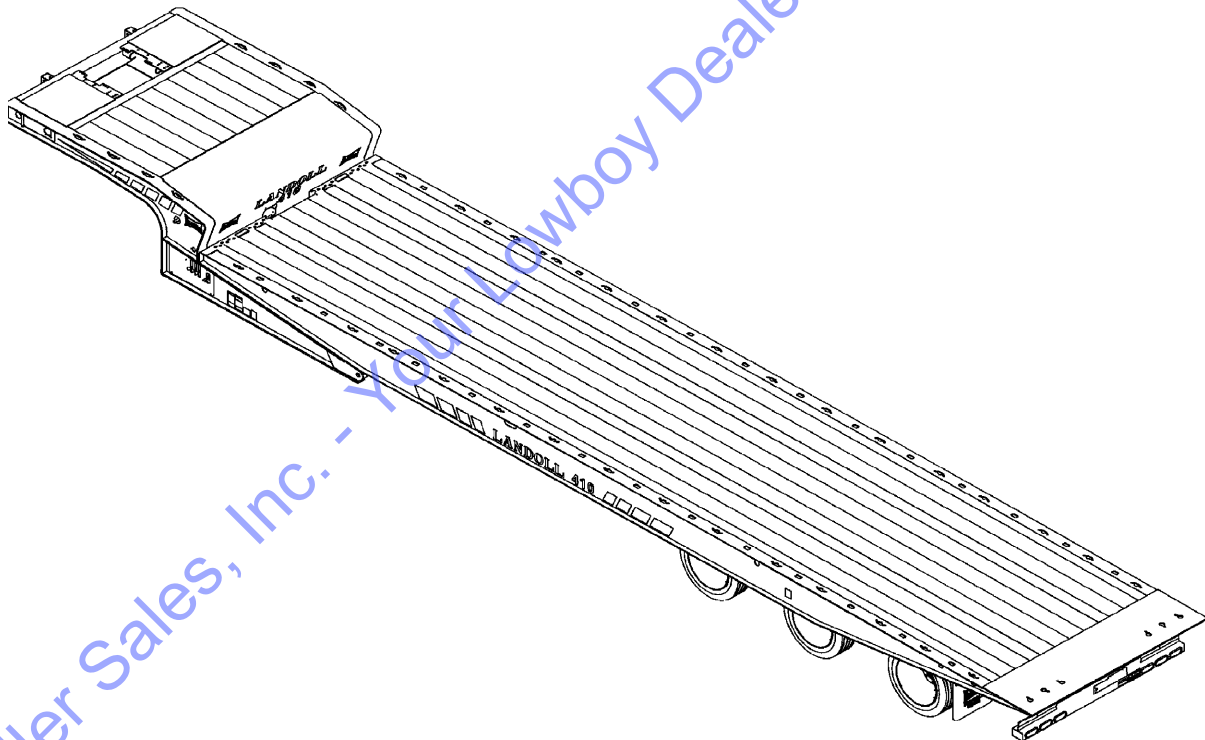




# **Model 410/425/435B Series Semitrailer Parts Manual**



## **LANDOLL CORPORATION**

1900 North Street  
Marysville, Kansas 66508  
(785) 562-5381

800-428-5655 ~ **WWW.LANDOLL.COM**

---

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

# Table of Contents

## 1 Instructions for Ordering Parts

## 2 Illustrated Parts List

|                                                                                               |      |
|-----------------------------------------------------------------------------------------------|------|
| GENERAL ASSEMBLY .....                                                                        | 2-1  |
| UPPER DECK ASSEMBLY .....                                                                     | 2-4  |
| BULKHEAD ASSEMBLY (OPTION) .....                                                              | 2-7  |
| PULLOUT INSTALLATION (OPTION) .....                                                           | 2-10 |
| OUTRIGGER INSTALLATION (OPTION) .....                                                         | 2-13 |
| SCHEMATIC, HYDRAULIC SYSTEM .....                                                             | 2-15 |
| THREE SPOOL VALVE ASSEMBLY .....                                                              | 2-17 |
| THREE SPOOL VALVE .....                                                                       | 2-19 |
| U/C CYLINDER ASSEMBLY .....                                                                   | 2-21 |
| CYLINDER, HYDRAULIC 4 X 100 PORTED ROD<br>(STREETSIDE) (410-48/50CA, 425-41/45, 435-41) ..... | 2-22 |
| CYLINDER, HYDRAULIC 4 X 100 (CURBSIDE)<br>(425-41, 435-41) .....                              | 2-23 |
| CYLINDER, HYDRAULIC 4 X 126 PORTED ROD<br>(STREETSIDE) (410-50/53/55HD, 435-48/50CA) .....    | 2-24 |
| CYLINDER, HYDRAULIC 4 X 126 (CURBSIDE)<br>(410-50/53/55HD, 410-48/50CA, 425-45, 435-48) ..... | 2-25 |
| CYLINDER, HYDRAULIC 4 X 138 PORTED ROD<br>(STREETSIDE) (435-53) .....                         | 2-26 |
| CYLINDER, HYDRAULIC 4 X 138 (CURBSIDE)<br>(435-50CA/53) .....                                 | 2-27 |
| CYLINDER 4-1/2 X 30 (425) .....                                                               | 2-28 |
| CYLINDER 6" X 41" (435 & 410) .....                                                           | 2-29 |
| 30 GALLON HYDRAULIC WET KIT (OPTION) .....                                                    | 2-31 |
| ELECTRICAL SYSTEM .....                                                                       | 2-33 |
| UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (410) .....                                       | 2-37 |
| GREASE HOSE LOCATION, P/N, AND LENGTH .....                                                   | 2-39 |
| UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION<br>(425 & 435) .....                              | 2-44 |
| GREASE HOSE LOCATION, P/N, AND LENGTH (425/435) .....                                         | 2-45 |

|                                                          |       |
|----------------------------------------------------------|-------|
| GREASE HOSE LOCATION, P/N, AND LENGTH (425/435-CA) ..... | 2-45  |
| AIR RIDE SUSPENSION AIR SYSTEM (TANDEM) .....            | 2-48  |
| AIR RIDE SUSPENSION AIR SYSTEM (TRIPLE) .....            | 2-50  |
| AIR CONTROL KIT .....                                    | 2-52  |
| SUSPENSION HANGER RLU-228 .....                          | 2-54  |
| AXLE AND BRAKE ITEMS (DEXTER) (12-1/4" X 7-1/2") .....   | 2-56  |
| SPRING AIR BRAKE SYSTEM W/ ABS .....                     | 2-59  |
| ABS BRAKE KIT .....                                      | 2-60  |
| AIR SYSTEM, ABS .....                                    | 2-62  |
| OUTBOARD PILOT MOUNT HUB AND DRUM .....                  | 2-64  |
| WINCH INSTALLATION (BRADEN) .....                        | 2-66  |
| WINCH INSTALLATION (BRADEN) .....                        | 2-71  |
| WINCH INSTALLATION, SPRING TENSION CABLE ROLLER .....    | 2-74  |
| 12,000# WINCH ITEMS (BRADEN) .....                       | 2-76  |
| 20,000# WINCH ITEMS (BRADEN) .....                       | 2-79  |
| WINCH AIR SHIFT CYLINDER .....                           | 2-82  |
| WINCH MOTOR ASSEMBLY .....                               | 2-84  |
| 30K UPPER DECK WINCH INSTALLATION (DP) .....             | 2-88  |
| 30,000# WINCH ITEMS (DP) .....                           | 2-90  |
| WINCH INSTALLATION 30K DP SPG TENSION A/R .....          | 2-94  |
| 30,000# WINCH ITEMS (DP) .....                           | 2-96  |
| WINCH ROLLER GUIDE - 30K .....                           | 2-100 |
| WINCH, CABLE AIR TENSION .....                           | 2-102 |
| 12K, 15K, & 20K UPPER DECK WINCH (DP) .....              | 2-105 |
| 12K, 15K, & 20K WINCH ITEMS (DP PLANETARY) .....         | 2-108 |
| UPPER DECK COVER ASSEMBLY (OPTION) .....                 | 2-111 |
| TIE DOWN INSTALLATION (OPTION) .....                     | 2-112 |
| DOCK LEVELER HYDRAULIC INSTALLATION .....                | 2-114 |
| DOCK LEVELER ASSEMBLY, SINGLE 60K .....                  | 2-116 |
| DOCK LEVELER ASSEMBLY, 120K .....                        | 2-118 |
| LEG ITEMS, DOCK LEVELER W/ LOCK VALVE .....              | 2-121 |
| DOCK LEVELER VALVE .....                                 | 2-124 |
| DOCK LEVELER VALVE (After 01/15/2014) .....              | 2-126 |
| DECAL INSTALLATION .....                                 | 2-129 |
| LANDING GEAR INSTALLATION .....                          | 2-131 |
| LANDING GEAR INSTALLATION BOLT - ON .....                | 2-132 |
| HYDRAULIC PARK STAND INSTALLATION .....                  | 2-134 |
| HYDRAULIC CYLINDER 3-1/2 X 20 .....                      | 2-136 |
| CRANK LANDING GEAR .....                                 | 2-138 |
| 27 HP GAS ENGINE PACKAGE, UPPER DECK (OPTION) .....      | 2-143 |

|                                                                |       |
|----------------------------------------------------------------|-------|
| UPPER DECK ENGINE STAND INSTALLATION .....                     | 2-145 |
| FRONT MOUNT ENGINE INSTALLATION .....                          | 2-146 |
| SPARE TIRE CARRIER (OPTION) .....                              | 2-147 |
| AIR OUTLET ASSEMBLY (OPTION) .....                             | 2-148 |
| CENTER RUB PLATE COVER INSTALLATION (OPTION) .....             | 2-149 |
| SIDEBORD INSTALLATION, 8" METAL (OPTION)(425) .....            | 2-150 |
| SPECIAL BULKHEAD INSTALLATION (OPTION) .....                   | 2-151 |
| UPPER DECK COVER INSTALLATION (OPTION) .....                   | 2-152 |
| HYDRAULIC CONVERSION KIT, BALL TO FLAT (OPTION) .....          | 2-153 |
| UPPER DECK EXTENSION BRIDGE STORAGE RACK (OPTION) .....        | 2-154 |
| SPARE TIRE MOUNT ASSEMBLY .....                                | 2-155 |
| UPPER DECK ROLLER INSTALLATION (OPTION) .....                  | 2-156 |
| CHAIN TRAY ASSEMBLY (OPTION) .....                             | 2-157 |
| FRONT FLIP EXTENSION (OPTION) .....                            | 2-158 |
| SINGLE VALVE INSTALLATION (OPTION) .....                       | 2-160 |
| REAR STROBE LIGHT INSTALLATION (OPTION) .....                  | 2-162 |
| BATTERY BACKUP STROBE LIGHT INSTALLATION (OPTION) .....        | 2-164 |
| BACKUP ALARM/LIGHT INSTALLATION (OPTION) .....                 | 2-166 |
| STROBE AND TURN LIGHT INSTALLATION FOR BULKHEAD (OPTION) ..... | 2-168 |
| AIR DIGITAL SCALE (OPTION) .....                               | 2-169 |

### 3 Numerical Index

---

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

## 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](http://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 410/425/435B 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.

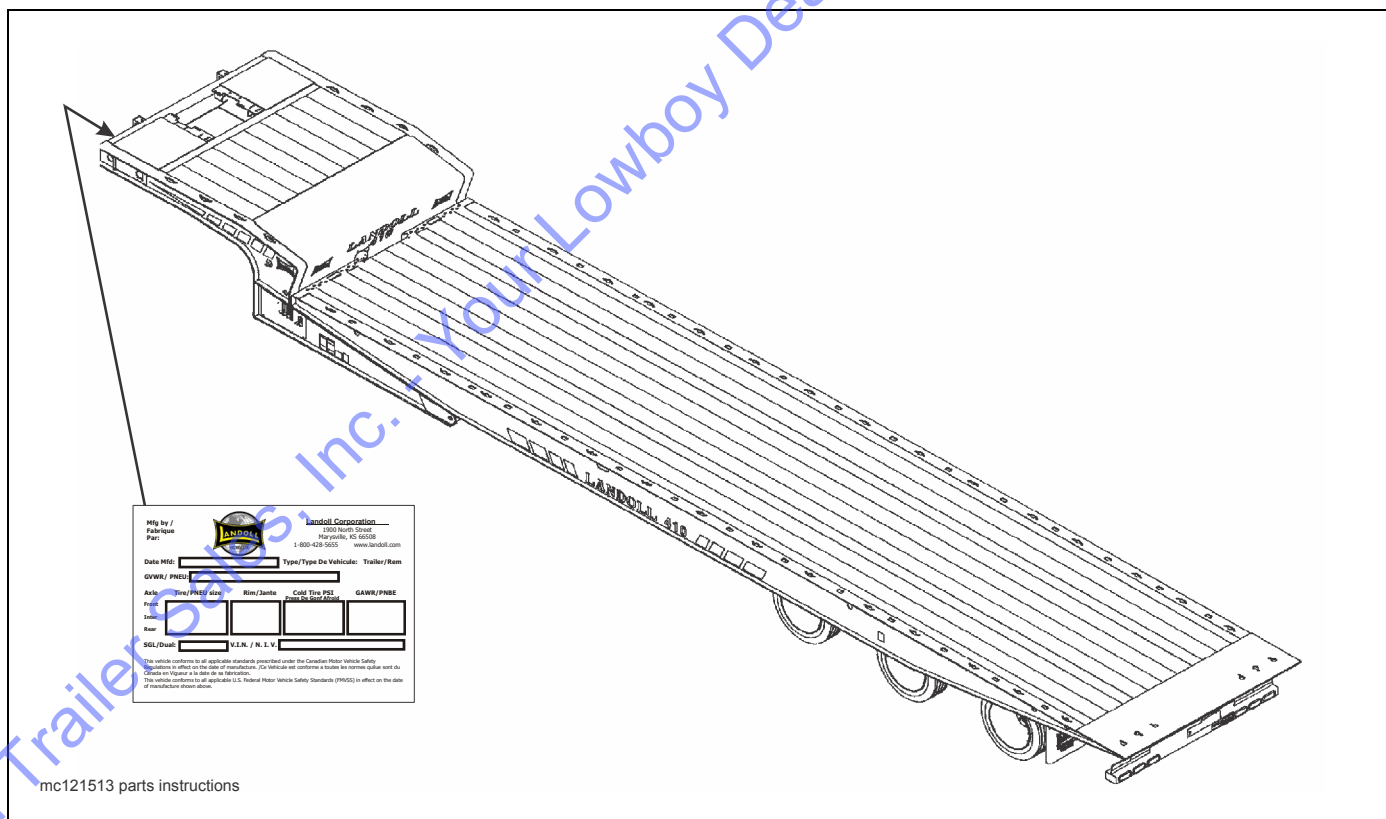


Figure 1-1: Identification Plate and Location

Page Intentionally Blank

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

# Illustrated Parts List

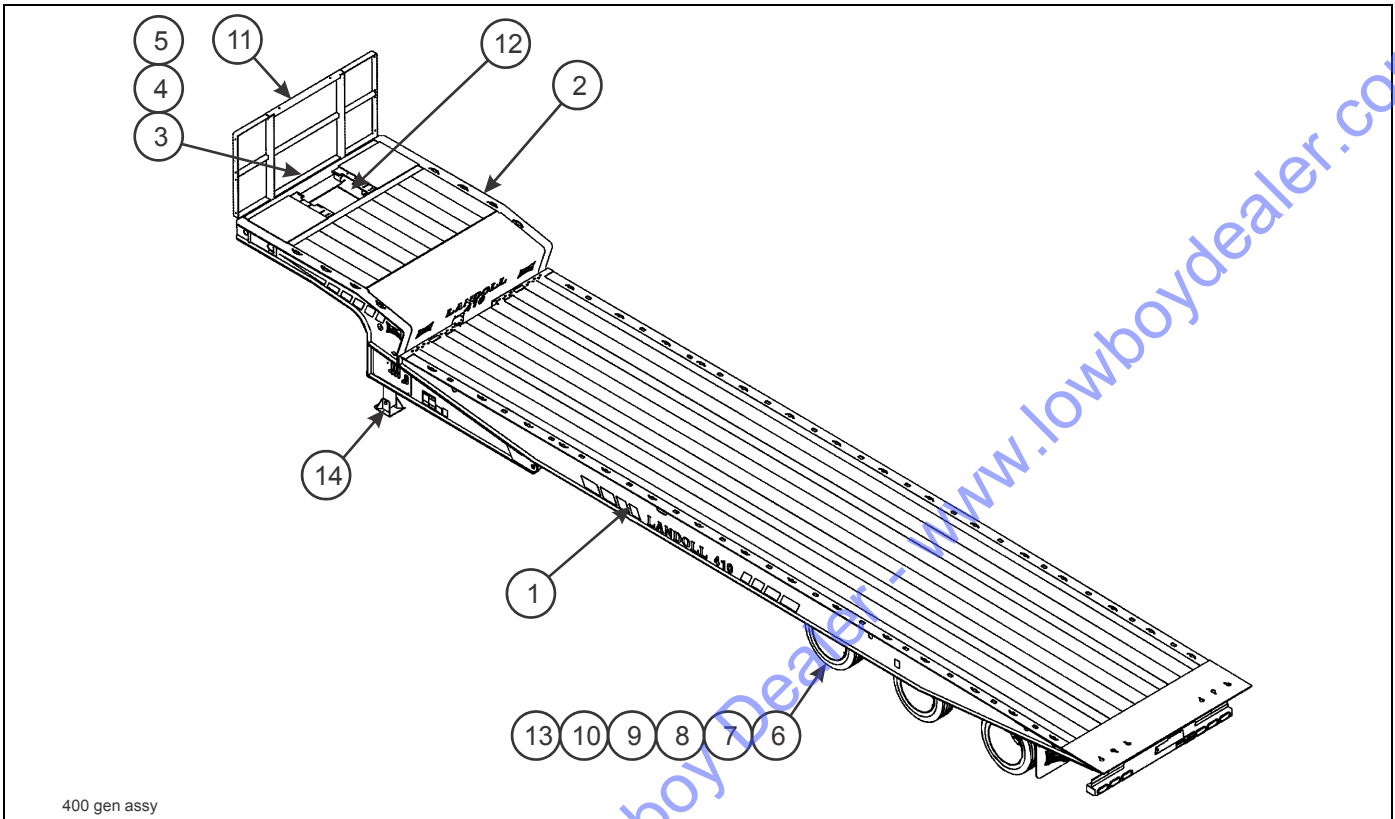


Figure 2-1: General Assembly

## GENERAL ASSEMBLY

| ITEM | PAGE NO.                     | DESCRIPTION                                    | QTY. |
|------|------------------------------|------------------------------------------------|------|
| 1    | ----                         | LOWER DECK                                     |      |
| 2    | 2-2 - 2-4                    | UPPER DECK ASSEMBLY                            |      |
| 3    | 2-6 - 2-13                   | BULKHEAD/PULLOUT/OUTRIGGER ASSEMBLIES (OPTION) |      |
| 4    | 2-14 - 2-31                  | HYDRAULIC SYSTEM                               |      |
| 5    | 2-32 - 2-33                  | ELECTRICAL SYSTEM                              |      |
| 6    | 2-34 - 2-52                  | UNDERCARRIAGE ASSEMBLY - AIR RIDE SUSPENSION   |      |
| 7    | 2-53 - 2-54                  | SUSPENSION HANGER RLU-250                      |      |
| 8    | 2-55 - 2-56                  | AXLE AND BRAKE                                 |      |
| 9    | 2-57 - 2-60                  | AIR BRAKE SYSTEMS                              |      |
| 10   | 2-61 - 2-62                  | AIR SYSTEM                                     |      |
| 11   | 2-63 - 2-64                  | HUB AND DRUM ASSEMBLY                          |      |
| 12   | 2-65 - 2-108                 | WINCH ASSEMBLIES                               |      |
| 13   | 2-113 - 2-124                | DOCK LEVELER ASSEMBLIES (OPTION)               |      |
| 14   | 2-128 - 2-129                | DECAL INSTALLATION                             |      |
| 15   | 2-131 - 2-138                | LANDING GEAR ASSEMBLIES (OPTION)               |      |
| 16   | 2-139 - 2-146                | HYDRAULIC ENGINE ASSEMBLY (NOT SHOWN) (OPTION) |      |
| 17   | 2-111 - 2-112; 2-147 - 2-169 | MISCELLANEOUS OPTIONS (NOT SHOWN)              |      |



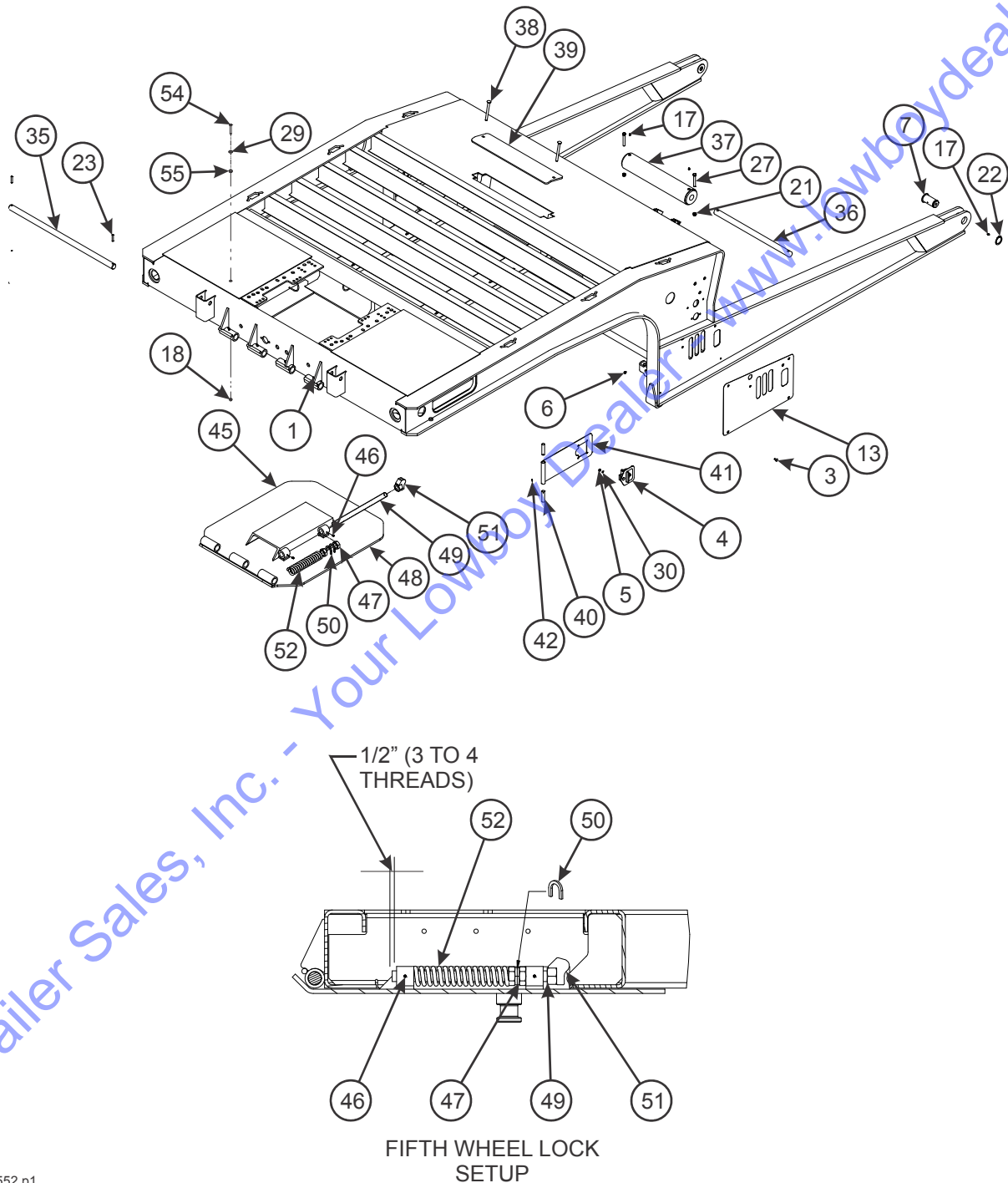
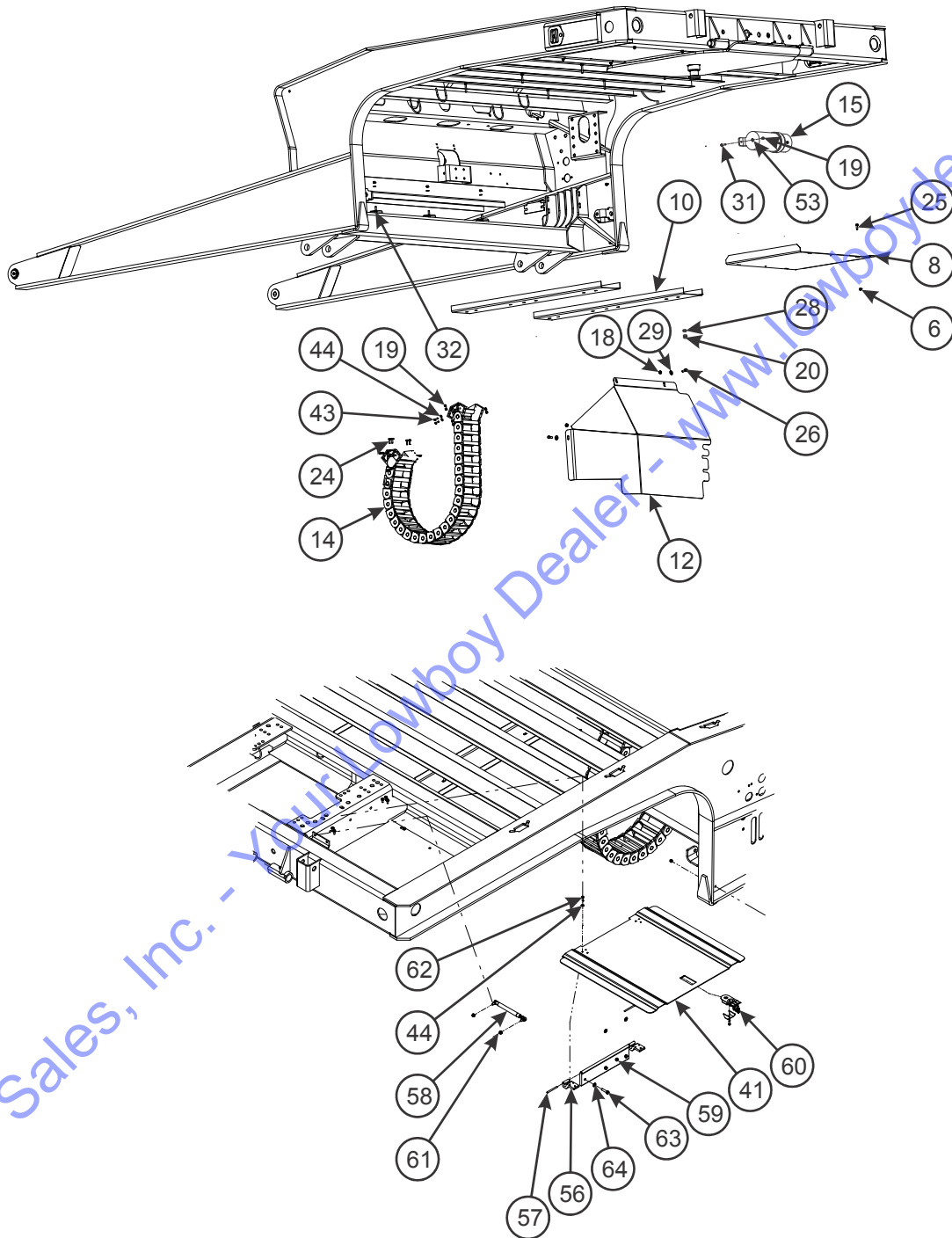


Figure 2-2: Upper Deck Assembly (1 of 2)



GALVANIZED FLIP-UP TOOLBOX OPTION

m130552 p2

Figure 2-3: Upper Deck Assembly (2 of 2)

## UPPER DECK ASSEMBLY

| ITEM | PART NO.        | DESCRIPTION                             | QTY. |
|------|-----------------|-----------------------------------------|------|
|      | 130552          | G/N FRAME ASSEMBLY 410/435              |      |
| 1    | 5210            | ZERK FITTING 1/4-28 X 45                | 4    |
| 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    |
|      | 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 (410-120)         | 2    |
| 10   | 117565          | COVER, HOSE LOWER                       | 3    |
| 12   | 121125          | SHIELD, HYD CONTROLS                    | 1    |
| 13   | 139520          | PLACARD, CONTROL PANEL (SEE PAGE 2-130) | REF  |
| 14   | 122380          | E-CHAIN G/N FRAME                       | 1    |
|      | 135778          | E-CHAIN INDIVIDUAL LINK                 | 1    |
|      | 135779          | E-CHAIN MOUNTING BRACKET                | 1    |
| 15   | 130511          | TUBE ASSEMBLY, MANUAL STORAGE           | 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                 | 3    |
| 19   | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB                | 8    |
| 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                       | 3    |
| 30   | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4                  | 8    |
| 31   | 105-0094        | HOSE CLAMP 4-1/8 - 5                    | 1    |
| 32   | 2-181-010001    | CLAMP                                   | 3    |
| 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    |
| 37   | 3-645-010059    | ROLLER WELDMENT, CABLE-UPPER DECK       | 1    |
| 38   | 100939          | SCREW, RD HEAD SQ NECK 1/2-13 X 5-1/2   | 2    |
| 39   | 131196          | PLATE, WINCH CABLE WEAR U/D             | 1    |
| 40   | 135181          | BUSHING, NYLATRON                       | 4    |
| 41   | 136352          | DOOR WELDMENT, TOOLBOX                  | REF  |
|      | 137070          | DOOR WELDMENT, TOLLBOX GALV.            | REF  |
| 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                            | 1    |

**UPPER DECK ASSEMBLY**

| ITEM | PART NO.     | DESCRIPTION            | QTY. |
|------|--------------|------------------------|------|
| 49   | 117556       | LATCH ROD              | 1    |
| 50   | 117562       | SHIM, HITCH            | 2    |
| 51   | 118889       | CAM, FIFTH WHEEL LATCH | 1    |
| 52   | 2-720-010002 | SPRING CLAMP           | 1    |

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

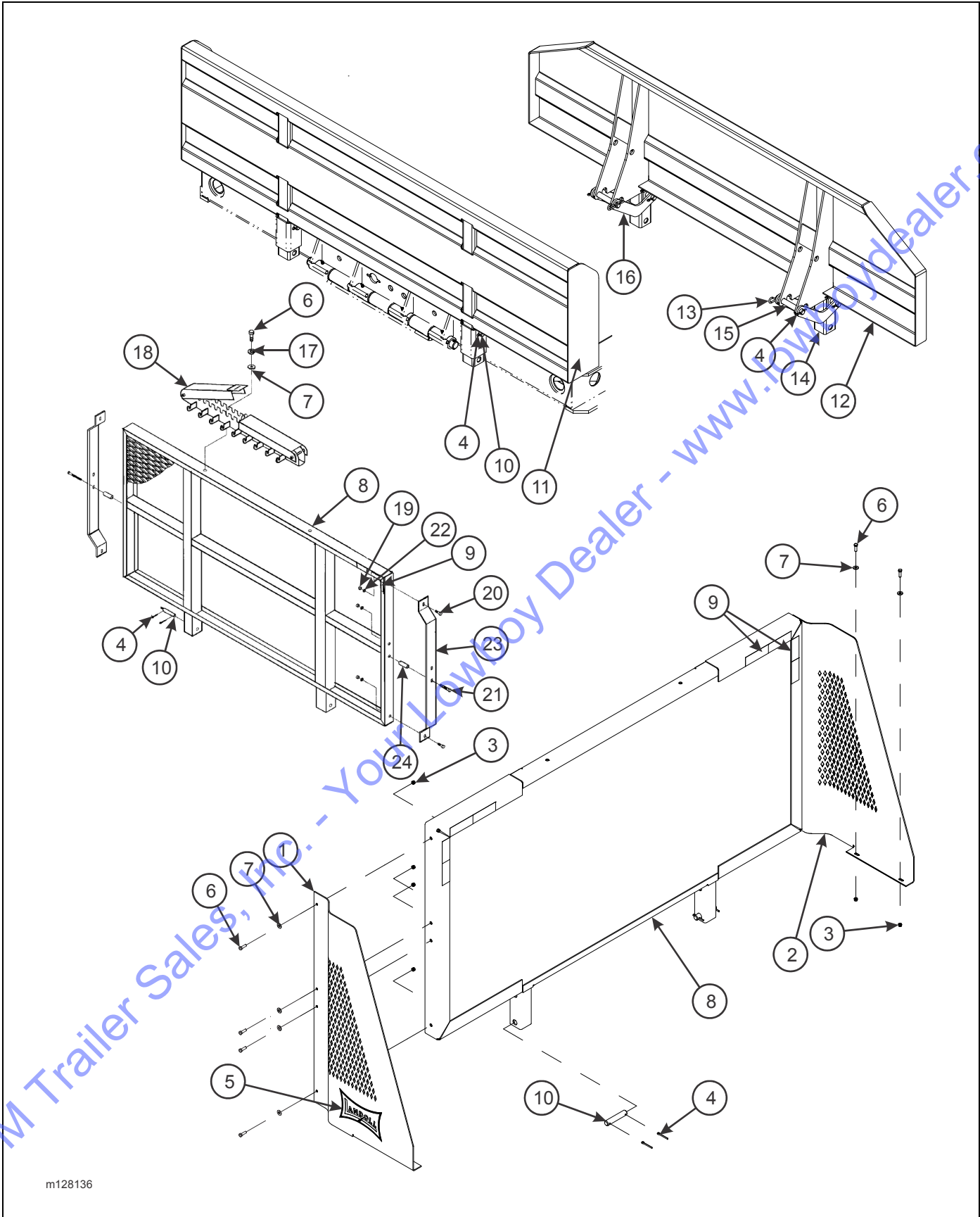
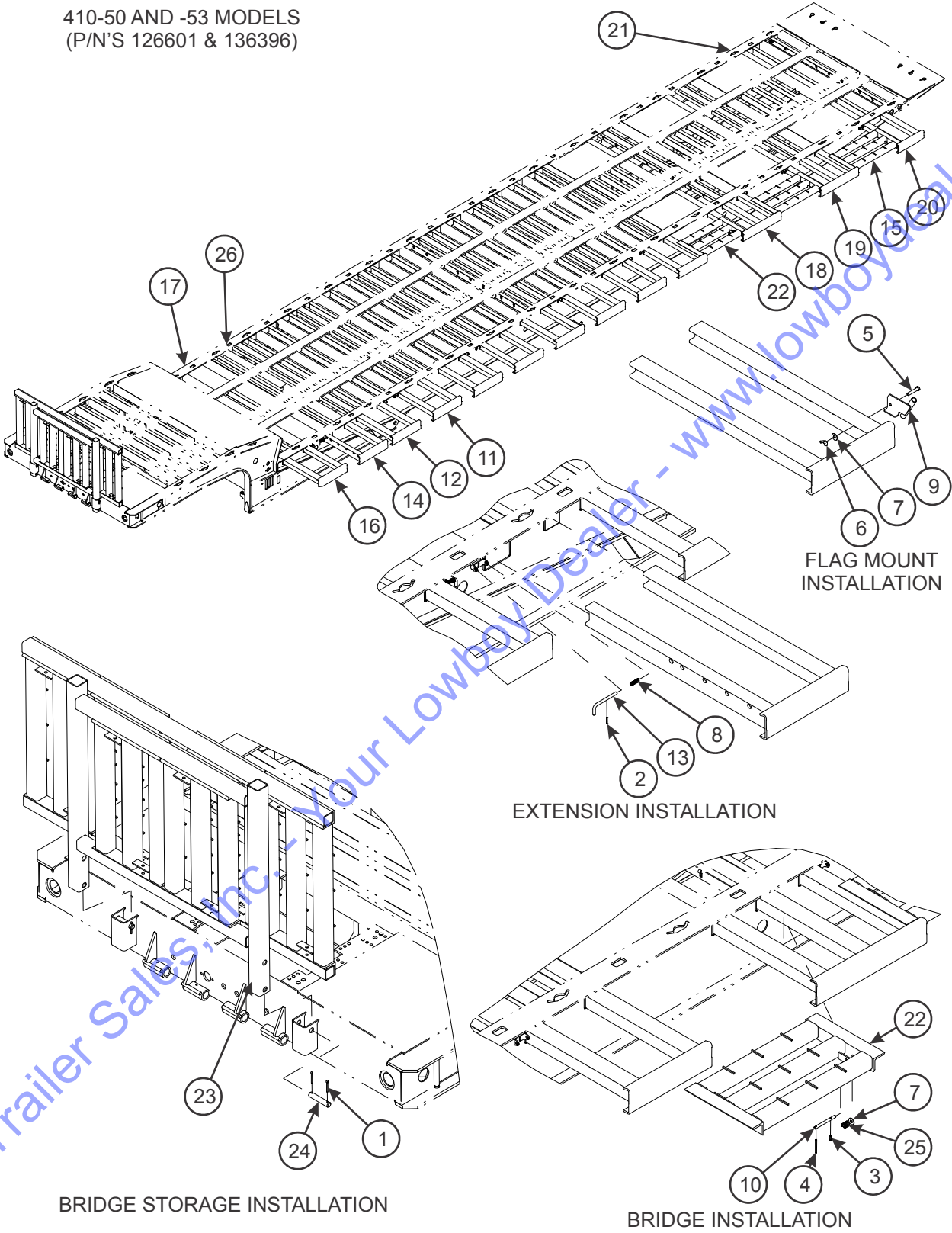


Figure 2-4: Bulkhead Assembly

**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  |
| 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    | 1-573-010476    | DECAL, BOW TIE (BLACK) (SEE PAGE 2-129)             |      |
|      | 1-573-010480    | DECAL, BOW TIE (WHITE) (SEE PAGE 2-129)             |      |
| 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                           |      |
| 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                                |      |

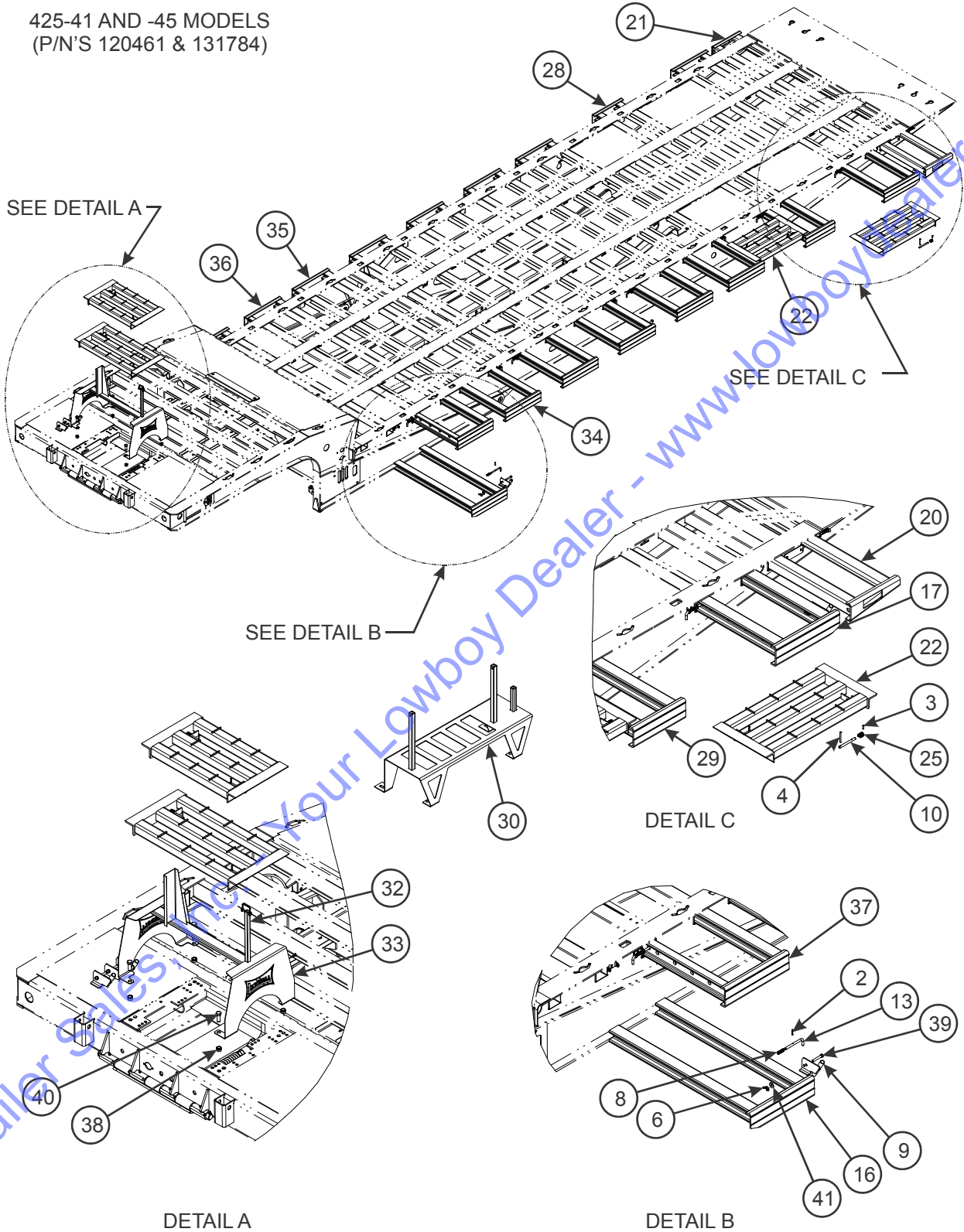
410-50 AND -53 MODELS  
(P/N'S 126601 & 136396)



m126601-410

Figure 2-5: Pullout Installation (1 of 2)

425-41 AND -45 MODELS  
(P/N'S 120461 & 131784)



m120461

Figure 2-6: Pullout Installation (2 of 2)

**PULLOUT INSTALLATION (OPTION)**

| ITEM | PART NO.        | DESCRIPTION                                                               | QTY. |
|------|-----------------|---------------------------------------------------------------------------|------|
|      | 126601          | PULLOUT EXTENSION INSTALLATION 410-53                                     |      |
|      | 136396          | PULLOUT EXTENSION INSTALLATION 410-50                                     |      |
|      | 120461          | PULLOUT INSTALLATION 425-41                                               |      |
|      | 131784          | PULLOUT EXTENSION INSTALLATION 425-45                                     |      |
| 1    | 1-557-010362-63 | PIN, COTTER 1/4 X 2                                                       |      |
| 2    | 1-647-010004177 | PIN, SPRING SLOTTED 3/16 X 1-1/2                                          |      |
| 3    | 0600-250-01000  | PIN, ROLL 1/4 X 1                                                         |      |
| 4    | 1-647-010004225 | PIN, ROLL 1/4 X 3                                                         |      |
| 5    | 1-654-010055-07 | SCREW, HEX HEAD CAP 1/2-13 X 2-1/2 GR5                                    |      |
| 6    | 1-533-010001    | NUT, WING 1/2-13                                                          |      |
| 7    | 1-861-010032-15 | WASHER, FLAT 1/2W                                                         |      |
| 8    | 104253          | SPRING, COMPRESSION P/O EXT LOCK                                          |      |
| 9    | 108859          | WELDMENT, BRACKET FLAG HOLDER                                             |      |
| 10   | 118723          | PIN, SLIDE LOCK EXT                                                       |      |
| 11   | 118929          | PULLOUT ASSEMBLY LH                                                       |      |
| 12   | 118930          | PULLOUT ASSEMBLY RH                                                       |      |
| 13   | 120457          | PIN, P/O EXT LOCK                                                         |      |
| 14   | 120459          | PULLOUT ASSEMBLY FRT LH                                                   |      |
| 15   | 120492          | EXT. WLDMT REAR WHEEL WELL                                                |      |
| 16   | 122913          | PULLOUT CLIPPED RH (120461,126601,131784,136396)                          |      |
| 17   | 122916          | PULLOUT CLIPPED LH(120461,126601,131784,136396)                           |      |
| 18   | 126602          | PULLOUT WELDMENT AL WHEEL WELL RH<br>(126601,136396)                      |      |
| 19   | 126603          | PULLOUT WELDMENT AL WHEEL WELL LH<br>(126601,136396)                      |      |
| 20   | 126605          | PULLOUT WELDMENT AL REAR LH (126601,136396)                               |      |
|      | 120379          | EXTENSION REAR P/O LH (120461,131784)                                     |      |
| 21   | 126606          | PULLOUT WELDMENT AL REAR RH (126601,136396)                               |      |
|      | 120380          | EXTENSION REAR P/O RH (120461,131784)                                     |      |
| 22   | 126609          | EXTENSION WELDMENT FRT WHEEL WELL<br>(126601,130543,131108,131131,136396) |      |
|      | 120491          | EXT. WLDMT FRT WHEEL WELL (120461,131784)                                 |      |
| 23   | 126610          | RACK WLDMT STORAGE EXT BRIDGES (126601,136396)                            |      |
| 24   | 6-557-010163    | PIN, 1 X 5-1/8 (136396)                                                   |      |
|      | 2-557-010006    | PIN, 1 X 6-1/2 (126601)                                                   |      |
| 25   | CO-975-74-2000  | SPRING, COMPRESSION                                                       |      |
| 26   | 120458          | PULLOUT ASSEMBLY FRT RH<br>(126601,136396)                                |      |
| 28   | 120376          | PULLOUT ASSEMBLY 18RH (120461,131784,136396)                              |      |
| 29   | 120377          | PULLOUT ASSEMBLY 18LH (120461,131784,136396)                              |      |
| 30   | 120822          | SUPPORT WELDMENT P/O EXT (120461)                                         |      |
| 31   | 3-272-010021    | ELECT BUTT SPLICE (NOT SHOWN) (120461)                                    |      |
| 32   | 516-22PTL       | RETAINING PIN MUD FLAP (120461,131131)                                    |      |
| 33   | 130553          | RACK WELDMENT, PULLOUT<br>(120461,131784)                                 |      |
| 34   | 131738          | PULLOUT WELDMENT RH (120461,131784)                                       |      |
| 35   | 131739          | PULLOUT WELDMENT LH (120461,131784)                                       |      |
| 36   | 131740          | PULLOUT WELDMENT FRT RH (120461,131784)                                   |      |
| 37   | 131741          | PULLOUT WELDMENT FRT LH (120461,131784)                                   |      |

**PULLOUT INSTALLATION (OPTION)**

| ITEM | PART NO.        | DESCRIPTION                        | QTY. |
|------|-----------------|------------------------------------|------|
| 38   | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB           |      |
| 39   | 1-654-010055-09 | SCREW, HEX HEAD CAP 1/2-13 X 3 GR5 |      |
| 40   | 1-654-010061-05 | SCREW, HEX HEAD CAP 3/4-10 X 2 GR5 |      |
| 41   | 1-861-010032-15 | WASHER, FLAT 1/2W                  |      |

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

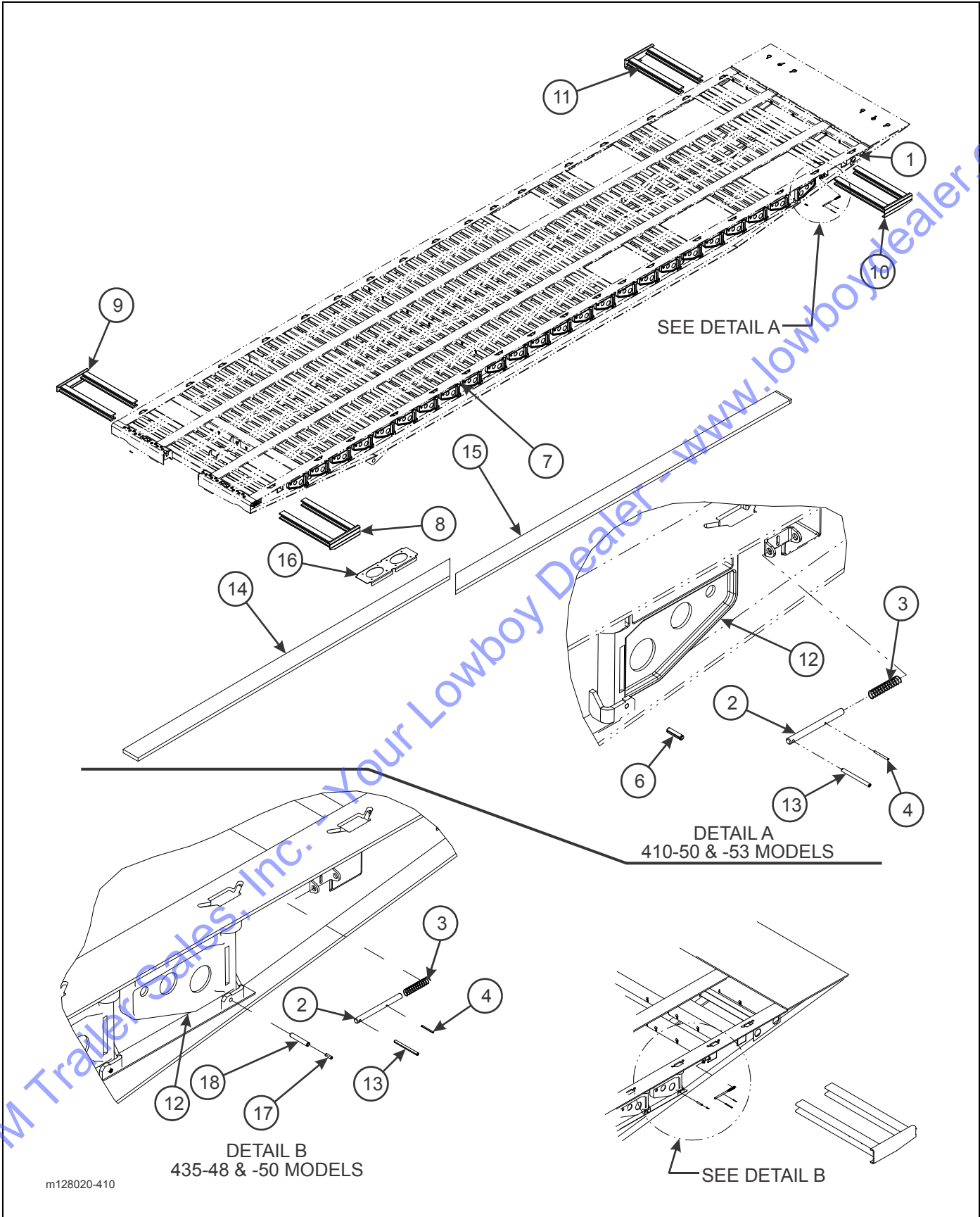
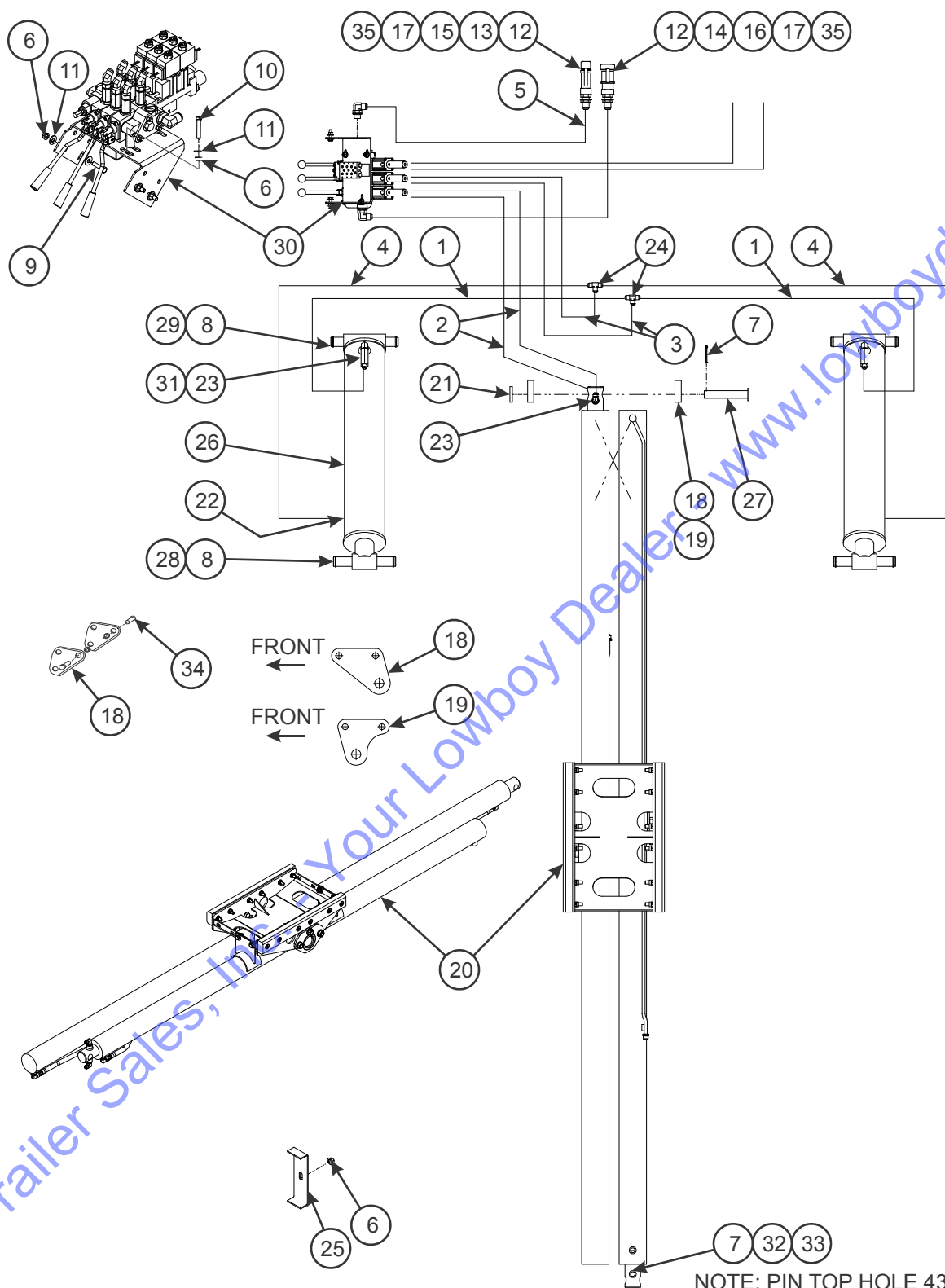


Figure 2-7: Outrigger Installation (Option)

**OUTRIGGER INSTALLATION (OPTION)**

| ITEM | PART NO.        | DESCRIPTION                                  | QTY. |
|------|-----------------|----------------------------------------------|------|
|      | 128020          | OUTRIGGER INSTALLATION (410-50)              |      |
|      | 136399          | OUTRIGGER INSTALLATION (410-53)              |      |
|      | 137894          | OUTRIGGER INSTALLATION (435-48)              |      |
|      | 141628          | OUTRIGGER PLANKS (INCL ITEMS 14-16) (410-50) |      |
| 1    | 1-343-010007    | GROMMET                                      |      |
| 2    | 128539          | PIN, SLIDE LOCK                              |      |
| 3    | 104253          | SPRING, COMPRESSION P/O EXT LOCK             |      |
| 4    | 125520          | ROLL PIN, SLOTTED 1/8 X 1-1/2                |      |
| 6    | 0600-375-01500  | ROLL PIN, SLOTTED 3/8 X 1-1/2                |      |
| 7    | -----           | FRAME WELDMENT                               |      |
| 8    | 128226          | PULLOUT WELDMENT FRONT LH (128020 & 136399)  |      |
|      | 137892          | PULLOUT WELDMENT ALUM FRT LH (137894)        |      |
| 9    | 128227          | PULLOUT WELDMENT FRONT RH (128020 & 136399)  |      |
|      | 137893          | PULLOUT WELDMENT ALUM FRT RH (137894)        |      |
| 10   | 128228          | PULLOUT WELDMENT REAR LH                     |      |
| 11   | 128229          | PULLOUT WELDMENT REAR RH                     |      |
| 12   | 167-0022        | OUTRIGGER CAST FOR 10 CHANNEL                |      |
| 13   | 1-647-010004225 | ROLL PIN, SLOTTED 1/4 X 3                    |      |
| 14   | 141629          | PLANK, OUTRIGGER FRONT                       |      |
| 15   | 141636          | PLANK, OUTRIGGER REAR                        |      |
| 16   | 141637          | SUPPORT, OUTRIGGER PLANK                     |      |
| 17   | 127711          | ROLL PIN, SLOTTED 1/4 X 3/4 (137894)         |      |
| 18   | 127712          | ROLL PIN, SLOTTED 3/8 X 2-1/4 (137894)       |      |

## ILLUSTRATED PARTS LIST

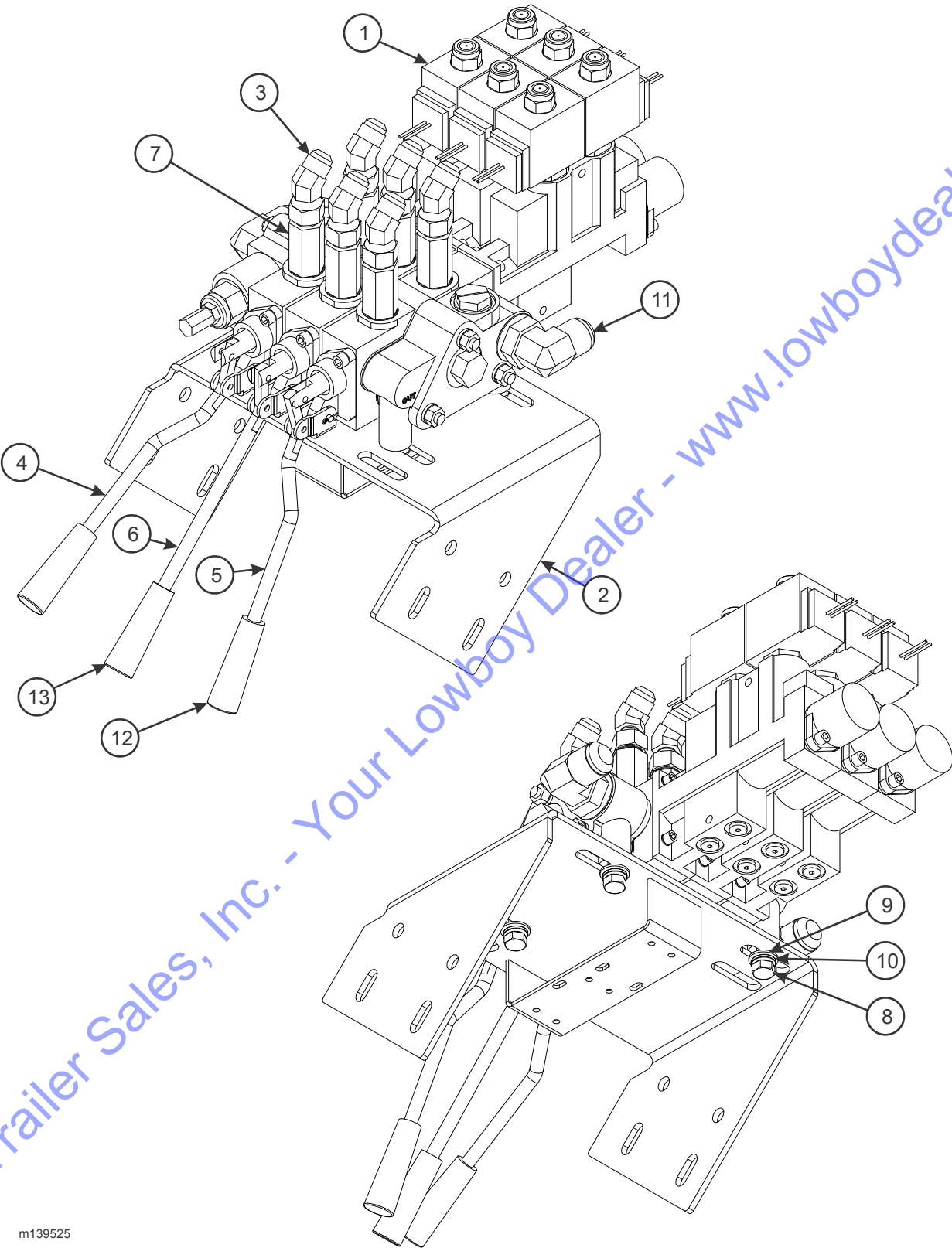


NOTE: PIN TOP HOLE 435 U/C  
PIN BOTTOM HOLE 425B U/C

**Figure 2-8: Hydraulic System**

**SCHEMATIC, HYDRAULIC SYSTEM**

| ITEM | PART NO.        | DESCRIPTION                                               | QTY. |
|------|-----------------|-----------------------------------------------------------|------|
| 1    | 1-397-010301064 | HOSE ASSEMBLY 1/2 X 64                                    |      |
| 2    | 1-397-010301160 | HOSE ASSEMBLY 1/2 X 160                                   |      |
| 3    | 142068          | HOSE ASSEMBLY 1/2 X 39                                    |      |
| 4    | 1-397-010302084 | HOSE ASSEMBLY 1/2 X 84                                    |      |
| 5    | 1-397-010305190 | HOSE ASSEMBLY 3/4 X 190 (NOT USED W/ ENGINE PACKAGE)      |      |
| 6    | 1-510-010001    | NUT, HEX FLANGE LOCK 3/8-16                               |      |
| 7    | 1-557-010362-54 | PIN, COTTER 3/16 X 2-1/4                                  |      |
| 8    | 1-630-010021-01 | RING, 1.5 RETAINING HD (410 & 435)                        |      |
|      | 120454          | RING RETAINING 1.25 HD (425)                              |      |
| 9    | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5                    |      |
| 10   | 1-654-010051-09 | SCREW, HEX HEAD CAP 3/8-16 X 2 GR5                        |      |
| 11   | 1-861-010032-11 | WASHER, FLAT 3/8                                          |      |
| 12   | 1-861-010059-21 | WASHER, LOCK INTERNAL TOOTH 1-1/8"                        |      |
| 13   | 105479          | COUPLER, FLAT FACE MALE                                   |      |
| 14   | 105480          | COUPLER, FLAT FACE FEMALE                                 |      |
| 15   | 105481          | COUPLER, DUST CAP MALE                                    |      |
| 16   | 105482          | COUPLER, DUST CAP FEMALE                                  |      |
| 17   | 105483          | ADAPTER, BULKHEAD                                         |      |
| 18   | 127422          | ANCHOR, CYL BOLT-ON (410-48/50/53, 425-45, 435-48/53)     |      |
| 19   | 127691          | ANCHOR, CYL BOLT-ON (425-41, 435-50CA)                    |      |
| 20   | 144673          | U/C CYL ASSEMBLY (410-50/53/55HD, 435-48) (SEE PAGE 2-21) |      |
|      | 144674          | U/C CYL ASSEMBLY (435-50CA) (SEE PAGE 2-21)               |      |
|      | 144675          | U/C CYL ASSEMBLY (435-53) (SEE PAGE 2-21)                 |      |
|      | 144676          | U/C CYL ASSEMBLY (410-48/50CA, 425-45) (SEE PAGE 2-21)    |      |
|      | 144677          | U/C CYL ASSEMBLY (425-41, 435-41) (SEE PAGE 2-21)         |      |
| 21   | 123150          | WASHER, CYLINDER PIN                                      |      |
| 22   | 202702-8-8S     | ADAPTER (410 & 435)                                       |      |
|      | 202702-10-8S    | ADAPTER (425)                                             |      |
| 23   | 2062-8-8S       | ADAPTER (410 & 435)                                       |      |
|      | 2062-10-8S      | ADAPTER, 90 (425)                                         |      |
| 24   | 2033-8-8S       | ADAPTER TEE                                               |      |
| 25   | 2-181-010001    | CLAMP, HOSE                                               |      |
| 26   | 3-242-010189    | CYLINDER, LIFT 6 X 41 (410 & 435) (SEE PAGE 2-29)         |      |
|      | 117400          | CYLINDER, LIFT 4-1/2 X 30 (425) (SEE PAGE 2-28)           |      |
| 27   | 3-557-010031    | PIN, CYL U/C                                              |      |
| 28   | 3-557-010470-01 | PIN, CYL BUTT END (410 & 435)                             |      |
|      | 120452          | PIN, TILT CYLINDER (425)                                  |      |
| 29   | 3-557-010470-02 | PIN, CYL ROD END (410 & 435)                              |      |
|      | 120452          | PIN, TILT CYL. (425)                                      |      |
| 30   | 139525          | VALVE ASSEMBLY 3 SPOOL (SEE PAGE 2-17)                    |      |
| 31   | 3-846-010155    | VALVE, RESTRICTOR, 1/16-ONE WAY                           |      |
| 32   | 3-557-010033    | PIN, CYL BUTT END (410-48/50/53)                          |      |
|      | 3-557-010031    | PIN, CYL U/C (425-41 & 435-48/53)                         |      |
| 33   | 1-861-010032-29 | WASHER, FLAT 1-1/4W                                       |      |
| 34   | 1-654-010061-07 | SCREW, HEX HEAD CAP 3/4-10 X 2-1/2 GR5                    |      |
| 35   | 138209          | ADAPTER 45 (USED W/ ENGINE PACKAGE)                       |      |
| 36   | 103841          | NUT, FLANGE PREVAILING TORQUE 3/4-10                      |      |

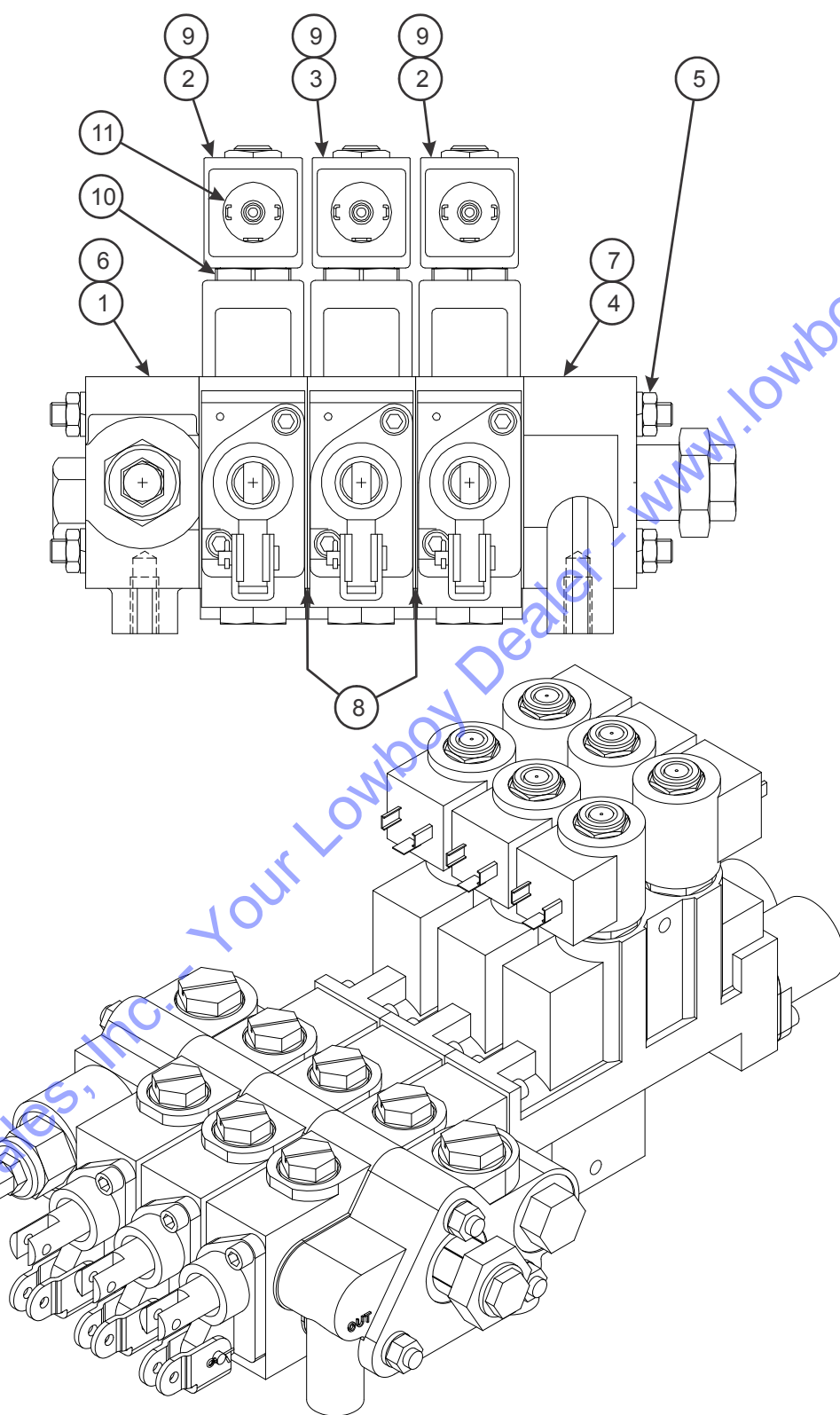


m139525

Figure 2-9: Three Spool Valve Assembly

**THREE SPOOL VALVE ASSEMBLY**

| ITEM | PART NO.        | DESCRIPTION                                  | QTY. |
|------|-----------------|----------------------------------------------|------|
|      | 139525          | VALVE ASSEMBLY, 3 SPOOL                      |      |
| 1    | 114540          | VALVE, 3 STACK 2ND MOTOR SOL (SEE PAGE 2-19) | 1    |
| 2    | 116837          | VALVE MOUNT, CONTROL                         | 1    |
| 3    | 121031          | FITTING, 45                                  | 6    |
| 4    | 136377          | VALVE HANDLE, RH                             | 1    |
| 5    | 136378          | VALVE HANDLE, LH                             | 1    |
| 6    | 139519          | VALVE HANDLE, CTR FORMED                     | 1    |
| 7    | 140893          | ADAPTER, STR                                 | 6    |
| 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                              | 2    |
| 13   | 3-360-010090    | HANDLE, PLASTIC RED                          | 1    |



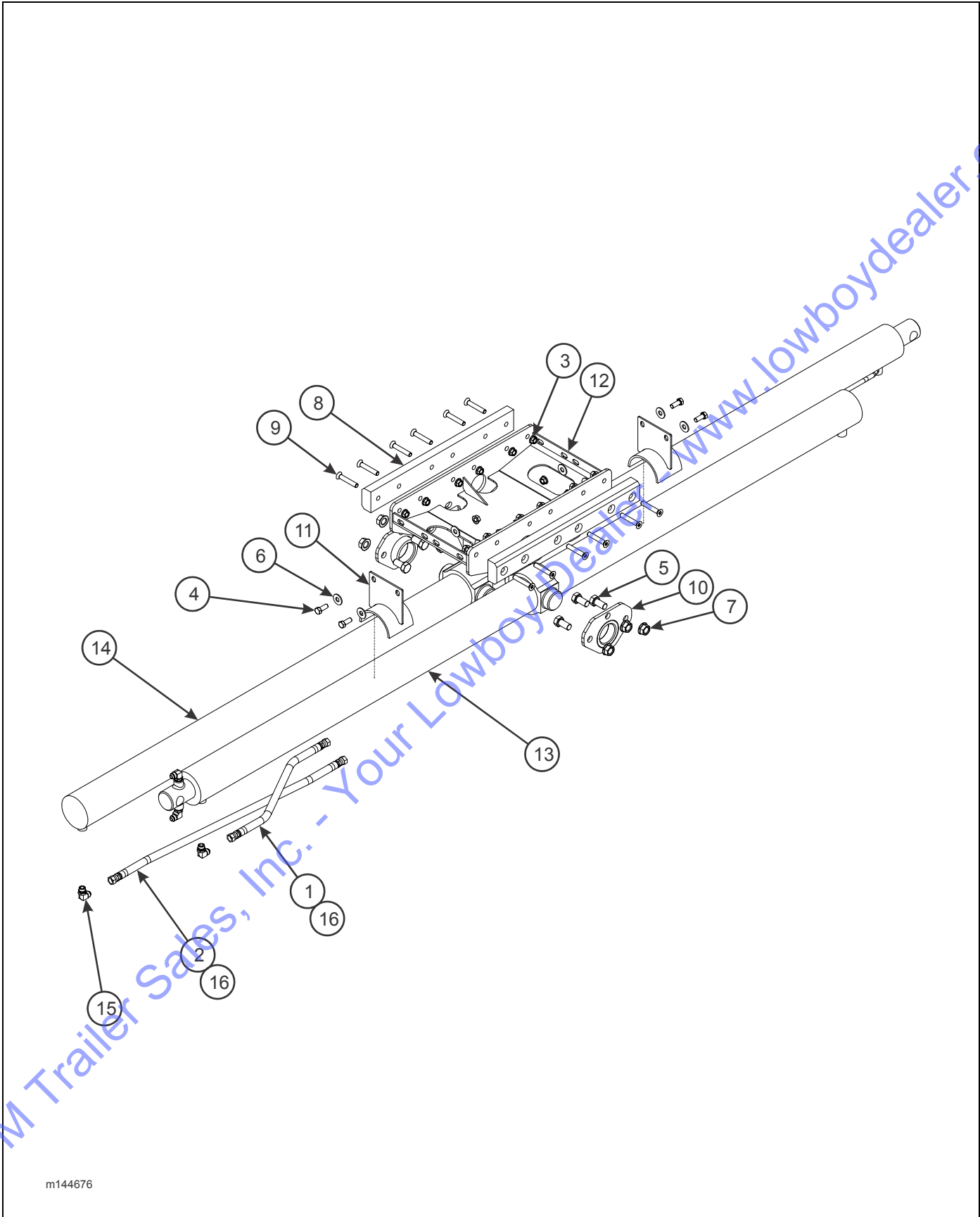
m114540

Figure 2-10: Three Spool Valve

**THREE SPOOL VALVE**

| ITEM | PART NO.  | DESCRIPTION                                  | QTY. |
|------|-----------|----------------------------------------------|------|
|      | 114540    | THREE STACK VALVE                            |      |
| 1    | 120751    | INLET VALVE SECTION KIT                      |      |
| 2    | 143160    | VALVE SECTION KIT                            |      |
| 3    | 143161    | VALVE SECTION KIT                            |      |
| 4    | 142483    | OUTLET VALVE SECTION KIT                     |      |
| 5    | 147315    | TIEROD KIT                                   |      |
| 6    | 660580002 | SEAL KIT FOR INLET SECTION                   |      |
| 7    | 660580003 | SEAL KIT FOR OUTLET SECTION                  |      |
| 8    | 660580004 | O-RING SEAL KIT FOR BETWEEN SECTIONS         |      |
| 9    | 660580005 | SEAL KIT FOR SOLENOID WORK SECTION           |      |
| 10   | 142484    | COIL                                         |      |
| 11   | 142485    | CARTRIDGE                                    |      |
| 12   | 142486    | COIL CARTRIDGE ASSEMBLY (INCL ITEMS 10 & 11) |      |

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)



m144676

Figure 2-11: U/C Cylinder Assembly

## U/C CYLINDER ASSEMBLY

| ITEM | PART NO.        | DESCRIPTION                                                                                | QTY. |
|------|-----------------|--------------------------------------------------------------------------------------------|------|
|      | 144673          | U/C CYL ASSEMBLY (410-50/53/55HD,435-48)                                                   |      |
|      | 144674          | U/C CYL ASSEMBLY (435-50CA)                                                                |      |
|      | 144675          | U/C CYL ASSEMBLY (435-53)                                                                  |      |
|      | 144676          | U/C CYL ASSEMBLY (410-48/50CA, 425-45)                                                     |      |
|      | 144677          | U/C CYL ASSEMBLY (425-41, 435-41)                                                          |      |
| 1    | 1-397-010301024 | HOSE ASSEMBLY 1/2 X 24 (144674, 144675, 144676,154434)                                     | 1    |
| 2    | 1-397-010301039 | HOSE ASSEMBLY 1/2 X 39 (144676)                                                            | 1    |
|      | 1-397-010301048 | HOSE ASSEMBLY 1/2 X 48 (144674, 144675)                                                    | 1    |
| 3    | 1-510-010003-09 | NUT, FLANGE HEAD SERRATED 1/2-13                                                           | 16   |
| 4    | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5                                                     | 4    |
| 5    | 1-654-010061-03 | SCREW, HEX HEAD CAP 3/4-10 X 1-1/2 GR5                                                     | 6    |
| 6    | 1-861-010032-15 | WASHER, FLAT 1/2W                                                                          | 8    |
| 7    | 103841          | NUT, FLANGE PREVAILING TORQUE 3/4-10                                                       | 6    |
| 8    | 117386          | NYLATRON SLIDE, U/C CYLINDER                                                               | 2    |
| 9    | 118627          | SCREW, HEX SOCKET CTSK 1/2-13 X 3                                                          | 12   |
| 10   | 122621          | BRACKET WELDMENT, U/C CYLINDER TRUNNION                                                    | 2    |
| 11   | 142050          | SADDLE WELDMENT, U/C CYLINDER TRUNNION                                                     | 2    |
| 12   | 142053          | MOUNT WELDMENT, CYLINDER TRUNNION                                                          | 1    |
| 13   | 144662          | CYLINDER, 4 X 100 PORT ROD PAINTED (STREETSIDE)<br>(144676, 144677,154434) (SEE PAGE 2-22) | 1    |
|      | 144666          | CYLINDER, 4 X 126 PORT ROD PAINTED (STREETSIDE)<br>(144673,144674) (SEE PAGE 2-24)         | 1    |
|      | 144670          | CYLINDER, 4 X 138 PORT ROD PAINTED (STREETSIDE)<br>(144675) (SEE PAGE 2-26)                | 1    |
| 14   | 144664          | CYLINDER, 4 X 100 PAINTED (CURBSIDE)<br>(144677) (SEE PAGE 2-23)                           | 1    |
|      | 144668          | CYLINDER, 4 X 126 PAINTED (CURBSIDE)<br>(144673, 144676,154434) (SEE PAGE 2-25)            | 1    |
|      | 144672          | CYLINDER, 4 X 138 PAINTED (CURBSIDE)<br>(144674,144675) (SEE PAGE 2-27)                    | 1    |
| 15   | 2062-8-8S       | ADAPTER, 90                                                                                | 4    |
| 16   | 111301          | HOSE ASSEMBLY 1/2 X 36 (144673,154434)                                                     | 2    |
|      | 1-397-010301024 | HOSE ASSEMBLY 1/2 X 24 (144677)                                                            | 2    |

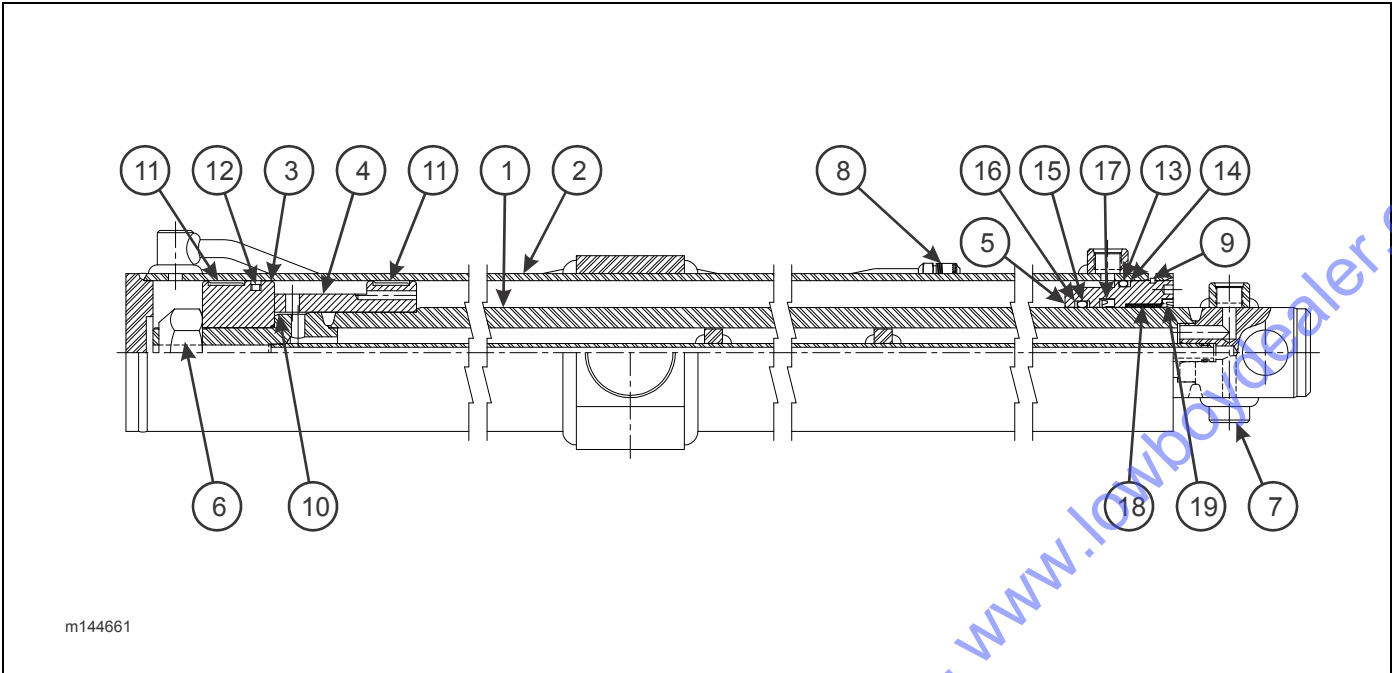


Figure 2-12: Cylinder, Hydraulic 4 x 100 Ported Rod (Streetside)  
(410-48/50CA, 425-41/45, 435-41)

**CYLINDER, HYDRAULIC 4 X 100 PORTED ROD  
(STREETSIDE) (410-48/50CA, 425-41/45, 435-41)**

| 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) |      |

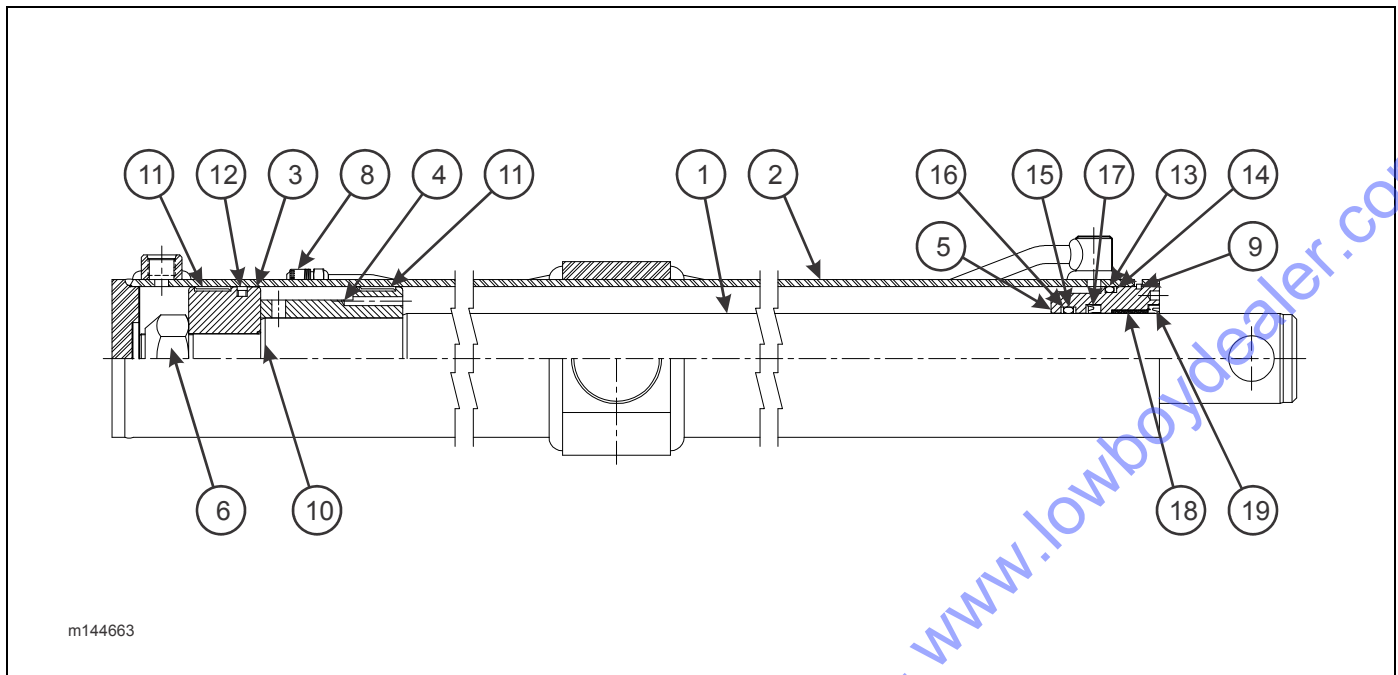


**Figure 2-13: Cylinder, Hydraulic 4 x 100 (Curbside)**  
(425-41, 435-41)

## CYLINDER, HYDRAULIC 4 X 100 (CURBSIDE) (425-41, 435-41)

| 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) |      |

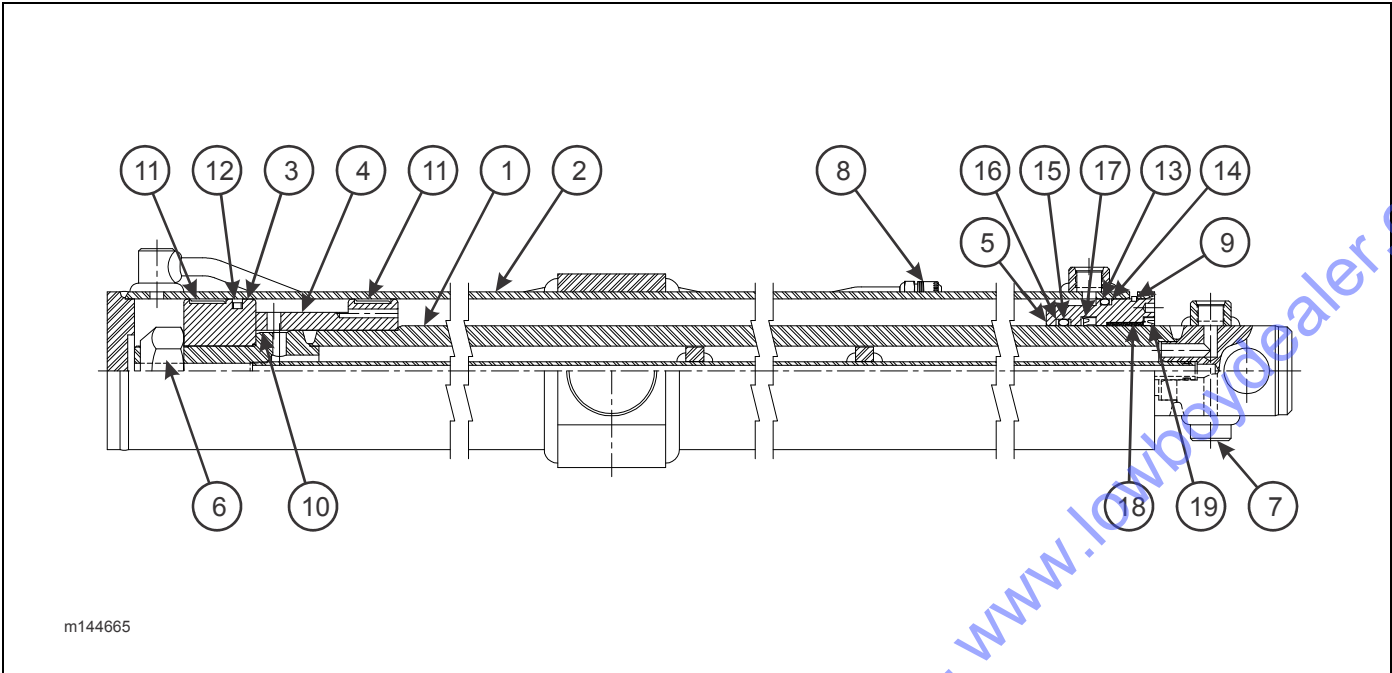


Figure 2-14: Cylinder, Hydraulic 4 x 126 Ported Rod (Streetside)  
(410-50/53/55HD, 435-48/50CA)

**CYLINDER, HYDRAULIC 4 X 126 PORTED ROD  
(STREETSIDE) (410-50/53/55HD, 435-48/50CA)**

| 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) |      |

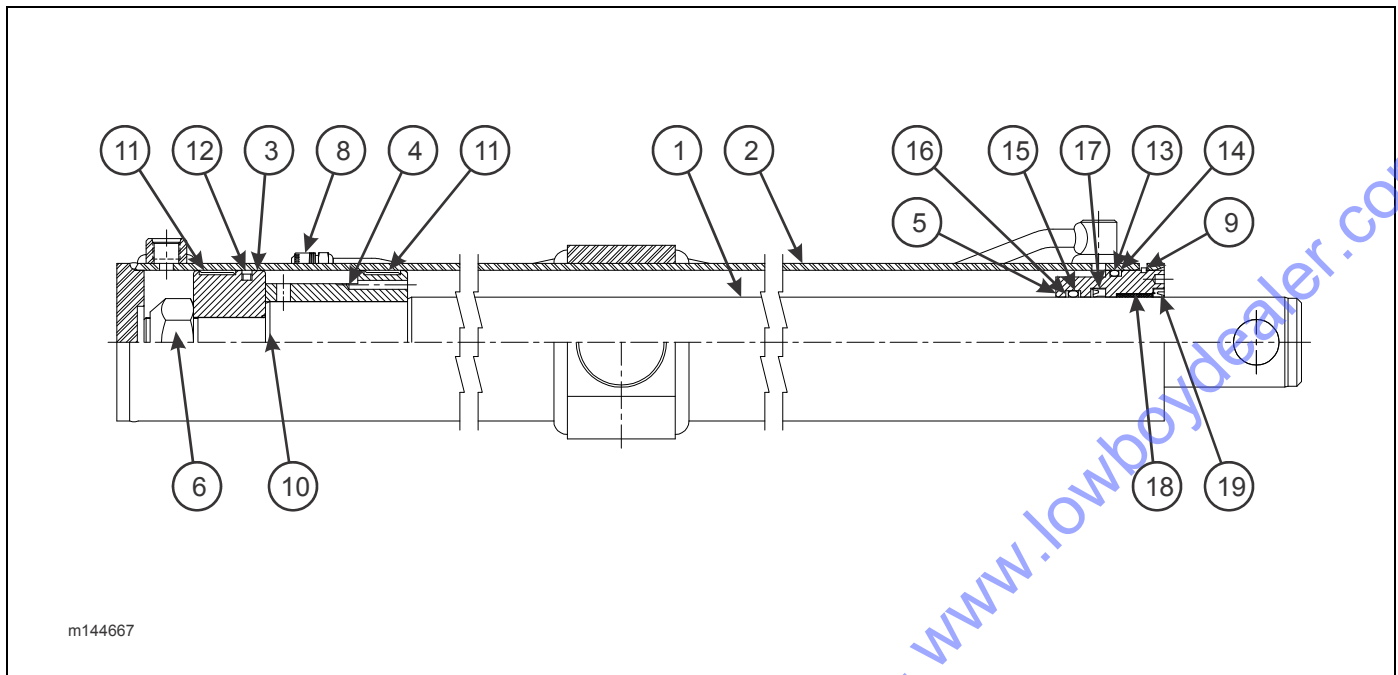


Figure 2-15: Cylinder, Hydraulic 4 x 126 (Curbside)  
(410-50/53/55HD, 435-48/50CA)

### CYLINDER, HYDRAULIC 4 X 126 (CURBSIDE) (410-50/53/55HD, 410-48/50CA, 425-45, 435-48)

| 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) |      |

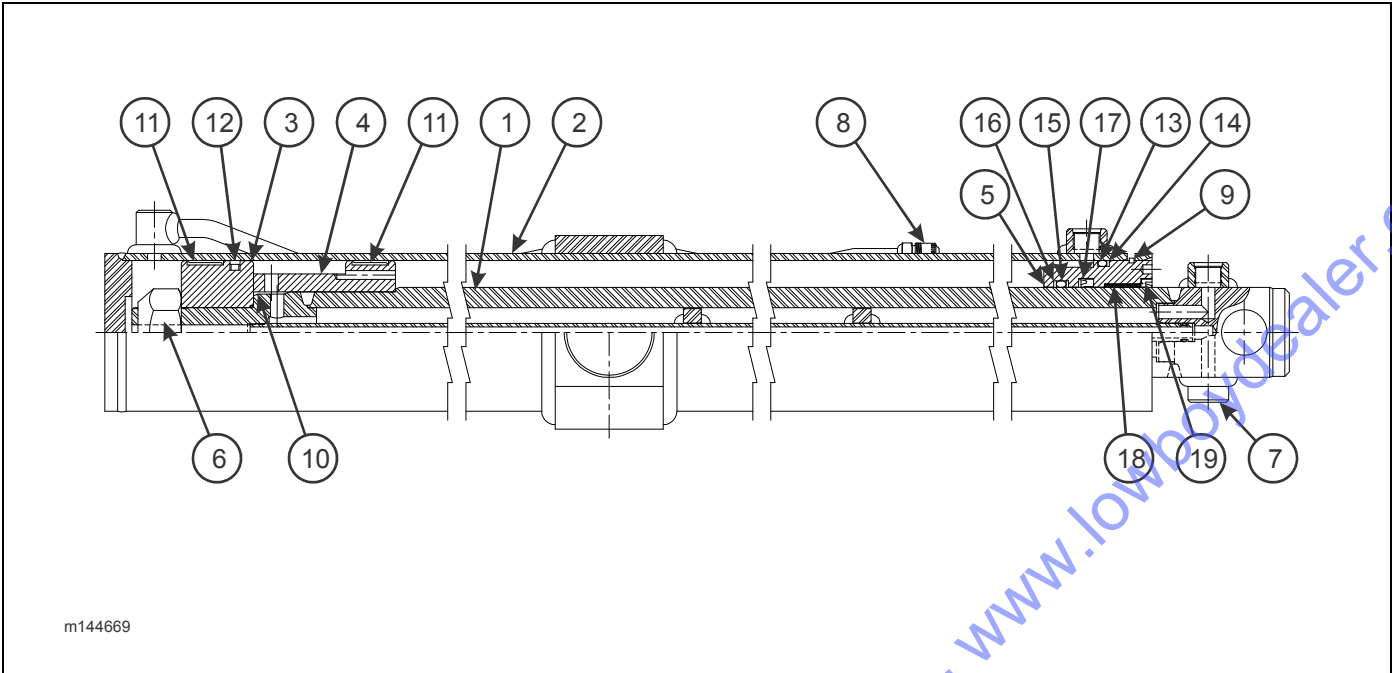


Figure 2-16: Cylinder, Hydraulic 4 x 138 Ported Rod (Streetside)  
(435-53)

**CYLINDER, HYDRAULIC 4 X 138 PORTED ROD  
(STREETSIDE) (435-53)**

| 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) |      |

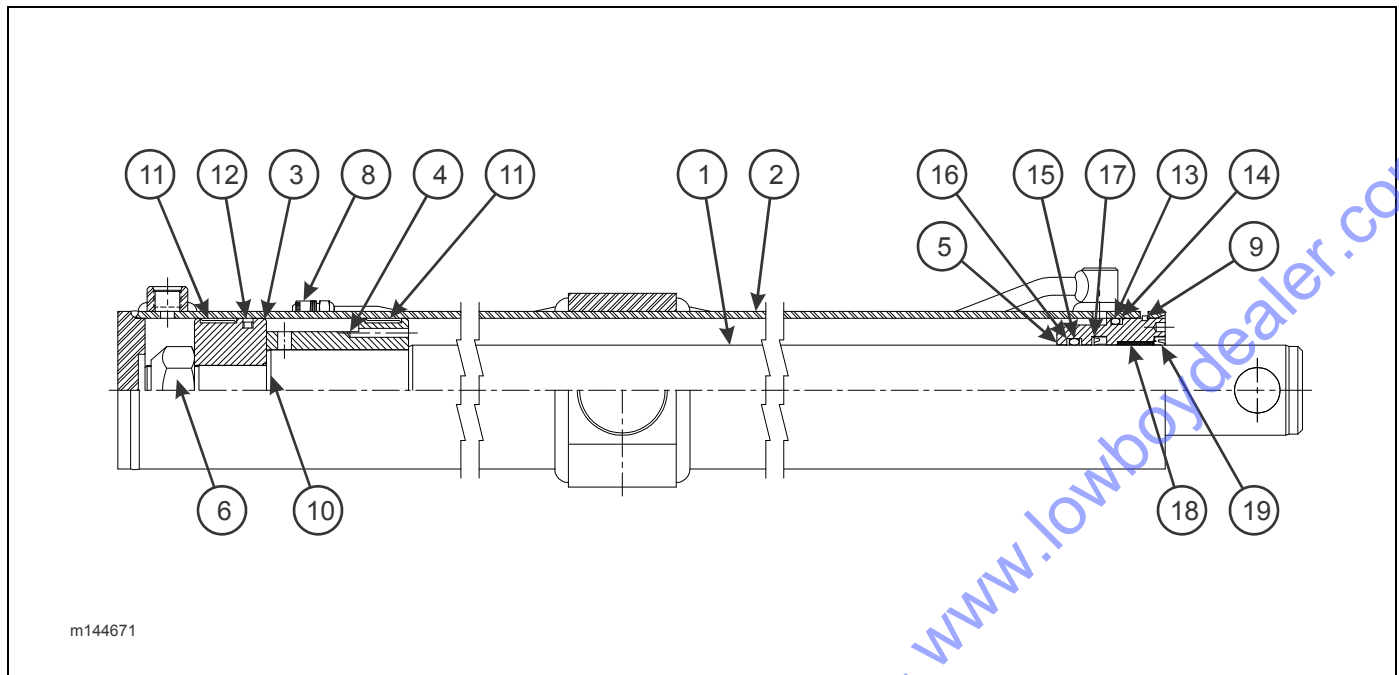


**Figure 2-17: Cylinder, Hydraulic 4 x 138 (Curbside)  
(435-53)**

### **CYLINDER, HYDRAULIC 4 X 138 (CURBSIDE) (435-50CA/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) |      |

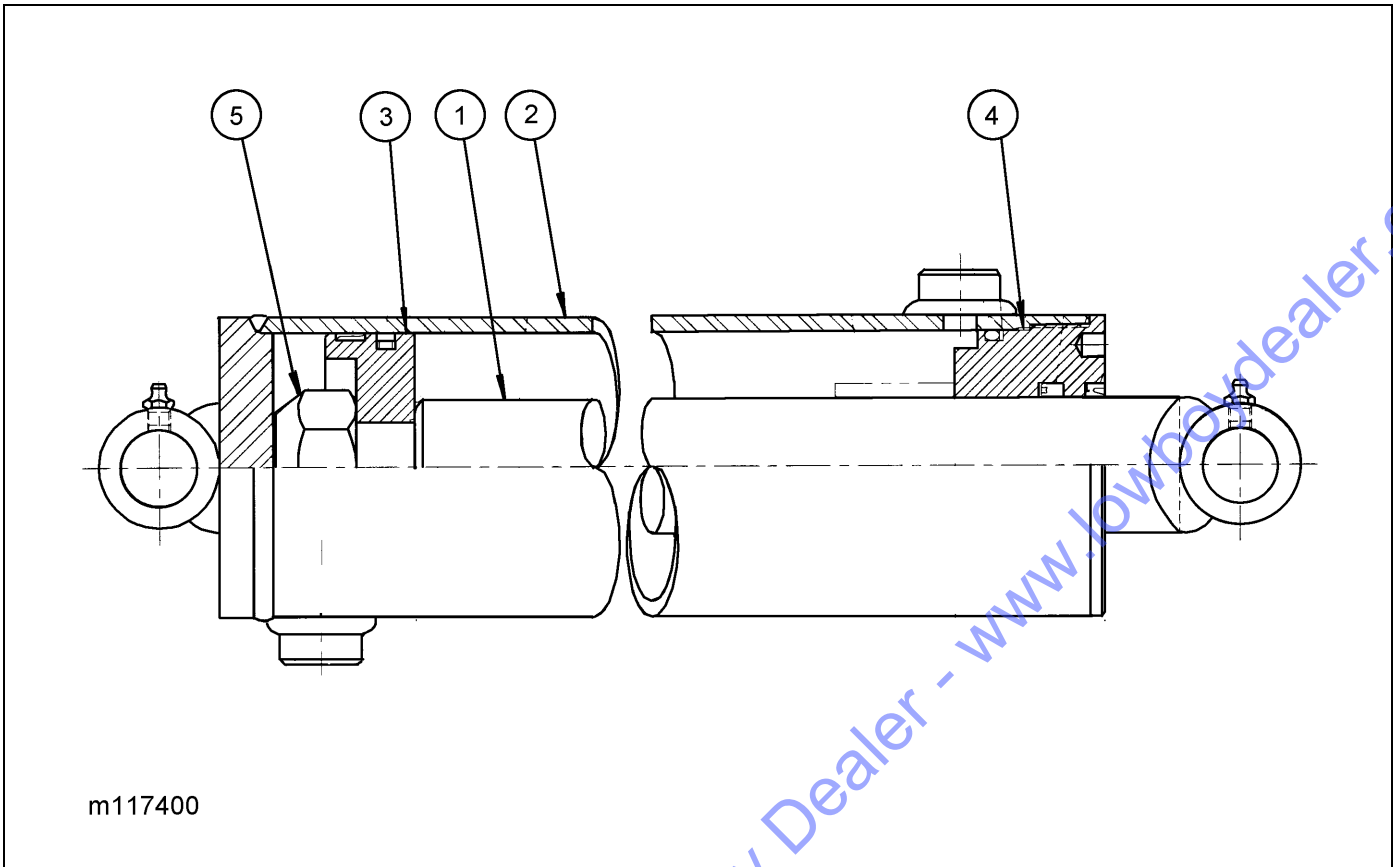


Figure 2-18: Cylinder, Hydraulic 4-1/2 X 30  
(425)

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) |      |

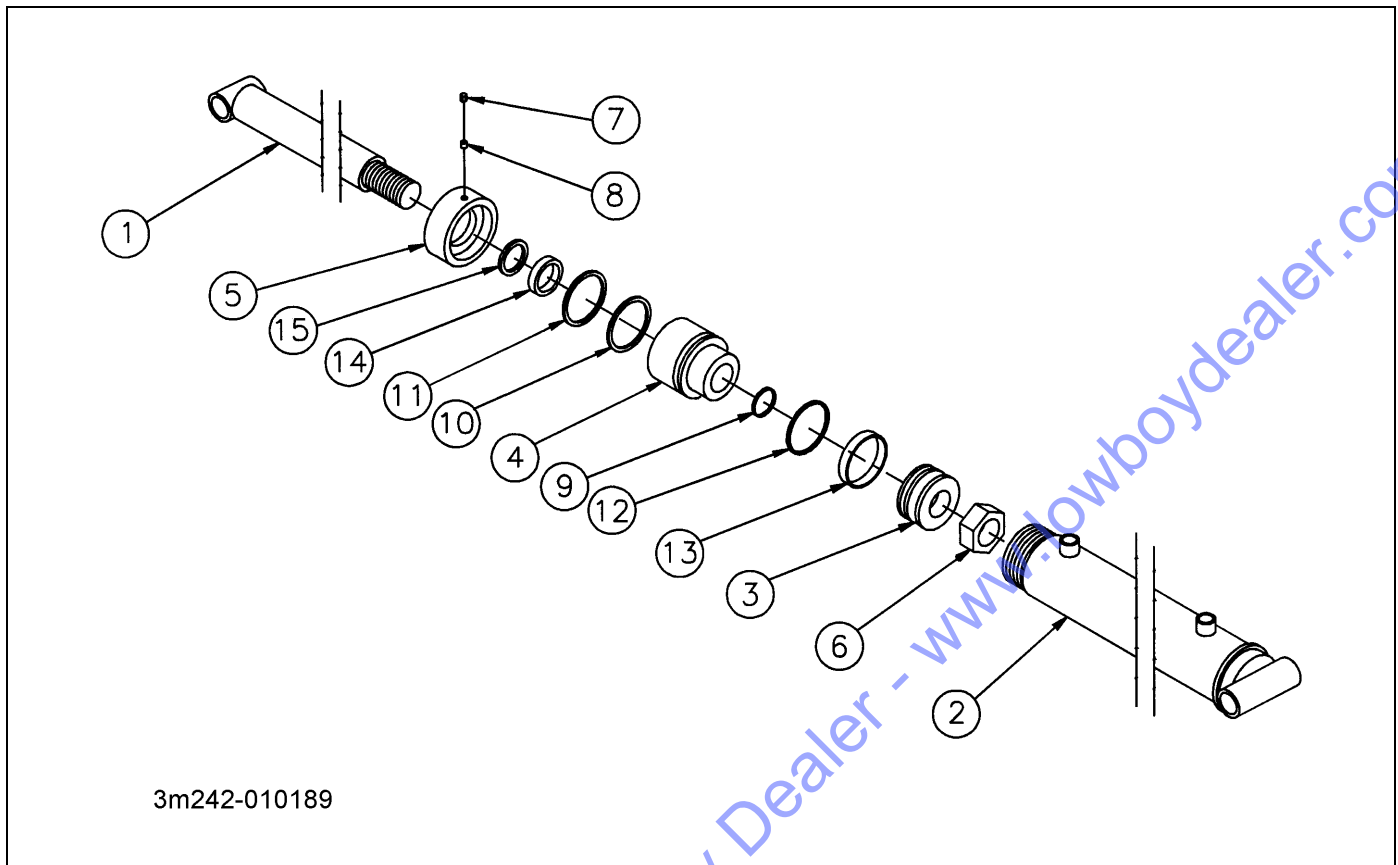


Figure 2-19: Cylinder, Hydraulic 6 X 41  
(435 & 410)

### CYLINDER 6" X 41" (435 & 410)

| 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

ILLUSTRATED PARTS LIST

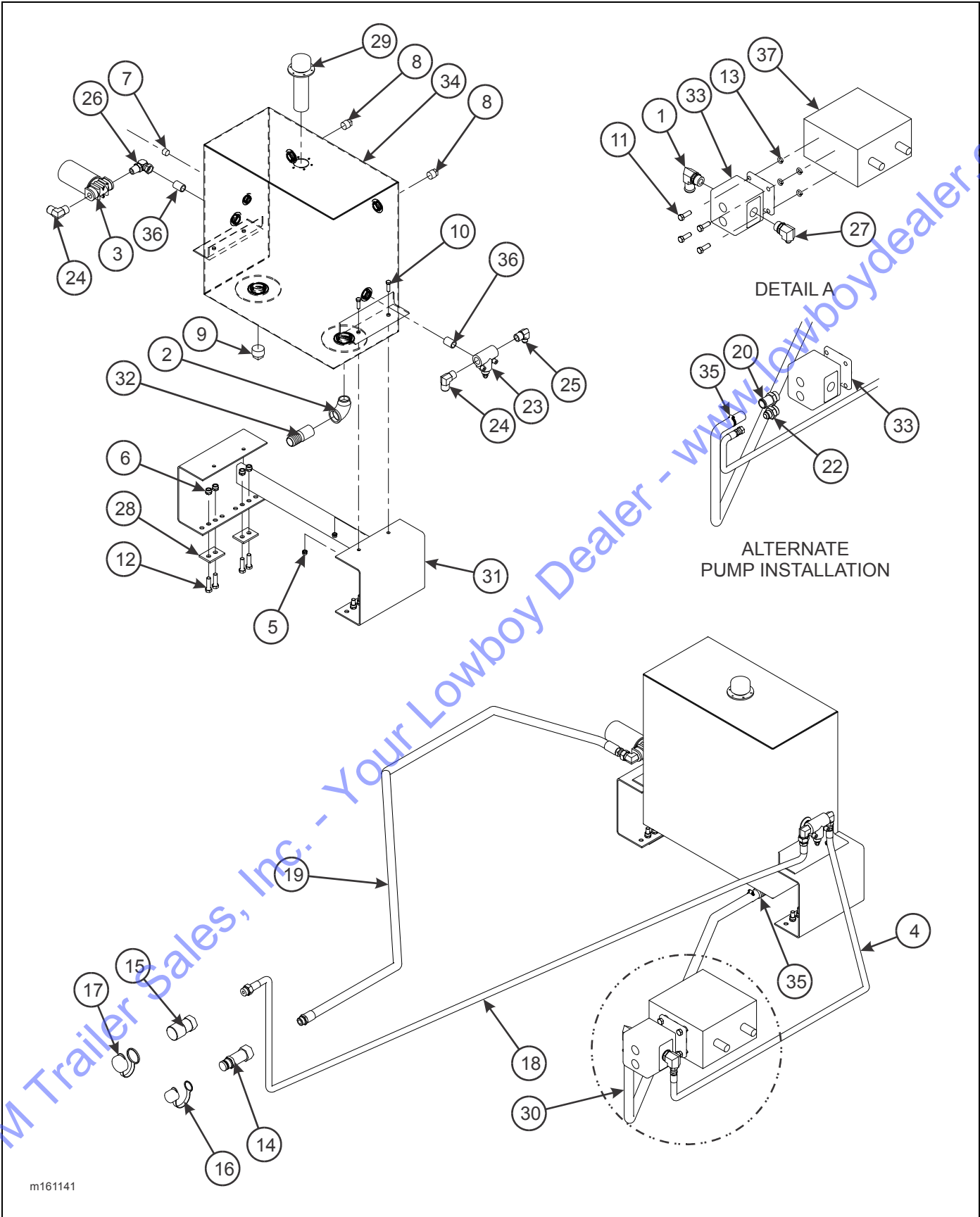


Figure 2-20: 30 Gallon Hydraulic Wet Kit Items

**30 GALLON HYDRAULIC WET KIT (OPTION)**

| ITEM | PART NO.        | DESCRIPTION                             | QTY. |
|------|-----------------|-----------------------------------------|------|
|      | 107498          | HYDRAULIC WET KIT W/ PTO INSTALLED      |      |
|      | 107499          | HYDRAULIC WET KIT W/ PTO NOT INSTALLED  |      |
|      | 107500          | HYDRAULIC WET KIT W/O PTO NOT INSTALLED |      |
| 1    | 1-007-010006    | ELBOW 90, 1-5/16 O-RING 1-1/4 HOSE      | 1    |
| 2    | 1-1/4ST ELL     | BLACK PIPE ELBOW 90 ST                  | 1    |
| 3    | 1-295-010001    | FILTER, RETURN                          | 1    |
|      | 1-295-010002    | FILTER ELEMENT                          | 1    |
| 4    | 1-397-010301100 | HOSE ASSEMBLY 1/2 X 100                 | 1    |
| 5    | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB                | 4    |
| 6    | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB                | 8    |
| 7    | 1-560-010002-04 | PIPE PLUG 1/2                           | 1    |
| 8    | 1-560-010002-05 | PIPE PLUG 3/4                           | 2    |
| 9    | 1-560-010002-07 | PLUG, BLACK PIPE 1-1/4 SQ HEAD          | 1    |
| 10   | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5  | 4    |
| 11   | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5  | 4    |
| 12   | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5  | 8    |
| 13   | 1-861-010034-13 | WASHER, SPLIT LOCK 1/2                  | 4    |
| 14   | 105479          | COUPLER, FLAT FACE MALE NOSE            | 1    |
| 15   | 105480          | COUPLER, FLAT FACE FEMALE BODY          | 1    |
| 16   | 105481          | COUPLER, DUST CAP MALE                  | 1    |
| 17   | 105482          | COUPLER, DUST CAP FEMALE                | 1    |
| 18   | 106759          | HOSE ASSEMBLY 1/2 X 164                 | 1    |
| 19   | 106760          | HOSE ASSEMBLY 3/4 X 164                 | 1    |
| 20   | 107513          | ADAPTER                                 | 1    |
| 22   | 12-16 070120    | ADAPTER                                 | 1    |
| 23   | 125130          | RD12D HYD BY PASS SRDD                  | 1    |
| 24   | 2024-12-12S     | ADAPTER 90                              | 2    |
| 25   | 2024-12-8S      | ADAPTER, 90                             | 1    |
| 26   | 2047-12-12S     | ELBOW 90 SWIVEL                         | 1    |
| 27   | 2062-16-8S      | ADAPTER, 90                             | 1    |
| 28   | 3-120-010461    | BRACKET, HYD TANK MOUNT SUPPORT         | 4    |
| 29   | 3-162-010001    | FILLER-BREATHING-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.

## ILLUSTRATED PARTS LIST

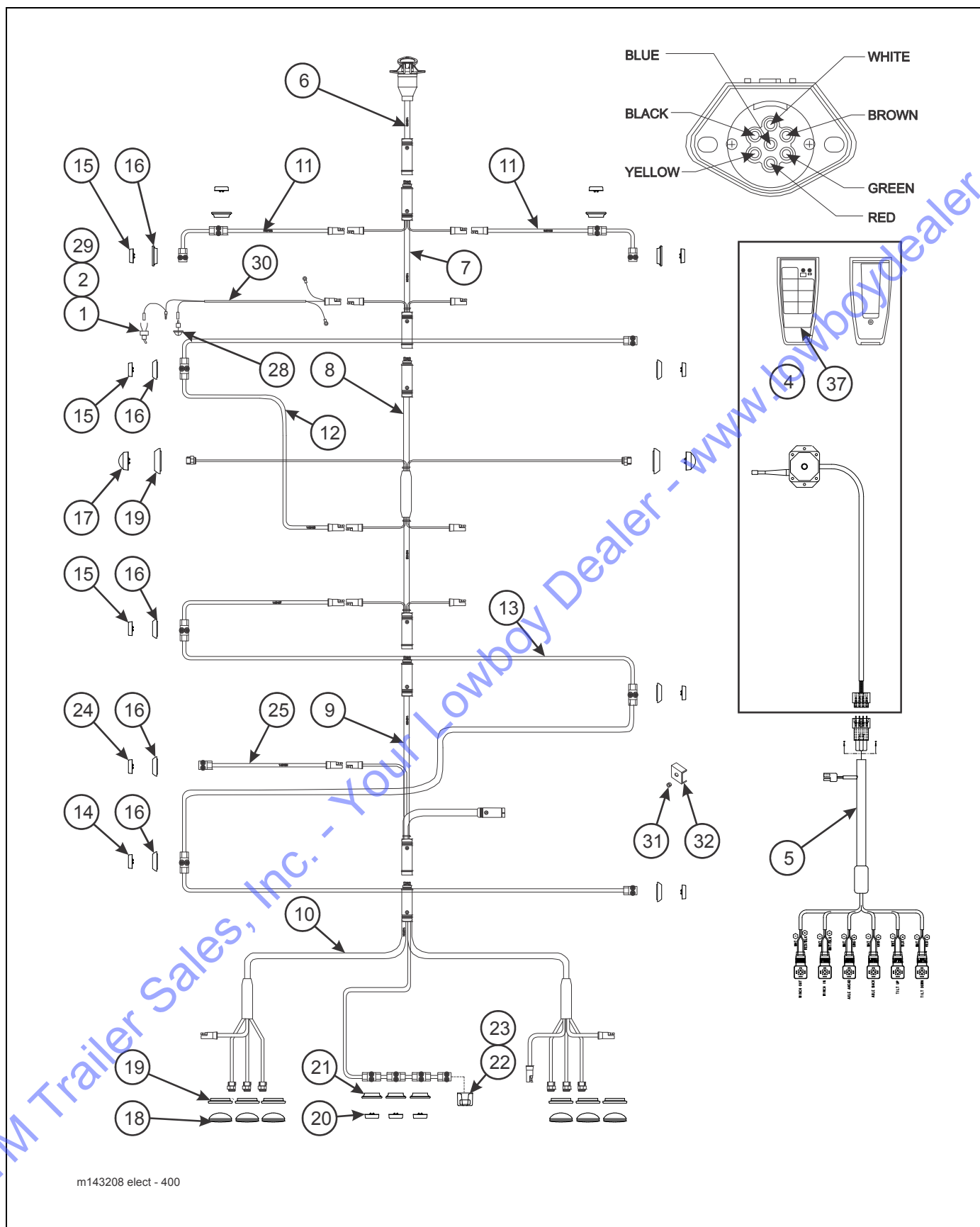


**Figure 2-21: Electrical System**

**ELECTRICAL SYSTEM**

| ITEM | PART NO.        | DESCRIPTION                             | QTY. |
|------|-----------------|-----------------------------------------|------|
| 1    | STP-147         | CONNECTOR, BULLET MALE                  | 2    |
| 2    | STP-164         | CONNECTOR, BULLET FEMALE                | 1    |
| 3    | 1-796-010003-02 | TIE WRAPS (NOT SHOWN)                   | 2    |
| 4*   | 139537          | RECEIVER/TRANSMITTER ASSEMBLY, KAR-TECH | 1    |
|      | 143125          | TRANSMITTER, 6 FUNCTION                 | 1    |
|      | 143127          | POUCH, TRANSMITTER                      | 1    |
| 5    | 140083          | HARNESS ASSEMBLY, KAR-TECH              | 1    |
| 6    | 143100          | HARNESS, 7 WAY RECEPTACLE               | 1    |
| 7    | 143101          | HARNESS, FRONT MAIN                     | 1    |
| 8    | 143102          | HARNESS, BED MAIN                       | 1    |
| 9    | 143103          | HARNESS, E-CHAIN                        | 1    |
| 10   | 143104          | HARNESS, BUMPER                         | 1    |
| 11   | 143105          | HARNESS, MARKER FRONT CORNER            | 2    |
| 12   | 143106          | HARNESS, MARKER FRONT BED               | 1    |
| 13   | 143107          | HARNESS, MARKER REAR BED                | 1    |
| 14   | 143108          | LIGHT, RED LED 2.5 CL/MARKER            | 2    |
| 15   | 143109          | LIGHT, YELLOW LED 2.5 CL/MARKER         | 8    |
| 16   | 143110          | GROMMET, 2.5 SURFACE MOUNT              | 7    |
| 17   | 143112          | LIGHT, YEL AUX TURN                     | 2    |
| 18   | 143113          | LIGHT, RED LED OVAL STT                 | 6    |
| 19   | 143114          | GROMMET, OVAL                           | 8    |
| 20   | 143115          | LIGHT, RED LED RECT CLEARANCE           | 3    |
| 21   | 143116          | GROMMET, RECT                           | 3    |
| 22   | 143117          | LIGHT, CLEAR LED LICENSE                | 1    |
| 23   | 143118          | BRACKET, LIGHT LICENSE                  | 1    |
| 24   | 143119          | LIGHT, YELLOW LED ABS                   | 1    |
| 25   | 143120          | HARNESS, ABS LAMP                       | 1    |
| 26   | 143122          | CLAMP, HARNESS (NOT SHOWN)              | 4    |
| 27   | 239-3646-5      | TERMINAL RING 1/4 X 14AWG (NOT SHOWN)   | 1    |
| 28   | 26331           | LIGHT, PANEL                            | 1    |
| 29   | 3-272-010017    | TOGGLE SWITCH, SEALED                   | 1    |
| 30   | 3-368-010253    | HARNESS ASSY, CONTROL PANEL 600         | 1    |
| 31   | 1-510-010001    | NUT, FLANGE 3/8-16                      | AR   |
| 32   | 2-181-010001    | CLAMP, HOSE                             | AR   |
| 37   | 143128          | DECAL, 6 FUNCTION WINCH, TILT, AXLE     | 1    |
| 38   | 143111          | GROMMET, 2.5 RECESSED MOUNT             | 4    |

\* ITEM 37 (DECAL) MUST BE PURCHASED WITH THE PURCHASE OF EITHER P/N 139537 (RECEIVER/TRANSMITTER) OR 143125 (TRANSMITTER)

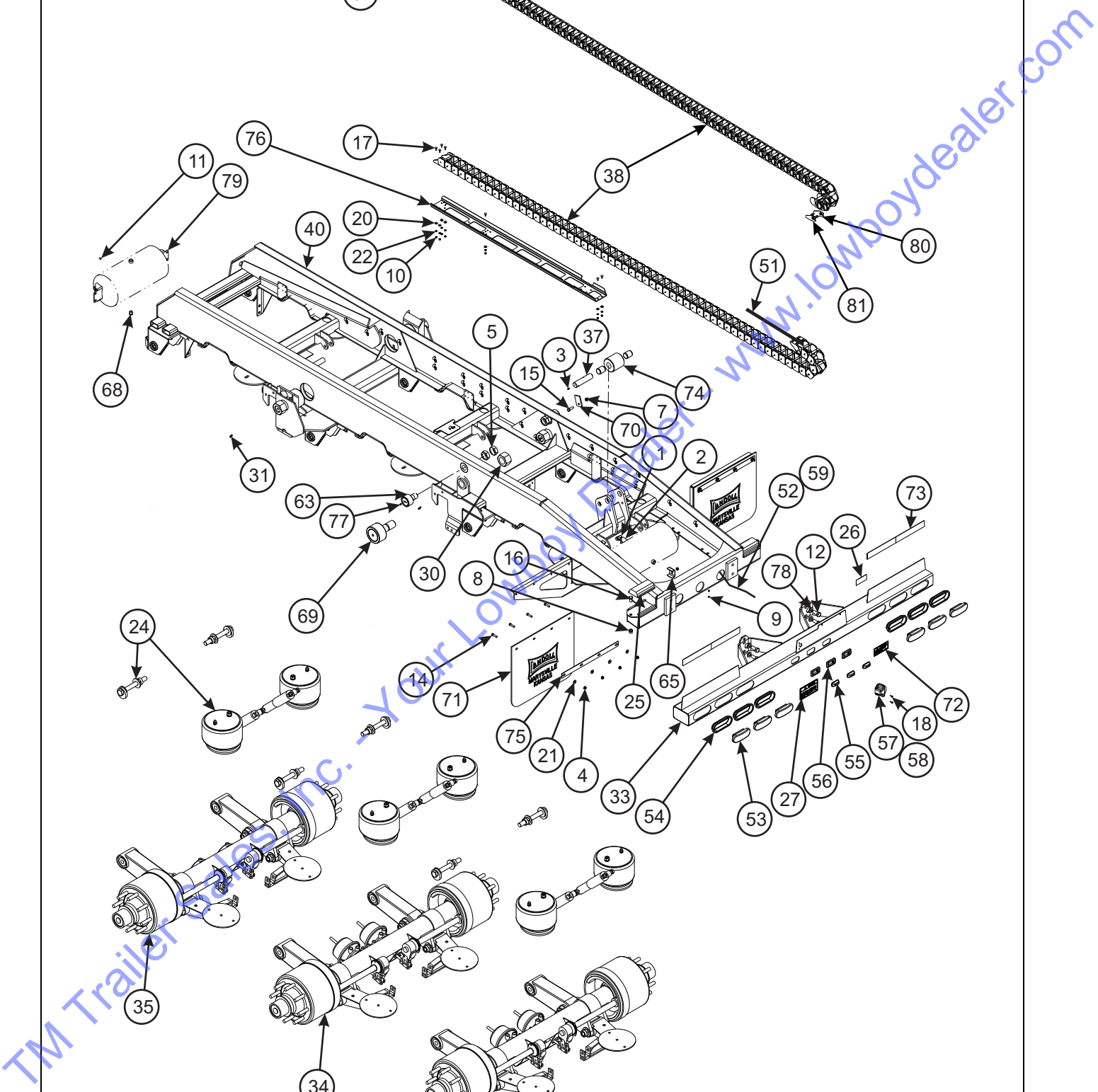
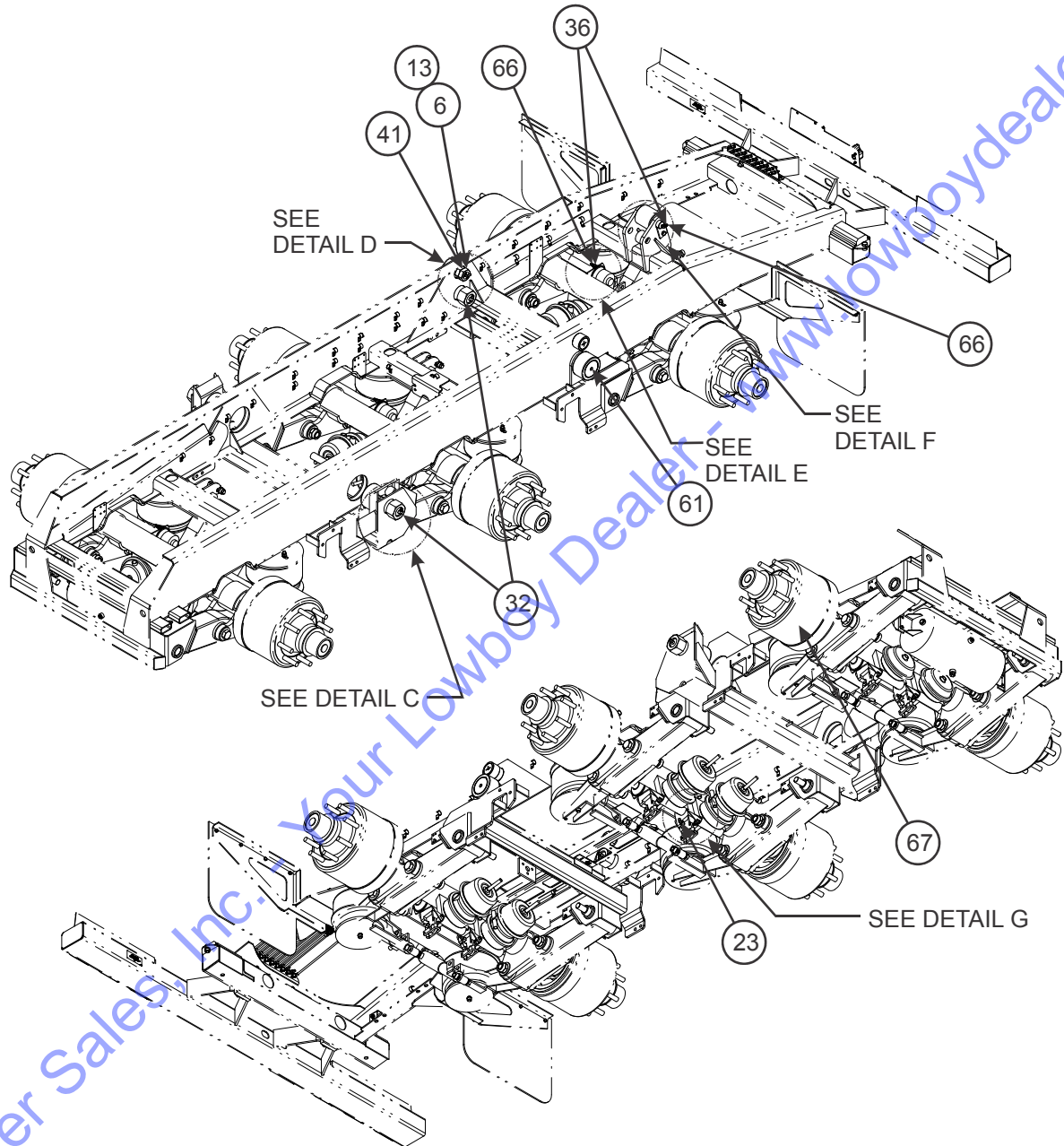


**Figure 2-22: U/C Assembly, Air Ride Suspension (410)**  
(1 of 4)



m143207p1a

Figure 2-23: U/C Assembly, Air Ride Suspension (410)  
(2 of 4)

ILLUSTRATED PARTS LIST

|                         |                       |             |                   |                   |            |                       |                   |                       |                   |                   |
|-------------------------|-----------------------|-------------|-------------------|-------------------|------------|-----------------------|-------------------|-----------------------|-------------------|-------------------|
| FRT OTR CAMSHAFT        | FRT INR CAMSHAFT      | FRT SLACK   | FRT OTR CAMSHAFT  | FRT INR CAMSHAFT  | FRT SLACK  | FRT CAM FOLLOWER      | FRT CAM FOLLOWER  | FRT SLACK             | FRT INR CAMSHAFT  | FRT OTR CAMSHAFT  |
| FRT CAM FOLLOWER        | REAR CAM FOLLOWER     |             | CTR OTR CAMSHAFT  | CTR INR CAMSHAFT  | CTR SLACK  | HOLD-DOWN CAMFOLLOWER | REAR ROLLER       | HOLD-DOWN CAMFOLLOWER | CTR SLACK         | CTR INR CAMSHAFT  |
| REAR OTR CAMSHAFT       | REAR INR CAMSHAFT     | REAR SLACK  | REAR OTR CAMSHAFT | REAR INR CAMSHAFT | REAR SLACK | REAR CAM FOLLOWER     | REAR CAM FOLLOWER | REAR SLACK            | REAR INR CAMSHAFT | REAR OTR CAMSHAFT |
| CTR OTR CAMSHAFT        | CTR INR CAMSHAFT      | CTR SLACK   |                   |                   |            |                       |                   |                       |                   |                   |
| CENTER HOLD-DOWN ROLLER | HOLD-DOWN CAMFOLLOWER | REAR ROLLER |                   |                   |            |                       |                   |                       |                   |                   |
| LEFT SIDE               | RIGHT SIDE            | 142553      |                   |                   |            |                       |                   |                       |                   |                   |

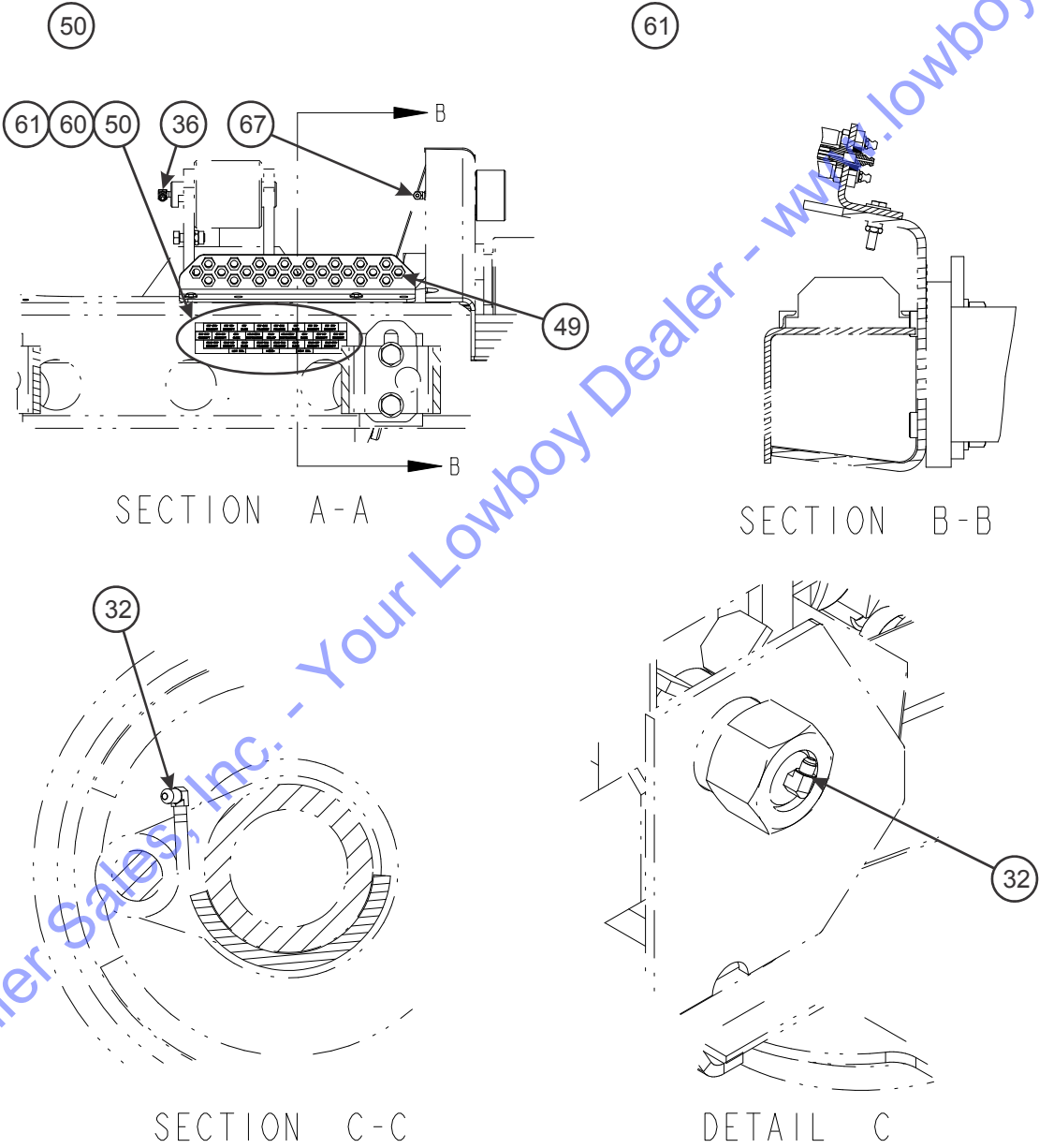


Figure 2-24: U/C Assembly, Air Ride Suspension (410)  
(3 of 4)

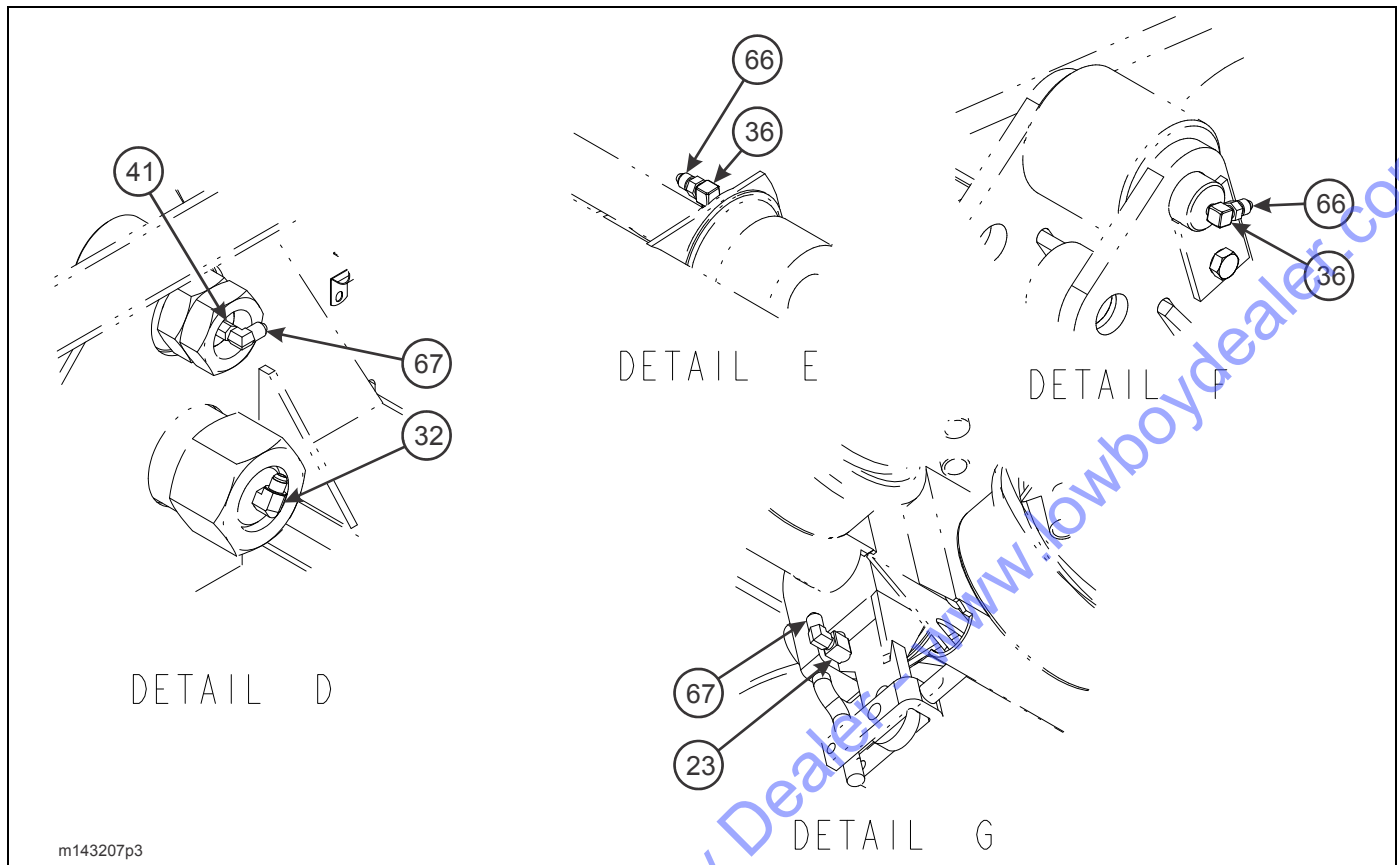


Figure 2-25: U/C Assembly, Air Ride Suspension (410)  
(4 of 4)

## UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (410)

| ITEM | PART NO.        | DESCRIPTION                             | QTY. |
|------|-----------------|-----------------------------------------|------|
|      | ----            | AIR RIDE SUSPENSION 410                 |      |
| 1    | 1-297-010013-16 | FITTING, AIR 45                         | 1    |
| 2    | 1-297-010018-04 | FITTING, TEE 1/4                        | 1    |
| 3    | 1-298-010001-1  | ZERK FITTING 1/4                        | 1    |
| 4    | 1-510-010001    | NUT, FLANGE LOCK 3/8-16                 | 9    |
| 5    | 1-511-010001-14 | NUT, HEX JAM 1-1/2-12                   | 4    |
| 6    | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB                | 2    |
| 7    | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB                | 1    |
| 8    | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB                | 2    |
| 9    | 1-512-010007-03 | NUT, HEX 10-24 GRB                      | 2    |
| 10   | 1-512-010007-05 | NUT, HEX 1/4-20 GRB                     | 10   |
| 11   | 1-560-010002-02 | PLUG, PIPE 3/8                          | 1    |
| 12   | 1-654-010032-4  | SCREW, HEX HEAD CAP 3/4-10 X 1-3/4 GR8  | 4    |
| 13   | 1-654-010047-07 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5  | 2    |
| 14   | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5  | 8    |
| 15   | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5  | 1    |
| 16   | 1-654-010059-01 | SCREW, HEX HEAD CAP 5/8-11 X 1 GR5      | 2    |
| 17   | 1-654-010158-1  | SCREW, RD HEAD SQ NECK 1/4-20 X 3/4 GR2 | 10   |
| 18   | 1-656-010003051 | SCREW, RD HEAD MACH 10-24 X 3/4         | 2    |
| 19   | 1-843-010014    | VALVE EXTENSION, STEM (SEE PAGE 2-64)   | 6    |
| 20   | 1-861-010032-07 | WASHER, FLAT 1/4                        | 10   |

## UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (410)

| ITEM | PART NO.        | DESCRIPTION                                                            | QTY. |
|------|-----------------|------------------------------------------------------------------------|------|
| 21   | 1-861-010032-11 | WASHER, FLAT 3/8W                                                      | 8    |
| 22   | 1-861-010034-09 | WASHER, SPLIT LOCK 1/4                                                 | 10   |
| 23   | 101528          | ELBOW, BRASS PIPE STREET                                               | 6    |
| 24   | 102363          | SUSPENSION ADJ RLU-228-3.5 (SEE PAGE 2-54)                             | 3    |
| 25   | 102698          | NYLATRON RUB PLATE                                                     | 2    |
| 26   | 103055          | DECAL, ENERGY BUMPER CERT                                              | 1    |
| 27   | 103056          | DECAL, ENERGY BUMPER WARNING                                           | 1    |
| 28   | 103084          | SUSP. AIR SYS TRIDEM (SEE PAGE 2-50)                                   | 1    |
| 29   | 103816          | AIR SYSTEM, U/C ABS TRI. (SEE PAGE 2-59)                               | 1    |
| 30   | 104034          | NUT, HEX 2-12 GRB                                                      | 4    |
| 31   | 110-4950        | FITTING, GREASE 1/4                                                    | 4    |
| 32   | 113268          | ADAPTER, 90                                                            | 4    |
| 33   | 119580          | BUMPER WELDMENT E/P 102                                                | 1    |
| 34   | 121077          | AXLE WELDMENT A/R 2512 SPG 70.5 X 36                                   | 2    |
| 35   | 121078          | AXLE WELDMENT A/R 2512 SER 70.5 X 36<br>(FOR BREAKDOWN, SEE PAGE 2-55) | 1    |
| 36   | 121355          | ELBOW, 90                                                              | 7    |
| 37   | 121686          | PIN, 1-1/2 X 6-1/4                                                     | 1    |
| 38   | 122536          | SUPPORT E-CHAIN 410 <b>(BEFORE 6-3-2015)</b>                           | 1    |
|      | 3-755-010189-1  | E-CHAIN LINK ASSEMBLY (38-06-075-0) <b>(BEFORE 6-3-2015)</b>           | 58   |
|      | 189318          | SUPPORT E-CHAIN, 58 LINKS <b>(AFTER 6-3-2015)</b>                      | 1    |
| 39   | 126537          | DOCK LEVEL ASSEMBLY 120K (SEE PAGE 2-118)                              | 1    |
|      | 121498          | DOCK LEVEL ASSEMBLY SINGLE 60K (SEE PAGE 2-116)                        | 1    |
| 40   | 128672          | SUSPENSION WELDMENT                                                    | 1    |
| 41   | 131590          | FITTING, BRASS PIPE ADAPTER                                            | 2    |
| 42*  | 142441          | HOSE ASSEMBLY, GREASE 1/8 X 45                                         | 1    |
| 43*  | 142442          | HOSE ASSEMBLY, GREASE 1/8 X 60                                         | 4    |
| 44*  | 142443          | HOSE ASSEMBLY, GREASE 1/8 X 72                                         | 2    |
| 45*  | 142444          | HOSE ASSEMBLY, GREASE 1/8 X 83                                         | 4    |
| 46*  | 142446          | HOSE ASSEMBLY, GREASE 1/8 X 118                                        | 4    |
| 47*  | 142447          | HOSE ASSEMBLY, GREASE 1/8 X 126                                        | 2    |
| 48*  | 142454          | HOSE ASSEMBLY, GREASE 1/8 X 200                                        | 2    |
| 49   | 142545          | NUT, 7/16                                                              | 25   |
| 50   | 142553          | DECAL, GREASE TRAILER U/C                                              | 2    |
| 51   | 143103          | HARNESS, E-CHAIN                                                       | 1    |
| 52   | 143104          | HARNESS, BUMPER                                                        | 1    |
| 53   | 143113          | LIGHT, RED LED OVAL STT                                                | 6    |
| 54   | 143114          | GROMMET, OVAL                                                          | 6    |
| 55   | 143115          | LIGHT, RED LED RECT CL                                                 | 3    |
| 56   | 143116          | GROMMET, RECT                                                          | 3    |
| 57   | 143117          | LIGHT, CLEAR LED LICENSE                                               | 1    |
| 58   | 143118          | BRACKET, LIGHT LICENSE                                                 | 1    |
| 59   | 143122          | CLAMP, HARNESS                                                         | 1    |
| 60   | 143182          | BRACKET, GREASE HOSE                                                   | 1    |
| 61   | 143688          | DECAL, GREASE                                                          | 1    |
| 62*  | 144614          | HOSE ASSEMBLY, GREASE 1/8 X 172                                        | 2    |
| 63   | 145014          | CAM FOLLOWER 3" MOD GREASE (PRIOR 07/01/2007)                          | 2    |
|      | 145532          | CAM FOLLOWER 3" SEALED (AFTER 07/01/2007)                              | 2    |
| 64*  | 145416          | HOSE ASSEMBLY, GREASE 1/8 X 186                                        | 4    |

**UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (410)**

| ITEM | PART NO.     | DESCRIPTION                                | QTY. |
|------|--------------|--------------------------------------------|------|
| 65   | 2-181-010001 | CLAMP, HOSE                                | 1    |
| 66   | 2021-2-4     | ADAPTER, STRAIGHT                          | 7    |
| 67   | 2024-2-4S    | ADAPTER, ELBOW                             | 14   |
| 68   | 2081-8-4S    | REDUCER                                    | 1    |
| 69   | 3-076-010015 | CAM FOLLOWER 5" DIA                        | 4    |
| 70   | 3-187-010013 | CLIP, PIN RETAINER                         | 1    |
| 71   | 3-485-010001 | MUD FLAP, 21"                              | 2    |
| 72   | 3-573-010031 | DECAL, TRAILER BUMPER                      | 1    |
| 73   | 3-573-010377 | DECAL, 2" REFLEXITE TAPE RED/WHITE         | AR   |
| 74   | 3-645-010084 | ROLLER ASSEMBLY, REAR U/C                  | 1    |
| 75   | 3-762-010017 | CLAMP, MUD FLAP                            | 2    |
| 76   | 3-821-010005 | TRAY, CAT TRACK                            | 1    |
| 77   | 5029         | ZERK, 1/4 STR DRIVE -IN                    | 2    |
| 78   | 622-3511-008 | WASHER, 3/4N                               | 4    |
| 79   | 3-780-010002 | TANK, AIR                                  | REF  |
| 80   | 190701       | BRACKET WLDMT, E-CHAIN LH (AFTER 6-3-2015) | 1    |
| 81   | 190706       | BRACKET WLDMT, E-CHAIN RH (AFTER 6-3-2015) | 1    |
| 82   | 190700ZP     | BRACKET, E-CHAIN LH (AFTER 6-3-2015)       | 1    |
| 83   | 190705ZP     | BRACKET, E-CHAIN RH (AFTER 6-3-2015)       | 1    |
|      | 189383       | FIELD INSTALLATION KIT (ITEMS 38 & 80-83)  | 1    |

\* SEE TABLE BELOW FOR HOSE LOCATIONS

**GREASE HOSE LOCATION, P/N, AND LENGTH**

| ITEM | HOSE LOCATION                         | RIGHT  | LEFT   | LENGTH |
|------|---------------------------------------|--------|--------|--------|
| 42   | TO REAR ROLLER                        | 142441 | -----  | 45"    |
| 43   | TO REAR SLACK                         | 142442 | 142442 | 60"    |
| 43   | TO REAR INNER CAMSHAFT                | 142442 | 142442 | 60"    |
| 44   | TO REAR OUTER CAMSHAFT                | 142443 | 142443 | 72"    |
| 45   | TO 3" CAM FOLLOWER (PRIOR 07/01/2007) | 142444 | 142444 | 83"    |
| 45   | TO REAR 5" CAM FOLLOWER               | 142444 | 142444 | 83"    |
| 46   | TO MID INNER CAMSHAFT                 | 142446 | 142446 | 118"   |
| 46   | TO MID SLACK                          | 142446 | 142446 | 118"   |
| 47   | TO MID OUTER CAMSHAFT                 | 142447 | 142447 | 126"   |
| 48   | TO FRONT OUTER CAMSHAFT               | 142454 | 142454 | 200"   |
| 62   | TO FRONT 5" CAM FOLLOWER              | 144614 | 144614 | 172"   |
| 64   | TO FRONT INNER CAMSHAFT               | 145416 | 145416 | 186"   |
| 64   | TO FRONT SLACK                        | 145416 | 145416 | 186"   |

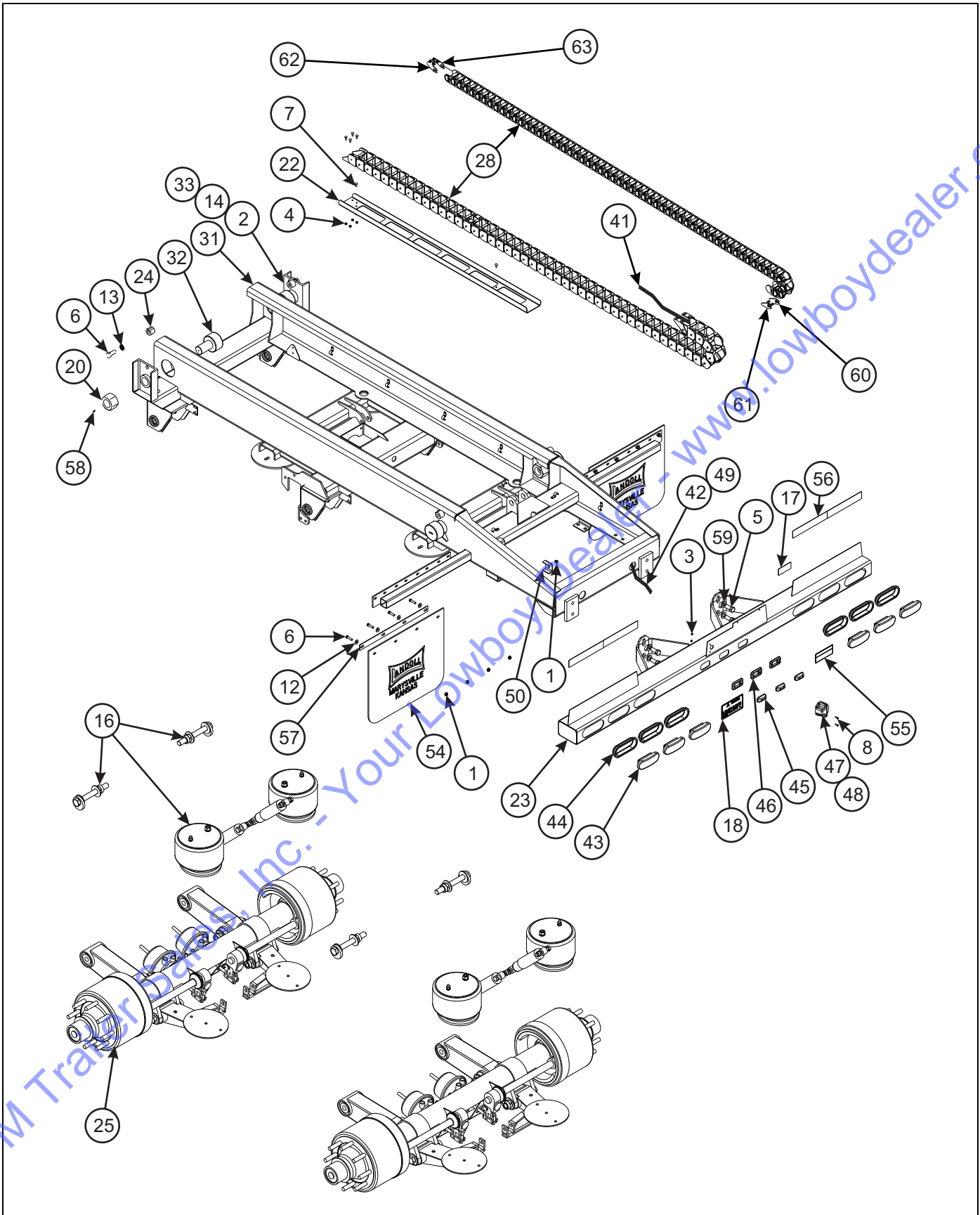


Figure 2-26: U/C Assembly, Air Ride Suspension (425 & 435)  
(1 of 4)

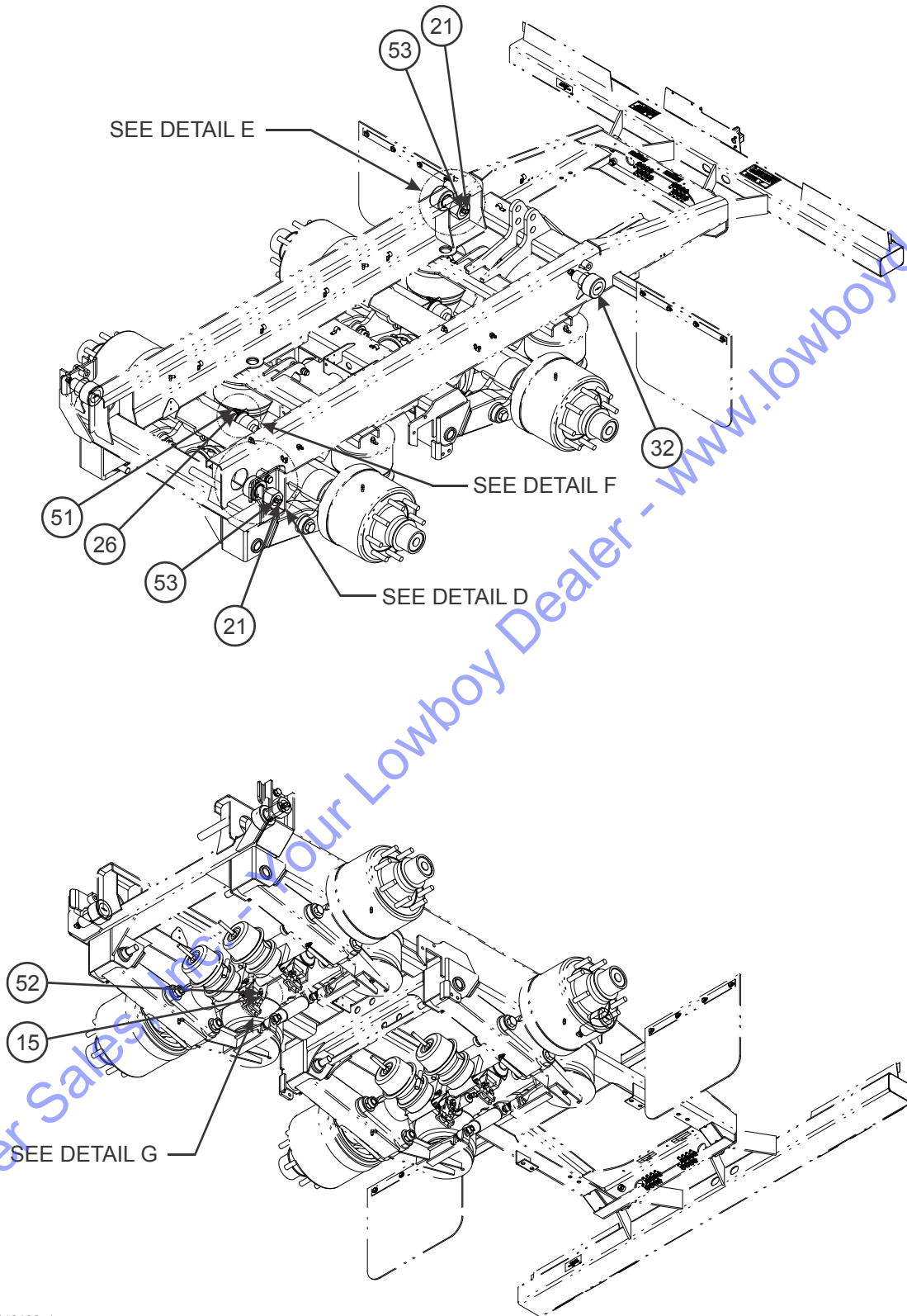
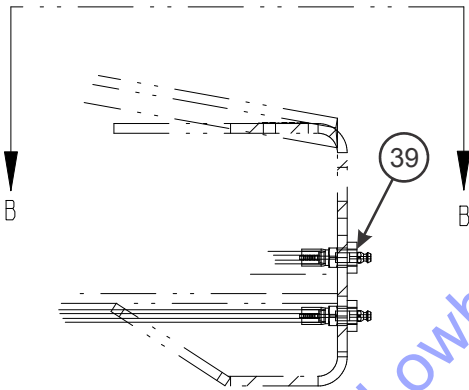
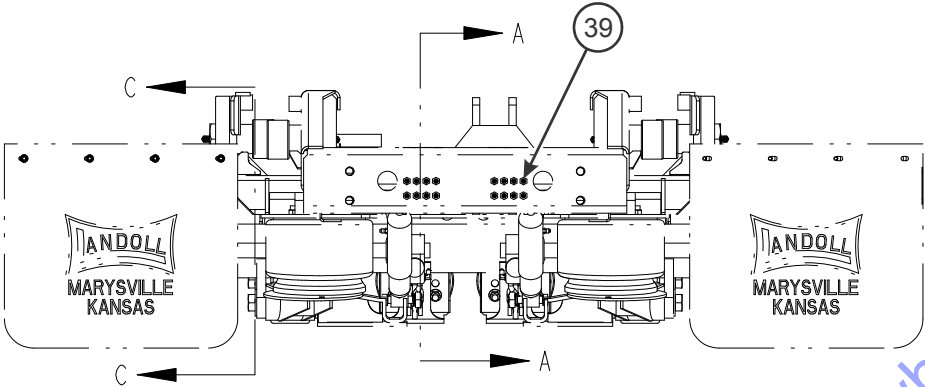
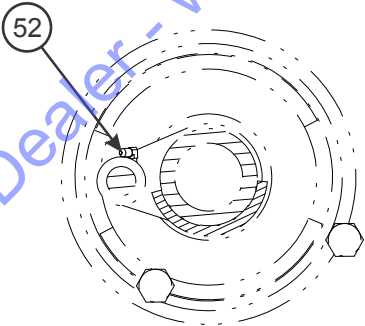


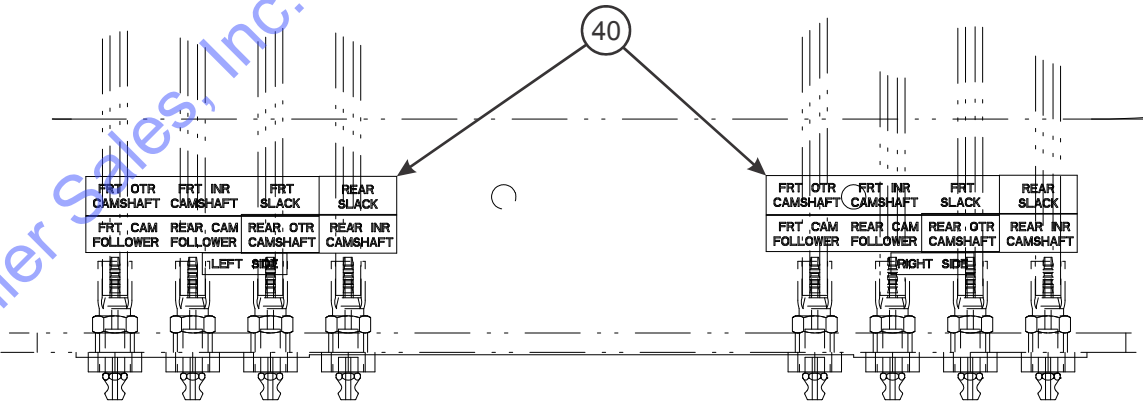
Figure 2-27: U/C Assembly, Air Ride Suspension (425 & 435)  
(2 of 4)



SECTION A-A



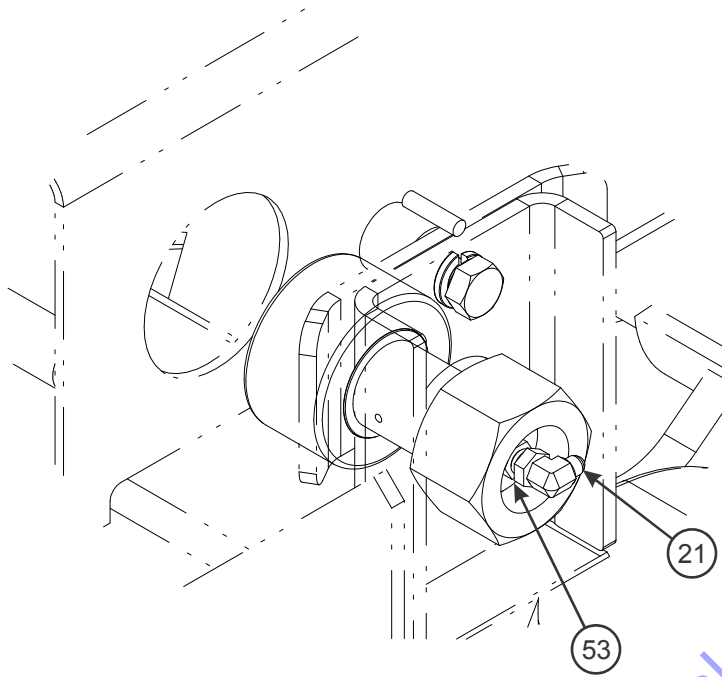
SECTION C-C



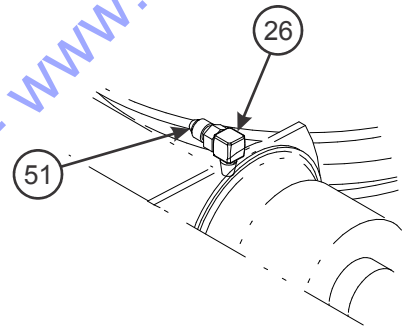
SECTION B-B

m143186p2

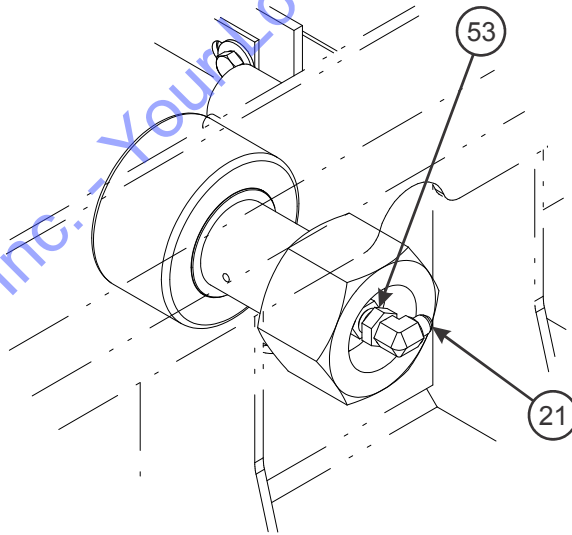
Figure 2-28: U/C Assembly, Air Ride Suspension (425 & 435)  
(3 of 4)



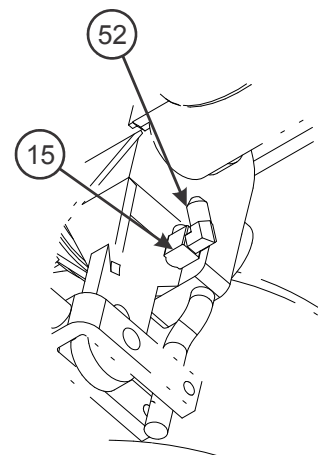
DETAIL D



DETAIL F



DETAIL E



DETAIL G

m143186p3

Figure 2-29: U/C Assembly, Air Ride Suspension (425 & 435)  
(4 of 4)

## UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (425 & 435)

| ITEM | PART NO.        | DESCRIPTION                                                            | QTY.    |
|------|-----------------|------------------------------------------------------------------------|---------|
|      | -----           | SUSPENSION U/C ASSEMBLY A/R ABS 2512-70.5 D/L                          |         |
| 1    | 1-510-010001    | NUT, FLANGE LOCK 3/8-16                                                | 9       |
| 2    | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB                                               | 4       |
| 3    | 1-512-010007-03 | NUT, HEX 10-24 GRB                                                     | 2       |
| 4    | 1-512-010007-05 | NUT, HEX 1/4-20 GRB                                                    | 6       |
| 5    | 1-654-010032-4  | SCREW, HEX HEAD CAP 3/4-10 X 1-3/4 GR8                                 | 6       |
| 6    | 1-654-010051-07 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/2 GR5                                 | 8       |
| 7    | 1-654-010158-1  | SCREW, RD HEAD SQ NECK 1/4-20 X 3/4 GR2                                | 6       |
| 8    | 1-656-010003051 | SCREW, RD HEAD MACH 10-24 X 3/4                                        | 2       |
| 9    | 1-796-010003-02 | TIE STRAP, PLASTIC (NOT SHOWN)                                         | 10      |
| 10   | 1-796-010004-02 | TIE, STRAP, PLASTIC (NOT SHOWN)                                        | 4       |
| 11   | 1-843-010014    | VALVE EXTENSION, STEM (SEE PAGE 2-64)                                  | 4       |
| 12   | 1-861-010032-11 | WASHER, FLAT 3/8W                                                      | 8       |
| 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   | 101528          | ELBOW, BRASS PIPE STREET                                               | 4       |
| 16   | 102363          | SUSP ADJ RLU-228-3.5 (SEE PAGE 2-54)                                   | 2       |
| 17   | 103055          | DECAL, ENERGY BUMPER CERT                                              | 1       |
| 18   | 103056          | DECAL, ENERGY BUMPER WARNING                                           | 1       |
| 19   | 103082          | SUSPENSION, AIR RLU A/R TANDEM (SEE PAGE 2-48)                         | 1       |
| 20   | 104034          | NUT, HEX 2-12 GR2                                                      | 4       |
| 21   | 113268          | ADAPTER 90                                                             | 4       |
| 22   | 118897          | TRAY, E-CHAIN                                                          | 1       |
| 23   | 119580          | BUMPER WELDMENT E/P 102                                                | 1       |
| 24   | 120451          | HOLD DOWN 425 U/C                                                      | 4       |
| 25   | 121077          | AXLE WELDMENT A/R 2512 SPG 70.5 X 36<br>(FOR BREAKDOWN, SEE PAGE 2-55) | 2       |
| 26   | 121355          | ELBOW, 90                                                              | 4       |
| 27   | 121498          | DOCK LEVELER ASSEMBLY (SEE PAGE 2-116)                                 | 1       |
| 28   | 122536          | SUPPORT E-CHAIN (435) <b>(BEFORE 6-3-2015)</b>                         | 1       |
|      | 3-755-010189    | SUPPORT E-CHAIN (425) <b>(BEFORE 6-3-2015)</b>                         | 1       |
|      | 3-755-010189-1  | E-CHAIN LINK ASSEMBLY (38-06-075-0) <b>(BEFORE 6-3-2015)</b>           | *58, 48 |
|      | 189318          | SUPPORT E-CHAIN, 58 LINKS <b>(AFTER 6-3-2015)</b>                      | 1       |
| 29   | 124559          | SPACER, D/L MOUNT (NOT SHOWN)                                          | 8       |
| 30   | 127579          | AIR SYSTEM, U/C 435 ABS (SEE PAGE 2-59)                                | 1       |
| 31   | 130556          | UNDERCARRIAGE WELDMENT                                                 | 1       |
| 32   | 137279          | CAM FOLLOWER 4" MOD GREASE                                             | 4       |
| 33   | 140829          | PLATE, WEAR U/C                                                        | 2       |
| 34*  | 142441          | HOSE ASSEMBLY GREASE X 45 (435)                                        | 2       |
|      | 142442          | HOSE ASSEMBLY GREASE X 60 (435-CA)                                     | 2       |
| 35*  | 142443          | HOSE ASSEMBLY GREASE X 72 (435)                                        | 6       |
|      | 144613          | HOSE ASSEMBLY GREASE X 88 (435-CA)                                     | 6       |
| 36*  | 142446          | HOSE ASSEMBLY GREASE X 118 (435)                                       | 4       |
|      | 142448          | HOSE ASSEMBLY GREASE X 133 (435-CA)                                    | 4       |
| 37*  | 142447          | HOSE ASSEMBLY GREASE X 126 (435)                                       | 2       |
|      | 142450          | HOSE ASSEMBLY GREASE X 144 (435-CA)                                    | 2       |
| 38*  | 142451          | HOSE ASSEMBLY GREASE X 156 (435)                                       | 2       |

## UNDERCARRIAGE ASSEMBLY, AIR RIDE SUSPENSION (425 & 435)

| ITEM | PART NO.     | DESCRIPTION                                | QTY. |
|------|--------------|--------------------------------------------|------|
|      | 144614       | HOSE ASSEMBLY GREASE X 172 (435-CA)        | 2    |
| 39   | 142545       | NUT, 7/16                                  | 16   |
| 40   | 142553       | DECAL, GREASE U/C                          | 2    |
| 41   | 143103       | HARNESS ASSEMBLY, E-CHAIN                  | 1    |
| 42   | 143104       | HARNESS ASSEMBLY, BUMPER                   | 1    |
| 43   | 143113       | LIGHT, RED LED OVAL STT                    | 6    |
| 44   | 143114       | GROMMET, OVAL                              | 6    |
| 45   | 143115       | LIGHT, RED LED RECT CL                     | 3    |
| 46   | 143116       | GROMMET RECT                               | 3    |
| 47   | 143117       | LIGHT, CLEAR LED LICENSE                   | 1    |
| 48   | 143118       | BRACKET, LIGHT LICENSE                     | 1    |
| 49   | 143122       | CLAMP, HARNESS                             | 1    |
| 50   | 2-181-010001 | CLAMP, HOSE                                | 1    |
| 51   | 2021-2-4     | ADAPTER, STRAIGHT                          | 4    |
| 52   | 2024-2-4S    | ADAPTER, ELBOW                             | 8    |
| 53   | 2045-4-4S    | ADAPTER, SWIVEL                            | 4    |
| 54   | 3-485-010001 | MUD FLAP, 21"                              | 2    |
| 55   | 3-573-010031 | DECAL, TRAILER BUMPER                      | 1    |
| 56   | 3-573-010377 | DECAL, 2" REFLEXITE TAPE RED/WHITE         | AR   |
| 57   | 3-762-010017 | CLAMP, MUD FLAP                            | 2    |
| 58   | 5029         | ZERK, 1/4 STR DRIVE -IN                    | 4    |
| 59   | 622-3511-008 | WASHER, 3/4N                               | 4    |
| 60   | 190701       | BRACKET WLDMT, E-CHAIN LH (AFTER 6-3-2015) | 1    |
| 61   | 190706       | BRACKET WLDMT, E-CHAIN RH (AFTER 6-3-2015) | 1    |
| 62   | 190700ZP     | BRACKET, E-CHAIN LH (AFTER 6-3-2015)       | 1    |
| 63   | 190705ZP     | BRACKET, E-CHAIN RH (AFTER 6-3-2015)       | 1    |
|      | 189383       | FIELD INSTALLATION KIT (ITEMS 28 & 60-63)  | 1    |

\* SEE TABLES BELOW FOR HOSE LOCATIONS

### GREASE HOSE LOCATION, P/N, AND LENGTH (425/435)

| ITEM | HOSE LOCATION           | RIGHT  | LEFT   | LENGTH |
|------|-------------------------|--------|--------|--------|
| 34   | TO REAR FOLLOWER        | 142441 | 142441 | 45"    |
| 35   | TO REAR INNER CAMSHAFT  | 142443 | 142443 | 72"    |
| 35   | TO REAR OUTER CAMSHAFT  | 142443 | 142443 | 72"    |
| 35   | TO REAR SLACK           | 142443 | 142443 | 72"    |
| 36   | TO FRONT INNER CAMSHAFT | 142446 | 142446 | 118"   |
| 36   | TO FRONT SLACK          | 142446 | 142446 | 118"   |
| 37   | TO FRONT OUTER CAMSHAFT | 142447 | 142447 | 126"   |
| 38   | TO FRONT FOLLOWER       | 142451 | 142451 | 156"   |

### GREASE HOSE LOCATION, P/N, AND LENGTH (425/435-CA)

| ITEM | HOSE LOCATION          | RIGHT  | LEFT   | LENGTH |
|------|------------------------|--------|--------|--------|
| 34   | TO REAR FOLLOWER       | 142442 | 142442 | 60"    |
| 35   | TO REAR INNER CAMSHAFT | 144613 | 144613 | 88"    |

**GREASE HOSE LOCATION, P/N, AND LENGTH (425/435-CA)**

| ITEM | HOSE LOCATION           | RIGHT  | LEFT   | LENGTH |
|------|-------------------------|--------|--------|--------|
| 35   | TO REAR OUTER CAMSHAFT  | 144613 | 144613 | 88"    |
| 35   | TO REAR SLACK           | 144613 | 144613 | 88"    |
| 36   | TO FRONT INNER CAMSHAFT | 142448 | 142448 | 133"   |
| 36   | TO FRONT SLACK          | 142448 | 142448 | 133"   |
| 37   | TO FRONT OUTER CAMSHAFT | 142450 | 142450 | 144"   |
| 38   | TO FRONT FOLLOWER       | 144614 | 144614 | 172"   |

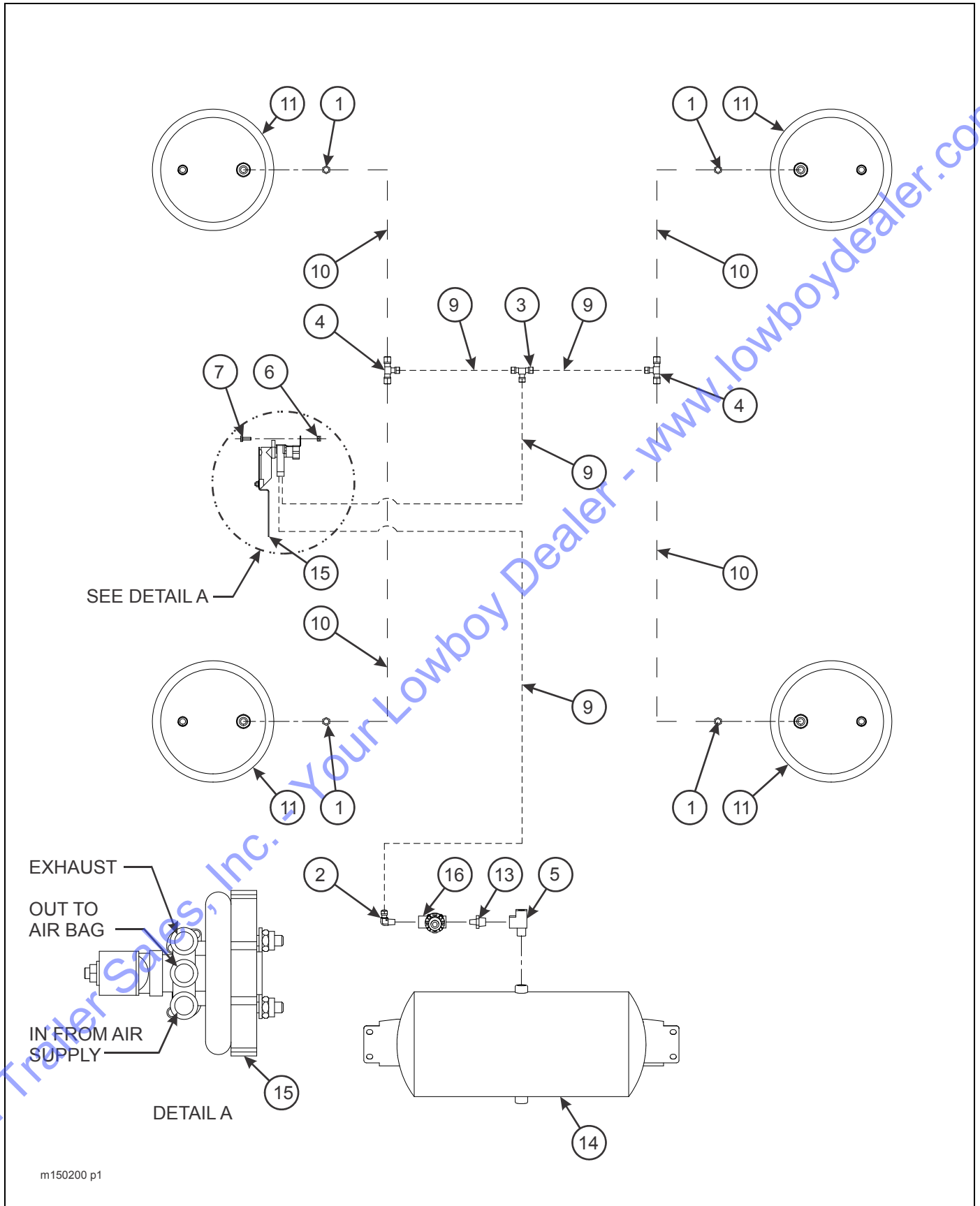


Figure 2-30: Air Ride Suspension, Air System (Tandem)

**AIR RIDE SUSPENSION AIR SYSTEM (TANDEM)**

| ITEM | PART NO.        | DESCRIPTION                                                   | QTY. |
|------|-----------------|---------------------------------------------------------------|------|
|      | 103082          | AIR RIDE, AIR SYSTEM (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 2-54)                   | REF  |
| 12   | 102732          | AIR CONTROL KIT NEWAY (INCL ITEMS 15 & 16)<br>(SEE PAGE 2-52) | 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    |

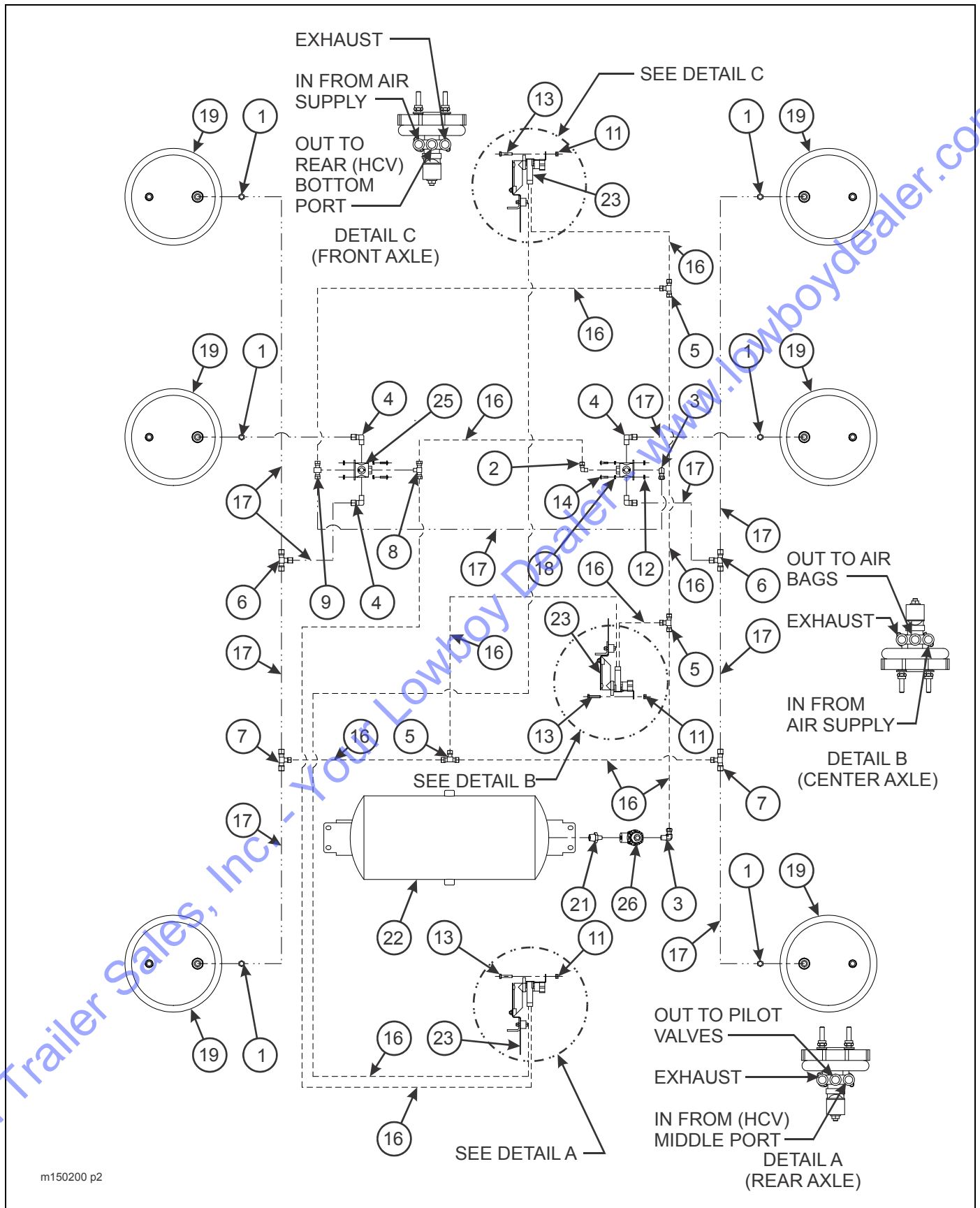
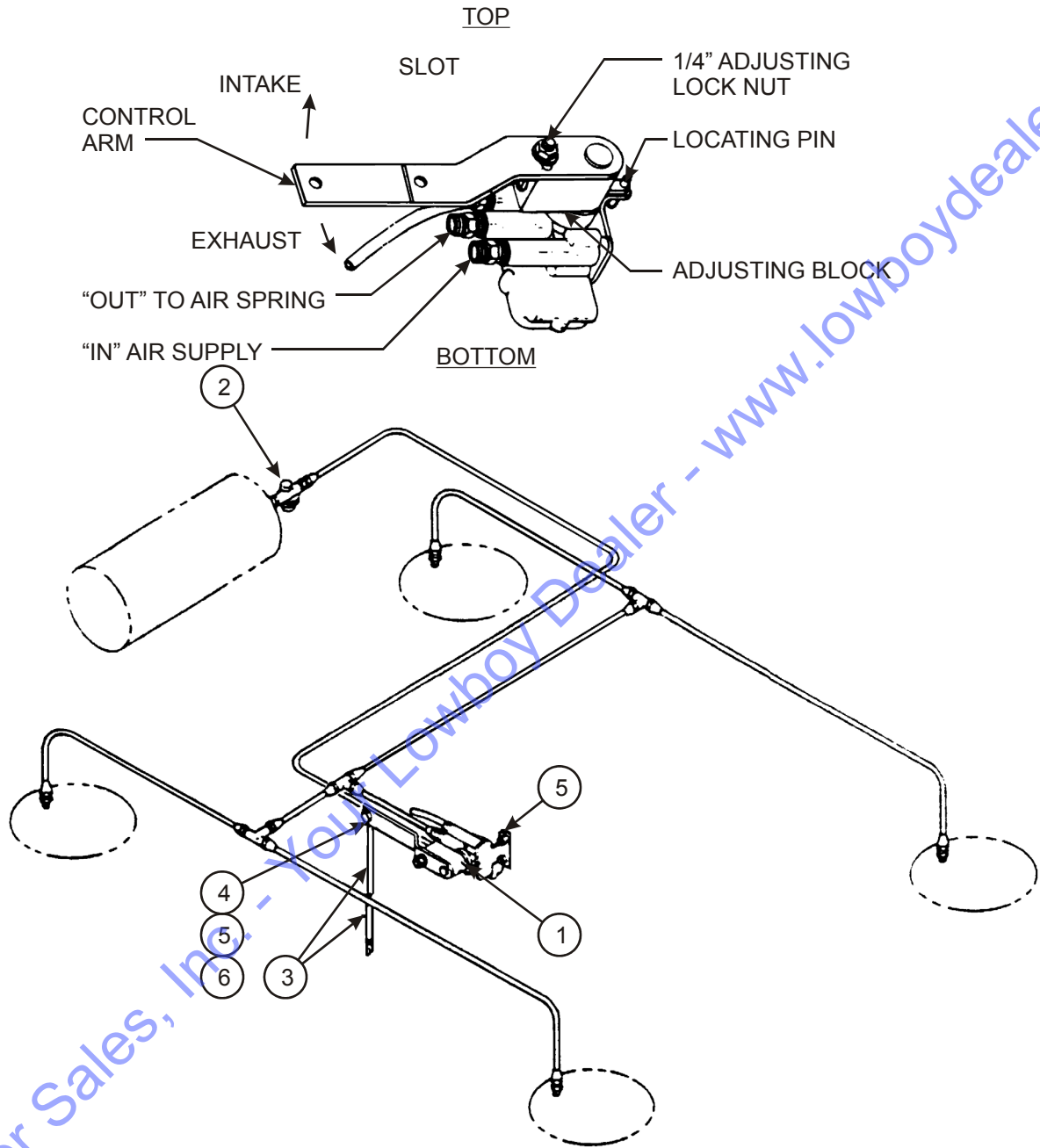


Figure 2-31: Air Ride Suspension, Air System (Triple)

## 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 2-54) | 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    |

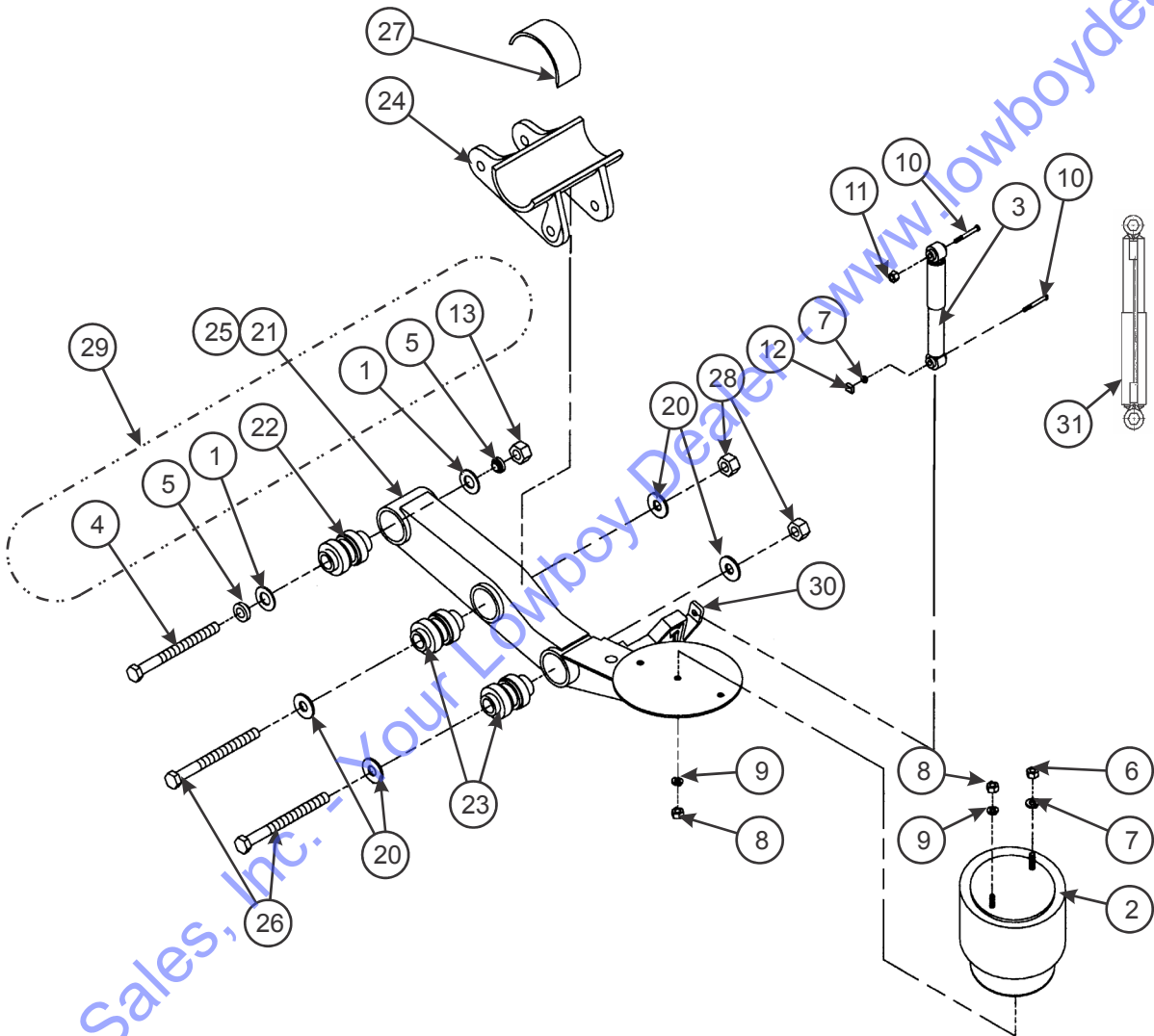


m102732

Figure 2-32: Air Control Kit

## AIR CONTROL KIT

| ITEM | PART NO.        | DESCRIPTION                            | QTY. |
|------|-----------------|----------------------------------------|------|
|      | 102732          | AIR CONTROL KIT NEWAY                  |      |
| 1    | 900 54 007      | HEIGHT CONTROL VALVE                   | 1    |
| 2    | 905-54-107      | AIR PRESSURE PROTECTION VALVE & FILTER | 1    |
|      | 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    |



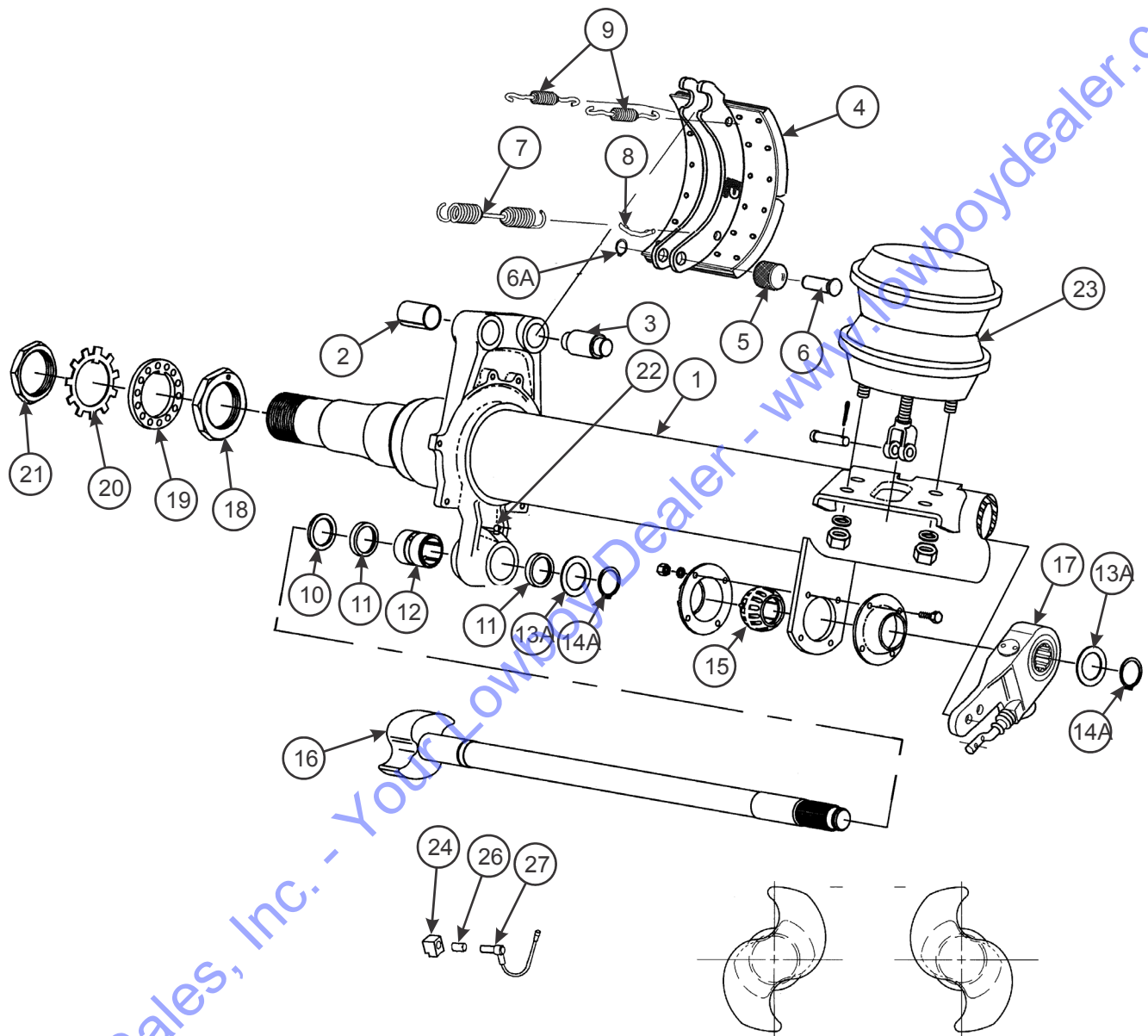
762m102361

Figure 2-33: 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    |
| 4    | 90508009        | ALIGN BUSH ASSEMBLY (CONSISTS OF:)             | 2    |
|      | -----           | ROD BOLT                                       | 1    |
|      | -----           | ALIGN BLOCK                                    | 1    |
| 5    | 900 08 186      | ALIGN BLOCK (102363)                           | 2    |
|      | 111007          | ALIGN BLOCK (102364)                           | 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    |
|      | 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    |
| 31   | 141708          | WIRE ROPE STRAP KIT RLU228-3.5                 | 1    |
|      | 127708          | WIRE ROPE STRAP KIT RLU228-5.5                 | 1    |

NOTE: QUANTITIES LISTED ARE PER AXLE.



TYPE I  
RH  
TYPE II  
LH  
VIEWED FROM HEAD END  
NOTE: RH DOES NOT NECESSARILY  
CORRESPOND W/ RH SIDE OF TRAILER

m115703a

Figure 2-34: Axle and Brake Assembly (12-1/4 x 7-1/2")

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

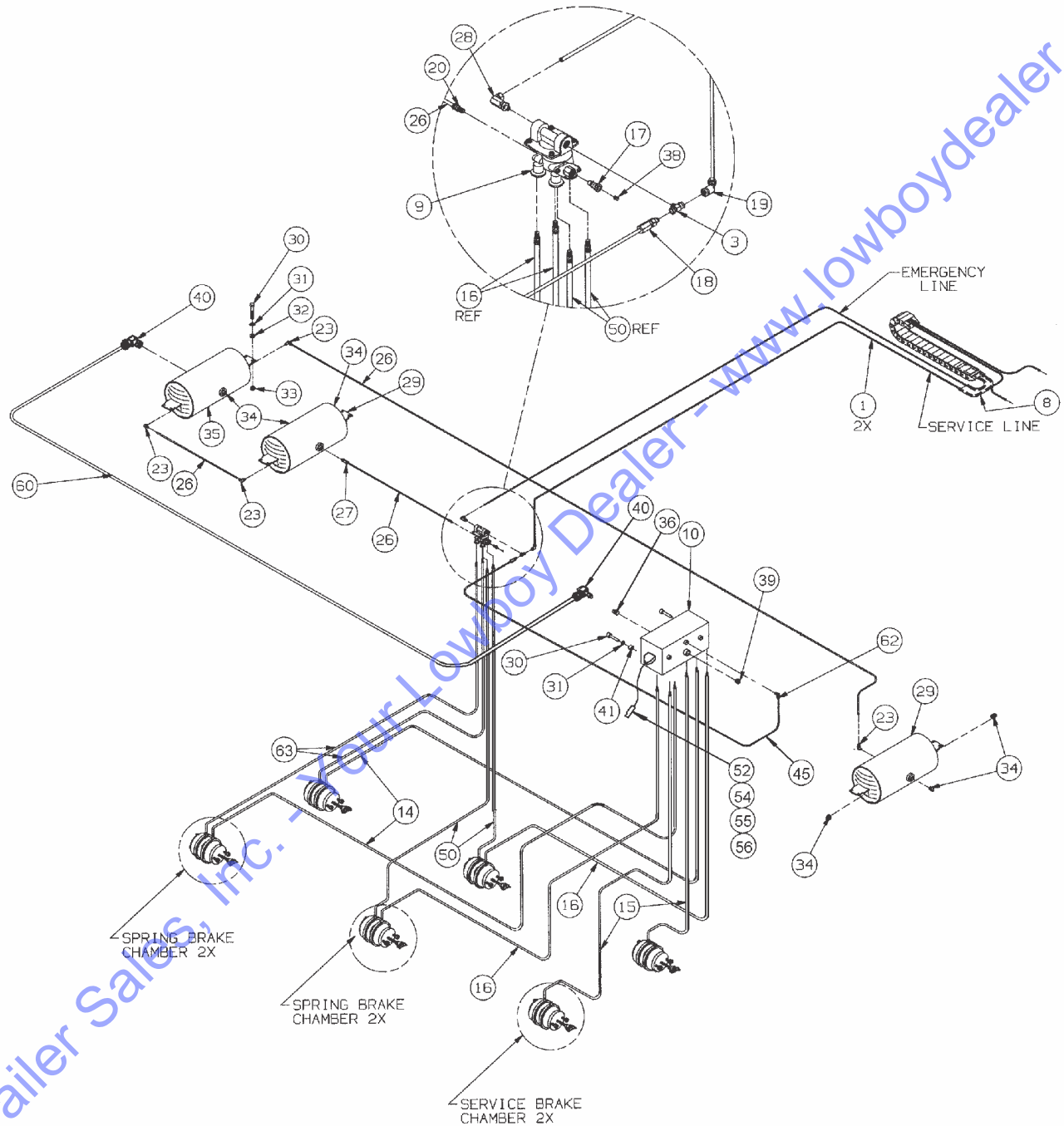
| ITEM   | PART NO.      | REFERENCE NO. | DESCRIPTION                                            | QTY. |
|--------|---------------|---------------|--------------------------------------------------------|------|
|        | 115703        |               | AXLE 70-1/2, 12-1/4 X 7-1/2 SPG BRK (25K)              |      |
|        | 115708        |               | AXLE 70-1/2, 12-1/4 X 7-1/2 SRVC BRK (25K)             |      |
|        | **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

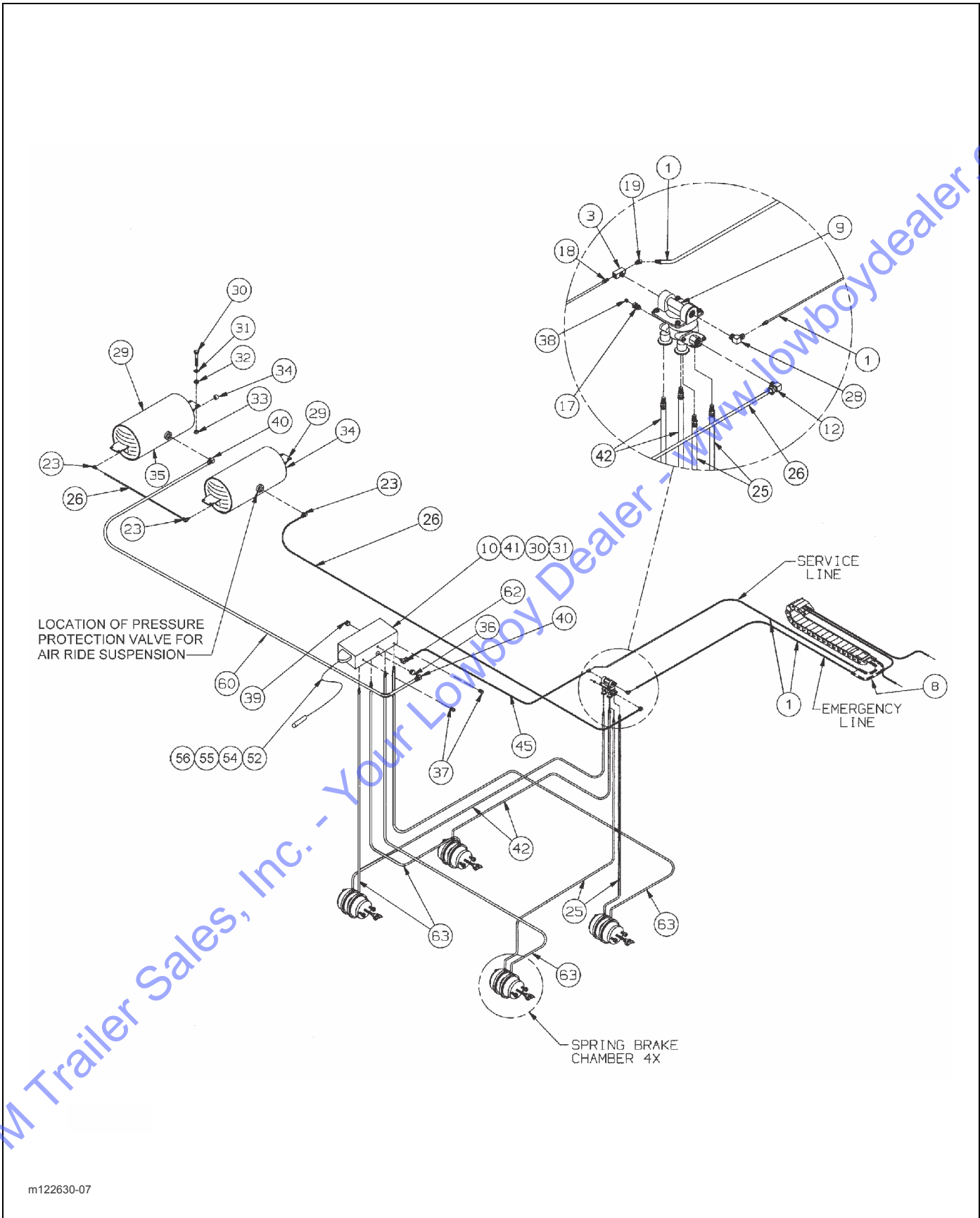
\*\*\* THESE PARTS ARE AVAILABLE AS PART OF THE CAMSHAFT REPAIR KIT LISTED

NOTE: FOR HUB AND DRUM INFORMATION, SEE PAGE 2-64



m103816-07

Figure 2-35: Spring Air Brake System w/ ABS (410)



## SPRING AIR BRAKE SYSTEM W/ ABS

| ITEM | PART NO.        | DESCRIPTION                           | QTY. |    |    |
|------|-----------------|---------------------------------------|------|----|----|
|      | 122630          | AIR SYSTEM U/C, ABS (425)             | *    |    |    |
|      | 127579          | AIR SYSTEM U/C, ABS (435)             |      | *  |    |
|      | 103816          | AIR SYSTEM U/C, ABS (410)             |      |    | *  |
| 1    | 100949          | HOSE AIR 3/8 X 222 W/ 3/8 ENDS        | --   | 2  | 2  |
|      | 100948          | HOSE AIR 3/8 X 174                    | 2    | -- | -- |
| 3    | 1-297-010017-03 | FITTING AIR M/BR TEE                  | 1    | 1  | 1  |
| 8    | 1-394-010001    | HOSE ABRASION SLEEVE X 2              | 2    | 2  | 2  |
| 9    | 758-181         | VALVE RELAY EMERGENCY                 | 1    | 1  | 1  |
| 10   | 114584          | BRAKE KIT, ABS 4S/2M (SEE PAGE 2-60)  | 1    | 1  | -- |
|      | 114586          | BRAKE KIT, ABS 4S/2M (SEE PAGE 2-60)  | --   | -- | 1  |
| 12   | 1-297-010008-23 | FITTING, AIR 90                       | 1    | 1  | 1  |
| 14   | 1-384-010038084 | HOSE, AIR 3/8 X 84"                   | --   | -- | -- |
| 15   | 1-384-010038060 | HOSE AIR                              | --   | -- | 2  |
| 16   | 1-384-010038024 | HOSE AIR                              | --   | -- | 2  |
| 17   | 55B61           | FRAME UNION                           | 1    | 1  | 1  |
| 18   | 1-297-010007-12 | FITTING AIR                           | 1    | 1  | 1  |
| 19   | 2088-6-6S       | ADAPTER 45                            | 1    | 1  | 1  |
| 20   | 1-297-010007-15 | FITTING AIR                           | --   | -- | 1  |
| 23   | 1-297-010008-24 | FITTING 90 AIR                        | 3    | 3  | 4  |
| 25   | 3-384-010020    | HOSE, AIR 3/8                         | 2    | 2  | -- |
| 26   | 1-833-010003    | TUBING NYLON 1/2                      | AR   | AR | AR |
| 27   | 1-297-010007-16 | FITTING AIR                           | --   | -- | 1  |
| 28   | 2089-6-6S       | ADAPTER 90                            | 1    | 1  | 1  |
| 29   | 3-780-010002    | TANK AIR                              | 2    | 2  | 3  |
| 30   | 1-654-010051-08 | SCREW HEX HEAD CAP 3/8-16 X 1-3/4 GR5 | 10   | 10 | 14 |
| 31   | 1-861-010032-11 | WASHER FLAT 3/8W                      | 18   | 18 | 26 |
| 32   | 805-2           | STEP BUSHING                          | 16   | 16 | 24 |
| 33   | 1-512-010005-05 | NUT HEX LOCK 3/8-16 GRB               | 8    | 8  | 12 |
| 34   | 1-560-010002-04 | PIPE PLUG 1/2                         | 4    | 4  | 5  |
| 35   | 56D4            | AIR TANK DRAIN COCK                   | 2    | 2  | 3  |
| 36   | 118-2659-9      | BUSHING 1/2 X 3/4                     | 1    | 1  | 1  |
| 37   | 1-560-010002-03 | PIPE PLUG 3/8                         | 2    | 2  | -- |
| 38   | 1-560-010002-02 | PIPE PLUG 1/4                         | 1    | 1  | 1  |
| 39   | 1-560-010002-05 | PIPE PLUG 3/4-14                      | 1    | 1  | 1  |
| 40   | 1-297-010008-26 | FITTING, AIR 90                       | 2    | 2  | 2  |
| 41   | 1-510-010001    | NUT FLANGE LOCK 3/8-16                | 3    | 3  | 10 |
| 42   | 1-384-010038056 | HOSE, AIR 56"                         | 2    | 2  | -- |
| 45   | 1-833-010002    | TUBING, NYLON 3/8                     | AR   | AR | AR |
| 50   | 1-384-010038076 | HOSE, AIR 3/8 X 76                    | --   | -- | 2  |
| 51   | 101852          | DIAGNOSTIC CABLE SWITCH               | 1    | 1  | 1  |
| 52   | 1-654-010047-06 | SCREW HEX HEAD CAP 1/4-20 X 1 GR5     | 2    | 2  | 2  |
| 53   | 103817          | CLAMP HOSE (NOT SHOWN)                | 1    | 1  | 2  |
| 54   | 1-512-010007-05 | NUT HEX 1/4-20                        | 2    | 2  | 2  |
| 55   | 1-861-010032-07 | WASHER FLAT 1/4-20                    | 2    | 2  | 2  |
| 56   | 1-861-010034-09 | WASHER SPLIT LOCK 1/4                 | 2    | 2  | 2  |
| 60   | 117304          | TUBING, NYLON 5/8                     | AR   | AR | AR |
| 62   | 1-297-010008-18 | FITTING, AIR 90                       | 1    | 1  | 1  |
| 63   | 1-384-010038038 | HOSE, AIR 3/8 X 38                    | 4    | 4  | 2  |

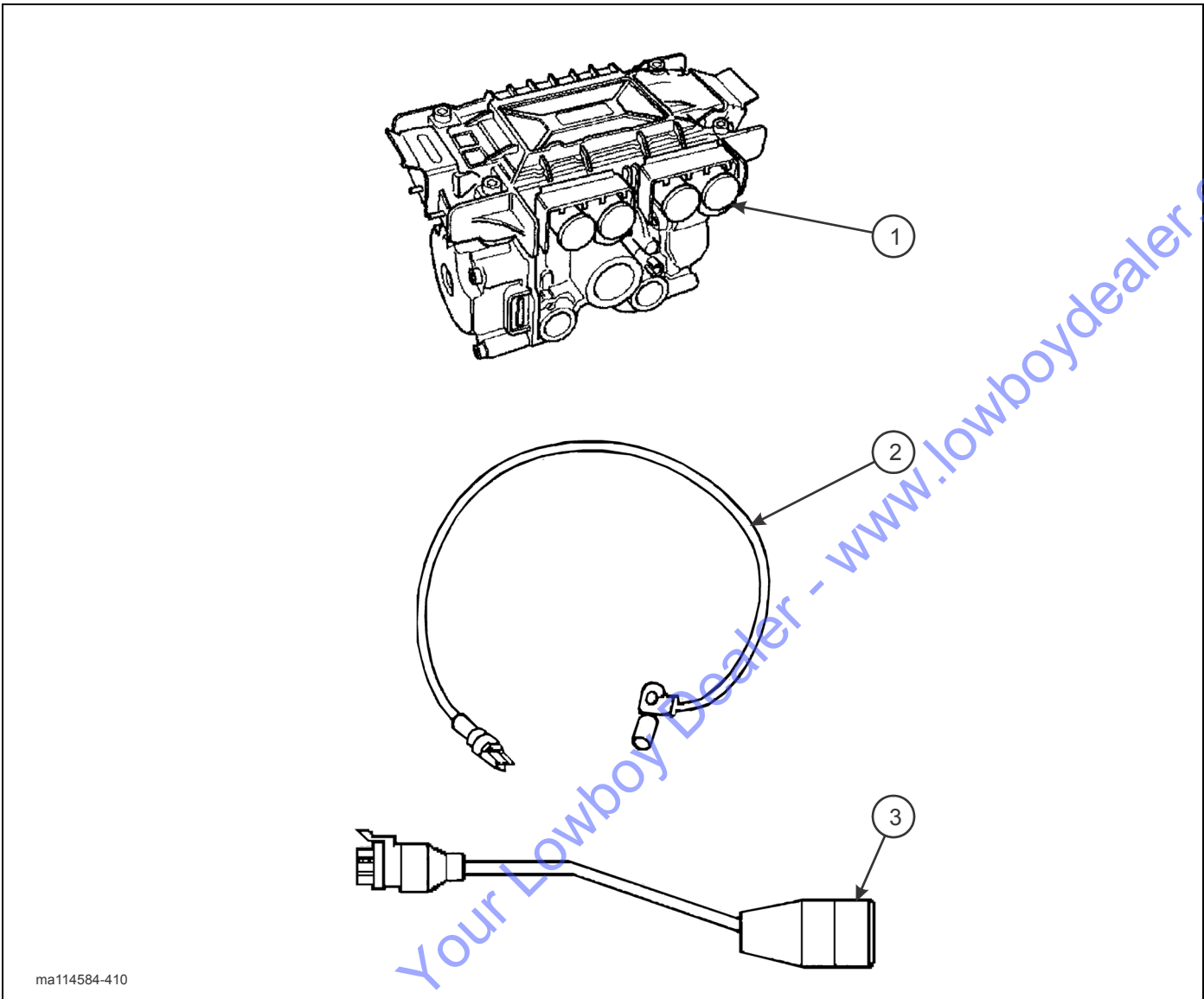


Figure 2-37: Brake Kit, Rockwell ABS

ABS BRAKE KIT

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

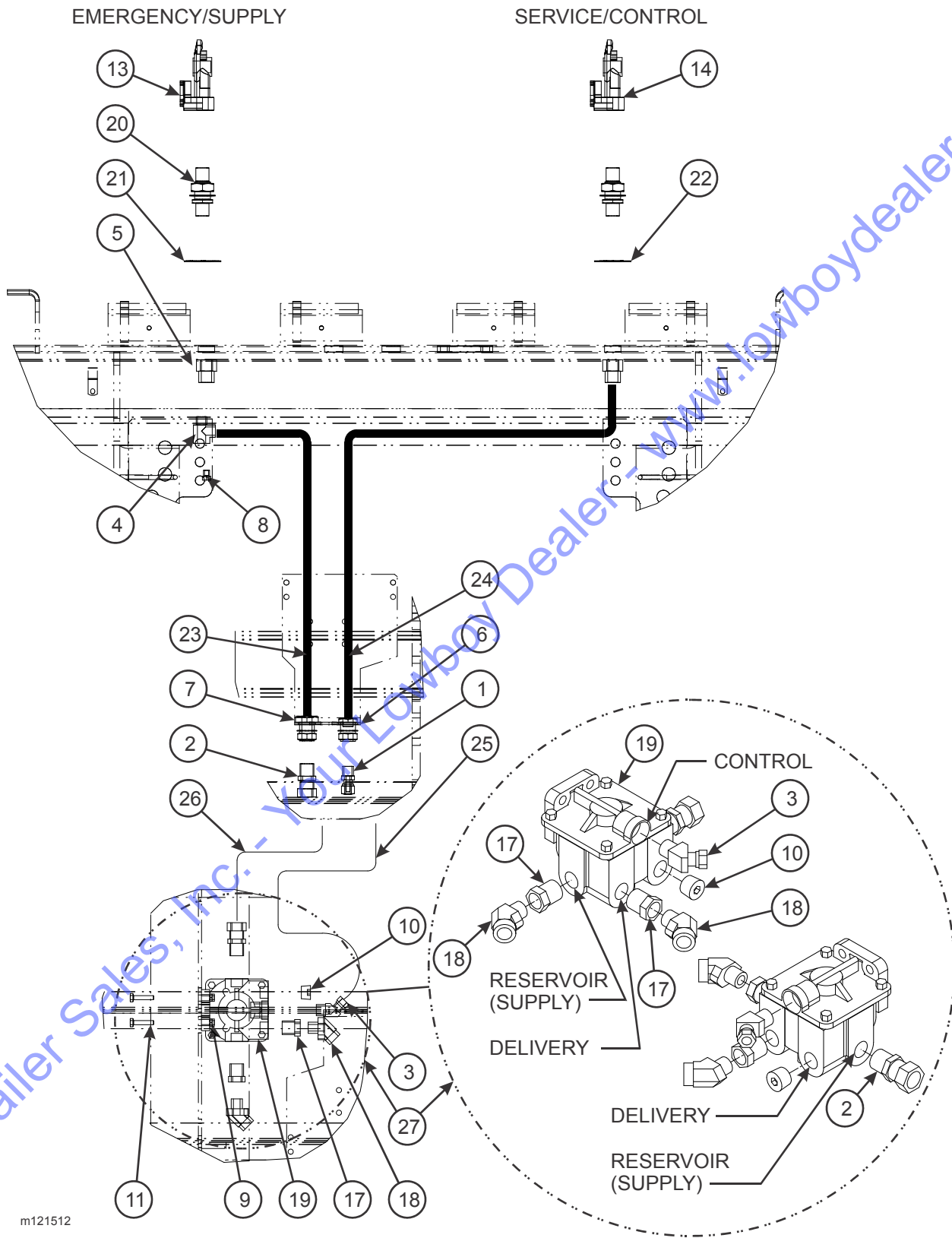
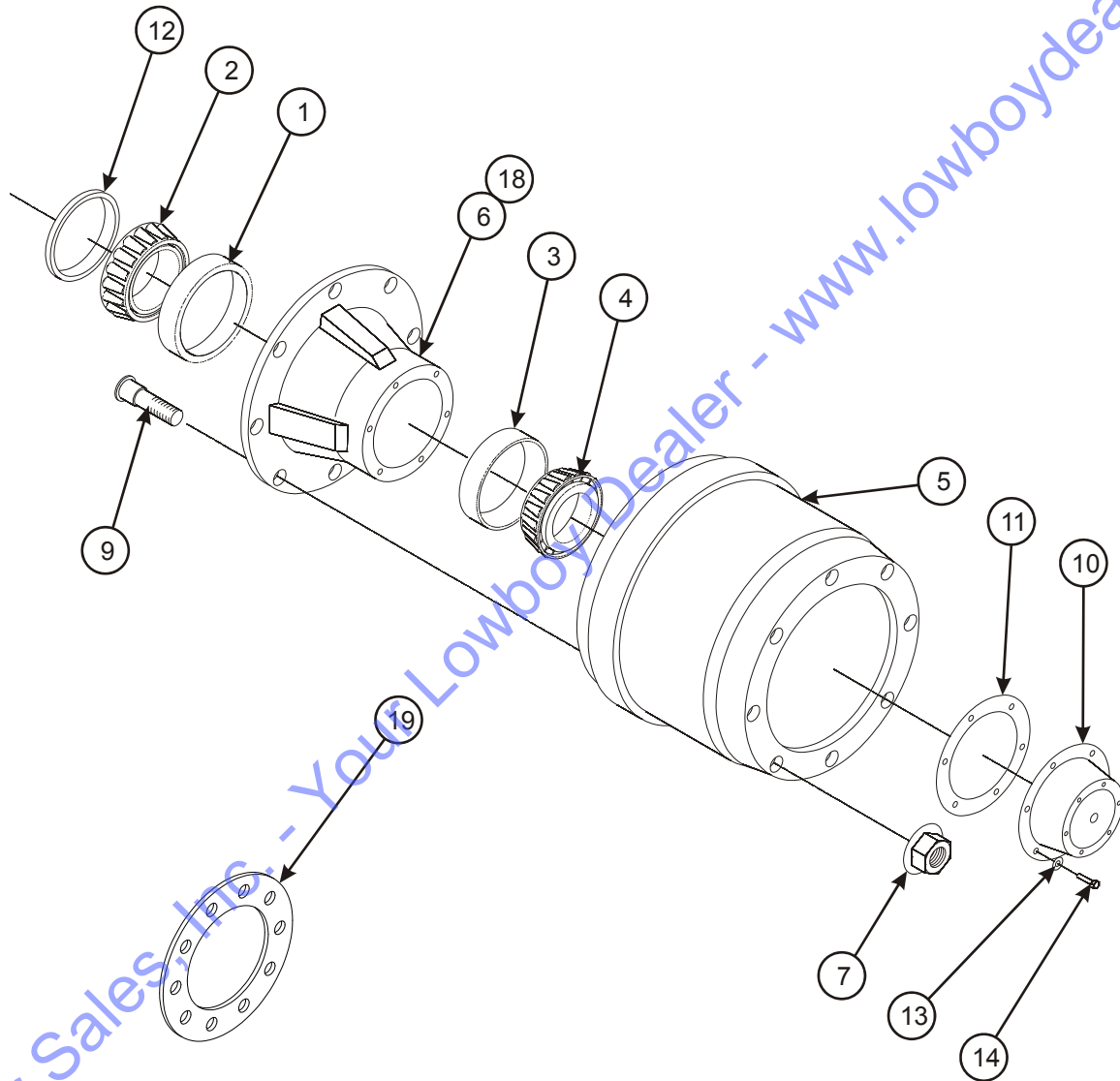


Figure 2-38: Air System, ABS

## AIR SYSTEM, ABS

| ITEM | PART NO.        | DESCRIPTION                                            | QTY. |
|------|-----------------|--------------------------------------------------------|------|
| 1    | 1-297-010007-12 | FITTING, AIR                                           | 1    |
| 2    | 1-297-010007-16 | FITTING, AIR                                           | 2    |
| 3    | 1-297-010013-12 | FITTING, AIR 45                                        | 1    |
| 4    | 1-297-010018-03 | FITTING, BRASS PIPE STR TEE 3/8                        | 1    |
| 5    | 1-297-010021-05 | FITTING, BRS PIPE, COUPLING                            | 2    |
| 6    | 1-297-010022-03 | FITTING, AIR                                           | 1    |
| 7    | 1-297-010022-04 | FITTING, AIR                                           | 1    |
| 8    | 1-297-010033-03 | PLUG, BRASS 3/8                                        | 1    |
| 9    | 1-512-010005-01 | NUT, HEX LOCK 1/4-20                                   | 2    |
| 10   | 1-560-010002-04 | PLUG, PIPE 1/2                                         | 1    |
| 11   | 1-654-010027-7  | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR8                 | 2    |
| 13   | 108801          | GLADHAND RED AIR                                       | 1    |
| 14   | 108802          | GLADHAND BLUE AIR                                      | 1    |
| 17   | 2081-8-6S       | REDUCER                                                | 2    |
| 18   | 2088-6-6S       | ADAPTER 45                                             | 2    |
| 19   | 3-843-010038    | VALVE, AIR RELAY                                       | 1    |
| 20   | 55B61           | FRAME UNION                                            | 2    |
| 21   | 55B61-6         | TAG EMERGENCY LINE                                     | 1    |
| 22   | 55B61-7         | TAG SERVICE LINE                                       | 1    |
| 23   | 122557          | HOSE, AIR 1/2 X 240                                    | 1    |
| 24   | 100949          | HOSE, AIR 3/8 X 222                                    | 1    |
| 25   | 1-833-010002    | TUBING NYLON 3/8                                       | AR   |
| 26   | 1-833-010003    | TUBING NYLON 1/2                                       | AR   |
| 27   | 141607          | AIR BOOSTER VALVE ASSEMBLY (INCL ITEMS 2-3, 10, 17-19) | 1    |



huboabs2

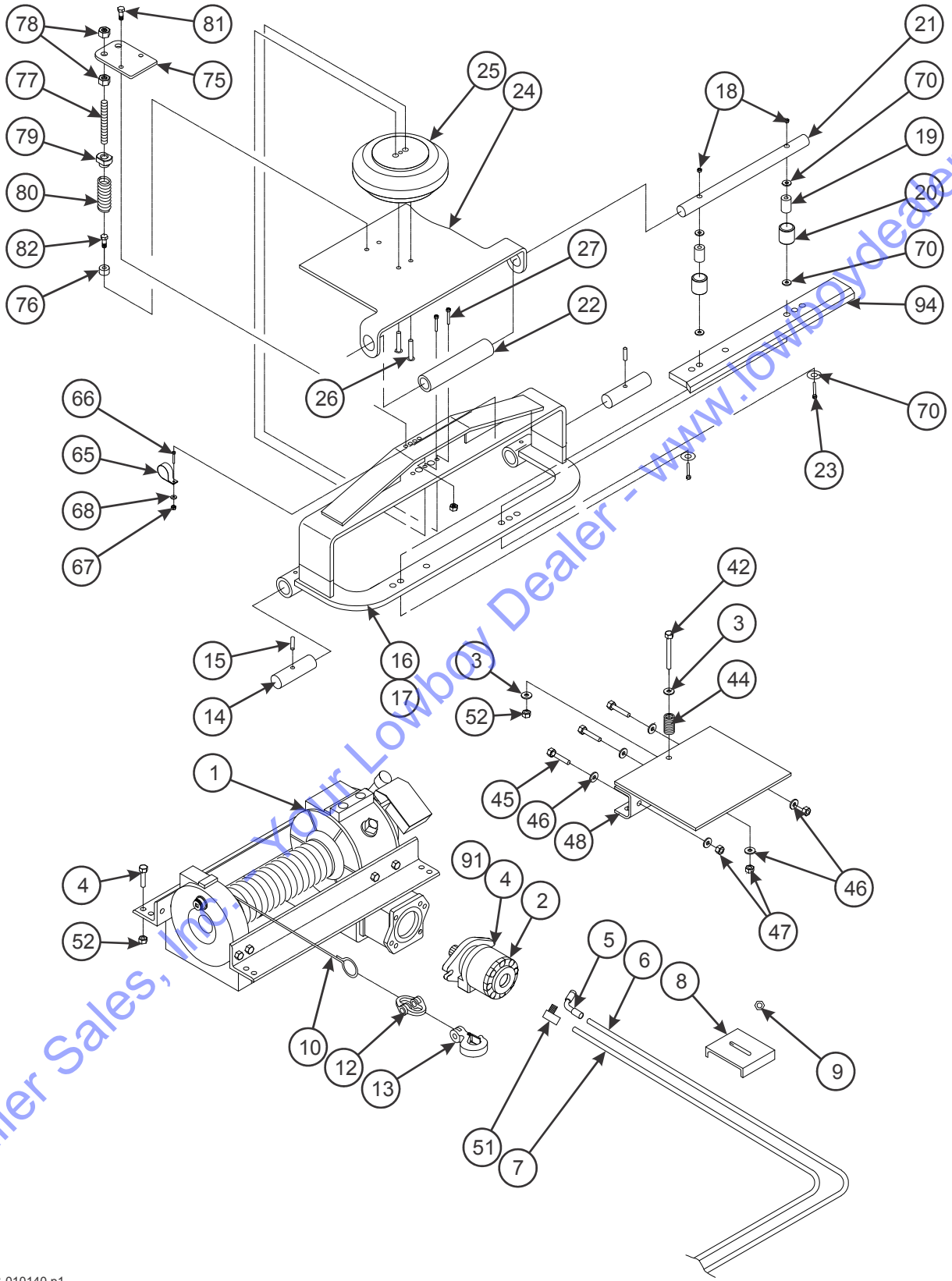
Figure 2-39: Outboard Pilot Mount Hub and Drum

## 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")                        | 1    |
| 6    | 112492          | HUB IRON (8 BOLT) 100 TH TONER RING (12-1/4" x 7-1/2")            | 1    |
|      | 110975          | HUB IRON (8 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)               |      |

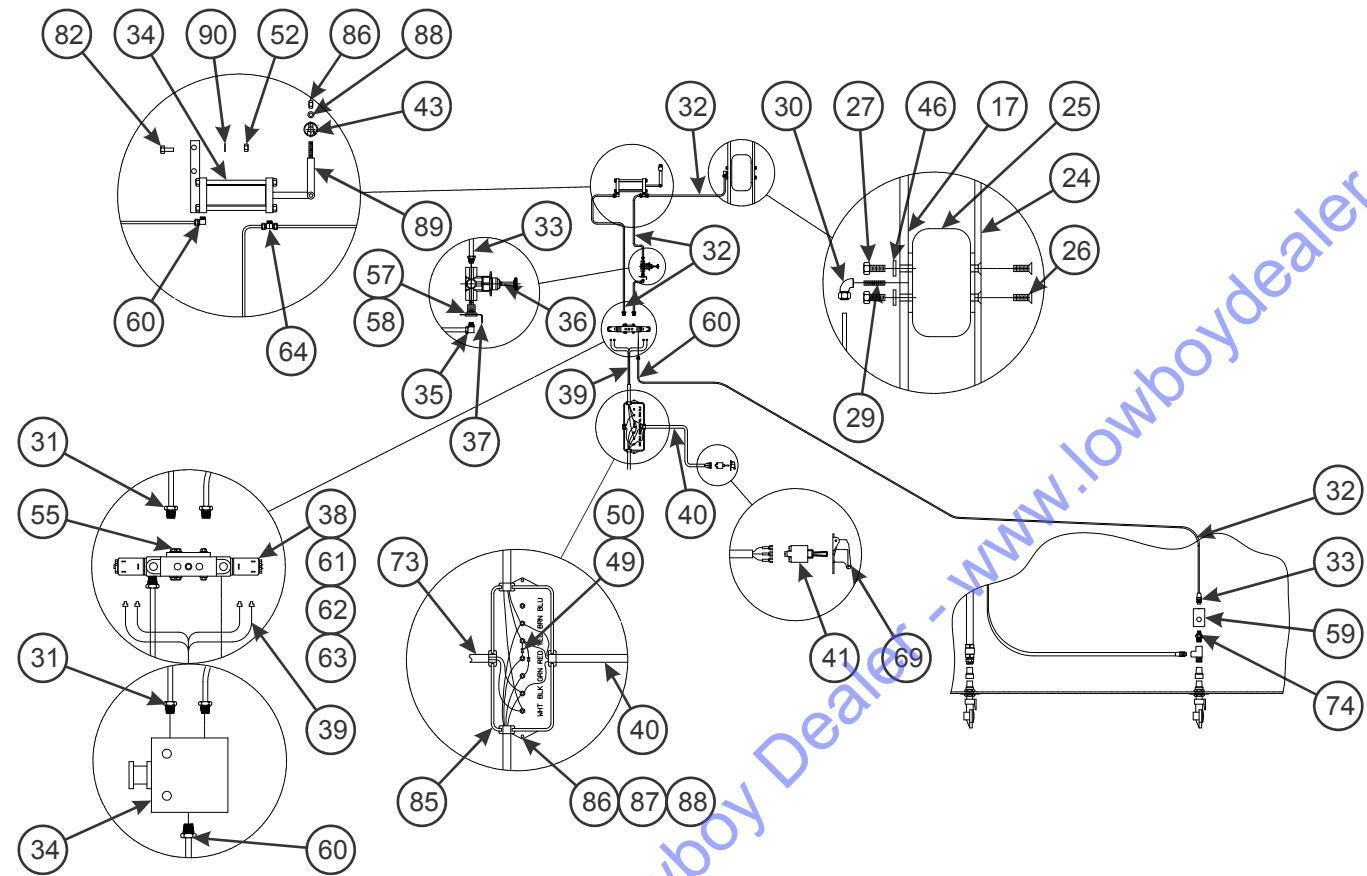
\*THIS PART SHOULD BE REPLACED IN CONJUNCTION WITH THE HUB. IT SHOULD NEVER BE SOLD SEPARATELY.

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



3m873-010140 p1

Figure 2-40: Winch Installation (1 of 2)



3m873-010140 p1

Figure 2-41: 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           |      |
| 1    | 3-873-010123    | WINCH ASSEMBLY 20K (SEE PAGE 2-79)     | 1    |
|      | 3-873-010122    | WINCH ASSEMBLY 12K (SEE PAGE 2-76)     | 1    |
| 2    | 3-481-010007    | MOTOR HYD. (20K) (SEE PAGE 2-84)       | 1    |
|      | 3-481-010006    | MOTOR HYD. (12K) (SEE PAGE 2-84)       | 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    |
| 7    | 1-397-010302172 | 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    |

## WINCH INSTALLATION (BRADEN)

| ITEM | PART NO.        | DESCRIPTION                              | QTY.        |
|------|-----------------|------------------------------------------|-------------|
| 11   | 3-174-010038    | LINK                                     | 1           |
| 12   | 3-174-010039036 | CHAIN (NOT SHOWN)                        | 1           |
| 13   | 7HCGHT500       | HOOK                                     | 1           |
| 14   | 3-557-010474    | PIN, PIVOT                               | **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         |
|      | 119622          | PIN, PIVOT WINCH ROLLER                  | 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         |
| 24   | 102187          | WINCH TENSIONER PLATE (20K)              | *1          |
|      | 3-873-010145    | WINCH TENSIONER PLATE (12K)              | *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 2-82) | ***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   | 3-272-010018    | HEAT SHRINK INSULATOR (20K)              | ***2        |
| 51   | 2062-10-8S      | ADAPTER, 90                              | ***1        |
| 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           |

## WINCH INSTALLATION (BRADEN)

| ITEM | PART NO.        | DESCRIPTION                             | QTY.      |
|------|-----------------|-----------------------------------------|-----------|
| 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   | 239-9076-3      | SUPPORT CLAMP                           | *1        |
| 66   | 1-656-010003053 | SCREW, MACH. #10-24 X 1                 | *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   | 1-560-010002-01 | PLUG, 1/8 (12K) (NOT SHOWN)             | 1         |
| 93   | F-100852        | CABLE GUIDE PIVOT 12K (NOT SHOWN)       | 1         |

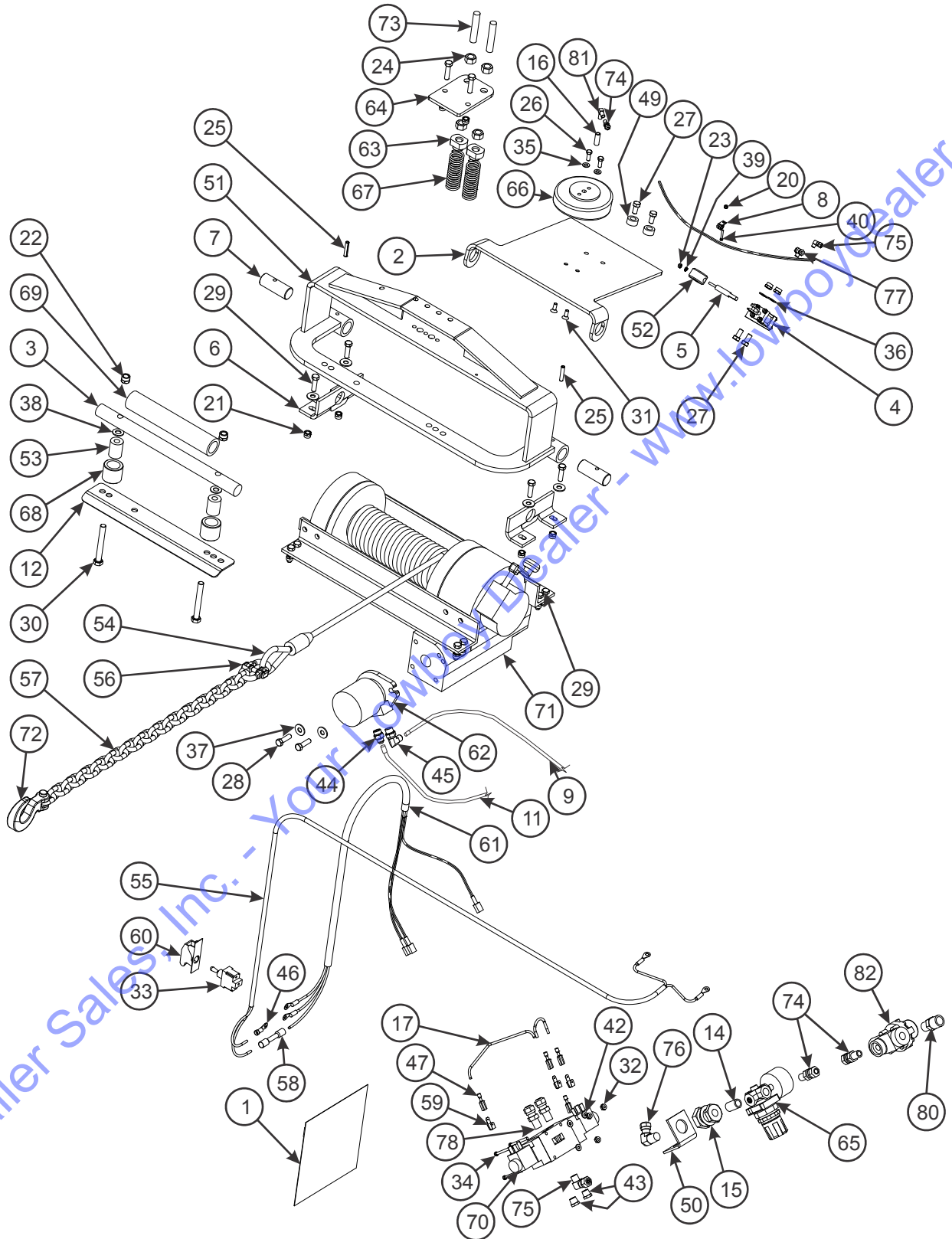
## NOTES:

\* - 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



m139929p1

Figure 2-42: Winch Installation (1 of 2)

## ILLUSTRATED PARTS LIST

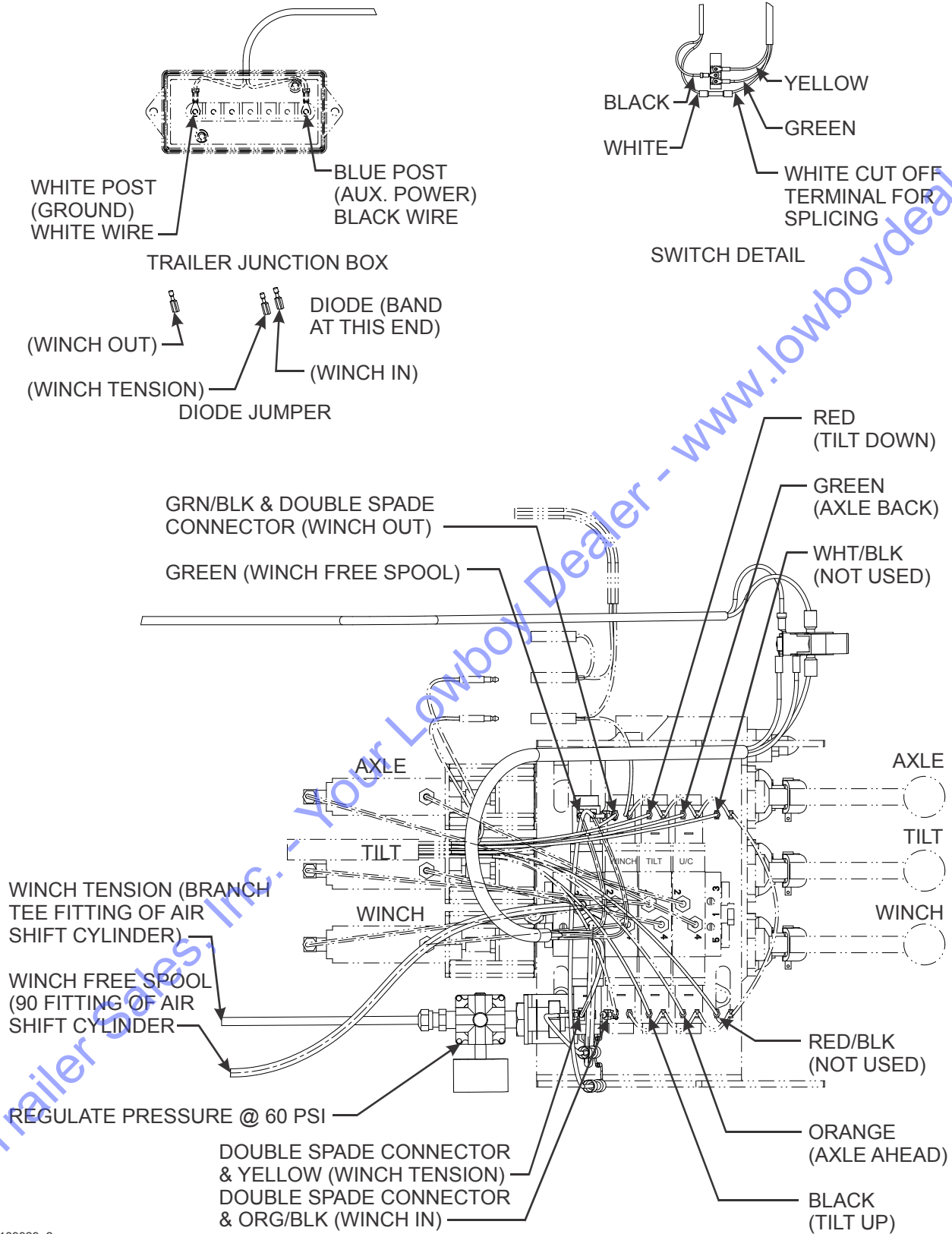


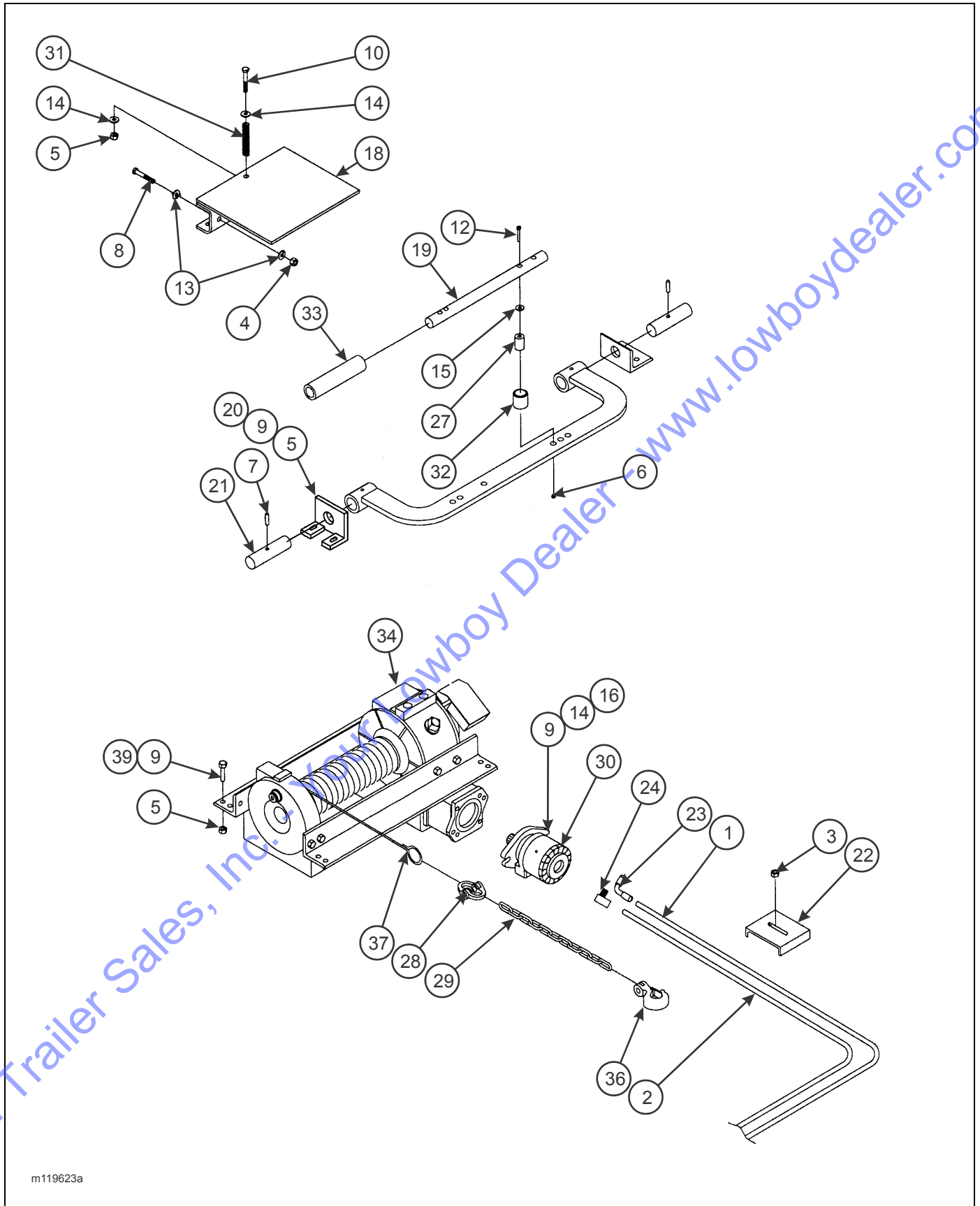
Figure 2-43: Winch Installation (2 of 2)

**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 2-82)         | 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    |
| 53   | 3-150-010196    | BUSHING, ROD ROLLER-600                     | 2    |

## WINCH INSTALLATION (BRADEN)

| ITEM | PART NO.        | DESCRIPTION                        | QTY. |
|------|-----------------|------------------------------------|------|
| 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 HYD. (20K) (SEE PAGE 2-84)   | 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 2-79) | 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    |



m119623a

Figure 2-44: Winch Installation, Spring Tension Cable Roller

## WINCH INSTALLATION, SPRING TENSION CABLE ROLLER

| ITEM | PART NO.        | DESCRIPTION                                        | QTY.   |
|------|-----------------|----------------------------------------------------|--------|
|      | 119623          | WINCH INSTALLATION 12K SPRING TENSION CABLE ROLLER |        |
|      | 119624          | WINCH INSTALLATION 20K SPRING TENSION CABLE ROLLER |        |
| 1    | 1-397-010301170 | HOSE ASSEMBLY 1/2 X 170                            | 1      |
| 2    | 1-397-010302172 | HOSE ASSEMBLY 1/2 X 172                            | 1      |
| 3    | 1-510-010001    | NUT FLANGE LOCK 3/8-16 (20K)                       | 4      |
| 4    | 1-512-010005-05 | NUT, HEX 3/8-16                                    | 3      |
| 5    | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB                           | 13     |
| 6    | 1-512-010005-13 | NUT HEX LOCK 5/8-11 GR8                            | 2      |
| 7    | 1-647-010004255 | PIN, SPRING SLOTTED 2 X 3/8                        | 2      |
| 8    | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5             | 3      |
| 9    | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5             | *6, 14 |
| 10   | 1-654-010055-16 | SCREW, HEX HEAD CAP 1/2-13 X 5-1/2 GR5             | 1      |
| 12   | 1-654-010059-15 | SCREW, HEX HEAD CAP 5/8-11 X 5 GR5                 | 2      |
| 13   | 1-861-010032-10 | WASHER, FLAT 3/8N                                  | 6      |
| 14   | 1-861-010032-15 | WASHER, FLAT 1/2                                   | 2      |
| 15   | 1-861-010032-18 | WASHER FLAT 5/8N (20K)                             | 6      |
| 16   | 1-861-010034-13 | WASHER, SPLIT LOCK 1/2                             | 2      |
| 17   | 100600          | DECAL, WARNING WINCH (NOT SHOWN)                   | 1      |
| 18   | 3-873-010124    | WINCH TENSIONER WLDMT (12K)                        | 1      |
|      | 102186          | WINCH TENSIONER WLDMT (20K)                        | 1      |
| 19   | 3-642-010150    | ROD, ROLLER TOP (12K)                              | 1      |
|      | 102188          | ROD, PIVOTING GUIDE (20K)                          | 1      |
| 20   | 119621          | ANCHOR CABLE GUIDE WINCH                           | 2      |
| 21   | 119622          | PIN, PIVOT WINCH ROLLER                            | 2      |
| 22   | 2-181-010001    | HOSE CLAMP                                         | 4      |
| 23   | 202702-10-8S    | ADAPTER                                            | 1      |
| 24   | 2062-10-8S      | ADAPTER 90                                         | 1      |
| 25   | 3-125-010464    | BRACKET WLDMT WINCH ROLLER (NOT SHOWN)             | 1      |
| 27   | 3-150-010196    | BUSHING, ROD ROLLER-600                            | 2      |
| 28   | 3-174-010038    | LINK                                               | 1      |
| 29   | 3-174-010039036 | CHAIN                                              | 1      |
| 30   | 3-481-010006    | MOTOR, HYD. (12K) (SEE PAGE 2-84)                  | 1      |
|      | 3-481-010007    | MOTOR, HYD. (20K) (SEE PAGE 2-84)                  | 1      |
| 31   | 3-720-010010    | SPRING COMP LEVEL WIND                             | 1      |
| 32   | 3-831-010172    | TUBE, WINCH ROLLER SIDE                            | 2      |
| 33   | 3-831-010151    | TUBE, ROLLER TOP (12K)                             | 1      |
|      | 3-831-010182    | TUBE, ROLLER TOP - 600 (20K)                       | 1      |
| 34   | 3-873-010122    | WINCH ASSEMBLY (12K) (SEE PAGE 2-76)               | 1      |
|      | 3-873-010123    | WINCH ASSEMBLY (20K) (SEE PAGE 2-79)               | 1      |
| 36   | 7HCGHT500       | HOOK                                               | 1      |
| 37   | 3-155-010018-6  | CABLE 85' W/ LOOP                                  | 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,--  |

\*1ST QUANTITY LISTED IS FOR P/N 119623; 2ND QUANTITY LISTED IS FOR P/N 119624.

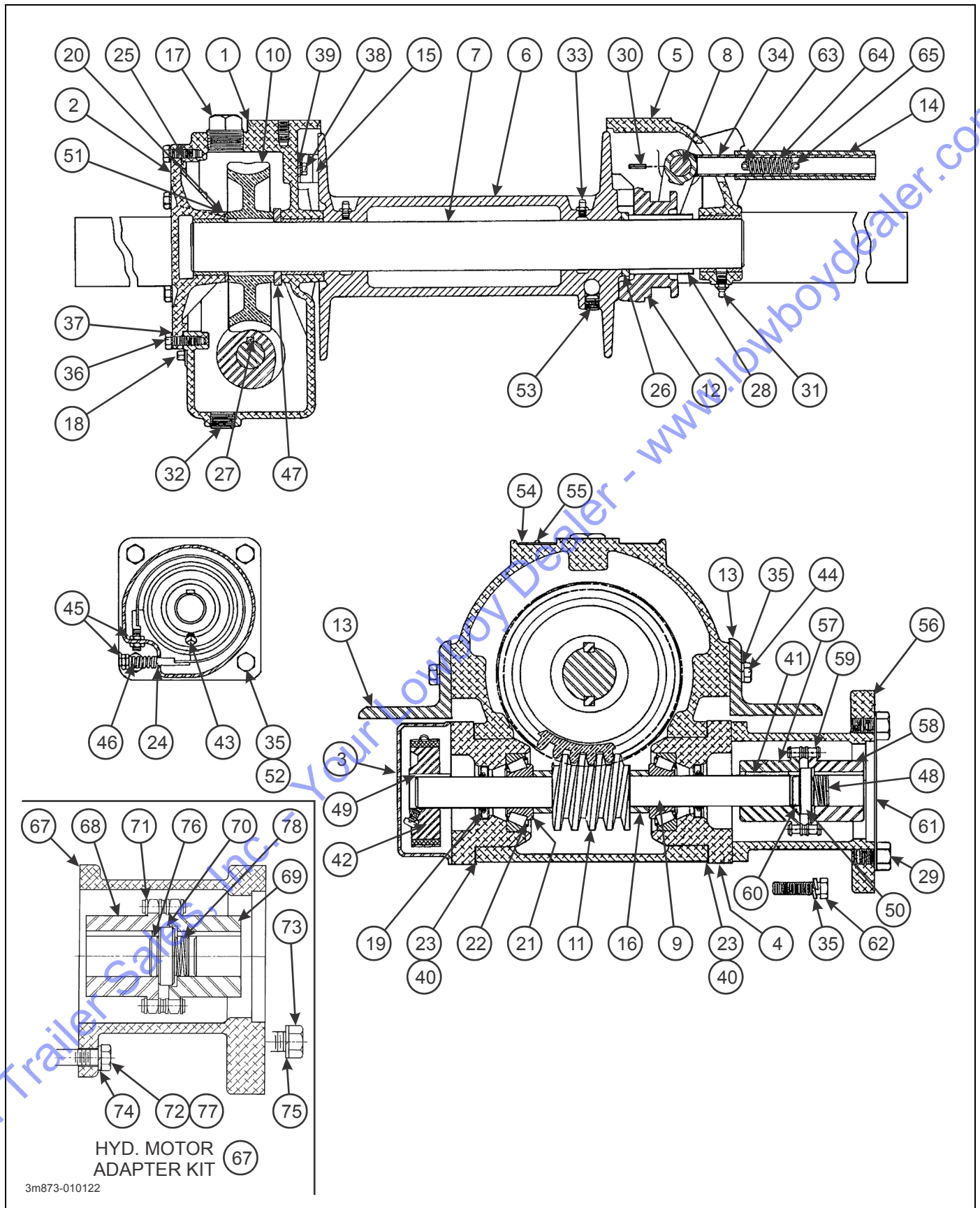


Figure 2-45: 12,000 Lb. Winch Items

**12,000# WINCH ITEMS (BRADEN)**

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

**12,000# WINCH ITEMS (BRADEN)**

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION                                                  | QTY. |
|------|----------|---------------|--------------------------------------------------------------|------|
| 47   | 11240    | 11240         | RETAINER RING                                                | 1    |
| 48   | ----     | 23353         | SPRING                                                       | 1    |
| 49   | 10078    | 10078         | KEY                                                          | 1    |
| 50   | 23078    | 23078         | SPACER                                                       | 1    |
| 51   | 13680    | 13680         | THRUST RING                                                  | 1    |
| 52   | ----     | 22703         | CAPSCREW                                                     | 4    |
| 53   | ----     | 24032         | SETSCREW                                                     | 1    |
| 54   | ----     | 23310         | WARNING PLATE                                                | 1    |
| 55   | ----     | 11842         | DRIVE SCREW                                                  | 2    |
| 56   | 23079    | 23079         | MOTOR ADAPTER                                                | 1    |
| 57   | 23081    | 23081         | COUPLING HALF (WORM SHAFT)                                   | 1    |
| 58   | 23083    | 23083         | COUPLING HALF (MOTOR SHAFT)                                  | 1    |
| 59   | 13424    | 13424         | ROLLER CHAIN                                                 | 1    |
| 60   | 23085    | 23085         | SPACER                                                       | 1    |
| 61   | ----     | 21959         | SHIPPING COVER                                               | 1    |
| 62   | ----     | 22704         | CAPSCREW                                                     | 4    |
| 63   | 13028    | 13028         | ROLLPIN                                                      | 1    |
| 64   | 18002    | 18002         | SPRING                                                       | 1    |
| 65   | 18056    | 18056         | ROLLPIN                                                      | 1    |
| 66   | 61333    | 61333         | HYD. MOTOR ADAPTER KIT, 12,000# WINCH<br>(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    |

## ILLUSTRATED PARTS LIST

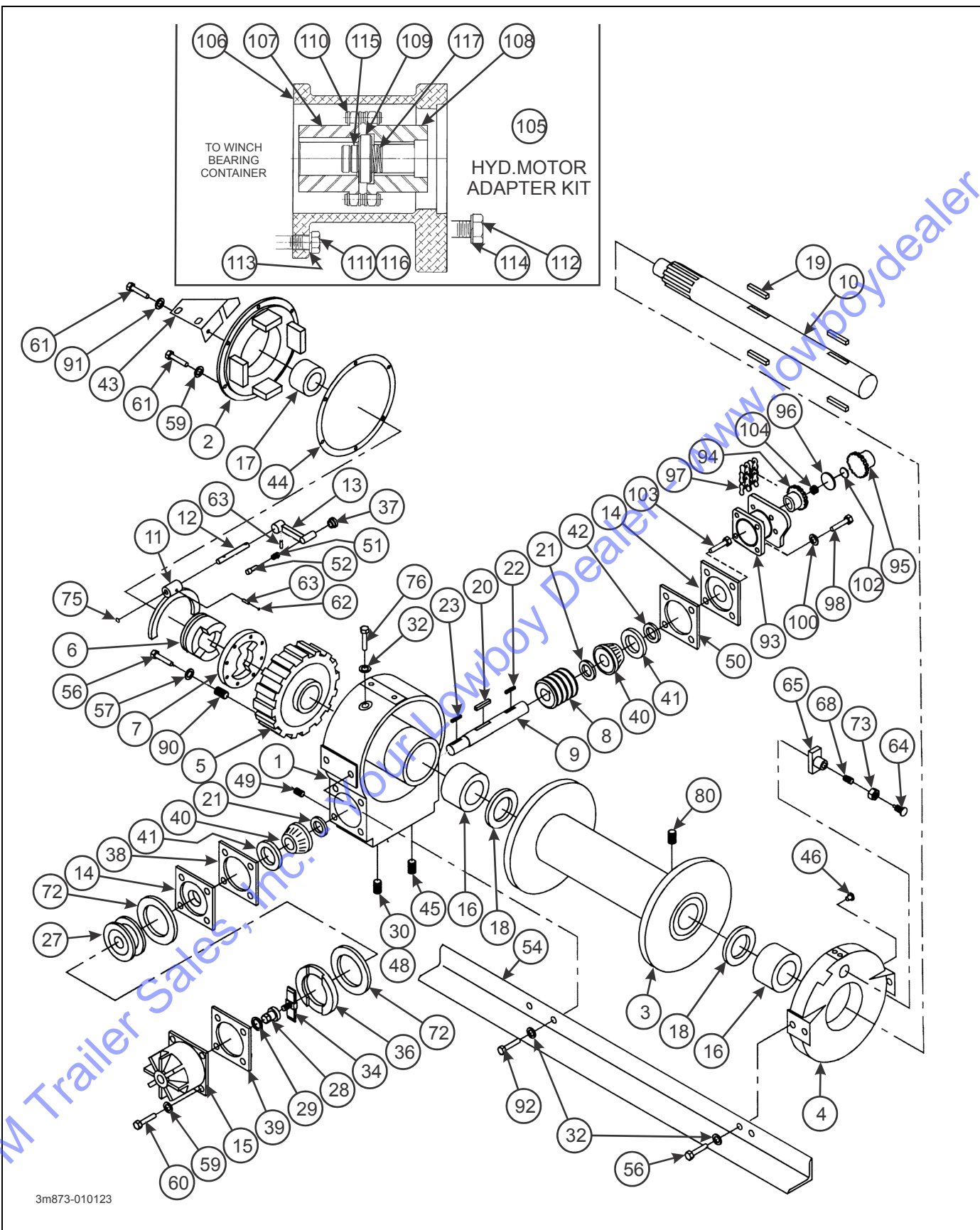


**Figure 2-46: 20,000 Lb. Winch Items**

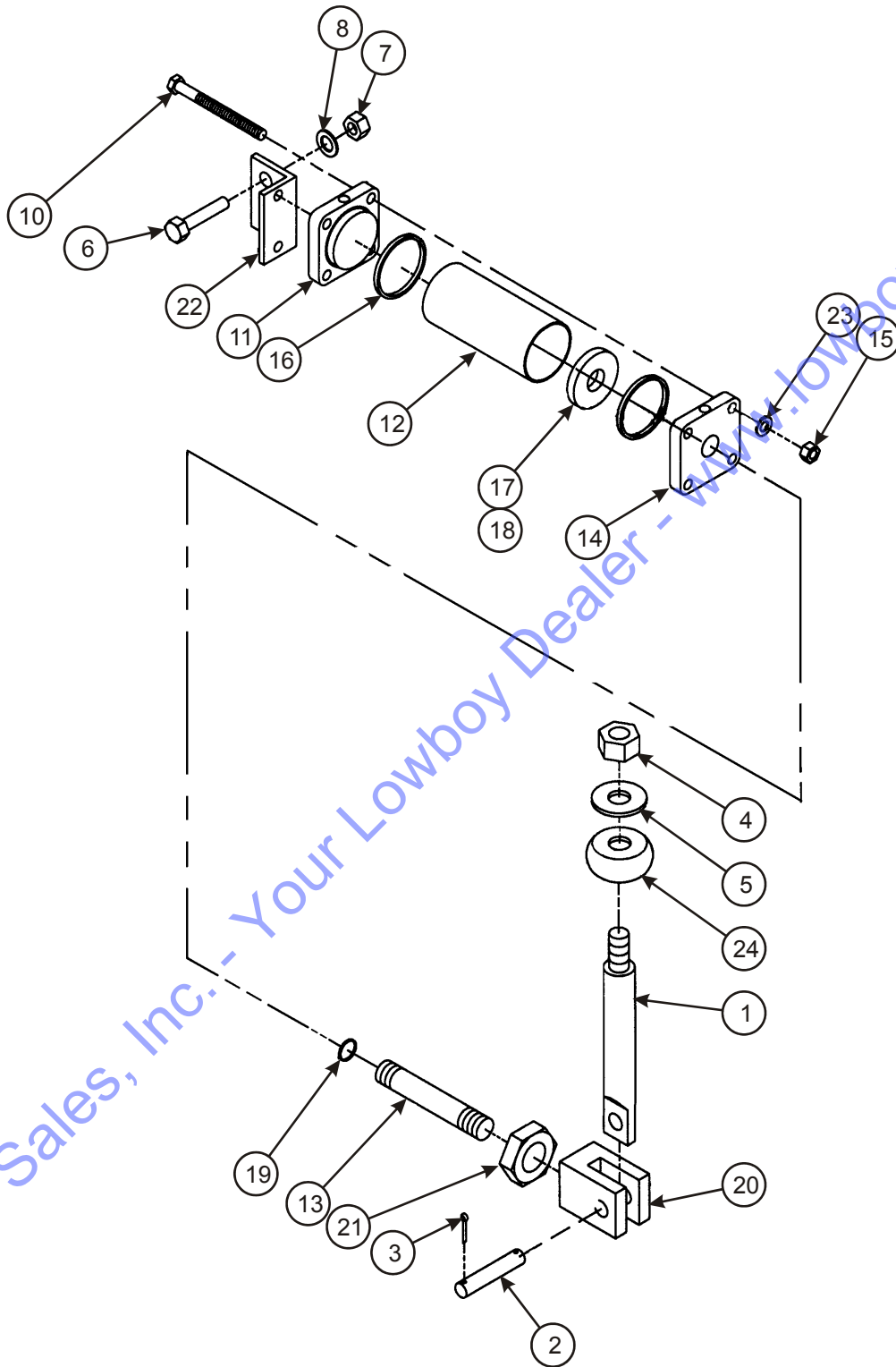
**20,000# WINCH ITEMS (BRADEN)**

| 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    |
| 56   | ----         | 13938         | CAPSCREW                       | 16   |

## ILLUSTRATED PARTS LIST

### 20,000# WINCH ITEMS (BRADEN)

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION                                                   | QTY. |
|------|----------|---------------|---------------------------------------------------------------|------|
| 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   | 23144    | 23144         | 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         | HYD. MOTOR ADAPTER KIT, 20,000# WINCH<br>(INCL ITEMS 106-117) | 1    |
| 106  | 23144    | 23144         | 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    |



3md873-010179

Figure 2-47: 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                                 |      |

pmotor2

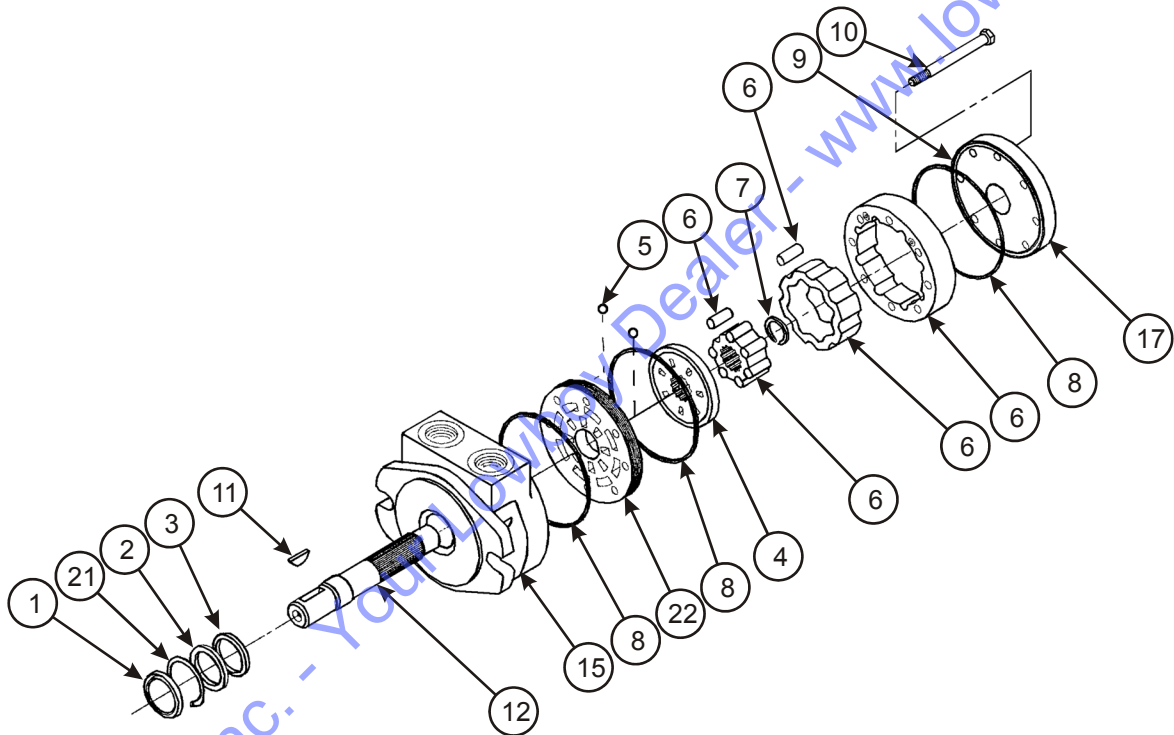
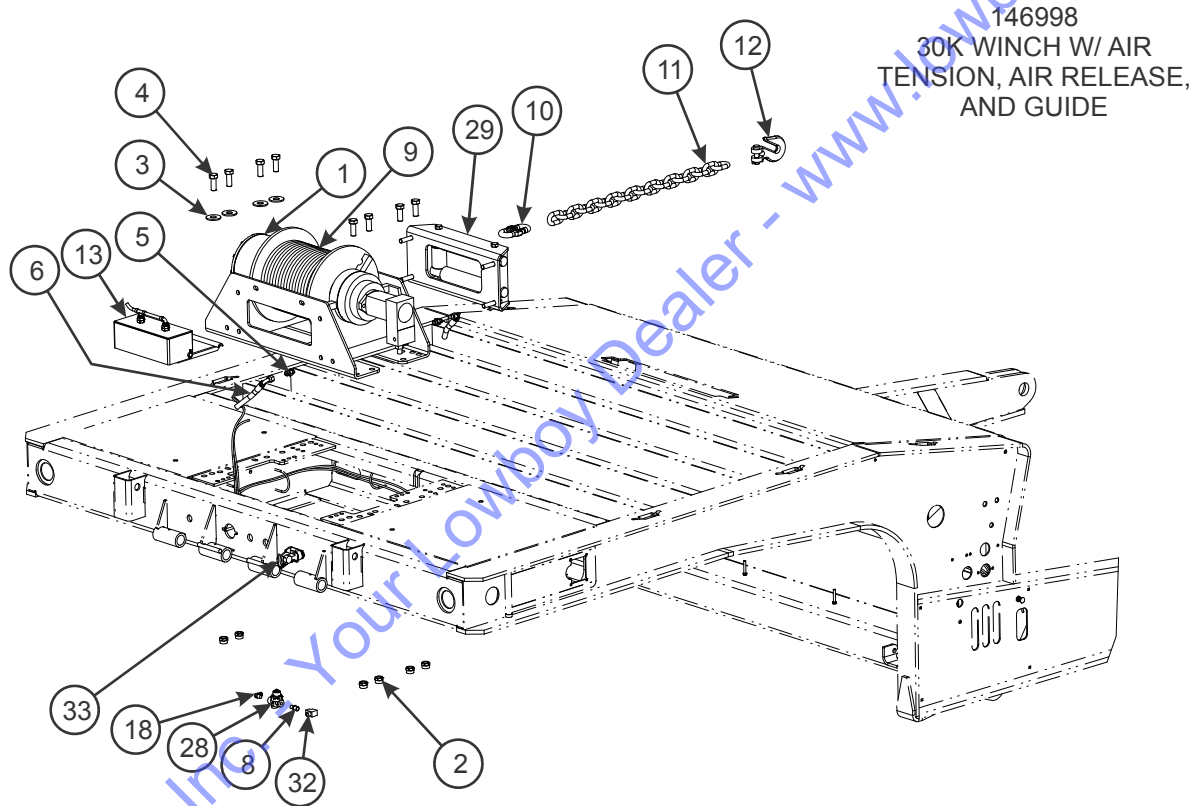


Figure 2-48: Winch Motor Assembly

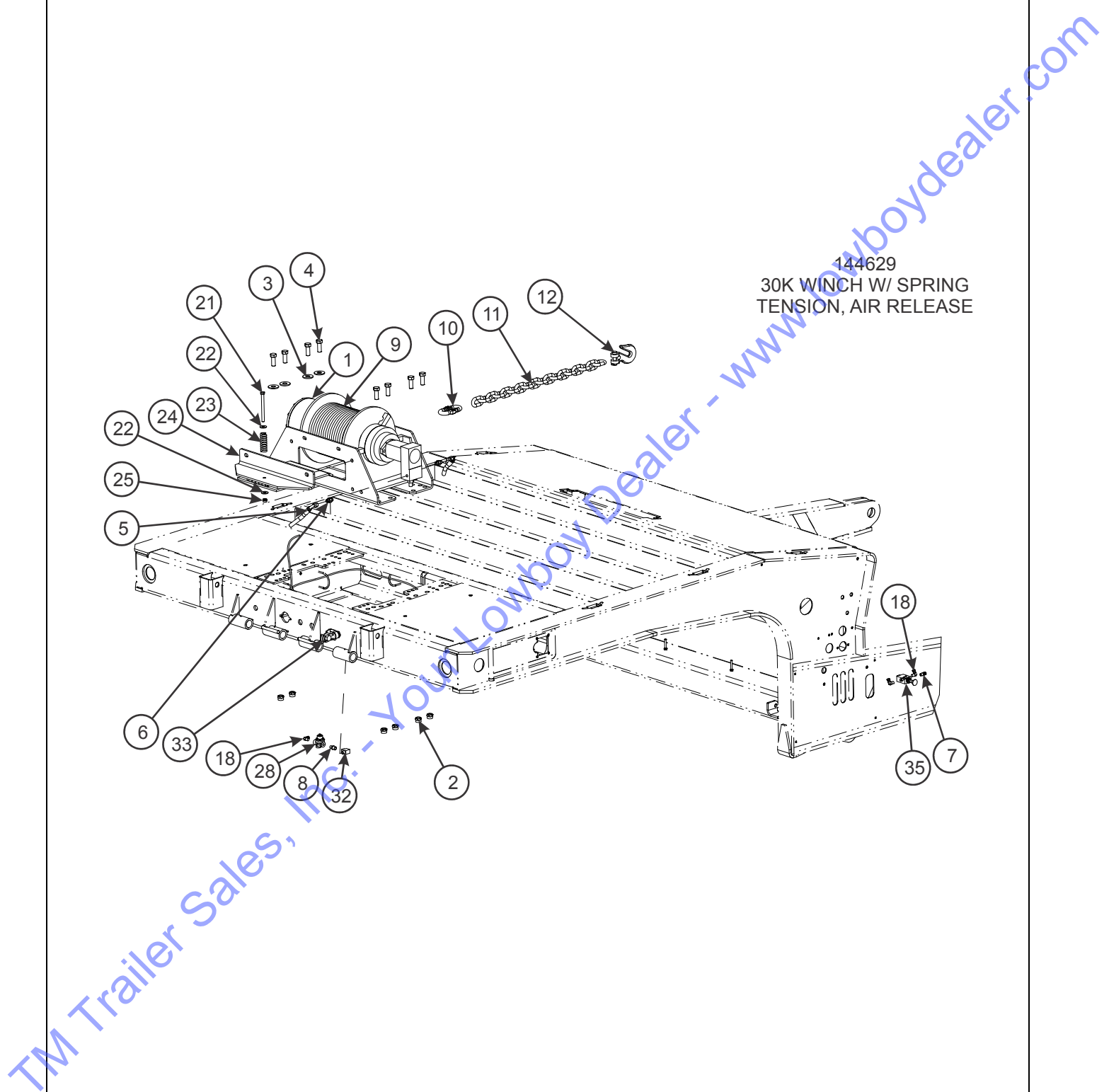
## WINCH MOTOR ASSEMBLY

| 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    |



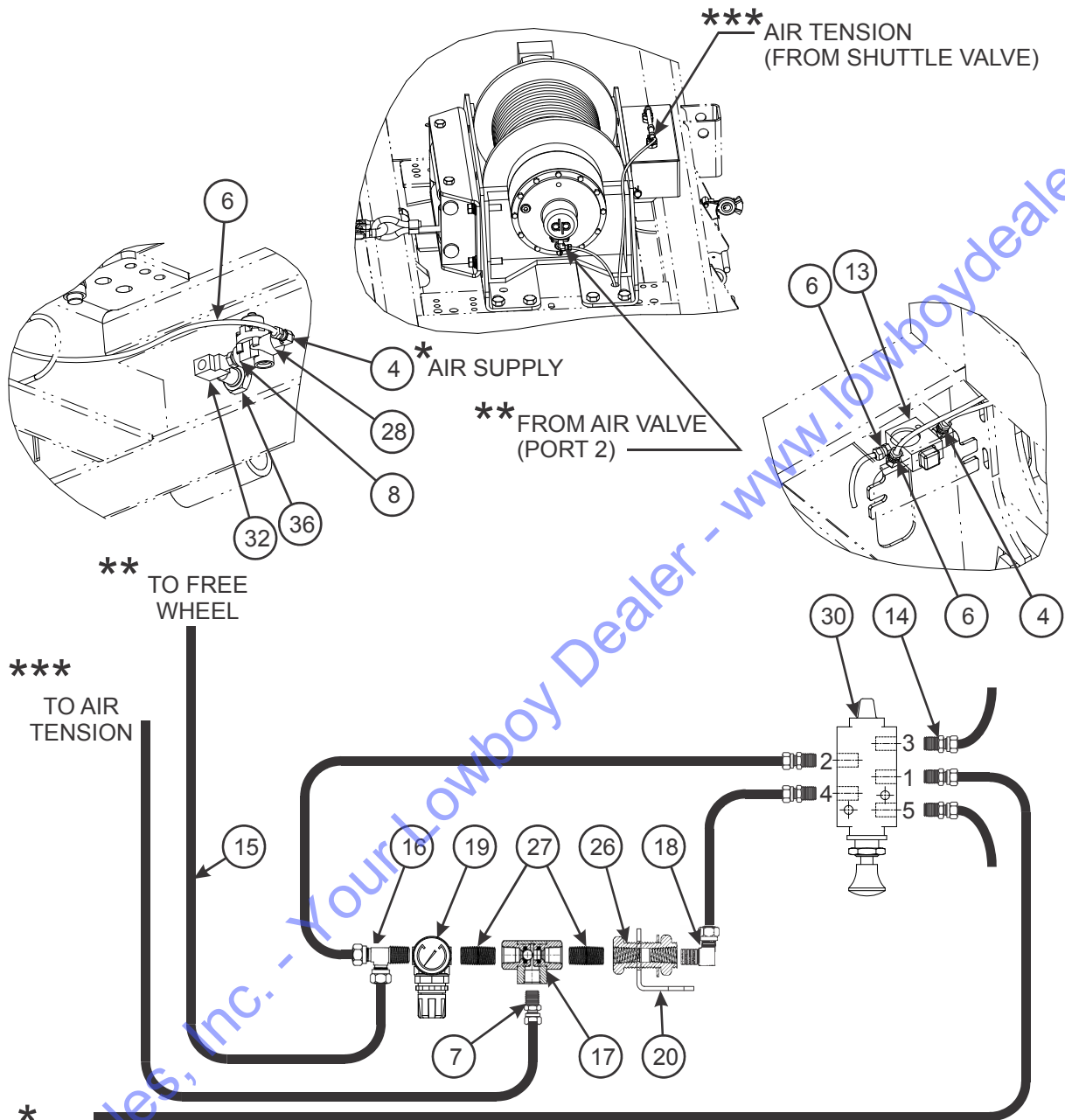
m146998 p1a

Figure 2-49: 30,000 Lb. Upper Deck Winch Installation (1 of 3)



m146998 p1b

**Figure 2-50: 30,000 Lb. Upper Deck Winch Installation (2 of 3)**



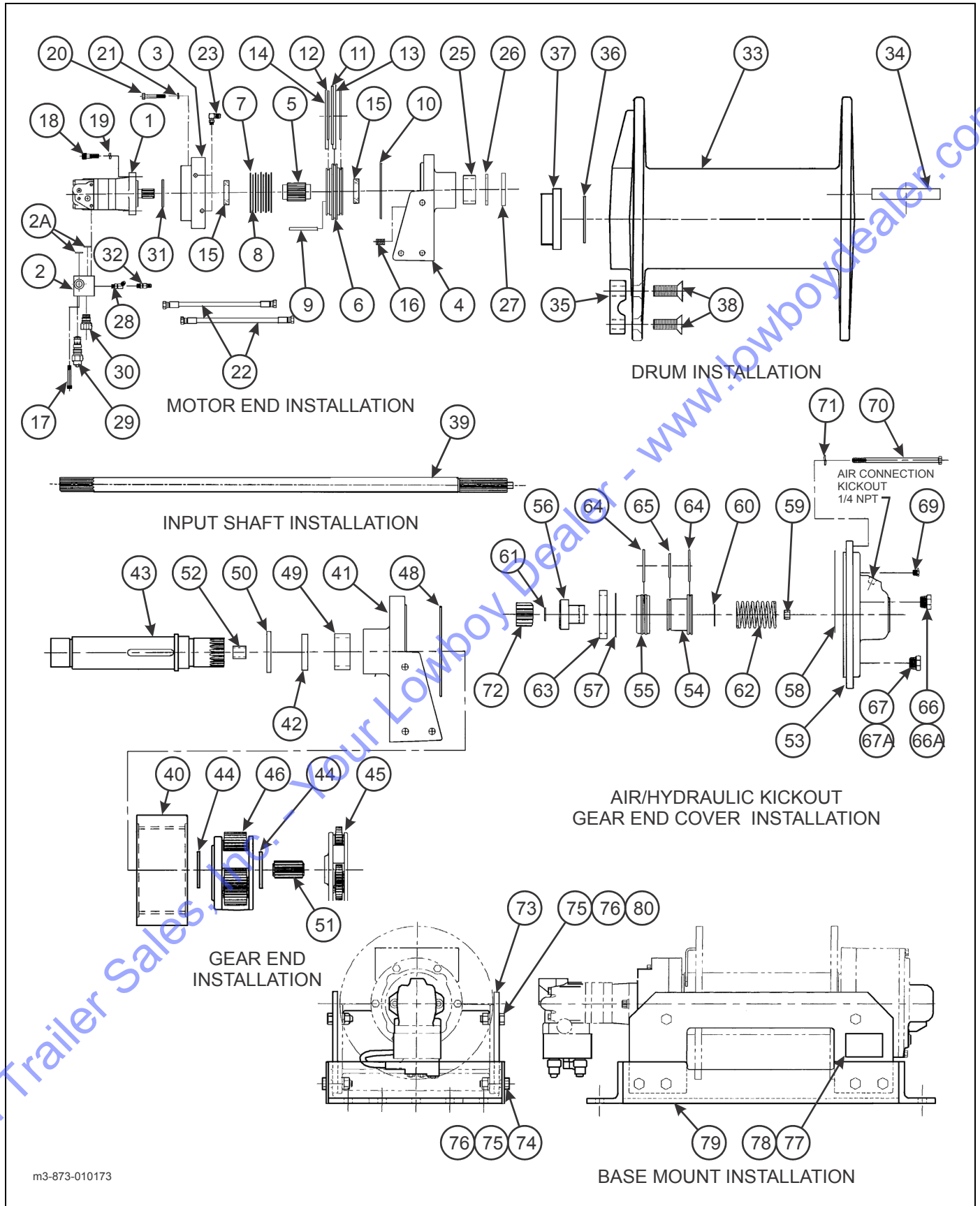
- |        |                                                   |
|--------|---------------------------------------------------|
| PORT 1 | AIR SUPPLY                                        |
| PORT 2 | TO WINCH FREE WHEEL AND MALE RUN TEE TO REGULATOR |
| PORT 3 | EXHAUST                            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

m146998 p2

Figure 2-51: 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<br>(INCL ITEMS 1,2,4,6-8,10-20,26-31)        |      |
|      | 147193          | WINCH, 30K SPG TENS NO FREE<br>(INCL ITEMS 1-6,10-13,21-25)                 |      |
|      | 144629          | WINCH INST, 30K SPG TENS<br>(INCL ITEMS 1-4, 6-8, 12-13, 15, 18, 21-25, 28) |      |
| 1    | 3-873-010173    | WINCH, 30K ITEMS (SEE PAGE 2-90)                                            | 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 2-102)                               | 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 2-100)                            | 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  |



m3-873-010173

Figure 2-52: 30,000 Lb. Winch Items

**30,000# WINCH ITEMS (DP)**

| ITEM                            | PART NO.     | REFERENCENO. | DESCRIPTION                             | QTY. |
|---------------------------------|--------------|--------------|-----------------------------------------|------|
|                                 | 3-873-010173 |              | WINCH 30K ITEMS                         |      |
| <b>MOTOR END INSTALLATION</b>   |              |              |                                         |      |
| 1                               | 137887       | 73067        | MOTOR, HYDRAULIC                        | 1    |
| 2                               | 137888       | 11604        | VALVE, COUNTERBALANCE                   | 1    |
| 2A                              | -----        | 9817         | O-RING, 13/16 I.D. X 3/32 SECTION       | 2    |
| 3                               | -----        | 11535        | BRAKE HOUSING                           | 1    |
| 4                               | -----        | 13299        | SUPPORT MOTOR END                       | 1    |
| 5                               | -----        | 11750        | SHAFT BRAKE                             | 1    |
| 6                               | -----        | 11443        | PISTON BRAKE                            | 1    |
| 7                               | -----        | 11603        | PLATE DISC FRICTION                     | 10   |
| 8                               | -----        | 3159         | PLATE DRIVE BRAKE                       | 9    |
| 9                               | -----        | 3263         | PIN DOWEL 5/16 DIA. X 3-1/2             | 2    |
| 10                              | 137993       | 9844         | O-RING, 7 O.D. X 6-3/4 I.D.             | 1    |
| 11                              | 137994       | 9853         | O-RING, 6-1/2 I.D. X 3/16 SECTION       | 1    |
| 12                              | 137421       | 9851         | O-RING, 5-3/8 I.D. X 5-3/4 O.D. X 3/16  | 2    |
| 13                              | -----        | 9854         | RING, BACK-UP                           | 1    |
| 14                              | 137422       | 9852         | RING, BACK-UP 5-3/8 I.D.                | 1    |
| 15                              | -----        | 81434        | BEARING BALL 1-3/4 I.D.                 | 2    |
| 16                              | -----        | 2319         | SPRING COMPRESSION                      | 12   |
| 17                              | -----        | 1345         | CAP SCREW, SOCKET HEAD 3/8-16 X 2-1/2   | 2    |
| 18                              | -----        | 1143         | CAP SCREW, SOCKET HEAD 1/2-13 X 1-1/2   | 2    |
| 19                              | -----        | 1144         | WASHER, LOCK HI COLLAR 1/2              | 6    |
| 20                              | -----        | 1376         | CAP SCREW, HEX HEAD 7/16 X 2-1/2        | 6    |
| 21                              | -----        | 1388         | WASHER, LOCK 7/16                       | 4    |
| 22                              | -----        | 75038        | HOSE 1/4R1 X 12"                        | 1    |
| 23                              | -----        | 76017        | ADAPTER 90                              | 1    |
| 24                              | -----        | 10708        | TAG WARNING (NOT SHOWN)                 | 1    |
| 25                              | -----        | 81454        | BEARING -TORRINGTON                     | 1    |
| 26                              | -----        | 13288        | WASHER THRUST BRONZE                    | 1    |
| 27                              | 137880       | 9890         | SEAL SHAFT                              | 1    |
| 28                              | 137641       | 76029        | ADAPTER 45                              |      |
| 29                              | 137883       | 3177         | CARTRIDGE COUNTERBALANCE                | 1    |
| 30                              | 137884       | 70035        | PLUG ASSEMBLY - VALVE COUNTERBALANCE    | 2    |
| 31                              | 137882       | 9880         | O-RING 3 ID X 1/8 SECTION               | 1    |
| 32                              | -----        | 76027        | ADAPTER STRAIGHT                        |      |
|                                 | 137885       | 9400         | DISC PLATE KIT (INCL ITEMS 7-8 & 16)    |      |
|                                 | 137886       | 9406         | SEAL KIT (INCL ITEMS 10-14)             |      |
| <b>DRUM INSTALLATION</b>        |              |              |                                         |      |
| 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 |      |
| <b>INPUT SHAFT INSTALLATION</b> |              |              |                                         |      |

**30,000# WINCH ITEMS (DP)**

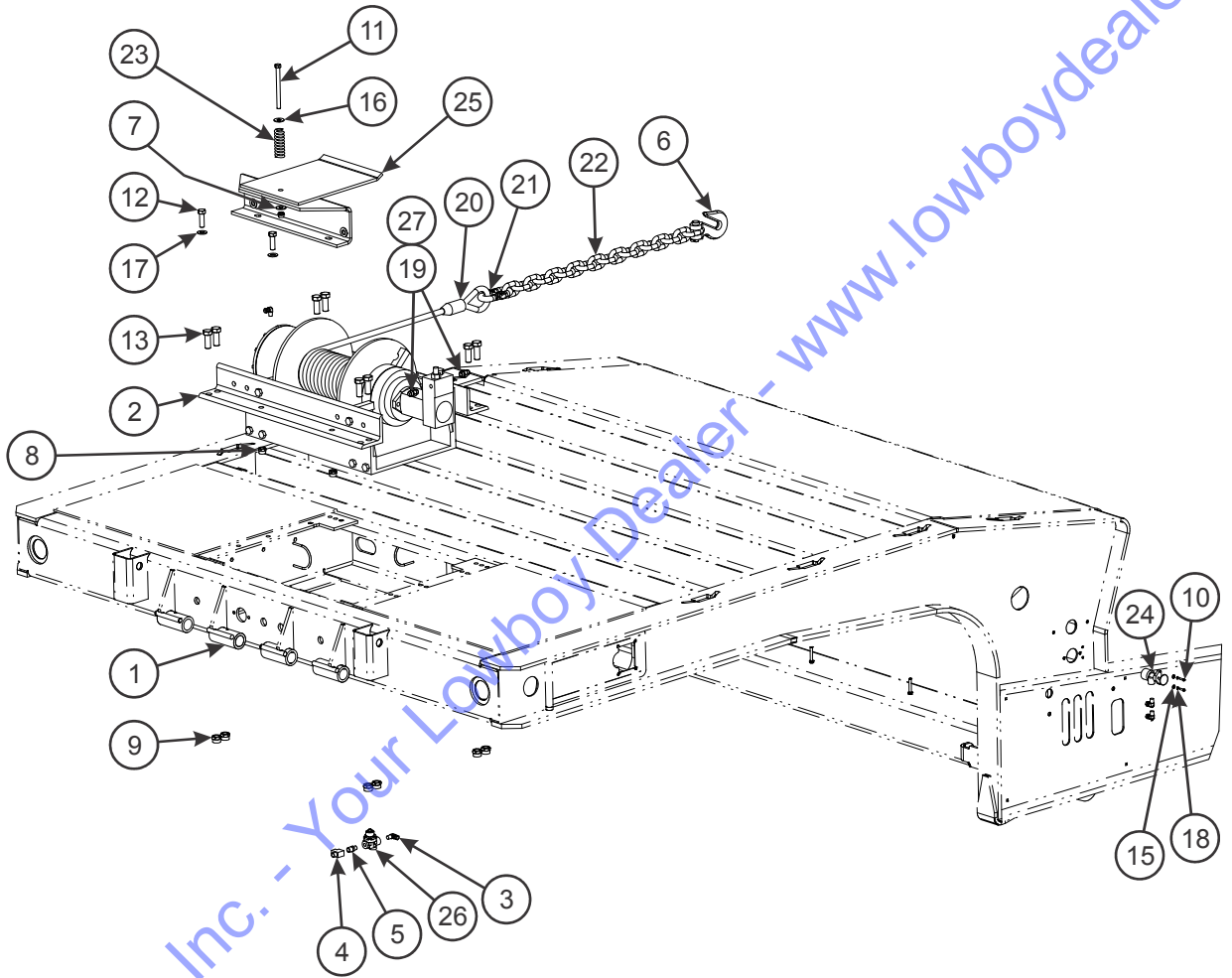
| ITEM                                                | PART NO. | REFERENCENO. | DESCRIPTION                             | QTY. |
|-----------------------------------------------------|----------|--------------|-----------------------------------------|------|
| 39                                                  | -----    | 13317        | SHAFT INPUT                             | 1    |
| <b>GEAR END INSTALLATION</b>                        |          |              |                                         |      |
| 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    |
| <b>AIR/HYD. KICKOUT GEAR END COVER INSTALLATION</b> |          |              |                                         |      |
| 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    |
| <b>BASE MOUNT INSTALLATION</b>                      |          |              |                                         |      |
| 73                                                  | -----    | 14068        | BASE MOUNT CUSTOM - B SERIES - A LENGTH | 2    |
| 74                                                  | -----    | 1506         | SCREW CAP HEX HEAD 5/8-11 X 2-1/2 GR5   | 12   |
| 75                                                  | -----    | 1590         | NUT HEX 5/8 - 11 GR2                    | 12   |
| 76                                                  | -----    | 1595         | WASHER LOCK 5/8 MEDIUM PLAIN            | 12   |
| 77                                                  | -----    | 1165         | RIVET DRIVE U TYPE #2 X 1/4 LONG        | 4    |

## ILLUSTRATED PARTS LIST

### 30,000# WINCH ITEMS (DP)

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

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



m126538

Figure 2-53: 30,000 Lb. Upper Deck Winch Installation

## WINCH INSTALLATION 30K DP SPG TENSION A/R

| ITEM | PART NO.        | DESCRIPTION                                  | QTY. |
|------|-----------------|----------------------------------------------|------|
|      | 126538          | WINCH INSTALLATION 30K DP SPRING TENSION A/R |      |
| 1    | 126539          | FRAME MOD 30K DP G/N                         | REF  |
| 2    | 126580          | WINCH MOD 30K DP AIR RELEASE (SEE PAGE 2-96) | 1    |
| 3    | 1-297-010008-07 | FITTING, AIR 90                              | 4    |
| 4    | 1-297-010018-03 | FITTING, 1/4 TEE                             | REF  |
| 5    | 1-297-010019-05 | FITTING, BRS PIPE HEX 3/8 X 1/4              | 1    |
| 6    | 1-382-010035-06 | HOOK, CLEVIS GRAB 5/8 GR80                   | 1    |
| 7    | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB                     | 1    |
| 8    | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB                     | 2    |
| 9    | 1-512-010005-15 | NUT, HEX LOCK 3/4-10 GRB                     | 8    |
| 10   | 1-654-010024079 | SCREW, MACH FILLISTER #10-32 X 3/4           | 2    |
| 11   | 1-654-010055-17 | SCREW, HEX HEAD CAP 1/2-13 X 6 GR5           | 1    |
| 12   | 1-654-010059-05 | SCREW, HEX HEAD CAP 5/8-11 X 2 GR5           | 2    |
| 13   | 1-654-010061-05 | SCREW, HEX HEAD CAP 3/4-10 X 2 GR5           | 8    |
| 14   | 1-833-010001    | TUBING, NYLON 1/4 (NOT SHOWN)                | 1    |
| 15   | 1-861-010032-03 | WASHER, FLAT #10                             | 2    |
| 16   | 1-861-010032-15 | WASHER, FLAT 1/2W                            | 2    |
| 17   | 1-861-010032-18 | WASHER, FLAT 5/8N                            | 4    |
| 18   | 1-861-010034-07 | WASHER, SPLIT LOCK #10                       | 2    |
| 19   | 202702-8-8S     | ADAPTER                                      | 2    |
| 20   | 3-153-010016-XX | CABLE ASSEMBLY 3/4                           | REF  |
| 21   | 3-174-010059    | CHAIN LINK CONNECTING 5/8                    | 1    |
| 22   | 3-174-010060036 | CHAIN, 5/8 X 36 GRADE 80                     | 1    |
| 23   | 3-720-010010    | SPRING, COMPRESSION                          | 1    |
| 24   | 3-843-010008    | VALVE, AIR 3 WAY 2 POS PUSH-PULL             | 1    |
| 25   | 3-876-010017    | WINCH TENSIONER WELDMENT 30K                 | 1    |
| 26   | 905-54-107      | BRAKE PROTECTION VALVE                       | 1    |
|      | 167692          | FILTER                                       | *1,2 |
| 27   | 1-397-010302220 | HOSE ASSEMBLY 1/2 X 220 (NOT SHOWN)          | 2    |

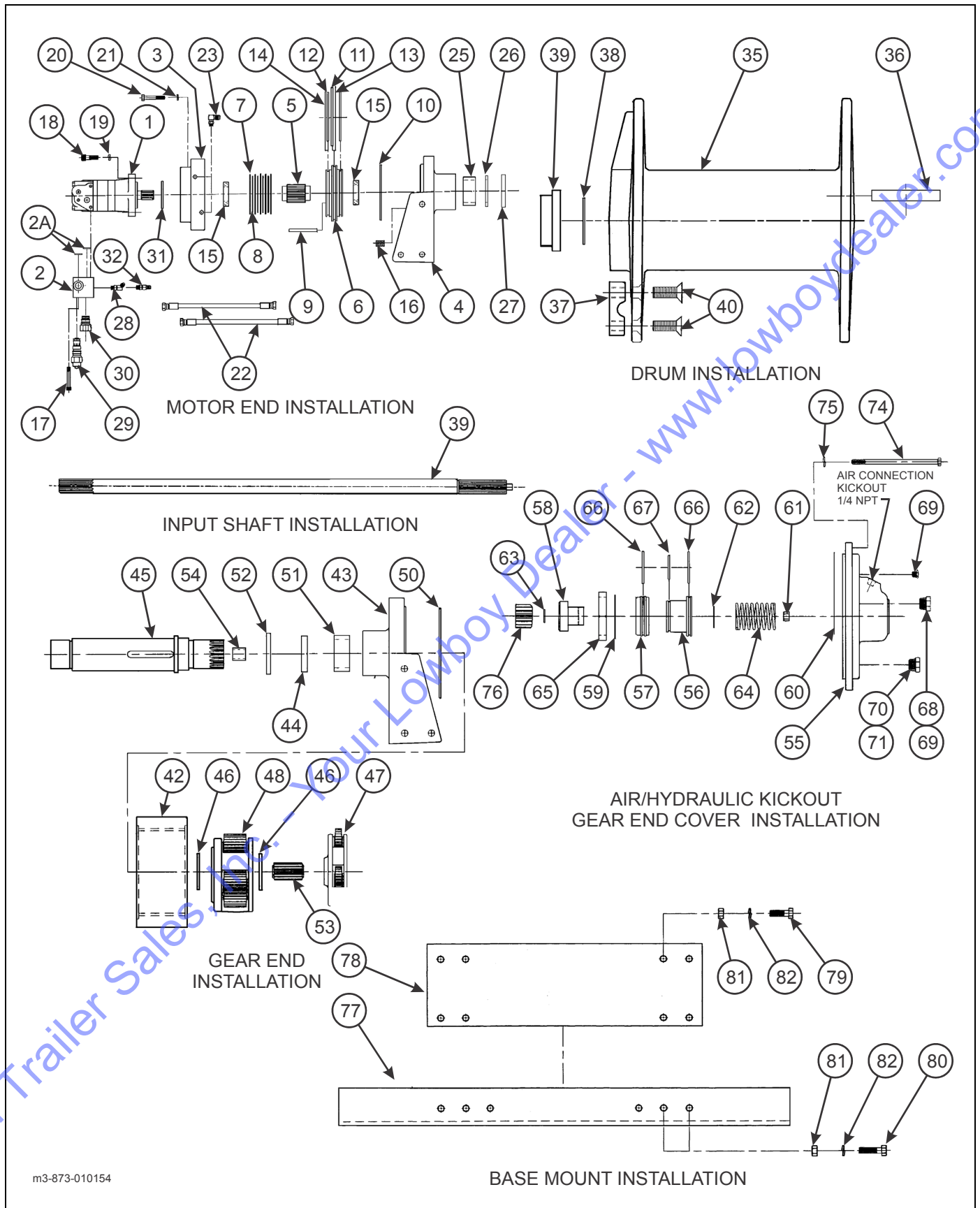


Figure 2-54: 30,000 Lb. Winch Items

**30,000# WINCH ITEMS (DP)**

| ITEM | PART NO.     | REFERENCE NO. | DESCRIPTION                                       | QTY. |
|------|--------------|---------------|---------------------------------------------------|------|
|      | 3-873-010154 | -----         | MOTOR END INSTALLATION                            |      |
| 1    | 137887       | 73067         | MOTOR, HYDRAULIC                                  | 1    |
| 2    | 137888       | 11604         | VALVE, COUNTERBALANCE                             | 1    |
| 2A   | -----        | 9817          | O-RING, 1/8 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, 6-3/4 I.D. X 7 O.D. X 1/8 SECTION         | 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 SECTION    | 2    |
| 13   | -----        | 9854          | RING, BACK-UP 6-1/4 X .183                        | 1    |
| 14   | 137422       | 9852          | RING, BACK-UP 5.278 ID X .076                     | 1    |
| 15   | -----        | 81434         | BEARING BALL 1-3/4 I.D.                           | 2    |
| 16   | -----        | 2319          | SPRING, COMPRESSION                               | 12   |
| 17   | -----        | 1345          | SCREW, HEX HEAD CAP 3/8-16 X 2-1/2                | 3    |
| 18   | -----        | 1143          | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2                | 2    |
| 19   | -----        | 1144          | WASHER, LOCK HI COLLAR 1/2                        | 2    |
| 20   | -----        | 1376          | SCREW, HEX HEAD CAP 7/16 X 2-1/2                  | 6    |
| 21   | -----        | 1388          | WASHER, LOCK 7/16                                 | 6    |
| 22   | -----        | 75038         | HOSE, 1/4R1 X 12"                                 | 2    |
| 23   | -----        | 76017         | ADAPTER, 90                                       | 2    |
| 24   | -----        | 10708         | TAG WARNING (NOT SHOWN)                           | 1    |
| 25   | -----        | 81454         | BEARING, ROLLER TORRINGTON                        | 1    |
| 26   | -----        | 13288         | WASHER, THRUST BRONZE 3.81 X .406                 | 1    |
| 27   | 137880       | 9890          | SEAL SHAFT 3-1/8 I.D. X 4 O.D. X 3/8 THICK        | 1    |
| 28   | 137641       | 76029         | ADAPTER, 45                                       | 1    |
| 29   | 137883       | 3177          | CARTRIDGE, COUNTERBALANCE                         | 1    |
| 30   | 137884       | 70035         | PLUG ASSEMBLY - VALVE COUNTERBALANCE              | 1    |
| 31   | 137882       | 9880          | O-RING 3 I.D. X 1/8 SECTION                       | 1    |
| 32   | 137642       | 76027         | ADAPTER, STRAIGHT #4 O-RING                       | 1    |
| 33   | 137885       | 9400          | DISC BRAKE KIT (INCLUDES ITEMS 7-8, 16)           | 1    |
| 34   | 137886       | 9406          | BRAKE PISTON MOTOR END KIT (INCLUDES ITEMS 10-14) | 1    |
|      |              |               | DRUM INSTALLATION                                 |      |
| 35   | -----        | 13285         | DRUM                                              | 1    |
| 36   | -----        | 13293         | KEY DRUM                                          | 2    |
| 37   | 137569       | 12518         | CLIP, CABLE THREADED                              | 1    |
| 38   | -----        | 9602          | O-RING 2-3/4 ID X 3 O.D. X 1/8 SECTION            | 1    |
| 39   | -----        | 13286         | SPACER                                            | 1    |
| 40   | 137570       | 1587          | SCREW, FLAT SOCKET HEAD CAP 5/8-11 X 1-3/4        | 2    |

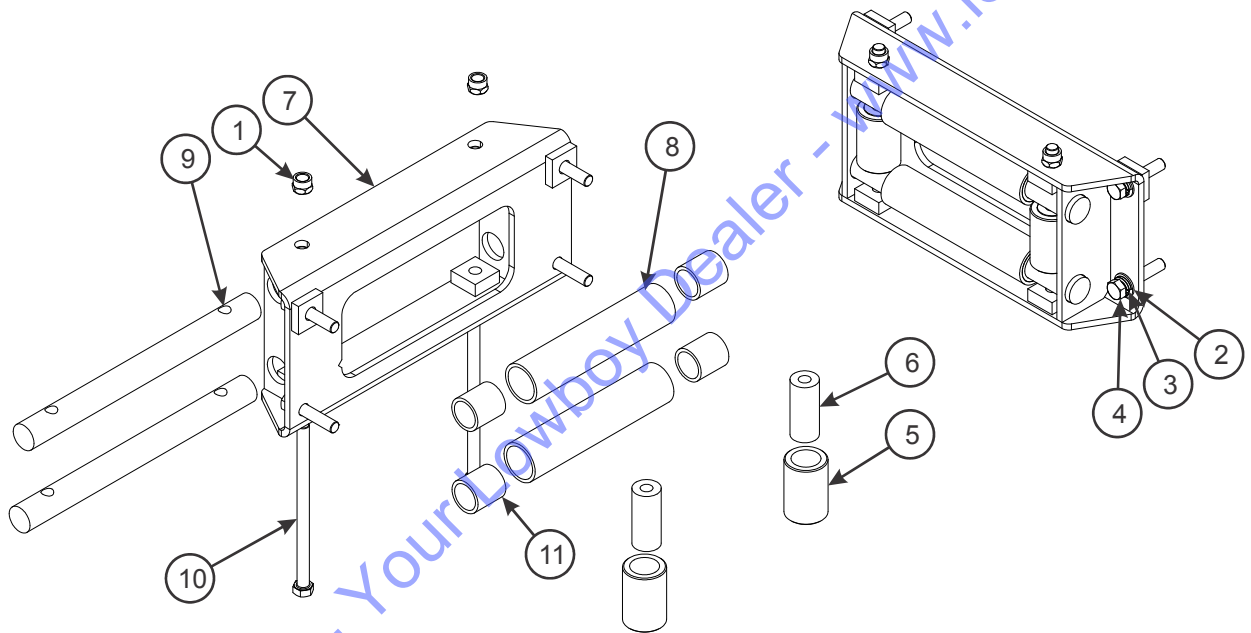
**30,000# WINCH ITEMS (DP)**

| ITEM                                         | PART NO. | REFERENCE NO. | DESCRIPTION                                  | QTY. |
|----------------------------------------------|----------|---------------|----------------------------------------------|------|
| INPUT SHAFT INSTALLATION                     |          |               |                                              |      |
| 41                                           | -----    | 13317         | SHAFT, INPUT                                 | 1    |
| GEAR END INSTALLATION                        |          |               |                                              |      |
| 42                                           | -----    | 3126          | GEAR, RING                                   | 1    |
| 43                                           | -----    | 13300         | SUPPORT, GEAR END                            | 1    |
| 44                                           | -----    | 13288         | WASHER, THRUST                               | 1    |
| 45                                           | -----    | 13301         | SHAFT, OUTPUT                                | 1    |
| 46                                           | -----    | 13164         | WASHER, THRUST NYLON 3-1/2 OD X 3/16 SECTION | 2    |
| 47                                           | -----    | 12486         | CARRIER ASSEMBLY PRIMARY                     | 1    |
| 48                                           | -----    | 12516         | CARRIER ASSEMBLY SECONDARY                   | 1    |
| 49                                           | -----    | 10848         | LABEL WARNING (NOT SHOWN)                    | 1    |
| 50                                           | 137879   | 9695          | O-RING 8-3/4 I.D. X 1/8 SECTION              | 1    |
| 51                                           | -----    | 81454         | BEARING                                      | 1    |
| 52                                           | 137880   | 9890          | SEAL SHAFT                                   | 1    |
| 53                                           | -----    | 13306         | GEAR SUN                                     | 1    |
| 54                                           | -----    | 81608         | BUSHING ID 1-1/4 OD X 1 LG                   | 1    |
| AIR/HYD. KICKOUT GEAR END COVER INSTALLATION |          |               |                                              |      |
| 55                                           | -----    | 13675         | COVER, GEAR END                              | 1    |
| 56                                           | -----    | 13295         | PISTON AKO B/C/D                             | 1    |
| 57                                           | -----    | 13296         | CYLINDER, PISTON                             | 1    |
| 58                                           | -----    | 13297         | COUPLING, DRIVE                              | 1    |
| 59                                           | -----    | 3632          | RING, RETAINING RD SEC 3 O.D. X .10 SEC      | 1    |
| 60                                           | 137879   | 9695          | O-RING 8-3/4 I.D. X 1/8 SECTION              | 1    |
| 61                                           | -----    | 81612         | BUSHING, BRONZE 3/8 I.D. X 3/8 L             | 1    |
| 62                                           | -----    | 3303          | RING, RETAINING 1-1/4                        | 1    |
| 63                                           | -----    | 3321          | RING, RETAINING RD SEC .805 I.D.             | 1    |
| 64                                           | -----    | 2309          | SPRING, COMPRESSION                          | 1    |
| 65                                           | -----    | 13288         | WASHER, THRUST BRONZE 3.81 X .406 W          | 1    |
| 66                                           | 137881   | 9672          | O-RING 2-5/8 I.D. X 1/8 SECTION              | 2    |
| 67                                           | -----    | 9704          | O-RING 2-1/8 I.D. X 2-3/8 O.D.               | 1    |
| 68                                           | 105967   | 76344         | PLUG, SKT HD O-RING #10 7/8 - 14             | 1    |
| 69                                           | -----    | 9992          | O-RING .755 I.D. X .097 W 3-910              | 1    |
| 70                                           | 105954   | 76343         | PLUG, SKT HD O-RING MAG #10                  | 1    |
| 71                                           | -----    | 9992          | O-RING .755 I.D. X .097 W 3-910              | 1    |
| 72                                           | -----    | 1157          | CAPLUG #4 RED (NOT SHOWN)                    | 1    |
| 73                                           | 105953   | 3059          | RELIEF VENT                                  | 1    |
| 74                                           | -----    | 1317          | SCREW, HEX HEAD CAP 3/8-16 X 5-1/2           | 12   |
| 75                                           | -----    | 1395          | WASHER, LOCK 3/8                             | 12   |
| 76                                           | -----    | 13235         | GEAR, SUN 15 TEETH                           | 1    |
| BASE MOUNT INSTALLATION                      |          |               |                                              |      |
| 77                                           | -----    | 11990         | BASE ANGLE                                   | 2    |
| 78                                           | -----    | 12005         | PLATE, SIDE                                  | 2    |
| 79                                           | -----    | 1504          | SCREW, HEX HEAD CAP 5/8-11 X 2 GR5           | 4    |

**30,000# WINCH ITEMS (DP)**

| ITEM | PART NO. | REFERENCE NO. | DESCRIPTION                                   | QTY. |
|------|----------|---------------|-----------------------------------------------|------|
| 80   | ----     | 1505          | SCREW, HEX HEAD CAP 5/8-11 X 2-1/4 GR5        | 8    |
| 81   | ----     | 1590          | NUT, HEX 5/8 - 11 GR2                         | 12   |
| 82   | ----     | 1595          | WASHER, LOCK 5/8 MEDIUM PLAIN                 | 12   |
| 83   | ----     | 10466         | PLATE, INFORMATION (NOT SHOWN)                | 1    |
| 84   | ----     | 1165          | RIVET, DRIVE U TYPE #2 X 1/4 LONG (NOT SHOWN) | 4    |

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

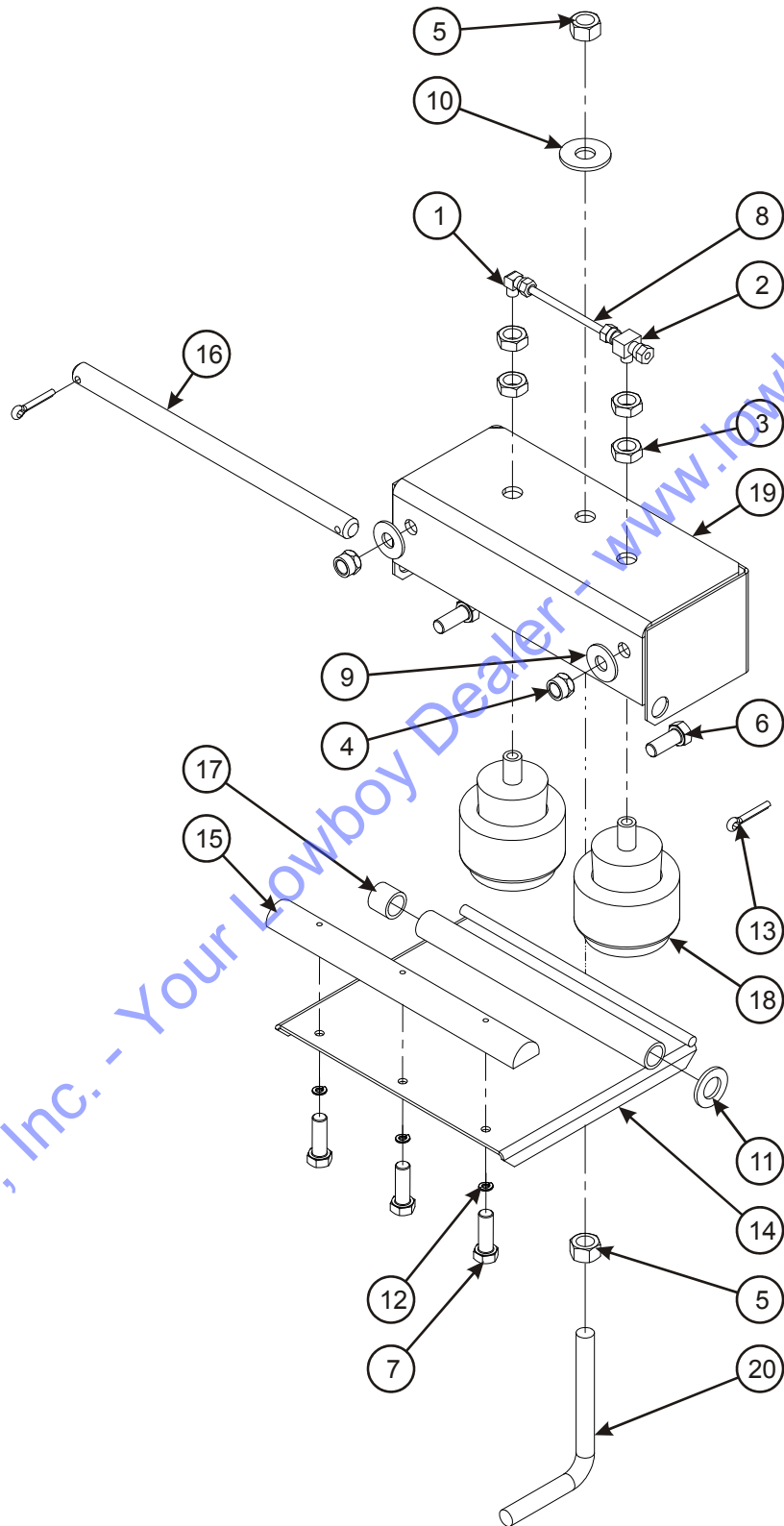


m122333

Figure 2-55: 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, HORIZ 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    |

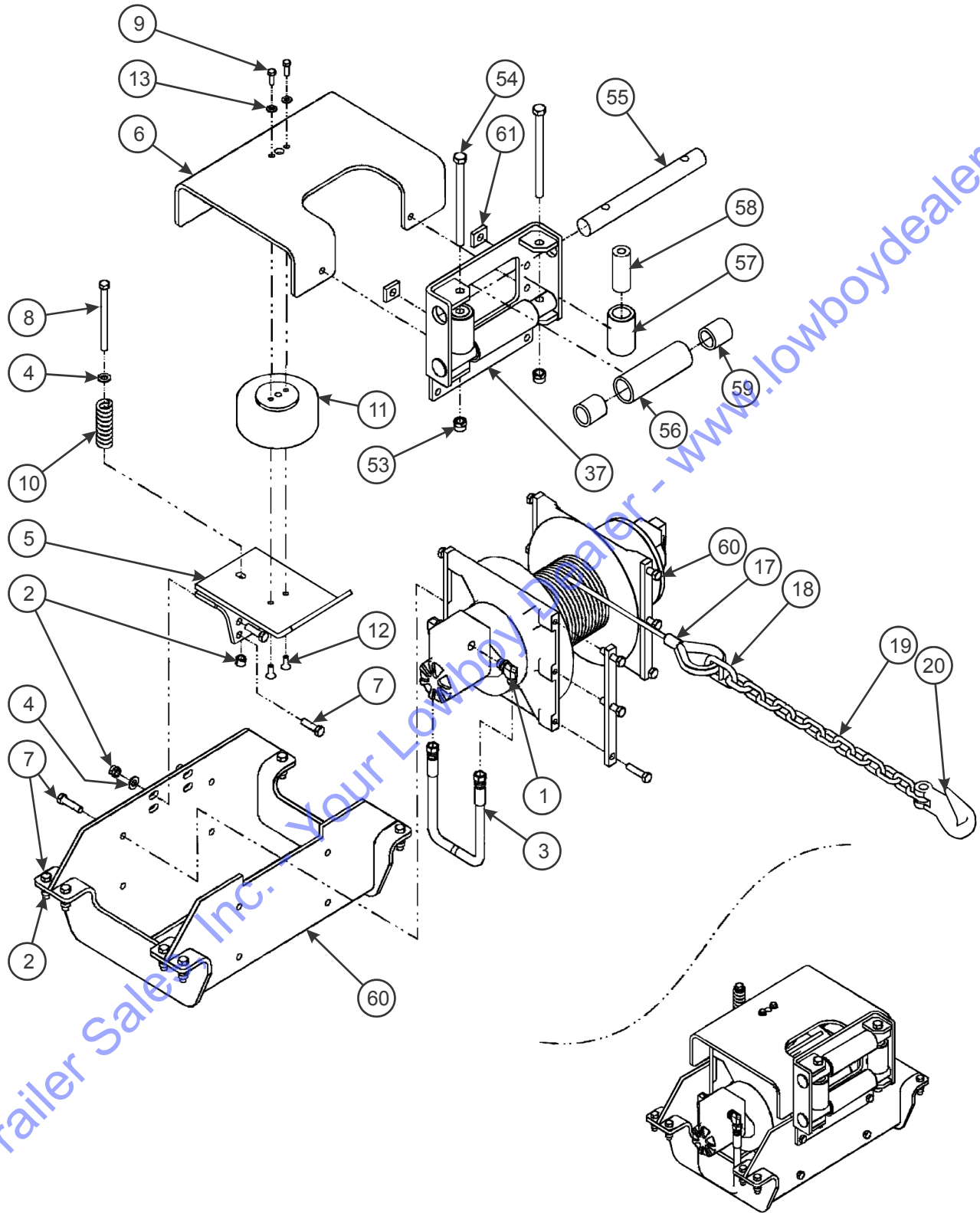


3m873-010172

Figure 2-56: 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    |



3m873-010140 p1

Figure 2-57: 12K, 15K, & 20K Upper Deck Winch (DP)  
(1 of 2)

# ILLUSTRATED PARTS LIST

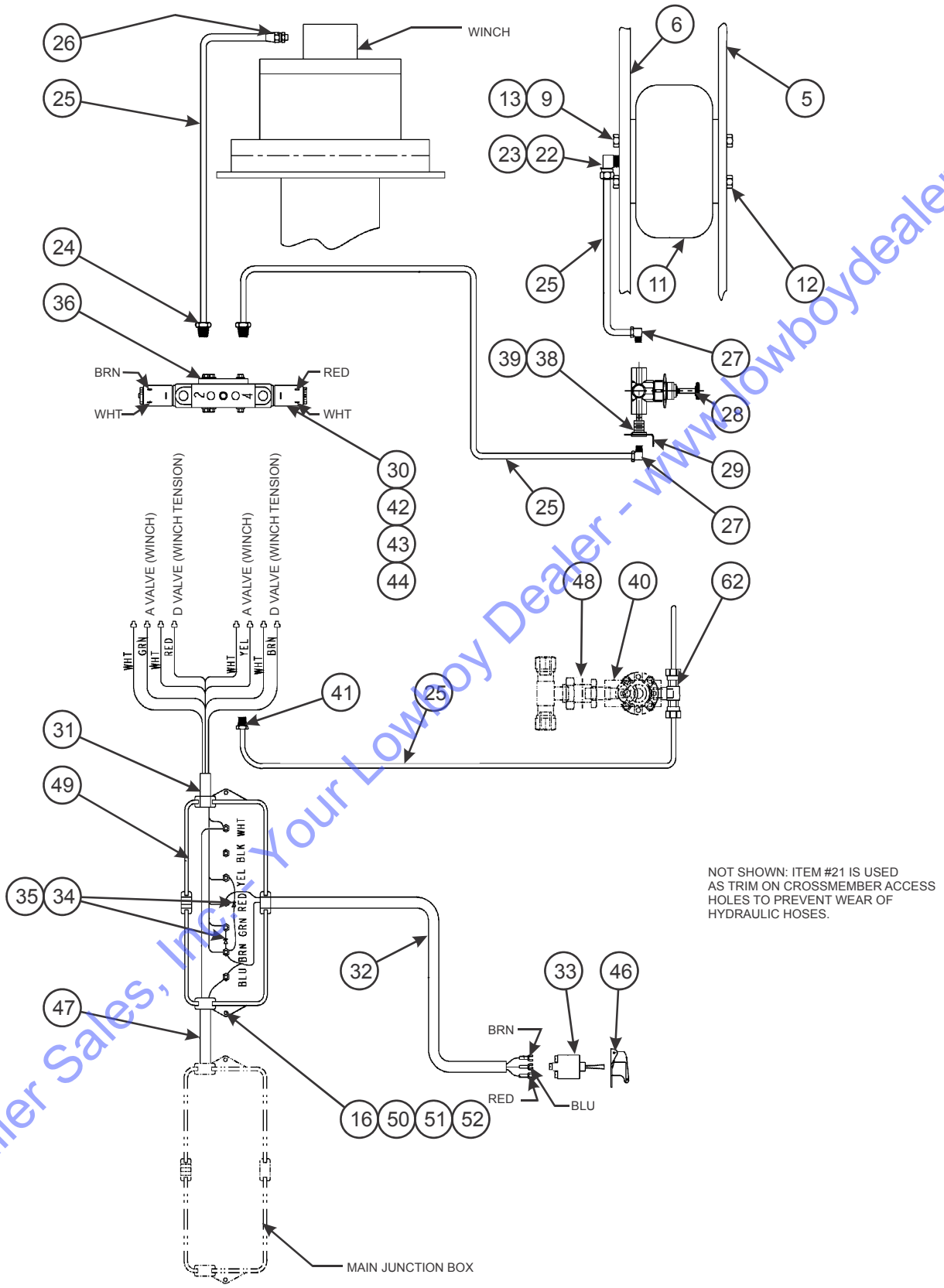


**Figure 2-58: 12K, 15K, & 20K Upper Deck Winch (DP)**  
(2 of 2)

**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)<br>(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 | BREATHING, 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<br>(* 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    |

## ILLUSTRATED PARTS LIST

### 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 2-108 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

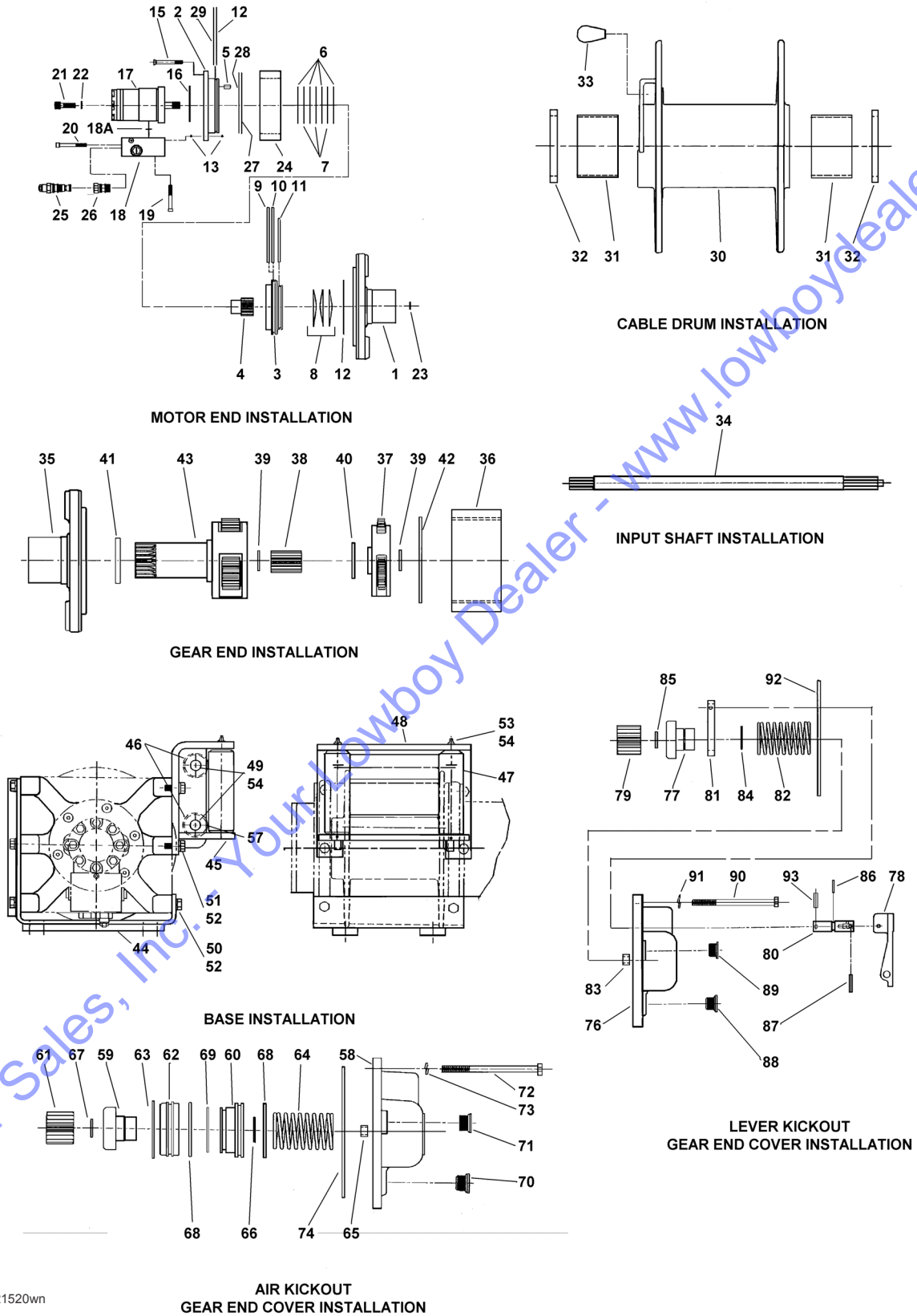


Figure 2-59: 12K, 15K, & 20K Winch Items (DP Planetary)

## 12K, 15K, &amp; 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    |

## ILLUSTRATED PARTS LIST

### 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.

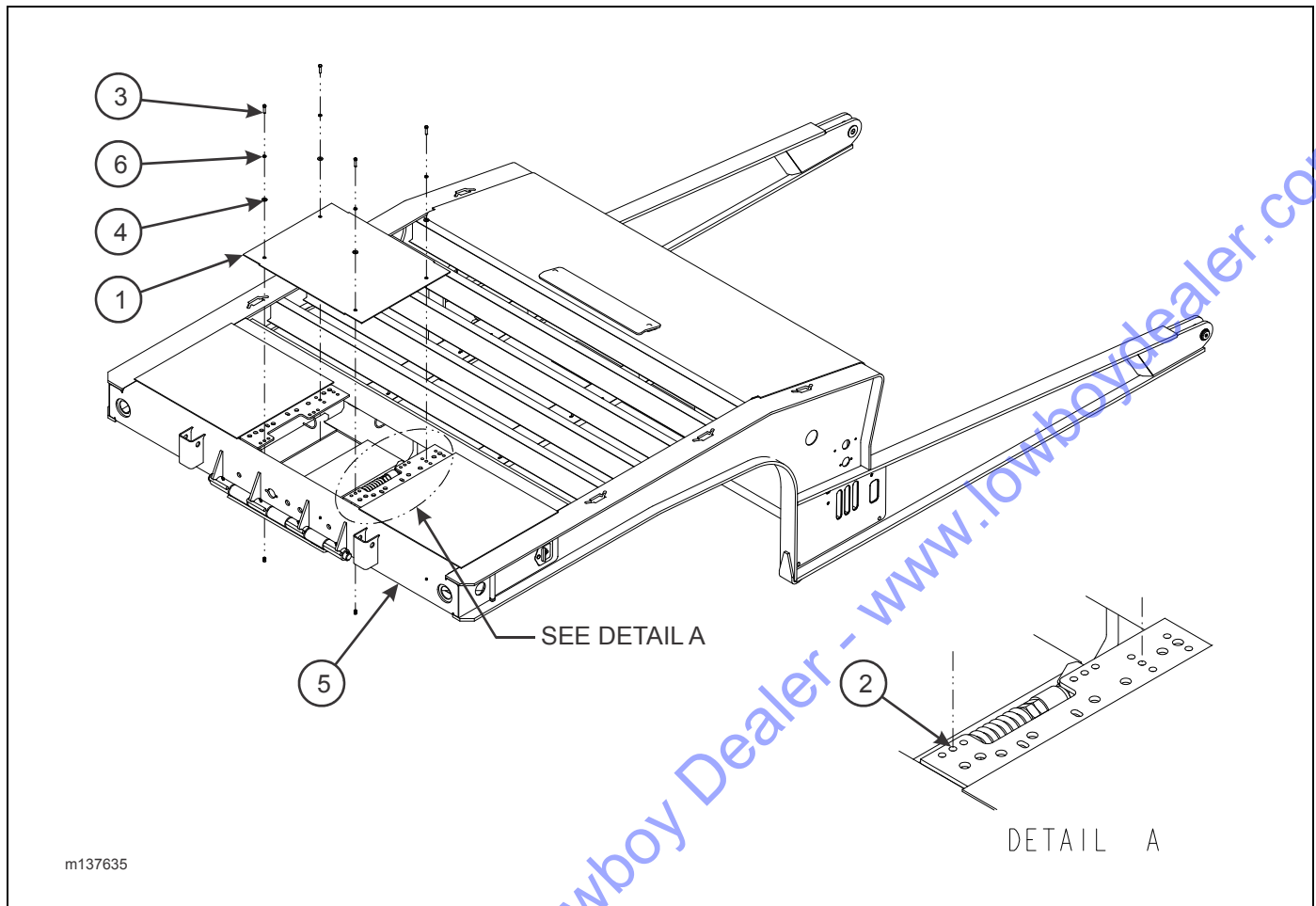


Figure 2-60: Upper Deck Cover Assembly (Option)

**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    |

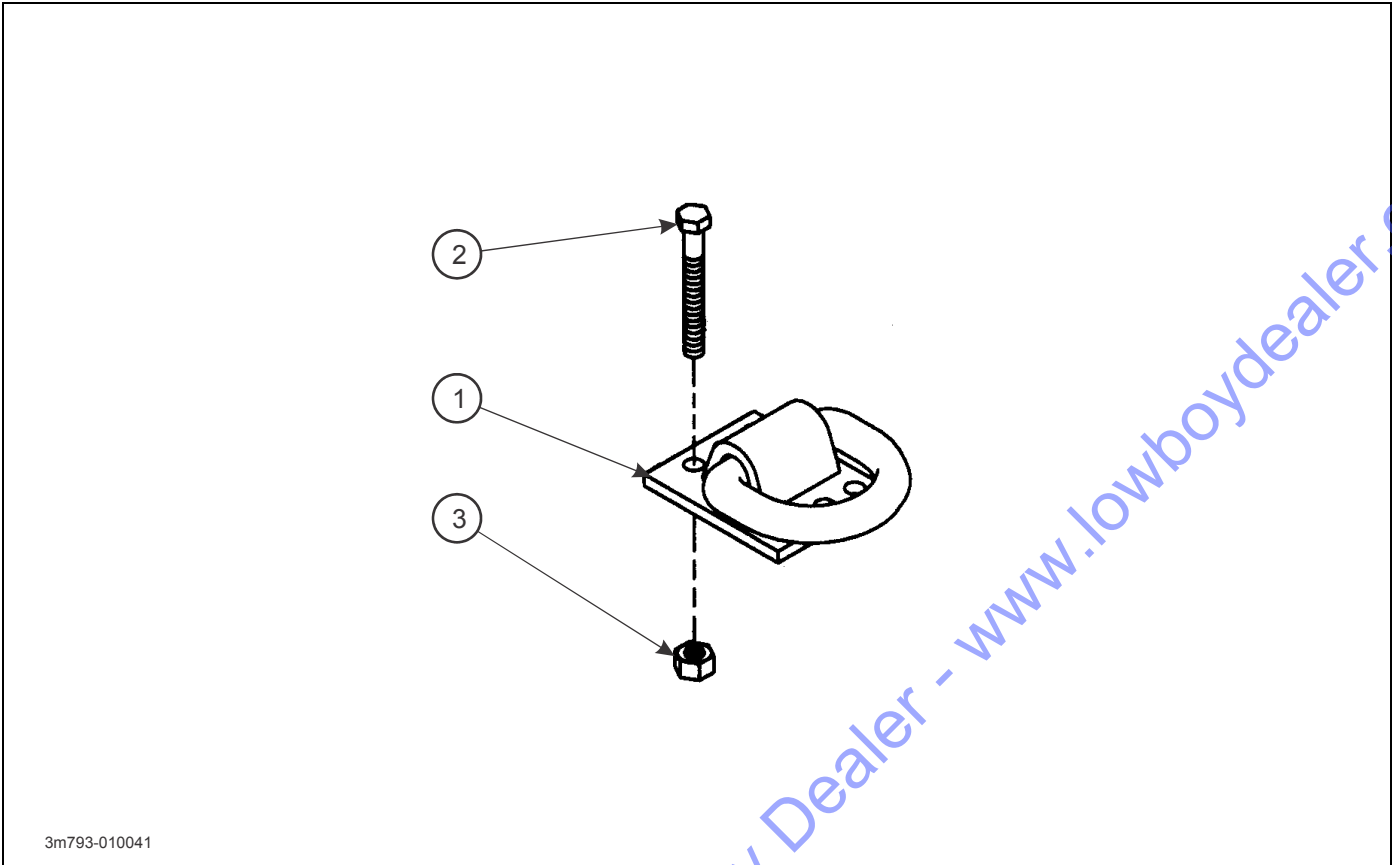


Figure 2-61: Tie Down Installation (Option)

**TIE DOWN INSTALLATION (OPTION)**

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

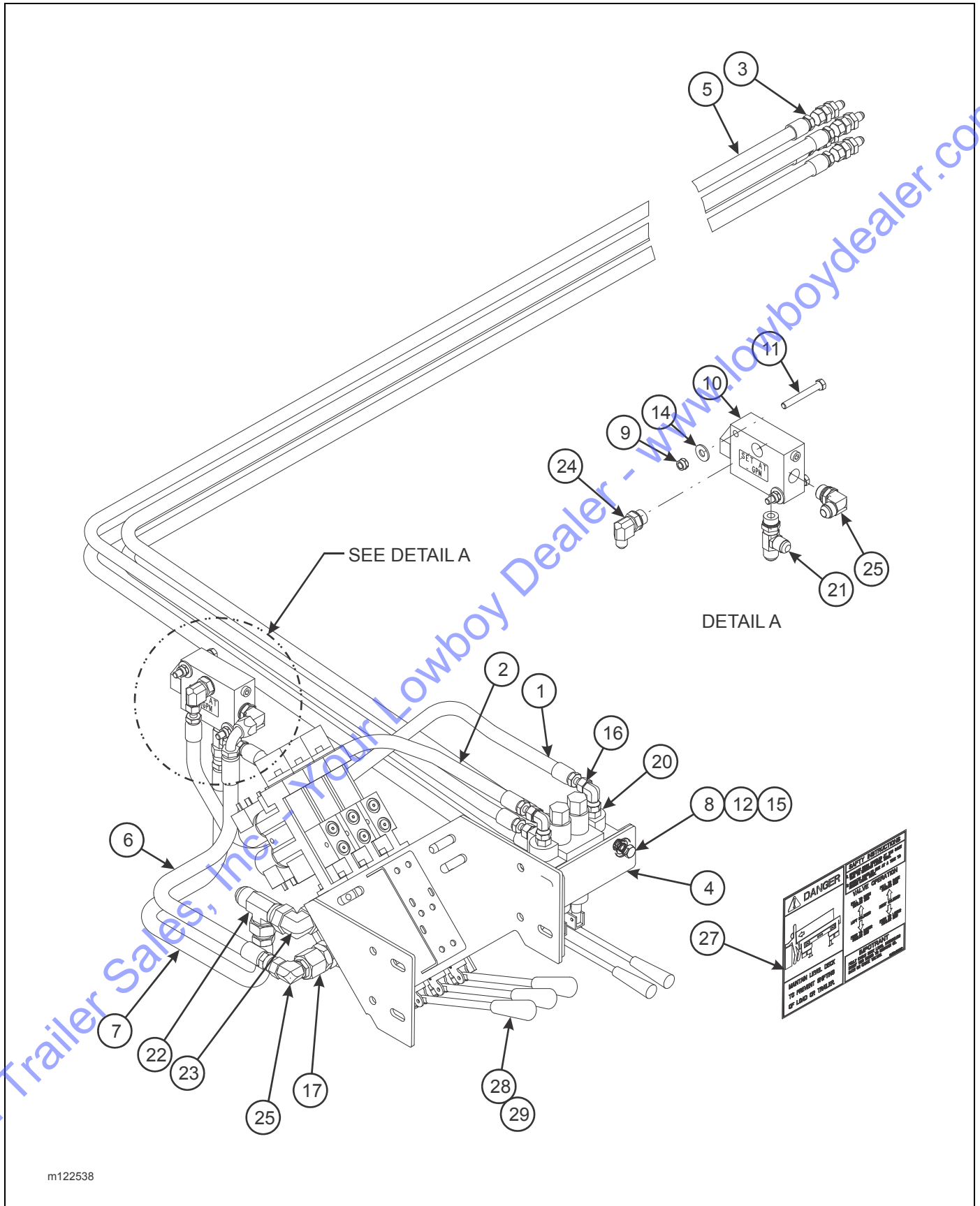
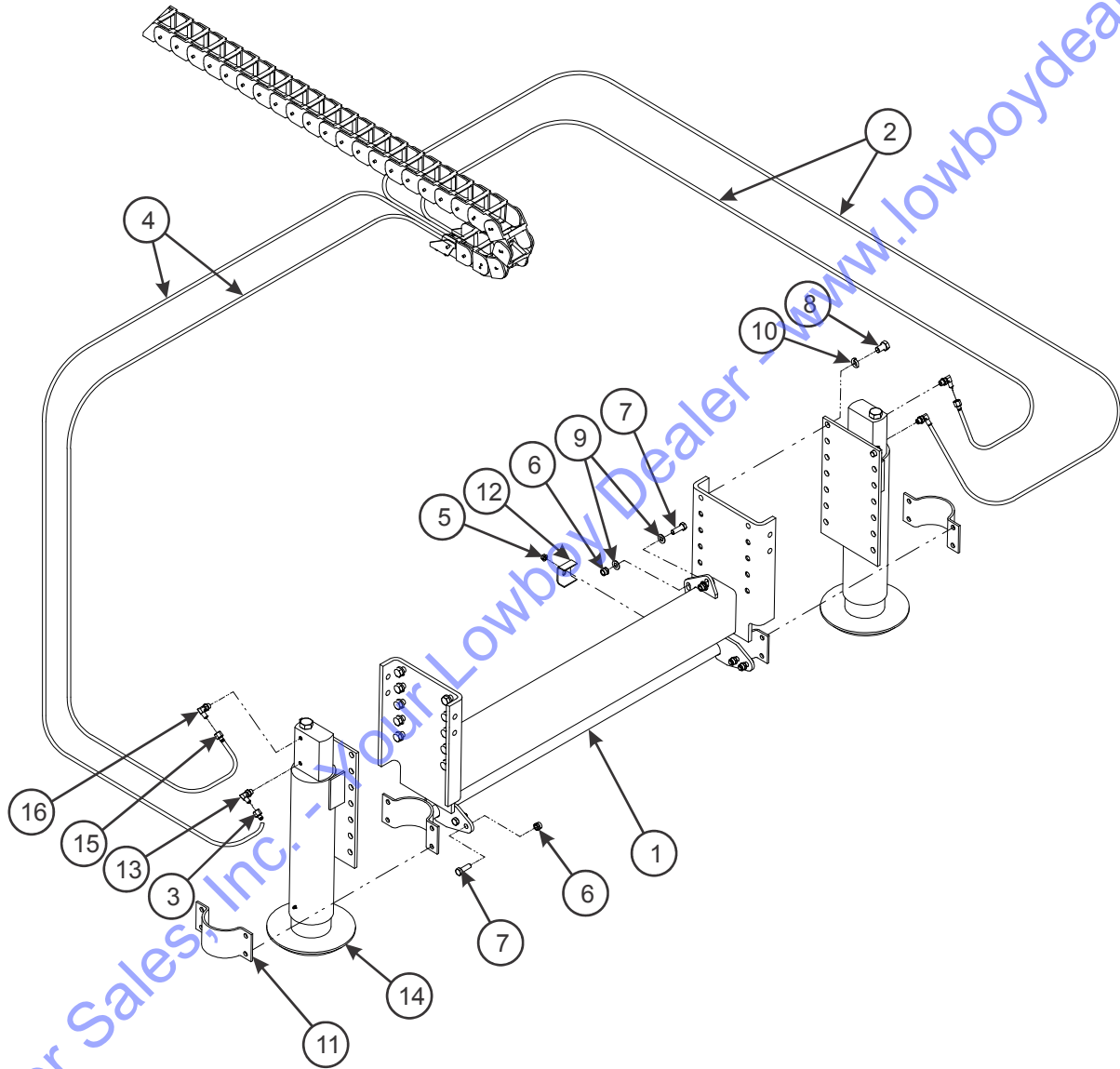


Figure 2-62: Dock Leveler Hydraulic Installation (Option)

## DOCK LEVELER HYDRAULIC INSTALLATION

| ITEM | PART NO.        | DESCRIPTION                                                   | QTY. |
|------|-----------------|---------------------------------------------------------------|------|
|      | 122538          | DOCK LEVELER HYDRAULIC INST 410-50                            |      |
|      | 122812          | DOCK LEVELER HYDRAULIC INST 410-48                            |      |
|      | 126641          | DOCK LEVELER HYDRAULIC INST 410-53                            |      |
|      | 129099          | DOCK LEVELER HYDRAULIC INST 425-45                            |      |
|      | 123211          | DOCK LEVELER HYDRAULIC INST 425-41                            |      |
| 1    | 111302          | HOSE ASSEMBLY 3/8 X 24                                        | 1    |
| 2    | 116429          | HOSE ASSEMBLY 3/8 X 25                                        | 1    |
| 3    | 102-1097        | 37 FLARE BULKHEAD/ 37 FLARE                                   | 4    |
| 4    | 121124          | BRACKET, VALVE DOCK LEVEL CONTROL                             | 1    |
| 5    | 1-397-010307356 | HOSE ASSEMBLY 3/8 X 356 (50')                                 | 4    |
|      | 122813          | HOSE ASSEMBLY 3/8 X 332 (48')                                 | 4    |
|      | 126736          | HOSE ASSEMBLY 3/8 X 392 (53')                                 | 4    |
|      | 104330          | HOSE ASSEMBLY 3/8 X 258 (41')                                 | 4    |
|      | 1-397-010307296 | HOSE ASSEMBLY 3/8 X 296 (45')                                 | 4    |
| 6    | 1-397-010302018 | HOSE ASSEMBLY 1/2 X 18                                        | 1    |
| 7    | 1-397-010306028 | HOSE ASSEMBLY 1/2 X 28                                        | 1    |
| 8    | 1-510-010001    | NUT, FLANGE LOCK 3/8-16                                       | 2    |
| 9    | 1-512-010005-03 | NUT HEX LOCK 5/16-18 GRB                                      | 2    |
| 10   | 1-626-010002-03 | REGULATOR FLOW 1/2 BYPASS ONLY                                | 1    |
|      | 1-626-010002-06 | REGULATOR, FLOW 1-1/2-6 (141639)                              | 1    |
| 11   | 1-654-010049-11 | SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5                       | 2    |
| 12   | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5                            | 2    |
| 13   | 1-796-010003-02 | TIE, STRAP PLASTIC (NOT SHOWN)                                | AR   |
| 14   | 1-861-010032-09 | WASHER FLAT 5/16W                                             | 2    |
| 15   | 1-861-010032-11 | WASHER, FLAT 3/8W                                             | 2    |
| 16   | 102-0031        | ADAPTER, 90                                                   | 2    |
| 17   | 138179          | POWER BEYOND REMOTE                                           | 1    |
|      | 1V0208          | POWER BEYOND REMOTE (131726 & 141638)                         | 1    |
| 20   | 202702-6-6S     | ADAPTER STRAIGHT                                              | 6    |
| 21   | 203005-8-8S     | ADAPTER, TEE                                                  | 1    |
| 22   | 203102-12-12S   | ADAPTER TEE                                                   | 1    |
| 23   | 2062-10-12S     | ADAPTER 90                                                    | REF  |
| 24   | 2062-8-6S       | ADAPTER 90°                                                   | 1    |
| 25   | 2062-8-8S       | ADAPTER 90°                                                   | 2    |
| 26   | 3-201-010002    | CONDUIT FLEX PLASTIC 3/8 (NOT SHOWN)                          | 3    |
| 27   | 3-573-010202    | DECAL, DANGER OP D/L (REAR) (SEE PAGE 2-130)                  | 1    |
| 28   | -----           | VALVE, 3 SPOOL 2500 PSI                                       | REF  |
| 29   | 3-846-010056    | VALVE, DOUBLE SPOOL STACK (SEE PAGE 2-124,) BEFORE 01/15/2014 | 1    |
|      | 179649          | VALVE, DOUBLE SPOOL STACK, AFTER 01/15/2014                   | 1    |



m121498

Figure 2-63: Dock Leveler Assembly, Single 60K

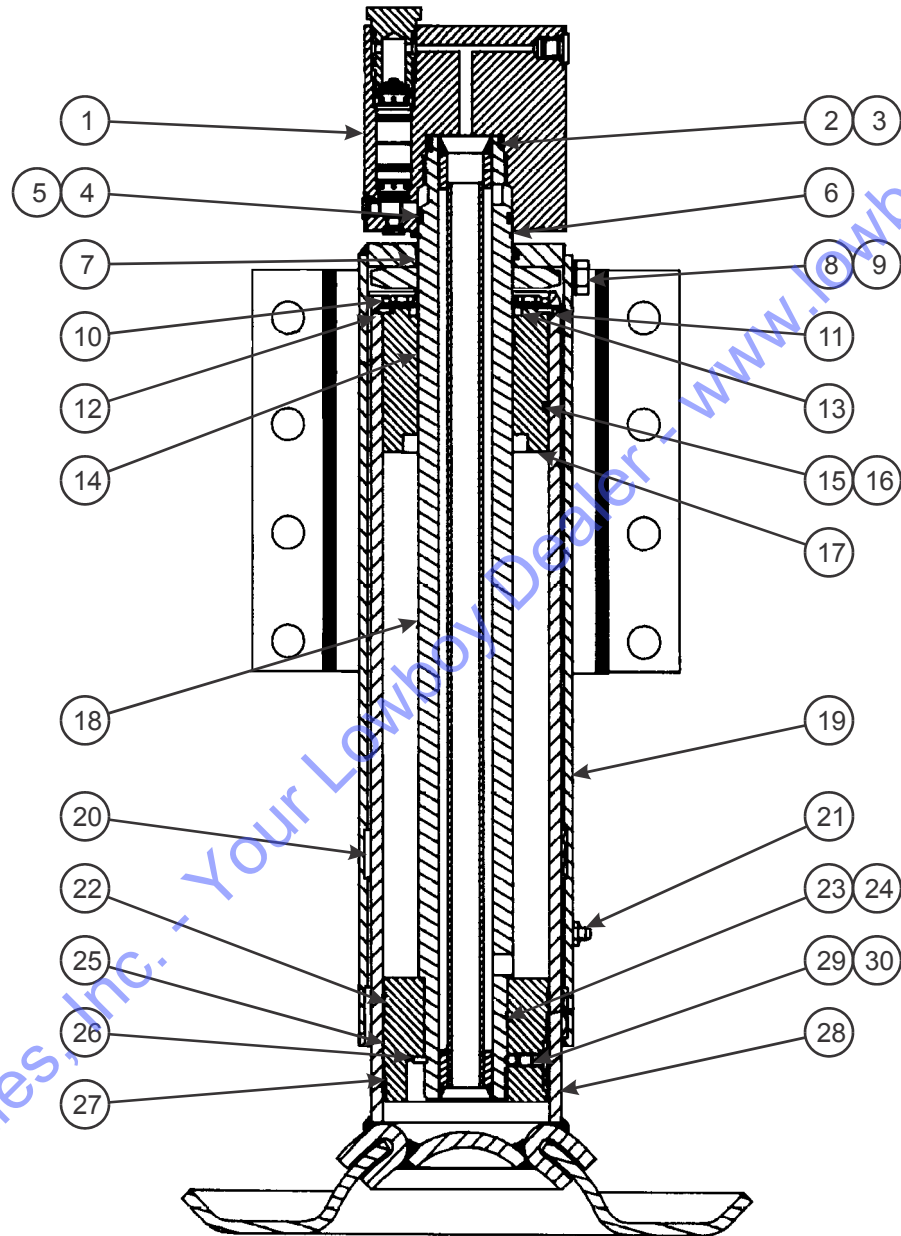
**DOCK LEVELER ASSEMBLY, SINGLE 60K**

| 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                   |      |
| 12   | 2-181-010001    | CLAMP HOSE                                      | 3    |
| 13   | 2062-6-4S       | ADAPTER 90                                      | 4    |
| 14   | 3-242-010205    | CYLINDER, HYD 4X15 (W/ COLLAR) (SEE PAGE 2-121) | 2    |
| 15   | 202702-6-4S     | ADAPTER, STRAIGHT                               |      |
| 16   | 138155          | ADAPTER, 90                                     |      |
| 17   | 1-394-010002    | HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN)       | AR   |

**Figure 2-64: Dock Leveler Assembly, 120K**

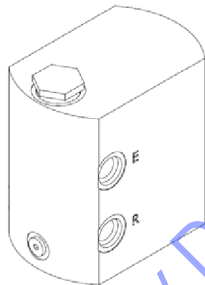
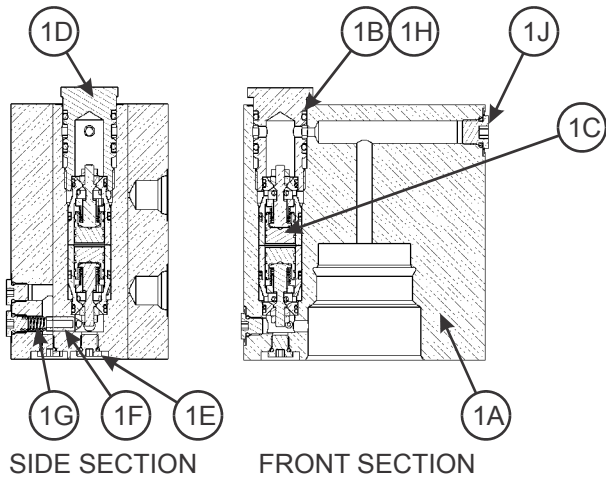
## DOCK LEVELER ASSEMBLY, 120K

| 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, HYD 4X15 (W/ COLLAR) (SEE PAGE 2-121) | 4    |
| 19   | 1-394-010002    | HOSE, ABRASION SLEEVE X 2-7/8 (NOT SHOWN)       | AR   |

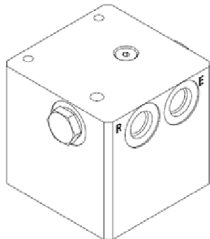
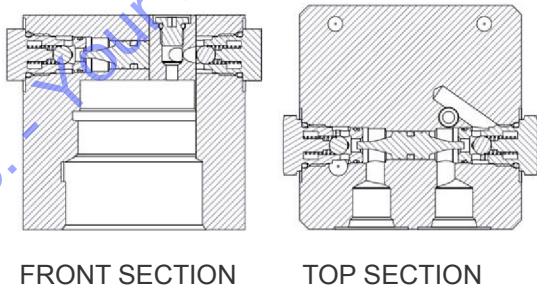


dock leg op p1

Figure 2-65: Dock Leveler Leg Assembly w/ Lock Valve (1 of 2)



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



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

dock leg op p2

Figure 2-66: 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. |
|------|----------|---------------|-------------|------|
|------|----------|---------------|-------------|------|

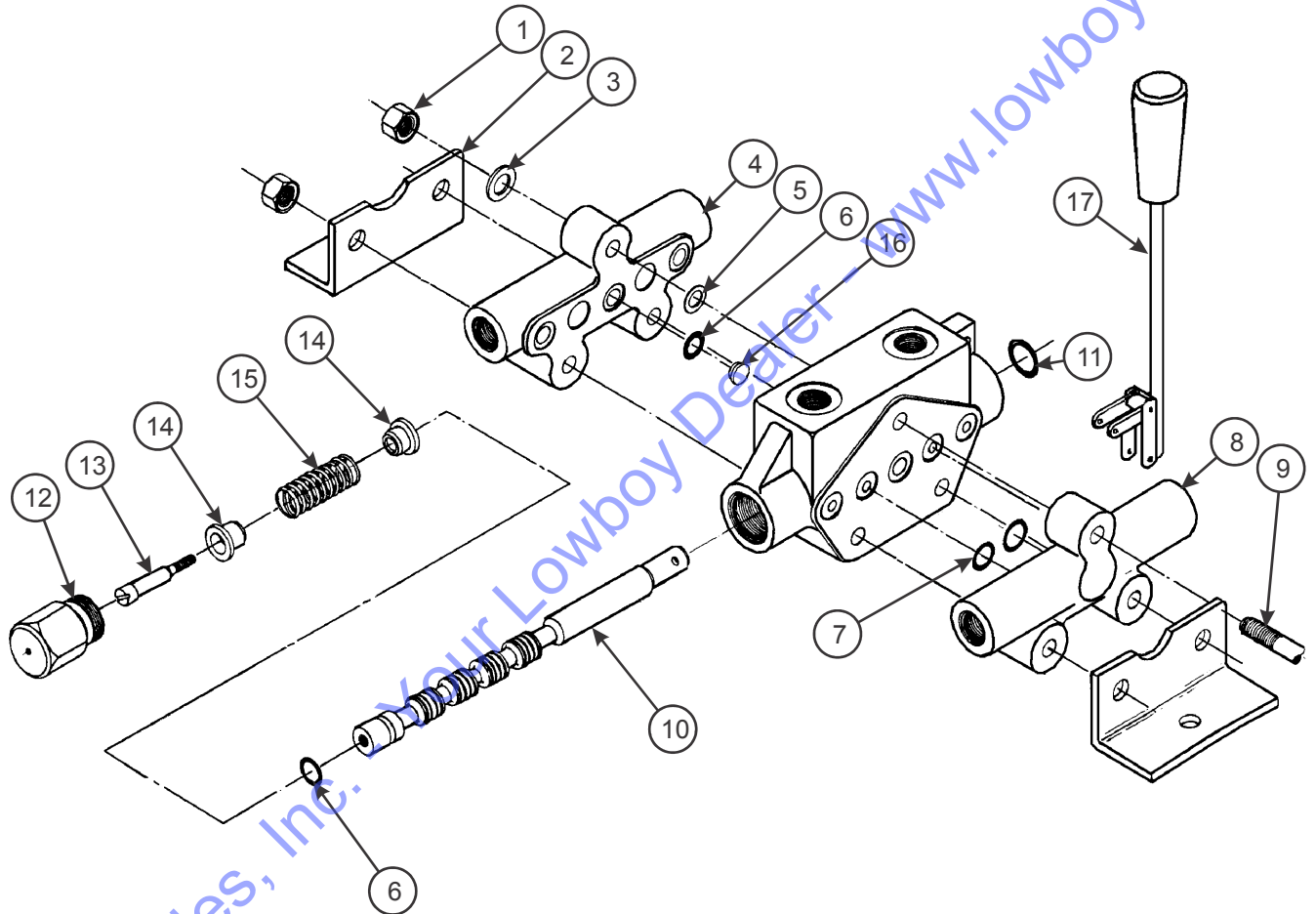
\* - THESE ITEMS ARE CONTAINED IN THE LOCK VALVE REPAIR KIT 300085 (NSS).

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

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

NSS: NOT SOLD SEPARATELY

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

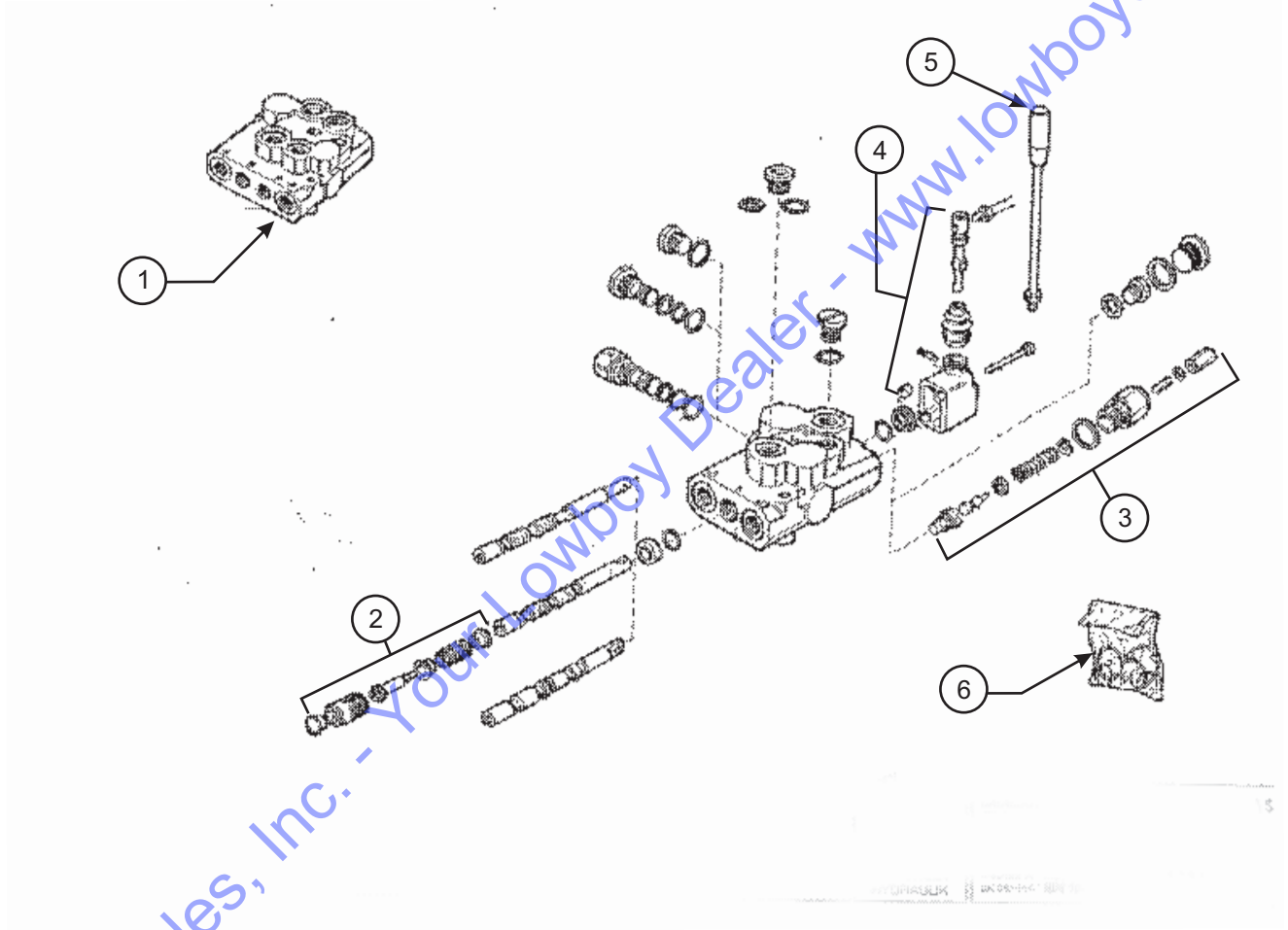


3m873-010140 p1

Figure 2-67: Dock Leveler Valve

## DOCK LEVELER VALVE

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



179649 valve

Figure 2-68: Dock Leveler Valve (After 01/15/2014)

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

| ITEM | PART NO.     | DESCRIPTION                        | QTY. |
|------|--------------|------------------------------------|------|
| 1    | 179649       | DOUBLE SPOOL STACK VALVE-PARALLEL, |      |
| 2    | 20768510010  | SPOOL POSITIONER SPRING CENTER     | 1    |
| 3    | 20787400710  | RELIEF VALVE ASSEMBLY              | 1    |
| 5    | 200707010070 | SPOOL OPERATOR                     | 1    |
| 6    | 200702210230 | HANDLE                             | 1    |
| 7    | 200773800350 | SEAL KIT                           | 1    |

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

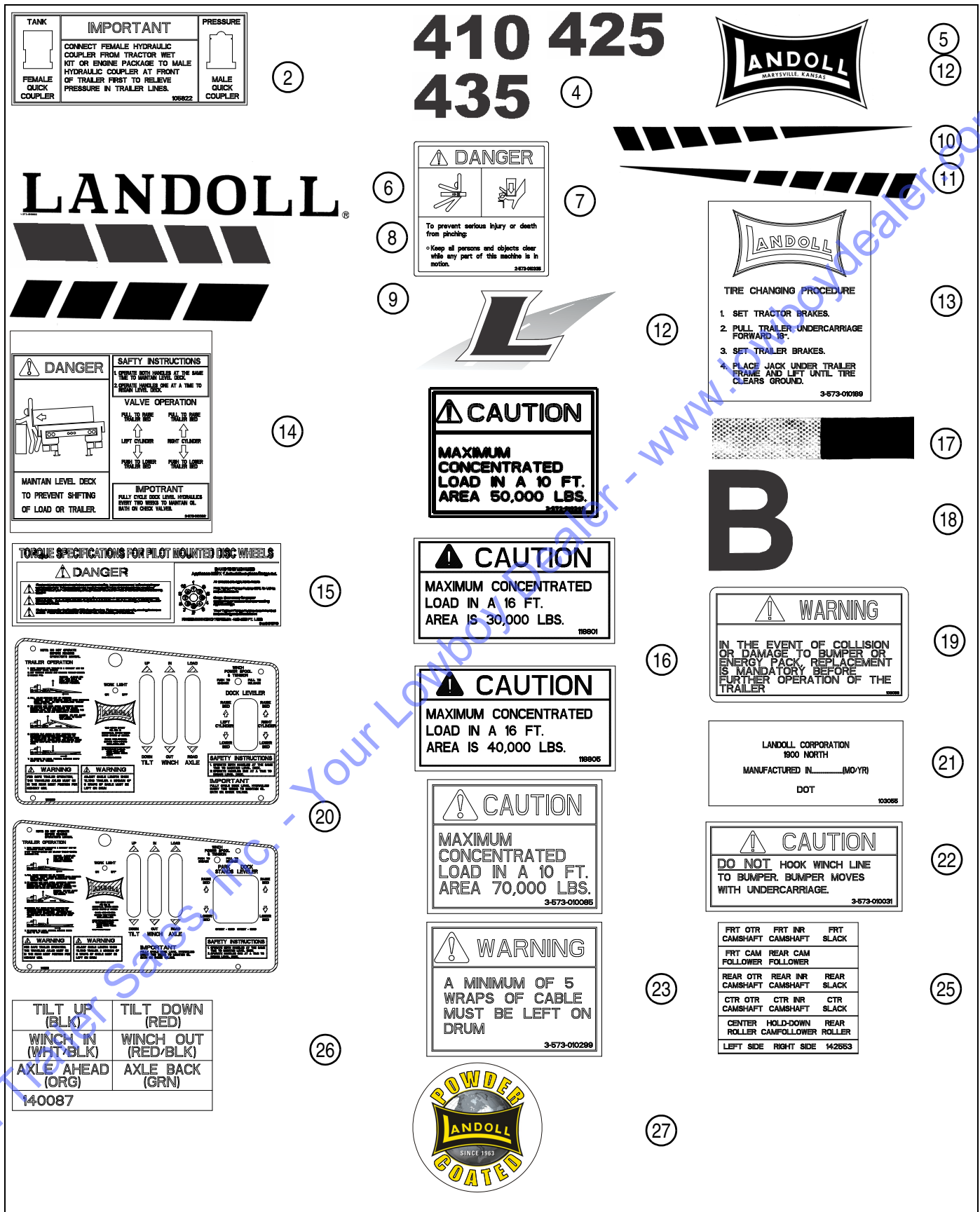


Figure 2-69: Decals

# ILLUSTRATED PARTS LIST

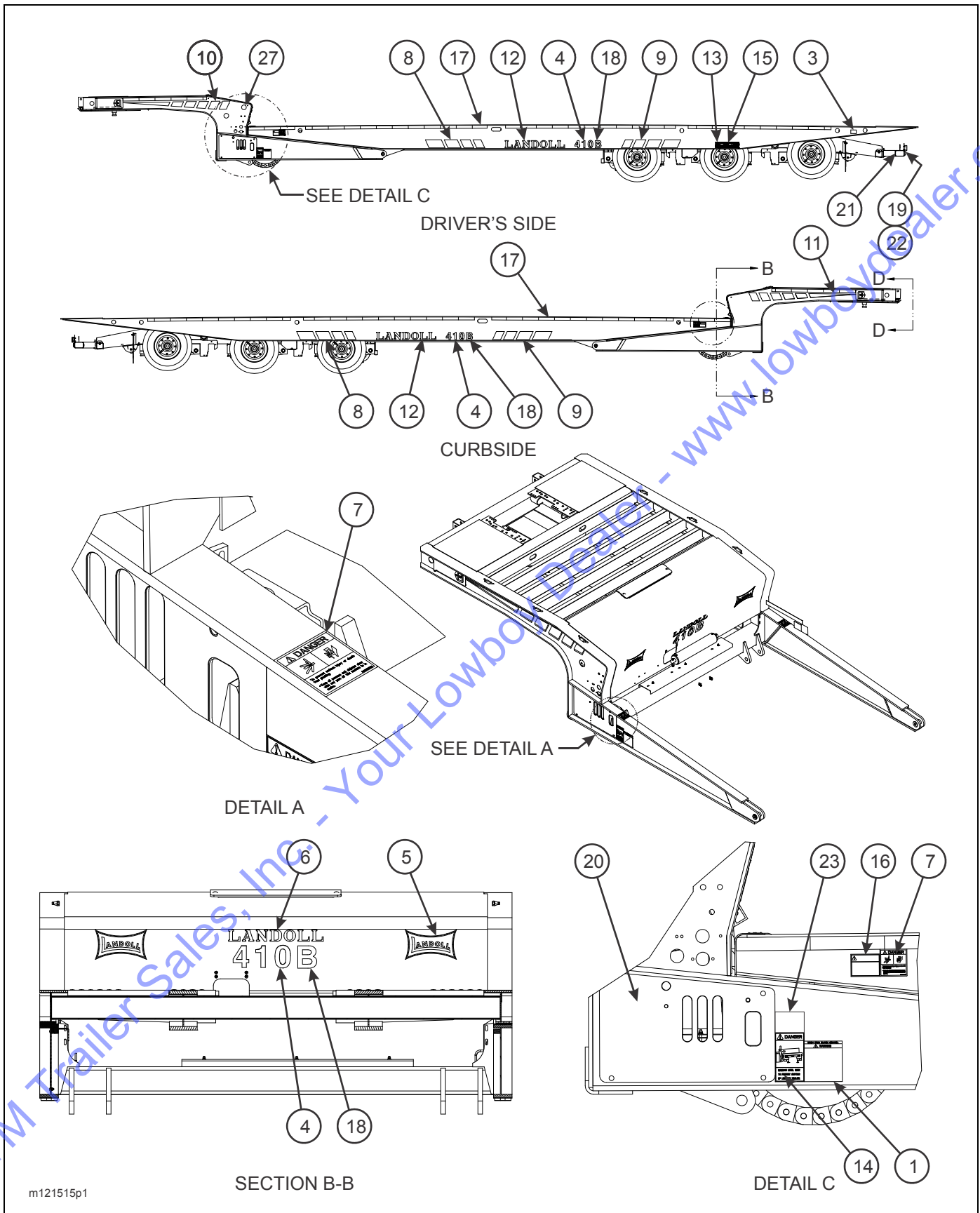


Figure 2-70: Decal Installation (1 of 2)

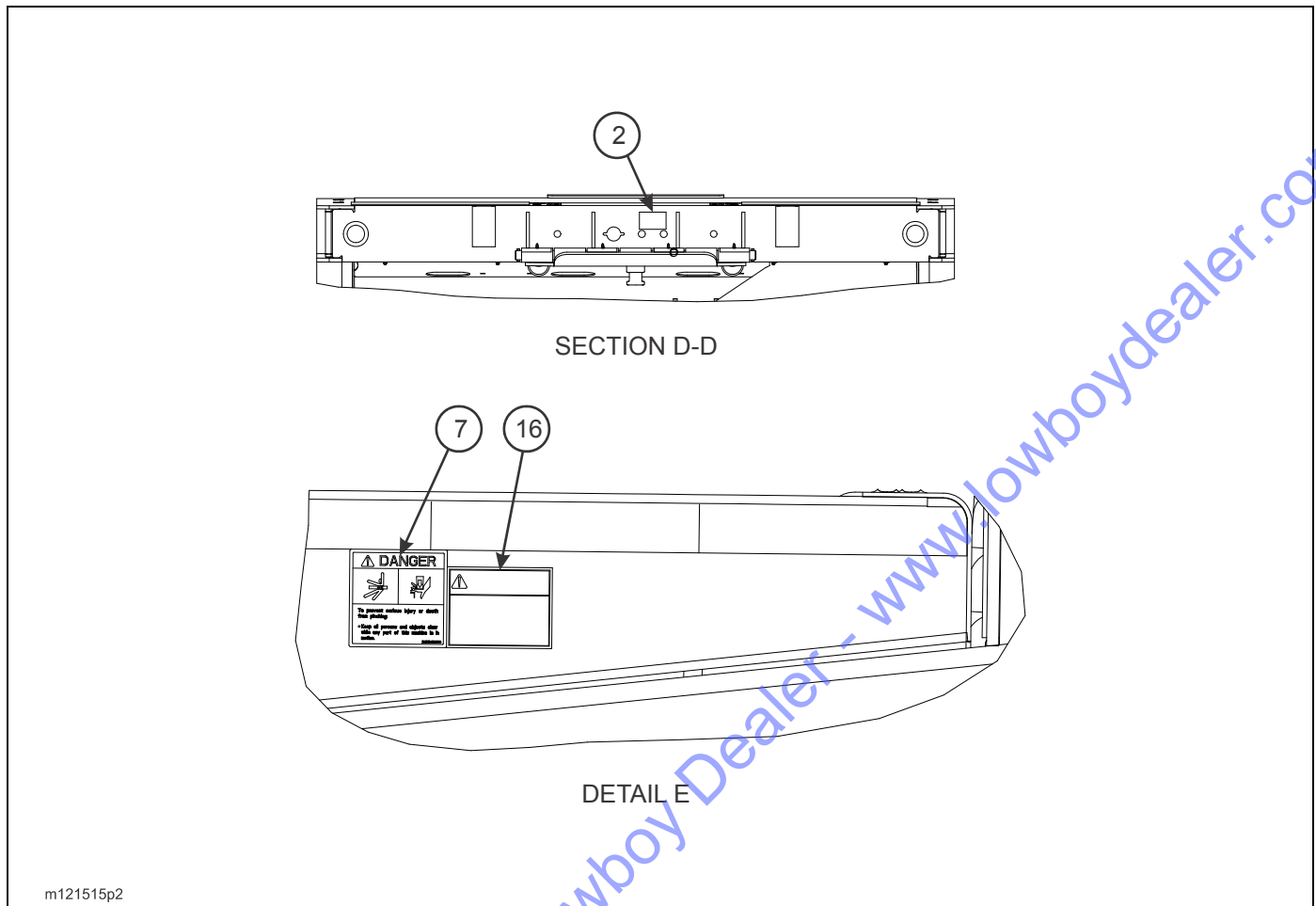


Figure 2-71: Decal Installation (2 of 2)

## DECAL INSTALLATION

| ITEM | PART NO.     | DESCRIPTION                           | QTY. |
|------|--------------|---------------------------------------|------|
|      | 121515       | DECAL INSTALLATION 410                | REF  |
|      | 135006       | DECAL INSTALLATION 425                | REF  |
|      | 134162       | DECAL INSTALLATION 435                | REF  |
| 1    | 100600       | DECAL, WARNING BRADEN WINCH           |      |
| 2    | 105822       | DECAL, HYD COUPLER                    | REF  |
| 3    | 101855       | DECAL, ABS                            | 1    |
| 4    | 116850       | DECAL 410 WHITE DC 5"                 | 3    |
|      | 118804       | DECAL 410 BLACK DC 5"                 | 3    |
|      | 118800       | DECAL 425 BLACK DC 5"                 | 3    |
|      | 118803       | DECAL 425 WHITE DC 5"                 | 3    |
|      | 127192       | DECAL 435 BLACK DC 5"                 | 3    |
|      | 127191       | DECAL 435 WHITE DC 5"                 | 3    |
| 5    | 1-573-010476 | DECAL, BOW-TIE BLACK                  | 2    |
|      | 1-573-010480 | DECAL, BOW-TIE WHITE                  | 2    |
| 6    | 1-573-010477 | DECAL, LANDOLL BLACK (425/435 MODELS) | 1    |
|      | 1-573-010481 | DECAL, LANDOLL WHITE (425/435 MODELS) | 1    |
| 7    | 2-573-010335 | DECAL, DANGER PINCH                   | 4    |
| 8    | 3-573-010040 | DECAL FRONT STRIPE (LEFT BLACK)       | 2    |
|      | 3-573-010042 | DECAL FRONT STRIPE (LEFT WHITE)       | 2    |

## DECAL INSTALLATION

| ITEM | PART NO.     | DESCRIPTION                                       | QTY. |
|------|--------------|---------------------------------------------------|------|
| 9    | 3-573-010041 | DECAL FRONT STRIPE (RIGHT BLACK)                  | 2    |
|      | 3-573-010043 | DECAL FRONT STRIPE (RIGHT WHITE)                  | 2    |
| 10   | 3-573-010044 | DECAL TAPERED STRIPE (LEFT BLACK)                 | 1    |
|      | 3-573-010046 | DECAL TAPERED STRIPE (LEFT WHITE)                 | 1    |
| 11   | 3-573-010045 | DECAL TAPERED STRIPE (RIGHT BLACK)                | 1    |
|      | 3-573-010047 | DECAL TAPERED STRIPE (RIGHT WHITE)                | 1    |
| 12   | 3-573-010048 | DECAL LANDOLL BLACK                               | *3,2 |
|      | 3-573-010049 | DECAL LANDOLL WHITE                               | *3,2 |
| 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   | 114570       | DECAL, B 5" (WHITE)                               | 3    |
|      | 114571       | DECAL, B 5" (BLACK)                               | 3    |
| 19   | 103056       | DECAL, ENERGY BUMPER WARNING                      | 1    |
| 20   | 139520       | PLACARD, CONTROLS                                 | 1    |
|      | 141626       | 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    |
| 24   | 143128       | DECAL, 6 FUNCTION WINCH/TILT/AXLE (SEE PAGE 2-33) | 1    |
| 25   | 142553       | DECAL, GREASE TRAILER (425/435)                   | 1    |
| 26   | 140087       | DECAL, 400 REMOTE                                 | 1    |
| 27   | 139559       | DECAL, POWDER COATED                              | 1    |

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

\* FIRST QUANTITY USED ON 410 MODELS; SECOND QUANTITY USED ON 425 & 435 MODELS W/ ITEM 6

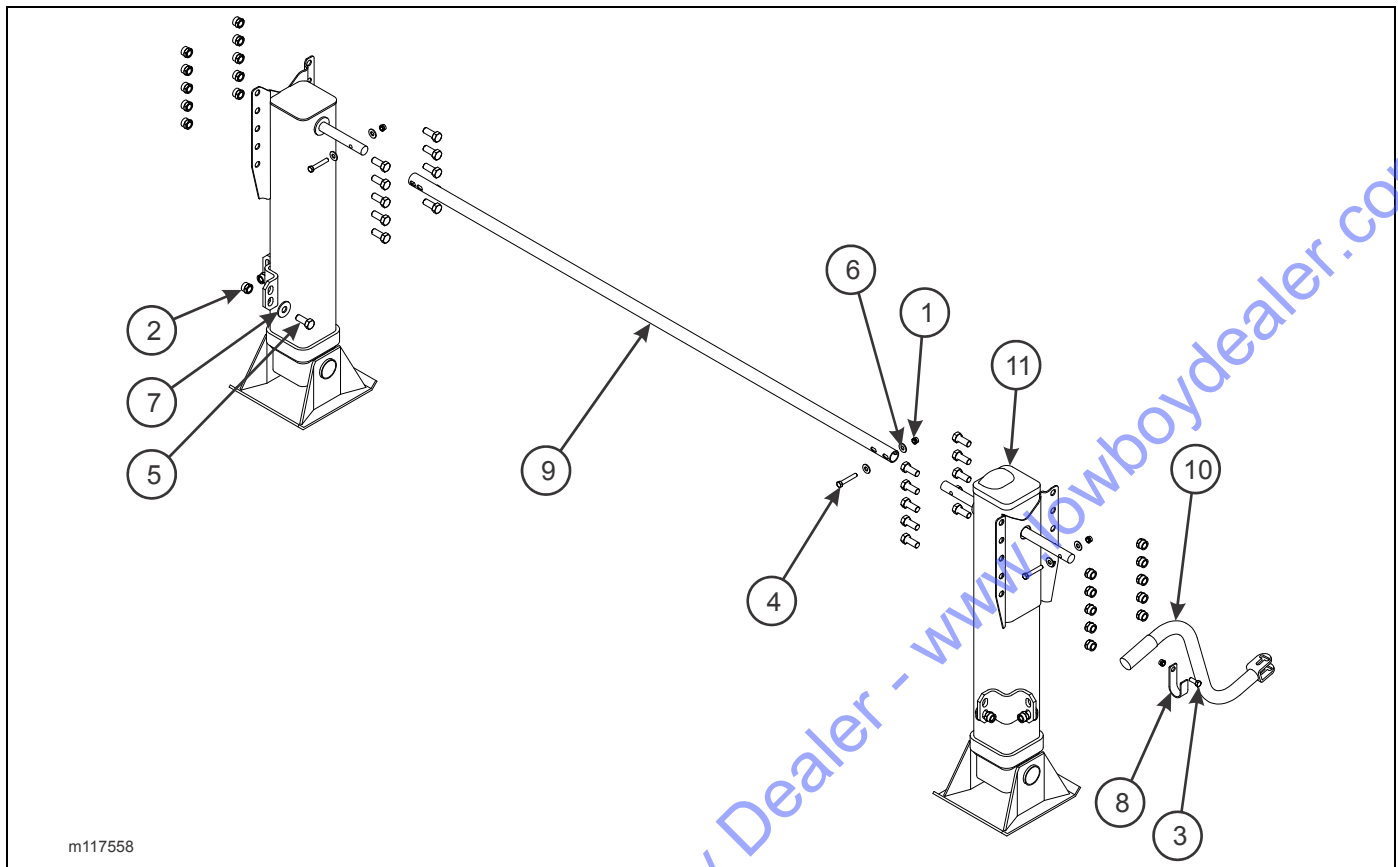


Figure 2-72: Landing Gear Installation

## LANDING GEAR INSTALLATION

| ITEM | PART NO.        | DESCRIPTION                                 | QTY. |
|------|-----------------|---------------------------------------------|------|
|      | 117558          | LANDING GEAR INSTALLATION                   |      |
|      | 133799          | LANDING GEAR INSTALLATION                   |      |
| 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    |
| 10   | 119949          | HANDLE, CRANK 2 SPEED LANDING GEAR          | 1    |
| 11   | 139256          | LANDING GEAR WLDMT 2 SPEED (SEE PAGE 2-138) | 1    |

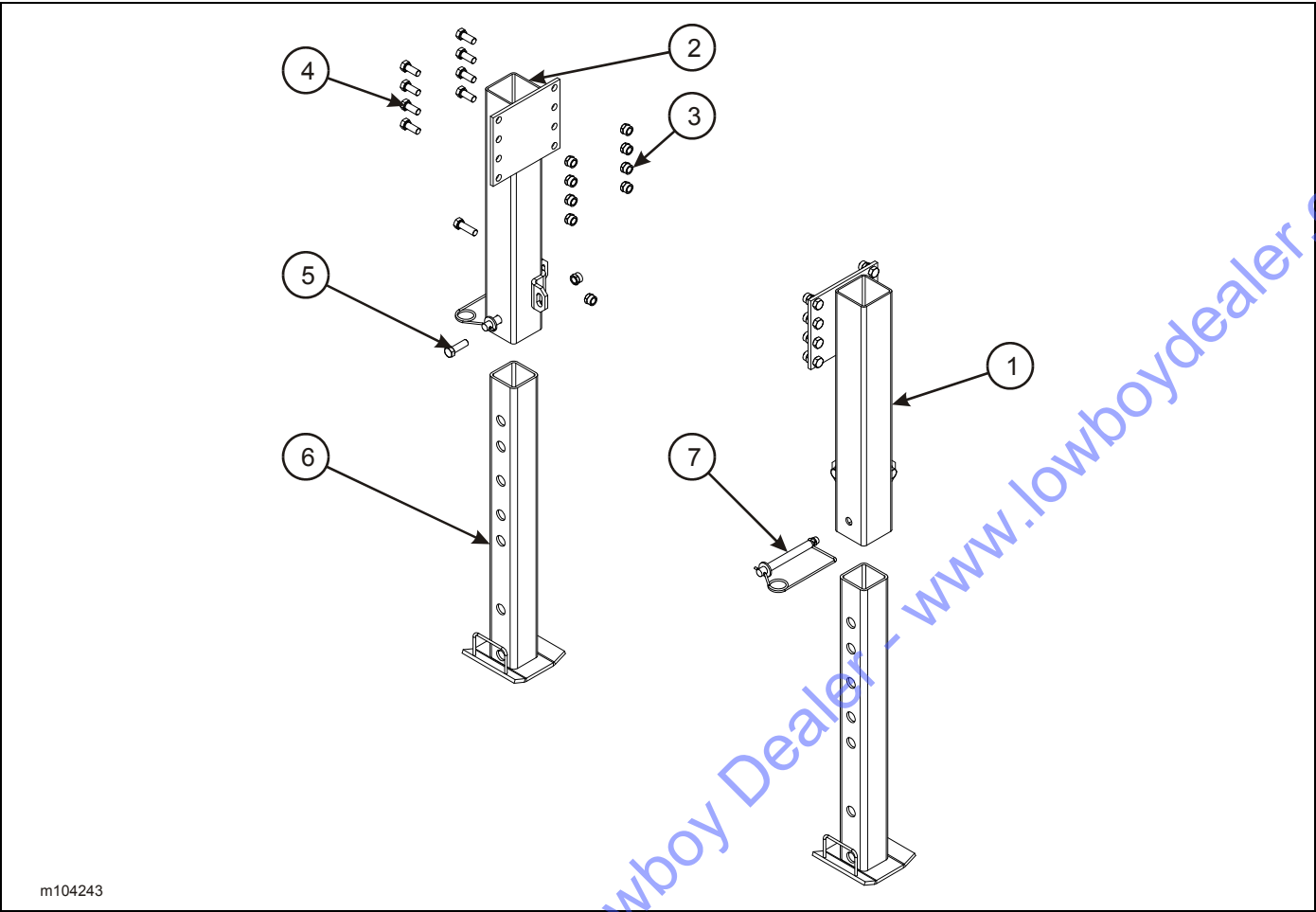
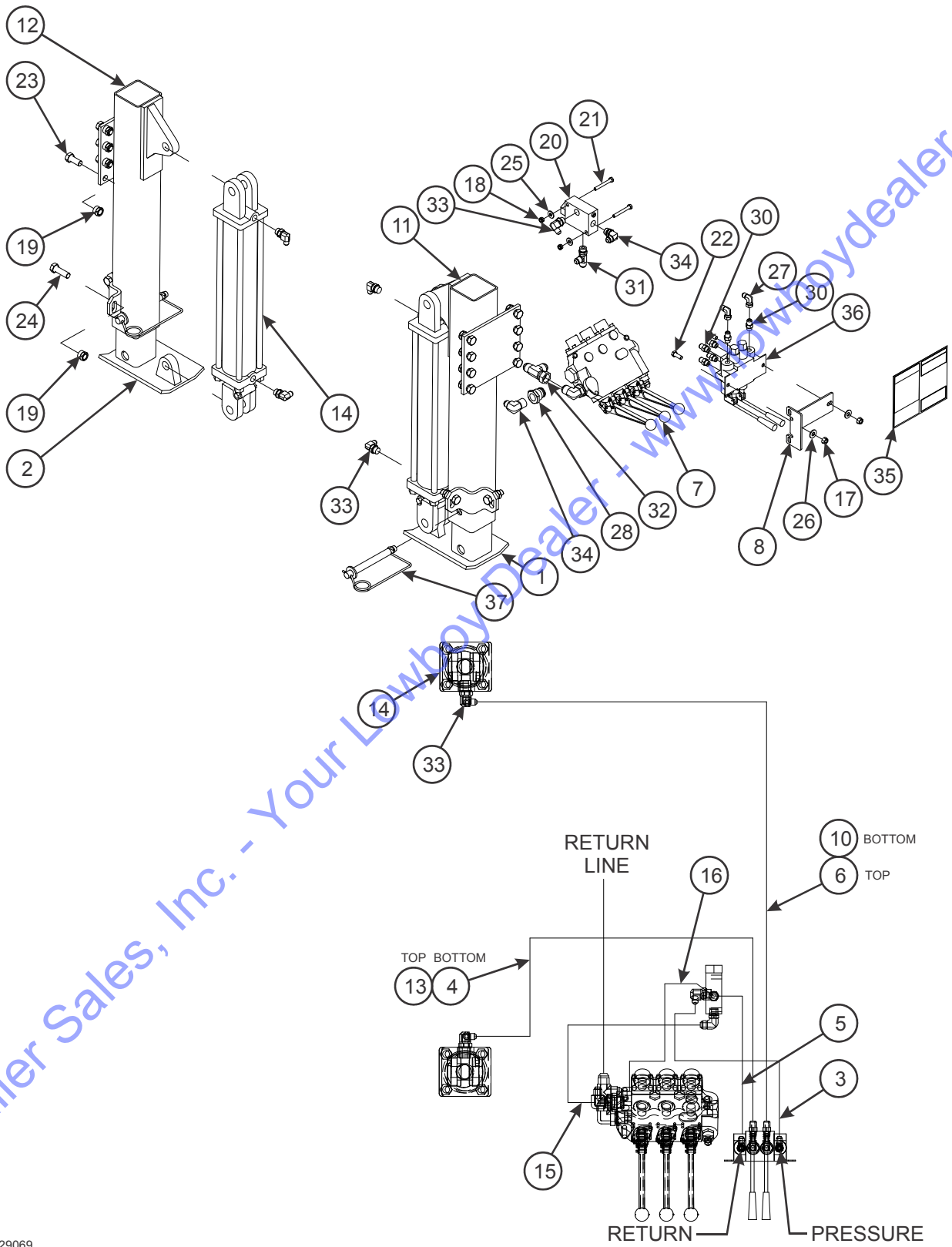


Figure 2-73: Landing Gear Installation

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    |

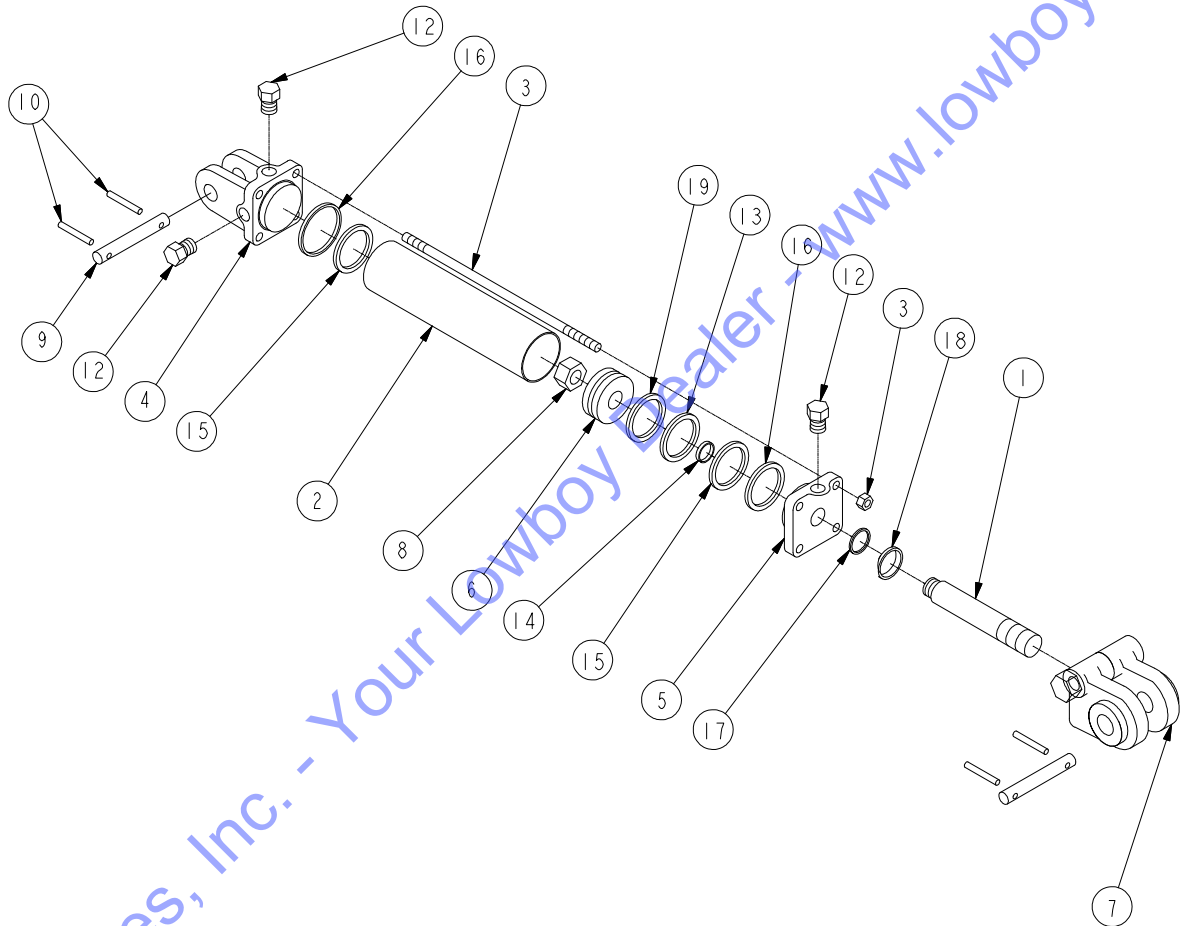


m129069

Figure 2-74: Hydraulic Park Stand Installation

## HYDRAULIC PARK STAND INSTALLATION

| ITEM | PART NO.        | DESCRIPTION                                           | QTY. |
|------|-----------------|-------------------------------------------------------|------|
|      | 129069          | PARK STAND INSTALLATION, HYDRAULIC                    |      |
| 1    | 104241          | PARK STAND WELDMENT, HYD LH LEG                       | 1    |
| 2    | 104242          | PARK STAND WELDMENT, HYD RH LEG                       | 1    |
| 3    | 111302          | HOSE ASSEMBLY 3/8 X 24                                | 1    |
| 4    | 135189          | HOSE ASSEMBLY 3/8 X 84                                | 1    |
| 5    | 116429          | HOSE ASSEMBLY 3/8 X 25                                | 1    |
| 6    | 116488          | HOSE ASSEMBLY 3/8 X 136                               | 1    |
| 7    | -----           | VALVE, 3 STACK MOTOR SOL                              | REF  |
| 8    | 121124          | BRACKET, VALVE DOCK LEVEL CONTROL                     | 1    |
| 9    | -----           | FRAME ASSEMBLY (NOT SHOWN)                            | REF  |
| 10   | 123490          | HOSE ASSEMBLY, 3/8 X 113 (129069)                     | 1    |
| 11   | 129084          | PARK STAND WELDMENT, HYD LH                           | 1    |
| 12   | 129085          | PARK STAND WELDMENT, HYD RH                           | 1    |
| 13   | 129088          | HOSE ASSEMBLY 3/8 X 60                                | 1    |
| 14   | 1-242-010180-2  | CYLINDER, HYD 3-1/2 X 20 3000 PSI (SEE PAGE 2-136)    | 2    |
| 15   | 1-397-010302018 | HOSE ASSEMBLY, 1/2 X 18                               | 1    |
| 16   | 1-397-010306028 | HOSE ASSEMBLY, 1/2 X 28                               | 1    |
| 17   | 1-510-010001    | NUT, FLANGE LOCK 3/8-16                               | 2    |
| 18   | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB                             | 2    |
| 19   | 1-512-010005-13 | NUT, HEX LOCK 5/8-11 GRB                              | 20   |
| 20   | 1-626-010002-06 | REGULATOR, FLOW 1/2-6 GPM                             | 1    |
| 21   | 1-654-010049-11 | SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5               | 2    |
| 22   | 1-654-010051-05 | SCREW, HEX HEAD CAP 3/8-16 X 1 GR5                    | 2    |
| 23   | 1-654-010059-03 | SCREW, HEX HEAD CAP 5/8-11X1-1/2 GR5                  | 16   |
| 24   | 1-654-010059-05 | SCREW, HEX HEAD CAP 5/8-11 X 2 GR5                    | 44   |
| 25   | 1-861-010032-09 | WASHER, FLAT 5/16W                                    | 2    |
| 26   | 1-861-010032-11 | WASHER, FLAT 3/8W                                     | 2    |
| 27   | 102-0031        | ADAPTER, 90                                           | 2    |
| 28   | 138179          | POWER BEYOND REMOTE                                   | 1    |
| 30   | 202702-6-6S     | ADAPTER, STRAIGHT                                     | 6    |
| 31   | 203005-8-8S     | ADAPTER, TEE                                          | 1    |
| 32   | 203102-12-12S   | ADAPTER, TEE                                          | 1    |
| 33   | 2062-8-6S       | ELBOW, 90                                             | 5    |
| 34   | 2062-8-8S       | ADAPTER, 90                                           | 2    |
| 35   | 3-573-010202    | DECAL, DANGER/ OPERATION, DOCK LEVEL (SEE PAGE 2-130) | 1    |
| 36   | 3-846-010056    | VALVE, DOUBLE SPOOL STACK PARALLEL                    | 1    |
| 37   | 346SL           | LOCK, HITCH PIN                                       | 2    |



1mb242-010180

Figure 2-75: Hydraulic Cylinder 3-1/2 x 20

## ILLUSTRATED PARTS LIST

### HYDRAULIC CYLINDER 3-1/2 X 20

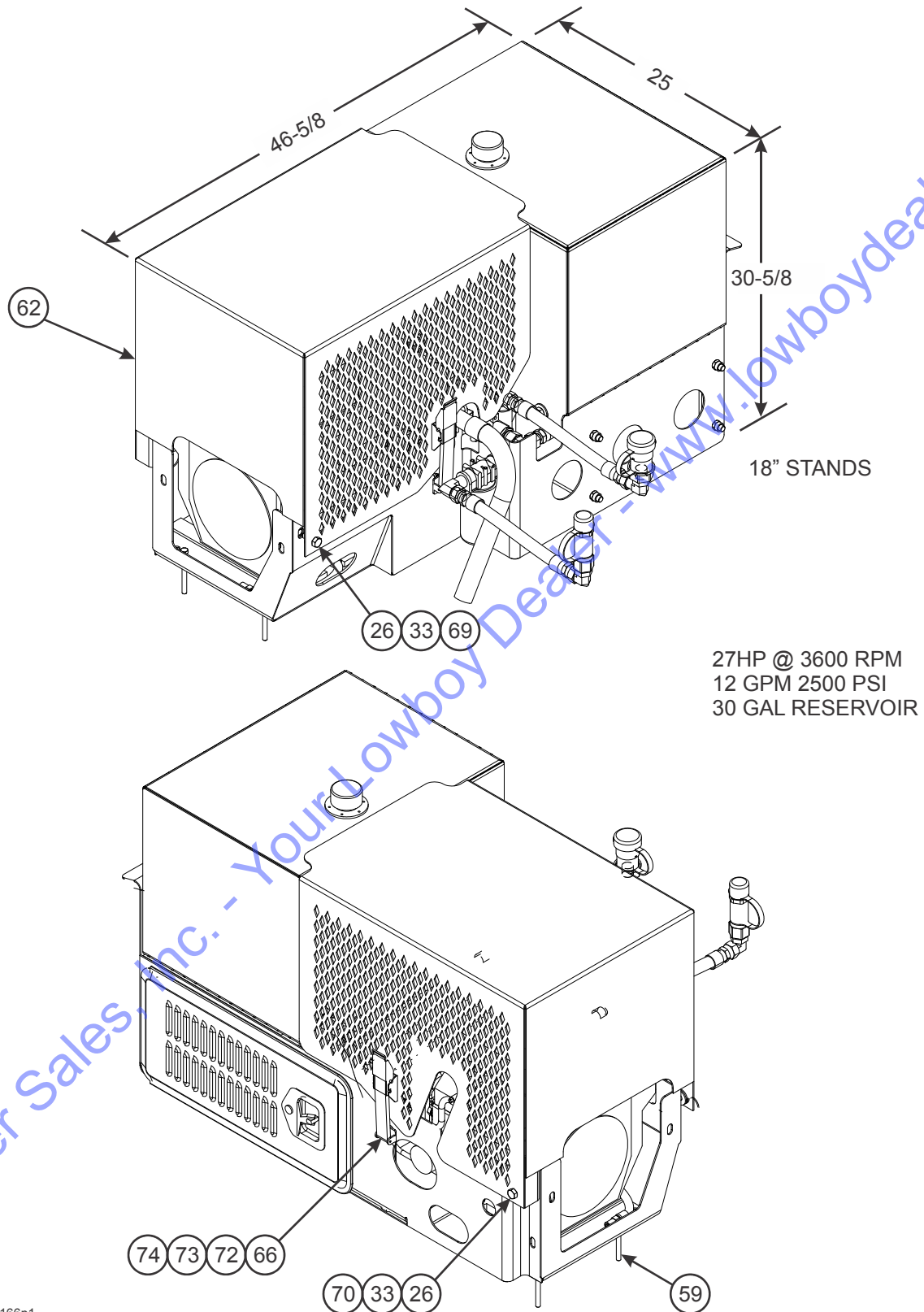
| ITEM | PART NO.       | DESCRIPTION                                                               | QTY. |
|------|----------------|---------------------------------------------------------------------------|------|
|      | 1-242-010180-2 | CYLINDER 3-1/2" X 20" (PRINCE SAE 33520)                                  |      |
| 1    | 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)<br>(ITEMS 13 - 18) | 1    |

\*PARTS AVAILABLE IN PACKING KIT ONLY.

m109709 b

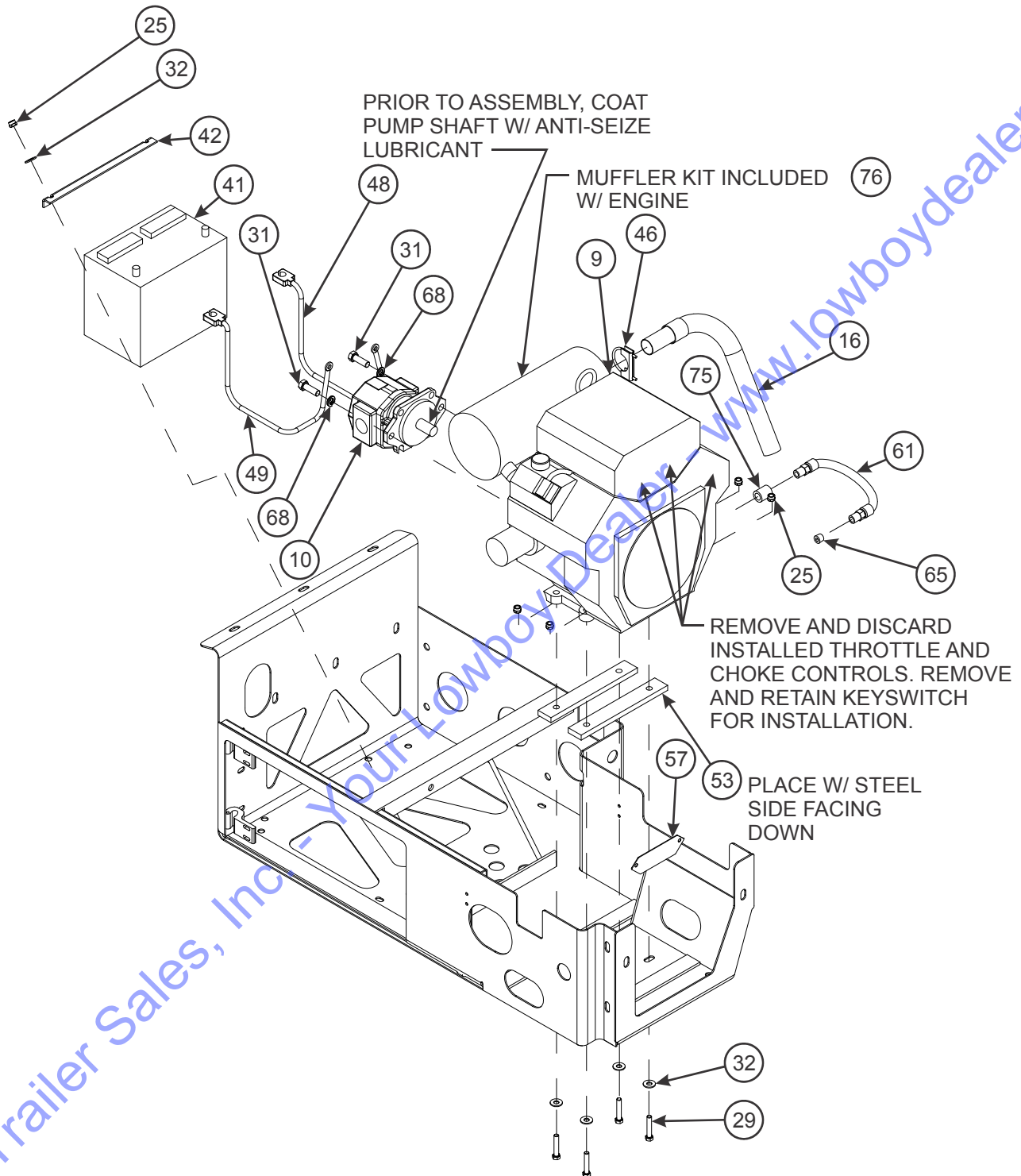
## CRANK LANDING GEAR

| 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    |



m123166p1

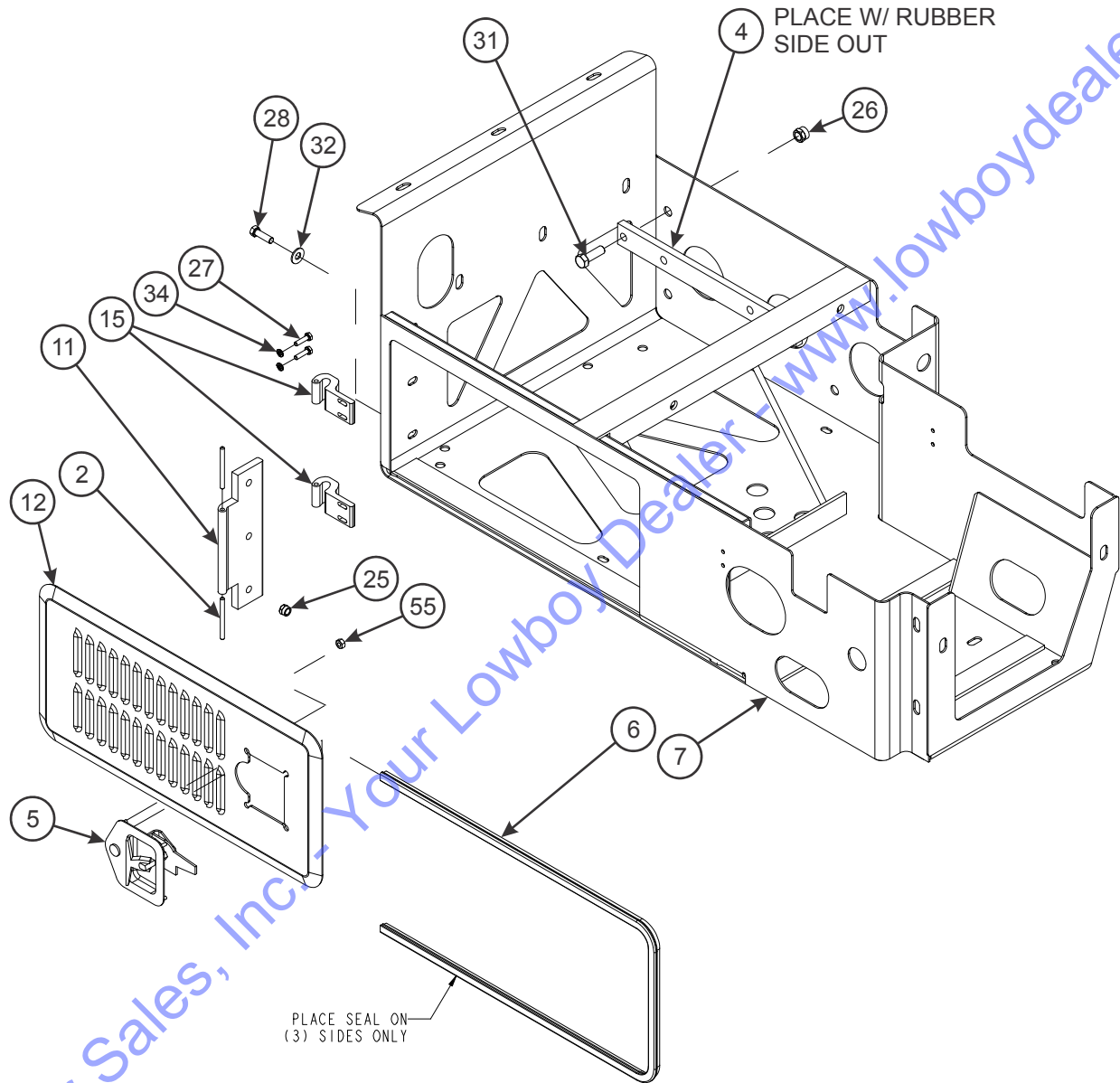
Figure 2-77: Upper Deck Engine Installation (1 of 4)



MOTOR - BASE ASSEMBLY

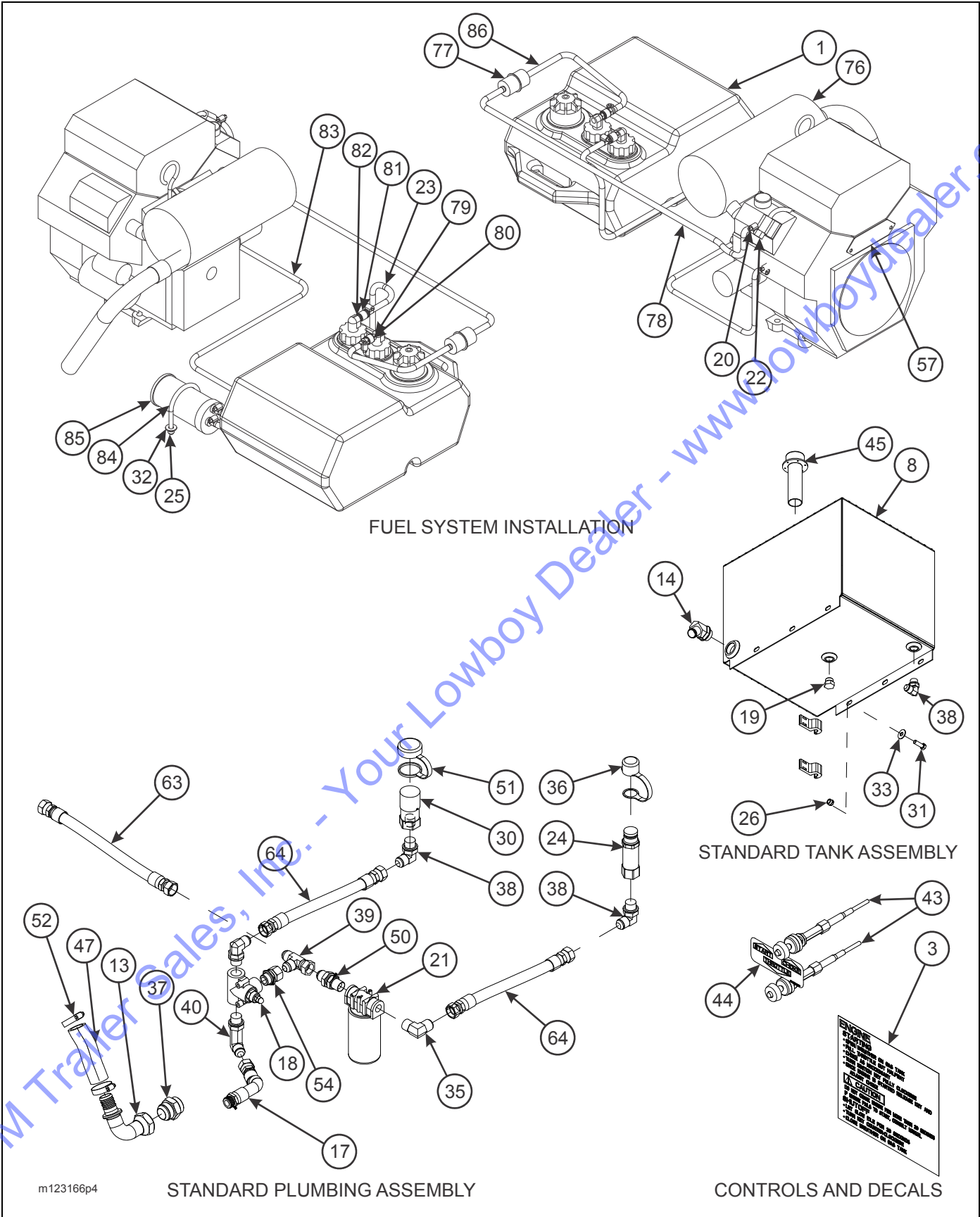
m123166p2

Figure 2-78: Upper Deck Engine Installation (2 of 4)



m123166p3

Figure 2-79: Upper Deck Engine Installation (3 of 4)



**27 HP GAS ENGINE PACKAGE, UPPER DECK (OPTION)**

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

**27 HP GAS ENGINE PACKAGE, UPPER DECK (OPTION)**

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

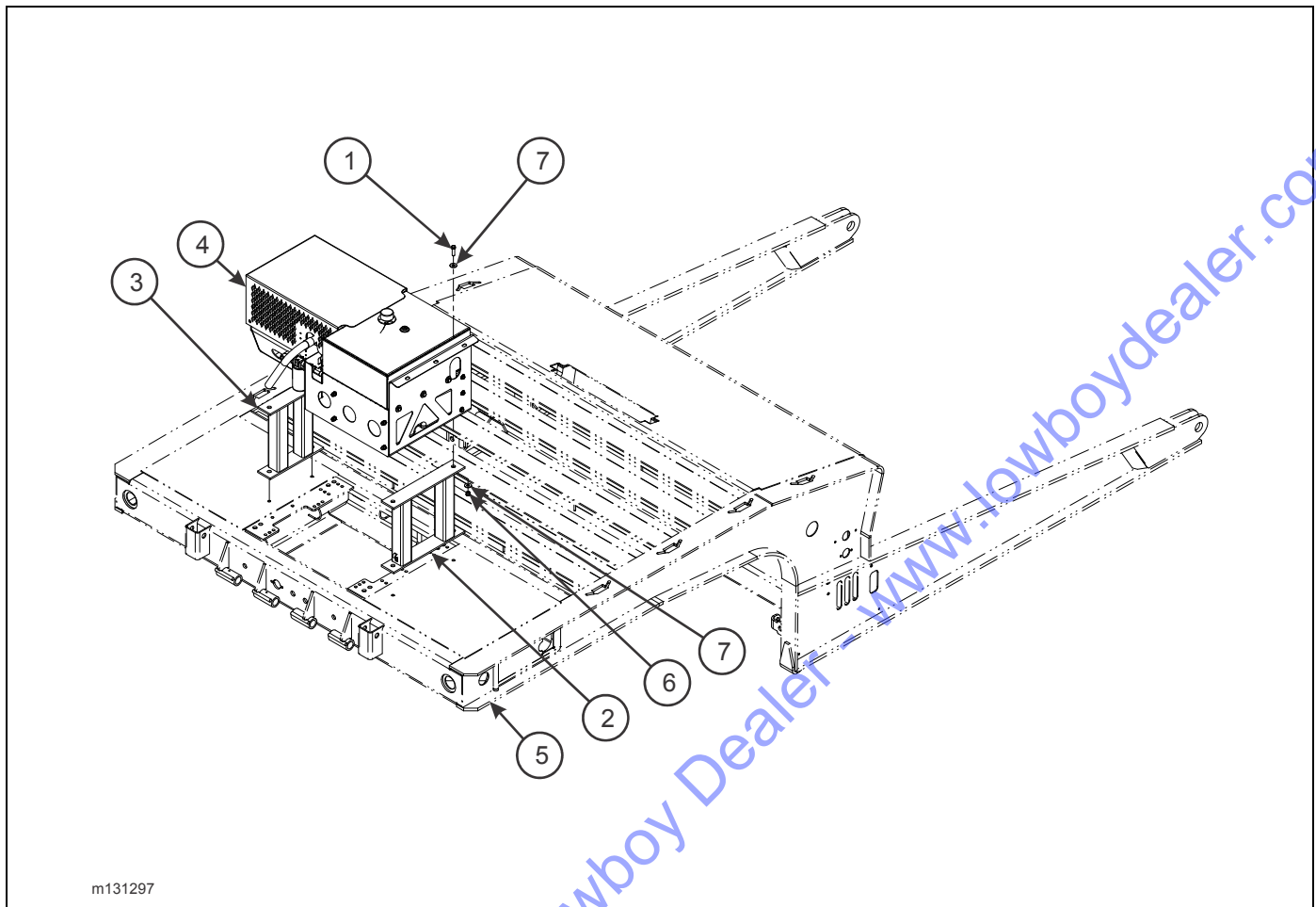


Figure 2-81: Upper Deck Engine Stand Installation

## UPPER DECK ENGINE STAND INSTALLATION

| ITEM | PART NO.        | DESCRIPTION                               | QTY. |
|------|-----------------|-------------------------------------------|------|
|      | 131297          | UPPER DECK STAND INSTALLATION             |      |
| 1    | 1-654-010055-04 | SCREW, HEX HEAD CAP 1/2-13 X 1-3/4 GR5    | 4    |
| 2    | 120479          | MOUNT WELDMENT                            | 1    |
| 3    | 124556          | MOUNT WELDMENT, NARROW                    | 1    |
| 4    | 123166          | ENGINE PACKAGE 27 HP U/D (SEE PAGE 2-143) | REF  |
| 5    | 130662          | GOOSENECK WELDMENT                        | REF  |
| 6    | 1-512-010005-09 | NUT, HEX LOCK 1/2-13 GRB                  | 8    |
| 7    | 1-861-010032-15 | WASHER, FLAT 1/2W                         | 16   |

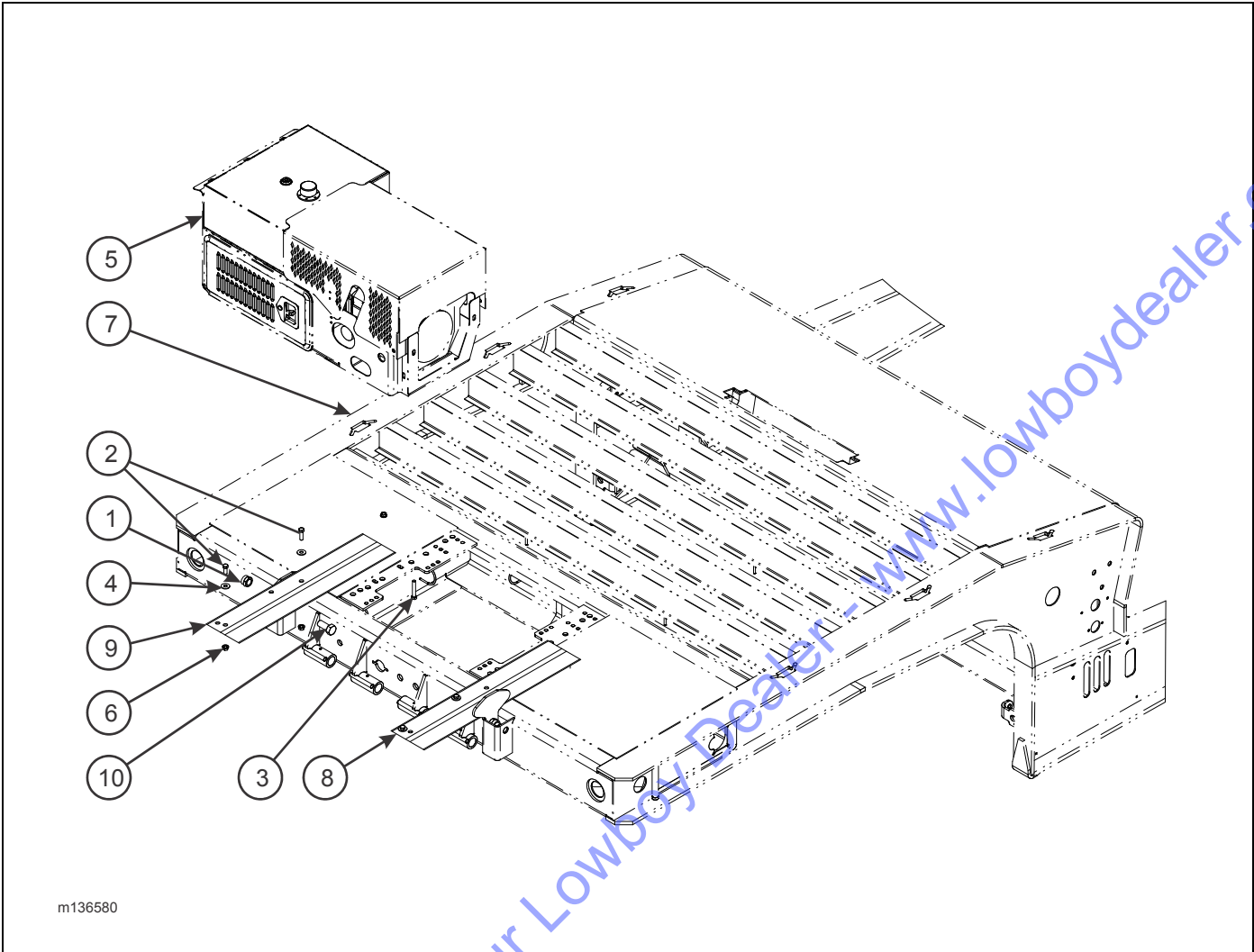
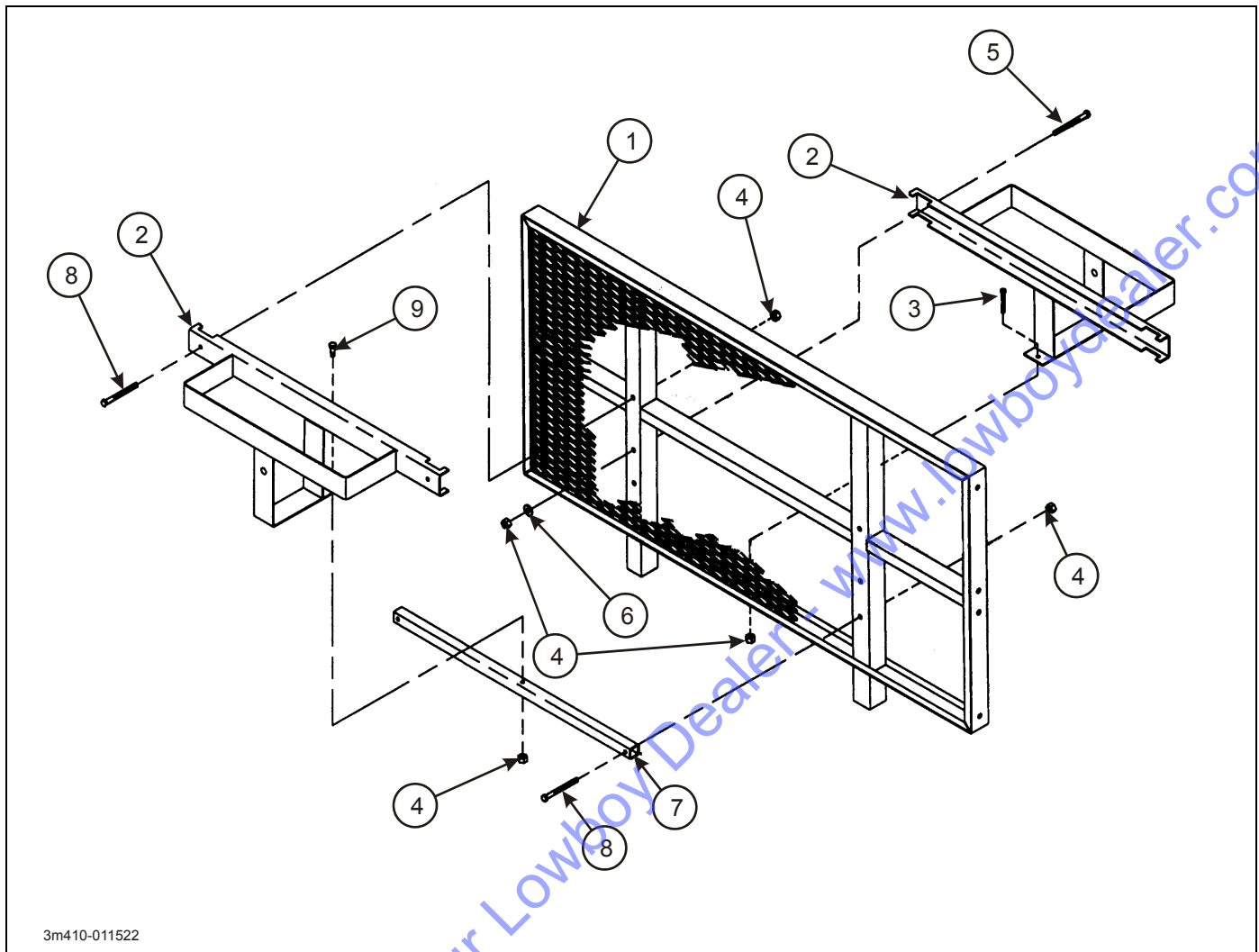


Figure 2-82: Upper Deck Engine Stand Installation

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 2-143) | REF  |
| 6    | 124971          | NUT, FLANGE HEAD SPIRALOCK 1/2-13         | 6    |
| 7    | 130662          | 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    |



3m410-011522

Figure 2-83: Spare Tire Carrier (Option)

## SPARE TIRE CARRIER (OPTION)

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

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

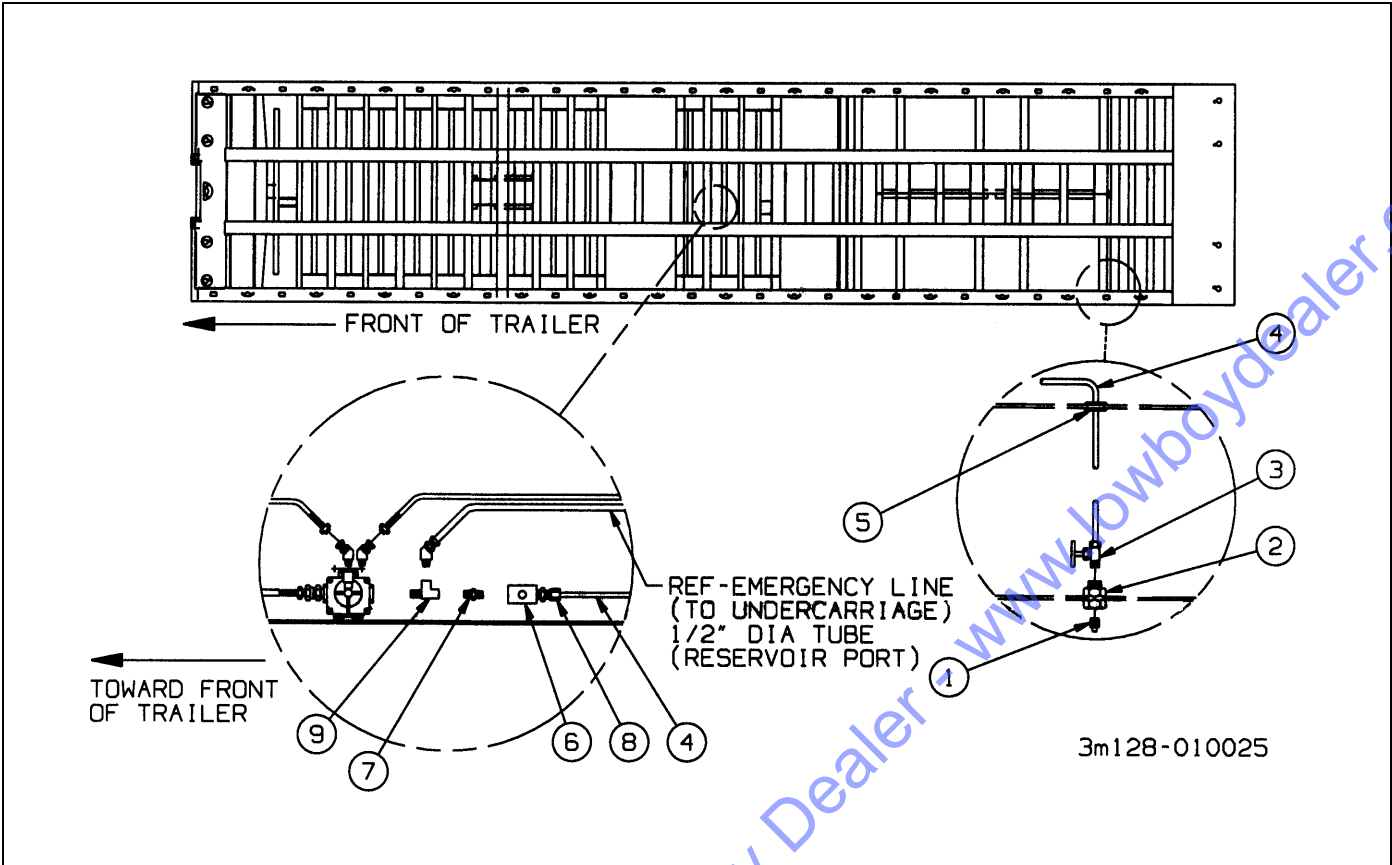


Figure 2-84: Air Outlet Accessory (Option)

**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    |

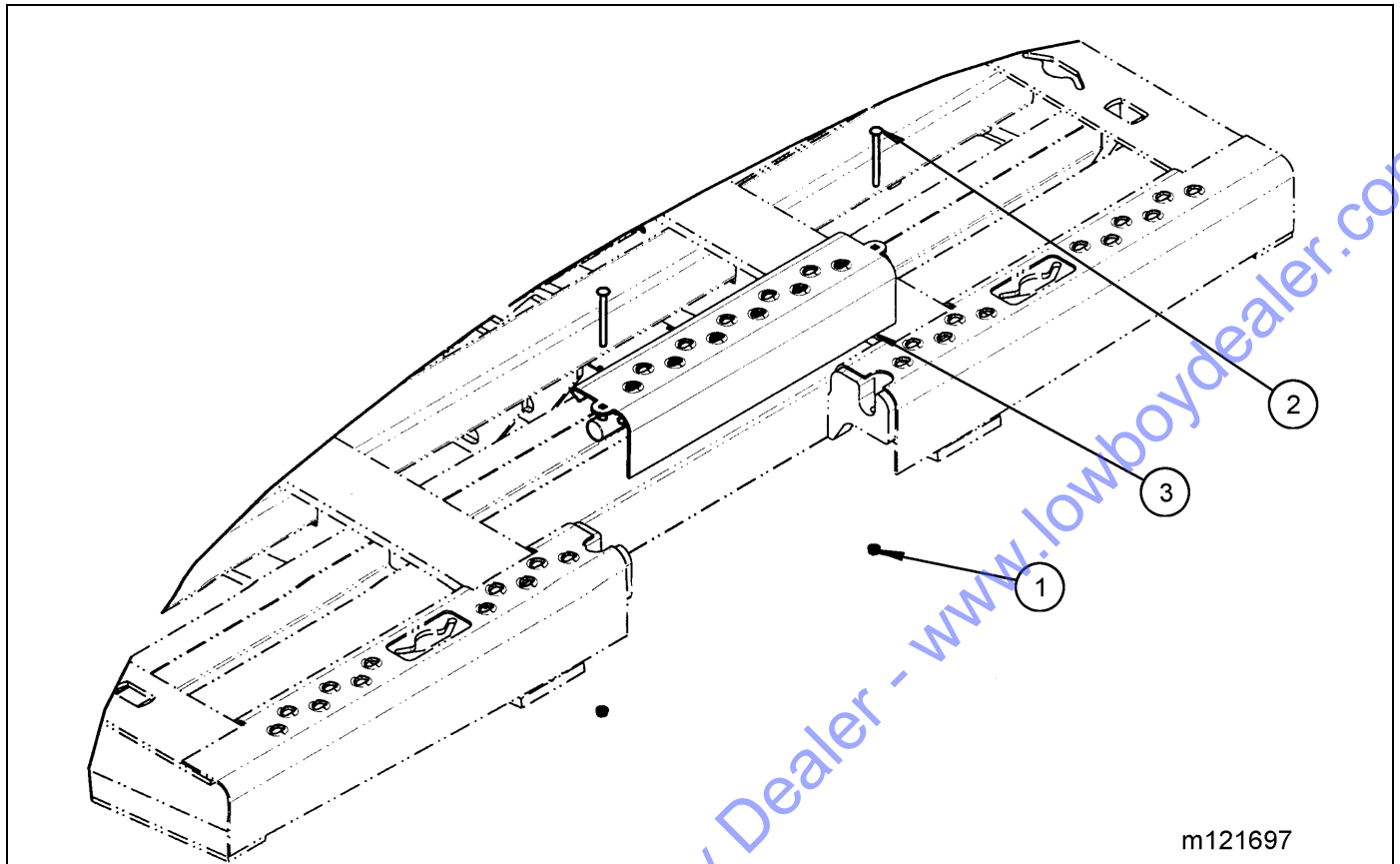


Figure 2-85: Center Rub Plate Cover Installation (Option)

## 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    |

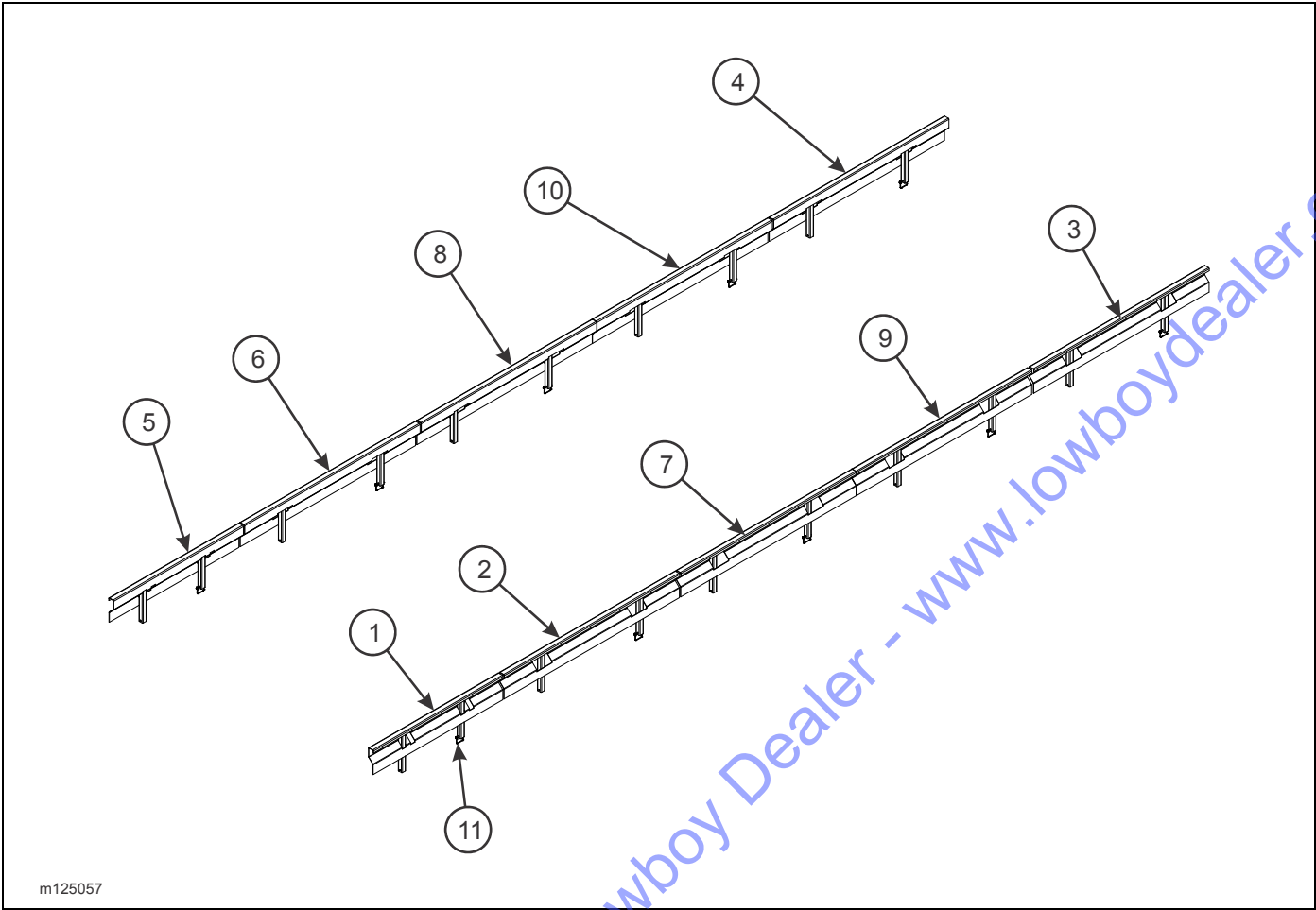


Figure 2-86: 8" Metal Sideboard Installation (Option) (425)

SIDEBOARD INSTALLATION, 8" METAL (OPTION)(425)

| ITEM | PART NO.  | DESCRIPTION                      | QTY. |
|------|-----------|----------------------------------|------|
|      | 125057    | SIDEBOARD INSTALLATION, 8" METAL |      |
| 1    | 124901    | SIDEBOARD WELDMENT NO. 1 LH      | 1    |
| 2    | 124902    | SIDEBOARD WELDMENT NO. 2 LH      | 1    |
| 3    | 124903    | SIDEBOARD WELDMENT NO. 5 LH      | 1    |
| 4    | 124904    | SIDEBOARD WELDMENT NO. 5 RH      | 1    |
| 5    | 124908    | SIDEBOARD WELDMENT NO. 1 RH      | 1    |
| 6    | 124909    | SIDEBOARD WELDMENT NO. 2 RH      | 1    |
| 7    | 124910    | SIDEBOARD WELDMENT NO. 3 LH      | 1    |
| 8    | 124911    | SIDEBOARD WELDMENT NO. 3 RH      | 1    |
| 9    | 124912    | SIDEBOARD WELDMENT NO. 4 LH      | 1    |
| 10   | 124913    | SIDEBOARD WELDMENT NO. 4 RH      | 1    |
| 11   | 516-22PTL | PIN, MUD FLAP                    | 10   |

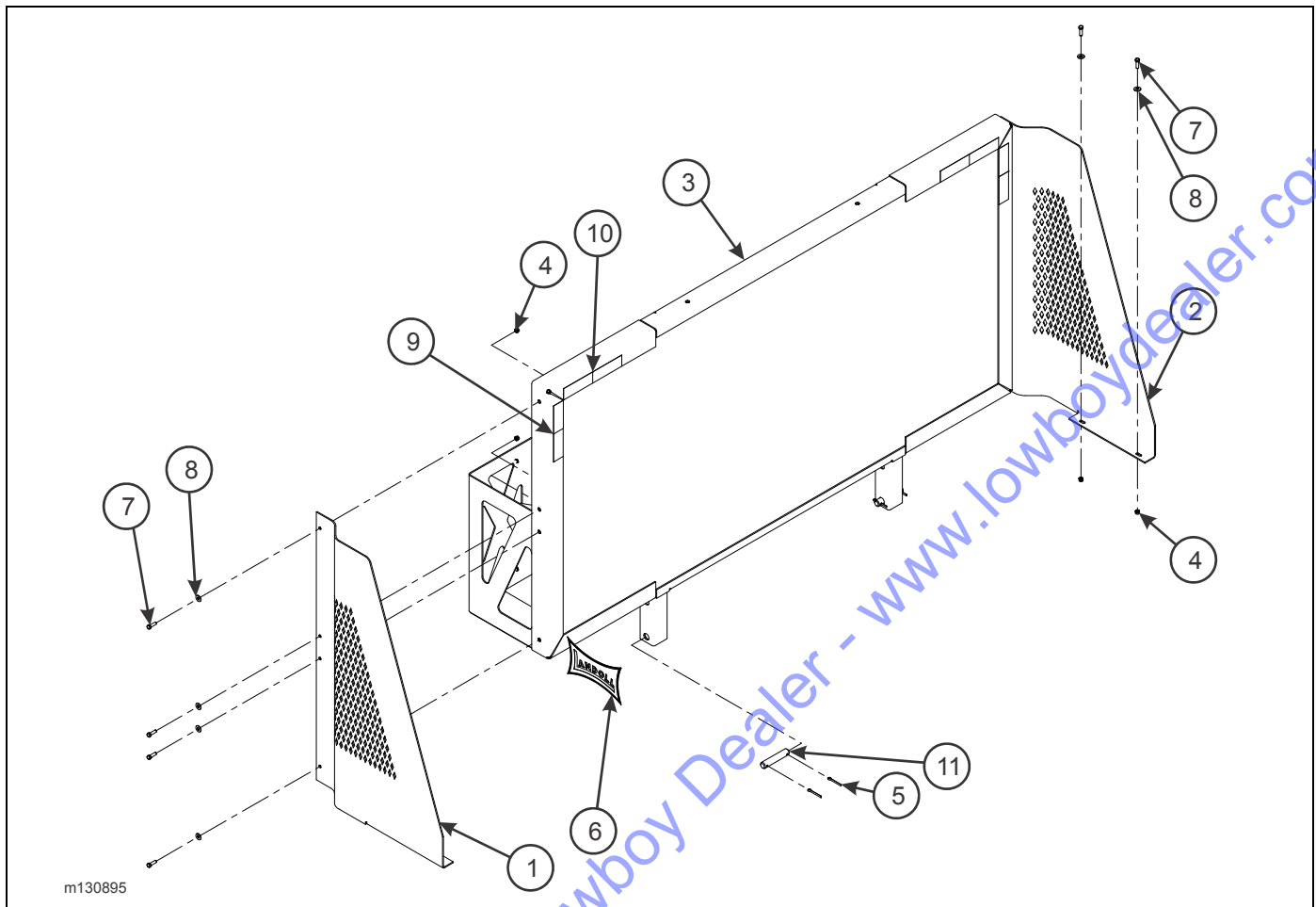


Figure 2-87: Special Bulkhead Installation (Option)

**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    |

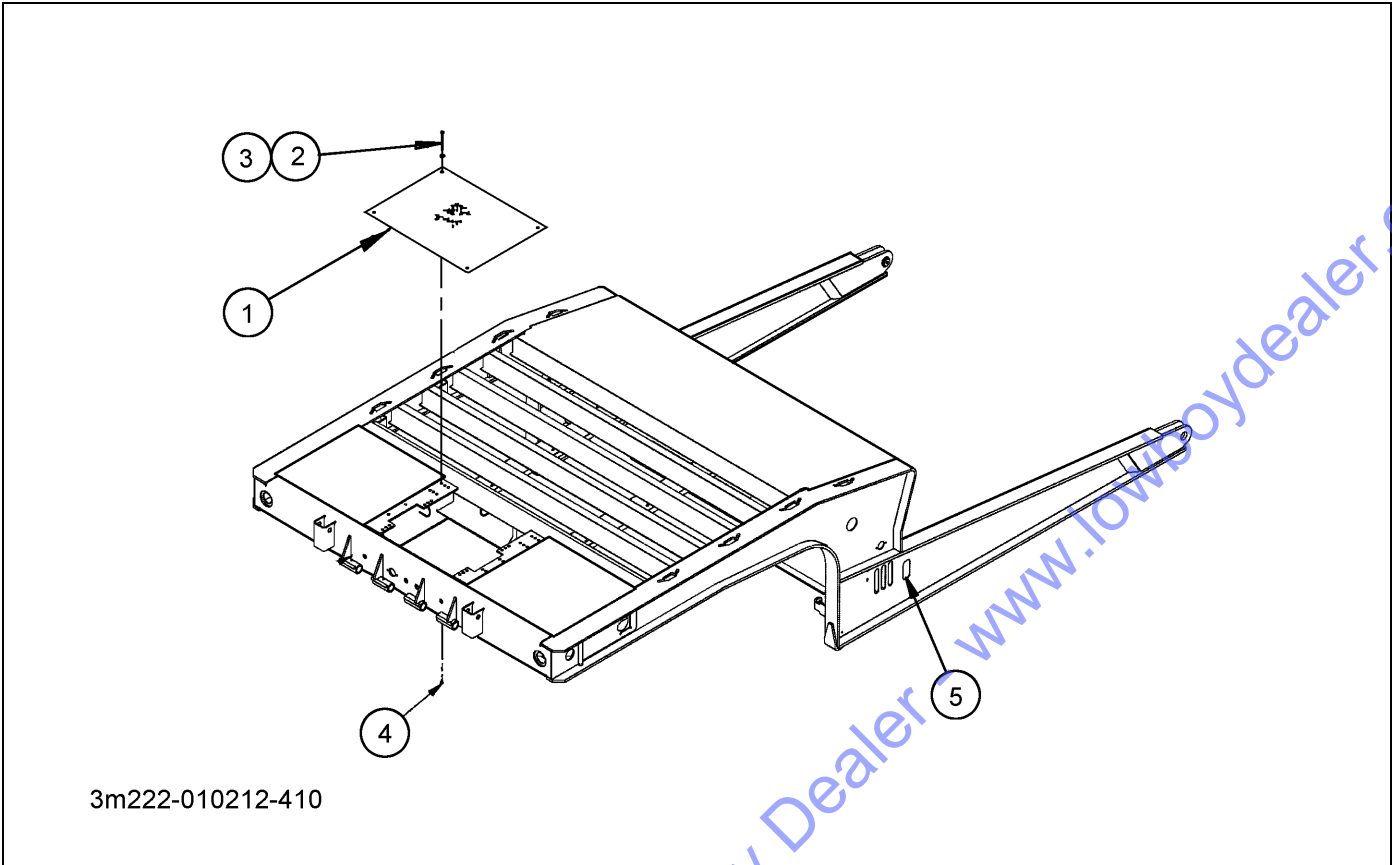


Figure 2-88: Upper Deck Cover Installation (Option)

UPPER DECK COVER INSTALLATION (OPTION)

| ITEM | PART NO.        | DESCRIPTION                            | QTY. |
|------|-----------------|----------------------------------------|------|
|      | 3-222-010212    | COVER INSTALLATION, UPPER DECK         |      |
| 1    | 3-222-010211    | COVER, UPPER DECK WINCH                | 1    |
| 2    | 1-654-010055-03 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5 | 4    |
| 3    | 1-861-010032-15 | WASHER, FLAT 1/2                       | 4    |
| 4    | 1-512-010005-09 | NUT, HEX LOCK 1/2-13                   | 4    |
| 5    | 1-007-010025    | ADAPTER                                | 2    |

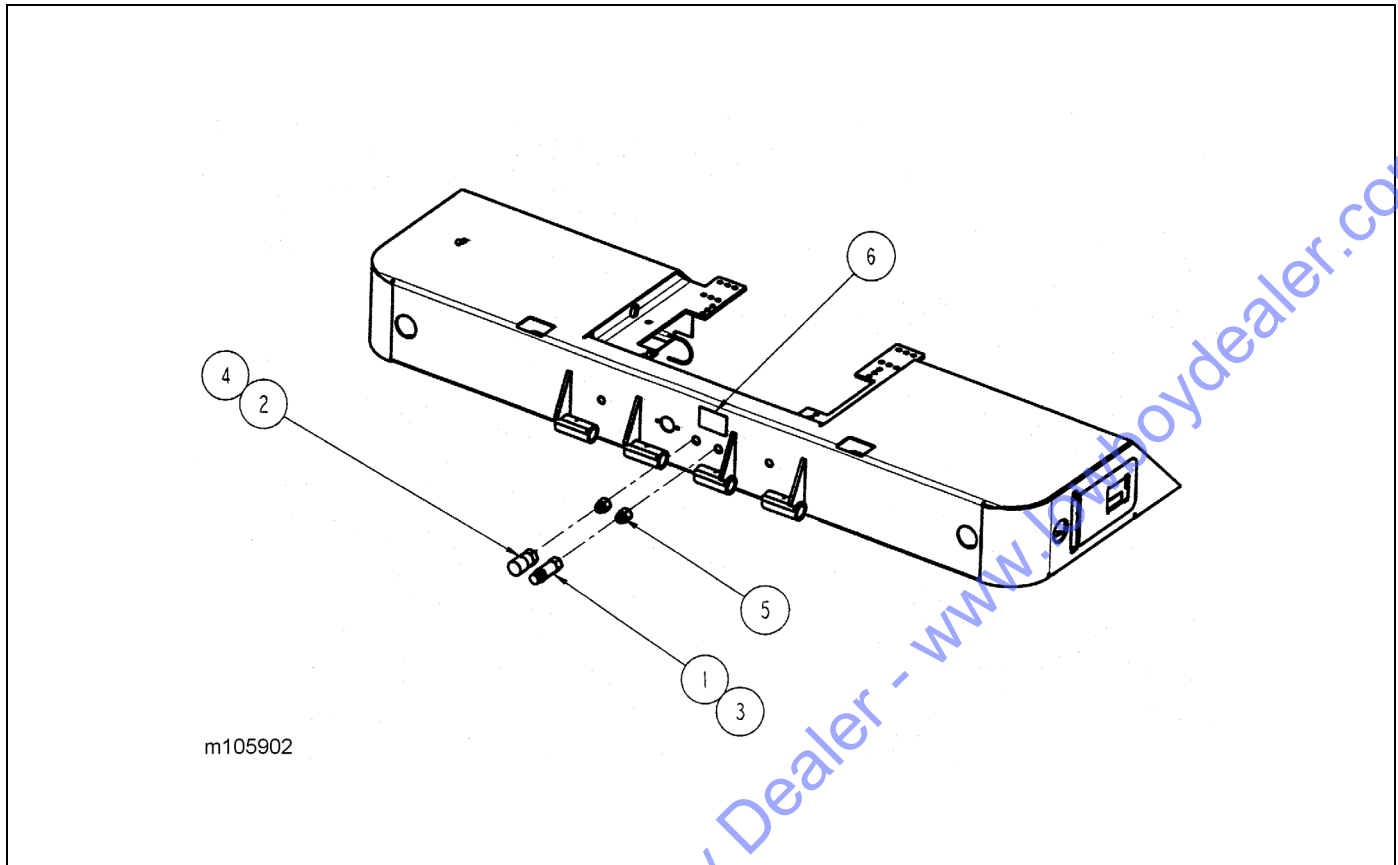


Figure 2-89: Hydraulic Conversion Kit, Ball to Flat (Option)

## 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, HYD COUPLER                              | 1    |

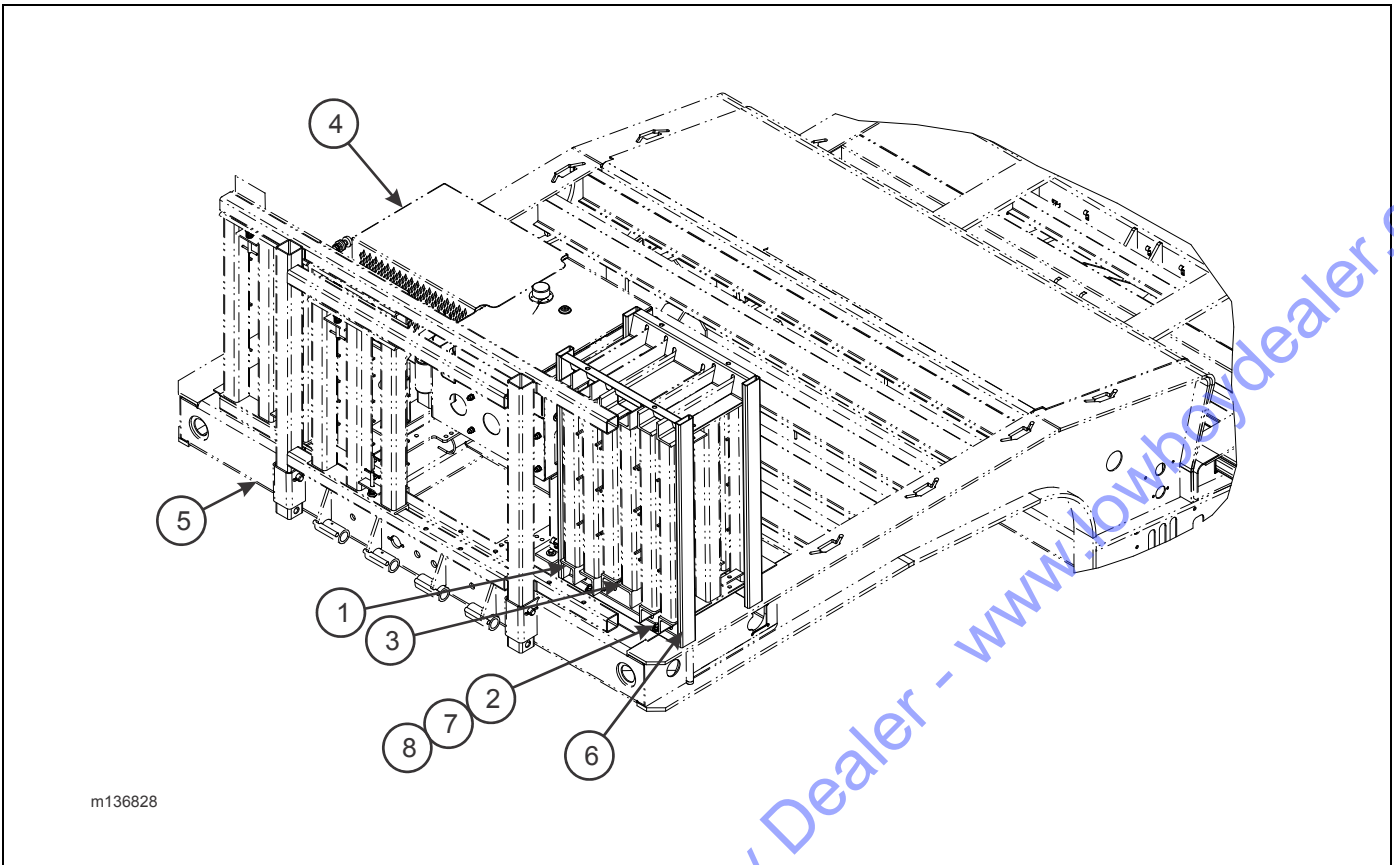


Figure 2-90: Upper Deck Extension Bridge Storage Rack (Option)

## 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    | 131297          | STAND INSTALLATION, U/D ENG PACKAGE               | 1    |
| 5    | 136396          | P/O EXTENSION INSTALLATION (SEE PAGE 2-10)        | REF  |
| 6    | 136829          | RACK WELDMENT U/D STOR EXT BRIDGE                 | 1    |
| 7    | 1-654-010055-02 | SCREW, HEX HEAD CAP 1/2-13 X 1-1/4 GR5            | 4    |
| 8    | 1-861-010032-15 | WASHER, FLAT 1/2W                                 | 4    |
| 9    | 126610          | RACK WELDMENT, STORAGE EXT BRIDGES                | -1   |
| 10   | 1-557-010362-63 | PIN, COTTER 1/4 X 2                               | -4   |
| 11   | 6-557-010163    | PIN, HITCH LEVELING LINK                          | -2   |

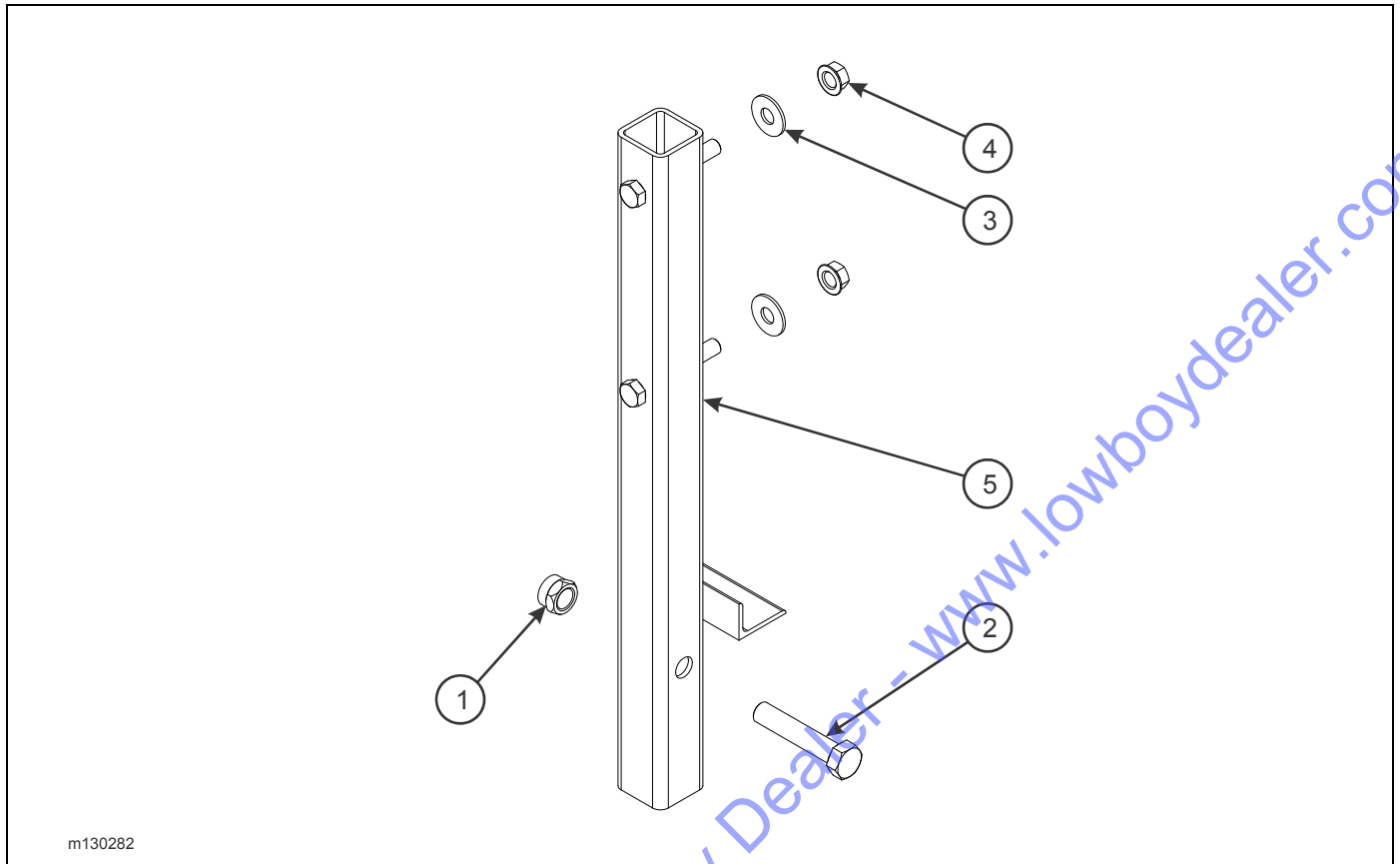


Figure 2-91: Spare Tire Mount Assembly

## SPARE TIRE MOUNT ASSEMBLY

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

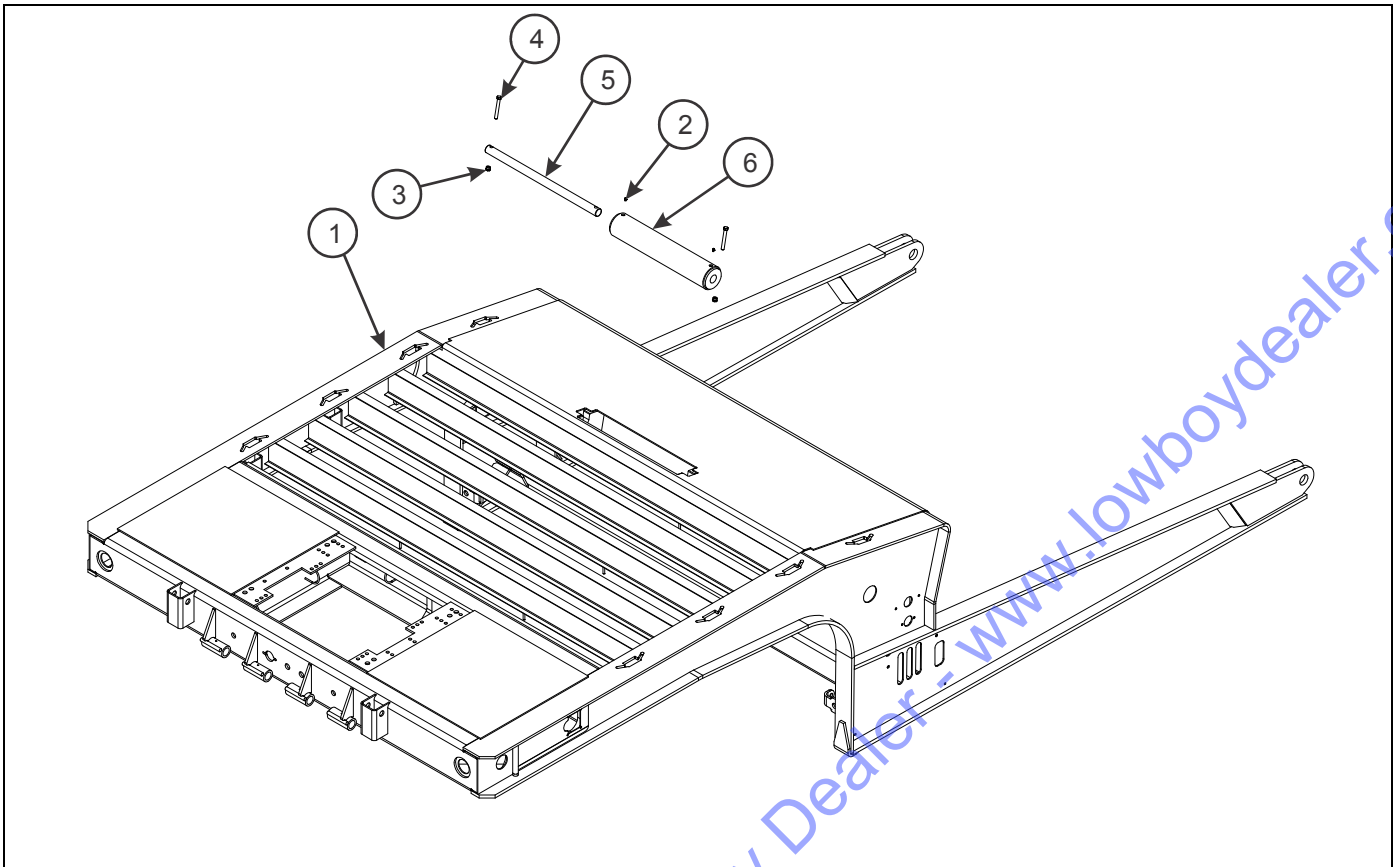


Figure 2-92: Upper Deck Extension Bridge Storage Rack (Option)

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    |

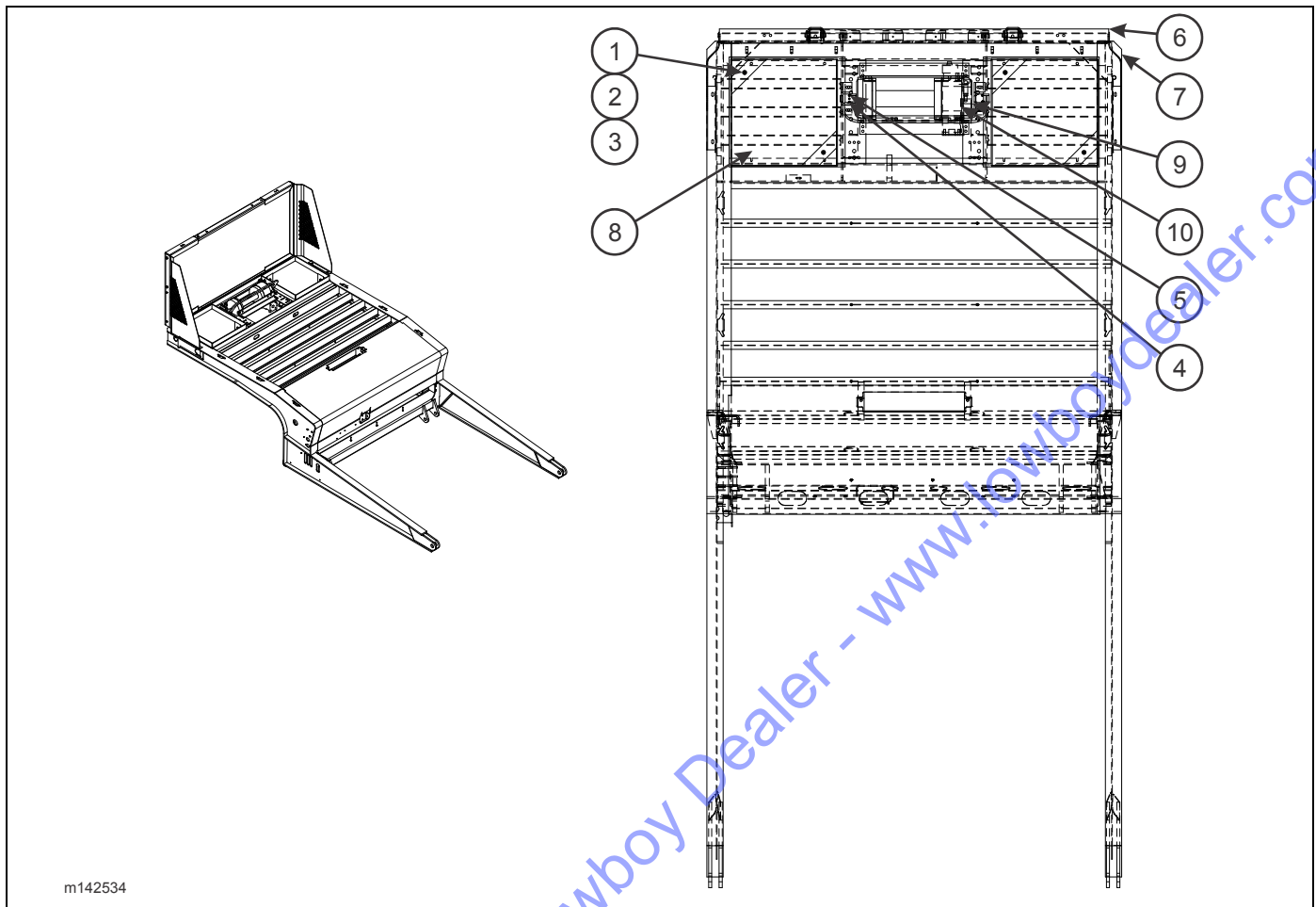


Figure 2-93: Chain Tray Assembly (Option)

**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    | 1-654-010051-06 | SCREW, HEX HEAD CAP 3/8-16 X 1-1/4 GR5            | 4    |
| 3    | 1-861-010032-11 | WASHER, FLAT 3/8W                                 | 8    |
| 4    | 119621          | ANCHOR, CABLE GUIDE WINCH                         | REF  |
| 5    | 119622          | PIN, WINCH ROLLER PIVOT                           | REF  |
| 6    | 128136          | BULKHEAD INSTALLATION (SEE PAGE 2-7)              | REF  |
| 7    | 130662          | GOOSENECK WELDMENT                                | REF  |
| 8    | 142532          | CHAIN TRAY WELDMENT, UPPER DECK                   | 2    |
| 9    | 3-125-010464    | BRACKET WELDMENT, WINCH ROLLER                    | REF  |
| 10   | 3-873-010140    | WINCH INSTALLATION 20K UPPER DECK (SEE PAGE 2-66) | REF  |

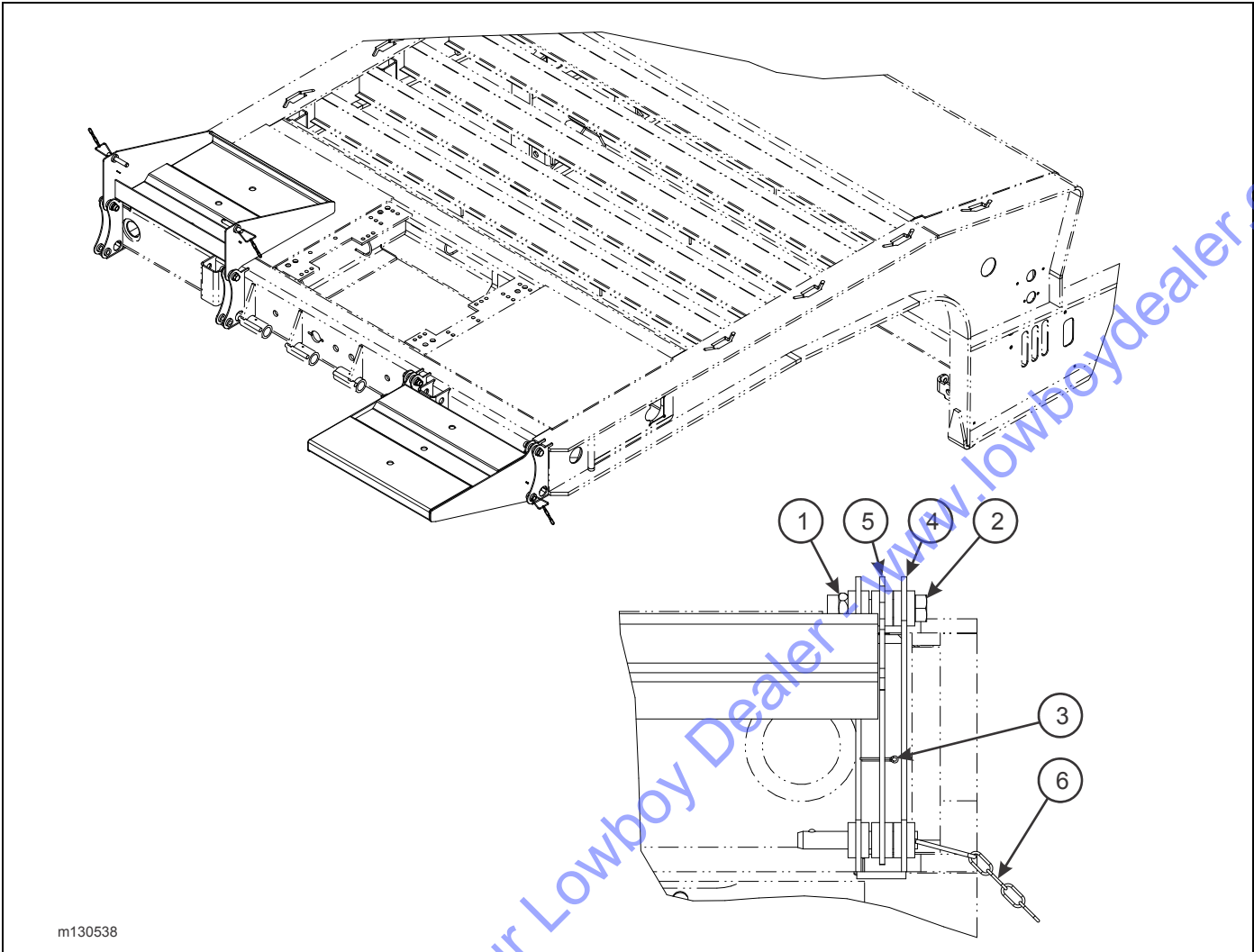
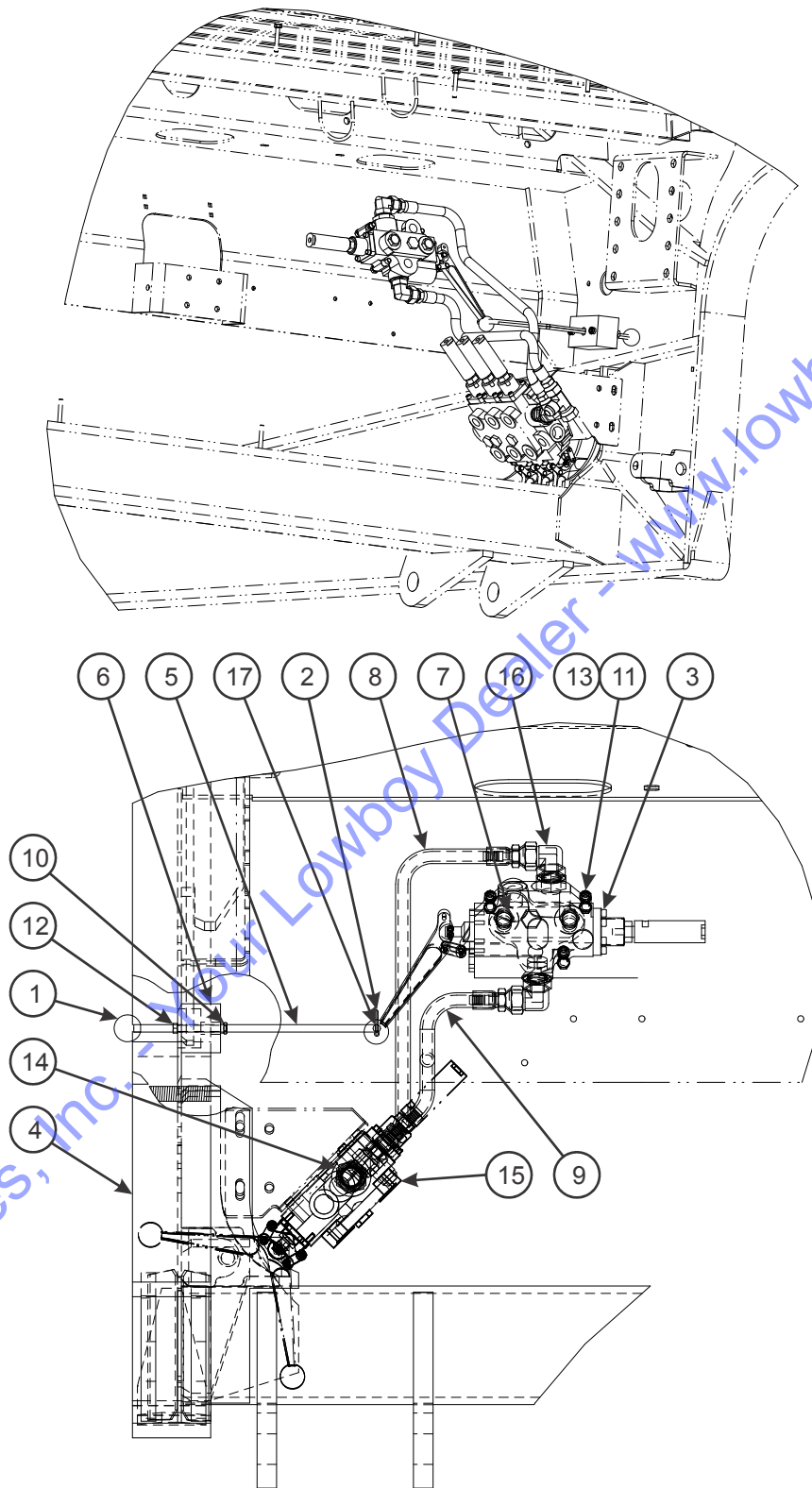


Figure 2-94: Front Flip Extension (Option)

FRONT FLIP EXTENSION (OPTION)

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



m128248

Figure 2-95: Single Valve Installation (Option)

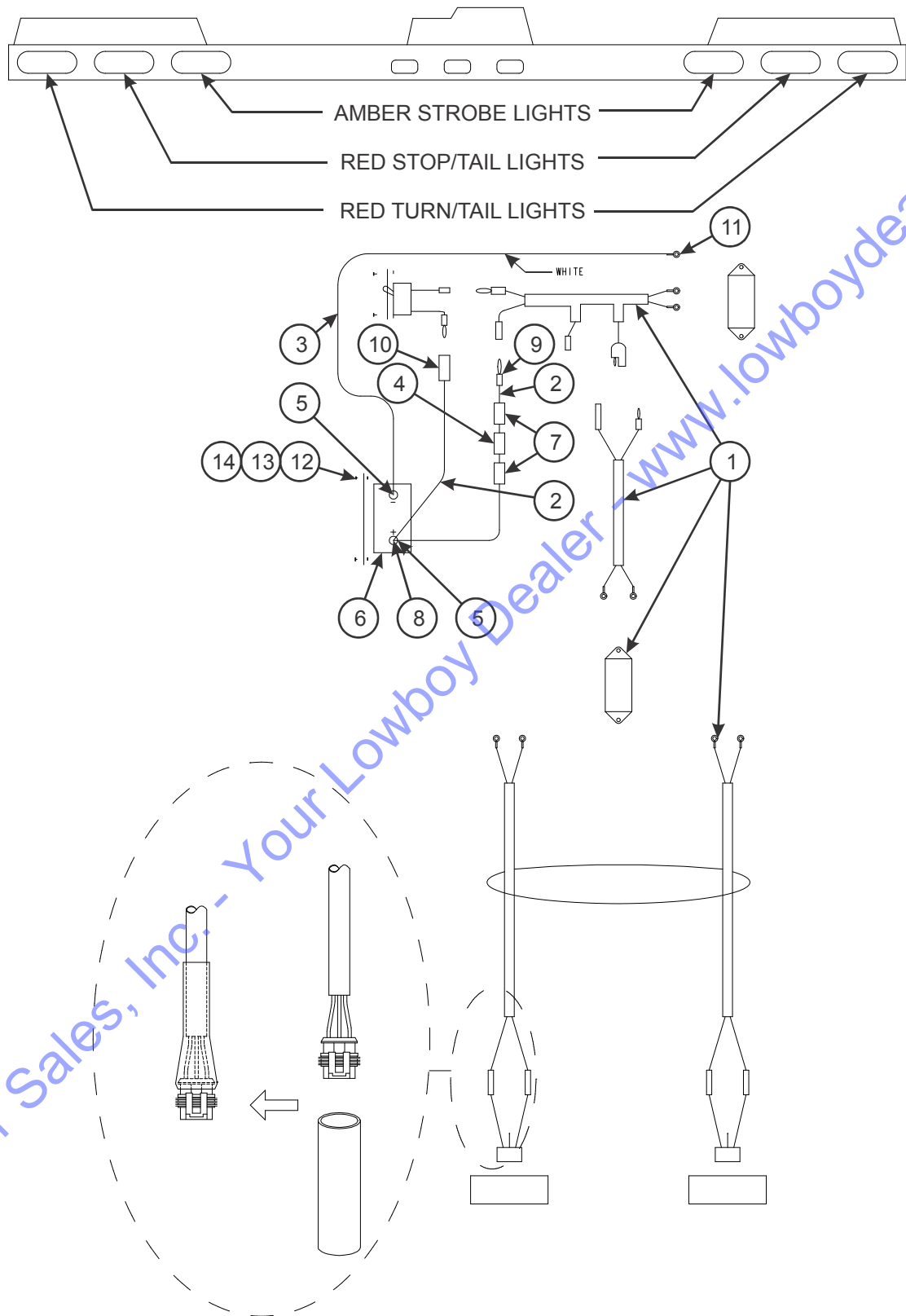
## SINGLE VALVE INSTALLATION (OPTION)

| ITEM | PART NO.        | DESCRIPTION                             | QTY. |
|------|-----------------|-----------------------------------------|------|
|      | 128248          | SINGLE VALVE INSTALLATION (OPTION)      |      |
| 1    | 95              | KNOB                                    | 1    |
| 2    | 101386          | PIN, COTTER 1/8 X 1                     | 1    |
| 3    | 112685          | VALVE, HYD SINGLE SPOOL                 | 1    |
| 4    | 120711          | GOOSENECK WELDMENT                      | REF  |
| 5    | 127862          | HANDLE, SINGLE SPOOL VALVE              | 1    |
| 6    | 127863          | SLIDE, HANDLE SINGLE SPOOL VALVE        | 1    |
| 7    | 1-007-010025    | PLUG 3/4-16                             | 2    |
| 8    | 134131          | HOSE ASSEMBLY 1/2 X 26                  | 1    |
| 9    | 1-397-010372030 | HOSE ASSEMBLY 1/2 X 30                  | 1    |
| 10   | 1-512-010005-03 | NUT, HEX LOCK 5/16-18 GRB               | 2    |
| 11   | 1-512-010005-05 | NUT, HEX LOCK 3/8-16 GRB                | 3    |
| 12   | 1-654-010049-11 | SCREW, HEX HEAD CAP 5/16-18 X 2-1/2 GR5 | 2    |
| 13   | 1-654-010051-09 | SCREW, HEX HEAD CAP 3/8-16 X 2 GR5      | 3    |
| 14   | 1V0249          | HYDR. POWER BEYOND REMOTE               | 1    |
| 15   | 203102-12-12S   | ADAPTER, TEE                            | 1    |
| 16   | 2062-12-12S     | ADAPTER, 90                             | 3    |
| 17   | 3-360-010008    | VALVE HANDLE MODIFICATION               | 1    |

m144718

## REAR STROBE LIGHT INSTALLATION (OPTION)

| ITEM | PART NO.        | DESCRIPTION                             | QTY. |
|------|-----------------|-----------------------------------------|------|
|      | 144718          | REAR STROBE LIGHT INSTALLATION (OPTION) |      |
| 1    | STP-147         | TERMINAL, BULLET ELECTRICAL             | 3    |
| 2    | STP-164         | BULLET, CONNECTOR FEMALE                | 3    |
| 3    | W214S-1         | CABLE, 2 WIRE 14 AWG                    | AR   |
| 4    | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB                | 2    |
| 5    | 1-654-010047-06 | SCREW, HEAD CAP 1/4-20 X 1 GR5          | 2    |
| 8    | 143113          | LIGHT RED LED S/T/T (NOT SHOWN)         | -2   |
| 9    | 130883          | LIGHT, OVAL AMBER STROBE LED            | 12   |
| 10   | 239-3646-4      | TERMINAL                                | 6    |
| 11   | 3-272-010017    | TOGGLE SWITCH, SEALED SPST              | 1    |
| 12   | 3-272-010021    | ELECT BUTT SPLICE                       | 4    |
| 13   | 3-368-010253    | HARNESS ASSEMBLY, CONTROL PANEL         | 1    |
| 14   | 130884          | PIGTAIL LED                             | 2    |
| 15   | 750-029         | JUNCTION BOX 7 STUD                     | 1    |
| 16   | 0013007         | HEAT SHRINK TUBING                      | AR   |
| 17   | 137987          | MOUNT ELECTRIC SWITCH                   | 1    |
| 18   | 1-654-010049-05 | SCREW, HEX HEAD CAP 5/16-18 X 1 GR5     | 2    |
| 19   | 1-861-010032-09 | WASHER, FLAT 5/16                       | 2    |
| 20   | 1-512-010005-03 | NUT, HEX LOCK 5/16-18                   | 2    |
| 21   | 144608          | DUMMY PLUG S/T/T LEAD GROTE (NOT SHOWN) | 2    |



m137985

Figure 2-97: Battery Backup Strobe Light Installation (Option)

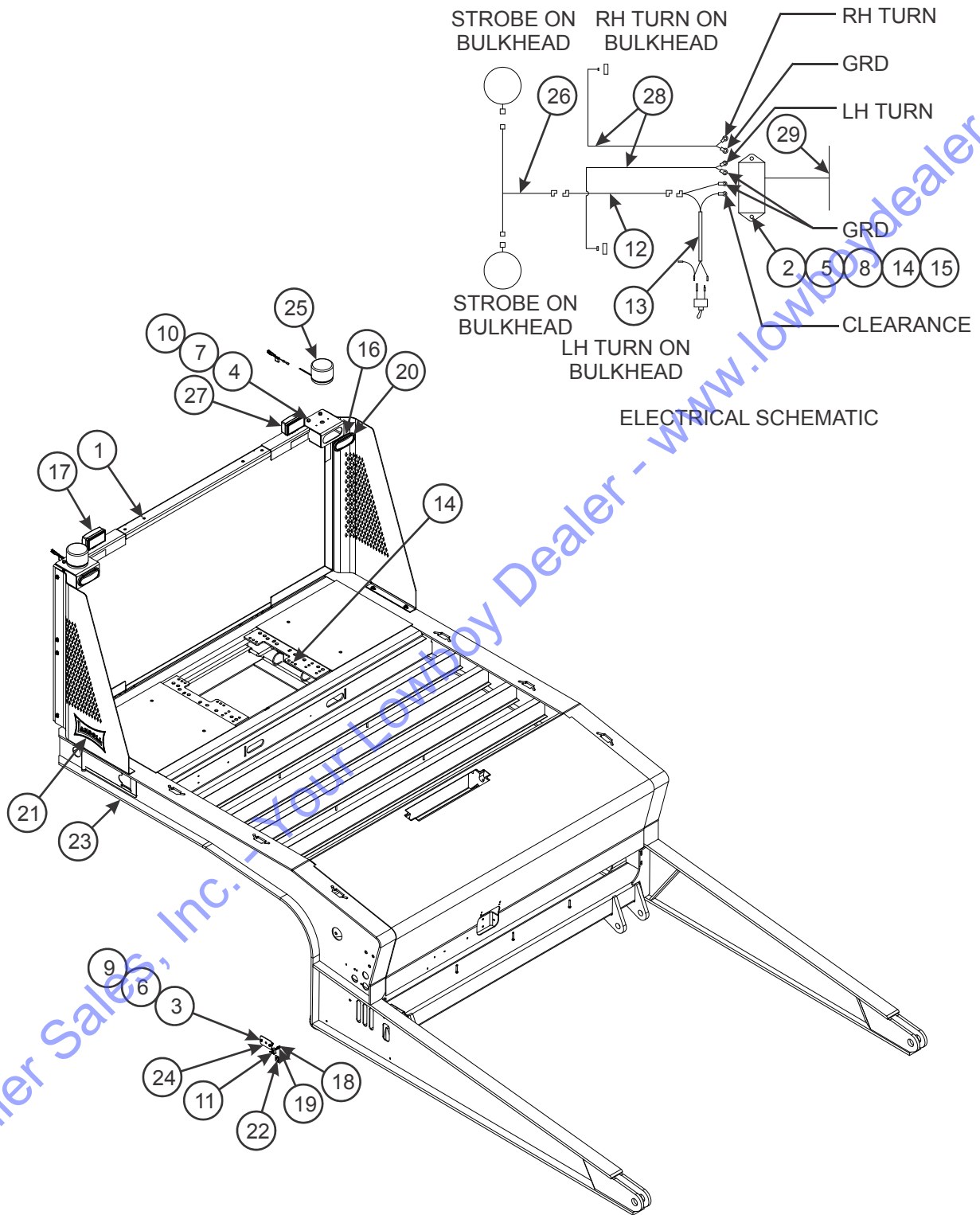
**BATTERY BACKUP STROBE LIGHT INSTALLATION (OPTION)**

| ITEM | PART NO.        | DESCRIPTION                                       | QTY. |
|------|-----------------|---------------------------------------------------|------|
|      | 137985          | BATTERY BACKUP STROBE LIGHT INSTALLATION (OPTION) |      |
| 1    | 130882          | STROBE LIGHT                                      | REF  |
| 2    | 1-879-010005    | WIRE, BROWN 14 AWG                                | AR   |
| 3    | 1-879-010010    | WIRE, WHITE 14 AWG                                | AR   |
| 4    | 2-272-010109    | DIODE 20V                                         | 1    |
| 5    | 239-3650-1      | TERMINAL FEMALE SLIP                              | 3    |
| 6    | 3-128-010032    | BATTERY BREAK-AWAY                                | 1    |
| 7    | 3-272-010021    | ELECT BUTT SPLICE 16/14                           | 2    |
| 8    | 3-272-010157    | ELECT ADAPTER CHAIR 1/4 PUSH-ON                   | 1    |
| 9    | STP-147         | TERMINAL, BULLET ELECTRICAL                       | 1    |
| 10   | STP-164         | BULLET, CONNECTOR FEMALE                          | 1    |
| 11   | 239-3646-4      | TERMINAL                                          | 1    |
| 12   | 1-654-010047-07 | SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5            | 4    |
| 13   | 1-512-010005-01 | NUT, HEX LOCK 1/4-20 GRB                          | 4    |
| 14   | 1-861-010032-07 | WASHER, FLAT 1/4                                  | 4    |

m137564

**BACKUP ALARM/LIGHT INSTALLATION (OPTION)**

| ITEM | PART NO.        | DESCRIPTION                                        | QTY. |
|------|-----------------|----------------------------------------------------|------|
|      | 137564          | BACKUP ALARM/LIGHT INSTALLATION (OPTION)           |      |
| 1    | 117997          | ALARM, dB ADJUSTING SMART BACKUP                   | 1    |
| 2    | 127991          | BRACKET, BACKUP ALARM MOUNT I/C                    | 1    |
| 3    | 137557          | HARNESS, Y-CABLE ABS/RDM                           | 1    |
| 4    | 137558          | CABLE, TWO WIRE OUTPUT 6'                          | 1    |
| 5    | W214S-1         | CABLE, 2 WIRE 14 AWG                               | 1    |
| 6    | 114590          | DIAGNOSTIC CABLE BLINK LIGHT                       | REF  |
| 7    | 114588          | ECU/VALVE ASSEMBLY 4S/2M                           | REF  |
| 8    | 3-272-010021    | ELECT BUTT SPLICE                                  | 4    |
| 9    | 107598          | GROMMET, RECT CLEARANCE/MARKER LAMP                | REF  |
| 10   | 60700           | GROMMET, TRUCK LITE LIGHT                          | REF  |
| 11   | 102836          | HARNESS ASSEMBLY, E-CHAIN ABS                      | REF  |
| 12   | 114581          | HARNESS, MOD BUMPER LED                            | 1    |
| 13   | 60004           | LAMP, BACKUP W/ GROMMET 3 X 7 (INCL ITEMS 10 & 18) | REF  |
| 14   | 15009           | LICENSE LAMP                                       | REF  |
| 15   | 116131          | LIGHT, RED LED S/T/T                               | REF  |
| 16   | 107599          | LIGHT, RED RECT CLEARANCE/MARKER                   | REF  |
| 17   | 108417          | NUT, HEX FLANGE SPIRALOCK 1/4-20                   | 4    |
| 18   | 94992           | PLUG                                               | REF  |
| 19   | 137563          | REVERSE DETECTION MODULE                           | 1    |
| 20   | 1-654-010047-04 | SCREW, HEX HEAD CAP 1/4-20 X 3/4 GR5               | 4    |
| 21   | 137559          | SENSOR, DIRECTIONAL CABLE 6.5'                     | 1    |
| 22   | 239-3646-3      | TERMINAL                                           | 6    |
| 23   | 119531          | PLATE, MOUNT                                       | REF  |



m142526a

Figure 2-99: 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 2-7)             | 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    |

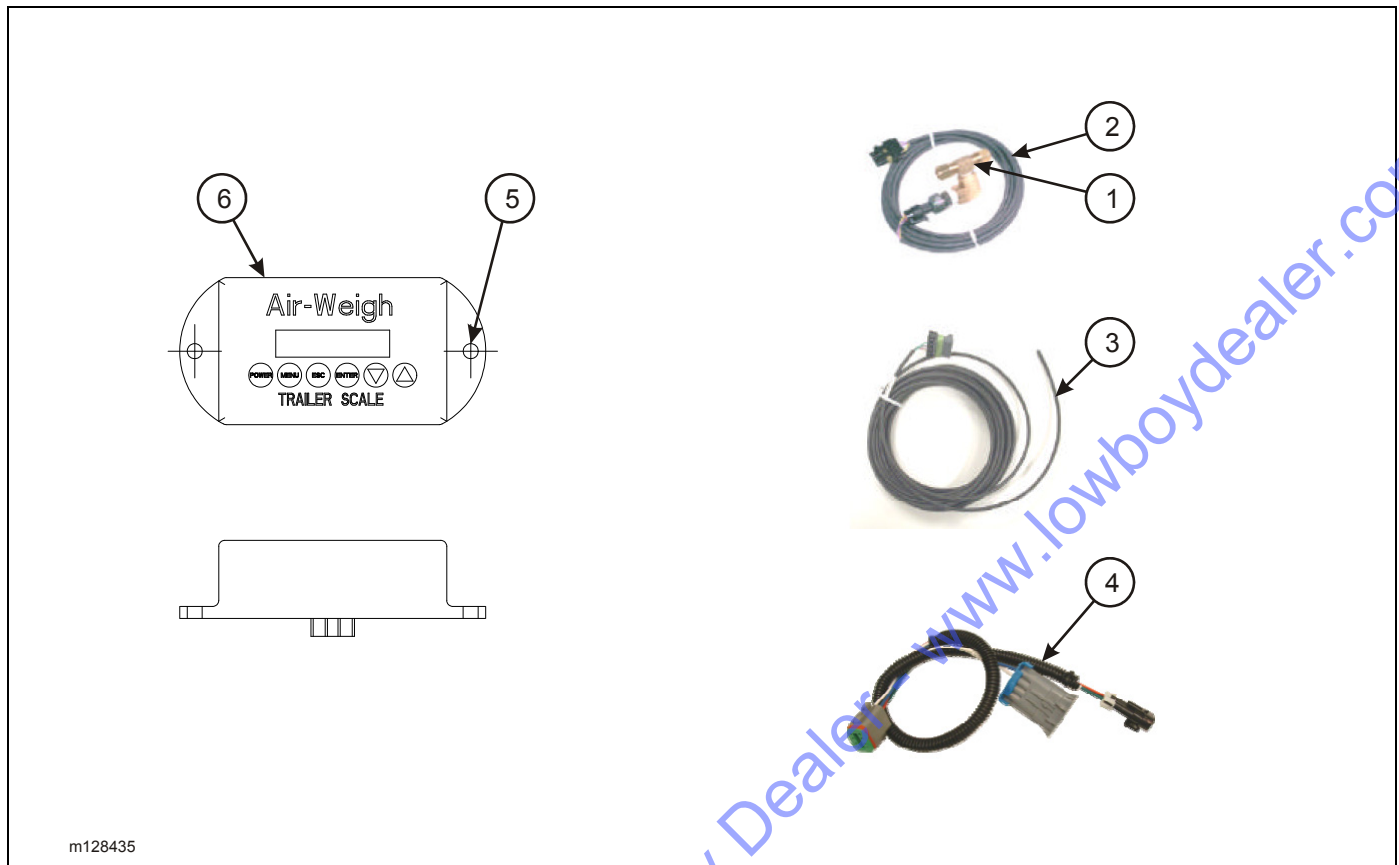


Figure 2-100: Air Digital Scale (Option)

**AIR DIGITAL SCALE (OPTION)**

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

**NOTES:**

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)

## Numerical Index

### Numerics

|                |                         |          |                              |
|----------------|-------------------------|----------|------------------------------|
| 0013007        | 2-162                   | 100941   | 2-44                         |
| 005-074-00     | 2-56                    | 100948   | 2-59                         |
| 005-098-00     | 2-56                    | 100949   | 2-59, 2-62                   |
| 005-099-00     | 2-56                    | 101386   | 2-158, 2-160                 |
| 006-114-00     | 2-56                    | 101528   | 2-38, 2-44                   |
| 006-115-00     | 2-56                    | 101848   | 2-60                         |
| 010-052-00     | 2-56                    | 101852   | 2-59                         |
| 010700437      | 2-136                   | 101855   | 2-129                        |
| 034-057-07     | 2-56                    | 102-0031 | 2-114, 2-134                 |
| 034-058-07     | 2-56                    | 102-1097 | 2-114                        |
| 034-188-03     | 2-56                    | 102186   | 2-67, 2-74                   |
| 034-189-03     | 2-56                    | 102187   | 2-67, 2-71                   |
| 040-320-01     | 2-56                    | 102188   | 2-67, 2-71, 2-74             |
| 046-097-00     | 2-56                    | 102361   | 2-54                         |
| 056-018-00     | 2-56                    | 102363   | 2-38, 2-44, 2-48, 2-50, 2-54 |
| 0600-250-01000 | 2-10                    | 102364   | 2-54                         |
| 0600-375-01500 | 2-13                    | 102698   | 2-38                         |
| 069-078-00     | 2-56                    | 102732   | 2-48, 2-52                   |
| 100348         | 2-116, 2-118, 2-121     | 102836   | 2-166                        |
| 100401         | 2-64                    | 103055   | 2-38, 2-44, 2-130            |
| 100402         | 2-64                    | 103056   | 2-38, 2-44, 2-130            |
| 100600         | 2-68, 2-71, 2-74, 2-129 | 103082   | 2-44, 2-48                   |
| 1-007-010006   | 2-31                    | 103084   | 2-38, 2-50                   |
| 1-007-010025   | 2-111, 2-152, 2-160     | 103805   | 2-56                         |
| 1-007-010058   | 2-116, 2-118            | 103816   | 2-38, 2-59                   |
| 10078          | 2-77, 2-79              | 103817   | 2-59                         |
| 100823         | 2-4                     | 103841   | 2-15, 2-21, 2-155            |
| 100939         | 2-4                     | 103861   | 2-60                         |
|                |                         | 104034   | 2-38, 2-44                   |



## NUMERICAL INDEX

---

|          |                          |             |              |
|----------|--------------------------|-------------|--------------|
| 104043   | 2-168                    | 108610      | 2-4          |
| 104044   | 2-168                    | 108801      | 2-62, 2-88   |
| 104241   | 2-134                    | 108802      | 2-62         |
| 104242   | 2-134                    | 108859      | 2-10         |
| 104243   | 2-132                    | 109161      | 2-138        |
| 104253   | 2-10, 2-13               | 109533      | 2-54         |
| 104330   | 2-114                    | 109711      | 2-138        |
| 1046     | 2-84                     | 109712      | 2-138        |
| 105-0094 | 2-4                      | 1-1/4ST ELL | 2-31         |
| 105-0105 | 2-143                    | 110-0116    | 2-144        |
| 105408   | 2-54                     | 110-0253    | 2-144        |
| 105479   | 2-15, 2-31, 2-143, 2-153 | 110448      | 2-80         |
| 105480   | 2-15, 2-31, 2-143, 2-153 | 110451      | 2-80         |
| 105481   | 2-15, 2-31, 2-143, 2-153 | 110452      | 2-77, 2-80   |
| 105482   | 2-15, 2-31, 2-144, 2-153 | 110-4950    | 2-38         |
| 105483   | 2-15                     | 110578      | 2-144        |
| 105822   | 2-129, 2-153             | 110975      | 2-64         |
| 105902   | 2-153                    | 110976      | 2-64         |
| 105909   | 2-4                      | 111007      | 2-54         |
| 105953   | 2-91, 2-97               | 111008      | 2-54         |
| 105954   | 2-91, 2-97               | 111010      | 2-54         |
| 105967   | 2-91, 2-97               | 111011      | 2-54         |
| 106379   | 2-105                    | 111012      | 2-54         |
| 106385   | 2-105                    | 111013      | 2-54         |
| 106759   | 2-31                     | 111014      | 2-54         |
| 106760   | 2-31                     | 111016      | 2-54         |
| 106956   | 2-79                     | 111017      | 2-54         |
| 107368   | 2-67, 2-71, 2-82         | 111018      | 2-54         |
| 107369   | 2-68, 2-71, 2-82         | 111019      | 2-54         |
| 107498   | 2-31                     | 111021      | 2-52         |
| 107499   | 2-31                     | 111022      | 2-54         |
| 107500   | 2-31                     | 111023      | 2-54         |
| 107513   | 2-31                     | 111091      | 2-106, 2-108 |
| 107598   | 2-166                    | 111092      | 2-106, 2-108 |
| 107599   | 2-166                    | 111093      | 2-106, 2-108 |
| 108295   | 2-144                    | 111094      | 2-106, 2-108 |
| 108417   | 2-166                    | 111095      | 2-106, 2-108 |
| 108601   | 2-143                    | 111096      | 2-106, 2-108 |

|        |              |        |              |
|--------|--------------|--------|--------------|
| 11117  | 2-76         | 11419  | 2-79         |
| 11128  | 2-76         | 11420  | 2-79         |
| 11129  | 2-76         | 11421  | 2-79         |
| 11130  | 2-76         | 114241 | 2-105        |
| 111301 | 2-21         | 11425  | 2-79         |
| 111302 | 2-114, 2-134 | 11426  | 2-80         |
| 11133  | 2-76         | 11429  | 2-79         |
| 111351 | 2-105        | 11430  | 2-79         |
| 111383 | 2-106        | 11431  | 2-79         |
| 111384 | 2-106        | 11434  | 2-79         |
| 111385 | 2-100, 2-106 | 11440  | 2-79         |
| 111386 | 2-100, 2-106 | 11441  | 2-79         |
| 111387 | 2-105        | 11446  | 2-79         |
| 11142  | 2-76         | 114540 | 2-17, 2-19   |
| 11144  | 2-76         | 114570 | 2-130        |
| 111641 | 2-88         | 114571 | 2-130        |
| 111870 | 2-136        | 114581 | 2-166        |
| 112013 | 2-149        | 114584 | 2-59, 2-60   |
| 112047 | 2-64         | 114586 | 2-59, 2-60   |
| 11240  | 2-77         | 114588 | 2-60, 2-166  |
| 112492 | 2-64         | 114590 | 2-166        |
| 112641 | 2-108        | 114619 | 2-64         |
| 112678 | 2-132        | 114814 | 2-4, 2-143   |
| 112679 | 2-132        | 114815 | 2-143        |
| 112685 | 2-160        | 114983 | 2-138        |
| 11308  | 2-76         | 115703 | 2-56         |
| 11309  | 2-79         | 115708 | 2-56         |
| 11310  | 2-79         | 115877 | 2-4, 2-144   |
| 113268 | 2-38, 2-44   | 115888 | 2-143        |
| 113388 | 2-143        | 11599  | 2-79         |
| 113536 | 2-64         | 116131 | 2-166        |
| 113544 | 2-144        | 116326 | 2-143        |
| 11368  | 2-76         | 116328 | 2-143        |
| 113856 | 2-143        | 116330 | 2-143        |
| 11398  | 2-80         | 116378 | 2-74         |
| 11402  | 2-79         | 116429 | 2-114, 2-134 |
| 11407  | 2-79         | 116488 | 2-134        |
| 11411  | 2-79         | 116800 | 2-138        |

## NUMERICAL INDEX

|                |            |        |                         |
|----------------|------------|--------|-------------------------|
| 116822         | 2-4        | 119621 | 2-67, 2-71, 2-74, 2-157 |
| 116837         | 2-17, 2-88 | 119622 | 2-67, 2-71, 2-74, 2-157 |
| 116850         | 2-129      | 119623 | 2-74                    |
| 116943         | 2-4        | 119624 | 2-74                    |
| 117304         | 2-59       | 119949 | 2-131                   |
| 117386         | 2-21       | 120376 | 2-10                    |
| 117400         | 2-15, 2-28 | 120377 | 2-10                    |
| 117544         | 2-4        | 120379 | 2-10                    |
| 117556         | 2-5        | 120380 | 2-10                    |
| 117558         | 2-131      | 120451 | 2-44                    |
| 117559         | 2-131      | 120452 | 2-15                    |
| 117561         | 2-131      | 120454 | 2-15                    |
| 117562         | 2-5        | 120457 | 2-10                    |
| 117565         | 2-4        | 120458 | 2-10                    |
| 117873         | 2-143      | 120459 | 2-10                    |
| 11791          | 2-80       | 120461 | 2-10                    |
| 117997         | 2-166      | 120479 | 2-145                   |
| 1-181-010046-7 | 2-144      | 120491 | 2-10                    |
| 118-2659-9     | 2-59       | 120492 | 2-10, 2-154             |
| 118-2676-2     | 2-72       | 120654 | 2-143                   |
| 11837          | 2-76       | 120659 | 2-144                   |
| 118627         | 2-21       | 120660 | 2-144                   |
| 118723         | 2-10       | 120661 | 2-143                   |
| 118800         | 2-129      | 120711 | 2-160                   |
| 118801         | 2-130      | 12073  | 2-79                    |
| 118803         | 2-129      | 12075  | 2-76                    |
| 118804         | 2-129      | 120751 | 2-19                    |
| 118805         | 2-130      | 120822 | 2-10                    |
| 118889         | 2-5        | 121031 | 2-17                    |
| 118897         | 2-44       | 121077 | 2-38, 2-44              |
| 118929         | 2-10       | 121078 | 2-38                    |
| 118930         | 2-10       | 121124 | 2-114, 2-134            |
| 119084         | 2-102      | 121125 | 2-4                     |
| 119206         | 2-143      | 121355 | 2-38, 2-44              |
| 119445         | 2-143      | 121377 | 2-168                   |
| 119531         | 2-166      | 121402 | 2-116, 2-118            |
| 119577         | 2-143      | 12146  | 2-80                    |
| 119580         | 2-38, 2-44 | 121498 | 2-38, 2-44, 2-116       |

|                |                     |        |              |
|----------------|---------------------|--------|--------------|
| 121515         | 2-129               | 124909 | 2-150        |
| 12-16 070120   | 2-31                | 124910 | 2-150        |
| 121686         | 2-38                | 124911 | 2-150        |
| 121697         | 2-149               | 124912 | 2-150        |
| 122333         | 2-88, 2-100         | 124913 | 2-150        |
| 122334         | 2-100               | 124971 | 2-146, 2-154 |
| 122336         | 2-100               | 125057 | 2-150        |
| 122337         | 2-100               | 125130 | 2-31         |
| 122380         | 2-4                 | 125192 | 2-28         |
| 122458         | 2-100               | 125194 | 2-28         |
| 122536         | 2-38, 2-44          | 125196 | 2-28         |
| 122538         | 2-114               | 125520 | 2-13         |
| 122540         | 2-116               | 125892 | 2-71, 2-88   |
| 122557         | 2-62                | 126537 | 2-38, 2-118  |
| 122621         | 2-21                | 126538 | 2-94         |
| 122630         | 2-59                | 126539 | 2-94         |
| 122812         | 2-114               | 126580 | 2-94         |
| 122813         | 2-114               | 126601 | 2-10         |
| 122913         | 2-10                | 126602 | 2-10         |
| 122916         | 2-10                | 126603 | 2-10         |
| 122938         | 2-149               | 126605 | 2-10         |
| 123014         | 2-144               | 126606 | 2-10         |
| 123150         | 2-15                | 126609 | 2-10, 2-154  |
| 123166         | 2-143, 2-145, 2-146 | 126610 | 2-10, 2-154  |
| 123210         | 2-66                | 126629 | 2-71         |
| 123211         | 2-114               | 126641 | 2-114        |
| 123490         | 2-134               | 126672 | 2-72         |
| 1-242-010178-2 | 2-136               | 126676 | 2-72         |
| 1-242-010180-2 | 2-134, 2-136        | 126677 | 2-72         |
| 124549         | 2-79                | 126679 | 2-72         |
| 124556         | 2-145               | 126736 | 2-114        |
| 124559         | 2-44                | 126791 | 2-72         |
| 12465          | 2-79                | 126900 | 2-54         |
| 124901         | 2-150               | 127191 | 2-129        |
| 124902         | 2-150               | 127192 | 2-129        |
| 124903         | 2-150               | 127422 | 2-15         |
| 124904         | 2-150               | 127579 | 2-44, 2-59   |
| 124908         | 2-150               | 12767  | 2-80         |

## NUMERICAL INDEX

|                 |                   |                 |                                     |
|-----------------|-------------------|-----------------|-------------------------------------|
| 127691          | 2-15              | 1-297-010007-12 | 2-59, 2-62                          |
| 127708          | 2-54              | 1-297-010007-15 | 2-59                                |
| 127711          | 2-13              | 1-297-010007-16 | 2-59, 2-62                          |
| 127712          | 2-13              | 1-297-010008-05 | 2-50, 2-68, 2-102, 2-105            |
| 127813          | 2-143             | 1-297-010008-07 | 2-48, 2-50, 2-67, 2-88, 2-94, 2-105 |
| 12783           | 2-79              | 1-297-010008-18 | 2-50, 2-59                          |
| 127862          | 2-160             | 1-297-010008-23 | 2-59                                |
| 127863          | 2-160             | 1-297-010008-24 | 2-59                                |
| 127991          | 2-166             | 1-297-010008-26 | 2-59                                |
| 128020          | 2-13              | 1-297-010010-01 | 2-48, 2-50                          |
| 128136          | 2-7, 2-157, 2-168 | 1-297-010010-03 | 2-50                                |
| 128137          | 2-7, 2-151        | 1-297-010010-04 | 2-48, 2-50                          |
| 128138          | 2-7, 2-151        | 1-297-010011-02 | 2-88                                |
| 128152          | 2-7               | 1-297-010013-12 | 2-62                                |
| 128153          | 2-7               | 1-297-010013-16 | 2-37                                |
| 12817           | 2-76              | 1-297-010015-02 | 2-50, 2-68, 2-102                   |
| 128226          | 2-13              | 1-297-010015-03 | 2-50, 2-106                         |
| 128227          | 2-13              | 1-297-010017-03 | 2-59                                |
| 128228          | 2-13              | 1-297-010018-03 | 2-62, 2-88, 2-94                    |
| 128229          | 2-13              | 1-297-010018-04 | 2-37, 2-48, 2-148                   |
| 128248          | 2-160             | 1-297-010019-05 | 2-68, 2-72, 2-88, 2-94, 2-106       |
| 128435          | 2-169             | 1-297-010020-02 | 2-68, 2-71, 2-88, 2-105             |
| 128501          | 2-144             | 1-297-010021-05 | 2-62                                |
| 128539          | 2-13              | 1-297-010022-02 | 2-67, 2-71, 2-88, 2-105, 2-148      |
| 128672          | 2-38              | 1-297-010022-03 | 2-62                                |
| 128774          | 2-143             | 1-297-010022-04 | 2-62                                |
| 129069          | 2-134             | 1-297-010031-02 | 2-67, 2-71, 2-105                   |
| 129084          | 2-134             | 1-297-010032-03 | 2-67, 2-105                         |
| 129085          | 2-134             | 1-297-010033-03 | 2-62                                |
| 129088          | 2-134             | 1-297-010034-01 | 2-143                               |
| 129099          | 2-114             | 1-298-010001-1  | 2-4, 2-37, 2-156                    |
| 129264          | 2-143             | 13005           | 2-76                                |
| 129287          | 2-144             | 130116          | 2-168                               |
| 1-295-010001    | 2-31, 2-143       | 13028           | 2-77, 2-80                          |
| 1-295-010002    | 2-31, 2-143       | 130280          | 2-155                               |
| 1-297-010007-04 | 2-67, 2-88, 2-105 | 130282          | 2-155                               |
| 1-297-010007-05 | 2-67, 2-88, 2-105 | 130511          | 2-4                                 |
| 1-297-010007-11 | 2-48, 2-50, 2-148 | 130537          | 2-158                               |

|              |                                   |        |             |
|--------------|-----------------------------------|--------|-------------|
| 130538       | 2-158                             | 135006 | 2-129       |
| 130540       | 2-158                             | 135181 | 2-4         |
| 130552       | 2-4, 2-111                        | 135189 | 2-134       |
| 130553       | 2-10                              | 135778 | 2-4         |
| 130556       | 2-44                              | 135779 | 2-4         |
| 130662       | 2-145, 2-146, 2-156, 2-157, 2-168 | 136352 | 2-4         |
| 130882       | 2-164                             | 136377 | 2-17        |
| 130883       | 2-162                             | 136378 | 2-17        |
| 130884       | 2-162                             | 136396 | 2-10, 2-154 |
| 130895       | 2-151                             | 136399 | 2-13        |
| 130896       | 2-151                             | 136580 | 2-146       |
| 131196       | 2-4                               | 136581 | 2-146       |
| 131297       | 2-145, 2-154                      | 136582 | 2-146       |
| 131590       | 2-38                              | 13680  | 2-77        |
| 1-316-010013 | 2-143                             | 136828 | 2-154       |
| 131738       | 2-10                              | 136829 | 2-154       |
| 131739       | 2-10                              | 136848 | 2-7         |
| 131740       | 2-10                              | 136849 | 2-7         |
| 131741       | 2-10                              | 137028 | 2-102       |
| 131784       | 2-10                              | 137070 | 2-4         |
| 131895       | 2-156                             | 137108 | 2-64        |
| 132103       | 2-102                             | 137279 | 2-44        |
| 132104       | 2-102                             | 137421 | 2-90, 2-96  |
| 132106       | 2-109, 2-110                      | 137422 | 2-90, 2-96  |
| 132833       | 2-88                              | 137424 | 2-108       |
| 132834       | 2-88                              | 137425 | 2-108       |
| 133798       | 2-131                             | 137426 | 2-108       |
| 133799       | 2-131                             | 137427 | 2-108       |
| 133938       | 2-102                             | 137428 | 2-108       |
| 133941       | 2-102                             | 137557 | 2-166       |
| 134131       | 2-160                             | 137558 | 2-166       |
| 134162       | 2-129                             | 137559 | 2-166       |
| 13424        | 2-77, 2-80                        | 137563 | 2-166       |
| 1-343-010007 | 2-13, 2-148, 2-168                | 137564 | 2-166       |
| 134608       | 2-7                               | 137569 | 2-90, 2-96  |
| 134616       | 2-7                               | 137570 | 2-90, 2-96  |
| 134657       | 2-88                              | 137634 | 2-111       |
| 13468        | 2-76                              | 137635 | 2-111       |

## NUMERICAL INDEX

|                 |                        |                 |              |
|-----------------|------------------------|-----------------|--------------|
| 137641          | 2-90, 2-96             | 1-394-010002    | 2-116, 2-118 |
| 137642          | 2-96                   | 139478          | 2-80         |
| 137879          | 2-91, 2-97             | 139479          | 2-79         |
| 137880          | 2-90, 2-91, 2-96, 2-97 | 139519          | 2-17         |
| 137881          | 2-91, 2-97             | 139520          | 2-4, 2-130   |
| 137882          | 2-90, 2-96             | 139525          | 2-15, 2-17   |
| 137883          | 2-90, 2-96             | 139537          | 2-33         |
| 137884          | 2-90, 2-96             | 139552          | 2-88         |
| 137885          | 2-90, 2-96             | 139553          | 2-144        |
| 137886          | 2-90, 2-96             | 139559          | 2-130        |
| 137887          | 2-90, 2-96             | 1-397-010262028 | 2-118        |
| 137888          | 2-90, 2-96             | 1-397-010262100 | 2-118        |
| 137892          | 2-13                   | 1-397-010262-5  | 2-116, 2-118 |
| 137893          | 2-13                   | 1-397-010301024 | 2-21         |
| 137894          | 2-13                   | 1-397-010301039 | 2-21         |
| 137943          | 2-146                  | 1-397-010301048 | 2-21         |
| 137963          | 2-4                    | 1-397-010301064 | 2-15         |
| 137974          | 2-138                  | 1-397-010301100 | 2-31         |
| 137985          | 2-164                  | 1-397-010301160 | 2-15         |
| 137987          | 2-162, 2-168           | 1-397-010301170 | 2-66, 2-74   |
| 137993          | 2-90, 2-96             | 1-397-010301208 | 2-105        |
| 137994          | 2-90, 2-96             | 1-397-010302018 | 2-114, 2-134 |
| 138155          | 2-116, 2-118           | 1-397-010302084 | 2-15         |
| 138179          | 2-114, 2-134           | 1-397-010302172 | 2-66, 2-74   |
| 1-382-010035-06 | 2-88, 2-94             | 1-397-010302220 | 2-88, 2-94   |
| 138209          | 2-15                   | 1-397-010304018 | 2-144        |
| 13839           | 2-76                   | 1-397-010304060 | 2-144        |
| 1-384-010038024 | 2-59                   | 1-397-010305190 | 2-15         |
| 1-384-010038038 | 2-59                   | 1-397-010306028 | 2-114, 2-134 |
| 1-384-010038056 | 2-59                   | 1-397-010307296 | 2-114        |
| 1-384-010038060 | 2-59                   | 1-397-010307356 | 2-114        |
| 1-384-010038076 | 2-59                   | 1-397-010312032 | 2-144        |
| 1-384-010038084 | 2-59                   | 1-397-010372030 | 2-160        |
| 13894           | 2-108                  | 139927          | 2-71         |
| 139254          | 2-111                  | 139928          | 2-71         |
| 139256          | 2-131                  | 139929          | 2-71         |
| 139287          | 2-56                   | 140083          | 2-33         |
| 1-394-010001    | 2-59                   | 140087          | 2-130        |

|        |            |        |                         |
|--------|------------|--------|-------------------------|
| 140319 | 2-29       | 142545 | 2-38, 2-45              |
| 140328 | 2-168      | 142549 | 2-64                    |
| 140330 | 2-168      | 142550 | 2-64                    |
| 140829 | 2-44       | 142551 | 2-64                    |
| 140893 | 2-17       | 142553 | 2-38, 2-45, 2-130       |
| 141456 | 2-108      | 142895 | 2-169                   |
| 141547 | 2-108      | 143100 | 2-33                    |
| 141607 | 2-62       | 143101 | 2-33                    |
| 141609 | 2-4        | 143102 | 2-33                    |
| 141626 | 2-130      | 143103 | 2-33, 2-38, 2-45        |
| 141628 | 2-13       | 143104 | 2-33, 2-38, 2-45        |
| 141629 | 2-13       | 143105 | 2-33                    |
| 141636 | 2-13       | 143106 | 2-33                    |
| 141637 | 2-13       | 143107 | 2-33                    |
| 141708 | 2-54       | 143108 | 2-33                    |
| 142050 | 2-21       | 143109 | 2-33                    |
| 142053 | 2-21       | 143110 | 2-33                    |
| 142068 | 2-15       | 143111 | 2-33                    |
| 142270 | 2-144      | 143112 | 2-33                    |
| 142441 | 2-38, 2-44 | 143113 | 2-33, 2-38, 2-45, 2-162 |
| 142442 | 2-38, 2-44 | 143114 | 2-33, 2-38, 2-45        |
| 142443 | 2-38, 2-44 | 143115 | 2-33, 2-38, 2-45        |
| 142444 | 2-38       | 143116 | 2-33, 2-38, 2-45        |
| 142446 | 2-38, 2-44 | 143117 | 2-33, 2-38, 2-45        |
| 142447 | 2-38, 2-44 | 143118 | 2-33, 2-38, 2-45        |
| 142448 | 2-44       | 143119 | 2-33                    |
| 142450 | 2-44       | 143120 | 2-33                    |
| 142451 | 2-44       | 143122 | 2-33, 2-38, 2-45        |
| 142454 | 2-38       | 143125 | 2-33                    |
| 142483 | 2-19       | 143127 | 2-33                    |
| 142484 | 2-19       | 143128 | 2-33, 2-130             |
| 142485 | 2-19       | 143160 | 2-19                    |
| 142486 | 2-19       | 143161 | 2-19                    |
| 142526 | 2-168      | 143182 | 2-38                    |
| 142529 | 2-168      | 143246 | 2-71                    |
| 142530 | 2-168      | 143688 | 2-38                    |
| 142532 | 2-157      | 144608 | 2-162                   |
| 142534 | 2-157      | 144613 | 2-44                    |

## NUMERICAL INDEX

|        |                                    |                 |                                                                                                                                       |
|--------|------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 144614 | 2-38, 2-45                         | 146998          | 2-88                                                                                                                                  |
| 144629 | 2-88                               | 147193          | 2-88                                                                                                                                  |
| 144661 | 2-22                               | 147315          | 2-19                                                                                                                                  |
| 144662 | 2-21                               | 147464          | 2-60                                                                                                                                  |
| 144663 | 2-23                               | 149543          | 2-169                                                                                                                                 |
| 144664 | 2-21                               | 15009           | 2-166                                                                                                                                 |
| 144665 | 2-24                               | 1-510-010001    | 2-4, 2-15, 2-33, 2-37, 2-44, 2-59, 2-66, 2-74, 2-114, 2-116, 2-118, 2-134, 2-149                                                      |
| 144666 | 2-21                               | 1-510-010003-09 | 2-21                                                                                                                                  |
| 144667 | 2-25                               | 1-511-010001-07 | 2-102                                                                                                                                 |
| 144668 | 2-21                               | 1-511-010001-14 | 2-37                                                                                                                                  |
| 144669 | 2-26                               | 1-512-010003-02 | 2-68, 2-71, 2-105                                                                                                                     |
| 144670 | 2-21                               | 1-512-010004-03 | 2-68, 2-71, 2-144                                                                                                                     |
| 144671 | 2-27                               | 1-512-010005-01 | 2-4, 2-37, 2-48, 2-50, 2-52, 2-62, 2-162, 2-164, 2-168                                                                                |
| 144672 | 2-21                               | 1-512-010005-03 | 2-4, 2-114, 2-134, 2-160, 2-162, 2-168                                                                                                |
| 144673 | 2-15, 2-21                         | 1-512-010005-05 | 2-7, 2-31, 2-59, 2-67, 2-74, 2-131, 2-143, 2-151, 2-157, 2-160                                                                        |
| 144674 | 2-15, 2-21                         | 1-512-010005-09 | 2-4, 2-7, 2-31, 2-37, 2-67, 2-71, 2-74, 2-82, 2-88, 2-94, 2-102, 2-105, 2-112, 2-116, 2-118, 2-143, 2-145, 2-147, 2-152, 2-156, 2-168 |
| 144675 | 2-15, 2-21                         | 1-512-010005-13 | 2-37, 2-67, 2-71, 2-74, 2-94, 2-100, 2-106, 2-131, 2-132, 2-134, 2-158                                                                |
| 144676 | 2-15, 2-21                         | 1-512-010005-15 | 2-11, 2-44, 2-88, 2-94                                                                                                                |
| 144677 | 2-15, 2-21                         | 1-512-010005-19 | 2-146, 2-155                                                                                                                          |
| 144718 | 2-162                              | 1-512-010007-03 | 2-37, 2-44, 2-50                                                                                                                      |
| 144979 | 2-56                               | 1-512-010007-05 | 2-37, 2-44, 2-59, 2-68, 2-71, 2-82, 2-106                                                                                             |
| 145014 | 2-38                               | 1-512-010007-09 | 2-54                                                                                                                                  |
| 145416 | 2-38                               | 1-512-010007-11 | 2-102                                                                                                                                 |
| 145532 | 2-38                               | 1-512-010007-12 | 2-68, 2-71                                                                                                                            |
| 146834 | 2-22                               | 1-533-010001    | 2-10                                                                                                                                  |
| 146836 | 2-22                               | 153755          | 2-151                                                                                                                                 |
| 146837 | 2-23                               | 154166          | 2-79                                                                                                                                  |
| 146839 | 2-23                               | 1-557-010014    | 2-7                                                                                                                                   |
| 146840 | 2-24                               | 1-557-010362-54 | 2-15                                                                                                                                  |
| 146842 | 2-24                               | 1-557-010362-63 | 2-7, 2-10, 2-151, 2-154                                                                                                               |
| 146843 | 2-25                               | 1-560-010002-01 | 2-68                                                                                                                                  |
| 146845 | 2-25                               | 1-560-010002-02 | 2-37, 2-59, 2-148                                                                                                                     |
| 146846 | 2-26                               |                 |                                                                                                                                       |
| 146848 | 2-26                               |                 |                                                                                                                                       |
| 146849 | 2-27                               |                 |                                                                                                                                       |
| 146851 | 2-27                               |                 |                                                                                                                                       |
| 146854 | 2-22, 2-23, 2-24, 2-25, 2-26, 2-27 |                 |                                                                                                                                       |
| 146929 | 2-168                              |                 |                                                                                                                                       |

|                 |                                            |                 |                                                          |
|-----------------|--------------------------------------------|-----------------|----------------------------------------------------------|
| 1-560-010002-03 | 2-59, 2-144                                | 1-654-010051-08 | 2-59                                                     |
| 1-560-010002-04 | 2-31, 2-59, 2-62                           | 1-654-010051-09 | 2-15, 2-143, 2-160                                       |
| 1-560-010002-05 | 2-31, 2-59                                 | 1-654-010051-10 | 2-131                                                    |
| 1-560-010002-07 | 2-31                                       | 1-654-010055-01 | 2-68, 2-71, 2-82, 2-147                                  |
| 156528          | 2-108                                      | 1-654-010055-02 | 2-21, 2-102, 2-144, 2-146, 2-154, 2-168                  |
| 156655          | 2-56                                       | 1-654-010055-03 | 2-7, 2-31, 2-37, 2-68, 2-112, 2-116, 2-118, 2-143, 2-152 |
| 1-573-010476    | 2-7, 2-129                                 | 1-654-010055-04 | 2-31, 2-66, 2-71, 2-74, 2-105, 2-145                     |
| 1-573-010477    | 2-129                                      | 1-654-010055-05 | 2-71                                                     |
| 1-573-010480    | 2-7, 2-129                                 | 1-654-010055-07 | 2-10, 2-74                                               |
| 1-573-010481    | 2-129                                      | 1-654-010055-09 | 2-11, 2-144, 2-147                                       |
| 160094          | 2-102                                      | 1-654-010055-10 | 2-146                                                    |
| 161573          | 2-102                                      | 1-654-010055-11 | 2-4                                                      |
| 1-626-010002-03 | 2-114                                      | 1-654-010055-13 | 2-7, 2-156                                               |
| 1-626-010002-06 | 2-114, 2-134                               | 1-654-010055-15 | 2-147                                                    |
| 1-630-010021-01 | 2-15                                       | 1-654-010055-16 | 2-67, 2-74                                               |
| 1-630-010021-02 | 2-4                                        | 1-654-010055-17 | 2-88, 2-94, 2-105                                        |
| 163472          | 2-79                                       | 1-654-010055-18 | 2-147                                                    |
| 163502          | 2-138                                      | 1-654-010059-01 | 2-37, 2-116, 2-118                                       |
| 1-647-010004177 | 2-10                                       | 1-654-010059-03 | 2-131, 2-132, 2-134                                      |
| 1-647-010004225 | 2-10, 2-13                                 | 1-654-010059-05 | 2-94, 2-132, 2-134                                       |
| 1-647-010004255 | 2-4, 2-67, 2-71, 2-74                      | 1-654-010059-09 | 2-100                                                    |
| 1-654-010024014 | 2-68, 2-71, 2-105                          | 1-654-010059-11 | 2-158                                                    |
| 1-654-010024055 | 2-71                                       | 1-654-010059-15 | 2-67, 2-71, 2-74                                         |
| 1-654-010024079 | 2-94                                       | 1-654-010059-21 | 2-106                                                    |
| 1-654-010027-7  | 2-62                                       | 1-654-010061-03 | 2-21                                                     |
| 1-654-010032-4  | 2-37, 2-44                                 | 1-654-010061-05 | 2-11, 2-94                                               |
| 1-654-010036-05 | 2-67, 2-71, 2-105                          | 1-654-010061-07 | 2-15, 2-88                                               |
| 1-654-010047-04 | 2-48, 2-50, 2-52, 2-102, 2-166             | 1-654-010065-15 | 2-155                                                    |
| 1-654-010047-06 | 2-4, 2-59, 2-105, 2-143, 2-162, 2-168      | 1-654-010141-04 | 2-67, 2-71, 2-105                                        |
| 1-654-010047-07 | 2-37, 2-164                                | 1-654-010147-06 | 2-4                                                      |
| 1-654-010049-03 | 2-64                                       | 1-654-010158-1  | 2-37, 2-44                                               |
| 1-654-010049-05 | 2-4, 2-162, 2-168                          | 1-656-010003051 | 2-37, 2-44, 2-50                                         |
| 1-654-010049-11 | 2-114, 2-134, 2-160                        | 1-656-010003053 | 2-68                                                     |
| 1-654-010051-05 | 2-4, 2-17, 2-114, 2-131, 2-134             | 165768          | 2-121                                                    |
| 1-654-010051-06 | 2-7, 2-31, 2-67, 2-74, 2-143, 2-151, 2-157 | 165769          | 2-121                                                    |
| 1-654-010051-07 | 2-15, 2-37, 2-44, 2-111                    | 166000          | 2-169                                                    |

## NUMERICAL INDEX

|                 |                                                        |                 |                                                                                                             |
|-----------------|--------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------|
| 166001          | 2-169                                                  | 18034           | 2-79                                                                                                        |
| 166002          | 2-169                                                  | 18035           | 2-79                                                                                                        |
| 166766          | 2-144                                                  | 18039           | 2-76                                                                                                        |
| 166924          | 2-169                                                  | 18044           | 2-76                                                                                                        |
| 167-0022        | 2-13                                                   | 18047           | 2-76, 2-79                                                                                                  |
| 167691          | 2-29                                                   | 18056           | 2-77                                                                                                        |
| 167692          | 2-48, 2-50, 2-52, 2-68, 2-72, 2-88, 2-94, 2-105, 2-148 | 180584          | 2-108                                                                                                       |
| 169531          | 2-143                                                  | 180585          | 2-108                                                                                                       |
| 169532          | 2-144                                                  | 180586          | 2-108                                                                                                       |
| 170109          | 2-144                                                  | 18078           | 2-76                                                                                                        |
| 170110          | 2-144                                                  | 1-833-010001    | 2-48, 2-50, 2-67, 2-88, 2-94, 2-102, 2-105                                                                  |
| 170111          | 2-144                                                  | 1-833-010002    | 2-48, 2-50, 2-59, 2-62, 2-148                                                                               |
| 170112          | 2-144                                                  | 1-833-010003    | 2-59, 2-62                                                                                                  |
| 171963          | 2-56                                                   | 1-843-010014    | 2-37, 2-44, 2-64                                                                                            |
| 171964          | 2-56                                                   | 1-861-010032-01 | 2-68, 2-71, 2-105                                                                                           |
| 172903          | 2-108                                                  | 1-861-010032-03 | 2-94                                                                                                        |
| 1-765-010065    | 2-67, 2-71, 2-105                                      | 1-861-010032-06 | 2-4, 2-68, 2-106, 2-168                                                                                     |
| 176681          | 2-108                                                  | 1-861-010032-07 | 2-37, 2-59, 2-164                                                                                           |
| 1-796-010003-02 | 2-33, 2-44, 2-114                                      | 1-861-010032-08 | 2-4                                                                                                         |
| 1-796-010004-02 | 2-44, 2-48, 2-50                                       | 1-861-010032-09 | 2-114, 2-134, 2-162, 2-168                                                                                  |
| 179649          | 2-114, 2-126                                           | 1-861-010032-10 | 2-17, 2-67, 2-71, 2-74, 2-105                                                                               |
| 179933          | 2-64                                                   | 1-861-010032-11 | 2-4, 2-7, 2-15, 2-38, 2-44, 2-59, 2-111, 2-114, 2-131, 2-134, 2-143, 2-151, 2-157                           |
| 18002           | 2-77, 2-80                                             | 1-861-010032-14 | 2-68, 2-71, 2-82, 2-105, 2-116, 2-118                                                                       |
| 18009           | 2-76                                                   | 1-861-010032-15 | 2-7, 2-10, 2-11, 2-21, 2-66, 2-71, 2-74, 2-88, 2-94, 2-102, 2-143, 2-145, 2-146, 2-147, 2-152, 2-154, 2-168 |
| 18015           | 2-76                                                   | 1-861-010032-18 | 2-68, 2-71, 2-74, 2-94, 2-100                                                                               |
| 18016           | 2-76                                                   | 1-861-010032-19 | 2-102, 2-131                                                                                                |
| 18019           | 2-76                                                   | 1-861-010032-20 | 2-102                                                                                                       |
| 18020           | 2-76                                                   | 1-861-010032-21 | 2-155                                                                                                       |
| 18022           | 2-79                                                   | 1-861-010032-29 | 2-15                                                                                                        |
| 18024           | 2-76                                                   | 1-861-010034-07 | 2-50, 2-68, 2-94                                                                                            |
| 18026           | 2-76                                                   | 1-861-010034-09 | 2-4, 2-38, 2-59, 2-68, 2-71, 2-82, 2-102, 2-106, 2-143                                                      |
| 18027           | 2-76                                                   | 1-861-010034-10 | 2-64                                                                                                        |
| 18028           | 2-76                                                   | 1-861-010034-11 | 2-7, 2-17, 2-111                                                                                            |
| 18029           | 2-76                                                   | 1-861-010034-13 | 2-31, 2-54, 2-68, 2-74, 2-144                                                                               |
| 18030           | 2-76                                                   |                 |                                                                                                             |
| 18032           | 2-76                                                   |                 |                                                                                                             |
| 18033           | 2-79                                                   |                 |                                                                                                             |

|                 |                            |              |                                                       |
|-----------------|----------------------------|--------------|-------------------------------------------------------|
| 1-861-010034-15 | 2-100, 2-116, 2-118        | 2062-6-4S    | 2-116, 2-118                                          |
| 1-861-010034-17 | 2-44, 2-88                 | 2062-8-6S    | 2-114, 2-134                                          |
| 1-861-010059-21 | 2-15                       | 2062-8-8S    | 2-15, 2-21, 2-105, 2-114, 2-134                       |
| 1-879-010005    | 2-164                      | 20768510010  | 2-126                                                 |
| 1-879-010010    | 2-71, 2-164                | 20787400710  | 2-126                                                 |
| 189318          | 2-38, 2-44                 | 2081-8-4S    | 2-39                                                  |
| 189383          | 2-39, 2-45                 | 2081-8-6S    | 2-62                                                  |
| 19045           | 2-76, 2-79                 | 2083-8-4S    | 2-48, 2-50, 2-148                                     |
| 190700ZP        | 2-39, 2-45                 | 2088-6-6S    | 2-59, 2-62                                            |
| 190701          | 2-39, 2-45                 | 2089-6-6S    | 2-59                                                  |
| 190705ZP        | 2-39, 2-45                 | 2-181-010001 | 2-4, 2-15, 2-33, 2-39, 2-45, 2-66, 2-74, 2-116, 2-118 |
| 190706          | 2-39, 2-45                 | 21925        | 2-76                                                  |
| 1974            | 2-82                       | 2216-12-12S  | 2-153                                                 |
| 1V0208          | 2-114                      | 2240-12-12S  | 2-144                                                 |
| 1V0249          | 2-160                      | 2263         | 2-84                                                  |
| 200702210230    | 2-126                      | 2-272-010109 | 2-67, 2-105, 2-164                                    |
| 200707010070    | 2-126                      | 22752        | 2-76                                                  |
| 200773800350    | 2-126                      | 23078        | 2-77, 2-80                                            |
| 2021-2-4        | 2-39, 2-45                 | 23079        | 2-77                                                  |
| 2024-12-12S     | 2-31, 2-143                | 23081        | 2-77, 2-80                                            |
| 2024-12-8S      | 2-31                       | 23083        | 2-77                                                  |
| 2024-2-4S       | 2-39, 2-45                 | 23085        | 2-77                                                  |
| 202702-10-8S    | 2-15, 2-66, 2-71, 2-74     | 23144        | 2-80                                                  |
| 202702-20-20S   | 2-143                      | 23303        | 2-76                                                  |
| 202702-6-4S     | 2-116, 2-118               | 23367        | 2-79                                                  |
| 202702-6-6S     | 2-114, 2-134               | 23470        | 2-76                                                  |
| 202702-8-8S     | 2-15, 2-88, 2-94           | 2389         | 2-82                                                  |
| 203005-8-8S     | 2-114, 2-134               | 239-3646-3   | 2-166                                                 |
| 203102-12-12S   | 2-114, 2-134, 2-143, 2-160 | 239-3646-4   | 2-71, 2-162, 2-164                                    |
| 2033-4-4S       | 2-118                      | 239-3646-5   | 2-33                                                  |
| 2033-8-8S       | 2-15                       | 239-3650-1   | 2-71, 2-164                                           |
| 2045-4-4S       | 2-45                       | 239-9076-3   | 2-68                                                  |
| 2047-12-12S     | 2-31                       | 2481X        | 2-143                                                 |
| 206209-12-12S   | 2-143                      | 2-557-010006 | 2-10                                                  |
| 2062-10-12S     | 2-17, 2-114                | 2-557-010426 | 2-158                                                 |
| 2062-10-8S      | 2-15, 2-67, 2-71, 2-74     | 2-573-010335 | 2-129                                                 |
| 2062-12-12S     | 2-143, 2-160               | 26331        | 2-33                                                  |
| 2062-16-8S      | 2-31                       |              |                                                       |

## NUMERICAL INDEX

|                 |                         |                 |                                 |
|-----------------|-------------------------|-----------------|---------------------------------|
| 26976           | 2-79                    | 3-242-010189    | 2-15, 2-29                      |
| 2-720-010002    | 2-5                     | 3-242-010205    | 2-116, 2-118, 2-121             |
| 3/8P COUPL      | 2-144                   | 3-272-010017    | 2-33, 2-162, 2-168              |
| 300092          | 2-121                   | 3-272-010018    | 2-67, 2-105                     |
| 3-014-010255    | 2-68, 2-71              | 3-272-010021    | 2-10, 2-72, 2-162, 2-164, 2-166 |
| 3-054-010101    | 2-7                     | 3-272-010157    | 2-72, 2-164                     |
| 3067            | 2-64                    | 3-316-010008    | 2-144                           |
| 3-076-010015    | 2-39                    | 3-348-010048    | 2-68, 2-72, 2-105               |
| 3-120-010124    | 2-143                   | 3-360-010008    | 2-160                           |
| 3-120-010445    | 2-67, 2-71, 2-88, 2-105 | 3-360-010072    | 2-17                            |
| 3-120-010461    | 2-31                    | 3-360-010090    | 2-17                            |
| 3-125-010464    | 2-67, 2-74, 2-157       | 3-368-010125    | 2-105                           |
| 3-125-010465    | 2-67, 2-71              | 3-368-010129    | 2-67, 2-72                      |
| 3-128-010025    | 2-148                   | 3-368-010187    | 2-67, 2-105                     |
| 3-128-010032    | 2-164                   | 3-368-010188    | 2-68, 2-106                     |
| 3-136-010001-01 | 2-67, 2-71, 2-105       | 3-368-010252    | 2-168                           |
| 3-141-010008    | 2-7                     | 3-368-010253    | 2-33, 2-162, 2-168              |
| 3-141-010121    | 2-7                     | 3-384-010020    | 2-59                            |
| 3-141-010155    | 2-7                     | 3-399-010001    | 2-31                            |
| 3-150-010005    | 2-106                   | 3-399-010001006 | 2-144                           |
| 3-150-010186    | 2-67, 2-71, 2-82        | 3-443-010018    | 2-144                           |
| 3-150-010196    | 2-67, 2-71, 2-74        | 346SL           | 2-132, 2-134                    |
| 3-153-010016-XX | 2-94                    | 3-481-010006    | 2-66, 2-74, 2-84                |
| 3-155-010017-4  | 2-66, 2-105             | 3-481-010007    | 2-66, 2-72, 2-74, 2-84          |
| 3-155-010018-6  | 2-66, 2-72, 2-74, 2-105 | 3-482-010249    | 2-7                             |
| 3-156-010008    | 2-72                    | 3-482-010503    | 2-31                            |
| 3-162-010001    | 2-31, 2-143             | 3-485-010001    | 2-39, 2-45                      |
| 3-174-010038    | 2-67, 2-72, 2-74, 2-105 | 3-522-010017    | 2-68, 2-72                      |
| 3-174-010039036 | 2-67, 2-72, 2-74, 2-105 | 3-557-010031    | 2-15                            |
| 3-174-010059    | 2-88, 2-94              | 3-557-010033    | 2-15                            |
| 3-174-010060036 | 2-88, 2-94              | 3-557-010380    | 2-7                             |
| 3-182-010028    | 2-143                   | 3-557-010469    | 2-4                             |
| 3-187-010013    | 2-39                    | 3-557-010470-01 | 2-15                            |
| 32002           | 2-168                   | 3-557-010470-02 | 2-15                            |
| 3-201-010001036 | 2-105                   | 3-557-010474    | 2-67                            |
| 3-201-010002    | 2-4, 2-114              | 3-561-010001    | 2-31                            |
| 3-222-010211    | 2-152                   | 3-565-011688    | 2-68, 2-72                      |
| 3-222-010212    | 2-152                   | 3-573-010031    | 2-39, 2-45, 2-130               |

|                |                               |                 |                        |
|----------------|-------------------------------|-----------------|------------------------|
| 3-573-010040   | 2-129                         | 3-762-010017    | 2-39, 2-45             |
| 3-573-010041   | 2-130                         | 3-765-010050    | 2-143                  |
| 3-573-010042   | 2-129                         | 3-780-010002    | 2-39, 2-48, 2-50, 2-59 |
| 3-573-010043   | 2-130                         | 3-786-010043    | 2-31                   |
| 3-573-010044   | 2-130                         | 3-793-010040    | 2-112                  |
| 3-573-010045   | 2-130                         | 3-793-010041    | 2-112                  |
| 3-573-010046   | 2-130                         | 3-821-010005    | 2-39                   |
| 3-573-010047   | 2-130                         | 3-829-010337    | 2-147                  |
| 3-573-010048   | 2-130                         | 3-831-010151    | 2-67, 2-74             |
| 3-573-010049   | 2-130                         | 3-831-010172    | 2-67, 2-72, 2-74       |
| 3-573-010085   | 2-130                         | 3-831-010182    | 2-67, 2-72, 2-74       |
| 3-573-010189   | 2-130                         | 3-843-010008    | 2-94                   |
| 3-573-010202   | 2-114, 2-130, 2-134           | 3-843-010022    | 2-67, 2-72, 2-105      |
| 3-573-010210   | 2-130                         | 3-843-010034    | 2-50                   |
| 3-573-010299   | 2-130                         | 3-843-010038    | 2-62                   |
| 3-573-010349   | 2-130                         | 3-843-010039-02 | 2-88                   |
| 3-573-010377   | 2-39, 2-45, 2-130             | 3-846-010056    | 2-114, 2-124, 2-134    |
| 3-573-010378   | 2-7, 2-151                    | 3-846-010155    | 2-15                   |
| 3-573-010506   | 2-143                         | 3-870-010097    | 2-64                   |
| 3-591-010001   | 2-31                          | 3-870-010107    | 2-64                   |
| 3-612-010015-1 | 2-147                         | 3-873-010122    | 2-66, 2-74, 2-76       |
| 3-612-010015-2 | 2-147                         | 3-873-010123    | 2-66, 2-72, 2-74, 2-79 |
| 3-612-010016   | 2-147                         | 3-873-010124    | 2-67, 2-74             |
| 3-626-010004   | 2-67, 2-72, 2-88, 2-105       | 3-873-010140    | 2-66, 2-157            |
| 3-642-010134   | 2-4, 2-156                    | 3-873-010144    | 2-66                   |
| 3-642-010150   | 2-67, 2-74                    | 3-873-010145    | 2-67                   |
| 3-645-010059   | 2-4, 2-156                    | 3-873-010154    | 2-96                   |
| 3-645-010084   | 2-39                          | 3-873-010172    | 2-88, 2-102            |
| 3-659-010012   | 2-64                          | 3-873-010173    | 2-88, 2-90             |
| 3-711-010025   | 2-7                           | 3-876-010017    | 2-94                   |
| 3-711-010120   | 2-106                         | 4009            | 2-64                   |
| 3-720-010010   | 2-67, 2-74, 2-88, 2-94, 2-105 | 4010520         | 2-124                  |
| 3-720-010035   | 2-68, 2-72                    | 4010530         | 2-124                  |
| 3-720-010042   | 2-67, 2-72, 2-105             | 5029            | 2-39, 2-45             |
| 3-725-010058   | 2-132                         | 514-9045-26     | 2-144                  |
| 3-755-010080   | 2-7                           | 514-9073-18     | 2-144                  |
| 3-755-010189   | 2-44                          | 516-22PTL       | 2-10, 2-150            |
| 3-755-010189-1 | 2-38, 2-44                    | 5210            | 2-4                    |

## NUMERICAL INDEX

---

55B61 ..... 2-59, 2-62, 2-88  
55B61-6 ..... 2-62  
55B61-7 ..... 2-62  
56D4 ..... 2-59  
60004 ..... 2-166  
60700 ..... 2-166, 2-168  
61333 ..... 2-77  
622-3511-008 ..... 2-39, 2-45  
63680 ..... 2-64  
6405000 ..... 2-124  
64181 ..... 2-168  
6-557-010163 ..... 2-7, 2-10, 2-151, 2-154  
660580002 ..... 2-19  
660580003 ..... 2-19  
660580004 ..... 2-19  
660580005 ..... 2-19  
6828 ..... 2-31  
70040 ..... 2-108  
70042 ..... 2-108  
750-029 ..... 2-68, 2-106, 2-162, 2-168  
758-181 ..... 2-59  
7HCGHT500 ..... 2-67, 2-72, 2-74, 2-105  
805-2 ..... 2-59  
81006 ..... 2-76  
81009 ..... 2-76  
81025 ..... 2-76  
81077 ..... 2-79  
81078 ..... 2-79  
81080 ..... 2-79  
81081 ..... 2-79  
81530 ..... 2-76  
88005 ..... 2-80  
900 08 186 ..... 2-54  
900 45 040 ..... 2-54  
900 54 007 ..... 2-48, 2-52  
900-08-139 ..... 2-54  
900-25-288 ..... 2-54  
900-54-079 ..... 2-50

900598-12S ..... 2-143  
90508009 ..... 2-54  
905-54-107 ..... 2-48, 2-50, 2-52, 2-68, 2-72, 2-88, 2-94,  
2-105, 2-148  
905-57-129 ..... 2-54  
934 00 149 ..... 2-54  
934 00 492 ..... 2-54  
934-00-506 ..... 2-54  
936 00 077 ..... 2-54  
94992 ..... 2-166  
95 ..... 2-160

---

### A

A6760S ..... 2-148  
AA-1807 ..... 2-100

---

### B

B7-141-003 ..... 2-7

---

### C

C2001 ..... 2-82  
C3069X12 ..... 2-31  
CO-975-74-2000 ..... 2-10

---

### F

F-100852 ..... 2-68

---

### H

HM212011 ..... 2-64  
HM212049 ..... 2-64  
HM218210 ..... 2-64  
HM218248 ..... 2-64

## K

|                  |      |
|------------------|------|
| K71-101-00 ..... | 2-56 |
| K71-460-00 ..... | 2-56 |

## P

|                  |      |
|------------------|------|
| PMCK-22000 ..... | 2-29 |
| PTO .....        | 2-31 |

## R

|                   |            |
|-------------------|------------|
| RTR7999X4ZP ..... | 2-68, 2-72 |
|-------------------|------------|

## S

|               |                    |
|---------------|--------------------|
| STP-147 ..... | 2-33, 2-162, 2-164 |
| STP-164 ..... | 2-33, 2-162, 2-164 |

## T

|             |      |
|-------------|------|
| TR573 ..... | 2-64 |
|-------------|------|

## W

|               |              |
|---------------|--------------|
| W214S-1 ..... | 2-162, 2-166 |
|---------------|--------------|

TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)



TM Trailer Sales, Inc. - Your Lowboy Dealer - [www.lowboydealer.com](http://www.lowboydealer.com)



# Intertek

Equipment from Landoll Corporation is built to exacting standards ensured by ISO 9001 registration at all Landoll manufacturing facilities.

Model 410/425/435B  
Semitrailer  
Parts Manual

Re-Order Part Number F-472-0807

**LANDOLL CORPORATION**

1900 North Street  
Marysville, Kansas 66508  
(785) 562-5381

**800-428-5655 ~ WWW.LANDOLL.COM**



Copyright 2010. Landoll Corporation

"All rights reserved, including the right to reproduce this material or portions thereof in any form"