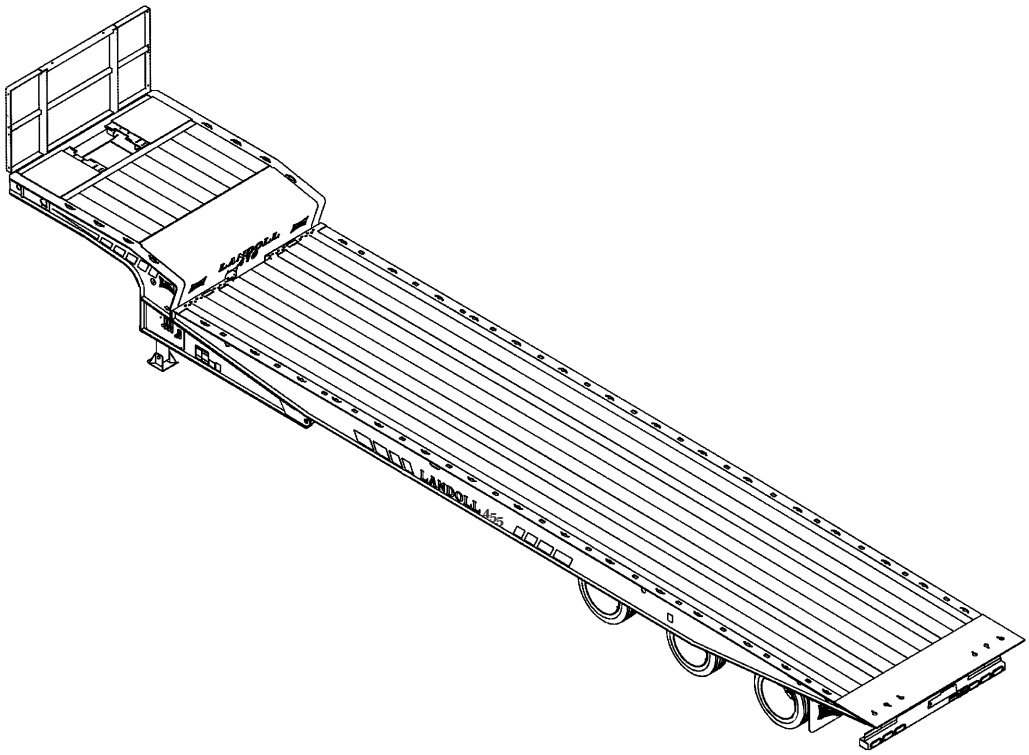
# Model 425B/440/455
# Semitrailer
# Parts Manual



**LANDOLL CORPORATION**
1900 North Street
Marysville, Kansas 66508
(785) 562-5381
**800-428-5655 ~ WWW.LANDOLL.COM**

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# 3 Numerical Index

# Chapter 1

# 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 model number and serial number, is located on the left side of the hitch (See Figure 1-1.)

**SERIAL NUMBER NOMENCLATURE**

The serial number for the 425B/440/455 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.

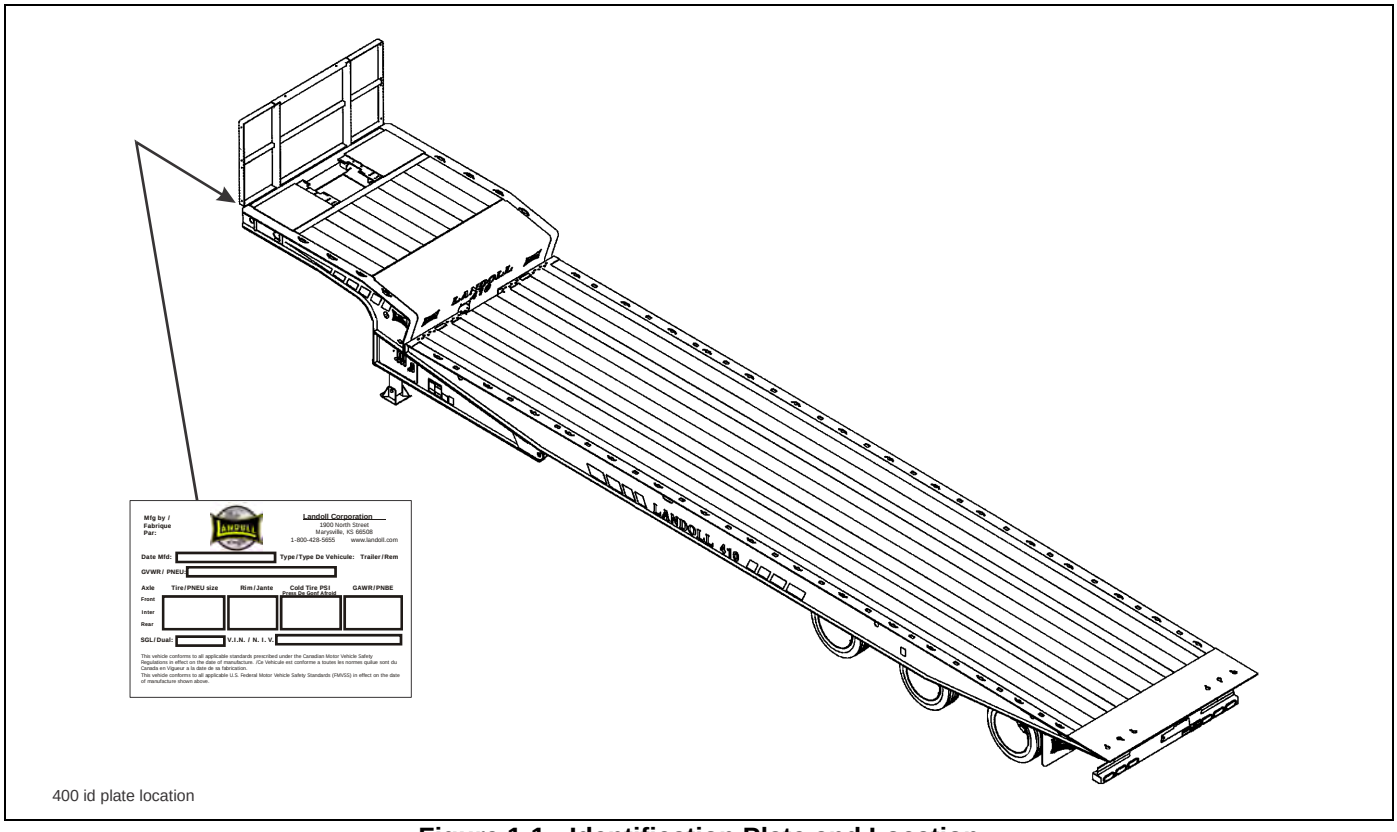



**Figure 1-1: Identification Plate and Location**

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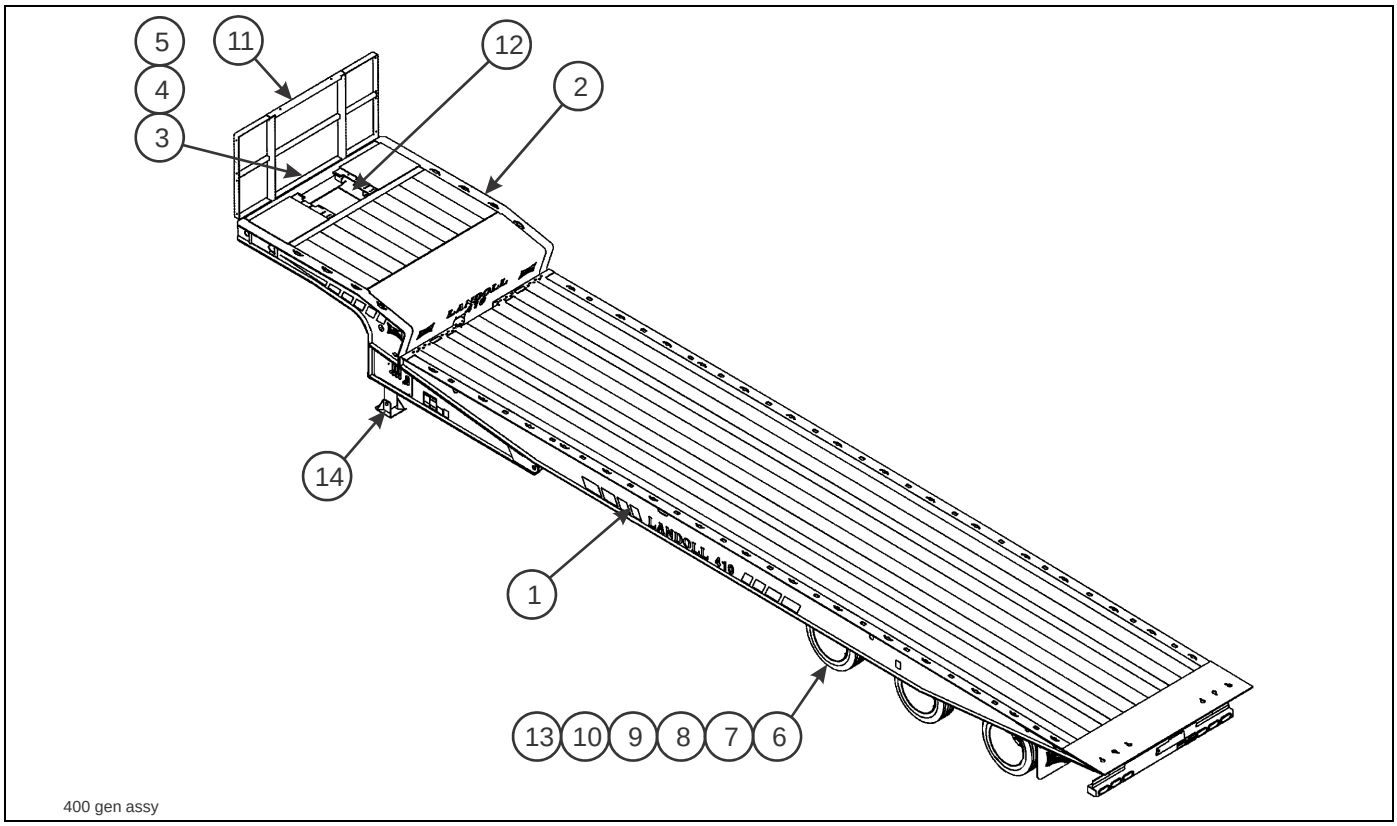
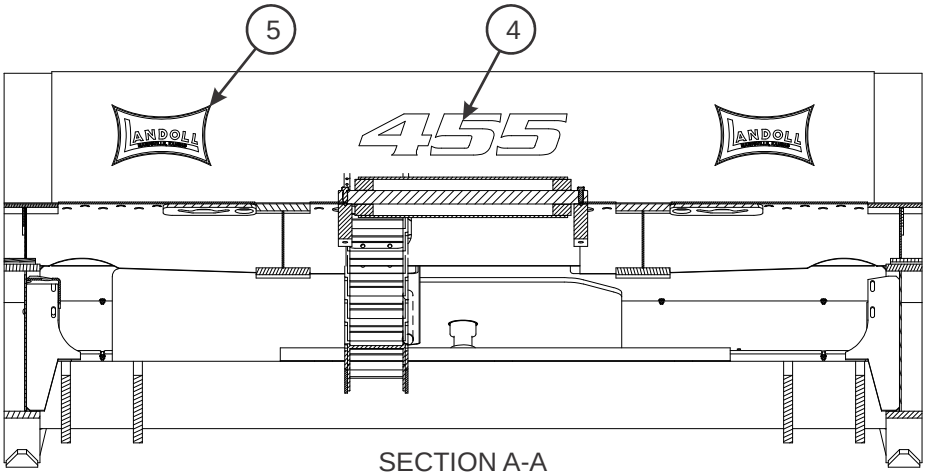
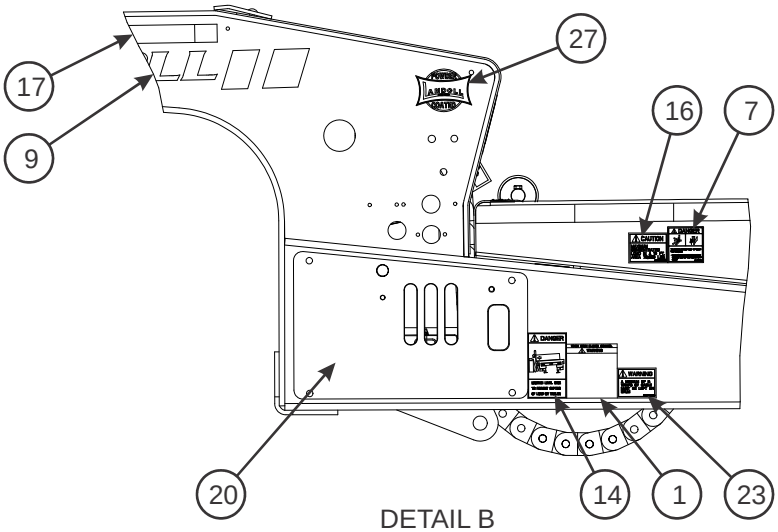


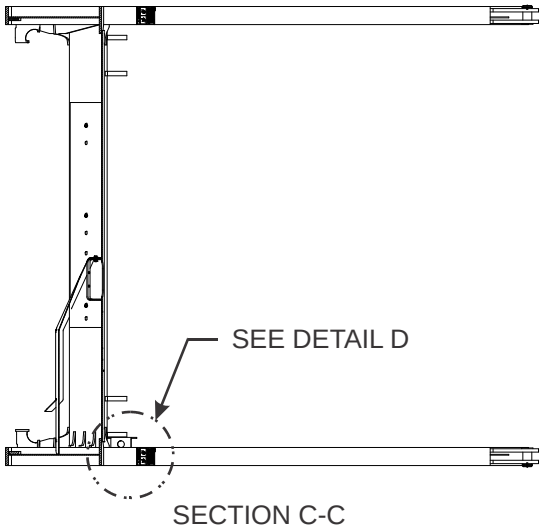

**Figure 2-1: General Assembly**

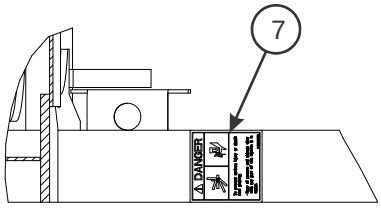
## GENERAL ASSEMBLY

| ITEM | PAGE NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 2-2 - 2-5 | DECAL INSTALLATION | |
| 2 | 2-6 - 2-8 | UPPER DECK ASSEMBLY | |
| 3 | 2-10 - 2-37 | HYDRAULIC SYSTEM | |
| 4 | 2-38 - 2-39 | ELECTRICAL SYSTEM | |
| 5 | 2-40 - 2-45 | AIR SYSTEM | |
| 6 | 2-46 - 2-93 | UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION, AIR BRAKE SYSTEMS, GREASE SYSTEM, TIRE INFLATION, AXLES, HUB AND DRUM ASSEMBLY | |
| 7 | 2-94 - 2-107 | UNDERCARRIAGE ASSEMBLY - DISC BRAKE SUSPENSION, DISC BRAKE SYSTEMS, GREASE SYSTEM, TIRE INFLATION, AXLES, HUB AND DRUM ASSEMBLY | |
| 8 | 2-108 - 2-129 | BULKHEAD/PULLOUT/OUTRIGGER ASSEMBLIES (OPTION) | |
| 9 | 2-130 - 2-225 | WINCH ASSEMBLIES | |
| 10 | 2-226 - 2-247 | DOCK LEVELER ASSEMBLIES (OPTION) | |
| 11 | 2-250 - 2-259 | LANDING GEAR ASSEMBLIES (OPTION) | |
| 12 | 2-260 - 2-274 | HYDRAULIC ENGINE ASSEMBLIES (NOT SHOWN) (OPTION) | |
| 13 | 2-275 - 2-339 | MISCELLANEOUS OPTIONS (NOT SHOWN) | |



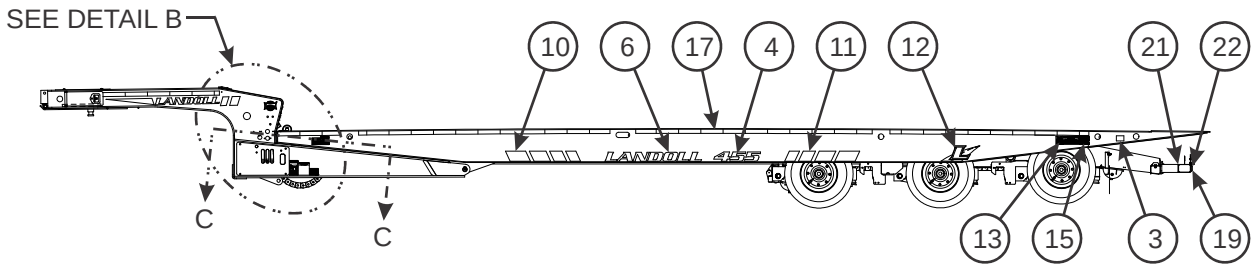



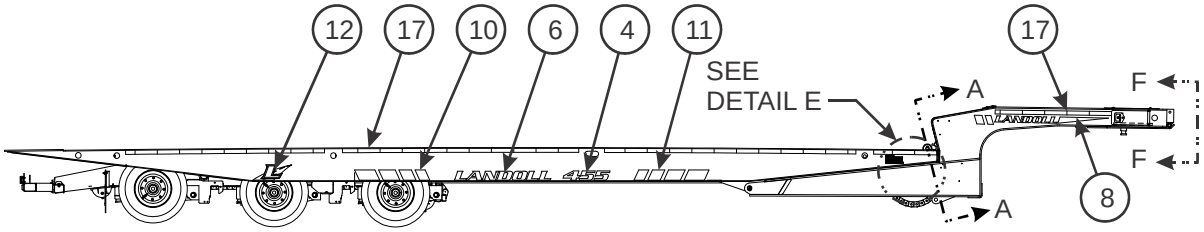




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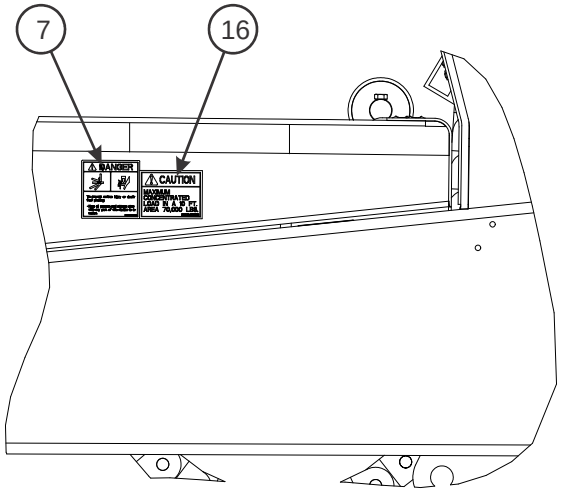
**Figure 2-2: Decal Installation (1 of 2)**



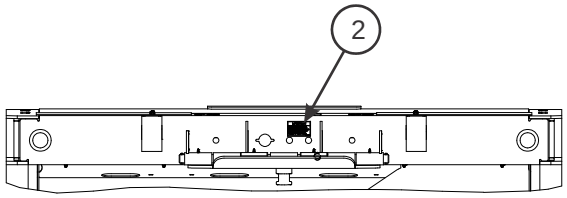

LEFT SIDE




RIGHT SIDE




DETAIL E




SECTION F-F

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

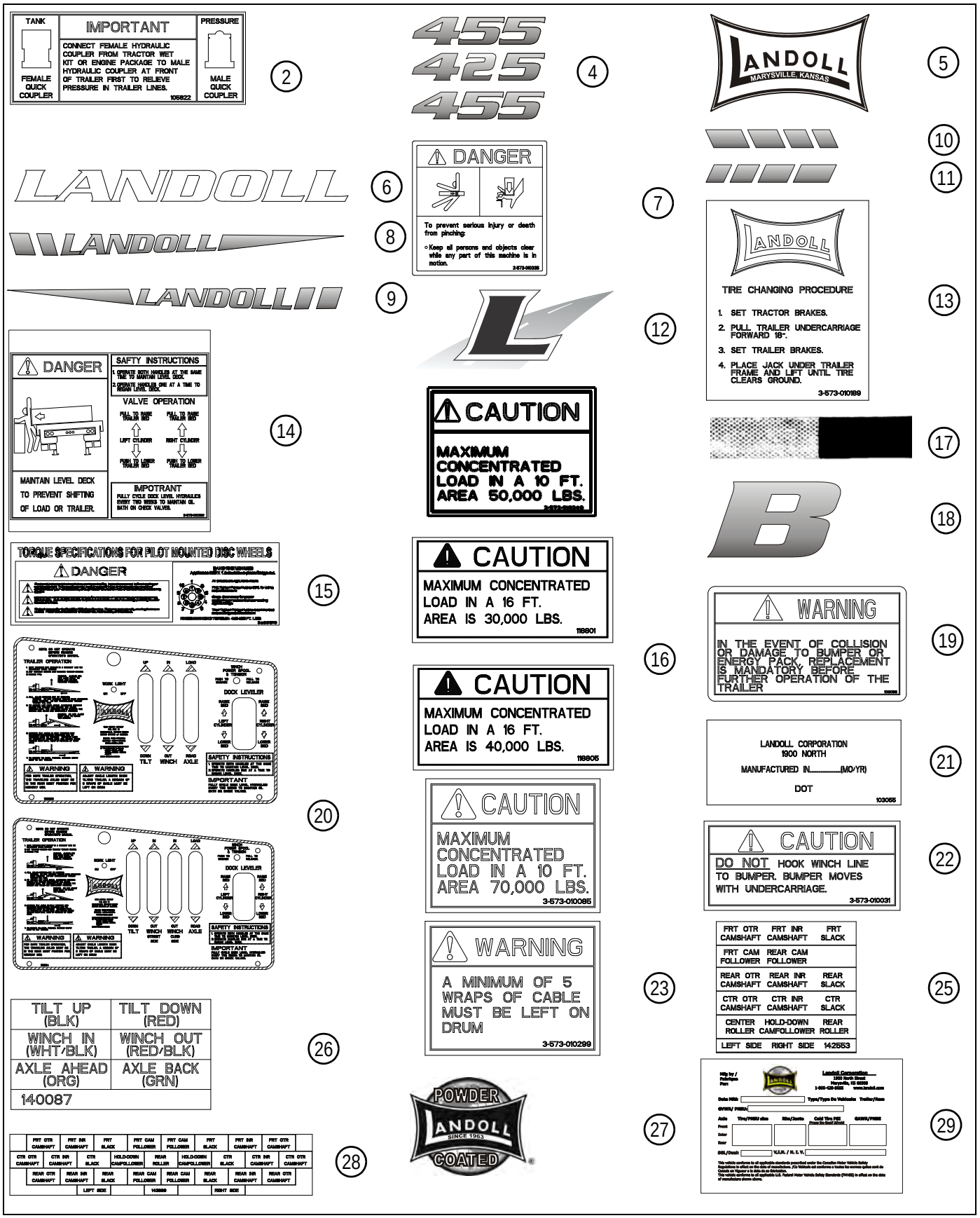
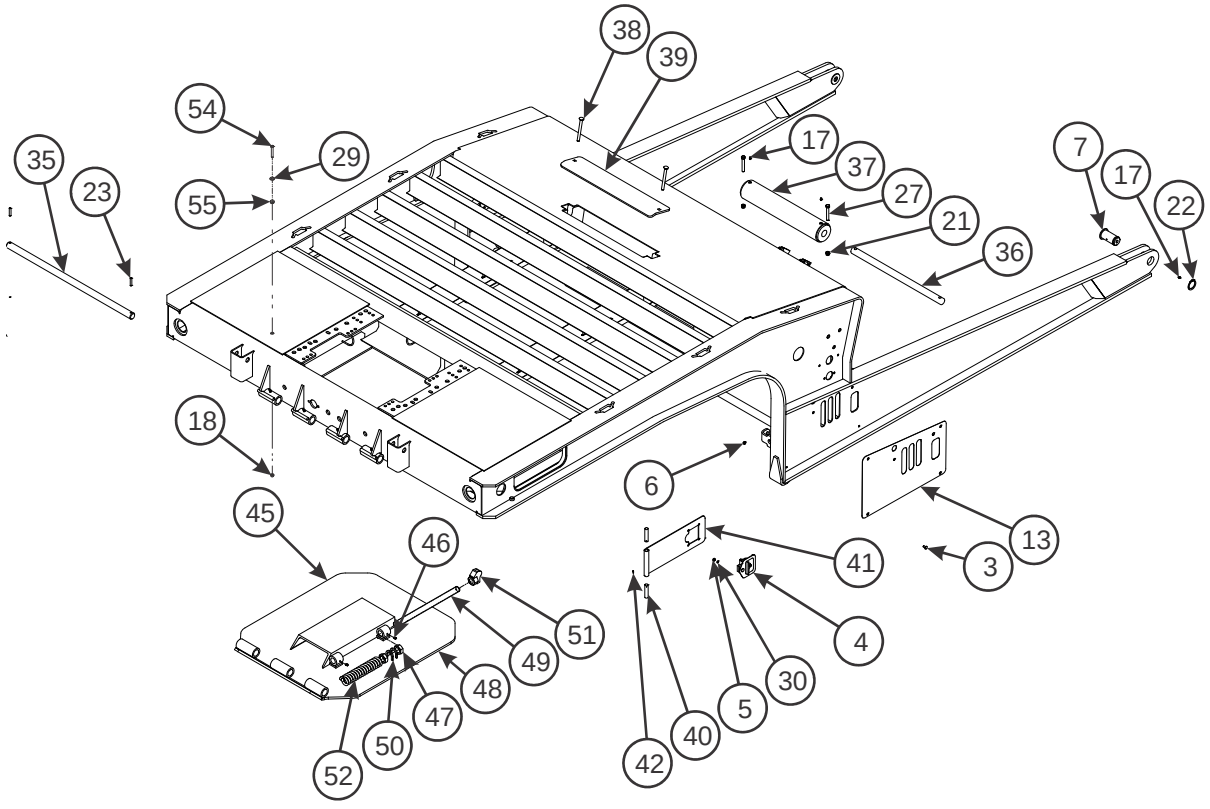


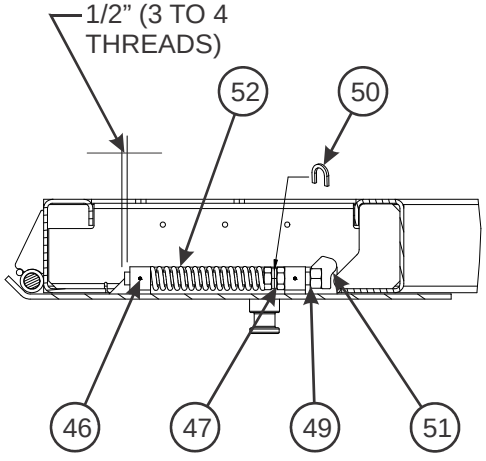

**Figure 2-4: Decals**

# DECAL INSTALLATION

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 156003 | DECAL INSTALLATION 455 | REF |
| | 153769 | DECAL INSTALLATION 425 | REF |
| | 156006 | DECAL INSTALLATION 440 | REF |
| 1 | 100600 | DECAL, WARNING BRADEN WINCH | REF |
| 2 | 105822 | DECAL, HYDRAULIC COUPLER | REF |
| 3 | 101855 | DECAL, ABS | 1 |
| 4 | 155278 | DECAL, 455 REFLECTIVE | 3 |
| | 179926 | DECAL, 455 ANNIVERSERY ADDITION | 3 |
| | 153721 | DECAL, 425 REFLECTIVE | 3 |
| | 155277 | DECAL, 440 REFLECTIVE | 3 |
| | 179925 | DECAL, 440 ANNIVERSERY ADDITION | 3 |
| 5 | 153754 | DECAL, BOW-TIE (WHITE/DK) REFLECTIVE | 2 |
| | 153755 | DECAL, BOW-TIE (BLACK/LT) REFLECTIVE | 2 |
| 6 | 153750 | DECAL, LANDOLL 5" REFLECTIVE | 2 |
| 7 | 2-573-010335 | DECAL, DANGER PINCH | 4 |
| 8 | 153748 | DECAL, TAPERED STRIPE LEFT REFLECTIVE | 1 |
| 9 | 153749 | DECAL, TAPERED STRIPE RIGHT REFLECTIVE | 1 |
| 10 | 153752 | DECAL, CHEVRON LEFT REFLECTIVE | 2 |
| 11 | 153753 | DECAL, CHEVRON RIGHT REFLECTIVE | 2 |
| 12 | 153751 | DECAL, HIGHWAY L 7" REFLECTIVE | 2 |
| 13 | 3-573-010189 | DECAL, TIRE CHANGING PROCEDURE | 1 |
| 14 | 3-573-010202 | PLACARD, DANGER! DOCK LEVELER OPERATION | REF |
| 15 | 3-573-010210 | DECAL, TORQUE SPEC 8-10 STUD HUB | 1 |
| 16 | 3-573-010349 | DECAL, CAUTION 50K/10FT CONC. LOAD | 2 |
| | 118801 | DECAL, CAUTION 30K/16FT CONC. LOAD | 2 |
| | 118805 | DECAL, CAUTION 40K/16FT CONC. LOAD | 2 |
| | 3-573-010085 | DECAL, CAUTION CONC. LOAD 70000 LBS. | 2 |
| 17 | 3-573-010377 | DECAL, 2" REFLEXITE TAPE RD/WHT | AR |
| 18 | 153744 | DECAL, B 5" REFLECTIVE (USED W/ 425 MODEL ONLY) | 3 |
| 19 | 103056 | DECAL, ENERGY BUMPER WARNING | 1 |
| 20 | 139520 | PLACARD, CONTROLS | 1 |
| | 161824 | PLACARD, CONTROLS | 1 |
| 21 | 103055 | DECAL, ENERGY CERTIFICATION | 1 |
| 22 | 3-573-010031 | DECAL, BUMPER | 1 |
| 23 | 3-573-010299 | DECAL, WARNING WINCH CABLE | 1 |
| 25 | 142553 | DECAL, GREASE TRAILER (425/440) | 1 |
| 26 | 140087 | DECAL, 400 REMOTE | 1 |
| 27 | 153798 | DECAL, POWDER COATED REFLECTIVE | 1 |
| 28 | 143688 | DECAL, GREASE TRAILER (455) | 1 |
| 29 | 155780 | TRAILER VIN PLATE | 1 |
| 30 | 156010 | RIVET, BLIND .156 X 1/2 GRIP | 4 |

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

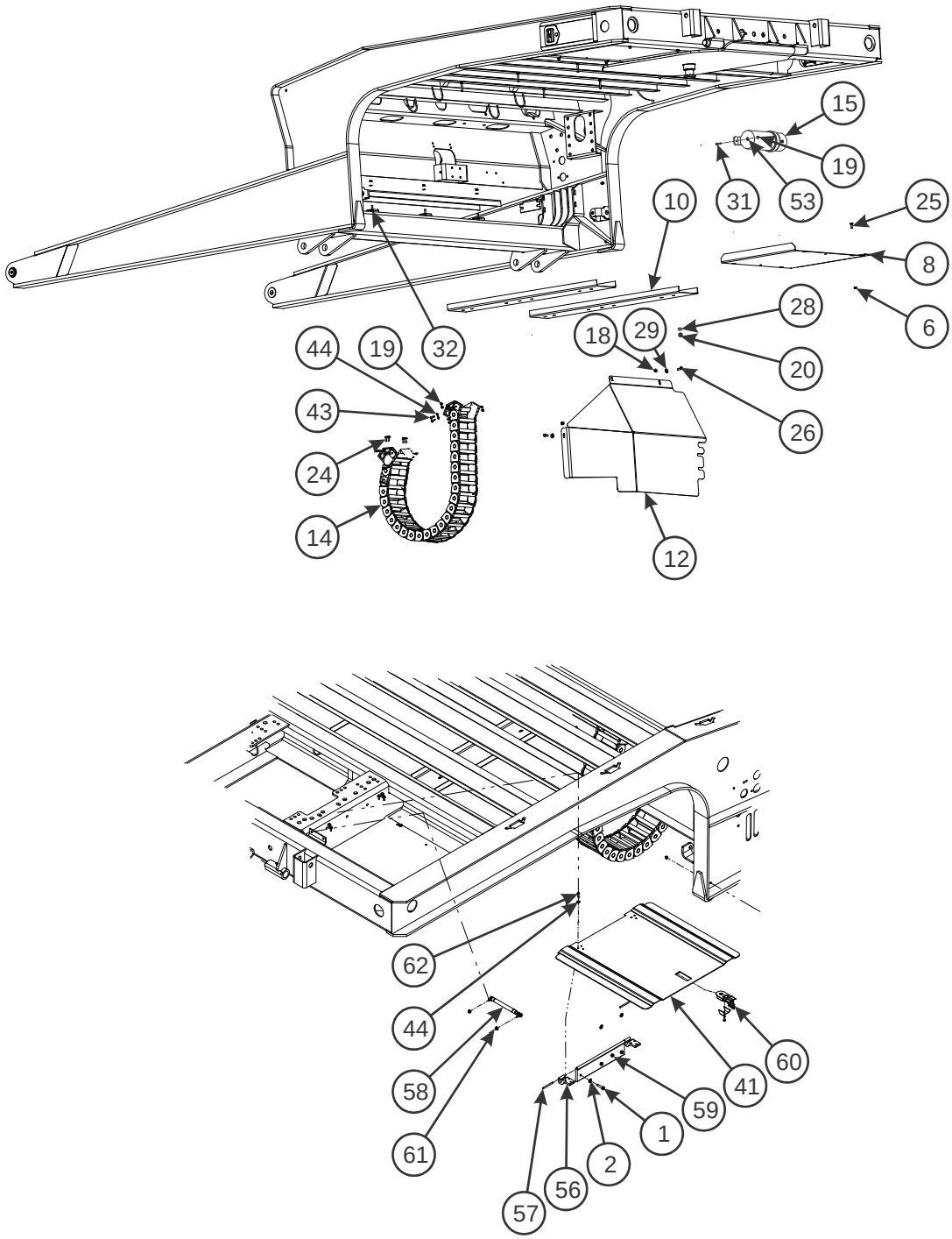



FIFTH WHEEL LOCK SETUP

m130552 p1

**Figure 2-5: Upper Deck Assembly (1 of 2)**




GALVANIZED FLIP-UP TOOLBOX OPTION

m130552 p2

**Figure 2-6: Upper Deck Assembly (2 of 2)**

# UPPER DECK ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | ----- | G/N FRAME ASSEMBLY | |
| 1 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 12 |
| 2 | 1-861-010032-10 | WASHER, FLAT 3/8N | 12 |
| 3 | 105909 | SCREW, RD HEAD SQ NECK 5/16-18 X 3/4 | 4 |
| 4 | 114814 | LATCH FOLDING T LOCKABLE | 2 |
| 5 | 115877 | NUT, HEAVY HEX 1/4-20 | 8 |
| 6 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 8 |
| 7 | 116943 | PIN WELDMENT PIVOT | 2 |
| 8 | 117544 | PLATE, TOOLBOX BOTTOM | 2 |
| | 137963 | PLATE, TOOLBOX BOTTOM (455-120) | 2 |
| | 164115 | PLATE, TOOLBOX BOTTOM (455-108) | 2 |
| 10 | 117565 | COVER, HOSE LOWER | 3 |
| 12 | 121125 | SHIELD, HYDRAULIC CONTROLS | 1 |
| 13 | 139520 | PLACARD, CONTROL PANEL (SEE PAGE 2-5) | REF |
| | 161824 | PLACARD, CONTROL PANEL (SEE PAGE 2-5) | REF |
| 14 | 122380 | E-CHAIN G/N FRAME | 1 |
| | 135778 | E-CHAIN INDIVIDUAL LINK | 1 |
| | 135779 | E-CHAIN MOUNTING BRACKET | 1 |
| 15 | 150076 | MANUAL, TUBE 4-1/4” | 1 |
| 16 | ----- | GOOSENECK WELDMENT | 1 |
| 17 | 1-298-010001-1 | ZERK FITTING 1/4 | 4 |
| 18 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 7 |
| 19 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 11 |
| 20 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 21 |
| 21 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 4 |
| 22 | 1-630-010021-02 | RING, RETAINING 2 HD | 2 |
| 23 | 1-647-010004255 | PIN, SPRING SLOTTED 3/8 X 2 | 2 |
| 24 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 4 |
| 25 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 8 |
| 26 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 3 |
| 27 | 1-654-010055-11 | SCREW, HEX HEAD CAP 1/2-13 X 3-1/2 GR5 | 2 |
| 28 | 1-861-010032-08 | WASHER, FLAT 5/16N | 9 |
| 29 | 1-861-010032-11 | WASHER, FLAT 3/8W | 7 |
| 30 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 8 |
| 31 | 1-654-010047-07 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5 | 3 |
| 32 | 2-181-010001 | CLAMP | 3 |
| | 103817 | CLAMP, HOSE | 4 |
| 34 | 3-201-010002 | CONDUIT, PLASTIC FLEX 3/8 (NOT SHOWN) | AR |
| 35 | 3-557-010469 | HINGE PIN, FIFTH WHEEL | 1 |
| 36 | 3-642-010134 | ROD ROLLER | 1 |
| | 161810 | ROD ROLLER | 2 |
| 37 | 3-645-010059 | ROLLER WELDMENT, CABLE-UPPER DECK | 1 |
| | 161809 | ROLLER WELDMENT, CABLE-UPPER DECK (BEFORE 1-19-2015) | 2 |
| | 187787 | ROLLER WELDMENT, HDPU, 18-3/4 (AFTER 01/19/2015) | |
| 38 | 100939 | SCREW, RD HEAD SQ NECK 1/2-13 X 5-1/2 | 2 |
| 39 | 131196 | PLATE, WINCH CABLE WEAR U/D | 1 |
| | 161808 | PLATE, WINCH CABLE WEAR U/D | 1 |
| 40 | 135181 | BUSHING, NYLATRON | 4 |
| 41 | 136352 | DOOR WELDMENT, TOOLBOX | REF |

# UPPER DECK ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 137070 | DOOR WELDMENT, TOOLBOX GALV. | REF |
| | 118800 | DOOR WELDMENT, TOOLBOX | |
| | 140851 | DOOR WELDMENT, TOOLBOX | |
| 42 | 1-654-010147-06 | SCREW, RD HEAD SELF TAPPING #6-20 X 3/4 | 8 |
| 43 | 108610 | SCREW, BUTTON HEAD 1/4-20 X 1 | 4 |
| 44 | 1-861-010032-06 | WASHER, FLAT 1/4N | 4 |
| 45 | 141609 | HITCH PLATE ASSEMBLY (INCL ITEMS 46-52) | 1 |
| 46 | 1-298-010001-1 | FITTING, GREASE 1/4-28 STR SHORT | 2 |
| 47 | 100823 | NUT, HEX JAM 1-1/4-7 GRB | 2 |
| 48 | 116822 | HITCH, PLATE (21" KINGPIN) | 1 |
| 49 | 117556 | LATCH ROD | 1 |
| 50 | 117562 | SHIM, HITCH | 2 |
| 51 | 118889 | CAM, FIFTH WHEEL LATCH | 1 |
| 52 | 2-720-010002 | SPRING CLAMP | 1 |
| 53 | 1-861-010032-07 | WASHER, FLAT 1/4 | 3 |
| 54 | 119146 | SCREW, BUTTON HEAD CAP 3/8-16 X 2-3/4 | 4 |
| 55 | 805-2 | BUSHING, STEP | 4 |
| 56 | 108545 | HINGE, DOOR FRAME SIDE | 8 |
| 57 | 108601 | PIN, DOOR HINGE | 8 |
| 58 | 110435 | CONSOLE LIFT, GAS SPRING | 4 |
| 59 | 116856 | HINGE, BASE TOOLBOX LID | 4 |
| 60 | 118853 | LATCH, COMPRESSION | 4 |
| 61 | 1-510-010004-03 | NUT, FLANGE HEAD SPIRALOCK 5/16-18 | 8 |
| 62 | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5 | 24 |

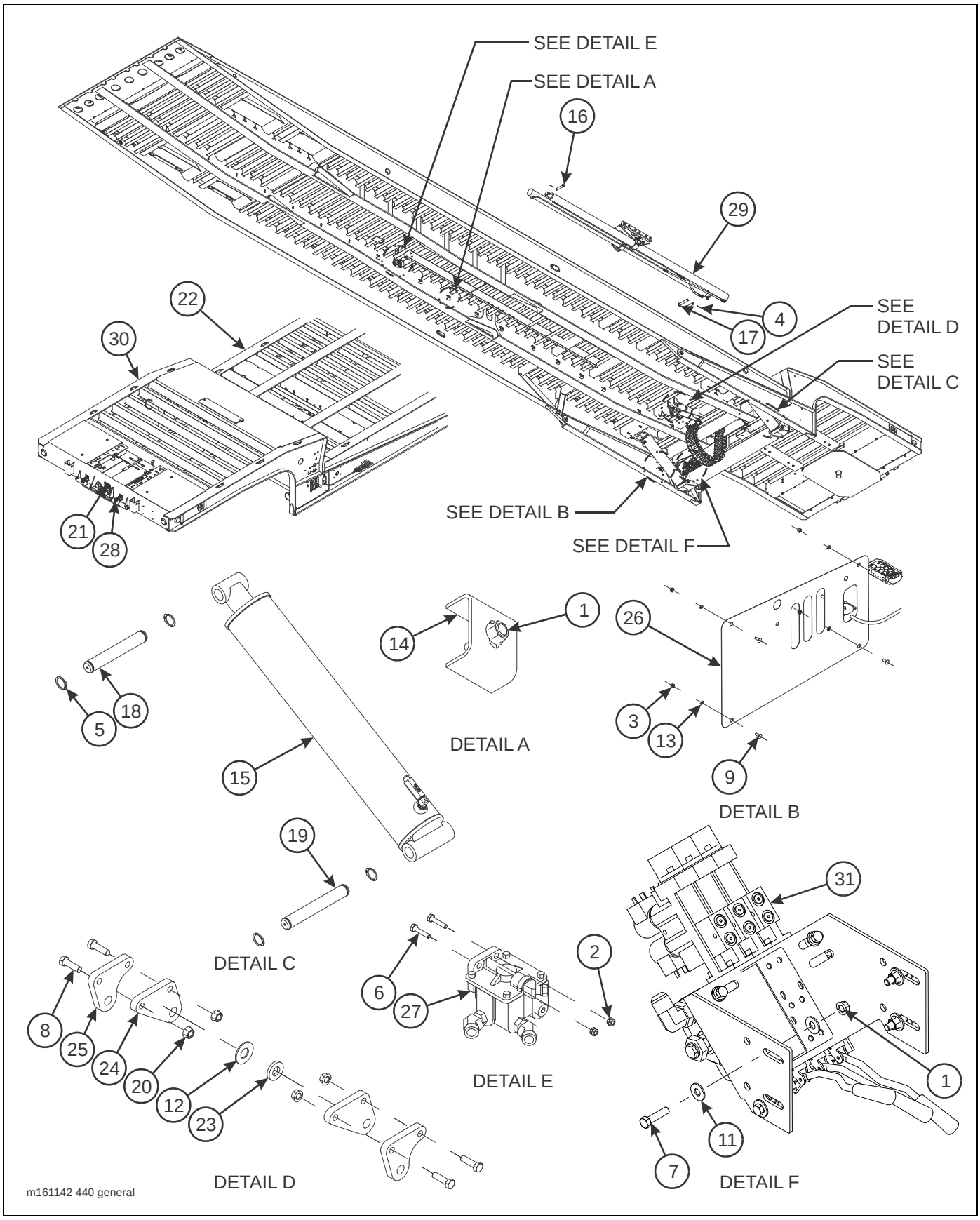



**Figure 2-7: Hydraulic Electrical Air General Assembly (425 & 440)**

# HYDRAULIC ELECTRICAL AIR GENERAL ASSEMBLY (425 & 440)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 143214 | HYDRAULIC ELECTRICAL AIR (425) | |
| | 161142 | HYDRAULIC ELECTRICAL AIR (440) | REF |
| 1 | 1-510-010001 | NUT, HEX FLANGE LOCK 3/8-16 | 14 |
| 2 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 3 | 1-512-010007-05 | NUT, HEX 1/4-20 | 4 |
| 4 | 1-557-010362-54 | PIN, COTTER 3/16 X 2-1/4 | 2 |
| 5 | 1-630-010021-01 | RING, 1.5 RETAINING HD | 8 |
| 6 | 1-654-010027-7 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR8 | 2 |
| 7 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 4 |
| 8 | 1-654-010061-07 | SCREW, HEX HEAD CAP 3/4-10 X 2-1/2 GR5 | 4 |
| 9 | 1-654-010158-1 | SCREW, RD HEAD SQ NECK 1/4-20 X 3/4 GR2 | 4 |
| 10 | 1-796-010003-02 | TIE STRAP PLASTIC .184 X 14 (NOT SHOWN) | AR |
| 11 | 1-861-010032-11 | WASHER, FLAT 3/8 | 8 |
| 12 | 1-861-010032-29 | WASHER, FLAT 1-1/4W | 1 |
| 13 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 4 |
| 14 | 2-181-010001 | CLAMP, HOSE | 10 |
| 15 | 3-242-010189 | CYLINDER, LIFT 6 X 41 (SEE PAGE 2-33) | 2 |
| 16 | 3-557-010031 | PIN, CYL U/C | 1 |
| 17 | 3-557-010033 | PIN, CYL BUTT END | 1 |
| 18 | 3-557-010470-01 | PIN, CYL BUTT END | 2 |
| 19 | 3-557-010470-02 | PIN, CYL ROD END | 2 |
| 20 | 103841 | NUT, FLANGE PREVAILING TORQUE 3/4-10 | 4 |
| 21 | 105822 | DECAL, HYDRAULIC COUPLER | 1 |
| 22 | ----- | FRAME WELDMENT | REF |
| 23 | 123150 | WASHER, CYLINDER PIN | 1 |
| 24 | 127422 | ANCHOR, CYL BOLT-ON | 2 |
| 25 | 127691 | ANCHOR, CYLINDER ADJUST BOLT-ON | REF |
| 26 | 139520 | PLACARD, CONTROLS | 1 |
| 27 | 141607 | AIR BOOSTER VALVE ASSEMBLY (SEE PAGE 2-43) | 1 |
| 28 | 171320 | CONNECTORS, AIR/HYDRAULIC (FLOW CONTROL) (SEE PAGE 2-19) | 1 |
| 29 | 144673 | U/C CYL ASSEMBLY (440-48) (SEE PAGE 2-25) | 1 |
| | 114674 | U/C CYL ASSEMBLY (440-50CA/52HD) (SEE PAGE 2-25) | 1 |
| | 144675 | U/C CYL ASSEMBLY (440-53/55) (SEE PAGE 2-25) | 1 |
| | 144676 | U/C CYL ASSEMBLY (425-45) (SEE PAGE 2-25) | 1 |
| | 144677 | U/C CYL ASSEMBLY (425-41/440-41) (SEE PAGE 2-25) | 1 |
| 30 | ----- | FRAME ASSEMBLY, G/N | REF |
| 31 | 148241 | VALVE ASSEMBLY, 3 SPOOL (SEE PAGE 2-21) | REF |

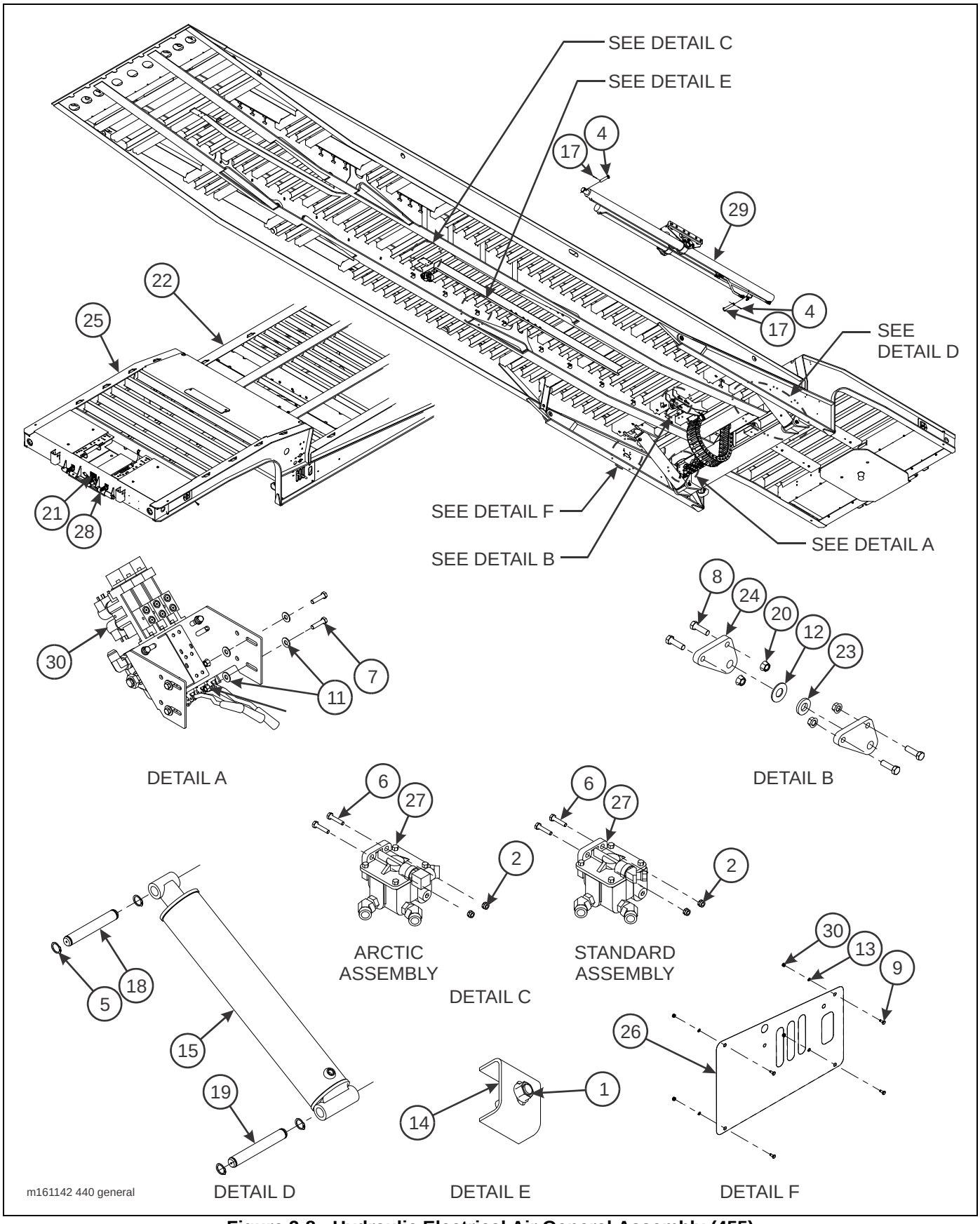



**Figure 2-8: Hydraulic Electrical Air General Assembly (455)**

# HYDRAULIC ELECTRICAL AIR GENERAL ASSEMBLY (455)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 161157 | HYDRAULIC ELECTRICAL AIR | REF |
| 1 | 1-510-010001 | NUT, HEX FLANGE LOCK 3/8-16 | 14 |
| 2 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 3 | 1-512-010007-05 | NUT, HEX 1/4-20 | 4 |
| 4 | 1-557-010362-54 | PIN, COTTER 3/16 X 2-1/4 | 2 |
| 5 | 1-630-010021-01 | RING, 1.5 RETAINING HD | 8 |
| 6 | 1-654-010027-7 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR8 | 2 |
| 7 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 4 |
| 8 | 1-654-010061-07 | SCREW, HEX HEAD CAP 3/4-10 X 2-1/2 GR5 | 4 |
| 9 | 1-654-010158-1 | SCREW, RD HEAD SQ NECK 1/4-20 X 3/4 GR2 | 4 |
| 10 | 1-796-010003-02 | TIE STRAP PLASTIC .184 X 14 (NOT SHOWN) | AR |
| 11 | 1-861-010032-11 | WASHER, FLAT 3/8 | 8 |
| 12 | 1-861-010032-29 | WASHER, FLAT 1-1/4W | 1 |
| 13 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 4 |
| 14 | 2-181-010001 | CLAMP, HOSE | 10 |
| 15 | 3-242-010189 | CYLINDER, LIFT 6 X 41 (SEE PAGE 2-33) | 2 |
| 16 | 3-557-010031 | PIN, CYL U/C | 1 |
| 17 | 3-557-010033 | PIN, CYL BUTT END | 1 |
| 18 | 3-557-010470-01 | PIN, CYL BUTT END | 2 |
| 19 | 3-557-010470-02 | PIN, CYL ROD END | 2 |
| 20 | 103841 | NUT, FLANGE PREVAILING TORQUE 3/4-10 | 4 |
| 21 | 105822 | DECAL, HYDRAULIC COUPLER | 1 |
| 22 | ----- | FRAME WELDMENT | REF |
| 23 | 123150 | WASHER, CYLINDER PIN | 1 |
| 24 | 127422 | ANCHOR, CYL BOLT-ON | 2 |
| 25 | ----- | FRAME ASSEMBLY, GOOSENECK | REF |
| 26 | 139520 | PLACARD, CONTROLS | 1 |
| 27 | 141607 | AIR BOOSTER VALVE ASSEMBLY (SEE PAGE 2-43) | 1 |
| | 163363 | VALVE ASSEMBLY, AIR BOOSTER ARCTIC (SEE PAGE 2-45) | 1 |
| 28 | 171320 | CONNECTORS, AIR/HYDRAULIC (FLOW CONTROL) (SEE PAGE 2-19) | 1 |
| 29 | 144673 | U/C CYL ASSEMBLY (455-50/53/55HD) (SEE PAGE 2-25) | 1 |
| | 144676 | U/C CYL ASSEMBLY (455-48/50CA) (SEE PAGE 2-25) | 1 |
| | 144677 | U/C CYL ASSEMBLY (455HD-50CA) (SEE PAGE 2-25) | 1 |
| | 170447 | U/C CYL ASSEMBLY ARCTIC (455-48/50CA) (SEE PAGE 2-25) | 1 |
| | 170448 | U/C CYL ASSEMBLY ARCTIC (455-48/50CA) (SEE PAGE 2-25) | 1 |
| 30 | 148241 | VALVE ASSEMBLY, 3 SPOOL (SEE PAGE 2-21) | REF |

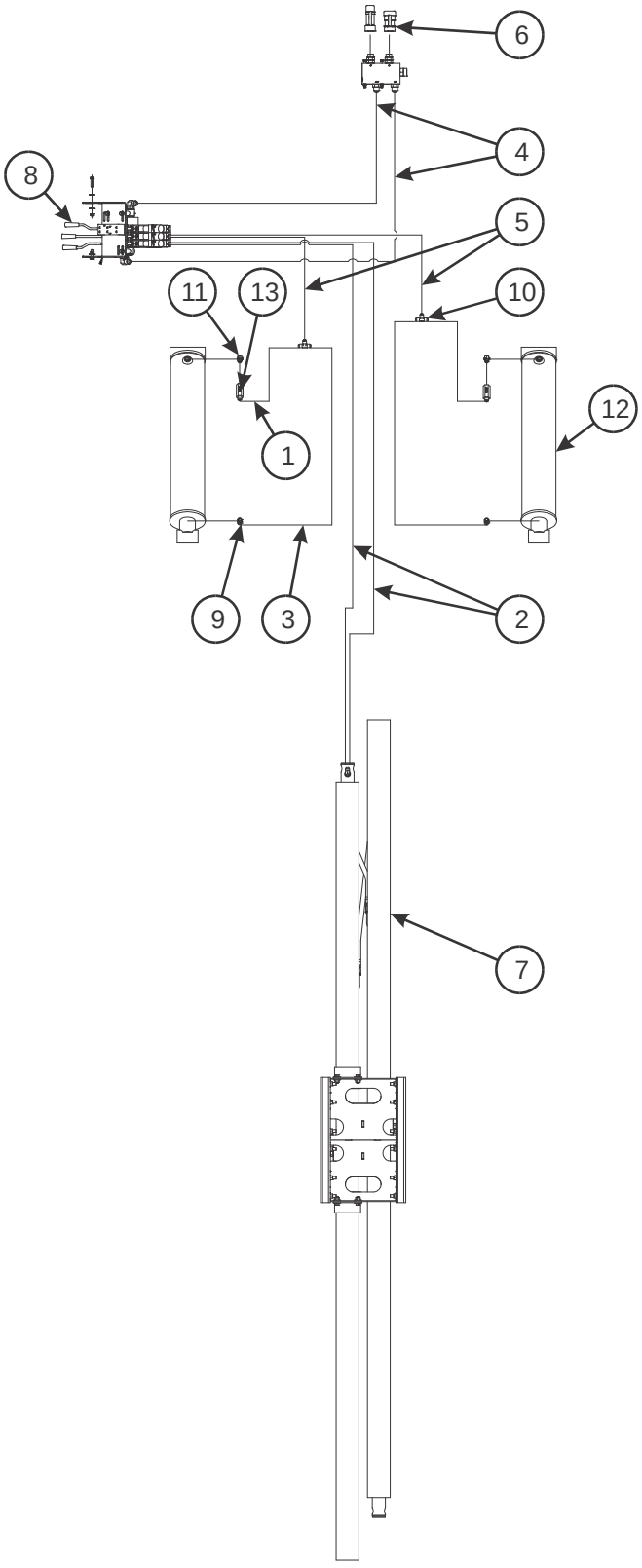



**Figure 2-9: Hydraulic Assembly (425 & 440)**

# HYDRAULIC ASSEMBLY (425 & 440)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 143214 | HYDRAULIC ELECTRICAL AIR (425) | |
| | 161142 | HYDRAULIC ELECTRICAL AIR (440) | REF |
| 1 | 1-397-010301064 | HOSE ASSEMBLY 1/2 X 64 | 2 |
| 2 | 1-397-010301160 | HOSE ASSEMBLY 1/2 X 160 | 2 |
| 3 | 1-397-010302084 | HOSE ASSEMBLY 1/2 X 84 | 2 |
| 4 | 1-397-010305190 | HOSE ASSEMBLY 3/4 X 190 (NOT USED W/ ENGINE PACKAGE) | 2 |
| | 1-397-010305616 | HOSE ASSEMBLY 3/4 X 216 | 2 |
| 5 | 142068 | HOSE ASSEMBLY 1/2 X 39 | 2 |
| 6 | 171320 | CONNECTORS, AIR/HYDRAULIC (FLOW CONTROL) (SEE PAGE 2-19) | REF |
| 7 | ----- | U/C CYLINDER ASSEMBLY (SEE PAGE 2-25) | REF |
| 8 | 148241 | VALVE ASSEMBLY 3 SPOOL (SEE PAGE 2-21) | REF |
| 9 | 202702-8-8S | ADAPTER | 2 |
| 10 | 2033-8-8S | ADAPTER TEE | 2 |
| 11 | 2062-8-8S | ADAPTER | 2 |
| 12 | 3-242-010189 | CYLINDER, LIFT 6 X 41 (SEE PAGE 2-33) | REF |
| 13 | 3-846-010155 | VALVE, RESTRICTOR, 1/16-ONE WAY | 2 |

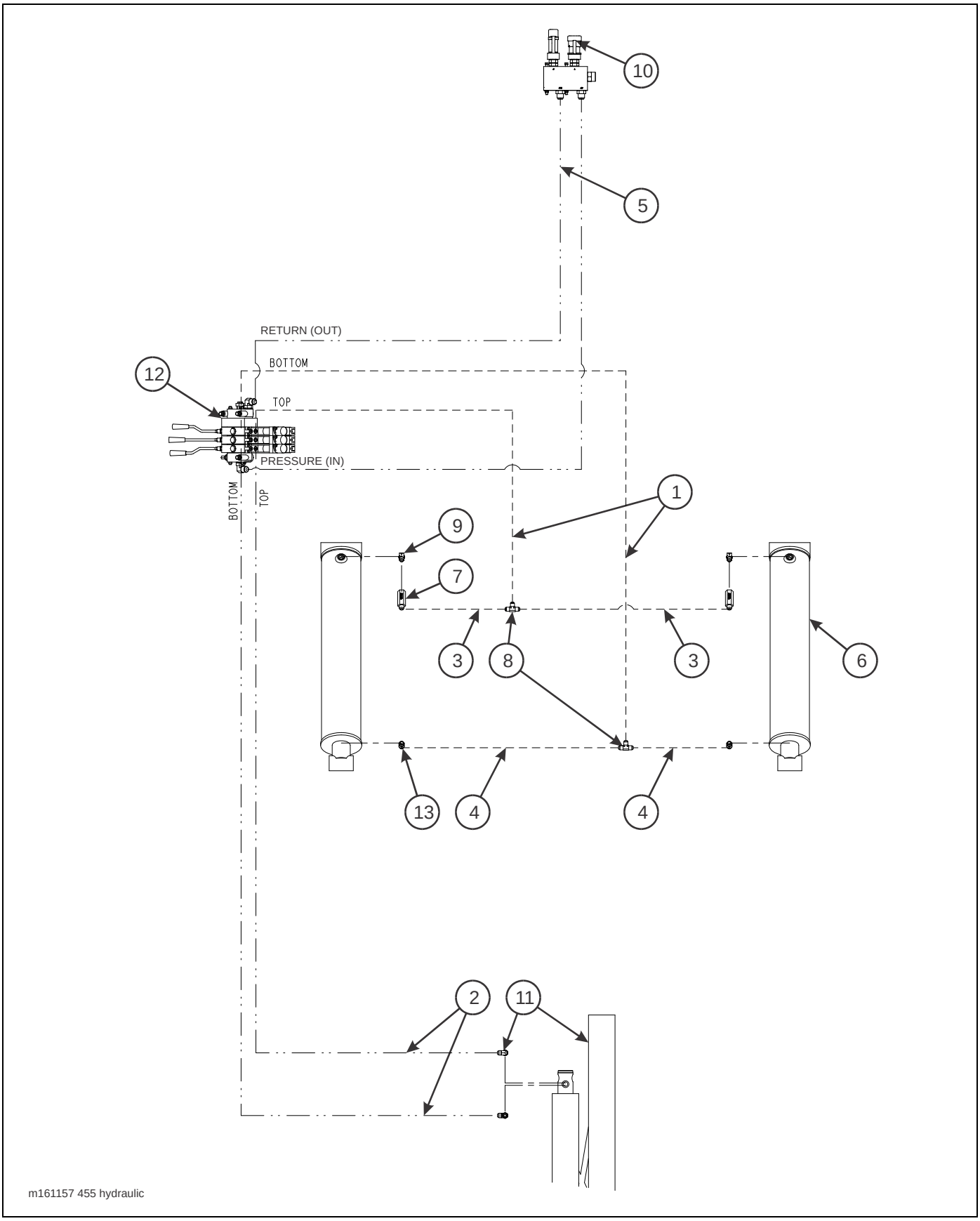



**Figure 2-10: Hydraulic Assembly (455)**

# HYDRAULIC ASSEMBLY (455)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 161157 | HYDRAULIC ELECTRICAL AIR | REF |
| 1 | 1-397-010301064 | HOSE ASSEMBLY 1/2 X 64 | 2 |
| | 1-397-010301070 | HOSE ASSEMBLY 1/2 X 70 | 2 |
| | 1-397-010301074 | HOSE ASSEMBLY 1/2 X 74 | 2 |
| | 139936 | HOSE ASSEMBLY ARCTIC 1/2 X 64 | 2 |
| | 168544 | HOSE ASSEMBLY ARCTIC 1/2 X 74 | 2 |
| 2 | 1-397-010301160 | HOSE ASSEMBLY 1/2 X 160 | 2 |
| | 1-397-010301164 | HOSE ASSEMBLY 1/2 X 164 | 2 |
| | 1-397-010301170 | HOSE ASSEMBLY 1/2 X 170 | 2 |
| | 139927 | HOSE ASSEMBLY ARCTIC 1/2 X 170 | 2 |
| | 163361 | HOSE ASSEMBLY ARCTIC 1/2 X 160 | 2 |
| 3 | 1-397-010302042 | HOSE ASSEMBLY 1/2 X 42 | 2 |
| | 1-397-010302050 | HOSE ASSEMBLY 1/2 X50 | 2 |
| | 142068 | HOSE ASSEMBLY 1/2 X 39 | 2 |
| | 163360 | HOSE ASSEMBLY ARCTIC 1/2 X 39 | 2 |
| | 168545 | HOSE ASSEMBLY ARCTIC 1/2 X50 | 2 |
| 4 | 1-397-010302084 | HOSE ASSEMBLY 1/2 X 84 | 2 |
| | 1-397-010302087 | HOSE ASSEMBLY 1/2 X 87 | 2 |
| | 104369 | HOSE ASSEMBLY 1/2 X 96 | 2 |
| | 139939 | HOSE ASSEMBLY ARCTIC 1/2 X 84 | 2 |
| | 168546 | HOSE ASSEMBLY ARCTIC 1/2 X 96 | 2 |
| 5 | 1-397-010305190 | HOSE ASSEMBLY 3/4 X 190 (NOT USED W/ ENGINE PACKAGE) | 2 |
| | 1-397-010305216 | HOSE ASSEMBLY 3/4 X 216 | 2 |
| | 137794 | HOSE ASSEMBLY 3/4 X 196 | 2 |
| | 126854 | HOSE ASSEMBLY ARCTIC 3/4 X 190 | 2 |
| | 168543 | HOSE ASSEMBLY ARCTIC 3/4 X 194 | 2 |
| 6 | 3-242-010189 | CYLINDER, LIFT 6 X 41 (SEE PAGE 2-33) | REF |
| 7 | 3-846-010155 | VALVE, RESTRICTOR, 1/16-ONE WAY | 2 |
| 8 | 2033-8-8S | ADAPTER TEE | 2 |
| 9 | 2062-8-8S | ADAPTER | 2 |
| 10 | 171320 | CONNECTORS, AIR/HYDRAULIC (FLOW CONTROL) (SEE PAGE 2-19) | REF |
| 11 | ----- | U/C CYLINDER ASSEMBLY (SEE PAGE 2-25) | REF |
| 12 | 148241 | VALVE ASSEMBLY 3 SPOOL (SEE PAGE 2-21) | REF |
| 13 | 202702-8-8S | ADAPTER | 2 |

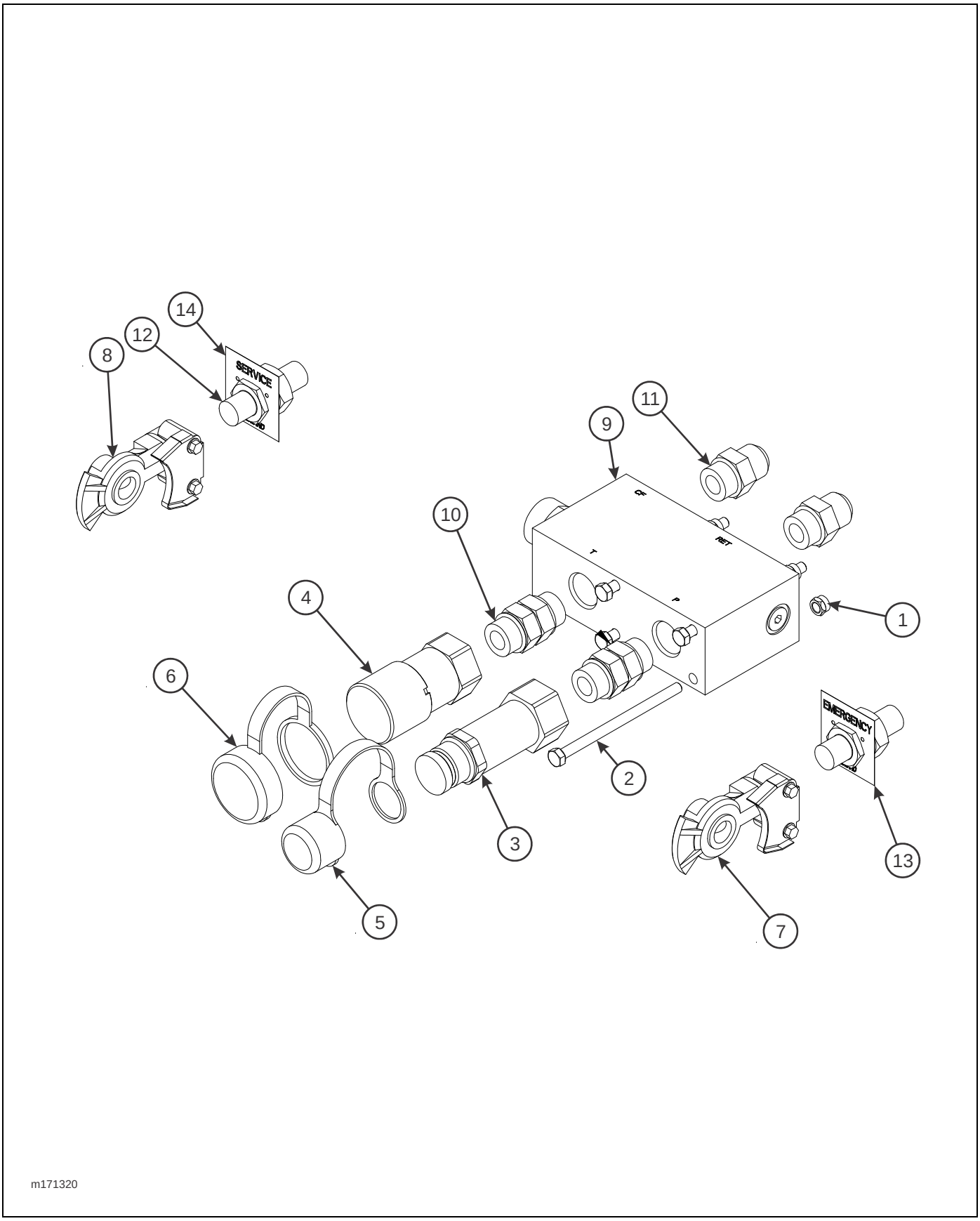



**Figure 2-11: Air/Hydraulic Connectors Assembly (Flow Control)**

# AIR/HYDRAULIC CONNECTORS ASSEMBLY (FLOW CONTROL)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 171320 | CONNECTORS, AIR/HYDRAULIC (FLOW CONTROL) | |
| 1 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 | 2 |
| 2 | 1-654-010049-19 | SCREW, HEX HEAD CAP 5/16-18 X 5 GR5 | 4 |
| 3 | 105479 | COUPLER, FLAT FACE MALE | 1 |
| 4 | 105480 | COUPLER, FLAT FACE FEMALE | 1 |
| 5 | 105481 | COUPLER, DUST CAP MALE | 1 |
| 6 | 105482 | COUPLER, DUST CAP FEMALE | 1 |
| 7 | 108801 | GLADHAND, RED AIR | 1 |
| 8 | 108802 | GLADHAND, BLUE AIR | 1 |
| 9 | 158580 | VALVE, FLOW CONTROL 14 GPM | 1 |
| 10 | 158581 | ADAPTER, STR | 2 |
| 11 | 202702-12-12S | ADAPTER, STR | 2 |
| 12 | 55B61 | FRAME UNION | 2 |
| 13 | 55B61-6 | TAG EMERGENCY LINE | 1 |
| 14 | 55B61-7 | TAG SERVICE LINE | 1 |

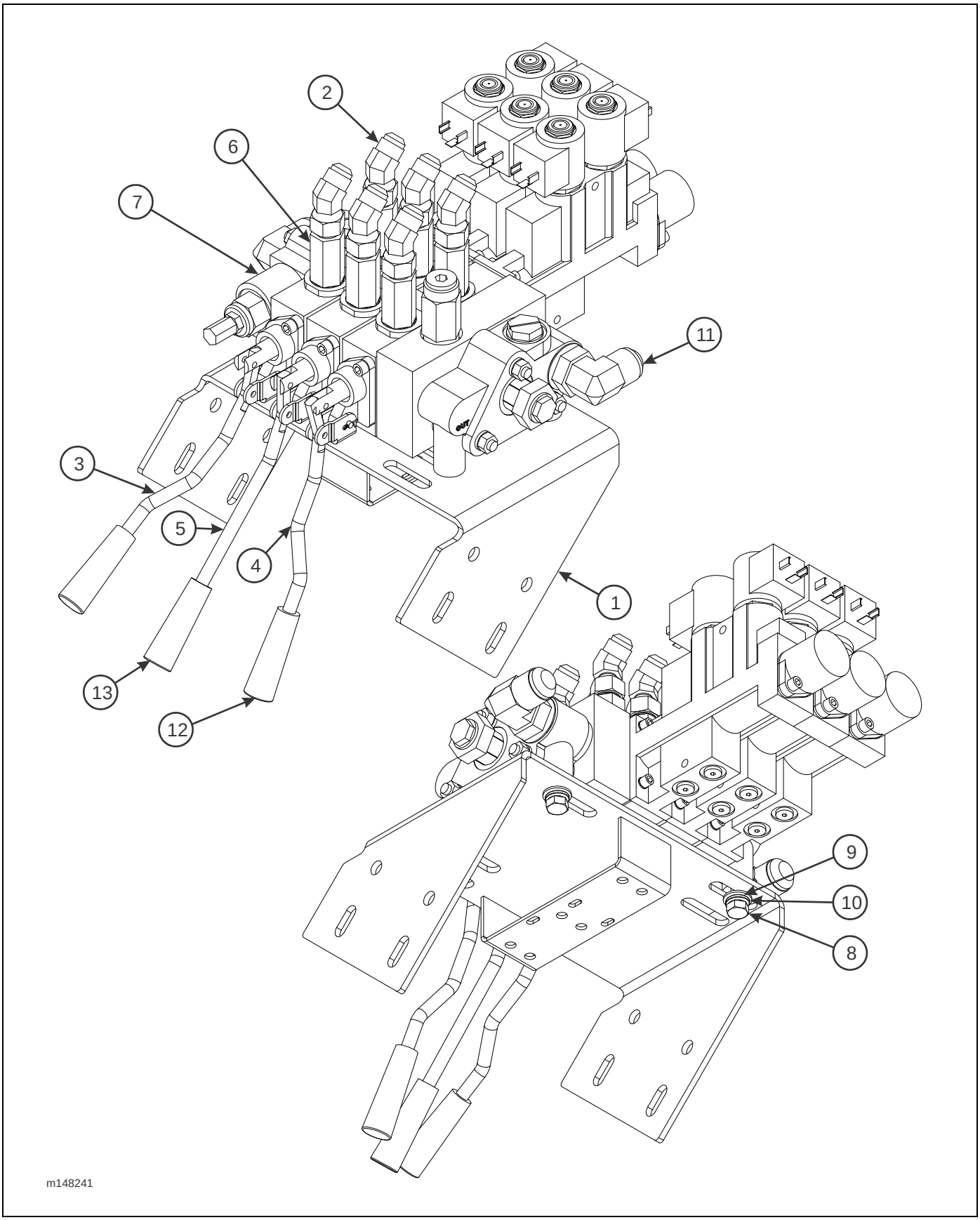



**Figure 2-12: Three Spool Valve Assembly**

# THREE SPOOL VALVE ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 148241 | VALVE ASSEMBLY, 3 SPOOL | |
| 1 | 116837 | VALVE MOUNT, CONTROL | 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 | 148240 | VALVE, 3 STACK 2ND MOTOR SOL (SEE PAGE 2-23) | 1 |
| 8 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 3 |
| 9 | 1-861-010032-10 | WASHER, FLAT 3/8N | 3 |
| 10 | 1-861-010034-11 | WASHER, SPLIT LOCK 3/8 | 3 |
| 11 | 2062-10-12S | ADAPTER, 90 | 2 |
| 12 | 3-360-010072 | HANDLE, PLASTIC BLACK | 2 |
| 13 | 3-360-010090 | HANDLE, PLASTIC RED | 1 |

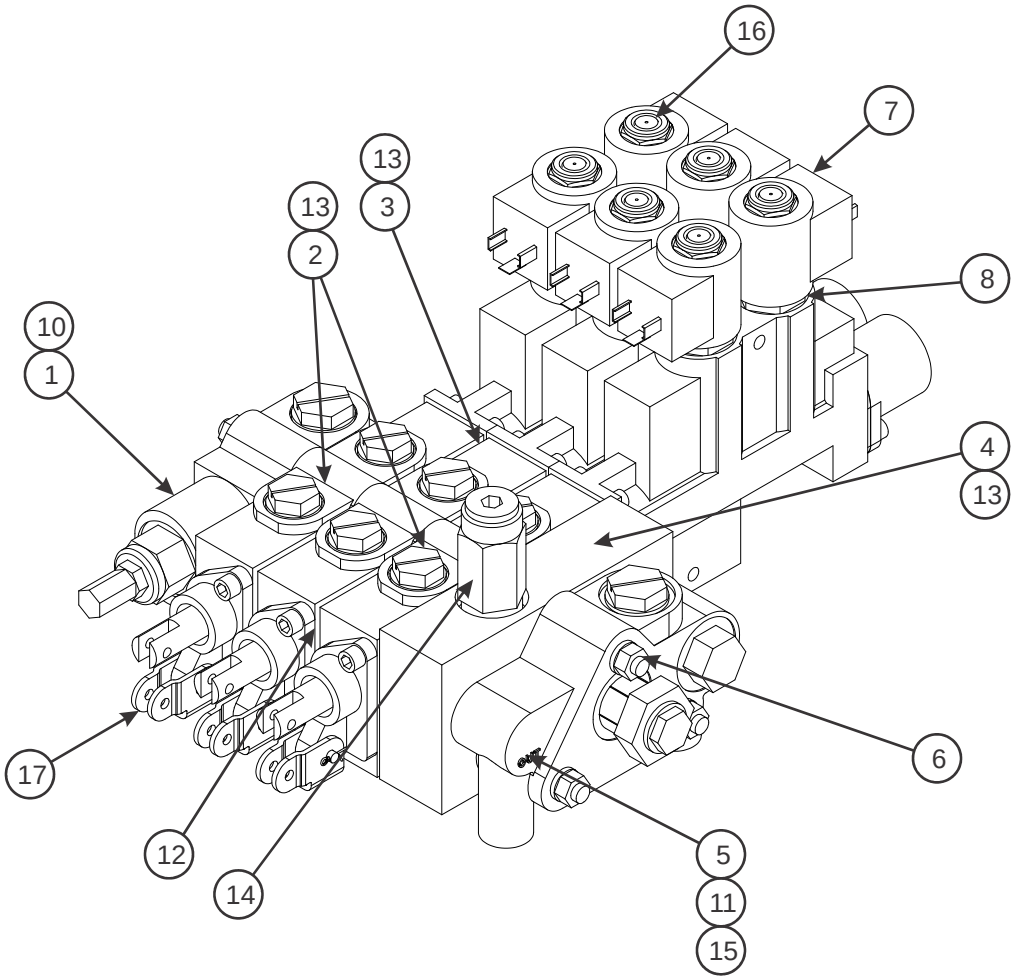



**Figure 2-13: Three Stack Valve**

# 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) | |
| 16 | 143141 | COIL NUT | |
| 17 | 169843 | PIN/CLEVIS KIT SPOOL VALVE | |

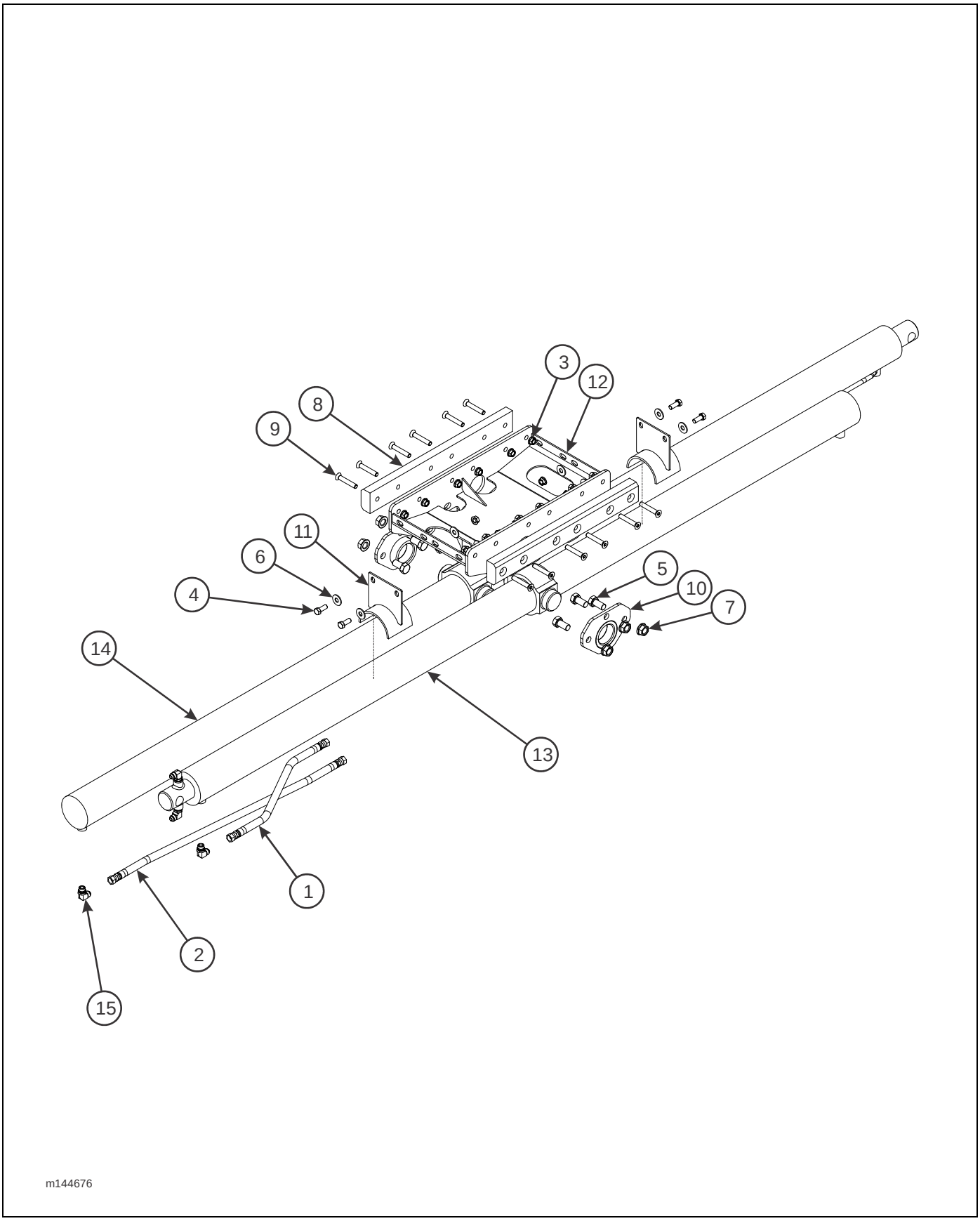



**Figure 2-14: U/C Cylinder Assembly**

# U/C CYLINDER ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 144673 | U/C CYL ASSEMBLY (455-50/53/55HD,440-48) | * | | | | | | | |
| | 144674 | U/C CYL ASSEMBLY (440-50CA) | | * | | | | | | |
| | 144675 | U/C CYL ASSEMBLY (440-53) | | | * | | | | | |
| | 144676 | U/C CYL ASSEMBLY (455-48/50CA, 425-45) | | | | * | | | | |
| | 144677 | U/C CYL ASSEMBLY (425-41, 440-41) | | | | | * | | | |
| | 154434 | U/C CYL ASSEMBLY (440-50CA HD) | | | | | | * | | |
| | 170447 | U/C CYL ASSEMBLY (455-48/50CA ARCTIC) | | | | | | | * | |
| | 170448 | U/C CYL ASSEMBLY (455-48 ARCTIC) | | | | | | | | * |
| 1 | 1-397-010301024 | HOSE ASSEMBLY 1/2 X 24 | -- | 1 | 1 | 1 | 1 | 1 | -- | -- |
| | 111301 | HOSE ASSEMBLY 1/2 X 36 | 1 | -- | -- | -- | -- | -- | -- | -- |
| | 139934 | HOSE ASSEMBLY 1/2 X 24 ARCTIC | -- | -- | -- | -- | -- | -- | 1 | -- |
| | 170446 | HOSE ASSEMBLY 1/2 X 36 ARCTIC | -- | -- | -- | -- | -- | -- | -- | 1 |
| 2 | 1-397-010301039 | HOSE ASSEMBLY 1/2 X 39 | -- | -- | -- | 1 | -- | -- | -- | -- |
| | 1-397-010301048 | HOSE ASSEMBLY 1/2 X 48 | -- | 1 | 1 | -- | -- | -- | -- | -- |
| | 1-397-010301024 | HOSE ASSEMBLY 1/2 X 24 | -- | -- | -- | -- | 1 | -- | -- | -- |
| | 111301 | HOSE ASSEMBLY 1/2 X 36 | 1 | -- | -- | -- | -- | 1 | -- | -- |
| | 139935 | HOSE ASSEMBLY 1/2 X 39 ARCTIC | -- | -- | -- | -- | -- | -- | 1 | -- |
| | 170446 | HOSE ASSEMBLY 1/2 X 36 ARCTIC | -- | -- | -- | -- | -- | -- | -- | 1 |
| 3 | 1-510-010003-09 | NUT, FLANGE HEAD SERRATED 1/2-13 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 4 | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 1-654-010061-03 | SCREW, HEX HEAD CAP 3/4-10 X 1-1/2 GR5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 6 | 1-861-010032-15 | WASHER, FLAT 1/2W | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 7 | 103841 | NUT, FLANGE PREVAILING TORQUE 3/4-10 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 8 | 117386 | NYLATRON SLIDE, U/C CYLINDER | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 9 | 118627 | SCREW, HEX SOCKET CTSK 1/2-13 X 3 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 10 | 122621 | BRACKET WELDMENT, U/C CYLINDER TRUNNION | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 11 | 142050 | SADDLE WELDMENT, U/C CYLINDER TRUNNION | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 12 | 142053 | MOUNT WELDMENT, CYLINDER TRUNNION | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 13 | 144662 | CYLINDER, 4 X 100 PORT ROD PAINTED (STREETSIDE) (SEE PAGE 2-26) | -- | -- | -- | 1 | 1 | 1 | 1 | -- |
| | 144666 | CYLINDER, 4 X 126 PORT ROD PAINTED (STREETSIDE) (SEE PAGE 2-28) | 1 | 1 | -- | -- | -- | -- | -- | 1 |
| | 144670 | CYLINDER, 4 X 138 PORT ROD PAINTED (STREETSIDE) (SEE PAGE 2-30) | -- | -- | 1 | -- | -- | -- | -- | -- |
| 14 | 144664 | CYLINDER, 4 X 100 PAINTED (CURBSIDE) (SEE PAGE 2-27) | -- | -- | -- | -- | 1 | -- | -- | -- |
| | 144668 | CYLINDER, 4 X 126 PAINTED (CURBSIDE) (SEE PAGE 2-29) | 1 | -- | -- | 1 | -- | 1 | 1 | 1 |
| | 144672 | CYLINDER, 4 X 138 PAINTED (CURBSIDE) (SEE PAGE 2-31) | -- | 1 | 1 | -- | -- | -- | -- | -- |
| 15 | 2062-8-8S | ADAPTER, 90 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

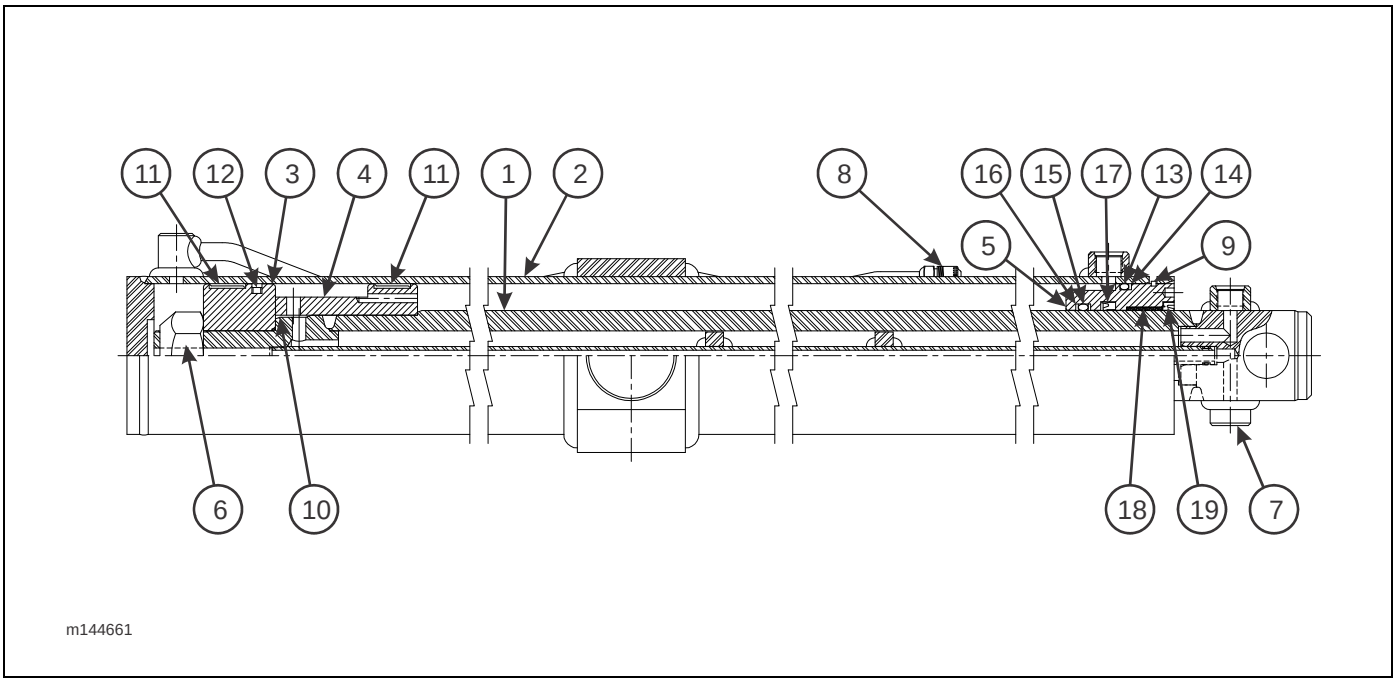



**Figure 2-15: Cylinder, Hydraulic 4 x 100 Ported Rod (Streetside) (455-48/50CA, 425-41/45, 440-41)**

# CYLINDER, HYDRAULIC 4 X 100 PORTED ROD (STREETSIDE) (455-48/50CA, 425-41/45, 440-41)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 144661 | CYLINDER, HYDRAULIC 4 X 100 PORTED ROD | |
| 1 | 146834 | PISTON TUBE ASSEMBLY | 1 |
| 2 | ----- | BUTT & TUBE ASSEMBLY | 1 |
| 3 | ----- | PISTON | 1 |
| 4 | ----- | PISTON | 1 |
| 5 | 146854 | GLAND | 1 |
| 6 | ----- | LOCKNUT | 1 |
| 7 | ----- | SHIPPING PLUG | |
| 8 | ----- | JIC CAP | |
| 9 | ----- | SQ RETAINING RING | |
| 10 | ----- | O-RING | |
| 11 | ----- | BEARING RING | |
| 12 | ----- | TEFLON SEAL ASSEMBLY | |
| 13 | ----- | O-RING | |
| 14 | ----- | BU-WASHER | |
| 15 | ----- | O-RING | |
| 16 | ----- | BU-WASHER | |
| 17 | ----- | U-CUP | |
| 18 | ----- | DX BUSHING | |
| 19 | ----- | WIPER | |
| 20 | ----- | INSTALLATION RING | |
| | 146836 | PACKING KIT (CONTAINS ALL SEALS AND O-RINGS) | |

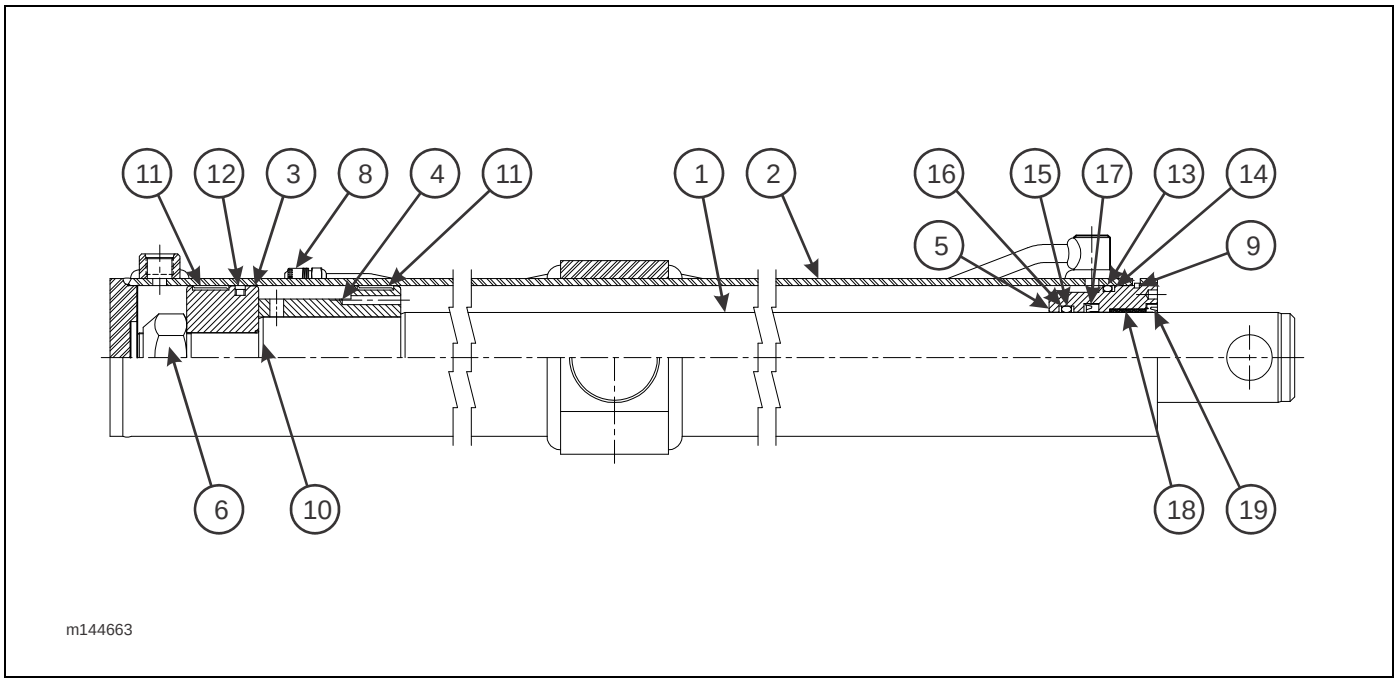



**Figure 2-16: Cylinder, Hydraulic 4 x 100 (Curbside) (425-41, 440-41)**

# CYLINDER, HYDRAULIC 4 X 100 (CURBSIDE) (425-41, 440-41)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 144663 | CYLINDER, HYDRAULIC 4 X 100 | |
| 1 | 146837 | PISTON TUBE ASSEMBLY | 1 |
| 2 | ----- | BUTT & TUBE ASSEMBLY | 1 |
| 3 | ----- | PISTON | 1 |
| 4 | ----- | PISTON | 1 |
| 5 | 146854 | GLAND | 1 |
| 6 | ----- | LOCKNUT | 1 |
| 7 | ----- | SHIPPING PLUG | |
| 8 | ----- | JIC CAP | |
| 9 | ----- | SQ RETAINING RING | |
| 10 | ----- | O-RING | |
| 11 | ----- | BEARING RING | |
| 12 | ----- | TEFLON SEAL ASSEMBLY | |
| 13 | ----- | O-RING | |
| 14 | ----- | BU-WASHER | |
| 15 | ----- | O-RING | |
| 16 | ----- | BU-WASHER | |
| 17 | ----- | U-CUP | |
| 18 | ----- | DX BUSHING | |
| 19 | ----- | WIPER | |
| 20 | ----- | INSTALLATION RING | |
| | 146839 | PACKING KIT (CONTAINS ALL SEALS AND O-RINGS) | |

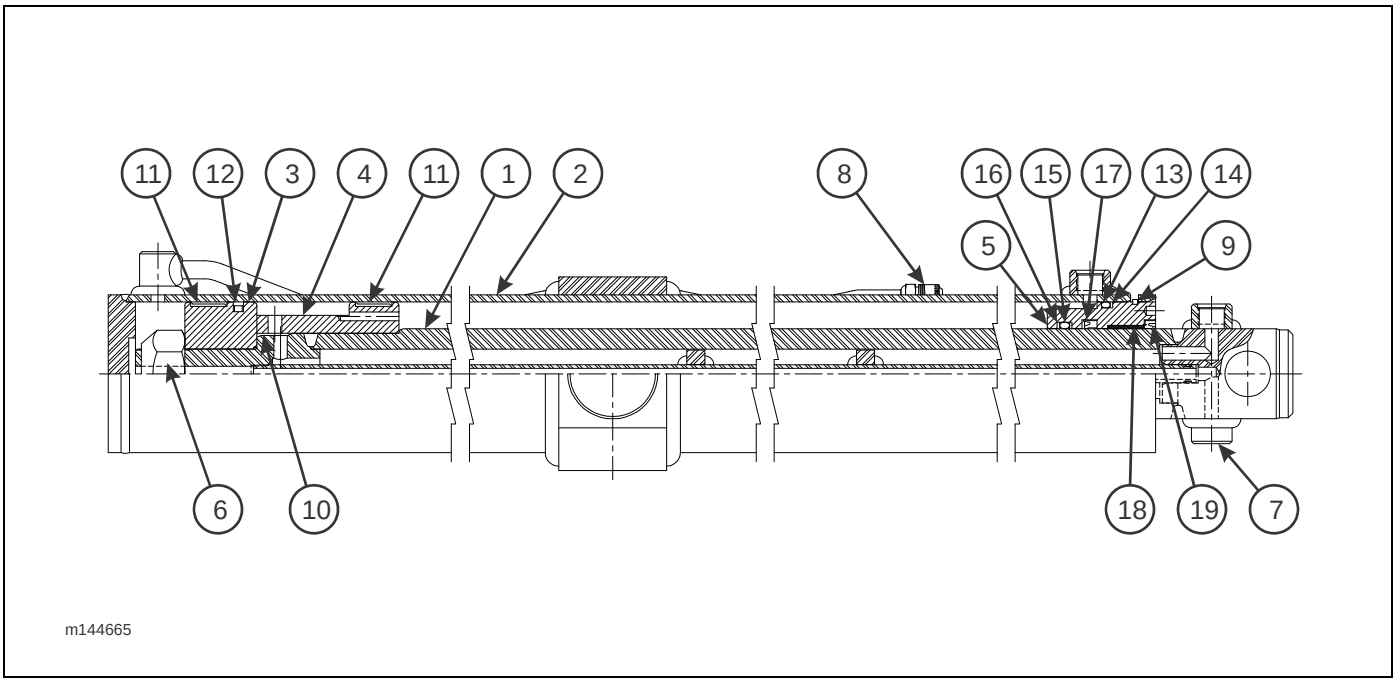



**Figure 2-17: Cylinder, Hydraulic 4 x 126 Ported Rod (Streetside) (455-50/53/55HD, 440-48/50CA)**

# CYLINDER, HYDRAULIC 4 X 126 PORTED ROD (STREETSIDE) (455-50/53/55HD, 440-48/50CA)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 144665 | CYLINDER, HYDRAULIC 4 X 126 | |
| 1 | 146840 | PISTON TUBE ASSEMBLY | 1 |
| 2 | ----- | BUTT & TUBE ASSEMBLY | 1 |
| 3 | ----- | PISTON | 1 |
| 4 | ----- | PISTON | 1 |
| 5 | 146854 | GLAND | 1 |
| 6 | ----- | LOCKNUT | 1 |
| 7 | ----- | SHIPPING PLUG | |
| 8 | ----- | JIC CAP | |
| 9 | ----- | SQ RETAINING RING | |
| 10 | ----- | O-RING | |
| 11 | ----- | BEARING RING | |
| 12 | ----- | TEFLON SEAL ASSEMBLY | |
| 13 | ----- | O-RING | |
| 14 | ----- | BU-WASHER | |
| 15 | ----- | O-RING | |
| 16 | ----- | BU-WASHER | |
| 17 | ----- | U-CUP | |
| 18 | ----- | DX BUSHING | |
| 19 | ----- | WIPER | |
| 20 | ----- | INSTALLATION RING | |
| | 146842 | PACKING KIT (CONTAINS ALL SEALS AND O-RINGS) | |

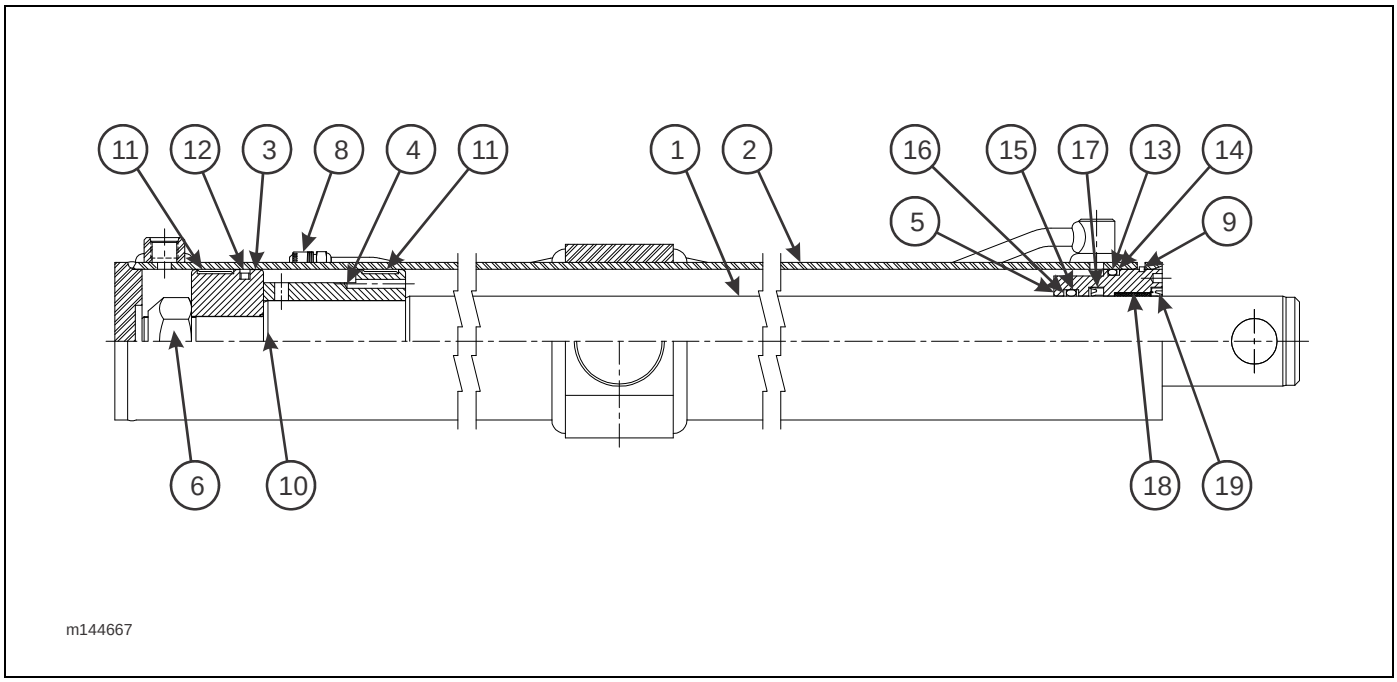



**Figure 2-18: Cylinder, Hydraulic 4 x 126 (Curbside)**
**(455-50/53/55HD, 440-48/50CA)**

# CYLINDER, HYDRAULIC 4 X 126 (CURBSIDE) (455-50/53/55HD, 455-48/50CA, 425-45, 440-48)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 144667 | CYLINDER, HYDRAULIC 4 X 126 | |
| 1 | 146843 | PISTON TUBE ASSEMBLY | 1 |
| 2 | ----- | BUTT & TUBE ASSEMBLY | 1 |
| 3 | ----- | PISTON | 1 |
| 4 | ----- | PISTON | 1 |
| 5 | 146854 | GLAND | 1 |
| 6 | ----- | LOCKNUT | 1 |
| 7 | ----- | SHIPPING PLUG | |
| 8 | ----- | JIC CAP | |
| 9 | ----- | SQ RETAINING RING | |
| 10 | ----- | O-RING | |
| 11 | ----- | BEARING RING | |
| 12 | ----- | TEFLON SEAL ASSEMBLY | |
| 13 | ----- | O-RING | |
| 14 | ----- | BU-WASHER | |
| 15 | ----- | O-RING | |
| 16 | ----- | BU-WASHER | |
| 17 | ----- | U-CUP | |
| 18 | ----- | DX BUSHING | |
| 19 | ----- | WIPER | |
| 20 | ----- | INSTALLATION RING | |
| | 146845 | PACKING KIT (CONTAINS ALL SEALS AND O-RINGS) | |

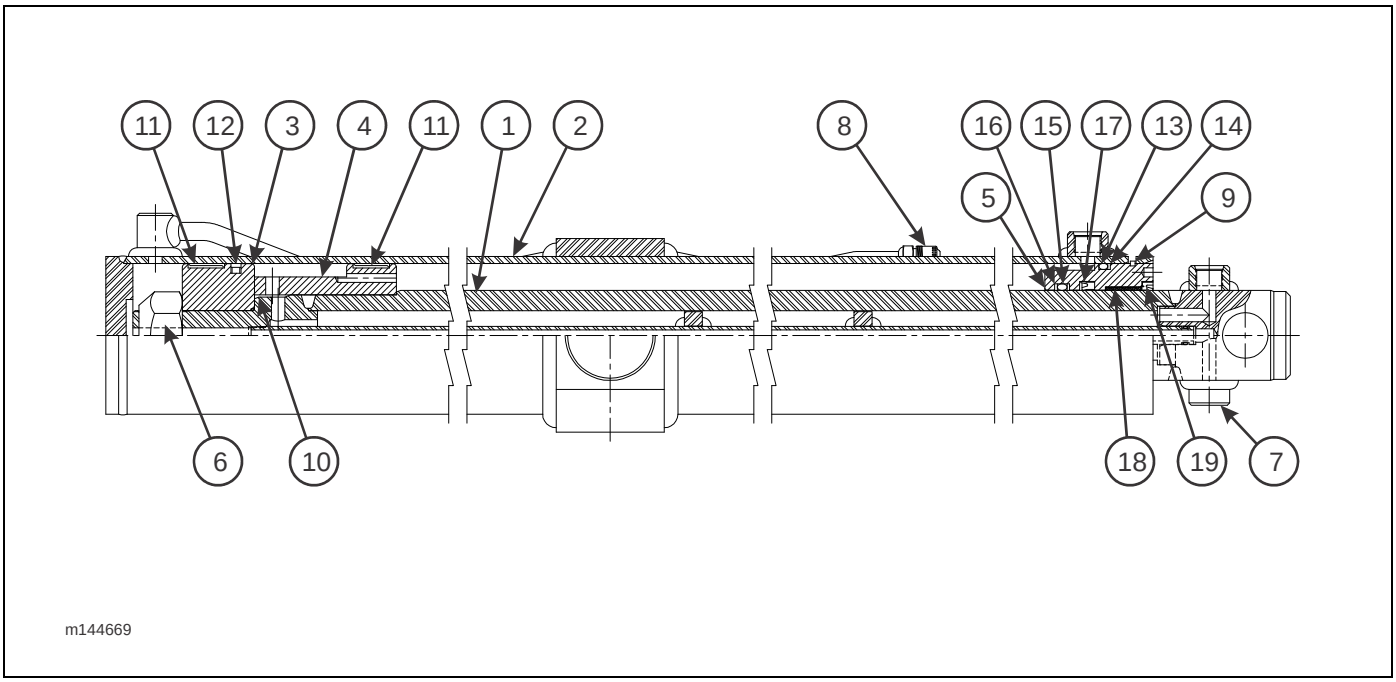



**Figure 2-19: Cylinder, Hydraulic 4 x 138 Ported Rod (Streetside) (440-53)**

# CYLINDER, HYDRAULIC 4 X 138 PORTED ROD (STREETSIDE) (440-53)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 144669 | CYLINDER, HYDRAULIC 4 X 138 PORTED ROD | |
| 1 | 146846 | PISTON TUBE ASSEMBLY | |
| 2 | ----- | BUTT & TUBE ASSEMBLY | |
| 3 | ----- | PISTON | |
| 4 | ----- | PISTON | |
| 5 | 146854 | GLAND | |
| 6 | ----- | LOCKNUT | |
| 7 | ----- | SHIPPING PLUG | |
| 8 | ----- | JIC CAP | |
| 9 | ----- | SQ RETAINING RING | |
| 10 | ----- | O-RING | |
| 11 | ----- | BEARING RING | |
| 12 | ----- | TEFLON SEAL ASSEMBLY | |
| 13 | ----- | O-RING | |
| 14 | ----- | BU-WASHER | |
| 15 | ----- | O-RING | |
| 16 | ----- | BU-WASHER | |
| 17 | ----- | U-CUP | |
| 18 | ----- | DX BUSHING | |
| 19 | ----- | WIPER | |
| 20 | ----- | INSTALLATION RING | |
| | 146848 | PACKING KIT (CONTAINS ALL SEALS AND O-RINGS) | |

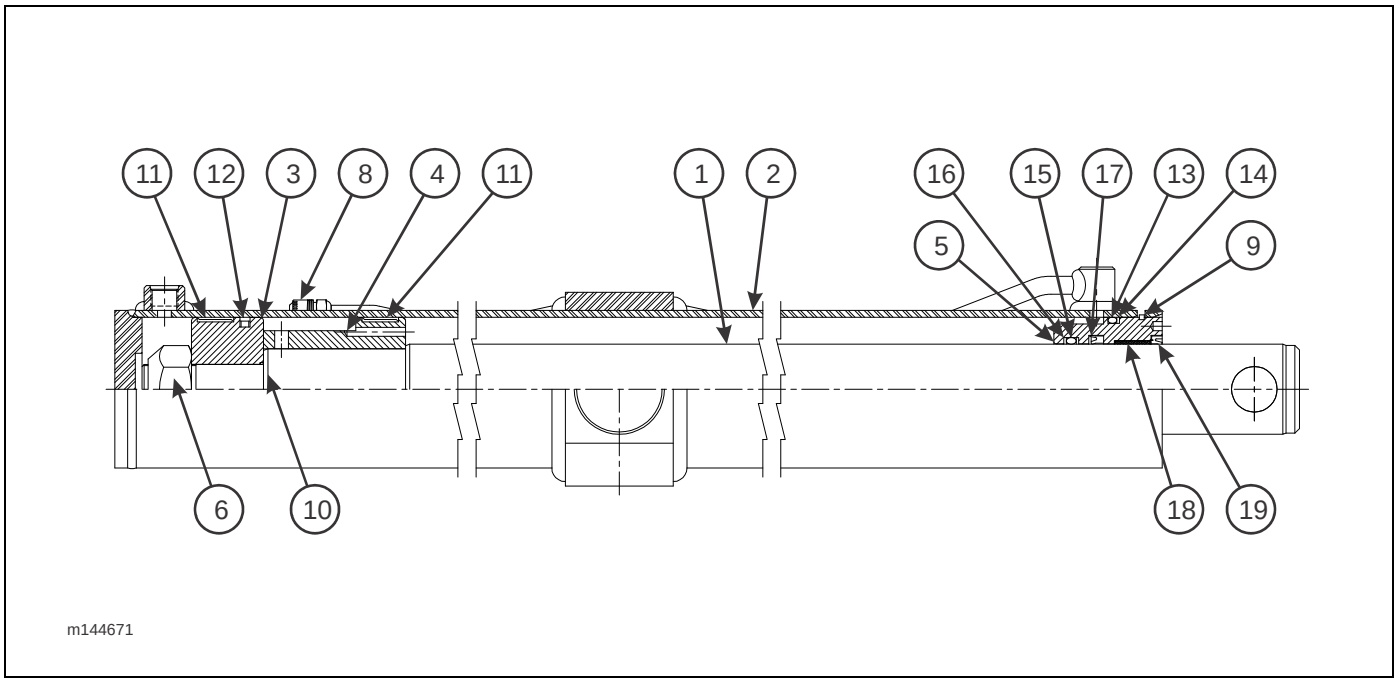



**Figure 2-20: Cylinder, Hydraulic 4 x 138 (Curbside) (440-53)**

# CYLINDER, HYDRAULIC 4 X 138 (CURBSIDE) (440-50CA/53)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 144671 | CYLINDER, HYDRAULIC 4 X 138 | |
| 1 | 146849 | PISTON TUBE ASSEMBLY | 1 |
| 2 | ----- | BUTT & TUBE ASSEMBLY | 1 |
| 3 | ----- | PISTON | 1 |
| 4 | ----- | PISTON | 1 |
| 5 | 146854 | GLAND | 1 |
| 6 | ----- | LOCKNUT | 1 |
| 7 | ----- | SHIPPING PLUG | |
| 8 | ----- | JIC CAP | |
| 9 | ----- | SQ RETAINING RING | |
| 10 | ----- | O-RING | |
| 11 | ----- | BEARING RING | |
| 12 | ----- | TEFLON SEAL ASSEMBLY | |
| 13 | ----- | O-RING | |
| 14 | ----- | BU-WASHER | |
| 15 | ----- | O-RING | |
| 16 | ----- | BU-WASHER | |
| 17 | ----- | U-CUP | |
| 18 | ----- | DX BUSHING | |
| 19 | ----- | WIPER | |
| 20 | ----- | INSTALLATION RING | |
| | 146851 | PACKING KIT (CONTAINS ALL SEALS AND O-RINGS) | |

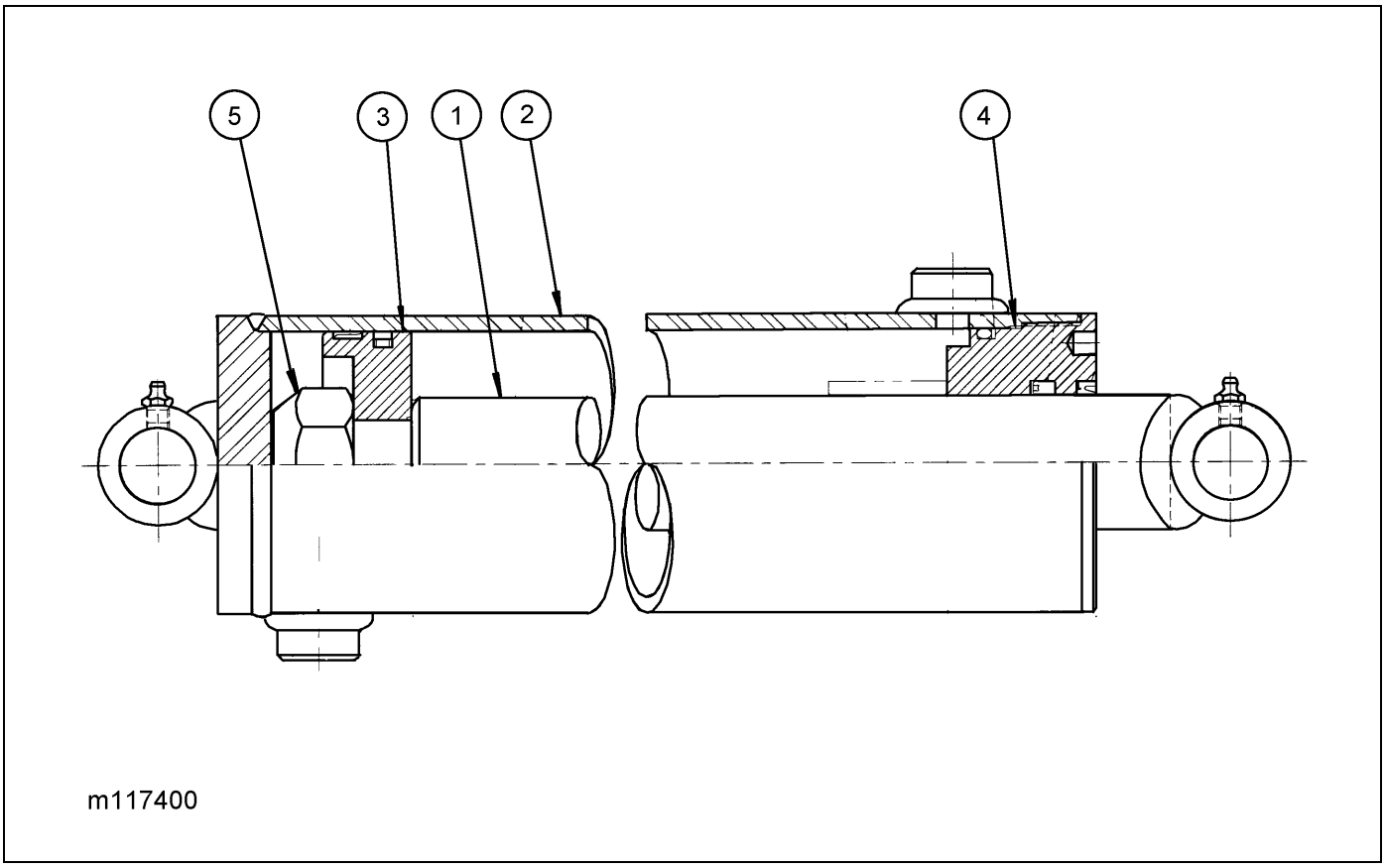



**Figure 2-21: Cylinder, Hydraulic 4-1/2 X 30 (425)**

# CYLINDER 4-1/2 X 30 (425)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 117400 | CYLINDER HYDRAULIC 4-1/2 X 30 | 1 |
| 1 | 125192 | PISTON ROD ASSEMBLY | 1 |
| 2 | ----- | BUTT AND TUBE ASSEMBLY | 1 |
| 3 | ----- | PISTON | 1 |
| 4 | 125194 | GLAND | 1 |
| 5 | ----- | LOCKNUT 1-1/2-12 | |
| | 125196 | PACKING KIT (CONTAINS ALL SEALS AND O-RINGS) | |

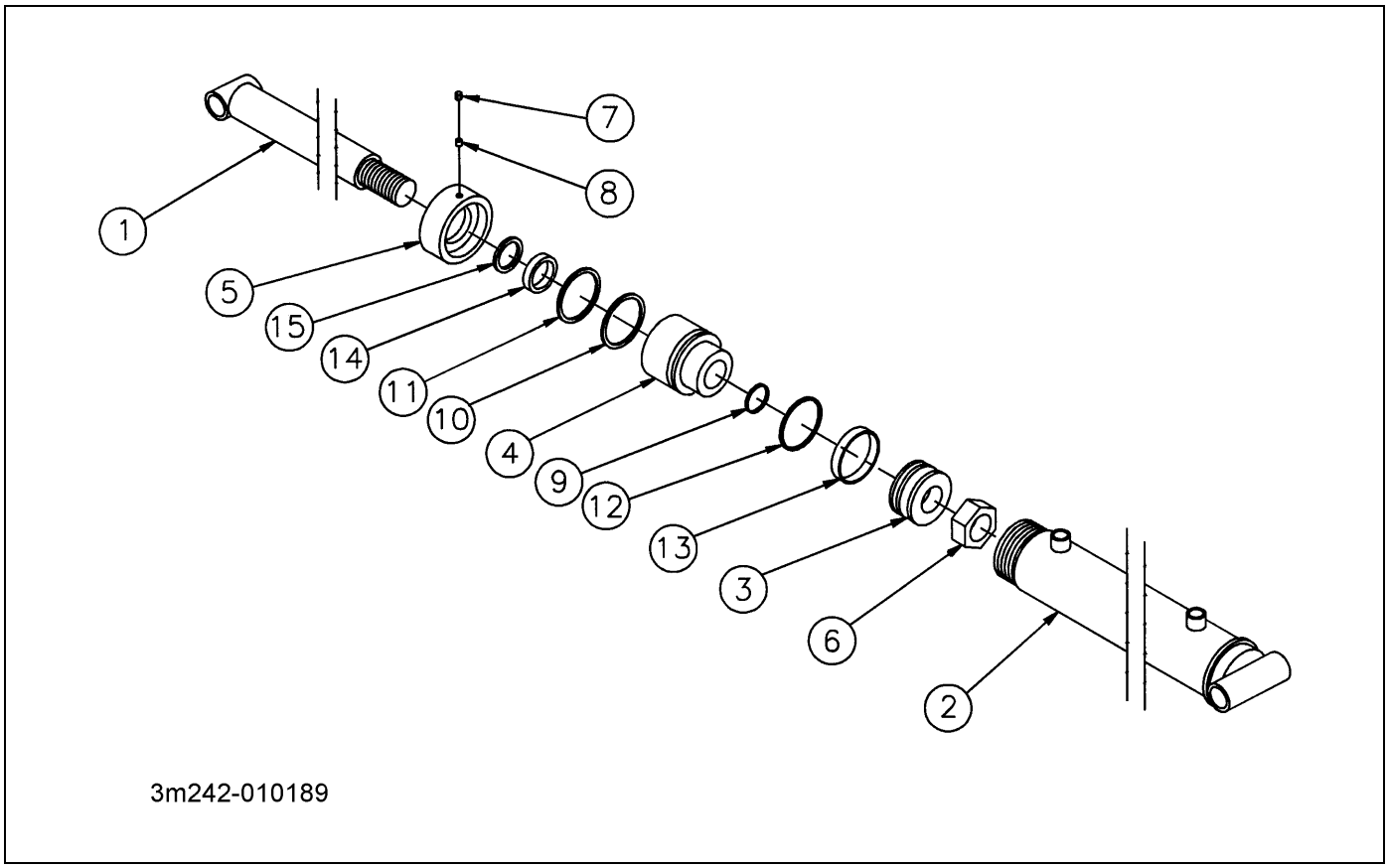



**Figure 2-22: Cylinder, Hydraulic 6 X 41 (440 & 455)**

# CYLINDER 6" X 41" (440 & 455)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 3-242-010189 | CYLINDER HYDRAULIC 6" X 41" (PRINCE PMC-22030) | |
| 1 | 140319 | PISTON ROD ASSEMBLY | 1 |
| 2 | ----- | BUTT AND TUBE ASSEMBLY | 1 |
| 3 | ----- | PISTON | 1 |
| 4 | 167691 | GLAND | 1 |
| 5 | ----- | GLAND CUP | 1 |
| 6 | ----- | NUT, LOCK | 1 |
| 7 | ----- | SET SCREW | 1 |
| 8 | ----- | NYLON LOCK | 1 |
| 9* | ----- | O-RING | 1 |
| 10* | ----- | O-RING | 1 |
| 11* | ----- | BU-WASHER | 1 |
| 12* | ----- | CROWN SEAL | 1 |
| 13* | ----- | BEARING RING | 1 |
| 14* | ----- | U-CUP | 1 |
| 15* | ----- | WIPER | 1 |
| | PMCK-22000 | PACKING KIT (CONTAINS ITEMS 9 THROUGH 15) | |

* PARTS AVAILABLE IN PACKING KIT ONLY.
NOTE: CYL. HAD 3/4 NPTF PORTS PRIOR 05/30/03; HAS 1/2 SAE O-RING PORTS AFTER 05/30/03

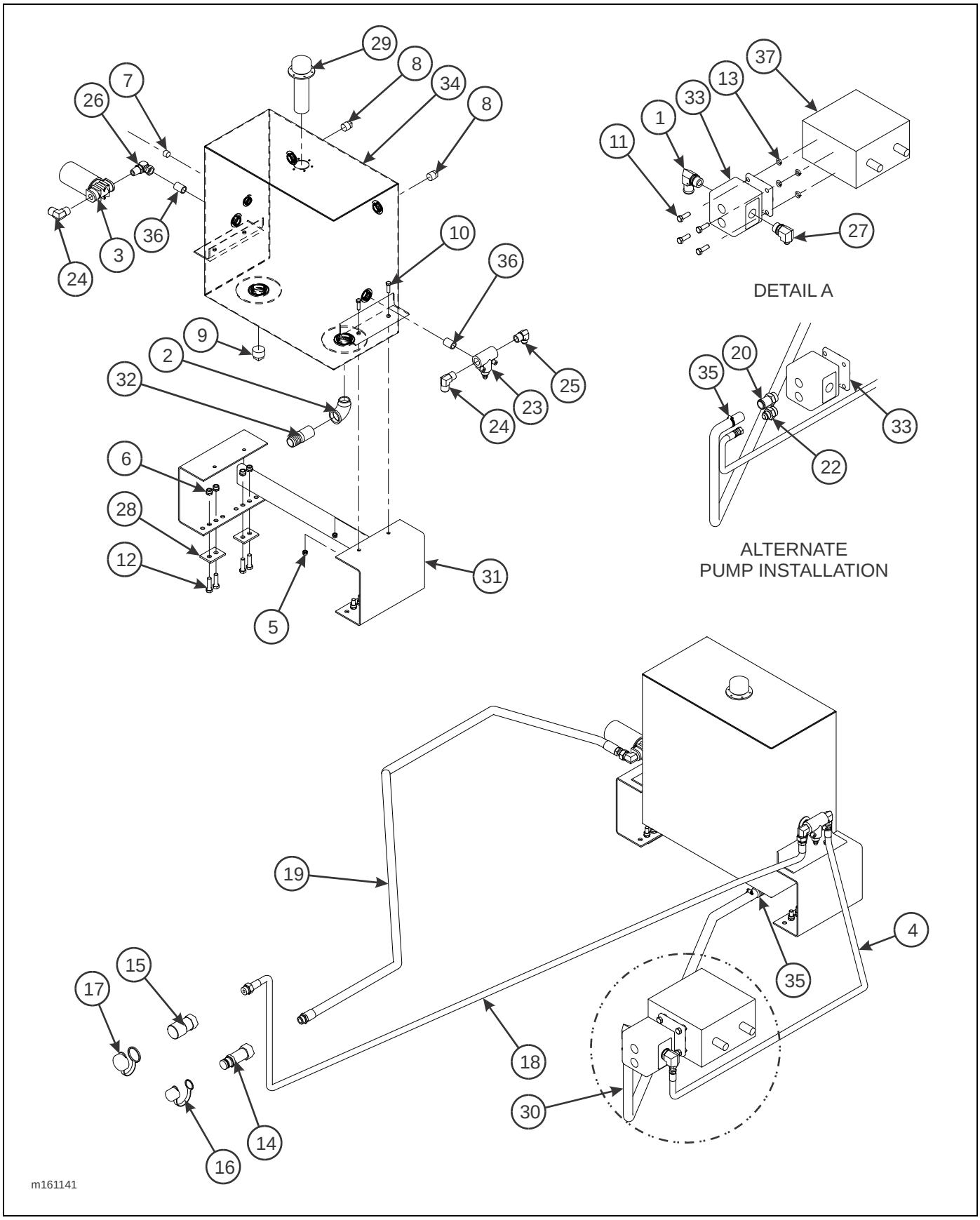



**Figure 2-23: 30 Gallon Hydraulic Wet Kit Items**

# 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 HYDRAULIC 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, HYDRAULIC TANK MOUNT SUPPORT | 4 |
| 29 | 3-162-010001 | FILLER-BREATHER-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.

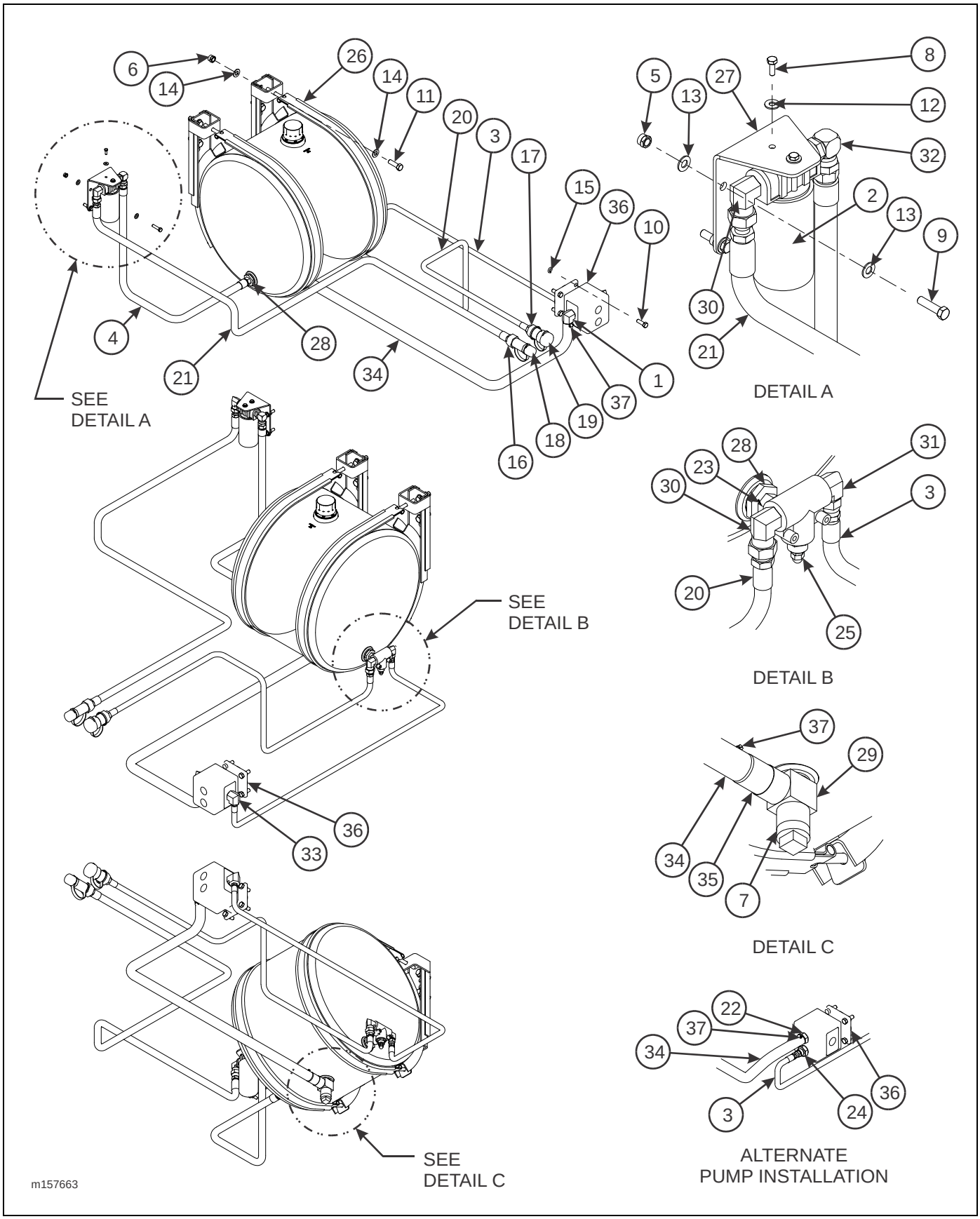
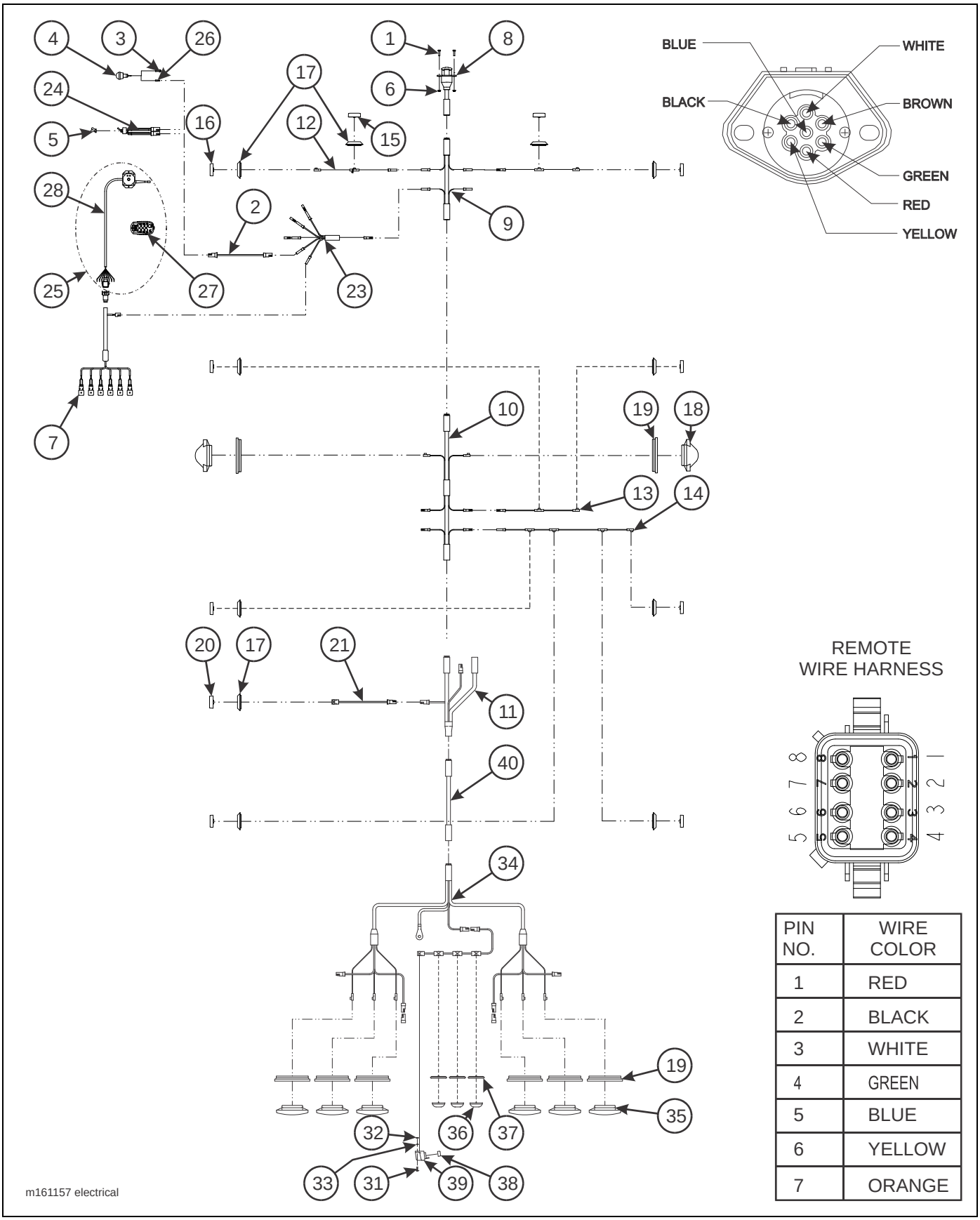



**Figure 2-24: 35 Gallon Aluminum Wet Kit Items**

# 35 GALLON ALUMINUM HYDRAULIC WET KIT (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 157663 | HYDRAULIC WET KIT, 35 GALLON ALUM | |
| 1 | 1-007-010006 | ELBOW 90, 1-5/16 O-RING 1-1/4 HOSE | 1 |
| 2 | 1-295-010001 | FILTER, RETURN | 1 |
| | 1-295-010002 | FILTER ELEMENT | 1 |
| 3 | 1-397-010301100 | HOSE ASSEMBLY 1/2 X 100 | 1 |
| 4 | 1-397-010313021 | HOSE ASSEMBLY 3/4 X 21 | 1 |
| 5 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 4 |
| 6 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 8 |
| 7 | 1-560-010002-07 | PLUG, BLACK PIPE 1-1/4 SQ HEAD | 1 |
| 8 | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5 | 2 |
| 9 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 4 |
| 10 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 4 |
| 11 | 1-654-010059-05 | SCREW, HEX HEAD CAP 5/8-11 X 2 GR5 | 8 |
| 12 | 1-861-010032-07 | WASHER, FLAT 1/4W | 2 |
| 13 | 1-861-010032-10 | WASHER, FLAT 3/8N | 8 |
| 14 | 1-861-010032-18 | WASHER, FLAT 5/8N | 8 |
| 15 | 1-861-010034-13 | WASHER, SPLIT LOCK 1/2 | 4 |
| 16 | 105479 | COUPLER, FLAT FACE MALE NOSE | 1 |
| 17 | 105480 | COUPLER, FLAT FACE FEMALE BODY | 1 |
| 18 | 105481 | COUPLER, DUST CAP MALE | 1 |
| 19 | 105482 | COUPLER, DUST CAP FEMALE | 1 |
| 20 | 106759 | HOSE ASSEMBLY 1/2 X 164 | 1 |
| 21 | 106760 | HOSE 3/4 X 164 | 1 |
| 22 | 107513 | ADAPTER | 1 |
| 23 | 118-2658-10 | NIPPLE HEX 1/2 X 1/2 | 1 |
| 24 | 12-16 070120 | ADAPTER | 1 |
| 25 | 125130 | RD12D HYDRAULIC BY PASS SRDD | 1 |
| 26 | 157662 | ALUMINUM HYDRAULIC OIL TANK | 1 |
| 27 | 157664 | HYDRAULIC FILTER BRACKET | 1 |
| 28 | 20-12 140140 | REDUCER, STR | 2 |
| 29 | 20-20-20 140424 | TEE | 1 |
| 30 | 2024-12-12S | ADAPTER, 90 | 2 |
| 31 | 2024-12-8S | ADAPTER, 90 | 1 |
| 32 | 2047-12-12S | ELBOW, 90 SWIVEL | 1 |
| 33 | 2062-16-8S | ADAPTER, 90 | 1 |
| 34 | 3-399-010001 | HOSE, 1-1/4 SUCTION | 8’ |
| 35 | 3-561-010001 | HOSE BARB 1-1/4 | 1 |
| 36 | 3-591-010001 | HYDRAULIC GEAR PUMP | 1 |
| 37 | 6828 | IDEAL HOSE CLAMP | 2 |




| PIN NO. | WIRE COLOR |
|---|---|
| 1 | RED |
| 2 | BLACK |
| 3 | WHITE |
| 4 | GREEN |
| 5 | BLUE |
| 6 | YELLOW |
| 7 | ORANGE |

**Figure 2-25: Electrical System**

# ELECTRICAL SYSTEM

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 161157 | HYDRAULIC ELECTRICAL AIR | REF | |
| | 150182 | SUSPENSION | | REF |
| 1 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 2 | -- |
| 2 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXT | 1 | -- |
| 3 | 239-3646-5 | TERMINAL | 1 | -- |
| 4 | 26331 | LIGHT, PANEL | 1 | -- |
| 5 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 | -- |
| 6 | 108417 | NUT, HEX FLANGE SPIRAL 1/4-20 | 2 | -- |
| 7 | 140083 | HARNESS ASSEMBLY, KAR-TECH | 1 | -- |
| 8 | 143100 | HARNESS, 7 WAY RECEPTACLE | 1 | -- |
| 9 | 143101 | HARNESS, FRONT MAIN | 1 | -- |
| 10 | 143102 | HARNESS, BED MAIN | 1 | -- |
| 11 | 143103 | HARNESS, E-CHAIN | REF | 1 |
| 12 | 143105 | HARNESS, MARKER FRONT CORNER | 2 | -- |
| 13 | 143106 | HARNESS, MARKER FRONT BED | 1 | -- |
| 14 | 143107 | HARNESS, MARKER REAR BED | 1 | -- |
| 15 | 143108 | LIGHT, RED LED 2.5 CL/MARKER | 2 | -- |
| | 171303 | LIGHT, RED CLEAR LENS, 2.5 GRT **(ANNIVERSERY EDITION)** | 2 | -- |
| 16 | 143109 | LIGHT, YELLOW LED 2.5 CL/MARKER | 8 | -- |
| | 171302 | LIGHT, YELLOW CLEAR LENS, 2.5 GRT **(ANNIVERSERY EDITION)** | 8 | -- |
| | 171305 | LIGHT, S/T/T YELLOW CLEAR LENS GRT **(ANNIVERSERY EDITION)** | 2 | -- |
| 17 | 143110 | GROMMET, 2.5 SURFACE MOUNT | 11 | -- |
| 18 | 169410 | LIGHT, YELLOW AUXILIARY TURN | 2 | -- |
| 19 | 143114 | GROMMET, OVAL | 2 | 6 |
| 20 | 143119 | LIGHT, YELLOW LED ABS | 1 | -- |
| 21 | 143120 | HARNESS, ABS LAMP | 1 | -- |
| 22 | 143122 | CLAMP, HARNESS (NOT SHOWN) | 3 | -- |
| 23 | 150093 | HARNESS, 5 AUXILIARY BRANCHES | 1 | -- |
| 24 | 150117 | TOGGLE SWITCH SEALED SPST | 1 | -- |
| 25 | 168648 | REMOTE, KAR-TECH SLIDE AX (INCL. ITEMS 27-30) | 1 | -- |
| 26 | STP-147 | TERMINAL BULLET ELECTRICAL | 1 | -- |
| 27 | 168975 | MACRO TRANSMITTER W/ DECAL | 1 | -- |
| 28 | 175583 | MINI AND MACRO RECEIVER ASSY, 6 FUNCTION W/ TEACH BUTTON | 1 | -- |
| 29 | 168976 | CAR CHARGER 12V TO MICRO USB (NOT SHOWN) | 1 | -- |
| 30 | 168982 | WALL CHARGER 120V TO MICRO USB (NOT SHOWN) | 1 | -- |
| 31 | 1-512-010007-03 | NUT, HEX LOCK 10-24 | -- | 2 |
| 32 | 1-656-010003051 | SCREW, RD HEAD SQ NECK 10-24 X 3/4 | -- | 2 |
| 33 | 1-861-010034-07 | WASHER, FLAT #10 | -- | 2 |
| 34 | 143104 | HARNESS, BUMPER | -- | 1 |
| 35 | 143113 | LIGHT, RED LED OVAL STT | -- | 6 |
| | 179902 | LIGHT, S/T/T RED CLEAR LENS GRT **(ANNIVERSERY EDITION)** | -- | 6 |
| 36 | 143115 | LIGHT, RED LED RECTANGLE CLEARANCE | -- | 3 |
| | 171925 | LIGHT, RED CLEAR LENS, MICRO CL **(ANNIVERSERY EDITION)** | -- | 3 |
| 37 | 143116 | GROMMET, RECTANGLE | -- | 3 |
| 38 | 143117 | LIGHT, CLEAR LED LICENSE | -- | 1 |
| 39 | 143118 | BRACKET, LIGHT LICENSE | -- | 1 |
| 40 | 143166 | HARNESS, EXT 48” | -- | REF |
| 41 | 197460 | REPLACEMENT BATTERY, KAR-TECH MACRO **(NOT SHOWN)** | 1 | 1 |

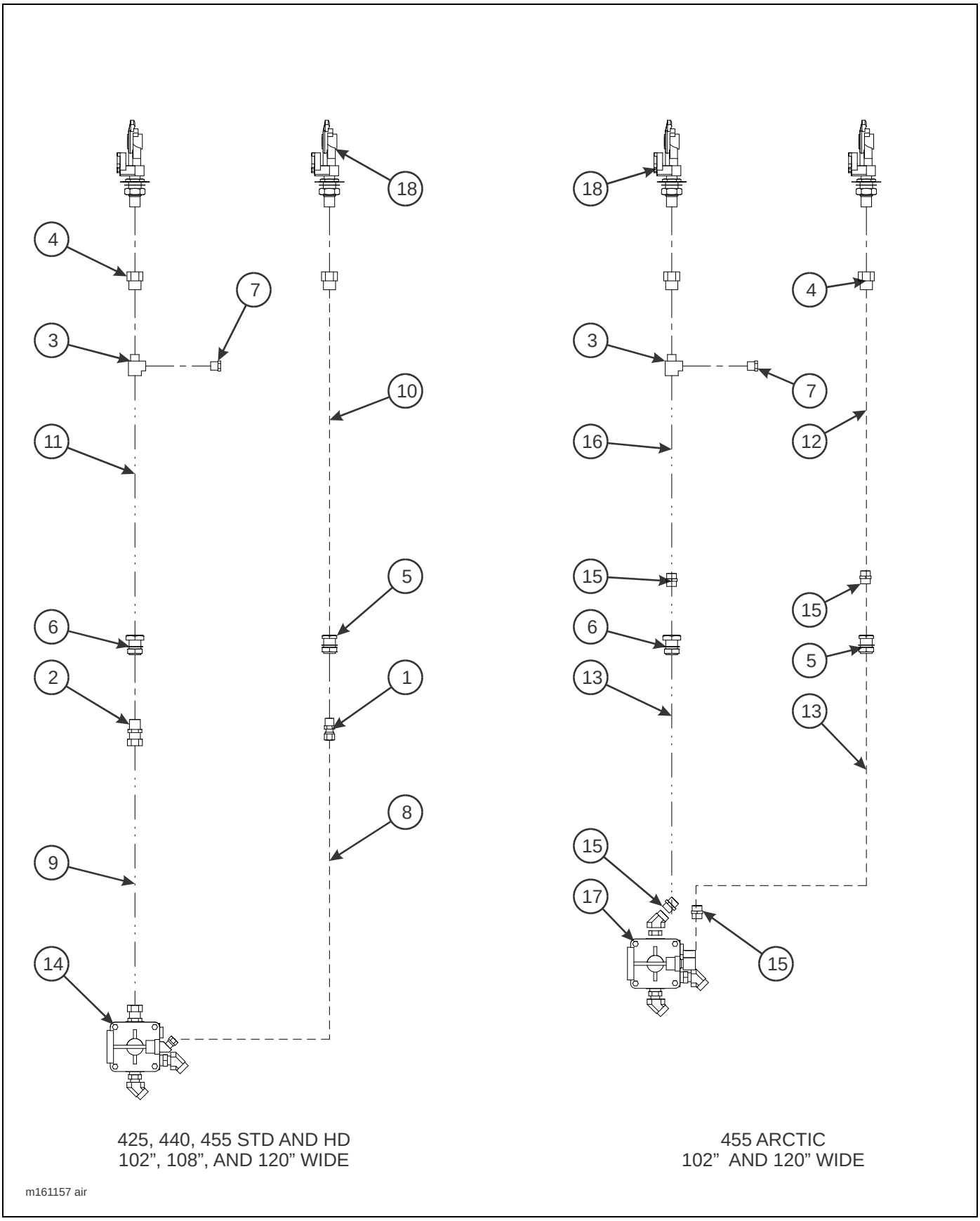



**Figure 2-26: Air System, ABS**

# AIR SYSTEM, ABS

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 161157 | HYDRAULIC ELECTRICAL AIR | REF |
| 1 | 1-297-010007-12 | FITTING, AIR | 1 |
| 2 | 1-297-010007-16 | FITTING, AIR | 2 |
| 3 | 1-297-010018-03 | FITTING, BRASS PIPE STR TEE 3/8 | 1 |
| 4 | 1-297-010021-05 | FITTING, BRS PIPE, COUPLING | 2 |
| 5 | 1-297-010022-03 | FITTING, AIR | 1 |
| 6 | 1-297-010022-04 | FITTING, AIR | 1 |
| 7 | 1-297-010033-03 | PLUG, BRASS 3/8 | 1 |
| 8 | 1-833-010002 | TUBING NYLON 3/8 | AR |
| 9 | 1-833-010003 | TUBING NYLON 1/2 | AR |
| 10 | 109209 | HOSE, AIR 3/8 X 244 | 1 |
| | 100949 | HOSE, AIR 3/8 X 222 | 1 |
| 11 | 149051 | HOSE, AIR 1/2 X 264 | 1 |
| | 122557 | HOSE, AIR 1/2 X 240 | 1 |
| 12 | 126716 | HOSE, AIR 3/8 X 222 ARCTIC | 2 |
| 13 | 139944 | HOSE, AIR 3/8 X 200 ARCTIC | 1 |
| | 169635 | HOSE, AIR 3/8 X 248 ARCTIC | 1 |
| 14 | 141607 | AIR BOOSTER VALVE ASSEMBLY (INCL ITEMS 2-3, 10, 17-19) | 1 |
| 15 | 2045-6-6S | ADAPTER, SWIVEL | 4 |
| 16 | 163359 | HOSE, AIR 1/2 X 240 ARCTIC | 1 |
| 17 | 163363 | VALVE ASSEMBLY, AIR BOOSTER ARCTIC (SEE PAGE 2-45) | 1 |
| 18 | 171320 | CONNECTORS, AIR/HYDRAULIC (FLOW CONTROL) (SEE PAGE 2-19) | 1 |

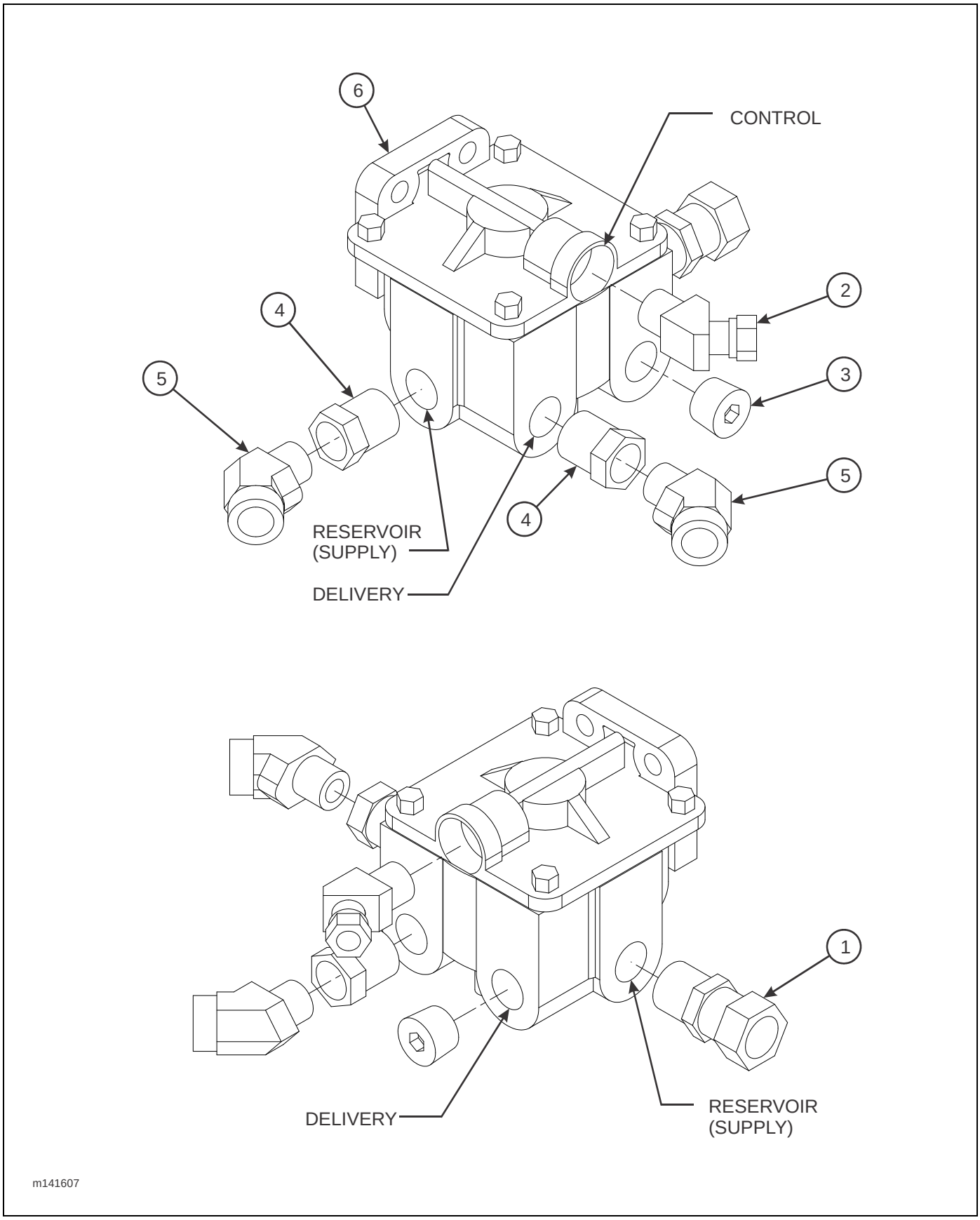



**Figure 2-27: Valve Assembly, Air Booster**

# VALVE ASSEMBLY, AIR BOOSTER

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 141607 | VALVE ASSEMBLY, AIR BOOSTER | |
| 1 | 1-297-010007-16 | FITTING, AIR | 1 |
| 2 | 1-297-010013-12 | FITTING, AIR 45 | 1 |
| 3 | 1-560-010002-04 | PLUG, PIPE, 1/2 | 1 |
| 4 | 2081-8-6S | REDUCER | 2 |
| 5 | 2088-6-6S | ADAPTER, 45 | 2 |
| 6 | 3-843-010038 | VALVE, AIR RELAY-FAST AIR BALANCE | 1 |

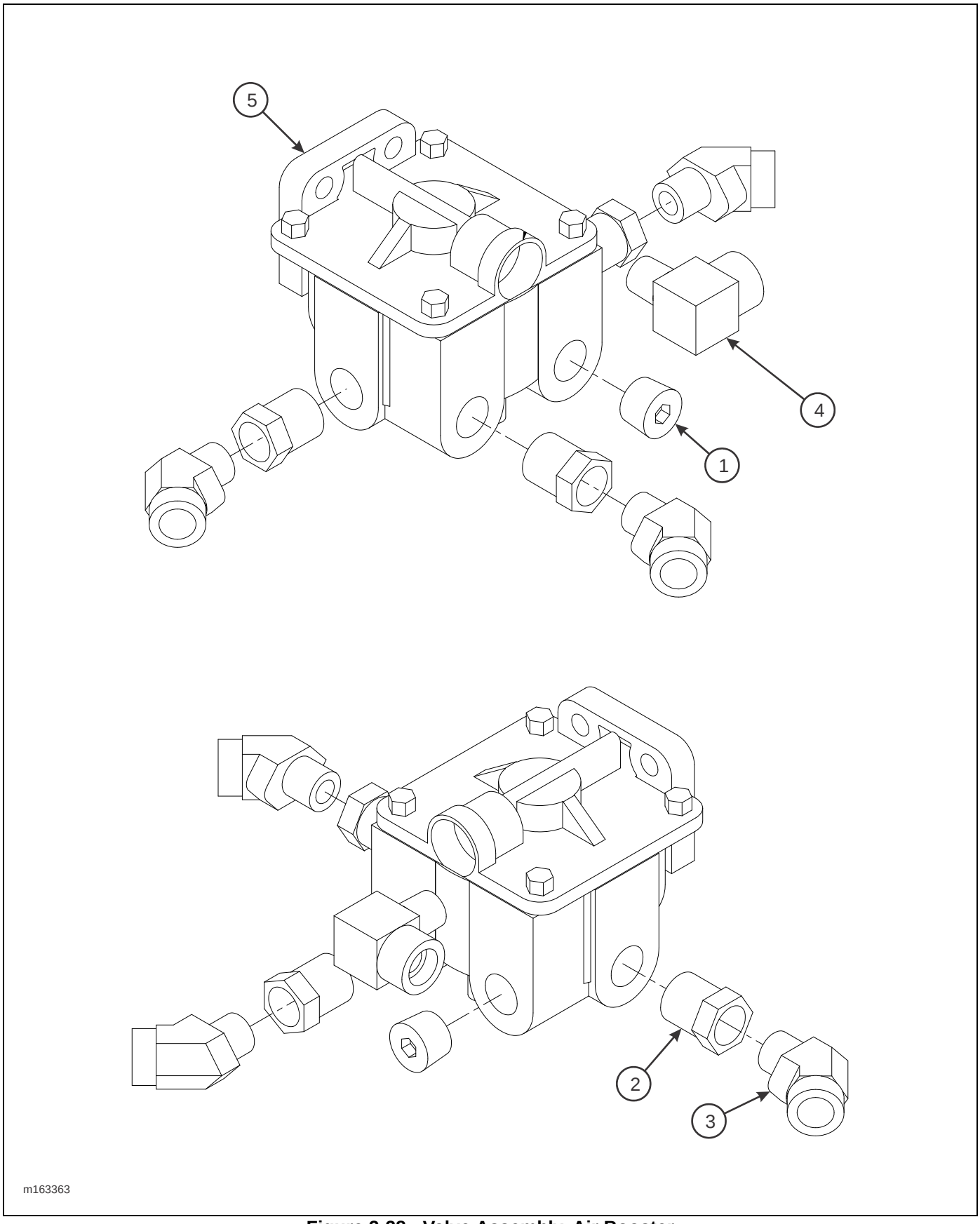



**Figure 2-28: Valve Assembly, Air Booster**

# VALVE ASSEMBLY, AIR BOOSTER (ARCTIC)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 163363 | VALVE ASSEMBLY, AIR BOOSTER | |
| 1 | 1-560-010002-04 | PLUG, PIPE, 1/2 | 1 |
| 2 | 2081-8-6S | REDUCER | 3 |
| 3 | 2088-6-6S | ADAPTER, 45 | 3 |
| 4 | 2089-6-6S | ADAPTER, 90 | 1 |
| 5 | 3-843-010038 | VALVE, AIR RELAY-FAST AIR BALANCE | 1 |

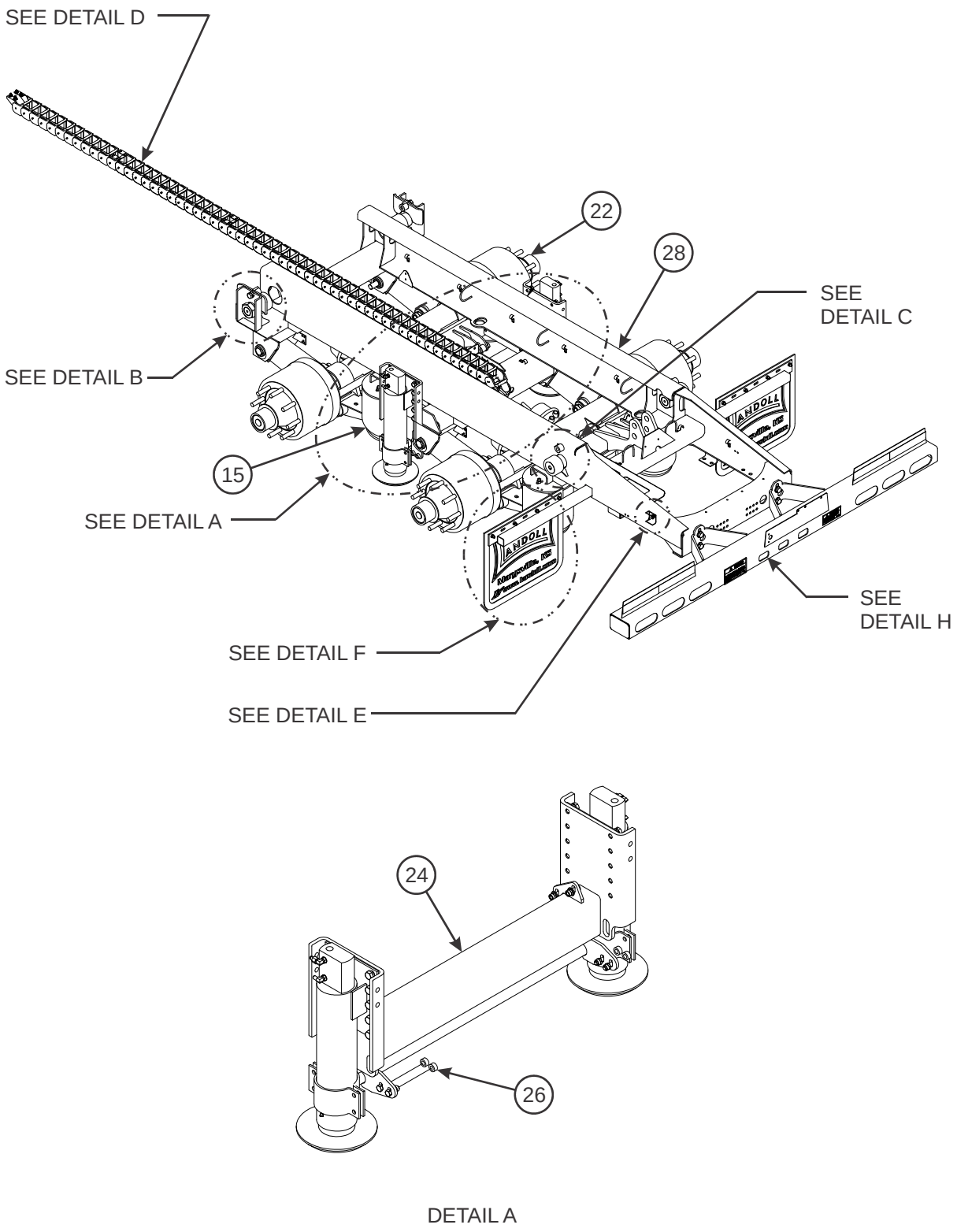



**Figure 2-29: Suspension Assembly, General Items (425 & 440) (1 of 2)**

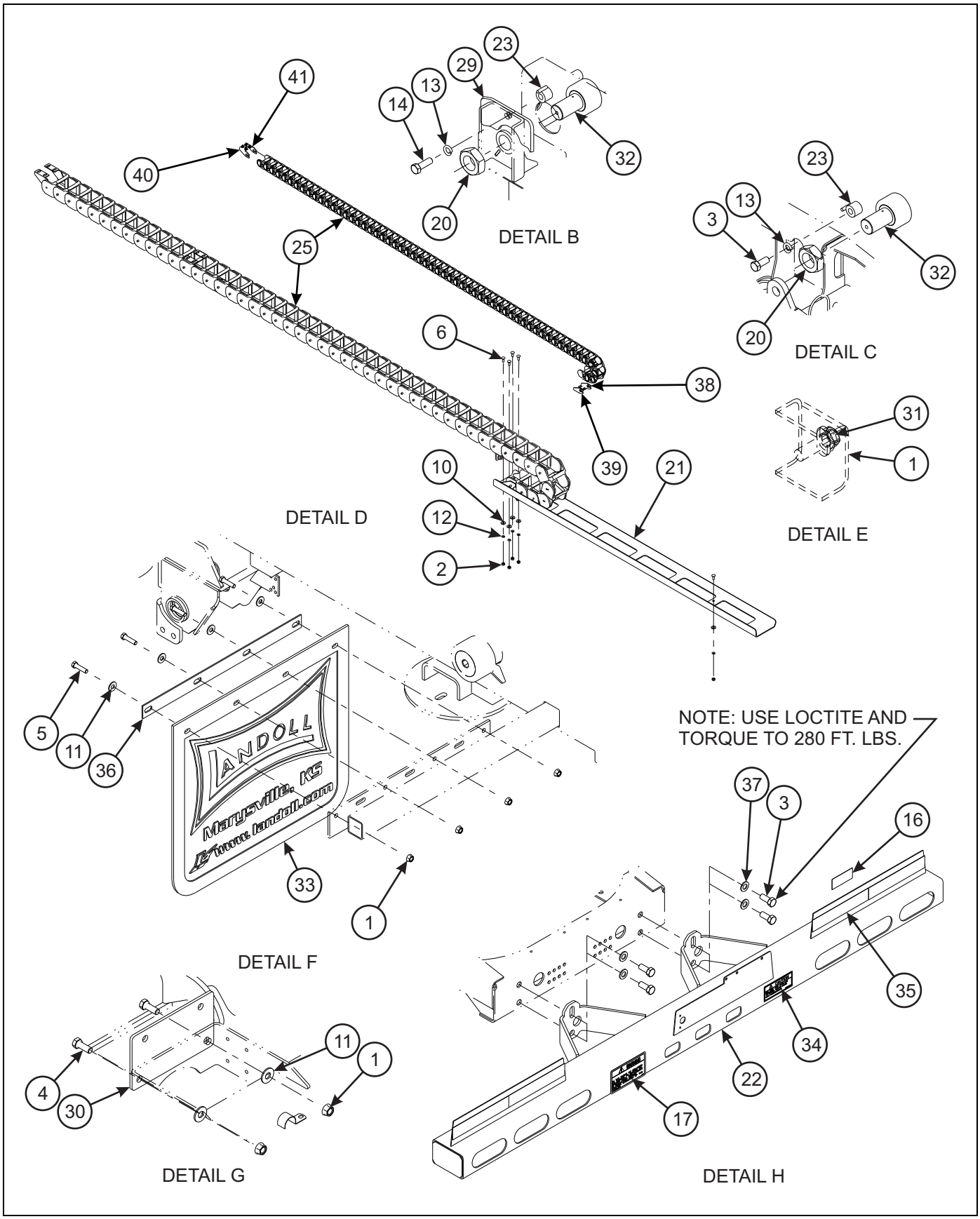



**Figure 2-30: Suspension Assembly, General Items (425 & 440) (2 of 2)**

# SUSPENSION ASSEMBLY, GENERAL ITEMS (TANDEM)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 152660 | SUSPENSION ASSEMBLY | REF |
| 1 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 9 |
| 2 | 1-512-010007-05 | NUT, HEX 1/4-20 GRB | 10 |
| 3 | 1-654-010032-4 | SCREW, HEX HEAD CAP 3/4-10 X 1-3/4 GR8 | 6 |
| 4 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 |
| 5 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 8 |
| 6 | 1-654-010158-1 | SCREW, RD HEAD SQ NECK 1/4-20 X 3/4 GR2 | 10 |
| 7 | 1-796-010003-02 | TIE STRAP, PLASTIC (NOT SHOWN) | 10 |
| 8 | 1-796-010004-02 | TIE, STRAP, PLASTIC (NOT SHOWN) | 4 |
| 9 | 1-843-010014 | VALVE EXTENSION, STEM (NOT SHOWN) (SEE PAGE 2-93) | 4 |
| 10 | 1-861-010032-07 | WASHER, FLAT 1/4W | 10 |
| 11 | 1-861-010032-11 | WASHER, FLAT 3/8W | 8 |
| 12 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 10 |
| 13 | 1-861-010034-17 | WASHER, SPLIT LOCK 3/4 | 4 |
| 14 | 100941 | SCREW, HEX HEAD CAP 3/4-10 X 2-1/4 GR8 | 2 |
| 15 | 102363 | SUSP ADJ RLU-228-3.5 (SEE PAGE 2-86) | 2 |
| | 102364 | SUSP ADJ RLU-228-5.5 (SEE PAGE 2-86) | 2 |
| 16 | 103055 | DECAL, ENERGY BUMPER CERT (SEE PAGE 2-5) | 1 |
| 17 | 103056 | DECAL, ENERGY BUMPER WARNING (SEE PAGE 2-5) | 1 |
| 18 | 103082 | SUSPENSION, AIR RLU A/R TANDEM (SEE PAGE 2-79) | 1 |
| 19 | 103861 | SENSOR, EXT CABLE 3M (10FT) (NOTSHOWN) | 2 |
| 20 | 104034 | NUT, HEX 2-12 GR2 | 4 |
| 21 | 109214 | SPACER, WHEEL 17.5 HUB PILOT | 4 |
| 22 | 121077 | AXLE WELDMENT A/R 2512 SPG 70.5 X 36 | 2 |
| | 136257 | AXLE WELDMENT 2512 SPG 70.5 36 TIS | 2 |
| | 115738 | AXLE WELDMENT 2516 69 X 31 | 2 |
| | 138205 | AXLE WELDMENT 2512 SPG 69 X 31 TIS | 2 |
| | 164428 | AXLE WELDMENT 2512 SPG 75 X 36 | 2 |
| | 164430 | AXLE WELDMENT 2512 SPG 75 X 36 TIS | 2 |
| | 169424 | AXLE WELDMENT 2512 SPG 77 X 36 | 2 |
| | 169426 | AXLE WELDMENT 2512 SPG 77 X 36 TIS | 2 |
| | 174138 | AXLE WELDMENT 2512 SPG 70.5 X 36 | 2 |
| | | (FOR BREAKDOWNS, SEE PAGES 2-88 - 2-91) | |
| 21 | 118897 | TRAY, E-CHAIN | 1 |
| 22 | 119580 | BUMPER WELDMENT E/P 102 | 1 |
| | 121369 | BUMPER WELDMENT (CAN) | 1 |
| 23 | 120451 | HOLD DOWN 425 U/C | 4 |
| 24 | 121498 | DOCK LEVELER ASSEMBLY (SEE PAGE 2-231) | 1 |
| | 130851 | DOCK LEVELER ASSEMBLY (SEE PAGE 2-239) | 1 |
| 25 | 122536 | SUPPORT E-CHAIN (58 LINKS) **(BEFORE 6-3-2015)** | 1 |
| | 3-755-010189-1 | E-CHAIN LINK ASSEMBLY (38-06-075-0) **(BEFORE 6-3-2015)** | 58 |
| | 3-755-010189 | E-CHAIN LINK ASSEMBLY **(BEFORE 6-3-2015)** | 1 |
| | 189318 | SUPPORT E-CHAIN, 58 LINKS **(AFTER 6-3-2015)** | 1 |
| 26 | 124559 | SPACER, D/L MOUNT | 4 |
| 27 | 127579 | AIR SYSTEM, U/C ABS (SEE PAGE 2-67) | 1 |
| | 160708 | AIR SYSTEM, UC BB ABS (SEE PAGE 2-69) | 1 |
| | 173877 | AIR SYSTEM, UC AQUA (SEE PAGE 2-79) | 1 |
| | 174137 | AIR SYSTEM, UC AQUA (SEE PAGE 2-67) | 1 |
| 28 | 130556 | UNDERCARRIAGE WELDMENT | 1 |

# SUSPENSION ASSEMBLY, GENERAL ITEMS (TANDEM)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 130794 | UNDERCARRIAGE WELDMENT (440-50CA) | 1 |
| | 160222 | UNDERCARRIAGE WELDMENT BB | 1 |
| | 171225 | UNDERCARRIAGE WELDMENT BB | 1 |
| 29 | 140829 | PLATE, WEAR U/C 3/8” THICK | 2 |
| 30 | 174670 | BRACKET, ADAPTER ABS VALVE | 1 |
| 31 | 2-181-010001 | CLAMP, HOSE | 1 |
| 32 | 3-076-010005 | CAM FOLLOWER, 4" DIA | 4 |
| 33 | 3-485-010001 | MUD FLAP, 21" | 2 |
| 34 | 3-573-010031 | DECAL, TRAILER BUMPER (SEE PAGE 2-5) | 1 |
| 35 | 3-573-010377 | DECAL, 2" REFLEXITE TAPE RED/WHITE (SEE PAGE 2-5) | AR |
| 36 | 3-762-010017 | CLAMP, MUD FLAP | 2 |
| 37 | 622-3511-008 | WASHER, 3/4N | 4 |
| 38 | 190701 | BRACKET WLDMT, E-CHAIN LH **(AFTER 6-3-2015)** | 1 |
| 39 | 190706 | BRACKET WLDMT, E-CHAIN RH **(AFTER 6-3-2015)** | 1 |
| 40 | 190700ZP | BRACKET, E-CHAIN LH **(AFTER 6-3-2015)** | 1 |
| 41 | 190705ZP | BRACKET, E-CHAIN RH **(AFTER 6-3-2015)** | 1 |
| | 189383 | FIELD INSTALLATION KIT **(ITEMS 25 & 38-41)** | |

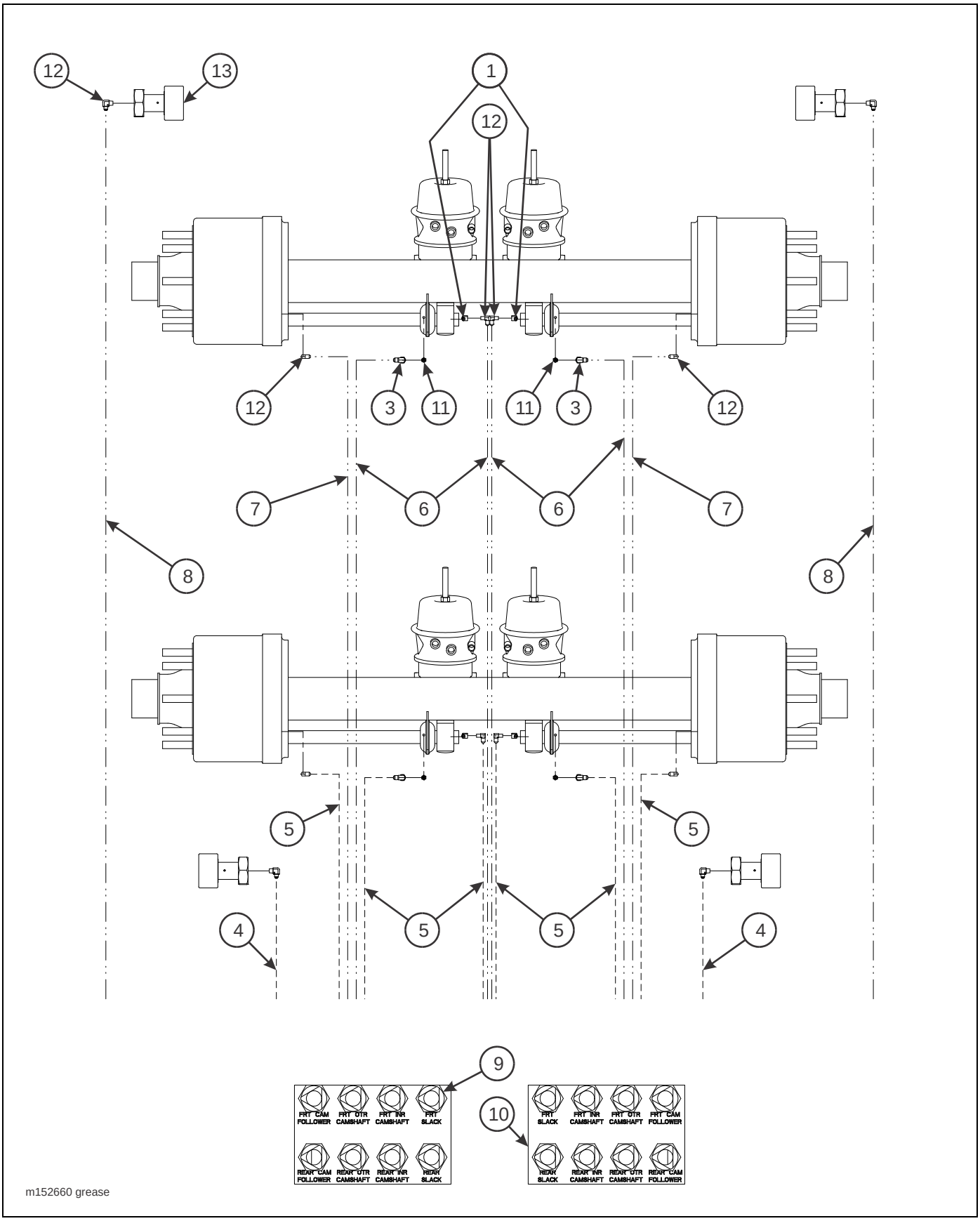



**Figure 2-31: Suspension Assembly, Grease Items (425 & 440)**

# SUSPENSION ASSEMBLY, GREASE ITEMS (TANDEM)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 152660 | SUSPENSION ASSEMBLY | REF |
| 1 | 101528 | ELBOW, BRASS PIPE STREET | 4 |
| 2 | 113268 | ADAPTER, 90 | 4 |
| 3 | 138155 | ADAPTER, 90 | 4 |
| 4 | 142441 | HOSE ASSEMBLY GREASE X 45 (425 & 440) | 2 |
| | 142442 | HOSE ASSEMBLY GREASE X 60 (440-CA) | 2 |
| 5 | 142443 | HOSE ASSEMBLY GREASE X 72 (425 & 440) | 6 |
| | 144613 | HOSE ASSEMBLY GREASE X 88 (440-CA) | 6 |
| 6 | 142446 | HOSE ASSEMBLY GREASE X 118 (425 & 440) | 4 |
| | 142448 | HOSE ASSEMBLY GREASE X 133 (440-CA) | 4 |
| 7 | 142447 | HOSE ASSEMBLY GREASE X 126 (425 & 440) | 2 |
| | 142450 | HOSE ASSEMBLY GREASE X 144 (440-CA) | 2 |
| 8 | 142451 | HOSE ASSEMBLY GREASE X 156 (425 & 440) | 2 |
| | 144614 | HOSE ASSEMBLY GREASE X 172 (440-CA) | 2 |
| 9 | 142545 | NUT, 7/16 | 16 |
| 10 | 142553 | DECAL, GREASE U/C (SEE PAGE 2-5) | 2 |
| 11 | 161797 | ADAPTER, STRAIGHT | 4 |
| 12 | 2024-2-4S | ADAPTER, ELBOW | 8 |
| 13 | 3-076-010005 | CAM FOLLOWER, 4" DIA | 4 |

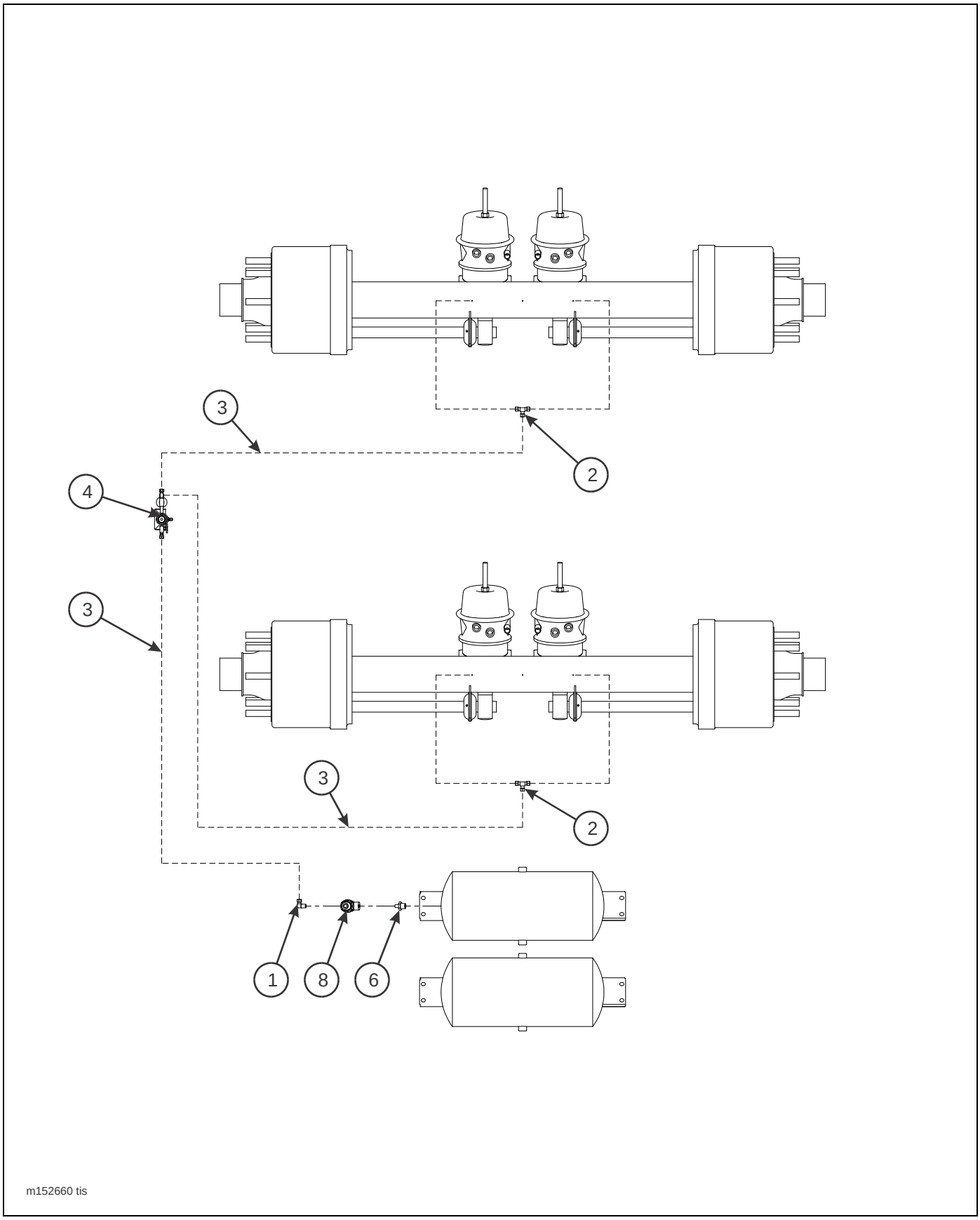



**Figure 2-32: Suspension Assembly, Tire Inflation System (Tandem)**

# SUSPENSION ASSEMBLY, TIRE INFLATION SYSTEM (TANDEM)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 152660 | SUSPENSION ASSEMBLY | REF |
| 1 | 1-297-010008-07 | FITTING AIR 90 | 1 |
| 2 | 1-297-010010-01 | FITTING AIR UNION TEE | REF |
| 3 | 1-833-010001 | TUBING NYLON 1/4 OD | AR |
| 4 | 157702 | TIRE INFLATION 2AX (NOT SHOWN) (SEE PAGE 2-63) | 1 |
| 5 | 176473 | HARNESS KIT, TIRE INFLATION (NOT SHOWN) (SEE PAGE 2-65) | 1 |
| 6 | 2083-8-4S | NIPPLE, HEX 1/2 - 1/4 | 1 |
| 7 | 3-780-010002 | TANK AIR | REF |
| 8 | 905-54-107 | BRAKE PROTECTION VALVE | REF |
| | 167692 | FILTER | 1 |

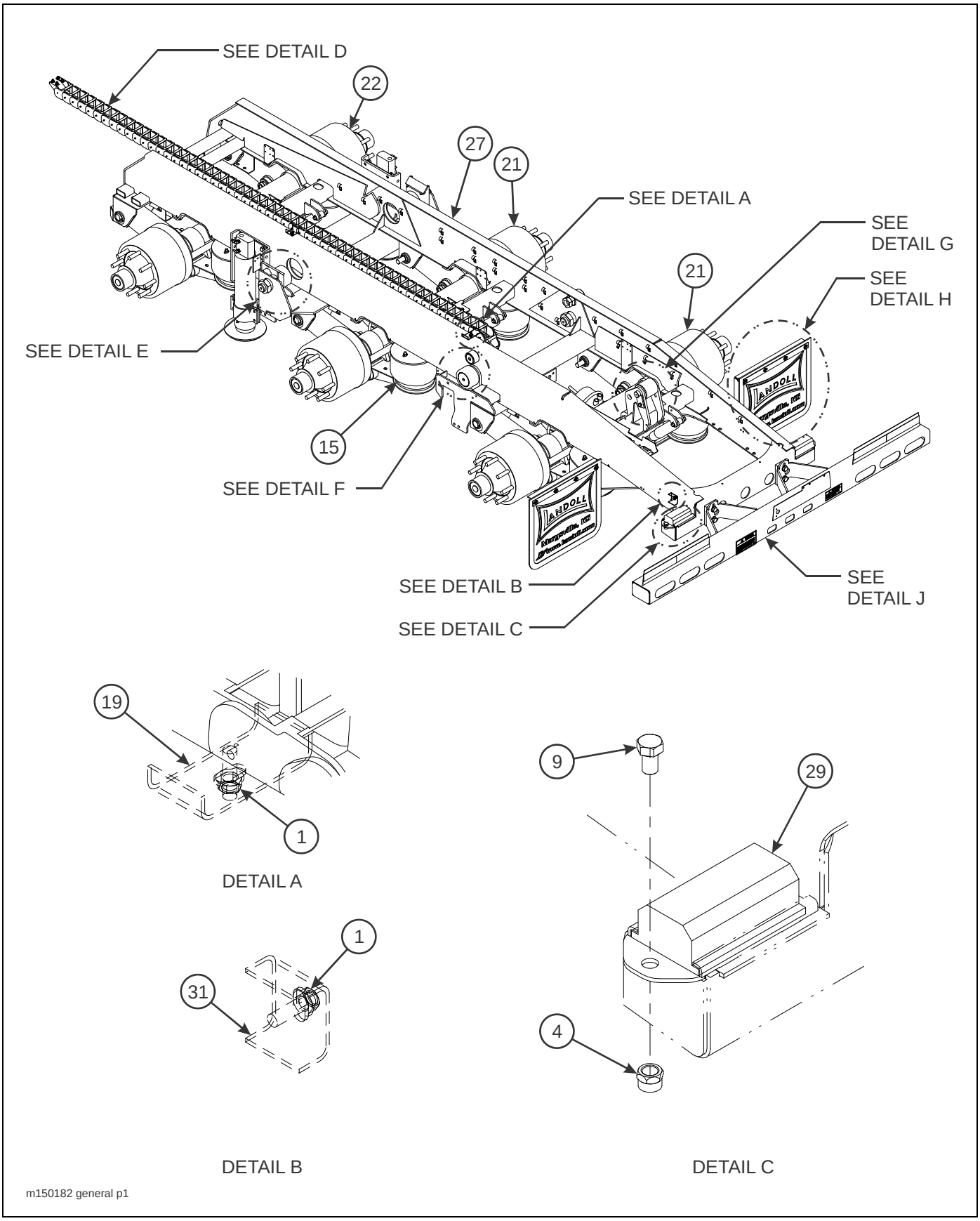



**Figure 2-33: Suspension Assembly, General Items (455) (1 of 2)**

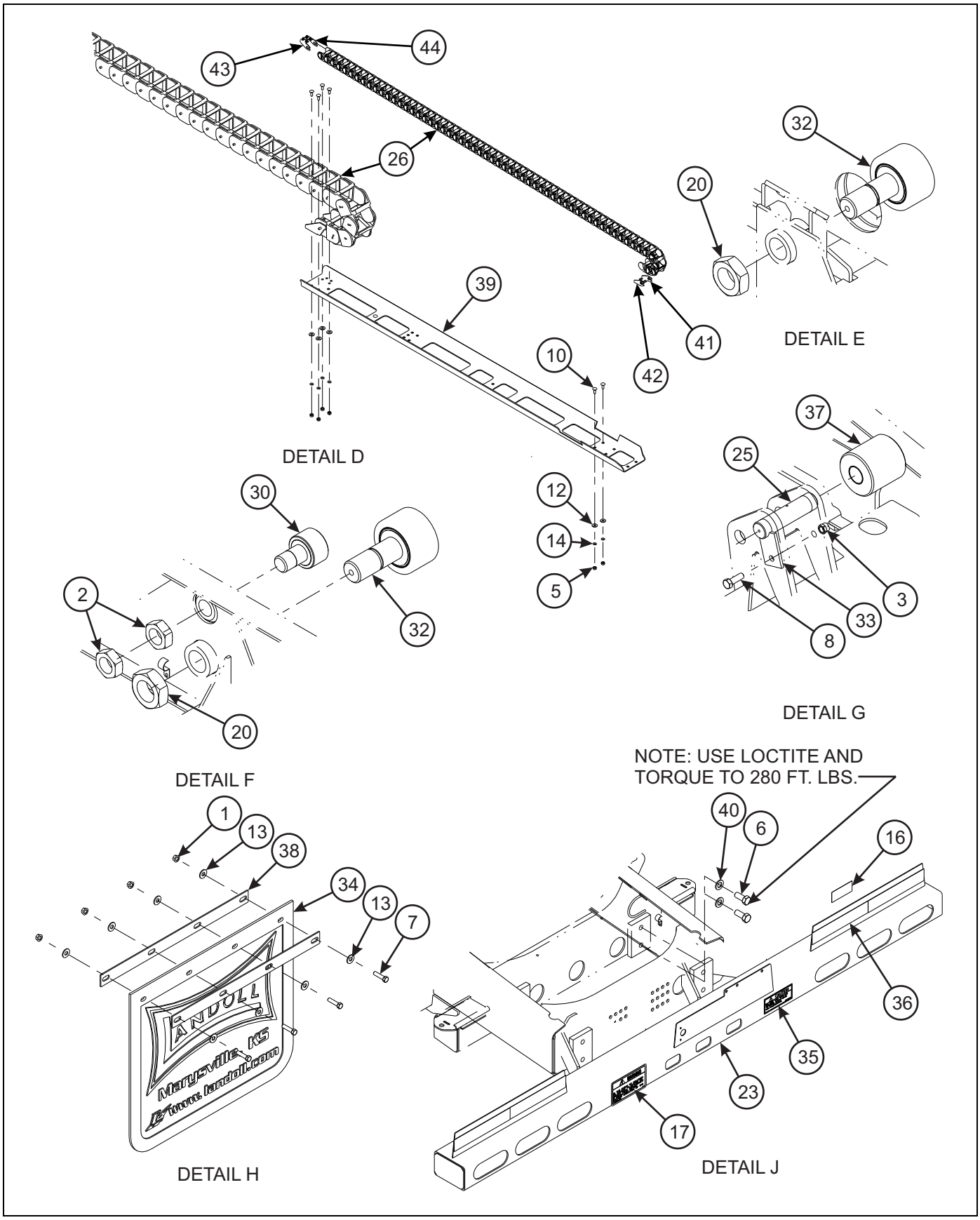



**Figure 2-34: Suspension Assembly, General Items (455) (2 of 2)**

# SUSPENSION ASSEMBLY, GENERAL ITEMS (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 150182 | SUSPENSION ASSEMBLY | REF |
| 1 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 9 |
| 2 | 1-511-010001-14 | NUT, HEX JAM 1-1/2-12 | 4 |
| 3 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 1 |
| 4 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 2 |
| 5 | 1-512-010007-05 | NUT, HEX 1/4-20 GRB | 11 |
| 6 | 1-654-010032-4 | SCREW, HEX HEAD CAP 3/4-10 X 1-3/4 GR8 | 4 |
| 7 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 8 |
| 8 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 1 |
| 9 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 2 |
| 10 | 1-654-010158-1 | SCREW, RD HEAD SQ NECK 1/4-20 X 3/4 GR2 | 11 |
| 11 | 1-843-010014 | VALVE EXTENSION, STEM (NOT SHOWN) (SEE PAGE 2-93) | 6 |
| 12 | 1-861-010032-07 | WASHER, FLAT 1/4 | *13,11 |
| 13 | 1-861-010032-11 | WASHER, FLAT 3/8W | 8 |
| 14 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 11 |
| 15 | 102363 | SUSPENSION ADJ RLU-228-3.5 (SEE PAGE 2-86) | 3 |
| | 102364 | SUSP ADJ RLU-228-5.5 (SEE PAGE 2-86) | 2 |
| 16 | 103055 | DECAL, ENERGY BUMPER CERT (SEE PAGE 2-5) | 1 |
| 17 | 103056 | DECAL, ENERGY BUMPER WARNING (SEE PAGE 2-5) | 1 |
| 18 | 103084 | SUSPENSION, AIR SYS TRIDEM (NOT SHOWN) (SEE PAGE 2-81) | 1 |
| | 139930 | SUSPENSION, AIR SYS ARCTIC (NOT SHOWN)(SEE PAGE 2-83) | 1 |
| 19 | 103817 | CLAMP, HOSE | 1 |
| 20 | 104034 | NUT, HEX 2-12 GRB | 4 |
| 21 | 121077 | AXLE WELDMENT A/R 2512 SPG 70.5 X 36 | 2 |
| | 136257 | AXLE WELDMENT 2512 SPG 70.5 36 TIS | 2 |
| | 142512 | AXLE WELDMENT 2512 SPG 88.5 X 54 | 2 |
| | 133796 | AXLE WELDMENT 2512 SPG 88.5 X 54 | 2 |
| | 115738 | AXLE WELDMENT 2516 SPG 69 X 31 | 2 |
| | 138205 | AXLE WELDMENT 2512 SPG 69 X 31 TIS | 2 |
| | 158540 | AXLE WELDMENT 2516 SPG 87 X 48 | 2 |
| | 164428 | AXLE WELDMENT 2512 SPG 70.5 X 36 TIS | 2 |
| | 164430 | AXLE WELDMENT 2512 SPG 70.5 X 36 TIS | 2 |
| | 169424 | AXLE WELDMENT 2512 SPG 77 X 36 | 2 |
| | 169426 | AXLE WELDMENT 2512 SPG 77 X 36 TIS | 2 |
| | 172100 | AXLE WELDMENT 2516 SPG 87 X 48 TIS | 2 |
| | | (FOR BREAKDOWNS, SEE PAGES 2-88 - 2-91) | |
| 22 | 121078 | AXLE WELDMENT A/R 2512 SER 70.5 X 36 | 1 |
| | 138200 | AXLE WELDMENT 2512 SER70.5 36 TIS | 1 |
| | 142513 | AXLE WELDMENT 2512 SER 88.5 X 54 | 1 |
| | 133797 | AXLE WELDMENT 2512 SER 88.5 X 54 | 1 |
| | 115740 | AXLE WELDMENT 2512 SER 69 X 31 | 1 |
| | 145537 | AXLE WELDMENT 2512 SER 69X 31 TIS | 1 |
| | 158541 | AXLE WELDMENT 2516 SER 87 X 48 | 1 |
| | 164429 | AXLE WELDMENT 2512 SER 70.5 X 36 TIS | 1 |
| | 164431 | AXLE WELDMENT 2512 SER 70.5 X 36 TIS | 1 |
| | 169425 | AXLE WELDMENT 2512 SER 77 X 36 | 1 |
| | 169426 | AXLE WELDMENT 2512 SER 77 X 36 TIS | 1 |
| | 172101 | AXLE WELDMENT 2516 SER 87 X 48 TIS | 1 |
| | | (FOR BREAKDOWNS, SEE PAGES 2-88 - 2-91) | |

# SUSPENSION ASSEMBLY, GENERAL ITEMS (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 23 | 119580 | BUMPER WELDMENT E/P 102 | 1 |
| | 133777 | BUMPER WELDMENT 10’ | 1 |
| | 121369 | BUMPER WELDMENT (CAN) | 1 |
| 24 | 126537 | DOCK LEVELER ASSEMBLY (SEE PAGE 2-241) | 1 |
| | 121498 | DOCK LEVELER ASSEMBLY (SEE PAGE 2-231) | 1 |
| | 130851 | DOCK LEVELER ASSEMBLY (SEE PAGE 2-239) | 1 |
| | 172775 | DOCK LEVELER ASSEMBLY SINGLE 60K ARCTIC (SEE PAGE 2-233) | 1 |
| | 174179 | DOCK LEVELER ASSEMBLY 120” 60K (SEE PAGE 2-235) | 1 |
| | 174180 | DOCK LEVELER ASSEMBLY 120” 60K ARCTIC (SEE PAGE 2-237) | 1 |
| 25 | 121686 | PIN, 1-1/2 X 6-1/4 | 1 |
| 26 | 122536 | SUPPORT E-CHAIN 455 **(BEFORE 6-3-2015)** | 1 |
| | 3-755-010189-1 | E-CHAIN LINK ASSEMBLY (38-06-075-0) **(BEFORE 6-3-2015)** | 58 |
| | 140032 | SUPPORT E-CHAIN ARCTIC **(BEFORE 6-3-2015)** | 1 |
| | 126794 | SUPPORT, E-CHAIN ARCTIC **(BEFORE 6-3-2015)** | 1 |
| | 126795 | E-CHAIN LINK, ARCTIC **(BEFORE 6-3-2015)** | 1 |
| | 126796 | E-CHAIN MOUNTING BRACKET, ARCTIC **(BEFORE 6-3-2015)** | 1 |
| | 189318 | SUPPORT E-CHAIN, 58 LINKS **(AFTER 6-3-2015)** | 1 |
| 27 | 128672 | SUSPENSION WELDMENT | 1 |
| | 133768 | SUSPENSION WELDMENT 10’ | 1 |
| | 149026 | SUSPENSION WELDMENT NARROW | 1 |
| | 158549 | SUSPENSION WELDMENT 120 BB 87 TRK | 1 |
| | 171942 | SUSPENSION WELDMENT 50CA | 1 |
| 28 | 150151 | AIR SYSTEM, U/C ABS TRI. (SEE PAGE 2-71) | 1 |
| | 103816 | AIR SYSTEM, U/C ABS (SEE PAGE 2-73) | 1 |
| | 139932 | AIR SYSTEM, U/C ARCTIC (SEE PAGE 2-75) | 1 |
| 29 | 142565 | PLATE, RUB BUMPER 2" | 2 |
| 30 | 145532 | CAM FOLLOWER 3" SEALED (TORQUE TO 166 FT/LBS) | 2 |
| 31 | 2-181-010001 | CLAMP, HOSE | 1 |
| 32 | 3-076-010015 | CAM FOLLOWER 5" DIA (TORQUE TO 250 FT/LBS) | 4 |
| 33 | 3-187-010013 | CLIP, PIN RETAINER | 1 |
| 34 | 3-485-010001 | MUD FLAP, 21" | 2 |
| 35 | 3-573-010031 | DECAL, TRAILER BUMPER (SEE PAGE 2-5) | 1 |
| 36 | 3-573-010377 | DECAL, 2" REFLEXITE TAPE RED/WHITE (SEE PAGE 2-5) | AR |
| 37 | 3-645-010084 | ROLLER ASSEMBLY, REAR U/C | 1 |
| 38 | 3-762-010017 | CLAMP, MUD FLAP | 2 |
| 39 | 3-821-010005 | TRAY, CAT TRACK | 1 |
| 40 | 622-3511-008 | WASHER, 3/4N | 4 |
| 41 | 190701 | BRACKET WLDMT, E-CHAIN LH **(AFTER 6-3-2015)** | 1 |
| 42 | 190706 | BRACKET WLDMT, E-CHAIN RH **(AFTER 6-3-2015)** | 1 |
| 43 | 190700ZP | BRACKET, E-CHAIN LH **(AFTER 6-3-2015)** | 1 |
| 44 | 190705ZP | BRACKET, E-CHAIN RH **(AFTER 6-3-2015)** | 1 |
| | 189838 | FIELD INSTALLATION KIT **(ITEMS 26 & 41-44)** | 1 |

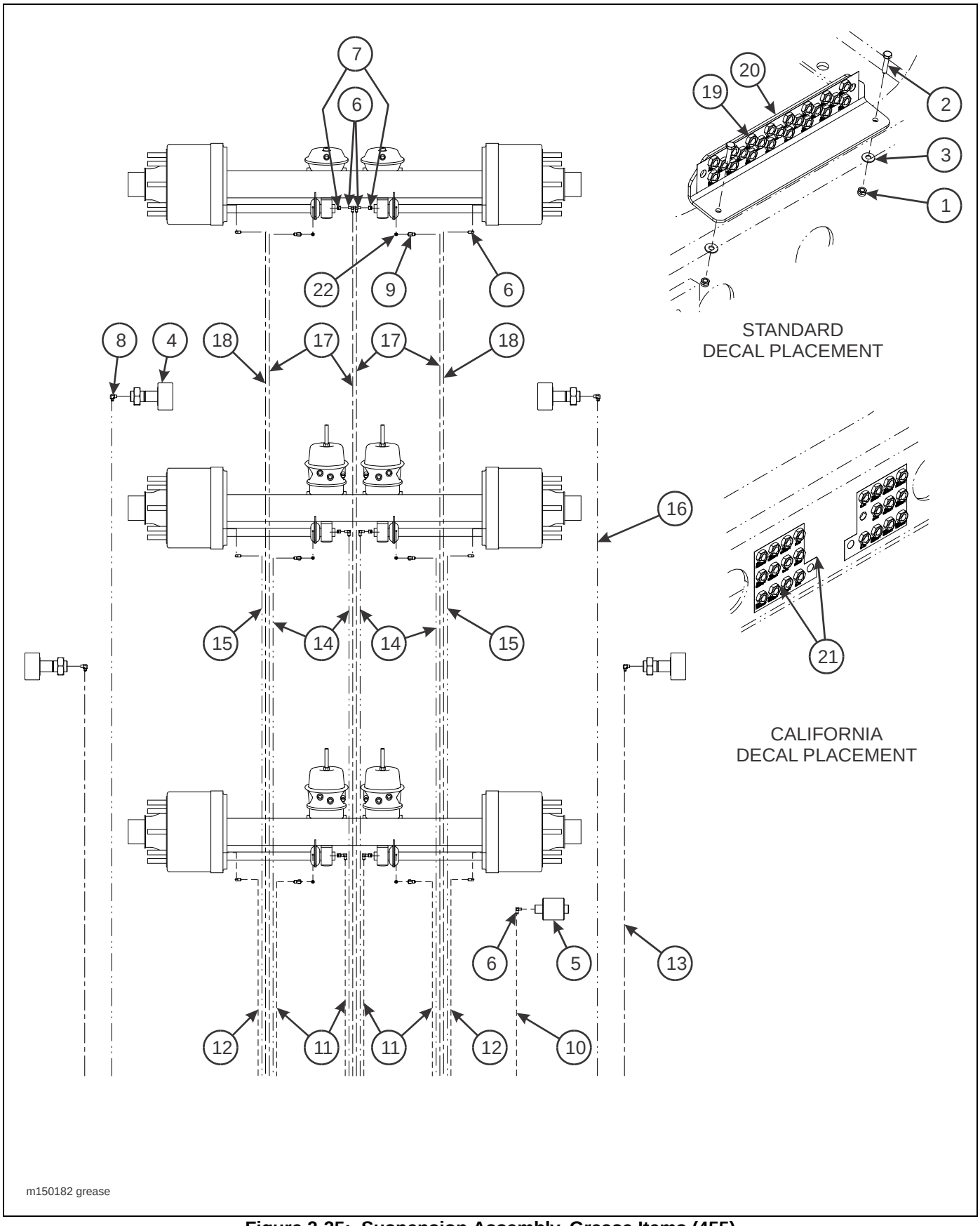



**Figure 2-35: Suspension Assembly, Grease Items (455)**

# SUSPENSION ASSEMBLY, GREASE ITEMS (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 150182 | SUSPENSION ASSEMBLY | REF |
| 1 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 2 | 1-654-010047-07 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5 | 2 |
| 3 | 1-861-010032-07 | WASHER, FLAT 1/4 | *13,11 |
| 4 | 3-076-010015 | CAM FOLLOWER 5" DIA (TORQUE TO 250 FT/LBS) | 4 |
| 5 | 3-645-010084 | ROLLER ASSEMBLY, REAR U/C | 1 |
| 6 | 2024-2-4S | ADAPTER, ELBOW | 8 |
| 7 | 101528 | ELBOW, BRASS PIPE STREET | 4 |
| 8 | 113268 | ADAPTER, 90 | 4 |
| 9 | 138155 | ADAPTER, 90 | 4 |
| 10 | 142441 | HOSE ASSEMBLY, GREASE 1/4 X 45 (STD MODELS) | 1 |
| | 142443 | HOSE ASSEMBLY, GREASE 1/4 X 72 (CA. MODELS) | 1 |
| 11 | 142442 | HOSE ASSEMBLY, GREASE 1/4 X 60 (STD MODELS) | 4 |
| | 142444 | HOSE ASSEMBLY, GREASE 1/4 X 83 (CA. MODELS) | 2 |
| 12 | 142443 | HOSE ASSEMBLY, GREASE 1/4 X 72 (STD MODELS) | 2 |
| | 142445 | HOSE ASSEMBLY, GREASE 1/4 X 102 (CA. MODELS) | 4 |
| 13 | 142444 | HOSE ASSEMBLY, GREASE 1/4 X 83 (STD MODELS) | 2 |
| | 142445 | HOSE ASSEMBLY, GREASE 1/4 X 102 (CA. MODELS) | 4 |
| 14 | 142446 | HOSE ASSEMBLY, GREASE 1/4 X 118 (STD MODELS) | 4 |
| | 142450 | HOSE ASSEMBLY, GREASE 1/4 X 144 (CA. MODELS) | 4 |
| 15 | 142447 | HOSE ASSEMBLY, GREASE 1/4 X 126 (STD MODELS) | 2 |
| | 142451 | HOSE ASSEMBLY, GREASE 1/4 X 156 (CA. MODELS) | 2 |
| 16 | 144614 | HOSE ASSEMBLY GREASE X 172 (STD MODELS) | 2 |
| | 142454 | HOSE ASSEMBLY, GREASE 1/4 X 200 (CA. MODELS) | 2 |
| 17 | 145416 | HOSE ASSEMBLY, GREASE 1/4 X 186 (STD MODELS) | 4 |
| | 142455 | HOSE ASSEMBLY, GREASE 1/4 X 217 (CA. MODELS) | 4 |
| 18 | 142454 | HOSE ASSEMBLY, GREASE 1/4 X 200 (STD MODELS) | 2 |
| | 142455 | HOSE ASSEMBLY, GREASE 1/4 X 217 (CA. MODELS) | |
| 19 | 142545 | NUT, 7/16 | 16 |
| 20 | 143182 | BRACKET, GREASE HOSE | 1 |
| 21 | 143688 | DECAL, GREASE (SEE PAGE 2-5) | 1 |
| 22 | 161797 | ADAPTER, STRAIGHT | 4 |

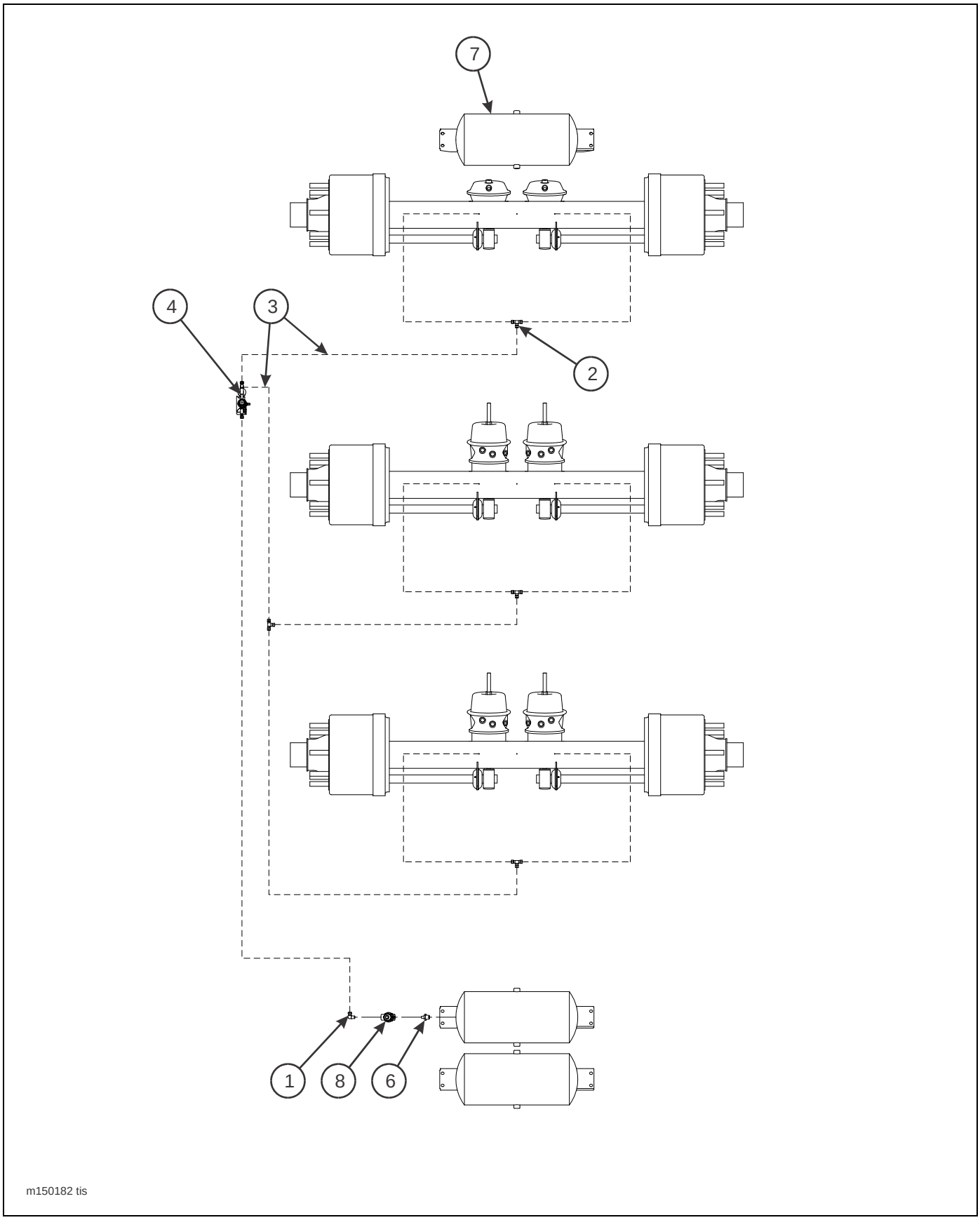



**Figure 2-36: Suspension Assembly, Tire Inflation System (Triple)**

# SUSPENSION ASSEMBLY, TIRE INFLATION SYSTEM (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 150182 | SUSPENSION ASSEMBLY, TIRE INFLATION SYSTEM | REF |
| 1 | 1-297-010008-07 | FITTING AIR 90 | 1 |
| 2 | 1-297-010010-01 | FITTING AIR UNION TEE | REF |
| 3 | 1-833-010001 | TUBING NYLON 1/4 OD | AR |
| 4 | 157703 | TIRE INFLATION SYSTEM (NOT SHOWN) (SEE PAGE 2-63) | 1 |
| 5 | 176473 | HARNESS KIT, TIRE INFLATION (NOT SHOWN) (SEE PAGE 2-65) | 1 |
| 6 | 2083-8-4S | NIPPLE, HEX 1/2 - 1/4 | 1 |
| 7 | 3-780-010002 | TANK AIR | REF |
| 8 | 905-54-107 | BRAKE PROTECTION VALVE | REF |
| | 167692 | FILTER | 1 |

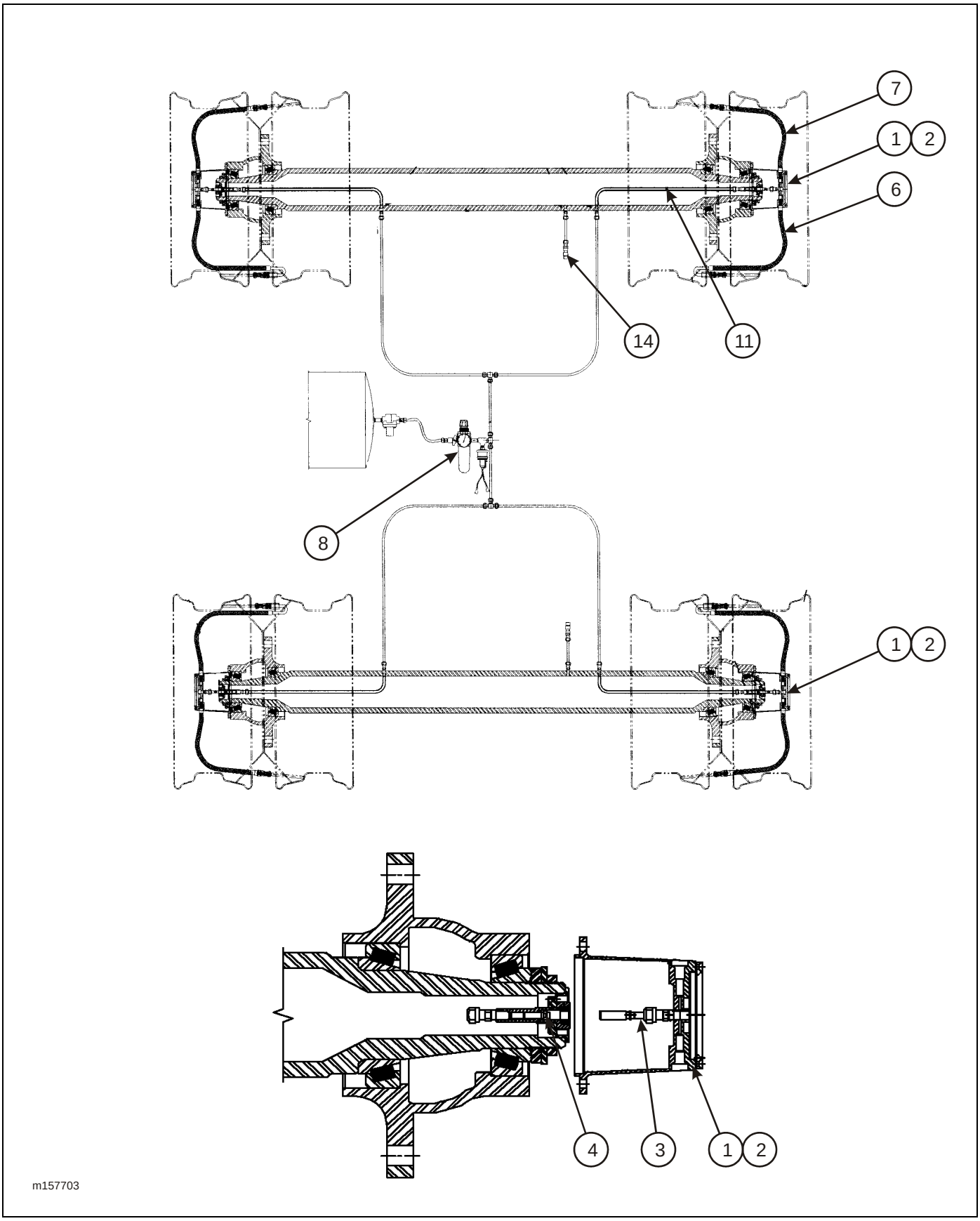
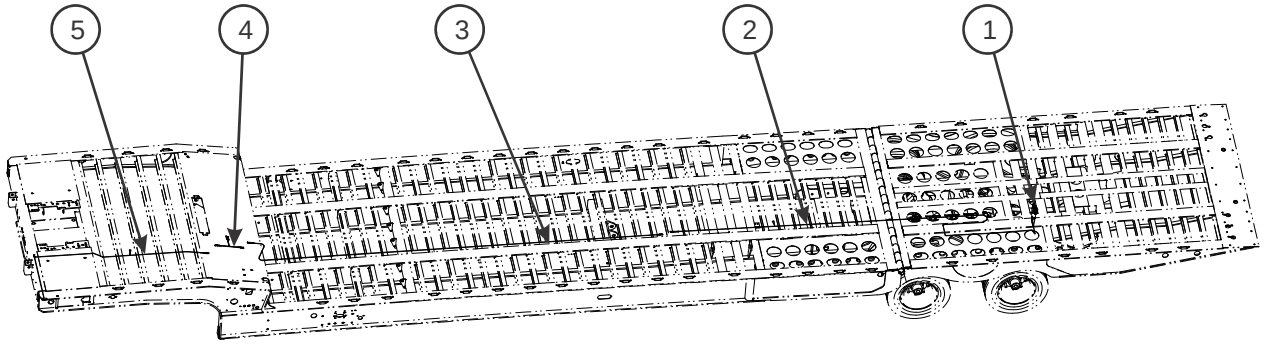



**Figure 2-37: Tire Inflation System (Option)**

# 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 | 178749 | 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 |
| 17 | 085-002-02 | RUBBER PLUG | *6,4 |

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




m176473

**Figure 2-38: Harness Kit, Tire Inflation System (Option)**

# HARNESS KIT, TIRE INFLATION SYSTEM (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176473 | HARNESS KIT, TIRE INFLATION SYSTEM | |
| 1 | 157702 | TIRE INFLATION SYSTEM, 2 AXLE | REF |
| 2 | 176476 | HARNESS, TIRE INFLATION LD25S | 1 |
| 3 | 176477 | HARNESS, TIRE INFLATION LD30 | 1 |
| 4 | 176478 | HARNESS, TIRE INFLATION LDPWR | 1 |
| 5 | 176479 | HARNESS, TIRE INFLATION LD15L | 1 |

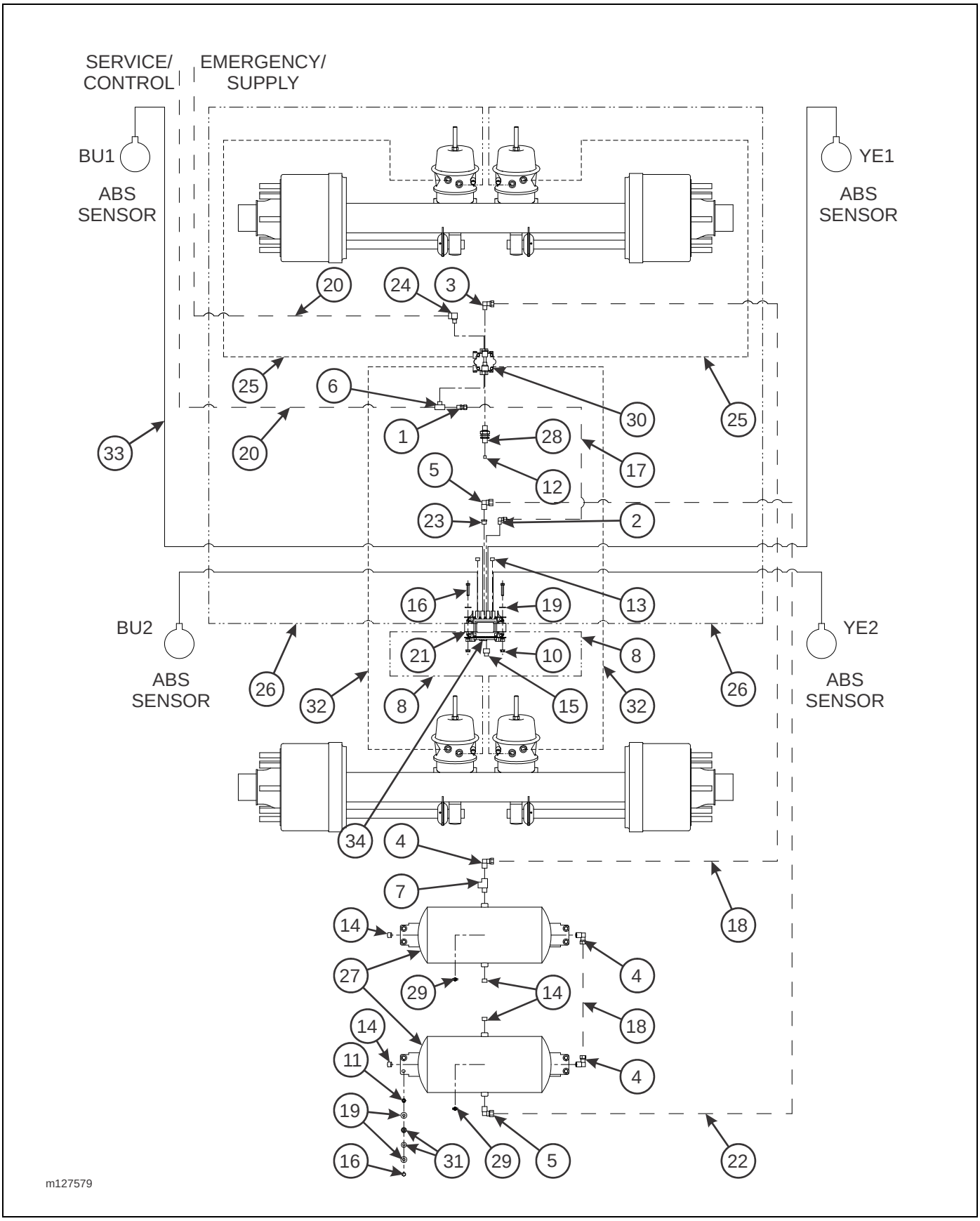



**Figure 2-39: Spring Air Brake System w/ ABS (425 & 440 (Aqua Package))**

# SPRING AIR BRAKE SYSTEM W/ ABS (TANDEM)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 127579 | AIR SYSTEM U/C, ABS (425) | |
| | 174137 | AIR SYSTEM U/C, ABS (440 (AQUA PACKAGE)) | |
| 1 | 1-297-010007-12 | FITTING AIR | 1 |
| 2 | 1-297-010008-18 | FITTING, AIR 90 | 1 |
| 3 | 1-297-010008-23 | FITTING, AIR 90 | 1 |
| 4 | 1-297-010008-24 | FITTING, AIR 90 | 3 |
| 5 | 1-297-010008-26 | FITTING, AIR 90 | 2 |
| 6 | 1-297-010017-03 | FITTING AIR M/BR TEE | 1 |
| 7 | 1-297-010018-04 | FITTING, BR TEE (127879) | REF |
| 8 | 1-384-010038056 | HOSE, AIR 56” | 2 |
| 9 | 1-394-010001 | HOSE ABRASION SLEEVE X 2 (NOT SHOWN) | 2 |
| 10 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 3 |
| 11 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 8 |
| 12 | 1-560-010002-02 | PIPE PLUG 1/4 | 1 |
| 13 | 1-560-010002-03 | PIPE PLUG 3/8 | 2 |
| 14 | 1-560-010002-04 | PIPE PLUG 1/2 | 4 |
| 15 | 1-560-010002-05 | PIPE PLUG 3/4-14 | 1 |
| 16 | 1-654-010051-08 | SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 10 |
| 17 | 1-833-010002 | TUBING, NYLON 3/8 | AR |
| 18 | 1-833-010003 | TUBING NYLON 1/2 | AR |
| 19 | 1-861-010032-11 | WASHER, FLAT 3/8W | 18 |
| 20 | 100949 | HOSE AIR 3/8 X 222 W/ 3/8 ENDS | 2 |
| 21 | 114584 | BRAKE KIT, ABS 4S/2M (127579) (SEE PAGE 2-77) | 1 |
| | 114585 | BRAKE KIT, ABS 2S/1M SGL (174137) (SEE PAGE 2-77) | 1 |
| 22 | 117304 | TUBING, NYLON 5/8 | AR |
| 23 | 118-2659-9 | BUSHING 1/2 X 3/4 | 1 |
| 24 | 2089-6-6S | ADAPTER, 90 | 1 |
| 25 | 3-384-010020 | HOSE, AIR 3/8 X 32 | 2 |
| 26 | 3-384-010031 | HOSE, AIR 3/8 X 42 | 2 |
| 27 | 3-780-010002 | TANK AIR | 2 |
| 28 | 55B61 | FRAME UNION | 1 |
| 29 | 56D4 | AIR TANK DRAIN COCK (127579) | 2 |
| | 757-363 | VALVE W/ 4’ CABLE PULL DRAIN (174137) | 2 |
| 30 | 758-181 | VALVE RELAY EMERGENCY (127579) | 1 |
| | 174241 | VALVE, 4 PORT (174137) | 1 |
| 31 | 805-2 | STEP BUSHING | 16 |
| 32 | 3-384-010031 | HOSE, AIR 3/8 X 42 (127579) | 2 |
| 33 | 103861 | SENSOR, EXT CABLE 3M (10FT) | 2 |
| 34 | 174143 | KIT, SNORKEL 2S/1M ABS VALVE (174137) | 1 |

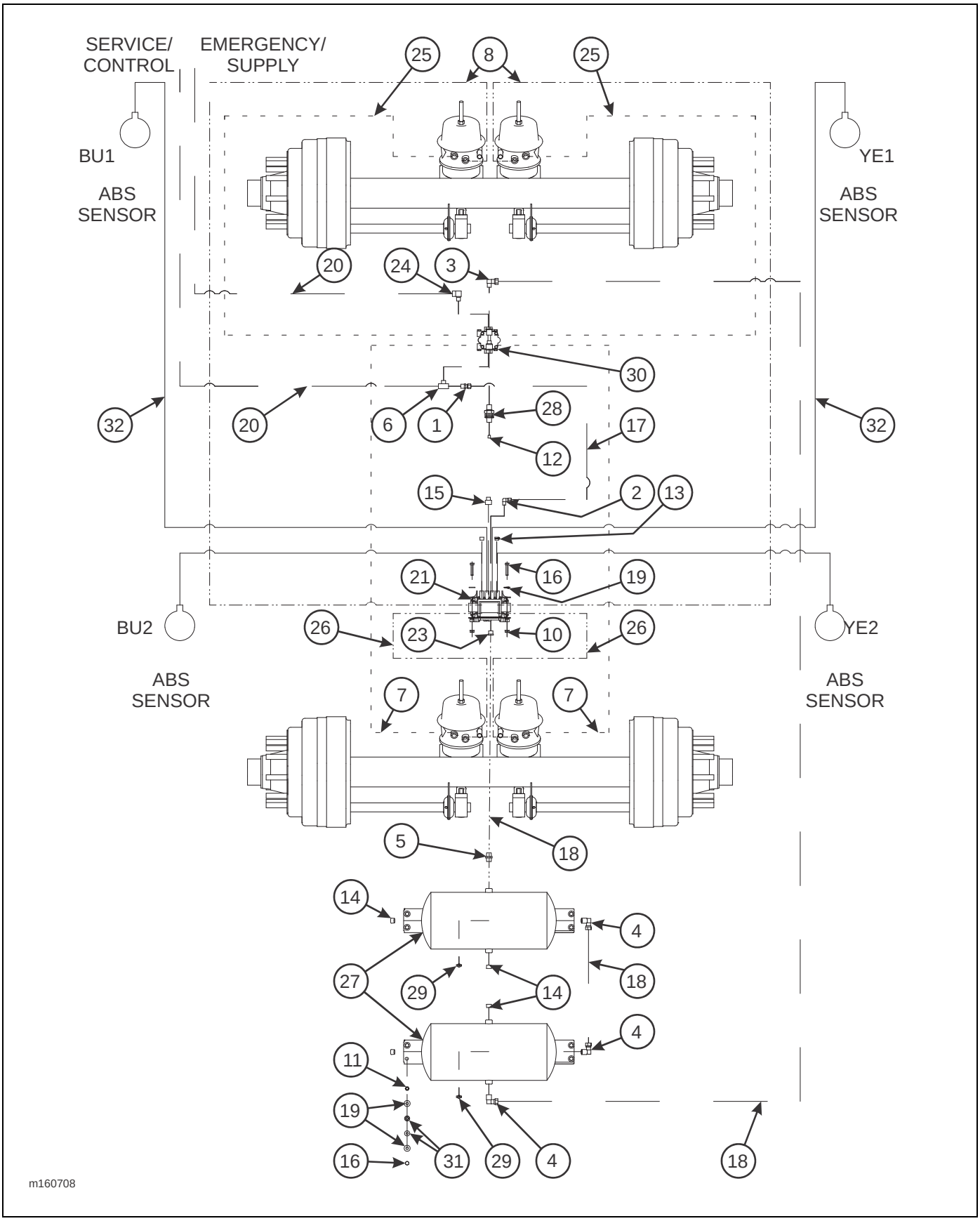



**Figure 2-40: Spring Air Brake System w/ ABS (440 CA BB)**

# SPRING AIR BRAKE SYSTEM W/ ABS (TANDEM)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 160708 | AIR SYSTEM, U/C, ABS CA BB (440) | |
| 1 | 1-297-010007-12 | FITTING AIR | 1 |
| 2 | 1-297-010008-18 | FITTING, AIR 90 | 1 |
| 3 | 1-297-010008-23 | FITTING, AIR 90 | 1 |
| 4 | 1-297-010008-24 | FITTING, AIR 90 | 2 |
| 5 | 2083-8-8S | NIPPLE | 1 |
| 6 | 1-297-010017-03 | FITTING AIR M/BR TEE | 1 |
| 7 | 1-384-010038060 | HOSE, AIR 3/8 X 60 | 2 |
| 8 | 103738 | HOSE, AIR 3/8 X 100 | 2 |
| 9 | 1-394-010001 | HOSE ABRASION SLEEVE X 2 (NOT SHOWN) | 2 |
| 10 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 3 |
| 11 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 8 |
| 12 | 1-560-010002-02 | PIPE PLUG 1/4 | 1 |
| 13 | 1-560-010002-03 | PIPE PLUG 3/8 | 2 |
| 14 | 1-560-010002-04 | PIPE PLUG 1/2 | 4 |
| 15 | 1-560-010002-05 | PIPE PLUG 3/4-14 | 1 |
| 16 | 1-654-010051-08 | SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 10 |
| 17 | 1-833-010002 | TUBING, NYLON 3/8 | AR |
| 18 | 1-833-010003 | TUBING NYLON 1/2 | AR |
| 19 | 1-861-010032-11 | WASHER, FLAT 3/8W | 18 |
| 20 | 100949 | HOSE AIR 3/8 X 222 W/ 3/8 ENDS | 2 |
| 21 | 114584 | BRAKE KIT, ABS 4S/2M (SEE PAGE 2-77) | 1 |
| 22 | 117304 | TUBING, NYLON 5/8 | AR |
| 23 | 118-2659-9 | BUSHING 1/2 X 3/4 | 1 |
| 24 | 2089-6-6S | ADAPTER, 90 | 1 |
| 25 | 3-384-010020 | HOSE, AIR 3/8 X 32 | 2 |
| 26 | 3-384-010031 | HOSE, AIR 3/8 X 42 | 2 |
| 27 | 3-780-010002 | TANK AIR | 2 |
| 28 | 55B61 | FRAME UNION | 1 |
| 29 | 56D4 | AIR TANK DRAIN COCK | 2 |
| 30 | 758-181 | VALVE RELAY EMERGENCY | 1 |
| 31 | 805-2 | STEP BUSHING | 16 |
| 32 | 103861 | SENSOR, EXT CABLE 3M (10FT) (160708) | 2 |

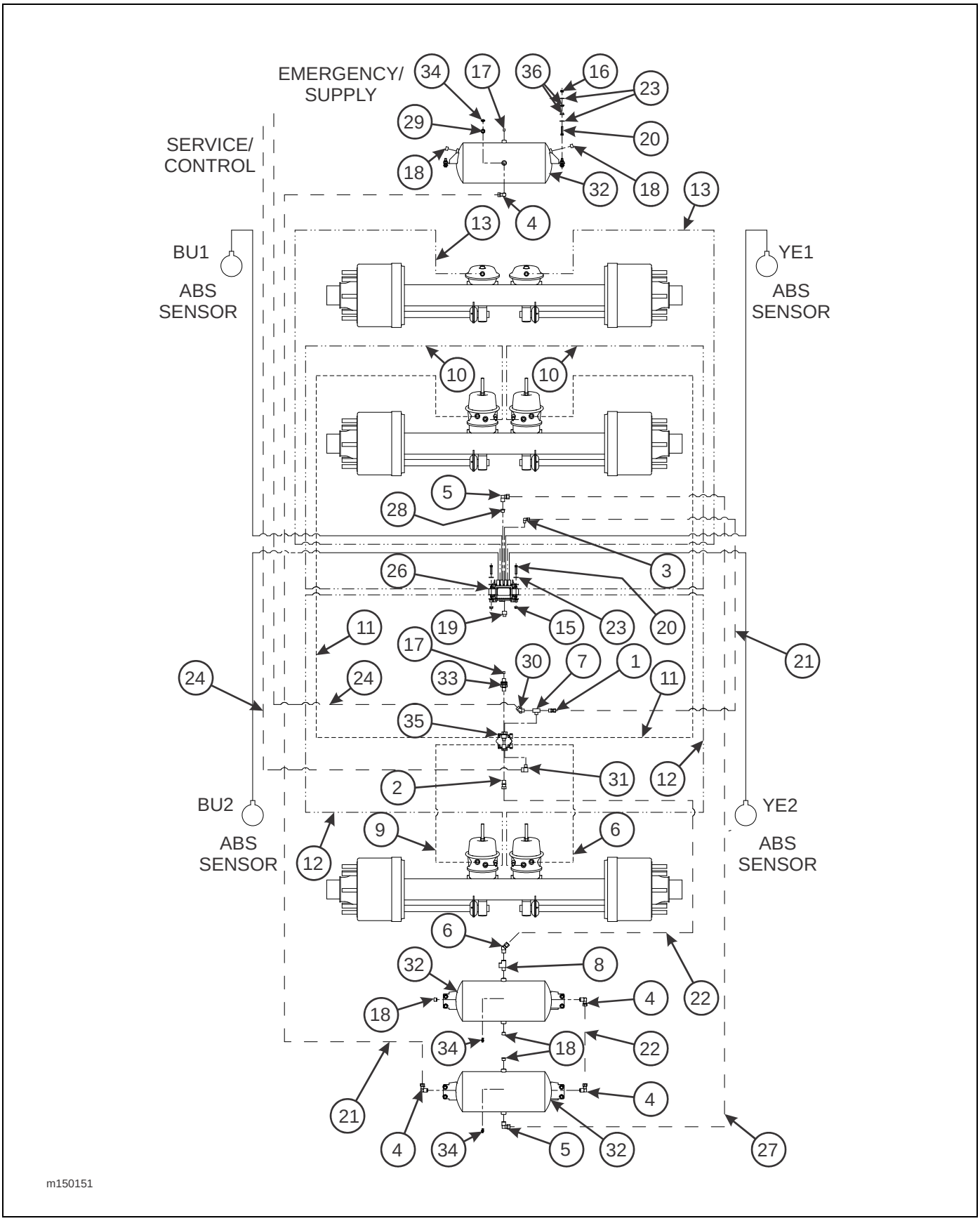



**Figure 2-41: Spring Air Brake System w/ ABS (455)**

# SPRING AIR BRAKE SYSTEM W/ ABS (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 150151 | AIR SYSTEM U/C, ABS (455) | |
| 1 | 1-297-010007-12 | FITTING, AIR | 1 |
| 2 | 1-297-010007-15 | FITTING, AIR | 1 |
| 3 | 1-297-010008-18 | FITTING, AIR 90 | 1 |
| 4 | 1-297-010008-24 | FITTING, AIR 90 | 4 |
| 5 | 1-297-010008-26 | FITTING, AIR 90 | 2 |
| 6 | 1-297-010013-16 | FITTING, AIR 45 | 1 |
| 7 | 1-297-010017-03 | FITTING, AIR M/BR TEE | 1 |
| 8 | 1-297-010018-04 | FITTING, BR TEE | 1 |
| 9 | 1-384-010038024 | HOSE, AIR 3/8 X 24 | 2 |
| 10 | 1-384-010038038 | HOSE, AIR 3/8 X 38 | 2 |
| 11 | 1-384-010038060 | HOSE AIR 3/8 X 60 | 2 |
| 12 | 1-384-010038076 | HOSE AIR 3/8 X 76 | 2 |
| 13 | 1-384-010038084 | HOSE, AIR 3/8 X 84” | 2 |
| 14 | 1-394-010001 | HOSE, ABRASION SLEEVE X 2 (NOT SHOWN) | 2 |
| 15 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 2 |
| 16 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 12 |
| 17 | 1-560-010002-02 | PIPE PLUG 1/4 | 2 |
| 18 | 1-560-010002-04 | PIPE PLUG 1/2 | 5 |
| 19 | 1-560-010002-05 | PIPE PLUG 3/4-14 | 1 |
| 20 | 1-654-010051-08 | SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 14 |
| 21 | 1-833-010002 | TUBING, NYLON 3/8 | AR |
| 22 | 1-833-010003 | TUBING, NYLON 1/2 | AR |
| 23 | 1-861-010032-11 | WASHER, FLAT 3/8W | 26 |
| 24 | 100949 | HOSE, AIR 3/8 X 222 W/ 3/8 ENDS | 2 |
| 25 | 103817 | CLAMP, HOSE (NOT SHOWN) | 1 |
| 26 | 114586 | BRAKE KIT, ABS 4S/2M (SEE PAGE 2-77) | 1 |
| 27 | 117304 | TUBING, NYLON 5/8 | AR |
| 28 | 118-2659-9 | BUSHING 1/2 X 3/4 | 1 |
| 29 | 2081-8-4S | REDUCER PIPE | 1 |
| 30 | 2088-6-6S | ADAPTER, 45 | 1 |
| 31 | 2089-6-6S | ADAPTER, 90 | 1 |
| 32 | 3-780-010002 | TANK, AIR | 3 |
| 33 | 55B61 | FRAME UNION | 1 |
| 34 | 56D4 | AIR TANK DRAIN COCK | 3 |
| 35 | 758-181 | VALVE RELAY EMERGENCY | 1 |
| 36 | 805-2 | STEP BUSHING | 24 |

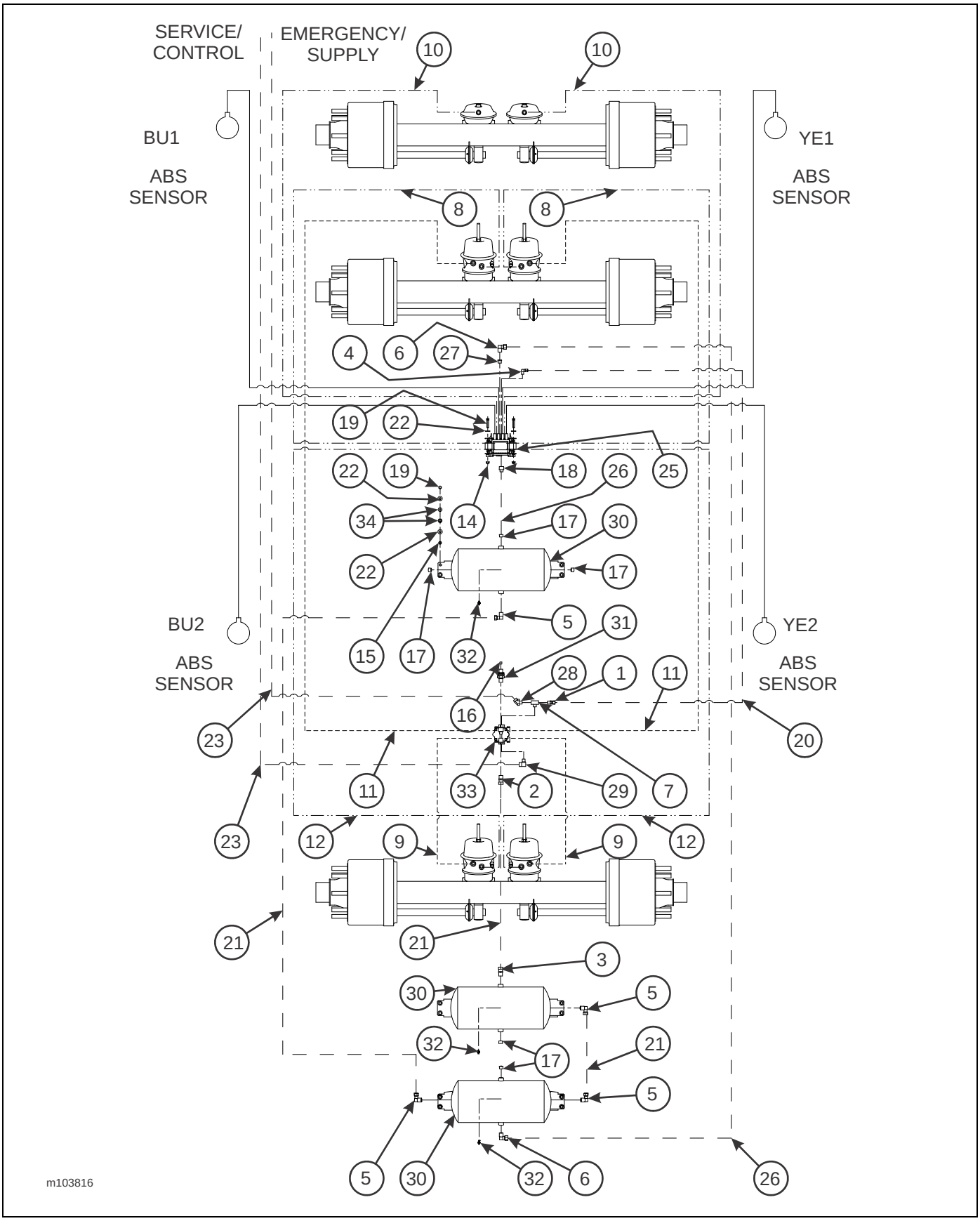



**Figure 2-42: Spring Air Brake System w/ ABS (455)**

# SPRING AIR BRAKE SYSTEM W/ ABS (NARROW TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 103816 | AIR SYSTEM U/C, ABS (455) | |
| 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 | 2 |
| 9 | 1-384-010038038 | HOSE, AIR 3/8 X 38 | 2 |
| 10 | 1-384-010038060 | HOSE AIR 3/8 X 60 | 2 |
| 11 | 1-384-010038076 | HOSE AIR 3/8 X 76 | 2 |
| 12 | 1-384-010038084 | HOSE, AIR 3/8 X 84 | 2 |
| 13 | 1-394-010001 | HOSE, ABRASION SLEEVE X 2 (NOT SHOWN) | 2 |
| 14 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 2 |
| 15 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 12 |
| 16 | 1-560-010002-02 | PIPE PLUG 1/4 | 2 |
| 17 | 1-560-010002-04 | PIPE PLUG 1/2 | 5 |
| 18 | 1-560-010002-05 | PIPE PLUG 3/4-14 | 1 |
| 19 | 1-654-010051-08 | SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 14 |
| 20 | 1-833-010002 | TUBING, NYLON 3/8 | AR |
| 21 | 1-833-010003 | TUBING, NYLON 1/2 | AR |
| 22 | 1-861-010032-11 | WASHER, FLAT 3/8W | 26 |
| 23 | 100949 | HOSE, AIR 3/8 X 222 W/ 3/8 ENDS | 2 |
| 24 | 103817 | CLAMP, HOSE (NOT SHOWN) | 1 |
| 25 | 114586 | BRAKE KIT, ABS 4S/2M (SEE PAGE 2-77) | 1 |
| 26 | 117304 | TUBING, NYLON 5/8 | AR |
| 27 | 118-2659-9 | BUSHING 1/2 X 3/4 | 1 |
| 28 | 2088-6-6S | ADAPTER, 45 | 1 |
| 29 | 2089-6-6S | ADAPTER, 90 | 1 |
| 30 | 3-780-010002 | TANK, AIR | 3 |
| 31 | 55B61 | FRAME UNION | 1 |
| 32 | 56D4 | AIR TANK DRAIN COCK | 3 |
| 33 | 758-181 | VALVE RELAY EMERGENCY | 1 |
| 34 | 805-2 | STEP BUSHING | 24 |

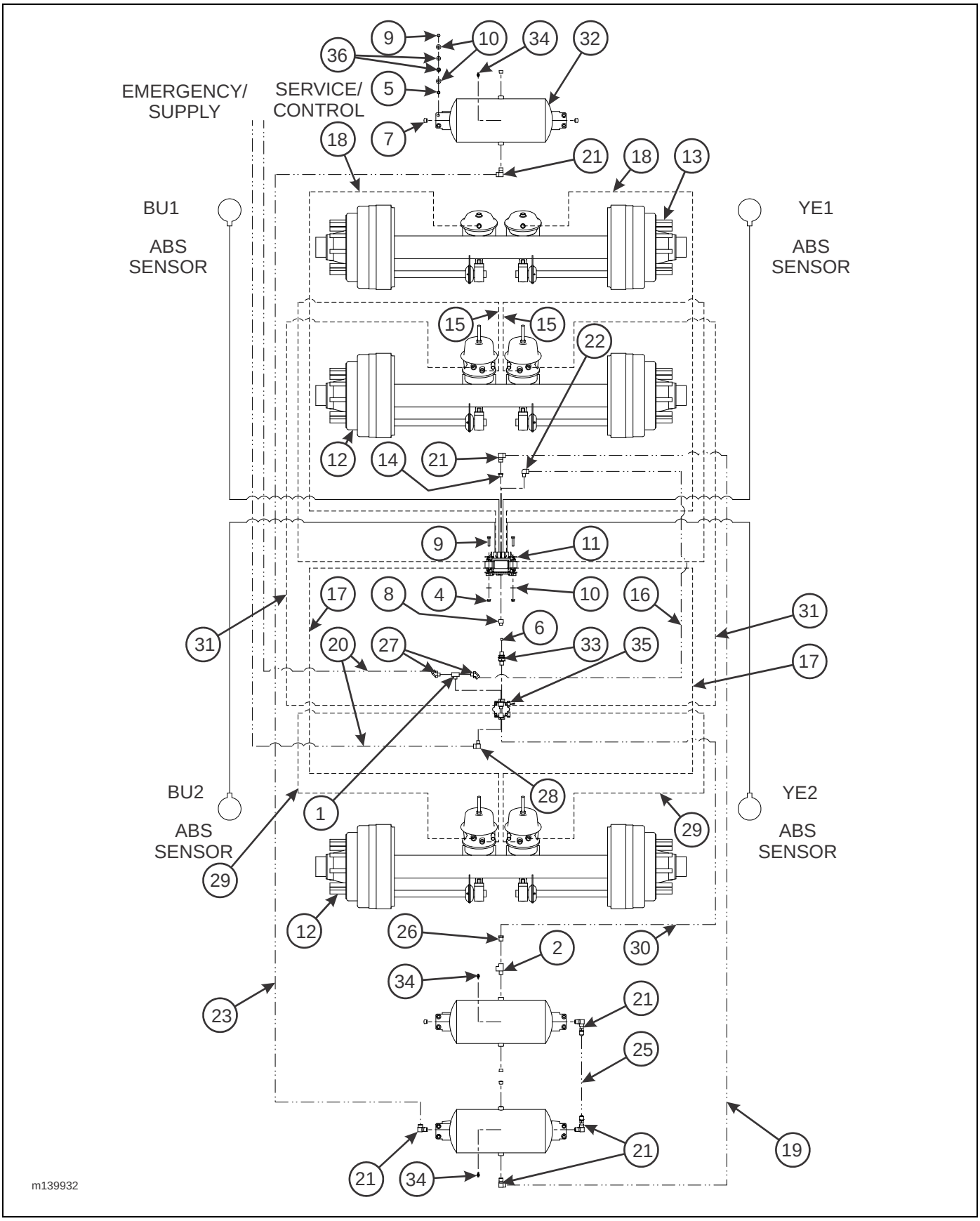



**Figure 2-43: Spring Air Brake System w/ ABS Arctic (455)**

# SPRING AIR BRAKE SYSTEM W/ ABS ARCTIC (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 139932 | AIR SYSTEM U/C, ABS ARCTIC (455) | |
| 1 | 1-297-010017-03 | FITTING, AIR M/BR TEE | 1 |
| 2 | 1-297-010018-04 | FITTING BRASS PIPE STREET TEE | 1 |
| 3 | 1-394-010001 | HOSE, ABRASION SLEEVE X 2 | 2 |
| 4 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 2 |
| 5 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 12 |
| 6 | 1-560-010002-02 | PIPE PLUG 1/4 | 1 |
| 7 | 1-560-010002-04 | PIPE PLUG 1/2 | 6 |
| 8 | 1-560-010002-05 | PIPE PLUG 3/4-14 | 1 |
| 9 | 1-654-010051-08 | SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 14 |
| 10 | 1-861-010032-11 | WASHER, FLAT 3/8W | 26 |
| 11 | 114586 | BRAKE KIT, ABS 4S/2M (SEE PAGE 2-77) | 1 |
| 12 | 115738 | AXLE WELDMENT 2516 SPG 69 31 | REF |
| 13 | 115740 | AXLE WELDMENT 2516 SER 69 31 | REF |
| 14 | 118-2659-9 | BUSHING 1/2 X 3/4 | 1 |
| 15 | 126710 | HOSE, AIR 3/8 X 38 | 2 |
| 16 | 126711 | HOSE, AIR 3/8 X 64 | 1 |
| 17 | 126712 | HOSE, AIR 3/8 X 76 | 2 |
| 18 | 126713 | HOSE, AIR 3/8 X 84 ARCTIC | 2 |
| 19 | 126715 | HOSE, AIR 3/8 X 124 | 1 |
| 20 | 126716 | HOSE, AIR 3/8 X 222 ARCTIC | 2 |
| 21 | 126718 | ADAPTER, 90 | 6 |
| 22 | 126719 | ADAPTER, 90 | 1 |
| 23 | 139944 | HOSE, AIR 3/8 X 200 ARCTIC | 1 |
| 24 | 145515 | HOSE END (NOT SHOWN) | 2 |
| 25 | 169932 | HOSE, AIR 3/8 ARCTIC | 1 |
| 26 | 2081-8-6S | REDUCER | 1 |
| 27 | 2088-6-6S | ADAPTER, 45 | 2 |
| 28 | 2089-6-6S | ADAPTER, 90 | 1 |
| 29 | 3-384-010049024 | HOSE, AIR 3/8 X 24 | 2 |
| 30 | 3-384-010049032 | HOSE, AIR 3/8 X 32 | 1 |
| 31 | 3-384-010049060 | HOSE, AIR 3/8 X 60 | 2 |
| 32 | 3-780-010002 | TANK, AIR | 3 |
| 33 | 55B61 | FRAME UNION | 1 |
| 34 | 56D4 | AIR TANK DRAIN COCK | 3 |
| 35 | 758-181 | VALVE RELAY EMERGENCY | 1 |
| 36 | 805-2 | STEP BUSHING | 24 |

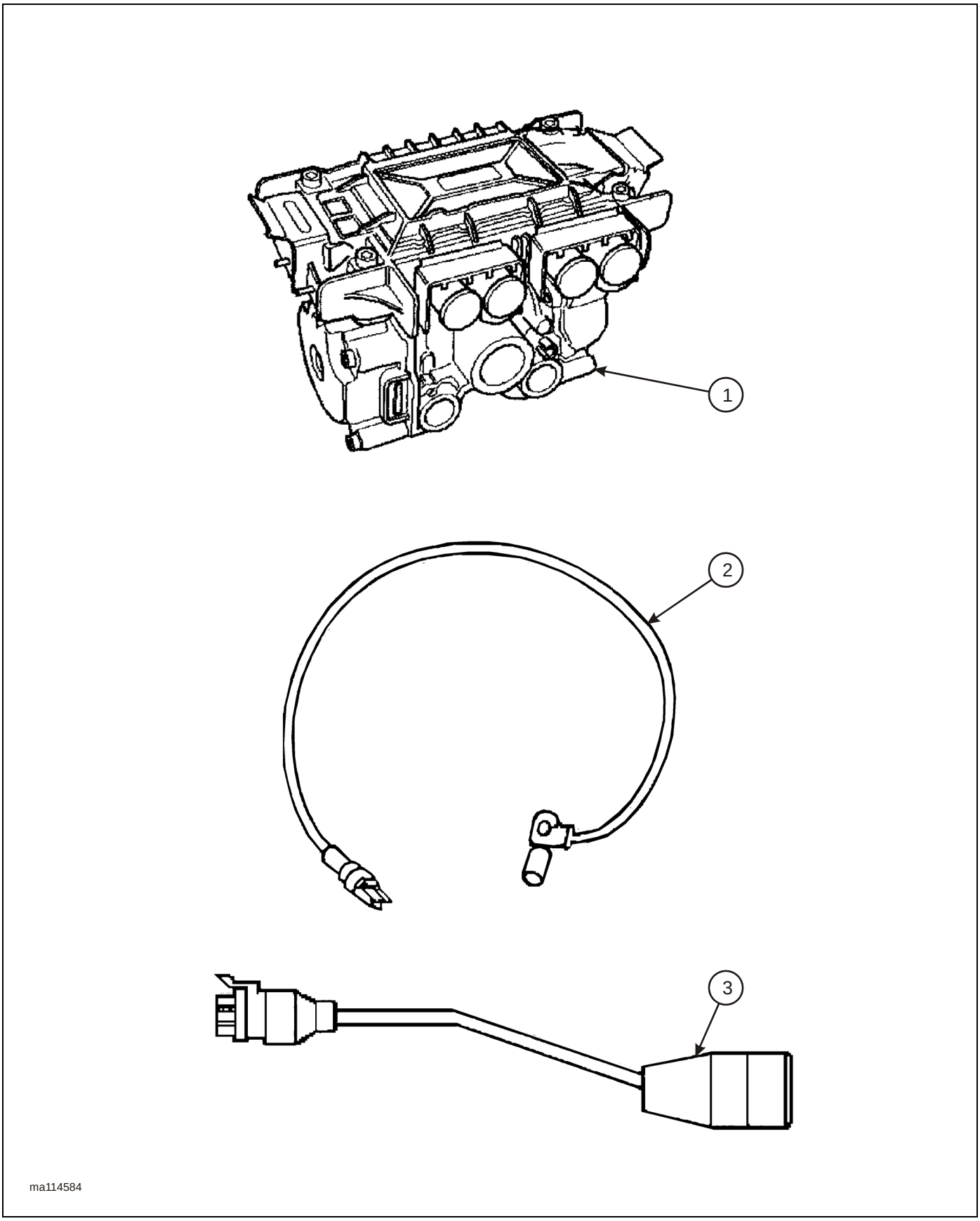



**Figure 2-44: Brake Kit, Rockwell ABS**

# ABS BRAKE KIT

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 114584 | ABS BRAKE KIT 4S/2M | |
| | 114586 | ABS BRAKE KIT 4S/2M-TRI/SPRD | |
| | 114585 | ABS BRAKE KIT 2S/1M SGL | |
| 1 | 114588 | ECU/VALVE ASSEMBLY (114584 & 114586) | 1 |
| | 114589 | ECU/VALVE ASSEMBLY (114585) | 1 |
| 2 | 101848 | SENSOR EXTENSION CABLE (6 FT) (114584 & 114585) | 4 |
| | 103861 | SENSOR EXTENSION CABLE (10 FT) (114586) | 4 |
| 3 | 147464 | POWER/DIAGNOSTIC CABLE 4.0M/3.0M | 1 |

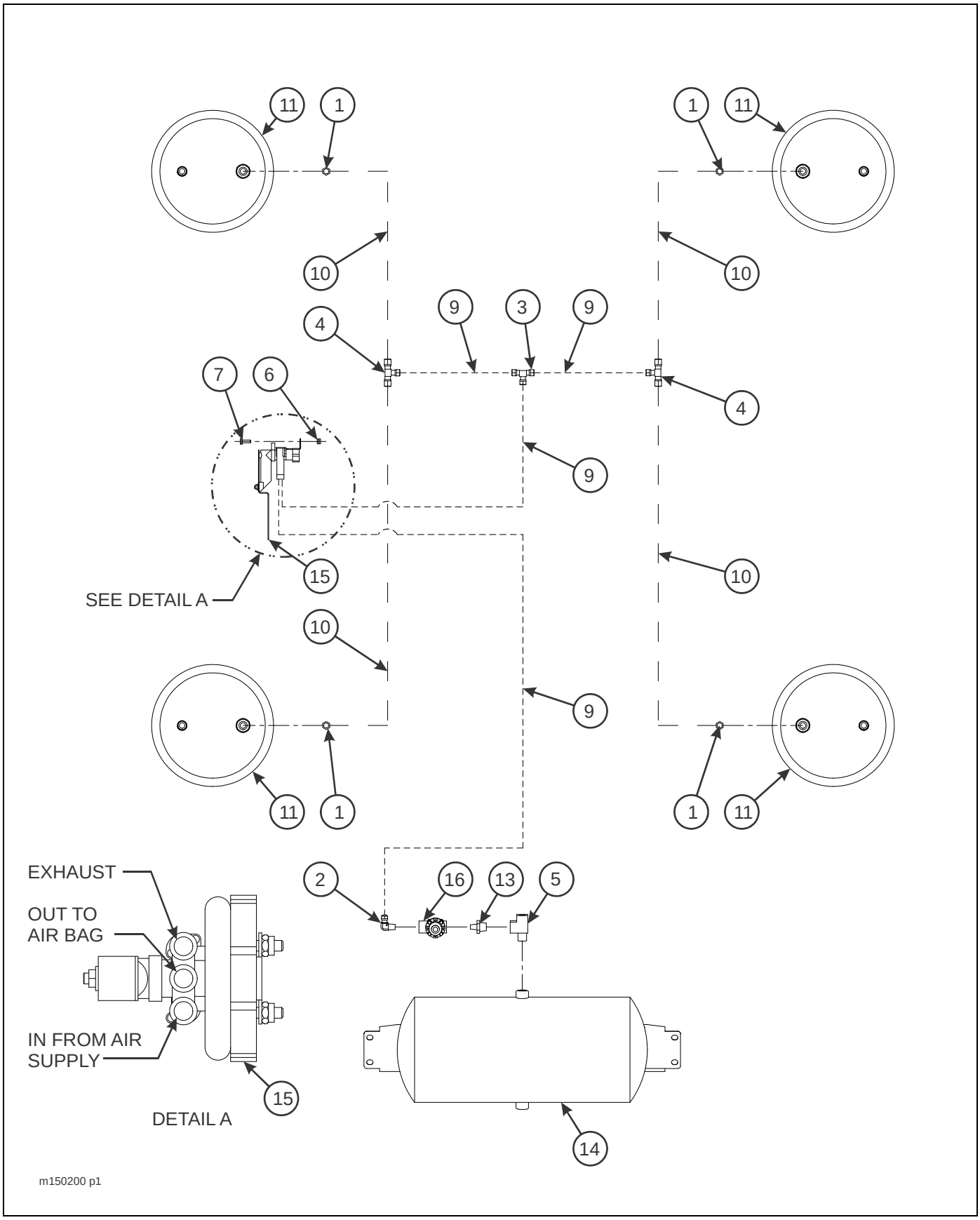



**Figure 2-45: Air Ride Suspension, Air System (Tandem)**

# AIR RIDE SUSPENSION AIR SYSTEM (TANDEM)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 103082 | SUSPENSION, RLU AIR RIDE (TANDEM) | |
| | 173877 | SUSPENSION, RLU AIR RIDE AQUA (TANDEM) | |
| 1 | 1-297-010007-11 | FITTING AIR | 4 |
| 2 | 1-297-010008-07 | FITTING AIR 90 | 1 |
| 3 | 1-297-010010-01 | FITTING AIR UNION TEE | 1 |
| 4 | 1-297-010010-04 | FITTING AIR UNION TEE | 2 |
| 5 | 1-297-010018-04 | FITTING BRASS PIPE STREET TEE | 1 |
| 6 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 7 | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5 | 2 |
| 8 | 1-796-010004-02 | TIE STRAP PLASTIC (NOT SHOWN) | 15 |
| 9 | 1-833-010001 | TUBING NYLON 1/4 OD | AR |
| 10 | 1-833-010002 | TUBING NYLON 3/8 OD | AR |
| 11 | 102363 | SUSPENSION, ADJ RLU-228-3.5 (SEE PAGE 2-86) | REF |
| 12 | 102732 | AIR CONTROL KIT NEWAY (INCL ITEMS 15 & 16)(SEE PAGE 2-85) | 1 |
| | 173876 | AIR CONTROL VALVE INSTALLATION KIT (SEE PAGE 2-85) | 1 |
| 13 | 2083-8-4S | NIPPLE, HEX 1/2 - 1/4 | 1 |
| 14 | 3-780-010002 | TANK AIR | REF |
| 15 | 900 54 007 | HEIGHT CONTROL VALVE | REF |
| 16 | 905-54-107 | BRAKE PROTECTION VALVE | REF |
| | 167692 | FILTER | 1 |

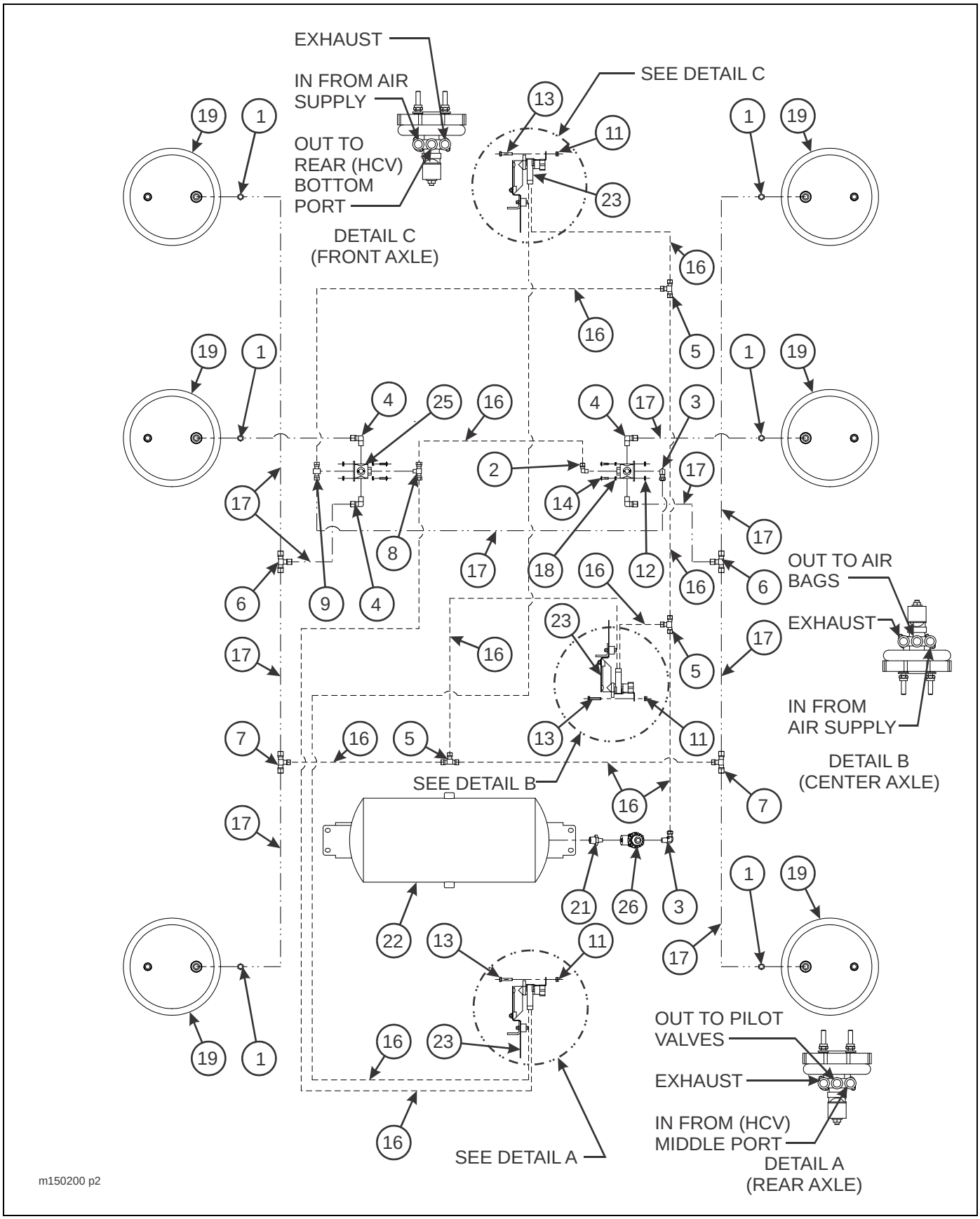



**Figure 2-46: Air Ride Suspension, Air System (Triple)**

# AIR RIDE SUSPENSION AIR SYSTEM (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 103084 | AIR RIDE, AIR SYSTEM (TRIPLE) | |
| 1 | 1-297-010007-11 | FITTING AIR | 6 |
| 2 | 1-297-010008-05 | FITTING AIR 90 | 1 |
| 3 | 1-297-010008-07 | FITTING AIR 90 | 2 |
| 4 | 1-297-010008-18 | FITTING AIR 90 | 4 |
| 5 | 1-297-010010-01 | FITTING AIR UNION TEE | 3 |
| 6 | 1-297-010010-03 | FITTING AIR UNION TEE 3/8 | 2 |
| 7 | 1-297-010010-04 | FITTING AIR UNION TEE | 2 |
| 8 | 1-297-010015-02 | FITTING AIR BRANCH TEE | 1 |
| 9 | 1-297-010015-03 | FITTING AIR BRANCH TEE | 1 |
| 11 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 6 |
| 12 | 1-512-010007-03 | NUT, HEX 10-24 | 8 |
| 13 | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5 | 6 |
| 14 | 1-656-010003051 | SCREW RH HD MACH #10-24 X 3/4 | 8 |
| 15 | 1-796-010004-02 | TIE STRAP PLASTIC (NOT SHOWN) | 15 |
| 16 | 1-833-010001 | TUBING NYLON 1/4 OD | AR |
| 17 | 1-833-010002 | TUBING NYLON 3/8 OD | AR |
| 18 | 1-861-010034-07 | WASHER, SPLIT LOCK #10 | 8 |
| 19 | 102363 | SUSPENSION, ADJ RLU-228-3.5 (SEE PAGE 2-86) | REF |
| 21 | 2083-8-4S | NIPPLE, HEX 1/2 - 1/4 | 1 |
| 22 | 3-780-010002 | TANK AIR | REF |
| 23 | 3-843-010034 | VALVE AIR RIDE HEIGHT CONTROL | 3 |
| 25 | 900-54-079 | PILOT VALVE | 2 |
| 26 | 905-54-107 | BRAKE PROTECTION VALVE | 1 |
| | 167692 | FILTER | 1 |

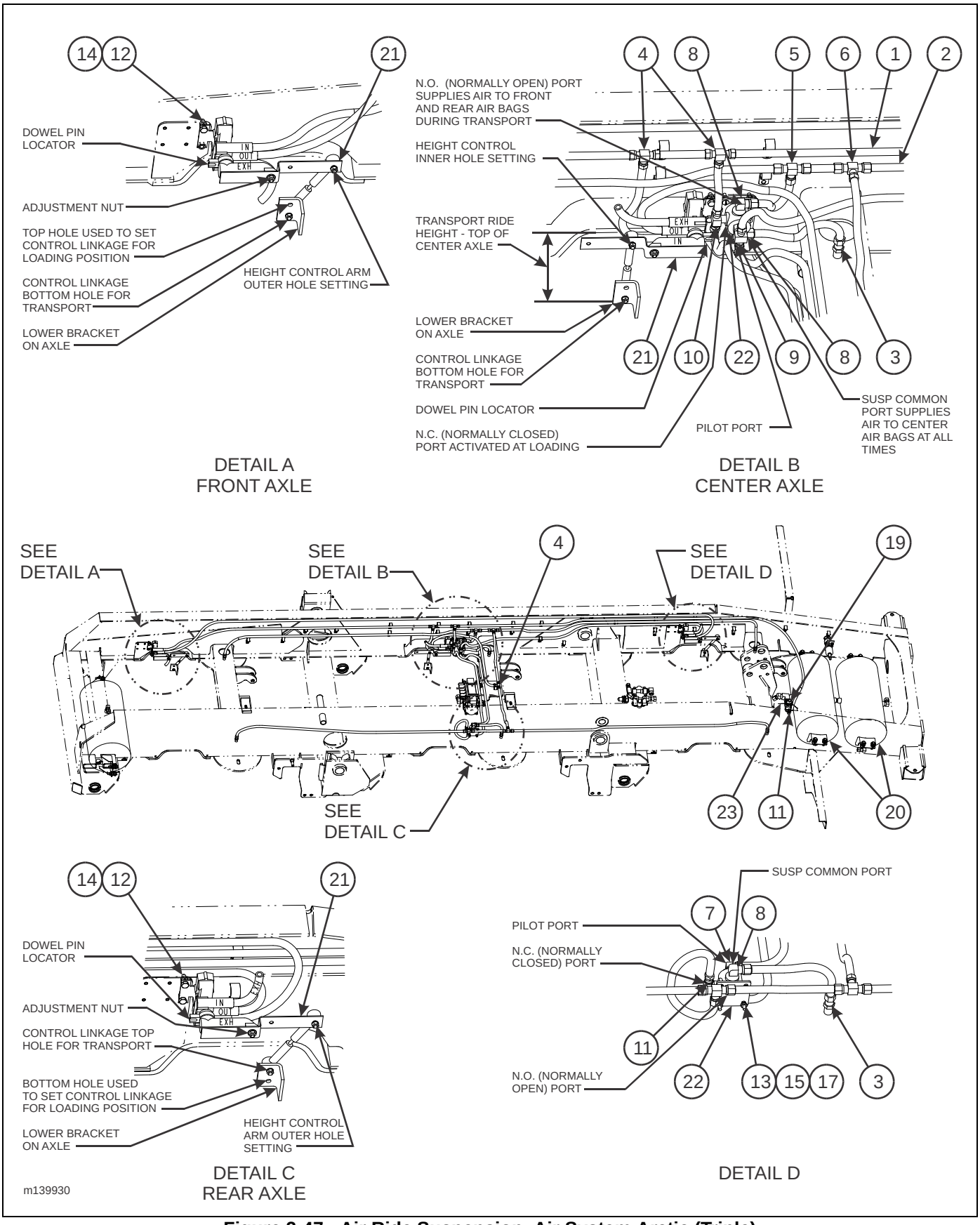



**Figure 2-47: Air Ride Suspension, Air System Arctic (Triple)**

# AIR RIDE SUSPENSION AIR SYSTEM ARCTIC (TRIPLE)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 139930 | AIR RIDE, AIR SYSTEM (TRIPLE) | |
| 1 | 126629 | TUBING NYLON 1/4 OD | AR |
| 2 | 126630 | TUBING NYLON 3/8 OD | AR |
| 3 | 126672 | FITTING, COMPRESSION STRAIGHT | 6 |
| 4 | 126673 | FITTING, COMPRESSION UNION TEE | 1 |
| 5 | 126674 | FITTING, COMPRESSION UNION TEE | 2 |
| 6 | 126675 | FITTING, COMPRESSION TEE | 4 |
| 7 | 126676 | FITTING, COMPRESSION 90 | 3 |
| 8 | 126678 | FITTING, COMPRESSION 90 | 2 |
| 9 | 126679 | FITTING, COMPRESSION TEE | 2 |
| 10 | 126680 | FITTING, COMPRESSION TEE | 1 |
| 11 | 126862 | FITTING, COMPRESSION STRAIGHT | 1 |
| 12 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 6 |
| 13 | 1-512-010007-03 | NUT, HEX 10-24 | 8 |
| 14 | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5 | 6 |
| 15 | 1-656-010003051 | SCREW RH HD MACH #10-24 X 3/4 | 8 |
| 16 | 1-796-010004-02 | TIE STRAP PLASTIC (NOT SHOWN) | 15 |
| 17 | 1-861-010034-07 | WASHER, SPLIT LOCK #10 | 8 |
| 18 | 102363 | SUSPENSION, ADJ RLU-228-3.5 (NOT SHOWN) (SEE PAGE 2-86) | REF |
| 19 | 2083-8-4S | NIPPLE, HEX 1/2 - 1/4 | 1 |
| 20 | 3-780-010002 | TANK AIR | REF |
| 21 | 3-843-010034 | VALVE AIR RIDE HEIGHT CONTROL | 3 |
| 22 | 900-54-079 | PILOT VALVE | 2 |
| 23 | 905-54-107 | BRAKE PROTECTION VALVE | 1 |
| | 167692 | FILTER | 1 |

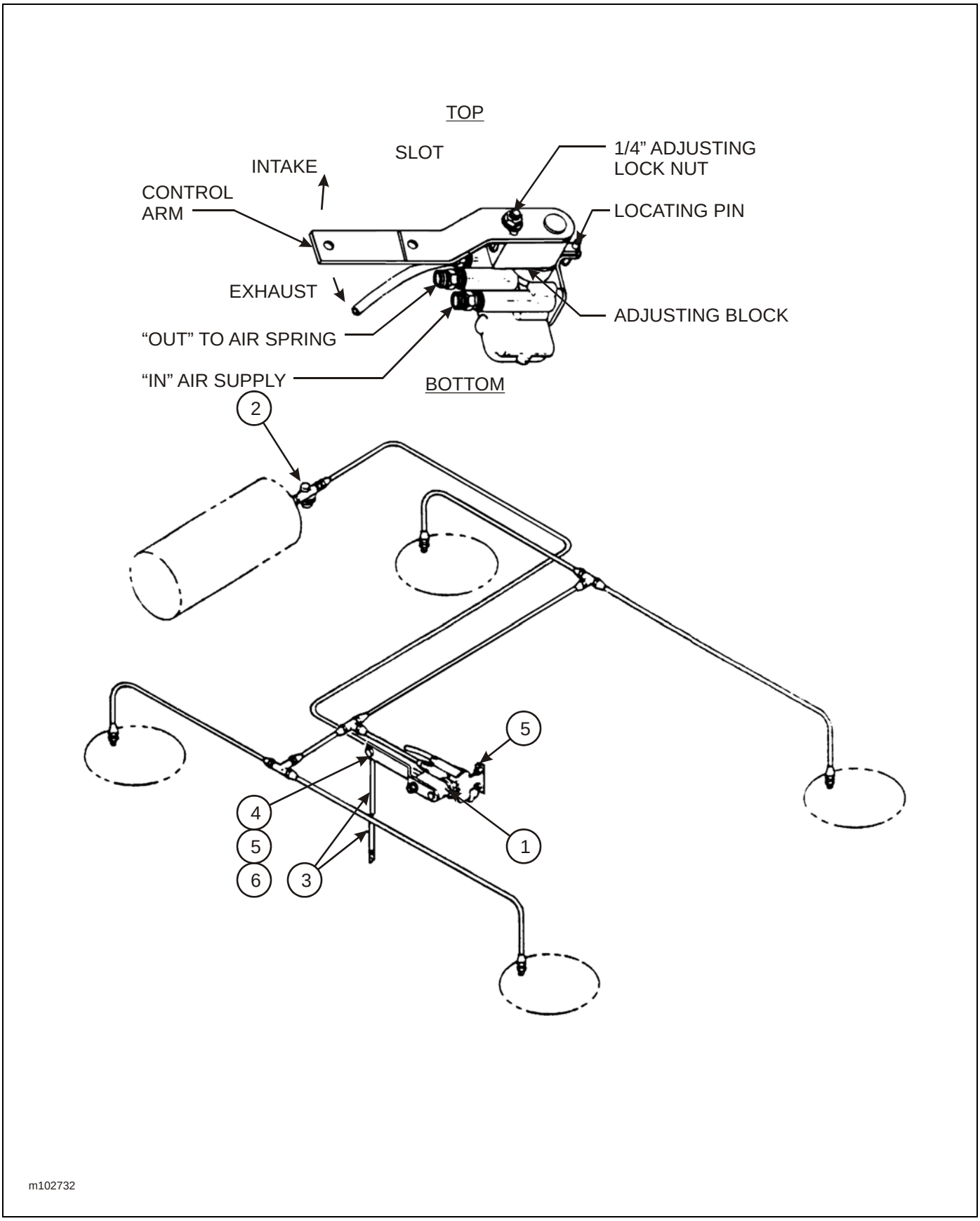



**Figure 2-48: Air Control Kit**

# AIR CONTROL KIT

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 102732 | AIR CONTROL KIT NEWAY | |
| | 173876 | AIR CONTROL KIT NEWAY | |
| 1 | 900 54 007 | HEIGHT CONTROL VALVE (INCLUDES HARDWARE BAG) | 1 |
| | 905-54-186 | HEIGHT CONTROL VALVE (VALVE ONLY) | 1 |
| | 173875 | HEIGHT CONTROL VALVE (USED W/ 173876) | 1 |
| 2 | 905-54-107 | AIR PRESSURE PROTECTION VALVE & FILTER | 1 |
| | 167692 | FILTER | 1 |
| 3 | 111021 | SRK - 167 KIT (ADJ. 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 | LOCK NUT 1/4-20 | 2 |
| 6 | ----- | DECAL (OPERATING) | 1 |

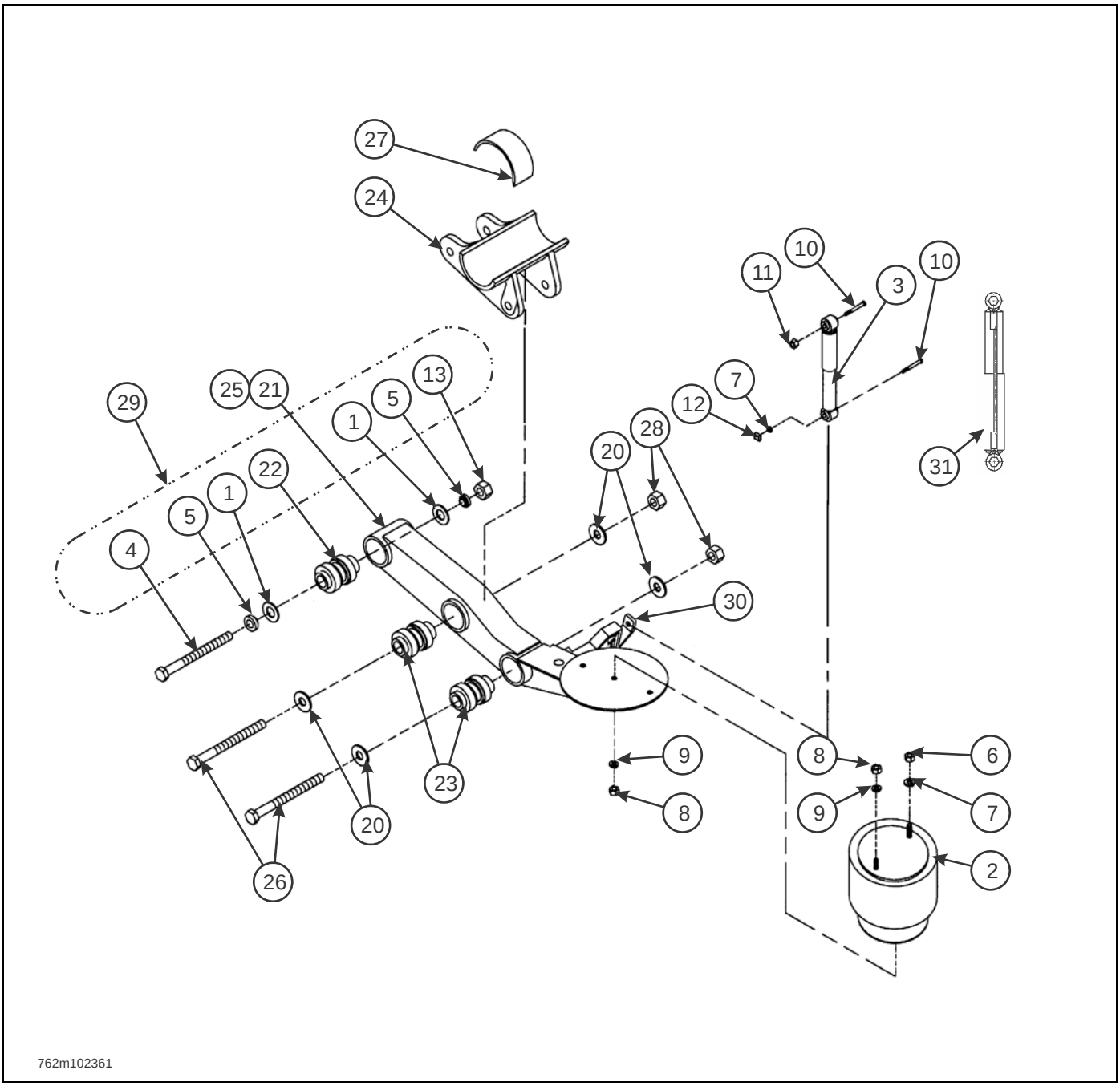



**Figure 2-49: Suspension Hanger RLU-228**

# SUSPENSION HANGER RLU-228

| ITEM | PART 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 | FLAT WASHER | 2 |
| 2 | 905-57-129 | AIR SPRING ASSEMBLY (102363) | 2 |
| | 111016 | AIR SPRING ASSEMBLY (102364) | 2 |
| 3 | 900 45 040 | SHOCK (102363) | 2 |
| | 111017 | SHOCK (102364) | 2 |

# SUSPENSION HANGER RLU-228

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 4 | 90508009 | ALIGN BUSH ASSEMBLY (CONSISTS OF:) | 2 |
| | ----- | ROD BOLT | 1 |
| | ----- | ALIGN BLOCK | 1 |
| 5 | 129006 | ALIGN BLOCK | 2 |
| 6 | 934 00 149 | 3/4-16 HEX NUT GRB | 2 |
| 7 | 936 00 077 | LOCK WASHER, 3/4" | 4 |
| 8 | 1-512-010007-09 | HEX NUT, 1/2-13 | 4 |
| 9 | 1-861-010034-13 | LOCK WASHER, 1/2" | 4 |
| 10 | 105408 | HEX HEAD CAP SCREW 3/4-10 X 3-1/2 | 4 |
| 11 | 934 00 492 | LOCK NUT, 3/4-10 | 2 |
| 12 | 111022 | 3/4-10 SQUARE NUT | 2 |
| 13 | 111008 | LOCK NUT 1-1/8-7 | 2 |
| 14 | 111018 | ANCHOR, RIDE HEIGHT CONTROL VALVE (NOT SHOWN) | 1 |
| 15 | ----- | LITERATURE INSTRUCTIONS (NOT SHOWN) | 1 |
| 16 | ----- | LITERATURE SPEC (NOT SHOWN) | 1 |
| 17 | ----- | LITERATURE FORM 864 (NOT SHOWN) | 1 |
| 18 | ----- | LITERATURE LABEL (NOT SHOWN) | 1 |
| 19 | ----- | LITERATURE LABEL (NOT SHOWN) | 1 |
| 19A | 111019 | FASTENER KIT (INCL. 1, 4-11, 13, 15) | 1 |
| 20 | 111010 | FLAT WASHER | 8 |
| 21 | 111013 | EQUALIZING BEAM ASSEMBLY LH | 1 |
| 22 | 900-08-139 | RUBBER BUSHING (FRONT PIVOT) | 2 |
| 23 | 111011 | RUBBER BUSHING (AXLE CONNECTION) | 4 |
| 24 | 111012 | AXLE ADAPTER ASSEMBLY | 2 |
| 25 | 111014 | EQUALIZING BEAM ASSEMBLY RH | 1 |
| 26 | 111023 | HEX HEAD CAP SCREW 1-1/8-7 X 8-1/2 | 4 |
| 27 | 900-25-288 | SAFETY STRAP | 2 |
| 28 | 934-00-506 | LOCK NUT 1-1/8-7 | 4 |
| 29 | 109533 | ALIGNMENT BLOCK KIT | 1 |
| 30 | 126900 | BRACKET BOTTOM SHOCK (RLU-228) | 1 |

NOTE: QUANTITIES LISTED ARE PER AXLE.
3-1/2” RIDE HEIGHT USED ON 12-1/2” X 7-1/2” BRAKE AXLES
5-1/2” RIDE HEIGHT USED ON 16-1/2” X 7” BRAKE AXLES

| | |
|---|---|
| 141708 | WIRE ROPE STRAP KIT 1 AX RLU228-3.5 |
| 127708 | WIRE ROPE STRAP KIT 1 AX RLU228-5.5 |
| 179103 | WIRE ROPE STRAP KIT 2 AX RLU228-3.5 |
| 179104 | WIRE ROPE STRAP KIT 2 AX RLU228-5.5 |
| 141709 | WIRE ROPE STRAP KIT 3 AX RLU228-3.5 |
| 162403 | WIRE ROPE STRAP KIT 3 AX RLU228-5.5 |

NOTE: ALL WIRE ROPE STRAP KITS INCLUDE STRAPS AND HARDWARE REQUIRED.

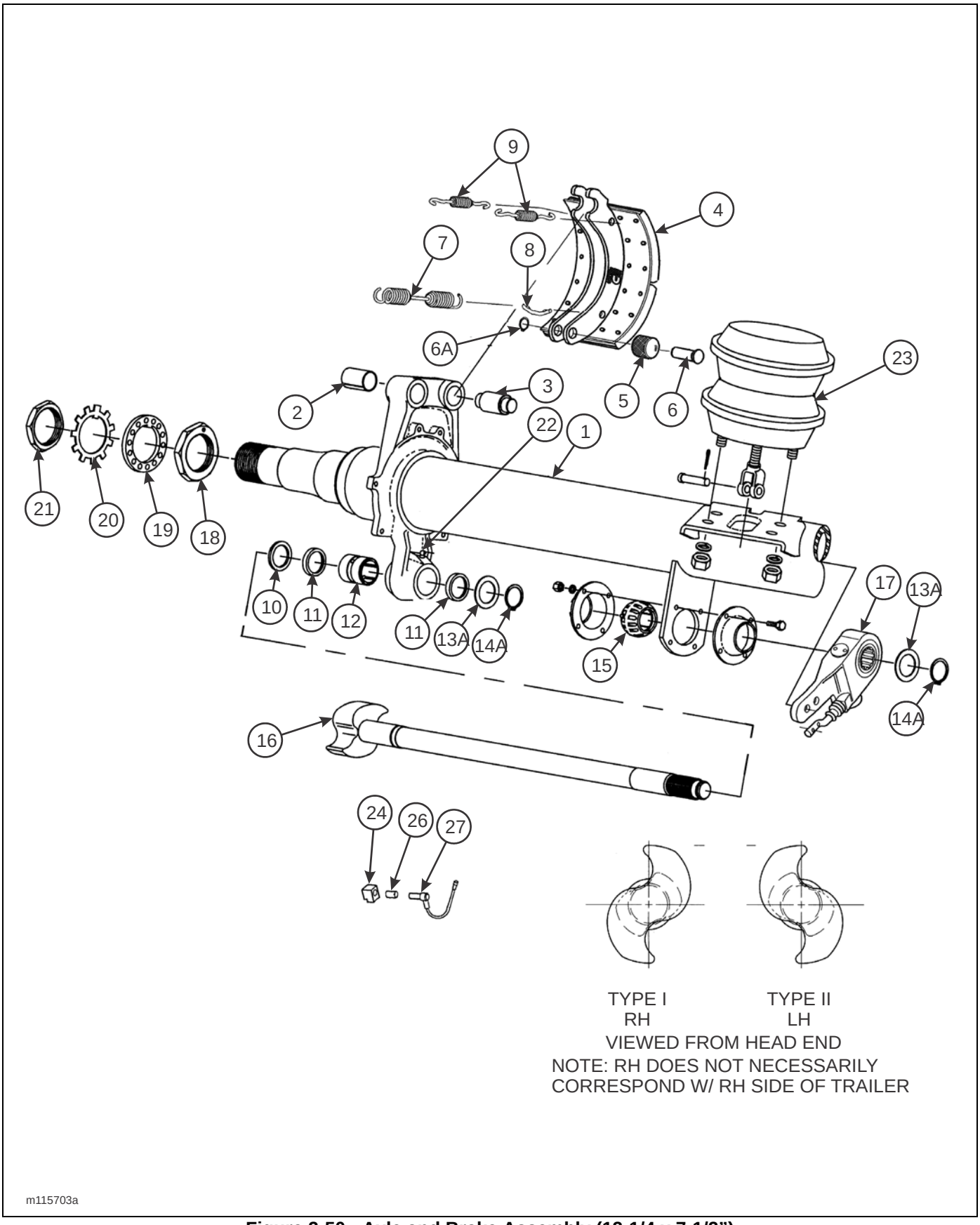



**Figure 2-50: Axle and Brake Assembly (12-1/4 x 7-1/2”)**

# 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) | |
| | 133794 | | AXLE 88.5 12.25 X 7.5 SPRING BRAKE (25K) | |
| | 142511 | | AXLE 88.5 12.25 X 7.5 SERVICE BRAKE (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 | 034-188-03 | 034-188-03 | CAMSHAFT, 22-5/16” LH | 1 |
| | 034-189-03 | 034-189-03 | CAMSHAFT, 22-5/16” RH | 1 |
| | 171963 | 034-188-09 | CAMSHAFT, 26-1/2” LH | 1 |
| | 171964 | 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 2-93

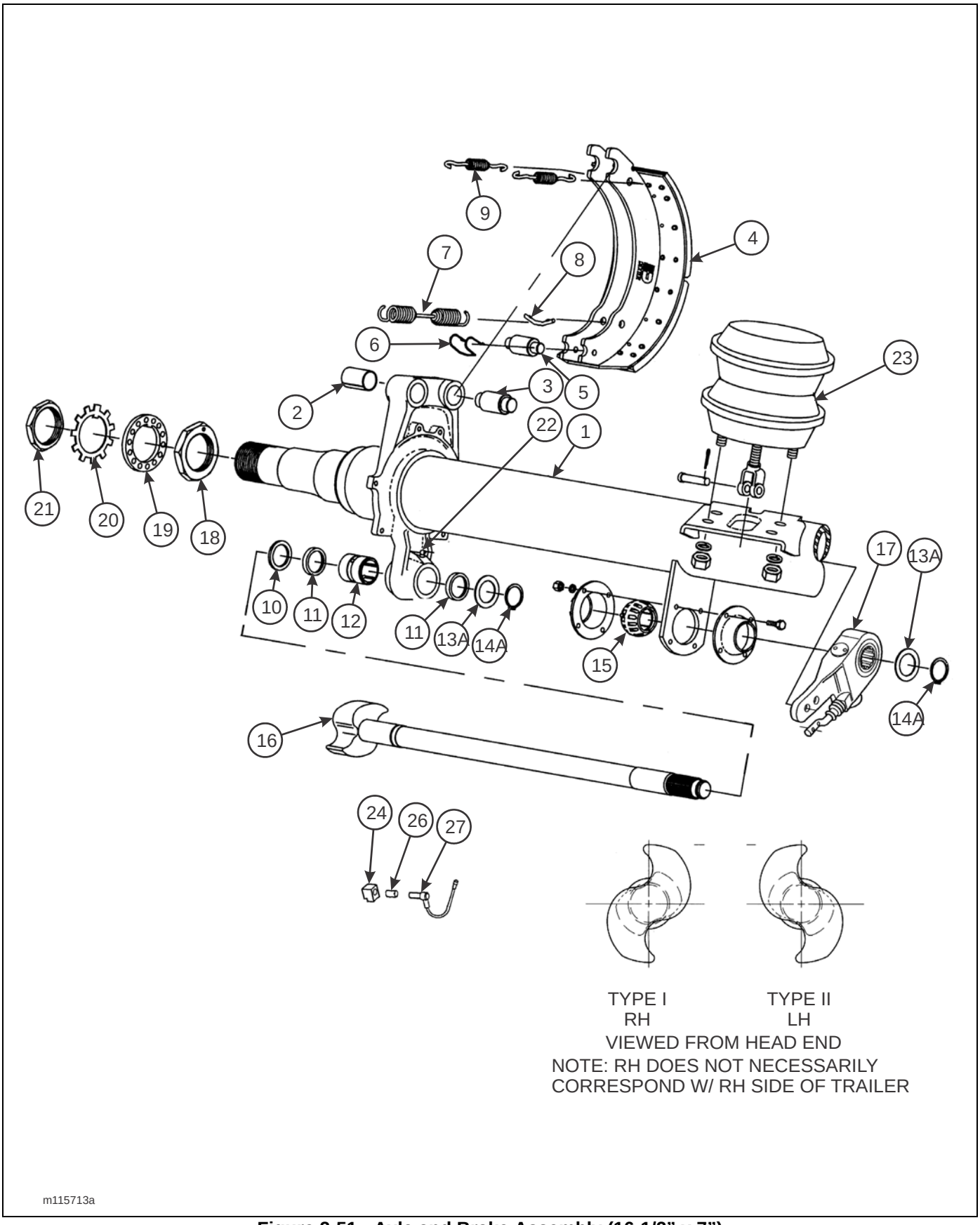



**Figure 2-51: Axle and Brake Assembly (16-1/2” x 7”)**

# 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 2-93

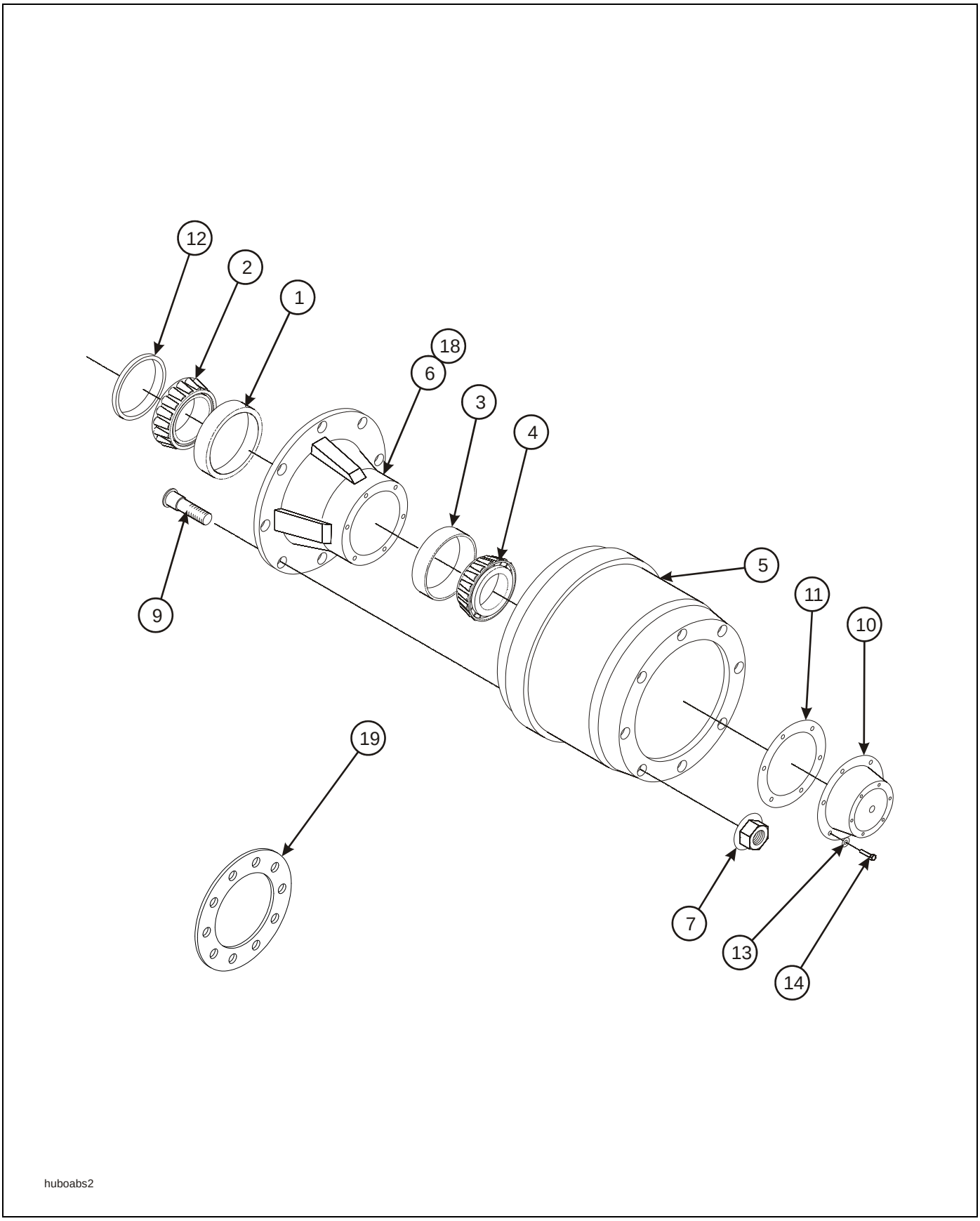



**Figure 2-52: Outboard Pilot Mount Hub and Drum**

# 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 (12-1/4” x 7-1/2”) | 1 |
| | 110976 | OUTBOARD MOUNTED BRAKE DRUM (16-1/2” x 7”) | |
| 6 | 112492 | HUB IRON (8 BOLT) 100 TH TONER RING (12-1/4” x 7-1/2”) | 1 |
| | 110975 | HUB IRON (10 BOLT) 100 TH TONER RING (16-1/2” x 7”) | 1 |
| 7 | 179933 | NUT, HEX M22 X 1.5 | 8 |
| 9 | 113536 | STUD | 8 |
| 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, ALUM PILOT MOUNT 17.5 X 6.75 | 1 |
| | 3-870-010097 | WHEEL, DISC PILOT MOUNT 17.5 X 6.75 | 1 |
| | 112047 | WHEEL, ALUMINUM PILOT 17.5 X 6.75 MACH (NOT SHOWN) | 1 |
| 16 | TR573 | VALVE STEM - STEEL WHEEL (NOT SHOWN) | 1 |
| | 100401 | VALVE STEM TR543C (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) | |
| 20 | 142549 | HUBODOMETER W/ BRACKET 10R17.5 TIRE (NOT SHOWN) | |
| | 142551 | HUBODOMETER W/ BRACKET 215/75R17.5 TIRE (NOT SHOWN) | |
| | 142550 | HUBODOMETER W/ BRACKET 235/75R17.5 TIRE (NOT SHOWN) | |
| | 137108 | HUBODOMETER W/ BRACKET 255/70R22.5 TIRE (NOT SHOWN) | |

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

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

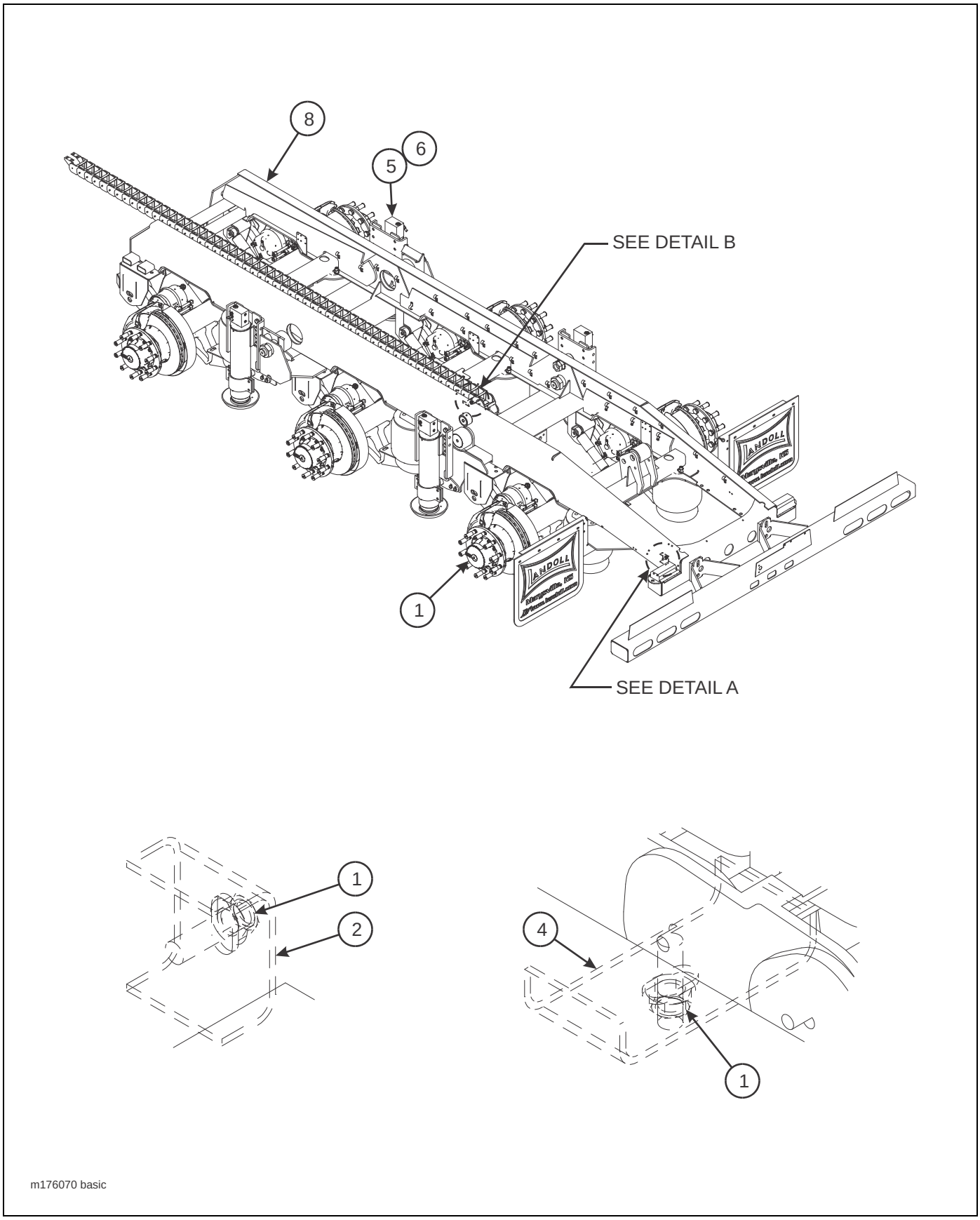



**Figure 2-53: Disk Brake Suspension, Basic Assembly**

# DISC BRAKE SUSPENSION, BASIC ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176070 | SUSPENSION ASSEMBLY, DISC BRAKE | REF |
| 1 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 4 |
| 2 | 2-181-010001 | HOSE CLAMP | 4 |
| 3 | 103084 | SUSPENSION, AIR SYS TRIDEM (SEE PAGE 2-81) | 1 |
| 4 | 103817 | CLAMP, HOSE | 1 |
| 5 | 121498 | DOCK LEVELER ASSEMBLY (SEE PAGE 2-231) | 1 |
| 6 | 126537 | DOCK LEVELER ASSEMBLY (SEE PAGE 2-241) | 1 |
| 7 | 175754 | AXLE, DISC SPRING BRAKE 75-1/2” 16-1/2” 25K TIS (SEE PAGE 2-105) | 3 |
| 8 | 176072 | SUSPENSION WELDMENT, DISC BRAKE (455-108) | 1 |
| 9 | 176865 | AIR SYSTEM, U/C ABS (SEE PAGE 2-103) | 1 |

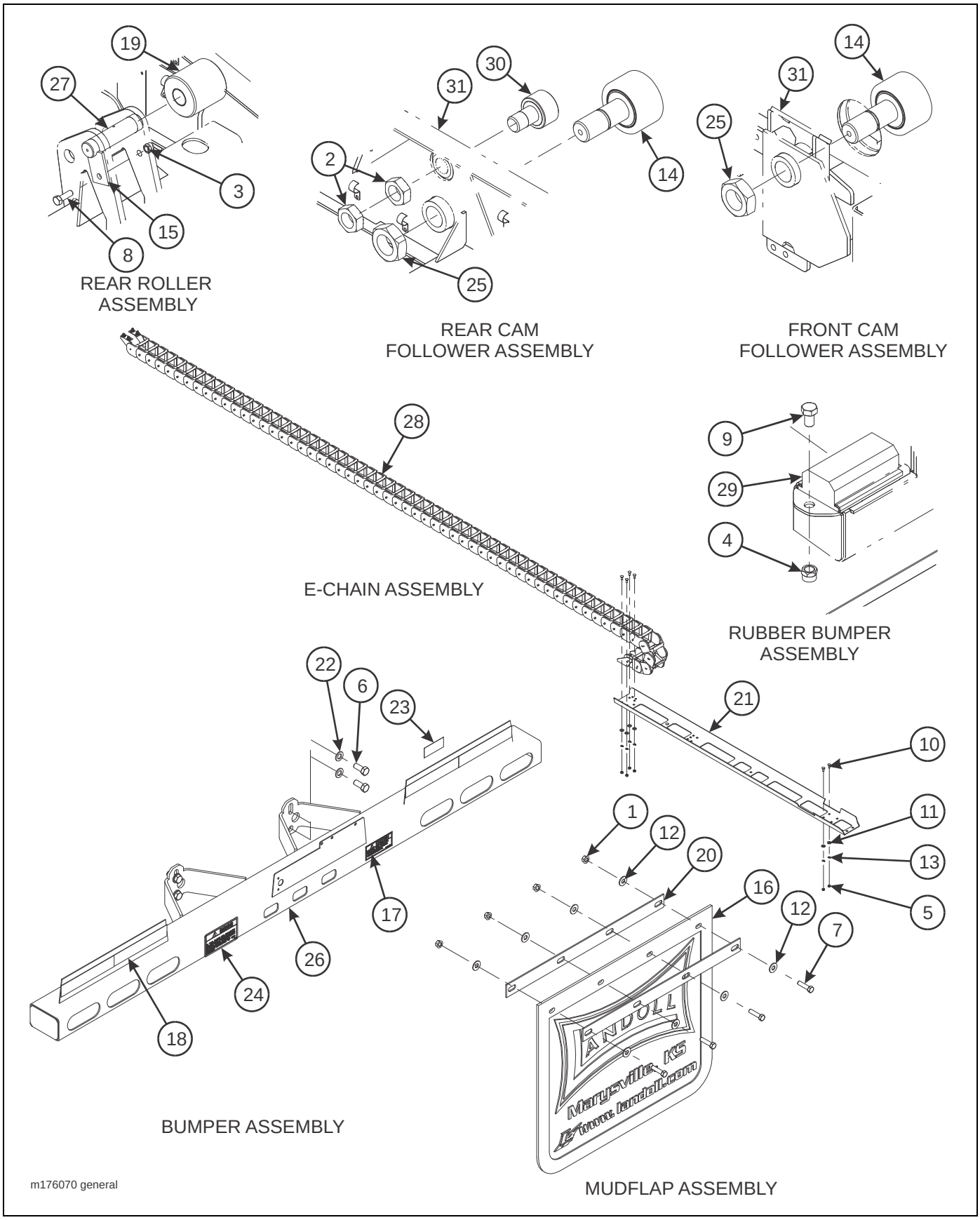



**Figure 2-54: Disk Brake Suspension, General Assembly**

# DISC BRAKE SUSPENSION, GENERAL ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176070 | SUSPENSION ASSEMBLY, DISC BRAKE | REF |
| 1 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 4 |
| 2 | 1-511-010001-14 | NUT, HEX JAM 1-1/2-12 | 4 |
| 3 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 1 |
| 4 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 2 |
| 5 | 1-512-010007-05 | NUT, HEX 1/4-20 GRB | 11 |
| 6 | 1-654-010032-4 | SCREW, HEX HEAD CAP 3/4-10 X 1-3/4 GR8 | 4 |
| 7 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 8 |
| 8 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 1 |
| 9 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 2 |
| 10 | 1-654-010158-1 | SCREW, RD HEAD SQ NECK 1/4-20 X 3/4 GR2 | 11 |
| 11 | 1-861-010032-07 | WASHER, FLAT 1/4 | *13,11 |
| 12 | 1-861-010032-11 | WASHER, FLAT 3/8W | 8 |
| 13 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 11 |
| 14 | 3-076-010015 | CAM FOLLOWER 5" DIA (TORQUE TO 250 FT/LBS) | 4 |
| 15 | 3-187-010013 | CLIP, PIN RETAINER | 1 |
| 16 | 3-485-010001 | MUD FLAP, 21" | 2 |
| 17 | 3-573-010031 | DECAL, TRAILER BUMPER (SEE PAGE 2-5) | 1 |
| 18 | 3-573-010377 | DECAL, 2" REFLEXITE TAPE RED/WHITE (SEE PAGE 2-5) | AR |
| 19 | 3-645-010084 | ROLLER ASSEMBLY, REAR U/C | 1 |
| 20 | 3-762-010017 | CLAMP, MUD FLAP | 2 |
| 21 | 3-821-010005 | TRAY, CAT TRACK | 1 |
| 22 | 622-3511-008 | WASHER, 3/4N | 4 |
| 23 | 103055 | DECAL, ENERGY BUMPER CERT (SEE PAGE 2-5) | 1 |
| 24 | 103056 | DECAL, ENERGY BUMPER WARNING (SEE PAGE 2-5) | 1 |
| 25 | 104034 | NUT, HEX 2-12 GRB | 4 |
| 26 | 121369 | BUMPER WELDMENT (CAN) | 1 |
| 27 | 121686 | PIN, 1-1/2 X 6-1/4 | 1 |
| 28 | 122536 | SUPPORT E-CHAIN 455 | 1 |
| 29 | 142565 | PLATE, RUB BUMPER 2" | 2 |
| 30 | 145532 | CAM FOLLOWER 3" SEALED (TORQUE TO 166 FT/LBS) | 2 |
| 31 | 176072 | SUSPENSION WELDMENT, DISC BRAKE (455-108) | 1 |

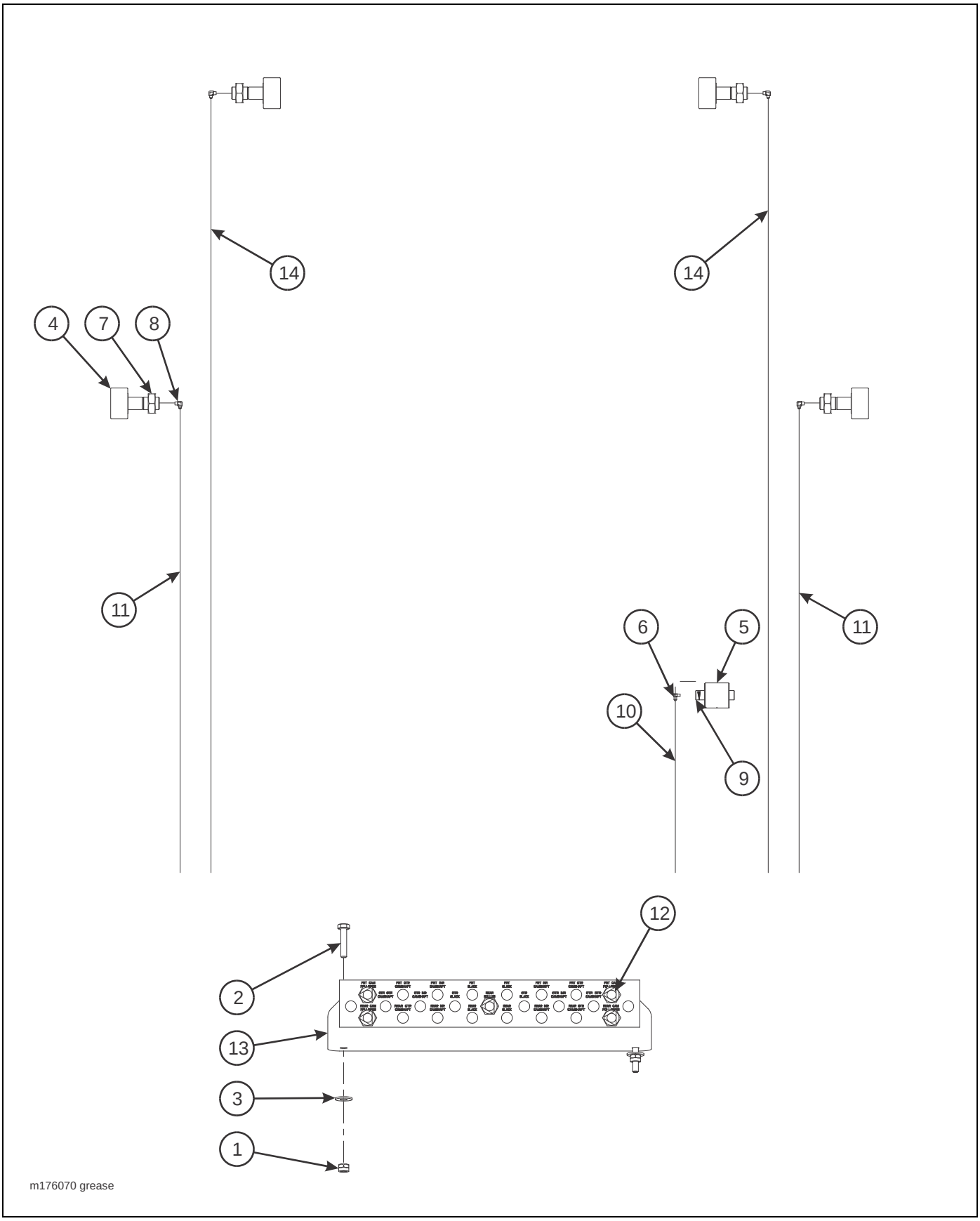



**Figure 2-55: Disk Brake Suspension, Grease Assembly**

# DISC BRAKE SUSPENSION, GREASE ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176070 | SUSPENSION ASSEMBLY, DISC BRAKE | REF |
| 1 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 2 | 1-654-010047-07 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5 | 2 |
| 3 | 1-861-010032-07 | WASHER, FLAT 1/4 | 2 |
| 4 | 3-076-010015 | CAM FOLLOWER 5" DIA (TORQUE TO 250 FT/LBS) | REF |
| 5 | 3-645-010084 | ROLLER ASSEMBLY, REAR U/C | REF |
| 6 | 2024-2-4S | ADAPTER, ELBOW | 1 |
| 7 | 104034 | NUT, HEX 2-12 GR2 | REF |
| 8 | 113268 | ADAPTER, 90 | 4 |
| 9 | 121686 | PIN, 1-1/2 X 6-1/4 | REF |
| 10 | 142441 | HOSE ASSEMBLY, GREASE 1/4 X 45 | 1 |
| 11 | 142444 | HOSE ASSEMBLY, GREASE 1/4 X 83 | 2 |
| 12 | 142545 | NUT, 7/16 | 23 |
| 13 | 143182 | BRACKET, GREASE HOSE | 1 |
| 14 | 144614 | HOSE ASSEMBLY GREASE X 172 | 2 |

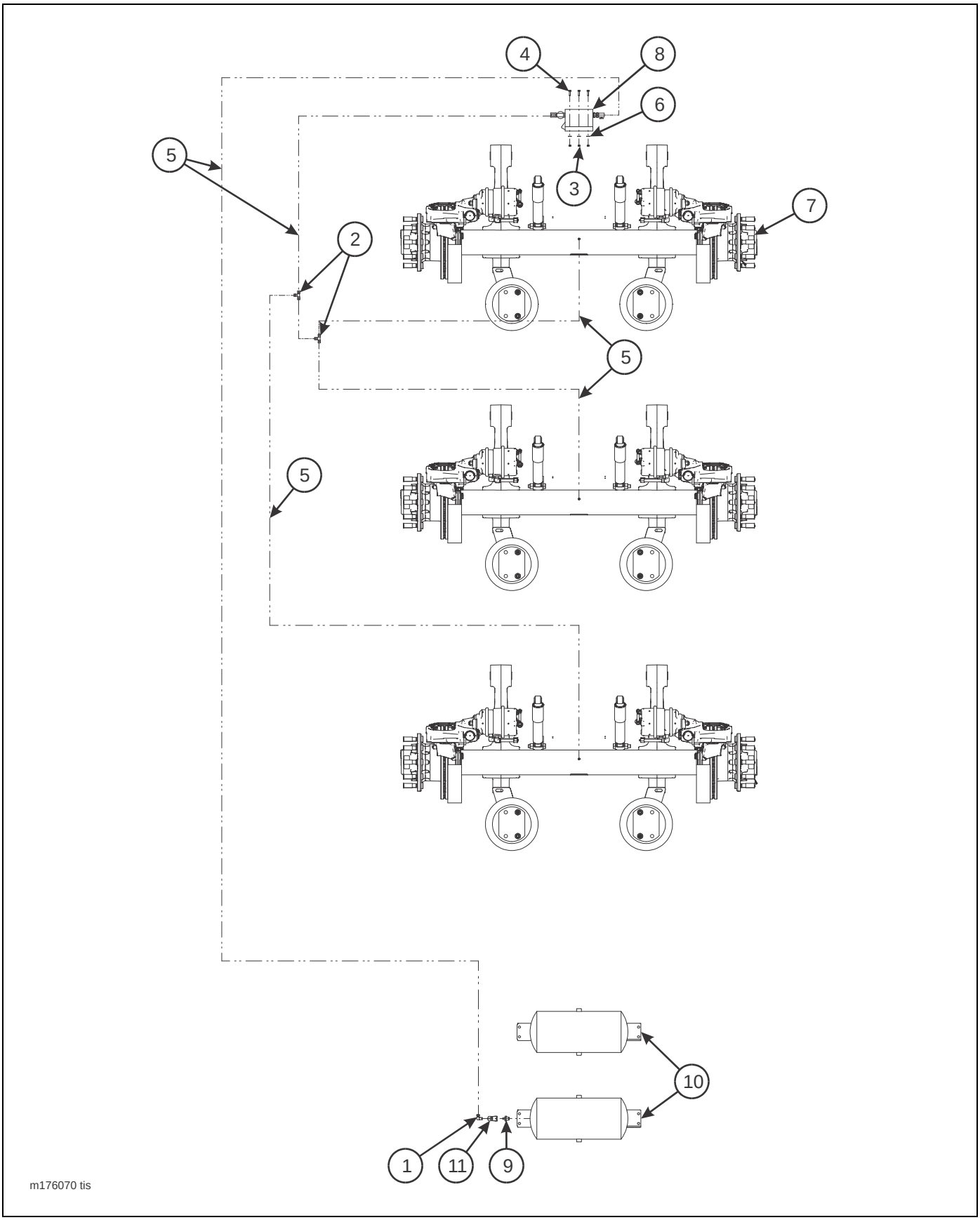



**Figure 2-56: Disk Brake Suspension, Tire Inflation Assembly**

# DISC BRAKE SUSPENSION, TIRE INFLATION ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176070 | SUSPENSION ASSEMBLY, DISC BRAKE | REF |
| 1 | 1-297-010008-07 | FITTING AIR 90 | REF |
| 2 | 1-297-010010-01 | FITTING AIR UNION TEE | REF |
| 3 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 3 |
| 4 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 3 |
| 5 | 1-833-010001 | TUBING NYLON 1/4 OD | AR |
| 6 | 1-861-010032-07 | WASHER, FLAT 1/4W | 3 |
| 7 | 175754 | AXLE, DISC SPRING BRAKE 75-1/2” 16-1/2” 25K TIS (SEE PAGE 2-105) | REF |
| 8 | 176076 | THERMALERT, TIRE INFLATION SYSTEM, TRIPLE SAF AXLES (SEE PAGE 2-107) | 1 |
| 9 | 2083-8-4S | NIPPLE, HEX 1/2 - 1/4 | 1 |
| 10 | 3-780-010002 | TANK AIR | REF |
| 11 | 31023-01 | THERMALERT PRESSURE PROTECTION VALVE | REF |

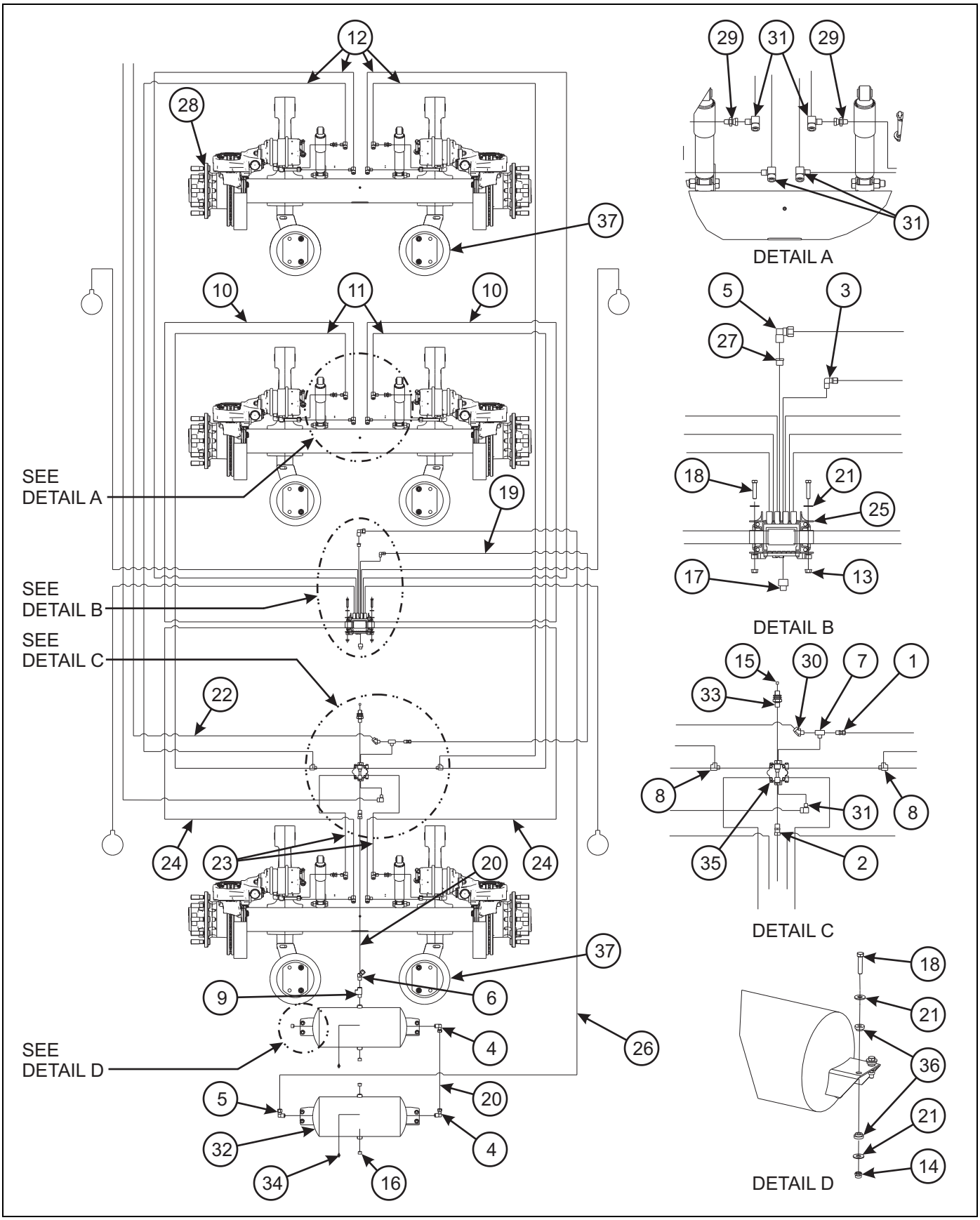



**Figure 2-57: Air System, U/C ABS Disk Brake**

# AIR SYSTEM, U/C ABS DISC BRAKE

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176865 | AIR SYSTEM, U/C ABS DISC BRAKE | |
| 1 | 1-297-010007-12 | FITTING, AIR | 1 |
| 2 | 1-297-010007-15 | FITTING, AIR | 1 |
| 3 | 1-297-010008-18 | FITTING, AIR 90 | 1 |
| 4 | 1-297-010008-24 | FITTING, AIR 90 | 4 |
| 5 | 1-297-010008-26 | FITTING, AIR 90 | 2 |
| 6 | 1-297-010013-16 | FITTING, AIR 45 | 1 |
| 7 | 1-297-010017-03 | FITTING, AIR M/BR TEE | 1 |
| 8 | 1-297-010018-03 | FITTING, BRS PIPE ST TEE | REF |
| 9 | 1-297-010018-04 | FITTING, BR TEE | 1 |
| 10 | 1-384-010038-2 | HOSE, AIR 3/8 X 66 | 2 |
| 11 | 1-384-010038084 | HOSE, AIR 3/8 X 84” | 2 |
| 12 | 1-384-010038120 | HOSE, AIR 3/8 X 120 | 4 |
| 13 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 2 |
| 14 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 12 |
| 15 | 1-560-010002-02 | PIPE PLUG 1/4 | 2 |
| 16 | 1-560-010002-04 | PIPE PLUG 1/2 | 5 |
| 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 | 14 |
| 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 | 26 |
| 22 | 100949 | HOSE, AIR 3/8 X 222 W/ 3/8 ENDS | 2 |
| 23 | 101003 | HOSE, AIR 3/8 X 48 | 2 |
| 24 | 103738 | HOSE, AIR 3/8 X 100 | 2 |
| 25 | 114586 | BRAKE KIT, ABS 4S/2M (SEE PAGE 2-77) | 1 |
| 26 | 117304 | TUBING, NYLON 5/8 | AR |
| 27 | 118-2659-9 | BUSHING 1/2 X 3/4 | 1 |
| 28 | 175754 | AXLE, 75-1/2 16-1/2 DISC SPRING BRAKE 25K TIS (SEE PAGE 2-105) | REF |
| 29 | 2045-6-6S | ADAPTER, SWIVEL | 4 |
| 30 | 2088-6-6S | ADAPTER, 45 | 1 |
| 31 | 2089-6-6S | ADAPTER, 90 | 1 |
| 32 | 3-780-010002 | TANK, AIR | 3 |
| 33 | 55B61 | FRAME UNION | 1 |
| 34 | 56D4 | AIR TANK DRAIN COCK | 3 |
| 35 | 758-181 | VALVE RELAY EMERGENCY | 1 |
| 36 | 805-2 | STEP BUSHING | 24 |
| 37 | 123594 | AIR SPRING | 6 |

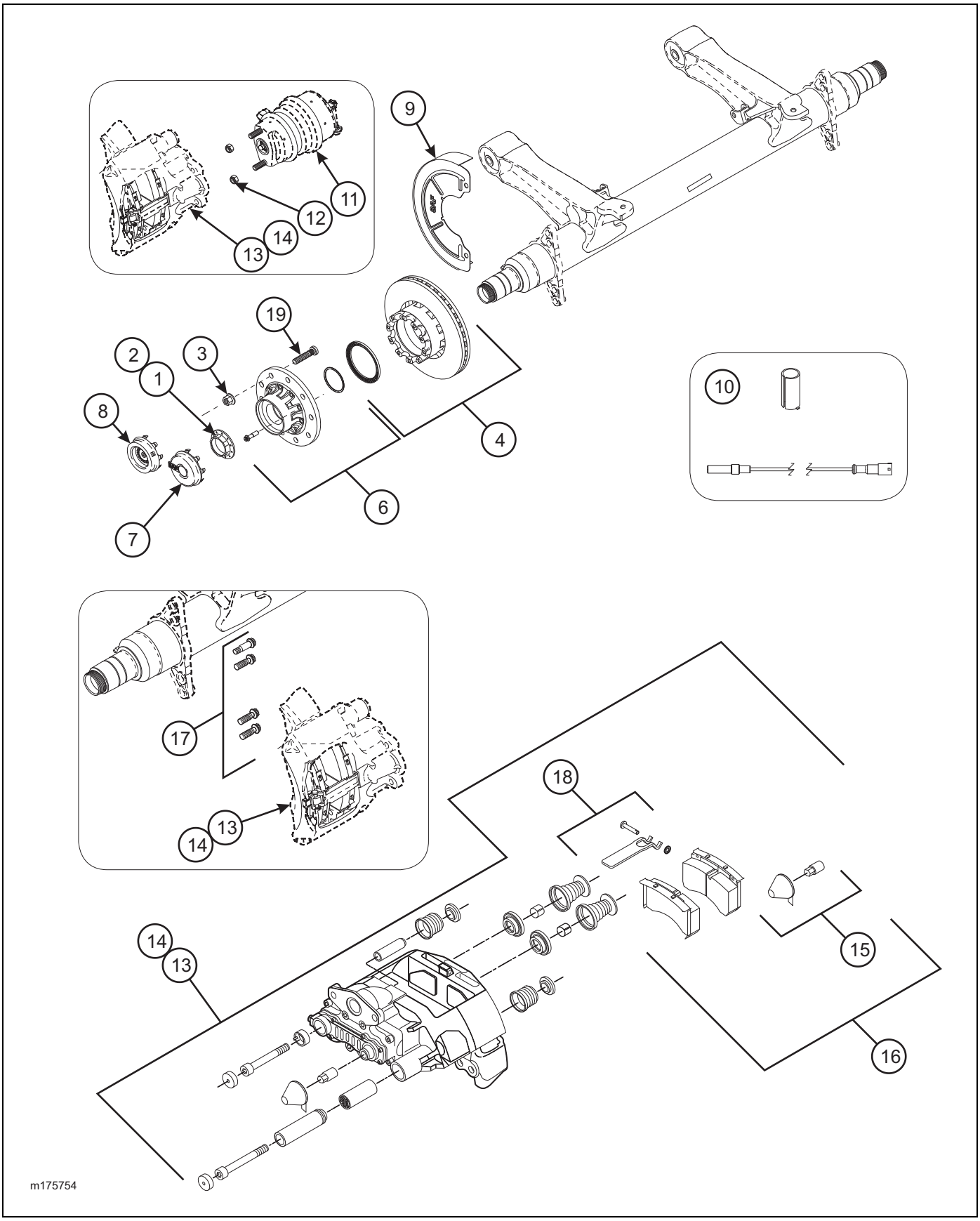
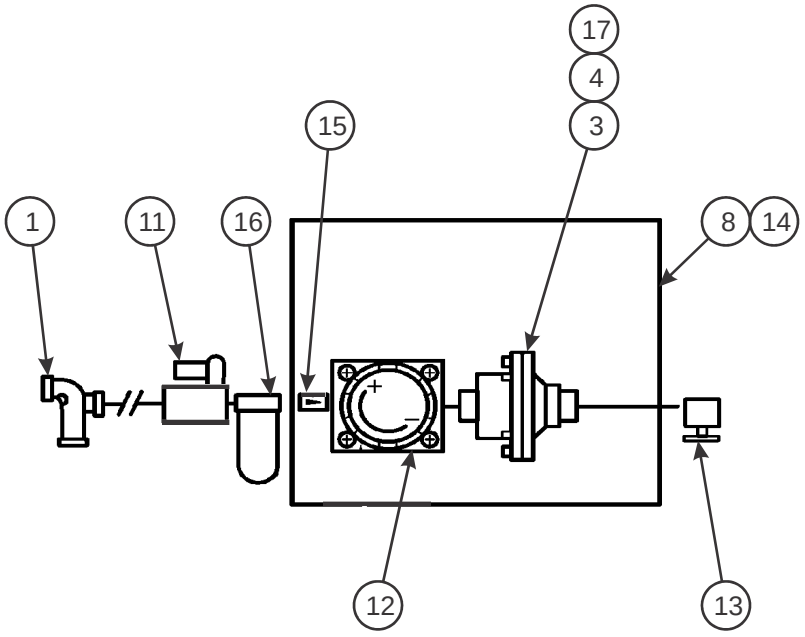


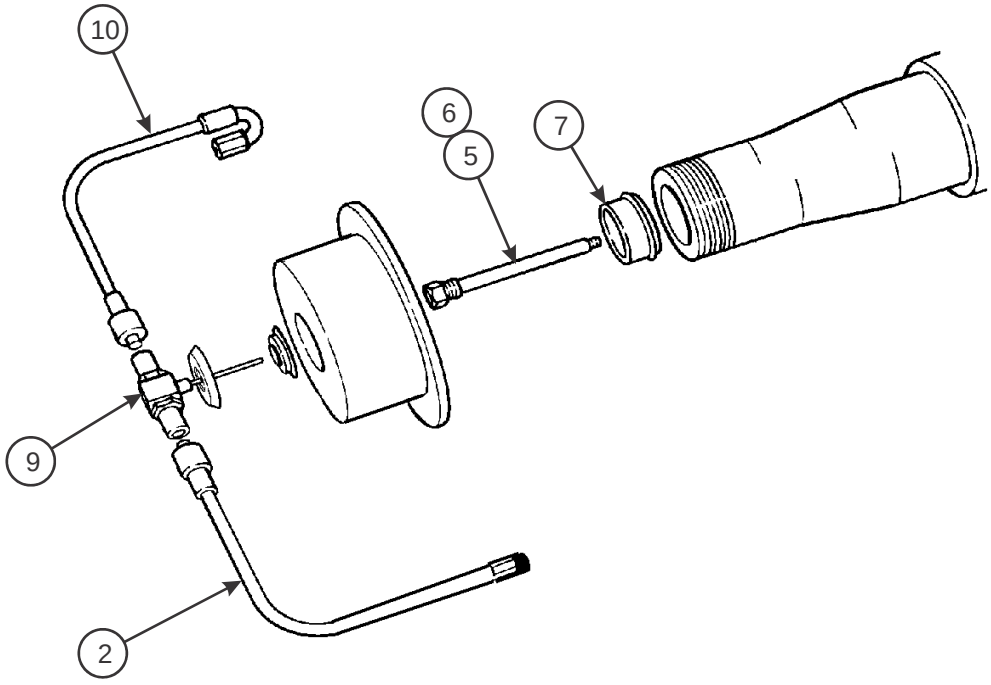

**Figure 2-58: Disc Spring Brake Axle Items**

# DISC SPRING BRAKE AXLE ITEMS

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY./AXLE |
|---|---|---|---|---|
| | 175754 | S04BN0014 | AXLE, DISC SPRING BRAKE 75-1/2” 16-1/2” 25K TIS | |
| 1 | 179568 | 01011008500Z | AXLE NUT, LH | 1 |
| 2 | 179569 | 01011008600Z | AXLE NUT, RH | 1 |
| 3 | 179570 | 04247301201Z | WHEEL NUT | 2 |
| 4 | 179571 | 03606307600Z | HEAD UNIT W/ LONG STUDS | 2 |
| 5 | 179572 | 05387001503Z | AXLE STUB GREASE (NOT SHOWN) | 2 |
| 6 | 179573 | 03434366300Z | DISC REPAIR KIT | 1 |
| 7 | 179574 | 03304010900Z | HUB CAP (PSI) | 2 |
| | 179575 | 03304010201Z | HUB CAP (NO PSI) | 2 |
| 8 | 179576 | 03304010301Z | HUB CAP HUB ODOMETER | 2 |
| 9 | 176876 | 02005023000Z | DUST SHIELD | 2 |
| 10 | 179577 | 03029024200Z | ABS KIT | 2 |
| 11 | 179578 | 04454109864Z | BRAKE CHAMBER 16/24 | 2 |
| 12 | 179579 | 04247405280Z | BRAKE CHAMBER NUT | 4 |
| 13 | 179580 | 03080005901Z | BRAKE CALIPER, LH 22.5 | 1 |
| 14 | 179581 | 03080006001Z | BRAKE CALIPER, RH 22.5 | 1 |
| 15 | 179582 | 03434381600Z | ADJUSTER CAP | 2 |
| 16 | 179583 | 03057008500Z | BRAKE LINING KIT 22.5 | 1 |
| 17 | 179584 | 03434366000Z | BRAKE CALIPER BOLT KIT | 2 |
| 18 | 179585 | 03434380900Z | BRAKE PAD RETAINING CLIP | 2 |
| 19 | 195320 | 04375101210Z | LONG WHEEL STUD | 2 |




CONTROL BOX ASSEMBLY




m176076

DUAL WHEEL END ASSEMBLY

**Figure 2-59: Thermalert Tire Inflation System (Triple) (SAF Axles)**

# THERMALERT TIRE INFLATION SYSTEM (TRIPLE) (SAF AXLES)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176076 | THERMALERT, TIRE INFLATION SYSTEM, TRIPLE SAF AXLES | |
| 1 | 168610 | PRESSURE PROTECTION VALVE BAG | 1 |
| 2 | 168612 | LONG HOSE | 1 |
| 3 | 168613 | WIRING HARNESS | 1 |
| 4 | 168614 | LIGHT BAG ASSEMBLY | 1 |
| 5 | 168615 | STATOR BOX | 1 |
| 6 | 168616 | 1/4 NPT STATOR AND FILTER ASSEMBLY | 1 |
| 7 | 168617 | PRESS PLUG ASSEMBLY 1.75 | 1 |
| 8 | 168618 | CONTROL BOX | 1 |
| 9 | 178592 | THRU TEE ASSEMBLY 3.50” | 1 |
| 10 | 180222 | SHORT FLEX HOSE | 1 |
| 11 | 180223 | SHUT-OFF VALVE | 1 |
| 12 | 180224 | PRESSURE REGULATOR VALVE | 1 |
| 13 | 180225 | PETCOCK | 1 |
| 14 | 180226 | CONTROL BOX LID | 1 |
| 15 | 180227 | BULKHEAD/CHECK VALVE | 1 |
| 16 | 180228 | SELF-DRAINING FILTER | 1 |
| 17 | 180229 | FLOW SENSING SWITCH | 1 |

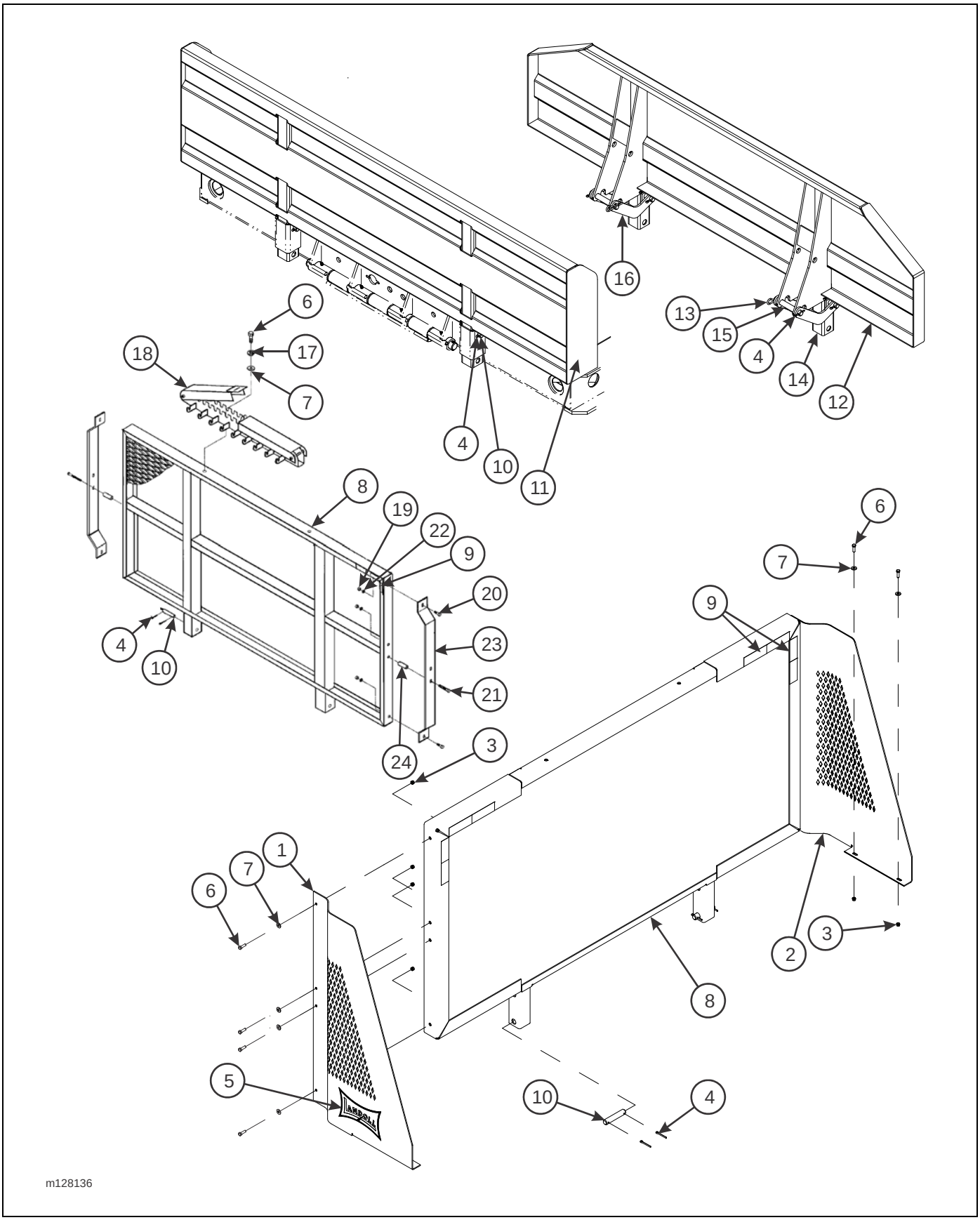



**Figure 2-60: Bulkhead Assembly**

# 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 |
| | 130895 | BULKHEAD INSTALLATION, SPECIAL (ITEMS 1-10) | |
| 1 | 128137 | EXTENSION, BULKHEAD ALUM LH | |
| | 128153 | EXTENSION, BULKHEAD LH | |
| 2 | 128138 | EXTENSION, BULKHEAD ALUM RH | |
| | 128152 | EXTENSION, BULKHEAD RH | |
| 3 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 | |
| 4 | 1-557-010362-63 | COTTER PIN 1/4 X 2 | |
| 5 | 153754 | DECAL, BOW TIE (BLACK) (SEE PAGE 2-5) | |
| | 153755 | DECAL, BOW TIE (WHITE) (SEE PAGE 2-5) | |
| 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) | |
| 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 | |

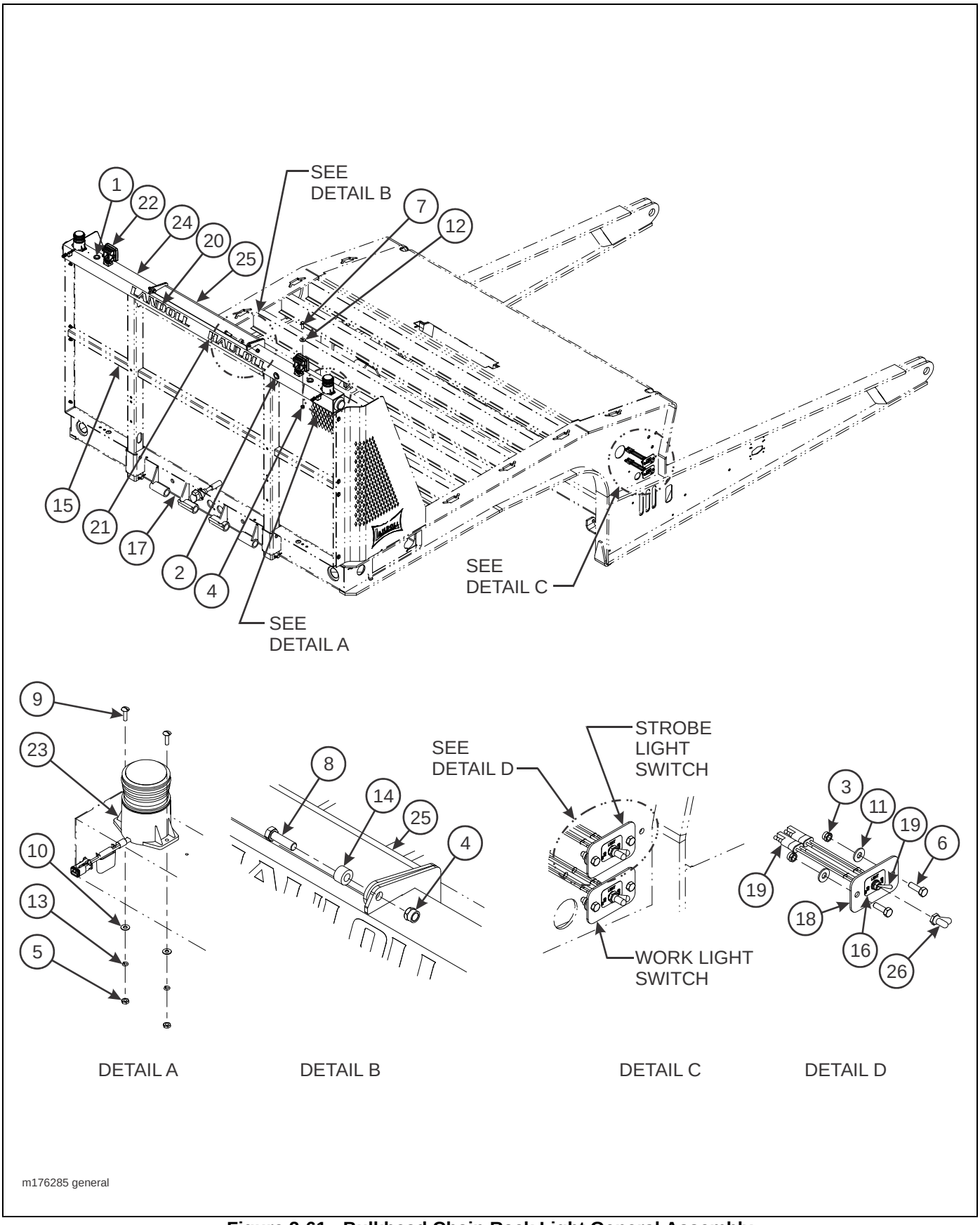



**Figure 2-61: Bulkhead Chain Rack Light General Assembly**

# BULKHEAD CHAIN RACK LIGHT GENERAL ASSEMBLY (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 167971 | BULKHEAD CHAIN RACK S/T/T WORK LIGHT | * | |
| | 176286 | BULKHEAD CHAIN RACK S/T/T W/ STROBE | | * |
| 1 | 1-343-010006 | GROMMET | 2 | 2 |
| 2 | 1-343-010007 | GROMMET | 1 | 1 |
| 3 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 | 4 |
| 4 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 4 | 4 |
| 5 | 1-512-010007-03 | NUT, HEX LOCK 10-24 | -- | 4 |
| 6 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 2 | 4 |
| 7 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 2 | 2 |
| 8 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 2 | 2 |
| 9 | 1-656-010003051 | SCREW, RD HEAD SQ NECK 10-24 X 3/4 | -- | 4 |
| 10 | 1-861-010032-03 | WASHER, FLAT #10 | -- | 4 |
| 11 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 | 4 |
| 12 | 1-861-010032-15 | WASHER, FLAT 1/2W | 2 | 2 |
| 13 | 1-861-010034-07 | WASHER, FLAT #10 | -- | 4 |
| 14 | 125799 | SPACER | 2 | 2 |
| 15 | ----- | BULKHEAD WELDMENT | REF | REF |
| 16 | 130116 | DECAL, ON/OFF LIGHT | 1 | 2 |
| 17 | ----- | GOOSENECK WELDMENT | REF | REF |
| 18 | 137987 | MOUNT, ELECTRICAL SWITCH | 1 | 2 |
| 19 | 150117 | TOGGLE SWITCH SEALED SPST | REF | REF |
| 20 | 155273 | DECAL, LANDOLL 2-1/2 BLK REFLECTIVE | 1 | 1 |
| 21 | 155274 | DECAL, HAULOLL 2-1/2 BLK REFLECTIVE | 1 | 1 |
| 22 | 163996 | LIGHT, LED WHITE FLOODLAMP | REF | REF |
| 23 | 165788 | STROBE LIGHT MODIFIED ASSEMBLY | ----- | REF |
| 24 | 167972 | TUBE WELDMENT, BULKHEAD TOPPER | ‘ | 1 |
| 25 | 167975 | LID WELDMENT, CHAIN BINDER | 1 | 1 |
| 26 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 | 2 |

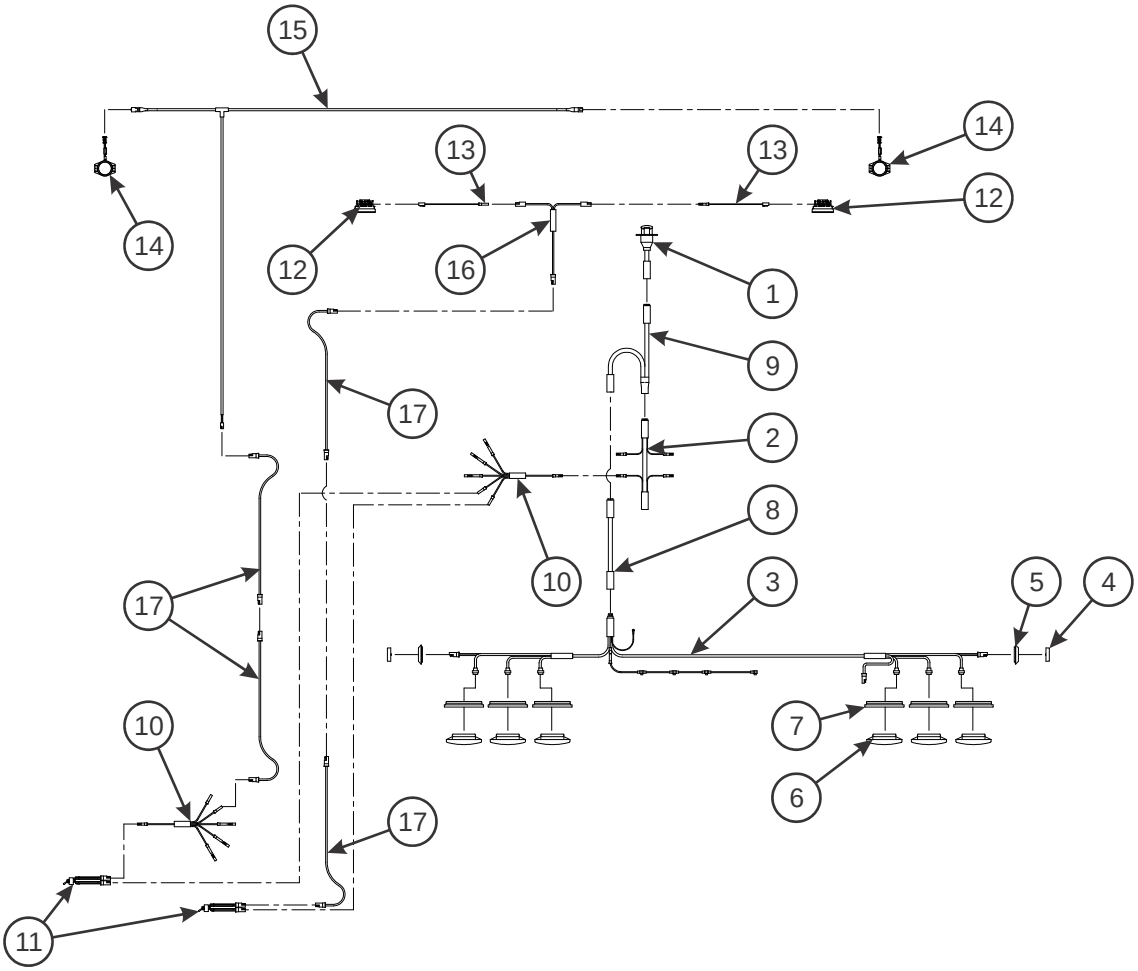



**Figure 2-62: Bulkhead Chain Rack Light Electrical Assembly**

# BULKHEAD CHAIN RACK LIGHT ELECTRICAL ASSEMBLY (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 167971 | BULKHEAD CHAIN RACK S/T/T WORK LIGHT | * | |
| | 176286 | BULKHEAD CHAIN RACK S/T/T W/ STROBE | | * |
| 1 | 143100 | HARNESS, 7 WAY RECEPTACLE | REF | REF |
| 2 | 143101 | HARNESS, FRONT MAIN | REF | REF |
| 3 | 143104 | HARNESS, BUMPER | 1 | 1 |
| 4 | 143109 | LIGHT, YELLOW LED 2.5 CL/MARKER | 2 | 2 |
| 5 | 143110 | GROMMET, 2.5 SURFACE MOUNT | 2 | 2 |
| 6 | 143113 | LIGHT, RED LED OVAL STT | 6 | 6 |
| 7 | 143114 | GROMMET, OVAL | 6 | 6 |
| 8 | 143167 | HARNESS EXTENSION, 84” | 1 | 1 |
| 9 | 146929 | HARNESS, Y SPLITTER | 1 | 1 |
| 10 | 150093 | HARNESS, 5 AUXILIARY BRANCHES | REF | 1 |
| 11 | 150117 | TOGGLE SWITCH SEALED SPST | 1 | 1 |
| 12 | 163996 | LIGHT LED WHITE FLOOD LAMP | 2 | 2 |
| 13 | 164052 | HARNESS, 60” BRANCH WORK LIGHT | 2 | 2 |
| 14 | 165788 | STROBE LIGHT MODIFIED ASSEMBLY | -- | 2 |
| 15 | 165789 | HARNESS ASSEMBLY, STROBE BEACON | -- | 1 |
| 16 | 169853 | HARNESS, JUMPER T-POWER | 1 | 1 |
| 17 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXT | 2 | 4 |

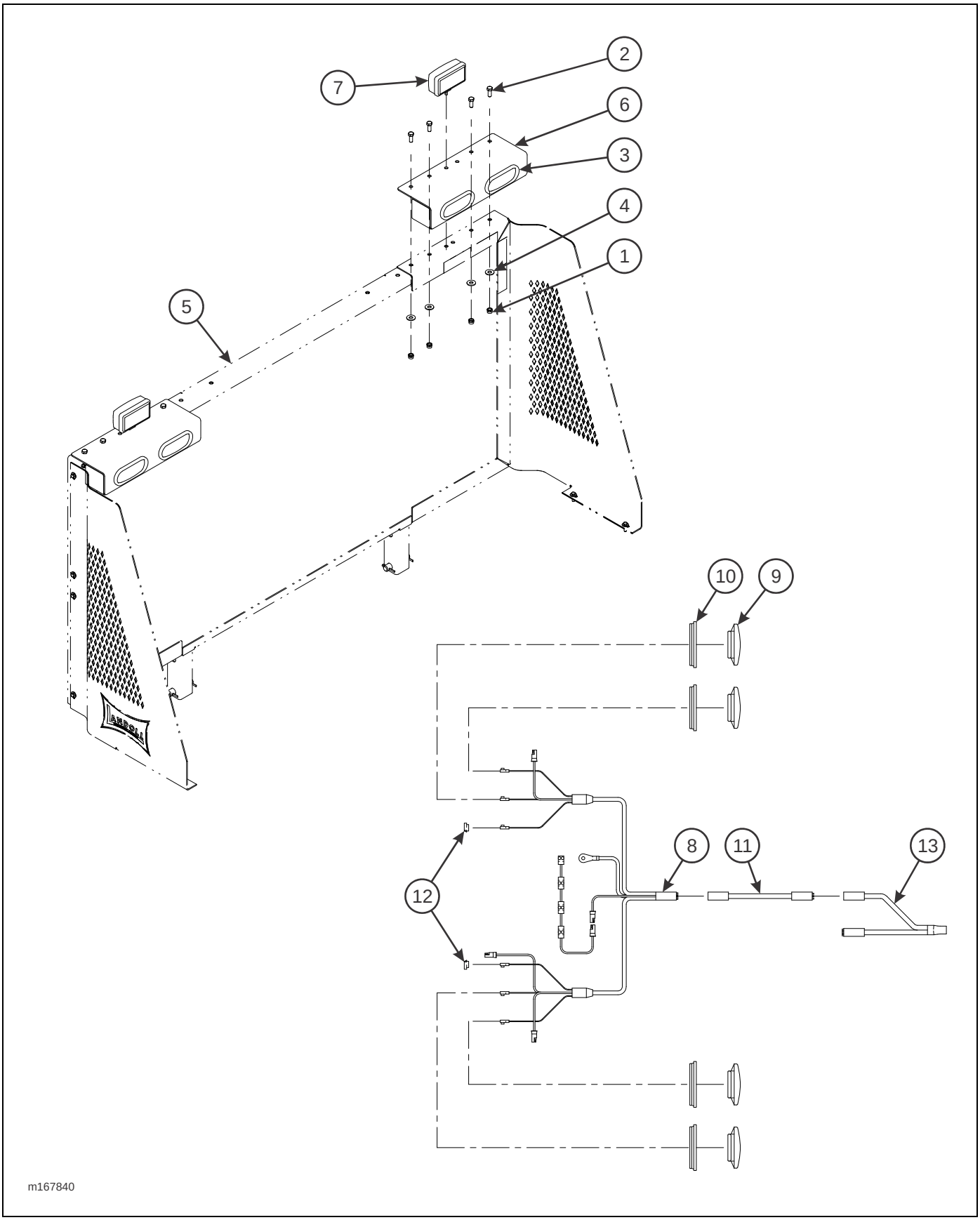



**Figure 2-63: Bulkhead Stop/Tail/Turn Light Assembly**

# BULKHEAD STOP/TAIL/TURN LIGHT ASSEMBLY (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 167840 | BULKHEAD STOP/TAIL/TURN LIGHT ASSEMBLY | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 8 |
| 2 | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5 | 8 |
| 3 | 1-822-010002 | TRIM-LOK 3/16 (NOT SHOWN) | 4 |
| 4 | 1-861-010032-15 | WASHER, FLAT 1/2W | 8 |
| 5 | ----- | BULKHEAD INSTALLATION | REF |
| 6 | 167843 | MOUNT WELDMENT, STOP/TURN/TAIL | 2 |
| 7 | 64181 | RECT QUARTZ HALOGEN LAMP | REF |
| 8 | 143104 | HARNESS, REAR LED | 1 |
| 9 | 143113 | LIGHT, RED LED OVAL STT | 4 |
| 10 | 143114 | GROMMET, OVAL | 4 |
| 11 | 143167 | HARNESS EXTENSION, 84” | 1 |
| 12 | 144608 | DUMMY PLUG FOR FEMALE PLUG | 2 |
| 13 | 146929 | HARNESS, Y SPLITTER | 1 |

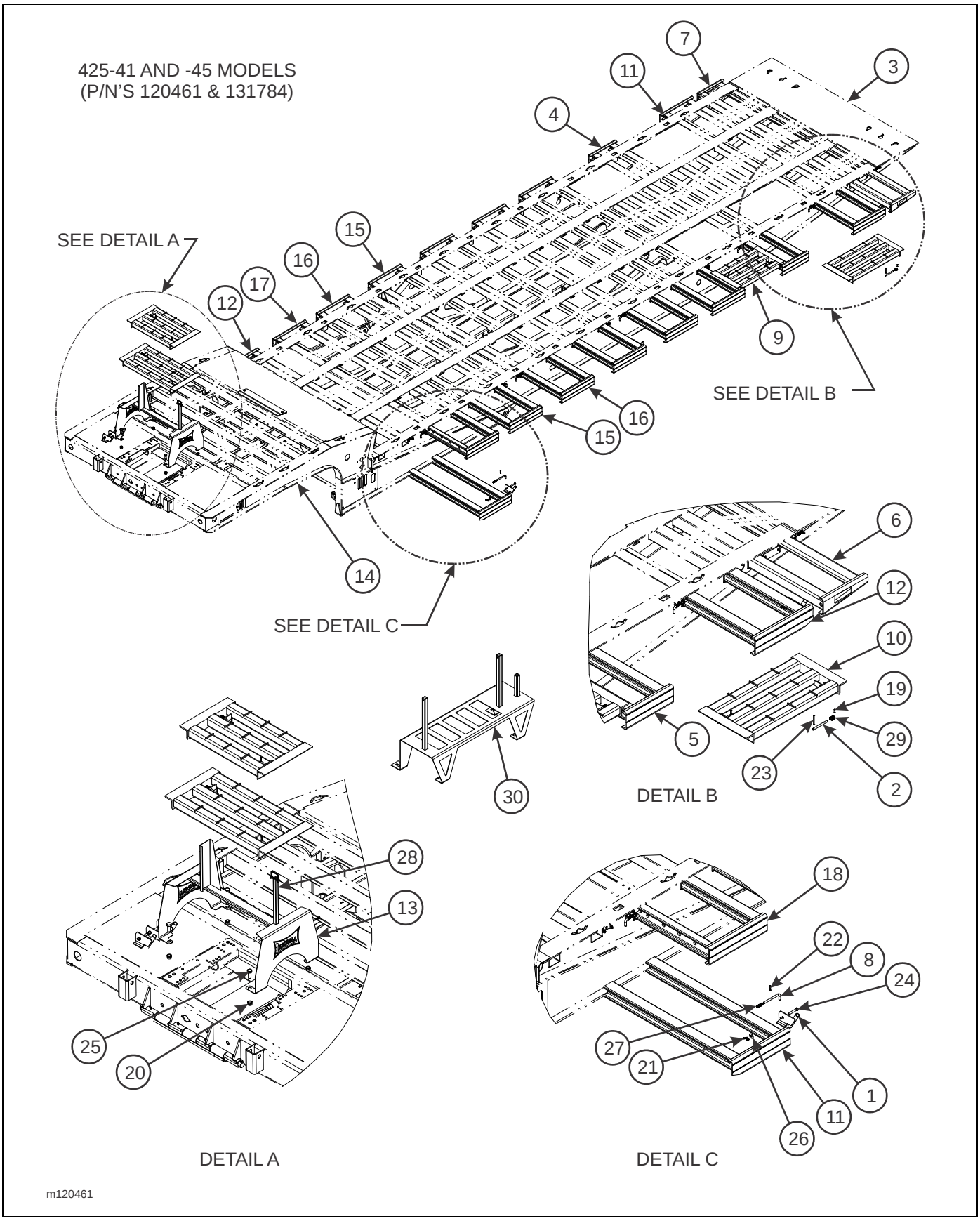



**Figure 2-64: Pullout Installation (425)**

# PULLOUT INSTALLATION (425) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 120461 | PULLOUT INSTALLATION 425-41 | * | |
| | 131784 | PULLOUT EXTENSION INSTALLATION 425-45 | | * |
| 1 | 108859 | WELDMENT, BRACKET FLAG HOLDER | 6 | 6 |
| 2 | 118723 | PIN, SLIDE LOCK EXT | 8 | 8 |
| 3 | ----- | FRAME WELDMENT | REF | REF |
| 4 | 120376 | PULLOUT ASSEMBLY 18RH | 1 | 1 |
| 5 | 120377 | PULLOUT ASSEMBLY 18LH | 1 | 1 |
| 6 | 120379 | EXTENSION REAR P/O LH | 1 | 1 |
| 7 | 120380 | EXTENSION REAR P/O RH | 1 | 1 |
| 8 | 120457 | PIN, P/O EXT LOCK | 20 | 22 |
| 9 | 120491 | EXT. WLDMT FRT WHEEL WELL | 2 | 2 |
| 10 | 120492 | EXT. WLDMT REAR WHEEL WELL | 2 | 2 |
| 11 | 122913 | PULLOUT CLIPPED RH | 2 | 2 |
| 12 | 122916 | PULLOUT CLIPPED LH | 2 | 2 |
| 13 | 130553 | RACK WELDMENT, PULLOUT | 1 | 1 |
| 14 | ----- | FRAME ASSEMBLY, G/N | REF | REF |
| 15 | 131738 | PULLOUT WELDMENT RH | 5 | 6 |
| 16 | 131739 | PULLOUT WELDMENT LH | 5 | 6 |
| 17 | 131740 | PULLOUT WELDMENT FRT RH | 1 | 1 |
| 18 | 131741 | PULLOUT WELDMENT FRT LH | 1 | 1 |
| 19 | 0600-250-01000 | PIN, ROLL 1/4 X 1 | 8 | 8 |
| 20 | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB | 4 | 4 |
| 21 | 1-533-010001 | NUT, WING 1/2-13 | 6 | 6 |
| 22 | 1-647-010004177 | PIN, SPRING SLOTTED 3/16 X 1-1/2 | 20 | 22 |
| 23 | 1-647-010004225 | PIN, ROLL 1/4 X 3 | 8 | 8 |
| 24 | 1-654-010055-09 | SCREW, HEX HEAD CAP 1/2-13 X 3 GR5 | 6 | 6 |
| 25 | 1-654-010061-05 | SCREW, HEX HEAD CAP 3/4-10 X 2 GR5 | 4 | 4 |
| 26 | 1-861-010032-15 | WASHER, FLAT 1/2W | 6 | 6 |
| 27 | 104253 | SPRING, COMPRESSION P/O EXT LOCK | 20 | 22 |
| 28 | 516-22PTL | RETAINING PIN MUD FLAP | 1 | 1 |
| 29 | CO-975-74-2000 | SPRING, COMPRESSION | 8 | 8 |
| 30 | 120822 | SUPPORT WELDMENT P/O EXT | 1 | ----- |

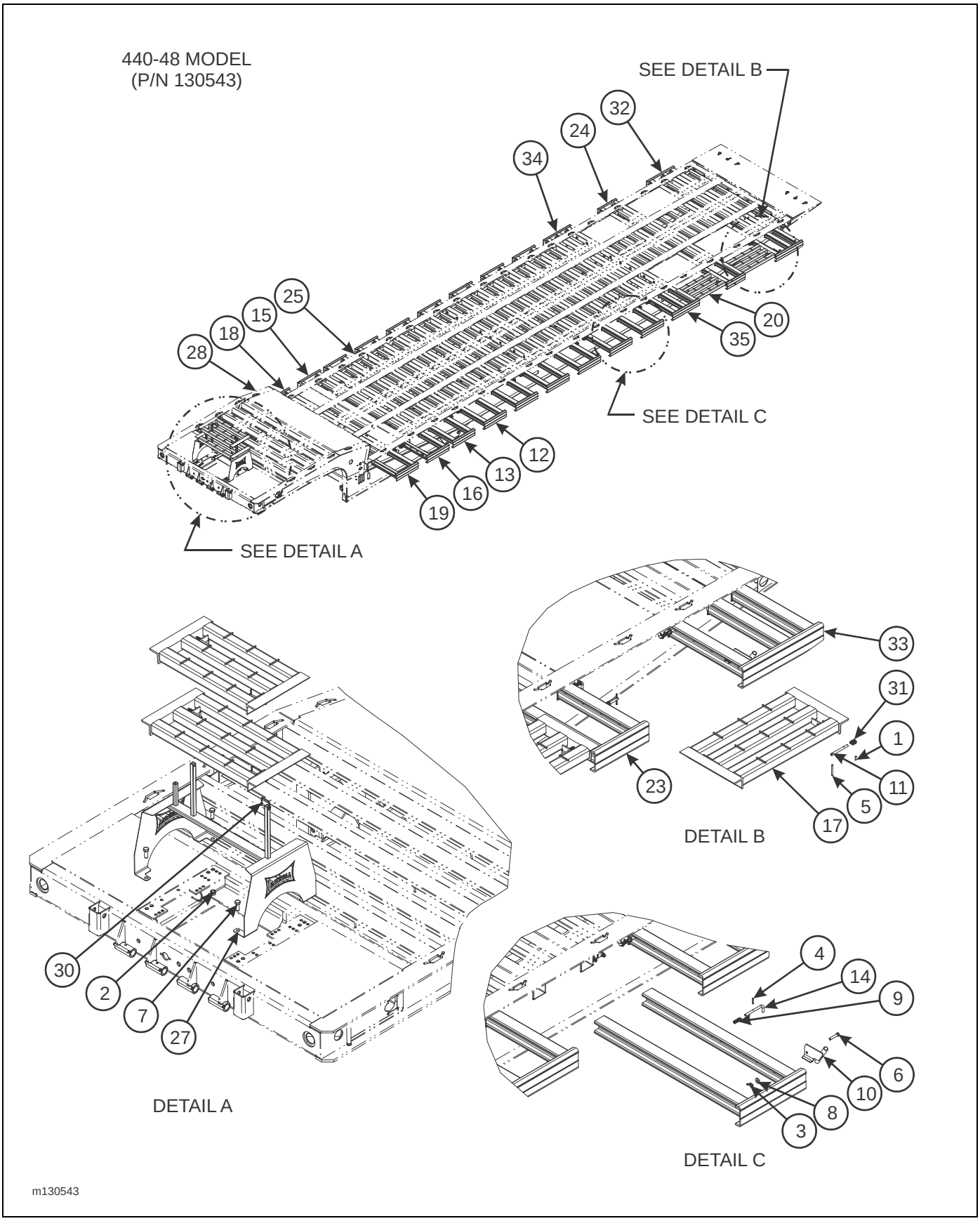



**Figure 2-65: Pullout Installation (440) (1 of 3)**

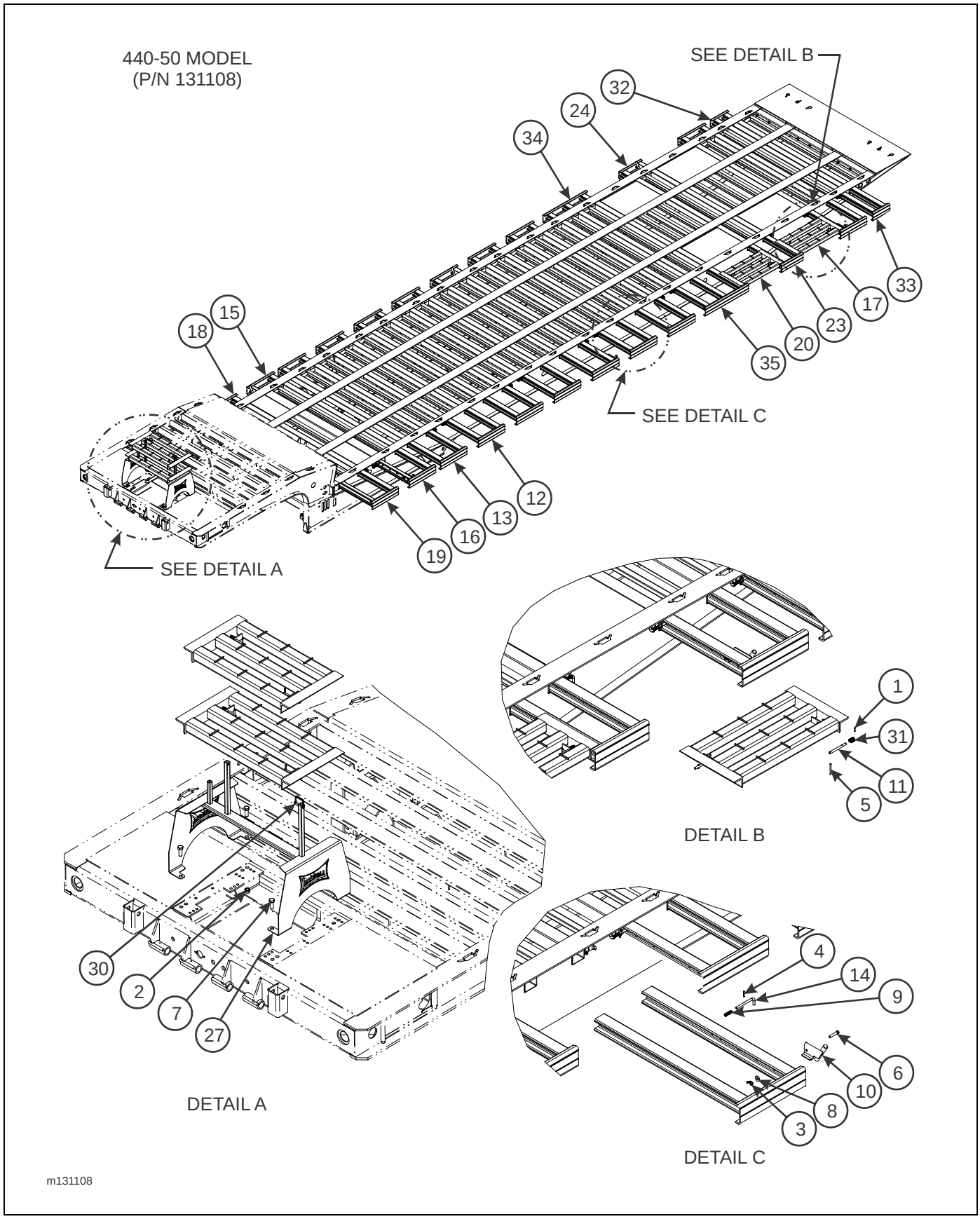



**Figure 2-66: Pullout Installation (440) (2 of 3)**

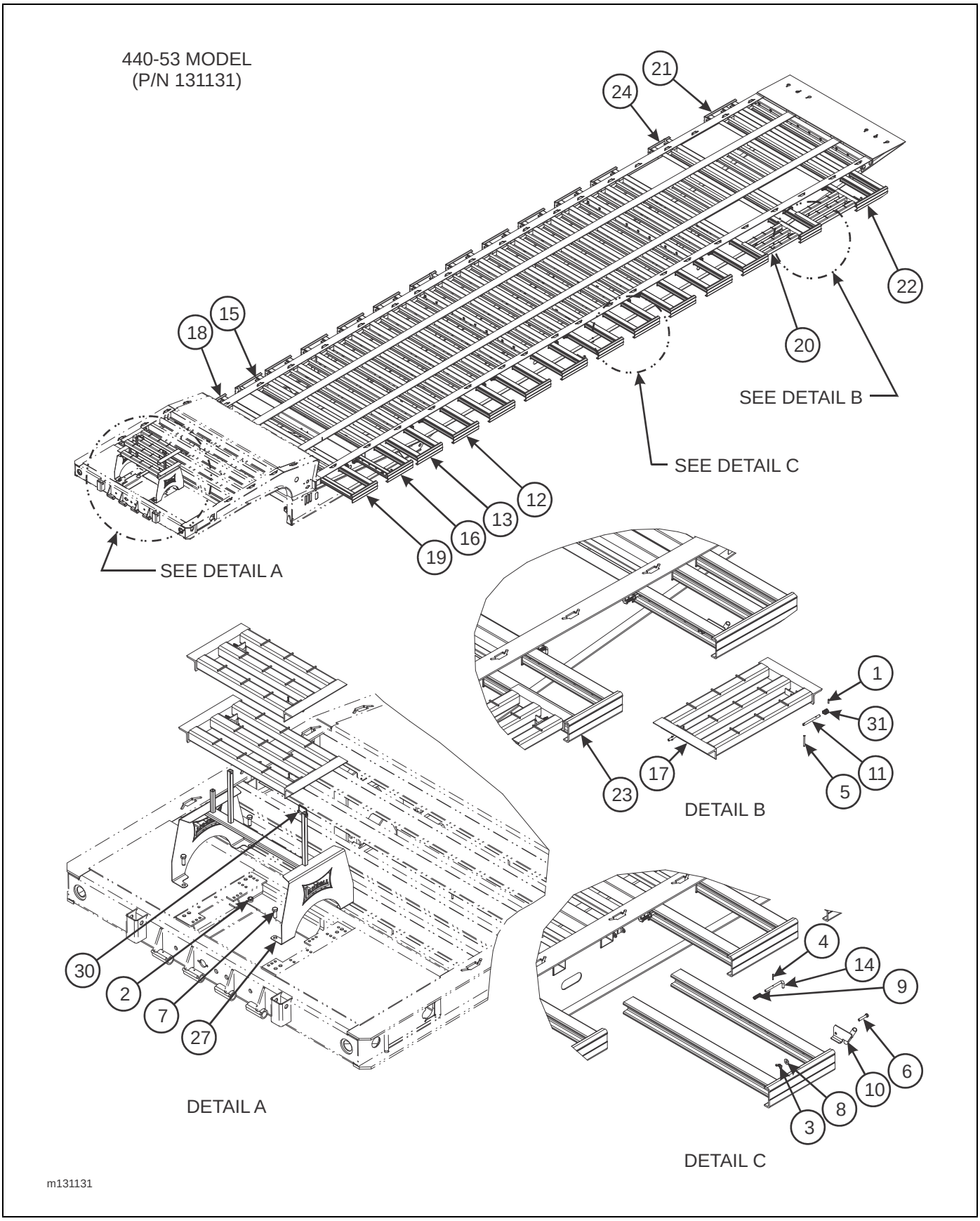



**Figure 2-67: Pullout Installation (440) (3 of 3)**

# PULLOUT INSTALLATION (440) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 130543 | PULLOUT EXTENSION INSTALLATION 440-48 | * | | |
| | 131108 | PULLOUT EXTENSION INSTALLATION 440-50CA | | * | |
| | 131131 | PULLOUT EXTENSION INSTALLATION 440-53 | | | * |
| 1 | 0600-250-01000 | PIN, ROLL 1/4 X 1 | 8 | 8 | 8 |
| 2 | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB | 4 | 4 | 4 |
| 3 | 1-533-010001 | NUT, WING 1/2-13 | 6 | 6 | 6 |
| 4 | 1-647-010004177 | PIN, SPRING SLOTTED 3/16 X 1-1/2 | 24 | 26 | 28 |
| 5 | 1-647-010004225 | PIN, ROLL 1/4 X 3 | 8 | 8 | 8 |
| 6 | 1-654-010055-07 | SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5 | 6 | 6 | 6 |
| 7 | 1-654-010061-05 | SCREW, HEX HEAD CAP 3/4-10 X 2 GR5 | 4 | 4 | 4 |
| 8 | 1-861-010032-15 | WASHER, FLAT 1/2W | 6 | 6 | 6 |
| 9 | 104253 | SPRING, COMPRESSION P/O EXT LOCK | 24 | 26 | 28 |
| 10 | 108859 | WELDMENT, BRACKET FLAG HOLDER | 6 | 6 | 6 |
| 11 | 118723 | PIN, SLIDE LOCK EXT | 8 | 8 | 8 |
| 12 | 118929 | PULLOUT ASSEMBLY LH | 7 | 8 | 10 |
| 13 | 118930 | PULLOUT ASSEMBLY RH | 7 | 8 | 10 |
| 14 | 120457 | PIN, P/O EXT LOCK | 24 | 26 | 28 |
| 15 | 120458 | PULLOUT ASSEMBLY FRT RH | 1 | 1 | 1 |
| 16 | 120459 | PULLOUT ASSEMBLY FRT LH | 1 | 1 | 1 |
| 17 | 120492 | EXT. WLDMT REAR WHEEL WELL | 2 | 2 | 2 |
| 18 | 131232 | PULLOUT WELDMENT AL FRT LH | 1 | 1 | 1 |
| 19 | 131233 | PULLOUT WELDMENT AL FRT RH | 1 | 1 | 1 |
| 20 | 126609 | EXTENSION WELDMENT FRT WHEEL WELL | 2 | 2 | 2 |
| 21 | 130584 | PULLOUT WELDMENT AL RH 36/14&14 | -- | 1 | -- |
| 22 | 130583 | PULLOUT WELDMENT AL LH 36/14&14 | -- | 1 | -- |
| 23 | 130546 | PULLOUT WELDMENT AL RH | 1 | 1 | 1 |
| 24 | 130547 | PULLOUT WELDMENT AL LH | 1 | 1 | 1 |
| 25 | ----- | FRAME WELDMENT | REF | REF | REF |
| 26 | 130585 | PULLOUT WELDMENT AL REAR LH | -- | 1 | -- |
| 27 | 130553 | RACK WELDMENT, PULLOUT | 1 | 1 | 1 |
| 28 | ----- | FRAME ASSEMBLY, G/N | REF | REF | REF |
| 29 | 130586 | PULLOUT WELDMENT AL REAR RH | -- | 1 | -- |
| 30 | 516-22PTL | RETAINING PIN MUD FLAP | 1 | 1 | 1 |
| 31 | CO-975-74-2000 | SPRING, COMPRESSION | 8 | 8 | 8 |
| 32 | 130548 | PULLOUT WELDMENT AL REAR RH | 1 | -- | 1 |
| 33 | 130549 | PULLOUT WELDMENT AL REAR LH | 1 | -- | 1 |
| 34 | 130544 | PULLOUT WELDMENT AL RH 27/10&10 | 1 | -- | -- |
| 35 | 130545 | PULLOUT WELDMENT AL LH 27/10&10 | 1 | -- | -- |

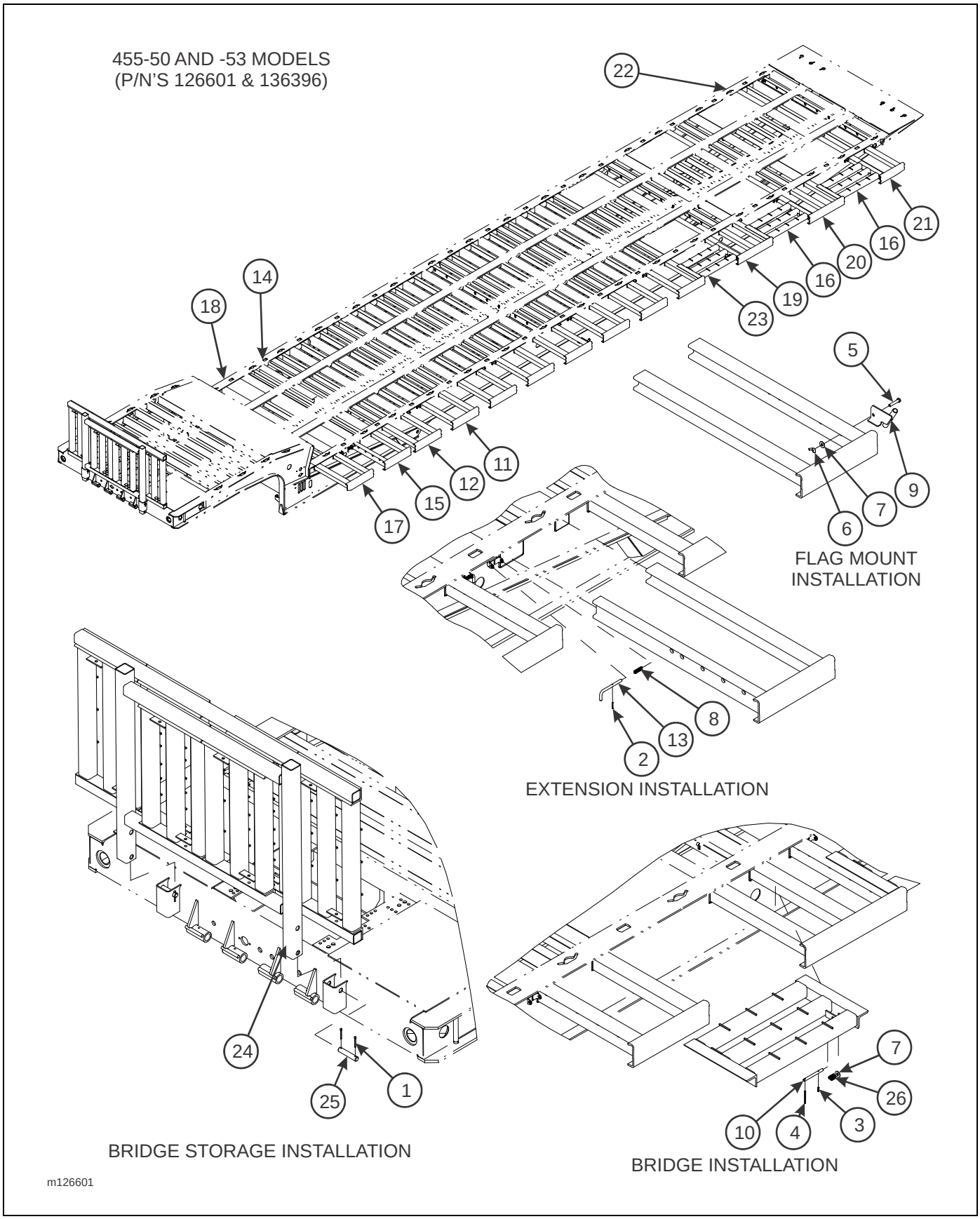



**Figure 2-68: Pullout Installation (455) (1 of 3)**

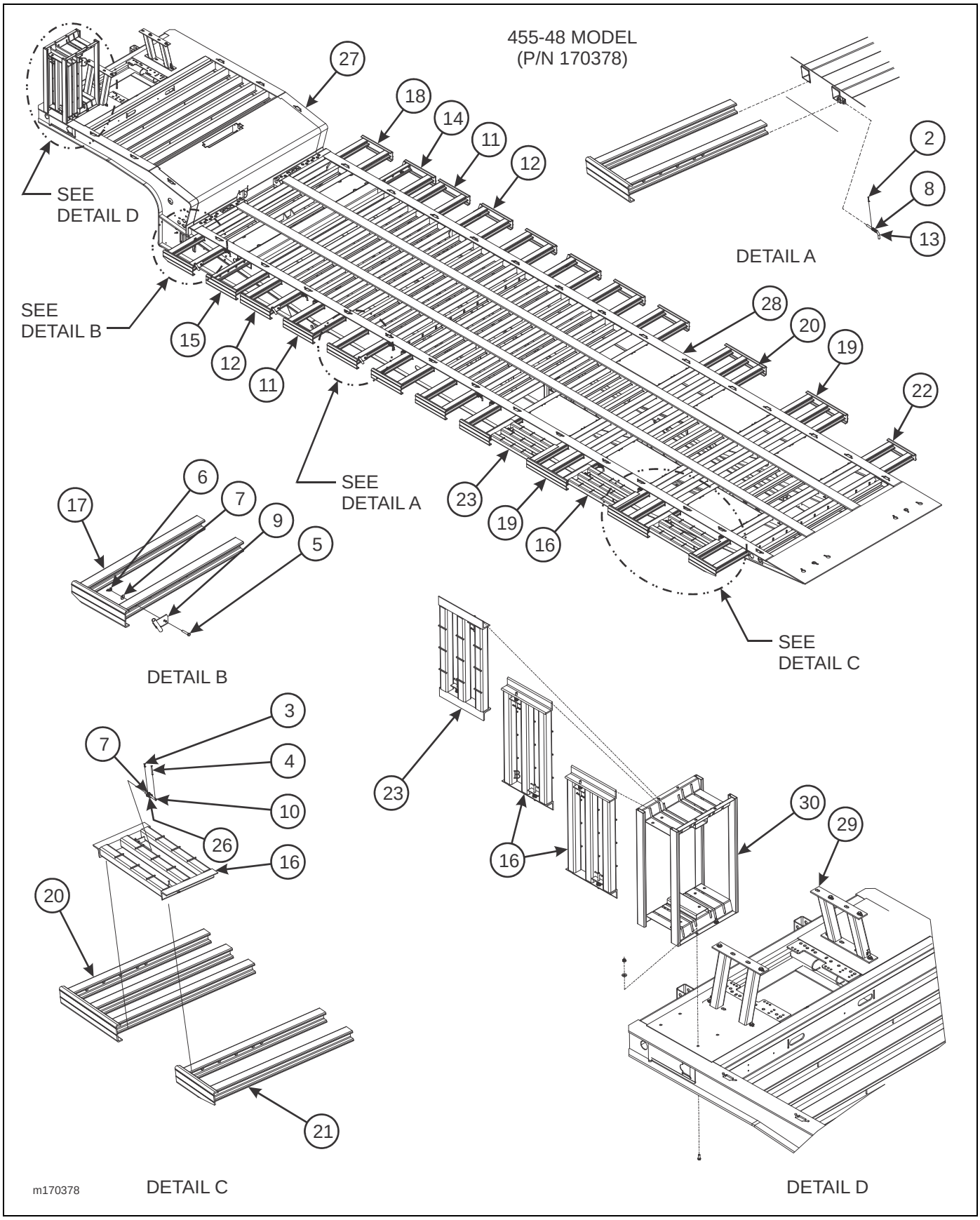



**Figure 2-69: Pullout Installation (455) (2 of 3)**

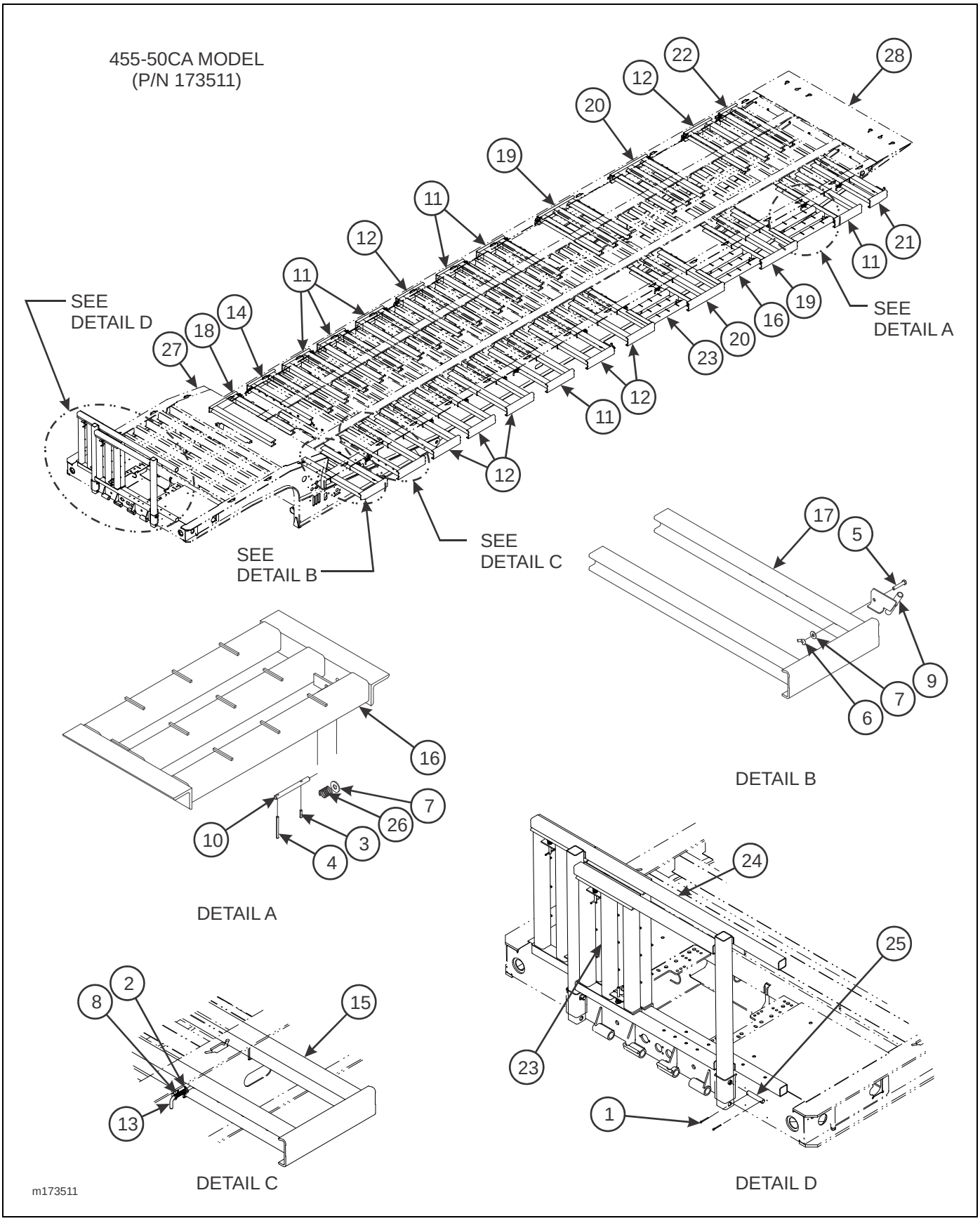



**Figure 2-70: Pullout Installation (455) (3 of 3)**

# PULLOUT INSTALLATION (455) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | | | |
|---|---|---|---|---|---|---|
| | 126601 | PULLOUT EXTENSION INSTALLATION 455-53 | * | | | |
| | 136396 | PULLOUT EXTENSION INSTALLATION 455-50 | | * | | |
| | 170378 | PULLOUT EXTENSION INSTALLATION 455-48 | | | * | |
| | 173511 | PULLOUT EXTENSION INSTALLATION 455-50CA | | | | * |
| 1 | 1-557-010362-63 | PIN, COTTER 1/4 X 2 | 4 | 4 | -- | 4 |
| 2 | 1-647-010004177 | PIN, SPRING SLOTTED 3/16 X 1-1/2 | 26 | 24 | 22 | -- |
| 3 | 1-647-010004213 | PIN, SPRING SLOTTED 1/4 X1 | 12 | -- | 12 | -- |
| | 0600-250-01000 | PIN, ROLL 1/4 X 1 | -- | 12 | -- | 12 |
| 4 | 1-647-010004225 | PIN, ROLL 1/4 X 3 | 12 | 12 | 12 | 12 |
| 5 | 1-654-010055-07 | SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5 | 6 | 6 | 6 | 6 |
| 6 | 1-533-010001 | NUT, WING 1/2-13 | 6 | 6 | 6 | 6 |
| 7 | 1-861-010032-15 | WASHER, FLAT 1/2W | 18 | 18 | 18 | 18 |
| 8 | 104253 | SPRING, COMPRESSION P/O EXT LOCK | 26 | 24 | 22 | 24 |
| 9 | 108859 | WELDMENT, BRACKET FLAG HOLDER | 6 | 6 | 6 | 6 |
| 10 | 118723 | PIN, SLIDE LOCK EXT | 12 | 12 | 12 | 12 |
| 11 | 118929 | PULLOUT ASSEMBLY LH | 8 | 6 | 6 | 7 |
| 12 | 118930 | PULLOUT ASSEMBLY RH | 8 | 6 | 6 | 7 |
| 13 | 120457 | PIN, P/O EXT LOCK | 26 | 24 | 22 | 24 |
| 14 | 120458 | PULLOUT ASSEMBLY FRT RH | 1 | 1 | 1 | 1 |
| 15 | 120459 | PULLOUT ASSEMBLY FRT LH | 1 | 1 | 1 | 1 |
| 16 | 120492 | EXT. WLDMT REAR WHEEL WELL | 4 | 4 | 4 | 4 |
| 17 | 122913 | PULLOUT CLIPPED RH | 1 | 1 | 1 | 1 |
| 18 | 122916 | PULLOUT CLIPPED | 1 | 1 | 1 | 1 |
| 19 | 126602 | PULLOUT WELDMENT AL WHEEL WELL RH | 2 | 2 | 2 | 2 |
| 20 | 126603 | PULLOUT WELDMENT AL WHEEL WELL LH | 2 | 2 | 2 | 2 |
| 21 | 126605 | PULLOUT WELDMENT AL REAR LH | 1 | 1 | 1 | -- |
| | 130585 | PULLOUT WELDMENT AL REAR LH | -- | -- | -- | 1 |
| 22 | 126606 | PULLOUT WELDMENT AL REAR RH | 1 | 1 | 1 | -- |
| | 130586 | PULLOUT WELDMENT AL REAR RH | -- | -- | -- | 1 |
| 23 | 126609 | EXTENSION WELDMENT FRT WHEEL WELL | 2 | 2 | 2 | 2 |
| 24 | 126610 | RACK WLDMT STORAGE EXT BRIDGES | 1 | 1 | -- | 1 |
| 25 | 2-557-010006 | PIN, 1 X 6-1/2 | 2 | -- | -- | -- |
| | 6-557-010163 | PIN, 1 X 5-1/8 | -- | 2 | -- | 2 |
| 26 | CO-975-74-2000 | SPRING, COMPRESSION | 12 | 12 | 12 | 12 |
| 27 | ----- | FRAME ASSEMBLY, G/N | REF | REF | REF | REF |
| 28 | ----- | FRAME WELDMENT | REF | REF | REF | REF |
| 29 | 136578 | UPPER DECK STAND INSTALLATION | -- | -- | REF | -- |
| 30 | 136828 | RACK, UPPER DECK EXTENSION BRIDGE STORAGE (USED W/ ENG PKG) (SEE PAGE 2-127) | -- | -- | 1 | -- |

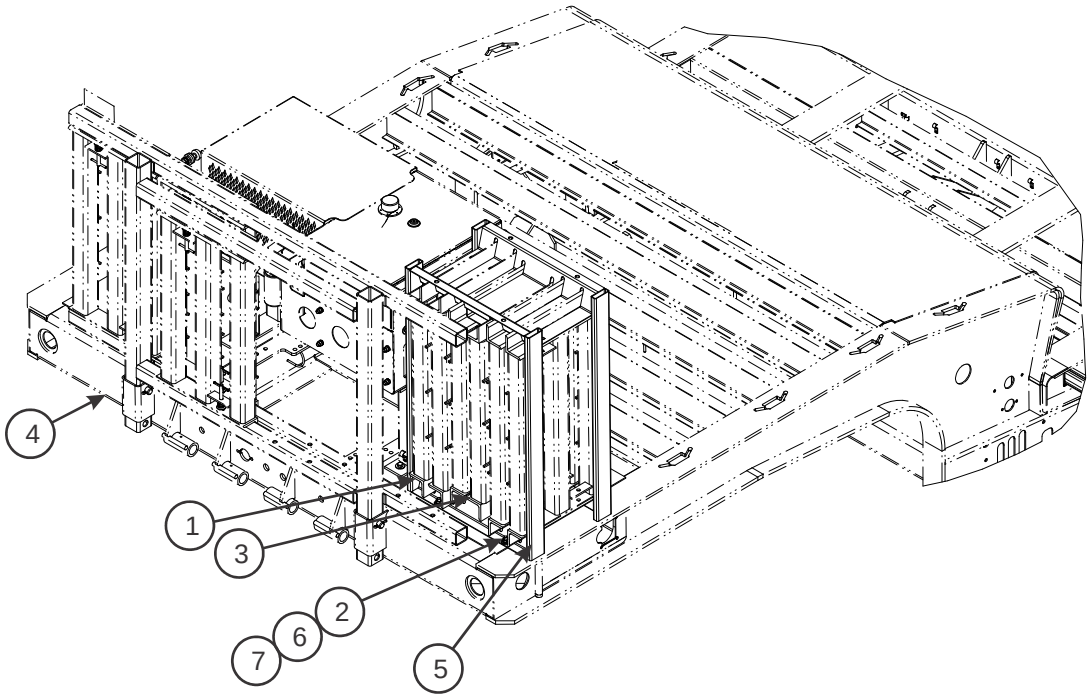



**Figure 2-71: Upper Deck Extension Bridge Storage Rack (Option)**

# UPPER DECK EXTENSION BRIDGE STORAGE RACK (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 136828 | UPPER DECK EXTENSION BRIDGE STORAGE RACK (OPTION) | |
| 1 | 120492 | EXTENSION WELDMENT, REAR WHEEL WELL | REF |
| 2 | 124971 | NUT, FLANGE HEAD SPIRALOCK 1/2-13 | 4 |
| 3 | 126609 | EXTENSION WELDMENT, FRONT WHEEL WELL | REF |
| 4 | 136396 | P/O EXTENSION INSTALLATION (SEE PAGE 2-125) | REF |
| 5 | 136829 | RACK WELDMENT U/D STOR EXT BRIDGE | 1 |
| 6 | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5 | 4 |
| 7 | 1-861-010032-15 | WASHER, FLAT 1/2W | 4 |

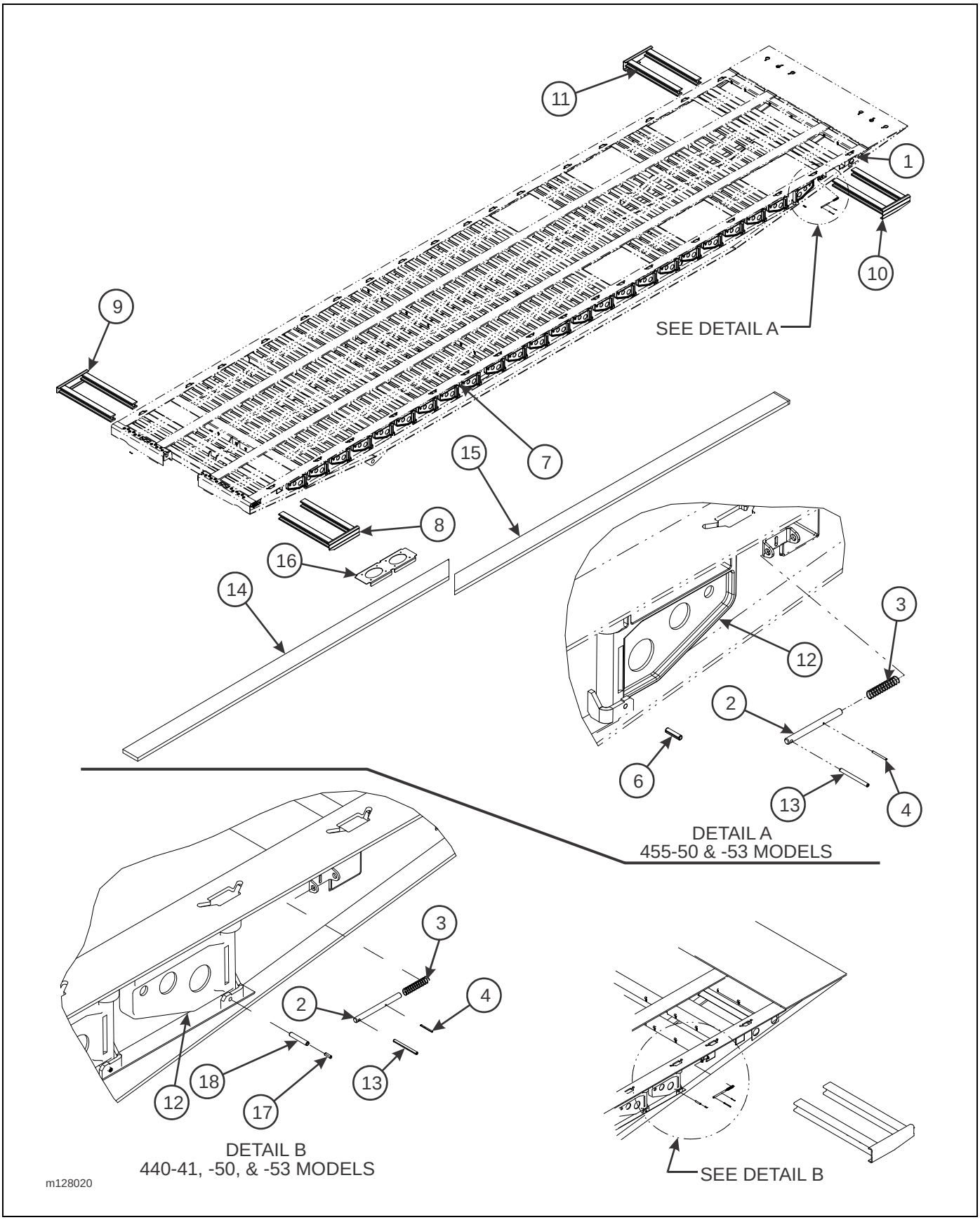



**Figure 2-72: Outrigger Installation (Option)**

# OUTRIGGER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 128020 | OUTRIGGER INSTALLATION (455-50) | * | | | | | |
| | 136399 | OUTRIGGER INSTALLATION (455-53) | | * | | | | |
| | 137894 | OUTRIGGER INSTALLATION (440-48) | | | * | | | |
| | 150188 | OUTRIGGER INSTALLATION (440-53) | | | | * | | |
| | 152673 | OUTRIGGER INSTALLATION (440-41) | | | | | * | |
| | 141628 | OUTRIGGER PLANKS | | | | | | * |
| 1 | 1-343-010007 | GROMMET | 2 | 2 | -- | -- | -- | -- |
| 2 | 128539 | PIN, SLIDE LOCK | 4 | 4 | 4 | 4 | 4 | -- |
| 3 | 104253 | SPRING, COMPRESSION P/O EXT LOCK | 4 | 4 | 4 | 4 | 4 | -- |
| 4 | 125520 | ROLL PIN, SLOTTED 1/8 X 1-1/2 | 4 | 4 | 4 | 4 | 4 | -- |
| 6 | 0600-375-01500 | ROLL PIN, SLOTTED 3/8 X 1-1/2 | 48 | 52 | -- | -- | -- | -- |
| 7 | ----- | FRAME WELDMENT | REF | REF | REF | REF | REF | REF |
| 8 | 128226 | PULLOUT WELDMENT FRONT LH | 1 | 1 | -- | -- | -- | -- |
| | 137892 | PULLOUT WELDMENT ALUM FRT LH | -- | -- | 1 | 1 | 1 | -- |
| 9 | 128227 | PULLOUT WELDMENT FRONT RH | 1 | 1 | -- | -- | -- | -- |
| | 137893 | PULLOUT WELDMENT ALUM FRT RH | -- | -- | 1 | 1 | 1 | -- |
| 10 | 128228 | PULLOUT WELDMENT REAR LH | 1 | 1 | 1 | 1 | 1 | -- |
| 11 | 128229 | PULLOUT WELDMENT REAR RH | 1 | 1 | 1 | 1 | 1 | -- |
| 12 | 167-0022 | OUTRIGGER CAST FOR 10 CHANNEL | 48 | 52 | 44 | 52 | 34 | -- |
| 13 | 1-647-010004225 | ROLL PIN, SLOTTED 1/4 X 3 | 4 | 4 | 4 | 4 | 4 | -- |
| 14 | 141629 | PLANK, OUTRIGGER FRONT | -- | -- | -- | -- | -- | 2 |
| 15 | 141636 | PLANK, OUTRIGGER REAR | -- | -- | -- | -- | -- | 2 |
| 16 | 141637 | SUPPORT, OUTRIGGER PLANK | -- | -- | -- | -- | -- | 2 |
| 17 | 127711 | ROLL PIN, SLOTTED 1/4 X 3/4 (137894,150188,152673) | -- | -- | 44 | 52 | 34 | -- |
| 18 | 127712 | ROLL PIN, SLOTTED 3/8 X 2-1/4 | -- | -- | 44 | 52 | 34 | -- |

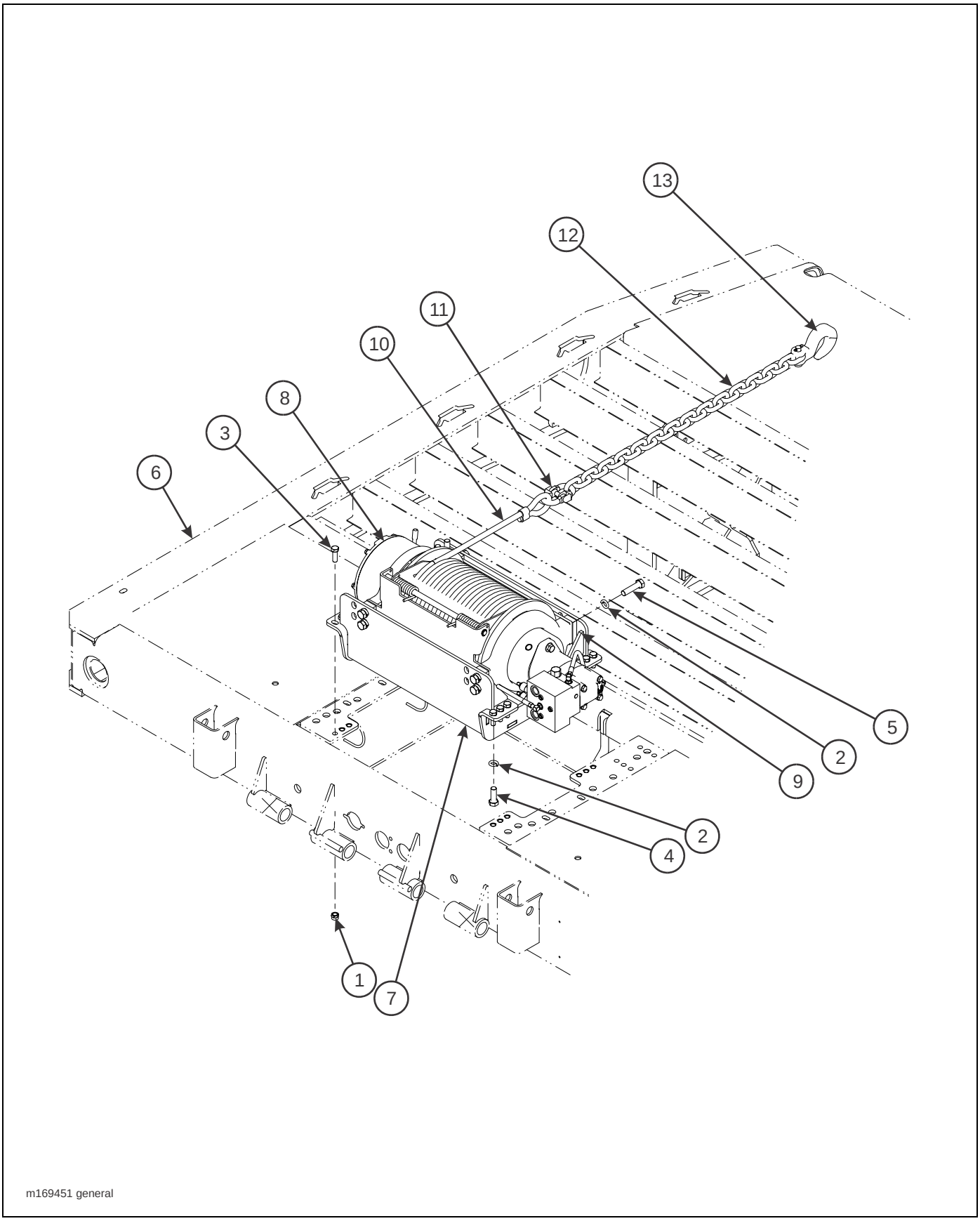



**Figure 2-73: 20K Winch Installation, General Items (Warn)**

# 20K WINCH INSTALLATION, GENERAL ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 151818 | WINCH INSTALLATION, 20K STD. | * | | |
| | 169452 | WINCH INSTALLATION, 20K ARCTIC | | * | |
| | 169453 | WINCH INSTALLATION, 20K HD | | | * |
| 1 | 1-512-010002-09 | NUT, HEX LOCK 1/2-13 GRC | 12 | 12 | 12 |
| 2 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 16 | 16 | 16 |
| 3 | 108439 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR8 | 12 | 12 | 12 |
| 4 | 109740 | SCREW, HEX HEAD CAP 5/8-11 X 1-3/4 GR8 | 8 | 8 | 8 |
| 5 | 113299 | SCREW, HEX HEAD CAP 5/8-11 X 2-1/2 GR8 | 8 | 8 | 8 |
| 6 | ----- | GOOSENECK WELDMENT | REF | REF | REF |
| 7 | 151817 | MOUNT WELDMENT, WINCH WARN | 1 | 1 | 1 |
| 8 | 151819 | WINCH, 20K WARN AR KO (SEE PAGE 2-135) | 1 | 1 | 1 |
| 9 | 154234 | SPACER, WINCH | 4 | 4 | 4 |
| 10 | 3-155-010018-6 | CABLE, 5/8 X 85' | REF | REF | REF |
| 11 | 3-174-010038 | CHAIN LINK, CONNECTING 1/2 | 1 | 1 | 1 |
| 12 | 3-174-010039036 | CHAIN, 1/2 X 36 | 1 | 1 | 1 |
| 13 | 7HCGHT500 | HOOK, CLEVIS GRAB 1/2 | 1 | 1 | 1 |

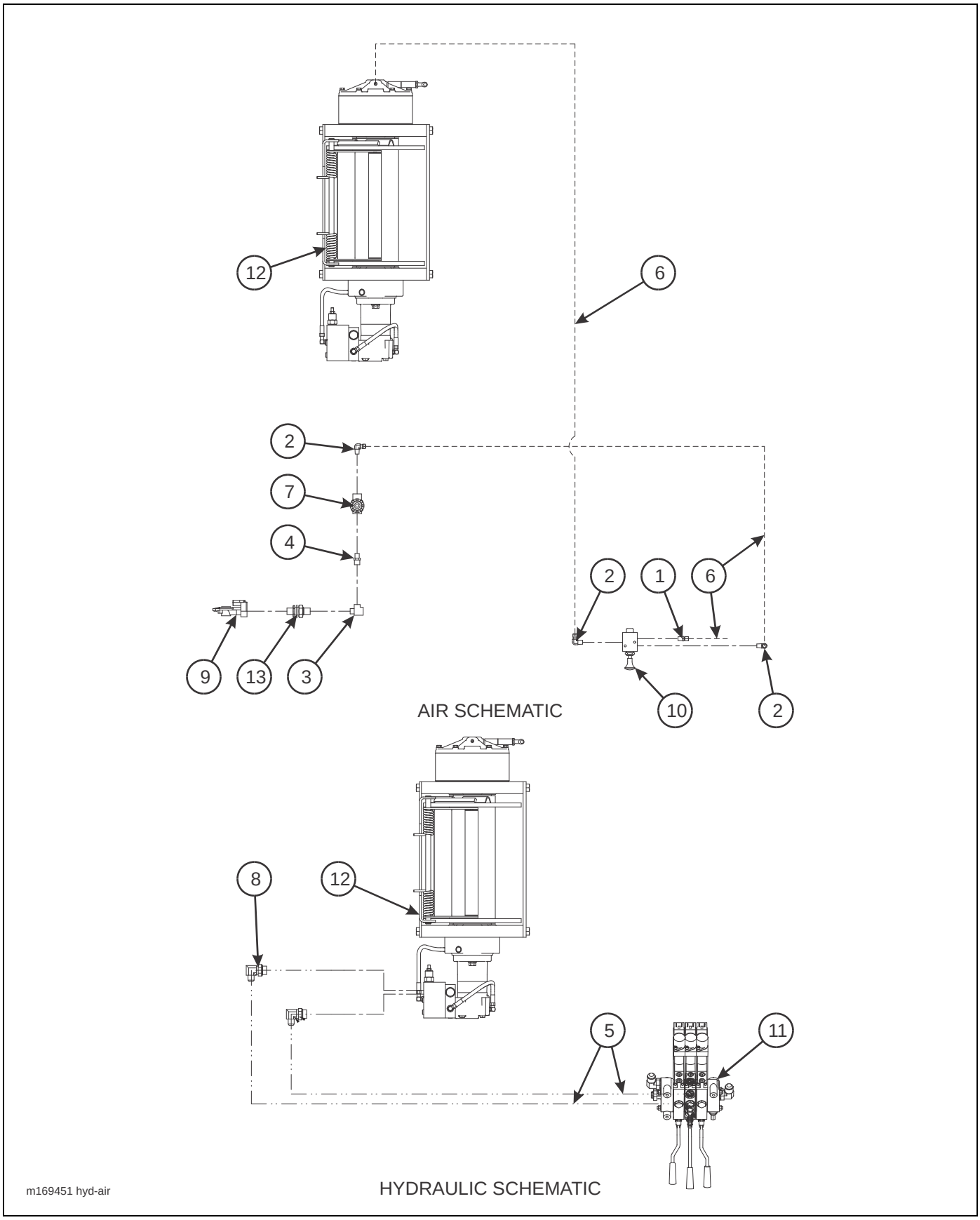



**Figure 2-74: 20K Winch Installation, Hydraulic/Air Items (Warn)**

# 20K WINCH INSTALLATION, HYDRAULIC/AIR ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 151818 | WINCH INSTALLATION, 20K STD. | * | | |
| | 169452 | WINCH INSTALLATION, 20K ARCTIC | | * | |
| | 169453 | WINCH INSTALLATION, 20K HD | | | * |
| 1 | 1-297-010007-05 | FITTING, AIR | 1 | -- | 1 |
| 2 | 1-297-010008-07 | FITTING, AIR 90 | 3 | -- | 3 |
| 3 | 1-297-010018-03 | FITTING, BRS PIPE ST TEE | REF | REF | REF |
| 4 | 1-297-010019-05 | FITTING, BRS PIPE HEX | 1 | 1 | 1 |
| 5 | 1-397-010302172 | HOSE ASSEMBLY 1/2 X 172 | 2 | -- | 2 |
| | 1-397-010302220 | HOSE ASSEMBLY 1/2 X 220 | REF | -- | 2 |
| | 139928 | HOSE, 1/2 X 172 ARCTIC | -- | 2 | -- |
| 6 | 1-833-010001 | TUBING, NYLON 1/4 OD | AR | -- | AR |
| | 126629 | TUBING, NYLON 1/4 OD ARCTIC | -- | AR | -- |
| 7 | 905-54-107 | BRAKE PROTECTION VALVE | 1 | 1 | 1 |
| | 167692 | FILTER | 1 | 1 | 1 |
| 8 | 2062-12-8S | ADAPTER, 90 | 2 | 2 | 2 |
| 9 | 108801 | GLAD HAND, RED AIR | REF | REF | REF |
| 10 | 134657 | VALVE, AIR 3 WAY/2 POS | 1 | 1 | 1 |
| 11 | 139525 | VALVE ASSEMBLY, THREE SPOOL | REF | REF | REF |
| 12 | 151819 | WINCH, 20K WARN AR KO (SEE PAGE 2-135) | REF | REF | REF |
| 13 | 55B61 | FRAME UNION | REF | REF | REF |

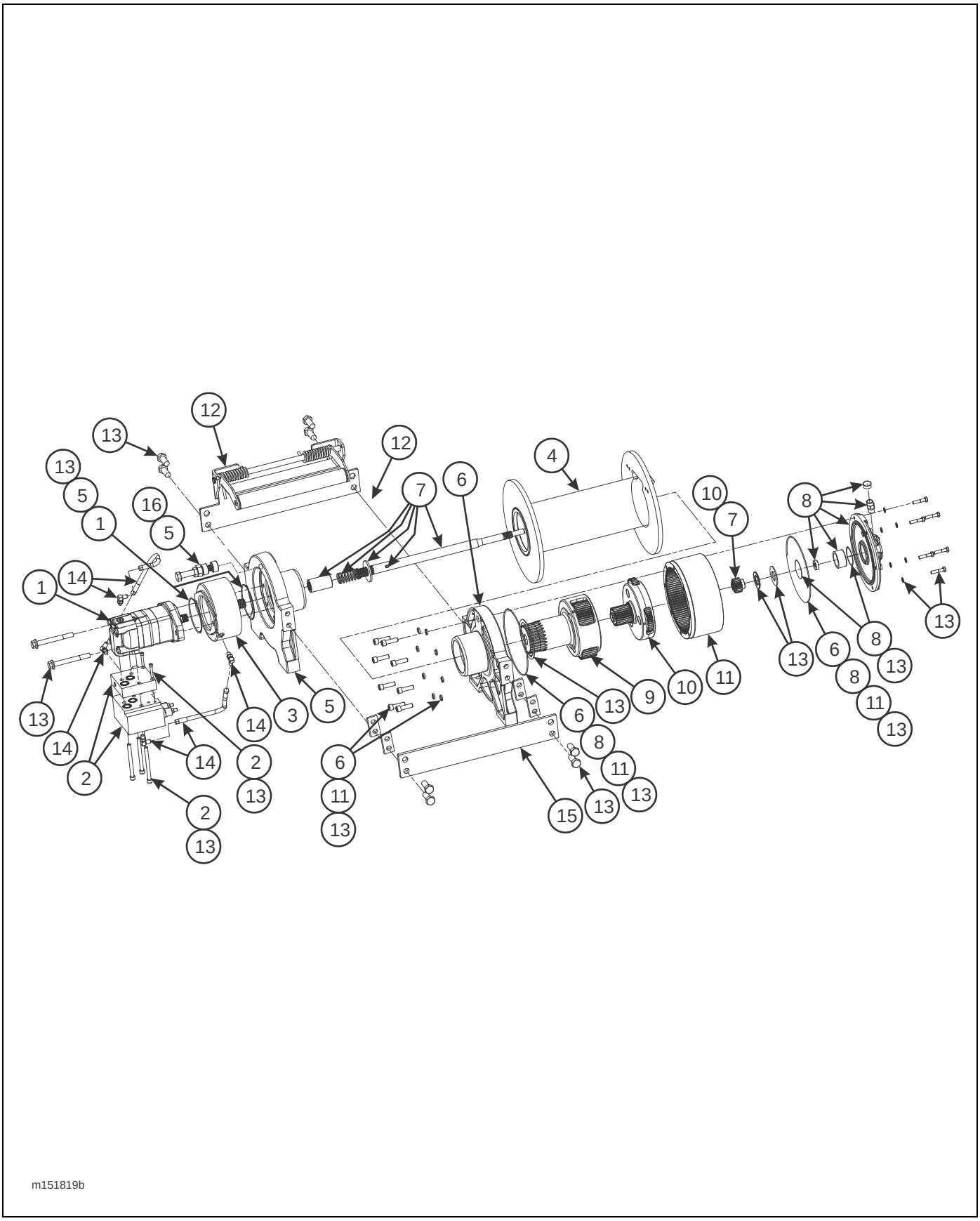



**Figure 2-75: 20K Winch Items (Warn)**

# 20K WINCH ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 151819 | WINCH, 20K WARN AIR KICKOUT | |
| 1 | 167818 | SERVICE KIT - MOTOR HYDRAULIC 11.9CI | 1 |
| 2 | 161590 | SERVICE KIT - MANIFOLD HYDRAULIC | 1 |
| 3 | 162207 | SERVICE KIT - BRAKE ASSEMBLY | 1 |
| 4 | 162208 | SERVICE KIT - DRUM ASSEMBLY 20K LONG | 1 |
| 5 | 167819 | SERVICE KIT - DRUM RETARDER DRUM SUPPORT | 1 |
| 6 | 162210 | SERVICE KIT - DRUM SUPPORT, GEAR END | 1 |
| 7 | 162211 | SERVICE KIT - DRIVE SHAFT, LONG | 1 |
| 8 | 167820 | SERVICE KIT - END HSG ASSY AIR | 1 |
| 9 | 162213 | SERVICE KIT - CARRIER, STAGE 2 6.0-4.75 | 1 |
| 10 | 162214 | SERVICE KIT - CARRIER, STAGE 1 6.0-4.75 | 1 |
| 11 | 162215 | SERVICE KIT - RING GEAR | 1 |
| 12 | 162216 | SERVICE KIT - TENSIONER LONG | 1 |
| 13 | 162217 | SERVICE KIT - HARDWARE SEAL | 1 |
| 14 | 162218 | SERVICE KIT - HOSE HYDRAULIC | 1 |
| 15 | 162219 | SERVICE KIT - TIE PLATE LONG | 1 |
| 16 | 167821 | SERVICE KIT - DRUM RETARDER | 1 |
| 17 | 162220 | WIRE ROPE ASSEMBLY 9/16 X 245’ (NOT SHOWN) | 1 |

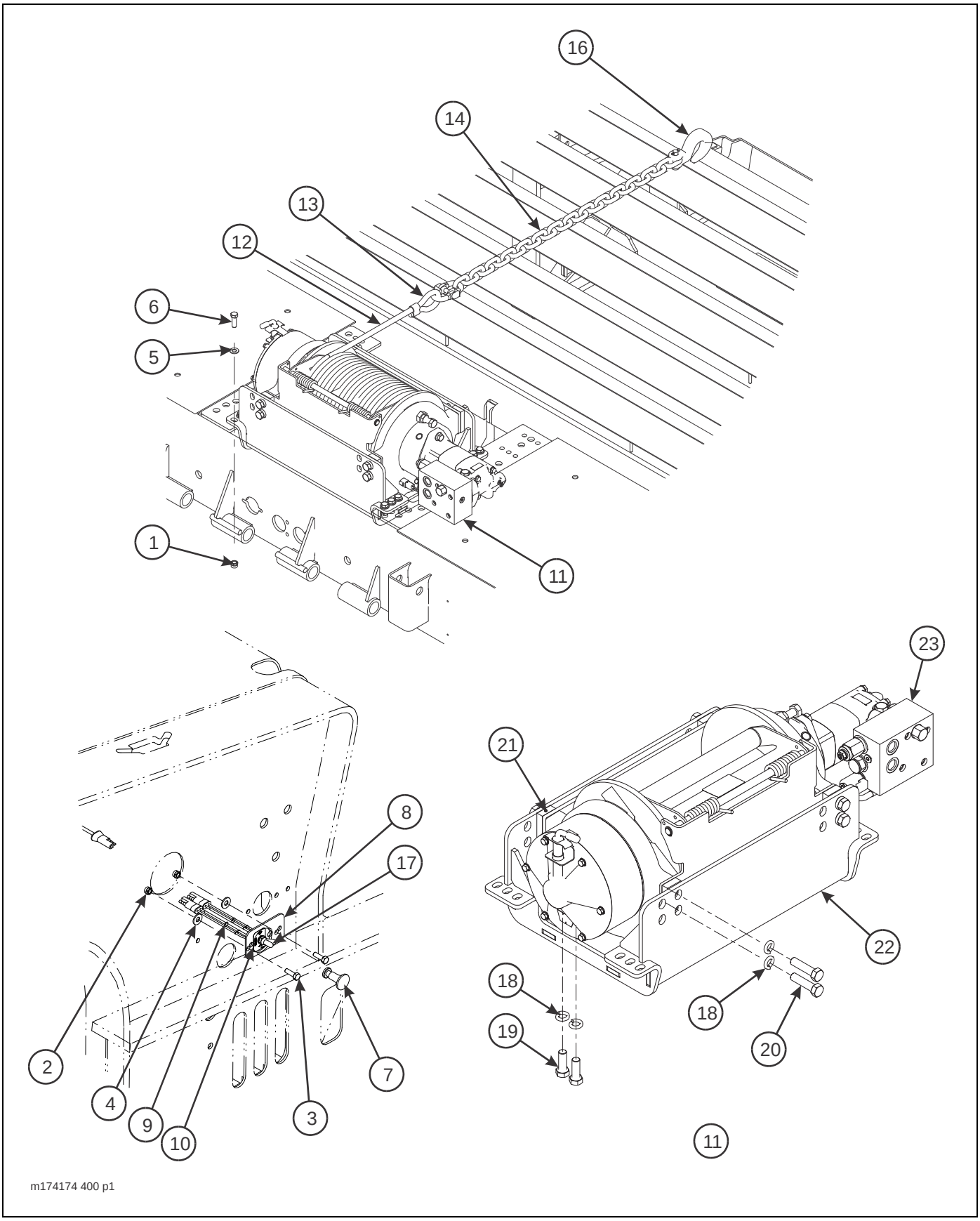



**Figure 2-76: Winch Installation, 20K 2 Speed General Items (Warn)**

# WINCH INSTALLATION, 20K 2 SPEED GENERAL ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 167522 | WINCH INSTALLATION, 20K 2 SPEED | * | |
| | 174175 | WINCH INSTALLATION, 20K 2 SPEED | | * |
| 1 | 1-512-010002-09 | NUT, HEX LOCK 1/2-13 GRC | 12 | 12 |
| 2 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 | 2 |
| 3 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 2 | 2 |
| 4 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 | 2 |
| 5 | 1-861-010032-14 | WASHER, FLAT 1/2 | 12 | 12 |
| 6 | 108439 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR8 | 12 | 12 |
| 7 | 134657 | VALVE, AIR 3 WAY/2 POS | REF | REF |
| 8 | 137987 | MOUNT, ELECTRICAL SWITCH | 1 | 1 |
| 9 | 150117 | TOGGLE SWITCH SEALED SPST | REF | REF |
| 10 | 174043 | DECAL, WINCH HI/LO | 1 | 1 |
| 11 | 174553 | 20K WARN WINCH ASSEMBLY (ITEMS 18 - 23) | 1 | 1 |
| 12 | 3-155-010018-6 | CABLE, 5/8 X 85’ | REF | REF |
| 13 | 3-174-010038 | CHAIN LINK, CONNECTING 1/2 | 1 | 1 |
| 14 | 3-174-010039036 | CHAIN, 1/2 X 36 | 1 | 1 |
| 15 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXTENSION (NOT SHOWN) | 1 | 1 |
| 16 | 7HCGHT500 | HOOK, CLEVIS GRAB 1/2 | 1 | 1 |
| 17 | 81264 | RUBBER BOOT FOR ELECT SWITCH | REF | REF |
| 18 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 16 | 16 |
| 19 | 109740 | SCREW, HEX HEAD CAP 5/8-11 X 1-3/4 GR8 | 8 | 8 |
| 20 | 113299 | SCREW, HEX HEAD CAP 5/8-11 X 2-1/2 GR8 | 8 | 8 |
| 21 | 154234 | SPACER, WINCH | 4 | 4 |
| 22 | 165429 | MOUNT WELDMENT, WINCH WARN | 1 | 1 |
| 23 | 174551 | WARN WINCH INSTALLATION (SEE PAGE 2-141) | 1 | 1 |

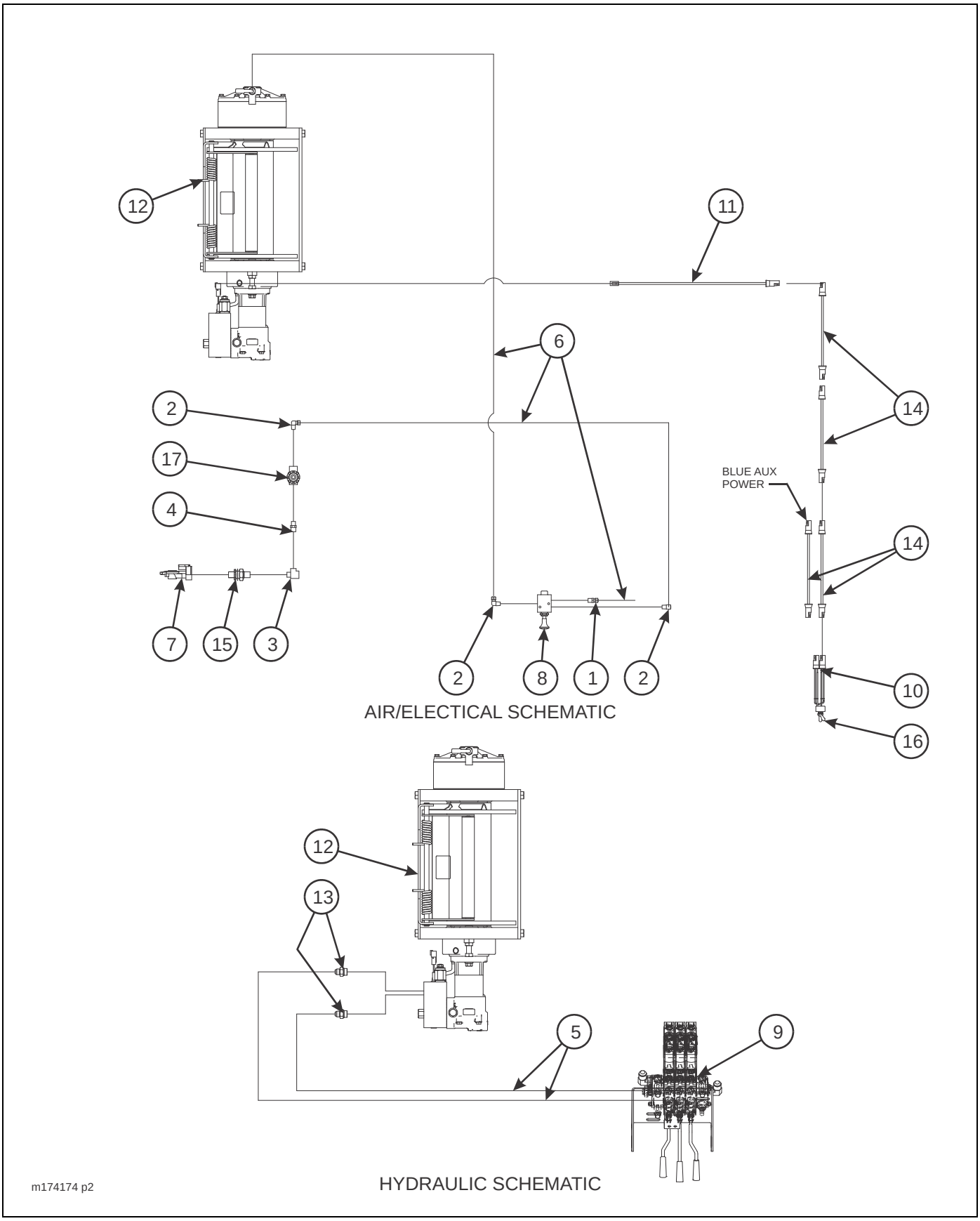



**Figure 2-77: Winch Installation, 20K 2 Speed General Items (Warn)**

# WINCH INSTALLATION, 20K 2 SPEED HYDRAULIC/ELECTRICAL ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 167522 | WINCH INSTALLATION, 20K 2 SPEED | * | |
| | 174175 | WINCH INSTALLATION, 20K 2 SPEED | | * |
| 1 | 1-297-010007-05 | FITTING, AIR | 1 | 1 |
| 2 | 1-297-010008-07 | FITTING, AIR 90 | 3 | 3 |
| 3 | 1-297-010018-03 | FITTING, BRASS PIPE TEE | REF | REF |
| 4 | 1-297-010019-05 | FITTING BRASS PIPE HEX | 1 | 1 |
| 5 | 1-397-010302220 | HOSE ASSEMBLY 1/2 X 220 | -- | 2 |
| | 174188 | HOSE ASSEMBLY 1/2 X 182 | 2 | -- |
| 6 | 1-833-010001 | TUBING, NYLON 1/4 OD | AR | AR |
| 7 | 108801 | GLAD HAND, RED AIR | REF | REF |
| 8 | 134657 | VALVE, AIR 3 WAY/2 POS | 1 | 1 |
| 9 | 139525 | VALVE ASSEMBLY, 3 SPOOL | REF | REF |
| 10 | 150117 | TOGGLE SWITCH SEALED SPST | REF | REF |
| 11 | 164053 | HARNESS, BRANCH WORK LIGHT 102’” | 1 | 1 |
| 12 | 174553 | 20K WARN WINCH ASSEMBLY (SEE PAGE 2-137) | REF | REF |
| 13 | 202702-10-8S | ADAPTER | 2 | 2 |
| 14 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXTENSION | 4 | 4 |
| 15 | 55B61 | FRAME UNION | REF | REF |
| 16 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 | 1 |
| 17 | 905-54-107 | BRAKE PROTECTION VALVE | 1 | 1 |

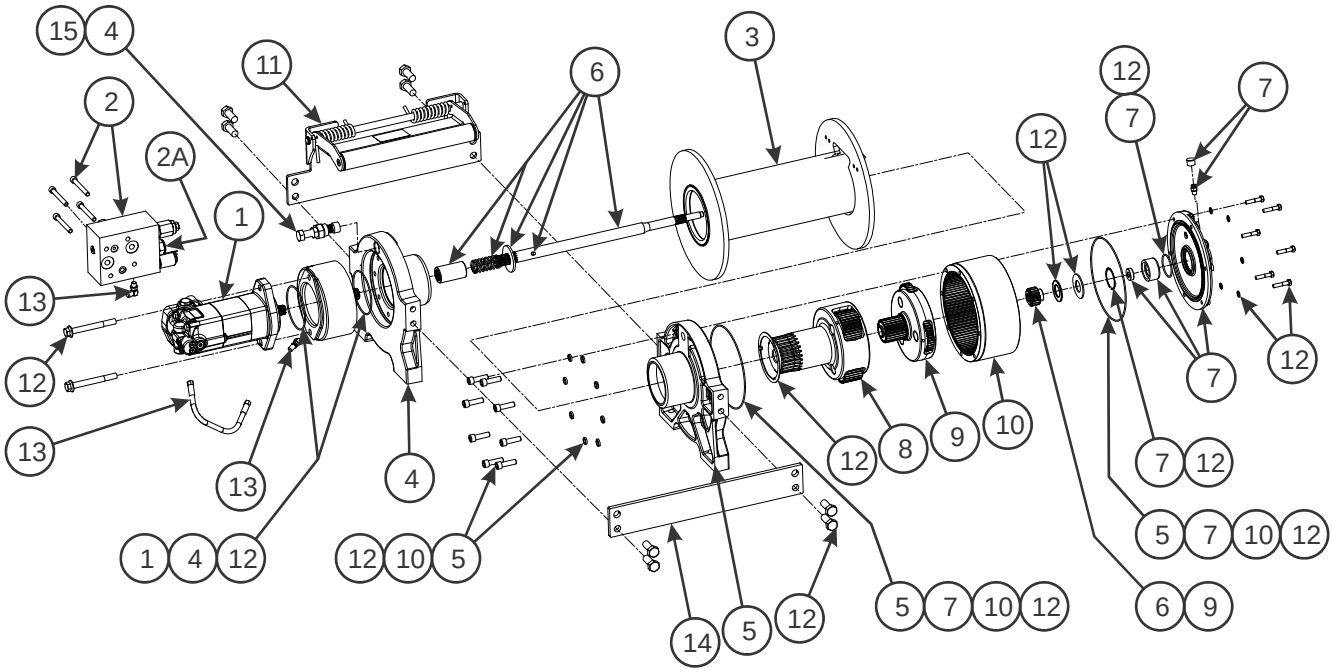



**Figure 2-78: 20K Winch Items (Warn)**

# 20K 2 SPEED WINCH ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 167521 | WINCH, 20K WARN 2 SPEED | |
| 1 | 178718 | SERVICE KIT, MOTOR HYDRAULIC 11.9 CI-SPD | 1 |
| 2 | 178715 | SERVICE KIT, MANIFOLD HYDRAULIC | 1 |
| 2A | 199104 | SOLENOID FOR 2SP WARN, 20K-30K | 1 |
| 3 | 162208 | SERVICE KIT, DRUM ASSEMBLY 20K LONG | 1 |
| 4 | 178999 | SERVICE KIT, DRUM RETARDER DRUM SUPPORT | 1 |
| 5 | 162210 | SERVICE KIT, DRUM SUPPORT GEAR END | 1 |
| 6 | 162211 | SERVICE KIT, DRIVESHAFT LONG | 1 |
| 7 | 162941 | SERVICE KIT, END HOUSING ASSEMBLY AIR | 1 |
| 8 | 162213 | SERVICE KIT, CARRIER STAGE 2-6.0-4.75 | 1 |
| 9 | 162214 | SERVICE KIT, STAGE 1-6.0-4.75 | 1 |
| 10 | 162215 | SERVICE KIT, RING GEAR | 1 |
| 11 | 162216 | SERVICE KIT, TENSIONER LONG | 1 |
| 12 | 179000 | SERVICE KIT, HARDWARE SEAL | 1 |
| 13 | 162218 | SERVICE KIT, HOSE HYDRAULIC | 1 |
| 14 | 162219 | SERVICE KIT, TIE PLATE LONG | 1 |
| 15 | 179001 | SERVICE KIT, DRUM RETARDER | 1 |
| 16 | 162220 | SERVICE KIT, WIRE ROPE ASSEMBLY 9/16 X 245’ | 1 |
| 17 | 162207 | SERVICE KIT, BRAKE ASSEMBLY | 1 |

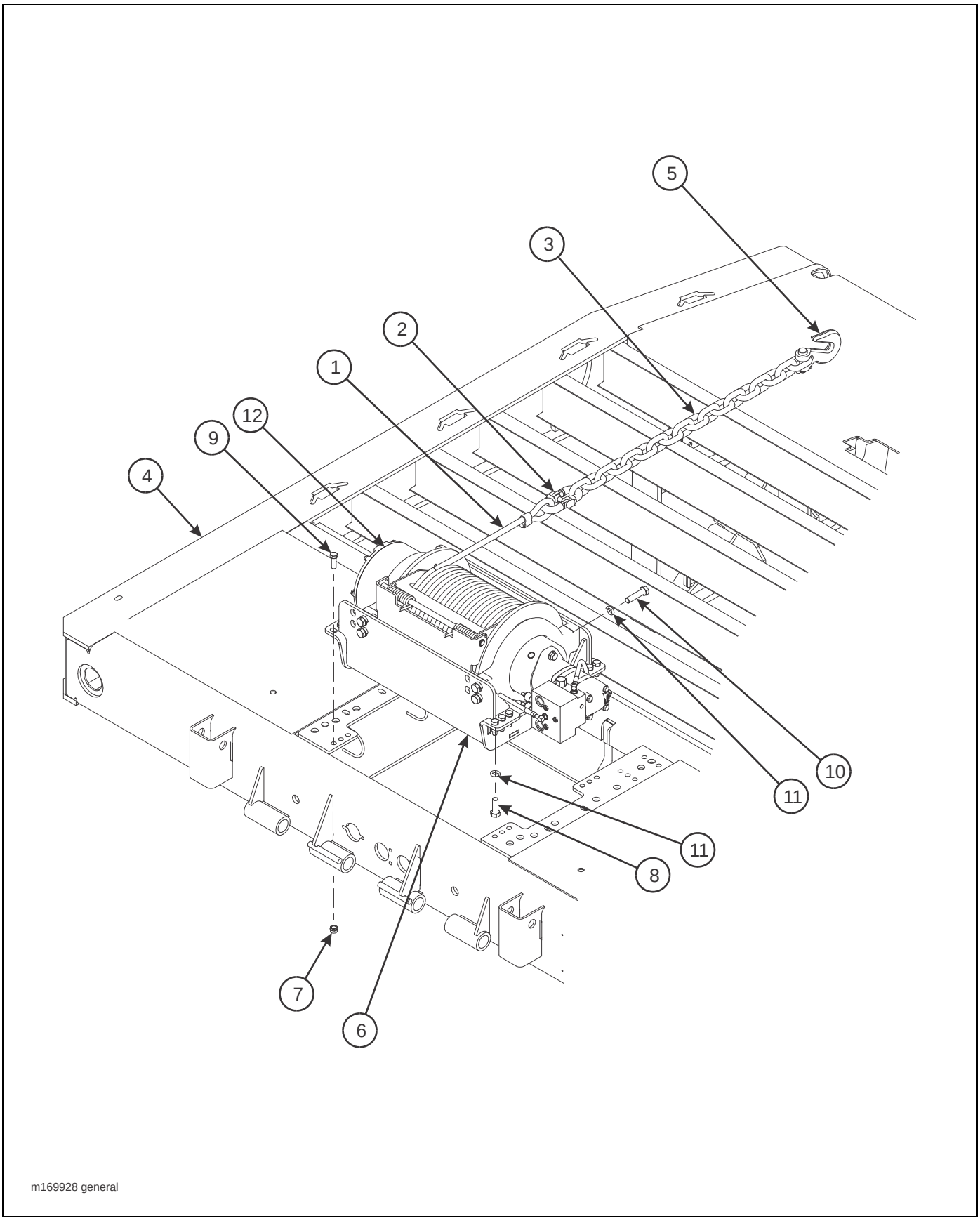



**Figure 2-79: 30KWinch Installation, General Items (Warn)**

# 30K WINCH INSTALLATION, GENERAL ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 155411 | WINCH INSTALLATION, 30K WARN STD | * | | |
| | 169929 | WINCH INSTALLATION, 30K WARN HD | | * | |
| | 169930 | WINCH INSTALLATION, 30K WARN ARCTIC | | | * |
| 1 | 132833 | CABLE ASSEMBLY, 5/8 X 85 FLEX-X9 | REF | REF | REF |
| 2 | 3-174-010059 | CHAIN LINK CONNECTING 5/8 | 1 | 1 | 1 |
| 3 | 3-174-010039036 | CHAIN, 1/2 X 36 | 1 | 1 | 1 |
| 4 | ----- | GOOSENECK WELDMENT | REF | REF | REF |
| 5 | 1-382-010035-06 | HOOK, CLEVIS GRAB 5/8 GRD80 | 1 | 1 | 1 |
| 6 | 151817 | MOUNT WELDMENT, WINCH WARN | 1 | 1 | 1 |
| 7 | 1-512-010002-09 | NUT, HEX LOCK 1/2-13 GRC | 12 | 12 | 12 |
| 8 | 109740 | SCREW, HEX HEAD CAP 5/8-11 X 1-3/4 GR8 | 8 | 8 | 8 |
| 9 | 108439 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR8 | 12 | 12 | 12 |
| 10 | 113299 | SCREW, HEX HEAD CAP 5/8-11 X 2-1/2 GR8 | 8 | 8 | 8 |
| 11 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 16 | 16 | 16 |
| 12 | 155410 | WINCH, 30K WARN AIR KO (SEE PAGE 2-151) | 1 | 1 | 1 |

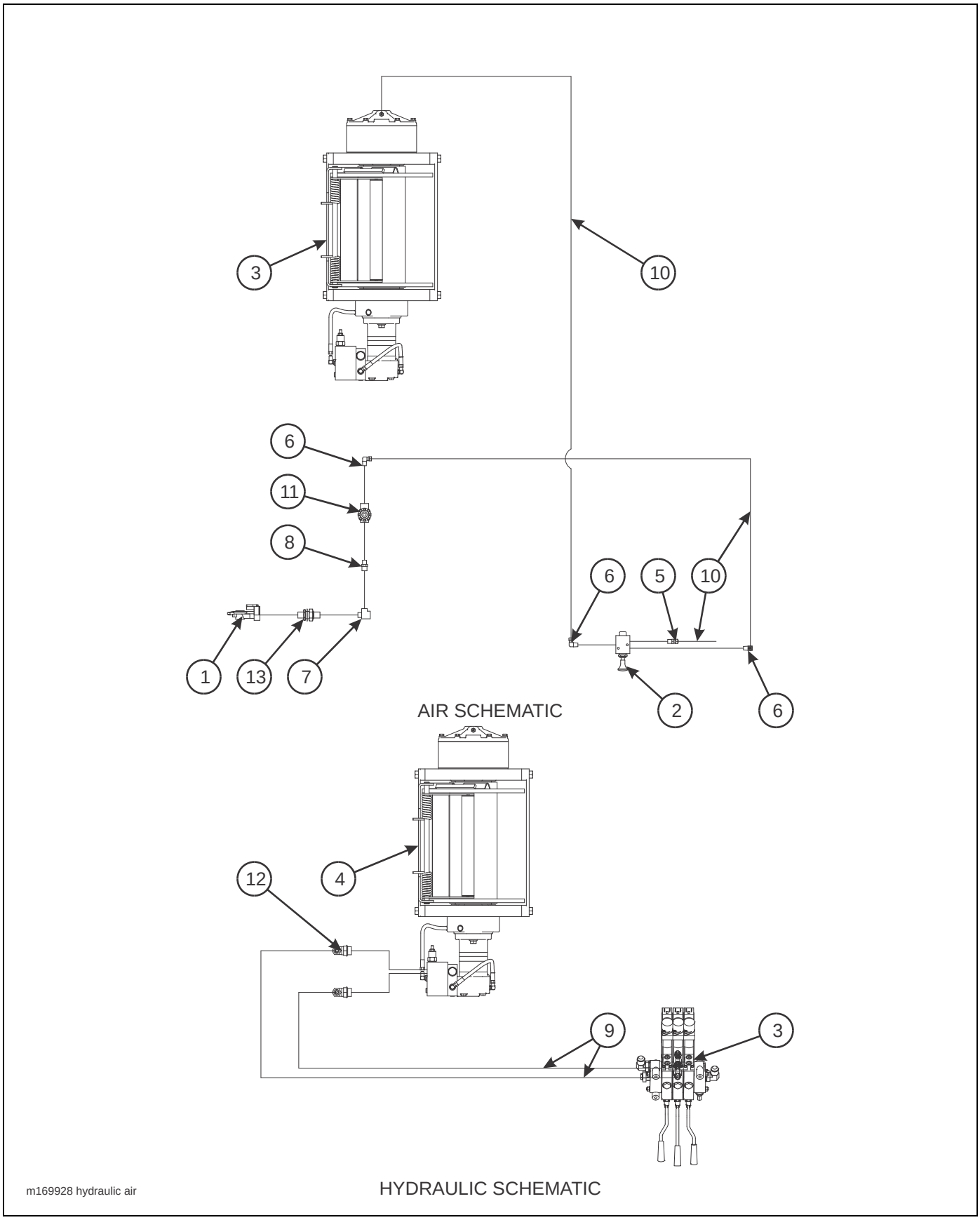



**Figure 2-80: 30K Winch Installation, Hydraulic/Air Items (Warn)**

# 30K WINCH INSTALLATION, HYDRAULIC/AIR ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 155411 | WINCH INSTALLATION, 30K WARN STD | * | | |
| | 169929 | WINCH INSTALLATION, 30K WARN HD | | * | |
| | 169930 | WINCH INSTALLATION, 30K WARN ARCTIC | | | * |
| 1 | 108801 | GLAD HAND, RED AIR | REF | REF | REF |
| 2 | 134657 | VALVE, AIR 3 WAY/2 POS | 1 | 1 | 1 |
| 3 | 139525 | VALVE ASSEMBLY, THREE SPOOL | REF | REF | REF |
| 4 | 155410 | WINCH, 30K WARN AIR KO (SEE PAGE 2-151) | REF | REF | REF |
| 5 | 1-297-010007-05 | FITTING, AIR | 1 | 1 | -- |
| | 126862 | FITTING, COMPR STRAIGHT | -- | -- | 1 |
| 6 | 1-297-010008-07 | FITTING, AIR 90 | 3 | 3 | -- |
| | 126677 | FITTING, AIR 90 | | | 3 |
| 7 | 1-297-010018-03 | FITTING, BRS PIPE ST TEE | REF | REF | REF |
| 8 | 1-297-010019-05 | FITTING, BRS PIPE HEX | 1 | 1 | 1 |
| 9 | 1-397-010302172 | HOSE ASSEMBLY 1/2 X 172 | 2 | -- | 2 |
| | 1-397-010302220 | HOSE ASSEMBLY 1/2 X 220 | -- | 2 | -- |
| | 139928 | HOSE, 1/2 X 172 ARCTIC | -- | -- | 2 |
| 10 | 1-833-010001 | TUBING, NYLON 1/4 OD | AR | AR | -- |
| | 126629 | TUBING, NYLON 1/4 OD ARCTIC | -- | -- | AR |
| 11 | 905-54-107 | BRAKE PROTECTION VALVE | 1 | 1 | 1 |
| | 167692 | FILTER | 1 | 1 | 1 |
| 12 | 2062-12-8S | ADAPTER, 90 | 2 | 2 | 2 |
| 13 | 55B61 | FRAME UNION | REF | REF | REF |

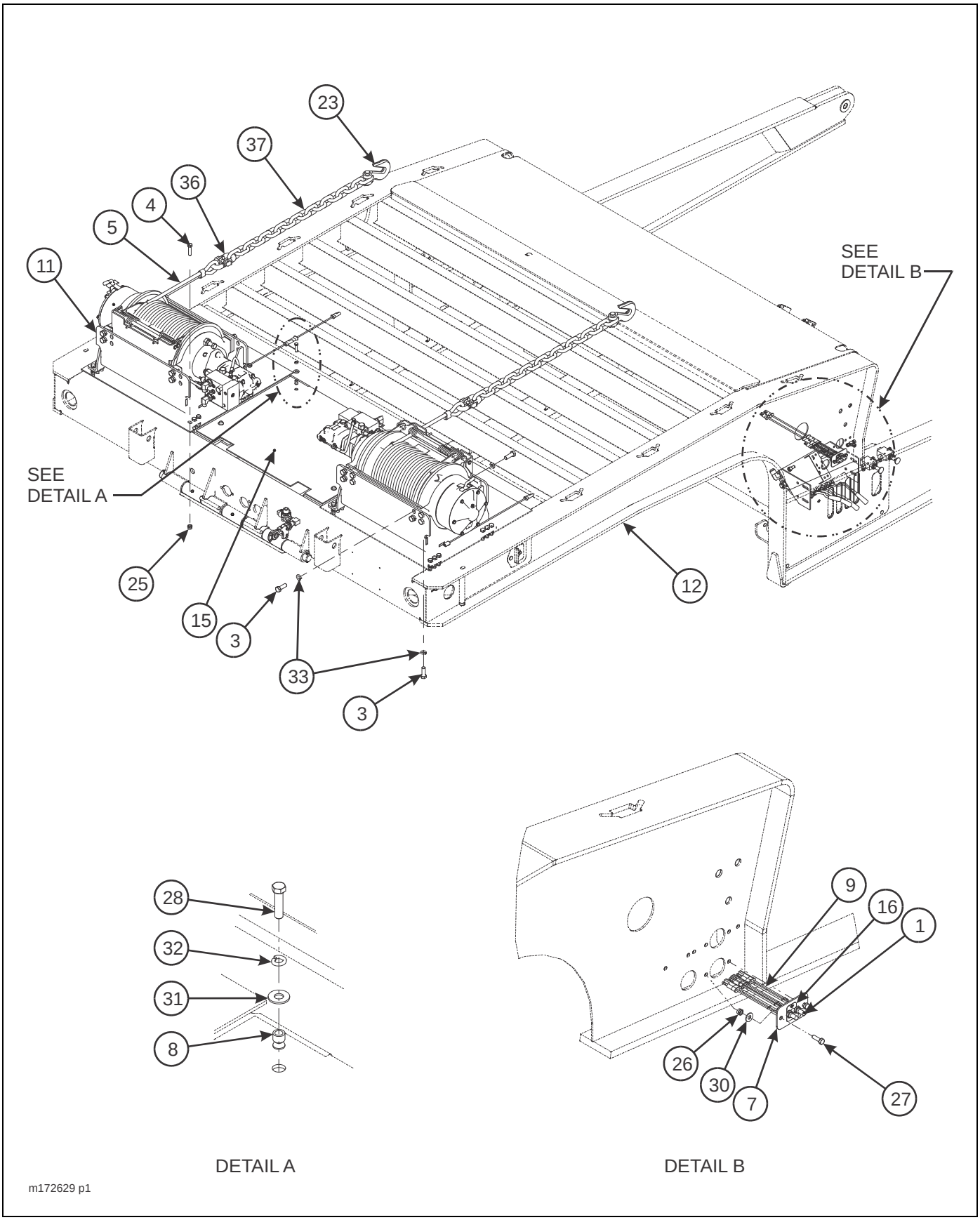



**Figure 2-81: Dual Winch Installation, 30K (Warn) (1 of 3)**

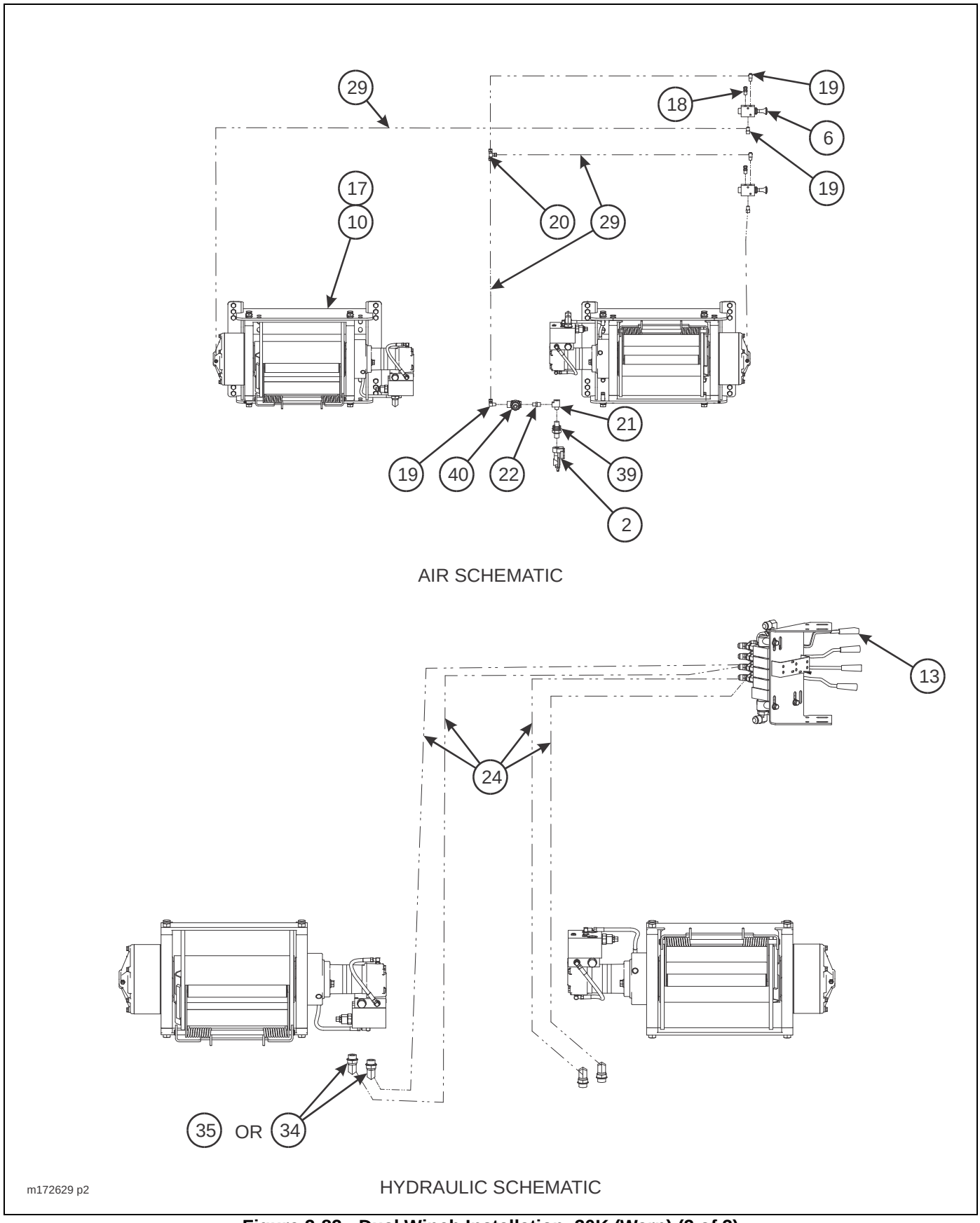



**Figure 2-82: Dual Winch Installation, 30K (Warn) (2 of 3)**

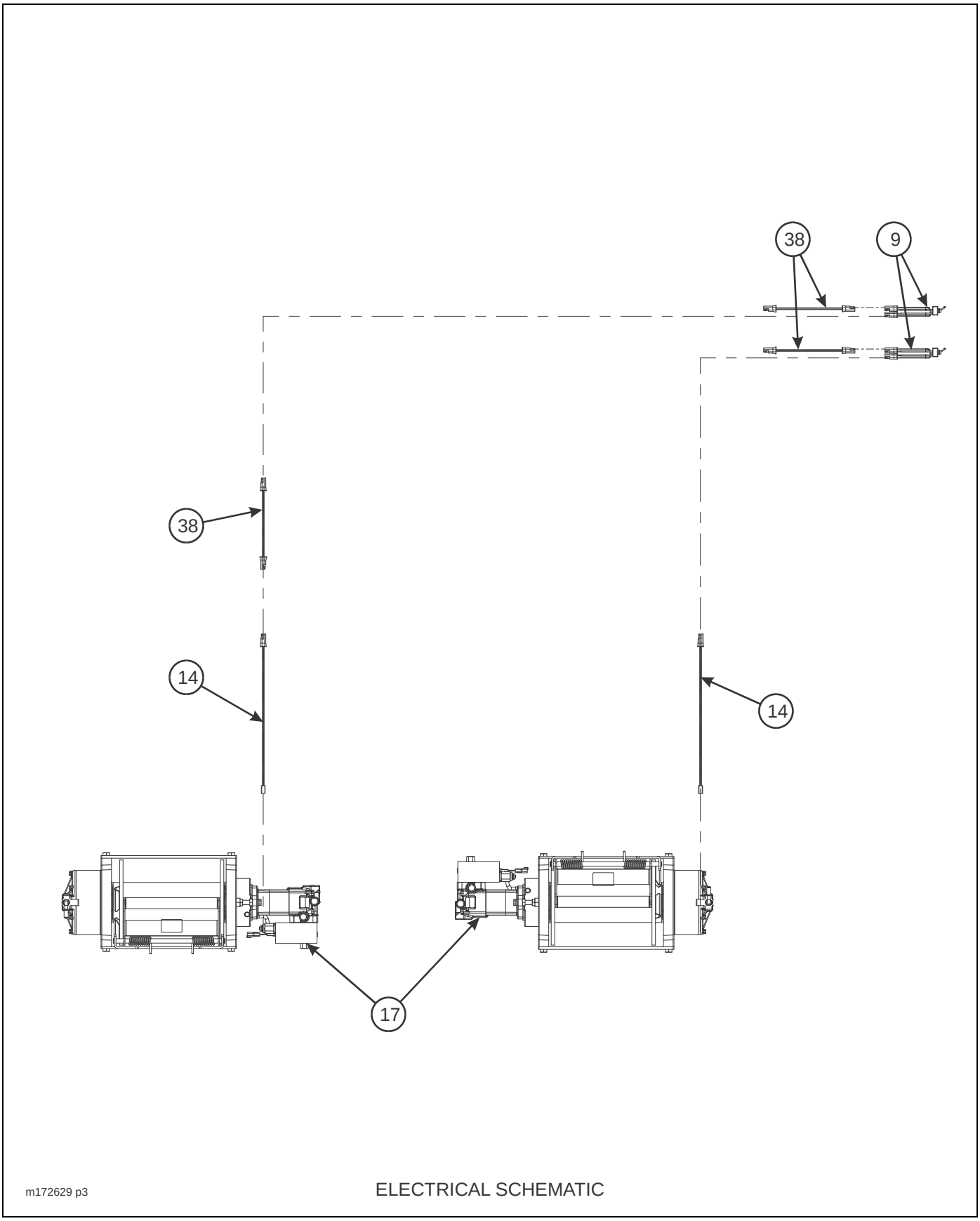



**Figure 2-83: Dual Winch Installation, 30K (Warn) (3 of 3)**

# DUAL WINCH INSTALLATION, 30K (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 161784 | WINCH INSTALLATION, DUAL 30K WARN | | |
| | 172628 | WINCH INSTALLATION, DUAL 30K WARN 2 SPEED | | |
| 1 | 81264 | RUBBER BOOT FOR ELECT SWITCH | -- | 2 |
| 2 | 108801 | GLAD HAND, RED AIR | REF | REF |
| 3 | 109740 | SCREW, HEX HEAD CAP 5/8-11 X 1-3/4 GR8 | 32 | 32 |
| 4 | 132773 | SCREW, HEX HEAD CAP 1/2-13 X 2 GR8 | 24 | 24 |
| 5 | 132833 | CABLE ASSEMBLY, 5/8 X 85 FLEX-X9 | REF | REF |
| 6 | 134657 | VALVE, AIR 3 WAY/2 POS | 2 | 2 |
| 7 | 137987 | MOUNT, ELECTRICAL SWITCH | -- | 1 |
| 8 | 139254 | NUTSERT, 3/8-16 | 4 | 4 |
| 9 | 150117 | TOGGLE SWITCH SEALED SPST | -- | 2 |
| 10 | 155410 | WINCH, 30K WARN AIR KO (SEE PAGE 2-151) | 2 | -- |
| 11 | 161785 | MOUNT WELDMENT, WINCH WARN 20K/30K | 2 | 2 |
| 12 | ----- | FRAME ASSEMBLY, GOOSENECK | REF | REF |
| 13 | ----- | VALVE ASSEMBLY, 4 SPOOL | REF | REF |
| 14 | 164053 | HARNESS, BRANCH WORK LIGHT 102’” | -- | 2 |
| 15 | 167978 | COVER, UPPER DECK TWO WINCHES | -- | 1 |
| 16 | 174043 | DECAL, WINCH HI/LO | -- | 2 |
| 17 | 174550 | WINCH, 20K WARN AR KO (SEE PAGE 2-157) | -- | 2 |
| 18 | 1-297-010007-05 | FITTING, AIR | 2 | 2 |
| 19 | 1-297-010008-07 | FITTING, AIR 90 | 5 | 5 |
| 20 | 1-297-010010-01 | FITTING, AIR UNION TEE | 1 | 1 |
| 21 | 1-297-010018-03 | FITTING, BRASS PIPE TEE | REF | REF |
| 22 | 1-297-010019-05 | FITTING BRASS PIPE HEX | 1 | 1 |
| 23 | 1-382-010035-06 | HOOK, CLEVIS GRAB 5/8 GRD80 | 2 | 2 |
| 24 | 1-397-010302220 | HOSE ASSEMBLY 1/2 X 220 | 4 | 4 |
| 25 | 1-512-010002-09 | NUT, HEX LOCK 1/2-13 GRC | 24 | 24 |
| 26 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | -- | 2 |
| 27 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | -- | 2 |
| 28 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 4 | 4 |
| 29 | 1-833-010001 | TUBING, NYLON 1/4 OD | AR | AR |
| 30 | 1-861-010032-09 | WASHER, FLAT 5/16W | -- | 2 |
| 31 | 1-861-010032-11 | WASHER, FLAT 3/8W | 4 | 4 |
| 32 | 1-861-010034-11 | WASHER, SPLIT LOCK 3/8 | 4 | 4 |
| 33 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 32 | 32 |
| 34 | 202702-10-8S | ADAPTER | -- | 4 |
| 35 | 2062-12-8S | ADAPTER, 90 | 4 | -- |
| 36 | 3-174-010059 | CHAIN LINK CONNECTING 5/8 | 2 | 2 |
| 37 | 3-174-010039036 | CHAIN, 1/2 X 36 | 2 | 2 |
| 38 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXT | -- | 3 |
| 39 | 55B61 | FRAME UNION | REF | REF |
| 40 | 905-54-107 | BRAKE PROTECTION VALVE | 1 | 1 |
| | 167692 | FILTER | 1 | 1 |

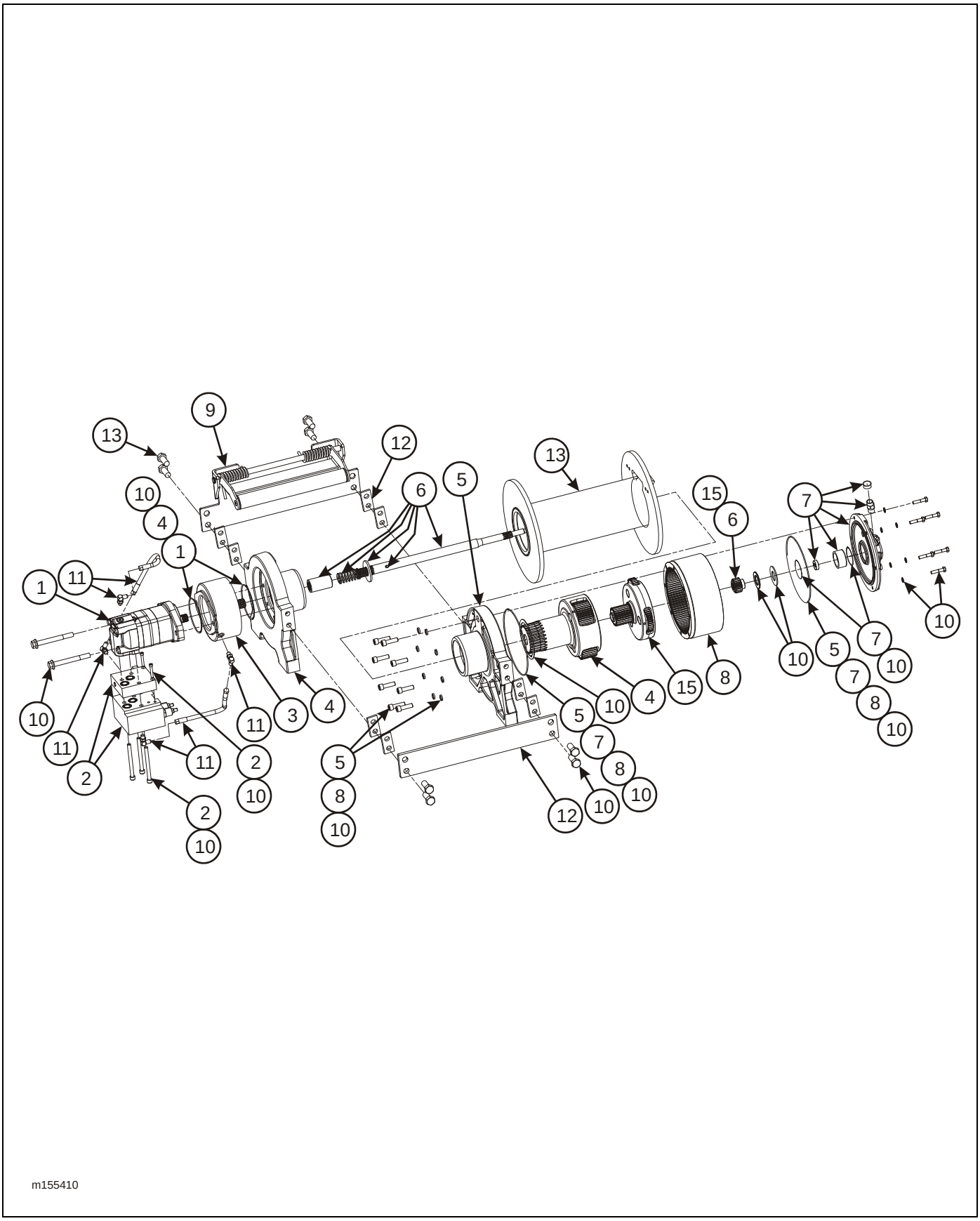



**Figure 2-84: 30K Winch Items (Warn)**

# 30K WINCH ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 155410 | WINCH, 30K WARN AIR KICKOUT | |
| 1 | 162940 | SERVICE KIT - MOTOR HYDRAULIC 14.9CI | 1 |
| 2 | 161590 | SERVICE KIT - MANIFOLD HYDRAULIC | 1 |
| 3 | 162207 | SERVICE KIT - BRAKE ASSEMBLY | 1 |
| 4 | 162209 | SERVICE KIT - DRUM SUPPORT, MOTOR END | 1 |
| 5 | 162210 | SERVICE KIT - DRUM SUPPORT, GEAR END | 1 |
| 6 | 162211 | SERVICE KIT - DRIVE SHAFT, LONG | 1 |
| 7 | 162941 | SERVICE KIT - END HSG ASSY AIR | 1 |
| 8 | 162215 | SERVICE KIT - RING GEAR | 1 |
| 9 | 162216 | SERVICE KIT - TENSIONER LONG | 1 |
| 10 | 162217 | SERVICE KIT - HARDWARE SEAL | 1 |
| 11 | 162218 | SERVICE KIT - HOSE HYDRAULIC | 1 |
| 12 | 162219 | SERVICE KIT - TIE PLATE LONG | 1 |
| 13 | 162942 | SERVICE KIT - DRUM ASSEMBLY 30K LONG | 1 |
| 14 | 162943 | SERVICE KIT - CARRIER, STAGE 2 6.0-6.0 | 1 |
| 15 | 162944 | SERVICE KIT - CARRIER, STAGE 1 6.0-6.0 | 1 |
| 16 | 162945 | WIRE ROPE ASSEMBLY 5/8 EIPS X 245 FT (NOT SHOWN) | 1 |

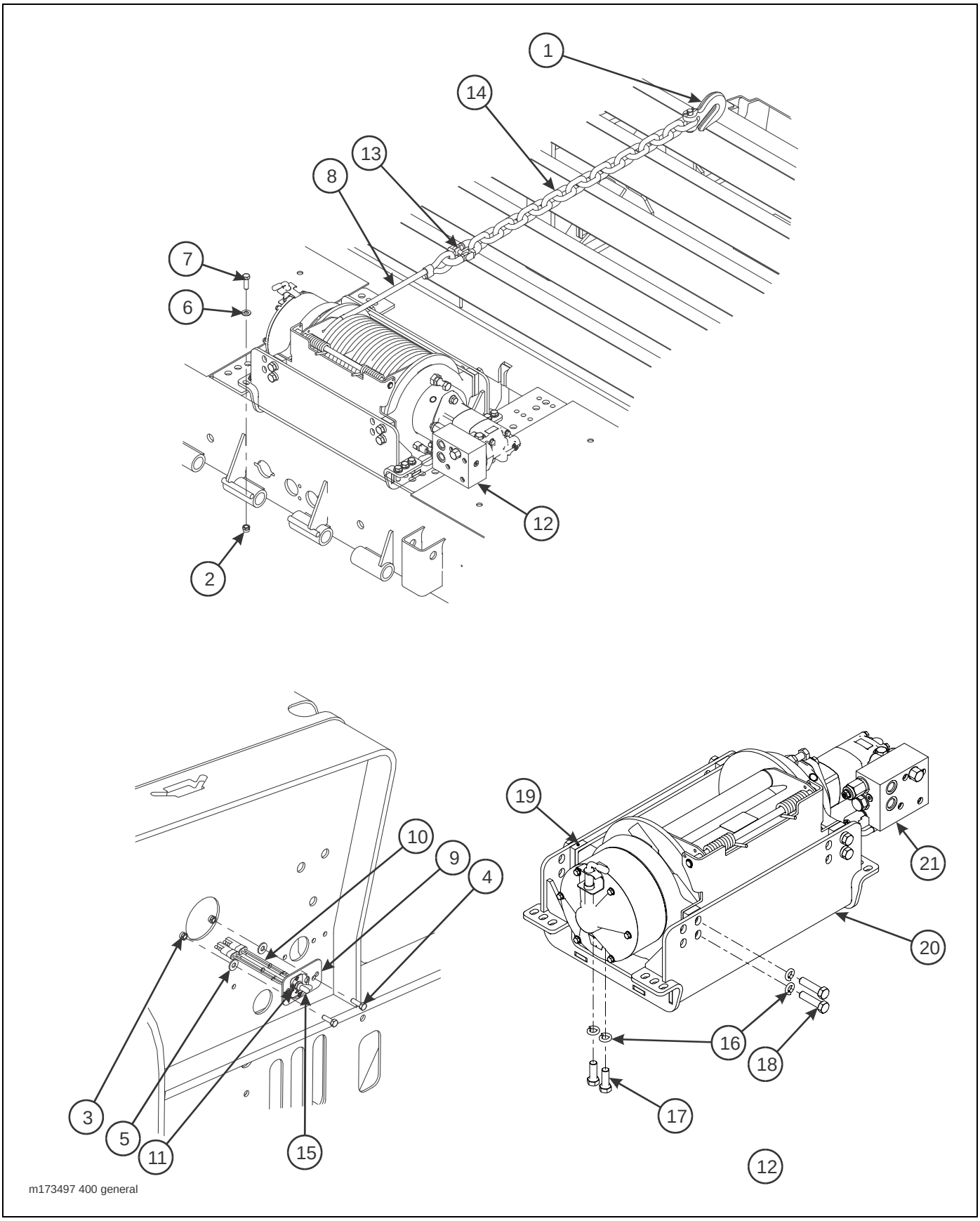
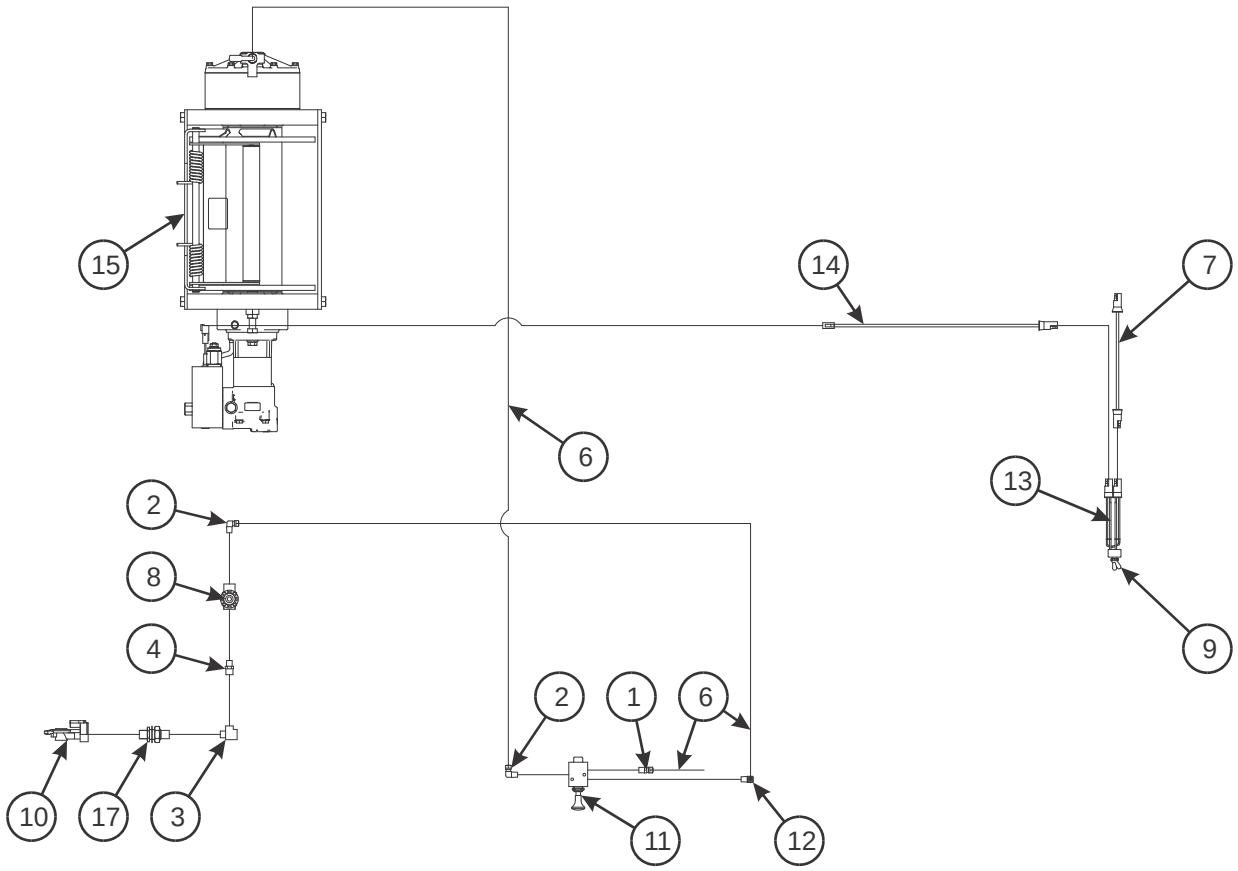


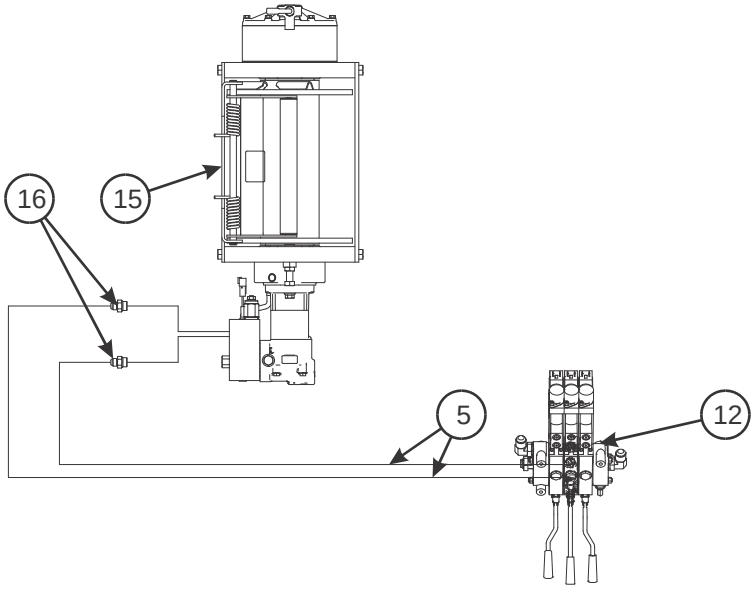

**Figure 2-85: 30K 2 Speed Winch Installation, General Items (Warn)**

# 30K 2 SPEED WINCH INSTALLATION, GENERAL ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 172878 | WINCH INSTALLATION, 30K WARN 2 SPEED STD | * | | |
| | 173498 | WINCH INSTALLATION, 30K WARN 2 SPEED HD | | * | |
| | 173499 | WINCH INSTALLATION, 30K WARN 2 SPEED ARCTIC | | | * |
| 1 | 1-382-010035-06 | HOOK, CLEVIS GRAB 5/8 GRD80 | 1 | 1 | 1 |
| 2 | 1-512-010002-09 | NUT, HEX LOCK 1/2-13 GRC | 12 | 12 | 12 |
| 3 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 | 2 | 2 |
| 4 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 2 | 2 | 2 |
| 5 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 | 2 | 2 |
| 6 | 1-861-010032-14 | WASHER, FLAT 1/2 | 12 | 12 | 12 |
| 7 | 108439 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR8 | 12 | 12 | 12 |
| 8 | 132833 | CABLE ASSEMBLY, 5/8 X 85 FLEX-X9 | REF | REF | REF |
| 9 | 137987 | MOUNT, ELECTRICAL SWITCH | 1 | 1 | 1 |
| 10 | 150117 | TOGGLE SWITCH SEALED SPST | REF | REF | REF |
| 11 | 174043 | DECAL, WINCH HI/LO | 1 | 1 | 1 |
| 12 | 174552 | WINCH ASSEMBLY, WARN 30K 2 SPEED (INCL. ITEMS 16 - 21) | 1 | 1 | 1 |
| 13 | 3-174-010059 | CHAIN LINK CONNECTING 5/8 | 1 | 1 | 1 |
| 14 | 3-174-010039036 | CHAIN, 1/2 X 36 | 1 | 1 | 1 |
| 15 | 81264 | RUBBER BOOT FOR ELECT SWITCH | REF | REF | REF |
| 16 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 16 | 16 | 16 |
| 17 | 109740 | SCREW, HEX HEAD CAP 5/8-11 X 1-3/4 GR8 | 8 | 8 | 8 |
| 18 | 113299 | SCREW, HEX HEAD CAP 5/8-11 X 2-1/2 GR8 | 8 | 8 | 8 |
| 19 | 154234 | SPACER, WINCH | 4 | 4 | 4 |
| 20 | 165429 | MOUNT WELDMENT, WINCH WARN | 1 | 1 | 1 |
| 21 | 174550 | WINCH, 20K WARN AR KO (SEE PAGE 2-157) | 1 | 1 | 1 |




AIR SCHEMATIC




m173497 hydraulic air

HYDRAULIC SCHEMATIC

**Figure 2-86: 30K Winch Installation, Hydraulic/Air/Electrical Items (Warn)**

# 30K 2 SPEED WINCH INSTALLATION, HYDRAULIC/AIR/ELECTRICAL ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 172878 | WINCH INSTALLATION, 30K WARN 2 SPEED STD | * | | |
| | 173498 | WINCH INSTALLATION, 30K WARN 2 SPEED HD | | * | |
| | 173499 | WINCH INSTALLATION, 30K WARN 2 SPEED ARCTIC | | | * |
| 1 | 1-297-010007-05 | FITTING, AIR | 1 | 1 | -- |
| | 126862 | FITTING, COMPR STRAIGHT | -- | -- | 1 |
| 2 | 1-297-010008-07 | FITTING, AIR 90 | 3 | 3 | -- |
| | 126677 | FITTING, AIR 90 | -- | -- | 3 |
| 3 | 1-297-010018-03 | FITTING, BRS PIPE ST TEE | REF | REF | REF |
| 4 | 1-297-010019-05 | FITTING, BRS PIPE HEX | 1 | 1 | 1 |
| 5 | 174188 | HOSE ASSEMBLY 1/2 X 182 | 2 | -- | -- |
| | 1-397-010302220 | HOSE ASSEMBLY 1/2 X 220 | -- | 2 | -- |
| | 139928 | HOSE, 1/2 X 172 ARCTIC | -- | -- | 2 |
| 6 | 1-833-010001 | TUBING, NYLON 1/4 OD | AR | AR | -- |
| | 126629 | TUBING, NYLON 1/4 OD ARCTIC | -- | -- | AR |
| 7 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXT | 1 | 1 | 1 |
| 8 | 905-54-107 | BRAKE PROTECTION VALVE | 1 | 1 | 1 |
| | 167692 | FILTER | 1 | 1 | 1 |
| 9 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 | 1 | 1 |
| 10 | 108801 | GLAD HAND, RED AIR | REF | REF | REF |
| 11 | 134657 | VALVE, AIR 3 WAY/2 POS | 1 | 1 | 1 |
| 12 | 139525 | VALVE ASSEMBLY, THREE SPOOL | REF | REF | REF |
| 13 | 150117 | TOGGLE SWITCH SEALED SPST | 1 | 1 | 1 |
| 14 | 164053 | HARNESS, BRANCH WORK LIGHT 102’” | 1 | 1 | 1 |
| 15 | 174552 | WINCH ASSEMBLY, WARN 30K 2 SPEED | REF | REF | REF |
| 16 | 202702-10-8S | ADAPTER | 2 | 2 | 2 |
| 17 | 55B61 | FRAME UNION | REF | REF | REF |

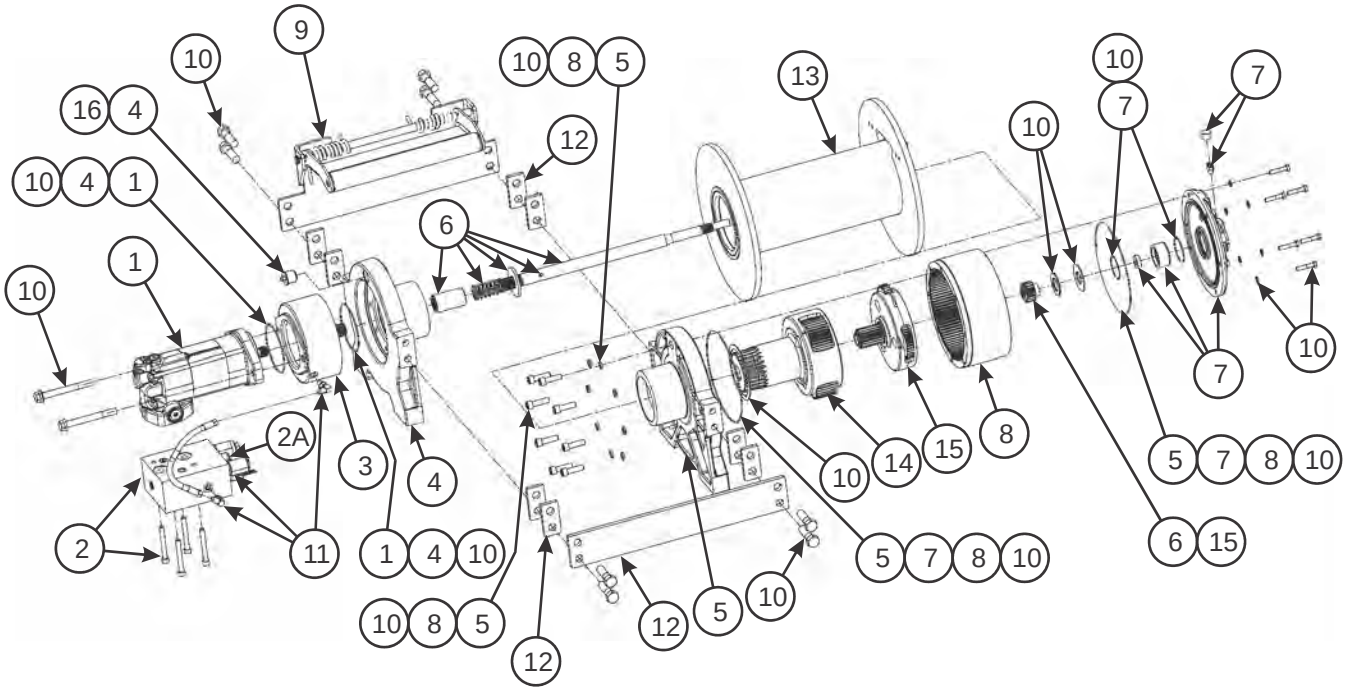



**Figure 2-87: 30K Winch Installation, Hydraulic/Air Items (Warn)**

# 30K 2 SPEED WINCH ITEMS (WARN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 172877 | WINCH, 30K WARN AIR KICKOUT | |
| 1 | 178714 | SERVICE KIT - MOTOR HYDRAULIC 14.9CI | 1 |
| 2 | 178715 | SERVICE KIT - MANIFOLD HYDRAULIC | 1 |
| 2A | 199104 | SOLENOID FOR 2SP WARN, 20K-30K | 1 |
| 3 | 162207 | SERVICE KIT - BRAKE ASSEMBLY | 1 |
| 4 | 178716 | SERVICE KIT - DRUM SUPPORT, MOTOR END RETARDER | 1 |
| 5 | 162210 | SERVICE KIT - DRUM SUPPORT, GEAR END | 1 |
| 6 | 162211 | SERVICE KIT - DRIVE SHAFT, LONG | 1 |
| 7 | 162941 | SERVICE KIT - END HSG ASSY AIR | 1 |
| 8 | 162215 | SERVICE KIT - RING GEAR | 1 |
| 9 | 162216 | SERVICE KIT - TENSIONER LONG | 1 |
| 10 | 162217 | SERVICE KIT - HARDWARE SEAL | 1 |
| 11 | 162218 | SERVICE KIT - HOSE HYDRAULIC | 1 |
| 12 | 162219 | SERVICE KIT - TIE PLATE LONG | 1 |
| 13 | 162942 | SERVICE KIT - DRUM ASSEMBLY 30K LONG | 1 |
| 14 | 162943 | SERVICE KIT - CARRIER, STAGE 2 6.0-6.0 | 1 |
| 15 | 162944 | SERVICE KIT - CARRIER, STAGE 1 6.0-6.0 | 1 |
| 16 | 178717 | SERVICE KIT - EXPANSION PLUG 1” RUBBER | 1 |
| 17 | 162945 | WIRE ROPE ASSEMBLY 5/8 EIPS X 245 FT (NOT SHOWN) | 1 |

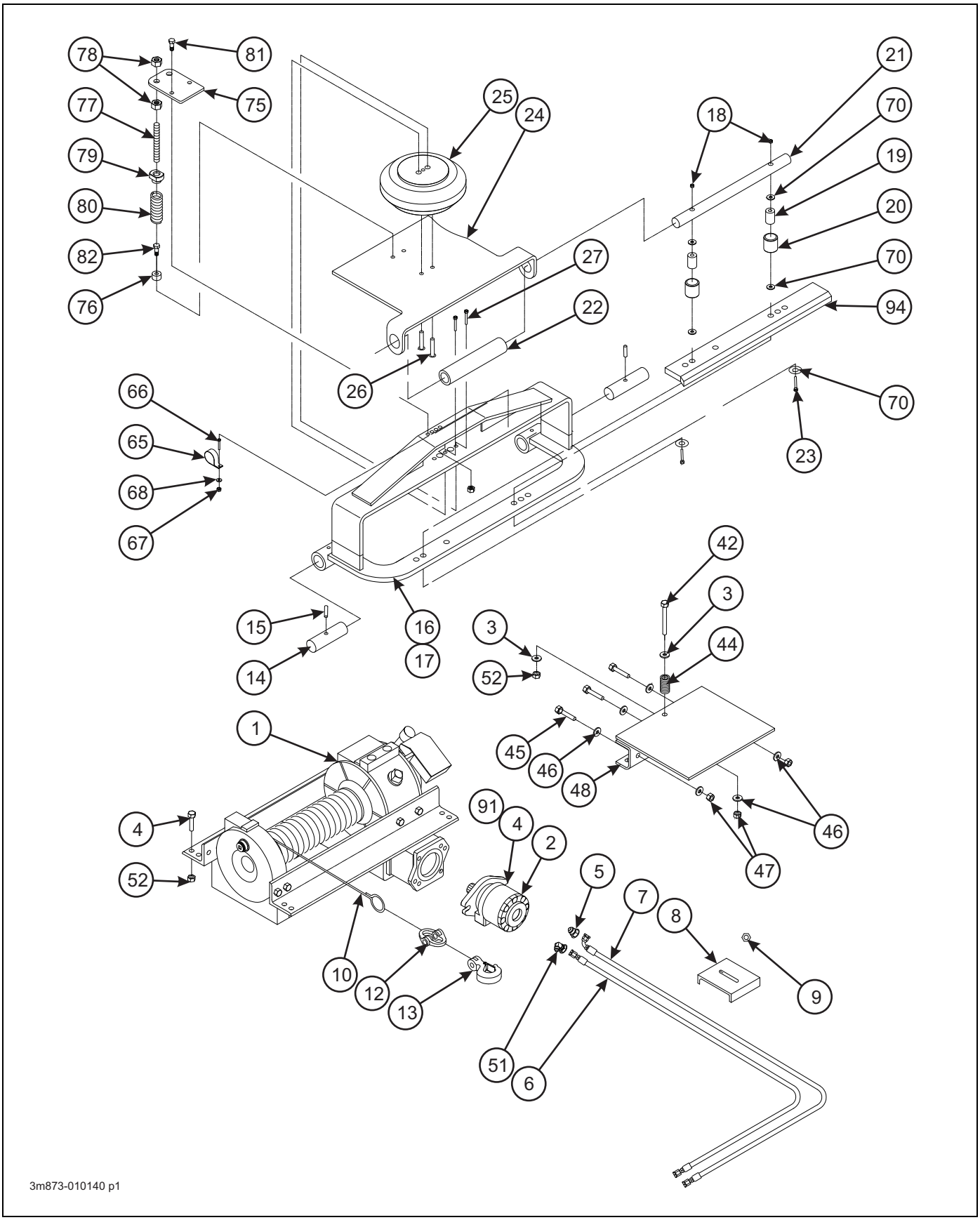



**Figure 2-88: Winch Installation (1 of 2)**

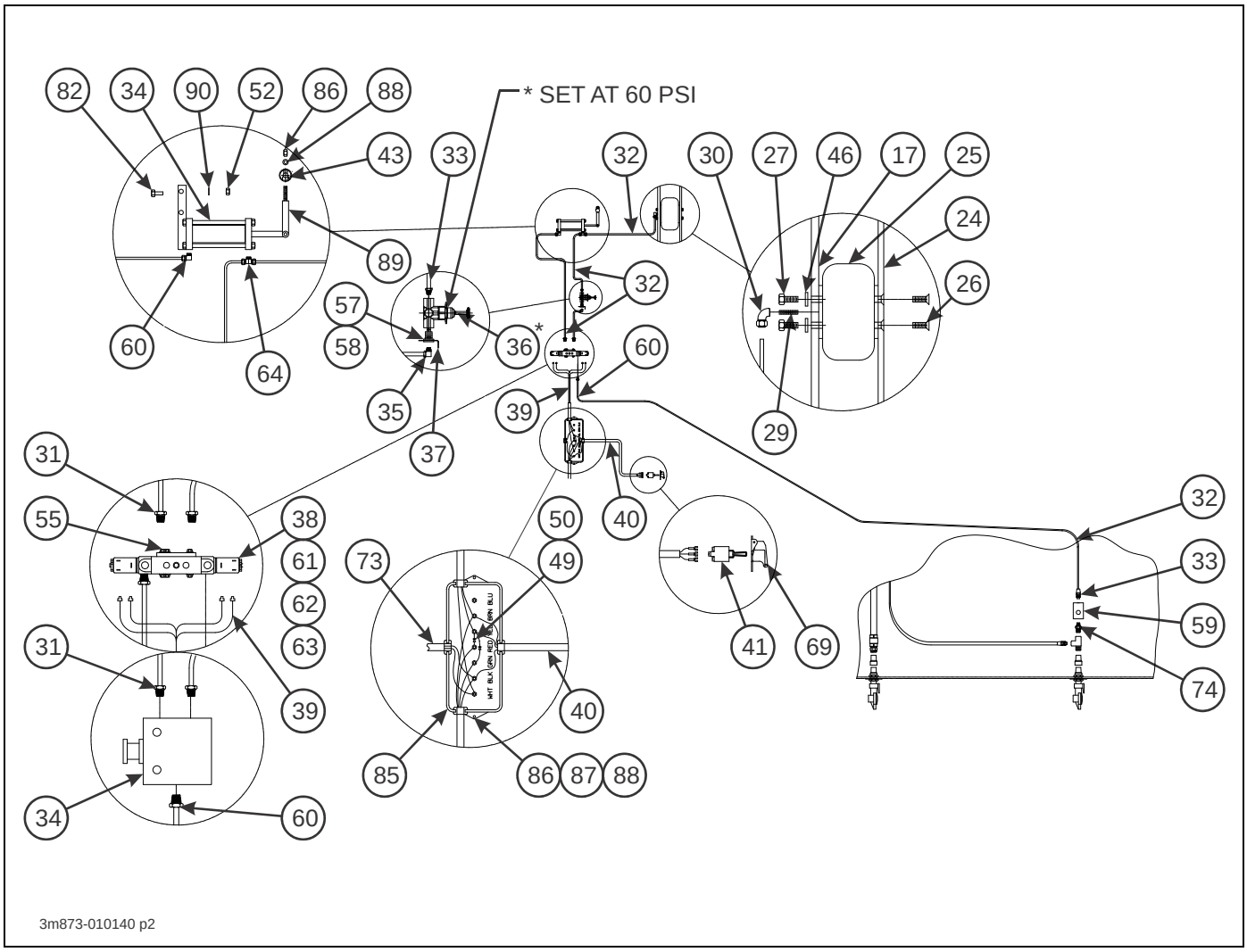



**Figure 2-89: Winch Installation (2 of 2)**

# WINCH INSTALLATION (BRADEN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 3-873-010140 | WINCH INSTALLATION 600-20K | REF |
| | 3-873-010144 | WINCH, INSTALLATION 600-12K | REF |
| | 123210 | WINCH, 20K GUIDE AIR TEN/REL | |
| | 141618 | WINCH, 20K SPGTEN CBL RLR DUAL | |
| | 148284 | WINCH, 20K AT AS ROLLER | |
| | 148703 | WINCH, 20K SPG TENS | |
| 1 | 3-873-010123 | WINCH ASSEMBLY 20K (SEE PAGE 2-176) | 1 |
| | 3-873-010122 | WINCH ASSEMBLY 12K (SEE PAGE 2-173) | 1 |
| 2 | 3-481-010007 | MOTOR, HYDRAULIC (20K) (SEE PAGE 2-181) | 1 |
| | 3-481-010006 | MOTOR, HYDRAULIC (12K) (SEE PAGE 2-181) | 1 |
| 3 | 1-861-010032-15 | WASHER, FLAT 1/2 | 2 |
| 4 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 6 |
| 5 | 202702-10-8S | ADAPTER | 1 |
| 6 | 1-397-010301170 | HOSE ASSEMBLY | 1 |
| | 1-397-010301194 | HOSE ASSEMBLY | 1 |
| 7 | 1-397-010302172 | HOSE ASSEMBLY | 1 |

# WINCH INSTALLATION (BRADEN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 1-397-010302192 | HOSE ASSEMBLY | 1 |
| 8 | 2-181-010001 | HOSE CLAMP | 4 |
| 9 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 4 |
| 10 | 3-155-010017-4 | CABLE (12K) 85' W/ LOOP | 1 |
| | 3-155-010018-6 | CABLE (20K) 85' W/ LOOP | 1 |
| 11 | 3-174-010038 | LINK | 1 |
| 12 | 3-174-010039036 | CHAIN (NOT SHOWN) | 1 |
| 13 | 7HCGHT500 | HOOK | 1 |
| 14 | 119622 | PIN, PIVOT WINCH ROLLER | **2 |
| 15 | 1-647-010004255 | PIN, SPRING SLOTTED 2 X 3/8 | **2 |
| 16 | 3-125-010464 | BRACKET WLDMT WINCH ROLLER | **1,****1 |
| 17 | 3-125-010465 | BRACKET WLDMT WINCH TENSIONER | *1,**1,***1 |
| 18 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GR8 | **2 |
| 19 | 3-150-010196 | BUSHING, ROD ROLLER-600 | **2 |
| 20 | 3-831-010172 | TUBE, ROLLER SIDE | **2 |
| 21 | 102188 | ROD, PIVOTING GUIDE (20K) | **1 |
| | 3-642-010150 | ROD, ROLLER TOP (12K) | **1 |
| 22 | 3-831-010182 | TUBE, ROLLER TOP - 600 (20K) | **2 |
| | 3-831-010151 | TUBE, ROLLER TOP (12K) | **1 |
| 23 | 1-654-010059-15 | SCREW, HEX HEAD CAP 5/8-11 X 5 GR5 | **2 |
| | 1-654-010059-16 | SCREW, HEX HEAD CAP 5/8-11 X 5-1/2 GR5 | **2 |
| 24 | 102187 | WINCH TENSIONER PLATE (20K) | *1 |
| 25 | 3-720-010042 | SPRING, AIR 6-1/2 | *1 |
| 26 | 1-654-010141-04 | SCREW, HEX SOC. HEAD CTSK 3/8-16 X 1 GR8 | *2 |
| 27 | 1-654-010036-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | *2 |
| 29 | 1-297-010031-02 | FITTING, BRASS PIPE 1/4 X 1-1/2 | *1 |
| 30 | 1-297-010032-03 | FITTING, AIR 90 | *1 |
| 31 | 1-297-010007-04 | CONNECTOR PIPE TO TUBE | ***4 |
| 32 | 1-833-010001 | NYLON TUBING 1/4 OD | ***28FT |
| 33 | 1-297-010007-05 | FITTING, AIR | *2 |
| 34 | 107368 | WINCH AIR SHIFT CYL (20K)(SEE PAGE 2-179) | ***1 |
| 35 | 1-297-010008-07 | FITTING, AIR 90 | 1 |
| 36 | 3-626-010004 | REGULATOR, AIR PRESSURE | *1 |
| 37 | 3-120-010445 | BRACKET, PRESSURE REGULATOR | *1 |
| 38 | 3-843-010022 | VALVE, PNEUMATIC | ***1 |
| 39 | 3-368-010129 | HARNESS ASSEMBLY SINGLE REMOTE | ***1 |
| 40 | 3-368-010187 | HARNESS REMOTE SWITCH | ***1 |
| 41 | 1-765-010065 | SWITCH, TOGGLE | ***1 |
| 42 | 1-654-010055-16 | SCREW, HEX HEAD CAP 1/2-13 X 5-1/2 GR5 | 1 |
| 43 | 3-150-010186 | BUSHING WINCH REMOTE LEVER (20K) | 1 |
| 44 | 3-720-010010 | SPRING COMP LEVEL WIND | 1 |
| 45 | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5 | 3 |
| 46 | 1-861-010032-10 | WASHER, FLAT 3/8N | 6 |
| 47 | 1-512-010005-05 | NUT, HEX 3/8-16 | 3 |
| 48 | 102186 | WINCH TENSIONER WLDMT (20K) | 1 |
| | 3-873-010124 | WINCH TENSIONER WLDMT (12K) | 1 |
| 49 | 2-272-010109 | ZENOR DIODE (20K) | 2 |
| 50 | 1-879-010010 | WIRE, WHITE (NOT SHOWN) | AR |
| 51 | 2062-10-8S | ADAPTER, 90 | ****1 |

# WINCH INSTALLATION (BRADEN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 52 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 19 |
| 53 | 119621 | ANCHOR CABLE GUIDE WINCH (NOT SHOWN) | 2 |
| 55 | 3-136-010001-01 | BREATHER, PNEUMATIC EXHAUST | *2 |
| 57 | 1-297-010022-02 | FITTING, AIR ANCHOR | 1 |
| 58 | 1-297-010020-02 | FITTING, BRASS PIPE | 1 |
| 59 | 905-54-107 | VALVE AND FILTER PRESSURE | *1,2 |
| | 167692 | FILTER | *1,2 |
| 60 | 1-297-010008-05 | FITTING, AIR 90 | *3 |
| 61 | 1-654-010024014 | SCREW, MACH SLOT 6-32 X 1-1/2 | *3 |
| 62 | 1-861-010032-01 | WASHER, FLAT #6 | *3 |
| 63 | 1-512-010003-02 | NUT, HEX LOCK 6-32 | *1 |
| 64 | 1-297-010015-02 | FITTING, AIR BRANCH TEE (20K) | REF |
| 65 | 125892 | SUPPORT CLAMP | *1 |
| 66 | 1-654-010024055 | SCREW, MACH. #10-24 X 1-1/4 | *1 |
| 67 | 1-512-010004-03 | NUT, HEX LOCK #10-24 | *1 |
| 68 | 1-861-010034-07 | WASHER, SPLIT LOCK #10 | 1 |
| 69 | 3-348-010048 | GUARD SWITCH -3 POSITION | 1 |
| 70 | 1-861-010032-18 | WASHER, FLAT 5/8N (20K) | **2 |
| 73 | 3-368-010188 | HARNESS POWER JUMPER 660 | 1 |
| 74 | 1-297-010019-05 | FITTING BRS PIPE HEX 3/8 X 1/4 | 1 |
| 75 | 3-565-011688 | PLATE F/W SPRING TENSION - 600 | *1 |
| 76 | 3-014-010255 | ANCHOR BUSHING F/W SPRING TENSION - 600 | *2 |
| 77 | RTR7999X4ZP | ROD THREADED | *2 |
| 78 | 1-512-010007-12 | NUT, HEX 3/4-10 GRB | *4 |
| 79 | 3-522-010017 | NUT F/W SPRING TENSION - 600 | *2 |
| 80 | 3-720-010035 | SPRING | *2 |
| 81 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | *2 |
| 82 | 1-654-010055-01 | SCREW, HEX HEAD CAP 1/2-13 X 1 GR5 | **2, ***3 |
| 83 | 100600 | DECAL, WARNING WINCH (NOT SHOWN) | 1 |
| 85 | 750-029 | JUNCTION BOX 7-STUD | 1 |
| 86 | 1-512-010007-05 | NUT, HEX 1/4-20 GRB | 2,***3 |
| 87 | 1-861-010032-06 | WASHER, FLAT 1/4N | 2 |
| 88 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 2,***3 |
| 89 | 107369 | LEVER WINCH FREE SPOOL | ***1 |
| 90 | 1-861-010032-14 | WASHER, FLAT 1/2 | ***2 |
| 91 | 1-861-010034-13 | WASHER, SPLIT LOCK 1/2 | 2 |
| 92 | 2033-8-8S | ADAPTER, TEE (NOT SHOWN) | 2 |
| 93 | 3-873-010178-3 | WINCH TENSIONER ASSEMBLY 20K (INCL 3, 42, 44-48, 52) | |
| | 3-873-010178-1 | WINCH TENSIONER ASSEMBLY 12K (INCL 3, 42, 44-48, 52) | |
| 94 | 143246 | RUB BAR, CABLE GUIDE WINCH | 1 |

NOTES:
* - FOR AIR TENSION OPTION
**- FOR CABLE ROLLER OPTION (P/N F-100852 (12K) OR 136566 (20K))
***- FOR AIR SHIFT OPTION. (AVAILABLE ONLY ON 20K WINCH.)
****- FOR SPRING TENSION OPTION

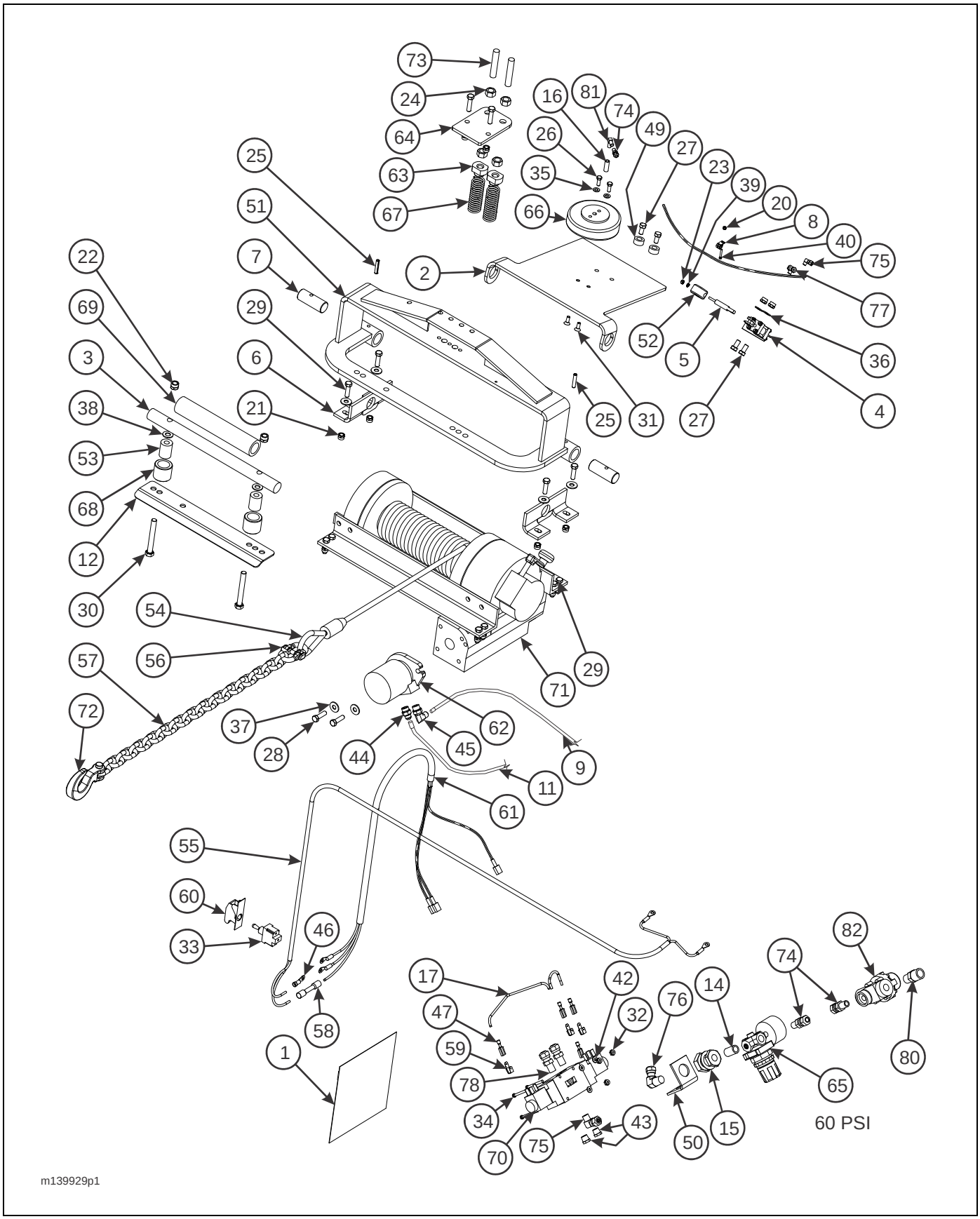



**Figure 2-90: Winch Installation (1 of 2)**

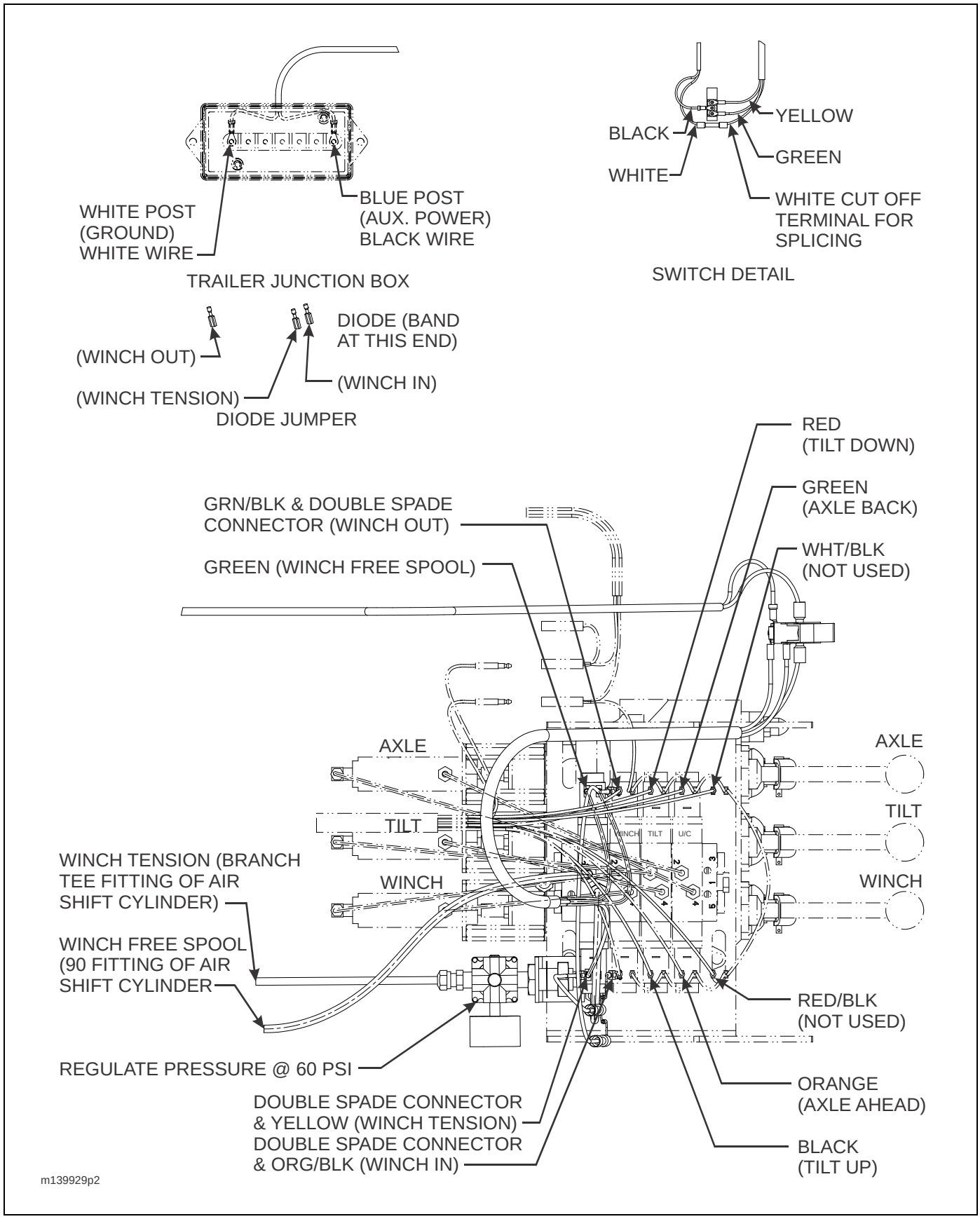



**Figure 2-91: Winch Installation (2 of 2)**

# WINCH INSTALLATION (BRADEN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 139929 | WINCH 20K AT, A, ARCTIC W/ ORMT | |
| 1 | 100600 | DECAL, WARNING WINCH | 1 |
| 2 | 102187 | WINCH TENSIONER PLATE | 1 |
| 3 | 102188 | ROD, PIVOTING GUIDE | 1 |
| 4 | 107368 | WINCH AIR SHIFT CYL (SEE PAGE 2-179) | 1 |
| 5 | 107369 | LEVER WINCH FREE SPOOL | 1 |
| 6 | 119621 | ANCHOR CABLE GUIDE WINCH | 2 |
| 7 | 119622 | PIN, PIVOT WINCH ROLLER | 2 |
| 8 | 125892 | CLAMP, CABLE 3/8 | 1 |
| 9 | 139927 | HOSE, 1/2 X 170 ARCTIC | 1 |
| 10 | 126629 | TUBING, NYLON 1/4 (NOT SHOWN) | AR |
| 11 | 139928 | HOSE, 1/2 X 172 ARCTIC | 1 |
| 12 | 143246 | RUB BAR CABLE GUIDE WINCH | 1 |
| 14 | 1-297-010020-02 | FITTING, BRASS PIPE | 1 |
| 15 | 1-297-010022-02 | FITTING, AIR ANCHOR | 1 |
| 16 | 1-297-010031-02 | FITTING, BRASS PIPE 1/4 X 1-1/2 | 1 |
| 17 | 1-879-010010 | WIRE, WHITE 14 AWG | AR |
| 20 | 1-512-010004-03 | NUT, HEX LOCK #10-24 | 1 |
| 21 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 16 |
| 22 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GR8 | 2 |
| 23 | 1-512-010007-05 | NUT, HEX 1/4-20 GRB | 1 |
| 24 | 1-512-010007-12 | NUT, HEX 3/4-10 GRB | 4 |
| 25 | 1-647-010004255 | PIN, SPRING SLOTTED 2 X 3/8 | 2 |
| 26 | 1-654-010036-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 |
| 27 | 1-654-010055-01 | SCREW, HEX HEAD CAP 1/2-13 X 1 GR5 | 4 |
| 28 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 14 |
| 29 | 1-654-010055-05 | SCREW, HEX HEAD CAP 1/2-13 X 2 GR5 | 2 |
| 30 | 1-654-010059-15 | SCREW, HEX HEAD CAP 5/8-11 X 5 GR5 | 2 |
| 31 | 1-654-010141-04 | SCREW, HEX SOC. HEAD CTSK 3/8-16 X 1 GR8 | 2 |
| 32 | 1-512-010003-02 | NUT, HEX LOCK 6-32 | 3 |
| 33 | 1-765-010065 | SWITCH, TOGGLE | 1 |
| 34 | 1-654-010024014 | SCREW, MACH SLOT 6-32 X 1-1/2 | 3 |
| 35 | 1-861-010032-10 | WASHER, FLAT 3/8N | 2 |
| 36 | 1-861-010032-14 | WASHER, FLAT 1/2N | 2 |
| 37 | 1-861-010032-15 | WASHER, FLAT 1/2W | 6 |
| 38 | 1-861-010032-18 | WASHER, FLAT 5/8N | 2 |
| 39 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 1 |
| 40 | 1-654-010024055 | SCREW, MACH SLOTTED FIL HEAD #10-24 X 1-1/4 | 1 |
| 42 | 1-861-010032-01 | WASHER, FLAT #6 | 3 |
| 43 | 3-136-010001-01 | BREATHER, PNEUMATIC EXHAUST | 2 |
| 44 | 202702-10-8S | ADAPTER | 1 |
| 45 | 2062-10-8S | ADAPTER, 90 | 1 |
| 46 | 239-3646-4 | TERMINAL | 3 |
| 47 | 239-3650-1 | TERMINAL, FEMALE SLIP ON 14 AWG | 4 |
| 49 | 3-014-010255 | ANCHOR BUSHING F/W SPRING TENSION - 600 | 2 |
| 50 | 3-120-010445 | BRACKET, PRESSURE REGULATOR | 1 |
| 51 | 3-125-010465 | BRACKET WLDMT WINCH TENSIONER | 1 |
| 52 | 3-150-010186 | BUSHING WINCH REMOTE LEVER (20K) | 1 |

# WINCH INSTALLATION (BRADEN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 53 | 3-150-010196 | BUSHING, ROD ROLLER-600 | 2 |
| 54 | 3-155-010018-6 | CABLE 85’ W/ LOOP | REF |
| 55 | 3-156-010008 | CABLE, 14-2 SO TWO CONDUCTOR | AR |
| 56 | 3-174-010038 | LINK | 1 |
| 57 | 3-174-010039036 | CHAIN | 1 |
| 58 | 3-272-010021 | ELECT BUTT SPLICE 16/14 W/ SEAL | 3 |
| 59 | 3-272-010157 | ELECT ADAPTER CHAIR 1/4 PUSH-ON | 3 |
| 60 | 3-348-010048 | GUARD SWITCH -3 POSITION | 1 |
| 61 | 3-368-010129 | HARNESS ASSEMBLY SINGLE REMOTE | 1 |
| 62 | 3-481-010007 | MOTOR, HYDRAULIC (20K) (SEE PAGE 2-181) | 1 |
| 63 | 3-522-010017 | NUT F/W SPRING TENSION - 600 | 2 |
| 64 | 3-565-011688 | PLATE F/W SPRING TENSION - 600 | 1 |
| 65 | 3-626-010004 | REGULATOR, AIR PRESSURE | 1 |
| 66 | 3-720-010042 | SPRING, AIR 6-1/2 | 1 |
| 67 | 3-720-010035 | SPRING | 2 |
| 68 | 3-831-010172 | TUBE, ROLLER SIDE | 2 |
| 69 | 3-831-010182 | TUBE, ROLLER TOP - 600 (20K) | 1 |
| 70 | 3-843-010022 | VALVE, PNEUMATIC | 1 |
| 71 | 3-873-010123 | WINCH ASSEMBLY 20K (SEE PAGE 2-176) | 1 |
| 72 | 7HCGHT500 | HOOK | 1 |
| 73 | RTR7999X4ZP | ROD THREADED | 2 |
| 74 | 126672 | FITTING, COMPRESS, STRAIGHT | 3 |
| 75 | 126676 | FITTING, AIR 90 | 2 |
| 76 | 126677 | FITTING, AIR 90 | 1 |
| 77 | 126679 | FITTING, COMPRESSION TEE | 1 |
| 78 | 126791 | FITTING, COMPRESS | 2 |
| 80 | 1-297-010019-05 | FITTING BRS PIPE HEX 3/8 X 1/4 | 1 |
| 81 | 118-2676-2 | ELBOW 90 | 1 |
| 82 | 905-54-107 | VALVE AND FILTER PRESSURE | 1 |
|  | 167692 | FILTER | 1 |

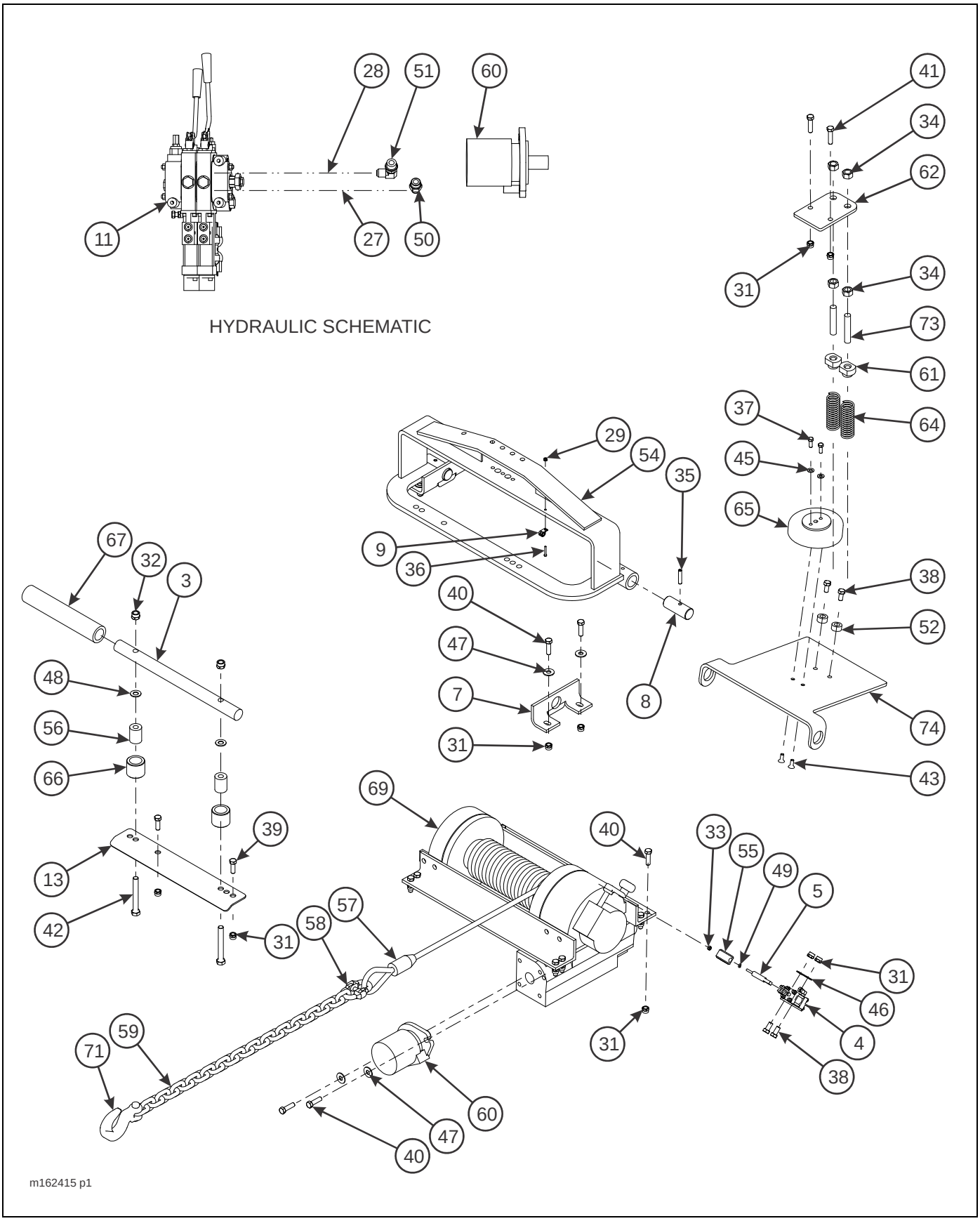



**Figure 2-92: 20K Air Tension/Release Winch Installation (1 of 2)**

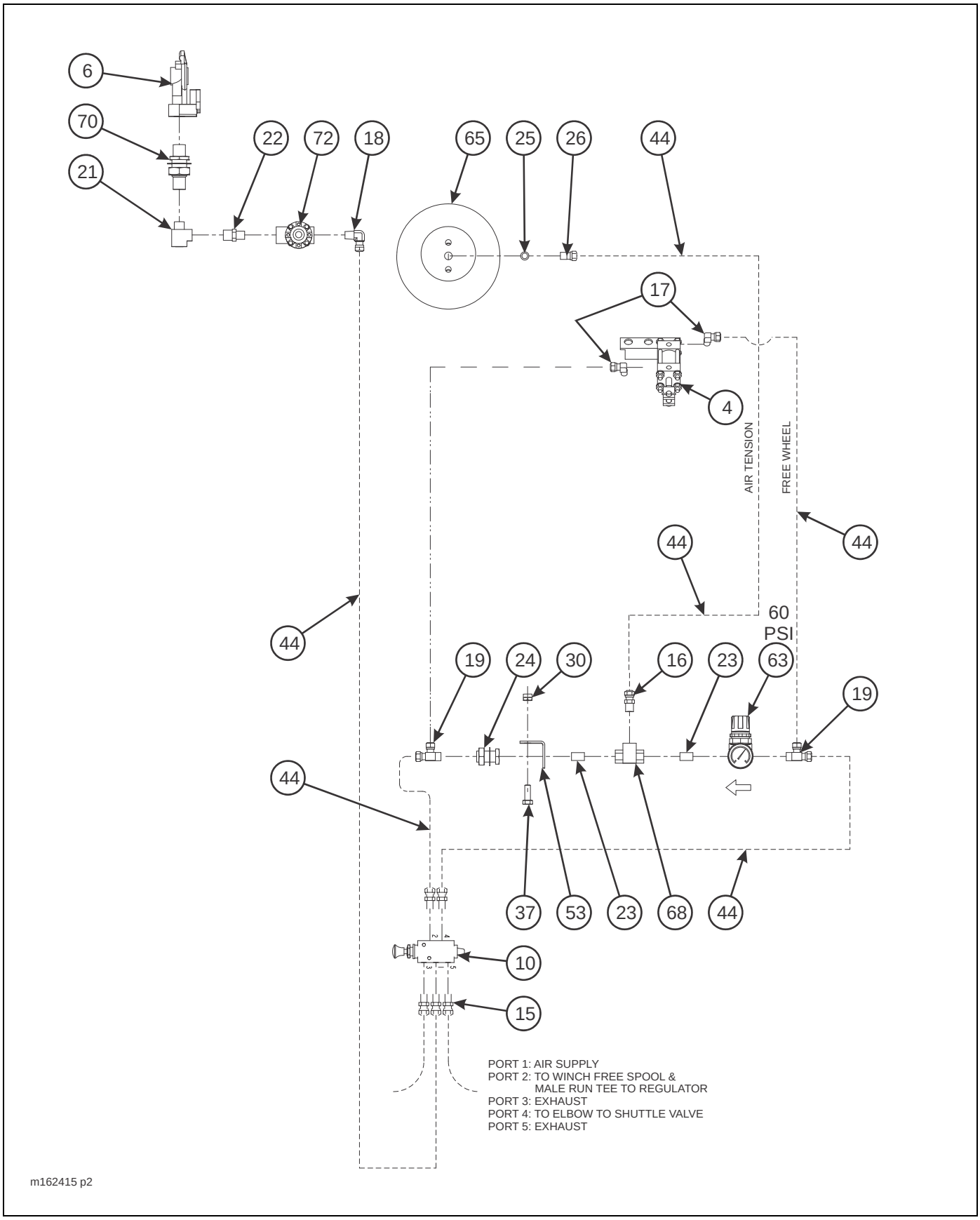



**Figure 2-93: 20K Air Tension/Release Winch Installation (2 of 2)**

# 20K AIR TENSION/RELEASE WINCH INSTALLATION (BRADEN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 162415 | WINCH INSTALLATION, 20K GUIDE AIR TENSION/RELEASE | |
| 1 | 100600 | DECAL, WARNING WINCH (NOT SHOWN) | 1 |
| 2 | 100600 | DECAL, WARNING WINCH (NOT SHOWN) | 1 |
| 3 | 102188 | ROD, PIVOTING GUIDE (20K) | **1 |
| 4 | 107368 | WINCH AIR SHIFT CYL (20K)(SEE PAGE 2-179) | ***1 |
| 5 | 107369 | LEVER WINCH FREE SPOOL | ***1 |
| 6 | 108801 | GLAD HAND, RED AIR | REF |
| 7 | 119621 | ANCHOR CABLE GUIDE WINCH | 2 |
| 8 | 119622 | PIN, PIVOT WINCH ROLLER | **2 |
| 9 | 125892 | SUPPORT CLAMP | *1 |
| 10 | 139552 | VALVE, AIR 5 WAY/S POSITION | 1 |
| 11 | 140802 | VALVE ASSEMBLY | REF |
| 12 | ----- | FRAME WELDMENT | REF |
| 13 | 143246 | RUB BAR, CABLE GUIDE WINCH | 1 |
| 15 | 1-297-010007-04 | CONNECTOR PIPE TO TUBE | ***4 |
| 16 | 1-297-010007-05 | FITTING, AIR | *2 |
| 17 | 1-297-010008-05 | FITTING, AIR 90 | 2 |
| 18 | 1-297-010008-07 | FITTING, AIR 90 | 1 |
| 19 | 1-297-010011-02 | FITTING, AIR M/RUN TEE | 1 |
| 20 | 1-297-010015-03 | FITTING, AIR BRANCH TEE | REF |
| 21 | 1-297-010018-03 | FITTING, BRS PIPE STR TEE | 1 |
| 22 | 1-297-010019-05 | FITTING BRS PIPE HEX 3/8 X 1/4 | 1 |
| 23 | 1-297-010020-02 | FITTING, BRASS PIPE | 1 |
| 24 | 1-297-010022-02 | FITTING, AIR ANCHOR | 1 |
| 25 | 1-297-010031-02 | FITTING, BRASS PIPE 1/4 X 1-1/2 | *1 |
| 26 | 1-297-010032-03 | FITTING, AIR 90 | *1 |
| 27 | 1-397-010301170 | HOSE ASSEMBLY 1/2 X 170 | 1 |
| 28 | 1-397-010302172 | HOSE ASSEMBLY 1/2 X 172 | 1 |
| 29 | 1-512-010004-03 | NUT, HEX LOCK #10-24 | *1 |
| 30 | 1-512-010005-05 | NUT, HEX 3/8-16 | 3 |
| 31 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 19 |
| 32 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GR8 | **2 |
| 33 | 1-512-010007-05 | NUT, HEX 1/4-20 GRB | 2,***3 |
| 34 | 1-512-010007-12 | NUT, HEX 3/4-10 GRB | *4 |
| 35 | 1-647-010004255 | PIN, SPRING SLOTTED 2 X 3/8 | **2 |
| 36 | 1-654-010024055 | SCREW, MACH. #10-24 X 1-1/4 | *1 |
| 37 | 1-654-010036-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | *2 |
| 38 | 1-654-010055-01 | SCREW, HEX HEAD CAP 1/2-13 X 1 GR5 | **2, ***3 |
| 39 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | *2 |
| 40 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 6 |
| 41 | 1-654-010055-05 | SCREW, HEX HEAD CAP 1/2-13 X 2 GR5 | 2 |
| 42 | 1-654-010059-15 | SCREW, HEX HEAD CAP 5/8-11 X 5 GR5 | **2 |
| 43 | 1-654-010141-04 | SCREW, HEX SOC. HEAD CTSK 3/8-16 X 1 GR8 | *2 |
| 44 | 1-833-010001 | NYLON TUBING 1/4 OD | ***28FT |
| 45 | 1-861-010032-10 | WASHER, FLAT 3/8N | *2 |
| 46 | 1-861-010032-14 | WASHER, FLAT 1/2 | ***2 |
| 47 | 1-861-010032-15 | WASHER, FLAT 1/2 | 2 |

# 20K AIR TENSION/RELEASE WINCH INSTALLATION (BRADEN)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 48 | 1-861-010032-18 | WASHER, FLAT 5/8N (20K) | **2 |
| 49 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 2,***3 |
| 50 | 202702-10-8S | ADAPTER | 1 |
| 51 | 2062-10-8S | ADAPTER, 90 | ****1 |
| 52 | 3-014-010255 | ANCHOR BUSHING F/W SPRING TENSION - 600 | *2 |
| 53 | 3-120-010445 | BRACKET, PRESSURE REGULATOR | *1 |
| 54 | 3-125-010465 | BRACKET WLDMT WINCH TENSIONER | 1 |
| 55 | 3-150-010186 | BUSHING WINCH REMOTE LEVER (20K) | 1 |
| 56 | 3-150-010196 | BUSHING, ROD ROLLER-600 | **2 |
| 57 | 3-155-010018-6 | CABLE (20K) 85’ W/ LOOP | 1 |
| 58 | 3-174-010038 | LINK | 1 |
| 59 | 3-174-010039036 | CHAIN | 1 |
| 60 | 3-481-010007 | MOTOR, HYDRAULIC (20K) (SEE PAGE 2-181) | 1 |
| 61 | 3-522-010017 | NUT F/W SPRING TENSION - 600 | *2 |
| 62 | 3-565-011688 | PLATE F/W SPRING TENSION - 600 | *1 |
| 63 | 3-626-010004 | REGULATOR, AIR PRESSURE | *1 |
| 64 | 3-720-010035 | SPRING | *2 |
| 65 | 3-720-010042 | SPRING, AIR 6-1/2 | *1 |
| 66 | 3-831-010172 | TUBE, ROLLER SIDE | **2 |
| 67 | 3-831-010182 | TUBE, ROLLER TOP - 600 (20K) | **2 |
| 68 | 3-843-010039-02 | VALVE, AIR SHUTTLE | 1 |
| 69 | 3-873-010123 | WINCH ASSEMBLY 20K (SEE PAGE 2-176) | 1 |
| 70 | 55B61 | FRAME UNION | REF |
| 71 | 7HCGHT500 | HOOK | 1 |
| 72 | 905-54-107 | VALVE AND FILTER PRESSURE | *1,2 |
|  | 167692 | FILTER | 1 |
| 73 | RTR7999X4ZP | ROD THREADED | *2 |
| 74 | 102187 | PLATE, WINCH TENSIONER 20K AIR | 1 |

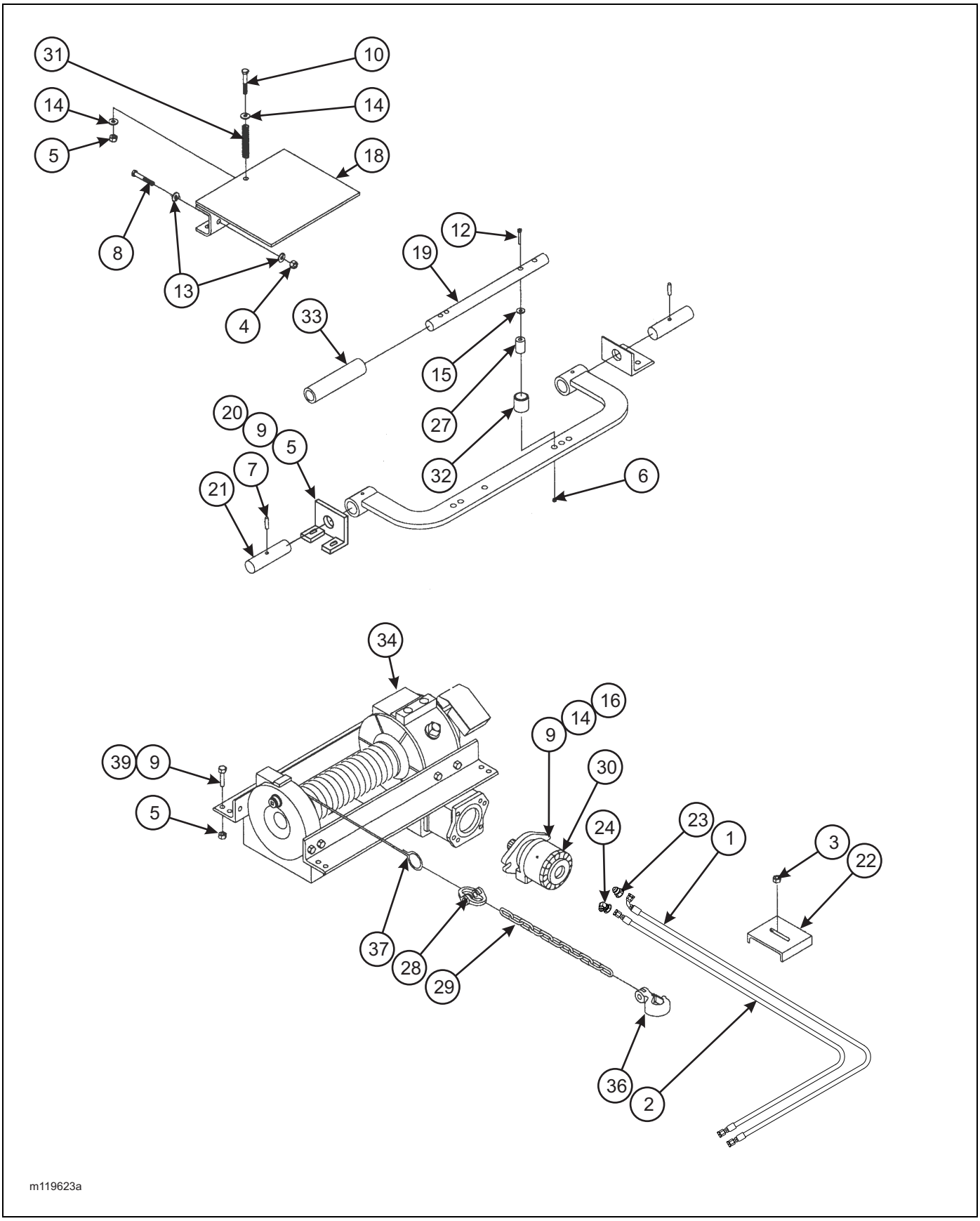



**Figure 2-94: Winch Installation, Spring Tension Cable Roller**

# WINCH INSTALLATION, SPRING TENSION CABLE ROLLER

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 119623 | WINCH INSTALLATION12K SPRING TENSION CABLE ROLLER | * | | |
| | 119624 | WINCH INSTALLATION 20K SPRING TENSION CABLE ROLLER | | * | |
| | 163357 | WINCH INSTALLATION 20K SPRING TENSION ARCTIC | | | * |
| 1 | 1-397-010301170 | HOSE ASSEMBLY 1/2 X 170 | 1 | 1 | -- |
| | 139927 | HOSE ASSEMBLY 1/2 X 170 ARCTIC | -- | -- | 1 |
| 2 | 1-397-010302172 | HOSE ASSEMBLY 1/2 X 172 | 1 | 1 | -- |
| | 139928 | HOSE ASSEMBLY 1/2 X 172 ARCTIC | -- | -- | 1 |
| 3 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 (20K) | 4 | 4 | 4 |
| 4 | 1-512-010005-05 | NUT, HEX 3/8-16 | 3 | 3 | 3 |
| 5 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 13 | 13 | 9 |
| 6 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GR8 | 2 | 2 | -- |
| 7 | 1-647-010004255 | PIN, SPRING SLOTTED 2 X 3/8 | 2 | 2 | -- |
| 8 | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5 | 3 | 3 | 3 |
| 9 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 6 | 14 | 10 |
| 10 | 1-654-010055-16 | SCREW, HEX HEAD CAP 1/2-13 X 5-1/2 GR5 | 1 | 1 | 1 |
| 12 | 1-654-010059-15 | SCREW, HEX HEAD CAP 5/8-11 X 5 GR5 | 2 | 2 | -- |
| 13 | 1-861-010032-10 | WASHER, FLAT 3/8N | 6 | 6 | 6 |
| 14 | 1-861-010032-15 | WASHER, FLAT 1/2 | 2 | 2 | 2 |
| 15 | 1-861-010032-18 | WASHER, FLAT 5/8N (20K) | 6 | 6 | -- |
| 16 | 1-861-010034-13 | WASHER, SPLIT LOCK 1/2 | 2 | 2 | 2 |
| 17 | 100600 | DECAL, WARNING WINCH (NOT SHOWN) | 1 | 1 | 1 |
| 18 | 3-873-010124 | WINCH TENSIONER WLDMT (12K) | 1 | -- | -- |
| | 102186 | WINCH TENSIONER WLDMT (20K) | -- | 1 | 1 |
| 19 | 3-642-010150 | ROD, ROLLER TOP (12K) | 1 | -- | -- |
| | 102188 | ROD, PIVOTING GUIDE (20K) | -- | 1 | -- |
| 20 | 119621 | ANCHOR CABLE GUIDE WINCH | 2 | 2 | -- |
| 21 | 119622 | PIN, PIVOT WINCH ROLLER | 2 | 2 | -- |
| 22 | 2-181-010001 | HOSE CLAMP | 4 | 4 | 4 |
| 23 | 202702-10-8S | ADAPTER | 1 | 1 | 1 |
| 24 | 2062-10-8S | ADAPTER, 90 | 1 | 1 | 1 |
| 25 | 3-125-010464 | BRACKET WLDMT WINCH ROLLER (NOT SHOWN) | 1 | 1 | -- |
| 27 | 3-150-010196 | BUSHING, ROD ROLLER-600 | 2 | 2 | -- |
| 28 | 3-174-010038 | LINK | 1 | 1 | 1 |
| 29 | 3-174-010039036 | CHAIN | 1 | 1 | 1 |
| 30 | 3-481-010006 | MOTOR, HYDRAULIC (12K) (SEE PAGE 2-181) | 1 | -- | -- |
| | 3-481-010007 | MOTOR, HYDRAULIC (20K) (SEE PAGE 2-181) | -- | 1 | 1 |
| 31 | 3-720-010010 | SPRING COMP LEVEL WIND | 1 | 1 | 1 |
| 32 | 3-831-010172 | TUBE, WINCH ROLLER SIDE | 2 | 2 | -- |
| 33 | 3-831-010151 | TUBE, ROLLER TOP (12K) | 1 | 1 | -- |
| | 3-831-010182 | TUBE, ROLLER TOP - 600 (20K) | 1 | 1 | -- |
| 34 | 3-873-010122 | WINCH ASSEMBLY (12K) (SEE PAGE 2-173) | 1 | -- | -- |
| | 3-873-010123 | WINCH ASSEMBLY (20K) (SEE PAGE 2-176) | -- | 1 | 1 |
| 36 | 7HCGHT500 | HOOK | 1 | 1 | 1 |
| 37 | 3-155-010018-6 | CABLE 85’ W/ LOOP | 1 | 1 | -- |
| 38 | 116378 | SPACER, WINCH (12K) (NOT SHOWN) | 8 | -- | -- |
| 39 | 1-654-010055-07 | SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5 (12K) | 8 | -- | -- |

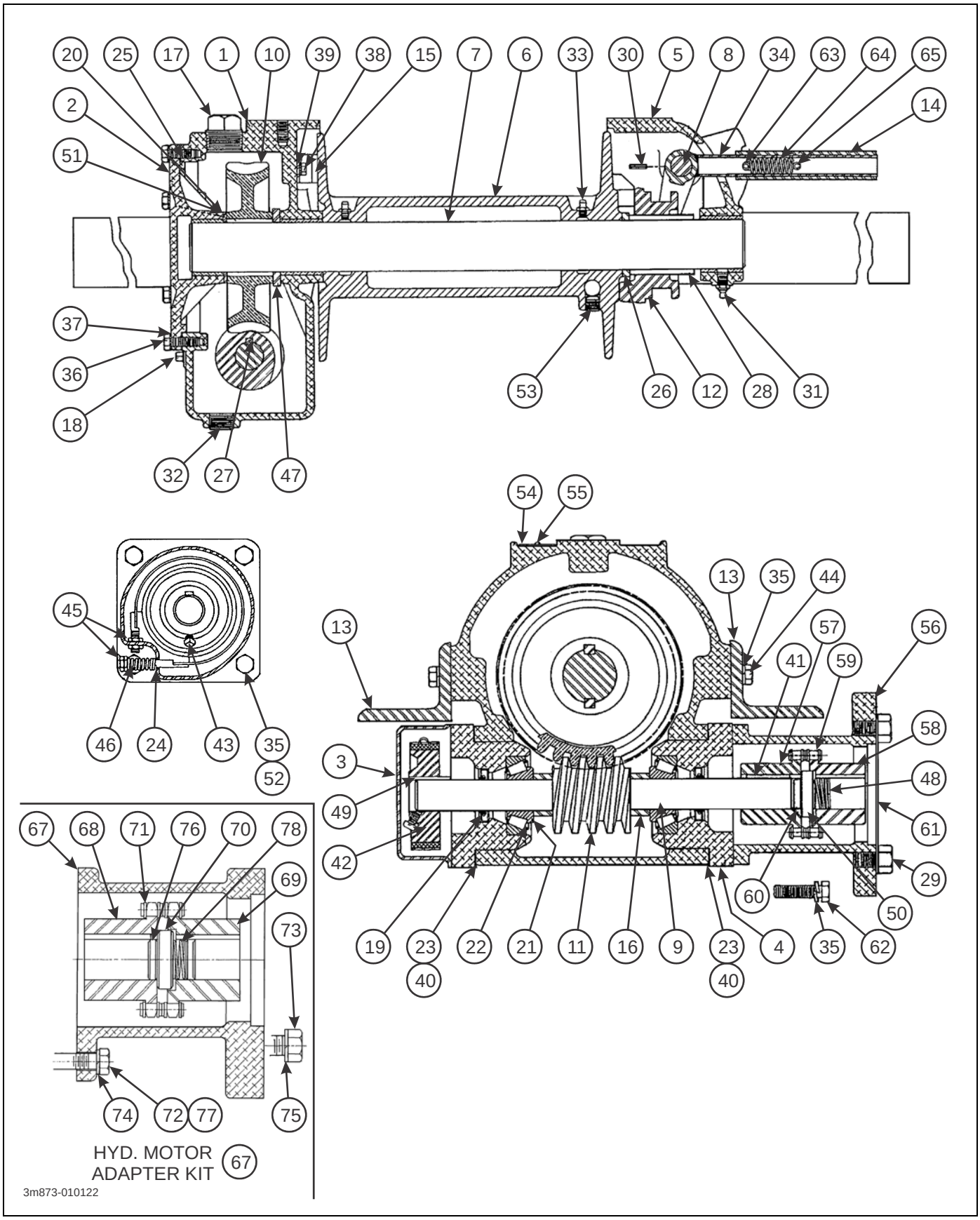



**Figure 2-95: 12,000 Lb. Winch Items**

# 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 | HYDRAULIC 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 |

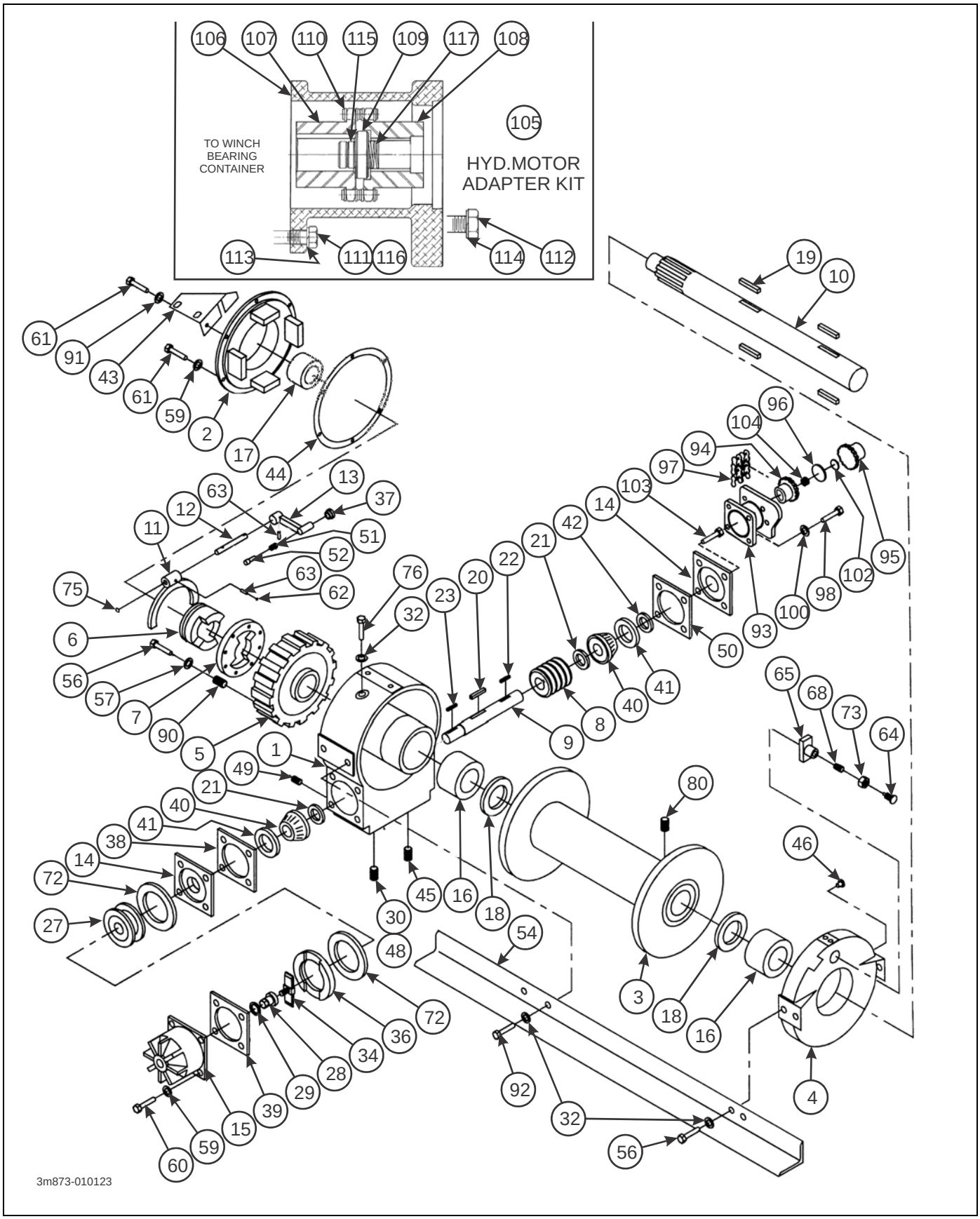



**Figure 2-96: 20,000 Lb. Winch Items**

# 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 | ---- | 61344 | HYDRAULIC 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 |

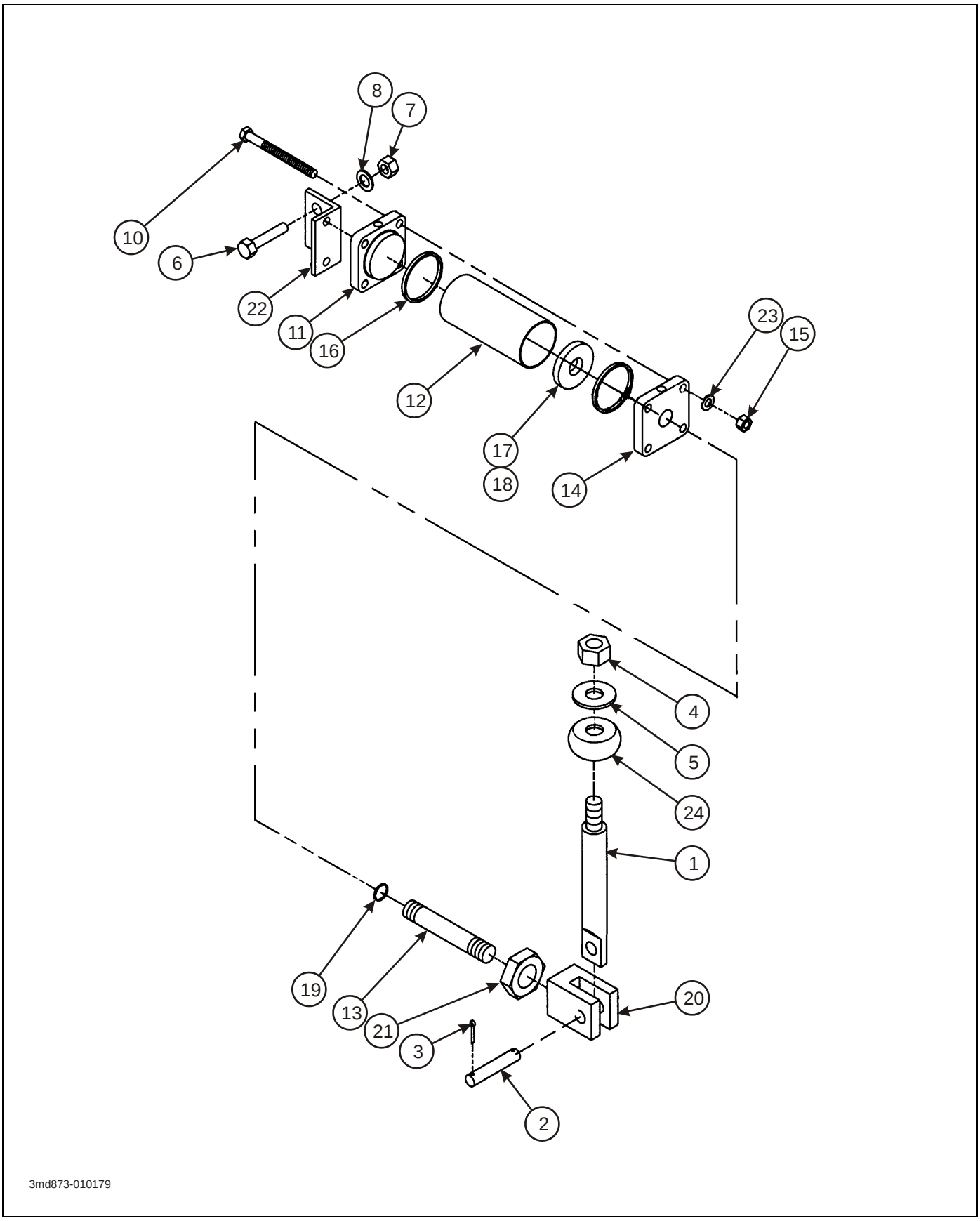



**Figure 2-97: Winch Air Shift Cylinder**

# WINCH AIR SHIFT CYLINDER

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| | 107368 | | CYLINDER, AIR W/ BRACKET (INCLUDES ITEMS 2 - 3, 6 - 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 | |

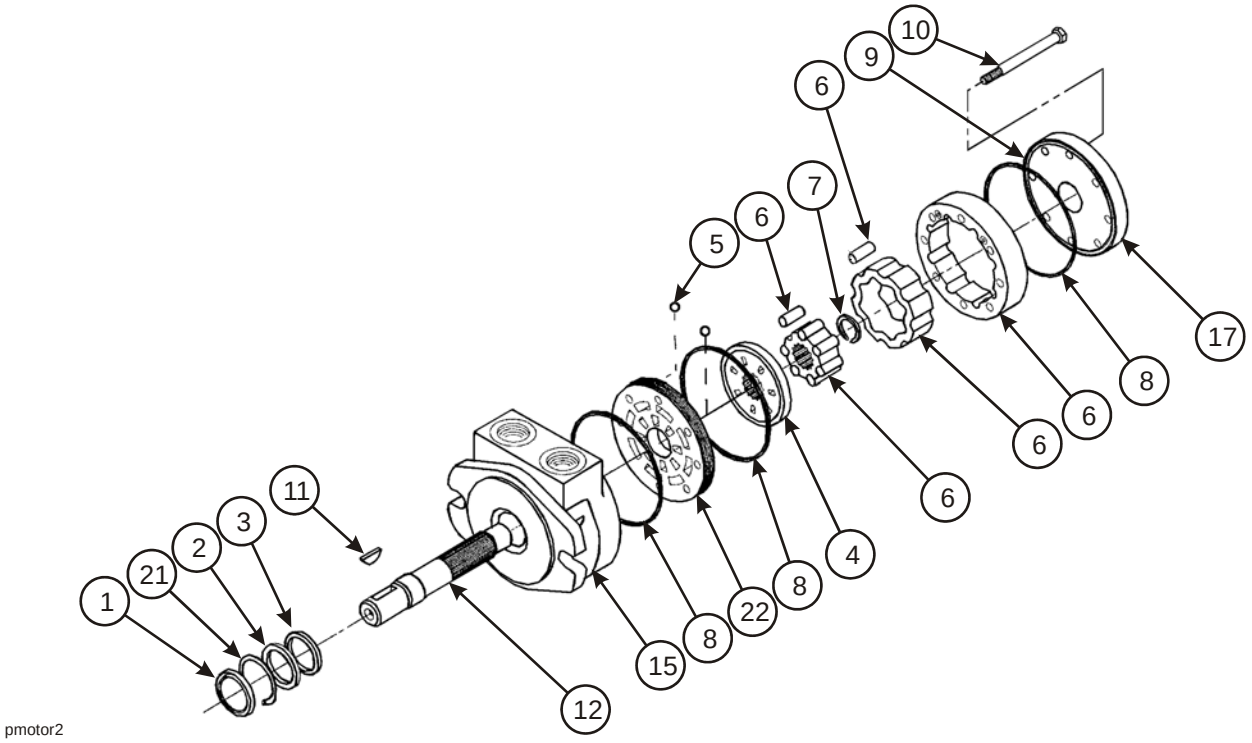



**Figure 2-98: Winch Motor Assembly**

# 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 |

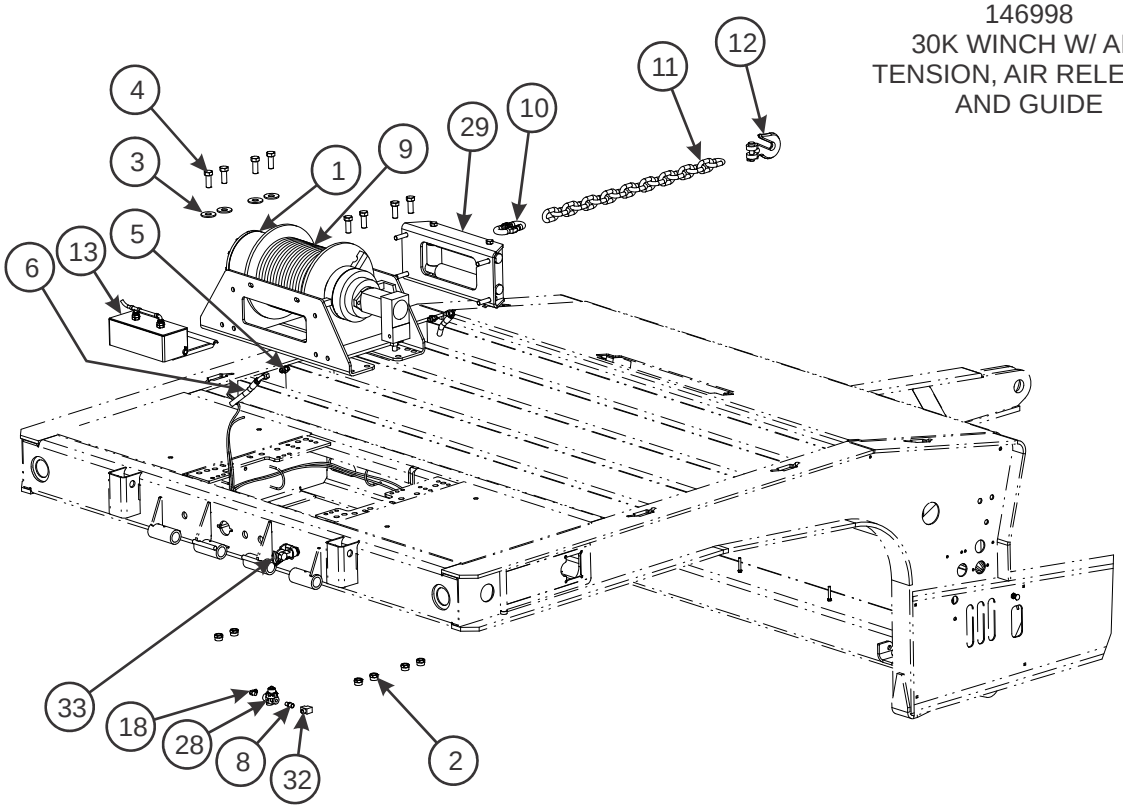



**Figure 2-99: 30,000 Lb. Upper Deck Winch Installation (1 of 3)**

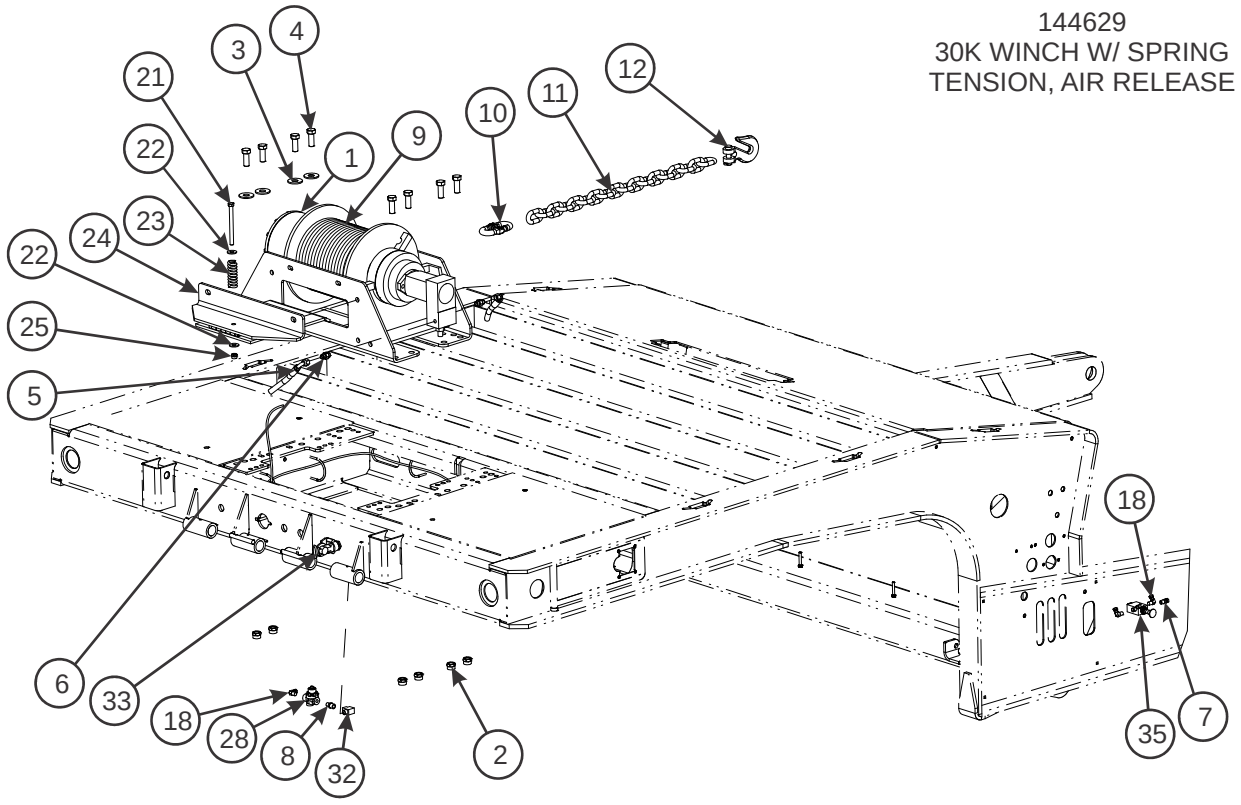
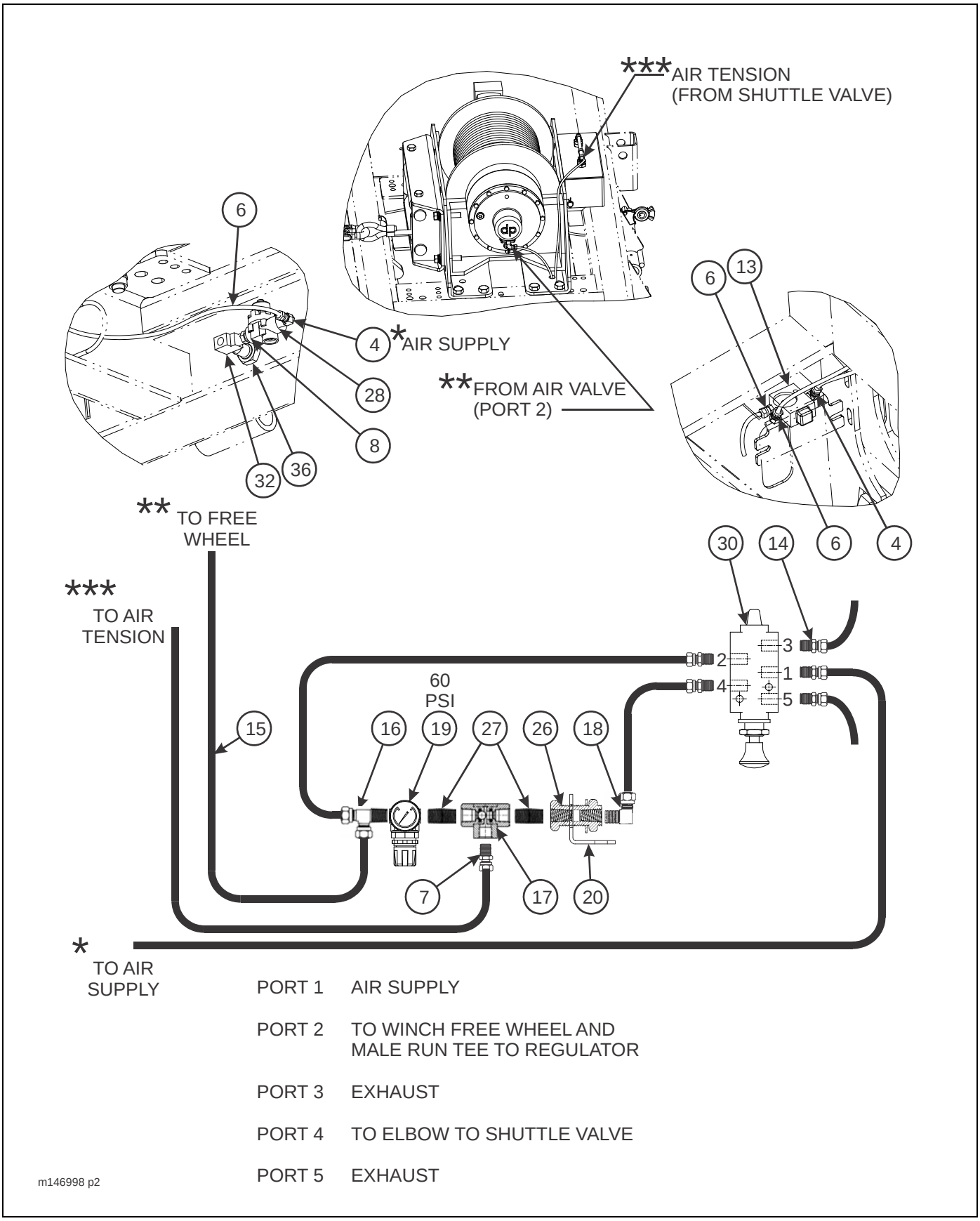



**Figure 2-100: 30,000 Lb. Upper Deck Winch Installation (2 of 3)**




| | |
|---|---|
| PORT 1 | AIR SUPPLY |
| PORT 2 | TO WINCH FREE WHEEL AND MALE RUN TEE TO REGULATOR |
| PORT 3 | EXHAUST |
| PORT 4 | TO ELBOW TO SHUTTLE VALVE |
| PORT 5 | EXHAUST |

**Figure 2-101: 30,000 Lb. Upper Deck Winch Installation (3 of 3)**

# 30K UPPER DECK WINCH INSTALLATION (DP)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 146998 | WINCH, 30K W/ AT, AR, & GUIDED | |
| | | (INCL ITEMS 1,2,4,6-8,10-20,26-31) | |
| | 147193 | WINCH, 30K SPG TENS NO FREE | |
| | | (INCL ITEMS 1-6,10-13,21-25) | |
| | 144629 | WINCH INST, 30K SPG TENS | |
| | | (INCL ITEMS 1-4, 6-8, 12-13, 15, 18, 21-25, 28) | |
| 1 | 3-873-010173 | WINCH, 30K ITEMS (SEE PAGE 2-187) | 1 |
| 2 | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB | 10 |
| 3 | 1-861-010034-17 | WASHER, SPLIT LOCK 3/4 | 10 |
| 4 | 1-654-010061-07 | SCREW, HEX HEAD CAP 3/4-10 X 2-1/2 GR5 | 10 |
| 5 | 202702-8-8S | ADAPTER #8 O-RING TO #8 TUBE | 2 |
| 6 | 1-397-010302220 | HOSE ASSEMBLY | 2 |
| 7 | 1-297-010007-05 | FITTING, AIR | 1 |
| 8 | 1-297-010019-05 | FITTING, BRS PIPE HEX 3/8 X 1/4 | 1 |
| 9 | 132833 | CABLE ASSEMBLY 5/8 X 85 W/ LOOP | REF |
| | 132834 | CABLE ASSEMBLY 5/8 X 150 W/ LOOP | REF |
| 10 | 3-174-010059 | CHAIN LINK 5/8 | 1 |
| 11 | 3-174-010060036 | CHAIN GR 80 | 1 |
| 12 | 1-382-010035-06 | HOOK, CLEVIS | 1 |
| 13 | 3-873-010172 | WINCH, CABLE AIR TENSION 30K (SEE PAGE 2-193) | 1 |
| 14 | 1-297-010007-04 | FITTING AIR | 5 |
| 15 | 1-833-010001 | NYLON TUBING 1/4 OD | AR |
| 16 | 1-297-010011-02 | FITTING, AIR TEE | 1 |
| 17 | 3-843-010039-02 | VALVE AIR SHUTTLE 1/4 | 1 |
| 18 | 1-297-010008-07 | FITTING, AIR 90 | 3 |
| 19 | 3-626-010004 | REGULATOR, AIR PRESSURE | 1 |
| 20 | 3-120-010445 | BRACKET, PRESSURE REGULATOR | 1 |
| 21 | 1-654-010055-17 | SCREW, HEX HEAD CAP 1/2-13 X 6 GR5 | 1 |
| 22 | 1-861-010032-15 | WASHER, FLAT 1/2 | 2 |
| 23 | 3-720-010010 | SPRING COMP LEVEL WIND | 1 |
| 24 | 111641 | WINCH TENSIONER WLDMT 30K | 1 |
| 25 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 1 |
| 26 | 1-297-010022-02 | FITTING, AIR ANCHOR | 1 |
| 27 | 1-297-010020-02 | FITTING, BRASS PIPE | 2 |
| 28 | 905-54-107 | BRAKE PROTECTION VALVE | 1 |
| | 167692 | FILTER | 1 |
| 29 | 122333 | WINCH ROLLER GUIDE 30K PLNTY DP (SEE PAGE 2-191) | 1 |
| 30 | 139552 | VALVE, AIR 5 WAY/2 POS | 1 |
| 31 | 125892 | CLAMP, CABLE 3/8 (NOT SHOWN) | 1 |
| 32 | 1-297-010018-03 | FITTING, TEE | REF |
| 33 | 108801 | GLAD HAND, RED AIR | REF |
| 34 | 116837 | VALVE, MOUNT WELDMENT (NOT SHOWN) | REF |
| 35 | 134657 | VALVE, AIR 3 WAY/2 POS | 1 |
| 36 | 55B61 | FRAME UNION | REF |

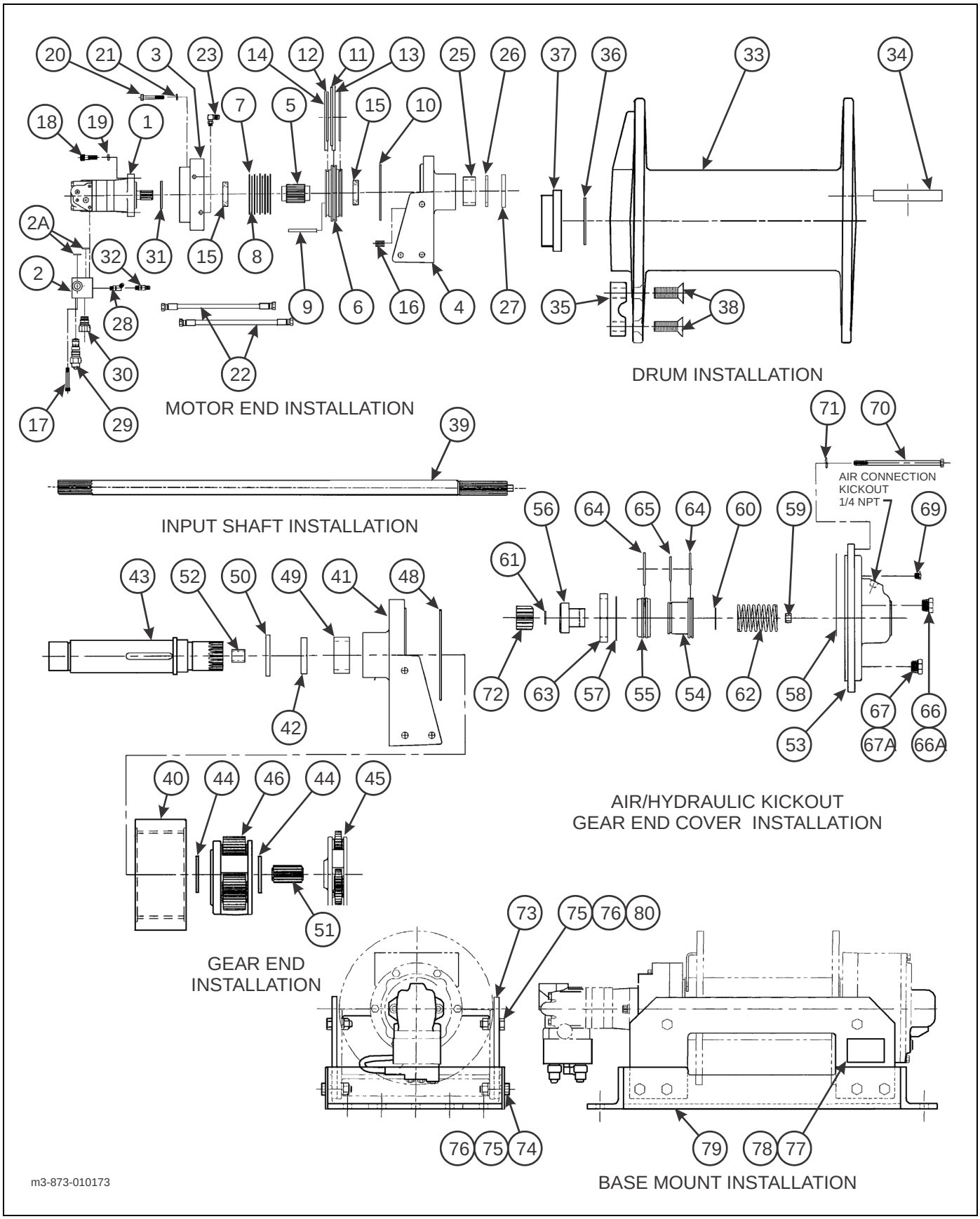



**Figure 2-102: 30,000 Lb. Winch Items**

# 30,000# WINCH ITEMS (DP)

| ITEM | PART NO. | REFERENCENO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| | 3-873-010173 | | WINCH 30K ITEMS | |
| | | | **MOTOR END INSTALLATION** | |
| 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 | 1 |
| 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 | 1 |
| | 137885 | 9400 | DISC PLATE KIT (INCL ITEMS 7-8 & 16) | 1 |
| | 137886 | 9406 | SEAL KIT (INCL ITEMS 10-14) | 1 |
| | | | **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 | 2 |

# 30,000# WINCH ITEMS (DP)

| ITEM | PART NO. | REFERENCENO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| | | | **INPUT SHAFT INSTALLATION** | |
| 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 |

# 30,000# WINCH ITEMS (DP)

| ITEM | PART NO. | REFERENCENO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| 77 | ----- | 1165 | RIVET DRIVE U TYPE #2 X 1/4 LONG | 4 |
| 78 | ----- | 10466 | PLATE INFORMATION | 1 |
| 79 | ----- | 14073 | BASE SUPPORT | 1 |
| 80 | ----- | 1504 | CAP SCREW, HEX HEAD 5/8-11 X 2 GR5 | 12 |

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.

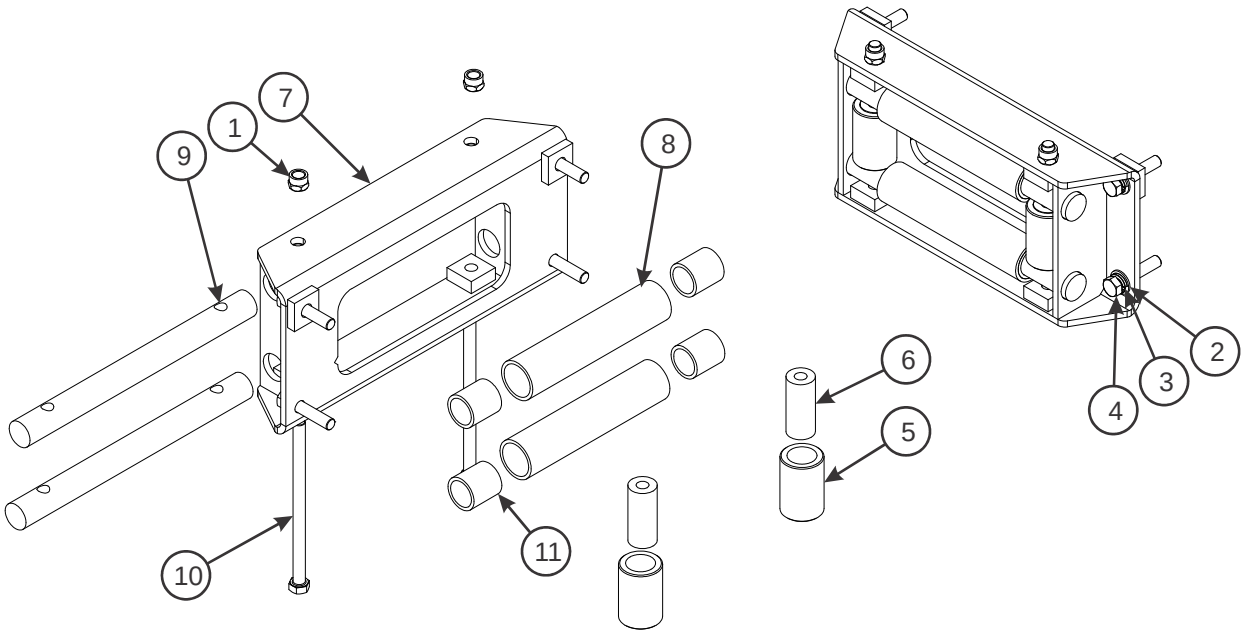



**Figure 2-103: Winch Roller Guide - 30K**

# WINCH ROLLER GUIDE - 30K

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 122333 | WINCH ROLLER GUIDE - 30K PLNTY DP | |
| 1 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 2 |
| 2 | 1-861-010032-18 | WASHER, FLAT 5/8N | 4 |
| 3 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 4 |
| 4 | 1-654-010059-09 | SCREW, HEX HEAD CAP 5/8-11 X 3 GR5 | 4 |
| 5 | 111385 | TUBE VERTICAL ROLLER FAIRLEAD | 2 |
| 6 | 111386 | BUSHING FAIRLEAD VERT ROLLER | 2 |
| 7 | 122334 | MOUNT WELDMENT | 1 |
| 8 | 122336 | TUBE, HORIZONTAL ROLLER | 2 |
| 9 | 122337 | ROD, ROLLER | 2 |
| 10 | 122458 | SCREW, HEX HEAD CAP 5/8-11 X 10 GR8 | 2 |
| 11 | AA-1807 | SLEEVE, BEARING 1-1/2D X 1-7/8OD X 2 | 4 |

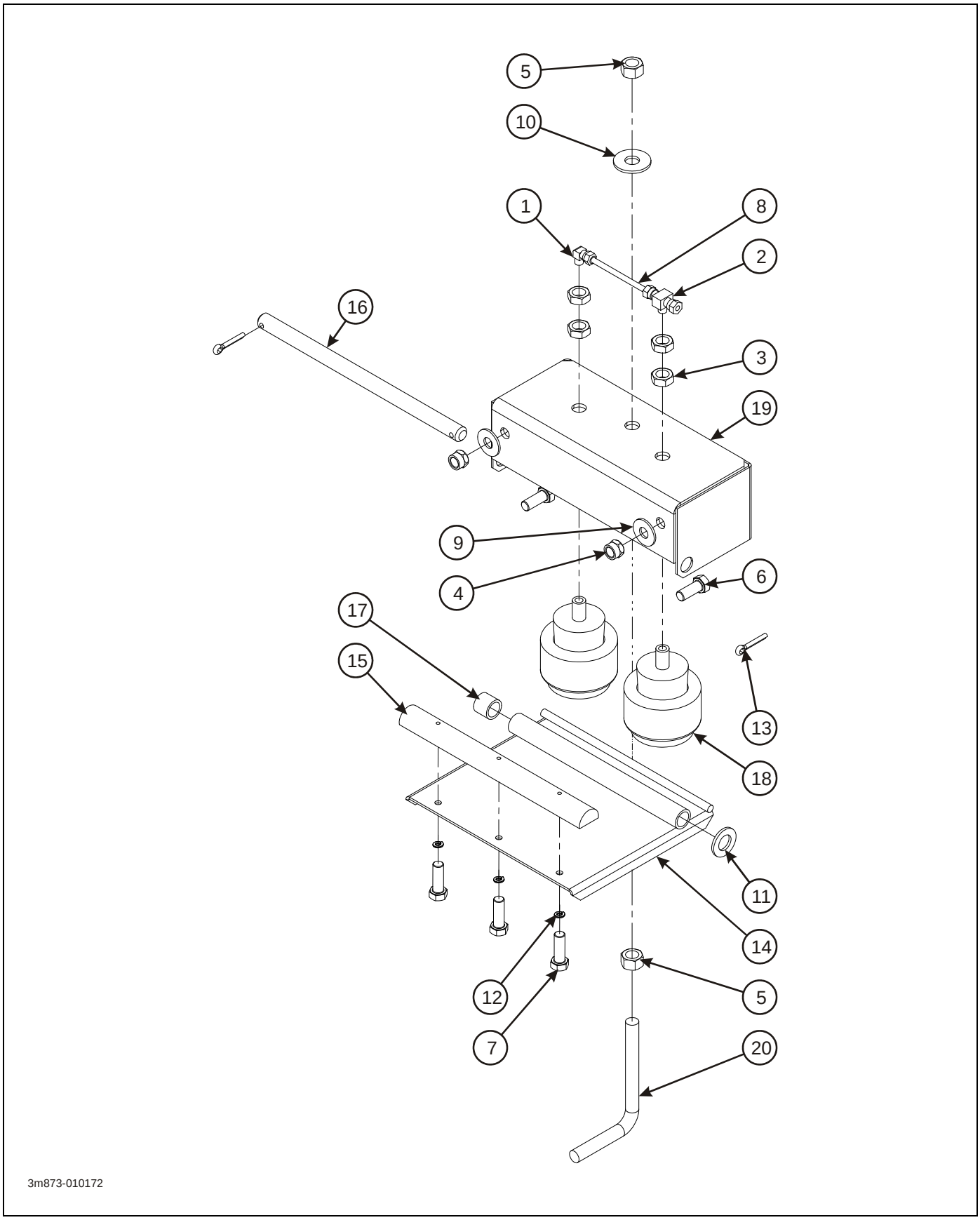



**Figure 2-104: Winch, Cable Air Tension**

# 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 |

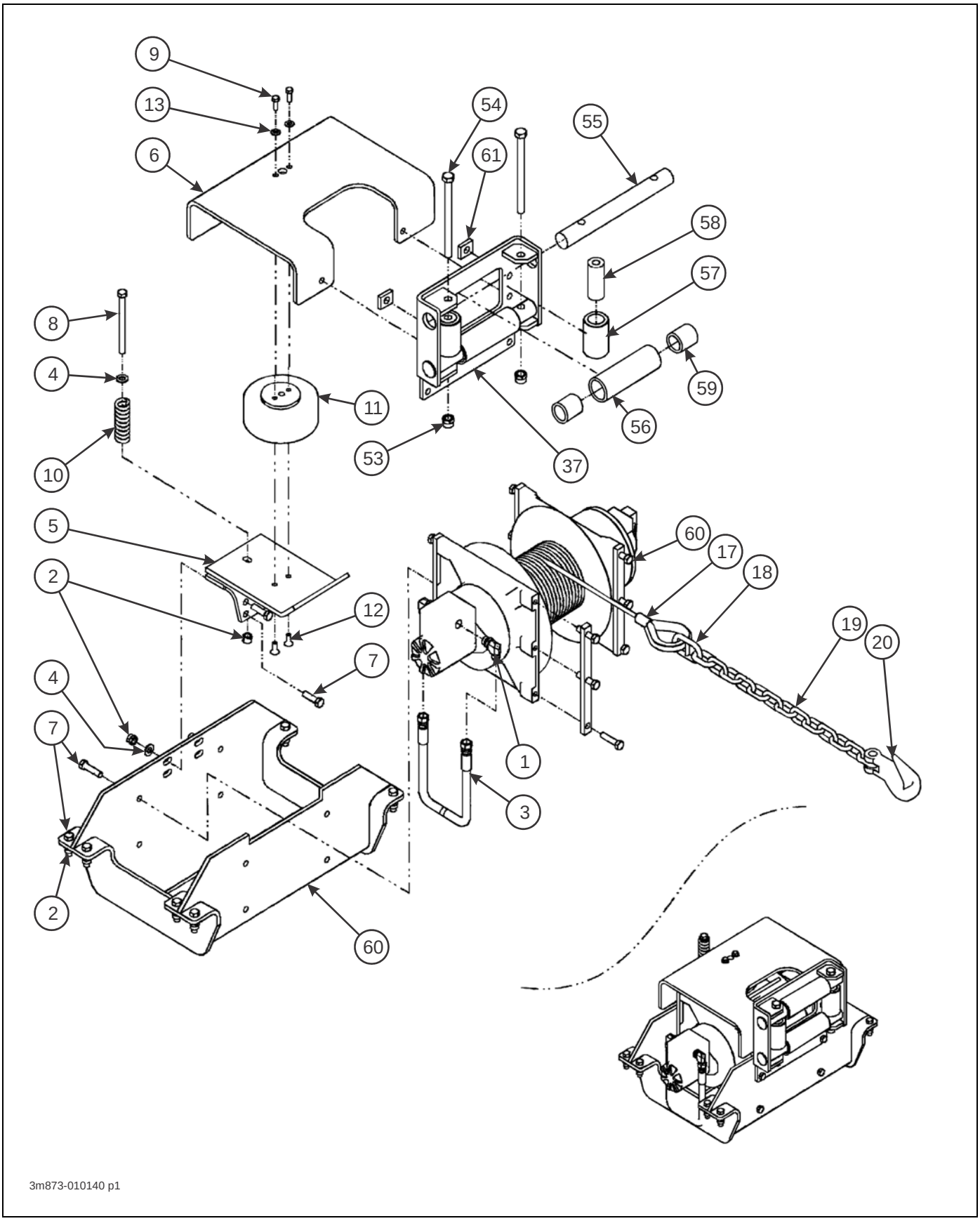



**Figure 2-105: 12K, 15K, & 20K Upper Deck Winch (DP)**
**(1 of 2)**

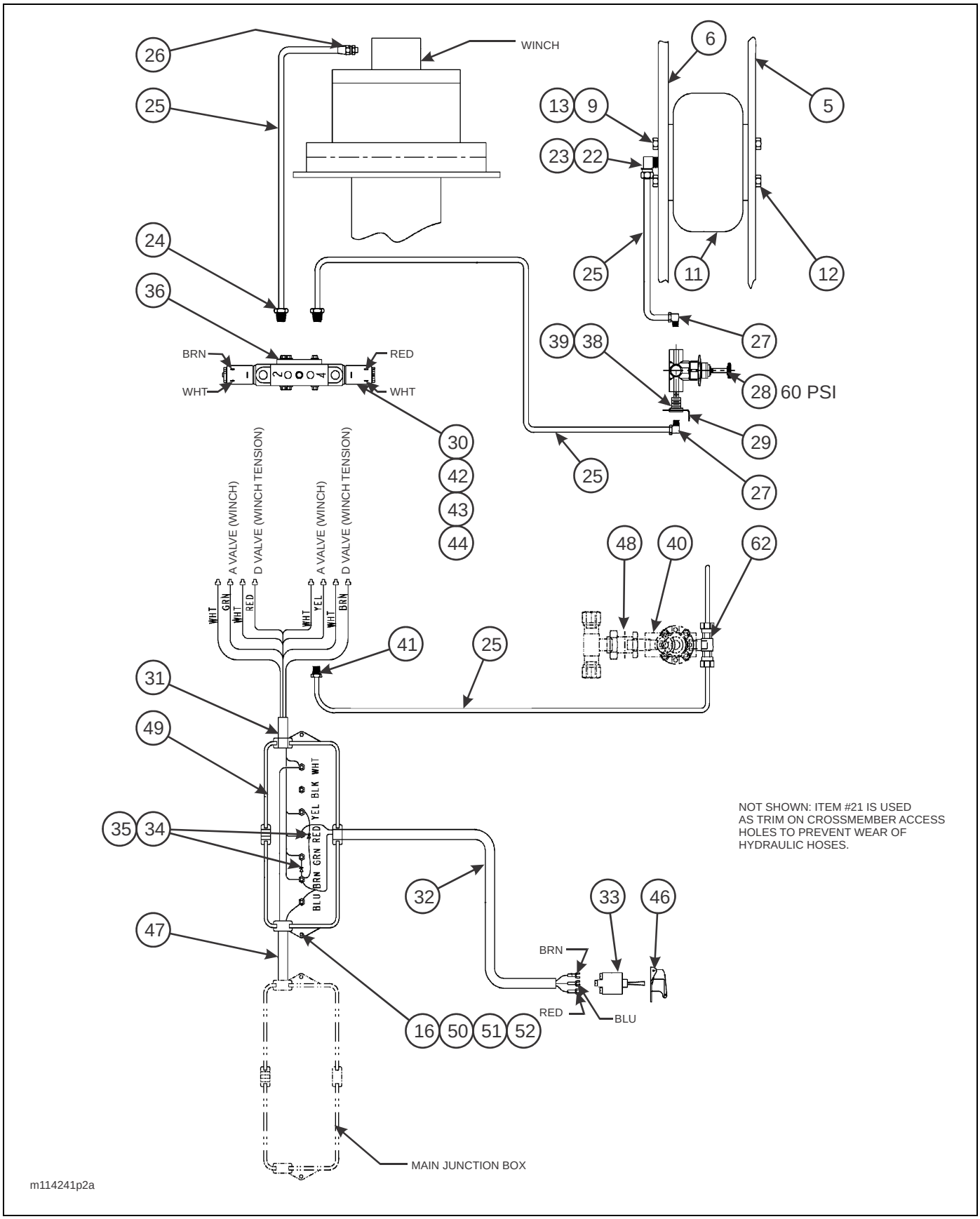



**Figure 2-106: 12K, 15K, & 20K Upper Deck Winch (DP)**
**(2 of 2)**

# 12K, 15K, & 20K UPPER DECK WINCH (DP)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 114241 | WINCH INSTALLATION 12K, 15K, 20K DP | REF |
| | 111351 | WINCH ROLLER GUIDE DP WINCH (OPTION) (INCL. ITEMS 37, 53-59, 61) | |
| 1 | 2062-8-8S | ADAPTER, 90 | 2 |
| 2 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 | 13 |
| 3 | 1-397-010301208 | HOSE ASSEMBLY 1/2 X 208 | 2 |
| 4 | 1-861-010032-14 | WASHER, FLAT 1/2 | 5 |
| 5 | 106379 | WINCH TENSIONER WLDMT | 1 |
| 6 | 106385 | PLATE AIR TENSION (*) | 1 |
| 7 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 12 |
| 8 | 1-654-010055-17 | SCREW, HEX HEAD CAP 1/2 -13 X 6 GR5 | 1 |
| 9 | 1-654-010036-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR8 (*) | 2 |
| 10 | 3-720-010010 | SPRING COMP LEVEL WIND | 1 |
| 11 | 3-720-010042 | SPRING, AIR 6-1/2 (*) | 1 |
| 12 | 1-654-010141-04 | SCREW, SOCKET HEAD CTSK 3/8-16 X 1 GR8 (*) | 2 |
| 13 | 1-861-010032-10 | WASHER, FLAT 3/8 (*) | 2 |
| 16 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 (*) | 2 |
| 17 | 3-155-010018-6 | CABLE, 5/8 W/ LOOP(20K) | REF |
| | 3-155-010017-4 | CABLE, 1/2 W/ LOOP 85 FT (12K AND 15K) | REF |
| 18 | 3-174-010038 | CHAIN LINK, CONNECTING 1/2 | 1 |
| 19 | 3-174-010039036 | CHAIN, 1/2 X 36 GR7 | 1 |
| 20 | 7HCGHT500 | 1/2 CLEVIS GRAB HOOK | 1 |
| 21 | 3-201-010001036 | CONDUIT PLASTIC FLEX (*) (NOT SHOWN) | 1 |
| 22 | 1-297-010031-02 | FITTING, BRASS PIPE (*) | 1 |
| 23 | 1-297-010032-03 | FITTING, AIR 90 (*) | 1 |
| 24 | 1-297-010007-04 | FITTING, AIR (*) | 2 |
| 25 | 1-833-010001 | TUBING, NYLON 1/4 (*) | AR |
| 26 | 1-297-010007-05 | FITTING, AIR 1/4 (*) | 1 |
| 27 | 1-297-010008-07 | FITTING, AIR 90 (*) | 2 |
| 28 | 3-626-010004 | REGULATOR, AIR PRESSURE (*) | 1 |
| 29 | 3-120-010445 | BRACKET, PRESSURE REGULATOR (*) | 1 |
| 30 | 3-843-010022 | VALVE, PNEUMATIC 4 WAY (*) | 1 |
| 31 | 3-368-010125 | HARNESS ASSEMBLY (*) | 1 |
| 32 | 3-368-010187 | HARNESS, REMOTE SWITCH (*) | 1 |
| 33 | 1-765-010065 | TOGGLE SWITCH SPDT (*) | 1 |
| 34 | 2-272-010109 | ZENOR DIODE (* W/ REMOTE) | 2 |
| 35 | 3-272-010018 | HEAT SHRINK INSULATOR (* W/ REMOTE) | 2 |
| 36 | 3-136-010001-01 | BREATHER, PNEUMATIC EXHAUST (* W/O REMOTE) | 2 |
| 37 | 111387 | BRACKET WELDMENT FAIRLEAD | 1 |
| 38 | 1-297-010022-02 | FITTING, AIR ANCHOR (*) | 1 |
| 39 | 1-297-010020-02 | FITTING BRASS PIPE (*) | 1 |
| 40 | 905-54-107 | VALVE & FILTER PRESSURE (*) | REF |
| | 167692 | FILTER | 1 |
| 41 | 1-297-010008-05 | FITTING, AIR 90 (*) | 1 |
| 42 | 1-654-010024014 | SCREW, MACH SLOT FIL HEAD #6-32 X 1-1/2 (* W/O REMOTE) | 2 |
| 43 | 1-861-010032-01 | WASHER, FLAT #6 (* W/O REMOTE) | 2 |
| 44 | 1-512-010003-02 | NUT, HEX LOCK #6-32 (* W/O REMOTE) | 2 |
| 46 | 3-348-010048 | GUARD, SWITCH - 3 POSITION (*) | 1 |

# 12K, 15K, & 20K UPPER DECK WINCH (DP)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 47 | 3-368-010188 | HARNESS, POWER JUMPER (*) | 1 |
| 48 | 1-297-010019-05 | FITTING, BR | REF |
| 49 | 750-029 | JUNCTION BOX 7 STUD (*) | 1 |
| 50 | 1-512-010007-05 | NUT, HEX 1/4-20 GRB (*) | 2 |
| 51 | 1-861-010032-06 | WASHER, FLAT 1/4N (*) | 2 |
| 52 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 (*) | 2 |
| 53 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 2 |
| 54 | 1-654-010059-21 | SCREW, HEX HEAD CAP 5/8-11 X 8 | 2 |
| 55 | 111383 | ROD FAIRLEAD ROLLER | 2 |
| 56 | 111384 | TUBE HORIZONTAL ROLLER FAIRLEAD | 2 |
| 57 | 111385 | TUBE, VERTICAL ROLLER FAIRLEAD | 2 |
| 58 | 111386 | BUSHING, FAIRLEAD VERT ROLLER | 2 |
| 59 | 3-150-010005 | 1-1/2 ID BRONZE SLEEVE BEARING | 2 |
| 60 | 111091 | WINCH DP 12K MANUAL | 1 |
| | 111092 | WINCH DP 12K AIR | 1 |
| | 111093 | WINCH DP 15K MANUAL | 1 |
| | 111094 | WINCH DP 15K AIR | 1 |
| | 111095 | WINCH DP 20K MANUAL | 1 |
| | 111096 | WINCH DP 20K AIR | 1 |
| | | (SEE PAGE 2-201 FOR WINCH BREAKDOWNS) | |
| 61 | 3-711-010120 | SPACER, TOOL BOX 3/8 X 1-1/2 | 2 |
| 62 | 1-297-010015-03 | FITTING, AIR BR TEE | 1 |

*USED ON AIR TENSION RELEASE MODELS

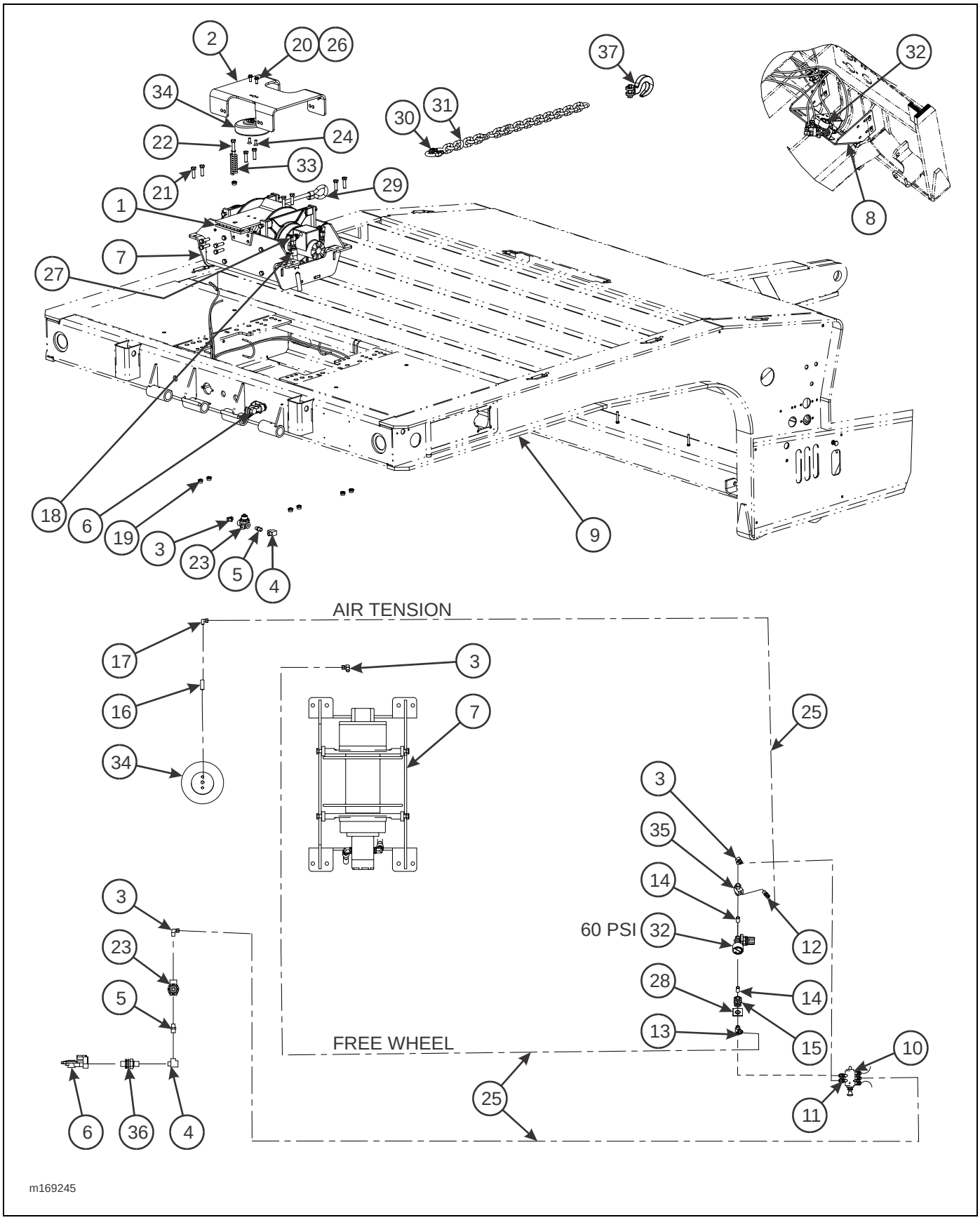



**Figure 2-107: 20K Winch Installation, Air T/R (DP)**

# 20K WINCH INSTALLATION, AIR T/R (DP)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 169245 | WINCH INSTALLATION 20K AIR T/R DP | |
| 1 | 106379 | WINCH TENSIONER WLDMT | 1 |
| 2 | 106385 | PLATE AIR TENSION (*) | 1 |
| 3 | 1-297-010008-07 | FITTING, AIR 90 (*) | 2 |
| 4 | 1-297-010018-03 | FITTING, TEE | 1 |
| 5 | 1-297-010019-05 | FITTING, BR | REF |
| 6 | 108801 | GLAD HAND - RED AIR | REF |
| 7 | 111096 | WINCH DP 20K AIR (SEE PAGE 2-201) | 1 |
| 8 | 116837 | VALVE MOUNT WELDMENT CONTROLS | REF |
| 9 | ----- | GOOSENECK WELDMENT | REF |
| 10 | 139552 | VALVE, AIR 5 WAY/S POSITION | 1 |
| 11 | 1-297-010007-04 | FITTING, AIR (*) | 2 |
| 12 | 1-297-010007-05 | FITTING, AIR 1/4 (*) | 1 |
| 13 | 1-297-010011-02 | FITTING, AIR M/RUN TEE | 1 |
| 14 | 1-297-010020-02 | FITTING BRASS PIPE (*) | 1 |
| 15 | 1-297-010022-02 | FITTING, AIR ANCHOR (*) | 1 |
| 16 | 1-297-010031-02 | FITTING, BRASS PIPE (*) | 1 |
| 17 | 1-297-010032-03 | FITTING, AIR 90 (*) | 1 |
| 18 | 1-397-010301208 | HOSE ASSEMBLY 1/2 X 208 | 2 |
| 19 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 | 13 |
| 20 | 1-654-010036-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR8 (*) | 2 |
| 21 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 12 |
| 22 | 1-654-010055-17 | SCREW, HEX HEAD CAP 1/2 -13 X 6 GR5 | 1 |
| 23 | 905-54-107 | VALVE & FILTER PRESSURE (*) | REF |
| | 167692 | FILTER | 1 |
| 24 | 1-654-010141-04 | SCREW, SOCKET HEAD CTSK 3/8-16 X 1 GR8 (*) | 2 |
| 25 | 1-833-010001 | TUBING, NYLON 1/4 (*) | AR |
| 26 | 1-861-010032-10 | WASHER, FLAT 3/8 (*) | 2 |
| 27 | 2062-8-8S | ADAPTER, 90 | 2 |
| 28 | 3-120-010445 | BRACKET, PRESSURE REGULATOR (*) | 1 |
| 29 | 3-155-010018-6 | CABLE, 5/8 X 85’ | REF |
| 30 | 3-174-010038 | CHAIN LINK, CONNECTING 1/2 | 1 |
| 31 | 3-174-010039036 | CHAIN, 1/2 X 36 GR7 | 1 |
| 32 | 3-626-010004 | REGULATOR, AIR PRESSURE (*) | 1 |
| 33 | 3-720-010010 | SPRING COMP LEVEL WIND | 1 |
| 34 | 3-720-010042 | SPRING, AIR 6-1/2 (*) | 1 |
| 35 | 3-843-010039-02 | VALVE, AIR SHUTTLE | 1 |
| 36 | 55B61 | FRAME UNION | REF |
| 37 | 7HCGHT500 | 1/2 CLEVIS GRAB HOOK | 1 |

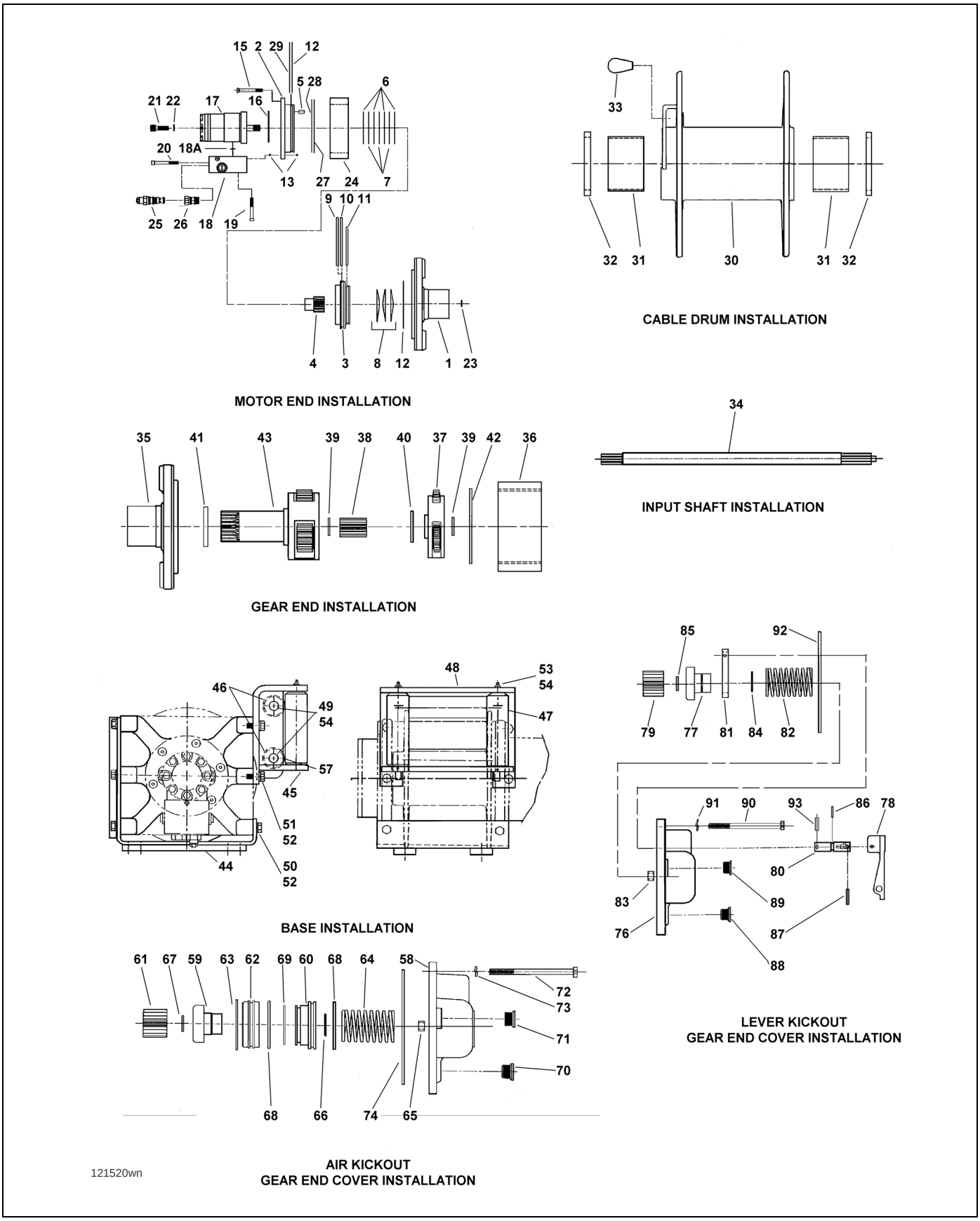



**Figure 2-108: 12K, 15K, & 20K Winch Items (DP Planetary)**

# 12K, 15K, & 20K WINCH ITEMS (DP PLANETARY)

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| | 111091 | | WINCH DP 12K MANUAL | |
| | 111092 | | WINCH DP 12K AIR | |
| | 111093 | | WINCH DP 15K MANUAL | |
| | 111094 | | WINCH DP 15K AIR | |
| | 111095 | | WINCH DP 20K MANUAL | |
| | 111096 | | WINCH DP 20K AIR | |
| | | | MOTOR END INSTALLATION | |
| 1 | ----- | 13620 | SUPPORT, MOTOR END | 1 |
| 2 | ----- | 13602 | ADAPTER, MOTOR | 1 |
| 3 | ----- | 13603 | PISTON, BRAKE | 1 |
| 4 | ----- | 13601 | SHAFT, BRAKE | 1 |
| 5 | ----- | 3437 | PIN, DOWEL - 3/8 X 5/8 | 3 |
| 6 | ----- | 13035 | PLATE, FRICTION - BRAKE | 4 |
| 7 | ----- | 13034 | PLATE, STATIONARY - BRAKE | 3 |
| 8 | ----- | 3607 | SPRING | 3 |
| 9 | ----- | 9851 | O-RING | 1 |
| 10 | ----- | 9852 | RING, BACKUP | 1 |
| 11 | ----- | 9709 | O-RING | 1 |
| 12 | 137424 | 9843 | O-RING | 2 |
| 13 | 137425 | 9612 | O-RING | 2 |
| 14 | ----- | 3440 | PLUG, EXPANDER (NOT SHOWN) | 2 |
| 15 | 180586 | 4346-8 | CAP SCREW, SKT HEAD FL 3/8NC X 3 GR8 | 6 |
| 16 | 141547 | 9637 | O-RING | 1 |
| 17 | ----- | | MOTOR, HYDRAULIC (12K) | |
| | 112641 | 73216 | MOTOR, HYDRAULIC (15K) | 1 |
| | 176681 | 73218 | MOTOR, HYDRAULIC (20K) | 1 |
| 18 | 13894 | 13894 | VALVE ASSEMBLY, COUNTERBALANCE | 1 |
| 18A | 141456 | 9821 | O-RING | 2 |
| 19 | 180585 | 1167 | CAP SCREW SOCKET HEAD 5/16-18 X 2 | 4 |
| 20 | 180584 | 4076 | CAP SCREW SOCKET HEAD 1/4-20 X 4-1/2 | 1 |
| 21 | 172903 | 1454 | CAP SCREW SOCKET HEAD 1/2-13 X 1-1/4 | 2 |
| 22 | ----- | 1144 | WASHER LOCK 1/2 HI COLLAR | 2 |
| 23 | ----- | 3460 | RING, RETAINER 3/4 X .035T | 2 |
| 24 | ----- | 13621 | SLEEVE, ADAPTER | 1 |
| 25 | 70040 | 70040 | CARTRIDGE | 1 |
| 26 | 70042 | 70042 | PLUG, SUN | 1 |
| 27 | 137426 | 9600 | O-RING | 1 |
| 28 | 137427 | 9711 | RING, BACKUP | 1 |
| 29 | 137428 | 9846 | RING, BACKUP | 1 |
| | | | CABLE DRUM INSTALLATION | |
| 30 | ----- | 12401 | DRUM | 1 |
| 31 | ----- | 11947 | BEARING - BRONZE | 2 |
| 32 | ----- | 9929 | SEAL SHAFT | 2 |
| 33 | 156528 | 10529 | CLIP - CABLE 7/16 | 1 |
| | | | INPUT SHAFT INSTALLATION | |
| 34 | ----- | 13678 | INPUT SHAFT | 4 |

# 12K, 15K, & 20K WINCH ITEMS (DP PLANETARY)

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| | | | GEAR END INSTALLATION | |
| 35 | ----- | 13605 | SUPPORT, END GEAR | 1 |
| 36 | ----- | 81107 | GEAR - RING | 1 |
| 37 | ----- | 3412 | CARRIER, PRIMARY | 1 |
| 38 | ----- | 13380 | GEAR, SUN | 1 |
| 39 | ----- | 13385 | WASHER, THRUST | 2 |
| 40 | ----- | 12083 | WASHER, THRUST NYLON J | 1 |
| 41 | ----- | 13164 | WASHER, THRUST NYLON | 1 |
| 42 | ----- | 9897 | O-RING | 1 |
| 43 | ----- | 13379 | CARRIER ASSEMBLY, SECONDARY | 1 |
| | | | BASE MOUNT INSTALLATION | |
| 44 | ----- | 13599 | BASE, MOUNTING | 1 |
| 45 | ----- | 13746 | BRACKET, MOUNTING | 1 |
| 46 | ----- | 13400 | ROLLER, VERTICAL | 2 |
| 47 | ----- | 12048 | ROLLER, VERTICAL BUMPER | 2 |
| 48 | ----- | 12043 | SHAFT, ROLLER VERTICAL, BUMPER | 2 |
| 49 | ----- | 13403 | SHAFT ROLLER VERTICAL 7/8 X 9-3/8 | 2 |
| 50 | ----- | 1401 | CAP SCREW, HEX HEAD 1/2-13NC X 1 | 8 |
| 51 | ----- | 1402 | CAP SCREW, HEX HEAD 1/2-13NC X 1-1/4 | 4 |
| 52 | ----- | 1495 | WASHER, LOCK 1/2 | 12 |
| 53 | ----- | 1000 | FITTING, GREASE STR 1/8 | 4 |
| 54 | ----- | 81611 | BUSHING, BRONZE | 8 |
| 55 | ----- | 12113 | PLATE, ID WINCH (NOT SHOWN) | 1 |
| 56 | ----- | 1165 | RIVET, TYPE U (NOT SHOWN) | 4 |
| 57 | ----- | 3456 | PIN, SPRING 3/16 X 13/16 | 4 |
| | | | GEAR END COVER INSTALLATION - AIR KICKOUT | |
| 58 | ----- | 13370 | COVER, GEAR END | 1 |
| 59 | ----- | 13372 | COUPLING, DRIVE | 1 |
| 60 | ----- | 13373 | PISTON - AKO | 1 |
| 61 | ----- | 13386 | GEAR, SUN | 1 |
| 62 | ----- | 13296 | CYLINDER, PISTON | 1 |
| 63 | ----- | 3632 | RING, RETAINING ROUND | 1 |
| 64 | ----- | 2309 | SPRING, COMPRESSION | 1 |
| 65 | ----- | 81612 | BUSHING, BRONZE | 1 |
| 66 | ----- | 3303 | RING, RETAINER | 1 |
| 67 | ----- | 3321 | RING, RETAINER | 1 |
| 68 | ----- | 9672 | O-RING | 2 |
| 69 | ----- | 9704 | O-RING | 1 |
| 70 | ----- | 76343 | PLUG, SOCKET HEAD MAGNETIC #10 | 1 |
| 71 | ----- | 76344 | PLUG, O-RING, SOCKET HEAD 7/8-14 | 1 |
| 72 | ----- | 3004 | CAP SCREW, HEX HEAD 5/16-18 X 4-3/4 | 8 |
| 73 | 132106 | 1168 | WASHER, LOCK 5/16 | 8 |
| 74 | ----- | 9897 | O-RING | 1 |
| 75 | ----- | 1157 | CAPLUG (NOT SHOWN) | 1 |

# 12K, 15K, & 20K WINCH ITEMS (DP PLANETARY)

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| | | | GEAR END COVER INSTALLATION - LEVER KICKOUT | |
| 76 | ----- | 14182 | COVER, GEAR END | 1 |
| 77 | ----- | 13372 | COUPLING, DRIVE | 1 |
| 78 | ----- | 14099 | LEVER, KICKOUT | 1 |
| 79 | ----- | 13386 | GEAR, SUN | 1 |
| 80 | ----- | 14181 | SHAFT, SIFTER | 1 |
| 81 | ----- | 14183 | YOKE, OVAL SHIFT | 1 |
| 82 | ----- | 2309 | SPRING, COMPRESSION | 1 |
| 83 | ----- | 81612 | BUSHING, BRONZE | 1 |
| 84 | ----- | 3303 | RING, RETAINER | 1 |
| 85 | ----- | 3321 | RING, RETAINER | 1 |
| 86 | ----- | 9739 | O-RING | 1 |
| 87 | ----- | 3705 | PIN, SPRING 3/16 X 1-1/9 | 1 |
| 88 | ----- | 76343 | PLUG, SOCKET HEAD MAGNETIC #10 | 1 |
| 89 | ----- | 76344 | PLUG, O-RING, SOCKET HEAD 7/8-14 | 1 |
| 90 | ----- | 3004 | CAP SCREW, HEX HEAD 5/16-18 X 4-3/4 | 8 |
| 91 | 132106 | 1168 | WASHER, LOCK 5/16 | 8 |
| 92 | ----- | 9897 | O-RING | 1 |
| 93 | ----- | 3456 | PIN, SPRING 3/16 X 13/16 | 1 |

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.

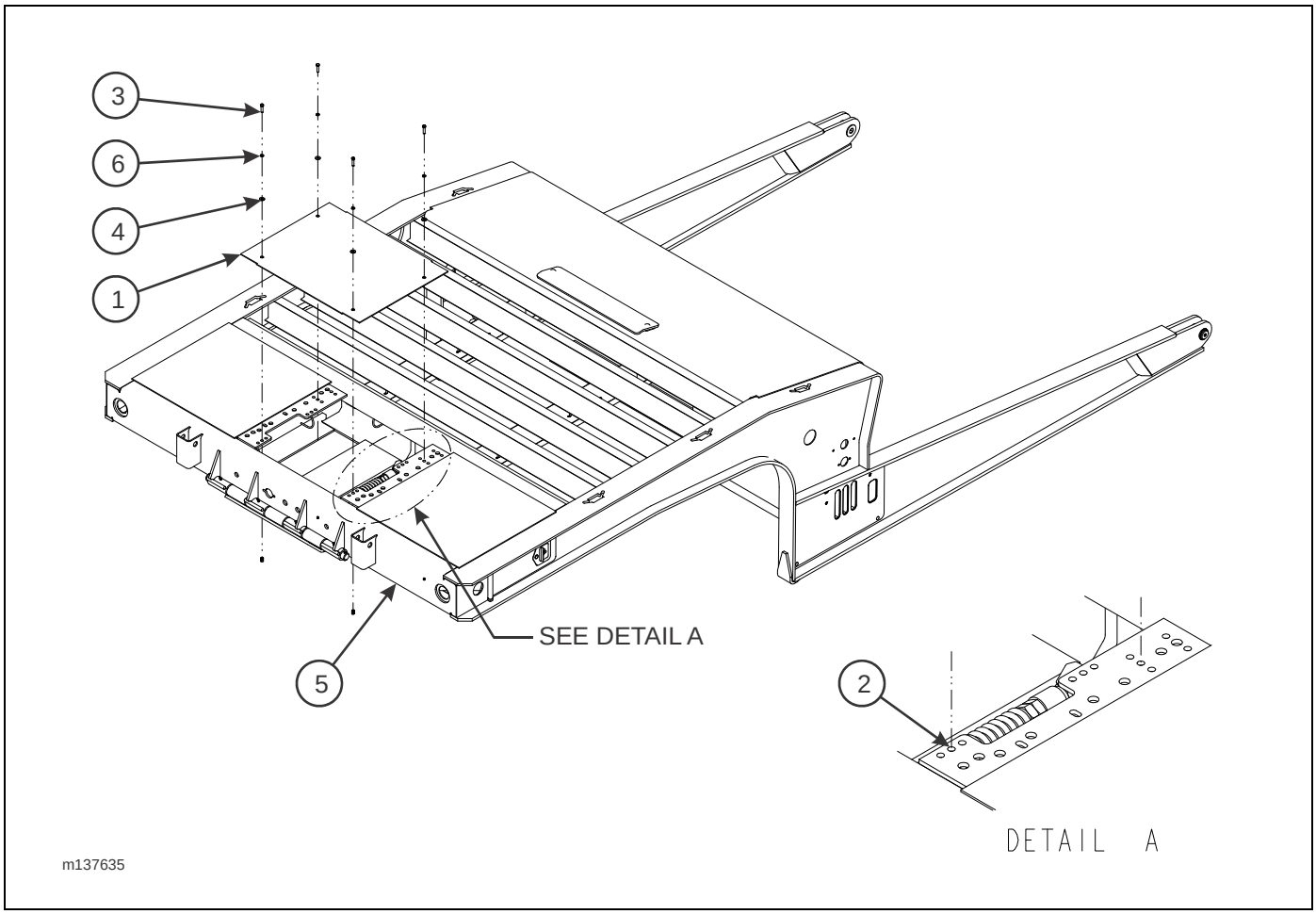



**Figure 2-109: Upper Deck Cover Assembly (Option)**

# UPPER DECK COVER ASSEMBLY (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 137635 | COVER ASSEMBLY, UPPER DECK | |
| 1 | 137634 | COVER, UPPER DECK | 1 |
| 2 | 139254 | NUTSERT, 3/8-16 | 4 |
| 3 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 4 |
| 4 | 1-861-010032-11 | WASHER, FLAT 3/8W | 4 |
| 5 | 130552 | FRAME ASSEMBLY, GOOSENECK | REF |
| 6 | 1-861-010034-11 | WASHER, SPLIT LOCK 3/8 | 4 |
| 7 | 1-007-010025 | PLUG, O-RING BOSS 3/4-16 (NOT SHOWN) | 1 |

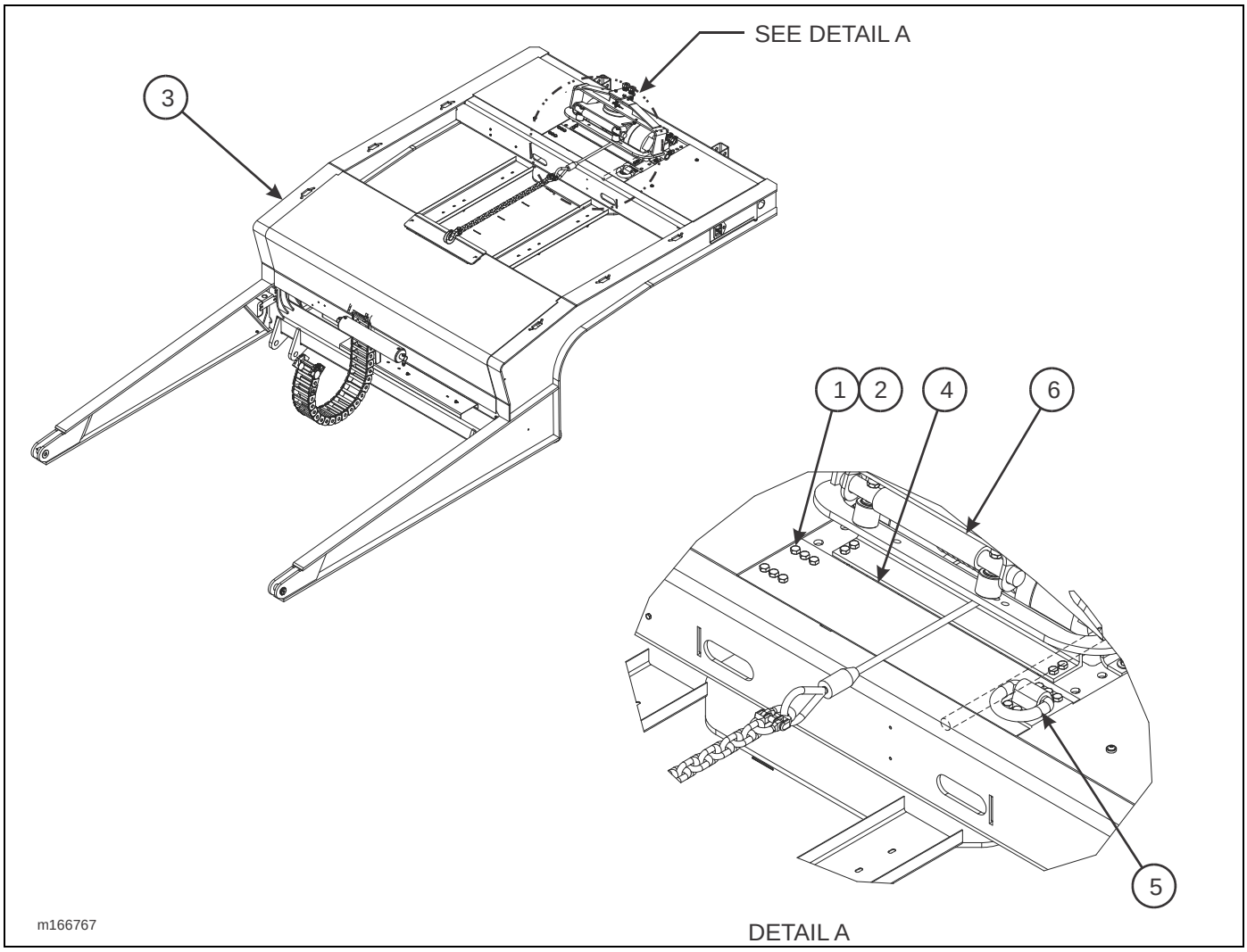



**Figure 2-110: Winch Trim Plate Installation (Option)**

# WINCH TRIM PLATE INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 166767 | WINCH TRIM PLATE INSTALLATION | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 6 |
| 2 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 6 |
| 3 | ----- | FRAME ASSEMBLY, G/N | REF |
| 4 | 166768 | PLATE, WINCH TRIM 20K | 1 |
| 5 | 3-793-010040 | TIE DOWN, WINCH | REF |
| 6 | 3-873-010140 | WINCH INSTALLATION, 20K UPPER DECK | REF |

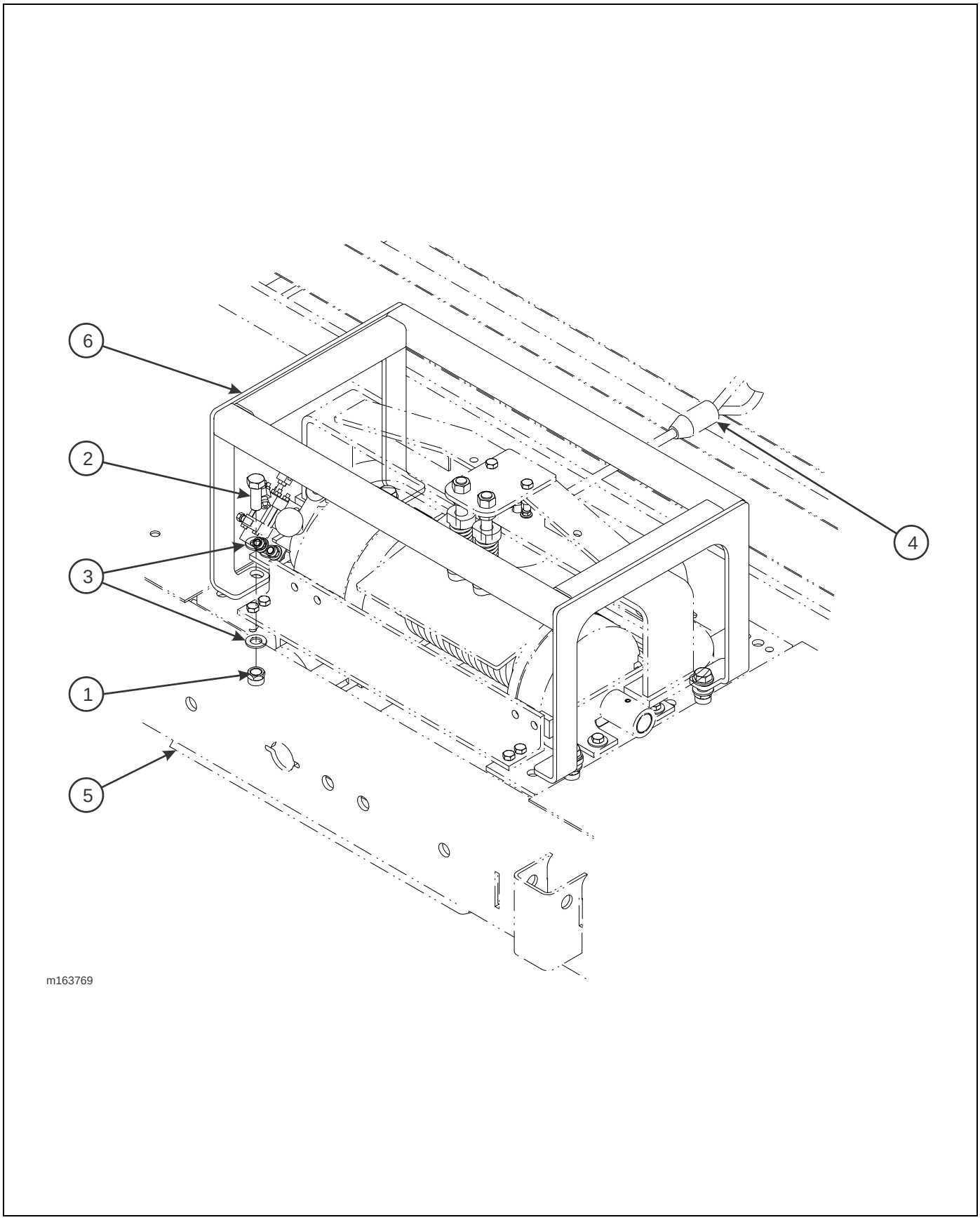



**Figure 2-111: Winch Guard Installation, 20K Pivot (Option)**

# WINCH GUARD INSTALLATION, 20K PIVOT (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 163769 | WINCH GUARD INSTALLATION, 20K PIVOT | |
| 1 | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB | 4 |
| 2 | 1-654-010061-05 | SCREW, HEX HEAD CAP 3/4-10 X 2 GR5 | 4 |
| 3 | 1-861-010032-20 | WASHER, FLAT, 3/4N | 8 |
| 4 | ----- | WINCH ASSEMBLY, 20K GUIDE AIR TEN/REL | REF |
| 5 | ----- | GOOSENECK WELDMENT | REF |
| 6 | 163770 | GUARD WELDMENT, WINCH 20K PIVOT | 1 |

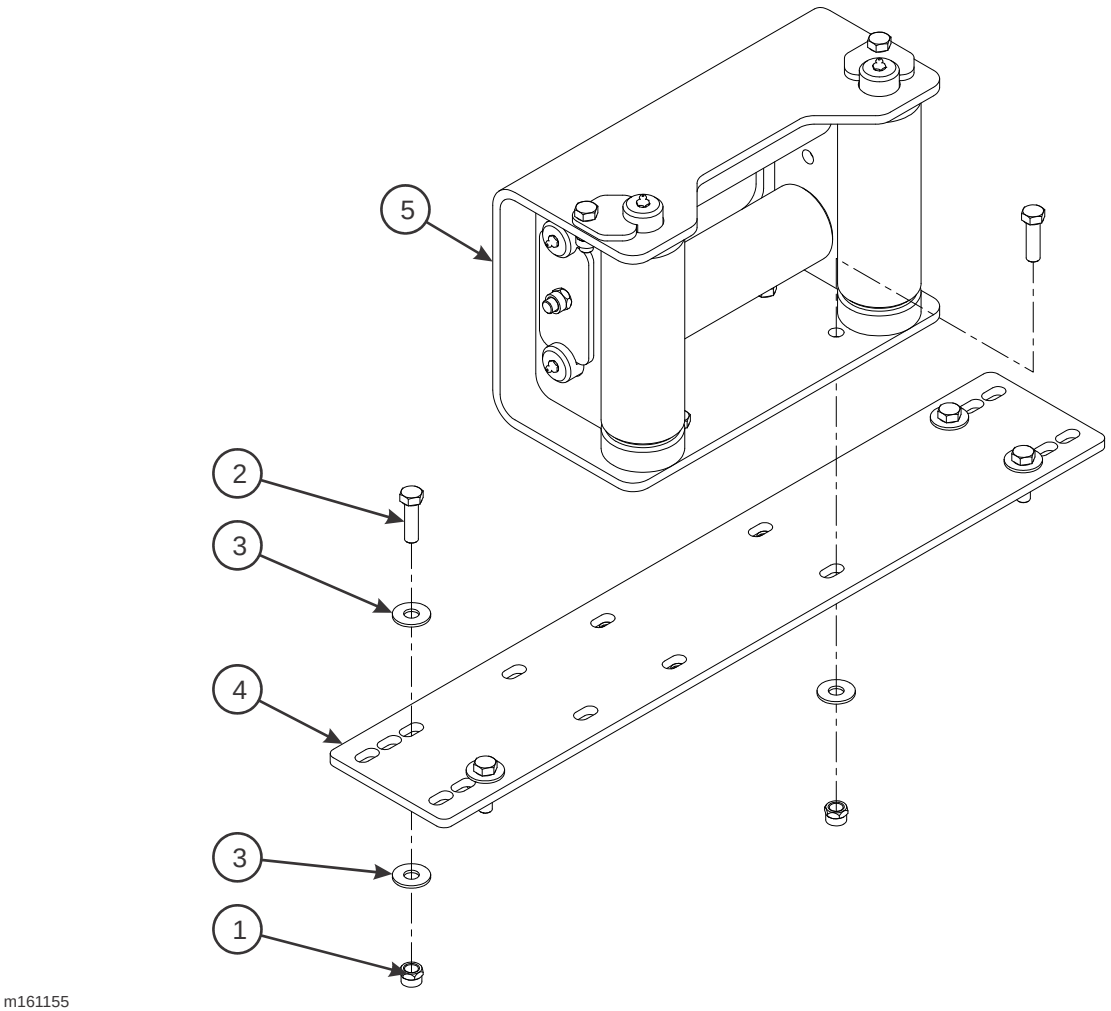



**Figure 2-112: 4 Roller Guide Installation (12K Braden) (Option)**

# 4 ROLLER GUIDE INSTALLATION (12K BRADEN) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 161155 | 4 ROLLER GUIDE INSTALLATION (12K BRADEN) | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 8 |
| 2 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5 | 8 |
| 3 | 1-861-010032-15 | WASHER, FLAT 1/2W | 12 |
| 4 | 145588 | PLATE, ROLLER GUIDE MOUNT | 1 |
| 5 | 161150 | GUIDE ASSEMBLY, WINCH 12K BRADEN (SEE PAGE 2-211) | 1 |

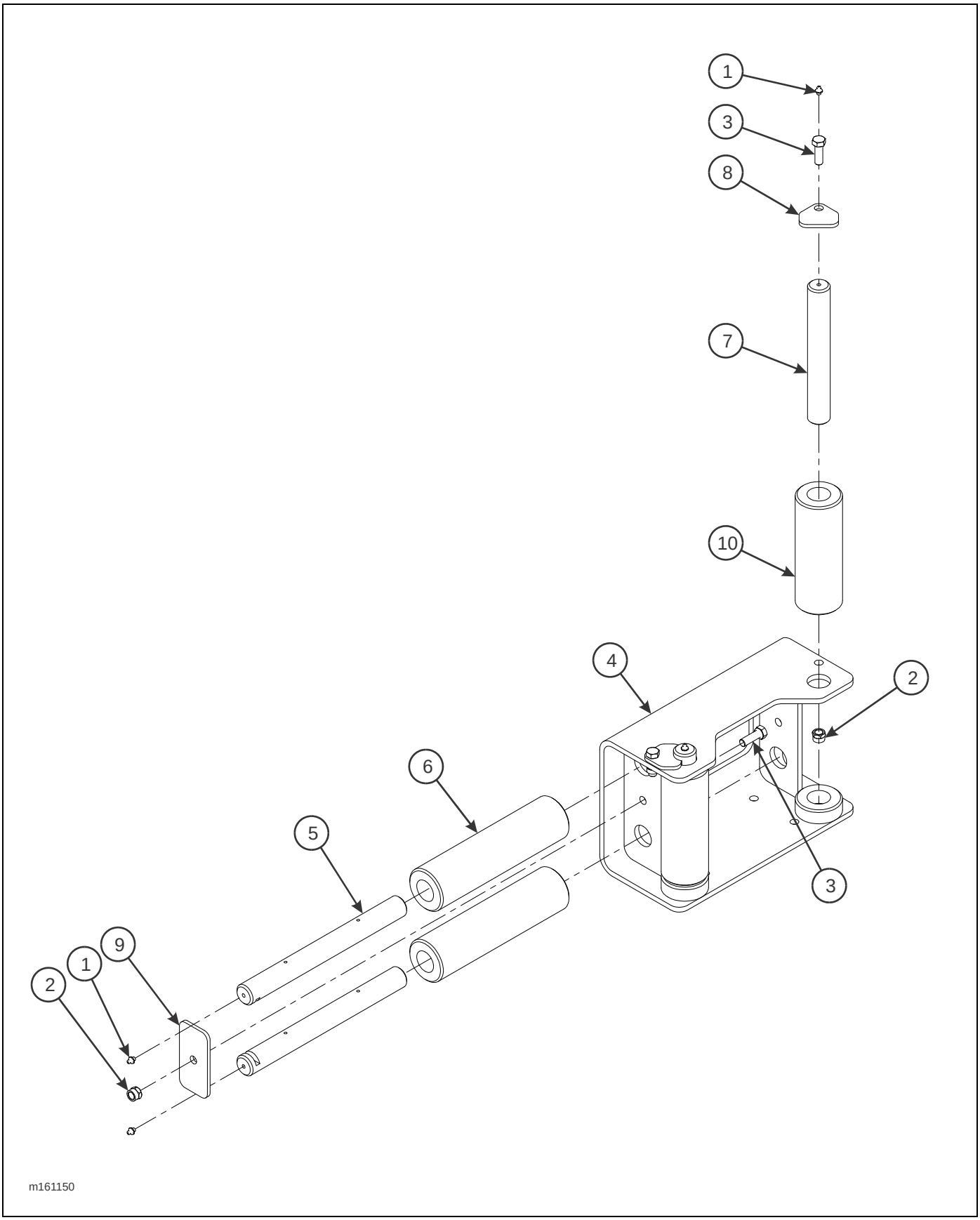



**Figure 2-113: Guide Assembly, Winch 12K (Braden) (Option)**

# GUIDE ASSEMBLY, WINCH 12K (BRADEN) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 161150 | GUIDE ASSEMBLY, WINCH 12K (BRADEN) | |
| 1 | 1-298-010001-1 | FITTING, GREASE STR SHORT 1/4-28 | 6 |
| 2 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 11 |
| 3 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 3 |
| 4 | 161151 | BRACKET WELDMENT, WINCH GUIDE | 1 |
| 5 | 161153 | PIN, HORIZONTAL ROLLER GUIDE | 2 |
| 6 | 161154 | ROLLER, HORIZONTAL WINCH GUIDE | 2 |
| 7 | 3-557-010543 | PIN, VERTICAL ROLLER 20K GUIDE | 2 |
| 8 | 3-565-011792 | PLATE, GUIDE LOCK TOP | 2 |
| 9 | 3-565-011793 | PLATE, GUIDE LOCK SIDE | 1 |
| 10 | 3-645-010087 | ROLLER, VERTICAL 20K WINCH GUIDE | 2 |

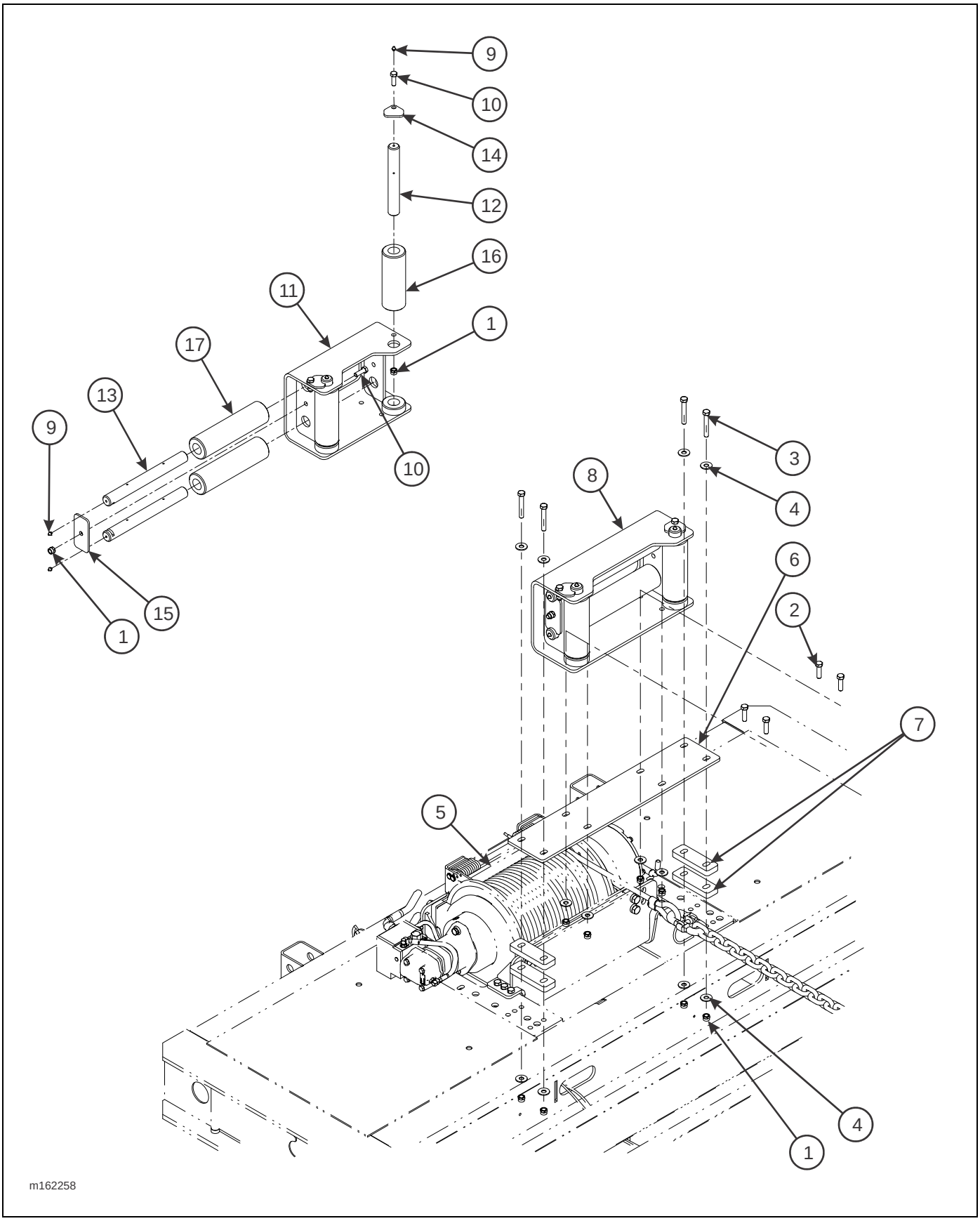



**Figure 2-114: 4 Roller Guide Installation (Warn) (Option)**

# 4 ROLLER GUIDE INSTALLATION (WARN) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 162258 | 4 ROLLER GUIDE INSTALLATION (WARN) | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 11 |
| 2 | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 4 |
| 3 | 1-654-010055-10 | SCREW, HEX HEAD CAP 1/2-13 X 3-1/4 GR5 | 4 |
| 4 | 1-861-010032-15 | WASHER, FLAT 1/2W | 12 |
| 5 | 151818 | WINCH INSTALLATION, 20K WARN (SEE PAGE 2-131) | REF |
| | 155411 | WINCH INSTALLATION, 30K WARN (SEE PAGE 2-143) | REF |
| 6 | 162259 | PLATE, ROLLER GUIDE | 1 |
| 7 | 162260 | PLATE, ROLLER SPACER | 4 |
| 8 | 3-352-010067-2 | GUIDE ASSEMBLY, WINCH (INCL ITEMS 1, 9-17) | 1 |
| 9 | 1-298-010001-1 | FITTING, GREASE STR SHORT 1/4-28 | 6 |
| 10 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 3 |
| 11 | 3-120-010494 | BRACKET WELDMENT, 20K WINCH GUIDE | 1 |
| 12 | 3-557-010543 | PIN, VERTICAL ROLLER 20K GUIDE | 2 |
| 13 | 3-557-010544 | PIN, HORIZONTAL ROLLER 20K GUIDE | 2 |
| 14 | 3-565-011792 | PLATE, GUIDE LOCK TOP | 2 |
| 15 | 3-565-011793 | PLATE, GUIDE LOCK SIDE | 1 |
| 16 | 3-645-010087 | ROLLER, VERTICAL 20K WINCH GUIDE | 2 |
| 17 | 3-645-010088 | ROLLER, HORIZONTAL 20K WINCH GUIDE | 2 |

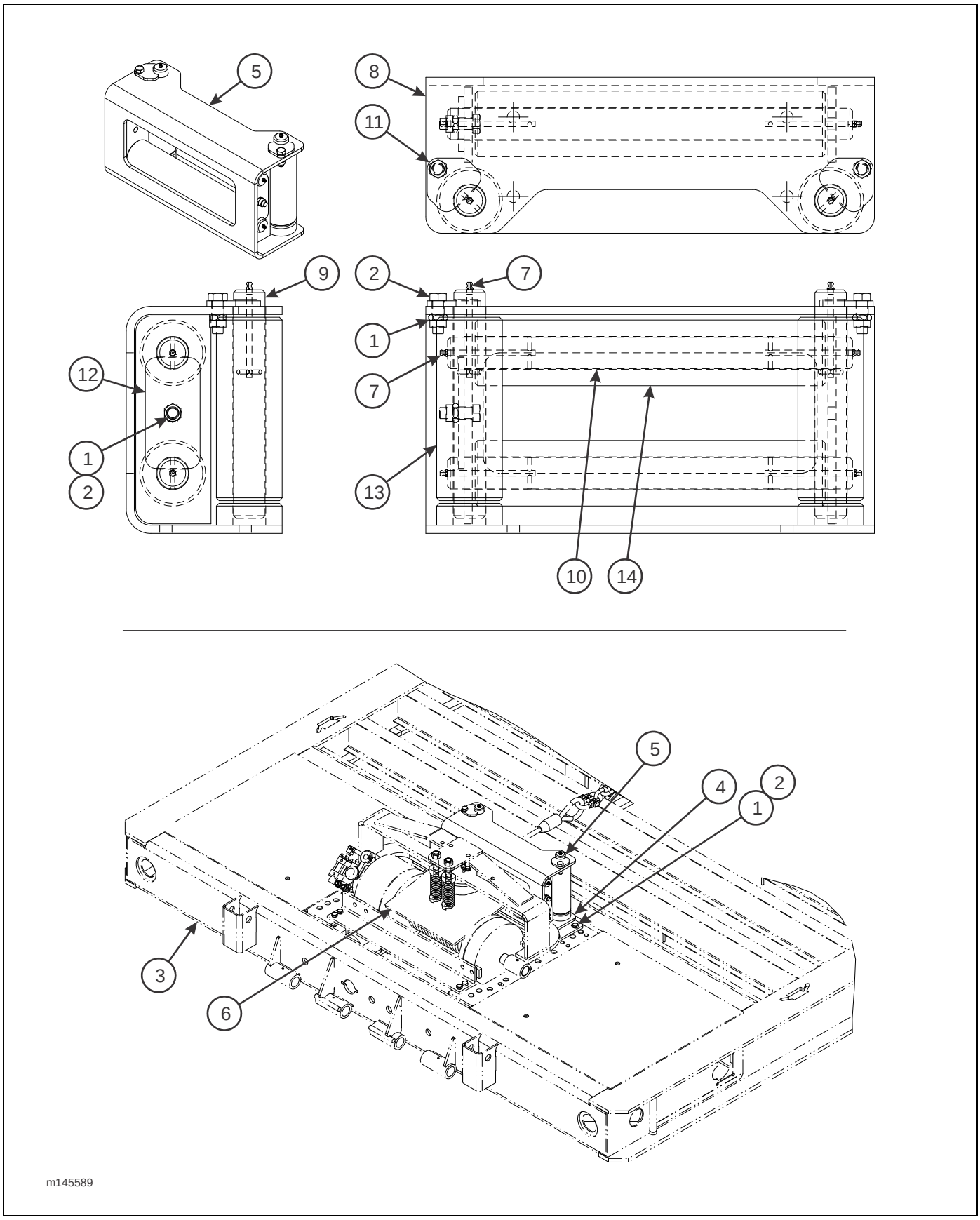



**Figure 2-115: 4 Roller Guide Installation (Option)**

# 4 ROLLER GUIDE INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 145589 | 4 ROLLER GUIDE INSTALLATION | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 11 |
| 2 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 11 |
| 3 | 130662 | GOOSENECK WELDMENT | REF |
| 4 | 145588 | PLATE, ROLLER GUIDE MOUNT | 1 |
| 5 | 3-352-010067-2 | GUIDE ASSEMBLY, WINCH (INCL ITEMS 1-2, 7-14) | 1 |
| 6 | 3-873-010140 | WINCH INSTALLATION, 20K UPPER DECK | REF |
| 7 | 1-298-010001-1 | FITTING, GREASE STR SHORT 1/4-28 | 6 |
| 8 | 3-120-010494 | BRACKET WELDMENT, 20K WINCH GUIDE | 1 |
| 9 | 3-557-010543 | PIN, VERTICAL ROLLER 20K GUIDE | 2 |
| 10 | 3-557-010544 | PIN, HORIZONTAL ROLLER 20K GUIDE | 2 |
| 11 | 3-565-011792 | PLATE, GUIDE LOCK TOP | 2 |
| 12 | 3-565-011793 | PLATE, GUIDE LOCK SIDE | 1 |
| 13 | 3-645-010087 | ROLLER, VERTICAL 20K WINCH GUIDE | 2 |
| 14 | 3-645-010088 | ROLLER, HORIZONTAL 20K WINCH GUIDE | 2 |

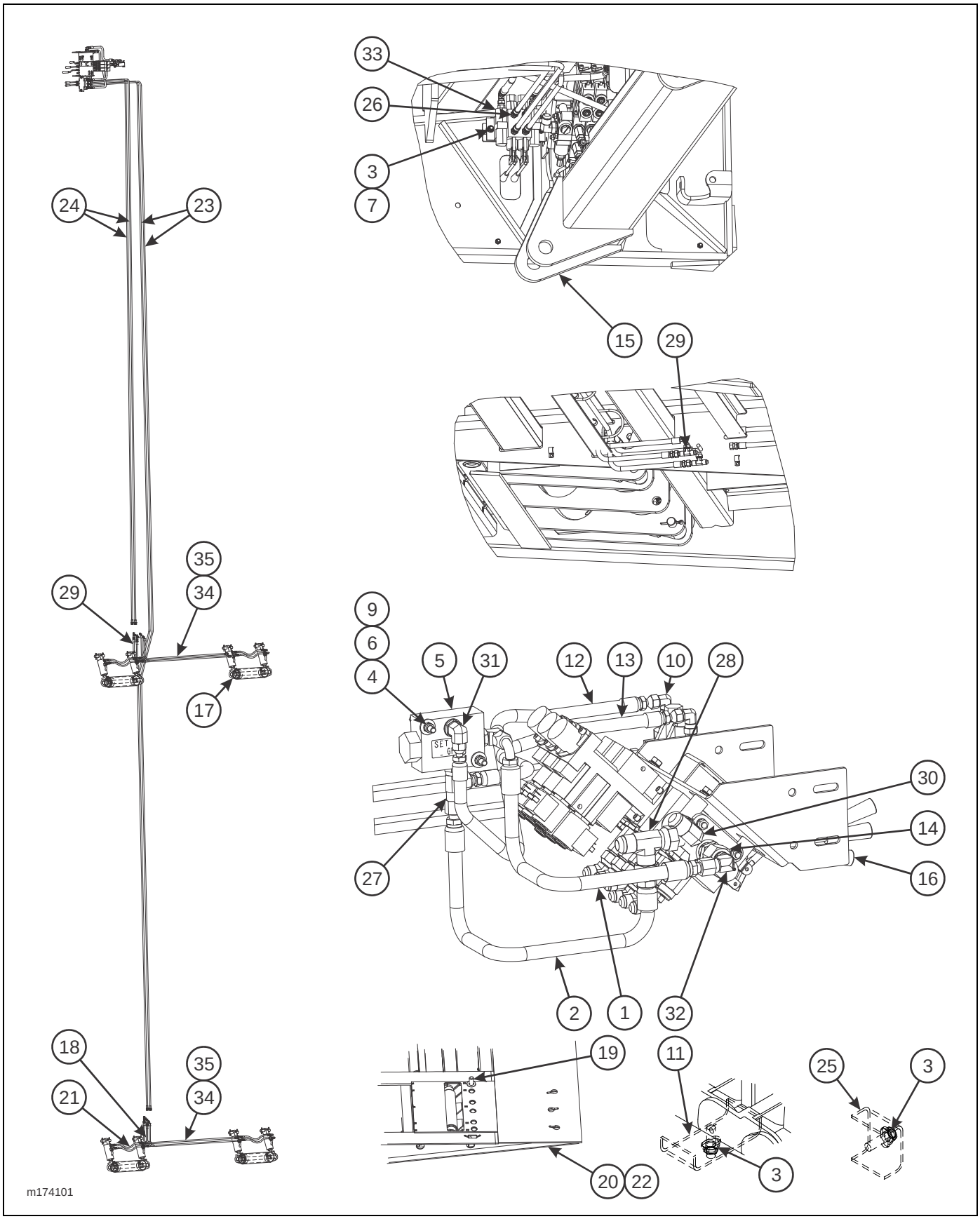



**Figure 2-116: 4 Pop-Up Roller Installation (Option)**

# 4 POP-UP ROLLER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 174100 | ROLLER INSTALLATION, 4 POP-UP 400-53-120 | * | |
| | 174099 | ROLLER INSTALLATION, 4 POP-UP 400-53-108 | | * |
| 1 | 1-397-010302018 | HOSE ASSEMBLY 1/2 X 18 | 1 | 1 |
| 2 | 1-397-010306028 | HOSE ASSEMBLY 1/2 X 28 | 1 | 1 |
| 3 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 16 | 16 |
| 4 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 | 2 |
| 5 | 1-626-010002-03 | REGULATOR FLOW 1/2 BYPASS ONLY | 1 | 1 |
| 6 | 1-654-010049-11 | SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5 | 2 | 2 |
| 7 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 | 2 |
| 8 | 1-796-010003-02 | TIE, STRAP PLASTIC (NOT SHOWN) | 14 | 14 |
| 9 | 1-861-010032-09 | WASHER, FLAT 5/16W | 4 | 4 |
| 10 | 102-0031 | ADAPTER, 90 | 2 | 2 |
| 11 | 103817 | CLAMP, HOSE | 7 | 7 |
| 12 | 111302 | HOSE ASSEMBLY 3/8 X 24 | 1 | 1 |
| 13 | 116429 | HOSE ASSEMBLY 3/8 X 25 | 1 | 1 |
| 14 | 138179 | POWER BEYOND REMOTE | 1 | 1 |
| 15 | ----- | FRAME ASSEMBLY, G/N | REF | REF |
| 16 | ----- | VALVE ASSEMBLY, 3 SPOOL | REF | REF |
| 17 | 169845 | POP-UP ROLLER ASSEMBLY (SEE PAGE 2-222) ( | 4 | 4 |
| 18 | 169848 | HOSE ASSEMBLY 1/4 X 18 | 4 | 4 |
| 19 | 169865 | PIN WELDMENT, ALIGNMENT PEG | 4 | 4 |
| 20 | ----- | FRAME, MODIFIED 4 ROLLER | ----- | REF |
| 21 | 174265 | HOSE, HYDRAULIC 1/4 X 21 | 8 | 8 |
| 22 | ----- | FRAME, MOD ROLLER BRAKE | REF | ----- |
| 23 | 176800 | HOSE ASSEMBLY 1/4 X 573 | 2 | 2 |
| 24 | 176801 | HOSE ASSEMBLY 1/4 X 363 | 2 | 2 |
| 25 | 2-181-010001 | CLAMP | 7 | 7 |
| 26 | 202702-6-6S | ADAPTER STRAIGHT | 6 | 6 |
| 27 | 203005-8-8S | ADAPTER, TEE | 1 | 1 |
| 28 | 203102-12-12S | ADAPTER, TEE | 1 | 1 |
| 29 | 2033-6-6S | ADAPTER, TEE | 4 | 4 |
| 30 | 2062-10-12S | ADAPTER, 90° | REF | REF |
| 31 | 2062-8-6S | ADAPTER, 90° | 1 | 1 |
| 32 | 2062-8-8S | ADAPTER, 90° | 2 | 2 |
| 33 | 3-846-010056 | VALVE, DOUBLE SPOOL STACK (SEE PAGE 2-247), PRIOR TO 01/15/2014 | 1 | 1 |
| | 179649 | VALVE, DOUBLE SPOOL, AFTER 01/15/2015 | | |
| 34 | 71500166 | HOSE, HYDRAULIC 1/4 X 52 | -- | 4 |
| 35 | 71509010 | HOSE, HYDRAULIC 1/4 X 64 | 4 | -- |

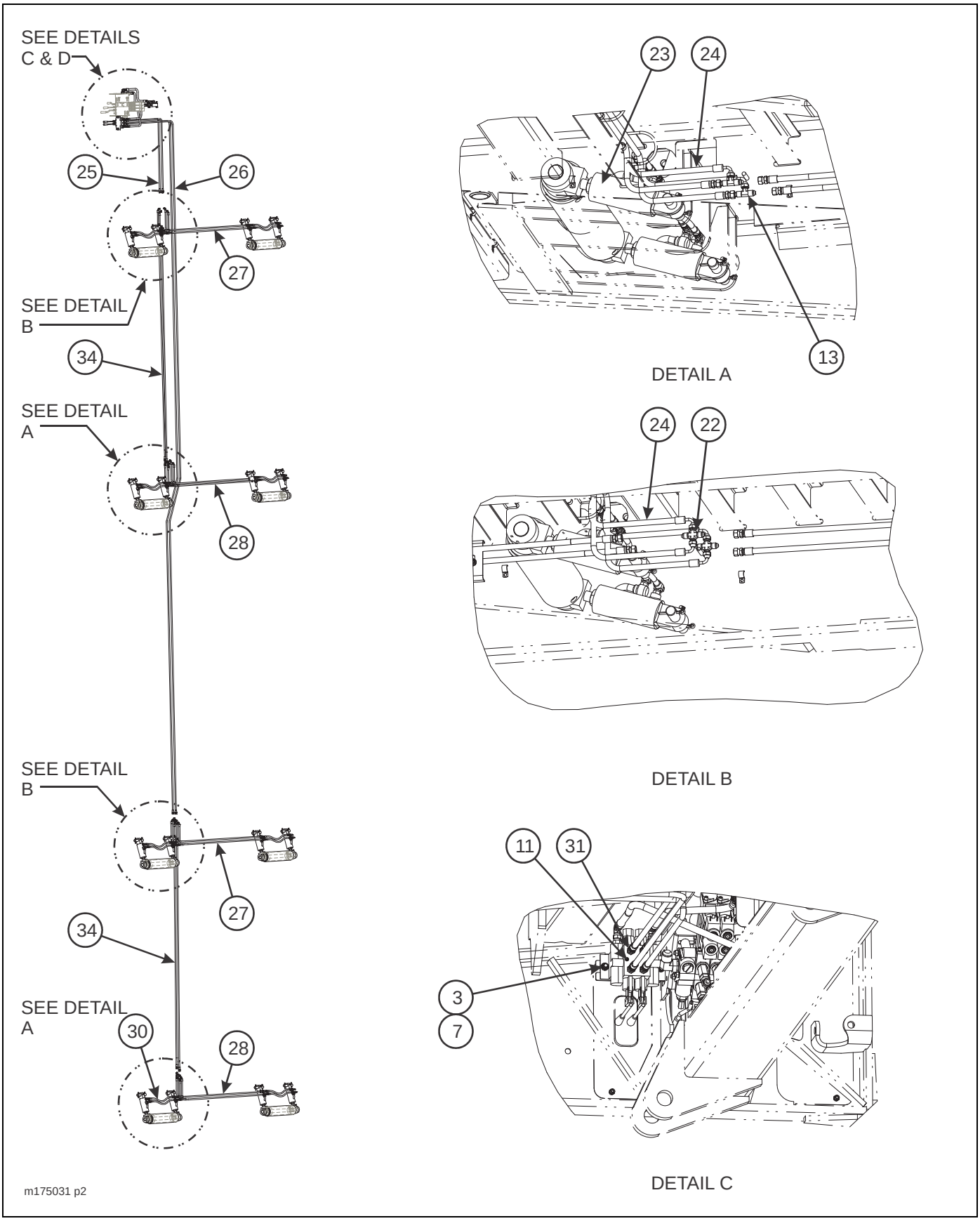
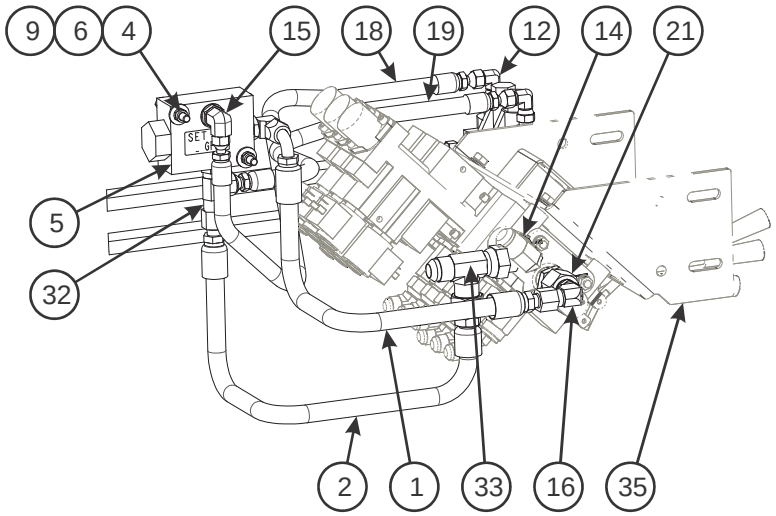
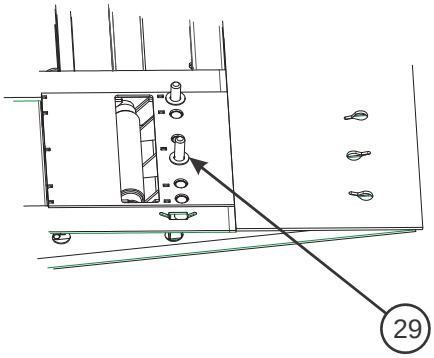
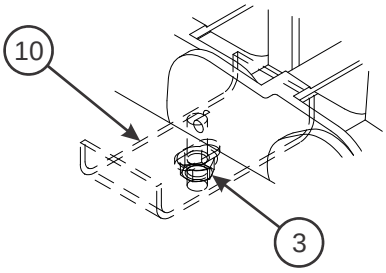


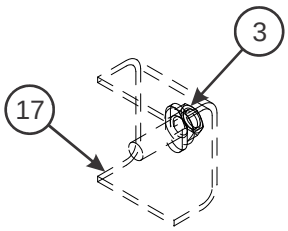

**Figure 2-117: 8 Pop-Up Roller Installation (Option) (1 of 2)**




DETAIL D




m175031 p2

**Figure 2-118: 8 Pop-Up Roller Installation (Option) (2 of 2)**

# 8 POP-UP ROLLER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 175033 | ROLLER INST., 8 POP-UP 400-53-120 (LG. BRK) | * | | | | | |
| | 175030 | ROLLER INST., 8 POP-UP 400-53-108 (SM. & LG. BRK) | | * | | | | |
| | 175640 | ROLLER INST., 8 POP-UP 400-53-102 (SM. BRK) | | | * | | | |
| | 178342 | ROLLER INST., 8 POP-UP 400-50CA-102 (SM. BRK) | | | | * | | |
| | 178401 | ROLLER INST., 8 POP-UP 400-53-120 (SM. BRK) | | | | | * | |
| | 179606 | ROLLER INST., 8 POP-UP 400-53-102 (LG. BRK) | | | | | | |
| 1 | 1-397-010302018 | HOSE ASSEMBLY 1/2 X 18 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1-397-010306028 | HOSE ASSEMBLY 1/2 X 28 | 1 | 1 | 1 | 1 | 1 | 1 |
| 3 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 4 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 | 2 | 2 | 2 | 2 | 2 |
| 5 | 1-626-010002-03 | REGULATOR FLOW 1/2 BYPASS ONLY | 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | 1-654-010049-11 | SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5 | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 | 2 | 2 | 2 | 2 | 2 |
| 8 | 1-796-010003-02 | TIE, STRAP PLASTIC (NOT SHOWN) | 14 | 14 | 14 | 14 | 14 | 14 |
| 9 | 1-861-010032-09 | WASHER, FLAT 5/16W | 4 | 4 | 4 | 4 | 4 | 4 |
| 10 | 3-181-010006 | HOSE CLAMP | 4 | 4 | 4 | 4 | 4 | 4 |
| 11 | 3-846-010056 | VALVE, DOUBLE SPOOL STACK (SEE PAGE 2-247) PRIOR TO 01/15/2014 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 179649 | VALVE, DOUBLE SPOOL, AFTER 01/15/2014 | | | | | | |
| 12 | 102-0031 | ADAPTER, 90 | 2 | 2 | 2 | 2 | 2 | 2 |
| 13 | 2033-6-6S | ADAPTER, TEE | 4 | 4 | 4 | 4 | 4 | 4 |
| 14 | 2062-10-12S | ADAPTER, 90 | REF | REF | REF | REF | REF | REF |
| 15 | 2062-8-6S | ADAPTER, 90° | 1 | 1 | 1 | 1 | 1 | 1 |
| 16 | 2062-8-8S | ADAPTER, 90° | 2 | 2 | 2 | 2 | 2 | 2 |
| 17 | 103817 | CLAMP, HOSE | 10 | 10 | 10 | 10 | 10 | 10 |
| 18 | 111302 | HOSE ASSEMBLY 3/8 X 24 | 1 | 1 | 1 | 1 | 1 | 1 |
| 19 | 116429 | HOSE ASSEMBLY 3/8 X 25 | 1 | 1 | 1 | 1 | 1 | 1 |
| 21 | 138179 | POWER BEYOND REMOTE | 1 | 1 | 1 | 1 | 1 | 1 |
| 22 | 149012 | ADAPTER, CROSS | 4 | 4 | 4 | 4 | 4 | 4 |
| 23 | 169845 | POP-UP ROLLER ASSEMBLY (SEE PAGE 2-222) | 8 | 8 | -- | -- | -- | 8 |
| | 175617 | POP-UP ROLLER ASSEMBLY (SEE PAGE 2-222) | -- | -- | 8 | 8 | 8 | -- |
| 24 | 169848 | HOSE ASSEMBLY 1/4 X 18 | 8 | 8 | 8 | 8 | 8 | 8 |
| 25 | 169849 | HOSE ASSEMBLY 1/4 X 144 | 2 | 2 | 2 | -- | -- | 2 |
| | 125648 | HOSE ASSEMBLY 1/4 X 108 | -- | -- | -- | 2 | -- | -- |
| 26 | 174266 | HOSE ASSEMBLY, 1/4 X 446 | 2 | 2 | 2 | -- | -- | 2 |
| | 169852 | HOSE ASSEMBLY 1/4 X 416 | -- | -- | -- | 2 | 2 | -- |
| 27 | 174267 | HOSE ASSEMBLY, 1/4 X 64 | 4 | -- | -- | -- | -- | -- |
| | 175029 | HOSE ASSEMBLY, 1/4 X 52 | -- | 4 | 4 | 4 | -- | 4 |
| | 149011 | HOSE ASSEMBLY, 1/4 X 72 | -- | -- | -- | -- | 4 | -- |

# 8 POP-UP ROLLER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | | | | | |
|---|---|---|---|---|---|---|---|---|
| 28 | 71500166 | HOSE, HYDRAULIC 1/4 X 52 | -- | 4 | 4 | 4 | -- | 4 |
| | 71509010 | HOSE, HYDRAULIC 1/4 X 64 | 4 | -- | -- | -- | -- | -- |
| | 7779-72 | HOSE ASSEMBLY, 1/4 X 72 | -- | -- | -- | -- | 4 | -- |
| 29 | 169865 | PIN WELDMENT, ALIGNMENT PEG | 4 | 4 | 4 | 4 | 4 | 4 |
| 30 | 174265 | HOSE, HYDRAULIC 1/4 X 21 | 16 | 16 | 16 | 16 | 16 | 16 |
| 31 | 202702-6-6S | ADAPTER STRAIGHT | 6 | 6 | 6 | 6 | 6 | 6 |
| 32 | 203005-8-8S | ADAPTER, TEE | 1 | 1 | 1 | 1 | 1 | 1 |
| 33 | 203102-12-12S | ADAPTER, TEE | 1 | 1 | 1 | 1 | 1 | 1 |
| 34 | 71600529 | HOSE ASSEMBLY, 1/4 X 120 | 4 | 4 | 4 | 2 | 4 | 4 |
| | 149007 | HOSE ASSEMBLY 1/4 X 156 | -- | -- | -- | 2 | -- | -- |
| 35 | 148241 | VALVE ASSEMBLY, 3 SPOOL | REF | REF | REF | REF | REF | REF |

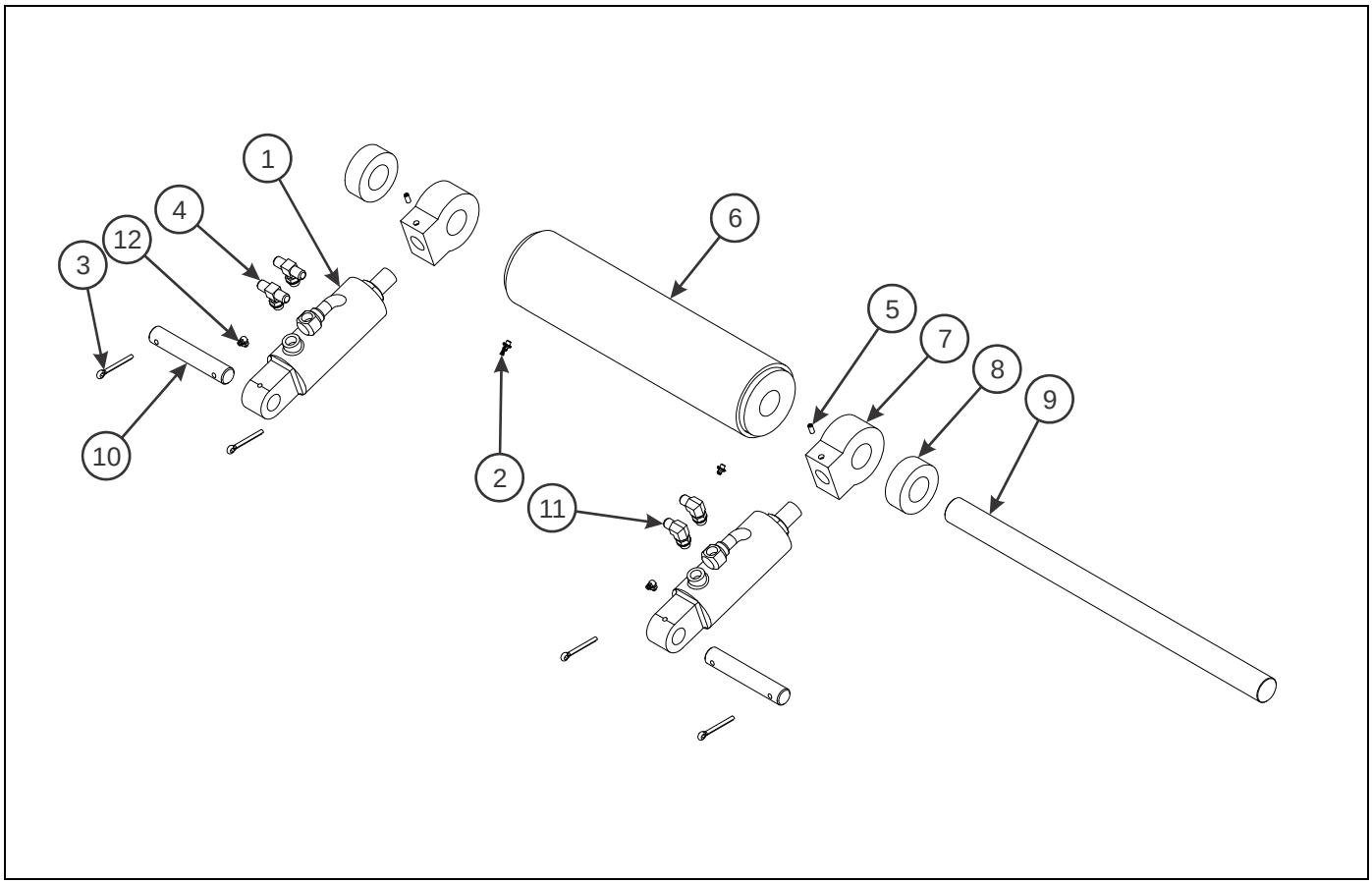



**Figure 2-119: Pop-Up Roller Installation (Option)**

# POP-UP ROLLER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 169845 | POP-UP ROLLER INSTALLATION | * | |
| | 175617 | POP-UP ROLLER INSTALLATION | | * |
| 1 | 0047008 | CYLINDER, TILT (SEE PAGE 2-223) | 2 | 2 |
| 2 | 1-298-010001-1 | FITTING, GREASE STR SHORT 1/4-28 | 2 | 2 |
| 3 | 1-557-010362-63 | PIN, COTTER 1/4 X 2 | 4 | 4 |
| 4 | 102-1089 | ADAPTER, 90 | 2 | 2 |
| 5 | 107464 | SCREW, SET HEX SOCKET 1/4-28 X 5/8 | 2 | 2 |
| 6 | 161809 | ROLLER WELDMENT, CABLE-UPPER DECK (18-3/4")(BEFORE 01/19/2015) | 1 | -- |
| | 187787 | ROLLER WELDMENT, HDPU, 18-3/4 (AFTER 01/19/2015) | 1 | -- |
| | 175616 | ROLLOUT WELDMENT, POP-UP ROLLER (15-3/4") (BEFORE 1-19-2015) | -- | 1 |
| | 187790 | ROLLER WELDMENT, HD PU 15-3/4 (AFTER 1-19-2015) | -- | 1 |
| 7 | 169255 | END CYLINDER, ROLLER PIN | 2 | 2 |
| 8 | 169258 | ROLLER, TRACK HYDRAULIC DECK ROLLER | 2 | 2 |
| 9 | 169836 | SHAFT, ROLLER POP-UP (24-7/16") | 1 | -- |
| | 175620 | SHAFT, ROLLER POP-UP (21-7/16") | -- | 1 |
| 10 | 2-557-010054 | PIN, EXTENDED CYLINDER | 2 | 2 |
| 11 | 2062-6-6S | ADAPTER, 90 | 2 | 2 |
| 12 | 5410 | FITTING, GREASE 1/4-28 90 | 2 | 2 |

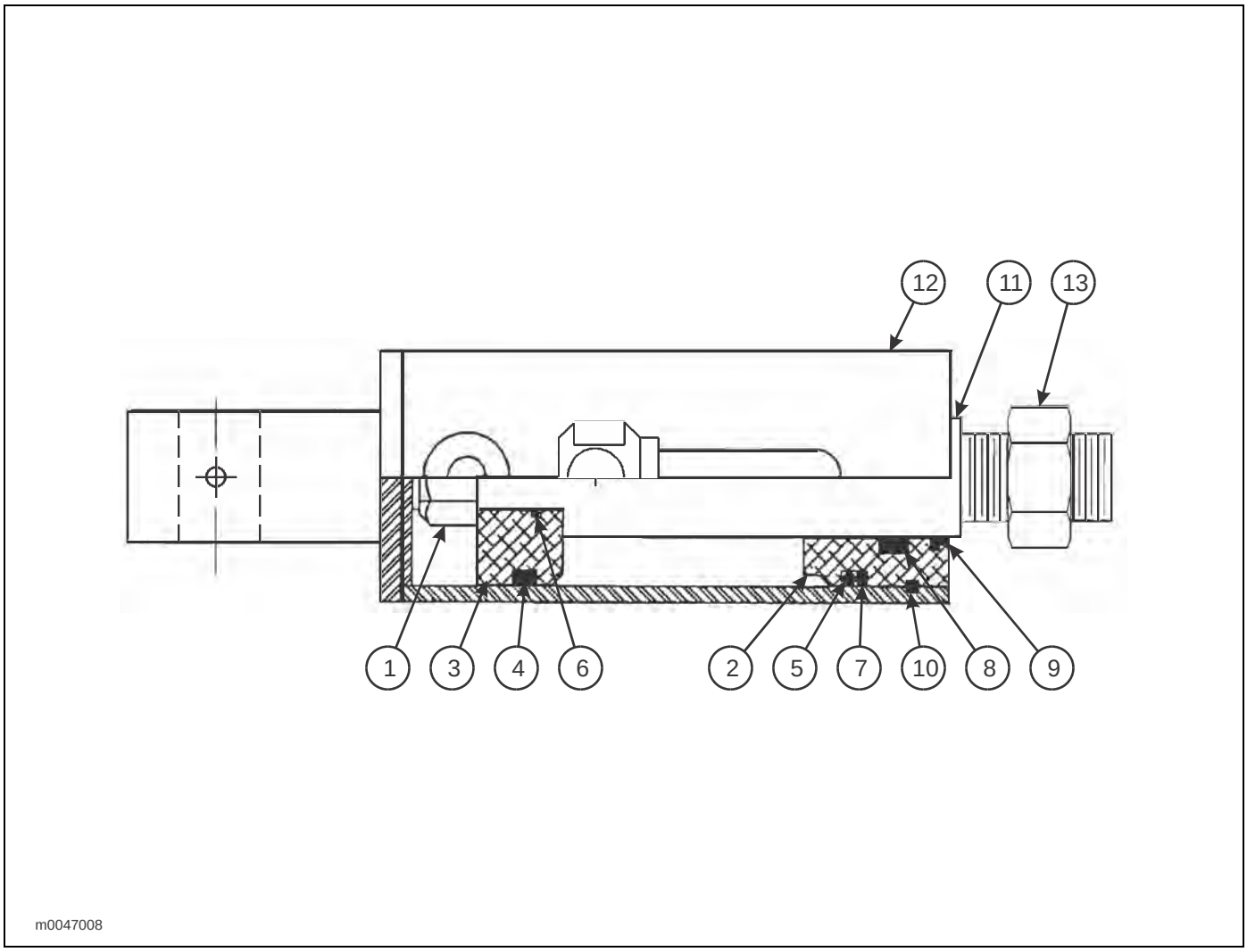



**Figure 2-120: Tilt Cylinder (Option)**

# TILT CYLINDER (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 0047008 | CYLINDER, TILT | |
| 1 | 0047008-01 | NUT | 1 |
| 2 | 0047008-02 | HEAD | 1 |
| 3 | 0047008-03 | PISTON | 1 |
| 4 | * | PSP SEAL | 1 |
| 5 | * | O-RING | 1 |
| 6 | * | O-RING | 1 |
| 7 | * | BACKUPS | 1 |
| 8 | * | POLY-PAK | 1 |
| 9 | * | DUST SEAL | 1 |
| 10 | 0047008-10 | RETAINING RING | 1 |
| 11 | 0047008-11 | SHAFT | 1 |
| 12 | 0047008-12 | BARREL WITH CLEVIS AND PORTS | 1 |
| 13 | 0047008-13 | NUT | 1 |
| | 0047008/RK | REPAIR KIT (INCLUDED ITEMS WITH *) | 1 |

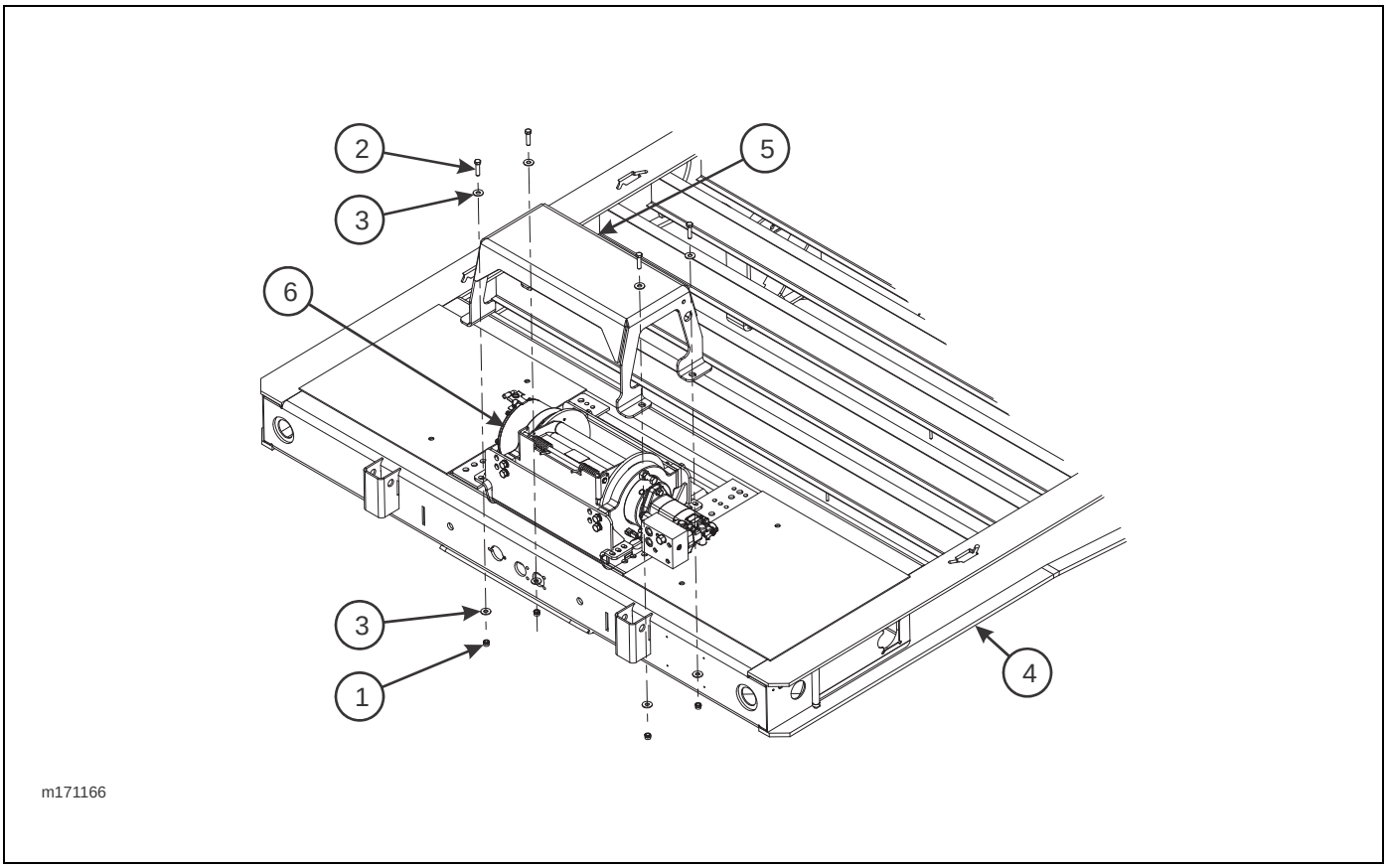



**Figure 2-121: Winch Guard Installation for 20K/30K Warn Winch (Option)**

# WINCH GUARD INSTALLATION FOR 20K/30K WARN WINCH (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 171166 | WINCH GUARD INSTALLATION FOR 20K/30K WARN WINCH | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 4 |
| 2 | 1-654-010055-05 | SCREW, HEX HEAD CAP 1/2-13 X 2 GR5 | 2 |
| 3 | 1-861-010032-15 | WASHER, FLAT 1/2W | 6 |
| 4 | ----- | FRAME WELDMENT | REF |
| 5 | 171167 | GUARD WINCH 20K/30K WARN | 1 |
| 6 | ----- | WINCH ASSEMBLY, WARN | REF |

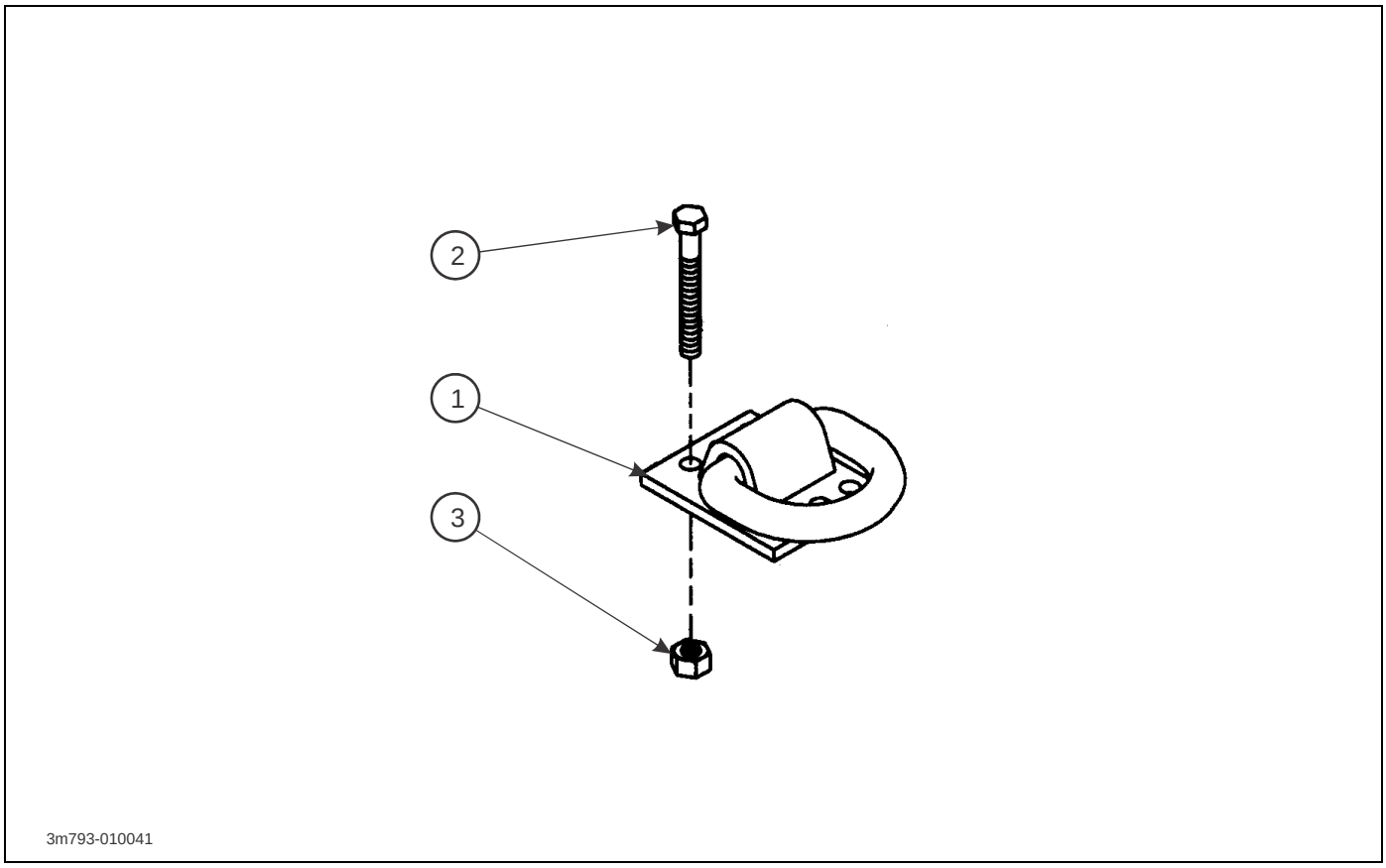



**Figure 2-122: Tie Down Installation (Option)**

# 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 |

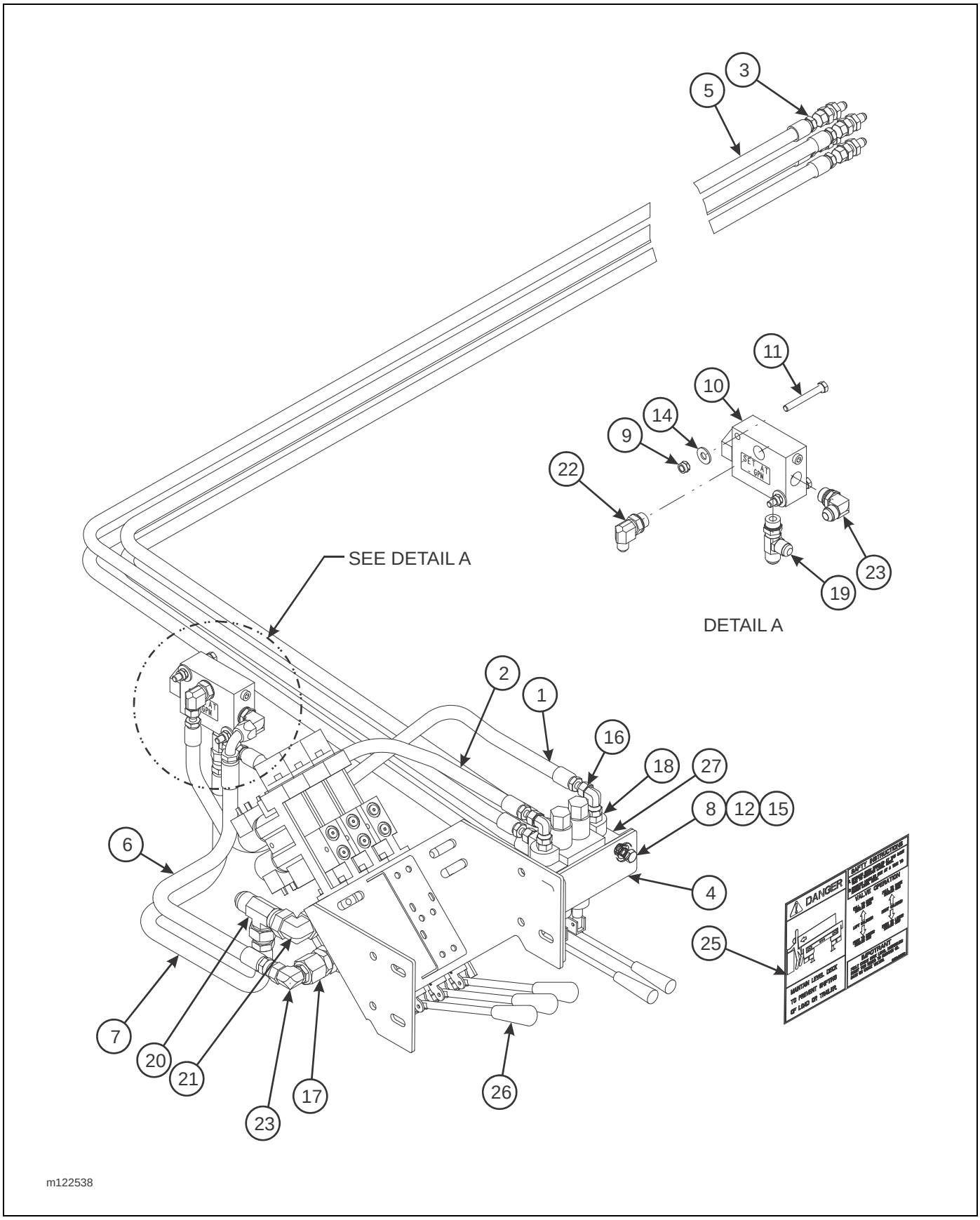



**Figure 2-123: Dock Leveler Hydraulic Installation (1 of 2) (Option)**

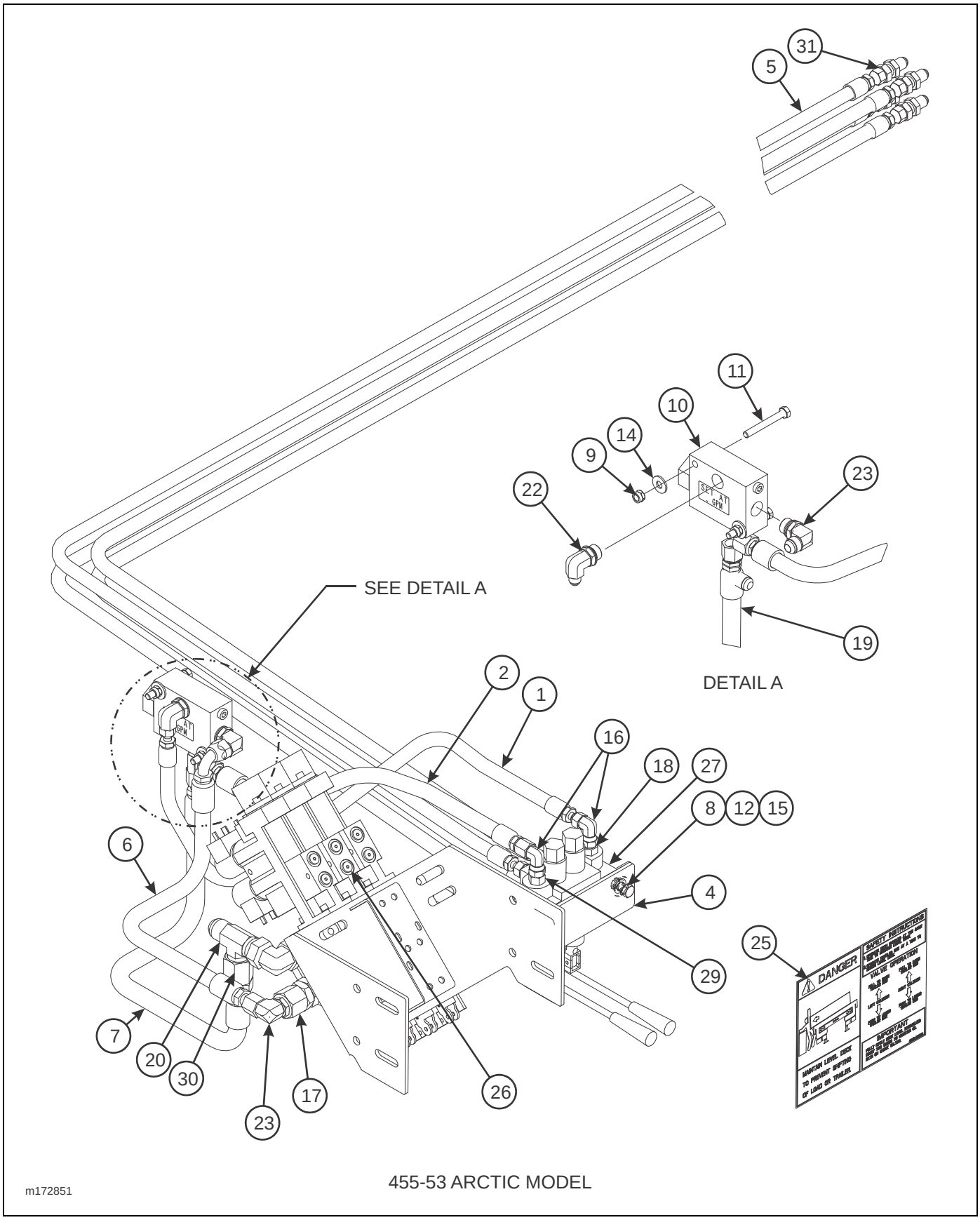



**Figure 2-124: Dock Leveler Hydraulic Installation (2 of 2) (Option)**

# DOCK LEVELER HYDRAULIC INSTALLATION

| ITEM | PART NO. | DESCRIPTION | QTY. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 122538 | DOCK LEVELER HYDRAULIC INST 455-50 | * | | | | | | | | |
| | 122812 | DOCK LEVELER HYDRAULIC INST 455-48 | | * | | | | | | | |
| | 126641 | DOCK LEVELER HYDRAULIC INST 455-53 | | | * | | | | | | |
| | 129099 | DOCK LEVELER HYDRAULIC INST 425-45 | | | | * | | | | | |
| | 131726 | DOCK LEVELER HYDRAULIC INST 120K 455-48 | | | | | * | | | | |
| | 141638 | DOCK LEVELER HYDRAULIC INST 120K 455-50 | | | | | | * | | | |
| | 141639 | DOCK LEVELER HYDRAULIC INST 120K 455-53 | | | | | | | * | | |
| | 170454 | DOCK LEVELER HYDRAULIC INST 455-41 | | | | | | | | * | |
| | 172851 | DOCK LEVELER HYDRAULIC INST 455-53 ARCTIC | | | | | | | | | * |
| 1 | 111302 | HOSE ASSEMBLY 3/8 X 24 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | -- |
| | 169626 | HOSE ASSEMBLY 3/8 X 24 ARCTIC | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 2 | 116429 | HOSE ASSEMBLY 3/8 X 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | -- |
| | 169624 | HOSE ASSEMBLY 3/8 X 25 ARCTIC | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 3 | 102-1097 | 37 FLARE BULKHEAD/ 37 FLARE | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 4 | 121124 | BRACKET, VALVE DOCK LEVEL CONTROL | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 1-397-010307356 | HOSE ASSEMBLY 3/8 X 356 | 4 | -- | -- | -- | -- | 4 | -- | -- | -- |
| | 122813 | HOSE ASSEMBLY 3/8 X 332 | -- | 4 | -- | -- | 4 | -- | -- | -- | -- |
| | 126736 | HOSE ASSEMBLY 3/8 X 392 | -- | -- | 4 | -- | -- | -- | 4 | -- | -- |
| | 1-397-010307296 | HOSE ASSEMBLY 3/8 X 296 | -- | -- | -- | 4 | -- | -- | -- | -- | -- |
| | 103166 | HOSE ASSEMBLY 3/8 X 252 | -- | -- | -- | -- | -- | -- | -- | 4 | -- |
| | 172852 | HOSE ASSEMBLY 3/8 X 392 ARCTIC | -- | -- | -- | -- | -- | -- | -- | -- | 4 |
| 6 | 1-397-010302018 | HOSE ASSEMBLY 1/2 X 18 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | -- |
| | 169620 | HOSE ASSEMBLY 1/2 X 18 ARCTIC | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 7 | 1-397-010306028 | HOSE ASSEMBLY 1/2 X 28 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | -- |
| | 172862 | HOSE ASSEMBLY 1/2 X 28 ARCTIC | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 8 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 9 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 10 | 1-626-010002-03 | REGULATOR FLOW 1/2 BYPASS ONLY | 1 | 1 | 1 | 1 | -- | -- | -- | 1 | 1 |
| | 1-626-010002-06 | REGULATOR, FLOW 1-1/2-6 | -- | -- | -- | -- | 1 | 1 | 1 | -- | -- |
| 11 | 1-654-010049-11 | SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 12 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 13 | 1-796-010003-02 | TIE, STRAP PLASTIC (NOT SHOWN) | AR | AR | AR | AR | AR | AR | AR | AR | AR |
| 14 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 15 | 1-861-010032-11 | WASHER, FLAT 3/8W | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 16 | 102-0031 | ADAPTER, 90 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

# DOCK LEVELER HYDRAULIC INSTALLATION

| ITEM | PART NO. | DESCRIPTION | QTY. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 138179 | POWER BEYOND REMOTE | 1 | 1 | 1 | 1 | -- | -- | -- | -- | -- |
| | 1V0208 | POWER BEYOND REMOTE (CROSS VALVE) | -- | -- | -- | -- | 1 | 1 | -- | -- | -- |
| 18 | 202702-6-6S | ADAPTER, STRAIGHT | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 19 | 203005-8-8S | ADAPTER, TEE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 20 | 203102-12-12S | ADAPTER TEE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 21 | 2062-10-12S | ADAPTER, 90 | | | | | REF | | | | |
| 22 | 2062-8-6S | ADAPTER, 90° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 23 | 2062-8-8S | ADAPTER, 90° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 24 | 3-201-010002 | CONDUIT FLEX PLASTIC 3/8 (NOT SHOWN) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 25 | 3-573-010202 | DECAL, DANGER OP D/L (REAR) (SEE PAGE 2-5) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 26 | ----- | VALVE, 3 SPOOL 2500 PSI | | | | | REF | | | | |
| 27 | 3-846-010056 | VALVE, DOUBLE SPOOL STACK (SEE PAGE 2-247) PRIOR TO 01/15/2014 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 179649 | VALVE, DOUBLE SPOOL, AFTER 01/15/2014 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 28 | 2024-12-8S | ELBOW, 90 (NOT SHOWN) | -- | -- | -- | -- | 1 | 1 | -- | -- | -- |
| 29 | 202702-6-8S | ADAPTER | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 30 | 102-1112 | REDUCER | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 31 | 0018127 | FITTING, BULKHEAD UNION SS | -- | -- | -- | -- | -- | -- | -- | -- | 4 |

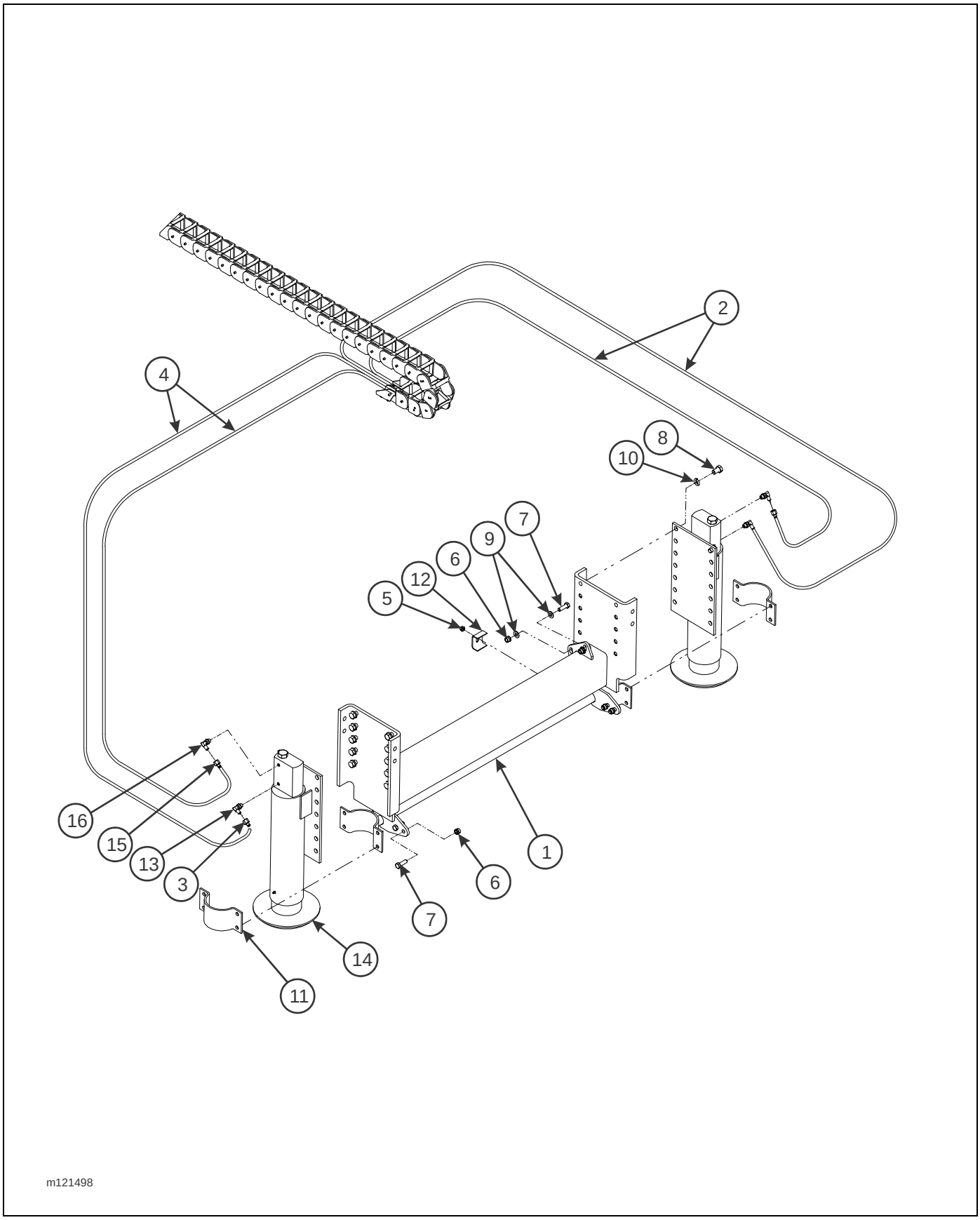



**Figure 2-125: Dock Leveler Assembly, Single 60K**

# DOCK LEVELER ASSEMBLY, SINGLE 60K

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 121498 | DOCK LEVEL ASSEMBLY SINGLE 60K | |
| 1 | 121402 | MOUNT WELDMENT, D/L | 1 |
| 2 | 122540 | HOSE ASSEMBLY 1/4 X 240 | 2 |
| 3 | 1-007-010058 | ADAPTER, 90° 3/8 ELBOW W/ RESTR | 2 |
| 4 | 1-397-010262-5 | HOSE ASSEMBLY 1/4 X 216 | 2 |
| 5 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 GRB | 5 |
| 6 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 8 |
| 7 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 8 |
| 8 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 24 |
| 9 | 1-861-010032-14 | WASHER, FLAT 1/2N | 8 |
| 10 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 24 |
| 11 | 100348 | MOUNTING BRACKET FOR CYLINDER | REF |
| 12 | 2-181-010001 | CLAMP, HOSE | 3 |
| 13 | 2062-6-4S | ADAPTER, 90 | 4 |
| 14 | 3-242-010205 | CYLINDER, HYDRAULIC 4X15 (W/ COLLAR) (SEE PAGE 2-244) | 2 |
| 15 | 202702-6-4S | ADAPTER, STRAIGHT | 2 |
| 16 | 138155 | ADAPTER, 90 | 2 |
| 17 | 1-394-010002 | HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN) | AR |

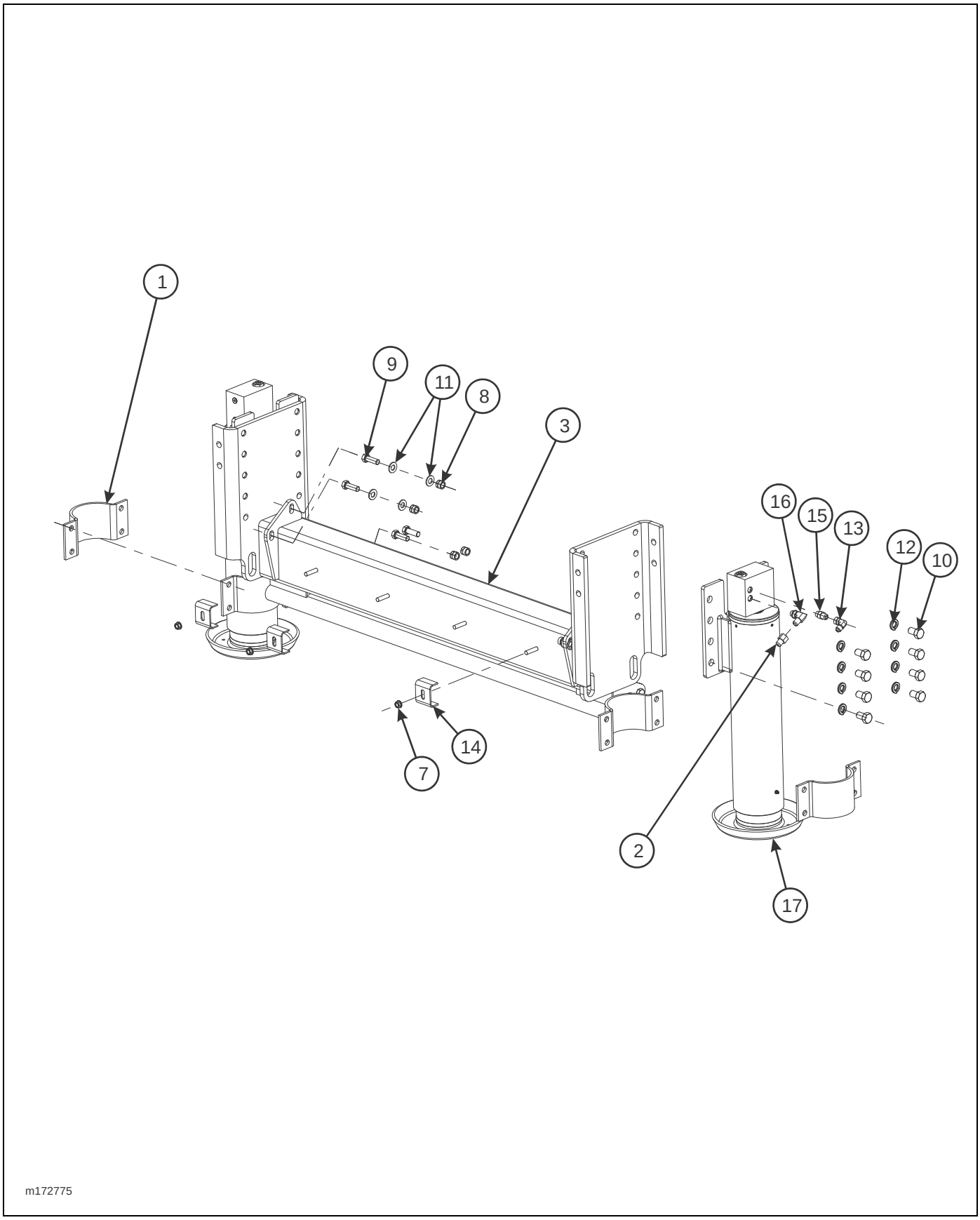



**Figure 2-126: Dock Leveler Assembly, Single 60K Arctic**

# DOCK LEVELER ASSEMBLY, SINGLE 60K ARCTIC

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 172775 | DOCK LEVEL ASSEMBLY SINGLE 60K ARCTIC | |
| 1 | 100348 | MOUNTING BRACKET FOR CYLINDER | REF |
| 2 | 118165 | ADAPTER, HYDRAULIC W/ 3/32 RESTRICTOR | 2 |
| 3 | 121402 | MOUNT WELDMENT, D/L | 1 |
| 4 | 172776 | HOSE ASSEMBLY, 3/8 X 240 ARCTIC (TO CURBSIDE CYLINDER) | 2 |
| 5 | 172848 | HOSE ASSEMBLY, 3/8 X 216 ARCTIC (TO STREETSIDE CYLINDER) | 2 |
| 6 | 1-394-010002 | HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN) | AR |
| 7 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 GRB | 3 |
| 8 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 8 |
| 9 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 8 |
| 10 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 20 |
| 11 | 1-861-010032-14 | WASHER, FLAT 1/2N | 8 |
| 12 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 20 |
| 13 | 102-0031 | ADAPTER, 90 | 2 |
| 14 | 2-181-010001 | CLAMP, HOSE | 3 |
| 15 | 202702-6-6S | ADAPTER, STRAIGHT | 2 |
| 16 | 2062-6-6S | ADAPTER, 90 | 2 |
| 17 | 3-242-010205 | CYLINDER, HYDRAULIC 4X15 (W/ COLLAR) (SEE PAGE 2-244) | 2 |

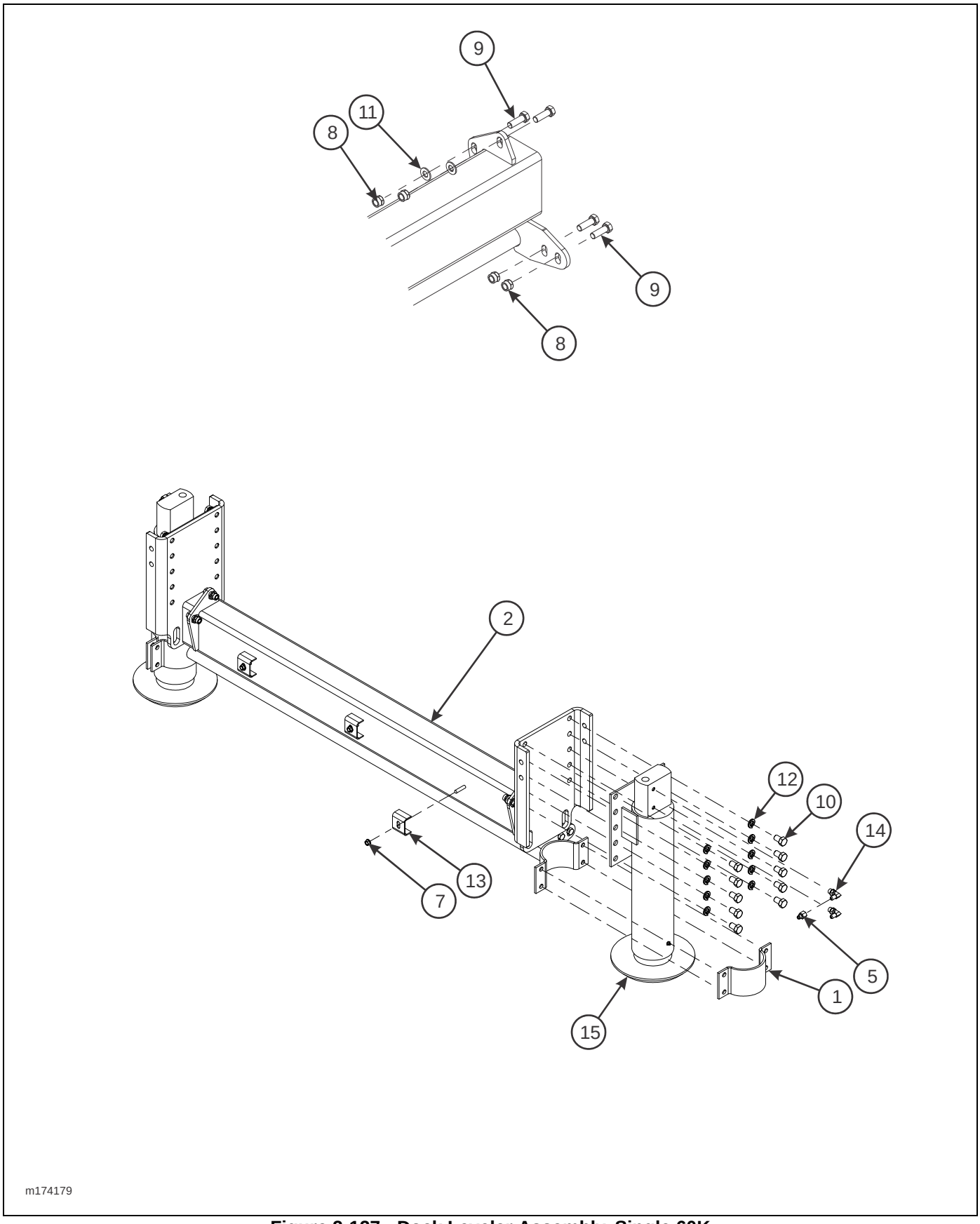



**Figure 2-127: Dock Leveler Assembly, Single 60K**

# DOCK LEVELER ASSEMBLY, 60K (455-120)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 174179 | DOCK LEVEL ASSEMBLY, 60K (455-120) | |
| 1 | 100348 | MOUNTING BRACKET FOR CYLINDER | REF |
| 2 | 174181 | MOUNT WELDMENT, DOCK LEVEL | 1 |
| 3 | 174184 | HOSE ASSEMBLY, 1/4 X 232 (TO STREETSIDE CYLINDER) | 2 |
| 4 | 174185 | HOSE ASSEMBLY, 1/4 X 270 (TO CURBSIDE CYLINDER) | 2 |
| 5 | 1-007-010058 | ADAPTER, 90° 3/8 ELBOW W/ RESTR | 2 |
| 6 | 1-394-010001 | HOSE, ABRASION SLEEVE X 2 (NOT SHOWN) | AR |
| 7 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 GRB | 3 |
| 8 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 8 |
| 9 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 8 |
| 10 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 20 |
| 11 | 1-861-010032-14 | WASHER, FLAT 1/2N | 8 |
| 12 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 20 |
| 13 | 2-181-010001 | CLAMP, HOSE | 3 |
| 14 | 2062-6-4S | ADAPTER, 90 | 4 |
| 15 | 3-242-010205 | CYLINDER, HYDRAULIC 4X15 (W/ COLLAR) (SEE PAGE 2-244) | 2 |

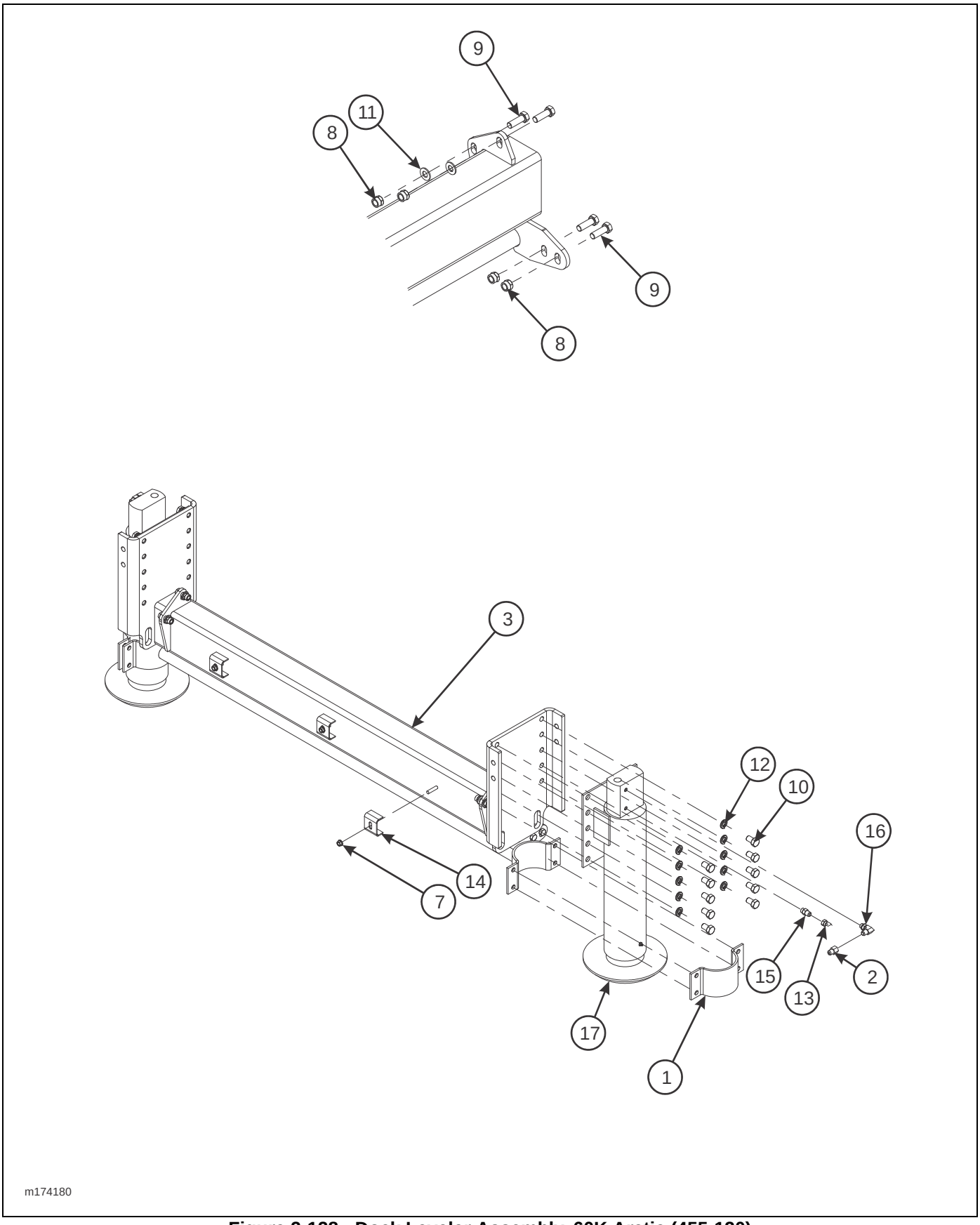



**Figure 2-128: Dock Leveler Assembly, 60K Arctic (455-120)**

# DOCK LEVELER ASSEMBLY, 60K ARCTIC (455-120)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 174180 | DOCK LEVEL ASSEMBLY SINGLE 60K | |
| 1 | 100348 | MOUNTING BRACKET FOR CYLINDER | REF |
| 2 | 118165 | ADAPTER, HYDRAULIC W/ 3/32 RESTRICTOR | 2 |
| 3 | 174181 | MOUNT WELDMENT, DOCK LEVEL | 1 |
| 4 | 174186 | HOSE ASSEMBLY, 3/8 X 232 ARCTIC (TO STREETSIDE CYLINDER) | 2 |
| 5 | 174187 | HOSE ASSEMBLY, 3/8 X 270 ARCTIC (TO CURBSIDE CYLINDER) | 2 |
| 6 | 1-394-010001 | HOSE, ABRASION SLEEVE X 2 (NOT SHOWN) | AR |
| 7 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 GRB | 3 |
| 8 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 8 |
| 9 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 8 |
| 10 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 20 |
| 11 | 1-861-010032-14 | WASHER, FLAT 1/2N | 8 |
| 12 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 20 |
| 13 | 102-0031 | ADAPTER, 90 | 2 |
| 14 | 2-181-010001 | CLAMP, HOSE | 3 |
| 15 | 202702-6-6S | ADAPTER, STRAIGHT | 2 |
| 16 | 2062-6-6S | ADAPTER, 90 | 2 |
| 17 | 3-242-010205 | CYLINDER, HYDRAULIC 4X15 (W/ COLLAR) (SEE PAGE 2-244) | 2 |

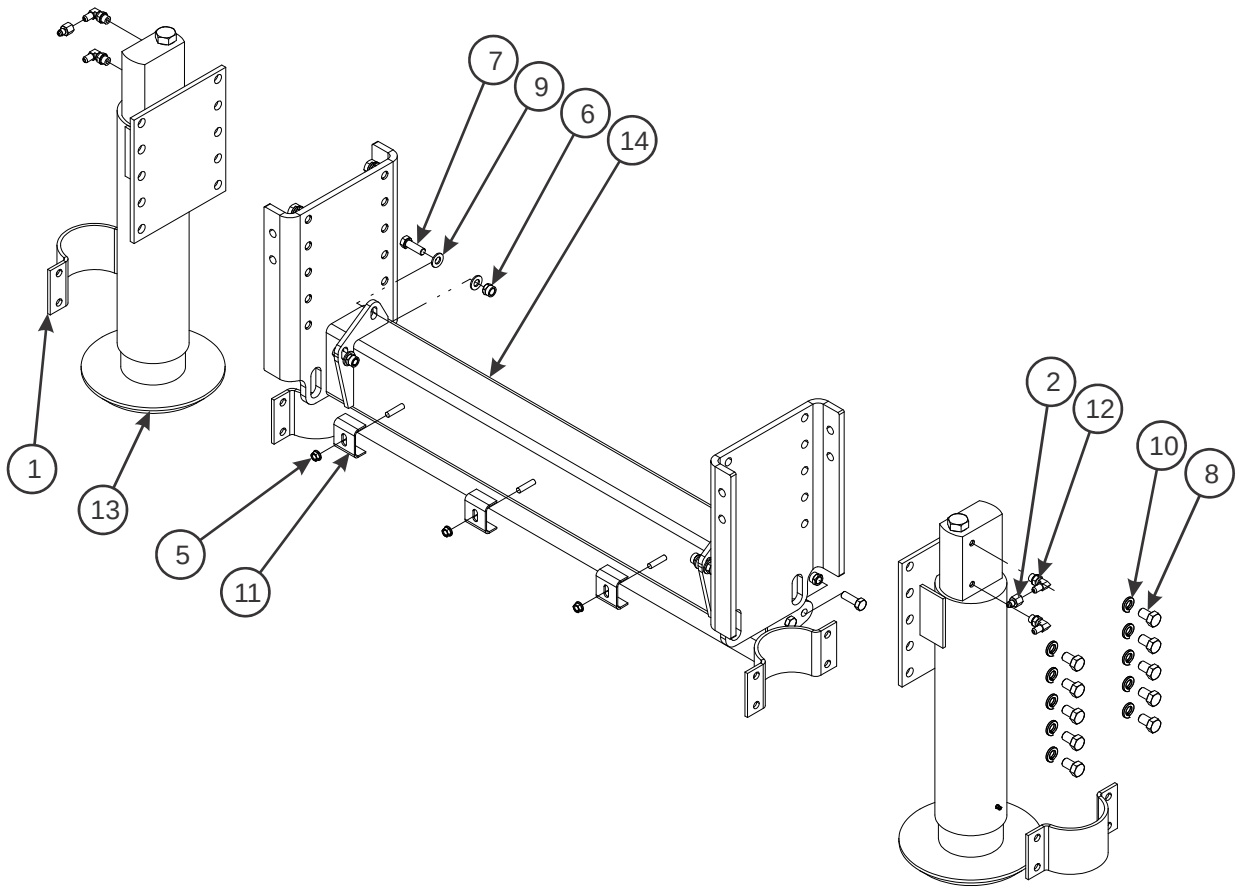



**Figure 2-129: Dock Leveler Assembly, Single 60K Euro**

# DOCK LEVELER ASSEMBLY, SINGLE 60K EURO

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 130851 | DOCK LEVEL ASSEMBLY SINGLE 60K | |
| 1 | 100348 | MOUNTING BRACKET FOR CYLINDER | REF |
| 2 | 1-007-010058 | ADAPTER, 90° 3/8 ELBOW W/ RESTR | 2 |
| 3 | 1-394-010001 | HOSE, ABRASION SLEEVE X 2 (NOT SHOWN) | AR |
| 4 | 1-397-010262-5 | HOSE ASSEMBLY 1/4 X 216 (NOT SHOWN) | 2 |
| 5 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 GRB | 3 |
| 6 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 8 |
| 7 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 8 |
| 8 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 20 |
| 9 | 1-861-010032-14 | WASHER, FLAT 1/2N | 8 |
| 10 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 20 |
| 11 | 2-181-010001 | CLAMP, HOSE | 3 |
| 12 | 2062-6-4S | ADAPTER, 90 | 4 |
| 13 | 3-242-010205 | CYLINDER, HYDRAULIC 4X15 (W/ COLLAR) (SEE PAGE 2-244) | 2 |
| 14 | 3-482-010472 | MOUNT WELDMENT, DOCK LEVEL 60K | 1 |
| 15 | 122540 | HOSE ASSEMBLY 1/4 X 240 (NOT SHOWN) | 2 |

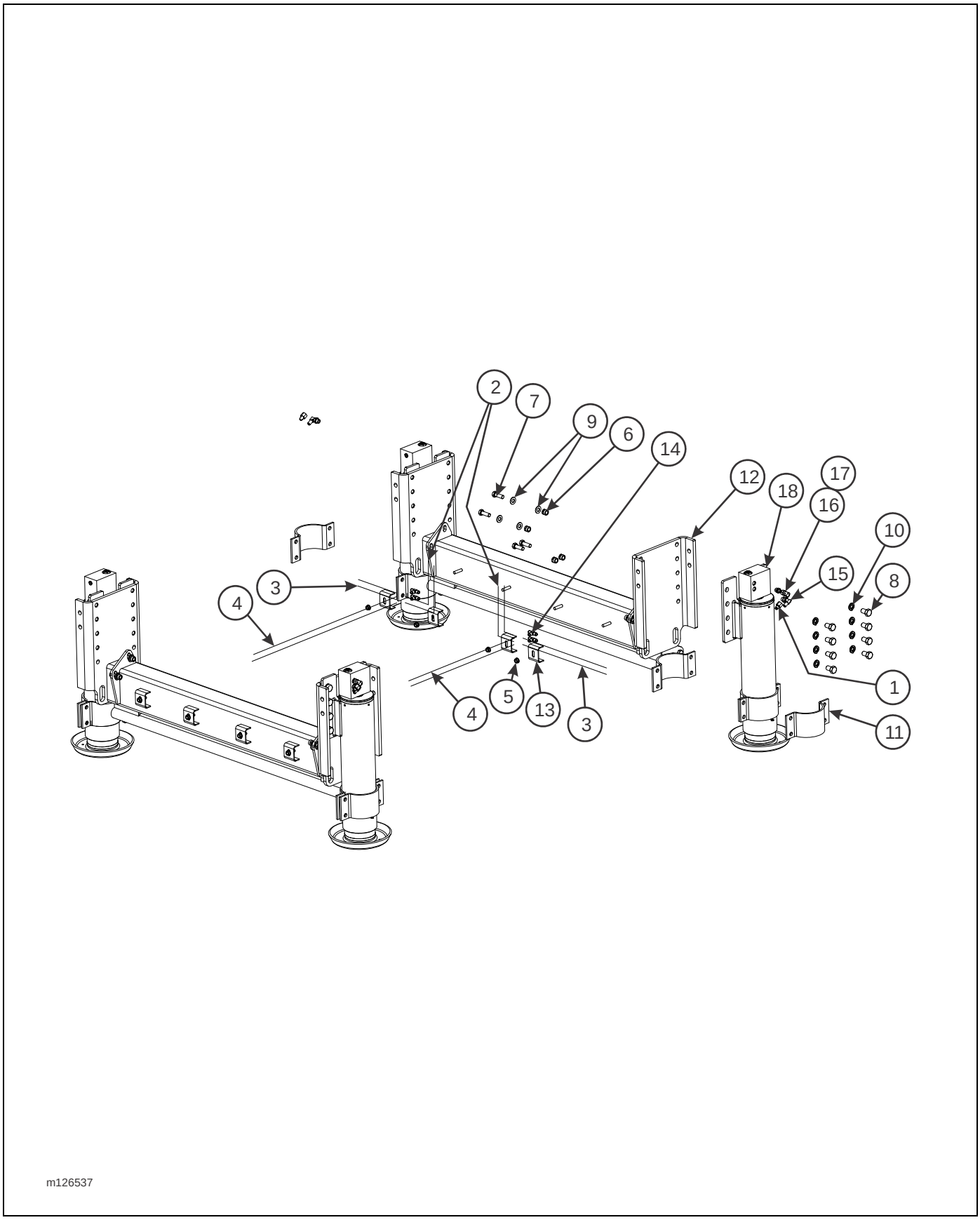
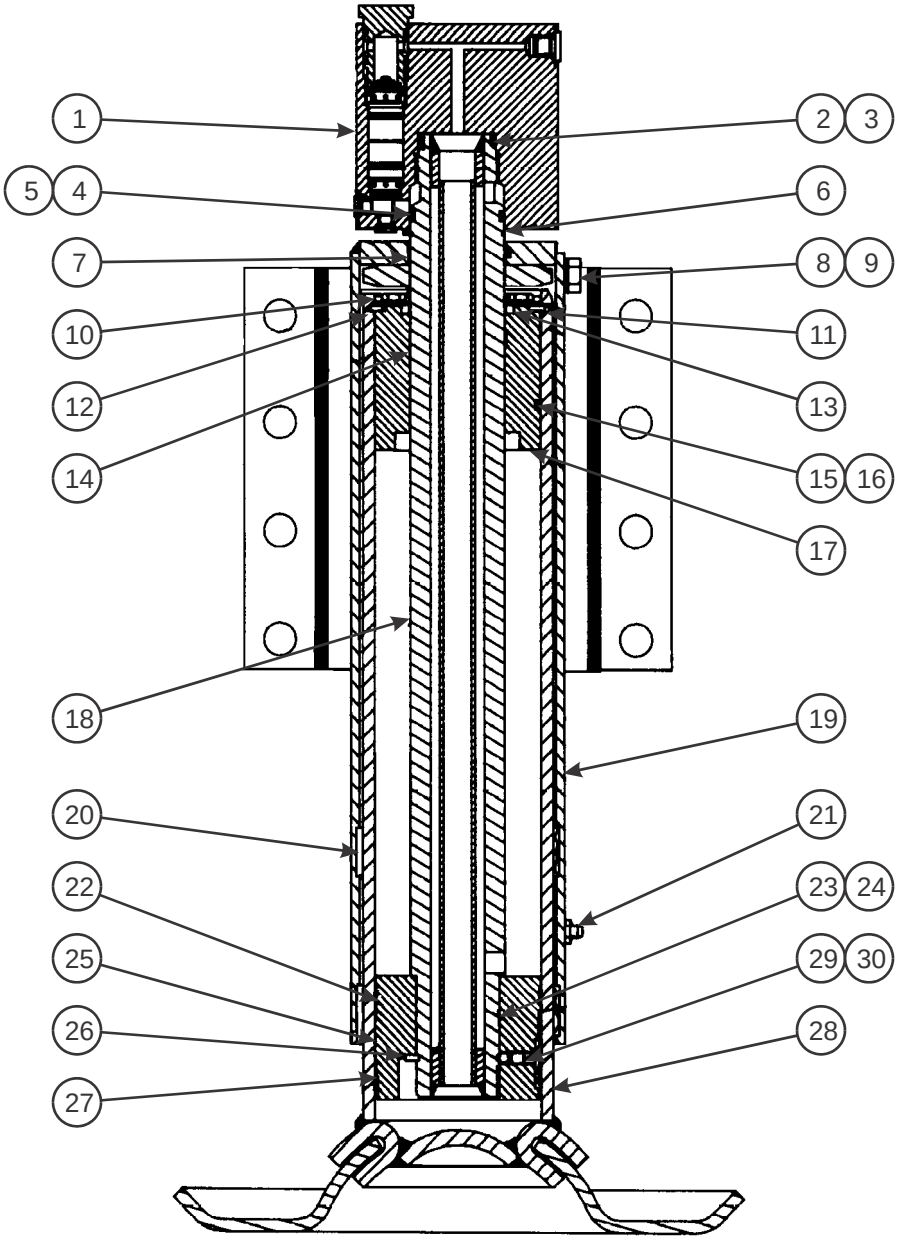



**Figure 2-130: Dock Leveler Assembly, 120K**

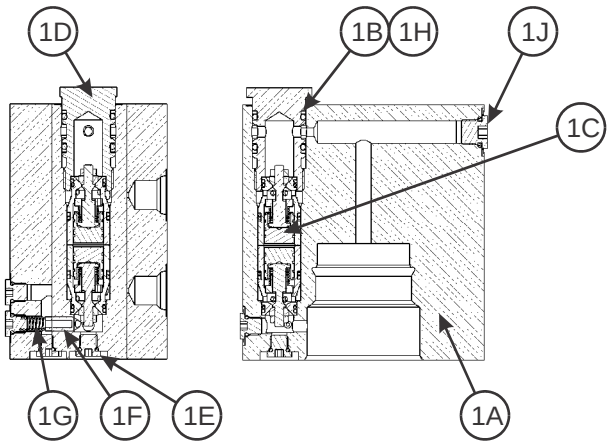
# DOCK LEVELER ASSEMBLY, 120K

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 126537 | DOCK LEVEL ASSEMBLY SINGLE 120K | |
| 1 | 1-007-010058 | ADAPTER, 90° 3/8 ELBOW W/ RESTR | 4 |
| 2 | 1-397-010262-5 | HOSE ASSEMBLY 1/4 X 216 | 4 |
| 3 | 1-397-010262028 | HOSE ASSEMBLY 1/4 X 28 | 4 |
| 4 | 1-397-010262100 | HOSE ASSEMBLY 1/4 X 100 | 2 |
| 5 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 GRB | 8 |
| 6 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 16 |
| 7 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 16 |
| 8 | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5 | 32 |
| 9 | 1-861-010032-14 | WASHER, FLAT 1/2N | 16 |
| 10 | 1-861-010034-15 | WASHER, SPLIT LOCK 5/8 | 32 |
| 11 | 100348 | MOUNTING BRACKET FOR CYLINDER | REF |
| 12 | 121402 | MOUNT WELDMENT, D/L | 2 |
| 13 | 2-181-010001 | CLAMP, HOSE | 8 |
| 14 | 2033-4-4S | ADAPTER, TEE | 4 |
| 15 | 2062-6-4S | ADAPTER, 90 | 4 |
| 16 | 138155 | ADAPTER, 90 | 4 |
| 17 | 202702-6-4S | ADAPTER, STRAIGHT | 4 |
| 18 | 3-242-010205 | CYLINDER, HYDRAULIC 4X15 (W/ COLLAR) (SEE PAGE 2-244) | 4 |
| 19 | 1-394-010002 | HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN) | AR |

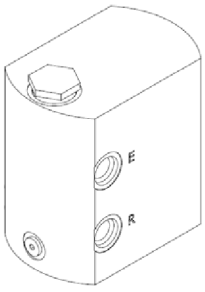



dock leg op p1

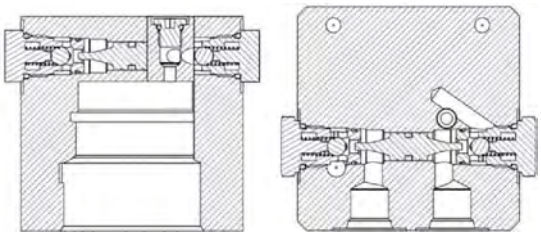
**Figure 2-131: Dock Leveler Leg Assembly w/ Lock Valve (1 of 2)**



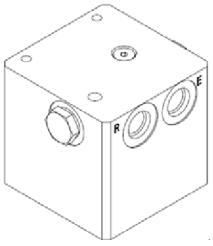

SIDE SECTION FRONT SECTION



STABILIZER LEG
CHECK VALVE
(PRIOR TO 03/19/2010)



FRONT SECTION TOP SECTION



STABILIZER LEG
CHECK VALVE
(AFTER 03/19/2010)

dock leg op p2

**Figure 2-132: 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) (INCL. THE FOLLOWING:) | 1 |
| | ----- | NSS | SPLIT COLLAR HALF (60,000 LB.) | 2 |
| | ----- | NSS | LEG COLLAR MOUNTING KIT | 1 |
| | ----- | NSS | SCREW, HEX HEAD CAP 1/2-20 X 2 GR5 | 4 |
| | ----- | NSS | NUT, HEX LOCK 1/2-20 | 4 |
| | ----- | NSS | SPACER, SPLIT COLLAR | 4 |

# LEG ITEMS, DOCK LEVELER W/ LOCK VALVE

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY. |
|---|---|---|---|---|

* - 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

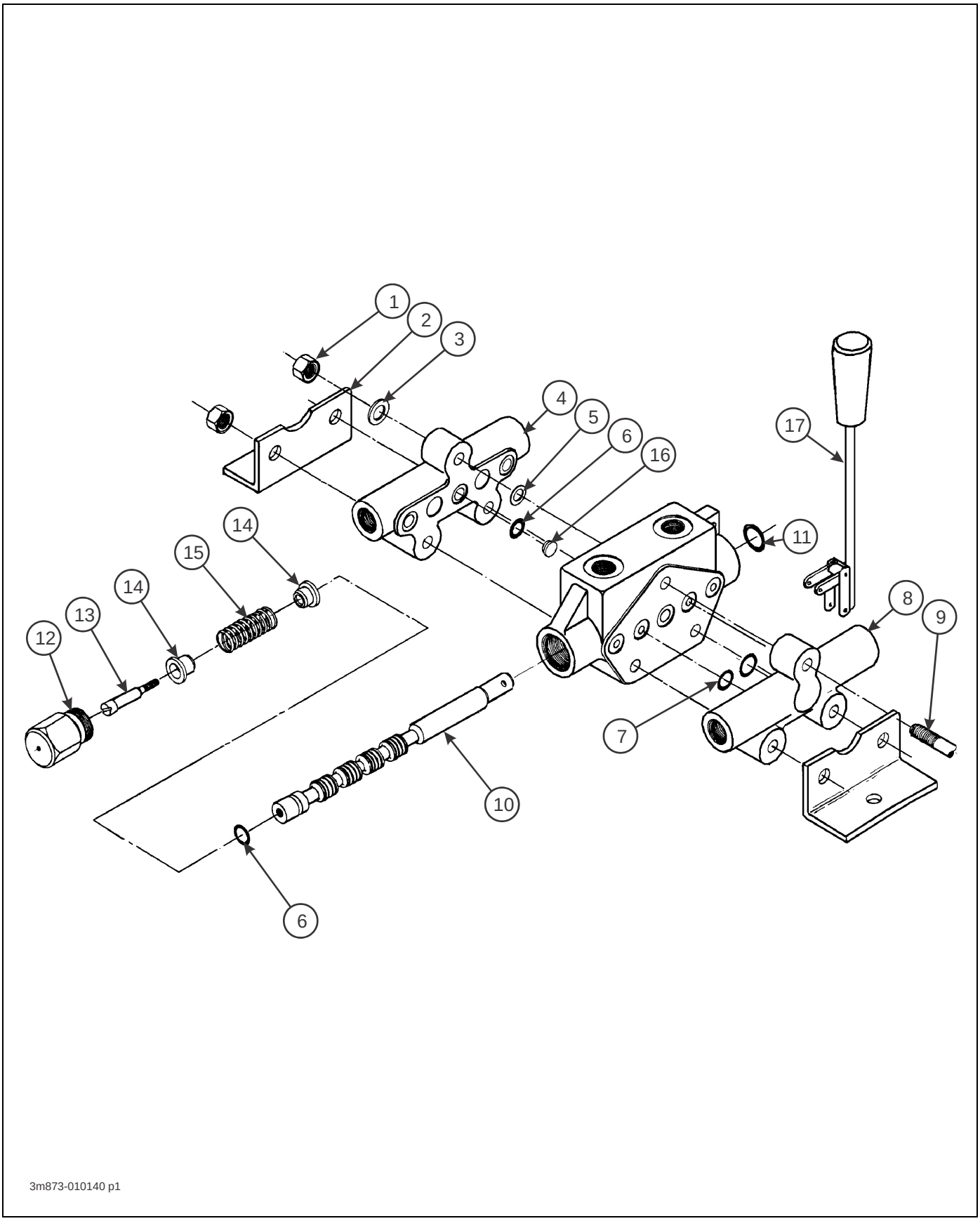



**Figure 2-133: Dock Leveler Valve**

# 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 | 1 |
| 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 | INLET SEAL KIT | 1 |
| 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 |

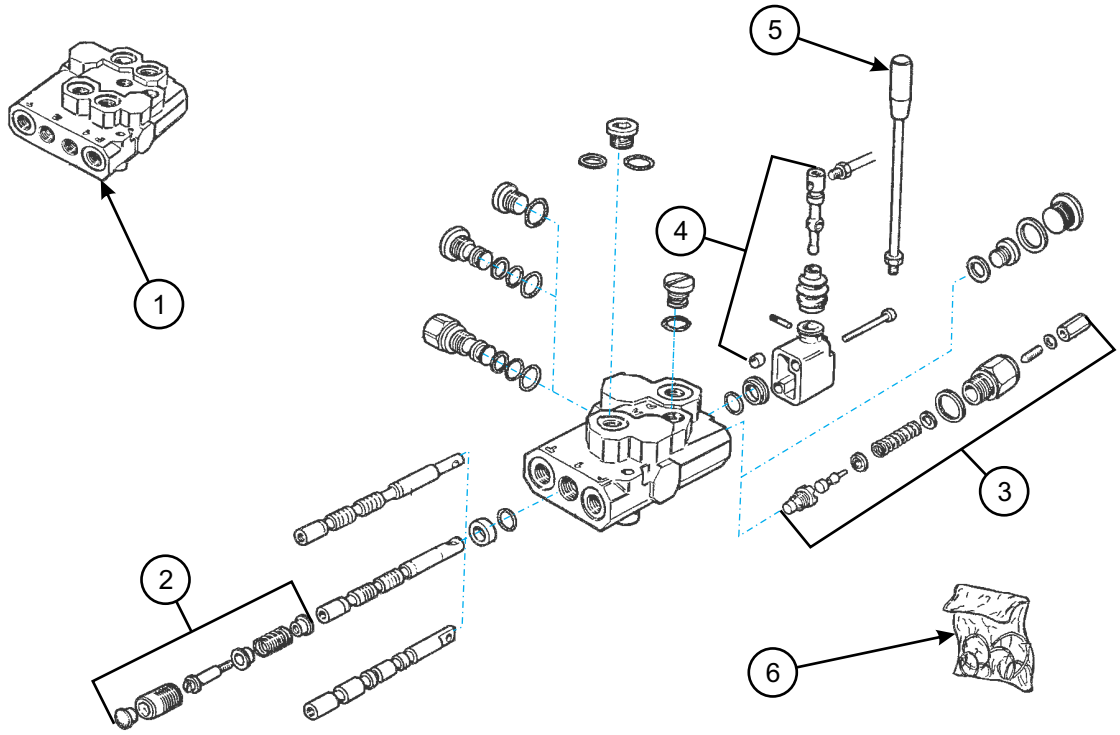



**Figure 2-134: Dock Leveler Valve (After 01/15/2014)**

# DOCK LEVELER VALVE (After 01/15/2014)

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| 1 | 179649 | ----- | DOUBLE SPOOL STACK VALVE-PARALLEL, | |
| 2 | 194731 | 20768510010 | SPOOL POSITIONER SPRING CENTER | 1 |
| 3 | 194732 | 20787400710 | RELIEF VALVE ASSEMBLY | 1 |
| 4 | 194733 | 200707010070 | SPOOL OPERATOR | 1 |
| 5 | 194734 | 200702210230 | HANDLE | 1 |
| 6 | 194735 | 200773800350 | SEAL KIT | 1 |

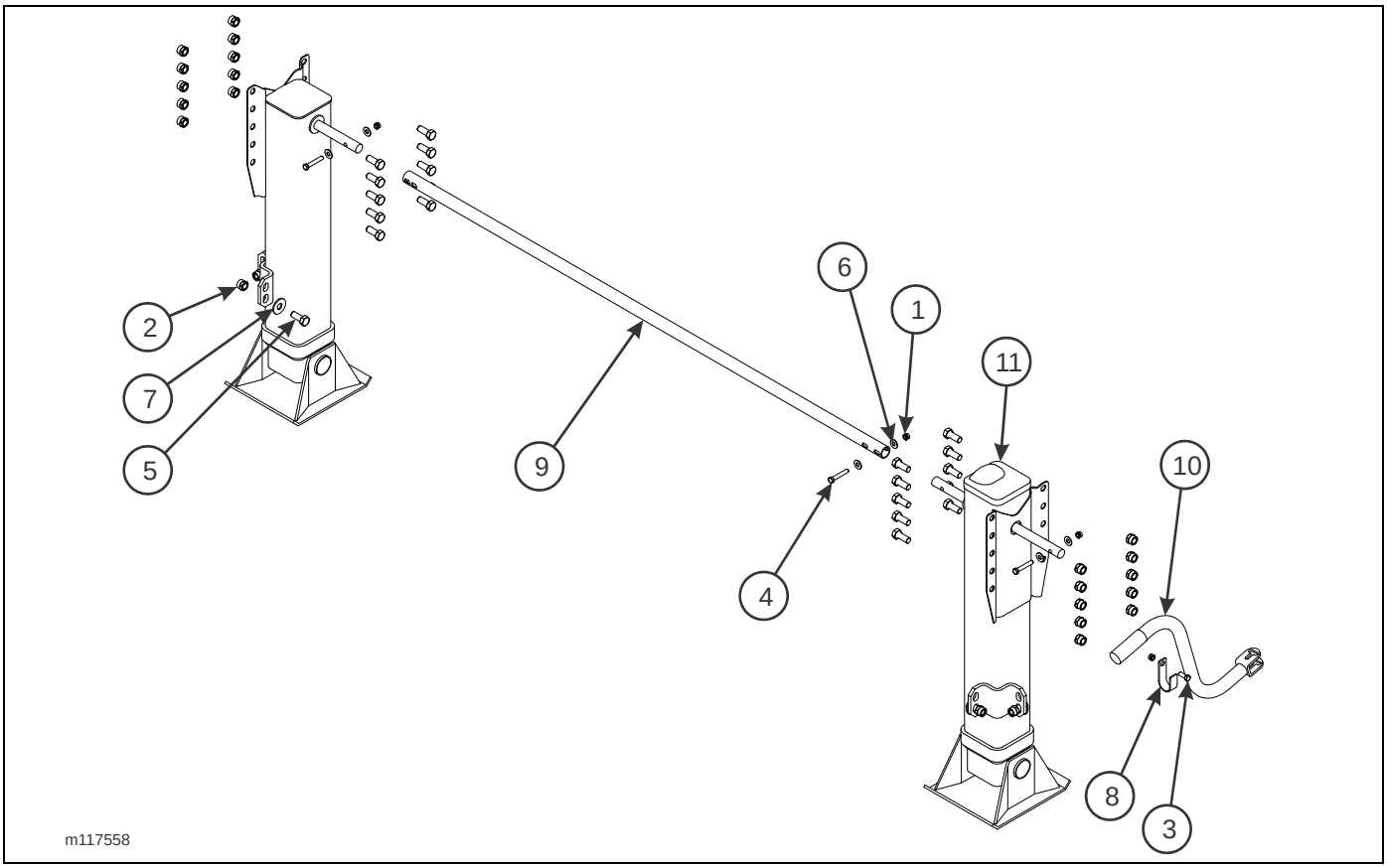



**Figure 2-135: Landing Gear Installation**

# LANDING GEAR INSTALLATION

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 117558 | LANDING GEAR INSTALLATION (102” WIDE) | |
| | 133799 | LANDING GEAR INSTALLATION (120” WIDE) | |
| | 164120 | LANDING GEAR INSTALLATION (108” WIDE) | |
| 1 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 4 |
| 2 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 24 |
| 3 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 1 |
| 4 | 1-654-010051-10 | SCREW, HEX HEAD CAP 3/8-16 X 2-1/4 GR5 | 3 |
| 5 | 1-654-010059-03 | SCREW, HEX HEAD CAP 5/8-11 X 1-1/2 GR5 | 24 |
| 6 | 1-861-010032-11 | WASHER, FLAT 3/8W | 6 |
| 7 | 1-861-010032-19 | WASHER, FLAT 5/8W | 4 |
| 8 | 117559 | CLIP, LANDING GEAR HANDLE | 1 |
| 9 | 117561 | CROSS-SHAFT LANDING GEAR (117558) | 1 |
| | 133798 | CROSS SHAFT LANDING GEAR (133799) | 1 |
| | 164121 | CROSS SHAFT LANDING GEAR (164120) | 1 |
| 10 | 119949 | HANDLE, CRANK 2 SPEED LANDING GEAR | 1 |
| 11 | 139256 | LANDING GEAR WELDMENT, 2 SPEED (SEE PAGE 2-259) | 1 |

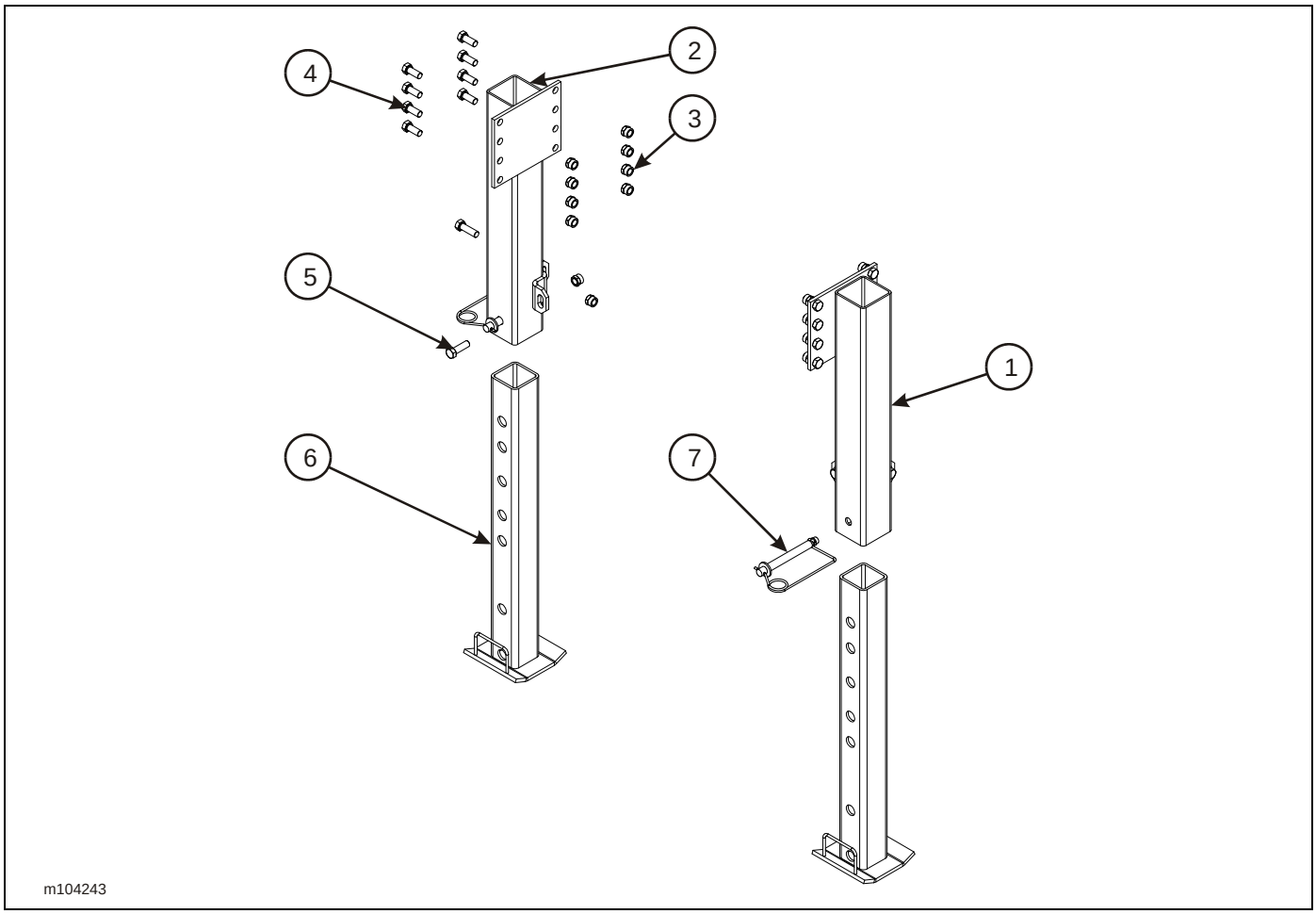



**Figure 2-136: Landing Gear Installation**

# LANDING GEAR INSTALLATION BOLT - ON

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 104243 | PARK STAND INST., BOLT-ON (ITEMS 1-7) | |
| 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 |

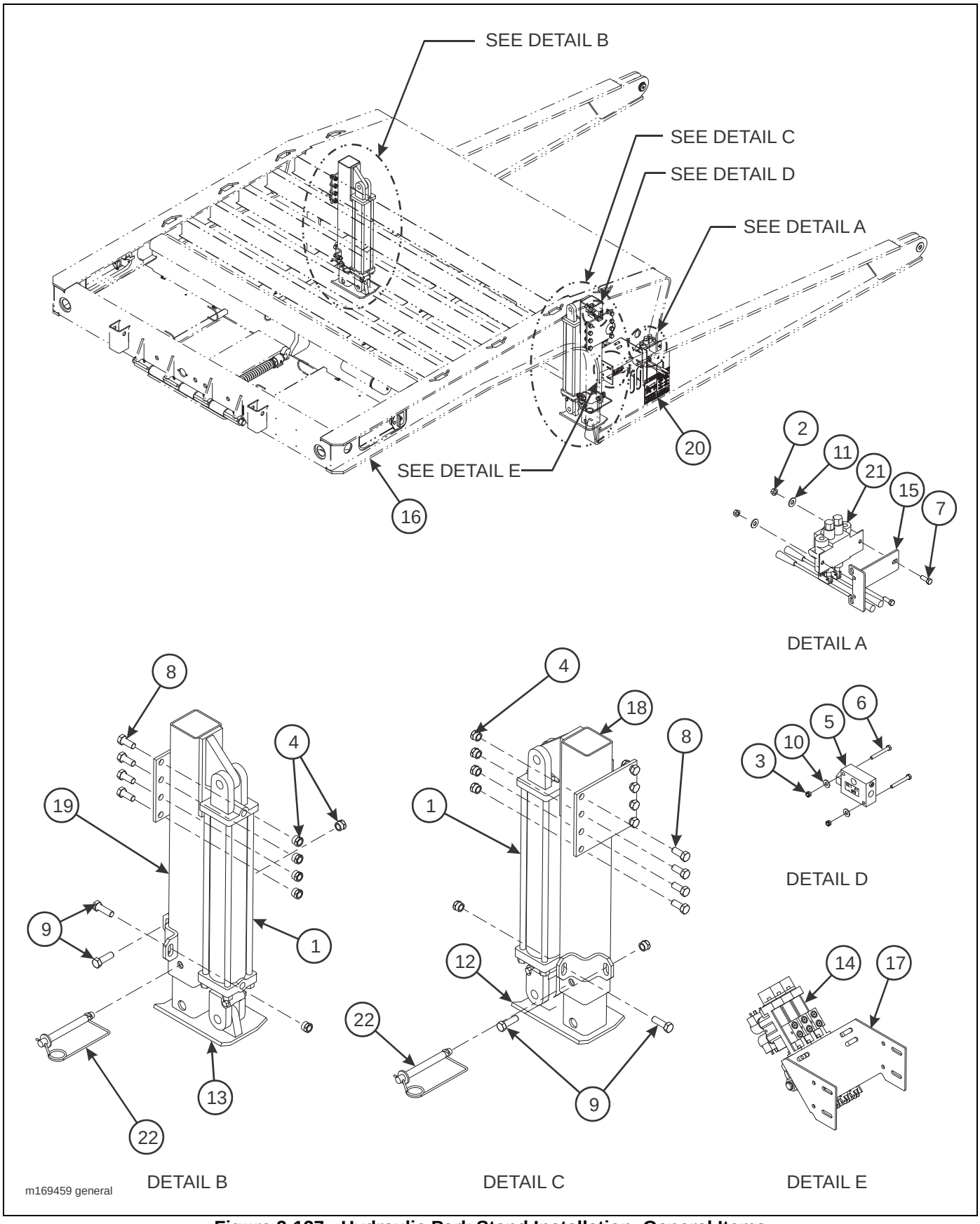



**Figure 2-137: Hydraulic Park Stand Installation, General Items**

# HYDRAULIC PARK STAND INSTALLATION, GENERAL ITEMS

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 129069 | PARK STAND INSTALLATION, HYDRAULIC | |
| | 169619 | PARK STAND INSTALLATION, HYDRAULIC ARCTIC | |
| 1 | 1-242-010180-2 | CYLINDER, HYDRAULIC 3-1/2 X 20 3000 PSI (SEE PAGE 2-257) | 2 |
| 2 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 2 |
| 3 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 |
| 4 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 20 |
| 5 | 1-626-010002-06 | REGULATOR, FLOW 1/2-6 GPM | 1 |
| 6 | 1-654-010049-11 | SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5 | 2 |
| 7 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 |
| 8 | 1-654-010059-03 | SCREW, HEX HEAD CAP 5/8-11X1-1/2 GR5 | 16 |
| 9 | 1-654-010059-05 | SCREW, HEX HEAD CAP 5/8-11 X 2 GR5 | 4 |
| 10 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 |
| 11 | 1-861-010032-11 | WASHER, FLAT 3/8W | 2 |
| 12 | 104241 | PARK STAND WELDMENT, HYDRAULIC LH LEG | 1 |
| 13 | 104242 | PARK STAND WELDMENT, HYDRAULIC RH LEG | 1 |
| 14 | ----- | VALVE, 3 STACK MOTOR SOL | REF |
| 15 | 121124 | BRACKET, VALVE DOCK LEVEL CONTROL | 1 |
| 16 | ----- | FRAME ASSEMBLY, G/N | REF |
| 17 | 122474 | VALVE MOUNT, CONTROL | 1 |
| 18 | 129084 | PARK STAND WELDMENT, HYDRAULIC LH | 1 |
| 19 | 129085 | PARK STAND WELDMENT, HYDRAULIC RH | 1 |
| 20 | 3-573-010202 | DECAL, DANGER/ OPERATION, DOCK LEVEL (SEE PAGE 2-5) | 1 |
| 21 | 3-846-010056 | VALVE, DOUBLE SPOOL STACK PARALLEL, PRIOR TO 01/15/2014 | 1 |
| | 179649 | VALVE, DOUBLE SPOOL | 1 |
| 22 | 346SL | LOCK, HITCH PIN | 2 |

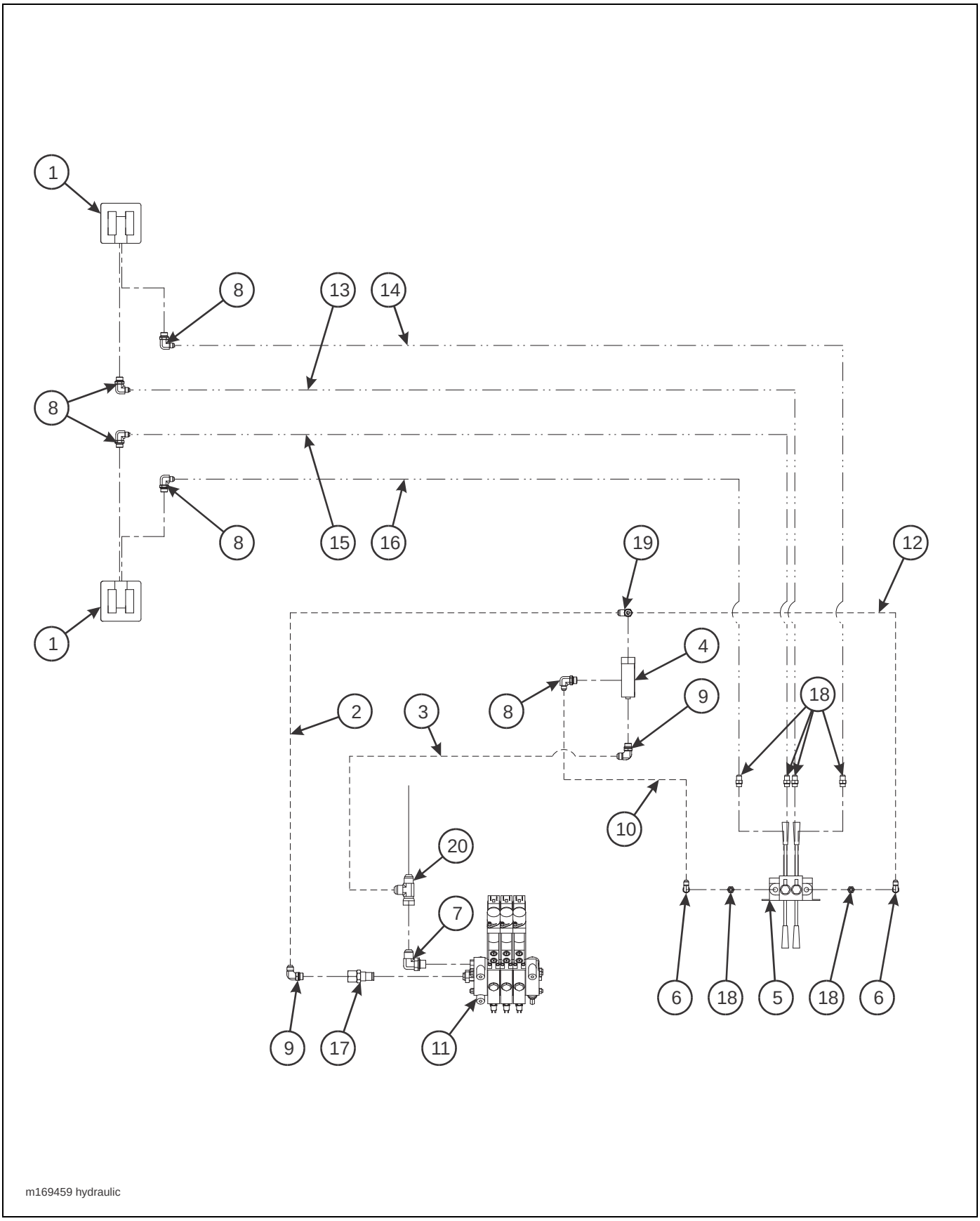
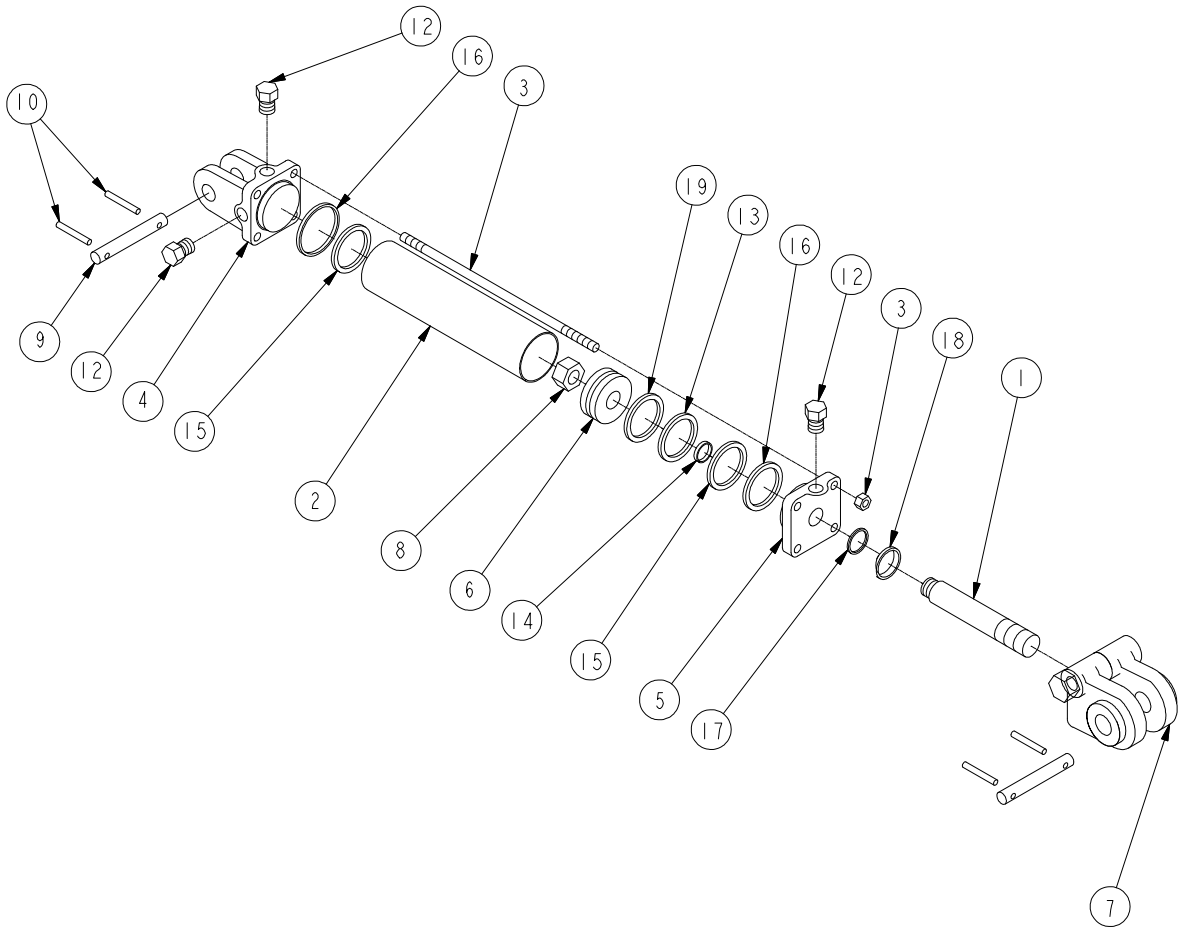



**Figure 2-138: Hydraulic Park Stand Installation, Hydraulic Items**

# HYDRAULIC PARK STAND INSTALLATION, HYDRAULIC ITEMS

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 129069 | PARK STAND INSTALLATION, HYDRAULIC | * | |
| | 169619 | PARK STAND INSTALLATION, HYDRAULIC ARCTIC | | * |
| 1 | 1-242-010180-2 | CYLINDER, HYDRAULIC 3-1/2 X 20 3000 PSI (SEE PAGE 2-257) | REF | REF |
| 2 | 1-397-010302018 | HOSE ASSEMBLY, 1/2 X 18 | 1 | -- |
| | 169620 | HOSE ASSEMBLY, 1/2 X 18 ARCTIC | -- | 1 |
| 3 | 1-397-010306028 | HOSE ASSEMBLY, 1/2 X 28 | 1 | -- |
| | 169622 | HOSE ASSEMBLY, 1/2 X 28 ARCTIC | -- | 1 |
| 4 | 1-626-010002-06 | REGULATOR, FLOW 1/2-6 GPM | 1 | 1 |
| 5 | 3-846-010056 | VALVE, DOUBLE SPOOL STACK PARALLEL, PRIOR TO 01/15/2015 | 1 | 1 |
| | 179649 | VALVE, DOUBLE SPOOL, AFTER 01/15/2014 | 1 | 1 |
| 6 | 102-0031 | ADAPTER, 90 | 2 | 2 |
| 7 | 2062-10-12S | ADAPTER | 2 | 2 |
| 8 | 2062-8-6S | ELBOW, 90 | 5 | 5 |
| 9 | 2062-8-8S | ADAPTER, 90 | 2 | 2 |
| 10 | 111302 | HOSE ASSEMBLY 3/8 X 24 | 1 | -- |
| | 169626 | HOSE ASSEMBLY 3/8 X 24 | -- | 1 |
| 11 | ----- | VALVE, 3 STACK MOTOR SOL | REF | REF |
| 12 | 116429 | HOSE ASSEMBLY 3/8 X 25 | 1 | -- |
| | 169624 | HOSE ASSEMBLY 3/8 X 25 ARCTIC | -- | 1 |
| 13 | 116488 | HOSE ASSEMBLY 3/8 X 136 | 1 | -- |
| | 169630 | HOSE ASSEMBLY 3/8 X 136 ARCTIC | -- | 1 |
| 14 | 123490 | HOSE ASSEMBLY, 3/8 X 113 | 1 | -- |
| | 169629 | HOSE ASSEMBLY, 3/8 X 113 ARCTIC | -- | 1 |
| 15 | 129088 | HOSE ASSEMBLY 3/8 X 60 | 1 | -- |
| | 169627 | HOSE ASSEMBLY 3/8 X 60 ARCTIC | -- | 1 |
| 16 | 135189 | HOSE ASSEMBLY 3/8 X 84 | 1 | -- |
| | 169628 | HOSE ASSEMBLY 3/8 X 84 ARCTIC | -- | 1 |
| 17 | 138179 | POWER BEYOND REMOTE | 1 | -- |
| 18 | 202702-6-6S | ADAPTER, STRAIGHT | 6 | 6 |
| 19 | 203005-8-8S | ADAPTER, TEE | 1 | 1 |
| 20 | 203102-12-12S | ADAPTER, TEE | 1 | 1 |




1mb242-010180

**Figure 2-139: Hydraulic Cylinder 3-1/2 x 20**

# HYDRAULIC CYLINDER 3-1/2 X 20

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 1-242-010180-2 | CYLINDER, HYDRAULIC 3-1/2" X 20" (PRINCE SAE 33520) | |
| 1 | 010700437 | PISTON ROD | 1 |
| 2 | ----- | TUBE | 1 |
| 3 | ----- | TIEROD ASSEMBLY | 4 |
| 4 | ----- | BUTT | 1 |
| 5 | 111870 | GLAND ASSEMBLY | 1 |
| 6 | ----- | PORT PLUG | 1 |
| 7 | ----- | PISTON | 1 |
| 8 | ----- | CLEVIS ASSEMBLY | 1 |
| 9 | ----- | LOCKNUT | 1 |
| 10 | ----- | CLEVIS PIN | 2 |
| 11 | ----- | 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.

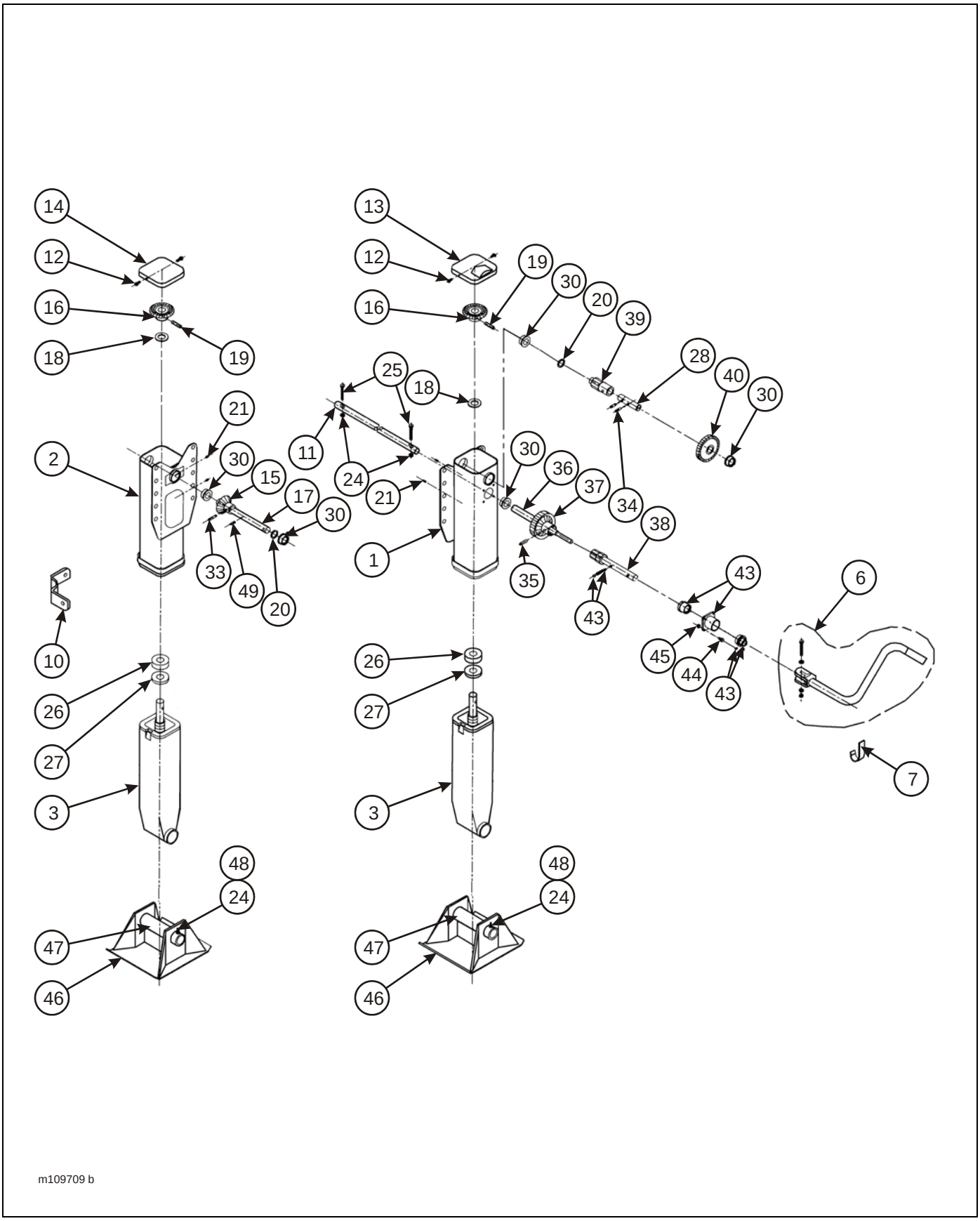



**Figure 2-140: Crank Landing Gear**

# CRANK LANDING GEAR

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION | QTY. |
|---|---|---|---|---|
| | 116800 | | LANDING GEAR (JOST #A401T19) | |
| 1 | ----- | D10201.3 | OUTER HOUSING - 2 SPEED | 1 |
| 2 | ----- | D10116.3 | OUTER HOUSING - 1 SPEED | 1 |
| 3 | ----- | C10140.3 | 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 |
| 50 | 137974 | A401LT19 | RH LANDING LEG ASSEMBLY | 1 |

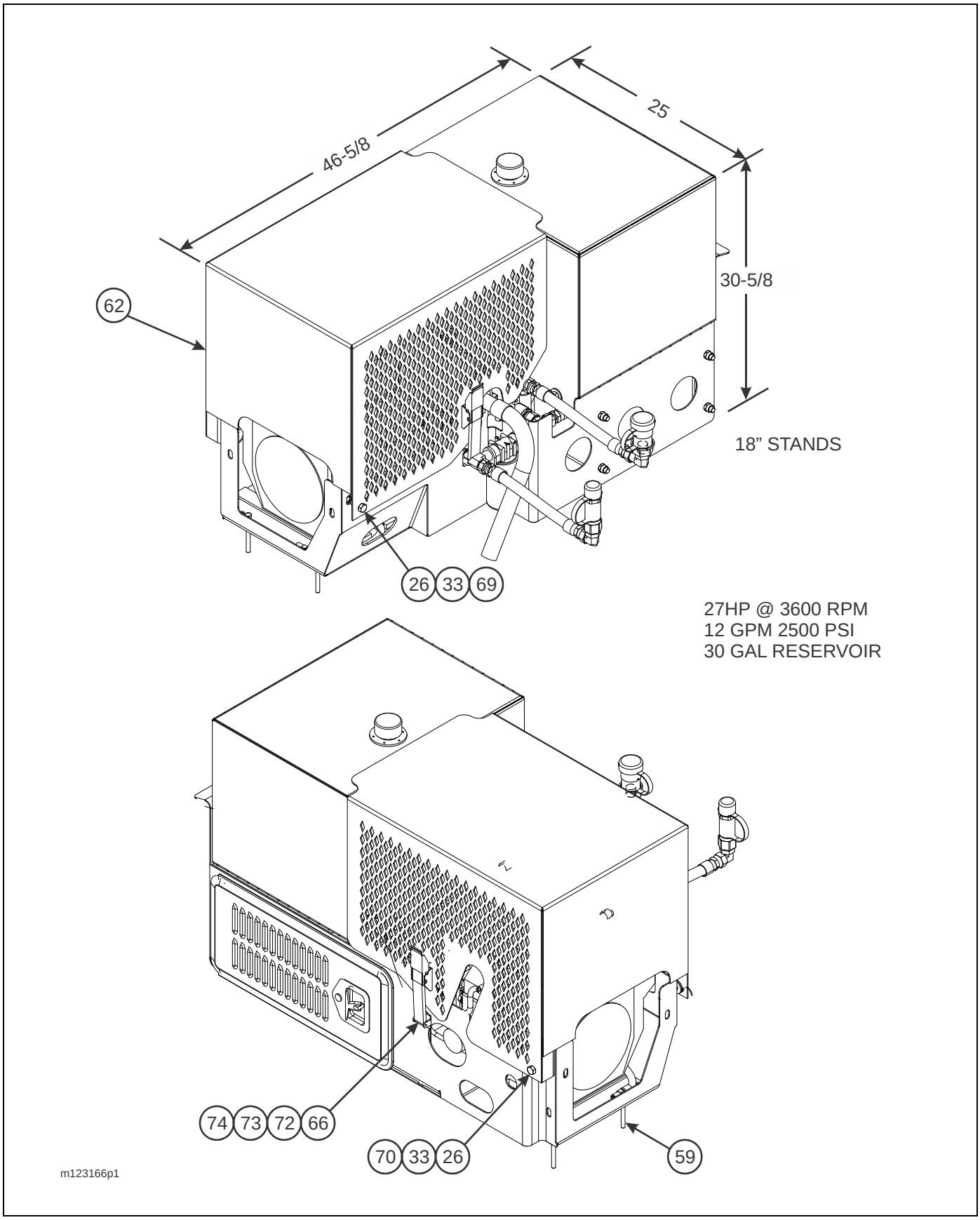



**Figure 2-141: Upper Deck Engine Installation (1 of 4)**

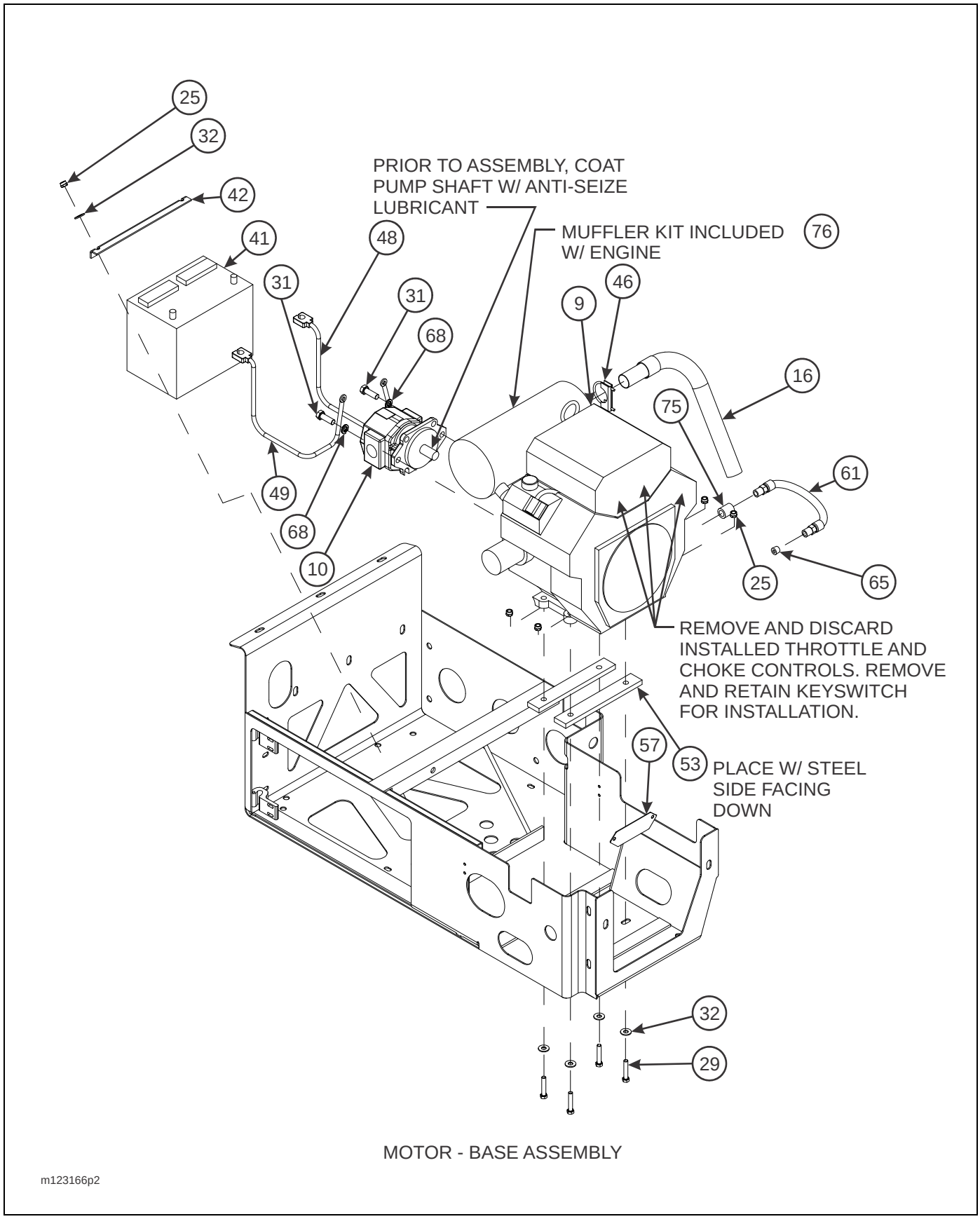



**Figure 2-142: Upper Deck Engine Installation (2 of 4)**

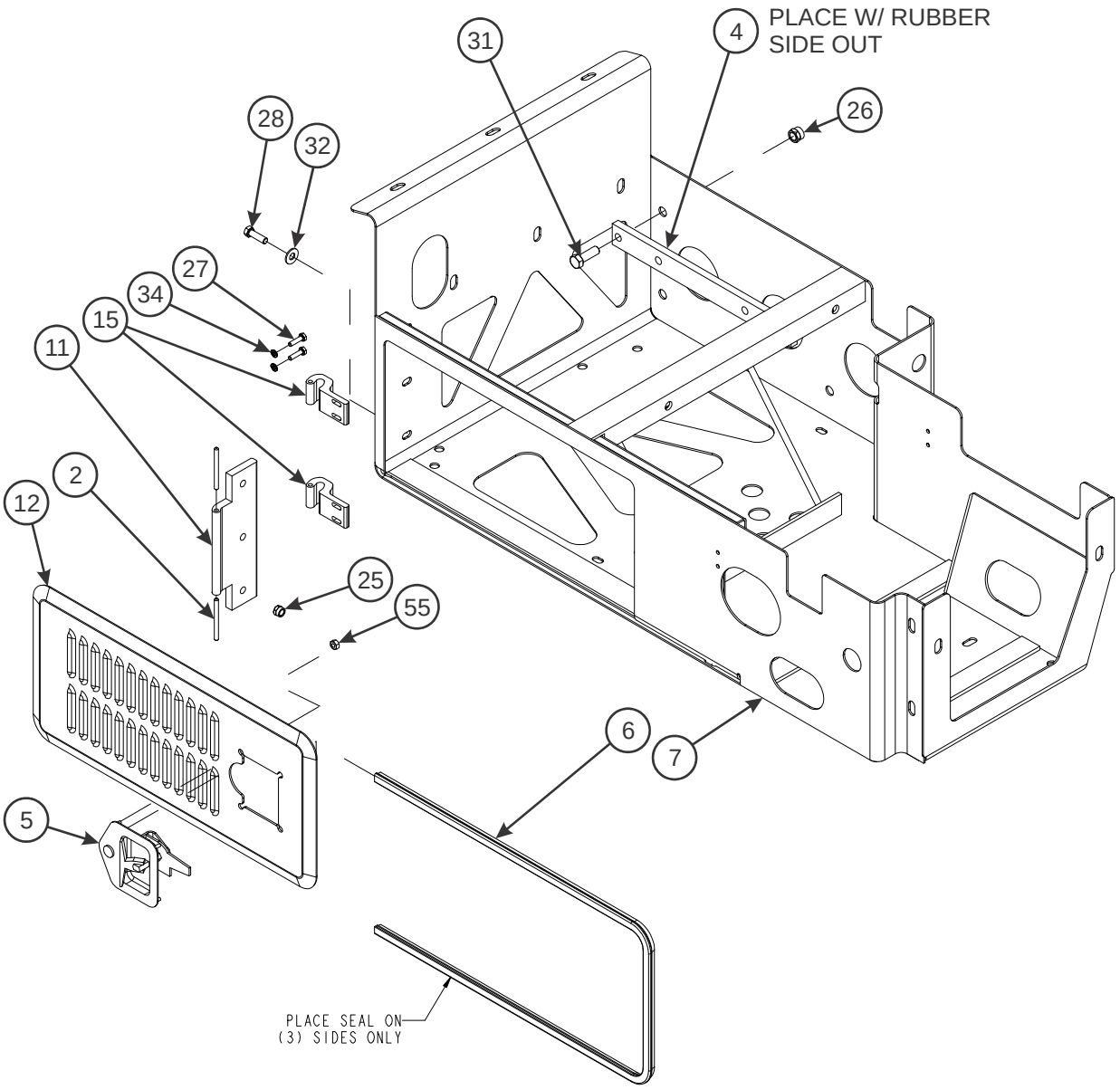



**Figure 2-143: Upper Deck Engine Installation (3 of 4)**

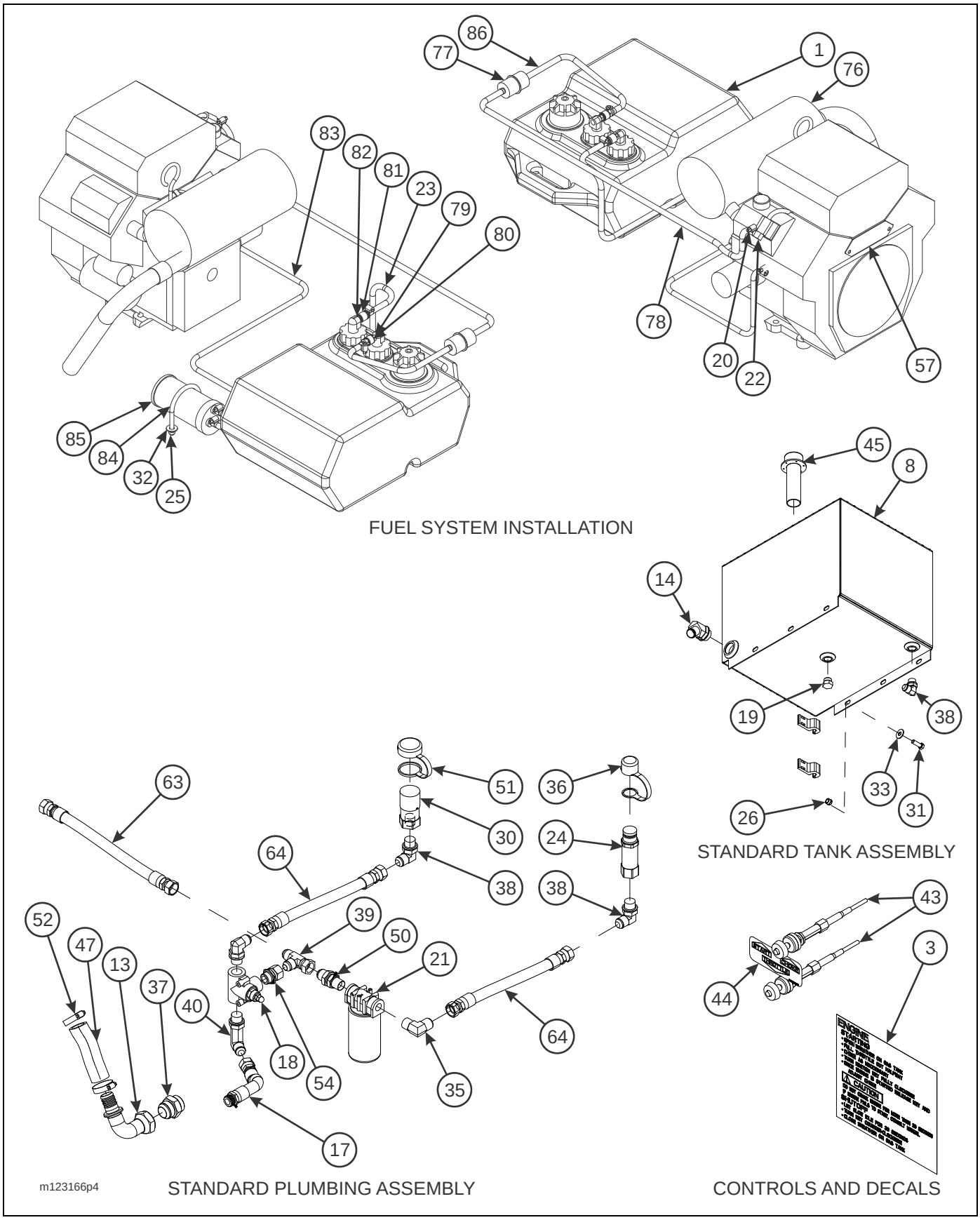



**Figure 2-144: Upper Deck Engine Installation (4 of 4)**

# 25 HP GAS ENGINE PACKAGE, UPPER DECK (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 123166 | 25HP 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 **(BEFORE 11-14-2014)** | 1 |
| | 186811 | PUMP, HYDRAULIC, 0.88 CID GEAR **(AFTER 11-14-2014)** | 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 (**BEFORE 11-14-2015)** | 1 |
| | 119553 | CONNECTOR, O-RING/37° **(AFTER 11-14-2015)** | 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 |

# 25 HP GAS ENGINE PACKAGE, UPPER DECK (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 45 | 3-162-010001 | FILLER-BREATHER-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 |
| 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 | 3/8 P COUPLING | 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 |

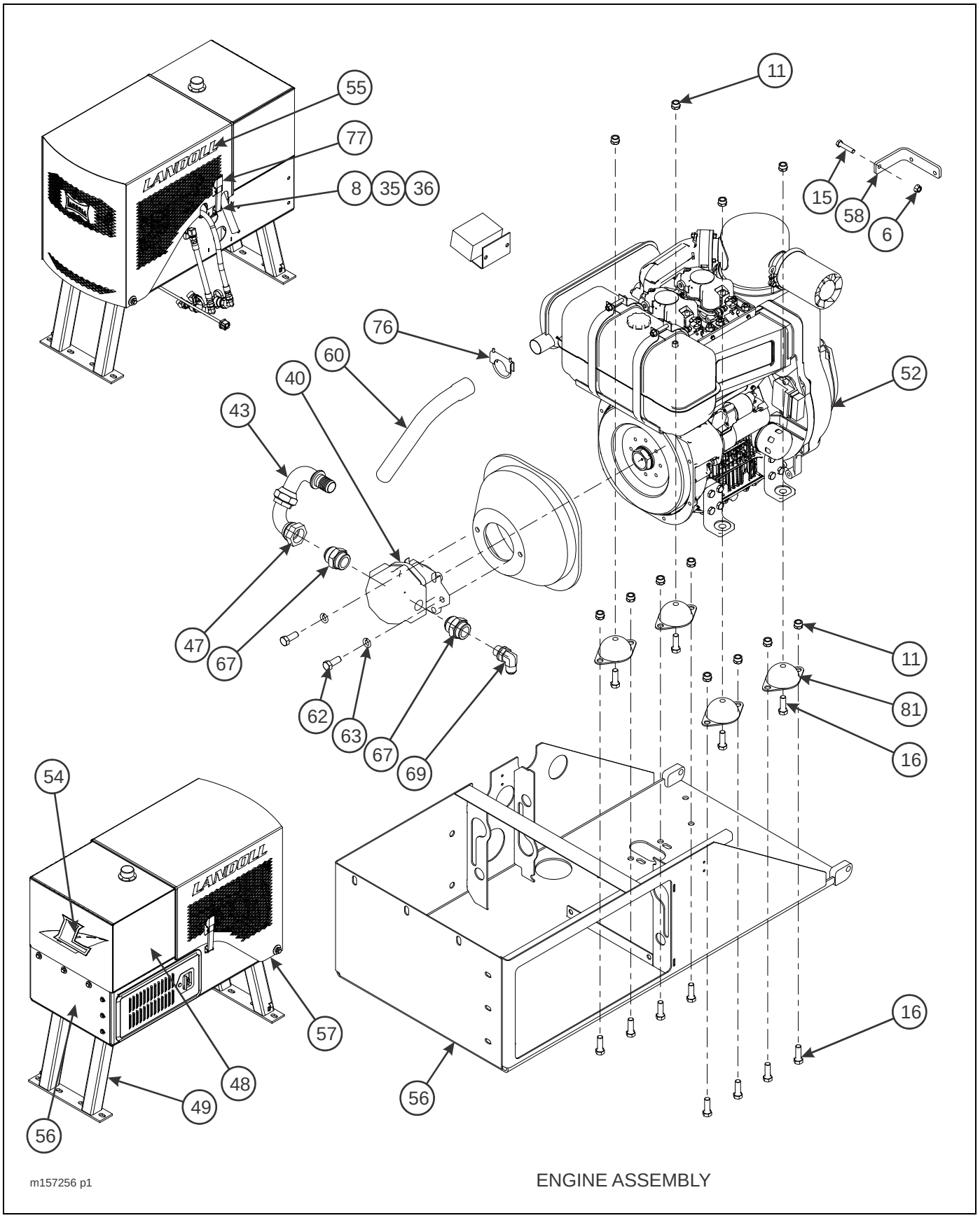



**Figure 2-145: 25HP Diesel Engine Installation (1 of 4)**

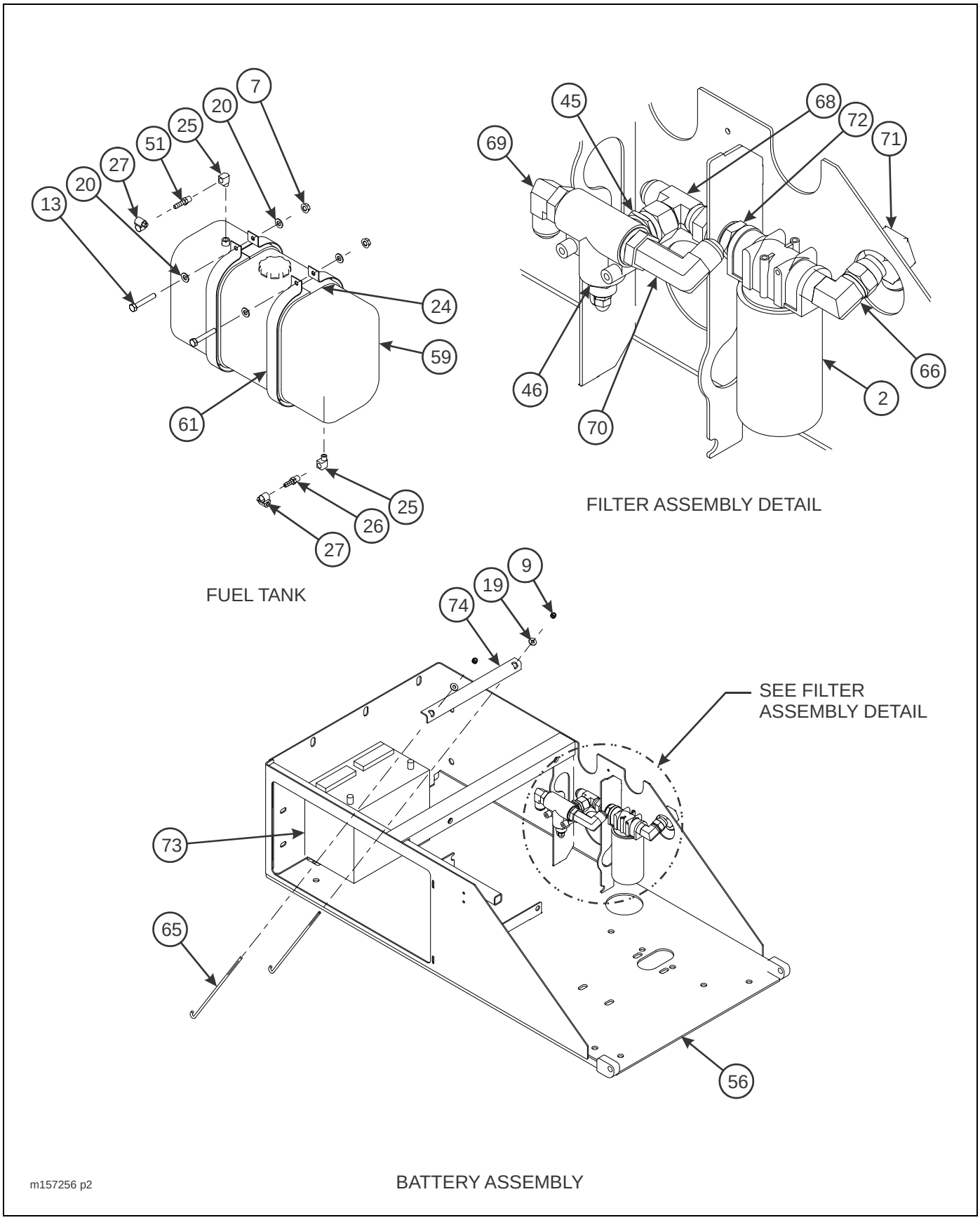



**Figure 2-146: 25HP Diesel Engine Installation (2 of 4)**

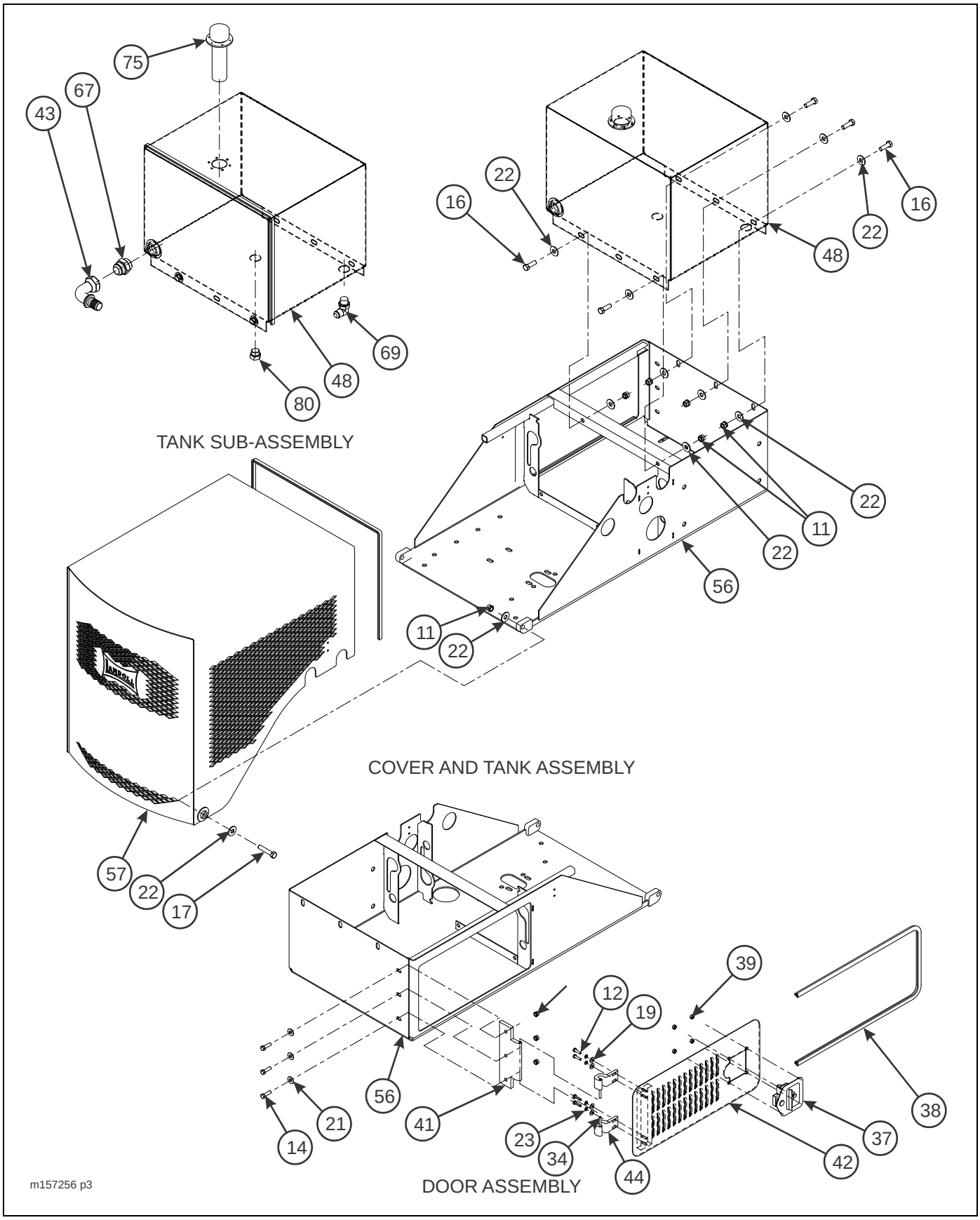



**Figure 2-147: 25HP Diesel Engine Installation (3 of 4)**

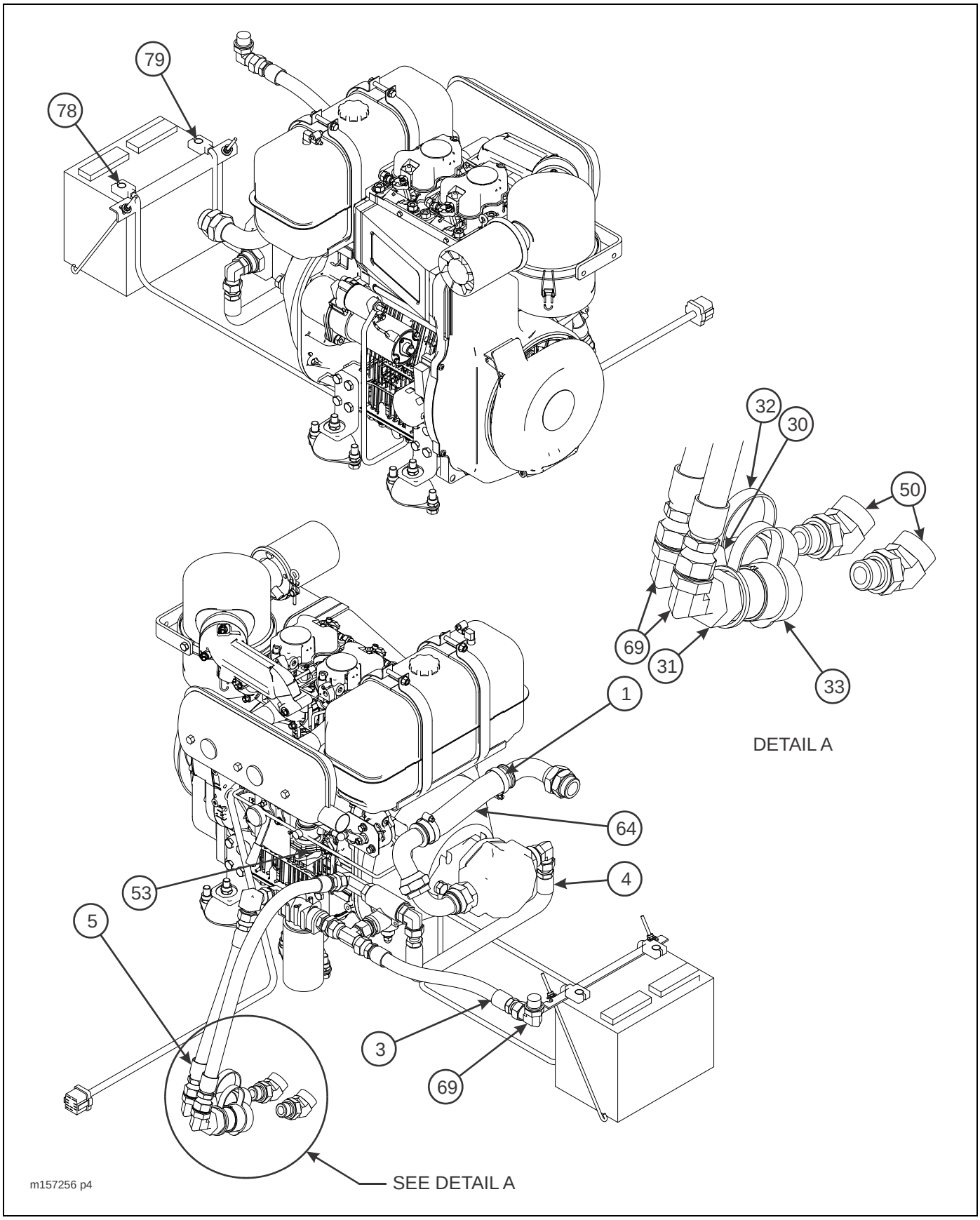



**Figure 2-148: 25HP Diesel Engine Installation (4 of 4)**

# 25HP DIESEL ENGINE PACKAGE

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 157256 | 25HP DIESEL ENGINE PACKAGE | |
| 1 | 1-181-010046-7 | CLAMP, HOSE | 2 |
| 2 | 1-295-010001 | RETURN LINE FILTER | 1 |
| 3 | 1-295-010002 | FILTER ELEMENT | 1 |
| | 1-397-010304018 | HOSE ASSEMBLY 3/4 X 18 | 1 |
| 4 | 1-397-010304025 | HOSE ASSEMBLY 3/4 X 25 | 1 |
| 5 | 1-397-010304060 | HOSE ASSEMBLY 3/4 X 60 | 2 |
| 6 | 1-510-010001 | NUT, FLANGE HEAD SERRATED 3/8-16 | 1 |
| 7 | 1-510-010004-03 | NUT, FLANGE HEAD SPIRALOCK 5/16-18 | 2 |
| 8 | 1-512-010004-03 | NUT, HEX LOCK 10-24 GRA | 8 |
| 9 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 10 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 13 |
| 11 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 11 |
| 12 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 6 |
| 13 | 1-654-010049-09 | SCREW, HEX HEAD CAP 5/16-18 X 2 GR5 | 2 |
| 14 | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5 | 3 |
| 15 | 1-654-010051-08 | SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 6 |
| 16 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 17 |
| 17 | 1-654-010055-07 | SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5 | 2 |
| 18 | 1-822-010002 | TRIM-LOK 3/16 (NOT SHOWN) | 6 |
| 19 | 1-861-010032-07 | WASHER, FLAT 1/4W | 6 |
| 20 | 1-861-010032-08 | WASHER, FLAT 5/16N | 4 |
| 21 | 1-861-010032-11 | WASHER, FLAT 3/8W | 3 |
| 22 | 1-861-010032-15 | WASHER, FLAT 1/2W | 14 |
| 23 | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4 | 4 |
| 24 | 10030 | SEAL, BAR STOCK NEOPRENE SPONGE | AR |
| 25 | 101528 | ELBOW, BRASS PIPE STREET | 2 |
| 26 | 102-0511 | HOSE BARB | 1 |
| 27 | 105-0105 | CLAMP, HOSE | 2 |
| 30 | 105479 | COUPLER FLAT FACE MALE NOSE | 1 |
| 31 | 105480 | COUPLER, FLAT FACE FEMALE BODY | 1 |
| 32 | 105481 | COUPLER, DUST CAP MALE | 1 |
| 33 | 105482 | COUPLER, DUST FEMALE | 1 |
| 34 | 108601 | PIN, DOOR HINGE | 2 |
| 35 | 110-0116 | SCREW, RD HEAD CAP 10-24 X 3/4 | 8 |
| 36 | 110-0253 | WASHER, FLAT 3/16 | 8 |
| 37 | 114814 | LATCH, FOLDING T LOCKABLE | 1 |
| 38 | 114815 | SEAL, SPONGE RUBBER TRIM | 5 |
| 39 | 115877 | NUT, HEAVY HEX 1/4-20 GR5 | 4 |
| 40 | 115888 | PUMP, HYDRAULIC **(BEFORE 11-14-2014)** | 1 |
| | 186811 | PUMP, HYDRAULIC, 0.88 CID GEAR **(AFTER 11-14-2014)** | |
| 41 | 116326 | HINGE, BASE MOUNT | 11 |
| 42 | 116328 | MOUNT, DOOR WELDMENT | 1 |
| 43 | 116330 | FITTING, 90 | 1 |
| 44 | 119206 | HINGE, DOOR | 2 |
| 45 | 120660 | ADAPTER | 1 |
| 46 | 120661 | VALVE, HYDR PRESSURE RELIEF | 1 |
| 47 | 12412300-08 | ADAPTER | 1 |
| 48 | 129264 | HYDRAULIC TANK WELDMENT | 1 |

# 25HP DIESEL ENGINE PACKAGE

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| 49 | 134857 | MOUNT WELDMENT, ENG PACKAGE | REF |
| 50 | 138209 | ADAPTER, HYDRAULIC 45 | 2 |
| 51 | 144736 | HOSE BARB | 1 |
| 52 | 148267 | ENGINE, KOHLER 25HP DIESEL | 1 |
| | 3-765-010050 | KOHLER IGNITION SWITCH | 1 |
| | 169216 | FILTER, FUEL KOHLER DIESEL | 1 |
| 53 | 148268 | THROTTLE KIT, KOHLER DIESEL | 1 |
| 54 | 153751 | DECAL, HWY L 7” REFL | 1 |
| 55 | 153795 | DECAL, LANDOLL 2-1/2” REFL | 2 |
| 56 | 157257 | MOUNT WELDMENT, DIESEL ENG PACKAGE | 1 |
| 57 | 157263 | HOOD WELDMENT, ENG DRIVE UPPER DECK | 1 |
| 58 | 157673 | BRACKET, FILTER MOUNT 25HP | 1 |
| 59 | 157677 | TANK, FUEL MOD 3 GALLON | 1 |
| 60 | 157679 | TUBE, EXHAUST, 20HP | 1 |
| 61 | 158400 | STRAP ANCHOR FUEL TANK | 2 |
| 62 | 159259 | SCREW, HEX HEAD CAP M14-2 X 35 CL 8.8 | 2 |
| 63 | 159260 | WASHER, SPLIT LOCK M14 | 2 |
| 64 | 159261 | HOSE, SUCTION 1-1/4 X 8-1/2 | 1 |
| 65 | 1709AS669-01 | J-BOLT 1/4-20 X 12 | 2 |
| 66 | 2024-12-12S | ELBOW, 90 | 1 |
| 67 | 202702-20-20S | ADAPTER **(BEFORE 11-14-2014)** | 1 |
| | 119553 | CONNECTOR, O-RING/37° **(AFTER 11-14-2015)** | |
| 68 | 203102-12-12S | ADAPTER, TEE | 1 |
| 69 | 2062-12-12S | ADAPTER, 90 | 4 |
| 70 | 206209-12-12S | ADAPTER, 90 | 1 |
| 71 | 2071-12-12S | ADAPTER, 90 | 1 |
| 72 | 2240-12-12S | ADAPTER, BULKHEAD | 1 |
| 73 | 2481X | BATTERY 12V | 1 |
| 74 | 3-120-010124 | BATTERY CLAMP BRACKET | 1 |
| 75 | 3-162-010001 | FILLER-BREATHER-STRAINER ASSEMBLY | 1 |
| 76 | 3-182-010028 | CLAMP, MUFFLER | 1 |
| 77 | 3-443-010018 | LATCH, FLEXIBLE DRAW, LEVER ASSIST | 2 |
| 78 | 514-9045-48 | CABLE ASSEMBLY, BATTERY POSITIVE | 1 |
| 79 | 514-9073-30 | CABLE ASSEMBLY, BATTERY NEGATIVE | 1 |
| 80 | 900598-12S | PLUG, O-RING | 1 |
| 81 | CA-1595 | MACHINE MOUNT 40 DUROMETER | 4 |

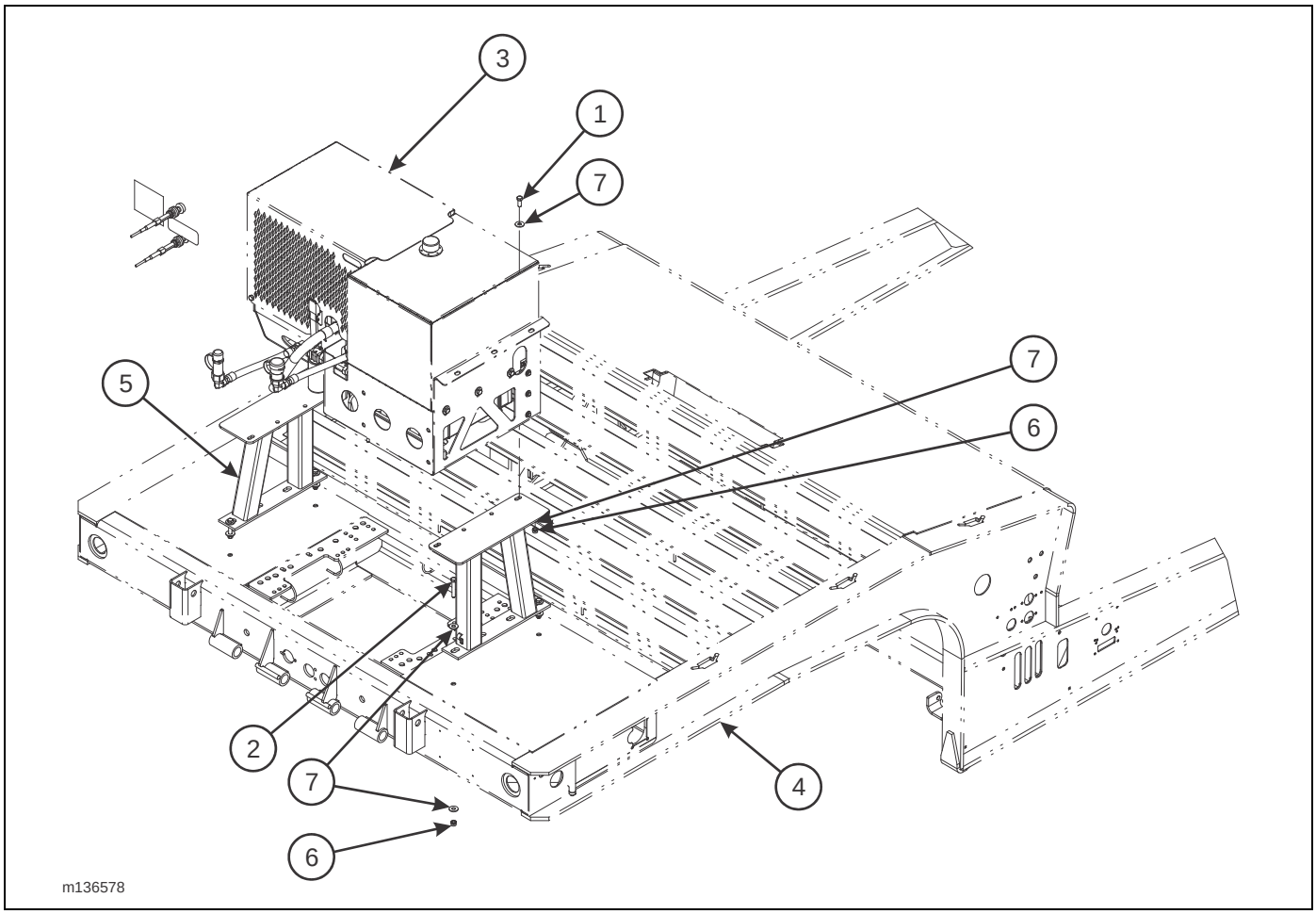



**Figure 2-149: Upper Deck Engine Stand Installation**

# 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 2-264) | 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 |

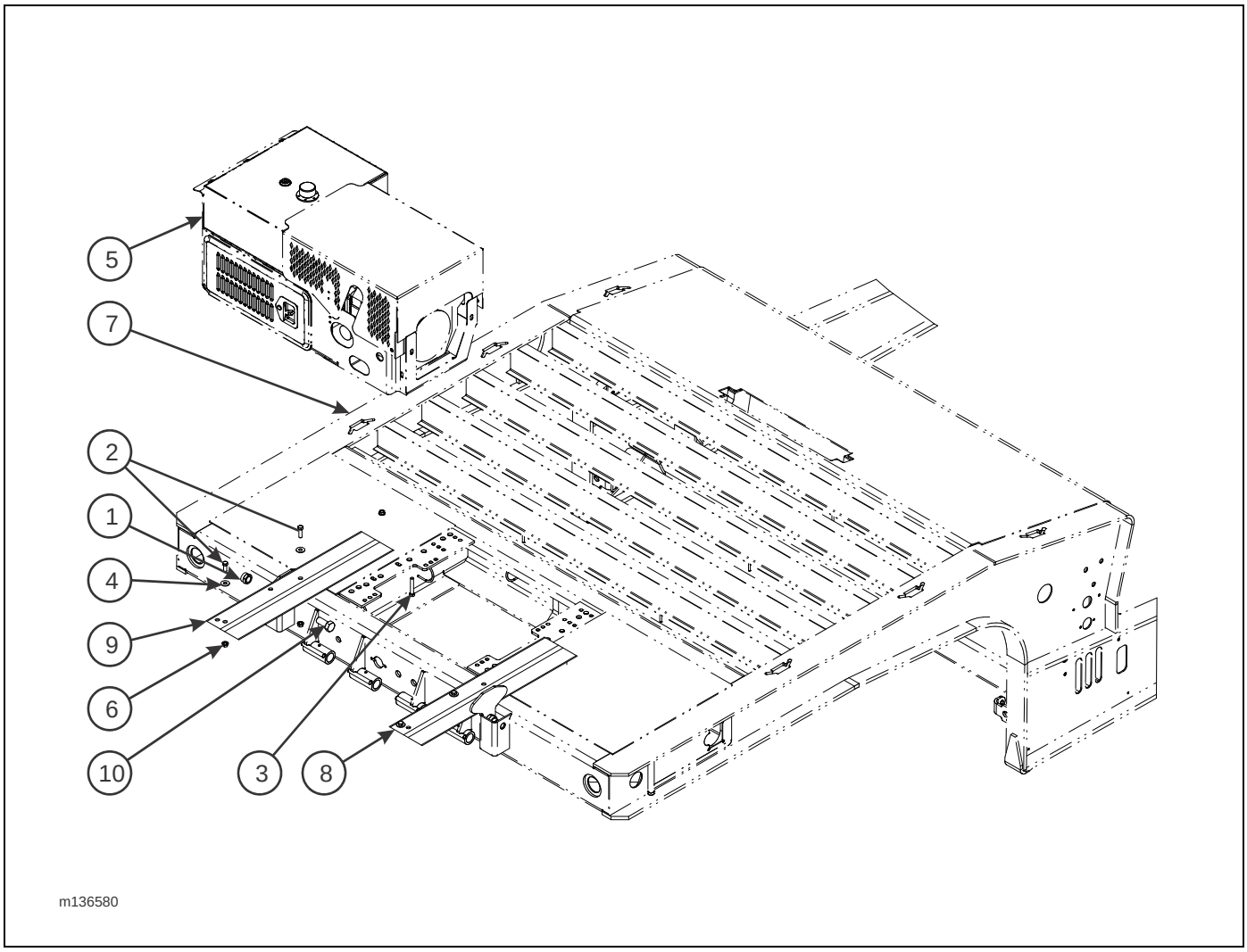



**Figure 2-150: Upper Deck Engine Stand Installation**

# FRONT MOUNT ENGINE INSTALLATION

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 136580 | FRONT MOUNT ENGINE INSTALLATION | |
| 1 | 1-512-010005-19 | NUT, HEX LOCK 1-8 GRB | 2 |
| 2 | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5 | 4 |
| 3 | 1-654-010055-10 | SCREW, HEX HEAD CAP 1/2-13 X 3-1/4 GR5 | 2 |
| 4 | 1-861-010032-15 | WASHER, FLAT 1/2W | 8 |
| 5 | 123166 | ENGINE PACKAGE 27 HP U/D (SEE PAGE 2-264) | REF |
| 6 | 124971 | NUT, FLANGE HEAD SPIRALOCK 1/2-13 | 6 |
| 7 | ----- | GOOSENECK WELDMENT | REF |
| 8 | 136581 | MOUNT WELDMENT LH FRONT ENG PKG | 1 |
| 9 | 136582 | MOUNT WELDMENT RH FRONT ENG PKG | 1 |
| 10 | 137943 | SCREW, HEX HEAD CAP 1-8 X 2-1/4 GR5 | 2 |

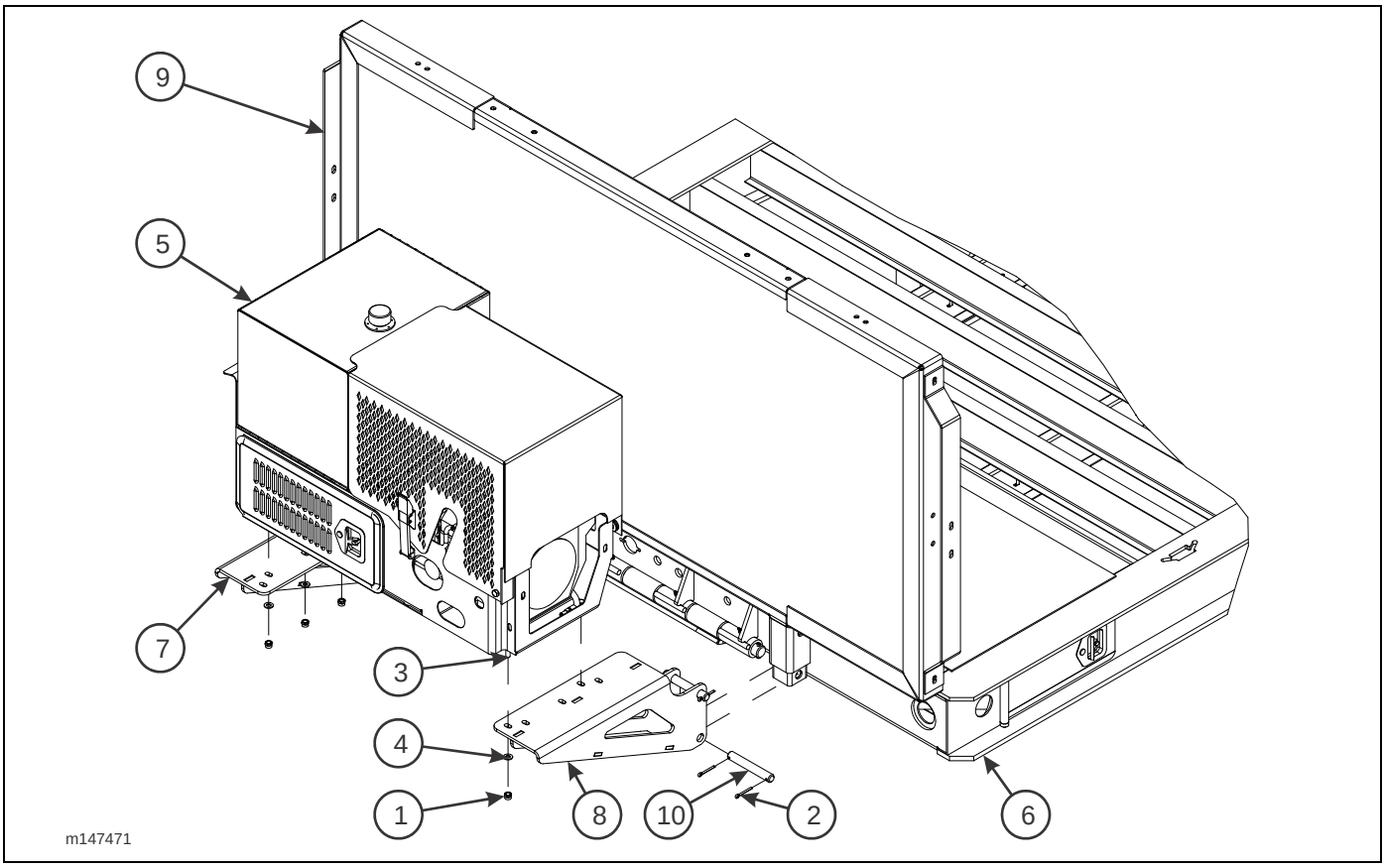



**Figure 2-151: Front Extension Engine Package Mount Installation (Option)**

# FRONT EXTENSION ENGINE PACKAGE MOUNT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 147471 | FRONT EXTENSION ENGINE PKG MOUNT INSTALLATION | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 5 |
| 2 | 1-557-010362-63 | PIN, COTTER 1/4 X 2 | 8 |
| 3 | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 5 |
| 4 | 1-861-010032-14 | WASHER, FLAT 1/2N | 10 |
| 5 | 123166 | ENGINE PKG 27 HP U/D (SEE PAGE 2-264) | REF |
| 6 | ----- | FRAME ASSEMBLY, G/N | REF |
| 7 | 147468 | BRACKET WELDMENT, RH ENG MOUNT | 1 |
| 8 | 147469 | BRACKET WELDMENT, LH ENG MOUNT | 1 |
| 9 | 3-141-010121-2 | BULKHEAD INSTALLATION (SEE PAGE 2-109) | REF |
| 10 | 3-557-010380 | PIN, 1 X 6-7/8 | 4 |

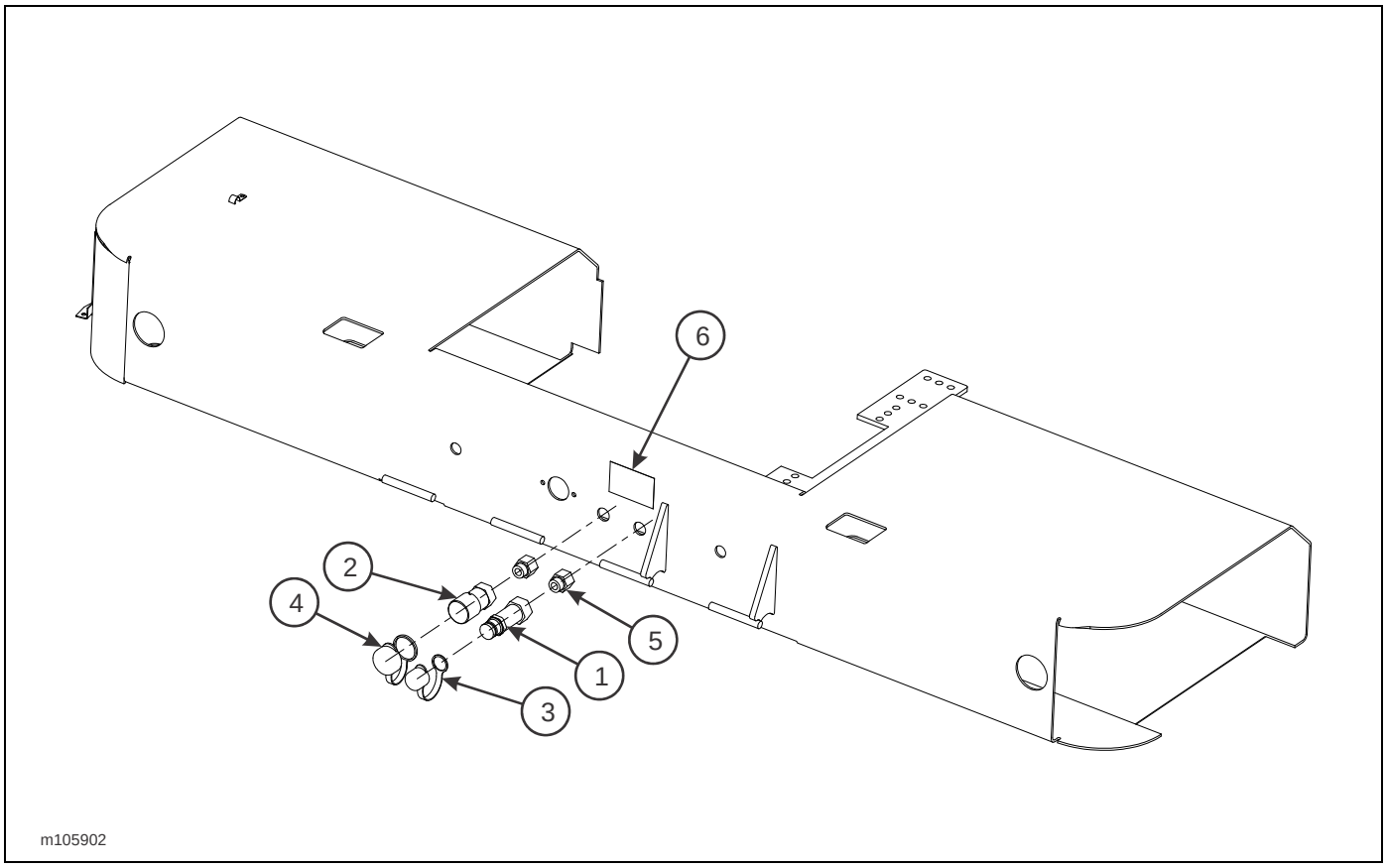



**Figure 2-152: Hydraulic Conversion Kit, Ball to Flat (Option)**

# HYDRAULIC CONVERSION KIT, BALL TO FLAT (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 105902 | HYDRAULIC CONVERSION KIT, BALL TO FLAT (OPTION) | |
| 1 | 105479 | COUPLER, FLAT FACE MALE NOSE | 1 |
| 2 | 105480 | COUPLER, FLAT FACE FEMALE BODY | 1 |
| 3 | 105481 | COUPLER, DUST CAP MALE | 1 |
| 4 | 105482 | COUPLER, DUST CAP FEMALE | 1 |
| 5 | 2216-12-12S | INTERNAL PIPE O-RING BOSS | 2 |
| 6 | 105822 | DECAL, HYDRAULIC COUPLER | 1 |

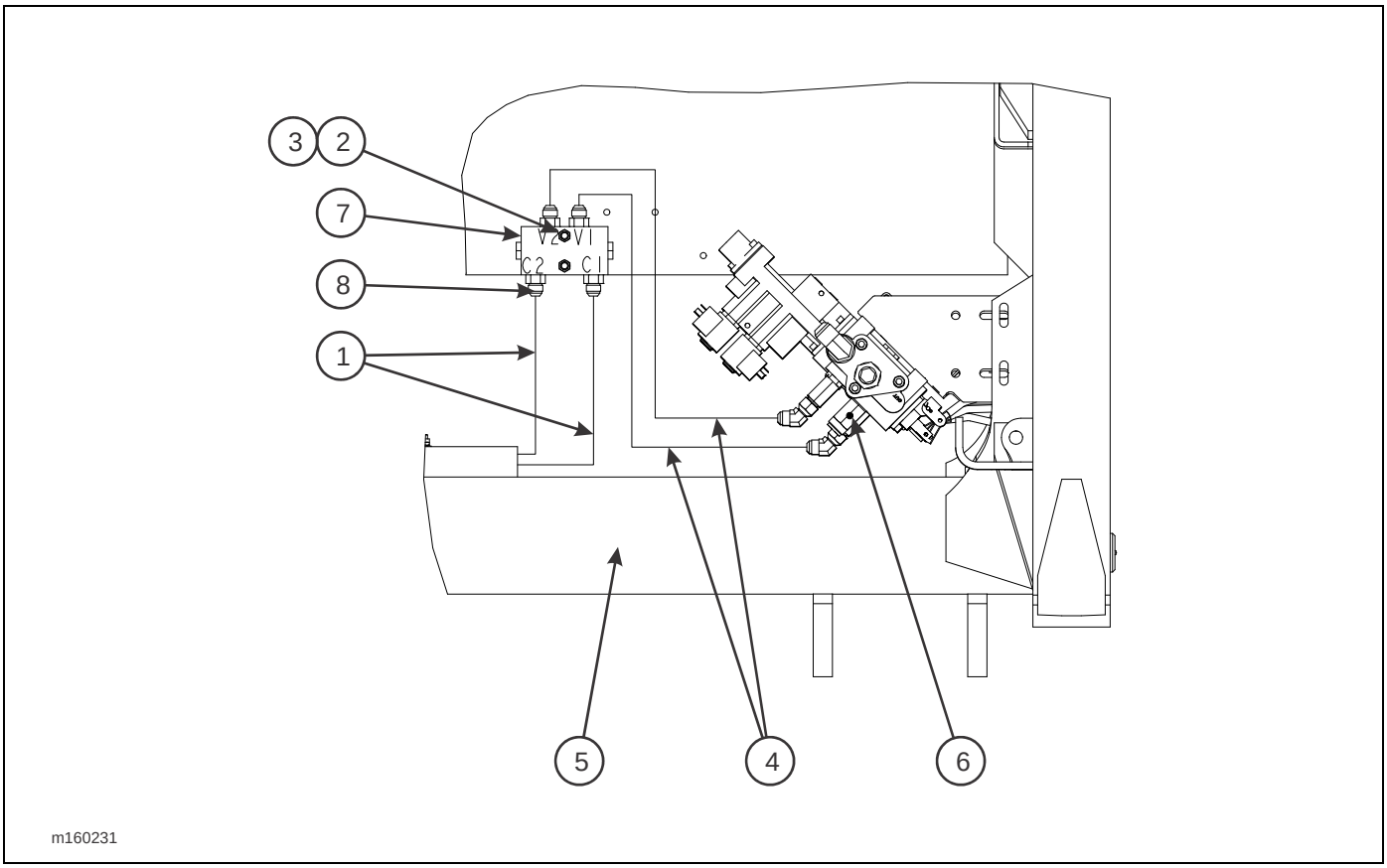



**Figure 2-153: Tilt Check Valve Installation**

# TILT CHECK VALVE INSTALLATION

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 160231 | TILT CHECK VALVE INSTALLATION | |
| 1 | 1-397-010302042 | HOSE ASSEMBLY 1/2 X 42 | REF |
| 2 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 2 |
| 3 | 1-654-010051-09 | SCREW, HEX HEAD CAP 3/8-16 X 2 GR5 | 2 |
| 4 | 105274 | HOSE ASSEMBLY 1/2 X 34 | 1 |
| 5 | ----- | GOOSENECK FRAME ASSEMBLY | REF |
| 6 | 148241 | VALVE ASSEMBLY, 3 SPOOL (SEE PAGE 2-21) | REF |
| 7 | 156699 | VALVE, DOUBLE CHECK SEALED PILOT | 1 |
| 8 | 202702-8-8S | ADAPTER | 4 |

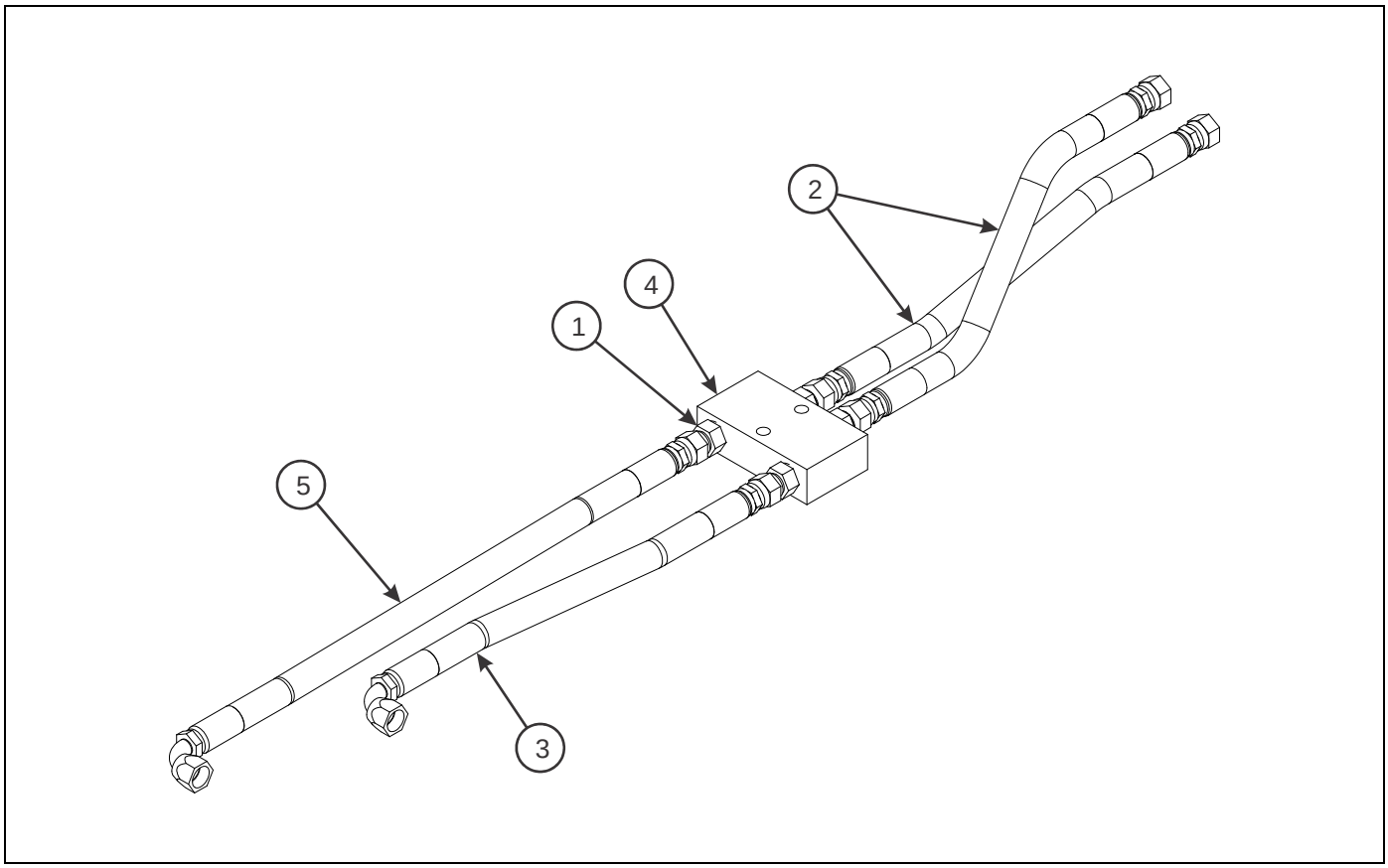



**Figure 2-154: Tilt Cylinder Check Valve Installation (Option)**

# TILT CYLINDER CHECK VALVE INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 136565 | TILT CYLINDER CHECK VALVE INSTALLATION | |
| 1 | 202702-8-8S | ADAPTER | 4 |
| 2 | 1-397-010301018 | HOSE, 1/2 X 18 | 2 |
| 3 | 125871 | HOSE, 1/2 X 21 | 1 |
| 4 | 124696 | VALVE, CHECK DOUBLE PILOT O-RING | 1 |
| 5 | 107756 | HOSE, 1/2 X 24 | 1 |

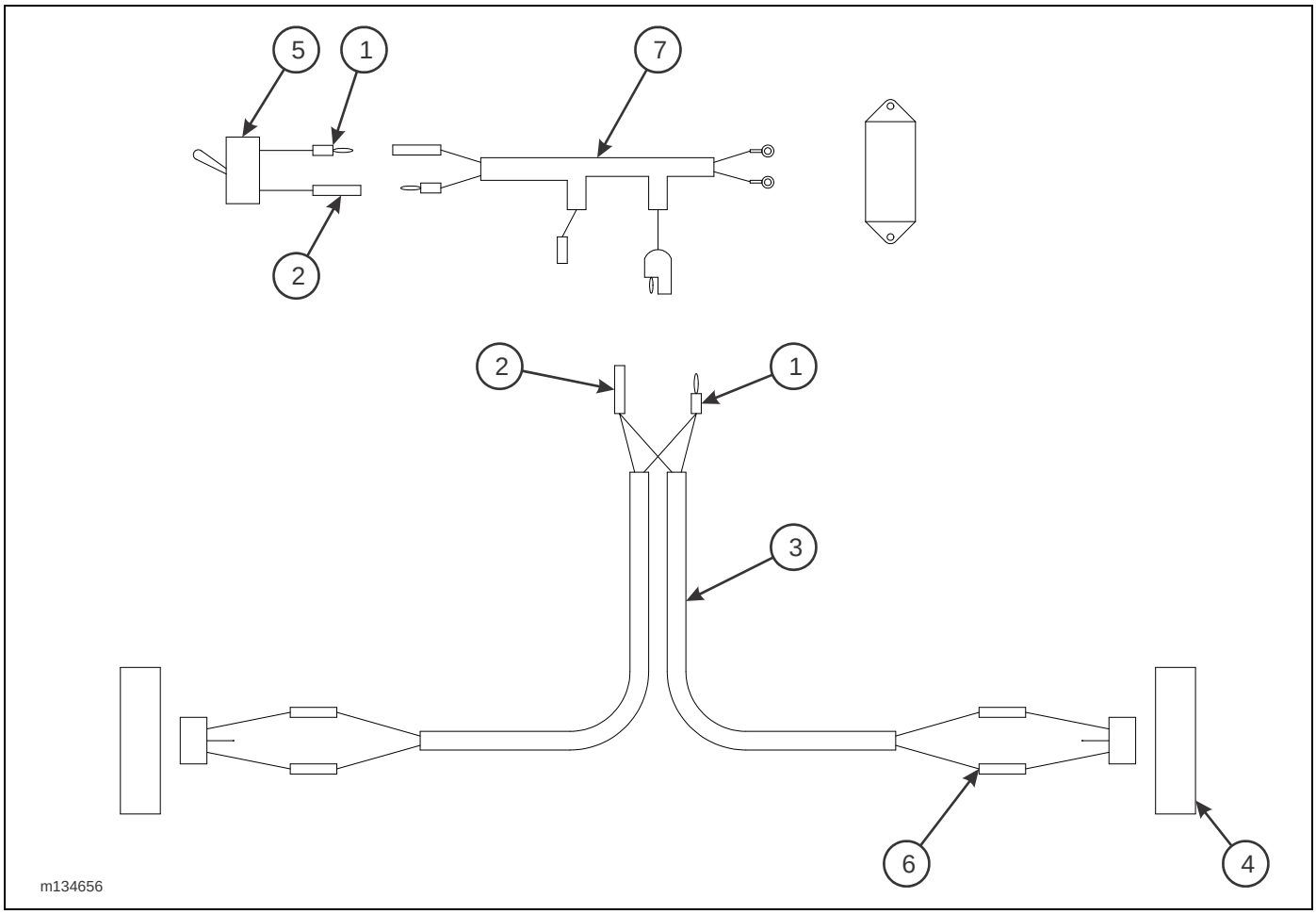



**Figure 2-155: Strobe Light Installation Side (Option)**

# STROBE LIGHT INSTALLATION SIDE (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 134656 | STOBE LIGHT INSTALLATION SIDE | |
| 1 | STP-147 | TERMINAL BULLET ELECTRICAL | 2 |
| 2 | STP-164 | BULLET CONNECTOR FEMALE | 2 |
| 3 | W214S-1 | CABLE, 2 WIRE 14AWG PVCJKT 105 | AR |
| 4 | 130883 | STROBE LIGHT GROMMET, PIGTAIL | 2 |
| 5 | 3-272-010017 | TOGGLE SWITCH SEALED SPST | 1 |
| 6 | 3-272-010021 | ELECT BUTT SPLICE 16-14 W/ SEAL | 8 |
| 7 | 3-368-010253 | HARNESS ASSEMBLY, CONTROL PANEL | 1 |

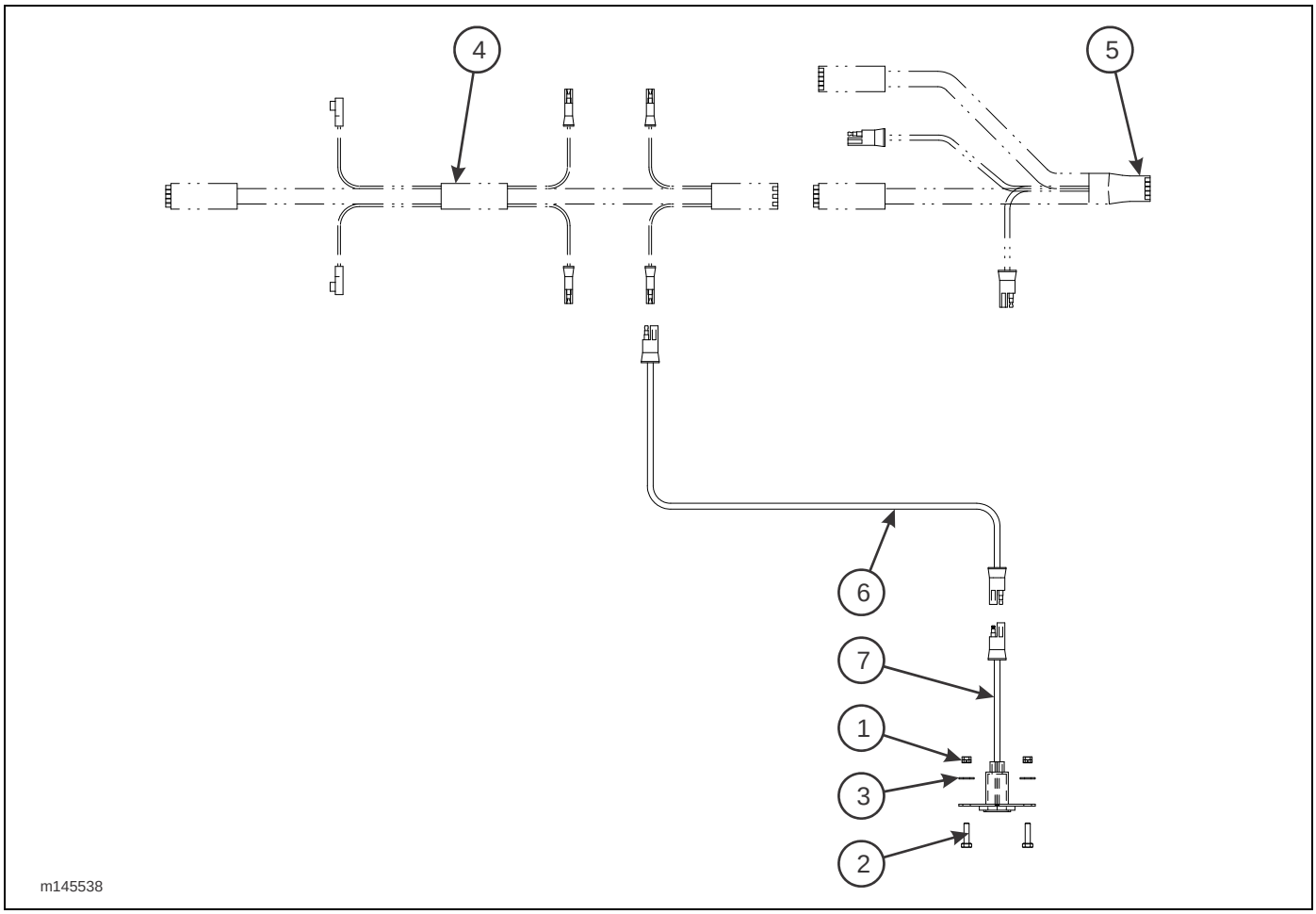



**Figure 2-156: Rear Side Electrical Outlet Installation (Option)**

# REAR SIDE ELECTRICAL OUTLET INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 145538 | ELECTRICAL OUTLET, REAR SIDE | |
| 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 | 143102 | HARNESS, BED MAIN GROTE | REF |
| 5 | 143103 | HARNESS, E-CHAIN GROTE | REF |
| 6 | 150111 | HARNESS 300” | 1 |
| 7 | 150116 | HARNESS/RECEPTACLE ASSEMBLY | 1 |

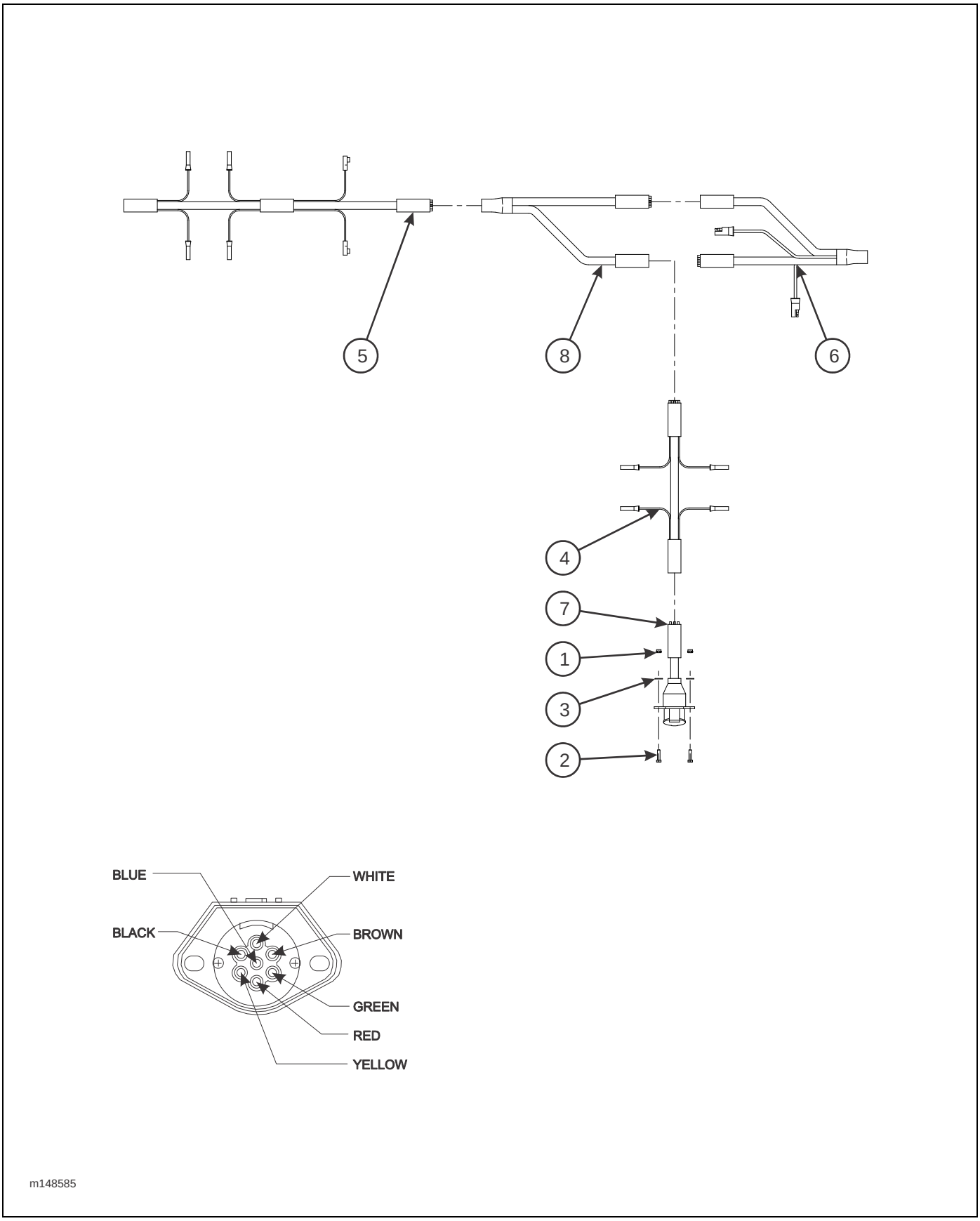



**Figure 2-157: 7-Way Electrical Installation (Option)**

# 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 | REF |
| 6 | 143103 | HARNESS, E-CHAIN | REF |
| 7 | 146897 | HARNESS, 7-WAY RECEPTACLE MAIN | 1 |
| 8 | 146929 | HARNESS, Y SPLITTER | 1 |

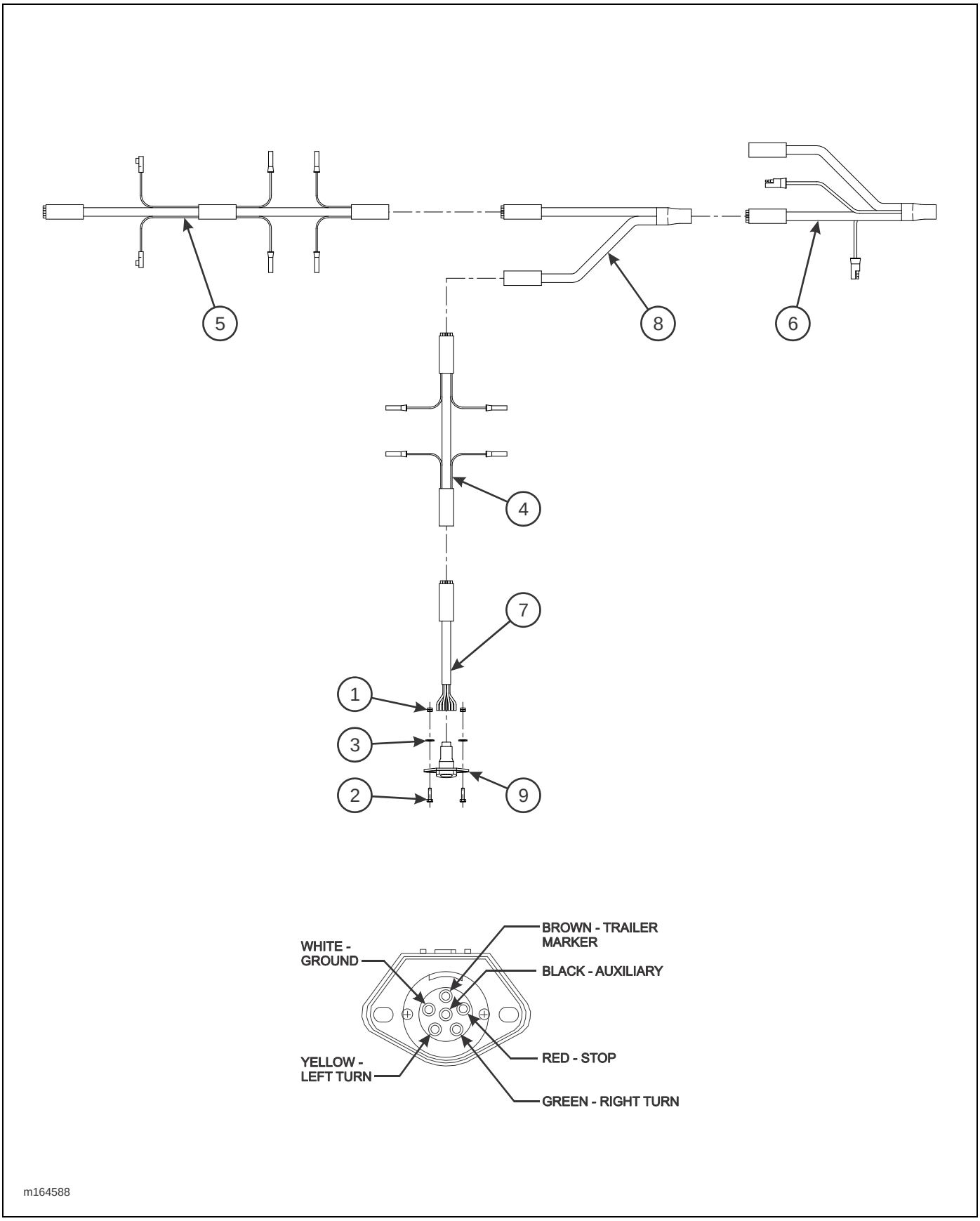



**Figure 2-158: 6-Way Electrical Installation (Option)**

# 6-WAY ELECTRICAL INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 164588 | 6-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 | REF |
| 6 | 143103 | HARNESS, E-CHAIN | REF |
| 7 | 143166 | HARNESS, EXT 48” | 1 |
| 8 | 146929 | HARNESS, Y SPLITTER | 1 |
| 9 | 3-203-010025 | CONNECTOR, ELECTRICAL 6-WAY | 1 |

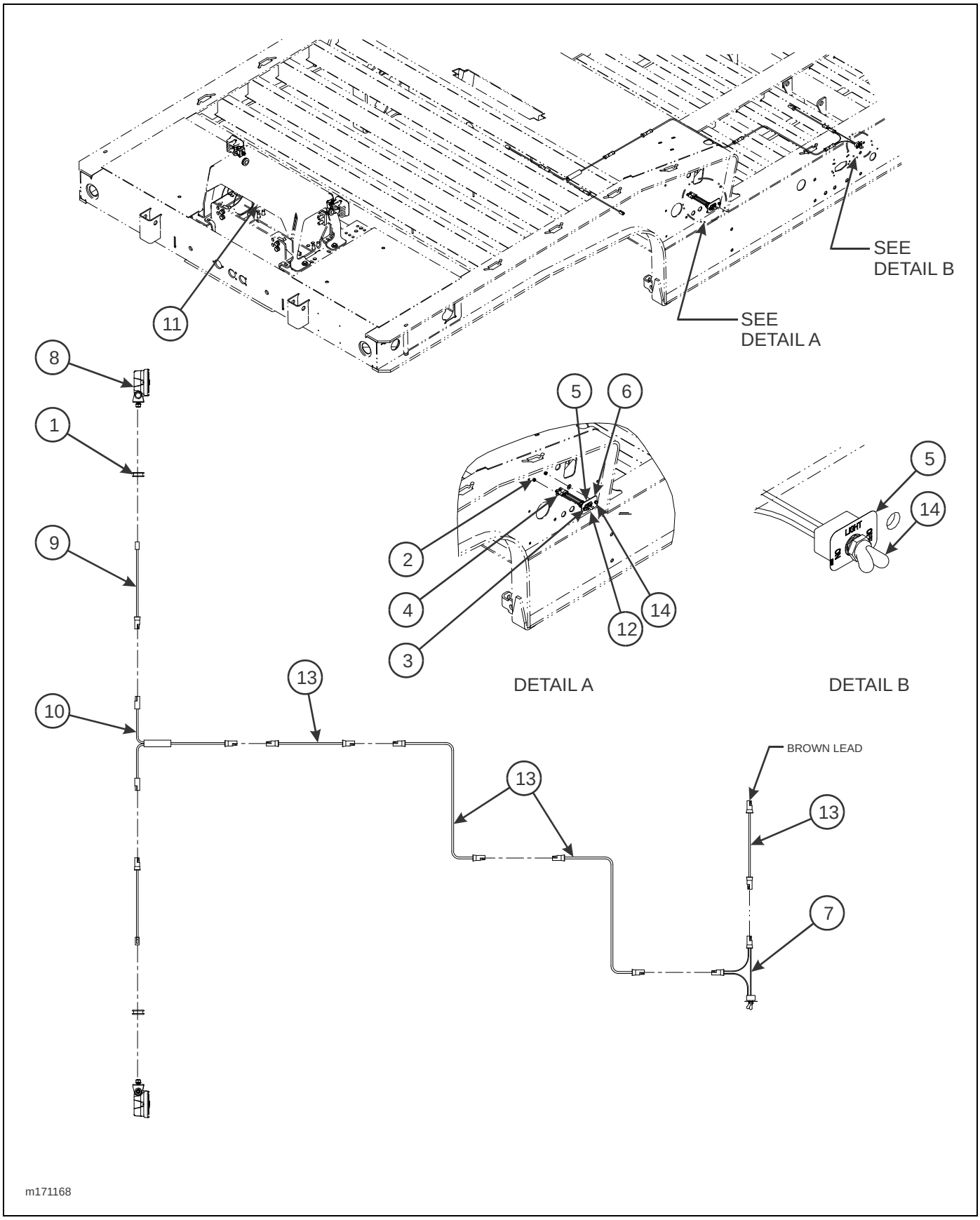



**Figure 2-159: Work Light Installation, Winch (Option)**

# WINCH WORK LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 171168 | WINCH WORK LIGHT INSTALLATION | |
| 1 | 1-343-010001 | GROMMET | 2 |
| 2 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 |
| 3 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 2 |
| 4 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 |
| 5 | 130116 | DECAL, ON/OFF LIGHT | 1 |
| 6 | 137987 | MOUNT, ELECTRICAL SWITCH | 1 |
| 7 | 150117 | TOGGLE SWITCH SEALED SPST | 1 |
| 8 | 163996 | LIGHT LED WHITE FLOOD LAMP | 2 |
| 9 | 164052 | HARNESS, 60” BRANCH WORK LIGHT | 2 |
| 10 | 169853 | HARNESS, JUMPER T-POWER | 1 |
| 11 | 171166 | 12/20K WINCH GUARD INSTALLATION (SEE PAGE 2-224) | REF |
| 12 | 174043 | DECAL, WINCH HI/LO | 1 |
| 13 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXTENSION | 4 |
| 14 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 2 |

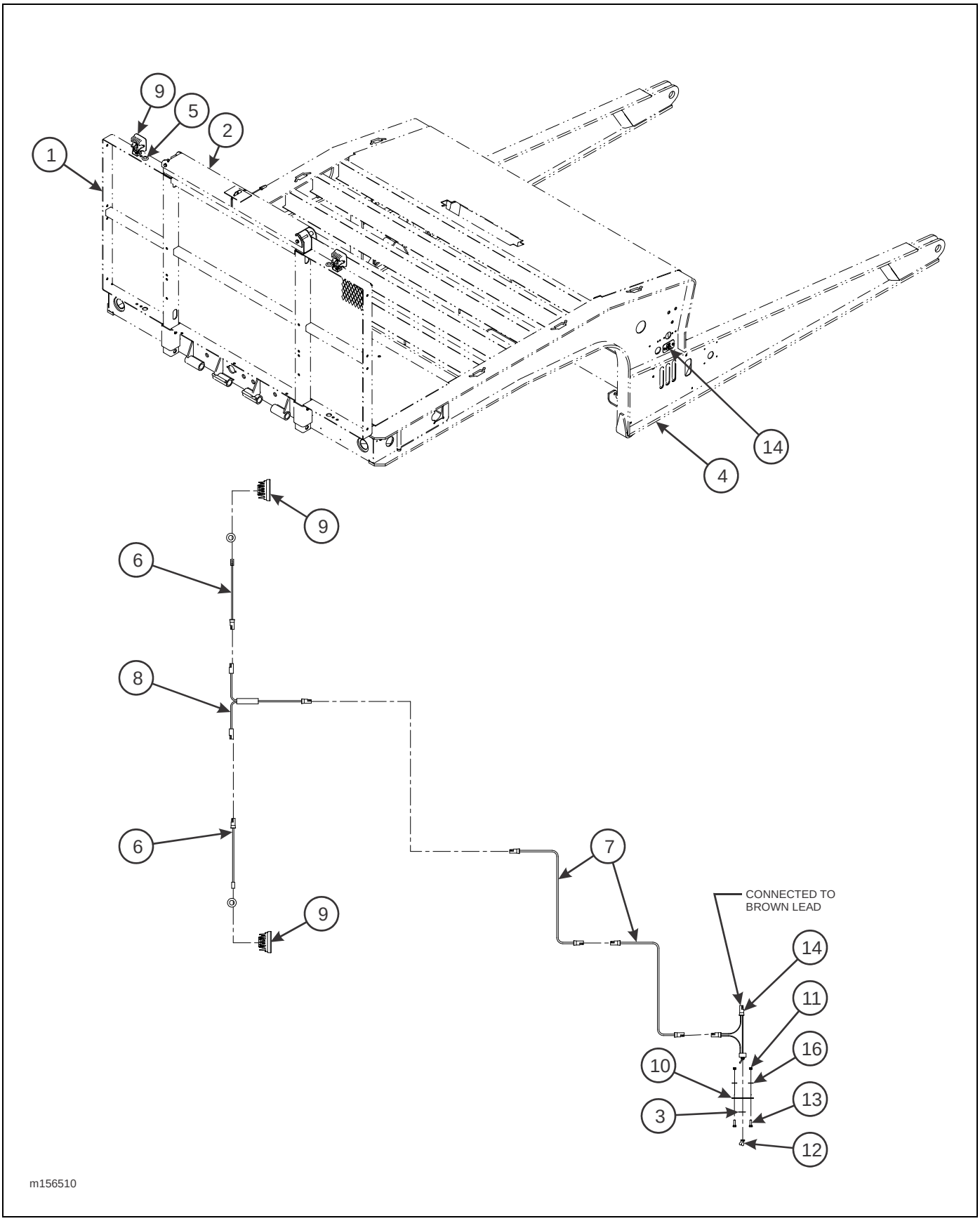



**Figure 2-160: Work Light Assembly, Bulkhead (Option)**

# WORK LIGHT ASSEMBLY, BULKHEAD (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 156510 | WORK LIGHT ASSEMBLY, BULKHEAD (OPTION) | | |
| | 169927 | WORK LIGHT ASSEMBLY, BULKHEAD HD (OPTION) | | |
| 1 | ----- | BULKHEAD WELDMENT | REF | REF |
| 2 | B7-141-003 | CHAIN RACK INSTALLATION | REF | REF |
| 3 | 130116 | DECAL, ON/OFF LIGHT | 1 | 1 |
| 4 | ----- | GOOSENECK WELDMENT | REF | REF |
| 5 | 1-343-010006 | GROMMET | 2 | 2 |
| 6 | 164052 | HARNESS, 60” BRANCH WORK LIGHT | 2 | 2 |
| 7 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXTENSION | 2 | 3 |
| 8 | 169853 | HARNESS, JUMPER T-POWER | 1 | 1 |
| 9 | 163996 | LIGHT LED WHITE FLOOD LAMP | 2 | 2 |
| 10 | 137987 | MOUNT, ELECTRICAL SWITCH | 1 | 1 |
| 11 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 | 2 |
| 12 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 | 1 |
| 13 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 2 | 2 |
| 14 | 150117 | TOGGLE SWITCH SEALED SPST | 1 | 1 |
| 15 | 1-822-010002 | TRIM LOCK 3/16 (NOT SHOWN) | AR | AR |
| 16 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 | 2 |

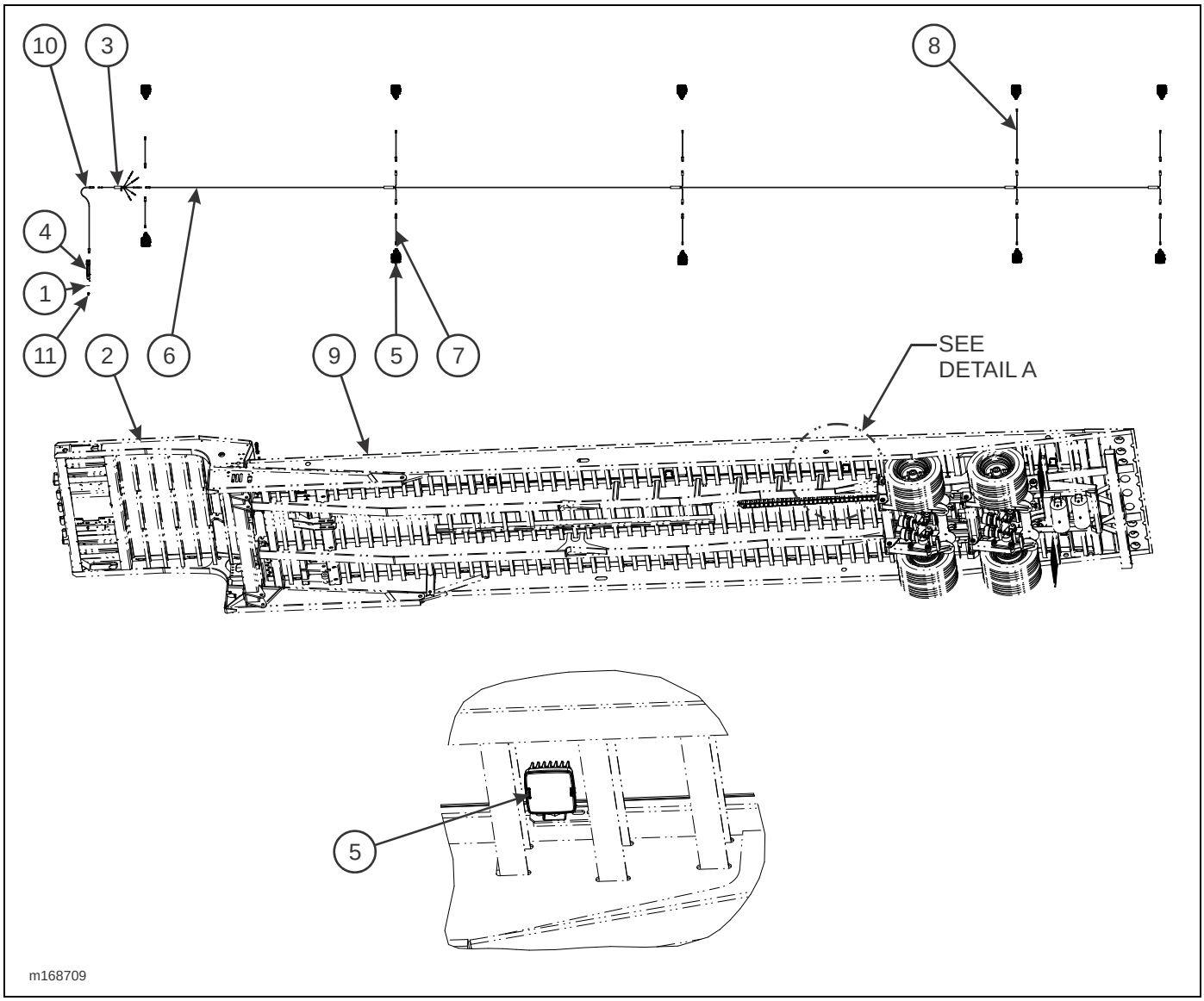



**Figure 2-161: Underdeck Light Installation (440-53) (Option)**

# UNDERDECK LIGHT INSTALLATION (440-53) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 168709 | UNDERDECK LIGHT INSTALLATION (440-53) | |
| 1 | 130116 | DECAL, ON/OFF LIGHT | 1 |
| 2 | ----- | GOOSENECK WELDMENT | REF |
| 3 | 150093 | HARNESS, 5 AUXILIARY BRANCHES | 1 |
| 4 | 150117 | TOGGLE SWITCH SEALED SPST | 1 |
| 5 | 163996 | LIGHT, LED WHITE FLOODLAMP | REF |
| 6 | 164012 | HARNESS, WORK LIGHT | 1 |
| 7 | 164052 | HARNESS, 60” BRANCH WORK LIGHT | 2 |
| 8 | 164053 | HARNESS, BRANCH WORK LIGHT 102’” | 1 |
| 9 | ----- | FRAME, MOD UNDERDECK LIGHTS | REF |
| 10 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD EXTENSION | 1 |
| 11 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 |

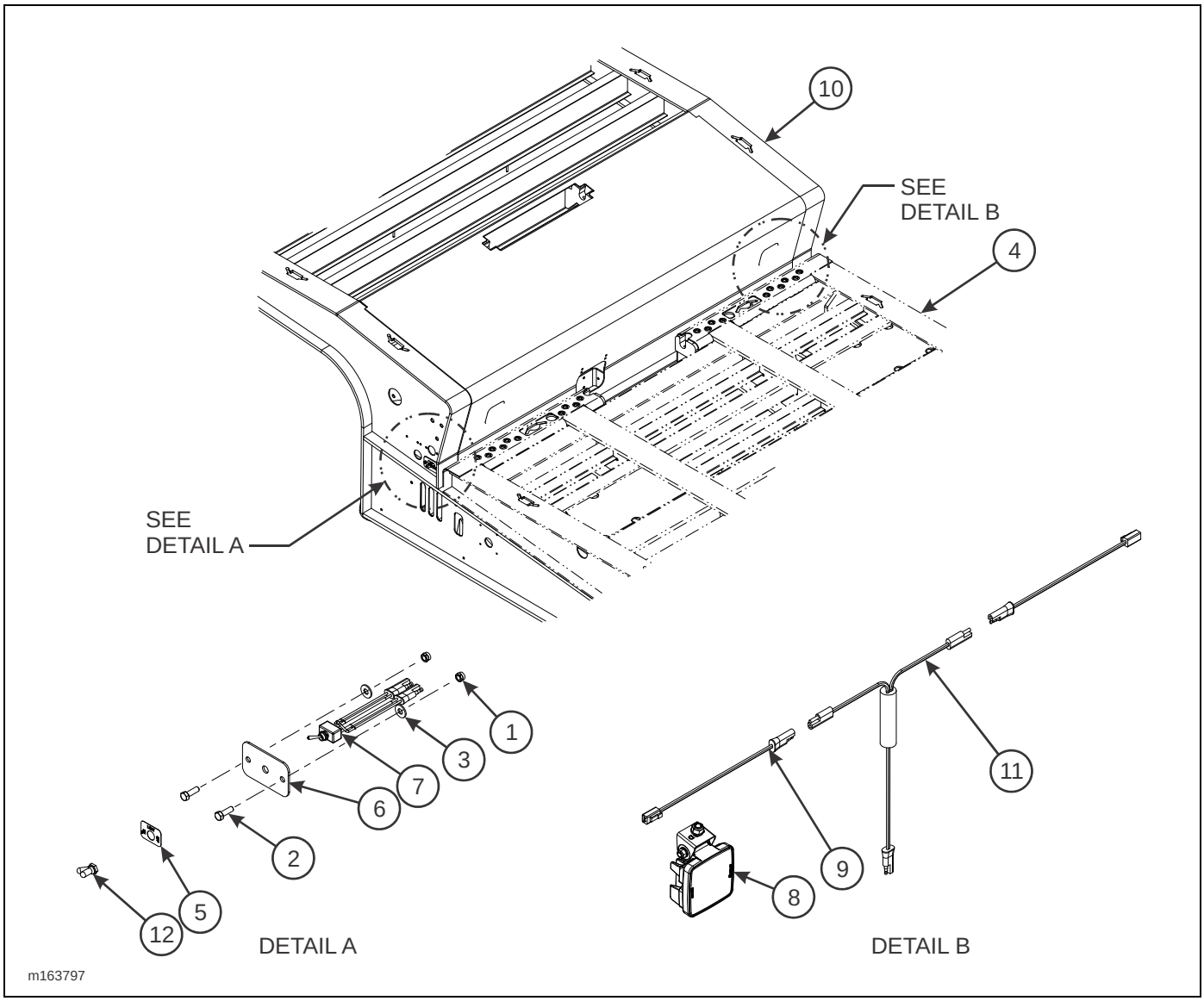



**Figure 2-162: U/D Slope Light Installation (Option)**

# U/D SLOPE LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 169201 | U/D SLOPE LIGHT INSTALLATION | |
| 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 | ----- | FRAME WELDMENT | REF |
| 5 | 130116 | DECAL, ON/OFF LIGHT | 1 |
| 6 | 137987 | MOUNT, ELECTRIC SWITCH | 1 |
| 7 | 150117 | TOGGLE SWITCH SEALED SPST | 1 |
| 8 | 163996 | LIGHT, LED WHITE FLOODLAMP | REF |
| 9 | 164052 | HARNESS, 60” BRANCH WORK LIGHT | 2 |
| 10 | 169202 | FRAME, MOD U/D SLOPE LIGHTS | 1 |
| 11 | 169853 | HARNESS, T POWER BRANCH | 1 |
| 12 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 |

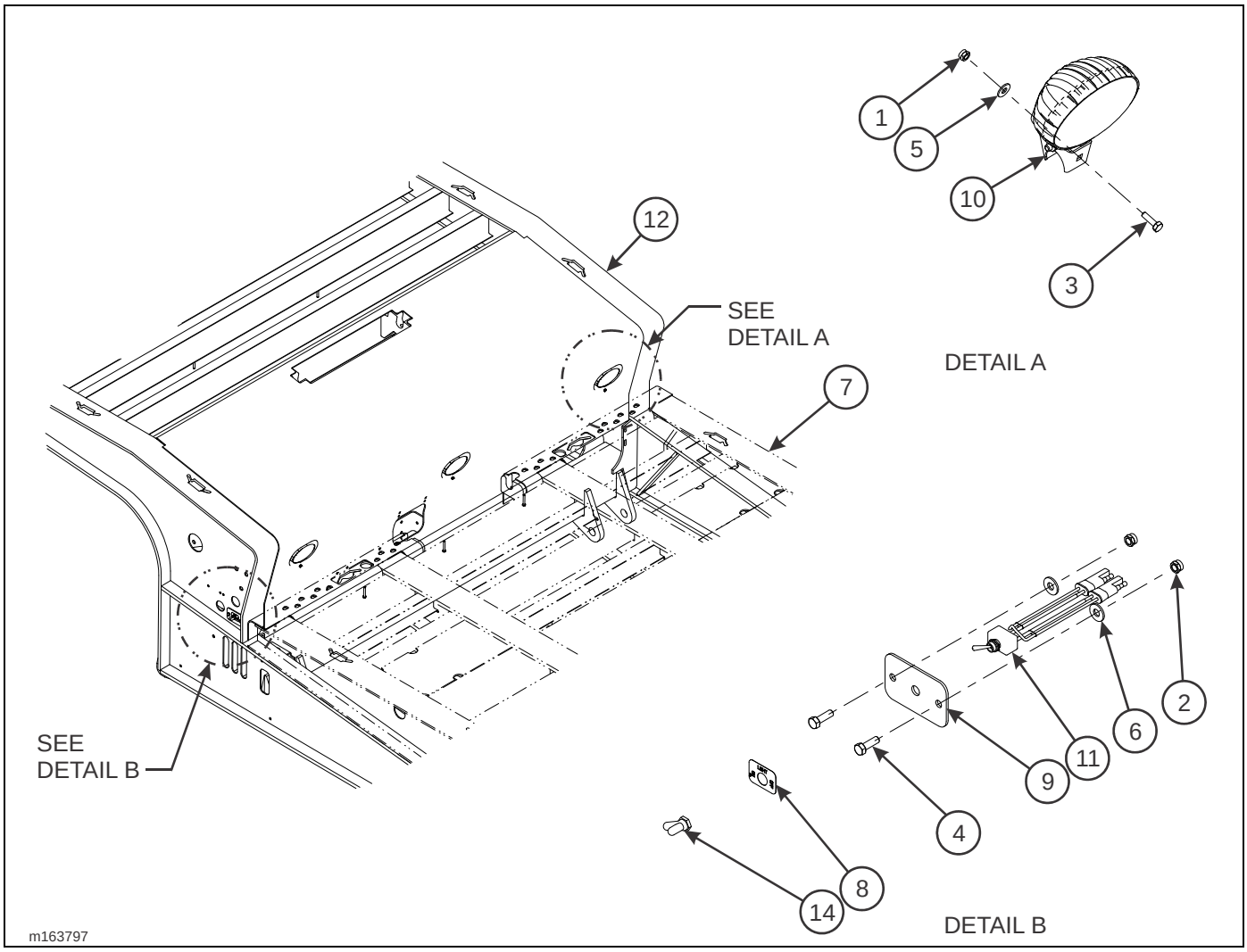



**Figure 2-163: Slope Work Light Installation, LED (Option)**

# SLOPE WORK LIGHT INSTALLATION, LED (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 163797 | LED SLOPE WORK LIGHT INSTALLATION | |
| 1 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 6 |
| 2 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 |
| 3 | 1-654-010047-05 | SCREW, HEX HEAD CAP 1/4-20 X 7/8 GR5 | 3 |
| 4 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 2 |
| 5 | 1-861-010032-07 | WASHER, FLAT 1/4 | 3 |
| 6 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 |
| 7 | ----- | FRAME WELDMENT | REF |
| 8 | 130116 | DECAL, ON/OFF LIGHT | 1 |
| 9 | 137987 | MOUNT, ELECTRIC SWITCH | 1 |
| 10 | 145816 | LIGHT, 3 X 5 LED HOIZONTAL OVAL | 3 |
| 11 | 150117 | TOGGLE SWITCH SEALED SPST | 1 |
| 12 | 163798 | FRAME, MOD U/D SLOPE LIGHTS | 1 |
| 13 | 164569 | HARNESS, LED WORK LIGHT | 1 |
| 14 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 |

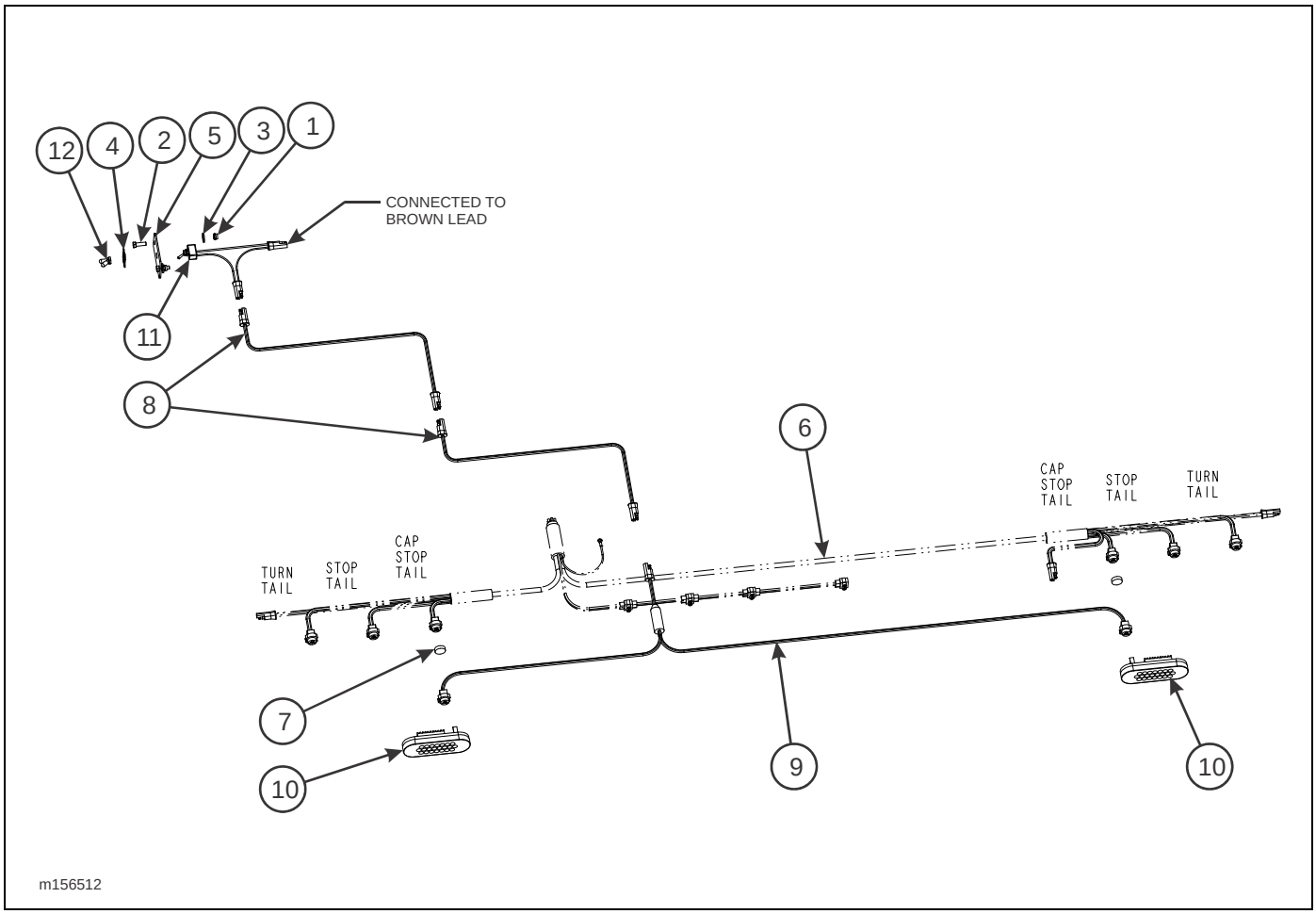



**Figure 2-164: Strobe Installation, Bumper (Option)**

# 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 |

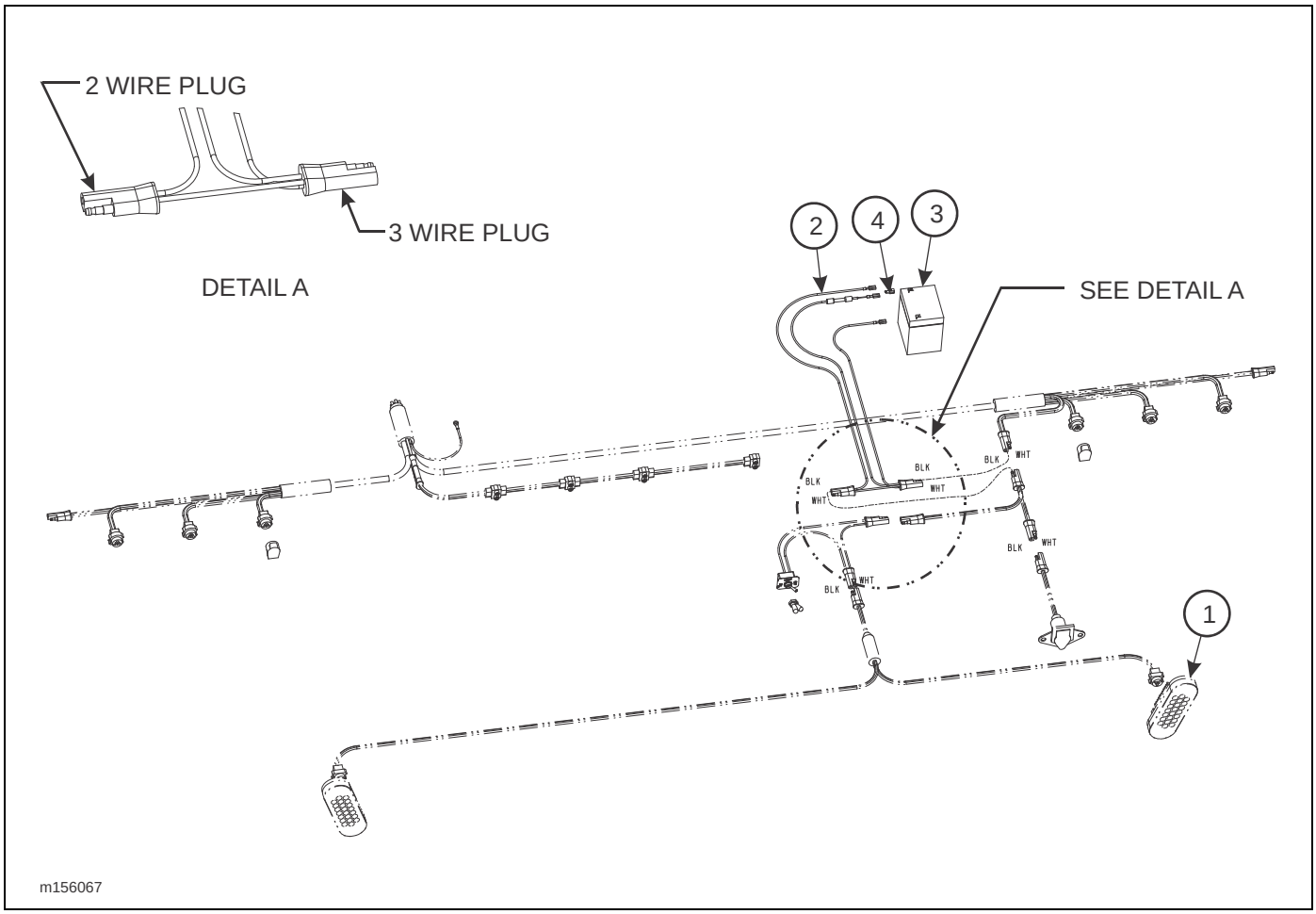



**Figure 2-165: Battery Backup Bumper Strobe Light Installation (Option)**

# BATTERY BACKUP BUMPER STROBE LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 156067 | BATTERY BACKUP BUMPER STROBE LIGHT | |
| 1 | 155107 | STROBE, BUMPER | REF |
| 2 | 156069 | HARNESS ASSEMBLY, JUMPER TRIC CHG | 1 |
| 3 | 3-128-010032 | BATTERY BRAKE-AWAY | 1 |
| 4 | 3-272-010157 | ELECT ADAPTER CHAIR 1/4 PUSH-ON | 1 |

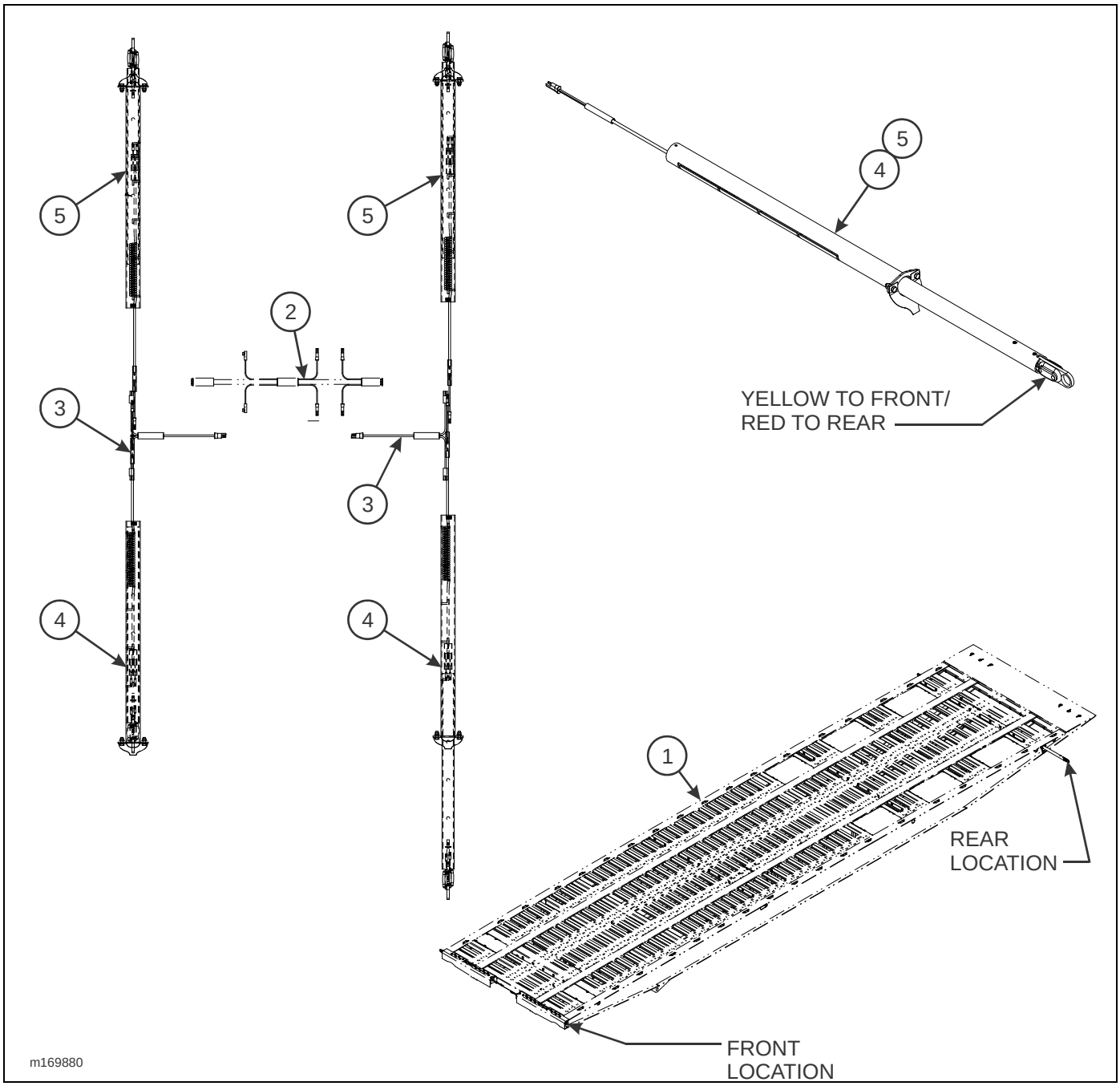



**Figure 2-166: P/O Marker Light Installation (Option)**

# P/O MARKER LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 169880 | P/O MARKER LIGHT INSTALLATION | |
| 1 | ----- | FRAME WELDMENT | REF |
| 2 | 143102 | HARNESS, BED MAIN | REF |
| 3 | 167965 | HARNESS, JUMPER T-POWER | 2 |
| 4 | 169887 | P/O EXTENSION LIGHT ASSEMBLY, LH (SEE PAGE 2-295) | 2 |
| 5 | 169888 | P/O EXTENSION LIGHT ASSEMBLY, RH (SEE PAGE 2-295) | 2 |

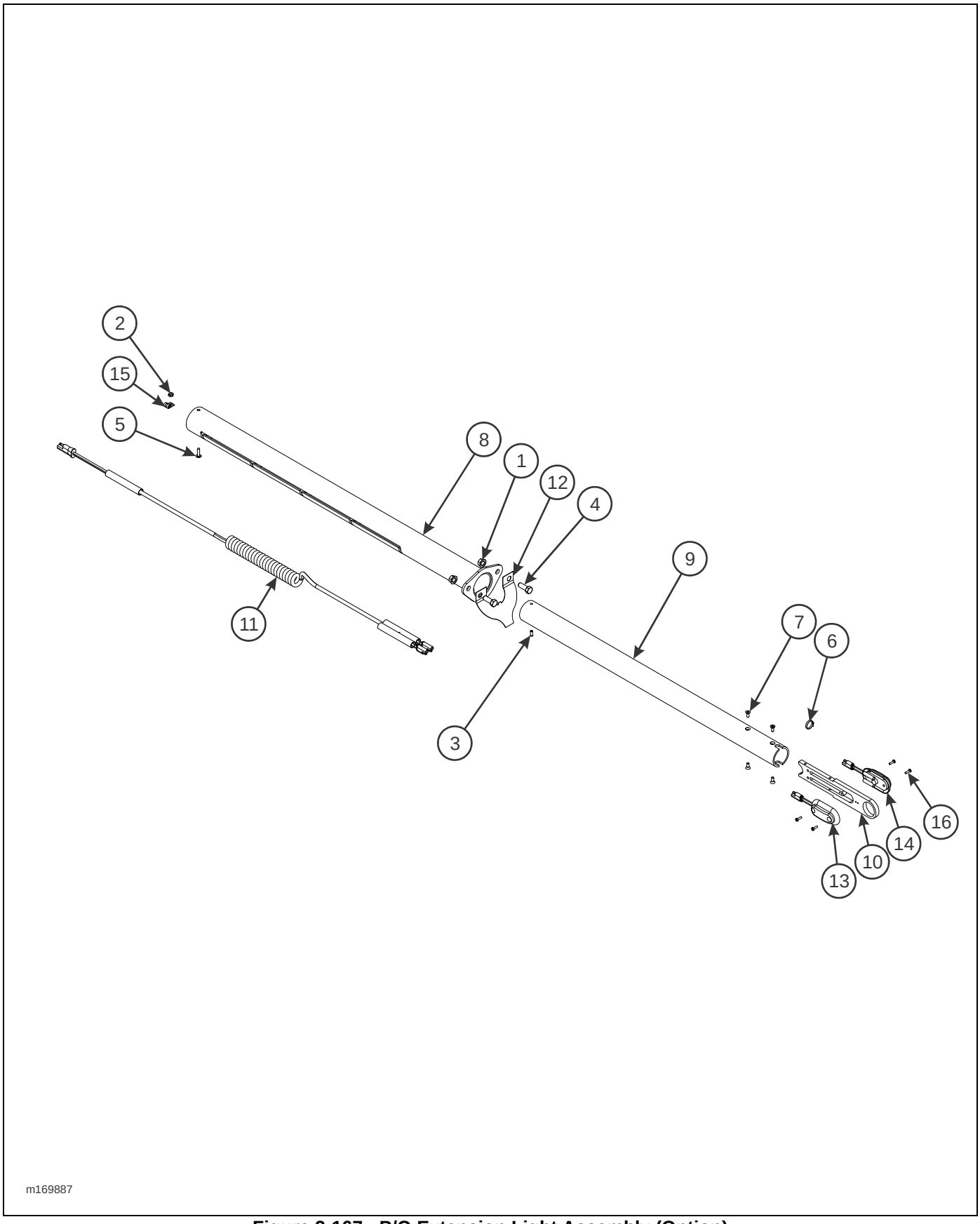



**Figure 2-167: P/O Extension Light Assembly (Option)**

# P/O EXTENSION LIGHT ASSEMBLY (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 169887 | P/O EXTENSION LIGHT ASSEMBLY, LH (SHOWN) | * | |
| | 169888 | P/O EXTENSION LIGHT ASSEMBLY, RH | | * |
| 1 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 16 | 16 |
| 2 | 1-512-010003-06 | NUT, HEX LOCK #10-24 | 1 | 1 |
| 3 | 1-647-010004165 | ROLL PIN, SLOTTED 3/16 X 1/2 | 1 | 1 |
| 4 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 | 2 |
| 5 | 1-656-010003051 | SCREW, RD HEAD SQ NECK 10-24 X 3/4 | 4 | 4 |
| 6 | 1-796-010002-01 | TIE STRAP, PLASTIC .140 X 5.5 | 1 | 1 |
| 7 | 118629 | SCREW, HEX SOCKET CTSK #10-24 X 1/2 | 4 | 4 |
| 8 | 169881 | MOUNT WELDMENT, P/O LIGHT EXT | 1 | 1 |
| 9 | 169885 | TUBE, INNER P/O EXT MARKER | 1 | 1 |
| 10 | 169886 | MOUNT, P/O EXTENSION MARKER LIGHT | 1 | 1 |
| 11 | 169891 | CABLE ASSEMBLY, COILED EXT MARKER LIGHT | 1 | 1 |
| 12 | 171934 | SPRING LOCK, P/O MARKER | 1 | 1 |
| 13 | 171935 | LIGHT ASSEMBLY, YELLOW LED | 1 | 1 |
| 14 | 171936 | LIGHT ASSEMBLY, RED LED | 1 | 1 |
| 15 | 239-9076-1 | CLAMP SUPPORT 1/4 | 1 | 1 |
| 16 | 85G608E | SCREW, SLOTTED PAN HEAD #6-32 X 1/2 | 4 | 4 |

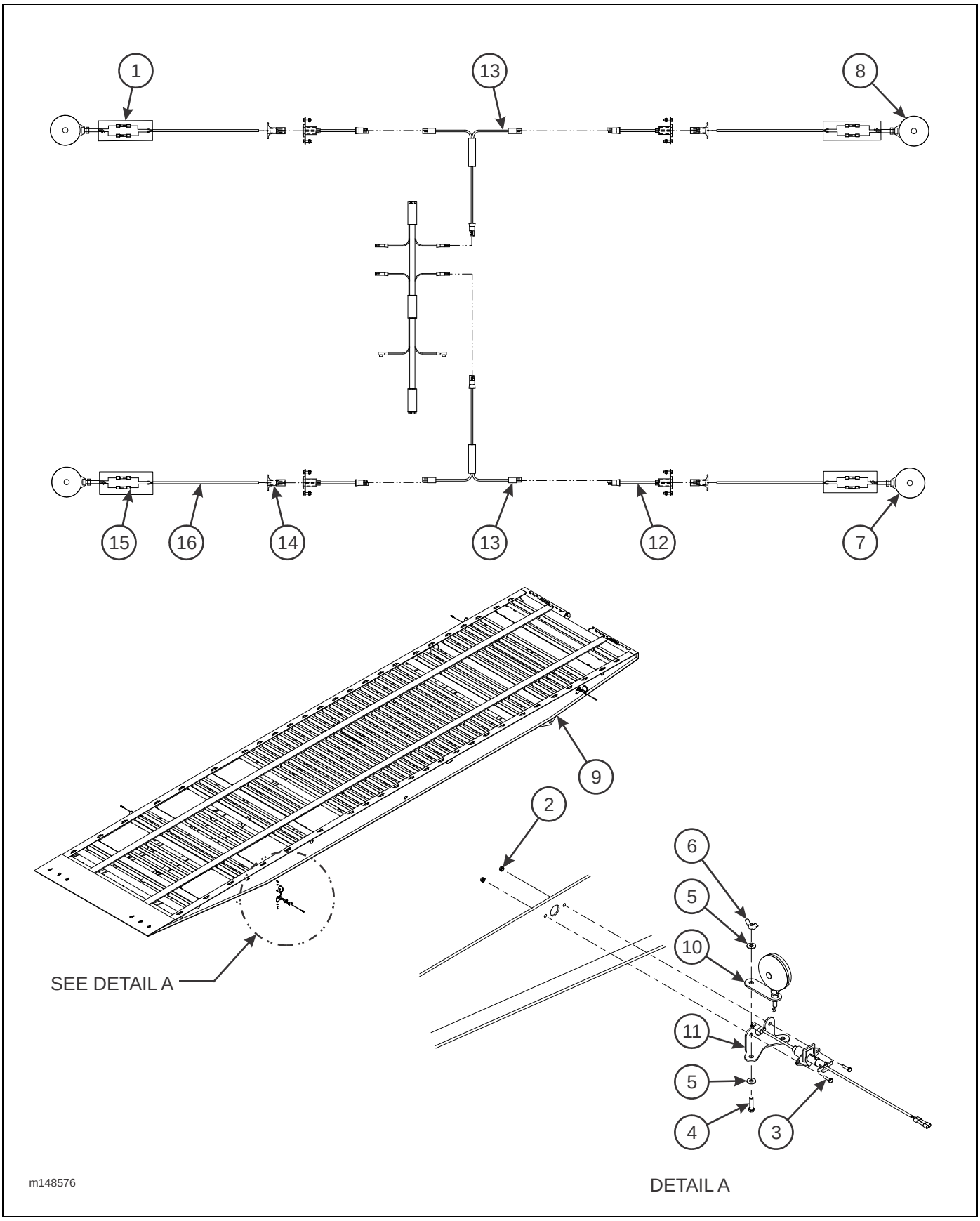



**Figure 2-168: Four Corner Light Installation (Option)**

# FOUR CORNER LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 148576 | FOUR CORNER LIGHT INSTALLATION | |
| 1 | 0013007 | TUBING, HEAT SHRINK | 1 |
| 2 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 6 |
| 3 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 2 |
| 4 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 2 |
| 5 | 1-861-010032-11 | WASHER, FLAT 3/8W | 12 |
| 6 | 103-0924 | NUT, WING 3/8-16 | 4 |
| 7 | 129893 | LAMP, YELLOW TURN SIGNAL STUD MOUNT | 2 |
| 8 | 129894 | LAMP, RED TURN SIGNAL STUD MOUNT | 2 |
| 9 | ----- | FRAME WELDMENT | REF |
| 10 | 139132 | BRACKET, LAMP MOUNTING SWING | 4 |
| 11 | 139133 | BRACKET, LAMP MOUNTING STATIONARY | 4 |
| 12 | 150116 | HARNESS/RECEPTACLE ASSEMBLY | 1 |
| 13 | 167965 | HARNESS, JUMPER T-POWER | 2 |
| 14 | 3-272-010010 | CONNECTOR, ELECT 4 POLE MALE | 4 |
| 15 | 3-272-010021 | ELECT BUTT SPLICE 16/14 W/ SEAL | 3 |
| 16 | W214S-1 | CABLE, 2 WIRE 14AWG PVCJKT 105 | AR |

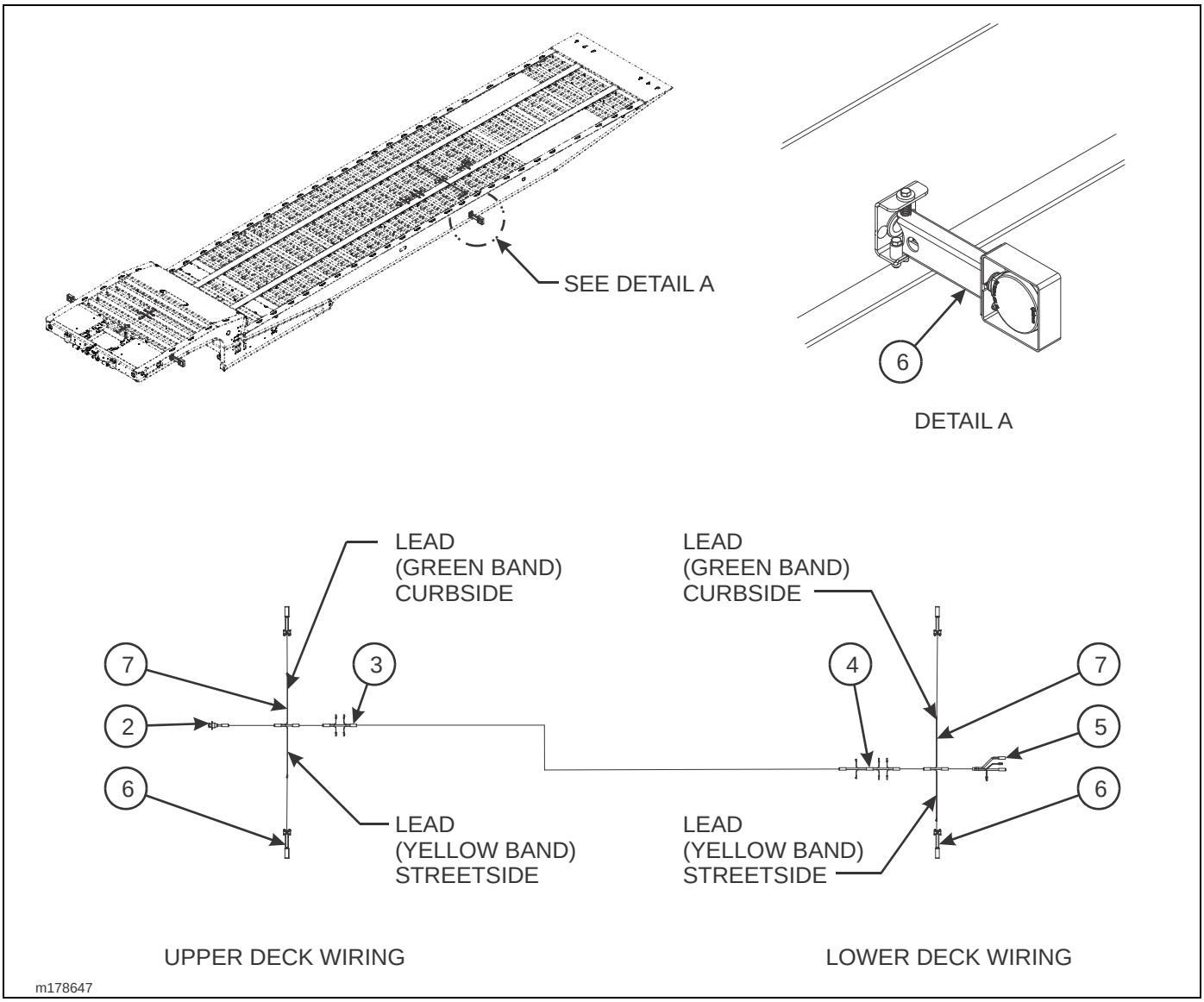



**Figure 2-169: Swingout Light Installation (Option)**

# SWINGOUT LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 178647 | SWINGOUT LIGHT INSTALLATION | | | |
| 1 | 1-796-010003-02 | TIE, STRAP PLASTIC (NOT SHOWN) | 24 | 12 | 12 |
| 2 | 143100 | HARNESS, 7 WAY RECEPTACLE | REF | REF | REF |
| 3 | 143101 | HARNESS, FRONT MAIN | REF | REF | REF |
| 4 | 143102 | HARNESS, BED MAIN | REF | REF | REF |
| 5 | 143103 | HARNESS, E-CHAIN | REF | REF | REF |
| 6 | 176420 | SWING ARM LIGHT ASSEMBLY (SEE PAGE 2-299) | 4 | 2 | 2 |
| 7 | 176432 | HARNESS JUMPER EMERGENCY FLASH | 2 | 1 | 1 |

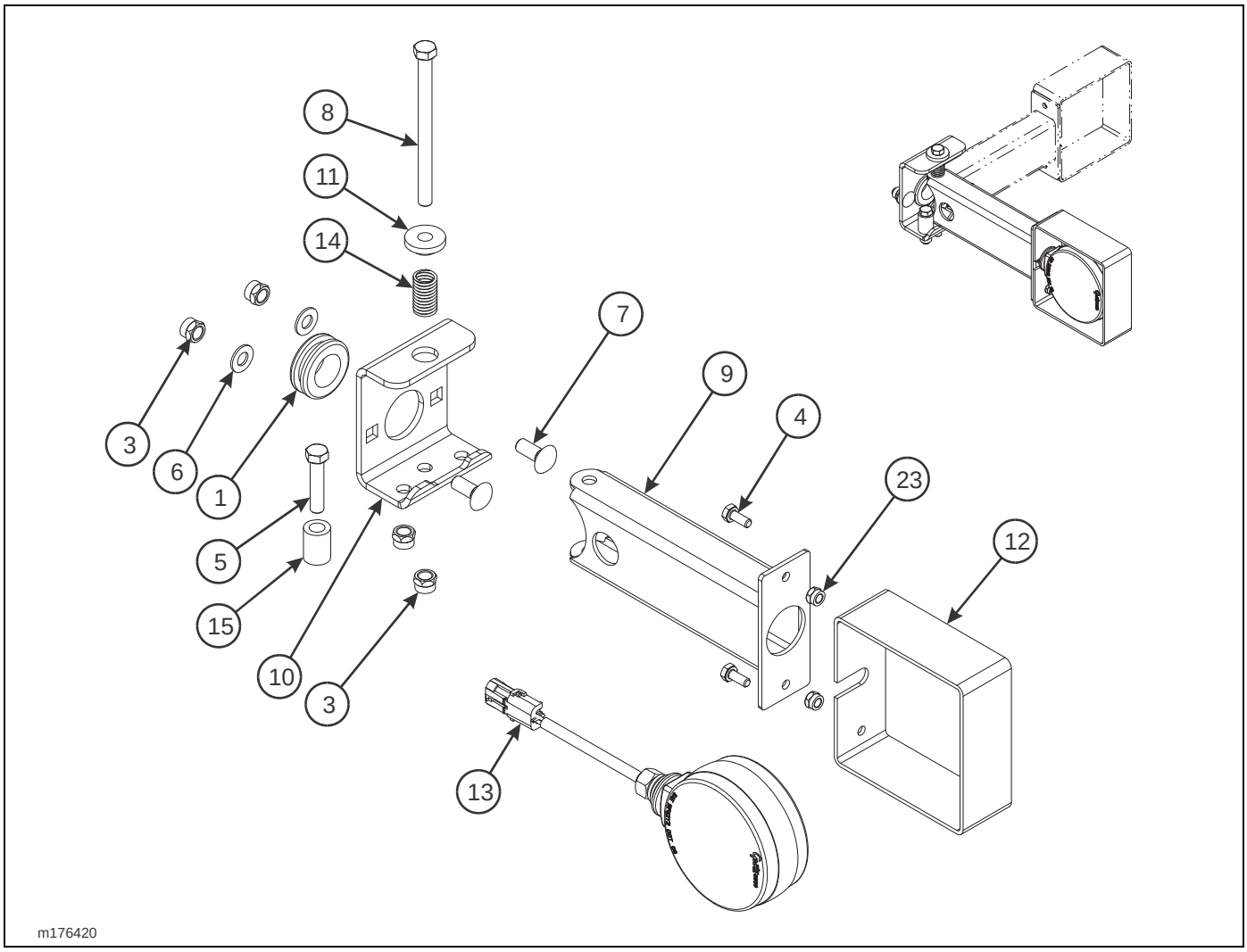



**Figure 2-170: Swingout Light Installation (Option)**

# SWINGOUT LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176420 | SWING ARM LIGHT ASSEMBLY | |
| 1 | 1-343-010007 | GROMMET | 1 |
| 2 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 3 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 4 |
| 4 | 1-654-010047-03 | SCREW, HEX HEAD CAP 1/4-20 X 5/8 GR5 | 2 |
| 5 | 1-654-010051-08 | SCREW, HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 1 |
| 6 | 1-861-010032-10 | WASHER, FLAT 3/8N | 2 |
| 7 | 111276 | SCREW, RD HEAD SQ NECK 3/8-16 X 1 GR5 | 2 |
| 8 | 172882 | SCREW, HEX HEAD CAP 3/8-16 X 5 GR5 | 1 |
| 9 | 176421 | LIGHT SWING-ARM WELDMENT | 1 |
| 10 | 176424 | BRACKET MOUNTING, SWING-ARM LIGHT | 1 |
| 11 | 176425 | WASHER, STEP | 1 |
| 12 | 176440 | MOUNT/GUARD, PEDESTAL LIGHT | 1 |
| 13 | 178384 | LIGHT, YELLOW LED 4” DOUBLE FACE | 1 |
| 14 | 178389 | SPRING, COMPRESSION SWING-ARM LIGHT | 1 |
| 15 | 2-150-010240 | BUSHING, STOP SPRAY SHIELD | 1 |

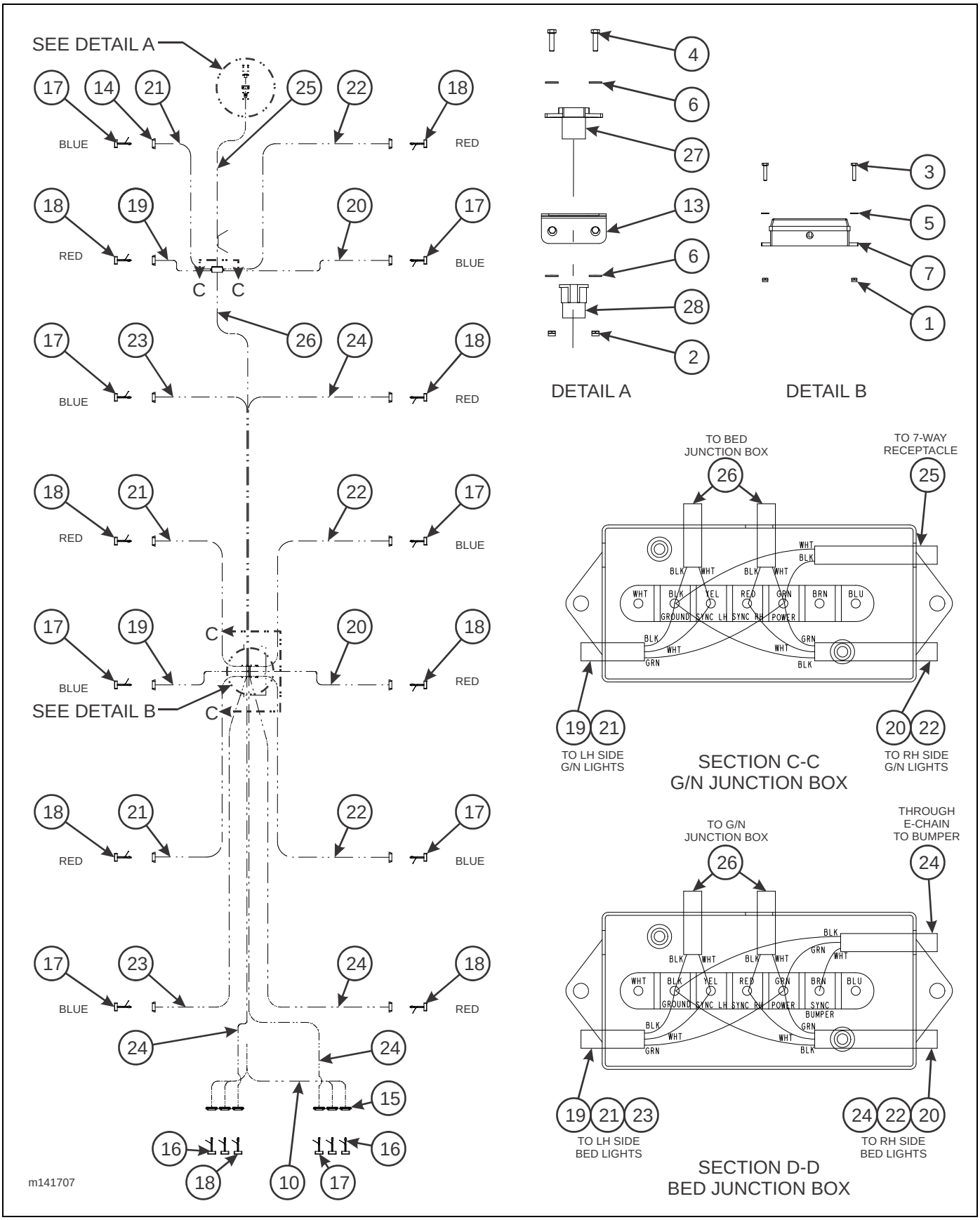



**Figure 2-171: Strobe Installation (Option)**

# STROBE INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 141707 | STOBE INSTALLATION | |
| 1 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 6 |
| 2 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 |
| 3 | 1-654-010027-7 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR8 | 6 |
| 4 | 1-654-010049-06 | SCREW, HEX HEAD CAP 5/16-18 X 1-1/4 GR5 | 2 |
| 5 | 1-861-010032-06 | WASHER, FLAT 1/4N | 8 |
| 6 | 1-861-010032-09 | WASHER, FLAT 5/16W | 4 |
| 7 | 750-029 | JUNCTION BOX, 7 STUD | 2 |
| 10 | 114581 | HARNESS, MOD BUMPER | 1 |
| 13 | 140815 | BRACKET, 7-WAY BULKHEAD MOUNT | 1 |
| 14 | 140816 | GROMMET, LIGHT | 6 |
| 15 | 140817 | MOUNT, LIGHT GROMMET FLANGE | 6 |
| 16 | 141694 | LIGHT, MOD RED S/T/T | 4 |
| 17 | 141695 | LIGHT, MOD WARNING WHT/BLU | 8 |
| 18 | 141696 | LIGHT, MOD WARNING WHT/RED | 8 |
| 19 | 141698 | HARNESS, LIGHT 3 COND X 36 | 2 |
| 20 | 141699 | HARNESS, LIGHT 3 COND X 84 | 2 |
| 21 | 141700 | HARNESS, LIGHT 3 COND X 136 | 3 |
| 22 | 141701 | HARNESS, LIGHT 3 COND X 176 | 3 |
| 23 | 141702 | HARNESS, LIGHT 3 COND X 236 | 2 |
| 24 | 141703 | HARNESS, LIGHT 3 COND X 276 | 4 |
| 25 | 141705 | HARNESS, LIGHT 2 COND X 152 | 1 |
| 26 | 141706 | HARNESS, LIGHT 2 COND X 336 | 2 |
| 27 | 59S-7 | RECEPTACLE, 7-PIN | 1 |
| 28 | 59W-2-3 | RUBBER BOOT | 1 |

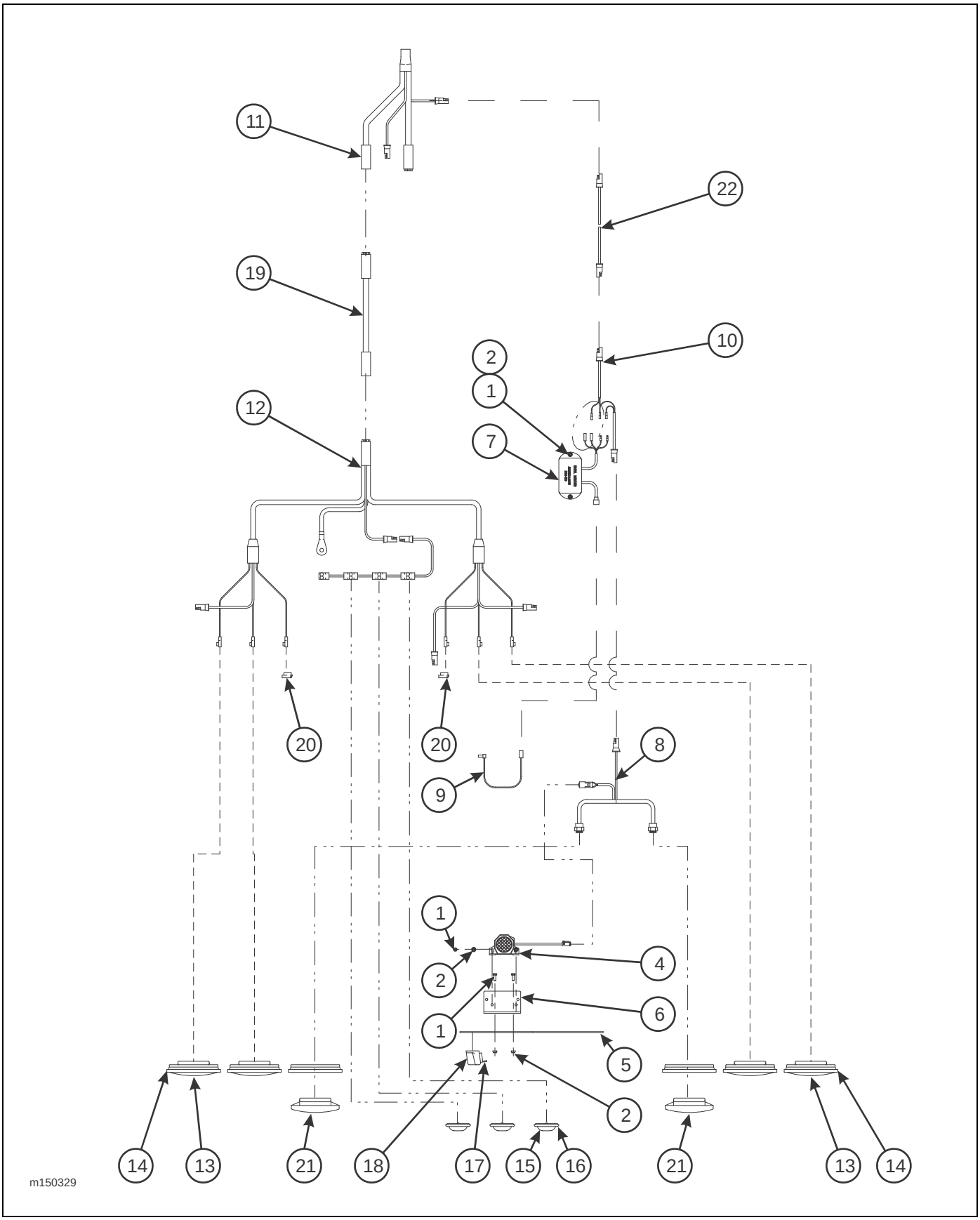



**Figure 2-172: Backup Alarm/Light Installation (Option)**

# BACKUP ALARM/LIGHT INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 150329 | BACKUP ALARM/LIGHT INSTALLATION | |
| 1 | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5 | 6 |
| 2 | 108417 | NUT, HEX FLANGE SPIRALOCK 1/4-20 | 6 |
| 4 | 117997 | ALARM, dB ADJUSTING SMART BACKUP | 1 |
| 5 | 119531 | PLATE, TAG MOUNT | REF |
| 6 | 127991 | BRACKET, BACKUP ALARM MOUNT | 1 |
| 7 | 150072 | REVERSE DETN MODULE AND SENSOR | 1 |
| 8 | 168872 | HARNESS, BACKUP LIGHT/ALARM | 1 |
| 9 | 137559 | SENSOR, DIRECTIONAL CABLE 6.5’ | 1 |
| 10 | 150074 | HARNESS, MODULE/ALARM | 1 |
| 11 | 143103 | HARNESS, E-CHAIN | REF |
| 12 | 143104 | HARNESS, BUMPER | REF |
| 13 | 143113 | LIGHT, RED LED OVAL STT | REF |
| 14 | 143114 | GROMMET, OVAL | REF |
| 15 | 143115 | LIGHT, RED LED RECTANGLE CLEARANCE | REF |
| 16 | 143116 | GROMMET, RECTANGLE | REF |
| 17 | 143117 | LIGHT, CLEAR LED LICENSE | REF |
| 18 | 143118 | BRACKET, LIGHT LICENSE | REF |
| 19 | 143166 | HARNESS, EXT 48” | REF |
| 20 | 144608 | DUMMY PLUG FOR FEMALE PLUG | 2 |
| 21 | 150330 | GROTE LED BACKUP CLEAR | 2 |
| 22 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD EXTENSION | 1 |

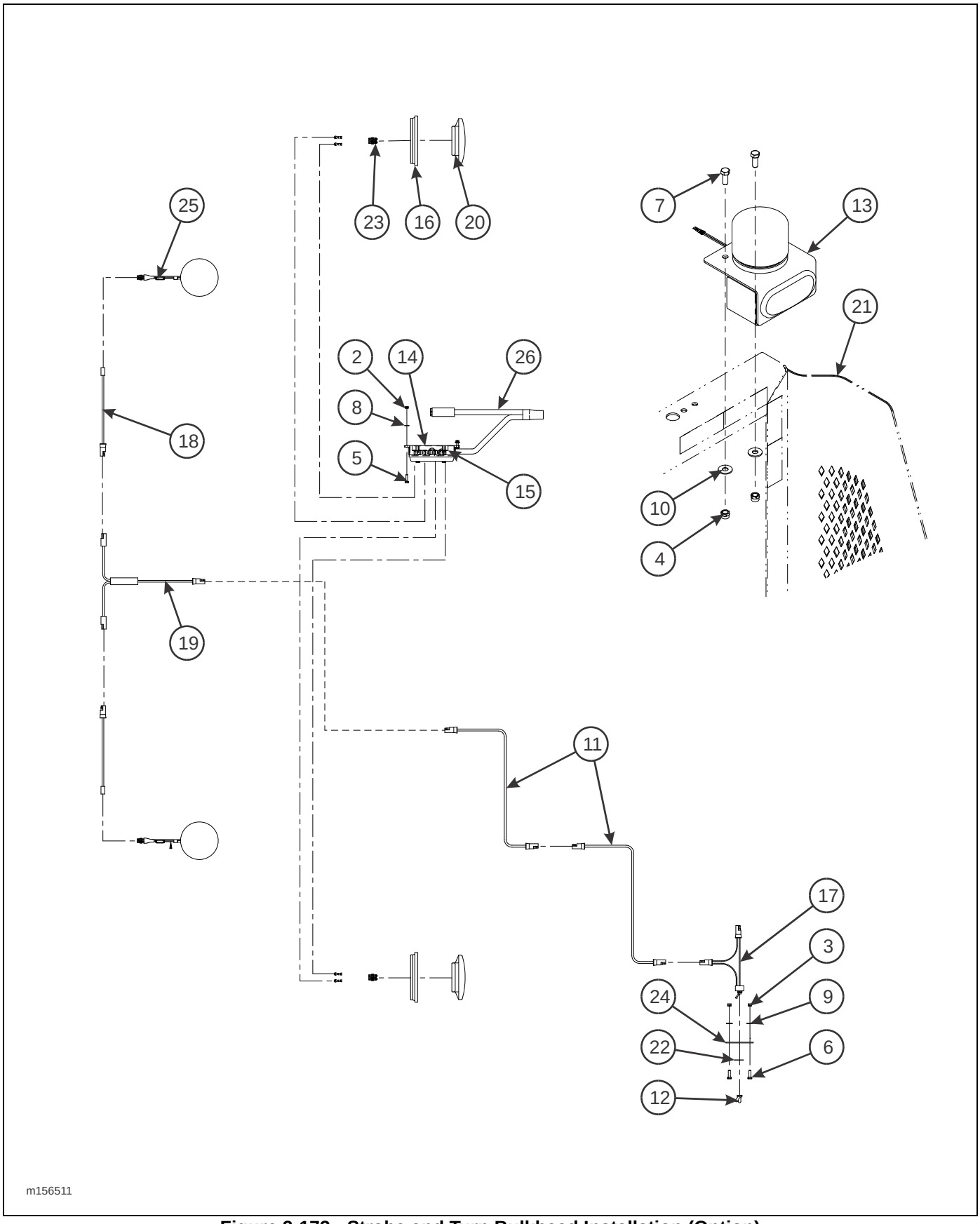



**Figure 2-173: Strobe and Turn Bulkhead Installation (Option)**

# STROBE AND TURN BULKHEAD INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 156511 | STROBE AND TURN BULKHEAD INSTALLATION | |
| 1 | 1-822-010002 | TRIM-LOCK 3/16 (NOT SHOWN) | AR |
| 2 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 3 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 |
| 4 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 4 |
| 5 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 2 |
| 6 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 4 |
| 7 | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5 | 4 |
| 8 | 1-861-010032-06 | WASHER, FLAT 1/4N | 2 |
| 9 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 |
| 10 | 1-861-010032-15 | WASHER, FLAT 1/2W | 4 |
| 11 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXT | 1 |
| 12 | 81264 | RUBBER BOOT FOR ELECT SWITCH | 1 |
| 13 | 142529 | MOUNT WELDMENT, STROBE AND TURN | 2 |
| 14 | 750-029 | JUNCTION BOX 7 STUD | 1 |
| 15 | 32002 | TERMINAL | 4 |
| 16 | 60700 | GROMMET, TRUCK LITE LIGHT | 2 |
| 17 | 164052 | HARNESS, 60” BRANCH WORK LIGHT | 2 |
| 18 | 150117 | TOGGLE SWITCH SEALED SPST | 1 |
| 19 | 169853 | HARNESS, T POWER BRANCH | 1 |
| 20 | 121377 | LIGHT YELLOW LED S/T/T | 2 |
| 21 | 128136 | BULKHEAD INSTALLATION (SEE PAGE 2-109) | REF |
| 22 | 130116 | DECAL, ON/OFF LIGHT | 1 |
| 23 | 142530 | HARNESS, TURN BULKHEAD MOUNT | 2 |
| 24 | 137987 | MOUNT, ELECT SWITCH | 1 |
| 25 | 140328 | STROBE LIGHT MOD ASSY | 2 |
| 26 | 146929 | HARNESS Y SPLITTER GROTE | 1 |

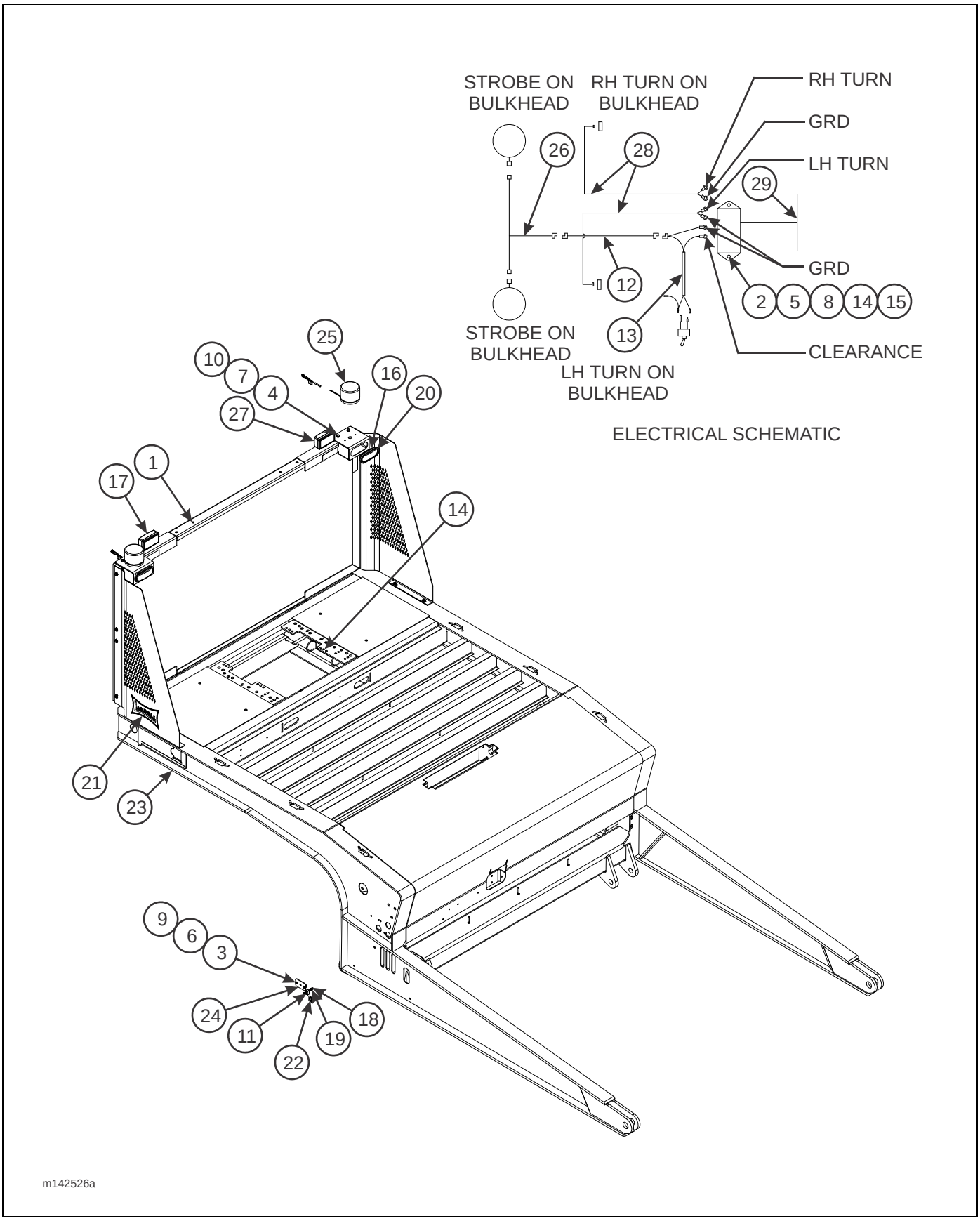



**Figure 2-174: Strobe and Turn Light Installation for Bulkhead (Option)**

# STROBE AND TURN LIGHT INSTALLATION FOR BULKHEAD (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 142526 | STROBE AND TURN LIGHT INST FOR BULKHEAD (OPTION) | |
| 1 | 1-343-010007 | GROMMET | 4 |
| 2 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 2 |
| 3 | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB | 2 |
| 4 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 4 |
| 5 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 2 |
| 6 | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5 | 2 |
| 7 | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5 | 4 |
| 8 | 1-861-010032-06 | WASHER, FLAT 1/4N | 2 |
| 9 | 1-861-010032-09 | WASHER, FLAT 5/16W | 2 |
| 10 | 1-861-010032-15 | WASHER, FLAT 1/2W | 4 |
| 11 | 3-272-010017 | TOGGLE SWITCH SEALED SPST | 1 |
| 12 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT | 1 |
| 13 | 3-368-010253 | HARNESS ASSEMBLY, CONTROL PANEL | 1 |
| 14 | 750-029 | JUNCTION BOX, 7 STUD | 1 |
| 15 | 32002 | TERMINAL, 12-10 W/ #10 RING WAY | 4 |
| 16 | 60700 | GROMMET, TRUCK LITE LIGHT | 2 |
| 17 | 64181 | RECT QUARTZ HALOGEN LAMP | REF |
| 18 | 104043 | CONNECTOR, MALE | 1 |
| 19 | 104044 | CONNECTOR, FEMALE | 1 |
| 20 | 121377 | LIGHT, YELLOW LED S/T/T | 2 |
| 21 | 128136 | BULKHEAD INSTALLATION (SEE PAGE 2-109) | REF |
| 22 | 130116 | DECAL, ON/OFF LIGHT | 1 |
| 23 | 130662 | GOOSENECK WELDMENT | REF |
| 24 | 137987 | MOUNT, ELECTRIC SWITCH | 1 |
| 25 | 140328 | STROBE LIGHT MOD ASSEMBLY | 2 |
| 26 | 140330 | HARNESS, STROBE BEACON BULKHEAD | 1 |
| 27 | 142529 | MOUNT WELDMENT, STROBE AND TURN | 2 |
| 28 | 142530 | HARNESS, TURN BULKHEAD MOUNT | 2 |
| 29 | 146929 | HARNESS, Y SPLITTER GROTE | 1 |

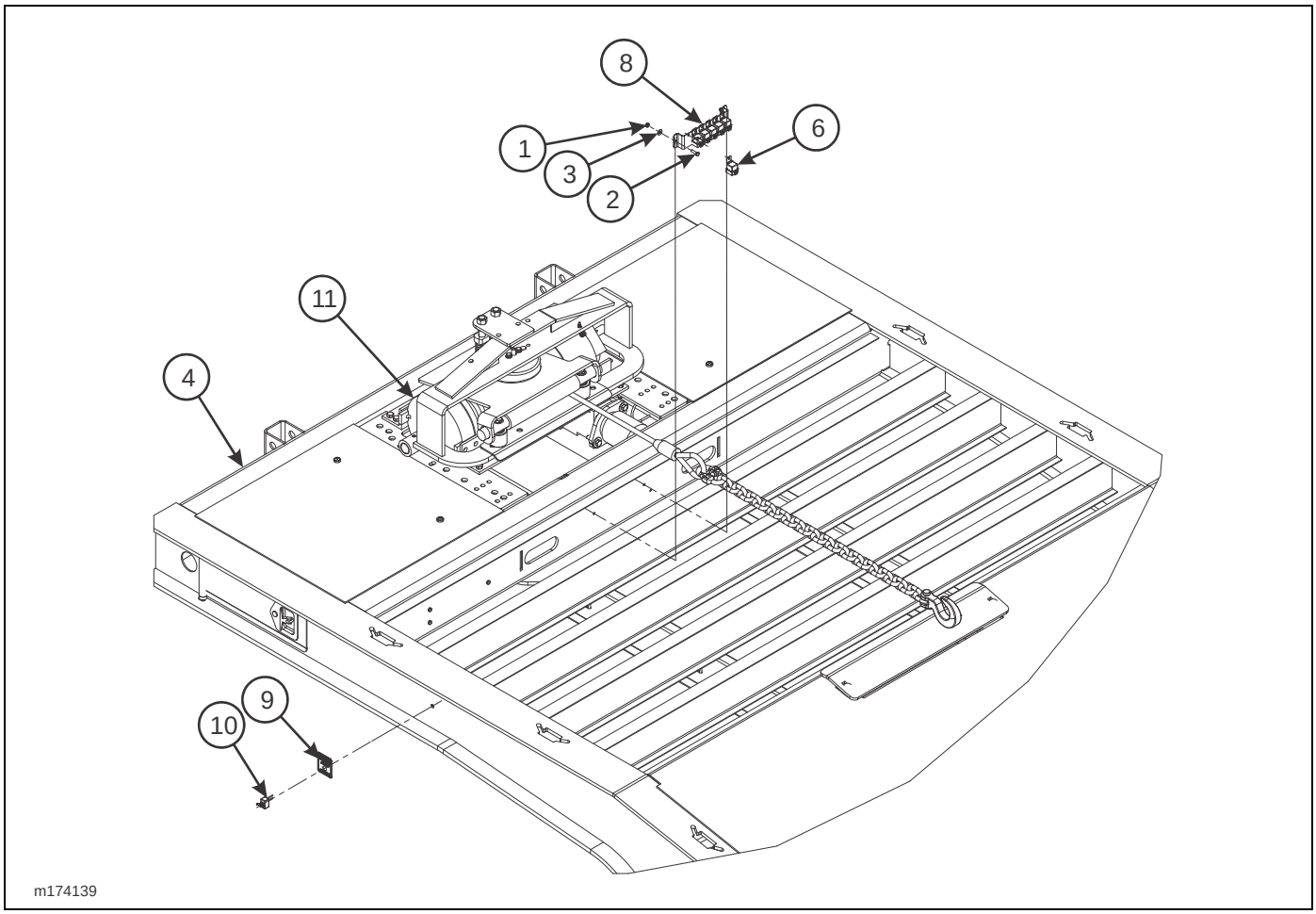



**Figure 2-175: Electrical Disconnect Switch Installation (Option)**

# ELECTRICAL DISCONNECT SWITCH INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 174139 | ELECTRICAL DISCONNECT SWITCH INSTALLATION (OPTION) | |
| 1 | 1-512-010004-05 | NUT, HEX LOCK 1/4-20 GRA | 2 |
| 2 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 2 |
| 3 | 1-861-010032-07 | WASHER, FLAT 1/4 | 3 |
| 4 | ----- | FRAME ASSEMBLY, G/N | REF |
| 5 | 164053 | HARNESS, BRANCH WORK LIGHT 102” (NOT SHOWN) | 1 |
| 6 | 169534 | RELAY, SEALED 20/40A | REF |
| 7 | 174140 | HARNESS, TRAILER ELECT DISCONNECT SWITCH (NOT SHOWN) | 1 |
| 8 | 174141 | BRACKET, RELAY MOUNT | REF |
| 9 | 174142 | DECAL, ELECTRICAL DISCONNECT SWITCH | 1 |
| 10 | 3-272-010017 | TOGGLE SWITCH, SEALED | REF |
| 11 | ----- | WINCH INSTALLATION 20K UPPER DECK | REF |

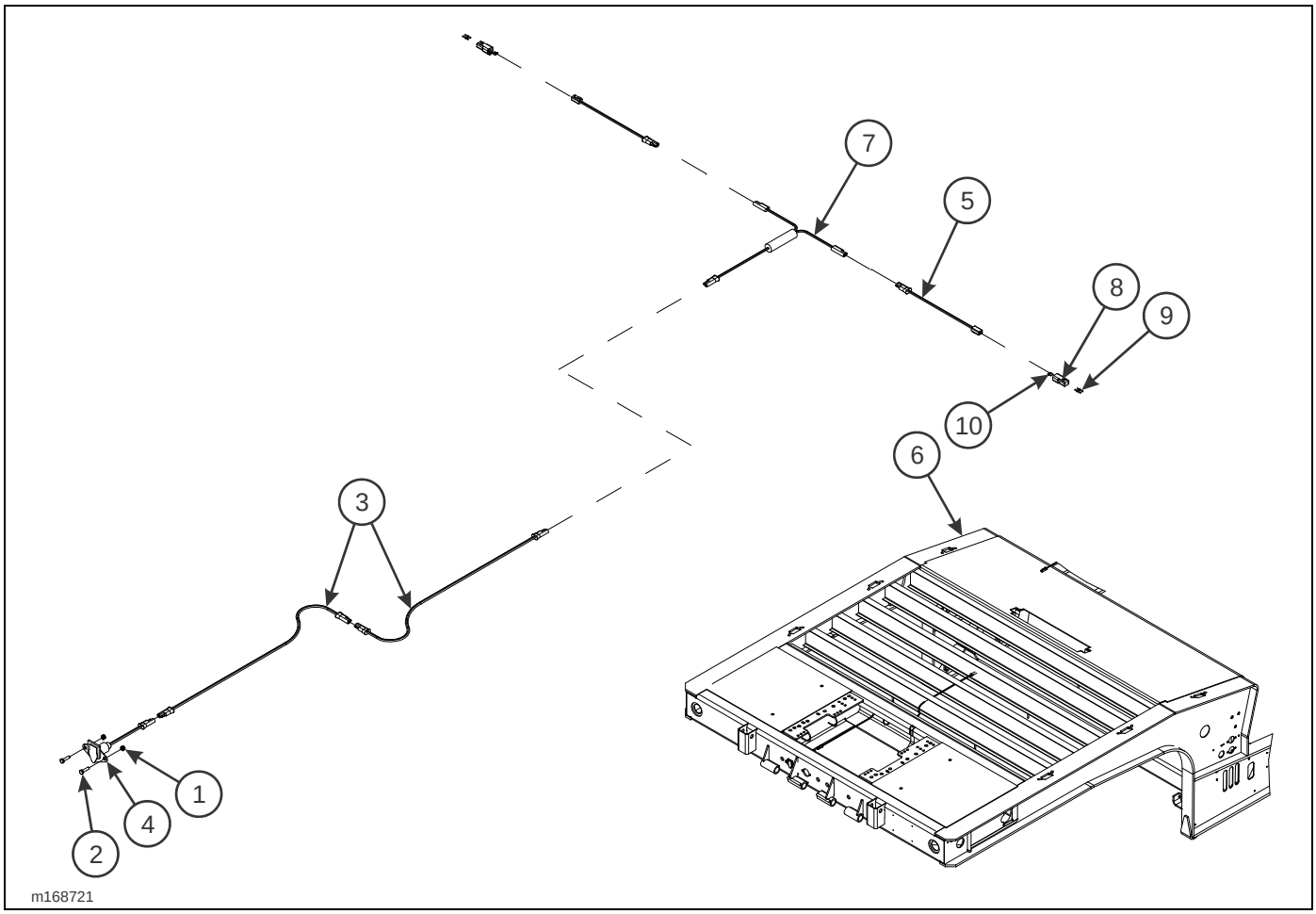



**Figure 2-176: Front/Rear Harness Installation (Option)**

# FRONT/REAR HARNESS INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 168721 | FRONT/REAR HARNESS INSTALLATION (OPTION) | |
| 1 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 1 |
| 2 | 1-654-010047-06 | SCREW, HEX HEAD CAP 1/4-20 X 1 GR5 | 4 |
| 3 | 150111 | HARNESS 300” | 1 |
| 4 | 150116 | HARNESS/RECEPTACLE ASSEMBLY | 1 |
| 5 | 164052 | HARNESS, 60” BRANCH WORK LIGHT | 2 |
| 6 | 168720 | FRAME, MOD 4-POLE RECEPTACLE FT PLT | 1 |
| 7 | 169853 | HARNESS, JUMPER T-POWER | 1 |
| 8 | 622-2967-001 | RECEPTACLE, 2 POS (MALE) | 2 |
| 9 | 622-2967-014 | PIN, 14-16 AWG | 4 |
| 10 | 622-2967-017 | WEDGE, 2 POS RECEPTACLE | 2 |

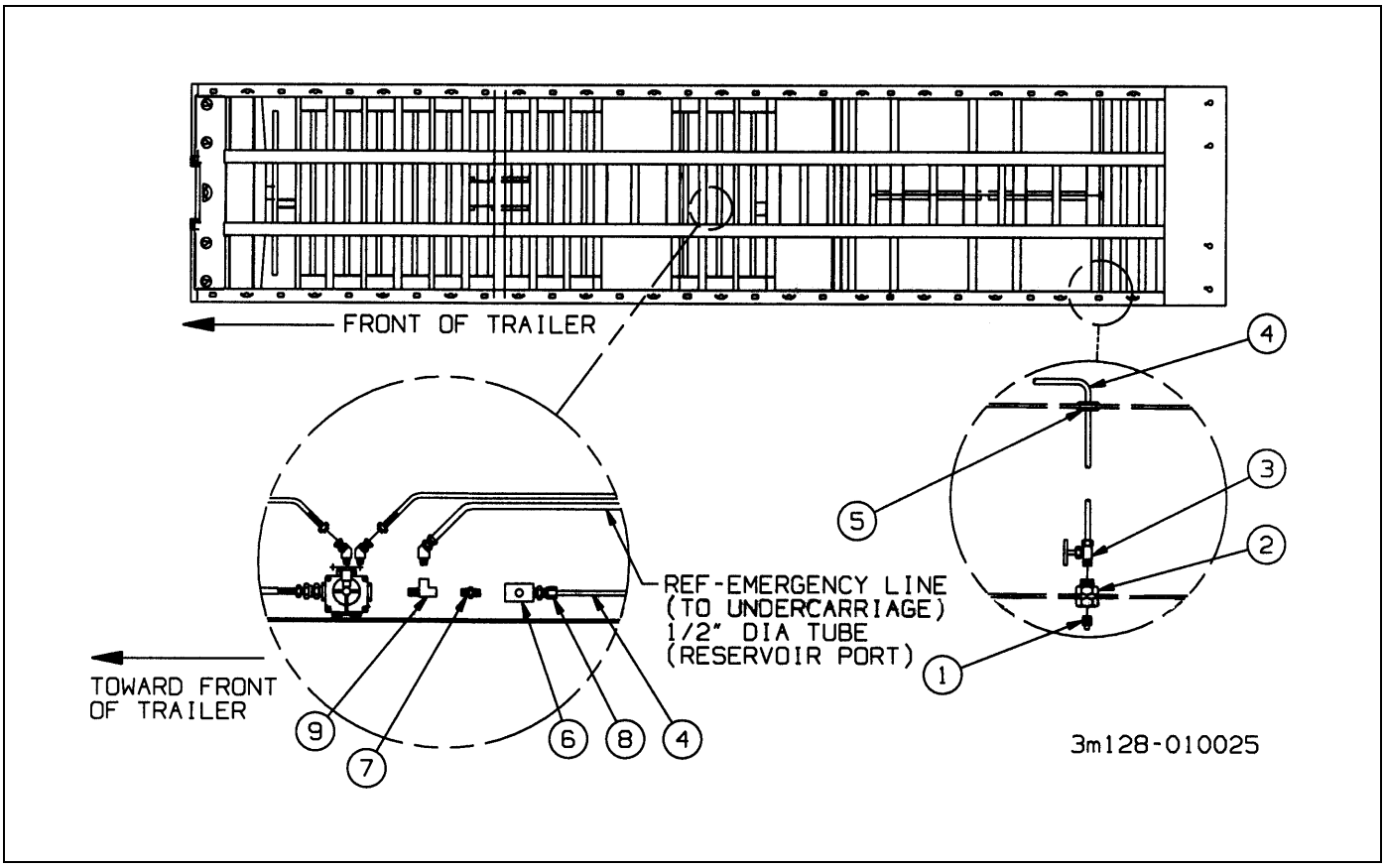



**Figure 2-177: Air Outlet Accessory (Option)**

# AIR OUTLET ASSEMBLY (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 3-128-010025 | 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 |
| | 167692 | FILTER | 1 |
| 7 | 2083-8-4S | NIPPLE HEX 1/2PIPE - 1/4PIPE | 1 |
| 8 | 1-297-010007-11 | FITTING, AIR | 1 |
| 9 | 1-297-010018-04 | FITTING, AIR BR TEE | 1 |

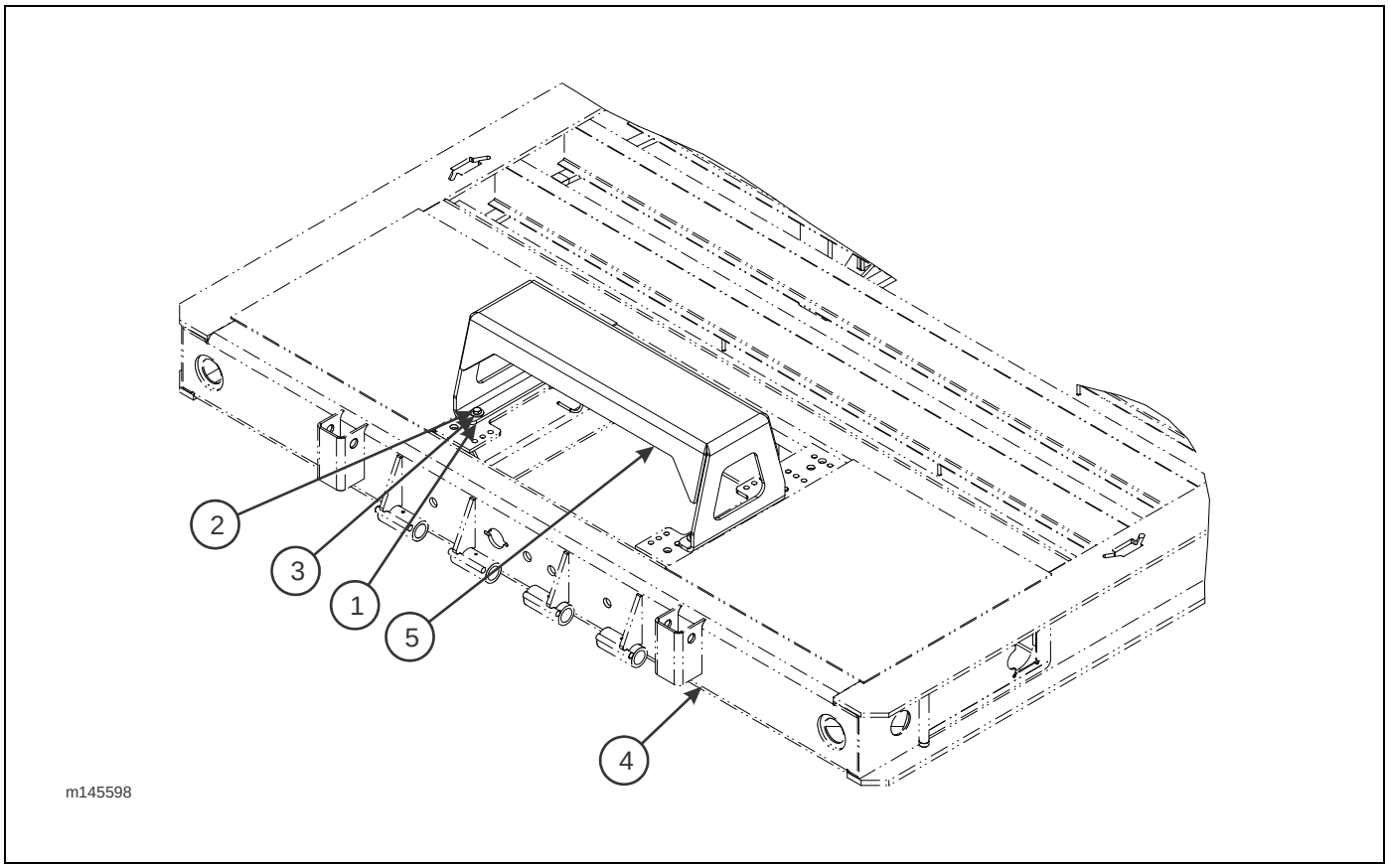



**Figure 2-178: Special Bulkhead Installation (Option)**

# 12/20K WINCH GUARD INSTALLATION (BRADEN) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 145598 | 12/20K WINCH GUARD INSTALLATION | |
| 1 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 | 4 |
| 2 | 1-654-010055-05 | SCREW, HEX HEAD CAP 1/2-13 X 2 GR5 | 4 |
| 3 | 1-861-010032-15 | WASHER, FLAT 1/2 | 8 |
| 4 | ----- | GOOSENECK WELDMENT | REF |
| 5 | 145599 | GUARD, WINCH 12/20K BRADEN | 1 |

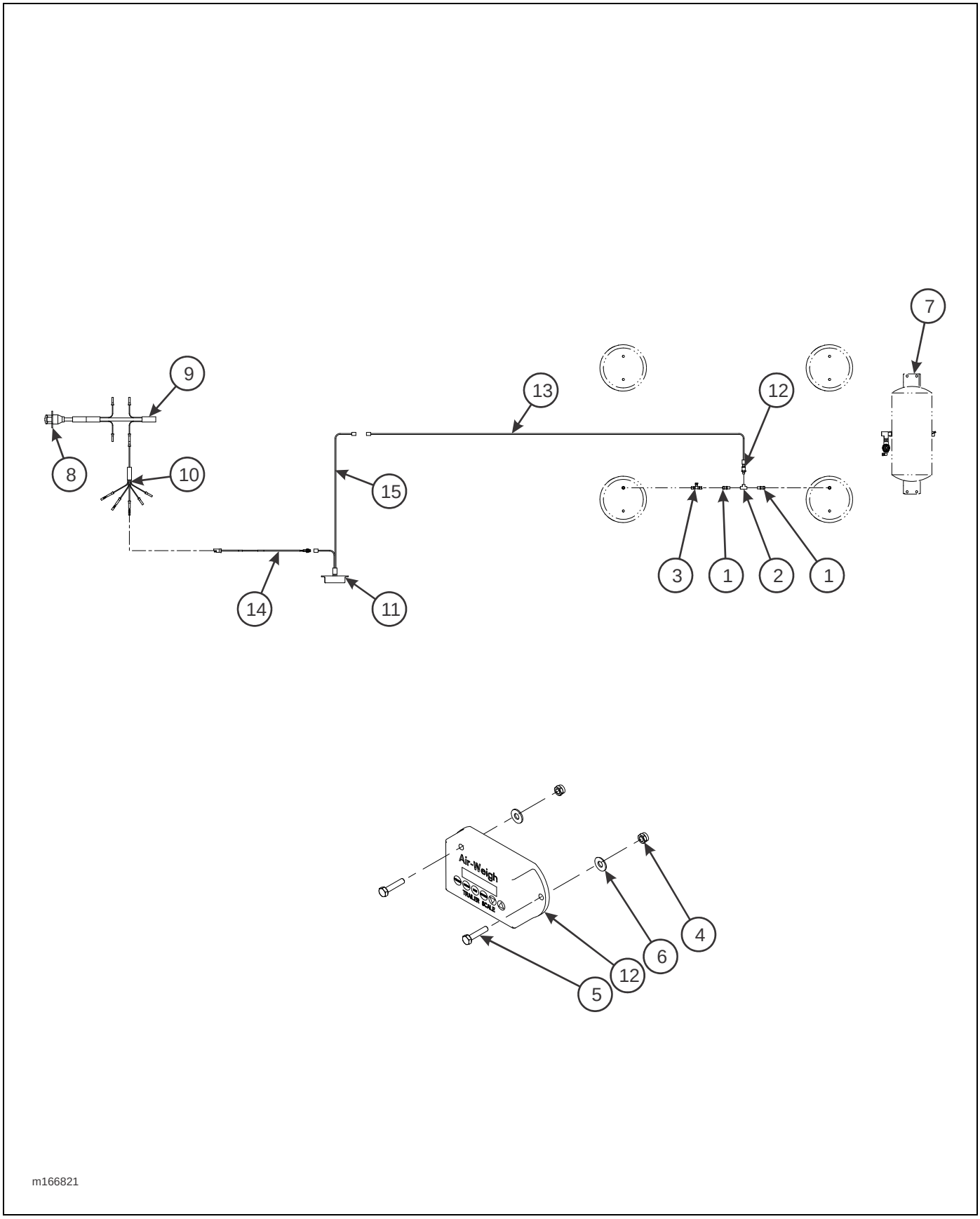



**Figure 2-179: Air Digital Scale, Loadmaxx System (Option)**

# AIR DIGITAL SCALE, LOADMAXX SYSTEM (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 166821 | SCALE INSTALLATION, LOADMAXX SYSTEM | |
| 1 | 1-297-010007-11 | FITTING AIR | 2 |
| 2 | 1-297-010009-02 | FITTING, AIR PIPE TEE | 1 |
| 3 | 1-297-010010-04 | FITTING AIR UNION TEE | REF |
| 4 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | REF |
| 5 | 1-654-010047-07 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5 | REF |
| 6 | 1-861-010032-07 | WASHER, FLAT 1/4 | REF |
| 7 | 103082 | SUSPENSION, AIR RLU A/R TANDEM (SEE PAGE 2-79) | REF |
| 8 | 143100 | HARNESS, 7 WAY RECEPTACLE | REF |
| 9 | 143101 | HARNESS, FRONT MAIN | REF |
| 10 | 150093 | HARNESS, 5 AUXILIARY BRANCHES | REF |
| 11 | 172437 | SCALE, AIR DIGITAL MODIFIED (INCL. ITEMS 12 - 15) | 1 |
| 12 | 149543 | SENSOR ASSEMBLY, 5V 3/8” BRASS | 1 |
| 13 | 166001 | CABLE, AW5800, 2 PART SENSOR 50' | 1 |
| 14 | 166002 | CABLE, AW5800 TRAILER POWER BLUNT CUT 15' | 1 |
| 15 | 142895 | CABLE, AW5800, TRAILER SCALE INTERFACE 2" | 1 |

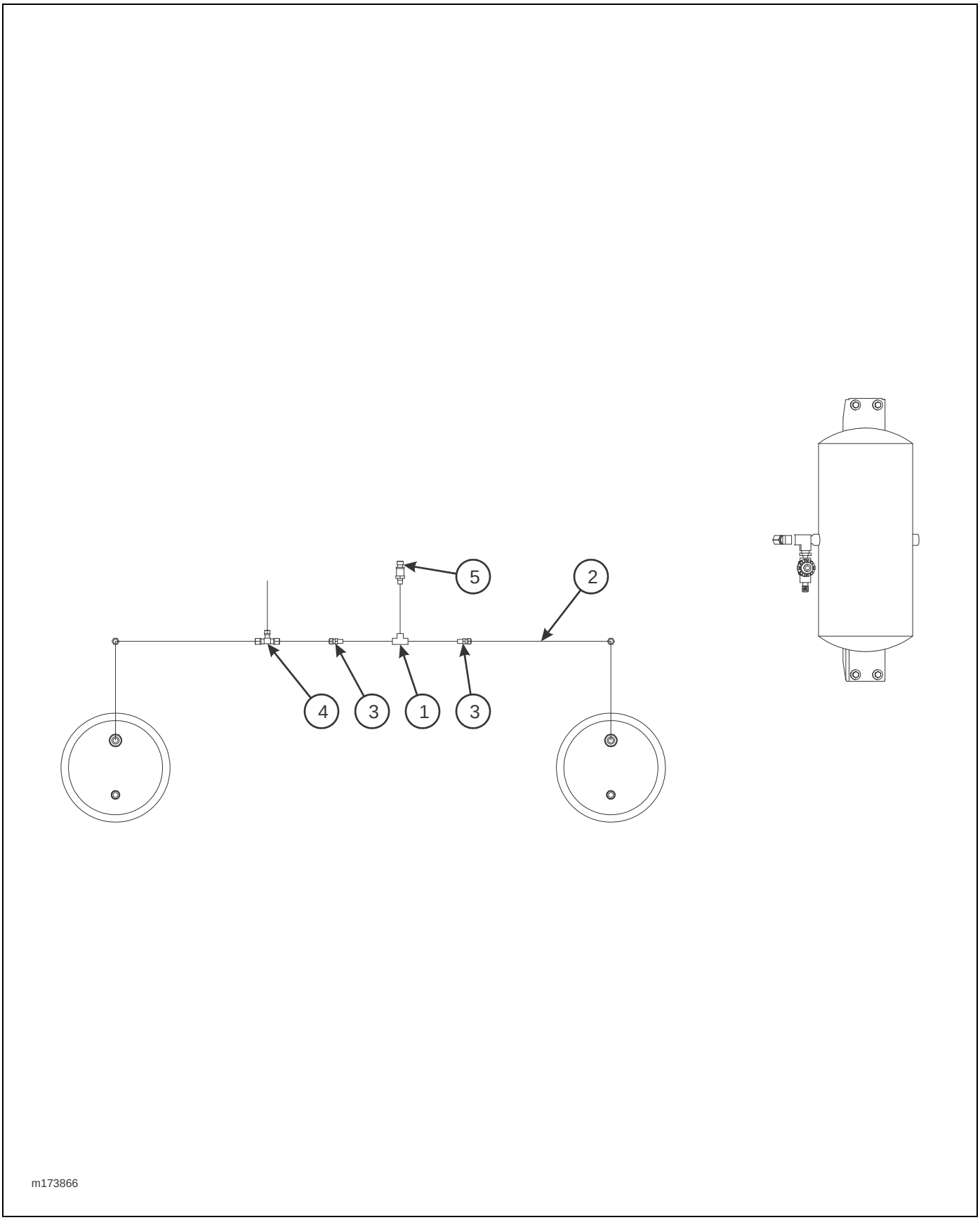



**Figure 2-180: Air Digital Scale, Loadmaxx System Arctic (Option)**

# AIR DIGITAL SCALE, LOADMAXX SYSTEM ARCTIC (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 173866 | SCALE INSTALLATION, LOADMAXX SYSTEM ARCTIC | |
| 1 | 1-297-010009-02 | FITTING, AIR PIPE TEE | 1 |
| 2 | 126630 | TUBING, NYLON 3/8 | REF |
| 3 | 126672 | FITTING, COMPRESSION | 2 |
| 4 | 139930 | SUSPENSION, AIR SYS RLU A/R ARCTIC (NOT SHOWN) (SEE PAGE 2-83) | REF |
| 5 | 172437 | SCALE, AIR DIGITAL MODIFIED (SEE PAGE 2-313) | 1 |

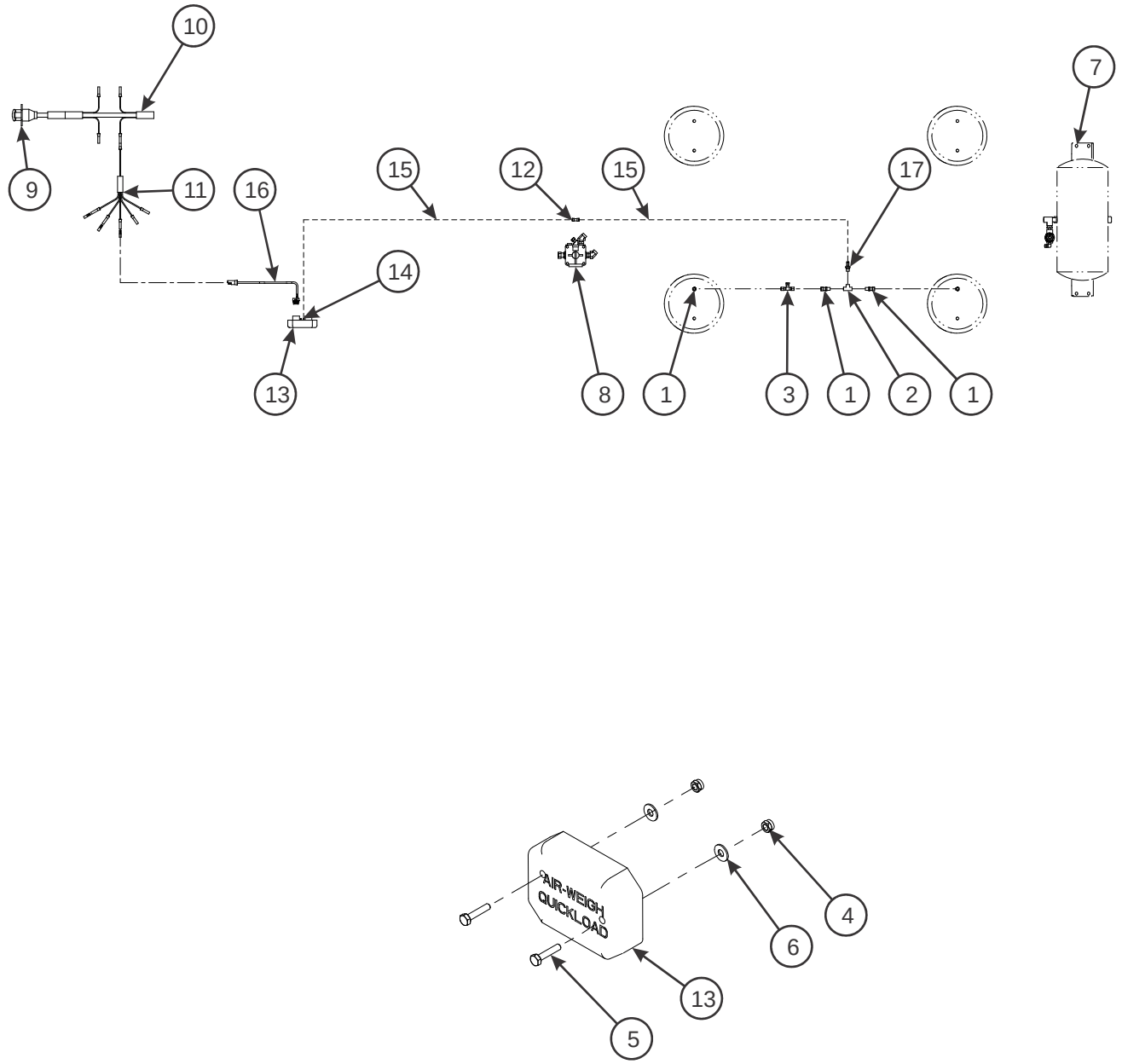



**Figure 2-181: Air Digital Scale, Quickload System (Option)**

# AIR DIGITAL SCALE, QUICKLOAD SYSTEM (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 175358 | SCALE INSTALLATION, QUICKLOAD SYSTEM | |
| 1 | 1-297-010007-11 | FITTING AIR | 2 |
| 2 | 1-297-010009-02 | FITTING, AIR PIPE TEE | 1 |
| 3 | 1-297-010010-04 | FITTING AIR UNION TEE | REF |
| 4 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | REF |
| 5 | 1-654-010047-07 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5 | REF |
| 6 | 1-861-010032-07 | WASHER, FLAT 1/4 | REF |
| 7 | 103082 | SUSPENSION, AIR RLU A/R TANDEM (SEE PAGE 2-79) | REF |
| 8 | 141607 | AIR BOOSTER VALVE ASSEMBLY (SEE PAGE 2-43) | REF |
| 9 | 143100 | HARNESS, 7 WAY RECEPTACLE | REF |
| 10 | 143101 | HARNESS, FRONT MAIN | REF |
| 11 | 150093 | HARNESS, 5 AUXILIARY BRANCHES | REF |
| 12 | 175359 | UNION, AIR HOSE | 1 |
| 13 | 175360 | SCALE, AIR QL (TRAVEL AXLE) MODIFIED (INCL. ITEMS 14 - 17) | 1 |
| 14 | 175363 | SPRING HOSE CLAMP | 1 |
| 15 | 175365 | AIR LINE | 1 |
| 16 | 184392 | CABLE, TRAILER, POWER, BLUNT CUT, 15’ | 1 |
| 17 | 180221 | HOSE BARB FITTING, BRASS | 1 |

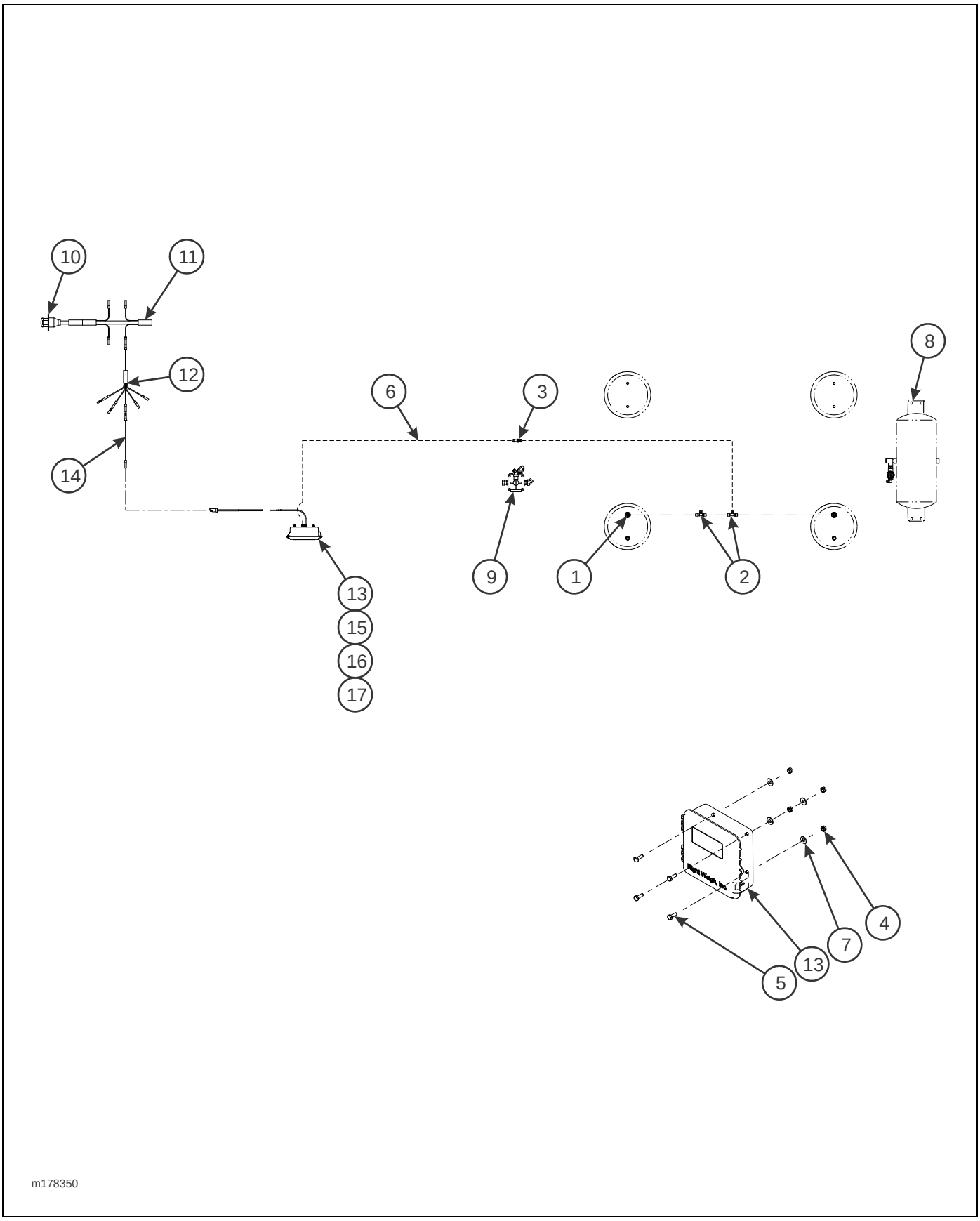



**Figure 2-182: Air Digital Scale, Right Weigh System (Option)**

# AIR DIGITAL SCALE, RIGHT WEIGH SYSTEM (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 175350 | SCALE INSTALLATION, RIGHT WEIGH SYSTEM | |
| 1 | 1-297-010007-11 | FITTING AIR | 2 |
| 2 | 1-297-010010-04 | FITTING AIR UNION TEE | REF |
| 3 | 1-297-010014-02 | FITTING, AIR | 1 |
| 4 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | REF |
| 5 | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5 | 24 |
| 6 | 1-833-010001 | TUBING NYLON 1/4 OD | AR |
| 7 | 1-861-010032-07 | WASHER, FLAT 1/4 | REF |
| 8 | 103082 | SUSPENSION, AIR RLU A/R TANDEM (SEE PAGE 2-79) | REF |
| 9 | 141607 | AIR BOOSTER VALVE ASSEMBLY (SEE PAGE 2-43) | REF |
| 10 | 143100 | HARNESS, 7 WAY RECEPTACLE | REF |
| 11 | 143101 | HARNESS, FRONT MAIN | REF |
| 12 | 150093 | HARNESS, 5 AUXILIARY BRANCHES | REF |
| 13 | 170471 | HARNESS ASSEMBLY, RIGHT WEIGH (INCL. ITEMS 15 - 17 | 1 |
| 14 | 3-368-010252 | HARNESS ASSEMBLY, BULKHEAD LIGHT EXT | 1 |
| 15 | 171159 | DIGITAL SCALE | 1 |
| 16 | 171160 | DIGITAL INSTALLATION KIT | 1 |
| 17 | 171161 | MOUNTING BOX, BRACKET, AND HARDWARE | 1 |

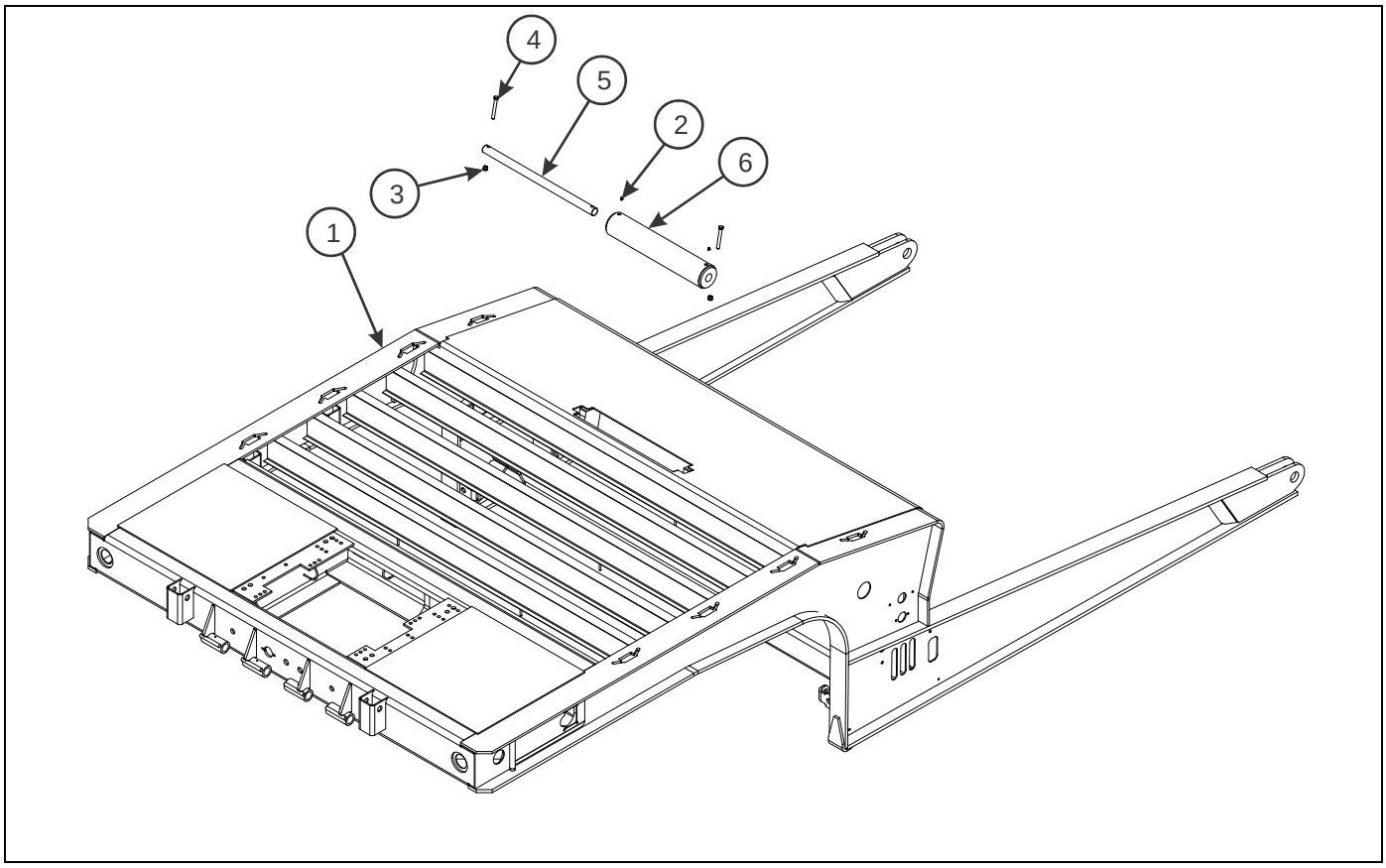



**Figure 2-183: Upper Deck Extension Bridge Storage Rack (Option)**

# UPPER DECK ROLLER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 131895 | UPPER DECK ROLLER INSTALLATION (OPTION) | |
| 1 | 130662 | GOOSENECK WELDMENT | REF |
| 2 | 1-298-010001-1 | FITTING, GREASE 1/4-28 STR SHORT | 2 |
| 3 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 2 |
| 4 | 1-654-010055-13 | SCREW, HEX HEAD CAP 1/2-13 X 4 GR5 | 2 |
| 5 | 3-642-010134 | ROLLER ROD | 1 |
| 6 | 3-645-010059 | ROLLER WELDMENT, CABLE U/D | 1 |

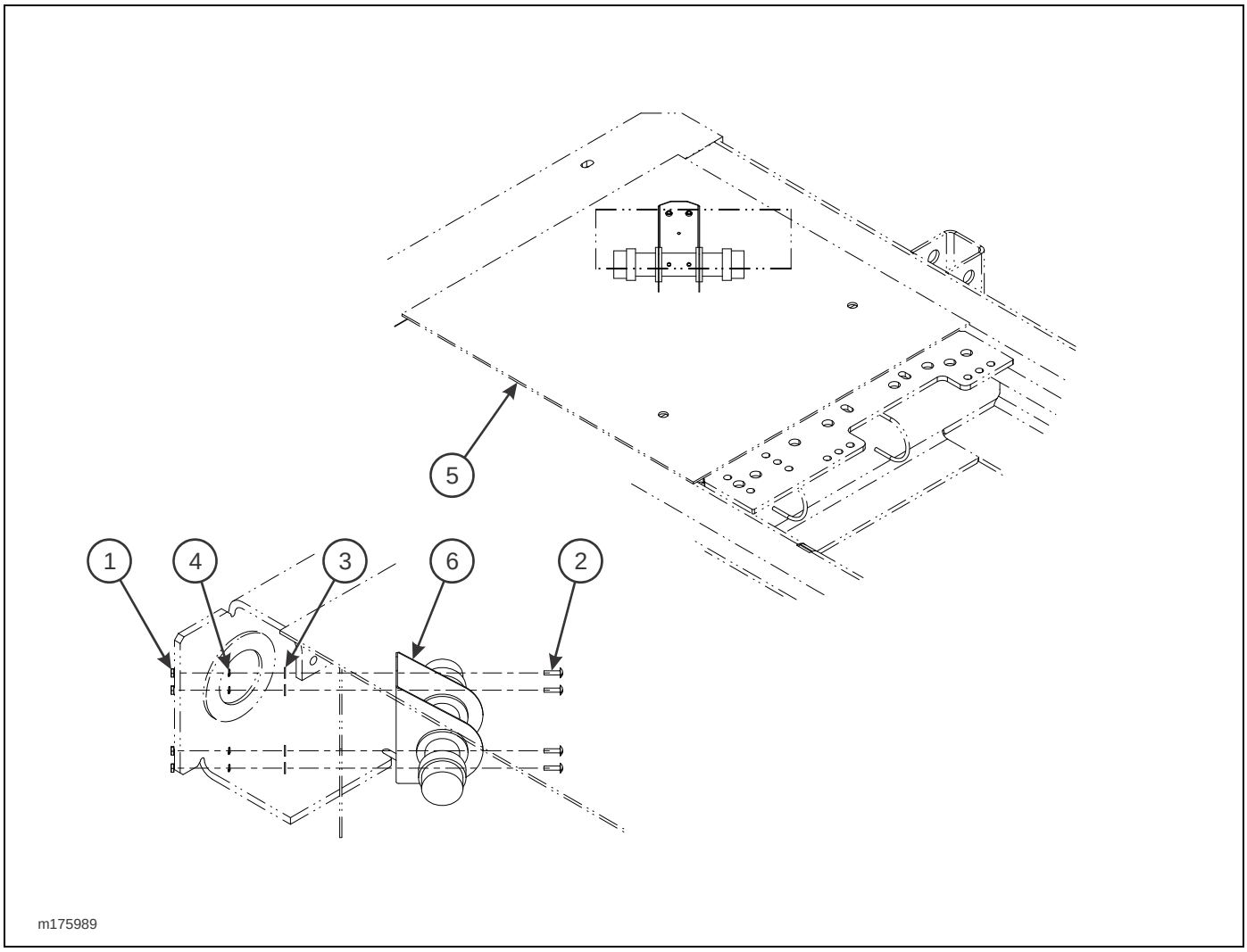



**Figure 2-184: Registration Holder Installation (12K Braden) (Option)**

# REGISTRATION HOLDER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 175989 | REGISTRATION HOLDER INSTALLATION | |
| 1 | 1-512-010007-03 | NUT, HEX LOCK 10-24 | 4 |
| 2 | 1-656-010003051 | SCREW, RD HEAD SQ NECK 10-24 X 3/4 | 4 |
| 3 | 1-861-010032-03 | WASHER, FLAT #10 | 4 |
| 4 | 1-861-010034-07 | WASHER, FLAT #10 | 4 |
| 5 | ----- | GOOSENECK WELDMENT | REF |
| 6 | 174598 | REGISTRATION CARD HOLDER | 1 |

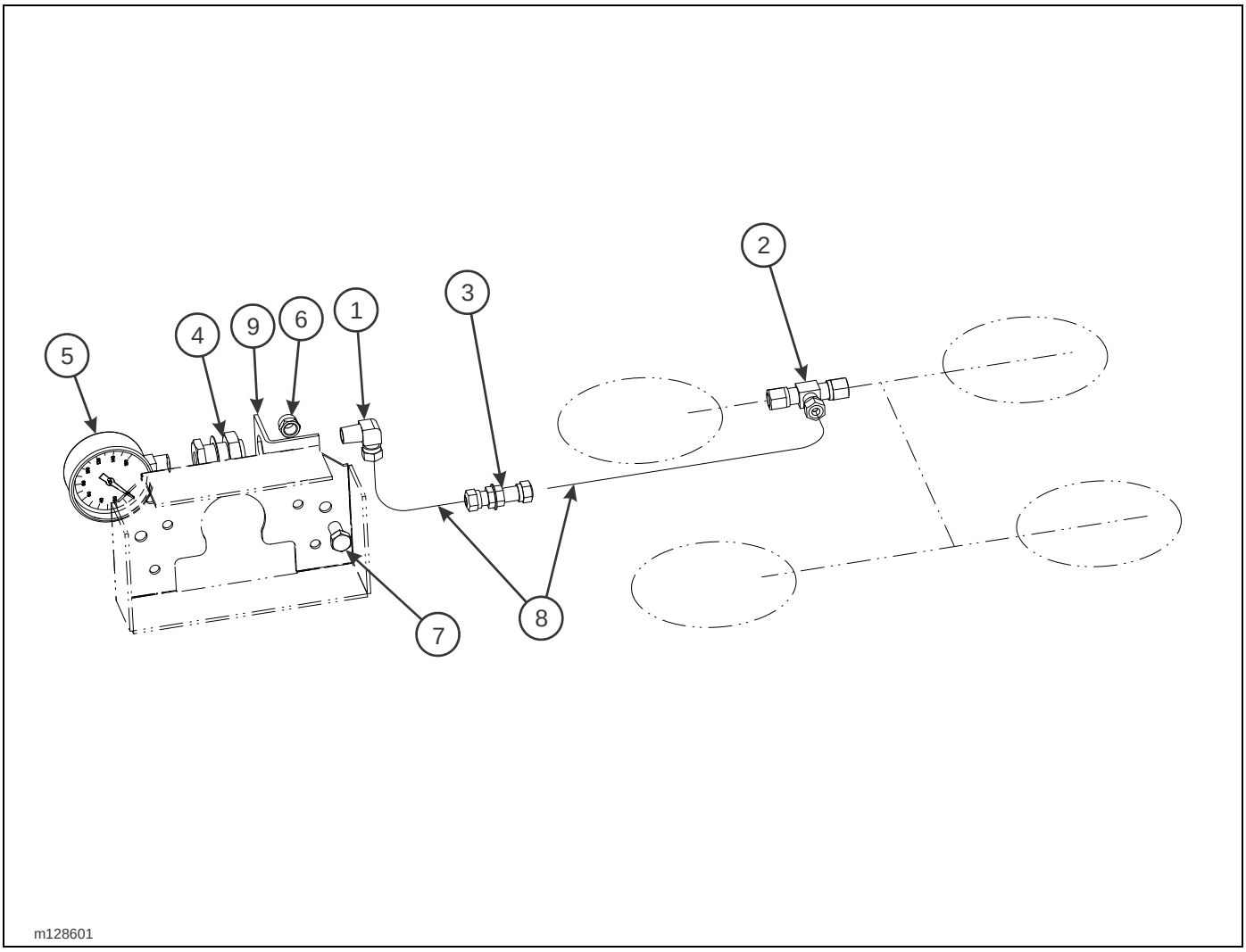



**Figure 2-185: Pressure Gauge Installation (Option)**

# PRESSURE GAUGE INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 128601 | PRESSURE GAUGE INSTALLATION (OPTION) | |
| 1 | 1-297-010008-07 | FITTING, AIR 90 | 1 |
| 2 | 1-297-010010-04 | FITTING, AIR UNION TEE | 1 |
| 3 | 1-297-010014-02 | FITTING, AIR | 1 |
| 4 | 1-297-010022-02 | FITTING, AIR ANCHOR | 1 |
| 5 | 1-323-010008 | GAUGE, PRESSURE 0 - 160 PSI | 1 |
| 6 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 1 |
| 7 | 1-654-010051-03 | SCREW, HEX HEAD CAP 3/8-16 X 3/4 GR5 | 1 |
| 8 | 1-833-010002 | TUBING NYLON 3/8 | AR |
| 9 | 3-120-010445 | BRACKET, PRESSURE REGULATOR | 1 |

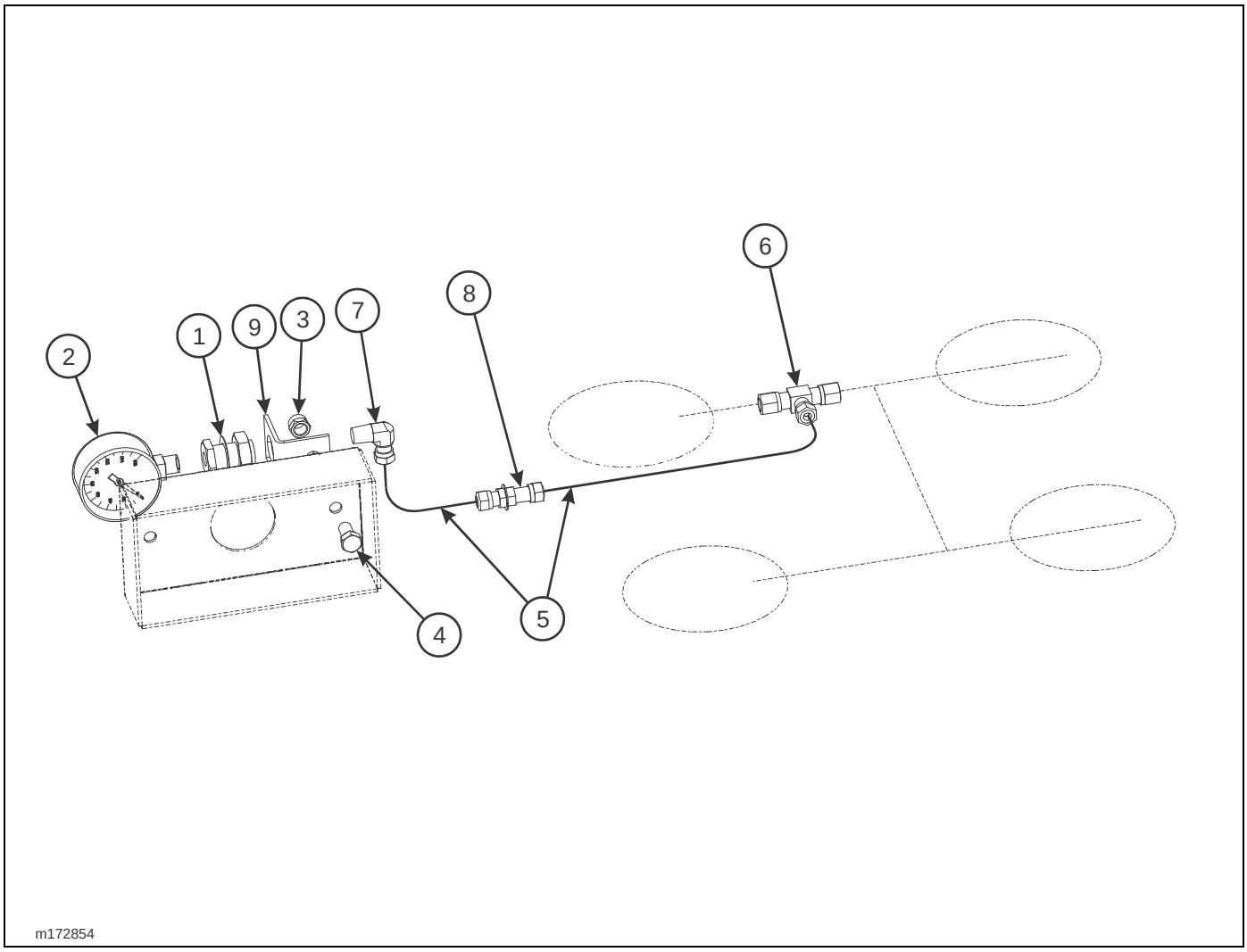



**Figure 2-186: Pressure Gauge Installation, Arctic (Option)**

# PRESSURE GAUGE INSTALLATION, ARCTIC (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 172854 | PRESSURE GAUGE INSTALLATION, ARCTIC | |
| 1 | 1-297-010022-02 | FITTING, AIR ANCHOR | 1 |
| 2 | 1-323-010008 | GAUGE, PRESSURE 0 - 160 PSI | 1 |
| 3 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 1 |
| 4 | 1-654-010051-03 | SCREW, HEX HEAD CAP 3/8-16 X 3/4 GR5 | 1 |
| 5 | 126629 | TUBING NYLON 1/4 OD | AR |
| 6 | 126675 | FITTING, COMPRESSION TEE | 1 |
| 7 | 126677 | FITTING, AIR 90 | 1 |
| 8 | 172853 | FITTING, COMP ALIGN UNION BULKHEAD | 1 |
| 9 | 3-120-010445 | BRACKET, PRESSURE REGULATOR | 1 |

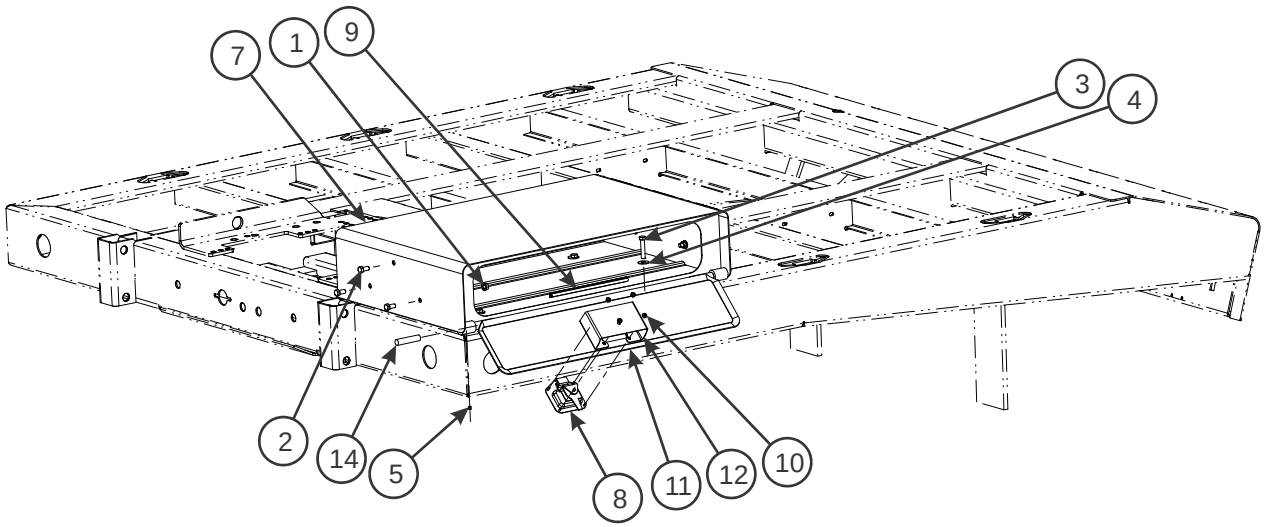



**Figure 2-187: Upper Deck Toolbox Installation (Option)**

# UPPER DECK TOOLBOX INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 125399 | UPPER DECK TOOLBOX INSTALLATION | |
| 1 | 1-510-010003-09 | NUT, FLANGE HEAD SERRATED 1/2-13 | 10 |
| 2 | 1-654-010055-01 | SCREW, HEX HEAD CAP 1/2-13 X 1 GR5 | 6 |
| 2 | 1-654-010055-07 | SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5 | 6 |
| 4 | 1-861-010032-15 | WASHER, FLAT 1/2W | 16 |
| 5 | 107-0975 | SCREW, SET LOCK 5/16-18 X 3/8 | 2 |
| 6 | ----- | GOOSENECK WELDMENT | REF |
| 7 | 114808 | TOOLBOX WELDMENT | 1 |
| 8 | 114814 | LATCH, FOLDING T LOCKABLE | 1 |
| 9 | 114815 | SEAL SPONGE RUBBER TRIM | 7 |
| 10 | 115877 | NUT, HEAVY HEX 1/4-20 GR5 | 4 |
| 11 | 116623 | DOOR WELDMENT STEEL TOOLBOX | 1 |
| 12 | 153420 | TOOLBOX LATCH SHIELD | 1 |
| 14 | RPRB59004X3H | BAR ROUND, 3/4DIA X 3-1/2 NYLATRON | 2 |

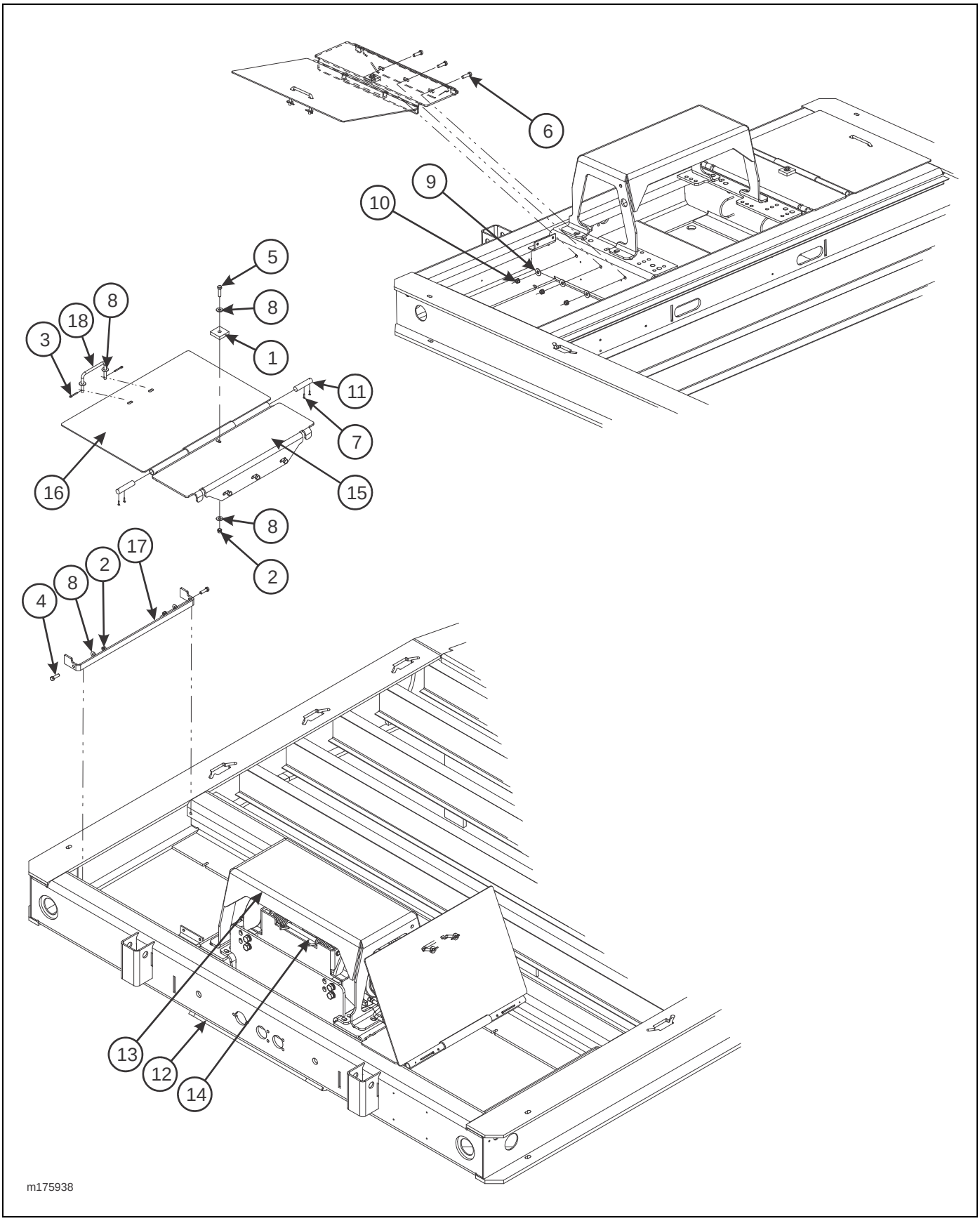



**Figure 2-188: Upper Deck Toolbox Lid Installation (Option)**

# UPPER DECK TOOLBOX LID INSTALLATION (NON-WEIGHT BEARING) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 175938 | UPPER DECK TOOLBOX LID INSTALLATION (NON-WEIGHT BEARING) | |
| 1 | 1-250-010097 | RUBBER PAD | 2 |
| 2 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 6 |
| 3 | 1-557-010362-40 | PIN, COTTER 5/32 X 1-1/4 | 4 |
| 4 | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5 | 4 |
| 5 | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5 | 2 |
| 6 | 1-654-010053-05 | SCREW, HEX HEAD CAP 7/16-14 X 1-1/2 GR5 | 6 |
| 7 | 1-654-010147-06 | SCREW, RD HEAD SELF-TAP #6-20 X 3/4 | 8 |
| 8 | 1-861-010032-11 | WASHER, FLAT 3/8W | 12 |
| 9 | 1-861-010032-13 | WASHER, FLAT 7/16W | 6 |
| 10 | 101988 | NUT, HEX LOCK 7/16-14 GRB | 6 |
| 11 | 135181 | BUSHING, NYLATRON TOOLBOX | 4 |
| 12 | ----- | GOOSENECK WELDMENT | REF |
| 13 | 171167 | GUARD, WINCH 20K/30K WARN | REF |
| 14 | ----- | WINCH ASSEMBLY, WARN 30K | REF |
| 15 | 175940 | SUPPORT WELDMENT, TOOLBOX LID | 2 |
| 16 | 175942 | LID WELDMENT, TOOLBOX | 2 |
| 17 | 176069 | CHAIN HOLDER, TOP OPEN TOOLBOX | 2 |
| 18 | 3-360-010014 | HANDLE, TOOL COMP | 2 |

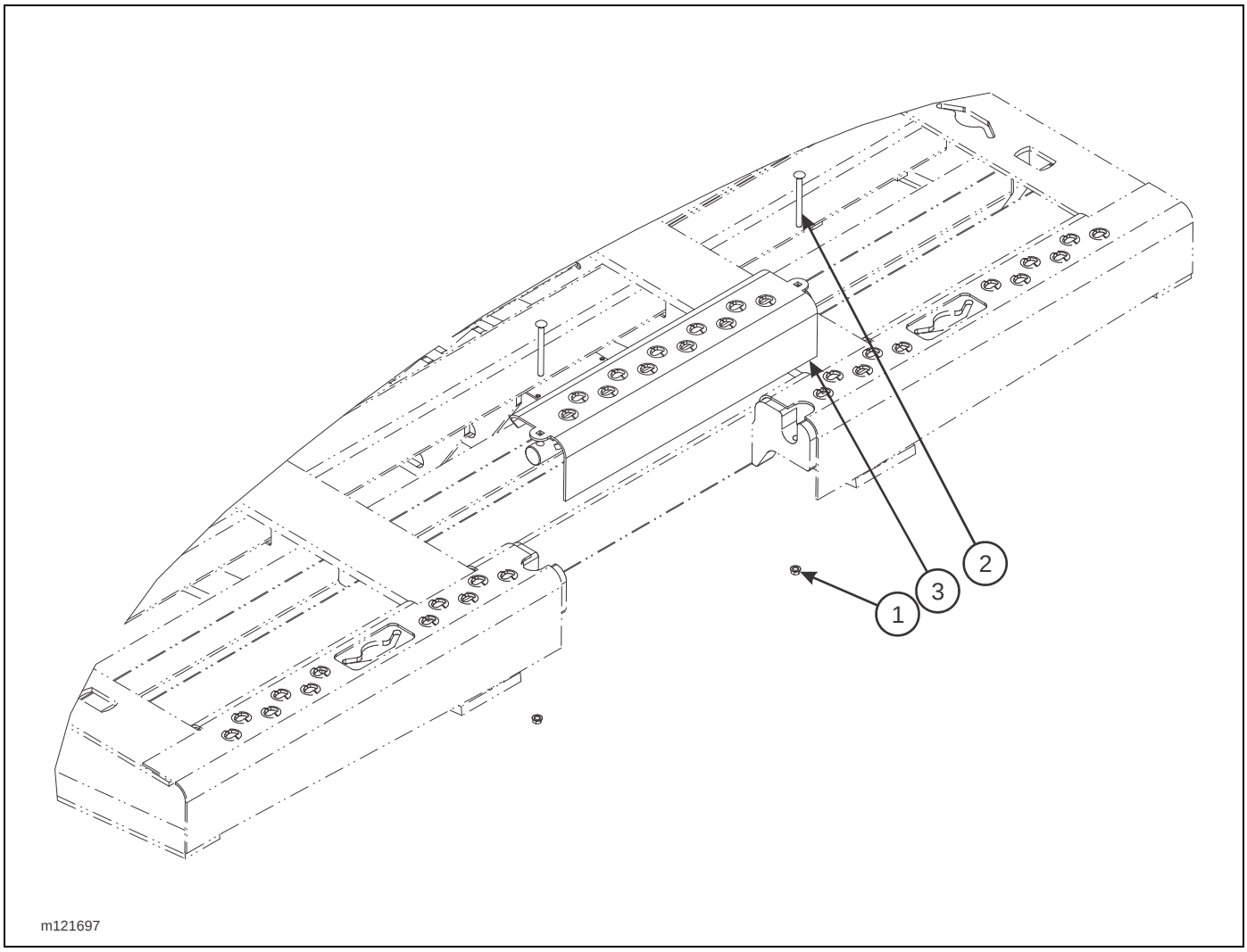



**Figure 2-189: Center Rub Plate Cover Installation (Option)**

# CENTER RUB PLATE COVER INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 121697 | COVER INSTALLATION CENTER RUB PLATE | |
| 1 | 1-510-010001 | NUT, FLANGE HEAD SERR 3/8-16 | 2 |
| 2 | 112013 | SCREW, RD HEAD SQ NECK 3/8-16 X 4-1/2 | 2 |
| 3 | 122938 | COVER WELDMENT CENTER RUB PLATE | 1 |

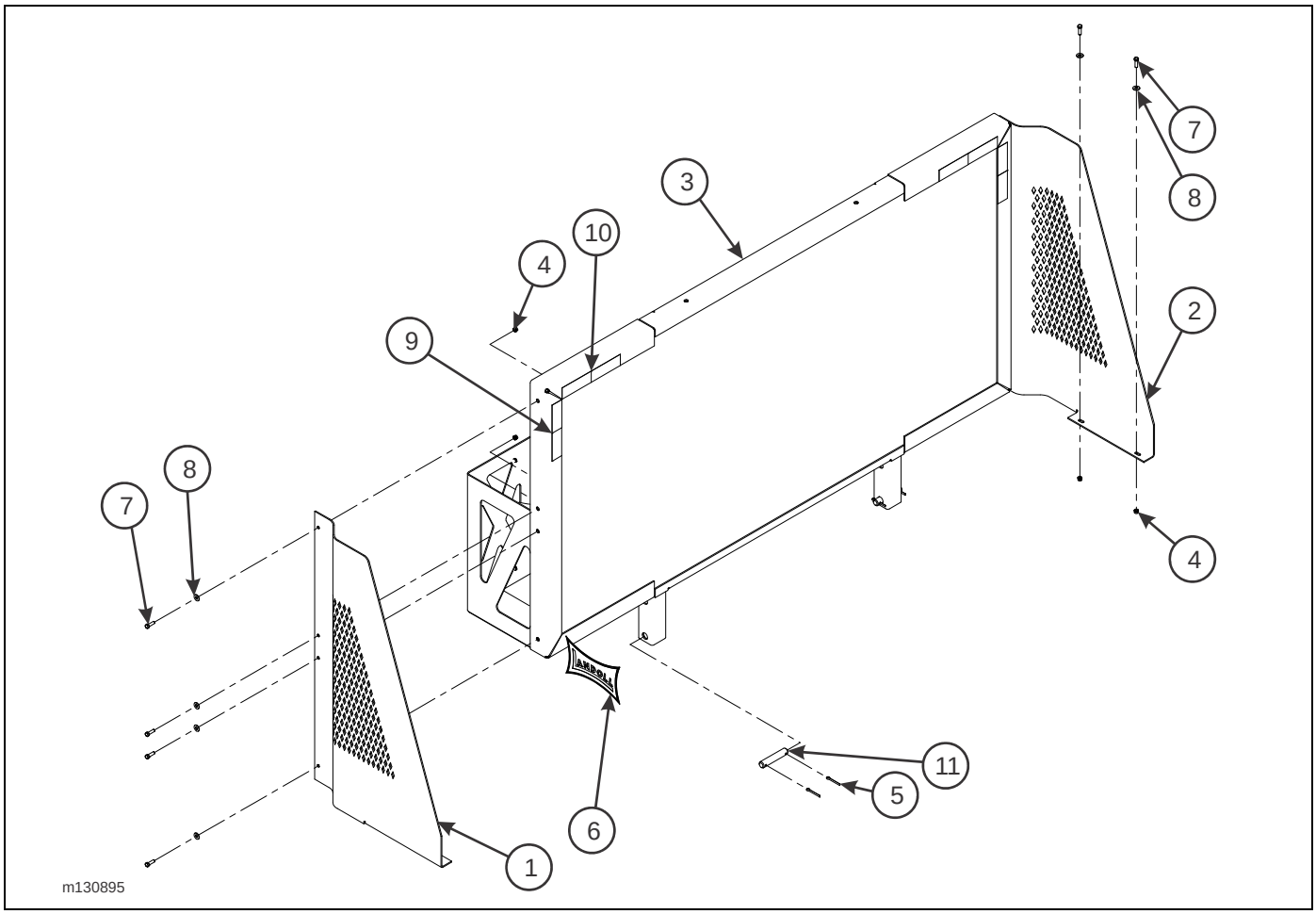



**Figure 2-190: Special Bulkhead Installation (Option)**

# SPECIAL BULKHEAD INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 130895 | SPECIAL BULKHEAD INSTALLATION (OPTION) | |
| 1 | 128137 | EXTENSION ALUMINUM LH BULKHEAD | 1 |
| 2 | 128138 | EXTENSION ALUMINUM RH BULKHEAD | 1 |
| 3 | 130896 | BULKHEAD WELDMENT | 1 |
| 4 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 12 |
| 5 | 1-557-010362-63 | PIN, COTTER 1/4 X 2 | 4 |
| 6 | 153755 | DECAL, BOWTIE (BLACK/LT) REFLECTIVE | 2 |
| 7 | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5 | 12 |
| 8 | 1-861-010032-11 | WASHER, FLAT 3/8W | 12 |
| 9 | 3-573-010378 | DECAL, 2 X 10 REFLEXITE WHITE | AR |
| 10 | 3-573-010378 | DECAL, 2 X 12 REFLEXITE WHITE | AR |
| 11 | 6-557-010163 | PIN, HITCH LEVELING LINK | 2 |

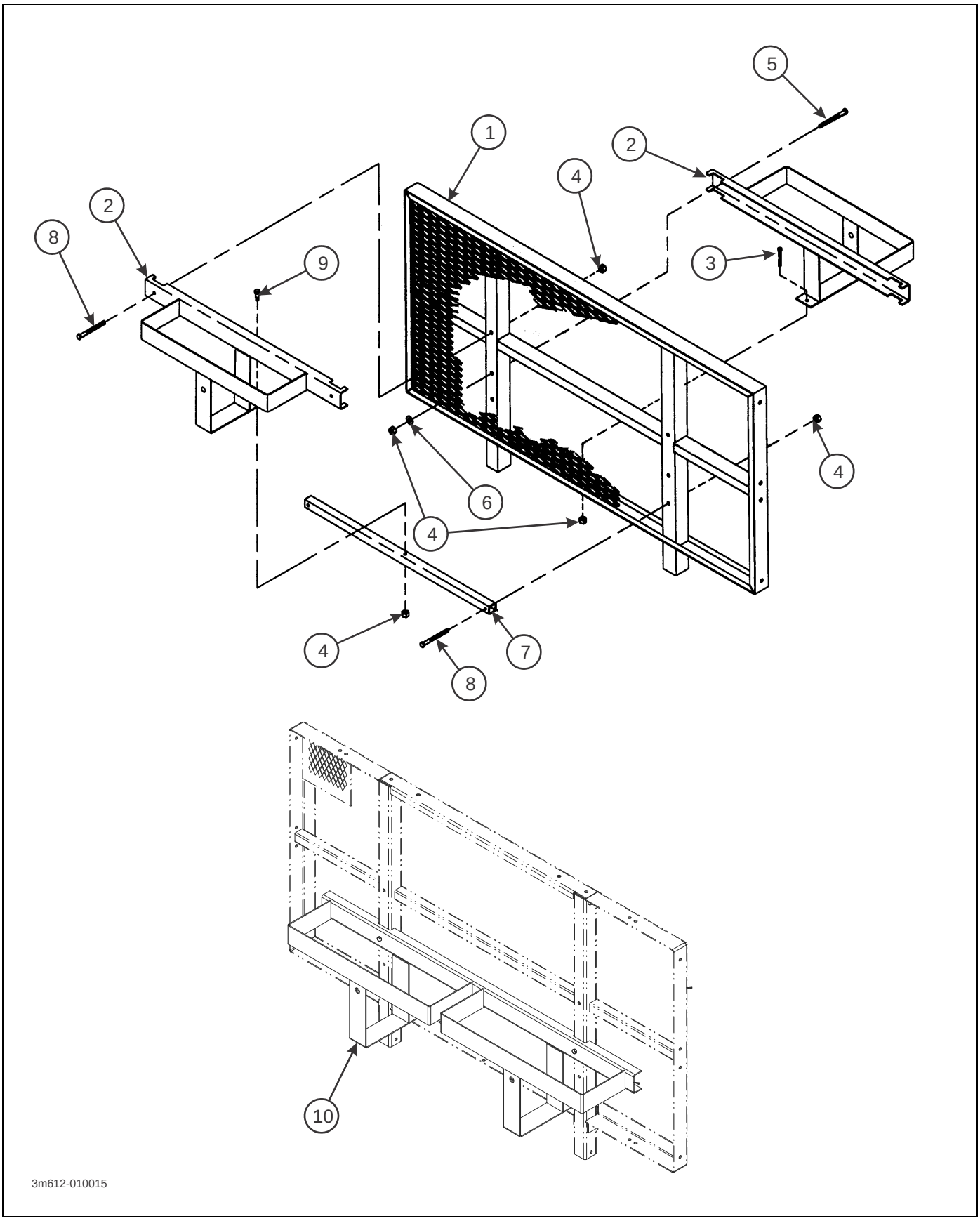



**Figure 2-191: Spare Tire Carrier (Option)**

# SPARE TIRE CARRIER (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 3-612-010015-1 | RACK INSTALLATION BHD, FRONT MOUNT | * | | |
| | 3-612-010015-2 | RACK INSTALLATION BHD, REAR MOUNT | | * | |
| | 3-612-010015-3 | RACK INSTALLATION BHD, FRONT MOUNT (2) | | | * |
| 1 | ----- | BULKHEAD WELDMENT | REF | REF | REF |
| 2 | 3-612-010016 | RACK WELDMENT, BULKHEAD MOUNT | 1 | 1 | -- |
| 3 | 1-654-010055-01 | SCREW, HEX HEAD CAP 1/2-13 X 1 GR5 | 1 | -- | 2 |
| 4 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 3 | 5 | 4 |
| 5 | 1-654-010055-15 | SCREW, HEX HEAD CAP 1/2-13 X 5 GR5 | 2 | -- | 2 |
| 6 | 1-861-010032-15 | WASHER, FLAT 1/2W | 2 | -- | 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 | -- |
| 10 | 3-612-010020 | RACK WELDMENT, BULKHEAD MOUNT 210/R17.5 | -- | -- | 1 |

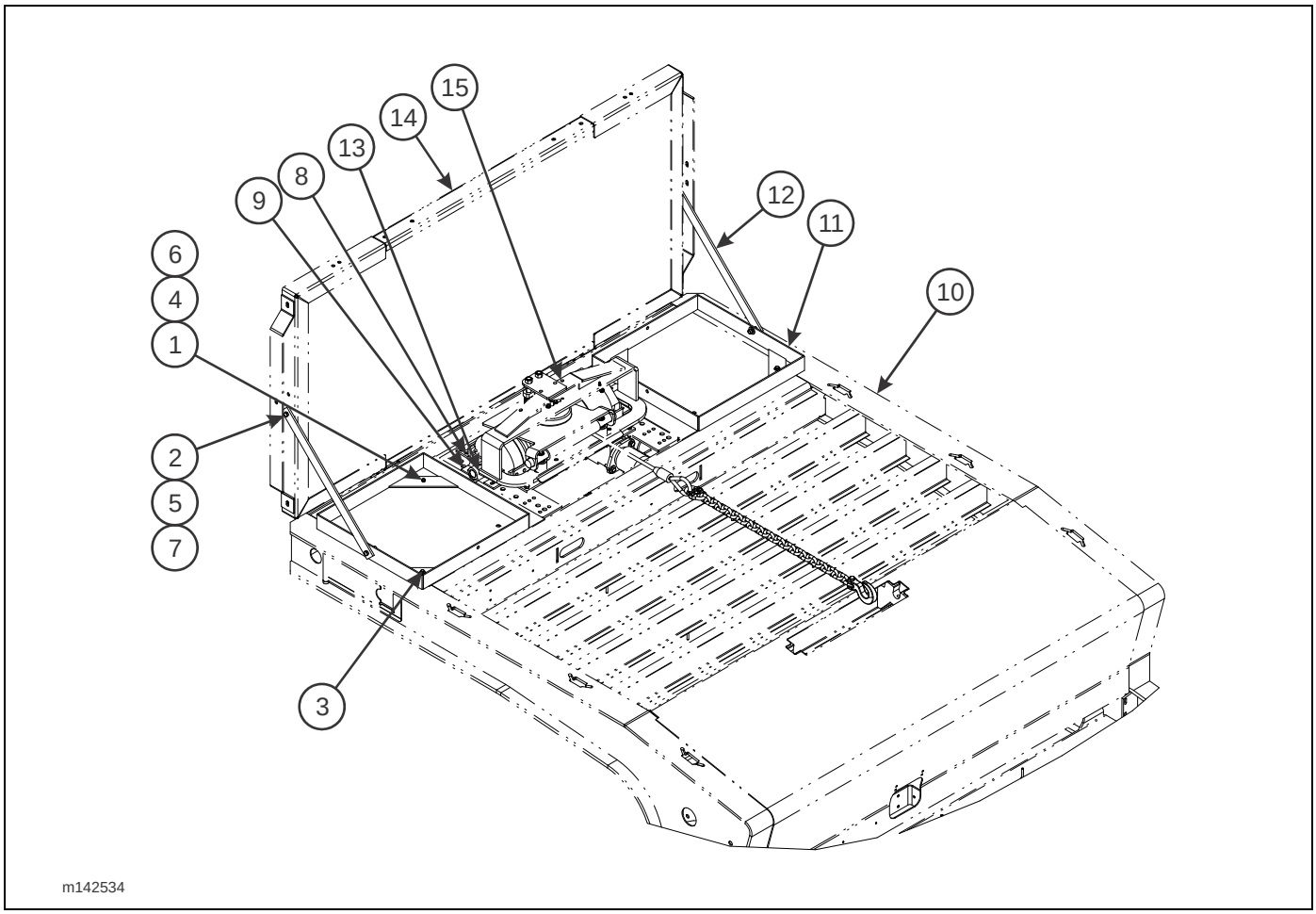



**Figure 2-192: Chain Tray Assembly (Option)**

# CHAIN TRAY ASSEMBLY (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 142534 | CHAIN TRAY ASSEMBLY (OPTION) | |
| 1 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 4 |
| 2 | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB | 4 |
| 3 | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5 | 2 |
| 4 | 1-654-010051-13 | SCREW, HEX HEAD CAP 3/8-16 X 3 GR5 | 2 |
| 5 | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5 | 4 |
| 6 | 1-861-010032-11 | WASHER, FLAT 3/8W | 8 |
| 7 | 1-861-010032-15 | WASHER, FLAT 1/2W | 4 |
| 8 | 119621 | ANCHOR, CABLE GUIDE WINCH | REF |
| 9 | 119622 | PIN, WINCH ROLLER PIVOT | REF |
| 10 | ----- | GOOSENECK WELDMENT | REF |
| 11 | 142532 | CHAIN TRAY WELDMENT, UPPER DECK | 2 |
| 12 | 160103 | BRACE, BULKHEAD TO CHAIN TRAY | 2 |
| 13 | 3-125-010464 | BRACKET WELDMENT, WINCH ROLLER | REF |
| 14 | ----- | BULKHEAD INSTALLATION (SEE PAGE 2-109) | REF |
| 15 | 3-873-010140 | WINCH INSTALLATION 20K UPPER DECK (SEE PAGE 2-159) | REF |

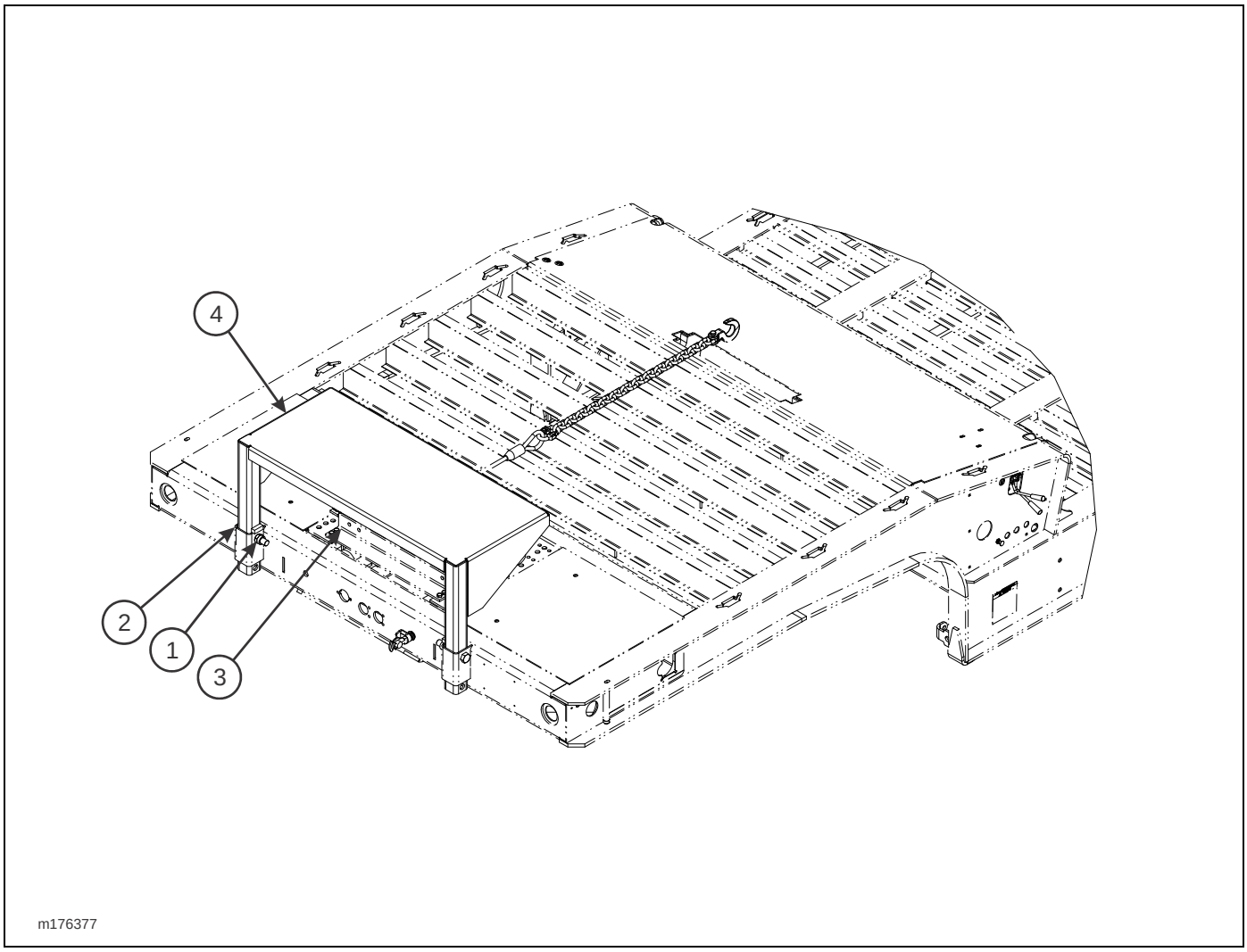



**Figure 2-193: Spare Tire Mount Assembly**

# FRONT POCKET PLATFORM ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 176377 | FRONT POCKET PLATFORM ASSEMBLY | |
| 1 | 1-512-010005-19 | NUT, HEX LOCK 1-8 GRB | 1 |
| 2 | 1-654-010065-17 | SCREW, HEX HEAD CAP 1-8 X 6 GR5 | 1 |
| 3 | ----- | WINCH INSTALLATION | REF |
| 4 | 176378 | SUPPORT WELDMENT, FRONT PLATFORM | 1 |

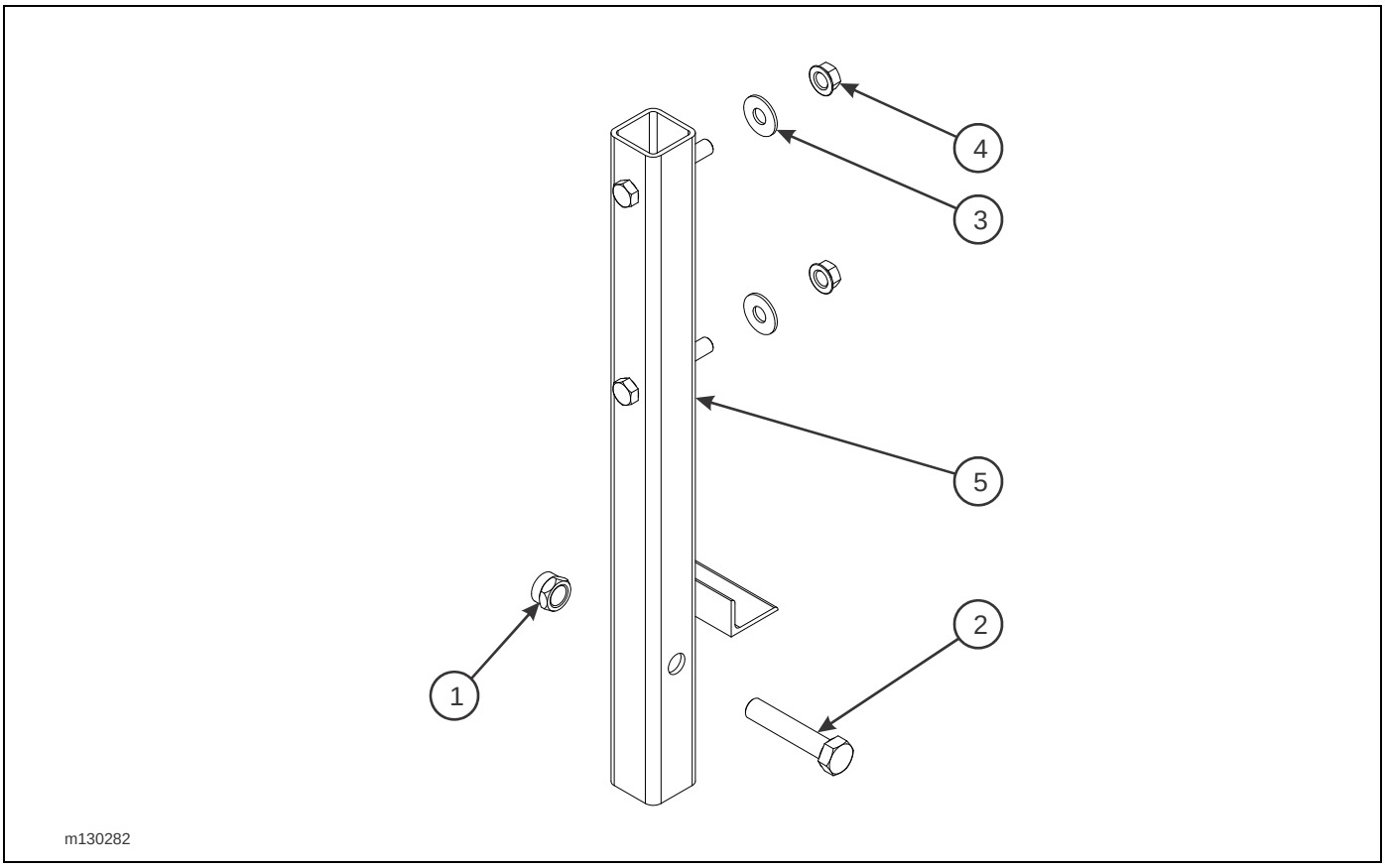



**Figure 2-194: Spare Tire Mount Assembly**

# SPARE TIRE MOUNT ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 130282 | SPARE TIRE MOUNT ASSEMBLY | * | |
| | 169641 | SPARE TIRE MOUNT ASSEMBLY 255 TIRE | | * |
| 1 | 1-512-010005-19 | NUT, HEX LOCK 1-8 GRB | 1 | 1 |
| 2 | 1-654-010065-15 | SCREW, HEX HEAD CAP 1-8 X 5 GR5 | 1 | 1 |
| 3 | 1-861-010032-21 | WASHER, FLAT, 3/4W | 2 | 2 |
| 4 | 103841 | NUT, FLANGE PREVAILING TORQUE 3/4-10 | 2 | 2 |
| 5 | 130280 | MOUNT WELDMENT, SPARE TIRE | 1 | -- |
| | 169639 | MOUNT WELDMENT, SPARE TIRE 255 | -- | 1 |

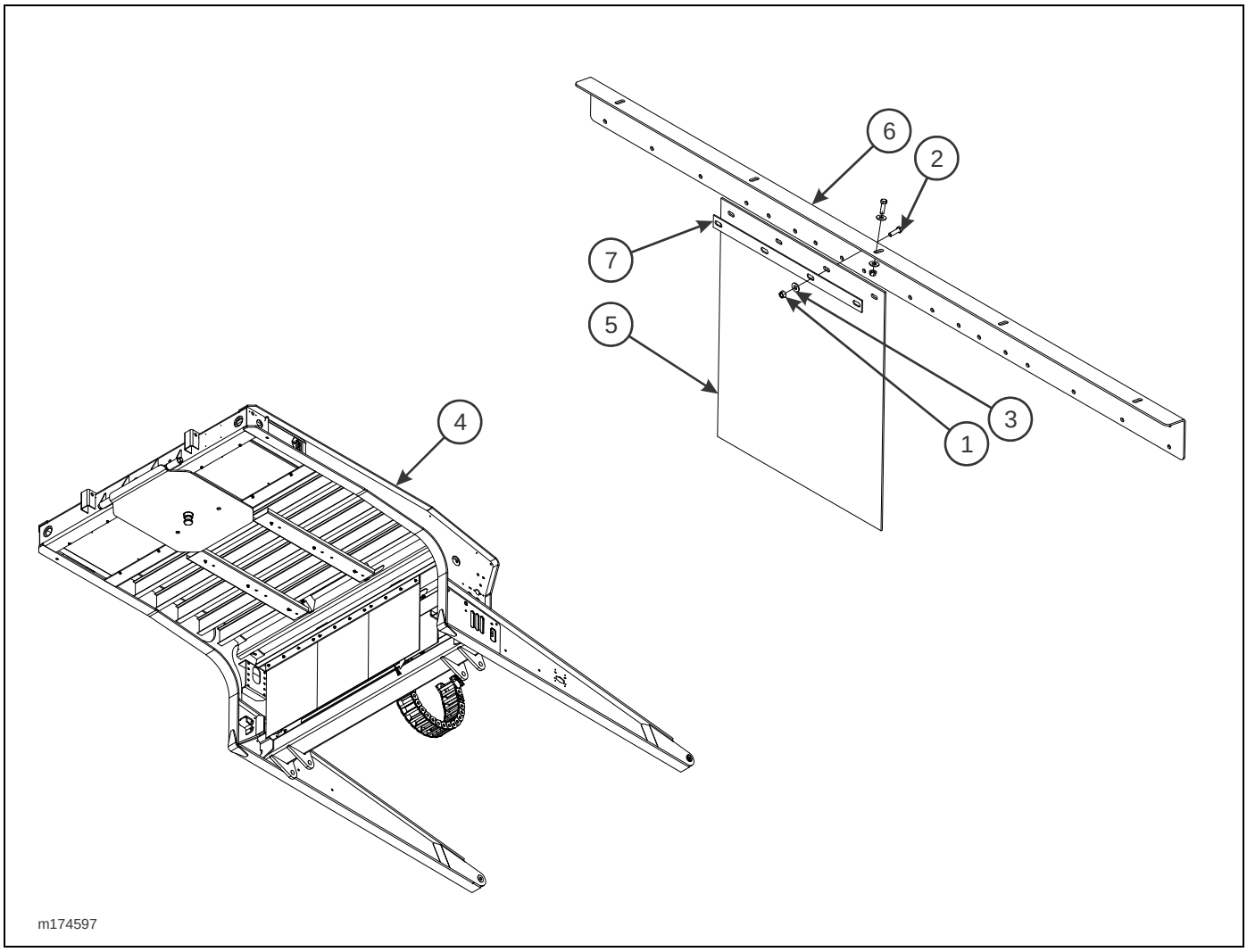



**Figure 2-195: Mud Flap Installation**

# MUD FLAP INSTALLATION (LOCATED UNDER G/N)

| ITEM | PART NO. | DESCRIPTION | QTY. | | |
|---|---|---|---|---|---|
| | 164434 | MUD FLAP INSTALLATION (455-108) | * | | |
| | 174597 | MUD FLAP INSTALLATION (400-102) | | * | |
| | 180539 | MUD FLAP INSTALLATION (400-120) | | | * |
| 1 | 1-510-010001 | NUT, FLANGE LOCK 3/8-16 | 12 | 17 | 20 |
| 2 | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5 | 12 | 17 | 20 |
| 3 | 1-861-010032-11 | WASHER, FLAT 3/8W | 12 | 22 | 25 |
| 4 | ----- | G/N WELDMENT | REF | REF | REF |
| 5 | 131195 | MUD FLAP, BLACK POLYMER 24 X 30 | 3 | 3 | 4 |
| 6 | 180538 | BRACKET, MUDFLAP G/N UNDERSIDE | -- | 1 | -- |
| 7 | 3-762-010017 | CLAMP, MUD FLAP | 3 | 3 | 4 |

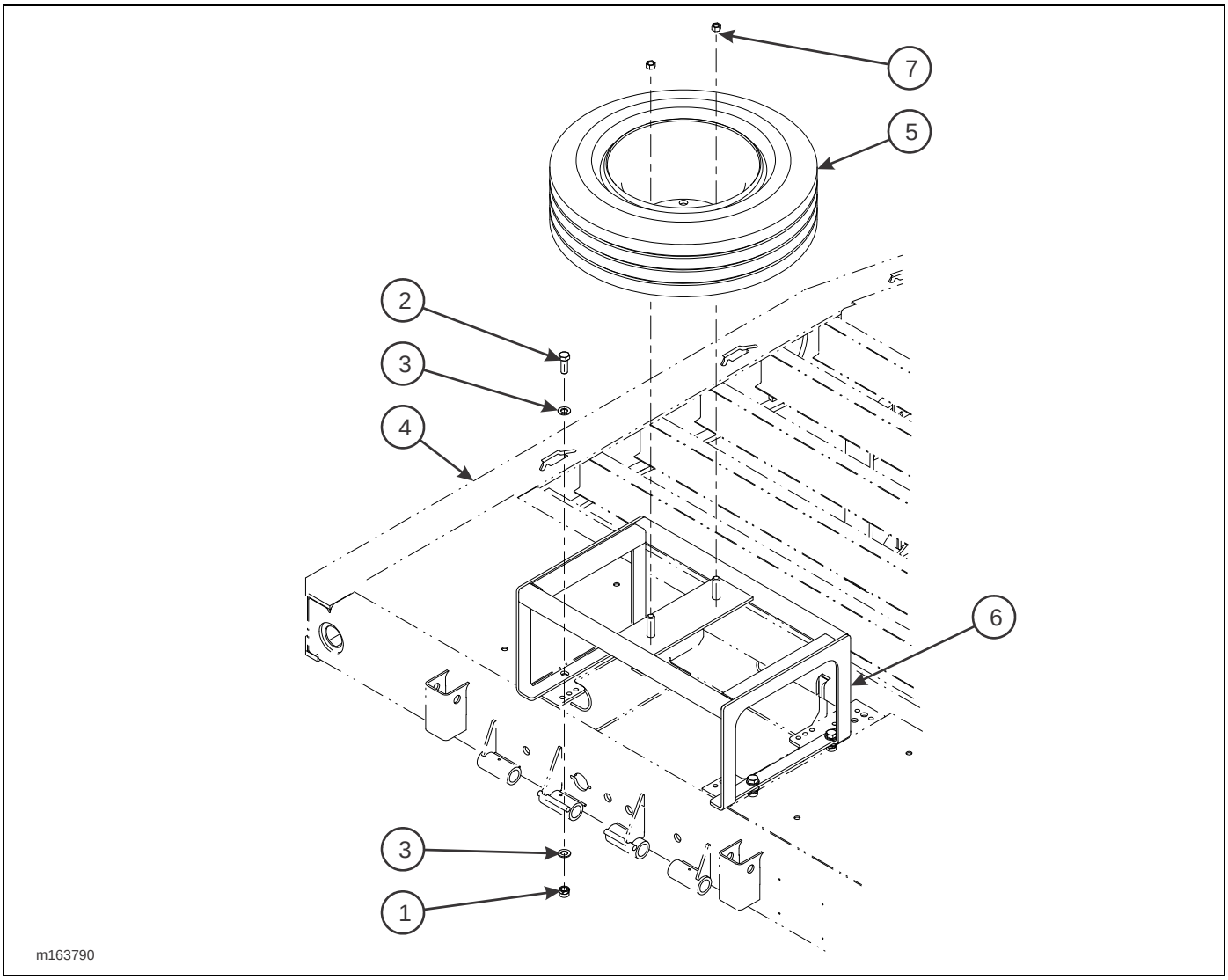



**Figure 2-196: Horizontal Spare Tire Mount Assembly**

# HORIZONTAL SPARE TIRE MOUNT ASSEMBLY

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 163790 | HORIZONTAL SPARE TIRE MOUNT ASSEMBLY | |
| 1 | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB | 4 |
| 2 | 1-654-010061-05 | SCREW, HEX HEAD CAP 3/4-10 X 2 GR5 | 4 |
| 3 | 1-861-010032-20 | WASHER, FLAT, 3/4N | 2 |
| 4 | ----- | GOOSENECK WELDMENT | REF |
| 5 | ----- | TIRE ASSEMBLY | REF |
| 6 | 163791 | MOUNT WELDMENT, HORIZONTAL SPARE TIRE | 1 |
| 7 | 179933 | NUT, HEX M22 X 1.5 | 2 |

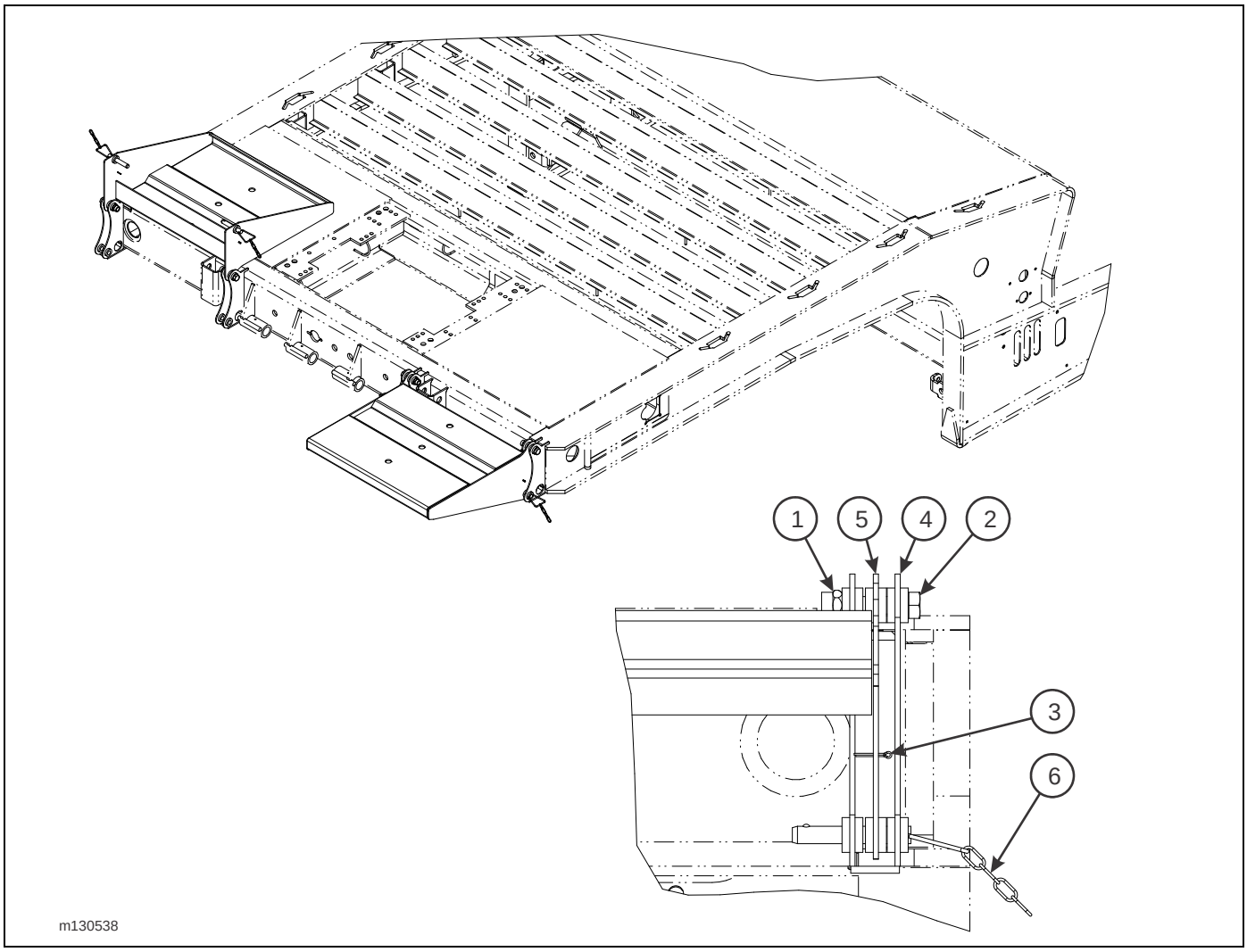



**Figure 2-197: Front Flip Extension (Option)**

# FRONT FLIP EXTENSION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. | |
|---|---|---|---|---|
| | 130538 | FRONT FLIP EXTENSION (OPTION) | | |
| | 174253 | FRONT FLIP EXTENSION 108 (OPTION) | | |
| 1 | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB | 4 | 4 |
| 2 | 1-654-010059-11 | SCREW, HEX HEAD CAP 5/8-11 X 3-1/2 GR5 | 4 | 4 |
| 3 | 101386 | PIN, COTTER 1/8 X 1 | 4 | 4 |
| 4 | 130537 | FRAME MOD., FRONT FLIP | 1 | 1 |
| 5 | 130540 | EXTENSION WELDMENT, FRONT FLIP | 2 | -- |
| | 174254 | EXTENSION WELDMENT, FRONT FLIP 108 | -- | 2 |
| 6 | 2-557-010426 | PIN, DETENT 5/8 W/ CHAIN | 2 | 2 |

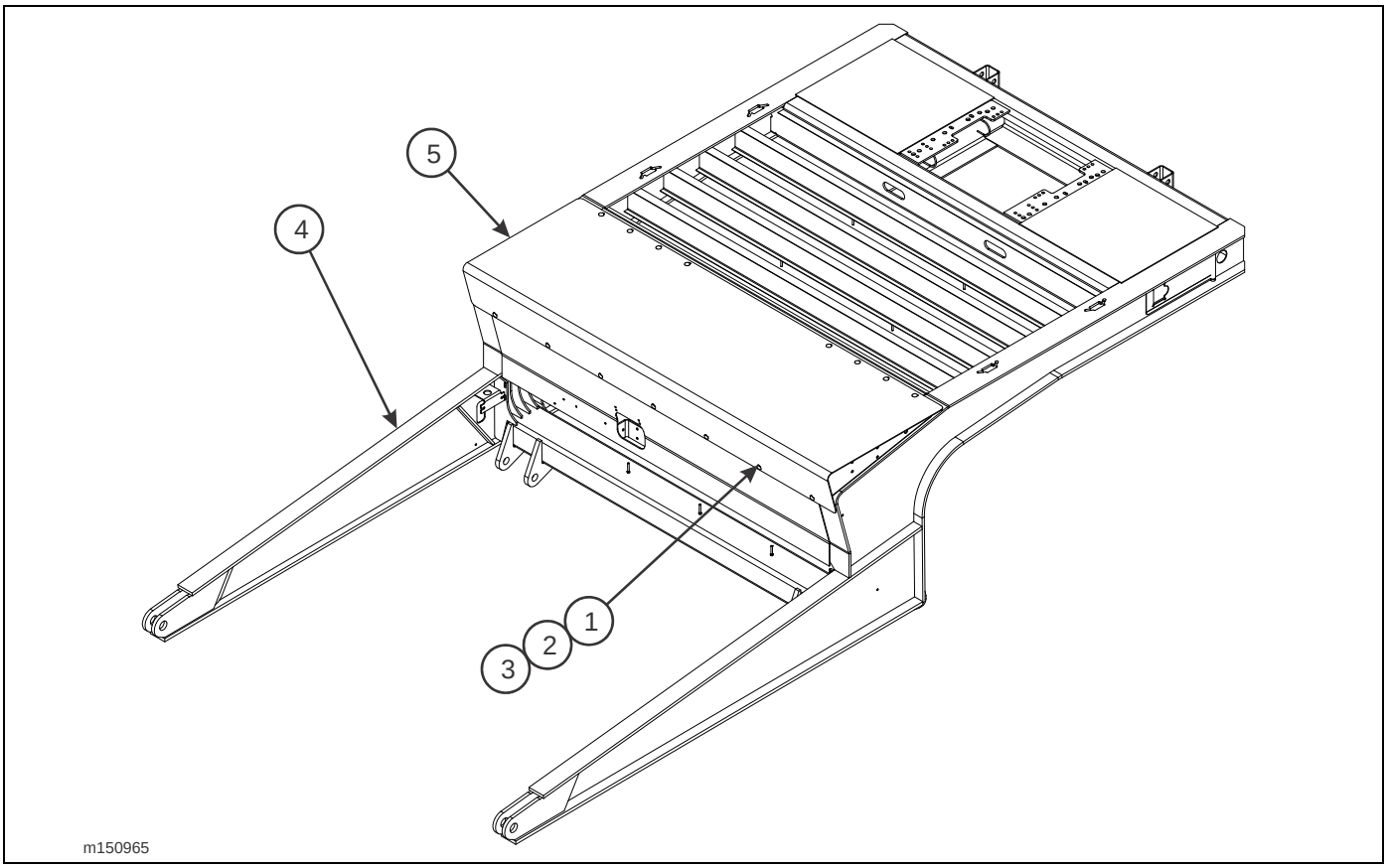



**Figure 2-198: Slope Filler Deck Installation (Option)**

# SLOPE FILLER DECK INSTALLATION (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 150954 | SLOPE FILLER DECK INSTALLATION | |
| | 150965 | GALVANIZED SLOPE FILLER DECK INSTALLATION | |
| 1 | 1-510-010003-09 | NUT, FLANGE HEAD SERRATED 1/2-13 | 15 |
| 2 | 1-654-010070-03 | SCREW, RD HEAD SQ NECK 1/2-13 X 1-1/2 | 15 |
| 3 | 1-861-010032-15 | WASHER, FLAT 1/2W | 15 |
| 4 | ----- | GOOSENECK WELDMENT | REF |
| 5 | 150950 | SLOPE FILLER WELDMENT | 1 |
| | 150962 | SLOPE FILLER WELDMENT, GALVANIZED | 1 |

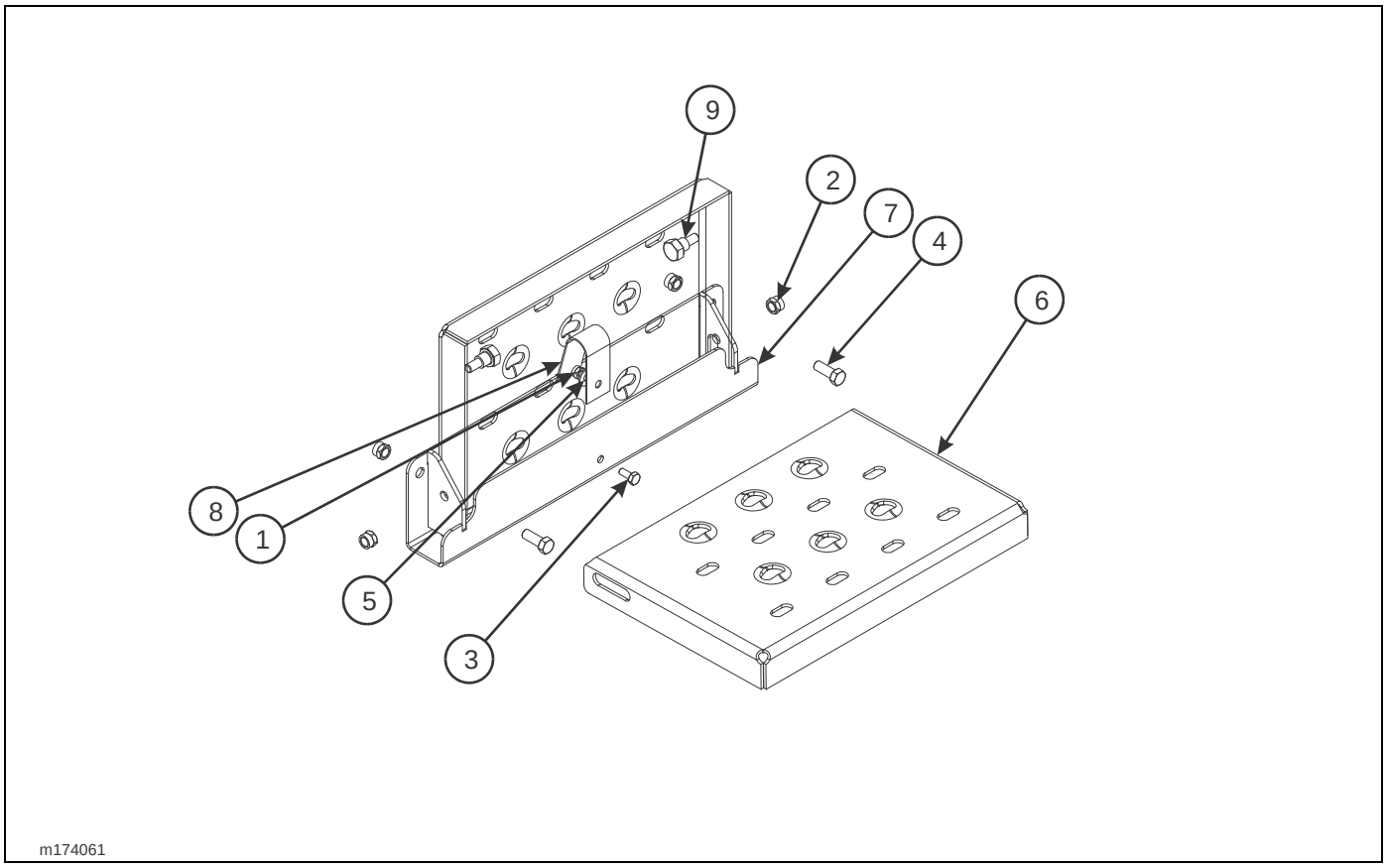



**Figure 2-199: Folding Step Assembly (Option)**

# FOLDING STEP ASSEMBLY (DOUBLE DROP FRAME ONLY) (OPTION)

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|---|---|---|
| | 174061 | FOLDING STEP ASSEMBLY | |
| 1 | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB | 1 |
| 2 | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB | 4 |
| 3 | 1-654-010047-03 | SCREW, HEX HEAD CAP 1/4-20 X 5/8 GR5 | 1 |
| 4 | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5 | 2 |
| 5 | 1-861-010032-07 | WASHER, FLAT 1/4W | 1 |
| 6 | 174058 | STEP, FOLD UP | 1 |
| 7 | 174091 | ANCHOR WELDMENT, FOLDING STEP | 1 |
| 8 | 174092 | SPRING, STAY FOLDING STEP | 1 |
| 9 | 2-095-010017 | SCREW, HEX HEAD CAP 1/2-13 X 1 GR5 | 2 |

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