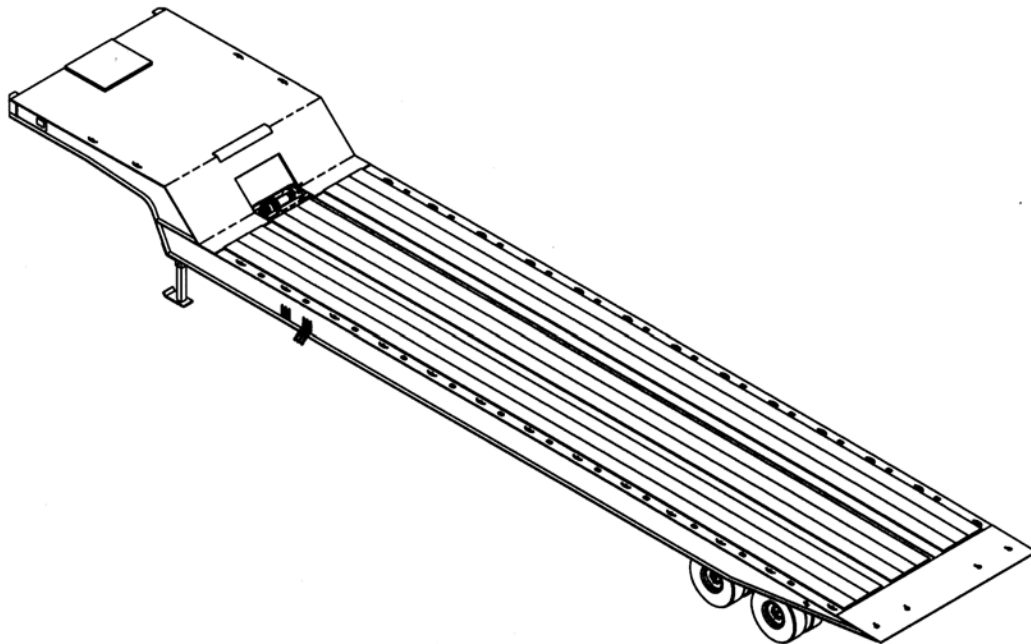




Model 317D/318D Series Semitrailer Parts Manual



LANDOLL CORPORATION

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Instructions for Ordering Parts

ORDER PARTS FROM LANDOLL PARTS DISTRIBUTION CENTER

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

PHONE NO.: 1-800-423-4320 OR 1-800-428-5655 OR 1-785-562-5381

FAX NO.: 888-527-3909

ORDER ONLINE: companystore.landoll.com

IDENTIFICATION PLATE

The identification plate, which lists the VIN (Vehicle Identification Number), is located on the left side of the hitch (See Figure 1-1.)

SERIAL NUMBER NOMENCLATURE

The serial number for the 317D/318D series semitrailer is located on the identification plate. The serial number is the last five digits of the VIN number. The 4th, 5th, and 6th digits in the VIN number are the model number of the trailer.

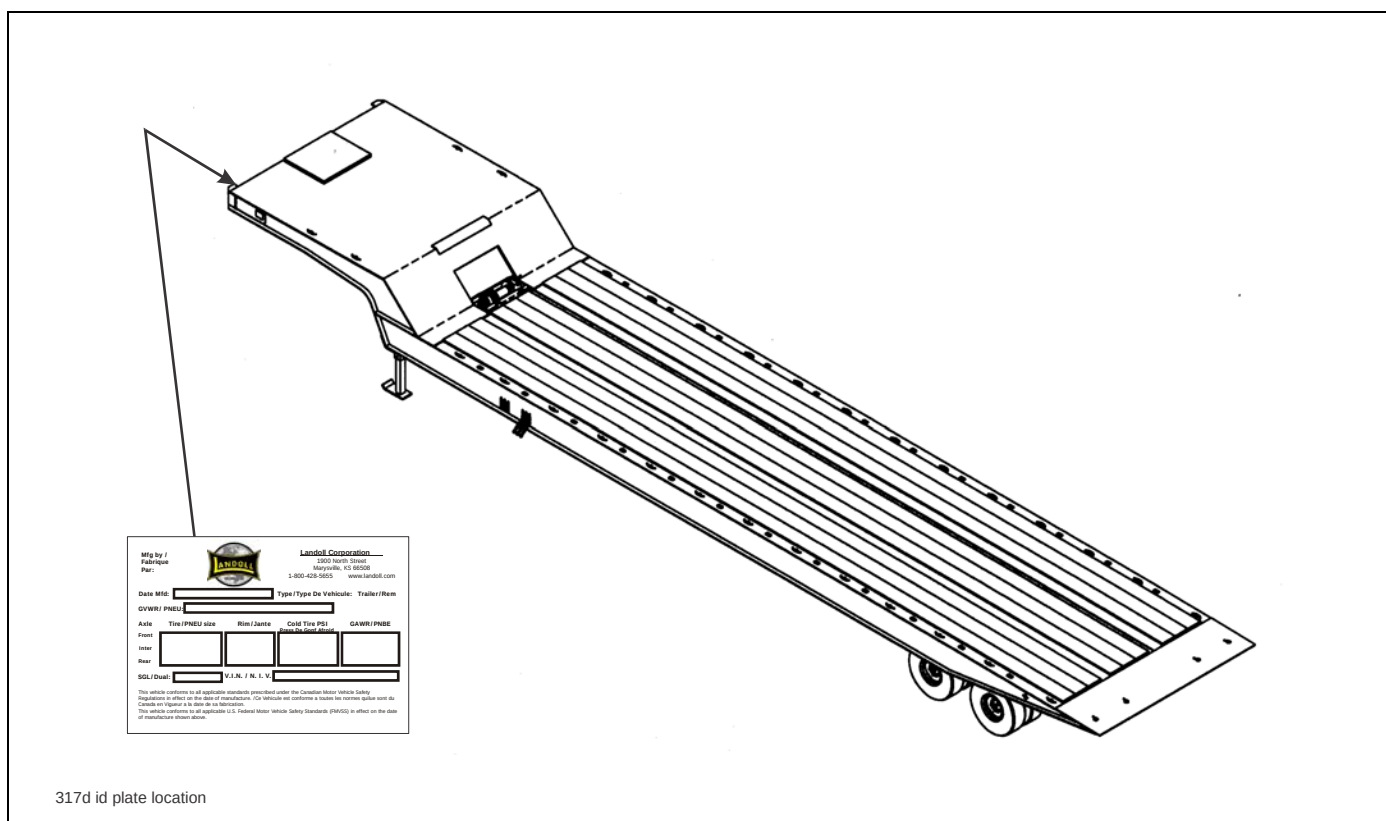


Figure 1-1: Identification Plate and Location

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Illustrated Parts List

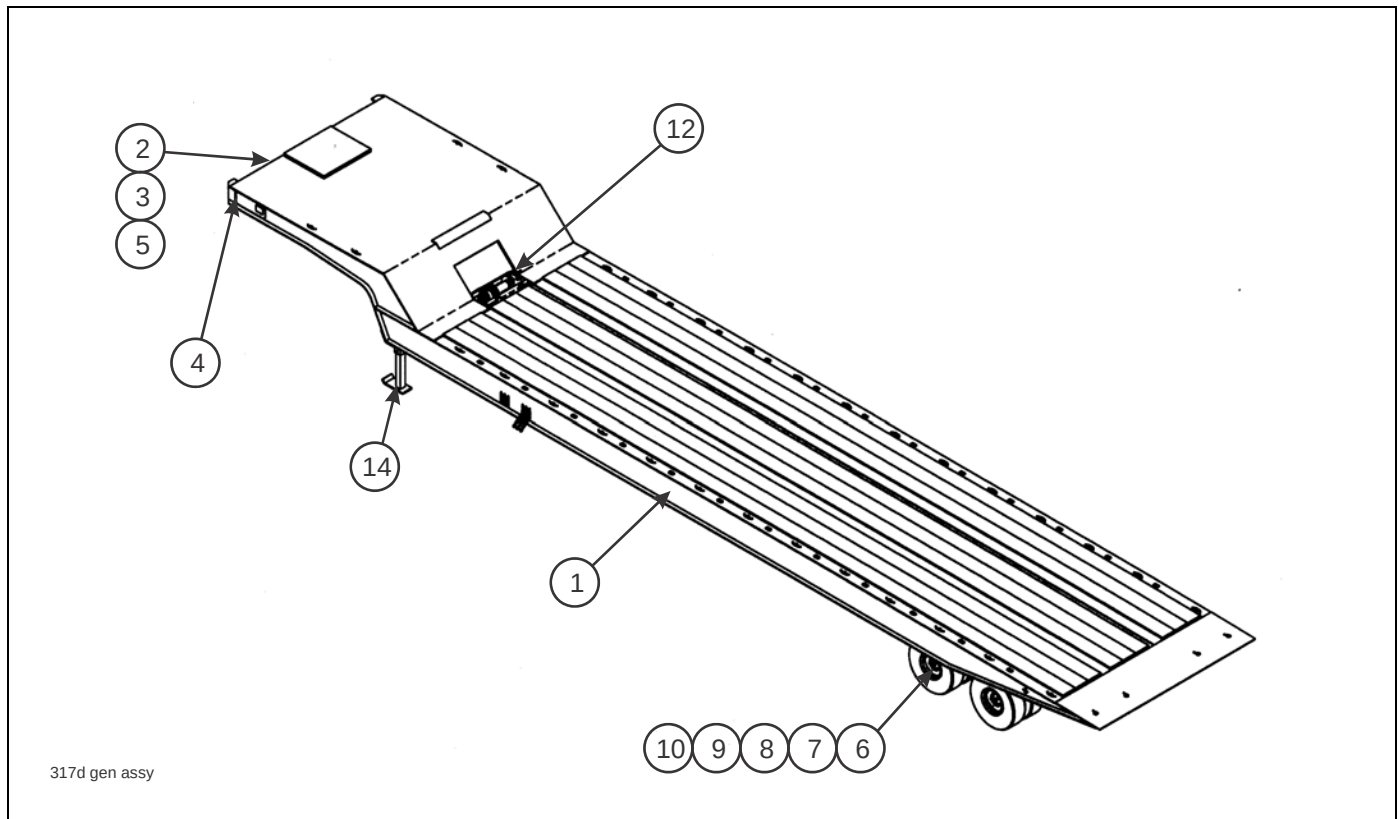


Figure 2-1: General Assembly

GENERAL ASSEMBLY

ITEM	PAGE NO.	DESCRIPTION	QTY.
1	2-2 - 2-6	DECAL INSTALLATION	
2	2-8 - 2-11	FIFTH WHEEL HITCH AND DOOR LATCH ASSEMBLIES	
3	2-12 - 2-29	HYDRAULIC ASSEMBLIES	
4	2-30 - 2-33	ELECTRICAL ASSEMBLIES	
5	2-34 - 2-35	AIR SYSTEM	
6	2-36 - 2-41	AIR BRAKE SYSTEMS	
7	2-42 - 2-55	UNDERCARRIAGE ASSEMBLY - AIR RIDE SUSPENSION	
8	2-56 - 2-57	SUSPENSION HANGER RLU-250	
9	2-58 - 2-61	AXLE AND BRAKE	
10	2-62 - 2-63	HUB AND DRUM ASSEMBLY	
11	2-64 - 2-77	BULKHEAD/PULLOUT/OUTRIGGER ASSEMBLIES (NOT SHOWN) (OPTION)	
12	2-78 - 2-115	WINCH ASSEMBLIES	
13	2-116 - 2-133	DOCK LEVELER ASSEMBLIES (NOT SHOWN) (OPTION)	
14	2-134 - 2-141	LANDING GEAR ASSEMBLIES (OPTION)	
15	2-142 - 2-155	HYDRAULIC ENGINE ASSEMBLIES (NOT SHOWN) (OPTION)	
16	2-156 - 2-169	MISCELLANEOUS OPTIONS (NOT SHOWN)	

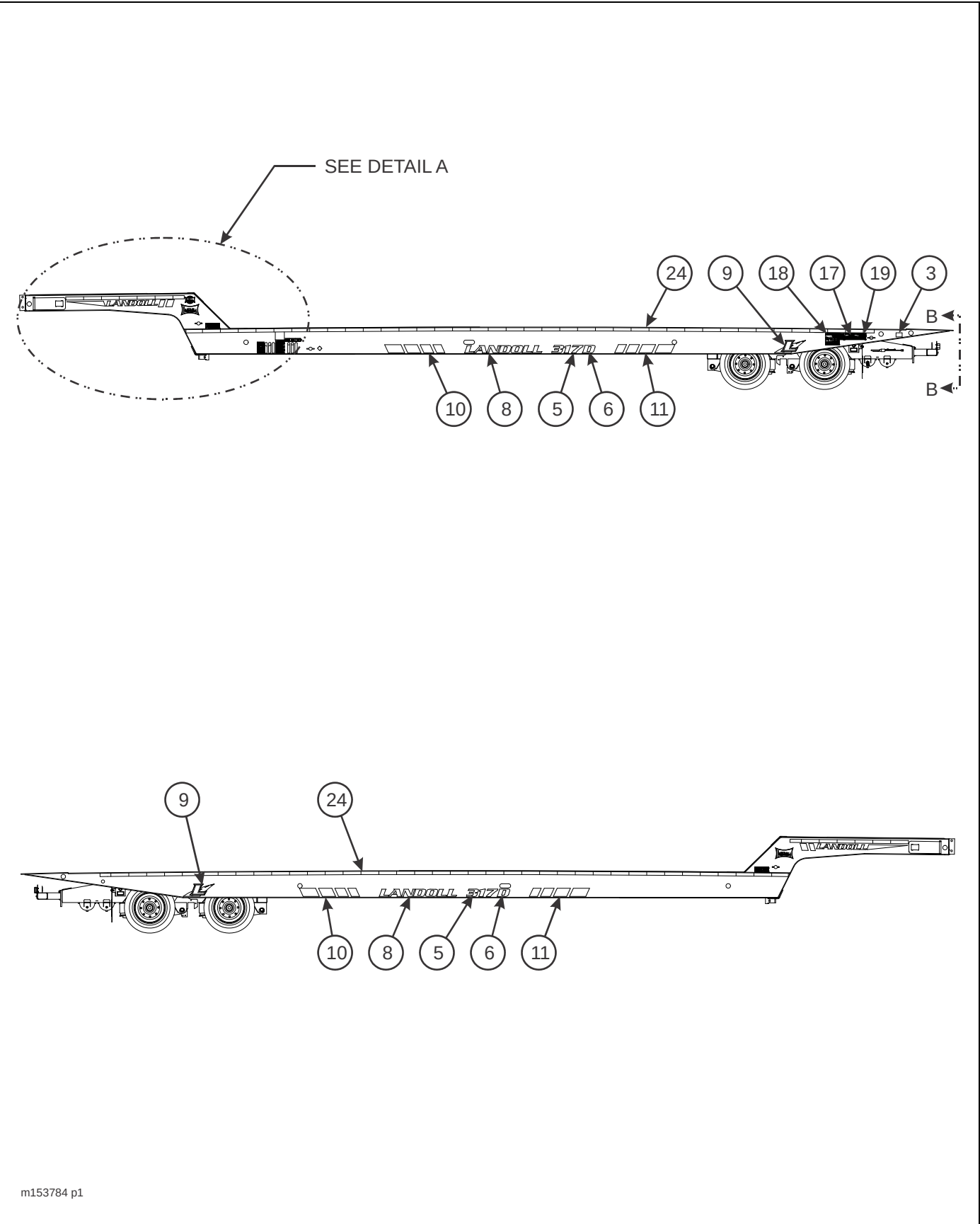
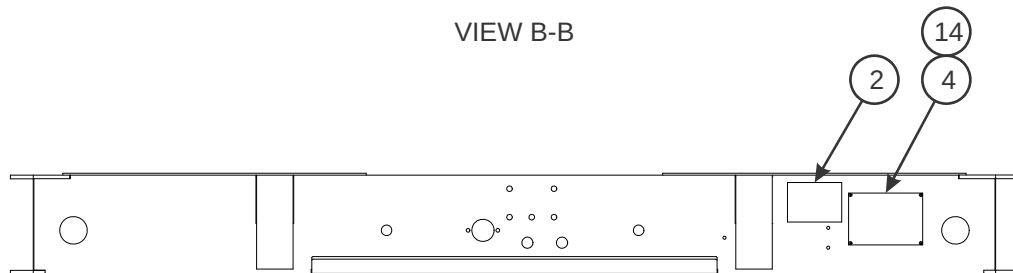
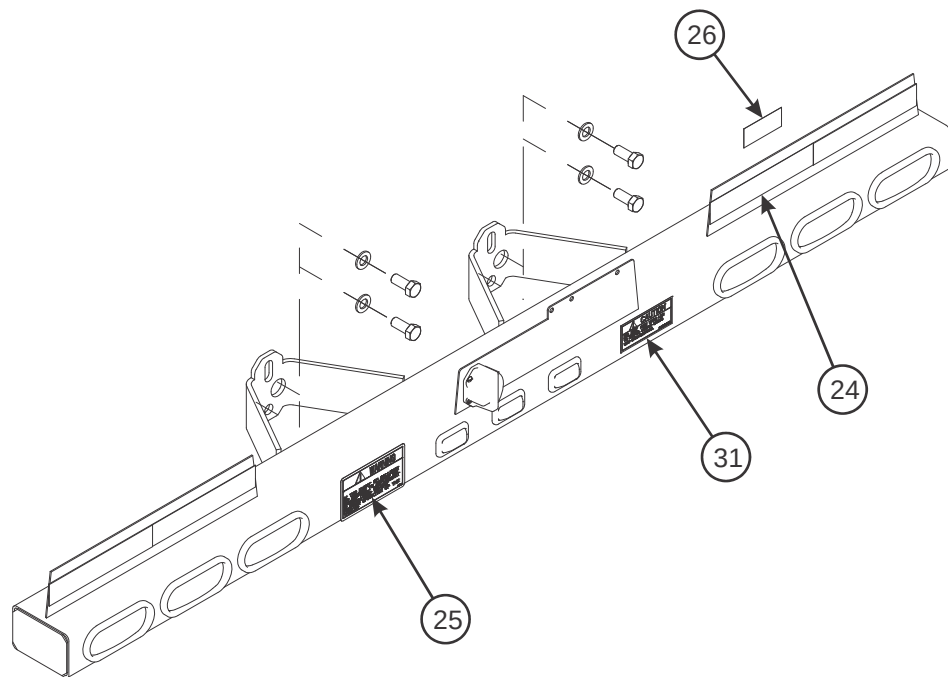
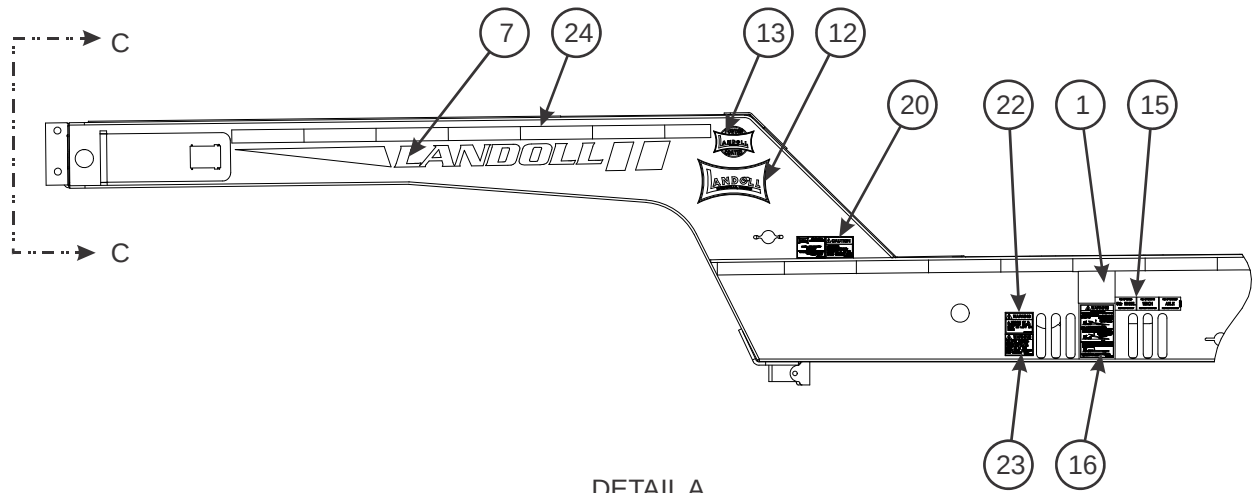


Figure 2-2: Decal Installation (1 of 2)



m153784 p2

Figure 2-3: Decal Installation (2 of 2)

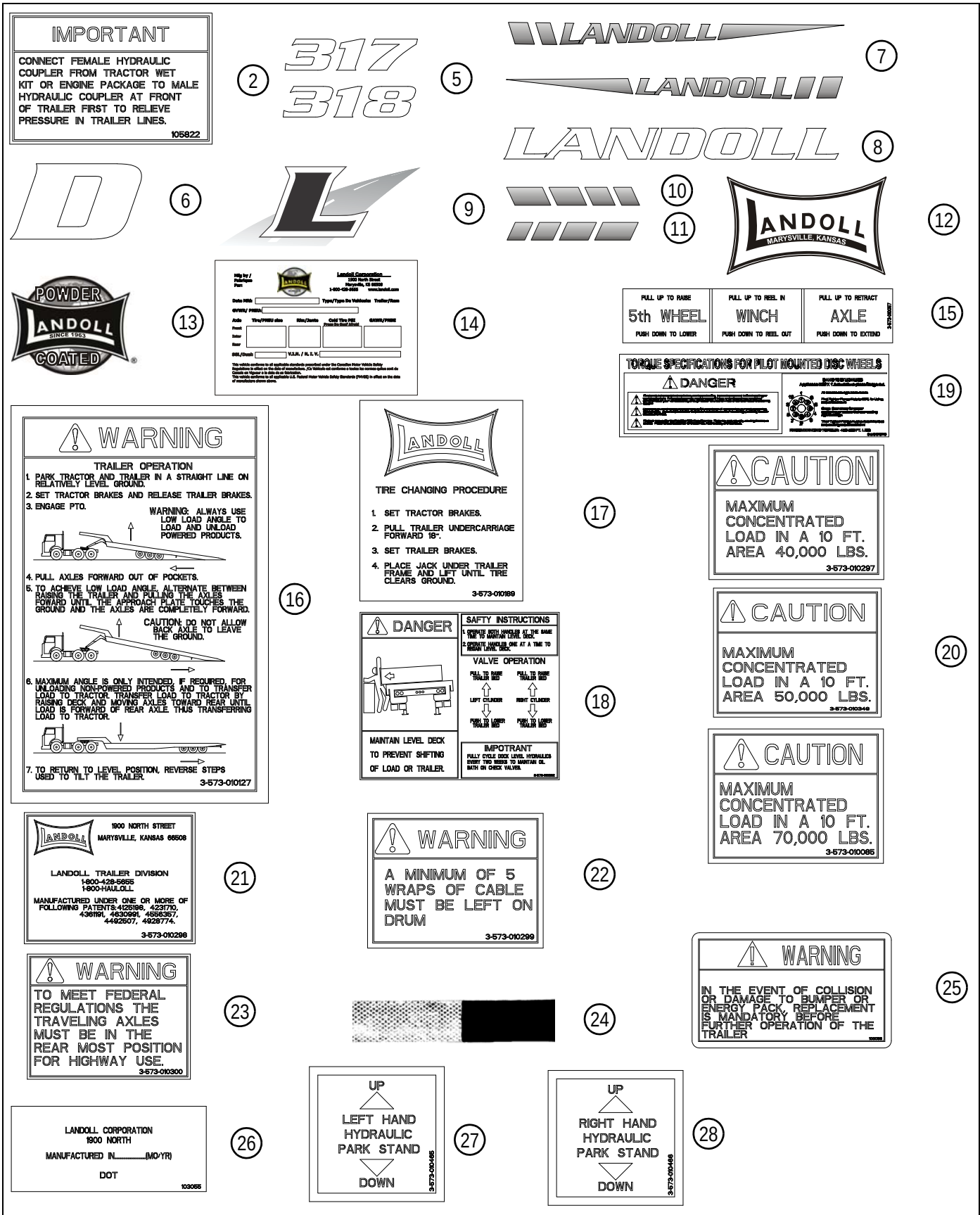


Figure 2-4: Decals

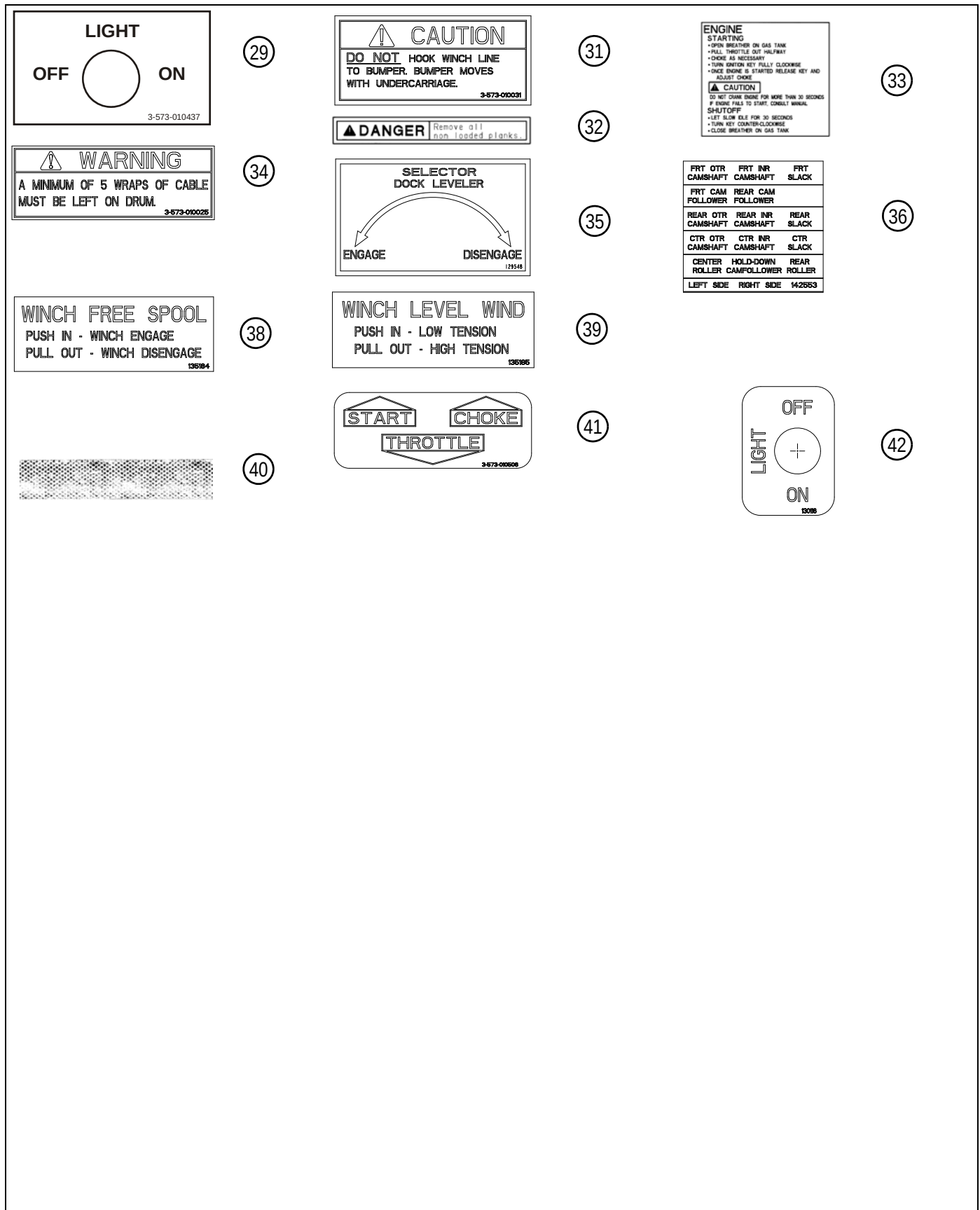


Figure 2-5: Decals

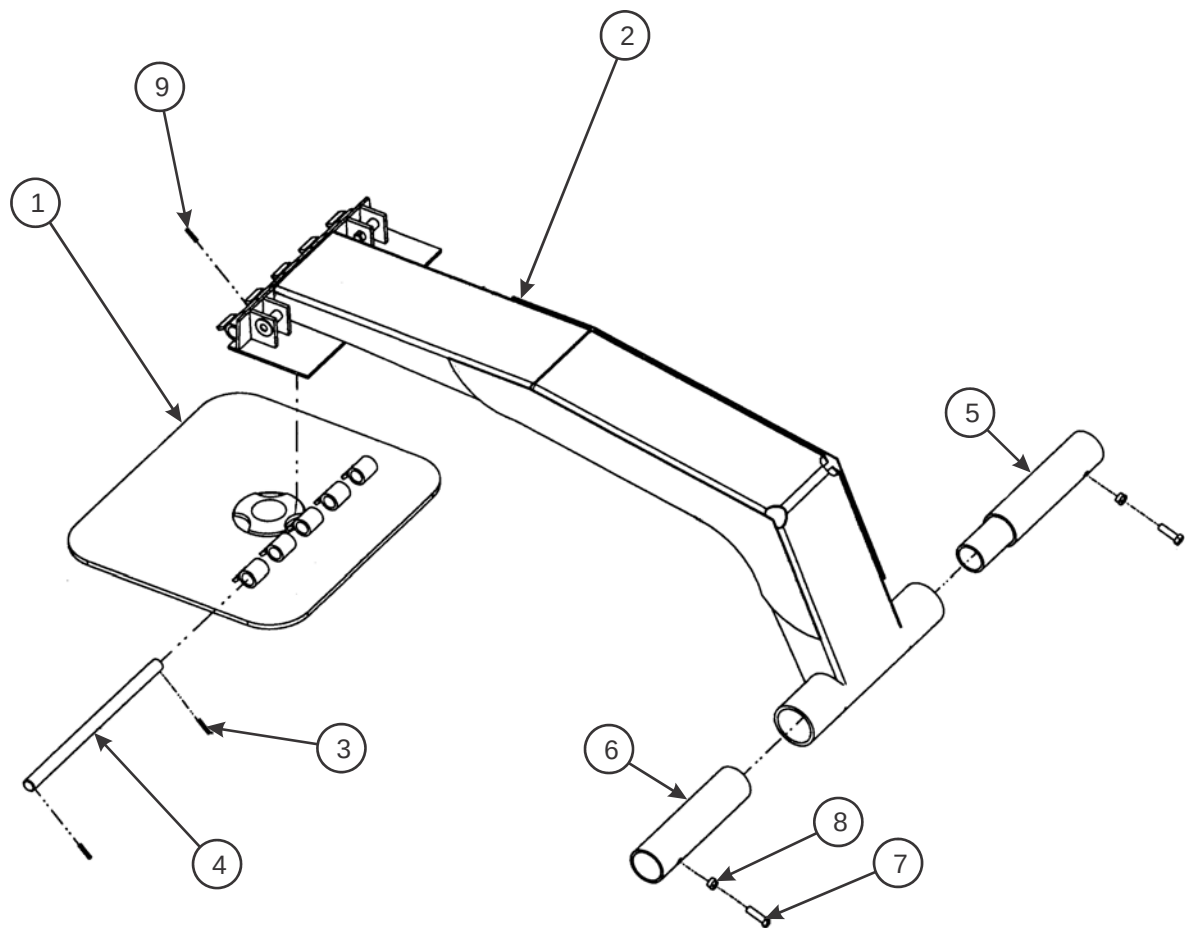
DECAL INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY.
	153784	DECAL INSTALLATION 317	REF
	153787	DECAL INSTALLATION 318	REF
1	100600	DECAL, WARNING BRADEN WINCH	REF
2	105822	DECAL, HYD COUPLER	REF
3	101855	DECAL, ABS (NOT SHOWN)	1
4	12420301-017	RIVET, BLIND .156 X 1/4 GRIP	4
5	153728	DECAL, 317 REFLECTIVE	2
	153729	DECAL, 318 REFLECTIVE	2
6	153746	DECAL, D REFLECTIVE	2
7	153748	DECAL, TAPERED STRIPE LEFT REFLECTIVE	1
	153749	DECAL, TAPERED STRIPE RIGHT REFLECTIVE	1
8	153750	DECAL, LANDOLL 5" REFLECTIVE	2
9	153751	DECAL, HIGHWAY L 7" REFLECTIVE	2
10	153752	DECAL, CHEVRON LEFT REFLECTIVE	2
11	153753	DECAL, CHEVRON RIGHT REFLECTIVE	2
12	153754	DECAL, BOW-TIE (WHITE/DK) REFLECTIVE	2
	153755	DECAL, BOW-TIE (BLACK/LT) REFLECTIVE	2
13	153798	DECAL, POWDER COATED REFLECTIVE	1
14	155780	TRAILER VIN PLATE	1
15	3-573-010057	DECAL, INSTRUCTION DECAL 350 CONTROLS	1
16	3-573-010127	DECAL, OPERATION, 3-AXLE BL	1
17	3-573-010189	DECAL, TIRE CHANGING PROCEDURE	1
18	3-573-010202	PLACARD, DANGER! DOCK LEVELER OPERATION	REF
19	3-573-010210	DECAL, TORQUE SPEC 8-10 STUD HUB	1
20	3-573-010297	DECAL, CAUTION CONC. LOAD 40,000#/10 FT.	2
	3-573-010349	DECAL, CAUTION 50K/10FT CONC. LOAD	2
	3-573-010085	DECAL, CAUTION CONC. LOAD 70000 LBS.	2
21	3-573-010298	DECAL, PATENT	2
22	3-573-010299	DECAL, WARNING WINCH CABLE	1
23	3-573-010300	DECAL, WARNING RIDE POSITION UNDERCARRIAGE	1
24	3-573-010377	DECAL, 2" REFLEXITE TAPE RD/WHT	AR
25	103056	DECAL, ENERGY BUMPER WARNING	1
26	103055	DECAL, ENERGY CERTIFICATION	1
27	3-573-010465	DECAL, HYDRAULIC PARK STAND LH (SEE PAGE 2-139 FOR LOCATION)	1
28	3-573-010466	DECAL, HYDRAULIC PARK STAND RH (SEE PAGE 2-139 FOR LOCATION)	1
29	3-573-010437	DECAL, LIGHT	1
30	3-573-010442	DECAL, WINCH TENSION (NOT SHOWN)	1
31	3-573-010031	DECAL, TRAILER BUMPER	1
32	101268	DECAL, DANGER REMOVE PLANKS	AR
33	113388	DECAL, ENGINE PACKAGE INSTALLATION (SEE PAGE 2-152 FOR LOCATION)	1
34	3-573-010025	DECAL, WINCH MOTOR (NOT SHOWN)	1
35	129548	DECAL, SELECTOR DOCK LEVEL	1
36	142553	DECAL, GREASE TRAILER U/C (SEE PAGES 2-46 AND 2-52 FOR LOCATIONS)	2
38	135184	DECAL, WINCH FREE SPOOL (SEE PAGE 2-87 FOR LOCATION)	REF
39	135185	DECAL, WINCH LEVEL WIND (SEE PAGE 2-87 FOR LOCATION)	REF

DECAL INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY.
40	3-573-010378	DECAL, 2" REFLECTIVE TAPE WHITE (SEE PAGE 2-65 FOR LOCATION)	REF
41	3-573-010506	DECAL, ENGINE CONTROL (SEE PAGE 2-152 FOR LOCATION)	REF
42	130116	DECAL, ON/OFF LIGHT (SEE PAGE 2-157 FOR LOCATION)	REF

*IF TRAILER IS REPAINTED OR IF DECALS BECOME ILLEGIBLE, ORDER NEW ONES FROM THE FACTORY AND REPLACE.

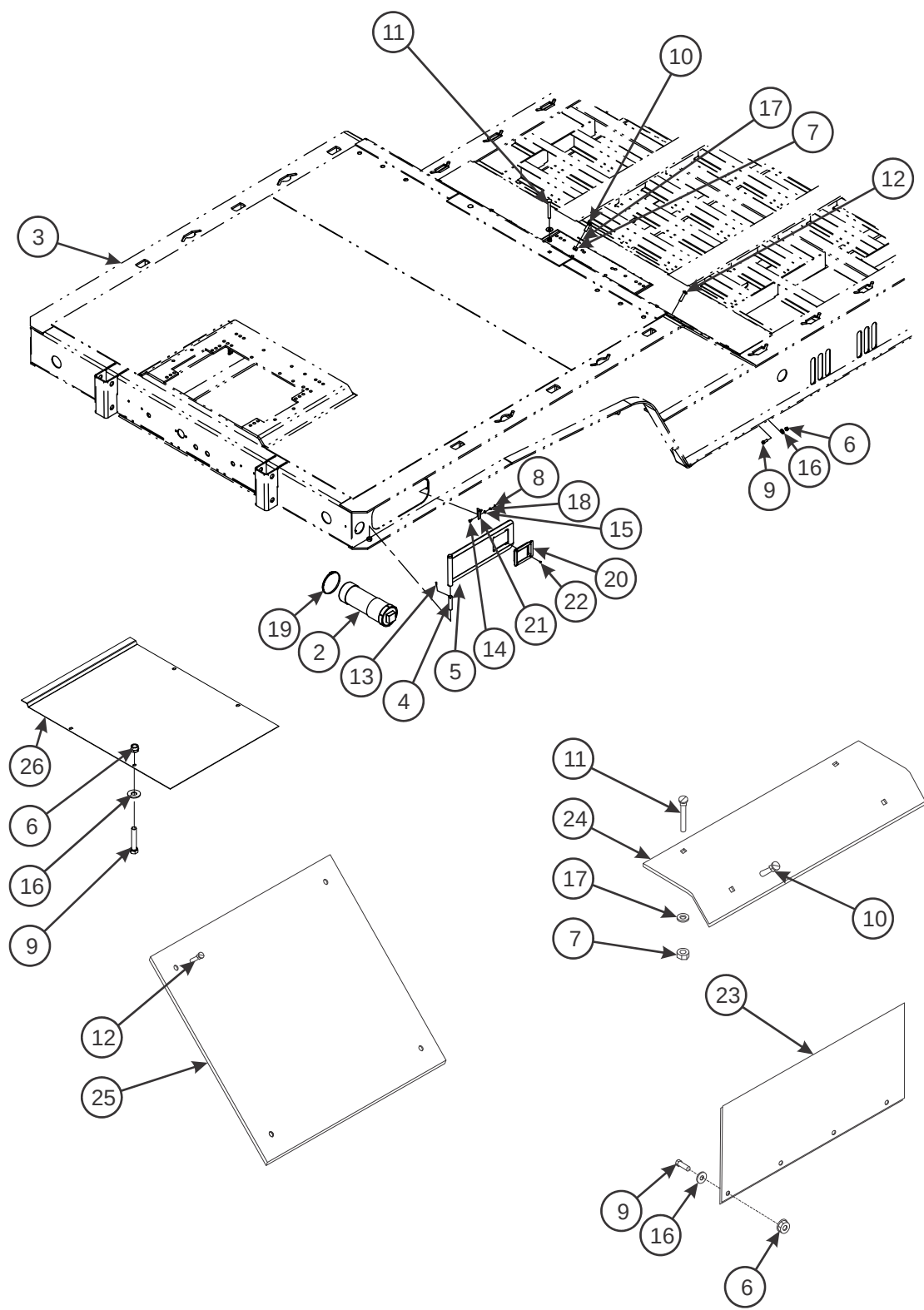


3mc375-010489

Figure 2-6: Fifth Wheel Hitch Assembly

FIFTH WHEEL HITCH ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
	3-375-010489-1	HITCH INSTALLATION, 24 KP (317D, 30 KP 318D)	
	3-375-010489-2	HITCH INSTALLATION, 18 KP (317D)	
	104249	HITCH INSTALLATION, 26 KP (318D)	
	104466	HITCH INSTALLATION, 18 KP (317D-CA MODEL)	
	142936	HITCH INSTALLATION, 24KP (318D-52)	
1	3-375-010250	PLATE HITCH (24KP-317D, 18KP-317D-CA / 30KP-318)	1
	3-375-010349	PLATE HITCH (18KP-317D)	1
	104248	HITCH WELDMENT (26KP-318D)	1
2	3-375-010337	FIFTH WHEEL HITCH	1
3	1-647-010004255	SPRING PIN, SLOTTED 3/8 X 2	2
4	3-557-010030	PIN, FIFTH WHEEL HINGE	1
5	3-826-010015	TUBE WELDMENT, INNER FIFTH WHEEL	1
6	3-826-010014	TUBE, INNER HINGE FIFTH WHEEL	1
7	1-654-010061-07	SCREW, HEX HEAD CAP 3/4-10 X 2-1/2 GR5	2
8	1-512-010005-15	NUT, HEX LOCK 3/4-10 GRB	2
9	1-298-010001-1	FITTING, GREASE 1/4-28 SHORT	6



m135591

Figure 2-7: Door Latch Installation

DOOR LATCH INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY.
	135591	DOOR AND COVER INSTALLATION	
	142562	DOOR LATCH & TOOLBOX BOTTOM ASSEMBLY	
	148798	COVER HARDWARE & MANUAL TUBE	
1	101299	CHAIN KEY LANDOLL (NOT SHOWN)	1
2	130511	TUBE ASSEMBLY, MANUAL STORAGE	1
3	-----	FRAME WELDMENT	REF
4	135181	BUSHING, NYLATRON TOOLBOX	4
5	135589	DOOR WELDMENT, TOOLBOX	REF
6	1-510-010001	NUT, FLANGE LOCK 3/8-16	12
7	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	4
8	1-512-010007-03	NUT, HEX #10-24	4
9	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	12
10	1-654-010070-04	SCREW, RD HEAD SQ NECK 1/2-13 X 1-3/4	2
11	1-654-010070-14	SCREW, RD HEAD SQ NECK 1/2-13 X 4-1/2	2
12	1-654-010089-13	SCREW, SOCKET BUTTON CAP 1/2-13 X 2	8
13	1-654-010147-06	SCREW, RD HEAD SELF-TAPPING #6-20 X 3/4	8
14	1-656-010003051	SCREW, ROUND HEAD MACHINE #10-24 X 3/4	4
15	1-861-010032-04	WASHER, FLAT 3/16	4
16	1-861-010032-11	WASHER, FLAT 3/8	12
17	1-861-010032-15	WASHER, FLAT 1/2	4
18	1-861-010034-07	WASHER, SPLIT LOCK #10	4
19	105-0094	HOSE CLAMP 4-1/2	1
20	3-443-010010	LATCH	2
21	3-482-010307	MOUNT, ADJUST STRIKER PLATE	2
22	BSL-6-4	RIVET, FLANGE 3/16 X 1/4	8
23	3-681-010072	SHIELD, HYDRAULIC BOLT-ON	REF
24	3-565-010951	PLATE, CENTER	REF
25	3-222-010120	COVER SLOPE	REF
26	111689	PLATE, TOOLBOX BOTTOM (142562)	2

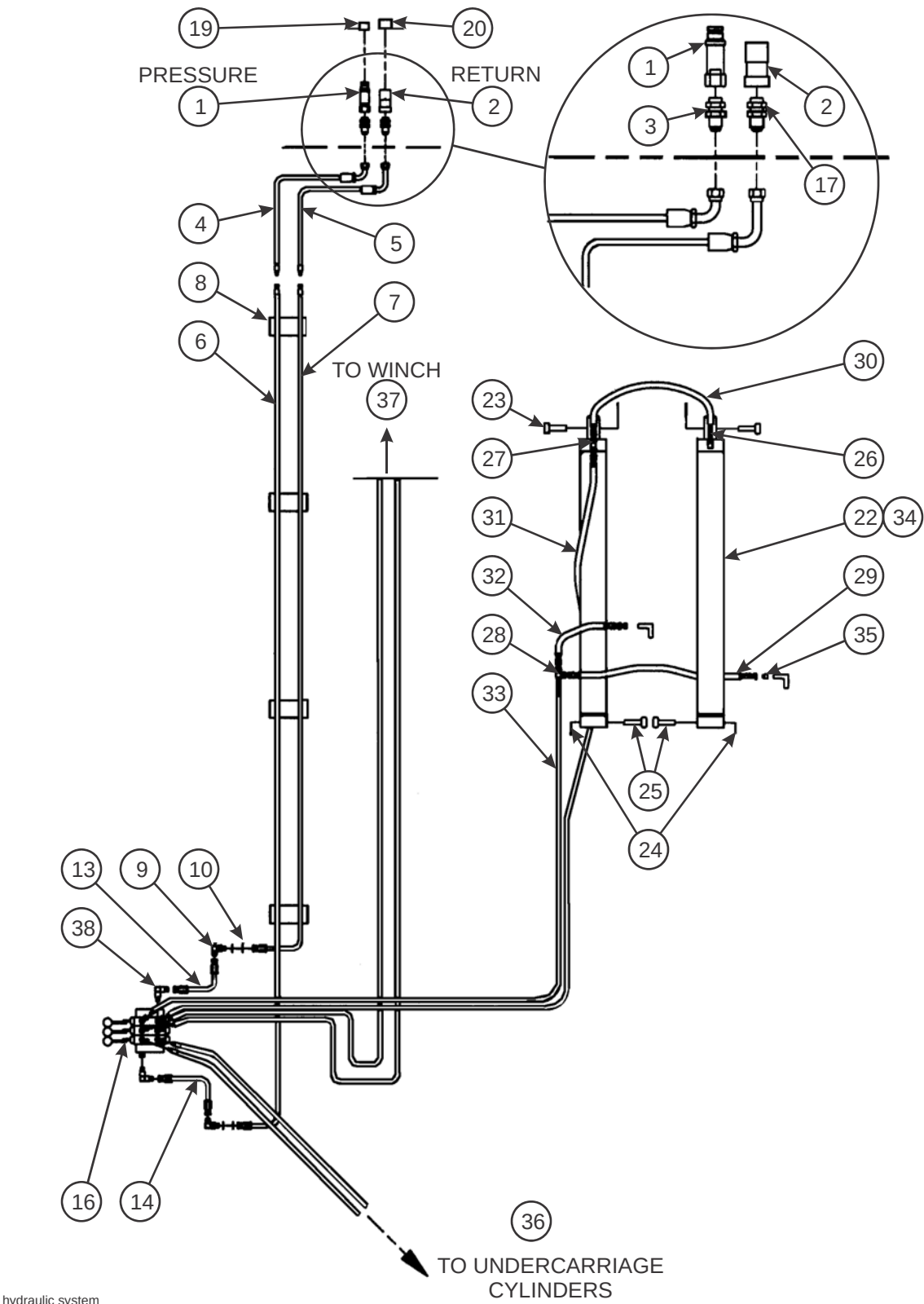


Figure 2-8: Hydraulic System

HYDRAULIC SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY.
1	105479	COUPLER, FLAT FACE MALE	
2	105480	COUPLER, FLAT FACE FEMALE	
3	105483	ADAPTER, BULKHEAD	
4	3-832-010300	TUBE ASSEMBLY (317D)	1
	3-832-010304	TUBE ASSEMBLY (317D-CA ONLY)	1
	103986	TUBE ASSEMBLY (318D)	1
5	3-832-010302	TUBE ASSEMBLY (317D)	1
	3-832-010305	TUBE ASSEMBLY (317D-CA ONLY)	1
	103987	TUBE ASSEMBLY (318D)	1
6	3-832-010301	TUBE ASSEMBLY	1
7	3-832-010303	TUBE ASSEMBLY	1
8	9-181-010021-3	CLAMP TUBE CHANNEL MOUNT	8
9	2043-12-12S	ADAPTER 90 BULKHEAD	2
10	110-7389	FLAT WASHER 1" SAE	4
11	1-510-010001	NUT, HEX FLANGE LOCK 3/8-16 (NOT SHOWN)	4
12	1-654-010051-07	SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 (NOT SHOWN)	4
13	1-397-010304029	HOSE ASSEMBLY 29 (317D)	1
	104385	HOSE ASSEMBLY 36 (318D)	1
14	1-397-010304031	HOSE ASSEMBLY 31	1
15	1-822-010001	TRIM LOK (NOT SHOWN)	AR
16	148242	VALVE ASSEMBLY, 3 SPOOL (SEE PAGE 2-21)	1
17	1-861-010059-21	WASHER, LOCK INTERNAL TOOTH 1-1/8"	2
18	168648	REMOTE CONTROL (NOT SHOWN) (SEE PAGE 2-31)	1
19	105481	COUPLER, DUST CAP MALE	1
20	105482	COUPLER, DUST CAP FEMALE	1
21	105822	DECAL HYD COUPLER (NOT SHOWN) (SEE PAGE 2-6)	1
22	3-242-010099	CYLINDER HYDRAULIC 4 X 42 (SEE PAGE 2-18)	2
23	3-557-010059	PIN, CYLINDER ROD END	2
24	1-557-010362-54	PIN, COTTER 3/16 X 2-1/4	2
25	3-557-010033	PIN, CYLINDER BUTT END	2
26	2062-8-8S	ADAPTER	REF
27	203003-8-8S	ADAPTER TEE	1
28	2033-8-8S	ADAPTER TEE	1
29	1-397-010301042	HOSE ASSEMBLY 42	1
30	107756	HOSE ASSEMBLY 24	1
31	1-397-010301157	HOSE ASSEMBLY 157	1
32	1-397-010301040	HOSE ASSEMBLY 40	1
33	1-397-010301127	HOSE ASSEMBLY 127	1
34	104464	STOP TILT CYLINDER (317D-CA ONLY)	2
35	3-846-010156	VALVE RESTRICTOR - ONE WAY	2
36	-----	CYLINDER ASSEMBLY (SEE PAGE 2-19)	REF
37	-----	WINCH INSTALLATION (SEE PAGES 2-78 - 2-110)	REF
38	2062-10-12S	ADAPTER, 90	REF

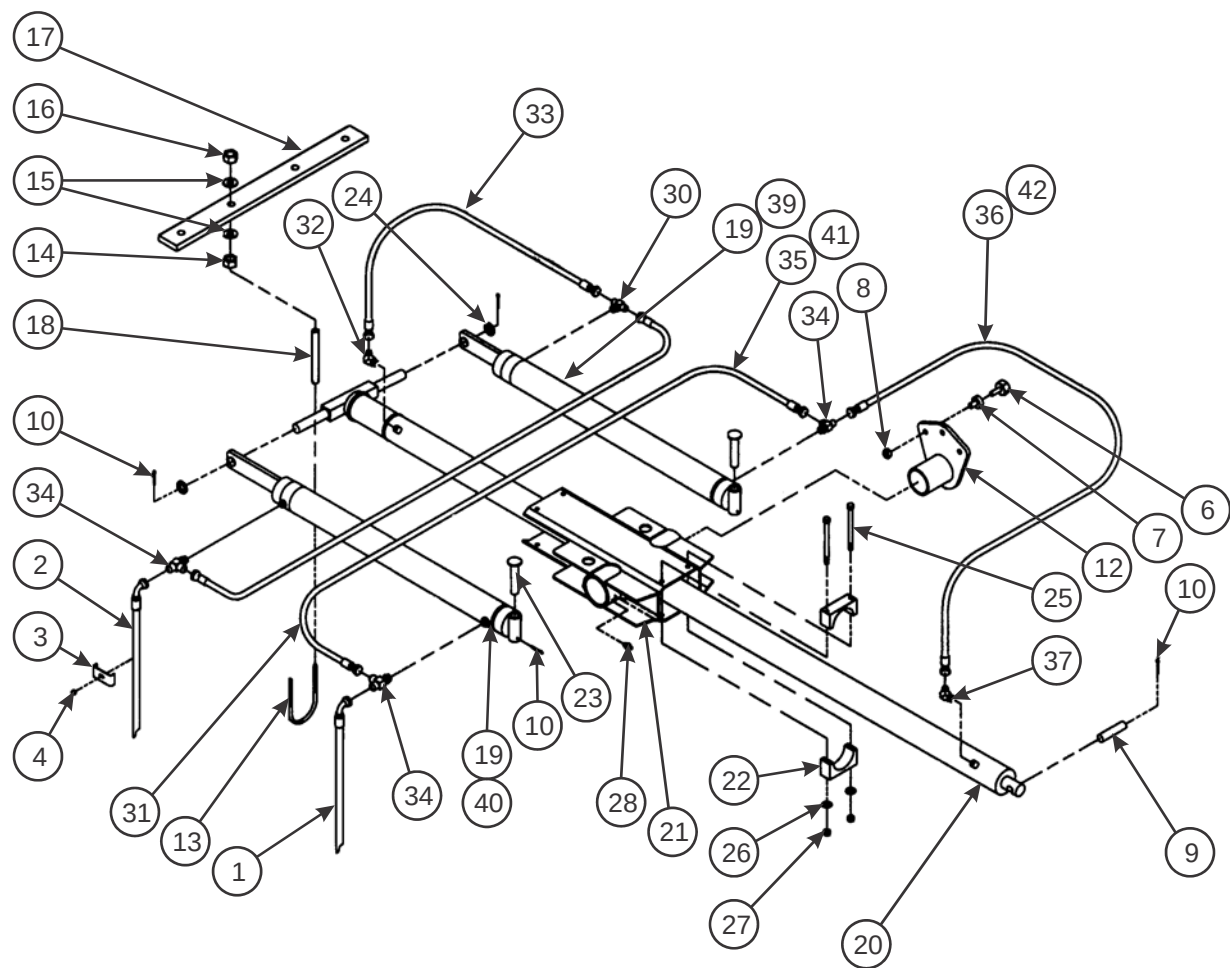


Figure 2-9: Hydraulic System - Low Load Angle

HYDRAULIC SYSTEM - LOW LOAD ANGLE

ITEM	PART NO.	DESCRIPTION	QTY.
1	1-397-010302112	HOSE ASSEMBLY 112	1
	1-397-010302136	HOSE ASSEMBLY 136	1
	1-397-010302160	HOSE ASSEMBLY 160	1
	1-397-010302192	HOSE ASSEMBLY 192	1
2	1-397-010301048	HOSE ASSEMBLY 48	1

HYDRAULIC SYSTEM - LOW LOAD ANGLE

ITEM	PART NO.	DESCRIPTION	QTY.
	1-397-010301084	HOSE ASSEMBLY 84	1
	1-397-010301108	HOSE ASSEMBLY 108	1
	1-397-010302078	HOSE ASSEMBLY 78	1
	104369	HOSE ASSEMBLY 96	1
	104370	HOSE ASSEMBLY 126	1
3	2-181-010001	HOSE CLAMP	2
4	1-510-010001	NUT, FLANGE LOCK 3/8-16	2
5	1-796-010003-02	TIE STRAP, PLASTIC (NOT SHOWN)	6
6	1-654-010061-06	SCREW, HEX HEAD CAP 3/4-10 X 2-1/4 GR5	6
7	3-861-010038	WASHER, STEP	6
8	1-512-010005-15	NUT, HEX LOCK 3/4-10 GRB	6
9	3-557-010120	PIN, UNDERCARRIAGE CYLINDER	1
10	1-557-010362-54	PIN, COTTER 3/16 X 2-1/4	6
11	3-242-010152	CYLINDER ASSEMBLY (INCL 5, 10, 19-37) (NOT SHOWN)	1
	103743	CYLINDER ASSEMBLY (INCL 10, 20-33, 37-42) (NOT SHOWN)	1
12	3-125-010244	BRACKET WELDMENT CYLINDER TRUNNION	2
13	3-102-010022	U-BOLT, SUPPORT	2
14	1-512-010007-09	NUT, HEX 1/2-13 GRB	2
15	1-861-010032-15	WASHER, FLAT 1/2W	4
16	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	2
17	3-146-010001	RUBBER BUMPER, CYLINDER	1
18	1-397-010010016	HOSE, HYDRAULIC 1/2 X 16	2
19	3-242-010099	CYLINDER, HYDRAULIC (SEE PAGE 2-18)	2
20	3-242-010103	CYLINDER, HYDRAULIC 4 X 126 (SEE PAGE 2-19)	1
21	3-120-010125	CYLINDER TRUNNION ASSEMBLY	1
22	3-120-010117	NYLATRON BEARING	4
23	3-557-010031	PIN, CYLINDER BUTT END	2
24	3-150-010223	BUSHING	2
25	1-654-010059-21	SCREW, HEX HEAD CAP 5/8-11 X 8 GR5	4
26	1-861-010032-19	WASHER, FLAT 5/8W	4
27	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	4
28	1-298-010001-1	FITTING, GREASE 1/4-28	2
29	1-161-010033-04	CAP, PLASTIC TAPERED (NOT SHOWN)	2
30	203003-8-8S	ADAPTER TEE	A/R
31	1-397-010301039	HOSE ASSEMBLY 39	1
32	2061-8-8S	ADAPTER 45	1
33	1-397-010302070	HOSE ASSEMBLY 70	1
34	203005-8-8S	ADAPTER TEE	A/R
35	1-397-010301042	HOSE ASSEMBLY 42 (317D)	1
36	107486	HOSE ASSEMBLY 90 (317D)	1
37	2062-8-8S	ADAPTER 90	1
39	103744	CYLINDER 4 X 42 (CURB) (318D)(SEE PAGE 2-18)	1
40	103745	CYLINDER 4 X 42 (STREET) (318D)(SEE PAGE 2-18)	1
41	104279	HOSE ASSEMBLY 30 (318D)	1
42	1-397-010302102	HOSE ASSEMBLY 102 (318D)	1

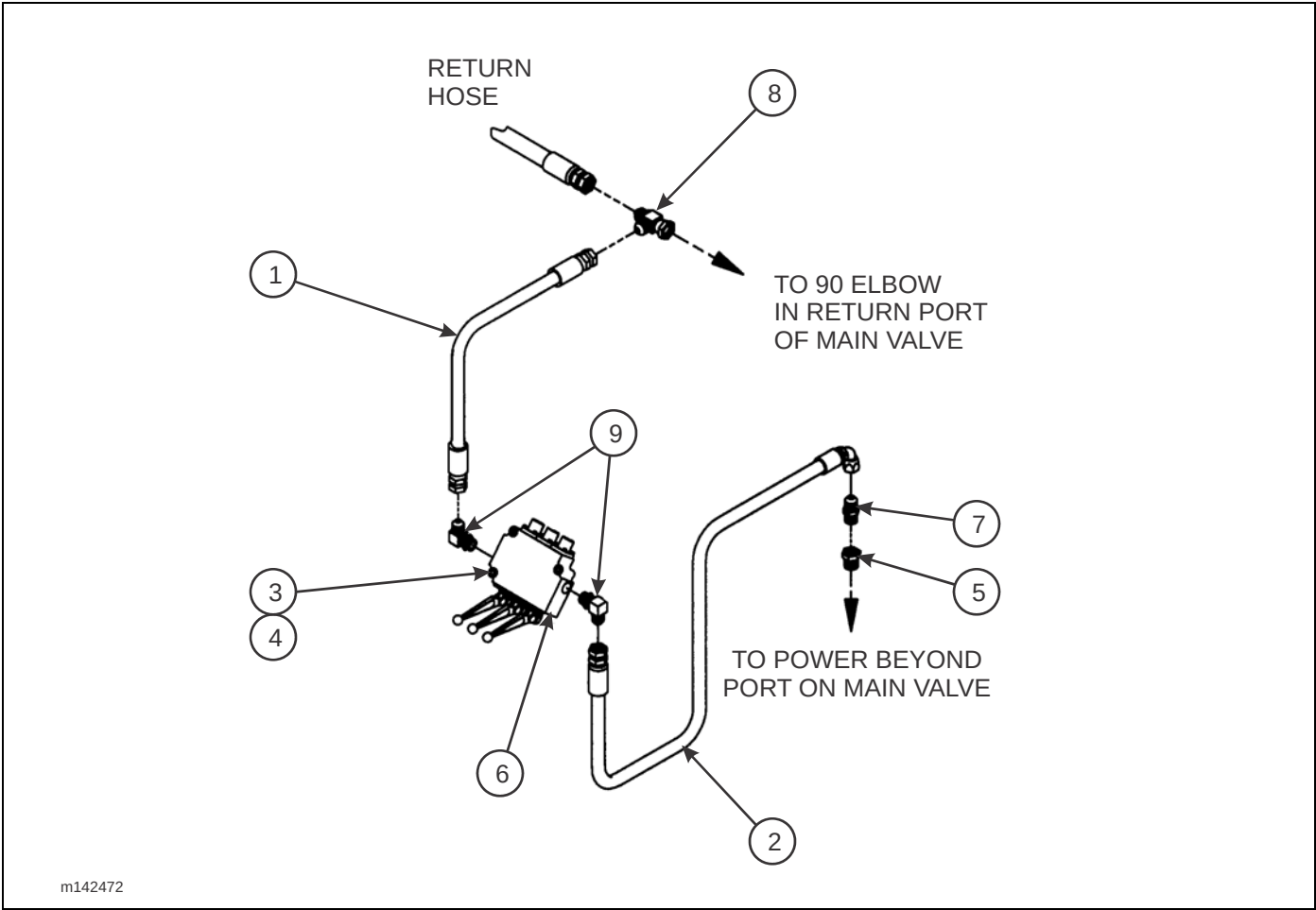
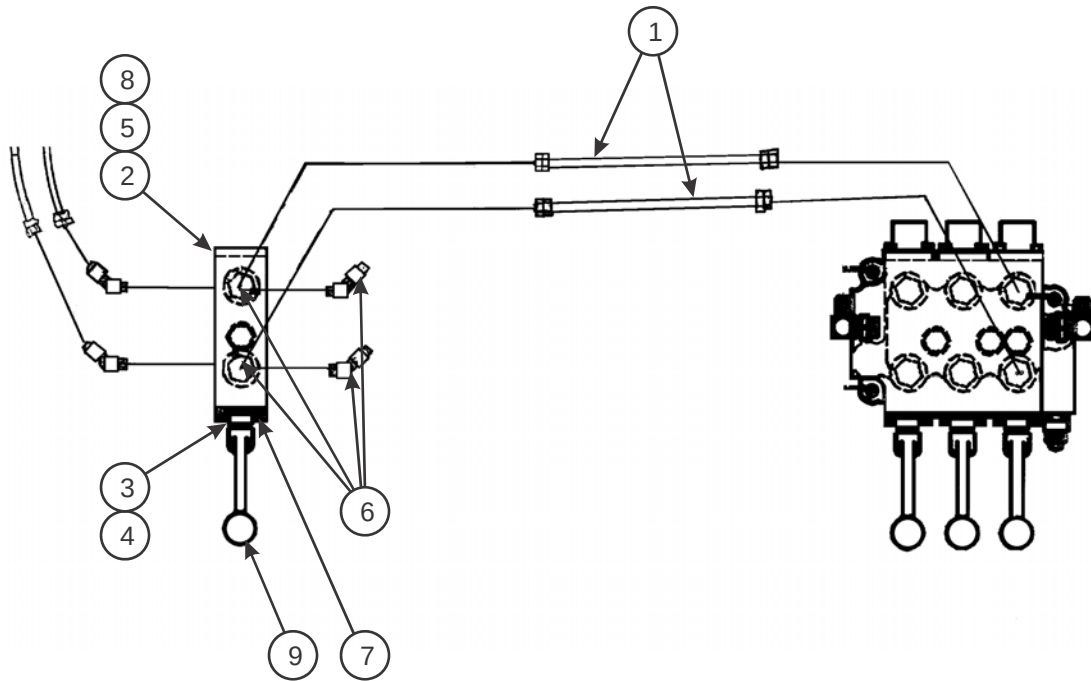


Figure 2-10: Hydraulic Control Auxiliary Park Stands

HYDRAULIC CONTROL AUXILIARY PARK STANDS

ITEM	PART NO.	DESCRIPTION	QTY.
	142472	HYDRAULIC CONTROL AUX. PARK STANDS	
1	1-397-010304022	HOSE ASSEMBLY 3/4 X 22	1
2	1-397-010389018	HOSE ASSEMBLY 1/2 X 18	1
3	1-510-010001	NUT, FLANGE LOCK 3/8-16	4
4	1-654-010051-07	SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5	4
5	138179	CARTRIDGE, POWER BEYOND PRESSURE	1
6	142471	VALVE ASSEMBLY, 2 SPOOL (SEE PAGE 2-23)	1
7	202702-8-8S	ADAPTER	1
8	203102-12-12S	ADAPTER, TEE	1
9	2062-10-12S	ADAPTER 90	REF



m145592

Figure 2-11: Diverter Valve Installation

DIVERTER VALVE INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY.
	145592	DIVERTER VALVE INSTALLATION	
1	1-397-010301024	HOSE ASSEMBLY 1/2 X 24	2
2	1-510-010001	NUT, FLANGE LOCK 3/8-16	4
3	1-512-010005-03	NUT, HEX LOCK 5/16-18 GRB	2
4	1-654-010049-09	SCREW, HEX HEAD CAP 5/16-18 X 2 GR5	2
5	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	4
6	124510	ADAPTER 45	6
7	145351	DIVERTER VALVE 6 WAY	1
8	145354	SUPPORT WELDMENT, DIVERTER VALVE	1
9	145379	HANDLE, DIVERTER VALVE	1

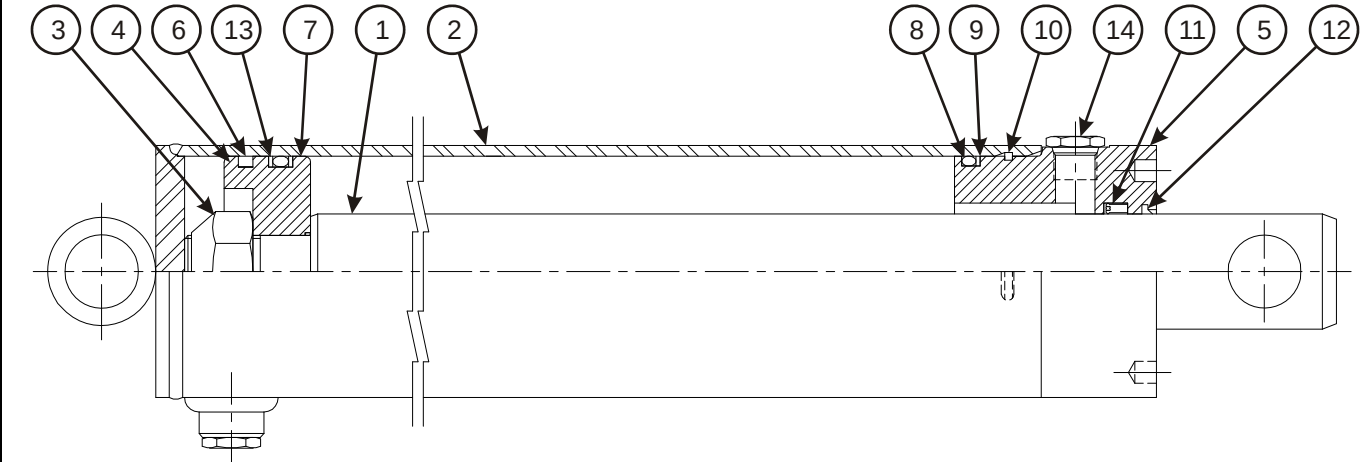


Figure 2-12: Cylinder, Hydraulic 4 x 42

CYLINDER, HYDRAULIC 4" X 42"

ITEM	PART NO.	DESCRIPTION	QTY.
	3-242-010099	CYLINDER HYDRAULIC 4 X 42	
	103744	CYLINDER, 4 X 42 (45 MT STREETSIDE)	
	103745	CYLINDER, 4 X 42 (45 MT CURBSIDE)	
1	011100550	PISTON ROD	1
2	*	BUTT AND TUBE ASSEMBLY	1
3	-----	LOCKNUT (1-1/4 - 12)	1
4	-----	PISTON	1
5	081900295	GLAND	1
6	*	PISTON RING	1
7	*	O-RING	1
8	*	O-RING	2
9	*	BU-WASHER	1
10	*	SQ. WIRE RETAINER	1
11	*	U-CUP	1
12	*	WIPER	1
13	*	BU-WASHER	2
14	-----	SHIPPING PLUG	2
	162205	PACKING KIT (CONTAINS ALL NECESSARY SEALS AND O-RINGS)	

* PART NOT SOLD SEPARATELY. REQUIRES PURCHASE OF ENTIRE ASSEMBLY.

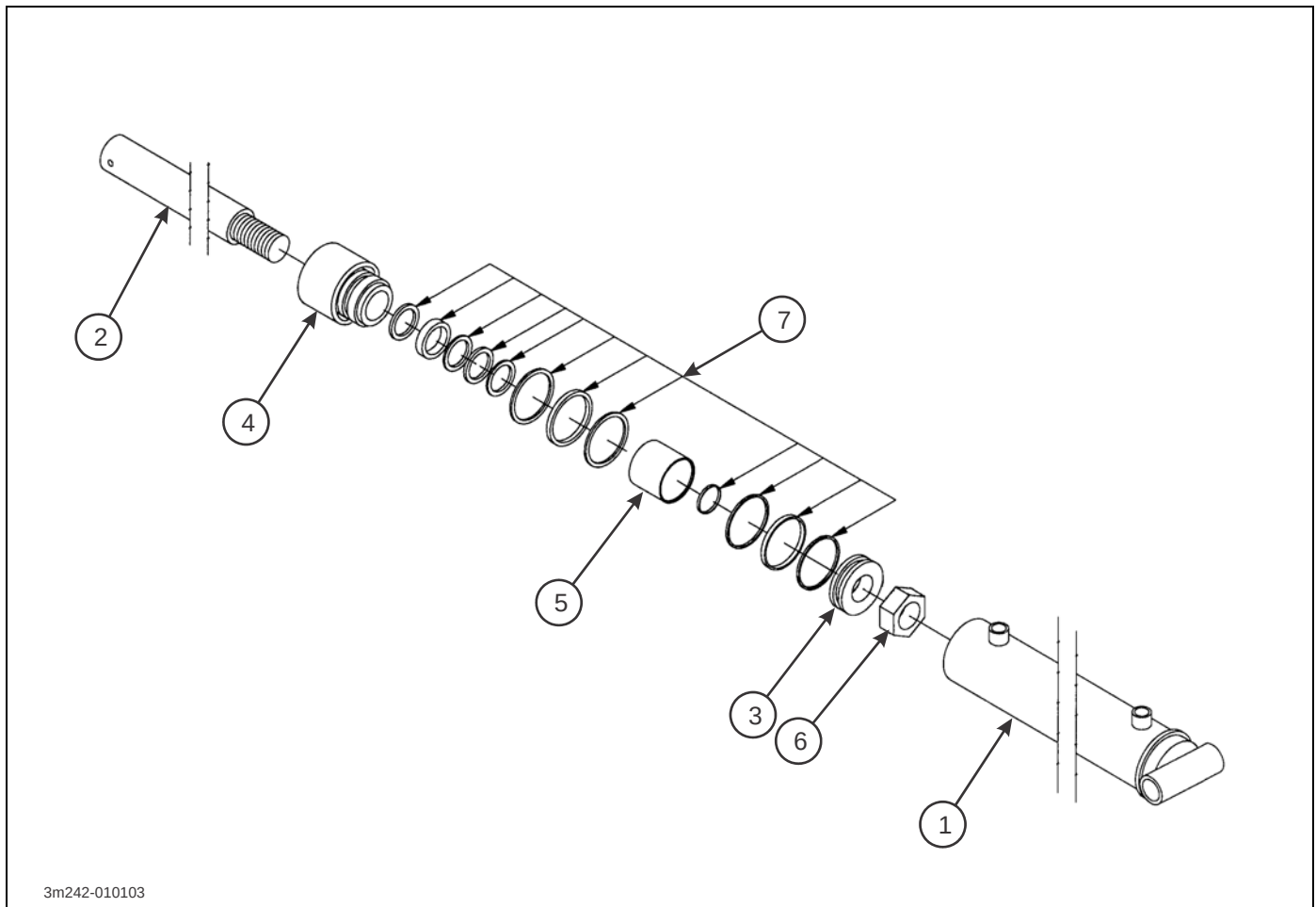
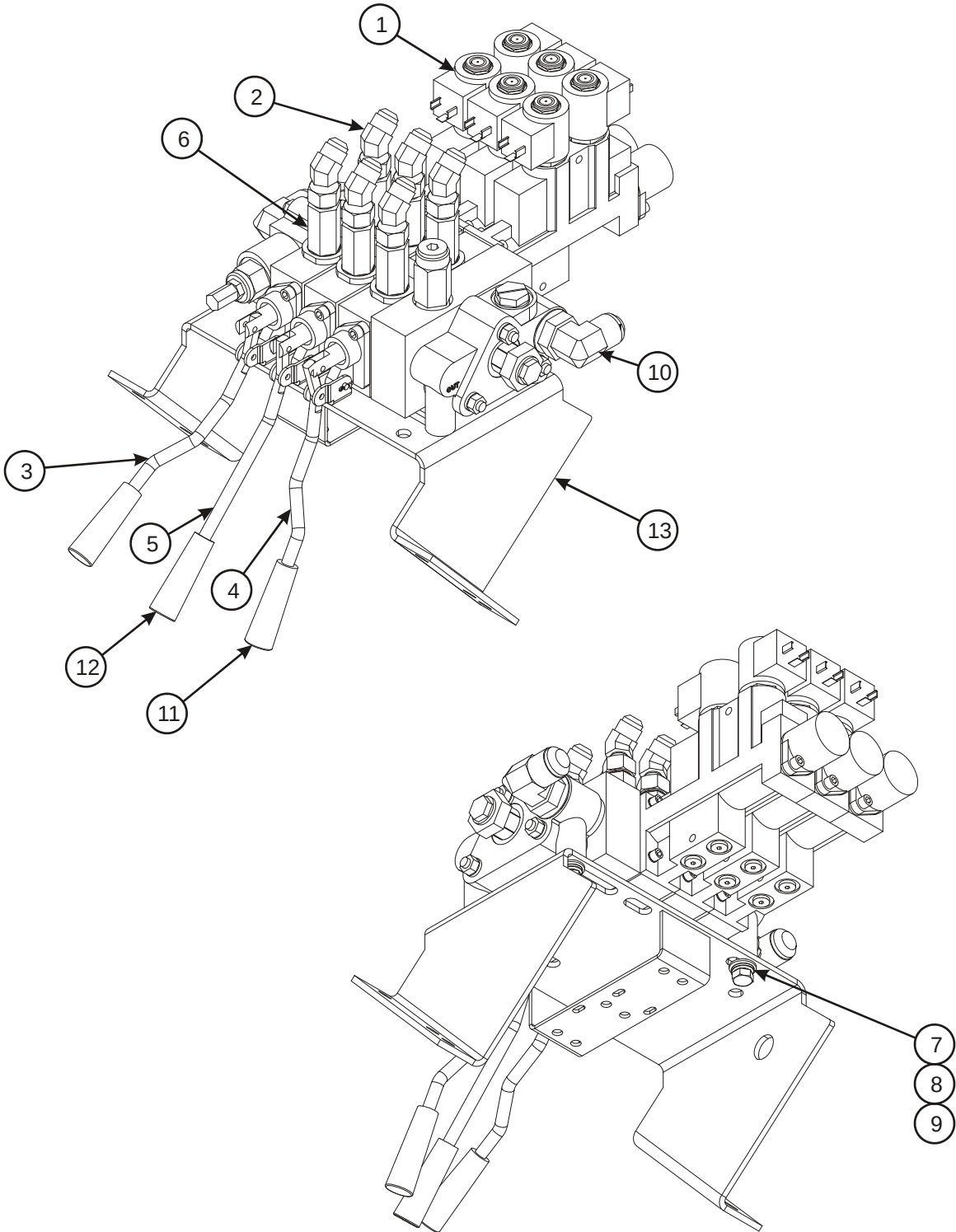


Figure 2-13: Cylinder, Hydraulic 4 x 126

CYLINDER, HYDRAULIC 4 X 126

ITEM	PART NO.	DESCRIPTION	QTY.
	3-242-010103	CYLINDER HYDRAULIC 4 X 126 (LLA)	
1	----	BUTT AND TUBE ASSEMBLY	1
2	011300179	PISTON ROD	1
3	----	PISTON	1
4	081900277	GLAND	1
5	----	SPACER	1
6	----	LOCKNUT (1-1/4 - 12)	1
7	PMCK-AD-461	PACKING KIT (CONTAINS ALL NECESSARY SEALS AND O-RINGS)	1

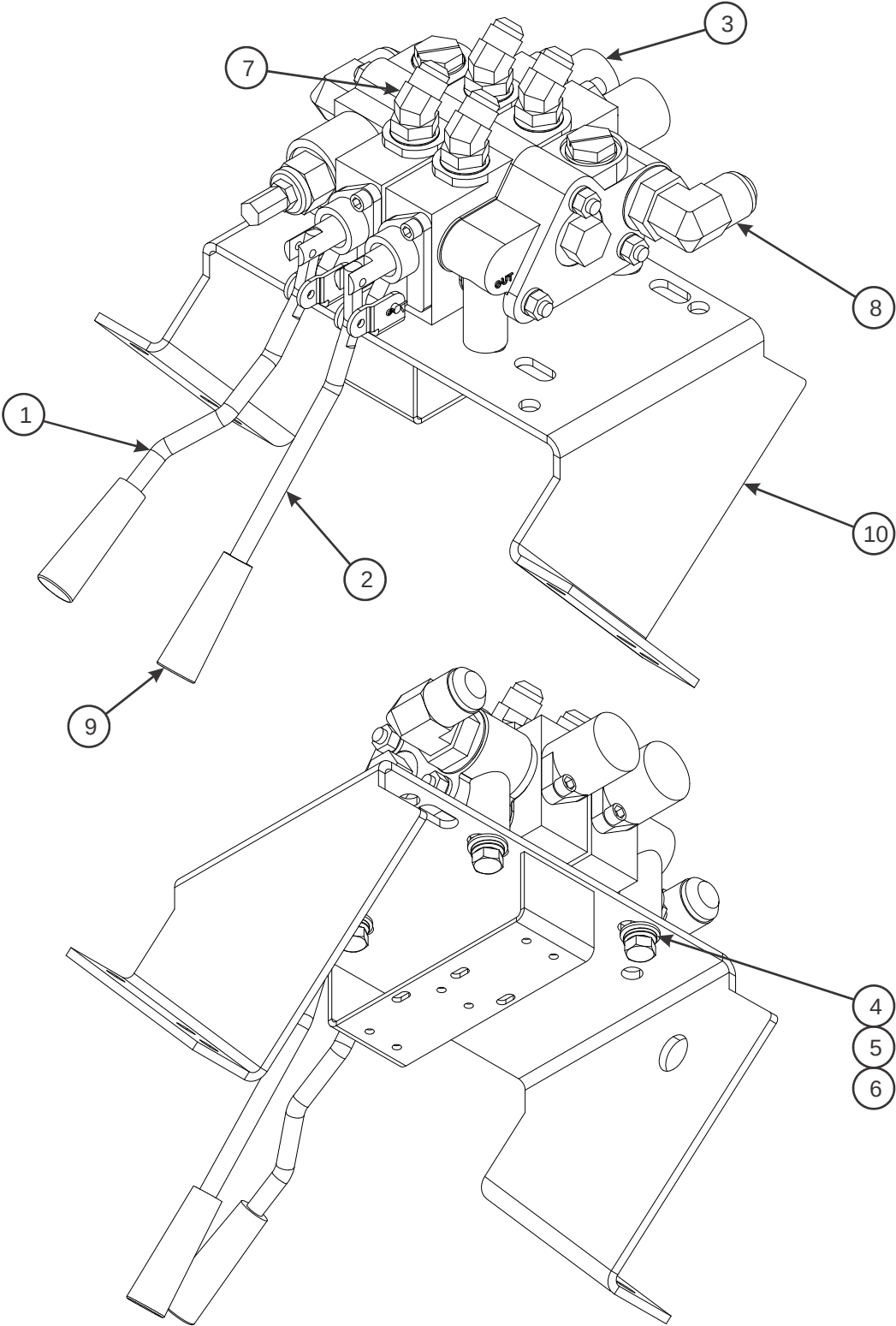


m148242

Figure 2-14: Valve Assembly, Three Spool

VALVE ASSEMBLY, THREE SPOOL

ITEM	PART NO.	DESCRIPTION	QTY.
	148242	VALVE ASSEMBLY	
1	148240	VALVE, 3 STACK 2ND MOTOR SOL (SEE PAGE 2-25)	1
2	121031	ADAPTER 45	6
3	136377	VALVE HANDLE, RH FORMED	1
4	136378	VALVE HANDLE, LH FORMED	1
5	139519	VALVE HANDLE, CENTER FORMED	1
6	140893	ADAPTER, STR	6
7	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	3
8	1-861-010032-10	WASHER, FLAT 3/8N	3
9	1-861-010034-11	WASHER, SPLIT LOCK 3/8	3
10	2062-10-12S	ADAPTER 90	2
11	3-360-010072	HANDLE, PLASTIC BLACK	2
12	3-360-010090	HANDLE, PLASTIC RED	1
13	3-482-010575	MOUNT WELDMENT, VALVE	1

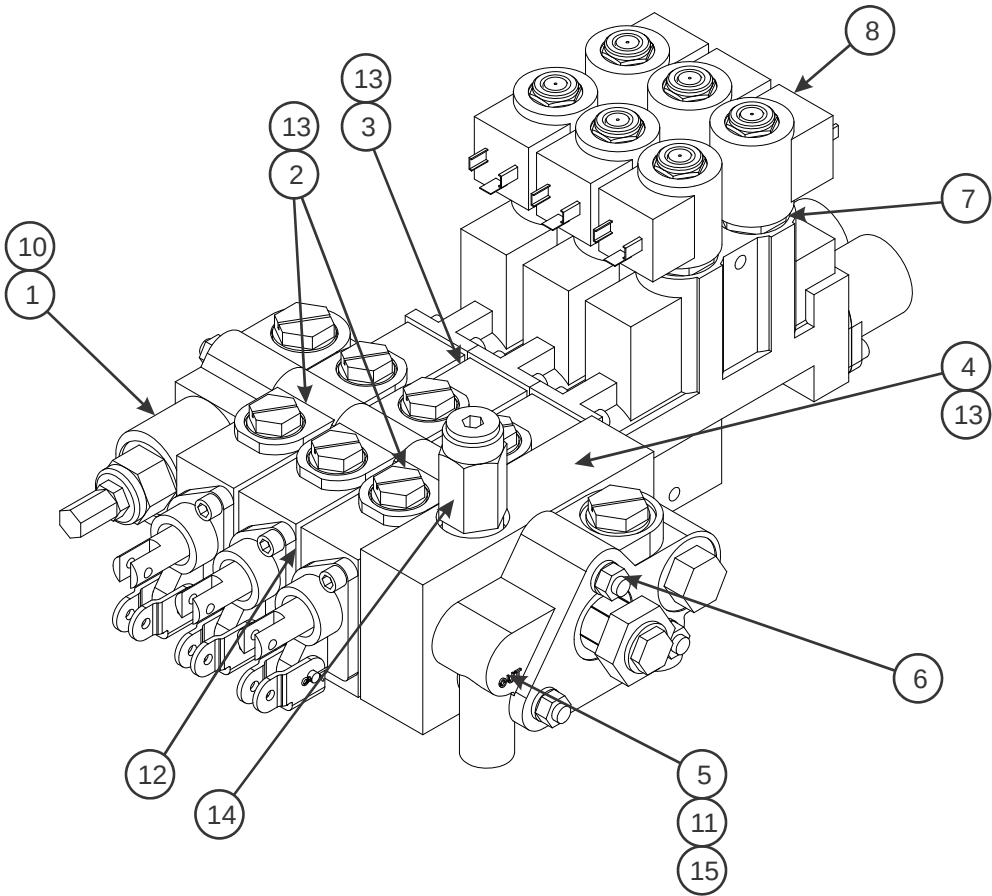


m142471

Figure 2-15: Valve Assembly, Two Spool

VALVE ASSEMBLY, TWO SPOOL

ITEM	PART NO.	DESCRIPTION	QTY.
	142471	VALVE ASSEMBLY, 2 SPOOL	
1	136377	VALVE HANDLE, RH	1
2	139519	VALVE HANDLE, CENTER	1
3	142470	VALVE, 2 STACK (SEE PAGE 2-27)	1
4	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	3
5	1-861-010032-10	WASHER, FLAT 3/8N	3
6	1-861-010034-11	WASHER, SPLIT LOCK 3/8	3
7	2061-8-8S	ADAPTER 45	4
8	2062-10-12S	ADAPTER, 90	2
9	3-360-010072	HANDLE, PLASTIC BLACK	2
10	3-482-010575	MOUNT WELDMENT, VALVE	1

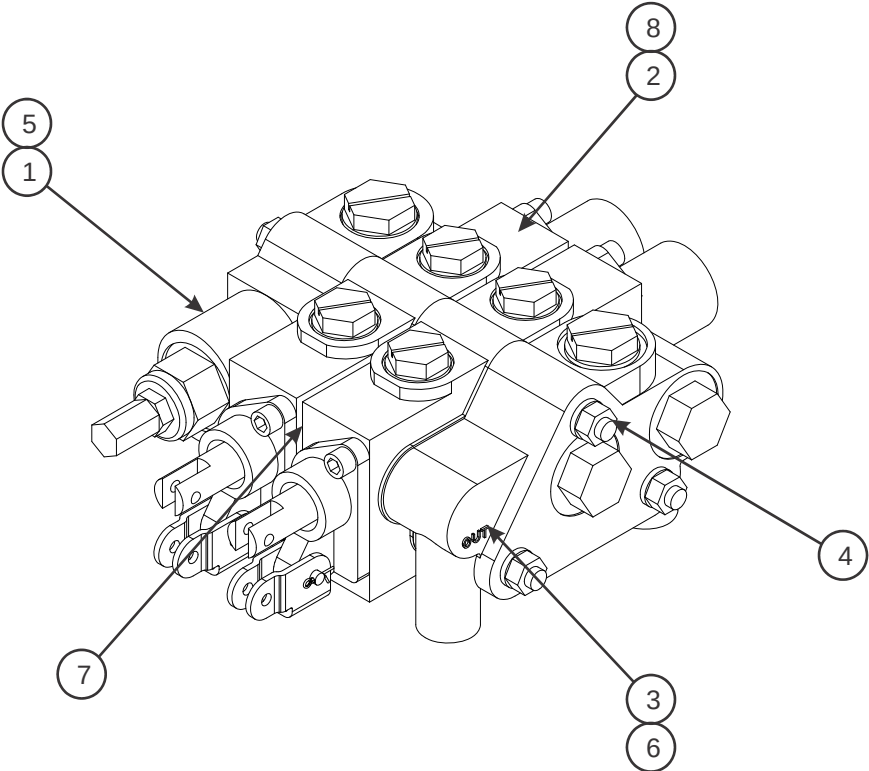


m148240

Figure 2-16: Three Spool Valve

THREE STACK VALVE

ITEM	PART NO.	DESCRIPTION	QTY.
	148240	THREE STACK VALVE	
1	149526	INLET SECTION KIT	
2	149527	VALVE SECTION KIT	
3	149528	VALVE SECTION KIT	
4	149529	VALVE SECTION KIT	
5	142483	OUTLET SECTION KIT	
6	149530	TIEROD KIT	
7	142484	COIL	
8	142485	CARTRIDGE	
9	142486	COIL CARTRIDGE ASSEMBLY (INCL ITEMS 7 & 8)	
10	660580002	SEAL KIT FOR INLET SECTION	
11	660580003	SEAL KIT FOR OUTLET SECTION	
12	660580004	O-RING SEAL KIT FOR BETWEEN SECTIONS	
13	660580005	SEAL KIT FOR SOLENOID WORK SECTION	
14	149030	PRESSURE REDUCING CARTRIDGE IN UTILITY SECTION (149529)	
15	151823	PRESSURE BUILD UP CARTRIDGE IN OUTLET SECTION (142483)	



m142470

Figure 2-17: Two Spool Valve

TWO STACK VALVE

ITEM	PART NO.	DESCRIPTION	QTY.
	142470	VALVE, 2 STACK	
1	120751	INLET SECTION KIT	
2	149152	VALVE SECTION KIT	
3	149153	OUTLET SECTION KIT	
4	149531	TIEROD KIT	
5	660580002	SEAL KIT FOR INLET SECTION	
6	660580003	SEAL KIT FOR OUTLET SECTION	
7	660580004	O-RING SEAL KIT FOR BETWEEN SECTIONS	
8	660580005	SEAL KIT FOR SOLENOID WORK SECTION	

ILLUSTRATED PARTS LIST

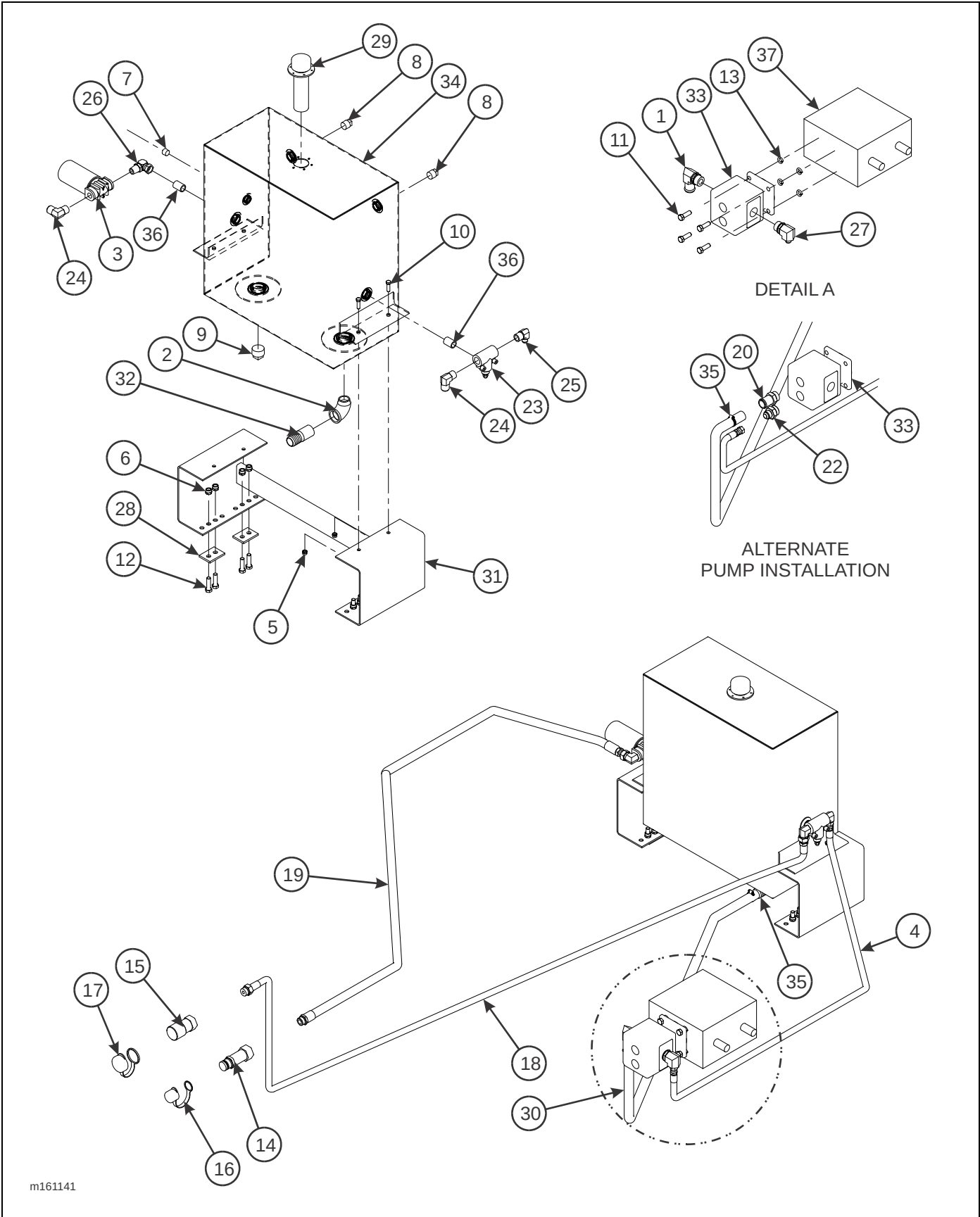


Figure 2-18: 30 Gallon Hydraulic Wet Kit Items

30 GALLON HYDRAULIC WET KIT (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	107498	HYDRAULIC WET KIT W/ PTO INSTALLED	
	107499	HYDRAULIC WET KIT W/ PTO NOT INSTALLED	
	107500	HYDRAULIC WET KIT W/O PTO NOT INSTALLED	
1	1-007-010006	ELBOW 90, 1-5/16 O-RING 1-1/4 HOSE	1
2	1-1/4ST ELL	BLACK PIPE ELBOW 90 ST	1
3	1-295-010001	FILTER, RETURN	1
	1-295-010002	FILTER ELEMENT	1
4	1-397-010301100	HOSE ASSEMBLY 1/2 X 100	1
5	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	4
6	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8
7	1-560-010002-04	PIPE PLUG 1/2	1
8	1-560-010002-05	PIPE PLUG 3/4	2
9	1-560-010002-07	PLUG, BLACK PIPE 1-1/4 SQ HEAD	1
10	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	4
11	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	4
12	1-654-010055-04	SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5	8
13	1-861-010034-13	WASHER, SPLIT LOCK 1/2	4
14	105479	COUPLER, FLAT FACE MALE NOSE	1
15	105480	COUPLER, FLAT FACE FEMALE BODY	1
16	105481	COUPLER, DUST CAP MALE	1
17	105482	COUPLER, DUST CAP FEMALE	1
18	106759	HOSE ASSEMBLY 1/2 X 164	1
19	106760	HOSE ASSEMBLY 3/4 X 164	1
20	107513	ADAPTER	1
22	12-16 070120	ADAPTER	1
23	125130	RD12D HYD BY PASS SRDD	1
24	2024-12-12S	ADAPTER 90	2
25	2024-12-8S	ADAPTER, 90	1
26	2047-12-12S	ELBOW, 90 SWIVEL	1
27	2062-16-8S	ADAPTER, 90	1
28	3-120-010461	BRACKET, HYD TANK MOUNT SUPPORT	4
29	3-162-010001	FILLER-BREATH-ER-STRAINER ASSEMBLY	1
30	3-399-010001	HOSE, 1-1/4 SUCTION	8'
31	3-482-010503	TANK MOUNT	1
32	3-561-010001	HOSE BARB 1-1/4	1
33	3-591-010001	HYDRAULIC GEAR PUMP	1
34	3-786-010043	TANK, HYDRAULIC	1
35	6828	IDEAL HOSE CLAMP	2
36	C3069X12	NIPPLE, HEX	2
37	PTO	POWER TAKE OFF	*1,0

* FIRST QUANTITY LISTED IS FOR P/N'S 107498 AND 107499 HYDRAULIC WET KIT W/ PTO; SECOND QUANTITY LISTED IS FOR P/N 107500 HYDRAULIC WET KIT W/O PTO.

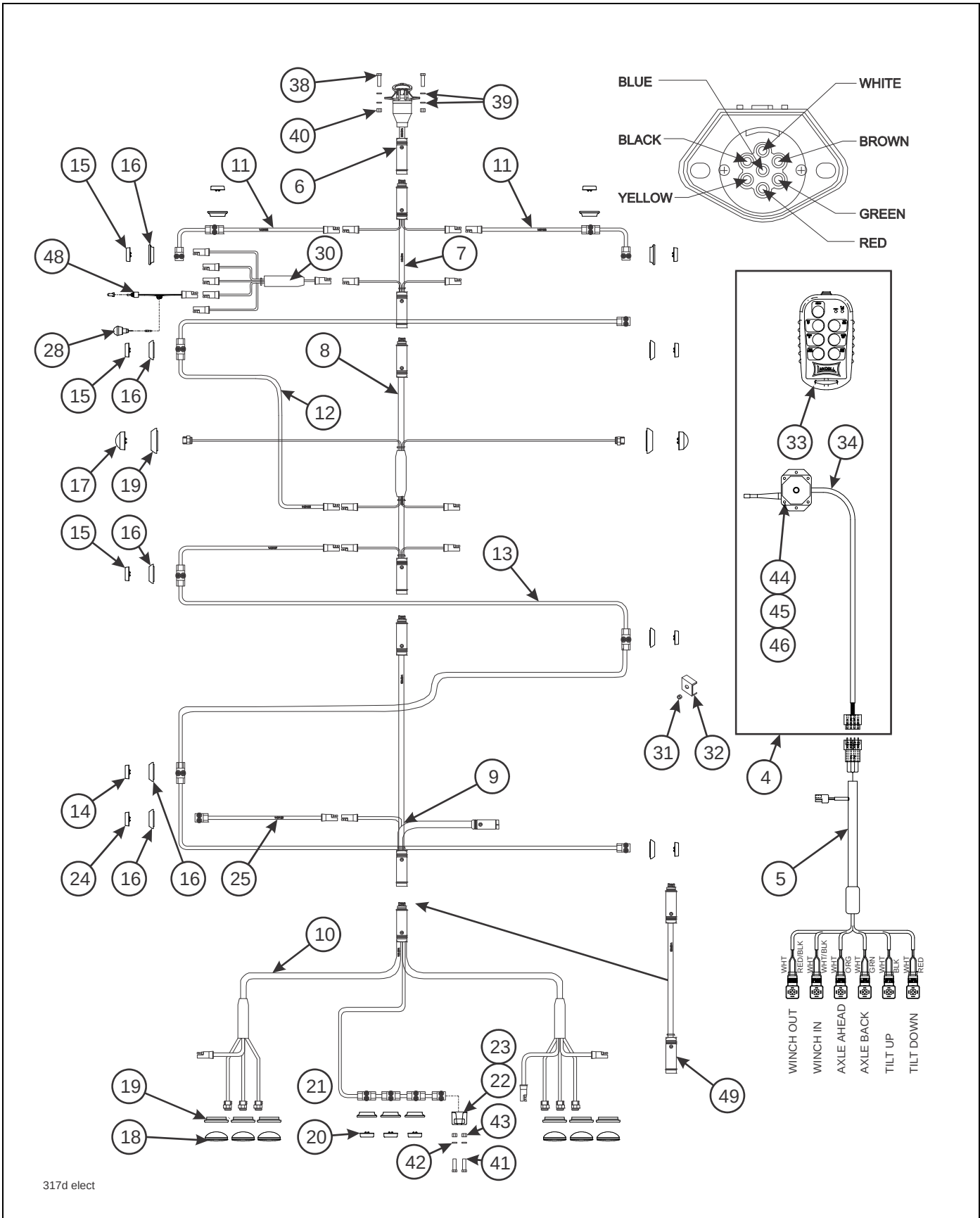


Figure 2-19: Electrical System

ELECTRICAL SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY.
1	STP-147	CONNECTOR, BULLET MALE (NOT SHOWN)	2
2	3-368-010252	HARNESS ASSEMBLY, BULKHEAD LIGHT (NOT SHOWN)	1
3	1-796-010003-02	TIE WRAPS (NOT SHOWN)	2
4	168648	REMOTE, KAR-TECH SLIDE AX (HARDWARE NOT INCLUDED) (INCL. ITEMS 33-36)	1
5	140083	HARNESS ASSEMBLY, KAR-TECH	1
6	143100	HARNESS, 7 WAY RECEPTACLE	1
7	143101	HARNESS, FRONT MAIN	1
8	143102	HARNESS, BED MAIN	1
9	143103	HARNESS, E-CHAIN	1
10	143104	HARNESS, BUMPER	1
11	143105	HARNESS, MARKER FRONT CORNER	2
12	143106	HARNESS, MARKER FRONT BED	1
13	143107	HARNESS, MARKER REAR BED	1
14	143108	LIGHT, RED LED 2.5 CL/MARKER	2
15	143109	LIGHT, YELLOW LED 2.5 CL/MARKER	8
16	143110	GROMMET, 2.5 SURFACE MOUNT	11
17	169410	LIGHT, YELLOW MID TURN	2
18	143113	LIGHT, RED LED OVAL STT	6
19	143114	GROMMET, OVAL	8
20	143115	LIGHT, RED LED RECTANGLE CLEARANCE	3
21	143116	GROMMET, RECTANGLE	3
22	143117	LIGHT, CLEAR LED LICENSE	1
23	143118	BRACKET, LIGHT LICENSE	1
24	143119	LIGHT, YELLOW LED ABS	1
25	143120	HARNESS, ABS LAMP	1
26	143122	CLAMP, HARNESS (NOT SHOWN)	4
27	81264	RUBBER BOOT FOR ELECT SWITCH (NOT SHOWN)	1
28	26331	LIGHT, PANEL	1
30	150093	HARNESS, 5 AUXILIARY BRANCHES	1
31	1-510-010001	NUT, FLANGE 3/8-16	AR
32	2-181-010001	CLAMP, HOSE	AR
33	168975	MACRO TRANSMITTER W/ DECAL	1
34	143126	MINI AND MACRO RECEIVER, 6 FUNCTION W/ TEACH BUTTON	1
35	168976	CAR CHARGER 12V TO MICRO USB (NOT SHOWN)	1
36	168982	WALL CHARGER 120V TO MICRO USB (NOT SHOWN)	1
38	1-654-010049-06	SCREW, HEX HEAD CAP 5/16-18 X 1 GR5	2
39	1-861-010032-09	WASHER, FLAT 5/16W	4
40	1-512-010005-03	NUT, HEX LOCK 5/16-18 GRB	2
41	1-656-010003051	SCREW, RD HEAD SQ NECK 10-24 X 3/4	2
42	1-861-010034-07	WASHER, FLAT #10	2
43	1-512-010007-03	NUT, HEX LOCK 10-24	2
44	1-654-010047-06	SCREW, HEX HEAD CAP 1/4-20 X 1 GR5	2
45	1-861-010032-06	WASHER, FLAT 1/4N	4
46	108417	NUT, HEX FLANGE SPIRAL 1/4-20	2
48	150117	TOGGLE SWITCH SEALED SPST	1
49	143166	HARNESS EXTENSION 48" (317D-CA ONLY)	

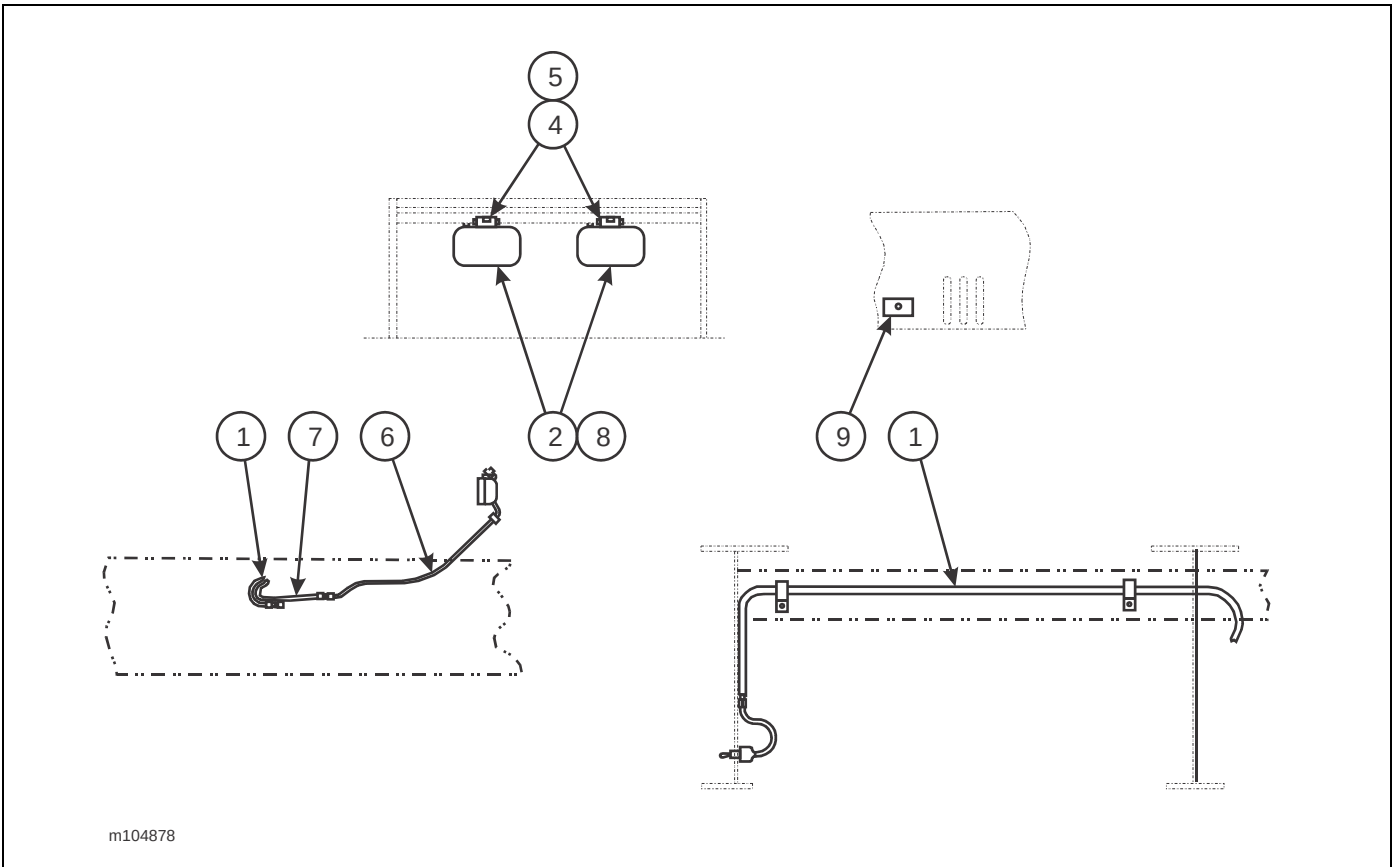


Figure 2-20: Winch Light Assembly (Option)

WINCH LIGHT ASSEMBLY (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	104878	ELECTRICAL INSTALLATION, SINGLE WINCH LIGHT	
	104879	ELECTRICAL INSTALLATION, DUAL WINCH LIGHT	
1	101381	HARNESS, LIGHT WORK COURTESY	1
2	64181	RECTANGULAR QUARTZ HALOGEN LAMP	1,2*
3	1-796-010003-02	TIE STRAP, PLASTIC (NOT SHOWN)	6
4	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	1,2*
5	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	1,2*
6	3-368-010250	HARNESS, BULKHEAD LIGHTS	1
7	3-368-010252	HARNESS, BULKHEAD LIGHTS	1
8	STP-147	CONNECTOR, BULLET MALE	1,2*
9	3-573-010437	DECAL, LIGHT (SEE PAGE 2-6)	1

*THE FIRST QUANTITY IS FOR THE SINGLE WINCH LIGHT, SECOND QUANTITY IS FOR THE DUAL WINCH LIGHT.

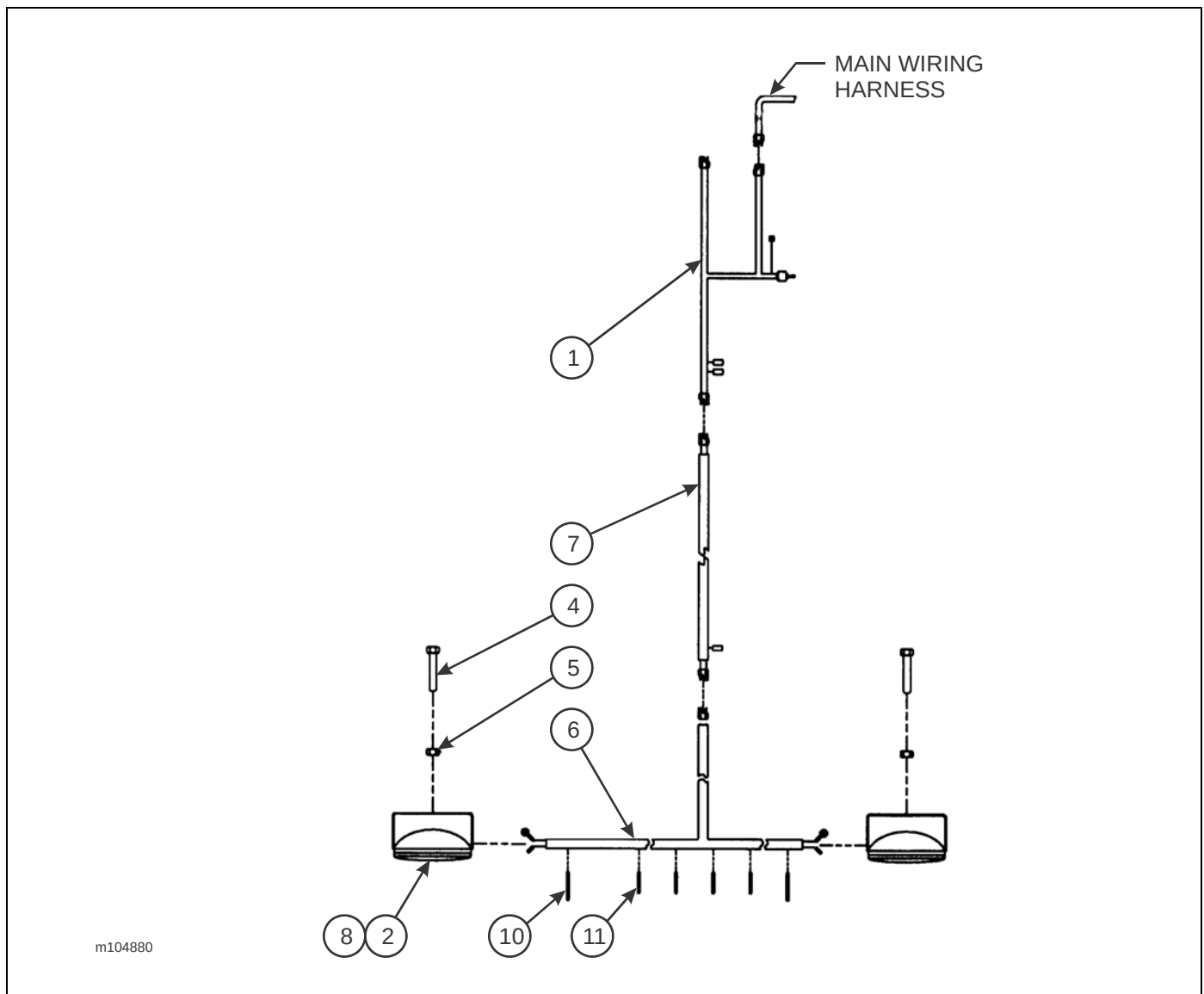


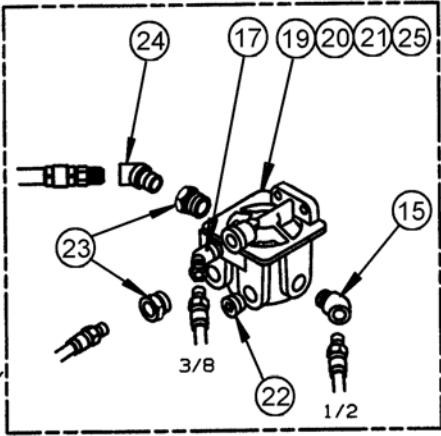
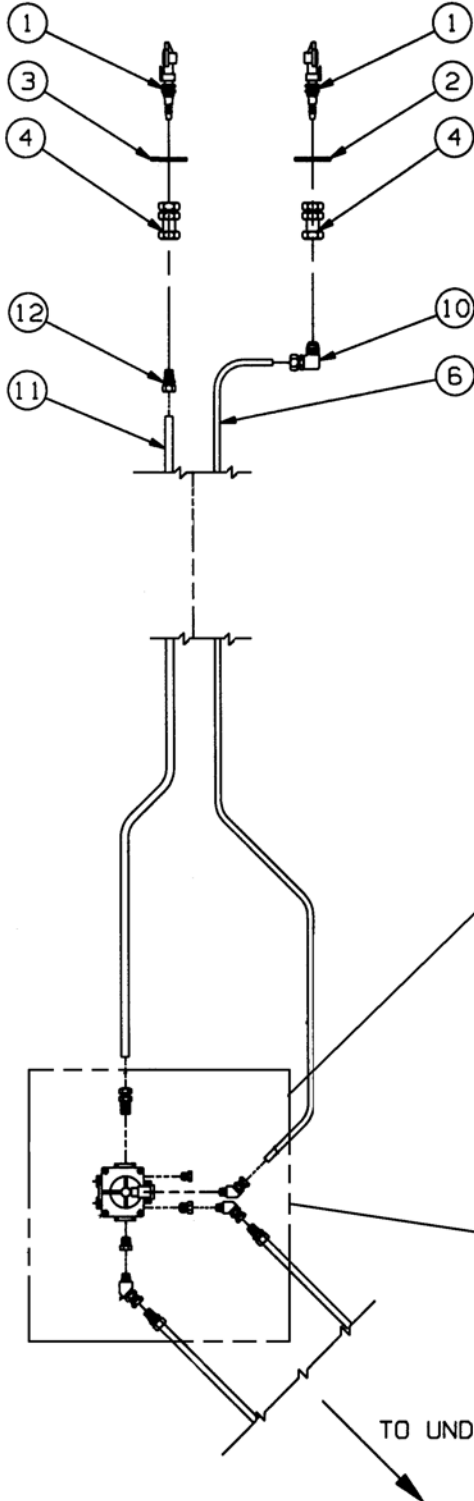
Figure 2-21: Bulkhead Light Assembly (Option)

BULKHEAD LIGHT ASSEMBLY (OPTION)

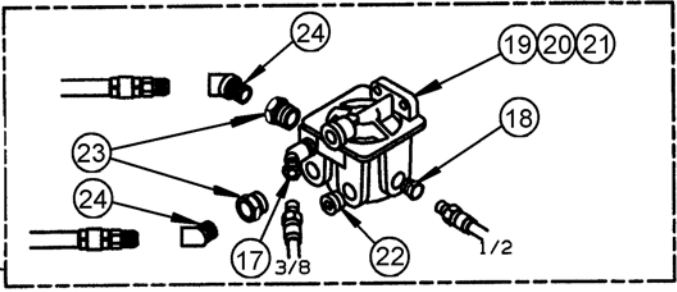
ITEM	PART NO.	DESCRIPTION	QTY.
	104880	ELECTRICAL INSTALLATION, DUAL BULKHEAD LIGHT	
1	101381	HARNESS LIGHT WORK COURTESY	1
2	64181	RECTANGULAR QUARTZ HALOGEN LAMP	2
3	1-796-010003-02	TIE STRAP, PLASTIC (NOT SHOWN)	6
4	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	2
5	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	2
6	3-368-010250	HARNESS, BULKHEAD LIGHTS	1
7	3-368-010252	HARNESS, BULKHEAD LIGHTS	1
8	STP-147	CONNECTOR BULLET MALE	2
9	3-573-010437	DECAL, LIGHT (NOT SHOWN) (SEE PAGE 2-6)	1
10	1-343-010010	GROMMET, 9/16" ID	2
11	1-343-010007	GROMMET	4

EMERGENCY/SUPPLY

SERVICE/CONT



MODEL 318D



MODELS 317D/319D

3mb128-010021

Figure 2-22: Air System, Main

AIR SYSTEM, MAIN

ITEM	PART NO.	DESCRIPTION	QTY.
1	108801	GLADHAND RED AIR	1
	108802	GLADHAND BLUE AIR	1
2	55B61-7	TAG SERVICE LINE	1
3	55B61-6	TAG EMERGENCY LINE	1
4	55B61	FRAME UNION	2
6	1-833-010002	TUBING NYLON 3/8	AR
10	1-297-010008-18	FITTING, 90	1
11	1-833-010003	TUBING NYLON 1/2	AR
12	1-297-010007-14	FITTING, AIR	1
15	1-297-010013-16	FITTING, AIR 45 (TRIPLE AXLE ONLY)	1
17	1-297-010013-12	FITTING, AIR 45	1
18	1-297-010007-16	FITTING, AIR	2
19	3-843-010038	VALVE, AIR RELAY (NO PARTS BREAKDOWN)	1
20	1-861-010032-06	WASHER, FLAT 1/4N	2
21	1-512-010005-01	NUT, HEX LOCK 1/4-20 GRB	2
22	1-560-010002-04	PLUG, PIPE 1/2	1
23	2081-8-6S	REDUCER	2
24	2088-6-6S	ADAPTER 45	2
25	1-654-010027-7	SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR8	2
	141607	VALVE ASSEMBLY, AIR BOOSTER (INCL ITEMS 17-19, 22-24)	

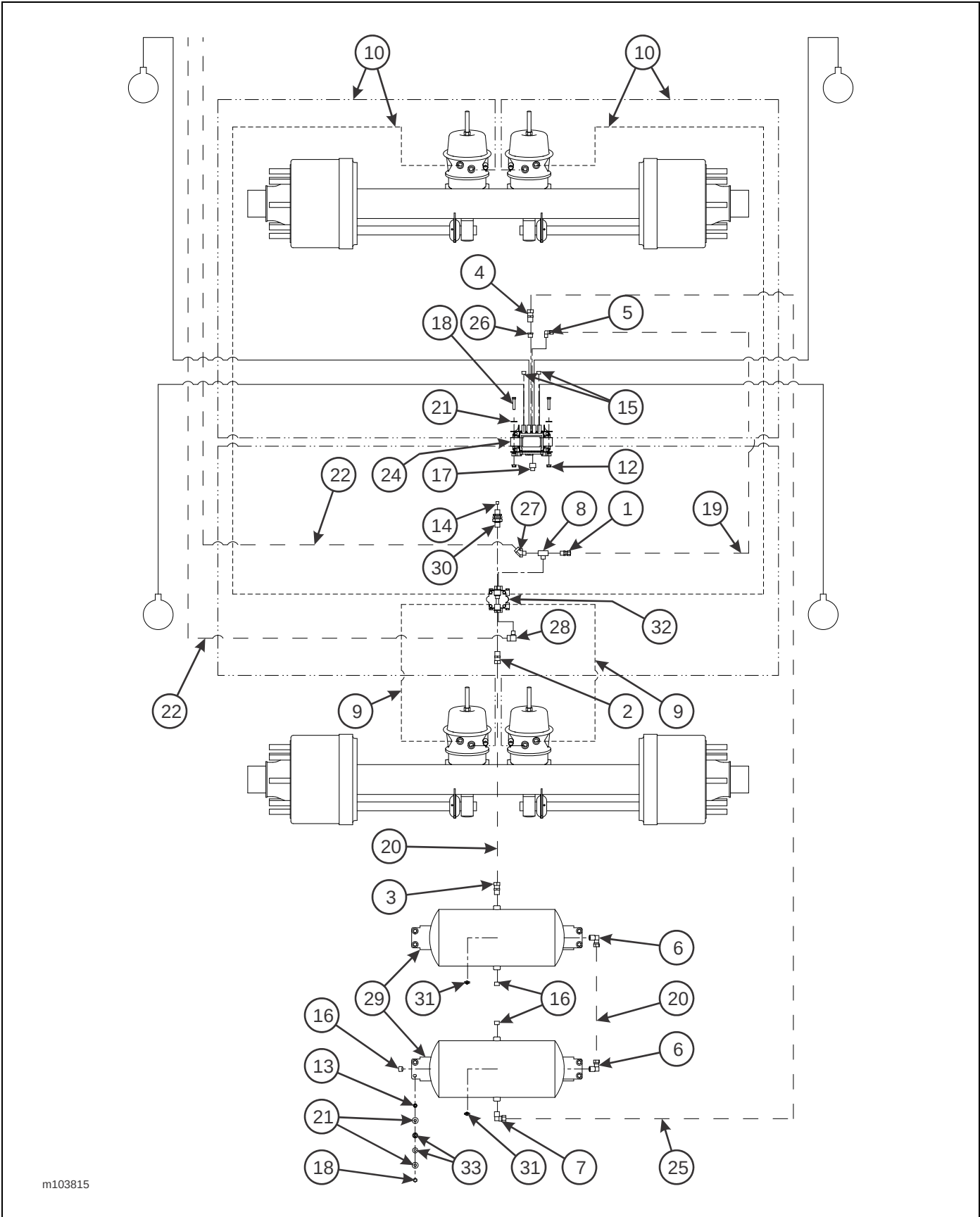
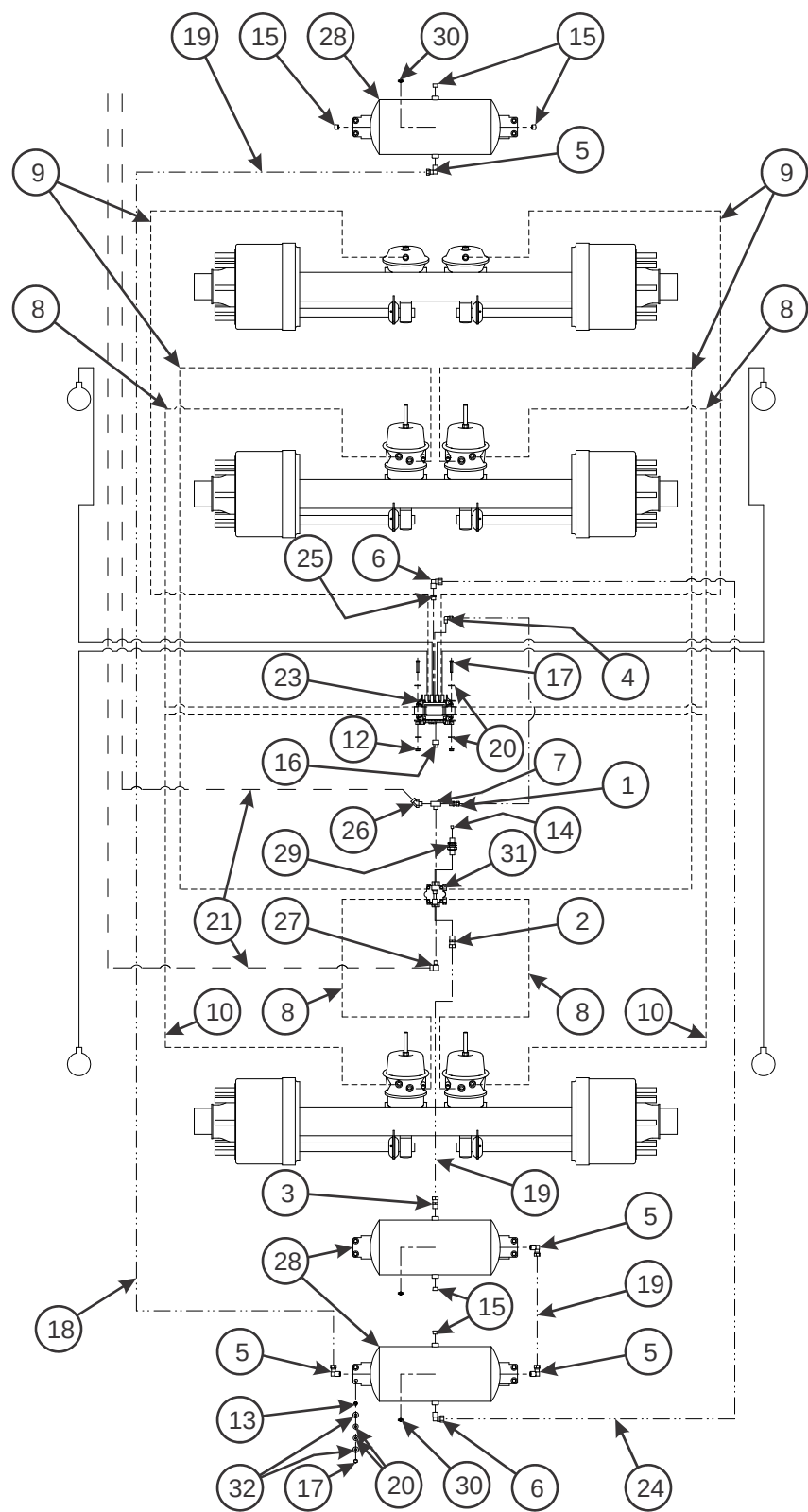


Figure 2-23: Spring Air Brake System w/ ABS (Tandem Axle)

SPRING AIR BRAKE SYSTEM W/ ABS (TANDEM)

ITEM	PART NO.	DESCRIPTION	QTY.
	103815	AIR SYSTEM ABS, TANDEM	
1	1-297-010007-12	FITTING AIR	1
2	1-297-010007-15	FITTING, AIR	1
3	1-297-010007-16	FITTING, AIR	1
4	1-297-010007-18	FITTING, AIR	1
5	1-297-010008-18	FITTING, AIR 90	1
6	1-297-010008-24	FITTING, AIR 90	4
7	1-297-010008-26	FITTING, AIR 90	2
8	1-297-010017-03	FITTING AIR M/BR TEE	1
9	1-384-010038024	HOSE AIR 3/8 X 24	4
10	1-384-010038060	HOSE, AIR 3/8 X 60	4
11	1-394-010001	HOSE ABRASION SLEEVE X 2 (NOT SHOWN)	2
12	1-510-010001	NUT FLANGE LOCK 3/8-16	3
13	1-512-010005-05	NUT HEX LOCK 3/8-16 GRB	8
14	1-560-010002-02	PIPE PLUG 1/4	1
15	1-560-010002-03	PIPE PLUG 3/8	2
16	1-560-010002-04	PIPE PLUG 1/2	4
17	1-560-010002-05	PIPE PLUG 3/4-14	1
18	1-654-010051-08	SCREW HEX HEAD CAP 3/8-16 X 1-3/4 GR5	10
19	1-833-010002	TUBING, NYLON 3/8	AR
20	1-833-010003	TUBING NYLON 1/2	AR
21	1-861-010032-11	WASHER FLAT 3/8W	18
22	100949	HOSE AIR 3/8 X 222 W/ 3/8 ENDS	2
23	103817	CLAMP, HOSE (NOT SHOWN)	1
24	114584	BRAKE KIT, ABS 4S/2M (SEE PAGE 2-41)	1
25	117304	TUBING, NYLON 5/8	AR
26	118-2659-9	BUSHING 1/2 X 3/4	1
27	2088-6-6S	ADAPTER, 45	1
28	2089-6-6S	ADAPTER 90	1
29	3-780-010002	TANK AIR	2
30	55B61	FRAME UNION	1
31	56D4	AIR TANK DRAIN COCK	2
32	758-181	VALVE RELAY EMERGENCY	1
33	805-2	STEP BUSHING	16

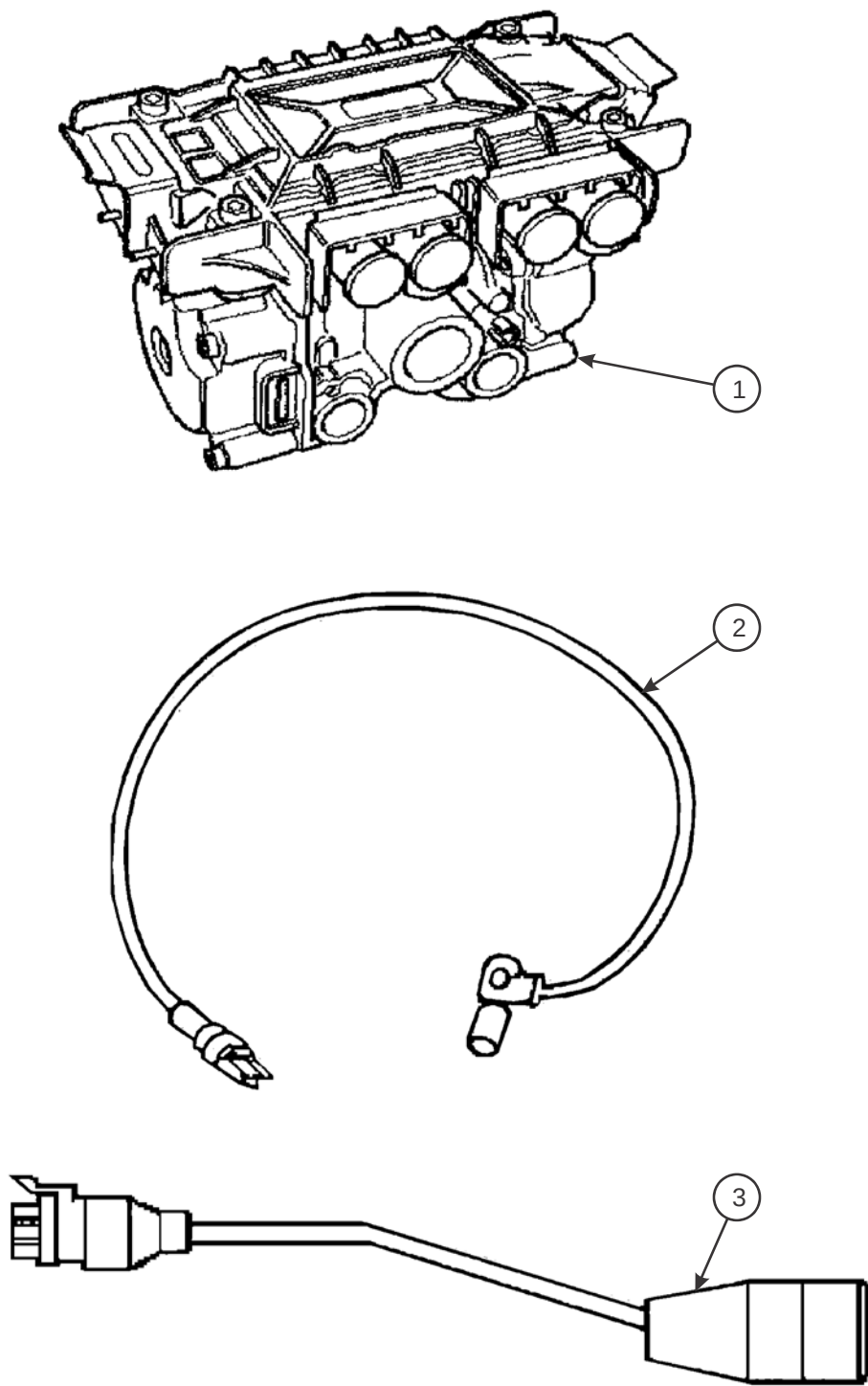


m150181 p2

Figure 2-24: Spring Air Brake System w/ ABS (Triple Axle)

SPRING AIR BRAKE SYSTEM W/ ABS (TRIPLE)

ITEM	PART NO.	DESCRIPTION	QTY.
1	1-297-010007-12	FITTING, AIR	1
2	1-297-010007-15	FITTING, AIR	1
3	1-297-010007-16	FITTING, AIR	1
4	1-297-010008-18	FITTING, AIR 90	1
5	1-297-010008-24	FITTING, AIR 90	4
6	1-297-010008-26	FITTING, AIR 90	2
7	1-297-010017-03	FITTING, AIR M/BR TEE	1
8	1-384-010038024	HOSE, AIR 3/8 X 24	4
9	1-384-010038060	HOSE AIR 3/8 X 60	4
10	1-384-010038084	HOSE, AIR 3/8 X 84"	2
11	1-394-010001	HOSE, ABRASION SLEEVE X 2 (NOT SHOWN)	2
12	1-510-010001	NUT, FLANGE LOCK 3/8-16	2
13	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	12
14	1-560-010002-02	PIPE PLUG 1/4	2
15	1-560-010002-04	PIPE PLUG 1/2	5
16	1-560-010002-05	PIPE PLUG 3/4-14	1
17	1-654-010051-08	SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5	14
18	1-833-010002	TUBING, NYLON 3/8	AR
19	1-833-010003	TUBING, NYLON 1/2	AR
20	1-861-010032-11	WASHER, FLAT 3/8W	26
21	100948	HOSE, AIR 3/8 X 174	2
22	103817	CLAMP, HOSE (NOT SHOWN)	1
23	114586	BRAKE KIT, ABS 4S/2M TRIPLE AXLE (SEE PAGE 2-41)	1
24	117304	TUBING, NYLON 5/8	AR
25	118-2659-9	BUSHING 1/2 X 3/4	1
26	2088-6-6S	ADAPTER, 45	1
27	2089-6-6S	ADAPTER, 90	1
28	3-780-010002	TANK, AIR	3
29	55B61	FRAME UNION	1
30	56D4	AIR TANK DRAIN COCK	3
31	758-181	VALVE RELAY EMERGENCY	1
32	805-2	STEP BUSHING	24

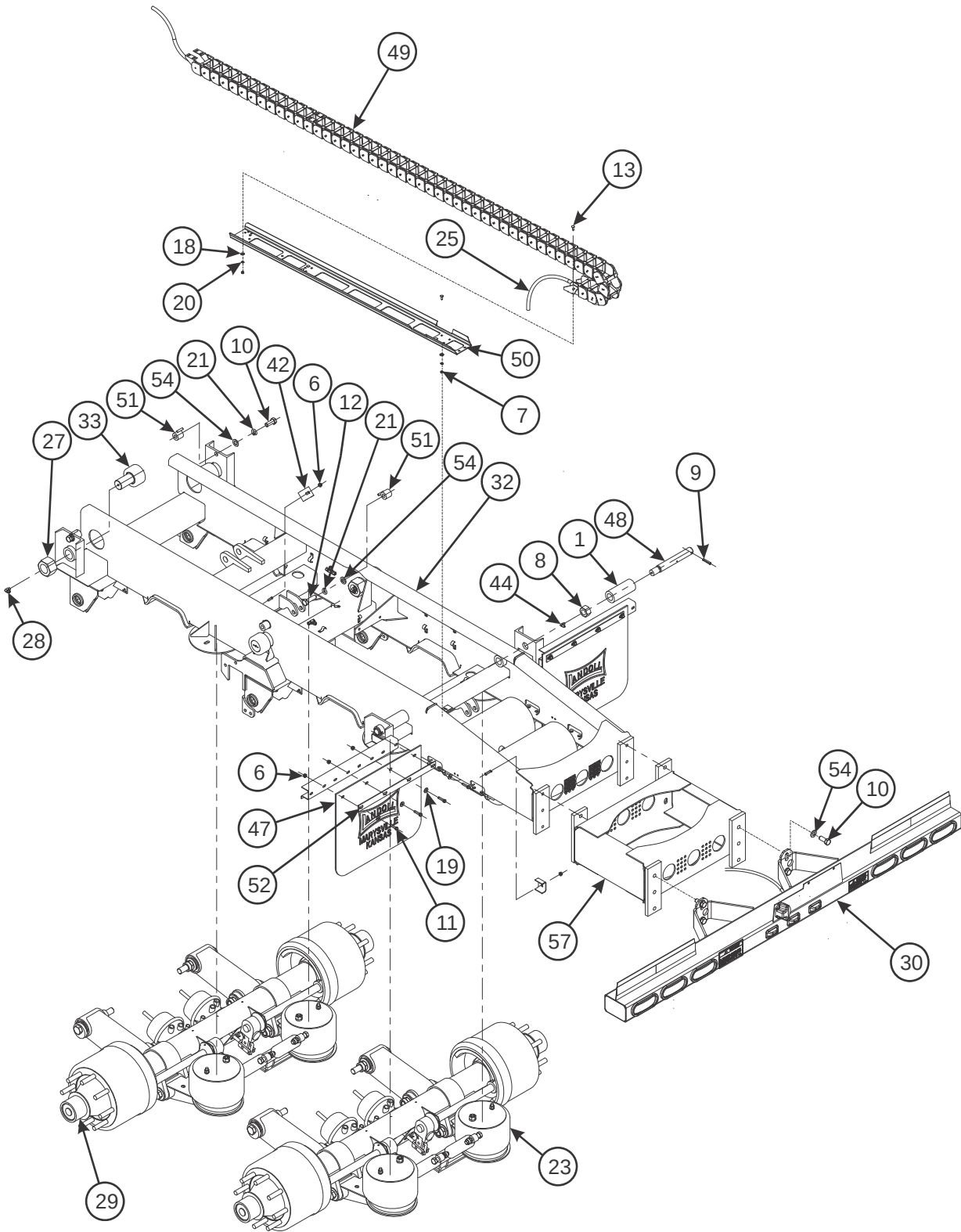


ma114584

Figure 2-25: Brake Kit, Rockwell ABS

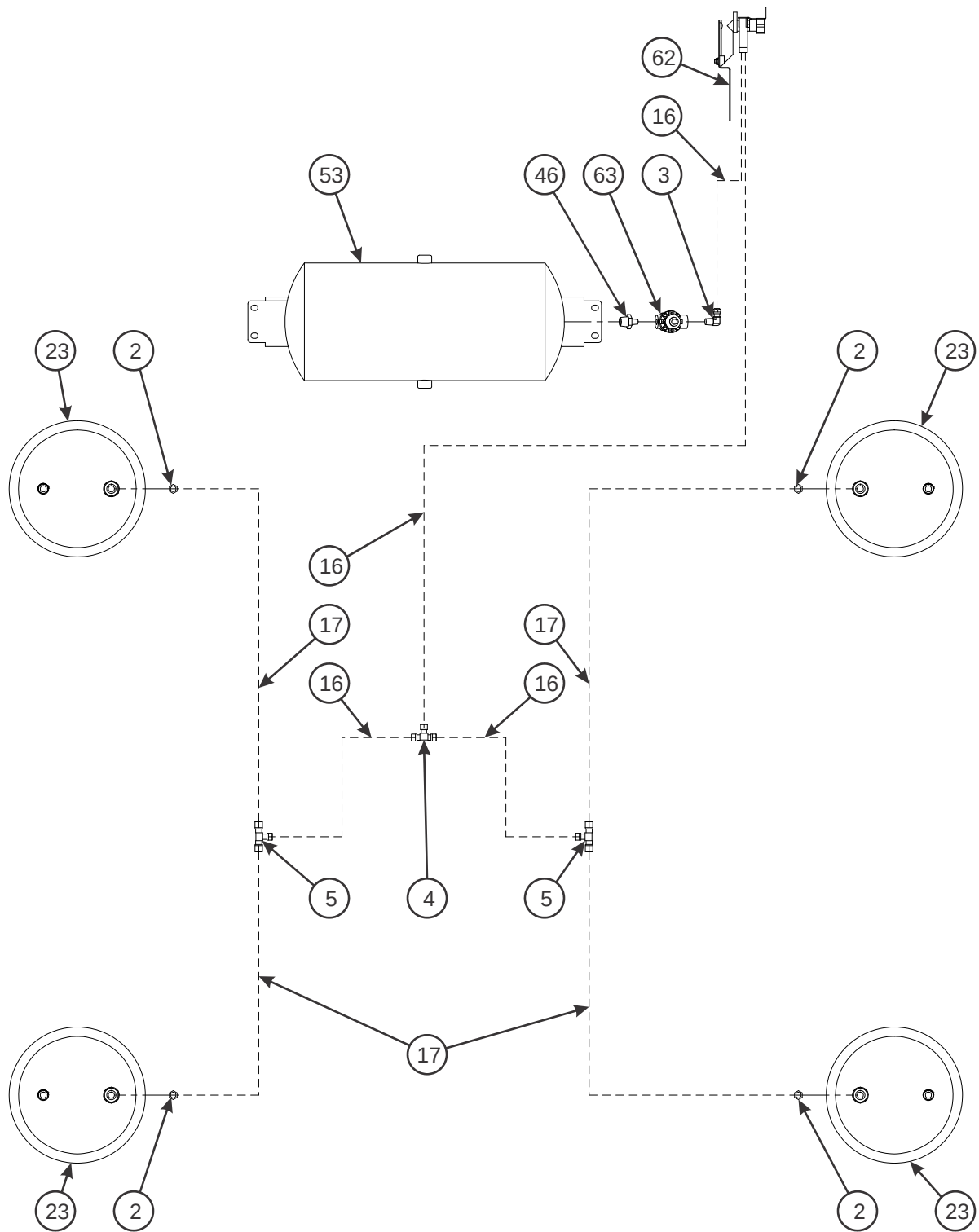
ABS BRAKE KIT

ITEM	PART NO.	DESCRIPTION	QTY.
	114584	ABS BRAKE KIT 4S/2M	
	114586	ABS BRAKE KIT 4S/2M-TRI/SPRD	
1	114588	ECU/VALVE ASSEMBLY	1
2	101848	SENSOR EXTENSION CABLE (6 FT) (114584)	4
	103861	SENSOR EXTENSION CABLE (10 FT) (114586)	4
3	147464	POWER/DIAGNOSTIC CABLE 4.0M/3.0M	1



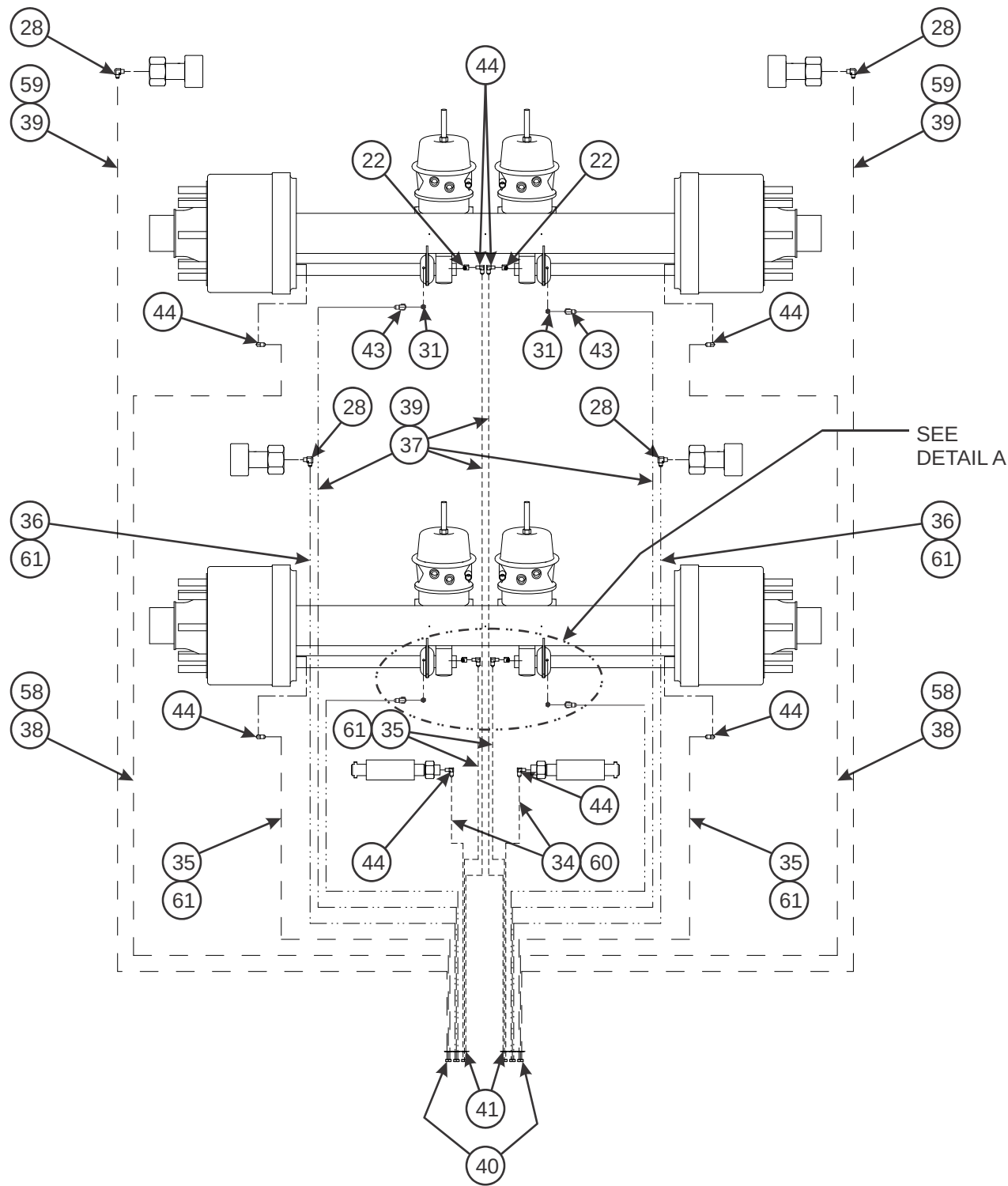
m145608p1

Figure 2-26: U/C Assembly, Air Ride Suspension (317D)(1 of 4)



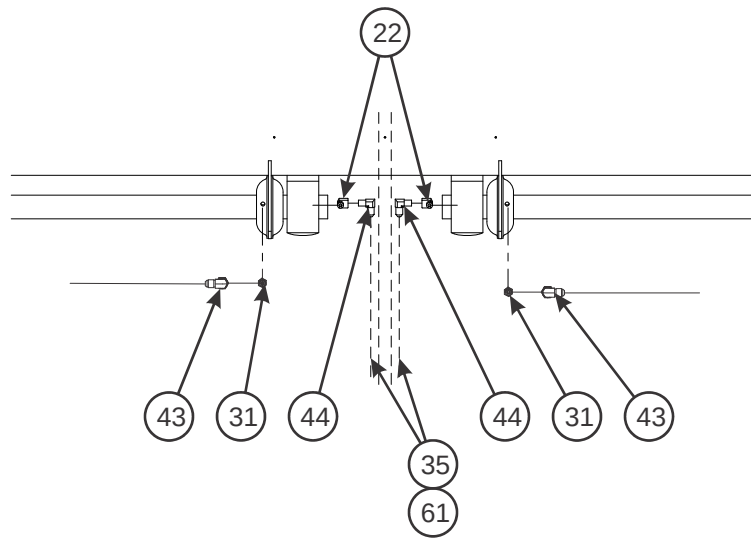
m149157p2

Figure 2-27: U/C Assembly, Air Ride Suspension (317D)
(2 of 4)

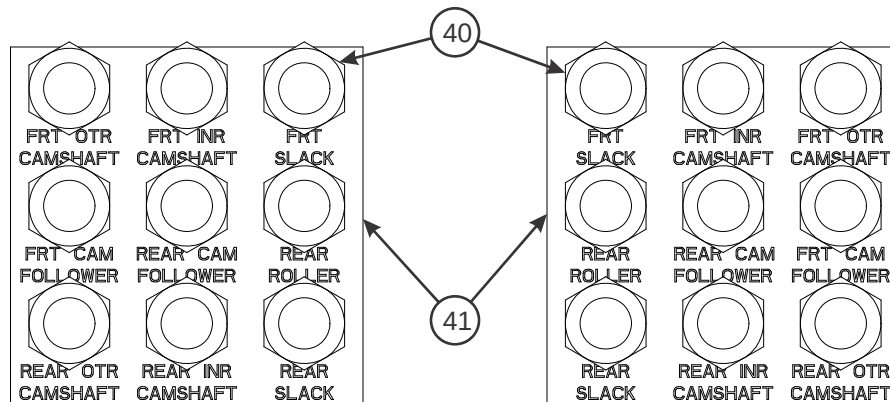


m149157 grease

Figure 2-28: U/C Assembly, Air Ride Suspension (317D)
(3 of 4)



DETAIL A



STREETSIDE

CURBSIDE

m149157 grease p2

Figure 2-29: U/C Assembly, Air Ride Suspension (317D)
(4 of 4)

UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (317D)

ITEM	PART NO.	DESCRIPTION	QTY.
	-----	AIR RIDE SUSPENSION 317D	
1	RRT114X6	TUBE ROUND TYPE 5	2
2	1-297-010007-11	FITTING, AIR	4
3	1-297-010008-07	FITTING, AIR 90	1
4	1-297-010010-01	FITTING, AIR UNION TEE	1
5	1-297-010010-04	FITTING, AIR UNION TEE	2
6	1-510-010001	NUT, FLANGE LOCK 3/8-16	11
7	1-512-010007-05	NUT, HEX 1/4-20 GRB	11
8	1-512-010007-16	NUT, HEX 1-1/4-7	2
9	1-647-010004255	PIN, SPRING SLOTTED	2
10	1-654-010032-4	SCREW, HEX HEAD CAP 3/4-10 X 1-3/4 GR8	14
11	1-654-010051-07	SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5	8
12	1-654-010061-07	SCREW, HEX HEAD CAP 3/4-10 X 2-1/2 GR5	2
13	1-654-010158-1	SCREW, RD HEAD SQ NECK 1/4-20 X 3/4	11
14	1-796-010003-02	TIE STRAP, PLASTIC .18 X 14 (NOT SHOWN)	2
15	1-796-010004-02	TIE STRAP, PLASTIC (NOT SHOWN)	10
16	1-833-010001	TUBING, NYLON 1/4	AR
17	1-833-010002	TUBING, NYLON 3/8	AR
18	1-861-010032-07	WASHER, FLAT 1/4	*13,11
19	1-861-010032-11	WASHER, FLAT 3/8W	8
20	1-861-010034-09	WASHER, SPLIT LOCK 1/4	11
21	1-861-010034-17	WASHER, SPLIT LOCK 3/4W	4
22	101528	ELBOW, BRASS PIPE STREET	4
23	102363	SUSPENSION ADJ RLU-228-3.5 (SEE PAGE 2-57)	3
24	102732	AIR CONTROL KIT NEWAY (INCL. ITEMS 62-63) (SEE PAGE 2-55)	1
25	143103	HARNESS, E-CHAIN ABS	1
26	103815	AIR SYSTEM, ABS (NOT SHOWN) (SEE PAGE 2-37)	1
27	104034	NUT, HEX 2-12	2
28	113268	ADAPTER 90	4
29	115732	AXLE WELDMENT 2512 SPG-70.5 X 31	2
	136256	AXLE WELDMENT 2512 SPG-70.5 X 31 TIS (FOR AXLE BREAKDOWNS, SEE PAGES 2-56 - 2-63)	2
30	119580	BUMPER WELDMENT (102")	1
	121366	BUMPER WELDMENT (96")	1
31	161797	ADAPTER, STRAIGHT 5/16-18	4
32	131701	SUSPENSION WELDMENT A/R	1
33	3-076-010005	CAM FOLLOWER 4"	4
34	142441	HOSE ASSEMBLY, GREASE 1/4 X 45	2
35	142443	HOSE ASSEMBLY, GREASE 1/4 X 72	8,6
36	142444	HOSE ASSEMBLY, GREASE 1/4 X 83 (145609)	2
37	142446	HOSE ASSEMBLY, GREASE 1/4 X 118	4
38	142447	HOSE ASSEMBLY, GREASE 1/4 X 126	2
39	142451	HOSE ASSEMBLY, GREASE 1/4 X 156	*2,4
40	142545	NUT, 7/16	18
41	142553	DECAL, GREASE TRAILER U/C	2
42	2-181-010001	HOSE CLAMP	1
43	138155	ADAPTER, 90	4

UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (317D)

ITEM	PART NO.	DESCRIPTION	QTY.
44	2024-2-4S	ADAPTER, ELBOW	12
46	2083-8-4S	NIPPLE, HEX	1
47	3-485-010001	MUD FLAP, 21"	2
48	3-557-010396	PIN, REAR ROLLER	2
49	3-755-010189	SUPPORT E-CHAIN	1
	3-755-010189-1	E-CHAIN LINK ASSEMBLY (38-06-075-0)	AR
50	3-821-010005	TRAY, CAT TRACK	1
51	3-762-010016	HOLDDOWN CARRIAGE	4
52	3-762-010017	CLAMP, MUD FLAP	2
53	3-780-010002	TANK, AIR	2
54	622-3511-008	WASHER 3/4 MIL-CARB FL SAE	14
55	157702	TIRE INFLATION SYSTEM (NOT SHOWN) (SEE PAGE 2-163)	1
56	3-256-010006-02	DOCK LEVEL ASSEMBLY (NOT SHOWN)(SEE PAGE 2-119)	1
	148813	DOCK LEVEL ASSEMBLY (NOT SHOWN)(SEE PAGE 2-121)	1
57	104463	EXTENSION WELDMENT BUMPER (CALIFORNIA MODEL ONLY)	1
58	142452	HOSE ASSEMBLY, GREASE 1/4 X 162 (CA MODELS)	2
59	142453	HOSE ASSEMBLY, GREASE 1/4 X 180 (CA MODELS)	2
60	142465	HOSE ASSEMBLY, GREASE 1/4 X 67 (CA MODELS)	2
61	142466	HOSE ASSEMBLY, GREASE 1/4 X 94 (CA MODELS)	8
62	900 54 007	HEIGHT CONTROL VALVE	REF
63	905-54-107	BRAKE PROTECTION VALVE	REF

* 1ST QUANTITY USED ON STANDARD MODELS; 2ND QUANTITY USED ON CALIFORNIA MODELS

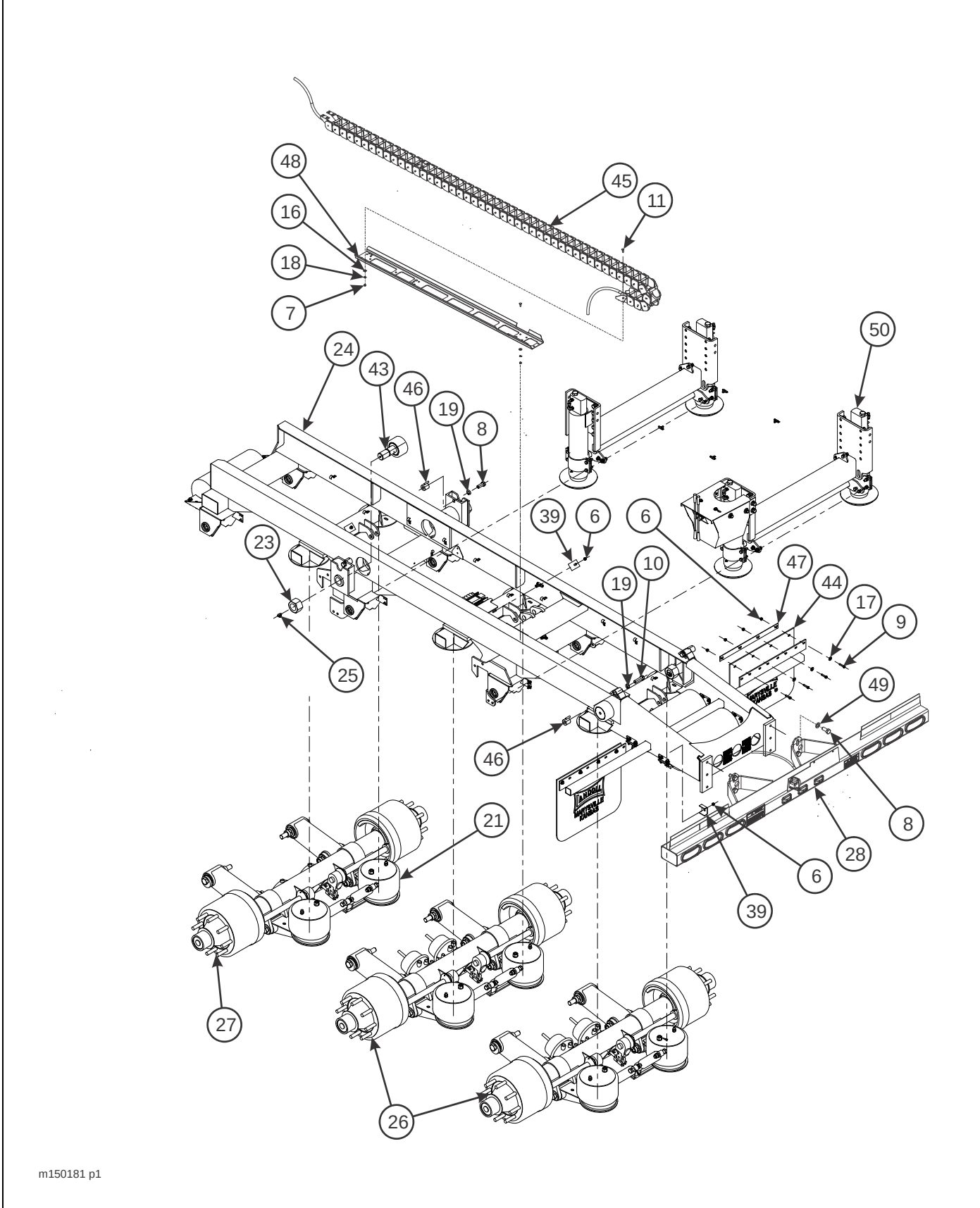
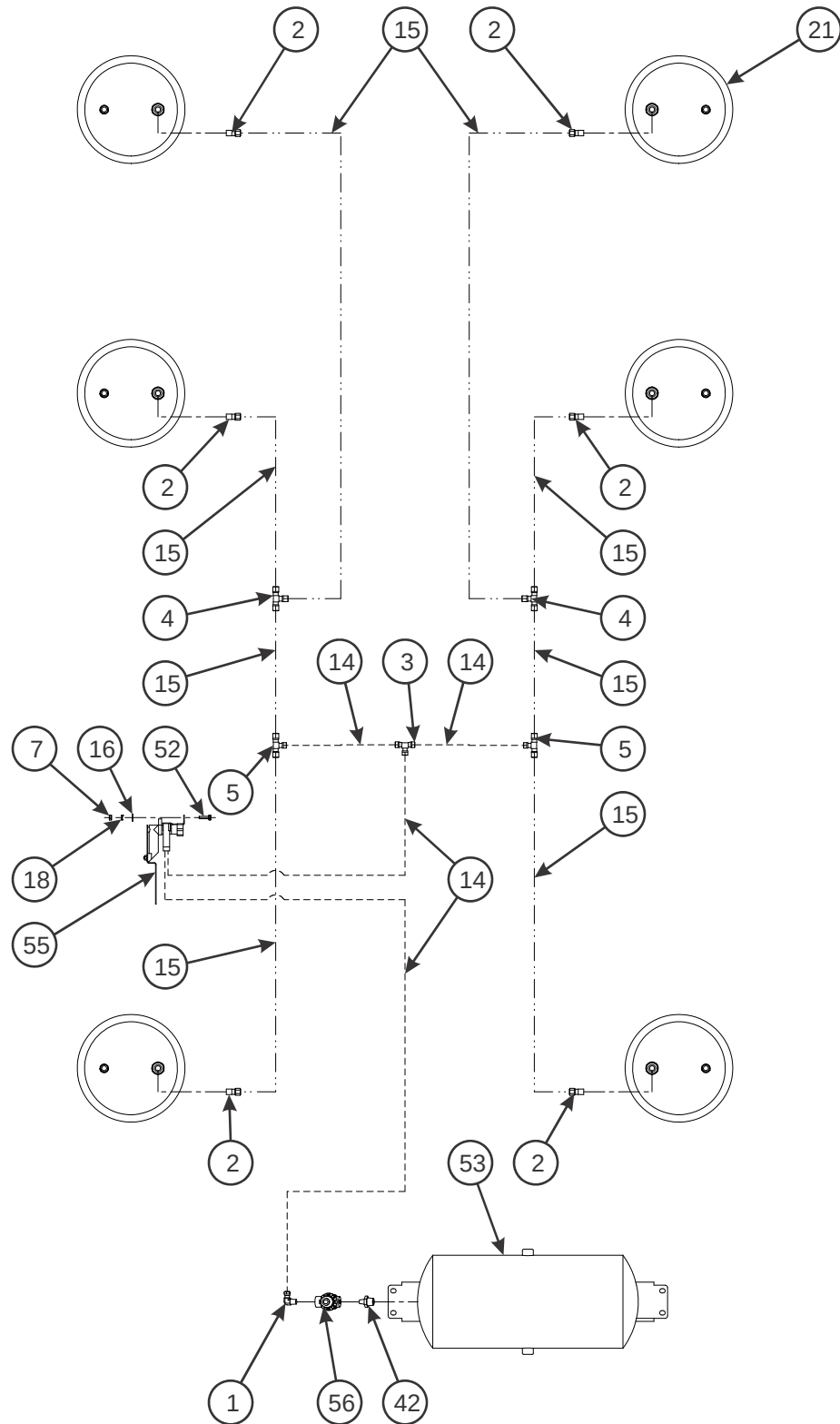


Figure 2-30: U/C Assembly, Air Ride Suspension (318D)
(1 of 4)



m150181 p3

Figure 2-31: U/C Assembly, Air Ride Suspension (318D)
(2 of 4)

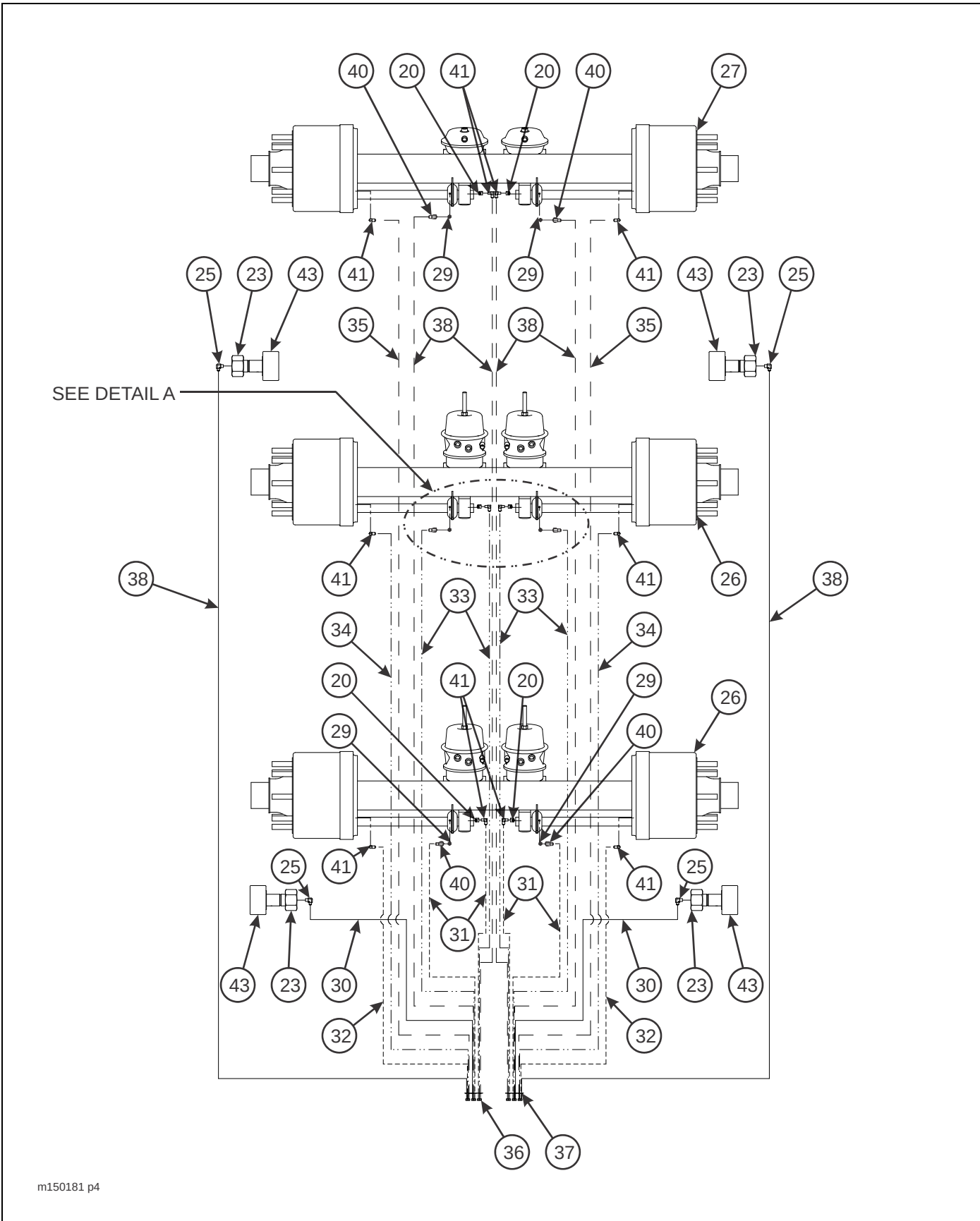
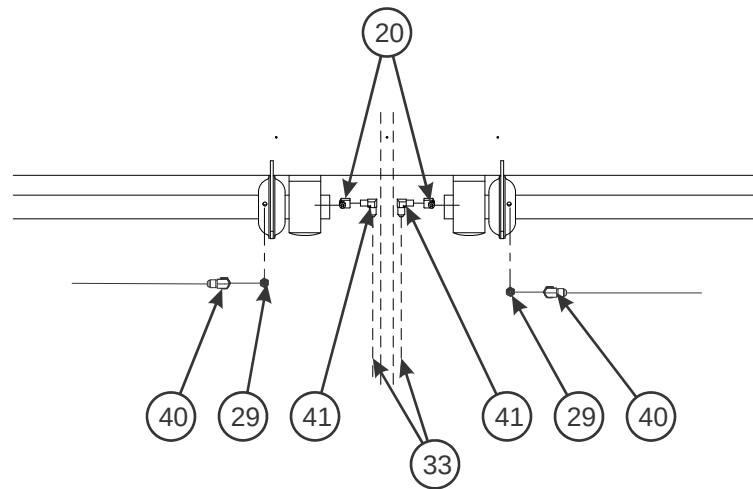
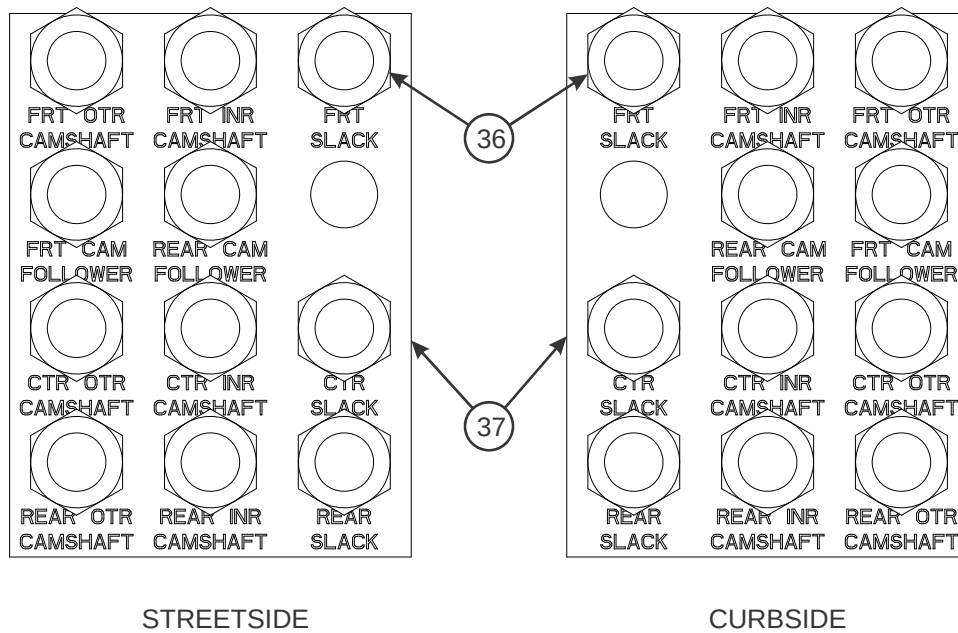


Figure 2-32: U/C Assembly, Air Ride Suspension (318D)
(3 of 4)



DETAIL A



m150181 grease p2

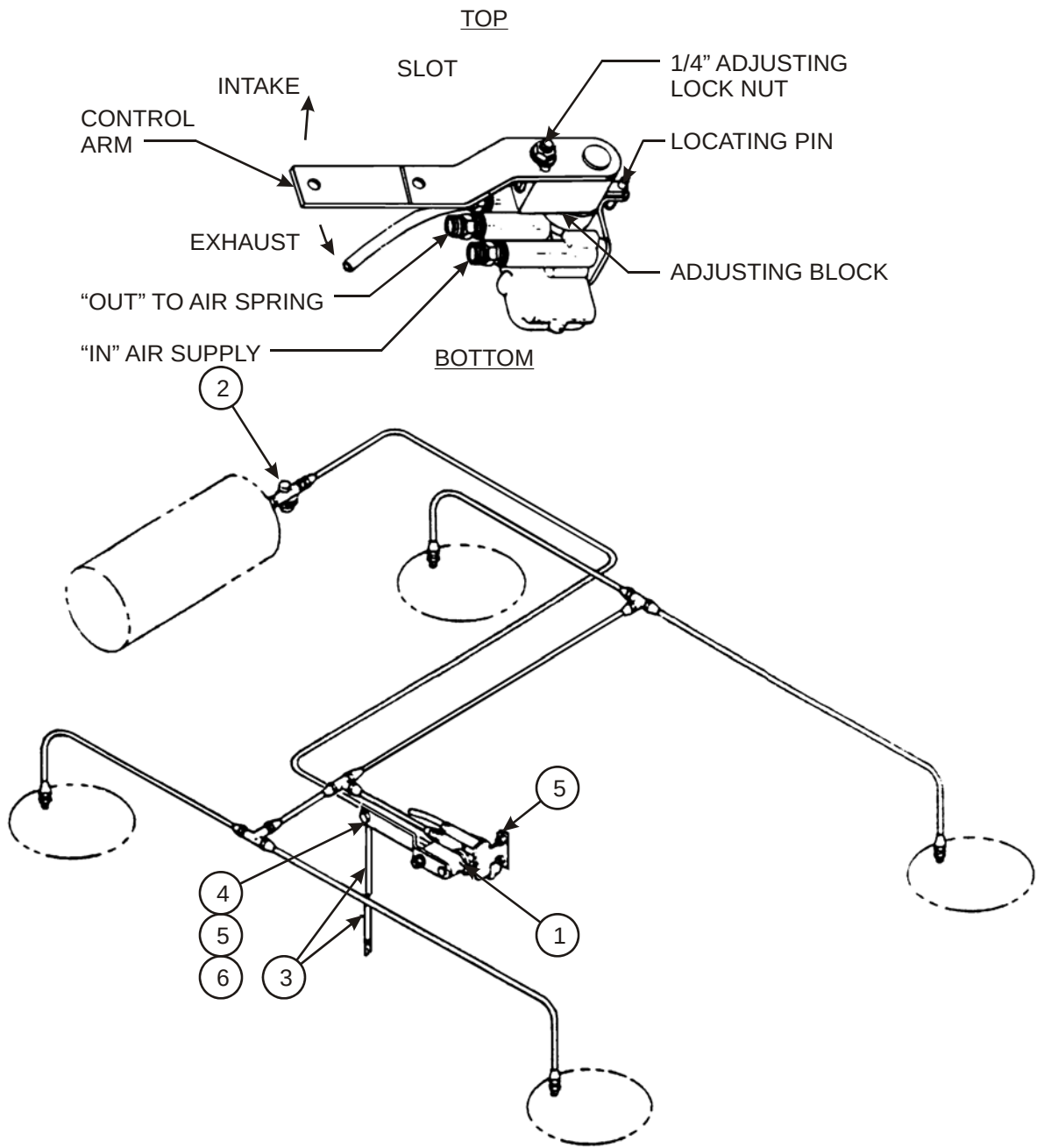
Figure 2-33: U/C Assembly, Air Ride Suspension (318D)
(4 of 4)

UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (318D)

ITEM	PART NO.	DESCRIPTION	QTY.
	150181	SUSPENSION U/C ASSEMBLY A/R ABS 2512-70.5 D/L	REF
1	1-297-010008-07	FITTING, AIR 90	1
2	1-297-010008-18	FITTING, AIR 90	6
3	1-297-010010-01	FITTING, AIR UNION TEE	1
4	1-297-010010-03	FITTING, AIR UN/TEE	2
5	1-297-010010-04	FITTING, AIR UN/TEE	2
6	1-510-010001	NUT, FLANGE LOCK 3/8-16	9
7	1-512-010007-05	NUT, HEX 1/4-20 GRB	11
8	1-654-010032-4	SCREW, HEX HEAD CAP 3/4-10 X 1-3/4 GR8	14
9	1-654-010051-07	SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5	8
10	1-654-010061-07	SCREW, HEX HEAD CAP 3/4-10 X 2-1/2 GR5	2
11	1-654-010158-1	SCREW, ROUND HEAD SQUARE NECK 1/4-20 X 3/4 GR5	11
12	1-796-010003-02	TIE STRAP, PLASTIC .18 X 14 (NOT SHOWN)	AR
13	1-796-010004-02	TIE STRAP, PLASTIC (NOT SHOWN)	10
14	1-833-010001	TUBING NYLON 1/4	AR
15	1-833-010002	TUBING NYLON 3/8	AR
16	1-861-010032-07	WASHER, FLAT 1/4	11
17	1-861-010032-11	WASHER, FLAT 3/8W	8
18	1-861-010034-09	WASHER, SPLIT LOCK 1/4	11
19	1-861-010034-17	WASHER, SPLIT LOCK 3/4	4
20	101528	ELBOW, BRASS PIPE STREET	6
21	102363	SUSPENSION, ADJUSTABLE RLU-228-3.5 (SEE PAGE 2-57)	1
22	102732	AIR CONTROL KIT NEWAY (INCL. ITEMS 55-56) (SEE PAGE 2-55)	1
23	104034	NUT, HEX 2-12	6
24	112574	SUSPENSION WELDMENT RLU-228	1
25	113268	ADAPTER 90	4
26	115732	AXLE WELDMENT 2512 SPG 70.5 X 31 (FOR AXLE BREAKDOWNS, SEE PAGES 2-56 - 2-63)	2
27	115735	AXLE WELDMENT 2512 SER 70.5 X 31 (FOR AXLE BREAKDOWNS, SEE PAGES 2-56 - 2-63)	1
28	119580	BUMPER WELDMENT (102")	1
	121366	BUMPER WELDMENT (96")	1
29	161797	ADAPTER, STRAIGHT 5/16-18	6
30	142441	HOSE ASSEMBLY, GREASE 1/8 X 45	2
31	142442	HOSE ASSEMBLY, GREASE 1/8 X 60	4
32	142443	HOSE ASSEMBLY, GREASE 1/8 X 72	2
33	142446	HOSE ASSEMBLY, GREASE 1/8 X 118	4
34	142447	HOSE ASSEMBLY, GREASE 1/8 X 126	2
35	142453	HOSE ASSEMBLY, GREASE 1/8 X 180	2
36	142545	NUT, 7/16	22
37	142553	DECAL, GREASE TRAILER U/C	2
38	144614	HOSE ASSEMBLY, GREASE 1/8 X 172	6
39	2-181-010001	CLAMP, HOSE	2
40	138155	ADAPTER, 90	6
41	2024-2-4S	ADAPTER, ELBOW	12
42	2083-8-4S	NIPPLE, HEX	1
43	3-076-010015	CAM FOLLOWER, 5"	4

UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (318D)

ITEM	PART NO.	DESCRIPTION	QTY.
44	3-485-010001	MUD FLAP	2
45	3-755-010189	SUPPORT E-CHAIN	1
	3-755-010189-1	E-CHAIN LINK ASSEMBLY (38-06-075-0)	AR
46	3-762-010016	HOLDDOWN UNDERCARRIAGE	4
47	3-762-010017	CLAMP, MUD FLAP	2
48	3-821-010005	TRAY, CAT TRACK	1
49	622-3511-008	WASHER, 3/4-10 MIL-CARB FL	14
50	3-256-010003-02	DOCK LEVEL ASSEMBLY (SEE PAGE 2-123)	1
	104433	DOCK LEVEL ASSEMBLY 60K (SEE PAGE 2-125)	1
51	-----	AIR SYSTEM ASSEMBLY ABS (NOT SHOWN) (SEE PAGE 2-39)	1
52	1-654-010047-06	SCREW, HEX HEAD CAP 1/4-20 X 1 GR5	2
53	3-780-010002	TANK, AIR	REF
54	157703	TIRE INFLATION SYSTEM 3AX (NOT SHOWN) (SEE PAGE 2-163)	1
55	900 54 007	HEIGHT CONTROL VALVE	REF
56	905-54-107	BRAKE PROTECTION VALVE	REF

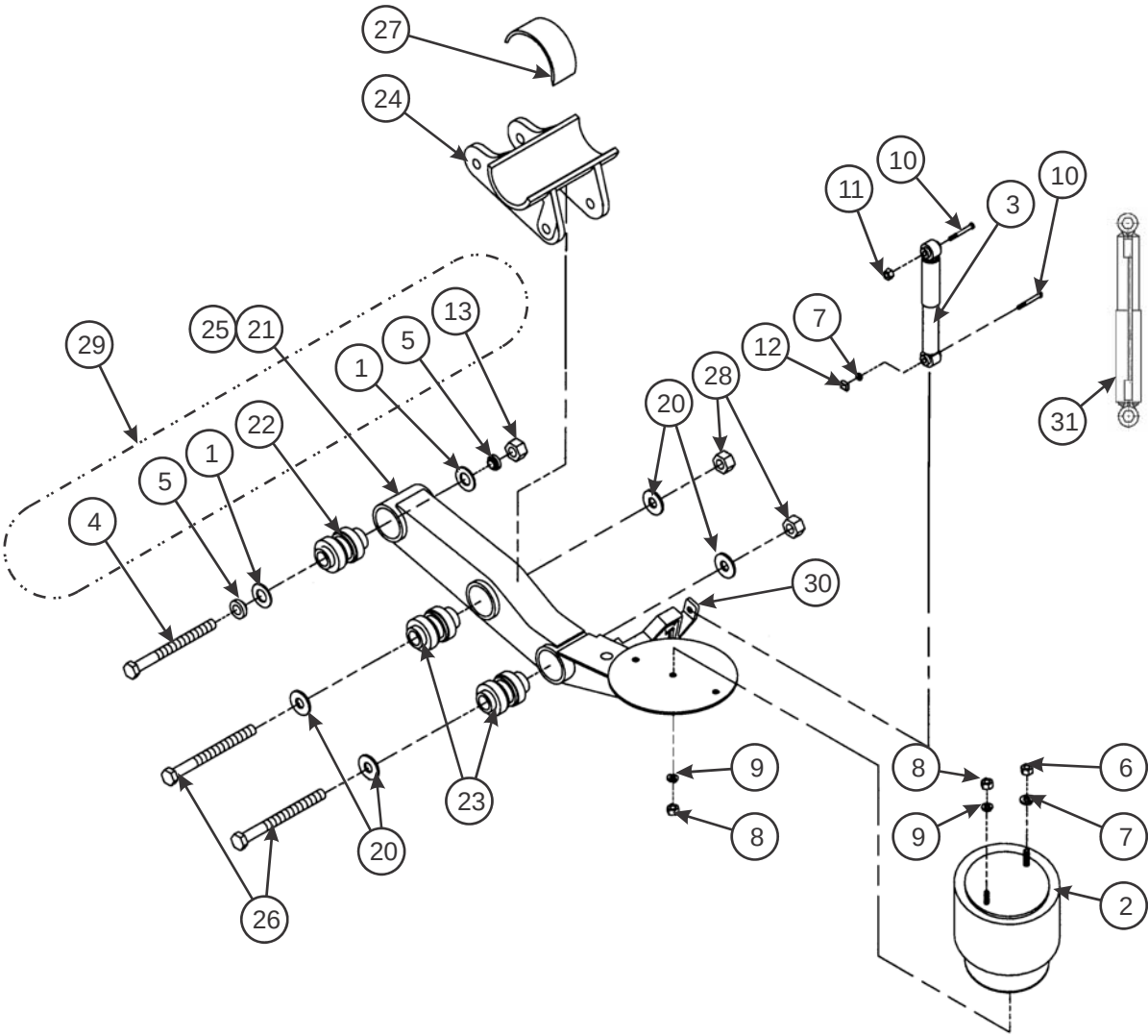


m102732

Figure 2-34: Air Control Kit

AIR CONTROL KIT

ITEM	PART NO.	DESCRIPTION	QTY.
	102732	AIR CONTROL KIT NEWAY	
1	900 54 007	HEIGHT CONTROL VALVE	1
2	905-54-107	AIR PRESSURE PROTECTION VALVE & FILTER	1
3	111021	SRK - 167 KIT (ADJUSTABLE LINK ASSEMBLY)	1
4	1-654-010047-04	SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5	2
5	1-512-010005-01	NUT, HEX LOCK 1/4-20 GRB	2
6	-----	DECAL (OPERATING)	1



762m102361

Figure 2-35: Suspension Hanger RLU-228

SUSPENSION HANGER RLU-228

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	102363		SUSPENSION, ADJ. RLU-228-3.5 (INCL ITEMS 1-19)	
	102364		SUSPENSION, ADJ. RLU-228-5.5 (INCL ITEMS 1-19)	
	102361		SUSPENSION, BEAM. RLU-228 (INCL ITEMS 20-28)	
1	111010	900 36 177	FLAT WASHER	2
2	905-57-129	905 57 129	AIR SPRING ASSEMBLY (102363)	2
	111016	905 57 159	AIR SPRING ASSEMBLY (102364)	2
3	900 45 040	900 45 040	SHOCK (102363)	2
	111017	900 44 642	SHOCK (102364)	2
4	90508009	905 08 009	ALIGN BUSH ASSEMBLY	2
5	111007	900 08 186	ALIGN BLOCK (900 08 186)	2
6	934 00 149	934 00 149	3/4-16 HEX NUT GRB	2
7	936 00 077	936 00 077	LOCK WASHER, 3/4"	4
8	1-512-010007-09	934 00 136	HEX NUT, 1/2-13	4
9	1-861-010034-13	936 00 072	LOCK WASHER, 1/2"	4
10	105408	930 03 597	HEX HEAD CAP SCREW 3/4-10 X 3-1/2	4
11	934 00 492	934 00 492	LOCK NUT, 3/4-10	2
12	111022	934 00 367	3/4-10 SQUARE NUT	2
13	111008	934 00 506	LOCK NUT 1-1/8-7	2
14	111018	900 54 038	ANCHOR, RIDE HEIGHT CONTROL VALVE (NOT SHOWN)	1
15	-----	941 00 787	LITERATURE INSTRUCTIONS (NOT SHOWN)	1
16	-----	941 00 685	LITERATURE SPEC (NOT SHOWN)	1
17	-----	941 00 648	LITERATURE FORM 864 (NOT SHOWN)	1
18	-----	941 00 590	LITERATURE LABEL (NOT SHOWN)	1
19	-----	941 00 790	LITERATURE LABEL (NOT SHOWN)	1
	111019	110 05 053	FASTENER KIT (INCL. 1, 4-11, 13, 15)	1
20	111010	900 36 177	FLAT WASHER	8
21	111013	905 16 600	EQUALIZING BEAM ASSEMBLY LH	1
22	900-08-139	900 08 139	RUBBER BUSHING (FRONT PIVOT)	2
23	111011	900 08 149	RUBBER BUSHING (AXLE CONNECTION)	4
24	111012	900 01 200	AXLE ADAPTER ASSEMBLY	2
25	111014	905 16 601	EQUALIZING BEAM ASSEMBLY RH	1
26	111023	932 01 051	HEX HEAD CAP SCREW 1-1/8-7 X 8-1/2	4
27	900-25-288	900 25 288	SAFETY STRAP	2
28	934-00-506	934 00 506	LOCK NUT 1-1/8-7	4
29	109533	481 00 294	ALIGNMENT BLOCK KIT	1
30	126900	905 20 543	BRACKET BOTTOM SHOCK (RLU-228)	1
31	141708		WIRE ROPE STRAP KIT RLU228-3.5	1
	127708		WIRE ROPE STRAP KIT RLU228-5.5	1

NOTE: QUANTITIES LISTED ARE PER AXLE.

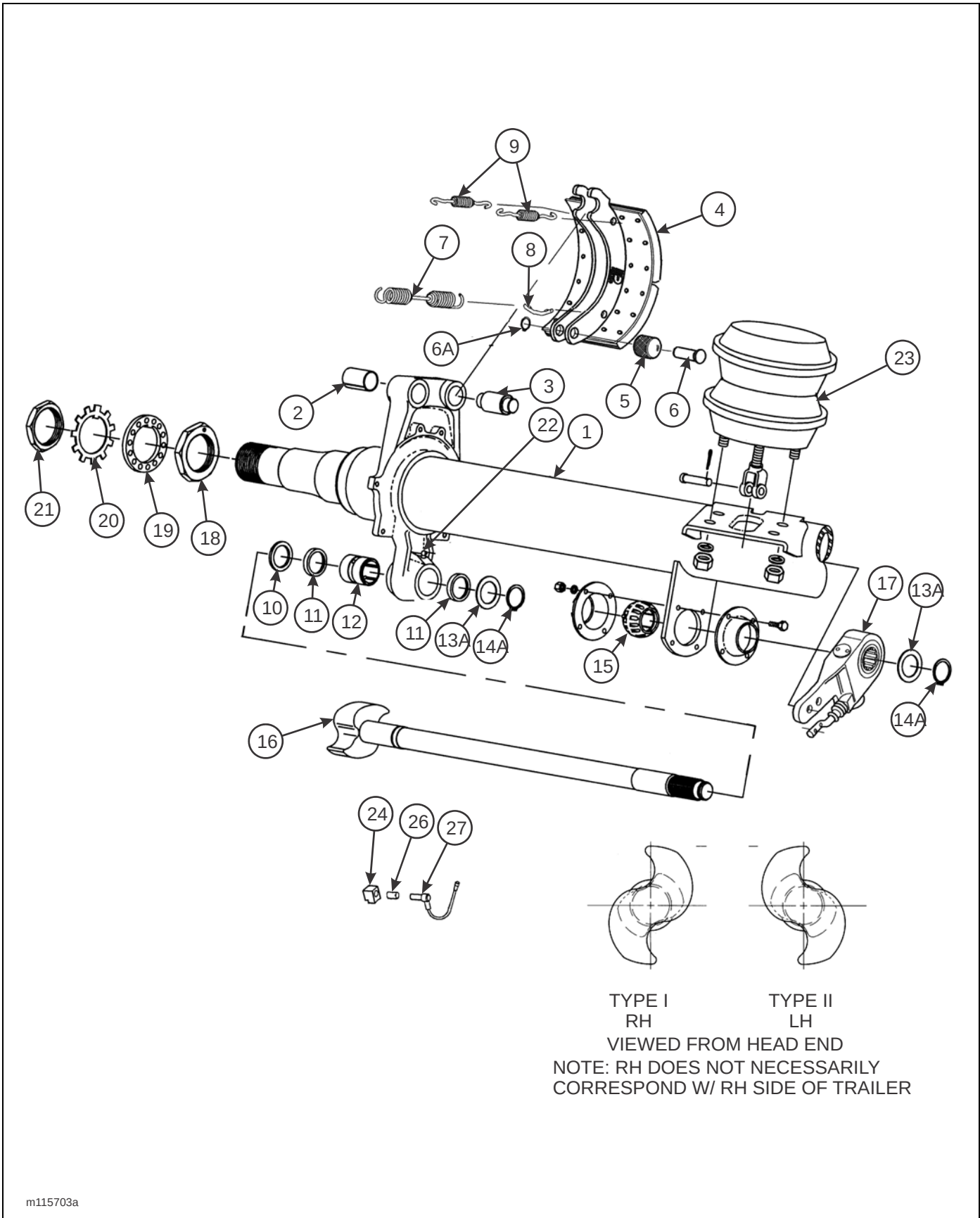


Figure 2-36: Axle and Brake Assembly (12-1/4 x 7-1/2")

AXLE AND BRAKE ITEMS (DEXTER) (12-1/4" X 7-1/2")

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	115703		AXLE 70-1/2, 12-1/4 X 7-1/2 SPG BRK (25K)	
	115708		AXLE 70-1/2, 12-1/4 X 7-1/2 SRVC BRK (25K)	
	136202		AXLE 70-1/2, 12-1/4 X 7-1/2 SPG BRK (25K)	
	138197		AXLE 70-1/2, 12-1/4 X 7-1/2 SRVC BRK (25K)	
	**K71-460-00	**K71-460-00	BRAKE SHOE HARDWARE KIT (ITEMS 2, 3, 5, 6, 6A, 7, & 8)	
2**	-----	014-068-00	BUSHING, SPIDER ANCHOR PIN	4
3**	-----	056-017-00	PIN, ANCHOR	4
4	040-320-01	040-320-01	SHOE AND LINING ASSEMBLY	4
4A	-----	041-060-01	LINING - BRAKE BLOCK CAM	2
4B	-----	041-057-01	LINING - BRAKE BLOCK ANCHOR	4
	-----	K71-133-00	BRAKE BLOCK KIT	4
5**	-----	014-057-00	ROLLER	4
6**	-----	056-010-00	RETAINER, ROLLER PIN	8
6A**	-----	069-018-00	RETAINER RING	8
7**	-----	046-092-00	SPRING, SHOE RETRACTOR	2
8**	056-018-00	056-018-00	RETAINER PIN RETRACTOR SPRING	4
9**	046-097-00	046-097-00	KEEPER SPRING	4
	***K71-101-00	**K71-101-00	CAMSHAFT REPAIR KIT (ITEMS 10-15, & 22)	
10***	005-074-00	005-074-00	D" WASHER - CAMSHAFT	2
11***	010-052-00	010-052-00	SEAL GREASE	4
12***	-----	014-056-00	BUSHING CAMSHAFT SPIDER	2
13A***	-----	005-134-00	WASHER CAMSHAFT END	2
14A***	069-078-00	069-078-00	RETAINER, CAMSHAFT END	2
15***	-----	014-058-00	BUSHING CAMSHAFT SUPPORT	2
16	136991	034-188-03	CAMSHAFT, 22-5/16" LH	1
	136992	034-189-03	CAMSHAFT, 22-5/16" RH	1
	-----	034-188-09	CAMSHAFT, 26-1/2" LH	1
	-----	034-189-09	CAMSHAFT, 26-1/2" RH	1
17	156655	055-040-99	SLACK ADJUSTER, AUTOMATIC	2
18	006-114-00	006-114-00	NUT, INNER SPINDLE	2
19	005-098-00	005-098-00	WASHER, SPINDLE LOCK	2
20	005-099-00	005-099-00	WASHER, TABBED SPINDLE LOCK	2
21	006-115-00	006-115-00	NUT, OUTER SPINDLE	2
22***	-----	061-006-00	FITTING, GREASE 45°	2
23	034-058-07	034-058-07	AIR CHAMBER, SPRING BRAKE	2
	034-057-07	034-057-07	AIR CHAMBER, SERVICE BRAKE	2
24	103805	024-100-00	SENSOR BLOCK	2
26	144979	097-002-00	RETAINER CLIP	2
27	139287	094-007-00	ABS SENSOR, 90	2

* WHEN ORDERING THE BEAM WITH SPINDLE, SPIDER, AND BRACKETS ATTACHED, YOU WILL NEED THE BEAM NUMBER, TRACK LENGTH, BRAKE SIZE, AND CAMSHAFT LENGTH.

** THESE PARTS ARE AVAILABLE AS PART OF THE BRAKE SHOE REPAIR KIT LISTED

*** THESE PARTS ARE AVAILABLE AS PART OF THE CAMSHAFT REPAIR KIT LISTED

NOTE: FOR HUB AND DRUM INFORMATION, SEE PAGE 2-63

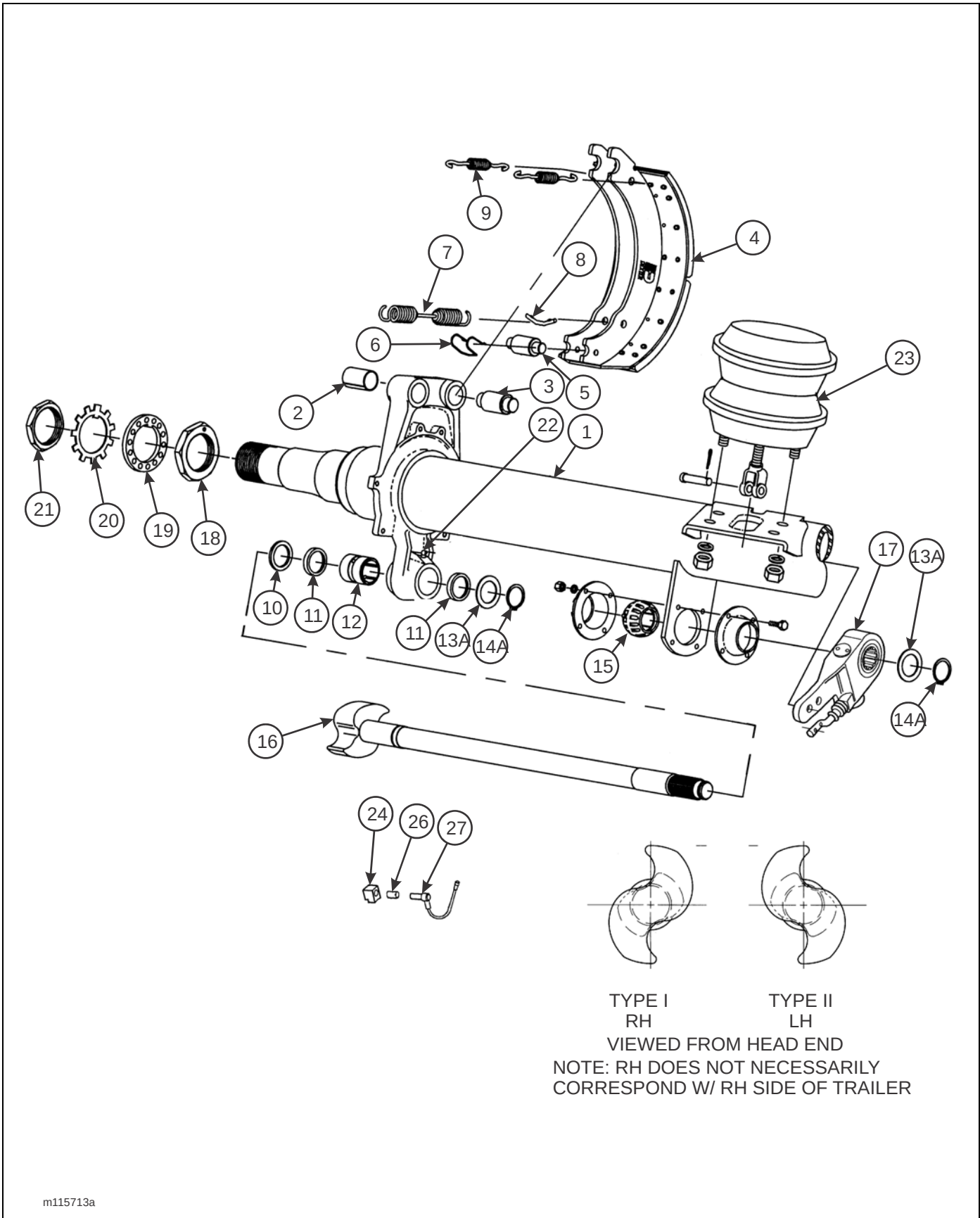


Figure 2-37: Axle and Brake Assembly (16-1/2" x 7")

AXLE AND BRAKE ITEMS (DEXTER) (16-1/2" x 7")

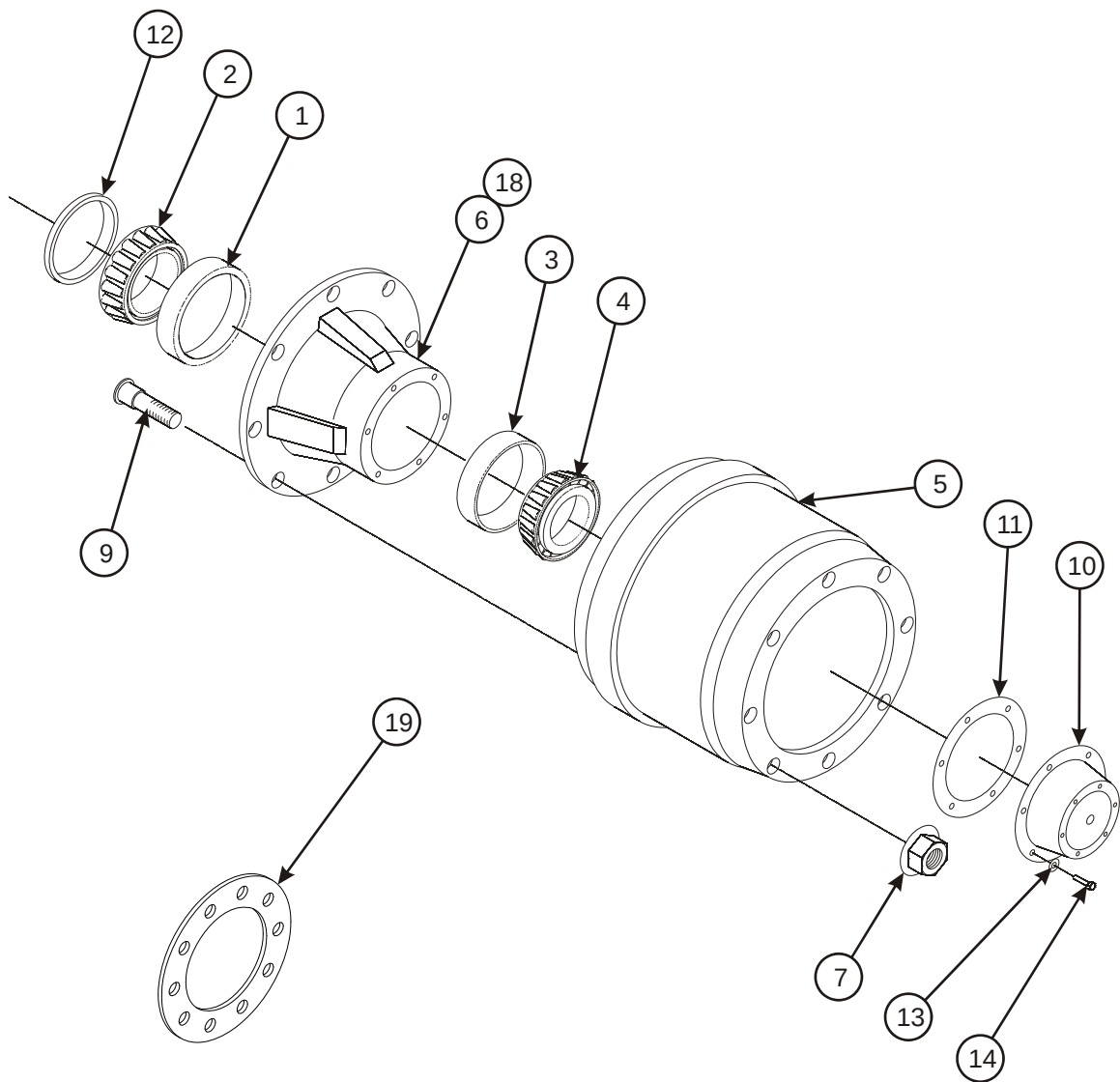
ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	115713		AXLE 69, 16-1/2 X 7 SPRING BRAKE (25K)	
	115719		AXLE 69, 16-1/2 X 7 SERVICE BRAKE (25K)	
	138203		AXLE 69 16.5 X 7 SPRING BRAKE (25K)	
	138958		AXLE 69 16.5 X 7 SERVICE BRAKE(25K)	
	138955		AXLE 75 16.5 X 7 SPRING BRAKE (25K)	
	138959		AXLE 75 16.5 X 7 SERVICE BRAKE (25K)	
1A*	-----	D-2H16	BEAM W/ BRACKETS	1
	**K71-136-00	**K71-136-00	BRAKE SHOE HARDWARE KIT (ITEMS 2, 3, 5, 6, 7, 8, & 9)	
2**	-----	014-068-00	BUSHING, SPIDER ANCHOR PIN	4
3**	-----	056-017-00	PIN, ANCHOR	4
4	040-180-00	040-180-00	SHOE AND LINING ASSEMBLY	4
4A	-----	041-058-01	LINING - BRAKE BLOCK CAM	2
4B	-----	041-059-01	LINING - BRAKE BLOCK ANCHOR	4
	-----	K71-138-00	BRAKE BLOCK KIT	4
5**	014-065-00	014-065-00	ROLLER	4
6**	071-122-00	071-122-00	RETAINER, ROLLER	4
7**	046-096-00	046-096-00	SPRING, SHOE RETRACTOR	2
8**	056-018-00	056-018-00	RETAINER PIN RETRACTOR SPRING	4
9**	046-097-00	046-097-00	KEEPER SPRING	4
	138090	***K71-135-00	CAMSHAFT REPAIR KIT (ITEMS 10-15, & 22)	
10***	005-096-00	005-096-00	WASHER CAMSHAFT	2
11***	010-052-00	010-052-00	SEAL GREASE	4
12***	-----	014-056-00	BUSHING CAMSHAFT SPIDER	2
13A***	-----	005-134-00	WASHER CAMSHAFT END	2
14A***	069-078-00	069-078-00	RETAINER, CAMSHAFT END	2
15***	-----	014-058-00	BUSHING CAMSHAFT SUPPORT	2
16	034-192-05	034-192-05	CAMSHAFT, 22-5/8" LH	1
	034-193-05	034-193-05	CAMSHAFT, 22-5/8" RH	1
	137461	034-192-08	CAMSHAFT, 25" LH	1
	137485	034-193-08	CAMSHAFT, 25" RH	1
17	139383	055-040-98	SLACK ADJUSTER, AUTOMATIC)	2
18	006-114-00	006-114-00	NUT, INNER SPINDLE	2
19	005-098-00	005-098-00	WASHER, SPINDLE LOCK	2
20	005-099-00	005-099-00	WASHER, TABBED SPINDLE LOCK	2
21	006-115-00	006-115-00	NUT, OUTER SPINDLE	2
22***	-----	061-006-00	FITTING, GREASE 45°	2
23	034-058-01	034-058-01	AIR CHAMBER, SPRING BRAKE	4
	034-057-01	034-057-01	AIR CHAMBER, SERVICE BRAKE	2
24	103805	024-100-00	SENSOR BLOCK	2
26	144979	097-002-00	RETAINER CLIP	2
27	139287	097-007-00	ABS SENSOR, 90	2

* WHEN ORDERING THE BEAM WITH SPINDLE, SPIDER, AND BRACKETS ATTACHED, YOU WILL NEED THE BEAM NUMBER, TRACK LENGTH, BRAKE SIZE, AND CAMSHAFT LENGTH.

** THESE PARTS ARE AVAILABLE AS PART OF THE BRAKE SHOE REPAIR KIT LISTED

*** THESE PARTS ARE AVAILABLE AS PART OF THE CAMSHAFT REPAIR KIT LISTED

NOTE: FOR HUB AND DRUM INFORMATION, SEE PAGE 2-63



huboabs2

Figure 2-38: Outboard Pilot Mount Hub and Drum

OUTBOARD PILOT MOUNT HUB AND DRUM

ITEM	PART NO.	DESCRIPTION	QTY.
1	HM218210	INNER BEARING CUP	1
2	HM218248	INNER BEARING CONE	1
3	HM212011	OUTER BEARING CUP	1
4	HM212049	OUTER BEARING CONE	1
5	63680	OUTBOARD MOUNTED BRAKE DRUM (8 BOLT)	1
	110976	OUTBOARD MOUNTED BRAKE DRUM (10 BOLT)	1
6	112493	HUB, IRON 80 TH TONER RING (8 BOLT)	1
	110975	HUB, IRON (10 BOLT)	1
7	179933	NUT, HEX M22 X 1.5	8
	179955	NUT, FLANGE M22 X 1.5	10
9	113536	STUD	**8, 10
10	4009	CAP HUB	1
11	3067	GASKET OIL CAP	1
12	3-659-010012	SEAL	1
13	1-861-010034-10	WASHER, SPLIT LOCK 5/16	6
14	1-654-010049-03	SCREW, HEX HEAD CAP 5/16-18 X 3/4 GR5	6
15	100402	WHEEL, ALUMINUM PILOT MOUNT 17.5 X 6.75 (8 BOLT)	1
	3-870-010097	WHEEL, DISC PILOT MOUNT 17.5 X 6.75 (8 BOLT)	1
	112047	WHEEL, ALUMINUM PILOT 17.5 X 6.75 MACH (8 BOLT)	1
	3-870-010104	WHEEL, DISC PILOT MOUNT 22.5 X 7.5 (10 BOLT)	1
	3-870-010106	WHEEL, ALUMINUM PILOT POL 22.5 X 7.5 (10 BOLT)	1
	3-870-010116	WHEEL, ALUMINUM PILOT MOUNT 22.5 X 7.5 (10 BOLT)	1
	3-870-010110	WHEEL, DISC PILOT MOUNT 22.5 X 8.25 (10 BOLT)	1
	111416	WHEEL, ALUMINUM DISC PILOT POL 22.5 X 8.25 (10 BOLT)	1
	111417	WHEEL, ALUMINUM DISC PILOT MACH 22.5 X 8.25 (10 BOLT) (NOT SHOWN)	1
16	TR573	VALVE STEM - STEEL WHEEL (NOT SHOWN)	1
	100401	VALVE STEM TR543C (NOT SHOWN)	1
	TR545D	VALVE STEM (NOT SHOWN)	1
17	1-843-010014	VALVE, EXTENSION, STEM 3" (NOT SHOWN)	1
18	*	ABS TONE RING	1
19	***114619	WHEEL GUARD 8 HOLE 275 MM BC (NOT SHOWN)(USED W/ ALUMINUM WHEELS)	
	***3-870-010107	WHEEL GUARD 10 HOLE 285.75MM BC (NOT SHOWN)	
	***123883	WHEEL SPACER .375 X 10 HOLE TANDEM	
	***133442	WHEEL SPACER .375 X 10 HOLE TRIPLE	
	***109214	WHEEL SPACER 17.5 HUB PILOT	

* THIS PART SHOULD BE REPLACED IN CONJUNCTION WITH THE HUB. IT SHOULD NEVER BE SOLD SEPARATELY.

** THE 1ST QUANTITY IS FOR THE 8 BOLT WHEEL, AND THE 2ND QUANTITY IS FOR THE 10 BOLT WHEEL

*** USE BETWEEN STEEL DRUM OR WHEEL AND ALUMINUM WHEEL.

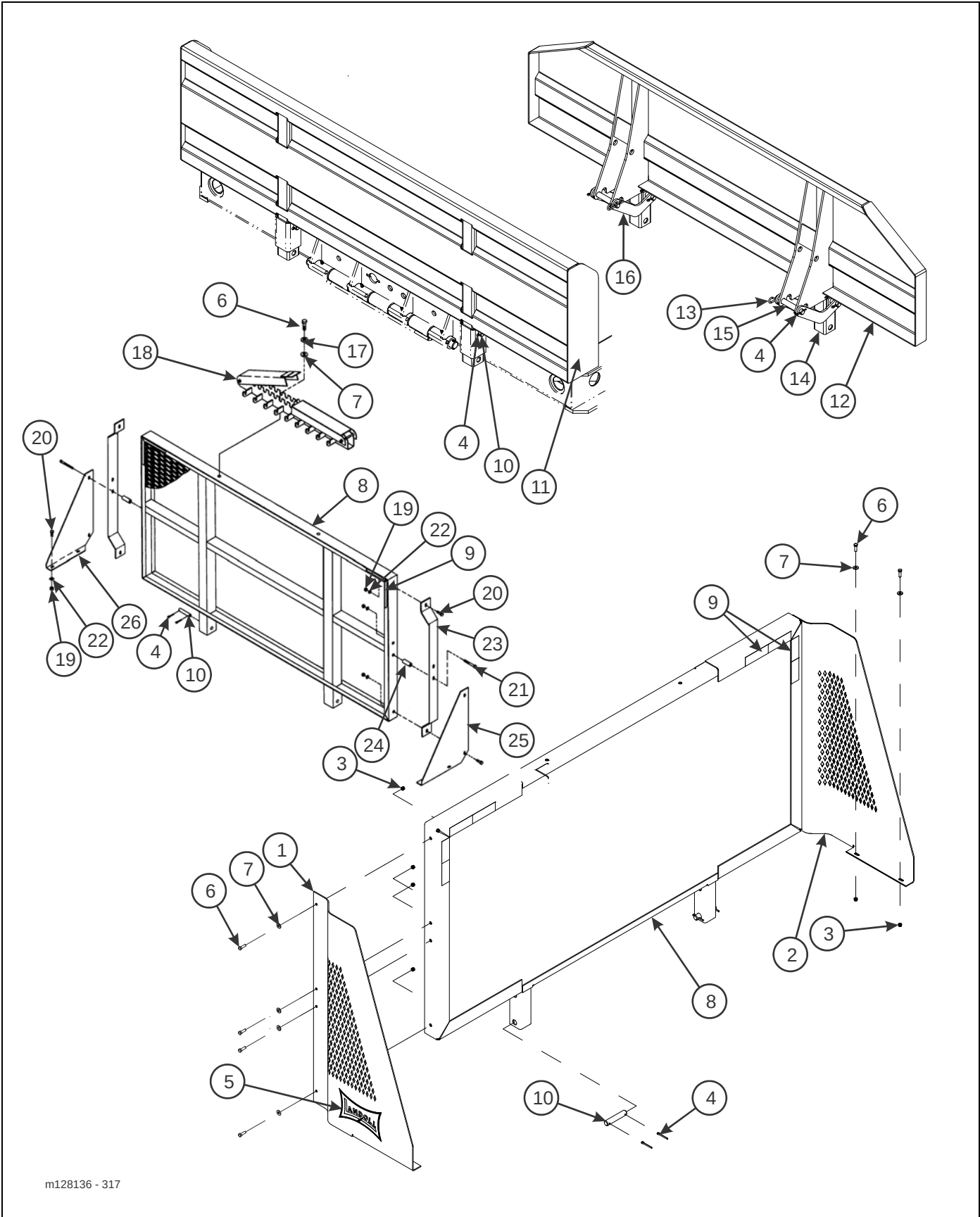


Figure 2-39: Bulkhead Assembly

BULKHEAD ASSEMBLY (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	128136	BULKHEAD INSTALLATION (ITEMS 1-10)	REF
	134616	BULKHEAD INSTALLATION 26 X 102 (ITEMS 4, 9-10, 11)	
	136848	EXTENSION INSTALLATION 16/24 (ITEMS 4, 12-16)	
	B7-141-003	BULKHEAD CHAIN RACK INSTALLATION (ITEMS 6-7, 17-18)	
	3-141-010121	BULKHEAD INSTALLATION (ITEMS 4, 8-10, 19-24)	REF
	3-117-010071-1	BRACE INSTALLATION STABILIZING 48" (ITEMS 19-20, 22, 25-26)	
	3-141-010123	BULKHEAD INSTALLATION 2 POSITION (ITEMS 4, 8-9, 13-16)	REF
	130895	BULKHEAD INSTALLATION, SPECIAL (ITEMS 1-10)	
1	128137	EXTENSION, BULKHEAD ALUMINUM LH	
	128153	EXTENSION, BULKHEAD LH	
2	128138	EXTENSION, BULKHEAD ALUMINUM RH	
	128152	EXTENSION, BULKHEAD RH	
3	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	
4	1-557-010362-63	COTTER PIN 1/4 X 2	
5	153754	DECAL, BOW TIE (BLACK) (SEE PAGE 2-6)	
	153755	DECAL, BOW TIE (WHITE) (SEE PAGE 2-6)	
6	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	
7	1-861-010032-11	WASHER, FLAT 3/8	
8	3-141-010155	BULKHEAD WELDMENT 48 X 96	
	130896	BULKHEAD WELDMENT, SPECIAL (130895)	
	3-141-010118	BULKHEAD WELDMENT 16 X 96	
	3-141-010119	BULKHEAD WELDMENT 16 X 102	
	3-141-010147	BULKHEAD WELDMENT 16/24 X 102 (2 POSITION)	
	3-141-010151	BULKHEAD WELDMENT 16/24 X 96 (2 POSITION)	
	3-141-010153	BULKHEAD WELDMENT 12 X 102 (2 POSITION)	
	3-141-010154	BULKHEAD WELDMENT 30 X 102 (2 POSITION)	
	150088	BULKHEAD WELDMENT 16 CLIP (2 POSITION)	
	3-141-010152	BULKHEAD WELDMENT 16 X 102 RIGID	
	118069	BULKHEAD WELDMENT 48 X 144	
	129579	BULKHEAD WELDMENT FRONT WINCH	
9	3-573-010378	DECAL, 2" REFLEXITE TAPE, WHITE	
10	6-557-010163	PIN HITCH LEVEL LINK	
11	134608	BULKHEAD WELDMENT 26 X 102	
12	136849	BULKHEAD WELDMENT 16/24 X 102 2 POS	
13	1-557-010014	PIN, HAIR 1/4	
14	3-482-010249	MOUNT WELDMENT BULKHEAD	
15	3-557-010380	PIN	
16	3-755-010080	SUPPORT WELDMENT, BULKHEAD	
17	1-861-010034-11	WASHER, SPLIT LOCK 3/8	
18	3-141-010008	CHAIN HANGER, LOCKING CHANNEL ASSEMBLY	
19	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	
20	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	
21	1-654-010055-13	SCREW, HEX HEAD CAP 1/2-13 X 4 GR5	
22	1-861-010032-15	WASHER, FLAT 1/2W	
23	3-054-010101	BAR, SIDE 48" BULKHEAD 102"	
24	3-711-010025	SPACER, 48" BULKHEAD	
25	3-117-010069	BRACE, LH STAB 48" BULKHEAD	
26	3-117-010070	BRACE, RH STAB 48" BULKHEAD	

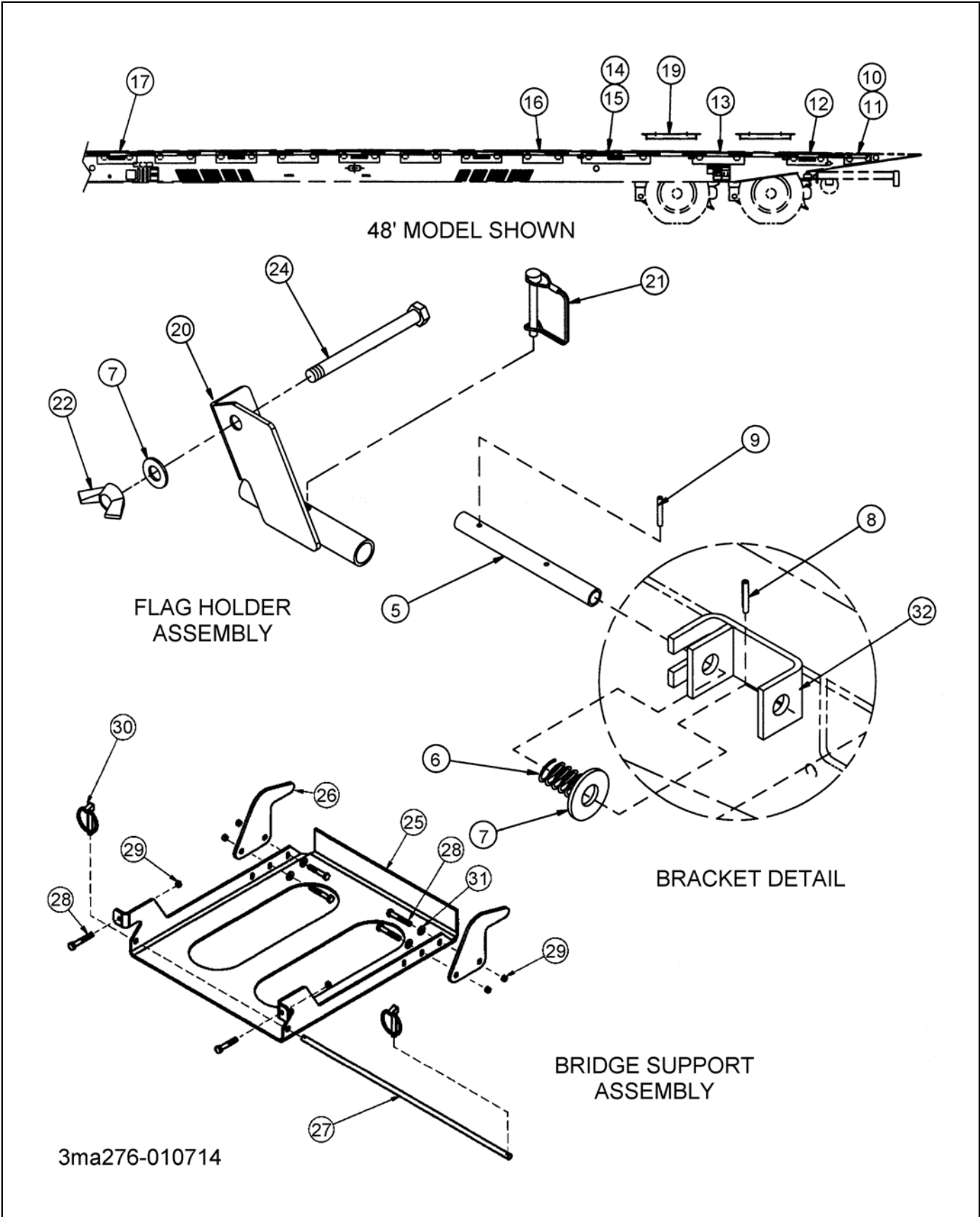


Figure 2-40: Pullout Extension Installation (317D)

PULLOUT EXTENSION INSTALLATION (317D) (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	3-276-010714	PULLOUT EXTENSION INSTALLATION	REF
5	3-557-010375	PIN, SLIDE LOCK	24,26,28*
6	CO-975-74-2000	SPRING, COMPRESSION	24,26,28*
7	1-861-010032-15	WASHER, FLAT 1/2W	30,32,34*
8	1-647-010004117	ROLL PIN 1/8 X 3	24,26,28*
9	0600-250-03000	ROLL PIN 1/4 X 3	24,26,28*
10	3-276-010713	EXTENSION 14" LH PULL-OUT	1
11	3-276-010712	EXTENSION 14" RH PULL-OUT	1
12	3-276-010711	EXTENSION 21" REAR PULL-OUT	2
13	3-276-010710	EXTENSION 27" PULL-OUT	2
14	3-276-010709	EXTENSION 36" LH PULL-OUT	1
15	3-276-010708	EXTENSION 36" RH PULL-OUT	1
16	3-276-010707	EXTENSION 21" PULL-OUT	14,16,18*
17	3-276-010706	EXTENSION 21" FRONT PULL-OUT	2
19	3-276-010774	EXTENSION WHEEL WELL BRIDGE	4
20	101062	BRACKET, FLAG HOLDER	6
21	516-22PTL	RETAINING PIN, MUD FLAP	6
22	1-533-010001	WING NUT 1/2	6
24	1-654-010055-14	SCREW, HEX HEAD CAP 1/2-13 X 4-1/2 GR5	6
25	108710	TRAY, WHEEL WELL BRIDGE SUPPORT	2
26	108711	ANCHOR, TRAY SUPPORT	4
27	108712	ROD, WHEEL WELL BRIDGE SUPPORT	2
28	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	12
29	1-510-010001	NUT, FLANGE LOCK 3/8-16	12
30	7637	LYNCH PIN 3/16 X 1-1/4	4
31	1-861-010032-11	WASHER, FLAT 3/8W	8
32	3-125-010222	BRACKET, WELDMENT LOCK PULL OUT EXTENSION	AR

*FIRST QUANTITY IS FOR THE 48' TRAILER, SECOND QUANTITY IS FOR THE 50' TRAILER, THIRD QUANTITY IS FOR THE 53' TRAILER.

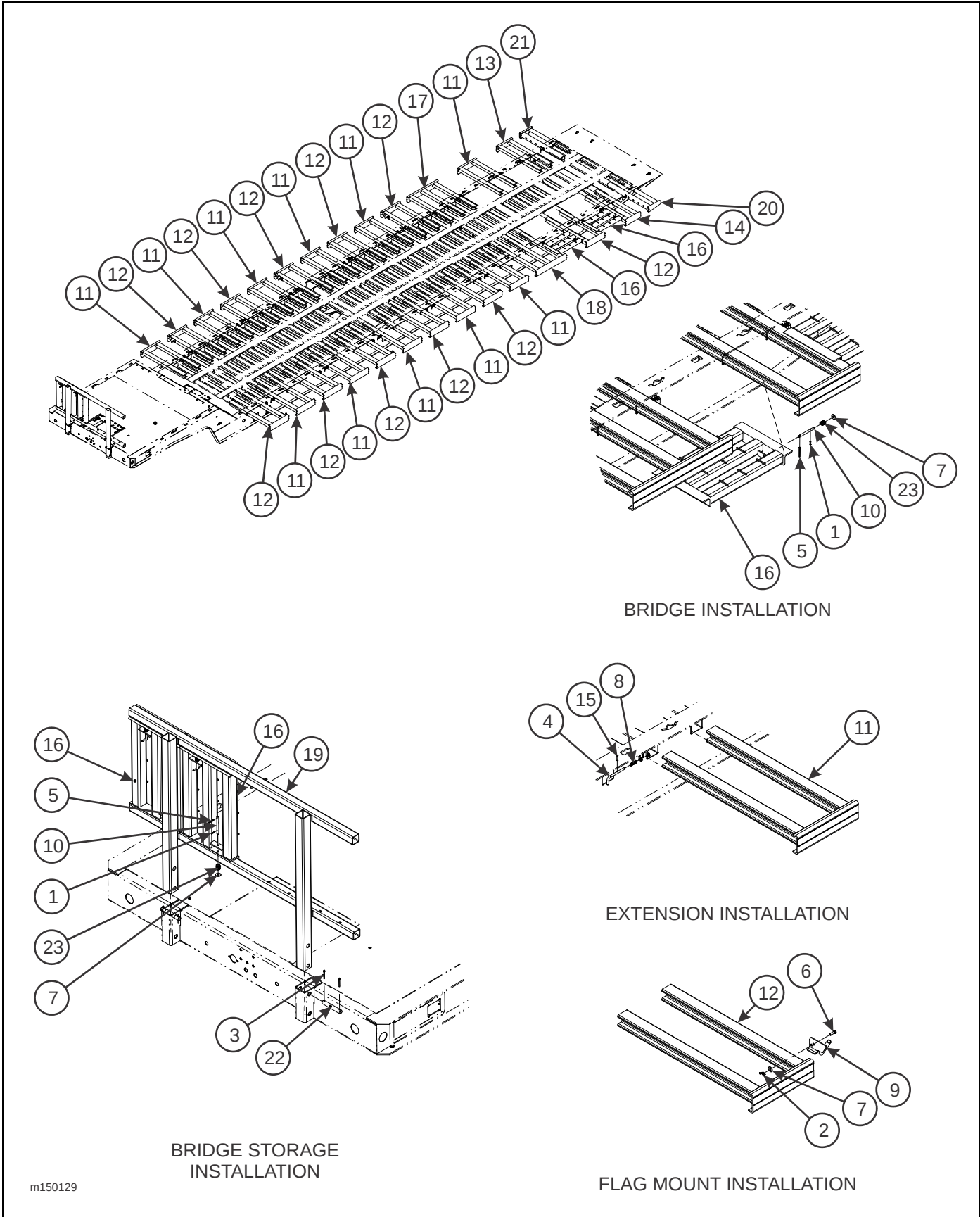


Figure 2-41: Pullout Extension Installation (317-53)

PULLOUT EXTENSION INSTALLATION (317-53) (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	150129	PULLOUT EXTENSION INSTALLATION	
1	0600-250-01000	ROLL PIN, 1/4 X 1	8
2	1-533-010001	WING NUT, 1/2	6
3	1-557-010362-63	PIN, COTTER 1/4 X 2	4
4	1-647-010004177	ROLL PIN, 3/16 X 1-1/2	28
5	1-647-010004225	ROLL PIN, 1/4 X 3	8
6	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	6
7	1-861-010032-15	WASHER, FLAT 1/2W	14
8	104253	SPRING, COMPRESSION P/O EXT LOCK	28
9	108859	WELDMENT, BRACKET, FLAG HOLDER	6
10	118723	PIN, SLIDE LOCK EXT	8
11	118929	PULL-OUT ASSEMBLY, LH	11
12	118930	PULL-OUT ASSEMBLY, RH	11
13	120376	PULL-OUT ASSEMBLY, 18RH	1
14	120377	PULL-OUT ASSEMBLY, 18 LH	1
15	120457	PIN P/O EXT LOCK	28
16	120491	EXTENSION WELDMENT FRT WHL WELL	4
17	130583	PULLOUT WELDMENT AL LH 36/14&14	1
18	130584	PULLOUT WELDMENT AL RH 36/14&14	1
19	150130	RACK WELDMENT STORAGE EXT BRIDGES	1
20	150131	PULLOUT WELDMENT REAR LH	1
21	150132	PULLOUT WELDMENT REAR RH	1
22	2-557-010006	PIN RADIUS ROD LOWER	2
23	CO-975-74-2000	SPRING, COMPRESSION	8

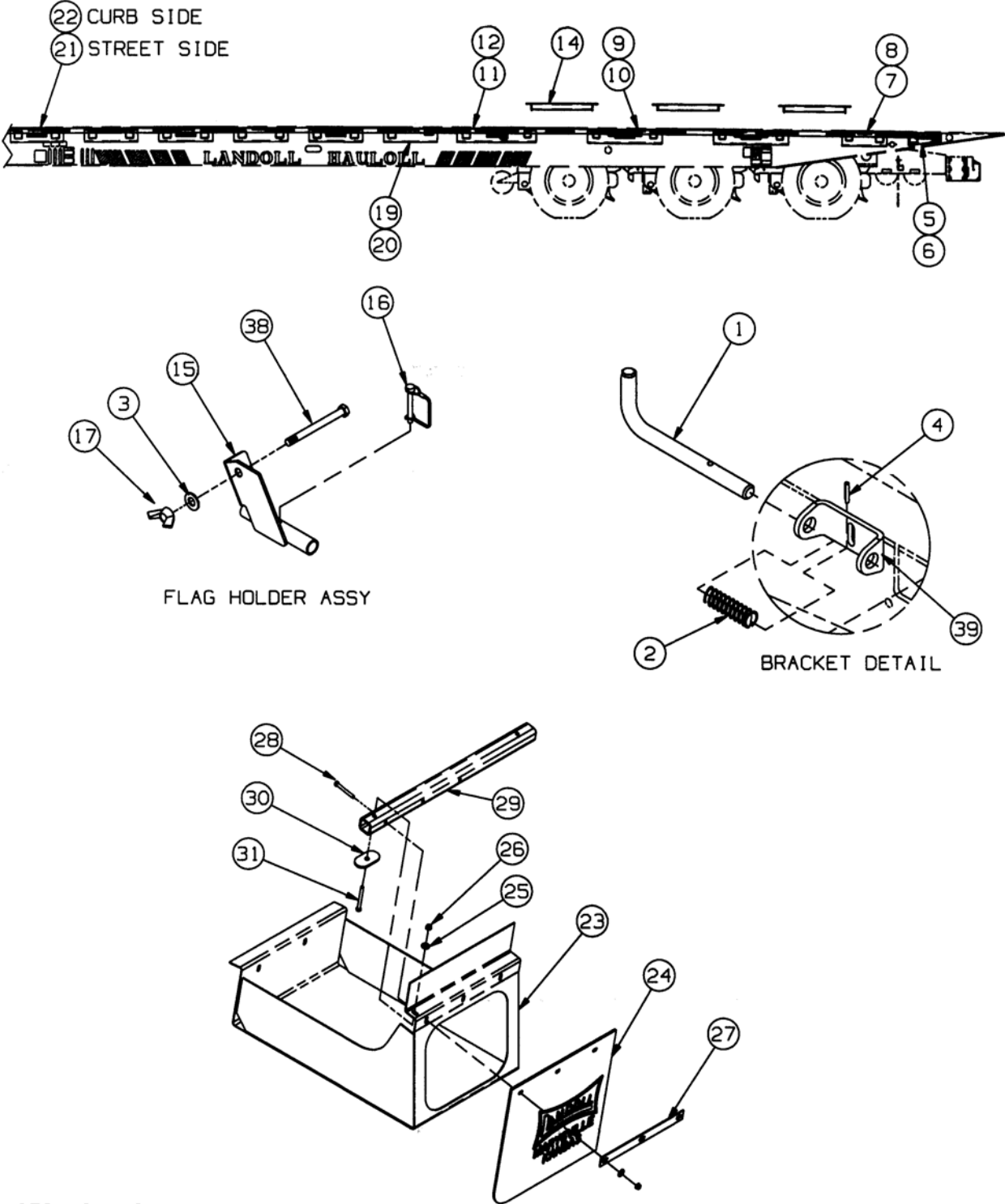


Figure 2-42: Pullout Extension Installation (318D)

PULLOUT EXTENSION INSTALLATION (318D) (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	104410	PULLOUT EXTENSION INSTALLATION 48	
	104411	EXTENSION INSTALLATION 50	
	104412	EXTENSION INSTALLATION 53	
1	104252	PIN, P/O EXT LOCK	22,24,26*
2	104253	SPRING, COMPRESSION P/O EXT LOCK	22,24,26*
3	1-861-010032-15	WASHER, FLAT 1/2W	6
4	1-647-010004177	PIN, SPRING SLOTTED 3/16 X 1-1/2	22,24,26*
5	104413	EXTENSION 14" LH REAR PULL-OUT	1
6	104414	EXTENSION 14" RH REAR PULL-OUT	1
7	104415	EXTENSION 19" LH REAR PULL-OUT	1
8	104416	EXTENSION 19" RH REAR PULL-OUT	1
9	104417	EXTENSION LH BETWEEN AXLE PULL-OUT	2
10	104418	EXTENSION RH BETWEEN AXLE PULL-OUT	2
11	3-276-010729	EXTENSION 34" LH 3 TUBE PULL-OUT	1
12	3-276-010718	EXTENSION 34" RH 3 TUBE PULL-OUT	1
14	3-276-010774	EXTENSION WHEEL WELL BRIDGE	6
15	101062	BRACKET, FLAG HOLDER	6
16	516-22PTL	RETAINING PIN, MUD FLAP	6
17	1-533-010001	WING NUT 1/2-13 TYPE A	6
19	104420	EXTENSION RH WHEEL WELL PULL-OUT	1
20	104419	EXTENSION LH WHEEL WELL PULL-OUT	1
21	3-276-010715	EXTENSION LH PULL-OUT 323-23/16	5,6,7*
22	3-276-010755	EXTENSION RH PULL-OUT 323-23/16	5,6,7*
23	105343	RACK WELDMENT, EXT BRIDGE STORAGE	1
24	105355	MUD FLAP, MOD BRIDGE STORAGE	1
25	1-861-010032-11	WASHER, FLAT 3/8W	5
26	1-510-010001	NUT, FLANGE LOCK 3/8-16	5
27	105354	CLAMP, MUD FLAP BRIDGE STORAGE RACK	1
28	1-654-010051-13	SCREW, HEX HEAD CAP 3/8-16 X 3 GR5	3
29	105346	SUPPORT, RACK EXT BRIDGE	1
30	3-861-010047	WASHER, FLAT PUMP MOUNT	2
31	1-654-010051-16	SCREW, HEX HEAD CAP 3/8-16 X 3-3/4 GR5	2
38	1-654-010055-14	SCREW, HEX HEAD CAP 1/2-13 X 4-1/2 GR5	6
39	104251	BRACKET, PULL-OUT EXTENSION LOCK PIN	AR

* FIRST QUANTITY IS FOR THE 48 TRAILER, SECOND QUANTITY IS FOR THE 50 TRAILER, THIRD QUANTITY IS FOR THE 53 TRAILER.

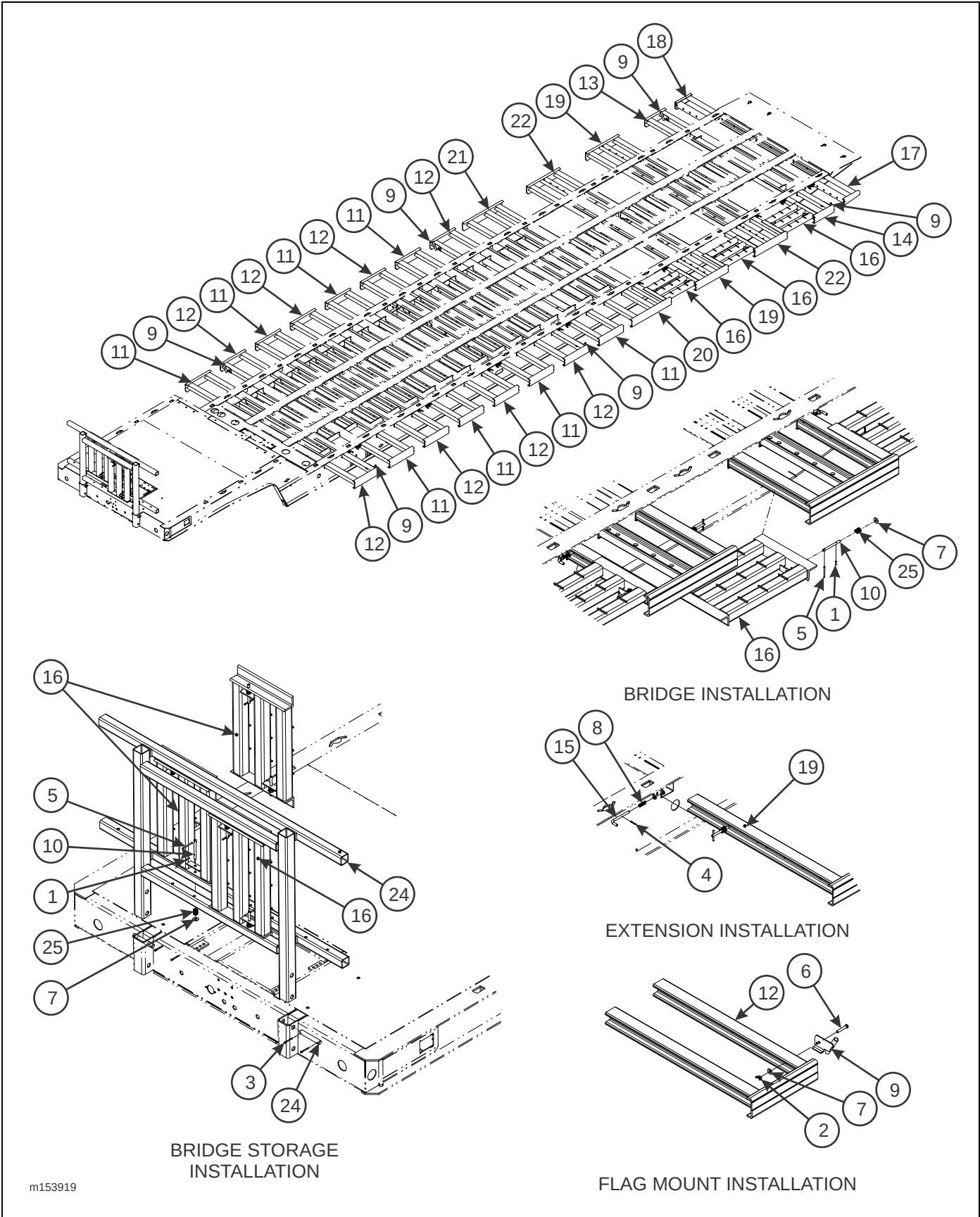


Figure 2-43: Pullout Extension Installation (318-53)

PULLOUT EXTENSION INSTALLATION (318-53) (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	153919	PULLOUT EXTENSION INSTALLATION	
1	0600-250-01000	ROLL PIN 1/4 X 1	8
2	1-533-010001	WING NUT 1/2	6
3	1-557-010362-63	PIN, COTTER 1/4 X 2	4
4	1-647-010004177	ROLL PIN 3/16 X 1-1/2	28
5	1-647-010004225	ROLL PIN 1/4 X 3	8
6	1-654-010055-09	SCREW, HEX HEAD CAP 1/2-13 X 3 GR5	6
7	1-861-010032-15	WASHER, FLAT 1/2W	14
8	104253	SPRING, COMPRESSION P/O EXT LOCK	28
9	108859	WELDMENT, BRACKET, FLAG HOLDER	6
10	118723	PIN, SLIDE LOCK EXT	8
11	118929	PULL-OUT ASSEMBLY, LH	11
12	118930	PULL-OUT ASSEMBLY, RH	11
13	120376	PULL-OUT ASSEMBLY, 18 RH	1
14	120377	PULL-OUT ASSEMBLY, 18 LH	1
15	120457	PIN P/O EXT LOCK	28
16	120491	EXTENSION WELDMENT FRT WHL WELL	4
17	150131	PULLOUT WELDMENT REAR LH	1
18	150132	PULLOUT WELDMENT REAR RH	1
19	153589	PULLOUT, ALUMINUM WELL	2
20	153602	PULLOUT WELDMENT, ALUMINUM 3 LH	1
21	153606	PULLOUT WELDMENT, ALUMINUM 3 RH	1
22	153921	PULLOUT ASSEMBLY, WELL OP	2
23	154306	RACK WELDMENT STORAGE EXT BRIDGES	1
24	2-557-010006	PIN RADIUS ROD LOWER	2
25	CO-975-74-2000	SPRING, COMPRESSION	8

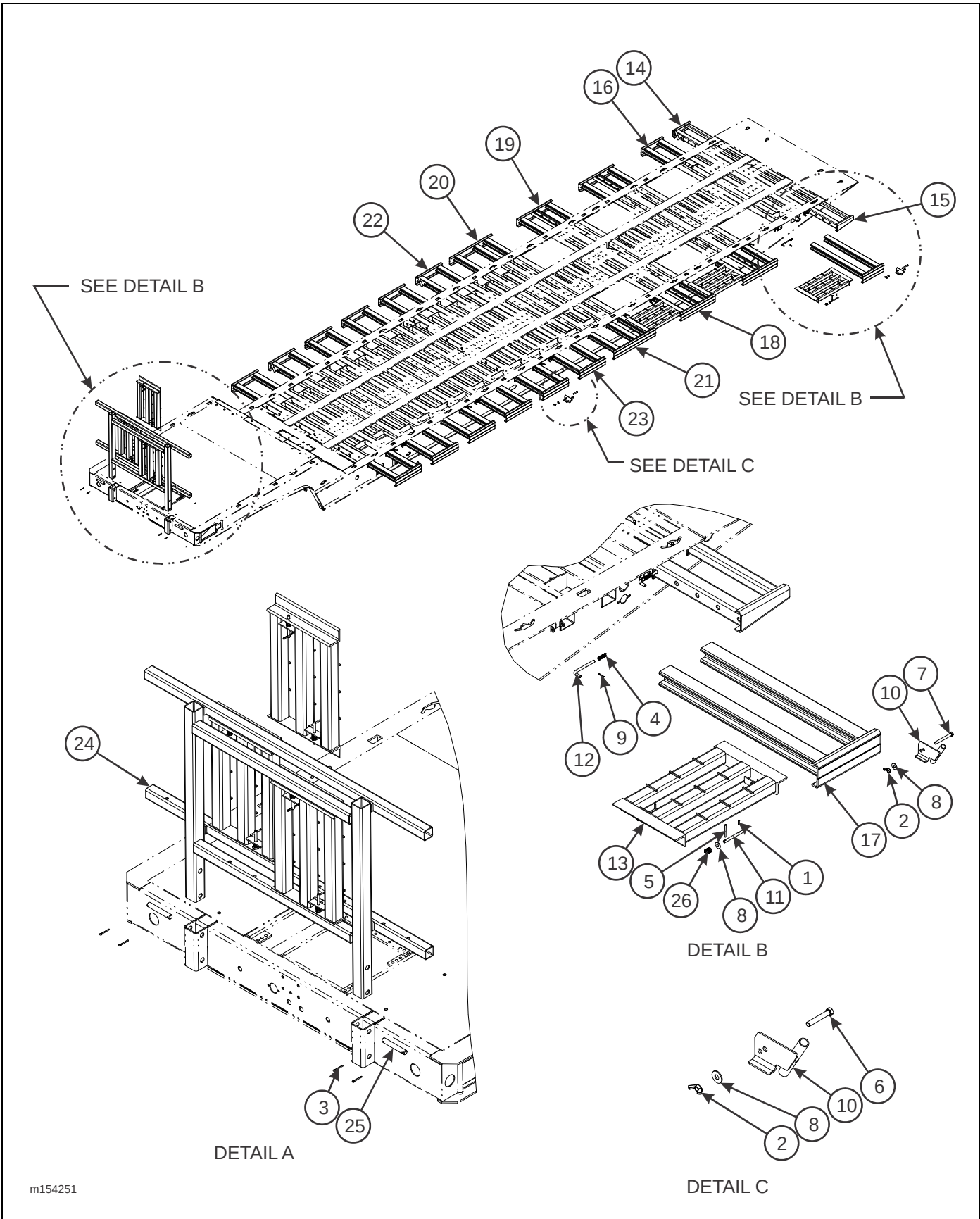


Figure 2-44: Pullout Extension Installation (318-48 x 96)

PULLOUT EXTENSION INSTALLATION (318-48 X 96) (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	154251	PULLOUT EXTENSION INSTALLATION	
1	0600-250-01000	ROLL PIN 1/4 X 1	8
2	1-533-010001	WING NUT 1/2	6
3	1-557-010362-63	PIN, COTTER 1/4 X 2	4
4	1-647-010004177	ROLL PIN 3/16 X 1-1/2	28
5	1-647-010004225	ROLL PIN 1/4 X 3	8
6	1-654-010055-09	SCREW, HEX HEAD CAP 1/2-13 X 3 GR5	6
7	1-654-010055-14	SCREW, HEX HEAD CAP 1/2-13 X 4-1/2 GR5	6
8	1-861-010032-15	WASHER, FLAT 1/2W	14
9	104253	SPRING, COMPRESSION P/O EXT LOCK	28
10	108859	WELDMENT, BRACKET, FLAG HOLDER	6
11	118723	PIN, SLIDE LOCK EXT	8
12	120457	PIN P/O EXT LOCK	28
13	120491	EXTENSION WELDMENT FRT WHL WELL	4
14	154284	PULLOUT WELDMENT RH RR 14	1
15	154285	PULLOUT WELDMENT LH RR 14	1
16	154286	PULLOUT WELDMENT RH 18	1
17	154287	PULLOUT WELDMENT LH 18	1
18	154288	PULLOUT WELDMENT RH WELL	2
19	154289	PULLOUT WELDMENT LH WELL	2
20	154302	PULLOUT WELDMENT RH 36	1
21	154303	PULLOUT WELDMENT LH 6	1
22	154304	PULLOUT WELDMENT RH 22	6
23	154305	PULLOUT WELDMENT LH 22	6
24	154306	RACK WELDMENT, STORAGE EXT BRIDGES	1
25	2-557-010006	PIN RADIUS ROD LOWER	2
26	CO-975-74-2000	SPRING, COMPRESSION	8

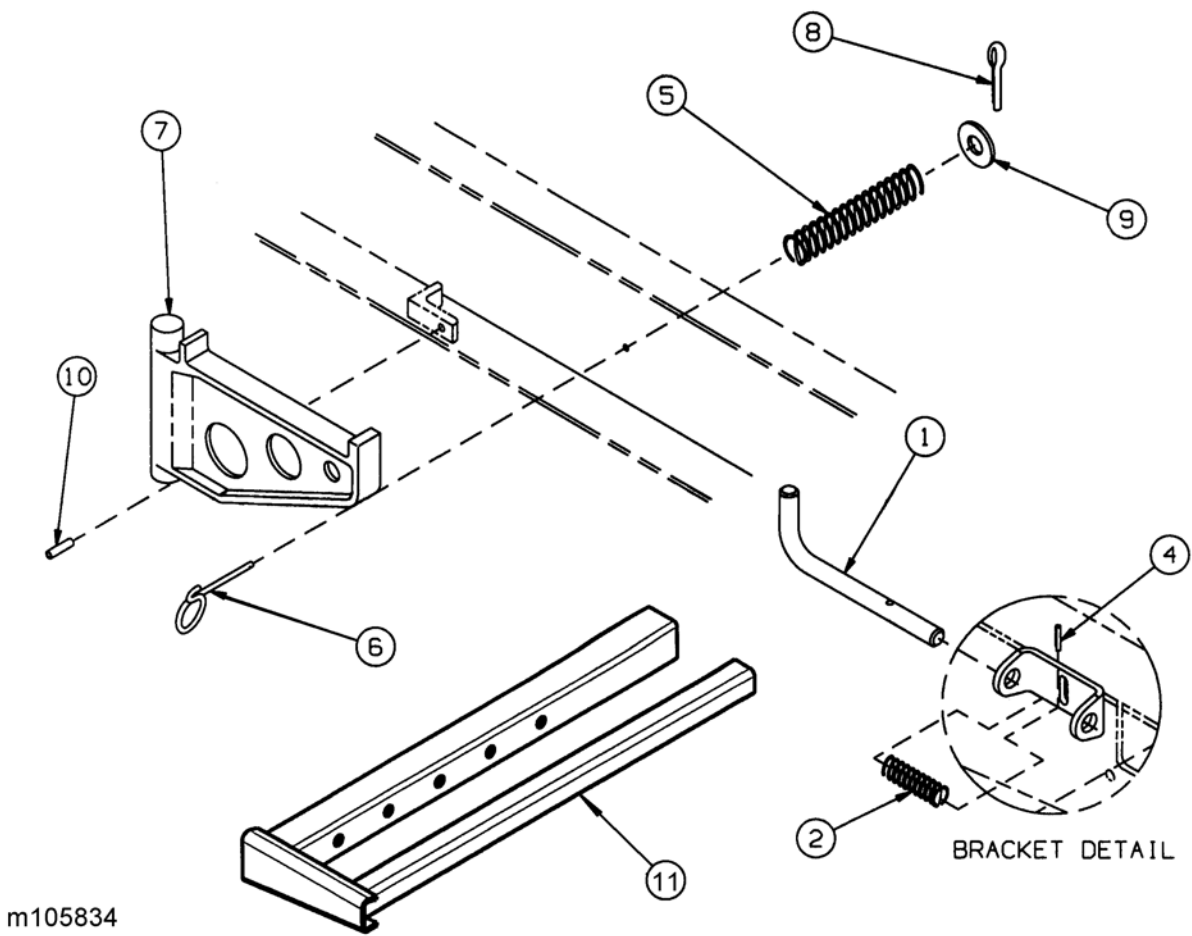
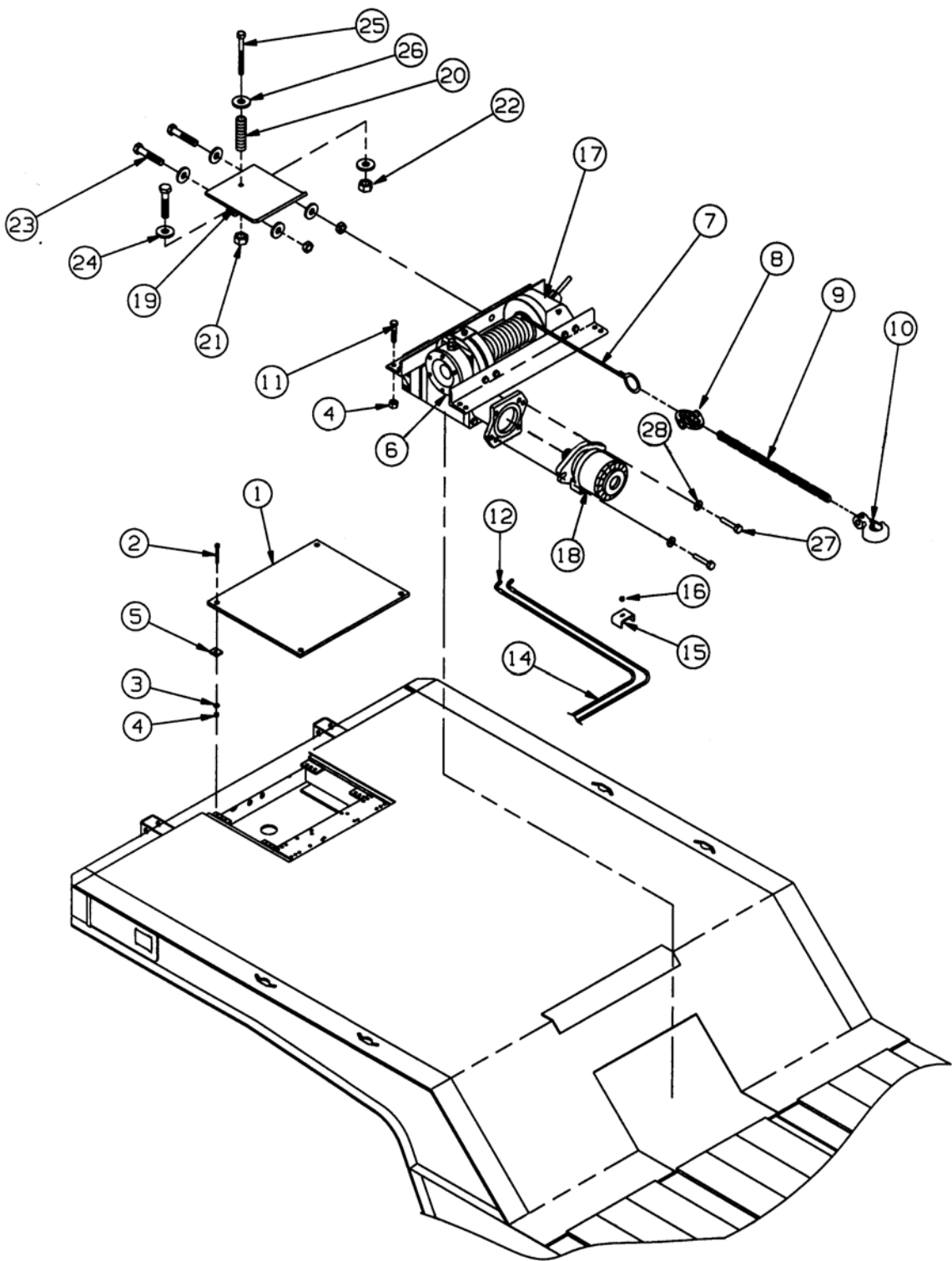


Figure 2-45: Outrigger Installation (Option)

OUTRIGGER INSTALLATION (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	105834	OUTRIGGER INSTALLATION 48	
	105835	OUTRIGGER INSTALLATION 50	
1	104252	PIN, P/O EXT LOCK	2
2	104253	SPRING, COMPRESSION P/O EXT LOCK	2
4	1-647-010004177	PIN, SPRING SLOTTED 3/16 X 1-1/2	2
5	3-720-010024	SPRING 1-1/16 X 2-3/4	*34, 36
6	3-187-010001	CLIP, OUTRIGGER STAY	*34, 36
7	167-0022	OUTRIGGER FOR 10 CHANNEL	*34, 36
8	101386	PIN, COTTER 1/8 X 1	*34, 36
9	1-861-010032-07	WASHER, FLAT 1/4	*34, 36
10	0600-375-01500	PIN, ROLL 3/8X1-1/2	*34, 36
11	104413	EXTENSION, LH P.O. REAR 14"	1
12	104414	EXTENSION, RH P.O. REAR 14" (NOT SHOWN)	1

* 1ST QUANTITY SHOWN IS FOR P/N 105834; 2ND QUANTITY SHOWN IS FOR P/N 105835



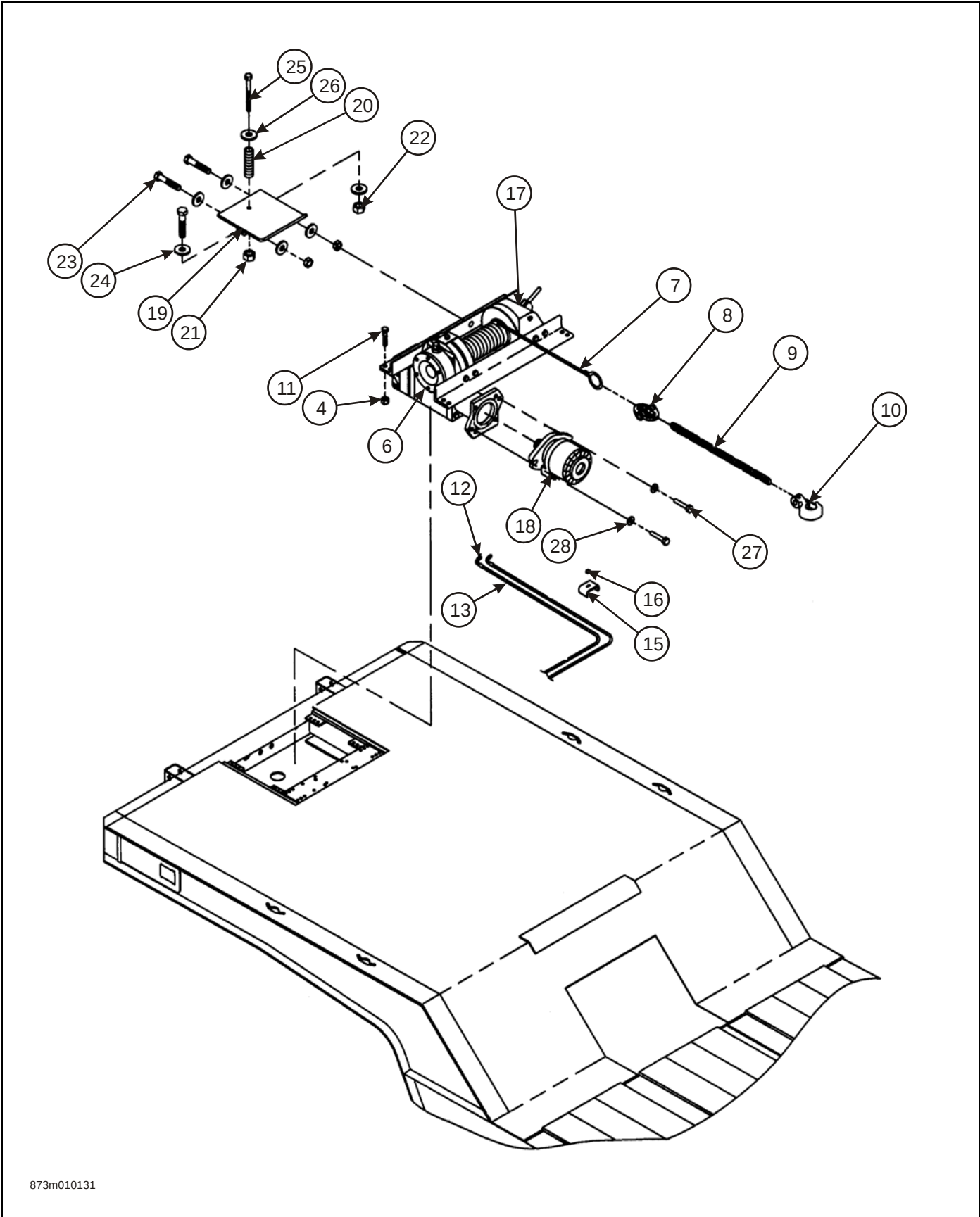
3m873-010131

Figure 2-46: Winch Installation, Slope

WINCH INSTALLATION, SLOPE

ITEM	PART NO.	DESCRIPTION	QTY.
	3-873-010127	WINCH INSTALLATION 12K SLOPE	REF
	3-873-010128	WINCH INSTALLATION 20K SLOPE	REF
1	3-222-010079	COVER, UPPER DECK WINCH	REF
	3-222-010195	COVER, WINCH 90 DROP DECK	REF
	3-222-010199	COVER PLATE INSTALLATION, UPPER DECK ROLLER	REF
2	1-654-010055-05	SCREW, HEX HEAD CAP 1/2-13 X 2 GR5	4
3	1-861-010032-15	WASHER, FLAT 1/2W GRA	4
4	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	12,8*
5	3-711-010028	SPACER, WINCH COVER	2
6	3-873-010126-2	WINCH ASSEMBLY 12,000LB PARKER (SEE ITEMS 17-29)	1
	3-873-010129-2	WINCH ASSEMBLY 20,000LB PARKER (SEE ITEMS 17-29)	1
7	3-155-010017-4	CABLE 1/2 W/LOOP, 85FT	REF
	3-155-010018-6	CABLE 5/8 W/LOOP, 85FT	REF
8	3-174-010038	CHAIN LINK, CONNECTING	1
9	3-174-010039036	CHAIN	1
10	7HCGHT500	CLEVIS, GRAB HOOK	1
11	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	8
12	202702-10-8S	ADAPTER	2
14	1-397-010302078	HOSE ASSEMBLY 1/2 X 78	2
15	2-181-010001	HOSE CLAMP	REF
16	1-510-010001	NUT, FLANGED LOCK 3/8-16 GRB	REF
17	3-873-010122	WINCH, WORM GEAR 12,000 LB (SEE PAGE 2-95)	1
	3-873-010123	WINCH, WORM GEAR 20,000 LB (SEE PAGE 2-98)	1
18	3-481-010006	MOTOR, HYDRAULIC 12,000 LB (SEE PAGE 2-107)	1
	3-481-010007	MOTOR, HYDRAULIC 20,000 LB (SEE PAGE 2-107)	1
19	3-873-010124	WINCH TENSIONER WELDMENT 12K	1
	102186	WINCH TENSIONER 20K BRADEN SPG	1
20	3-720-010010	SPRING COMP LEVEL WIND	1
21	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	1
22	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	3
23	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	3
24	1-861-010032-10	WASHER, FLAT 3/8N GRA	6
25	1-654-010055-16	SCREW, HEX HEAD CAP 1/2-13 X 5-1/2 GR5 (12K)	1
	1-654-010055-17	SCREW, HEX HEAD CAP 1/2-13 X 6 GR5 (20K)	1
26	1-861-010032-15	WASHER, FLAT 1/2W GRA	1
27	1-654-010055-04	SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5	2
28	1-861-010034-13	WASHER, SPLIT LOCK 1/2	2
29	100600	DECAL, WARNING WINCH (NOT SHOWN)	1
	3-873-010178-1	WINCH TENSIONER ASSEMBLY 12K (INCL ITEMS 19-26)	
	3-873-010178-2	WINCH TENSIONER ASSEMBLY 20K (INCL ITEMS 19-26)	

*1ST QUANTITY OF ITEM 4 IS USED WITH ITEMS 1-28; 2ND QUANTITY OF ITEM 4 IS USED WITH ITEMS 5-28 ONLY.



873m010131

Figure 2-47: Winch Installation, Upperdeck

WINCH INSTALLATION, UPPERDECK

ITEM	PART NO.	DESCRIPTION	QTY.
	3-873-010131	WINCH INSTALLATION 12K UPPERDECK	REF
	3-873-010130	WINCH INSTALLATION 20K UPPERDECK	REF
1	3-222-010083	COVER, WINCH SLOPE	REF
2	1-654-010051-07	SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5	8
3	1-861-010032-11	WASHER, FLAT 3/8W	12
4	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8
5	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	8
6	3-873-010126-2	WINCH ASSEMBLY, 12,000 LB PARKER (SEE ITEMS 17-29)	1
	3-873-010129-2	WINCH ASSEMBLY, 20,000 LB PARKER (SEE ITEMS 17-29)	1
7	3-155-010017-4	CABLE 1/2 W/LOOP, 85FT	REF
	3-155-010018-6	CABLE 5/8 W/LOOP, 85FT	REF
8	3-174-010038	CHAIN LINK, CONNECTING	1
9	3-174-010039036	CHAIN	1
10	7HCGHT500	CLEVIS, GRAB HOOK	1
11	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	8
12	202702-10-8S	ADAPTER	2
13	1-397-010302216	HOSE ASSEMBLY 1/2 X 216	2
15	2-181-010001	HOSE CLAMP	REF
16	1-510-010001	NUT, FLANGE LOCK 3/8-16	REF
17	3-873-010122	WINCH, WORM GEAR 12,000 LB PARKER (SEE PAGE 2-95)	1
	3-873-010123	WINCH, WORM GEAR 20,000 LB PARKER (SEE PAGE 2-98)	1
18	3-481-010006	MOTOR, HYDRAULIC 12,000 LB (SEE PAGE 2-107)	1
	3-481-010007	MOTOR, HYDRAULIC 20,000 LB (SEE PAGE 2-107)	1
19	3-873-010124	WINCH TENSIONER (12K)	1
	102186	WINCH TENSIONER BRADEN (20K)	1
20	3-720-010010	SPRING, COMP LEVEL WIND	1
21	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	1
22	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	3
23	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	3
24	1-861-010032-10	WASHER, FLAT 3/8N	6
25	1-654-010055-16	SCREW, HEX HEAD CAP 1/2-13 X 5-1/2 GR5 (12K)	1
	1-654-010055-17	SCREW, HEX HEAD CAP 1/2-13 X 6 GR5 (20K)	1
26	1-861-010032-15	WASHER, FLAT 1/2W	1
27	1-654-010055-04	SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5	2
28	1-861-010034-13	WASHER, SPLIT LOCK 1/2	2
29	100600	DECAL, WARNING WINCH (NOT SHOWN)	1

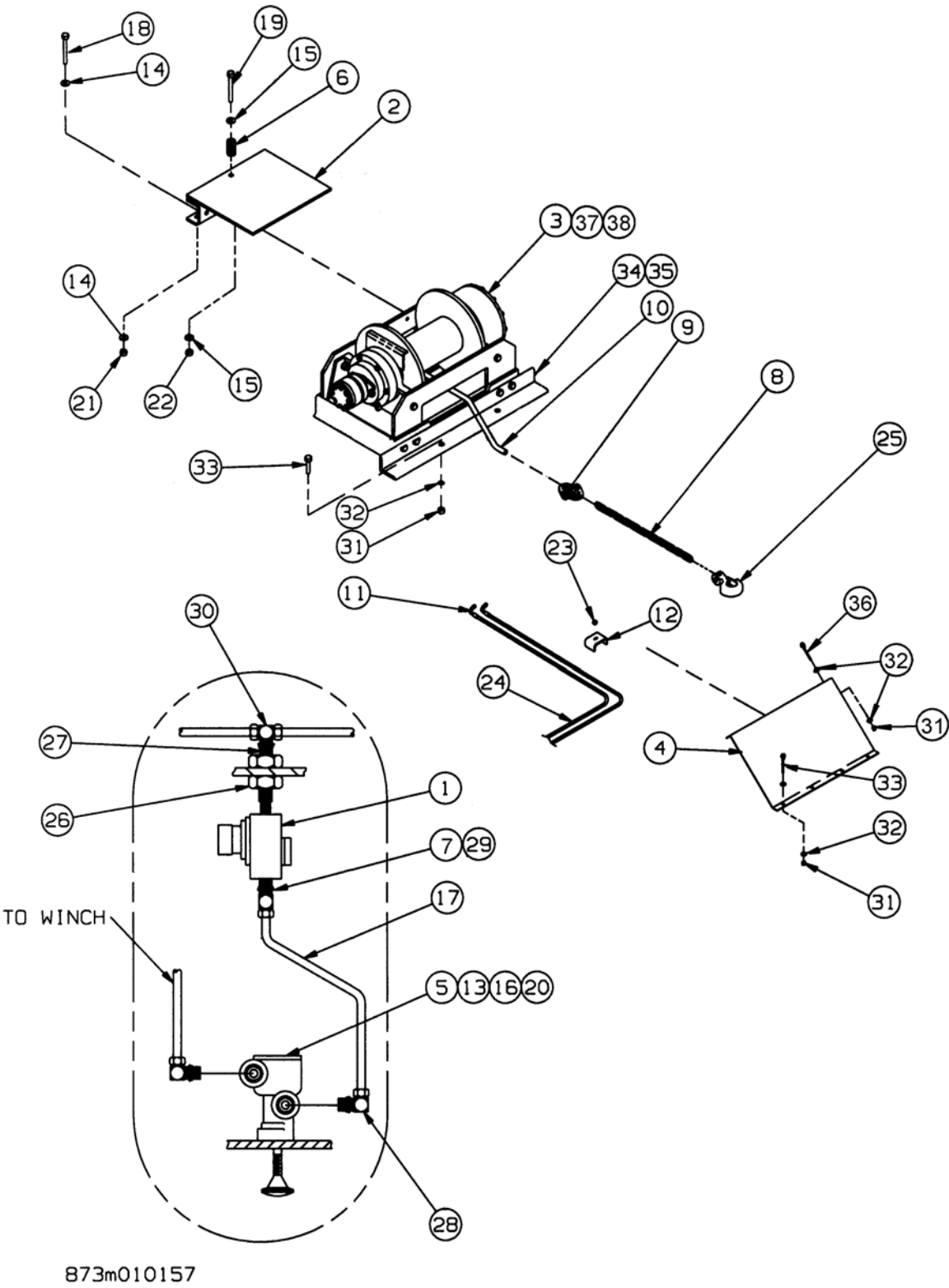


Figure 2-48: Winch Installation, 30K

WINCH INSTALLATION, 30K

ITEM	PART NO.	DESCRIPTION	QTY.
	3-873-010157-01	WINCH INSTALLATION 30K W/ HARDWARE	
	3-873-010157-02	WINCH INSTALLATION 30K W/O HARDWARE	
1	905-54-107	BRAKE PROTECTION VALVE	1
2	3-876-010017	WINCH TENSIONER WELDMENT	1
3	3-873-010155	WINCH MODIFICATION (ITEMS 37 & 38)	1
4	3-222-010083	COVER, WINCH SLOPE	REF*
5	134657	VALVE, AIR 3WAY, 2POS, PUSH-PULL (NO PARTS BREAKDOWN)	1
6	3-720-010010	SPRING, COMP LEVEL WIND	1
7	1-297-010015-03	FITTING, AIR BR TEE	1
8	3-174-010060036	CHAIN, GR80	1
9	3-174-010059	CHAIN LINK, CONNECTING 5/8	1
10	3-153-010016-02	CABLE ASSEMBLY 3/4X 85' W/ LOOP	REF
11	202702-8-8S	ADAPTER	2
12	2-181-010001	HOSE CLAMP	1
13	1-861-010034-07	WASHER, SPLIT LOCK #10	2
14	1-861-010032-18	WASHER, FLAT 5/8N	4
15	1-861-010032-15	WASHER, FLAT 1/2W	2
16	1-861-010032-03	WASHER, FLAT #10	2
17	1-833-010001	TUBING, NYLON 1/4OD	25
18	1-654-010059-05	SCREW, HEX HEAD CAP 5/8-11 X 2 GR5	2
19	1-654-010055-17	SCREW, HEX HEAD CAP 1/2-13 X 6 GR5	1
20	1-654-010024079	SCREW, MACH FLSTR HD #10-32 X 3/4	2
21	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	2
22	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	1
23	1-510-010001	NUT, FLANGE LOCK 3/8-16	1
24	1-397-010302206	HOSE ASSEMBLY 1/2 X 206	2
25	1-382-010035-06	HOOK, CLEVIS GRAB	1
26	1-297-010022-02	FITTING, AIR ANCHOR COUPLING	1
27	1-297-010020-02	FITTING, BRASS PIPE	1
28	1-297-010008-07	FITTING, AIR 90	2
29	1-297-010007-05	FITTING, AIR	1
30	1-297-010015-09	FITTING, AIR BRANCH TEE	1
31	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	8*
32	1-861-010032-11	WASHER, FLAT 3/8W	8*
33	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	4*
34	RSP956X5X5	PLATE, STEEL 1/2 X 5 X 5	1
35	RFB722X4	BAR, FLAT 1/2 X 1-1/2 X 4	4
36	1-654-010051-08	SCREW, HEX HEAD CAP 3/8-16 X 1-3/4	4*
37	145690	WINCH, 30,000 LB DP (SEE PAGE 2-101)	1
38	1-297-010008-07	FITTING, AIR 90	2
39	135184	DECAL, WINCH FREE SPOOL (NOT SHOWN)	1

* THESE ITEMS ARE USED WITH P/N 3-873-010157-01.

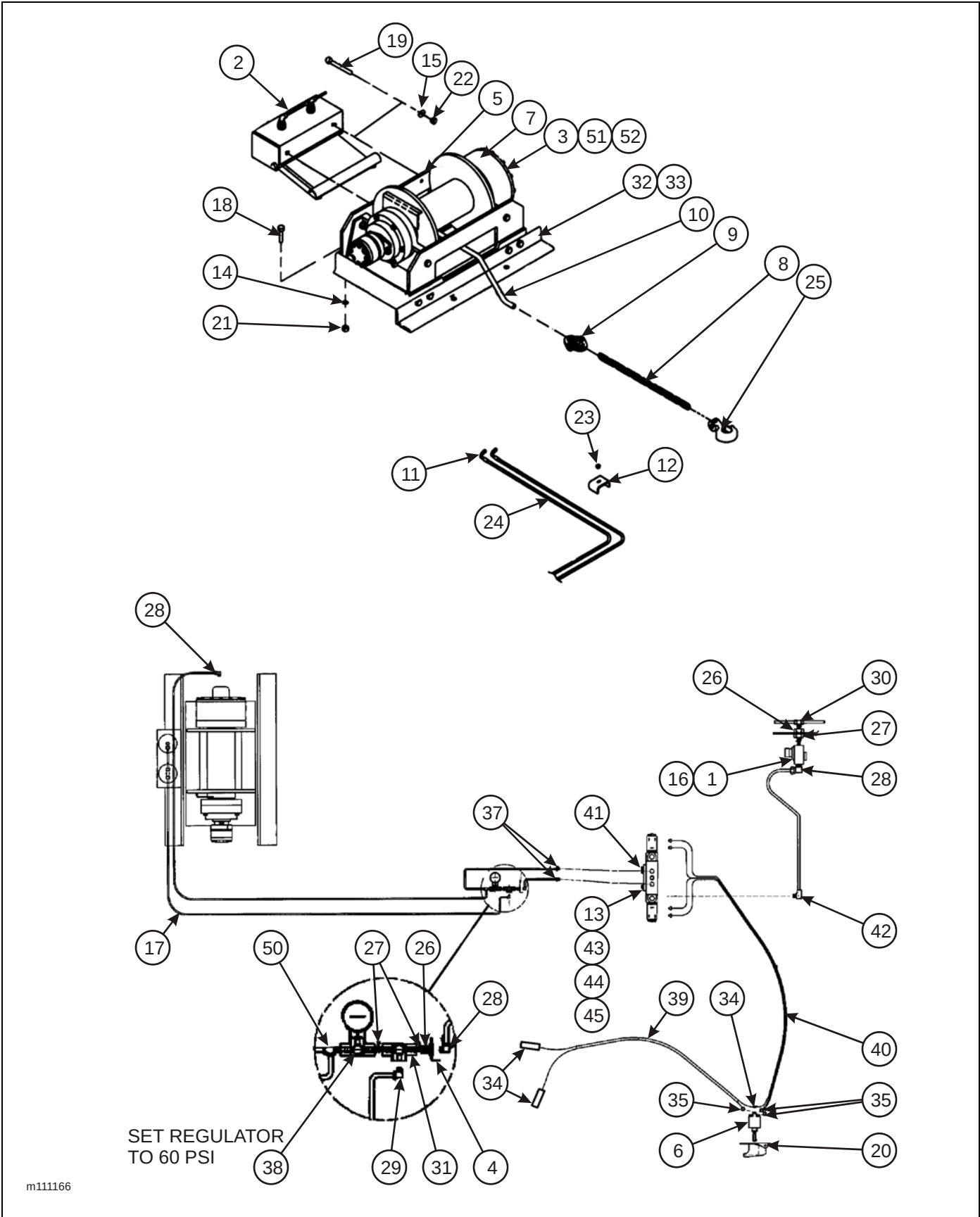


Figure 2-49: Winch Installation, 30K Air, No Remote

WINCH INSTALLATION, 30K AIR NO REMOTE

ITEM	PART NO.	DESCRIPTION	QTY.
	111166	WINCH INSTALLATION 30K AIR NO REMOTE	
1	905-54-107	BRAKE PROTECTION VALVE	1
2	3-873-010172	WINCH CABLE, AIR TENSION 30K (SEE PAGE 2-111)	1
3	3-873-010155	WINCH MODIFICATION (ITEMS 51 & 52)	1
4	3-120-010445	BRACKET, PRESSURE REGULATOR	1
5	111252	MOUNT, DP30 AIR TENSION	1
6	1-765-010065	TOGGLE SWITCH SPDT	1
7	3-573-010025	DECAL, WINCH MOTOR	1
8	3-174-010060036	CHAIN GR80	1
9	3-174-010059	CHAIN LINK CONNECTING 5/8	1
10	3-153-010016-02	CABLE ASSEMBLY 3/4 X 85' W/ LOOP	REF
11	2062-8-8S	ADAPTER, 90	2
12	2-181-010001	HOSE CLAMP	1
13	3-843-010022	VALVE, PNEUMATIC 4 WAY 2 POSITION	1
14	1-861-010032-18	WASHER, FLAT 5/8N	4
15	1-861-010032-15	WASHER, FLAT 1/2W	2
16	3-573-010442	DECAL, WINCH TENSION	1
17	1-833-010001	TUBING, NYLON 1/4OD	AR
18	1-654-010059-05	SCREW, HEX HEAD CAP 5/8-11 X 2 GR5	2
19	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	2
20	3-348-010048	GUARD, SWITCH 3 POSITION	1
21	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	2
22	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	2
23	1-510-010001	NUT, FLANGE LOCK 3/8-16	1
24	1-397-010301208	HOSE ASSEMBLY 1/2 X 208	2
25	1-382-010035-06	HOOK, CLEVIS GRAB	1
26	1-297-010022-02	FITTING, AIR ANCHOR COUPLING	2
27	1-297-010020-02	FITTING, BRASS PIPE	3
28	1-297-010008-07	FITTING, AIR 90	3
29	1-297-010007-05	FITTING, AIR	1
30	1-297-010015-09	FITTING, AIR BRANCH TEE	1
31	3-843-010039-02	VALVE, AIR SHUTTLE	1
32	RSP956X5X5	PLATE, STEEL 1/2 X 5 X 5	4
33	RFB722X4	BAR, FLAT 1/2 X 1-1/2 X 4	1
34	3-272-010021	ELECT BUTT SPLICE	3
35	32002	TERMINAL	1
37	1-297-010007-04	FITTING, AIR 90	2
38	3-626-010004	REGULATOR, AIR PRESSURE	1
39	3-156-010008	CABLE, 14-2 SO TWO CONDUCTOR	AR
40	3-368-010129	HARNESS, REMOTE SWITCH	1
41	3-136-010001-01	BREATHING, PNEUMATIC EXHAUST	2
42	1-297-010008-05	FITTING, AIR 90	1
43	1-654-010024014	SCREW, MACH FIL #6-32 X 1-1/2	3
44	1-861-010032-01	WASHER, FLAT #6	6
45	1-512-010003-02	NUT, HEX LOCK #6-32	3
50	1-297-010011-02	FITTING, AIR TEE	1
51	145690	WINCH 30,000 LB DP (SEE PAGE 2-101)	1
52	1-297-010008-07	FITTING, AIR 90	2

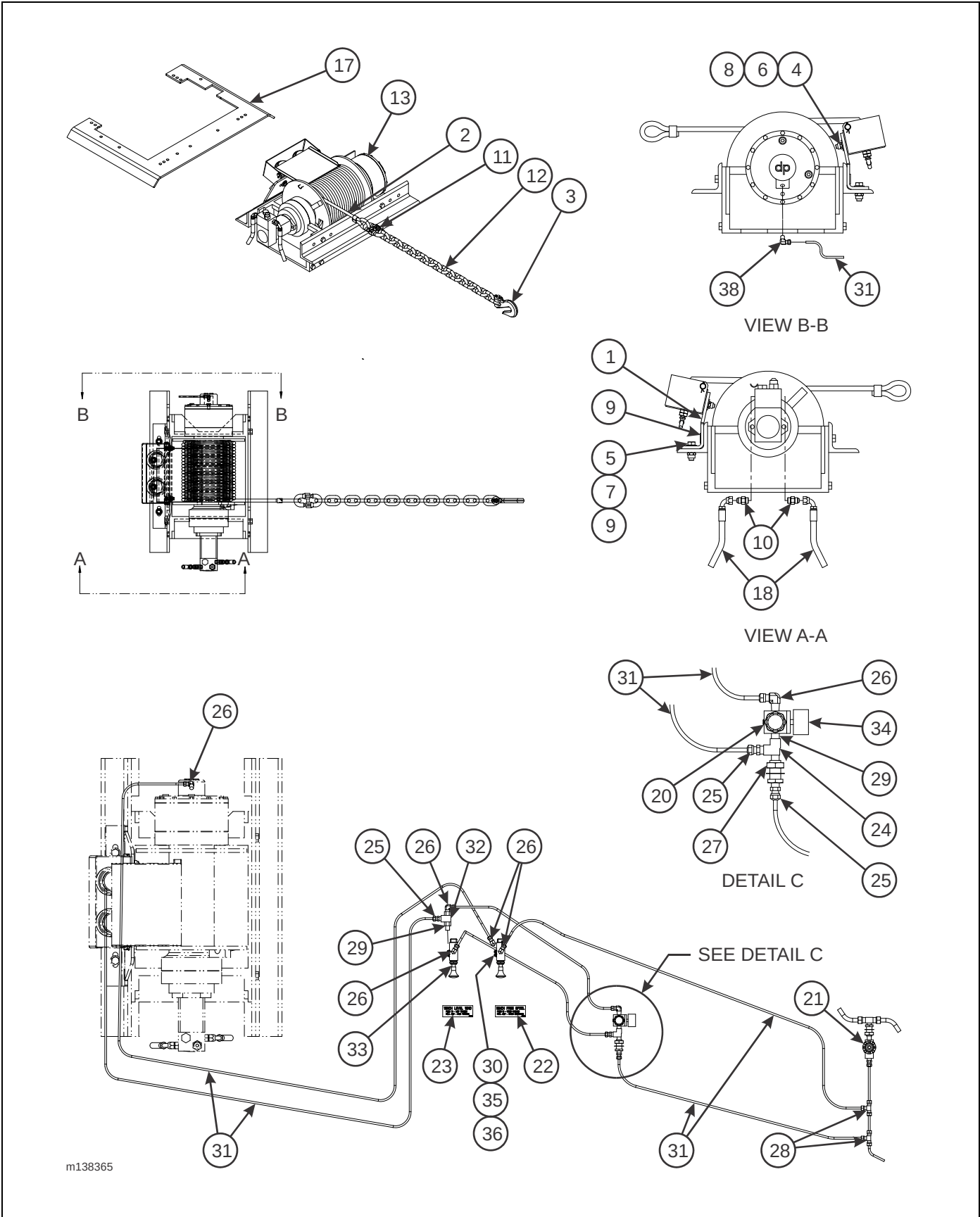
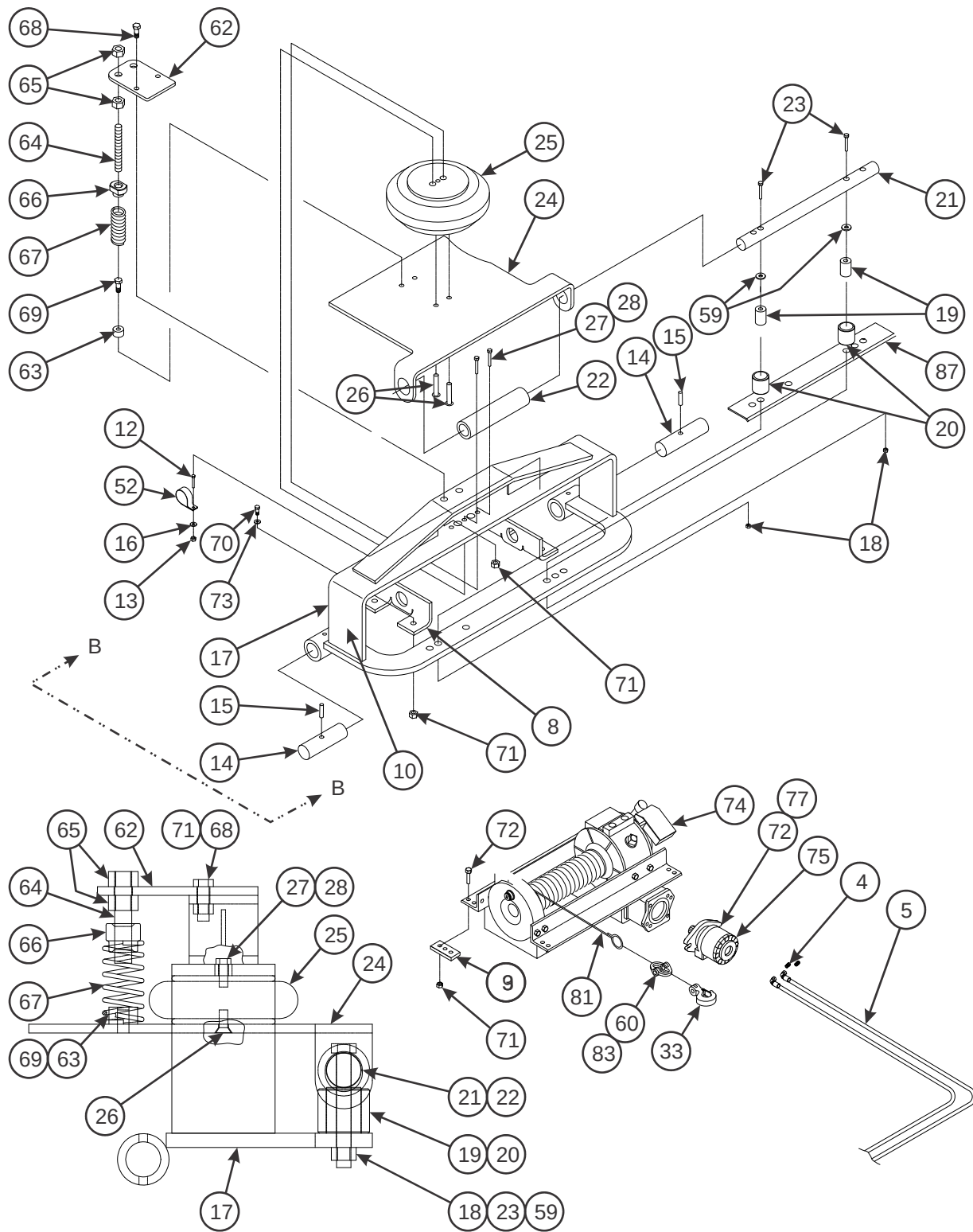


Figure 2-50: Winch Installation, 30K W/ Air Tension/Release

WINCH INSTALLATION, 30K W/ AIR TENSION/RELEASE

ITEM	PART NO.	DESCRIPTION	QTY.
	138365	WINCH INSTALLATION, 30K W/ AIR TENSION/RELEASE	
1	111252	MOUNT, DP30 AIR TENSION	1
2	132833	CABLE ASSEMBLY 5/8 X 85 W/ LOOP	REF
	132834	CABLE ASSEMBLY 5/8 X 150 W/ LOOP	REF
3	1-382-010035-06	HOOK, CLEVIS GRAB	1
4	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	2
5	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	2
6	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	2
7	1-654-010059-05	SCREW, HEX HEAD CAP 5/8-11 X 2 GR5	2
8	1-861-010032-15	WASHER, FLAT 1/2W	2
9	1-861-010032-18	WASHER, FLAT 5/8N	4
10	202702-8-8S	ADAPTER	2
11	3-174-010059	CHAIN LINK CONNECTING 5/8	1
12	3-174-010060036	CHAIN GR80	1
13	3-873-010155	WINCH MODIFICATION (ITEMS 37 & 38)	1
14	3-873-010172	WINCH CABLE, AIR TENSION 30K (SEE PAGE 2-111)	1
17	106196	MOUNT, U/D WINCH	REF
18	1-397-010302206	HOSE ASSEMBLY 1/2 X 206	2
19	3-573-010025	DECAL, WINCH MOTOR	1
20	3-120-010445	BRACKET, PRESSURE REGULATOR	1
21	905-54-107	BRAKE PROTECTION VALVE	REF
22	135184	DECAL, WINCH FREE SPOOL	1
23	135185	DECAL, WINCH LEVEL WIND	1
24	1-297-010018-02	FITTING, TEE	1
25	1-297-010007-05	FITTING, AIR	3
26	1-297-010008-07	FITTING, AIR 90	5
27	1-297-010022-02	FITTING, AIR ANCHOR COUPLING	1
28	1-297-010010-01	FITTING, AIR UNION TEE	2
29	1-297-010020-02	FITTING, BRASS PIPE	2
30	1-654-010024079	SCREW, MACH FILISTER HEAD #10-32 X 3/4	4
31	1-833-010001	TUBING, NYLON 1/4OD	AR
32	3-843-010039-02	VALVE, AIR SHUTTLE	1
33	134657	VALVE, AIR	2
34	3-626-010004	REGULATOR, AIR PRESSURE	1
35	1-861-010032-03	WASHER, FLAT #10	4
36	1-861-010034-07	WASHER, SPLIT LOCK #10	4
37	145690	WINCH 30,000LB DP (SEE PAGE 2-101)	1
38	1-297-010008-07	FITTING, AIR 90	2



SECTION B - B

m102237p2a

Figure 2-51: Winch Air Tension Installation, Upper Deck 20K (1 of 4)

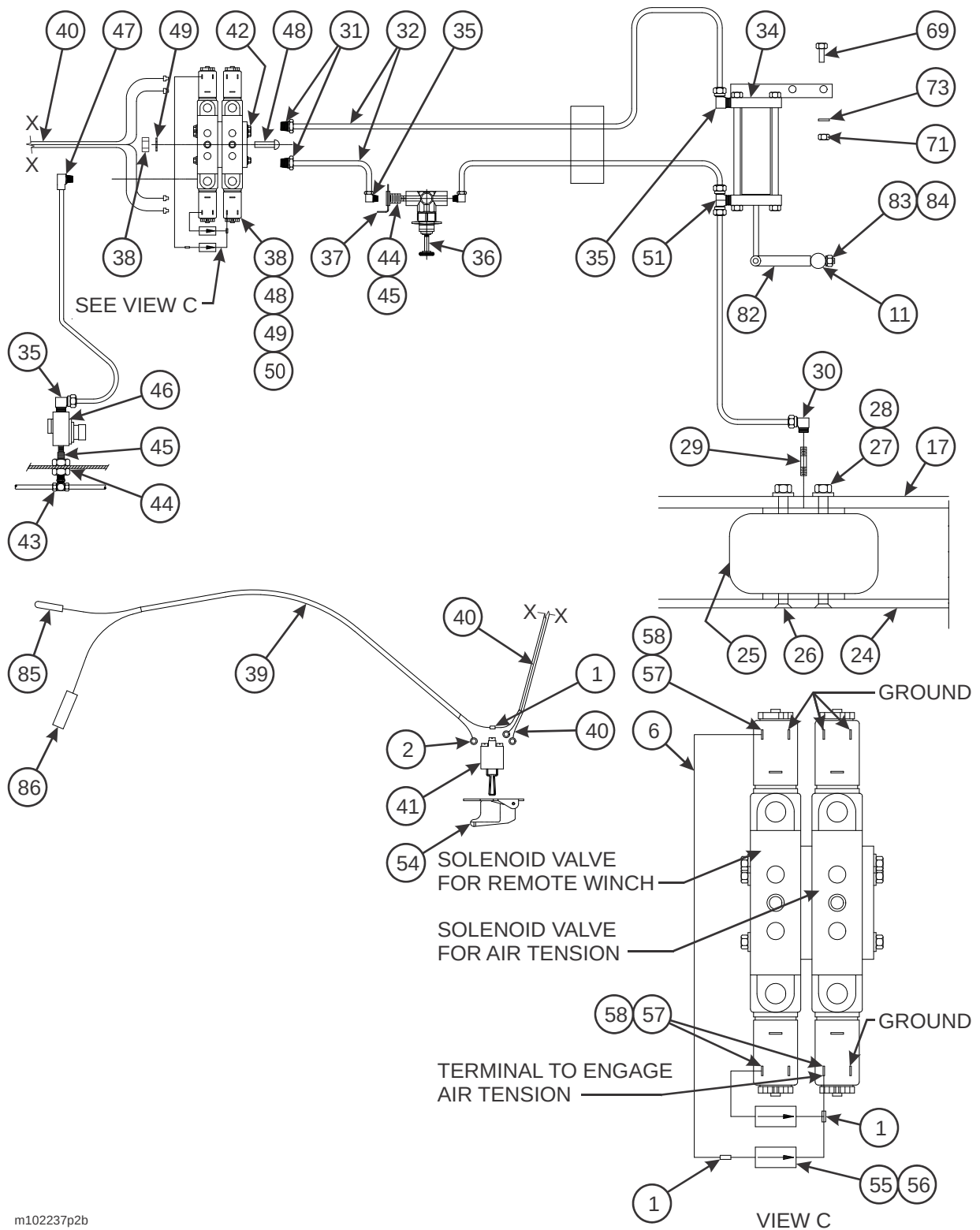
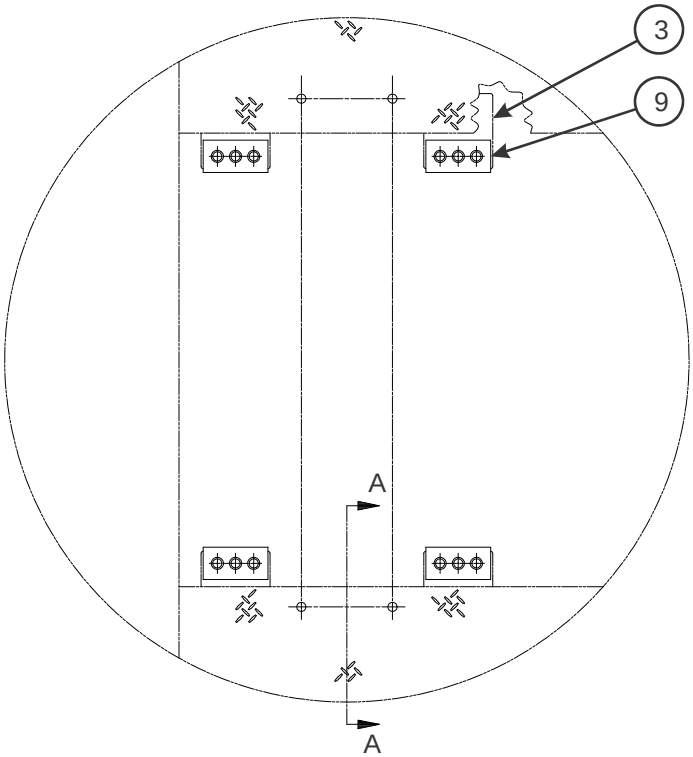
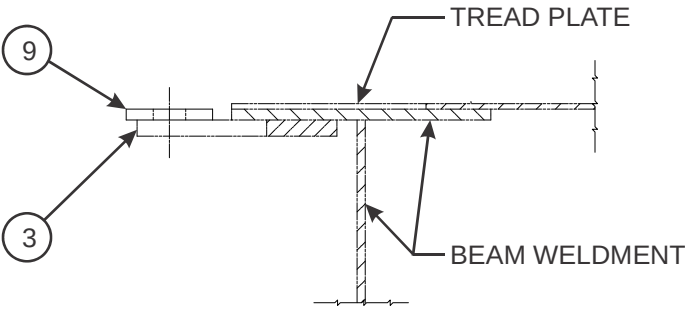


Figure 2-52: Winch Air Tension Installation, Upper Deck 20K (2 of 4)



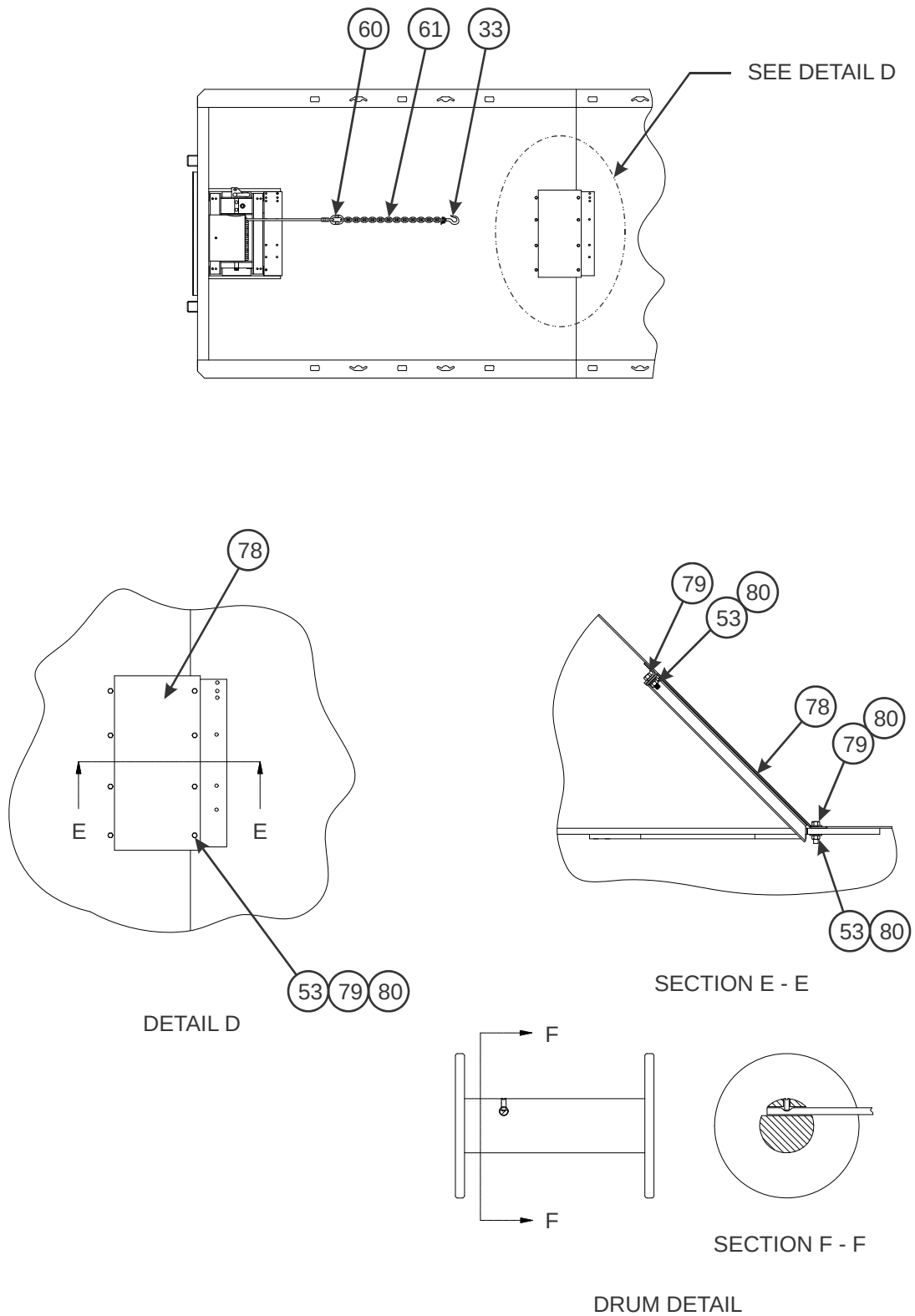
MOUNTING PATTERN FOR ANCHORS



SECTION A - A

m102237p1

Figure 2-53: Winch Air Tension Installation, Upper Deck 20K (3 of 4)



m102237p3

Figure 2-54: Winch Air Tension Installation, Upper Deck 20K (4 of 4)

WINCH AIR TENSION INSTALLATION 20K UPPERDECK

ITEM	PART NO.	DESCRIPTION	QTY.
	102237	WINCH AIR TENSIONER 20K U/D W/ REMOTE CONTROLS	
1	3-272-010021	ELECT BUTT SPLICE W/ SEAL	5
2	32002	TERMINAL 12-10GA W/ #10 RING WAY	1
3	3-482-010252	MOUNT, WINCH	2
4	202702-10-8S	ADAPTER	2
5	1-397-010302240	HOSE ASSEMBLY 1/2 X 240	2
	100062	HOSE ASSEMBLY 1/2 X 286	2
6	1-879-010011	BLACK WIRE 14 AWG	1
8	3-014-010208	ANCHOR, CABLE GUIDE WINCH	2
9	3-711-010110	SPACER, AIR TENSION MOUNT	4
10	3-573-010442	DECAL, WINCH TENSION	1
11	3-150-010186	BUSHING, WINCH REMOTE LEVER	1
12	1-654-010024055	SCREW, RD HD MACH 10-24 X 1	1
13	1-512-010007-03	NUT, HEX 10-24 GRB	1
14	3-557-010474	PIN, PIVOT WINCH ROLLER	2
15	1-647-010004255	PIN, SPRING SLOTTED 2 X 3/8	2
16	1-861-010034-07	WASHER, SPLIT LOCK #10	1
17	3-125-010465	BRACKET WELDMNT, WINCH TENSION	1
18	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	2
19	3-150-010196	BUSHING, WINCH ROLLER-SIDE	2
20	3-831-010172	TUBE, ROLLER-SIDE-	2
21	102188	ROD, PIVOTING GUIDE 20K WINCH	1
22	3-831-010182	TUBE, ROLLER TOP 20K	1
23	1-654-010059-15	SCREW, HEX HEAD CAP 5/8-11 X 5 GR8	2
24	102187	PLATE, WINCH TENSIONER 20K AIR	1
25	3-720-010042	SPRING, AIR 6-1/2	1
26	1-654-010141-04	SCREW, HEX SOC CTSK 3/8-16 X 1 GR8	2
27	1-654-010036-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR8	2
28	1-861-010032-10	WASHER, FLAT 3/8N	2
29	1-297-010031-02	FITTING, BRASS PIPE	1
30	1-297-010032-03	FITTING, AIR 90	1
31	1-297-010007-04	FITTING, AIR	2
32	1-833-010001	TUBING, NYLON 1/4OD	36
33	7HCGHT500	1/2 CLEVIS GRAB HOOK	1
34	107368	CYLINDER, AIR W/ BRACKET (SEE PAGE 2-105)	1
35	1-297-010008-07	FITTING, AIR 90	3
36	3-626-010004	REGULATOR, AIR PRESSURE	1
37	3-120-010445	BRACKET, PRESSURE REGULATOR	1
38	3-843-010022	VALVE, PNEUMATIC 4 WAY, 2 POS (NO PARTS BREAKDOWN)	1
39	3-156-010008	CABLE 14-2 SO TWO CONDUCTOR	6
40	3-368-010129	HARNESS REMOTE SWITCH	1
41	1-765-010065	TOGGLE SWITCH	1
42	3-136-010001-01	BREATHER, PNEUMATIC EXHAUST	*2
43	1-297-010015-09	FITTING, AIR BRANCH TEE	1
44	1-297-010022-02	FITTING, AIR ANCHOR COUPLING	1
45	1-297-010020-02	FITTING, BRASS PIPE	1
46	905-54-107	VALVE & FILTER PRESSURE	*1
47	1-297-010008-05	FITTING, AIR 90	*1
48	1-654-010024014	SCREW, MACH FIL #6-32 X 1-1/2	*3

WINCH AIR TENSION INSTALLATION 20K UPPERDECK

ITEM	PART NO.	DESCRIPTION	QTY.
49	1-861-010032-01	WASHER, FLAT #6	*6
50	1-512-010003-02	NUT, HEX LOCK #6-32	*3
51	1-297-010015-02	FITTING, AIR BRANCH TEE	1
52	125892	SUPPORT, CLAMP	1
53	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	8
54	3-348-010048	GUARD SWITCH - 3 POSITION	1
55	2-272-010109	DIODE ZENOR 20V 5-WATT	2
56	3-272-010018	TUBING HEAT SHRINK W/ SEALANT	2
57	C29-1104X	CONNECTOR FEMALE 1/4 SPADE INSULATED	3
58	3-272-010157	ELECT ADAPTER CHAIR 1/4 PUSHON	3
59	1-861-010032-18	WASHER, FLAT 5/8N	2
60	3-174-010038	CHAIN LINK, CONNECTING 1/2	1
61	3-174-010039036	CHAIN 1/2 X 36 GR7	1
62	3-565-011688	PLATE, F/W SPRING TENSION	2
63	3-014-010255	ANCHOR BUSHING F/W SPRING TENSION-600	2
64	RTR7999X4ZP	ROD THREADED 3/4-10 X 4-7/8	2
65	1-512-010007-12	NUT, HEX 3/4-10 GR8	4
66	3-522-010017	NUT, F/W SPRING TENSION	2
67	3-720-010035	SPRING	2
68	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	2
69	1-654-010055-01	SCREW, HEX HEAD CAP 1/2-13 X 1 GR5	2
70	1-654-010055-07	SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5	4
71	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	14
72	1-654-010055-05	SCREW, HEX HEAD CAP 1/2-13 X 2 GR5	10
73	1-861-010032-14	WASHER, FLAT 1/2N	4
74	3-873-010123	WINCH, WORM GEAR 20K (SEE PAGE 2-98)	1
75	3-481-010007	MOTOR, HYDRAULIC (SEE PAGE 2-107)	1
76	100600	DECAL, WARNING WINCH (NOT SHOWN)	1
77	1-861-010034-13	WASHER, SPLIT LOCK 1/2	2
78	3-222-010083	COVER, WINCH SLOPE	1
79	1-654-010051-07	SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5	8
80	1-861-010032-11	WASHER, FLAT 3/8	12
81	3-155-010018-1	CABLE 5/8 W/ LOOP 60 FT.	REF
	3-155-010018-6	CABLE 5/8 W/ LOOP 85 FT.	REF
82	107369	LEVER, WINCH FREE SPOOL	1
83	1-512-010007-05	NUT, HEX 1/4-20	1
84	1-861-010034-09	WASHER, SPLIT LOCK 1/4	1
85	STP-147	BULLET CONNECTOR, FEMALE	1
86	STP-164	TERMINAL, BULLET ELECT.	1
87	143246	RUB BAR CABLE GUIDE	1

* USED ON MODELS W/O REMOTES

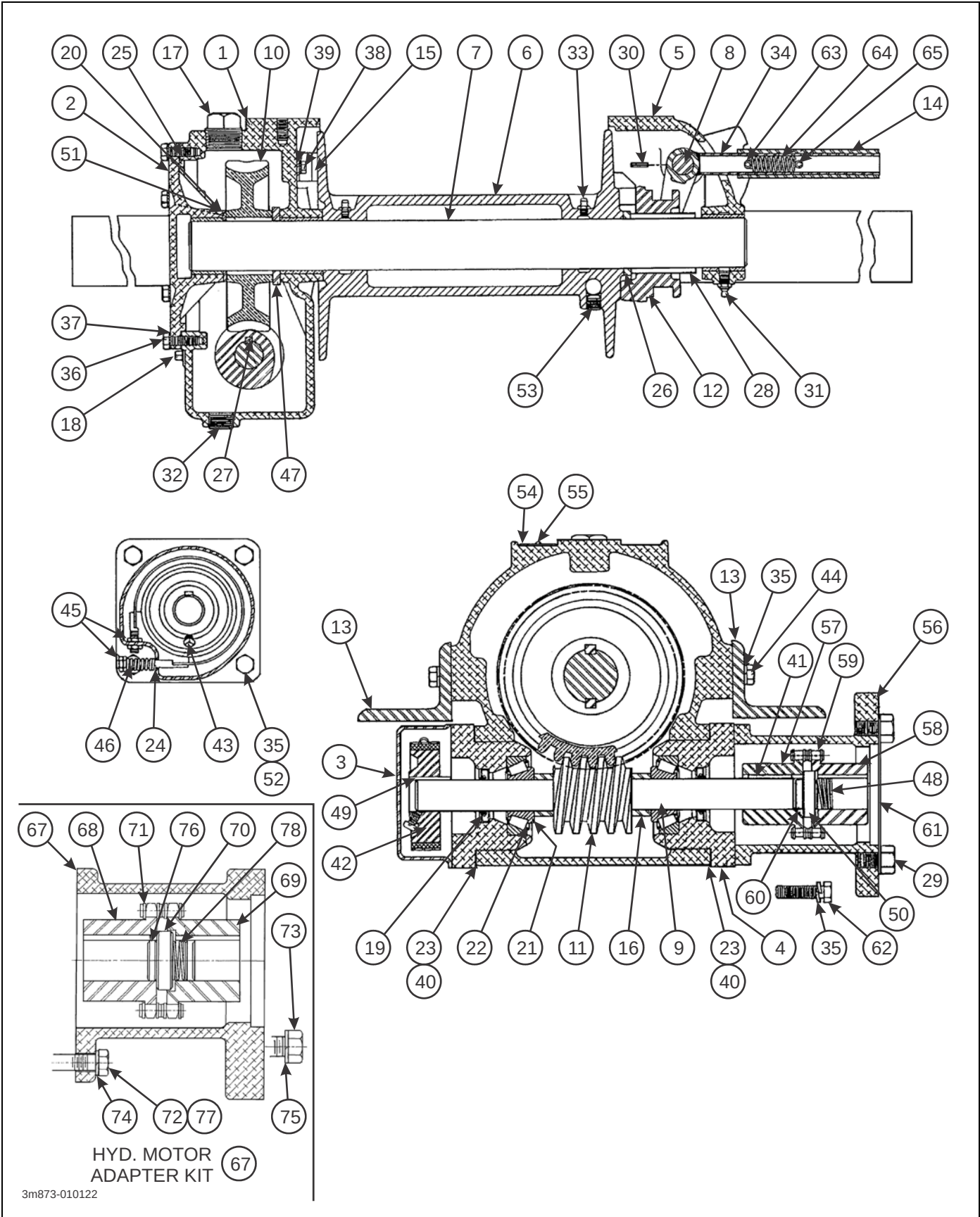


Figure 2-55: 12,000 Lb. Winch Items

12,000# WINCH ITEMS (BRADEN)

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	3-873-010122		WINCH ASSEMBLY 12K (BRADEN)	
1	81006	81006	WORM HOUSING ASSEMBLY	1
1A	18078	18078	BUSHING	1
2	81009	81009	COVER ASSEMBLY WORM HOUSING	1
2A	11368	11368	BUSHING	1
3	18032	18032	HOUSING SAFETY BRAKE	1
4	23303	23303	CONTAINER BEARING	2
5	81530	81530	LEG ASSEMBLY BEARING	1
6	11128	11128	DRUM CABLE	1
7	11129	11129	DRUM SHAFT CABLE	1
8	11130	11130	SHIFTER SHAFT	1
9	23470	23470	SHAFT WORM	1
10	11144	11144	GEAR WORM LEFT HAND	1
11	11142	11142	WORM LEFT HAND	1
12	18039	18039	SLIDING CLUTCH	1
13	22752	22752	ANGLE BASE	2
14	12817	12817	SHIFTER HANDLE	1
15	81025	81025	BRAKE DRAG	1
16	11308	11308	SPACER WORM	2
17	----	22775	PLUG PIPE	1
18	18009	18009	PLUG PIPE	1
19	18026	18026	SEAL GREASE	2
20	11117	11117	KEY WORM GEAR	2
21	18015	18015	CONE BEARING	2
22	18016	18016	CUP BEARING	2
23	18027	18027	GASKET	3
24	21925	21925	BAND BRAKE	1
25	11133	11133	WORM HOUSING COVER GASKET	3
26	18019	18019	RETAINER RING	1
27	18030	18030	KEY WORM	1
28	18020	18020	KEY CLUTCH	2
29	----	10009	CAPSCREW	2
30	11837	11837	ROLLPIN	2
31	18047	18047	FITTING GREASE	1
32	19045	19045	PLUG PIPE	1
33	----	11799	FITTING GREASE	2
34	13839	13839	SHIFTER FORK	1
35	----	18003	WASHER LOCK	16
36	----	11767	CAPSCREW	6
37	----	11011	WASHER LOCK	6
38	13005	13005	CAPSCREW	2
39	----	12780	WASHER LOCK	2
40	18024	18024	BEARING CONTAINER GASKET	3
41	18044	18044	KEY	1
42	18028	18028	DRUM BRAKE	1
43	12075	12075	SETSCREW	1
44	----	21961	CAPSCREW	12
45	13468	13468	JAM NUT	4
46	18029	18029	BRAKE BAND SPRING	1

12,000# WINCH ITEMS (BRADEN)

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
47	11240	11240	RETAINER RING	1
48	----	23353	SPRING	1
49	10078	10078	KEY	1
50	23078	23078	SPACER	1
51	13680	13680	THRUST RING	1
52	----	22703	CAPSCREW	4
53	----	24032	SETSCREW	1
54	----	23310	WARNING PLATE	1
55	----	11842	DRIVE SCREW	2
56	23079	23079	MOTOR ADAPTER	1
57	23081	23081	COUPLING HALF (WORM SHAFT)	1
58	23083	23083	COUPLING HALF (MOTOR SHAFT)	1
59	13424	13424	ROLLER CHAIN	1
60	23085	23085	SPACER	1
61	----	21959	SHIPPING COVER	1
62	----	22704	CAPSCREW	4
63	13028	13028	ROLLPIN	1
64	18002	18002	SPRING	1
65	18056	18056	ROLLPIN	1
66	61333	61333	HYD. MOTOR ADAPTER KIT, 12,000# WINCH (INCL ITEMS 67- 78)	1
67	23079	23079	ADAPTER, MOTOR	1
68	23081	23081	COUPLING HALF, WINCH	1
69	23083	23083	COUPLING HALF, MOTOR	1
70	23078	23078	SPACER, CONSTANT	1
71	13424	13424	CHAIN ROLLER	1
72	----	----	CAPSCREW	4
73	----	----	CAPSCREW	4
74	----	27152	LOCKWASHER	4
75	----	11026	LOCKWASHER	4
76	----	23085	SPACER	1
77	----	----	CAPSCREW	4
78	110452	23353	SPRING SPACER	1

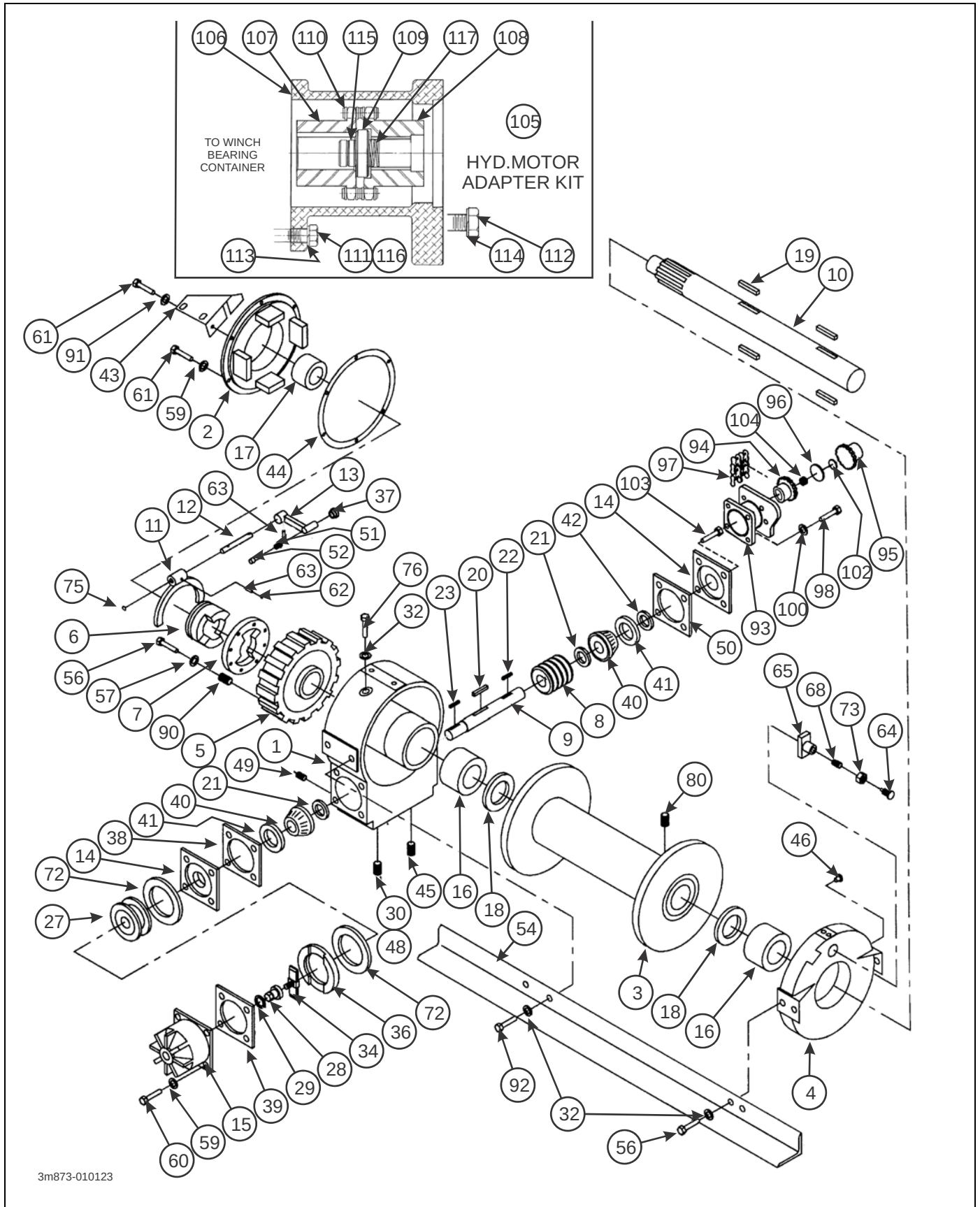


Figure 2-56: 20,000 Lb. Winch Items

20,000# WINCH ITEMS (BRADEN)

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	3-873-010123		WINCH 20,000# W/BOLT-ON ANGLES	
1	81078	81078	WORM HOUSING ASSEMBLY	1
2	106956	81082	COVER ASSEMBLY WORM HOUSING	1
3	----	101142	DRUM CABLE	1
4	81077	81077	LEG ASSEMBLY BEARING	1
5	11434	11434	WORM, GEAR RIGHT	1
6	11421	11421	CLUTCH, SLIDING	1
7	11419	11419	DRIVE, CLUTCH	1
8	154166	11404	WORM RIGHT	1
9	----	11405	SHAFT, WORM	1
10	139479	11414	SHAFT, CABLE DRUM	1
11	11440	11440	FORK SHIFTER	1
12	11441	11441	SHAFT SHIFTER	1
13	26976	26976	HANDLE SHIFTER	1
14	124549	11427	CONTAINER BEARING	2
15	----	11445	COVER WORM BRAKE	1
16	18035	18035	BUSHING	2
17	11425	11425	BUSHING	1
18	11420	11420	RING, RETAINING	2
19	163472	22055	DRUM, KEY CABLE	4
20	11402	11402	KEY, WORM	1
21	11407	11407	SPACER, WORM	2
22	23367	23367	KEY, SPROCKET	1
23	10078	10078	KEY, ROTOR	1
27	81080	81080	ROTOR ASSEMBLY, BRAKE	1
28	11599	11599	ADJUSTING NUT, WORM BRAKE	1
29	12465	12465	O-RING	1
30	----	19014	PLUG, FILLER	1
32	----	11026	WASHER, LOCK	10
34	81081	81081	SPRING ASSEMBLY, SAFETY BRAKE	1
36	11431	11431	PLATE, PRESSURE	1
37	18022	18022	KNOB, SHIFTER	1
38	11429	11429	GASKET	4
39	11446	11446	GASKET	2
40	18033	18033	BEARING CONE	2
41	18034	18034	BEARING CUP	2
42	12073	12073	SEAL GREASE	1
43	12783	12783	BRACKET SHIFTER	1
44	11411	11411	COVER GASKET HOUSING	1
45	19045	19045	PLUG DRAIN	1
46	18047	18047	FITTING GREASE	1
48	----	22775	PLUG VENT	1
49	----	18009	PLUG LEVEL	1
50	11430	11430	GASKET	4
51	11310	11310	SPRING SHIFTER KNOB	1
52	11309	11309	STEM SHIFTER KNOB	1
54	----	28942	ANGLE FRONT BASE	1
55	----	28943	ANGLE REAR BASE (NOT SHOWN)	1

20,000# WINCH ITEMS (BRADEN)

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
56	----	13938	CAPSCREW	16
57	----	12781	WASHER, LOCK	8
58	----	21044	CAPSCREW	4
59	----	11025	WASHER, LOCK	3
60	----	22695	CAPSCREW	4
61	----	21964	CAPSCREW	6
62	12146	12146	PLUG, EXPANSION	A/R
63	13028	13028	ROLLPIN	A/R
64	11398	11398	SCREW, ADJUSTING	1
65	88005	88005	SHOE ASSEMBLY DRAG BRAKE	1
68	18002	18002	SHOE ASSEMBLY DRAG BRAKE	1
72	11426	11426	DISC, FRICTION	2
73	11791	11791	NUT, JAM	1
75	12767	12767	PLUG, EXPANSION	A/R
76	----	22729	CAPSCREW	2
77	----	23245	SAE PLATE-AMU7-16F (NOT SHOWN)	1
78	----	23310	PLATE, WARNING (NOT SHOWN)	1
79	----	11842	SCREW, DRIVE (NOT SHOWN)	4
80	139478	12228	SCREW, SET	1
90	----	11435	INSERT THREAD	8
91	----	11014	LOCKWASHER	1
92	----	22697	CAPSCREW (NOT SHOWN)	5
93	23079	23079	ADAPTER - MOTOR	1
94	23081	23081	COUPLING HALF-WINCH	1
95	----	23142	COUPLING HALF-MOTOR	1
96	23078	23078	SPACER - CONSTANT	1
97	13424	13424	ROLLER, CHAIN	1
98	----	22704	CAPSCREW	4
99	----	13413	CAPSCREW (NOT SHOWN)	4
100	----	18003	LOCKWASHER	4
101	----	11026	LOCKWASHER (NOT SHOWN)	4
102	----	23183	SPACER - VARIABLE	2
103	----	22703	CAPSCREW	4
104	----	23353	SPRING - SPACER	1
105	----	61334	HYD. MOTOR ADAPTER KIT, 20,000# WINCH (INCL ITEMS 106-117)	1
106	23079	23079	ADAPTER, MOTOR	1
107	23081	23081	COUPLING HALF, WINCH	1
108	110448	23142	COUPLING HALF, MOTOR	1
109	23078	23078	SPACER, CONSTANT	1
110	13424	13424	CHAIN ROLLER	1
111	----	----	CAPSCREW	4
112	----	----	CAPSCREW	4
113	----	27152	LOCKWASHER	4
114	----	11026	LOCKWASHER	4
115	110451	23183	SPACER	1
116	----	----	CAPSCREW	4
117	110452	23353	SPRING SPACER	1

ILLUSTRATED PARTS LIST

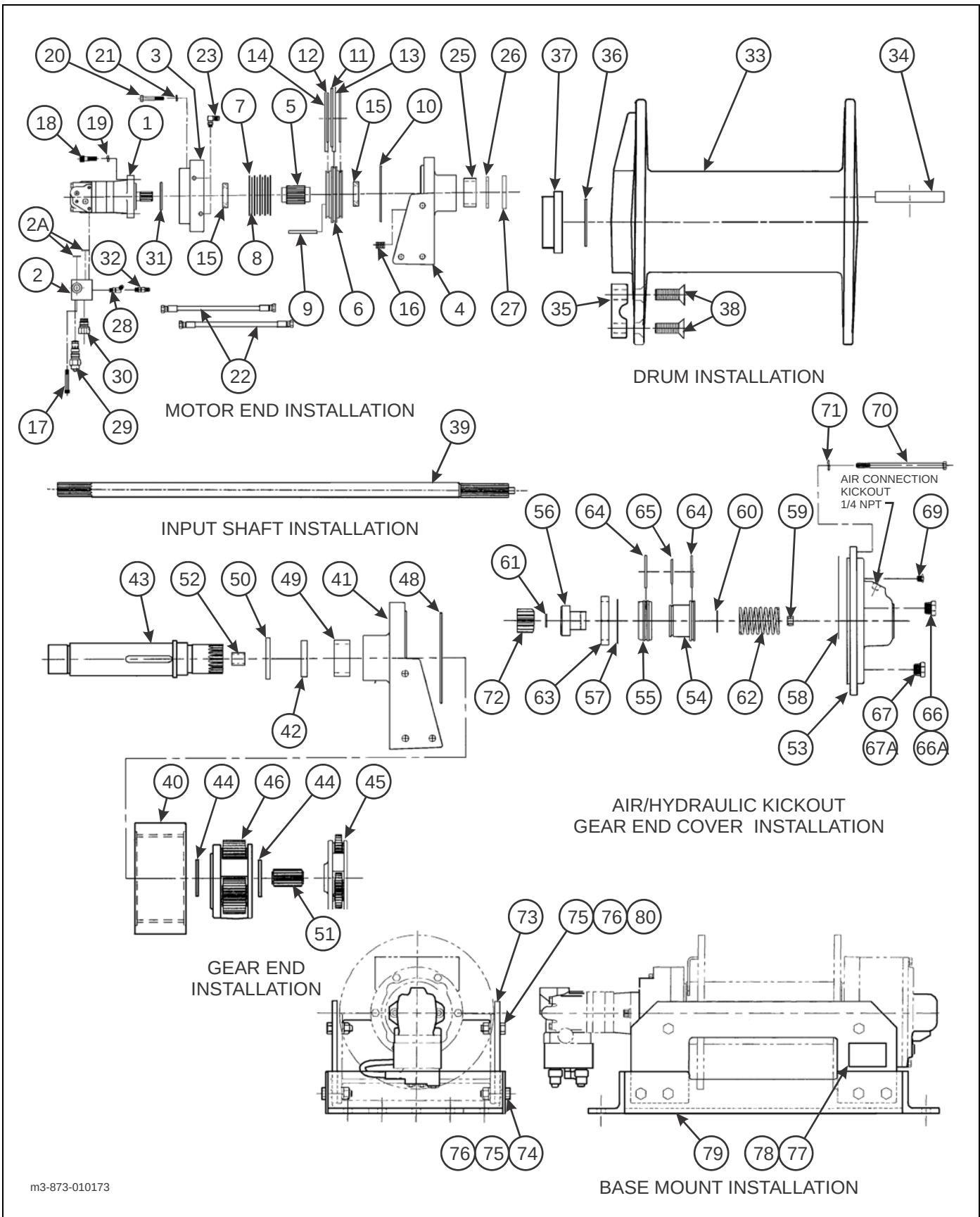


Figure 2-57: 30,000 Lb. Winch Items (DP)

30,000# WINCH ITEMS

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	137724		BRACKET, BASE	
	145690		WINCH, 30K DP HIGH MOUNT	
1	137887	73076	MOTOR, HYDRAULIC	1
2	137888	11604	VALVE, COUNTERBALANCE	1
2A	-----	9817	O-RING, 13/16 I.D. X 3/32 SECTION	2
3	-----	11535	BRAKE HOUSING	1
4	-----	13299	SUPPORT MOTOR END	1
5	-----	11750	SHAFT BRAKE	1
6	-----	11443	PISTON BRAKE	1
7	-----	11603	PLATE DISC FRICTION	10
8	-----	3159	PLATE DRIVE BRAKE	9
9	-----	3263	PIN DOWEL 5/16 DIA. X 3-1/2	2
10	137993	9844	O-RING, 7 O.D. X 6-3/4 I.D.	1
11	137994	9853	O-RING, 6-1/2 I.D. X 3/16 SECTION	1
12	137421	9851	O-RING, 5-3/8 I.D. X 5-3/4 O.D. X 3/16	2
13	-----	9854	RING, BACK-UP	1
14	137422	9852	RING, BACK-UP 5-3/8 I.D.	1
15	-----	81434	BEARING BALL 1-3/4 I.D.	2
16	-----	2319	SPRING COMPRESSION	12
17	-----	1345	CAP SCREW, SOCKET HEAD 3/8-16 X 2-1/2	2
18	-----	1143	CAP SCREW, SOCKET HEAD 1/2-13 X 1-1/2	2
19	-----	1144	WASHER, LOCK HI COLLAR 1/2	6
20	-----	1376	CAP SCREW, HEX HEAD 7/16 X 2-1/2	6
21	-----	1388	WASHER, LOCK 7/16	4
22	-----	75038	HOSE 1/4R1 X 12"	1
23	-----	76017	ADAPTER 90	1
24	-----	10708	TAG WARNING (NOT SHOWN)	1
25	-----	81454	BEARING -TORRINGTON	1
26	-----	13288	WASHER THRUST BRONZE	1
27	137880	9890	SEAL SHAFT	1
28	137641	76029	ADAPTER 45	
29	137883	3177	CARTRIDGE COUNTERBALANCE	1
30	137884	70035	PLUG ASSEMBLY - VALVE COUNTERBALANCE	2
31	137882	9880	O-RING 3 ID X 1/8 SECTION	1
32	-----	76027	ADAPTER STRAIGHT	
	137885	9400	DISC PLATE KIT (INCL ITEMS 7-8 & 16)	
	137886	9406	SEAL KIT (INCL ITEMS 10-14)	
DRUM INSTALLATION				
33	-----	13285	DRUM	1
34	-----	13293	KEY DRUM	2
35	137569	12518	CLIP CABLE THREADED	1
36	-----	9602	O-RING 2-5/8 ID X 1/8 W	1
37	-----	13286	SPACER	1
38	137570	1587	CAP SCREW, FLAT SKT HEAD 5/8-11 X 1-3/4	
INPUT SHAFT INSTALLATION				

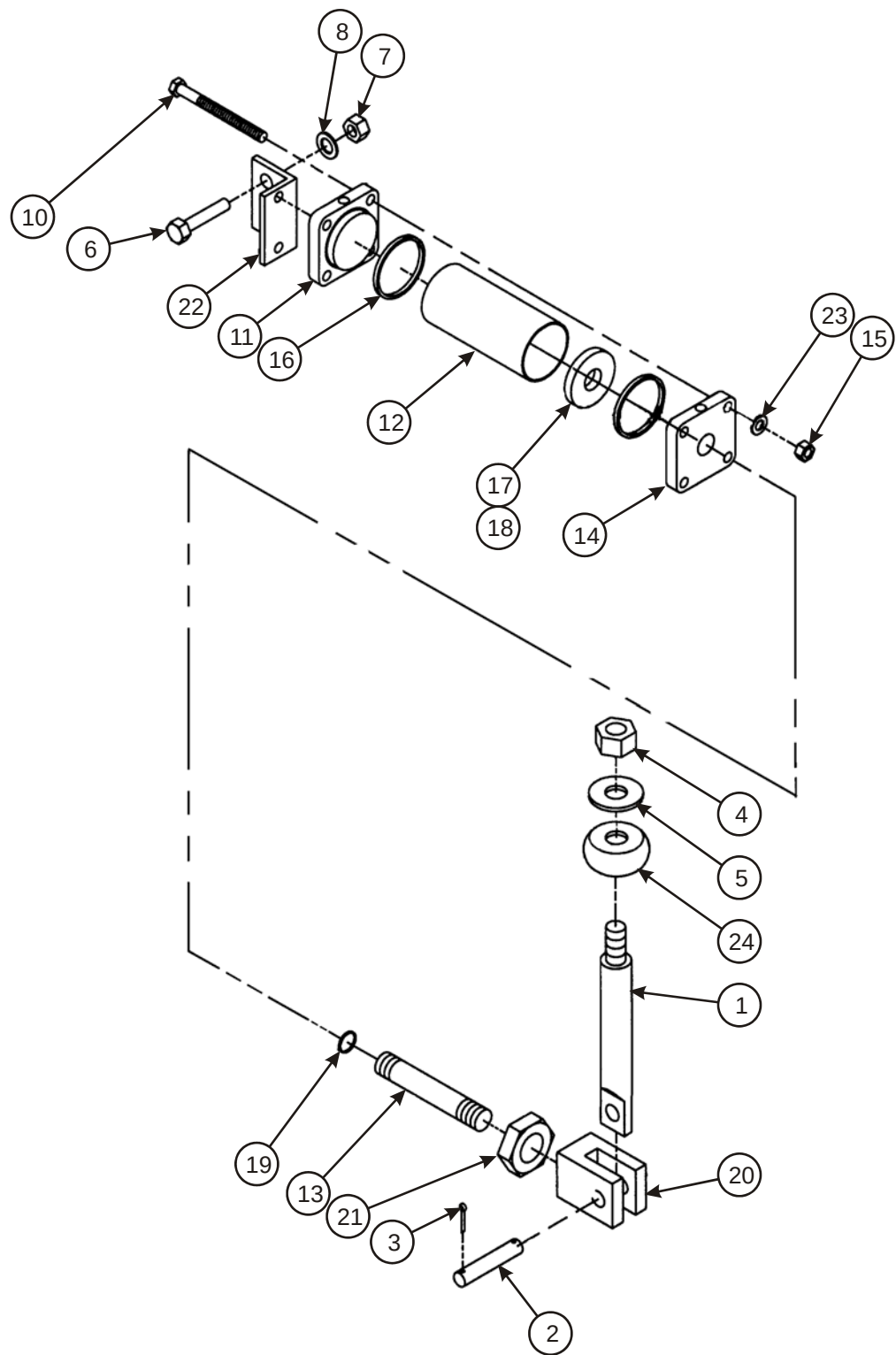
30,000# WINCH ITEMS

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
39	-----	13317	SHAFT INPUT	1
GEAR END INSTALLATION				
40	-----	3126	GEAR RING	1
41	-----	13300	SUPPORT GEAR END	1
42	-----	13288	WASHER THRUST	1
43	-----	13301	SHAFT OUTPUT	1
44	-----	13164	WASHER THRUST NYLON 3-1/2 OD X 3/16	2
45	-----	12486	CARRIER ASSEMBLY PRIMARY	1
46	-----	12516	CARRIER ASSEMBLY SECONDARY	1
47	-----	10848	LABEL WARNING (NOT SHOWN)	1
48	137879	9695	O-RING 8-3/4 I.D. X 1/8 SECTION	1
49	-----	81454	BEARING	1
50	137880	9890	SEAL SHAFT	1
51	-----	13306	GEAR SUN	1
52	-----	81608	BUSHING ID 1-1/4 OD X 1 LG	1
AIR/HYD. KICKOUT GEAR END COVER INSTALLATION				
53	-----	13675	COVER GEAR END	1
54	-----	13295	PISTON AKO B/C/D	1
55	-----	13296	CYLINDER PISTON	1
56	-----	13297	COUPLING DRIVE	1
57	-----	3632	RING RETAINING RD SEC 3 O.D. X .10 SEC	1
58	137879	9695	O-RING 8-3/4 I.D. X 1/8 SECTION	1
59	-----	81612	BUSHING BRONZE 3/8 I.D. X 3/8 L	1
60	-----	3303	RING RETAINING 1-1/4	1
61	-----	3321	RING RETAINING RD SEC .805 I.D.	1
62	-----	2309	SPRING COMPRESSION	1
63	-----	13288	WASHER THRUST BRONZE 3.81 X .406 W	1
64	137881	9672	O-RING 2-5/8 I.D. X 1/8 SECTION	2
65	-----	9704	O-RING 2-1/8 I.D. X 2-3/8 O.D.	1
66	105967	76344	PLUG SKT HD O-RING #10 7/8 - 14	1
66A	-----	9992	O-RING .755 I.D. X .097 W 3-910	1
67	105954	76343	PLUG SKT HD O-RING MAG #10	1
67A	-----	9992	O-RING .755 I.D. X .097 W 3-910	1
68	-----	1157	CAPLUG #4 RED (NOT SHOWN)	1
69	105953	3059	RELIEF VENT	1
70	-----	1317	SCREW CAP HEX HEAD 3/8 X 16 X 5-1/2	12
71	-----	1395	WASHER LOCK 3/8	12
72	-----	13235	GEAR SUN AKO	1
BASE MOUNT INSTALLATION				
73	-----	14068	BASE MOUNT CUSTOM - B SERIES - A LENGTH	2
74	-----	1506	SCREW CAP HEX HEAD 5/8-11 X 2-1/2 GR5	12
75	-----	1590	NUT HEX 5/8 - 11 GR2	12
76	-----	1595	WASHER LOCK 5/8 MEDIUM PLAIN	12
77	-----	1165	RIVET DRIVE U TYPE #2 X 1/4 LONG	4

30,000# WINCH ITEMS

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
78	-----	10466	PLATE INFORMATION	1
79	-----	14073	BASE SUPPORT	
80	-----	1504	CAP SCREW, HEX HEAD 5/8-11 X 2 GR5	

NOTE: WHEN ORDERING WINCH PARTS, CUSTOMER MUST GIVE SERIAL NO. FOR WINCH. SERIAL NO. IS LOCATED ON SERIAL NO. TAG ON WINCH BASE AND STAMPED INTO TOP OF MOTOR END SUPPORT.



3md873-010179

Figure 2-58: Winch Air Shift Cylinder

WINCH AIR SHIFT CYLINDER

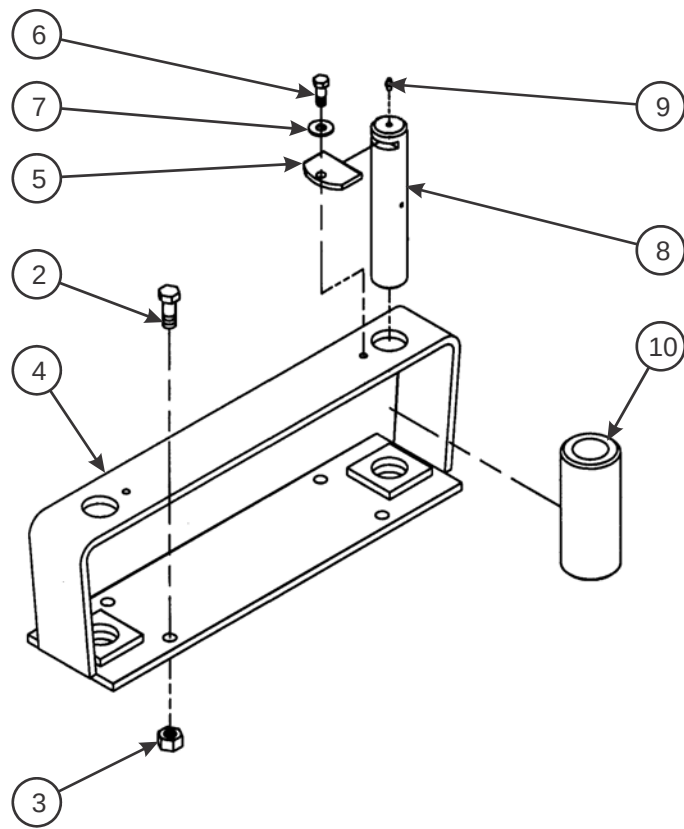
ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	107368		CYLINDER, AIR W/ BRACKET (INCLUDES ITEMS 1-23)	
1	107369		LEVER WINCH FREE SPOOL	1
2	-----	1976	PIN	1
3	-----	2356	COTTER PIN	1
4	1-512-010007-05	-----	NUT, HEX 1/4-20 GRB	1
5	1-861-010034-09	-----	WASHER, SPLIT LOCK 1/4	1
6	1-654-010055-01	-----	SCREW, HEX HEAD CAP 1/2-13 X 1 GR5	2
7	1-512-010005-09	-----	NUT, HEX LOCK 1/2-13 GRB	2
8	1-861-010032-14	-----	WASHER, FLAT 1/2	2
9	C2001	C2001	CYLINDER (INCLUDES ITEMS 10-23)	1
10	-----	1128	CAPSCREW	4
11	-----	1272	REAR COVER PLATE	1
12	-----	1277	TUBE	1
13	-----	2388	PISTON ROD	1
14	-----	1271	FRONT COVER PLATE	1
15	-----	1723	NUT	4
16	-----	1274	BACK-UP-RING	2
17	-----	1275	O-RING	1
18	-----	1273	PISTON	1
19	-----	1276	O-RING	1
20	1974	1974	CLEVIS	1
21	-----	1224	NUT	1
22	2389	2389	BRACKET	1
23	-----	1766	LOCKWASHER	4
24	3-150-010186	3-150-010186	BUSHING WINCH REMOTE LEVER	1
	-----	3109	O-RING KIT FOR CYLINDER	



Figure 2-59: Winch Motor Assembly

WINCH MOTOR ASSEMBLY

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	3-481-010006		MOTOR, HYDRAULIC (FOR 12K WINCH)	
	3-481-010007		MOTOR, HYDRAULIC (FOR 20K WINCH)	
1	-----	2183	SEAL DUST	1
2	-----	2177	BACK-UP RING	1
3	-----	2175	SEAL LIP	1
4	-----	1644	ROTARY VALVE	1
5	-----	1021	CHECK VALVE BALL	2
6	-----	1004-6	IGR ASSEMBLY (FOR 20K WINCH)	1
	-----	1004-3	IGR ASSEMBLY (FOR 12K WINCH)	1
7	-----	1296	SNAP RING	1
8	1046	1046	SQUARE RING SEAL	3
9	-----	1019-4	PLUG VENT W/O-RING	1
10	-----	1014-4	BOLTS HEX (FOR 20K WINCH)	8
	-----	1114-5	BOLTS HEX (FOR 12K WINCH)	8
11	-----	1655	KEY WOODRUFF	1
12	-----	2265-6	SHAFT(FOR 20K WINCH)	1
	-----	2109-3	SHAFT(FOR 12K WINCH)	1
15	-----	M110AB-4	BODY/BEARING ASSEMBLY (FOR 20K WINCH)	1
	-----	PA-2328-2	BODY/BEARING ASSEMBLY (FOR 12K WINCH)	1
17	-----	M110C-1	COVER/BEARING ASSEMBLY	1
21	-----	2180	SNAP RING SHAFT	1
22	-----	1865	COMMUTATOR PLATE	1
	2263	2263	SEAL KIT BODY	1
	-----	2480	SEAL KIT BODY VITON	1

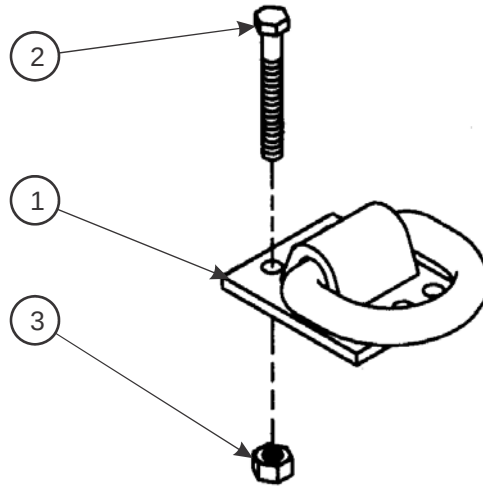


3m352-010017

Figure 2-60: Winch Cable Roller Guide (Option)

WINCH CABLE ROLLER GUIDE (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	3-352-010017-1	GUIDE INSTALLATION WINCH 12K	
	3-352-010017-2	GUIDE INSTALLATION WINCH 20K	
	3-352-010062	GUIDE INSTALLATION WINCH 30K	
2	1-654-010055-05	SCREW, HEX HEAD CAP 1/2-13 X 2 GR5	4
	1-654-010059-05	SCREW, HEX HEAD CAP 5/8-11 X 2 GR5 (30K ONLY)	2
3	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	4
	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB (30K ONLY)	2
4	3-120-010295	BRACKET WELDMENT 12K ROLLER GUIDE	1
	3-120-010294	BRACKET WELDMENT 20K ROLLER GUIDE	1
	3-120-010478	BRACKET WELDMENT 30K ROLLER GUIDE	1
5	3-565-010770	PLATE, CABLE GUIDE LOCK	2
6	1-654-010051-03	SCREW, HEX HEAD CAP 3/8-16 X 3/4 GR5	2
7	1-861-010034-11	WASHER, SPLIT LOCK 3/8	2
8	3-557-010383	PIN, CABLE GUIDE ROLLER	2
9	1-298-010001-1	FITTING, GREASE 1/4-28	2
10	3-645-010049	ROLLER, WINCH CABLE GUIDE	2

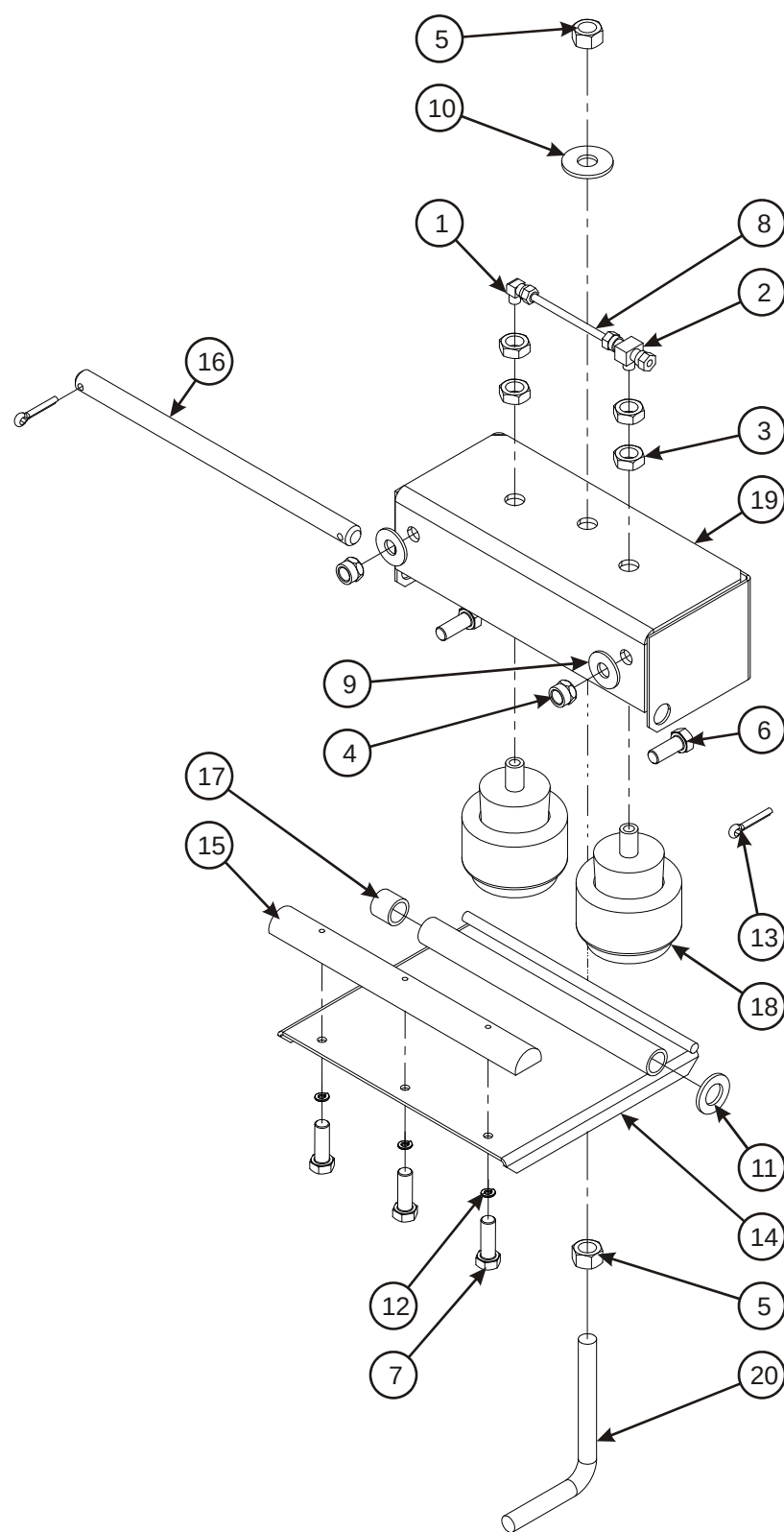


3m793-010041

Figure 2-61: Tie Down Installation (Option)

TIE DOWN INSTALLATION (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	3-793-010041	TIE DOWN INSTALLATION WINCH D-RING	
1	3-793-010040	TIE DOWN, WINCH	1
2	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	6
3	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	6



3m873-010172

Figure 2-62: Winch, Cable Air Tension

WINCH, CABLE AIR TENSION

ITEM	PART NO.	DESCRIPTION	QTY.
	3-873-010172	WINCH CABLE AIR TENSION 30K	
1	1-297-010008-05	FITTING, AIR 90	1
2	1-297-010015-02	FITTING, AIR TEE	1
3	1-511-010001-07	NUT, HEX JAM 5/8-11	4
4	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	2
5	1-512-010007-11	NUT, HEX 5/8-11 GRB	2
6	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	2
7	1-654-010047-04	SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5	3
8	1-833-010001	TUBING, NYLON 1/4OD	1
9	1-861-010032-15	WASHER, FLAT 1/2W	2
10	1-861-010032-19	WASHER, FLAT 5/8W	1
11	1-861-010032-20	WASHER, FLAT 3/4N	1
12	1-861-010034-09	WASHER, SPLIT LOCK 1/4	3
13	119084	PIN, COTTER 1/4 X 1-1/2	2
14	132103	ARM WELDMENT, LEVEL WIND	1
15	132104	RUB BAR	1
16	133938	PIVOT PIN	1
17	133941	SPACER	1
18	137028	AIR SPRING 30K WINCH TENSION	2
19	160094	MOUNTING BRACKET, LEVEL WIND	1
20	161573	ADJUSTMENT BOLT LEVEL WIND	1

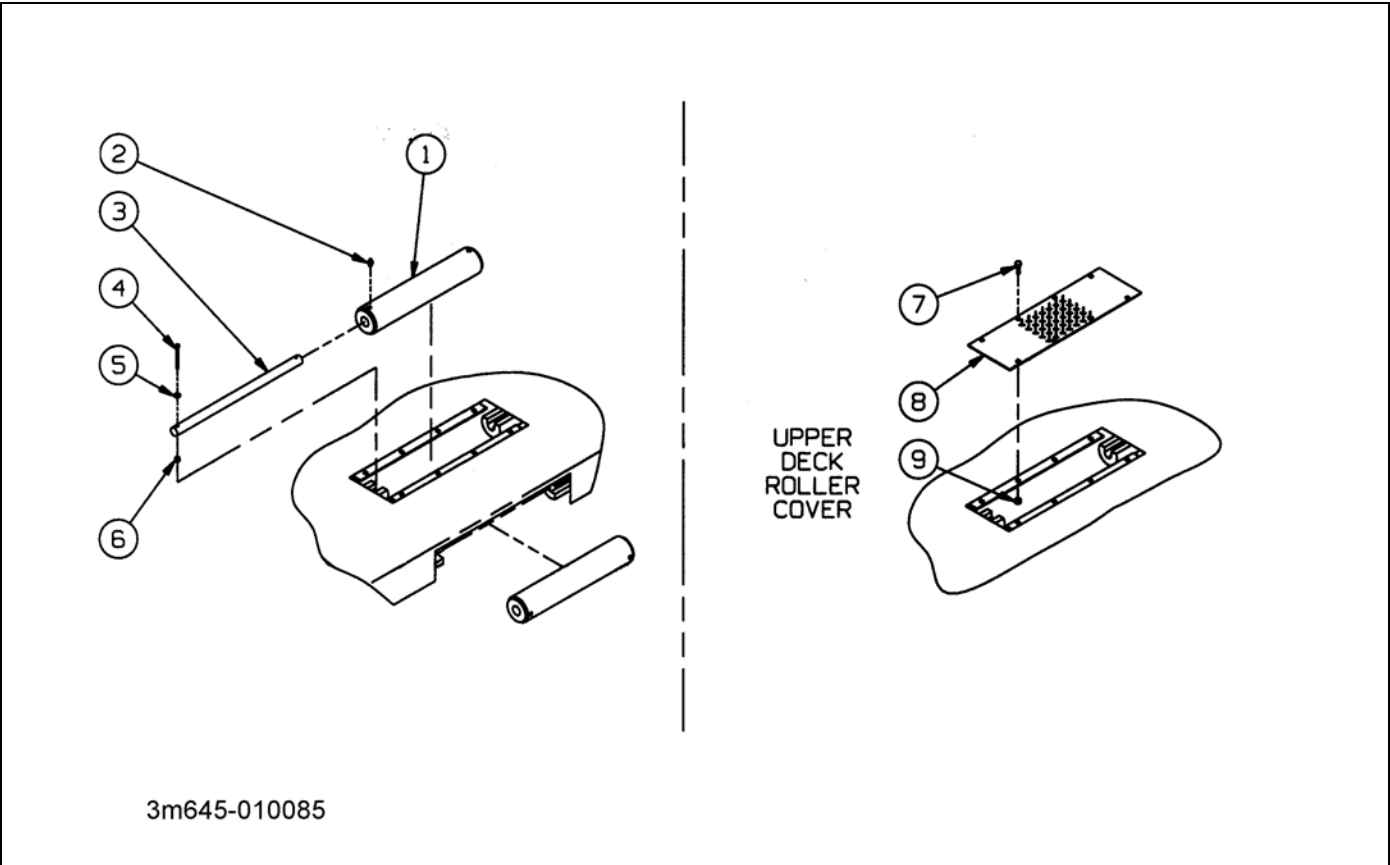


Figure 2-63: Slope Roller 90° Drop Deck (Option)

SLOPE ROLLER 90° DROP DECK (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	3-645-010085	ROLLER ASSEMBLY SLOPE	1
	106207	ROLLER, SLOPE SINGLE CORNER	1
1	3-645-010059	ROLLER WELDMENT CABLE - UPPER DECK	*2,1
2	1-298-010001-1	ZERK FITTING 1/4	*4,2
3	3-642-010134	ROD, ROLLER	*2,1
4	1-654-010055-11	SCREW, HEX HEAD CAP 1/2-13 X 3-1/2 GR5	*4,2
5	1-861-010032-15	WASHER, FLAT 1/2	*4,2
6	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	*4,2

* 1ST QUANTITY SHOWN IS FOR P/N 3-645-010085; 2ND QUANTITY SHOWN IS FOR P/N 106207.

COVER PLATE INSTALLATION - UPPER DECK ROLLER (OPTIONAL)

	3-222-010199	COVER PLATE INSTALLATION - UPPER DECK ROLLER	
7	1-654-010070-02	SCREW, RD HEAD SQ NECK 1/2-13 X 1-1/4	8
8	3-222-010198	COVER, UPPER DECK ROLLER	1
9	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8

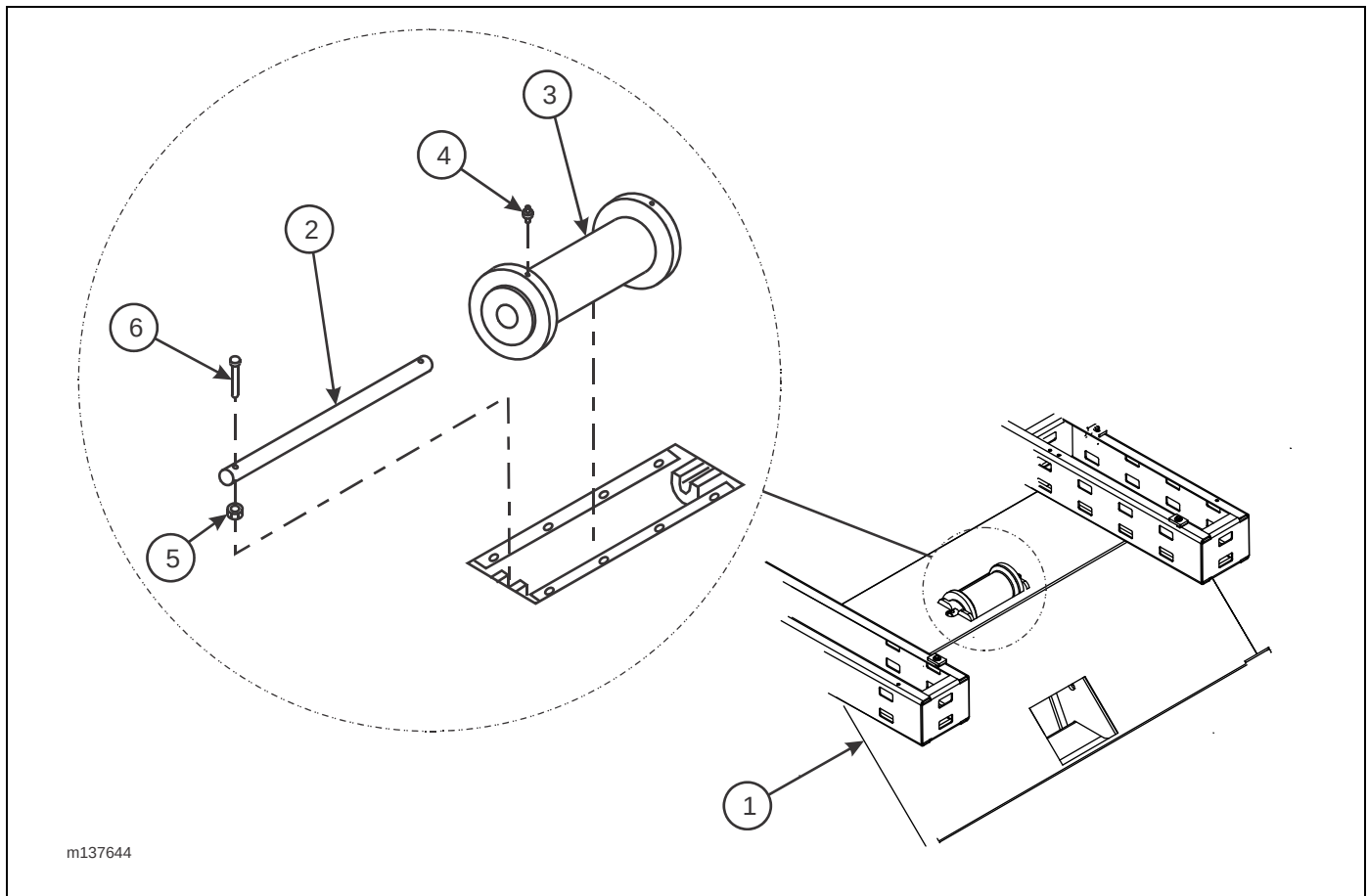


Figure 2-64: Dual Roller Assembly (Option)

DUAL ROLLER ASSEMBLY (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	137644	GUIDE INSTALLATION, WINCH CABLE, SLOPE ROLLER	
1	----	FRAME WELDMENT	REF
2	134104	ROD, ROLLER MOUNT	2
3	134105	ROLLER, CABLE SLOPE	2
4	1-298-010001-1	FITTING, GREASE 1/4-28 STR SHORT	4
5	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	4
6	1-654-010055-09	SCREW, HEX HEAD CAP 1/2-13 X 3 GR5	4

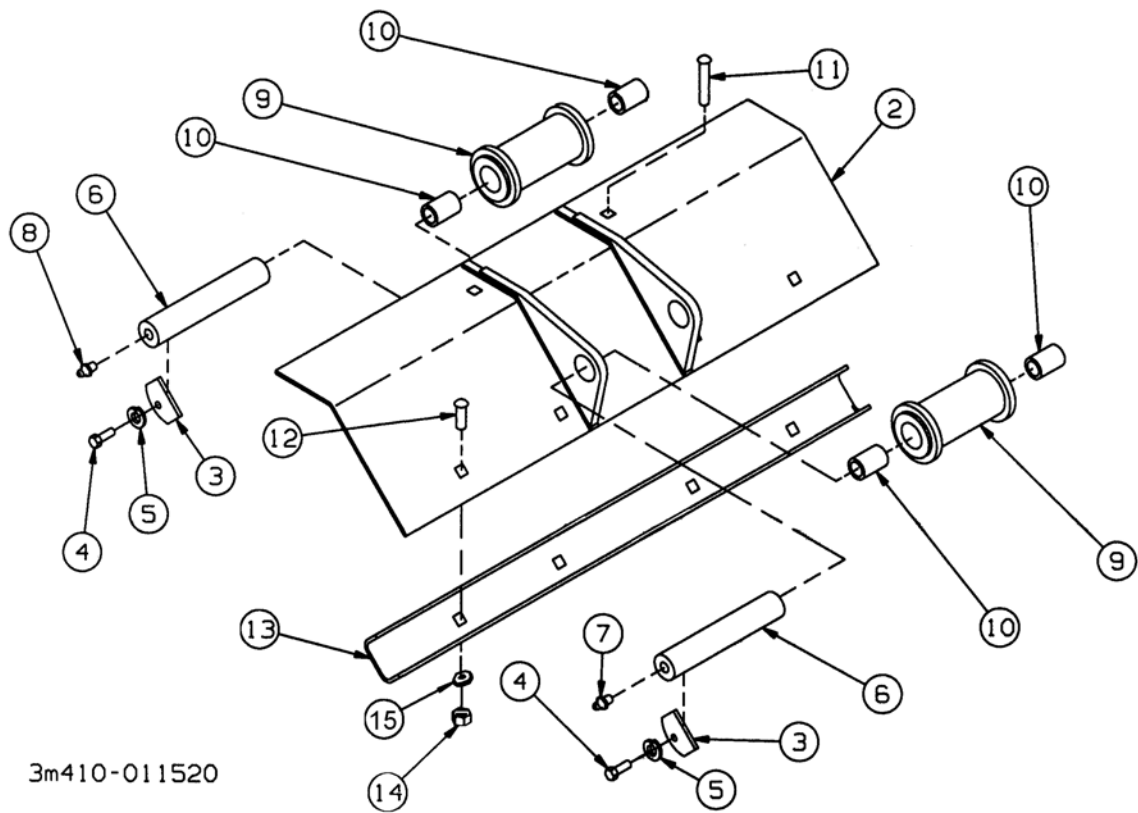


Figure 2-65: Slope Roller 45° (Option)

SLOPE ROLLER 45° (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	3-352-010027	GUIDE INSTALLATION, WINCH CABLE, SLOPE ROLLER	
1	3-352-010026	GUIDE ASSEMBLY, WN CABLE, SLOPE ROLLER (INCL ITEMS 2-9)	1
2	3-482-010326	MOUNT WELDMENT, SLOPE ROLLER	1
3	3-565-010770	PLATE, CABLE GUIDE LOCK	2
4	1-654-010051-03	SCREW, HEX HEAD CAP 3/8-16 X 3/4 GR5	2
5	1-861-010034-11	WASHER, SPLIT LOCK 3/8-16	2
6	3-557-010383	PIN, CABLE GUIDE ROLLER	2
7	1-298-010001-1	FITTING, GREASE 1/4-28	1
8	5410	FITTING, GREASE 1/4-28 90	1
9	3-873-010040	CABLE ROLLER ASSEMBLY (INCL ITEM 10)	2
10	AA-1703-10	SLEEVE, BEARING 1-7/16 X 1-3/4	4
11	1-654-010070-13	SCREW, RD HEAD SQ NECK 1/2-13 X 4 GR5	2
12	1-654-010070-07	SCREW, RD HEAD SQ NECK 1/2-13 X 2-1/2 GR5	4
13	3-177-010191	CHANNEL CLAMPING SLOPE ROLLER	1
14	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	6
15	1-861-010032-15	WASHER, FLAT 1/2W	6

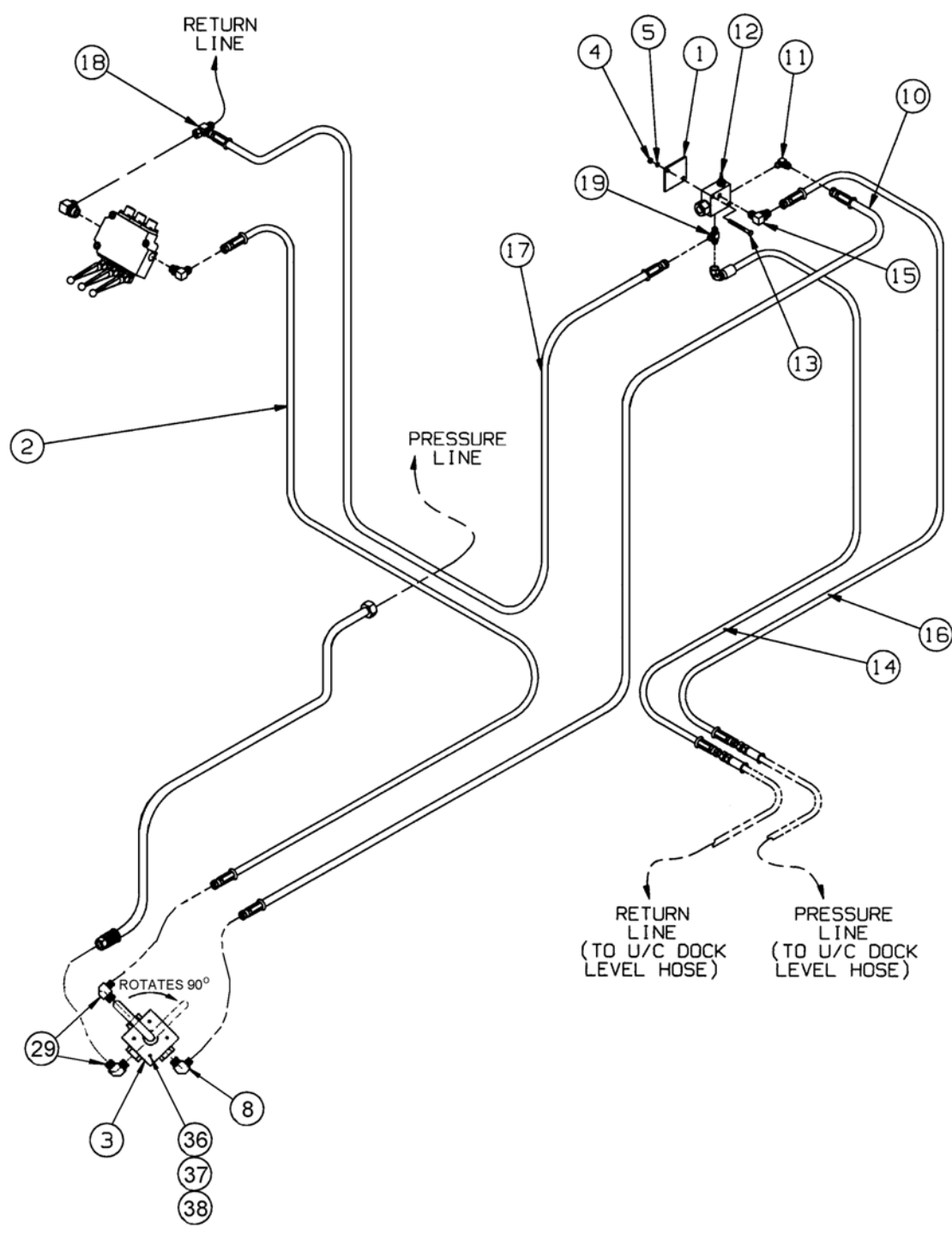
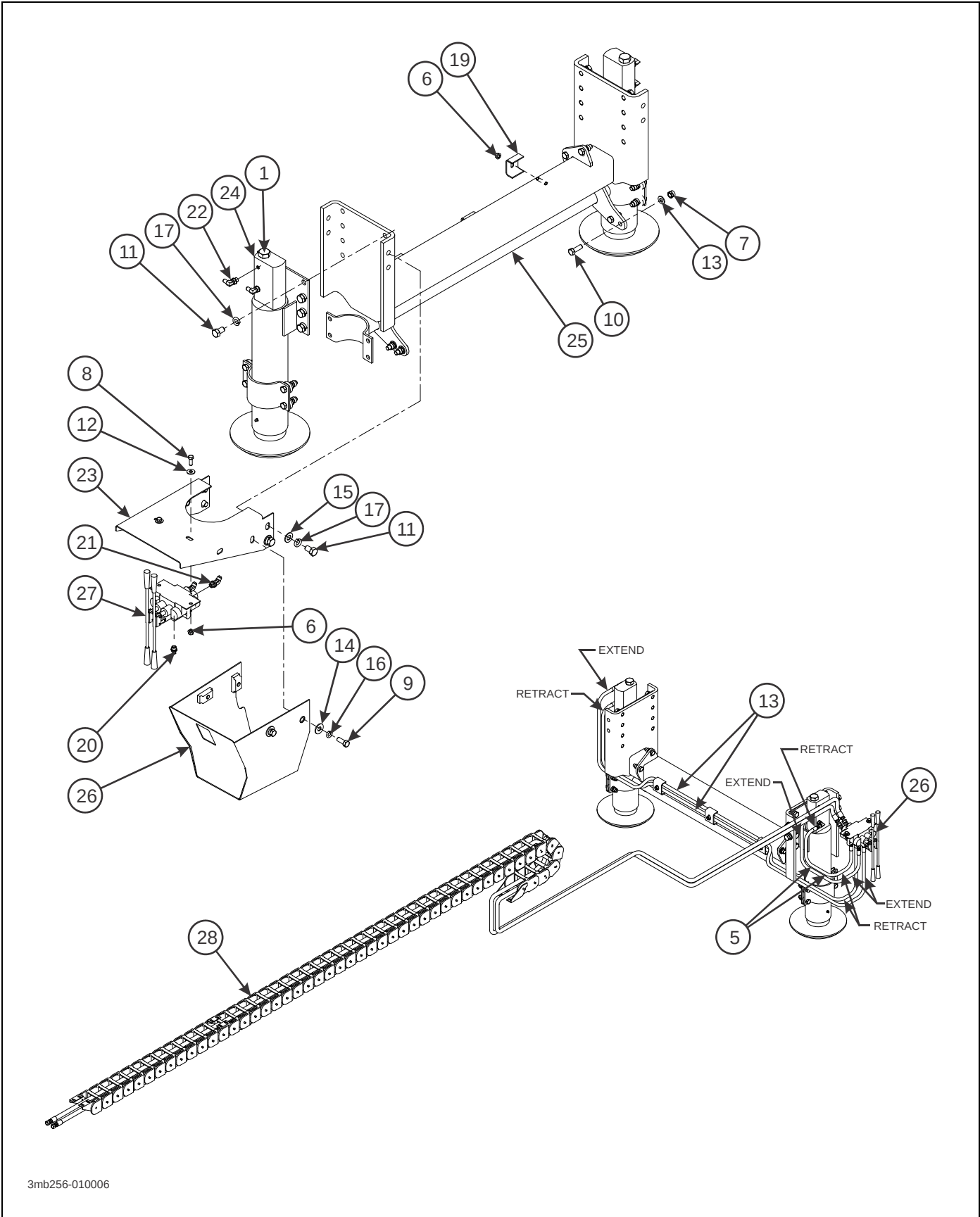


Figure 2-66: Dock Leveler Hydraulic Installation (Option)

DOCK LEVELER HYDRAULIC INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY.
	3-407-010066	DOCK LEVEL HYDRAULIC INSTALLATION	REF
1	3-482-010267	MOUNT FLOW REGULATOR	1
2	1-397-010304029	HOSE ASSEMBLY 3/4 X 29	1
3	111696	VALVE, HYDRAULIC SELECTOR 3-WAY	1
4	1-512-010005-03	NUT, HEX LOCK 5/16-18 GRB	4
5	1-861-010032-09	WASHER, FLAT 5/16	4
8	2062-12-8S	ADAPTER, 90	1
9	0018127	FITTING, BULKHEAD UNION	2
10	1-397-010301028	HOSE ASSEMBLY 1/2 X 28	1
11	2062-8-8S	ADAPTER, 90	1
12	1-626-010002	REGULATOR, FLOW 1/2 BYPASS ONLY	1
13	1-654-010049-11	SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5	2
14	1-397-010309174	HOSE ASSEMBLY 3/8 X 174 (317D-45)	1
	1-397-010309210	HOSE ASSEMBLY 3/8 X 210 (317D-48)	1
	1-397-010309246	HOSE ASSEMBLY 3/8 X 246 (317D-50)	1
	1-397-010309282	HOSE ASSEMBLY 3/8 X 282 (317D-53)	1
	1-397-010309260	HOSE ASSEMBLY 3/8 X 260 (318D-48)	1
	104328	HOSE ASSEMBLY 3/8 X 276 (318D-50)	1
	104329	HOSE ASSEMBLY 3/8 X 312 (318D-53)	1
15	2062-8-6S	ELBOW, 90	1
16	1-397-010307174	HOSE ASSEMBLY 3/8 X 174 (317D-45)	1
	1-397-010307210	HOSE ASSEMBLY 3/8 X 210 (317D-48)	1
	1-397-010307246	HOSE ASSEMBLY 3/8 X 246 (317D-50)	1
	1-397-010307282	HOSE ASSEMBLY 3/8 X 282 (317D-53)	1
	104330	HOSE ASSEMBLY 3/8 X 258 (318D-48)	1
	104331	HOSE ASSEMBLY 3/8 X 276 (318D-50)	1
	104332	HOSE ASSEMBLY 3/8 X 312 (318D-53)	1
17	1-397-010306028	HOSE ASSEMBLY 1/2 X 28 (317D, 318D-48, 318D-50)	1
	1-397-010306032	HOSE ASSEMBLY 1/2 X 32 (318D-53)	1
18	203102-12-12S	ADAPTER TEE	1
19	203005-8-8S	ADAPTER TEE	1
26	3-181-010006	HOSE CLAMP (NOT SHOWN)	A/R
28	3-573-010202	DECAL, WARNING (NOT SHOWN)(SEE PAGE 2-6)	1
29	2062-12-12S	ADAPTER, 90	1
36	111024	SCREW, BUTTON HEAD CAP M6 X 14mm	4
37	1-861-010032-07	WASHER, FLAT 1/4	4
38	1-861-010034-09	WASHER, SPLIT LOCK 1/4	4
39	1-397-010304048	HOSE ASSEMBLY 3/4 X 48	1
40	129548	DECAL, SELECTOR DOCK LEVEL (NOT SHOWN) (SEE PAGE 2-6)	1
41	2-181-010001	HOSE CLAMP (NOT SHOWN)	AR



3mb256-010006

Figure 2-67: Dock Leveler Assembly, 60K (Option) (317D)

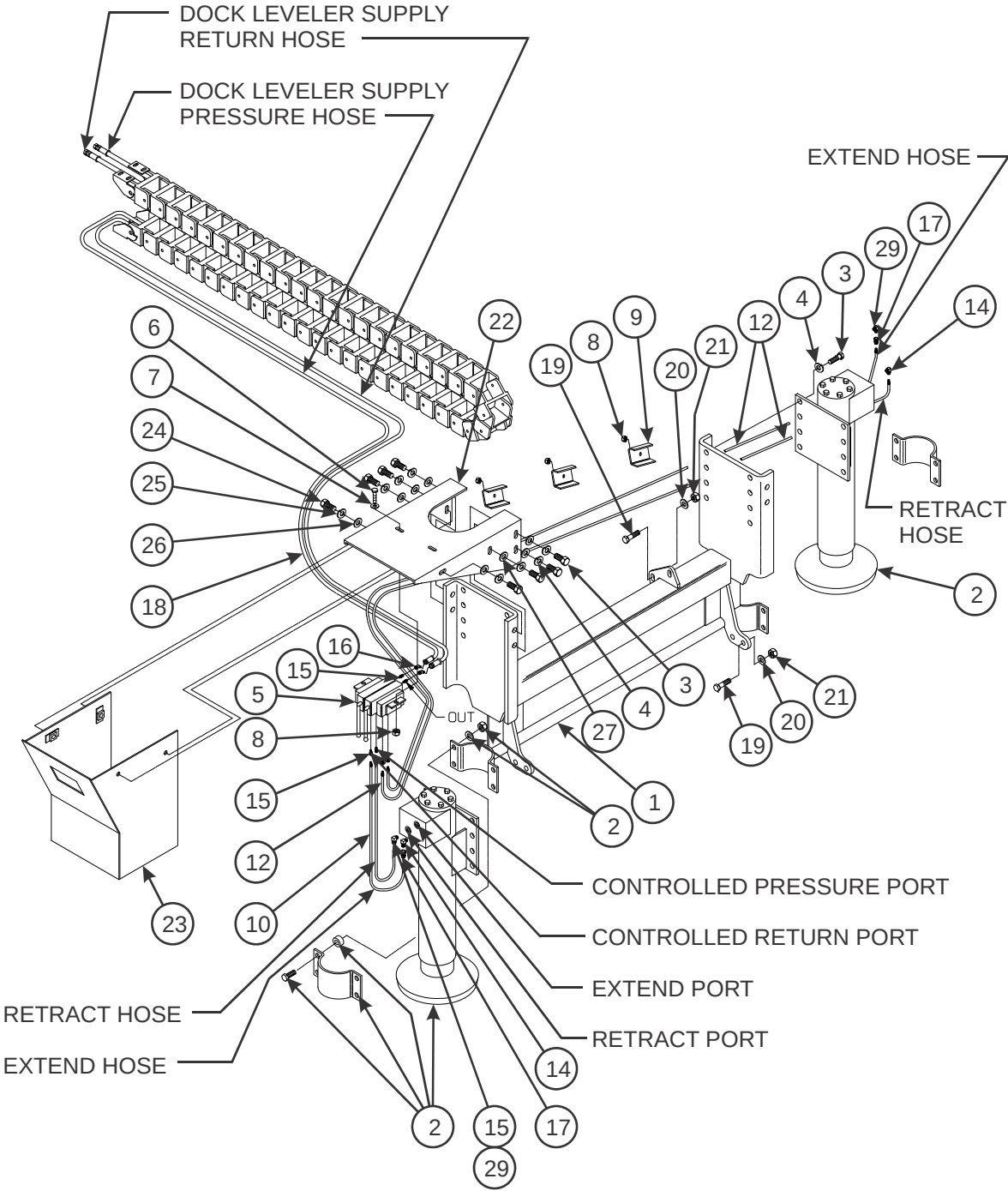
DOCK LEVELER ASSEMBLY, SINGLE 60K

ITEM	PART NO.	DESCRIPTION	QTY.
	3-256-010006-02	DOCK LEVEL HYDRAULIC INSTALLATION	
1	1-007-010058	ADAPTER, HYD	2
2	1-394-010002	HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN)	AR
3	1-397-010262-4	HOSE ASSEMBLY 1/4 X 18	2
4	1-397-010262084	HOSE ASSEMBLY 1/4 X 88	2
5	1-397-010307216	HOSE ASSEMBLY 3/8 X 216	2
6	1-510-010001	NUT, FLANGE LOCK 3/8-16	5
7	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8
8	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	2
9	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	4
10	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	8
11	1-654-010059-01	SCREW, HEX HEAD CAP 5/8-11 X 1 GR5	24
12	1-861-010032-11	WASHER, FLAT 3/8	2
13	1-861-010032-14	WASHER, FLAT 1/2N	8
14	1-861-010032-15	WASHER, FLAT 1/2W	4
15	1-861-010032-18	WASHER, FLAT 5/8N	4
16	1-861-010034-13	WASHER, SPLIT LOCK 1/2	4
17	1-861-010034-15	WASHER, SPLIT LOCK 5/8	24
18	138155	ADAPTER, 90 (NOT SHOWN) (USE W/ ITEM 20)	4
19	2-181-010001	HOSE CLAMP	3
20	202702-6-4S	ADAPTER, STR	6
21	2061-6-6S	ADAPTER, 45	REF
22	2062-6-4S	ADAPTER, 90	2
23	3-120-010351	BRACKET, BOLT ON DOCK LEVEL	1
24	3-242-010205	CYLINDER, HYD D/L 4 X 15 (SEE PAGE 2-128)	2
	100348	CLAMP FOR CYLINDER	2
25	3-482-010352	MOUNT WELDMENT, DOCK LEVEL HD 345	1
26	3-681-010098	SHIELD, D/L VALVE R22.5	1
27	3-846-010056	VALVE, DOUBLE SPOOL (SEE PAGE 2-131)	1



DOCK LEVELER ASSEMBLY, 60K (OPTION) (317D)

ITEM	PART NO.	DESCRIPTION	QTY.
	148813	DOCK LEVEL HYDRAULIC INSTALLATION (SOLENOID)	
1	102-0031	ADAPTER, 90	2
2	1-007-010058	ADAPTER, HYD W/ RESTRICTOR	2
3	1-394-010002	HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN)	1
4	1-397-010262-4	HOSE ASSEMBLY 1/4 X 18	2
5	1-397-010262084	HOSE ASSEMBLY 1/4 X 88	2
6	1-397-010307216	HOSE ASSEMBLY 3/8 X 216	2
7	1-510-010001	NUT, FLANGE LOCK 3/8-16	6
8	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8
9	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	2
10	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	4
11	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	8
12	1-654-010059-01	SCREW, HEX HEAD CAP 5/8-11 X 1 GR5	20
13	1-861-010032-11	WASHER, FLAT 3/8	2
14	1-861-010032-14	WASHER, FLAT 1/2N	8
15	1-861-010032-15	WASHER, FLAT 1/2W	4
16	1-861-010032-18	WASHER, FLAT 5/8N	4
17	1-861-010034-13	WASHER, SPLIT LOCK 1/2	4
18	1-861-010034-15	WASHER, SPLIT LOCK 5/8	20
19	1-879-010010	WIRE, WHITE 14AWG (NOT SHOWN)	AR
20	107320	VALVE, 2 SPOOL SOLENOID (SEE PAGE 2-133)	1
21	107383	SHIELD WELDMENT, D/L VALVE	1
22	107388	HANDLE WELDMENT, D/L VALVE	2
23	107409	BRACKET WELDMENT, D/L VALVE	1
24	138155	ADAPTER, 90	4
25	2-181-010001	HOSE CLAMP	4
26	202702-6-4S	ADAPTER, STR	6
27	2062-6-4S	ADAPTER, 90	2
28	239-3646-7	TERMINAL RING (NOT SHOWN)	6
29	239-9008-3	CONDUIT, PLASTIC 1/2 (NOT SHOWN)	5
30	3-156-010043	CABLE (NOT SHOWN)	AR
31	3-242-010205	CYLINDER, HYD D/L 4 X 15 (SEE PAGE 2-128)	2
32	3-272-010021	ELECT BUTT SPLICE (NOT SHOWN)	4
33	3-360-010072	HANDLE, PLASTIC	2
34	3-482-010352	MOUNT WELDMENT, DOCK LEVEL HD	1
36	3/8-16X4-1/2HCS	SCREW, HEX HEAD CAP 3/8-16 X 4-1/2 GR5 (NOT SHOWN)	1
37	202702-6-6S	ADAPTER, STR (NOT SHOWN)	2
38	239-3650-1	TERMINAL, FEMALE SLIP ON 14 AWG (NOT SHOWN)	4



3m256-010003

Figure 2-69: Dock Leveler Assembly, 60K (Option) (318D)

DOCK LEVELER ASSEMBLY, 60K (OPTION) (318D)

ITEM	PART NO.	DESCRIPTION	QTY.
	3-256-010003-02	DOCK LEVEL ASSEMBLY HD	
1	3-482-010472	MOUNT WELDMENT, DOCK LEVEL 60K	1
2	3-242-010205	CYL, HYD 4X15 (W/ COLLAR) (SEE PAGE 2-128)	2
3	1-654-010059-01	SCREW, HEX HEAD CAP 5/8-11 X 1 GR5	24
4	1-861-010034-15	WASHER, SPLIT LOCK 5/8	24
5	3-846-010056	VALVE, DOUBLE SPOOL (SEE PAGE 2-131)	1
6	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	2
7	1-861-010032-11	WASHER, FLAT 3/8	2
8	1-510-010001	NUT, FLANGE LOCK 3/8-16 GRB	5
9	2-181-010001	CLAMP, HOSE	3
10	1-397-010262-4	HOSE ASSEMBLY	2
12	1-397-010262-3	HOSE ASSEMBLY	2
14	2062-6-4S	ADAPTER, 90	4
15	202702-6-4S	ADAPTER, STR #6	6
16	1-007-010041-1	ADAPTER, HYDR 45°	2
17	1-007-010058	ADAPTER, 90	2
18	1-397-010262-5	HOSE ASSEMBLY	2
	1-397-010262252	HOSE ASSEMBLY	-
19	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	8
20	1-861-010032-14	WASHER, FLAT 1/2N	8
21	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8
22	3-120-010351	BRACKET, BOLT ON DOCK LEVEL	1
23	3-681-010098	SHIELD, D/L VALVE R22.5	1
24	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	4
25	1-861-010034-13	WASHER, SPLIT LOCK 1/2	4
26	1-861-010032-15	WASHER, FLAT 1/2	4
27	1-861-010032-18	WASHER, FLAT 5/8	4
29	138155	ADAPTER, 90	2
30	1-394-010002	HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN)	AR

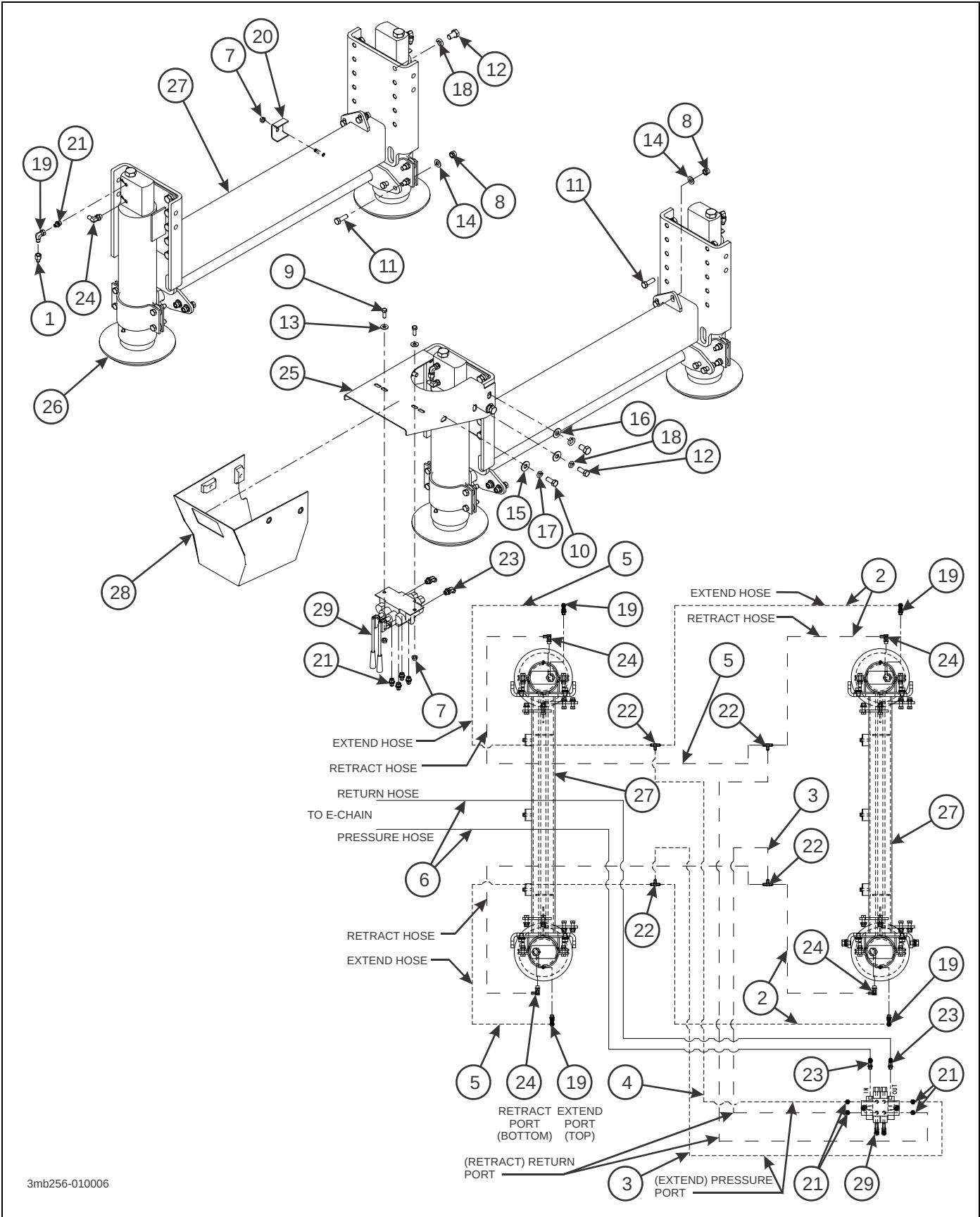
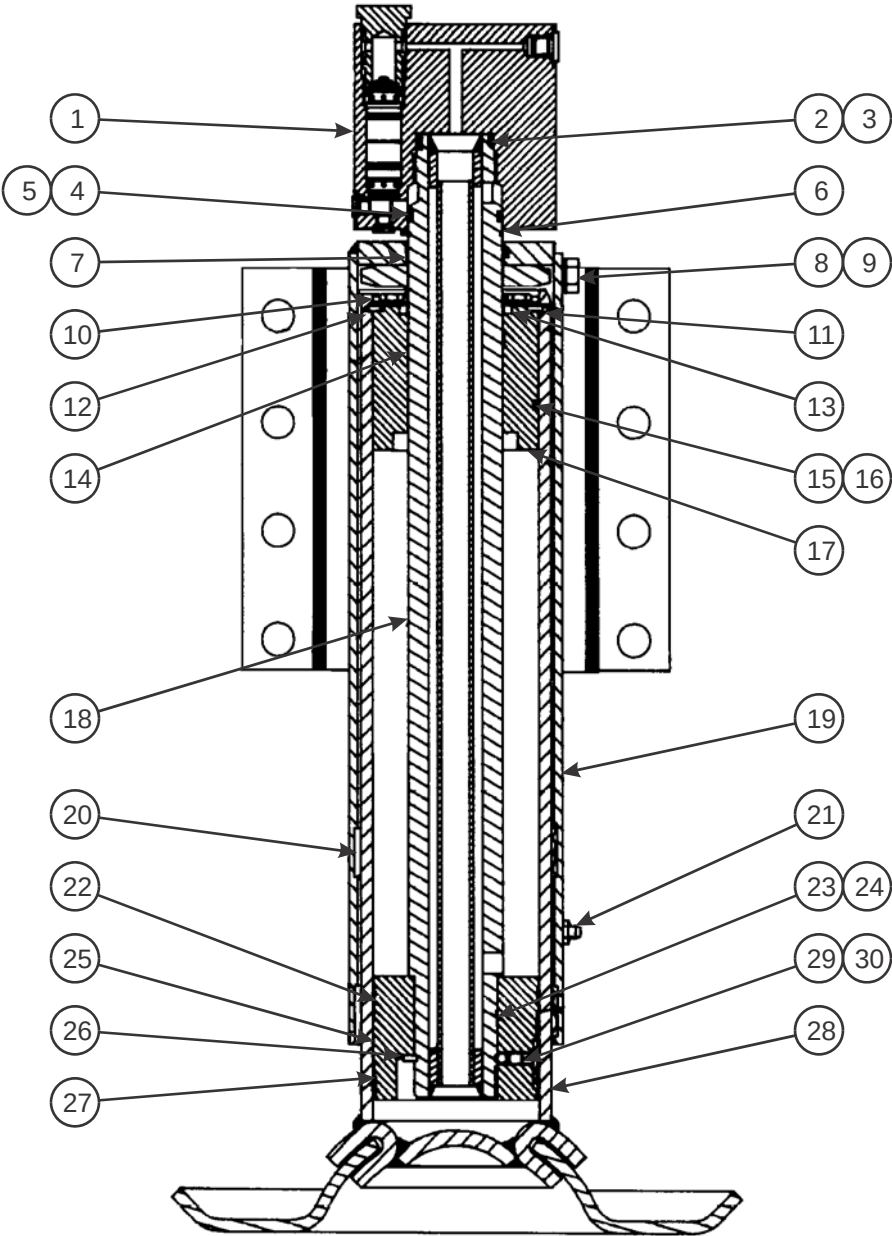


Figure 2-70: Dock Leveler Assembly, 120K

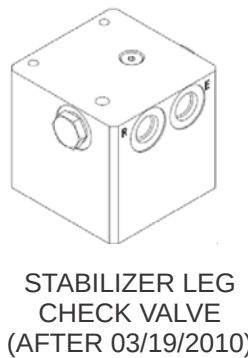
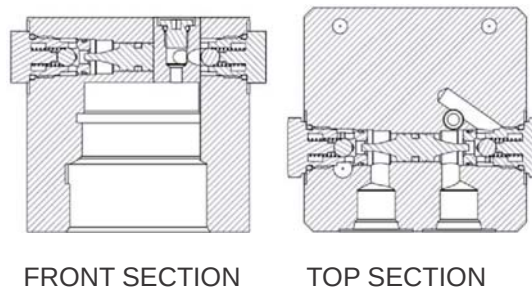
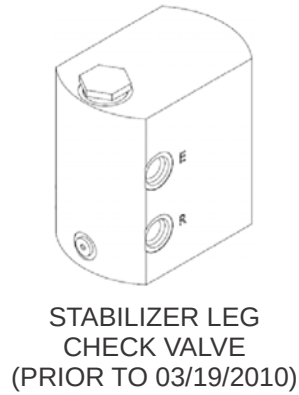
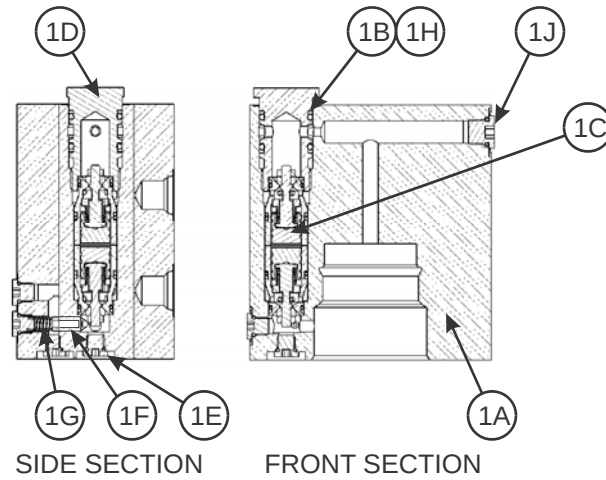
DOCK LEVELER ASSEMBLY, 120K (OPTION) (318D)

ITEM	PART NO.	DESCRIPTION	QTY.
	104433	DOCK LEVEL ASSEMBLY DBL 60K	
1	1-007-010058	ADAPTER, HYDRAULIC - RESTR.	4
2	1-397-010262028	HOSE ASSEMBLY 1/4 X 28	4
3	1-397-010262036	HOSE ASSEMBLY 1/4 X 36	2
4	1-397-010262048	HOSE ASSEMBLY 1/4 X 48	2
5	1-397-010262086	HOSE ASSEMBLY 1/4 X 86	4
6	1-397-010307216	HOSE ASSEMBLY 3/8 X 216	2
7	1-510-010001	NUT, FLANGE LOCK 3/8-16 GRB	8
8	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	16
9	1-654-010051-05	SCREW, HEX HEAD CAP 3/8-16 X 1 GR5	2
10	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	4
11	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	16
12	1-654-010059-01	SCREW, HEX HEAD CAP 5/8-11 X 1 GR5	44
13	1-861-010032-11	WASHER, FLAT 3/8W	2
14	1-861-010032-14	WASHER, FLAT 1/2N	16
15	1-861-010032-15	WASHER, FLAT 1/2W	4
16	1-861-010032-18	WASHER, FLAT 5/8W	4
17	1-861-010034-13	WASHER, SPLIT LOCK 1/2	4
18	1-861-010034-15	WASHER, FLAT 5/8	44
19	138155	ADAPTER, 90	4
20	2-181-010001	HOSE CLAMP	6
21	202702-6-4S	ADAPTER, STR	4
22	2033-4-4S	ADAPTER TEE	4
23	2061-6-6S	ADAPTER, 45	2
24	2062-6-4S	ADAPTER, 90	8
25	3-120-010351	BRACKET, BOLT-ON	1
26	3-242-010205	CYLINDER, HYDRAULIC 4 X 15 (SEE PAGE 2-128)	4
27	3-482-010472	MOUNT WELDMENT DOCK LEVELER	2
28	3-681-010098	SHIELD, D/L VALVE	1
29	3-846-010056	VALVE, DOUBLE SPOOL (SEE PAGE 2-131)	1



dock leg op p1

Figure 2-71: Dock Leveler Leg Assembly w/ Lock Valve (1 of 2)



dock leg op p2

Figure 2-72: Dock Leveler Leg Assembly w/ Lock Valve (2 of 2)

LEG ITEMS, DOCK LEVELER W/ LOCK VALVE

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	3-242-010205		COMPLETE ASSEMBLY LEG CYL (60,000# CAP. 4.00" BORE)	
1	165769		VALVE SERVICE KIT (AFTER 03/19/2010)	1
	165768		VALVE RETROFIT KIT (AFTER 03/19/2010)	1
	300092	300092	VALVE SERVICE KIT (PRIOR TO 03/19/2010) (INCL. ITEMS 1A - 1I)	1
1A	----	300093	4:1 LOCK VALVE BODY	1
1B	----	01-1006	O-RING	2
1C	----	300427	PILOT OPERATED CHECK VALVE	2
1D	----	300022	RETAINING PLUG	1
1E	----	07-1061	HEX PLUG HOLLOW #02 SAE	5
1F	----	300003	POPPET	1
1G	----	31-1016	SPRING	1
1H	----	05-1009	BACK-UP WASHER	2
1J	----	07-1201	HEX PLUG HOLLOW #04 SAE	1
2	----	NSS*,**	O-RING	1
3	----	NSS*,**	BACK-UP WASHER	2
4	----	NSS*,**	O-RING	1
5	----	NSS*,**	BACK-UP WASHER	1
6	----	NSS**	SNAP RING 2" ROD	1
7	----	NSS**	O-RING	1
8	----	15-1021	SCREW HEX HEAD CAP	1
9	----	16-1002	LOCK WASHER	1
10	----	15-1012	SCREW HEX HEAD CAP	4
11	100279		CYLINDER HEAD RETAINER	1
12	----	NSS**	RETAINING RING	1
13	----	NSS**	OIL SEAL	1
14	----	NSS**	ROD SEAL	1
15	----	NSS**	O-RING	1
16	----	NSS**	BACK-UP WASHER	1
17	100276		CYLINDER HEAD	1
18	----	***	PISTON ROD	1
19	----	***	WELL TUBE	1
20	----	NSS**	WEAR RING	2
21	----	10-1001	GREASE FITTING	1
22	----	NSS**	PISTON SEAL	1
23	----	NSS**	O-RING	1
24	----	NSS**	BACK-UP WASHER	2
25	----	NSS**	WEAR RING	1
26	----	17-1003	SNAP RING	1
27	----	***	PISTON	1
28	----	***	CYLINDER TUBE	1
29	----	NSS**	NYLON BALL	1
30	----	NSS**	SET SCREW	1
31	100348		SPLIT COLLAR ASSEMBLY (60,000 LB.)(NOT SHOWN)	1
	100140		SPLIT COLLAR HALF (60,000 LB.)	2
	101449		LEG COLLAR MOUNTING KIT(INCL. THE FOLLOWING:)	1
	----	15-1024	SCREW, HEX HEAD CAP 1/2-20 X 2 GR5	4
	----	15-1025	NUT, HEX LOCK 1/2-20	4

LEG ITEMS, DOCK LEVELER W/ LOCK VALVE

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	-----	101129-1	SPACER, SPLIT COLLAR	4

* - THESE ITEMS ARE CONTAINED IN THE LOCK VALVE REPAIR KIT 300085 (NSS).

** - ITEMS ARE CONTAINED IN LEG REPAIR KIT 100422 (4.00" BORE) (NSS).

*** STATE MODEL NUMBER AND PART DESCRIPTION WHEN ORDERING.

NSS: NOT SOLD SEPARATELY

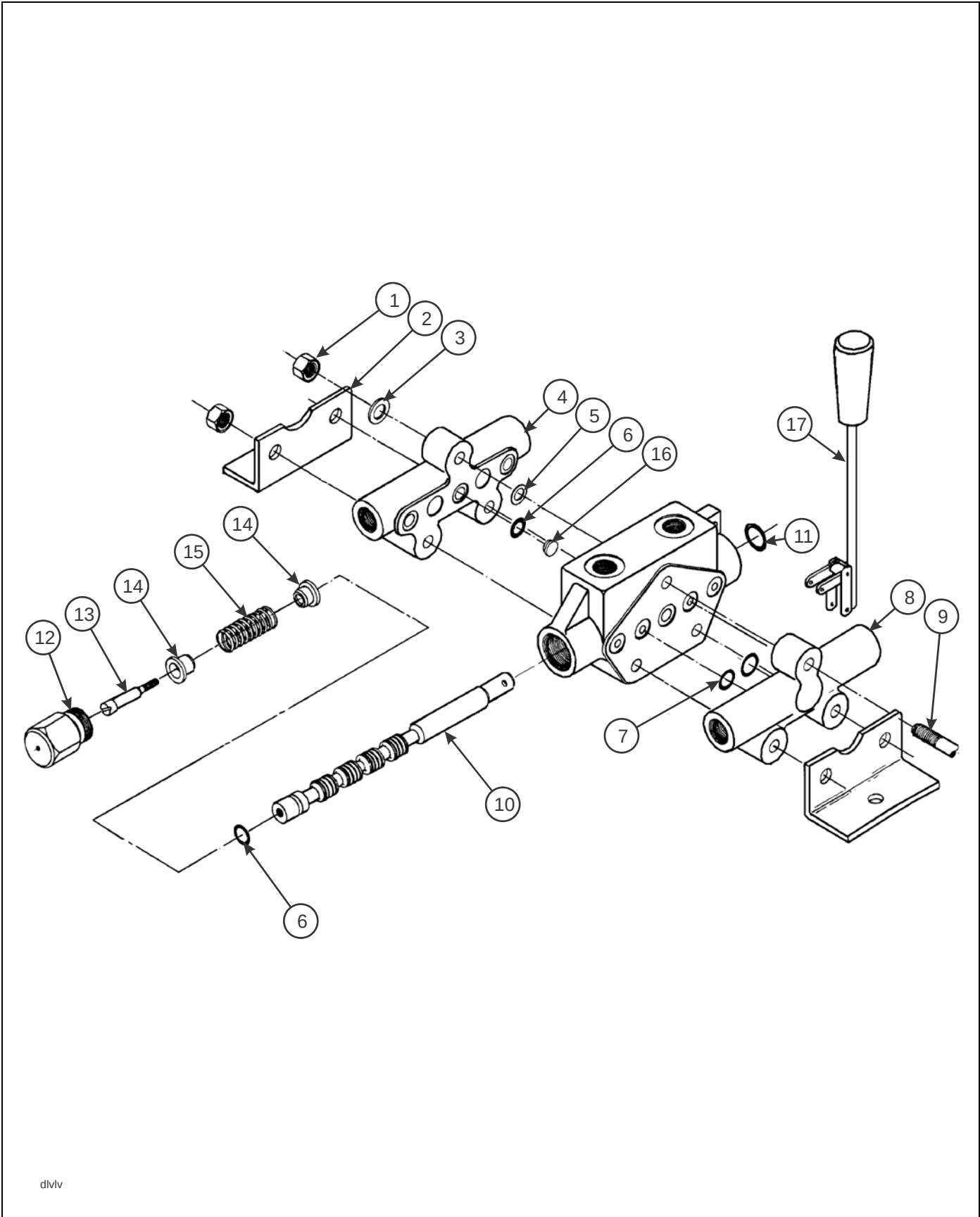
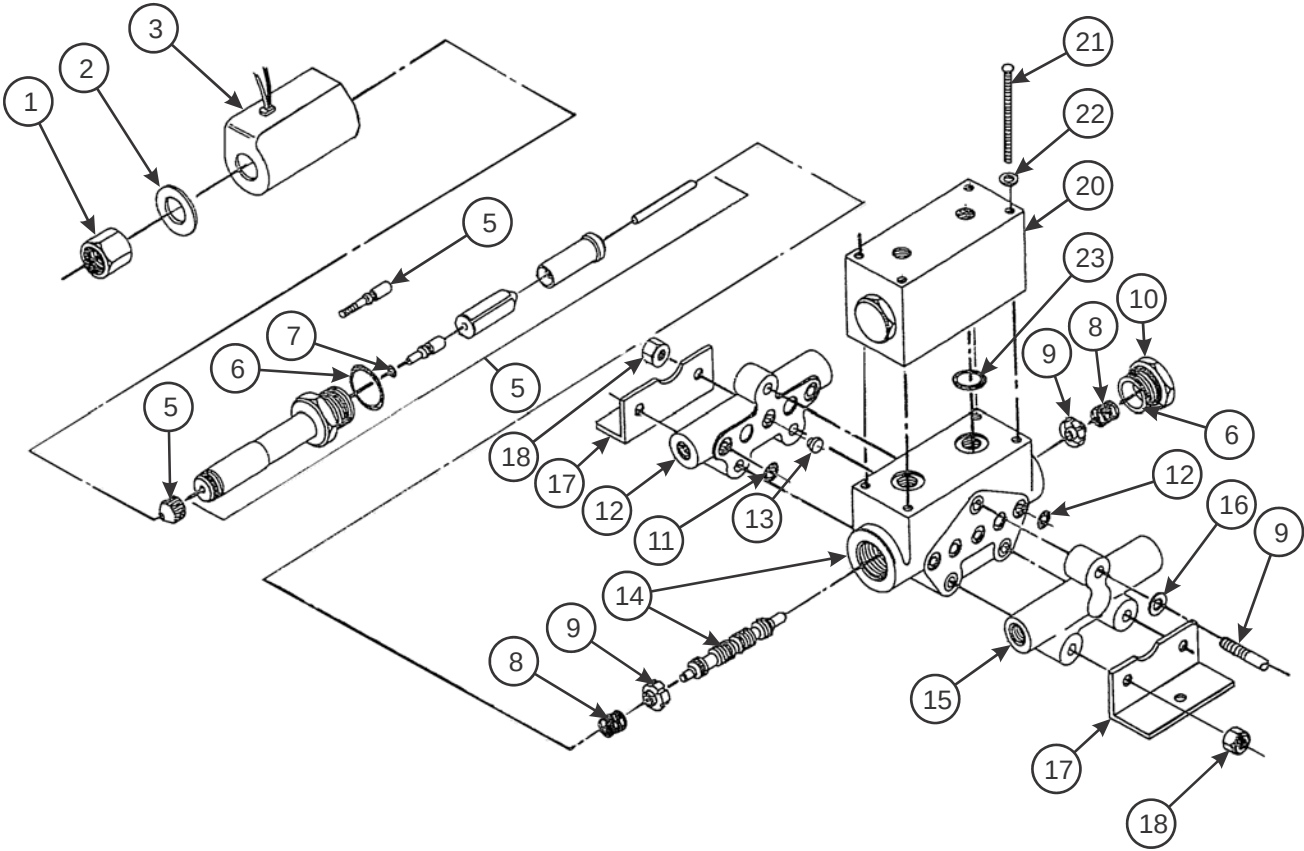


Figure 2-73: Dock Leveler Valve

DOCK LEVELER VALVE

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	3-846-010056		DOUBLE SPOOL STACK VALVE-PARALLEL	1
1	-----	1005013	NUT	3
2	-----	4014240	MOUNTING BRACKET	2
3	-----	1008008	WASHER	2
4	-----	6402000	OUTLET SECTION (INCLUDES SEALS)	1
	-----	6029521	OUTLET SEAL KIT	
5	-----	4023150	MYLAR SHIM (BETWEEN SECTIONS)	3
6	-----	0101012	O-RING	1
7	-----	0101013	O-RING	10
8	-----	6401003	INLET SECTION (INCLUDES SEALS)	1
	6009250	6009250	INLET SEAL KIT	
9	-----	4023774	TIE ROD	3
10	-----	6400000	VALVE SECTION	2
	-----	6029520	VALVE SECTION SEAL KIT (INCLUDES ITEMS 5, 6, 7, & 11)	6
11	-----	0101112	O-RING	2
12	-----	4010500	SPRING CAP	2
13	4010520	4010520	SPRING SHAFT	2
14	4010530	4010530	SPRING GUIDE	4
15	-----	-----	SPRING	2
16	-----	4011702	CLOSED CENTER PLUG	1
	6405000	6405000	HANDLE KIT	2
	-----	6404002	BANKING KIT (INCLUDES ITEMS 1, 2, 3, & 9)	2

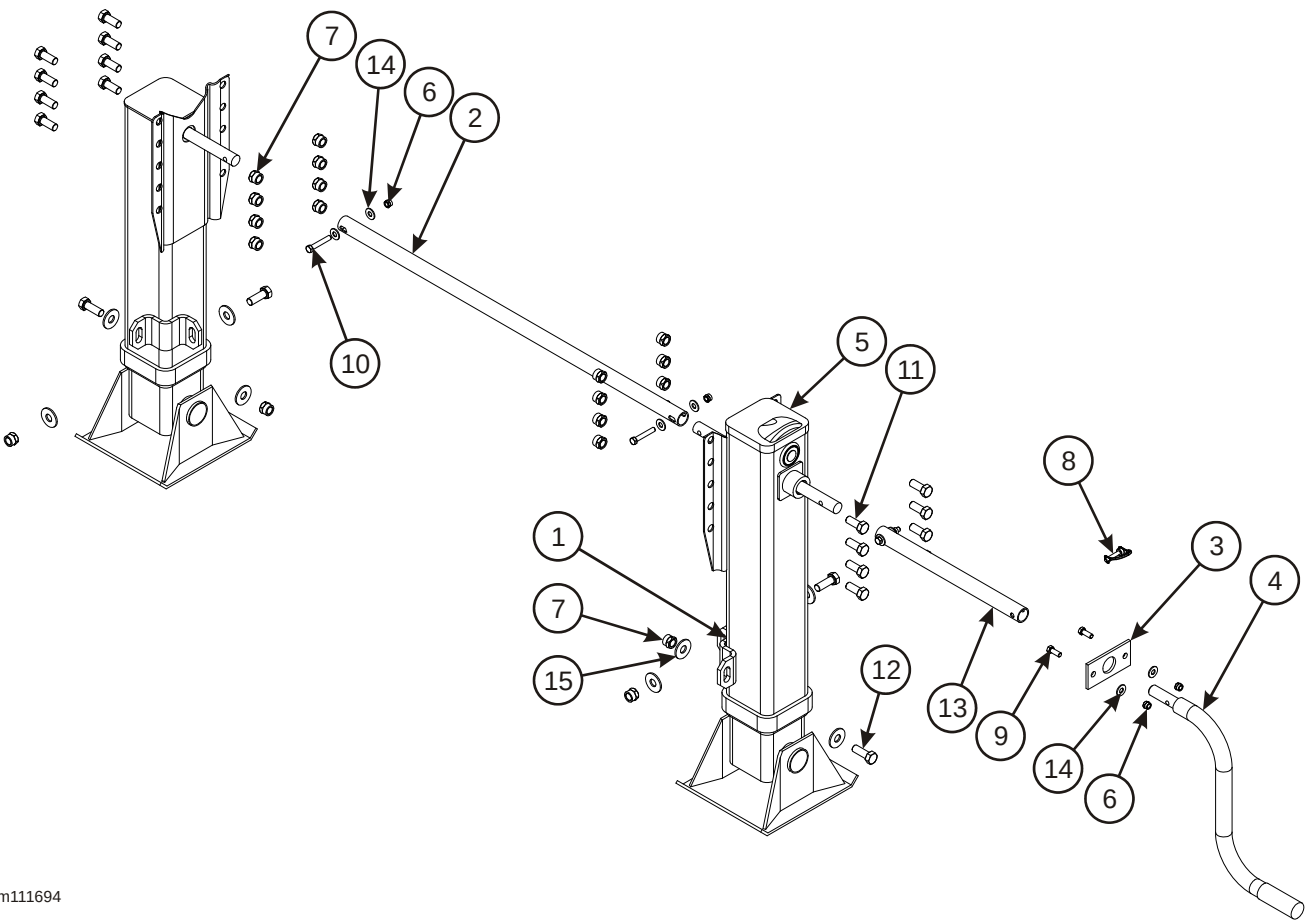


m107320

Figure 2-74: Dock Leveler Valve

DOCK LEVELER VALVE

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	107320		DOUBLE SPOOL SOLENOID VALVE	
1	----	4017370	NUT	
2	----	----	NAMEPLATE	
3	167882	C04-9-TD	SOLENOID COIL	
5	----	6013133	TUBE S/A (PALM BUTTON)	
6	----	0102912	O-RING	
7	----	0101008	O-RING	
8	----	4025350	SPRING	
9	----	6004100	SPRING RETAINER	
10	----	4017391	PLUG	
11	----	4030450	OUTLET SECTION	
12	----	0101012	O-RING	
13	----	4011700	CLOSED CENTER PLUG	
14	----	----	BODY AND SPOOL	
15	----	4030432	INLET SECTION	
16	----	1008008	WASHER	
17	----	4014240	MOUNTING BRACKET	
18	----	1005013	NUT	
19	----	4023775	TIE ROD	
20	----	----	ATTACHMENT (OPTION)	
21	----	1011317	BOLT	
22	----	1009027	WASHER	
23	----	0101117	O-RING	
	167883	6009921	BANKING KIT (INCLUDES ITEMS 6-7, 12, 16-23)	

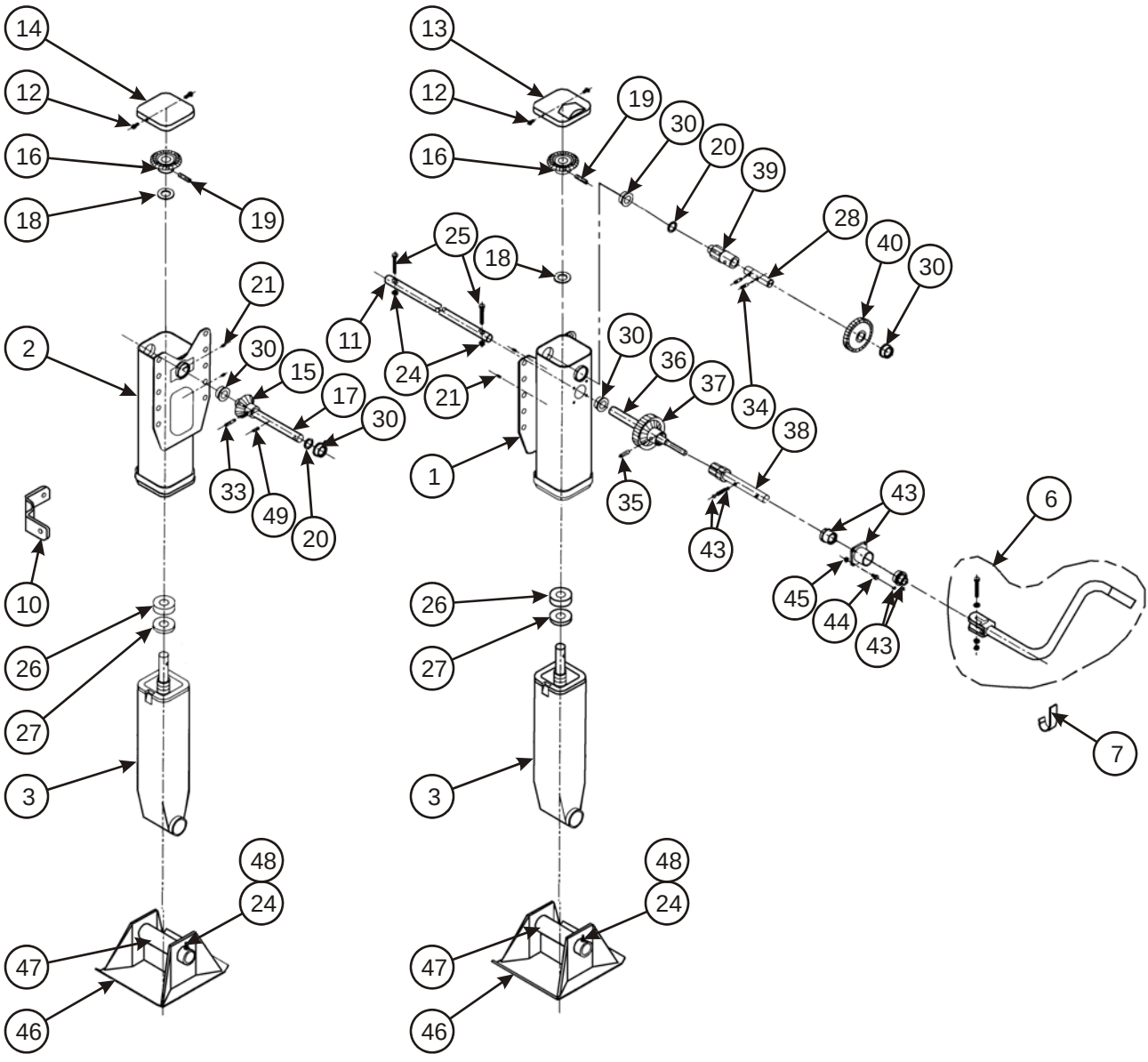


m111694

Figure 2-75: Landing Gear Installation

LANDING GEAR INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY.
	112567	LANDING GEAR INSTALLATION	
	154248	LANDING GEAR INSTALLATION 96"	
1	104238	ANCHOR, LOWER BOLT-ON PARK STAND	2
2	113878	CROSS-SHAFT LANDING GEAR	1
3	111695	GUIDE, HANDLE, JOST GEAR	1
4	109161	HANDLE, CRANK MODIFICATION	1
5	109709	2 SPEED LANDING GEAR (SEE PAGE 2-137)	1
6	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	5
7	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	20
8	111859	PIN, ROUND LOCKING 5/16 X 1-1/2	1
9	1-654-010051-07	SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5	2
10	1-654-010051-10	SCREW, HEX HEAD CAP 3/8-16 X 2-1/4 GR5	3
11	1-654-010059-03	SCREW, HEX HEAD CAP 5/8-11 X 1-1/2 GR5	16
12	1-654-010059-04	SCREW, HEX HEAD CAP 5/8-11 X 1-3/4 GR5	4
13	113877	TUBE, ROUND EXTENSION (112567)	1
	154249	TUBE, ROUND EXTENSION 96 (154248)	1
14	1-861-010032-11	WASHER, FLAT 3/8W	5
15	1-861-010032-19	WASHER, FLAT 5/8W	4



m109709 b

Figure 2-76: Crank Landing Gear

CRANK LANDING GEAR

ITEM	PART NO.	REFERENCE NO.	DESCRIPTION	QTY.
	109709		LANDING GEAR	
1	----	D10201.2	OUTER HOUSING - 2 SPEED	1
2	----	D10116.2	OUTER HOUSING - 1 SPEED	1
3	----	C10140.2	INNER LEG ASSEMBLY - STANDARD	2
6	109161	----	CRANK 930 MODIFICATION	1
7	109711	B10261	CRANK HANGER	1
10	109712	C10108	BRACE LUG - W	2
11	----	B10066	INTERMEDIATE CROSS SHAFT	1
12	----	A10059.1	COVER SCREW	4
13	----	C10217	COVER - 2 SPEED	1
14	----	C10259	COVER - 1 SPEED	1
15	----	C10177	PINION GEAR	1
16	----	C10155	BEVEL GEAR	2
17	----	B10130	PINION SHAFT - 1 SPEED	1
18	----	A10102	THRUST WASHER	2
19	----	A10052.3	GROOVED PIN	2
20	----	A10218	SPACER WASHER	2
21	----	A10040	GREASE FITTING	4
23	----	C10209	STRUT BRACE (NOT SHOWN)	4
24	----	A10038.7	SELF LOCKING NUT	2
25	----	A10037.1	CROSS SHAFT BOLT - 3/8 X 2 GR5	2
26	----	A10033	THRUST BEARING	2
27	----	A10101	COLLAR	2
28	----	A10212	OUTPUT SHAFT	1
30	----	A10255	BUSHING	5
33	----	A10054.3	ROLL PIN 3/8 X 1-1/2	1
34	----	A10260.1	SPIRAL PIN	2
35	----	A10054.7	ROLL PIN - 3/8 X 1-3/4	1
36	----	B10236	OUTPUT CLUSTER SHAFT	1
37	----	C10234	OUTPUT CLUSTER GEAR	1
38	----	C10233	INPUT GEAR SHAFT	1
39	----	C10078	OUTPUT SPUR GEAR	1
40	----	C10085	INPUT SPUR GEAR	1
43	163502	B10229S	SHIFT HOUSING SERVICE KIT	1
44	----	A10230	SHIFT HOUSING BOLT	4
45	----	A10038.6	SELF LOCKING NUT	4
46	----	C10256	SHOE - 10 X 10 X 4-1/2	2
47	114983	B10036	SHOE AXLE	2
48	----	A10037.3	HEX HEAD BOLT	2
49	----	A10054.6	ROLL PIN - 1/4 X 1-1/4	1

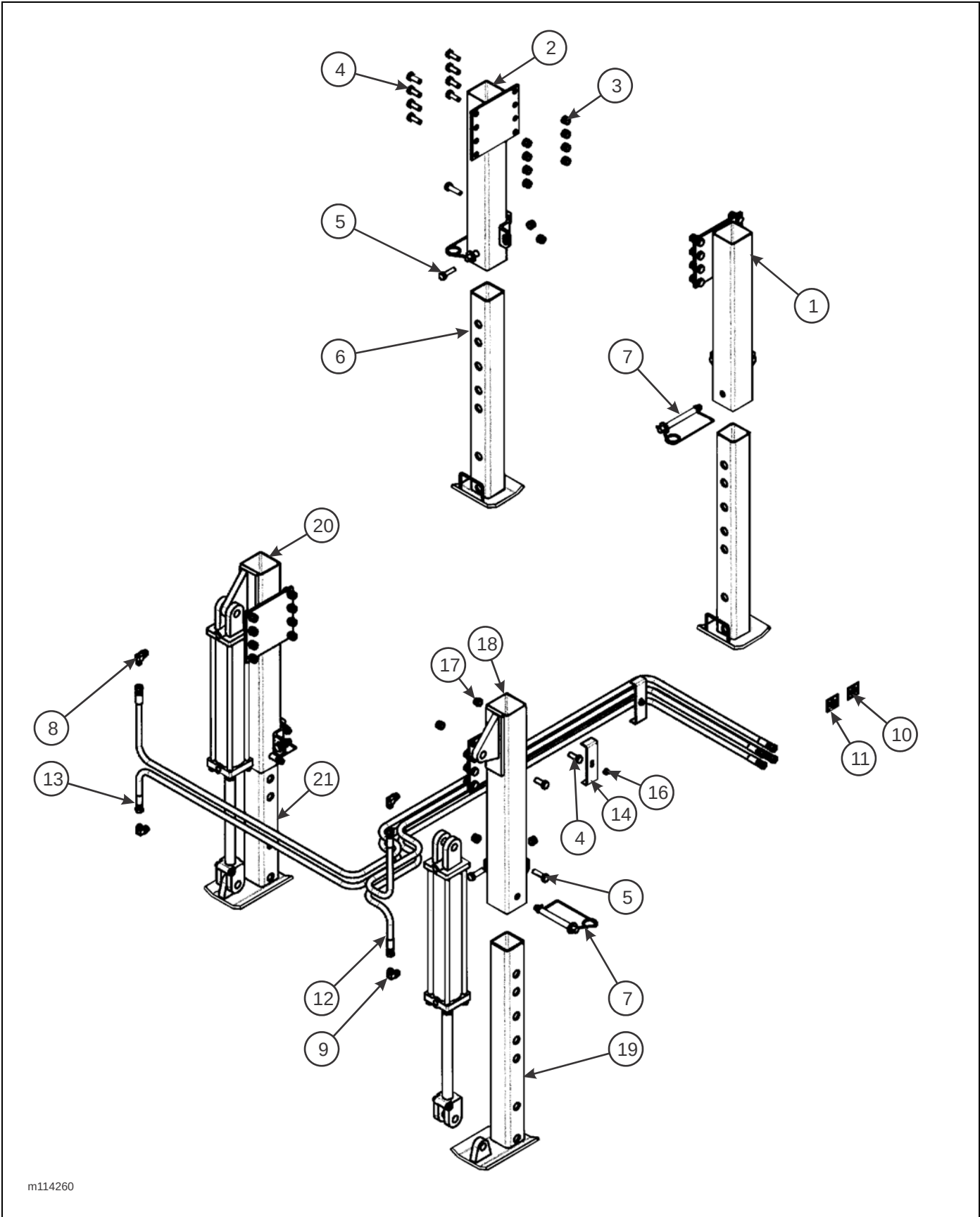
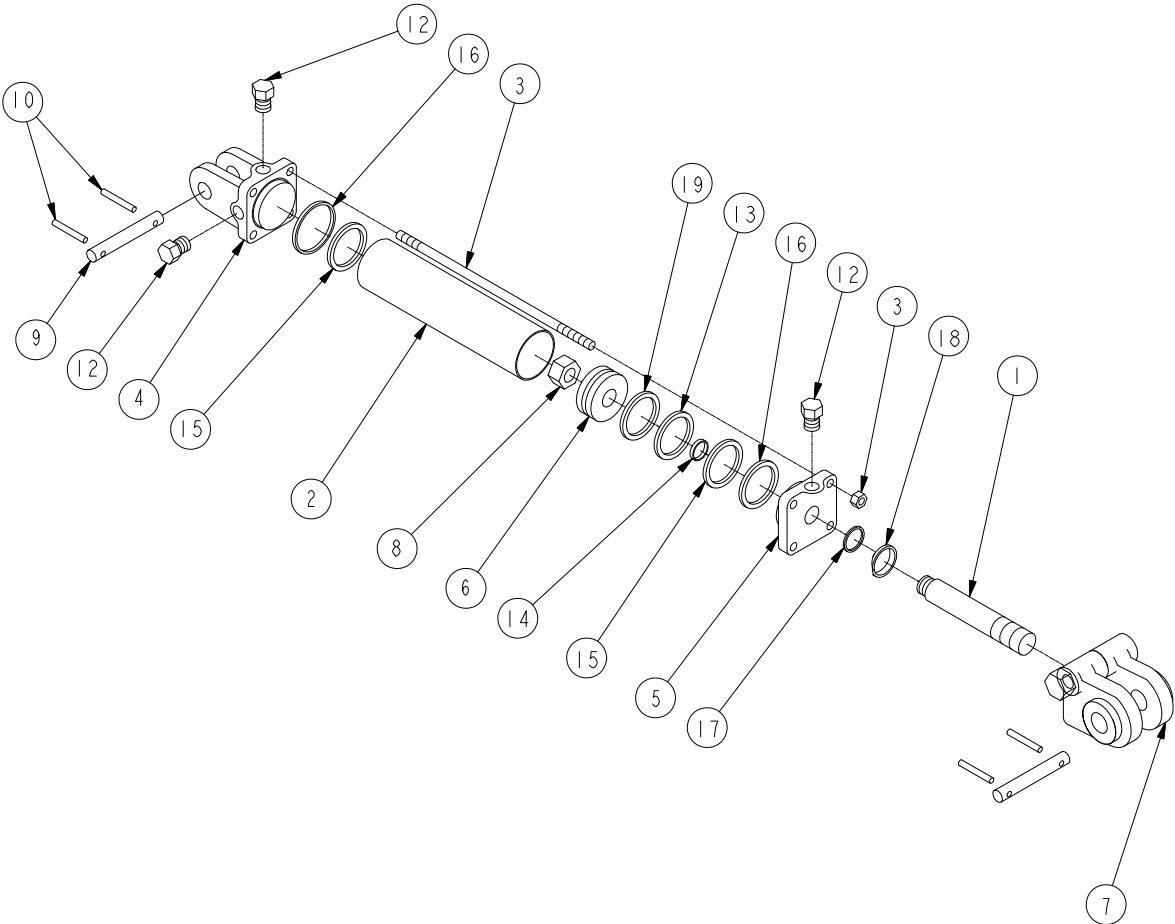


Figure 2-77: Landing Gear Installation - Bolt-On

LANDING GEAR INSTALLATION BOLT - ON

ITEM	PART NO.	DESCRIPTION	QTY.
	104243	PARK STAND INSTALLATION, BOLT-ON (ITEMS 1-7)	
	104244	PARK STAND INSTALLATION, BOLT-ON (ITEMS 4, 5, 7-21)	
1	112678	PARK STAND WELDMENT, LH FRONT PIN	1
2	112679	PARK STAND WELDMENT, RH FRONT PIN	1
3	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	20
4	1-654-010059-03	SCREW, HEX HEAD CAP 5/8-11 X 1-1/2 GR5	16
5	1-654-010059-05	SCREW, HEX HEAD CAP 5/8-11 X 2 GR5	4
6	3-725-010058	STAND, PARK INSIDE WELDMENT	2
7	346SL	LOCK HITCH PIN	2
8	2062-8-8S	ADAPTER, 90	4
9	1-242-010180-2	CYLINDER, HYDRAULIC 3000 PSI (SEE PAGE 2-141)	2
10	3-573-010465	DECAL HYDRAULIC PARK STAND LH	1
11	3-573-010466	DECAL HYDRAULIC PARK STAND RH	1
12	1-397-010301084	HOSE ASSEMBLY 1/2 X 84	2
13	1-397-010301124	HOSE ASSEMBLY 1/2 X 124	2
14	3-181-010006	HOSE CLAMP 350	2
16	1-510-010001	NUT, FLANGE LOCK 3/8-16	2
17	1-512-010005-13	NUT, HEX LOCK 5/8-11 GRB	20
18	104239	PARK STAND WELDMENT HYD LH BOLT-ON	1
19	104241	PARK STAND WELDMENT HYD LH LEG	1
20	104240	PARK STAND WELDMENT HYD RH BOLT-ON	1
21	104242	PARK STAND WELDMENT HYD RH LEG	1



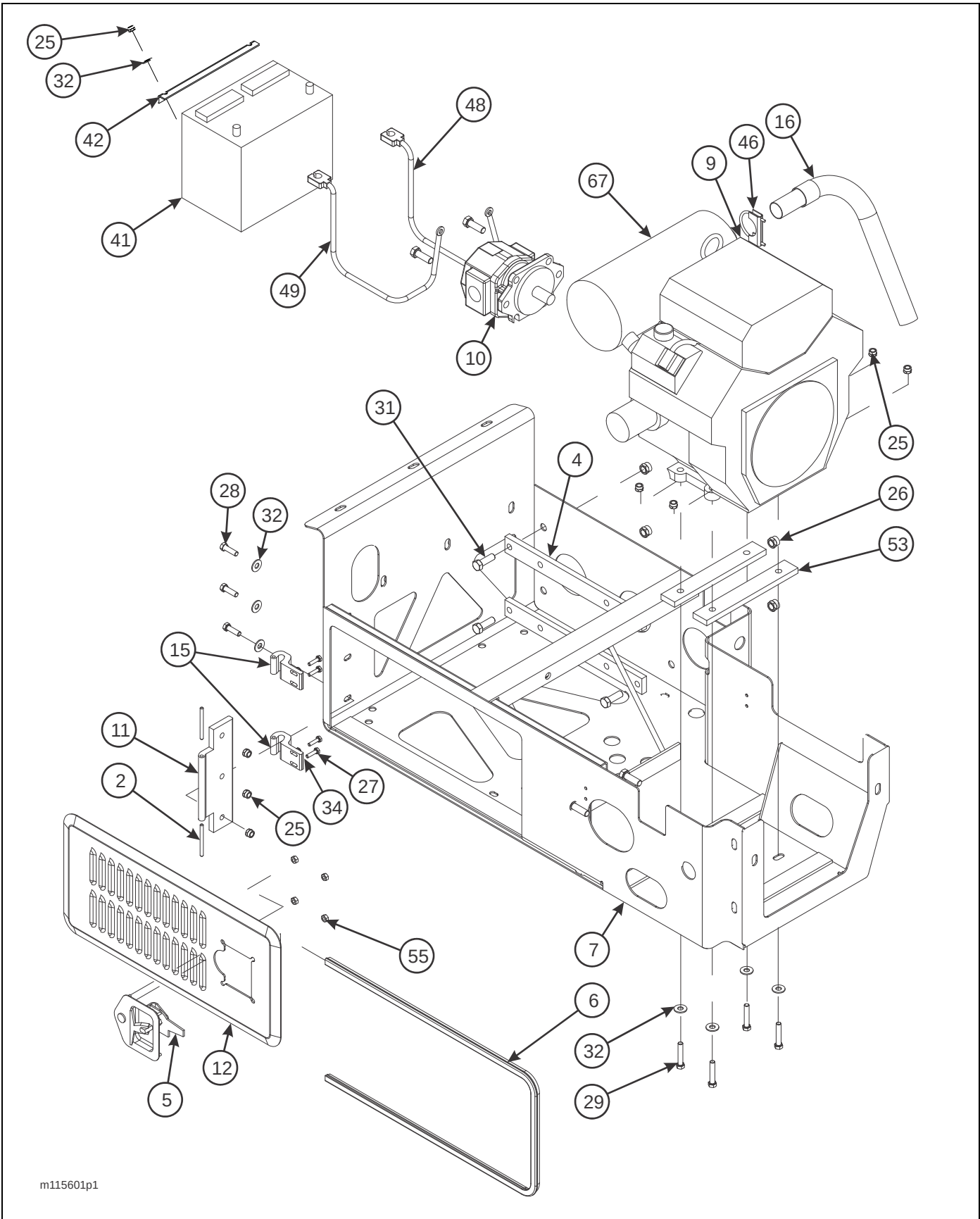
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Figure 2-78: Hydraulic Cylinder 3-1/2 x 20

HYDRAULIC CYLINDER 3-1/2 X 20

ITEM	PART NO.	DESCRIPTION	QTY.
	1-242-010180-2	CYLINDER 3-1/2" X 20" (PRINCE SAE 33520)	
1	-----	PISTON ROD	1
2	-----	TUBE	1
3	-----	TIEROD ASSEMBLY	4
4	1408084	BUTT	1
5	-----	GLAND ASSEMBLY	1
6	200300040	PORT PLUG	1
7	111866	PISTON	1
8	118241	CLEVIS ASSEMBLY	1
9	220000210	LOCKNUT	1
10	190400004	CLEVIS PIN	2
11	106120	CLEVIS PIN RETAINER	4
12	*	CROWN SEAL	1
13	*	O-RING	1
14	*	O-RING	2
15	*	BU-WASHER	2
16	*	U-CUP	1
17	*	WIPER	1
	1-242-010178-2	PACKING KIT (CONTAINS ALL NECESSARY SEALS AND O-RINGS) (ITEMS 13 - 18)	1

*PARTS AVAILABLE IN PACKING KIT ONLY.



m115601p1

Figure 2-79: 27 HP Gas Engine Installation (1 of 2)

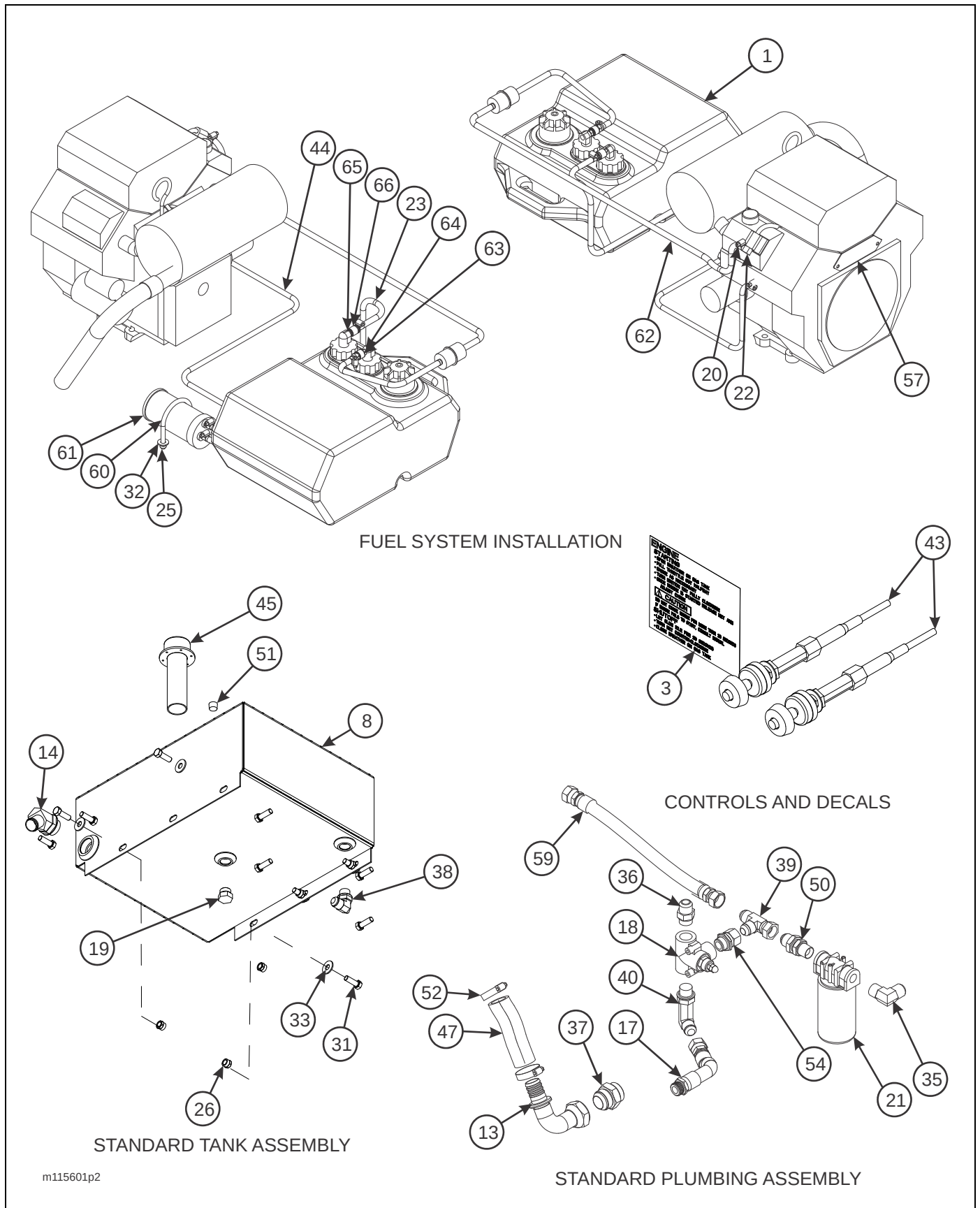


Figure 2-80: Upper Deck Engine Installation (2 of 2)

27HP GAS ENGINE PACKAGE (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	115601	27 HP GAS ENGINE PACKAGE	
1	169531	TANK, FUEL PLASTIC 6 GAL LOW PERM	1
2	108601	PIN, DOOR HINGE	2
3	113388	DECAL, ENGINE PACKAGE INSTRUCTIONS	1
4	113856	MOUNT, ENGINE ISOLATOR, KOHLER CH25	2
5	114814	LATCH, FOLDING T LOCKABLE	1
6	114815	SEAL, SPONGE RUBBER TRIM	5
7	120654	MOUNT WELDMENT, ENGINE PACKAGE	1
8	120662	HYDRAULIC TANK WELDMENT	1
9	127813	ENGINE KOHLER 27 HP PUMP MOUNT	1
	3-765-010050	KOHLER IGNITION SWITCH (2509904)	1
10	115888	PUMP, HYDRAULIC	1
11	116326	HINGE, BASE MOUNT	1
12	116328	MOUNT, DOOR WELDMENT	1
13	116330	FITTING, 90	1
14	117873	FITTING, 45	1
15	119206	HINGE, DOOR	2
16	119445	EXHAUST EXT WELDMENT	1
17	119577	HOSE	1
18	120661	VALVE, HYDRAULIC PRESSURE RELIEF	1
19	900598-12S	PLUG, O-RING	1
20	105-0105	CLAMP, HOSE (NOT SHOWN)	6
21	1-295-010001	RETURN LINE FILTER	1
22	1-297-010034-01	FITTING, BR 90 BARB	1
23	1-316-010013	HOSE, 1/4 LOW PRESSURE FUEL LINE	5
25	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	11
26	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	9
27	1-654-010047-06	SCREW, HEX HEAD CAP 1/4-20 X 1 GR5	4
28	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	3
29	1-654-010051-09	SCREW, HEX HEAD CAP 3/8-16 X 2 GR5	4
31	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	11
32	1-861-010032-11	WASHER, FLAT 3/8W	11
33	1-861-010032-15	WASHER, FLAT 1/2W	5
34	1-861-010034-09	WASHER, SPLIT LOCK 1/4	4
35	2024-12-12S	ELBOW, 90	1
36	202702-12-12S	ADAPTER, STRAIGHT	1
37	202702-20-20S	ADAPTER	1
38	2062-12-12S	ADAPTER, 90	1
39	203102-12-12S	ADAPTER, TEE	1
40	206209-12-12S	ADAPTER, 90	1
41	2481X	BATTERY 12V	1
42	3-120-010124	BATTERY CLAMP BRACKET	1
43	3-155-010012	CABLE, THROTTLE	2
44	3-316-010008	FUEL HOSE 3/16 ID	5
45	3-162-010001	FILLER-BREATH-ER-STRAINER ASSEMBLY	1
46	3-182-010028	CLAMP, MUFFLER	1
47	3-399-010001006	HOSE, 1-1/4 SUCTION	1
48	514-9045-26	CABLE ASSEMBLY, BATTERY POSITIVE	1
49	514-9073-18	CABLE ASSEMBLY, BATTERY NEGATIVE	1

27HP GAS ENGINE PACKAGE (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
50	2240-12-12S	ADAPTER, BULKHEAD	1
51	1-560-010002-04	PLUG, PIPE 1/2	1
52	1-181-010046-7	CLAMP, HOSE	2
53	120659	ISOLATOR, KOHLER 25 HP MOUNT	2
54	120660	ADAPTER	1
55	115877	NUT, HEAVY HEX 1/4-20 GR5	4
57	123014	PLATE, MOTOR FRONT 25HP E/P	1
58	113544	HARNESS, ENGINE PACKAGE IGNITION (NOT SHOWN)	1
59	1-397-010304018	HOSE ASSEMBLY 3/4 X 18	1
60	110578	U-BOLT, FENDER MOUNT	1
61	166766	CARBON CANISTER, FUEL TANK	1
62	169532	HOSE, FUEL 1/4 LOW PERM CARB	5
63	170109	FITTING	1
64	170110	FITTING	1
65	170111	FITTING	1
66	170112	FITTING	1
67	128501	MUFFLER KIT REPLACEMENT	1

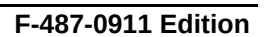


Figure 2-81: Engine Package Bracket Kit (Option)

ENGINE PACKAGE BRACKET KIT (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	117155	BRACKET KIT, ENGINE PACKAGE	
1	1-510-010001	NUT, FLANGE LOCK 3/8-16	13
2	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	9
3	1-654-010051-13	SCREW, HEX HEAD CAP 3/8-16 X 3 GR5	4
4	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	6
5	1-654-010055-07	SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5	4
6	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	10
7	1-861-010032-11	WASHER, FLAT 3/8W	22
8	1-861-010032-15	WASHER, FLAT 1/2W	20
9	113359	BRACKET, MOUNTING	4
10	133732	NUT, EXTRUDED U 3/8-16	4
11	117156	CROSSMEMBER HANGER	2
12	120726	SHIELD, SLOPE ENG PKG	1
13	120724	ANGLE WELDMENT, FRONT, RH	1
14	120725	ANGLE WELDMENT, FRONT, LH	1
15	1-397-010304135	HOSE ASSEMBLY 3/4 X 135 (NOT SHOWN)	2
16	3-573-010506	DECAL, ENGINE CONTROL (NOT SHOWN)	1
17	115601	ENGINE PACKAGE, 27HP (SEE PAGE 2-144)	REF

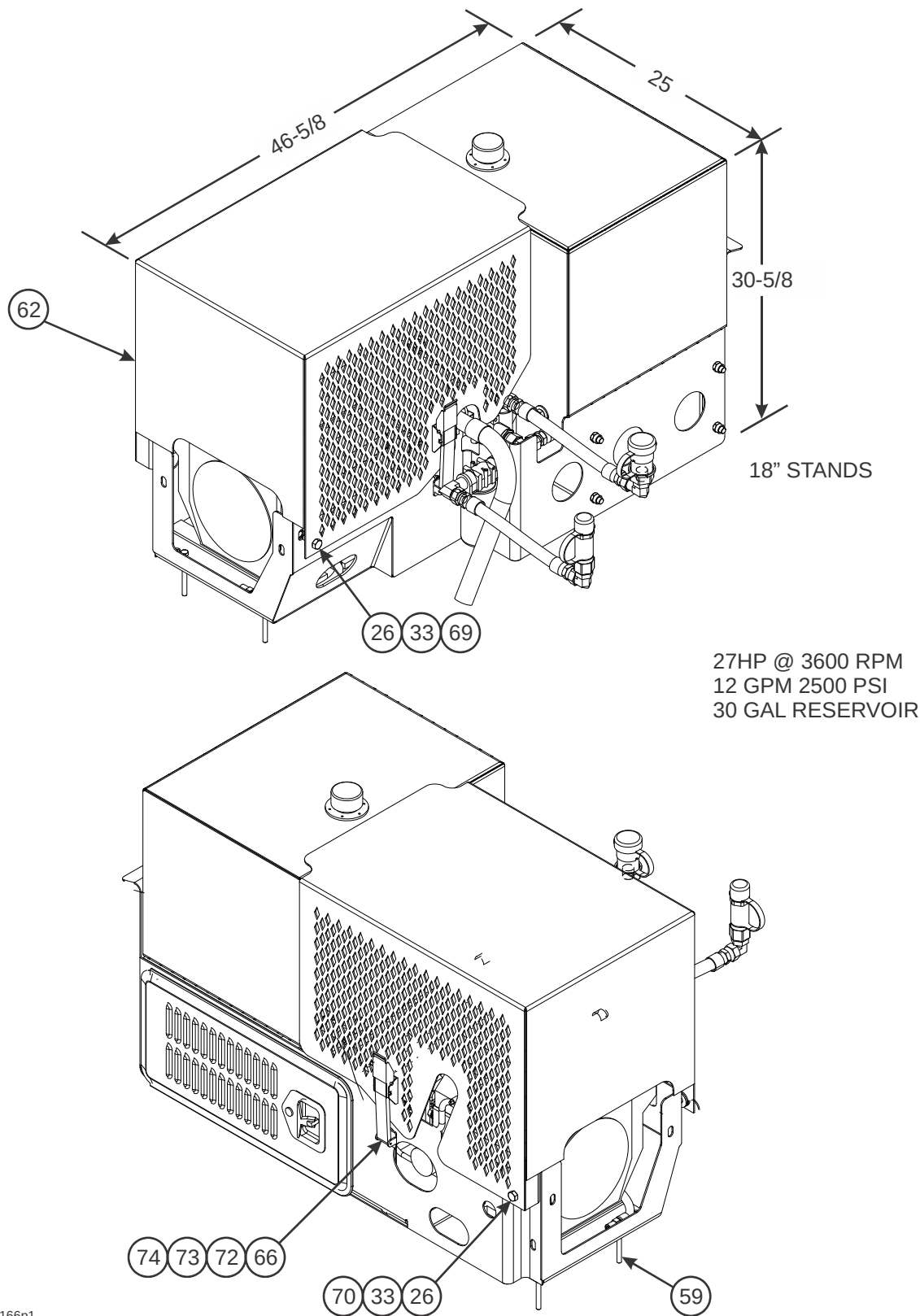
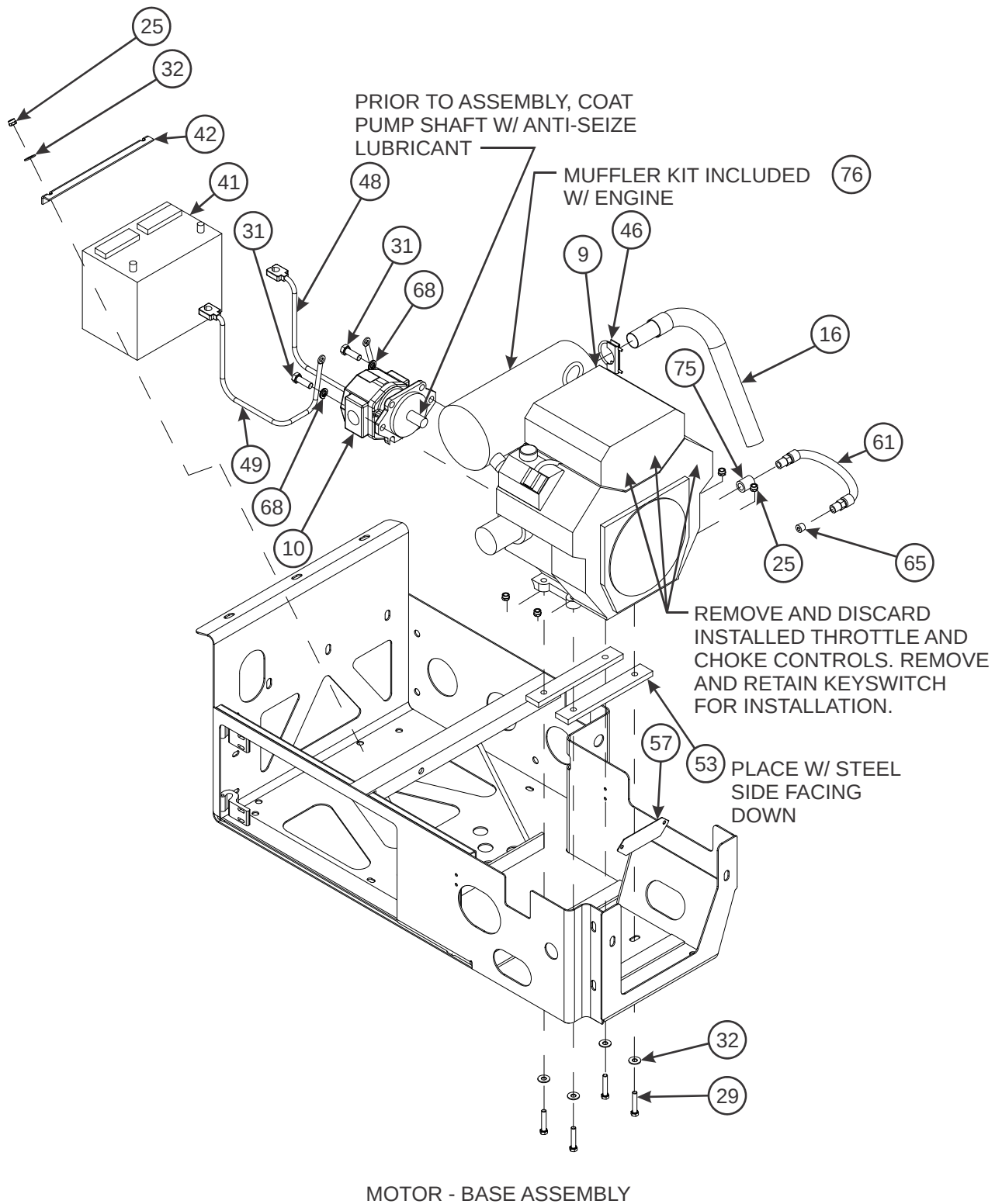


Figure 2-82: Upper Deck Engine Installation (1 of 4)



m123166p2

Figure 2-83: Upper Deck Engine Installation (2 of 4)

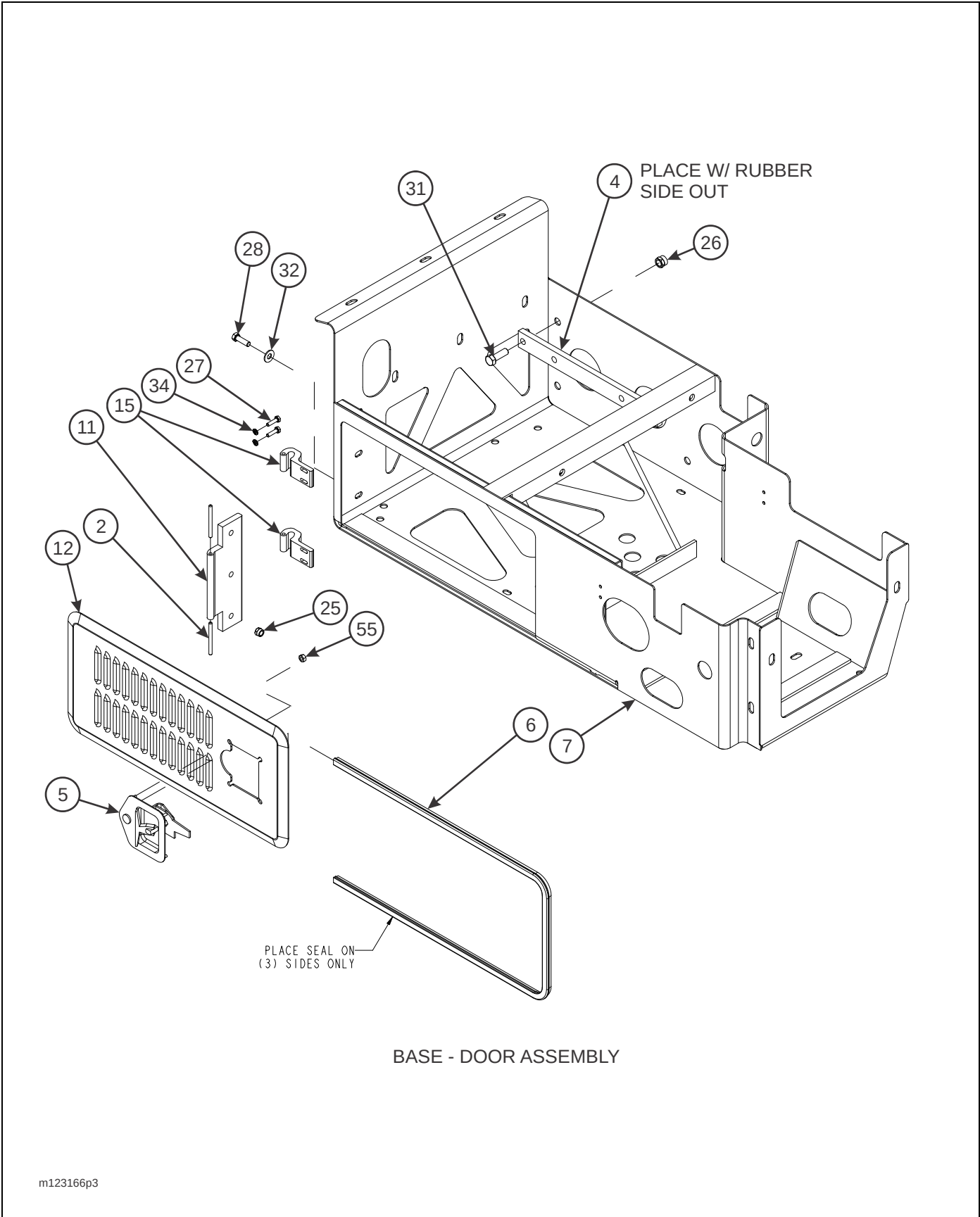


Figure 2-84: Upper Deck Engine Installation (3 of 4)

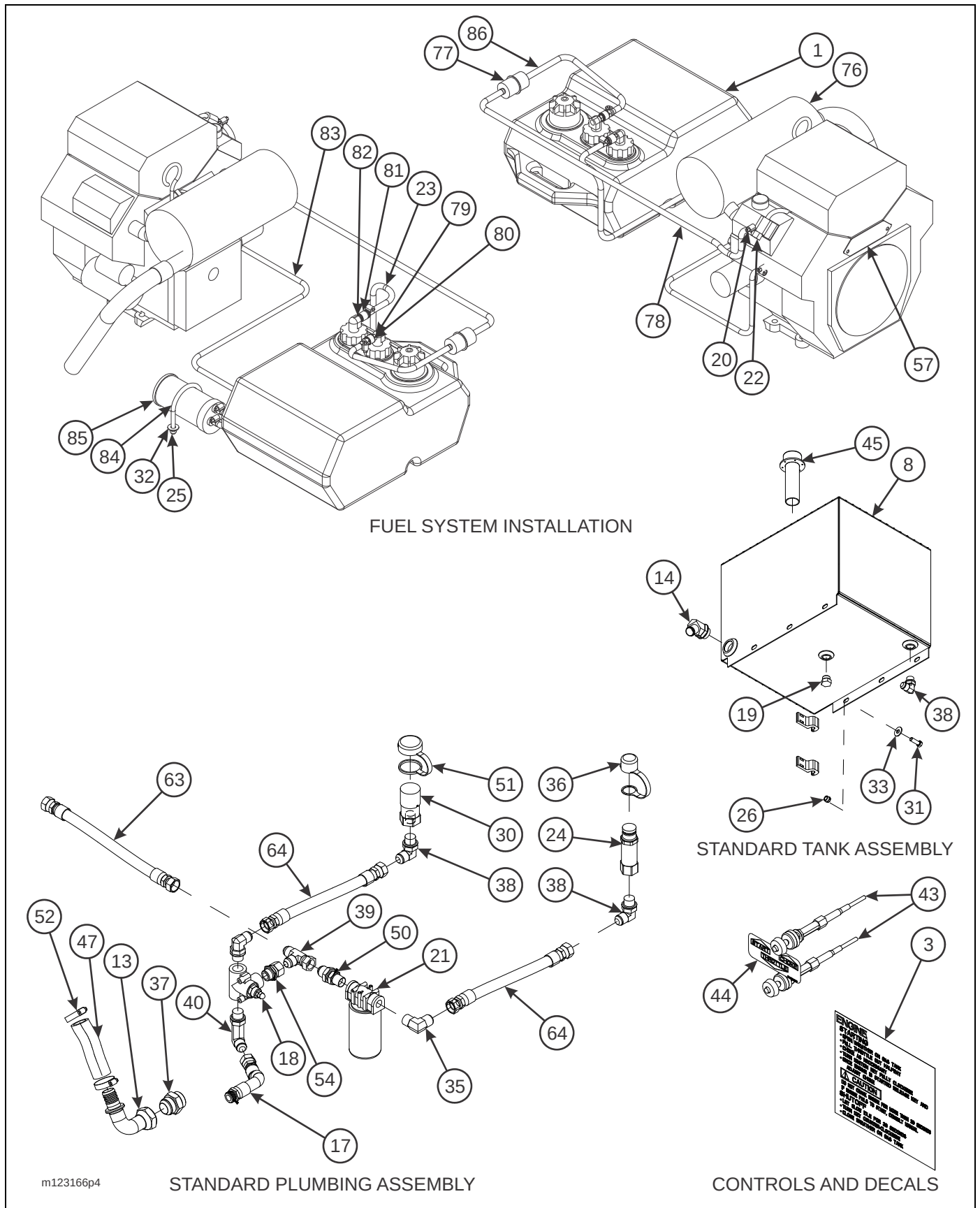


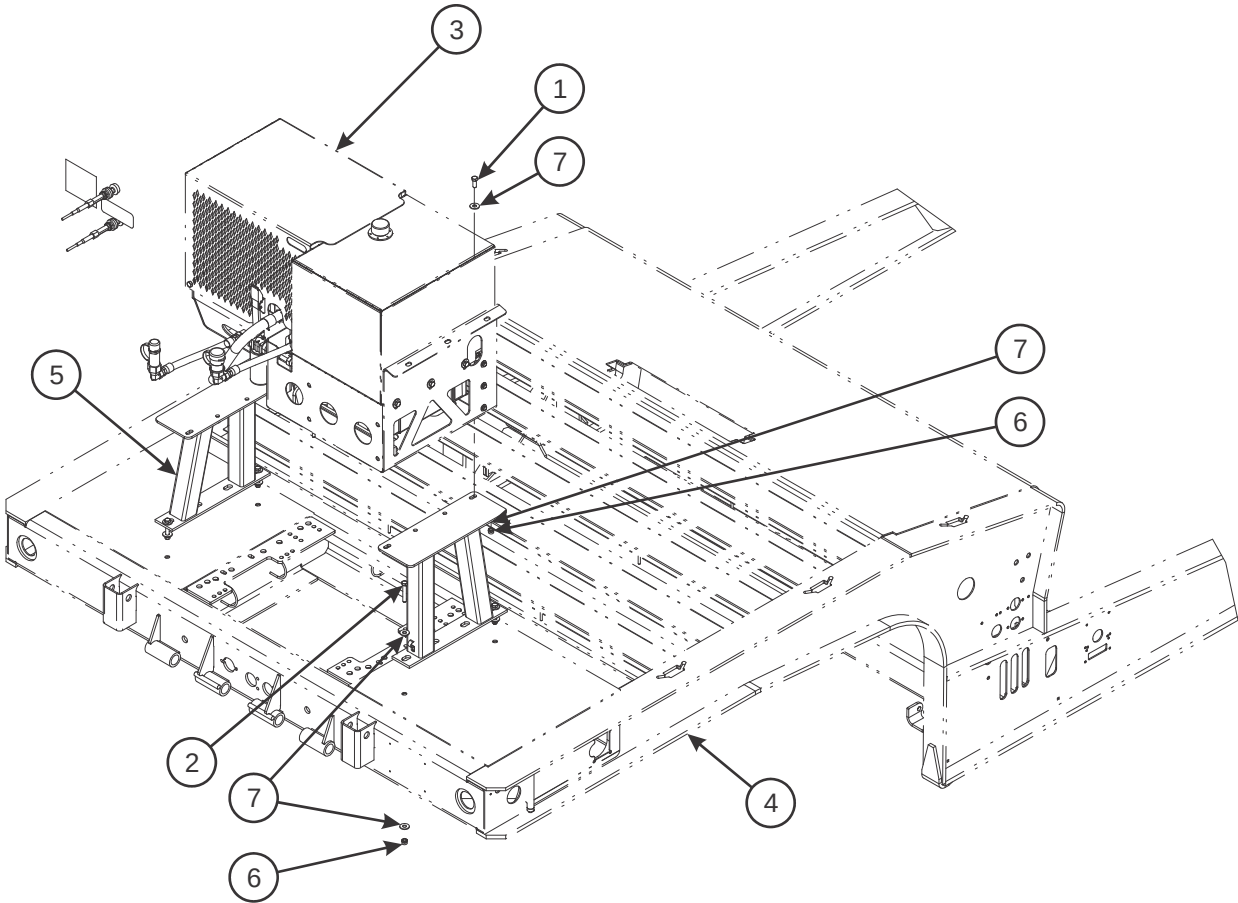
Figure 2-85: Upper Deck Engine Installation (4 of 4)

27 HP GAS ENGINE PACKAGE, UPPER DECK (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	123166	27HP GAS ENGINE PACKAGE	
1	169531	TANK, FUEL PLASTIC 6 GAL LOW PERM	1
2	108601	PIN, DOOR HINGE	2
3	113388	DECAL, ENGINE PACKAGE INSTRUCTIONS	1
4	113856	MOUNT, ENGINE ISOLATOR, KOHLER CH25	2
5	114814	LATCH, FOLDING T LOCKABLE	1
6	114815	SEAL, SPONGE RUBBER TRIM	5
7	120654	MOUNT WELDMENT, ENGINE PACKAGE 25 HP	1
8	129264	HYDRAULIC TANK WELDMENT	1
9	127813	ENGINE, KOHLER 27 HP PUMP MOUNT	1
	3-765-010050	KOHLER IGNITION SWITCH	1
10	115888	PUMP, HYDRAULIC	1
11	116326	HINGE, BASE MOUNT	1
12	116328	MOUNT, DOOR WELDMENT	1
13	116330	FITTING, 90	1
14	117873	FITTING, 45	1
15	119206	HINGE, DOOR	2
16	119445	EXHAUST EXT WELDMENT	1
17	119577	HOSE	1
18	120661	VALVE, HYDRAULIC PRESSURE RELIEF	1
19	900598-12S	PLUG, O-RING	1
20	105-0105	CLAMP, HOSE	6
21	1-295-010001	RETURN LINE FILTER	1
	1-295-010002	FILTER ELEMENT	1
22	1-297-010034-01	FITTING, BR 90 BARB	1
23	1-316-010013	HOSE, 1/4 LOW PRESSURE FUEL LINE	5
24	105479	COUPLER FLAT FACE MALE NOSE	1
25	1-512-010005-05	NUT, HEX LOCK 3/8-16 GRB	15
26	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	11
27	1-654-010047-06	SCREW, HEX HEAD CAP 1/4-20 X 1 GR5	4
28	1-654-010051-06	SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5	3
29	1-654-010051-09	SCREW, HEX HEAD CAP 3/8-16 X 2 GR5	6
30	105480	COUPLER, FLAT FACE FEMALE BODY	1
31	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	11
32	1-861-010032-11	WASHER, FLAT 3/8W	19
33	1-861-010032-15	WASHER, FLAT 1/2W	13
34	1-861-010034-09	WASHER, SPLIT LOCK 1/4	4
35	2024-12-12S	ELBOW, 90	1
36	105481	COUPLER, DUST CAP MALE	1
37	202702-20-20S	ADAPTER	1
38	2062-12-12S	ADAPTER, 90	4
39	203102-12-12S	ADAPTER, TEE	1
40	206209-12-12S	ADAPTER, 90	1
41	2481X	BATTERY 12V	1
42	3-120-010124	BATTERY CLAMP BRACKET	1
43	128774	CABLE, THROTTLE	2
44	3-573-010506	DECAL, ENGINE CONTROL	1
45	3-162-010001	FILLER-BREATHES-STRAINER ASSEMBLY	1
46	3-182-010028	CLAMP, MUFFLER	1

27 HP GAS ENGINE PACKAGE, UPPER DECK (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
47	3-399-010001006	HOSE, 1-1/4 SUCTION	1
48	514-9045-26	CABLE ASSEMBLY, BATTERY POSITIVE	1
49	514-9073-18	CABLE ASSEMBLY, BATTERY NEGATIVE	1
50	2240-12-12S	ADAPTER, BULKHEAD	1
51	105482	COUPLER, DUST FEMALE	1
52	1-181-010046-7	CLAMP, HOSE	2
53	120659	ISOLATOR, KOHLER 25 HP MOUNT	2
54	120660	ADAPTER	1
55	115877	NUT, HEAVY HEX 1/4-20 GR5	4
57	123014	PLATE, MOTOR FRONT 25 HP	1
58	113544	HARNESS, ENGINE PACKAGE IGNITION (NOT SHOWN)	2
59	108295	SCREW, HEX HEAD CAP 3/8-16 X 4 GR5	2
61	1-397-010312032	HOSE ASSEMBLY 3/8 X 32	1
62	129287	COVER WELDMENT	1
63	1-397-010304018	HOSE ASSEMBLY 3/4 X 18	1
64	1-397-010304060	HOSE ASSEMBLY 3/8 X 60	2
65	1-560-010002-03	PLUG, PIPE 3/8	1
66	1-512-010004-03	NUT, HEX LOCK 10-24 GRA	8
68	1-861-010034-13	WASHER, SPLIT LOCK 1/2	2
69	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	1
70	1-654-010055-09	SCREW, HEX HEAD CAP 1/2-13 X 3 GR5	1
72	110-0116	SCREW, RD HEAD CAP 10-24 X 3/4	8
73	110-0253	WASHER, FLAT 3/16	8
74	3-443-010018	LATCH, FLEXIBLE DRAW, LEVER ASSIST	2
75	3/8P COUPL	PIPE COUPLING 3/8 BLACK	1
76	128501	REPLACEMENT MUFFLER KIT	1
77	142270	FUEL FILTER	1
78	169532	HOSE, FUEL 1/4 LOW PERM CARB	5
79	170109	FITTING	1
80	170110	FITTING	1
81	170111	FITTING	1
82	170112	FITTING	1
83	3-316-010008	FUEL HOSE 3/16 ID	5
84	110578	U-BOLT, FENDER MOUNT	1
85	166766	CARBON CANISTER, FUEL TANK	1
86	139553	COUPLER, FUEL TANK	1



m136578

Figure 2-86: Upper Deck Engine Stand Installation

UPPER DECK ENGINE STAND INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY.
	136578	UPPER DECK STAND INSTALLATION	
1	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	4
2	1-654-010055-09	SCREW, HEX HEAD CAP 1/2-13 X 3 GR5	4
3	123166	ENGINE PACKAGE, 27 HP GAS (SEE PAGE 2-152)	REF
4	-----	UPPER DECK FRAME WELDMENT	REF
5	134857	MOUNT WELDMENT, ENGINE PACKAGE	2
6	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8
7	1-861-010032-15	WASHER, FLAT 1/2W	16

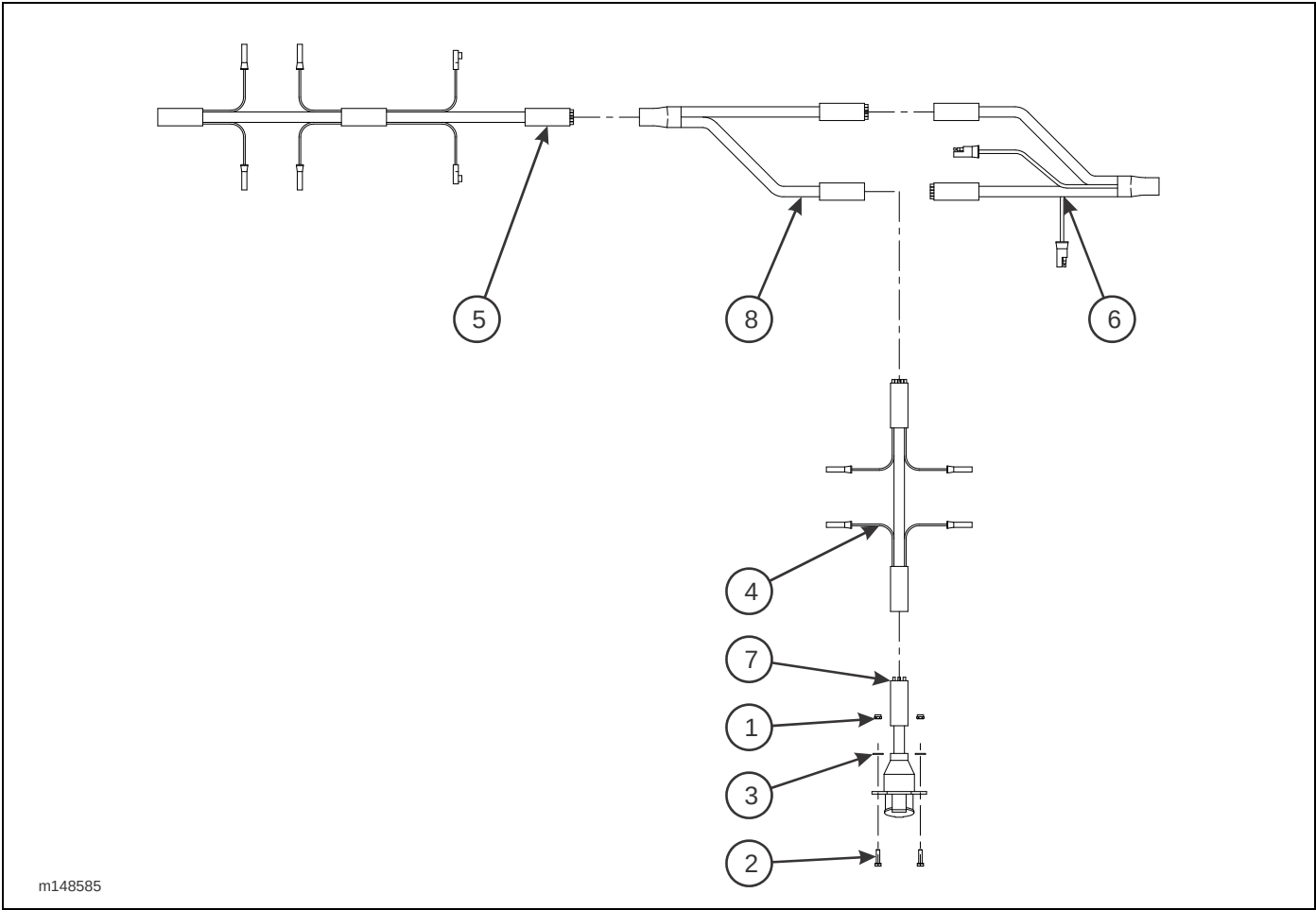


Figure 2-87: 7-Way Electrical Installation (Option)

7-WAY ELECTRICAL INSTALLATION (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	148585	7-WAY ELECTRICAL INSTALLATION	
1	1-512-010005-01	NUT, HEX LOCK 1/4-20 GRB	2
2	1-654-010047-06	SCREW, HEX HEAD CAP 1/4-20 X 1 GR5	2
3	1-861-010032-07	WASHER, FLAT 1/4W	2
4	143101	HARNESS, FRONT MAIN	1
5	143102	HARNESS, BED MAIN	1
6	143103	HARNESS, E-CHAIN	1
7	146897	HARNESS, 7-WAY RECEPTACLE MAIN	1
8	146929	HARNESS, Y SPLITTER	1

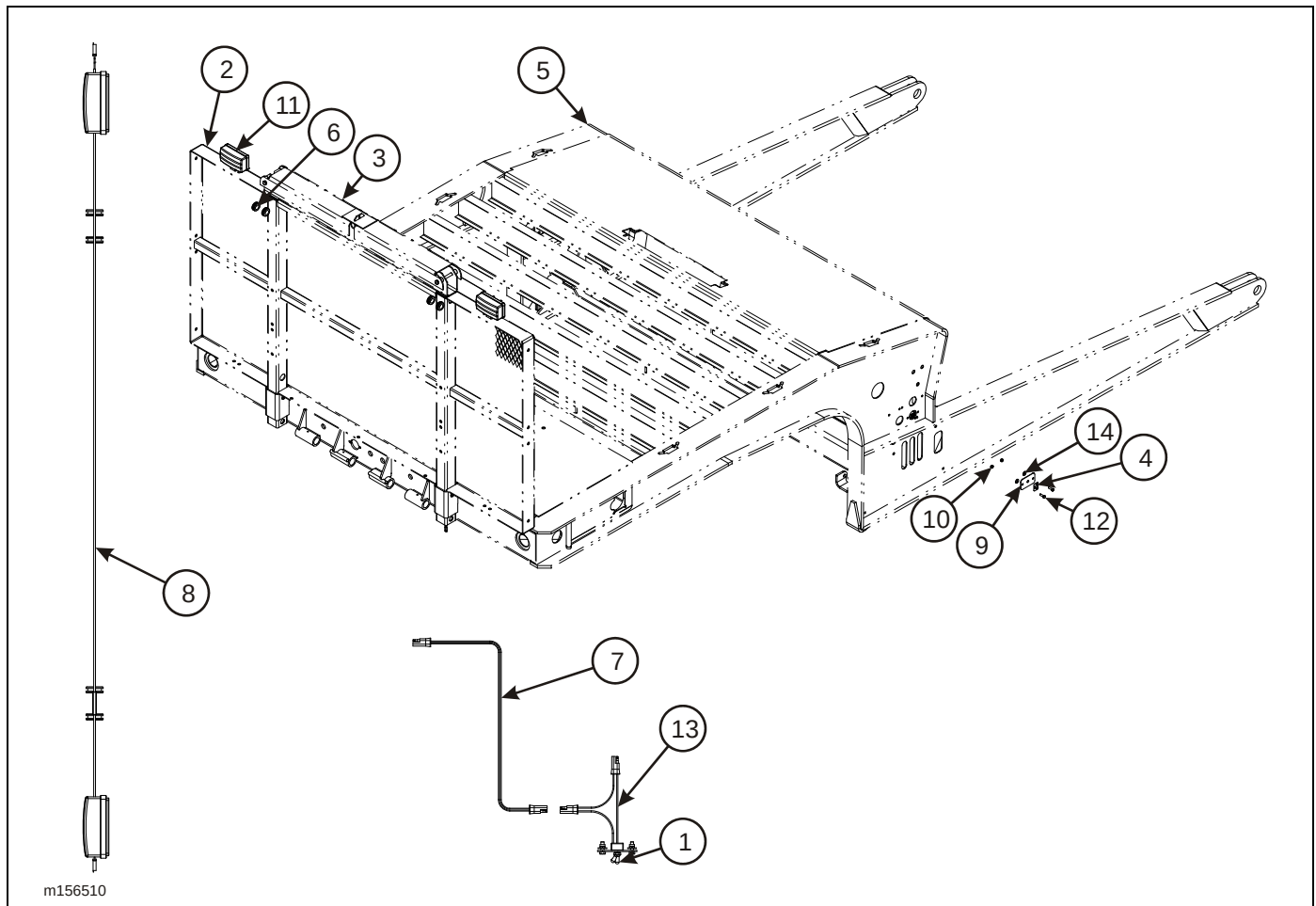


Figure 2-88: Work Light Assembly, Bulkhead (Option)

WORK LIGHT ASSEMBLY, BULKHEAD (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	156510	WORK LIGHT ASSEMBLY, BULKHEAD (OPTION)	
1	81264	RUBBER BOOT FOR ELECT SWITCH	1
2	----	BULKHEAD WELDMENT	REF
3	B7-141-003	CHAIN RACK INSTALLATION	REF
4	130116	DECAL, ON/OFF LIGHT	1
5	----	GOOSENECK WELDMENT	REF
6	1-343-010007	GROMMET	4
7	3-368-010252	HARNESS ASSEMBLY, BULKHEAD LIGHT EXT	1
8	3-368-010250	HARNESS, BULKHEAD LIGHTS	1
9	137987	MOUNT, ELECTRICAL SWITCH	1
10	1-512-010005-03	NUT, HEX LOCK 5/16-18 GRB	2
11	64181	RECT QUARTZ HALOGEN LAMP	2
12	1-654-010049-05	SCREW, HEX HEAD CAP 5/16-18 X 1 GR5	2
13	150117	TOGGLE SWITCH SEALED SPST	1
14	1-861-010032-09	WASHER, FLAT 5/16W	2

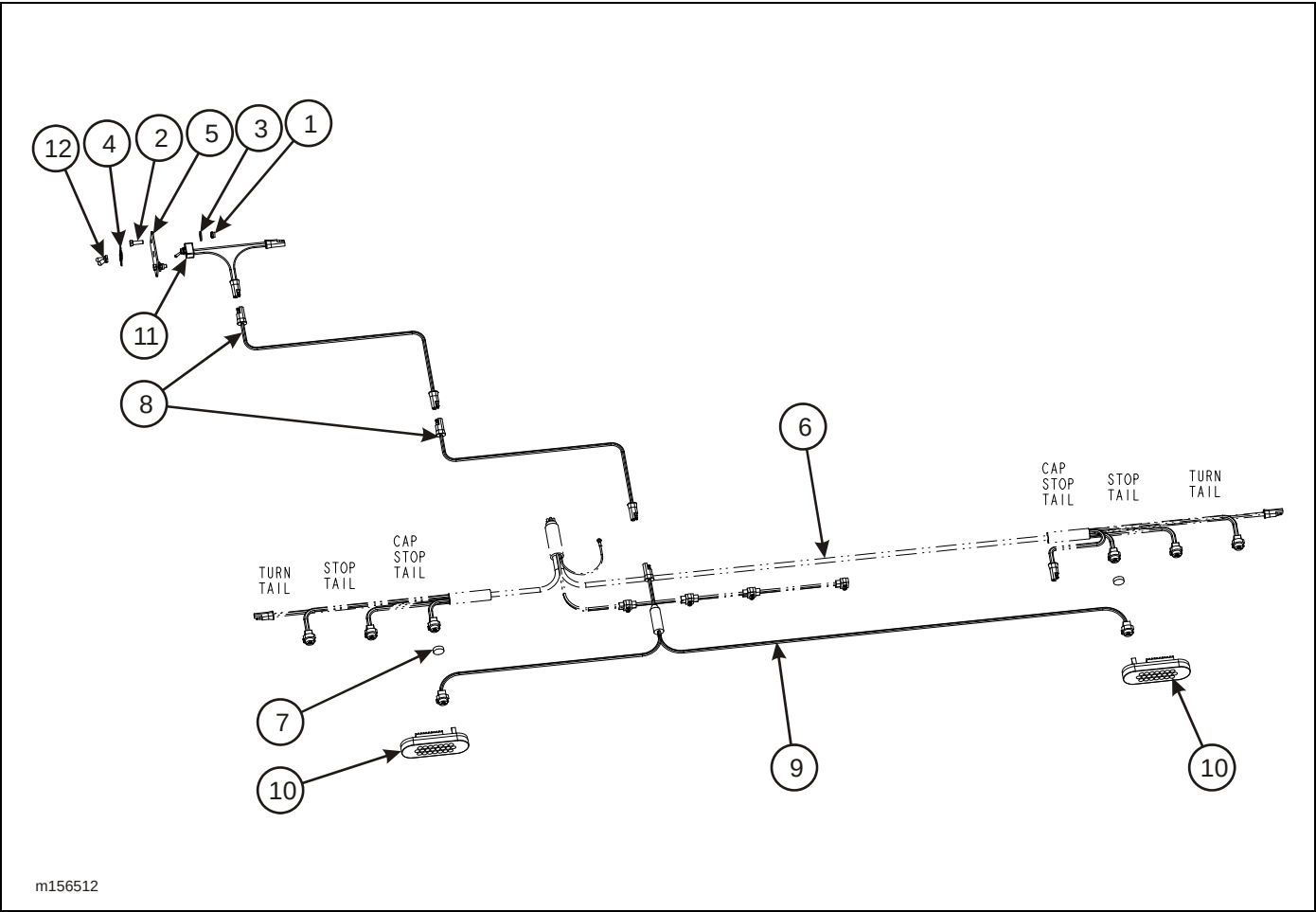


Figure 2-89: Strobe Installation, Bumper (Option)

STROBE INSTALLATION, BUMPER (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	156512	WORK LIGHT INSTALLATION, LED SLOPE	
1	1-512-010005-03	NUT, HEX LOCK 5/16-18 GRB	2
2	1-654-010049-05	SCREW, HEX HEAD CAP 5/16-18 X 1 GR5	2
3	1-861-010032-09	WASHER, FLAT 5/16W	2
4	130116	DECAL, ON/OFF LIGHT	1
5	137987	MOUNT, ELECTRIC SWITCH	1
6	143104	HARNESS, REAR LED	REF
7	144608	DUMMY PLUG FOR FEMALE PLUG	2
8	150111	HARNESS	2
9	150114	HARNESS, BUMPER STROBE	1
10	150115	LIGHT, YELLOW STROBE OVAL	2
11	150117	TOGGLE SWITCH SEALED SPST	1
12	81264	RUBBER BOOT FOR ELECT SWITCH	1

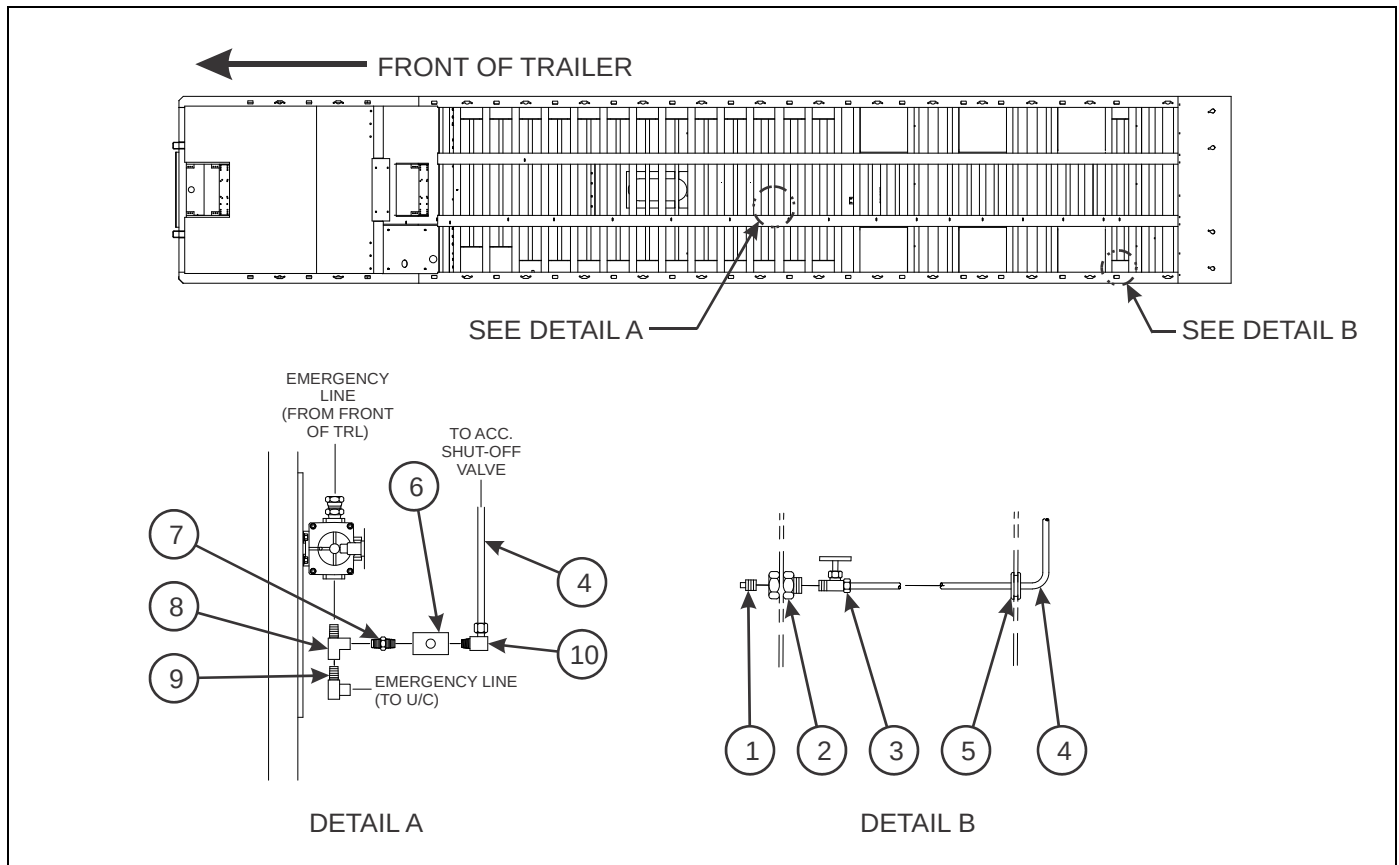


Figure 2-90: Air Outlet Accessory (Option)

AIR OUTLET ASSEMBLY (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	108798	AIR OUTLET ACCESSORY	
1	1-560-010002-02	PLUG PIPE	1
2	1-297-010022-02	FITTING AIR ANCHOR COUPLING	1
3	A6760S	SHUT OFF VALVE	1
4	1-833-010002	TUBING NYLON	20
5	1-343-010007	GROMMET	1
6	905-54-107	BRAKE PROTECTION VALVE	1
7	2083-8-4S	NIPPLE HEX	1
8	1-297-010018-04	FITTING, AIR BR TEE	1
9	2089-6-6S	ADAPTER, 90	1
10	1-297-010008-18	FITTING, AIR 90	1

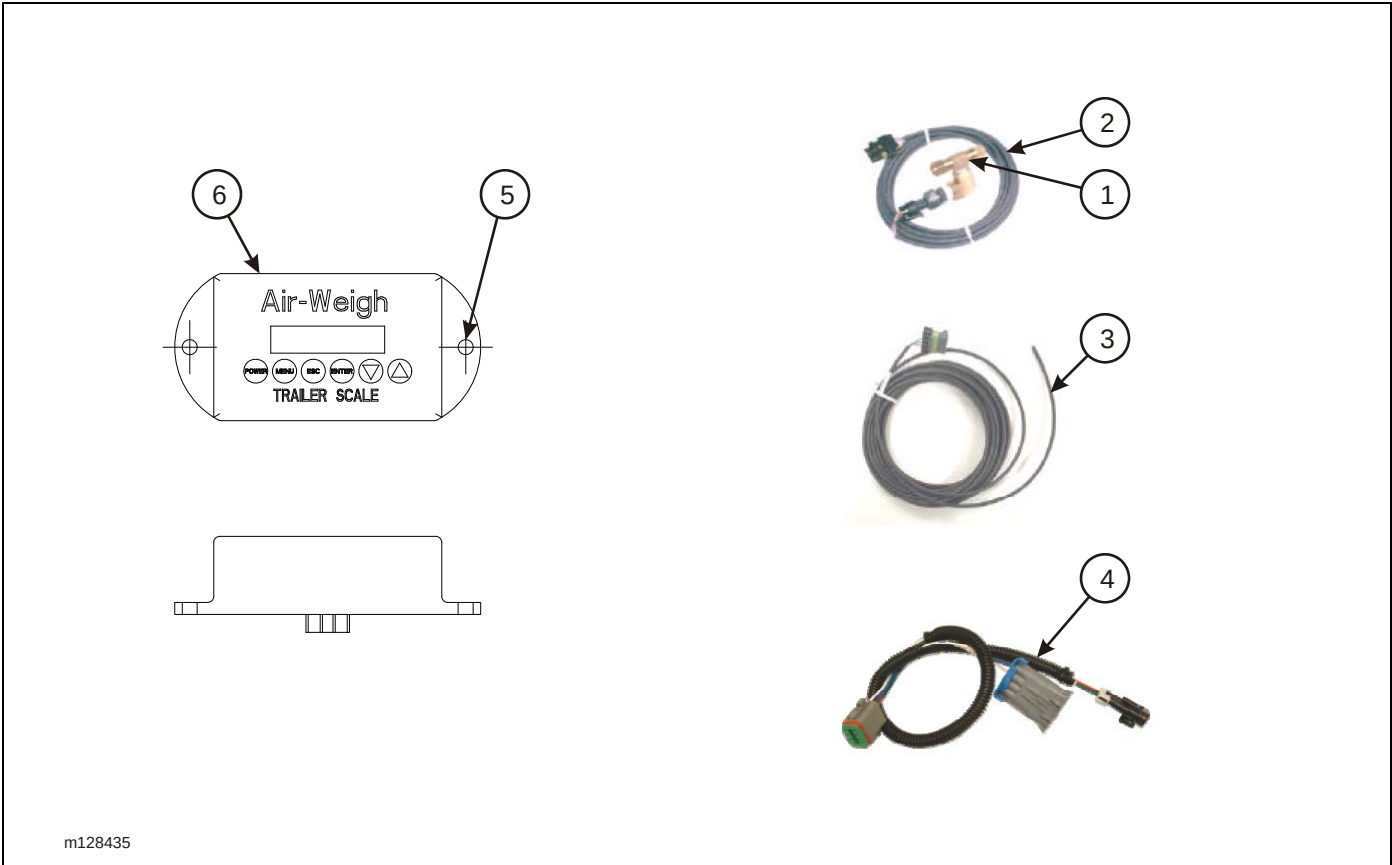


Figure 2-91: Air Digital Scale (Option)

AIR DIGITAL SCALE (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	128435	SCALE, AIR DIGITAL (TRAVELING AXLE)	
1	149543	SENSOR ASSEMBLY, 5V 3/8" BRASS	1
2	166001	CABLE, AW5800, 2 PART SENSOR 50'	1
3	166002	CABLE, AW5800 TRAILER POWER BLUNT CUT 15'	1
4	142895	CABLE, AW5800, TRAILER SCALE INTERFACE 2"	1
5	-----	HARDWARE KIT, AW 5800	1
6	166000	TRAILER SCALE AW5800	1
7	-----	NYLON TIE 7" T-50 NYLON (NOT SHOWN)	25
8	-----	MANUAL, TRAILER SCALE AW5800 (NOT SHOWN)	1
9	166924	DECAL, AW5800 TRAILER SIDE-M (NOT SHOWN)	1

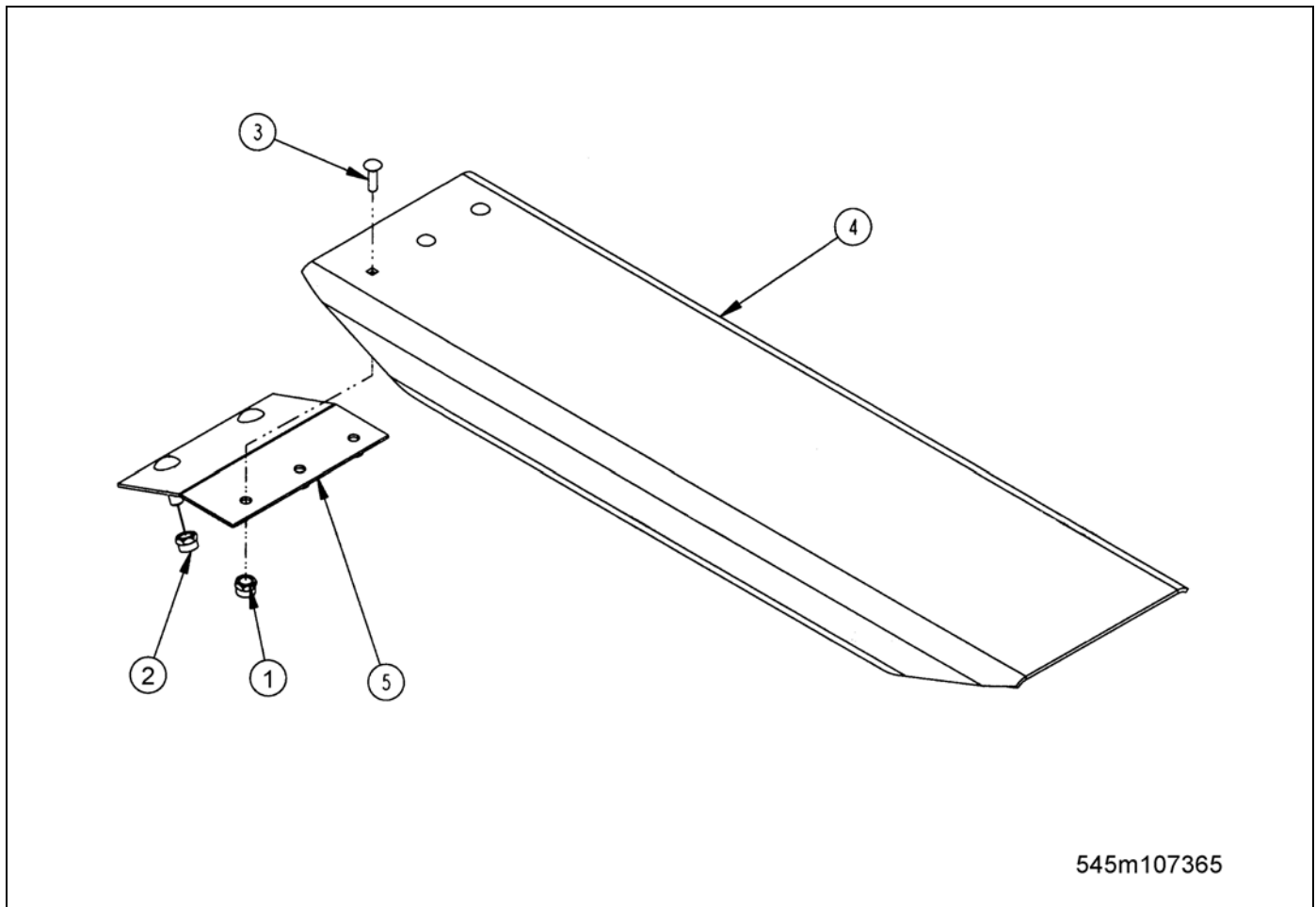
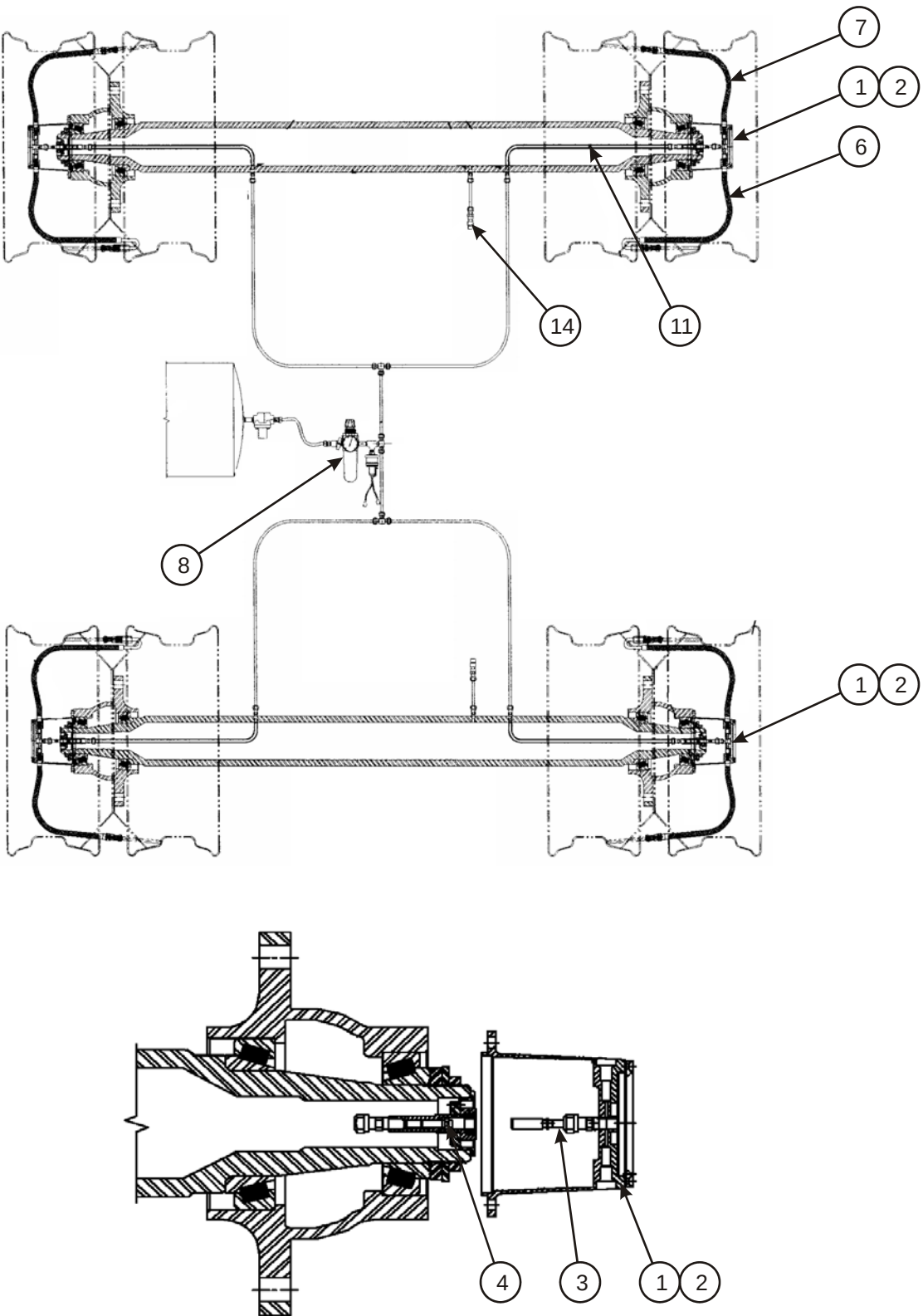


Figure 2-92: Ramps (Option)

RAMPS (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	B3-619-007	RAMPS ALUMINUM	
1	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	6
2	1-512-010005-15	NUT, HEX LOCK 3/4-10 GRB	4
3	1/2-13X1-3/4CB	SCREW, RD HEAD SQ NECK 1/2-13 X 1-3/4 GR2	6
4	3-619-010059	ALUMINUM RAMP ASSEMBLY 60"	2
5	3-619-010061	ANCHOR ASSEMBLY, ALUMINUM RAMP	2



m157703

Figure 2-93: Tire Inflation System (Option)

TIRE INFLATION SYSTEM (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	157703	TIRE INFLATION SYSTEM 3AX	
	157702	TIRE INFLATION SYSTEM 2AX	
1	139529	HUB CAP ASSEMBLY, LOW PROFILE 5.5" OIL	*6, 4
2	157704	GASKET, HUB CAP	*6, 4
3	157705	ROTATING SHAFT, UNIVERSAL	*6, 4
4	157706	SPINDLE PLUG, 1.75"	*6, 4
5	157707	AIR CYLINDER ASSEMBLY (NOT SHOWN)	*6, 4
6	159338	HOSE ASSEMBLY, OUTER TIRE	*6, 4
7	159337	HOSE ASSEMBLY, INNER TIRE	*6, 4
8	148416	REGULATOR ASSEMBLY W/ BALL VALVE	1
9	-----	WARNING LIGHT WIRE (NOT SHOWN)	1
10	-----	NYLON AIR TUBE (NOT SHOWN)	1
11	-----	CHAFE GUARD	1
12	-----	LARGE WIRE TIES (NOT SHOWN)	3
13	148417	TRIPLE AXLE HARDWARE KIT (NOT SHOWN)	1
	148413	DUAL AXLE HARDWARE KIT (NOT SHOWN)	1
14	-----	AXLE VENT	1
15	145677	LIGHT PRESSURE GUARD (NOT SHOWN)	1
16	154653	PRESSURE SWITCH (NOT SHOWN)	1

* 1ST QUANTITY IS USED ON P/N 157703; 2ND QUANTITY IS USED ON P/N 157702

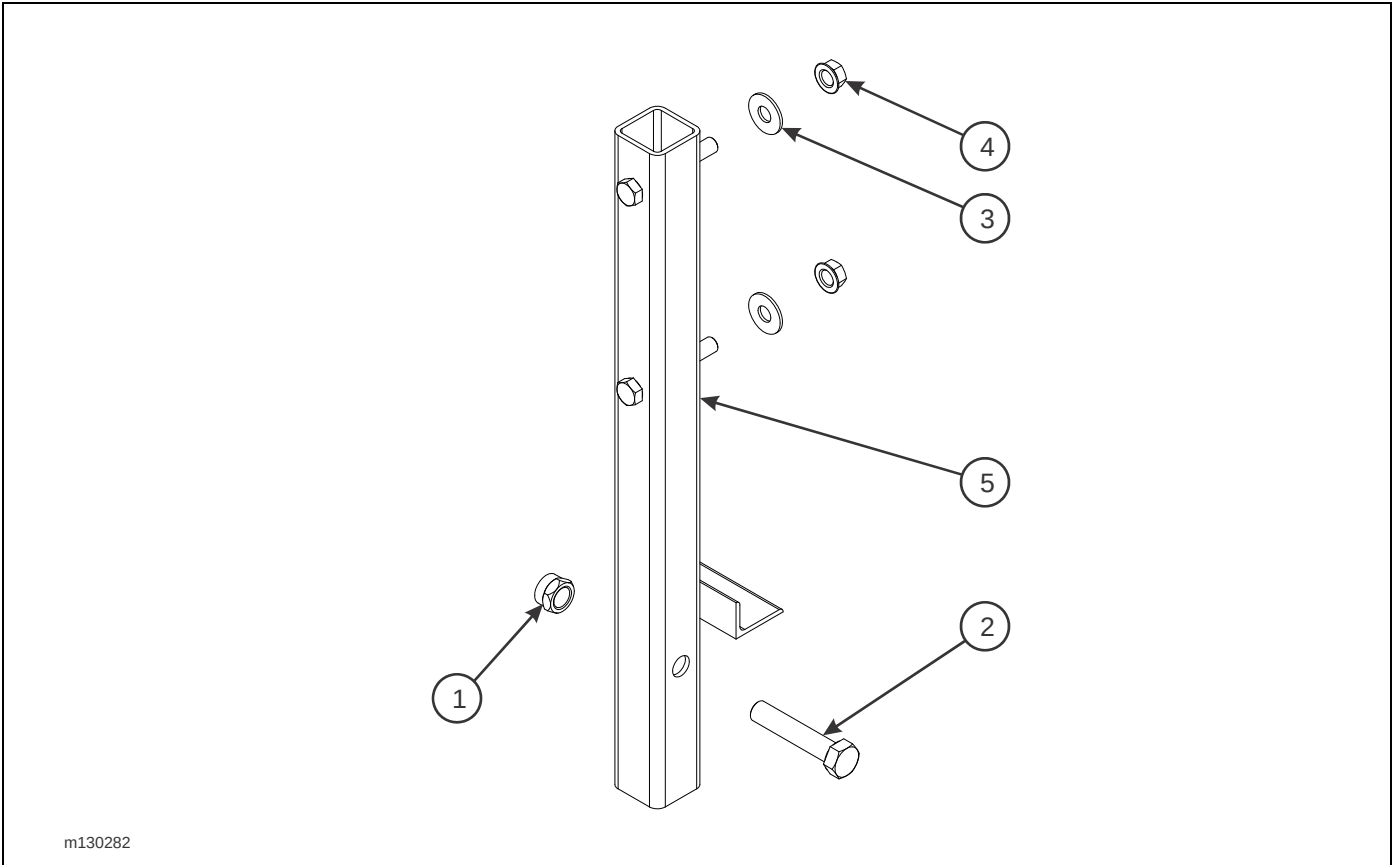


Figure 2-94: Spare Tire Mount Assembly

SPARE TIRE MOUNT ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
	130282	SPARE TIRE MOUNT ASSEMBLY	
1	1-512-010005-19	NUT, HEX LOCK 1-8 GRB	1
2	1-654-010065-15	SCREW, HEX HEAD CAP 1-8 X 5 GR5	1
3	1-861-010032-21	WASHER, FLAT, 3/4W	2
4	103841	NUT, FLANGE PREVAILING TORQUE 3/4-10	2
5	130280	MOUNT WELDMENT, SPARE TIRE	1

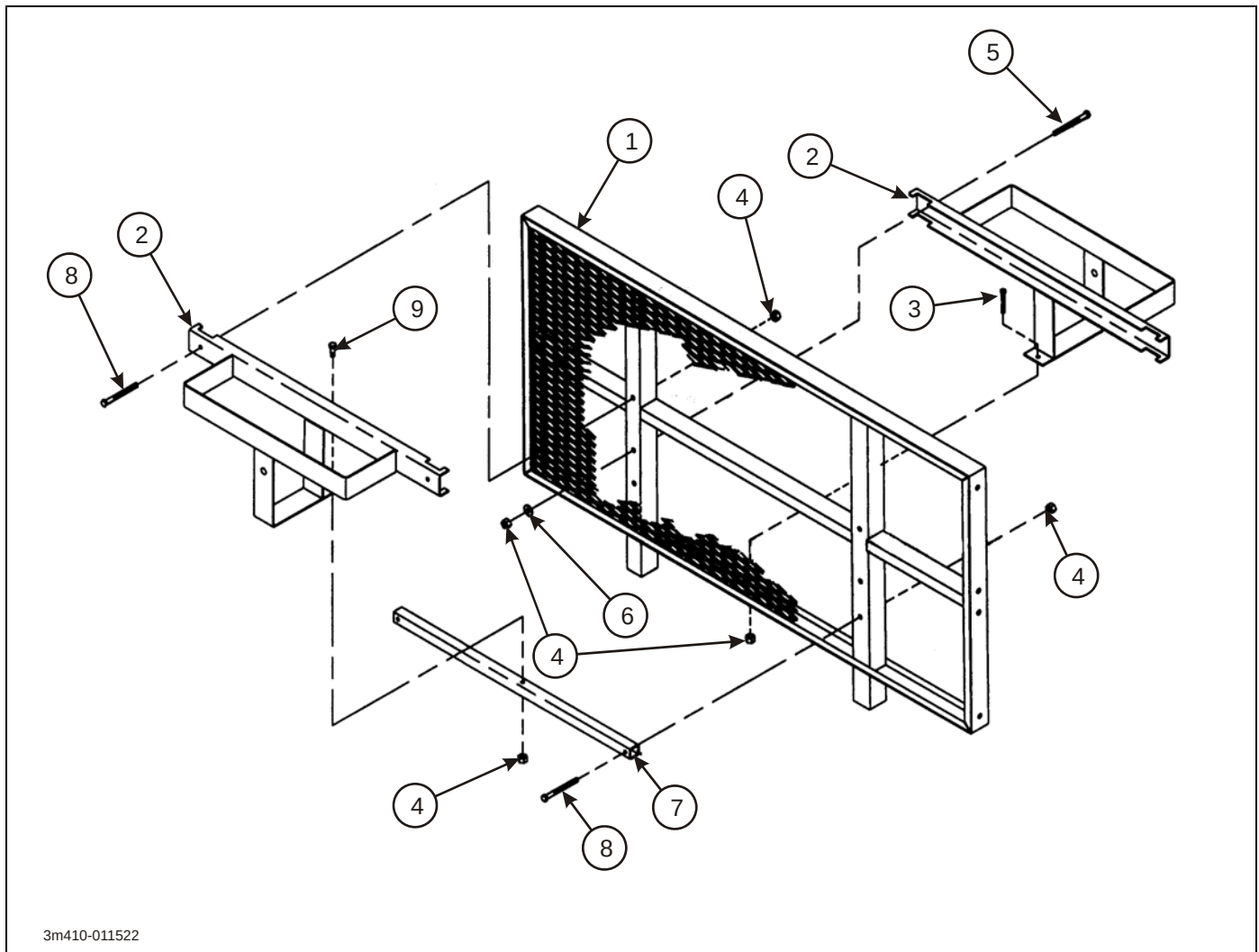
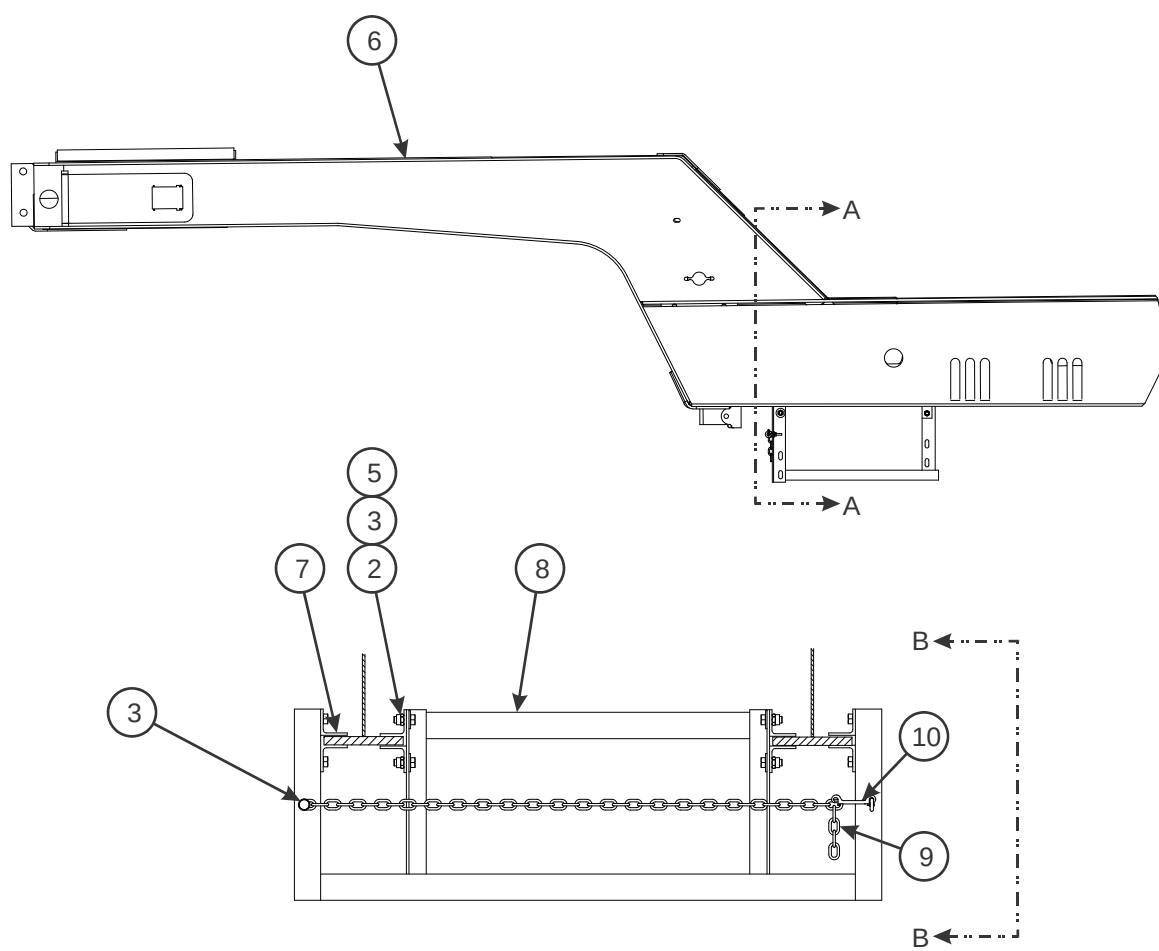


Figure 2-95: Spare Tire Carrier (Option)

SPARE TIRE CARRIER (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	3-612-010015-1	RACK INSTALLATION BHD, FRONT MOUNT (ITEMS 2-6)	
	3-612-010015-2	RACK INSTALLATION BHD, REAR MOUNT (ITEMS 2, 4, 7-9)	
1	-----	BULKHEAD WELDMENT	REF
2	3-612-010016	RACK WELDMENT, BULKHEAD MOUNT	1
3	1-654-010055-01	SCREW, HEX HEAD CAP 1/2-13 X 1 GR5	1
4	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	3,5*
5	1-654-010055-15	SCREW, HEX HEAD CAP 1/2-13 X 5 GR5	2
6	1-861-010032-15	WASHER, FLAT 1/2W	2
7	3-829-010337	TUBE W/ TAB MOUNTED BULKHEAD SPARE RACK	1
8	1-654-010055-18	SCREW, HEX HEAD CAP 1/2-13 X 6-1/2 GR5	4
9	1-654-010055-09	SCREW, HEX HEAD CAP 1/2-13 X 3 GR5	1

* 1ST QUANTITY IS FOR P/N 3-612-010015-1; 2ND QUANTITY IS FOR P/N 3-612-010015-2.



SECTION A-A

VIEW B-B

m142428

Figure 2-96: Spare Tire Carrier Installation (Option)

SPARE TIRE CARRIER INSTALLATION (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	142428	CARRIER INSTALLATION, SPARE TIRE	
1	1-512-010005-03	NUT, HEX LOCK 5/16-18 GRB	2
2	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	8
3	1-654-010055-02	SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5	9
4	1-861-010032-09	WASHER, FLAT 5/16W	3
5	1-861-010032-15	WASHER, FLAT 1/2W	8
6	-----	FRAME WELDMENT	REF
7	134156	HOLD-DOWN, SPARE TIRE	8
8	142423	CARRIER, SPARE TIRE	1
9	2116-544-04	CHAIN, 3/16 PROOF	AR
10	3-707-010001	SNAP, DOUBLE END	1
11	5/16-18X1-1/2EB	EYE BOLT 5/16-18 X 1-1/2	1

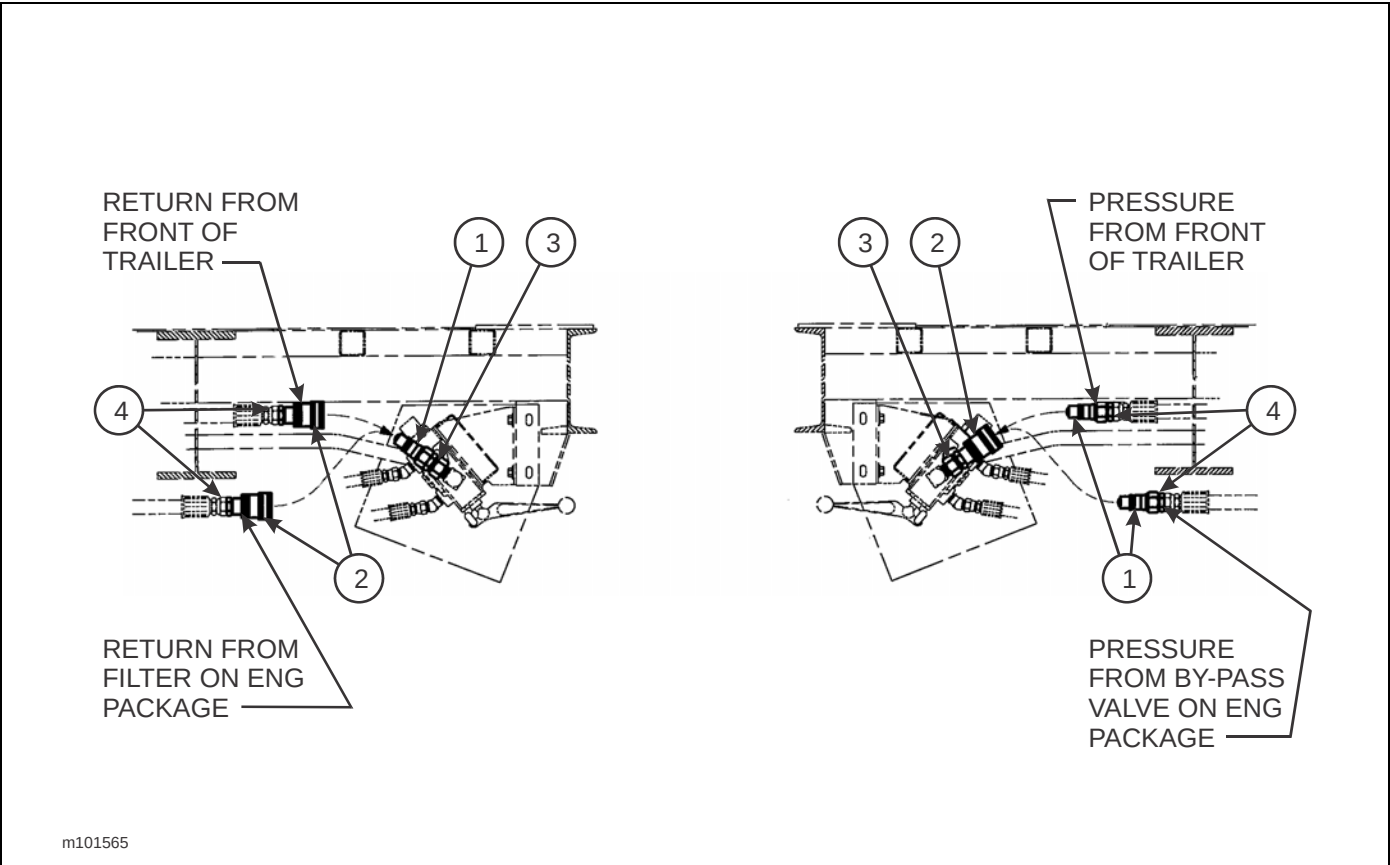
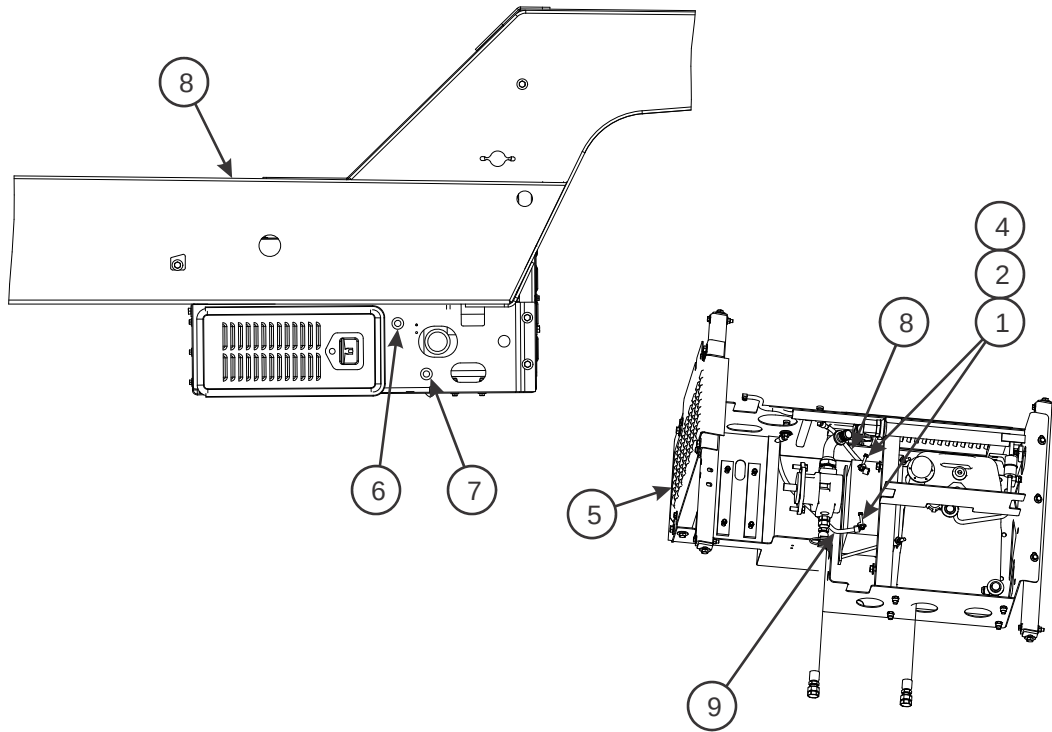


Figure 2-97: Hydraulic Dual Plumbing (Option)

HYDRAULIC DUAL PLUMBING (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	101565	HYDRAULIC DUAL PLUMBING	
1	S21F-6	COUPLER, 3/4 MALE	3
2	S25F-6	COUPLER, 3/4 FEMALE	3
3	2018-12-12S	ADAPTER, HYDRAULIC	2
4	2021-12-12S	ADAPTER	4



m148732

Figure 2-98: Jump Start Kit (Option)

JUMP START KIT (OPTION)

ITEM	PART NO.	DESCRIPTION	QTY.
	148732	JUMP START KIT, SLOPE ENG PKG	
1	1-510-010004-03	NUT, FLANGE HEAD SPIRALOCK 5/16-18	2
2	1-861-010032-08	WASHER, FLAT 5/16N	2
3	-----	FRAME WELDMENT	REF
4	115819	SCREW, HEX HEAD CAP 5/16-18 X 2 GR8	2
5	117155	BRACKET KIT, ENG PKG	REF
6	148581	BATTERY JUMPER, POSITIVE TERMINAL	1
7	148582	BATTERY JUMPER, NEGATIVE TERMINAL	1
8	148733	JUMP KIT POWER CABLE - POS.	1
9	148734	JUMP KIT POWER CABLE - NEG.	1

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