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Manual # 99905188 & 99905189

Series III Telescopic Cranes 14000 Parts & Specifications

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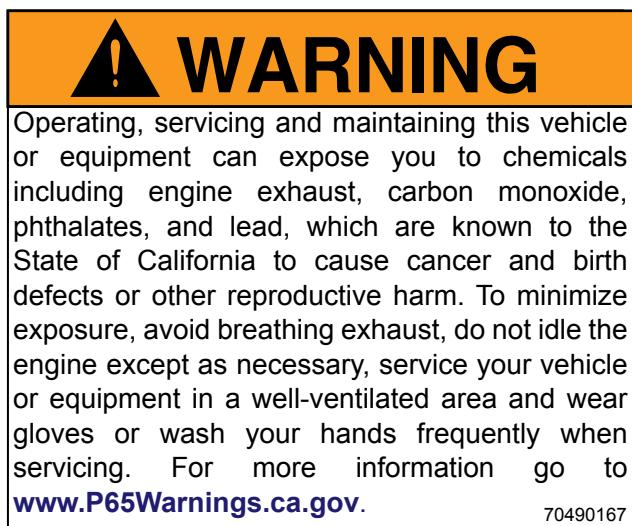


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Section - 1

Introduction

Equipment Safety

PERSONNEL REQUIREMENTS

Certain inherent risks are associated with heavy equipment. Personnel working in the area of these vehicles are subject to certain hazards that cannot be guarded against by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential for the owner of this equipment to have personnel involved in the use and operation of these vehicles who are competent, careful, physically and mentally qualified, and trained in the safe operation of this equipment.

TRAINING

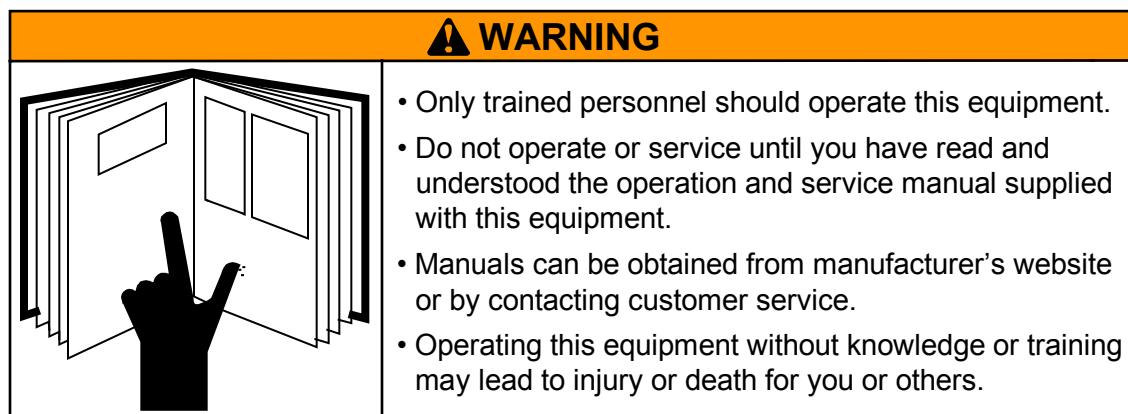
Prior to using any of the equipment installed on or incorporated in the IMT Crane Body Mechanics Truck, you must:

- Have already been fully trained to operate the vehicle and equipment.
- Have demonstrated the effectiveness of your training and the extent of your knowledge.

BEFORE operating this vehicle and any associated equipment, you, the operator or maintainer, must read, understand, and follow the instructions found in the operator and maintenance manuals from the manufacturers of major components used on this vehicle or equipment

Proper tools and service equipment must be used taking appropriate precautions as required by accepted safety practices to prevent personal injury and / or equipment damage

If you are uncertain about the safe operation of any aspect of this vehicle or equipment, stop immediately and seek further training.



www.imt.com/service-manuals

Introduction

This volume includes specifications, installation information, and spare parts drawings applicable to your particular crane. For operating, maintenance and repair instructions, see the Telescopic Crane Operation, Maintenance and Repair Manual (IMT part number 99905190).

It is your responsibility to operate and maintain this unit in a manner that will result in the safest working conditions possible. You must be aware of existing Federal, State and Local codes and regulations governing the safe use and maintenance of this IMT crane. The crane was designed and built to meet the standards of ANSI/ASME B30.5, Mobile & Locomotive Cranes. Contact the American Society of Mechanical Engineers (www.asme.org) for more information on ANSI/ASME B30.5.

Misuse of the crane through overloading, abuse, lack of maintenance and unauthorized modifications will void the warranty on any part of the unit subjected to this misuse. No warranty - verbal, written or implied - other than the official, published IMT new machinery and equipment warranty will be valid with this unit.

Throughout the manual, NOTE, CAUTION and WARNING are used to draw the attention of personnel. They are defined as follows:

WARNING

A WARNING is used when there is the potential for personal injury or death.

CAUTION

A CAUTION is used when there is the very strong possibility of damage to the equipment or premature equipment failure.

NOTE

A NOTE is used to either convey additional information or to provide further emphasis for a previous point.

For a safe work environment, treat this equipment with respect and service it regularly.

PERSONAL FALL / TIE-OFF PROTECTION

When using IMT products for the purpose of personal fall protection, users shall read, understand, and follow the personal fall protection provisions of OSHA 29 CFR 1926.1423, paragraphs (g) Anchorage criteria; (j) Anchoring to the load line; (k) Training. Note OSHA sections, 1926.502(d)(15)* and 1926.502(e)(2)*, are cross-referenced in this section and is up to the user to read, understand, and follow these regulations. The above-referenced provisions within OSHA address specific personal fall protection requirements; however, users of IMT products are required to read, understand and follow all OSHA, industry, workplace, and employer-created regulations governing the use of this product, which includes, but is not limited to, 29 CFR 1926.1423. The user is also required to read, understand, and follow IMT's warnings and instructions. Nothing within this letter should be interpreted to limit or excuse non-compliance with the above requirements in their entirety.

When using IMT products with personal fall protection as described above, users shall utilize a two-part line with the snatch block installed on the winch load line. The personal fall protection shall be attached to the hook on the snatch block. The personal fall protection device shall be connected to the hook on the snatch block only if the hook has the original safety latch on the hook. At no time shall anyone use the hook on the snatch block for purposes of attaching personal fall protection if the safety latch is not original to the hook, or is missing or damaged, and/or if the safety latch is not properly functioning. At no time shall anyone use the winch wire-rope as a tie-off point for personal fall protection. The failure to follow the above regulations and strict adherence to all applicable OSHA, industry, workplace, employer-created, and IMT warnings and instructions can lead to personal injury or death.

These regulations can be found here: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=67

* In order to use this method, the hook must have a safety latch, the crane must be capable of supporting 5,000 pounds (refer to the load chart affixed to the crane), limit the fall to less than 6-feet, and not allow a swinging fall. Crane hooks should be used only where there is no other suitable anchor point.

Section - 2

Specifications

Specifications

GENERAL SPECIFICATIONS		
	25 ft	30 ft
CRANE RATING (crane rating (ft-lb) is the rated load (lb) multiplied by the respective distance (ft) from centerline of rotation with all extensions retracted and lower boom in horizontal position.)	95,00 ft-lb (13.1 tm)	94,000 ft-lb (13.0 tm)
HORIZONTAL REACH - FLIP SHEAVE UP (From centerline of rotation)	24' 5" (7.4 m)	31' 0" (9.4 m)
HORIZONTAL REACH - FLIP SHEAVE DOWN (From centerline of rotation)	24' 0" (7.3 m)	30' 1" (9.2 m)
FULLY RETRACTED LENGTH	11'-6" (3.5 m)	13'- 0" (4 m)
HYDRAULIC EXTENSIONS (2)	75" & 75" (190.5 cm & 190.5 cm)	102" & 102" (259 cm & 259 cm)
LIFTING HEIGHT (From base of crane)	26' 3" (8.0 m)	32' 3" (9.8 m)
CRANE WEIGHT	3,100 lb (1,406 kg)	3,280 lb (1,488 kg)
CRANE STORAGE HEIGHT	46.3" (117.6 cm)	
MOUNTING SPACE REQUIRED (Crane base)	24" x 25" (61.0 cm x 63.5 cm)	
OPTIMUM PUMP CAPACITY	10 U.S. gpm (37.9 - 45.4 L/min)	
SYSTEM OPERATING PRESSURE	3200 psi (221 Bar)	
CENTER OF GRAVITY Horizontal from centerline of rotation. Vertical from bottom of crane base.	46.2" (117.3 cm) 21.38" (54.3 cm)	56.3" (143.0 cm) 22.8" (58.0 cm)
TIE-DOWN BOLT PATTERN (8 bolts)	11.5" x 18.0" (29.2 cm x 45.7 cm)	
ROTATIONAL TORQUE	11,000 ft-lb (1.5 tm)	

PERFORMANCE CHARACTERISTICS 14000 25' & 30'		
	SPECIFICATIONS	TIME / SPEED
ROTATION	400°	30 s
LOWER BOOM ELEVATION	-10° TO 80°	20 Seconds (Raise) 15 Seconds (Lower)
EXTENSION CYLINDERS (2)	75" & 75" (25') (191 cm & 191 cm) 102" & 102" (30') (259 cm & 259 cm) (30')	23 Seconds (Extend) (25') 15 Seconds (Retract) (25') 32 Seconds (Extend) (30') 21 Seconds (Retract) (30')
WINCH SPEED (single line)	60 feet per minute	

14000 25' & 30' MINIMUM CHASSIS SPECIFICATIONS	
CHASSIS STYLE	CONVENTIONAL CAB
BODY STYLE	DOMINATOR™ IV
CAB-TO-AXLE (1)	120 - 154" (305 - 391 cm) (Dominator IV)
RESISTANCE TO BENDING MOMENT	1,700,000 in-lb (195,861 kg-m)
FRAME SECTION MODULUS	14.2 cubic inches (232.7 cc).
RATED MOMENT	94,000 ft-lb (12,995 kg-m) (14000 - 25 ft) 95,000 ft-lb (13,134 kg-m) (14000 - 30 ft)
GROSS VEHICLE WEIGHT RATING (SEE NOTE 2)	33,000 lb (14,970 kg) minimum

POWER SOURCE

Hydraulic power is provided by an integral mounted hydraulic pump and PTO application. Other standard power sources may be used. Minimum power required is 23.5 horsepower based on 10-12 gpm (37.9 - 45.4 liters/min) at 3200 psi (221 Bar).

CYLINDER HOLDING VALVES

The holding sides of all cylinders are equipped with integral-mounted counterbalance valves to prevent sudden cylinder collapse in case of hose failure.

ROTATION SYSTEM

Rotation of the crane is accomplished through a turntable gear bearing powered by a high-torque hydraulic motor through worm gear reduction. Standard rotation is 400°.

HYDRAULIC SYSTEM (PTO DRIVEN)

The hydraulic system is an open-centered, full-pressure system that requires 10-12 gpm (37.9 - 45.4 L/min.) optimum oil flow at 3200 psi (221 Bar). It is equipped with a four-section, stack-type, electric, remote control valve with an RF remote-control system with a 40' (9.1 m) radio elimination cable. The system includes a separate hydraulic oil reservoir, suction line filter, return-line filter and control valve

OVERLOAD PROTECTION SYSTEM

Overloading of the crane is prevented by the overload protection system. A pressure transducer mounted on the lower cylinder senses overload conditions. When in an overload situation, the winch-up, extension-out, and boom-down functions are stopped. To relieve the situation, raise the boom, retract the extensions, or lower the winch.

WINCH

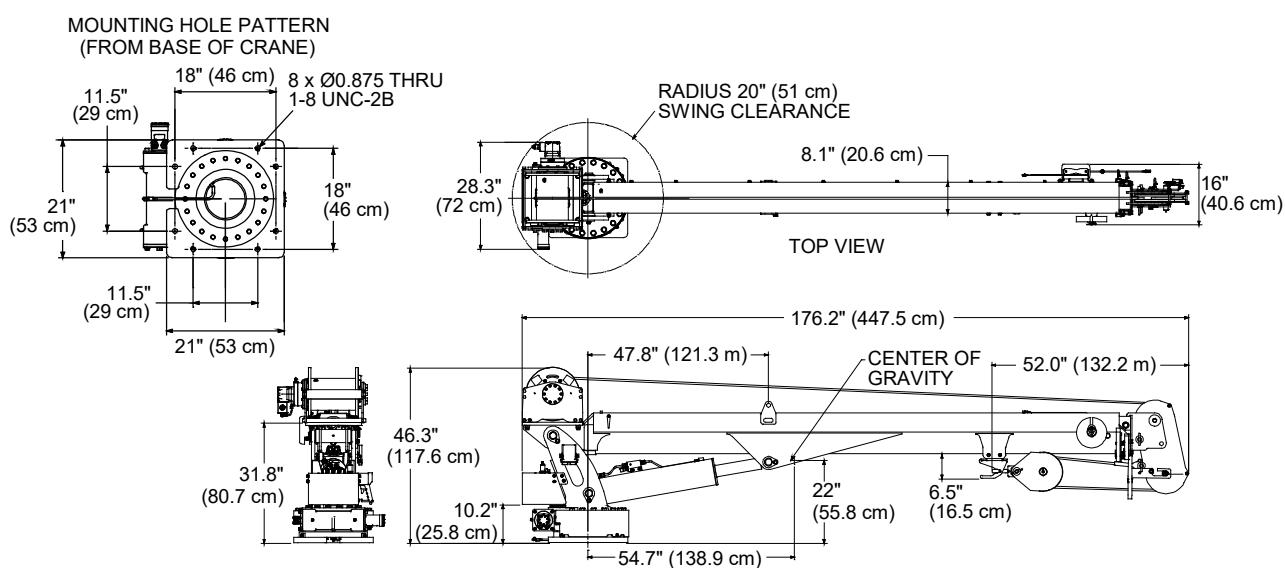
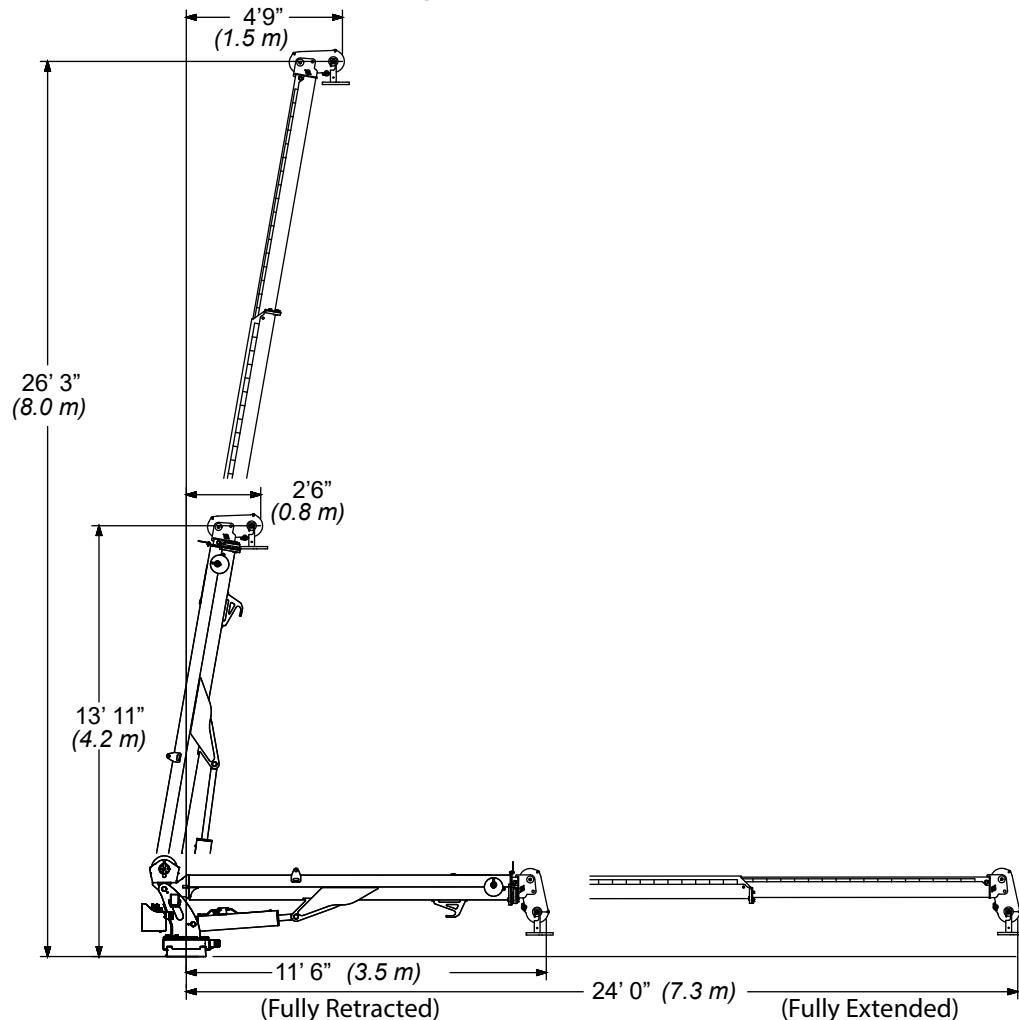
The 7,000 lb (3,175 kg) planetary winch is powered using a high-torque hydraulic motor. The lifting capacity of the winch is 7,000 lb (3,175 kg) one-part line. Maximum two-part line capacity is based on the maximum crane capacity. The winch is equipped with 100 ft (30.5 m) of 1/2" (1.3 cm) 6X31 wire rope (14000 25'), 120 ft (36.6 m) of 1/2" (1.3 cm) 6X31 wire rope (14000 30'). A compact, anti-two block device is included to prevent the lower block or hook assembly from coming in contact with the boom sheave assembly. The winch meets ANSI B30.5 standards.

NOTES:

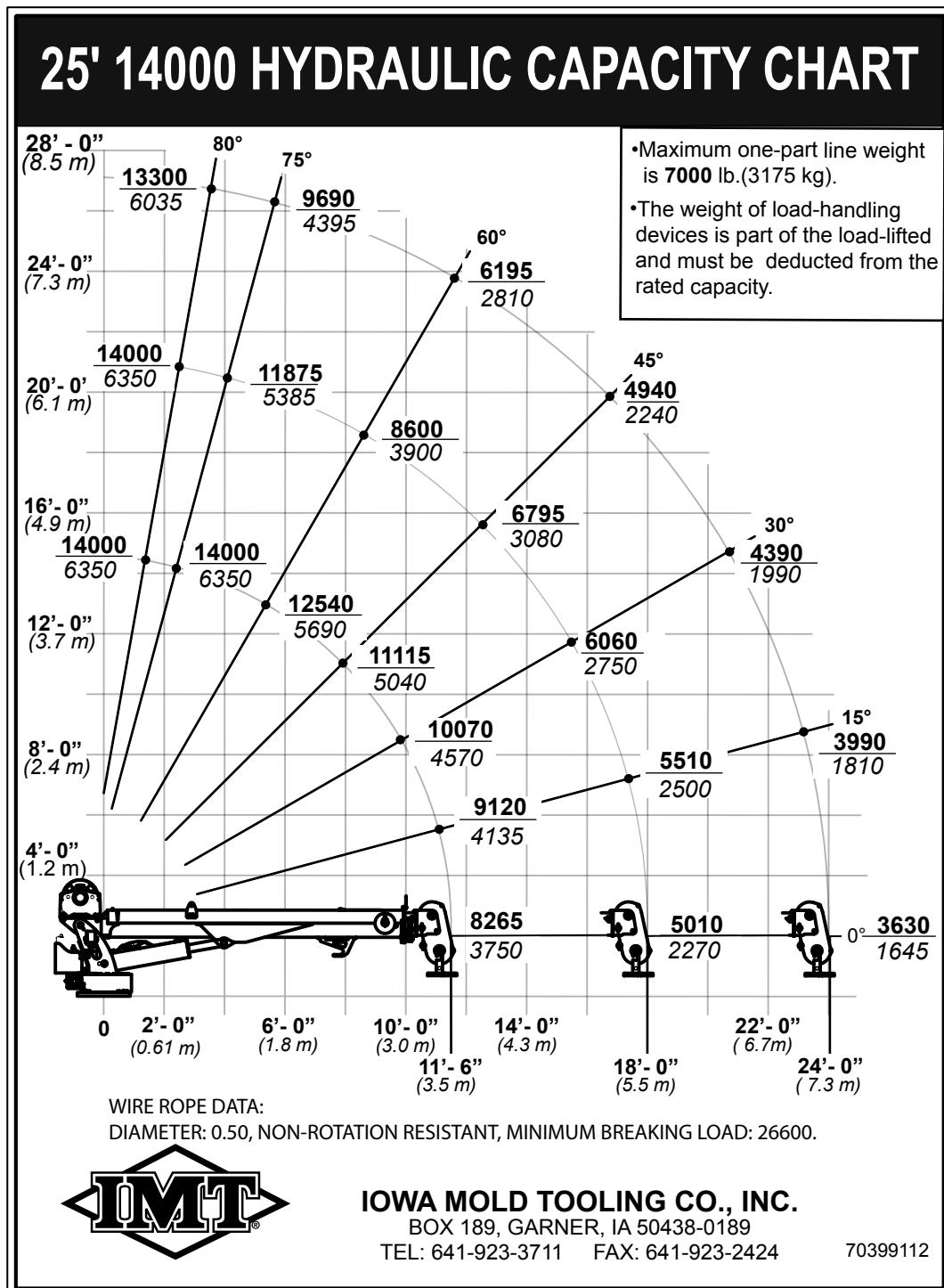
1. THE CAB TO AXLE (CA) DIMENSION VARIES BASED ON THE CONFIGURATION OF THE BODY, CRANE, AND AUXILIARY EQUIPMENT INCLUDING WELDER DECKS. MAKE SURE THE CA IS FREE AND CLEAR FROM OBSTRUCTIONS EVERYWHERE EXCEPT BETWEEN THE FRAME RAILS.
2. THE GROSS VEHICLE WEIGHT RATING (GVW) IS A MINIMUM GUIDELINE.
3. CONTACT IMT IF YOU HAVE QUESTIONS REGARDING YOUR PARTICULAR INSTALLATION.
4. IN ADDITION TO THESE SPECIFICATIONS, HEAVY DUTY ELECTRICAL AND COOLING SYSTEMS ARE REQUIRED.
5. IT IS RECOMMENDED THAT THE VEHICLE BE EQUIPPED WITH AN ENGINE TACHOMETER, AUXILIARY BRAKE LOCK, AND POWER STEERING.
6. WEIGHT DISTRIBUTION CALCULATIONS ARE REQUIRED TO DETERMINE FINAL AXLE LOADING.
7. ALL CHASSIS, CRANE AND BODY COMBINATIONS MUST BE STABILITY-TESTED PER ANSI B30.5 REQUIREMENTS.

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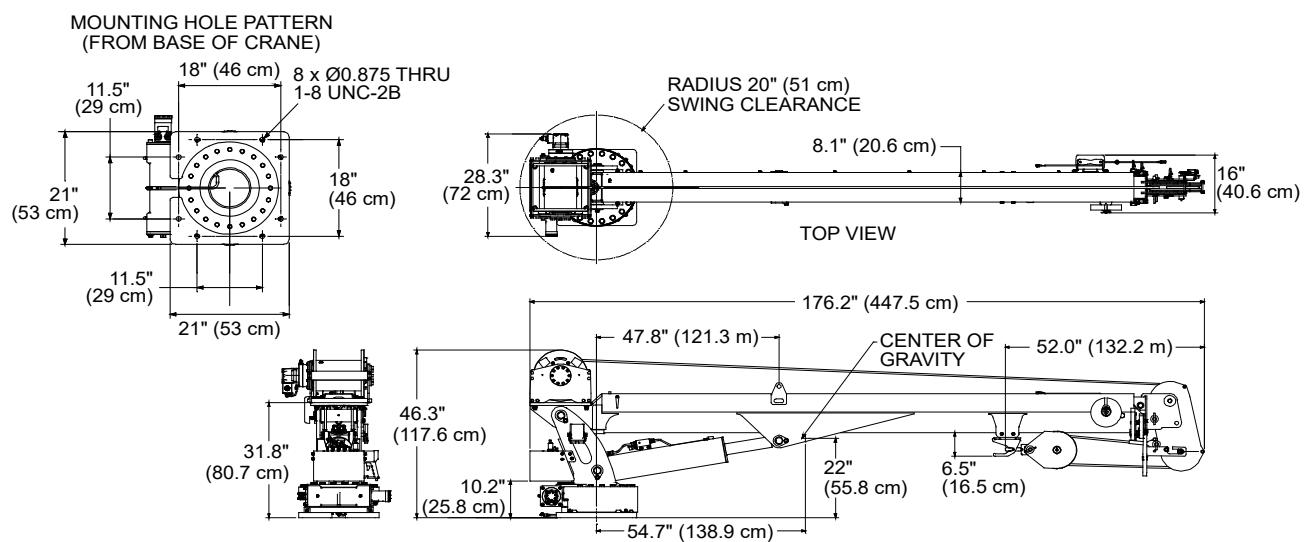
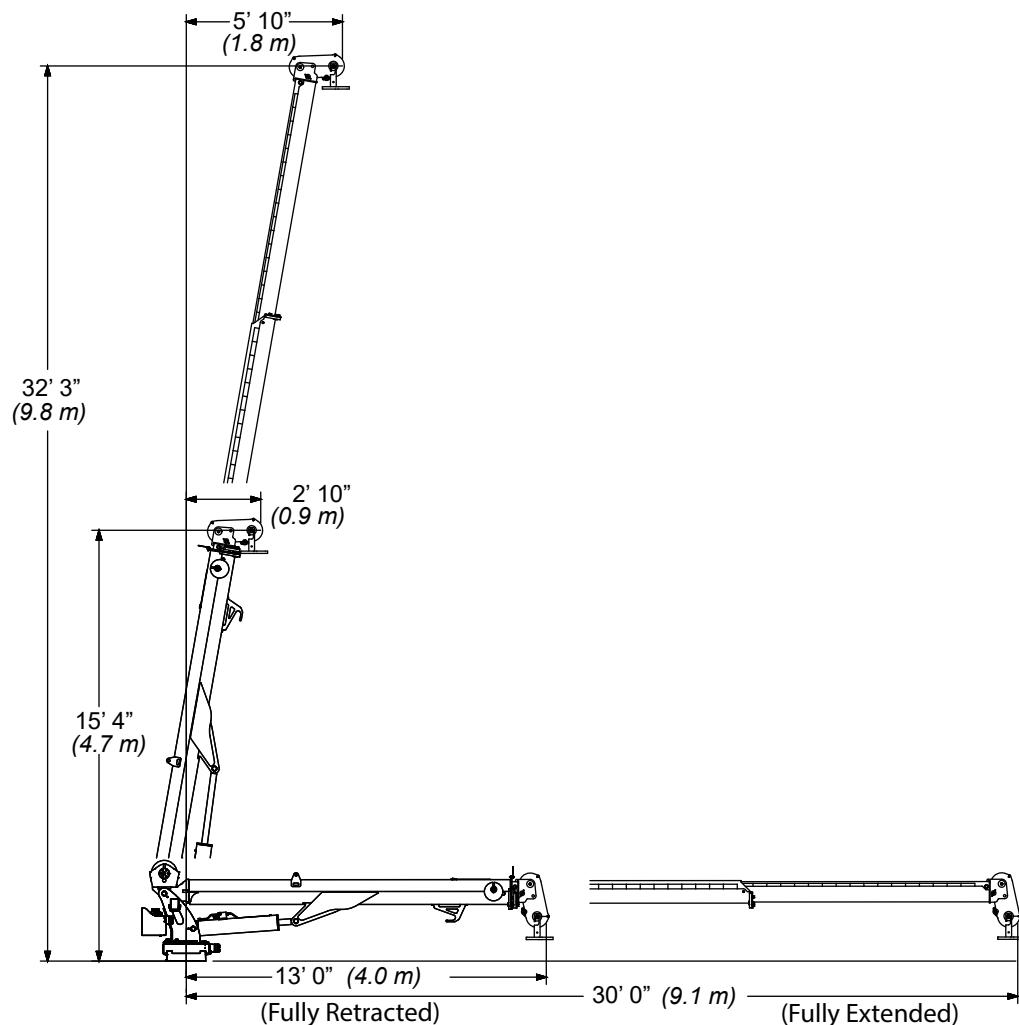
14000 - 25' Dimensional Drawings



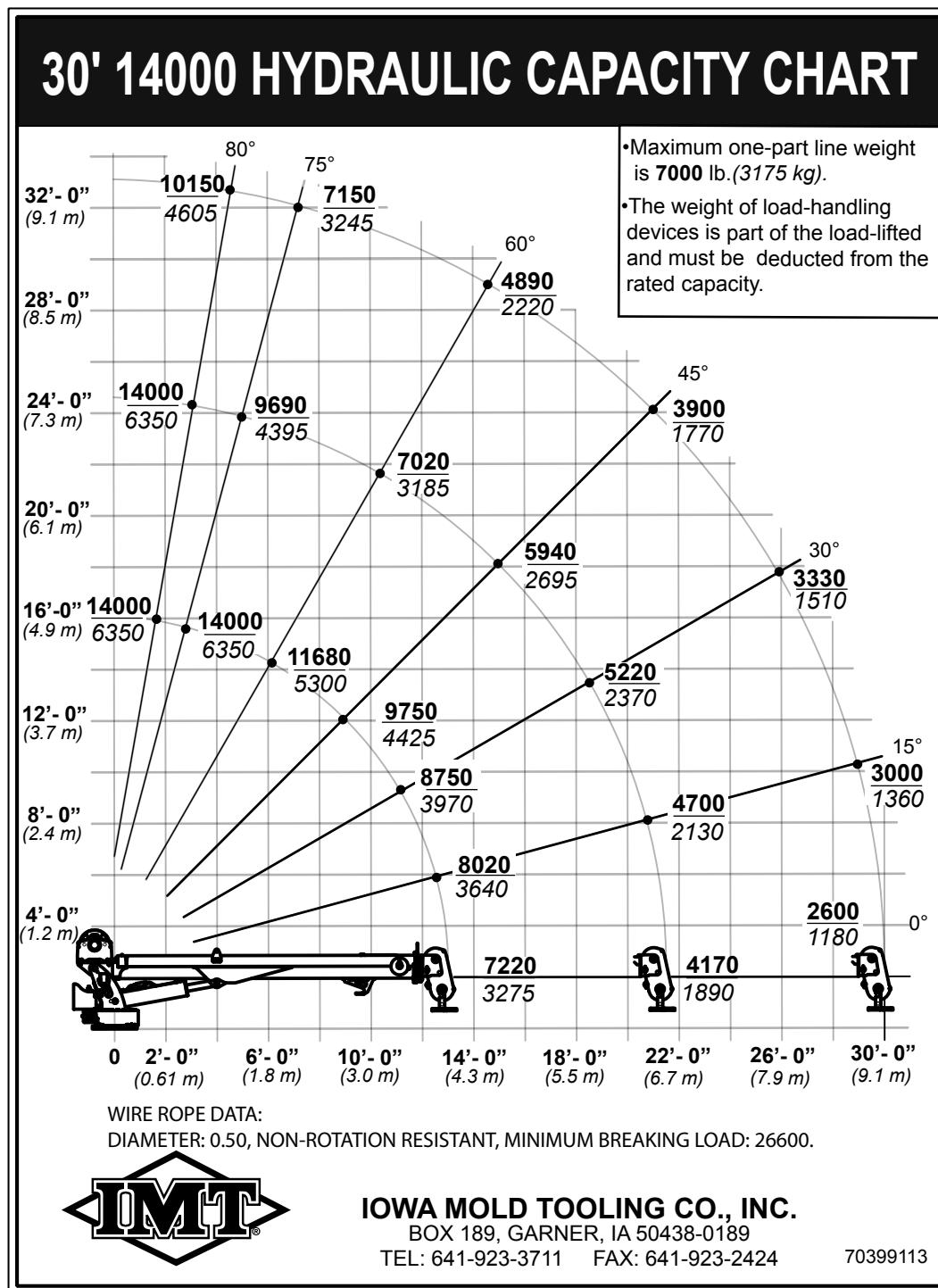
14000 - 25' Crane Capacity Load Chart



14000 - 30' Dimensional Drawings



14000 - 30' Crane Capacity Load Chart



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Section - 3

Crane References

Greasing Instructions

Different lubricants are required for different sections of your crane. Contact your lubricant supplier for specific product information. Follow the grease and lubricant specifications and intervals listed in this manual for best results.

Crane grease zerks must be greased on a weekly basis during normal operating conditions. Under severe operating conditions the zerks must be greased more frequently. Each grease zerk is marked with a decal, "grease weekly", as shown. Rotate the worm gear bearing when greasing the worm gear bearing grease zerks.

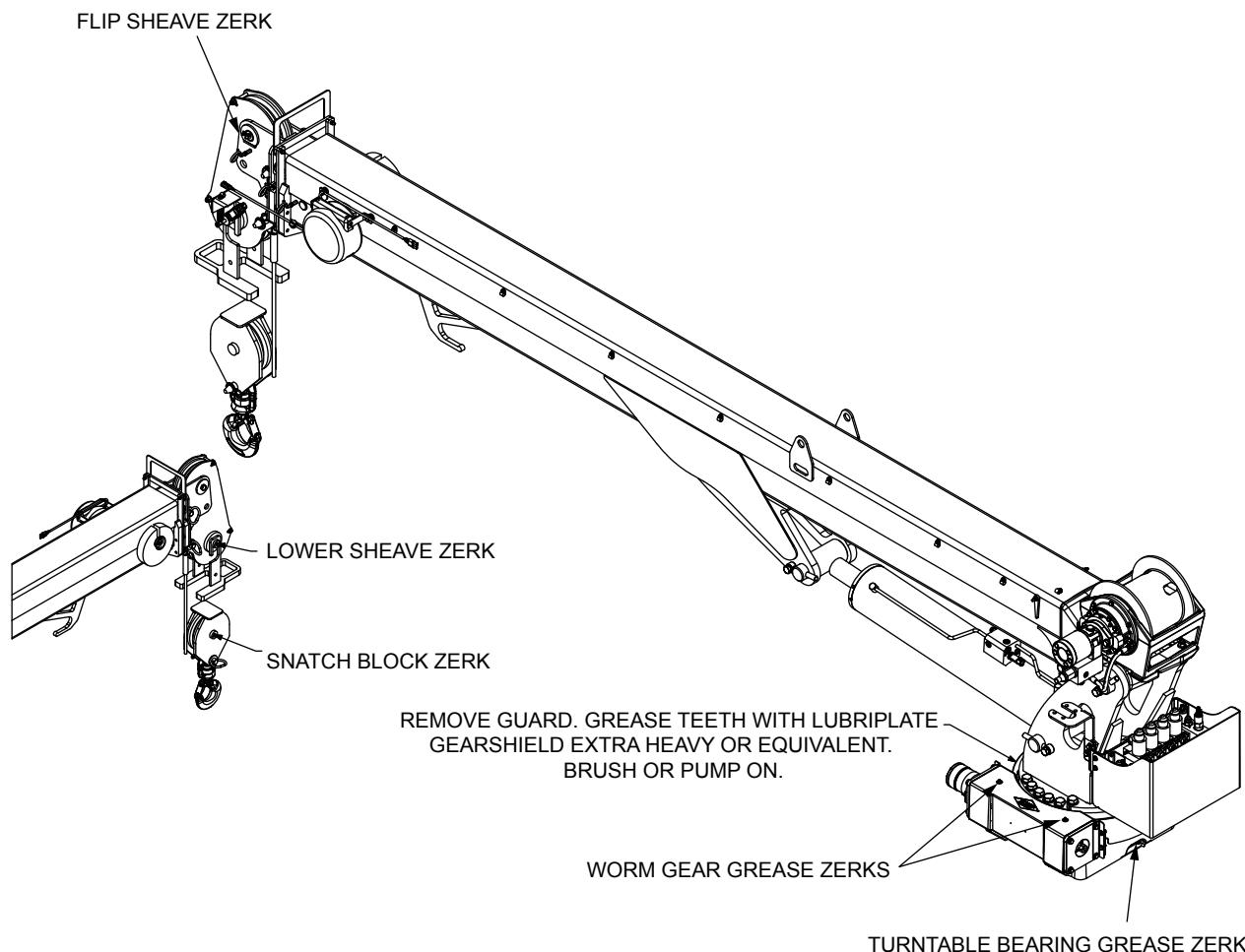


Crane worm gear bearing teeth must be lubricated weekly with lubriplate gear shield extra-heavy or equivalent, applied with a grease gun, caulk gun or brush. Cover all teeth with grease and leave no exposed metal surfaces showing.

**Weekly, remove cover and lubricate with
IMT recommended
open-gear compound while rotating crane.
IMT part number: 89086247**

70392399

Greasing Locations



LOCATION	LUBRICANT	APPLICATION METHOD	FREQUENCY
Base - Turntable Bearing Grease Zerk	Extreme Pressure Lithium grease such as: Shell Alvania 2EP Shell Retinax "A" Mobilgrease XHP 462, Cenex ML 365, Xtreme True-Flo EP2 Lithium grease or equivalent	Apply with hand or pneumatic pressure grease gun	Weekly
Flip Sheave Pin Snatch Block Pin Worm Gear Bearings Grease Zerks (*Rotate crane while greasing)			
Rotation Worm Gear Teeth	Gear shield extra-heavy or equivalent	Brush or spray on	Weekly

Recommended Spare Parts List

BASE & MAST		
25'	30'	
73511254	HYDRAULIC MOTOR	1
72601949	CAP SCREW 0.50-13 X 1.25 SHZC	4
72601295	CAP SCREW .75-10 X 3.50 HEX HEAD GR8 Z	14
72601629	CAP SCREW .75-10 X 4.00 HEX HEAD GR8 Z	6
BOOM ASSEMBLY		
60030336	WEAR PAD-RC	1
60030438	WEAR PAD-ROUND	2
60030421	WEAR PAD-RC	1
60030422	WEAR PAD-ROUND	1
60030437	WEAR PAD-RC	4
60030425	WEAR PAD-ROUND	2
60030427	WEAR PAD-ROUND	4
60030442	WEAR PAD-ROUND	2
ANTI-TWO-BLOCK ASSEMBLY		
77041863	LIMIT SWITCH	1
RIGGING COMPONENTS		
52718741	PIN (effective through 05/22/13)	2
52723036	PIN (effective through 05/22/13)	1
70190007	PIN-TYPE AB 2.00 X 11.88 SS	2
70190008	PIN-TYPE AB 2.00 X 7.63 SS	1
70735082	HOOK, SWIVEL (Effective: 01/01/2018)	1
70580236	WIRE ROPE ASSEMBLY	1
60030102	SHEAVE	1
30' LOWER CYLINDER		
51727890	CYL-6.0/3.0 25.07S 45.44CC C /PD	
94399133	SEAL KIT	
30' 51723927 CYLINDER		
51727883	PART OF EXT. CYLINDER ASSEMBLY	
94399162	SEAL KIT	1
30' 51723928 CYLINDER		
51727883	PART OF EXT. CYLINDER ASSEMBLY	
94399161	SEAL KIT	1
25' LOWER CYLINDER		
51727890	CYL-6.0/3.0 25.07S 45.44CC C /PD	
94399133	SEAL KIT	1
25' 51723929 CYLINDER		
51727882	PART OF EXT. CYLINDER ASSEMBLY	
94399161	SEAL KIT	1

RECOMMENDED SPARE PARTS LIST - CONTINUED

25' 51723930 CYLINDER			
25'	30'		
51727882		PART OF EXT. CYLINDER ASSEMBLY	
94399162		SEAL KIT	1
WINCH			
70570836	71570825	WINCH-PLANETARY 7770 LB LINE PULL (A80)	1
94397044	94397044	WINCH SEAL KIT	1
VALVE BANK 73734727			
94399213		SEAL KIT, CONNECTION BLOCK	1
94399214		SEAL KIT, VALVE SECTIONS	1
77041898		SOLENOID, 12V	1
25' 51727882 CYLINDER ASSEMBLY			
94490493		SEAL KIT	1
30' 51727883 CYLINDER ASSEMBLY			
94490494		SEAL KIT	1

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Installation Introduction

GENERAL

This section contains instructions for the installation of your crane. Prior to installing the crane and hydraulic components, make sure that the chassis is ready to receive the crane (see the Installation Section of the IMT *Telescopic Crane Operation & Safety Manual*, 99905190).

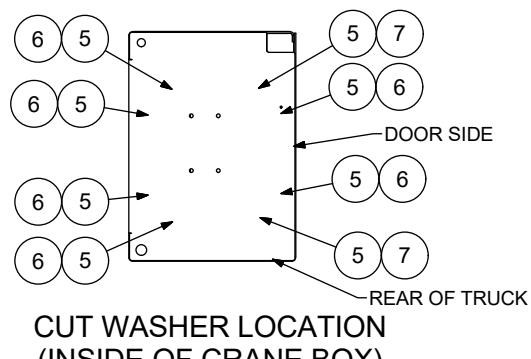
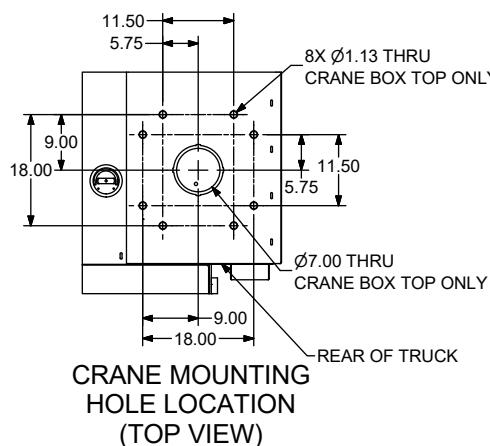
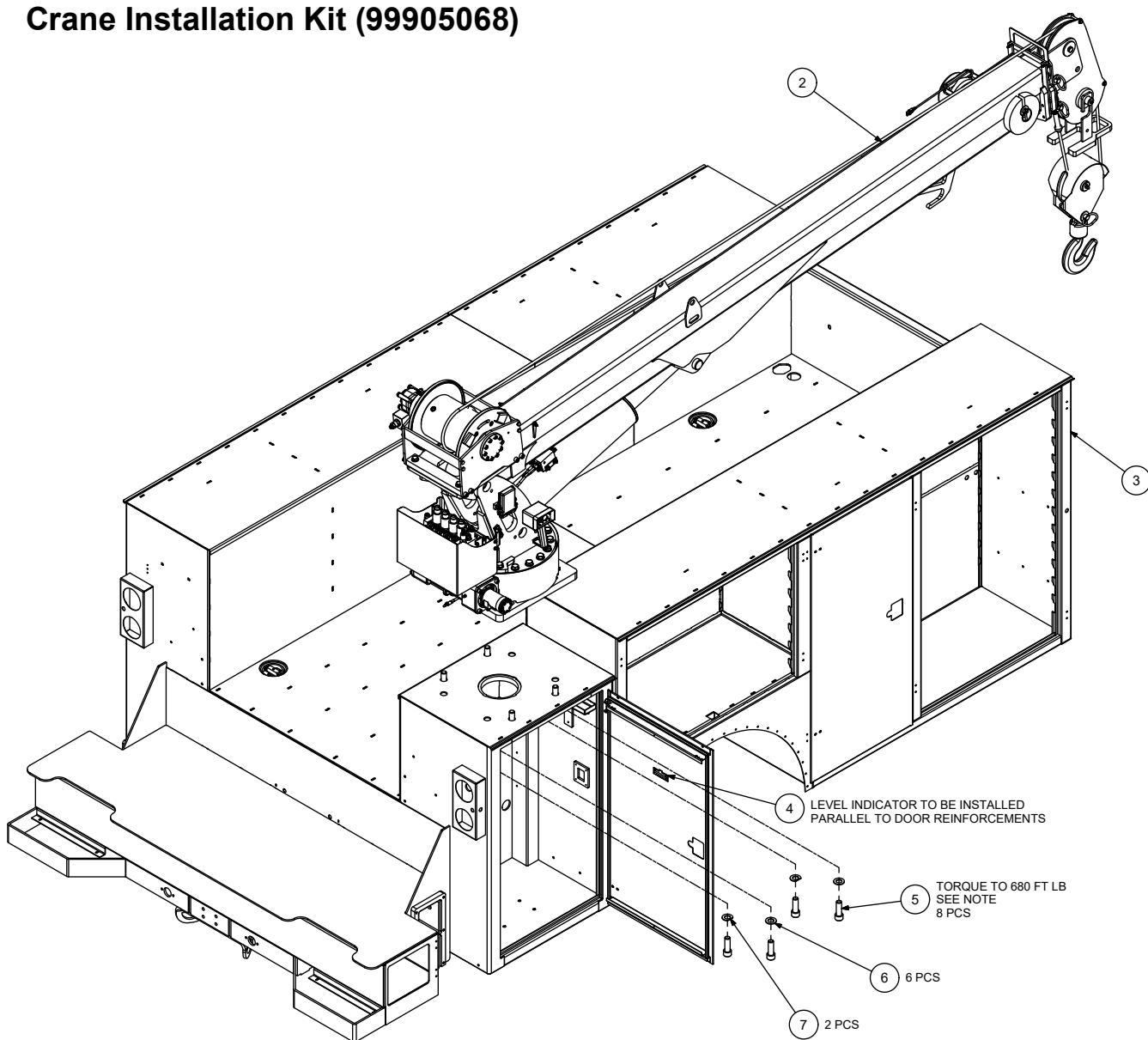
Reinforce the chassis frame, as necessary, and install the PTO and pump.

Each installation may vary in components used. It is important to use hoses of proper length, pumps of correct size, and PTO's of adequate speed. Study the applicable installation kit in the parts section before attempting any installation.

CRANE INSTALLATION

In addition to meeting Minimum Chassis Specifications, there must be sufficient room to mount the crane and the platform must be strong enough to support the crane and rated load. Install the crane only on an IMT designed and approved truck body. The body must be designed to sustain the forces imposed by the crane when lifting the full rated load. In addition, an IMT designed body is designed to take full advantage of the standard reservoir placement. This reservoir is installed in the cargo area of the body. Before attempting to install the crane, the body must be installed on the chassis.

Crane Installation Kit (99905068)



CUT WASHER LOCATION
(INSIDE OF CRANE BOX)

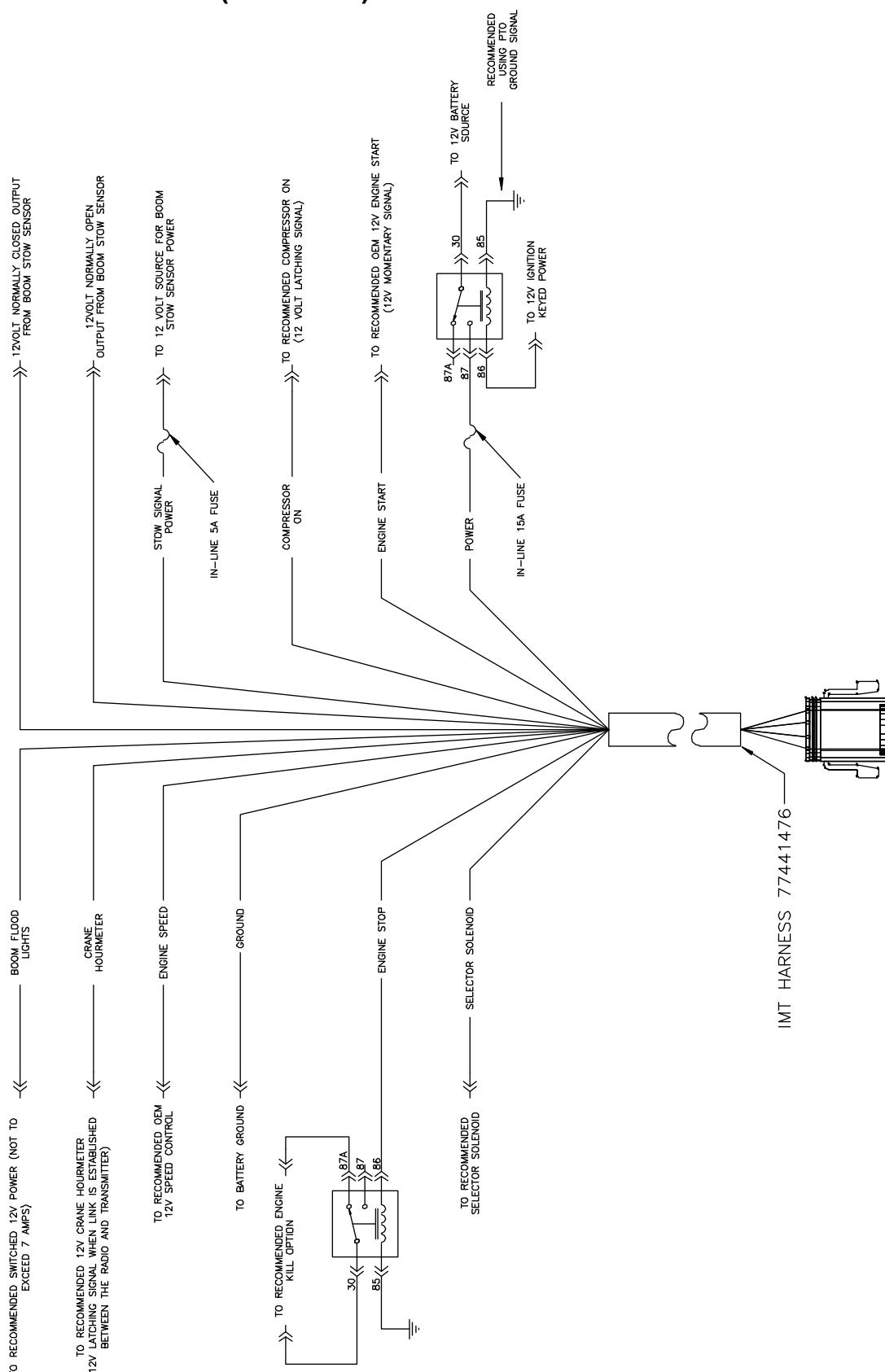
99905068 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1	93713670	INSTL-KIT SERIES III 12000-14000		1
2	CRANE	CRANE ASM SIII		REF
3	BODY	DOM S3		REF
4	72042097	LEVEL INDICATOR LEVEL	#1	1
5	72601748	CAP SCR 1.00- 8X 3.00 SH GR8	#1	8
6	72063066	WASHER 1.00 FLAT HI STR	#1	6
7	72063286	WASHER-FLAT 1.00 H ASTM F436 Z-CUT		2
REV. C				

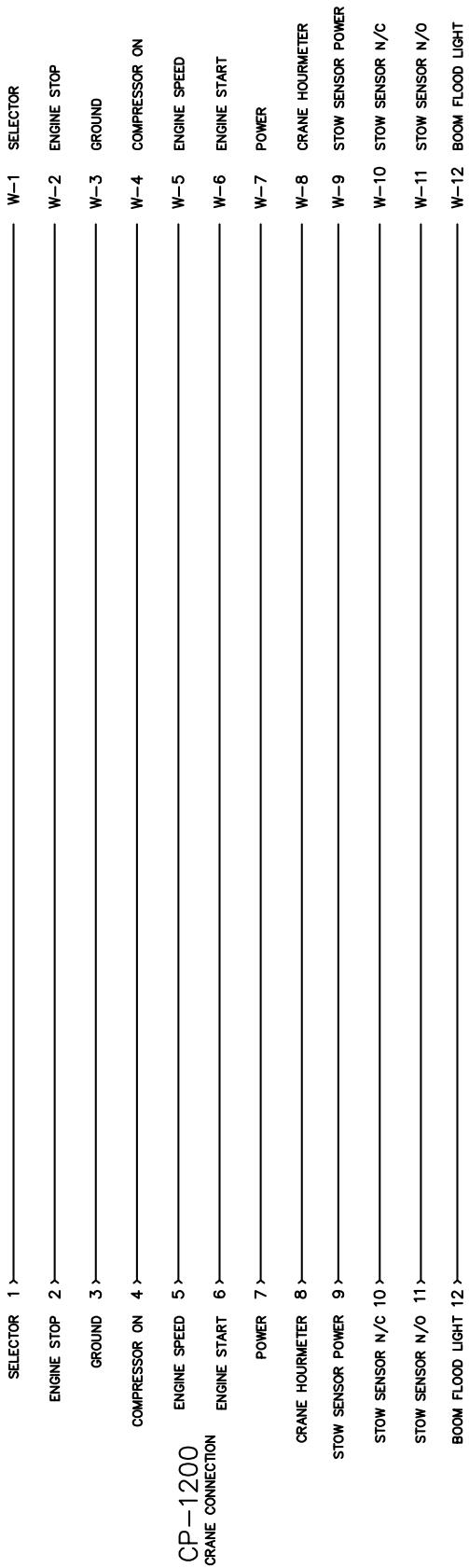
NOTE:

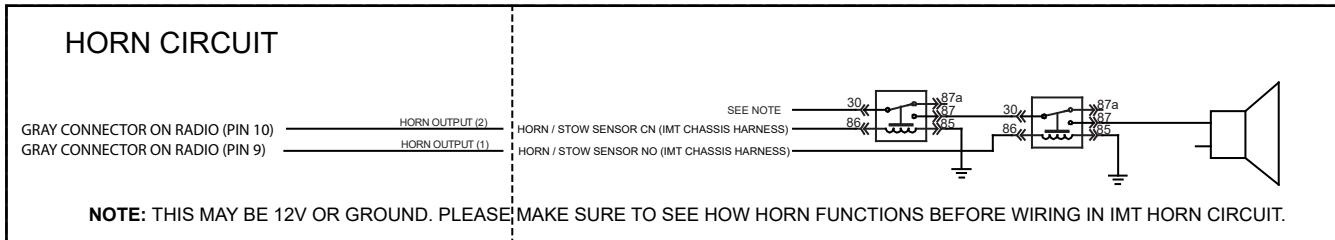
THE 3" BOLTS SUPPLIED ARE FOR USE ON BODIES WITH A CRANE BOX TOP PLATE THICKNESS OF 7/8" TO 1.00" ONLY. DETERMINE THE CRANE BOX TOP PLATE THICKNESS PRIOR TO MOUNTING. IF DIFFERENT LENGTH BOLTS ARE REQUIRED, THEY MUST BE 1-8, GRADE 8, ZINC COATED, OF PROPER LENGTH. FAILURE TO USE PROPER LENGTH BOLTS MAY CAUSE THE BOLTS UNDER THE CRANE SWING BEARING TO BOTTOM OUT BEFORE TORQUING. INSURE A MINIMUM OF 1-1/2" THREAD ENGAGEMENT.

Non IMT Chassis Harness (99905212)



Harness, Non IMT Body (77441476)

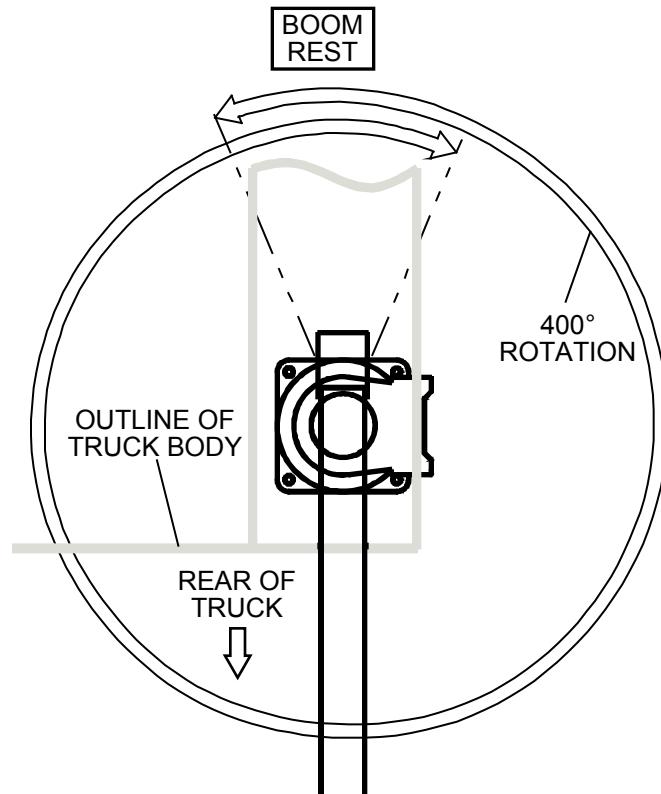


**NOTE:**

THIS MAY BE 12V OR GROUND. PLEASE MAKE SURE TO SEE HOW HORN FUNCTIONS BEFORE WIRING IN IMT HORN CIRCUIT.

Telescopic Crane Orientation

When an IMT telescopic crane is not factory-installed on a body, the crane is packed with the boom oriented as it is built on a test stand to facilitate handling. Install the crane on the body with boom pointing backward. Once the crane is bolted down, it can be rotated 180° to the boom rest.



SIII Telescopic Fully Proportional Radio Remote System

IMT telescopic cranes are controlled by radio remote controls. See the *TSIII Telescopic Fully Propotional Crane Radio Remote System* manual, IMT part number 99906209, for complete details.



REMOTE



RECEIVER

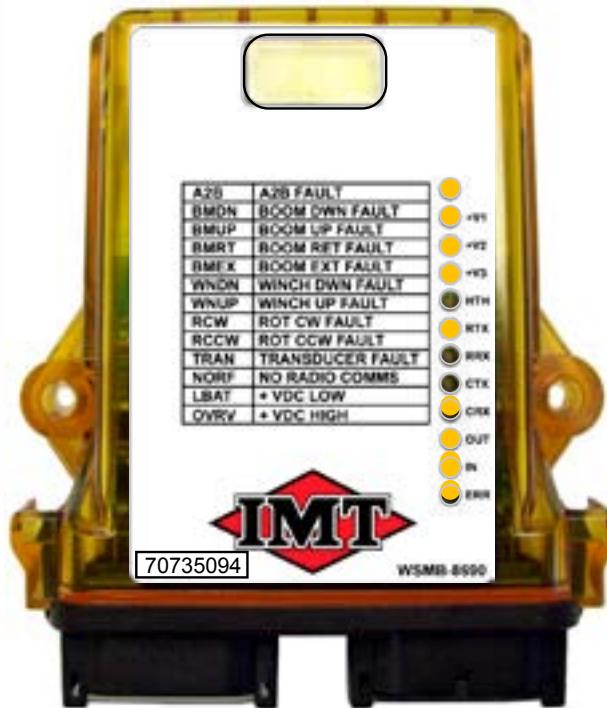
QTY.	PART NO.	DESCRIPTION
1.	70734957	TRANSM-RAD REM TELE S3 FP NON-G FHSS 240
1.	70734958	TRANSM-RAD REM TELE S3 FP GATED FHSS 241
1.	70734960	RECEIVER-RAD REM TELE S3 FP FHSS 2400

SIII Telescopic Single Proportional Radio Remote System

IMT telescopic cranes are controlled by radio remote controls. See the *Series III Telescopic Single Proportional Radio Remote System*, IMT part number 99906210, for complete details.



REMOTE



RECEIVER

QTY.	PART NO.	DESCRIPTION
1.	70735093	TRANSM-RAD S3 SP EM 5LED FHSS 2400
1.	70735094	RECEIVER-RAD S3 SP 5LED FHSS 2400

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Section - 4

Parts

Parts Information

GENERAL

This section contains the exploded parts drawings and accompanying parts lists for the assemblies used on this crane. These drawings are intended to be used in conjunction with the instructions found in the maintenance and repair manuals for this crane family. For optional equipment such as winches and remote controls, refer to the appropriate service manual.

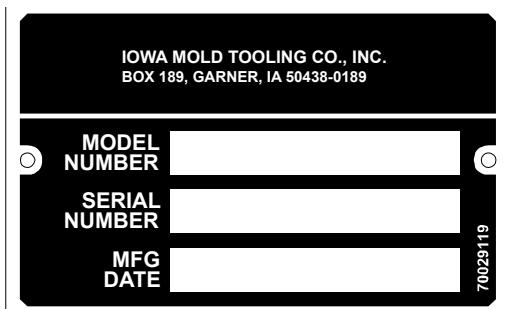
WARNING

Do not attempt to repair any component without reading the information contained in the repair section. Pay particular attention to statements marked **Warning**, **Caution** or **Note** in that section. Failure to comply with these instructions may result in damage to the equipment, personal injury or death.

CRANE IDENTIFICATION

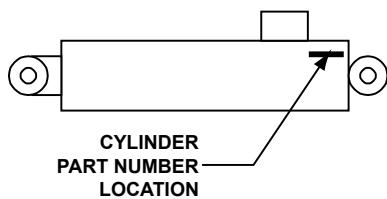
Every IMT crane has an identification placard (see figure). This placard is attached to the inner boom, mast, or crane base. When ordering parts, communicating warranty information, or referring to the unit in correspondence, always include the serial number and model numbers. Address all inquiries to your authorized IMT distributor or to:

Iowa Mold Tooling Co., Inc.
Box 189, Garner, IA 50438-0189
Telephone: 641-923-3711
Technical Support Fax: 641-923-2424



CYLINDER IDENTIFICATION

To insure proper replacement parts are received, it is necessary to specify the complete number/letter sequence for any part requested. Part numbers may be cross checked by comparing the stamped identification on the cylinder case (See figure below) against the information contained in the service manual. You must include the part number stamped on the cylinder case when ordering parts.

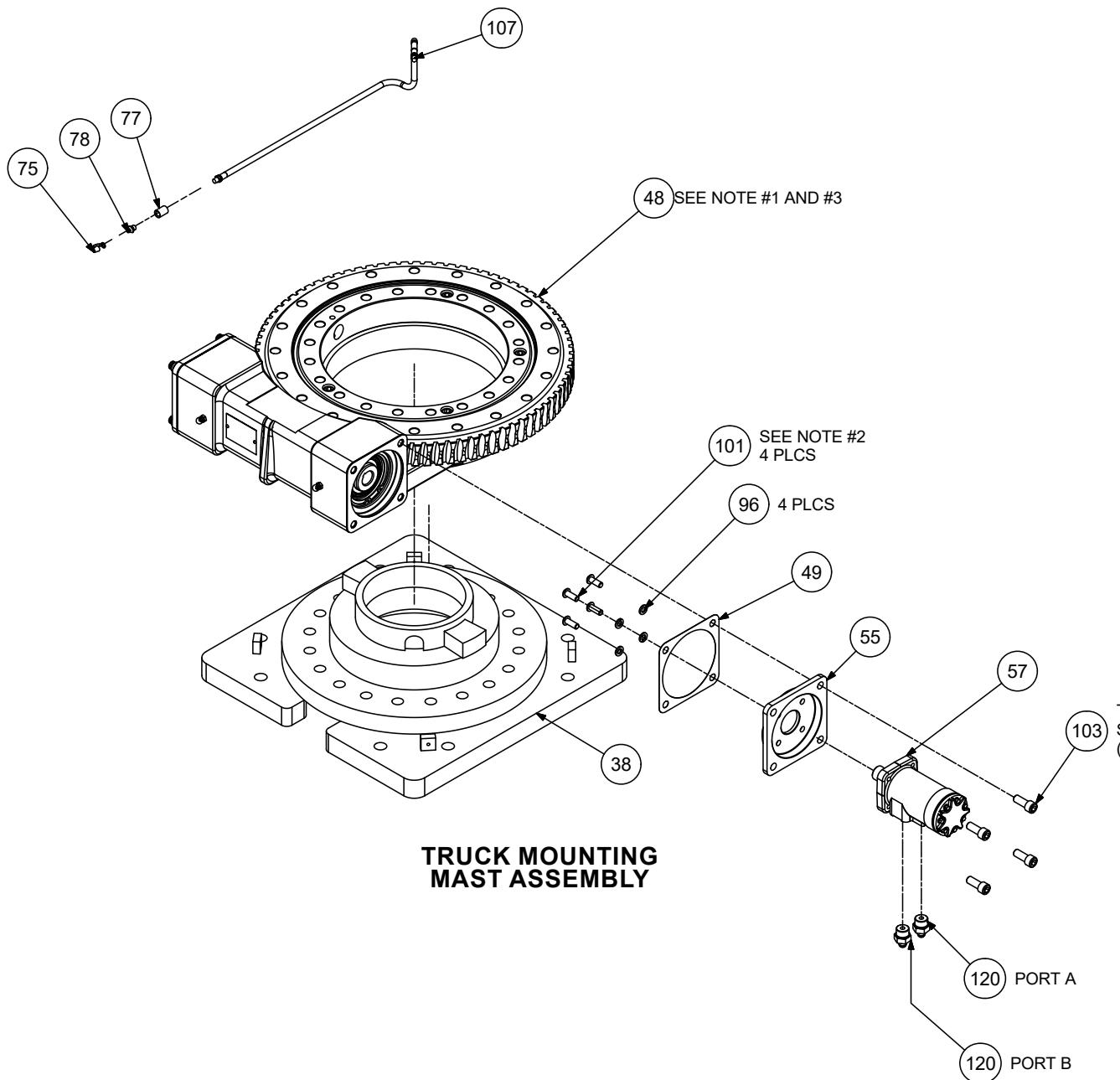


WELDMENT IDENTIFICATION

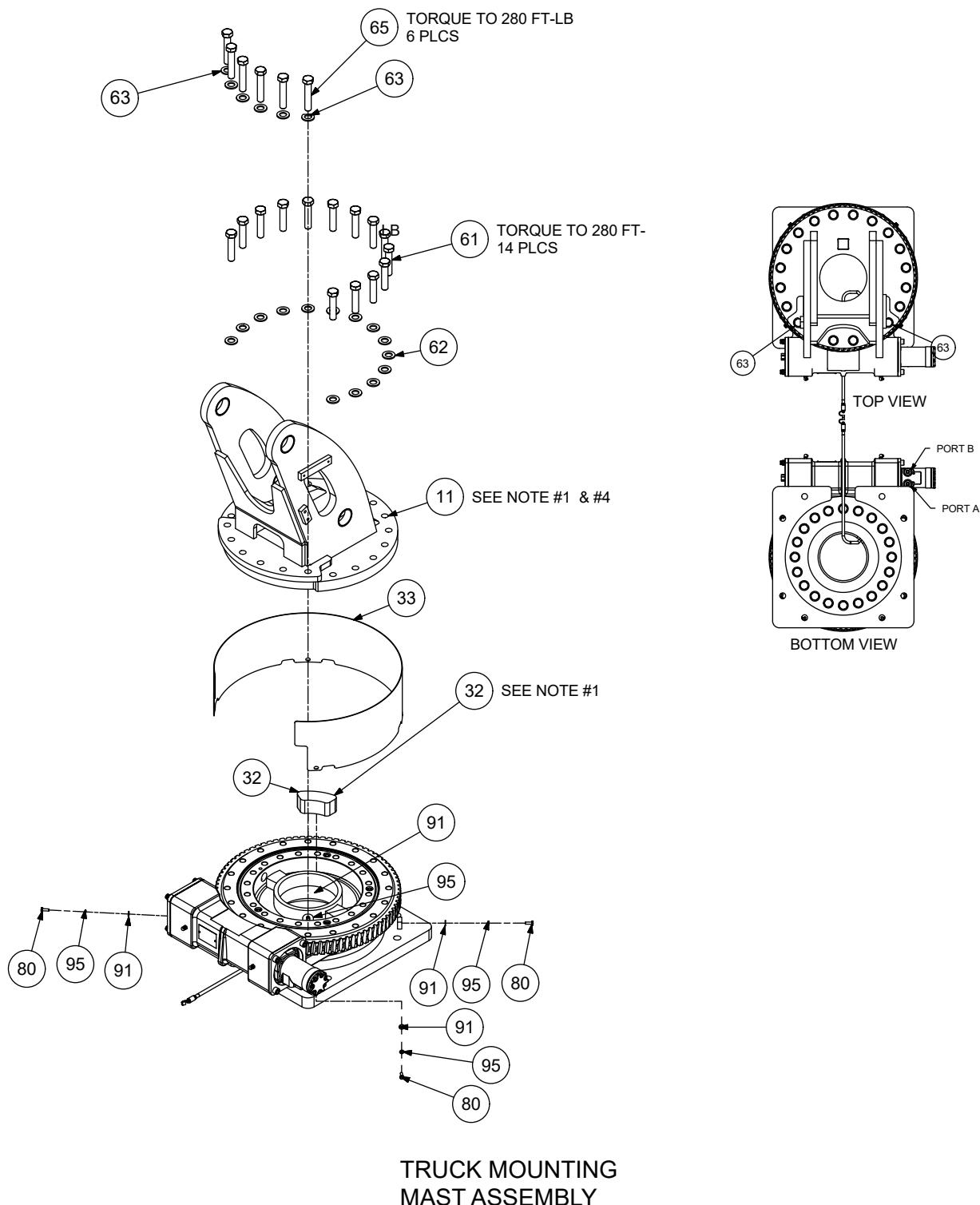
Each of the major weldments - base, mast, inner boom, outer boom, extension boom and stabilizer weldments bear a stamped part number. Any time a major weldment is replaced, you must specify the complete part number as stamped on the weldment. The locations of the part numbers are shown in the Crane Reference Section

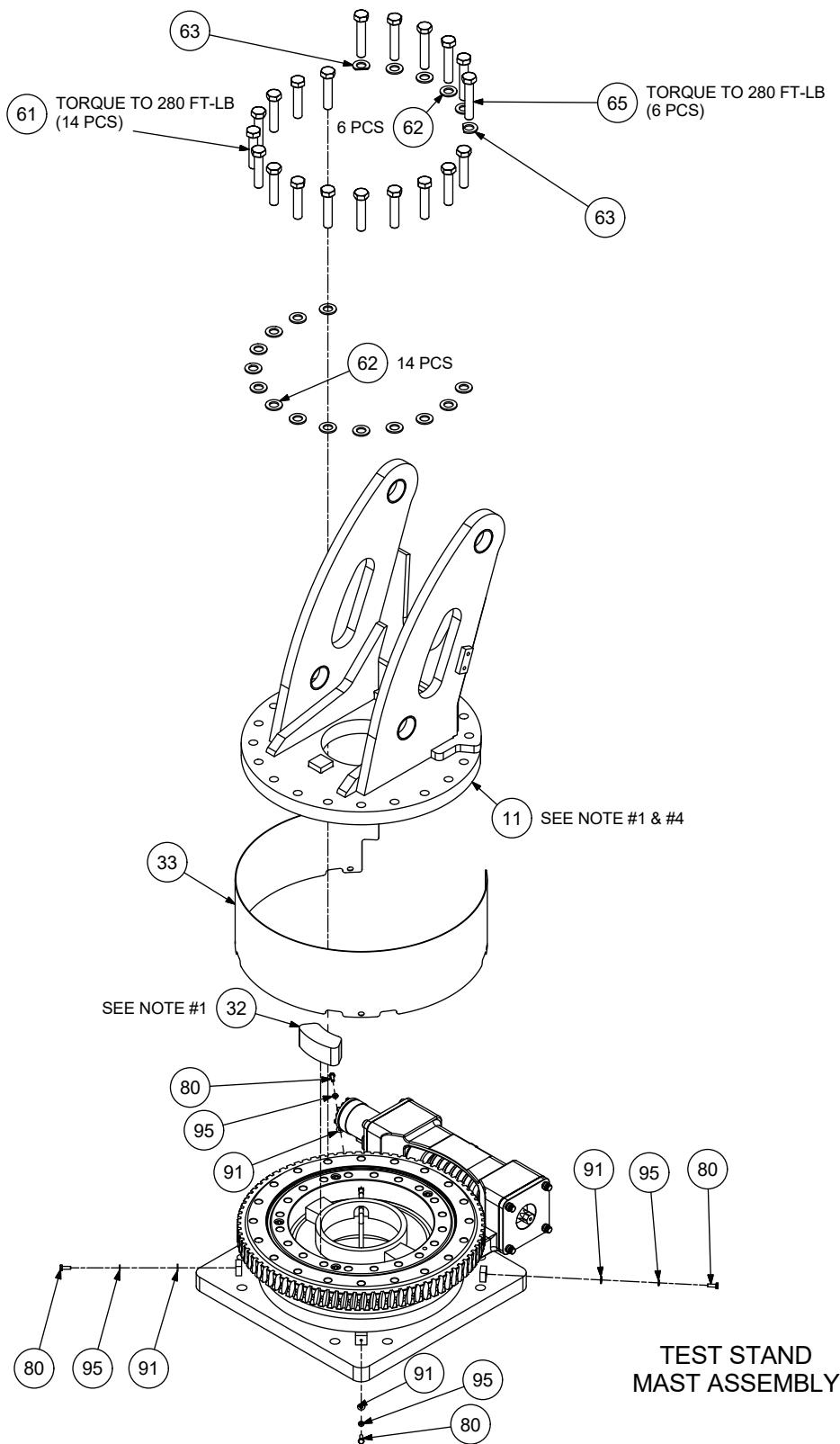
ORDERING REPAIR PARTS

1. WHEN ORDERING REPLACEMENT PARTS:
2. GIVE THE MODEL NUMBER OF THE UNIT.
3. GIVE THE SERIAL NUMBER OF THE UNIT.
4. SPECIFY THE COMPLETE PART NUMBER. WHEN ORDERING CYLINDER PARTS, OR ONE OF THE MAIN WELDMENTS, ALWAYS GIVE THE STAMPED PART NUMBER.
5. GIVE A COMPLETE DESCRIPTION OF THE PART.
6. SPECIFY THE QUANTITY REQUIRED.

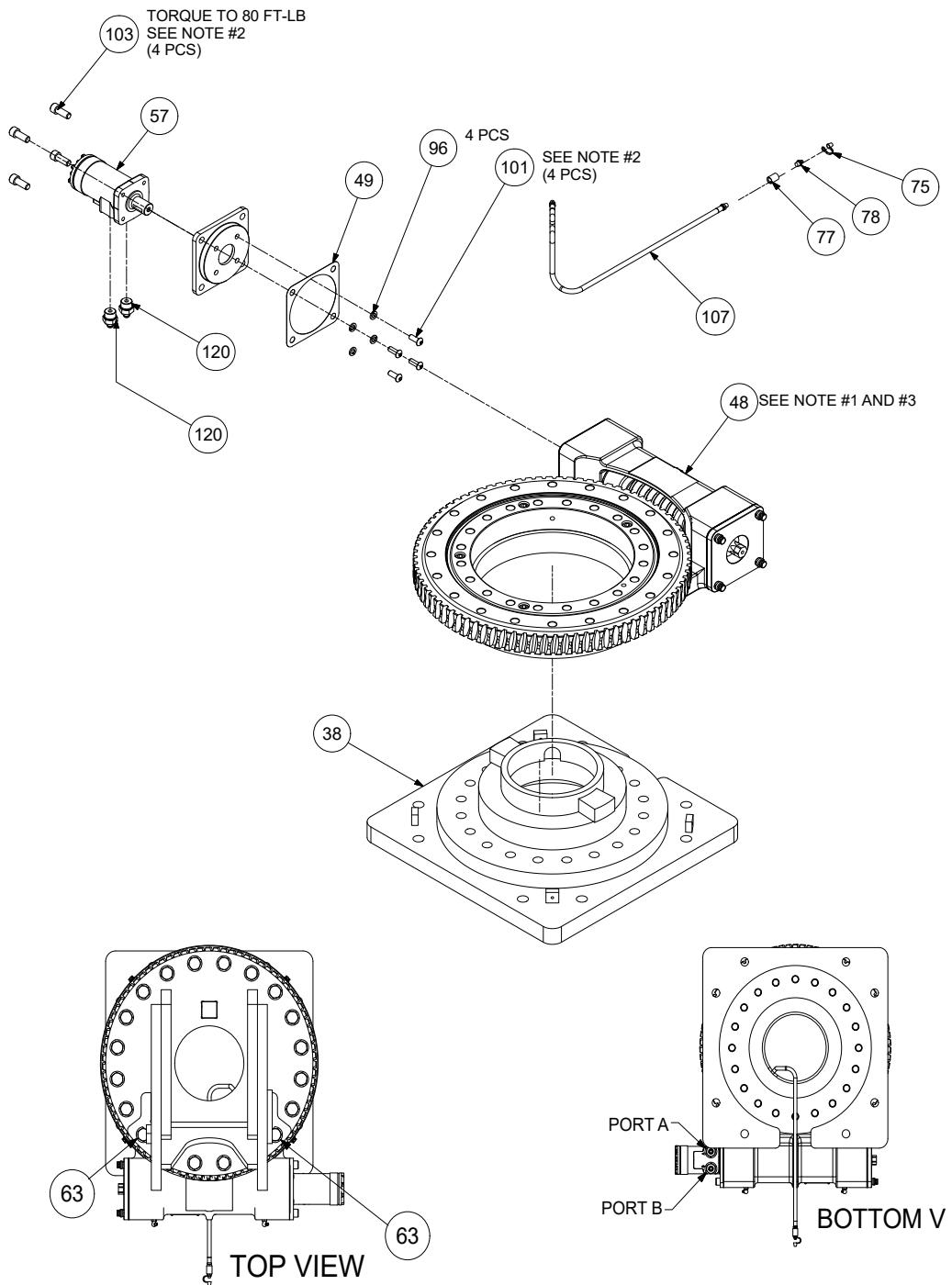
14000 - 25' Base & Mast Assembly-Truck Mount (99904974)**NOTES:**

1. USE RUST PREVENTATIVE ON SLIDE STOP, BEARING RACE, BOTTOM OF MAST & TOP OF GEAR BEARING.
2. APPLY BLUE THREAD LOCKER
3. APPLY GEAR LUBE ON TEETH GEAR.
4. BASE & MAST ASSEMBLY AS SHOWN AS MOUNTED ON TRUCK

14000 - 25' BASE & MAST ASSEMBLY-TRUCK MOUNT (99904974)-CONTINUED

14000 - 25' Base & Mast Assembly Test Stand Mast Assembly (99904974)

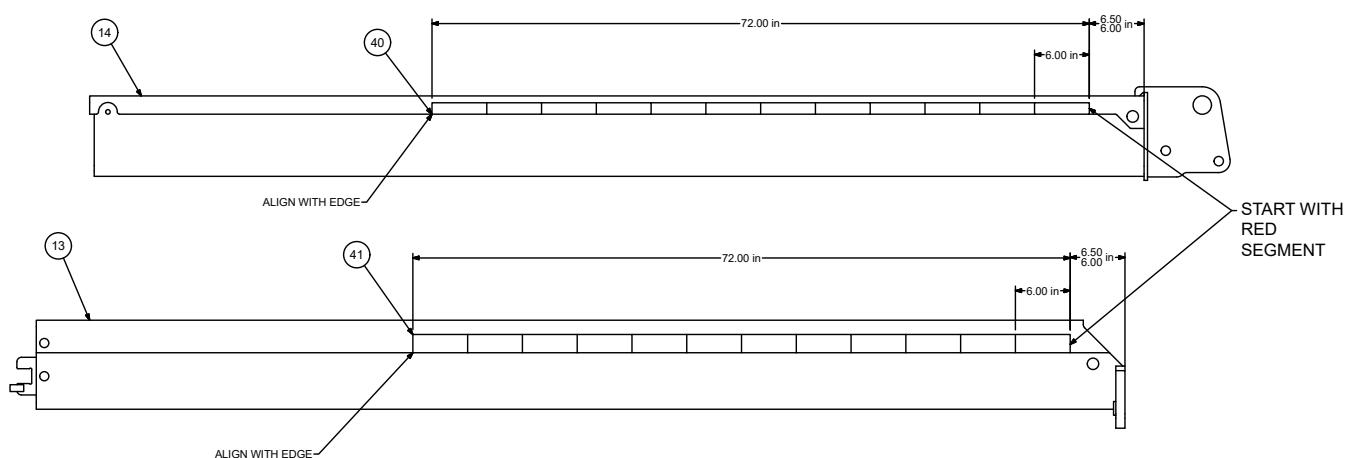
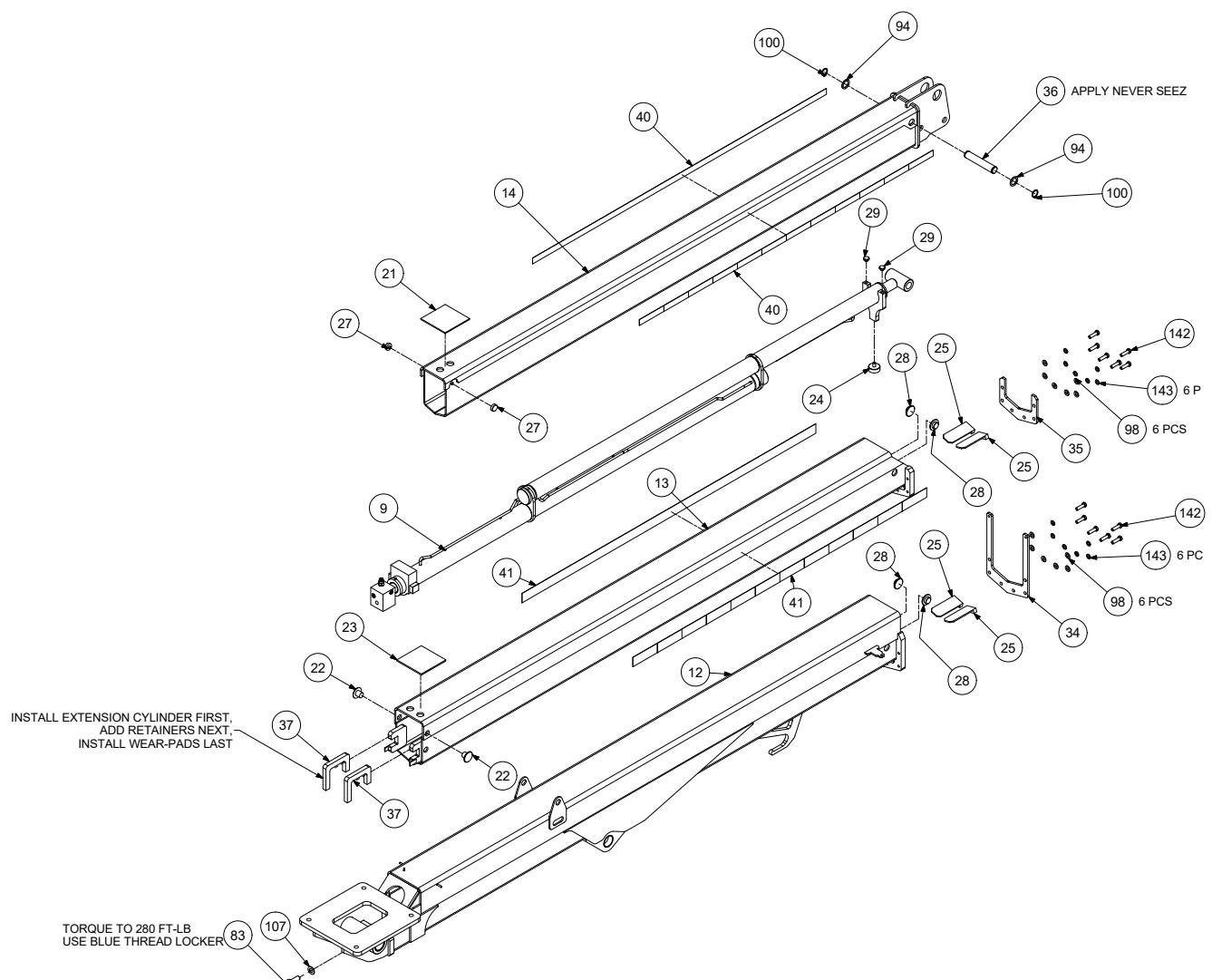
TEST STAND MAST ASSEMBLY - CONTINUED



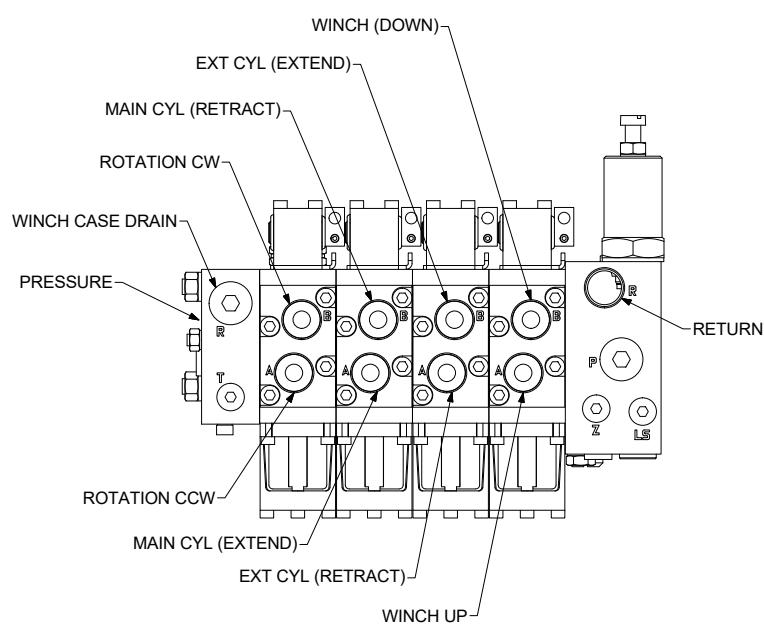
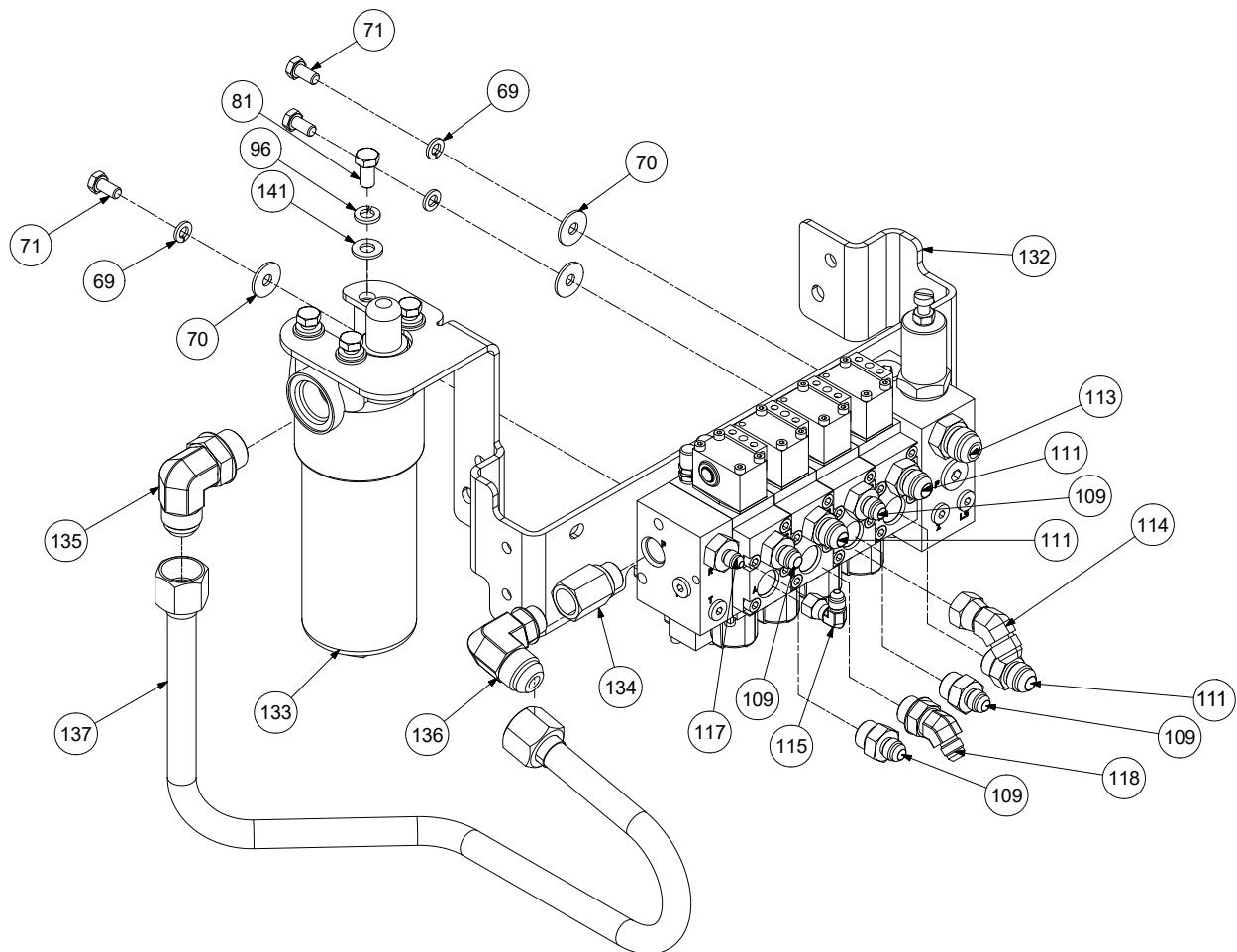
NOTES:

1. USE RUST PREVENTATIVE ON SLIDE STOP, BEARING RACE, BOTTOM OF MAST & TOP OF GEAR BEARING.
2. APPLY BLUE THREAD LOCKER.
3. APPLY GEAR LUBE ON TEETH GEAR.
4. BASE & MAST ASSEMBLY AS SHOWN AS MOUNTED ON TEST STAND.

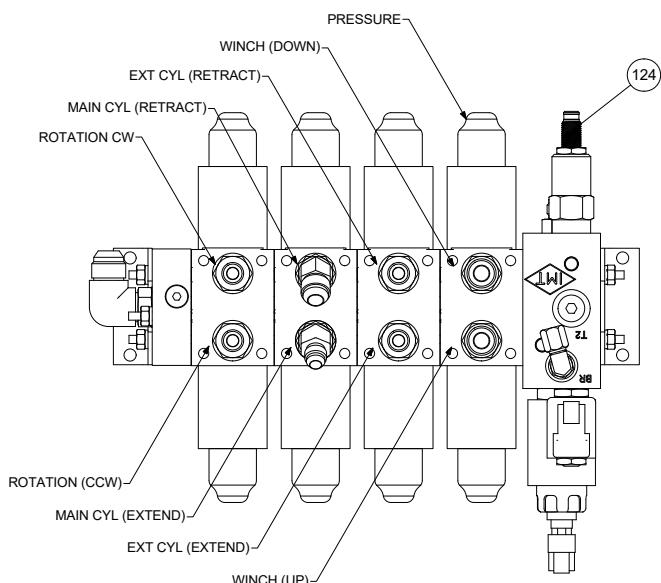
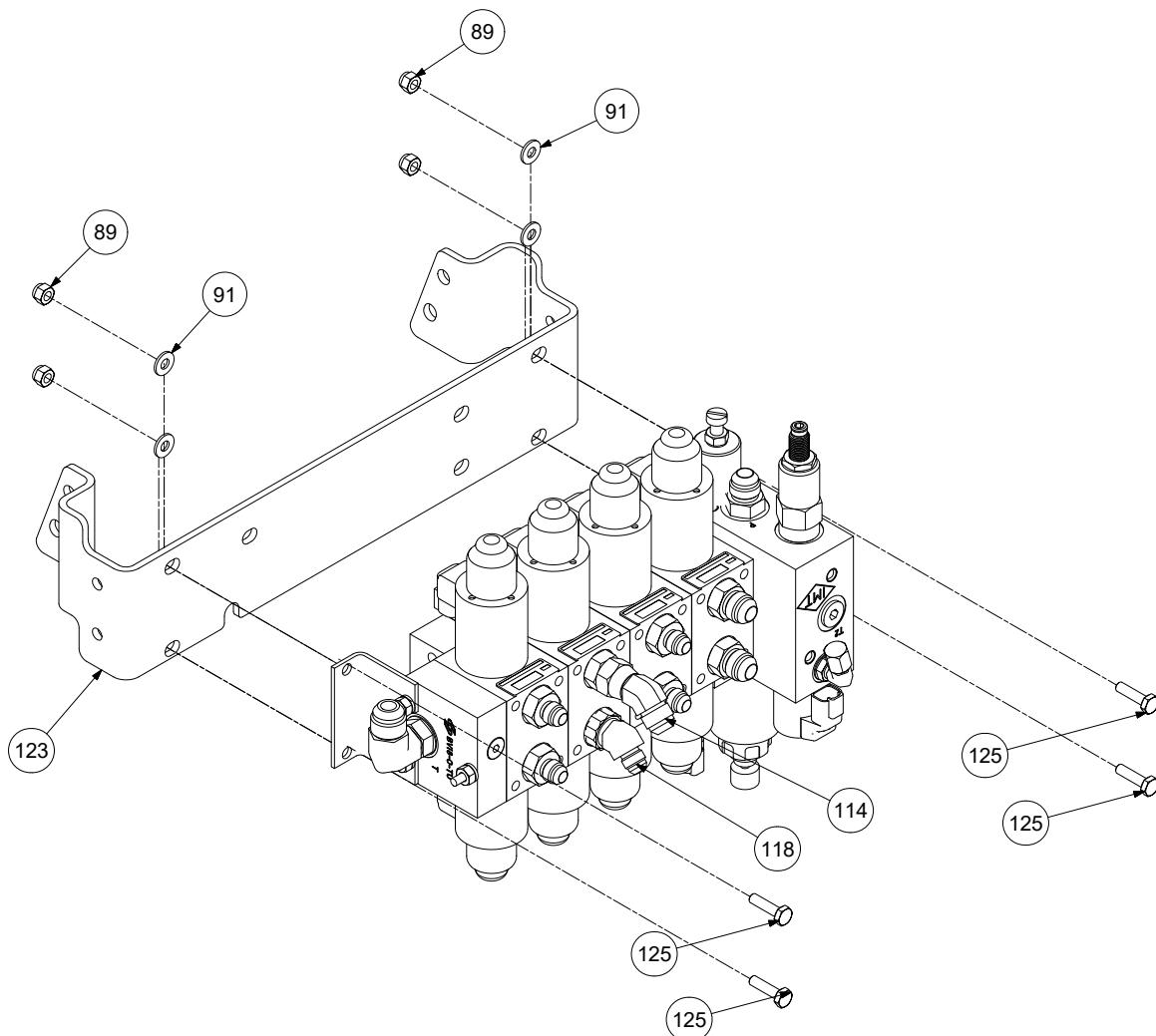
14000 - 25' Boom Assembly (99904974)

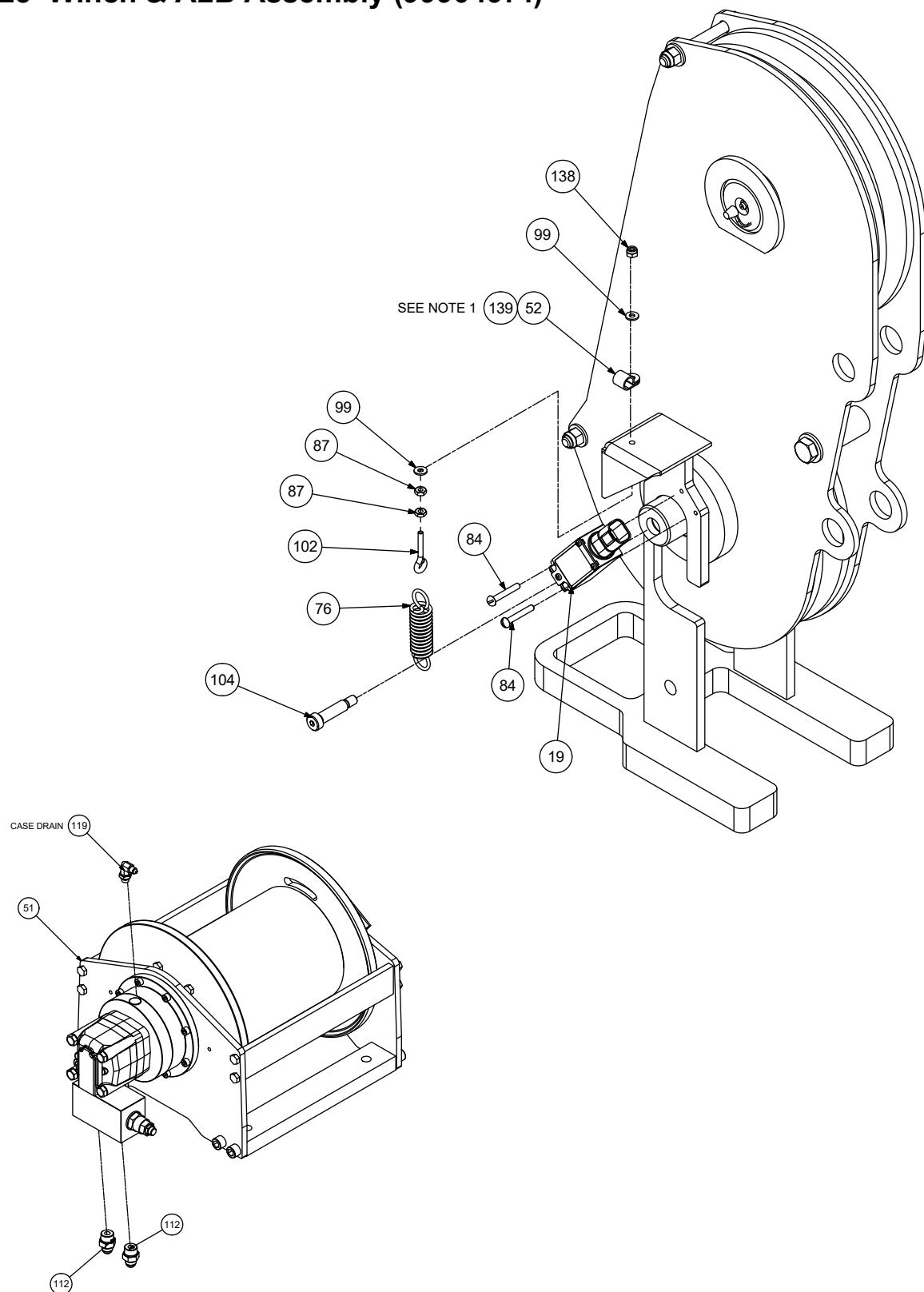


14000 - 25' Fully Proportional Valve Bank Assembly (99904974)

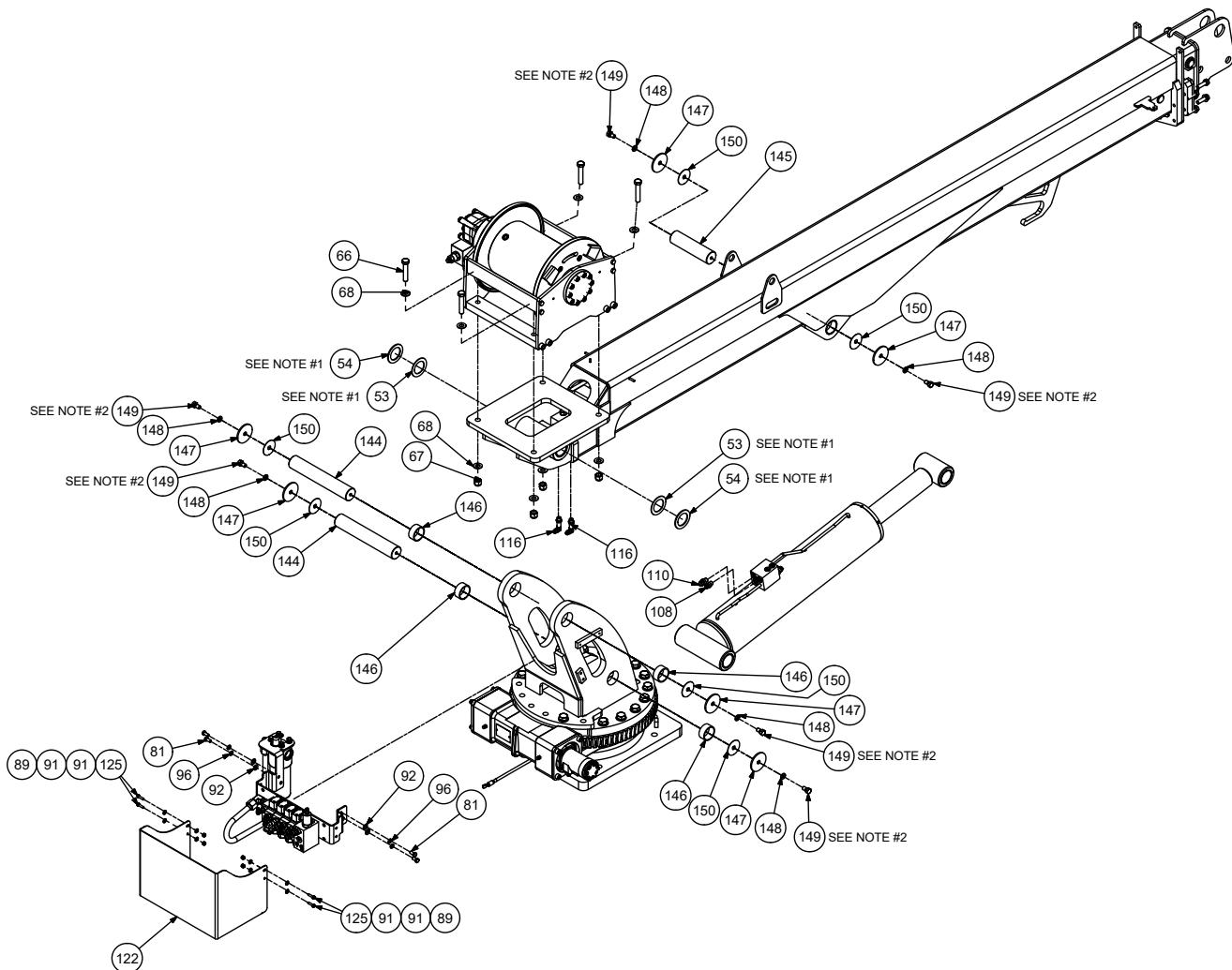


FULLY PROPORTIONAL VALVE BANK ASSEMBLY

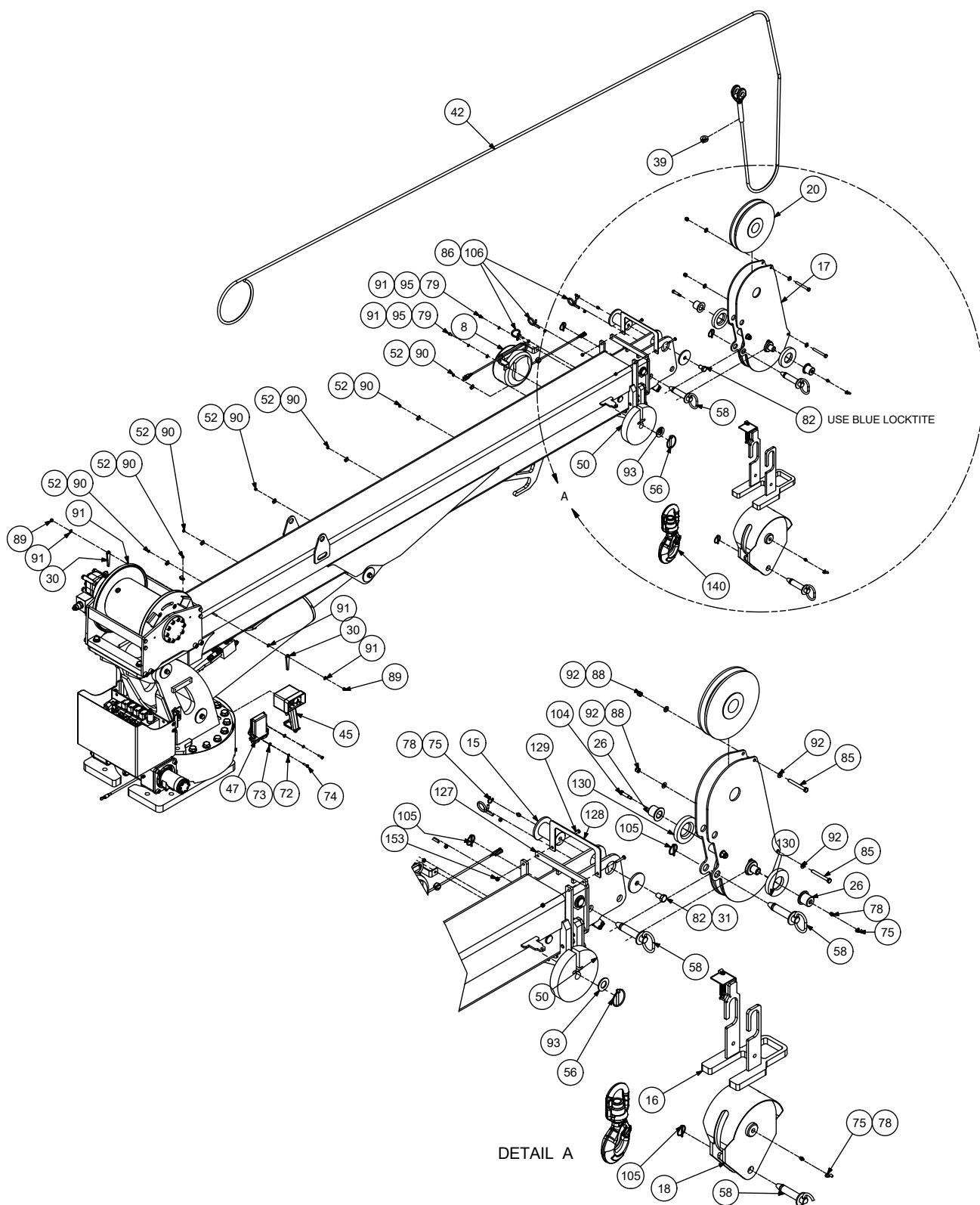
14000 - 25' Single Proportional Valve Bank Assembly (99904974)**SINGLE PROPORTIONAL VALVE BANK ASSEMBLY**

14000 - 25' Winch & A2B Assembly (99904974)**NOTE:**

NO FLOOD LIGHTS: USE CLAMP-PLASTIC .25 CABLE P/N 72034485 WITH FLOOD LIGHTS: USE CLAMP-PLASTIC .25 CABLE P/N 72034572

14000 - 25' Crane & Winch Assembly (99904974)**NOTES:**

1. IF REQUIRED USE 72063038 OR 72063039 MACHNY BUSHINGS BETWEEN MAST AND LOWER BOOM.
2. TORQUE TO 60 LB-FT

14000 - 25' Flip Sheave (99904974)

99904974 COMPLETE PARTS LIST

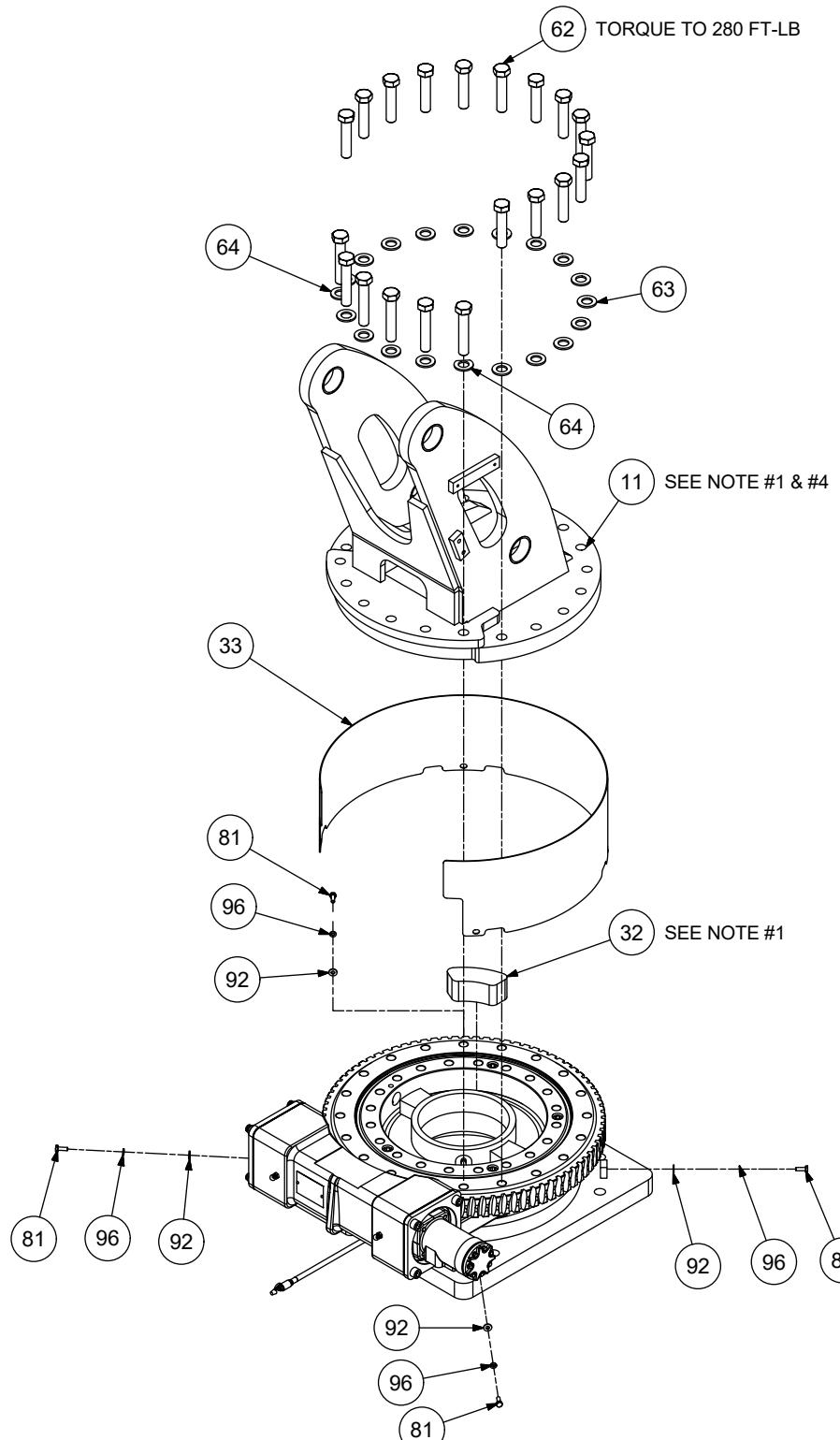
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	91723089	KIT-HRDW BASE & MAST 12000/14000		1
2.	51720680	KIT-HRDW A80 WINCH MNT		1
3.	91723543	KIT-HRDW VB MNT HAWE		1
4.	91723583	KIT-HRDW SIII RADIO CONTROLS		1
5.	91725206	KIT-HRDW SERIES III 12000/14000		1
6.	91723618	KIT-HYD A80 SERIES III		A/R
7.	91725089	KIT-HYD A80 SERIES III SP		A/R
8.	51723610	CORD REEL ASM- 30FT W/PACKARD W/DEUTSCH		1
9.	51727882	CYL-2.75/1.75 2.50/1.75 150.00S 125.00CC		1
10.	51727890	CYL-6.00/3.00 25.06S 45.44CC		1
11.	52727811	MAST WLDMMT-12000/14000		1
12.	52727817	WLDMMT-LOWER BOOM 12000/14000S		1
13.	52725167	WLDMMT-1ST STAGE EXT BOOM 12000/14000S		1
14.	52723218	WLDMMT-2ND STAGE EXT BOOM 12000/14000S		1
15.	52723069	PIN-TYPE M 2.00X 3.38		1
16.	52725155	WLDMMT- A2B BRKT		1
17.	51727793	FLIP SHEAVE ASM 14000		1
18.	52723070	WLDMMT- SNATCH BLOCK 12000/14000		1
19.	51727982	KIT-A2B LIMIT SWITCH NO TOP PIN DEUTSCH		1
20.	60030102	SHEAVE-10.50 POLYMER		1
21.	60030336	WEAR PAD-RC .19 X 6.00 X 6.00		1
22.	60030438	WEAR PAD-RND 0.12X 2.00X 1.00X 1.00		2
23.	60030421	WEAR PAD-RC 0.25X 6.00X 6.00		1
24.	60030422	WEAR PAD-RND SIII EXT CYL		1
25.	60030437	WEAR PAD-RC 0.19X 6.00X 2.25		4
26.	60030487	CAP- A2B PIN		2
27.	60030425	WEAR PAD-RND 0.44X 1.25X .50X .50		2
28.	60030427	WEAR PAD-RND 0.19X 2.00X 1.25X .44		4
29.	60030442	WEAR PAD-RND 0.25X 1.00X .50X .38		2
30.	70034490	PLATE-ANGLE PLASTIC 3.50"		2
31.	60109337	RETAINER PLT-PIN 3.00 DIA		1
32.	71414167	SLIDE-ROTATION STOP 12000/14000		1
33.	60136007	GEAR GUARD 12000/14000		1
34.	60140899	CAP-LOWER BOOM CABLE GUIDE 9500-14000	#121	1
35.	60135668	CAP-FIRST STAGE		1
36.	60135669	PIN-TYPE A 1.25X 6.89 (6.46)		1
37.	60135833	RETAINER-1ST STAGE EXT CYL		2
38.	52722991	BASE WLDMMT-12000/14000		1
39.	70145121	COLLAR-SHAFT 2 PIECE 7/8 IN.		1
40.	70399053	TAPE-REFLECTIVE RED/SILVER 1.25X72.00		2
41.	70396734	TAPE-REFLECTIVE RED/SILVER 2.00X72.00		2
42.	70580236	WIRE ROPE ASM-GALV.50(6X31)X100FT XIPS		2
43.	70734958	TRANSM-RAD REM TELE S3 FP GATED FHSS 240		A/R
44.	70735093	TRANSM-RAD S3 SP EM 5LED FHSS 2400		A/R
45.	70734957	TRANSM-RAD REM TELE S3 FP NON-G FHSS 240		A/R
46.	70735094	RECEIVER-RAD S3 SP 5LED FHSS 2400		A/R
47.	70734960	RECEIVER-RAD REM TELE S3 FP FHSS 2400		A/R
48.	71056674	GEAR-TRNTBL BRG 21.00" DIA		1
49.	76398996	GASKET-GEAR 170-00055-1	#48	1
50.	71414205	PLATE-SINGLE SHEAVE (20#) .50 WIRE ROPE		1
51.	70570836	WINCH-PLANETARY 7770 LB LINE PULL (A80)		1
52.	72034485	CLAMP-PLASTIC 1/4" CABLE		8
53.	72063038	MACHY BUSHING 2.00X14 GA NR		A/R
54.	72063039	MACHY BUSHING 2.00X10 GA NR		A/R
55.	60136102	FLANGE ADAPTOR		1
56.	72661641	PIN-QUICK 5/16-2-1/16 ZINC YELLOW		1
57.	73511254	MOTOR-HYD 101 1752 009		1
58.	73734565	PIN-LOCK W/HANDLE 1.00 X 3.50 W/HAIRPIN		3
59.	73734727	VALVE BANK-4-SECT PSL2 W OC INLT		A/R

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
60.	77441481	HARNESS-TELE RADIO REMOTE SERIES III		A/R
61.	72601295	CAP SCR .75-10X 3.50 HH GR8 Z	#1	14
62.	72063116	WASHER .75 N FLAT H ASTM F436Z	#1	38
63.	72063285	WASHER-FLAT .75 H ASTM F436 Z-CUT	#1	2
64.	72601466	CAP SCR .75-10X 5.00 HH GR8 Z	#1	20
65.	72601629	CAP SCR .75-10X 4.00 HH GR8 Z	#1	6
66.	72060932	CAP SCR .62-11X 3.25 HH GR5 Z	#2	4
67.	72062091	NUT .62-11 HEX NYLOCK	#2	4
68.	72063007	WASHER .62 FLAT	#2	8
69.	72601797	WASHER-LOCK 8MM	#3	3
70.	72602065	WASHER-FLAT M 8	#3	3
71.	72602052	CAP SCR M 8-1.25X 16 HHZ	#3	3
72.	72063142	WASHER-SS .25 LOCK TYPE 304	#4	2
73.	72063166	WASHER-FLAT .25 R WRT 18-8 .62OD SS	#4	2
74.	72601330	CAP SCR .25-20X 1.00 HH SS	#4	2
75.	70034382	CAP-GREASE PRO20 GC-RED	#5	4
76.	71413185	SPRING-.105WIRE 0.75OD 2.875 LG	#5	1
77.	72053301	COUPLING-GLV .12 SCH 40	#5	1
78.	72053508	ZERK-NPT .12	#5	4
79.	72060000	CAP SCR .25-20X .50 HH GR5 Z	#5	2
80.	72060002	CAP SCR .25-20X .75 HH GR5 Z	#5	4
81.	72060044	CAP SCR .38-16X .75 HH GR5 Z	#5	8
82.	72060147	CAP SCR .62-11X 1.00 HH GR5 Z	#5	1
83.	72060206	CAP SCR .75-10X 2.00 HH GR8 Z	#5	1
84.	72060639	SCR-MACH 10-24X 1.25 RDH	#5	2
85.	72060893	CAP SCR .38-16X 3.25 HH GR5 Z	#5	2
86.	72062000	NUT .25-20 HEX	#5	3
87.	72062093	NUT # 8-32 HEX ZINC	#5	2
88.	72062103	NUT .38-16 HEX NYLOCK	#5	2
89.	72062104	NUT .25-20 HEX NYLOCK	#5	6
90.	72062106	NUT 10-24 HEX NYLOCK	#5	7
91.	72063001	WASHER .25 FLAT	#5	22
92.	72063003	WASHER .38 FLAT	#5	8
93.	72063010	WASHER 1.00 FLAT	#5	1
94.	72063035	MACHY BUSHING 1.25X10 GA NR	#5	2
95.	72063049	WASHER .25 LOCK	#5	6
96.	72063051	WASHER .38 LOCK	#5	12
97.	72063116	WASHER-FLAT .75 N H ASTM F436 Z	#5	1
98.	72063132	WASHER .50 FLAT ASTM F436	#5	12
99.	72063271	WASHER # 8 W FLAT ANSI B27.2Z	#5	2
100.	72066129	RETAINING RING-EXT 1.25 HD	#5	2
101.	72601031	SCR-MACH .38-16X 1.00 BTNHD	#5	4
102.	72601938	BOLT-EYE # 8-32X 1.125	#5	1
103.	72601949	CAP SCR .50-13X 1.25 SH ZC	#5	4
104.	72602085	BOLT-SHLDR .38X 1.25 (5/16 THDS) SS	#5	1
105.	72661543	PIN-QUICK 316-10QP	#5	3
106.	72661694	BRIDLE RING 1-1/12ID X 1/4-20	#5	3
107.	51395083	HOSE-AA .13 X 19.50 (2-2) 100R17	#6	1
108.	72532355	ADPTR-M STR/M JIC 6 6	#6	1
109.	72532356	ADPTR-M STR/M JIC 8 6	#6	4
110.	72532357	ADPTR-M STR/M JIC 6 8	#6	1
111.	72532358	ADPTR-M STR/M JIC 8 8	#6	3
112.	72532359	ADPTR-M STR/M JIC 10 8	#6	2
113.	72532361	ADPTR-M STR/M JIC 8 10	#6	1
114.	72532670	ELBOW-M JIC/45/F JIC 8 8	#6	1
115.	72532690	ELBOW-M JIC/90/F JIC SW 4 4	#6	1
116.	72532700	ELBOW-M STR/90/M JIC XLG 6 6	#6	2
117.	72532792	ADPTR-M STR/M JIC 8 4	#6	1
118.	72533583	ELBOW-M STR/45/M JIC 8 6	#6	1
119.	72534474	ELBOW-M BSPP/90/M JIC 4 4	#6	1
120.	72533613	ADPTR-M STR/M JIC 10 6	#6	2

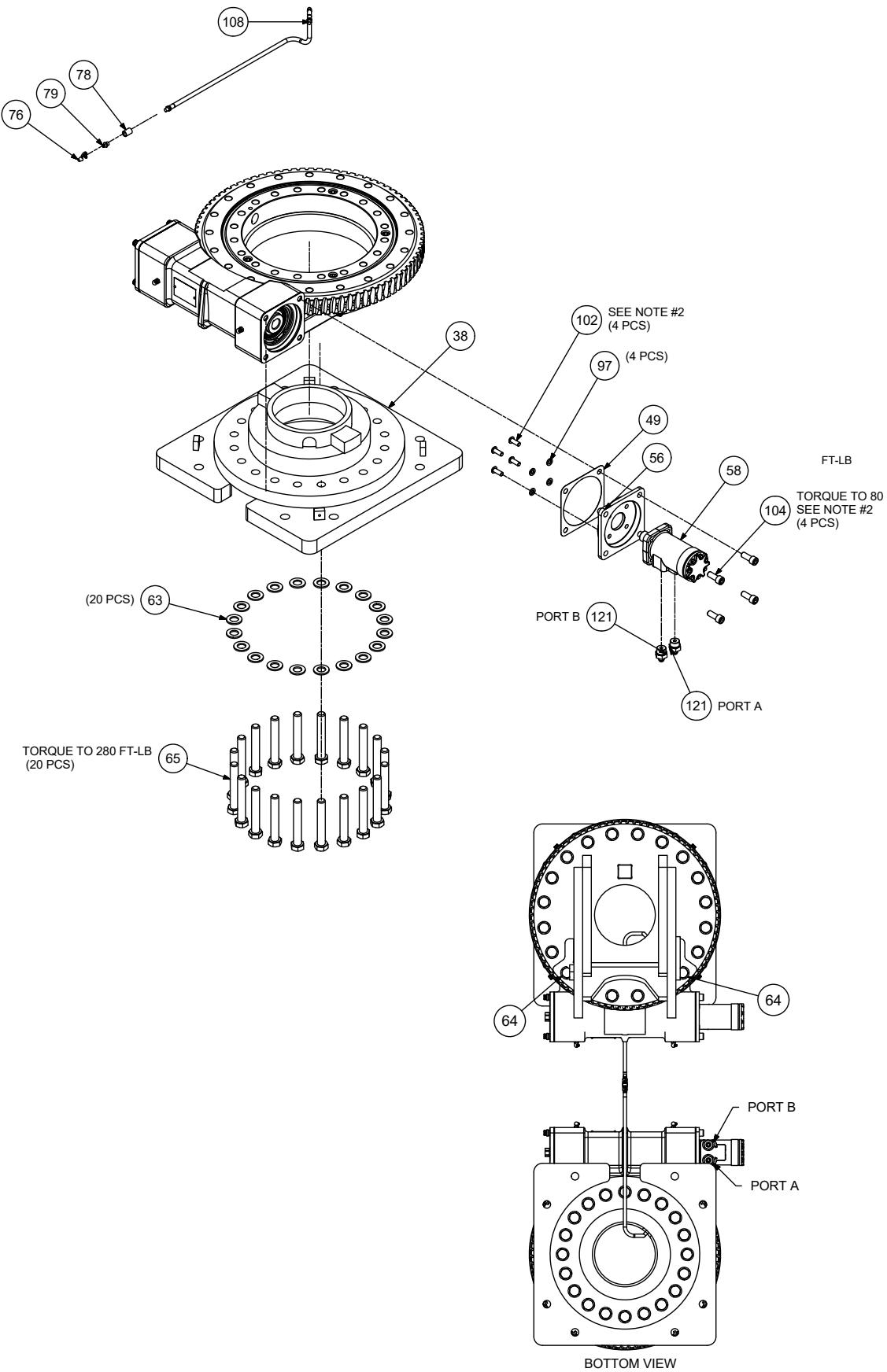
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
121.	93725207	KIT-CABLE GUIDE 9500/12000		1
122.	60144215	COVER-VALVE BANK SIII		1
123.	60140857	BRKT-MAST VB 12000-14000		1
124.	73734472	VALVE BANK-MOD.INLET (PW) 12VDC IP69		A/R
125.	72060004	CAP SCR .25-20X 1.00 HH GR5 Z	#5	8
126.	77441537	HARNESS-S3 TELE S-PROP VALVE BANK CERVIS		A/R
127.	60140935	GUIDE - CABLE WEAR (WIDE)		1
128.	60140938	BRKT - CABLE GUIDE (WIDE)		1
129.	72060006	CAP SCR .25-20X 1.50 HH GR5 Z		2
130.	60030488	SPACER-A2B BRACKET		2
131.	72062104	NUT .25-20 HEX NYLOCK	#121	2
132.	60143080	BRKT-MAST VB 12000-14000 FP		1
133.	73052156	FILTER-PRES 4000PSI 25GPM 10MIC -12		1
134.	72534898	O-RING EXTENDER 08-08		1
135.	72053767	ELBOW-M STR/90/M JIC 12 12		1
136.	72533623	ELBOW-M STR/90/M JIC 8 12		1
137.	71415692	TUBE ASM-PRESSURE FILTER S3FP 12K 14K MA		1
138.	72062207	NUT 8-32 HEX NYLOCK		1
139.	72034572	CLAMP-PLASTIC .38 CABLE		1
140.	70735082	HOOK-SWVL 7T BBRG W/LATCH		1
141.	72063186	WASHER-FLAT .38 N H ASTM F436		4
142.	72602158	CAP SCR .50-13X 1.75 HH GR5 YZ		12
143.	72602160	WASHER- LOCK .50 YZ		12
144.	70190007	PIN-TYPE AB 2.00 X 11.88 SS		2
145.	70190008	PIN-TYPE AB 2.00 X 7.63 SS		1
146.	70034581	BEARING MRP 2.00X2.25X1.00 POLYGON		4
147.	70190004	RETAINER PLT-PIN 0.50 X 3.00 DIA SS		6
148.	72063144	WASHER-LOCK 1/2 SS		6
149.	72602168	CAP SCR HH 1/2-13 UNC -.875 SS 18-8		6
150.	60030590	WEAR PAD-RND 0.56X 2.44X .03		6

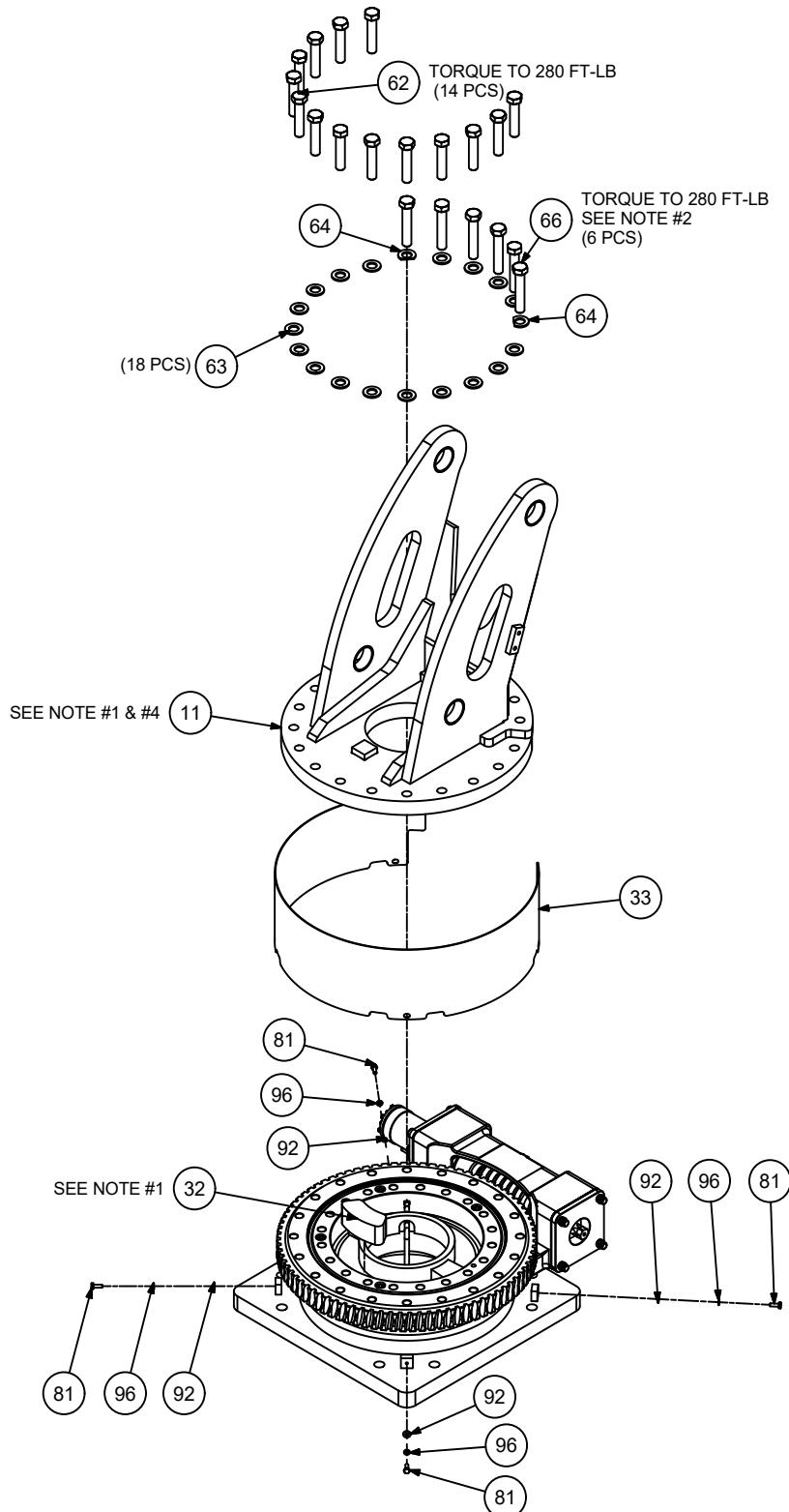
REV. AG CN1009-3

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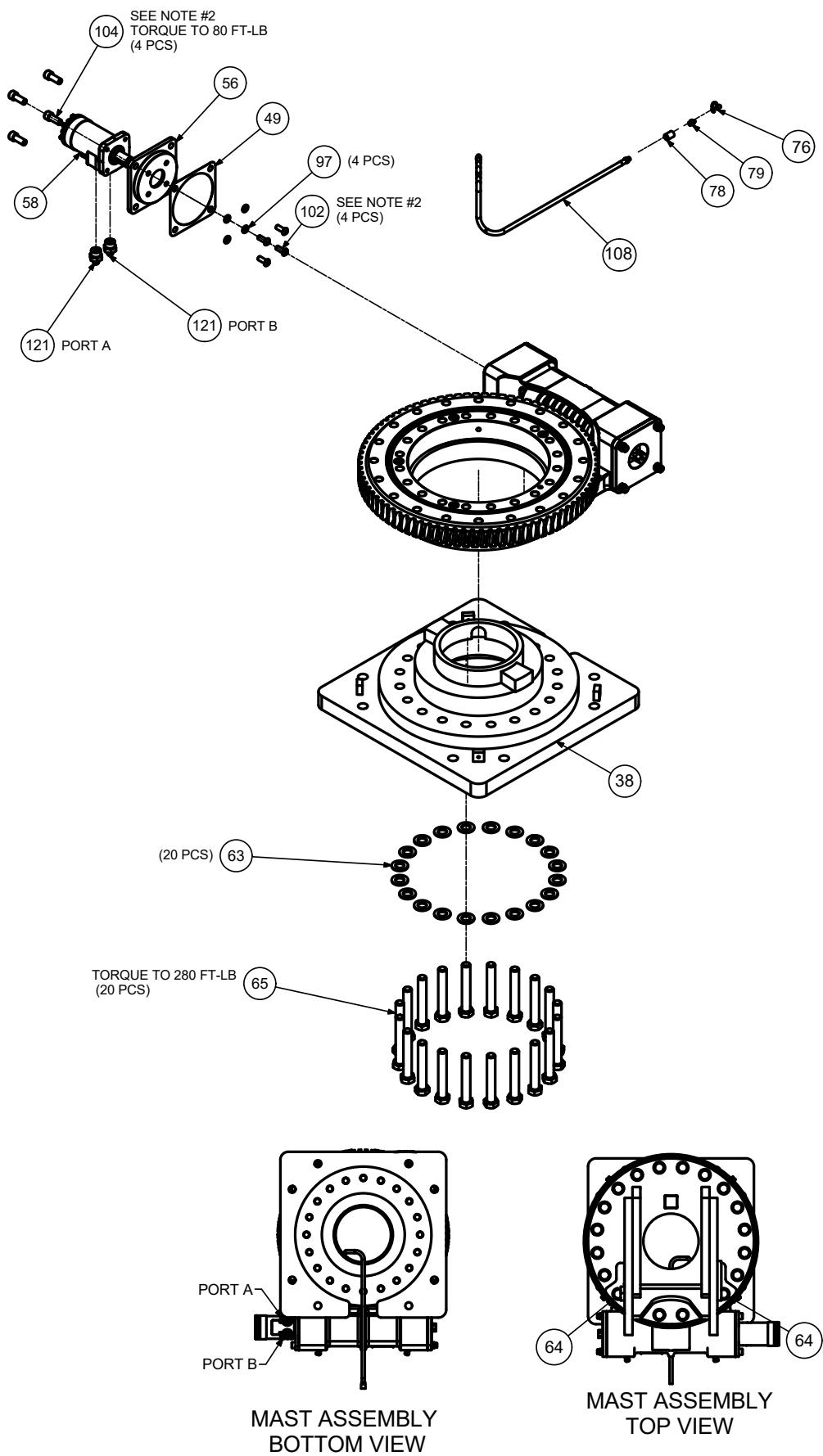
14000 - 30' Base & Mast Assembly - Truck Mount (99904927)**NOTES:**

1. USE RUST PREVENTATIVE ON SLIDE STOP, BEARING RACE, BOTTOM OF MAST & TOP OF GEAR BEARING
2. APPLY BLUE THREAD LOCKER
3. APPLY GEAR LUBE ON TEETH GEAR
4. BASE & MAST ASSEMBLY AS SHOWN AS MOUNTED ON TRUCK

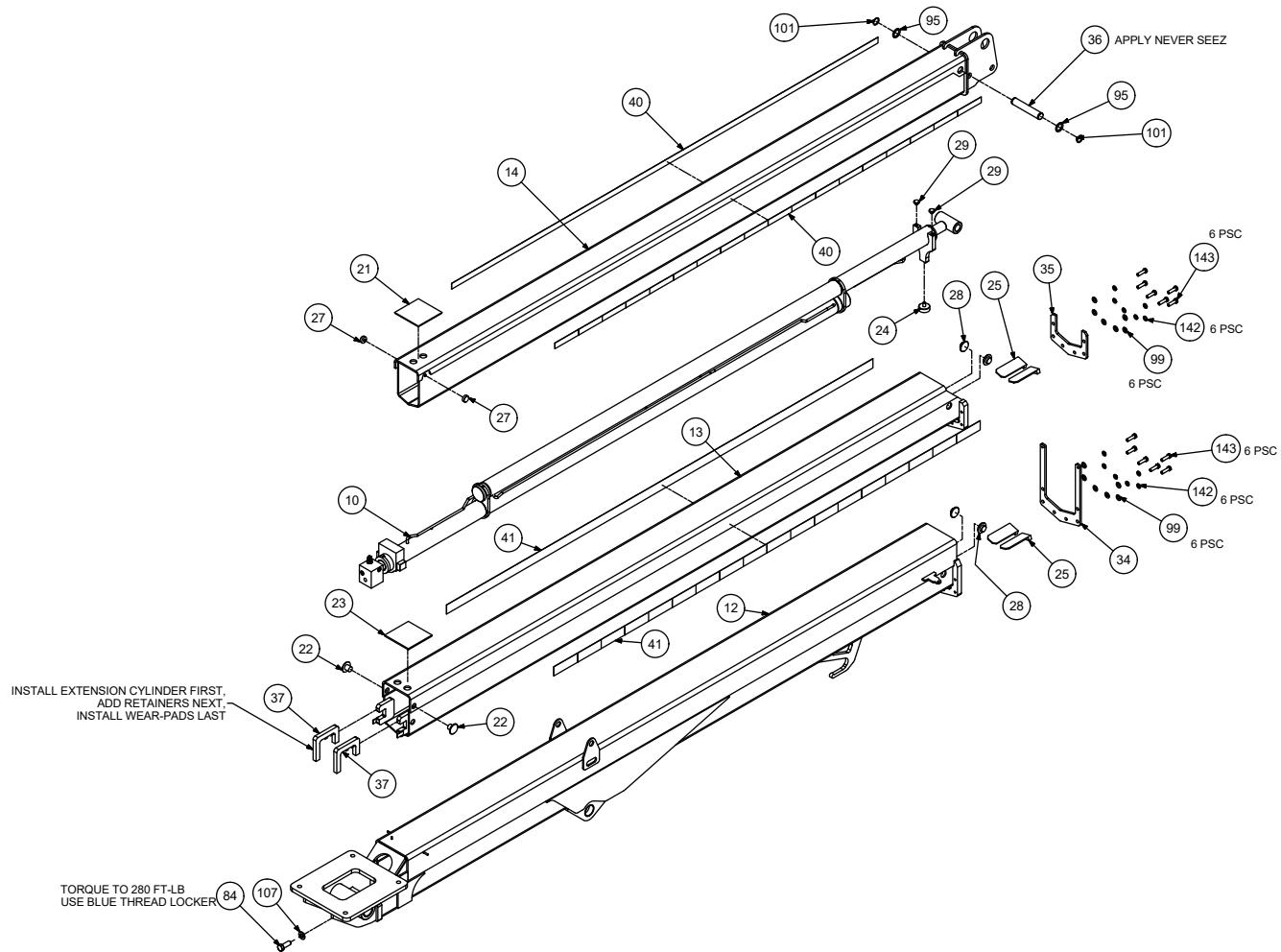
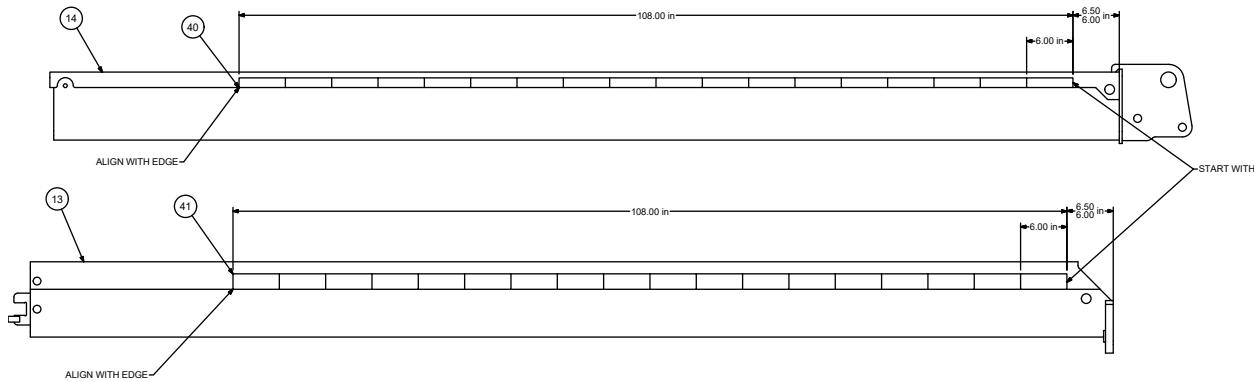
14000 - 30' BASE & MAST ASSEMBLY-TRUCK MOUNT (99904927) CONTINUED

14000 - 30' Base & Mast Assembly - Test Stand Mount (99904927)**NOTES:**

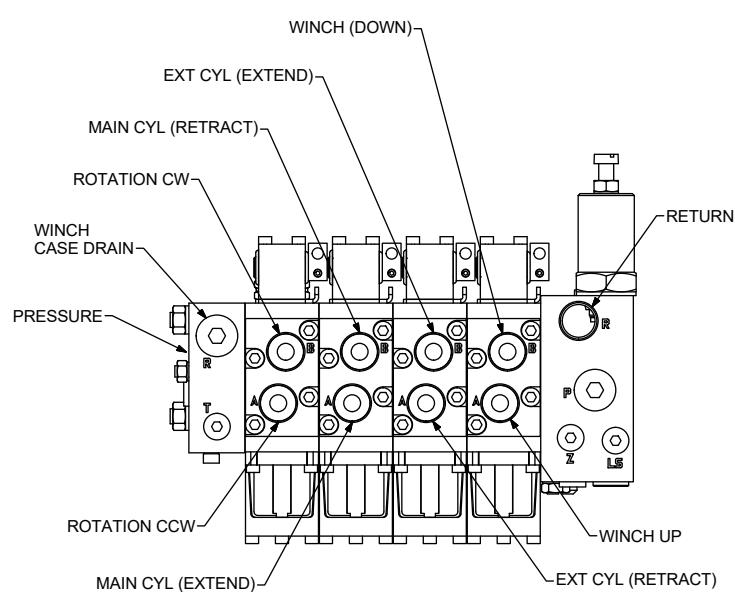
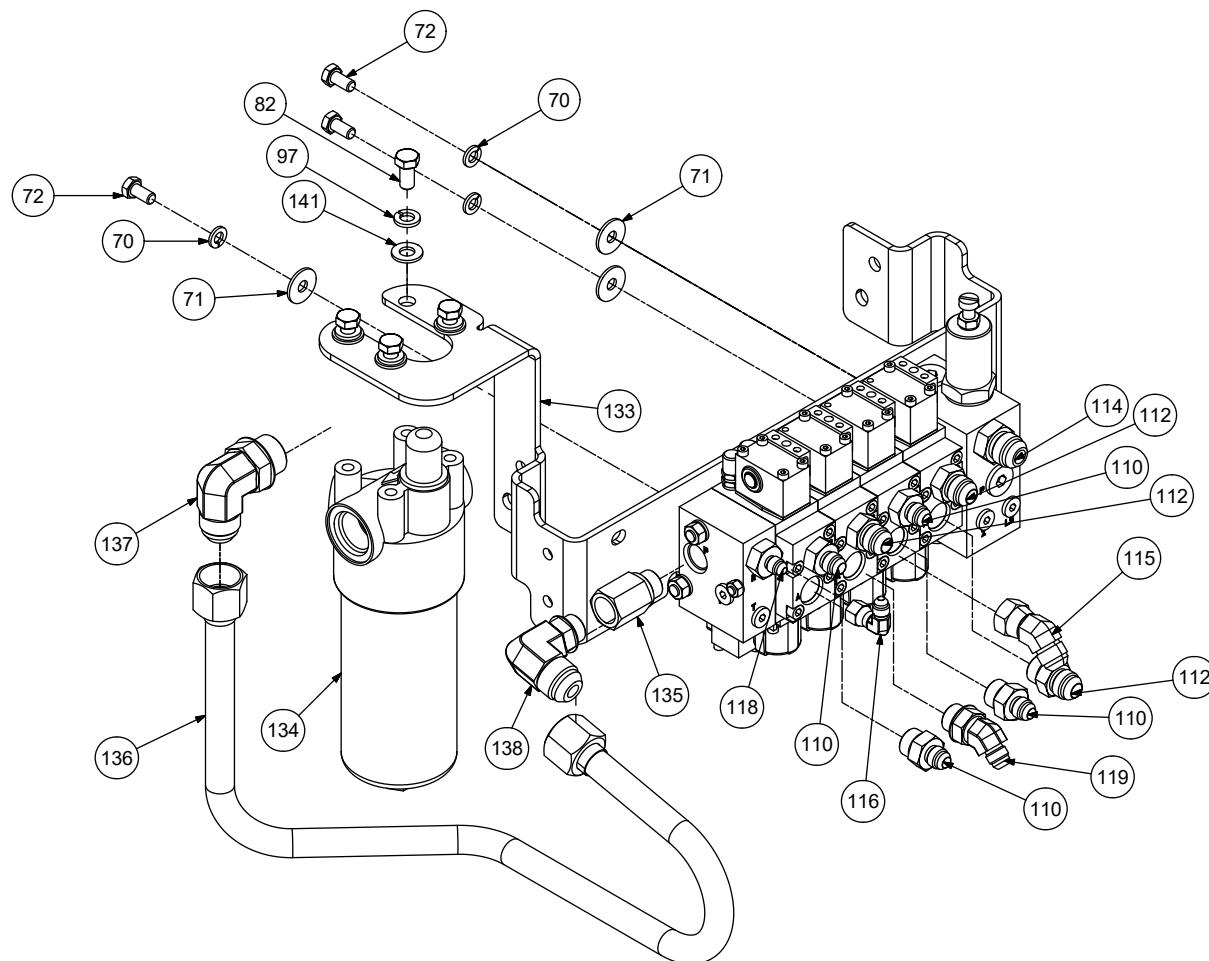
1. USE RUST PREVENTATIVE ON SLIDE STOP, BEARING RACE, BOTTOM OF MAST & TOP OF GEAR BEARING
2. APPLY BLUE THREAD LOCKER
3. APPLY GEAR LUBE ON TEETH GEAR
4. BASE & MAST ASSEMBLY AS SHOWN AS MOUNTED ON TEST STAND

14000 - 30' BASE & MAST ASSEMBLY-TEST STAND MOUNT (99904927) CONTINUED

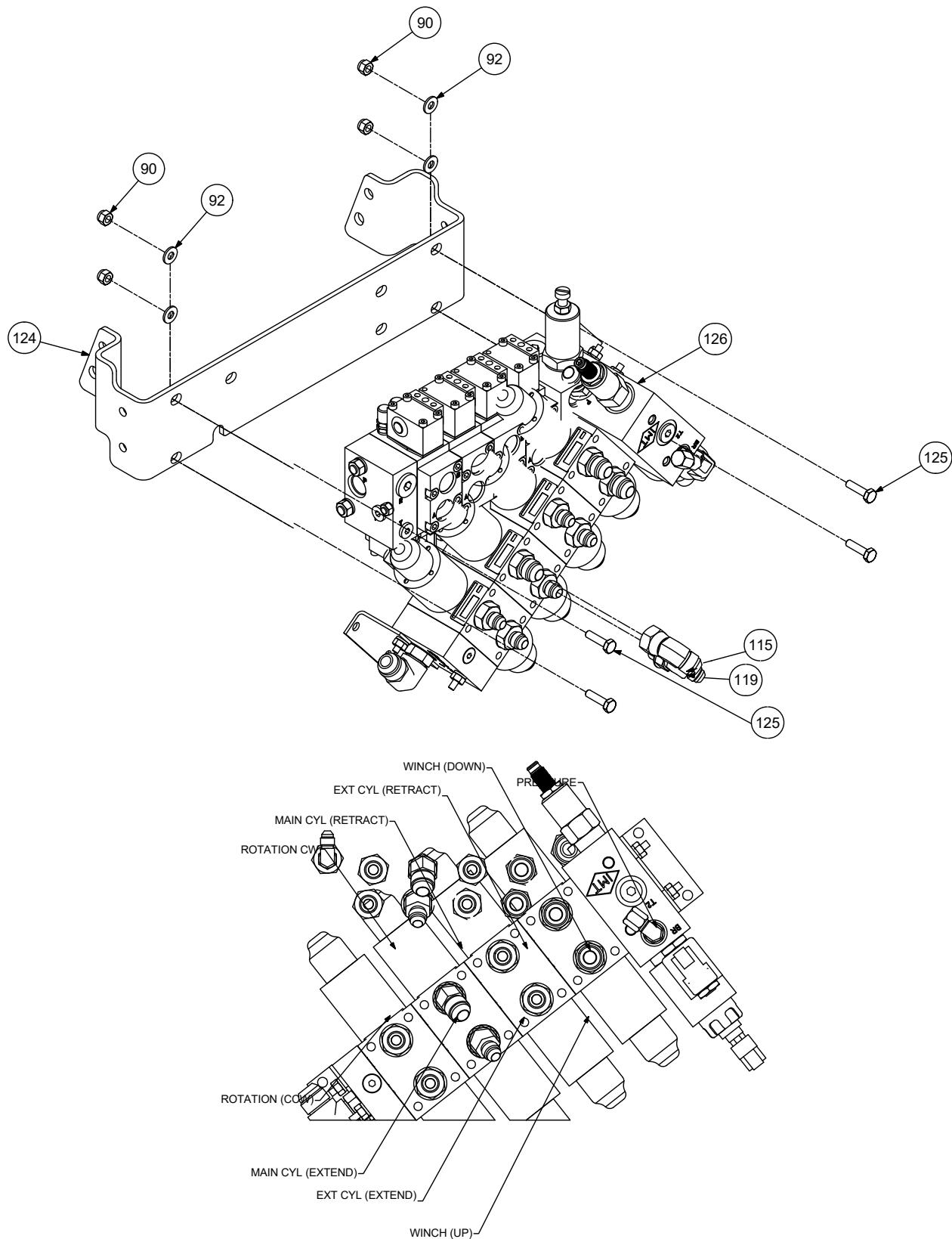
14000 - 30' Boom Assembly (99904927)



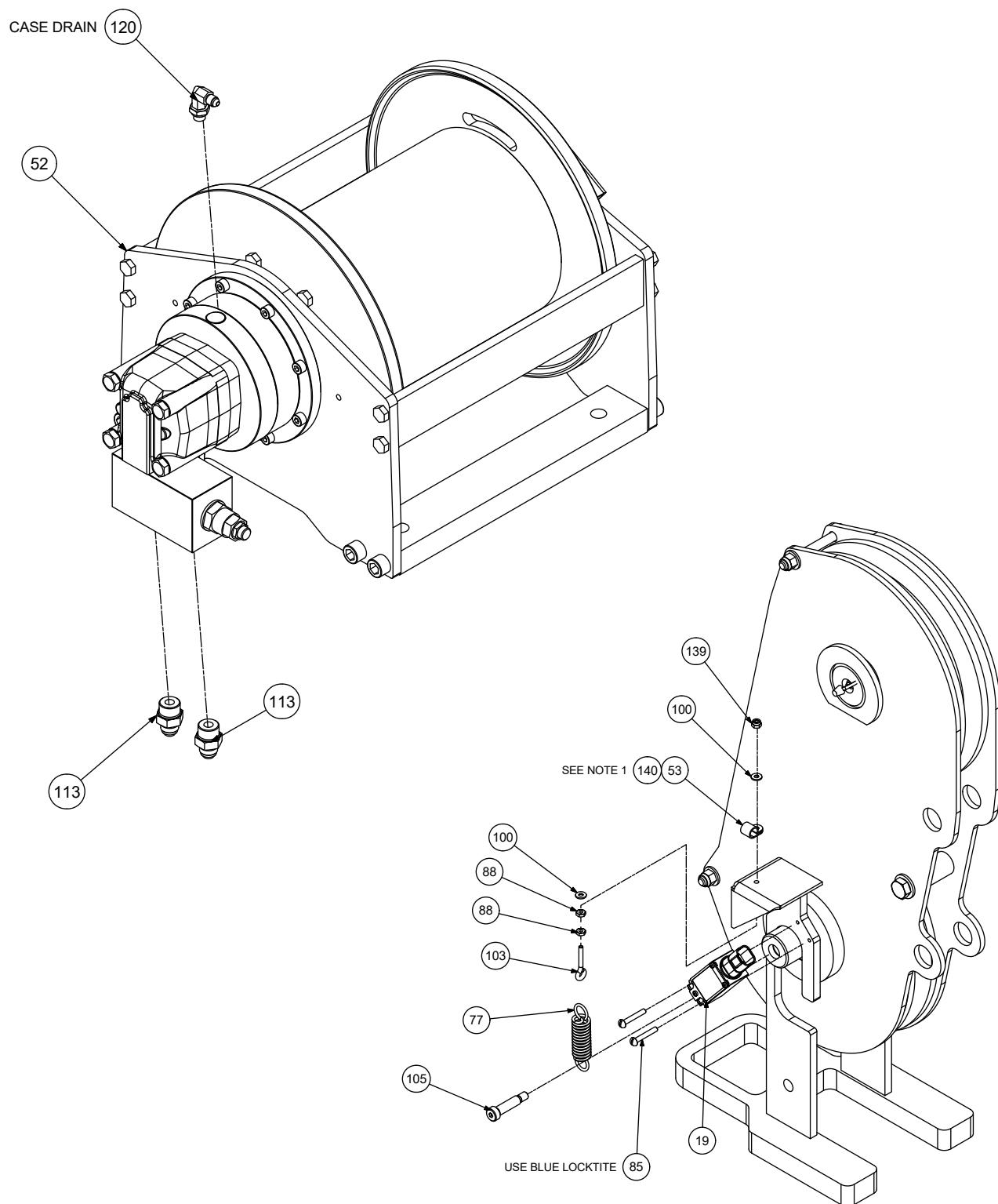
14000 - 30' Fully Proportional Valve Bank Assembly (99904927)



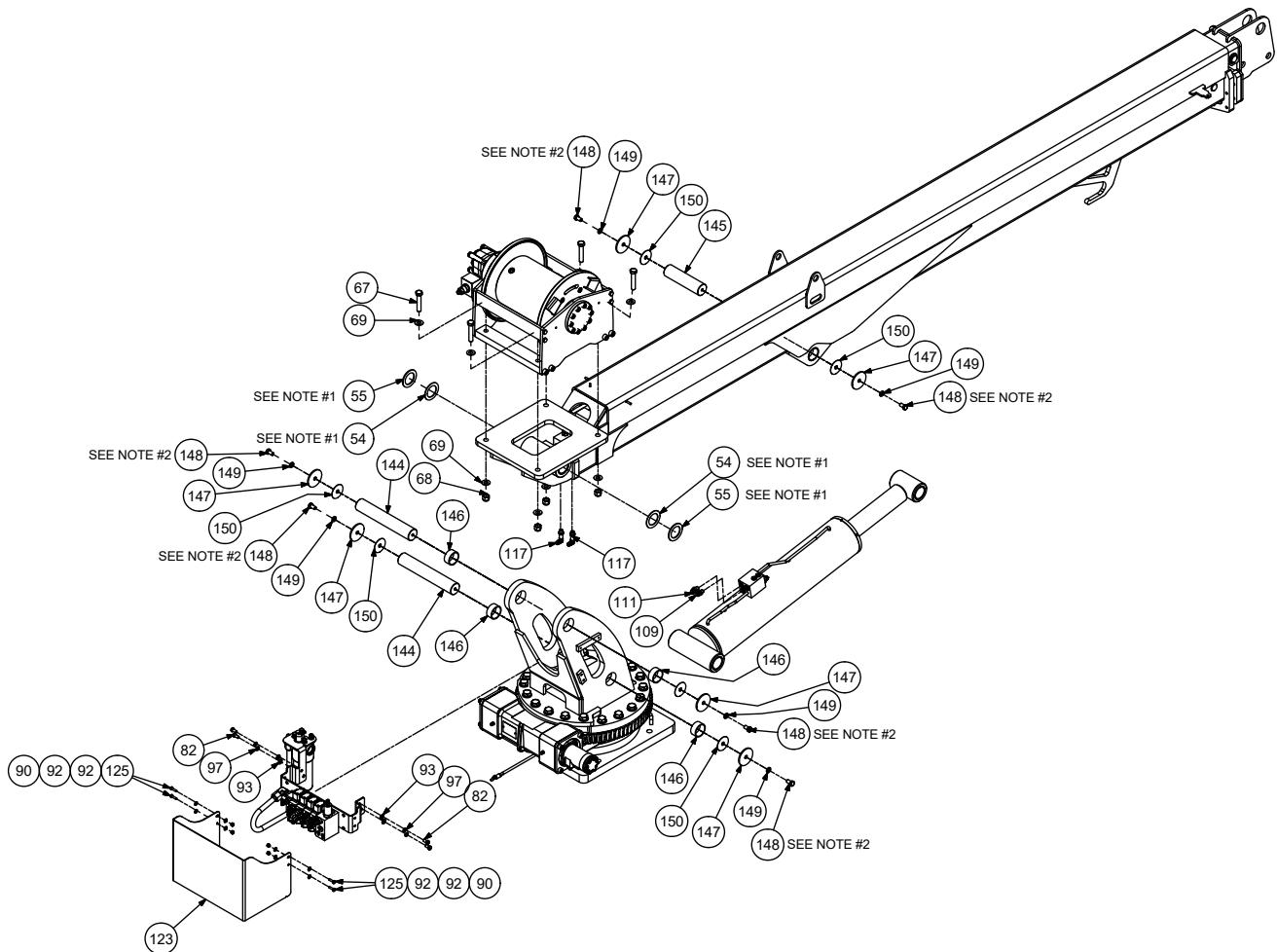
FULLY PROPORTIONAL VALVE BANK ASSEMBLY

14000 - 30' Single Proportional Valve Bank Assembly (99904927)

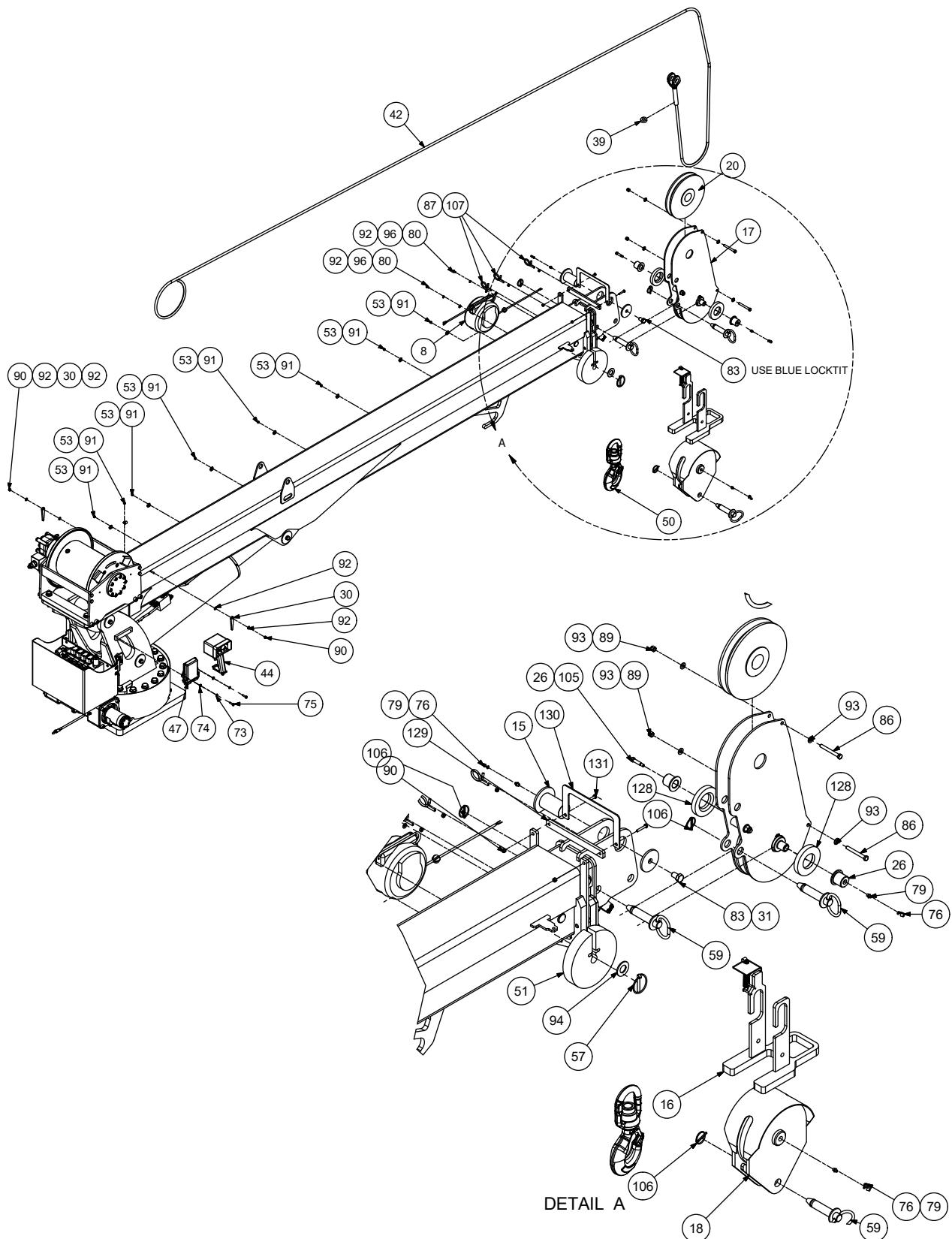
SINGLE PROPORTIONAL VALVE BANK ASSEMBLY

14000 - 30' Winch & A2B Assembly (99904927)**NOTE:**

NO FLOOD LIGHTS: USE CLAMP-PLASTIC .25 CABLE P/N 72034485 WITH FLOOD LIGHTS: USE CLAMP-PLASTIC .25 CABLE P/N 72034572.

14000 - 30' Crane & Winch Assembly (99904927)**NOTES:**

1. IF REQUIRED USE 72063038 OR 72063039 MACHNY BUSHINGS BETWEEN MAST AND LOWER BOOM.
2. TORQUE TO 60 LB-FT.

14000 - 30' Flip Sheave (99904927)

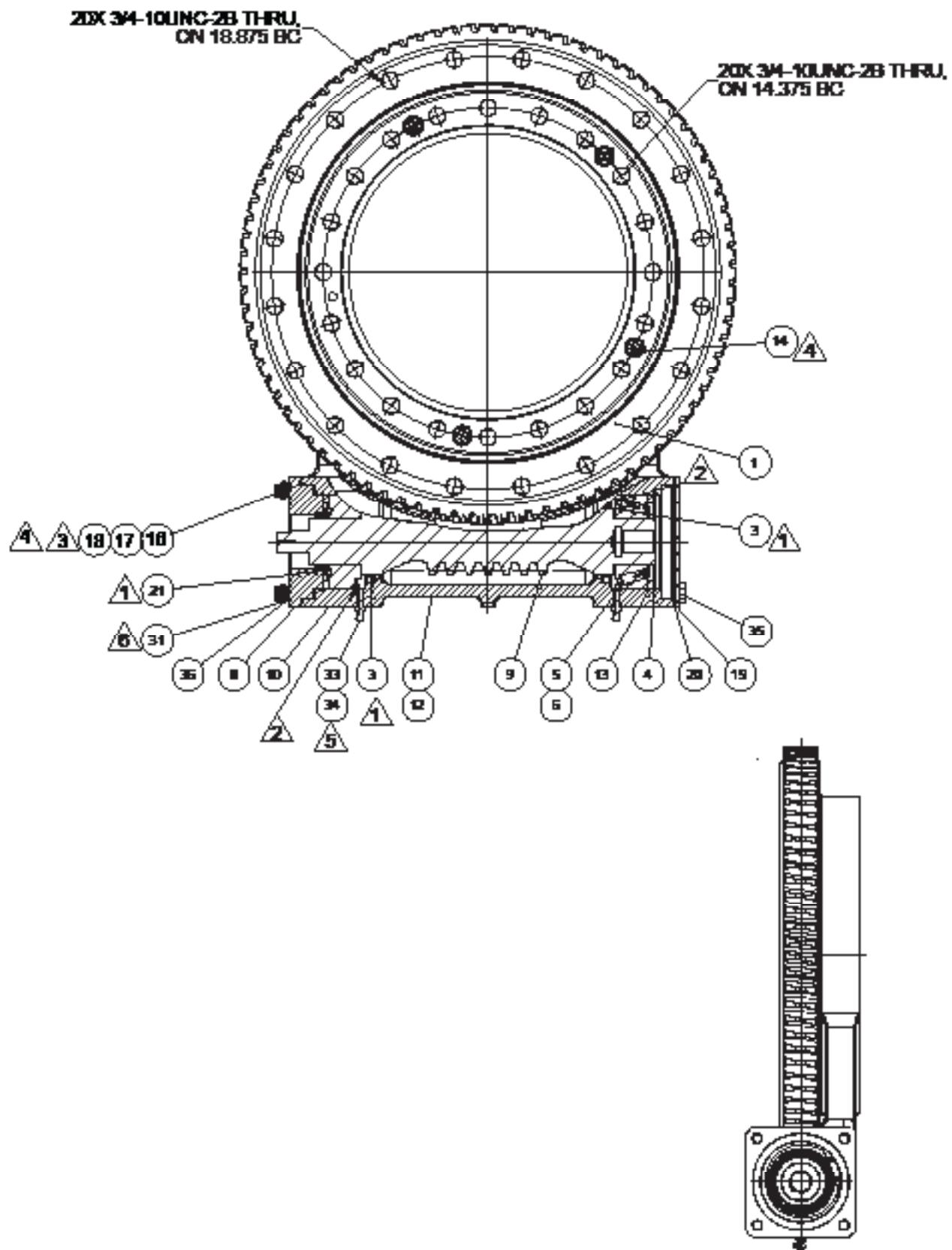
PARTS LIST 99904927

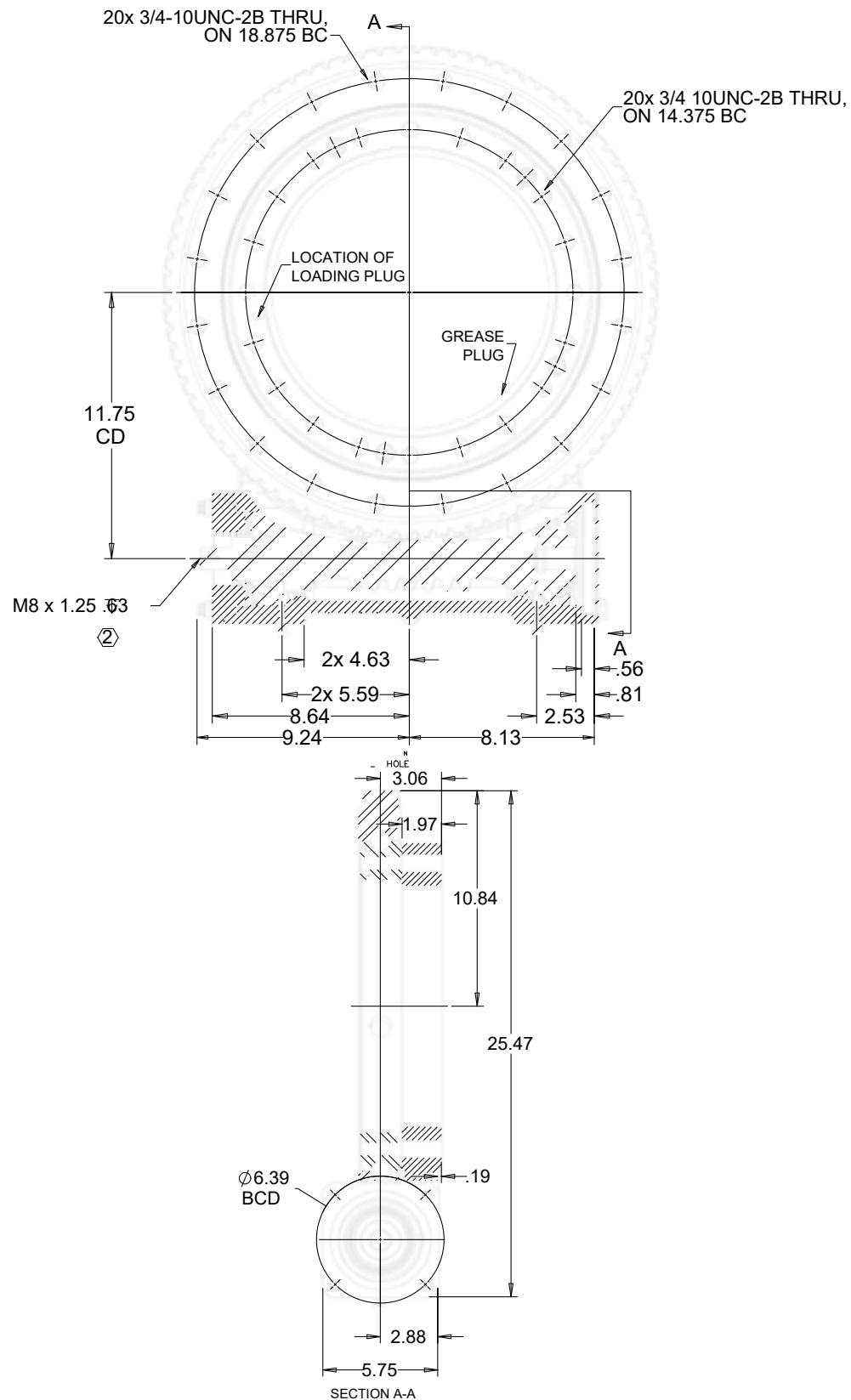
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	91723089	KIT-HRDW BASE & MAST 12000/14000		1
2.	51720680	KIT-HRDW A80 WINCH MNT		1
3.	91723543	KIT-HRDW VB MNT HAWE		1
4.	91723583	KIT-HRDW SIII RADIO CONTROLS		1
5.	91725206	KIT-HRDW SERIES III 12000/14000		1
6.	91725089	KIT-HYD A80 SERIES III SP		A/R
7.	91723618	KIT-HYD A80 SERIES III		A/R
8.	51723610	CORD REEL ASM- 30FT W/PACKARD W/DEUTSCH		1
9.	51727890	CYL-6.00/3.00 25.06S 45.44CC		1
10.	51727883	CYL-2.75/1.75 2.50/1.75 204.00S 144.69CC		1
11.	52727811	MAST WLDMMT-12000/14000		1
12.	52727818	WLDMMT-LOWER BOOM 12000/14000		1
13.	52725165	WLDMMT-1ST STAGE EXT BOOM 12000/14000		1
14.	52722995	WLDMMT-2ND STAGE EXT BOOM 12000/14000		1
15.	52723069	PIN-TYPE M 2.00X 3.38		1
16.	52725155	WLDMMT- A2B BRKT		1
17.	51727793	FLIP SHEAVE ASM 14000		1
18.	52723070	WLDMMT- SNATCH BLOCK 12000/14000		1
19.	51727982	KIT-A2B LIMIT SWITCH NO TOP PIN DEUTSCH		1
20.	60030102	SHEAVE-10.50 POLYMER		1
21.	60030336	WEAR PAD-RC .19 X 6.00 X 6.00		1
22.	60030438	WEAR PAD-RND 0.12X 2.00X 1.00X 1.00		2
23.	60030421	WEAR PAD-RC 0.25X 6.00X 6.00		1
24.	60030422	WEAR PAD-RND SIII EXT CYL		1
25.	60030437	WEAR PAD-RC 0.19X 6.00X 2.25		4
26.	60030487	CAP- A2B PIN		2
27.	60030425	WEAR PAD-RND 0.44X 1.25X .50X .50		2
28.	60030427	WEAR PAD-RND 0.19X 2.00X 1.25X .44		4
29.	60030442	WEAR PAD-RND 0.25X 1.00X .50X .38		2
30.	70034490	PLATE-ANGLE PLASTIC 3.50"		2
31.	60109337	RETAINER PLT-PIN 3.00 DIA		1
32.	71414167	SLIDE-ROTATION STOP 12000/14000		1
33.	60136007	GEAR GUARD 12000/14000		1
34.	60140899	CAP-LOWER BOOM CABLE GUIDE 9500-14000	122	1
35.	60135668	CAP-FIRST STAGE		1
36.	60135669	PIN-TYPE A 1.25X 6.89 (6.46)		1
37.	60135833	RETAINER-1ST STAGE EXT CYL		2
38.	52722991	BASE WLDMMT-12000/14000		1
39.	70145121	COLLAR-SHAFT 2 PIECE 7/8 IN.		1
40.	70399044	TAPE-REFLECTIVE RED/SILVER 1.25X108.00		2
41.	70399045	TAPE-REFLECTIVE RED/SILVER2.00X108.00		2
42.	70580204	WIRE ROPE ASM-.50(6X25)X130FT LH LAY		1
43.	70734958	TRANSM-RAD REM TELE S3 FP GATED FHSS 2400		A/R
44.	70734957	TRANSM-RAD REM TELE S3 FP NON-G FHSS 240		A/R
45.	70735093	TRANSM-RAD S3 SP EM 5LED FHSS 2400		A/R
46.	70735094	RECEIVER-RAD S3 SP 5LED FHSS 2400		A/R
47.	70734960	RECEIVER-RAD REM TELE S3 FP FHSS 2400		A/R
48.	71056674	GEAR-TRNTBL BRG 21.00" DIA		1
49.	76398996	GASKET-GEAR 170-00055-1	58	1
50.	70735082	HOOK-SWVL 7T BBRG W/LATCH		1
51.	71414205	PLATE-SINGLE SHEAVE (20#) .50 WIRE ROPE		1
52.	70570836	WINCH-PLANETARY 7770 LB LINE PULL (A80)		1
53.	72034485	CLAMP-PLASTIC 1/4" CABLE		9
54.	72063038	MACHY BUSHING 2.00X14 GA NR		A/R
55.	72063039	MACHY BUSHING 2.00X10 GA NR		A/R
56.	60136102	FLANGE ADAPTOR		1
57.	72661641	PIN-QUICK 5/16-2-1/16 ZINC YELLOW		1
58.	73511254	MOTOR-HYD 101 1752 009		1
59.	73734565	PIN-LOCK W/HANDLE 1.00 X 3.50 W/HAIRPIN		3

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
60.	73734727	VALVE BANK-4-SECT PSL2 W OC INLT		A/R
61.	77441481	HARNESS-TELE RADIO REMOTE SERIES III		A/R
62.	72601295	CAP SCR .75-10X 3.50 HH GR8 Z	1	14
63.	72063116	WASHER .75 N FLAT H ASTM F436Z	1	38
64.	72063285	WASHER-FLAT .75 H ASTM F436 Z-CUT	1	2
65.	72601466	CAP SCR .75-10X 5.00 HH GR8 Z	1	20
66.	72601629	CAP SCR .75-10X 4.00 HH GR8 Z	1	6
67.	72060932	CAP SCR .62-11X 3.25 HH GR5 Z	2	4
68.	72062091	NUT .62-11 HEX NYLOCK	2	4
69.	72063007	WASHER .62 FLAT	2	8
70.	72601797	WASHER-LOCK 8MM	3	3
71.	72602065	WASHER-FLAT M 8	3	3
72.	72602052	CAP SCR M 8-1.25X 16 HHZ	3	3
73.	72063142	WASHER-SS .25 LOCK TYPE 304	4	2
74.	72063166	WASHER-FLAT .25 R WRT 18-8 .62OD SS	4	2
75.	72601330	CAP SCR .25-20X 1.00 HH SS	4	2
76.	70034382	CAP-GREASE PRO20 GC-RED	5	4
77.	71413185	SPRING-.105WIRE 0.75OD 2.875 LG	5	1
78.	72053301	COUPLING-GLV .12 SCH 40	5	1
79.	72053508	ZERK-NPT .12	5	4
80.	72060000	CAP SCR .25-20X .50 HH GR5 Z	5	2
81.	72060002	CAP SCR .25-20X .75 HH GR5 Z	5	4
82.	72060044	CAP SCR .38-16X .75 HH GR5 Z	5	8
83.	72060147	CAP SCR .62-11X 1.00 HH GR5 Z	5	1
84.	72060206	CAP SCR .75-10X 2.00 HH GR8 Z	5	1
85.	72060639	SCR-MACH 10-24X 1.25 RDH	5	2
86.	72060893	CAP SCR .38-16X 3.25 HH GR5 Z	5	2
87.	72062000	NUT .25-20 HEX	5	3
88.	72062093	NUT # 8-32 HEX ZINC	5	2
89.	72062103	NUT .38-16 HEX NYLOCK	5	2
90.	72062104	NUT .25-20 HEX NYLOCK	5	6
91.	72062106	NUT 10-24 HEX NYLOCK	5	8
92.	72063001	WASHER .25 FLAT	5	22
93.	72063003	WASHER .38 FLAT	5	8
94.	72063010	WASHER 1.00 FLAT	5	1
95.	72063035	MACHY BUSHING 1.25X10 GA NR	5	2
96.	72063049	WASHER .25 LOCK	5	6
97.	72063051	WASHER .38 LOCK	5	12
98.	72063116	WASHER-FLAT .75 N H ASTM F436 Z	5	1
99.	72063132	WASHER .50 FLAT ASTM F436	5	12
100.	72063271	WASHER # 8 W FLAT ANSI B27.2Z	5	2
101.	72066129	RETAINING RING-EXT 1.25 HD	5	2
102.	72601031	SCR-MACH .38-16X 1.00 BTNHD	5	4
103.	72601938	BOLT-EYE # 8-32X 1.125	5	1
104.	72601949	CAP SCR .50-13X 1.25 SH ZC	5	4
105.	72602085	BOLT-SHLDR .38X 1.25 (5/16 THDS) SS	5	1
106.	72661543	PIN-QUICK 316-10QP	5	3
107.	72661694	BRIDLE RING 1-1/12ID X 1/4-20	5	3
108.	51395083	HOSE-AA .13 X 19.50 (2-2) 100R17	6	1
109.	72532355	ADPTR-M STR/M JIC 6 6	6	1
110.	72532356	ADPTR-M STR/M JIC 8 6	6	4
111.	72532357	ADPTR-M STR/M JIC 6 8	6	1
112.	72532358	ADPTR-M STR/M JIC 8 8	6	3
113.	72532359	ADPTR-M STR/M JIC 10 8	6	2
114.	72532361	ADPTR-M STR/M JIC 8 10	6	1
115.	72532670	ELBOW-M JIC/45/F JIC 8 8	6	1
116.	72532690	ELBOW-M JIC/90/F JIC SW 4 4	6	1
117.	72532700	ELBOW-M STR/90/M JIC XLG 6 6	6	2
118.	72532792	ADPTR-M STR/M JIC 8 4	6	1
119.	72533583	ELBOW-M STR/45/M JIC 8 6	6	1
120.	72534474	ELBOW-M BSPP/90/M JIC 4 4	6	1

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
121.	72533613	ADPTR-M STR/M JIC 10 6	6	2
122.	93725207	KIT-CABLE GUIDE 9500/14000		1
123.	60144215	COVER-VALVE BANK SIII		1
124.	60140857	BRKT-MAST VB 12000-14000		1
125.	72060004	CAP SCR .25-20X 1.00 HH GR5 Z	5	8
126.	73734472	VALVE BANK-MOD.INLET (PW) 12VDC IP69		A/R
127.	77441537	HARNESS-S3 TELE S-PROP VALVE BANK CERVIS		A/R
128.	60030488	SPACER-A2B BRACKET		2
129.	60140935	GUIDE - CABLE WEAR (WIDE)	122	1
130.	60140938	BRKT - CABLE GUIDE (WIDE)	122	1
131.	72060006	CAP SCR .25-20X 1.50 HH GR5 Z	122	2
132.	72062104	NUT .25-20 HEX NYLOCK	122	2
133.	60143080	BRKT-MAST VB 12000-14000 FP		1
134.	73052156	FILTER-PRES 4000PSI 25GPM 10MIC -12		1
135.	72534898	O-RING EXTENDER 08-08		1
136.	71415692	TUBE ASM-PRESSURE FILTER S3FP 12K 14K MA		1
137.	72053767	ELBOW-M STR/90/M JIC 12 12		1
138.	72533623	ELBOW-M STR/90/M JIC 8 12		1
139.	72062207	NUT 8-32 HEX NYLOCK		1
140.	72034572	CLAMP-PLASTIC .38 CABLE		1
141.	72063186	WASHER-FLAT .38 N H ASTM F436		4
142.	72602160	WASHER- LOCK .50 YZ		12
143.	72602158	CAP SCR .50-13X 1.75 HH GR5 YZ		12
144.	70190007	PIN-TYPE AB 2.00 X 11.88 SS		2
145.	70190008	PIN-TYPE AB 2.00 X 7.63 SS		1
146.	70034581	BEARING MRP 2.00X2.25X1.00 POLYGON		4
147.	70190004	RETAINER PLT-PIN 0.50 X 3.00 DIA SS		6
148.	72602168	CAP SCR .50-13X .88 HH SS		6
149.	72063144	WASHER-SS .50 LOCK TYPE 304		6
150.	60030590	WEAR PAD-RND 0.56X 2.44X .03		6

REV. AG CN1009-3

Gear Rotator (71056674)

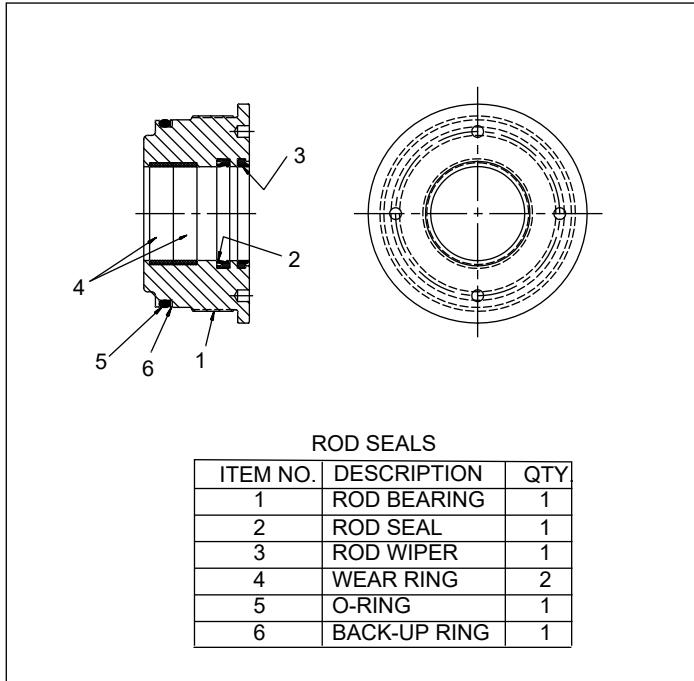
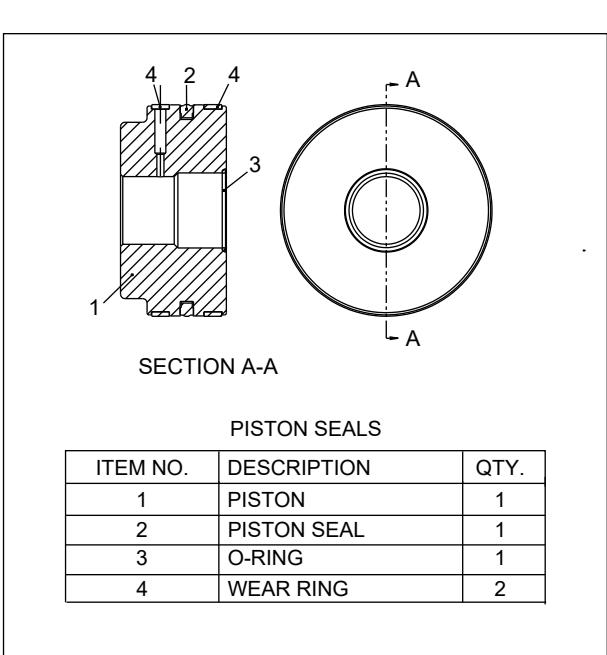
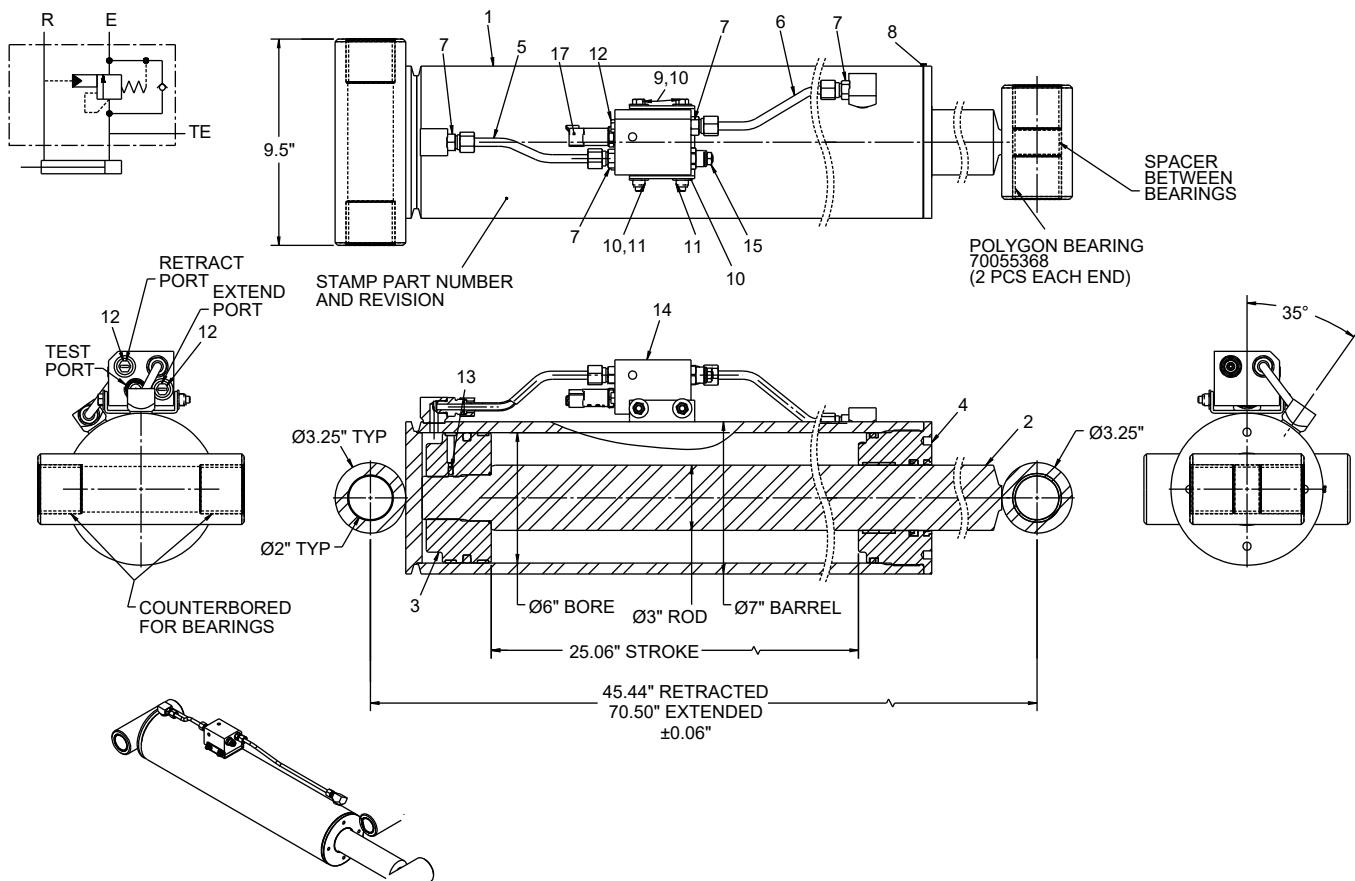
GEAR ROTATOR (71056674) - CONTINUED

PARTS LIST - 71056674

ITEM NO.	PART NO.	DESCRIPTION	DETAILS	QTY.
1.		TURNTABLE BEARING		1
3.	76399215	SEAL		2
4.	76399216	RING, SNAP		1
5.	70055371	BEARING, CONE		2
6.	70055372	BEARING, CUP		2
8.	70055373	RETAINER BEARING		1
9.		WORM		1
10.	NONE	HOUSING CONVERSION		1
11.	NONE	LABEL PLATE (IOWA MOLD)		1
12.	70145503	DRIVE SCREW		2
13.	76399217	LOAD RING		2
14.	72617560	SCREW-CAP	SOC .50 NC X 2.5	4
16.	70414731	SHIM	.004, SAE C	1
17.	70414732	SHIM	.009, SAE C	1
18.	73145504	SHIM	.030, SAE C	1
19.	NONE	COVER, SHIPPING		1
20.	76399218	GASKET	SAE C4	1
21.	76399219	SEAL		1
31.	72601733	CAPSCREW	FERRY HEAD ZD 1/2NCX1.25	4
33..	72053561	ZERK,	90D, 1/8 NPT	2
34.	NONE	CAPLUG, ZERK		2
36.	NONE	LOCKWASHER	HY-COLR 1/2 ZD	4

REV. A CN1194

CYL-6.0/3.0 25.07S 45.44CC C /PD (51722998)



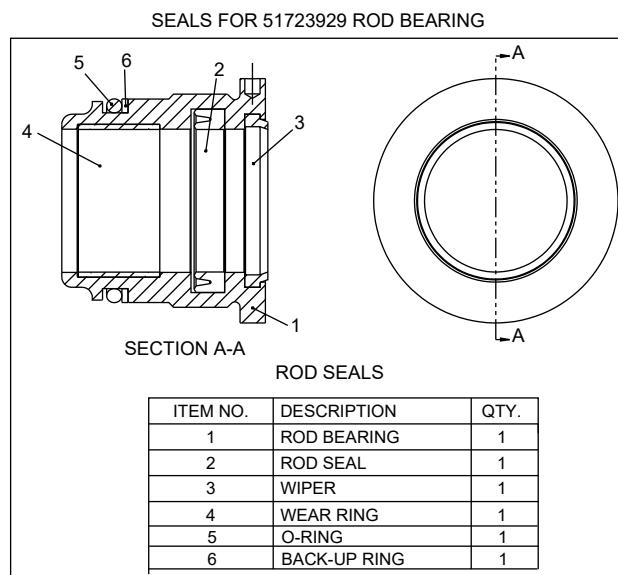
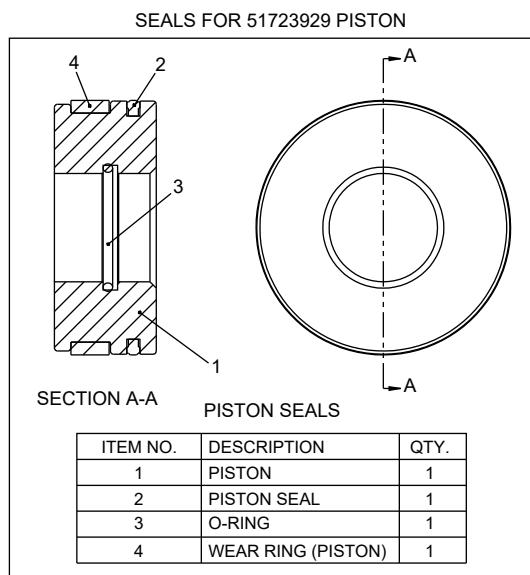
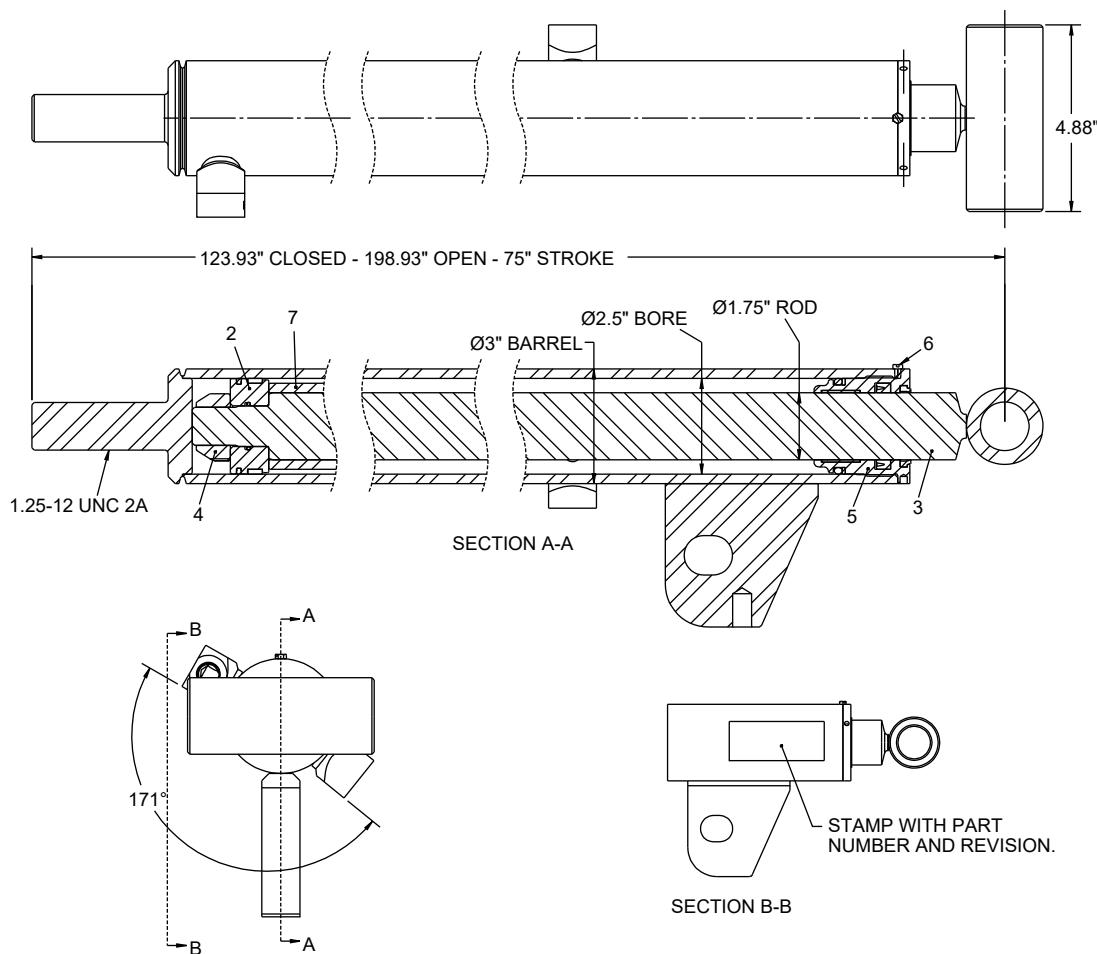
SEAL KIT # 94399133.
INCLUDES ALL SEALS. SEALS CANNOT BE PURCHASED INDIVIDUALLY.

51722998 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52723925	CASE	1
2.	52723926	ROD ASSEMBLY	1
3.	71414691	PISTON ASSEMBLY	1
4.	71414692	ROD BEARING ASSEMBLY	1
5.	71414693	TRANSFER TUBE	1
6.	71414694	TRANSFER TUBE	1
7.		FITTING ADAPTER	4
8.		LOCKING SCREW	1
9.		5/16"-18 X 4.00 HEX BOLT GR5	2
10.		.31 FLAT WASHER	4
11.		.31-18 NYLOC NUT	2
12.		PLASTIC PLUG SAE O-RING #6	3
13.		.250-20 UNC NYLON TIP SET SCREW	1
14.	73540444	VALVE BLOCK ASSEMBLY	1
15.	73540490	COUNTERBALANCE VALVE	1
16.		STEEL SAE O-RING PLUG #4	1
17.	77041866	PRESSURE TRANSDUCER	1
REF	94399133	SEAL KIT	REF
REV. C			

NOTES:

1. SEE PART NUMBER AND REVISION STAMPED ON CYLINDER.
2. REPLACE ALL COMPONENTS OF THE SEAL KIT WHENEVER THE CYLINDER IS DISASSEMBLED TO REDUCE DOWNTIME.
3. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS.
4. TORQUE ROD BEARING TO 500-600 FT-LB (69-83 KG-M); PISTON SET SCREW TO 12-18 FT-LB (1.7-2.5 KG-M), AND PISTON TO 200-300 FT-LB (27.6-41.5 KG-M).
5. USE BLUE LOCTITE ON PISTON.
6. TO LOCK THE HEAD GLAND ON THE CYLINDER, DRILL A #26 HOLE 0.25-0.30" DEEP IN A SEAM BETWEEN THE ROD BEARING AND THE CASE. INSTALL LOCKING SCREW (ITEM #8, SELF-TAPPING #8-32 X .25" SET SCREW) IN THE HOLE UNTIL SEATED.

CYL-2.5/1.75 75.00S 123.93CC C (51723929)

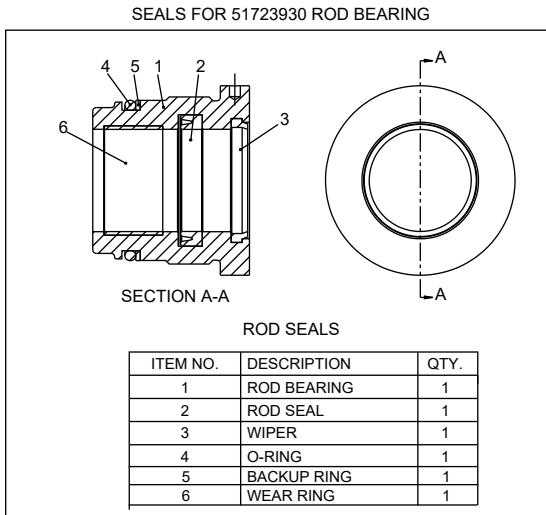
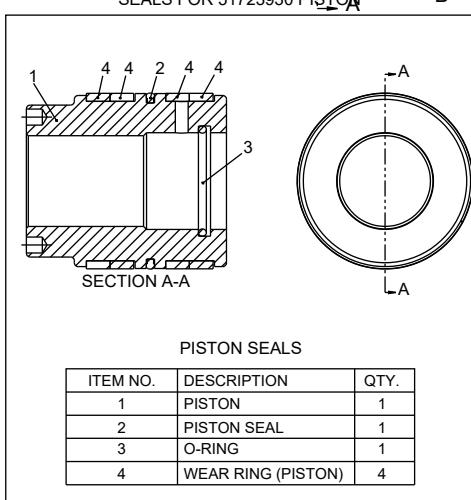
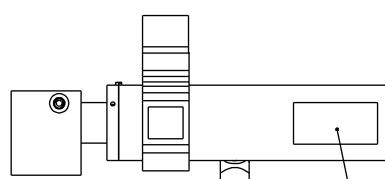
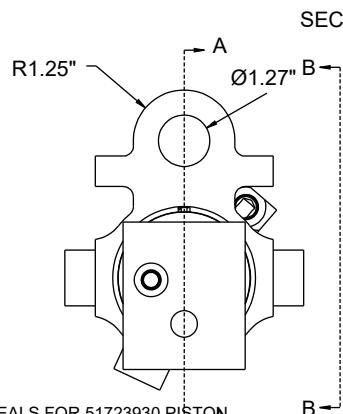
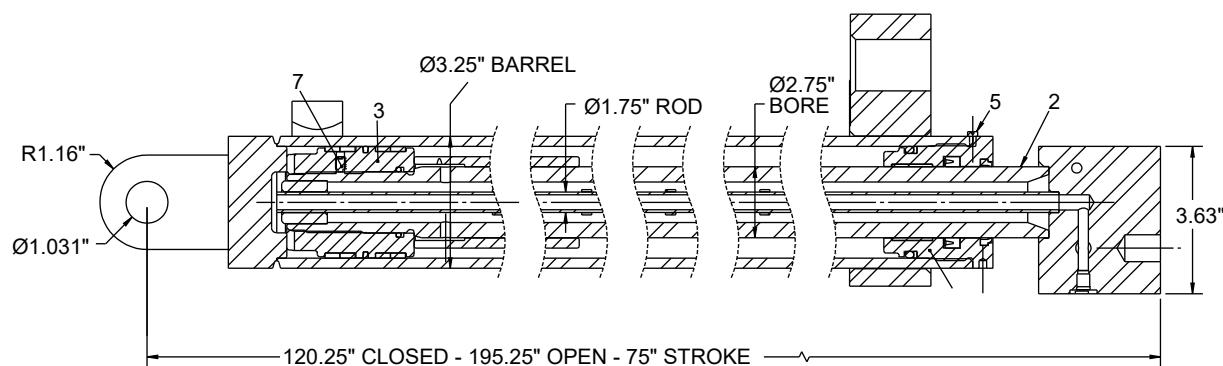
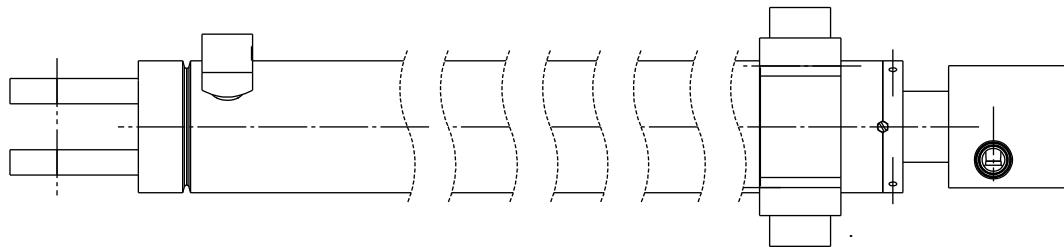
PART OF SEAL KIT # 94399161, WHICH INCLUDES ALL ROD AND PISTON SEALS FOR 51723929. SEALS CANNOT BE PURCHASED INDIVIDUALLY.

51723929 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52724032	CASE	1
2.	71414724	PISTON ASSEMBLY	1
3.	52724031	ROD ASSEMBLY	1
4.		SELF-LOCKING NUT 1.00-14 UNF	1
5.	71414722	ROD BEARING ASSEMBLY	1
6.		LOCKING SCREW	
7.	73050201	STROKE LIMITER	1
REF	94399161	SEAL KIT	REF
REV. INITIAL RELEASE			

NOTES:

1. SEE PART NUMBER AND REVISION STAMPED ON CYLINDER.
2. REPLACE ALL COMPONENTS OF THE SEAL KIT WHENEVER THE CYLINDER IS DISASSEMBLED TO REDUCE DOWNTIME.
3. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS.
4. TORQUE ROD BEARING TO 200-300 FT-LB (27.7-41.5 KG-M).
5. TORQUE PISTON NUT (#4) TO 412.3 FT-LB (57 KG-M).
6. TO LOCK THE ROD BEARING ASSEMBLY ON THE CYLINDER, DRILL A #26 HOLE 0.25-0.30" DEEP IN A SEAM BETWEEN THE ROD BEARING AND THE CASE. INSTALL LOCKING SCREW (ITEM #6, SELF-TAPPING #8-32 X .25" ZSET SCREW) IN THE HOLE UNTIL SEATED.
7. SEAL KIT 94399161 INCLUDES ALL SEALS FOR CYLINDERS 51723929.

CYL-2.75/1.75 75.00S 120.25CC C (51723930)

PART OF SEAL KIT # 94399162, WHICH INCLUDES ALL ROD AND PISTON SEALS FOR 51723930. SEALS CANNOT BE PURCHASED INDIVIDUALLY.

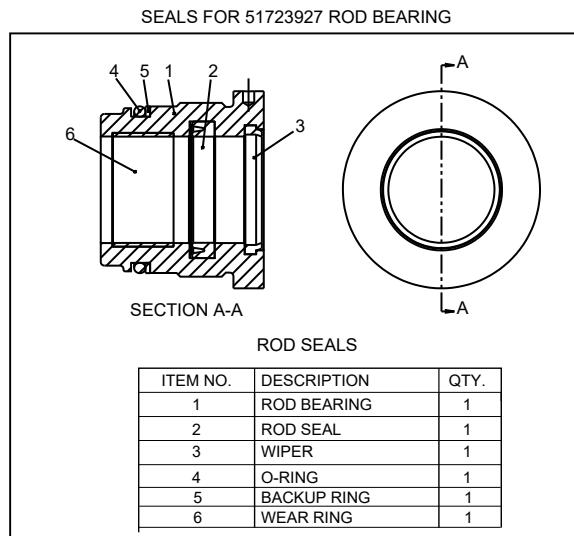
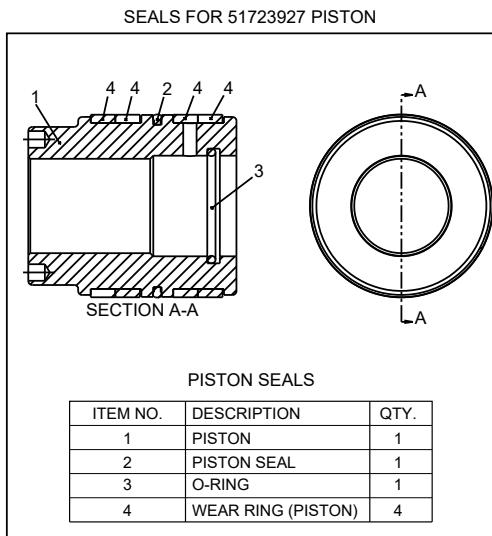
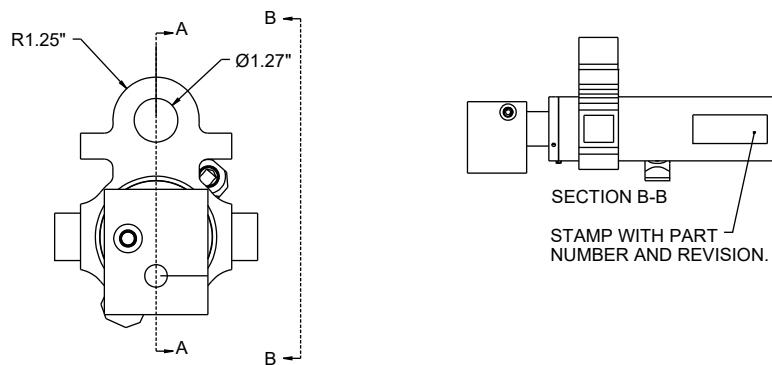
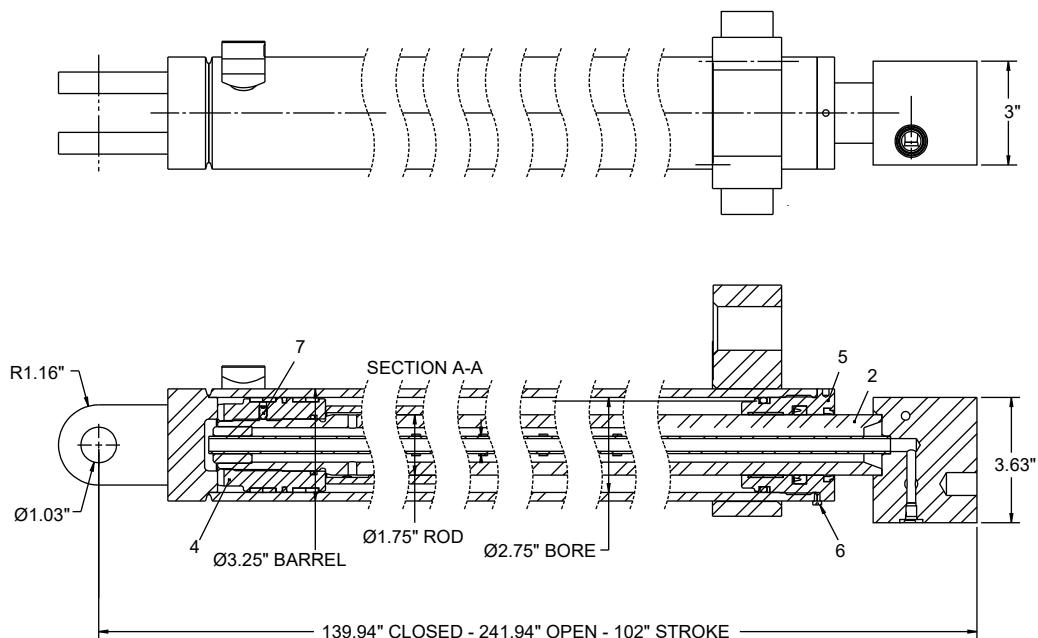
51723930 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52723925	CASE	1
2.	52724036	ROD ASSEMBLY	1
3.	71414725	PISTON ASSEMBLY	1
4.	71414726	ROD BEARING ASSEMBLY	1
5.		LOCKING SCREW	1
6.	73050204	STROKE LIMITER	
7.		0.25-20 UNC NYLON TIP SET SCR	1
REF	94399162	SEAL KIT	REF
REV. INITIAL RELEASE			

NOTES:

1. SEE PART NUMBER AND REVISION STAMPED ON CYLINDER.
2. REPLACE ALL COMPONENTS OF THE SEAL KIT WHENEVER THE CYLINDER IS DISASSEMBLED TO REDUCE DOWNTIME.
3. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS.
4. TORQUE ROD BEARING TO 200-300 FT-LB (27.7-41.5 KG-M).
5. TORQUE PISTON NUT (#4) TO 200-300 FT-LB (27.7-41.5 KG-M)..
6. TO LOCK THE ROD BEARING ASSEMBLY ON THE CYLINDER, DRILL A #26 HOLE 0.25-0.30" DEEP IN A SEAM BETWEEN THE ROD BEARING AND THE CASE. INSTALL LOCKING SCREW (ITEM #6, SELF-TAPPING #8-32 X.25" SET SCREW) IN THE HOLE UNTIL SEATED.
7. SEAL KIT 94399162 INCLUDES ALL SEALS FOR CYLINDERS 51723930.

CYL-2.75/1.75 102.00S 139.94CC C (51723927)



PART OF SEAL KIT # 94399162, WHICH INCLUDES ALL ROD AND PISTON SEALS FOR 51723927. SEALS CANNOT BE PURCHASED INDIVIDUALLY.

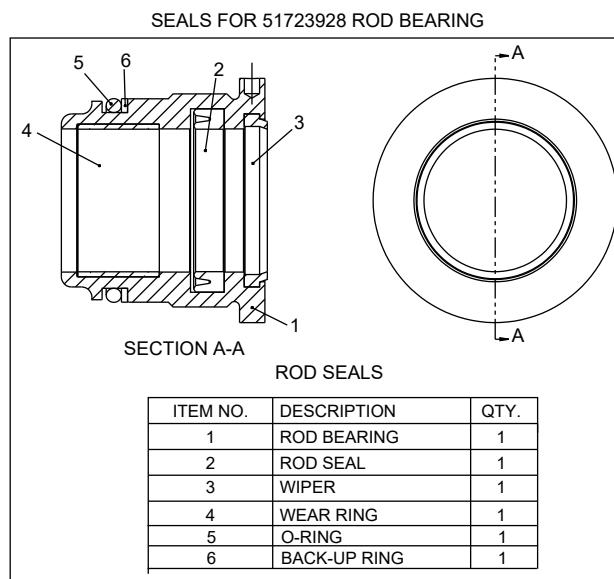
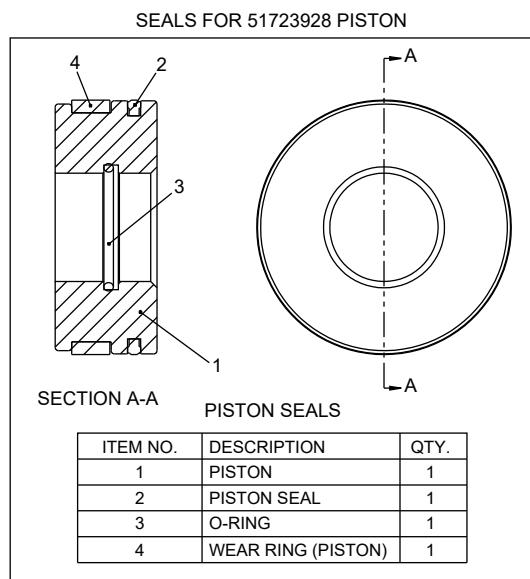
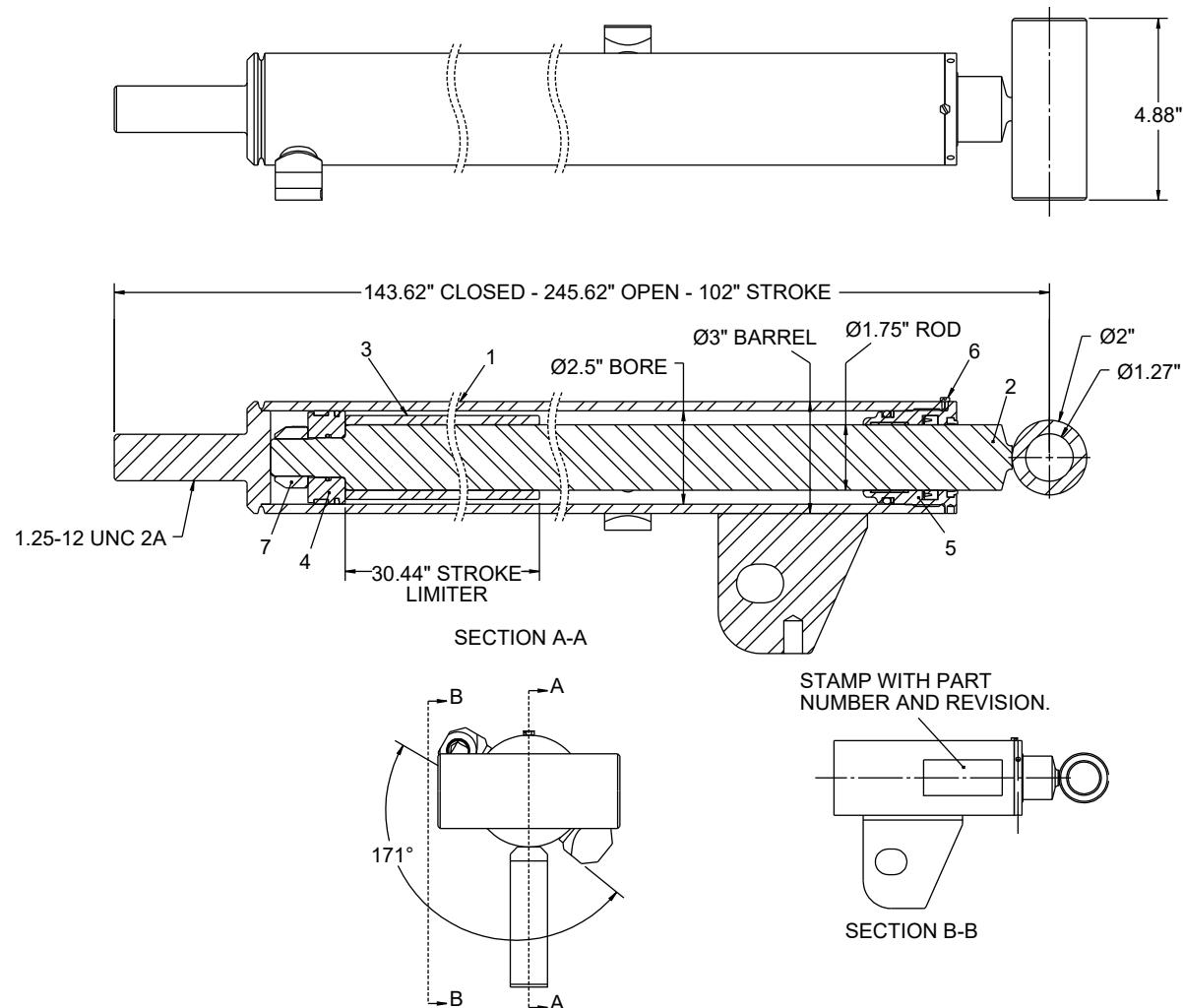
51723927 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52724034	CASE	1
2.	52724035	ROD ASSEMBLY	1
3.	73050203	STROKE LIMITER	1
4.	71414725	PISTON ASSEMBLY	1
5.	71414726	ROD BEARING ASSEMBLY	1
6.		LOCKING SCREW	
7.		.25-20 UNC NYLON TIP SET SCREW	1
REF	94399162	SEAL KIT	REF
REV. INITIAL RELEASE			

NOTES:

1. SEE PART NUMBER AND REVISION STAMPED ON CYLINDER.
2. REPLACE ALL COMPONENTS OF THE SEAL KIT WHENEVER THE CYLINDER IS DISASSEMBLED TO REDUCE DOWNTIME.
3. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS.
4. TORQUE ROD BEARING TO 200-300 FT-LB (27.7 - 41.5 KG-M).
5. TORQUE PISTON TO 200 -300 FT-LB (27.7 - 41.5 KG-M).
6. TO LOCK THE ROD BEARING ASSEMBLY ON THE CYLINDER, DRILL A #26 HOLE 0.25-0.30" DEEP IN A SEAM BETWEEN THE ROD BEARING AND THE CASE. INSTALL LOCKING SCREW (ITEM #6, SELF-TAPPING #8-32 X .25" SET SCREW) IN THE HOLE UNTIL SEATED.
7. SEAL KIT 94399162 INCLUDES ALL SEALS FOR CYLINDER 51723927.

CYL-2.5/1.75 102.00S 143.62CC C (51723928)



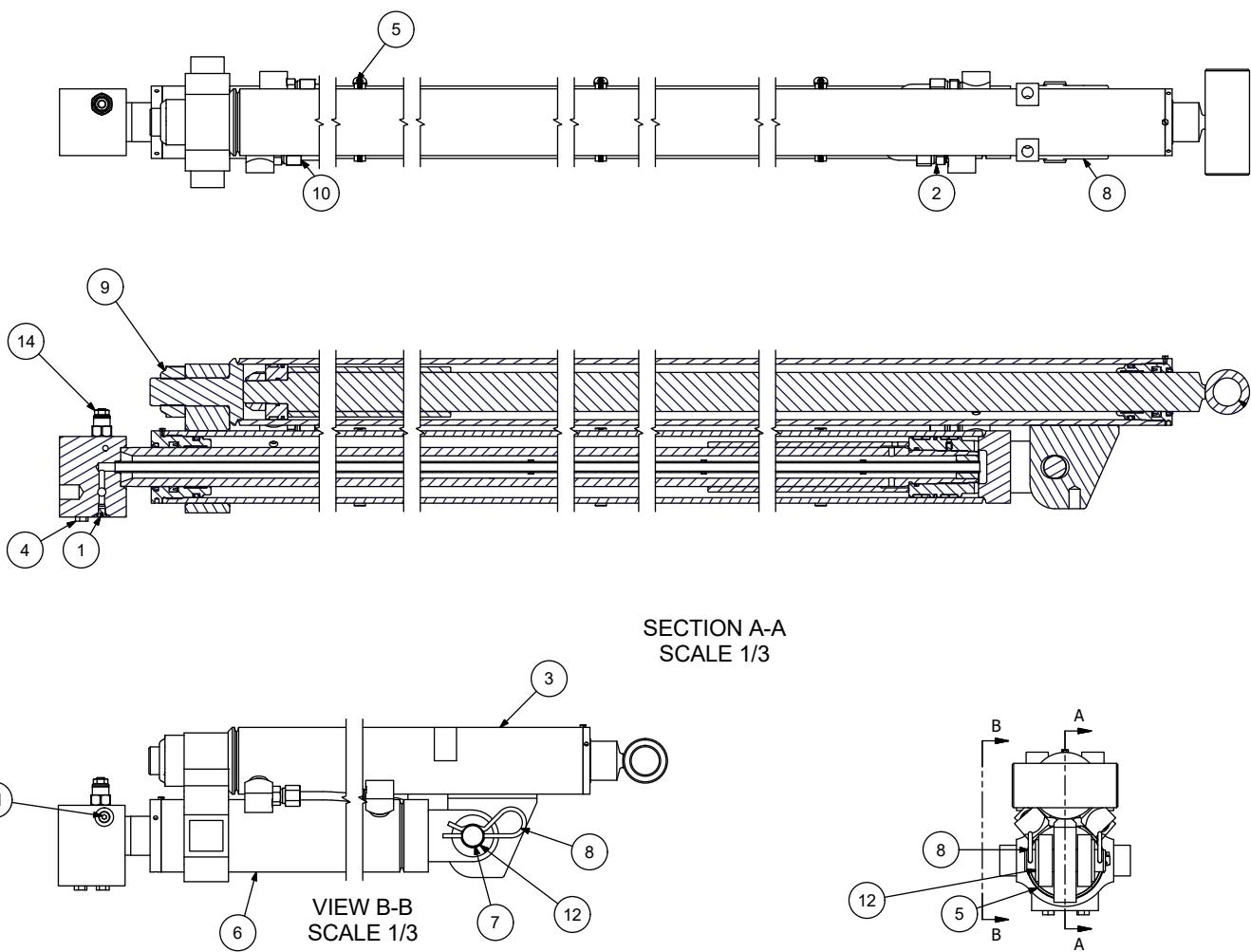
PART OF SEAL KIT # 94399161, WHICH INCLUDES ALL ROD AND PISTON SEALS FOR 51723928. SEALS CANNOT BE PURCHASED INDIVIDUALLY.

51723928 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52724028	CASE	1
2.	52724030	ROD ASSEMBLY	1
3.	73050200	STROKE LIMITER	1
4.	71414724	PISTON ASSEMBLY	1
5.	71414722	ROD BEARING ASSEMBLY	1
6.		LOCKING SCREW	1
7.		SELF-LOCKING NUT 1.00-14 UNF	1
REF	94399161	SEAL KIT	REF
REV. INITIAL RELEASE			

NOTES:

1. SEE PART NUMBER AND REVISION STAMPED ON CYLINDER.
2. REPLACE ALL COMPONENTS OF THE SEAL KIT WHENEVER THE CYLINDER IS DISASSEMBLED TO REDUCE DOWNTIME.
3. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS.
4. TORQUE ROD BEARING TO 200-300 FT-LB (27.7-41.5 KG-M).
5. TORQUE PISTON NUT (#7) TO 412.3 FT-LB (57 KG-M).
6. TO LOCK THE ROD BEARING ASSEMBLY ON THE CYLINDER, DRILL A #26 HOLE 0.25-0.30" DEEP IN A SEAM BETWEEN THE ROD BEARING AND THE CASE. INSTALL LOCKING SCREW (ITEM #6, SELF-TAPPING #8-32 X.25" SET SCREW) IN THE HOLE UNTIL SEATED.
7. SEAL KIT 94399161 INCLUDES ALL SEALS FOR CYLINDERS 51723928.

CYL ASM2.50/1.75 2.75/1.75 150S 125(OBS) (51722968)

51722968 PARTS LIST

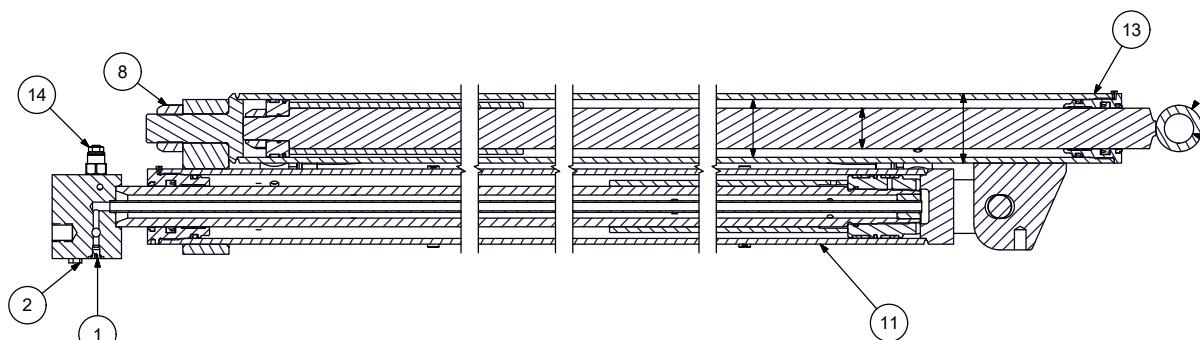
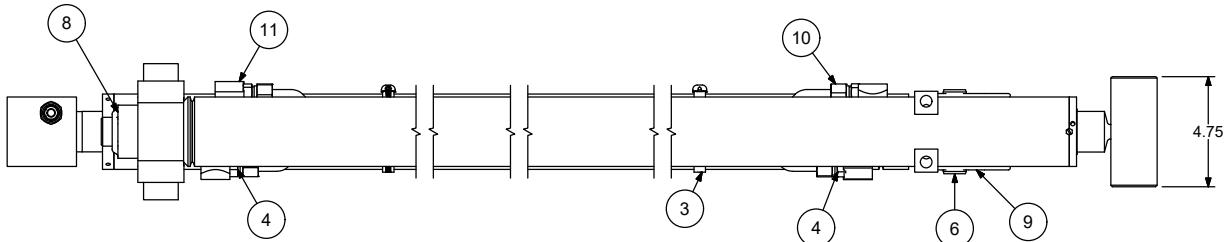
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.		SAE O-RING PLUG #2	1
2.		FITTING ADAPTER	4
3.	51723929	CYL-2.5/1.75 75.00S 123.93CC C	1
4.		PLASTIC PLUG SAE O-RING #6	2
5.		#56 HOSE CLAMP	3
6.	51723930	CYL-2.75/1.75 75.00S 120.25CC C	1
7.		PIN	1
8.		COTTER HAIR PIN	2
9.		1.25-12 SELF-LOCKING NUT	1
10.	71414721	TUBE LINE	2
11.		STEEL SAE O-RING PLUG #4	3
12.		WASHER	2
14.	73540565	VALVE-CBAL 15 GPM 4.5:1 T11-A @4000 PSI	1
REV. E CN262			

NOTES:

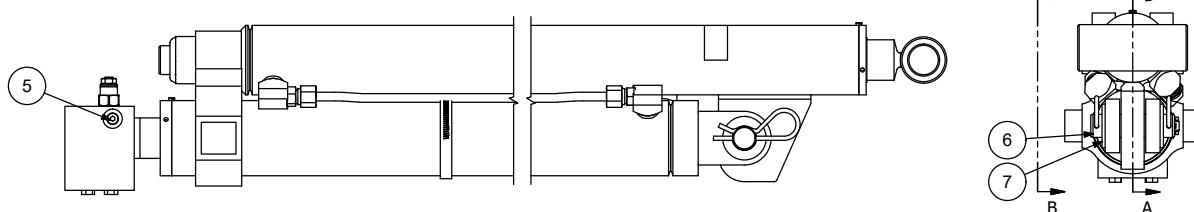
1. TEST CYLINDER AT 3500 PSI.
2. TORQUE NUT # 9 (1.25 -12 UNF) TO 810.7 FT-LB (112 KG-M).
3. PAINT BLACK SEMI-GLOSS.
4. INSTALL HOSE CLAMPS AFTER PAINT.

NOTE: Items shown are common service items, for part numbers not assigned contact:

IOWA MOLD TOOLING CO., INC.
TECHNICAL SUPPORT TEAM
TELEPHONE: 800-554-4421

CYL ASM-2.50/1.75 2.75/1.75 204.0S 144.6 (51722961)

SECTION A-A
SCALE 1/3



51722961 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1		SAE O-RING PLUG #2	1
2		PLASTIC PLU SAE O-RING #6	2
3	71415730	#56 HOSE CLAMP	3
4	71415731	FITTING ADAPTER	4
5		STEEL SAE O-RING #6	3
6		PIN	1
7		WASHER	2
8		1.25-12 SELF-LOCKING NUT	1
9		HAIRPIN, COTTER	2
10	71414720	TUBE LINE	2
11	51723927	CYL-2.75/1.75 102.00S 139.94CC C	1
13	51723928	CYL-2.5/1.75 102.00S 143.62CC C	1
14	73540565	VALVE-CBAL 15 GPM 4.5:1 T11-A @4000 PSI	1
REV. E CN262			

NOTES:

1. TEST CYLINDER AT 3500 PSI.
2. TORQUE NUT # 8 (1.25-12 UNF) TO 810.7 FT-LB (112 KG-M).
3. PAINT BLACK SEMI-GLOSS.
4. INSTALL HOSE CLAMPS AFTER PAINT.

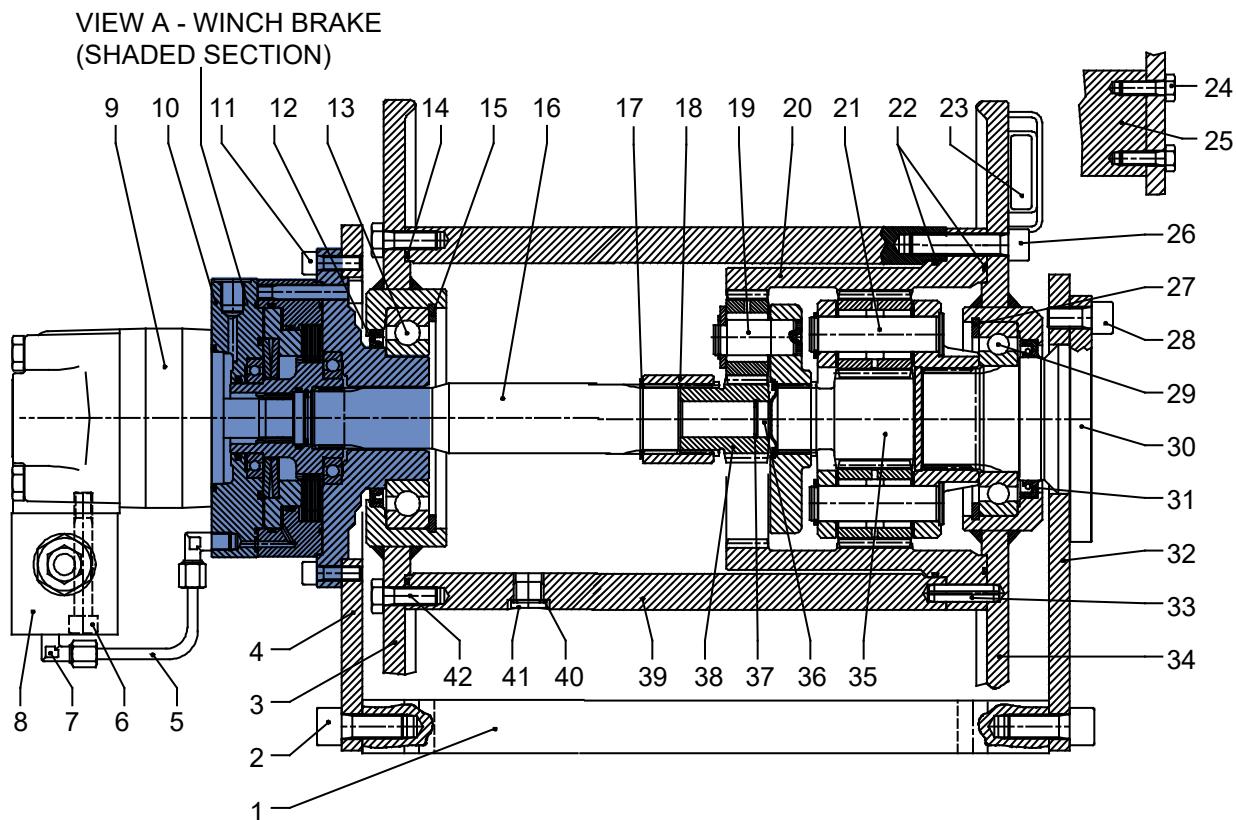
NOTE: Items shown are common service items, for part numbers not assigned contact:

IOWA MOLD TOOLING CO., INC.

TECHNICAL SUPPORT TEAM

TELEPHONE: 800-554-4421

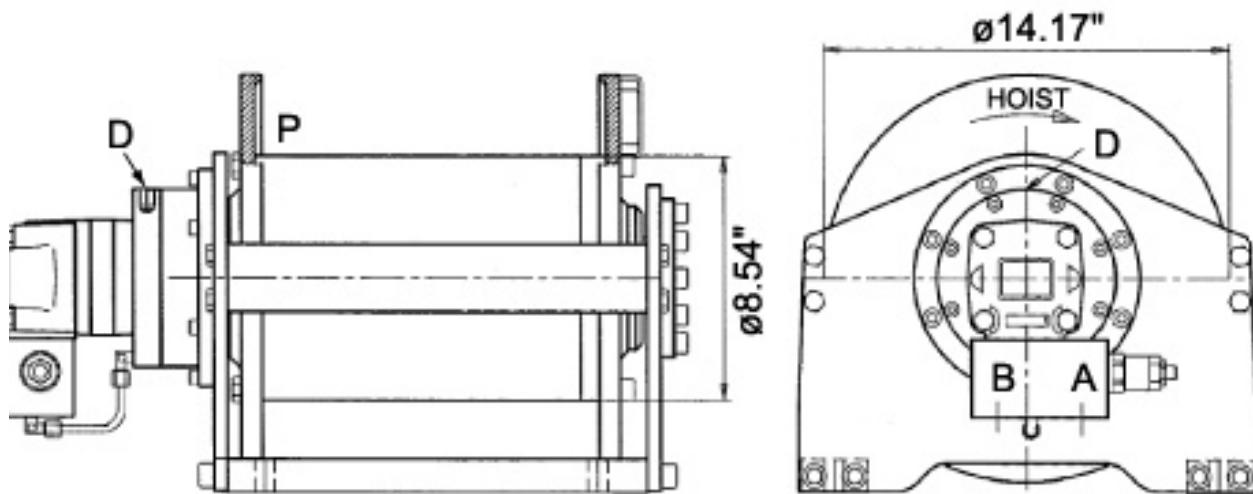
Winch (70570836)



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.		CROSS MEMBER (LOWER)	2
2.		SOCKET HEAD CAP SCREW	8
3.		SIDE PANEL, MOTOR SIDE	1
4.		SUPPORT, MOTOR SIDE	1
5.		PIPE	1
6.		SOCKET HEAD CAP SCREW	2
7.		90° CONNECTION (CONICAL)	2
8.	73540344	DUAL COUNTERBALANCE VALVE ASSEMBLY (WAS 73540247)	1
9.	73540248	HYDRAULIC MOTOR	1
10.	71056622	BRAKE UNIT	1
11.		SOCKET HEAD CAP SCREW	8
12.	PART OF 94397044	OIL RETAINER SEAL	1
13.		BALL BEARING	1
14.	PART OF 94397044	O-RING JOINT	1
15.	72661627	RETAINING RING, INTERNAL, LH	1
16.		PROPELLER SHAFT	
17.		RETAINING RING	
18.		SLEEVE	
19.		REDUCTION GEAR UNIT	
20.		SPUR RING	
21.		SHAFT	
22.	PART OF 94397044	O-RING JOINT	
23.	70580215	WEDGE, WINCH CABLE	
24.		HEX SCREW	
25.		CROSS MEMBER (UPPER)	
26.		SOCKET HEAD CAP SCREW	
27.	72661628	RETAINING RING, INTERNAL, RH	
28.		SOCKET HEAD CAP SCREW	
29.		BALL BEARING	

ITEM NO.	PART NO.	DESCRIPTION	QTY.
30.		ANTI-ROTATION FLANGE	
31.	PART OF 94397044	OIL RETAINER SEAL	
32.		GEAR SIDE SUPPORT	
33.		SPRING PIN	
34.		REDUCTION GEAR SIDE BODY	
35.		DRIVE SHAFT	
36.		INSERT	
37.		RETAINING RING	
38.		SUN GEAR	
39.		WINCH DRUM	
40.		COPPER WASHER	
41.		PLUG	
42.		HEX SCREW	
REF	94397044	SEAL KIT (INCL. 12,14,22,31)	
REV. 20081021			

Winch Dimensions (70570836)



WINCH SPECIFICATIONS

LAYER	LINE PULL (LBS)	LINE SPEED (FPM)	CAPACITY (FT)
1	7770	54	56
2	7000	60	119
3	6360	66	188
4	5830	72	263

PERFORMANCE ESTIMATE

PRESSURE	2550 PSI
FLOW	12 GPM
MOTOR DISPLACEMENT	7.67 CI/REV
GEAR RATIO	15:1

DRUM SPECIFICATIONS

DRUM DIAMETER	8.54 IN
FLANGE DIAMETER	14.17 IN
ROPE	1/2" DIAMETER

PORTS

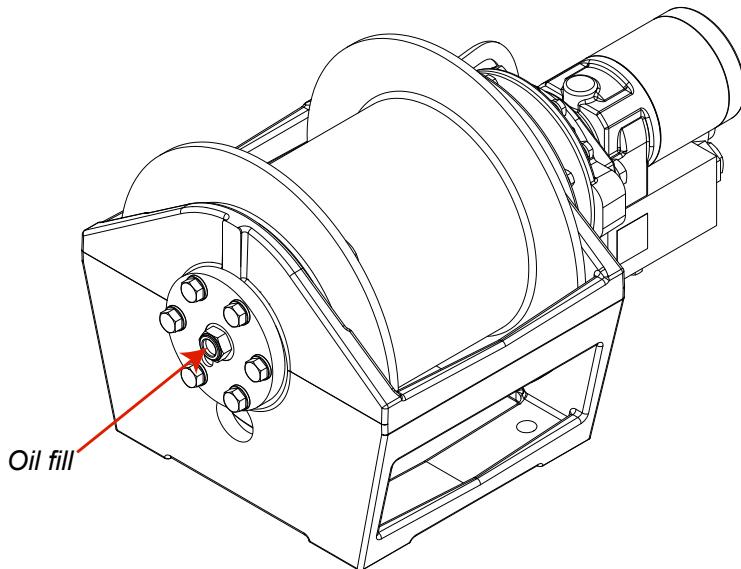
A (HOISTING PORT)	3/4" BSPP
B (LOWERING PORT)	3/4" BSPP
D (MOTOR CASE DRAIN)	1/4" BSP
P (LUBRICATION OIL PLUG)	3/8" BSP

Winch Oil Specifications

The use of proper gear oil and regular preventive maintenance will help extend gear train life and reliable winch brake performance.

OIL CHANGE FREQUENCY

Gear oil should be changed after the first 100 hours or 90 days of machine operation, and then every 1000 hours or 12 months, whichever occurs first. Gear oil should also be changed whenever the ambient temperature changes significantly, and an oil from a different temperature range would be more appropriate. Check and drain the oil using the fill plug in the winch. The winch should be at least 1/2 full.



WARM-UP PROCEDURE

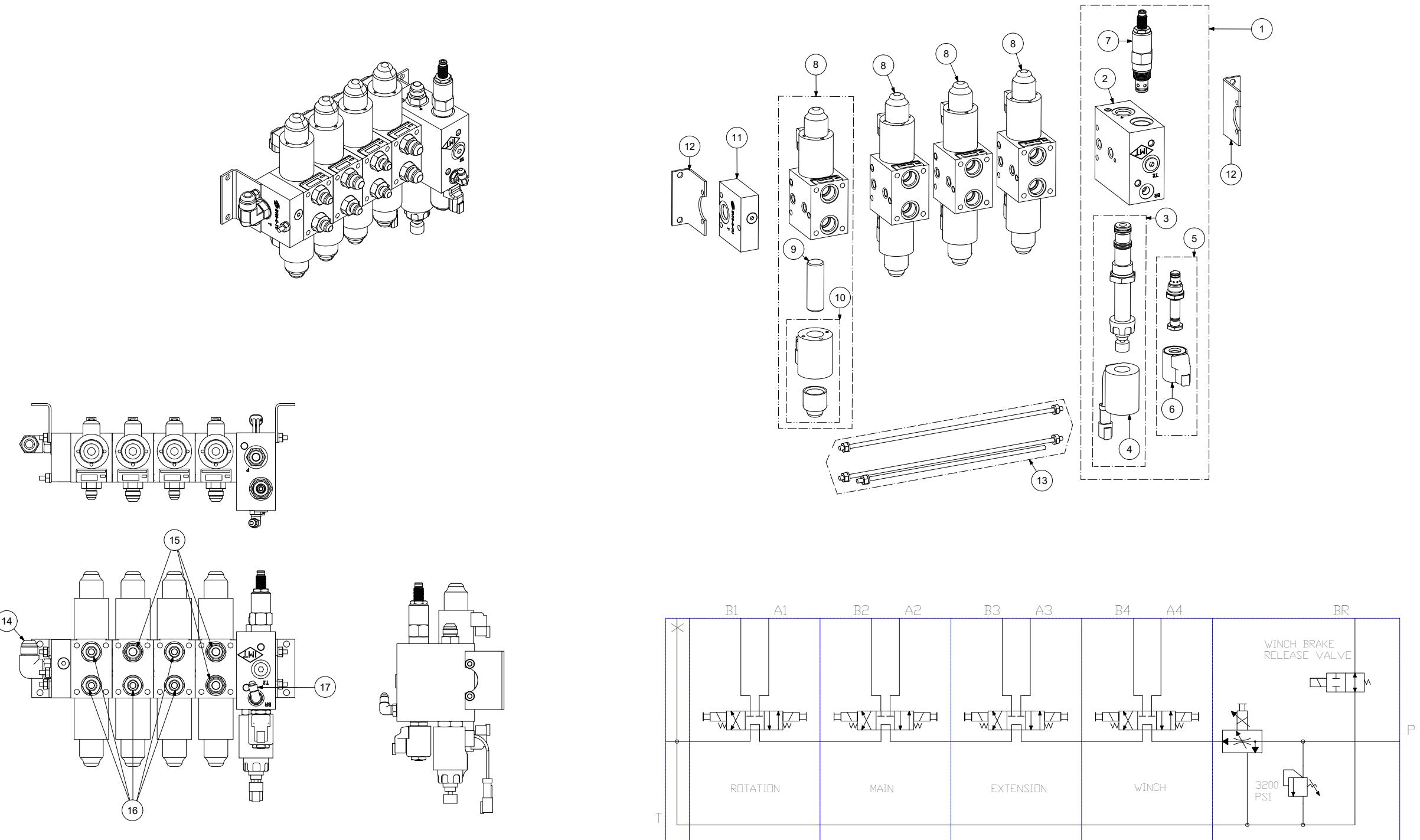
Warming up the winch is recommended at start-up and at ambient temperatures below 40 °F (4 °C). Run the prime mover at its lowest recommended RPM with the hydraulic winch control valve in neutral, allowing sufficient time to warm up the system. Operate the winch at low speeds, forward and reverse, several times to prime all lines with warm hydraulic oil and to circulate gear oil through the planetary gear sets.

LUBRICANTS

The following lubricants are recommended based on ambient temperature. Other lubricants may work equally as well. We suggest you work with your lubricant supplier to find an equivalent product if needed. The winch is initially filled with Mobilgear 600 XP150 or equivalent.

PREVAILING AMBIENT TEMPERATURE	RECOMMENDED LUBRICANT
25 -130 °F (-4 - 54 °C)	Mobilgear 600 XP220 or equivalent (AGMA 5 EP, ISO VG 200)
10 - 100 °F (-12 - 38 °C)	Mobilgear 600 XP150 or equivalent (AGMA 4 EP, ISO VG 150) Note: Avoid using Mobilgear 600 XP150 above 80 °F (27 °C) in severe applications such as offshore lifting, sustained fast duty cycles, or frequent lifting.
-25 - 130 °F (-32 - 54 °C)	Mobil SHC 150 synthetic or equivalent

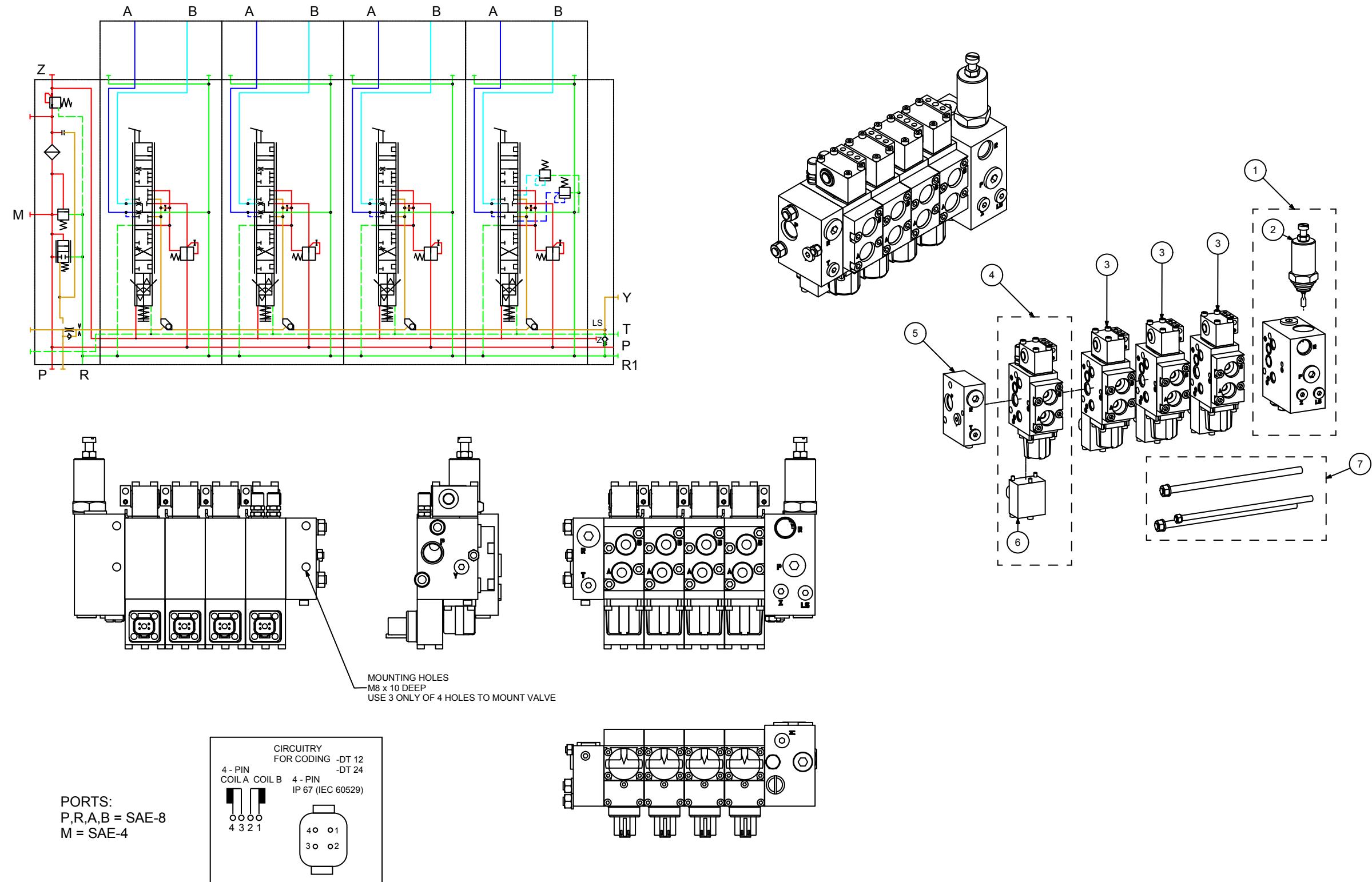
Valve Bank - Single Proportional (73734472)



73734472 PARTS LIST

ITEM NO.	PARTS NO.	DESCRIPTION	QTY.
1.	73540617	SECT-BV18 INLET ASM S3SP W RELIEF @ 3200	1
2.	73540394	SECT-BV18 INLET BODY S3SP	1
3.	73540252	VALVE-CART-P FLOW CTRL 12 VDC W MNL OVRD	1
4.	73540253	COIL-FOR 73540252 12VDC DEUTSCH	1
5.	73540397	VALVE-BRAKE RELEASE NO 12VDC DEUTSCH	1
6.	73540256	COIL-S SERIES FOR 73540397 12VDC DEUTSCH	1
7.	73540396	RELIEF VALVE-FOR 73734472 @ 3200 PSI	1
8.	73540375	SECT-BV18 S3SP 12VDC DEUTSCH	4
9.	77041930	SOLENOID TUBE USED ON 73540375	8
10.	90744198	KIT-COIL REPAIR FOR 73540375 12V	8
11.	73540027	BRKT-MOUNTING EXTRA LONG	
12.	70145830	BRKT-MOUNTING EXTRA LONG	1
13.	73540618	TIE ROD KIT-BV18 4-SECTION	2
14.	72533507	ELBOW-M STR/90/M JIC 8 10	1
15.	72532358	ADPTR-M STR/M JIC 8 8	1
16.	72532356	ADPTR-M STR/M JIC 8 6	4
17.	72053758	ELBOW-M STR/90/M JIC 4 4	5
REV. E			

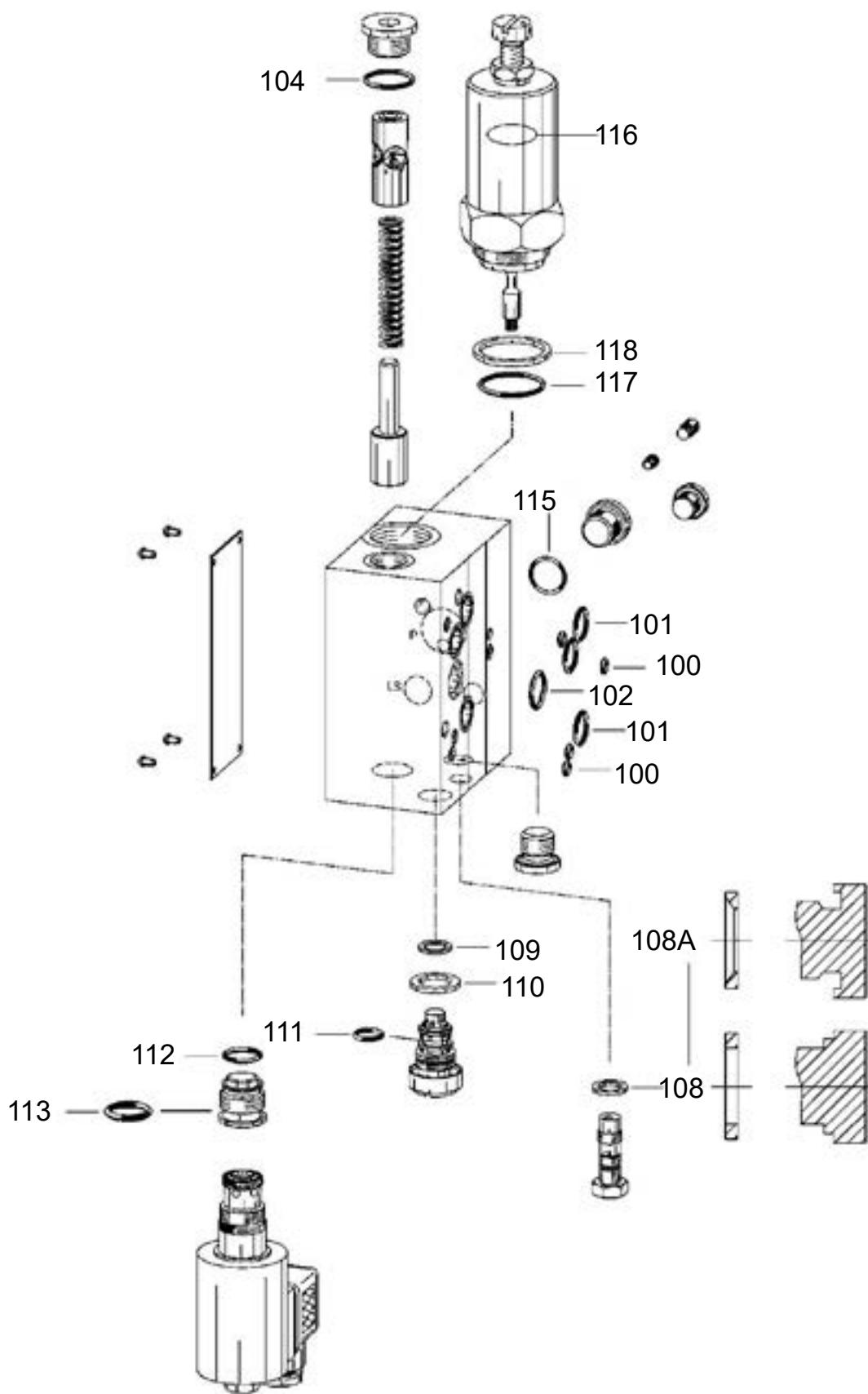
Valve Bank - Fully Proportional (73734727)



POTS:
P,R,A,B = SAE-8
M = SAE-4

73734727 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	73540534	SECT-PSL2 S3FP INLET OPEN CENTER COMP	1
2.	73540538	RELIEF VALVE-PSL2 FOR 73734727 @ 3200PSI	1
3.	73540535	SECT-PSL2 S3FP WINCH/EXT/MAIN 12VDC	3
4.	73540536	SECT-PSL2 S3FP ROTATION 12VDC	1
5.	73540537	SECT-PSL2 S3FP END PLATE	1
6.	77040598	COIL-PSL 12VDC DEUTSCH	4
7.	73540616	TIE ROD KIT-PSL2 4-SECTION	1
8.	94399213	SEAL KIT-73734727 CONNECTION BLOCK (NOT SHOWN)	1
9.	94399214	SEAL KIT - 73734727 SECTIONS (NOT SHOWN)	1
REV. D			

Connection Block Seal Kit for 73734727 (94399213)

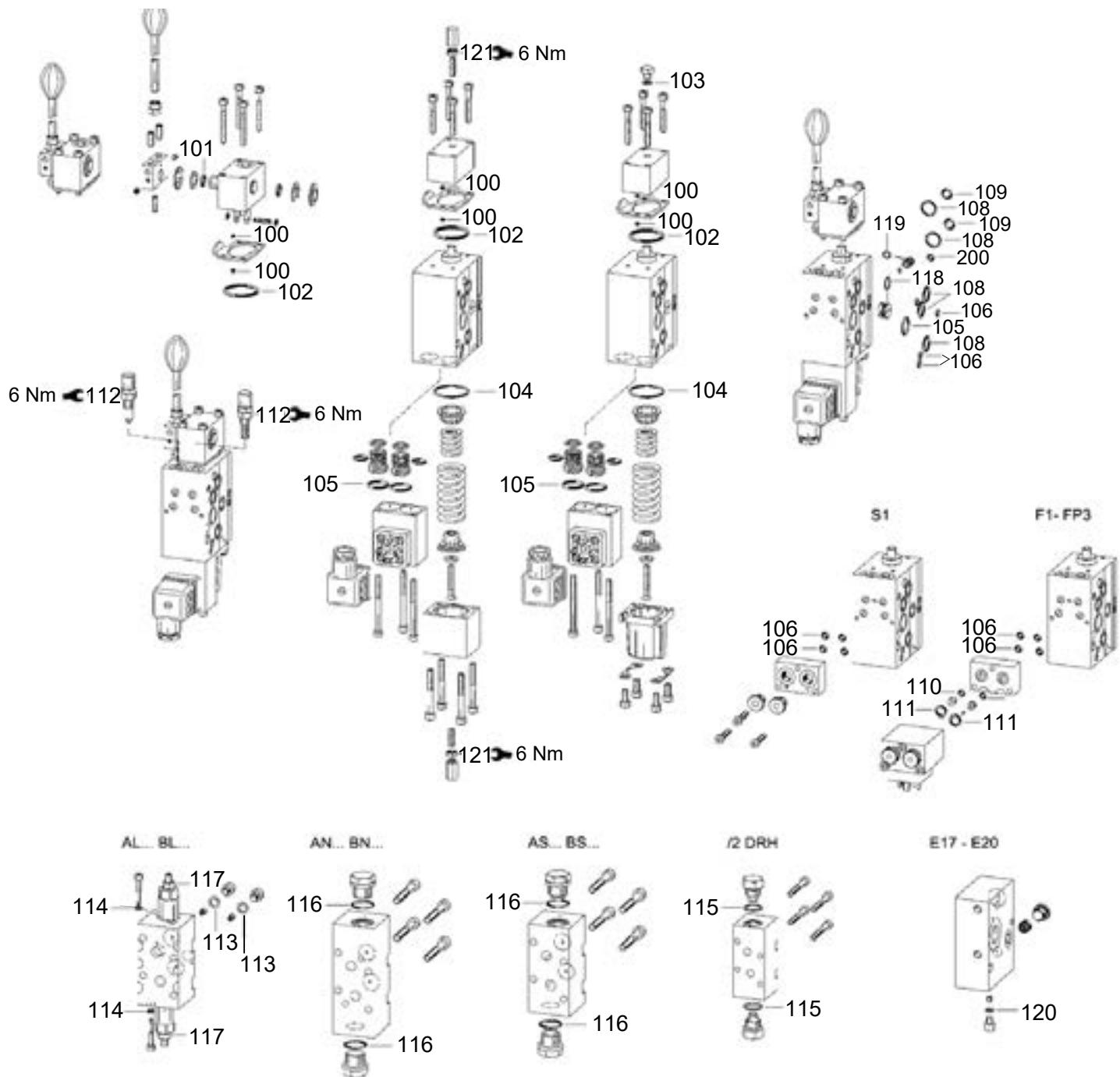
94399213 PARTS LIST

ITEM NO.	DESCRIPTION	QTY.
100.	O-RING-2.90X1.78 Z24	4
101.	O-RING-10.82X1.78 P5001	3
102.	O-RING-12.42X1.78 P5001	1
104.	O-RING-17.17 X 1.78 P 5001	1
108.	COPPER RING-SHAPE A DIN 7603 10X14X1.5-CU	1
108A.	FITTING SEAL	1
109.	SEAL RING-8.3X11X1.15 PTFE 7625 109/1	1
110.	SEAL-1/4" DRV	1
111.	O-RING-9X1.5 NBR 90 SH	1
112.	O-RING-12.42X1.78 P5001	1
113.	O-RING-14.03X2.61 P5001 94 SH A	1
115.	SEAL-G 1/4" DRV 100116-NB 650 NBR	2
116.	O-RING-15X2 HNBR 90 SH RED SPOT	1
117.	O-RING-23.52X1.78 HNBR 90 SH RED SPOT	1
118.	SEAL RING-27X32X2 ST	1

NOTE:

THESE SEALS ARE PART OF KIT NO, 94399213, AND CANNOT BE PURCHASED INDIVIDUALLY.

Seal Kit for 73734727 (94399214)



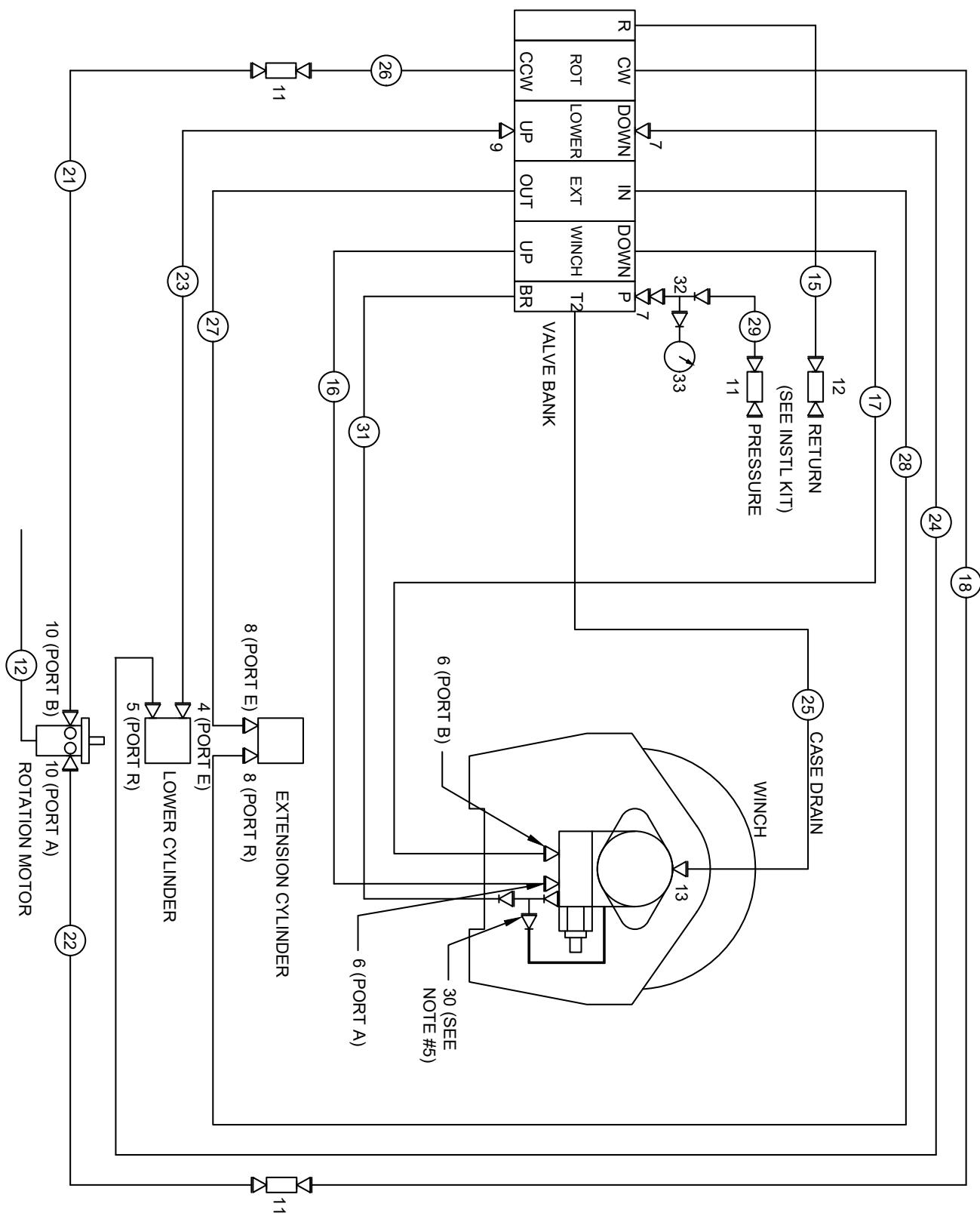
94399214 PARTS LIST

ITEM NO.	DESCRIPTION	QTY.
100.	O-RING- 1 .78 x 1.02 mm	2
101.	O-RING - 6.75 x 1.75 mm P5001	2
102.	O-RING - 25.07 x 2.62 mm Z24	1
103.	USIT-RING - ST 37 STANDARD	1
104.	O-RING - 26.7 x 1.78 mm Z24	1
105.	O-RING - 12.42 x 1.78 mm P5001	3
106.	O-RING - 2.90 x 1.78 mm Z24	6
108.	O-RING - 10.82 x 1.78mm P5001	6
109.	O-RING - 6.07 x 1.78 mm P5001	4
110.	O-RING - 3 x 1.5 mm	2
111.	O-RING - 6.75 x 1.78 mm P5001	2
112.	SEAL NUT	2
113.	USIT-RING - ST 37 STANDARD	2
114.	COPPER RING - 4 x 8 x 1 mm	2
115.	SOFT IRON SEAL RING -	2
116.	O-RING - 17.17 x 1.78 mm P5001	2
117.	SEAL- LOCK COLLAR NUT - M6 12 x 1	2
118.	O-RING - 10.00 x 1.00 mm P5001	1
119.	O-RING - 5.00 x 1.00 mm P5001	2
120.	COPPER RING - 5 x 7.5 x 1 mm	1
121.	SEAL NUT	2

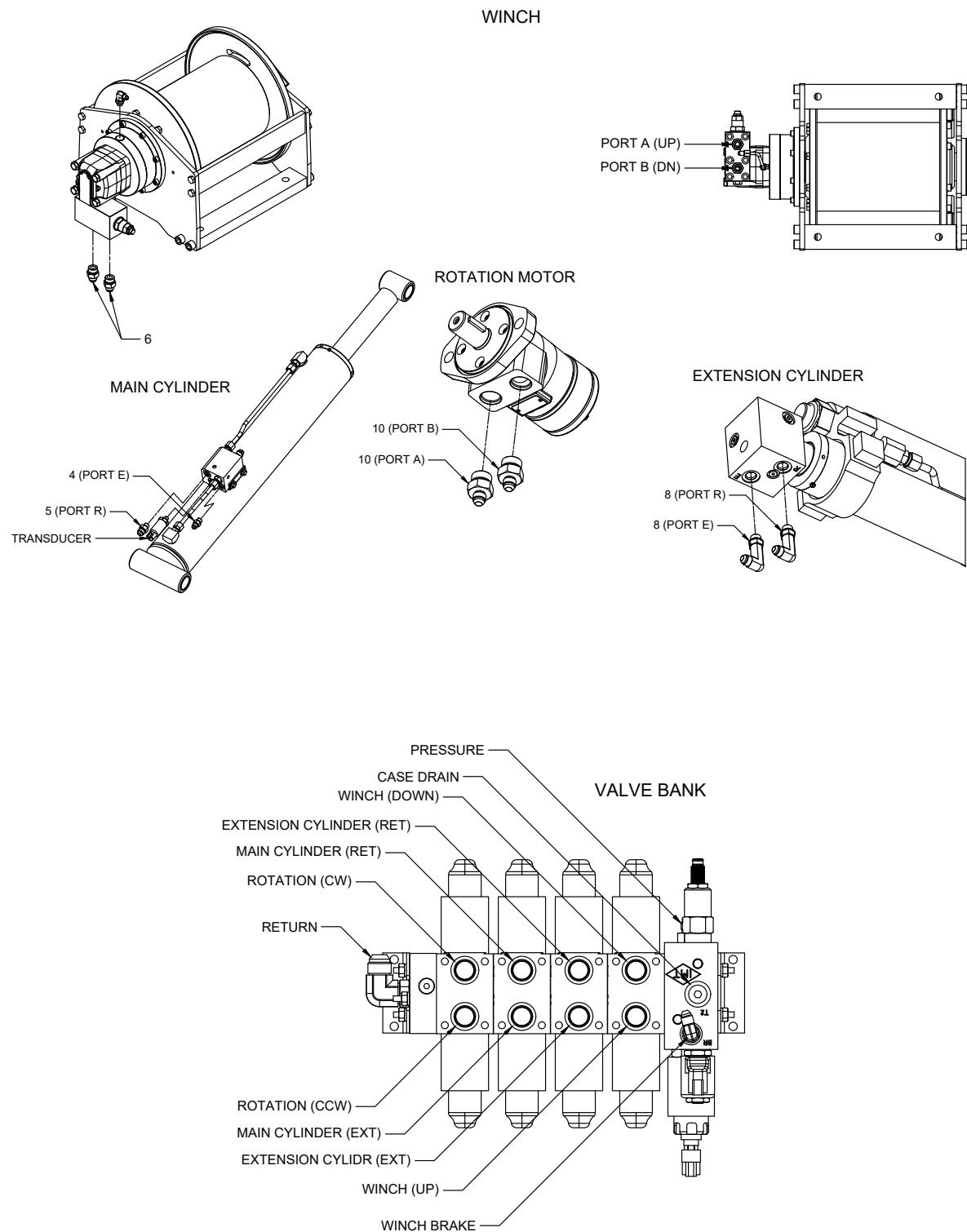
NOTE:

THESE SEALS ARE PART OF KIT NO, 94399214, AND CANNOT BE PURCHASED INDIVIDUALLY.

Plumbing Diagram - Single Proportional (99905597)

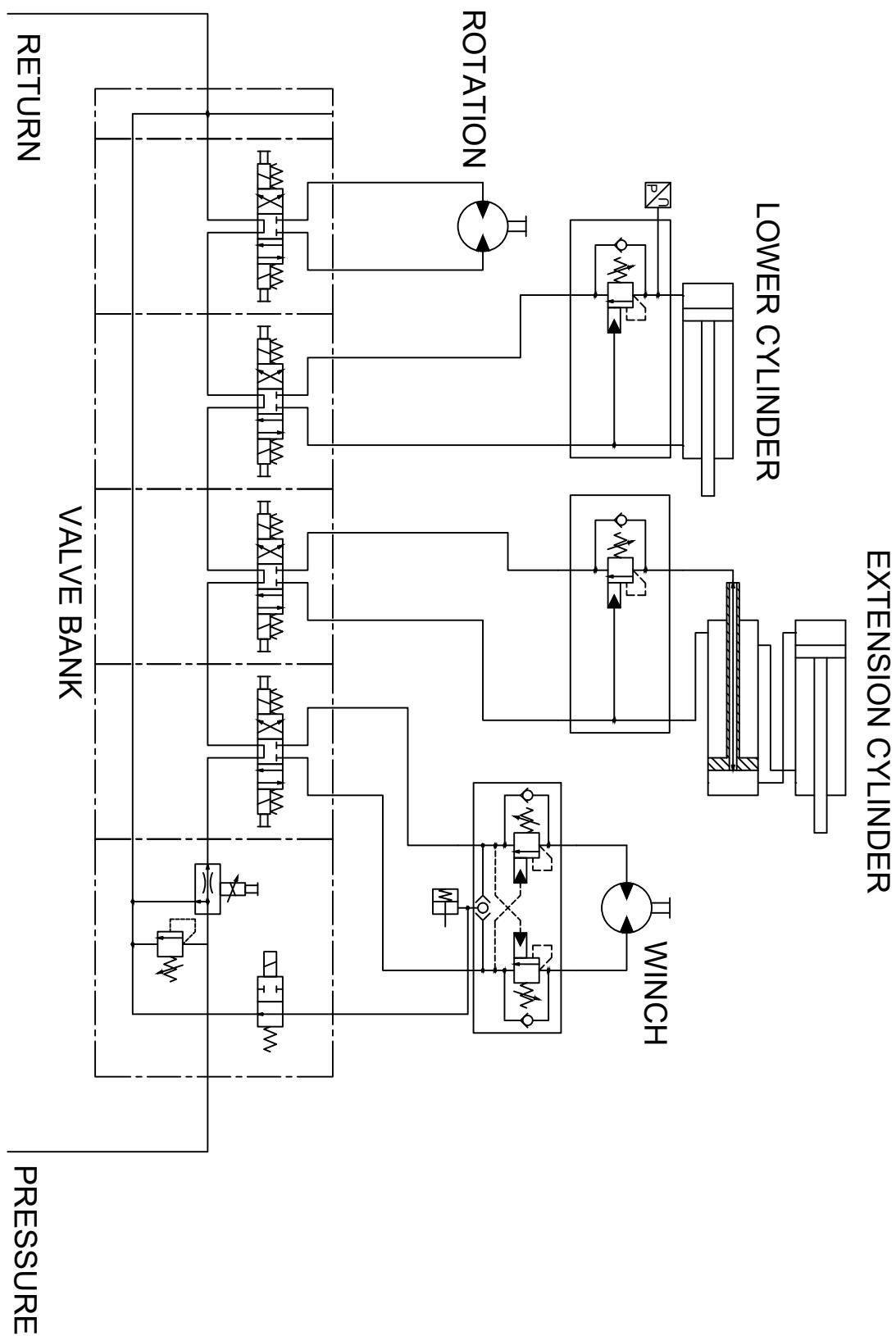


PLUMBING DIAGRAM - SINGLE PROPORTIONAL (99905597) CONTINUED



NOTES:

- INSTALL 60350141 ON EXTENSION CYLINDER, MAIN CYLINDER, AND ROTATION MOTOR HOSES.
- INSTALL 60350142 ON WINCH AND PRESSURE/RETURN VALVE BANK HOSES.

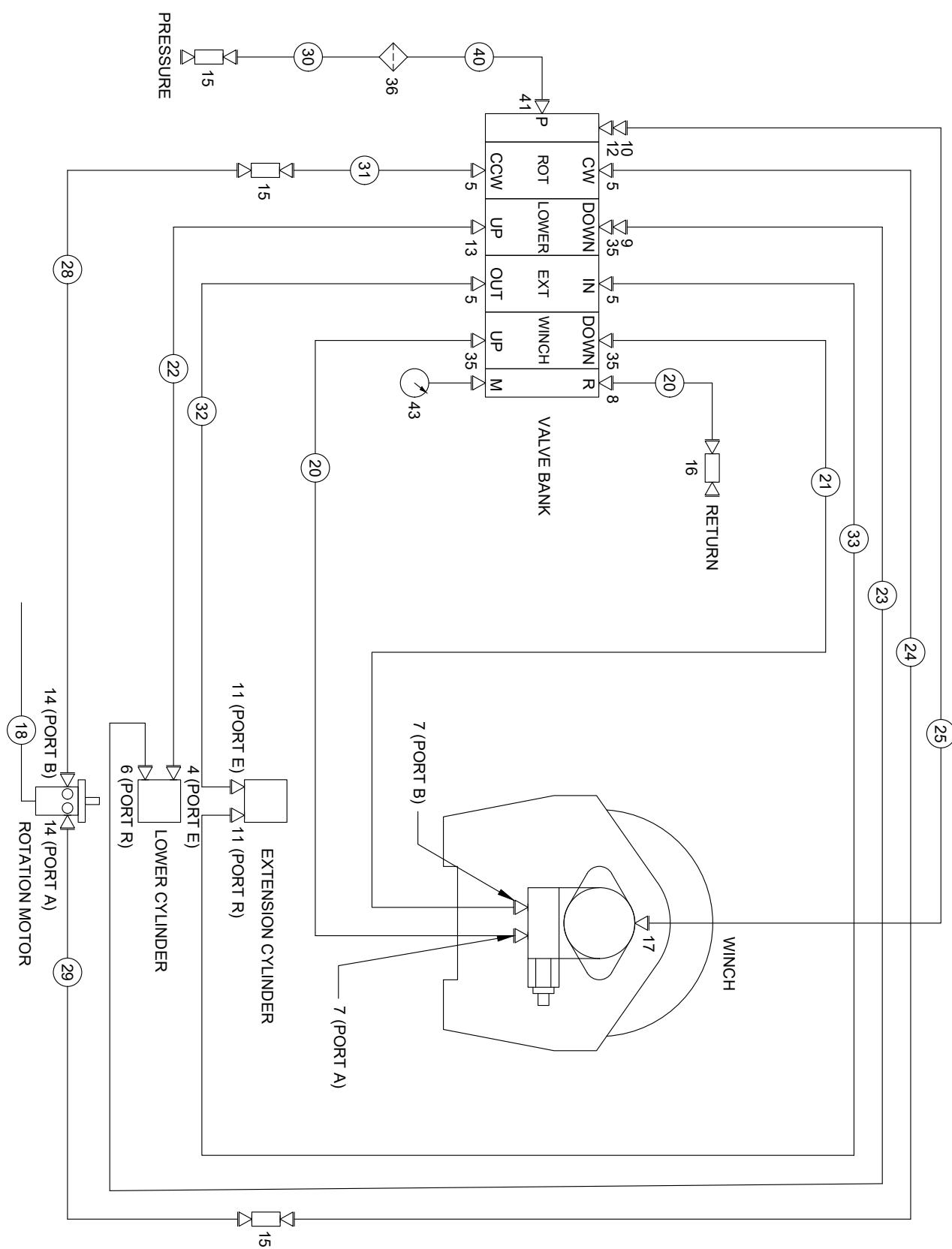
PLUMBING DIAGRAM - SINGLE PROPORTIONAL (99905597) CONTINUED

99906216 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	91725089	KIT-HYD A80 SERIES III SP	REF	1
2.	51726252	KIT-DINAMIC WINCH BRAKE RELEASE (PROD)	REF	1
3.	73734472	VALVE BANK-4-SECT BV18 S3SP 12VDC		1
4.	72532355	ADPTR-M STR/M JIC 6 6	1	1
5.	72532357	ADPTR-M STR/M JIC 6 8	1	1
6.	72532359	ADPTR-M STR/M JIC 10 8	1	2
7.	72532670	ELBOW-M JIC/45/F JIC 8 8	1	2
8.	72532700	ELBOW-M STR/90/M JIC XLG 6 6	1	2
9.	72533583	ELBOW-M STR/45/M JIC 8 6	1	1
10.	72533613	ADPTR-M STR/M JIC 10 6	1	2
11.	72533648	SWIVEL-M JIC/90/M JIC 8 8	1	3
12.	72534412	SWIVEL-M JIC/90/M JIC 10 10	1	1
13.	72534474	ELBOW-M BSPP/90/M JIC 4 4	1	1
14.	51395083	HOSE-AA .13 X 19.50 (2-2) 100R17	1	1
15.	51397080	HOSE-FJ .62 X 30.00 (10-10) 100R17	1	1
16.	51397081	HOSE-FZ .50 X 31.50 (8-8) 100R17	1	1
17.	51397082	HOSE-FJ .50 X 31.00 (8-8) 100R17	1	1
18.	51399073	HOSE-FZ .38 X 25.00 (8-6) 100R17	1	1
19.	60350141	SLEEVE-HOSE NHS-159 X 12 CUT & SEALED	1	3
20.	60350142	SLEEVE-HOSE NHS-254 X 15 CUT & SEALED	1	2
21.	51399228	HOSE-FJ .38 X 18.00 (8-6) 100R17	1	1
22.	51399229	HOSE-FJ .38 X 22.00 (8-6) 100R17	1	1
23.	51399462	HOSE-FJ .38 X 31.00 (6-6) 100R17	1	1
24.	51399463	HOSE-FZ .50 X 32.00 (8-8) 100R17	1	1
25.	51396914	HOSE-FZ .25 X 39.00 (4-4) R10017	1	1
26.	51397079	HOSE-FJ .38 X 24.00 (8-6) 100R17	1	1
27.	51396813	HOSE-FZ .38 X 35.00 (6-6) 100R17	1	1
28.	51396387	HOSE-FJ .38 X 35.00 (6-6) 100R17	1	1
29.	51490296	HOSE-FZ .50 X 30.00 (8-8) 100R16	1	1
30.	72534910	TEE-STL MBSPT/MDIN/MDIN 2 6 6 RUN	2	1
31.	51399668	HOSE-FDF .25 X 32.00 (6-4) 100R17	2	1
32.	72534847	ADPTR-M JIC/F JIC 8 8 DIAGNOSTIC TEE		1
33.	73050225	GAUGE-5000 PSI 2.5IN CB MOUNT -4 MORB		1

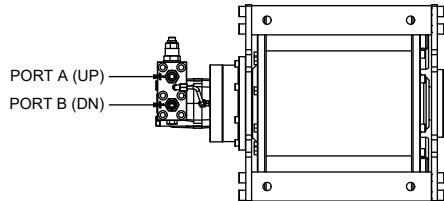
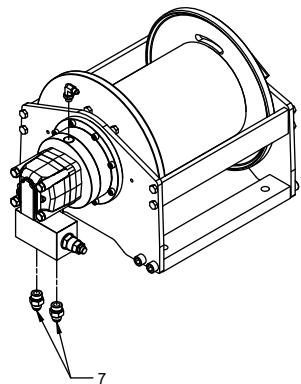
REV. F CN1155

Plumbing Diagram - Fully Proportional (99905036)

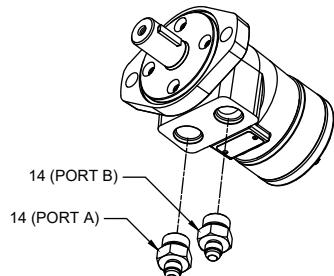


99905036 - PLUMBING DIAGRAM - FULLY PROPORTIONAL (99905036), CONTINUED

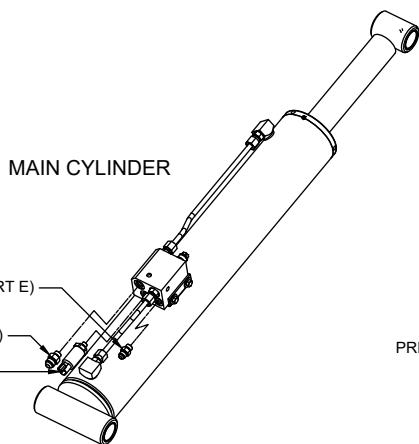
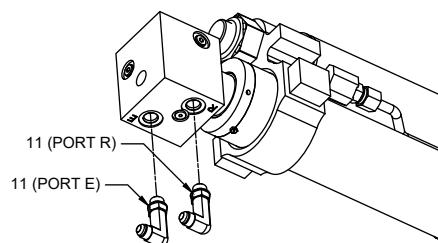
WINCH



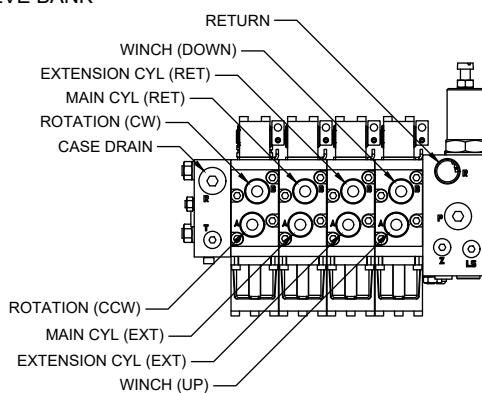
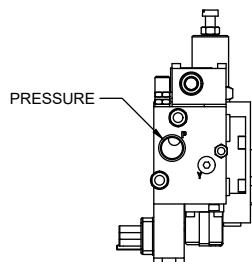
ROTATION MOTOR



EXTENSION CYLINDER

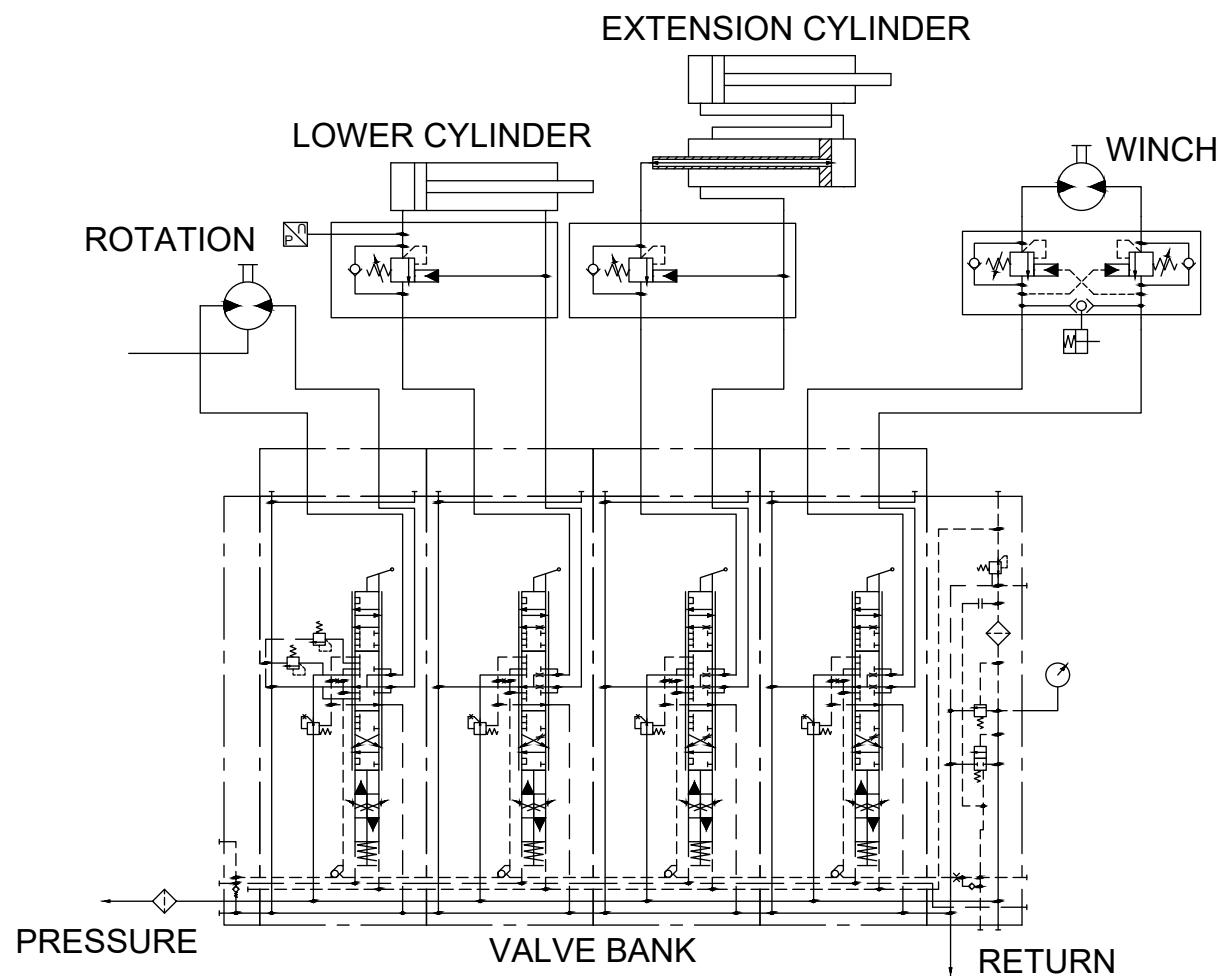


VALVE BANK



NOTES:

1. INSTALL 60350141 ON EXTENSION CYLINDER, MAIN CYLINDER, AND ROTATION MOTOR HOSES.
2. INSTALL 60350142 ON WINCH AND PRESSURE/RETURN VALVE BANK HOSES.
3. INSTALL 60350105 ON PRESSURE/RETURN AND ROTATION HOSES THROUGH MAST.

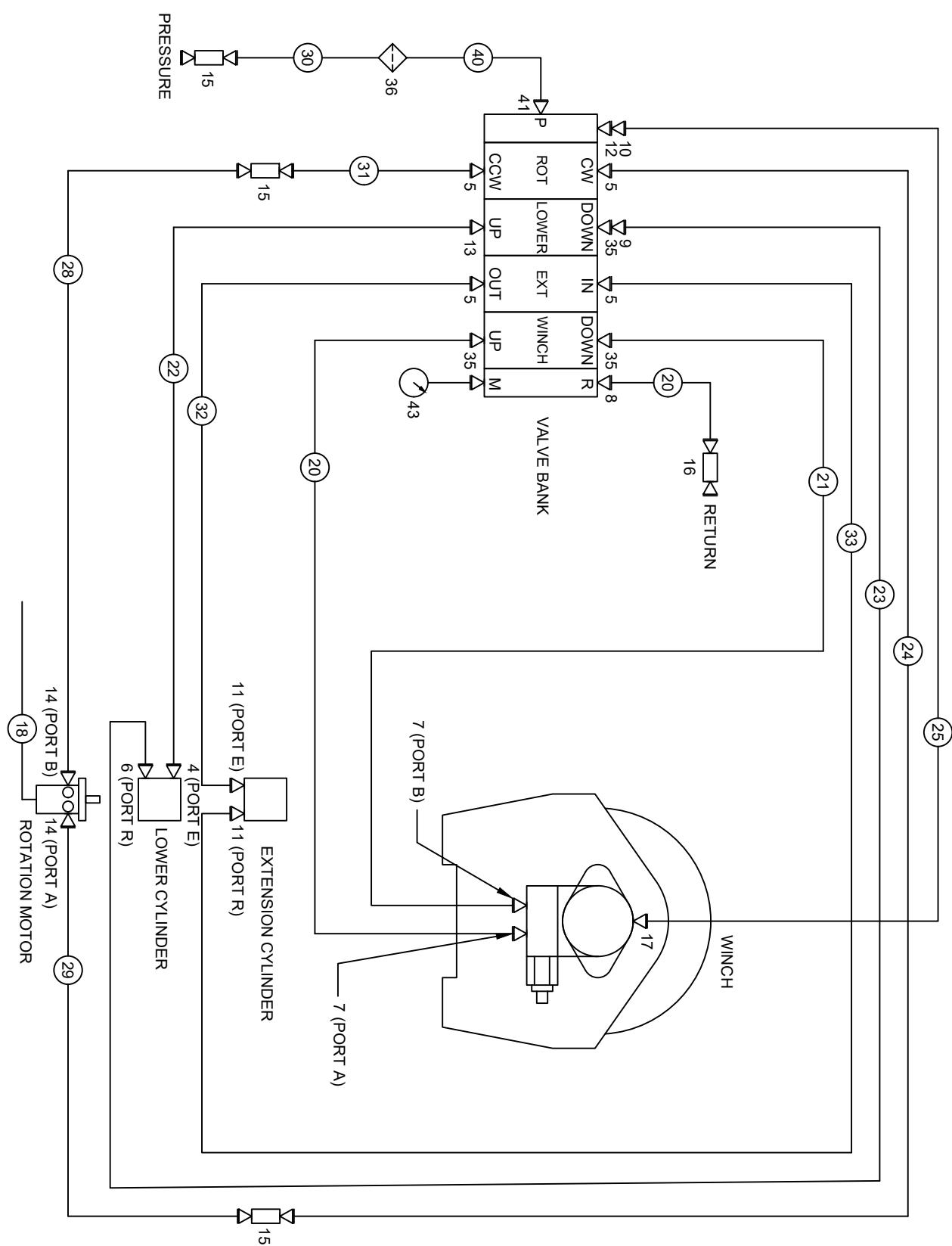
99905036 - PLUMBING DIAGRAM - FULLY PROPORTIONAL (99905036), CONTINUED

99905036 PARTS LIST

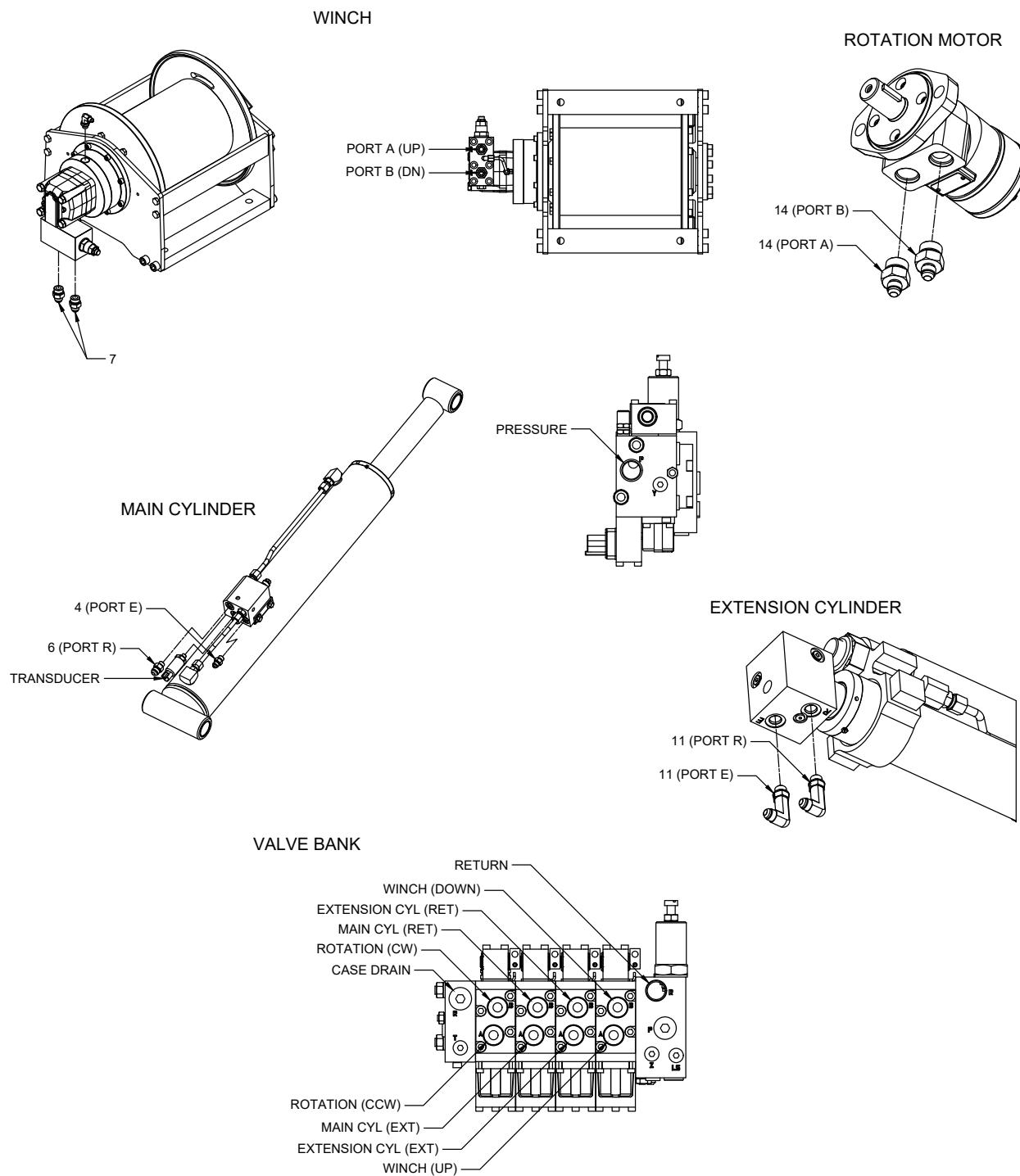
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1	91723618	KIT-HYD A80 SERIES III	REF	1
2	91725679	KIT-PRESSURE FILTER S3FP 12K 14K MAST	REF	1
3	73734727	VALVE BANK4-SECT PSL2 W OC INLT		1
4	72532355	ADPTR-M STR/M JIC 6 6	1	1
5	72532356	ADPTR-M STR/M JIC 8 6	1	4
6	72532357	ADPTR-M STR/M JIC 6 8	1	1
7	72532359	ADPTR-M STR/M JIC 10 8	1	2
8	72532361	ADPTR-M STR/M JIC 8 10	1	1
9	72532670	ELBOW-M JIC/45/F JIC 8 8	1	1
10	72532690	ELBOW-M JIC/90/F JIC SW 4 4	1	1
11	72532700	ELBOW-M STR/90/M JIC XLG 6 6	1	2
12	72532792	ADPTR-M STR/M JIC 8 4	1	1
13	72533583	ELBOW-M STR/45/M JIC 8 6	1	1
14	72533613	ADPTR-M STR/M JIC 10 6	1	2
15	72533648	SWIVEL-M JIC/90/M JIC 8 8	1	3
16	72534412	SWIVEL-M JIC/90/M JIC 10 10	1	1
17	72534474	ELBOW-M BSPP/90/M JIC 4 4	1	1
18	51395083	HOSE-AA .13 X 19.50 (2-2) 100R17	1	1
19	51397080	HOSE-FJ .62 X 30.00 (10-10) 100R17	1	1
20	51397081	HOSE-FZ .50 X 31.50 (8-8) 100R17	1	1
21	51397082	HOSE-FJ .50 X 31.00 (8-8) 100R17	1	1
22	51399077	HOSE-FJ .38 X 29.00 (6-6) 100R17	1	1
23	51399463	HOSE-FZ .50 X 32.00 (8-8) 100R17	1	1
24	51399073	HOSE-FZ .38 X 25.00 (8-6) 100R17	1	1
25	51397270	HOSE-FZ .25 X 32.00 (4-4) 100R17	1	1
26	60350141	SLEEVE-HOSE NHS-159 X 12 CUT & SEALED	1	3
27	60350142	SLEEVE-HOSE NHS-254 X 15 CUT & SEALED	1	2
28	51399228	HOSE-FJ .38 X 18.00 (8-6) 100R17	1	1
29	51399229	HOSE-FJ .38 X 22.00 (8-6) 100R17	1	1
30	51399890	HOSE-FJJ .50 X 40.00 (8-8) 100R17	1	1
31	51397079	HOSE-FJ .38 X 24.00 (8-6) 100R17	1	1
32	51396813	HOSE-FZ .38 X 35.00 (6-6) 100R17	1	1
33	51396387	HOSE-FJ .38 X 35.00 (6-6) 100R17	1	1
34	60350173	SLEEVE-HOSE NHS-159 X 20 CUT & SEALED	1	20
35	72532358	ADPTR-M STR/M JIC 8 8	1	3
36	73052156	FILTER-PRES 4000PSI 25GPM 10MIC -12	2	1
37	72532360	ADPTR-M STR/M JIC 12 8	2	1
38	72053767	ELBOW-M STR/90/M JIC 12 12	2	1
39	72533623	ELBOW-M STR/90/M JIC 8 12	2	1
40	71415692	TUBE ASM-PRESSURE FILTER S3FP 12K 14K MA	2	1
41	72534898	O-RING EXTENDER 08-08 1.75	2	1
42	60350105	SLEEVE-HOSE VELCRO CLOSURE 4IN DIA		1
43	73050225	GAUGE-5000 PSI 2.5IN CB MOUNT -4 MORB		1

REV. N CN1155

Plumbing Diagram - Fully Proportional (99905036)

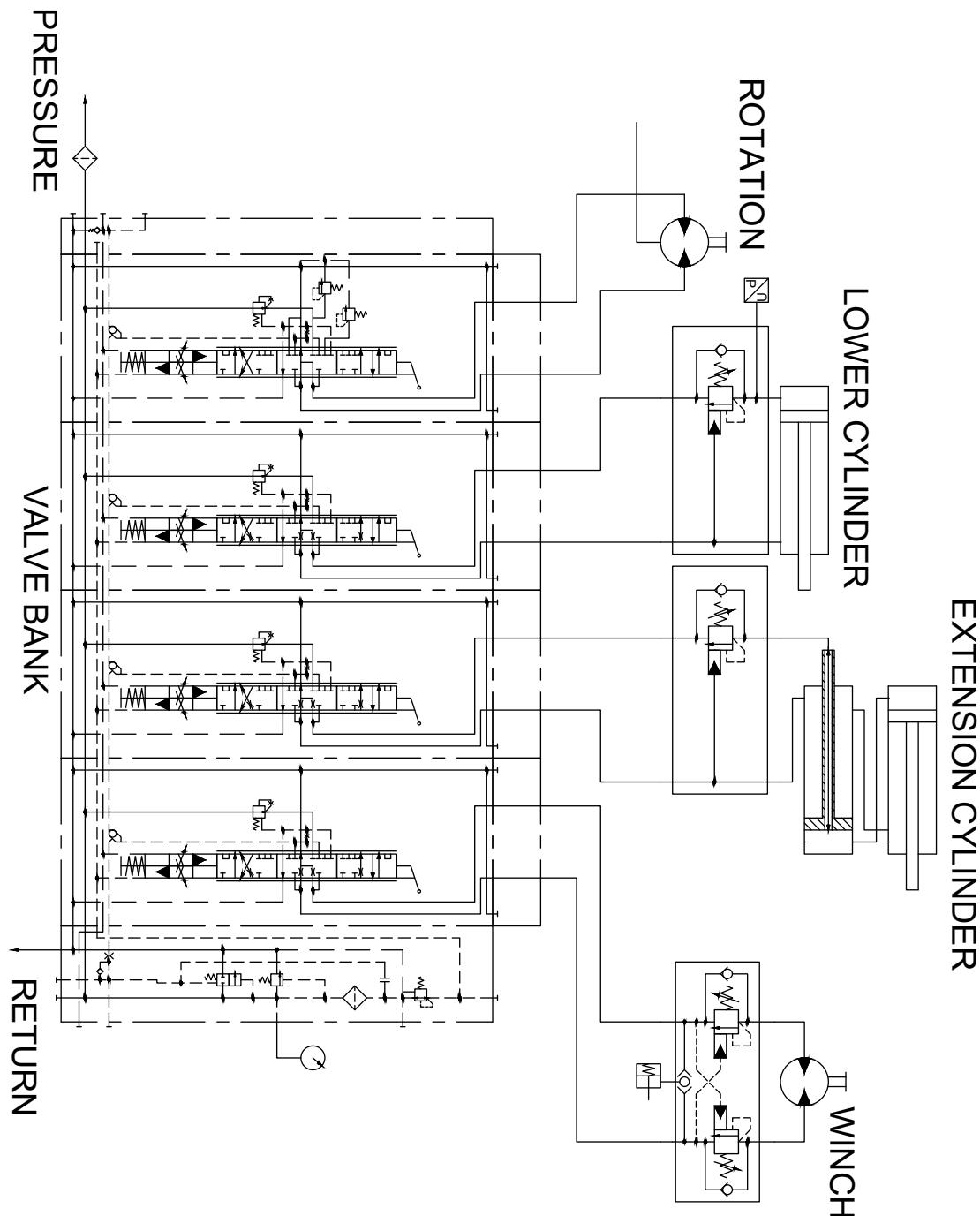


PLUMBING DIAGRAM - FULLY PROPORTIONAL (99905036) - CONTINUED



NOTES:

1. INSTALL 60350141 ON EXTENSION CYLINDER, MAIN CYLINDER, AND ROTATION MOTOR HOSES.
2. INSTALL 60350142 ON WINCH AND PRESSURE / RETURN VALVE BANK HOSES.
3. INSTALL 60350105 ON PRESSURE / RETURN AND ROTATION HOSES THROUGH MAST.

PLUMBING DIAGRAM - FULLY PROPORTIONAL (99905036) CONTINUED

99906215 PARTS LIST

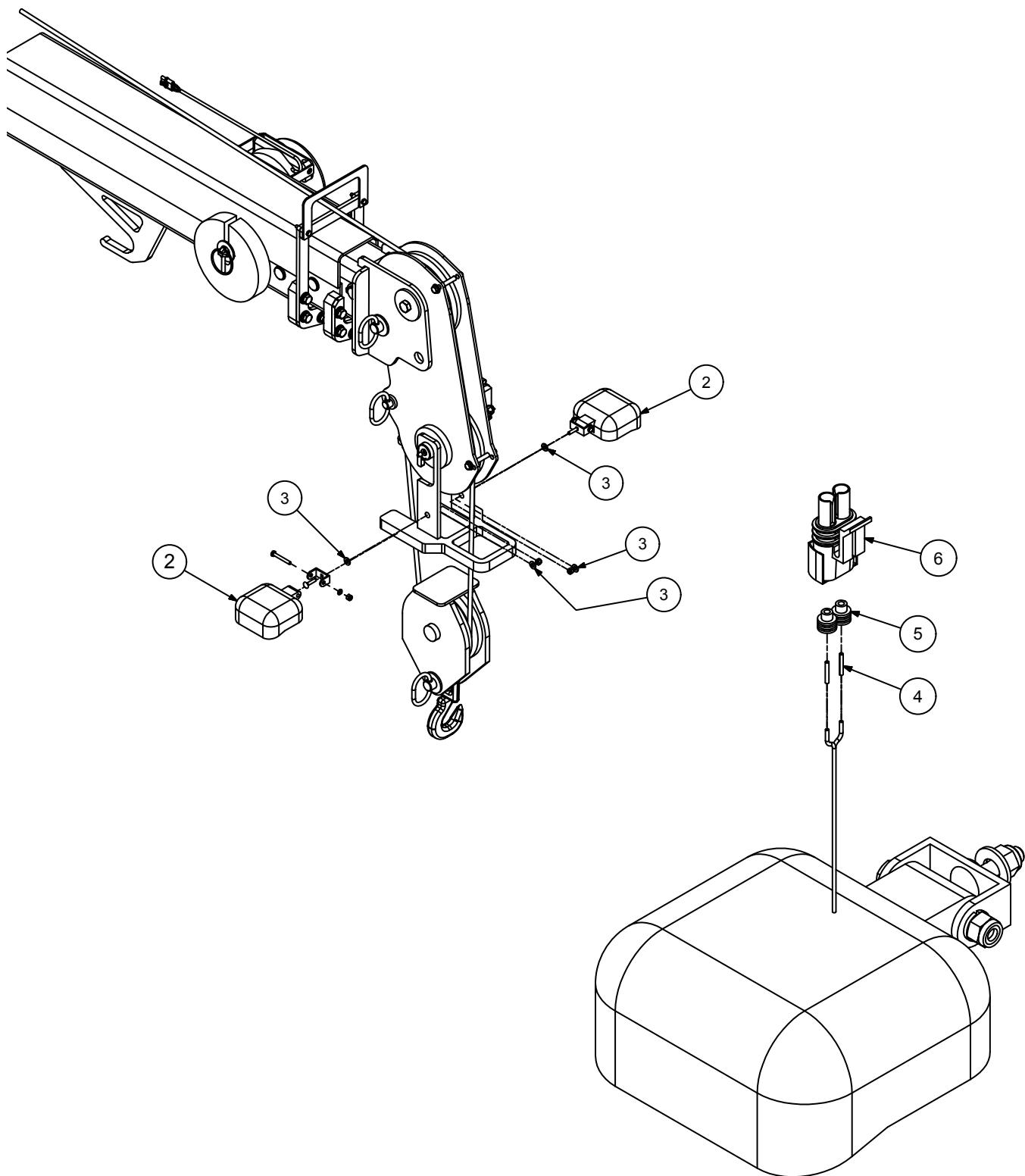
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	91723618	KIT-HYD A80 SERIES III	REF	1
2.	91725679	KIT-PRESSURE FILTER S3FP 12K 14K MAST	REF	1
3.	73734727	VALVE BANK-4-SECT PSL2 W OC INLT		1
4.	72532355	ADPTR-M STR/M JIC 6 6	1	1
5.	72532356	ADPTR-M STR/M JIC 8 6	1	4
6.	72532357	ADPTR-M STR/M JIC 6 8	1	1
7.	72532359	ADPTR-M STR/M JIC 10 8	1	2
8.	72532361	ADPTR-M STR/M JIC 8 10	1	1
9.	72532670	ELBOW-M JIC/45/F JIC 8 8	1	1
10.	72532690	ELBOW-M JIC/90/F JIC SW 4 4	1	1
11.	72532700	ELBOW-M STR/90/M JIC XLG 6 6	1	2
12.	72532792	ADPTR-M STR/M JIC 8 4	1	1
13.	72533583	ELBOW-M STR/45/M JIC 8 6	1	1
14.	72533613	ADPTR-M STR/M JIC 10 6	1	2
15.	72533648	SWIVEL-M JIC/90/M JIC 8 8	1	3
16.	72534412	SWIVEL-M JIC/90/M JIC 10 10	1	1
17.	72534474	ELBOW-M BSPP/90/M JIC 4 4	1	1
18.	51395083	HOSE-AA .13 X 19.50 (2-2) 100R17	1	1
19.	51397080	HOSE-FJ .62 X 30.00 (10-10) 100R17	1	1
20.	51397081	HOSE-FZ .50 X 31.50 (8-8) 100R17	1	1
21.	51397082	HOSE-FJ .50 X 31.00 (8-8) 100R17	1	1
22.	51399077	HOSE-FJ .38 X 29.00 (6-6) 100R17	1	1
23.	51399463	HOSE-FZ .50 X 32.00 (8-8) 100R17	1	1
24.	51399073	HOSE-FZ .38 X 25.00 (8-6) 100R17	1	1
25.	51397270	HOSE-FZ .25 X 32.00 (4-4) 100R17	1	1
26.	60350141	SLEEVE-HOSE NHS-159 X 12 CUT & SEALED	1	3
27.	60350142	SLEEVE-HOSE NHS-254 X 15 CUT & SEALED	1	2
28.	51399228	HOSE-FJ .38 X 18.00 (8-6) 100R17	1	1
29.	51399229	HOSE-FJ .38 X 22.00 (8-6) 100R17	1	1
30.	51399890	HOSE-FJJ .50 X 40.00 (8-8) 100R17	1	1
31.	51397079	HOSE-FJ .38 X 24.00 (8-6) 100R17	1	1
32.	51396813	HOSE-FZ .38 X 35.00 (6-6) 100R17	1	1
33.	51396387	HOSE-FJ .38 X 35.00 (6-6) 100R17	1	1
34.	60350173	SLEEVE-HOSE NHS-159 X 20 CUT & SEALED	1	20
35.	72532358	ADPTR-M STR/M JIC 8 8	1	3
36.	73052156	FILTER-PRES 4000PSI 25GPM 10MIC -12	2	1
37.	72532360	ADPTR-M STR/M JIC 12 8	2	1
38.	72053767	ELBOW-M STR/90/M JIC 12 12	2	1
39.	72533623	ELBOW-M STR/90/M JIC 8 12	2	1
40.	71415692	TUBE ASM-PRESSURE FILTER S3FP 12K 14K MA	2	1
41.	72534898	O-RING EXTENDER 08-08 1.75	2	1
42.	60350105	SLEEVE-HOSE VELCRO CLOSURE 4in DIA		1
43.	73050225	GAUGE-5000 PSI 2.5IN CB MOUNT -4 MORB		1

REV. M CN1155

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Section - 5

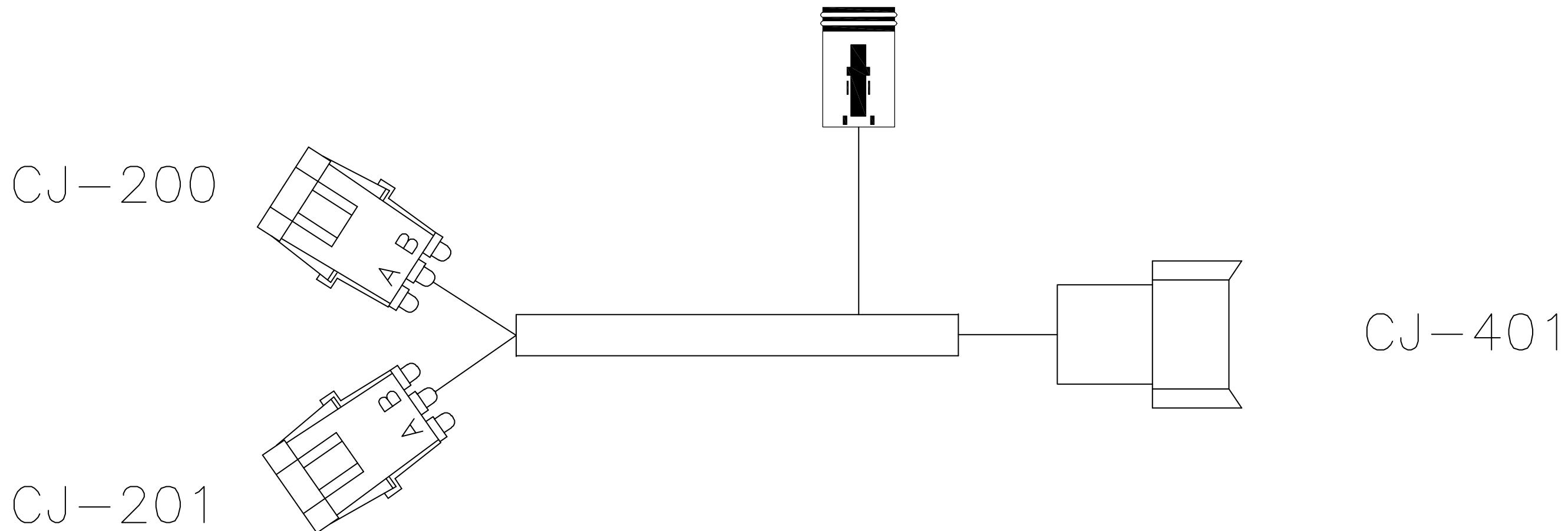
Electrical & Lighting

Boom Tip Light Kit (99905289)

99905289 PARTS LIST

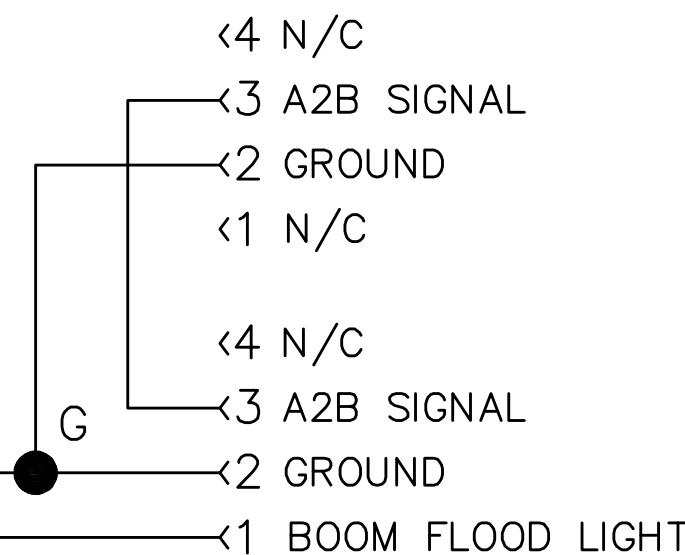
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY
1.	51724116	ELECT KIT-S3 BOOM DUAL LED FLOOD LIGHTS		1
1.	77441473	HARNESS-S3 BOOM TIP LED FLD LIGHT JUMPER (Part of Kit 51724116)		1
2.	77040581	FLOODLIGHT-LED 12-36VDC	1	2
3.	72063002	WASHER-FLAT .31 W ANSI B27.2 Z	1	4
4.	77045888	TERM-PKRD WEATHERPACK 14-16GA FEMALE	1	4
5.	77044927	CABLE SEAL-PKRD WP/MP 14 GA GREY	1	4
6.	77044574	CONN-PKRD WEATHERPACK 2 CAV FEMALE/TOWER	1	2

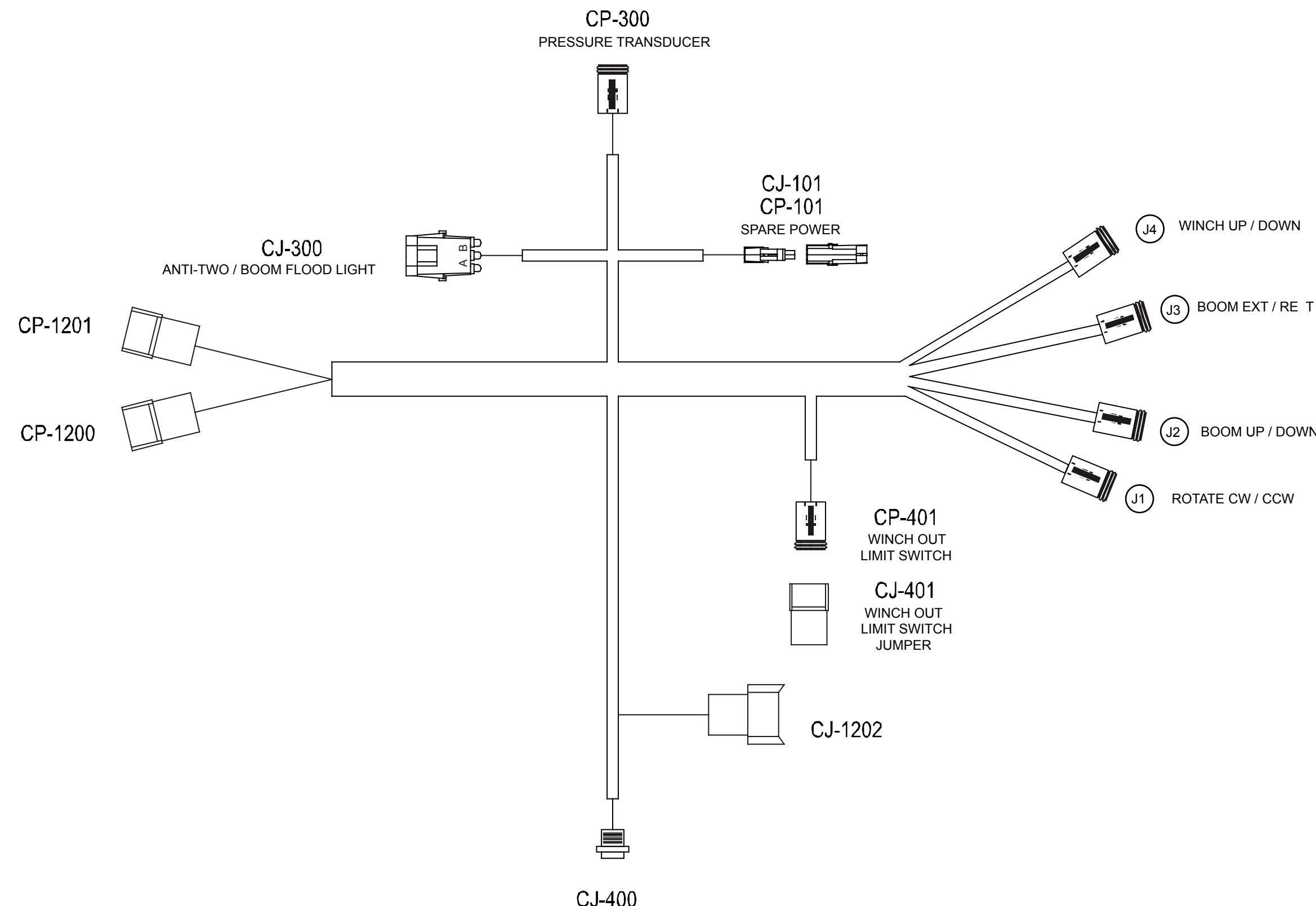
REV. C

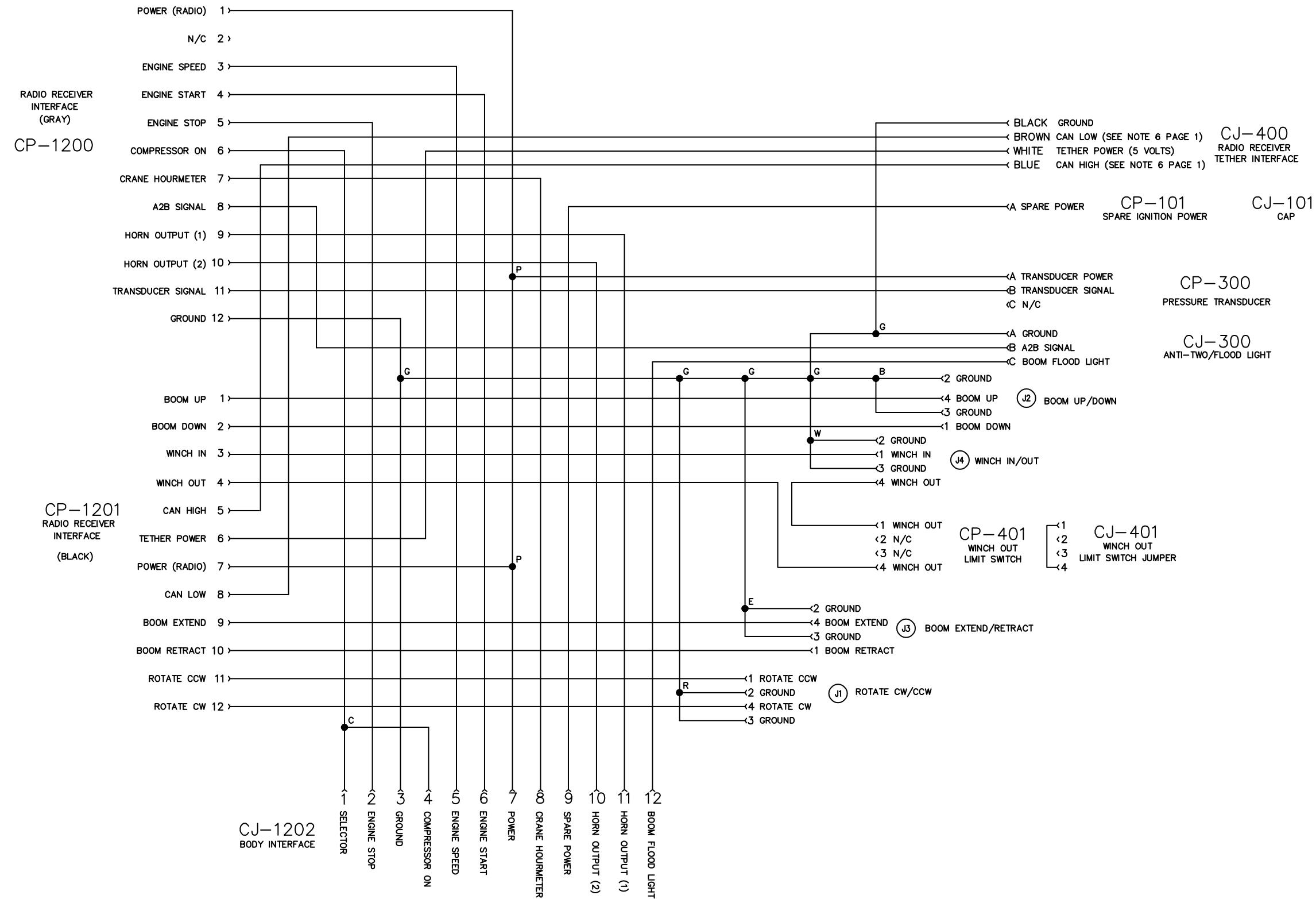
Harness-Boom Tip LED Flood Light (77441473)**Kit Number: 57124116****CP-400**

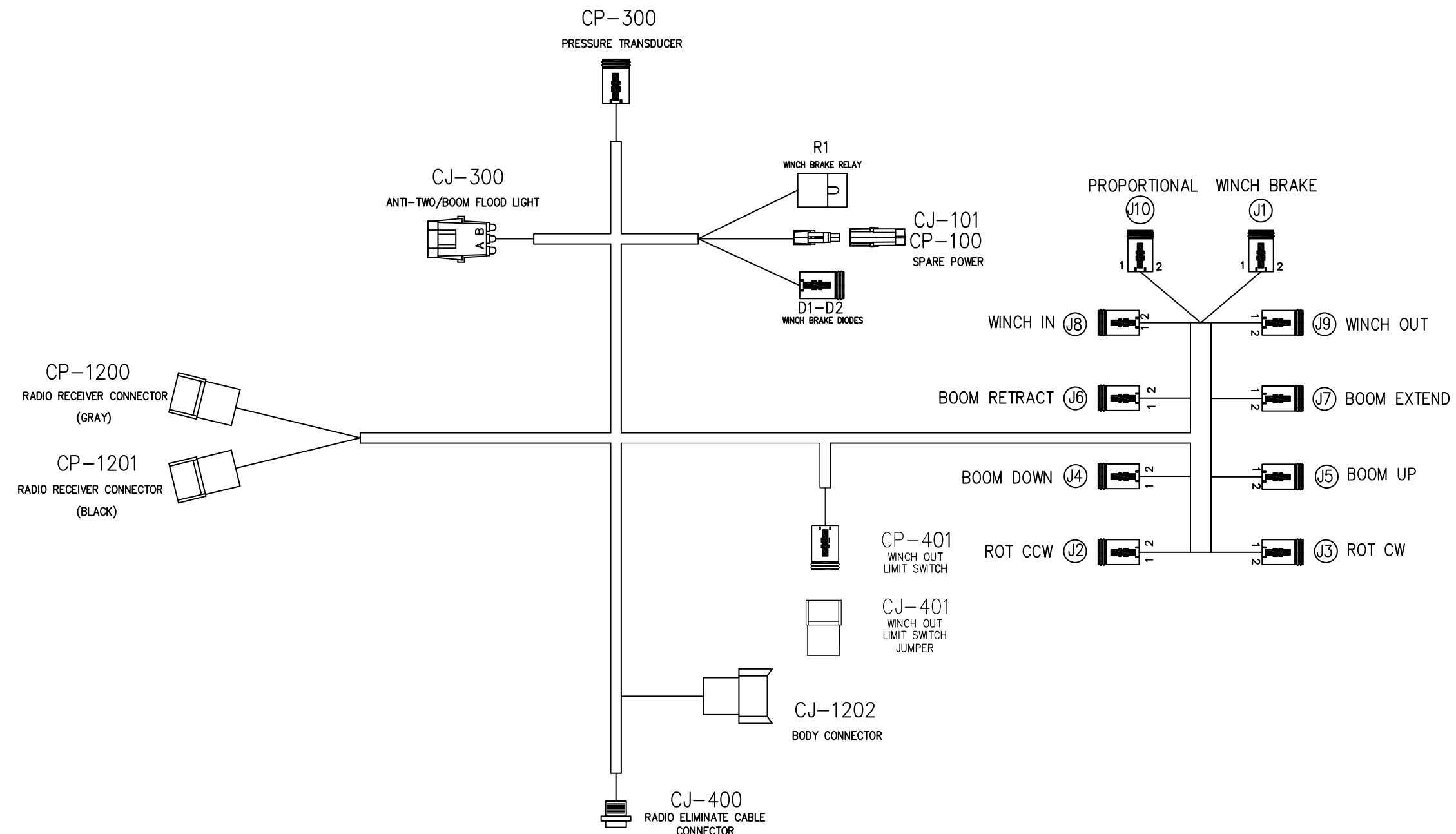
Harness-Boom Tip LED Flood Light (77441473) - continued**Kit Number: 57124116**CJ-200
TO FLOOD LIGHTGROUND A —>
BOOM FLOOD LIGHT B —>CJ-201
TO FLOOD LIGHTGROUND A —>
BOOM FLOOD LIGHT B —>

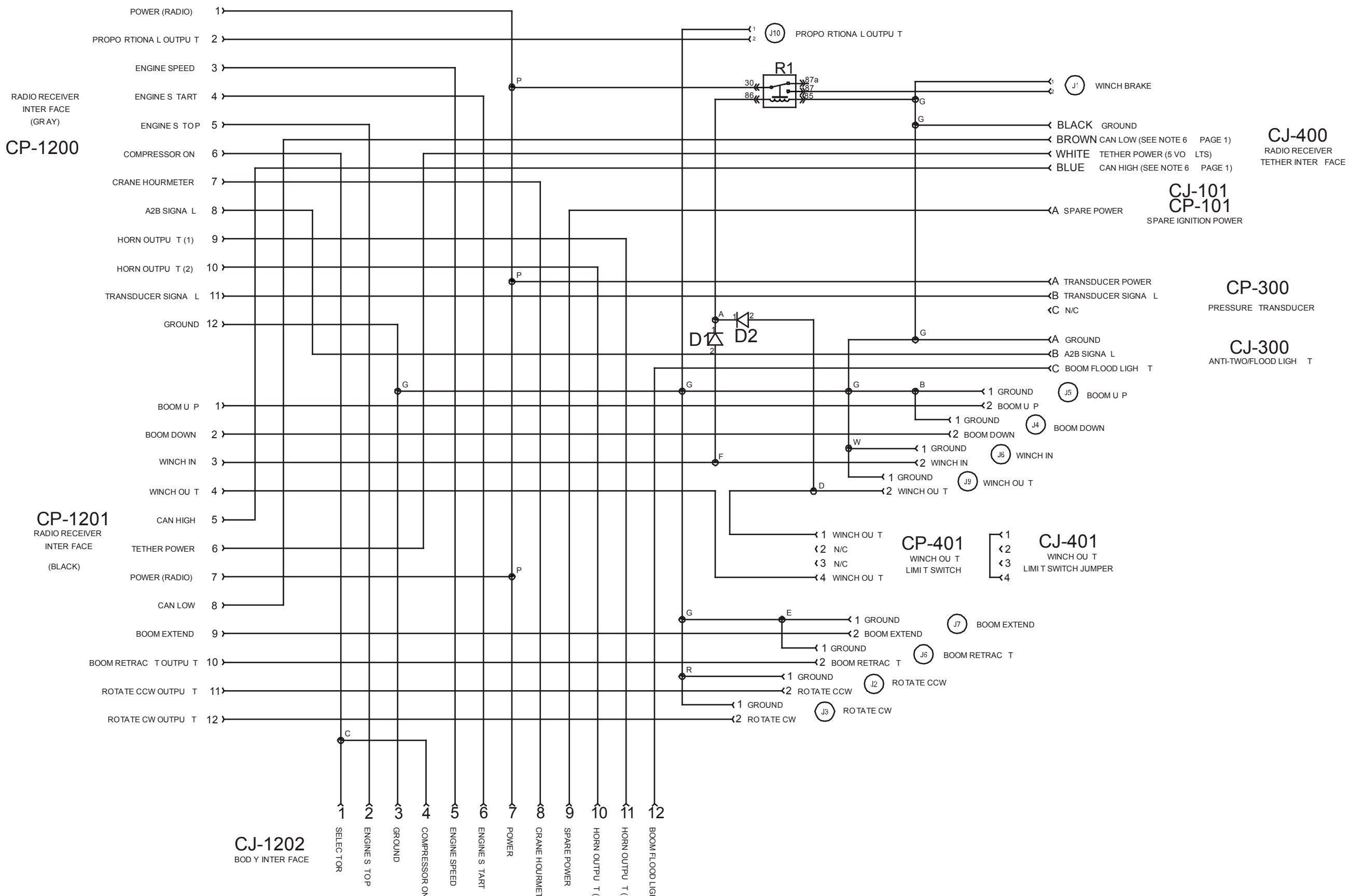
P G

CJ-401
TO CORD REEL

Radio Remote Harness (77441481)

Radio Remote Harness (77441481-1)

Radio Remote Harness (77441537)

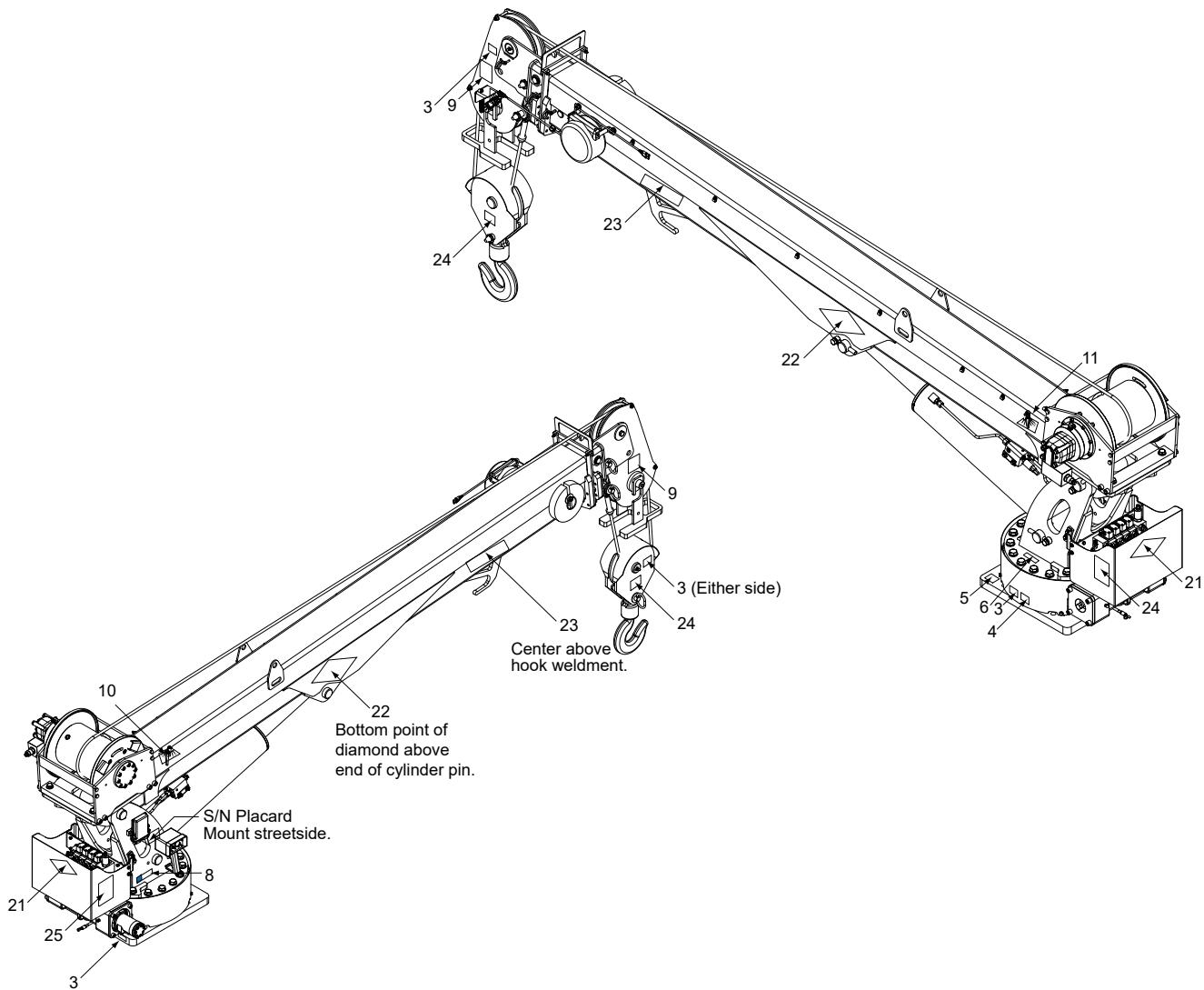
Radio Remote Harness (77441537-1)

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Section - 6

General Information

Decal Placement (99905088)



99906208 PARTS LIST

DECAL PLACEMENT (IF NOT SHOWN ON CRANE)	
ITEM NO.	PLACEMENT
12, 17, 19, 20, 25	PLACE AT, OR NEAR, REMOTE HANDLE STORAGE POINT.
13	PLACE TWO ON REAR STABILIZERS, TWO ON SIDE PACK FRONT WALLS.
15	PLACE AT, OR NEAR, DRIVELINE.
14, 16	PLACE ON ALL FOUR SIDES OF CARRIER VEHICLE.
18	PLACE ON TOP OF HYDRAULIC RESERVOIR.

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	95724111	DECAL KIT-TELE COMMON 7500-14000	1	1
2.	95719348	DECAL KIT - BODY COMMON	1	1
3.	70391612	DECAL-GREASE WEEKLY (LEFT)	1	3
4.	70391613	DECAL-GREASE WEEKLY (RIGHT)	1	2
5.	70392524	DECAL-ROTATE CRANE WHILE GREAS	1	1
6.	70392399	DECAL-LUBRICATE WORM	1	1
8.	70395324	DECAL-ASME/ANSI B30.5-TELESCOP	1	1
9.	70395670	DECAL-CAUTION DOWN HAUL WT	1	2
10.	71399136	DECAL-ANGLE INDICATOR RH SIII	1	1
11.	71399137	DECAL-ANGLE INDICATOR LH SIII	1	1
12.	70392213	DECAL-CAUTION DONT WASH/WAX	1	1
13.	70392864	DECAL-DANGER OUTRG STAND CLEAR	2	4
14.	70392868	DECAL-DANGER CR LOADLINE (TRK)	2	4
15.	70392891	DECAL-DANGER DRIVELINE	2	1
16.	70394445	DECAL-DANGER ELEC HZD LG TELES	2	4
17.	70396613	DECAL-CRANE SAFETY & OPER	2	1
18.	70394189	DECAL-MOBIOL OIL RESERVOIR	2	1
19.	71039134	DECAL-CAUTION OIL LEVEL	2	1
20.	70392982	DECAL-SERVICE & REPAIR	2	1
21.	70399195	DECAL-DIAMOND IMT 4X8 (REF)	1	1
22.	70399140	DECAL-DIAMOND IMT 6.75X13.50 (REFL)	1	2
23.	70399052	DECAL-ID 14000		2REF
24.	71394082	DECAL-LOAD BLK RATING 7.0T		2REF
25.	70399112	DECAL-CAP CHART 14000-25'		3REF
25.	70399113	DECAL-CAP CHART 14000-30'		3REF
REV. INITIAL RELEASE				

Thread Torque Charts - Imperial

FINE THREAD TORQUE CHART (IMPERIAL)						COURSE THREAD TORQUE CHART (IMPERIAL)					
SIZE	BOLT DIA.	GRADE 5		GRADE 8		SIZE	BOLT DIA.	GRADE 5		GRADE 8	
		PLAIN FT-LB	PLATED FT-LB	PLAIN FT-LB	PLATED FT-LB			SAE J429 GRADE 5	SAE J429 GRADE 8	SAE F429 GRADE 8	
(DIA-TPI)	(INCHES)										
5/16-24	0.3125	19	14	27	20						
3/8-24	0.375	35	26	49	35						
7/16-20	0.4375	55	41	78	58						
1/2-20	0.5	90	64	120	90						
9/16-18	0.5625	120	90	170	130						
5/8-18	0.625	170	130	240	180						
3/4-16	0.75	300	225	420	315						
7/8-11	0.875	445	325	670	500						
1-12	1	645	485	995	745						
1 1/8-12	1.125	890	670	1445	1085						
1 1/4-12	1.25	1240	930	2010	1510						
1 3/8-12	1.375	1675	1255	2710	2035						
1 1/2-12	1.5	2195	1645	3560	2670						

REV. 20210504

REV. 20210504

NOTES:

1. TIGHTENING TORQUES PROVIDED ARE MID-RANGE.
2. CONSULT BOLT MANUFACTURER'S PARTICULAR SPECIFICATIONS WHEN PROVIDED.
3. USE FLAT WASHERS OF EQUAL STRENGTH.
4. ALL TORQUE MEASUREMENTS ARE GIVEN IN FT-LB.
5. 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 DISULFIDE, 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.

WARNING

Anytime a gear-bearing bolt is removed, it must be replaced with a new bolt of the identical grade and size. Once a bolt has been torqued to 75% of its proof load and then removed, the torque coefficient may no longer be the same as when the bolt was new thus giving indeterminate clamp loads after torquing. Failure to replace gear-bearing bolts may result in bolt failure due to metal fatigue causing death or serious injury.

Thread Torque Charts - Metric

FINE THREAD TORQUE CHART (METRIC)						COURSE THREAD TORQUE CHART (METRIC)					
SIZE	BOLT DIA.	GRADE 5		GRADE 8		SIZE	BOLT DIA.	GRADE 5		GRADE 8	
		PLAIN (KG-M)	PLATED (KG-M)	PLAIN (KG-M)	PLATED (KG-M)			PLAIN (KG-M)	PLATED (KG-M)	PLAIN (KG-M)	PLATED (KG-M)
5/16-24	0.3125	3	2	4	3	5/16-18	0.3125	2	2	3	2
3/8-24	0.375	5	4	7	5	3/8-16	0.375	4	3	6	5
7/16-20	0.4375	8	6	11	8	7/16-14	0.4375	7	5	10	7
1/2-20	0.5	12	9	17	12	1/2-13	0.5	10	8	15	11
9/16-18	0.5625	17	12	24	18	9/16-12	0.5625	15	11	21	16
5/8-18	0.625	24	18	33	25	5/8-11	0.625	21	16	30	22
3/4-16	0.75	41	31	58	44	3/4-10	0.75	37	28	52	39
7/8-11	0.875	62	45	93	69	7/8-9	0.875	55	41	84	63
1-12	1	89	67	138	103	1-8	1	82	62	126	94
1 1/8-12	1.125	123	93	200	150	1 1/8-7	1.125	110	82	178	133
1 1/4-12	1.25	171	129	278	209	1 1/4-7	1.25	155	116	251	188
1 3/8-12	1.375	232	174	375	281	1 3/8-6	1.375	203	152	329	246
1 1/2-12	1.5	304	228	492	369	1 1/2-6	1.5	270	210	438	328

REV. 20210504

REV. 20210504

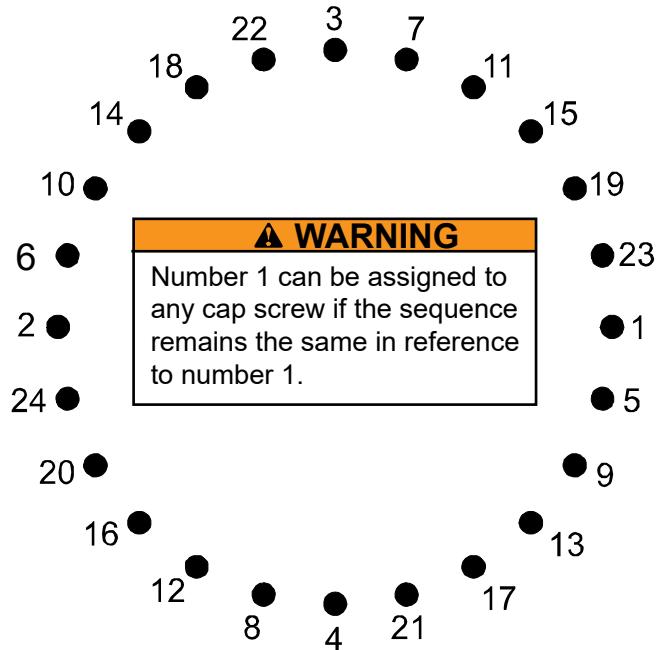
NOTES:

1. TIGHTENING TORQUES PROVIDED ARE MID-RANGE.
2. CONSULT BOLT MANUFACTURER'S PARTICULAR SPECIFICATIONS WHEN PROVIDED.
3. USE FLAT WASHERS OF EQUAL STRENGTH.
4. ALL TORQUE MEASUREMENTS ARE GIVEN IN FT-LB.
5. 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 DISULFIDE, 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.

WARNING

Anytime a gear-bearing bolt is removed, it must be replaced with a new bolt of the identical grade and size. Once a bolt has been torqued to 75% of its proof load and then removed, the torque coefficient may no longer be the same as when the bolt was new thus giving indeterminate clamp loads after torquing. Failure to replace gear-bearing bolts may result in bolt failure due to metal fatigue causing death or serious injury.

Turntable Bearing Thread Tightening Sequence



TIGHTENING PROCEDURE

1. Refer to the torque data chart to determine the proper torque value to apply to the size of cap screw used.
2. Follow the tightening sequence shown in the diagram. **Note:** The quantity of capscrews may differ from the diagram, but the sequence must follow the criss-cross pattern as shown in the diagram.
3. Torque all cap screws to approximately 40% of the specified torque value, by following the sequence.
 - (Example: .40 X 265 ft-lb = 106 ft-lb)
 - (Example-metric: .40 X 36 kg-m = 14.4 kg-m)
4. Repeat step 3, but torquing all cap screws to 75% of the specified torque value. Continue to follow the tightening sequence.
 - (Example: .75 X 265 ft-lb = 199 ft-lb)
 - (Example-metric: .75 X 36 kg-m = 27 kg-m)
5. Using the proper sequence, torque all cap screws to the listed torque value as determined from the torque data chart.

NOTE: Refer to the turntable bearing thread tightening diagram for proper tightening-torquing sequence of the turntable bearing to the crane base and crane mast. The total quantity of cap screws varies dependent on crane model.

Revisions



An Oshkosh Corporation company

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Fax: 641.923.2424

www.imt.com



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