Model B40i4
Narrow Aisle Forklift
Parts Manual

LANDOLL CORPORATION
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Instructions for Ordering Parts

**** Repair parts must be ordered through an Authorized Dealer ****

DEALER INSTRUCTIONS FOR ORDERING PARTS FROM LANDOLL PARTS DISTRIBUTION CENTER

PHONE #: 800-423-4320 OR 785-562-5381 **FAX #: 888-527-3909**
ORDER ONLINE: companystore.landoll.com

IDENTIFICATION PLATE

See Figure 1-1 for the identification plate, which lists the rated capacity, serial number, and other vehicle characteristics. It is located in the lower left operator's compartment area (near the operator's left leg).

SERIAL NUMBER NOMENCLATURE

The serial number for the Bendi B40i4 forklift and mast is located on the identification plate. The following information will help decode the Bendi B40i4 serial number:

Baa/wwtt-yymms-xxxxx

aa	= rated capacity of truck (i.e. "40" means 4,000 lbs.)
ww	= maximum width of frame (i.e. "48" for 48" frame width)
tt	= series of truck (i.e. "T4" means Tier 4)
yy	= last 2 digits of the year manufactured (ex. "09" means 2009, "10" means 2010)
mm	= month of manufacture
s	= component series (ex. "A")
xxxxx	= frame number

Figure 1-1: Identification Plate

Cooling System

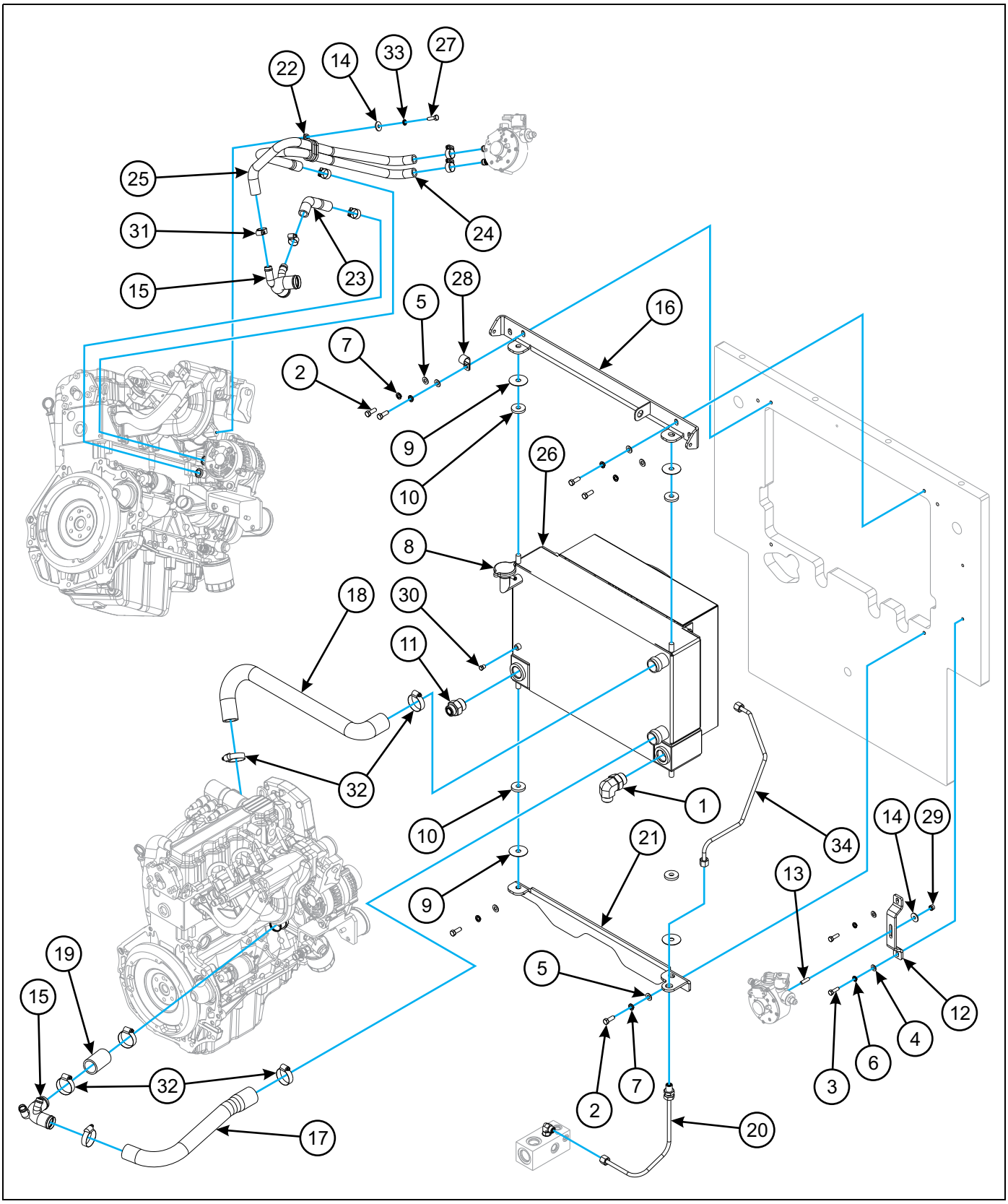

Figure 1-2: Cooling System Installation

Cooling System Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018162	ADAPTER VANE PUMP	1
2	1-654-010036-05	SCREW,HX CP 3/8-16UNCX1 GR8	6
3	1-654-010049-05	SCREW HX CP 5/16-18UNCX1 GR5	2
4	1-861-010032-08	WASHER,FLAT 5/16 ZP	2
5	1-861-010032-10	WASHER, FLAT 3/8" N ZP/CD	6
6	1-861-010034-10	WASHER,LKG 5/16	2
7	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	6
8	122171	CAP, RADIATOR **(03/06/2012 AND PRIOR)**	1
9	132748	WASHER,FENDER 1/2X2	4
10	133894	WASHER,NEOPRENE RUBBER	4
11	135029	ADAPTER,#16ORBSX#12ORS STR	1
12	145319	BRACKET,BI-T3 2.4L LP MIXER	4
13	146139	SCREW,4XSKT SET,M8-1.25X30,CPM	1
14	149442	WASHER,FLAT M8 STD ZP	2
15	150648	COOLANT ELBOW, GM 2.4	1
16	151161	MOUNT WLDMT,BI-T3 UPR RDTR	1
17	151447	HOSE,BI-T3 LWR RADIATOR	1
18	151448	HOSE,BI-T3 UPR RADIATOR	1
19	151490	HOSE,1-3/8 STRAIGHT COOLANT **(CUT TO 3 INCHES)**	1
20	161922	TUBE,MANF TO FAN CASE DR BHD	1
21	161949	BRACKET,BI-T4 LWR RDTR MNT	1
22	163883	CLAMP,2-TUBE CABLE 1"	1
23	163885	HOSE BI-T3 WATER PMP BYPASS	1
24	163886	HOSE BI-T3 WTR PMP TO VPRZR	1
25	163887	HOSE BI-T3 VPRZR TO BYP ELBOW	1
26	150455	RADIATOR/FAN BENDI T3 **(03/06/2012 AND PRIOR) (SEE PAGE 1-4)**	1
26	170556	RAD/FAN, THERMAL TRANSFER **(03/07/2012 AND AFTER)**	1
27	1CM825ER	SCREW,HH-M8X1.25-25-ZP-CL8.8	1
28	40-0717-02	CLAMP,HYD HOSE SUPPORT	1
29	40DM8ER	NUT LOCK HX HD M8 CL10 ZP	1
30	40K2	PLUG, PIPE 1/8-27NPT HEX HD	1
31	42H12	CLAMP, HOSE, 3/4 NOMINAL	6
32	42H28	CLAMP, HOSE	6
33	6EM80ER	WASHER LOCK SPRING M8	1
34	161923	TUBE,FAN CASE DRAIN TO BHD	1

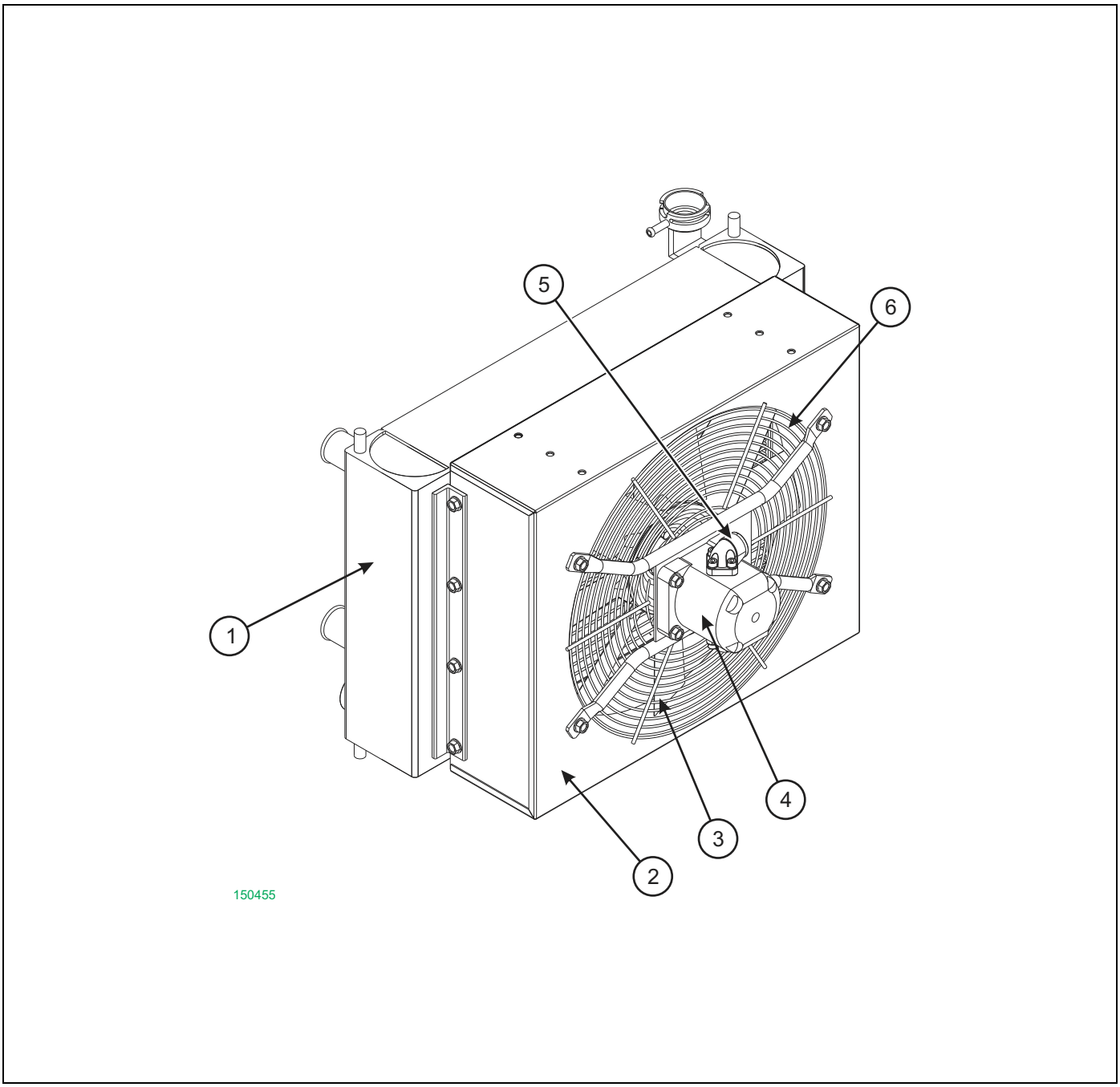

Figure 1-3: Radiator and Fan Assembly - 03/06/2012 and Prior

Radiator and Fan Assembly - 03/06/2012 and Prior

ITEM	PART NUMBER	DESCRIPTION	QTY.
	150455	RADIATOR/FAN BENDI T3	
1	161936	COOLER, B40I3 ENG AND HYD	1
2	161933	HOUSING, B40I3 FAN	1
3	161931	FAN, B40I4	1
4	161935	MOTOR, B40I3 HYD FAN	1
5	162252	ADAPTER,HYD FAN MTR HYD FLG	2
6	161932	GUARD, B40I4 FAN	1
7	122171	CAP, RADIATOR **(NOT SHOWN) (SOLD SEPERATELY)**	REF

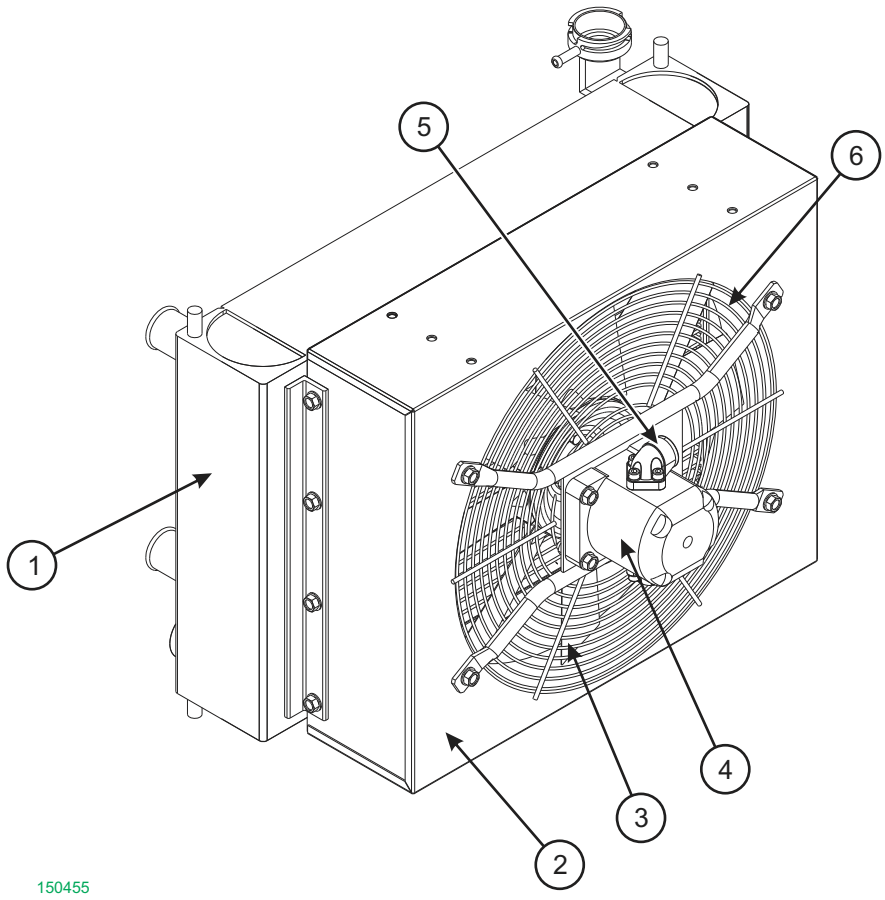

Figure 1-4: Radiator and Fan Assembly - After 3/6/2012

Radiator and Fan Assembly - After 3/6/2012

ITEM	PART NUMBER	DESCRIPTION	QTY.
	170556	RAD/FAN, THERMAL TRANSFER	
1	170553	CORE,BI THERMAL TRANS COOLER	1
2	170555	SHROUD, THERMAL TRANSFER	1
3	170554	FAN, THERMAL TRANSFER	1
4	177521	MOTOR, RADIATOR FAN	1
5	162252	ADAPTER,HYD FAN MTR HYD FLG	2
6	170551	SCREEN, FAN GAURD	1
7	122171	CAP, RADIATOR **(NOT SHOWN) (SOLD SEPERATELY)**	REF
8	170552	MOUNT,THERMAL TRANS FAN MOTOR **(NOT SHOWN)**	1

Covers and Counterweights

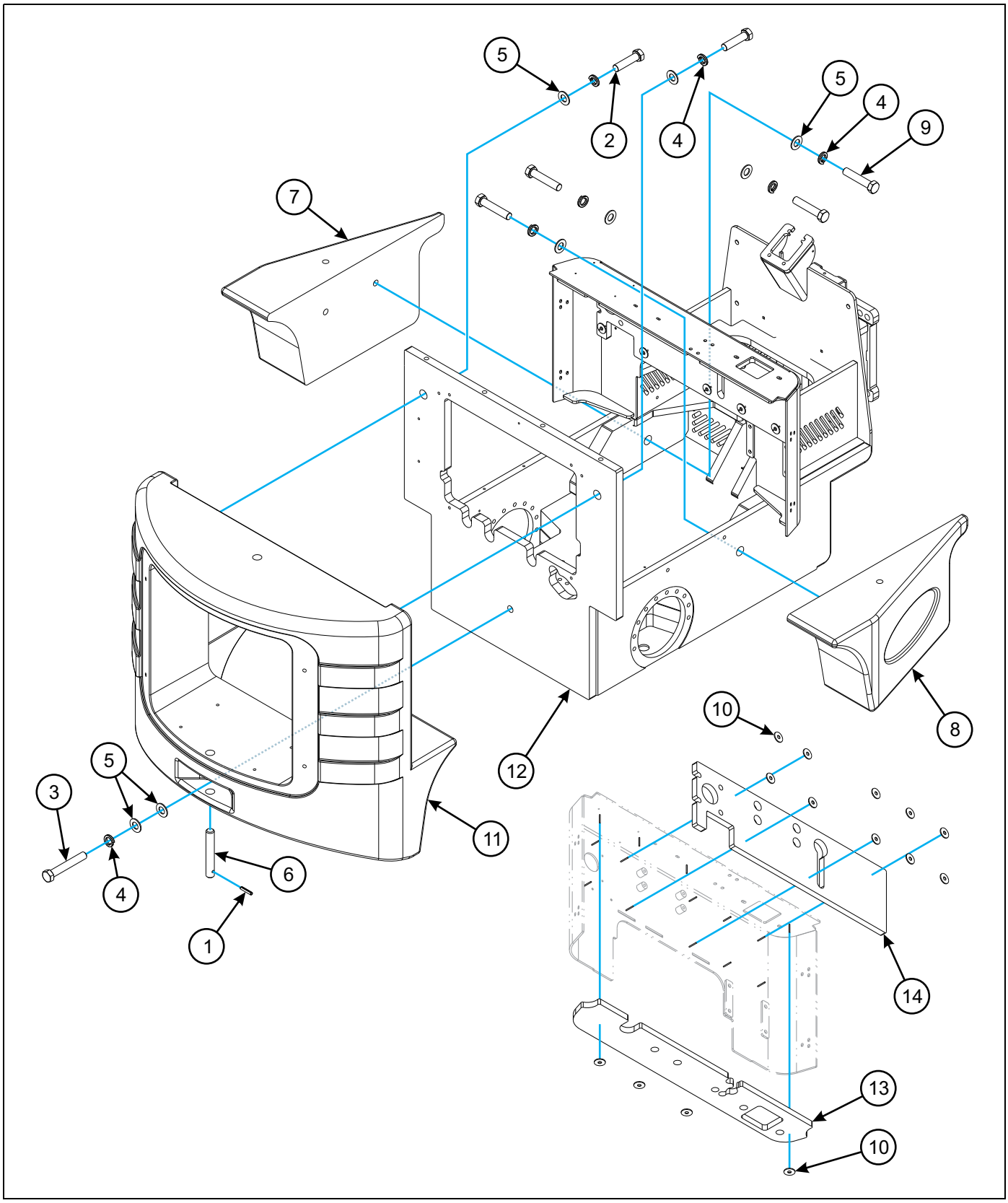

Figure 1-5: Counterweight Installation

Counterweight Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-647-010004255	PIN, SPRING, SLOTTED 3/8X2	1
2	1-654-010125-13	SCREW,HX CP 1-8UNCX4, GR8	2
3	1-654-010125-18	SCREW HEX CAP,1-8UNCX6-1/2GR8	1
4	1-861-010034-21	WASHER, LKG HEL SPRG 1IN	7
5	110-7389	1 IN SAE FLAT WASHER ZP	8
6	110427	PIN,HITCH 1-1/8IN	1
7	121418	COUNTERWEIGHT, LH I/C	1
8	121419	COUNTERWEIGHT, RH I/C	1
9	138339	SCREW,HEX CAP, 1-8UNCX5,GR8	4
10	1409019	CLIP, SPRING	14
11	149492	COUNTERWEIGHT,BI-T3 REAR	1
12	159818	FRAME WLDMT,B40/48IC-T4	1
13	167486	PANEL BI-T4 FRAME INSULATION	1
14	167487	PANEL BI-T4 FRAME INSULATION	1

Table provided for general use.

NOTES:

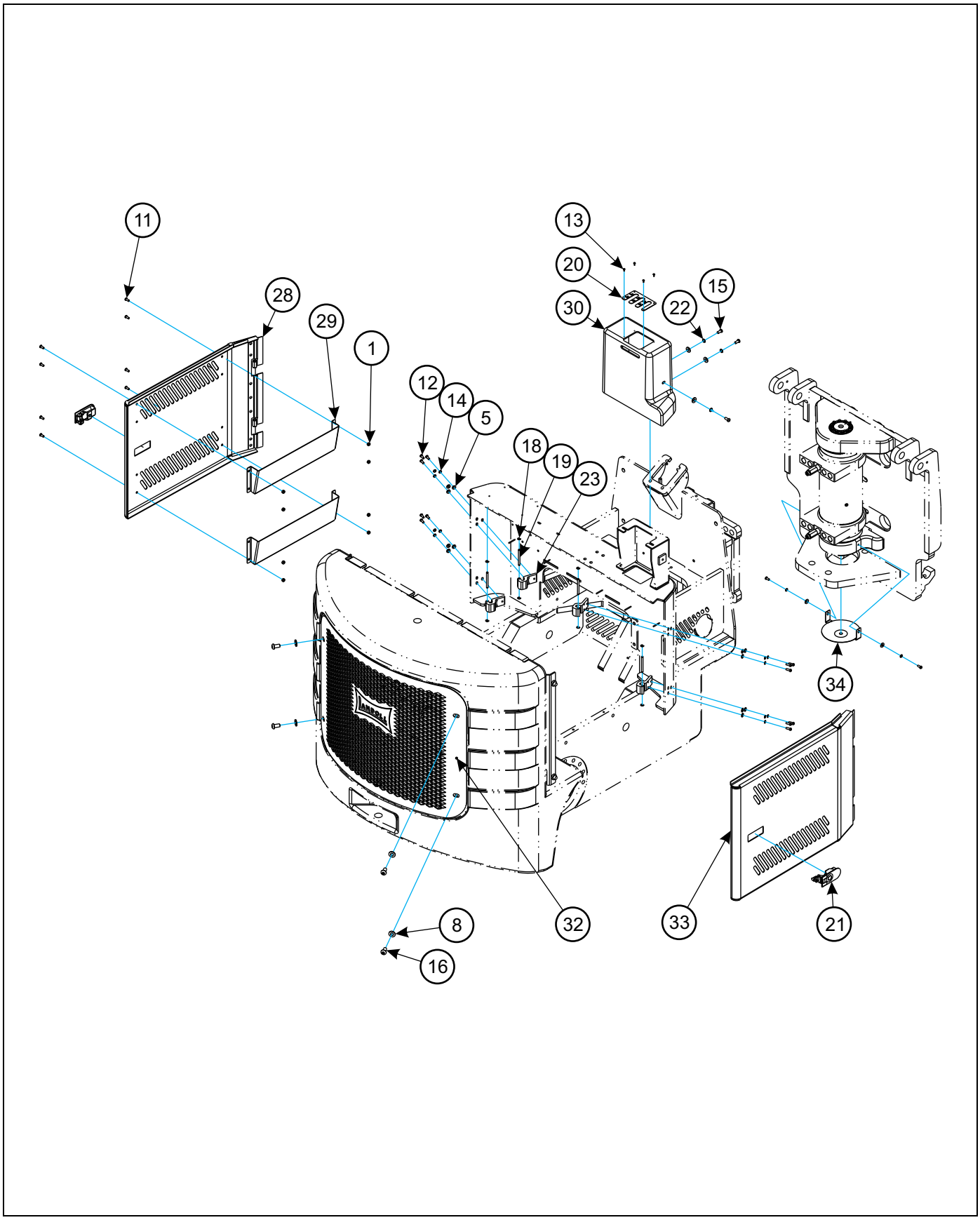

Figure 1-6: Cover Installation (1 of 2)

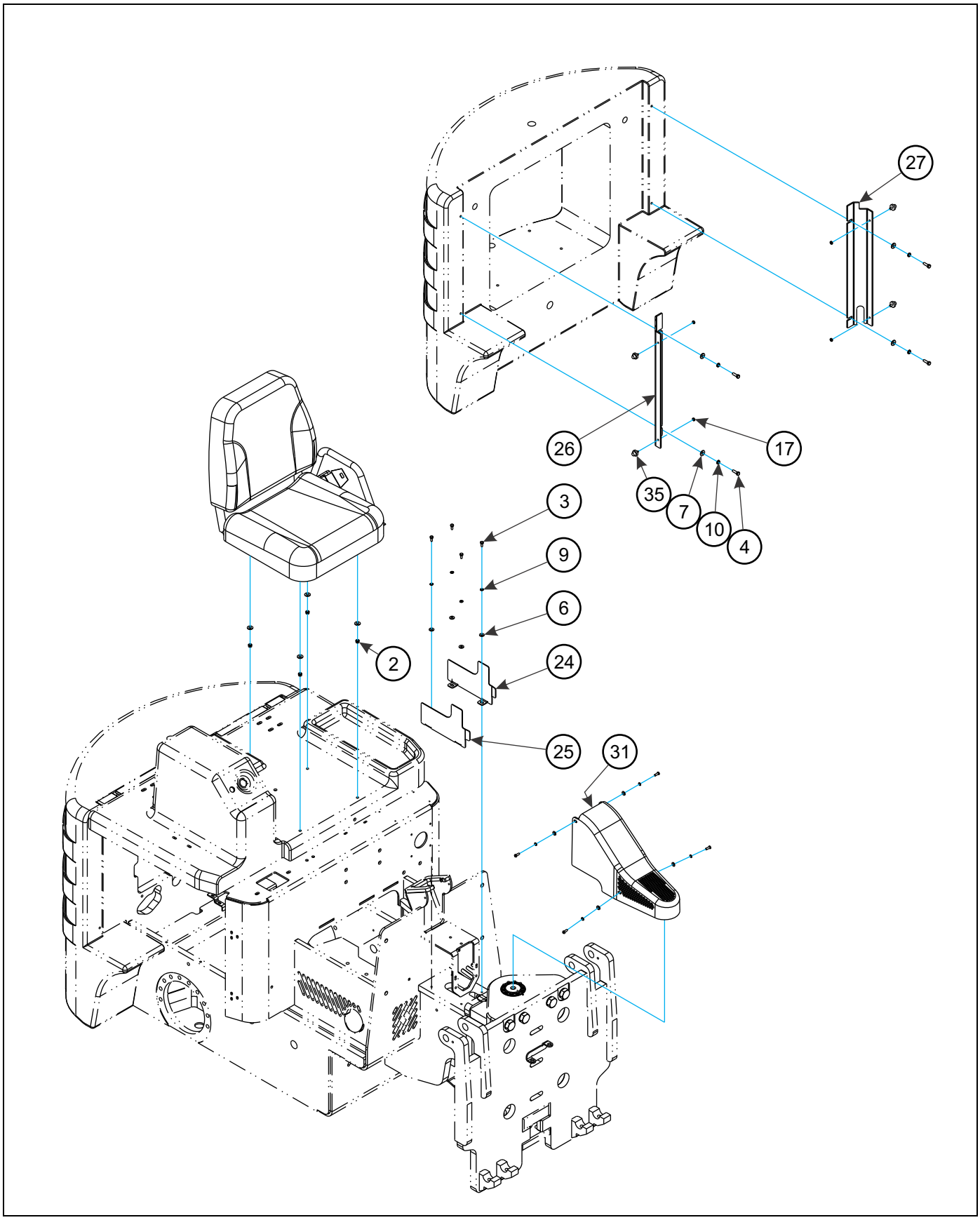

Figure 1-7: Cover Installation (2 of 2)

Cover Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010003-09	NUT,1/4-20 ESNA	8
2	1-512-010005-03	NUT HEX SLFLKG GRB 5/16-18	4
3	1-654-010047-03	SCREW, HEX 1/4-20UNCX5/8	4
4	1-654-010049-05	SCREW HX CP 5/16-18UNCX1 GR5	4
5	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	16
6	1-861-010032-07	WASHER,FLAT 1/4 ZP	6
7	1-861-010032-09	WASHER, FLAT 5/16 W ZP/CD	11
8	1-861-010032-14	WASHER, FLAT 1/2" N ZP/CD	4
9	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	4
10	1-861-010034-10	WASHER,LKG 5/16	4
11	106954	SCREW,BHSC 1/4-20UNCX5/8	10
12	106955	SCREW,BHSC 1/4-20UNCX3/4	16
13	107539	SCREW PNHD 6-32X1/2 SSHK	4
14	108797	WASHER 1/4 LKG INT TOOTH	18
15	110843	SCREW BHSC 5/16-18UNCX3/4	3
16	111341	SCREW, BHSC 1/2-13UNCX1	4
17	112-1549	HEX JAM NUT 1/4-20 ZP	4
18	115668	RING,RETAINING,EXT,E,1/4	8
19	119741	PIN, SER 4 DOOR HINGE	4
20	121422	PLACARD, OPERATOR DATA	1
21	121526	LATCH, COMPRESSION	2
22	127627	WASHER 5/16 LKG INT TOOTH	3
23	128838	HINGE,SER4 BENDI RH DOOR	4
24	129606	PLATE,BI-T4 LH ROTATION COVER	1
25	129607	PLATE,BI-T4 RH ROTATION COVER	1
26	145278	BRACKET,BI-T3 RH DOOR STOP	1
27	145279	BRACKET,BI-T3 LH DOOR STOP	1
28	145281	DOOR WLDMT,BI-T3 LH	1
29	145298	PLENUM,BI T3 DOOR BAFFLE	2
30	145304	COVER,CTRL VLV BI-T3	1
31	146566	COVER BIT4 STEERING ROTATION	1
32	152095	COVER, BI-T3 REAR	1
33	161998	DOOR,WLDMT BI-T4 RH	1
34	171600	SHIELD,HOSE	1
35	9377K62	BUMPER, TAPERED, 1/4-20STUD	4

Decals

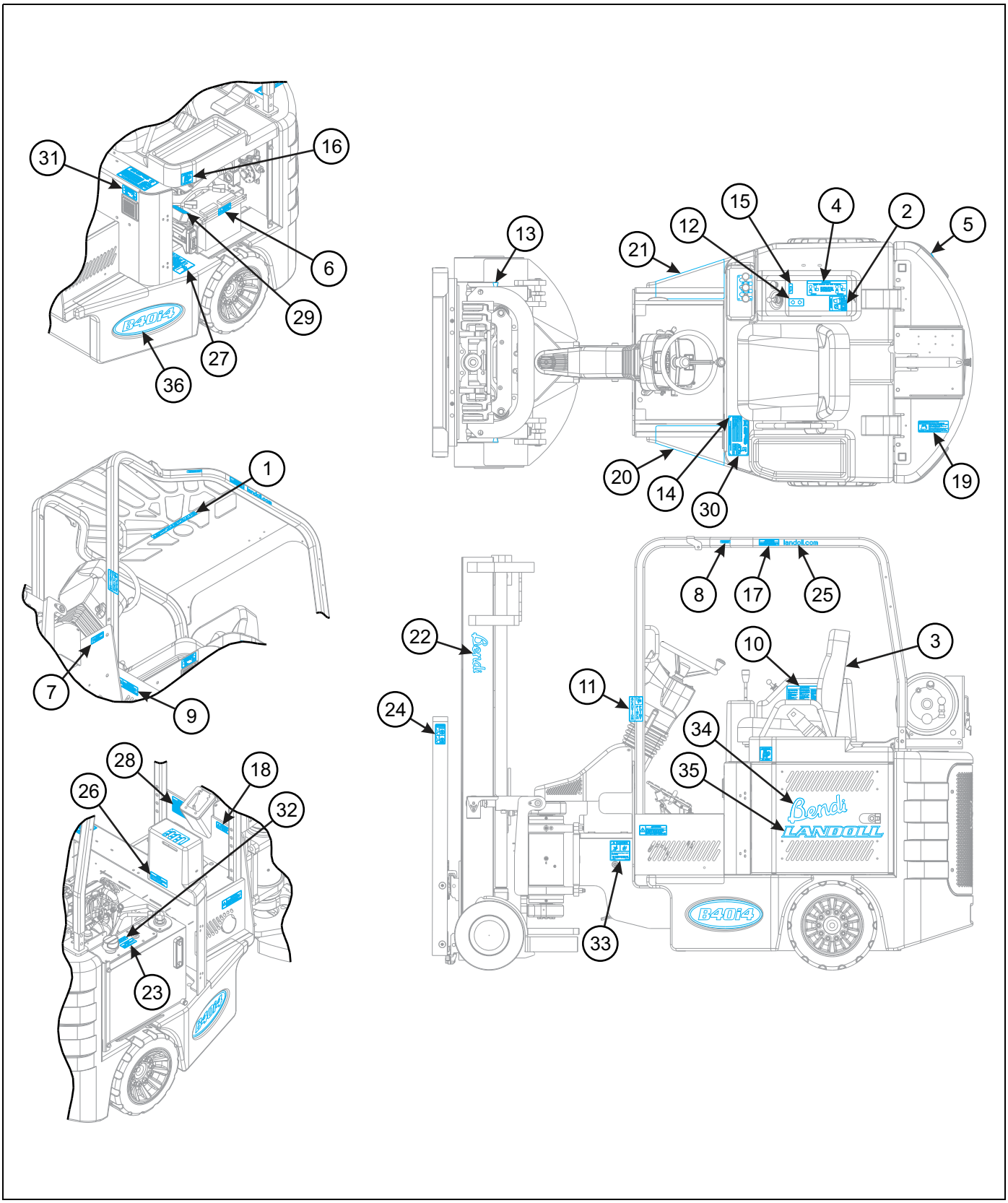

Figure 1-8: Decal Placement

Decal Placement

ITEM	PART NUMBER	DESCRIPTION	QTY.
1		DECAL, DANGER, ROLLOVER	1
2		DECAL, OVERLOAD WARNING	1
3		DECAL, BEFORE OPER WARNING	1
4		DECAL, PROPER VEH. LOADING	1
5		DECAL, MADE IN USA FLAG	1
6		DECAL, BATTERY WARNING	1
7		DECAL, SIDE SHIFT, CAUTION	2
8		DECAL, OVERHEAD GUARD	1
9		DECAL, TIRE REPLACEMENT	2
10		DECAL, OPERATOR WARNING	1
11		DECAL, OHG PINCH PT	2
12		DECAL, BENDI DIRECTIONAL	1
13		DECAL, ROTATION INDICATOR, WHITE	2
14	107-0828	POP RIVET 5/32 CHERRY #BSP52	4
15		DECAL, BENDI HORN	1
16		DECAL, NO RIDERS	2
17		DECAL, DO NOT REMOVE GUARD	1
18		DECAL, APPLY PARK BRAKE	1
19		DECAL, FLAMMABLE LP GAS	1
20	126196	TAPE NO-SLIP LH I/C	1
21	126197	TAPE, NO-SLIP RH I/C	1
22	130602	DECAL,DREXEL YELLOW BENDI 8	2
23		DECAL, SERIES 4 HYD FILTER	1
24		DECAL, FORK HAZARD WARNING	2
25		DECAL, LANDOLL.COM, GRAY	1
26		DECAL, BI-T3 CHARGE PUMP FILTER	1
27		DECAL, BI-T3 TOWING INSTRUCTIONS	1
28		DECAL, BI-T3 PARK BRAKE PEDAL	1
29		DECAL, FUSE BLOCK LAYOUT	1
30	163857	DATA PLATE, LANDOLL FORKLIFT	1
31		DECAL, FORKLIFT PATENTS	1
32		DECAL, ISO 46 HYDRAULIC FLUID	1
33		DECAL, DANGER, PINCHING	2
34	151430	DECAL,BENDI 12 (BLACK)	2
35	152870	DECAL,BLK OUTLINE 20" LANDOLL	2
36	159817	DECAL,OVAL B40i4 MODEL	2
37	173699	SAFETY LABELS, BT-IC **(DOES NOT INCLUDE ITEMS 14, 20-22, 30, 34-36, AND EXTRAS)**	1

Table provided for general use.

NOTES:

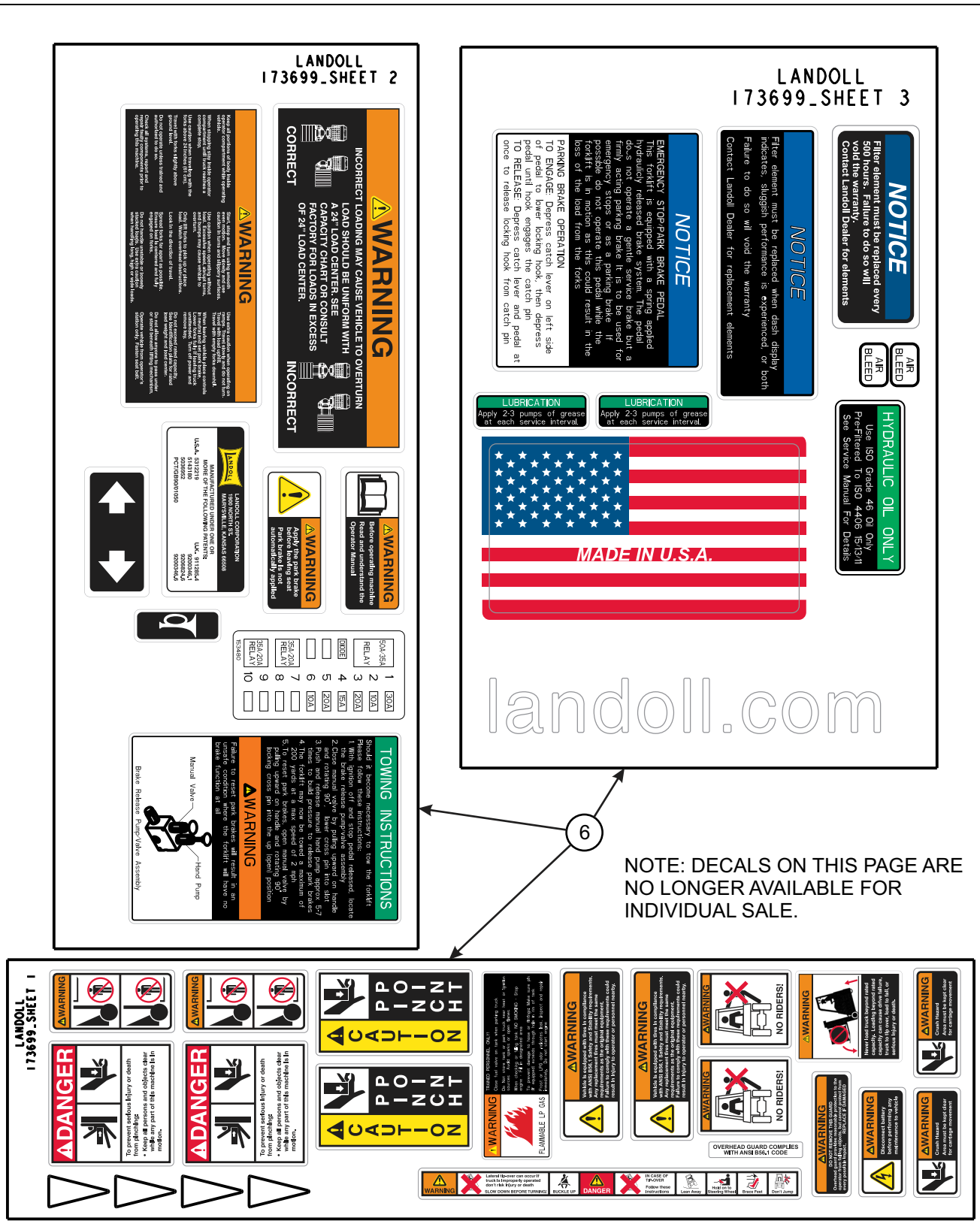

Figure 1-9: Decals (1 of 2)

1

2

3

4

5

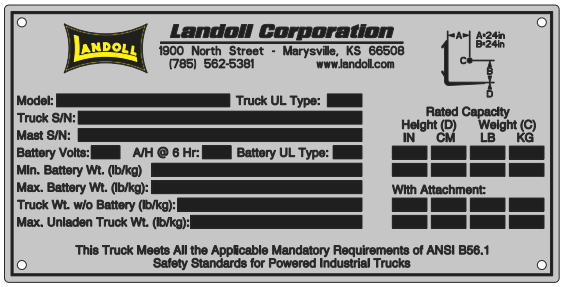

Figure 1-10: Decals (2 of 2)

Decals

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	130602	DECAL,DREXEL YELLOW BENDI 8	2
2	151430	DECAL,BENDI 12 (BLACK)	2
3	152870	DECAL,BLK OUTLINE 20" LANDOLL	2
4	159817	DECAL,OVAL B40i4 MODEL	2
5	163857	DATA PLATE, LANDOLL FORKLIFT	1
6	173699	SAFETY LABELS, BT-IC **(INCLUDES EXTRAS)**	1

Electrical

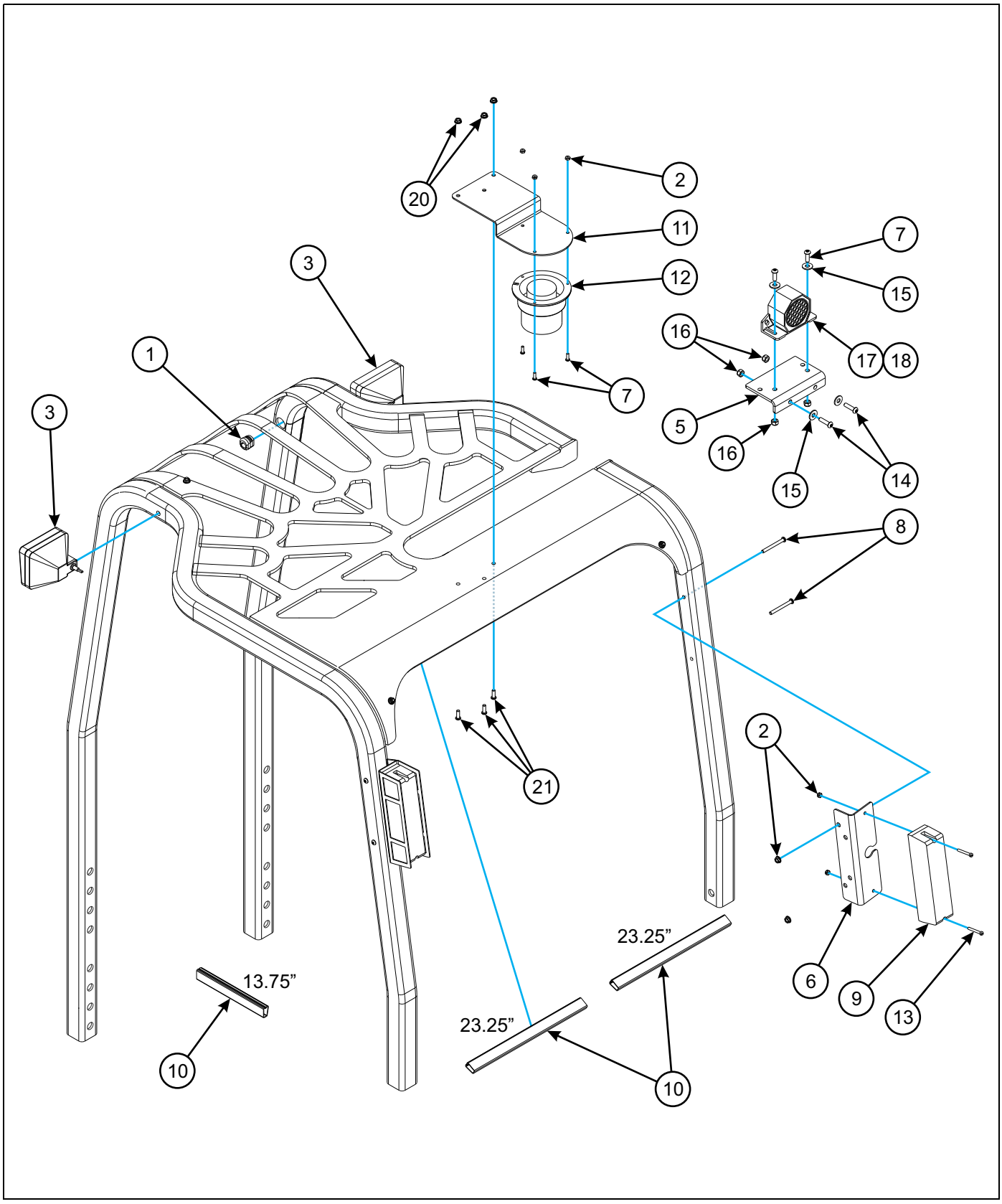

Figure 1-11: Alarm and Lighting

Alarm and Lighting

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	108409	BUSHING,STR-THRU STRN RELIEF	
2	108417	NUT SPIRAL 1/4-20HX FG	
3	163996	LIGHT,12V SQUARE LED FLOOD	
4	125894	CLAMP, CABLE 5/8 SST **(NOT SHOWN)**	
5	127991	BRACKET, BACKUP ALARM MNT I/C	
6	146056	BRACKET, LED TAILLIGHT MNT	
7	106955	SCREW,BHSC 1/4-20UNCX3/4	
8	115849	SCREW BHSC 1/4-20UNCX2-1/2 ZP	
9	151470	ASSY, 12V LED TAILLIGHT	
10	110470	SURFACE RACEWAY **(SOLD BY THE INCH)** **(ORDER LENGTH OF EACH PIECE INDIVIDUALLY)**	
11	110289	BRACKET,STROBE MOUNT	
12	146067	ASSY, 12-80V LED STROBE	
13	106955	SCREW,BHSC 1/4-20UNCX3/4	
14	108610	SCREW BHSC 1/4-20UNCX1	
15	1-861-010032-07	WASHER,FLAT 1/4 ZP	
16	1-512-010003-09	NUT,1/4-20 ESNA	
17	117997	ALARM DB ADJ SMART BACKUP	
18	143573	ALARM, 12-80VDC 87DBA	
19	151288	HARNESS, BI-T3 DASH **(NOT SHOWN)**	
20	1-512-010003-06	NUT,HEX,SLFLKG W/NLY 10-24	
21	1-654-010100028	SCREW MACH TRUSS HD 10-24X1	
22	146160	HARNESS, PM/SL REV LT JMP **(NOT SHOWN)**	
23	130166	HARNESS,OHG DOM BT-4 **(05/01/2009 AND PRIOR) (NOT SHOWN)**	
23	154179	HARNESS, OHG HEAD LT BENDI AC **(05/02/2009 AND AFTER) (NOT SHOWN)**	
24	130165	HARNESS,TAIL LT DOM BT-4 **(05/01/2009 AND PRIOR) (NOT SHOWN)**	
24	154180	HARNESS OHG TAIL LT BENDI AC **(05/02/2009 AND AFTER) (NOT SHOWN)**	
25	181396	STROBE, 12-80V LED LOPRO **(NOT SHOWN)**	

NOTE: QUANTITIES NOT SHOWN ON ITEMS DUE TO VARIETY OF COMBINATIONS WITH LIGHT KIT OPTIONS.

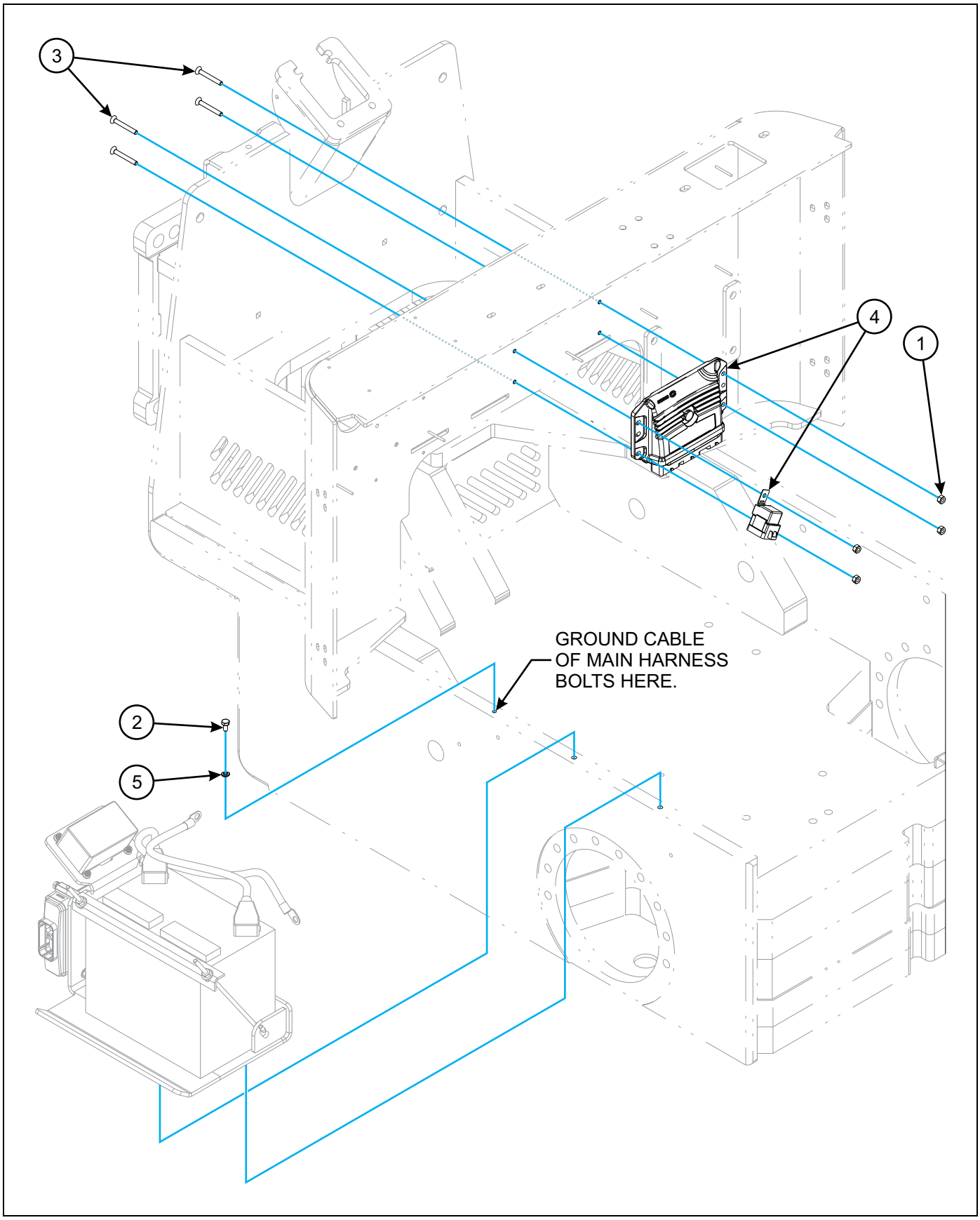

Figure 1-12: Battery and Controller Installation

Battery and Controller Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010003-09	NUT,1/4-20 ESNA	8
2	104877	SCREW,HX CP,1/4-20UNCX1/2 GR5	1
3	123399	SCREW,HX SKT CTSK 1/4-20X2.00	4
4	163197	ECU ASSY, MY2010 2.4L	1
5	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	1

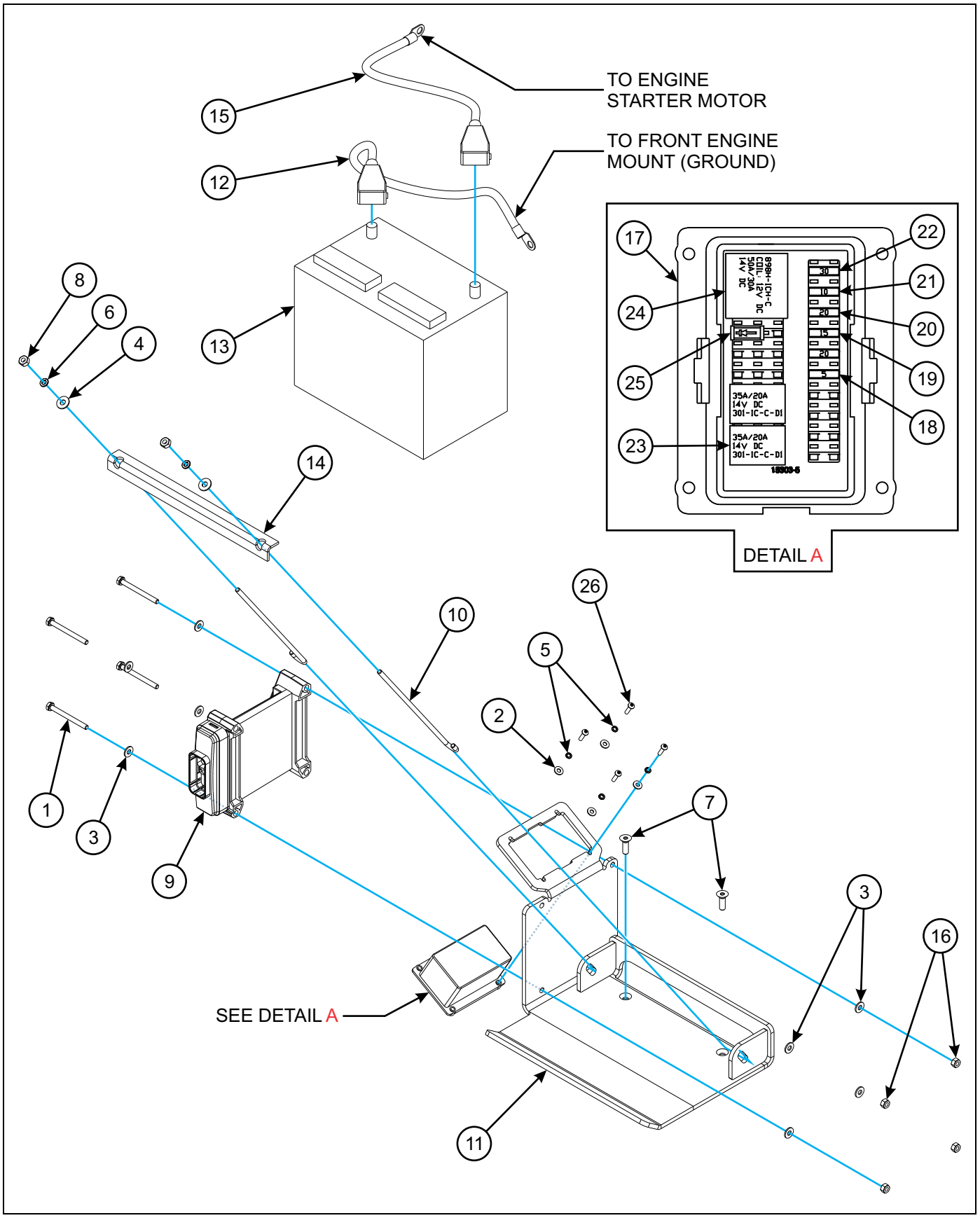

Figure 1-13: Battery Tray and Fuse Block Components

Battery Tray and Fuse Block Components

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-654-010047-13	SCREW HX CP 1/4-20UNCX2-3/4G5	4
2	1-861-010032-03	WASHER, FLAT #10 ZP/CD	4
3	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	8
4	1-861-010032-07	WASHER,FLAT 1/4 ZP	2
5	1-861-010034-07	WASHER,LKG,HLCL SPR, NO 10	4
6	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	3
7	104984	SCREW,HX SKT CTSK,5/16-18X1ZP	2
8	115877	NUT HVY HEX 1/4-20 GR5	2
9	143870	CONTROLLER,SAUER MC050-010	1
10	145268	BOLT BI-T3 BATTERY HLDN J	2
11	163180	TRAY,WLDMT BI-T4 FENDER/BAT	1
12	239-8113-18	CABLE BATTERY NEGATIVE	1
13	2481X	BATTERY 12 VOLT	1
14	3-120-010124	BATTERY CLAMP BRKT	1
15	514-9045-24	CABLE BATTERY POSITIVE	1
16	1-512-010003-09	NUT,1/4-20 ESNA	4
17	151272	FUSE BLOCK, 5 RELAY 10 FUSE **(PART OF P/N 162307)**	1
18	151280	MINI FUSE, 5 AMP	1
19	151282	MINI FUSE, 15 AMP	1
20	151283	MINI FUSE, 20 AMP	1
21	151281	MINI FUSE, 10 AMP	2
22	151284	MINI FUSE, 30 AMP	1
23	151294	MINI RELAY, 20 AMP	2
24	151285	MINI RELAY, 30 AMP	1
25	151274	MINI DIODE	1
26	122529	SCREW,BHSC, 10-32X.750	4

Table provided for general use.

NOTES:

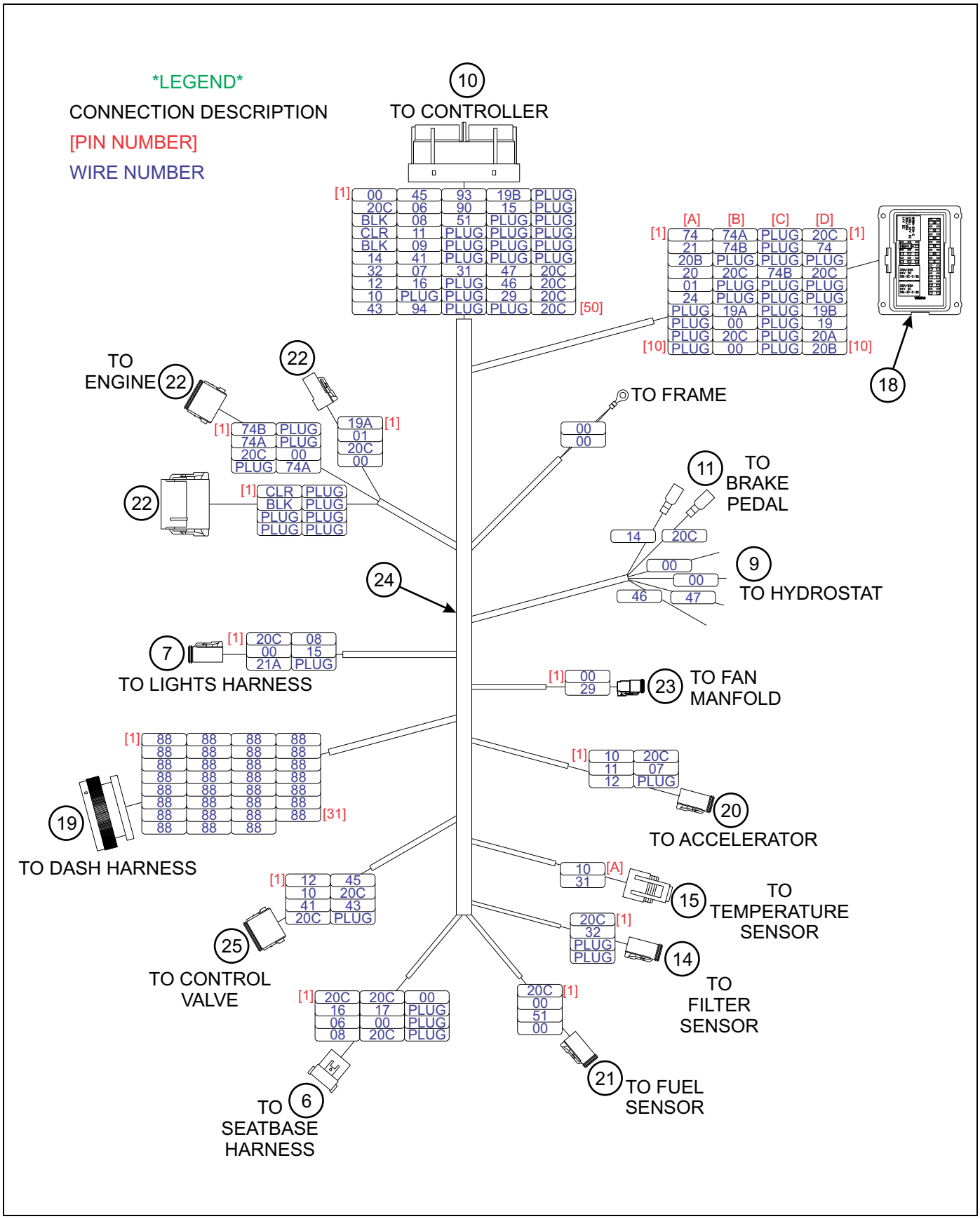

Figure 1-14: Harness Diagrams (1 of 2)

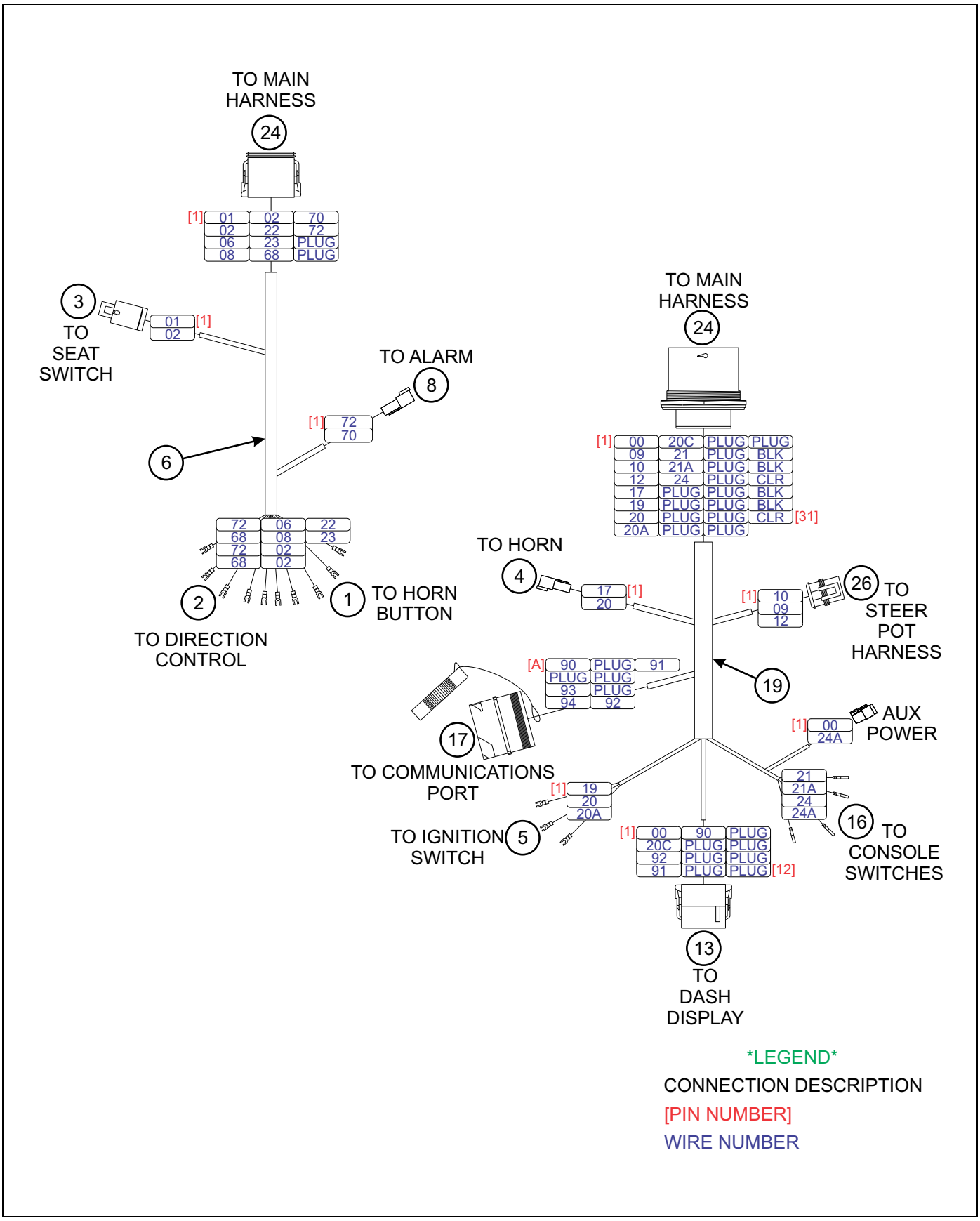

Figure 1-15: Harness Diagrams (2 of 2)

Harness Diagrams

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0030011	SWITCH,HORN BUTTON,BENDI 48 **(SEE PAGE 1-94)**	1
2	0030033	SWITCH F/R COLD STORAGE **(SEE PAGE 1-94)**	1
3	111720	SWITCH, SEAT **(SEE PAGE 1-92 AND 1-93)**	1
4	117998	HORN, 12-36 VDC **(SEE PAGE 1-73)**	1
5	128670	SWITCH,IGN W/LOCKOUT **(SEE PAGE 1-98)**	1
6	130159	HARNESS,SEATBASE DOM BT-4	1
7	130165	HARNESS,TAIL LT DOM BT-4 **(05/01/2009 AND PRIOR)**	1
7	154180	HARNESS OHG TAIL LT BENDI AC **(05/02/2009 AND AFTER)**	1
7	130166	HARNESS,OHG DOM BT-4 **(05/01/2009 AND PRIOR)**	1
7	154179	HARNESS, OHG HEAD LT BENDI AC **(05/02/2009 AND AFTER)**	1
8	143573	ALARM, 12-80VDC 87DBA **(SEE PAGE 1-18)**	1
9	143868	PUMP,LINDE 75CC/REV H-STAT **(SEE PAGE 1-52)**	1
10	143870	CONTROLLER,SAUER MC050-010 **(SEE PAGE 1-22)**	1
11	145061	VALVE, SAHR BRAKE P **(SEE PAGE 1-88)**	1
12	145962	POT,CONTINUOUS ROTATION 5K **(SEE PAGE 1-73)**	1
13	146074	DISPLAY,DP200 DASH **(SEE PAGE 1-98)**	1
14	146355	MOUNT, CHARGE OIL FILTER **(SEE PAGE 1-30)**	1
15	146638	SENSOR, FAN DRIVE TEMP **(SEE PAGE 1-55, 1-58, AND 1-61)**	1
16	146696	STEERING COLUMN ASSY,BI-T3 **(SEE PAGE 1-98)**	1
17	150725	PLATE,BI-T3 DIGN PORT MNT **(SEE PAGE 1-98)**	1
18	151272	FUSE BLOCK, 5 RELAY 10 FUSE **(SEE PAGE 1-22)**	1
19	151288	HARNESS, BI-T3 DASH	1
20	151471	ACCEL,CURTIS FP6 W/ PLUG **(SEE PAGE 1-88)**	1
21	154544	SENSOR,ASSY,LP FUEL W/DEUTSCH **(SEE PAGE 1-116)**	1
22	157357	ENGINE TELEFLEX GM2.4L TIER4 **(SEE PAGE 1-104)**	1
23	161394	MANIFOLD ASSY BIT4 FAN DR/RTN **(SEE PAGE 1-50)**	1
24	162307	HARNESS, BI-T4 MAIN	1
25	162315	VALVE, BIT4 35PL HUSCO **(SEE PAGE 1-31)**	1

Hydraulics

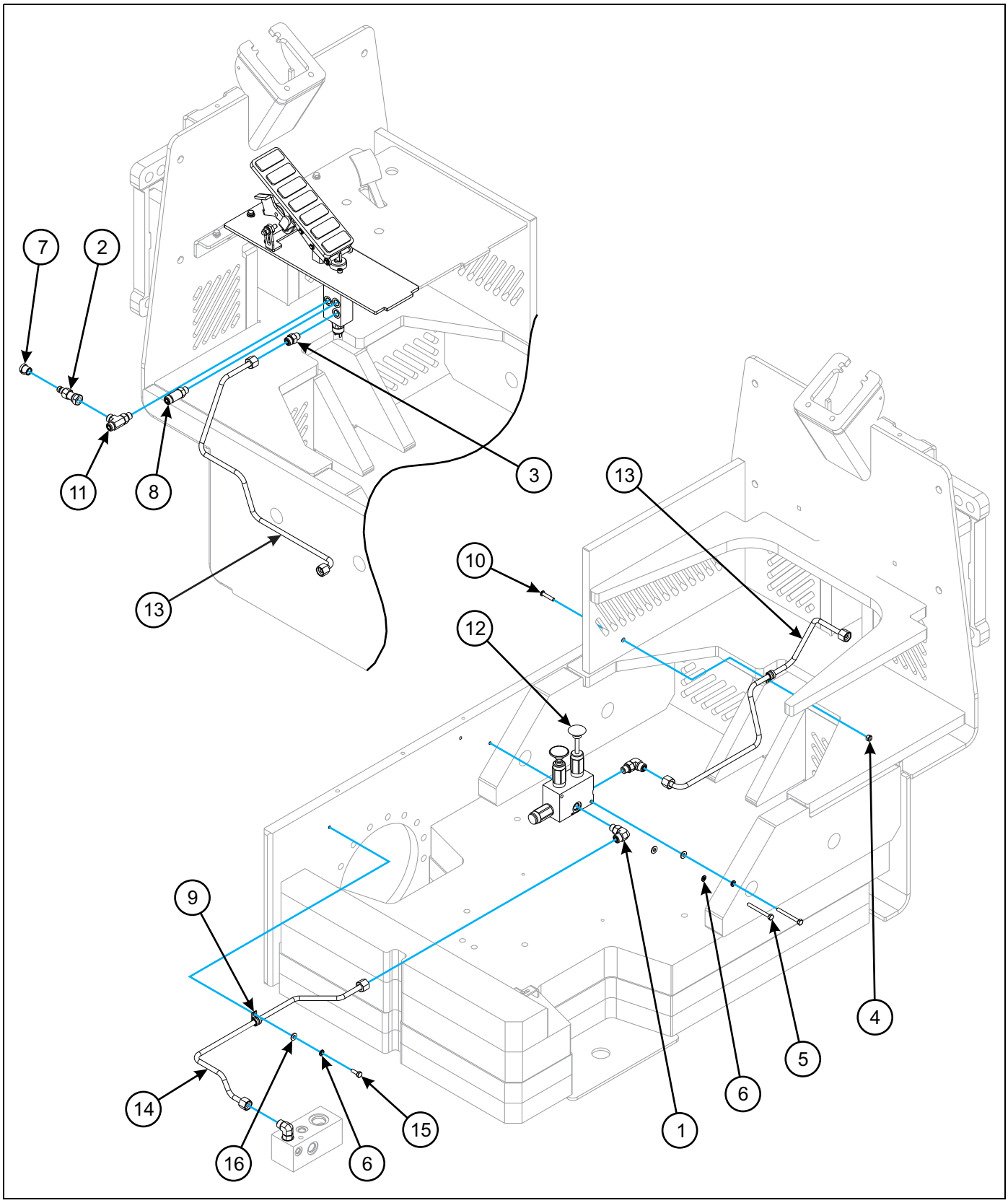

Figure 1-16: Brake Hydraulics

Brake Hydraulics

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018136	ADAPTER P-STEER RELIEF PRESS	2
2	0018147	PORT #6 ORFS	1
3	0018149	PORT DUST COVER	1
4	1-512-010003-09	NUT,1/4-20 ESNA	1
5	1-654-010047-12	SCREW,HEX 1/4-20UNCX2-1/2	2
6	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	6
7	104582	ADAPTER,#6 ORS X #6 ORB ST	1
8	123906	ADAPTER,#6ORSX#6ORB,LONG STR	1
9	125892	CLAMP, CABLE 3/8 SST	2
10	134391	SCREW,BHSC 1/4-20UNCX1-1/4	1
11	1417417	TEE,O/R SEAL11/16-160FS9/16-18	1
12	149485	PUMP/VALVE ASSY,BI-T3 BK RLSE	1
13	161919	TUBE, BRAKE PEDAL TO TOW VLV	1
14	161920	TUBE,TOW VLV TO BRAKE MANF	1
15	1-654-010047-04	SCREW,HEX CAP,1/4-20X3/4 GR5	1
16	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	1

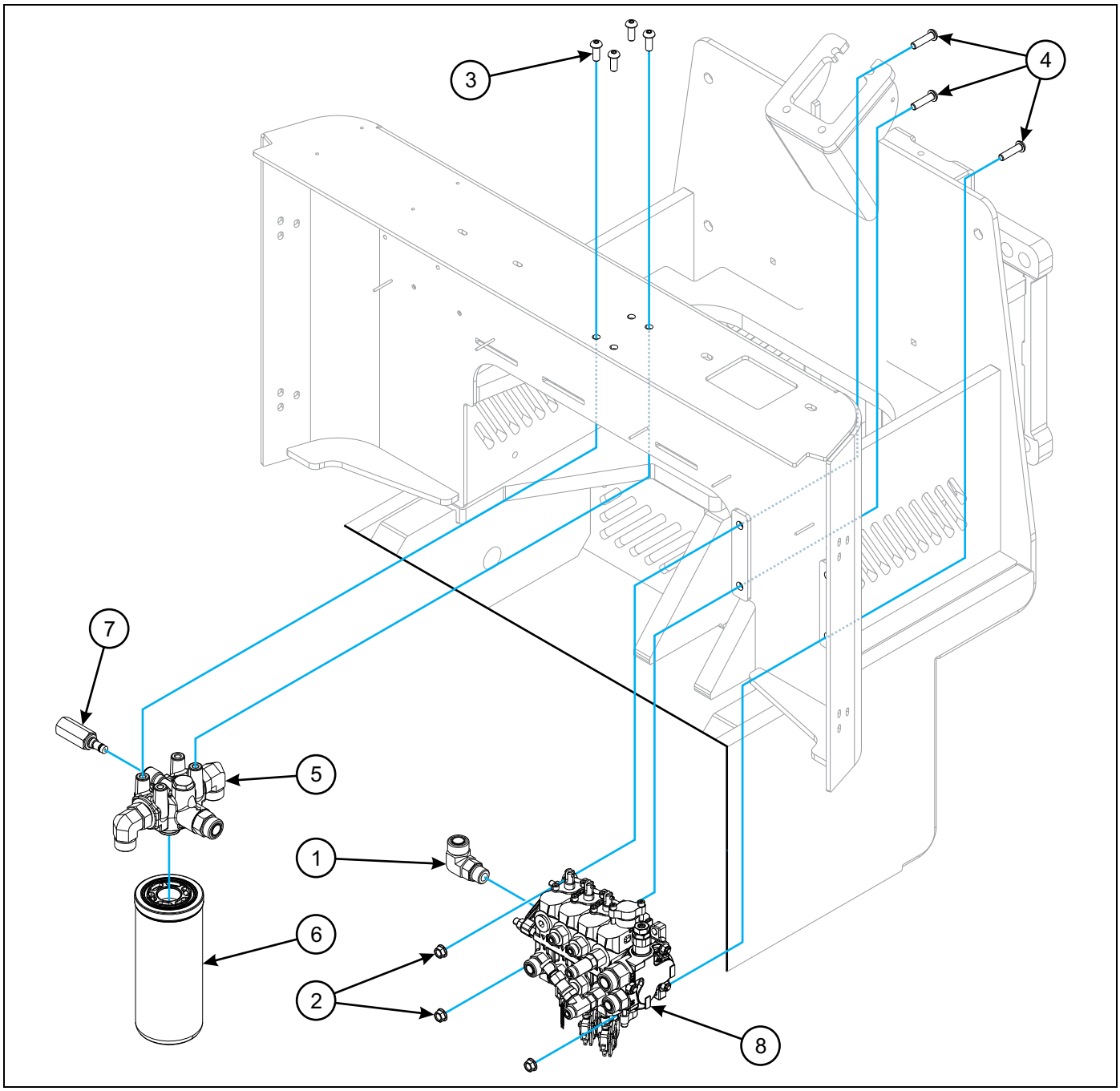

Figure 1-17: Hydraulic Control Valve and Charge Filter Installation

Hydraulic Control Valve and Charge Filter Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018119	ADAPTER P-STEER PUMP SUCTION	1
2	104382	ADAPTER,#12 ORS X #12 ORB ST	1
3	107470	NUT,SPIRALOCK 3/8-16HX	3
4	110116	ADAPTER,#12ORB X #12ORS 90DEG	2
5	146355	MOUNT, CHARGE OIL FILTER	1
6	146356	ELEMENT, HSTAT CHARGE FILTER	1
7	146357	INDICATOR, FILTER CONDTION	1
8	162315	VALVE, BIT4 35PL HUSCO **(SEE PAGE 1-31)**	1

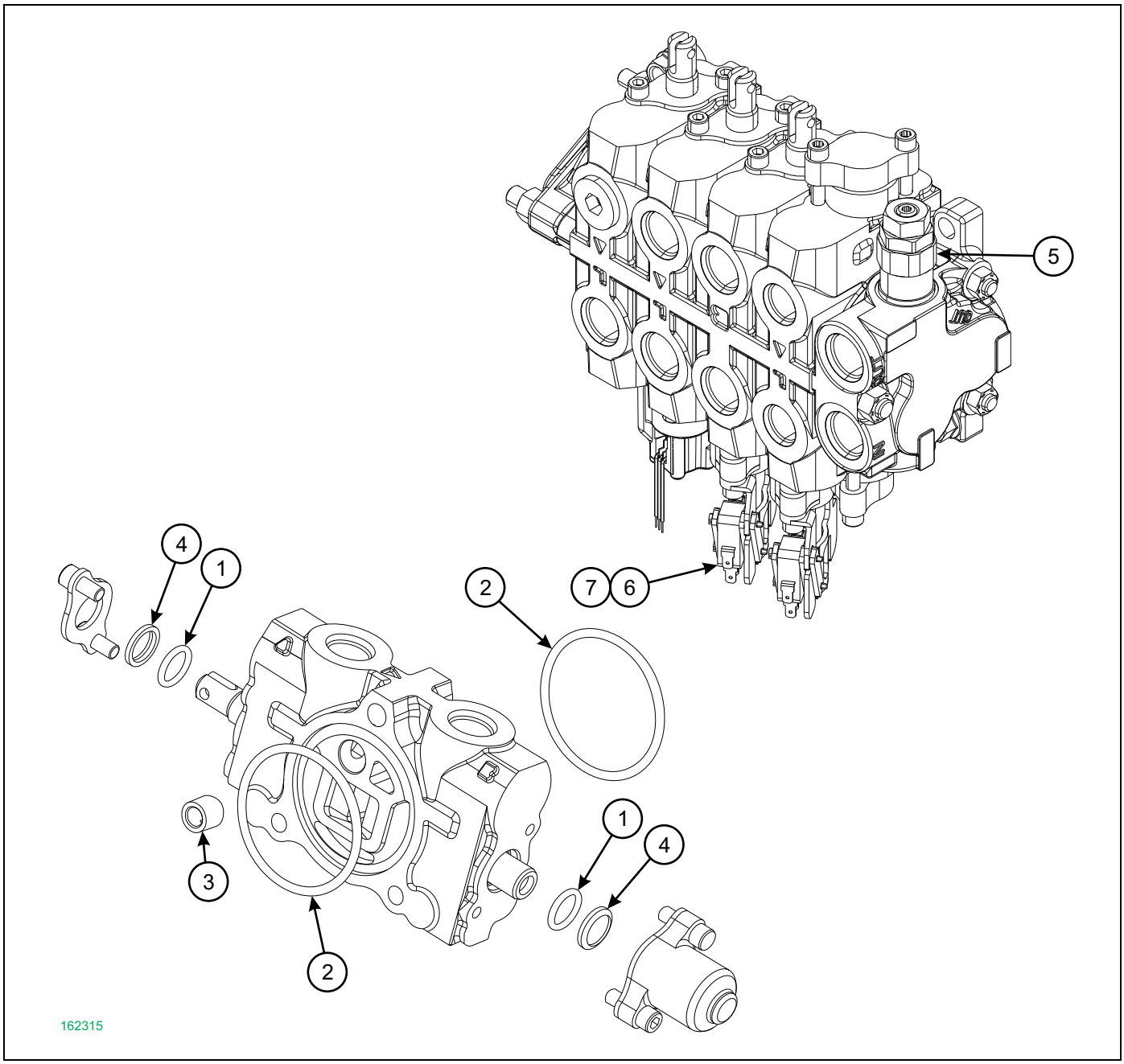

Figure 1-18: Hydraulic Control Valve Assembly

Hydraulic Control Valve Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
	162315	VALVE, BIT4 35PL HUSCO	
1	168223	O-RING	2
2	168219	O-RING	2
3	168220	POPPET-C.V.	1
4	168222	WIPER	2
5	168221	RELIEF VALVE ASSY.	1
6	25035	SWITCH, MICRO	2
7	156260	KIT, BTAC LIFT SPOOL SENSOR	2
8	153183	SINGLE SECTION SERVICE KIT **(INCLUDES ITEMS 1-5)**	REF

Table provided for general use.

NOTES:

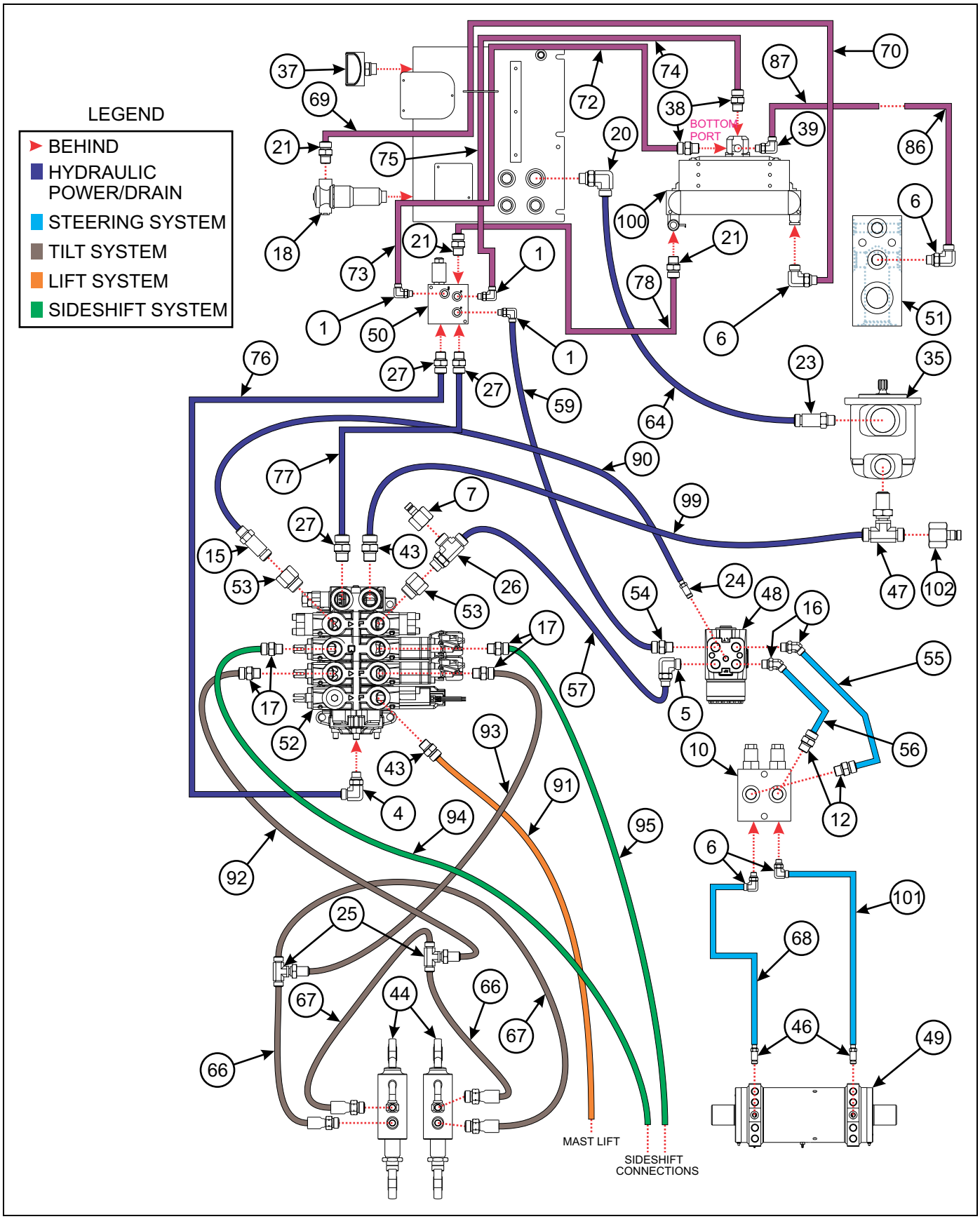

Figure 1-19: Hydraulic Diagram - 09/10/2012 and Prior (1 of 2)

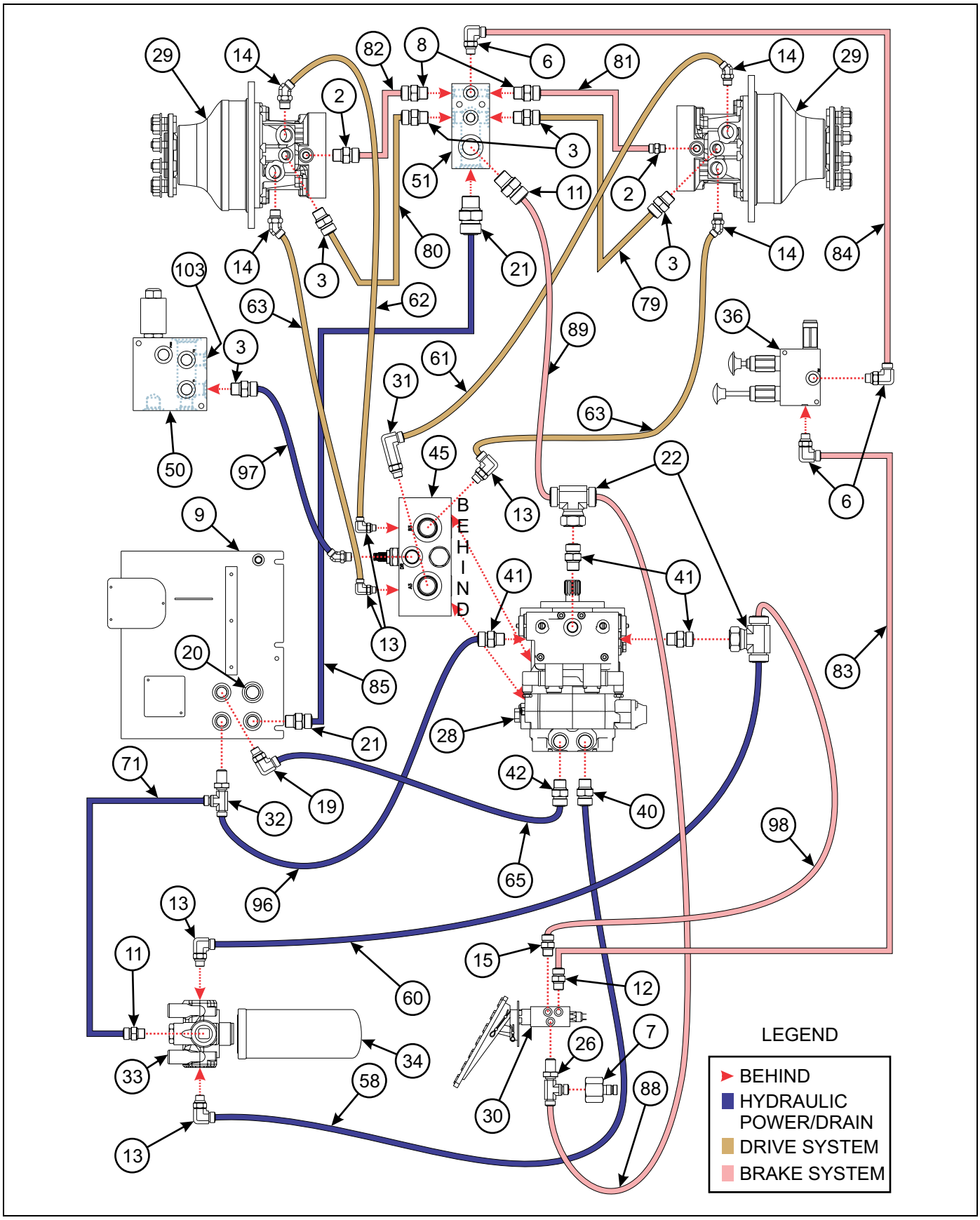

Figure 1-20: Hydraulic Diagram - 09/10/2012 and Prior (2 of 2)

Hydraulic Diagram - 09/10/2012 and Prior

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018106	ADAPTER VALVE RETURN POST	3
2	0018108	ADAPTER VALVE REAR TILT	2
3	0018110	ADAPTER VALVE 1/2	5
4	0018119	ADAPTER P-STEER PUMP SUCTION	1
5	0018120	ADAPTER P-STEER PUMP PRESSURE	2
6	0018136	ADAPTER P-STEER RELIEF PRESS	6
7	0018147	PORT #6 ORFS	2
8	0018160	ADAPTER WHITE CASE DRAIN	2
9	129644	TANK WLDMT,BI-T4 HYDRAULIC	1
10	100010	VALVE,STEERING COUNTERBALANCE	1
11	104382	ADAPTER,#12 ORS X #12 ORB ST	2
12	104582	ADAPTER,#6 ORS X #6 ORB ST	3
13	110116	ADAPTER,#12ORB X #12ORS 90DEG	5
14	122182	ADAPTER 45ORS/SAE O-RING BOSS	4
15	123906	ADAPTER,#6ORSX#6ORB,LONG STR	2
16	127165	ADAPTER 6-8 ORS/ORB, 45	2
17	128862	ADAPTER,#6ORS X #10ORB CONN	4
18	129635	FILTER,IN-TANK,NON-VENT,44GPM **(SEE PAGE 1-65)**	1
19	130595	ADAPTER,#16ORSX#16ORB,90 ELB	1
20	135003	ADAPTER,#20 ORS X #20 ORB 90	1
21	135029	ADAPTER,#16ORBSX#12ORS STR	4
22	135574	ADAPTER-12SWIVEL BRANCHTEEORS	2
23	135575	ADAPTER,-20STR,XLONG,ORBXORS	1
24	136537	ADAPTER,#4ORB-#4ORS LONG STR	1
25	163927	HOSE,#12STRORSx#12ORS90X#12-21	1
26	1417417	TEE,O/R SEAL11/16-160FS9/16-18	2
27	142337	ADAPTER,#12 ORS X #10 ORB ST	2
28	143868	PUMP,LINDE 75CC/REV H-STAT **(SEE PAGE 1-52)**	1
29	143869	MOTOR,POCLAIN MS05 W/SAHR BRK **(SEE PAGE 1-118)**	2
30	145061	VALVE, SAHR BRAKE P **(SEE PAGE 1-88)**	1
31	145309	ADAPTER,#12ORSX#12ORB,LG 90	1
32	145317	ADAPTER,12X16ORSBX12 RUN TEE	1
33	146355	MOUNT, CHARGE OIL FILTER **(SEE PAGE 1-30)**	1
34	146356	ELEMENT, HSTAT CHARGE FILTER **(SEE PAGE 1-30)**	1
35	171510	PUMP,25CC,SAE A,9TOOTH,ROTARY	1
36	149485	PUMP/VALVE ASSY,BI-T3 BK RLSE	1
37	150459	BREATHER, BI-T3 HYDR TANK	1
38	151132	ADAPTER,#8ORS X #8BSPP STR	2
39	151133	ADAPTER,#6ORS X #4BSPP 90 ELB	1
40	151291	ADAPTER,#120RSXM27 ISO 6149	1
41	151292	ADAPTER,#120RSXM22 ISO 6149	3
42	151293	ADAPTER,#160RSXM27 ISO 6149	1
43	152120	ADAPTER, #10ORB X #10ORS ST	2
44	153229	CYLINDER,BT-AC TILT **(SEE PAGE 1-85)**	2
44	153528	CYLINDER,BT-AC LIMITED TILT **(SEE PAGE 1-86)**	2
45	157499	MANIFOLD, HYD DRV W/FLUSH	1
46	157521	ADAPTER,6 ORBX 6ORS LONG ACTR	2
47	158485	ADAPTER, 10-12-10 ORS RUN TEE	1
48	158957	ORBITAL, B55 LOAD SENSING	1

Hydraulic Diagram - 09/10/2012 and Prior

ITEM	PART NUMBER	DESCRIPTION	QTY.
49	145749	ACTUATOR, 65MM OUTPUT HELAC **(PRIOR TO 03/31/16)**	1
49	197927	ACTUATOR,65MM OUTPUT HELAC **(AFTER 03/31/16)**	1
50	161394	MANIFOLD ASSY BIT4 FAN DR/RTN **(SEE PAGE 1-50)**	1
51	161980	MANIFOLD,BIT4 CASE DR/BRAKE	1
52	162315	VALVE, BIT4 35PL HUSCO **(SEE PAGE 1-31)**	1
53	102-1125	ADPT SAE O-RING BOSS REDUCER	2
54	189872	ORS/O-RING BOSS	1
55	100012	TUBE,LH STRG ORBITAL TO CBAL	1
56	100013	TUBE,RH STRG ORBITAL TO CBAL	1
57	110346	HOSE,#8STORSX#6SD900RSX#6-78	1
58	135451	HOSE ASSY,3/4,ORS,STR-90	1
59	139239	HOSE,#6STRORSX#6ORS90X6-66	1
60	166454	HOSE, 12STRORSX12STRORSX12-32	1
61	145335	HOSE,12STRORSX12ORS90X12-33	1
62	145336	HOSE,12STRORSX12ORS90X12-29	1
63	145337	HOSE,12STRORSX12ORS45X12-27	2
64	146137	HOSE,20STRORSX20ORS90X20-25	1
65	151464	HOSE,16STRORSX16ORS90X16-45	1
66	152822	HOSE,#4STRORSX#6ORBX#4-25	2
67	152823	HOSE,#4STRORSX#6ORBX#4-31	2
68	161435	TUBE,CBAL VLV C2 TO ACTR P1	1
69	161439	TUBE,CLR RETURN BHD TO FLTR	1
70	168293	TUBE CLR RETURN TO RETURN BHD	1
71	161902	TUBE,HYD FLTR BYPASS TO TANK	1
72	161903	TUBE,FAN SPLY BHD TO FAN INL	1
73	161904	TUBE,FAN SPLY VLV TO FAN BHD	1
74	161905	TUBE,FAN RTN BHD TO FAN OUT	1
75	161906	TUBE,RTN MANF TO FAN RTN BHD	1
76	161907	TUBE,CNTL VLV TO FAN SPLY VLV	1
77	161908	TUBE,CNTL VLV RTN TO RTN MANF **(10/10/2012 AND PRIOR)**	1
77	170687	TUBE, CNTL VLV RTN TO RTN MANF **(10/11/2012 AND AFTER)**	1
78	168311	HOSE 12STRORSX12STRORSX12-14.5	1
79	161915	TUBE,LH DR CASE DRAIN TO MANF	1
80	161916	TUBE,RH DR CASE DRAIN TO MANF	1
81	161917	TUBE, LH DRIVE BRAKE TO MANF	1
82	161918	TUBE, RH DRIVE BRAKE TO MANF	1
83	161919	TUBE, BRAKE PEDAL TO TOW VLV	1
84	161920	TUBE,TOW VLV TO BRAKE MANF	1
85	161921	TUBE,CASE DRAIN MANF TO TANK	1
86	161922	TUBE,MANF TO FAN CASE DR BHD **(SEE PAGE 1-2)**	1
87	161923	TUBE,FAN CASE DRAIN TO BHD **(SEE PAGE 1-2)**	1
88	166455	HOSE, 60RS90X125TRORSX8-22	1
89	163927	HOSE,#12STRORSx#12ORS90X#12-21	1
90	163125	HOSE,#4ORS90X#6ORS90X#4-66	1
91	163126	HOSE,#10STRORSX10ORS90X10-76	1
92	163127	HOSE,#4STRORSX#6ORS90#4-75	1
93	163128	HOSE,#4STRORSX#6ORS90#4-75	1
94	163129	HOSE,#6STRJICX#6ORS90X#4-104	1
95	163130	HOSE,#6STRJICX#6ORS90X#4-104	1

Hydraulic Diagram - 09/10/2012 and Prior

ITEM	PART NUMBER	DESCRIPTION	QTY.
96	163131	HOSE,#12ORS90X12ORS90X#12-30	1
97	163132	HOSE,#8STRORSX#8ORS90X#8-15	1
98	163133	HOSE,#12STRORSX#6ORS90X#8-28	1
99	163134	HOSE,#10ORS45X#10ORS90X#10-26	1
100	150455	RADIATOR/FAN BENDI T3 **(03/06/2012 AND PRIOR) (SEE PAGE 1-4)**	1
101	161436	TUBE,CBAL VLV C1 TO ACTR P2	1

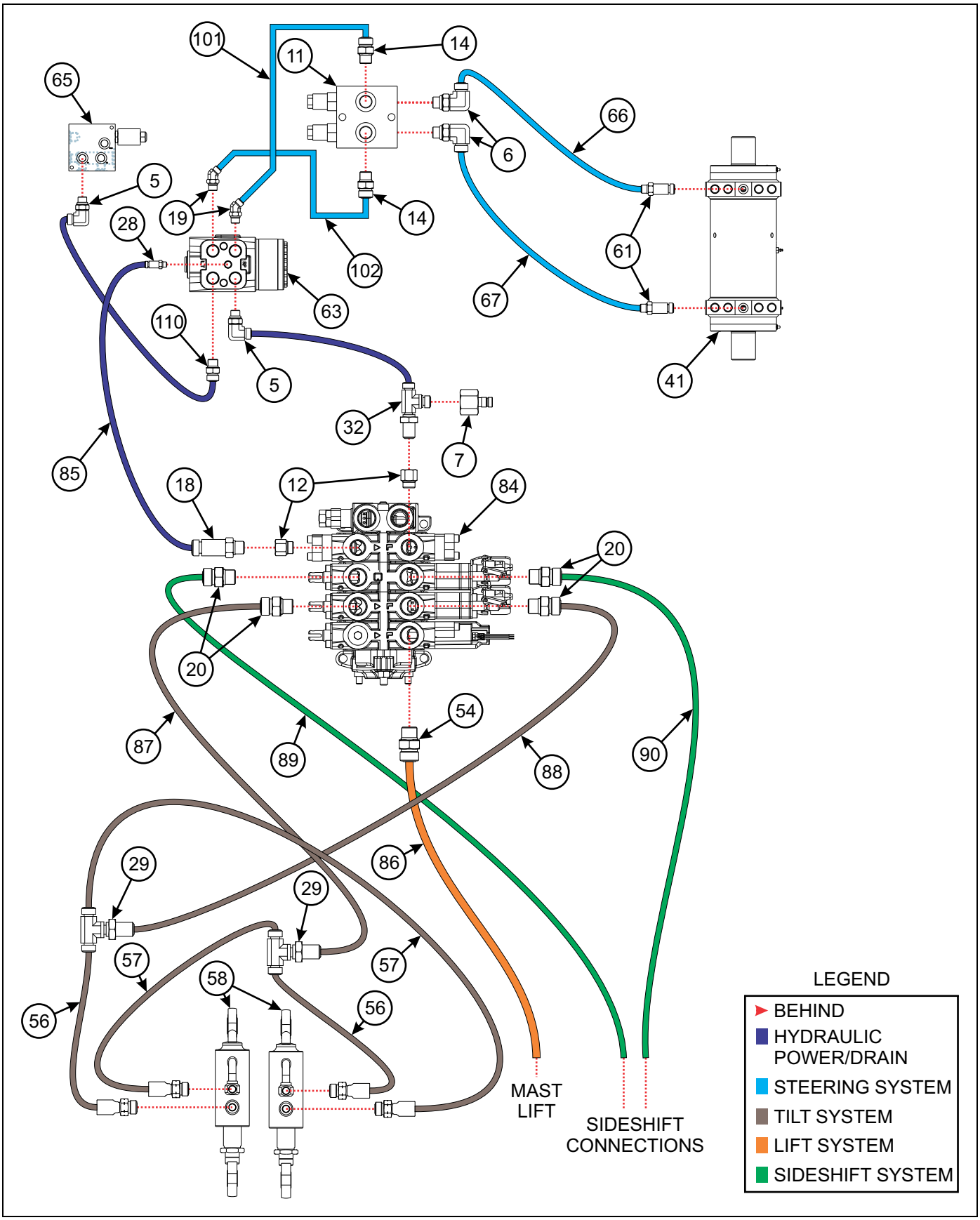

Figure 1-21: Hydraulic Diagram - 09/11/2012 - 04/18/2013 (1 of 3)

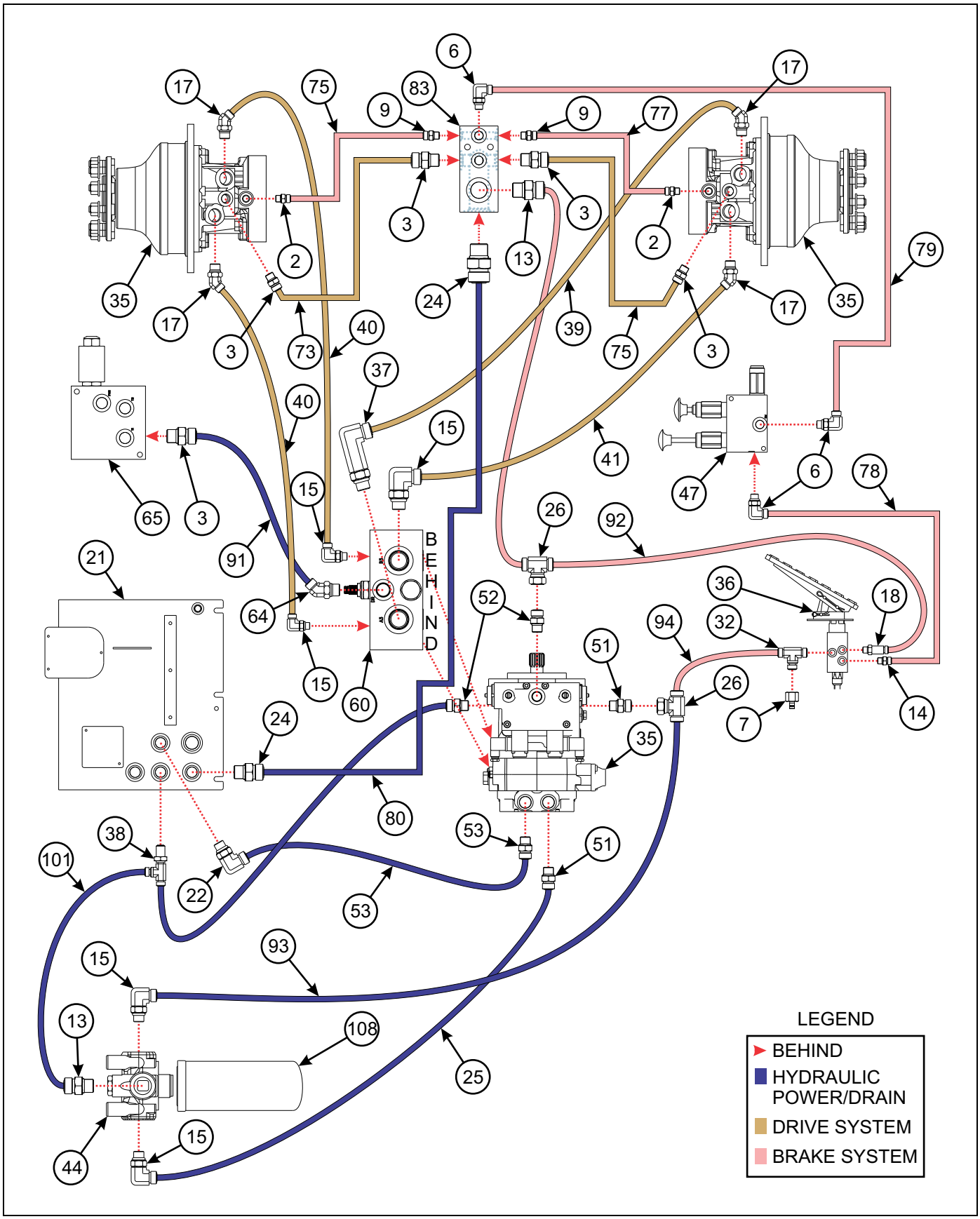

Figure 1-22: Hydraulic Diagram - 09/11/2012 - 04/18/2013 (2 of 3)

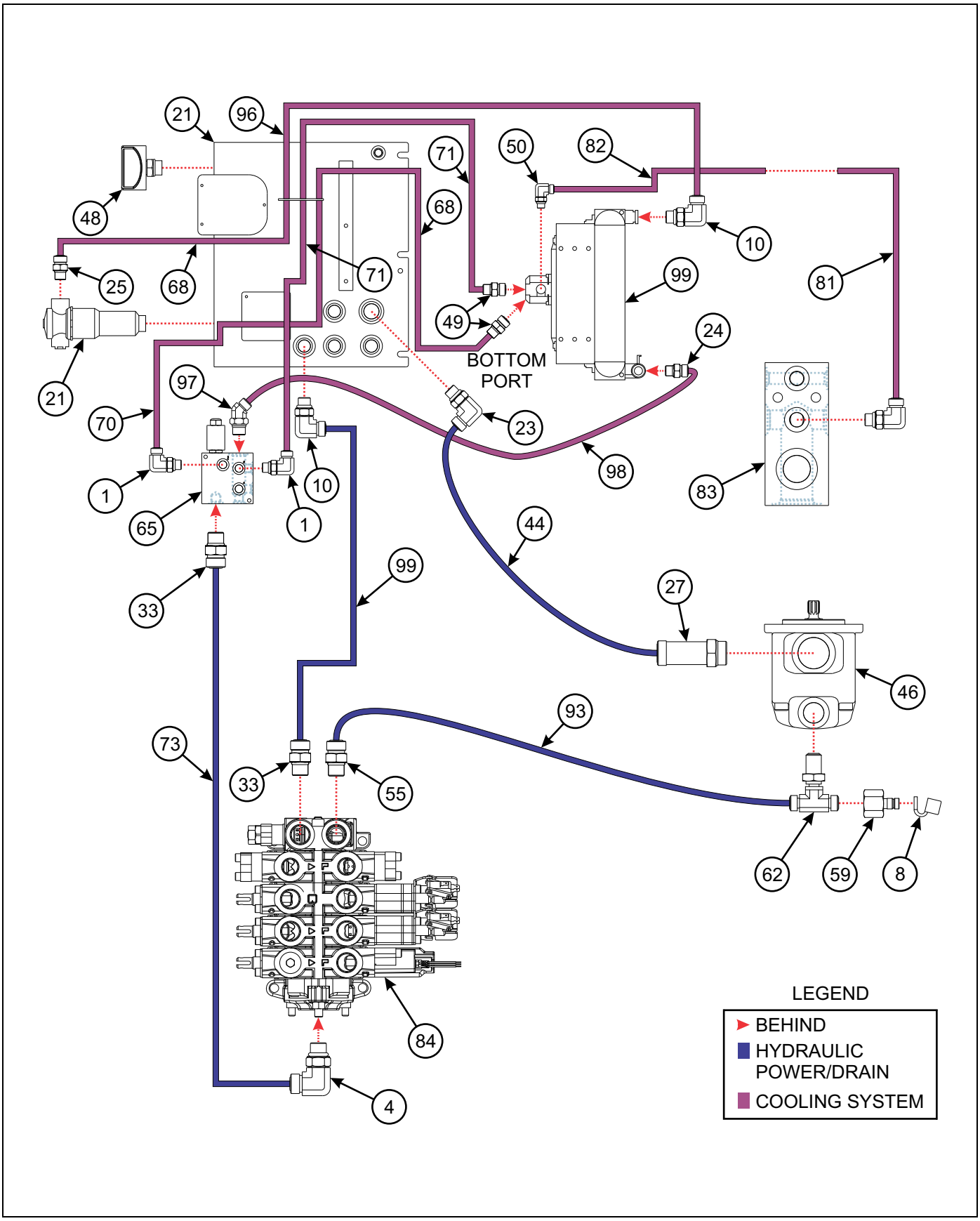

Figure 1-23: Hydraulic Diagram - 09/11/2012 - 04/18/2013 (3 of 3)

Hydraulic Diagram - 09/11/2012 - 04/18/2013

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018106	ADAPTER VALVE RETURN POST	3
2	0018108	ADAPTER VALVE REAR TILT	2
3	0018110	ADAPTER VALVE 1/2	5
4	0018119	ADAPTER P-STEER PUMP SUCTION	1
5	0018120	ADAPTER P-STEER PUMP PRESSURE	2
6	0018136	ADAPTER P-STEER RELIEF PRESS	6
7	0018147	PORT #6 ORFS	2
8	0018149	PORT DUST COVER	3
9	0018160	ADAPTER WHITE CASE DRAIN	2
10	0018162	ADAPTER VANE PUMP	1
11	100010	VALVE,STEERING COUNTERBALANCE	1
12	102-1125	ADPT SAE O-RING BOSS REDUCER	2
13	104382	ADAPTER,#12 ORS X #12 ORB ST	2
14	104582	ADAPTER,#6 ORS X #6 ORB ST	3
15	110116	ADAPTER,#12ORB X #12ORS 90DEG	5
16	110346	HOSE,#8STORSX#6SD900RSX#6-78	1
17	122182	ADAPTER 45ORS/SAE O-RING BOSS	4
18	123906	ADAPTER,#6ORSX#6ORB,LONG STR	2
19	127165	ADAPTER 6-8 ORS/ORB, 45	2
20	128862	ADAPTER,#6ORS X #10ORB CONN	4
21	129635	FILTER,IN-TANK,NON-VENT,44GPM **(SEE PAGE 1-65)**	1
22	129644	TANK WLDMT,BI-T4 HYDRAULIC	1
23	130595	ADAPTER,#16ORSX#16ORB,90 ELB	1
24	135003	ADAPTER,#20 ORS X #20 ORB 90	1
25	135029	ADAPTER,#16ORBSX#12ORS STR	4
26	135451	HOSE ASSY,3/4,ORS,STR-90	1
27	135574	ADAPTER-12SWIVEL BRANCHTEEORS	2
28	135575	ADAPTER,-20STR,XLONG,ORBXORS	1
29	136537	ADAPTER,#4ORB-#4ORS LONG STR	1
30	137951	ADAPTER,4ORS,BLKHD BRANCH TEE	2
31	139239	HOSE,#6STRORSX#6ORS90X6-66	1
32	140233	PLUG #12 M ORB HEX SOCKET **(NOT SHOWN)**	2
33	1417417	TEE,O/R SEAL11/16-160FS9/16-18	2
34	142337	ADAPTER,#12 ORS X #10 ORB ST	2
35	143868	PUMP,LINDE 75CC/REV H-STAT **(SEE PAGE 1-52)**	1
36	143869	MOTOR,POCLAIN MS05 W/SAHR BRK **(SEE PAGE 1-118)**	2
37	145061	VALVE, SAHR BRAKE P **(SEE PAGE 1-88)**	1
38	145309	ADAPTER,#12ORSX#12ORB,LG 90	1
39	145317	ADAPTER,12X16ORSBX12 RUN TEE	1
40	145335	HOSE,12STRORSX12ORS90X12-33	1
41	145336	HOSE,12STRORSX12ORS90X12-29	1
42	145337	HOSE,12STRORSX12ORS45X12-27	2
43	145749	ACTUATOR, 65MM OUTPUT HELAC **(PRIOR TO 03/31/16)**	1
43	197927	ACTUATOR,65MM OUTPUT HELAC **(AFTER 03/31/16)**	1
44	146137	HOSE,20STRORSX20ORS90X20-25	1
45	146355	MOUNT, CHARGE OIL FILTER **(SEE PAGE 1-30)**	1
46	146676	PUMP, BI-T3 AUXILIARY HYD	1
47	149485	PUMP/VALVE ASSY,BI-T3 BK RLSE	1
48	150459	BREATHER, BI-T3 HYDR TANK	1

Hydraulic Diagram - 09/11/2012 - 04/18/2013

ITEM	PART NUMBER	DESCRIPTION	QTY.
49	151132	ADAPTER,#8ORS X #8BSPP STR	2
50	151133	ADAPTER,#6ORS X #4BSPP 90 ELB	1
51	151291	ADAPTER,#120RSXM27 ISO 6149	1
52	151292	ADAPTER,#120RSXM22 ISO 6149	3
53	151293	ADAPTER,#160RSXM27 ISO 6149	1
54	151464	HOSE,16STRORSX16ORS90X16-45	1
55	152120	ADAPTER, #10ORB X #10ORS ST	2
56	152822	HOSE,#4STRORSX#6ORBX#4-25	2
57	152823	HOSE,#4STRORSX#6ORBX#4-31	2
58	153229	CYLINDER,BT-AC TILT **(SEE PAGE 1-85)**	2
58	153528	CYLINDER,BT-AC LIMITED TILT **(SEE PAGE 1-86)**	2
59	153284	NIPPLE, #10 ORS DIAGNOSTIC	1
60	157499	MANIFOLD, HYD DRV W/FLUSH	1
61	157521	ADAPTER,6 ORBX 6ORS LONG ACTR	2
62	158485	ADAPTER, 10-12-10 ORS RUN TEE	2
63	158957	ORBITAL, B55 LOAD SENSING	1
64	161067	ADAPTER,#80RSX#80RB,45ELB	1
65	161394	MANIFOLD ASSY BIT4 FAN DR/RTN **(SEE PAGE 1-50)**	1
66	161435	TUBE,CBAL VLV C2 TO ACTR P1	1
67	161436	TUBE,CBAL VLV C1 TO ACTR P2	1
68	161439	TUBE,CLR RETURN BHD TO FLTR	1
69	161903	TUBE,FAN SPLY BHD TO FAN INL	1
70	161904	TUBE,FAN SPLY VLV TO FAN BHD	1
71	161905	TUBE,FAN RTN BHD TO FAN OUT	1
72	161906	TUBE,RTN MANF TO FAN RTN BHD	1
73	161907	TUBE,CNTL VLV TO FAN SPLY VLV	1
74	161915	TUBE,LH DR CASE DRAIN TO MANF	1
75	161916	TUBE,RH DR CASE DRAIN TO MANF	1
76	161917	TUBE, LH DRIVE BRAKE TO MANF	1
77	161918	TUBE, RH DRIVE BRAKE TO MANF	1
78	161919	TUBE, BRAKE PEDAL TO TOW VLV	1
79	161920	TUBE,TOW VLV TO BRAKE MANF	1
80	161921	TUBE,CASE DRAIN MANF TO TANK	1
81	161922	TUBE,MANF TO FAN CASE DR BHD **(SEE PAGE 1-2)**	1
82	161923	TUBE,FAN CASE DRAIN TO BHD **(SEE PAGE 1-2)**	1
83	161980	MANIFOLD,BIT4 CASE DR/BRAKE	1
84	162315	VALVE, BIT4 35PL HUSCO **(SEE PAGE 1-31)**	1
85	163125	HOSE,#4ORS90X#6ORS90X#4-66	1
86	163126	HOSE,#10STRORSX10ORS90X10-76	1
87	163127	HOSE,#4STRORSX#6ORS90#4-75	1
88	163128	HOSE,#4STRORSX#6ORS90#4-75	1
89	163129	HOSE,#6STRJICX#6ORS90X#4-104	1
90	163130	HOSE,#6STRJICX#6ORS90X#4-104	1
91	163132	HOSE,#8STRORSX#8ORS90X#8-15	1
92	163133	HOSE,#12STRORSX#6ORS90X#8-28	1
93	163134	HOSE,#10ORS45X#10ORS90X#10-26	1
94	166454	HOSE, 12STRORSX12STRORSX12-32	1
95	166455	HOSE, 60RS90X125TRORSX8-22	1
96	167736	ADAPTER, #12ORB X #10 ORS STRP	5

Hydraulic Diagram - 09/11/2012 - 04/18/2013

ITEM	PART NUMBER	DESCRIPTION	QTY.
97	168293	TUBE CLR RETURN TO RETURN BHD	1
98	168297	ADAPTER #12ORS X #6ORB 45ELB	1
99	168311	HOSE 12STRORSX12STRORSX12-14.5	1
100	170556	RAD/FAN, THERMAL TRANSFER	1
101	170686	TUBE, HYD FILTER BYPASS TO TNK	1
102	170687	TUBE, CNTL VLV RTN TO RTN MANF	1
103	171563	TUBE ORBTL RH TO X-OVER RLF V2	1
104	171564	TUBE ORBTL LH TO X-OVER RLF V1	1
105	175474	HOSE#10STRORSX#10ORES90X#10-32	1
106	175475	HOSE#10STRORSX#10ORS90X#10-24	1
107	189872	ORS/O-RING BOSS	1
108	146356	ELEMENT, HSTAT CHARGE FILTER **(SEE PAGE 1-30)**	1

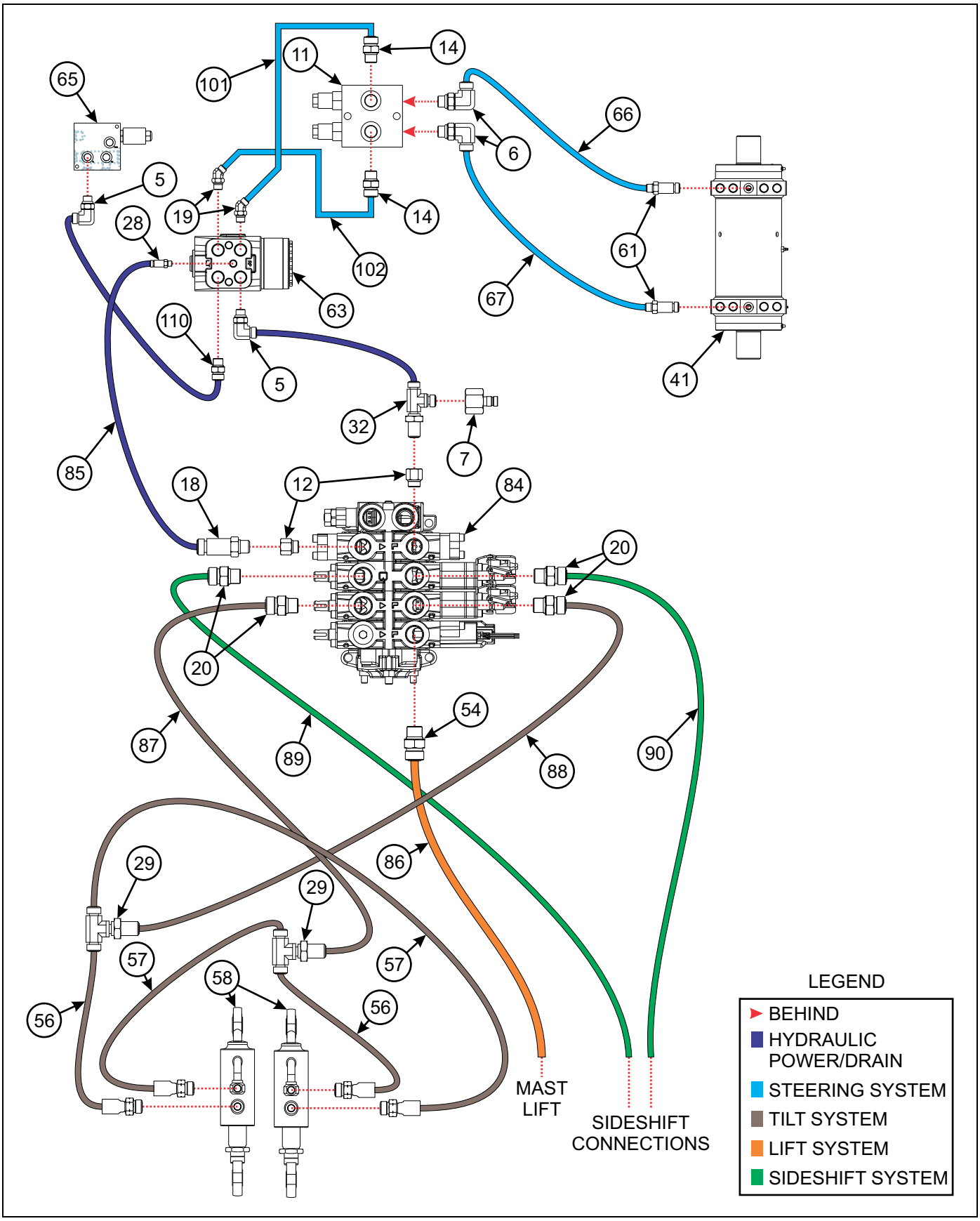

Figure 1-24: Hydraulic Diagram - 04/19/2013 and After (1 of 3)

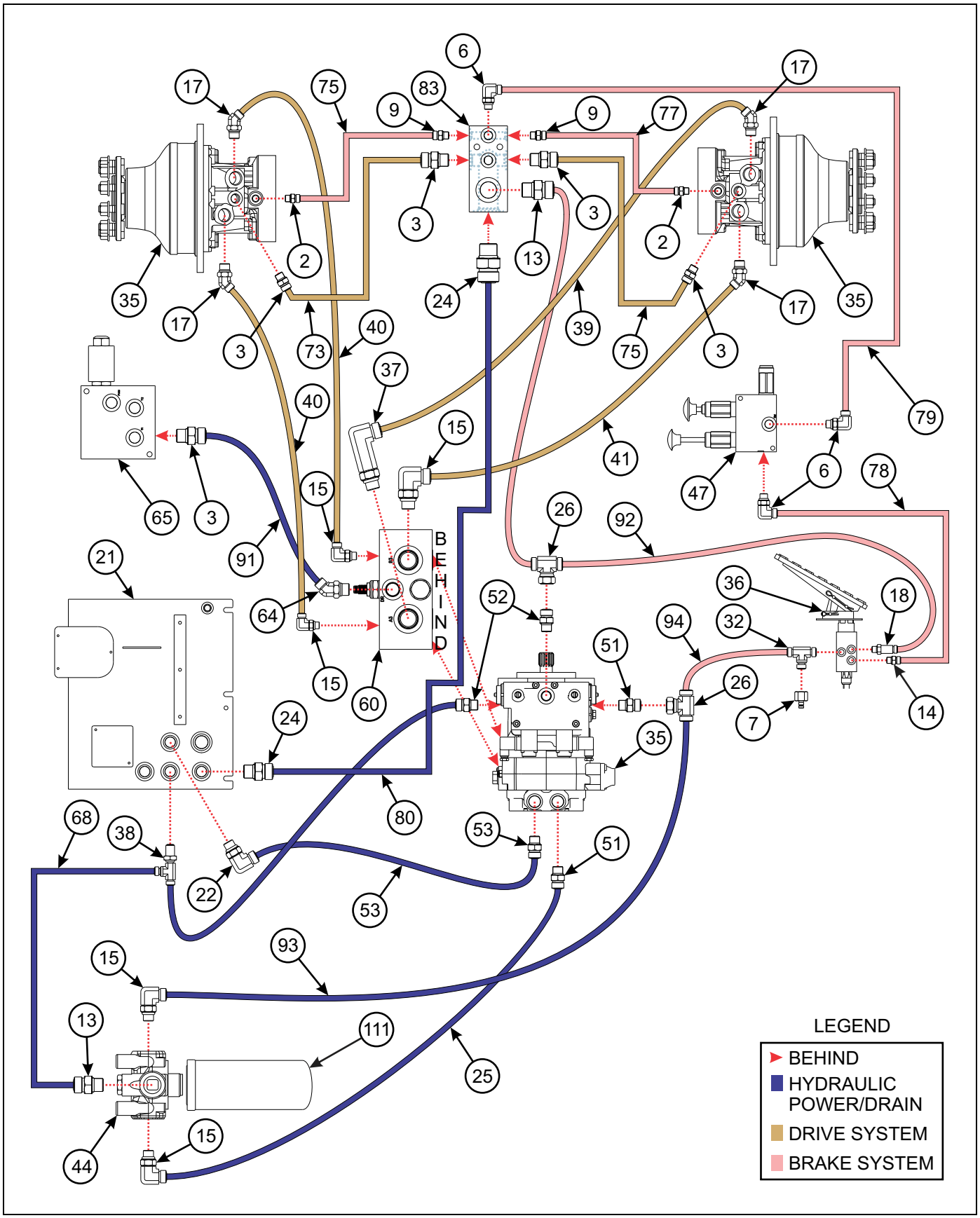

Figure 1-25: Hydraulic Diagram - 04/19/2013 and After (2 of 3)

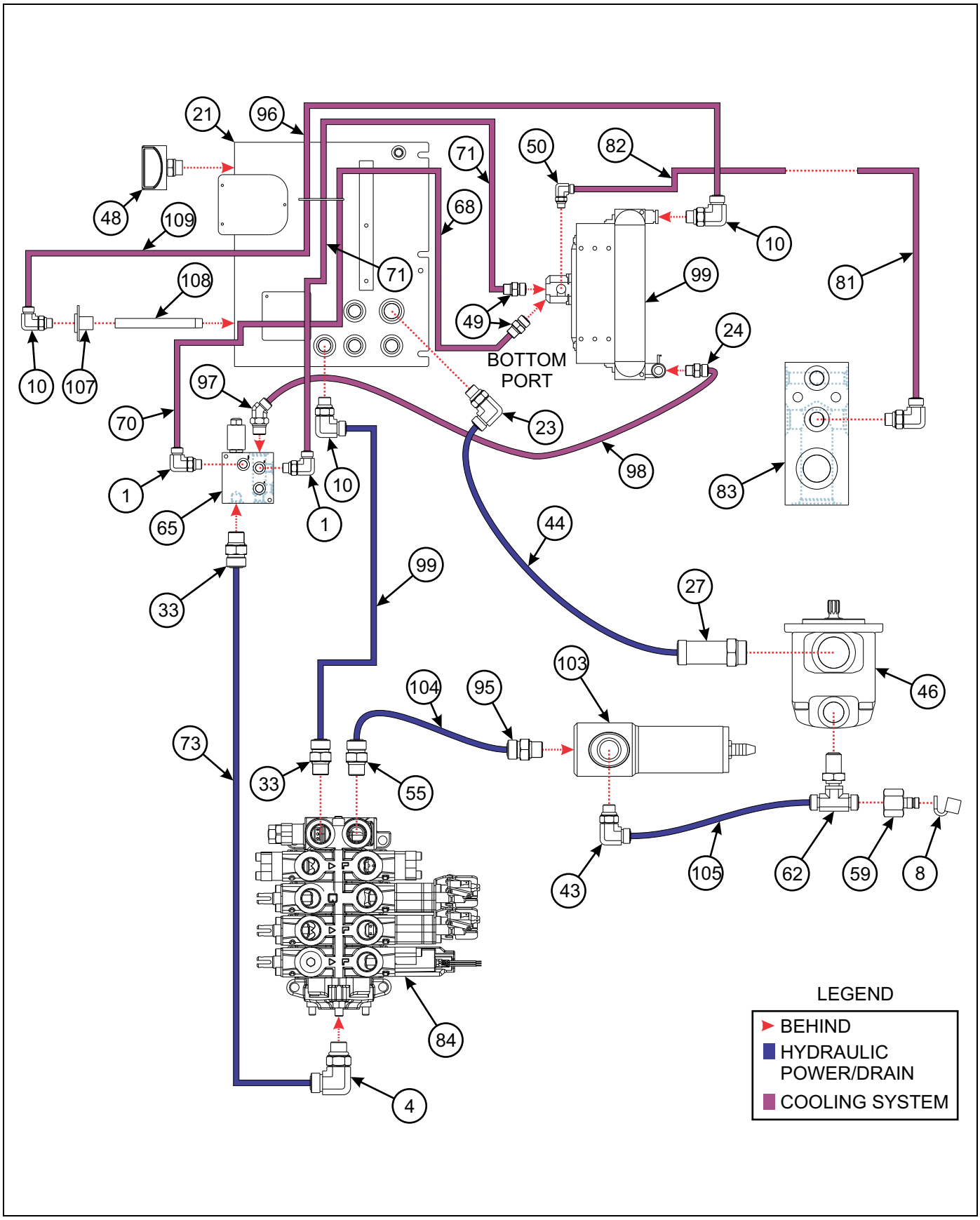

Figure 1-26: Hydraulic Diagram - 04/19/2013 and After (3 of 3)

Hydraulic Diagram - 04/19/2013 and After

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018106	ADAPTER VALVE RETURN POST	3
2	0018108	ADAPTER VALVE REAR TILT	2
3	0018110	ADAPTER VALVE 1/2	5
4	0018119	ADAPTER P-STEER PUMP SUCTION	1
5	0018120	ADAPTER P-STEER PUMP PRESSURE	2
6	0018136	ADAPTER P-STEER RELIEF PRESS	6
7	0018147	PORT #6 ORFS	2
8	0018149	PORT DUST COVER	3
9	0018160	ADAPTER WHITE CASE DRAIN	2
10	0018162	ADAPTER VANE PUMP	3
11	100010	VALVE,STEERING COUNTERBALANCE	1
12	102-1125	ADPT SAE O-RING BOSS REDUCER	2
13	104382	ADAPTER,#12 ORS X #12 ORB ST	2
14	104582	ADAPTER,#6 ORS X #6 ORB ST	3
15	110116	ADAPTER,#12ORB X #12ORS 90DEG	5
16	110346	HOSE,#8STORSX#6SD900RSX#6-78	1
17	122182	ADAPTER 45ORS/SAE O-RING BOSS	4
18	123906	ADAPTER,#6ORSX#6ORB,LONG STR	2
19	127165	ADAPTER 6-8 ORS/ORB, 45	2
20	128862	ADAPTER,#6ORS X #10ORB CONN	4
21	129644	TANK WLDMT,BI-T4 HYDRAULIC	1
22	130595	ADAPTER,#16ORSX#16ORB,90 ELB	1
23	135003	ADAPTER,#20 ORS X #20 ORB 90	1
24	135029	ADAPTER,#16ORBSX#12ORS STR	3
25	135451	HOSE ASSY,3/4,ORS,STR-90	1
26	135574	ADAPTER-12SWIVEL BRANCHTEEORS	2
27	135575	ADAPTER,-20STR,XLONG,ORBXORS	1
28	136537	ADAPTER,#4ORB-#4ORS LONG STR	1
29	137951	ADAPTER,4ORS,BLKHD BRANCH TEE	2
30	139239	HOSE,#6STRORSX#6ORS90X6-66	1
31	140233	PLUG #12 M ORB HEX SOCKET **(NOT SHOWN)**	2
32	1417417	TEE,O/R SEAL11/16-160FS9/16-18	2
33	142337	ADAPTER,#12 ORS X #10 ORB ST	2
34	143868	PUMP,LINDE 75CC/REV H-STAT **(SEE PAGE 1-52)**	1
35	143869	MOTOR,POCLAIN MS05 W/SAHR BRK **(SEE PAGE 1-118)**	2
36	145061	VALVE, SAHR BRAKE P **(SEE PAGE 1-88)**	1
37	145309	ADAPTER,#12ORSX#12ORB,LG 90	1
38	145317	ADAPTER,12X16ORSBX12 RUN TEE	1
39	145335	HOSE,12STRORSX12ORS90X12-33	1
40	145336	HOSE,12STRORSX12ORS90X12-29	1
41	145337	HOSE,12STRORSX12ORS45X12-27	2
42	145749	ACTUATOR, 65MM OUTPUT HELAC **(PRIOR TO 03/31/16)**	1
42	197927	ACTUATOR,65MM OUTPUT HELAC **(AFTER 03/31/16)**	1
43	145955	ADAPTER,#10ORSX#12ORB,90 ELB	1
44	182660	HOSE#20STRORSX#20ORS90X#20-26	1
45	146355	MOUNT, CHARGE OIL FILTER **(SEE PAGE 1-30)**	1
46	146676	PUMP, BI-T3 AUXILIARY HYD	1
47	149485	PUMP/VALVE ASSY,BI-T3 BK RLSE	1
48	150459	BREATHER, BI-T3 HYDR TANK	1

Hydraulic Diagram - 04/19/2013 and After

ITEM	PART NUMBER	DESCRIPTION	QTY.
49	151132	ADAPTER,#8ORS X #8BSPP STR	2
50	151133	ADAPTER,#6ORS X #4BSPP 90 ELB	1
51	151291	ADAPTER,#120RSXM27 ISO 6149	1
52	151292	ADAPTER,#120RSXM22 ISO 6149	3
53	151293	ADAPTER,#160RSXM27 ISO 6149	1
54	151464	HOSE,16STRORSX16ORS90X16-45	1
55	152120	ADAPTER, #10ORB X #10ORS ST	2
56	152822	HOSE,#4STRORSX#6ORBX#4-25	2
57	152823	HOSE,#4STRORSX#6ORBX#4-31	2
58	153229	CYLINDER,BT-AC TILT **(SEE PAGE 1-85)**	2
58	153528	CYLINDER,BT-AC LIMITED TILT **(SEE PAGE 1-86)**	2
59	153284	NIPPLE, #10 ORS DIAGNOSTIC	1
60	157499	MANIFOLD, HYD DRV W/FLUSH	1
61	157521	ADAPTER,6 ORBX 6ORS LONG ACTR	2
62	158485	ADAPTER, 10-12-10 ORS RUN TEE	2
63	158957	ORBITAL, B55 LOAD SENSING	1
64	161067	ADAPTER,#80RSX#80RB,45ELB	1
65	161394	MANIFOLD ASSY BIT4 FAN DR/RTN **(SEE PAGE 1-50)**	1
66	161435	TUBE,CBAL VLV C2 TO ACTR P1	1
67	161436	TUBE,CBAL VLV C1 TO ACTR P2	1
68	161902	TUBE,HYD FLTR BYPASS TO TANK	1
69	161903	TUBE,FAN SPLY BHD TO FAN INL	1
70	161904	TUBE,FAN SPLY VLV TO FAN BHD	1
71	161905	TUBE,FAN RTN BHD TO FAN OUT	1
72	161906	TUBE,RTN MANF TO FAN RTN BHD	1
73	161907	TUBE,CNTL VLV TO FAN SPLY VLV	1
74	161915	TUBE,LH DR CASE DRAIN TO MANF	1
75	161916	TUBE,RH DR CASE DRAIN TO MANF	1
76	161917	TUBE, LH DRIVE BRAKE TO MANF	1
77	161918	TUBE, RH DRIVE BRAKE TO MANF	1
78	161919	TUBE, BRAKE PEDAL TO TOW VLV	1
79	161920	TUBE,TOW VLV TO BRAKE MANF	1
80	161921	TUBE,CASE DRAIN MANF TO TANK	1
81	161922	TUBE,MANF TO FAN CASE DR BHD **(SEE PAGE 1-2)**	1
82	161923	TUBE,FAN CASE DRAIN TO BHD **(SEE PAGE 1-2)**	1
83	161980	MANIFOLD,BIT4 CASE DR/BRAKE	1
84	162315	VALVE, BIT4 35PL HUSCO **(SEE PAGE 1-31)**	1
85	163125	HOSE,#4ORS90X#6ORS90X#4-66	1
86	163126	HOSE,#10STRORSX10ORS90X10-76	1
87	163127	HOSE,#4STRORSX#6ORS90#4-75	1
88	163128	HOSE,#4STRORSX#6ORS90#4-75	1
89	163129	HOSE,#6STRJICX#6ORS90X#4-104	1
90	163130	HOSE,#6STRJICX#6ORS90X#4-104	1
91	163132	HOSE,#8STRORSX#8ORS90X#8-15	1
92	163133	HOSE,#12STRORSX#6ORS90X#8-28	1
93	166454	HOSE, 12STRORSX12STRORSX12-32	1
94	166455	HOSE, 60RS90X125TRORSX8-22	1
95	167736	ADAPTER, #12ORB X #10 ORS STRP	5
96	168293	TUBE CLR RETURN TO RETURN BHD	1

Hydraulic Diagram - 04/19/2013 and After

ITEM	PART NUMBER	DESCRIPTION	QTY.
97	168297	ADAPTER #12ORS X #6ORB 45ELB	1
98	168311	HOSE 12STRORSX12STRORSX12-14.5	1
99	170556	RAD/FAN, THERMAL TRANSFER	1
100	170687	TUBE, CNTL VLV RTN TO RTN MANF	1
101	171563	TUBE ORBTL RH TO X-OVER RLF V2	1
102	171564	TUBE ORBTL LH TO X-OVER RLF V1	1
103	173927	FILTER, 3000PSI 60GPM HYD **(SEE PAGE 1-64)**	1
104	175474	HOSE#10STRORSX#10ORES90X#10-32	1
105	182577	'HOSE#10STRORSX#10STRORSX#10-20	1
106	176150	GASKET, BI-T4 HYDRAULIC RETURN **(NOT SHOWN)**	1
107	176153	FLANGE WLDMT, BI-T4 HYD RETURN	1
108	176154	PIPE, BI-T4 HYD RETURN EXT.	1
109	176155	TUBE, CLR RETURN BHD TO TANK	1
110	189872	ORS/O-RING BOSS	1
111	146356	ELEMENT, HSTAT CHARGE FILTER **(SEE PAGE 1-30)**	1

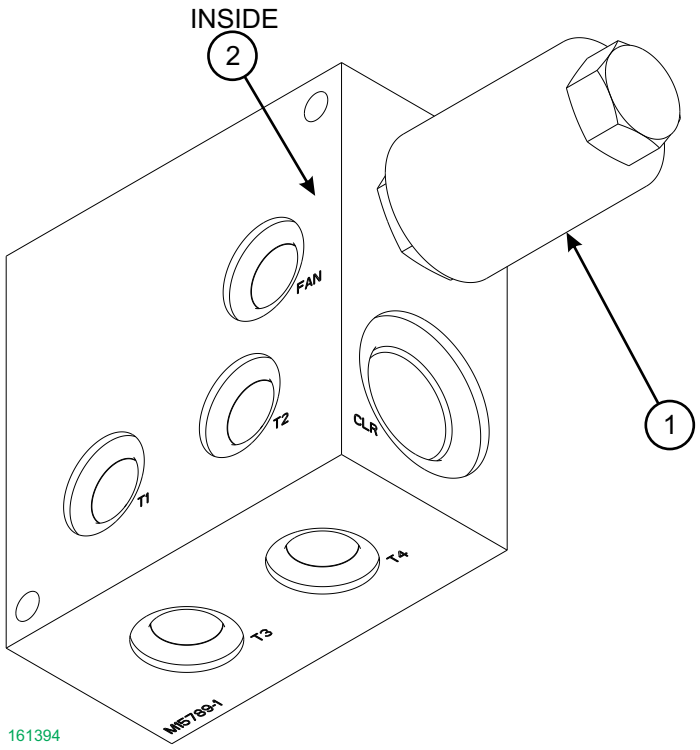

Figure 1-27: Hydraulic Manifold Assembly

Hydraulic Manifold Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
	161394	MANIFOLD ASSY BIT4 FAN DR/RTN	
1	176087	COIL,-70 SIZE,12VDC,W/DT PLUG	1
2	176088	VALVE,FAN DRIVE CARTRIDGE **(NOT SHOWN)**	1

Table provided for general use.

NOTES:

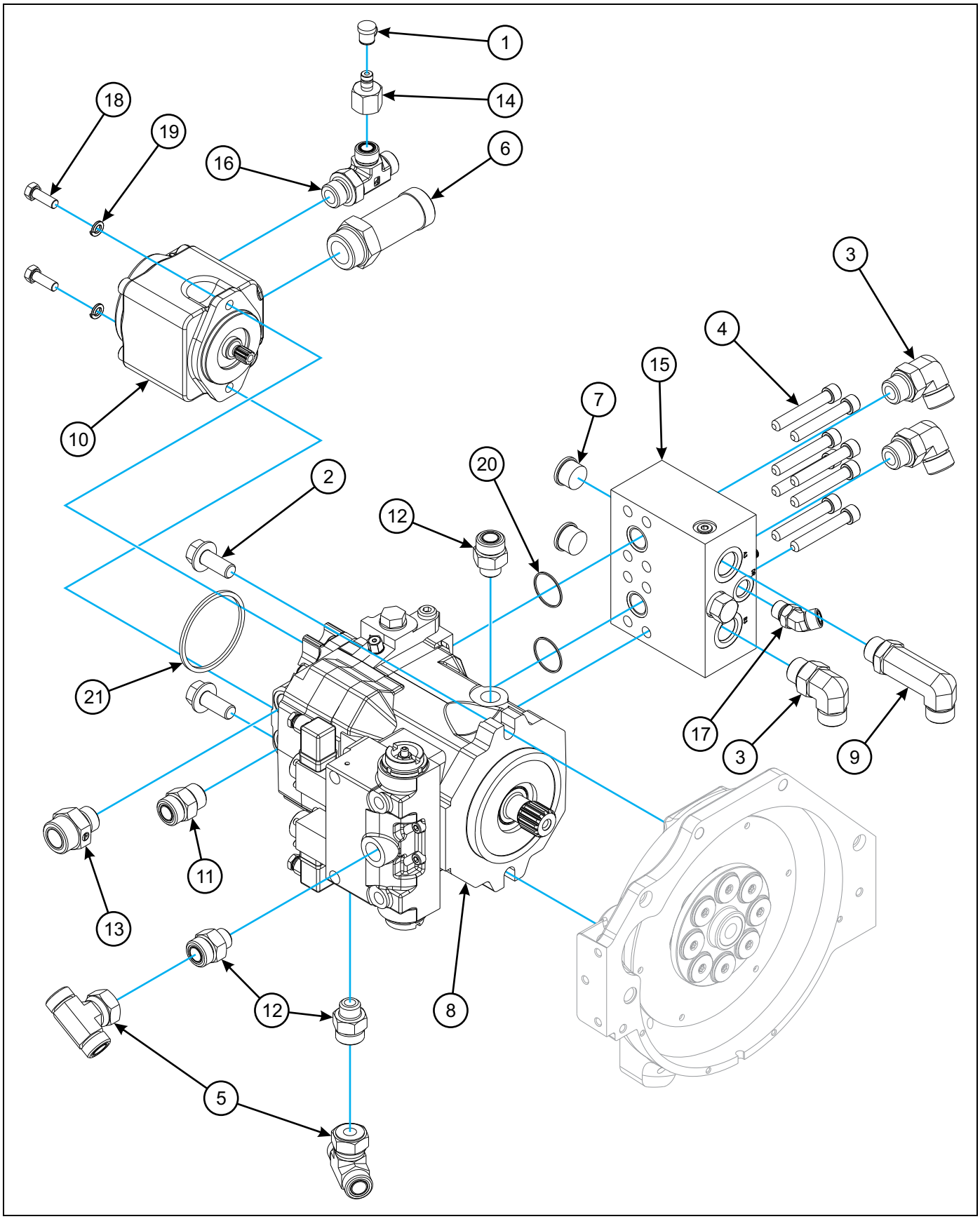

Figure 1-28: Hydraulic Pump Components

Hydraulic Pump Components

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018149	PORT DUST COVER	1
2	108151	SCREW 5/8-11 UNCX1-1/2 FLG HD	2
3	110116	ADAPTER,#12ORB X #12ORS 90DEG	3
4	133515	SCREW,M12-1.75X80 SHC 12.9 BL	8
5	135574	ADAPTER-12SWIVEL BRANCHTEEORS	2
6	135575	ADAPTER,-20STR,XLONG,ORBXORS	1
7	140233	PLUG #12 M ORB HEX SOCKET	2
8	143868	PUMP,LINDE 75CC/REV H-STAT	1
9	145309	ADAPTER,#12ORSX#12ORB,LG 90	1
10	146676	PUMP, BI-T3 AUXILIARY HYD	1
11	151291	ADAPTER,#120RSXM27 ISO 6149	1
12	151292	ADAPTER,#120RSXM22 ISO 6149	3
13	151293	ADAPTER,#160RSXM27 ISO 6149	1
14	153284	NIPPLE, #10 ORS DIAGNOSTIC	1
15	157499	MANIFOLD, HYD DRV W/FLUSH	1
16	158485	ADAPTER, 10-12-10 ORS RUN TEE	1
17	161067	ADAPTER,#80RSX#80RB,45ELB	1
18	1CM1030ER	SCREW M10-1.5X30 HCS 8.8 ZP	2
19	M10SLW ZP	WASHER,SPLIT LK METRIC 10MMZP	2
20	168279	O-RING, .987ID X .103 (#120)	2
21	177651	ORING,B40IX DRV PUMP AUX FLG	1

Table provided for general use.

NOTES:

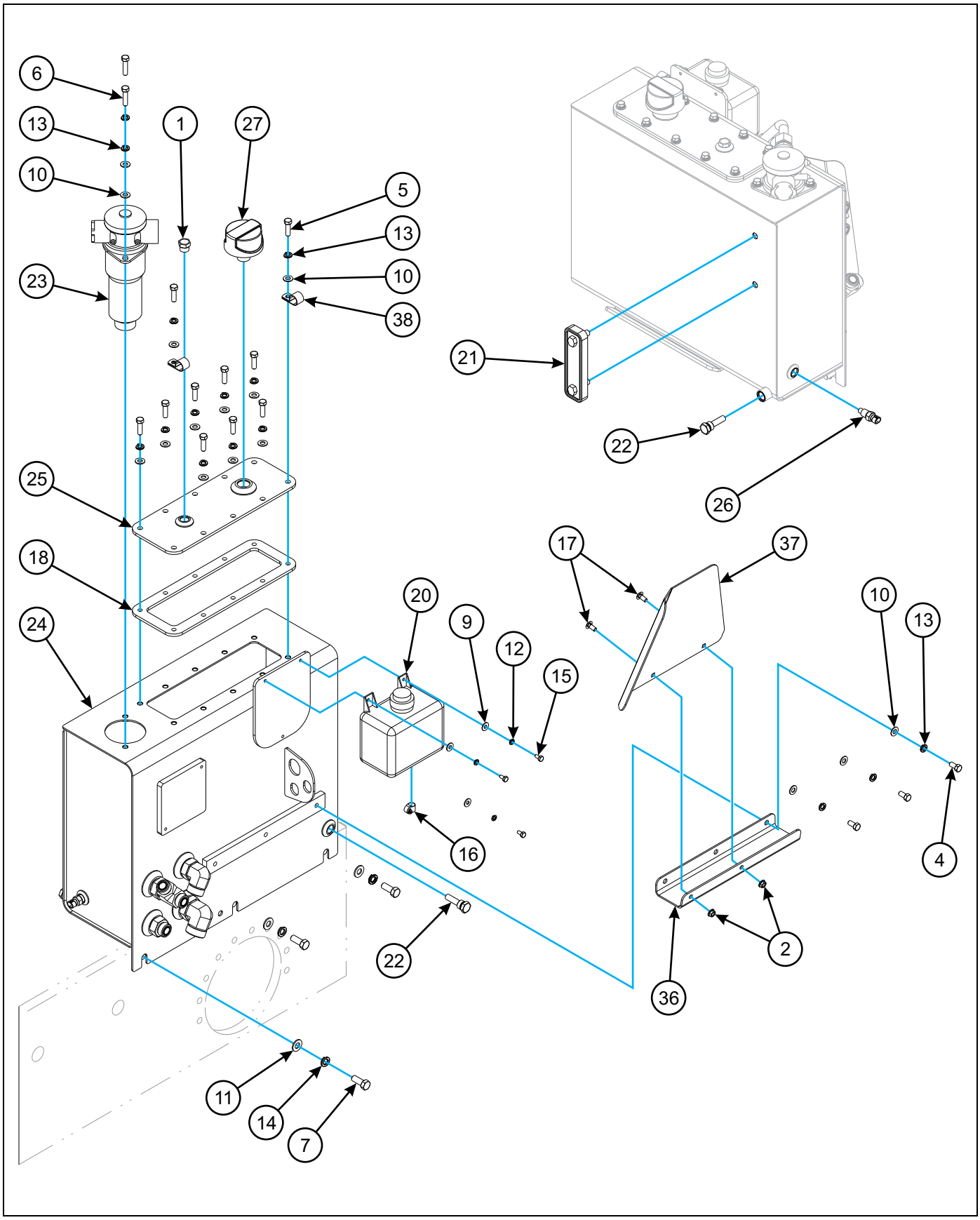

Figure 1-29: Hydraulic Tank Components - 09/10/2012 and Prior (1 of 2)

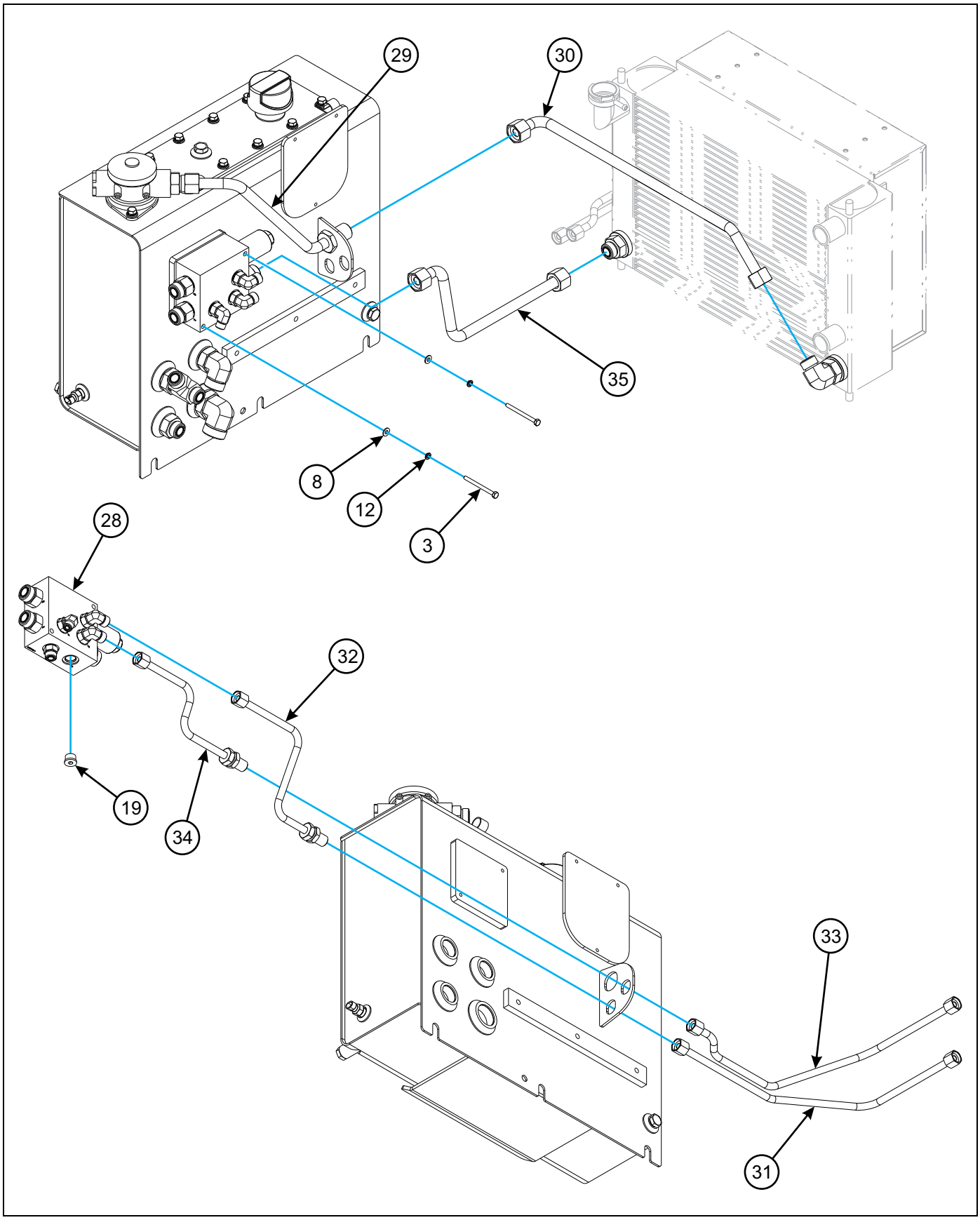

Figure 1-30: Hydraulic Tank Components - 09/10/2012 and Prior (2 of 2)

Hydraulic Tank Components - 09/10/2012 and Prior

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-007-010025	PLUG, 3/4-16 O-RING BOSS	1
2	1-510-010004-03	NUT HX FLANGE, 5/16-18 GR8	2
3	1-654-010047-14	SCREW, HX CP 1/4-20UNCX3 GR5	2
4	1-654-010051-03	SCREW,HEX CAP,3/8-16UNCX3/4G5	3
5	1-654-010051-06	SCREW,HEX CAP 3/8-16UNCX1-1/4	10
6	1-654-010051-07	SCREW,HEX CAP,3/8-16UNCX1-1/2	2
7	1-654-010055-02	SCREW 1/2-13UNCX1-1/4 CP GR5	3
8	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	3
9	1-861-010032-07	WASHER,FLAT 1/4 ZP	3
10	1-861-010032-10	WASHER, FLAT 3/8" N ZP/CD	15
11	1-861-010032-14	WASHER, FLAT 1/2" N ZP/CD	3
12	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	5
13	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	15
14	1-861-010034-13	WASHER, LKG HLCL SPR, 1/2	3
15	104877	SCREW,HX CP,1/4-20UNCX1/2 GR5	3
16	105-0085	HOSE CLAMP IDEAL #5006	1
17	105909	SCREW,RDHD,SQNCK,5/16-18X3/4	2
18	109029	GASKET,HYD TANK, BENDI	1
19	121029	PLUG #8 SAE M O-R BOSS HX SKT	1
20	122170	RESERVOIR, OVERLFOW	1
21	12412295	GAUGE, FLUID LEVEL	1
22	127759	PLUG MAGNETIC #8 SAE 3/4-16	2
23	129635	FILTER,IN-TANK,NON-VENT,44GPM **(SEE PAGE 1-65)**	1
24	129644	TANK WLDMT,BI-T4 HYDRAULIC	1
25	146374	PLATE,WLDMT BI-T3 HYDTANK COV	1
26	146638	SENSOR, FAN DRIVE TEMP	1
27	150459	BREATHER, BI-T3 HYDR TANK	1
28	161394	MANIFOLD ASSY BIT4 FAN DR/RTN **(SEE PAGE 1-50)**	1
29	161439	TUBE,CLR RETURN BHD TO FLTR	1
30	161900	TUBE,CLR RETURN TO RETURN BHD **(11/08/2011 AND PRIOR)**	1
30	168293	TUBE CLR RETURN TO RETURN BHD **(11/09/2011 AND AFTER)**	1
31	161903	TUBE,FAN SPLY BHD TO FAN INL	1
32	161904	TUBE,FAN SPLY VLV TO FAN BHD	1
33	161905	TUBE,FAN RTN BHD TO FAN OUT	1
34	161906	TUBE,RTN MANF TO FAN RTN BHD	1
35	161909	TUBE,RETURN MANF TO CLR INLET **(11/08/2011 AND PRIOR)**	1
35	168311	HOSE 12STRORSX12STRORSX12-14.5 **(11/09/2011 AND AFTER)**	1
36	161982	PLATE,BIT4 HEAT SHIELD BOTTOM	1
37	161983	PLATE,BIT4 EXH HEAT SHIELD	1
38	40-0717-02	CLAMP,HYD HOSE SUPPORT	2

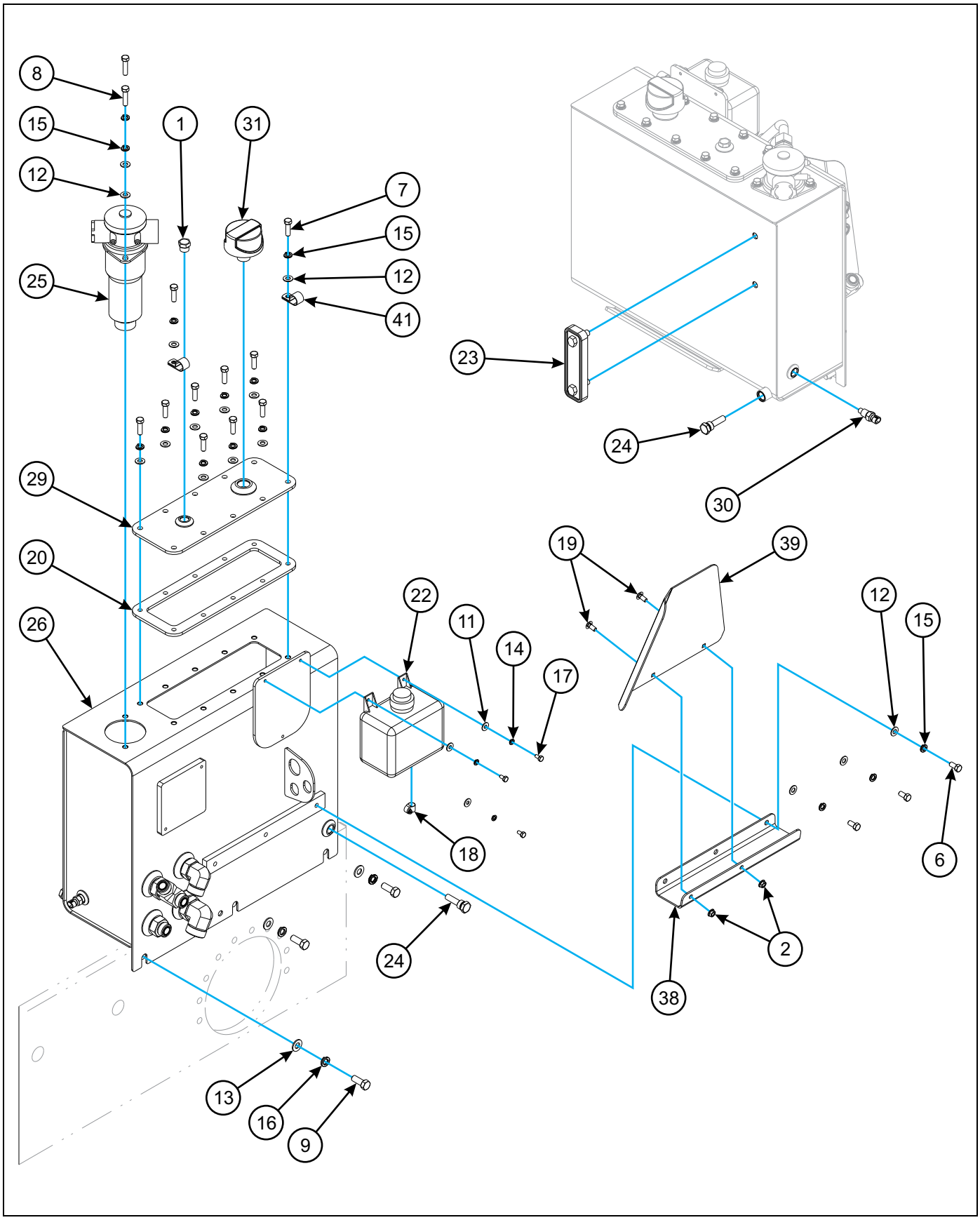

Figure 1-31: Hydraulic Tank Components - 09/11/2012 - 04/19/2013 (1 of 2)

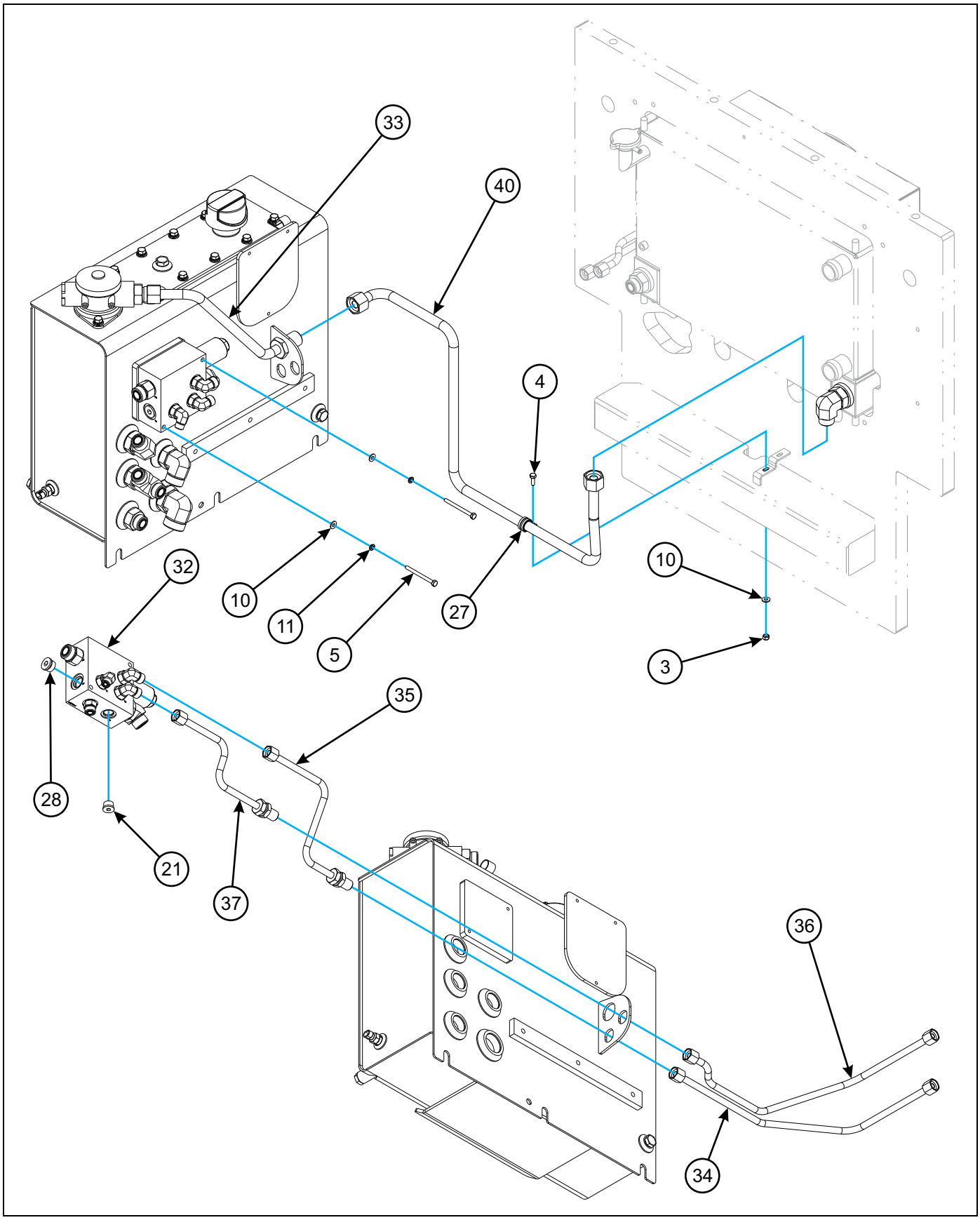

Figure 1-32: Hydraulic Tank Components - 09/11/2012 - 04/19/2013 (2 of 2)

Hydraulic Tank Components - 09/11/2012 - 04/19/2013

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-007-010025	PLUG, 3/4-16 O-RING BOSS	1
2	1-510-010004-03	NUT HX FLANGE, 5/16-18 GR8	2
3	1-512-010003-09	NUT,1/4-20 ESNA	1
4	1-654-010047-04	SCREW,HEX CAP,1/4-20X3/4 GR5	1
5	1-654-010047-14	SCREW, HX CP 1/4-20UNCX3 GR5	2
6	1-654-010051-03	SCREW,HEX CAP,3/8-16UNCX3/4G5	3
7	1-654-010051-06	SCREW,HEX CAP 3/8-16UNCX1-1/4	10
8	1-654-010051-07	SCREW,HEX CAP,3/8-16UNCX1-1/2	2
9	1-654-010055-02	SCREW 1/2-13UNCX1-1/4 CP GR5	3
10	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	3
11	1-861-010032-07	WASHER,FLAT 1/4 ZP	3
12	1-861-010032-10	WASHER, FLAT 3/8" N ZP/CD	15
13	1-861-010032-14	WASHER, FLAT 1/2" N ZP/CD	3
14	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	5
15	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	15
16	1-861-010034-13	WASHER, LKG HLCL SPR, 1/2	3
17	104877	SCREW,HX CP,1/4-20UNCX1/2 GR5	3
18	105-0085	HOSE CLAMP IDEAL #5006	1
19	105909	SCREW,RDHD,SQNCK,5/16-18X3/4	2
20	109029	GASKET,HYD TANK, BENDI	1
21	121029	PLUG #8 SAE M O-R BOSS HX SKT	1
22	122170	RESERVOIR, OVERLFOW	1
23	12412295	GAUGE, FLUID LEVEL	1
24	127759	PLUG MAGNETIC #8 SAE 3/4-16	2
25	129635	FILTER,IN-TANK,NON-VENT,44GPM **(SEE PAGE 1-65)**	1
26	129644	TANK WLDMT,BI-T4 HYDRAULIC	1
27	1408283	CLAMP,CABLE, 3/4"	1
28	1409355	PLUG,HOL HEX,O-RING.875-14UNF	1
29	146374	PLATE,WLDMT BI-T3 HYDTANK COV	1
30	146638	SENSOR, FAN DRIVE TEMP	1
31	150459	BREATHER, BI-T3 HYDR TANK	1
32	161394	MANIFOLD ASSY BIT4 FAN DR/RTN **(SEE PAGE 1-50)**	1
33	161439	TUBE,CLR RETURN BHD TO FLTR	1
34	161903	TUBE,FAN SPLY BHD TO FAN INL	1
35	161904	TUBE,FAN SPLY VLV TO FAN BHD	1
36	161905	TUBE,FAN RTN BHD TO FAN OUT	1
37	161906	TUBE,RTN MANF TO FAN RTN BHD	1
38	161982	PLATE,BIT4 HEAT SHIELD BOTTOM	1
39	161983	PLATE,BIT4 EXH HEAT SHIELD	1
40	168293	TUBE CLR RETURN TO RETURN BHD	1
41	40-0717-02	CLAMP,HYD HOSE SUPPORT	2

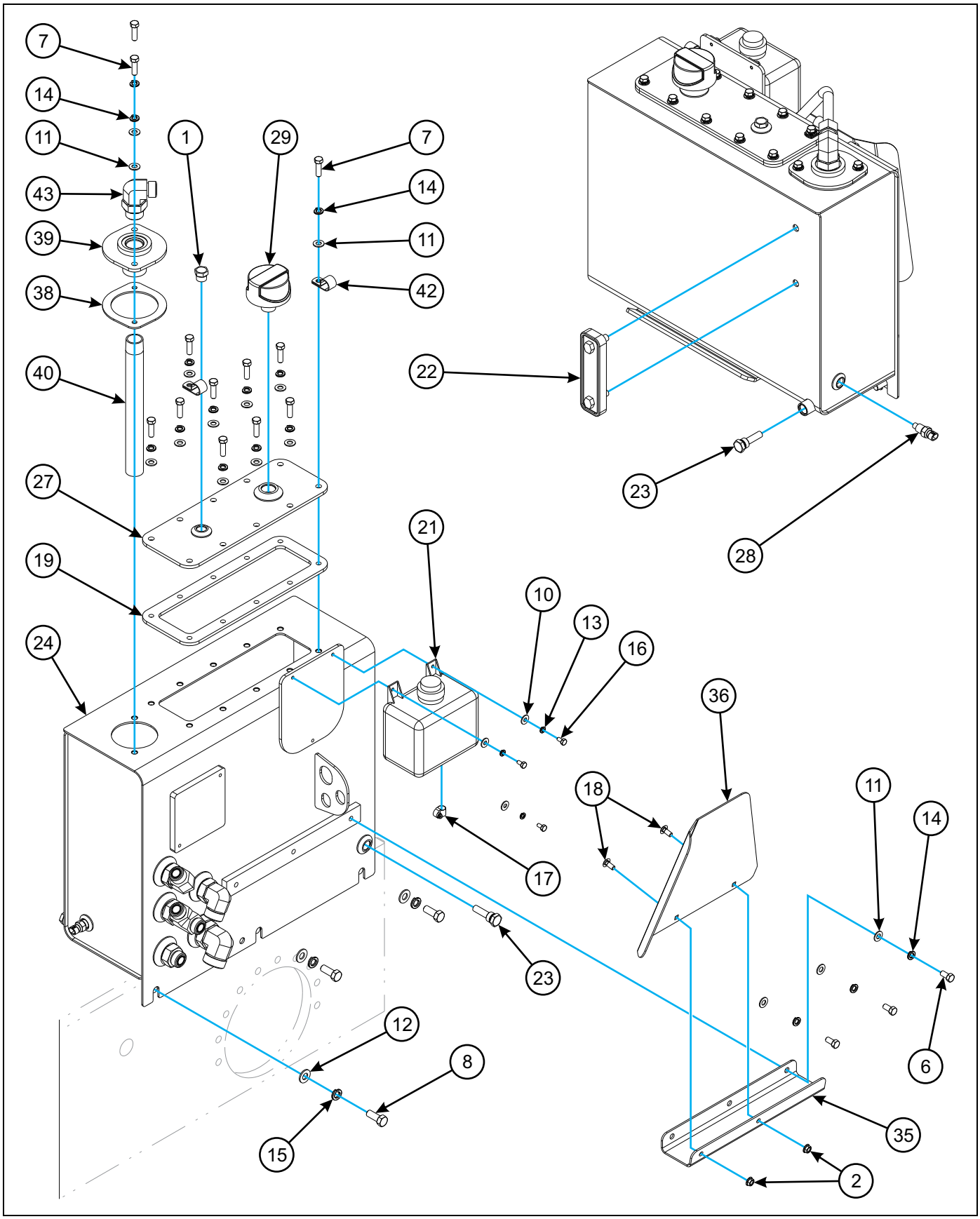

Figure 1-33: Hydraulic Tank Components - 04/20/2013 and After (1 of 2)

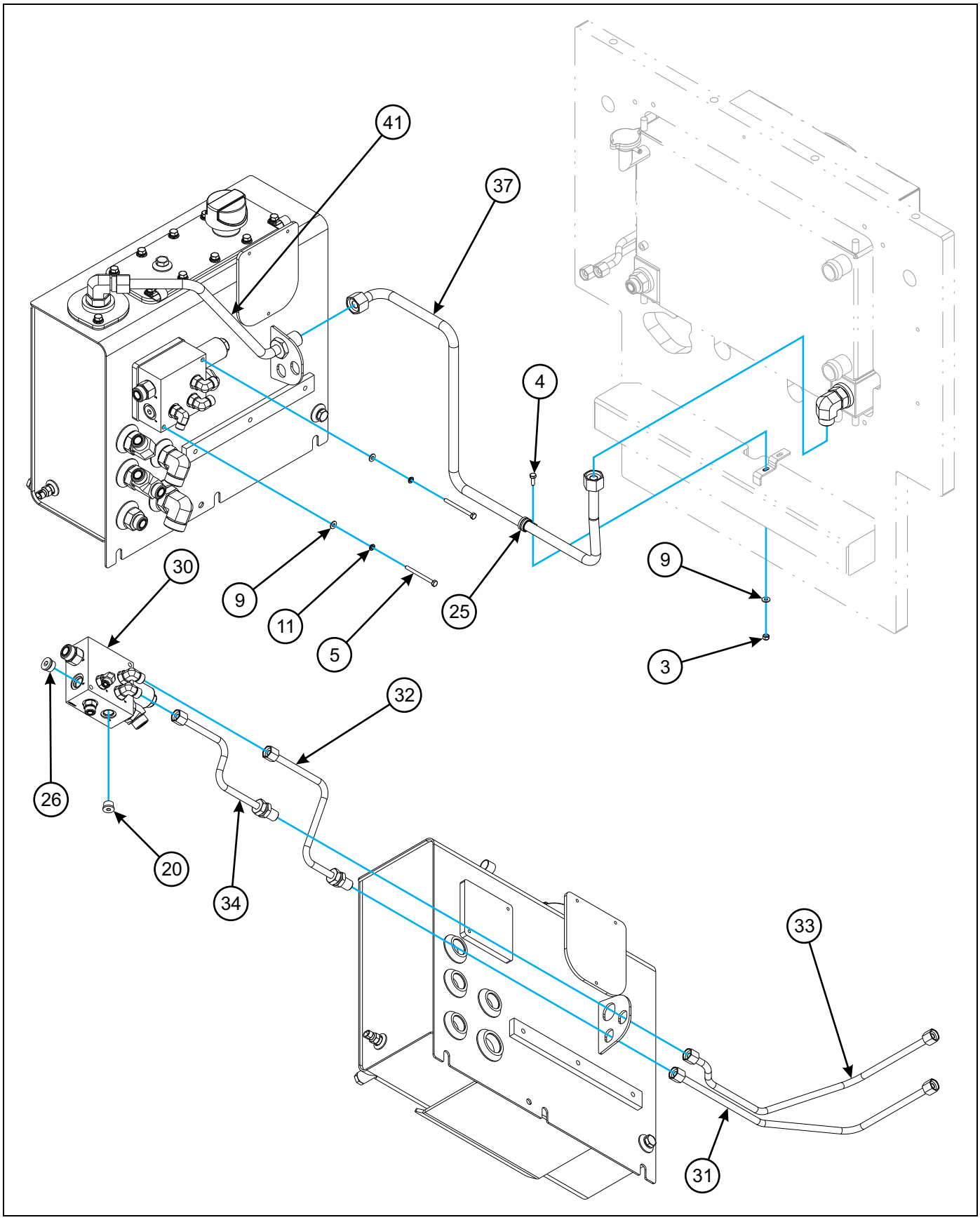

Figure 1-34: Hydraulic Tank Components - 04/20/2013 and After (2 of 2)

Hydraulic Tank Components - 04/20/2013 and After

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-007-010025	PLUG, 3/4-16 O-RING BOSS	1
2	1-510-010004-03	NUT HX FLANGE, 5/16-18 GR8	2
3	1-512-010003-09	NUT,1/4-20 ESNA	1
4	1-654-010047-04	SCREW,HEX CAP,1/4-20X3/4 GR5	1
5	1-654-010047-14	SCREW, HX CP 1/4-20UNCX3 GR5	2
6	1-654-010051-03	SCREW,HEX CAP,3/8-16UNCX3/4G5	3
7	1-654-010051-06	SCREW,HEX CAP 3/8-16UNCX1-1/4	12
8	1-654-010055-02	SCREW 1/2-13UNCX1-1/4 CP GR5	3
9	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	3
10	1-861-010032-07	WASHER,FLAT 1/4 ZP	3
11	1-861-010032-10	WASHER, FLAT 3/8" N ZP/CD	15
12	1-861-010032-14	WASHER, FLAT 1/2" N ZP/CD	3
13	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	5
14	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	15
15	1-861-010034-13	WASHER, LKG HLCL SPR, 1/2	3
16	104877	SCREW,HX CP,1/4-20UNCX1/2 GR5	3
17	105-0085	HOSE CLAMP IDEAL #5006	1
18	105909	SCREW,RDHD,SQNCK,5/16-18X3/4	2
19	109029	GASKET,HYD TANK, BENDI	1
20	121029	PLUG #8 SAE M O-R BOSS HX SKT	1
21	122170	RESERVOIR, OVERLFOW	1
22	12412295	GAUGE, FLUID LEVEL	1
23	127759	PLUG MAGNETIC #8 SAE 3/4-16	2
24	129644	TANK WLDMT,BI-T4 HYDRAULIC	1
25	1408283	CLAMP,CABLE, 3/4"	1
26	1409355	PLUG,HOL HEX,O-RING.875-14UNF	1
27	146374	PLATE,WLDMT BI-T3 HYDTANK COV	1
28	146638	SENSOR, FAN DRIVE TEMP	1
29	150459	BREATHER, BI-T3 HYDR TANK	1
30	161394	MANIFOLD ASSY BIT4 FAN DR/RTN **(SEE PAGE 1-50)**	1
31	161903	TUBE,FAN SPLY BHD TO FAN INL	1
32	161904	TUBE,FAN SPLY VLV TO FAN BHD	1
33	161905	TUBE,FAN RTN BHD TO FAN OUT	1
34	161906	TUBE,RTN MANF TO FAN RTN BHD	1
35	161982	PLATE,BIT4 HEAT SHIELD BOTTOM	1
36	161983	PLATE,BIT4 EXH HEAT SHIELD	1
37	168293	TUBE CLR RETURN TO RETURN BHD	1
38	176150	GASKET, BI-T4 HYDRAULIC RETURN	1
39	176153	FLANGE WLDMT, BI-T4 HYD RETURN	1
40	176154	PIPE, BI-T4 HYD RETURN EXT.	1
41	176155	TUBE, CLR RETURN BHD TO TANK	1
42	40-0717-02	CLAMP,HYD HOSE SUPPORT	2
43	0018162	ADAPTER VANE PUMP	1

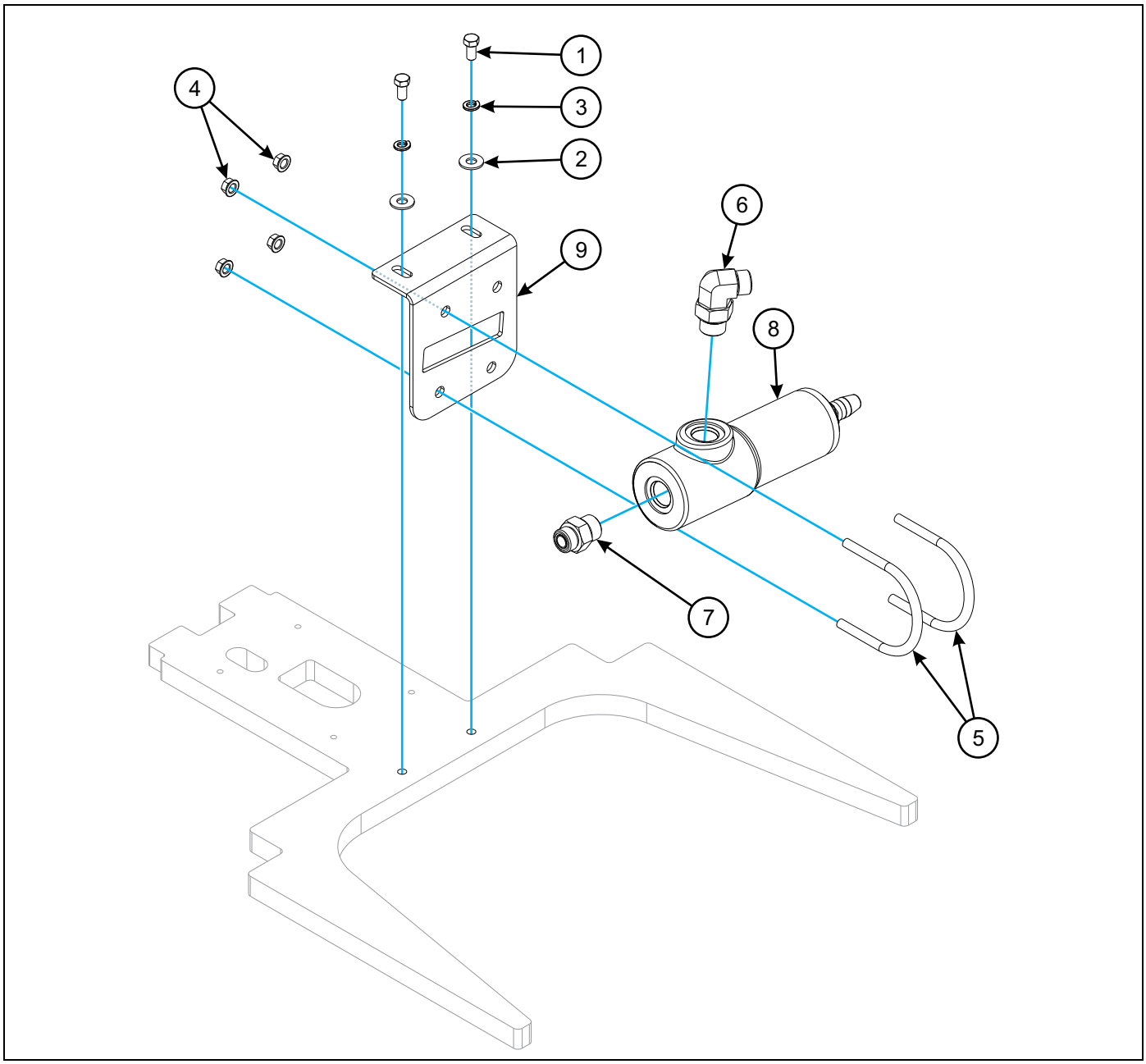

Figure 1-35: In-Line Filter Installation - 04/20/2013 and After

In-Line Filter Installation - 04/20/2013 and After

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-654-010051-03	SCREW,HEX CAP,3/8-16UNCX3/4G5	2
2	1-861-010032-11	WASHER, FLAT 3/8 W ZP/CD	2
3	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	2
4	107470	NUT,SPIRALOCK 3/8-16HX	4
5	110578	U-BOLT, 3/8-16 x 3-1/8 x 4-1/8	2
6	145955	ADAPTER,#10ORSX#12ORB,90 ELB	1
7	167736	ADAPTER, #12ORB X #10 ORS STRP	1
8	173927	FILTER, 3000PSI 60GPM HYD	1
9	173989	BRACKET,BI-T4 PRESS FILTER MNT	1

*173928 is the replacement element for part 173927.

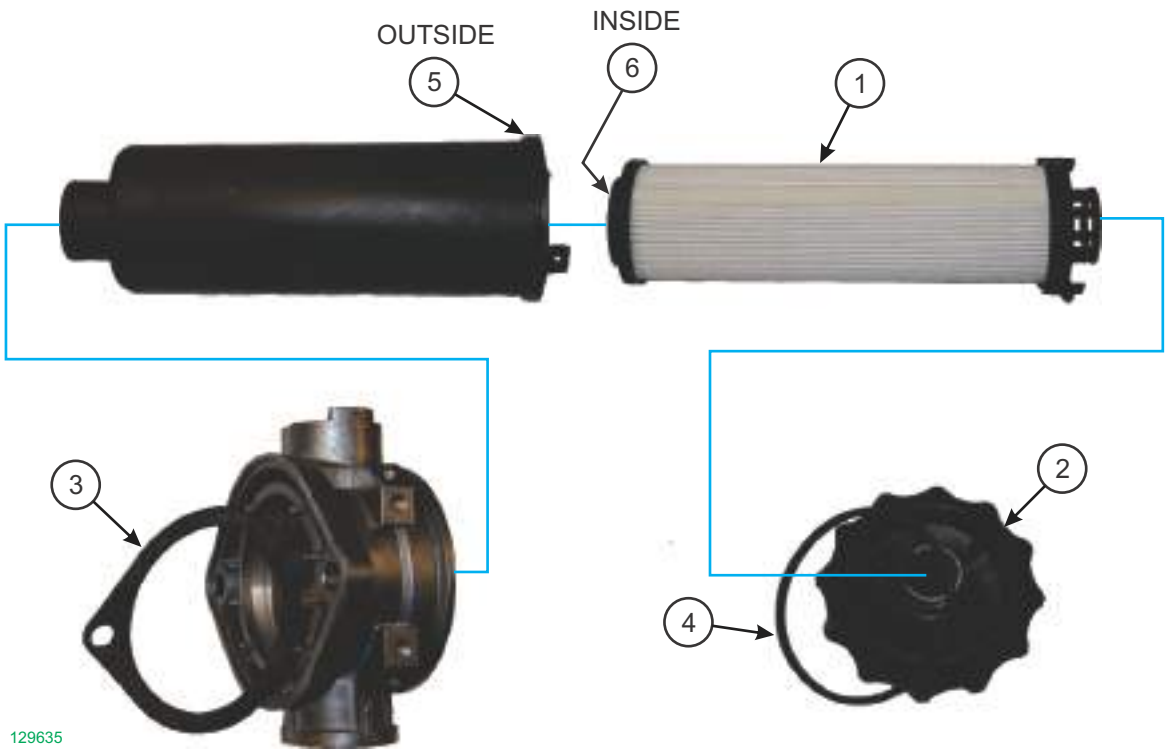

Figure 1-36: In-Tank Filter Assembly - 04/19/2013 and Prior

In-Tank Filter Assembly - 04/19/2013 and Prior

ITEM	PART NUMBER	DESCRIPTION	QTY.
	129635	FILTER,IN-TANK,NON-VENT,44GPM	
1	112876	REPLACEMENT FILTER ELEMENT	1
2	149560	LID	1
3	149562	GASKET	1
4	151507	SEAL COVER PLATE 84X3.4X3-NBR	1
5	149561	O-RING 71.12X2.62	1
6	168584	O-RING 34X3.5-NBR-70	1
7	149563	SEAL KIT **(ALSO INCLUDES ITEMS 3, 5, AND 6)**	REF

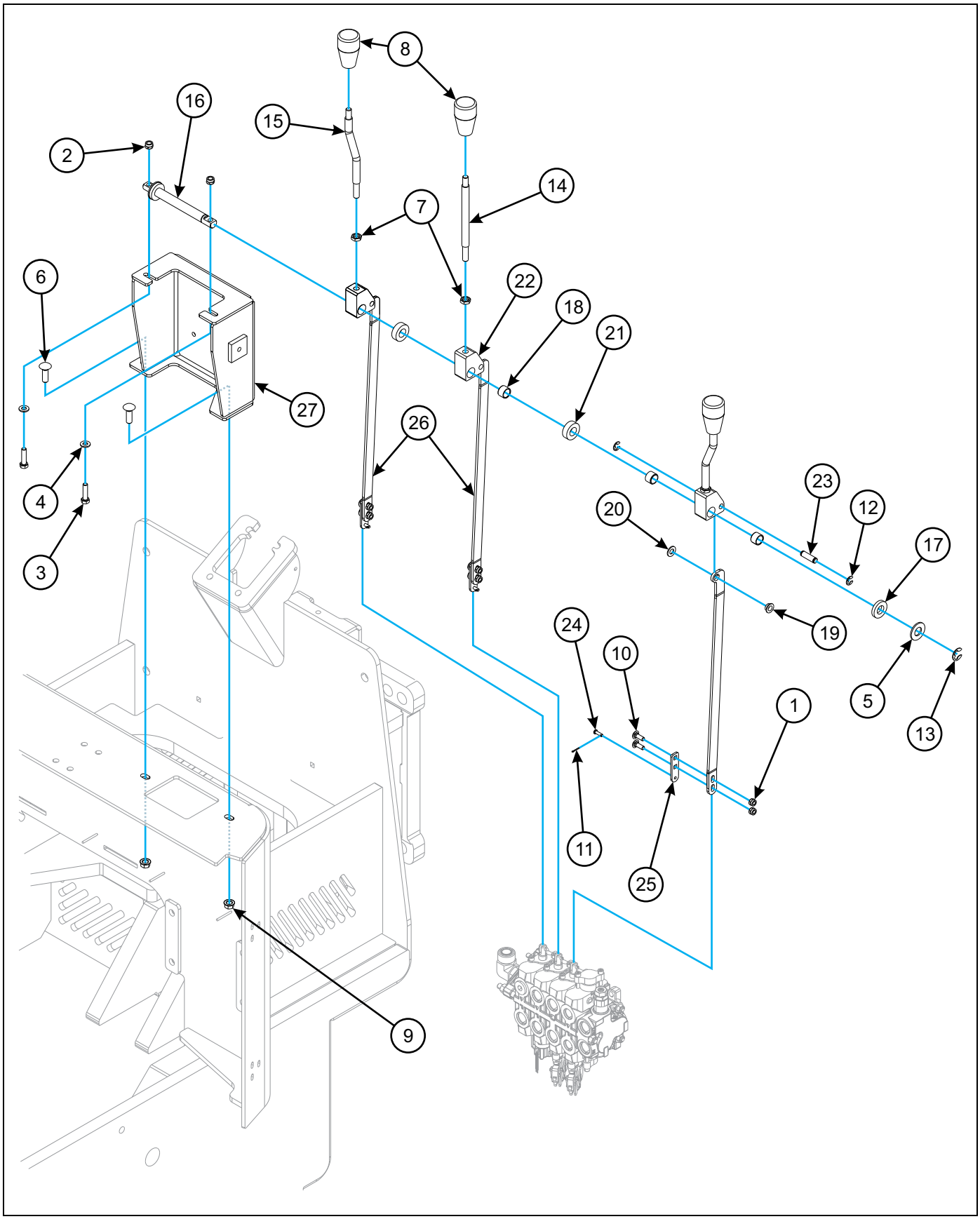

Figure 1-37: Lift, Tilt, and Sideshift Levers Installation

Lift, Tilt, and Sideshift Levers Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010004-05	NUT HEX 1/4-20 SELF-LK,GRA	6
2	1-512-010005-03	NUT HEX SLFLKG GRB 5/16-18	2
3	1-654-010049-06	SCREW,H/CAP,5/16-18UNCX1-1/4	2
4	1-861-010032-08	WASHER,FLAT 5/16 ZP	2
5	1-861-010032-18	WASHER, FLAT 5/8 N ZP/CD	2
6	101864	SCREW,RD HD 3/8-16X1-1/4 GR5	2
7	101967	NUT,HEX JAM M10X1.5 GR2 ZP	3
8	107199	KNOB, TAPERED BLACK	3
9	107470	NUT,SPIRALOCK 3/8-16HX	2
10	110-2760	BOLT, CARRIAGE 1/4-20X3/4	6
11	114067	PIN,1/16X1/2 COTTER	3
12	119547	RING,RETAINING,EXT,E,3/8	6
13	119548	RING,RETAINING,EXT,E,5/8	2
14	121421	CONTROL VALVE TILT ROD	1
15	121571	LEVER, CNTL LIFT/SIDE SHIFT	2
16	151409	PIN,BT/AC HYD LEVER PIVOT	1
17	151412	WASHER,BT/AC OTR HYD LVR SPCR	2
18	153235	BEARING,BT/AC VALVE LEVER	6
19	153253	BEARING,BT/AC VALVE LINK	3
20	153303	BEARING,BT/AC VALVE LK THRUST	3
21	153457	WASHER,BT/AC INR HYD LVR SPCR	2
22	153458	BLOCK,BT/AC HYD LVR ROCKER	3
23	153496	PIN,BT/AC UPR VALVE LINK	3
24	160417	PIN, 3/16 X 5/8 CLEVIS ZP	3
25	160520	PLATE, LINKAGE LWR LSC	3
26	162319	LINK,BI-T4 HUSCO VLV LEVER	3
27	167069	BRACKET WLDMT,BI-T4 HYD LEVER	1

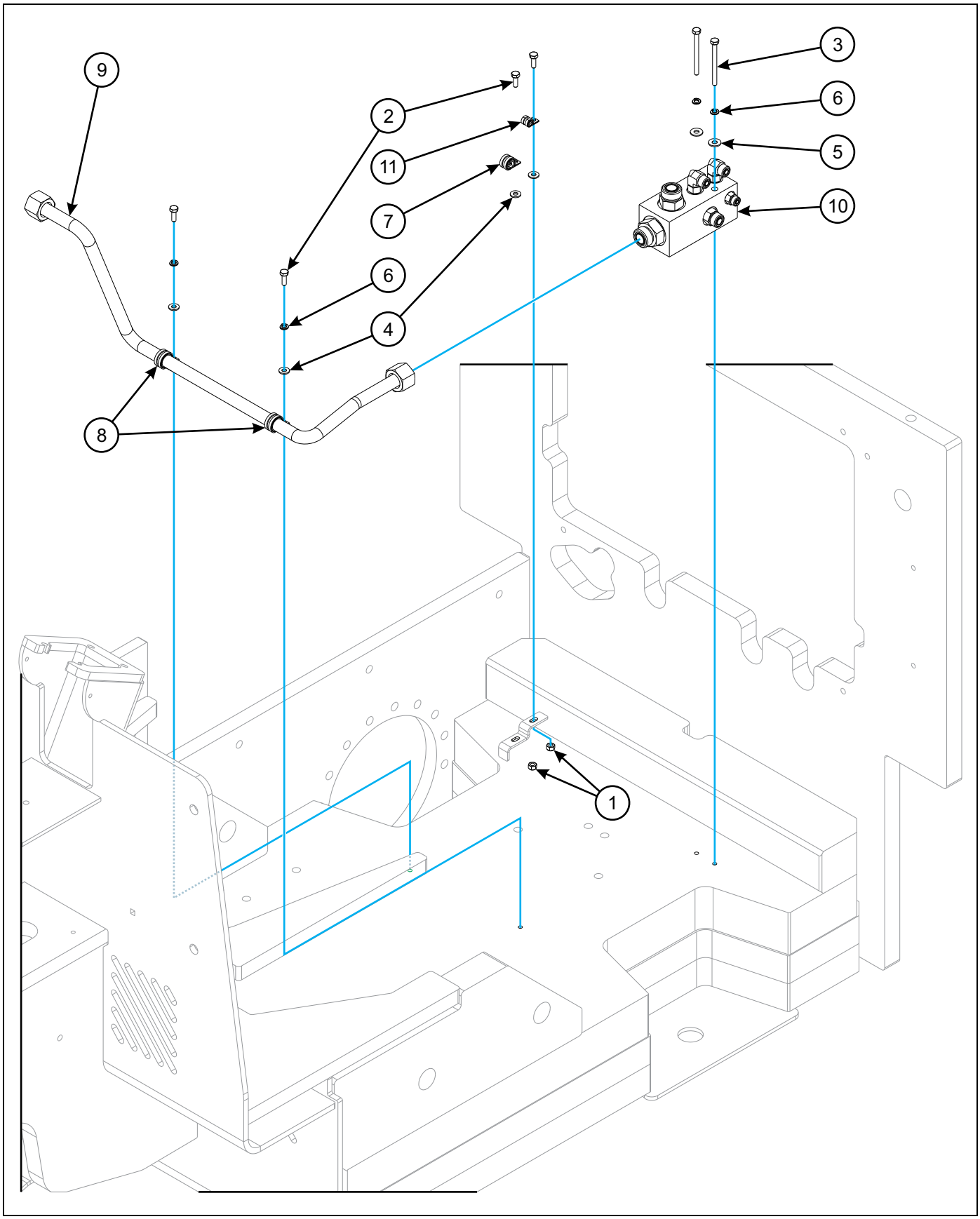

Figure 1-38: Rear Drive Hydraulics

Rear Drive Hydraulics

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010003-09	NUT,1/4-20 ESNA	2
2	1-654-010047-04	SCREW,HEX CAP,1/4-20X3/4 GR5	4
3	1-654-010047-14	SCREW, HX CP 1/4-20UNCX3 GR5	2
4	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	4
5	1-861-010032-07	WASHER,FLAT 1/4 ZP	2
6	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	4
7	125893	CLAMP,CABLE 1/2 SST	1
8	1408283	CLAMP,CABLE, 3/4"	2
9	161921	TUBE,CASE DRAIN MANF TO TANK	1
10	161980	MANIFOLD,BIT4 CASE DR/BRAKE	1
11	162290	CLAMP, CABLE 1/4 SST	1

Mast and Front Rotation

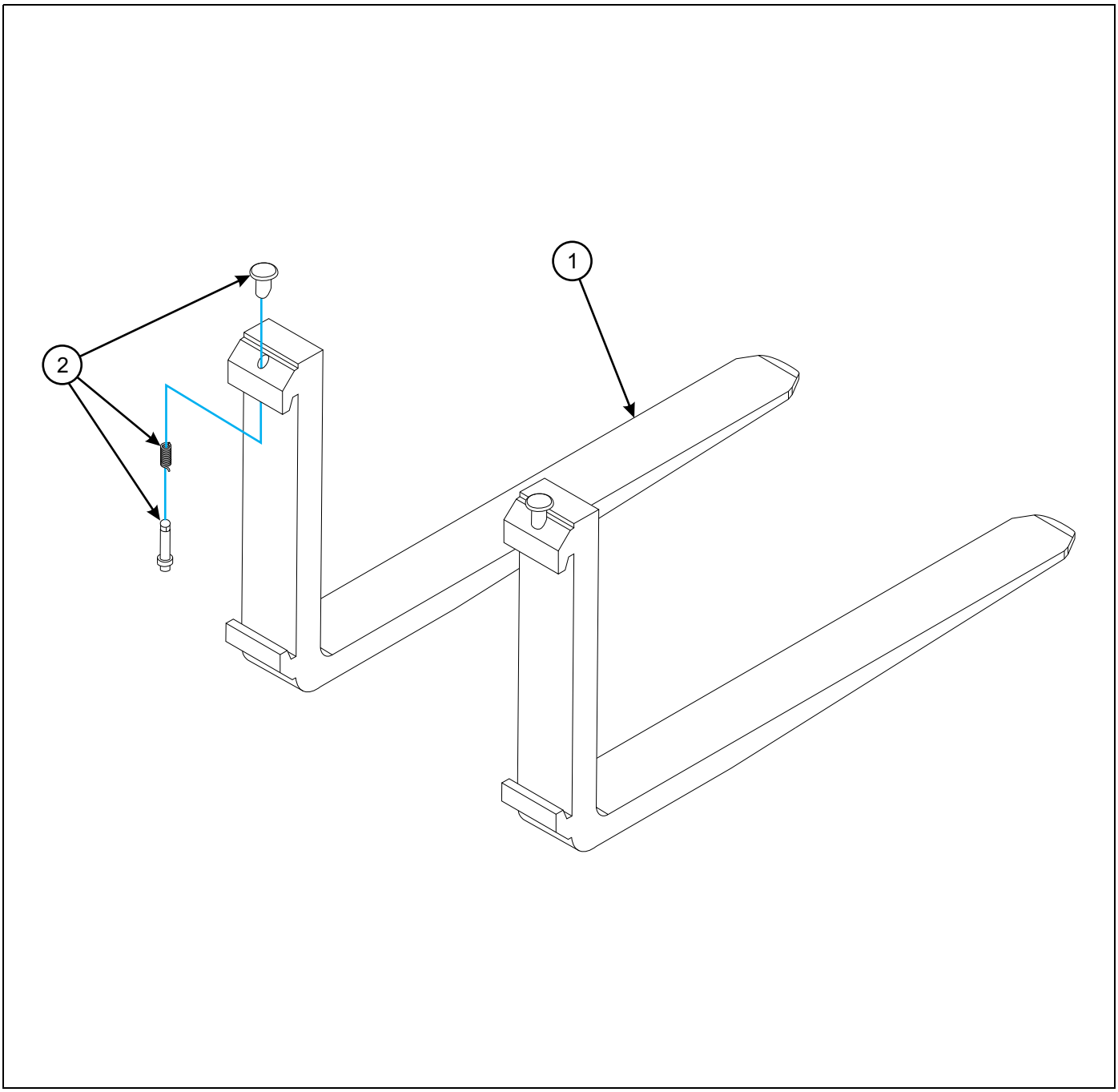

Figure 1-39: Forks

Forks

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	113006	FORK, 36" KENHAR	2
1	112642	FORK, 42" KENHAR	2
1	125690	FORK, 48" KENHAR	2
1	130252	FORK,40" BTM TRP,TAPER TIP	2
1	133892	FORK,60"CL2 HALF TPR 10" TIP	2
2	112643	PIN KIT KENHAR FORKS	2

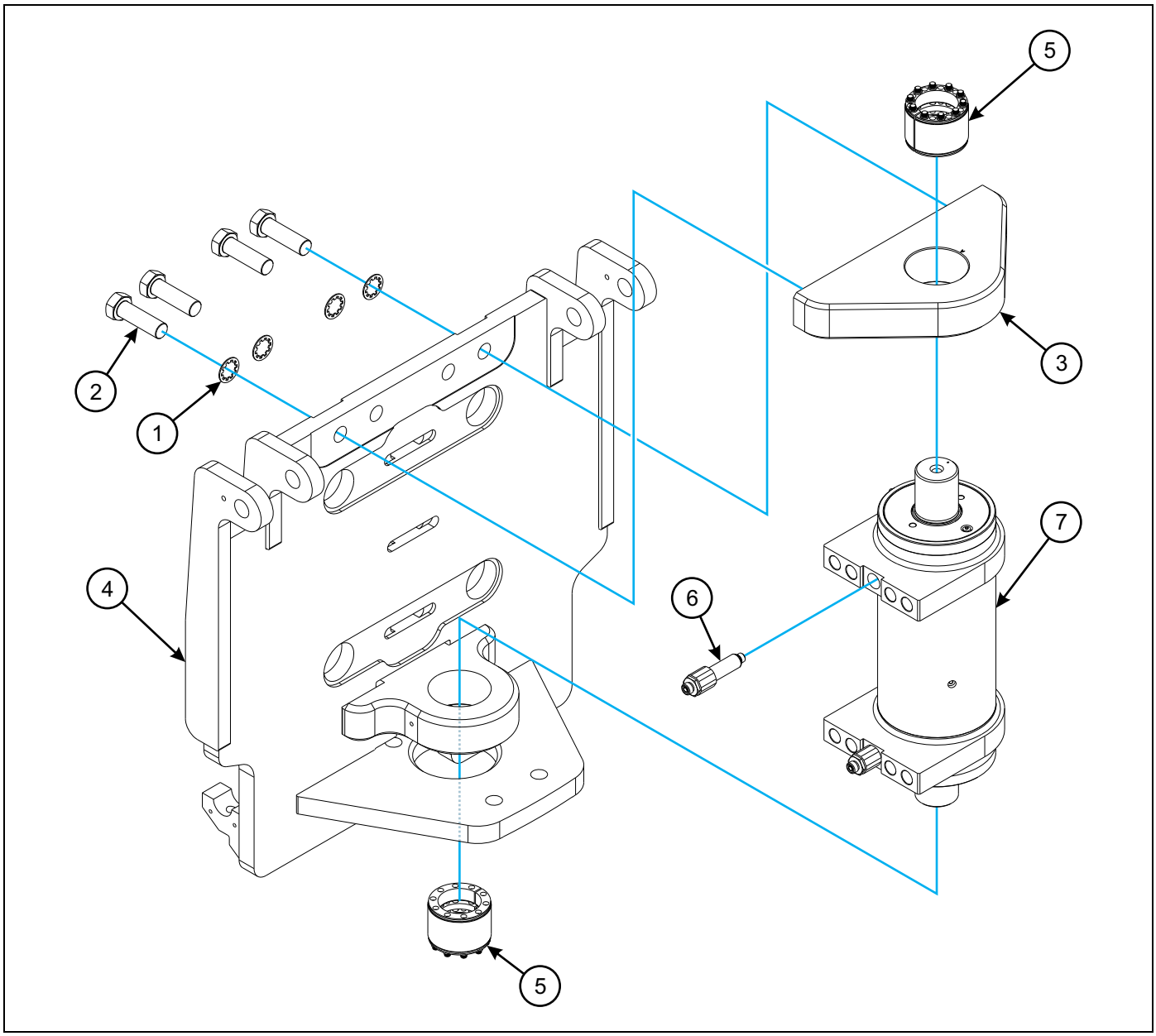

Figure 1-40: Front Rotation Assembly

Front Rotation Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
	146369	FRONT PLATE ASSY, ACTUATOR	
1	143086	WASHER,1,LKG,INTERNAL TOOTH	4
2	143087	SCREW,HX CP,1-14UNFX3.25,GR8	4
3	146043	PLATE,B55 UPPER ACTUATOR MNT	1
4	146359	FRONT PLATE WLDMT,BT-5 ACTR	1
5	167747	CONNECTION RING FEDER 65X95 **(PRIOR TO 01/01/15)**	1
5	183207	CONNECTION,CLIMAX 12PT 65X95 **(AFTER 01/01/15)**	2
6	157521	ADAPTER,6 ORBX 6ORS LONG ACTR **(PRIOR TO 03/03/16)**	2
6	192470	ADAPTER,6 ORBX 6ORS LONG ACTR **(AFTER 03/03/16)**	2
7	145749	ACTUATOR, 65MM OUTPUT HELAC **(PRIOR TO 03/31/16)**	1
7	197927	ACTUATOR,65MM OUTPUT HELAC **(AFTER 03/31/16)**	1

Table provided for general use.

NOTES:

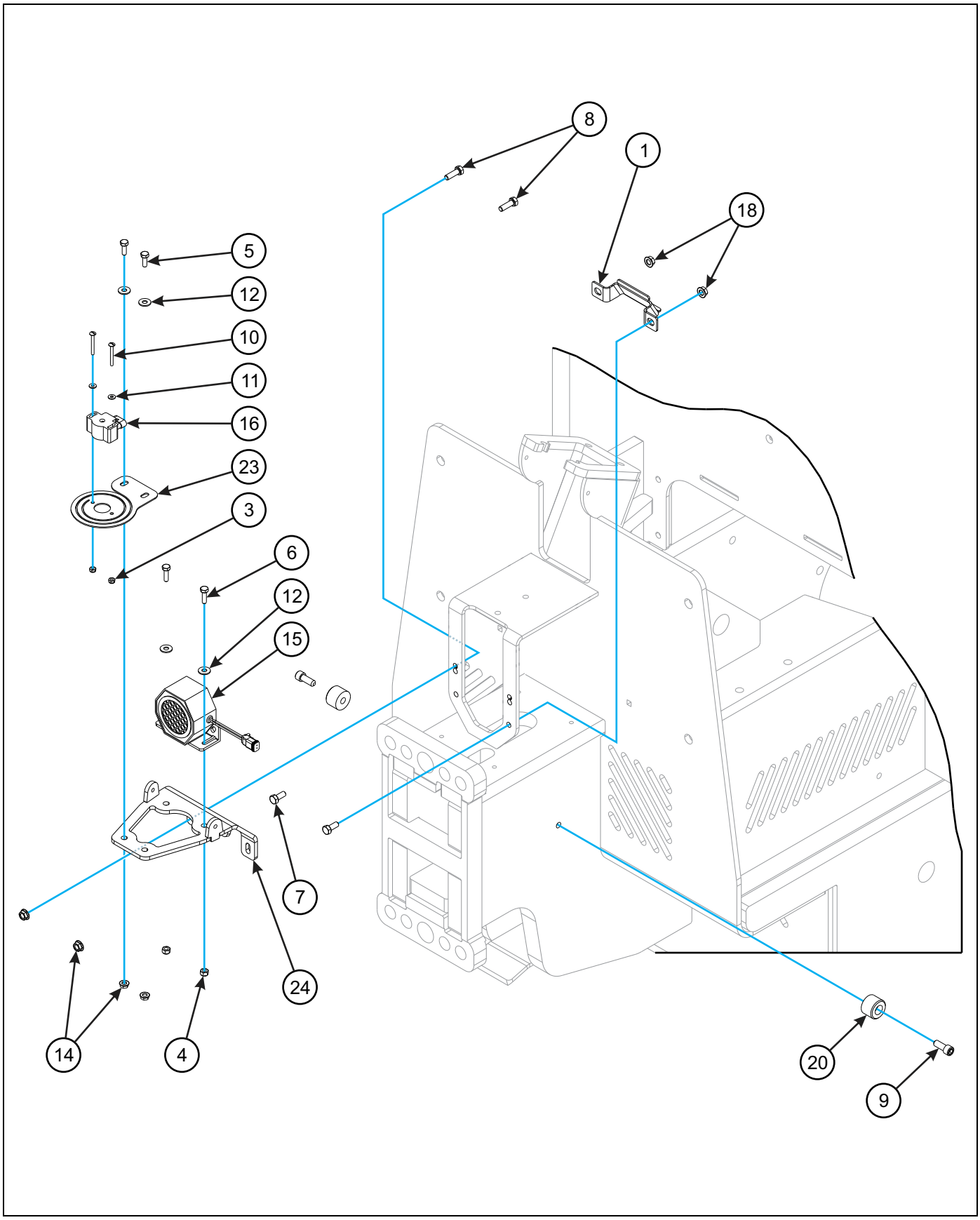

Figure 1-41: Front Rotation Installation (1 of 2)

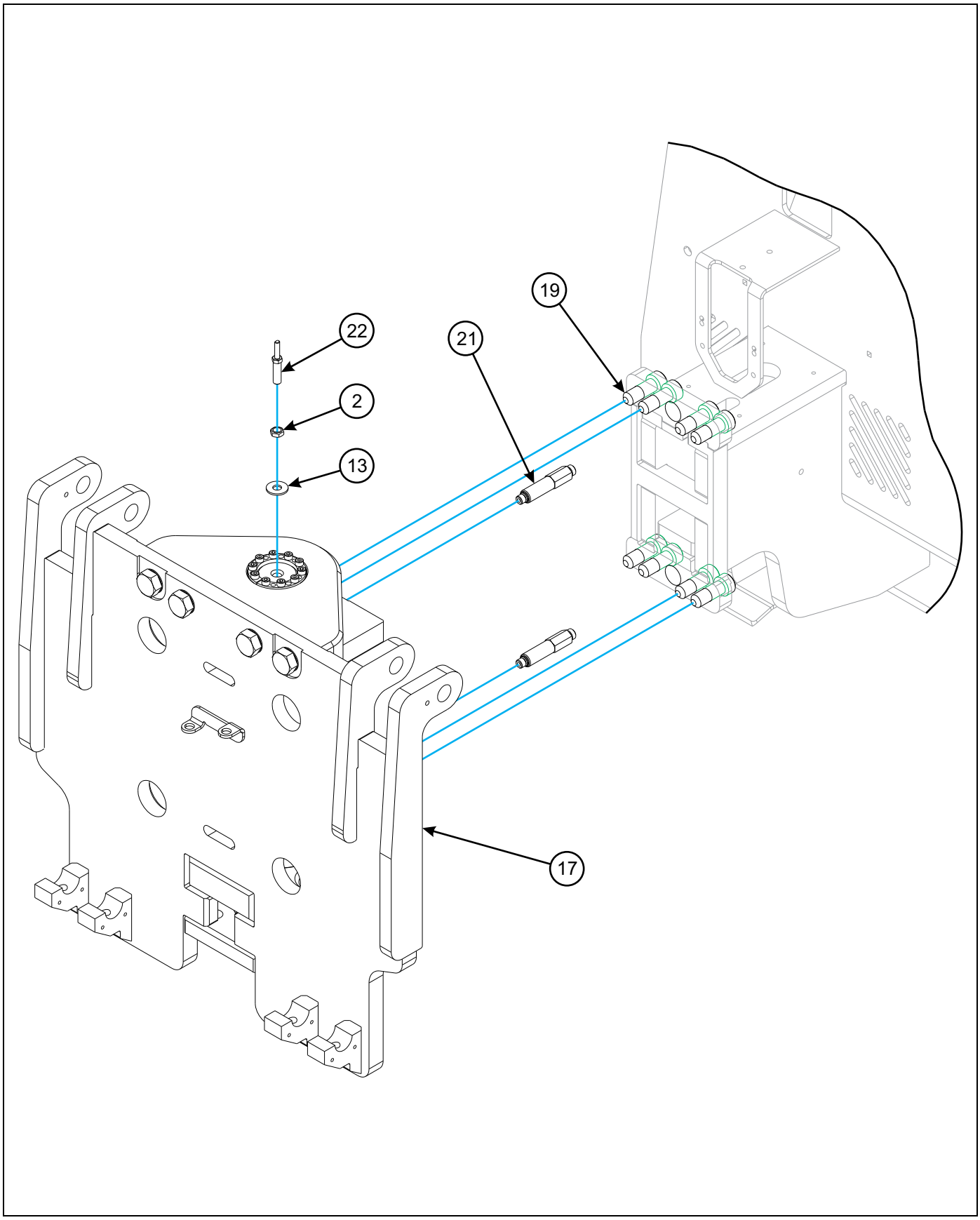

Figure 1-42: Front Rotation Installation (2 of 2)

Front Rotation Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-510-010004-03	NUT HX FLANGE, 5/16-18 GR8	4
2	1-511-010002-05	NUT,HEX JAM,1/2-20UNF GR2	1
3	1-512-010003-03	NUT,HX 8-32,SLF-LKG W/NYL	2
4	1-512-010003-09	NUT,1/4-20 ESNA	2
5	1-654-010047-04	SCREW,HEX CAP,1/4-20X3/4 GR5	2
6	1-654-010047-05	SCREW, HEX CAP 1/4-20UNC GR5	2
7	1-654-010049-03	SCREW HX CP 5/16-18UNCX3/4GR5	2
8	1-654-010049-05	SCREW HX CP 5/16-18UNCX1 GR5	2
9	1-654-010104245	SCREW, HEX SOCKET 3/8-16X1	2
10	1-656-010003034	SCREW, 8-32X1-1/2 RD HD MACH **(PRIOR TO 12/10/13)**	2
10	159003	SCREW RD HD MACH#8-32X1-5/8 **(AFTER 12/10/13)**	2
11	1-861-010032-02	WASHER,FL #8 ZP/CD	2
12	1-861-010032-07	WASHER,FLAT 1/4 ZP	4
13	1-861-010032-15	WASHER, FLAT 1/2 W ZP/CD	1
14	108417	NUT SPIRAL 1/4-20HX FG	2
15	117998	HORN, 12-36 VDC	1
16	145962	POT,CONTINUOUS ROTATION 5K **(PRIOR TO 12/10/13)**	1
16	175467	SENSOR,RTRY HALL EFFECT POSN **(AFTER 12/10/13)**	1
17	146369	FRONT PLATE ASSY, ACTUATOR	1
18	151482	BRACKET,BI-T3 HOSE	1
19	157475	SCREW, HXSKT 7/8-9UNCX2.25	8
20	157517	STOP, B55 FRONT ROTATION	2
21	157521	ADAPTER,6 ORBX 6ORS LONG ACTR	2
22	160442	ROD,B55 POTENTIOMETER DRIVE **(PRIOR TO 12/10/13)**	1
22	173941	ROD,B3-4 POTENTIOMETER DRIVE **(AFTER 12/10/13)**	1
23	161393	BRACKET,BIT4 FLEX STEER POT **(PRIOR TO 12/10/13)**	1
23	178251	BRACKET, BIT4 FLEX STEER POT **(AFTER 12/10/13)**	1
24	161993	BRACKET WLDMT BIT4 ROT SWITCH	1

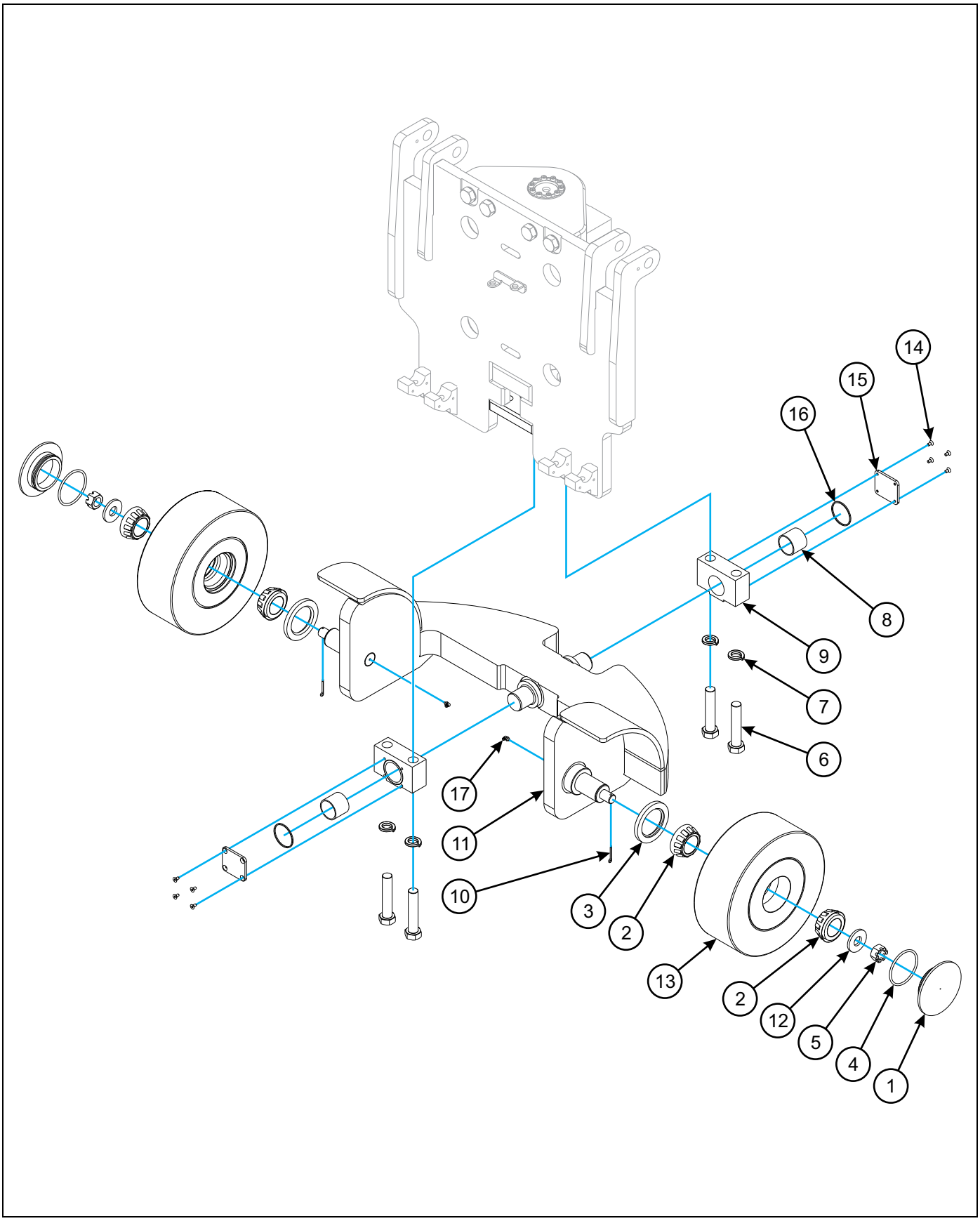

Figure 1-43: Front Wheel and Axle Components

Front Wheel and Axle Components

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0019039	HUB CAP, LOAD WHEEL	2
2	0022008	BEARING,CONE,LOAD WHL,BENDI48	4
3	0022015	SEAL, LOAD WHEEL	2
4	0022016	O-RING,LOAD WHEEL,BENDI 48	2
5	1-516-010001-20	NUT, HX SLOT 1-14	2
6	1-654-010065-15	SCREW HX CP 1-8UNCX5 GR5	4
7	1-861-010034-21	WASHER, LKG HEL SPRG 1IN	4
8	100018	BUSHING, BT FRT AXLE PIVOT	2
9	107202	BLOCK,BT FRT AXLE MNT	2
10	110-0354	5/32X1-1/2 COTTER PIN ZP	2
11	110978	AXLE WLDMT, 42-14 FRONT	1
12	113099	WASHER, BT SPINDLE	2
13	130741	ASSY,LOAD WHEEL,BENDI 14" **(SEE PAGE 1-78)**	2
13	130742	ASSY,LOAD WHEEL B&Q 14" **(SEE PAGE 1-80)**	2
13	130743	ASSY,LOAD WHEEL 12" CAST **(SEE PAGE 1-78)**	2
13	162958	ASSY,LOAD WHEEL,BT, NM,14" **(SEE PAGE 1-78)**	2
13	175510	ASSY, LOAD WHEEL 14" SOLIDEAL **(SEE PAGE 1-78)**	2
13	176098	ASSY, LOAD WHEEL 12" SOLIDEAL **(SEE PAGE 1-78)**	2
14	3-654-010015	SCREW CAP HSFC 1/4-20X1/2	8
15	40-0848	PLATE,TILT BLOCK COVER	2
16	40-0861	O-RING,TRUNNION COVER	2
17	5410	FITTING GREASE 1/4-28 90 1911	2

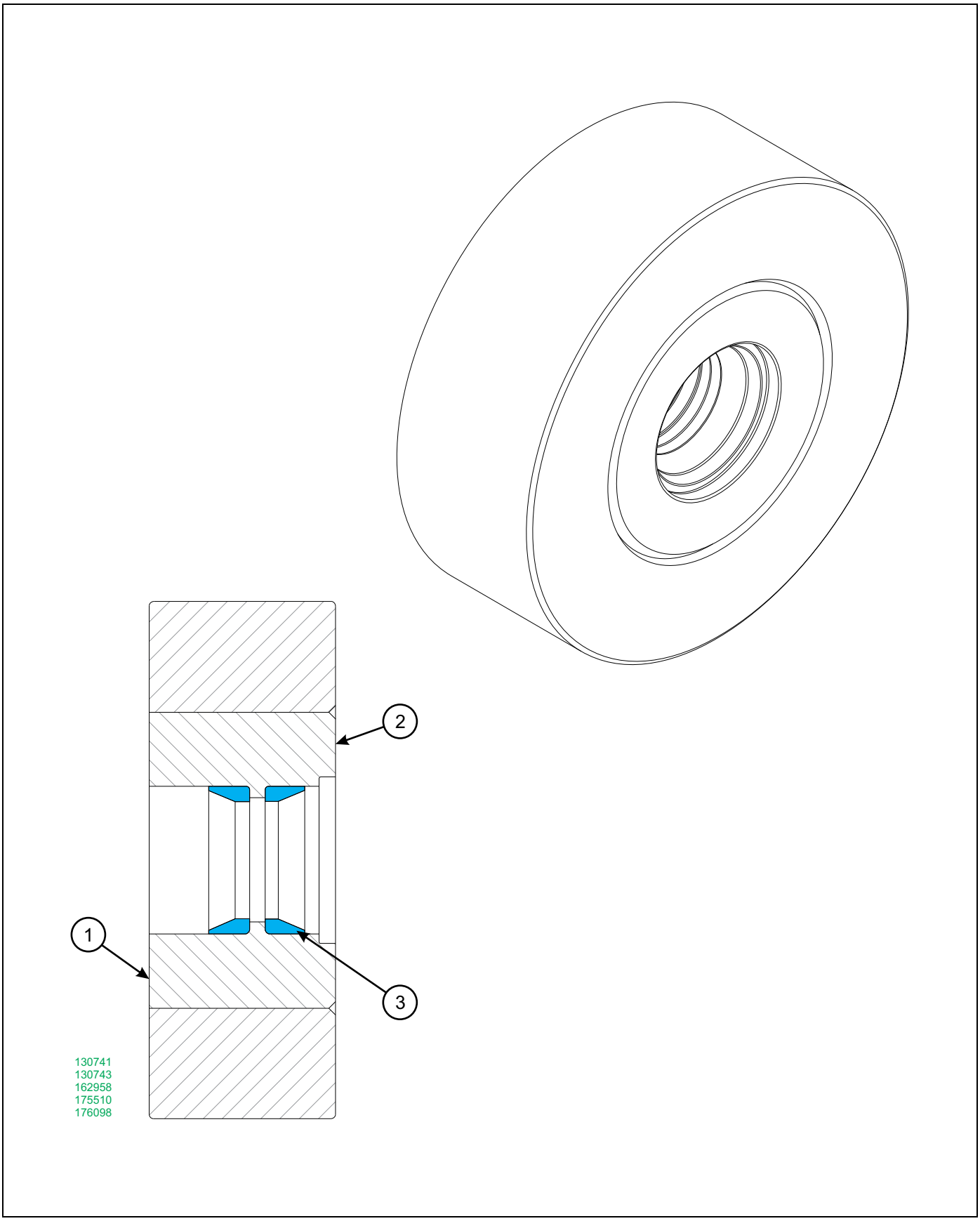

Figure 1-44: Load Wheel Assemblies, Smooth

Load Wheel Assembly, Smooth, 12”

ITEM	PART NUMBER	DESCRIPTION	QTY.
	130743	ASSY,LOAD WHEEL 12" CAST	
1	130733	WHEEL,CAST FRONT LOAD HUB	1
2	0022017	LOAD WHEEL 12X5X8	1
3	0022007	BEARING,CUP LOAD WHL,BENDI48	2

Load Wheel Assembly, Smooth, 12”, Solid

ITEM	PART NUMBER	DESCRIPTION	QTY.
	176098	ASSY, LOAD WHEEL 12" SOLIDEAL	
1	130733	WHEEL,CAST FRONT LOAD HUB	1
2	176097	TIRE, 12X5X8 POLY, SOLIDEAL	1
3	0022007	BEARING,CUP LOAD WHL,BENDI48	2

Load Wheel Assembly, Smooth, 14”

ITEM	PART NUMBER	DESCRIPTION	QTY.
	130741	ASSY,LOAD WHEEL,BENDI 14"	
1	109091	TIRE, BENDI 14X5X8	1
2	130733	WHEEL,CAST FRONT LOAD HUB	1
3	0022007	BEARING,CUP LOAD WHL,BENDI48	2

Load Wheel Assembly, Smooth, 14”, Non-Marking

ITEM	PART NUMBER	DESCRIPTION	QTY.
	162958	ASSY,LOAD WHEEL,BT, NM,14"	
1	130733	WHEEL,CAST FRONT LOAD HUB	1
2	162955	TIRE,13.5X5.5X8 NM SM TAN	1
3	0022007	BEARING,CUP LOAD WHL,BENDI48	2

Load Wheel Assembly, Smooth, 14”, Solid

ITEM	PART NUMBER	DESCRIPTION	QTY.
	175510	ASSY, LOAD WHEEL 14" SOLIDEAL	
1	130733	WHEEL,CAST FRONT LOAD HUB	1
2	175509	TIRE, 14X5X8 POLY, SOLIDEAL	1
3	0022007	BEARING,CUP LOAD WHL,BENDI48	2

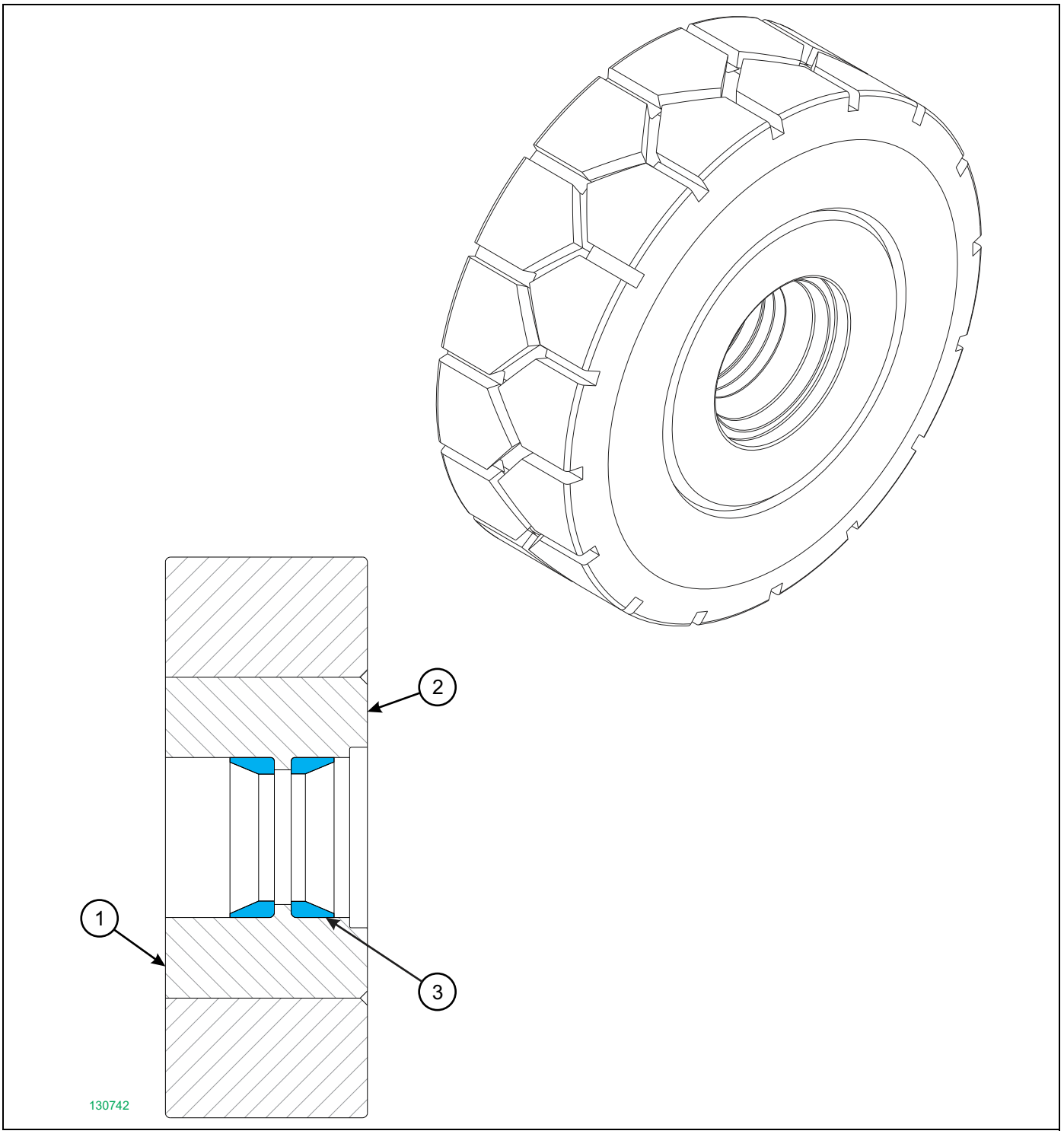

Figure 1-45: Load Wheel Assembly, Treaded, 14”

Load Wheel Assembly, Treaded, 14”

ITEM	PART NUMBER	DESCRIPTION	QTY.
	130742	ASSY,LOAD WHEEL B&Q 14"	
1	130733	WHEEL,CAST FRONT LOAD HUB	1
2	113249	TIRE,SPECIAL B&Q,NM 14X5X8	1
3	0022007	BEARING,CUP LOAD WHL,BENDI48	2

Table provided for general use.

NOTES:

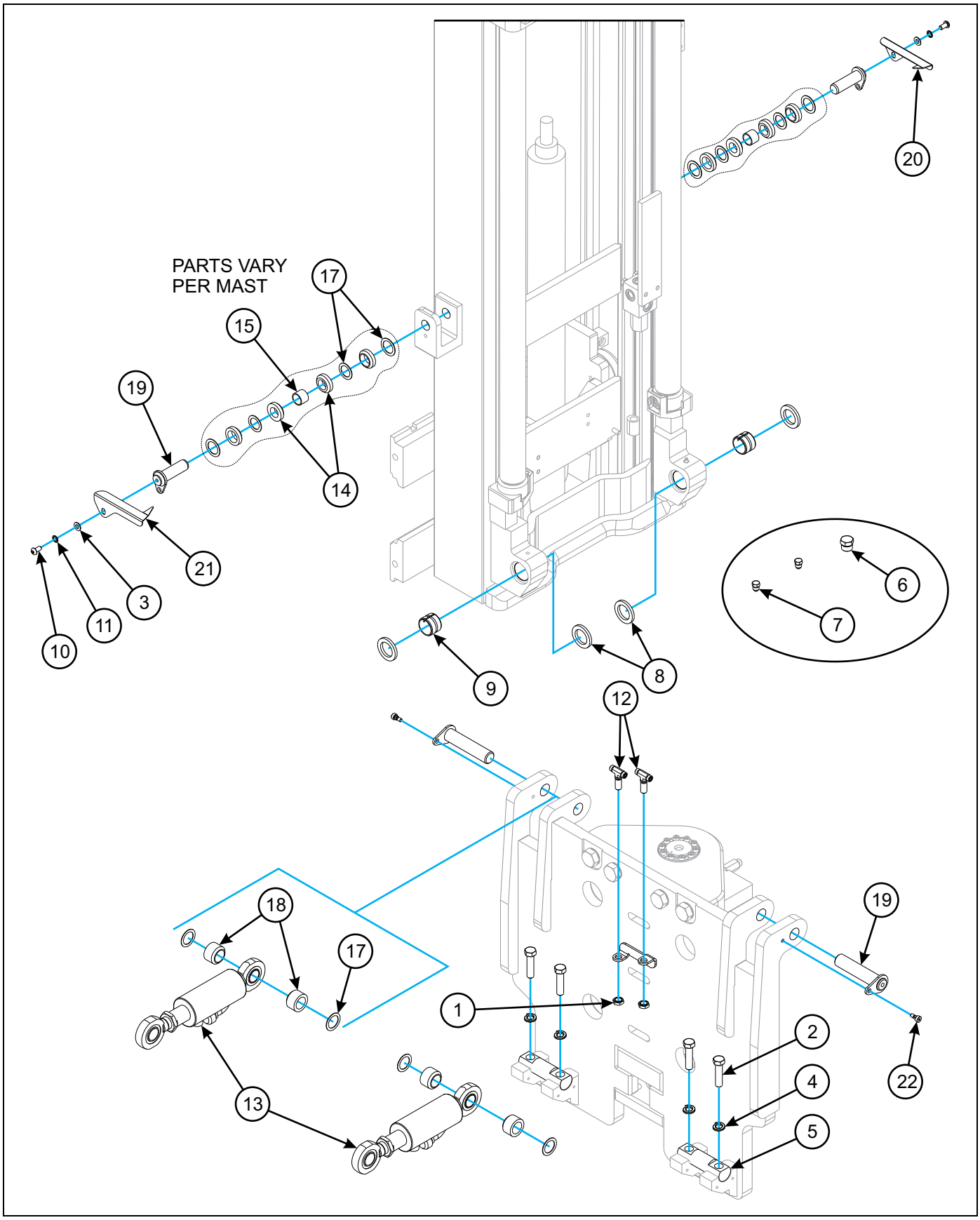

Figure 1-46: Mast Mounting Components

Mast Mounting Components

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-511-010002-06	NUT,HEX JAM,9/16-18UNF GR2	2
2	1-654-010059-07	SCREW HX CP 5/8-11UNCX2-1/2G5	4
3	1-861-010032-10	WASHER, FLAT 3/8" N ZP/CD	2
4	1-861-010034-15	WASHER,LKG,HLCL SPR,5/8	4
5	0010867	PIN LOWER MAST	2
6	0018143	PLUG,37 FLARE,#6JIC	AR
7	0018144	PLUG,#80RS	AR
8	0023202	SEAL,MAST PIVOT BENDI 48	AR
9	0023205	BUSHING, MAST BENDI 48	AR
10	111899	SCREW,BHSC 3/8-16UNCX3/4	2
11	119734	WASHER, 3/8 LKG INTERNALTOOTH	2
12	137951	ADAPTER,4ORS,BLKHD BRANCH TEE	2
13	153229	CYLINDER,BT-AC TILT **(SEE PAGE 1-85)**	2
13	153528	CYLINDER,BT-AC LIMITED TILT **(SEE PAGE 1-86)**	2
14	153474	SPACER,BT-5 TILT CYL ROD END	AR
14	155311	SPACER,BT/AC TILT CYL ROD END	AR
15	153475	SLEEVE,BT-5 TILT CYL ROD END	AR
16	153522	PLUG , # 10 ORS **(NOT SHOWN)**	AR
17	153523	WASHER,BT-AC TILT CYL SHIM	AR
17	153525	WASHER,BT-AC TILT CYL SHIM	AR
18	157362	SPCR BT-5 TILT CYL BLANK END	4
19	157363	PIN WLDMT, BT-5 TILT CYL	2
20	167082	INDICATOR,BT/AC RH VERTICAL	1
21	167083	INDICATOR,BT/AC LH VERTICAL	1
22	169760	SCREW HEX SHLDR 3/8 X 1/4	2

NOTE: QUANTITY OF ITEMS 6-9 AND 14-17 VARY PER MAST INSTALLATION.

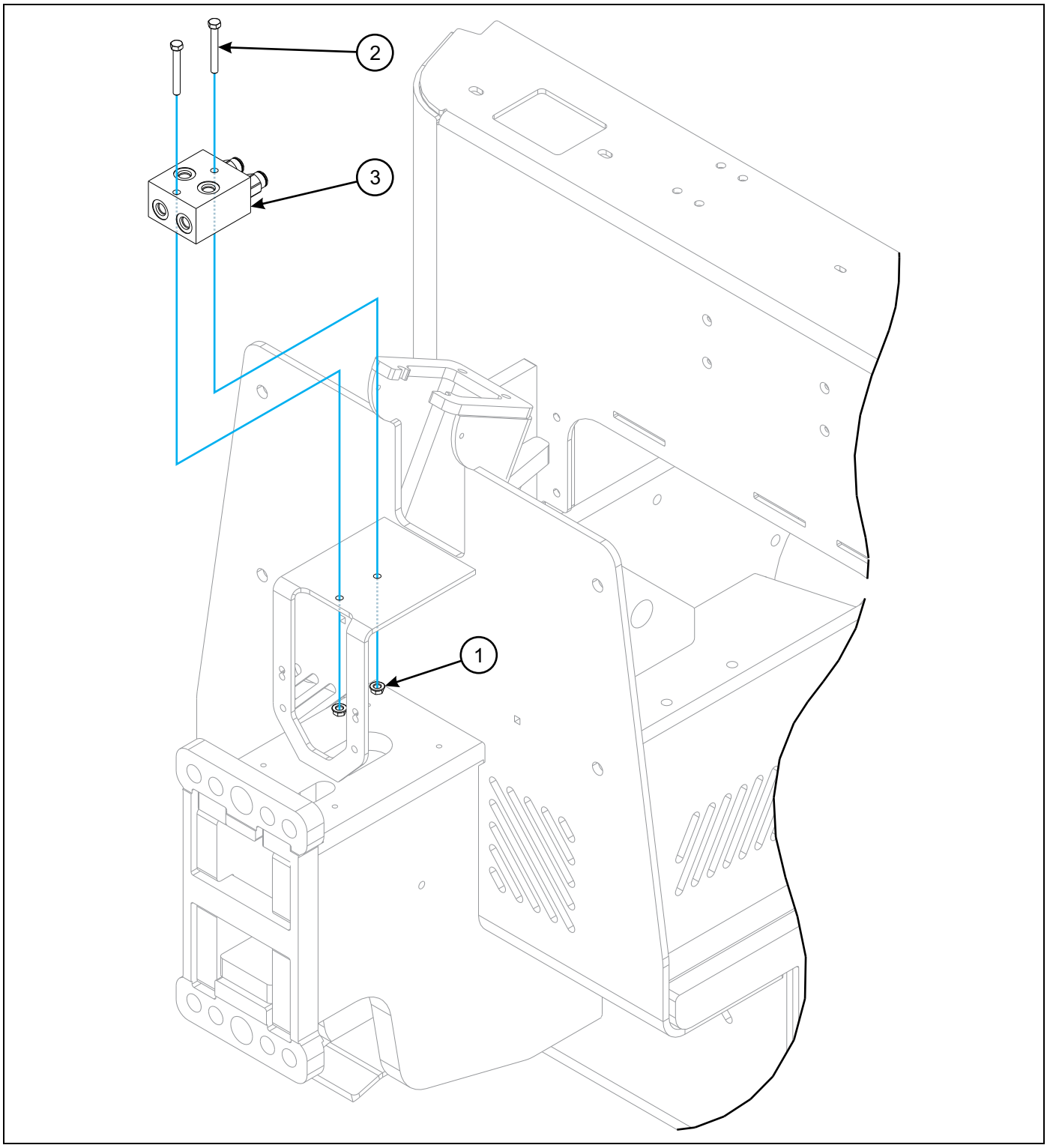

Figure 1-47: Steering Counterbalance Valve Installation

Steering Counterbalance Valve Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-510-010004-03	NUT HX FLANGE, 5/16-18 GR8	2
2	1-654-010049-11	SCREW,HX CAP,5/16-18UNCX2-1/2	2
3	100010	VALVE,STEERING COUNTERBALANCE	1

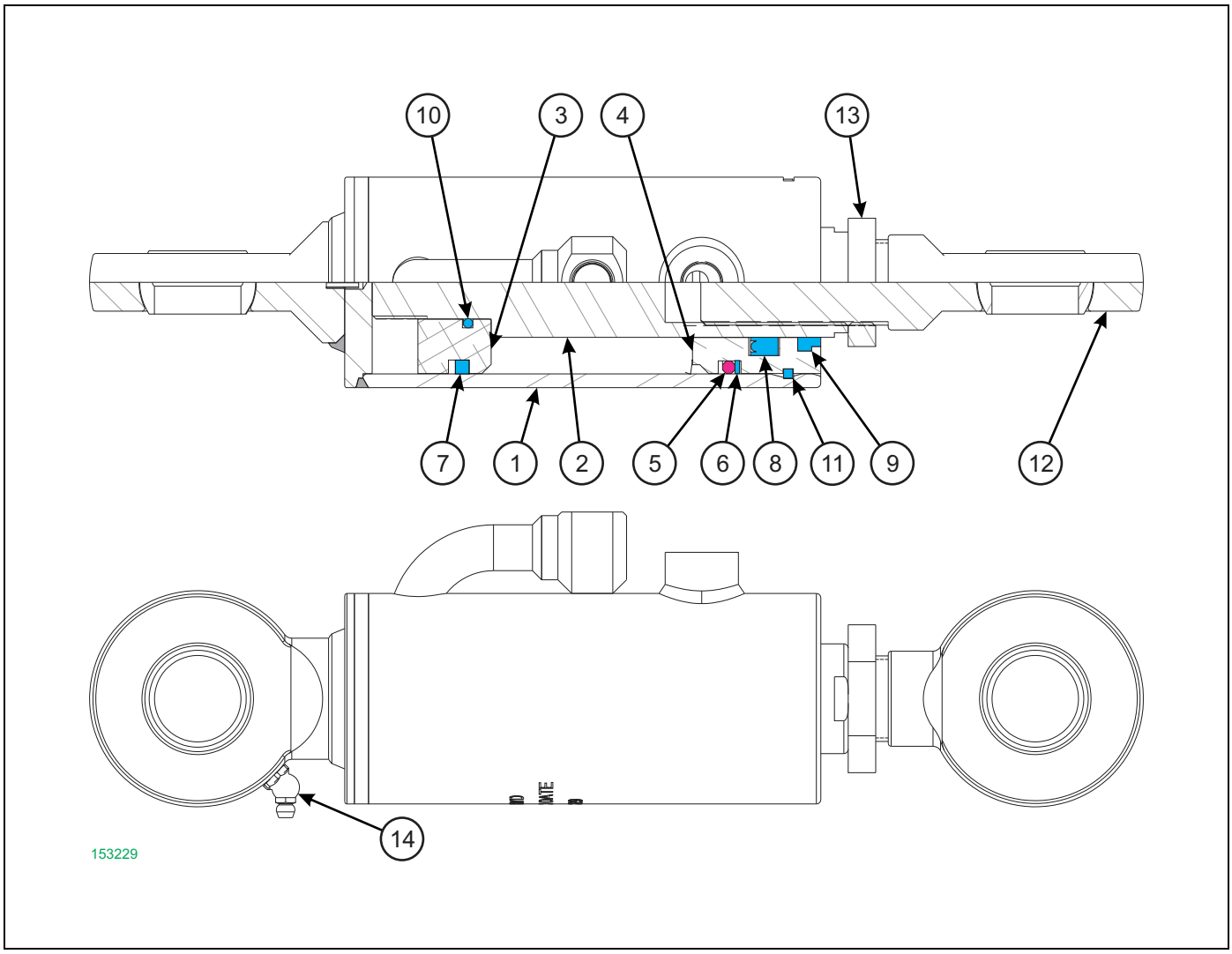

Figure 1-48: Tilt Cylinder

Tilt Cylinder

ITEM	PART NUMBER	DESCRIPTION	QTY.
	153229	CYLINDER,BT-AC TILT	
1		2-1/2" MD BARREL ASSEMBLY	1
2		1-1/2" SHAFT	1
3		2-1/2" PISTON 1" SHAFT (PSP)	1
4		2-1/2" MD HEAD 1-1/2" SHAFT (BSS)	1
5		O-RING	1
6		BACKUP	1
7		PSP SEAL	1
8		PPS SEAL	1
9		DUST SEAL	1
10		O-RING	1
11		1/8" KEYSTOCK	1
12		SKF BEARING - SA30C OR EQ	1
13		M30 X 2 HEX NUT	1
14		6 X 1 ZERK, 45^{o}	1
15	153967	REPAIR KIT, TILT CYLINDER **(INCLUDES ITEMS 6-11)**	REF

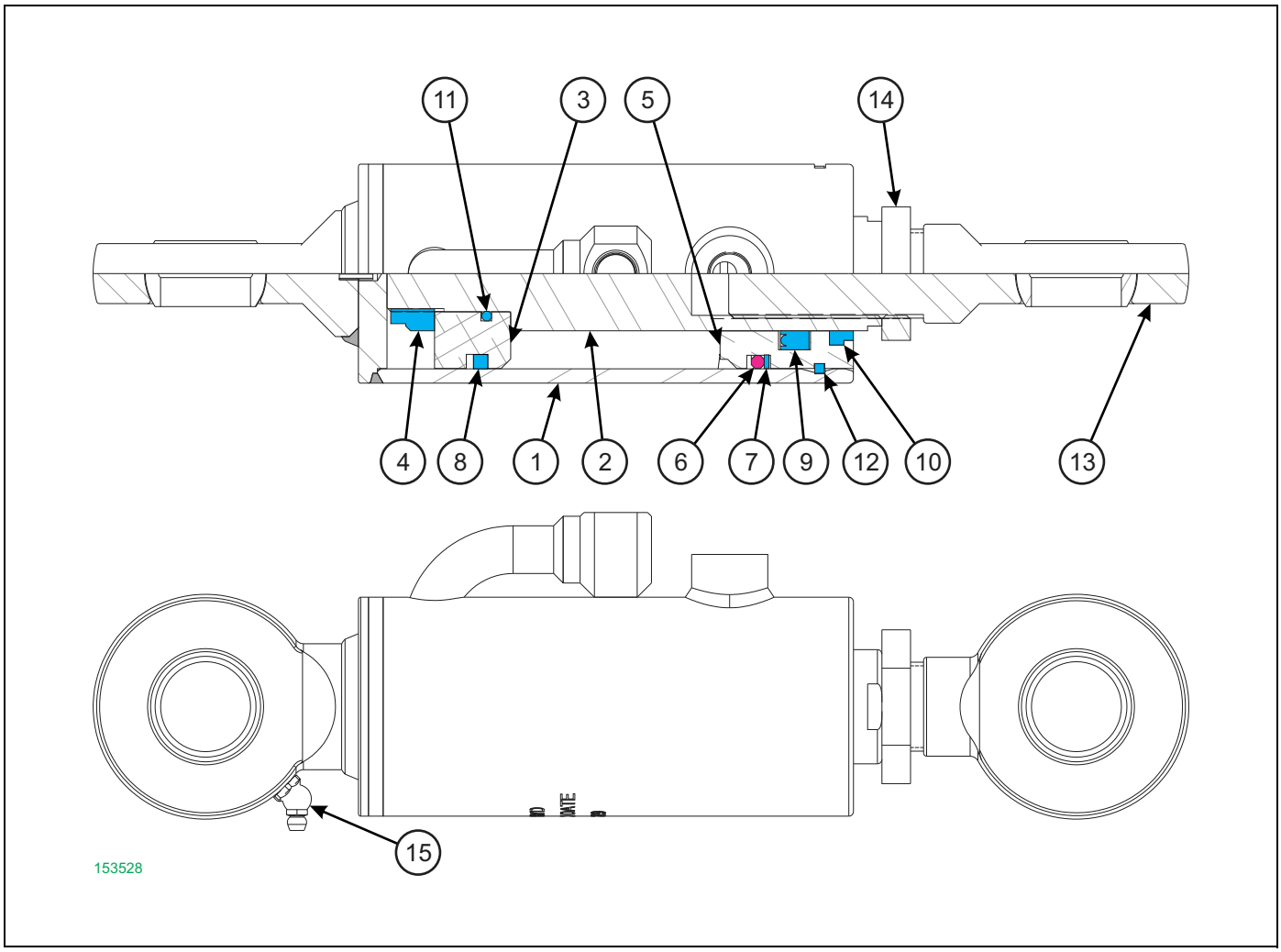

Figure 1-49: Tilt Cylinder, Limited Tilt

Tilt Cylinder, Limited Tilt

ITEM	PART NUMBER	DESCRIPTION	QTY.
	153528	CYLINDER,BT-AC LIMITED TILT	
1		2-1/2" MD BARREL ASSEMBLY	1
2		1-1/2" SHAFT	1
3		2-1/2" PISTON 1" SHAFT (PSP)	1
4		1" LOCK JAM NUT	1
5		2-1/2" MD HEAD 1-1/2" SHAFT (BSS)	1
6		O-RING	1
7		BACKUP	1
8		PSP SEAL	1
9		PPS SEAL	1
10		DUST SEAL	1
11		O-RING	1
12		1/8" KEYSTOCK	1
13		SKF BEARING - SA30C OR EQ	1
14		M30 X 2 HEX NUT	1
15		6 X 1 ZERK, 45^{o}	1
16	153967	REPAIR KIT, TILT CYLINDER **(INCLUDES ITEMS 6-11)**	REF

NOTES:

Operator's Compartment

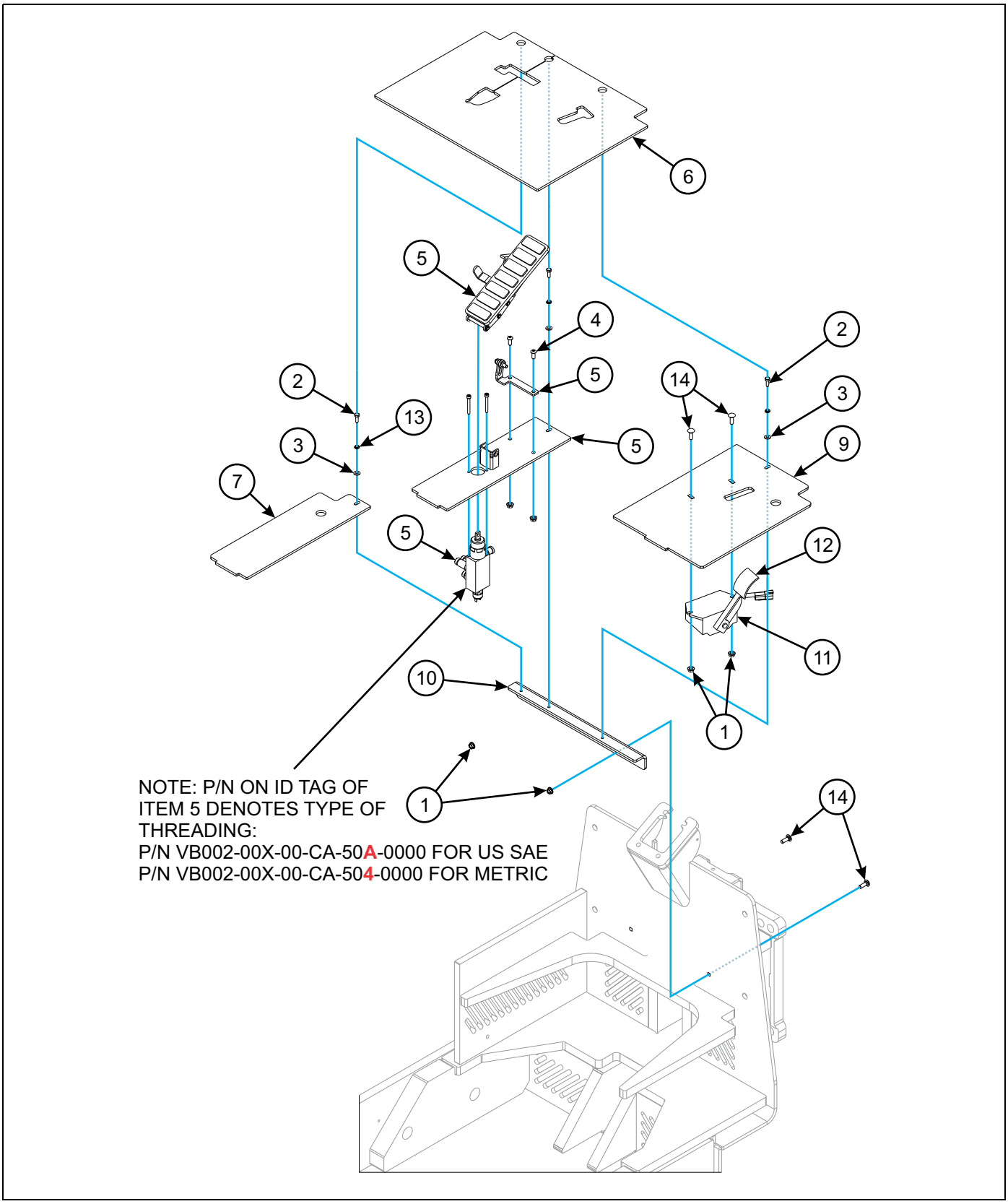

Figure 1-50: Brake and Accelerator Pedals with Floor Plates Installation

Brake and Accelerator Pedals with Floor Plates Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-510-010004-03	NUT HX FLANGE, 5/16-18 GR8	6
2	1-654-010047-04	SCREW,HEX CAP,1/4-20X3/4 GR5	4
3	1-861-010032-06	WASHER, FLAT 1/4 N ZP/CD	6
4	110843	SCREW BHSC 5/16-18UNCX3/4	2
5	145061	VALVE, SAHR BRAKE P **(SEE IMAGE NOTE)**	1
6	145287	FLOOR MAT, BI-T3	1
7	145299	PLATE,BI-T3 LH FLOOR	1
8	145300	PLATE WLDMT BI-T3 MDLFLOOR	1
9	147149	PLATE,BI-T3 RH FLOOR	1
10	149487	BRACKET,BI-T3 FLR PLATE SPRT	1
11	151471	ACCEL,CURTIS FP6 W/ PLUG **(INCLUDES ITEM 12)**	1
12	157318	ARM, CURTIS FP-6 PEDAL	1
13	1-861-010034-09	WASHER, LKG HLCL SPR, 1/4	6
14	104031	SCREW,RDHD,SQNK 5/16-18X1 GR5	4

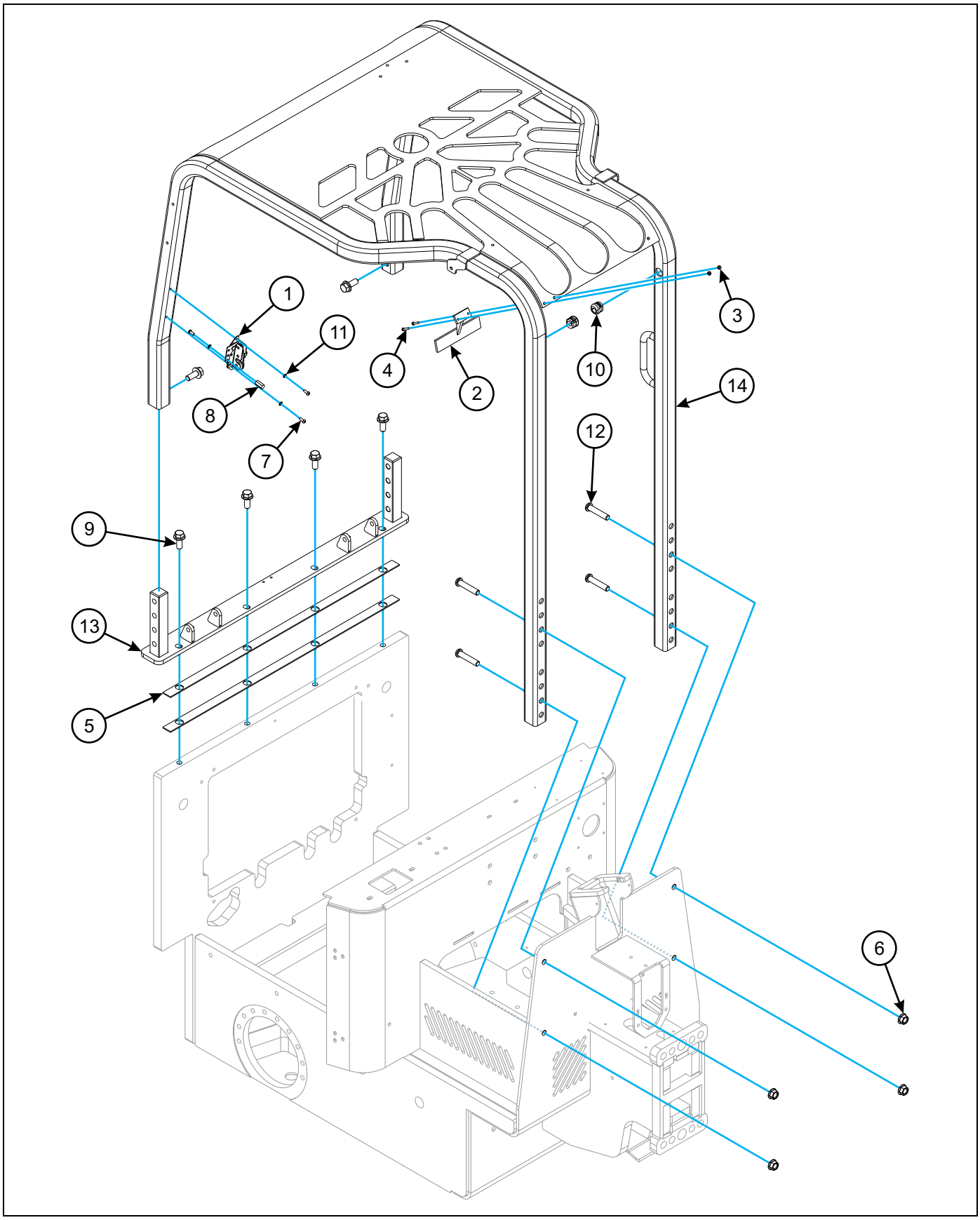

Figure 1-51: Overhead Guard Installation

Overhead Guard Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0010931	LATCH, COVER HOLD-UP	1
2	0011269	MIRROR REAR VIEW	1
3	1-512-010003-05	NUT HEX SLFLKG W/NYL 10-32	2
4	10-32X1	SCREW MACH HEX SLOT HEAD STL	2
5	101909	SHIM, BT SERIES III OHG	2
6	106534	NUT,HEX FLG 5/8-11,GR8, ZP	4
7	106954	SCREW,BHSC 1/4-20UNCX5/8	3
8	107920	LATCH RELEASE KNOB	1
9	108151	SCREW 5/8-11 UNCX1-1/2 FLG HD	6
10	108409	BUSHING,STR-THRU STRN RELIEF	2
11	108797	WASHER 1/4 LKG INT TOOTH	3
12	111360	SCREW BHSC 5/8-11UNCX3	4
13	118710	BASE WLDMT, B40-4 OHG	1
14	156270	OHG WELDMENT, BI-T3	1

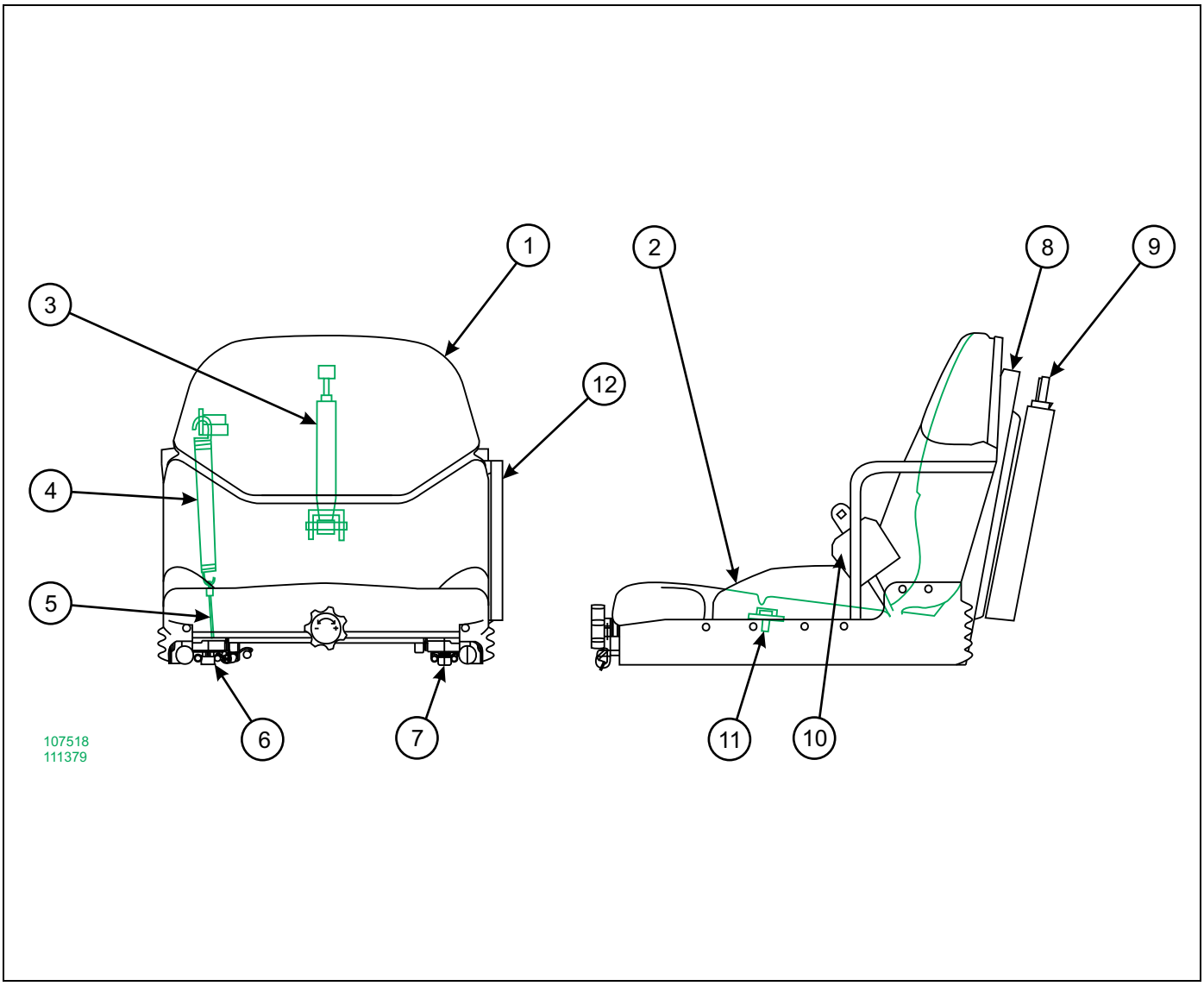

Figure 1-52: Seat Assemblies, Cloth

Seat Assemblies, Cloth

ITEM	PART NUMBER	DESCRIPTION	QTY.
	107518	SEAT,CLOTH LO-RIDER SRS	
	111379	SEAT,SEARS CLOTH W/ANTI CINCH	
1	111708	CUSHION ASSY,BACK CLOTH	1
2	111710	CUSHION ASSY,SEAT CLOTH	1
3	111712	SHOCK ABSORBER, SEAT	1
4	111713	SPRING, SEAT (S7911-000B)	2
5	111714	CABLE,SPRING ADJ	2
6	111715	SLIDE & HANDLE ASSY	1
7	111716	SLIDE, LOCKING	1
8	111717	COVER, REAR	1
9	111718	BOOK BOX, SEAT	1
10	111719	SEAT BELT (S32557)	1
11	111720	SWITCH, SEAT	1
12	120047	LH HIP RESTRAINT	1

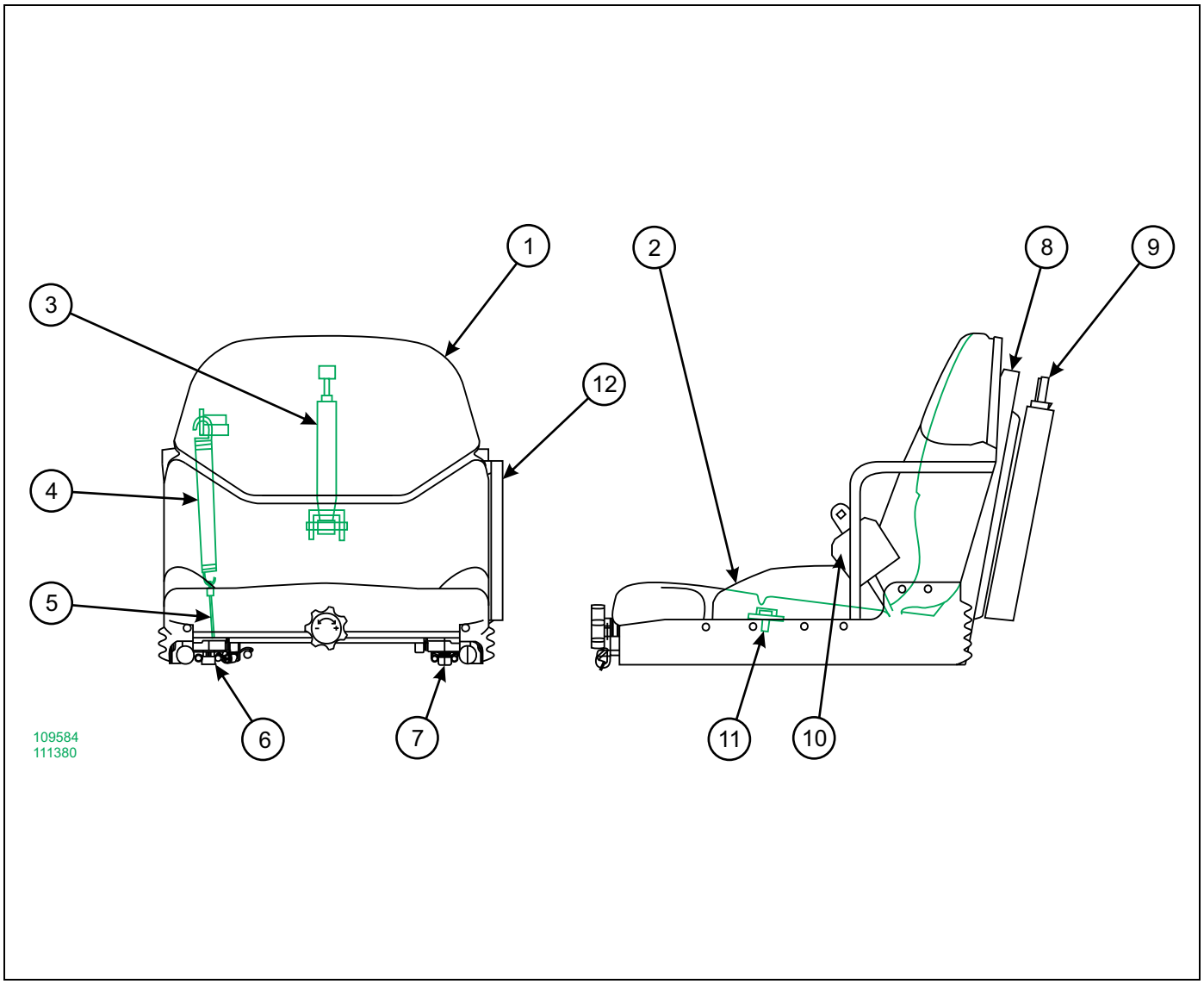

Figure 1-53: Seat Assemblies, Vinyl

Seat Assemblies, Vinyl

ITEM	PART NUMBER	DESCRIPTION	QTY.
	109584	SEAT,VINYL LO-RIDER	
	111380	SEAT,SEARS VINYL W/ANTI CINCH	
1	111709	CUSHION ASSY,BACK VINYL	1
2	111711	CUSHION ASSY,SEAT VINYL	1
3	111712	SHOCK ABSORBER, SEAT	1
4	111713	SPRING, SEAT (S7911-000B)	2
5	111714	CABLE,SPRING ADJ	2
6	111715	SLIDE & HANDLE ASSY	1
7	111716	SLIDE, LOCKING	1
8	111717	COVER, REAR	1
9	111718	BOOK BOX, SEAT	1
10	111719	SEAT BELT (S32557)	1
11	111720	SWITCH, SEAT	1
12	120047	LH HIP RESTRAINT	1

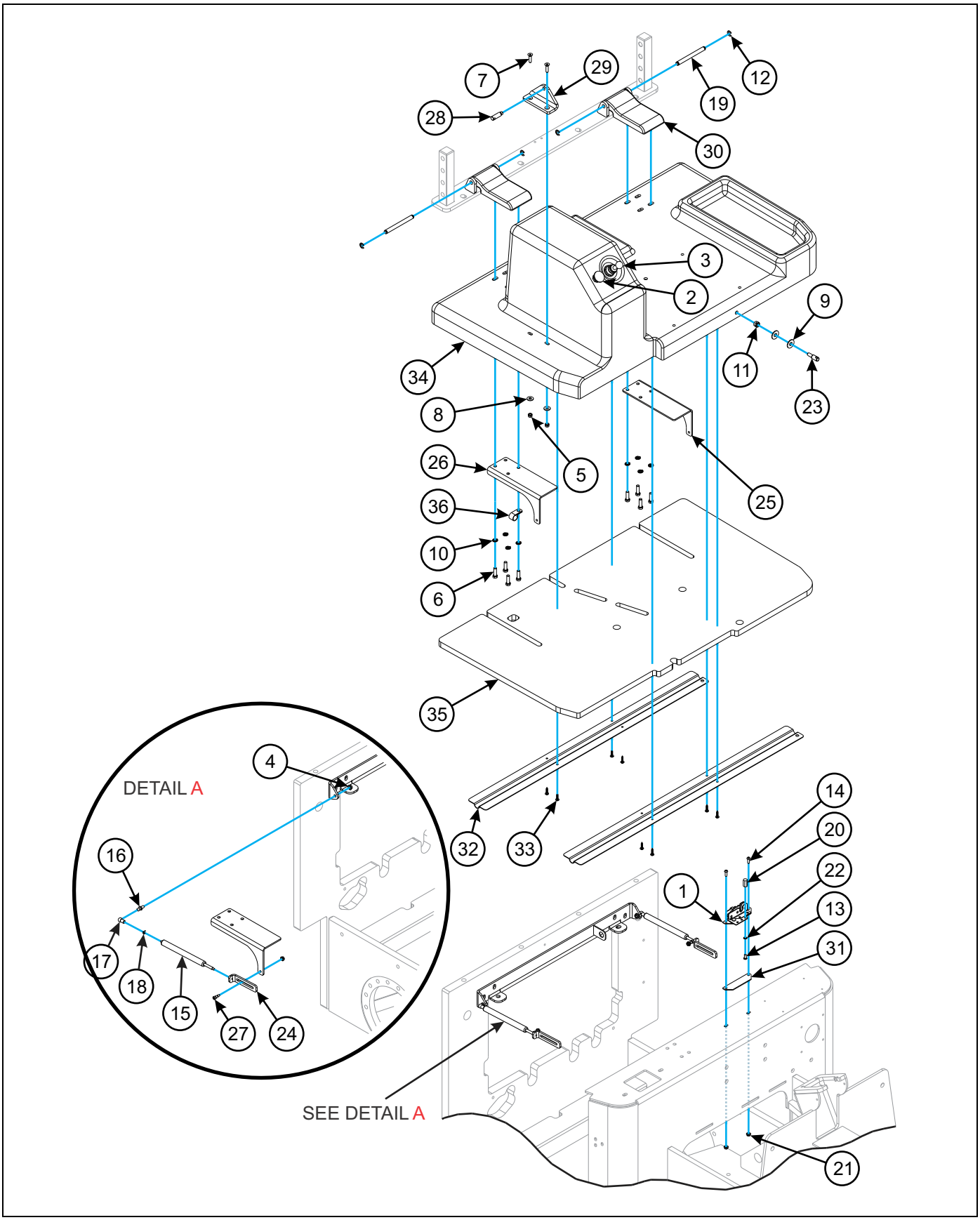

Figure 1-54: Seat Base Installation

Seat Base Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0010931	LATCH, COVER HOLD-UP	1
2	0030011	SWITCH,HORN BUTTON,BENDI 48	1
3	0030033	SWITCH F/R COLD STORAGE	1
4	1-510-010004-03	NUT HX FLANGE, 5/16-18 GR8	2
5	1-512-010005-03	NUT HEX SLFLKG GRB 5/16-18	2
6	1-654-010051-06	SCREW,HEX CAP 3/8-16UNCX1-1/4	8
7	1-654-010121-06	SCREW HEX SKT CTSK,5/16X1-1/4	2
8	1-861-010032-09	WASHER, FLAT 5/16 W ZP/CD	2
9	1-861-010032-13	WASHER FLAT 7/16	2
10	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	8
11	101988	NUT,HEXSLF-LKG 7/16-14 GRB	1
12	106240	RING,RETANING,EXT,E,1/2	4
13	106954	SCREW,BHSC 1/4-20UNCX5/8	1
14	106955	SCREW,BHSC 1/4-20UNCX3/4	2
15	107184	SPRING, GAS, FIXED FORCE	2
16	107185	BALL, STUD	2
17	107186	BALL, SOCKET	2
18	107188	CLIP,SAFETY,BALL SOCKET END	2
19	107750	PIN, TOP COVER HINGE	2
20	107920	LATCH RELEASE KNOB	1
21	108417	NUT SPIRAL 1/4-20HX FG	4
22	108797	WASHER 1/4 LKG INT TOOTH	1
23	121273	PIN SEAT LATCH	1
24	122165	SLIDE-SEAT BASE	2
25	122166	ANGLE-SEAT BASE LH	1
26	122167	ANGLE-SEAT BASE RH	1
27	122199	SCREW,HEX SKT SHLDR,S116X3/8	2
28	123391	PIN,COVER HOLD-UP SHORT	1
29	127083	BRACKET,B40-4 SEAT BASE LATCH	1
30	127084	HINGE,B40-4 SEAT BASE	2
31	127758	SPACER, LATCH	1
32	137659	RETAINER,FOAM PANEL	2
33	138022	SCREW#10X9 PHH WSHR HD SH MET	8
34	145277	COVER SEAT BASE BI-T3	1
35	167694	PANEL,BI-T4 SEAT BASE INSUL	1
36	40-0717-02	CLAMP,HYD HOSE SUPPORT	1

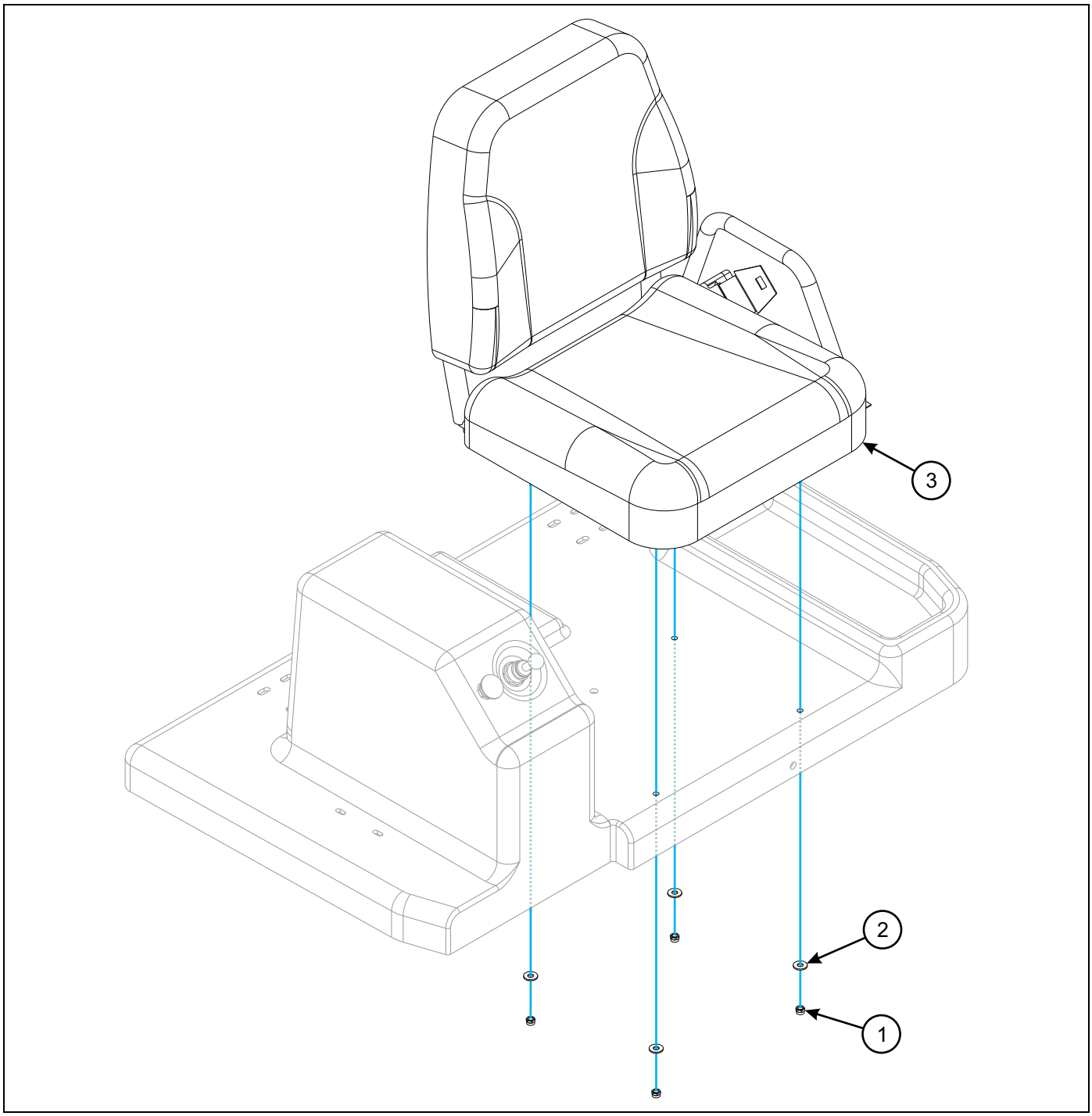

Figure 1-55: Seat Installation

Seat Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010005-03	NUT HEX SLFLKG GRB 5/16-18	4
2	1-861-010032-09	WASHER, FLAT 5/16 W ZP/CD	4
3	109584	SEAT,VINYL LO-RIDER **(SEE PAGE 1-93)**	1
3	111380	SEAT,SEARS VINYL W/ANTI CINCH **(SEE PAGE 1-93)**	1
3	107518	SEAT,CLOTH LO-RIDER SRS **(SEE PAGE 1-92)**	1
3	111379	SEAT,SEARS CLOTH W/ANTI CINCH **(SEE PAGE 1-92)**	1

Table provided for general use.

NOTES:

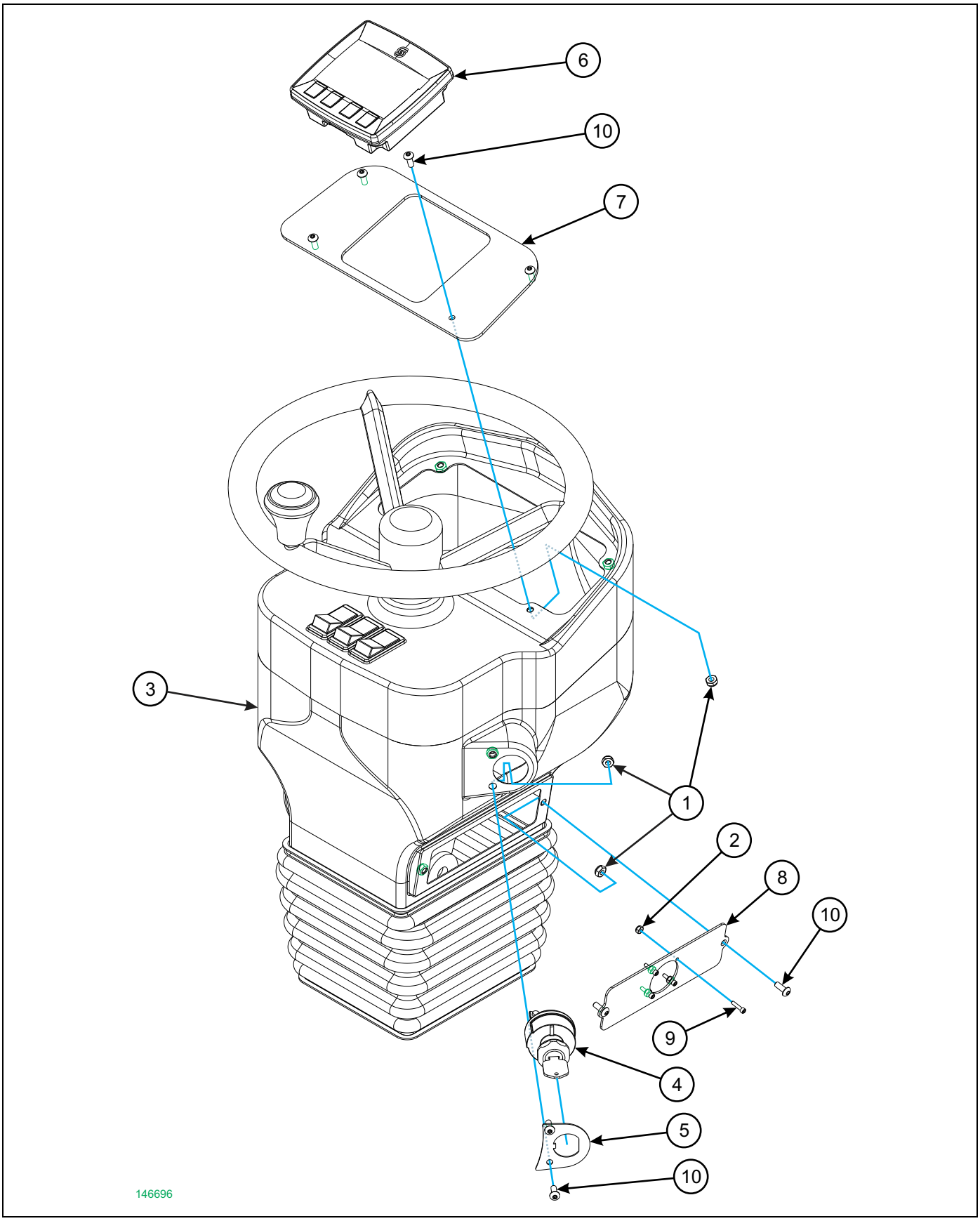

Figure 1-56: Steering Column and Dash Display Assembly

Steering Column and Dash Display Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
	146696	STEERING COLUMN ASSY,BI-T3	
1	1-512-010003-05	NUT HEX SLFLKG W/NYL 10-32	8
2	103-0633	NUT, ESNA #4-40 ZP	4
3	126193	STEERING COLUMN, I/C **(SEE PAGE 1-100)**	1
4	128670	SWITCH,IGN W/LOCKOUT	1
5	128751	PLATE, IGN SWITCH, I/C	1
6	146074	DISPLAY,DP200 DASH	1
7	146695	PANEL,INSTRUMENT BI-T3	1
8	150725	PLATE,BI-T3 DIGN PORT MNT	1
9	150979	SCREW HEX SKT 4-40UNC X 1/2ZP	4
10	169764	SCREW B4SC 10-32X.600 ZP	8
11	151288	HARNESS, BI-T3 DASH **(NOT SHOWN)**	1
12	239-3646-4	TERMINAL #14AWG TO #10 RING **(NOT SHOWN)**	1

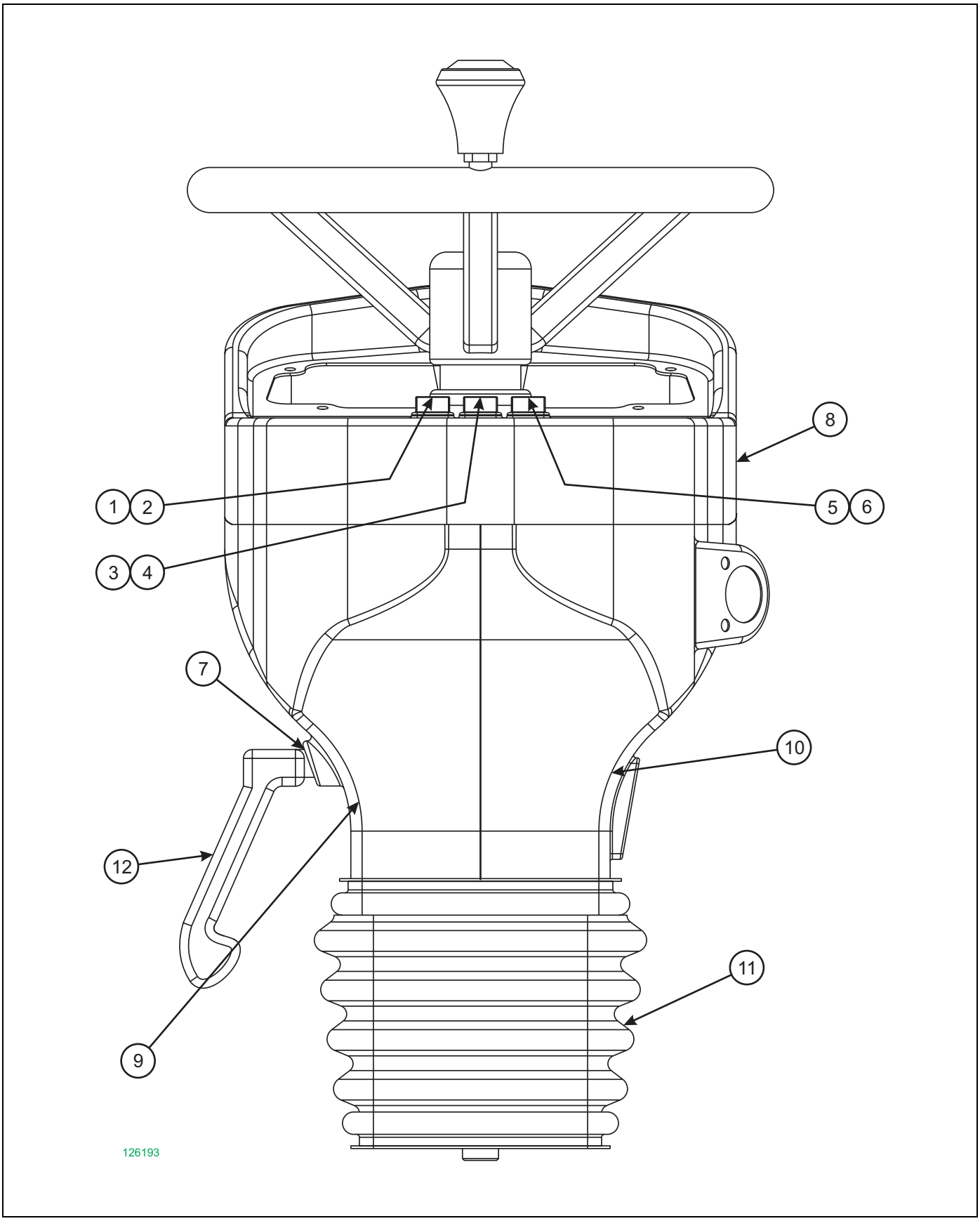

Figure 1-57: Steering Column Assembly

Steering Column Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
	126193	STEERING COLUMN, I/C	
1	128093	SWITCH (0058-0346) N	1
2	128082	ROCKER BUTTON (0011-0618)	1
3	128083	SWITCH (0058.0345) N	1
4	128084	ROCKER BUTTON (0011-0638)	1
5	128085	SWITCH (0058-0310) N	1
6	128086	ROCKER BUTTON (0011-0610)	1
7	128088	MAIN SHAFT (0034.0785)	1
8	128089	UPPER CLUSTER (0052.1396)	1
9	128090	LH COVER (0052.1367)	1
10	128091	RH COVER (0052.1368)	1
11	128092	RUBBER CLADDING (0046.0130)	1
12	138570	HANDLE, COBO COLUMN TILT	1
13	139806	HARDWARE KIT FOR TC01.E503 **(INCLUDES PLUGS/CONNECTORS FOR SWITCHES)**	REF

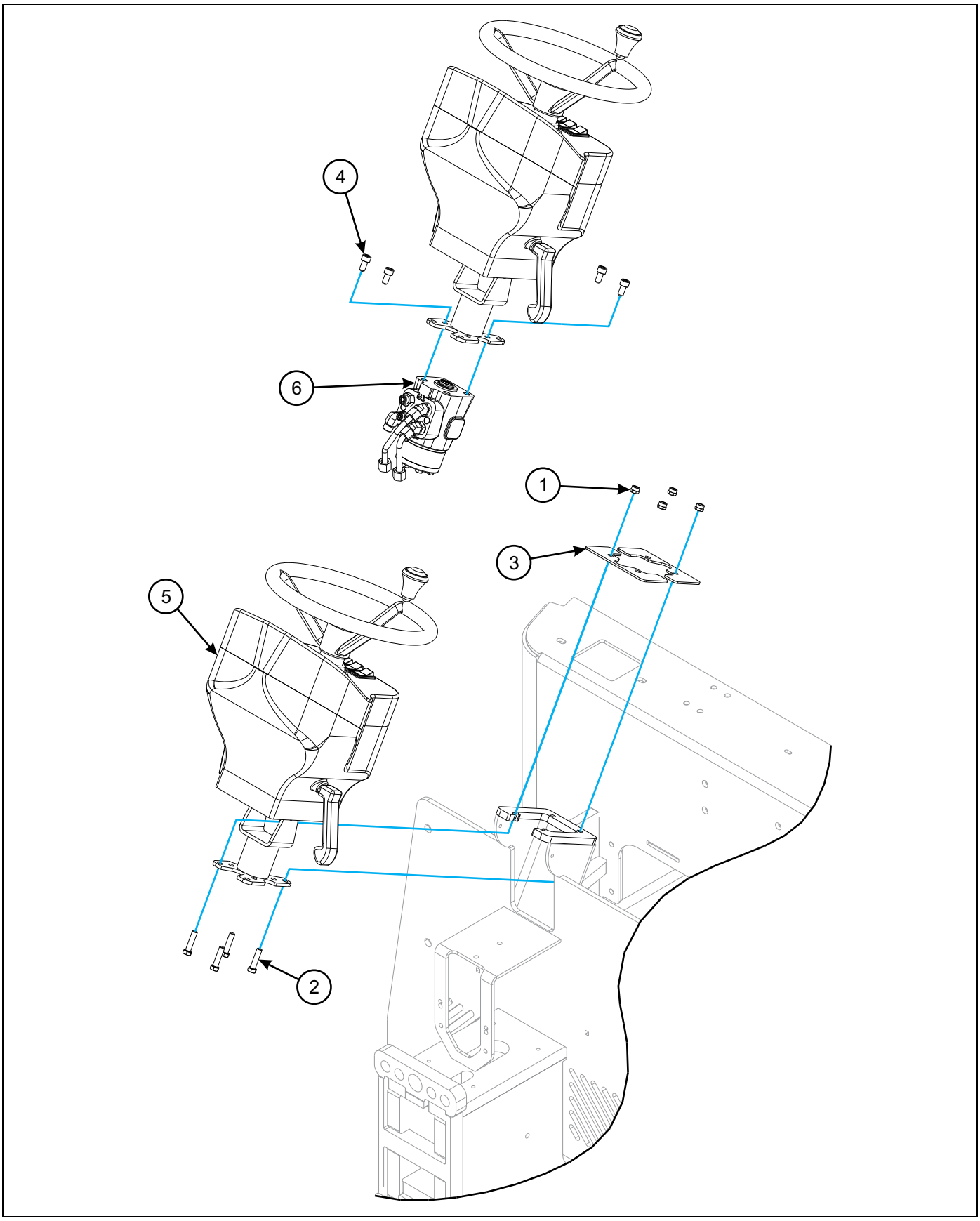

Figure 1-58: Steering Column and Orbital Installation

Steering Column and Orbital Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010005-05	NUT, HEX, SLFLKG GRB 3/8-16	4
2	1-654-010051-07	SCREW,HEX CAP,3/8-16UNCX1-1/2	4
3	100006	PLATE,STRGCOLUMN BELLOWS RTNR	2
4	131015	SCREW,HXSKT CAP M10-1.50X20ZP	4
5	146696	STEERING COLUMN ASSY,BI-T3 **(SEE PAGE 1-98)**	1
6	158957	ORBITAL, B55 LOAD SENSING	1

Powertrain

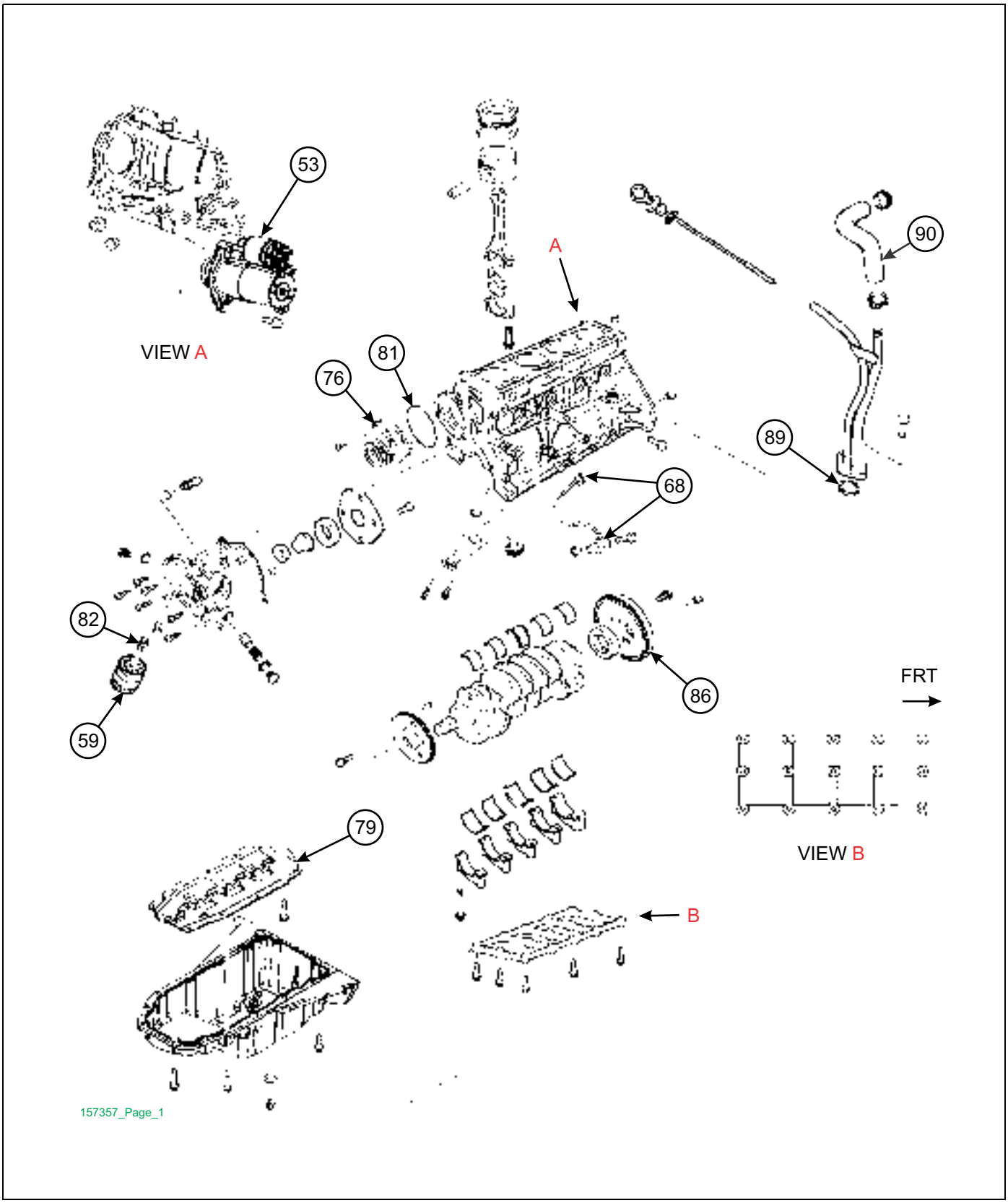

Figure 1-59: 2.4L Engine and Fuel System Assembly (1 of 5)

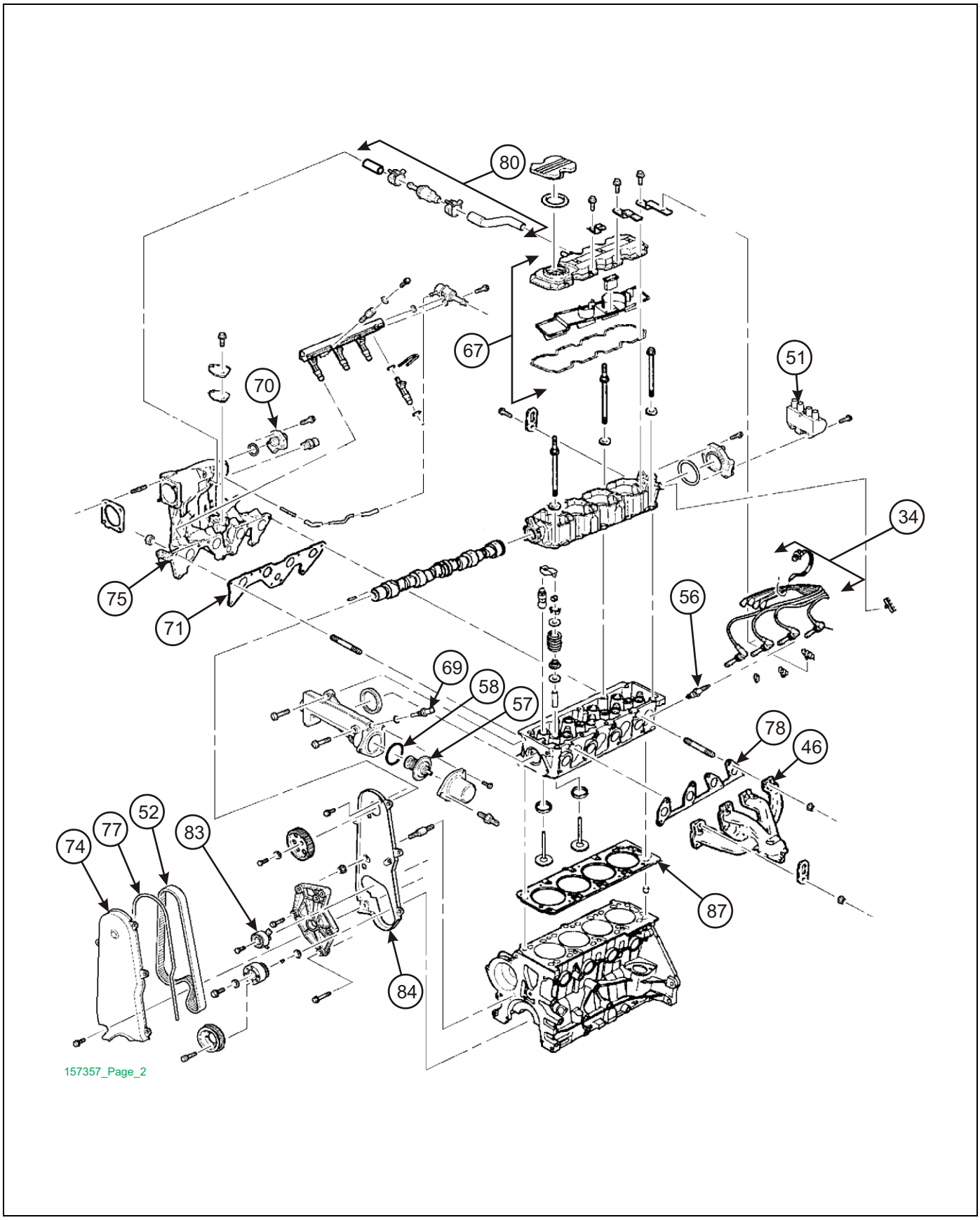

Figure 1-60: 2.4L Engine and Fuel System Assembly (2 of 5)

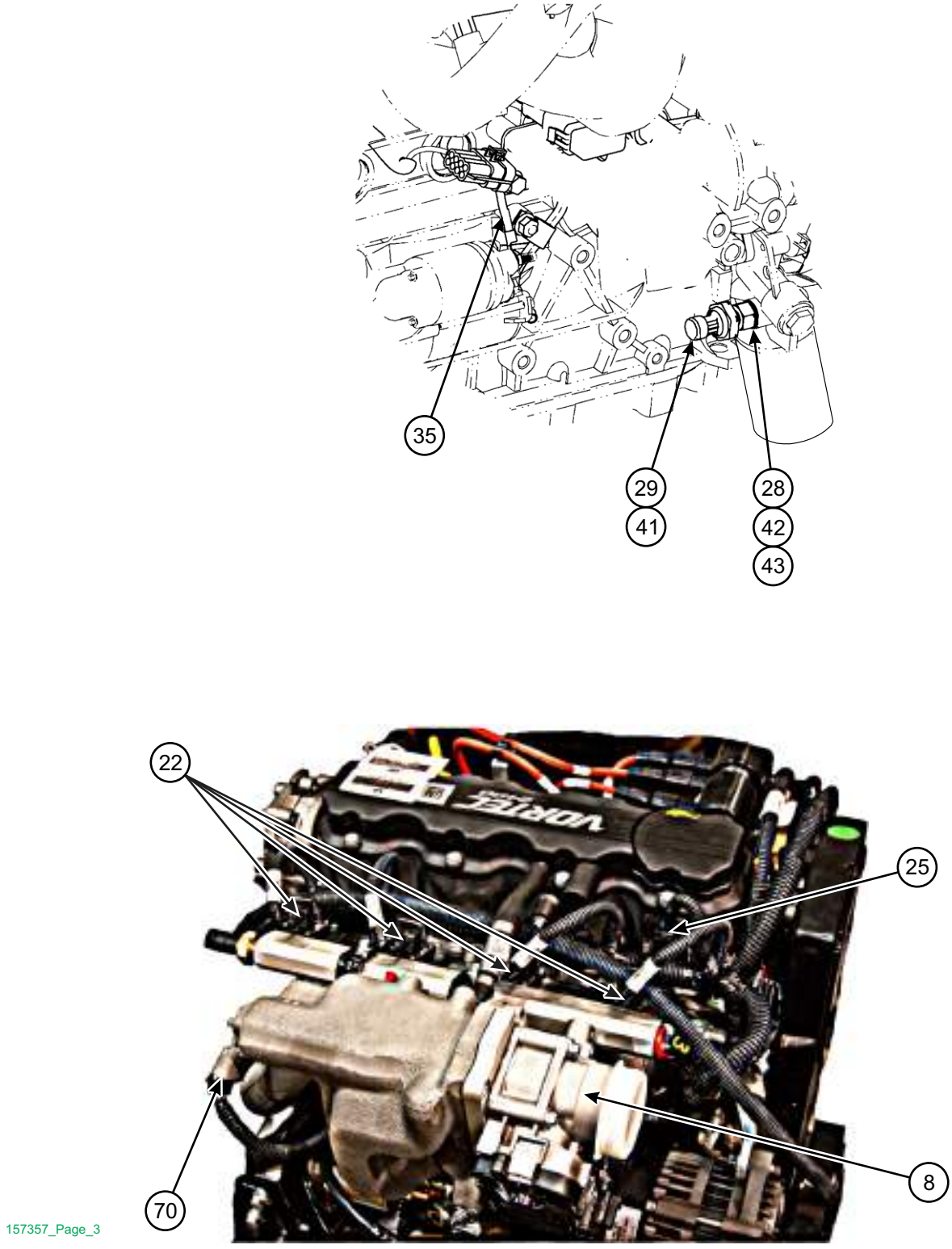

Figure 1-61: 2.4L Engine and Fuel System Assembly (3 of 5)

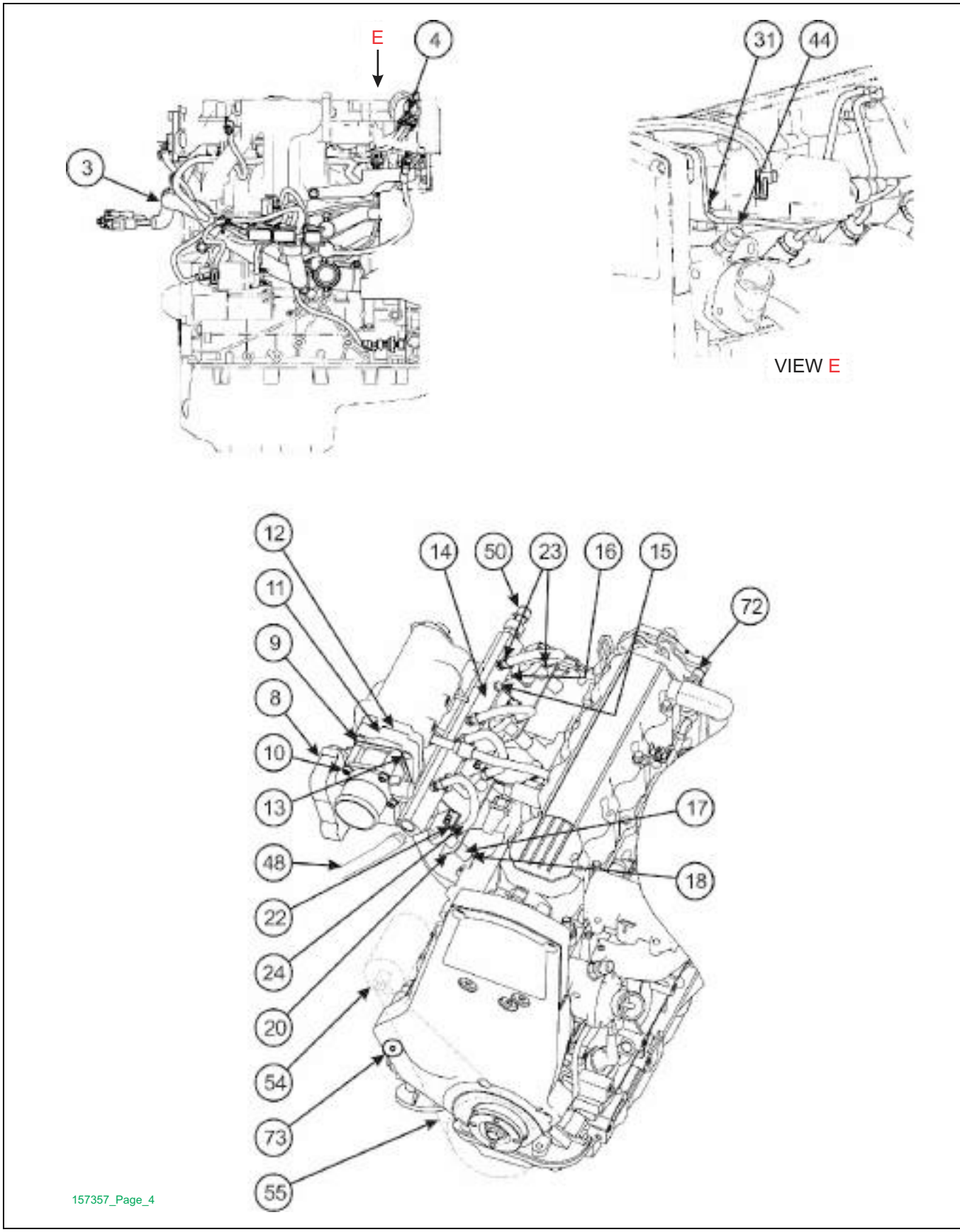

Figure 1-62: 2.4L Engine and Fuel System Assembly (4 of 5)

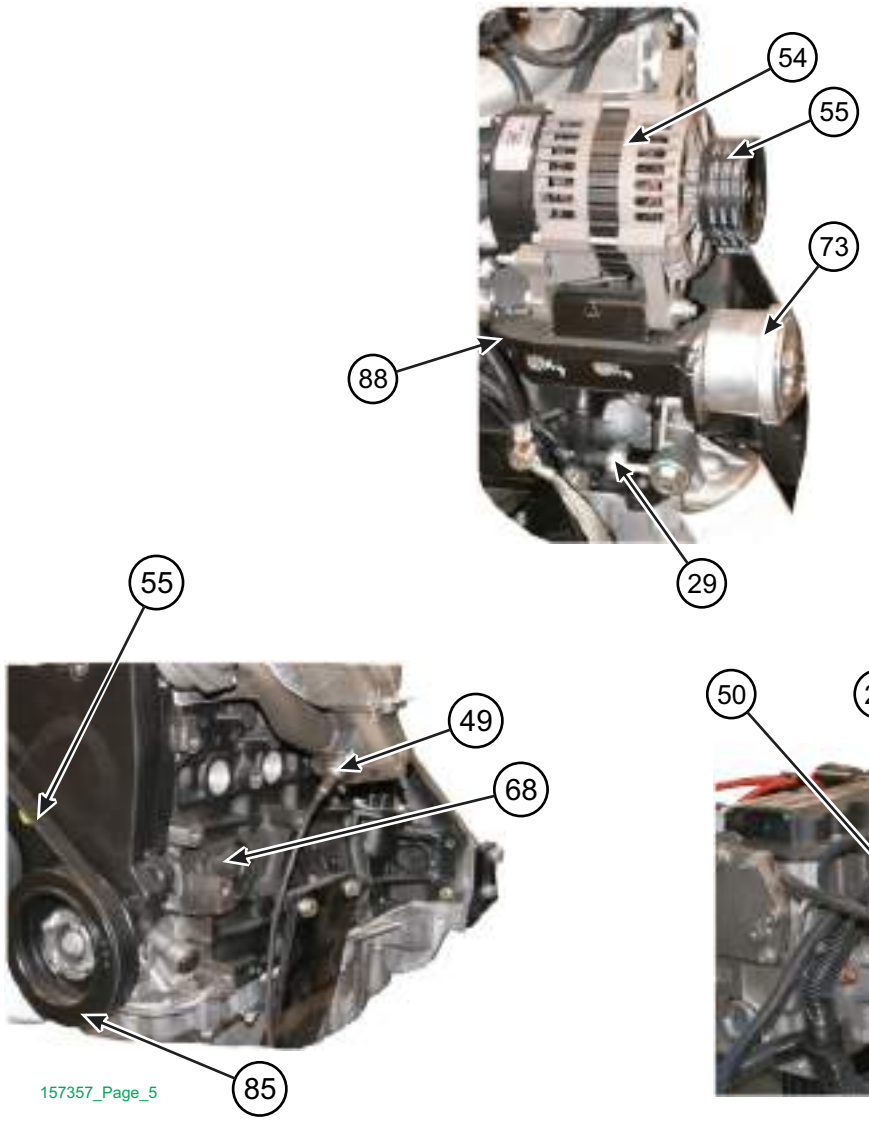

Figure 1-63: 2.4L Engine and Fuel System Assembly (5 of 5)

2.4L Engine and Fuel System Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
	157357	ENGINE TELEFLEX GM2.4L TIER4	
3	163196	HARNESS, ENGINE, MY2010 2.4L	1
4	156330	HARNESS,2.4L IGN TERMINATION	1
5	163197	ECU ASSY, MY2010 2.4L	1
7	154068	RELAY, TIERIII POWER LATCH	1
8	151193	ASSY, THROTTLE BODY	1
9	151195	GASKET, ELECTRONIC THROTTLE	1
11	156324	CLAMP, T3 2.4L INJECTOR HOSE	1
12	151194	GASKET, THROTTLE PLATE	1
13		HCE-1047 CPSCR M6 X 1 X 12	6
14	163198	FUEL RAIL, MY2010 2.4L	1
15		CAPSCREW, HEX FLANGE HEAD M6 X 1 X 35	2
16		HCE-1047 CPSCR M8 X 1.25 X 16	3
17	163199	ADAPTER, INJ, MY2010 2.4L	4
18	156323	O-RING,T3 2.4L INJECTOR ADAPT	4
20	163200	BRACKET, INJ, MY2010 2.4L	1
22	163201	INJECTER, GFI MY2010	4
23	156324	CLAMP, T3 2.4L INJECTOR HOSE	8
24		FUEL HOSE, 5/16	4
25	163206	CAM SENSOR, MY2010 2.4L	1
28	163202	ADAPTER, PRESS TRANS	1
29	163203	SENSOR, OIL PRESS MY2010	1
30		BRACKET	1
31		HEX PLAIN FLANGE NUT, M10 X 1.6	2
32		HEX PIPE PLUG, M16 X 1.6	1
33		HCE-1047 CPSCR M6 X 1 X 17	2
34	153465	KIT, 2.4L SPARK PLUG WIRE	1
35	153466	PLATE,BT/AC HYD LINKAGE CVR	1
36		FLANGE NUT, M6 X 2	2
37		COPPER RING	1
39		HCE-1064 NUT, M8 X 1.26	1
40		BRACKET	1
41		HCE-83 THREAD SEALANT	2
42	154066	0-RING,2.4L OIL PRS SENSOR N	1
43	154067	RING,2.4L OIL PRS RETAINING	1
44		BRACKET, COIL	1
45	163194	PURIMUFFLER, MY2010 2.4L	1
46	151271	MANIFOLD, 2.4L EXHAUST	1
47	151197	ASSY, VAPORIZOR	1
47	151189	KIT, VAPORIZOR REBUILT	1
48	151198	HOSE, VAPORIZOR TO FUEL RAIL	1
49	151199	SENSOR, 2.4L O2	1
50	151200	SENSOR, 2.4L FUEL PRESSURE B	1
51	151438	PACK, 2.4L COIL	1
52	151439	BELT, 2.4L TIMING	1
53	151440	STARTER, 2.4L	1
54	151441	ALTERNATOR, 2.4L	1
55	151442	BELT, 2.4L ALTERNATOR	1
56	151443	PLUG, 2.4L SPARK	1

2.4L Engine and Fuel System Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
57	151444	THERMOSTAT & HOUSING, 2.4L	1
58	151445	SEAL, 2.4L THERMOSTAT	1
59	149394	FILTER,GM VORTEC 2.4L OIL	1
60	151181	KIT, VAPORIZOR FILTER SERVICE	1
61	151186	KIT, LPG LOCK-OFF ASSY REPAIR	1
62	151182	KIT, FUEL INLET FITTING	1
63	151183	KIT, FUEL OUTLET FITTING	1
64	151184	KIT, DRAIN PLUG	1
65	151187	KIT, CONN RETENTION SCREW	1
66	151188	KIT, COOLANT CONN O-RING	1
67	153293	KIT, 2.4L GM VALVE COVER	1
68	153311	SENSOR, 2.4L CRANK POS	1
69	153312	SENSOR, 2.4L COOLANT TEMP	1
70	153313	SENSOR, 2.4L MAN AIR PRS&TEMP	1
71	153314	GASKET, 2.4L INTAKE MANIFOLD	1
73	153316	IDLER, 2.4L ALT BELT	1
74	153317	COVER, 2.4L TIMING BELT	1
75	153318	MANIFOLD, 2.4L INTAKE	1
76	153319	PUMP, 2.4L WATER	1
77	153320	GASKET, 2.4L TIMING COVER	1
78	153459	GASKET, 2.4L EXHAUST MAN	1
79	153460	BAFFLE,2.4L OIL PAN W/ GASKET	4
80	153461	HOSE, 2.4L PCV VALVE	1
81	153462	SEAL, 2.4L WATER PUMP	1
82	153463	FITTING, 2.4L OIL FILTER	1
83	153464	IDLER, 2.4L TIMING BEL	1
84	159801	COVER, 2.4L REAR TMG BELT	1
85	163204	PULLEY, CRANK, 2.4L	1
86	163205	FLYWHEEL, 2.4L	1
87	162957	GASKET,GM 2.4L CYL HEAD	1
88	156296	BRACKET WLDMT,BIT3 LWR ALTNTR	1
89	182813	'GASKET,2.4L DIPSTICK/PCV TUBE	1
90	182816	TUBE,2.4L UPPER PCV	1

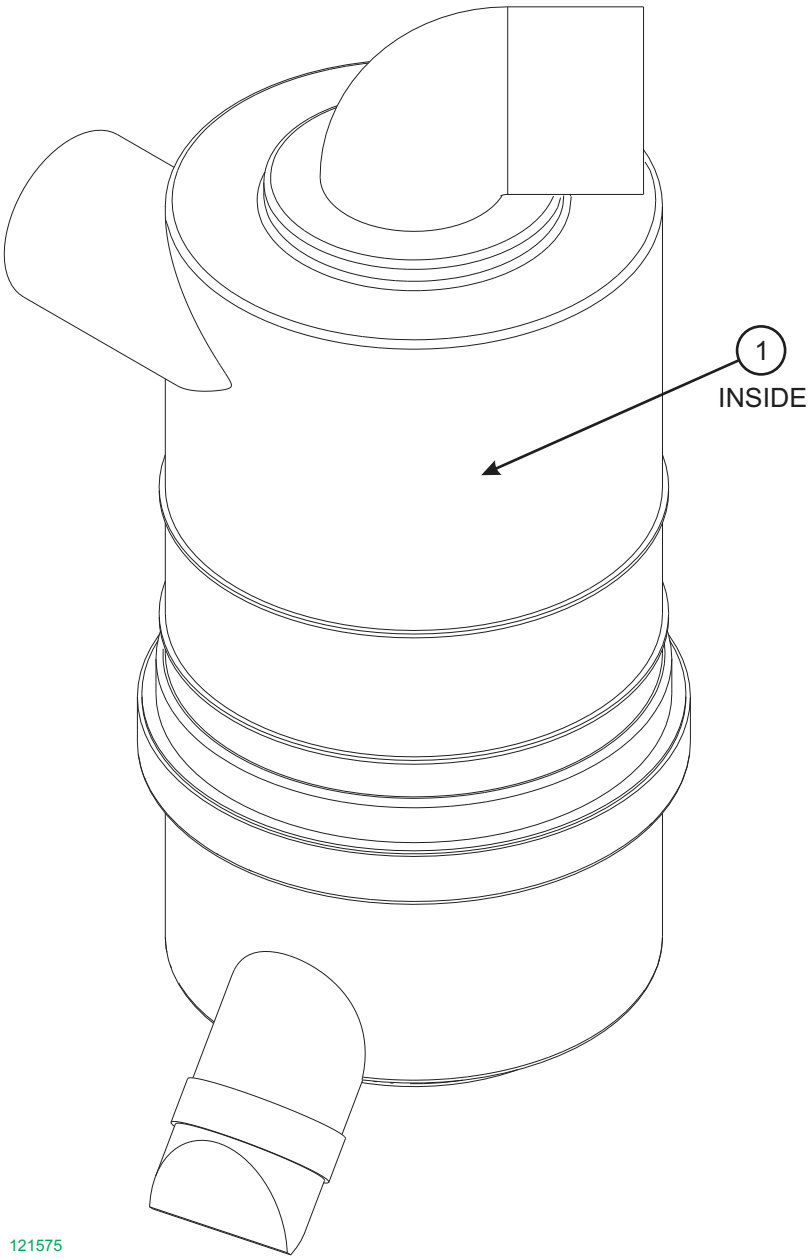

Figure 1-64: Air Filter Assembly

Air Filter Assembly

ITEM	PART NUMBER	DESCRIPTION	QTY.
	121575	CLEANER, AIR	1
1	124698	ELEMENT, FILTER	1
2	162088	WIRE LATCH FOR AIR CLEANER **(NOT SHOWN)**	2

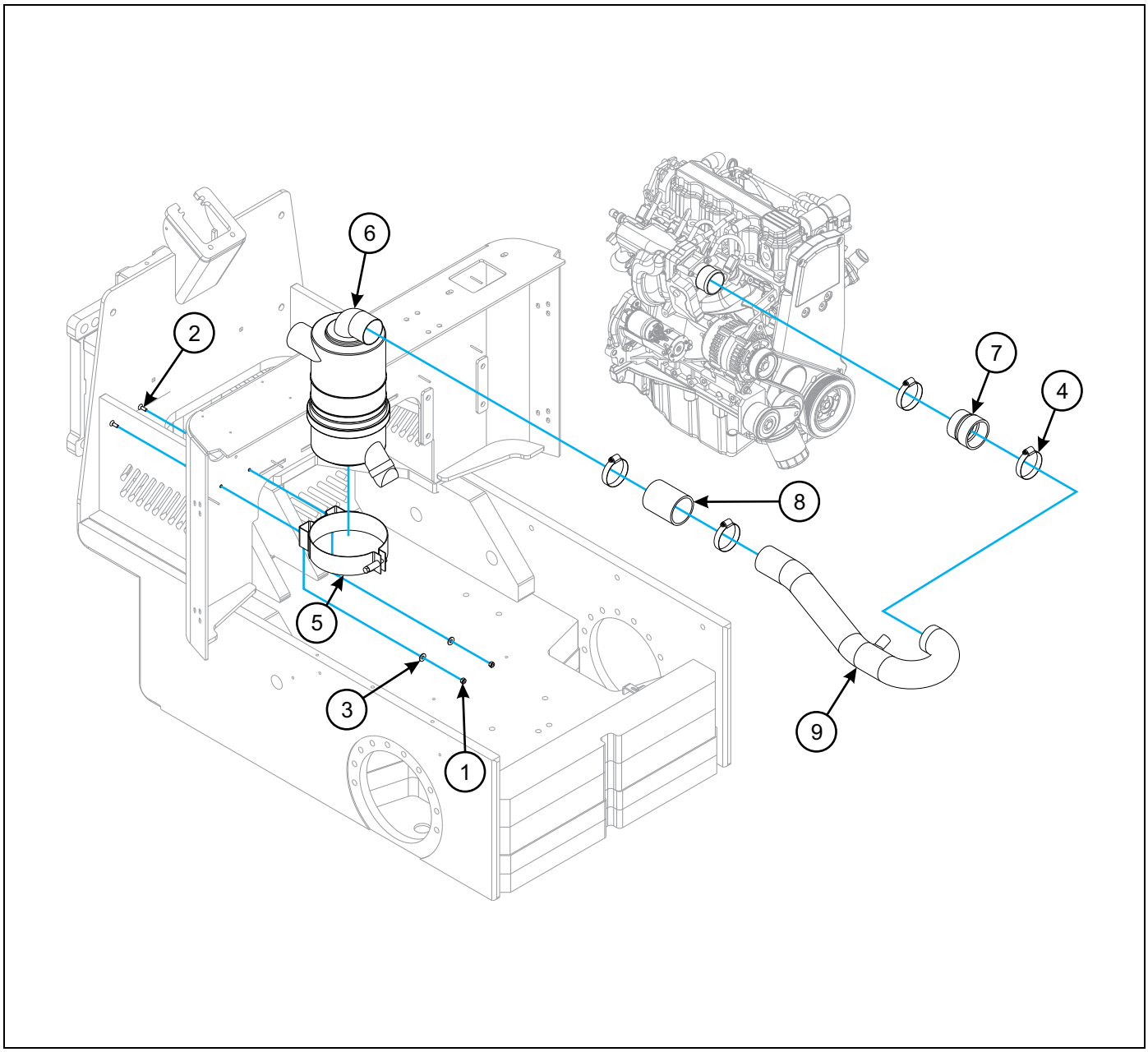

Figure 1-65: Engine Air Intake Components

Engine Air Intake Components

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010003-09	NUT,1/4-20 ESNA	2
2	1-654-010079-4	SCREW 1/4-20X3/4 SKT FL CTSK	2
3	1-861-010032-07	WASHER,FLAT 1/4 ZP	2
4	105-0107	CLAMP HOSE	4
5	121574	MOUNTING BAND-AIR CLEANER	1
6	121575	CLEANER, AIR **(SEE PAGE 1-111)**	1
7	134826	RUBBER REDUCER, 2.50 TO 2.25	1
8	135438	HOSE 2-1/2 ID COOLANT	AR
9	151043	TUBE,BI-T3 AIR INTAKE	1
10	152087	HOSE, 7/8 VAPOR GATES 63SB **(NOT SHOWN)**	AR

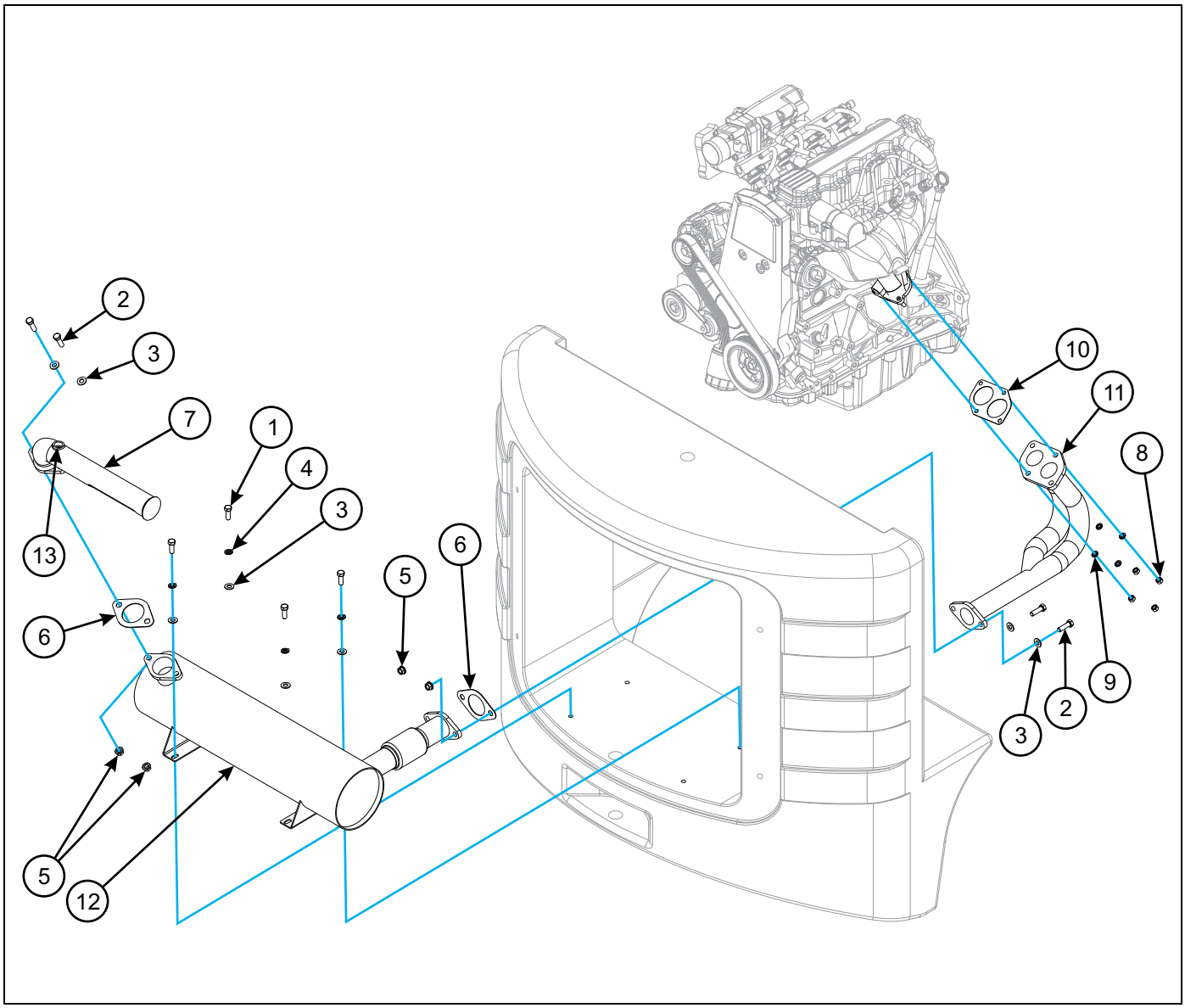

Figure 1-66: Engine Exhaust Installation

Engine Exhaust Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-654-010051-05	SCREW,HEX CAP 3/8-16UNCX1 GR5	4
2	1-654-010051-06	SCREW,HEX CAP 3/8-16UNCX1-1/4	4
3	1-861-010032-10	WASHER, FLAT 3/8" N ZP/CD	8
4	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	4
5	107470	NUT,SPIRALOCK 3/8-16HX	4
6	131863	GASKET,EXHAUST FLANGE	2
7	157346	PIPE BI-2010 EXHAUST DIFFUSER	1
8	1DM8ER	NUT HEX HD M8X1.25 CL8.8	4
9	6EM80ER	WASHER LOCK SPRING M8	4
10	152086	GASKET,2.4L EXHAUST MANIFOLD	1
11	161416	MANIFOLD,BIT4 2.4L EXHAUST	1
12	163194	PURIMUFFLER, MY2010 2.4L	1
13	163195	O2 SENSOR, POST CATALYST	1

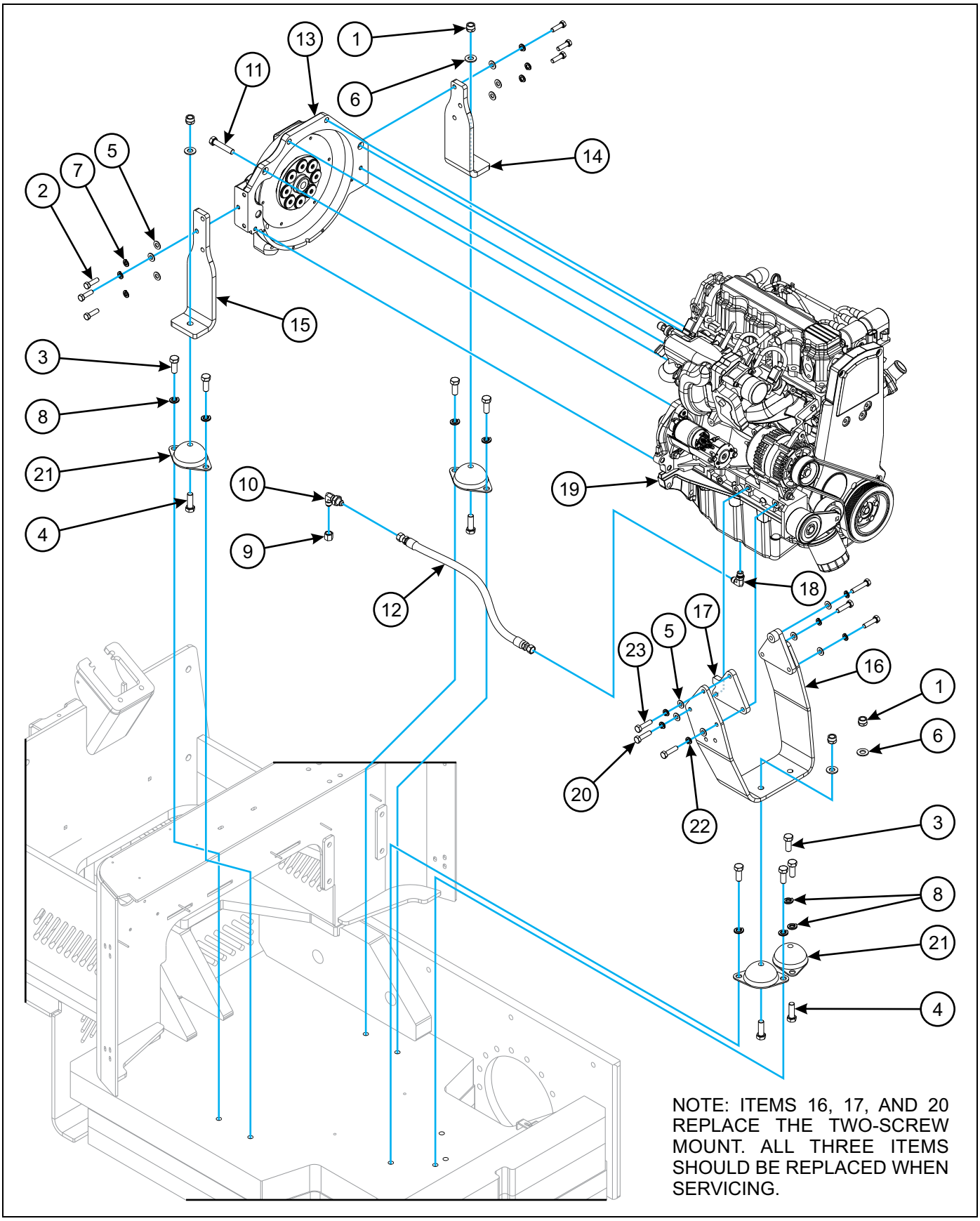

Figure 1-67: Engine Installation

Engine Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-512-010005-09	NUT,HEX,SLFLKG, 1/2-13 GRB	4
2	1-654-010051-06	SCREW,HEX CAP 3/8-16UNCX1-1/4	6
3	1-654-010055-02	SCREW 1/2-13UNCX1-1/4 CP GR5	8
4	169690	SCREW HXCP1/2-13UNCX2-1/4 G5	4
5	1-861-010032-10	WASHER, FLAT 3/8" N ZP/CD	12
6	1-861-010032-14	WASHER, FLAT 1/2" N ZP/CD	4
7	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	6
8	1-861-010034-13	WASHER, LKG HLCL SPR, 1/2	8
9	102-0899	TUBE CAP,3/8 HEX 37*JIC FLARE	1
10	102-0949	37 FLARE BULKHEAD/37 FLARE	1
11	118754	SCREW M12-1.75X60 HCS 8.8 ZP	1
12	124107	CFR-2/CFR-3 HOSE HYD 3/8X24	1
13	144575	HOUSING, GM 2400 PUMP MOUNT	1
14	145258	BRACKET BI-T3 2.4L ENG RF MNT	1
15	145260	BRACKET BI-T3 2.4L LF ENG MNT	1
16	145265	MOUNT WLDMT BI-T3 2.4L FT ENG **(S/N 7608 AND PRIOR) (NOT SHOWN)**	1
16	175495	WLDMT,2.4L FRT ENGINE MNT **(S/N 7609 AND AFTER)**	1
17	145266	PLATE BI-T3 FRT ENG LH SPCR **(S/N 7608 AND PRIOR) (NOT SHOWN)**	1
17	175498	PLATE,2.4L FRT ENG LH SPCR **(S/N 7609 AND AFTER)**	1
18	145302	ADAPTER,#6JIC X M14METRIC-ORR	1
19	157357	ENGINE TELEFLEX GM2.4L TIER4 **(SEE PAGE 1-104)**	4
20	1CM1040ER	SCREW M10-1.5X40 HCS 8.8 ZP **(S/N 7608 AND PRIOR) (NOT SHOWN)**	4
20	175517	SCREW,M10-1.5X40,HCS,ZP,931 **(S/N 7609 AND AFTER)**	5
21	CA-1595	MOUNT,MACHINE 1/2 40 DUROMTR	4
22	M10SLW ZP	WASHER,SPLIT LK METRIC 10MMZP	6
23	173933	SCREW,M10-1.5X50,HCS,ZP,931 **(S/N 7609 AND AFTER)**	1

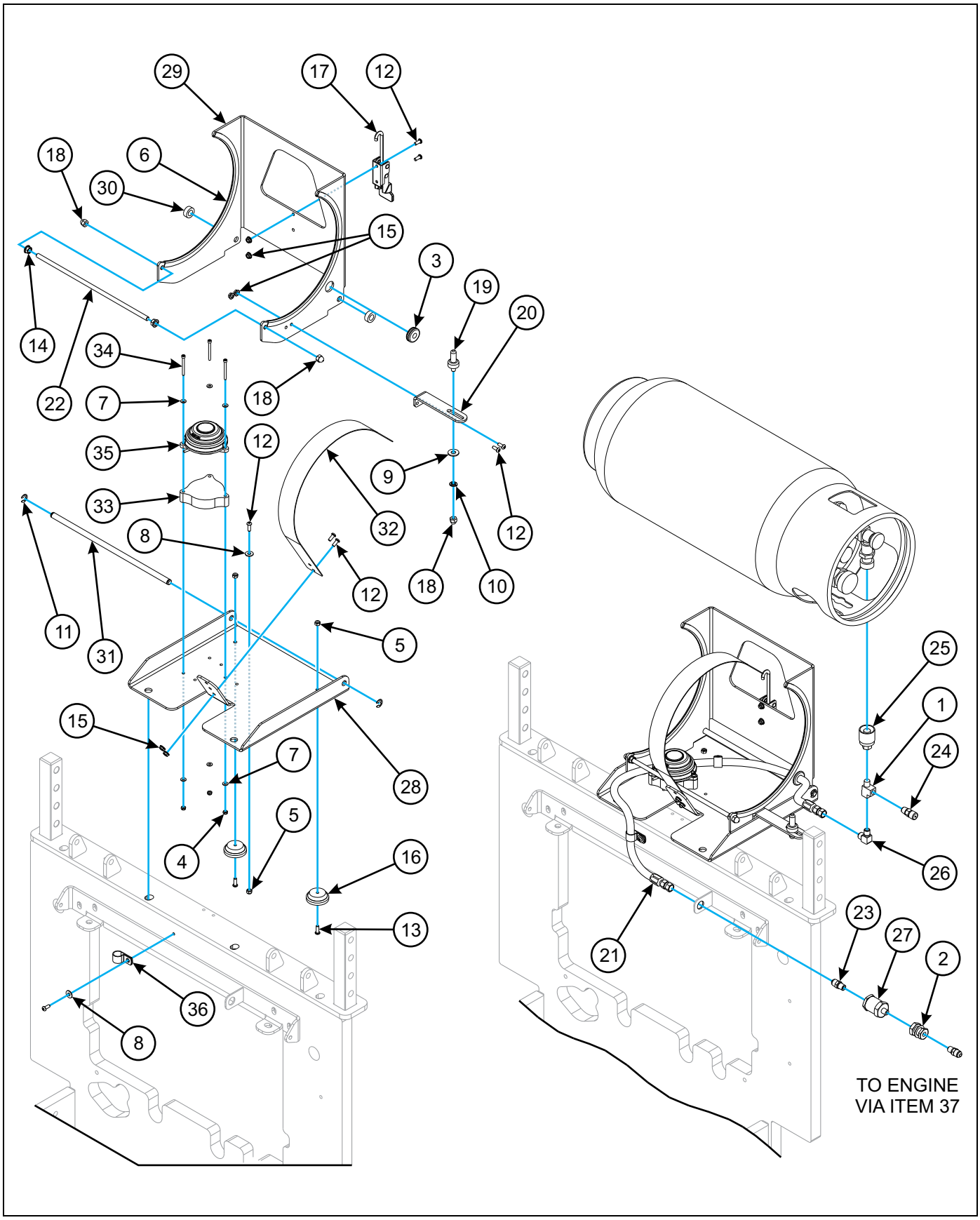

Figure 1-68: LP Gas Hookup and Tray Installation

LP Gas Hookup and Tray Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	1-297-010018-02	FITTING 1/4,BRASS PIPE,ST TEE	1
2	1-297-010022-02	FITTING,AIR ANCHR CPLG,1/4NPT	1
3	1-343-010001	GROMMET RUB 1-3/8ODX3/4IDX1/8	1
4	1-512-010003-05	NUT HEX SLFLKG W/NYL 10-32	3
5	1-512-010003-09	NUT,1/4-20 ESNA	3
6	1-822-010002	TRIM-LOK 3/16 **(NOT SHOWN)**	AR
7	1-861-010032-03	WASHER, FLAT #10 ZP/CD	6
8	1-861-010032-07	WASHER,FLAT 1/4 ZP	2
9	1-861-010032-11	WASHER, FLAT 3/8 W ZP/CD	1
10	1-861-010034-11	WASHER, LKG HLCL SPR, 3/8	1
11	106240	RING,RETANING,EXT,E,1/2	2
12	106954	SCREW,BHSC 1/4-20UNCX5/8	7
13	106955	SCREW,BHSC 1/4-20UNCX3/4	3
14	107470	NUT,SPIRALOCK 3/8-16HX	2
15	108417	NUT SPIRAL 1/4-20HX FG	6
16	111098	BUMPER, BENDI CONSOLE	2
17	115621	LATCH,BI PROPANE BOTTLE HLDN	1
18	122154	NUT, HEX ACORN 3/8-16ZP	3
19	122164	PIN,LP TANK POSITION	1
20	122189	ANGLE, LP TANK POSITION	1
21	122191	HOSE 5/8X43 #6 ST SAE	1
22	122689	ROD,LP BRKT SUPPORT	1
23	122997	FITTING,SAE45FLARE MALE	2
24	123015	VALVE HYDROSTATIC RELIEF	1
25	123377	COUPLER, FEMALE TANK	1
26	123378	ELBOW 90 3/8 45DEG X 1/4 MPT	1
27	136624	FILTER LP FUEL 3.0L ENG	1
28	145288	PLATE BI-T3 LP BOTTLE BASE	1
29	145289	PLATE BI-T3 LP BOTTLE CRADLE	1
30	145290	SPACER BI-T3 LP BOTTLE CRADLE	2
31	145291	PIN BI-T3 LP BTL CRADLE HINGE	1
32	145292	STRAP BI-T3 LP BOTTLE HLDN	1
33	149490	PLATE.BI-T3 FUEL SENSOR SPECR	1
34	150444	SCREW, 4 X SKT, 10-32 X 2 ZP	3
35	154544	SENSOR,ASSY,LP FUEL W/DEUTSCH	1
36	40-0717-02	CLAMP,HYD HOSE SUPPORT	2
37	1-316-010001	HOSE, FUEL LOW PRESSURE 5/16 **(NOT SHOWN)**	1

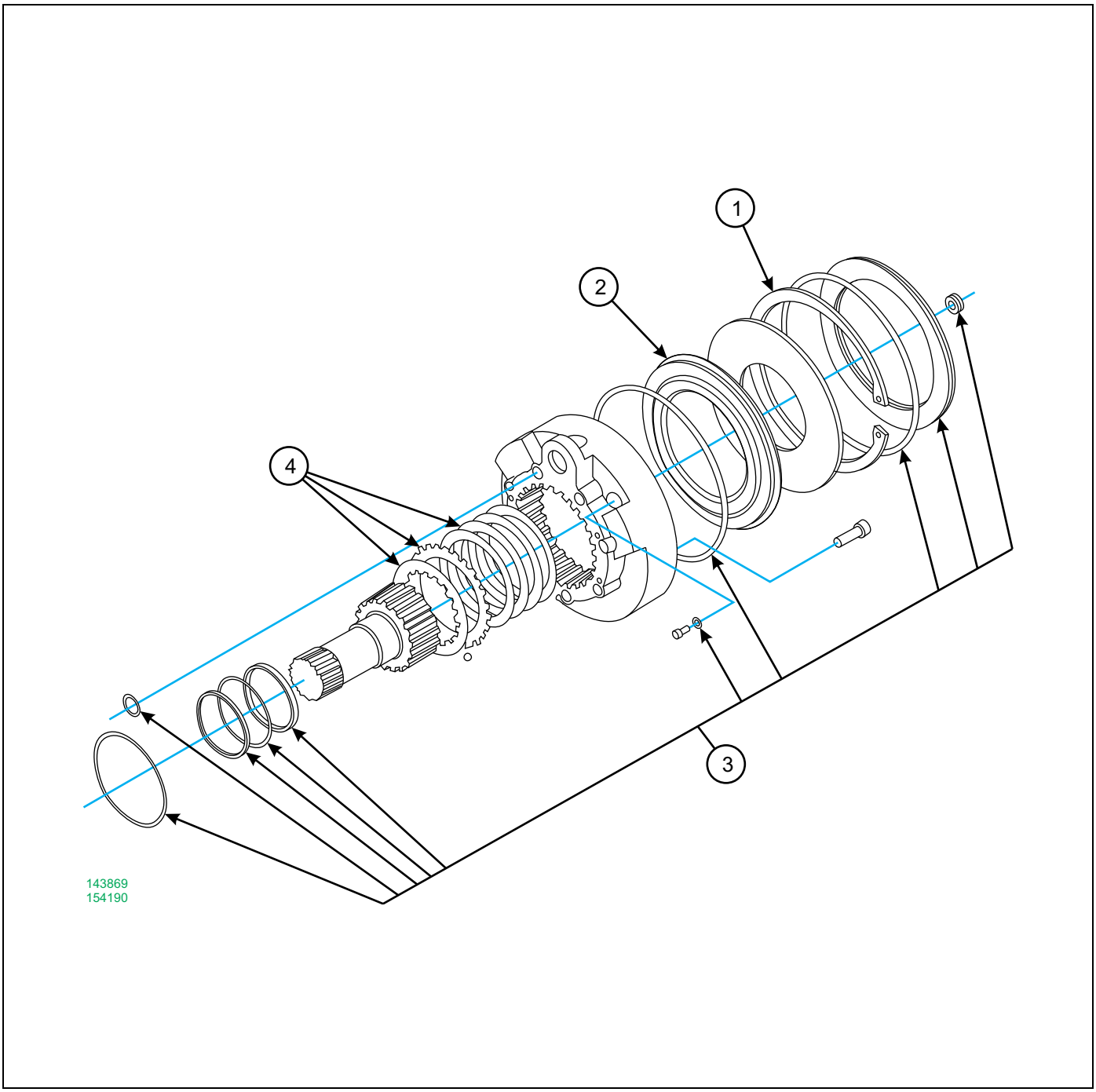

Figure 1-69: Motor Brake Assemblies

Motor Brake Assemblies

ITEM	PART NUMBER	DESCRIPTION	QTY.
	143869	MOTOR,POCLAIN MS05 W/SAHR BRK	
	154190	MOTOR,POCLAIN MS05 REMAN	
1	154197	INNER SNAP RING	1
2	154198	PISTON	1
3	154199	BRAKE SEAL KIT	1
4	154634	BRAKE DISK KIT	1
5	154543	KIT, B40i3 BRAKE SERV TOOL **(NOT SHOWN)**	1

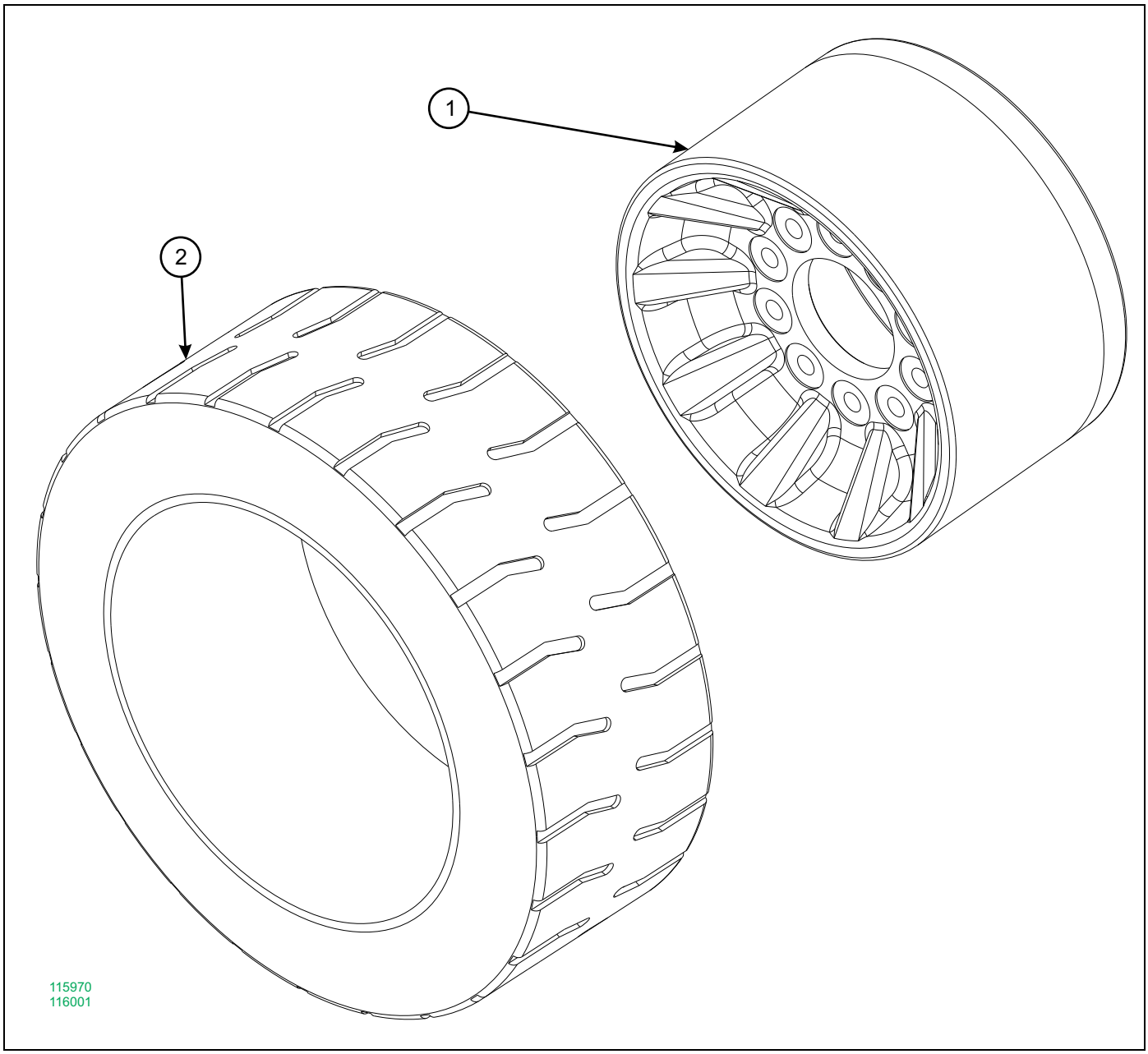

Figure 1-70: Rear Drive Wheel Assemblies, Maxmatic

Rear Drive Wheel Assembly, Maxmatic

ITEM	PART NUMBER	DESCRIPTION	QTY.
	116001	WHEEL ASSY, T3IC,7,MAX	
1	117167	WHEEL,TIER 3 IC 7" CAST	2
2	0010998	TIRE,PRESS-ON,MAXMATIC,18X7	2

Rear Drive Wheel Assembly, Maxmatic, Non-Marking

ITEM	PART NUMBER	DESCRIPTION	QTY.
	115970	WHEEL ASSY, T3IC,7,NM MAX	
1	117167	WHEEL,TIER 3 IC 7" CAST	2
2	0011003	TIRE,PRESS-ON,MAXMATIC,18X7	2

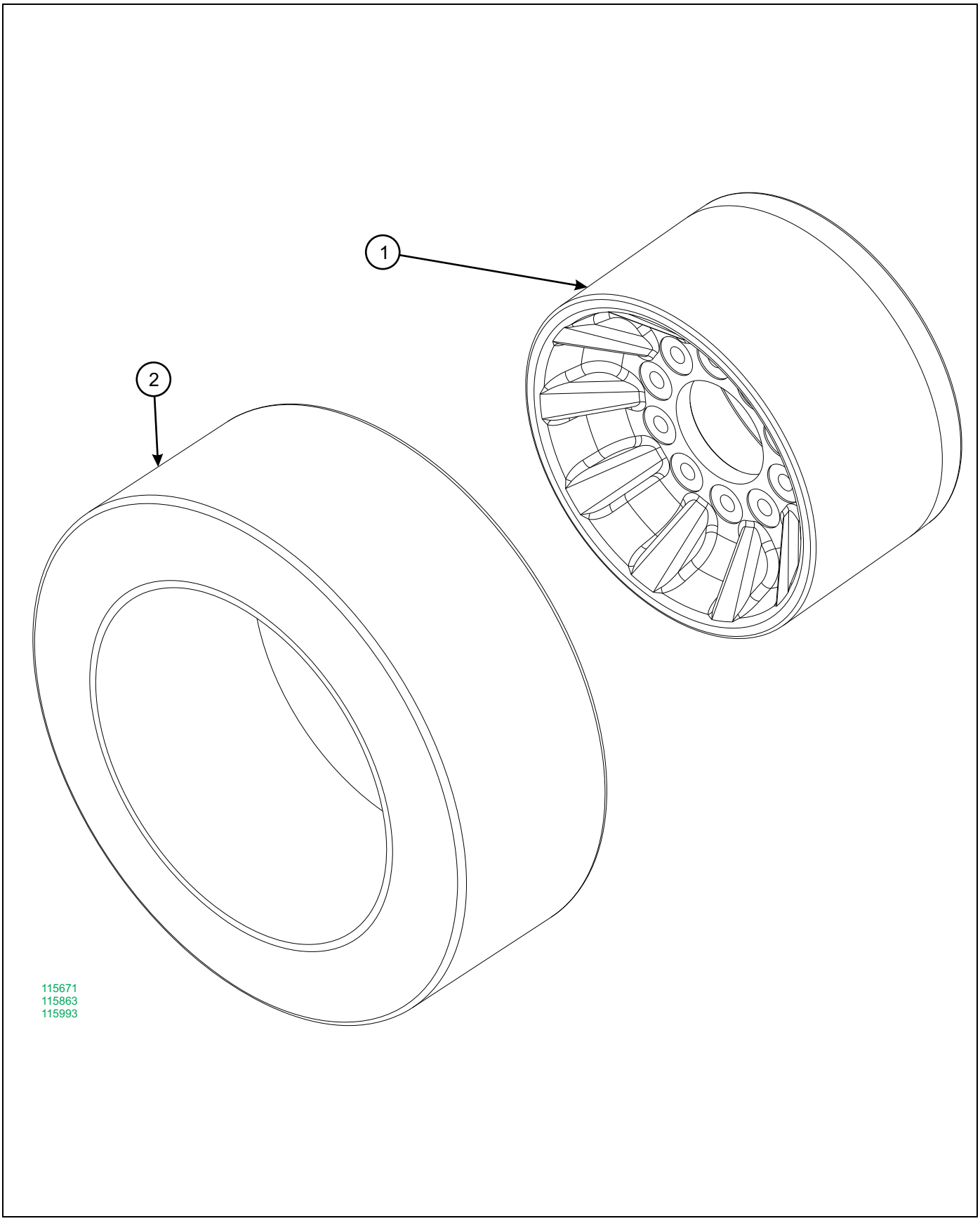

Figure 1-71: Rear Drive Wheel Assemblies, Smooth

Rear Drive Wheel Assembly, Smooth

ITEM	PART NUMBER	DESCRIPTION	QTY.
	115671	WHEEL ASSY, T3IC,7,SM KRT	
1	117167	WHEEL,TIER 3 IC 7" CAST	2
2	106487	TIRE,PRESS-ON,SMOOTH,KRT,18X7	2

Rear Drive Wheel Assembly, Smooth, Heavy Duty

ITEM	PART NUMBER	DESCRIPTION	QTY.
	115993	WHEEL ASSY, T3IC,7,POLY	
1	117167	WHEEL,TIER 3 IC 7" CAST	2
2	0012566	TIRE,PRESS-ON,POLY,18X7	2

Rear Drive Wheel Assembly, Smooth, Non-Marking

ITEM	PART NUMBER	DESCRIPTION	QTY.
	115863	WHEEL ASSY, T3IC,7,SM KRT,NM	
1	117167	WHEEL,TIER 3 IC 7" CAST	2
2	106489	TIRE,PRESS-ON,SM,KRT,NM,18X7	2

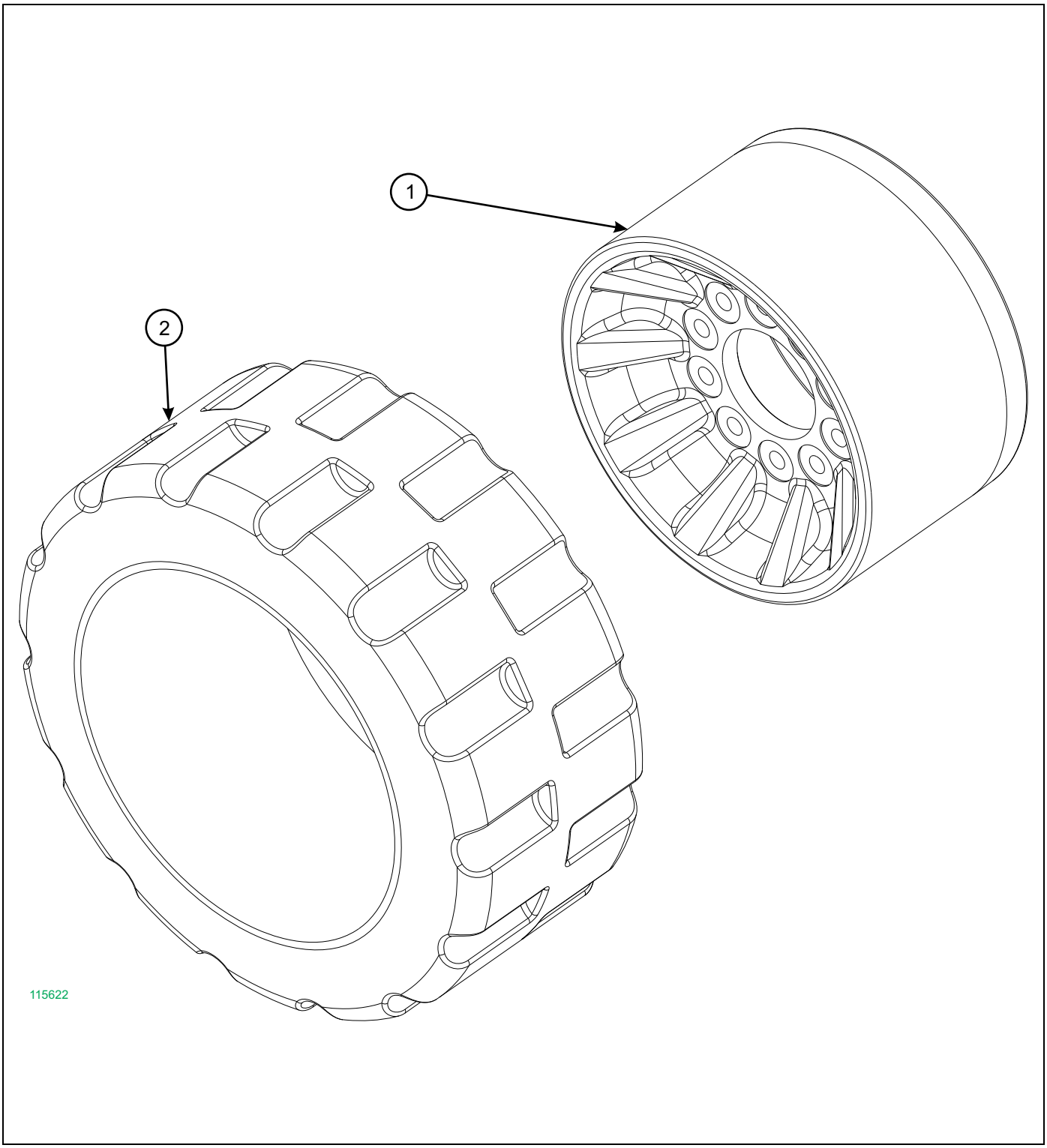

Figure 1-72: Rear Drive Wheel Assembly, Trelleborg

Rear Drive Wheel Assembly, Trelleborg

ITEM	PART NUMBER	DESCRIPTION	QTY.
	115622	WHEEL ASSY, T3IC,7,NS TREL	
1	117167	WHEEL,TIER 3 IC 7" CAST	2
2	135641	TIRE,PO,TRELLEBORG,18X7	2

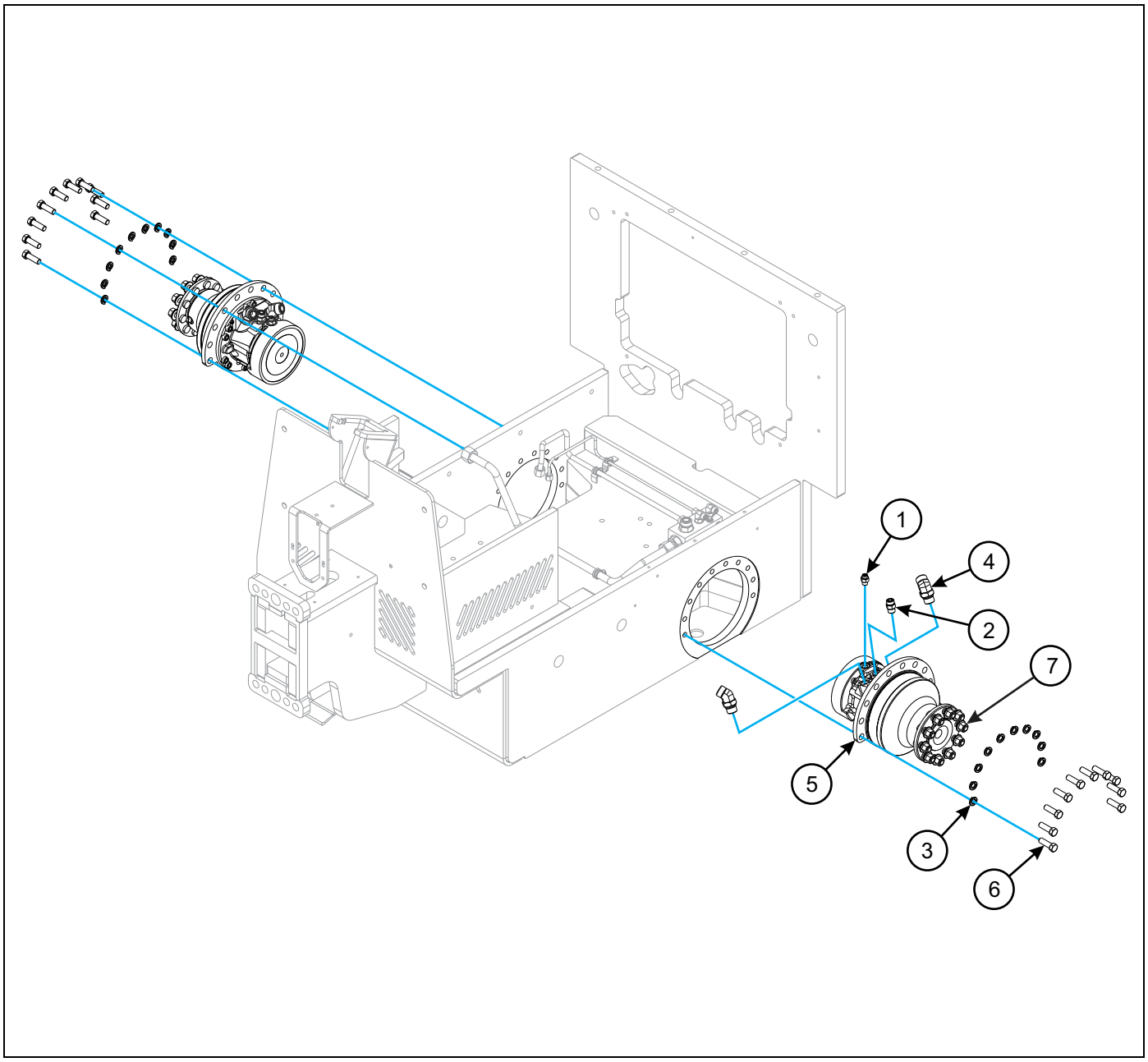

Figure 1-73: Rear Drive Wheel Motor Installation

Rear Drive Wheel Motor Installation

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	0018108	ADAPTER VALVE REAR TILT	2
2	0018110	ADAPTER VALVE 1/2	4
3	1-861-010034-14	WASHER 9/16,LKG,HELICAL SPG **(PRIOR TO S/N 8314)**	20
3	1-861-010034-15	WASHER,LKG,HLCL SPR,5/8 **(AFTER S/N 8314)**	20
4	122182	ADAPTER 45ORS/SAE O-RING BOSS	4
5	143869	MOTOR,POCLAIN MS05 W/SAHR BRK **(SEE PAGE 1-118)**	2
5	154190	MOTOR,POCLAIN MS05 REMAN **(SEE PAGE 1-118)**	2
6	146865	SCREW,HXCP,9/16-18UNFX1-3/4G8 **(PRIOR TO S/N 8314)**	20
6	1-654-010090-04	SCREW, 5/8-18UNFX1.75HHCS,GR8 **(AFTER S/N 8314)**	20
7	160529	NUT, B40Ix DRIVE WHEEL LUG	20

Options

Accessories

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	125992	ACCESSORIES,FIRE EXTINGUISHER **(INCLUDES ITEMS 2 AND 3)**	
2	0030020	FIRE EXTINGUISHER FORKLIFT	
3	1/4-20X3/4 SELF	SCREW HEX HEAD THREAD CUT	
4	0018152	GAUGE KIT, HYDRAULIC PRESSURE	
5	125991	ACCESSORIES, 4TH FUNCTION	
6	105-0211	TYWRAP 3/16-3-1/2DIA TY-527MX	
7	129192	KIT 12V EXTRA FUNC SOLENOID	

Service Tools

Software Programs, Cables, Handsets, and Documents

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	150713	KVASER LEAF LIGHT DONGLE	
2	151159	HARNESS, CAN INTERFACE A	
3	0018152	GAUGE KIT, HYDRAULIC PRESSURE	
4	128554	DEUTSCH SERVICE KIT	

Table provided for general use.

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Chapter 3

Glossary

For clarity this glossary of industry standard abbreviations and their definitions are provided.

For additional information, See “Instructions for Ordering Parts” on page 1-1.

A

ASSY OR **ASM** . . . . . .Assembly
AR . . . . . .As Required

B

BATT . . . . . .Battery
BHSC . . . . . .Button Head Socket Cap
BLK . . . . . Black
BLKHD . . . . . Bulkhead
BLNCE . . . . . Balance
BRK. . . . . .Brake
BTN. . . . . Button

C

CB . . . . . .Carriage Bolt
CD . . . . . .Cadmium
COMPSTR . . . . . .Compensator
CONN . . . . . Connector
CP . . . . . Cap
CRG . . . . . .Carriage
CTSK . . . . . Countersunk
CTWT . . . . . .Counterweight
CVR . . . . . .Cover
CYD OR **CYL** . . . . . .Cylinder

D

DBL . . . . . .Double
DEG. . . . . .Degree
DIA . . . . . Diameter

E

ENCLSD . . . . . .Enclosed

F

FHCS . . . . . Flanged Head Cap Screw
FHHCS . . . . . .Flanged Hex Head Cap Screw
FL OR **FLG** . . . . . .Flange
FLT . . . . . Flat
FRT . . . . . .Front

G

GA . . . . . .Gauge
GR5 . . . . . .Grade 5
GR8 . . . . . .Grade 8

H

HHCS . . . . . .Hex Head Cap Screw
HCS . . . . . High Carbon Steel
HD . . . . . .Head
HLCL OR **HEL** . . . . . .Helical
HCSKT . . . . . .Hex Socket
HSFC . . . . . .Hex Socket Flat Countersunk
HX . . . . . .Hex
HYD . . . . . .Hydraulic

I

I/C. . . . . Internal Combustion
ID . . . . . Inside Diameter
IND . . . . . Indicator
INT . . . . . Interior

J

JIC . . . . . Joint Industry Council

L

LD . . . . . Lead
LH . . . . . Left hand
LIM . . . . . Limit
LKG OR **LOCK** . . . . . Locking
LWR . . . . . Lower

M

MACH . . . . . Machined
MANF . . . . . Manifold
MNT . . . . . Mount
MTR . . . . . Motor

N

NK . . . . . Neck
NRW . . . . . Narrow
NSS . . . . . Not Serviced Separately
NYL . . . . . Nylon

O

OD . . . . . Outside Diameter
OHG . . . . . Overhead Guard
ORFS OR **ORS** . . . . . O-Ring Seal
ORP OR **ORB** . . . . . O-Ring Boss

P

P-STEER . . . . . Power Steering
POT . . . . . Potentiometer
PTFE . . . . . Polytetrafluoroethylene (Teflon)

R

REFLCTV . . . . . Reflective
RH . . . . . Right hand
RND OR **RD** . . . . . Round
ROT . . . . . Rotation
RTNR . . . . . Retainer

S

SAE . . . . . Society of Automobile Engineers (Imperial System)
SER . . . . . Series
SGL . . . . . Single
SHCS . . . . . Socket Head Cap Screw
SHLD . . . . . Shield
SKT OR **SOC** . . . . . Socket
SLFLKG . . . . . Self locking
SOL . . . . . Solenoid
SPDT . . . . . Single Pole Double Throw
SPR . . . . . Spring
SQ . . . . . Square
SRTD . . . . . Serrated
SSCR . . . . . Setscrew
SST . . . . . Stainless Steel
STD . . . . . Standard
STRG . . . . . Steering
STRN . . . . . Strain
SWVL . . . . . Swivel

T

TRAC . . . . . Traction

U

UNC . . . . . Unified Coarse Thread
UNF . . . . . Unified Fine Thread
UPR . . . . . Upper

W

WHL . . . . . Wheel
WLD OR **WLDMT** . . . . . Weldment
WSHR . . . . . Washer

Z

ZP . . . . . Zinc Plate

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