to Present)	
17	80374021	4	O-RING	
18	91474502	2	ELBOW, 90	
19	91474503	2	CONNECTOR	
20	Kit	1	CONNECTOR	
21	91474504	1	FILTER HEAD, (includes item 20)	

# SECTION 12 - OPTIONS

## FIGURE 12-9. TURBO ENGINE REMOTE OIL FILTER





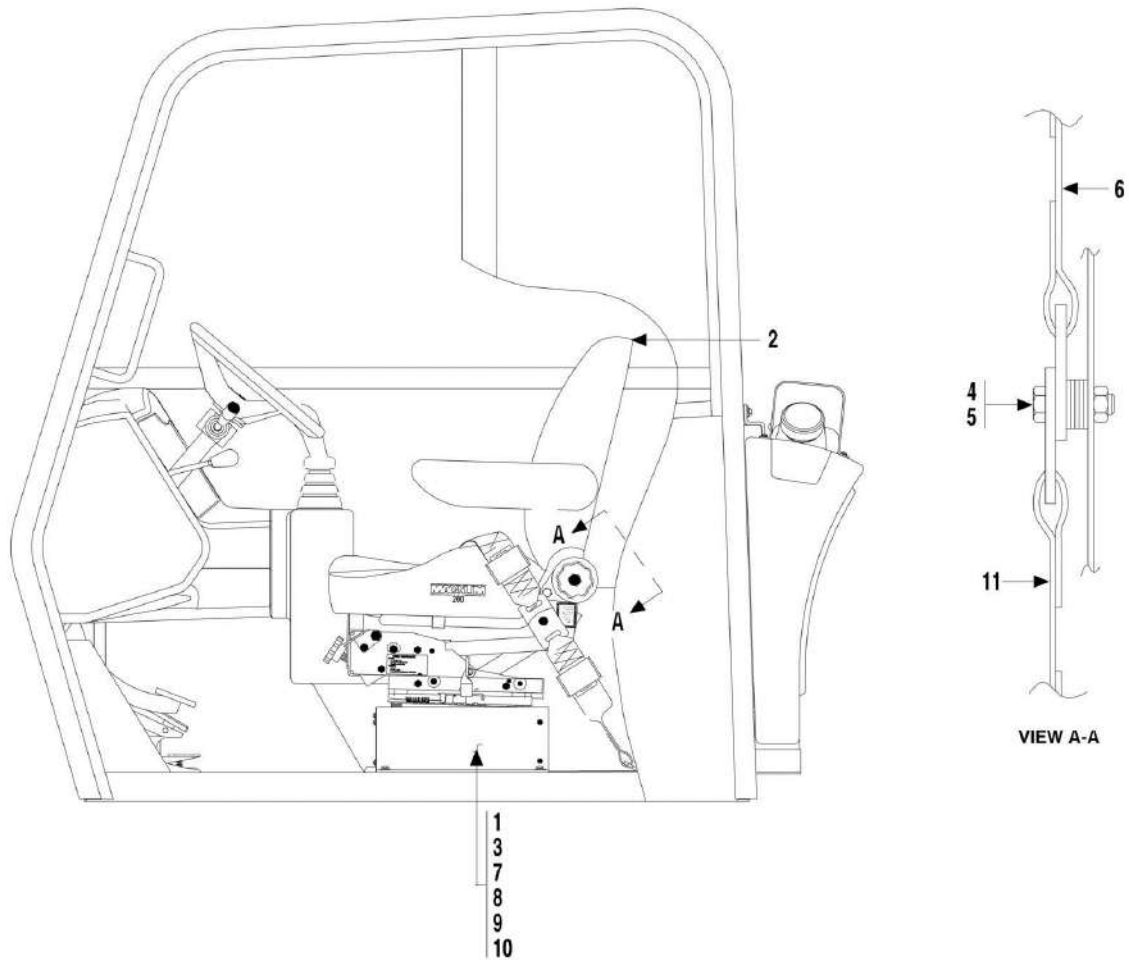
## SECTION 12 - OPTIONS

**FIGURE 12-9. TURBO ENGINE REMOTE OIL FILTER**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475070	1	TURBO REMOTE OIL FILTER OPTION, (includes all items)	
1	91473189	1	REMOTE OIL FILTER KIT, (includes items 2 thru 11 & 16 thru 21)	
2	91474500	1	FILTER HEAD, (includes items 20, 21 and one of items 6, 16, 17 & 19), (Prior to Engine SN 793940)	
2	91474493	1	ADAPTER, (includes items 20, 21 and one of items 6, 16, 17 & 19), (Engine SN 793940 to Present)	
3	91474505	1	SCREW	
4	91404005	1	OIL FILTER	
5	91474494	2	HYDRAULIC HOSE	
6	91474495	4	O-RING	
7	91474496	1	ADAPTER, (includes item 18, one of items 16, 19 and two of item 17)	
8	80374025	1	GASKET	
9	91474497	1	SCREW, M8X90	
10	91474498	1	SCREW, M8X20	
11	91474499	4	SCREW, M8X65	
12	85841150	1	SUPPORT CLAMP	
13	88201019	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
14	88551010	2	LOCKWASHER, 5/16	
15	88501005	2	HEX NUT, 5/16-18	
16	91474501	2	PLUG, (Prior to Engine SN 793940)	
16	91474506	1	PLUG, (Engine SN 793940 to Present)	
17	80374021	3	O-RING	
18	91474502	1	ELBOW, 90	
19	91474503	2	CONNECTOR	
20	Kit	1	CONNECTOR	
21	91474504	1	FILTER HEAD, (includes item 20)	
22	91471206	1	TURBO HEAT SHIELD	
23	88662526	1	ELBOW, 45	
24	83191038	1	HEX HD CAPSCREW, M10X20	
25	83191013	1	LOCKWASHER, M10	

## SECTION 12 - OPTIONS

FIGURE 12-10. SUSPENSION SEAT OPTION (SN 0192001 through 0192007, SN 016000052 through 0160013828)



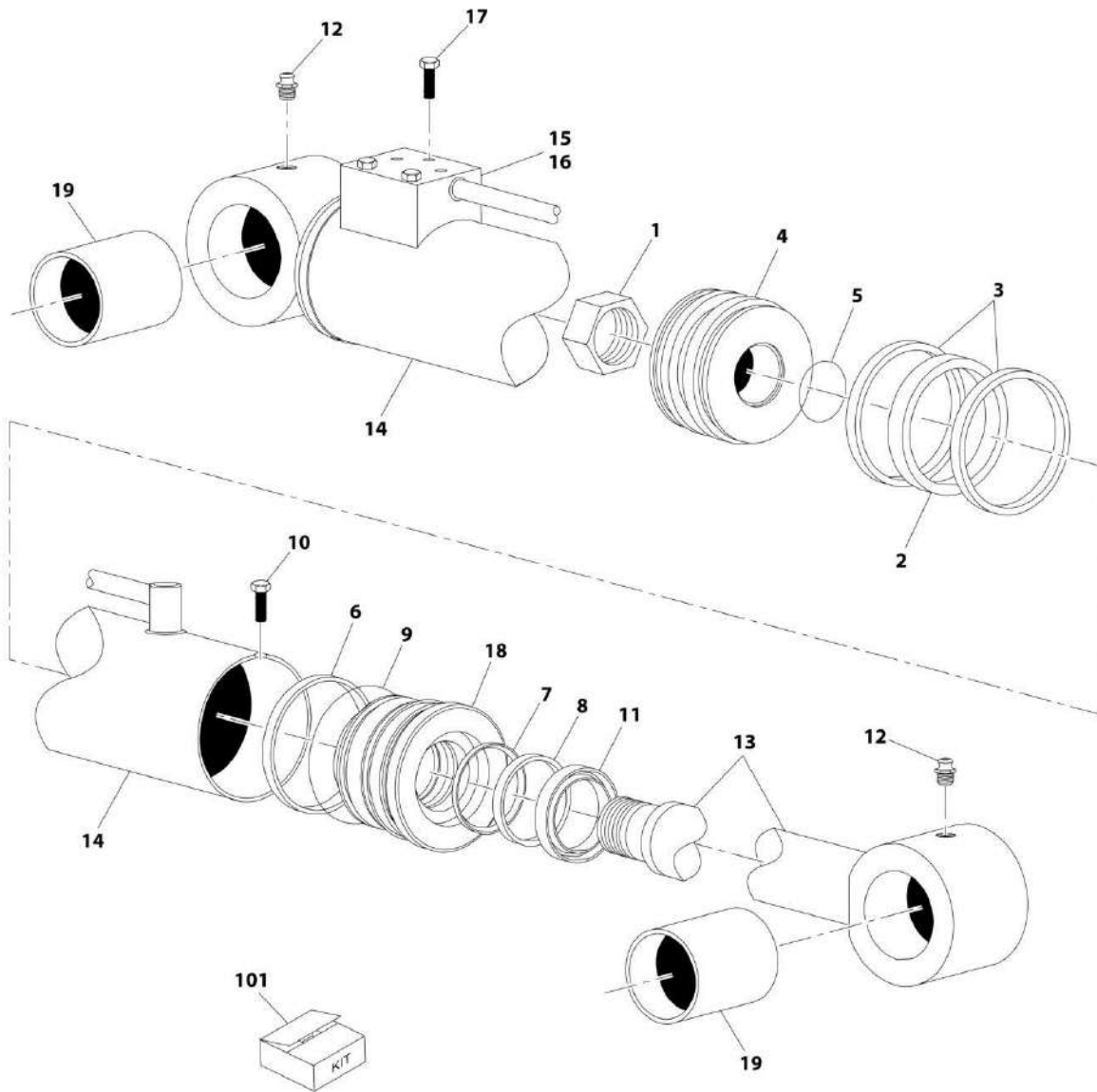
## SECTION 12 - OPTIONS

**FIGURE 12-10. SUSPENSION SEAT OPTION (SN 0192001 through 0192007, SN 016000052 through 0160013828)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	SUSPENSION SEAT OPTION W/OPEN CAB, (includes all items), (item no longer available; See HEAVY SEAT REPLACEMENT KIT for Breakdown)	
		Ref	SUSPENSION SEAT OPTION W/ENCLOSED CAB, (includes all items), (item no longer available; See HEAVY SEAT REPLACEMENT KIT for Breakdown)	
1	91405050	1	SEAT RISER ASSY, (open cab), (includes items 3, 7, 8, 9 & 10)	
1	91415045	1	SEAT RISER ASSY, (enclosed cab), (includes items 3, 7, 8, 9 & 10)	
2	91403527	1	TRIMLINE MAGNUM 200 SEAT	
3	88551009	6	LOCKWASHER, 1/4	
4	88201551	2	HEX HD CAPSCREW, 7/16-20X1-1/2, GR5	
5	88561111	10	FLAT WASHER, 1/2	
6	91033029	1	STD SEAT BELT	
6	91033486	1	CALIFORNIA SEAT BELT	
7	91406116	1	SUSPENSION RISER WELDMENT	
8	88561002	6	FLAT WASHER, 1/4	
9	91401417	1	ACCESS COVER, (open cab)	
9	91406114	1	ACCESS COVER, (enclosed cab)	
10	88261015	6	SOCKET BUTTON HD CAPSCREW, 1/4-20X5/8	
11	91403191	1	TETHER	

# SECTION 12 - OPTIONS

## FIGURE 12-11. SWAY CYLINDER



ART\_91403279-B

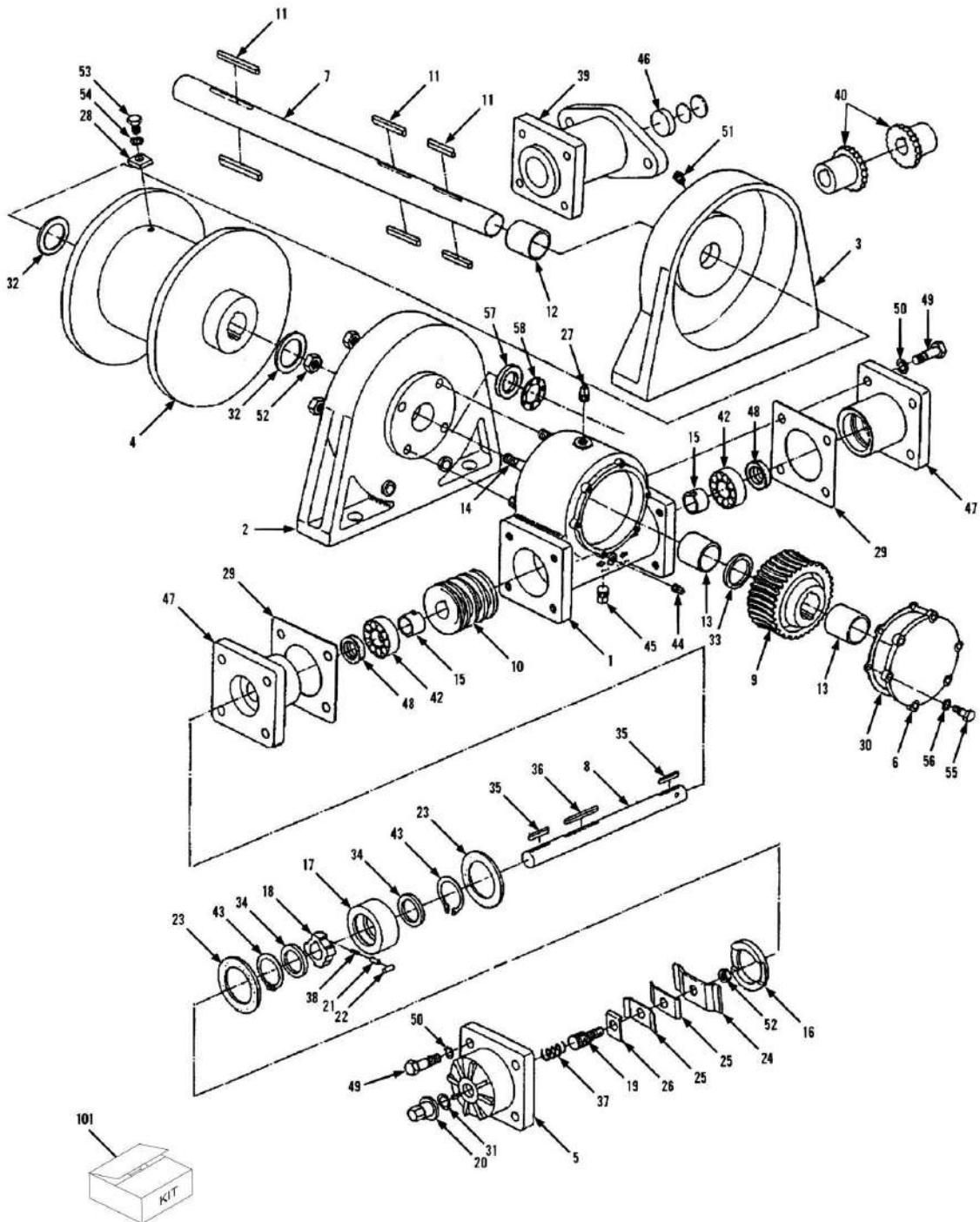
## SECTION 12 - OPTIONS

### FIGURE 12-11. SWAY CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403279	1	SWAY CYLINDER, (includes all items)	B
1	91144038	1	LOCK NUT	
2	Kit	1	PISTON SEAL	
3	Kit	2	WEAR RING	
4	91404355	1	PISTON	
5	Kit	1	O-RING	
6	Kit	1	U-CUP SEAL	
7	Kit	1	STEP SEAL	
8	Kit	1	U-CUP SEAL	
9	Kit	1	O-RING	
10	91124096	1	SELF TAPPING SCREW	
11	Kit	1	WIPER	
12	91144128	2	GREASE FITTING	
13	91404361	1	SHAFT ASSY	
14	91404362	1	CASE ASSY	
15	91404363	1	COVER	
16	Kit	1	GASKET	
17	91404365	3	CAPSCREW	
18	91404366	1	HEAD	
19	91404352	2	BUSHING	
101	91404367	AR	SEAL KIT, (includes items 2, 3, 5 thru 9, 11 & 16)	

# SECTION 12 - OPTIONS

## FIGURE 12-12. 5IN & 8IN WINCH



ART\_91504001-12-12

## SECTION 12 - OPTIONS

### FIGURE 12-12. 5IN & 8IN WINCH

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91413160	1	WINCH, 5IN DRUM, (includes all items on this page and on WINCH MOTOR)	B
	91413159	1	WINCH, 8IN DRUM, (includes all items on this page and on WINCH MOTOR)	
1	91404383	1	GEAR CASE	
2	N.S.S.	1	LOCK SET A	
3	91404385	1	LOCK SET B	
4	91404386	1	CABLE DRUM, 5IN	
4	91404432	1	CABLE DRUM, 8IN	
5	Kit	1	BRAKE DRUM	
6	91404388	1	GEAR CASE COVER	
7	90208148	1	CABLE DRUM SHAFT, 5IN	
7	91404433	1	CABLE DRUM SHAFT, 8IN	
8	91404389	1	WORM SHAFT, (includes item 10)	
9	N.S.S.	1	WORM GEAR	
10	N.S.S.	1	WORM	
11	91404392	6	CABLE DRUM SHAFT KEY	
12	N.S.S.	1	LOCK SEAT A BUSHING	
13	91404394	2	BUSHING	
14	91404395	4	STUD BOLT, 1/2X1-1/2	
15	91404396	2	COLLAR	
16	Kit	1	BRAKE PLATE	
17	Kit	1	BRAKE HOUSING	
18	Kit	1	BRAKE DRUM	
19	Kit	1	ADJUSTING BOLT	
20	Kit	1	ADJUSTING NUT	
21	Kit	1	SPRING SEAT	
22	Kit	1	ROLLER	
23	Kit	2	BRAKE LINING	
24	Kit	1	BRAKE PLATE A	
25	Kit	2	BRAKE PLATE B	
26	Kit	1	FIXING PLATE	
27	N.S.S.	1	OIL FILL PLUG	
28	N.S.S.	1	BEARING SHIM	
29	91404408	2	BEARING HUB GASKET	
30	91404409	1	GEAR CASE GASKET	
31	Kit	1	O-RING	
32	91404411	2	WASHER	
33	91404412	1	BUSHING	
34	Kit	2	SEAL	
35	91404413	2	WORM SHAFT KEY	
36	N.S.S.	1	WORM SHAFT KEY	
37	Kit	1	SPRING	
38	Kit	1	BRAKE DRUM SPRING	
39	N.S.S.	1	MOTOR MOUNT ADAPTER	
40	90208181	1	COUPLER	
42	91404416	2	BEARING	
43	Kit	2	V.C. TYPE LOCK RING	
44	91404418	1	OIL LEVEL PLUG	
45	91404419	1	OIL DRAIN PLUG	

## SECTION 12 - OPTIONS

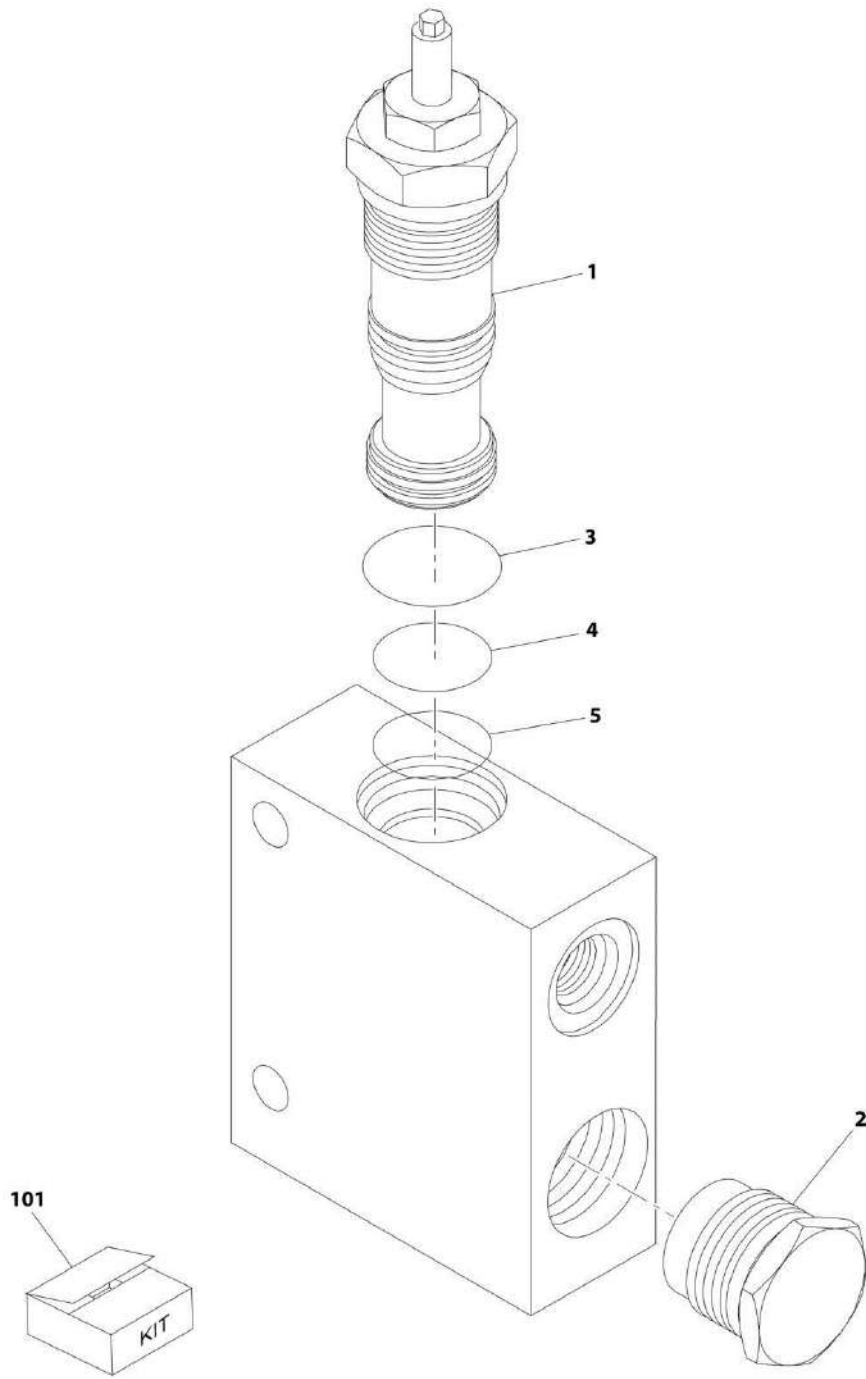
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
46	N.S.S.	1	COUPLER SPACER	
47	91404420	2	BEARING HUB	
48	91404421	2	OIL SEAL	
49	Kit	8	CAP SCREW, 3/8X1-1/2	
50	Kit	8	LOCK WASHER	
51	N.S.S.	1	GREASE FITTING	
52	Kit	5	NUT	
53	91404426	1	HEX HD CAPSCREW, 3/8X1	
54	N.S.S.	1	LOCK WASHER	
55	N.S.S.	1	HEX HD CAPSCREW, 3/8X1	
56	Kit	1	BRAKE COVER GASKET	
57	91404430	1	OIL SEAL	
58	N.S.S.	1	LOCK SEAT GASKET	
101	70020227	1	BRAKE LINING ASSY, (includes items 5, 16 thru 26, 31, 34, 37, 38, 43, 49, 50, 52 & 56)	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	





**SECTION 12 - OPTIONS**

**FIGURE 12-13. TRUSS BOOM PRESSURE REDUCER VALVE - 1200 PSI**



ART\_91413041-B

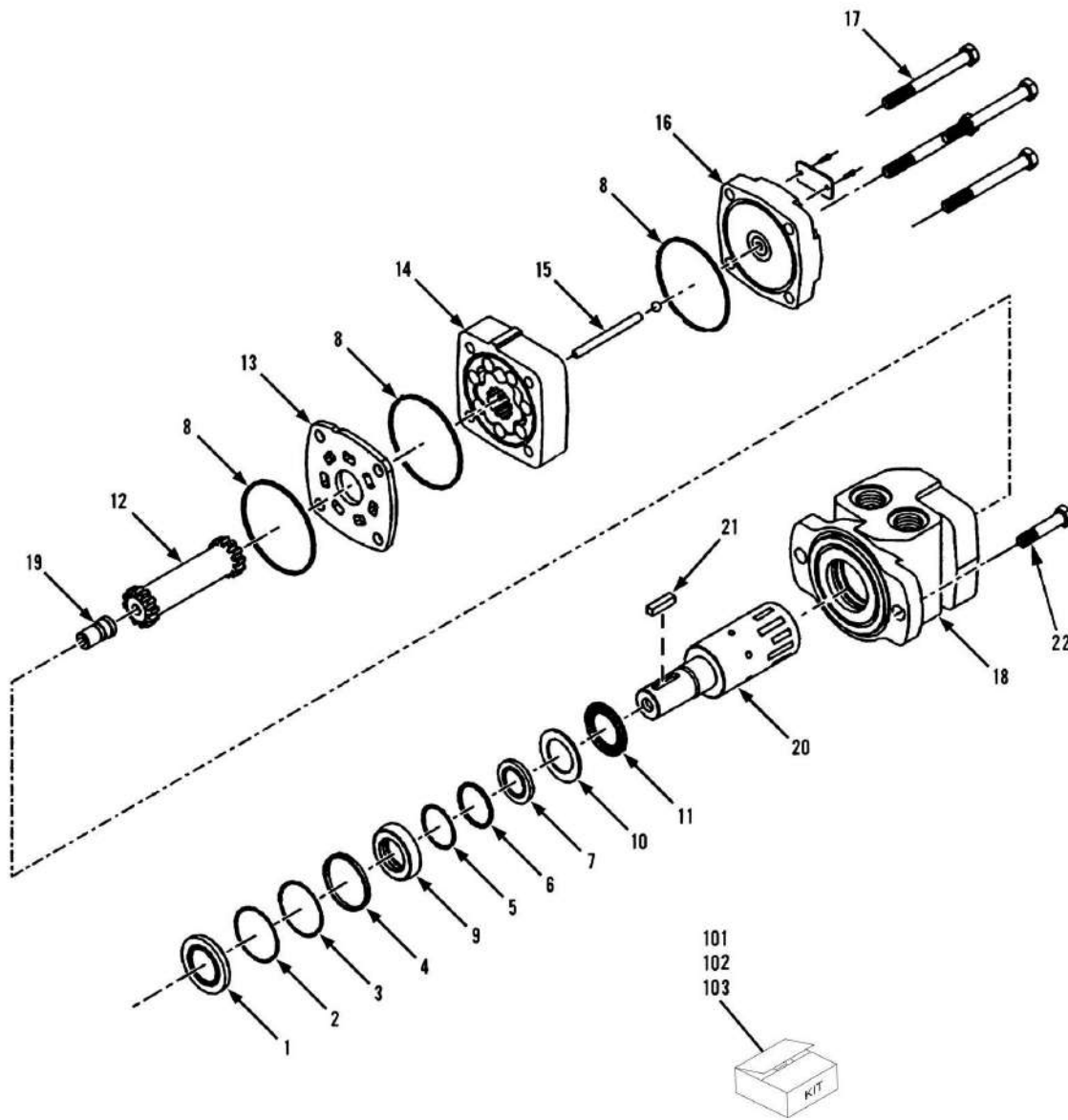
## SECTION 12 - OPTIONS

**FIGURE 12-13. TRUSS BOOM PRESSURE REDUCER VALVE - 1200 PSI**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91413041	1	TRUSS BOOM PRESSURE REDUCER VALVE, 1200 PSI, (includes all items)	B
1	91414046	1	PRESSURE REDUCING CARTRIDGE	
2	91414047	1	CHECK CARTRIDGE	
3	Kit	1	O-RING	
4	Kit	1	O-RING	
5	Kit	1	O-RING	
101	91414045	1	SEAL KIT, (includes items 3, 4 & 5)	

# SECTION 12 - OPTIONS

## FIGURE 12-14. WINCH MOTOR



ART\_91504001-12-14

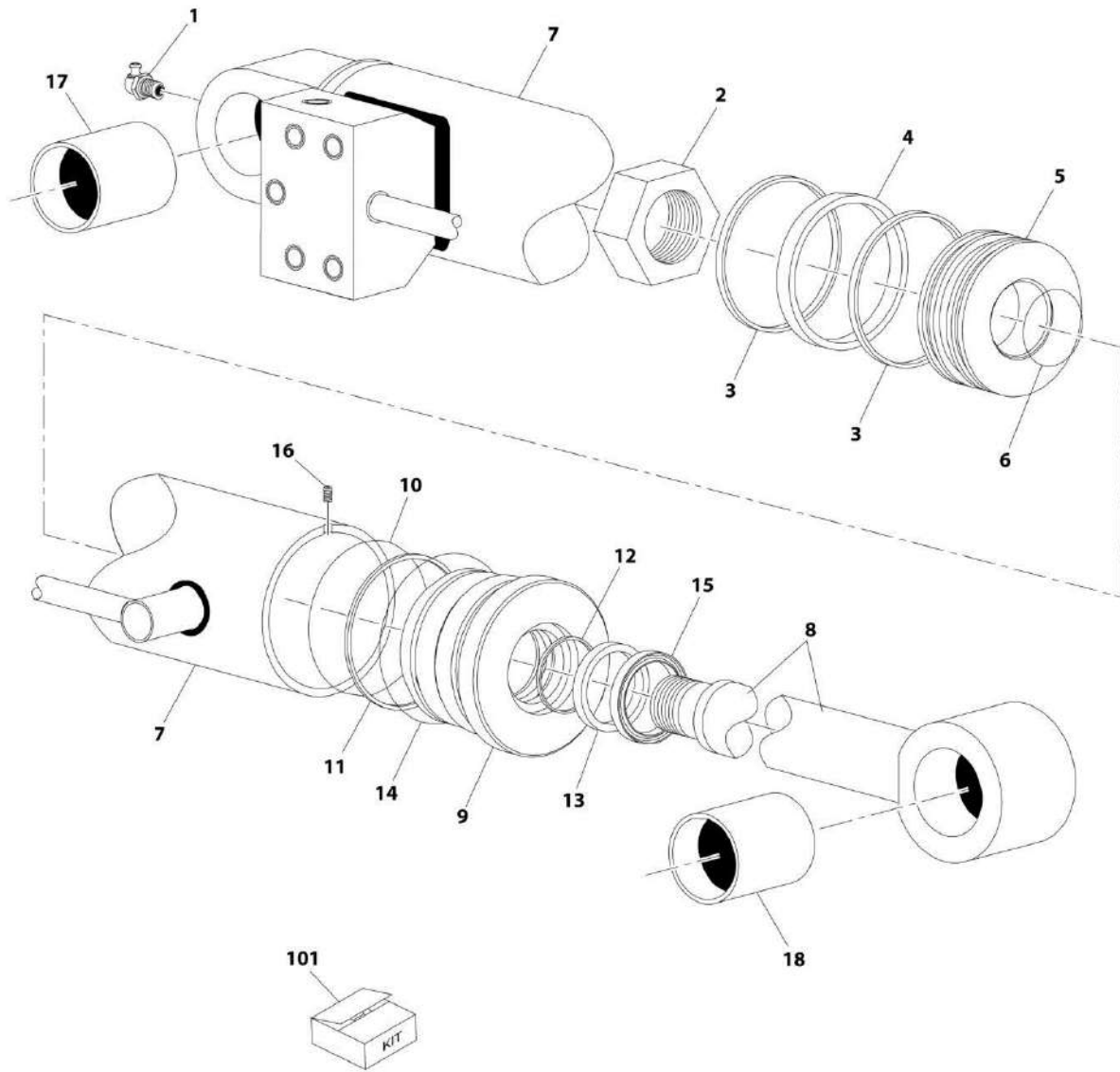
## SECTION 12 - OPTIONS

### FIGURE 12-14. WINCH MOTOR

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91413039	1	WINCH MOTOR, (includes all items)	
1	91414051	1	DUST SEAL	
2	Kit	1	SPLIT WIRE RING	
3	Kit	1	METAL BACKUP SHIM	
4	Kit	1	HIGH PRESSURE SEAL	
5	Kit	1	METAL BACKUP SHIM	
6	Kit	1	TEFLON BACKUP SHIM	
7	Kit	1	SHAFT SEAL	
8	91414052	1	BODY SEAL KIT	
9	Kit	1	SEAL CARRIER	
10	Kit	1	THRUST WASHER	
11	91414053	1	THRUST BEARING	
12	91414054	1	DRIVE LINK	
13	91414055	1	MID MOUNT WEAR PLATE	
14	91414056	1	ROTOR KIT	
15	91414057	1	DRIVE LINK PIN	
16	91414058	1	END COVER	
17	91414059	1	BOLT SET	
18	91414060	1	HOUSING	
19	91414061	1	COOLING PLUG	
20	91414062	1	SHAFT, (includes item 21)	
21	91414063	1	KEY	
22	88201024	2	HEX HD CAPSCREW, 5/16-18X2, GR5	
101	91414049	1	SEAL KIT, (includes items 1 thru 10)	
102	91414050	1	SEAL KIT, (includes items 1 thru 8)	
103	90208212	1	SEAL KIT, (includes items 9 & 10)	

# SECTION 12 - OPTIONS

## FIGURE 12-15. SWING CYLINDER



ART\_91403322-A

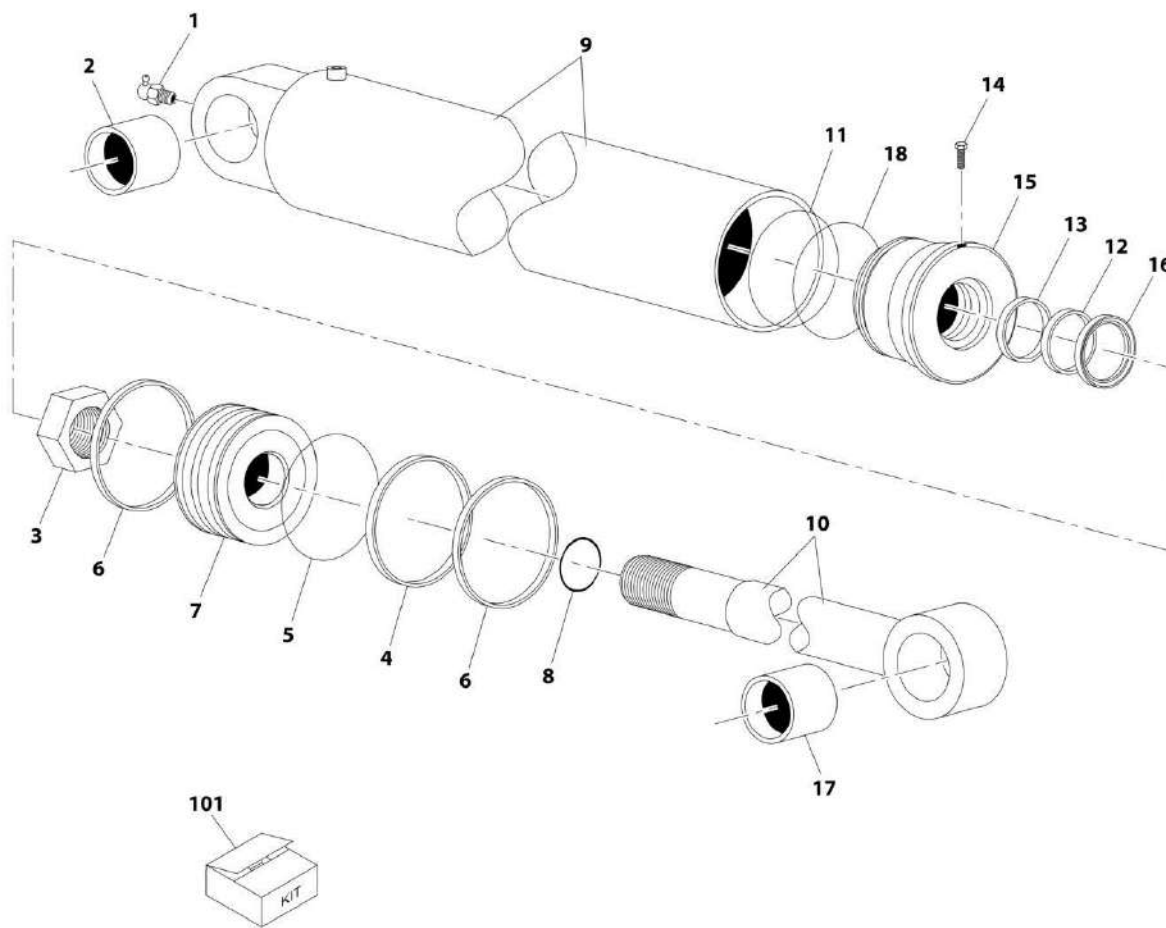
## SECTION 12 - OPTIONS

### FIGURE 12-15. SWING CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91403322	1	SWING CYLINDER, (includes all items)	A
1	91144125	1	GREASE FITTING	
2	91034156	1	LOCKNUT	
3	Kit	2	WEAR RING	
4	Kit	1	PISTON SEAL	
5	91404370	1	PISTON	
6	Kit	1	O-RING	
7	91404371	1	CASE ASSY	
8	91404372	1	SHAFT ASSY	
9	91404373	1	HEAD	
10	Kit	1	O-RING	
11	Kit	1	BACKUP	
12	Kit	1	STEP SEAL	
13	Kit	1	U-CUP	
14	Kit	1	O-RING	
15	Kit	1	WIPER	
16	91404380	1	SETSCREW	
17	91034157	1	BUSHING	
18	91144267	1	BUSHING	
101	91404381	AR	SEAL KIT, (includes items 3, 4, 6 & 10 thru 15)	

# SECTION 12 - OPTIONS

## FIGURE 12-16. SWING CYLINDER



ART\_90453034-C



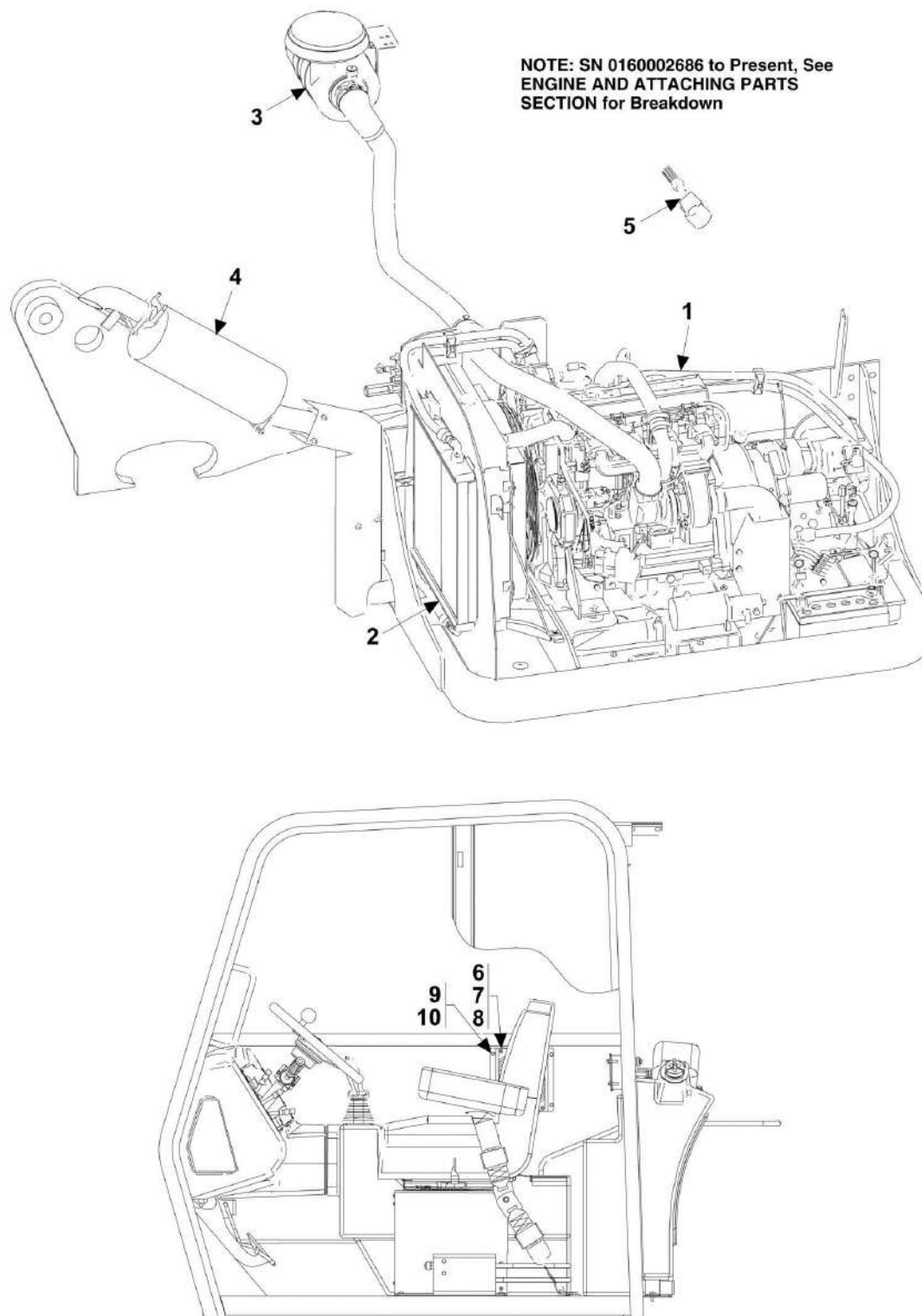
## SECTION 12 - OPTIONS

### FIGURE 12-16. SWING CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	90453034	1	SWING CYLINDER, (includes all items)	C
1	91144125	1	GREASE FITTING	
2	91034157	1	BUSHING	
3	91144038	1	LOCKNUT	
4	Kit	1	PISTON SEAL	
5	Kit	1	O-RING	
6	Kit	2	WEAR RING	
7	91144039	1	PISTON	
8	Kit	1	O-RING	
9	91034435	1	BARREL	
10	91034436	1	PISTON ROD	
11	Kit	1	BACK-UP RING	
12	Kit	1	U-CUP	
13	Kit	1	STEP SEAL	
14	91124096	1	SELF-TAPING SCREW	
15	91144040	1	CYLINDER HEAD	
16	Kit	1	WIPER	
17	91124087	1	BUSHING	
18	Kit	1	O-RING	
101	91144006	1	SEAL KIT, (includes items 4 thru 6, 8, 11 thru 13, 16 & 18)	

## SECTION 12 - OPTIONS

FIGURE 12-17. TURBO OPTION (SN 0192001 through 0192007, SN 016000052 through 0160002686)



## SECTION 12 - OPTIONS

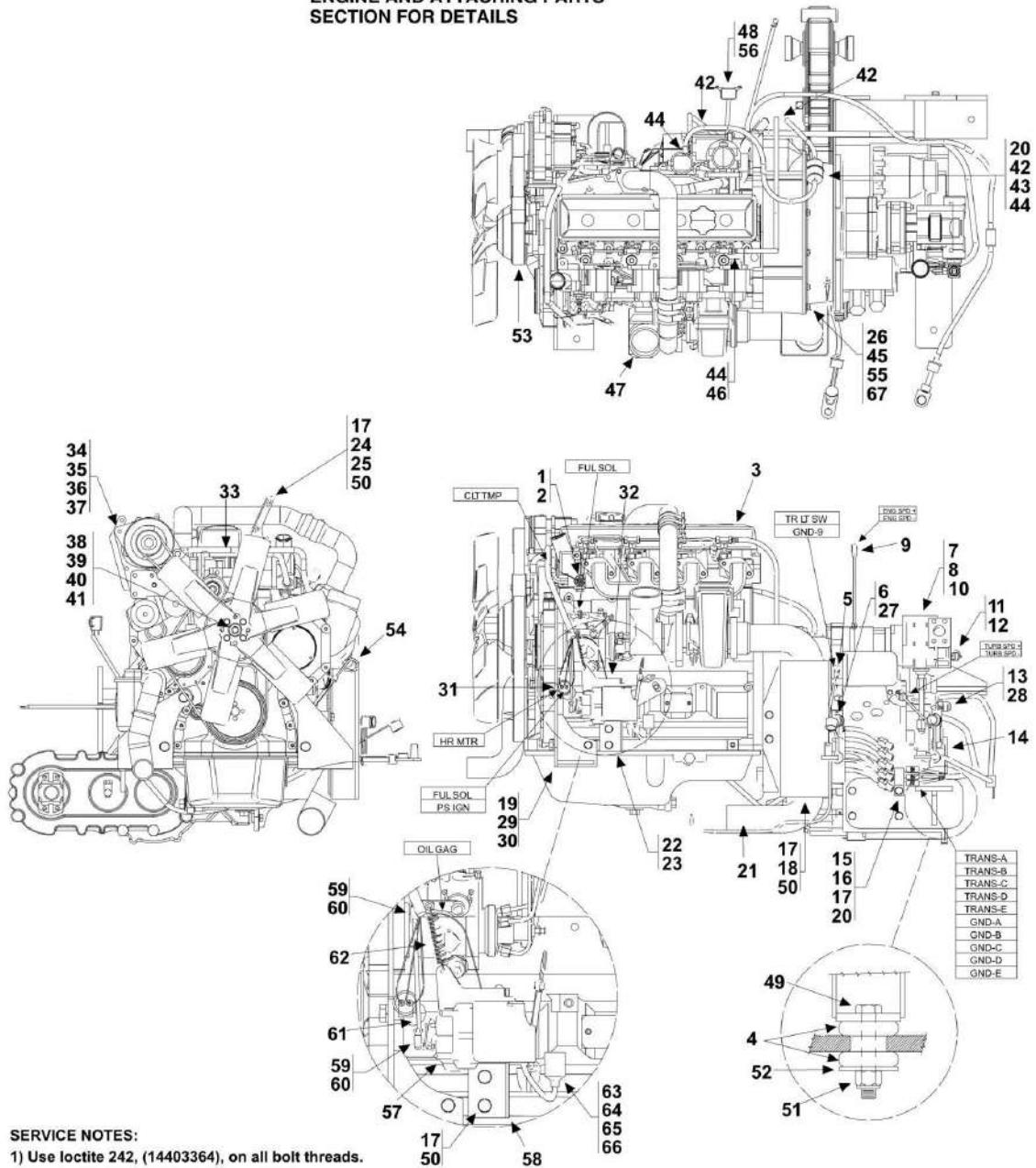
**FIGURE 12-17. TURBO OPTION (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505047	1	TURBO OPTION, (includes all items)	
1		Ref	TURBO ENGINE ASSY, (See TURBO ENGINE ASSEMBLY, L.H. VIEW thru DEERE TURBO ENGINE for Breakdown)	
2		Ref	TURBO RADIATOR ASSY, (See TURBO RADIATOR ASSEMBLY for Breakdown)	
3		Ref	TURBO AIR CLEANER AND ATTACHING PARTS, (See TURBO AIR CLEANER AND INSTALLATION for Breakdown)	
4		Ref	TURBO EXHAUST AND ATTACHING PARTS, (See TURBO EXHAUST INSTALLATION for Breakdown)	
5		Ref	4-SPEED TRANSMISSION SHIFTER, (See CONTROLS SECTION for Breakdown)	
6	91506018	1	MICROPROCESSOR WELDMENT	
7	91503148	1	MICROPROCESSOR CONTROLLER, (See CAB SECTION for Breakdown) <b>(SN 0160002686 to Present)</b>	
8	83191008	4	HEX HD CAPSCREW, M6X1X10MM	
9	88201005	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
10	88551009	4	LOCKWASHER, 1/4	

# SECTION 12 - OPTIONS

**FIGURE 12-18. TURBO ENGINE ASSEMBLY, L.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

NOTE: SN 0160002686 to Present, See ENGINE AND ATTACHING PARTS SECTION FOR DETAILS



**SERVICE NOTES:**

- 1) Use loctite 242, (14403364), on all bolt threads.
- 2) Use loctite 545, (14404043), on all fittings.

## SECTION 12 - OPTIONS

**FIGURE 12-18. TURBO ENGINE ASSEMBLY, L.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505045	Ref	TURBO ENGINE ASSY, (includes all items except 4, 9, 49, 51, 52 & 56 See TURBO ENGINE ASSEMBLY, L.H. VIEW and all items See TURBO ENGINE ASSEMBLY, R.H. VIEW)	
1	91143314	1	WATER TEMPERATURE SENSOR	
2	91403265	1	ADAPTER FITTING	
3		Ref	JOHN DEERE ENGINE, TURBO, (See DEERE TURBO ENGINE for Breakdown)	
4	91473093	4	SHOCK MOUNT	
5	91473115	1	TEMPERATURE SWITCH	
6	88662024	1	CONNECTOR, (includes item 27)	
7		Ref	HYDRAULIC PUMP, (See HYDRUALIC COMPONENTS SECTION for Breakdown)	
8	88201067	2	HEX HD CAPSCREW 1/2-13X1-1/2, GR5	
9	91504117	2	SPEED SENSOR	
10	88551013	2	LOCKWASHER, 1/2	
11	91413015	1	MODIFIED FITTING	
12	91053020	1	TEST COUPLING	
13	88662022	1	CONNECTOR, (includes item 28)	
14		Ref	TRANSMISSION, (See ENGINE AND ATTACHING PARTS SECTION for Breakdown)	
15	91476028	1	L.H. TRANSMISSION MOUNT	
16	83191032	4	HEX HD CAPSCREW, M12X1.75X35, (torque to 66-76 ft lbs)	
17	83191010	9	LOCKWASHER, M12	
18	91471145	1	HEAT SHIELD	
19	83191043	4	HEX HD CAPSCREW, M16X2X30, (torque to 166-181 ft lbs)	
20	90028660	2	SUPPORT CLAMP	
21		Ref	TURBO EXHAUST AND INSTALLATION, (See TURBO EXHAUST INSTALLATION for Breakdown)	
22	91505024	1	ELEC ACCELERATOR CONTROL ASSY, (includes items 57 thru 66)	
23	83191038	1	HEX HD CAPSCREW, M10X1.50X20, (located behind item 22)	
24	91511166	1	AIR INTAKE BRACKET	
25	88561111	1	FLAT WASHER, 1/2	
26	83191013	12	LOCKWASHER, M10	
27	88591206	1	O-RING	
28	88591207	1	O-RING	
29	91406026	1	L.H. FRONT ENGINE MOUNT	
29	91406027	1	R.H. FRONT ENGINE MOUNT	
30	83783030	4	LOCKWASHER, M16	
31	24741047	1	OIL PRESSURE SWITCH	
32	91143315	1	OIL PRESSURE SENSOR	
33	90027187	6	TIE WRAP	
34	83191025	1	HEX HD CAPSCREW, M10X1.25X20, (torque to 38-48 ft lbs)	
35	83191046	1	HEX HD CAPSCREW, M8X1.25X20, (torque to 38-48 ft lbs)	
36	88561109	1	FLAT WASHER, 3/8	
37	83191015	1	HEX NUT, M10X1.5	
38	91403105	1	FAN	
39	91403248	1	FAN SPACER	
40	83191041	4	HEX HD CAPSCREW, M8X1.25X70	
41	88561108	4	FLAT WASHER, 5/16	

## SECTION 12 - OPTIONS

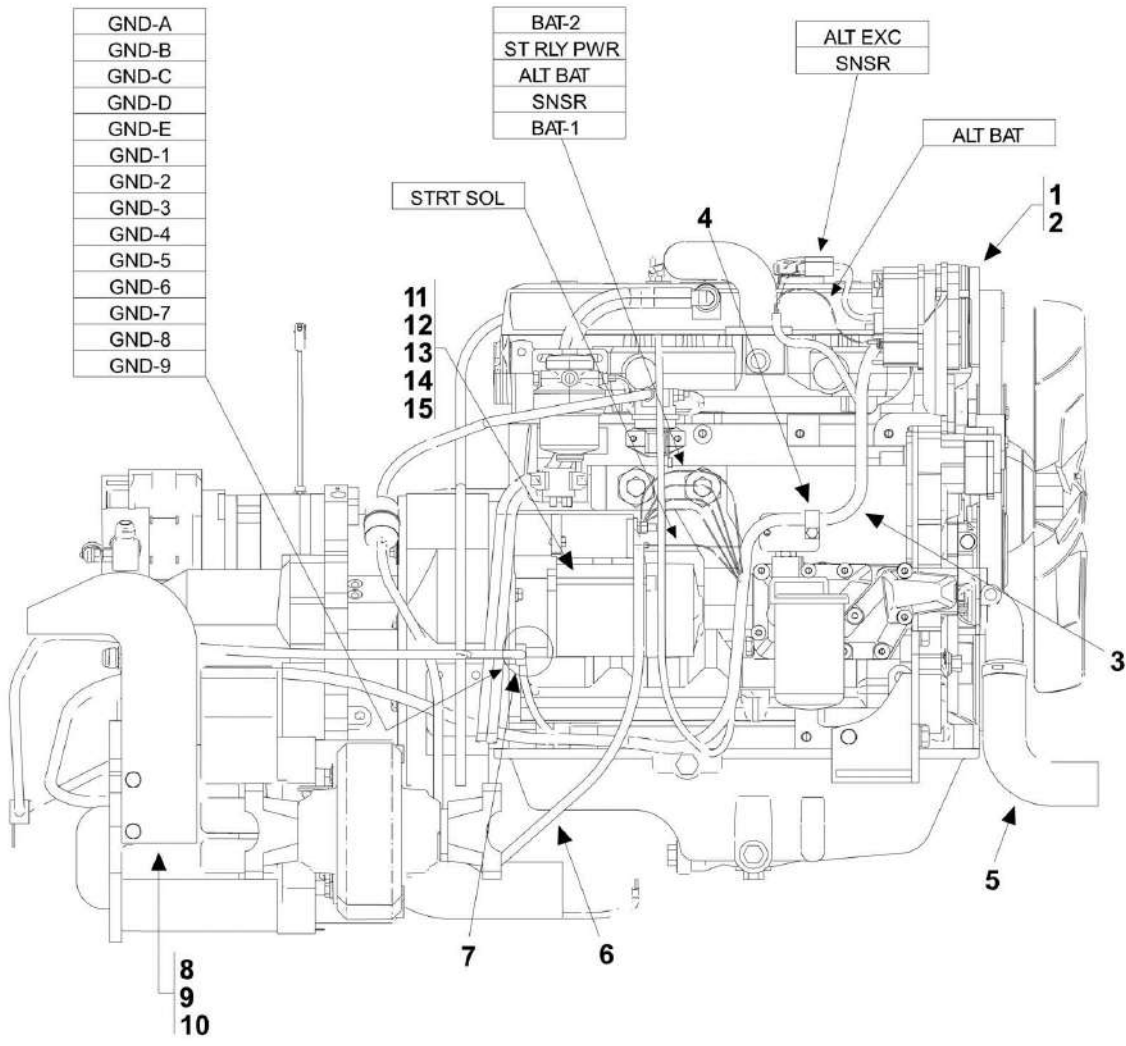
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	Bulk	200 in	FUEL LINE, 5/16, ID	
43	91083218	1	FUEL STRAINER	
44	86883106	4	HOSE CLAMP	
45	83193026	12	HEX HD CAPSCREW, M10X1.50X30, GR10, (torque to 53-58 ft lbs)	
46	80373025	1	PUSH LOCK FITTING	
47		Ref	TURBO AIR CLEANER AND INSTALLATION, (See TURBO AIR CLEANER AND INSTALLATION for Breakdown)	
48	77383377	1	STARTER RELAY	
49	83201044	4	HEX HD CAPSCREW, 5/8-11X4	
50	83191004	5	HEX HD CAPSCREW, M12X1.75X30, (torque to 66-76 ft lbs)	
51	88521010	4	HEX LOCKNUT, 5/8-11	
52	91081158	4	ROUND WASHER SPECIAL	
53	91404086	1	FAN BELT	
54	91474171	1	DIPSTICK	
55	88201537	8	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5	
56	88201001	2	HEX HD CAPSCREW, 1/4-20X1/2, GR5	
57	80363019	1	STM MOTOR	
58	80376009	1	MOUNTING BRACKET	
59	80373029	2	QD BALL JOINT	
60	88501304	4	HEX NUT, 1/4-28	
61	80371043	1	THREADED LINKAGE	
62	80373034	1	THROTTLE SPRING	
63	91503105	1	DEUTSCH CONNECTOR	
64	91503106	1	DEUTSCH LOCK	
65	77363230	1	DEUTSCH PLUG	
66	77363228	7	DEUTSCH CONTACT	
67	91513234	1	SOCKET HD CAPSCREW, M10X1.5X30, GR 10.9, (torque to 53-58 ft lbs)	
	91415064		ENGINE FILTER KIT, (includes all items)	
	91404005		OIL FILTER ELEMENT	
	91404004		FUEL FILTER	
	1101313		AIR FILTER SAFETY ELEMENT	
	1101312		AIR FILTER ELEMENT	
	91083218		FUEL STRAINER	



# SECTION 12 - OPTIONS

**FIGURE 12-19. TURBO ENGINE ASSEMBLY R.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

**NOTE: SN 0160002686 to Present, See ENGINE AND ATTACHING PARTS SECTION FOR DETAILS**





## SECTION 12 - OPTIONS

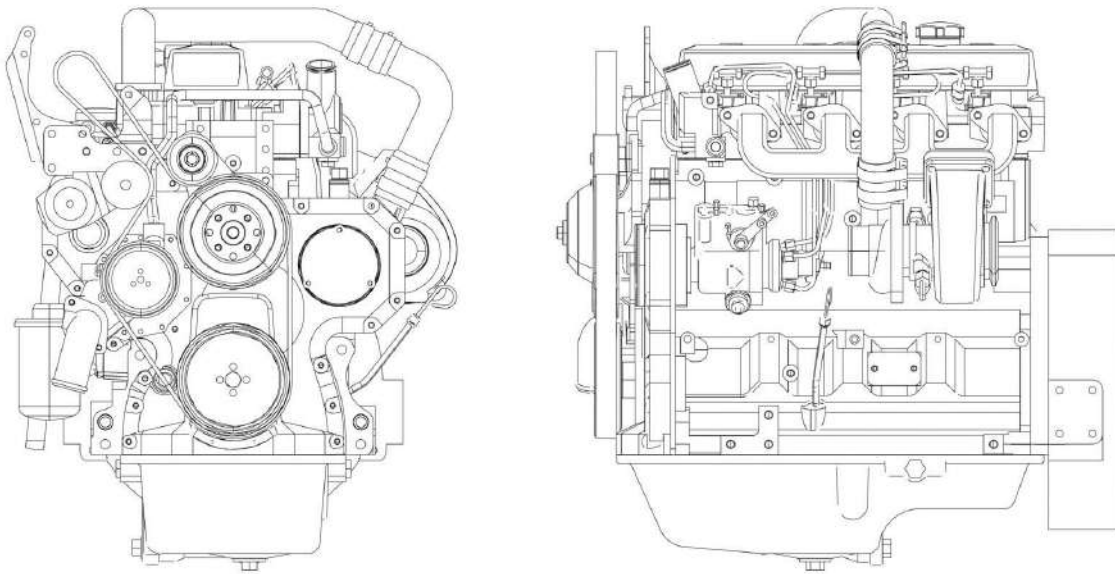
**FIGURE 12-19. TURBO ENGINE ASSEMBLY R.H. VIEW (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91505045	Ref	TURBO ENGINE ASSY, (includes all items except 4, 9, 49, 51, 52 & 56 See TURBO ENGINE ASSEMBLY, L.H. VIEW and all items See TURBO ENGINE ASSEMBLY, R.H. VIEW)	
1	80973108	1	ALTERNATOR, (includes item 2)	
2	80973114	1	REGULATOR	
3		Ref	WIRING HARNESS, (See ELECTRICAL SECTION for Breakdown)	
4	91143122	1	SUPPORT CLAMP	
5		Ref	TURBO RADIATOR ASSY AND INSTALLATION, (See TURBO RADIATOR ASSEMBLY for Breakdown)	
6		Ref	POSITIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
7		Ref	NEGATIVE BATTERY CABLE, (See ELECTRICAL SECTION for Breakdown)	
8	91476022	1	R.H. TRANSMISSION MOUNT	
9	83191032	2	HEX HD CAPSCREW, M12X1.75X35, (torque to 66-76 ft lbs)	
10	83191010	2	LOCKWASHER, M12	
11	83191013	3	LOCKWASHER, M10	
12	91413104	1	STARTER, (includes item 14)	
13	83191040	1	SOCKET HD CAPSCREW, M10X1.5X30, (top inner mtg hole)	
14	91414040	1	STARTER SOLENOID	
15	83191062	2	SOCKET HD CAPSCREW, M10X1.5X40, (torque to 38-48 ft lbs)	

## SECTION 12 - OPTIONS

FIGURE 12-20. DEERE TURBO ENGINE (SN 0192001 through 0192007, SN 016000052 through 0160002686)

NOTE: SN 0160002686 to Present, See  
ENGINE AND ATTACHING PARTS  
SECTION FOR DETAILS



## SECTION 12 - OPTIONS

**FIGURE 12-20. DEERE TURBO ENGINE (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91473017	1	JOHN DEERE ENGINE, TURBO, (includes all items)	
	91404219	1	GASKET KIT OVERHAUL	
	91404220	1	ENGINE CYLINDER HEAD GASKET	
	91404221	1	BOLT, BELT TENSIONER	
	91404222	1	SCREW, BELT TENSIONER	
	91404223	1	SHEAVE, BELT TENSIONER	
	91404265	1	GASKET	
	91404266	2	O-RING	
	91404267	1	GASKET	
	91404268	1	HYDRAULIC HOSE	
	91404269	1	TURBO CHARGER	
	91404224	1	OIL COOLER	
	91404225	1	GASKET, OIL COOLER	
	91404226	1	GASKET, OIL COOLER	
	91404227	2	O-RING, OIL COOLER	
	91404228	2	O-RING, OIL COOLER	
	91404229	1	O-RING, WATER PUMP INLET	
	91404230	1	KIT, WATER PUMP REPAIR	
	91404231	1	SEAL KIT, FRONT MAIN SEAL	
	91404232	1	GASKET, WATER PUMP	
	91404233	1	WATER PUMP	
	91404234	4	GASKET, EXHAUST MANIFOLD	
	91404235	1	PULLEY, FAN	
	91404236	1	SCREW, FAN PULLEY	
	91404237	1	SPACER, FAN PULLEY	
	91404238	1	SLEEVE, FAN PULLEY	
	91404239	1	BEARING HOUSING W/BEARING	
	7026927	1	GASKET, THERMOSTAT	
	91404241	3	PLUG, OIL PAN	
	91404242	1	GASKET, OIL PAN	
	91404243	2	O-RING, OIL DRAIN	
	91404270	1	WASHER, INJECTOR	
	91404248	1	SLEEVE, INJECTOR	
	91404271	1	PACKING, INJECTOR	
	91404272	1	INJECTOR NOZZLE	
	91404273	1	PLUG INJECTOR	
	91474185	1	FLYWHEEL W/RINGEAR	
	91404251	1	SEAL, REAR MAIN	
	91404252	1	PULLEY, MAIN	
	91404253	2	GASKET, OIL FILLER	
	91404254	1	PACKING, VALVE COVER NUT	
	91404255	1	PACKING, FILLER CAP	
	91404256	4	PLUG, VALVE COVER	
	91404259	4	O-RING, VALVE COVER	
	91404260	1	COOLANT, PRE MIX, (2.5 gal)	
	91404261	1	COOLANT, CONDITION	
	91404262	1	FUEL TRANSFER PUMP	
	91404263	1	THERMOSTAT	
	91404264	1	THERMOSTAT COVER SEAL	

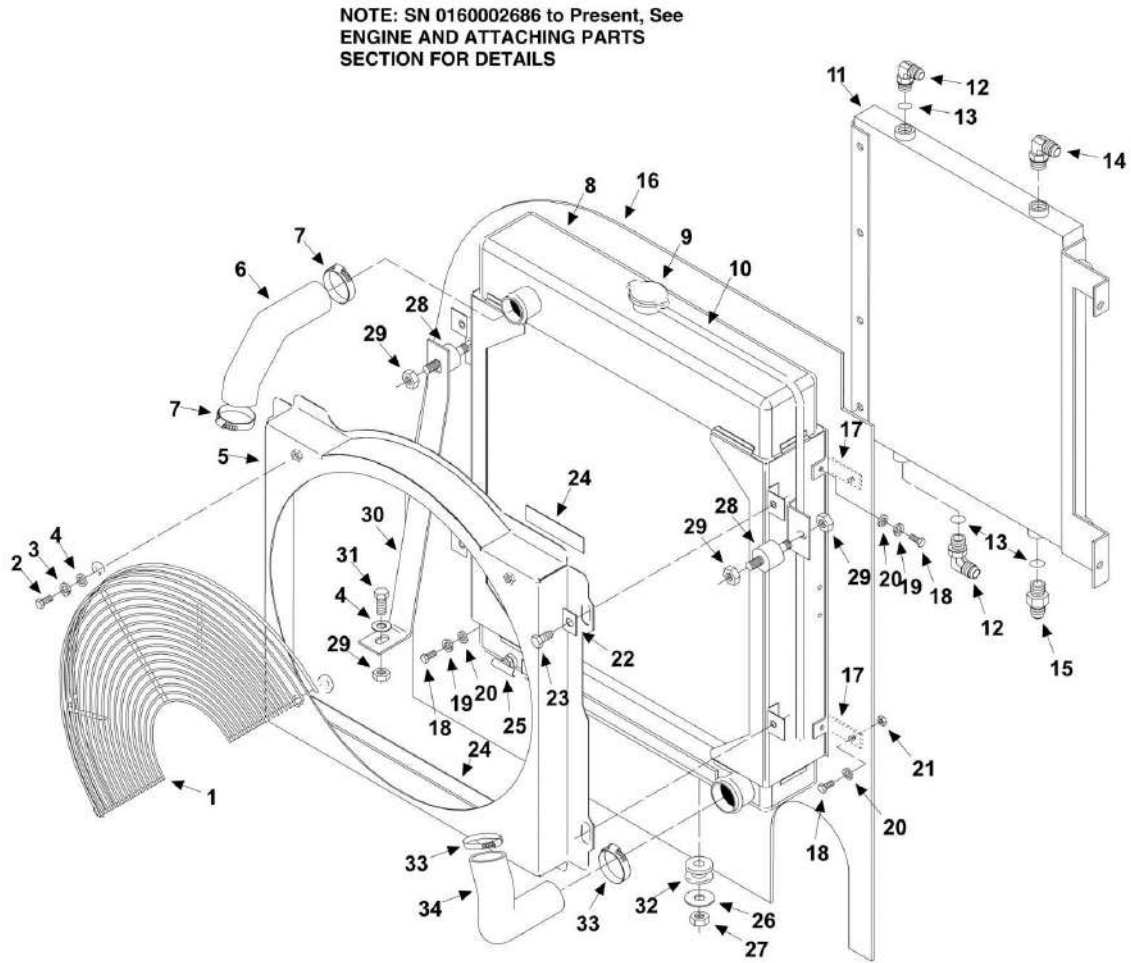
## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91404257	1	GASKET, VALVE COVER	
	91404258	1	FILLER CAP, VALVE COVER	



# SECTION 12 - OPTIONS

FIGURE 12-21. TURBO RADIATOR ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160002686)



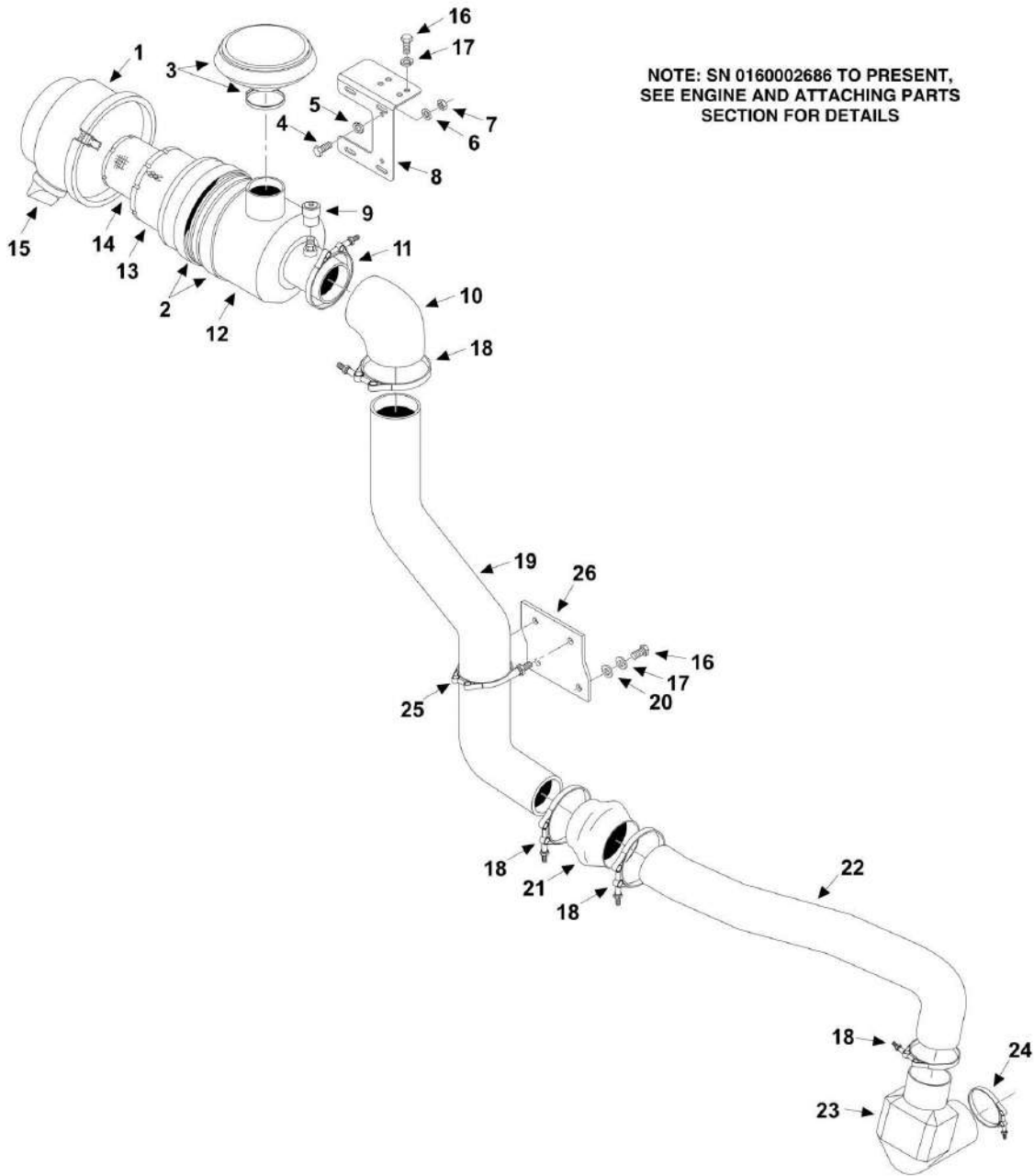
## SECTION 12 - OPTIONS

**FIGURE 12-21. TURBO RADIATOR ASSEMBLY (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475017	1	RADIATOR ASSY, (includes items 5 thru 25)	
1	91473108	1	FAN GUARD	
2	88201034	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
3	88551011	3	LOCKWASHER, 3/8	
4	88561003	4	FLAT WASHER, 5/16	
5	91476033	1	FAN SHROUD	
6	91403095	1	UPPER RADIATOR HOSE	
7	85071128	2	HOSE CLAMP	
8	91403142	1	RADIATOR, (includes items 9 & 10)	
9	91404008	1	RADIATOR CAP, 10 PSI	
10	Bulk	38 in	OVERFLOW HOSE	
11	91473019	1	OIL COOLER	
12	88662067	2	ELBOW, 90, (includes item 13)	
13	88591207	3	O-RING	
14	83251198	1	ELBOW, 90	
15	88662008	1	CONNECTOR, (includes item 13)	
16	91473136	1	RUBBER AIR DAM	
17	91471132	2	AIR DAM BRACKET	
18	88201019	8	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
19	88551010	6	LOCKWASHER, 5/16	
20	88561108	8	FLAT WASHER, 5/16	
21	77143006	2	WHIZ-LOCKNUT, 5/16-18	
22	91143348	4	CLAMP BAR	
23	77143003	4	WHIZ-LOCK SCREW, 5/16-18X5/8	
24	Bulk	28 in	GASKA-TAPE	
25	84521056	1	DRAIN COCK	
26	90205918	2	HARDENED WASHER, 3/8	
27	88521206	2	HEX LOCKNUT, 3/8-16	
28	91033137	2	SHOCK MOUNT	
29	77143006	5	WHIZ-LOCKNUT, 5/16-18	
30	91471108	1	RADIATOR BRACKET	
31	88201021	1	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
32	83683308	2	PAD MOUNTING	
33	86883327	2	CLAMP	
34	91403096	1	LOWER RADIATOR HOSE	

## SECTION 12 - OPTIONS

FIGURE 12-22. TURBO AIR CLEANER AND INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)



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## SECTION 12 - OPTIONS

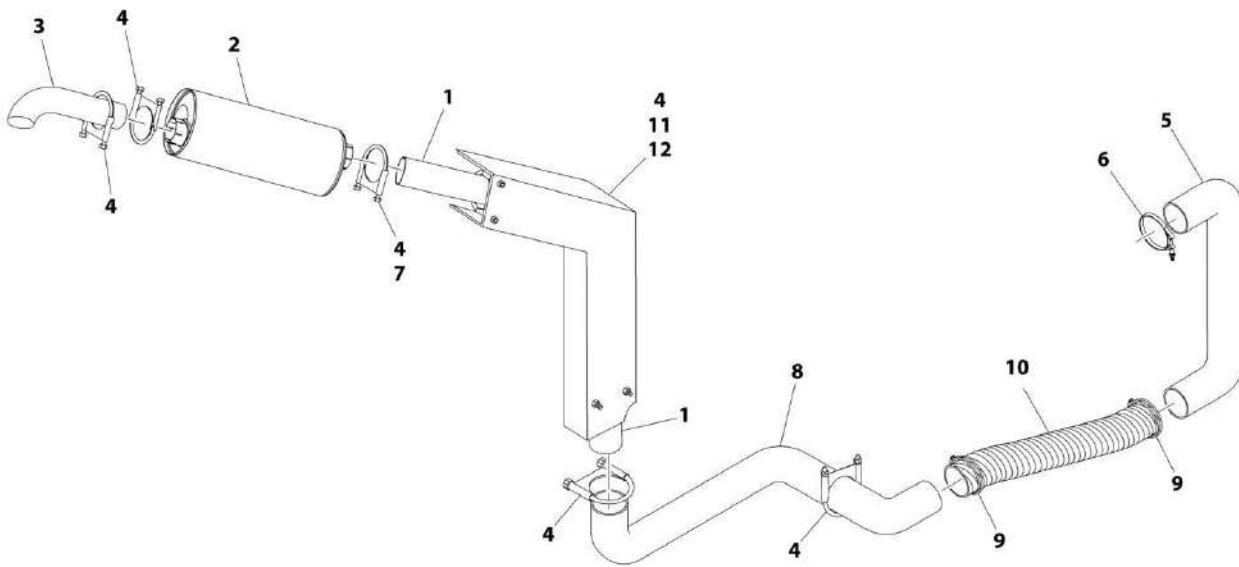
**FIGURE 12-22. TURBO AIR CLEANER AND INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91515041	1	AIR CLEANER ASSY, (includes items 1 thru 15)	
1	91364023	1	COVER ASSY	
2	91343058	2	MOUNTING BAND	
3	91153005	1	AIR INTAKE HOOD, (includes clamp)	
4	88201021	4	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
5	88551010	4	LOCKWASHER, 5/16	
6	88561108	4	FLAT WASHER, 5/16	
7	77143006	4	WHIZ-LOCKNUT, 5/16-18	
8	91511144	1	MOUNTING BRACKET	
9	77383154	1	SERVICE INDICATOR	
10	91153007	1	ELBOW, 90	
11	77383790	1	BAND CLAMP	
12	91343057	1	AIR CLEANER, (includes items 1, 13, 14 & 15)	
13	1101312	1	ELEMENT, (outer)	
14	1101313	1	ELEMENT, (inner)	
15	80373094	1	VACTUATOR	
16	88201033	4	HEX HD CAPSCREW, 3/8-16X3/4, GR5	
17	88551011	4	LOCKWASHER, 3/8	
18	91163129	4	BAND CLAMP	
19	91473104	1	AIR INTAKE TUBE	
20	88561004	2	FLAT WASHER, 3/8	
21	91403244	1	STRAIGHT HUMP	
22	91473103	1	AIR INTAKE TUBE	
23	91083126	1	ELBOW, 90	
24	91303049	1	HOSE CLAMP	
25	24921332	1	MUFFLER CLAMP	
26	91471133	1	INTAKE SUPPORT BRACKET	

## SECTION 12 - OPTIONS

FIGURE 12-23. TURBO EXHAUST INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)

NOTE: SN 0160002686 TO PRESENT,  
SEE ENGINE AND ATTACHING PARTS  
SECTION FOR DETAILS



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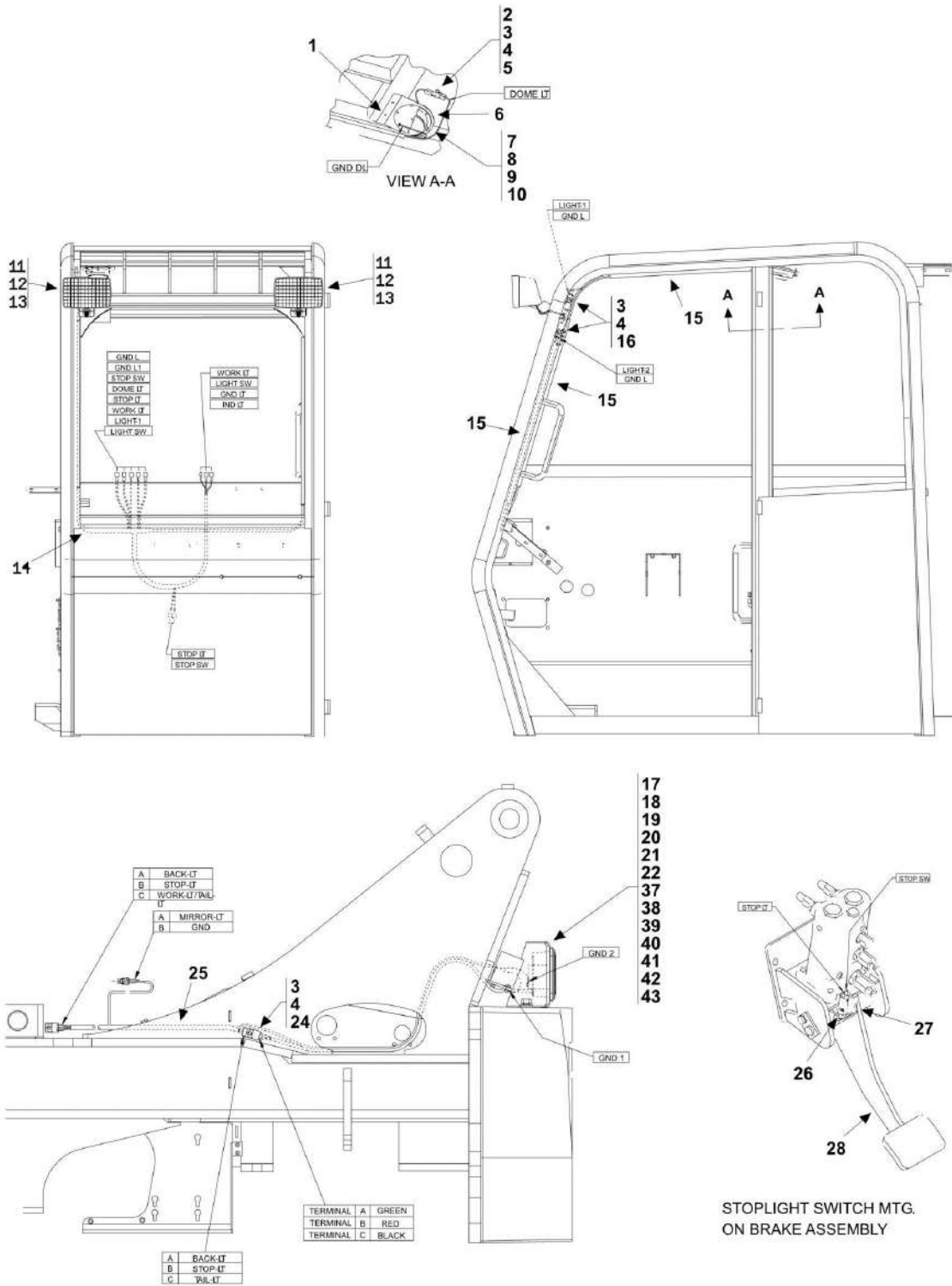
## SECTION 12 - OPTIONS

**FIGURE 12-23. TURBO EXHAUST INSTALLATION (SN 0192001 through 0192007, SN 016000052 through 0160002686)**

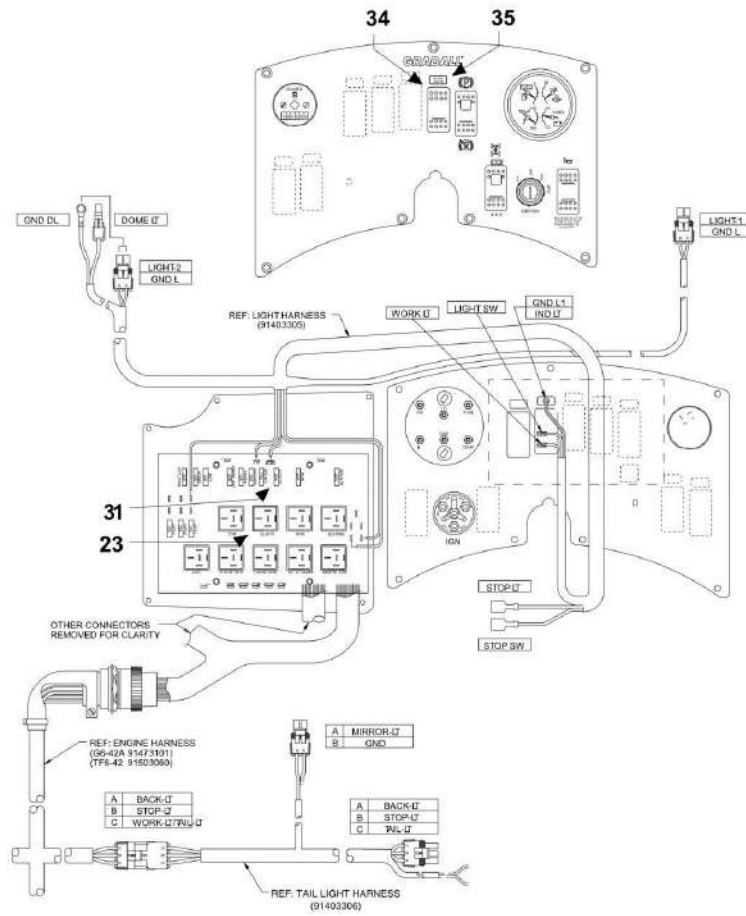
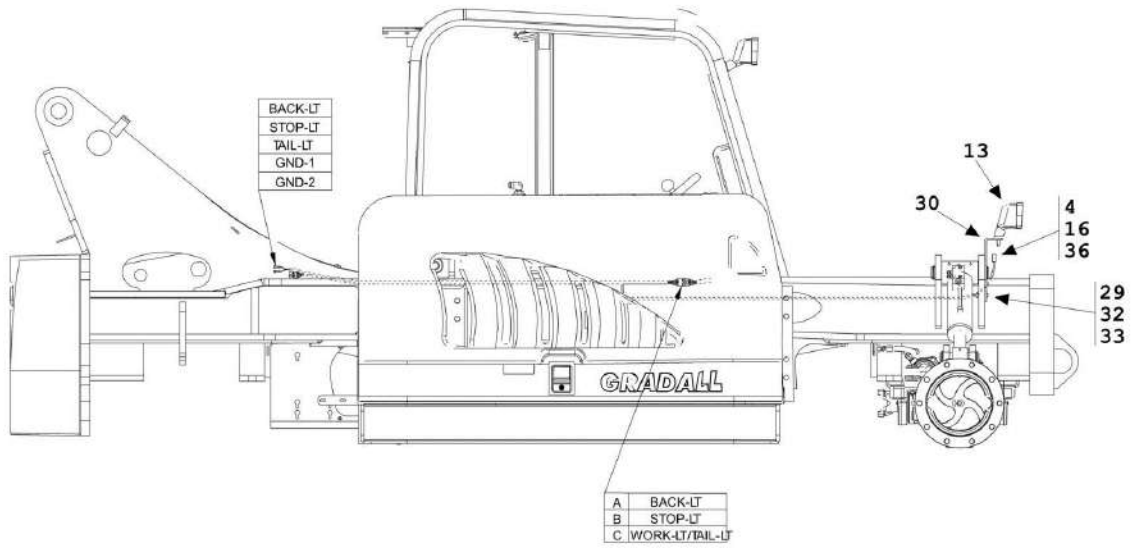
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
1	91503145	1	MUFFLER TUBE	
2	91163035	1	MUFFLER	
3	91403489	1	TAIL PIPE	
4	24921332	7	MUFFLER CLAMP	
5	91473117	1	EXHAUST TUBE	
6	91403216	1	V-BAND CLAMP	
7	91501085	1	SPACER	
8	91473036	1	MUFFLER TUBE	
9	91403601	2	CLAMP	
10	91473119	1	FLEX TUBE	
11	88561004	4	FLAT WASHER, 3/8	
12	91506024	1	HEAT SHIELD	

# SECTION 12 - OPTIONS

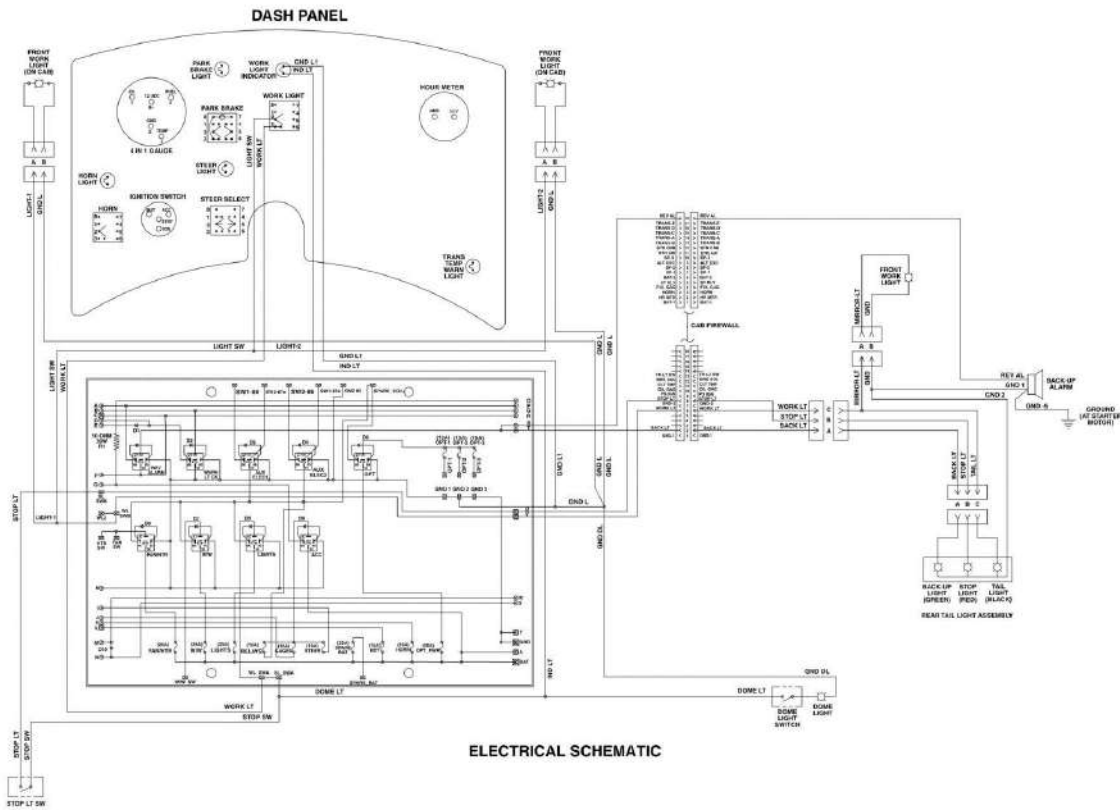
## FIGURE 12-24. WORKLIGHT PACKAGE



# SECTION 12 - OPTIONS



# SECTION 12 - OPTIONS



## SECTION 12 - OPTIONS

### FIGURE 12-24. WORKLIGHT PACKAGE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475062	1	WORKLIGHT PACKAGE, (includes all items) (SN 0192001 through 0160000157)	
	91475095	1	WORKLIGHT PACKAGE, (includes all items) (SN 0160000170 to Present)	D
1	88321022	2	SELF TAPPING SCREW, #8-32X3/8	
2	80963056	1	WEATHER PACK SHROUD	
3	80963069	5	MALE PIN TERMINAL	
4	80963066	7	CABLE SEAL	
5	90029955	1	GROMMET, RUBBER	
6	91361003	1	MOUNTING UNIT	
7	24861167	1	INTERIOR LIGHT	
8	88551006	3	LOCKWASHER, #8	
9	89981036	3	PAN HD SCREW, #8-32X3/8	
10	88501610	3	HEX NUT, #8	
11	91403503	2	SPACER	
12	91413052	2	MOUNTING BOLT	
13	80963050	2	UTILITY FLOOD LIGHT	
13	80964070	2	BULB	
14	91403305	1	LIGHT HARNESS	
15	80961142	3	ECONOMY WIRING DUCT	
16	80963058	2	WEATHER PACK SHROUD	
17	91121145	1	TAIL LIGHT HOUSING	
18	91121146	1	TAIL LIGHT BRACKET	
19	91365045	1	TAIL LIGHT ASSY, (includes items 37 thru 43)	
20	88201108	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
21	88561115	1	FLAT WASHER, 3/4	
22	88551016	1	LOCKWASHER, 3/4	
23	77363265	1	RELAY	
24	80963060	1	WEATHER PACK SHROUD	
25	91403306	1	TAIL LIGHT HARNESS	
26	91143117	1	STOPLIGHT SWITCH	
27	91511127	1	STOPLIGHT MOUNTING TAB	
28	91476046	1	PEDAL BRAKE W/ STOPLIGHT TAB (SN 0192001 through 0160000157)	
28	91516030	1	PEDAL BRAKE W/ STOPLIGHT TAB (SN 0160000170 through 0160019116)	
28	1001090741	1	BRAKE PEDAL (SN 0160019117 to Present)	
29	88201039	2	HEX HD CAPSCREW, 3/8-16X2, GR5	
30	91471221	1	FLOOD LIGHT BRACKET	
31	8229262	1	FUSE, 25 AMP	
32	88501006	2	HEX NUT, 3/8-16	
33	88551011	2	LOCKWASHER, 3/8	
34	91403304	1	TOGGLE SWITCH	
35	91403613	1	WORK LIGHTS DECAL	
36	80963068	2	FEMALE PIN TERMINAL	
37	91123065	1	TAIL LIGHT	
38	86661147	38 in	BLACK WIRE, 16 GA.	
39	86661149	38 in	GREEN WIRE, 16 GA.	
40	86661152	38 in	RED WIRE, 16 GA.	
41	86683480	3	BUTT CONNECTOR	

## SECTION 12 - OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
42	82033996	45 in	WIRE LOOM	
43	86683122	2	TIE WRAP	

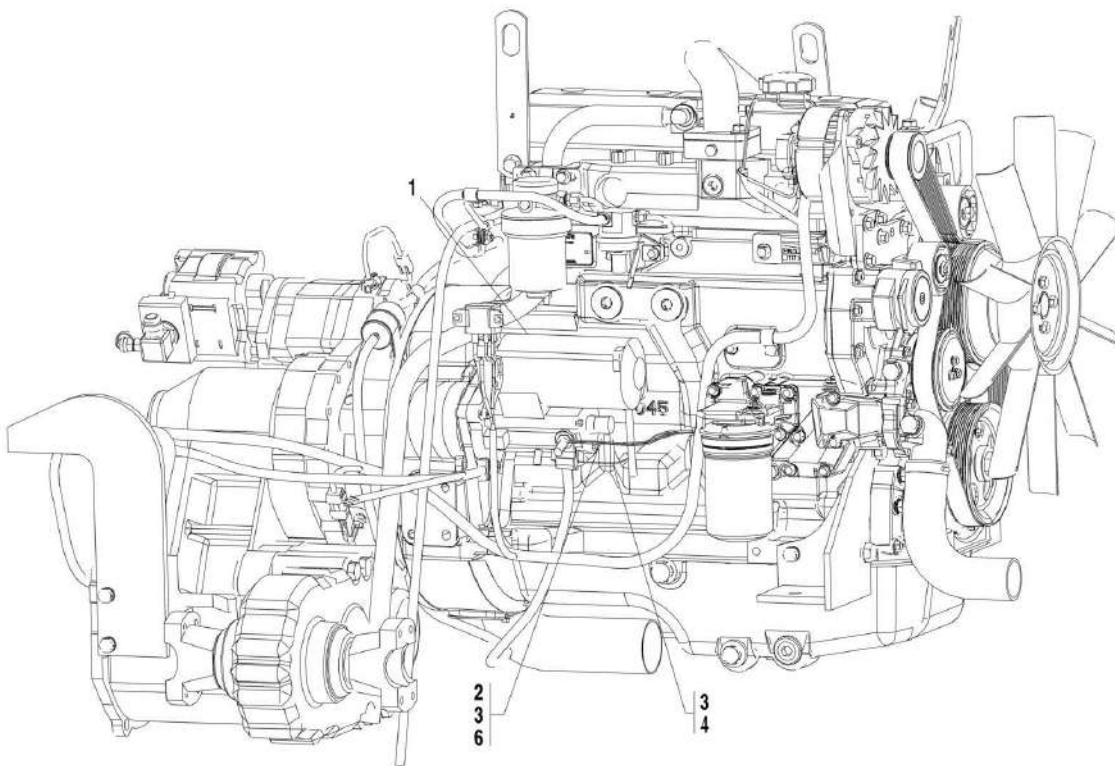




## SECTION 12 - OPTIONS

FIGURE 12-25. STARTER KIT (SN 0192001 through 0192007, SN 016000052 through 016000622, Excluding 0160000198 and 0160006286)

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



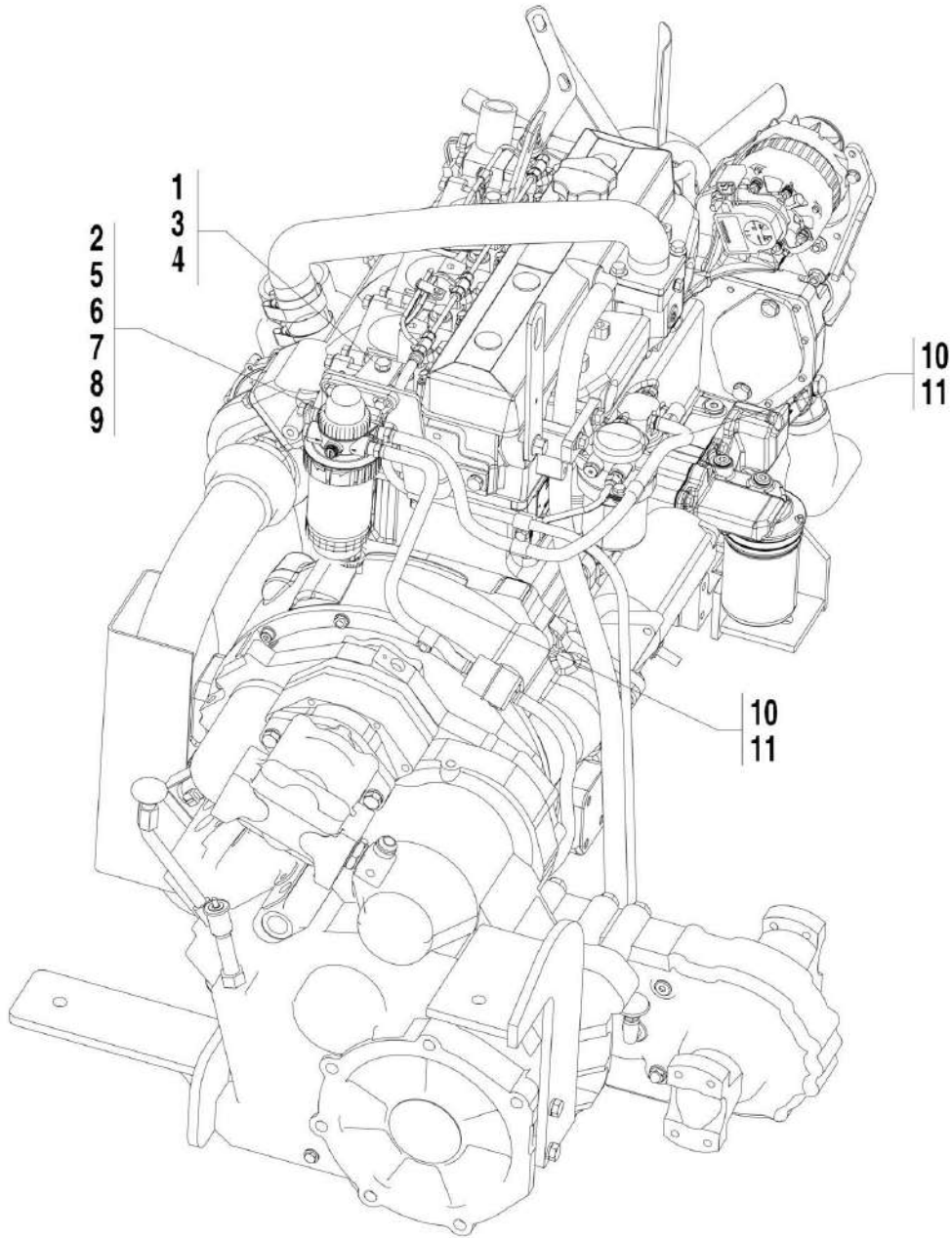
## SECTION 12 - OPTIONS

**FIGURE 12-25. STARTER KIT (SN 0192001 through 0192007, SN 016000052 through 0160006622, Excluding 0160000198 and 0160006286)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91415083	1	STARTER KIT, (includes all items)	A
1	7026921	1	STARTER, (DENSO)	
2	91413148	1	JUMPER WIRES	
3	83681905	12 in	HEAT SHRINK INSULATION	
4	91413149	1	JUMPER WIRE	
6	71492134	12 in	SPLIT LOOM	
		Ref	NOTE: ITEM NUMBERS NOT LISTED ARE NOT USED ON THIS FIGURE	

## SECTION 12 - OPTIONS

FIGURE 12-26. FUEL/WATER SEPARATOR INSTALLATION



ART\_91475107-B

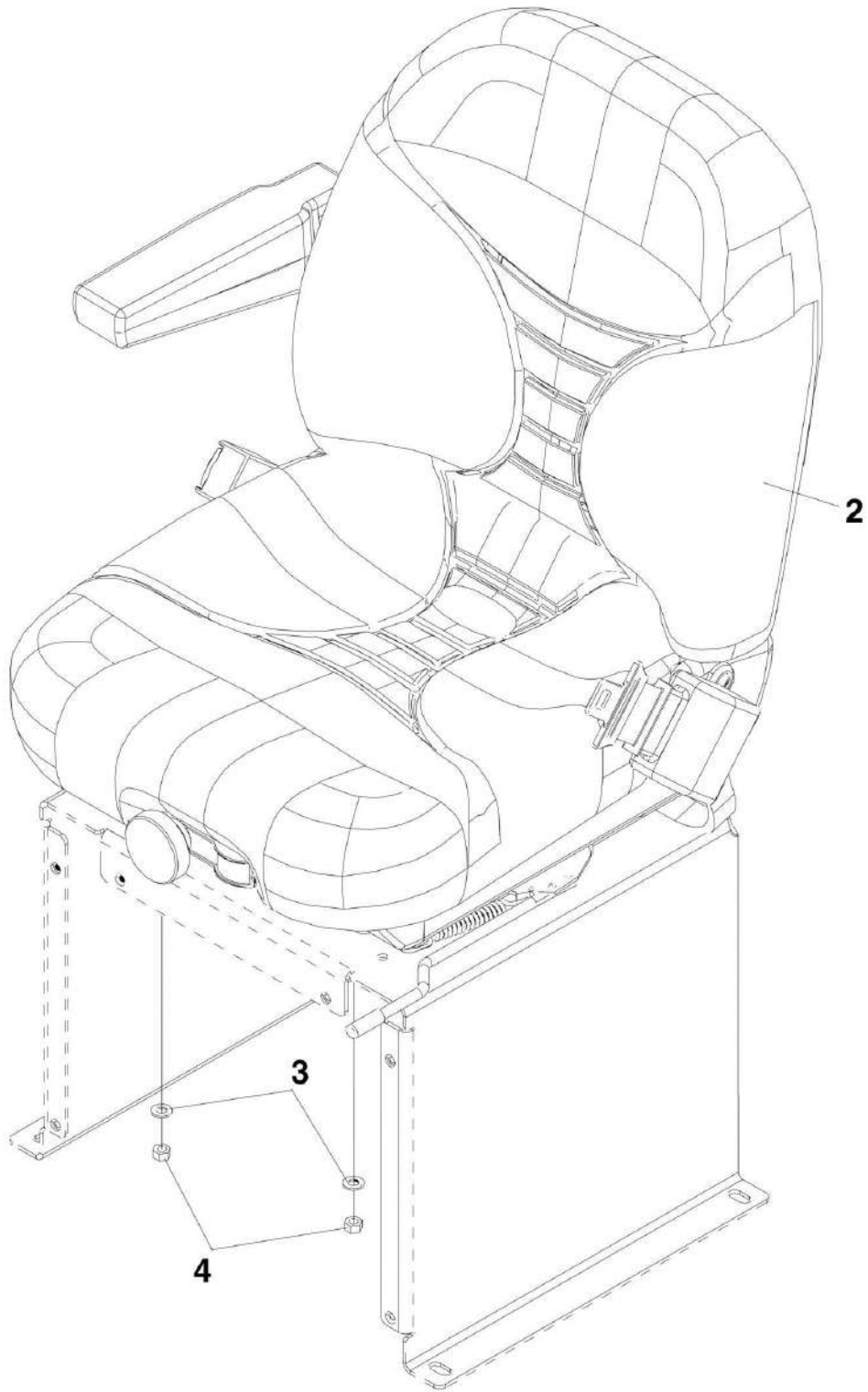
## SECTION 12 - OPTIONS

**FIGURE 12-26. FUEL/WATER SEPARATOR INSTALLATION**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91475107	1	FUEL/WATER SEPARATOR INSTALLATION, (includes all items)	B
1	91471242	1	FILTER BRACKET	
2	91473240	1	FUEL/WATER SEPARATOR	
2	91474633	1	FUEL/WATER SEPARATOR ELEMENT	
2	91474634	1	WATER COLLECTION BOWL	
2	91474635	1	REVERSE FLOW HAND PRIMER	
3	4832000	2	LOCKWASHER, 10MM	
4	0761012	2	HEX HD CAPSCREW, M10X1.5X25, GR5	
5	4761500	2	LOCKWASHER, 5/16	
6	3311501	2	HEX NUT, 5/16-18	
7	0641510	2	HEX HD CAPSCREW, 5/16-18X1-1/4, GR5	
8	2200233	2	SOCKET HEAD PIPE PLUG, (ports #1 & #2)	
9	2221114	2	BARBED FITTING, (ports #3 & #4)	
10	1320022	4	HOSE CLAMP	
11	2750532	3.83 ft	FUEL LINE, 3/8	

## SECTION 12 - OPTIONS

FIGURE 12-27. STANDARD SEAT REPLACEMENT KIT (SN 0160013983 to Present)



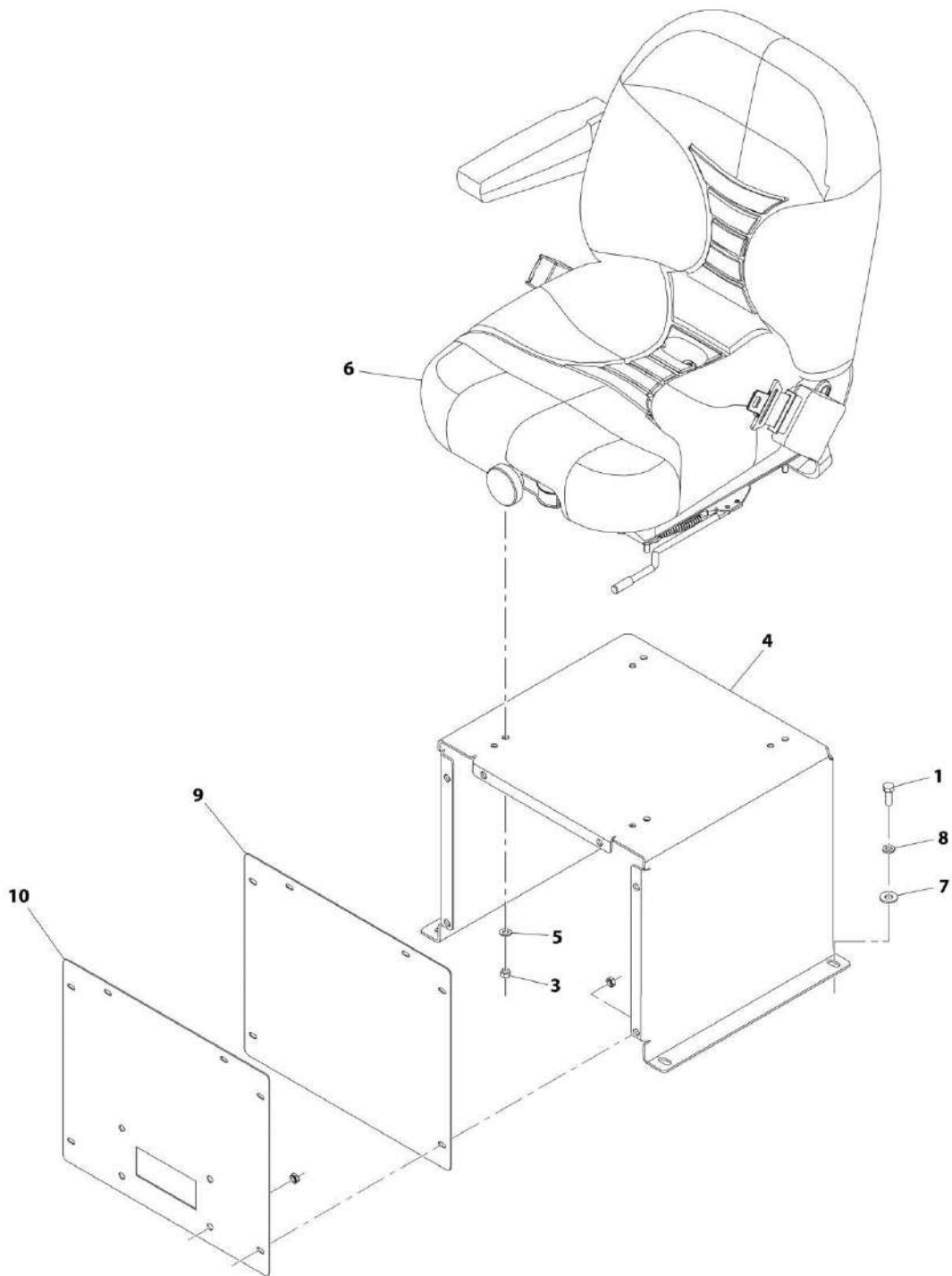
## SECTION 12 - OPTIONS

**FIGURE 12-27. STANDARD SEAT REPLACEMENT KIT (SN 0160013983 to Present)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2915166	1	STANDARD SEAT REPLACEMENT KIT, (includes all items)	A
1	3128987	1	KIT INSTALLATION INSTRUCTIONS, (not shown)	
2	91563158	1	SUSPENSION SEAT W/2IN SEAT BELT	
3	4711500	4	PLAIN WASHER, 5/16	
4	3311505	4	HEX LOCKNUT, 5/16-18	

## SECTION 12 - OPTIONS

FIGURE 12-28. HEAVY SEAT REPLACEMENT KIT (SN 0160013983 to Present)



ART\_2915167-B



## SECTION 12 - OPTIONS

**FIGURE 12-28. HEAVY SEAT REPLACEMENT KIT (SN 0160013983 to Present)**

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



**SECTION 13 - RECOMMENDED SPARE PARTS**

# SECTION 13 - RECOMMENDED SPARE PARTS

FIGURE 13-1. RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	<b>Note: The following list will service fleets of machines (built to current production per date on the front cover) with repair parts which can be installed in the field. Parts from the list should be replaced when inventory is depleted to keep service parts stock supplied. For further information, contact your JLG dealer or the JLG Industries Parts Department.</b>	
		Ref	<b>BOOM ASSEMBLY</b>	
	84717541	2	Tilt Cyl Hose	
	84719168	2	Boom Hose	
	91503001	2	Hose Sheave	
	91403534	4	Bearing Pad	
	91403530	10	Bearing Pad	
	91403532	4	Bearing Pad	
	91403535	4	Bearing Pad	
	91403531	4	Bearing Pad	
	91403533	2	Bearing Pad	
	91401214	AR	Shim, .132	
	91401215	AR	Shim, .0598	
	91401216	AR	Shim, .0359	
	91401212	AR	Shim, .0598	
	91401211	AR	Shim, .132	
	91401213	AR	Shim, .0359	
	91401456	AR	Shim, .0598	
	91401457	AR	Shim, .0359	
	91401452	AR	Shim, .132	
	91401453	AR	Shim, .0598	
	91401454	AR	Shim, .0359	
	91401217	AR	Shim, .132	
	91401218	AR	Shim, .0598	
	91401219	AR	Shim, .0359	
	91401209	2	Spacer, .132	
	91401223	6	Spacer, .0598	
	91401207	6	Spacer, .132	
	91401191	2	Spacer, .1875	
	91401225	2	Spacer, .0598	
	91401224	2	Spacer, .0598	
	91401449	2	Spacer, .132	
	91401226	2	Spacer, .0598	
	91403087	1	Bearing Pad, Push Beam	
	91403404	1	Quick Switch Pin	
	91403407	1	Quick Release Pin	
	2940074	1	Latch	
		Ref	<b>ENGINE</b>	
	91415035	1	Engine Filter Kit (SN 0192001 through 0160002686)	
	91415084	1	250 Hour Filter Kit (SN 0160003136 to Present)	
	2915175	1	1000 Hour Filter Kit (SN 0160003136 to Present)	
	91403513	1	Fuel Tank Cap	
	91403105	1	Fan	
	91404086	1	Alternator Belt	

## SECTION 13 - RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91474171	1	Dipstick	
		Ref	<b>DRIVE TRAIN</b>	
	91473061	1	FNR Shifter, 3-Speed	
	91473031	1	FNR Shifter, 4-Speed	
	91474086	4	Wheel End Seal (SN 0192001 through 0160000157)	
	7028718	4	Wheel End Seal (SN 0160000170 to Present)	
	91474087	4	Wheel End Bushing (SN 0192001 through 0160000157)	
	91514111	4	Wheel End Bushing (SN 0160000170 to Present)	
	7028486	2	Wheel Hub Seal (SN 0192001 through 0160000157)	
	7028721	2	Wheel Hub Seal (SN 0160000170 to Present)	
	91474035	4	Universal Joint Kit	
		Ref	<b>HYDRAULIC SYSTEM</b>	
	91403490	1	Boom Joystick Assy (SN 0192001 through 0160000157)	
	91513211	1	Boom Joystick Assy (SN 0160000170 to Present)	
	91404010	1	Boom Joystick Handle Assy	
	91504008	1	Lift Cyl Seal Kit (SN 0192001 through 0160009242)	
	91504119	1	Lift Cyl Seal Kit (SN 0160010695 to Present)	
	70020432	1	Crowd Cyl Seal Kit	
	91504016	1	Tilt Cyl Seal Kit	
	91404206	1	Comp Cyl Seal Kit	
	91404172	1	Sway Cyl Seal Kit	
	91404172	1	Stabilizer Cyl Seal Kit	
	1001093626	1	Hydraulic Filter Seal Kit	
	91083301	1	Tank Filter	
	1340021	1	Breather	
	91083070	1	Fluid Level Gauge	
	91404084	1	Bar Gauge	
		Ref	<b>ELECTRICAL</b>	
	91143314	1	Water Temp. Sender	
	91473115	1	Transmission Temp. Switch (SN 0192001 through 0160002052)	
	91563121	1	Transmission Temp. Switch (SN 0160002069 to Present)	
	24741047	1	Oil Press. Switch	
	91143315	1	Oil Press. Sender	
	91403609	1	Fuel Level Sender	
	77383377	1	Starter Relay	
	91403574	1	Backup Alarm	
	91504044	1	Start/Aux Switch	
	1001108292	1	Alternator	
	1001108291	1	Regulator	
	91415083	1	Starter Kit (SN 0192001 through 0160006622)	
	7026921	1	Starter (SN 0160006707 to Present)	
	91414040	1	Starter Solenoid (SN 0192001 through 0160006622)	
	91143357	1	Horn	
		Ref	<b>MISC.</b>	
	80964051	1	Cab Door Key	
	91404275	1	Engine Cover key	
	7020174		Mode Select Key	
	80904003	1	Hydraulic Test Kit	
	24604083	1	ORS O-Ring Kit	
	90214009	1	O-Ring Kit	
	91504003	1	Owner/Operator Manual	

## SECTION 13 - RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	91504002	1	Service Manual	

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