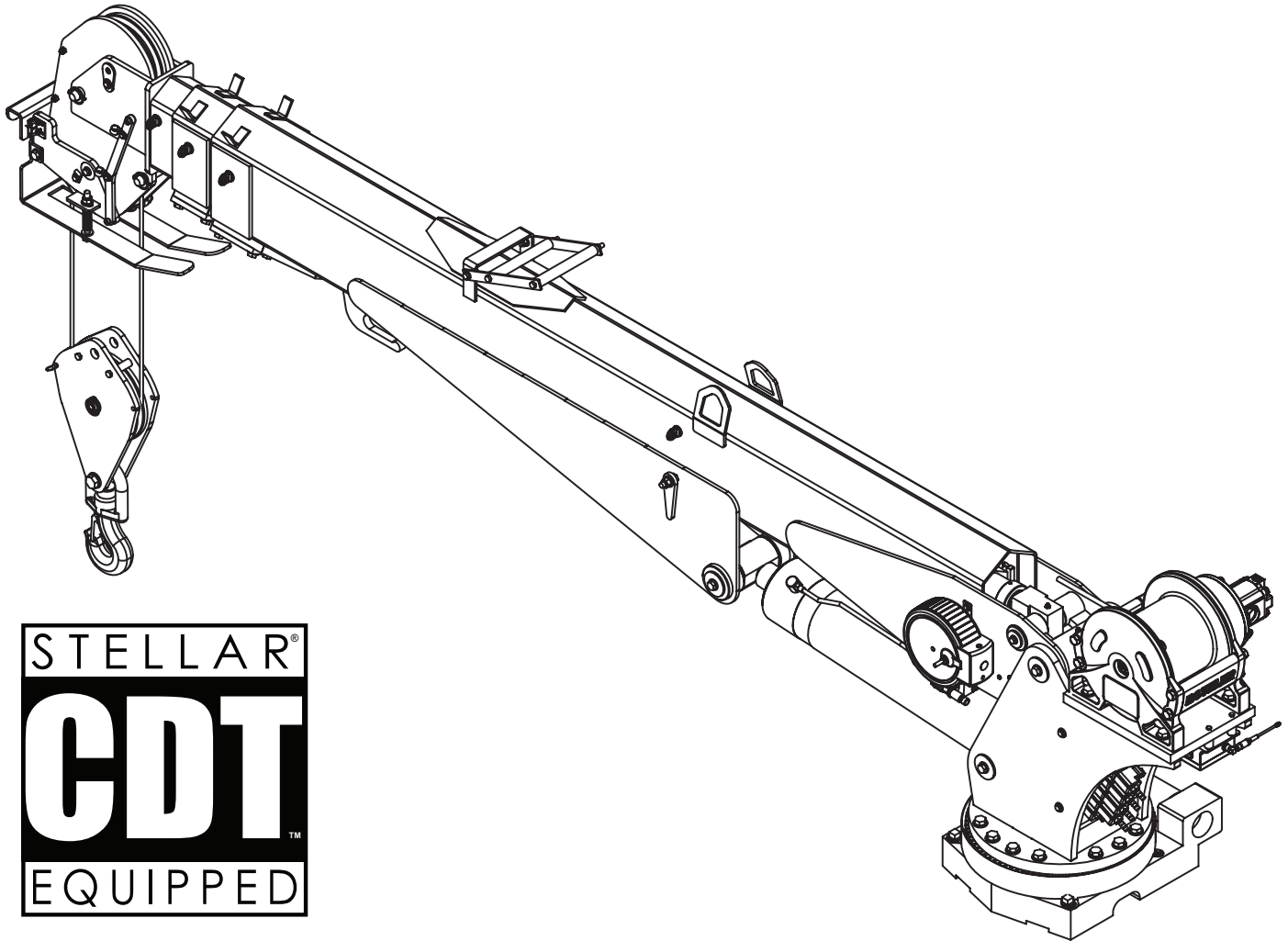




Model 10621 Telescopic Crane Owner's Manual

Installation • Assembly Drawings • Parts



Notice: A copy of this manual must remain with the equipment at all times.
For a printable download copy, please visit: www.stellarindustries.com

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Rev 1
PN 89695

Model 10621 Manual Revisions

| Date of Revision | Section Revised | Description of Revision |
|------------------|---------------------------------|--|
| 3/23/15 | Chapter 3: Assembly Drawings | New Base, Gear Bearing, Mast Assemblies. |
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Serial Tag Location

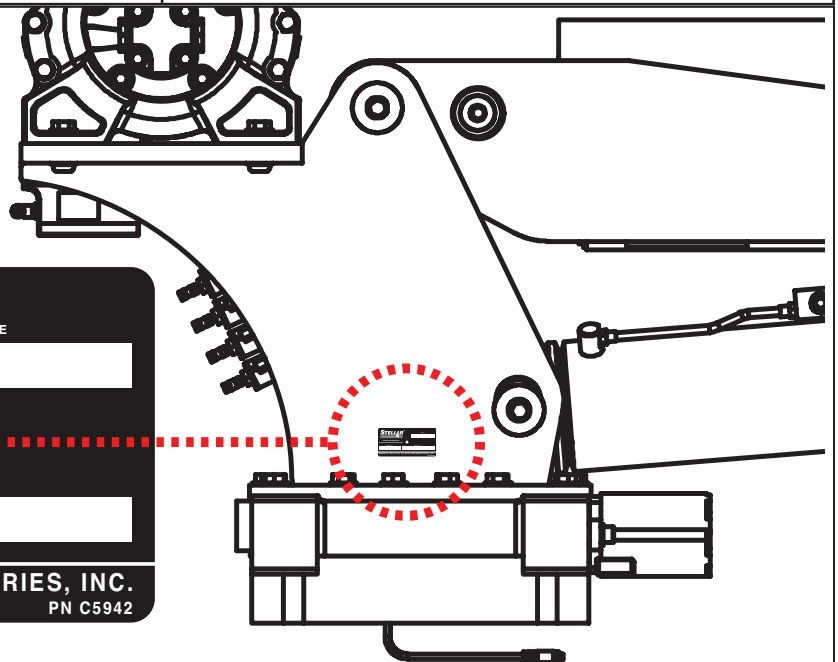
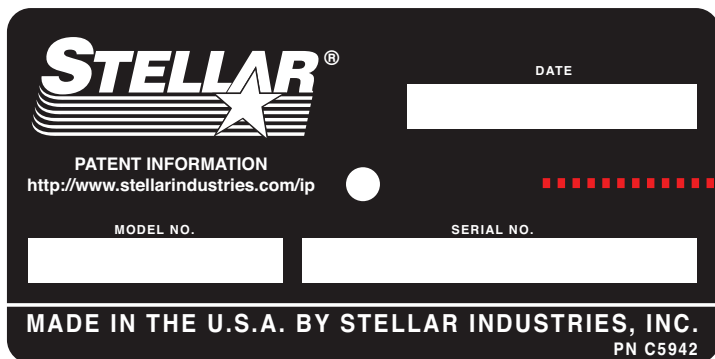


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Introduction

A copy of this manual is provided with every crane and can be found in the hard plastic manual case that is installed on the chassis. A copy of this manual shall remain with the crane at all times.

Throughout the manual, three signal words will be used to bring attention to important items:

NOTICE

A NOTICE signal word indicates a practice not related to physical injury.

⚠ WARNING

A WARNING signal word indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ DANGER

A DANGER signal word indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Information contained within this manual does not cover operation, maintenance, or troubleshooting. Please refer to the General Light Duty Crane Manual for details on these items.

This manual is not binding. Stellar Industries, Inc. reserves the right to change, at any time, any or all of the items, components, and parts deemed necessary for product improvement or commercial/production purposes. This right is kept with no requirement or obligation for immediate mandatory updating of this manual.

In closing:

If more information is required or technical assistance is needed, or if you feel that any part of this manual is unclear or incorrect, please contact the Stellar Customer Service Department by phone at 800-321-3741 or email at service@stellarindustries.com.

**For Technical Questions, Information, Parts, or Warranty, Call Toll-Free at
800-321-3741**

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m. CST

Or email at the following addresses:

Technical Questions, and Information

service@stellarindustries.com

Order Parts

parts@stellarindustries.com

Warranty Information

warranty@stellarindustries.com

Chapter 1 - Specifications

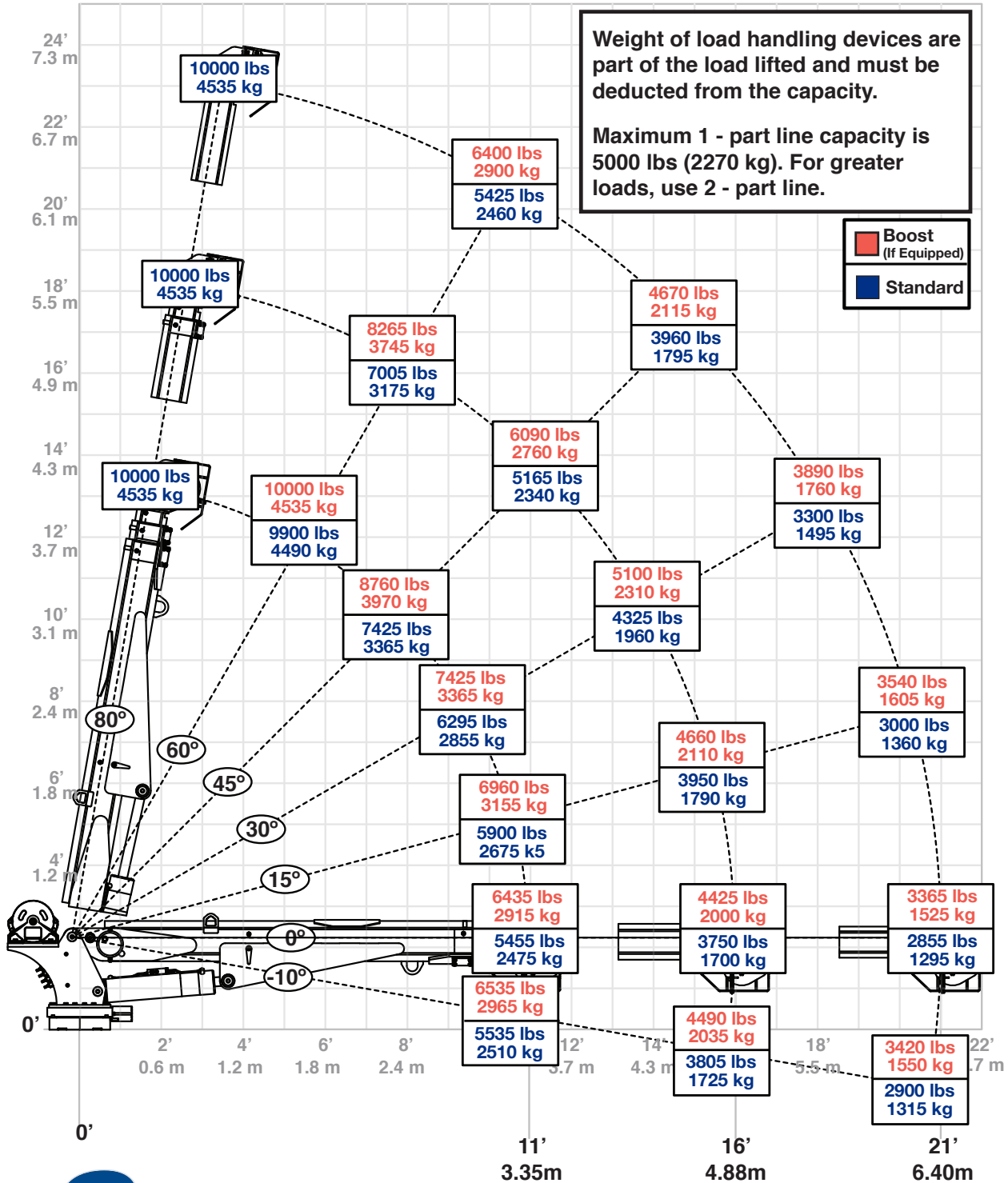
Model 10621 Specifications

| | | |
|-----------------------------|---|---|
| Crane Rating*: | 70,800 ft-lb (9.79 TM) | |
| Standard Boom Length: | 11'0" (3.35 m) from CL of Crane | |
| Boom Extension: | 1st Stage: Hydraulic | 60" (152.4 cm) |
| | 2nd Stage: Hydraulic | 60" (152.4 cm) |
| Maximum Horizontal Reach: | 21' 0" (6.40 m) from CL of Crane | |
| Maximum Vertical Lift: | 23' 0" (7.01 m) from Crane Base | |
| Stowed Height (Crane Only): | 37.75" (95.5 cm) | |
| Required Mounting Space: | 20" x 21" (50.8 cm x 53.3 cm) | |
| Approximate Crane Weight: | 10621 Standard | 2,235 lbs (1,015 kg) |
| Controls: | Radio control standard for all functions. | |
| Wire Rope: | 7/16" (1.11 cm) 6X19 IWRC-DGXXIP X 100' (30.48 m) | |
| Boom Elevation: | -10° to +80° | |
| Winch Specifications | | |
| Line Pull Speed: | 60 ft/min (18.29 m/min) | |
| Max. Single Part Line: | 5,000 lbs (2,265 kg) | |
| Max. Double Part Line: | 10,000 lbs (4,535 kg) | |
| Rotation (Worm Gear): | 400° Power | |
| Lifting Capacity**: | 10,000 lbs @ 7' (4,535 kg @ 2.13 m) | |
| | 3,365 lbs @ 21' (1,525 kg @ 6.40 m) | |
| Power Supply: | PTO & Pump: | 8 gpm @ 3,000 psi (30.3 lpm @ 207 bar) |

*Crane rating in Boost Mode. Normal crane rating is 60,000 ft-lbs (8.30 TM).

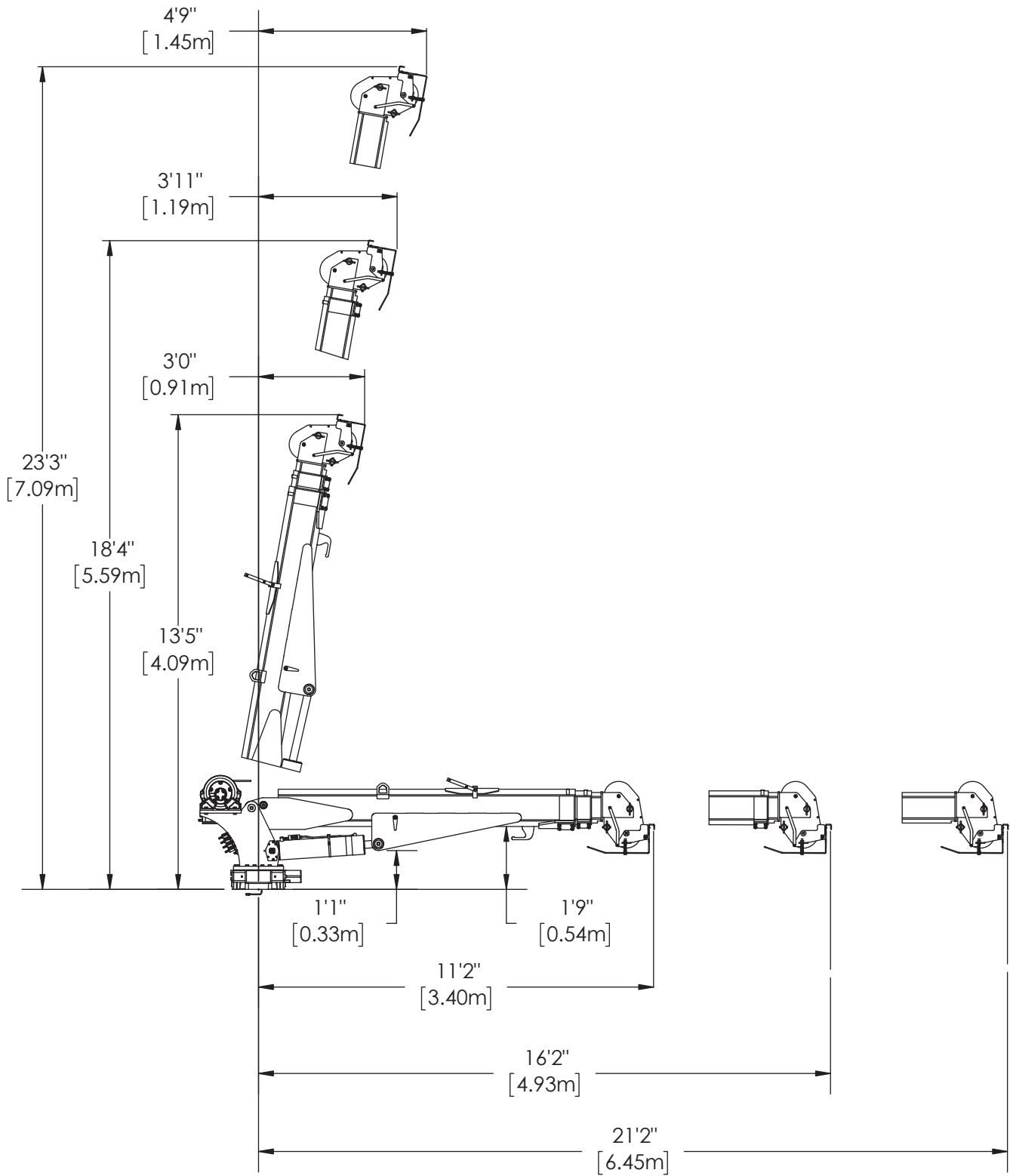
**Maximum capacities in Boost Mode.

Capacity Chart - Decal PN 72812

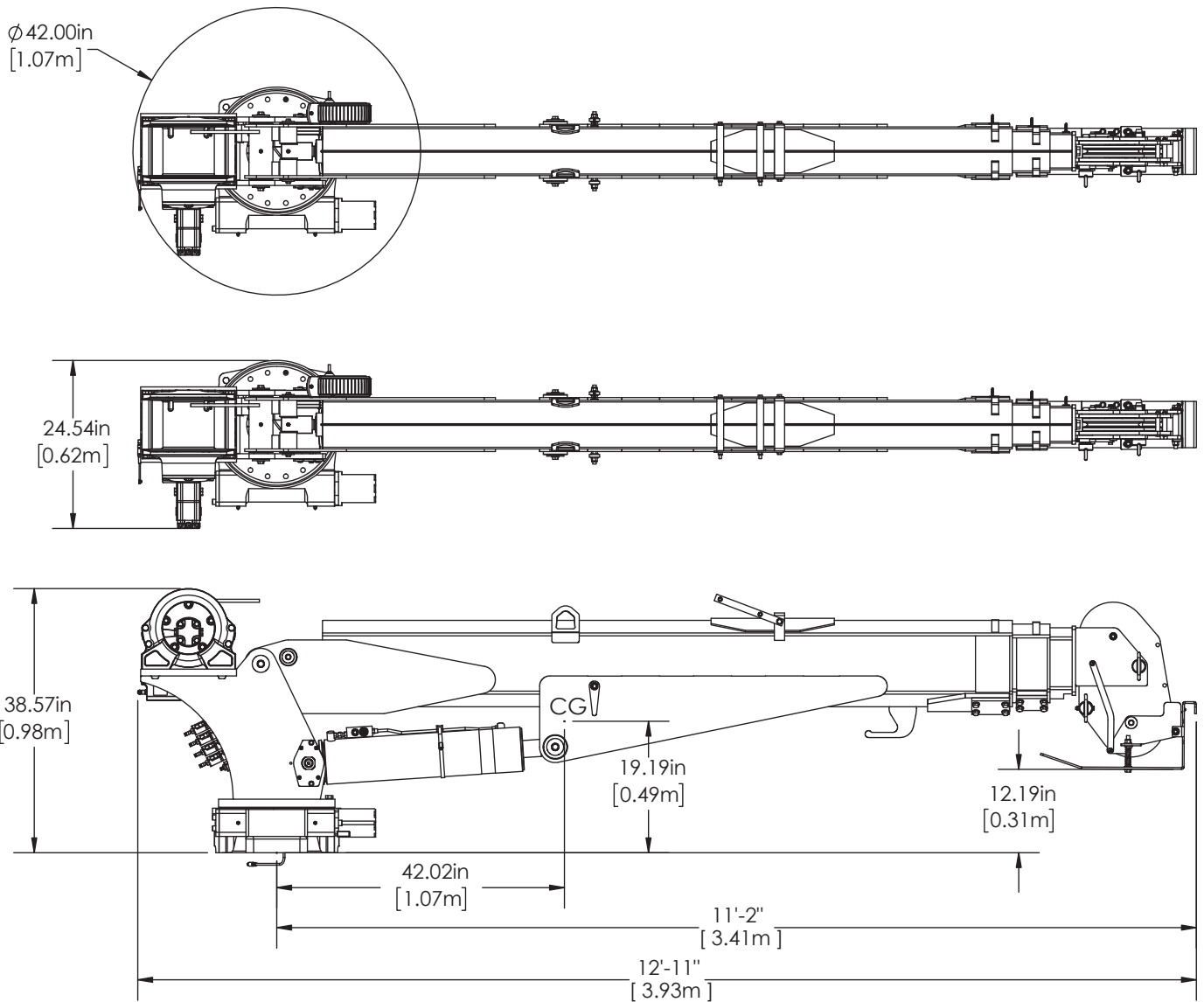


PN 72812-Rev A

Dimensional Drawing 1



Dimensional Drawing 2



Chapter 2 - Installation

General Installation

This chapter is designed to serve as a general guide for the installation of a Stellar 10621 Crane on a Stellar Service Body. Each installation is considered unique so certain portions of this chapter may or may not apply to your direct application. If a question should arise during the installation process, please contact Stellar Customer Service at (800) 321 3741.

This crane is designed for use with a Stellar Service Body installed on a vehicle that meets the minimum chassis requirements of the crane. It is the installer's responsibility to assure that the crane is mounted on a platform that will support the maximum crane rating of this crane.

⚠ WARNING Do not install this crane on a body not capable of handling the loads imposed on it. Failure to do so may result in serious injury or death.

NOTICE When installing welder units to the service bodies, it is highly recommended that a surge protector is installed on the chassis batteries to protect the crane radio receiver, wiring and other electronic devices from an unexpected electrical spike or surge. Failure to do so could result in extensive damage to the service body and crane electrical circuit.

Installer Notice

According to Federal Law (49 cfr part 571), each final-stage manufacturer shall complete the vehicle in such a manner that it conforms to the standards in effect on the date of manufacture of the incomplete vehicle, the date of final completion, or a date between those two dates. This requirement shall, however, be superseded by any conflicting provisions of a standard that applies by its terms to vehicles manufactured in two or more stages.

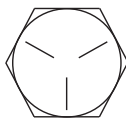
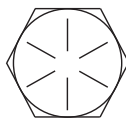
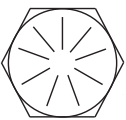
Therefore, the installer of Stellar® Cranes and Bodies is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations. They are required to certify that the vehicle is in compliance with the Federal Motor Vehicle Safety Standards and other regulations issued under the National Traffic and Motor Vehicle Safety Act.

Please reference the Code of Federal Regulations, title 49 - Transportation, Volume 5 (400-999), for further information, or visit <http://www.gpoaccess.gov/nara/index.html> for the full text of Code of Federal Regulations.

Torque Data Chart

When using the torque data in the chart, the following rules should be observed:

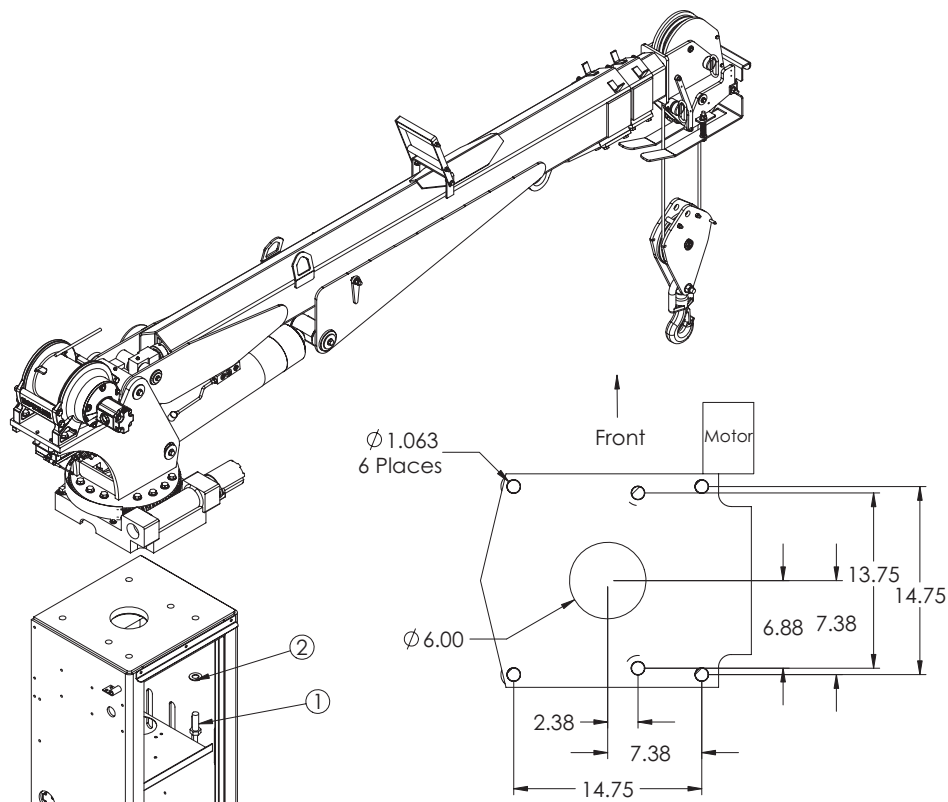
- Bolt manufacturer's particular specifications should be consulted when provided.
- Flat washers of equal strength must be used.
- All torque measurements are given in foot-pounds. To convert to inch-pounds, multiply by 12.
- Torque values specified are for bolts with residual oils or no special lubricants applied. If special lubricants of high stress ability, such as Never-Seez compound graphite and oil, molybdenum disulphite, colloidal copper or white lead are applied, multiply the torque values in the charts by the factor .90. The use of Loctite does not affect the torque values listed above.

| | | GRADE 5 | | GRADE 8 | | GRADE 9 |
|----------------|-------------------|--|----------------|---|----------------|---|
| | |  | |  | |  |
| Size (DIA-TPI) | Bolt DIA (Inches) | Plain (Ft-Lb) | Plated (Ft-Lb) | Plain (Ft-Lb) | Plated (Ft-Lb) | Plated (Ft-Lb) |
| 5/16-18 | 0.3125 | 17 | 13 | 25 | 18 | 22 |
| 3/8-16 | 0.3750 | 31 | 23 | 44 | 33 | 39 |
| 7/16-14 | 0.4375 | 49 | 37 | 70 | 52 | 63 |
| 1/2-13 | 0.5000 | 75 | 57 | 105 | 80 | 96 |
| 9/16-12 | 0.5625 | 110 | 82 | 155 | 115 | 139 |
| 5/8-11 | 0.6250 | 150 | 115 | 220 | 160 | 192 |
| 3/4-10 | 0.7500 | 265 | 200 | 375 | 280 | 340 |
| 7/8-9 | 0.8750 | 395 | 295 | 605 | 455 | 549 |
| 1-8 | 1.000 | 590 | 445 | 910 | 680 | 823 |
| 1 1/8-7 | 1.1250 | 795 | 595 | 1290 | 965 | 1167 |
| 1 1/4-7 | 1.2500 | 1120 | 840 | 1815 | 1360 | 1646 |
| 1 3/8-6 | 1.3750 | 1470 | 1100 | 2380 | 1780 | 2158 |
| 1 1/2-6 | 1.500 | 1950 | 1460 | 3160 | 2370 | 2865 |

- Torque values for socket-head capscrews are the same as for Grade 8 capscrews.
- Do not use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.
- Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.
- Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.
- Tighten plastic insert or crimped steel-type lock nuts to approximately 110 percent of the dry torque values shown in the chart below, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value. *Note: "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without lubrication. Tighten lubricated bolts to approximately 80% of dry bolts.*

Installation Overview

1. Determine that the mounting location for the 10621 crane is at least 20" x 21" (50.8 x 50.8 cm).
2. Use the detail below to drill 1.06" diameter holes into the mounting plate. Run tap on the threads of the base to be sure they are clean.
3. Use a crane or lifting device capable of lifting the weight of the Stellar® crane. The 10621 weighs approximately 2150 lbs (975 kg). **Note: cranes are shipped with rotation positioned at 200 degrees of 400 degree system.** This will allow for easy installation of the crane and permanent connection of all hydraulic and electrical components prior to repositioning into the crane saddle.
4. Connect straps or chain from the lifting device to the lifting rings on the Stellar 10621.
5. Use six (6) 3" x 1" #8 bolts and six (6) #8 flat washers.
6. Install a washer on each bolt.
7. Apply Loctite Thread locker #277 to the bolts.
8. Using the lifting device, lower the 10621 just above the crane compartment and start the bolts. Have someone assist in leveling the crane. **Note: the rotation motor should be to the door side of crane compartment and the boom should be extended back over the rear bumper.**
9. Secure the crane using the mounting hardware provided. **Note: longer or shorter cap screws may be required – recommended thread engagement into crane base is 1.75" – use grade 8, zinc plated cap screws only.**
10. Torque the cap screws to 680 ft-lbs.
11. Remove supporting crane.
12. Hook-up hydraulics and electrical using the schematics provided in this chapter.

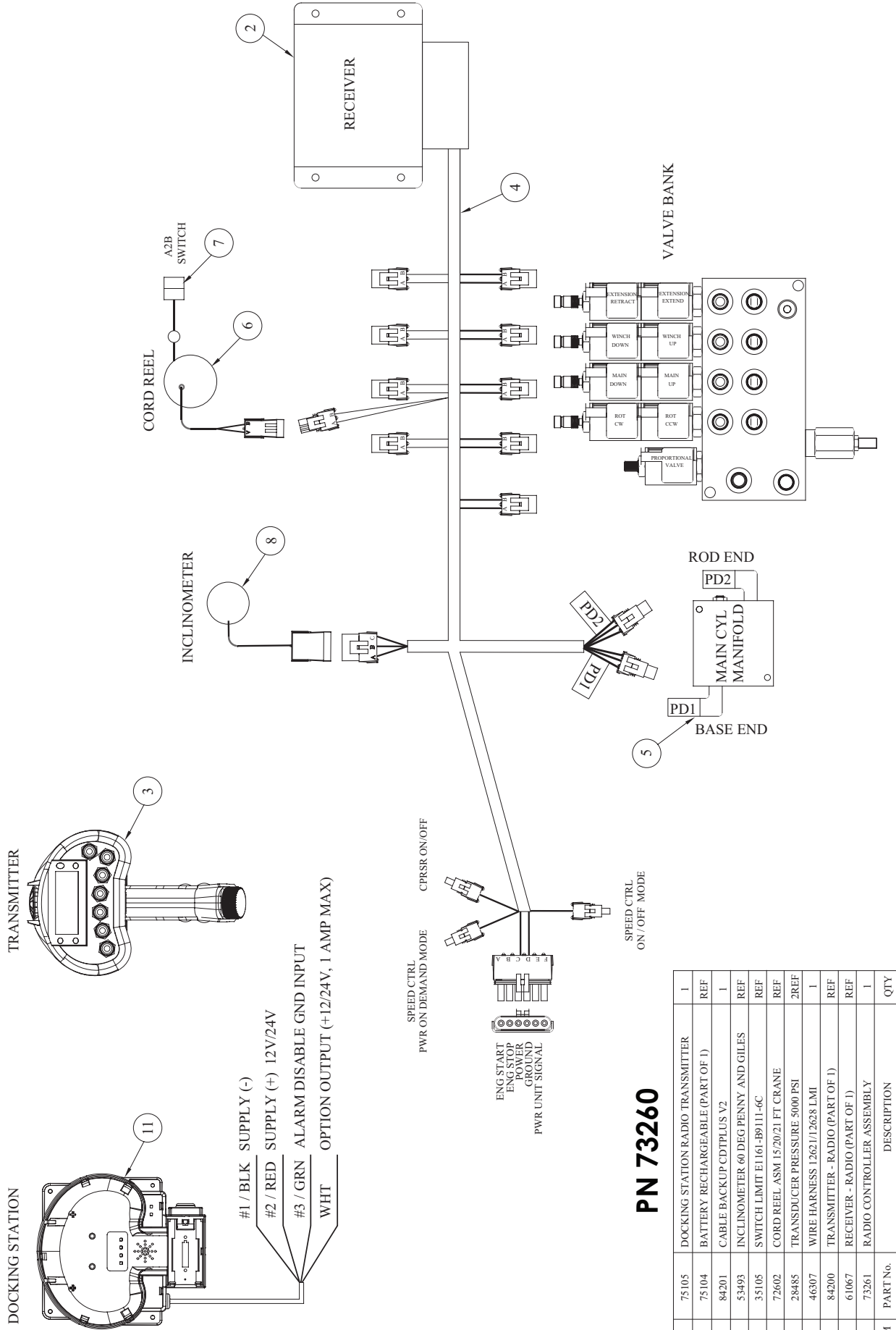


PN 13539

| ITEM | PART | DESCRIPTION | QTY. |
|------|------|---------------------------------|------|
| 1 | 5199 | CAP SCR 1.00X8X3.00 HHGR8 ZY | 6 |
| 2 | 6538 | WASHER 1.00 SAE FLAT YELLOW GR8 | 6 |

NOTE: STABILITY DECAL P/N 16881 IS PART OF THIS KIT

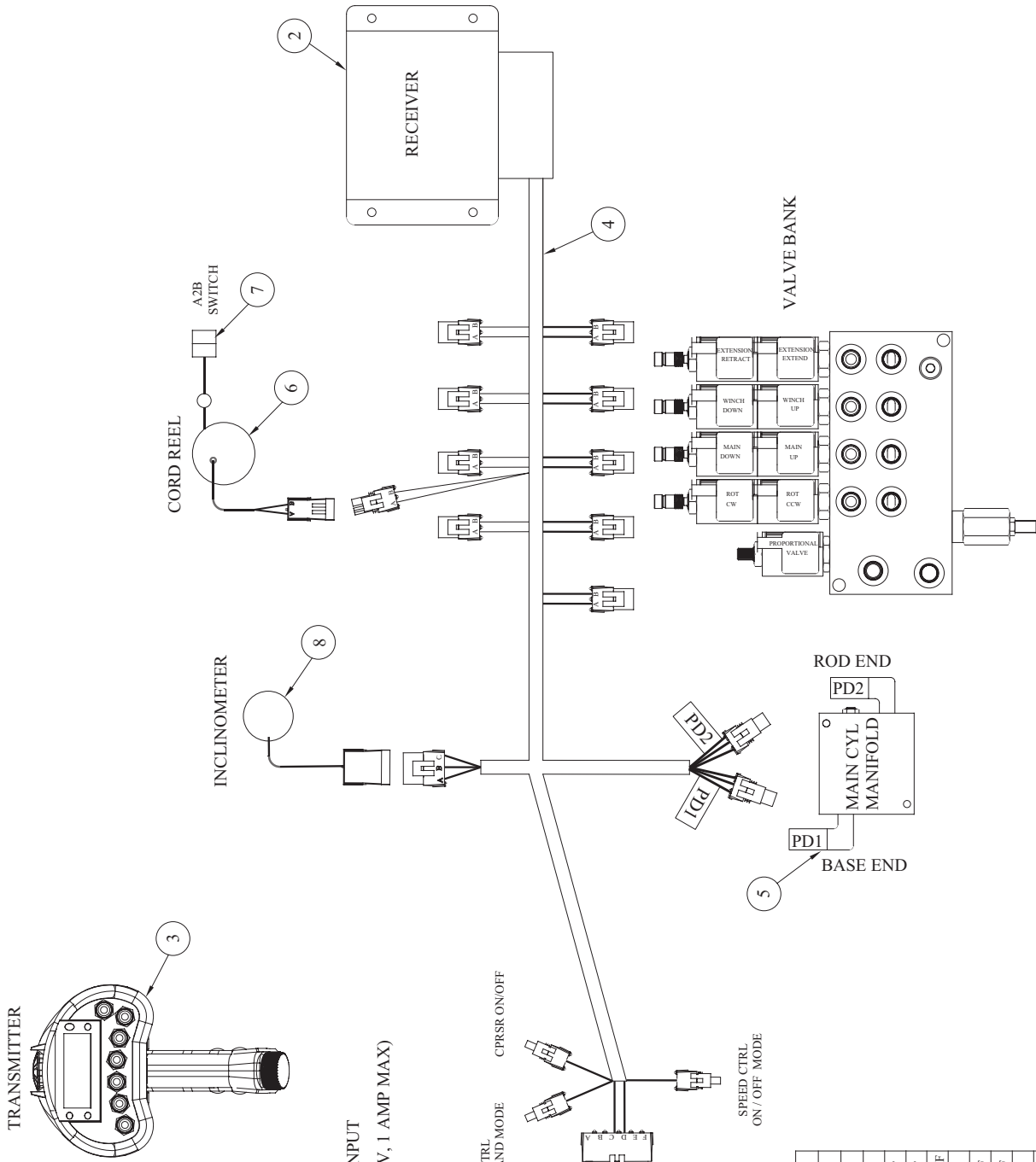
Control Kit - PN 73260



PN 73260

| ITEM | PART No. | DESCRIPTION | QTY |
|------|----------|-------------------------------------|------|
| 11 | 75105 | DOCKING STATION RADIO TRANSMITTER | 1 |
| 10 | 75104 | BATTERY RECHARGEABLE (PART OF 1) | REF |
| 09 | 84201 | CABLE BACKUP CDTPLUS V2 | 1 |
| 08 | 53493 | INCLINOMETER 60 DEG PENNY AND GILES | REF |
| 07 | 35105 | SWITCH LIMIT E1161-B9111-6C | REF |
| 06 | 72602 | CORD REEL ASM 15/20/21 FT CRANE | REF |
| 05 | 28485 | TRANSUCER PRESSURE 5000 PSI | 2REF |
| 04 | 46307 | WIRE HARNESS 1262/1262& LMI | 1 |
| 03 | 84200 | TRANSMITTER - RADIO (PART OF 1) | REF |
| 02 | 61067 | RECEIVER - RADIO (PART OF 1) | REF |
| 01 | 73261 | RADIO CONTROLLER ASSEMBLY | 1 |
| | | | |
| | | | |

Control Kit (Non-Boost) - PN 73367



PN 73367

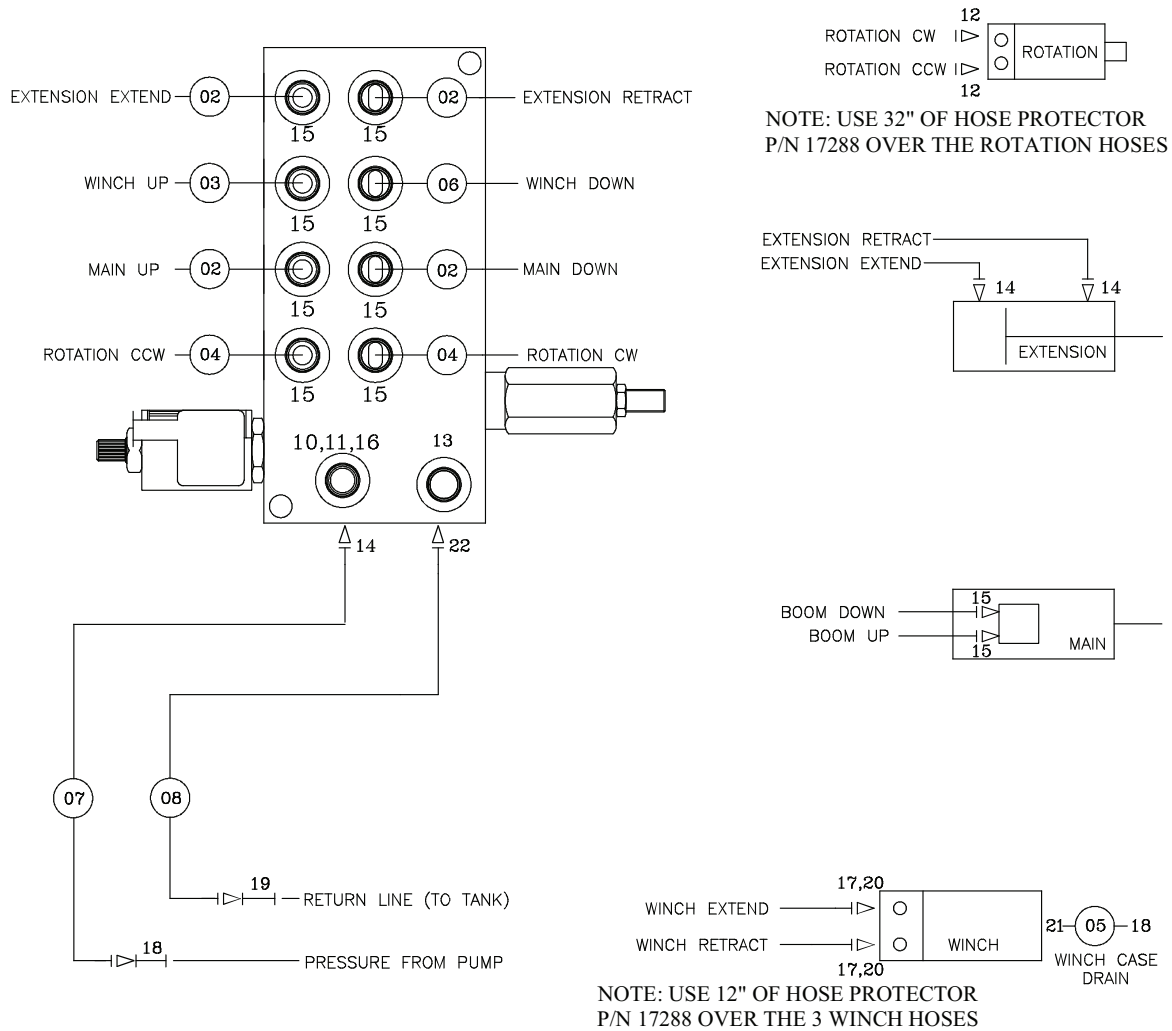
| ITEM | PART No. | DESCRIPTION | QTY |
|------|----------|-------------------------------------|------|
| 11 | 75105 | DOCKING STATION RADIO TRANSMITTER | 1 |
| 10 | 75104 | BATTERY RECHARGEABLE (PART OF 1) | REF |
| 09 | 84201 | CABLE BACKUP CDTPPLUS V2 | 1 |
| 08 | 53493 | INCLINOMETER 60 DEG PENNY AND GILES | REF |
| 07 | 35105 | SWITCH LIMIT E1161-B9111-6C | REF |
| 06 | 73602 | CORD REEL ASM 15/20/21 FT CRANE | REF |
| 05 | 28485 | TRANSDUCER PRESSURE 5000 PSI | 2REF |
| 04 | 46307 | WIRE HARNESS 12621/12628 LMI | 1 |
| 03 | 84200 | TRANSMITTER - RADIO (PART OF 1) | REF |
| 02 | 61067 | RECEIVER - RADIO (PART OF 1) | REF |
| 01 | 73368 | RADIO CONTROLLER ASSEMBLY | 1 |
| | PART No. | DESCRIPTION | QTY |

- #1 / BLK SUPPLY (-)
- #2 / RED SUPPLY (+) 12V/24V
- #3 / GRN ALARM DISABLE GND INPUT
- WHT OPTION OUTPUT (+12/24V, 1 AMP MAX)

DOCKING STATION

TRANSMITTER

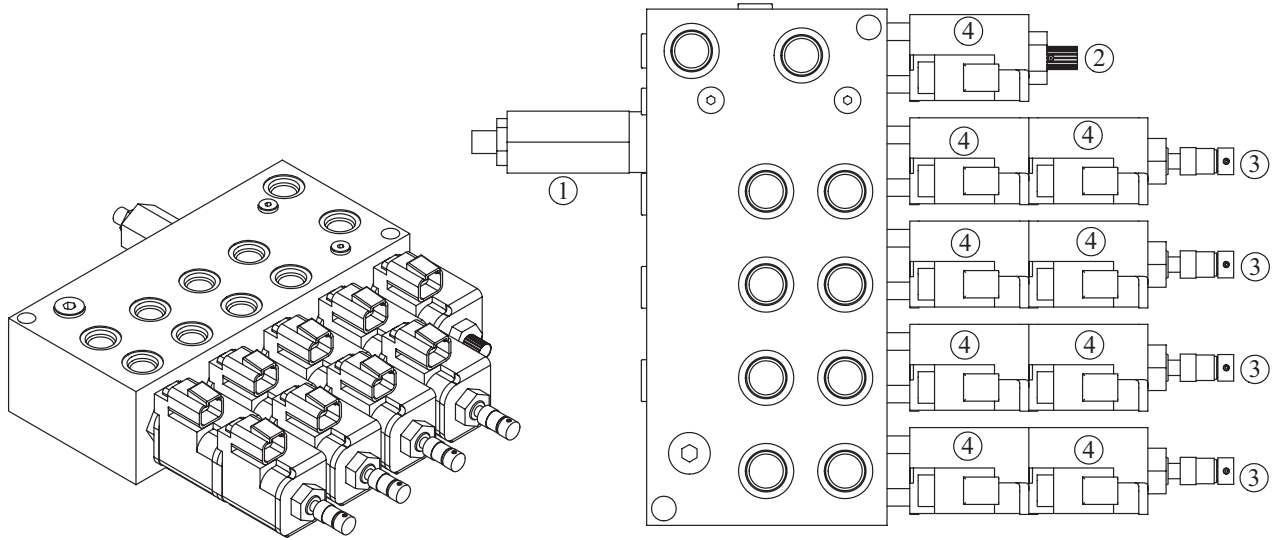
Hydraulic Kit - PN 72758



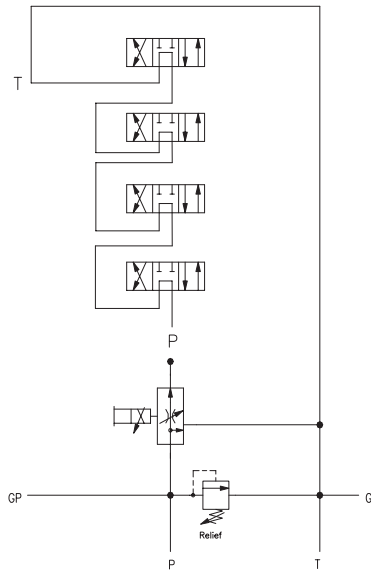
PN 72758

| | | | |
|------|----------|-------------------------------------|------|
| 23 | | | |
| 22 | C1175 | FTG 8-8 MFS-MAORB 45 | 1 |
| 21 | C4929 | FTG 6-4 MFS-MORB STRAIGHT | 1 |
| 20 | C5547 | FTG 6-8 MFS-MOARB 90 | 2 |
| 19 | 12172 | FTG 8-8 MFS-MFS SWIVEL STRAIGHT | 1 |
| 18 | 12171 | FTG 6-6 MFS-MFS SWIVEL STRAIGHT | 2 |
| 17 | D0549 | FTG 16-8 MORB-FORB STRAIGHT REDUCER | 2 |
| 16 | 39780 | GAUGE OIL LF 2.5 0-5000 CBM SAE | 1 |
| 15 | 0279 | FTG 6-6 MFS-MORB STRAIGHT | 10 |
| 14 | D1193 | FTG 6-6 MFS-MAORB 45 | 3 |
| 13 | C4961 | FTG 6 MORB PLUG HOLLOW HEX | 1 |
| 12 | D1302 | FTG 6-10 MFS-MAORB 90 | 2 |
| 11 | 3861 | FTG 6-6 MAORB-FORB 90 | 1 |
| 10 | 15111 | FTG 6-4 MORB-FORB STRAIGHT REDUCER | 1 |
| 09 | 17288 | HOSE PROTECTOR 1.00 AS-B-27 | 44" |
| 08 | 45438 | HOSE-HYD .50 X 8 | 1ref |
| 07 | 45439 | HOSE-HYD .38 X 9 | 1ref |
| 06 | 52276 | HOSE-HYD .38 X 25 | 1ref |
| 05 | 52486 | HOSE-HYD .38 X 36 | 1ref |
| 04 | 71903 | HOSE-HYD .38 X 39 | 2ref |
| 03 | 13029 | HOSE-HYD .38 X 22.50 | 1ref |
| 02 | 13028 | HOSE-HYD .38 X 17 | 4ref |
| 01 | 71901 | HOSE KIT 76/96/106/126 (incl:2-8) | 1 |
| ITEM | PART No. | DESCRIPTION | QTY |

Valve Bank - PN 52265



HYDRAULIC SCHEMATIC



PN 52265

| ITEM | PART | DESCRIPTION | QTY | TORQUE |
|------|-------|-------------------------------------|-----|--------------|
| 1 | 25367 | RELIEF VALVE 24685/24690 | 1 | 37 FT LBS |
| | 25368 | SEAL KIT 25367 | | |
| 2 | 24960 | VALVE FLW CTRL PRP/JP04C3150N 0-8 | 1 | 20-22 FT LBS |
| | 25369 | SEAL KIT 24960/25381 | | |
| 3 | 25371 | VALVE SOLND 3 POS 4 WAY TAND G04571 | 4 | 25 FT LBS |
| | 25373 | SEAL KIT 25371/25372 | | |
| 4 | 44532 | COIL 12VDC DUETSCH CAP012H | 9 | 3 FT LBS |

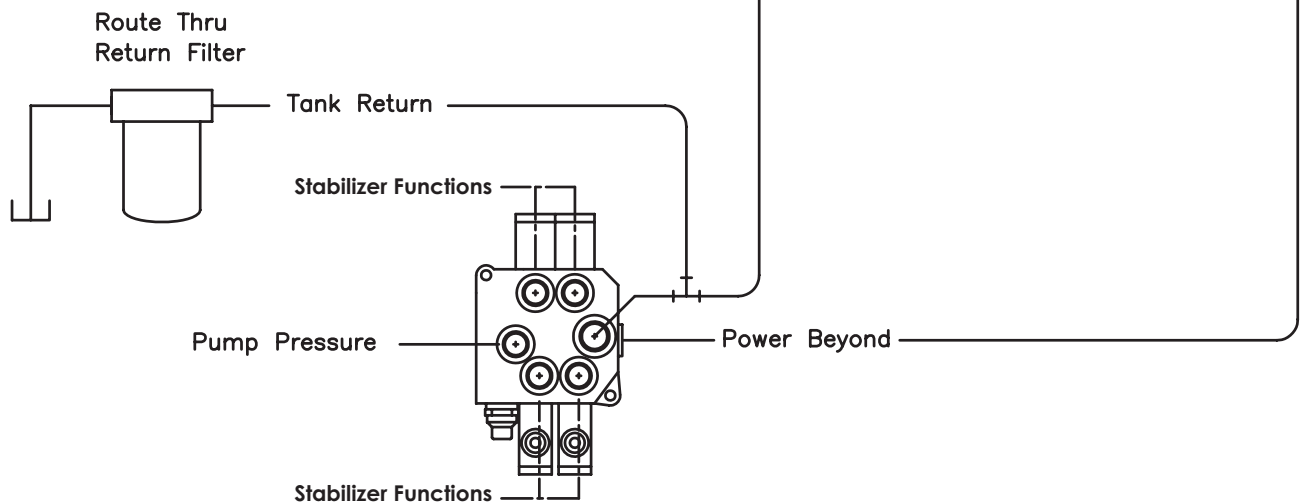
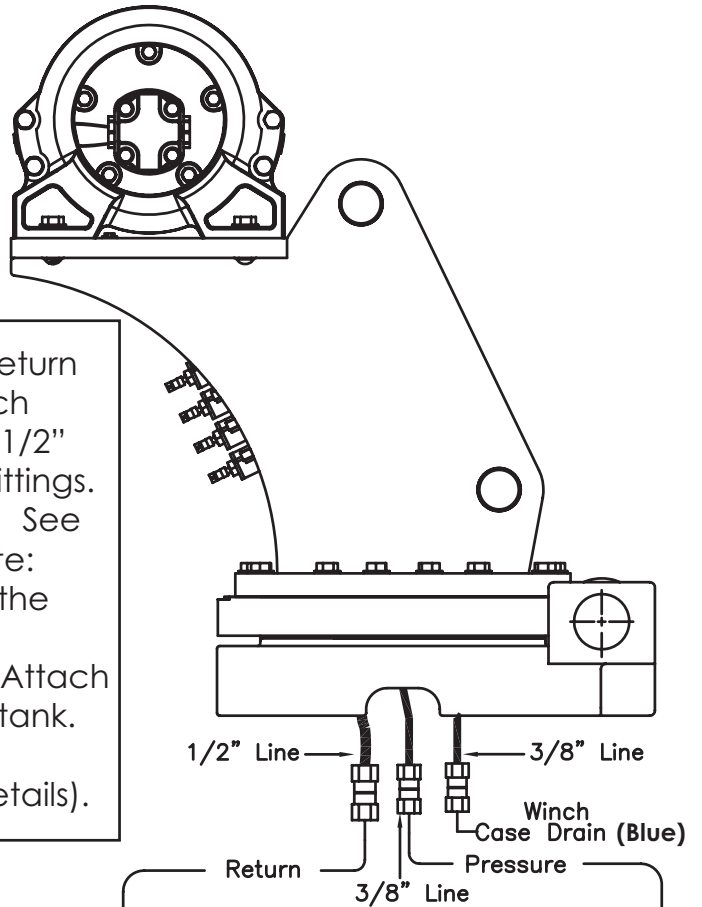
NOTE: PN's 24960 & 25371 DO NOT INCLUDE COIL PN 44532

Hydraulic Installation

WARNING

Follow the instructions presented on this page. Failure to follow these instructions may result in death or serious injury.

1. After mounting, locate the pressure and return lines. Note: Pressure line is 3/8" hose; Winch Case Drain Line is 3/8" hose; Return line is 1/2" hose. Hoses are terminated using swivel fittings.
2. Install hydraulic lines per diagram below. See next page for Case Drain Installation. Note: Stabilizer valve supplies oil to crane using the Power Beyond feature.
3. Install hydraulic reservoir with return filter. Attach pump pressure line to valve, return link to tank.
4. Fill system with hydraulic oil (See Stellar® Lubrication Recommendations for fluid details).



Typical Stabilizer Valve
with Power Beyond Capabilities

Winch Case Drain Installation

WARNING

Follow the instructions presented on this page. Failure to follow these instructions may result in death or serious injury.

Installing the winch case drain

1. The winch case drain must run directly to the reservoir to ensure no back pressure in the line.
2. Use 3/8" hydraulic hose and fittings rated for a minimum of 300 psi.
3. Locate the winch case drain line at the bottom of the crane base as shown in Fig. 1 (Blue Hose).
Note: Both the main pressure and winch case drane line use a 3/8" swivel fitting. Verify the winch case drain is attached to the hose that is connected to the winch motor.
4. Attach one end of the winch case drain to 3/8 swivel fitting located in step 3.
5. Route the winch case drain hose directly to the reservoir.
6. Connect the second end of the winch case drain to unshared fitting on the top of the reservoir as shown in Fig 2.

Fig.1

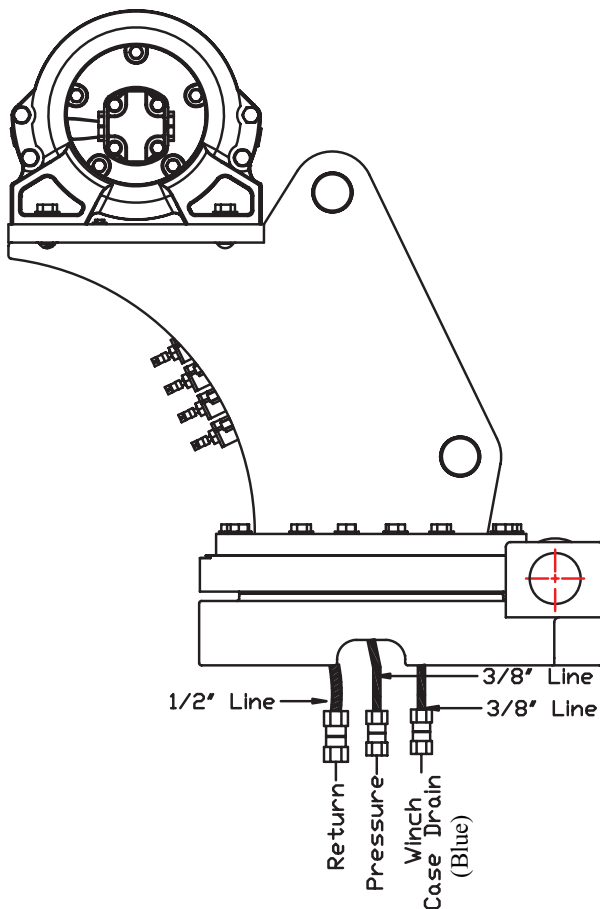
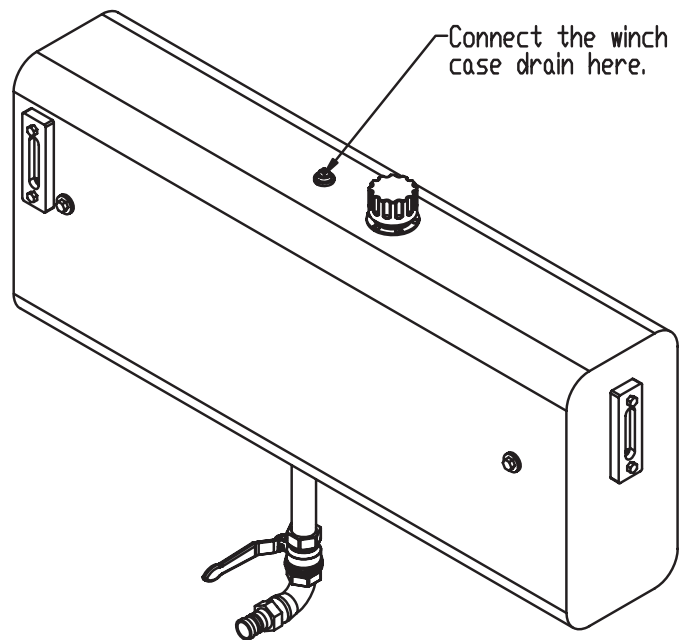
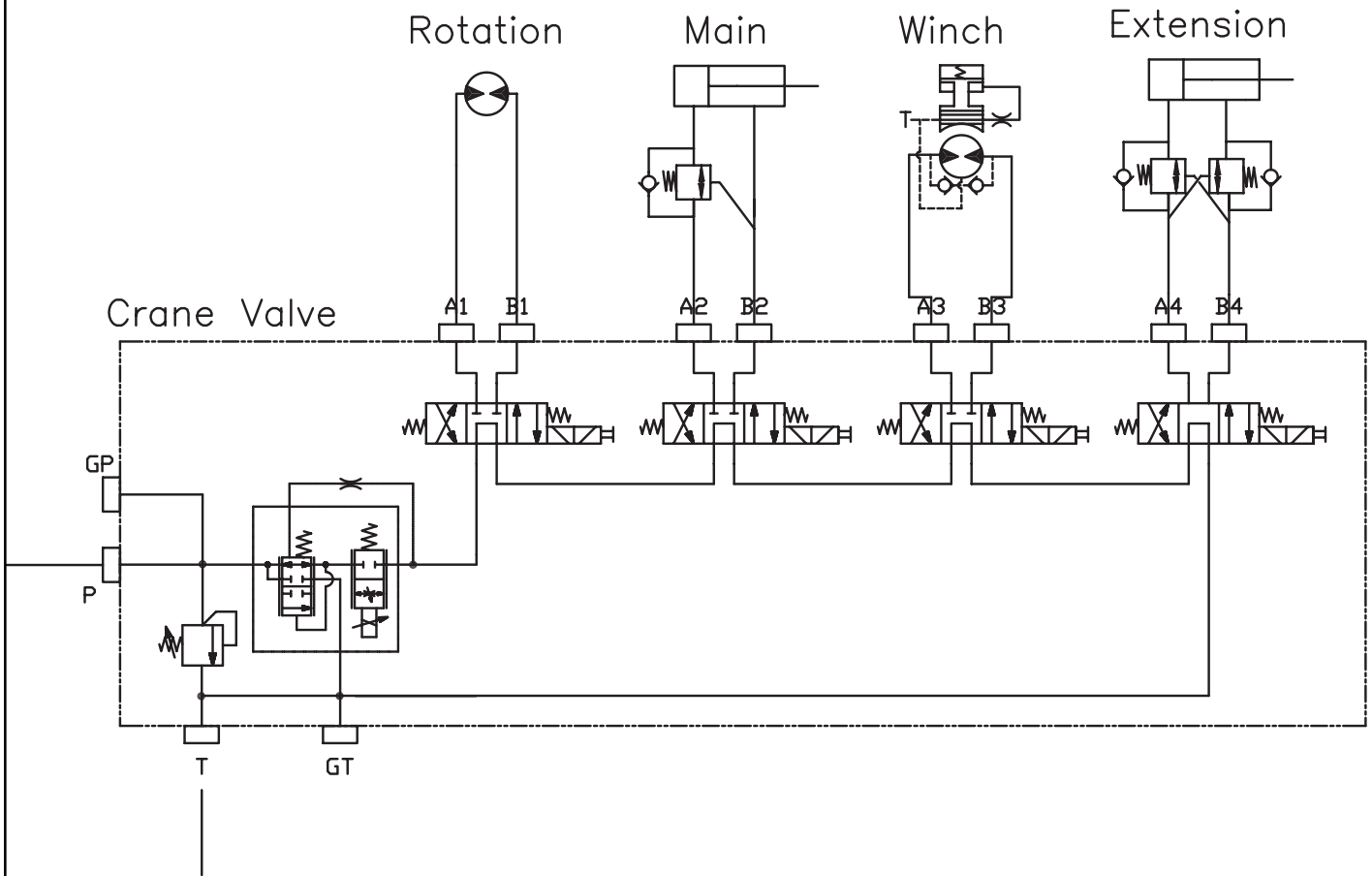


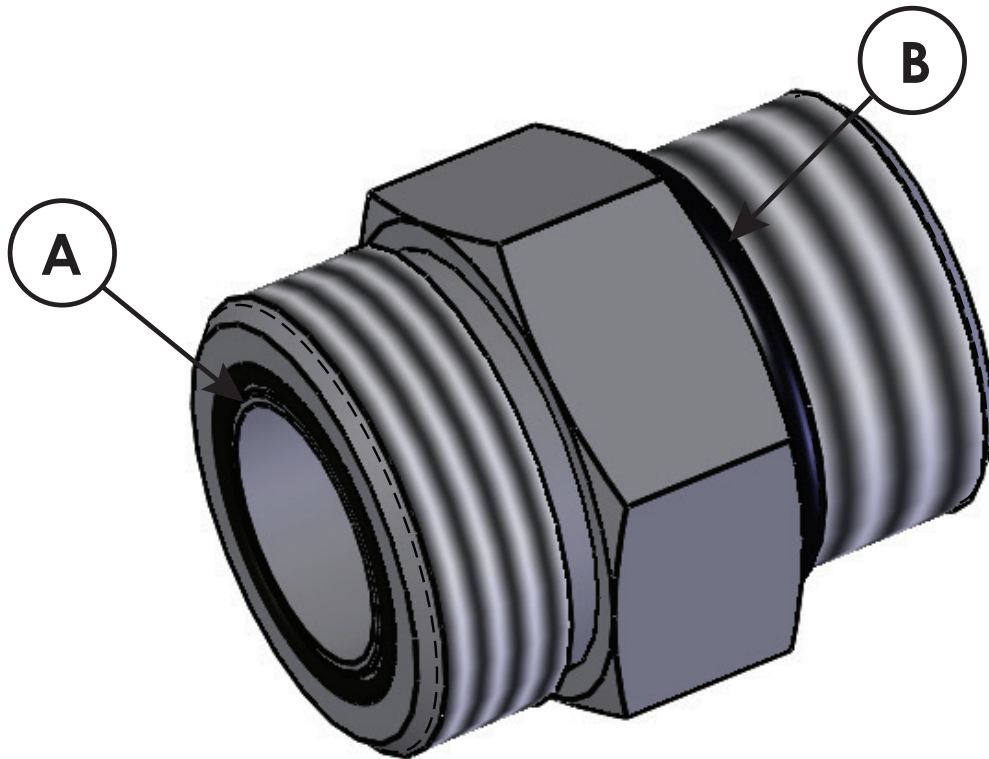
Fig. 2



Hydraulic System



Face Seal/O-Ring Size Chart



| Hose Size | Fitting Size | Face Seal (A) Stellar® PN | O-ring Boss (B) Stellar® PN |
|-----------|--------------|------------------------------|--------------------------------|
| 1/4" | #4 | C2027 | D1245 |
| 3/8" | #6 | C2028 | D1246 |
| 1/2" | #8 | C2029 | D1247 |
| 5/8" | #10 | 32223 | D1248 |
| 3/4" | #12 | D1244 | D1249 |
| 1" | #16 | | D1250 |

Stability Procedure

Definition of Stability for the Stellar Telescopic Crane Products:

A truck is stable until the load cannot be lifted off the ground with the winch, without tipping over the truck. Every Stellar crane installed must be tested for stability to determine the actual load capacity of the final truck package. The actual test data must be recorded and supplied with the truck at the time of in-service and should be kept with the truck at all times. The following procedure will test the truck package for stability and will provide a stability capacity chart. The load limit information shown on the stability capacity chart is formulated on 85% tipping.

Set Up:

1. Locate the truck on a test course in position for loading and engage travel brakes.
2. Set stabilizers so that they make contact with firm, level footing.
3. Operate the crane under partial load to assure operator proficiency and proper machine function.
4. Put the radio into Stability Test Mode:
 - A. Push the middle four switches up and hold until "STB" appears on the screen (approximately 5 seconds.)



- B. At this point, the crane will have enough capacity to handle the weight for the stability test.
- C. The radio will timeout of stability mode after 30 minutes or when the E-Stop button is pushed.

Note: The radio can only be put into stability mode five times. After that, the radio would have to be returned to Stellar to be reprogrammed to allow additional stability testing. All other radio functions will work properly even if stability mode is not available.

Stability Procedure Continued...

10621 Stability Data

Max Horizontal Reach: 251" (From the center of rotation to boom tip)

Boost Stability Test Weight: 3,970 lbs.

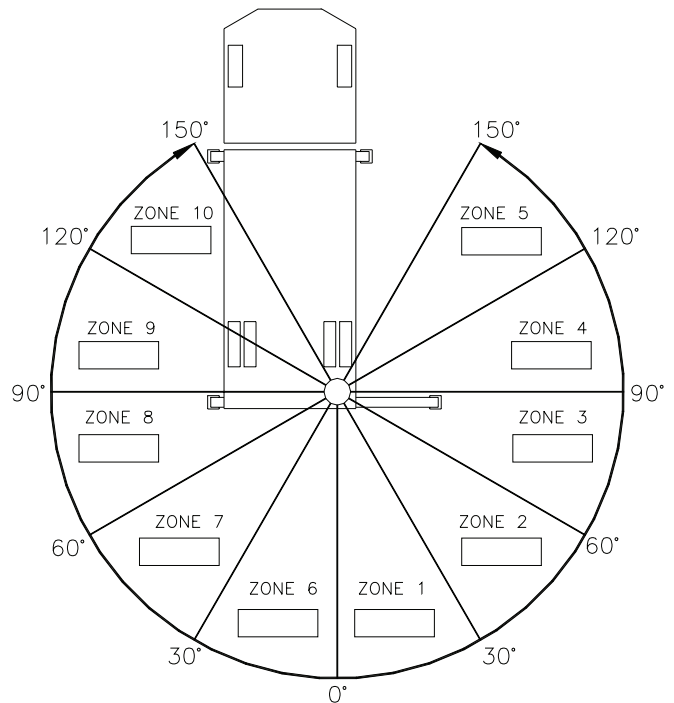
Non-Boost Stability Test Weight: 3,365 lbs.

Test Procedure

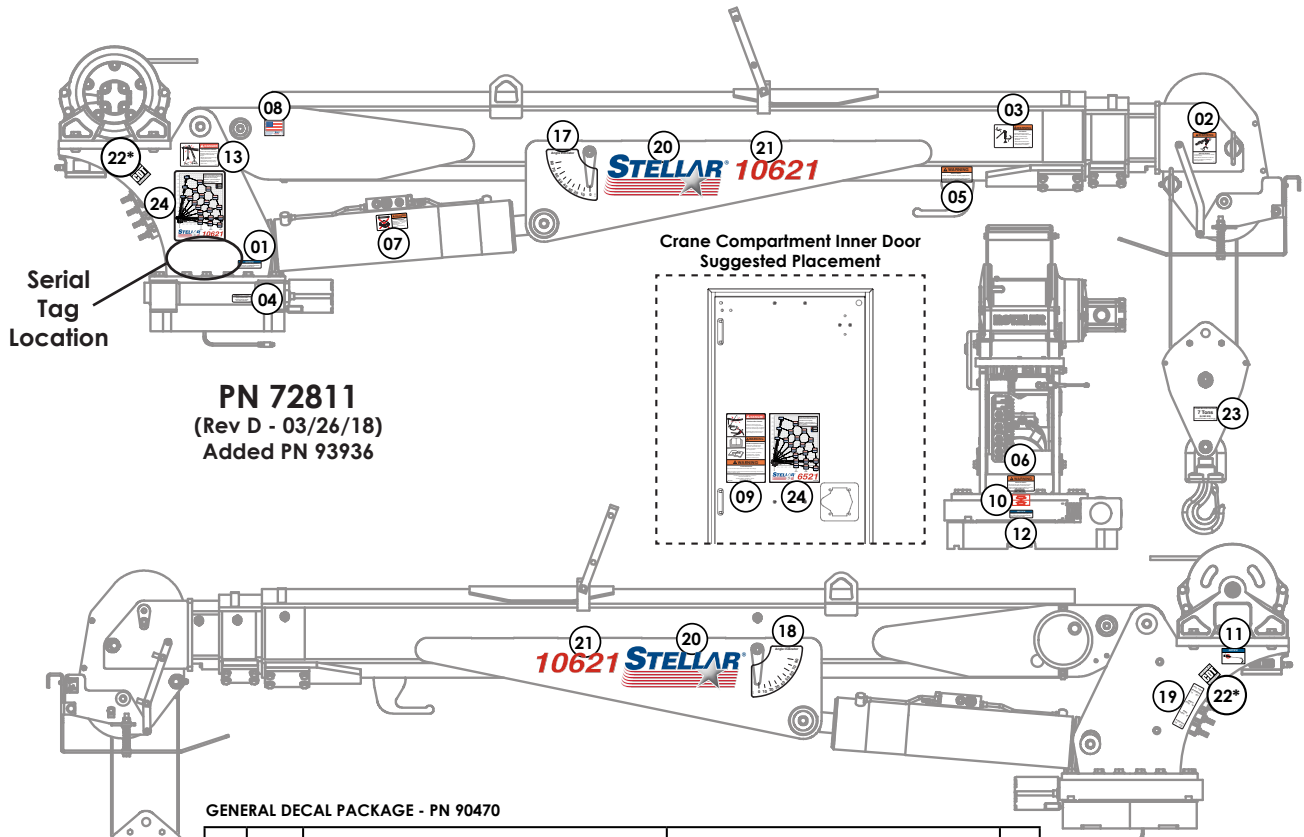
1. Rotate the crane into Zone 1 position.
2. With the crane fully retracted and the boom horizontal, winch the test weight off the ground. Note: Keep weight within six inches of the ground at all times.
3. Extend the boom outward until full extension has been reached or until the truck becomes unstable (Again, use the winch to keep the weight within six inches of the ground.)
4. If the boom goes full extension without becoming unstable, the crane is termed stable for this zone and 100% can be written in the Zone 1 data box.
5. If the truck becomes unstable prior to going full extension, retract the boom until the truck becomes stable and measure the horizontal reach in this position (center of rotation to boom tip). This is the stable horizontal reach for this zone. Stable horizontal reach divided by Maximum horizontal reach multiplied by 100 equals the percentage of rated capacity for this zone. Use the following formula to determine the percentage of rated capacity:

$$\frac{\text{Stable Horizontal Reach}}{\text{Max Horizontal Reach}} \times 100 = \text{Percentage of Rated Capacity}$$

6. Record this number in the data box for Zone 1. This is the revised capacity due to stability for this zone.
7. Repeat this procedure for each zone until the worksheet is completed.
8. This is the revised capacity based on stability of this package.



Decal Placement - PN 72811



PN 72811
(Rev D - 03/26/18)
Added PN 93936

GENERAL DECAL PACKAGE - PN 90470

| ITEM | PN | DESCRIPTION | LOCATION | QTY |
|------|-------|---------------------------------------|----------------------------------|-----|
| 01 | 15172 | DECAL ASME/ANSI B30.22/B30.5 | Crane Mast | 1 |
| 02 | 12300 | DECAL WARNING TWO BLOCKING | Crane Horse Head | 1 |
| 03 | 12451 | DECAL WARNING HOISTING PERSONNEL | Main Boom | 1 |
| 04 | 15171 | DECAL GREASE WORM | Crane Base | 1 |
| 05 | 24712 | DECAL WARNING STOW HOOK | Crane Boom above stow hook | 1 |
| 06 | 25159 | DECAL WARNING MANUAL OVERRIDES | Under Valve Bank | 1 |
| 07 | 28256 | DECAL WARNING OVERLOAD DEVICE | Main Cylinder | 1 |
| 08 | 35234 | DECAL STELLAR MADE IN THE USA | Main Boom | 1 |
| 09 | 93936 | DECAL SAFETY & SERVICE MECH BODY DOOR | Crane Compartment | 1 |
| 10 | 4188 | DECAL ROTATION ALIGNMENT | Crane Base | 1 |
| 11 | 73929 | DECAL PRESSURE WASH | Crane Mast | 1 |
| 12 | 9188 | DECAL ROTATE/GREASE | Crane Base | 1 |
| 13 | C1179 | DECAL DANGER ELECTROCUTION SMALL | Crane Mast | 1 |
| 14*8 | C4545 | DECAL DANGER ELECTROCUTION LARGE | Four corners of the body/chassis | 4 |
| 15** | C5910 | DECAL STELLAR 4x9.5 | Suggested: Rear body/tailgate | 1 |
| 16** | C5911 | DECAL STELLAR 2x4.5 | Suggested: Side corners of body | 3 |
| 17 | D1196 | DECAL ANGLE INDICATOR CS | Main Boom | 1 |
| 18 | D1197 | DECAL ANGLE INDICATOR SS | Main Boom | 1 |

10621 DECAL PACKAGE - PN 90479

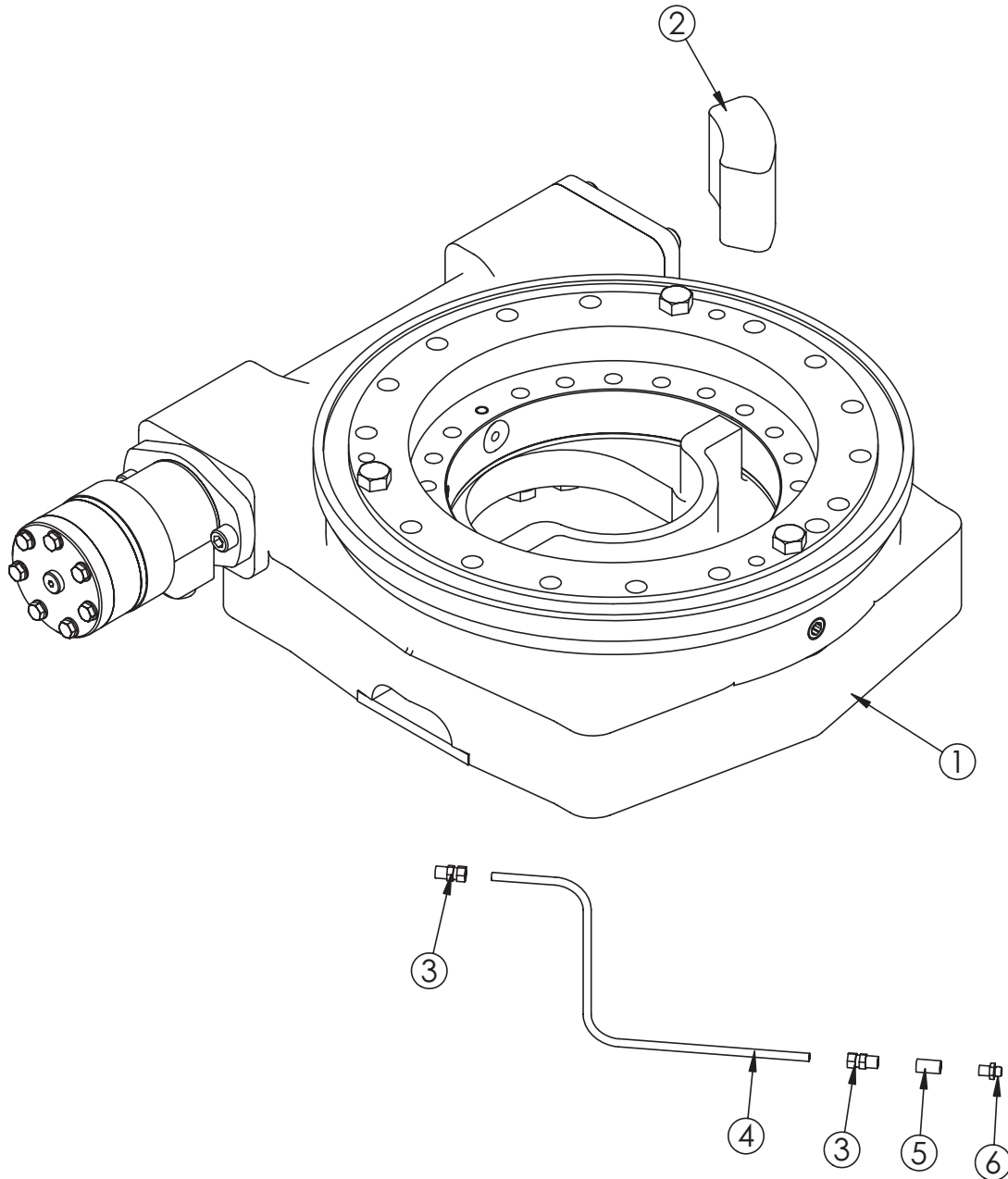
| ITEM | PN | DESCRIPTION | LOCATION | QTY |
|------|-------|-----------------------------|--|-----|
| 19 | 52270 | DECAL VB CONTROL MECH CRANE | On side of Crane Mast | 1 |
| 20 | 52681 | DECAL STELLAR LOGO 6.5 X 18 | Main Boom (Both Sides) | 2 |
| 21 | 52686 | DECAL IDENTIFICATION 10621 | Main Boom (Both Sides) | 2 |
| 22* | 54588 | DECAL CDT 2.00 x 2.00 | CDT ONLY - Crane Mast (Both Sides) | 2 |
| 22* | 71895 | DECAL CDT PLUS 2.00 x 2.00 | CDT PLUS ONLY - Crane Mast (Both Sides) | 2 |
| 23 | 56405 | DECAL SNATCH BLOCK 7 TON | Snatch Block | 1 |
| 24 | 72812 | DECAL CAPACITY 10621 V2 | Main Boom and Crane Compartment | 2 |

* For CDT™ equipped cranes, use PN 54588. For CDTplus™ equipped cranes, use PN 71895.

** Not shown.

Chapter 3 - Assembly Drawings

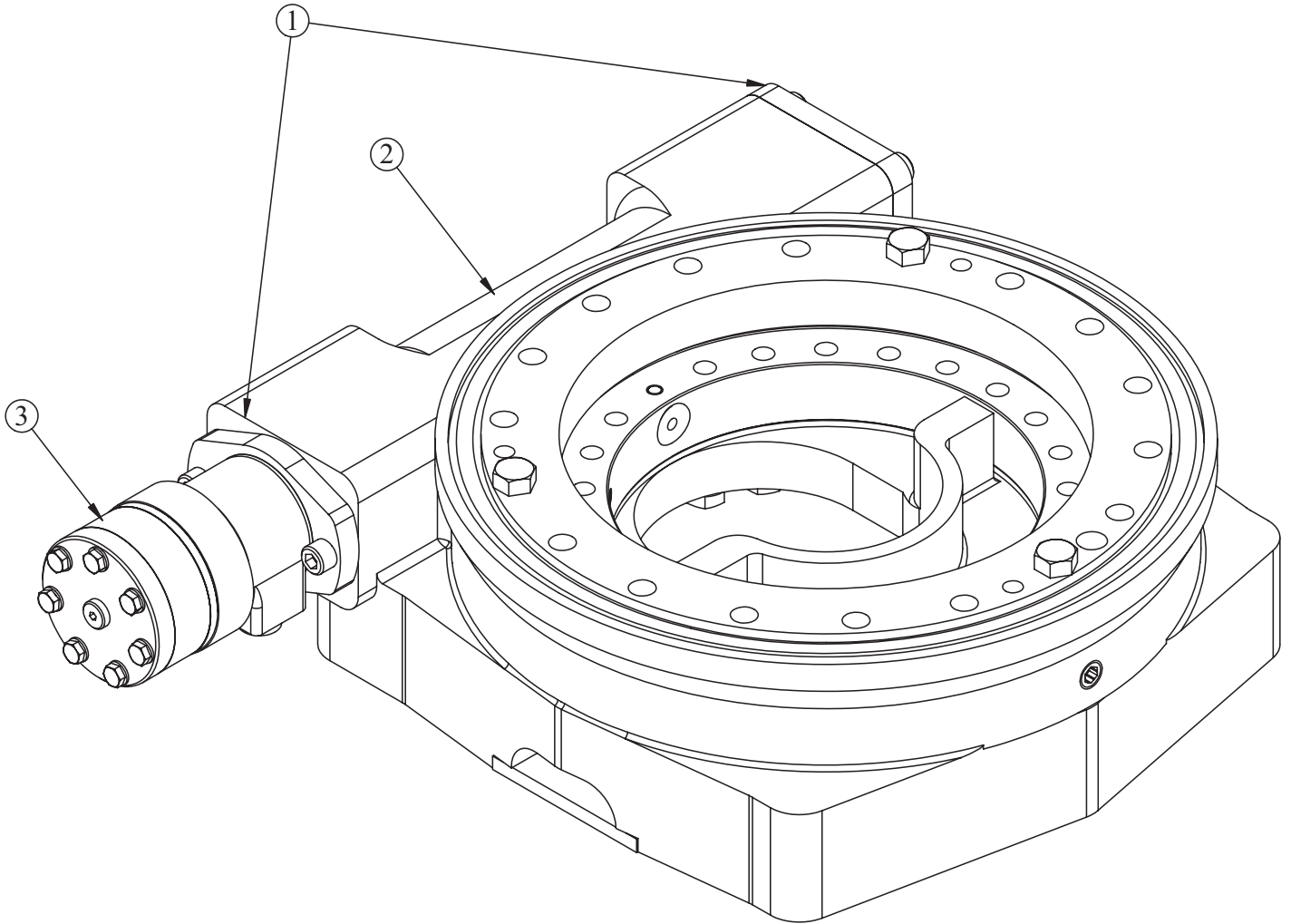
Base Assembly - PN 71166



PN 71166

| ITEM | PART | DESCRIPTION | QTY. |
|------|-------|---|------|
| 1 | 71041 | BEARING SWING DRIVE CAST BASE 14 IN ENCLOSED KINEMATICS W/MOTOR | 1 |
| 2 | 71458 | STOP 12630 | 1 |
| 3 | D1345 | FTG CPRSN 0.12NPT/0.25 TUBE | 2 |
| 4 | D1810 | TBE AIR SAEJ844 TYPE A .25 (RM) | 2.5 |
| 5 | 22161 | FTG 2-2 FP-FP COUPLER STRAIGHT BRASS | 1 |
| 6 | 56589 | ZERK 1/8 NPT STRAIGHT LONG THREAD | 1 |

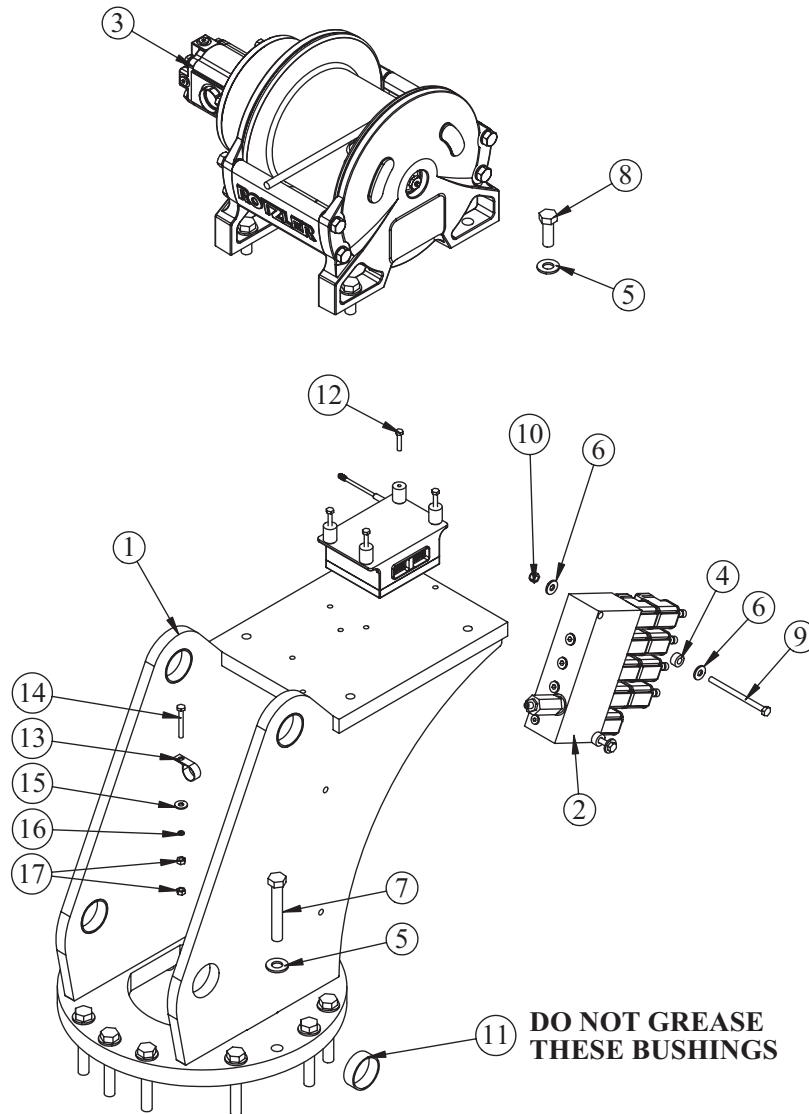
Gear Bearing - PN 71041



PN 71041

| ITEM | PART | DESCRIPTION | QTY. |
|------|-------|---|------|
| 1 | 77891 | BEARING KIT 14IN ENCLOSED CAST BASE KNMTS | 1 |
| 2 | 77892 | WORM 14IN ENCLOSED CAST BASE KNMTS | 1 |
| 3 | 77895 | MOTOR 160CC 1IN KEYED | 1 |

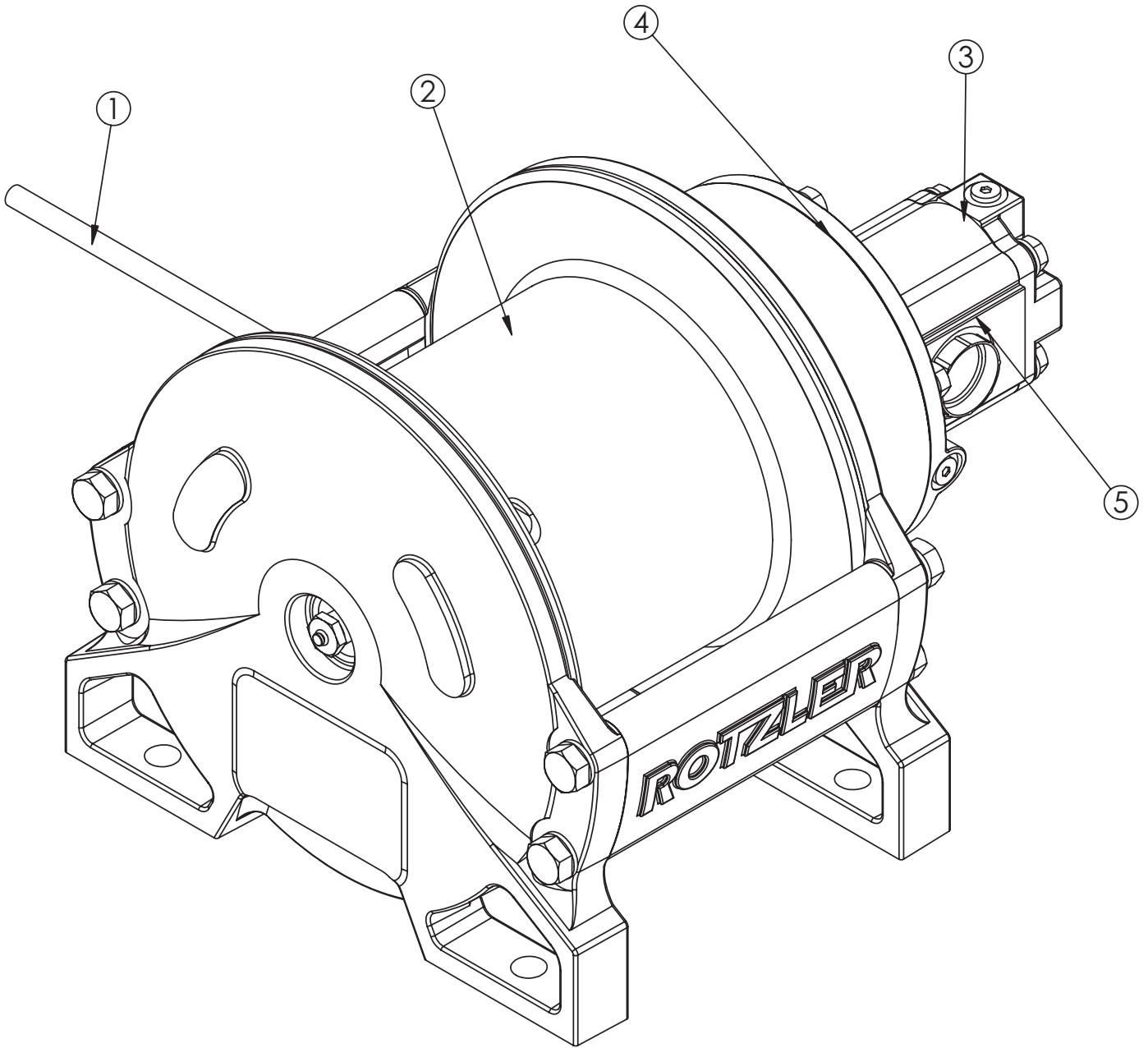
Mast Assembly - PN 72799



PN 72799

| ITEM | PART | DESCRIPTION | QTY. |
|------|-------|--|------|
| 1 | 70824 | MAST 126/106/96/76 | 1 |
| 2 | 52265 | VB 4 SECT W/PROP STER8GPM DEUTSCH | 1 |
| 3 | 57917 | WINCH 5000 TH2CC00243 W/100 FT ROPE | 1 |
| 4 | 27813 | COLLAR 0.38X0.75X0.38 UHMW | 2 |
| 5 | C5902 | WASHER 0.63 SAE FLAT YELLOW GR8 | 18 |
| 6 | 0343 | WASHER 0.31 USS FLAT | 4 |
| 7 | 77555 | CAP SCR 0.63-11X4.00 HHGR8 W/RED PATCH | 14 |
| 8 | 11693 | CAP SCR 0.63-11X1.75 HHGR8 | 4 |
| 9 | C0933 | CAP SCR 0.31-18X4.50 HHGR5 | 2 |
| 10 | 0342 | NUT 0.31-18 HHGR5 NYLOC | 2 |
| 11 | 44533 | BUSHING COMPOSITE 2.00X0.75 | 4 |
| 12 | 52490 | CAP SCR 6MMX30MM HH 8.8(GR5) | 4 |
| 13 | C5946 | HOSE CLAMP #8 RUBBER COATED | 1 |
| 14 | 0481 | CAP SCR 0.25-20X2.00 HHGR5 | 1 |
| 15 | 0340 | WASHER 0.25 USS FLAT | 1 |
| 16 | 0521 | WASHER 0.25 LOCK | 1 |
| 17 | 0533 | NUT 0.25-20 HHGR5 | 2 |

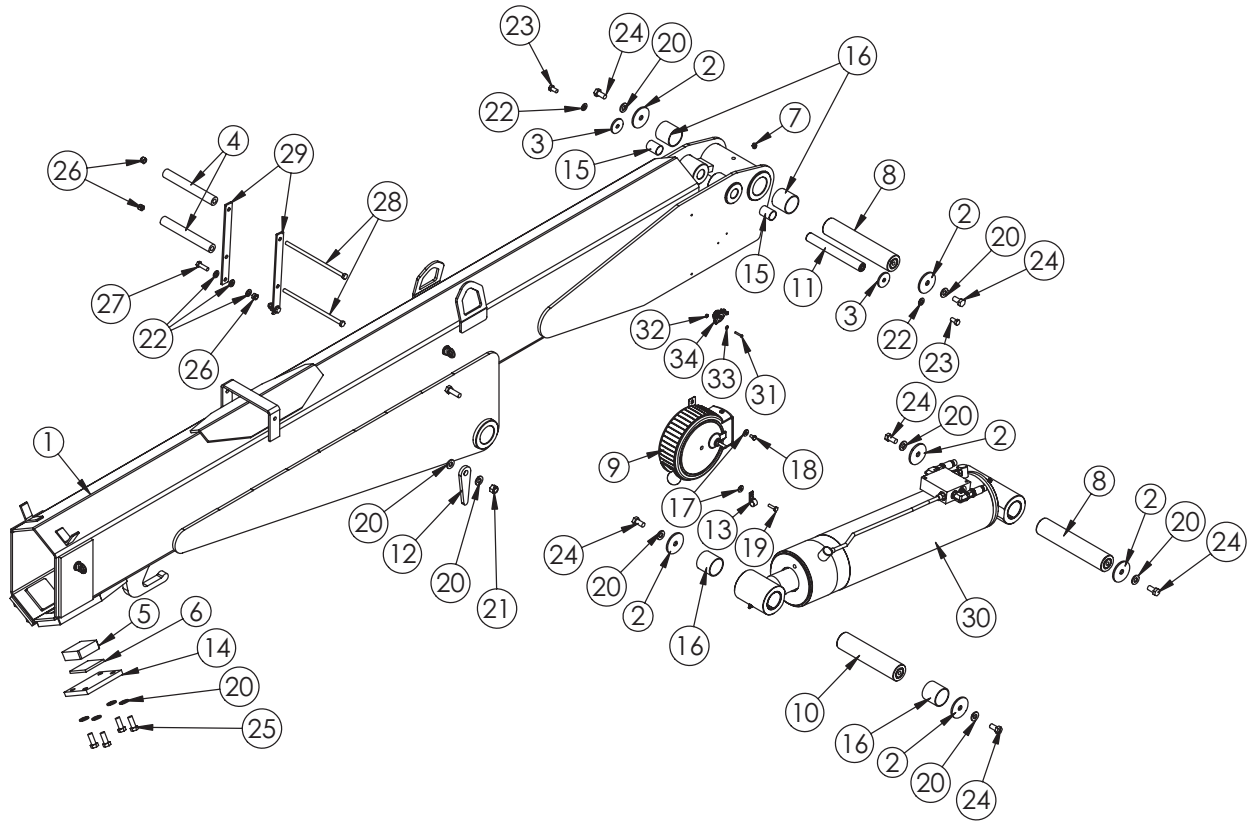
Winch - PN 57917



PN 57917

| ITEM | PART | DESCRIPTION | QTY. |
|------|-------|---|------|
| 1 | 44812 | WIRE ROPE 7/16 6X19 IWRC-DGXXIP100 | 1 |
| 2 | 53492 | SEAL KIT ROTZLER TH2 WINCH | 1 |
| 3 | 71907 | SEAL KIT ROTZLER WINCH MOTOR 23CC/31CC | 1 |
| 4 | 72680 | SEAL & HARDWARE KIT WINCH MOTOR COVER ROTZLER TH2 | 1 |
| 5 | 55667 | MOTOR WINCH 5000 ROTZLER M.TH2.CC.31 | 1 |

Main Boom Assembly - PN 72762



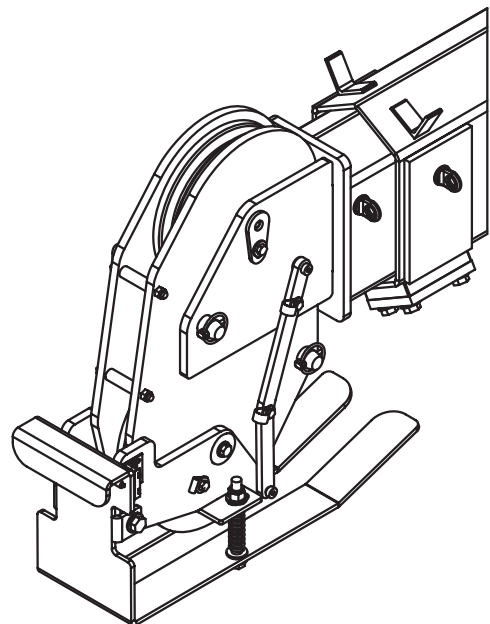
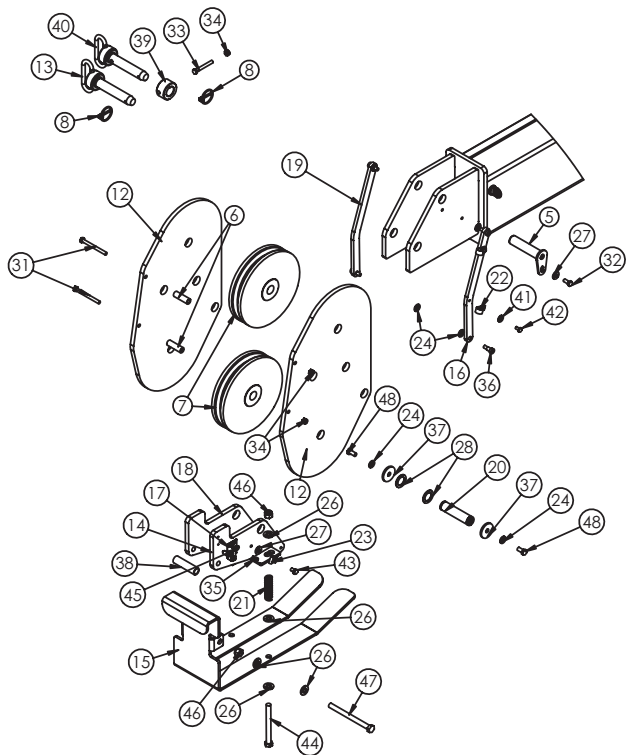
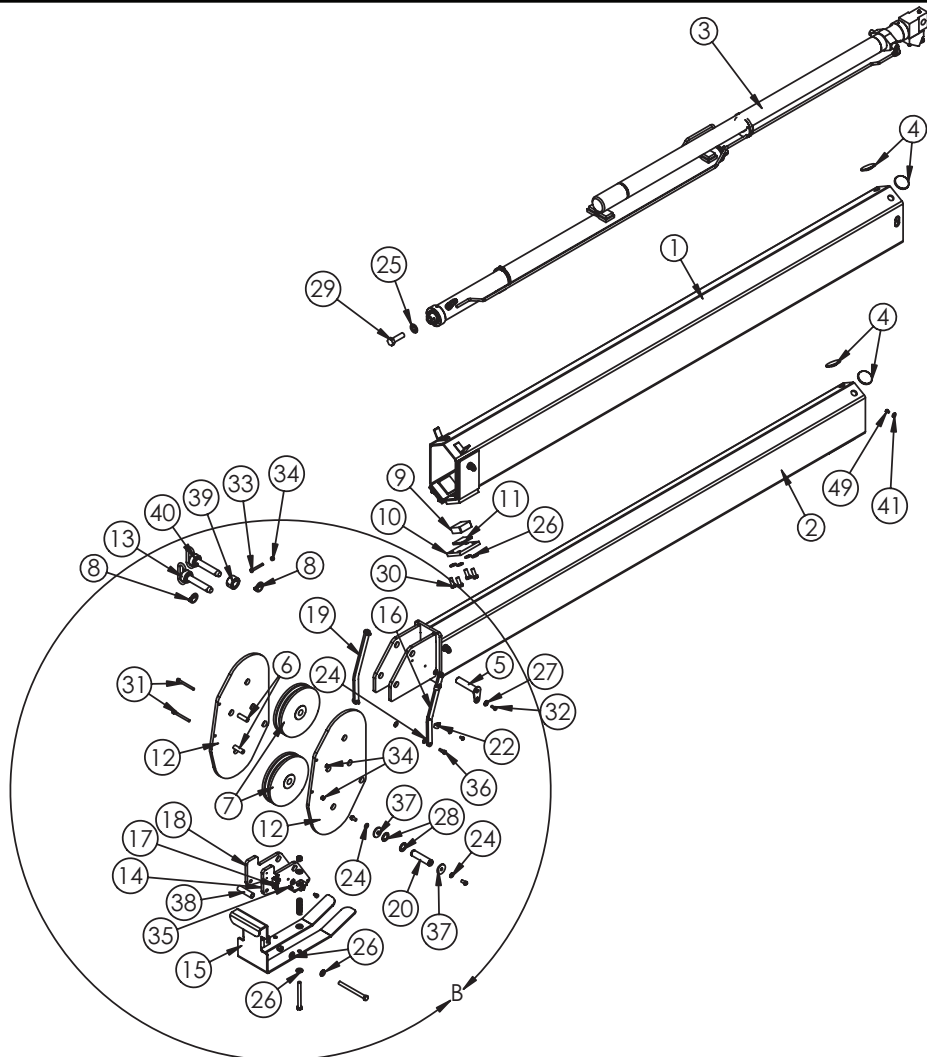
PN 72762

| ITEM | PART | DESCRIPTION | QTY. | ITEM | PART | DESCRIPTION | QTY. |
|------|--------|----------------------------------|------|------|---------|--------------------------------------|------|
| 1 | 71579 | INNER BOOM 12621/106/96 | 1 | 13 | C0078 | CLAMP 0.38 BLK VINYL | 1 |
| 2 | 9142 | PIN CAP 0.56X2.50X0.19 | 6 | 14 | 13398PC | PLATE WEAR PAD SUPPORT 9620 | 2 |
| 3 | 9320 | PIN CAP 0.44X1.75X0.19 SS | 2 | 15 | 0068 | BUSHING BPC16DXR24 1.00X1.50 | 2 |
| 4 | 27720 | SPACER ROPE GUIDE 6620 UHMW | 2 | 16 | 4381 | BUSHING BPC32DXR32 2.00X2.00 | 4 |
| 5 | 13395 | WEAR PAD 3.00X3.00X1.00 NYLATRON | 2 | 17 | 0340 | WASHER 0.25 USS FLAT ZINC | 2 |
| 6 | 35451 | PLATE AL 0.25X2.88X2.88 | 2 | 18 | 0478 | CAP SCR 0.25-20X0.50 HHGR5 | 1 |
| 7 | c1592 | ZERK 1/8 NPT STRAIGHT | 1 | 19 | 0480 | CAP SCR 0.25-20X1.00 HHGR5 | 1 |
| 8 | 9709CR | PIN 2.00X10.19 D&T | 2 | 20 | D0790 | WASHER 0.50 SAE FLAT YELLOW GR8 | 18 |
| 9 | 72602 | CORD REEL ASM 15/21 FT CRANE | 1 | 21 | C6106 | NUT 0.50-13 HHGR5 NYLOC | 2 |
| 10 | 9711CR | PIN 2.00X8.88 D&T | 1 | 22 | C6353 | WASHER 0.38 SAE FLAT YELLOW GR8 | 8 |
| 11 | 9712CR | PIN 1.00X8.38 SR/D&T | 1 | 23 | 9843 | CAP SCR 0.38-16X0.75 HHGR8 | 2 |
| 12 | D1194 | PLATE ANGLE INDICATOR | 2 | 24 | 10172 | CAP SCR 0.50-13X1.00 HHGR8 | 6 |
| | | | | 25 | 10666 | CAP SCR 0.50-13X1.25 HHGR8 | 8 |
| | | | | 26 | 0347 | NUT 0.38-16 HHGR5 NYLOC | 4 |
| | | | | 27 | 0335 | CAP SCR 0.38-16X1.25 HHGR5 | 2 |
| | | | | 28 | 12168 | CAP SCR 0.38-16X9.00 HHGR5 | 2 |
| | | | | 29 | 69470PC | BRKT ROPE GUIDE 4421 | 2 |
| | | | | 30 | 71162 | CYLINDER ASM 5.50X22.50 ROT EXT PORT | 1 |
| | | | | 31 | 18618 | SCREW #6-32X1.00 PHMS PH | 2 |
| | | | | 32 | D0076 | NUT #6-32 HH NYLOC SS | 2 |
| | | | | 33 | 18765 | WASHER #6 SAE FLAT ZINC | 2 |
| | | | | 34 | 53493 | INCLINOMETER 60 DEG | 1 |

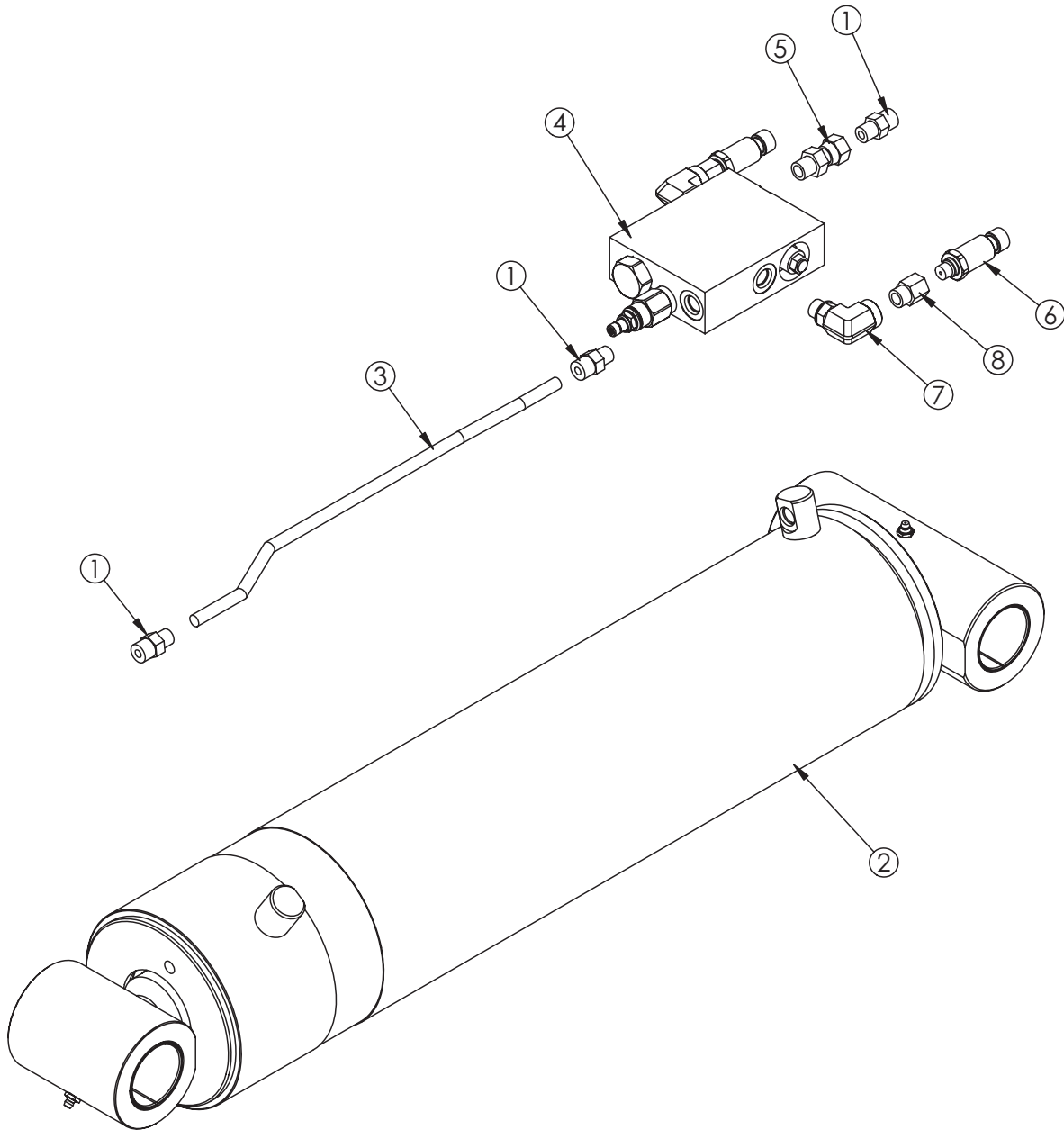
Extension Boom Assembly - PN 71578

PN 71578

| ITEM | PART | DESCRIPTION | QTY. |
|------|---------|---|------|
| 1 | 71580 | EXT BOOM 1ST 12621/106/96 | 1 |
| 2 | 71581 | EXT BOOM 2ND 12621/106/96 FS/CRADLE A2B | 1 |
| 3 | 28859 | CYLINDER EXT ASM 126/106/96 | 1 |
| 4 | 9991 | WEAR PAD 0.19X2.50 RND NYLATRON | 4 |
| 5 | 13400ZP | PIN TEAR DROP 1.00X4.38 | 1 |
| 6 | 27719 | SPACER BOOM TIP 6620 UHMW | 2 |
| 7 | 43858 | SHEAVE 10621 9.25 DIA .44R/1.88THK | 2 |
| 8 | 5753 | PIN 0.19X1.56 LYNCH | 2 |
| 9 | 13396 | WEAR PAD 2.50X2.50X1.00 NYLATRON | 2 |
| 10 | 13397PC | PLATE 1ST EXT 9620 WEAR PAD | 2 |
| 11 | 35452 | PLATE AL 0.25X2.38X2.38 | 2 |
| 12 | 71459 | PLATE SHEAVE MOUNTING FS/CRADLE 12630 | 2 |
| 13 | 12824 | PIN HITCH 1.00X4.50 | 1 |
| 14 | 61051 | MNT CRADLE LH FS/CRADLE A2B 106/126 | 1 |
| 15 | 61048 | CRADLE FS/CRADLE A2B 106/126 | 1 |
| 16 | 71462 | LINK FS/CRADLE A2B 12630 W/HOLES | 1 |
| 17 | 35105 | SWITCH LIMIT E1117-B9111-6C | 1 |
| 18 | 61054 | MNT CRADLE RH FS/CRADLE A2B 106/126 | 1 |
| 19 | 71463 | LINK FS/CRADLE A2B 12630 | 1 |
| 20 | 37680ZP | PIN 1.00X4.19 SR | 1 |
| 21 | 27710 | SPRING ANTI 2 BLOCK CRADLE A2B | 2 |
| 22 | C0078 | CLAMP 0.38 BLK VINYL | 2 |
| 23 | 31279 | CLAMP 0.31 BLK VINYL | 1 |
| 24 | C6353 | WASHER 0.38 SAE FLAT YELLOW GR8 | 6 |
| 25 | C6219 | WASHER 0.75 SAE FLAT YELLOW GR8 | 1 |
| 26 | D0790 | WASHER 0.50 SAE FLAT YELLOW GR8 | 18 |
| 27 | 0343 | WASHER 0.31 USS FLAT ZINC | 2 |
| 28 | 0867 | MACHY WASHER 1.00ID 1.4GA | 2 |
| 29 | 4974 | CAP SCR 0.75-10X2.50 HHGR8 W/RED PATCH | 1 |
| 30 | 10666 | CAP SCR 0.50-13X1.25 HHGR8 | 8 |
| 31 | 0490 | CAP SCR 0.31-18X3.50 HHGR5 | 2 |
| 32 | 0420 | CAP SCR 0.31-18X0.75 HHGR5 | 1 |
| 33 | 0489 | CAP SCR 0.31-18X2.50 HHGR5 | 1 |
| 34 | 0342 | NUT 0.31-18 HHGR5 NYLOC | 3 |
| 35 | 31132 | CAP SCR #10-24X0.550 SH SS 18-8 | 2 |
| 36 | 61053 | BOLT SHOULDER 0.38X0.50 0.31-18X0.50 | 4 |
| 37 | 9320 | PIN CAP 0.56X3.50X.25 | 2 |
| 38 | 61548PC | PIPE 0.50X 3.13 SCH40 | 1 |
| 39 | 61549PC | COLLAR 1.13X2.00X1.13 W/HOLE | 1 |
| 40 | 45125 | PIN HITCH 1.00 FORK KPCC | 1 |
| 41 | 0340 | WASHER 0.25 USS FLAT ZINC | 3 |
| 42 | 0478 | CAP SCR 0.25-20X0.50 HHGR5 | 2 |
| 43 | 0484 | CAP SCR 0.31-18X0.50 HHGR5 | 1 |
| 44 | C1000 | CAP SCR 0.50-13X5.00 HHGR5 | 2 |
| 45 | D0178 | WASHER #10 SAE FLAT ZINC | 2 |
| 46 | C6106 | NUT 0.50-13 HHGR5 NYLOC | 3 |
| 47 | C1002 | CAP SCR 0.50-13X6.00 HHGR5 | 1 |
| 48 | 9843 | CAP SCR 0.38-16X0.75 HHGR8 | 2 |
| 49 | 43845 | CAP SCR 0.25-20X0.38 HHGR5 | 1 |



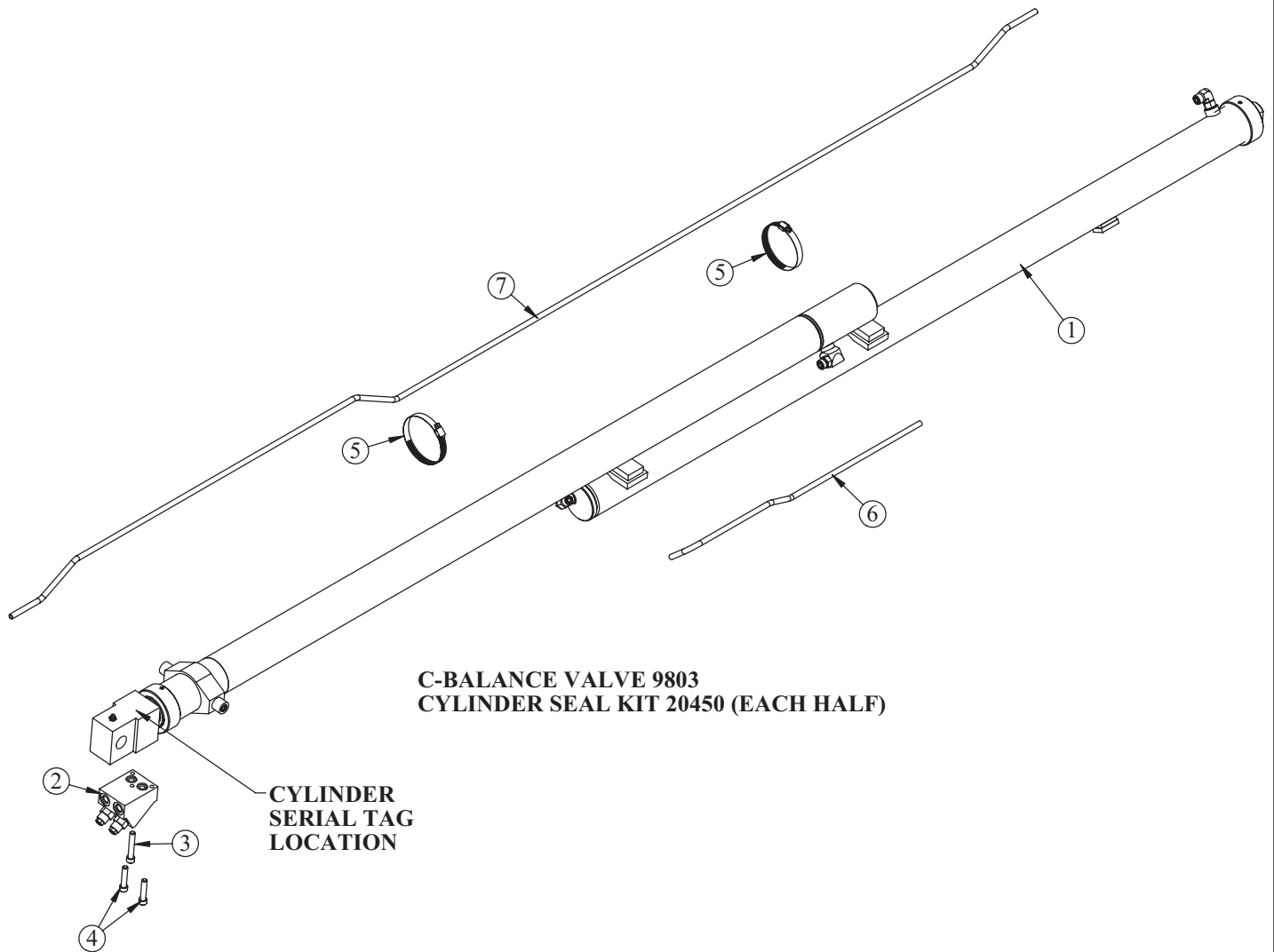
Main Cylinder Assembly - PN 72610



PN 72610

| ITEM | PART | DESCRIPTION | QTY. |
|------|-------|------------------------------------|------|
| 1 | 0279 | FTG 6-6 MFS-MORB STRAIGHT | 3 |
| 2 | 71163 | CYLINDER 5.50X22.50 ROT EXT PORT | 1 |
| 3 | 72757 | TUBE ASM 0.38 X 15.47 | 1 |
| 4 | 41910 | MANIFOLD ASM MAIN CYL CDT | 1 |
| 5 | 33743 | FTG 6-6 FFSS-MORB STRAIGHT | 1 |
| 6 | 28485 | TRANSDUCER PRESSURE 5000 PSI | 2 |
| 7 | 3861 | FTG 6-6 MAORB-FORB 90 | 2 |
| 8 | 15111 | FTG 6-4 MORB-FORB STRAIGHT REDUCER | 2 |

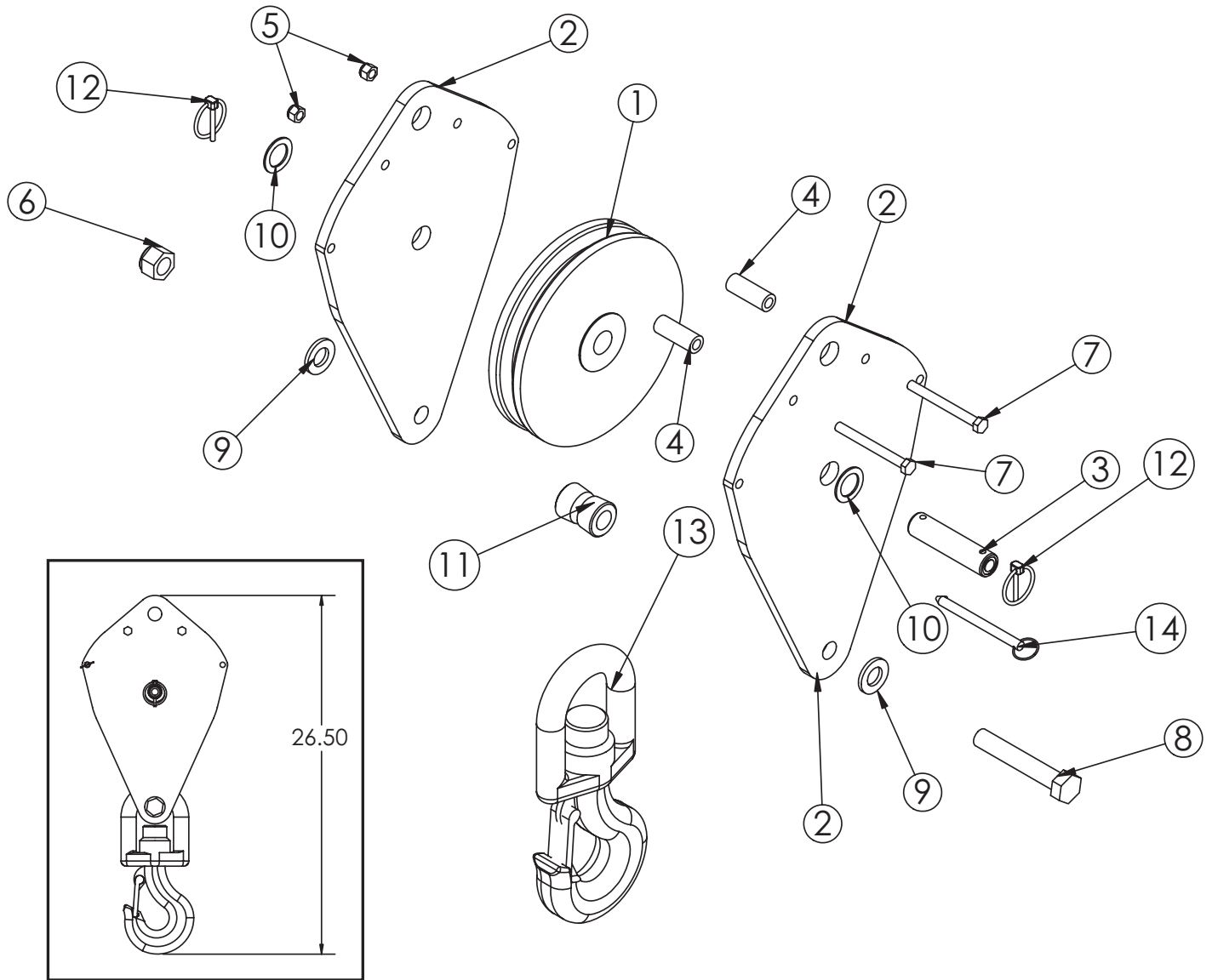
Extension Cylinder Assembly - PN 28859



PN 28859

| ITEM | PART | DESCRIPTION | QTY. |
|------|-------|--|------|
| 1 | 13980 | CYLINDER EXT 2 STAGE 2.5X2.5X120.0 | 1 |
| 2 | 14115 | MANIFOLD ASM 6620 EXT CBBBD-LJN-XVN | 1 |
| 3 | 14601 | CAP SCR 0.38-16X2.25 SH ZC | 1 |
| 4 | 11882 | CAP SCR 0.38-16X1.75 SH ZC | 2 |
| 5 | 24729 | HOSE CLAMP #52 3.00 - 3.75 | 2 |
| 6 | 87827 | TUBE ASM 0.38X23.25 EXT CYL 7621/12621 YZ | 1 |
| 7 | 88393 | TUBE ASM 0.38X102.13 EXT CYL 7621/12621 YZ | 1 |

Cable & Hook Assembly - PN 55898



PN 55898

| ITEM | PART | DESCRIPTION | QTY. |
|------|---------|------------------------------------|------|
| 1 | 43858 | SHEAVE 10621 9.25 DIA .44R/1.88THK | 1 |
| 2 | 53263PC | PLATE SNATCH BLOCK 76/96/106/126 | 2 |
| 3 | 39874ZP | PIN 1.00X4.06 COTTER | 1 |
| 4 | 44643 | COLLAR 0.44X0.75X2.00 | 2 |
| 5 | 0347 | NUT 0.38-16 HHGR5 NYLOC | 2 |
| 6 | C0538 | NUT 0.75-10 HHGR8 NYLOC | 1 |
| 7 | 0532 | CAP SCR 0.38-16X3.75 HHGR5 | 2 |
| 8 | 5841 | CAP SCR 0.75-10X4.50 HHGR8 | 1 |
| 9 | C6219 | WASHER 0.75 SAE FLAT YELLOW GR8 | 2 |
| 10 | 0867 | MACHY WASHER 1.00ID 14GA | 2 |
| 11 | 39844ZP | BUSHING V HOOK SS | 1 |
| 12 | 5753 | PIN 0.19X1.56 LYNCH | 2 |
| 13 | 26762 | HOOK 7 TON SWIVEL CROSBY 1028632 | 1 |
| 14 | 13436 | PIN .38X4.00 QUICK RELEASE | 1 |

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Chapter 4 - Replacement Parts

| Part Number | Description | Qty |
|-------------|-----------------------------------|-----|
| 77895 | Rotation Motor | 1 |
| 25367 | Relief Valve | 1 |
| 25368 | Seal Kit - Relief Valve | 1 |
| 24960 | Proportional Valve | 1 |
| 25371 | Solenoid Valve - Tandem G04571 | 3 |
| 25372 | Solenoid Valve - Open G04591 | 1 |
| 25373 | Seal Kit - Solenoid Valve | 1 |
| 44532 | Coil | 9 |
| 13080 | Manifold ASM - Main Lift Cylinder | 1 |
| 9803 | C-Balance Valve | 2 |
| 35454 | Pressure Reducing Valve | 1 |
| 11991 | Plug - C-Balance Valve | 1 |
| 14115 | Manifold ASM - Extension Cylinder | 1 |
| 35646 | Seal Kit - Main Lift Cyl | 1 |
| 20450 | Seal Kit - Extension Cyl | 2 |
| 28485 | Pressure Transducer | 2 |
| 53493 | Inclineometer | 1 |
| 74554 | Extension Sensor | 1 |
| 37980 | Hydraulic Pressure Gauge | 1 |
| 12171 | FTG 6-6 MFS-MFS Swivel Straight | 1 |
| 12172 | FTG 8-8 MFS-MFS Swivel Straight | 1 |
| 43858 | Sheave | 2 |
| 43858 | Sheave | 1 |
| 44812 | Wire Rope | 1 |
| 12824 | Hitch Pin 1.00 x 4.50 | 1 |
| 45125 | Hitch Pin 1.00 Fork | 1 |
| 13436 | Quick Release Pin .38 x 4.00 | 1 |
| 35105 | Limit Switch | 1 |
| 72602 | Cord Reel | 1 |
| 26762 | Hook | 1 |
| 55667 | Winch Motor | 1 |
| 71907 | Winch Motor Seal Kit | 1 |
| 53492 | Winch Seal Kit | 1 |



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