

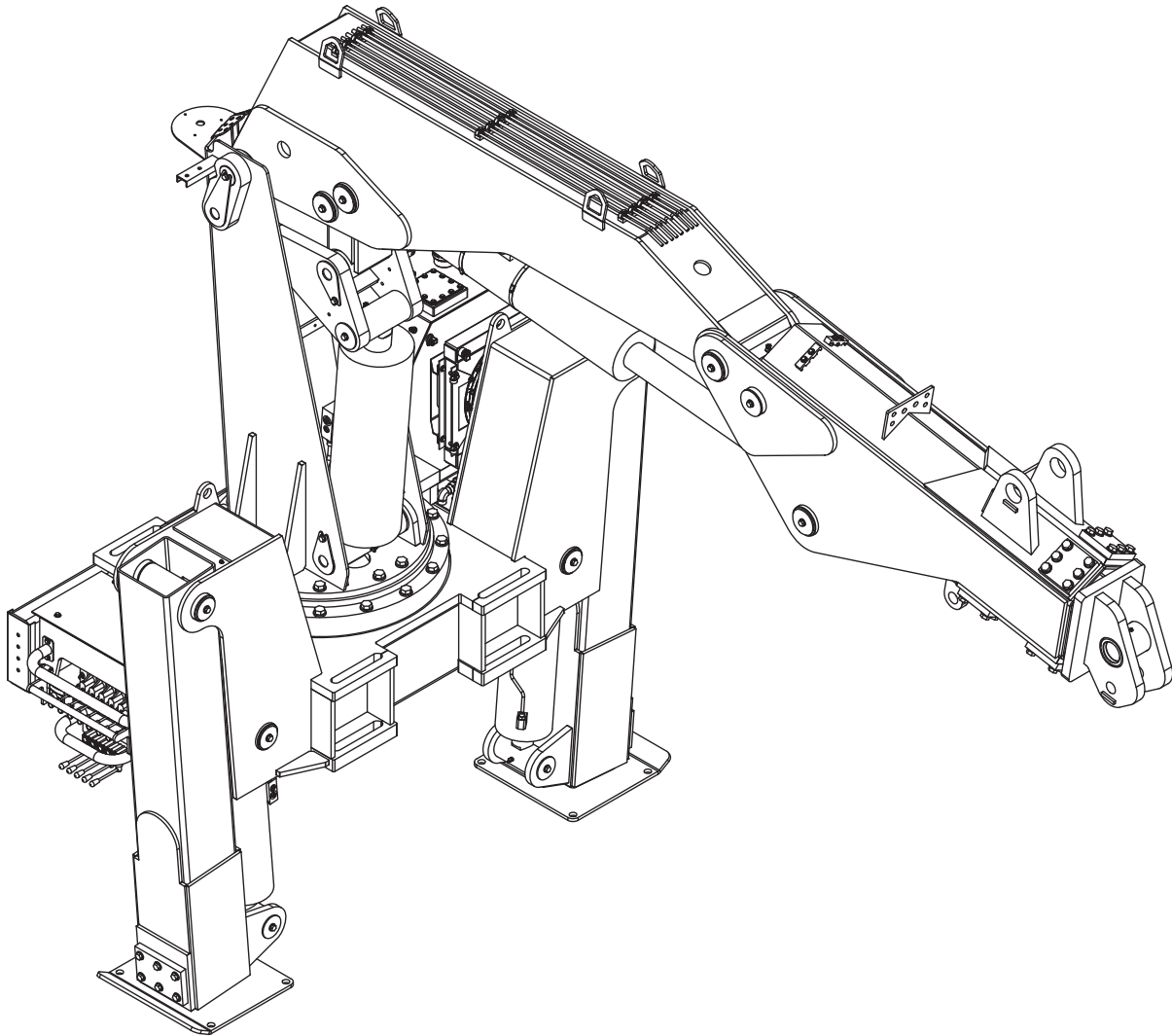


Model 28000

Articulating 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

Stellar Industries, Inc.

190 State Street

PO Box 169

Garner, IA 50438

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www.stellarindustries.com

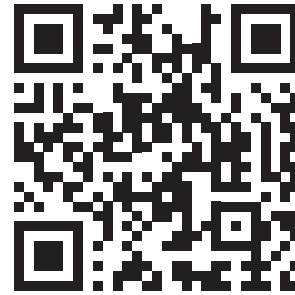
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Rev 5
PN 37813

Serial Tag Location / P65 Warning

WARNING

Operating, maintaining, and servicing a Stellar product may expose you to chemicals including, but not limited to, engine exhaust, carbon monoxide, phthalates, and lead. These chemicals are known to the State of California to cause cancer and birth defects (or other reproductive harm). To keep your exposure to a minimum, be sure to avoid breathing exhaust and service your Stellar product in a well-ventilated area while wearing gloves or washing your hands frequently. For more information, go to www.P65Warnings.ca.gov/passenger-vehicle.



www.p65warnings.ca.gov

NOTICE

Cold Weather Performance

Although clear data on cold weather performance from every steel manufacturer is not available for all types and thicknesses of steel, Stellar Industries is confident that the weldments on our products will operate to 100% of their intended purpose to temperatures down to -40° F / C.

It is recommended if Stellar manufactured equipment needs to be used in temperatures below -40° F / C, the operator should pull the unit into a climate-controlled area and allow the weldments to warm up to and then maintain a temperature above this level.

Serial Tag Location

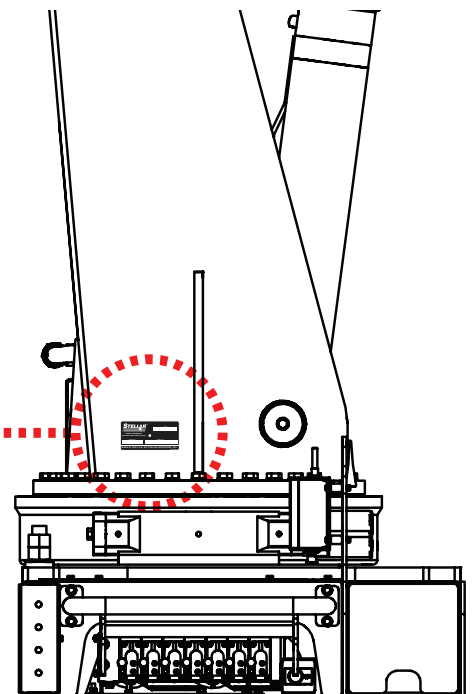
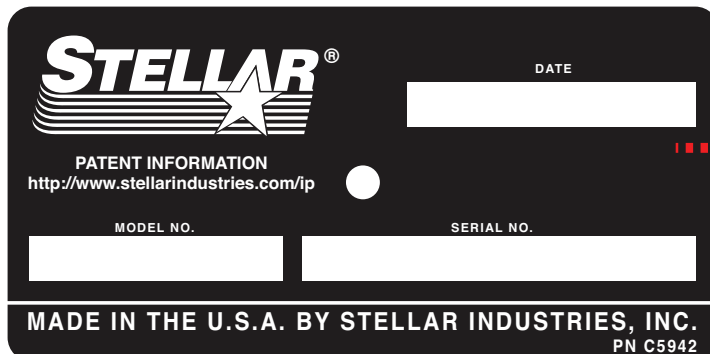


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Introduction

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 Large OTR 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

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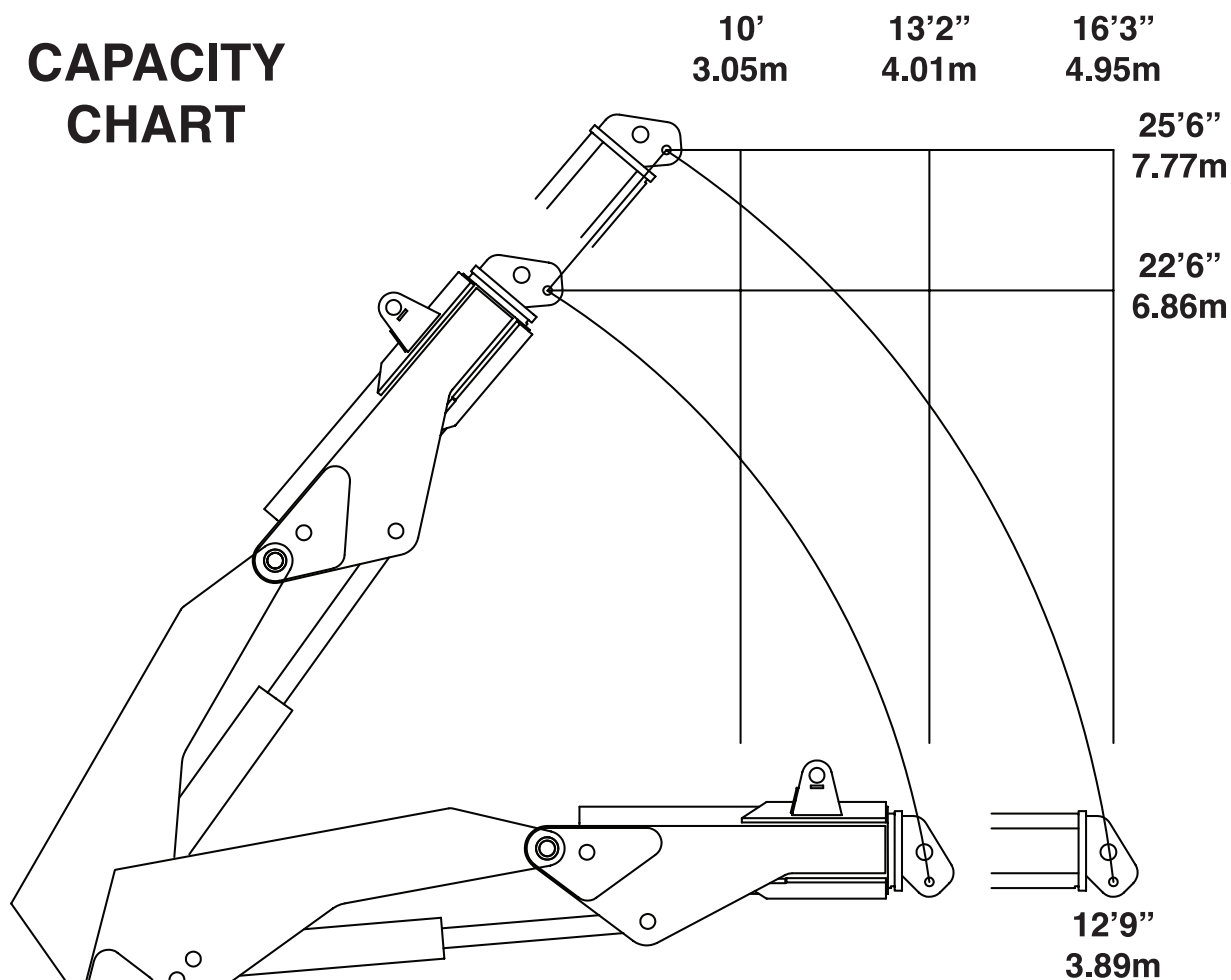
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Model 28000 Specifications

Crane Rating:	280,000 ft-lbs (38.71 ton meters)
Standard Boom Length:	13' 2" (4.01 m) from CL of Crane
Boom Extension:	Hydraulic 37" (94.0 cm)
Maximum Horizontal Reach:	16' 3" (4.95 m) from CL of Crane
Maximum Vertical Lift: (From Truck Frame)	25' (7.62m)
Cylinder Specifications:	Inner Lift Cylinder: 9" (22.9 cm) bore with integral pilot operated counterbalance valves
	Outer Lift Cylinder: 7" (17.8 cm) bore with integral pilot operated counterbalance valves
	Extension Cylinder: 6" (15.2 cm) bore with integral pilot operated counterbalance valves
Rotation: (planetary gear with pinion)	315 degree power
Lifting Capacities: (From CL of Truck)	28,000 lbs @ 10' (12,700 kg @ 3.05 m) 17,200 lbs @ 16' 3" (7,800 kg @ 4.95 m)
Power Supply Required:	PTO & Pump - 16 gpm @ 4,400 psi (60 lpm @ 304 bar)
Controls:	Fully Proportional Paddle Controls for all functions.
Stowed Height: (Above Truck Frame)	114" (289.6 cm)
Mounting Space Required:	48" (121.9 cm)
Chassis RBM (Recommended):	3,360,000 in-lb
Approximate Shipping Weight:	13,000 lbs (5,895 kg)

Capacity Chart - Decal PN 16055

CAPACITY CHART



⚠ WARNING **Overload Hazard**
 Do not exceed equipment load charts and ratings.
 Failure to follow equipment load charts and ratings can result in death or serious injury.

10' 3.05m	13'2" 4.01m	16'3" 4.95 m
28,000 lbs 12700 kg	21,300 lbs 9660 kg	17,200 lbs 7800 kg

0'
0m
Ⓢ
CRANE



GROUND 0'
0m

190 STATE STREET GARNER, IA 50438
 PHONE: (800) 321-3741 FAX: (641) 923-2812 16055 - Rev A

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Chapter 2 - Installation

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General Installation

This chapter is designed to serve as a general guide for the installation of a Stellar 28000 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.

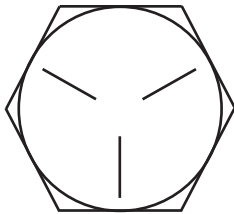
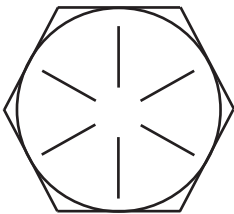
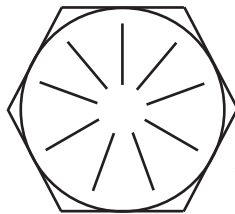
Installer Notice

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

		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

NOTE:

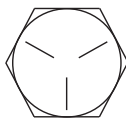
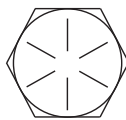
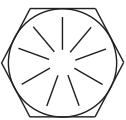
When using the torque data in the chart, the following rules should be observed:

- 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.
- 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.*

Torque Data Chart

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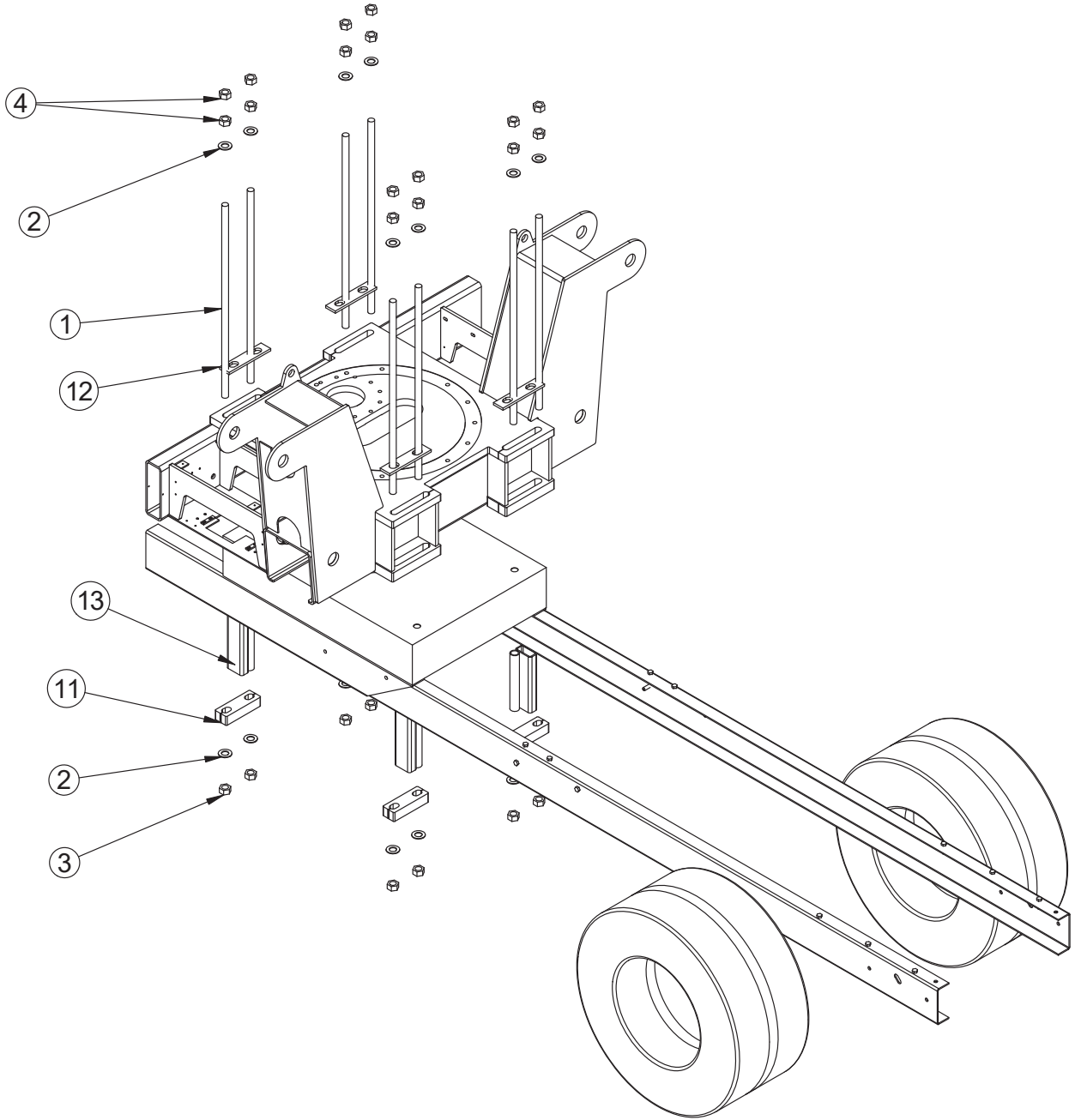
		GRADE 5		GRADE 8		GRADE 9
						
Size (DIA-TPI)	Bolt DIA (Inches)	Plain (Ft-Lb)	Plated (Ft-Lb)	Plain (Ft-Lb)	Plated (Ft-Lb)	Plated (Ft-Lb)
5/16-18	0.3125	17	13	25	18	22
3/8-16	0.3750	31	23	44	33	39
7/16-14	0.4375	49	37	70	52	63
1/2-13	0.5000	75	57	105	80	96
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Installation Overview

1. Relocate any obstructions on the frame that will be in the way of mounting the crane.
2. Measure the inside of the frame rails and cut the frame support to this length. Ensure that the frame supports have a tight fit between the frame rails.
3. Set the crane on the chassis and allow a minimum of 3" from the cab.
4. Make certain that the frame supports are installed square, cut to length in such a way as to support the frame flanges with the tie down rods are torqued.
5. Install the crane tie downs. Start at one corner and tighten both tie downs to 200 ft-lbs. Move to the diagonal set and tighten to 200 ft-lbs. Tighten the remaining 2 corners. Continue this pattern at 200 ft-lb increments until 500-550 ft-lbs is achieved. Be sure the mounting block stays perpendicular to the frame rail as they are tightened down.
6. Connect the pressure and return lines per the hydraulic kit.
7. Connect the electrical power and ground wires. Ground preferably connected to battery.
8. With the crane and outriggers in the stored position, check the reservoir for oil and fill if necessary.
9. Operate the crane for several cycles. Fully cycle the cylinder in both directions (blow past relief) to remove any air from the system.

Mounting Kit PN 16659



PN 16659			
ITEM	PART	DESCRIPTION	QTY
1	14498	TIE DOWN ROD	8
2	9180	WASHER 1.25 SAE FLAT YELLOW GR8	16
3	8834	NUT 1.25-7 HHGR8 TOP LOCKING	8
4	8978	NUT 1.25-7 HHGR8	16
11	8054	MTG BLOCK 15000 PC BLACK	4
12	11677	PLATE MTG 23000 PC BLACK	4
13	8202	FRAME SUPPORT 15000 CRANE PC BLACK	4
REV. A			

Hydraulic Installation

Never modify or alter any of the equipment, whether mechanical, electrical, or hydraulic, without Stellar Industries' approval.

⚠ WARNING Do not touch or grab any hoses that could be under pressure. Release system pressure before attempting to make adjustments or repairs.

Do not attempt service or repair when PTO is engaged.

Disassemble and assemble hydraulic components on a clean surface.

Clean all metal parts in a nonflammable cleaning fluid. Then lubricate all components to aid in assembly.

⚠ WARNING Hydraulic fluid expands when heated. This raises the pressure in an unventilated tank. Release the tank pressure before removing the cap completely. Failure to do so may cause the oil to shoot out of the tank very rapidly and cause severe burns.

⚠ WARNING Do not rely on the hydraulic fluid to support the boom or crane. If hydraulic fluid escapes, the boom or crane can fall immediately. Make sure the ground or blocking is supporting the boom before performing any maintenance or repair.

NOTICE Contaminants in a hydraulic system affect operation and will result in serious damage to the system components. Dirty hydraulic systems are a major cause of component failures.

If evidence of foreign particles is found in the hydraulic system, flush the system.

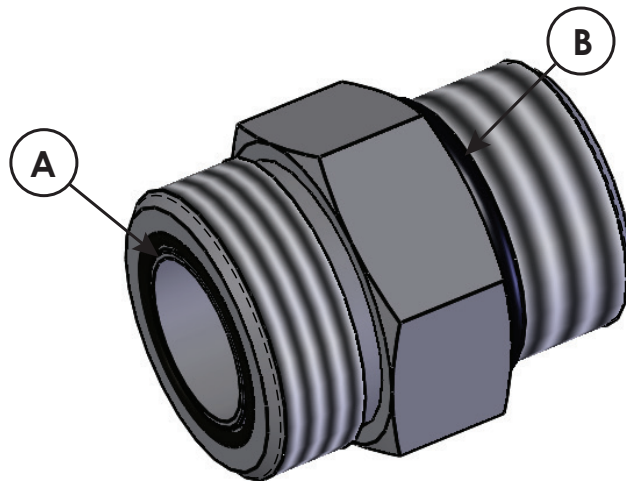
When installing metal hydraulic tubes, tighten all fittings finger tight. Then, in order, tighten the fittings at the rigid end, the adjustable end, and the mounting brackets. After tubes are mounted, install the hoses. Connect both ends of the hose with all fittings finger tight. Position the hose so it does not rub the machine or another hose and has a minimum of bending and twisting. Tighten fittings in both couplings.

Due to manufacturing methods, there is a natural curvature to a hydraulic hose. The hose should be installed so any bend is with this curvature.

Hydraulic Pressure Settings

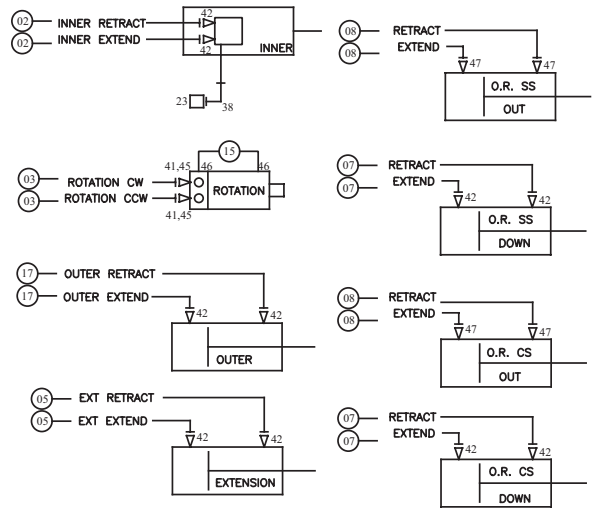
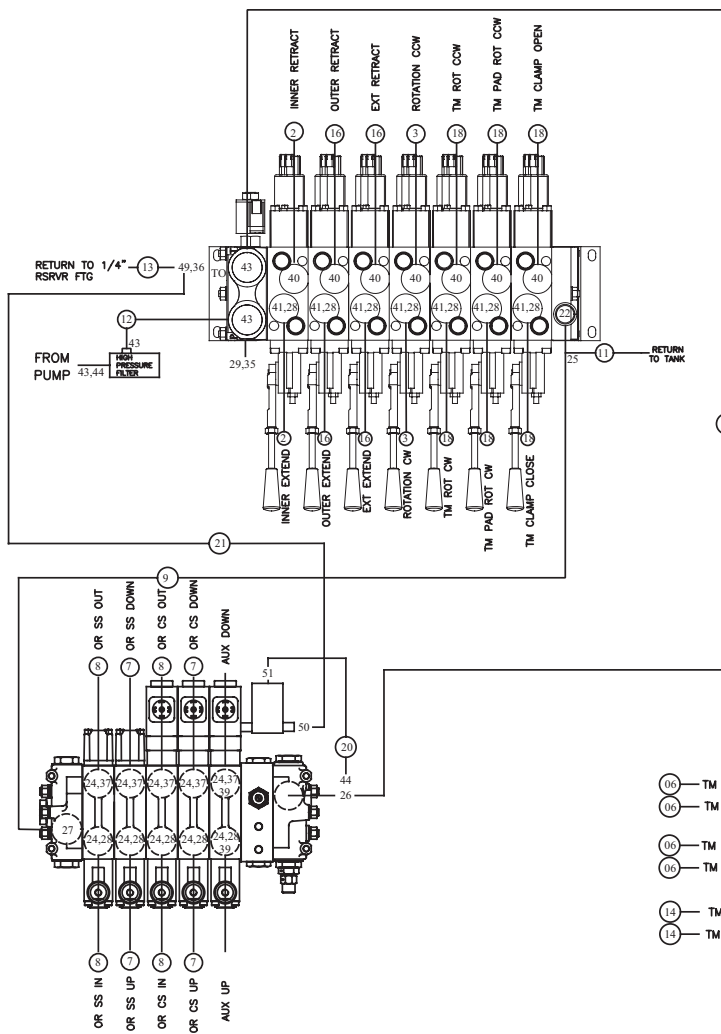
Main Relief 4600 PSI			
		Pressure (PSI)	
Function	Flow	Extend	Retract
Inner	10.6	4400	2200
Outer	10.6	4400	2200
Extension	10.6	4400	4400
Rotation	3.9	2200	2200
TM Rot	6.6	2200	2200
TM Pad Rot	6.6	2500	2500
TM Clamp	6.6	4200	4200

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

Hydraulic Kit - PN 127348



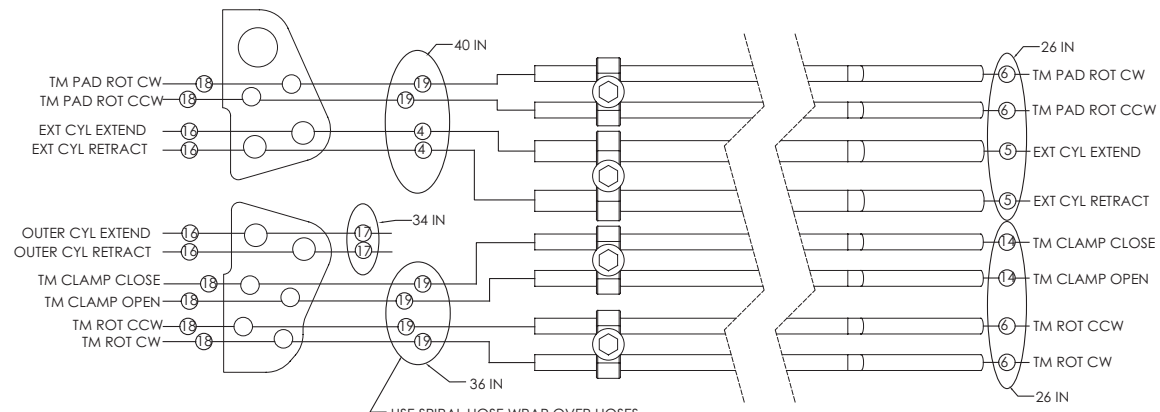
- 06 TM PAD ROTATION CCW → 30,32
- 06 TM PAD ROTATION CW → 30,31
- 06 TM ROTATION CCW → 30,32
- 06 TM ROTATION CW → 30,31
- 14 TM CLAMP OPEN → 48,33
- 14 TM CLAMP CLOSE → 48,34

HOSES FROM VALVE BANK TO BULKHEAD

TOP VIEW OF MAST BULKHEAD PLATE

TOP VIEW OF MAIN BOOM PORT TUBES

TO TM COUPLERS/EXT CYL



USE SPIRAL HOSE WRAP OVER HOSES FROM BULKHEAD PLATE TO PORT TUBES AND FROM PORT TUBES TO FUNCTIONS. (GROUPED AS SHOWN)

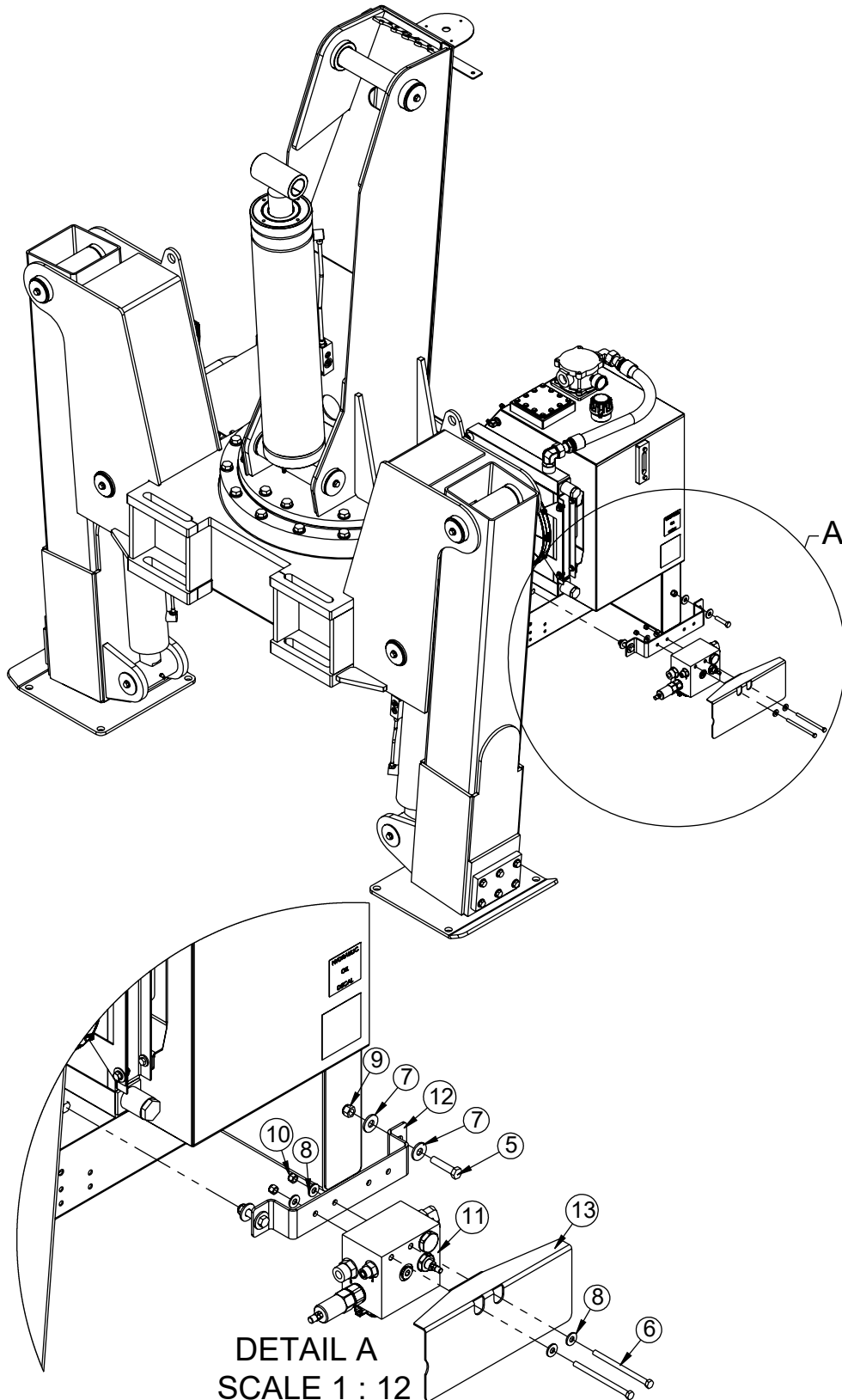
Hydraulic Kit - PN 127348 Parts List

PN 127348			
ITEM	PART	DESCRIPTION	QTY
01	127349	HOSE KIT 28000 V3 (INCL:2-21)	1
02	69750	HOSE-HYD 0.38 X 62	2REF
03	69751	HOSE-HYD 0.38 X 29	2REF
04	97596	HOSE-HYD 0.38 X 36	2REF
05	107032	HOSE-HYD 0.38 X 36	2REF
06	75928	HOSE-HYD 0.25 X 54	4REF
07	11674	HOSE-HYD 0.38 X 102	4REF
08	16493	HOSE-HYD 0.38X 84	4REF
09	69752	HOSE-HYD 0.75 X 35	1REF
10	70772	HOSE-HYD 0.50 X 33	1REF
11	9104	HOSE-HYD 0.75 X 72	1REF
12	70774	HOSE-HYD 0.50 X 24	1REF
13	39895	HOSE-HYD 0.25 X 108	1REF
14	75927	HOSE-HYD 0.25 X 54	2REF
15	55677	HOSE-HYD 0.25 X 12	1REF
16	98234	HOSE-HYD 0.38 X 112	4REF
17	24405	HOSE-HYD 0.38 X 70	2REF
18	98235	HOSE-HYD 0.25 X 112	6REF
19	97597	HOSE-HYD 0.25 X 36	6REF
20	127263	HOSE-HYD 0.25 X 12	1REF
21	52614	HOSE-HYD 0.25 X 31	1REF
22	14354	FTG 12-10 MFS-MAORB 90	1
23	55394	SWITCH PRES OVERLD CD-11C-5500R/WD	1
24	C1111	FTG 10-6 MORB-FORB STRAIGHT REDUCER	19
25	D0525	FTG 12-12-12 MFS-FFSS-MFS RUN TEE	1
26	37179	FTG 8-10-8 MFS-MAORB-MFS TEE	1
27	D1435	FTG 12-10 MFS-MORB STRAIGHT	1
28	25361	FTG 6-6 MFS-MAORB 90 LONG	12
29	138728	GAUGE OIL LF 2.5 0-6000 CBM SAE SS TUBE	1
30	47405	FTG 6-6 MORB-MFS BULKHEAD STRAIGHT	4
31	13554	QUICK CPLR FFH04-38-SAE-F	2
32	13555	QUICK CPLR FFH04-38-SAE-M	2
33	13557	QUICK CPLR FFN06-12SAE-M	1
34	13556	QUICK CPLR FFN06-12SAE-F	1
35	44521	FTG 5-4 MORB-FORB STRAIGHT REDUCER	1
36	52820	FTG 4-5 MFS-MAORB 90	1
37	C0338	FTG 6-6 MFS-MAORB 90	5
38	3861	FTG 6-6 MAORB-FORB 90	1
39	0882	CAP 6 FNL-S	2
40	D1302	FTG 6-10 MFS-MAORB 90	7
41	53479	LOOM 1.00 ID SPIRAL WRAP POLYETHYLENE	13.5FT
42	C1854	FTG 6-8 MFS-MORB STRAIGHT	10

Hydraulic Kit - PN 127348 Parts List (Continued)

PN 127348			
ITEM	PART	DESCRIPTION	QTY
43	C1180	FTG 8-12 MFS-MORB STRAIGHT	4
44	C2376	FTG 8-8 MFS-FFSS 90	2
45	D1193	FTG 6-6 MFS-MAORB 45	2
46	C1198	FTG 4-4 MFS-MAORB 90	2
47	0279	FTG 6-6 MFS-MORB STRAIGHT	4
48	47406	FTG 8-8 MORB-MFS BULKHEAD STRAIGHT	2
49	23421	FTG 4-4-4 MFS-FFSS-MFS RUN TEE	1
50	D1190	FTG 4-6 MFS-MAORB 45	1
51	C4922	FTG 4-6 MFS-MORB STRAIGHT	1
REV.A			

Hydraulic Backup Valve (Opt.) PN - 103419

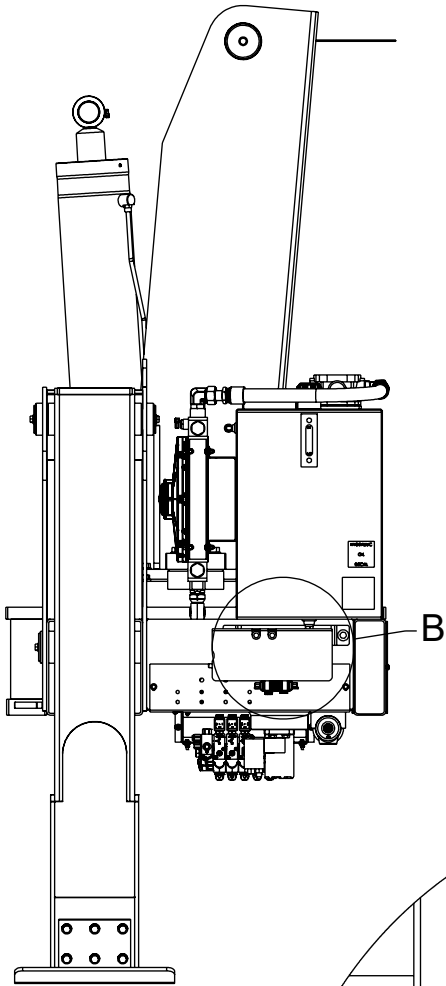


Hydraulic Backup Valve (Opt.) PN - 103419 Parts List

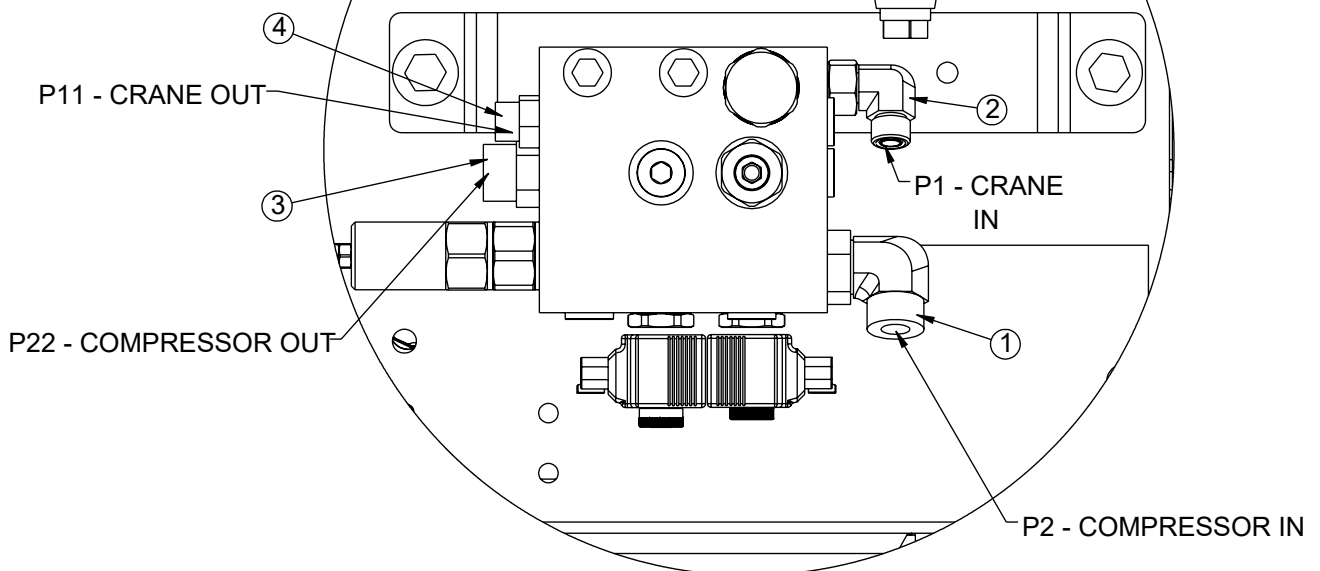
PN 103419			
ITEM	PART	DESCRIPTION	QTY
1	C5968	FTG 12-12 MFS-MAORB 90	1
2	C3643	FTG 8-10 MFS-MAORB 90	1
3	C2142	FTG 12-12 MFS-MORB STRAIGHT	1
4	C2252	FTG 8-10 MFS-MORB STRAIGHT	1
5	26025	CAP SCR 0.50-13X2.25 HHGR5	2
6	C0956	CAP SCR 0.38-16X5.50 HHGR5	2
7	0352	WASHER 0.50 USS FLAT	4
8	0346	WASHER 0.38 USS FLAT	4
9	C6106	NUT 0.50-13 HHGR5 NYLOC	2
10	0347	NUT 0.38-16 HHGR5 NYLOC	2
11	101759	VALVE MOBILE CRANE BACKUP	1
12	103420	FORMED MNT BRKT CRANE EMER BLOCK 23/28	1
13	103418	PLATE COVER VALVE CRANE BACKUP 17/23/28	1

ITEMS NOT SHOWN		
PART	DESCRIPTION	QTY
102202	WIRE HARNESS VALVE CRANE EMER BLOCK	1
75110	TERML BUTT 16-14GA STP 22-18GA HS	2

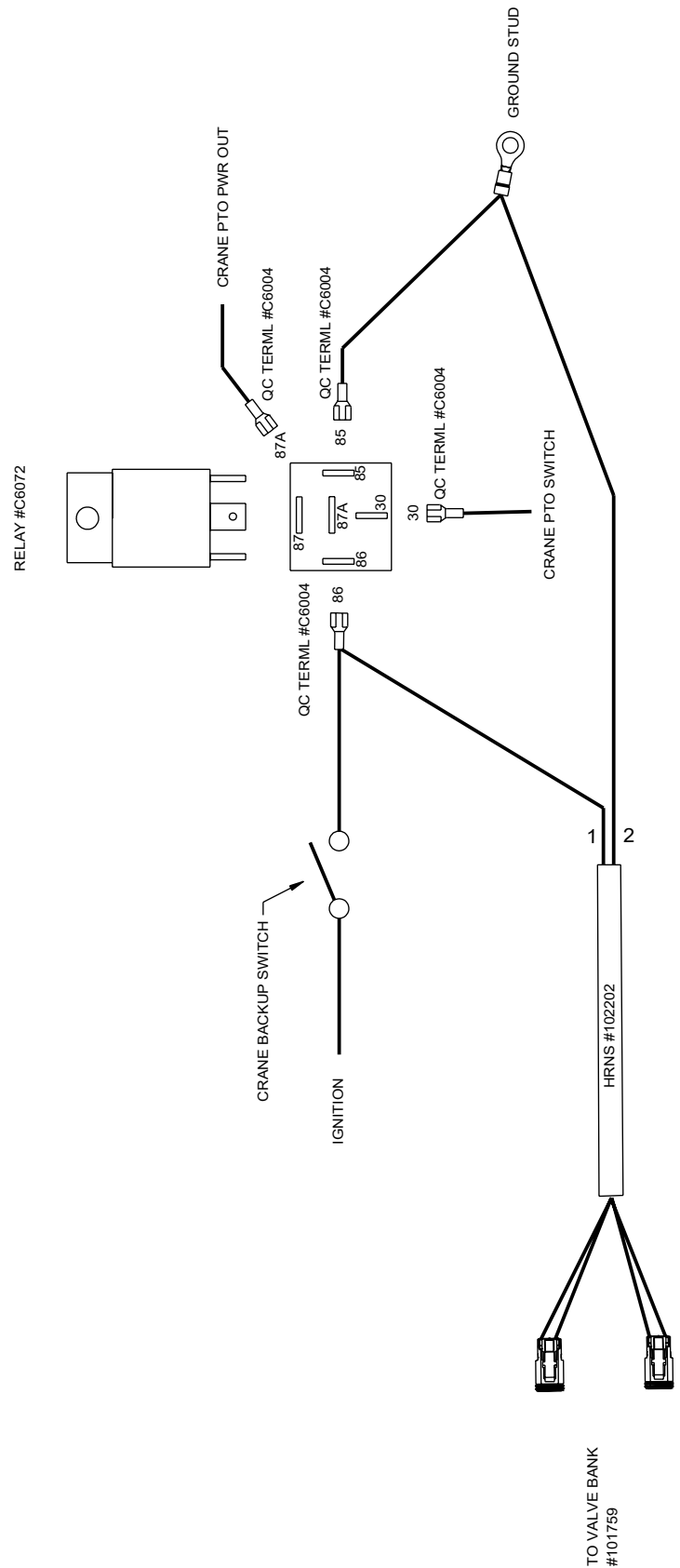
Hydraulic Backup Valve (Opt.) PN - 103419 (Continued)



DETAIL B
SCALE 1 : 4



Hydraulic Backup Valve (Opt.) PN - 103419 (Continued)



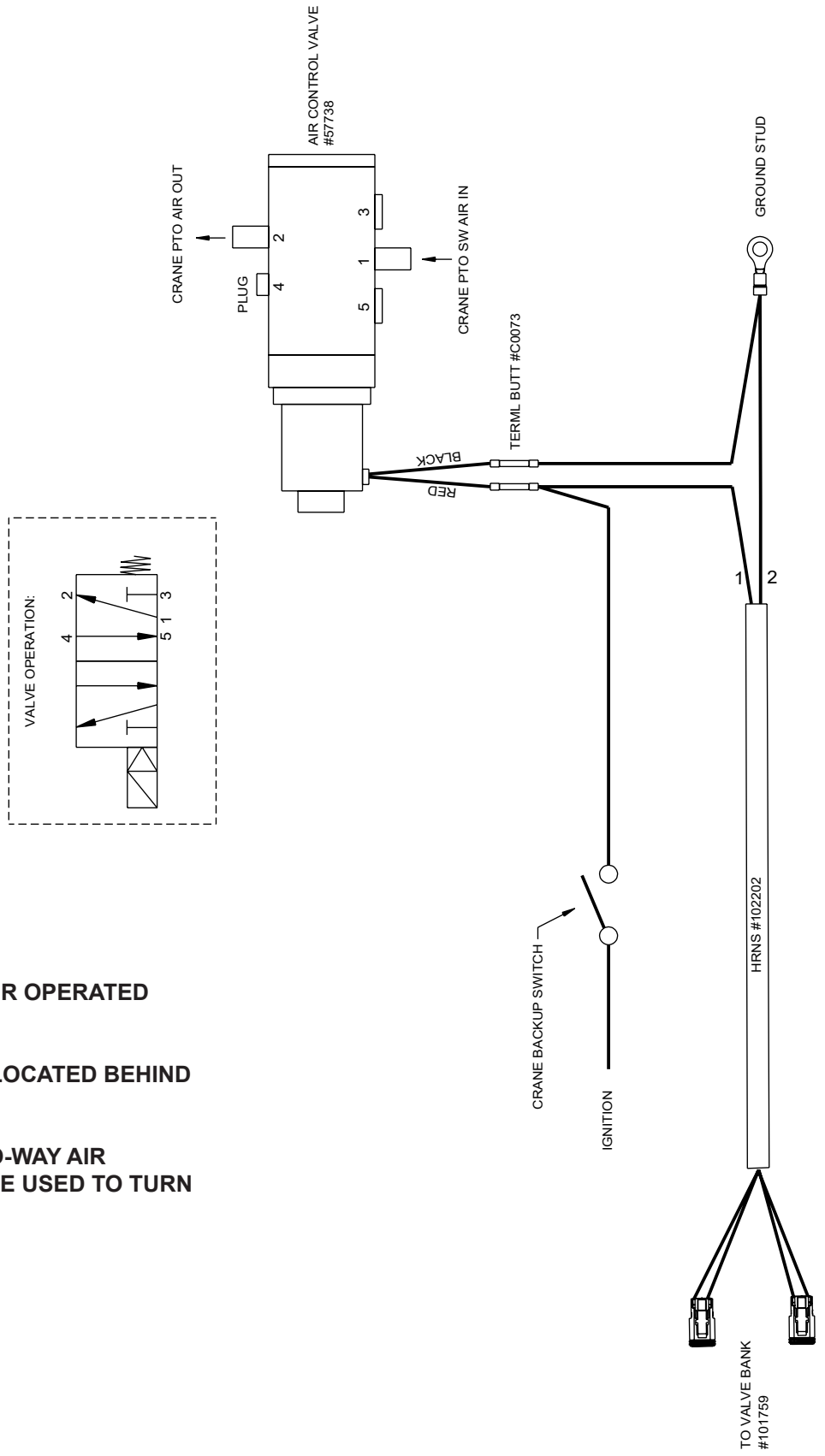
NOTES:

*THIS WIRING METHOD IS FOR ALL AUTOMATIC AND ELECTRIC OVER AIR MANUAL TRANSMISSIONS.

*RELAY IS TO BE INSTALLED BEHIND THE DASH NEAR THE PTO SWITCH.

*IF INSTALLING ON A TRUCK WITH AN AIR OPERATED PTO, ADD AIR CONTROL VALVE PN: 57738, SEE PAGE 14.

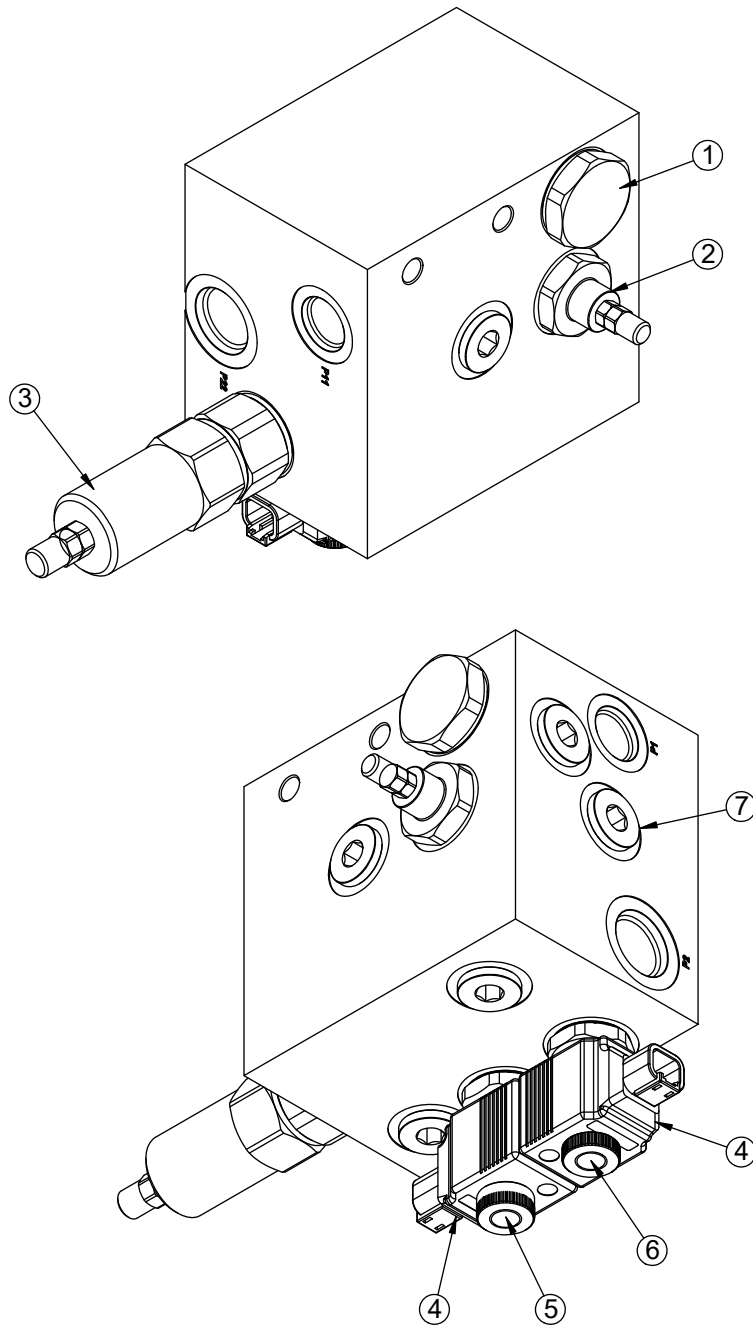
Hydraulic Backup Valve (Opt.) PN - 103419 (Continued)



NOTES:

- *THIS WIRING METHOD IS FOR AIR OPERATED TRANSMISSIONS
- *AIR CONTROL VALVE IS TO BE LOCATED BEHIND THE DASH NEAR THE PTO.
- *IF THE TRANSMISSION IS A TWO-WAY AIR OPERATION, PORT #4 SHOULD BE USED TO TURN THE PTO OFF.

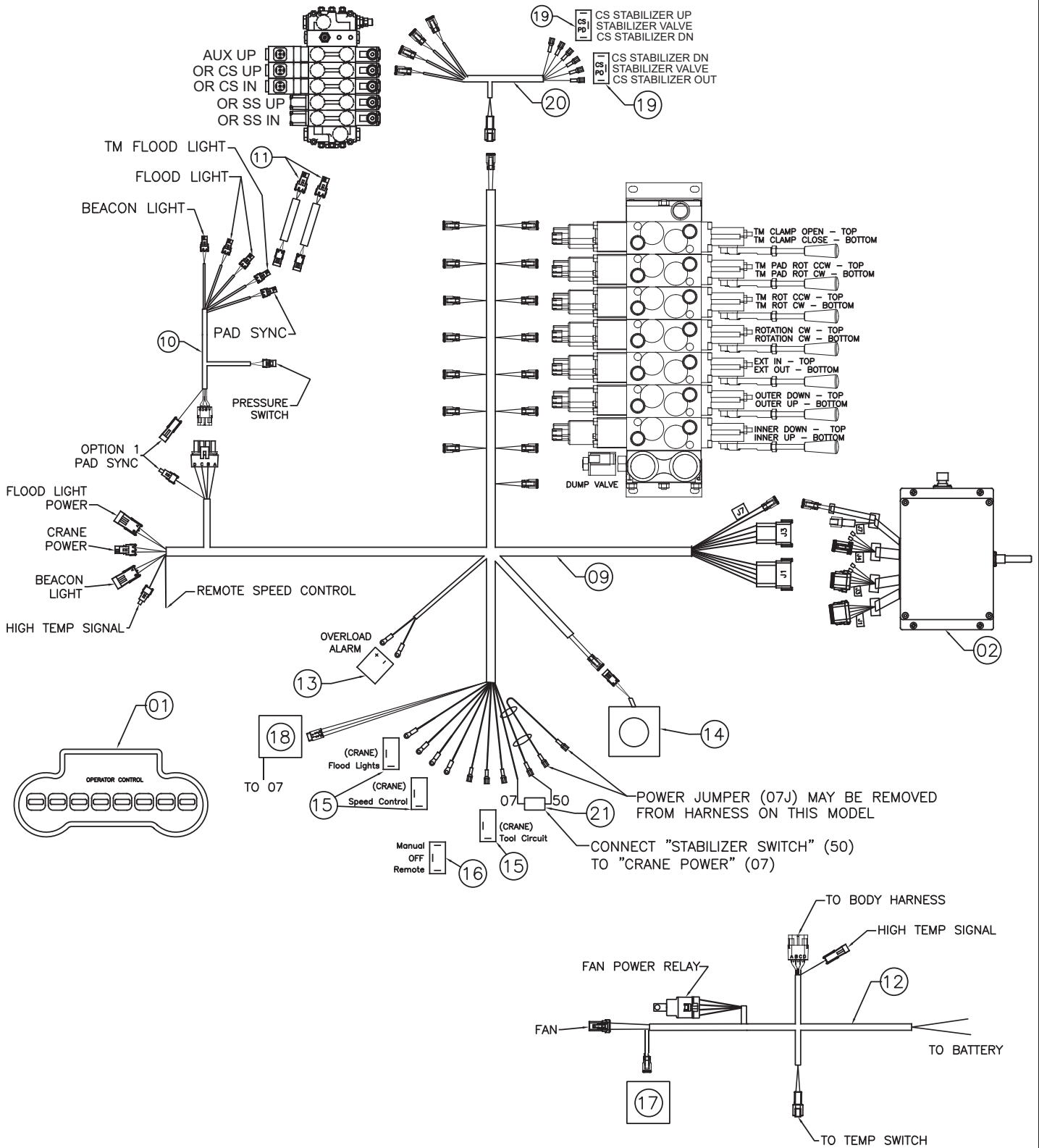
Valve Mobile Backup - 101759



PN 101759

ITEM	PART	DESCRIPTION	QTY
1	131389	VALVE CHECK MOBILE CRANE BACKUP	1
2	131390	FLOW DIVIDER MOBILE CRANE BACKUP	1
3	131391	VALVE RELIEF MOBILE CRANE BACKUP	1
4	131392	COIL 12VDC DEUTSCH MOBILE CRANE BACKUP	2
5	131393	VALVE CARTRIDGE MOBILE CRANE BACKUP	1
6	131394	VALVE CARTRIDGE MOBILE CRANE BACKUP	1
7	12153	FTG 10 MORB PLUG HOLLOW HEX	5

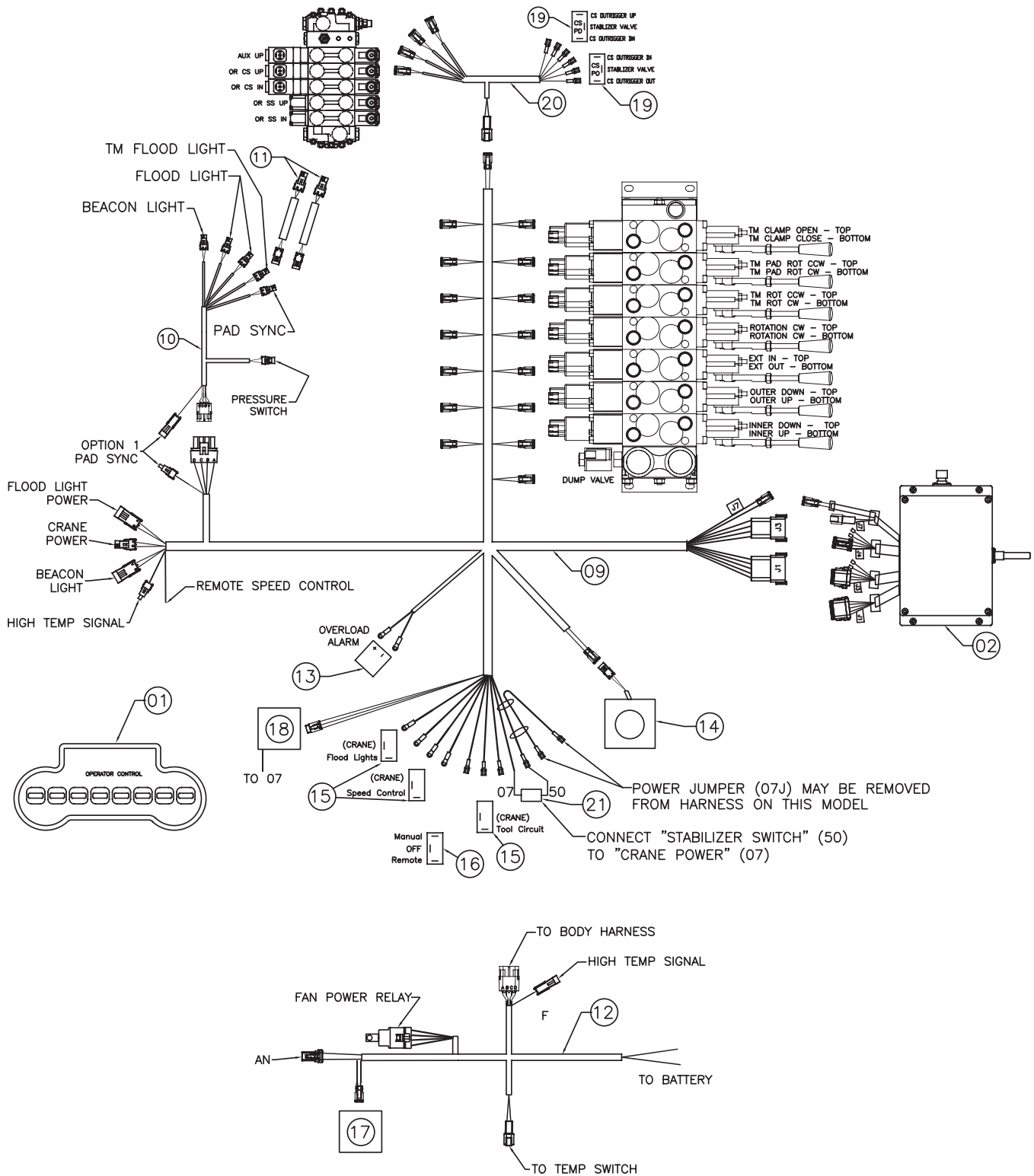
Control Kit (900 MHz Version) - PN 127357



Control Kit (900 MHz Version) - PN 127357 Parts List

PN 1237357			
ITEM	PART	DESCRIPTION	QTY
01	89149	TRANSMITTER SCANRECO 9/135/17/23/28	1
02	93082	RECEIVER ASM SCANRECO OTR 900 MHZ	1
03	89152	CABLE BACKUP 10M SCANRECO	1
04	89154	BATTERY SCANRECO	2
05	89155	CHARGER BATTERY SCANRECO	1
06	89639	STRAP CARRYING SCANRECO	1
07	93191	CABLE ASM M12 5P M-F RA 5FT	1REF
08	93192	DUST CAP M12 SKT BLACK PLASTIC	1REF
09	93695	WIRE HRNS CRANE 9K-28K	1
10	93204	WIRE HRNS CRANE MAST LRG OTR	1
11	68797	WIRE HARNESS MAIN BOOM 28000 TM LTS	2
12	125411	WIRE HRNS OTR COOLER FAN HTP	1
13	78246	BACKUP ALARM 87 DECIBEL	1
14	94004	E-STOP SWITCH ASM 17/23/28K CRANE	1
15	C4815	SWITCH, TOGGLE ON/OFF	3
16	8623	SWITCH TOGGLE ON-OFF-ON SGL P DBL T	1
17	125412	RELAY ASM COOLER FAN PWR INTRLK	1
18	125415	RELAY ASM HTP ALARM INDICATOR	1
19	6394	SWITCH TOGGLE MOM/ON/OFF/ON	2
20	127355	WIRE HRNS STBLZR CS CTRL 23/28K CRN	1
21	C0073	TERML BUTT 16-14GA HS BLUE	1
REV. A			

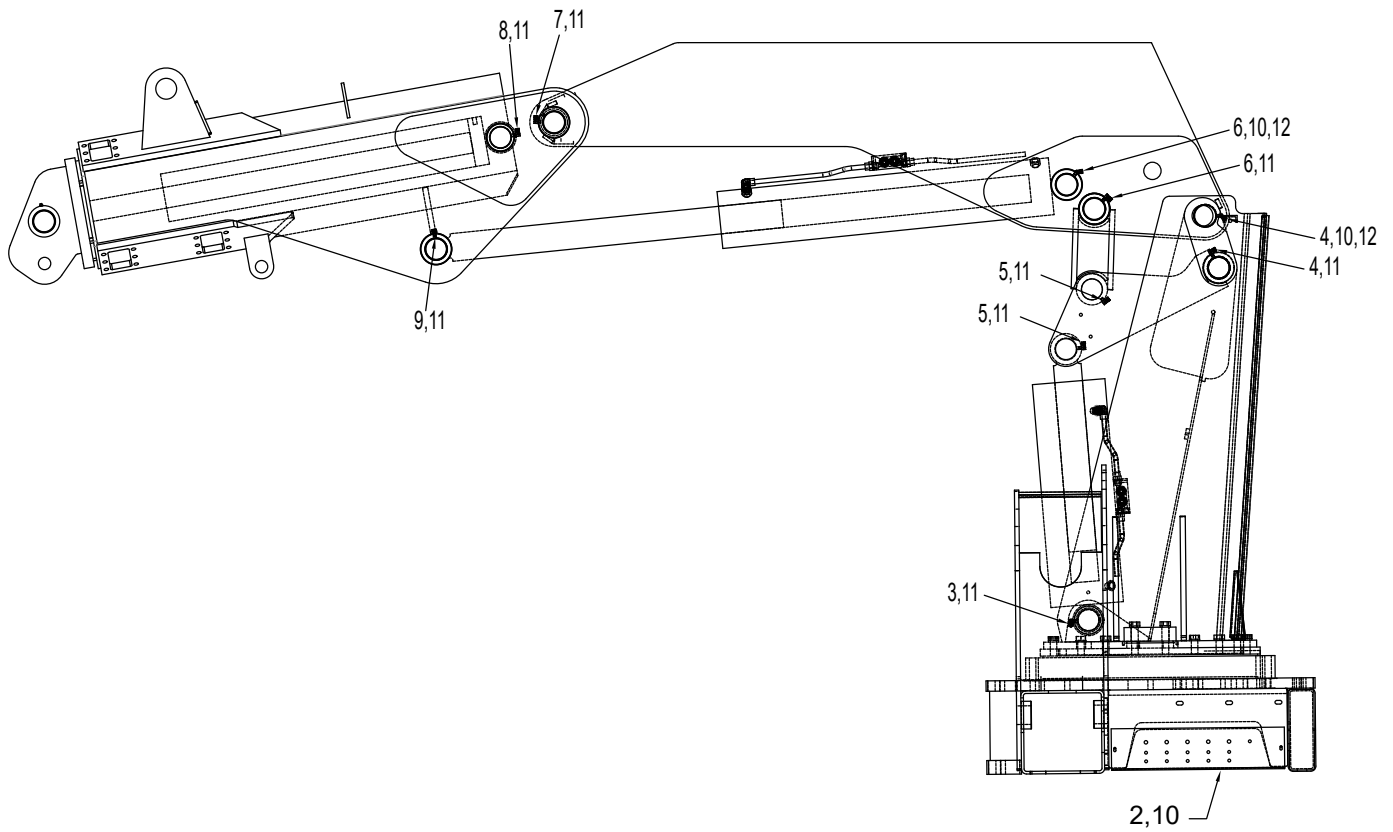
Control Kit (434 MHz Version) - PN 127358



Control Kit (434 MHz Version) - PN 127358 Parts List

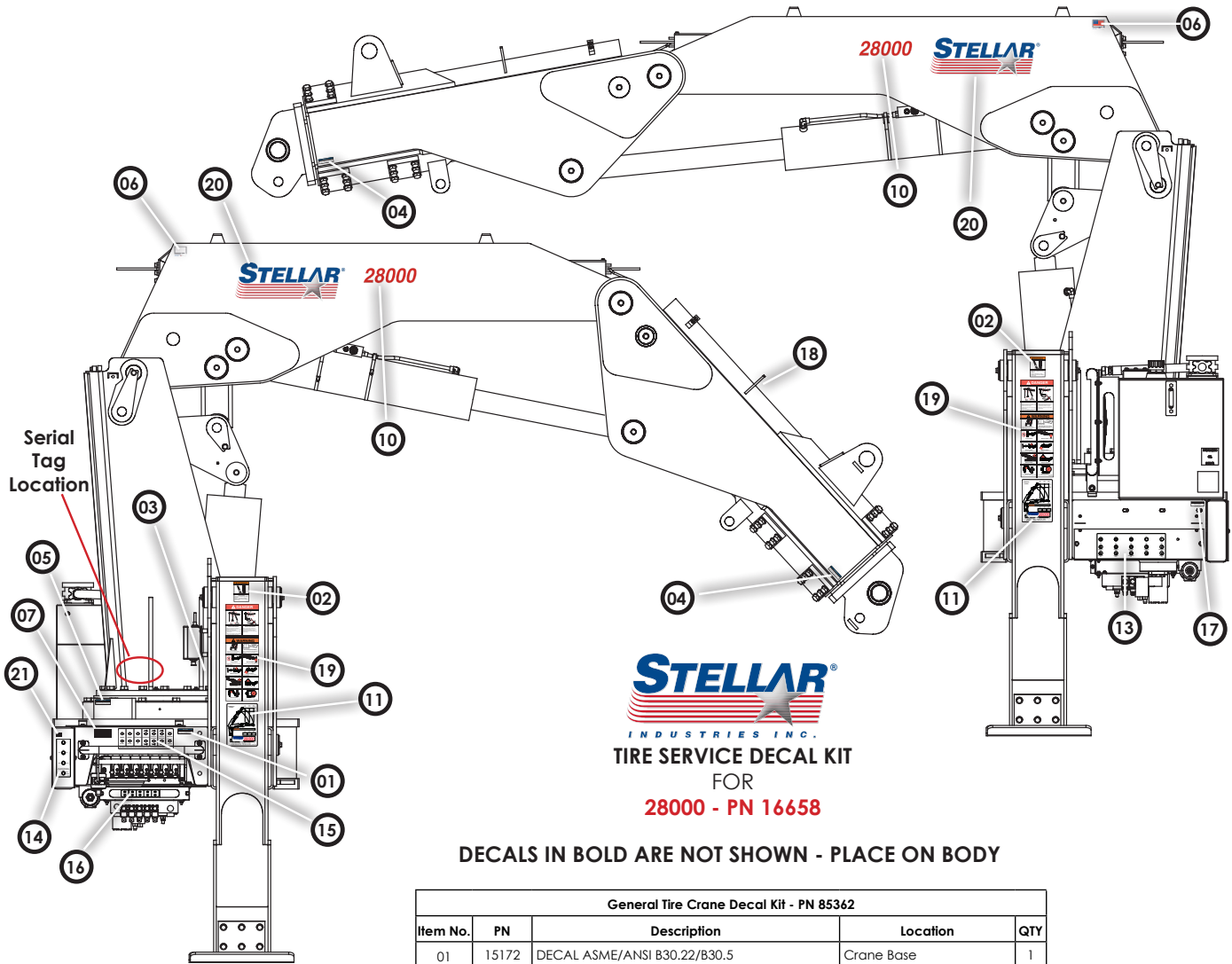
PN 127348			
ITEM	PART	DESCRIPTION	QTY
01	93084	TRANSMITTER SCANRECO 9/135/17/23/28	1
02	93083	RECEIVER ASM SCANRECO OTR 434 MHZ	1
03	89152	CABLE BACKUP 10M SCANRECO	1
04	89154	BATTERY SCANRECO	2
05	89155	CHARGER BATTERY SCANRECO	1
06	89639	STRAP CARRYING SCANRECO	1
07	93191	CABLE ASM M12 5P M-F RA 5FT	1REF
08	93192	DUST CAP M12 SKT BLACK PLASTIC	1REF
09	93695	WIRE HRNS CRANE 9K-28K	1
10	93204	WIRE HRNS CRANE MAST LRG OTR	1
11	68797	WIRE HARNESS MAIN BOOM 28000 TM LTS	2
12	125411	WIRE HRNS OTR COOLER FAN HTP	1
13	78246	BACKUP ALARM 87 DECIBEL	1
14	94004	E-STOP SWITCH ASM 17/23/28K CRANE	1
15	C4815	SWITCH, TOGGLE ON/OFF	3
16	8623	SWITCH TOGGLE ON-OFF-ON SGL P DBL T	1
17	128960	RELAY ASM 24V COOLER FAN PWR INTRLK	1
18	125415	RELAY ASM HTP ALARM INDICATOR	1
19	6394	SWITCH TOGGLE MOM/ON/OFF/ON	2
20	127355	WIRE HRNS STBLZR CS CTRL 23/28K CRN	1
21	C0073	TERML BUTT 16-14GA HS BLUE	1
22	65677	VOLTAGE CONVERTER 24VDC TO 12VDC 12A	1
23	128961	WIRE HRNS 24V-12V CONVERTER OTR CRANE	1
24	21039	SCREW #10-24X1.50 BTNHD SS	2
25	D0178	WASHER #10 SAE FLAT	4
26	26034	NUT #10-24 HH NYLOC	2
REV. A			

Grease Kit - PN 107033



PN 107033			
ITEM	PART	DESCRIPTION	QTY
01	107034	HOSE & FITTING KIT GREASE LINE 28000 V3	1
02	105341	HOSE-HYD 0.13 X 60	1REF
03	107500	HOSE-HYD 0.13 X 72	1REF
04	105343	HOSE-HYD 0.13 X 138	2REF
05	107501	HOSE-HYD 0.13 X 144	2REF
06	105344	HOSE-HYD 0.13 X 156	2REF
07	105346	HOSE-HYD 0.13 X 259	1REF
08	107502	HOSE-HYD 0.13 X 276	1REF
09	107503	HOSE-HYD 0.13 X 288	1REF
10	104019	FTG 4-2 PTC-MP STRAIGHT GREASE LINE	3REF
11	104020	FTG 4-2 PTC-MP 90 GREASE LINE	8REF
12	104021	FTG 2-2 MP-FP 45 GREASE LINE	2REF

Decal Placement - PN 16658



STELLAR
INDUSTRIES INC.
TIRE SERVICE DECAL KIT
FOR
28000 - PN 16658

DECALS IN BOLD ARE NOT SHOWN - PLACE ON BODY

General Tire Crane Decal Kit - PN 85362				
Item No.	PN	Description	Location	QTY
01	15172	DECAL ASME/ANSI B30.22/B30.5	Crane Base	1
02	C4795	DECAL DANGER FOOT	Stabilizers - CS & SS	2
03	73929	DECAL RADIO PRESSURE WASHER NOTICE	Near Remote Receiver	1
04	16973	DECAL USE STELLAR APPROVED ATTACHMT	Main Boom - Both Sides	2
05	9188	DECAL WORM GEAR LUBRICATION	Crane Base	1
06	35234	MADE IN THE USA - STELLAR	Main Boom - Both Sides	2
07	4214	DECAL CONTACT STELLAR	Crane Base	1
08	C4545	DECAL DANGER ELECTROCUTION	Four Corners of the Body	4
09	C5910	DECAL STELLAR LOGO 4.00X9.50 PRE-MASKED	Body - Optional	3

28000 Decal Kit - PN 85502				
Item No.	PN	Description	Location	QTY
10	54597	DECAL 28000 ID PRE-MASKED	Main Boom - Both Sides	2
11	16055	DECAL CAPACITY 28000	Stabilizers CS & SS	2
12	16657	CONTROL HANDLE DECAL	Crane Control Station	1
13	36248	DECAL SWITCH PANEL 28000 CRANE	Crane Base - CS	1
14	16620	DECAL SWITCH PLATE 28000	Crane Control Station	1
15	43469	DECAL VB CONTROL 23000	Crane Control Station	1
16	43470	DECAL OUTRIGGERS 23000	Crane Control Station	1
17	22619	DECAL CHECK GEARBOX	Crane Base - CS	1
18	47404	DECAL COUPLERS 23000	Main Boom	1
19	54781	DECAL WARNING PLACARD	Stabilizers CS & SS	2
20	54589	DECAL STELLAR LOGO 8X22.25 PRE-MASKED	Main Boom - Both Sides	2
21	125941	DECAL OIL TEMP	Crane Base	1

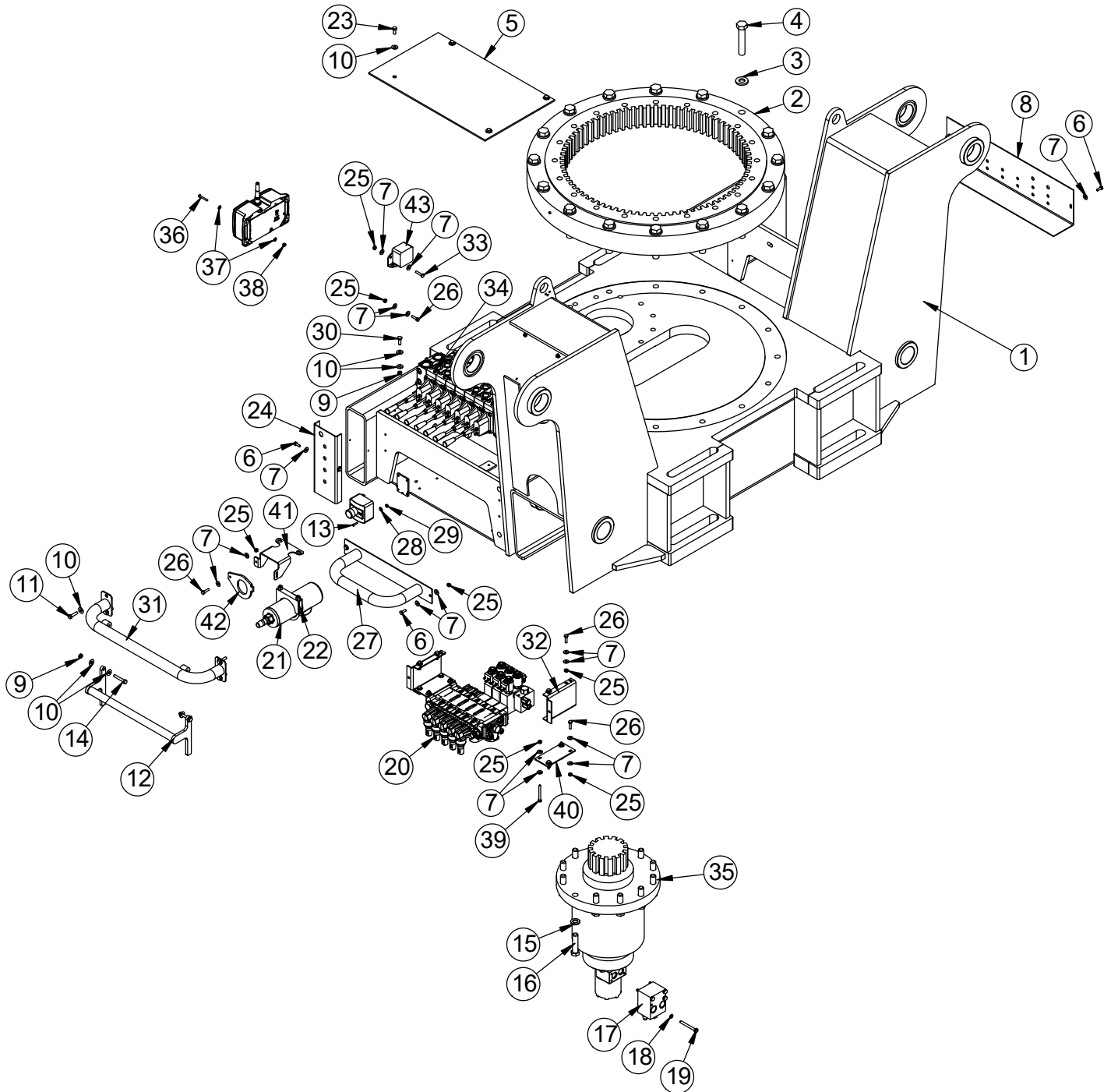
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Chapter 3 - Assembly Drawings

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Base Assembly - PN 127261

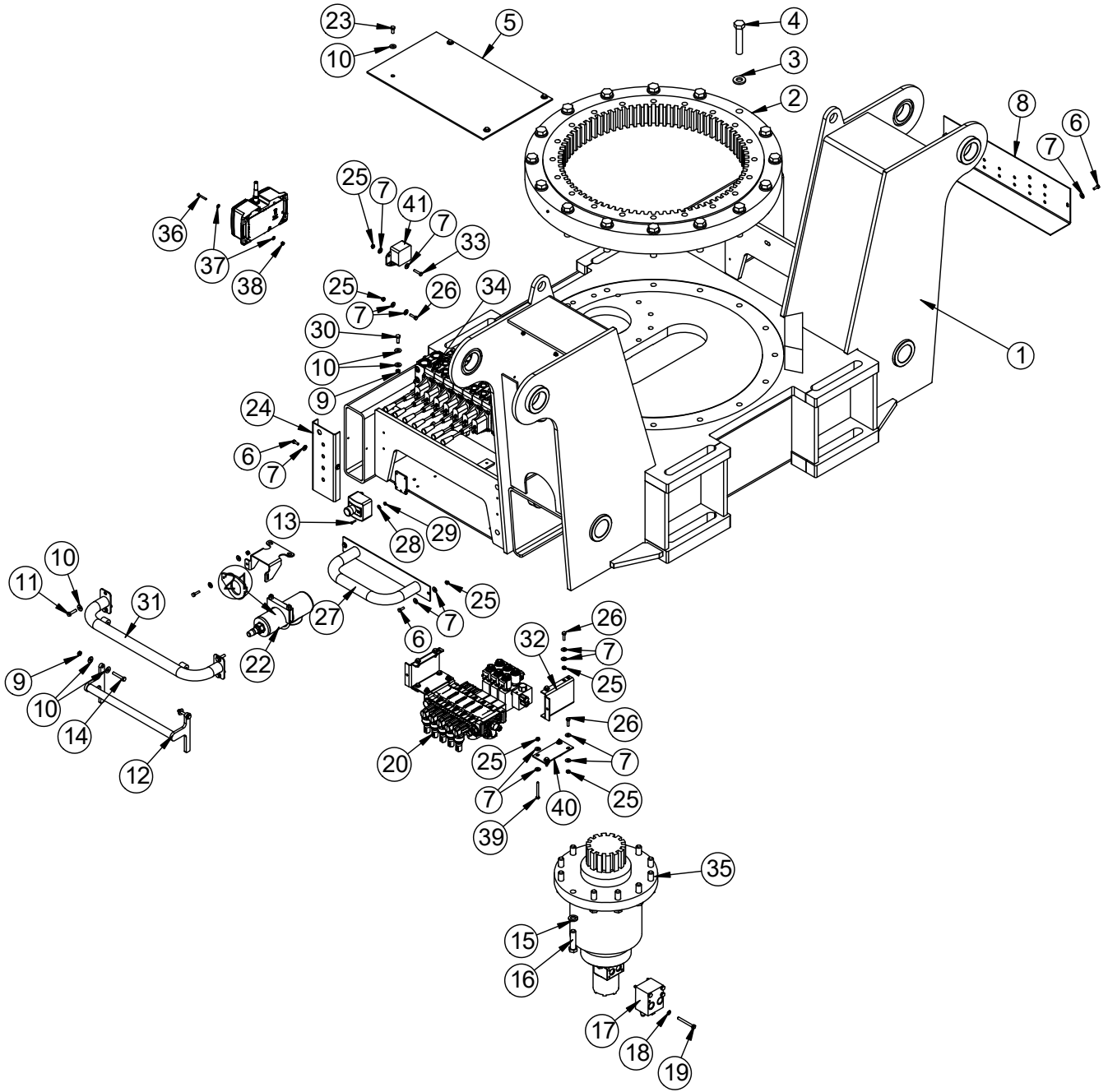


NOTES:
FILTER ELEMENT: 47860
BACK UP ALARM, E-STOP, AND RADIO RECIEVER SHOWN FOR REFERENCE.

Base Assembly - PN 127261 Parts List

PN 127261			
ITEM	PART	DESCRIPTION	QTY
1	48686	BASE 28000	1
2	18471	TURNTABLE BEARING 23000	1
3	18041	WASHER 0.88 SAE FLAT YELLOW GR9	16
4	17962	CAP SCR 0.88-9X4.50 HHGR9 ZY	16
5	41337	PLATE COVER 23000	1
6	0479	CAP SCR 0.25-20X0.75 HHGR5	8
7	0340	WASHER 0.25 FLAT	46
8	36243	PLATE SWITCH MTG 28000 CRANE PC BLACK	1
9	0342	NUT 0.31-18 HH NYLOC	5
10	0343	WASHER 0.31 USS FLAT ZINC	18
11	0485	CAP SCR 0.31-18X1.25 HHGR5	4
12	41082	BAR PANIC 23000 PC RED	1
13	22183	CAP SCR #8-32X0.75 BTNHD SS	2
14	0488	CAP SCR 0.31-18X2.00 HHGR5	2
15	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	12
16	C1028	CAP SCR 0.75-10X3.00 HHGR8 ZY	12
17	22935	VALVE BLOCK CBCA-LAN-XTS	1
18	5591	WASHER 0.31 SAE FLAT YELLOW GR8	4
19	C0930	CAP SCR 0.31-18X3.00 HHGR5	4
20	127258	VB 5 SECT 23000/28000 OUTRIGGER	1
21	78432	FILTER HIGH PRESSURE 1.06-12SAE 5000PSI 10 MICRON	1
22	78433	CLAMP HIGH PRESSURE FILTER 3.00	1
23	0420	CAP SCR 0.31-18X0.75 HHGR5	4
24	41336	PLATE SWITCH MTG 23000	1
25	0333	NUT 0.25-20 HHGR5 NYLOC	23
26	0480	CAP SCR 0.25-20X1.00 HHGR5	11
27	44511	GUARD OUTRIG VB 23000	1
28	22185	WASHER 0.19 FLAT SS	2
29	22186	NUT #8-32 HH NYLOC SS	2
30	C0922	CAP SCR 0.31-18X1.00 HHGR5	3
31	41084	GUARD VB 23000 PC BLACK	1
32	124606	BRACKET VB MNT BASE 23/28 4.25	2
33	0437	CAP SCR 0.25-20X1.25 HHGR5	4
34	42802	VB 7 SECT DANFOSS PVG32	1
35	60505	GEAR BOX W/MOTOR 23/28000	1
36	21039	CAP SCR #10-24X1.50 BTNHD SS	4
37	D0178	WASHER #10 SAE FLAT	8
38	26034	NUT #10-24 HH NYLOC	4
39	0339	CAP SCR 0.25-20X2.50 HHGR5	4
40	124605	BRACKET VB MNT 23/28 2.56X5.50	2
41	131087	PLATE PRESSURE FILTER GUARD	1
42	131088	PLATE PRESSURE FILTER GUARD REMOVABLE	1
43	78246	BACKUP ALARM 87 DECIBEL	1
REV. A			

Base Assembly Rear MNT RH Drive - PN 130739



NOTES:

FILTER ELEMENT: 47860.

BACK UP ALARM & E-STOP, RADIO RECEIVER SHOWN FOR REFERENCE.

Base Assembly Rear MNT RH Drive - PN 130739 Parts

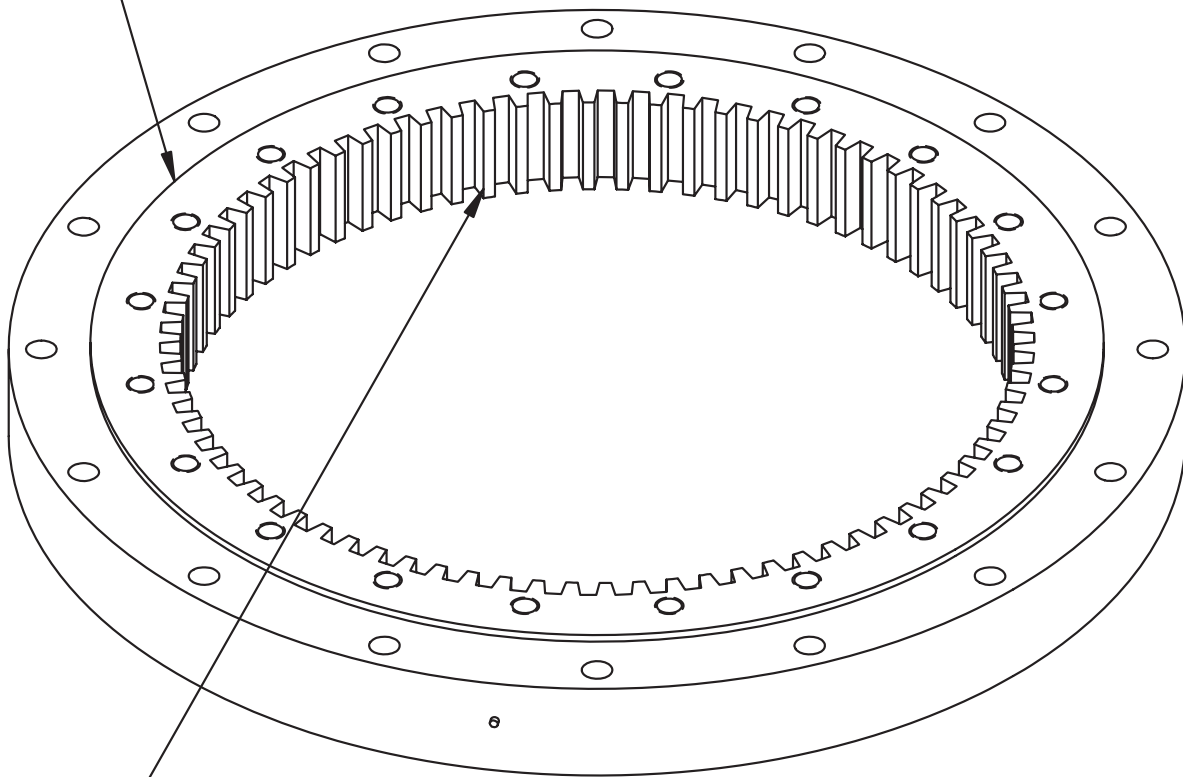
PN 130739			
ITEM	PART	DESCRIPTION	QTY
1	130740	BASE 28000 REAR MNT RH DRIVE	1
2	18471	TURNTABLE BEARING 23000	1
3	18041	WASHER 0.88 SAE FLAT YELLOW GR9	16
4	17962	CAP SCR 0.88-9X4.50 HHGR9 ZY	16
5	41337	PLATE COVER 23000	1
6	0479	CAP SCR 0.25-20X0.75 HHGR5	8
7	0340	WASHER 0.25 FLAT	46
8	36243	PLATE SWITCH MTG 28000 CRANE PC BLACK	1
9	0342	NUT 0.31-18 HH NYLOC	5
10	0343	WASHER 0.31 USS FLAT ZINC	18
11	0485	CAP SCR 0.31-18X1.25 HHGR5	4
12	41082	BAR PANIC 23000 PC RED	1
13	22183	CAP SCR #8-32X0.75 BTNHD SS	2
14	0488	CAP SCR 0.31-18X2.00 HHGR5	2
15	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	12
16	C1028	CAP SCR 0.75-10X3.00 HHGR8 ZY	12
17	22935	VALVE BLOCK CBCA-LAN-XTS	1
18	5591	WASHER 0.31 SAE FLAT YELLOW GR8	4
19	C0930	CAP SCR 0.31-18X3.00 HHGR5	4
20	127258	VB 5 SECT 23000/28000 OUTRIGGER	1
21	78432	FILTER HIGH PRESSURE 1.06-12SAE 5000PSI 10 MICRON	1
22	78433	CLAMP HIGH PRESSURE FILTER 3.00	1
23	0420	CAP SCR 0.31-18X0.75 HHGR5	4
24	41336	PLATE SWITCH MTG 23000	1
25	0333	NUT 0.25-20 HHGR5 NYLOC	23
26	0480	CAP SCR 0.25-20X1.00 HHGR5	11
27	44511	GUARD OUTRIG VB 23000	1
28	22185	WASHER 0.19 FLAT SS	2
29	22186	NUT #8-32 HH NYLOC SS	2
30	C0922	CAP SCR 0.31-18X1.00 HHGR5	3
31	41084	GUARD VB 23000 PC BLACK	1
32	124606	BRACKET VB MNT BASE 23/28 4.25	2
33	0437	CAP SCR 0.25-20X1.25 HHGR5	4
34	42802	VB 7 SECT DANFOSS PVG32	1
35	60505	GEAR BOX W/MOTOR 23/28000	1
36	21039	CAP SCR #10-24X1.50 BTNHD SS	4
37	D0178	WASHER #10 SAE FLAT	8
38	26034	NUT #10-24 HH NYLOC	4
39	0339	CAP SCR 0.25-20X2.50 HHGR5	4
40	124605	BRACKET VB MNT 23/28 2.56X5.50	2
41	78246	BACKUP ALARM 87 DECIBEL	1
42	131087	PLATE PRESSURE FILTER GUARD	1
43	131088	PLATE PRESSURE FILTER GUARD REMOVABLE	1

REV. A

Bearing Assembly - PN 18471

**USE EP2 LITHIUM COMPLEX GREASE, STELLAR PN 78090
ON BEARING RACE**

**GREASE MAIN BEARING RACE THROUGH
REMOTELY MOUNTED GREASE ZERK**

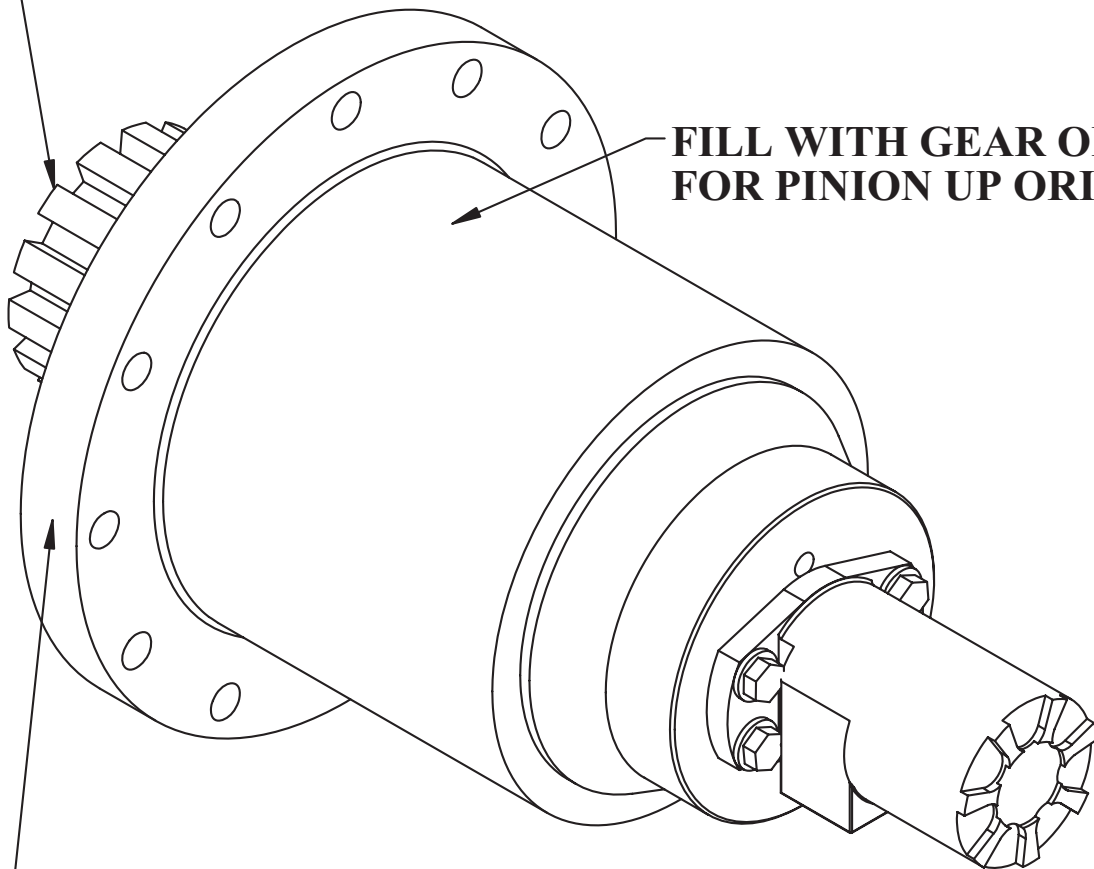


**USE MOLY GREASE 936SF HEAVY, STELLAR PN 4460
ON BEARING GEAR TEETH**

Gearbox - PN 60505

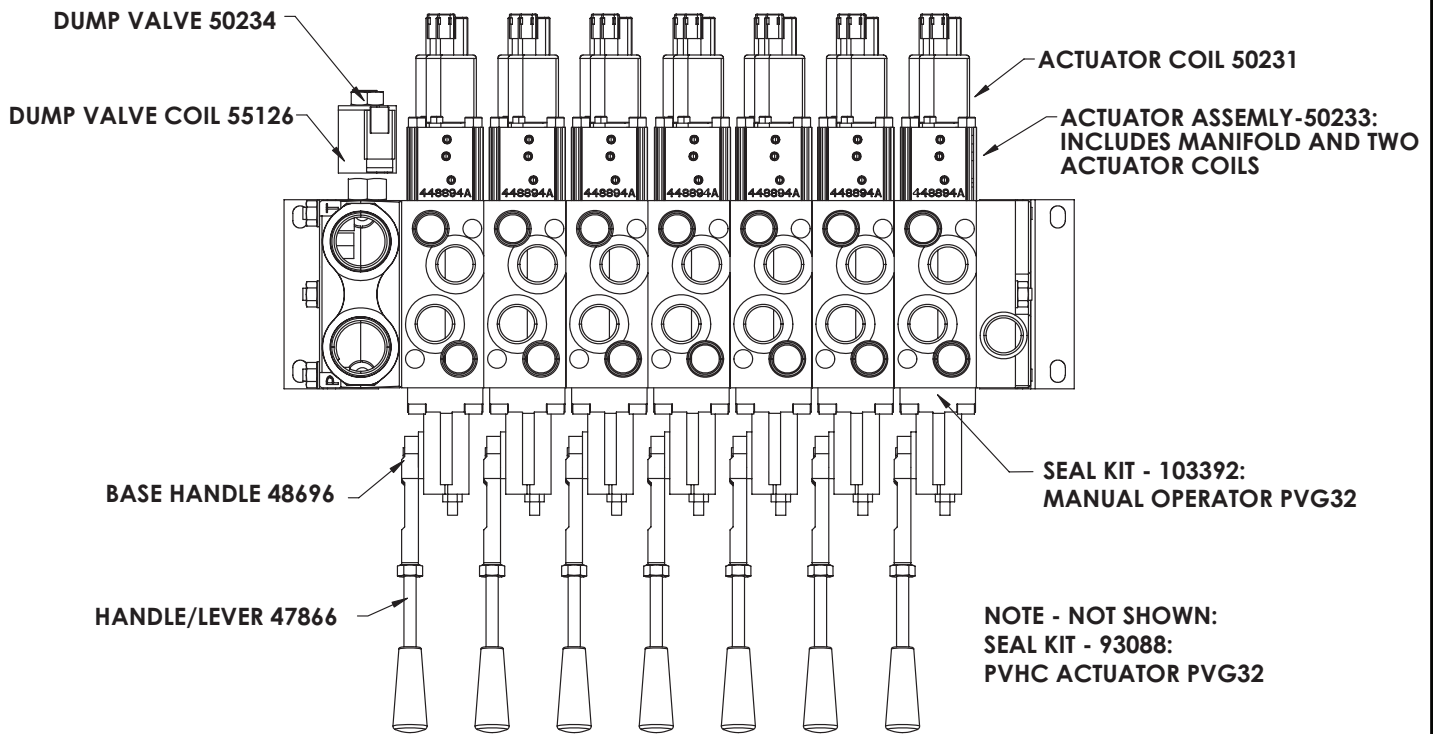
**USE MOLY GREASE 936SF HEAVY, STELLAR PN 4460
ON PINION TEETH**

**FILL WITH GEAR OIL, EP 80W90,
FOR PINION UP ORIENTATION**



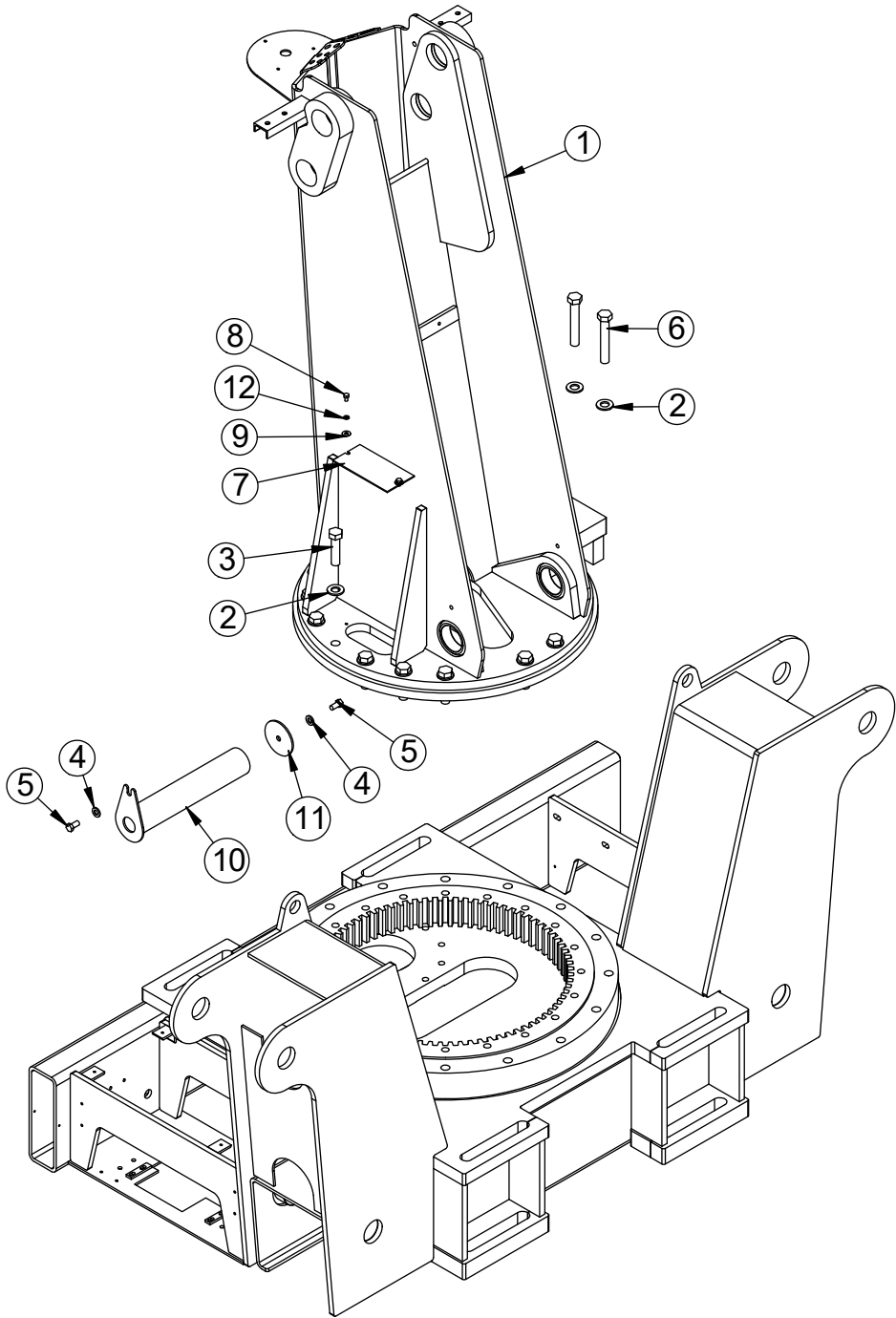
**GREASE INTERNAL BEARING WITH
EP2 LITHIUM BASED GREASE, STELLAR PN 78090**

Valve Bank - PN 42802



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Mast Assembly - PN 103068



Mast Assembly - PN 103068 Parts List

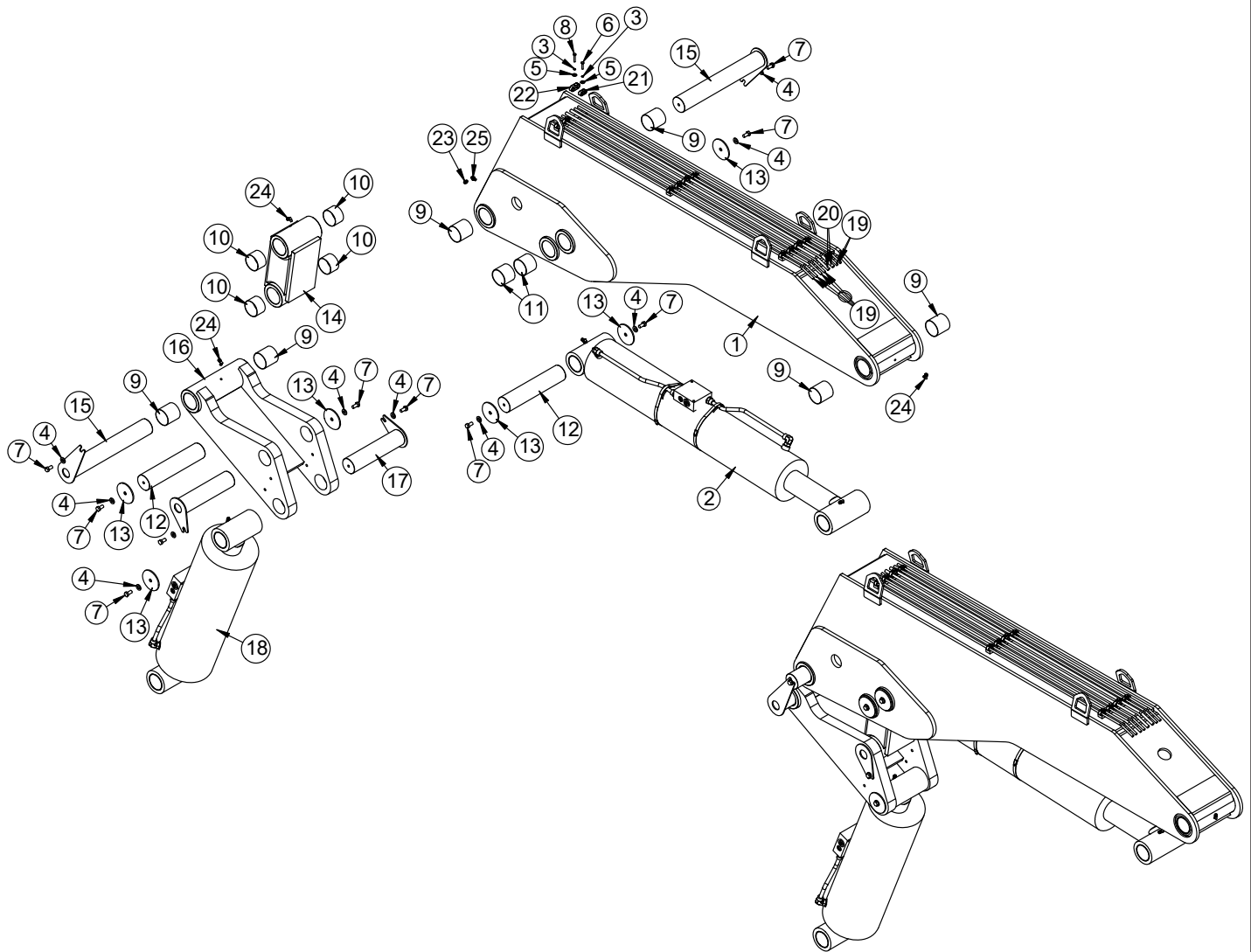
PN 103068

ITEM	PART	DESCRIPTION	QTY
1	103069	MAST 28000 V2	1
2	18041	WASHER 0.88 SAE FLAT YELLOW GR9	18
3	17963	CAP SCR 0.88-9X3.50 HHGR9	16
4	D0790	WASHER 0.50 FLAT GR8	2
5	10172	CAP SCR 0.50-13X1.00 HHGR8 ZY	2
6	17964	CAP SCR 0.88-9X5.50 HHGR9	2
7	11297	PLATE INSPECTION MAST 23000	1
8	484	CAP SCR 0.31-18 X 0.50 HHGR5	2
9	343	WASHER 0.31 USS FLAT ZINC	2
10	15755	TEAR DROP PIN 3.00X16.13 SS	1
11	13315	PIN CAP 0.56X4.00X0.19 YZ	1
12	522	WASHER 0.31 LOCK	2

REV. A

NOTES:
BASE AND BEARING SHOWN FOR REFERENCE.

Main Boom Assembly - PN 102929



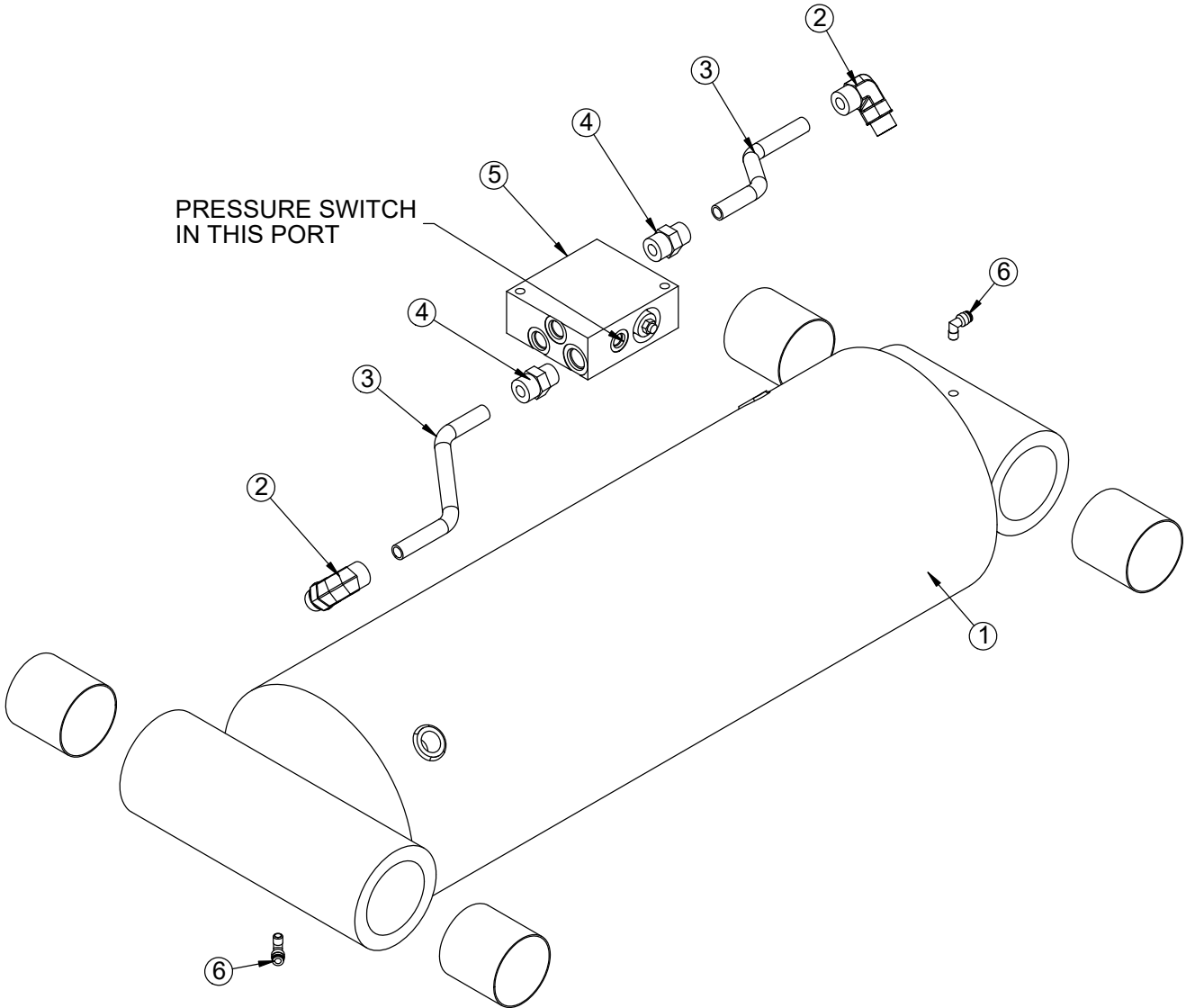
Main Boom Assembly - PN 102929 Parts List

PN 102929			
ITEM	PART	DESCRIPTION	QTY
1	102930	INNER BOOM 28000 V4	1
2	50628	CYLINDER ASM 7.00X38.25	1
3	0521	WASHER 0.25 LOCK	12
4	D0790	WASHER 0.50 SAE FLAT YELLOW GR8	10
5	0340	WASHER 0.25 USS FLAT	12
6	0437	CAP SCR 0.25-20X1.25 HHGR5	9
7	10172	CAP SCR 0.50-13X1.00 HHGR8	10
8	0220	CAP SCR 0.25-20X1.50 HHGR5	3
9	2227	BUSHING BPC48DXR48 3.00X3.00	6
10	0865	BUSHING BPC48DXR32 3.00X2.00	4
11	54374	BUSHING COMPOSITE FIBER 3.00X2.50	4
12	41063	PIN 3.00X14.00 D&T SS	2
13	13315	PIN CAP 0.56X4.00X0.19 YZ	6
14	15497	LINK WLDMT 28000 MAIN	1
15	31056	PIN TEAR DROP 3.00X20.13 SS	2
16	15495	LINK MAIN 28000	1
17	15763	PIN TEAR DROP 3.00X12.63	2
18	20694	CYLINDER ASM 28000 MAST	1
19	96569	TUBE ASM 0.38X66.00 MAIN BOOM 13500 YZ	6
20	96568	TUBE ASM 0.50X66.00 MAIN BOOM 13500 YZ	2
21	96567	CLAMP 0.38 PORT TUBE TWIN - STAUFF LNGF	9
22	96566	CLAMP 0.50 PORT TUBE TWIN - STAUFF LNGF	3
23	104019	FTG 4-2 PTC-MP STRAIGHT GREASE LINE	1
24	104020	FTG 4-2 PTC-MP 90 GREASE LINE	4
25	104021	FTG 2-2 MP-FP 45 GREASE LINE	1

REV. A

NOTES:
CREASE FITTINGS SHOWN FOR REFERENCE.

Main Cylinder Assembly - PN 20694



Main Cylinder Assembly - PN 20694 Parts List

PN 20694			
ITEM	PART	DESCRIPTION	QTY
1	15598	CYLINDER 9.00X4.00X21.81	1
2	16153	FTG 10-10 MFS-MAORB 90	2
3	16157	TUBE ASM 0.63X7.88 YZ	2
4	16152	FTG 10-10 MFS-MORB STRAIGHT	2
5	15995	MANIFOLD ASM DUAL T2A 5000PSI	1
6	104020	FTG 4-2 PTC-MP 90 GREASE LINE	2
REV. C			

NOTES:

C-BALANCE VALVE: C1090.

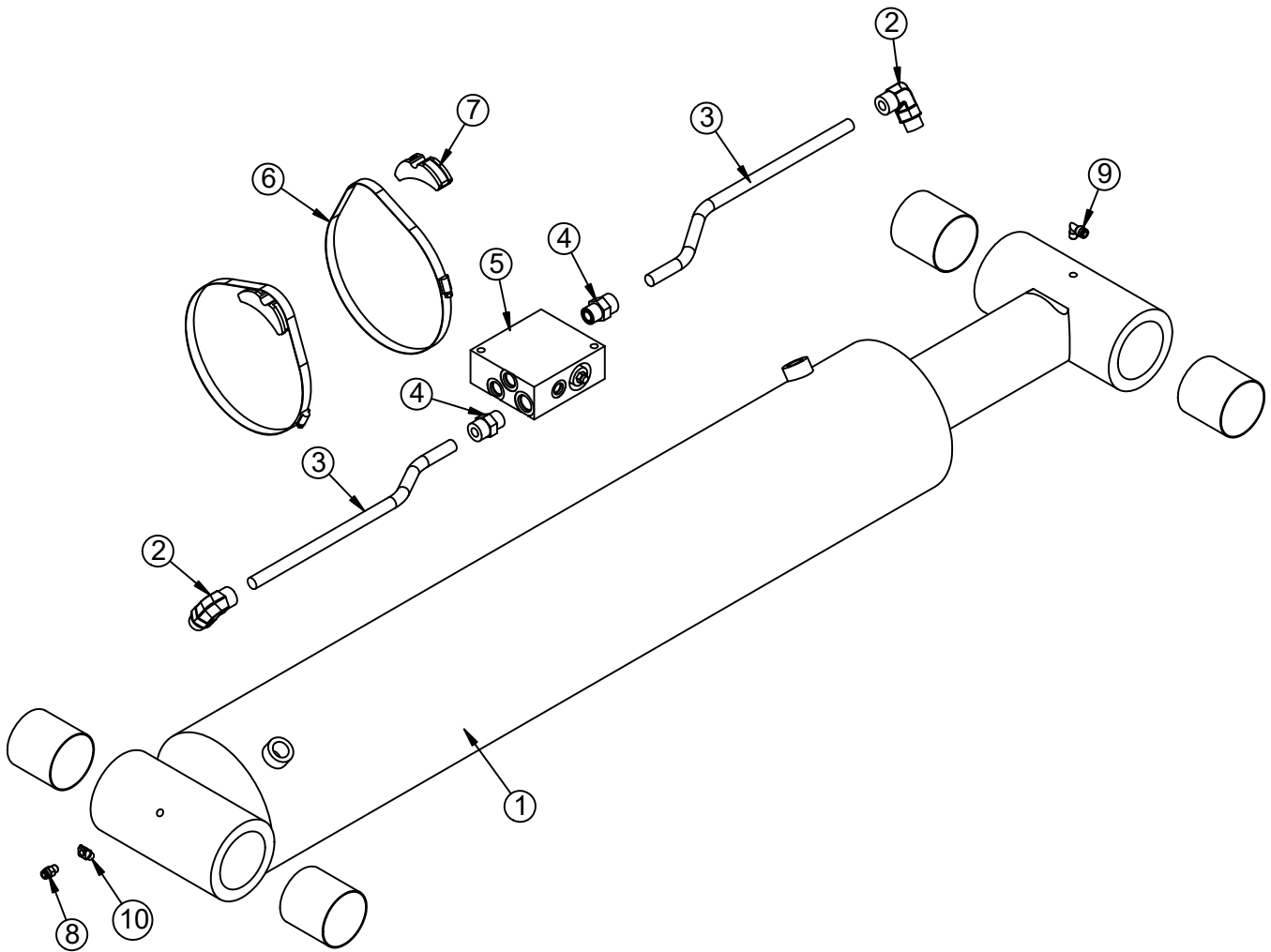
CYLINDER SEAL KIT: 35651.

BUSHING PART NUMBER 2227.

BUSHINGS INCLUDED IN 15598.

GREASE FITTINGS SHOWN FOR REFERENCE.

Outer Cylinder Assembly - PN 50628



Outer Cylinder Assembly - PN 50628 Parts List

PN 50628			
ITEM	PART	DESCRIPTION	QTY
1	15604	CYLINDER 7.00X38.25	1
2	16153	FTG 10-10 MFS-MAORB 90	2
3	16158	TUBE ASM 0.63X16.09 YZ	2
4	16152	FTG 10-10 MFS-MORB STRAIGHT	2
5	15995	MANIFOLD ASM DUAL T2A 5000PSI	1
6	19370	HOSE CLAMP 5.63-8.50 5416K39	2
7	18701	CLAMP PORT TUBE ZR518	2
8	104019	FTG 4-2 PTC-MP STRAIGHT GREASE LINE	1
9	104020	FTG 4-2 PTC-MP 90 GREASE LINE	1
10	104021	FTG 2-2 MP-FP 45 GREASE LINE	1
REV. C			

NOTES:

C-BALANCE VALVE: C1090.

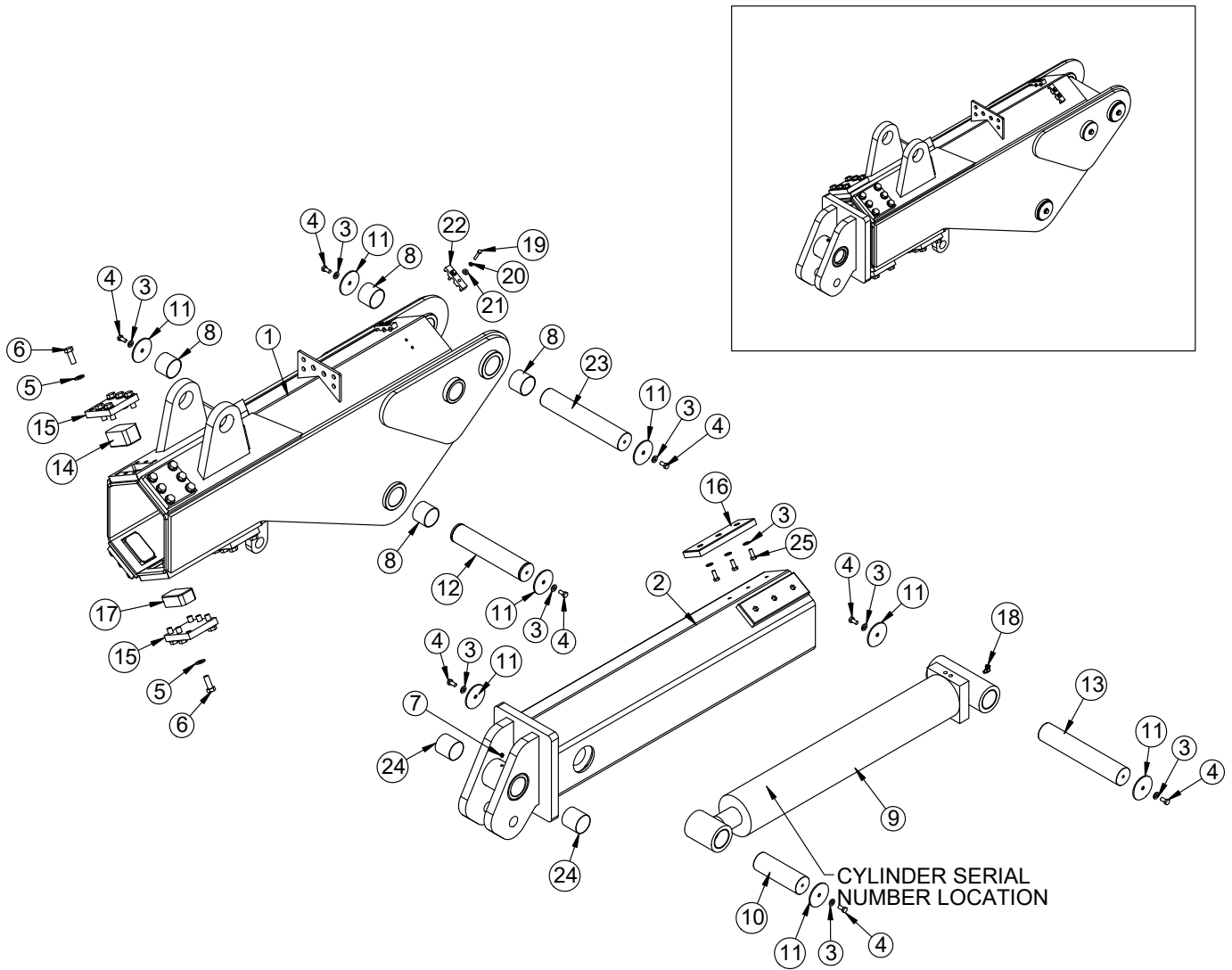
CYLINDER SEAL KIT: 35650.

BUSHING PART NUMBER: 2227.

BUSHINGS INCLUDED IN 15604.

GREASE FITTINGS SHOWN FOR REFERENCE.

Extension Boom Assembly - PN 70661



Extension Boom Assembly - PN 70661 Parts List

PN 70661			
ITEM	PART	DESCRIPTION	QTY
1	70662	OUTER BOOM 28000 V3	1
2	15388	EXT BOOM 28000	1
3	D0790	WASHER 0.50 SAE FLAT YELLOW GR8	14
4	10172	CAP SCR 0.50-13X1.00 HHGR8	8
5	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	36
6	4543	CAP SCR 0.75-10X2.00 HHGR8	36
7	C1592	ZERK 1/8 NPT STRAIGHT	1
8	54374	BUSHING COMPOSITE FIBER 3.00X2.50	4
9	15608	CYLINDER 6.00X37.00	1
10	15769	PIN 3.00X9.13 D&T SS	1
11	13315	PIN CAP 0.56X4.00X0.19 YZ	8
12	26973	PIN 3.00X15.00 SS SR/D&T	1
13	55109	PIN 3.00X16.88 D&T SS	1
14	15778	WEAR PAD 3.00X5.00X2.44	2
15	15609	PLATE WEAR PAD COVER 28000	6
16	15601	WEAR PAD 1.00X4.00X12.00	2
17	15779	WEAR PAD 3.00X5.00X1.75	4
18	37561	FTG 2-2 MP-FPS 90	1
19	0488	CAP SCR 0.31-18X2.00 HHGR5	4
20	0522	WASHER 0.31 LOCK	4
21	0343	WASHER 0.31 USS FLAT	4
22	70964	CLAMP 3 HOSE 0.38 HYD 28000	2
23	74114	PIN 3.00X16.75 D&T SS	1
24	2227	BUSHING BPC48DXR48 3.00X3.00	2
25	10666	CAP SCR 0.50-13X1.25 HHGR8	6
REV. D			

NOTES:

C-BALANCE VALVE: C6184.

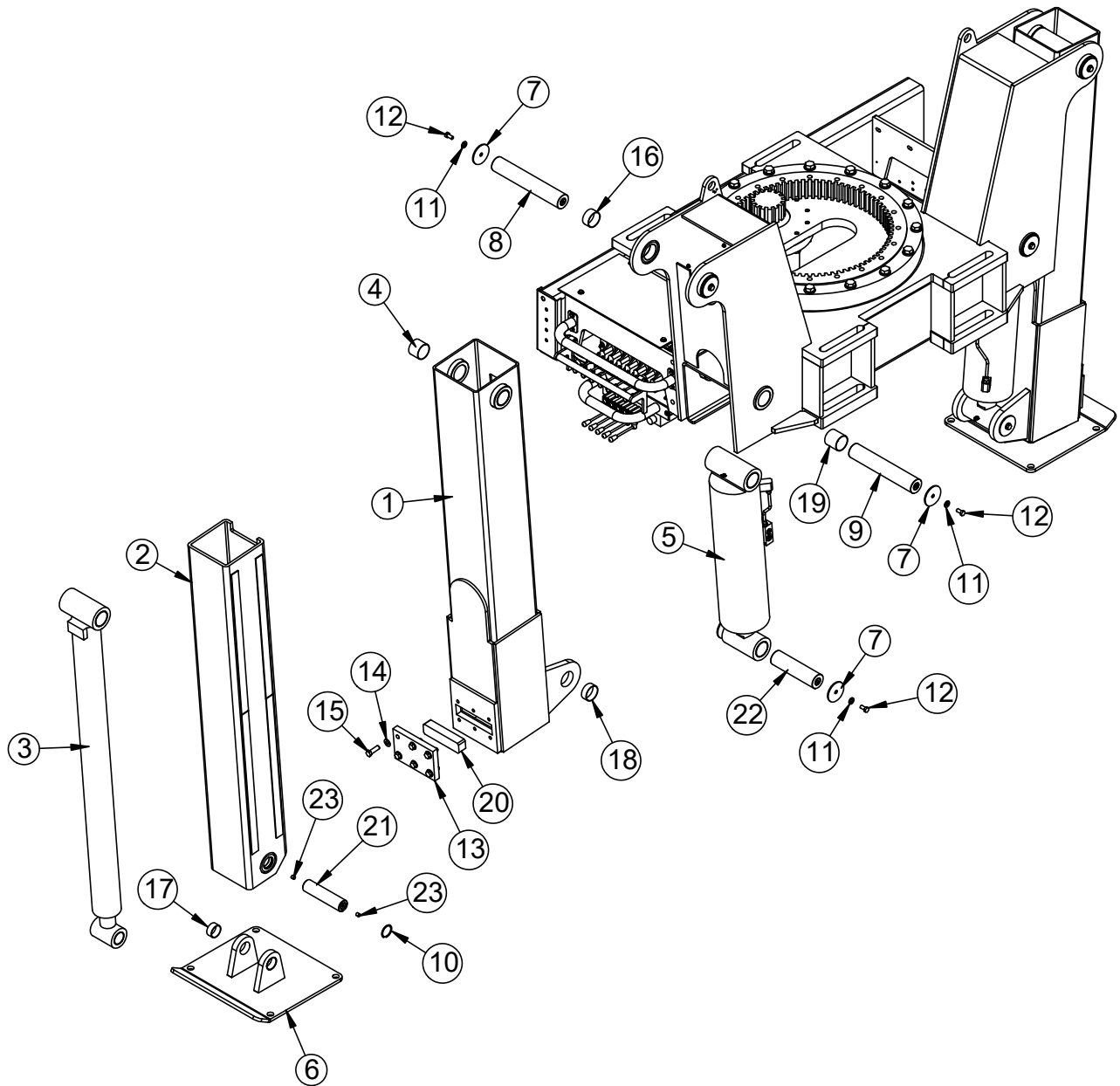
CYLINDER SEAL KIT: 35649.

BASE END BUSHING: 2227.

ROD END BUSHINGS: 0865.

CYLINDER BUSHINGS INCLUDED IN 15608

Stabilizer Assembly - PN 48689



Stabilizer Assembly - PN 48689 Parts List

PN 48689			
ITEM	PART	DESCRIPTION	QTY
1	40450	OUTRIGGER 23000	2
2	15502	OUTRIGGER LEG 28000	2
3	9994	CYLINDER 4.00X50.00	2
4	0635	BUSHING 40DXR32 GARLOCK	4
5	48383	CYLINDER ASM 48384	2
6	40837	OUTRIGGER PAD 23000 96IN	2
7	8377	PIN CAP 0.56X3.50X0.19 YZ	12
8	40459CR	PIN 2.50X14.88 D&T ZC	2
9	48385CR	PIN 2.50X14.00 D&T ZC	2
10	2257	SNAP RING INSIDE 2.00	4
11	D0790	WASHER 0.50 FLAT GR8	12
12	10172	CAP SCR 0.50-13X1.00 HHGR8 ZY	12
13	10180	PLATE WEAR PAD COVER 28000	2
14	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	12
15	C1025	CAP SCR 0.63-11X2.00 HHGR8 ZY	12
16	25574	BUSHING 40DXR20 2.50X1.25	4
17	8819	BUSHING QSI-3235-16	4
18	13343	BUSHING 40DXR16 GARLOCK	4
19	17320	BUSHING 40DXR40 GARLOCK	4
20	40455	WEAR PAD 2.00X8.00X1.50	2
21	16266CR	PIN 2.00X8.19 D&T ZC	2
22	9996CR	PIN 2.50X9.38 D&T ZC	2
23	58052	SET SCREW 0.50-13X0.50	4
REV. B			

NOTES:

C-BALANCE VALVE: C6184.

CYLINDER SEAL KIT: 35647.

BASE END BUSHING: 0635.

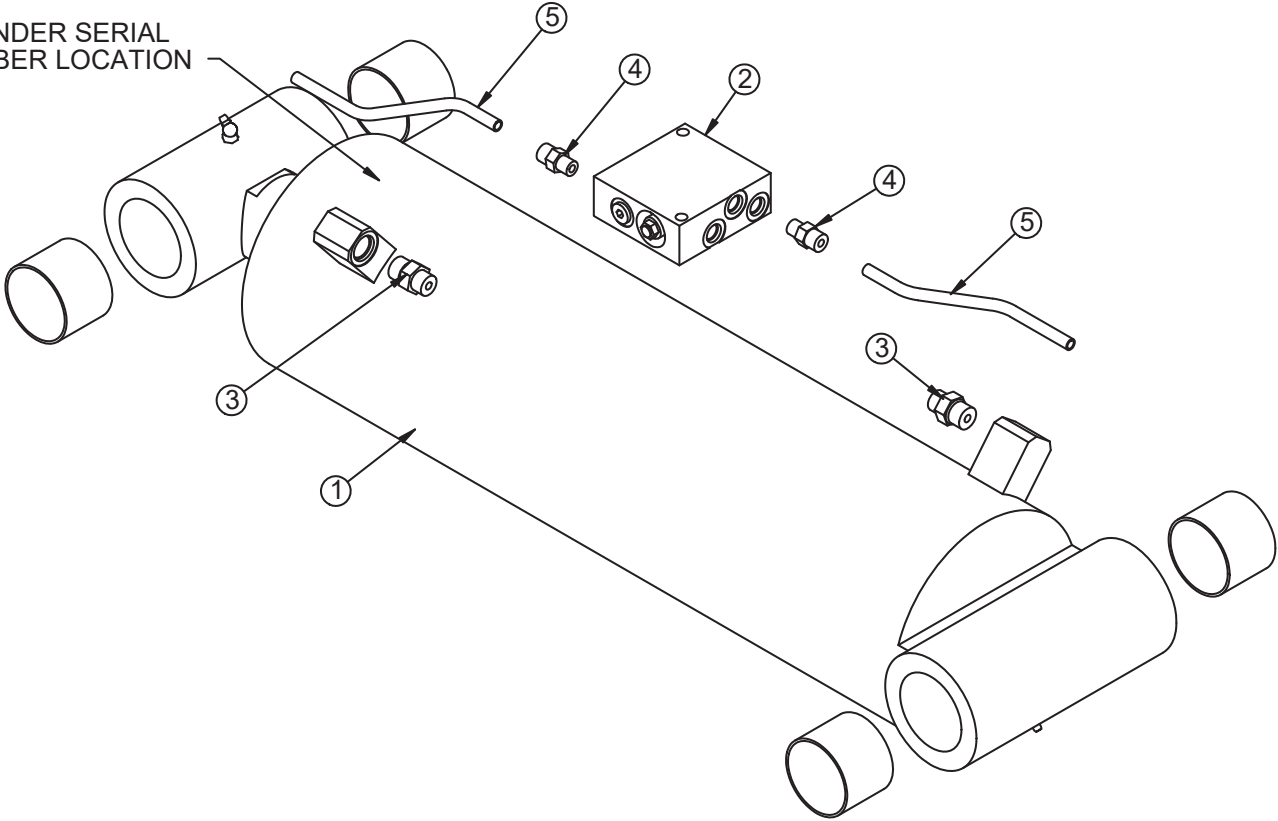
ROD END BUSHINGS: 4381.

BUSHINGS INCLUDED IN 9994.

BASE WELDMENT SHOWN AS REFERENCE.

Stabilizer Cylinder Assembly - PN 48383

CYLINDER SERIAL
NUMBER LOCATION



Stabilizer Cylinder Assembly - PN 48383 Parts List

PN 48383			
ITEM	PART	DESCRIPTION	QTY
1	48384	CYLINDER 7.00X19.25	1
2	15822	MANIFOLD DOUBLE T11A 5000 PSI	1
3	C1854	FTG 6-8 MFS-MORB STRAIGHT	2
4	279	FTG 6-6 MFS-MORB STRAIGHT	2
5	19032	TUBE ASM 0.38 X 6.91 YZ	2
REV. A			

NOTES:

C-BALANCE VALVE: C6184.

CYLINDER SEAL KIT: C6310.

BUSHING PART NUMBER: 0635.

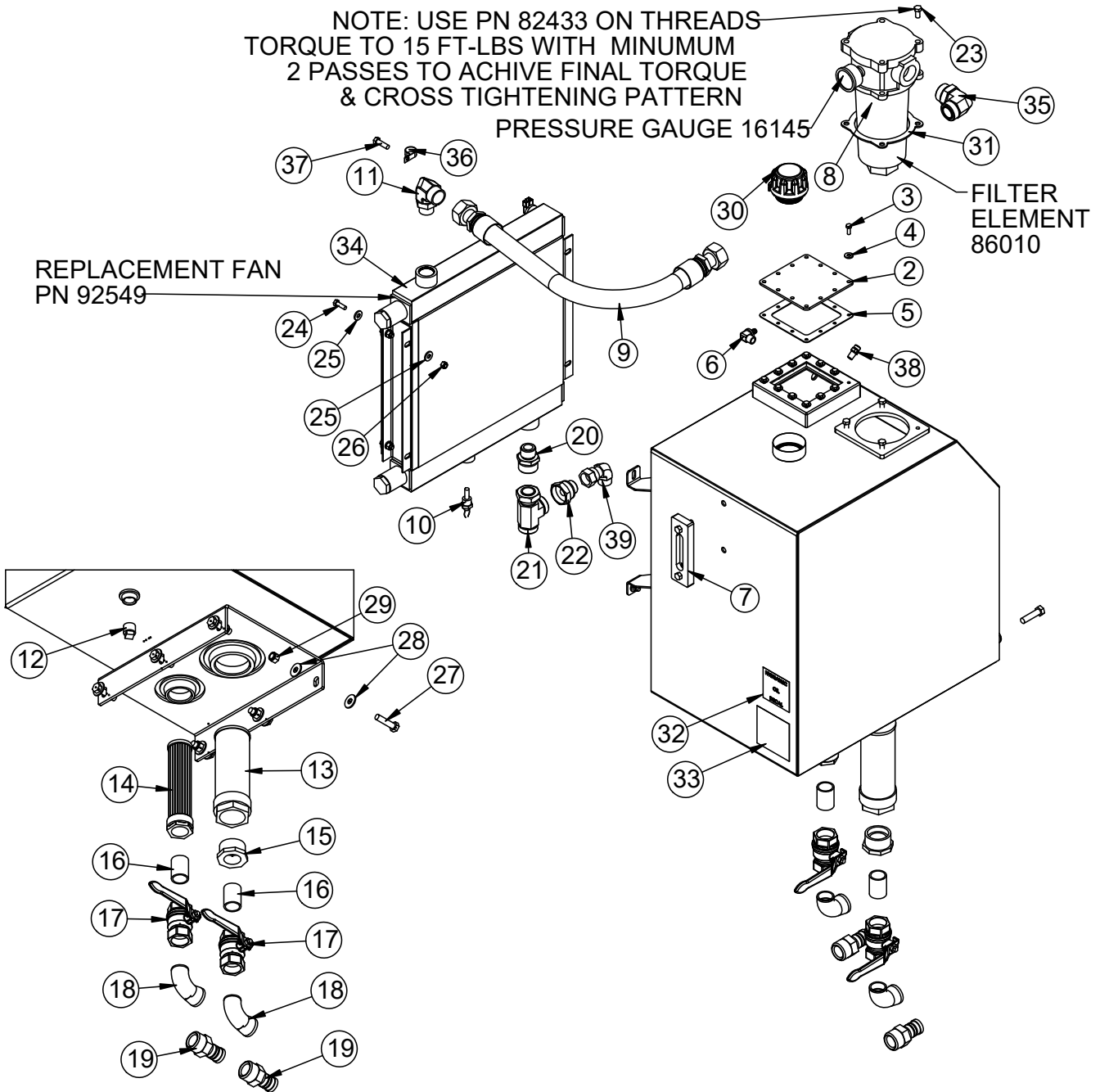
BUSHINGS INCLUDED IN 48384.

Reservoir Assembly - PN 86356

NOTE: USE PN 82433 ON THREADS
 TORQUE TO 15 FT-LBS WITH MINIMUM
 2 PASSES TO ACHIVE FINAL TORQUE
 & CROSS TIGHTENING PATTERN
 PRESSURE GAUGE 16145

REPLACEMENT FAN
 PN 92549

FILTER ELEMENT
 86010

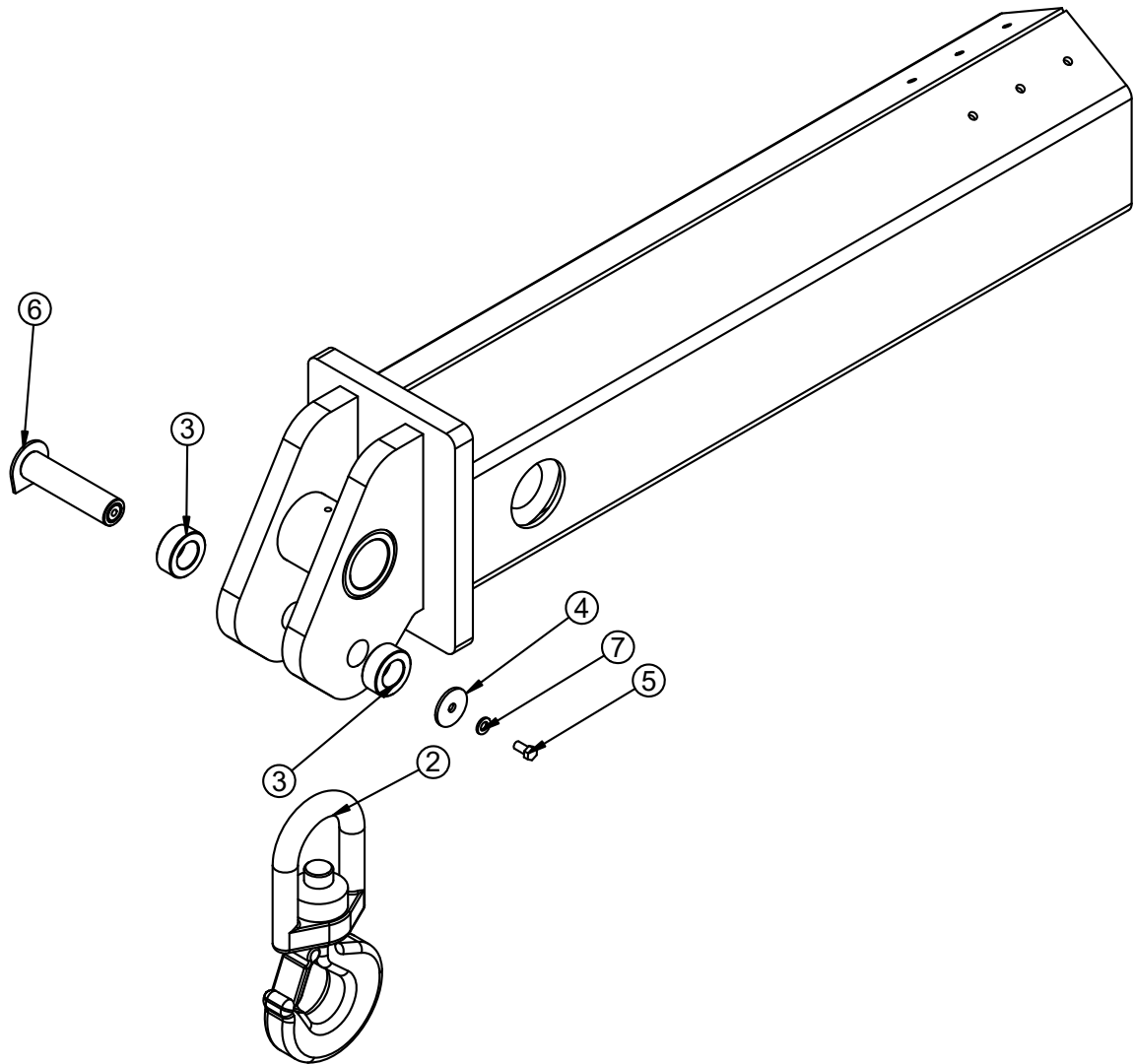


Reservoir Assembly - PN 86356 Parts List

PN 86356			
ITEM	PART	DESCRIPTION	QTY
1	86357	RSRVR 45 GAL V2 23/28	1
2	11442	PLATE COVER TANK HEATER FLANGE	1
3	0479	CAP SCR 0.25-20X0.75 HHGR5	12
4	0340	WASHER 0.25 USS FLAT	12
5	11149	GASKET ARCTIC FOX HEATER #A-611	1
6	71411	FTG HOSE 6-6 PL-MP 90 BRASS	1
7	15463	THERMO SIGHT GAUGE ZINGA SG-O5-A-T-N	1
8	85928	FILTER TANK TOP 20 FORB	1
9	47858	HOSE 1.25(881-JC-JC-20-20-20-26)	1
10	123756	SWITCH TEMP NC TT-F5B-170R-PD	1
11	51275	FTG 20-16 MFS-MAORB 90	1
12	C2126	PLUG 0.75 NPT SQ HD MAGNETIC	1
13	C6327	FILTER STRAINER 35GAL TF-2030	1
14	C5552	FILTER STRAINER TFS-1220-0	1
15	C4907	BUSHING 2.00X1.25 BLK	1
16	C1057	FTG 20-20XCLOSE MP-MP NIPPLE STRAIGHT BLK	2
17	C5511	VALVE BALL 1.25	2
18	C4694	ST EL 1.25 90 DEG BLK	2
19	C2282	FTG 1.25 NPT TO 1.25 BARB	2
20	19799	FTG 20-16 MFS-MORB STRAIGHT	1
21	64517	FTG 20-20-20 MFS-FFSS-MFS RUN TEE	1
22	73633	FTG 20-12 FFSS-MFS STRAIGHT	1
23	0492	CAP SCR 0.38-16X0.75 HHGR5	4
24	C0922	CAP SCR 0.31-18X1.00 HHGR5	4
25	0343	WASHER 0.31 USS FLAT	8
26	0342	NUT 0.31-18 HHGR5 NYLOC	4
27	0501	CAP SCR 0.50-13X2.00 HHGR5	6
28	0519	WASHER 0.44 USS FLAT	12
29	C6106	NUT 0.50-13 HHGR5 NYLOC	6
30	81018	CAP FILL NO RELIEF ZINGA THREADED	1
31	58396	GASKET RG-11 TANK TOP FILTER	1
32	13002	DECAL HYD OIL SPECIFICATION MOBIL	1
33	42971	DECAL OIL FILTER CHANGE	1
34	85790	COOLER OIL MAR-32	1
35	64276	FTG 20-20 MFS-MAORB 90	1
36	C5946	HOSE CLAMP #8 RUBBER COATED	2
37	0335	CAP SCR 0.38-16X1.25 HHGR5	2
38	D1942	FTG 4-4 MFS-MP STRAIGHT	1
39	C4903	FTG 12-12 MFS-FFSS 90	1

REV. E

Optional 15 Ton Hook Kit - PN 55138



PN 55138

ITEM	PART	DESCRIPTION	QTY
1	15388	EXT BOOM 28000	1
2	41499	HOOK 15 TON SWIVEL CROSBY 1028654	1
3	44069	COLLAR 1.78X3.00X1.19 PC BLACK	2
4	9142	PIN CAP 0.56X2.50X0.19 YZ	1
5	10172	CAP SCR 0.50-13X1.00 HHGR8 ZY	1
6	16028CR	PIN TEAR DROP 1.75X7.06 ZC	1
7	D0790	WASHER 0.50 FLAT GR8	1

REV. A

Radio Transmitter - PN 89149/93084

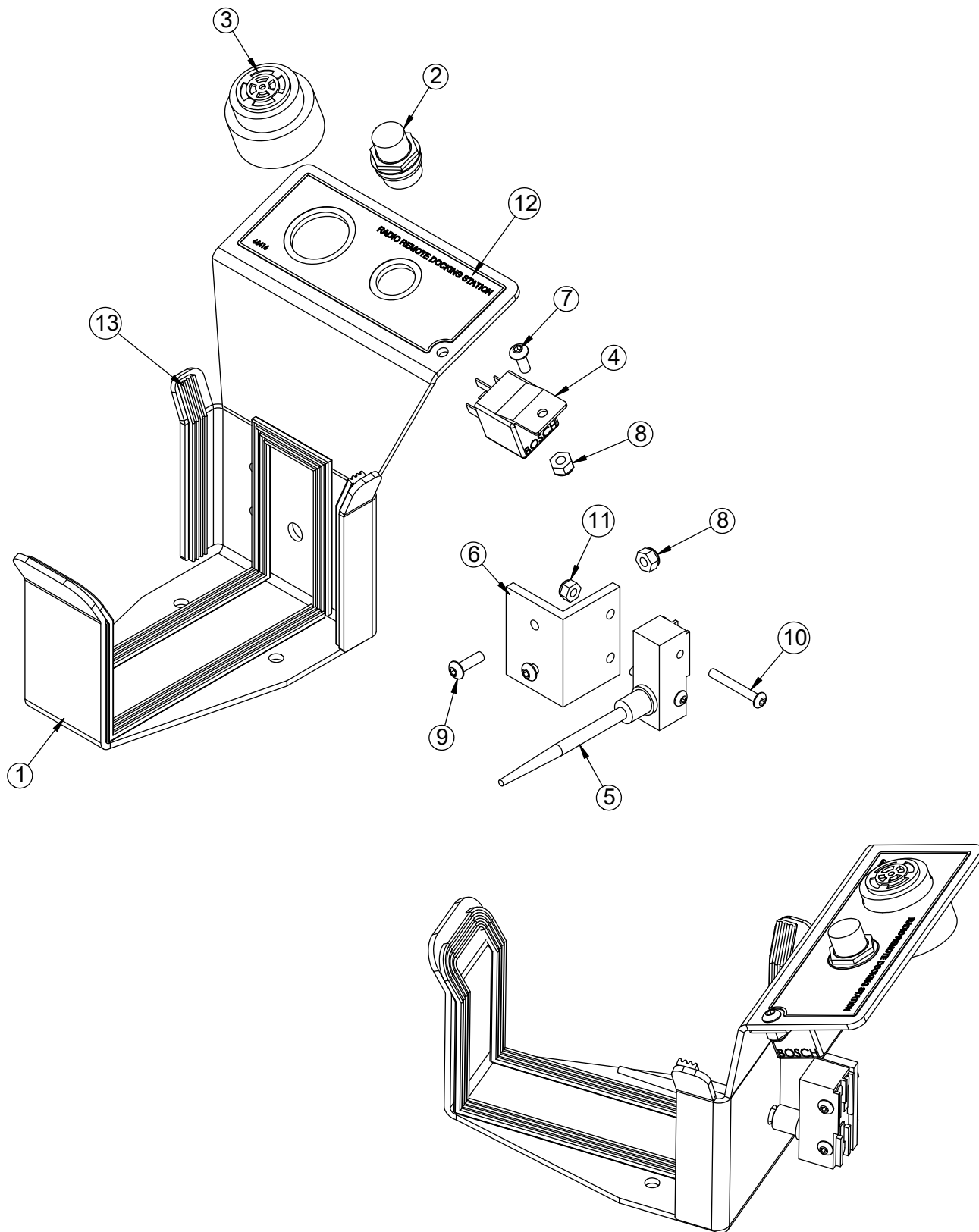


PN 89149/93084

ITEM	PART	DESCRIPTION	QTY
1	95026	2-WAY MOMENTARY TOGGLE SWITCH	1
2	95027	TOGGLE SWITCH RUBBER BOOT	3
3	95025	SWITCH PADDLE SCANRECO (LABEL KIT INCLUDED)	6
4*	89474	3-WAY MOMENTARY TOGGLE SWITCH	2
5	95030	E-STOP SWITCH	1
6	95028	PUSH BUTTON START SWITCH	1
7	95029	PUSH BUTTON SWITCH BOOT	1

* "OPTION" switch may or may not be active depending on factory settings; additional functionality dependent on user.

Transmitter Docking Station Asm (Opt.) - PN 97334



Transmitter Docking Station (Opt.) - PN 97334 Parts List

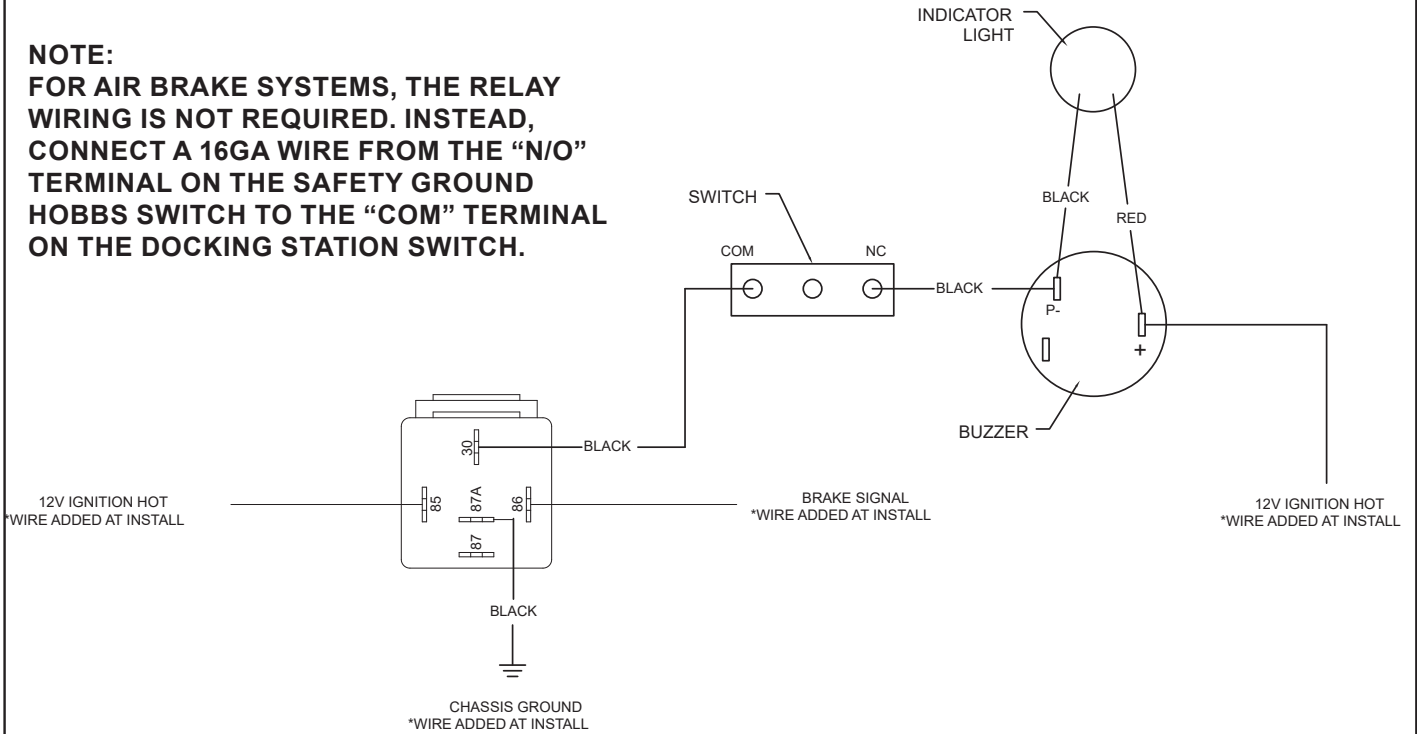
PN 97334			
ITEM	PART	DESCRIPTION	QTY
1	97470	BRKT RADIO STOW SCANRECO 89149/89150	1
2	26288	LIGHT INDICATOR RED FORCE PTO	1
3	26031	BACKUP ALARM PIEZO JAMECO 123537	1
4	C6072	RELAY BOSCH 20-30 AMP	1
5	66413	SWITCH SPRING ROD OMRON Z-15GNJ55	1
6	66411	ANGLE AL SWITCH MOUNT DOCK STATION HET NOVA	1
7	D1711	CAP SCR #10-24X0.50 BTNHD SS	1
8	C4956	NUT #10-24 HH NYLOC SS	3
9	59075	CAP SCR #10-24X0.63 BTNHD ZC	2
10	66412	SCREW #8-32X1.25 BTNHD SS	2
11	22186	NUT #8-32 HH NYLOC SS	2
12	66416	DECAL DOCKING STATION HET NOVA 41922	1
13	17162	WEATHERSTRIP RIBBED 0.38X0.13	3.5

PARTS NOT SHOWN		
PART	DESCRIPTION	QTY
65989	WIRING DIAGRAM DOCKING STATION 65984	1
C0072	TERML RING #10 16-14GA	6
C0080	TERML QC F 0.19 16-14GA 0.20 TAB FULLY INS	4
C2607	TERML QC PIGGYBK 0.25 16-14GA	1
C4689	WIRE 14GA (RM) RED SAE J-1128	1.5
C4691	WIRE 14GA (RM) BLACK SAE J-1128	3
C4860	DECAL BALLAST MSTR OPERATION	1

Wiring Diagram Docking Station - PN 65989

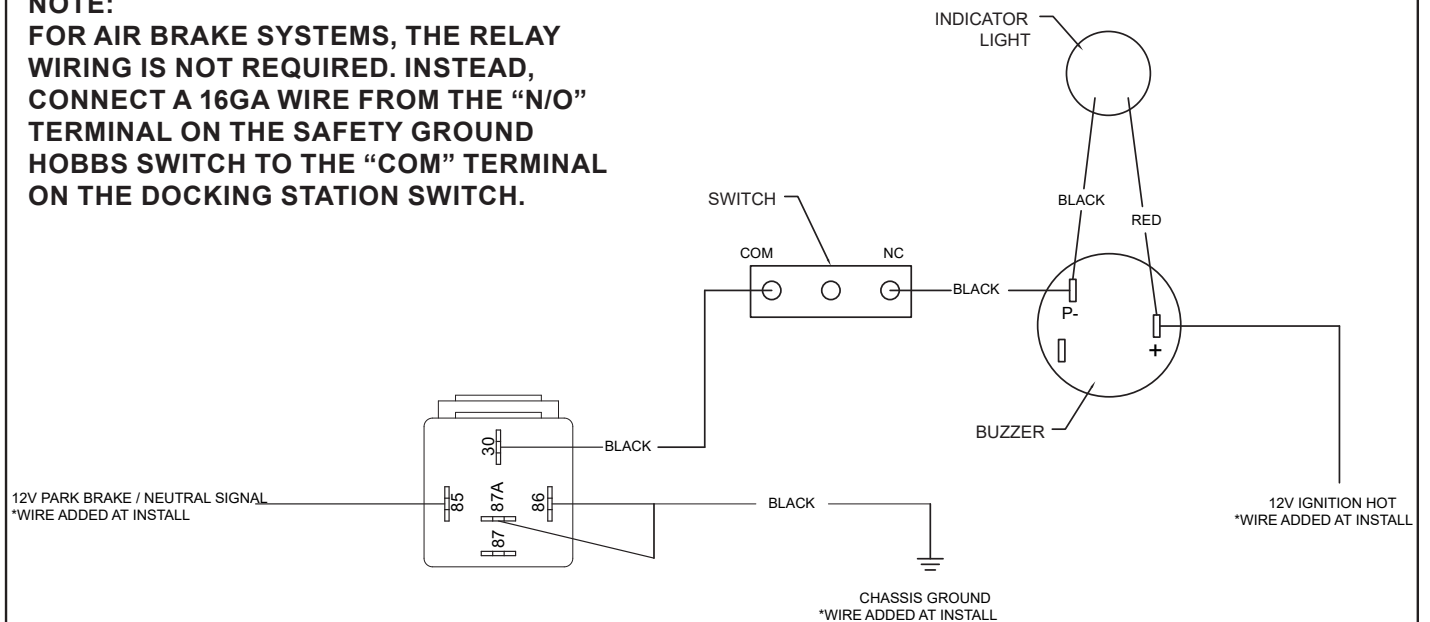
NEGATIVE BRAKE SIGNAL

NOTE:
FOR AIR BRAKE SYSTEMS, THE RELAY WIRING IS NOT REQUIRED. INSTEAD, CONNECT A 16GA WIRE FROM THE "N/O" TERMINAL ON THE SAFETY GROUND HOBBS SWITCH TO THE "COM" TERMINAL ON THE DOCKING STATION SWITCH.



POSITIVE BRAKE SIGNAL

NOTE:
FOR AIR BRAKE SYSTEMS, THE RELAY WIRING IS NOT REQUIRED. INSTEAD, CONNECT A 16GA WIRE FROM THE "N/O" TERMINAL ON THE SAFETY GROUND HOBBS SWITCH TO THE "COM" TERMINAL ON THE DOCKING STATION SWITCH.



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