
Manual # 99904532

IMT 6006i Technical Specifications & Parts

24v Model

Revised: July 19, 2018



IOWA MOLD TOOLING CO., INC.

PO Box 189

Garner, IA 50438

Tel: 641-923-3711 FAX: 641-923-2424

Website: <http://www.imt.com>

Copyright © 2018 Iowa Mold Tooling Co., Inc.
All rights reserved

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Iowa Mold Tooling Co., Inc.

Iowa Mold Tooling Co., Inc. is an Oshkosh Corporation Company.



WARNING

Operating, servicing and maintaining this vehicle or equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle or equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing. For more information go to www.P65Warnings.ca.gov

70490167

Contents

Revisions	iii
-----------------	-----

Electric Crane Introduction	5
------------------------------------	----------

Technical Specifications	7
---------------------------------	----------

6006i Technical Data	7
6006i Capacity Chart	9
Geometric Configuration	10
24V Pump & Motor Performance	11

Crane Reference	13
------------------------	-----------

Assemblies & Grease Zerk Locations.....	13
6006i Recommended Spare Parts List	14
General Body Installation (99904563).....	16
IMT-Manufactured Body Installation (99904525)	20
Telescopic Crane Orientation	28
Electric Crane Control	28

Parts	29
--------------	-----------

Parts Information	30
Electric Crane Power Safety	32
Base & Mast Assembly (99904454).....	33
Valve Bank (73734375).....	36
Cylinder, Lower (51721396)	37
Boom Assembly (99904335)	39
Light Kit (99906235)	45
99906235-1	46
99906235-2	47
99906235-3	48
Cylinder, Extension (51721386)	49
2018 Crane & Winch Assembly (99904456).....	51
99904456-1	52
99904456-2	53
99904456 Complete Parts List.....	54
Crane & Winch Assembly (99904456) Effective: 2-9-17	56
99904456 Parts List	60

Cord Reel-6.7m, Electric 2-Wire (70735052) Effective: 2-9-17	62
Cord Reel Assembly, 10'5" W/Packard Connector (51727065) Effective 2-9-17	63
Crane & Winch Assembly (99904456).....	64
Winch (71570911)	69
Power Unit (73511181)	70
Electrical Installation (99904457).....	71
Protective Sleeve Installation (70034573)	73
275-Amp Contactor Replacement (99904578)	74
Controls Installation (99904377)	75
Harness, Radio (77441270)	77
Harness, Tethered (77441269).....	79
Handle Assembly, Tethered (51721502)	80
Hydraulic Installation (99904458) Effective 5-18-15.....	83
6006i Decal Installation (95721549).....	97

General Reference	99
--------------------------	-----------

Inspection Checklist.....	99
Deficiency / Recommendation / Corrective Action Report	104
Thread Torque Chart (English).....	106
Thread Torque Chart (Metric)	107
Turntable Bearing Thread Tightening Sequence	108
Turntable Bearing Inspection for Replacement	109

Revisions

DATE	LOCATION	DESCRIPTION
20081229	THROUGHOUT	ECN 10924 - CHANGED DRAWINGS 99904454, 99904456, 99904335, 99904458, 99904457 PER PRE-PRODUCTION UPDATES.
20090217	99904454, 99904456, 99904578	ECN 10945 - CONTACTOR SWITCH CHANGE
20090526	99904457	ECN 11033 – ADDED RUBBER BOOTS.
20140909	GREASING INSTRUCTIONS	ECN 12264 – MOLUB-ALLOY 882 WAS MOLUB-ALLOY 936
20151110	99904457	ECN 11829-1 REMOVED 51721719 AND REPLACED IT WITH 51721718 QTY 2
20160517	70397493	ECN12393-UPDATED CAPACITY CHART
20160525	99904458	ECN12443-UPDATED HYDRAULIC DRAWINGS.
20170209	99904336 51727065 70735052	CN310-UPDATED BOM AND DRAWING CHANGES.
20171031	70034573	CN696-Added Protective Sleeve Installation Instructions.
20180223	99904335	CN779-REPLACED PIN SIZE
20180612		Updated Electrical information per Toni Kohler
20180618		Changed GVWR from 10,500 to 18,000.
20180719	95721549	CN825

CHAPTER 1

Electric Crane Introduction

This volume deals with information applicable to your particular crane. For operating, maintenance and repair instructions, refer to IMT Electric Cranes Operation & Safety (IMT part number 99904381.)

We recommend that this volume be kept in a safe place in the office.

This manual is provided to assist you with ordering parts for your IMT crane. It also contains additional instructions regarding your particular installation.

It is the user's responsibility to maintain and operate this unit in a manner that will result in the safest working conditions possible.

Warranty of this unit will be void on any part of the unit subjected to misuse due to overloading, abuse, lack of maintenance and unauthorized modifications. No warranty - verbal, written or implied - other than the official, published IMT new machinery and equipment warranty will be valid with this unit. In addition, it is also the user's responsibility to be aware of existing Federal, State and Local codes and regulations governing the safe use and maintenance of this unit. This 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.

Throughout the manual, NOTES, CAUTIONS and WARNINGS are used to draw the attention of personnel. They are defined as follows:

NOTE

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

⚠ CAUTION

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

⚠ WARNING

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

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

CHAPTER 2

Technical Specifications

In This Chapter

6006i Technical Data.....	7
6006i Capacity Chart.....	9
Geometric Configuration.....	10
24V Pump & Motor Performance.....	11

6006i Technical Data

GENERAL SPECIFICATIONS

MAXIMUM CRANE CAPACITY	6000 lb (2720 kg)
MAXIMUM HORIZONTAL REACH (from centerline of rotation)	22'-0" (6.7 m)
HYDRAULIC EXTENSION (1)	72" (183 cm)
MANUAL EXTENSION (1)	72" (183 cm)
LIFTING HEIGHT (from base of crane to centerline of sheave)	23'-6" (7.2 m)
CRANE WEIGHT (1H1M)	1450 lb (660 kg)
CRANE STORAGE HEIGHT	37.5" (100 cm)
MOUNTING SPACE REQUIRED (crane base)	18" x 18" (45.7 cm x 45.7 cm)
HYDRAULIC SYSTEM OPERATING PRESSURE	2500 psi (172 bar)
MAXIMUM HYDRAULIC FLOW	2.6 gpm
OIL RESERVOIR CAPACITY	1.5 gallons (5.7 l)
OIL TYPE	ISO VG32, low pour, anti-wear hydraulic oil
CENTER OF GRAVITY	
- HORIZONTAL FROM CENTERLINE OF ROTATION (BOOMS RETRACTED)	33" (84 cm)
- HORIZONTAL FROM CENTERLINE OF ROTATION (BOOMS EXTENDED)	65.5" (166 cm)
- VERTICAL FROM BOTTOM OF CRANE BASE	18" (45.7 cm)
TIE-DOWN BOLT PATTERN (on center)	14.75" x 14.75" (37.5 cm x 37.5 cm)
ROTATION TORQUE	4000 ft-lb

CYLINDER SPECIFICATIONS

LOWER BOOM CYLINDER	4.5" bore, 21.43" stroke (11.4 cm bore, 54.4 cm stroke)
EXTENSION BOOM CYLINDER	2.5" bore; 72" stroke (6.4 cm bore; 183 cm stroke)

WINCH SPECIFICATIONS

FIRST WRAP LINE SPEED	11.5 ft/min (3.5 m/min)
THIRD WRAP LINE SPEED	14 ft/min (4.3 m/min)
ROPE DIAMETER	3/8" (9.6 mm)
WIRE ROPE LENGTH	80' (24.3 m)
CABLE BREAKING STRENGTH	15,100 lb (6,850 kg)

PERFORMANCE CHARACTERISTICS

ROTATION	Continuous 360° (6.28 rad)
LOWER BOOM ELEVATION	-5° to +75° (-0.1 to +1.3 rad)
EXTENSION CYLINDER	72" (1.8 m)

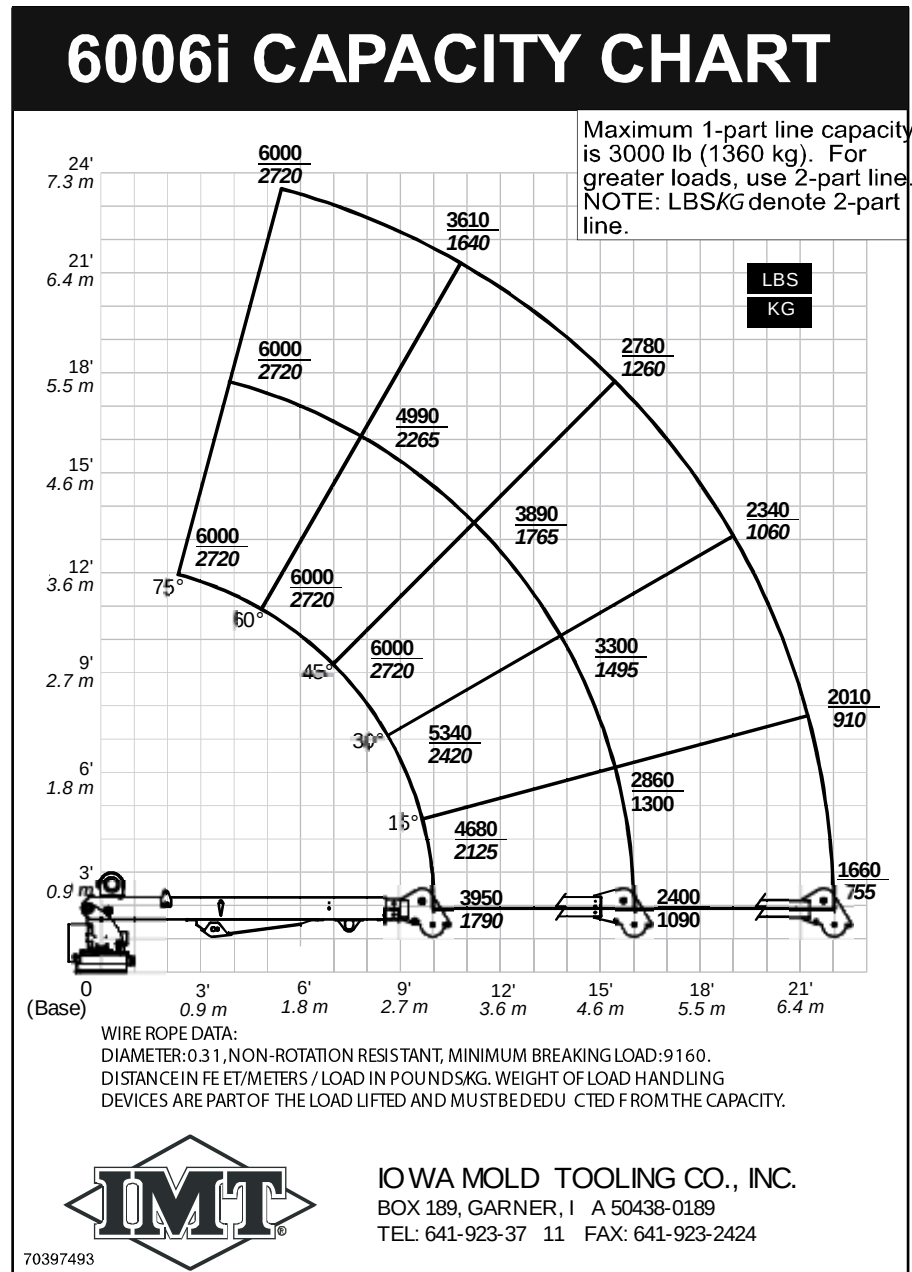
CHASSIS REQUIREMENTS

GVWR	18,000 lb (8165 kg) (Minimum)
------	-------------------------------

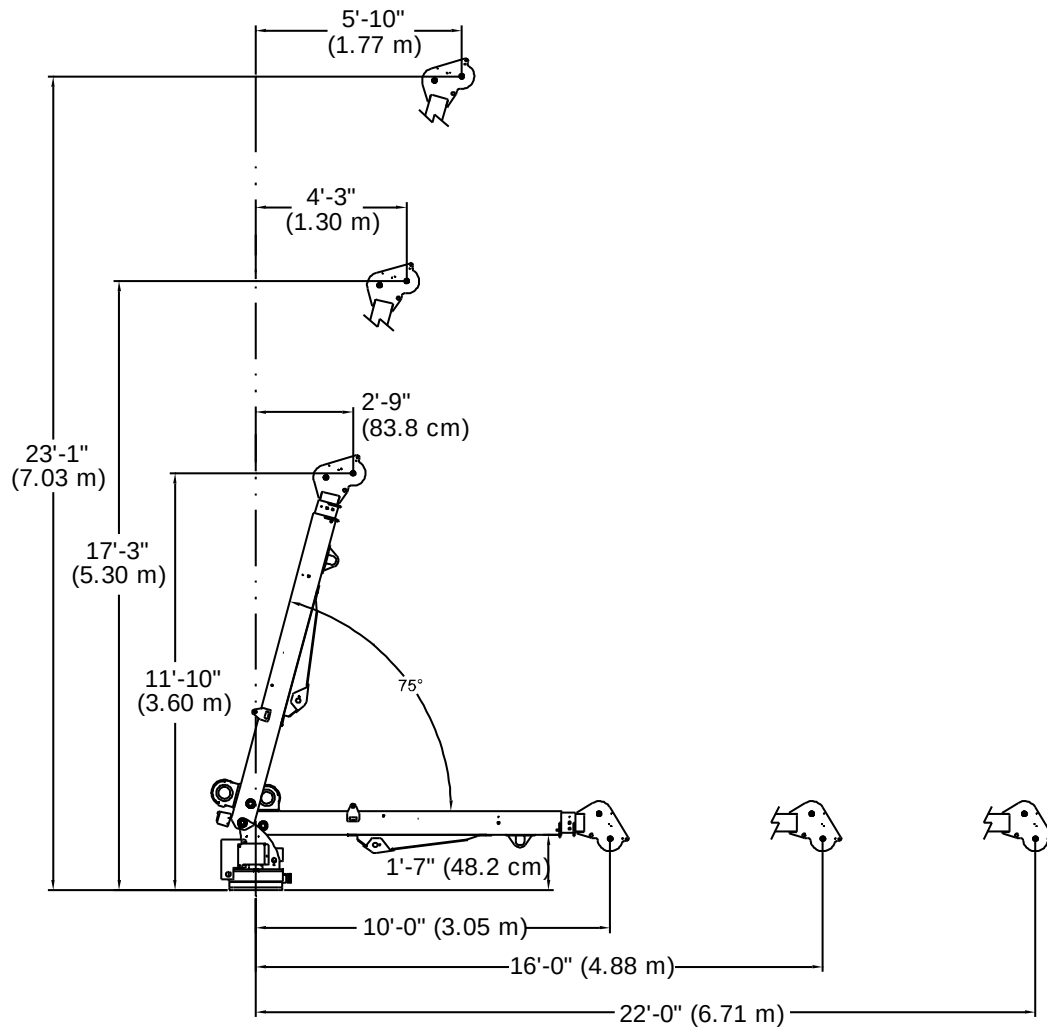
ELECTRICAL REQUIREMENTS

System Voltage	24 Volts
Battery	*Minimum of 4 identical 12V batteries.
	750 CCA MIN per battery.
	Must meet chassis manufacturer's specifications.
	Batteries must be fully charged prior to use.
Alternator	200 Amperes (MIN)
Engine	Running at idle speed.
	Elevated RPM required if additional high amperage draw systems will be in use while crane is being operated.
Duty Cycle	Duty cycle and absolute continuous on-time according to the crane user manual.
	Winch is not operated simultaneously with any other function.
*Two-sets of two-series connected batteries in parallel.	

6006i Capacity Chart

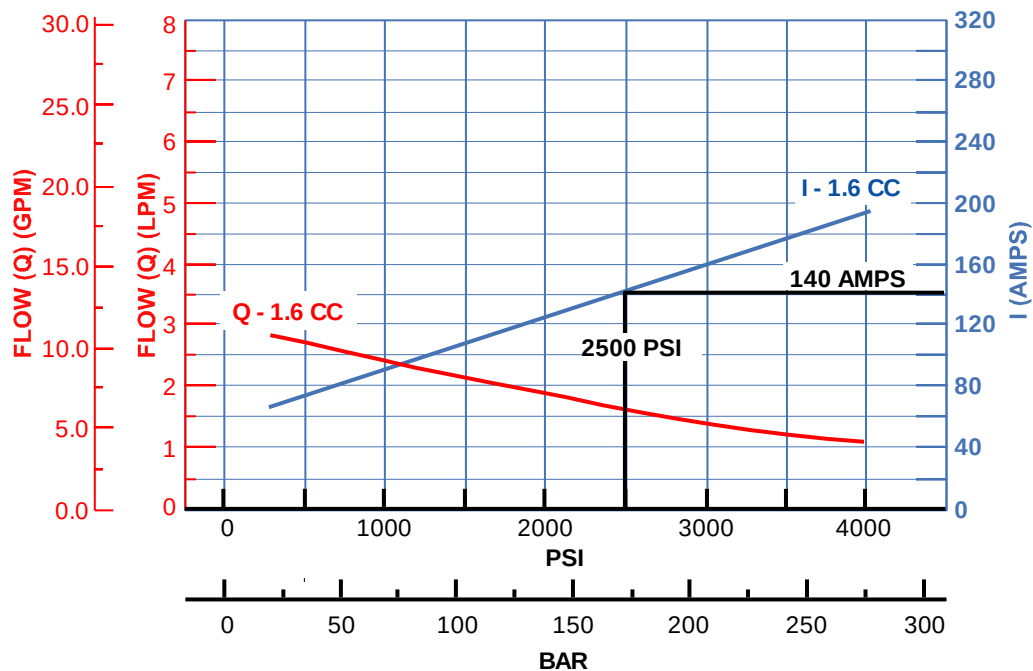


Geometric Configuration



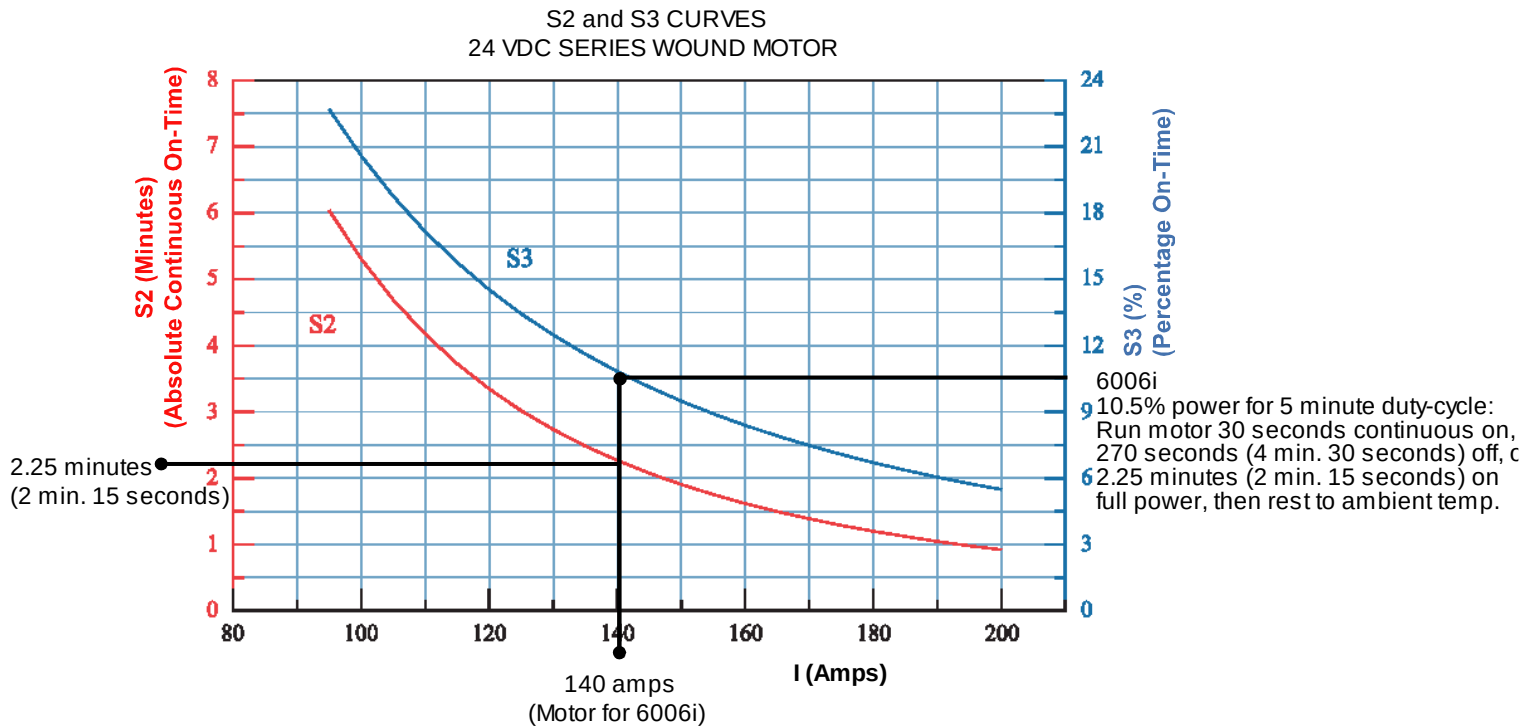
24V Pump & Motor Performance

The 24V Powerpack Motor for the 6006i crane cannot be run continuously without serious motor damage. The 6006i pump has a **maximum** duty cycle of 2 minutes and 15 seconds (135 seconds) which must be followed by cool-down to ambient temperature. It can be run intermittently according to the following charts.



CAUTION

Avoid motor damage! Operate within performance curves shown.



The five-minute duty cycle must be adhered to. Operators have a choice of running the crane intermittently all day, using the duty cycles per the S2 and S3 curves, or at full power for 2 minutes 15 seconds, which **MUST** be followed by a complete cool-down to ambient.

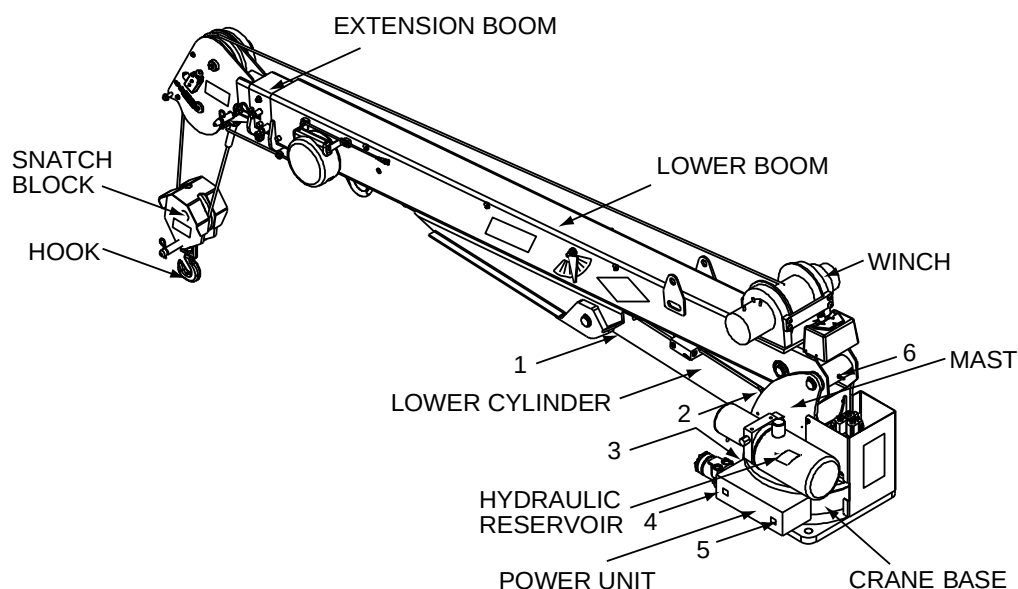
CHAPTER 3

Crane Reference

In This Chapter

Assemblies & Grease Zerk Locations	13
6006i Recommended Spare Parts List	14
General Body Installation (99904563)	16
IMT-Manufactured Body Installation (99904525)	19
Telescopic Crane Orientation	28
Electric Crane Control	28

Assemblies & Grease Zerk Locations



ITEM	LOCATION DESCRIPTION	LUBRICANT	FREQUENCY
1.	Lower Cylinder Rod	Shell Alvania 2EP or Shell Retinax "A"	Weekly
2.	Lower Cylinder Base		
3.	Gear Rotator Grease Extension *Rotate crane while greasing.		
4.	Power Unit		
5.	Power Unit		
6.	Lower Boom Pin		

NOTE: All application points must be greased weekly under normal workloads and moderate weather conditions. Under severe operating conditions, lubricate more frequently. See the IMT Electric Crane Operation & Safety manual for additional lubrication requirements.

6006i Recommended Spare Parts List

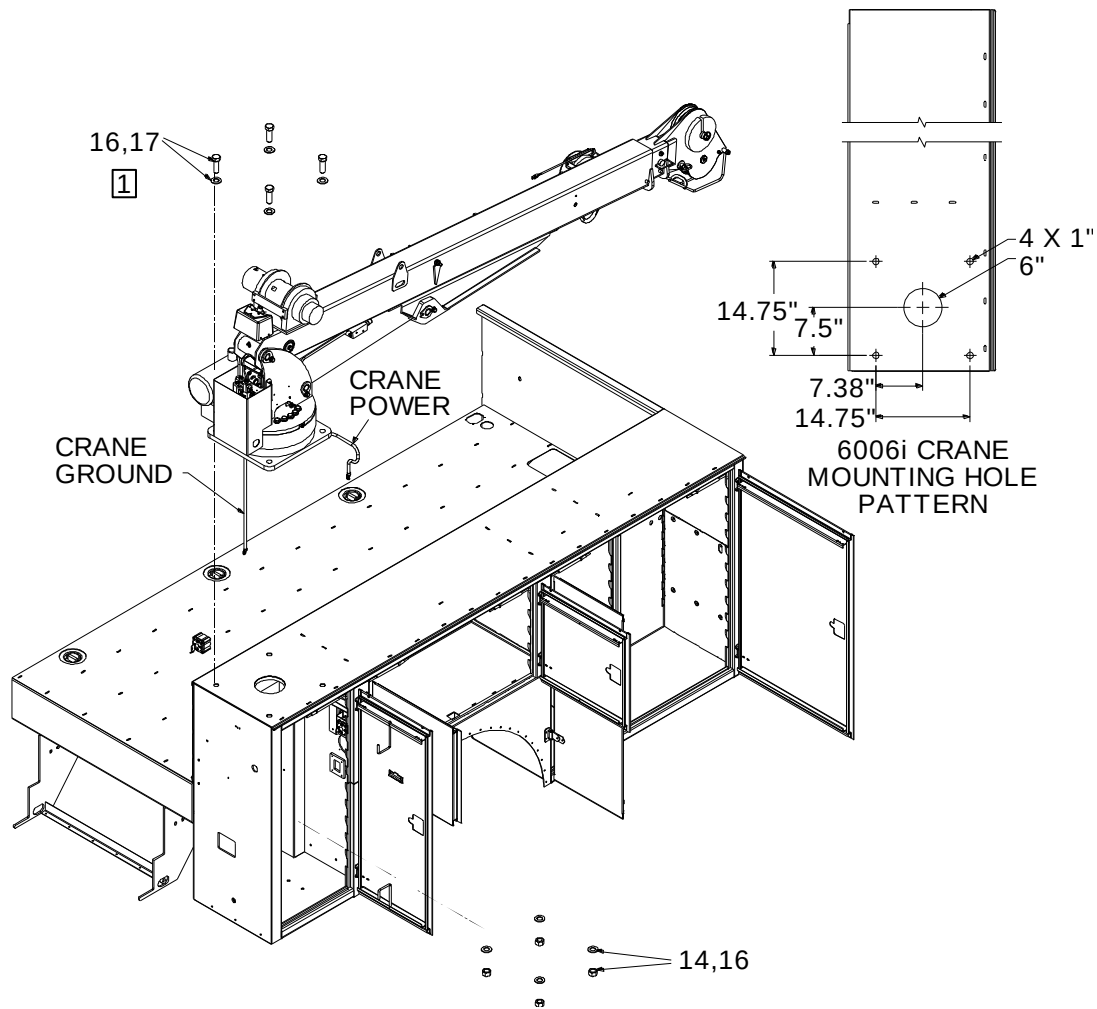
This parts list is intended to provide the user with a stock of parts sufficient to keep the unit operating with the minimal down-time waiting for parts, but it does not indicate these items will fail within a year. In addition, there may be parts failures not covered by this list. Parts not listed are considered as not being Critical or Normal Wear items during the first year of operations and you need to contact the distributor or manufacturer for availability.

Part Number	Description	Quantity
51721396 Lower Cylinder		
9D181823	SEAL KIT	1
6ID45143	PISTON	1
6HD45022	HEAD	1
73054999	VALVE-COUNTERBALANCE	1
77041786	SWITCH-PRESS 2750 psi	1
51721386 Extension Cylinder		
51744143	SEAL KIT	1
6HD25015	HEAD	1
60127830	PISTON	1
73054999	VALVE	1
99904454 Base & Mast Assembly		
60118032	CABLE CONNECTOR MODIFICATION	1
72060173	CAP SCREW .62-11X 3.75 HH	18
73051513	MOTOR-HYDRAULIC	1
76039295	GASKET-GEAR	1
77441277	SWITCH- 275A CONTACTOR	1
77441281	CABLE CONNECTOR-FEMALE	1
77441285	TERM RING INSULATED 3/8 STUD	1
72060178	CAP SCREW .62-11X 4.00 HEX HEAD GRADE 8 ZINC	15
73734375 Valve Bank		
77040527	COIL (VALVE BANK)	3
73540336	VALVE ASSEMBLY (VALVE & COIL)	6
73511181 Power Unit		
73397391	BREATHING CAP	1
73511170	PUMP-GEAR 5005/6006i ELECTRIC CRANE	1
73540323	VALVE-RELIEF ELECTRIC CRANE	1
73734332	KIT-TUBE POWER UNIT ELECTRIC CRANE	1
74397392	RESERVOIR TANK ELECTRIC CRANE	1
77043061	MOTOR-POWER UNIT ELECTRIC CRANE, 24V	1
99904335 Boom Assembly		
60030380	WEAR PAD- EXTENSION CYLINDER	1
60030339	WEAR PAD-ROUND 2.00 DIA X .60 DIA X 1.00 LG	6
60030340	WEAR PAD-BLOCK 4.50 X 4.50 X .44	2

Part Number	Description	Quantity
60030341	WEAR PAD-BLOCK 4.50 X 3.50 X .44	2
60133062	WEAR PAD-ROUND 1.00 DIA X .62 DIA X .81L	2
60132302	STOP SCREW 3/8-24 X .50	2
72661514	PIN-LOCK W/HANDLE .875 X 4.25	1
70144211	PIN- .75X 6.50 LONG	1
99904456 Crane & Winch Assembly		
51720302	CORD REEL ASSEMBLY	1
70580182	WIRE ROPE ASSEMBLY	1
71413196	SPRING-.105WIRE 0.75OD 2.875 LG	1
72601798	WASHER-LOCK 12MM	4
72601935	CAP SCREW M12-1.75X 40 SOCKET-HEAD PLAIN	4
72601938	BOLT-EYE # 8-32X .75	1
77041459	SWITCH-LIMIT	1
77441096	CONNECTOR- .50 STRAIN RELIEF .25-.38	1

General Body Installation (99904563)

Note: The installation procedure shown on 99904563 is a general installation procedure for the 6006i crane on any manufacturer's body. For specific installation instructions for an IMT Dominator I or Dominator II body, see 99904525.

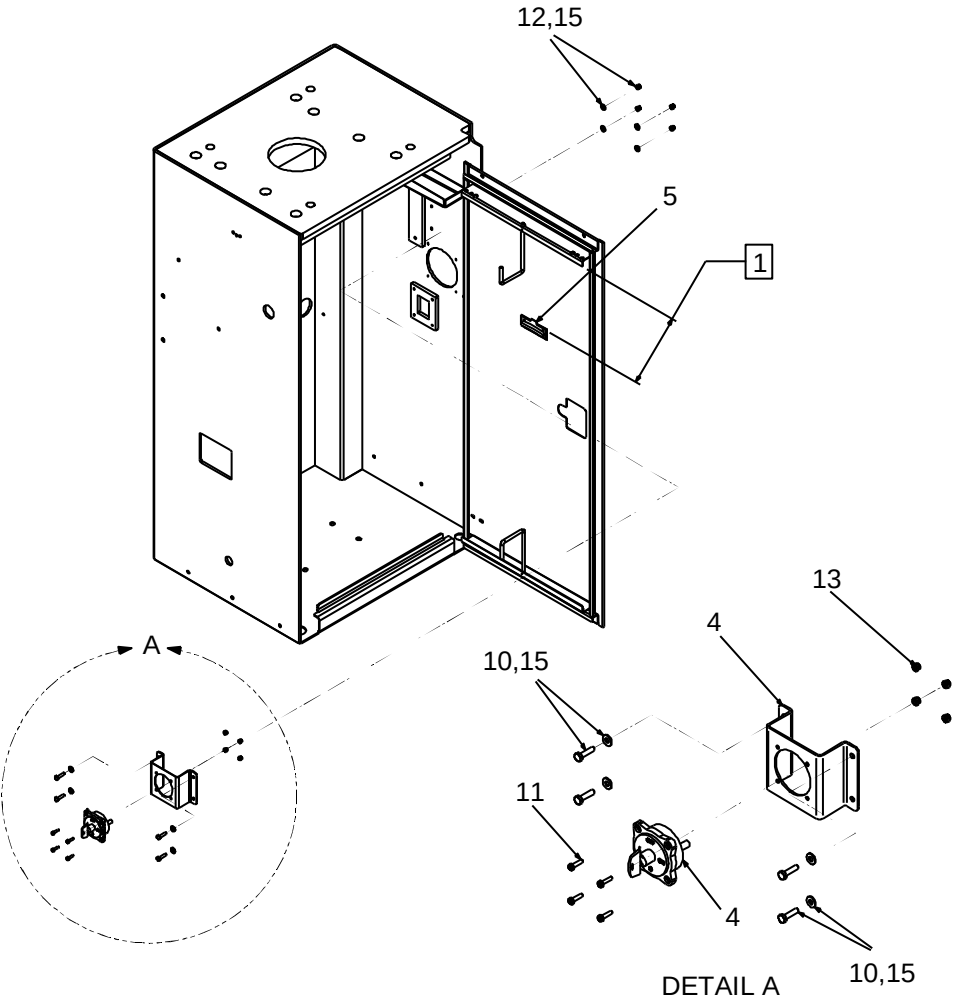


NOTE (SEE REFERENCE NUMBER IN BOX):

- 1 FOR 1" SAE HARDWARE, TORQUE TO 680 FT-LB.
- 2 INSTALL CHASSIS GROUND KIT PER SUPPLIED INSTRUCTIONS.

99904563 CRANE INSTALLATION PARTS				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
14.	72062268	NUT 1.00- 8 HEX CENTER LOCK	#1	4
16.	72063066	WASHER 1.00 FLAT HI STR	#1	8
17.	72601621	CAP SCREW 1.00- 8X 3.00 HH GR8 Z	#1	4
NEW 20081231				

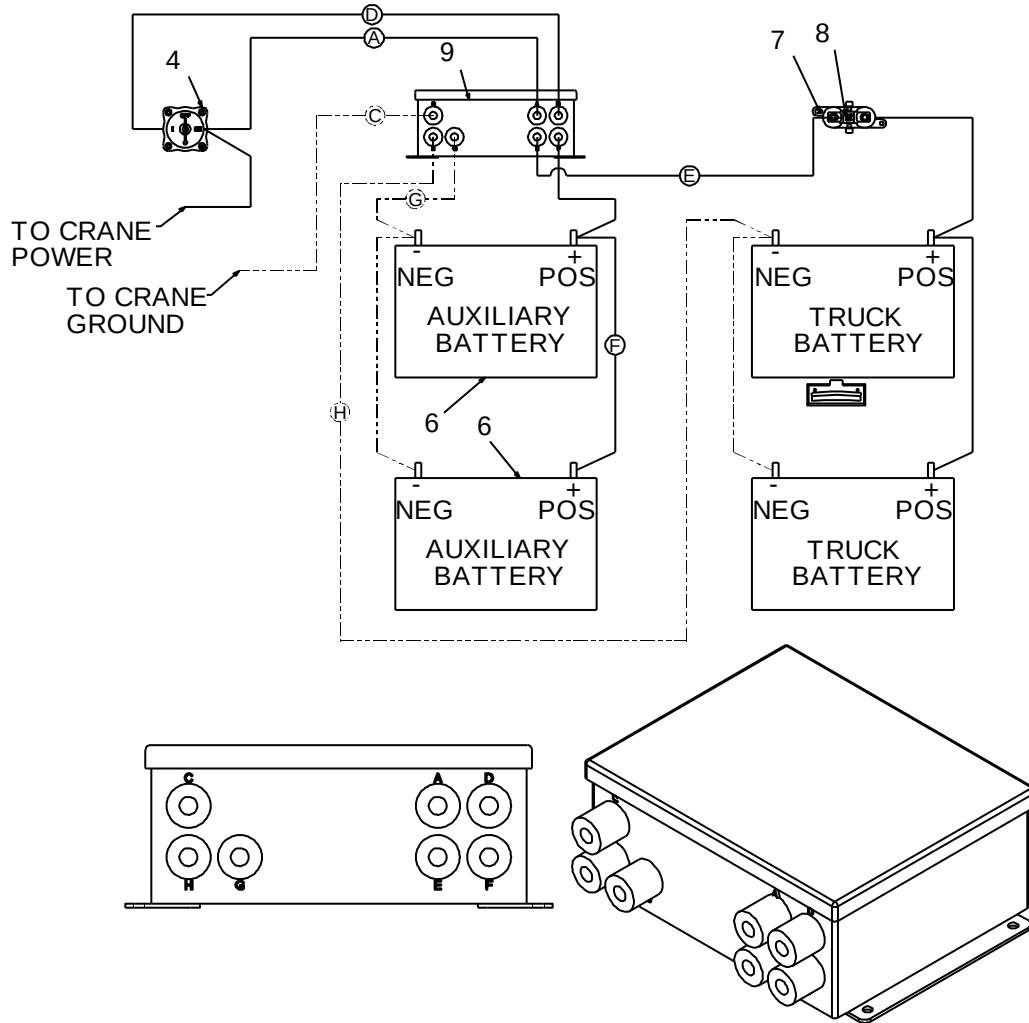
SWITCH INSTALLATION



NOTE (SEE REFERENCE NUMBER IN BOX):

- 1 INSTALL THE LEVEL INDICATOR PARALLEL TO DOOR REINFORCEMENT.

99904563 SWITCH INSTALLATION PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
4.	70734331	SWITCH-300A KEYED BATTERY DISCONNECT		2
4.	60251272	BRACKET-SWITCH 300 AMP ELEC CRANE		1
5.	72042097	LEVEL INDICATOR LEVEL		1
10.	72060004	CAP SCREW .25-20X 1.00 HH GR5 Z	#1	4
11.	72060636	SCREW-MACH #10-24X .75 RDH PH ZINC	#1	4
12.	72062104	NUT .25-20 HEX NYLOCK	#1	4
13.	72062106	NUT 10-24 HEX NYLOCK	#1	4
15.	72063001	WASHER .25 FLAT	#1	8
NEW 20081224				

ELECTRICAL SCHEMATIC**NOTES:**

- 1 TRUCK AND AUXILIARY BATTERIES MUST BE IDENTICAL 12V 1,000 CCA.
- 2 HEAT SHRINK ALL CABLE ENDS: RED (POSITIVE +), BLACK (NEGATIVE -)
- 3 WRAP CABLES WHICH PASS THROUGH EXPOSED SHEET METAL WITH LOOM.
- 4 INSTALL CHASSIS GROUND PER SUPPLIED INSTRUCTIONS.

WIRE	CIRCUIT	WIRE DESCRIPTION
C	POWER UNIT MOTOR GROUND	#1 CABLE, 2-FT LONG, BLACK 3/8-RING TERMINAL
H	TRUCK BATTERY GROUND	#1 CABLE, 2-FT LONG, BLACK 3/8-RING TERMINAL
G	AUXILIARY BATTERY GROUND	#1 CABLE, 2-FT LONG, BLACK 3/8-RING TERMINAL
A	ON-OFF SWITCH (CRANE SIDE)	14 GA WIRE, 2-FT LONG, WHITE 3/8-RING TERMINAL
E	TRUCK BATTERY POSITIVE	#1 CABLE, 2-FT LONG, RED 3/8-RING TERMINAL
F	AUXILIARY BATTERY POSITIVE	#1 CABLE, 2-FT LONG, RED 3/8-RING TERMINAL
D	ON-OFF SWITCH POSITIVE	#1 CABLE, 2-FT LONG, RED 3/8 RING TERMINAL

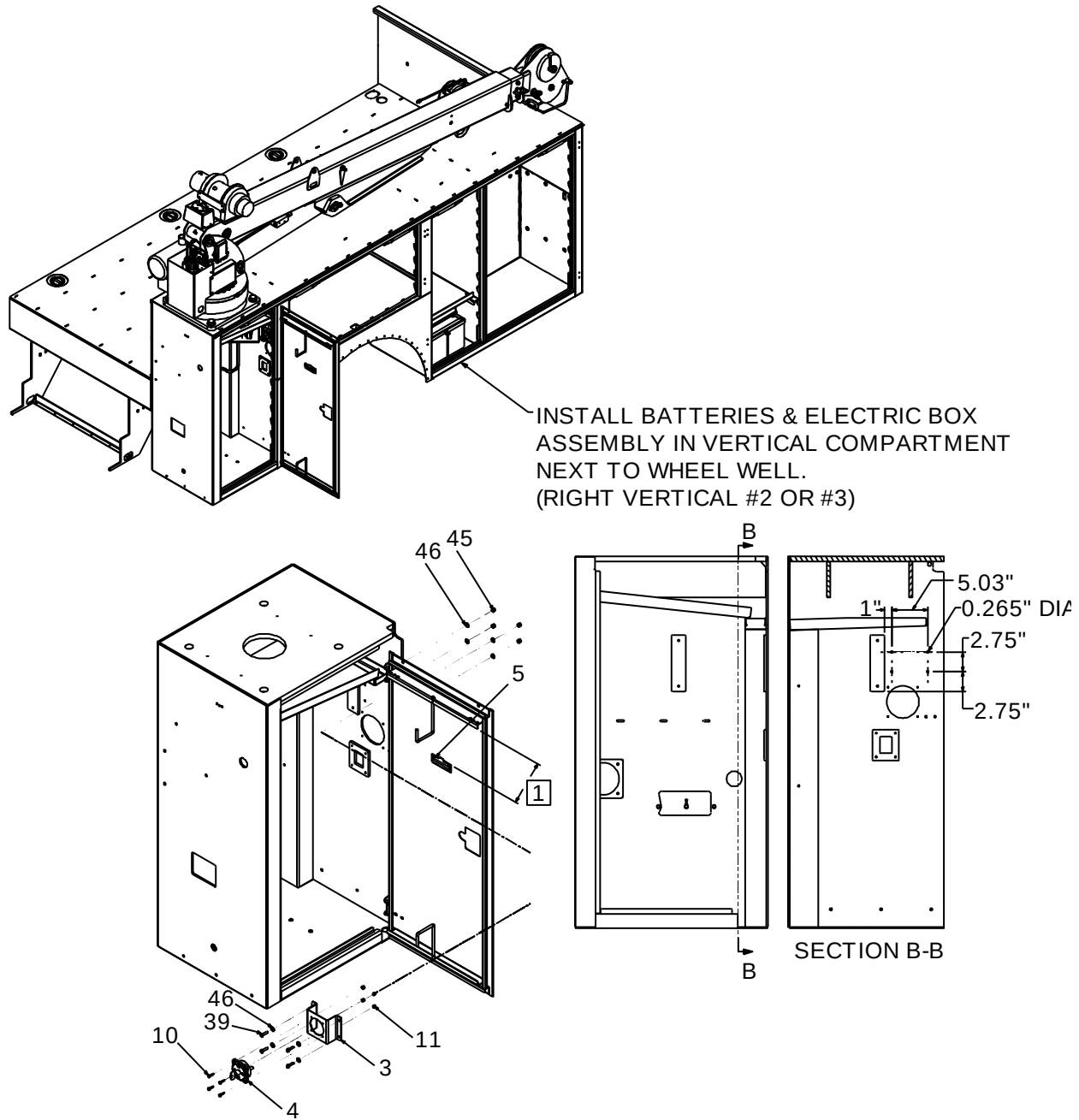
ELECTRICAL SCHEMATIC (99904563) PART LIST			
ITEM	PART #	DESCRIPTION	QUANTITY
4.	70734331	SWITCH-300A KEYED BATTERY DISCONNECT	2
6.	77042108	BATTERY-12V 1000CCA	4
7.	77441116	FUSEHOLDER-HIGH AMP2 BOLT WITH COVER	1
8.	77441219	FUSE-AMG-225 AMP	1
9.	77441317	ELEC BOX ASM-6006I 24V PWR UNIT	1
NEW 20081230			

99904563 PARTS LIST, COMPLETE				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	91722058	KIT-HARDWARE 6006i ELEC CRANE MNT		1
2.	51716427	KIT-CHASSIS GROUND CABLE W/HARDWARE		1
3.	99904456	DRAWING-CRANE & WINCH 6006I		REF
4.	70734331	SWITCH-300A KEYED BATTERY DISCONNECT		2
4.	60251272	BRACKET-SWITCH 300 AMP ELEC CRANE		1
5.	72042097	LEVEL INDICATOR LEVEL		1
6.	77042108	BATTERY-12V 1000CCA		4
7.	77441116	FUSEHOLDER-HIGH AMP2 BOLT WITH COVER		1
8.	77441219	FUSE-AMG-225 AMP		1
9.	77441317	ELEC BOX ASM-6006I 24V PWR UNIT		1
10.	72060004	CAP SCREW .25-20X 1.00 HH GR5 Z	#1	4
11.	72060636	SCREW-MACH #10-24X .75 RDH PH ZINC	#1	4
12.	72062104	NUT .25-20 HEX NYLOCK	#1	4
13.	72062106	NUT 10-24 HEX NYLOCK	#1	4
14.	72062268	NUT 1.00- 8 HEX CENTER LOCK	#1	4
15.	72063001	WASHER .25 FLAT	#1	8
16.	72063066	WASHER 1.00 FLAT HI STR	#1	8
17.	72601621	CAP SCREW 1.00- 8X 3.00 HH GR8 Z	#1	4
NEW 20081224				

IMT-Manufactured Body Installation (99904525)

Note: The installation procedure shown on 99904525 is specific for an IMT Dominator I or Dominator II body. For general installation instructions for a generic body, see 99904363.

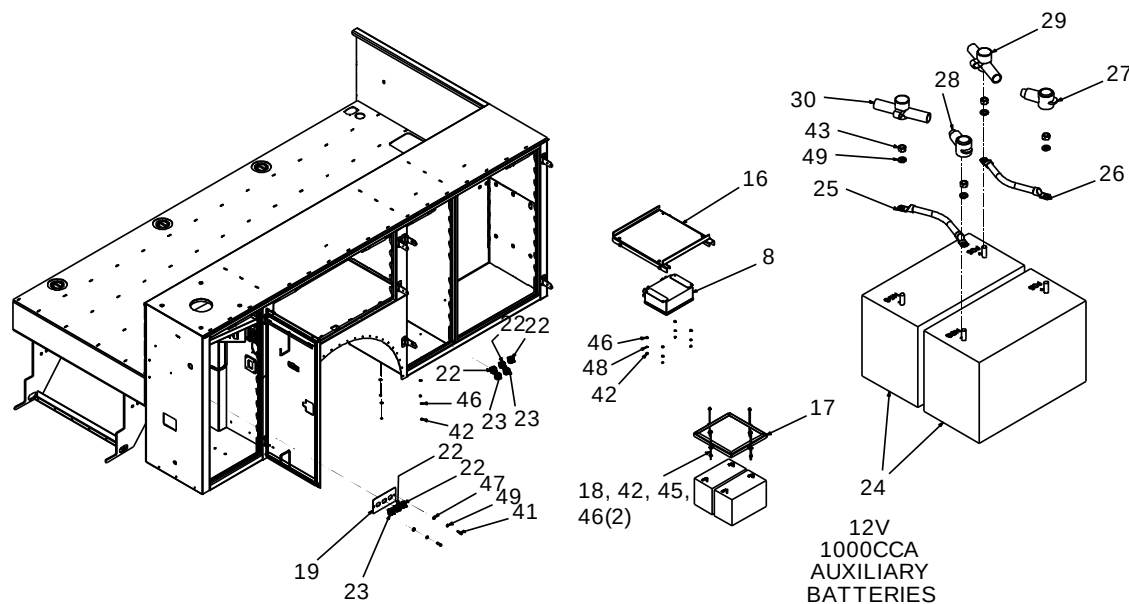
SWITCH INSTALLATION



NOTES:

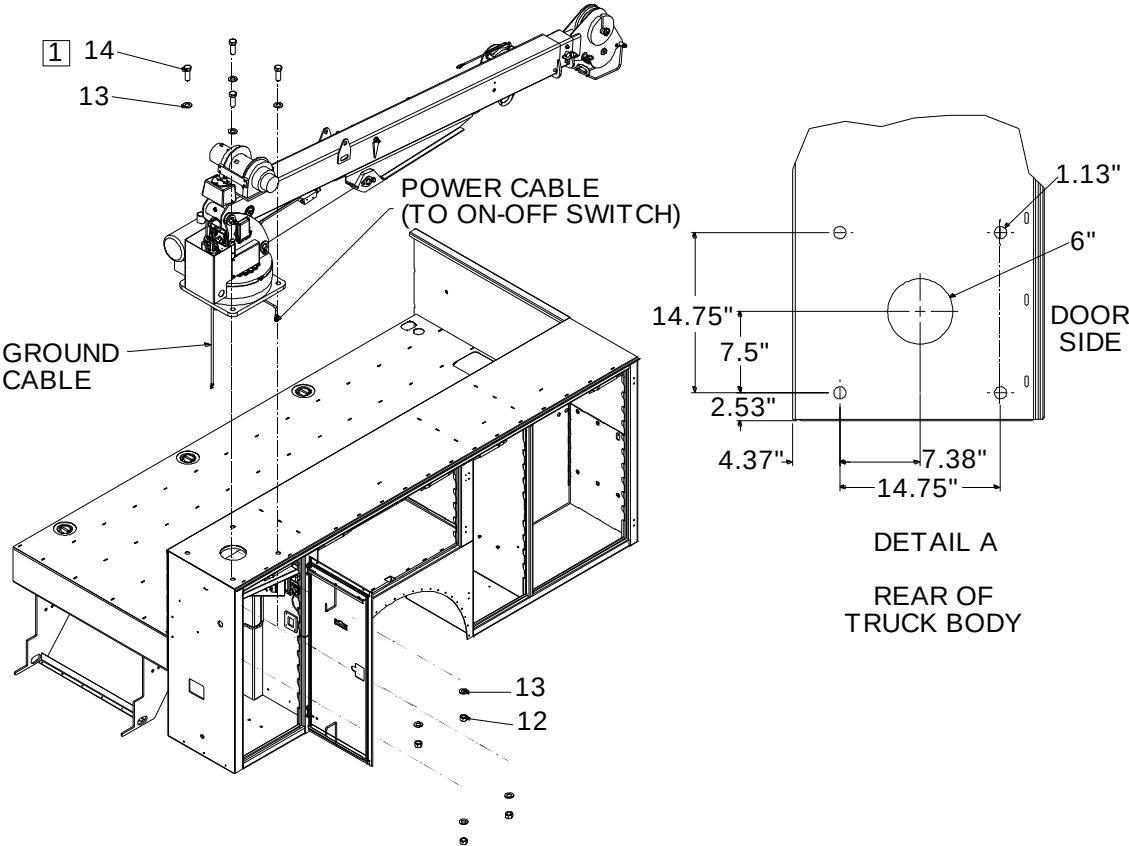
- 1 USE IDENTICAL 12V 1000CCA TRUCK AND AUXILIARY BATTERIES.
- 2 HEAT SHRINK ALL CABLE ENDS - RED (POSITIVE +); BLACK (NEGATIVE -)
- 3 WRAP CABLES WHICH PASS THROUGH EXPOSED SHEET METAL WITH LOOM.
- 4 INSTALL CHASSIS GROUND KIT PER SUPPLIED INSTRUCTIONS.

99904525 SWITCH INSTALLATION PARTS				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
2.	93721986	INSTALLATION KIT-6006I 24V POWER UNIT		REF
3.	60251272	BRACKET-SWITCH 300 AMP ELEC CRANE	#2	1
4.	70734331	SWITCH-300A KEYED BATTERY DISCONNECT	#2	1
5.	72042097	LEVEL INDICATOR LEVEL	#2	1
10.	72060636	SCREW-MACH #10-24X .75 RDH PH ZINC	#9	4
11.	72062106	NUT 10-24 HEX NYLOCK	#9	4
39.	72060004	CAP SCREW .25-20X 1.00 HH GR5 Z	#38	4
45.	72062104	NUT .25-20 HEX NYLOCK	#38	8
46.	72063001	WASHER .25 FLAT	#38	24
NEW 20081231				

24-VOLT POWER SOURCE INSTALLATION**99904525 POWER SOURCE INSTALLATION PARTS**

ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	99904456	DRAWING-CRANE & WINCH 6006I		REF
2.	93721986	INSTALLATION KIT-6006I 24V POWER UNIT		REF
8.	77441317	ELEC BOX ASSEMBLY-6006I 24V PWR UNIT	#2	1
15.	93721987	INSTALLATION KIT-6006i 24V POWER UNIT IMT BODY		1
16.	51722054	-SHELF KIT 1.50 V2 11 - V3 13-14	#15	1
17.	52722053	WELDMENT-BATTERY HOLD DOWN	#15	1
18.	60119069	ROD-THREADED .25-20 X 9.25	#15	4
19.	60251273	PANEL-CRANE BOX VALVE BLOCK DELETE	#15	1
22.	77041773	STUD-BULKHEAD PASS THRU 3/8" RED	#15	5
23.	77041774	STUD-BULKHEAD PASS THRU 3/8" BLACK	#15	3
24.	77042108	BATTERY-12V 1000CCA	#15	2
25.	77441318	CABLE ASSEMBLY- 1GA-3/8RNGX 3/8RNGX 9.00LG BLK	#15	1
26.	77441319	CABLE ASSEMBLY- 1GA-3/8RNGX 3/8RNGX 9.00LG RED	#15	1
27.	77441320	TERMINAL INSULATED 3/8 STUD RED	#15	1
28.	77441321	TERMINAL INSULATED 3/8 STUD BLK	#15	1
29.	77441322	TERMINAL INSULATED 3/8 STUD RED DUAL CABLES	#15	1
30.	77441323	TERMINAL INSULATED 3/8 STUD BLK DUAL CABLES	#15	1
41.	72060047	CAP SCREW .38-16X 1.25 HH GR5 Z	#38	2
42.	72062000	NUT .25-20 HEX	#38	12
43.	72062002	NUT .38-16 HEX	#38	4
45.	72062104	NUT .25-20 HEX NYLOCK	#38	8
46.	72063001	WASHER .25 FLAT	#38	24
47.	72063003	WASHER .38 FLAT	#38	10
48.	72063049	WASHER .25 LOCK	#38	4
49.	72063051	WASHER .38 LOCK	#38	6
NEW 20081231				

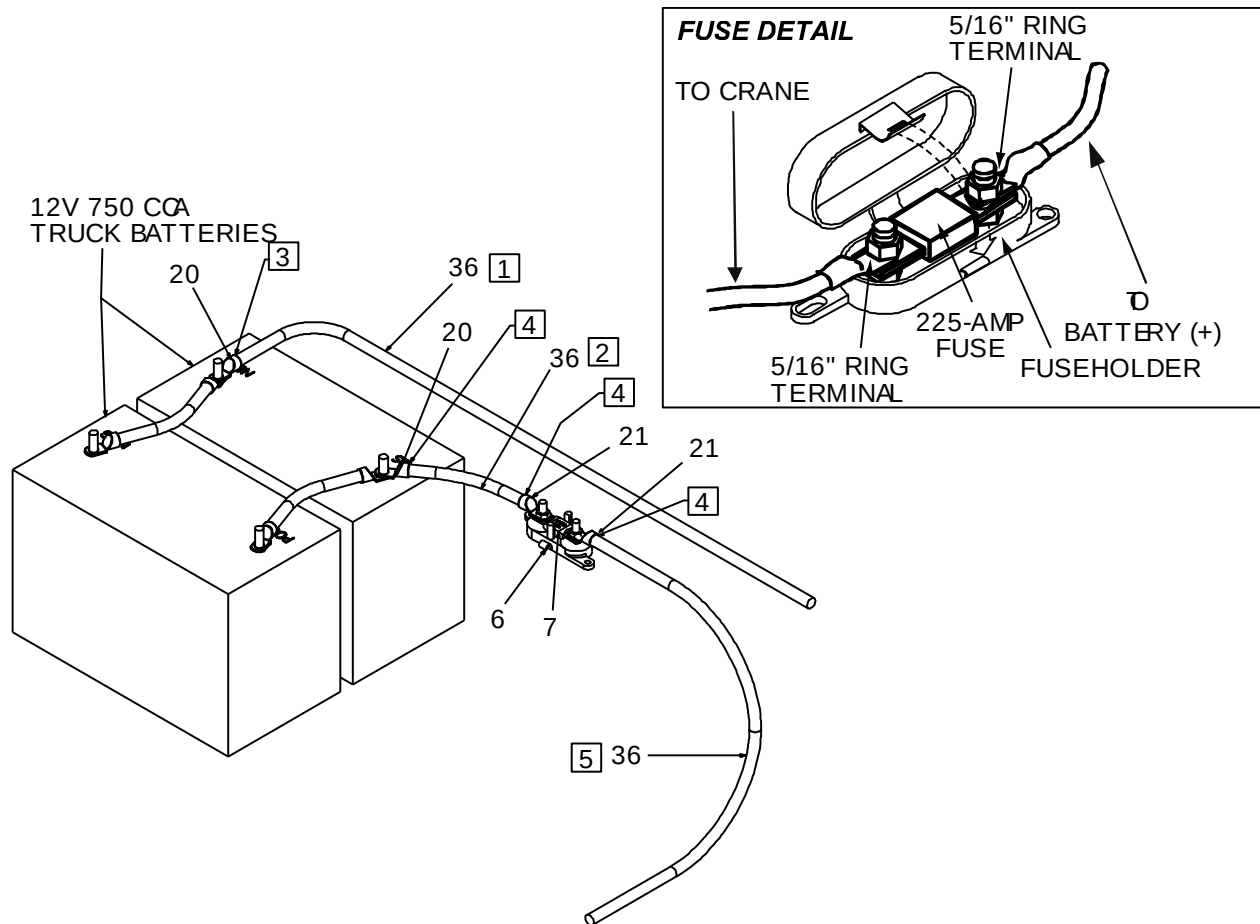
CRANE INSTALLATION



NOTES (SEE REFERENCE NUMBER IN BOX)

- 1 TORQUE 1" SAE HARDWARE TO 680 FT-LB
- 2 THE 1.00-8 X 3.00 BOLTS SUPPLIED ARE FOR USE ON A CRANE BOX TOP PLATE THICKNESS OF 7/8" TO 1" ONLY. DETERMINE THE CRANE BOX TOP PLATE THICKNESS PRIOR TO MOUNTING. IF DIFFERENT LENGTH BOLTS ARE REQUIRED, THEY MUST BE 1.00-8 GRADE 8 ZINC COATED OF PROPER LENGTH. FAILURE TO USE PROPER LENGTH BOLTS MAY CAUSE THE BOLTS TO BOTTOM OUT BEFORE TORQUING.

99904525 CRANE INSTALLATION PARTS				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
2.	93721986	INSTALLATION KIT-6006i 24V POWER UNIT		REF
9.	91722058	KIT-HARDWARE 6006i ELEC CRANE MNT	#2	1
12.	72062268	NUT 1.00- 8 HEX CENTER LOCK	#9	4
13.	72063066	WASHER 1.00 FLAT HI STR	#9	8
14.	72601621	CAP SCREW 1.00- 8X 3.00 HH GR8 Z	#9	4

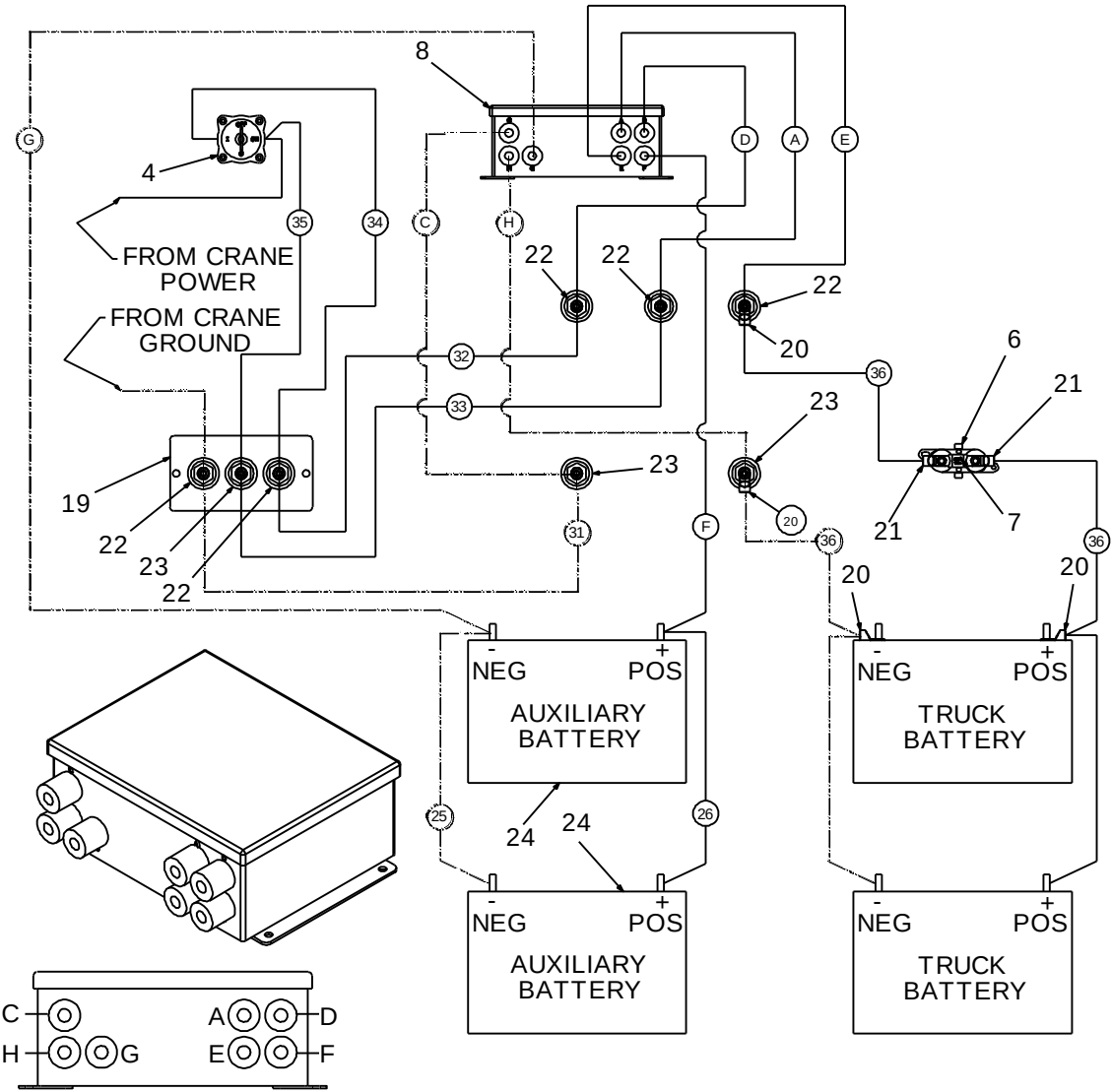
FUSE INSTALLATION**NOTES (SEE REFERENCE IN BOX):**

- 1 CUT ITEM #36, CABLE 89044276, TO LENGTH. INSTALL BETWEEN NEGATIVE (-) TERMINAL OF BATTERY AND "H" CABLE (TRUCK BATTERY GROUND) ON 77441317 ELECTRICAL BOX ASSEMBLY.
- 2 CUT ITEM #36, CABLE 89044276, TO LENGTH. INSTALL BETWEEN POSITIVE (+) TERMINAL OF BATTERY AND FUSE.
- 3 APPLY BLACK HEAT SHRINK.
- 4 APPLY RED HEAT SHRINK.
- 5 CUT ITEM #36, CABLE 89044276, TO LENGTH. INSTALL BETWEEN NEGATIVE (-) TERMINAL OF BATTERY AND "E" CABLE (TRUCK BATTERY POSITIVE) ON 77441317 ELECTRICAL BOX ASSEMBLY.

99904525 FUSE INSTALLATION PARTS

ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
2.	93721986	INSTALLATION KIT-6006i 24V POWER UNIT		REF
6.	77441116	FUSEHOLDER-HIGH AMP2 BOLT WITH COVER	#2	1
7.	77441219	FUSE-225 AMP	#2	1
15.	93721987	INSTALLATION KIT-6006i 24V POWER UNIT IMT BODY		1
20.	77040209	TERMINAL-RING NI .38 STUD 1 WIRE	#15	4
21.	77040529	TERMINAL-RING NI .31 STUD 1-2 WIRE	#15	2
36.	89044276	CABLE-# 1 WELDING PRESTOL	#15	24 FT

ELECTRICAL SCHEMATIC



NOTES:

- 1 TRUCK AND AUXILIARY BATTERIES MUST BE IDENTICAL 12V 750 CCA.
- 2 HEAT SHRINK ALL CABLE ENDS: RED (POSITIVE +), BLACK (NEGATIVE -)
- 3 WRAP CABLES WHICH PASS THROUGH EXPOSED SHEET METAL WITH LOOM.
- 4 INSTALL CHASSIS GROUND PER SUPPLIED INSTRUCTIONS.

WIRE	CIRCUIT	WIRE DESCRIPTION
C	POWER UNIT MOTOR GROUND	#1 CABLE, 2-FT LONG, BLACK 3/8-RING TERMINAL
H	TRUCK BATTERY GROUND	#1 CABLE, 2-FT LONG, BLACK 3/8-RING TERMINAL
G	AUXILIARY BATTERY GROUND	#1 CABLE, 2-FT LONG, BLACK 3/8-RING TERMINAL
A	ON-OFF SWITCH (CRANE SIDE)	14 GA WIRE, 2-FT LONG, WHITE 3/8-RING TERMINAL
E	TRUCK BATTERY POSITIVE	#1 CABLE, 2-FT LONG, RED 3/8-RING TERMINAL
F	AUXILIARY BATTERY POSITIVE	#1 CABLE, 2-FT LONG, RED 3/8-RING TERMINAL
D	ON-OFF SWITCH POSITIVE	#1 CABLE, 2-FT LONG, RED 3/8 RING TERMINAL

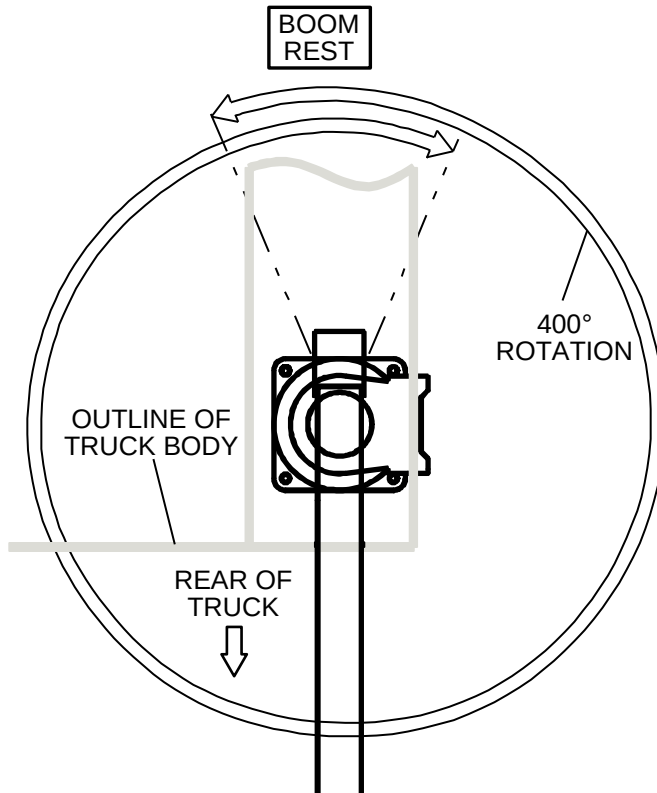
99904525 ELECTRICAL SCHEMATIC PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
2.	93721986	INSTL KIT-6006i 24V POWER UNIT		REF
4.	70734331	SWITCH-300A KEYED BATTERY DISCONNECT	#2	1
6.	77441116	FUSEHOLDER-HIGH AMP2 BOLT WITH COVER	#2	1
7.	77441219	FUSE-AMG-225 AMP	#2	1
8.	77441317	ELEC BOX ASM-6006i 24V PWR UNIT	#2	1
15.	93721987	INSTL KIT-6006i 24V POWER UNIT IMT BODY		1
19.	60251273	D(II) PANEL-CRANE BOX VALVE BLOCK DELETE	#15	1
20.	77040209	TERM-RING NI .38 STUD 1 WIRE	#15	4
21.	77040529	TERM-RING NI .31 STUD 1-2 WIRE	#15	2
22.	77041773	STUD-BULKHEAD PASS THRU 3/8" RED	#15	5
23.	77041774	STUD-BULKHEAD PASS THRU 3/8" BLACK	#15	3
24.	77042108	BATTERY-12V 1000CCA	#15	2
25.	77441318	CABLE ASM- 1GA-3/8RNGX 3/8RNGX 9.00LG BLK	#15	1
26.	77441319	CABLE ASM- 1GA-3/8RNGX 3/8RNGX 9.00LG RED	#15	1
31.	77441324	CABLE ASM- 1GA-3/8RNGX 3/8RNGX 110.00LG BLK	#15	1
32.	77441325	CABLE ASM- 1GA-3/8RNGX 3/8RNGX 110.00LG RED	#15	1
33.	77441326	CABLE ASM-14GA-3/8RNGX 3/8RNGX 110.00LG WHT	#15	1
34.	77441328	CABLE ASM- 1GA-3/8RNGX 3/8RNGX 48.00LG RED	#15	1
35.	77441329	CABLE ASM-14GA-3/8RNGX 3/8RNGX 48.00LG WHT	#15	1
36.	89044276	CABLE-# 1 WELDING PRESTOL	#15	24 FT
37.	89044461	LOOM-1.00 ID (BULK)	#15	24 FT
NEW 20081231				

99904525 PARTS LIST, COMPLETE				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	99904456	DRAWING-CRANE & WINCH 6006i		REF
2.	93721986	INSTALLATION KIT-6006i 24V POWER UNIT		REF
3.	60251272	BRACKET-SWITCH 300 AMP ELEC CRANE	#2	1
4.	70734331	SWITCH-300A KEYED BATTERY DISCONNECT	#2	1
5.	72042097	LEVEL INDICATOR LEVEL	#2	1
6.	77441116	FUSEHOLDER-HIGH AMP2 BOLT WITH COVER	#2	1
7.	77441219	FUSE-225 AMP	#2	1
8.	77441317	ELEC BOX ASSEMBLY-6006i 24V PWR UNIT	#2	1
9.	91722058	KIT-HARDWARE 6006i ELEC CRANE MNT	#2	1
10.	72060636	SCREW-MACH #10-24X .75 RDH PH ZINC	#9	4
11.	72062106	NUT 10-24 HEX NYLOCK	#9	4
12.	72062268	NUT 1.00- 8 HEX CENTER LOCK	#9	4
13.	72063066	WASHER 1.00 FLAT HI STR	#9	8
14.	72601621	CAP SCREW 1.00- 8X 3.00 HH GR8 Z	#9	4
15.	93721987	INSTALLATION KIT-6006i 24V POWER UNIT IMT BODY		1
16.	51722054	-SHELF KIT 1.50 V2 11 - V3 13-14	#15	1
17.	52722053	WELDMENT-BATTERY HOLD DOWN	#15	1
18.	60119069	ROD-THREADED .25-20 X 9.25	#15	4

99904525 PARTS LIST, COMPLETE				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
19.	60251273	PANEL-CRANE BOX VALVE BLOCK DELETE	#15	1
20.	77040209	TERMINAL-RING NI .38 STUD 1 WIRE	#15	4
21.	77040529	TERMINAL-RING NI .31 STUD 1-2 WIRE	#15	2
22.	77041773	STUD-BULKHEAD PASS THRU 3/8" RED	#15	5
23.	77041774	STUD-BULKHEAD PASS THRU 3/8" BLACK	#15	3
24.	77042108	BATTERY-12V 1000CCA	#15	2
25.	77441318	CABLE ASSEMBLY- 1GA-3/8RNGX 3/8RNGX 9.00LG BLK	#15	1
26.	77441319	CABLE ASSEMBLY- 1GA-3/8RNGX 3/8RNGX 9.00LG RED	#15	1
27.	77441320	TERMINAL INSULATED 3/8 STUD RED	#15	1
28.	77441321	TERMINAL INSULATED 3/8 STUD BLK	#15	1
29.	77441322	TERMINAL INSULATED 3/8 STUD RED DUAL CABLES	#15	1
30.	77441323	TERMINAL INSULATED 3/8 STUD BLK DUAL CABLES	#15	1
31.	77441324	CABLE ASSEMBLY- 1GA-3/8RNGX 3/8RNGX 110.00LG BLK	#15	1
32.	77441325	CABLE ASSEMBLY- 1GA-3/8RNGX 3/8RNGX 110.00LG RED	#15	1
33.	77441326	CABLE ASSEMBLY-14GA-3/8RNGX 3/8RNGX 110.00LG WHT	#15	1
34.	77441328	CABLE ASSEMBLY- 1GA-3/8RNGX 3/8RNGX 48.00LG RED	#15	1
35.	77441329	CABLE ASSEMBLY-14GA-3/8RNGX 3/8RNGX 48.00LG WHT	#15	1
36.	89044276	CABLE-# 1 WELDING PRESTOL	#15	24 FT
37.	89044461	LOOM-1.00 ID (BULK)	#15	24 FT
38.	91722057	KIT-HARDWARE 6006i ELEC CRANE BODY INSTALLATION		1
39.	72060004	CAP SCREW .25-20X 1.00 HH GR5 Z	#38	4
40.	72060046	CAP SCREW .38-16X 1.00 HH GR5 Z	#38	4
41.	72060047	CAP SCREW .38-16X 1.25 HH GR5 Z	#38	2
42.	72062000	NUT .25-20 HEX	#38	12
43.	72062002	NUT .38-16 HEX	#38	4
44.	72062103	NUT .38-16 HEX NYLOCK	#38	4
45.	72062104	NUT .25-20 HEX NYLOCK	#38	8
46.	72063001	WASHER .25 FLAT	#38	24
47.	72063003	WASHER .38 FLAT	#38	10
48.	72063049	WASHER .25 LOCK	#38	4
49.	72063051	WASHER .38 LOCK	#38	6
NEW 20081231				

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° (3.14 radians) to the boom rest.



Electric Crane Control

IMT's electric cranes are controlled by radio or tethered remote controls. This telescopic crane includes a tethered remote control with a radio remote control option. For complete details on operating your telescopic crane, refer to the IMT Electric Cranes Operation & Safety (part number 99904381).

CHAPTER 4

Parts

In This Chapter

Parts Information	30
Electric Crane Power Safety	32
Base & Mast Assembly (99904454)	33
Valve Bank (73734375)	36
Cylinder, Lower (51721396)	37
Boom Assembly (99904335)	42
Cylinder, Extension (51721386)	44
Crane & Winch Assembly (99904456)	50
Winch (71570911)	68
Power Unit (73511181)	70
Electrical Installation (99904457)	71
275-Amp Contactor Replacement (99904578)	74
Controls Installation (99904377)	75
Harness, Radio (77441270)	76
Harness, Tethered (77441269)	79
Handle Assembly, Tethered (51721502)	80
Hydraulic Installation (99904458)	82
6006i Decal Installation (95721549)	97

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:

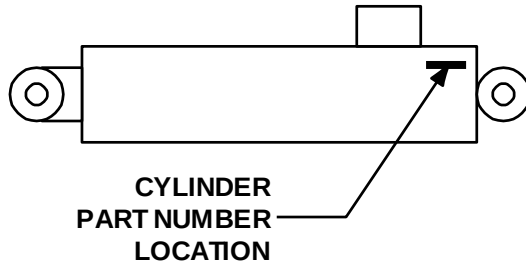
Iowa Mold Tooling Co., Inc.
Box 189, Garner, IA 50438-0189
Telephone: 641-923-3711
Technical Support Fax: 641-923-2424

IOWA MOLD TOOLING CO., INC. BOX 189, GARNER, IA 50438-0189	
MODEL NUMBER	
SERIAL NUMBER	
MFG DATE	

70029119

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 outrigger 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

When ordering replacement parts:

- 1 Give the model number of the unit.
- 2 Give the serial number of the unit.
- 3 Specify the complete part number. When ordering cylinder parts, or one of the main weldments, always give the stamped part number.
- 4 Give a complete description of the part.
- 5 Specify the quantity required.

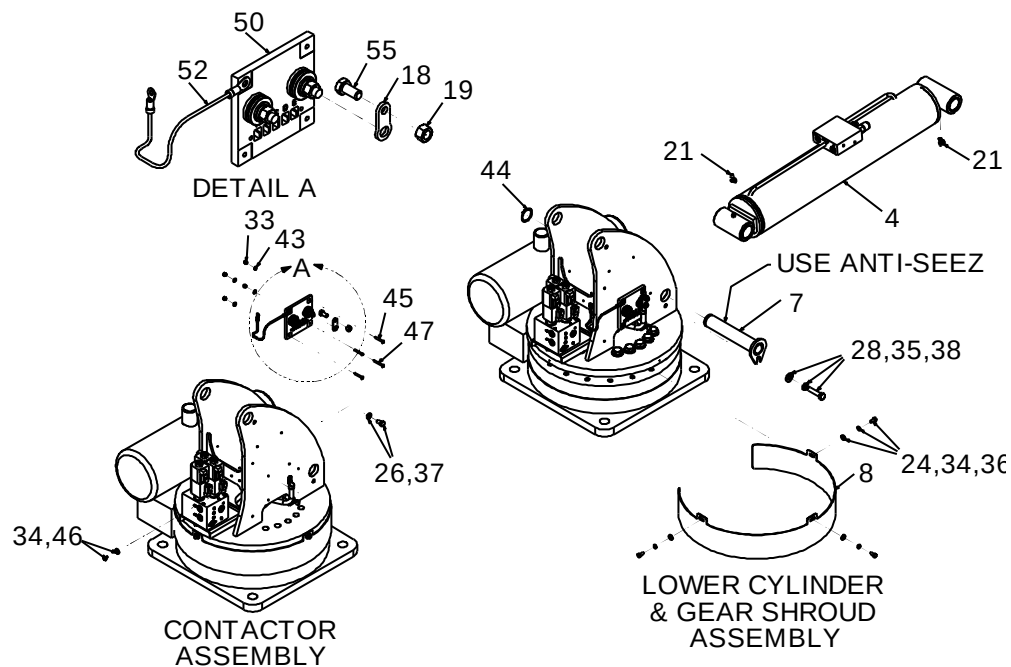
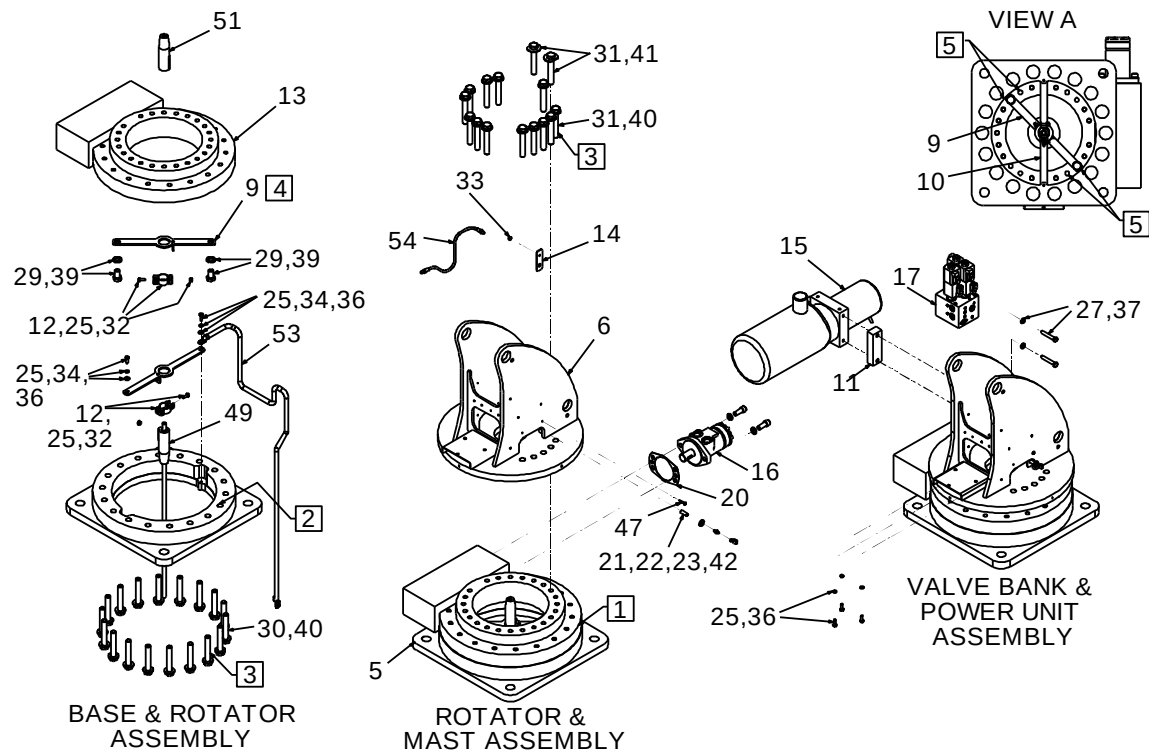
Electric Crane Power Safety

Your electric crane runs using power from the vehicle battery. Before beginning major maintenance or repairs, disconnect the power to the crane.

 DANGER	POWER SWITCH TURNED TO OFF POSITION. 
AVOID DEATH OR SERIOUS INJURY! Before beginning any work on crane, ▪ Turn OFF crane power supply in crane cabinet. ▪ Remove crane power disconnect cable from vehicle battery.	

- 1 Make sure the power switch located inside the crane cabinet is turned to the OFF position.
- 2 Make sure the crane power disconnect cable is disconnected from the vehicle battery.

Base & Mast Assembly (99904454)



⚠ WARNING

Avoid injury! Do NOT connect electrical power to crane until all connections have been tested. Attach electrical wires and grounds to components before connecting to mast.

NOTES (SEE REFERENCE NUMBER IN BOX):

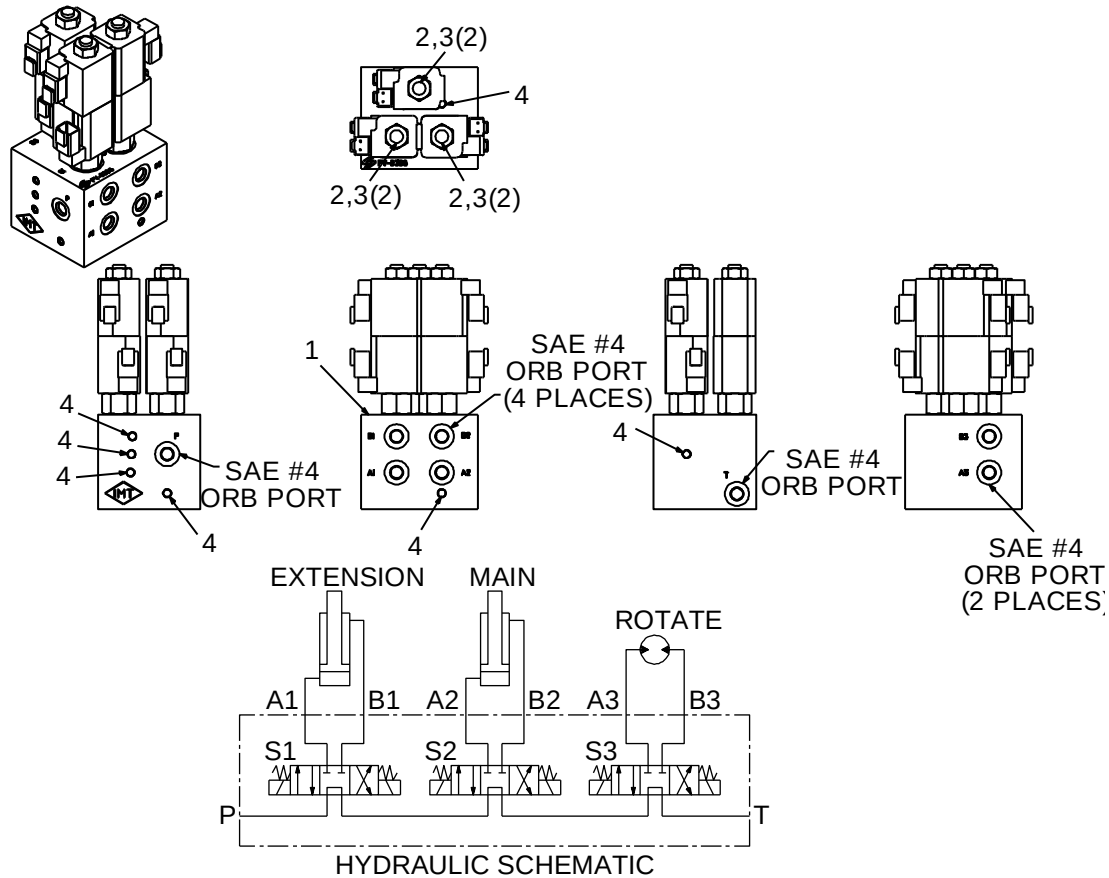
- 1 APPLY BLACK "MOLUB-ALLOY 882 HEAVY" GEAR GREASE TO TURNTABLE GEAR.
- 2 APPLY RUST PREVENTATIVE.
- 3 TORQUE TO 160 FT-LB
- 4 SEE ELECTRIC ROTATOR BRACKET LOCATION (VIEW A).
- 5 USE THESE TAPPED HOLES FOR ELECTRICAL BRACKET.
- 6 USE ANTI-SEIZE.

99904454 PARTS LIST

ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	51721422	KIT-HRDW BASE & MAST 5005I		1
2.	91722222	KIT- 6006I ELECTRICAL INSTALLATION		1
3.	51721707	KIT-HYD 5005I		1
4.	51721396	CYL- 4.50B X 2.25R X 21.43S 33.45 CC C		1
5.	52721356	WLDMT- BASE 5005I		1
6.	52722162	MAST WELDMENT-5005I/6006I		1
7.	52721425	PIN-TYPE MM 1.50X 8.25 (7.69)		1
8.	60132610	SHROUD- TURNTABLE GEAR 5005I		1
9.	52721420	WLDMT- ELEC ROTATOR BRKT TOP 5005I		1
10.	52721421	WLDMT- ELEC ROTATOR BRKT BOTTOM 5005I		1
11.	60132385	SPACER- POWER UNIT		1
12.	70580194	CLAMP-1" CONDUIT HANGER W/BOLT		2
13.	71056632	GEAR-TRNTBL BRG 17.60" DIA		1
14.	60132856	MNT BRK GREASE HOSE 4004I		1
15.	73511181	POWER UNIT- 2.65CC 24VDC GC		1
16.	73051513	MOTOR-HYD 158-1083-001		1
17.	73734375	VALVE BANK-3 SEC SERIES 3GPM @ 500PSI 24VDC		1
18.	60133635	CONTACT JUNCTION		1
19.	72062002	NUT .38-16 HEX	#1	1
20.	76039295	GASKET-GEA19 008-10056-1		1
21.	70034382	CAP-GREASE PRO20 GC-RED	#1	3
22.	72053301	COUPLING-BLK .12	#1	1
23.	72053508	ZERK-NPT .12	#1	1
24.	72060001	CAP SCR .25-20X .62 HH GR5 Z	#1	3
25.	72060002	CAP SCR .25-20X .75 HH GR5 Z	#1	7
26.	72060043	CAP SCR .38-16X .62 HH GR5 Z	#1	1
27.	72060051	CAP SCR .38-16X 2.25 HH GR5 Z	#1	2
28.	72060095	CAP SCR .50-13X 2.00 HH GR5 Z	#1	1
29.	72060147	CAP SCR .62-11X 1.00 HH GR5 Z	#1	2
30.	72060173	CAP SCR .62-11X 3.75 HH GR8 Z	#1	18
31.	72060178	CAP SCR .62-11X 4.00 HH GR8 Z	#1	15

99904454 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
32.	72062104	NUT .25-20 HEX NYLOCK	#1	2
33.	72062207	NUT 8-32 HEX NYLOCK	#1	4
34.	72063001	WASHER .25 FLAT	#1	6
35.	72063005	WASHER .50 FLAT	#1	1
36.	72063049	WASHER .25 LOCK	#1	8
37.	72063051	WASHER .38 LOCK	#1	3
38.	72063053	WASHER .50 LOCK	#1	3
39.	72063055	WASHER .62 LOCK	#1	2
40.	72063119	WASHER .62 FLAT ASTM F436	#1	31
41.	72063216	WASHER .62 N FLAT-CUT 3816	#1	2
42.	72063242	WASHER .38 W FLAT ANSI B27.2 D	#1	1
43.	72063271	WASHER # 8 W FLAT ANSI B27.2Z	#1	4
44.	72066132	RETAINING RING-EXT 1.50 HD	#1	1
45.	72602009	SCR-MACH # 8-32X 1.25 BTNHD SS	#1	3
46.	72601941	SCR-MACH .25-20X .38 BTNHD ZC	#1	1
47.	72602010	SCR-MACH # 8-32X 1.50 BTNHD ZC	#1	1
48.	72601949	CAP SCR .50-13X 1.25 SH ZC	#1	2
49.	51721944	CABLE ASM- 1GA-3/8RNGX SWVL MX 60.00LG	#2	1
50.	77441336	SWITCH- 275A CONTACTOR (SSC42-275)	#2	1
51.	51722218	CABLE ASM- 1GA-3/8RNGX SWVL FX 13.50LG	#2	1
52.	77441312	CABLE ASM-10GA-#10RNGX 1/4RNGX 6.00LG	#2	1
53.	77441332	CABLE ASM- 1GA-1/4RNGX 3/8RNGX 46.50LG BLK	#2	1
54.	51395121	HOSE-AA .13 X 13.50 (2-2) 100R17	#3	1
55.	72060044	CAP SCR .38-16X .75 HH GR5 Z	#1	1
REV. B 200902017				

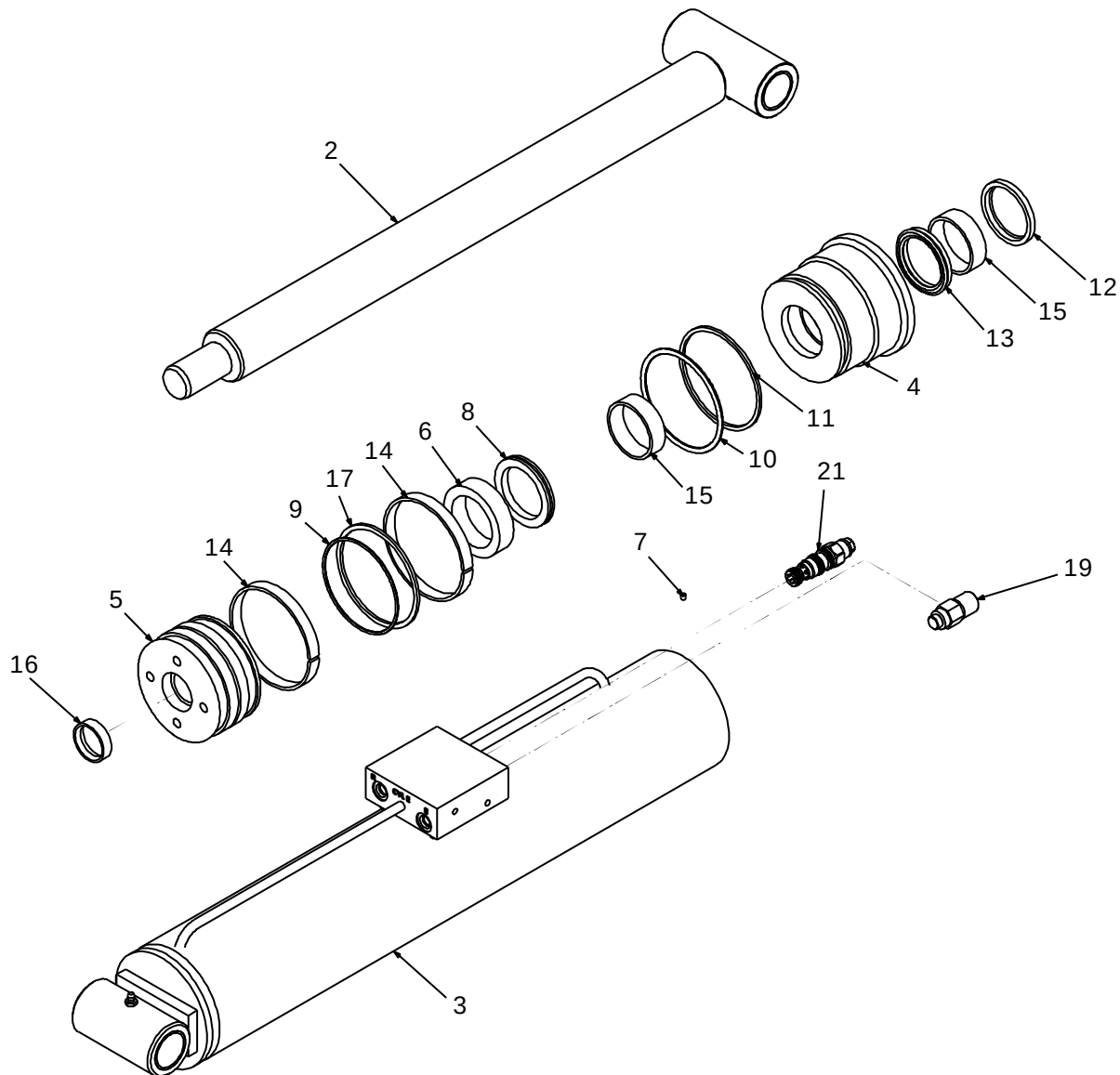
Valve Bank (73734375)



73734375 PARTS LIST

ITEM	PART #	DESCRIPTION	QUANTITY
1.		MANIFOLD VALVE BODY	1
2.	73540336	SOLENOID VALVE (INCLUDES COIL)	3
3.	77040527	COIL, 24V.	6
4.		PLUG, EXPANDER, 7MM	8
NEW 20081027			

Cylinder, Lower (51721396)



NOTES:

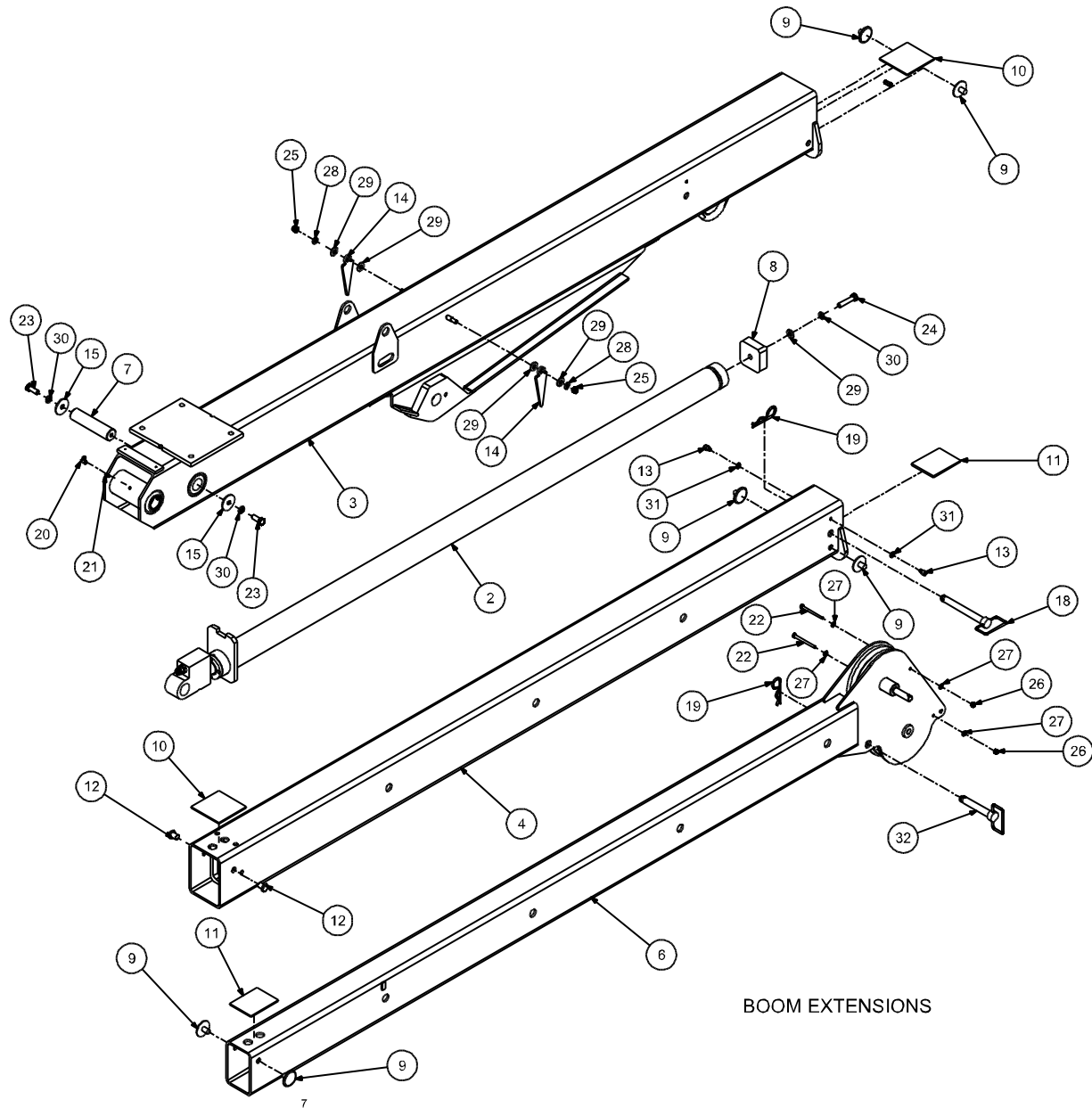
- 1 DRILL #15 HOLE 3/16" DEEP. PRESS IN PIN # 60125699.
- 2 TO REDUCE DOWNTIME, REPLACE ALL COMPONENTS OF THE SEAL KIT WHENEVER THE CYLINDER IS DISASSEMBLED.
- 3 APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO THREADS ON CYLINDER HEAD ONLY. KEEP AWAY FROM ALL SEALS.
- 4 APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

51721396 CYLINDER DATA	
CASE	ø5.13" O.D. X ø4.5" BORE X 30.89" LENGTH
ROD	ø2.25" X 29.83" LONG
STROKE	21.43"
DRY WEIGHT	112.87 LB
TEST PRESSURE	3000 PSI
OPERATING PRESSURE	2500 PSI
TORQUE VALUES	PISTON TO ROD: 710 - 740 FT-LB HEAD GLAND TO CYLINDER: 450 FT-LB

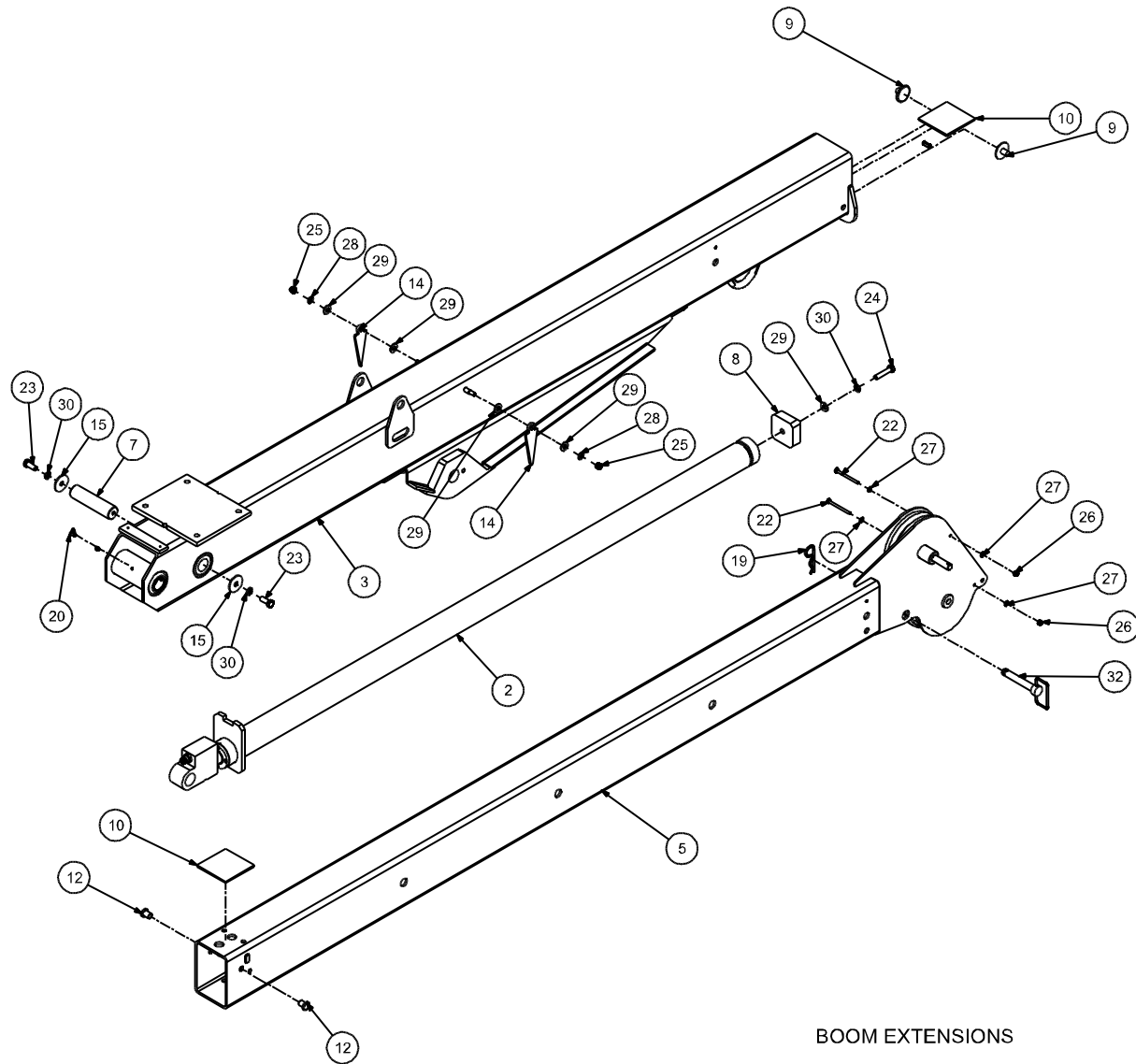
51721396 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	9D181823	SEAL KIT	#20	1
2.	52721397	ROD ASSEMBLY	#20	1
3.	52721399	CASE ASSEMBLY	#20	1
4.	6HD45022	HEAD	#20	1
5.	6ID45143	PISTON	#20	1
6.	60125920	STOP TUBE	#20	1
7.	60125699	PIN - LOCK TUBE	#20	1
8.	6A025022	WAFER LOCK- IMT 2.25	#1	1
9.	7Q072155	O RING 4.00X 4.19X .09 70	#1	1
10.	7Q072346	O RING 4.12X 4.50X .19 70	#1	1
11.	7Q10P346	BACKUP RING-4.12 ID X 4.50 OD	#1	1
12.	7R14P022	ROD WIPER-TYPE D 2.25 ROD	#1	1
13.	7R546022	U-CUP LOADED 2.25X2.75X.38 "B	#1	1
14.	7T2N4045	WEAR RING - PISTON 4.50 O.D. X .50 W	#1	2
15.	7T2NX625	WEAR RING-ROD 2.25 IDX0.75	#1	2
16.	7T61N143	LOCK RING-NYLON 1.43	#1	1
17.	7T66P045	PISTON SEAL-DYNAMIC 4.50in	#1	1
19.	77041786	SWITCH-PRESS 2750 PSI NC 42in LEAD		1
20.	51721396A	CYL-4.5/2.2 21.43S 33.45CC C		1
21.	73054999	VALVE-CBAL SUN01 CBBC-LHN	#3	1
NEW 20081015				

Boom Assembly (99904335)

BOOM ASSEMBLY, 1H 1M (99904335)



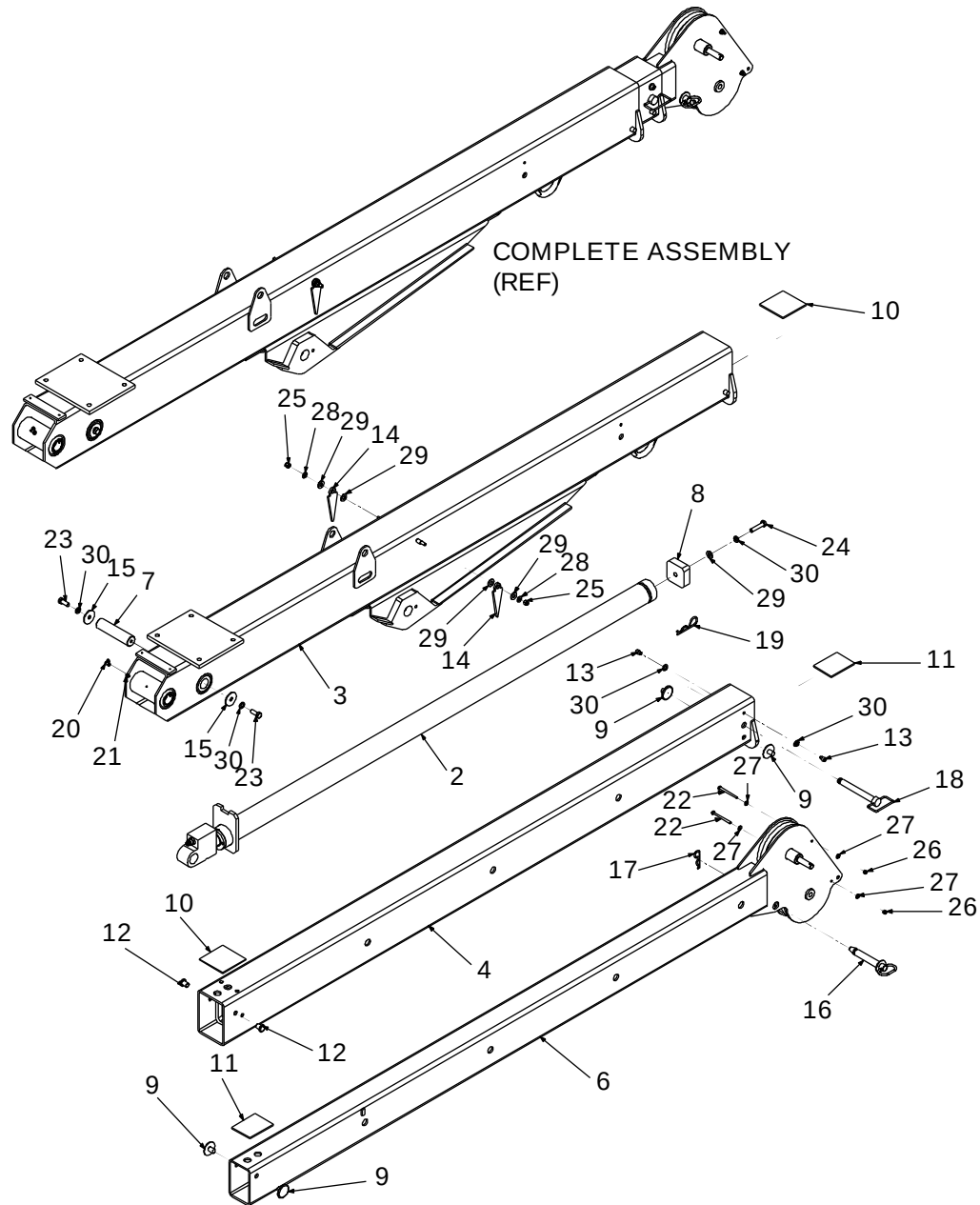
BOOM ASSEMBLY, 1H (99904335)

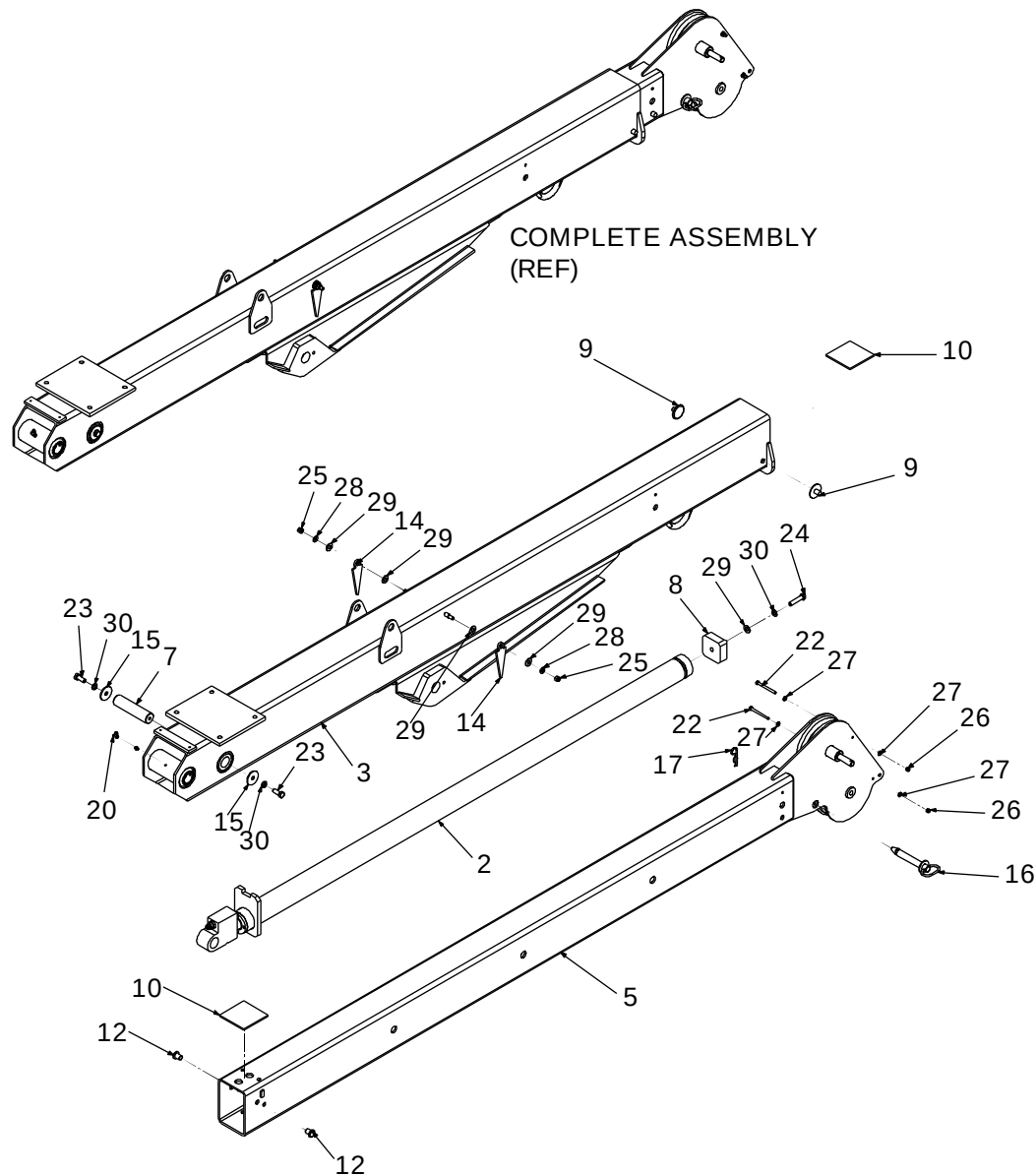


99904335 Complete Parts List				
Item No.	Part No.	Description	Kit No.	Qty.
1.	51721423	KIT-HRDW BOOM 5005I		1
2.	51721386	CYL-2.5/1.5 72.00S 7.37CC C		1
3.	52725221	LOWER BOOM WLDMNT - 5005I-6006I		1
4.	52721359	WLDMT- EXTENSION 1ST STAGE 5005I		1
5.	52721474	WLDMT- EXTENSION 1ST STAGE 5005I		1
6.	52721360	WLDMT- 2ND STAGE EXTENSION 5005I		1
7.	60133939	PIN-TYPE M 1.50X 6.00		1
8.	60030380	WEAR PAD- EXT CYLINDER 6006I		1
9.	60030339	WEAR PAD-RND 0.19X 2.00X .60X .81		6
10.	60030340	WEAR PAD-RC 0.19X 4.50X 4.50		2
11.	60030341	WEAR PAD-RC 0.19X 4.50X 3.50		2
12.	60133062	WEAR PAD-RND 0.19X 1.00X .62X .81 STL		2
13.	60132302	STOP SCREW 3/8-24 X .50		2
14.	60105544	PLATE-ANGLE PLASTIC		2
15.	72063273	WASHER .52ID X 2.00OD X 10GA		2
18.	70144211	PIN- .75X 6.50LG WORKSAVER		1
19.	72066145	HAIR PIN .19 DIA .63-1.00 SHAFT (PART OF 70144211)	REF	2
20.	70034382	CAP-GREASE PRO20 GC-RED	1	1
21.	72053507	ZERK-STR THD .25-28	1	1
22.	72060013	CAP SCR .25-20X 3.25 HH GR5 Z	1	2
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	1	2
24.	72060928	CAP SCR .50-13X 2.25 HH GR5 Z	1	1
25.	72062103	NUT .38-16 HEX NYLOCK	1	2
26.	72062104	NUT .25-20 HEX NYLOCK	1	2
27.	72063001	WASHER .25 FLAT	1	4
28.	72063003	WASHER .38 FLAT	1	2
29.	72063005	WASHER .50 FLAT	1	5
30.	72063053	WASHER .50 LOCK	1	3
31.	72063051	WASHER .38 LOCK	1	2
32.	70144209	PIN- .75X 4.50 LG WS80-WS100		1
REV. E 20180227				

Boom Assembly (99904335)

BOOM ASSEMBLY, 1H 1M (99904335)

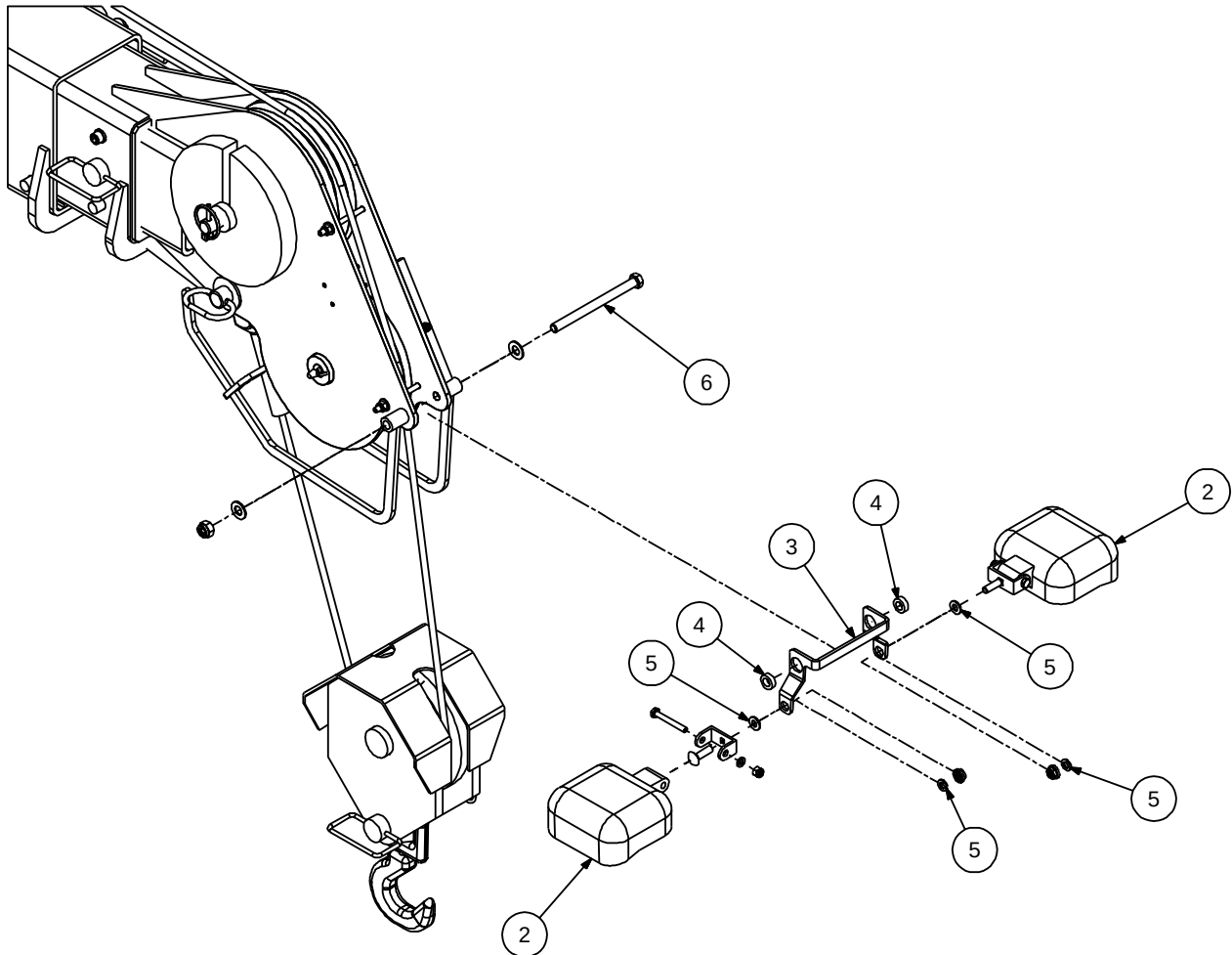


BOOM ASSEMBLY, 1H (99904335)**99904335 PARTS LIST**

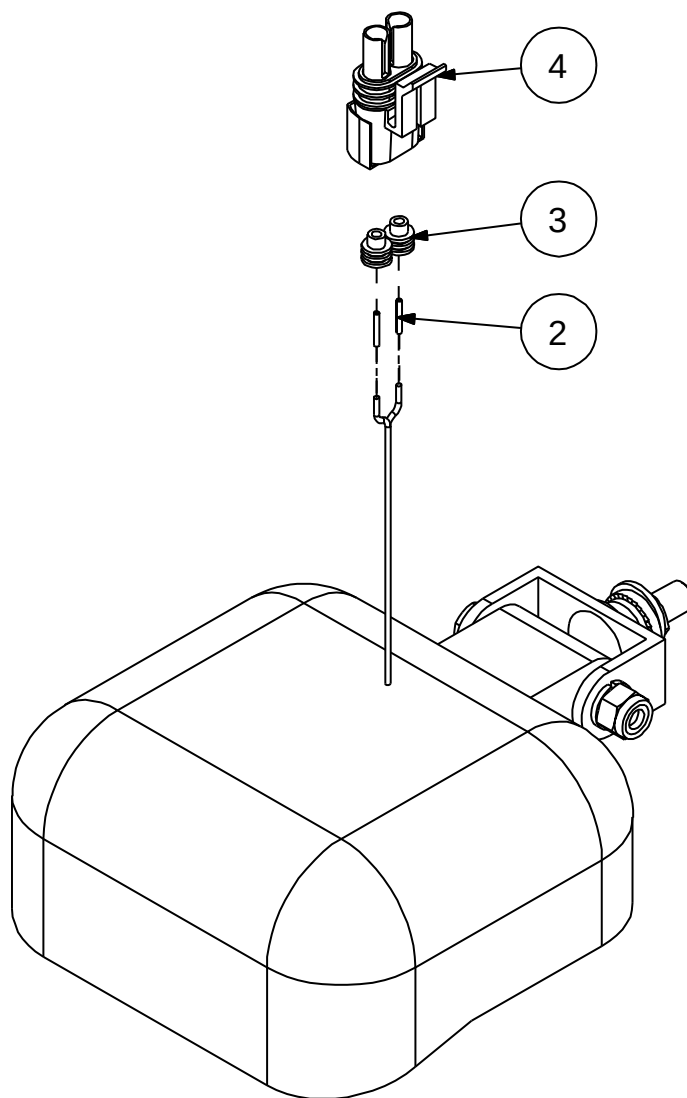
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	51721423	HARDWARE KIT-BOOM 5005I		1
2.	51721386	CYLINDER		1
3.	52721358	LOWER BOOM WELDMENT - 5005I		1
4.	52721359	WELDMENT- EXTENSION 1ST STAGE 5005I		1
5.	52721474	WELDMENT- EXTENSION 1ST STAGE 5005I		1
6.	52721360	WELDMENT- 2ND STAGE EXTENSION 5005I		1
7.	60133939	PIN-TYPE M 1.50X 6.00		1
8.	60030380	WEAR PAD- EXT CYLINDER 6006I		1

99904335 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
9.	60030339	WEAR PAD-RND 2.00 DIA X .60 DIA X 1.00 LG		6
10.	60030340	WEAR PAD-BLOCK 4.50 X 4.50 X .44		2
11.	60030341	WEAR PAD-BLOCK 4.50 X 3.50 X .44		2
12.	60133062	WEAR PAD-RND 1.00 DIA X .62 DIA X .81L		2
13.	60132302	STOP SCREW 3/8-24 X .50		2
14.	60105544	PLATE-ANGLE PLASTIC		2
15.	72063273	WASHER .52ID X 2.00OD X 10GA		2
16.	72661514	PIN-LOCK W/HANDLE .875 X 4.25		1
17.	72066144	HAIR PIN .16 DIA .63-1.00 SHAFT (PART OF 72661514)	REF	1
18.	70144211	PIN- .75X 6.50LG		1
19.	72066145	HAIR PIN .19 DIA .63-1.00 SHAFT (PART OF 70144211)	REF	1
20.	70034382	CAP-GREASE	#1	1
21.	72053507	ZERK-STR THD .25-28	#1	1
22.	72060013	CAP SCREW .25-20X 3.25 HH GR5 Z	#1	2
23.	72060092	CAP SCREW .50-13X 1.25 HH GR5 Z	#1	2
24.	72060928	CAP SCREW .50-13X 2.25 HH GR5 Z	#1	1
25.	72062103	NUT .38-16 HEX NYLOCK	#1	2
26.	72062104	NUT .25-20 HEX NYLOCK	#1	2
27.	72063001	WASHER .25 FLAT	#1	4
28.	72063003	WASHER .38 FLAT	#1	2
29.	72063005	WASHER .50 FLAT	#1	5
30.	72063053	WASHER .50 LOCK	#1	5
REV. A 20081209				

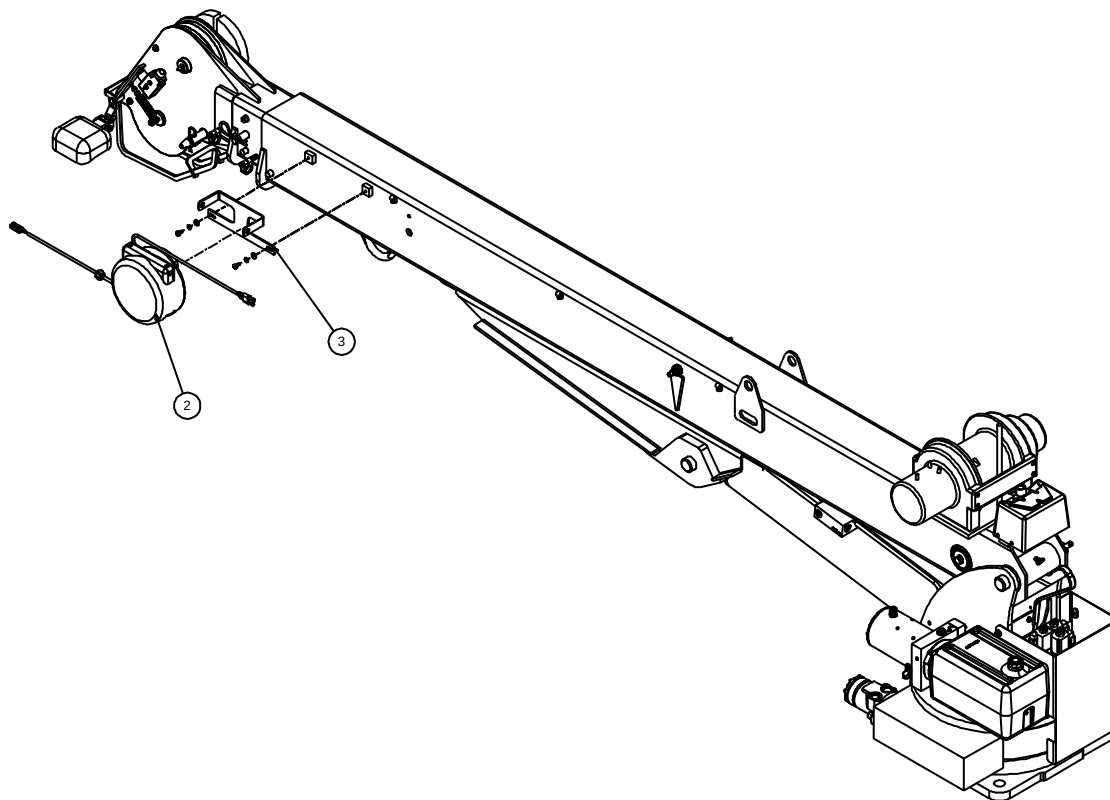
Light Kit (99906235)



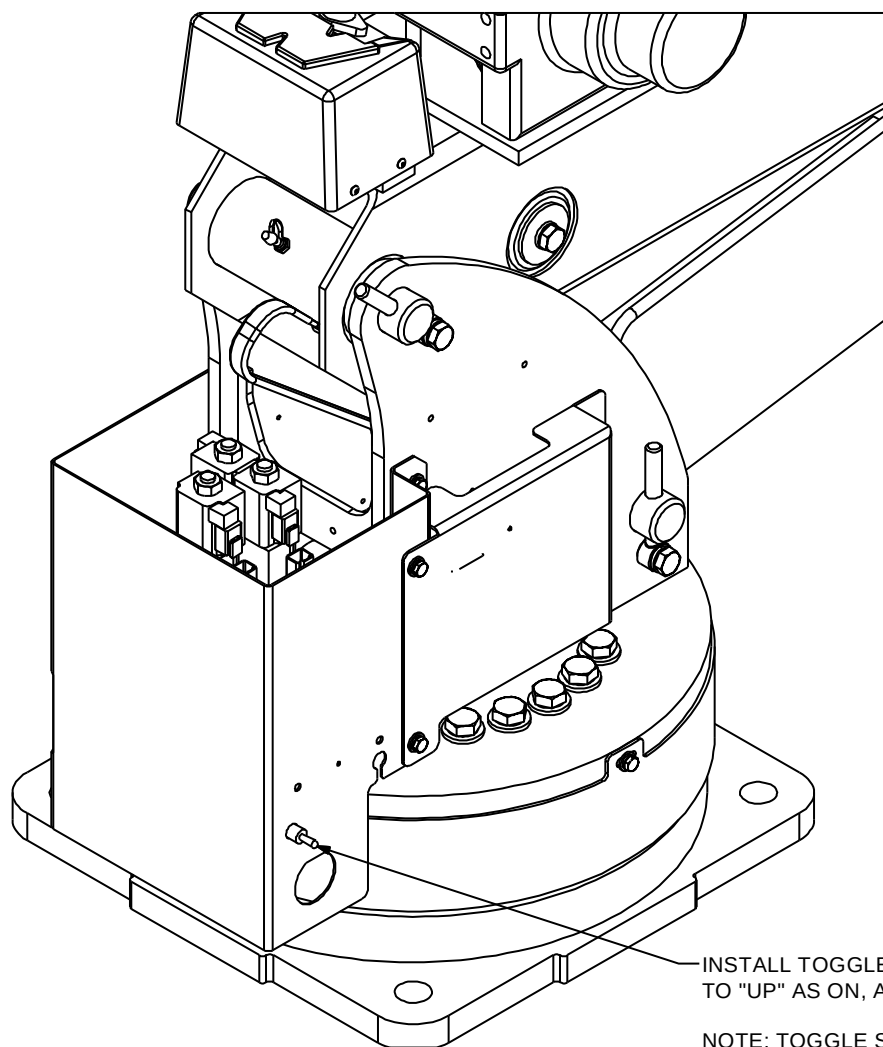
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	51727280	ELECT KIT-BOOM FLOOD LIGHTS 5005i-6006i		1
2.	77040581	FLOODLIGHT-LED 12-36VDC	1	2
3.	60145056	BRACKET-LIGHT 5005i-6006i	1	1
4.	60145332	SLEEVE-TYPE C .44X .75X .25	1	2
5.	72063002	WASHER .31 FLAT	1	4
6.	72060076	CAP SCR .44-14X 6.00 HH GR5 Z	1	1
REV. B				
Effective 1-1-2018				

99906235-1

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	51727280	ELECT KIT-BOOM FLOOD LIGHTS 5005i-6006i		1
2.	77045888	TERM-PKRD WEATHERPACK 14-16GA FEMALE	1	2
3.	77044927	CABLE SEAL-PKRD WP/MP 14 GA GREY	1	2
4.	77044574	CONN-PKRD WEATHERPACK 2 CAV FEMALE/TOWER	1	1
REV. B				
Effective 1-1-2018				

99906235-2

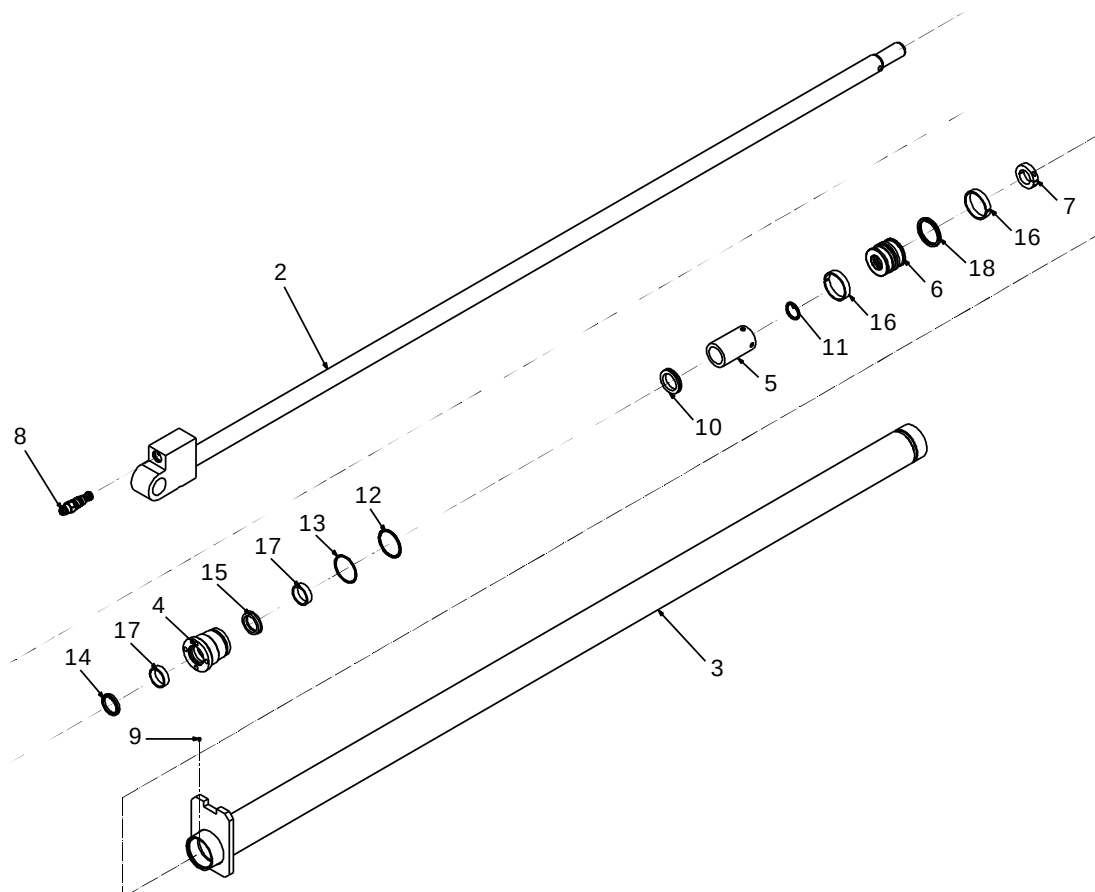
ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	51727280	ELECT KIT-BOOM FLOOD LIGHTS 5005i-6006i		1
2.	51727417	CORD REEL ASM 10.5' W/PACKARD CONN 3-WIR		1
3.	60132111	BRKT- CORD REEL MNT		1
REV. B				
Effective 1-1-2018				

99906235-3

INSTALL TOGGLE SWITCH IN VALVE BANK COVER
TO "UP" AS ON, AND "DOWN" AS OFF.

NOTE: TOGGLE SWITCH 77041345
IS PART OF HARNESS 77441674.

Cylinder, Extension (51721386)



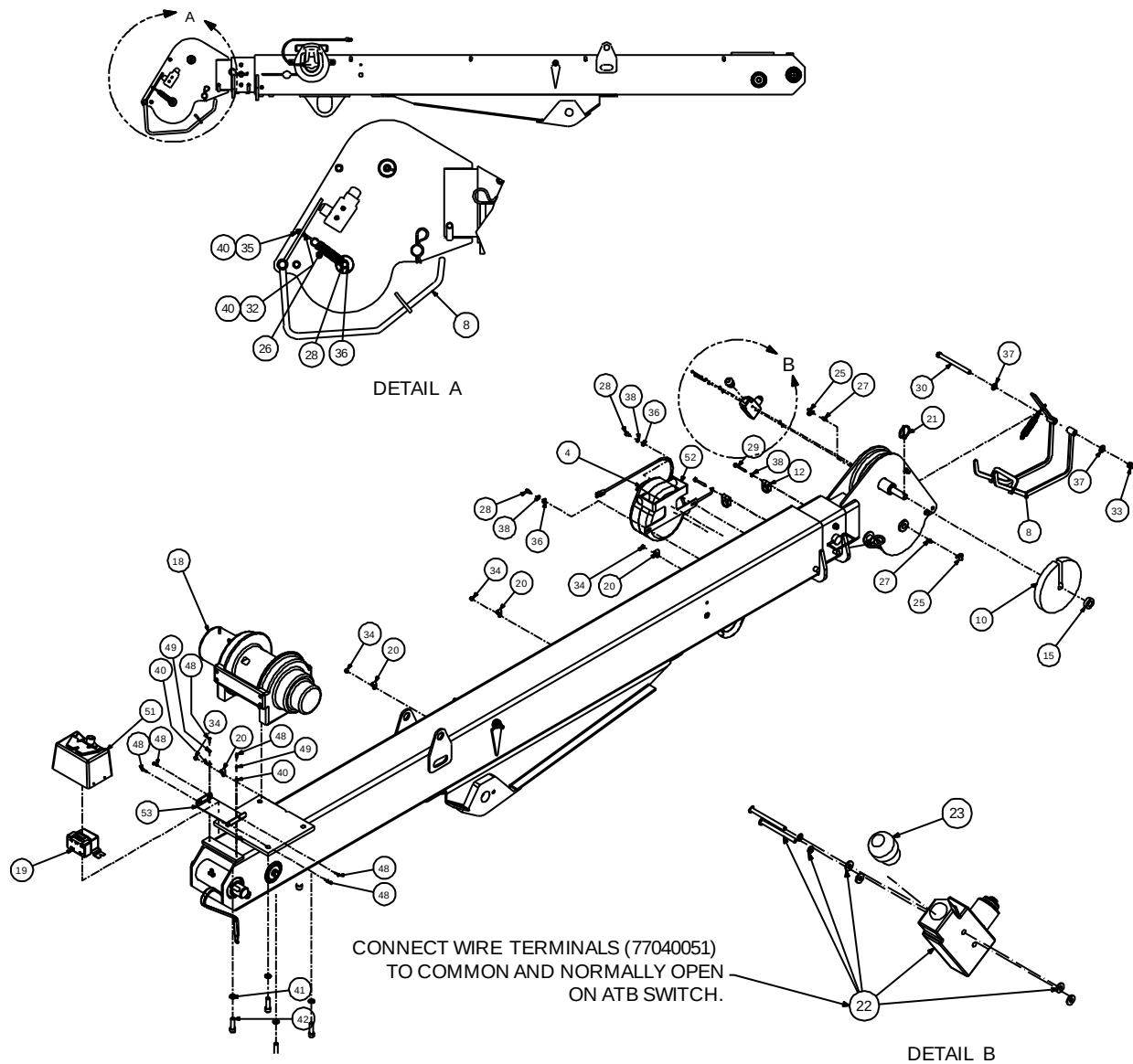
NOTES:

- 1 DRILL #15 HOLE 3/16" DEEP. PRESS IN PIN # 60125699.
- 2 TO REDUCE DOWNTIME, REPLACE ALL COMPONENTS OF THE SEAL KIT WHENEVER THE CYLINDER IS DISASSEMBLED.
- 3 APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO THREADS ON CYLINDER HEAD ONLY. KEEP AWAY FROM ALL SEALS.
- 4 APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

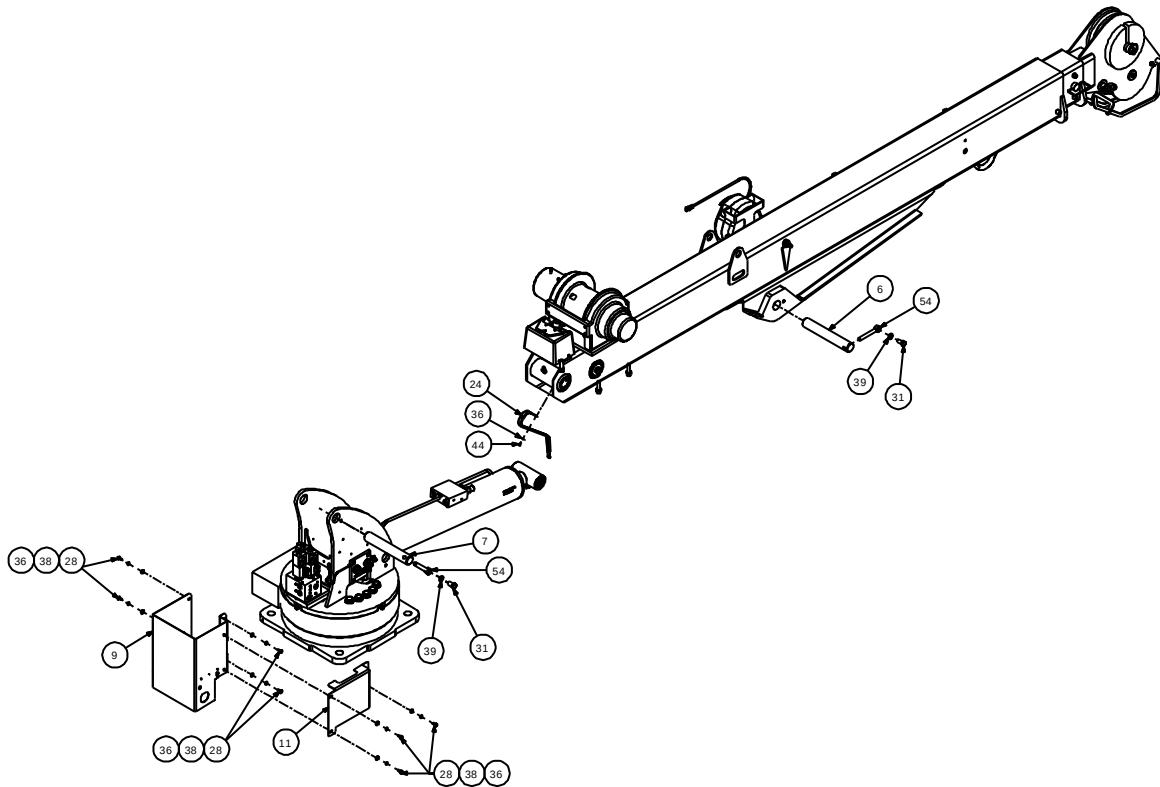
51721386 CYLINDER DATA	
CASE	ø3" O.D. X ø2.5" BORE X 81.26" LENGTH
ROD	ø1.5" X 82.69" LONG
STROKE	72"
DRY WEIGHT	84.65 LB
TORQUES	HEAD: 250 FT-LB PISTON: 500-530 FT-LB
TEST PRESSURE	3000 PSI
OPERATING PRESSURE	2500 PSI

51721386 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	51744143	IMT SEAL KIT-2.50 B X 1.50 R 1.25 STGR		1
2.	52721387	ROD ASM-1.50 DIA X 86.63 LG 1.25 S		1
3.	52721388	CASE ASM-2.50 BORE X 82.51 LG		1
4.	6HD25015	HEAD-2.50 BORE X 1.50 ROD (DUCTILE IRON)		1
5.	60127864	STOP TUBE-1.50 ROD X 3.56LG 4 HOLE		1
6.	60127830	PISTON-2.50 BORE X 1.25 STGR		1
7.	72062323	COLLAR-LOCK 1-1/4-12 X 2.063 X 1/2		1
8.	73054999	VALVE-CBAL		1
9.	60125699	PIN - LOCK TUBE 0.19 OD X 0.065 WALL	#1	1
10.	6A025015	WAFER LOCK IMT 1.50	#1	1
11.	7Q072218	O RING 1.25X 1.50X .12 70	#1	1
12.	7Q072228	O RING 2.25X 2.50X .12 70	#1	1
13.	7Q10P228	BACKUP RING-2.25 ID X 2.50 OD	#1	1
14.	7R14P015	ROD WIPER TYPE D 1.50 ROD	#1	1
15.	7R546015	U-CUP 1.50 ID X 2.00 OD	#1	1
16.	7T2N4025	WEAR RING-PISTON 2.50 ODX .50W	#1	2
17.	7T2NX417	WEAR RING-ROD 1.50 IDX0.50W	#1	2
18.	7T66P250	PISTON SEAL-DYNAMIC	#1	1
NEW 20080709				

2018 Crane & Winch Assembly (99904456)



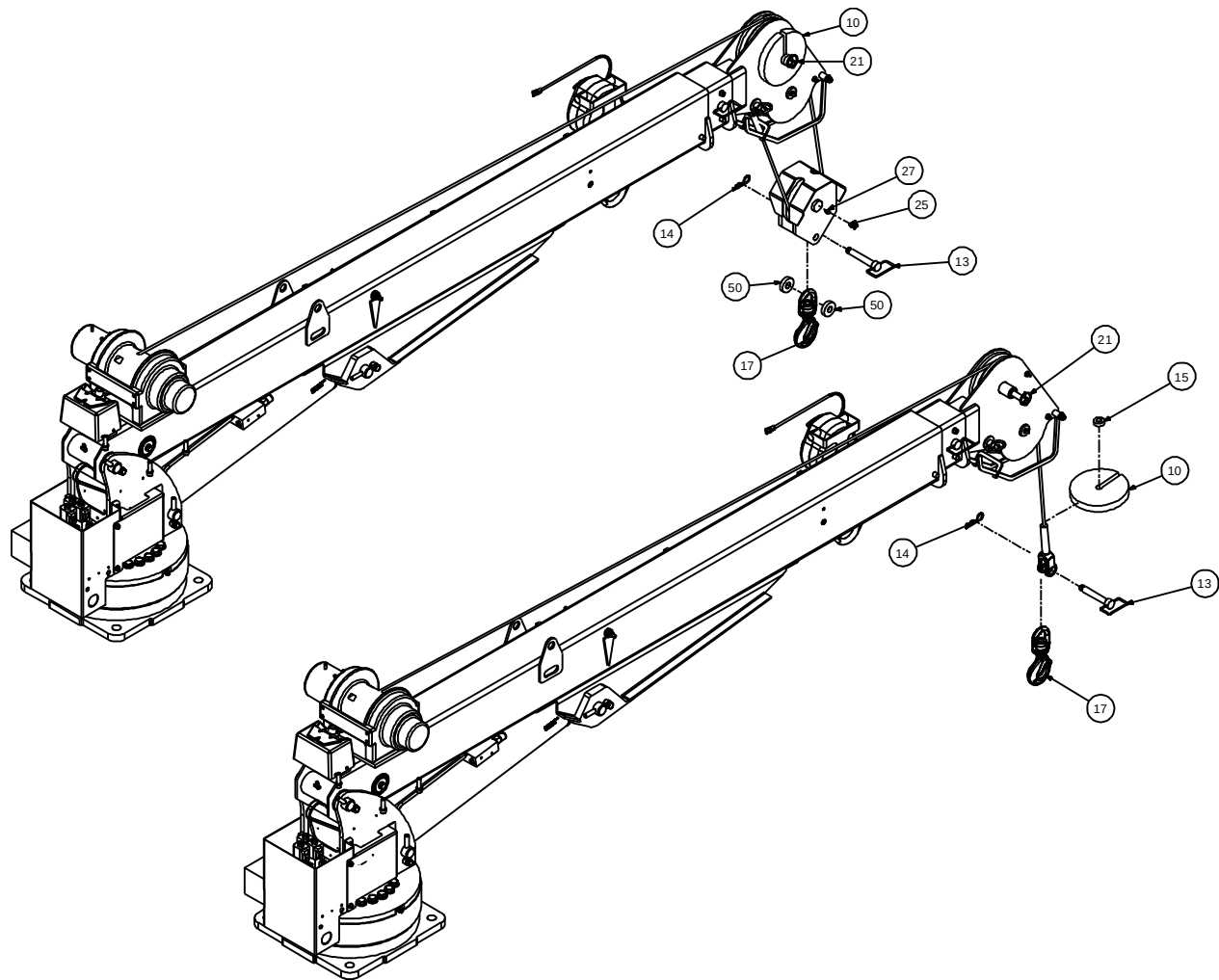
99904456-1



NOTES:

1. USE ANTI-SEIZ ON PINS.
2. ALL ELECTRICAL GROUNDS MUST BE FREE OF PAINT, GREASE, AND OIL.
3. IF REQUIRED USE (72063036) MACHNY BUSHINGS BETWEEN MAST AND BOOM WHEN INSTALLING PIN, 52721425.

99904456-2



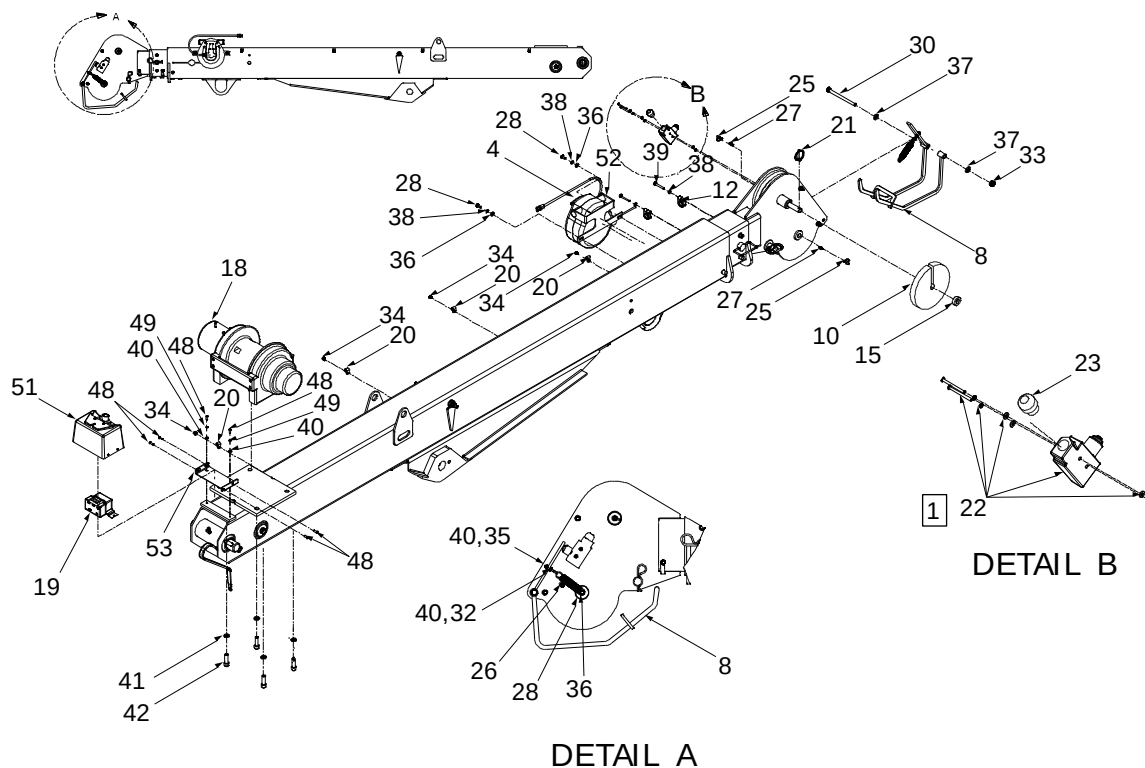
99904456 Complete Parts List

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	99904454	DWG-BASE & MAST ASM 6006I		REF
2.	99904335	BOOM ASM 5005I-6006i		REF
3.	51721424	KIT-HRDW CRANE & WINCH 6006I		1
4.	51727065	CORD REEL ASM - 10.5' - W/PACKARD CONNECTOR		1
5.	52717885	WLDMT- SNATCH BLOCK		1
6.	60141135	PIN-TYPE NN 1.50X 9.75		1
7.	60141134	PIN-TYPE NN 1.50X 9.25		1
8.	52725226	WLDMT-ATB TRIP MECHANISM		1
9.	52722163	COVER-VALVE BANK 5005I/6006i		1
10.	60122263	PLATE-SINGLE SHEAVE 3820		1
11.	60134104	COVER-CONTACTOR (5005I-6006I)		1
12.	70034381	SUPPORT-GP STAUFF LN-4190-PA		2
13.	70144209	PIN- .75X 4.50 LG WS80-WS100		1
14.	72066144	HAIR PIN .16 DIA .63-1.00 SHAFT (PART OF 70144209)	#13	1
15.	70149793	COLLAR-SHAFT 2 PIECE 11/16 IN		1
16.	70580198	WIRE ROPE ASM-.31(6X19 IWRC)X 80' RRL		1
17.	70735100	HOOK-SWVL POS LOCK BBRG 3TON		1
18.	71570923	WINCH-DC3000 12VDC		1
19.	77041936	CONTACTOR-WINCH 12V DC3000 (COMES WITH WINCH)	#18	1
20.	72034485	CLAMP-PLASTIC 1/4" CABLE		4
21.	72661543	PIN-QUICK 316-10QP		1
22.	77041459	SWITCH-LIMIT		1
23.	77441096	CONNECTOR- .50 STR RLF .25-.38		1
24.	77441282	GROUND STRAP- 12IN		1
25.	70034382	CAP-GREASE PRO20 GC-RED	#3	3
26.	71413196	SPRING-.105WIRE 0.75OD 2.875 LG	#3	1
27.	72053508	ZERK-NPT .12	#3	3
28.	72060000	CAP SCR .25-20X .50 HH GR5 Z	#3	10
29.	72060007	CAP SCR .25-20X 1.75 HH GR5 Z	#3	2
30.	72060075	CAP SCR .44-14X 5.50 HH GR5 Z	#3	1
31.	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	#3	2
32.	72062093	NUT # 8-32 HEX ZINC	#3	1
33.	72062105	NUT .44-14 HEX NYLOCK	#3	1
34.	72062106	NUT 10-24 HEX NYLOCK	#3	4

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
35.	72062207	NUT 8-32 HEX NYLOCK	#3	1
36.	72063001	WASHER .25 FLAT	#3	14
37.	72063004	WASHER .44 FLAT	#3	2
38.	72063049	WASHER .25 LOCK	#3	11
39.	72063053	WASHER .50 LOCK	#3	2
40.	72063271	WASHER # 8 W FLAT ANSI B27.2Z	#3	4
41.	72601798	WASHER-LOCK 12MM	#3	4
42.	72601935	CAP SCR M12-1.75X 40 SH ZC	#3	4
43.	72601938	BOLT-EYE # 8-32X 1.125	#3	1
44.	72601941	SCR-MACH .25-20X .38 BTNHD ZC	#3	1
45.	77040051	TERM-SPRSPADE I #8 STUD 16-14	#3	2
48.	72602011	SCR-MACH # 8-32X .62 BTNHD ZC	#3	6
49.	72063239	WASHER # 8 LOCK	#3	2
50.	60030327	SPACER- SNATCH BLOCK		2
51.	71413880	COVER W/O SOCKET		1
52.	60144651	BRKT- CORD REEL MNT		1
53.	52725217	WLDMT-WINCH CONTACTOR BRKT		1
54.	71415015	KEEPER-PIN .50		2
REV. M				
Effective: 01/01/2018				

Crane & Winch Assembly (99904456)

Effective: 2-9-17



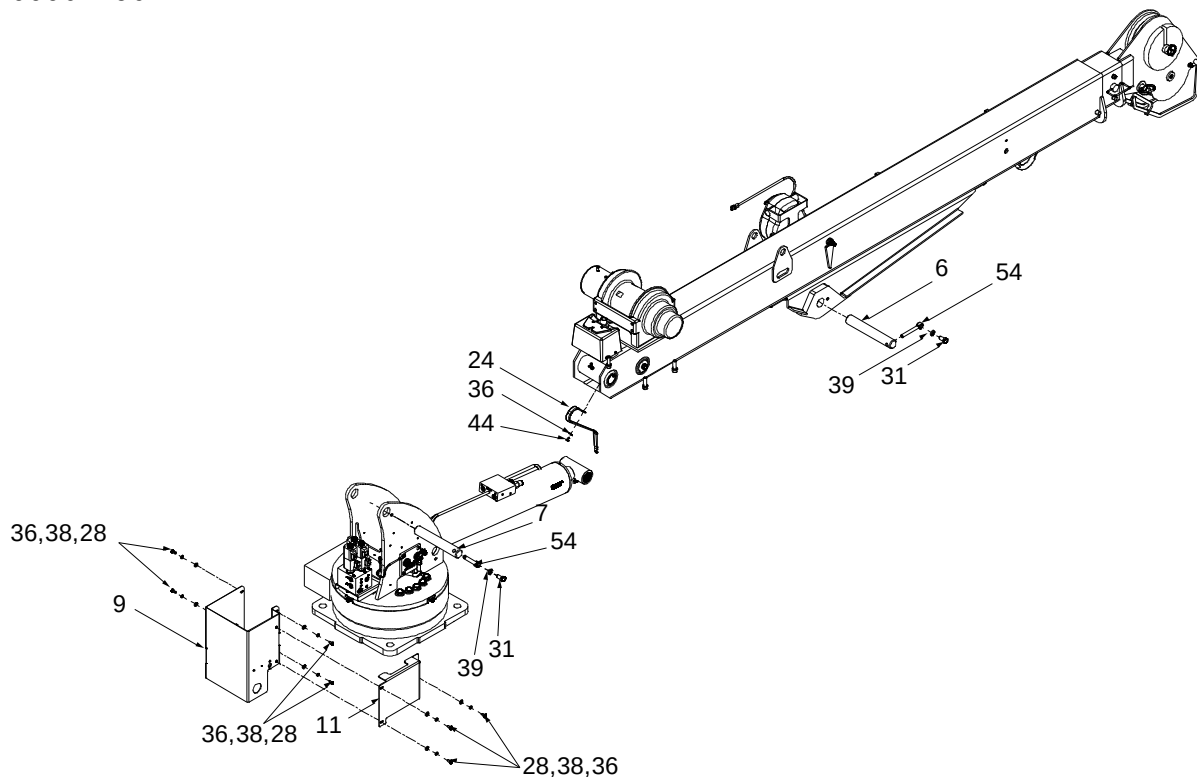
Notes:

1. Connect the wire terminals (77040051) to common and normally open on ATB switch.

99904456 Parts List		Effective: 2-9-2017		
Item	Part No.	Description	Kit No.	Qty
4	51727065	CORD REEL ASM - 10.5' - W/PACKARD CONNECTOR		1
8	52725226	WLDMT-ATB TRIP MECHANISM		1
10	60122263	PLATE-SINGLE SHEAVE 3820		1
12	70034381	SUPPORT-GP STAUFF LN-4190-PA		2
15	70149793	COLLAR-SHAFT 2 PIECE 11/16 IN		1
18	71570923	WINCH-DC3000 12VDC		1
20	72034485	CLAMP-PLASTIC 1/4" CABLE		4
21	72661543	PIN-QUICK 316-10QP		1
22	77041459	SWITCH-LIMIT		1
23	77441096	CONNECTOR- .50 STR RLF .25-.38		1
25	70034382	CAP-GREASE PRO20 GC-RED	#3	3
26	71413196	SPRING-.105WIRE 0.75OD 2.875 LG	#3	1
27	72053508	ZERK-NPT .12	#3	3
28	72060000	CAP SCR .25-20X .50 HH GR5 Z	#3	10
30	72060075	CAP SCR .44-14X 5.50 HH GR5 Z	#3	1
32	72062093	NUT # 8-32 HEX ZINC	#3	1
33	72062105	NUT .44-14 HEX NYLOCK	#3	1
34	72062106	NUT 10-24 HEX NYLOCK	#3	4
35	72062207	NUT 8-32 HEX NYLOCK	#3	1

99904456 Parts List Effective: 2-9-2017				
Item	Part No.	Description	Kit No.	Qty
36	72063001	WASHER .25 FLAT	#3	14
37	72063004	WASHER .44 FLAT	#3	2
38	72063049	WASHER .25 LOCK	#3	11
39	72063053	WASHER .50 LOCK	#3	2
40	72063271	WASHER # 8 W FLAT ANSI B27.2Z	#3	4
41	72601798	WASHER-LOCK 12MM	#3	4
42	72601935	CAP SCR M12-1.75X 40 SH ZC	#3	4
48	72602011	SCR-MACH # 8-32X .62 BTNHD ZC	#3	6
49	72063239	WASHER # 8 LOCK	#3	2
51	71413880	COVER W/O SOCKET		1
52	60144651	BRKT- CORD REEL MNT		1
53	52725217	WLDMT-WINCH CONTACTOR BRKT		1
REV. S 20170215				

99904456-1



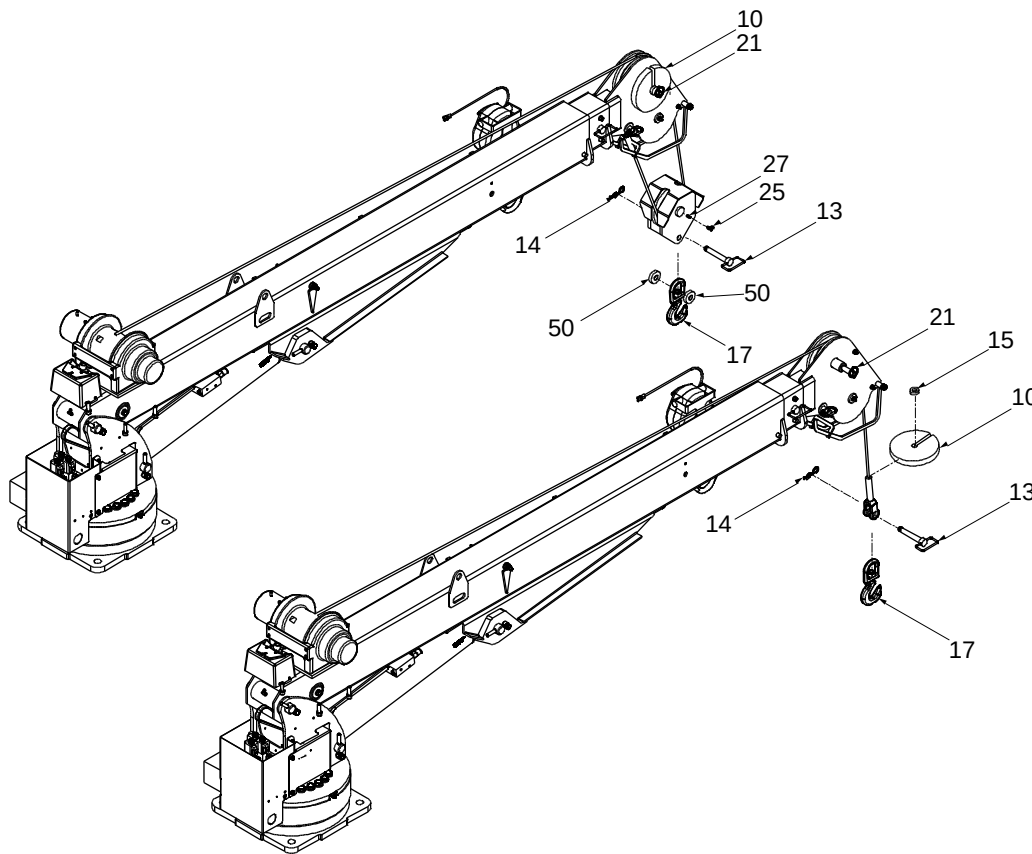
Notes:

1. USE ANTIE-SEEZ ON PINS.
2. ALL ELECTRICAL GROUNDS MUST BE FREE OF PAINT, GREASE, AND OIL.
3. IF REQUIRED USE (72063036) MACHNY BUSHINGS BETWEEN MAST AND BOOM WHEN INSTALLING PIN, 52721425.

99904456-1 Parts List Effective: 2-9-2017				
Item	Part No.	Description	Kit No.	Qty.
6	60141135	PIN-TYPE NN 1.50X 9.75		1
7	60141134	PIN-TYPE NN 1.50X 9.25		1
9	52722163	COVER-VALVE BANK 5005i/6006i		1
11	60134104	COVER-CONTACTOR (5005I-6006I)		1

99904456-1 Parts List Effective: 2-9-2017

Item	Part No.	Description	Kit No.	Qty.
24	77441282	GROUND STRAP- 12IN		1
28	72060000	CAP SCR .25-20X .50 HH GR5 Z	#3	10
31	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	#3	2
36	72063001	WASHER .25 FLAT	#3	14
38	72063049	WASHER .25 LOCK	#3	11
39	72063053	WASHER .50 LOCK	#3	2
44	72601941	SCR-MACH .25-20X .38 BTNHD ZC	#3	1
54	71415015	KEEPER-PIN .50		2
REV. S 20170215				

99904456-2**99904456-2 Parts List Effective: 2-9-2017**

Item	Part No.	Description	Kit No.	Qty
10	60122263	PLATE-SINGLE SHEAVE 3820		1
13	70144209	PIN- .75X 4.50 LG WS80-WS100		1
14	72066144	HAIR PIN .16 DIA .63-1.00 SHAFT (PART OF 70144209)	#13	1
15	70149793	COLLAR-SHAFT 2 PIECE 11/16 IN		1
17	71073920	HOOK-SWVL L-322A-3T W/LATCH		1
21	72661543	PIN-QUICK 316-10QP		1
25	70034382	CAP-GREASE PRO20 GC-RED	#3	3
27	72053508	ZERK-NPT .12	#3	3

99904456-2 Parts List Effective: 2-9-2017				
Item	Part No.	Description	Kit No.	Qty
50	60030327	SPACER- SNATCH BLOCK		2
Rev S 20170215				

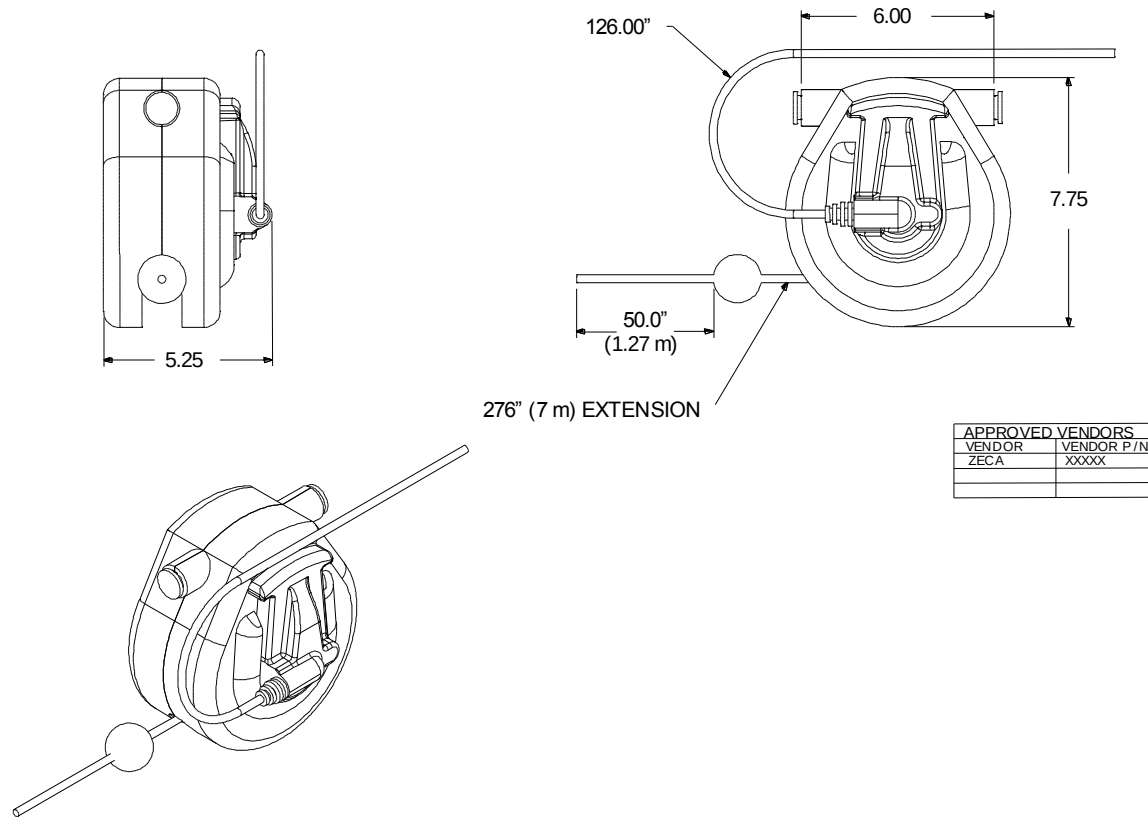
99904456 Parts List

99904456 Complete Parts List Effective 2-9-17				
Item	Part No.	Description	Kit No.	Qty
1	99904454	DWG-BASE & MAST ASM 6006I		REF
2	99904335	BOOM ASM 5005I-6006i		REF
3	51721424	KIT-HRDW CRANE & WINCH 6006I		1
4	51727065	CORD REEL ASM - 10.5' - W/PACKARD CONNECTOR		1
5	52717885	WLDMT- SNATCH BLOCK		1
6	60141135	PIN-TYPE NN 1.50X 9.75		1
7	60141134	PIN-TYPE NN 1.50X 9.25		1
8	52725226	WLDMT-ATB TRIP MECHANISM		1
9	52722163	COVER-VALVE BANK 5005i/6006i		1
10	60122263	PLATE-SINGLE SHEAVE 3820		1
11	60134104	COVER-CONTACTOR (5005I-6006I)		1
12	70034381	SUPPORT-GP STAUFF LN-4190-PA		2
13	70144209	PIN- .75X 4.50 LG WS80-WS100		1
14	72066144	HAIR PIN .16 DIA .63-1.00 SHAFT (PART OF 70144209)	#13	1
15	70149793	COLLAR-SHAFT 2 PIECE 11/16 IN		1
16	70580198	WIRE ROPE ASM-.31(6X19 IWRC)X 80' RRL		1
17	71073920	HOOK-SWVL L-322A-3T W/LATCH		1
18	71570923	WINCH-DC3000 12VDC		1
19	77041936	CONTACTOR-WINCH 12V DC3000 (COMES WITH WINCH)	#18	1
20	72034485	CLAMP-PLASTIC 1/4" CABLE		4
21	72661543	PIN-QUICK 316-10QP		1
22	77041459	SWITCH-LIMIT		1
23	77441096	CONNECTOR- .50 STR RLF .25-.38		1
24	77441282	GROUND STRAP- 12IN		1
25	70034382	CAP-GREASE PRO20 GC-RED	#3	3
26	71413196	SPRING-.105WIRE 0.75OD 2.875 LG	#3	1
27	72053508	ZERK-NPT .12	#3	3
28	72060000	CAP SCR .25-20X .50 HH GR5 Z	#3	10
29	72060007	CAP SCR .25-20X 1.75 HH GR5 Z	#3	2
30	72060075	CAP SCR .44-14X 5.50 HH GR5 Z	#3	1
31	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	#3	2
32	72062093	NUT # 8-32 HEX ZINC	#3	1
33	72062105	NUT .44-14 HEX NYLOCK	#3	1
34	72062106	NUT 10-24 HEX NYLOCK	#3	4
35	72062207	NUT 8-32 HEX NYLOCK	#3	1
36	72063001	WASHER .25 FLAT	#3	14

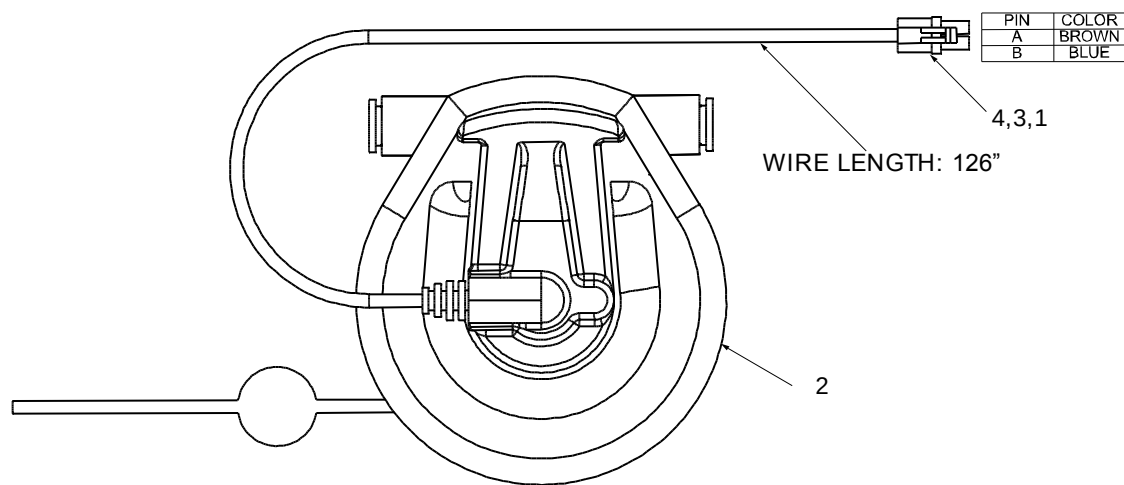
99904456 Complete Parts List Effective 2-9-17				
Item	Part No.	Description	Kit No.	Qty
37	72063004	WASHER .44 FLAT	#3	2
38	72063049	WASHER .25 LOCK	#3	11
39	72063053	WASHER .50 LOCK	#3	2
40	72063271	WASHER # 8 W FLAT ANSI B27.2Z	#3	4
41	72601798	WASHER-LOCK 12MM	#3	4
42	72601935	CAP SCR M12-1.75X 40 SH ZC	#3	4
43	72601938	BOLT-EYE # 8-32X 1.125	#3	1
44	72601941	SCR-MACH .25-20X .38 BTNHD ZC	#3	1
45	77040051	TERM-SPRSPADE I #8 STUD 16-14	#3	2
48	72602011	SCR-MACH # 8-32X .62 BTNHD ZC	#3	6
49	72063239	WASHER # 8 LOCK	#3	2
50	60030327	SPACER- SNATCH BLOCK		2
51	71413880	COVER W/O SOCKET		1
52	60144651	BRKT- CORD REEL MNT		1
53	52725217	WLDMT-WINCH CONTACTOR BRKT		1
54	71415015	KEEPER-PIN .50		2
REV. S 20170209				

Cord Reel-6.7m, Electric 2-Wire (70735052)

Effective: 2-9-17



Cord Reel Assembly, 10'5" W/Packard Connector (51727065) Effective 2-9-17

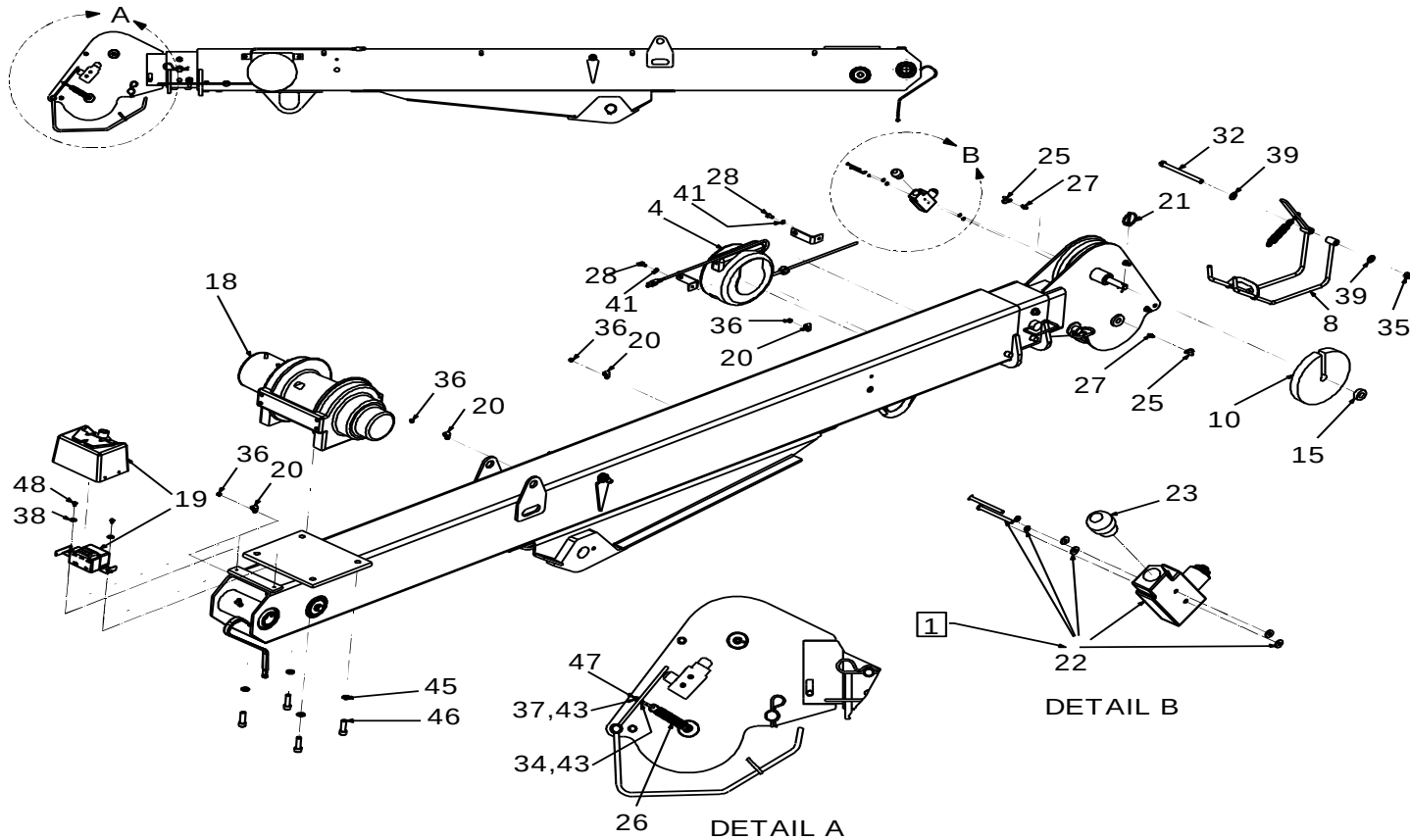


51727065 COMPLETE PARTS LIST

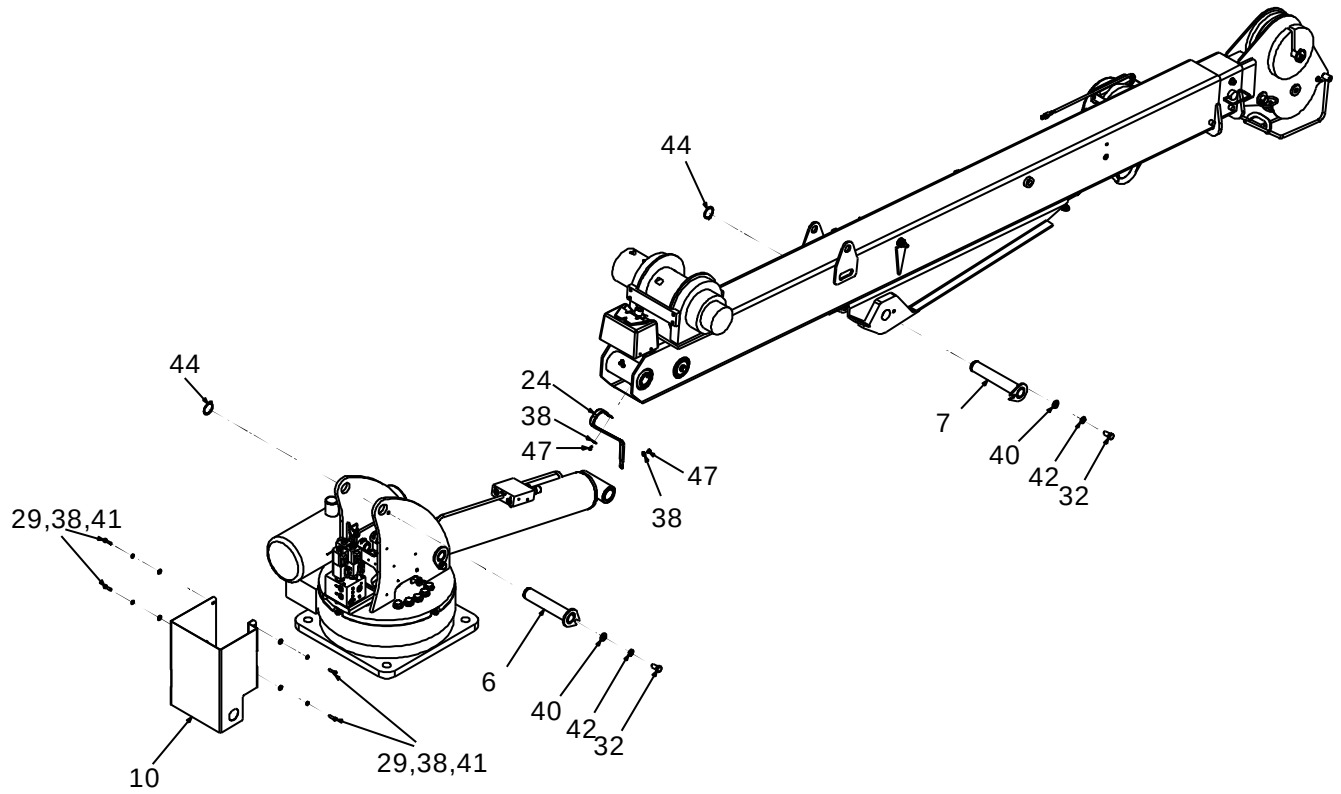
Item	Part No.	Description	Qty
1	70394069	SEAL-CABLE-GRN 20-18 GA PACKARD	2
2	70735052	CORD REEL ELECTRIC 2-WIRE	1
3	77044550	TERMINAL-FEM 18-20 GA WEATHER PACK	2
4	77044574	CONN-PKRD WEATHER PACK 2 CAV FEMALE/TOWER	1

Crane & Winch Assembly (99904456)

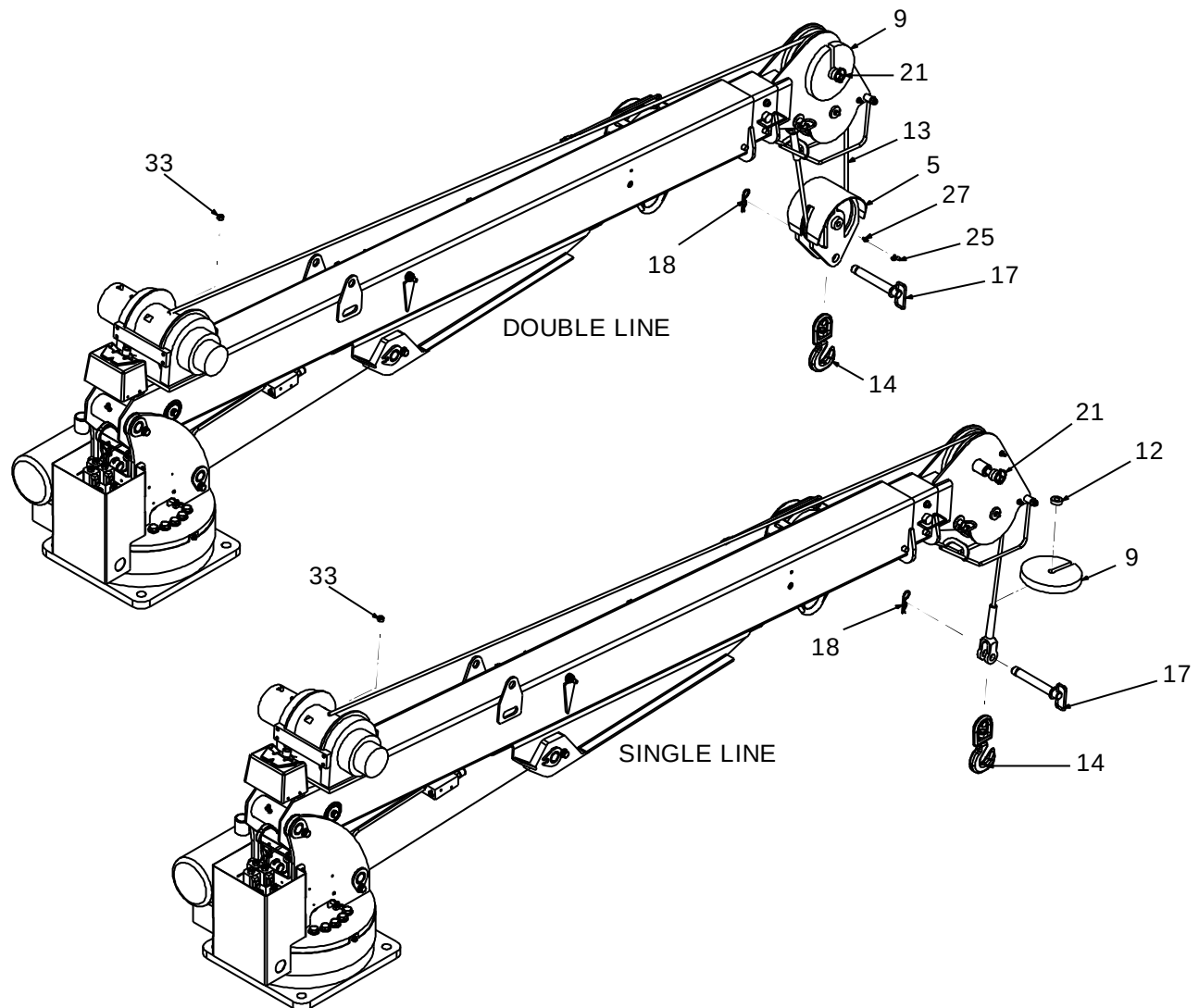
WINCH & BOOM ASSEMBLY



CRANE ASSEMBLY



SINGLE AND DOUBLE LINE



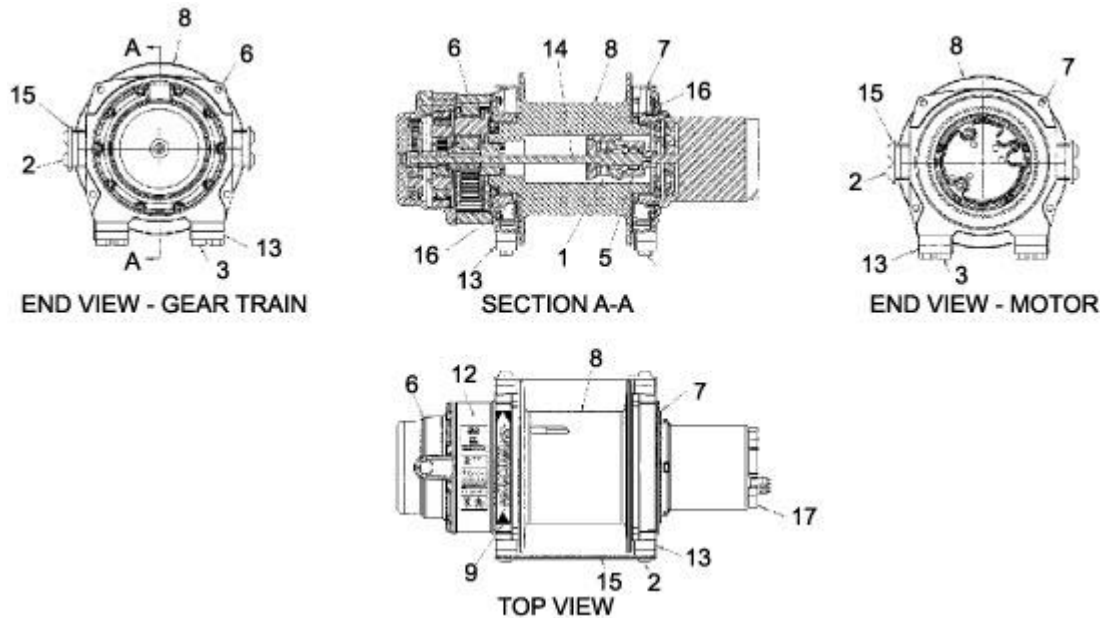
NOTES (SEE REFERENCE NUMBER IN BOX):

- 1 PART OF WINCH.
- 2 CONNECT THE WIRE TERMINALS (77040051) TO "COMMON" AND "NORMALLY OPEN" ON ANTI-TWO-BLOCK SWITCH.
- 3 USE ANTI-SEIZE ON PINS.
- 4 KEEP ELECTRICAL GROUNDS FREE OF PAINT, GREASE, AND OIL
- 5 IF REQUIRED, USE 72063036 MACHINERY BUSHINGS BETWEEN MAST AND BOOM WHEN INSTALLING 52721425.

99904456 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	99904454	DRAWING-BASE & MAST ASSEMBLY 6006I		REF
2.	99904335	BOOM ASSEMBLY 5005I-6006i		REF
3.	51721424	KIT-HARDWARE CRANE & WINCH 6006I		1
4.	51720302	CORD REEL ASSEMBLY- 10' W/PACKARD CONNECTOR		1
5.	52715836	GUARD WELDMENT SNATCH BLOCK		1
6.	52721425	PIN		1
7.	52719630	PIN		1
8.	52722112	WELDMENT-ATB TRIP MECHANISM 5005I/6006i		1
9.	60122263	PLATE-SINGLE SHEAVE 3820		1
10.	52722163	COVER- VALVE BANK 5005I (60133063)		1
11.	70034381	SUPPORT		2
12.	70149793	COLLAR-SHAFT 2 PIECE 11/16 IN		1
13.	70580182	CABLE ASSEMBLY-1020in .38 6X25 FW IWRC XIPS (LH LAY)		1
14.	71073920	HOOK-SWIVEL W/LATCH		1
15.	71570911	WINCH-DC3000 2.5 HP 24V (with controls)		1
16.	77041803	CONTACTOR-WINCH 24V DC4000 (PART OF 71570911)	#15	1
17.	73733171	PIN LOCK 1X6 W/HAIR PIN		1
18.	72066144	HAIR PIN .16 DIA .63-1.00 SHAFT (PART OF 73733171)	#17	1
19.	72034485	CLAMP-PLASTIC 1/4" CABLE		4
20.	72601997	CAP SCR M12-1.75X 55 SH ZC		4
21.	72661543	PIN-QUICK 316-10QP		1
22.	77041459	SWITCH-LIMIT		1
23.	77441096	CONNECTOR- .50 STR RLF .25-.38		1
24.	77441282	GROUND STRAP- 12IN		1
25.	70034382	CAP-GREASE	#3	3
26.	71413196	SPRING-.105WIRE 0.75OD 2.875 LG	#3	1
27.	72053508	ZERK-NPT .12	#3	3
28.	72060000	CAP SCR .25-20X .50 HH GR5 Z	#3	2
29.	72060004	CAP SCR .25-20X 1.00 HH GR5 Z	#3	4
30.	72060007	CAP SCR .25-20X 1.75 HH GR5 Z	#3	2
31.	72060075	CAP SCR .44-14X 5.50 HH GR5 Z	#3	1
32.	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	#3	2
33.	72062003	NUT .44-14 HEX	#3	1
34.	72062093	NUT # 8-32 HEX ZINC	#3	1
35.	72062105	NUT .44-14 HEX NYLOCK	#3	1
36.	72062106	NUT 10-24 HEX NYLOCK	#3	4
37.	72062207	NUT 8-32 HEX NYLOCK	#3	1
38.	72063001	WASHER .25 FLAT (WAS 8)	#3	11
39.	72063004	WASHER .44 FLAT	#3	2
40.	72063005	WASHER .50 FLAT	#3	2
41.	72063049	WASHER .25 LOCK (WAS 8)	#3	11

99904456 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
42.	72063053	WASHER .50 LOCK	#3	2
43.	72063271	WASHER # 8 W FLAT ANSI B27.2Z	#3	2
44.	72066132	RETAINING RING-EXT 1.50 HD	#3	2
45.	72601798	WASHER-LOCK 12MM	#3	4
46.	72601938	BOLT-EYE # 8-32X .75	#3	1
47.	72601941	CAP SCREW .25-20X .38 BTNHD ZC	#3	4
48.	77040051	TERM-SPRSPADE I #8 STUD 16-14	#3	2
49.	72060002	CAP SCREW 1/4-20 X 3/4 HHGR5Z	#3	3
50.	60134104	COVER-CONTACTOR		1
REV. E 20090217				

Winch (71570911)



71570911 PARTS LIST		
ITEM	PART #	DESCRIPTION
1.	77566642	BRAKE ASSEMBLY, LARGE FRAME
2.		CAPSCREW, M12-1.75 X 40
3.		CAPSCREW, M12-1.75 X 55
4.		DECAL
5.		DRIVER
6.		DRUM SUPPORT & GEAR TRAIN ASSEMBLY
7.		DRUM SUPPORT
8.		DRUM, MACHINED
9.		LABEL, DRUM ROTATION
12.		LABEL, NAMEPLATE
13.		PLATE, SPACER
14.		SHAFT DRIVE, HEX
15.		TIE BAR WELDMENT
16.		WASHER, THRUST NYLATRON
17.		MOTOR ASSEMBLY

WINCH REPLACEMENT PARTS

BRAKE - IMT # 77566642

BRUSH KIT - IMT # 77744177

CONTACTOR - IMT # 77041803

WIRE ROPE CAPACITY

3/8" DIAMETER ROPE - 80'

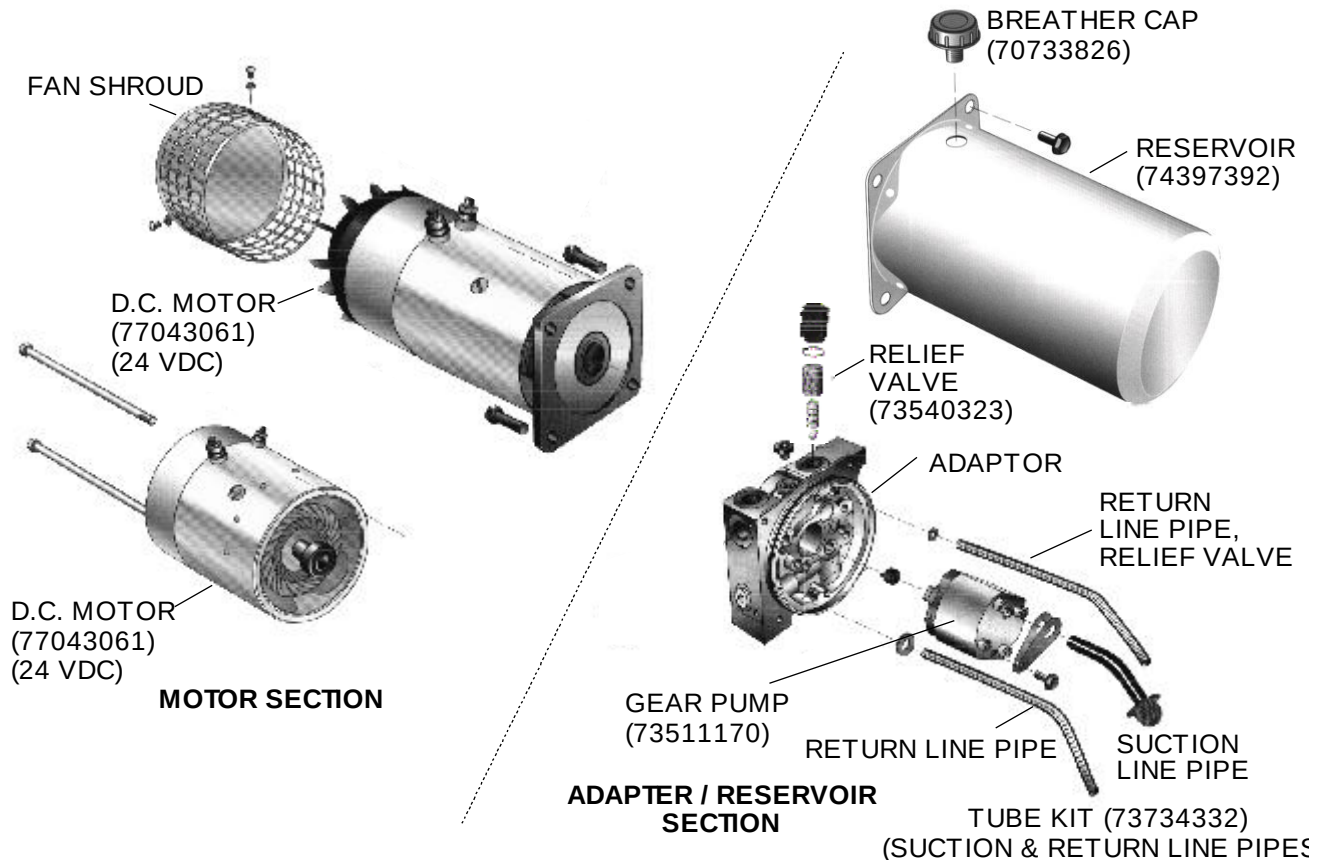
WINCH SPECIFICATIONS

MOTOR TYPE: 24V

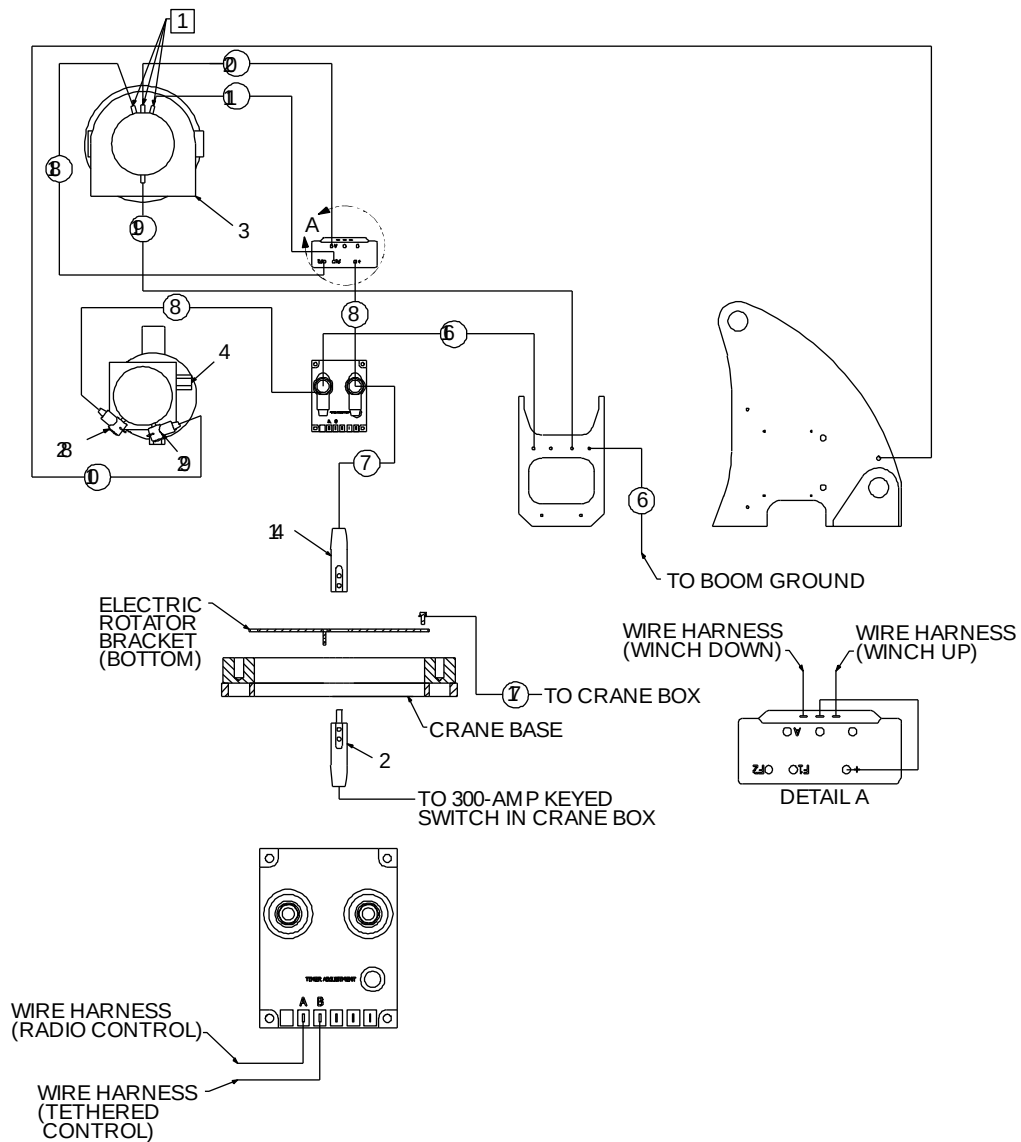
MOTOR HP: 2.5 HP

LAYER	LOAD (LB)	SPEED (FPM)
1	4,000	11.5
3	3,275	14

Power Unit (73511181)



Electrical Installation (99904457)



NOTES (SEE REFERENCE NUMBER IN BOX):

- 1 WRAP CABLES AND MOTOR TERMINALS WITH RUBBER BOOTS.

99904457 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	91722228	KIT- 6006I ELECTRICAL INSTALLATION, 24V		1
2.	51721944	CABLE ASM- 1GA-3/8RNGX SWVL MX 60.00LG	#1	1
3.	71570911	WINCH-DC3000 2.5 HP 24V (with controls)		REF
4.	73511181	POWER UNIT- 2.65CC 24VDC GC		REF
5.	77041803	CONTACTOR WINCH DC3000		REF
6.	77441282	GROUND STRAP- 12IN		1
7.	51721500	CABLE ASM-1GA-3/8RNDX11.00 LG	#1	1
8.	51721718	CABLE ASM- 2GA-5/16RNGX 3/8RNGX 25.00LG	#1	2
10.	51721720	CABLE ASM- 2GA-5/16RNGX 3/8RNGX 10.00LG	#1	1
11.	51721721	CABLE ASM- 2GA-5/16RNGX 5/16RNGX 18.00LG	#1	4
12.	60133014	TERM INSUL 3/8 STUD W/HOLE	#1	1
13.	77441336	SWITCH- 275A CONTACTOR (SSC42-275)	#1	1
14.	77441281	CABLE CONNECTOR - FEMALE	#1	1
15.	77441285	TERM INSUL 3/8 STUD	#1	1
16.	77441312	CABLE ASM-10GA #10RNG X 1/4RNG X 6 LG	#1	1
17.	77441332	CABLE ASM- 1GA-1/4RNGX 3/8RNGX 46.50LG	#1	1
18.	77441333	CABLE ASM- 2GA-5/16RNGX 5/16RNGX 23.00LG	#1	1
19.	77441334	CABLE ASM- 2GA-5/16RNGX 1/4RNGX 34.00LG	#1	1
20.	77441335	CABLE ASM- 2GA-5/16RNGX 5/16RNGX 16.00LG	#1	1
28.	77441302	TERM INSUL RED #8-2 GA WIRE		1
29.	77441303	TERM INSUL BLK #8-2 GA WIRE		1
REV. G 20151110				

Protective Sleeve Installation (70034573)



Step 1: Place the protective sleeve under the fuse holder, centering the holder with the protective sleeve.



Step 2: Securely wrap the two ends of the protective sleeve together making sure velcro is sealed on the top side of the front jump start plug holder.



Step 3: Securely zip tie both ends of the protective sleeve.

WARNING

For trucks without a battery disconnect switch, to prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative cable first) before proceeding. Disconnect negative (-) battery cable first, if positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury.

AMG FUSE HOLDERS REQUIRING PROTECTIVE SLEEVE

PART NO.	DESCRIPTION
77041593	FUSE HOLDER-AMG 1 POS W-COVER HMG-221
77441116	FUSE HOLDER-AMG 1 POS W-COVER FMG-211
77040714	FUSE HOLDER-AMG AND MEGA 500 AMP W/COVER

CAUTION

AVOID POSSIBLE FIRE!
Visually inspect and verify no other fuse holder posts are coming in contact with the chassis. The contact of a fuse to a grounded structure can cause a potentially dangerous short circuit. Failure to inspect and verify the fuse holder posts could result in a fire.

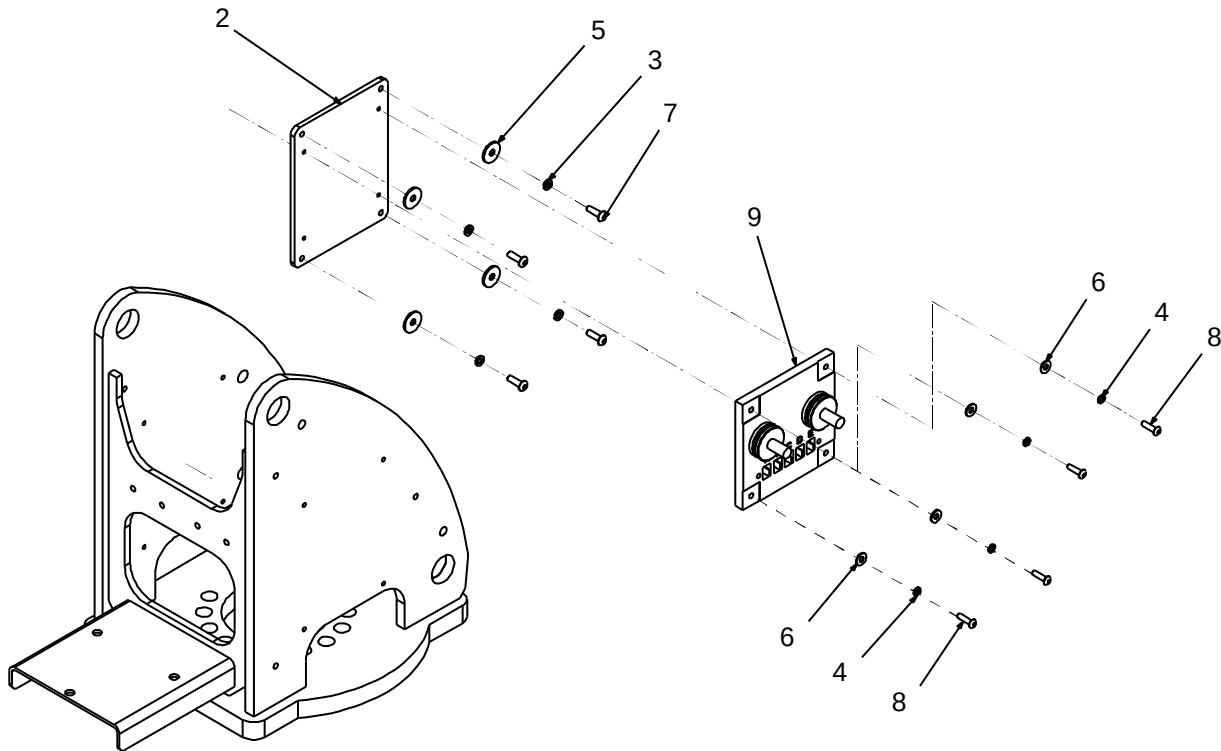
SAFETY NOTICE

Use appropriate Personal Protective Equipment (PPE) as required by your company. Read and understand the following instructions found within this document prior to starting work on the chassis.

SAFETY NOTICE

Follow your company's Lock-Out/Tag-Out procedures to prevent the truck from being started or moved while performing work on this crane. If your company does not have a Lock-Out/Tag-Out procedure, follow OSHA 1910.147, Lock-Out/Tag-Out.

275-Amp Contactor Replacement (99904578)

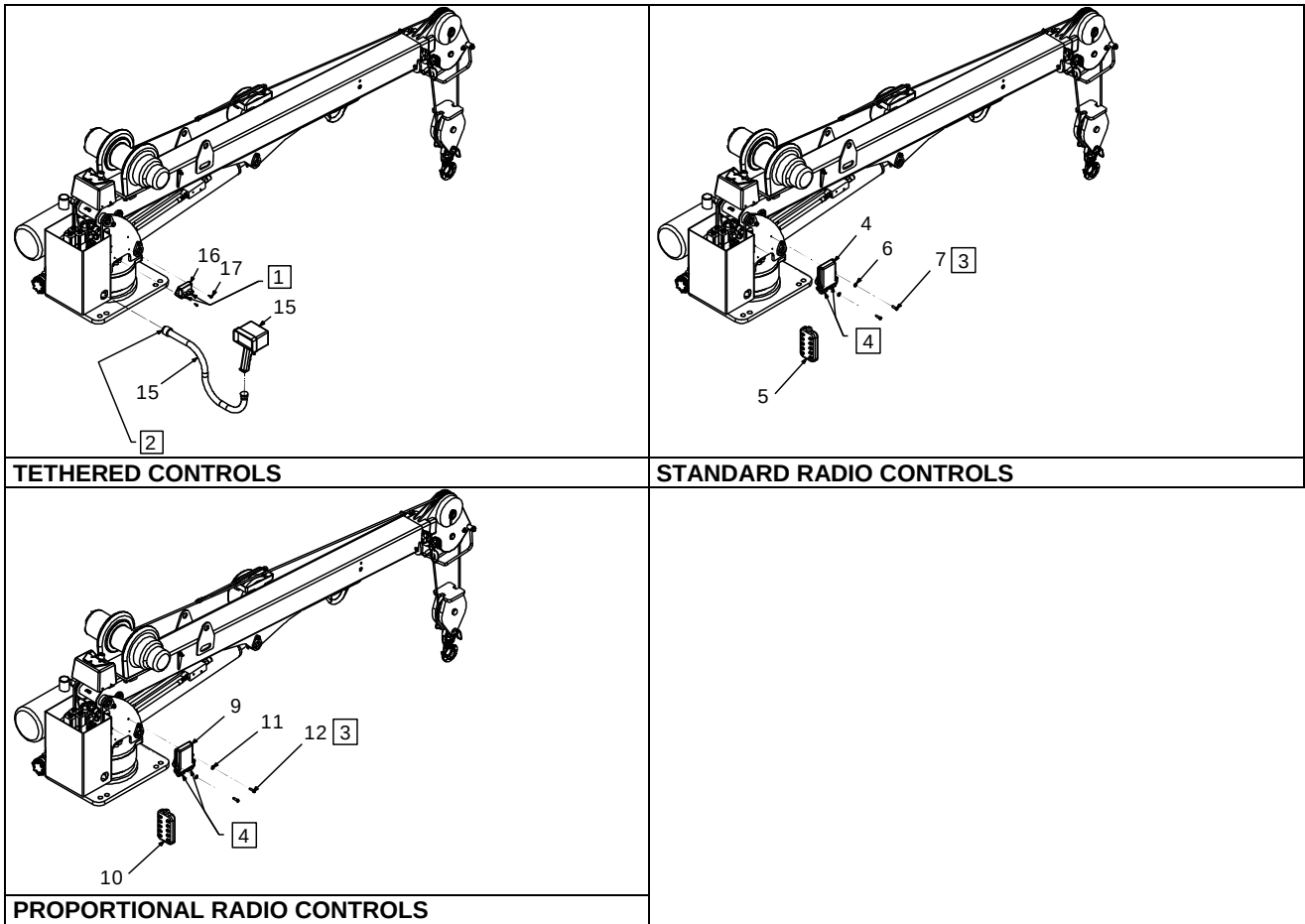


NOTE:

1 SWITCH MOUNTED INSIDE MAST.

99904578 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	91722165	HARDWARE KIT-CONTACTOR REPLACEMENT		1
2.	60251278	PLATE-CONTACTOR MNT		1
3.	72063047	WASHER #10 LOCK	#1	4
4.	72063239	WASHER # 8 LOCK	#1	4
5.	72063268	WASHER #10 W FLAT ANSI B27.2Z	#1	4
6.	72063271	WASHER # 8 W FLAT ANSI B27.2Z	#1	4
7.	72602007	SCREW-MACHINE #10-24X .62 BUTTONHEAD, ZINC-COATED	#1	4
8.	72602011	SCREW-MACHINE # 8-32X .62 BUTTONHEAD, ZINC-COATED	#1	4
9.	77441336	SWITCH- 275A CONTACTOR		1
NEW 20090210				

Controls Installation (99904377)



NOTES (SEE REFERENCE NUMBER IN BOX):

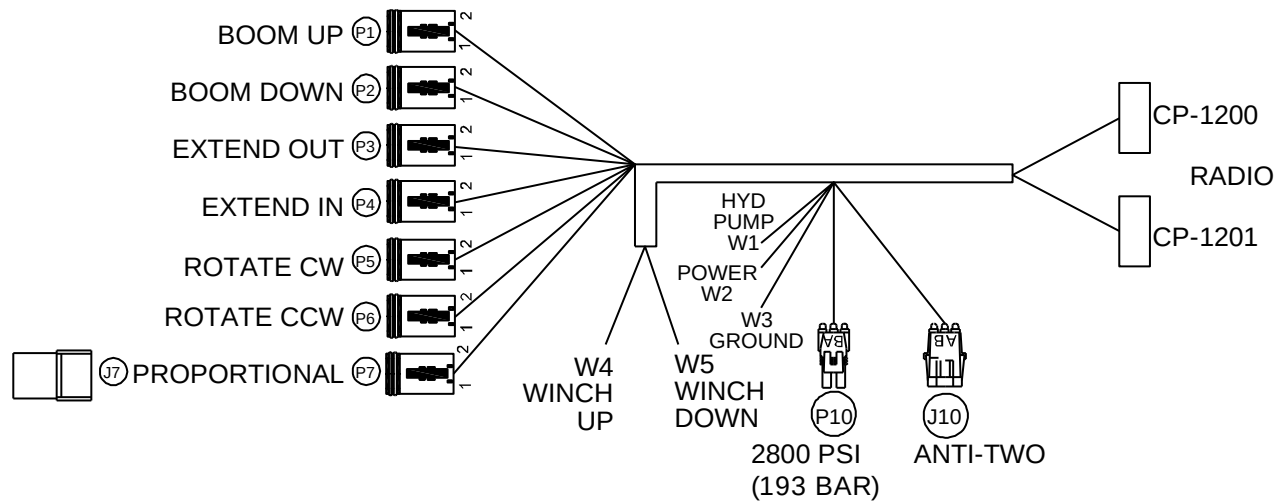
- 1 Connect wire harness into relay.
- 2 Connect to electrical harness 77441269.
- 3 Apply with serviceable locktite.
- 4 Connect wire harness into receiver.

99904377 PARTS LIST

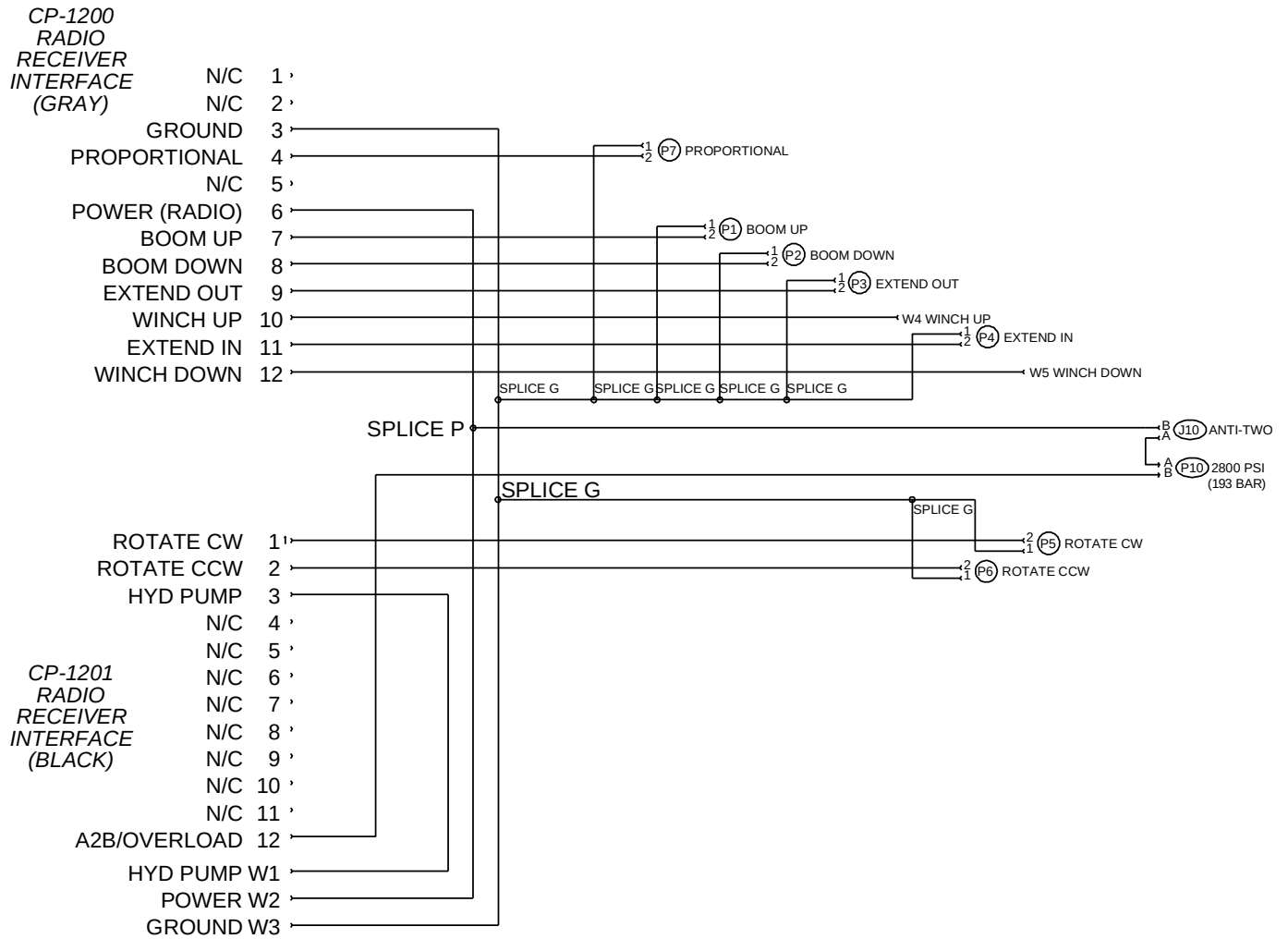
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	99904361	DRAWING-HYDRAULIC INSTALLATION		1
2.	91721523	CONTROL KIT - RADIO ELECTRIC CRANE		1
3.	77441270	HARNESS-RADIO ELECTRIC CRANE	#2	1
4.	70734329	RECEIVER - RADIO REMOTE	#2	1
5.	70734330	TRANSMITTER-RADIO REMOTE	#2	1
6.	72063166	WASHER-SS .25 R WRT 18-8 .62OD	#2	2
7.	72601330	CAP SCREW-SS .25-20X 1.00 HH	#2	2
8.	91721626	CONTROL KIT- PROP RADIO ELECTRIC CRANE		1

99904377 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
9.	70734347	RECEIVER-PROP RADIO ELECTRIC CRANE CRANE	#8	1
10.	70734348	TRANSMITTER-PROP RADIO ELECTRIC CRANE	#8	1
11.	72063166	WASHER-SS .25 R WRT 18-8 .62OD	#8	2
12.	72601330	CAP SCREW-SS .25-20X 1.00 HH	#8	2
13.	91721524	CONTROL KIT - TETHERED ELECTRIC CRANE		1
14.	77441269	HARNESS-TETHERED ELELCTRICAL CRANES	#13	1
15.	51721502	HANDLE ASSEMBLY-TETHERED ELECTRIC CRANES	#13	1
16.	71413190	RELAY-2 RELAY MODULE	#13	1
17.	72601940	CAP SCREW .10-24X .50 BTNHD ZC	#13	2
REV. A 20080527				

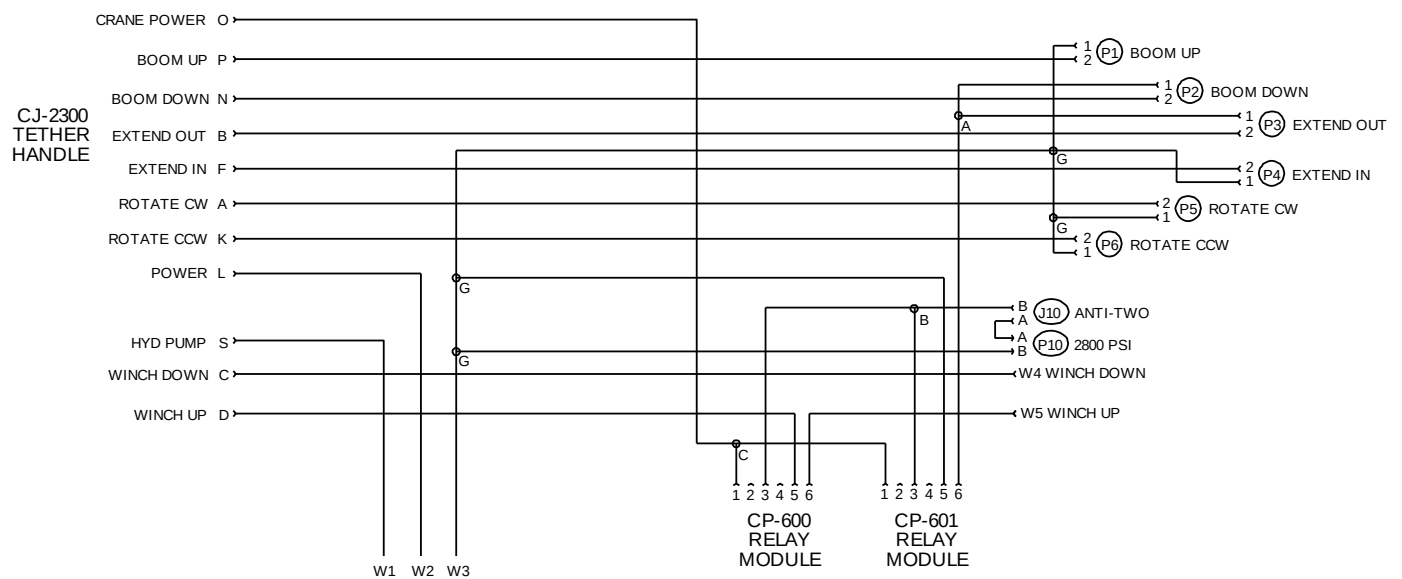
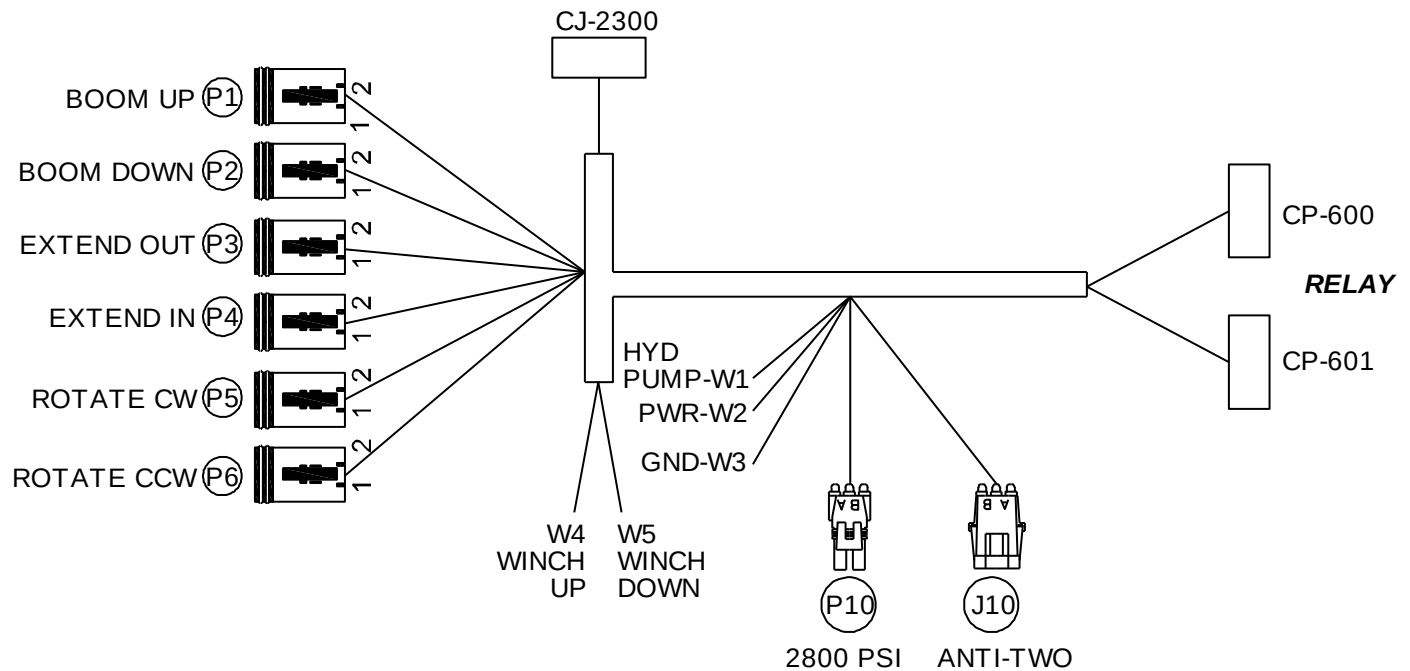
Harness, Radio (77441270)



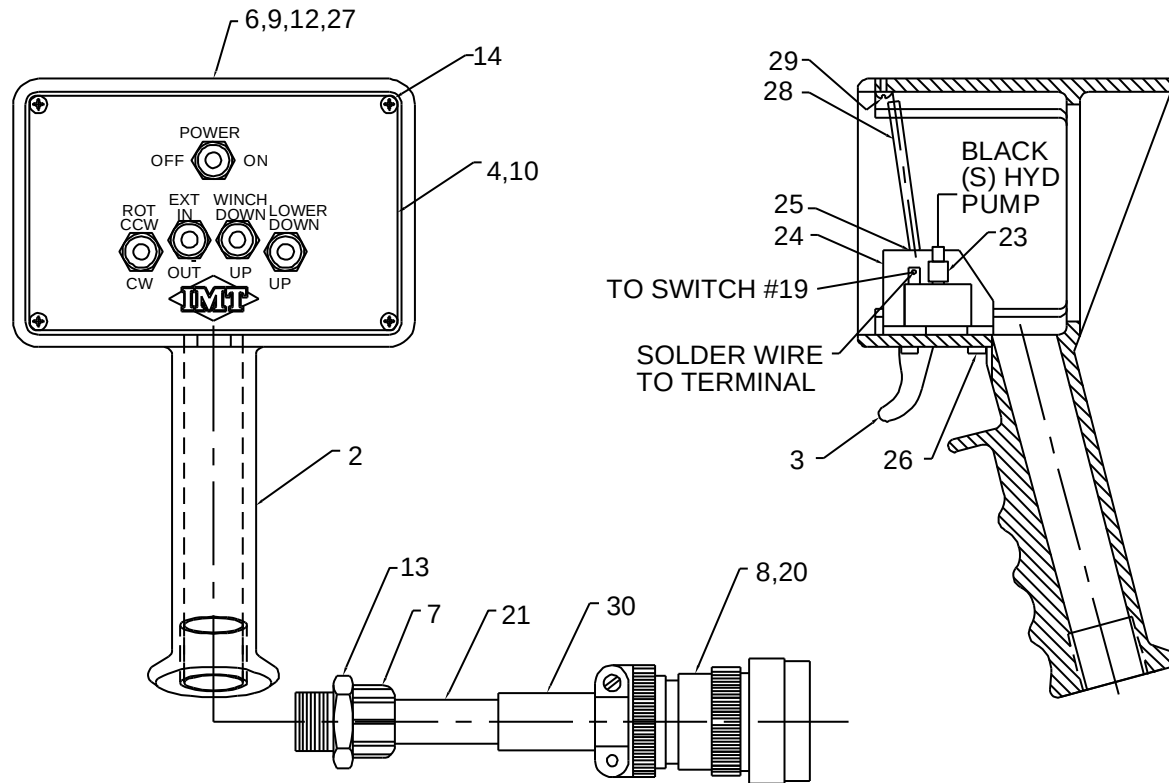
SCHEMATIC, HARNESS, RADIO (77441270)



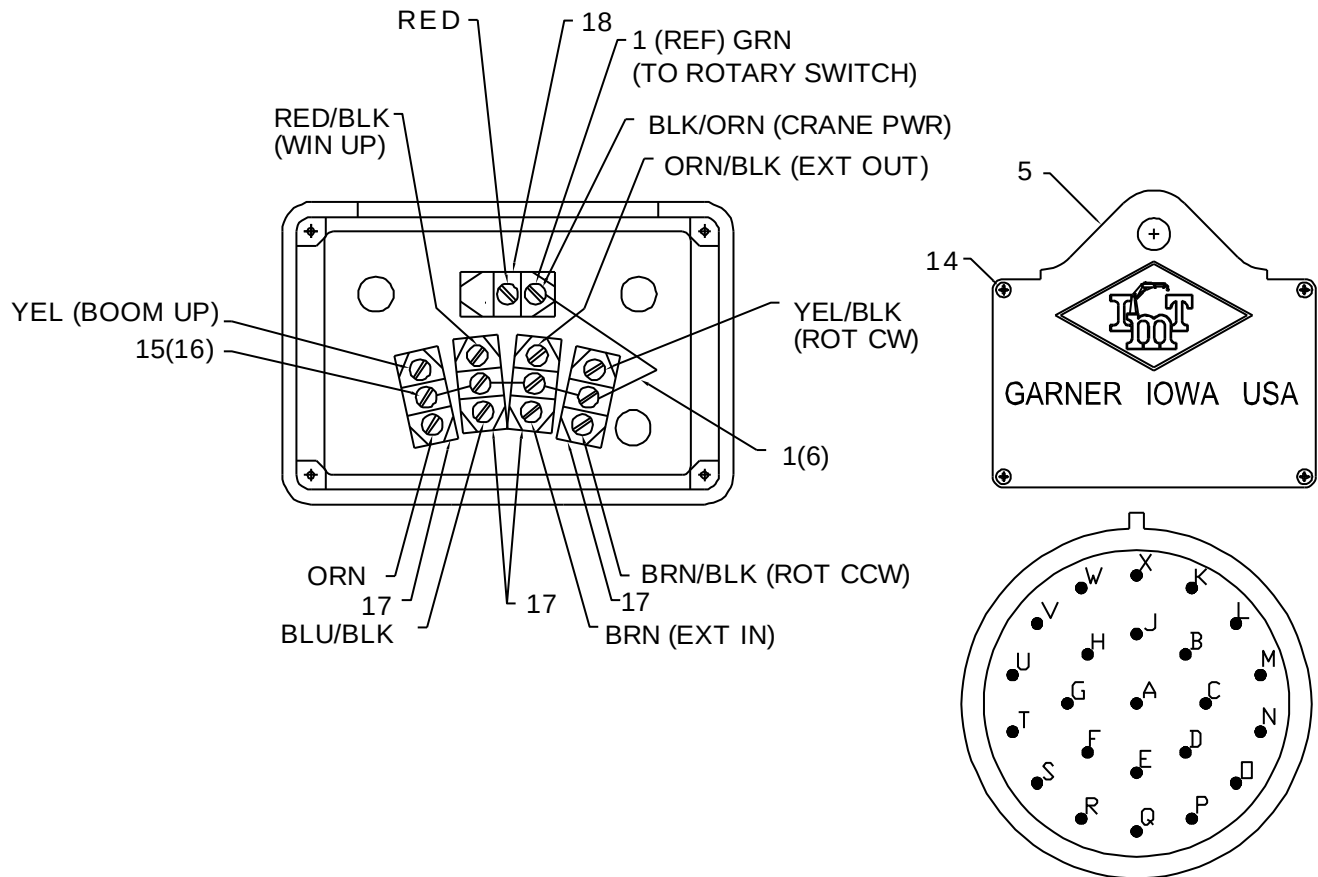
Harness, Tethered (77441269)



Handle Assembly, Tethered (51721502)



Tethered Remote Handle Assembly (51721502)



WIRE FUNCTIONS

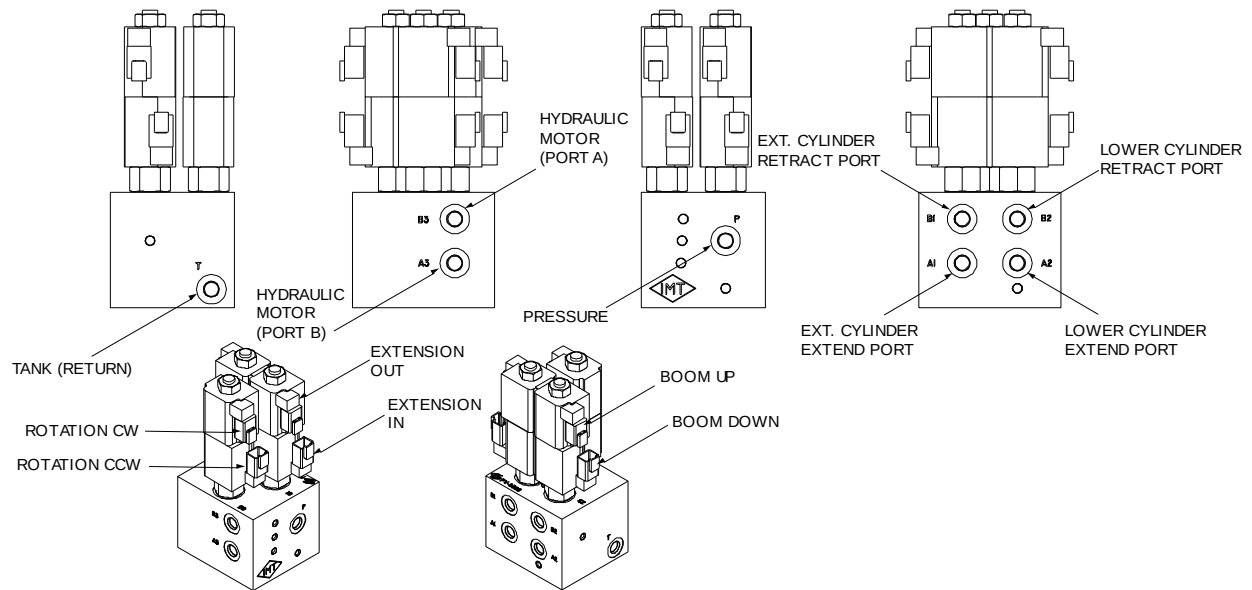
SOLID/STRIPE	FUNCTION
A	YEL/BLK
B	ORN/BLK
C	BLU/BLK
D	RED/BLK
E	ORN/RED
F	BRN
G	BRN/RED
H	BLU/RED
J	BLK/RED
K	BRN/BLK
L	RED
M	BLU
N	ORN
O	BLK/ORN
P	YEL
Q	BRN/BLU
R	YEL/RED
S	BLK
T	BLK/BLU

SOLID/STRIPE		FUNCTION
U	RED/BLU	-
V	BLU/ORN	-
W	ORN/BLU	-
X	YEL/BLU	-
-	RED/ORN	-

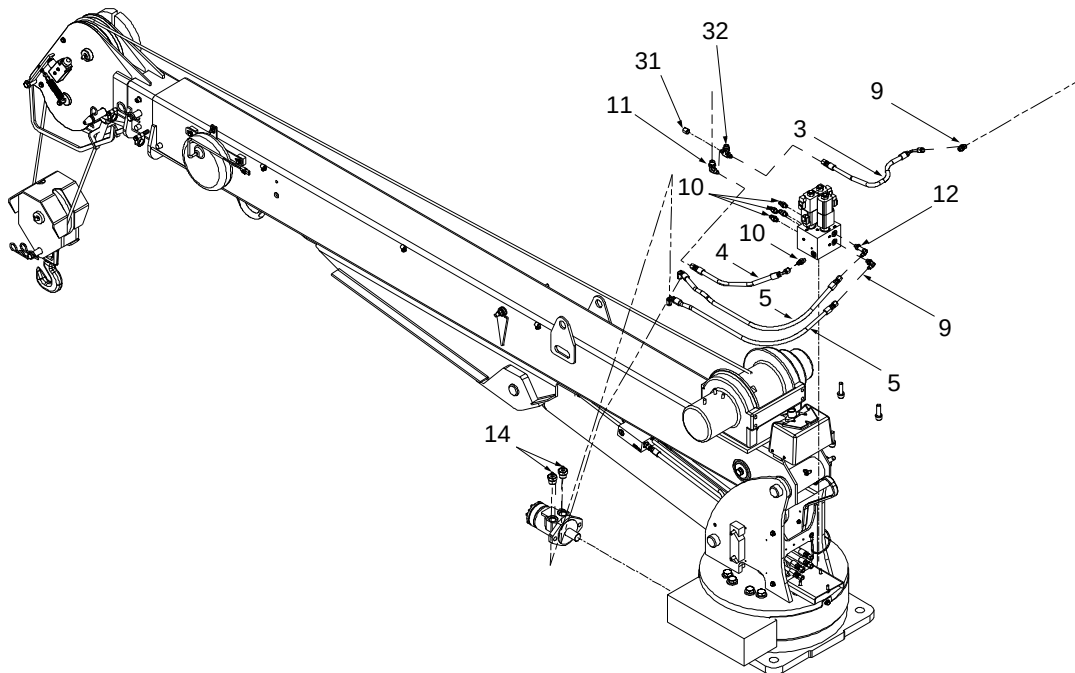
51716404 PARTS LIST			
ITEM	PART #	DESCRIPTION	QUANTITY
1.	60045031	WIRE 18GA X 4 GRN	6
2.	60119335	CONTROL HANDLE	1
3.	60111141	TRIGGER (PART OF 25)	1REF
4.	60119277	COVER	1
5.	70034306	BACK COVER	1
6.	70029119	PLACARD, SERIAL NUMBER	1
7.	77044196	CORD GRIP, LOCTITE	1
8.	77044621	PIN	23
9.	70394447	DECAL-DGR RC ELECTRO SM	1
10.	70392809	DECAL-ELEC CRANE CONTROL	1
11.	77044969	SWITCH, ROTARY ELEC (PART OF 25)	1REF
12.	72066340	POP RIVET	2
13.	72531833	BUSHING, RED STL 3/4 X 1/2	1
14.	72061009	SHT MTL SCR #6X3/4 PH	8
15.	77040051	TERM-SPRSPD #8 16-14GA	16
17.	77040372	TOGGLE SWITCH SPDT	4
18.	77040373	TOGGLE SWITCH SPST	1
20.	77044579	CONNECTOR	1
21.	89044100	CABLE 18GA 24WIRE	30 FT
23.	77044695	TERMINAL, FSLPON	1
24.	70733518	BRACKET, TRIGGER (PART OF 25)	1REF
25.	51716499	TRIGGER ASSEMBLY (INCL 3,11,24,26,28-29)	1
26.	72601346	SCR-MACH #8-32 PAN HEAD (PART OF 25)	4REF
27.	70395995	DECAL-CAUTION RC HANDLE ELEC PWR UNIT	1
28.	70143223	SPRING, TENSION (PART OF 25)	1REF
29.	72061000	SCR-SHT METAL #6X1/2 PH (PART OF 25)	1REF
30.	70145495	HEAT SHRINK	0.33 FT
NEW 20080407			

NOTE: KIT # 51717816, TETHERED CABLE - 30 FEET, INCLUDES ITEMS 8, 15 (QTY 24), 20, 21, AND 30. ORDER 51717816 TO REPLACE THE CABLE ASSEMBLY.

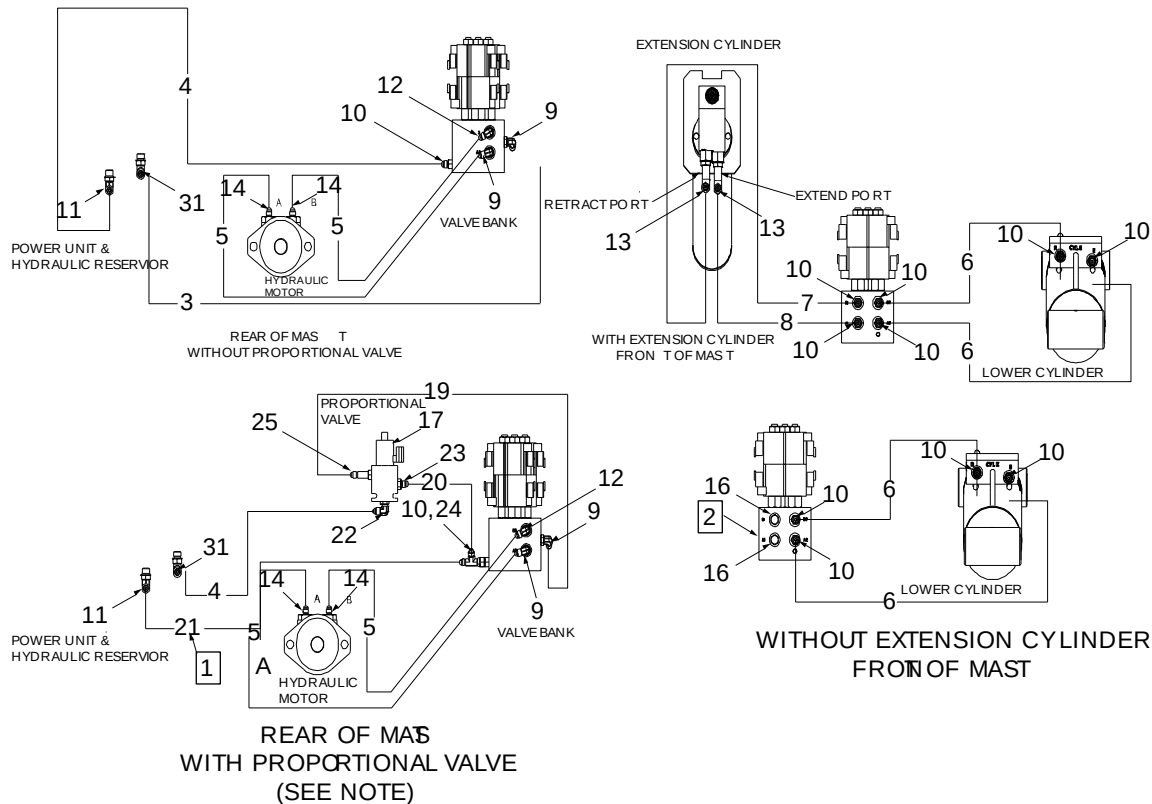
Hydraulic Installation (99904458) Effective 5-18-15



99904458-2



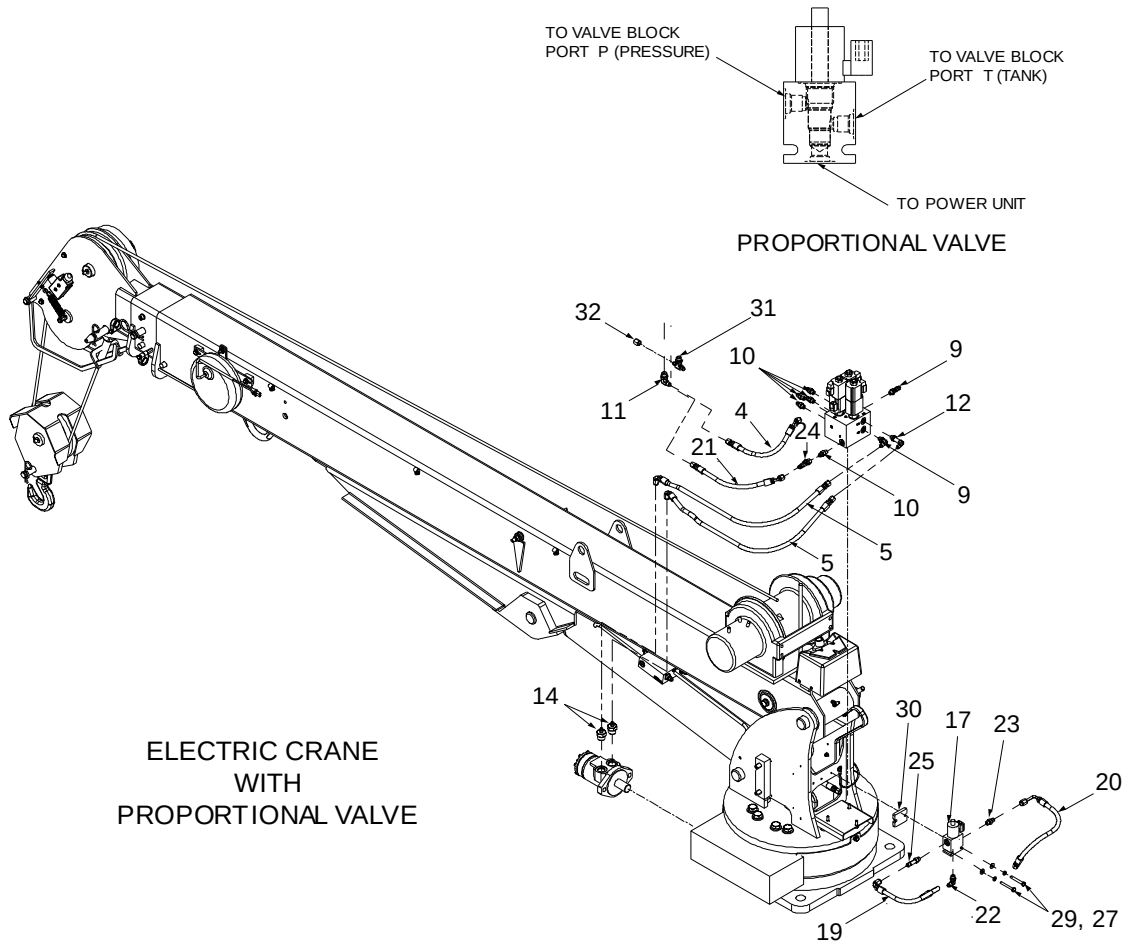
99904458-3



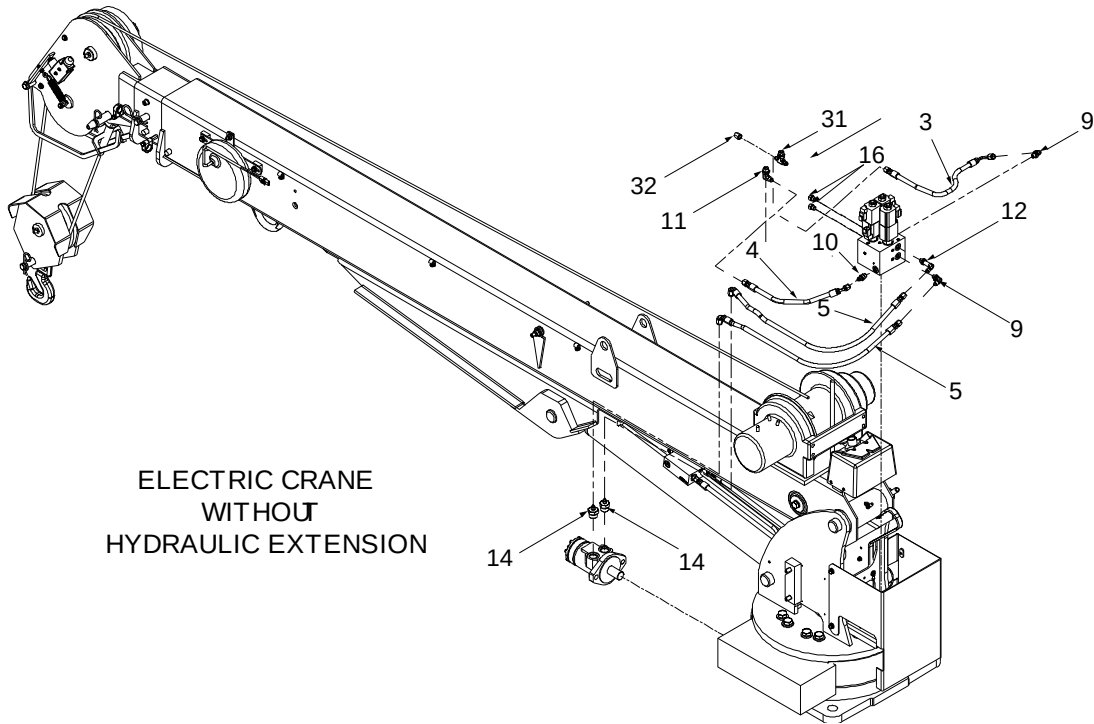
NOTES:

1. When converting to proportional hydraulics system, all existing hoses are used except 51397335 (item #3).
2. Cranes without extension cylinder use plugs (72532522) to block hydraulic ports B1 & A1 on the valve block.

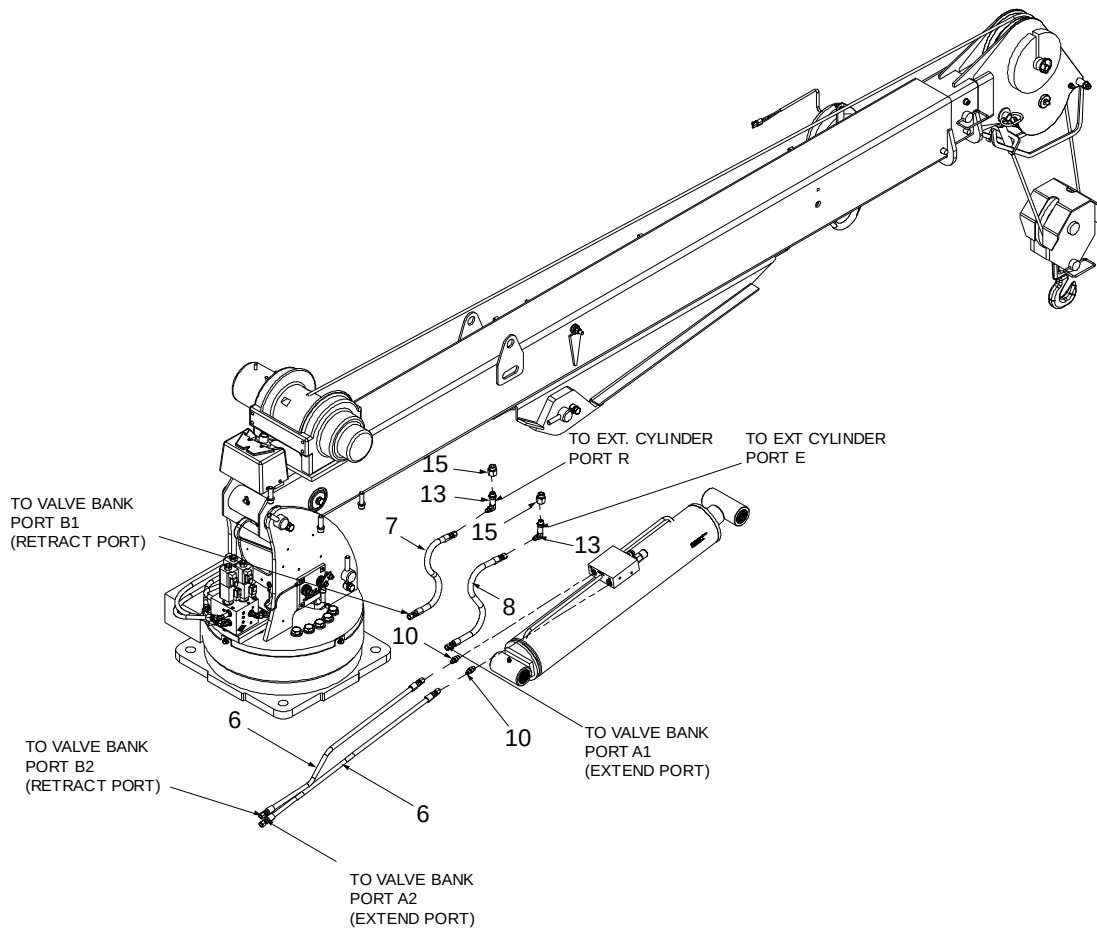
99904458-4



99904458-5



99904458-6



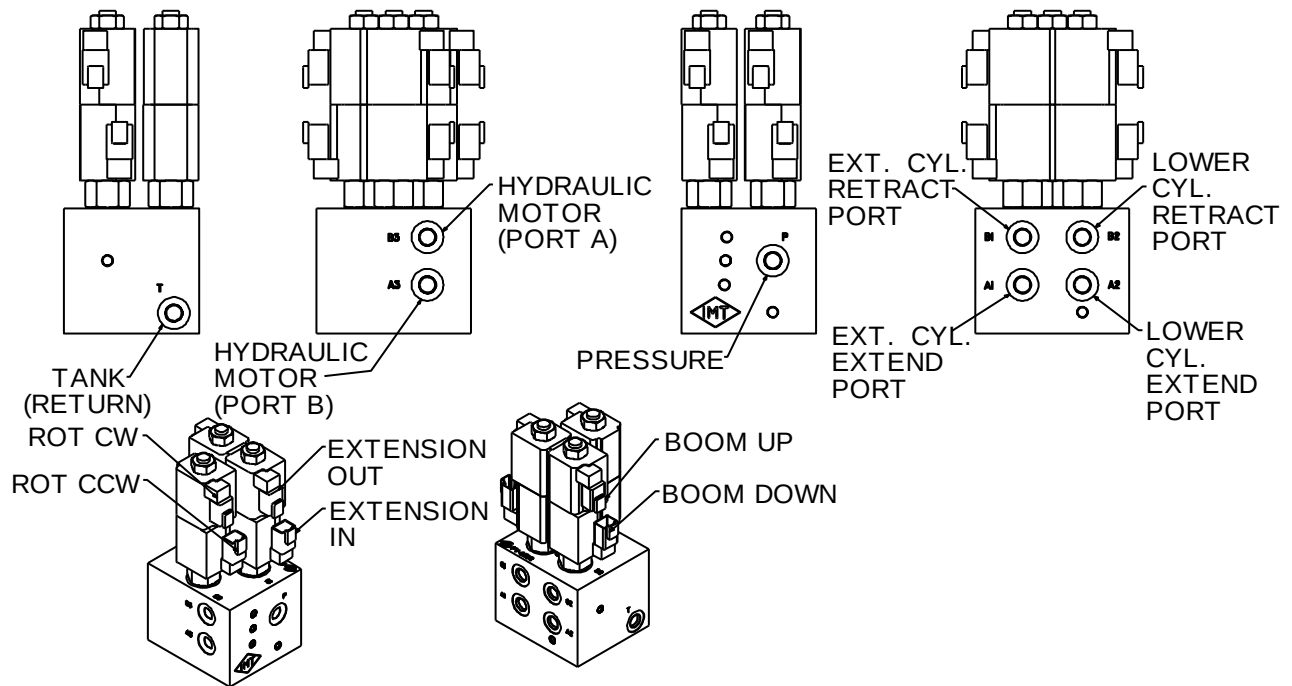
99904458 COMPLETE PARTS LIST EFFECTIVE 5-18-15				
ITEM	PART NO.	DESCRIPTION	KIT NO.	QTY
1	99904456	DWG-CRANE & WINCH 6006I		REF
2	51721707	KIT-HYD 50051		1
3	51399460	HOSE-FZ .25 X 15.50 (4-4) 100R17	#2	1
4	51397336	HOSE-FI .25 X 12.50 (4-4) 100R17	#2	1
5	51395874	HOSE-FJ .25 X 26.00 (4-4) 100R17	#2	2
6	51397480	HOSE-FF .25 X 27.50 (4-4) 100R17	#2	2
7	51396413	HOSE-FF .25 X 22.00 (4-4) 100R17	#2	1
8	51395422	HOSE-FF .25 X 24.00 (4-4) 100R17	#2	1
9	72053758	ELBOW-M STR/90/M JIC 4 4	#2	2
10	72532351	ADPTR-M STR/M JIC 4 4	#2	7
11	72532699	ELBOW-M STR/90/M JIC 6 4	#2	1
12	72533567	ELBOW-M STR/90/M JIC XLG 4 4	#2	1

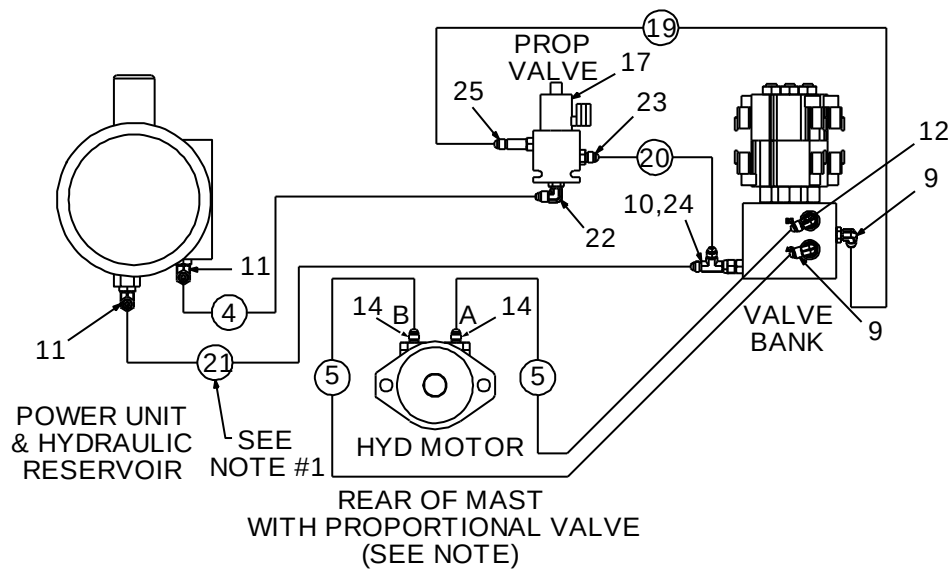
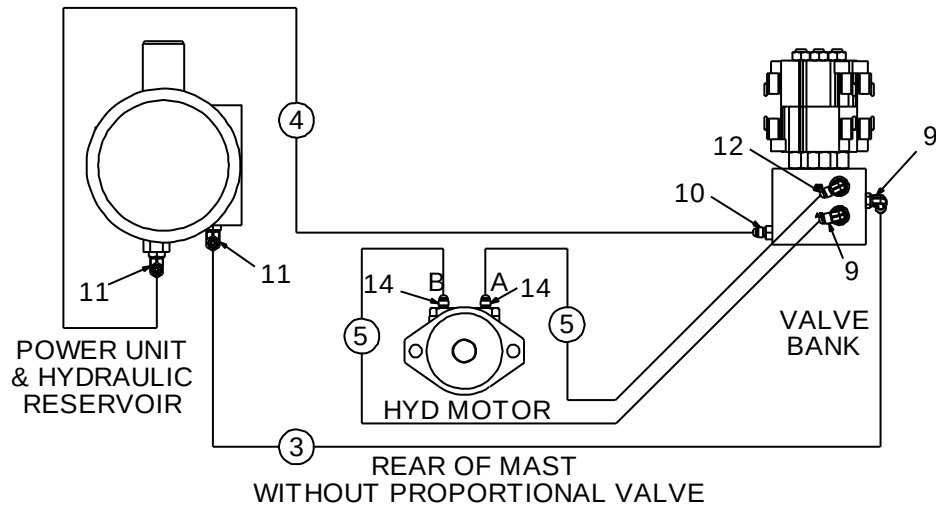
99904458 COMPLETE PARTS LIST EFFECTIVE 5-18-15				
ITEM	PART NO.	DESCRIPTION	KIT NO.	QTY
13	72534567	ELBOW-M STR/90/M JIC XLG 6 4	#2	2
14	72533589	ADPTR-M STR/M JIC 10 4	#2	2
15	72533052	ADPTR-M STR/F STR 8 6	#2	2
16	72532522	PLUG-STR HEX HD STL .44		2
17	73540325	VALVE-PROP FLOW CNTRL 12V ELEC CRANE		1
18	91721626	KIT-HYD 50051 PROP		1
19	51395663	HOSE-FJ .25 X 14.00 (4-4) 100R17	#17	1
20	51397434	HOSE-FZ .25 X 16.00 (4-4) 100R17	#17	2
21	51397452	HOSE-FI .25 X 11.50 (4-4) 100R17	#17	1
22	72053758	ELBOW-M STR/90/M JIC 4 4	#17	1
23	72532351	ADPTR-M STR/M JIC 4 4	#17	1
24	72532981	TEE-SWVL NUT RUN JIC 4	#17	1
25	72534477	ADPTR-M STR/M JIC 4 4 XLG	#17	1
26	51722635	KIT-HRDW PROP CNTRL VALVE 5005/6006		1
27	72063001	WASHER .25 FLAT	#25	2
28	72063049	WASHER .25 LOCK	#25	2
29	72060008	CAP SCR .25-20X 2.00 HH GR5 Z	#25	2
30	60134907	PLATE-SPACER PROP VLVE 5005/6006		1
31	72532674	CAP-JIC STL 4 (.44 THD)	#2	1
32	72534714	TEE-STL JIC/STR/JIC 4 6 4 BRANCH	#2	1
REV. J 20160525				

99904458

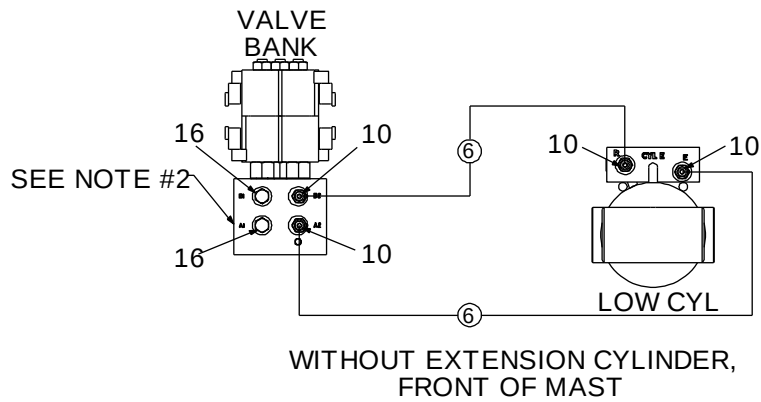
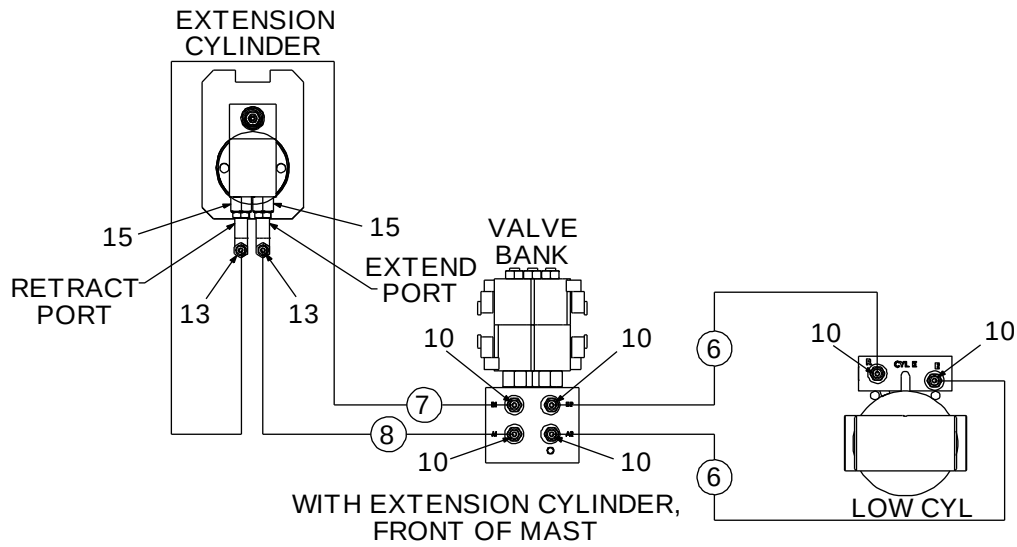
Hydraulic Installation (99904458)

VALVE BANK

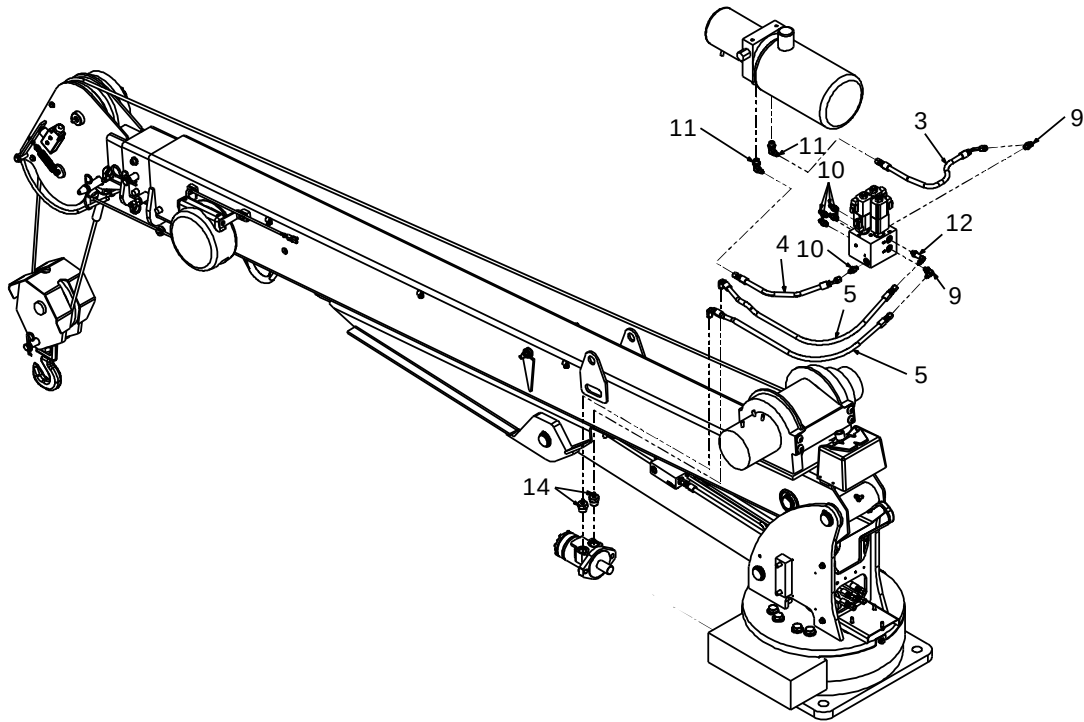


PLUMBING INSTALLATION - BEHIND MAST (99904458-3)

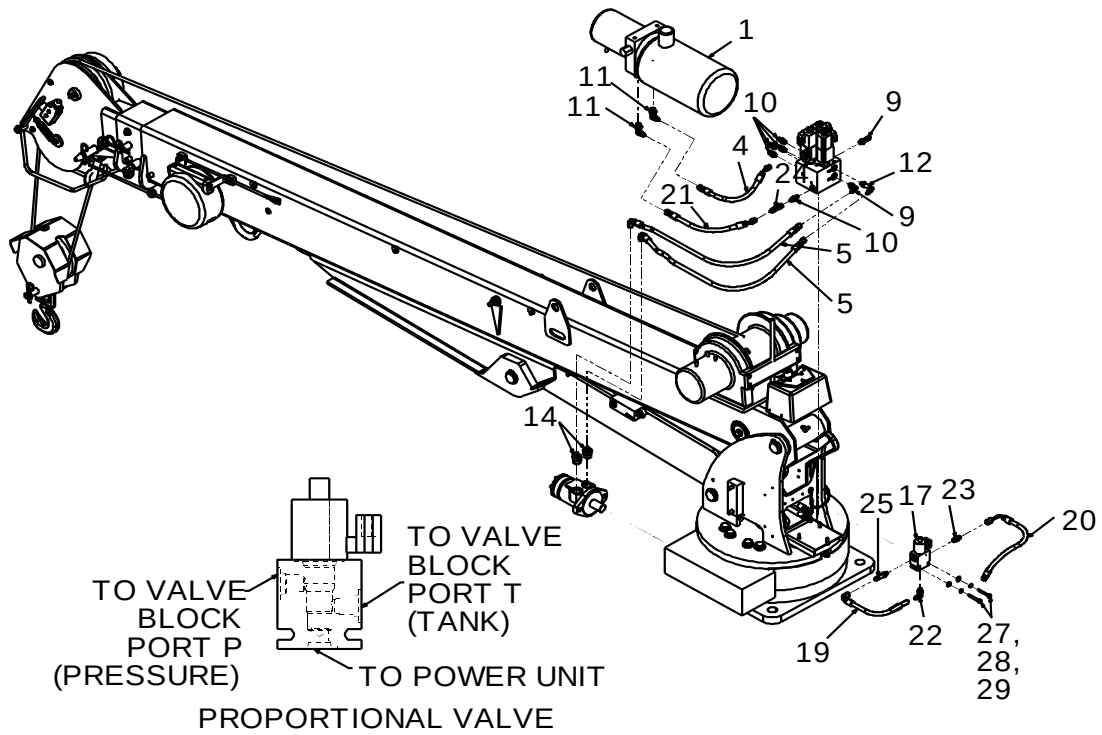
PLUMBING INSTALLATION - IN FRONT OF MAST (99904458-3)

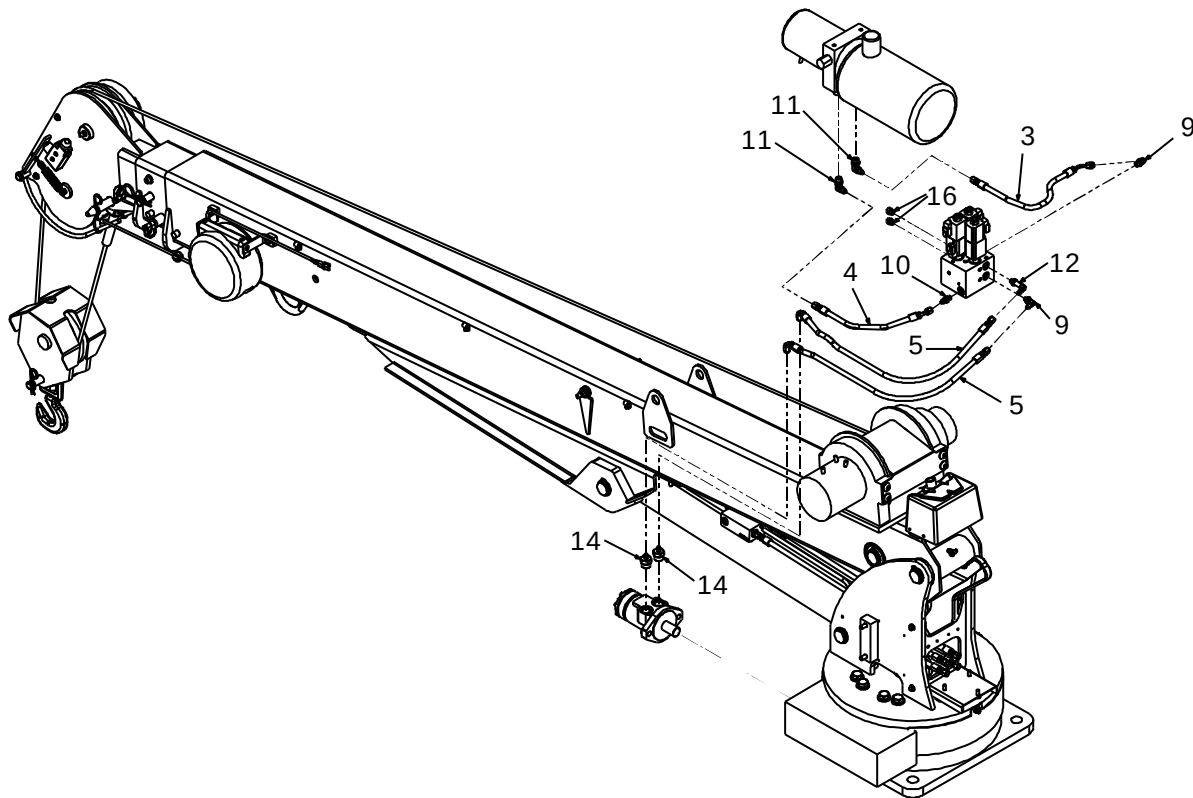


VALVE BANK & HOSE ASSEMBLY INSTALLATION (99904458-4)

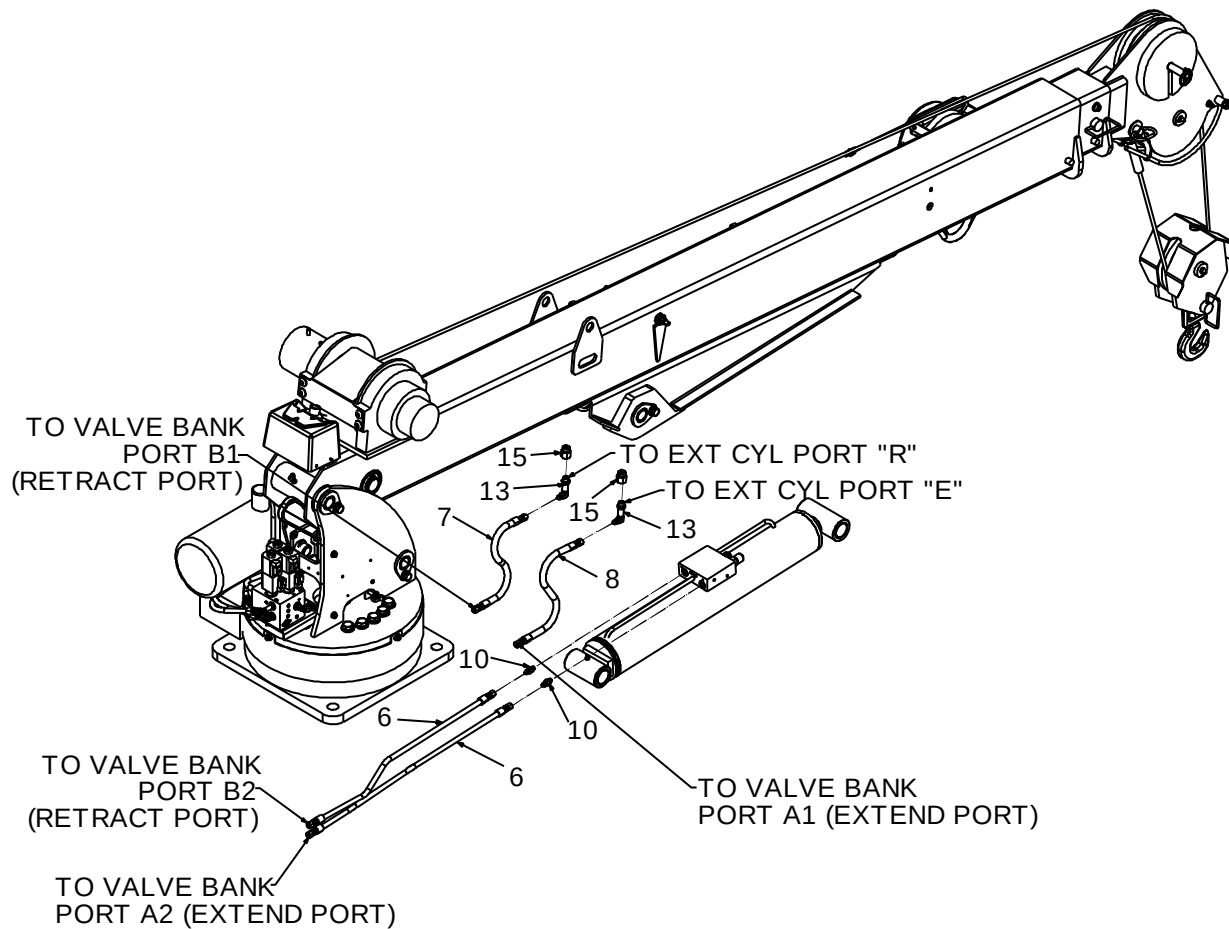


PROPORTIONAL VALVE ASSEMBLY INSTALLATION (99904458-5)



INSTALLATION WITHOUT HYDRAULIC EXTENSION (99904458-6)

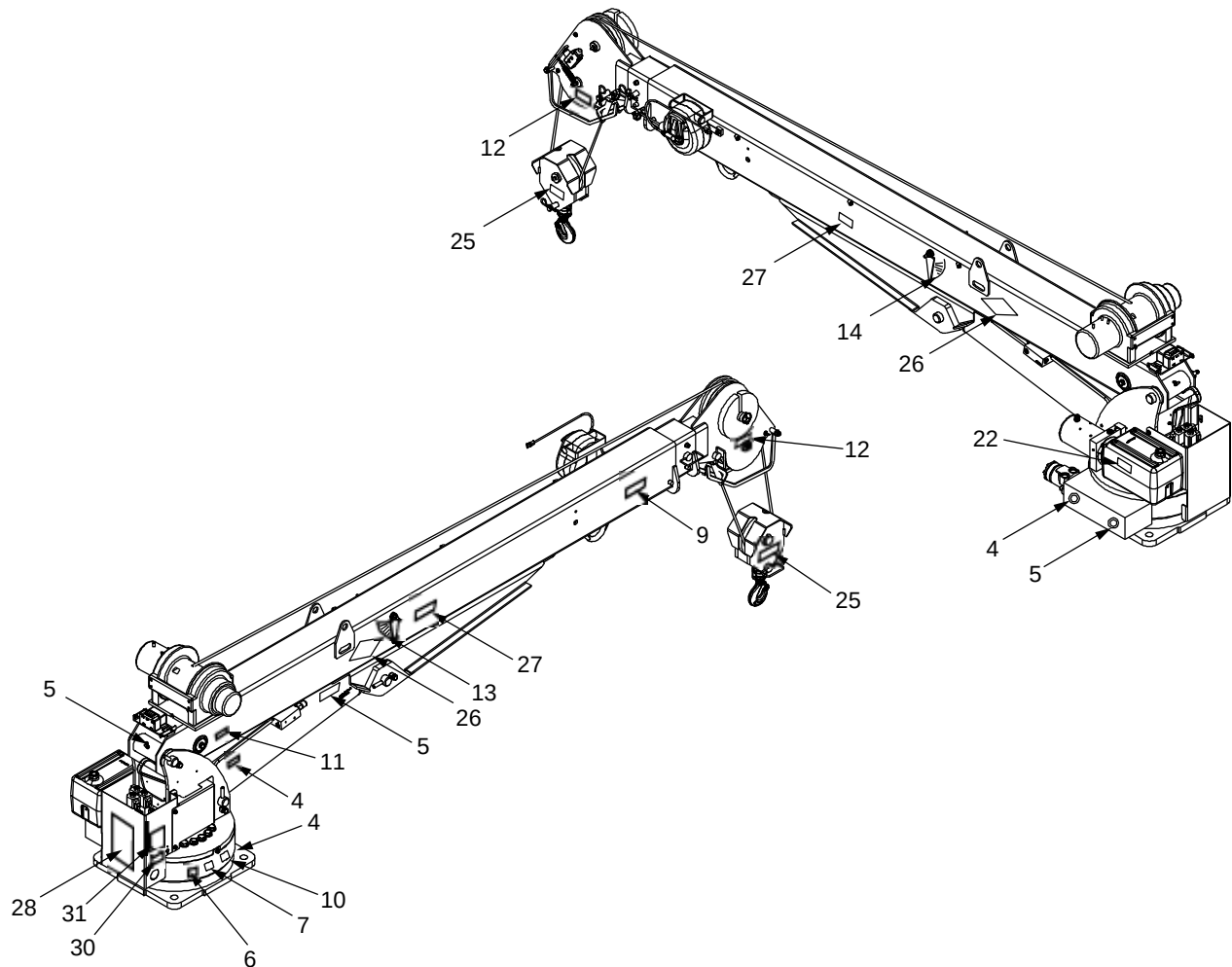
INSTALLATION WITH HYDRAULIC EXTENSION (99904458-7)



99904458 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
1.	99904456	DRAWING-CRANE & WINCH 6006I		1
2.	51721707	HYDRAULIC KIT		1
3.	51397335	HOSE-FZ .25 X 13.50 (4-4) 100R17	#2	1
4.	51397336	HOSE-FI .25 X 12.50 (4-4) 100R17	#2	1
5.	51395874	HOSE-FJ .25 X 26.00 (4-4) 100R17	#2	2
6.	51397480	HOSE-FF .25 X 27.50 (4-4) 100R17	#2	2
7.	51396413	HOSE-FF .25 X 22.00 (4-4) 100R17	#2	1
8.	51395422	HOSE-FF .25 X 24.00 (4-4) 100R17	#2	1
9.	72053758	ELBOW-M STR/90/M JIC 4 4	#2	2
10.	72532351	ADAPTER-M STR/M JIC 4 4	#2	7
11.	72532699	ELBOW-M STR/90/M JIC 6 4	#2	2
12.	72533567	ELBOW-M STR/90/M JIC XLG 4 4	#2	1
13.	72534567	ELBOW-M STR/90/M JIC XLG 6 4	#2	2
14.	72533589	ADAPTER-M STR/M JIC 10 4	#2	2
15.	72533052	ADAPTER-M STR/F STR 8 6	#2	2
16.	72532522	PLUG-STRAIGHT HEX HD STL .44		2

99904458 PARTS LIST				
ITEM	PART #	DESCRIPTION	KIT #	QUANTITY
17.	73540335	VALVE-PROPORTIONAL FLOW CONTROL, 24V ELEC CRANE		1
18.	91721626	HYDRAULIC KIT-PROPORTIONAL		1
19.	51395663	HOSE-FJ .25 X 14.00 (4-4) 100R17	#18	1
20.	51397434	HOSE-FZ .25 X 16.00 (4-4) 100R17		1
21.	51397452	HOSE-FI .25 X 11.50 (4-4) 100R17	#18	1
22.	72053758	ELBOW-M STR/90/M JIC 4 4	#18	1
23.	72532351	ADAPTER-M STR/M JIC 4 4	#18	1
24.	72532981	TEE-SWVL NUT RUN JIC 4	#18	1
25.	72534477	ADAPTER-M STR/M JIC 4 4 XLG	#18	1
26.	51721645	HARDWARE KIT-PROPORTIONAL CONTROL VALVE, ELEC CRANE		1
27.	72063001	WASHER .25 FLAT	#26	2
28.	72063049	WASHER .25 LOCK	#26	2
29.	72060007	CAP SCREW .25-20X 1.75 HH GR5 Z	#26	2
REV. A 20081224				

6006i Decal Installation (95721549)



DECAL PLACEMENT (IF NOT SHOWN ON CRANE)	
ITEM #	PLACEMENT
15,21,23, 24,28,29	AT OR NEAR REMOTE HANDLE STORAGE POINT
16	2 ON REAR OUTRIGGERS
19	AT OR NEAR DRIVELINE
18,20	ON ALL FOUR SIDES OF CARRIER VEHICLE
32	ON CRANE POWER CABLE CONNECTION AT VEHICLE BATTERY

99904375 PARTS LIST					
ITEM	PART #	DESCRIPTION	KIT #	QTY IN KIT	QTY ON CRANE
1.	95719347	DECAL KIT - TELE COMMON			1
2.	95719348	DECAL KIT - BODY COMMON			1
3.	95721549	DECAL KIT - 6006i SPECIFIC			1
4.	70391612	DECAL-GREASE WEEKLY (LEFT)	1	9	3
5.	70391613	DECAL-GREASE WEEKLY (RIGHT)	1	6	3
6.	70392399	DECAL-LUBRICATE WORM	1	1	1
7.	70392524	DECAL-ROTATE CRANE WHILE GREAS	1	1	1
8.	70394166	DECAL-INSTR FOR MNL OPERATION	1	1	0
9.	70394443	DECAL-DANGER FREEFALLING BOOMS	1	1	1
10.	70395090	DECAL-GREASE WORM DR BRNGS	1	1	1
11.	70395324	DECAL-ASME/ANSI B30.5-TELESCOP	1	1	1
12.	70395670	DECAL-CAUTION DOWN HAUL WT	1	2	2
13.	71391522	DECAL-ANGLE INDICATOR RH	1	1	1
14.	71391523	DECAL-ANGLE INDICATOR LH	1	1	1
15.	70392213	DECAL-CAUTION DONT WASH/WAX	1	1	1
16.	70392864	DECAL-DANGER OUTRG STAND CLEAR	2	4	2
17.	70391598	DECAL-WARNING, MAN OUTRIG	2	2	0
18.	70392868	DECAL-DANGER CR LOADLINE (TRK)	2	4	4
19.	70392891	DECAL-DANGER DRIVELINE	2	1	1
20.	70394445	DECAL-DANGER ELEC HZD LG TELES	2	4	4
21.	70396613	DECAL-CRANE SAFETY & OPER	2	1	1
22.	70394189	DECAL-MOBIL OIL RESERVOIR	2	1	1
23.	71039134	DECAL-CAUTION OIL LEVEL	2	1	1
24.	70392982	DECAL-SERVICE & REPAIR	2	1	1
25.	71394453	DECAL-LOAD BLOCK RATING 3.0TON	3	2	2
26.	70392887	DECAL-DIAMOND IMT 5X10	3	2	2
27.	70396781	DECAL-6006i ID	3	2	2
28.	70397493	DECAL-CAPACITY CHART 6006i	3	2	2
29.	70397334	DECAL-WARNING, ELEC CR OL	3	1	1
30.	70397351	DECAL-REMOTE PENDANT STORAGE	3	1	1
31.	70397404	DECAL-DANGER, UNPLUG CRANE	3	2	2
32.	70397405	DECAL-CRANE POWER DISCONNECT	3	1	1
NEW 20180719					

CHAPTER 5

General Reference

In This Chapter

Inspection Checklist	99
Deficiency / Recommendation / Corrective Action Report.....	104
Thread Torques.....	106
Turntable Bearing Thread Tightening Sequence	106
Turntable Bearing Inspection for Replacement.....	109

Inspection Checklist

NOTICE:

The user of this form is responsible for determining that these inspections satisfy all applicable regulatory requirements.

OWNER/COMPANY:	TYPE OF INSPECTION (circle one):			
CONTACT PERSON:	DAILY	MONTHLY	QUARTERLY	ANNUAL
CRANE MAKE & MODEL:	DATE INSPECTED:			
CRANE SERIAL NUMBER:	HOURMETER READING (if applicable):			
UNIT I.D. NUMBER:	INSPECTED BY (print):			
LOCATION OF UNIT:	SIGNATURE OF INSPECTOR:			

TYPE OF INSPECTION**NOTES:**

Daily and monthly inspections are to be performed by a “designated” person, who has been selected or assigned by the employer or the employer’s representative as being competent to perform specific duties.

Quarterly and annual inspections are to be performed by a “qualified” person who, by possession of a recognized degree in an applicable field or certificate of professional standing, or who, by extensive knowledge, training and experience has successfully demonstrated the ability to solve or resolve problems related to the subject matter and work.

One hour of normal crane operation assumes 20 complete cycles per hour. If operation exceeds 20 cycles per hour, inspection frequency should be increased accordingly.

Consult Operator / Service Manual for additional inspection items, service bulletins and other information.

Before inspecting and operating crane, crane must be set up away from power lines and leveled with outriggers fully extended.

DAILY (D): Before each day of operation, those items designated with a (D) must be inspected. This inspection need not be recorded unless a deficiency (8) is found. If the end user chooses to record all daily inspections and those daily inspections include the monthly inspection requirements, there would be no need for a separate monthly inspection.

MONTHLY (M): Monthly inspections or 100 hours of normal operation (whichever comes first) includes all daily inspections plus items designated with an (M). This inspection must be recorded.

QUARTERLY (Q): Every three to four months or 300 hours of normal operation (whichever comes first) includes all daily and monthly inspection items plus items designated with a (Q). This inspection must be recorded.

ANNUAL (A): Each year or 1200 hours of normal operation (whichever comes first) includes all items on this form which encompasses daily, monthly and quarterly inspections plus those items designated by (A). This inspection must be recorded.

INSPECTION CHECKLIST STATUS KEY:

S = Satisfactory	X = Deficient (NOTE: If a deficiency is found, an immediate determination must be made as to whether the deficiency constitutes a safety hazard and must be corrected prior to operation.)
R = Recommendation (Should be considered for corrective action)	
NA = Not Applicable	

FREQUENCY	ITEM	KEY	INSPECTION DESCRIPTION	STATUS
				(S,R,X,NA)
D	1	Labels	All load charts, safety & warning labels, and control labels are present and legible.	
D	2	Crane	Check all safety devices for proper operation.	
D	3	Controls	Control mechanisms for proper operation of all functions, leaks and cracks.	
D	4	Station	Control and operator's station for dirt, contamination by lubricants, and foreign material.	
D	5	Hydraulic System	Hydraulic system (hoses, tubes, fittings) for leakage and proper oil level.	
D	6	Hook	Presence and proper operation of hook safety latches.	
D	7	Rope	Proper reeving of wire rope on sheaves and winch drum.	

FREQUENCY	ITEM	KEY	INSPECTION DESCRIPTION	STATUS
				(S,R,X,NA)
D	8	Pins	Proper engagement of all connecting pins and pin retaining devices.	
D	9	General	Overall observation of crane for damaged or missing parts, cracked welds, and presence of safety covers.	
D	10	Operation	During operation, observe crane for abnormal performance, unusual wear (loose pins, wire rope damage, etc.). If observed, discontinue use and determine cause and severity of hazard.	
D	11	Remote Ctrl	Operate remote control devices to check for proper operation.	
D	12	Electrical	Operate all lights, alarms, etc. to check for proper operation.	
D	13	Anti 2-Block	Operate anti 2-block device to check for proper operation.	
D	14		Other (Per customer requirements)	
D	15		Other (Per customer requirements)	
M	16	Daily	All daily inspection items.	
M	17	Cylinders	Visual inspection of cylinders for leakage at rod, fittings, and welds. Damage to rod and case.	
M	18	Valves	Holding valves for proper operation.	
M	19	Valves	Control valves for leaks at fittings and between stations.	
M	20	Valves	Control valve linkages for wear, smoothness of operation, and tightness of fasteners.	
M	21	General	Bent, broken, or significantly rusted/corroded parts.	
M	22	Electrical	Electrical systems for presence of dirt, moisture, and frayed wires.	
M	23	Structure	All structural members for damage.	
M	24	Welds	All welds for breaks and cracks.	
M	25	Pins	All pins for proper installation and condition.	
M	26	Hardware	All bolts, fasteners and retaining rings for tightness, wear and corrosion.	
M	27	Wear Pads	Presence of wear pads.	
M	28	Pump & Motor	Hydraulic pumps and motors for leakage at fittings, seals, and between sections.	
M	29	PTO	Transmission/PTO for leakage, abnormal vibration, and noise.	
M	30	Hyd Fluid	Quality of hydraulic fluid and presence of water.	
M	31	Hyd Lines	Hoses & tubes for leakage, abrasion damage, blistering, cracking, deterioration, fitting leakage, and secured properly.	
M	32	Hook	Load hook for abnormal throat distance, twist, wear, and cracks.	
M	33	Rope	Condition of load line.	
M	34	Manual	Presence of operator's manual with unit.	
M	35		Other	
Q	36	Daily	All daily inspection items.	
Q	37	Monthly	All monthly inspection items.	
Q	38	Extensions	Condition of wear pads.	
Q	39	Rotation Sys	Rotation bearing for proper torque of all accessible mounting bolts.	
Q	40	Hardware	Base mounting bolts for proper torque.	
Q	41	Structure	All structural members for deformation, cracks and corrosion.	
	42		• Base	
	43		• Outrigger beams and legs	
	44		• Mast	
	45		• Inner Boom	
	46		• Outer Boom	
	47		• Extension(s)	
	48		• Jib boom	

FREQUENCY	ITEM	KEY	INSPECTION DESCRIPTION	STATUS (S,R,X,NA)
	49		• Jib extension(s)	
	50		• Other	
Q	51	Hardware	Pins, bearing, shafts, gears, rollers, and locking devices for wear, cracks, corrosion and distortion.	
	52		• Rotation bearing(s)	
	53		• Inner boom pivot pin(s) and retainer(s)	
	54		• Outer boom pivot pin(s) and retainer(s)	
	55		• Inner boom cylinder pin(s) and retainer(s)	
	56		• Outer boom cylinder pin(s) and retainer(s)	
	57		• Extension cylinder pin(s) and retainer(s)	
	58		• Jib boom pin(s) and retainer(s)	
	59		• Jib cylinder pin(s) and retainer(s)	
	60		• Jib extension cylinder pin(s) and retainer(s)	
	61		• Boom tip attachment	
	62		• Other	
Q	63	Hyd Lines	Hoses, fittings and tubing for proper routing, leakage, blistering, deformation and excessive abrasion.	
	64		• Pressure line(s) from pump to control valve	
	65		• Return line(s) from control valve to reservoir	
	66		• Suction line(s) from reservoir to pump	
	67		• Pressure line(s) from control valve to each function	
	68		• Load holding valve pipe(s) and hose(s)	
	69		• Other	
Q	70	Pumps, PTO's & Motors	Pumps, PTO's & motors for loose bolts/fasteners, leaks, noise, vibration, loss of performance, heating & excess pressure.	
	71		• Winch motor(s)	
	72		• Rotation motor(s)	
	73		• Other	
Q	74	Valves	Hydraulic valves for cracks, spool return to neutral, sticking spools, proper relief valve setting, relief valve failure.	
	75		• Main control valve	
	76		• Load holding valve(s)	
	77		• Outrigger or auxiliary control valve(s)	
	78		• Other valves (per customer requirements)	
	79		• Other (per customer requirements)	
Q	80	Cylinders	Hydraulic cylinders for drifting, rod seal leakage and leakage at welds. Rods for nicks, scores and dents. Case for damage. Case and rod ends for damage and abnormal wear.	
	81		• Outrigger cylinder(s)	
	82		• Inner boom cylinder(s)	
	83		• Outer boom cylinder(s)	
	84		• Extension cylinder(s)	
	85		• Rotation cylinder(s)	
	86		• Jib lift cylinder(s)	
	87		• Jib extension cylinder(s)	
	88		• Other (per customer requirements)	
Q	89	Winch	Winch, sheaves and drums for damage, abnormal wear, abrasions and other irregularities.	
Q	90	Hyd Filters	Hydraulic filters for replacement per maintenance schedule.	

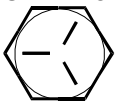
FREQUENCY	ITEM	KEY	INSPECTION DESCRIPTION	STATUS
				(S,R,X,NA)
A	91	Daily	All daily inspection items.	
A	92	Monthly	All monthly inspection items.	
A	93	Quarterly	All quarterly inspection items.	
A	94	Hyd Sys	Hydraulic fluid change per maintenance schedule.	
A	95	Controls	Control valve calibration for correct pressure & relief valve settings.	
A	96	Valves	Safety valve calibration for correct pressure & relief valve settings.	
A	97	Valves	Valves for failure to maintain correct settings.	
A	98	Rotation Sys	Rotation drive system for proper backlash clearance & abnormal wear, deformation and cracks.	
A	99	Lubrication	Gear oil change in rotation drive system per maintenance schedule.	
A	100	Hardware	Check tightness of all fasteners and bolts, using torque specifications on component drawings or torque chart.	
A	101	Wear Pads	Wear pads for excessive wear.	
A	102	Loadline	Loadline for proper attachment to drum.	

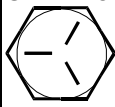
DATE:	OWNER:	UNIT I.D. NUMBER:
GUIDELINES a A deficiency (X) may constitute a hazard. Deficiency must be corrected and/or faulty parts replaced before resuming operation. b Recommendations (R) should be considered for corrective actions. Corrective action for a particular recommendation depends on the facts in each situation. c Corrective actions (CA), repairs, adjustments, parts replacement, etc. are to be performed by a qualified person in accordance with all manufacturer's recommendations, specifications and requirements. NOTE: Deficiencies (X) listed must be followed by the corresponding corrective action taken (CA). X = DEFICIENCY R = RECOMMENDATION CA = CORRECTIVE ACTION TAKEN		

[illegible]

[illegible]

Thread Torque Chart (English)

FINE THREAD BOLTS (ENGLISH)					
SIZE	BOLT DIA.	 GRADE 5 SAE J429 GRADE 5		 GRADE 8 SAE J429 GRADE 8	
(DIA-TPI)	(INCHES)	PLAIN	PLATED	PLAIN	PLATED
		(FT-LB)	(FT-LB)	(FT-LB)	(FT-LB)
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

COARSE THREAD BOLTS (ENGLISH)					
SIZE	BOLT DIA.	 GRADE 5 SAE J429 GRADE 5		 GRADE 8 SAE J429 GRADE 8	
(DIA-TPI)	(INCHES)	PLAIN	PLATED	PLAIN	PLATED
		(FT-LB)	(FT-LB)	(FT-LB)	(FT-LB)
5/16-18	0.3125	17	13	25	18
3/8-16	0.375	31	23	44	33
7/16-14	0.4375	49	37	70	52
1/2-13	0.5	75	57	105	80
9/16-12	0.5625	110	82	155	115
5/8-11	0.625	150	115	220	160
3/4-10	0.75	265	200	375	280
7/8-9	0.875	395	295	605	455
1-8	1	590	445	910	680
1 1/8-7	1.125	795	595	1290	965
1 1/4-7	1.25	1120	840	1815	1360
1 3/8-6	1.375	1470	1100	2380	1780
1 1/2-6	1.5	1950	1460	3160	2370

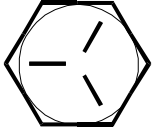
NOTES

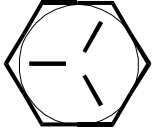
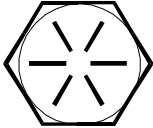
- 1 Tightening torques provided are midrange.
- 2 Consult bolt manufacturer's particular specifications, when provided.
- 3 Use flat washers of equal strength.
- 4 All torque measurements are given in foot-pounds.
- 5 Torque values specified are for bolts with residual oils or no special lubricants applied. If special lubricants of high stress ability, such as Never-Seez compound graphite and oil, molybdenum disulphide, 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 torqueing. Failure to replace gear-bearing bolts may result in bolt failure due to metal fatigue causing death or serious injury.

Thread Torque Chart (Metric)

FINE THREAD TORQUE CHART (METRIC)					
TIGHTENING TORQUE					
SIZE (DIA- TPI)	BOLT DIA. (INCHES)				
		SAE J429 GRADE 5	SAE J429 GRADE 8	PLAIN (KG-M)	PLATED (KG-M)
5/16-24	0.3125	3	2	4	3
3/8-24	0.375	5	4	7	5
7/16-20	0.4375	8	6	11	8
1/2-20	0.5	12	9	17	12
9/16-18	0.5625	17	12	24	18
5/8-18	0.625	24	18	33	25
3/4-16	0.75	41	31	58	44
7/8-11	0.875	62	45	93	69
1-12	1	89	67	138	103
1 1/8-12	1.125	123	93	200	150
1 1/4-12	1.25	171	129	278	209
1 3/8-12	1.375	232	174	375	281
1 1/2-12	1.5	304	228	492	369

COARSE THREAD TORQUE CHART (METRIC)					
TIGHTENING TORQUE					
SIZE (DIA- TPI)	BOLT DIA (INCHES)				
		SAE J429 GRADE 5	SAE J429 GRADE 8	PLAIN (KG-M)	PLATED (KG-M)
5/16-18	0.3125	2	2	3	2
3/8-16	0.375	4	3	6	5
7/16-14	0.4375	7	5	10	7
1/2-13	0.5	10	8	15	11
9/16-12	0.5625	15	11	21	16
5/8-11	0.625	21	16	30	22
3/4-10	0.75	37	28	52	39
7/8-9	0.875	55	41	84	63
1-8	1	82	62	126	94
1 1/8-7	1.125	110	82	178	133
1 1/4-7	1.25	155	116	251	188
1 3/8-6	1.375	203	152	329	246
1 1/2-6	1.5	270	210	438	328

NOTES

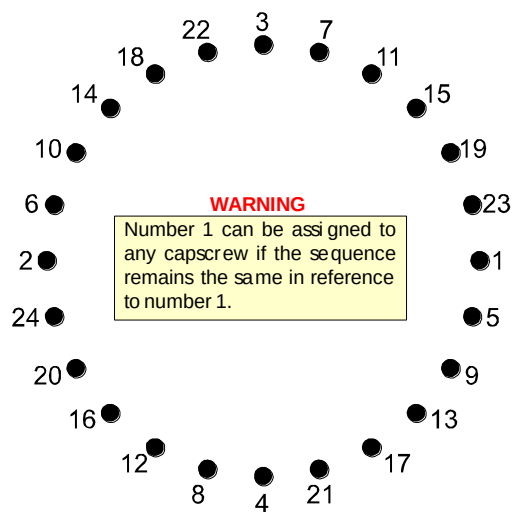
- 1 Tightening torques provided are midrange.
- 2 Consult bolt manufacturer's particular specifications, when provided.
- 3 Use flat washers of equal strength.
- 4 All torque measurements are given in kilogram-meters.
- 5 Torque values specified are for bolts with residual oils or no special lubricants applied. If special lubricants of high stress ability, such as Never-Seez compound graphite and oil, molybdenum disulphite, colloidal copper or white lead are applied, multiply the torque values in the charts by the factor .90. The use of Loctite does not affect the torque values listed above.

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 torqueing. 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

Refer to the turntable bearing thread tightening diagram below 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.



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 that the quantity of cap screws 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: $.40 \times 265 \text{ FT-LB} = 106 \text{ FT-LB}$)
(EXAMPLE-METRIC: $.40 \times 36 \text{ KG-M} = 14.4 \text{ KG-M}$)
- 4 Repeat Step 3, but torquing all cap screws to 75% of the specified torque value. Continue to follow the tightening sequence.
(EXAMPLE: $.75 \times 265 \text{ FT-LB} = 199 \text{ FT-LB}$)
(EXAMPLE-METRIC: $.75 \times 36 \text{ KG-M} = 27 \text{ KG-M}$)
- 5 Using the proper sequence, torque all cap screws to the listed torque value as determined from the Torque Data Chart.

Turntable Bearing Inspection for Replacement

Before a bearing is removed from a crane for inspection, one of the following conditions should be evident:

- 1** Metal particles present in the bearing lubricant.
- 2** Increased drive power required to rotate the crane.
- 3** Noise emitting from the bearing during crane rotation.
- 4** Rough crane rotation.
- 5** Uneven or excessive wear between the pinion gear and turntable gear.

If none of the listed conditions exists, the bearing is functioning properly and need not be replaced. But, if one or more of the above conditions exists, inspection may be required. Limits are measured in "TILT" which is dependent on the internal clearances of the bearing. TILT is the most practical determination of a bearings internal clearance once mounted on a crane.

Periodic readings indicating a steady increase in TILT may be an indicator of bearing wear. Note that a bearing found to have no raceway cracks or other structural irregularities should be reassembled and returned to service.