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Manual # 99905460

16000 SIII Ground Control Operation's Manual

Revised 05-30-2018

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 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 .
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Introduction **Section - 1**

Introduction

This volume deals with information applicable to your particular crane. For operating, maintenance and repair instructions, refer to Volume 1, OPERATION, MAINTENANCE AND REPAIR. 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. Listed below is a publication that the user should thoroughly read and understand.

ANSI / ASME B30.22 - ARTICULATING BOOM CRANES

The American Society of Mechanical Engineers
United Engineering Center
345 East 47th Street
New York, NY 10017

Treating this equipment with respect and servicing it regularly will provide a safer working environment.

Specifications **Section - 2**

16000 Ground Control - General Specifications

CRANE RATING	160,000 FT-LB (22 TM)
REACH (FROM CENTERLINE OF ROTATION)	42'-0" (12.8 M)
HYDRAULIC EXTENSION	87" + 87" (220 + 220 CM)
* MAXIMUM LIFTING HEIGHT	54'-1" (16.5 M)
CRANE WEIGHT	10,550 LB (4785 KG)
STABILIZER SPAN (AT GROUND LEVEL)	17'-6" (5.3 M)
*CRANE STORAGE HEIGHT	13'-2" (4.0 M)
MOUNTING SPACE REQUIRED	36" (91 CM)
OPTIMUM PUMP CAPACITY	32 GPM (120 LPM)
MAIN SYSTEM RELIEF	3250 PSI (225 BAR)
MAIN BOOM DOWN RELIEF	1160 PSI (80 BAR)
FORK CLAMP RELIEF	2320 PSI (160 BAR)
OIL RESERVOIR CAPACITY	40 GALLONS (150 L)
**VERTICAL CENTER OF GRAVITY (FROM BASE OF CRANE)	62" (1.57M)
**HORIZONTAL CENTER OF GRAVITY (FROM CENTERLINE OF ROTATION)	95" (240 CM)

* Based on 40" (100 cm) truck frame height..

** Based on crane in stored position. Extension boom retracted with fork and rotator installed fork, rotator and link weigh approximately 900 lb (400 kg).

Performance Characteristics / Cylinders

ROTATION	450°	42 SECONDS
	360°	34 SECONDS
INNER BOOM ELEVATION	-5° TO +80°	21 SECONDS
OUTER BOOM ARTICULATION	170°	21 SECONDS (RETRACT)
EXTENSION BOOM		
42' BOOM	87" + 87" (220 + 220 CM)	20 SECONDS
STABILIZER EXTENSION	52.5" (133 CM)	7 SECONDS

NOTE: ALL TIMES ARE APPROXIMATE AND REQUIRE A MINIMUM OF 20 GPM SUPPLIED TO VALVE BANK.

INNER BOOM CYLINDER	7.0" (18 CM)	34" (86 CM)
OUTER BOOM CYLINDER	6.5" (17 CM)	50" (130 CM)
EXTENSION BOOM CYLINDER		
42' BOOM	3.0" + 3.0" (7.6 + 7.6 CM)	87" + 87" (220 + 220 CM)
STABILIZER CYLINDERS	3.5" (8.9 CM)	52.5" (133 CM)

16000 Ground Control - System Specifications

POWER SOURCE

A PTO-driven hydraulic pump delivering up to 61 hydraulic horsepower.

CYLINDER HOLDING VALVES

The holding sides of all cylinders are equipped with integral mounted counterbalance valves, or load-holding check valves, to prevent sudden cylinder collapse in case of hose failure. The stabilizer cylinders feature dual pilot-operated check valves.

The counterbalance valve is a load-holding valve designed to provide motion control, specifically, to prevent overrunning loads. The dual load-holding check valves in the stabilizer cylinders prevent the cylinders from drifting down during transport and prevent the cylinders from collapsing should a hose break when the stabilizers are set.

ROTATION SYSTEM

Rotation of the loader is accomplished through a turntable bearing, powered by a high torque hydraulic motor through a heavy-duty gear box equipped with a heat treated pinion. The pinion runs on the external teeth of the turntable bearing to accomplish the rotation function. Standard rotation is 450°. Total gear reduction is 137.5:1.

HYDRAULIC SYSTEM

Open center, fixed delivery system with a single pump delivering an optimal flow rate of 32 gpm, at up to 3200 psi. The main control valve operates on the load-sense principal (internal to valve only), and consists of six-pressure compensated individually independent proportional sections for crane control, and two additional ON/OFF sections for stabilizer control. Proportional coils operate on a ratiometric command signal and utilize internal closed loop feedback, and active fault monitoring. Radio remote controls (bellypack) are standard. Stabilizers are controlled by an electrical switchbox at either side of the crane. System includes hydraulic reservoir with in-tank return filter, pressure filter, and air cooled heat exchanger.

EXCESSIVE LOAD LIMITATION SYSTEM

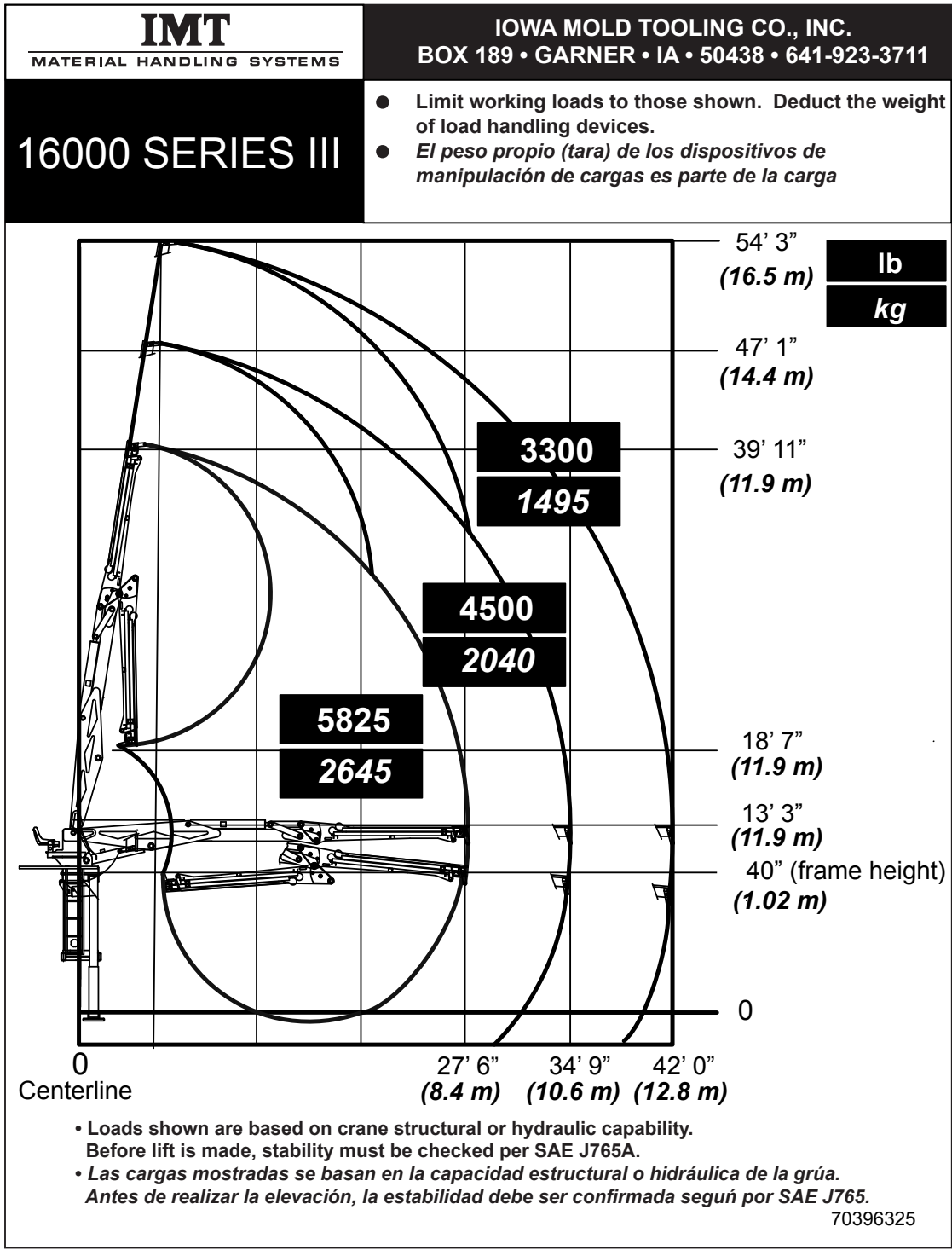
A completely hydraulic load limitation system prevents damage to the boom by monitoring the main boom cylinder lift side pressure, and disabling functions that would induce greater load moment. The system consists of a sensing valve mounted to the main cylinder, an overstress valve, and a boom down valve. If the operator tries to lift a load in excess of the crane capacity, the inner boom lower, the outer boom lift, and the extension out functions will not operate. To relieve the condition, the outer boom can be lowered or the extension retracted.

MINIMUM CHASSIS SPECIFICATIONS	
BODY STYLE	CONVENTIONAL CAB
WHEELBASE	269" (683 CM)
CAB-TO-AXLE	210" (533 CM)
FRAME SECTION MODULUS	30 CUBIC INCHES (492 CUBIC CM)
RBM	3,300,000 IN-LB (38,000 KG-M)
FRONT AXLE RATING	16,000 LB (7300 KG)
REAR AXLE RATING	38,000 LB (17,300 KG)

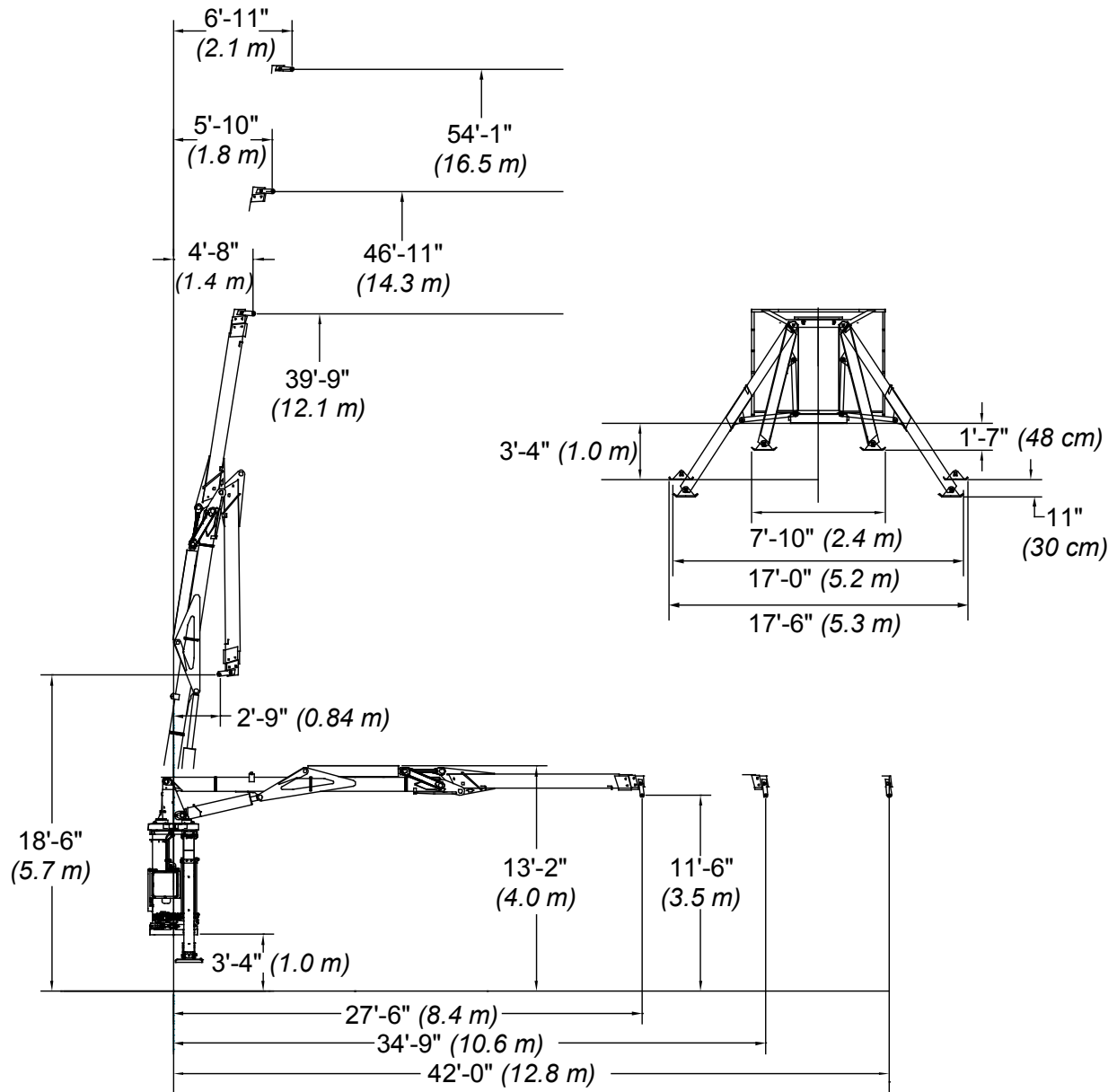
In addition to these specifications, heavy-duty electrical and cooling systems and tandem rear axles with dual wheels are required. It is recommended that the vehicle be equipped with an electric engine tachometer and auxiliary brake locks.

IOWA MOLD TOOLING CO., INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AND DESIGN WITHOUT NOTICE.

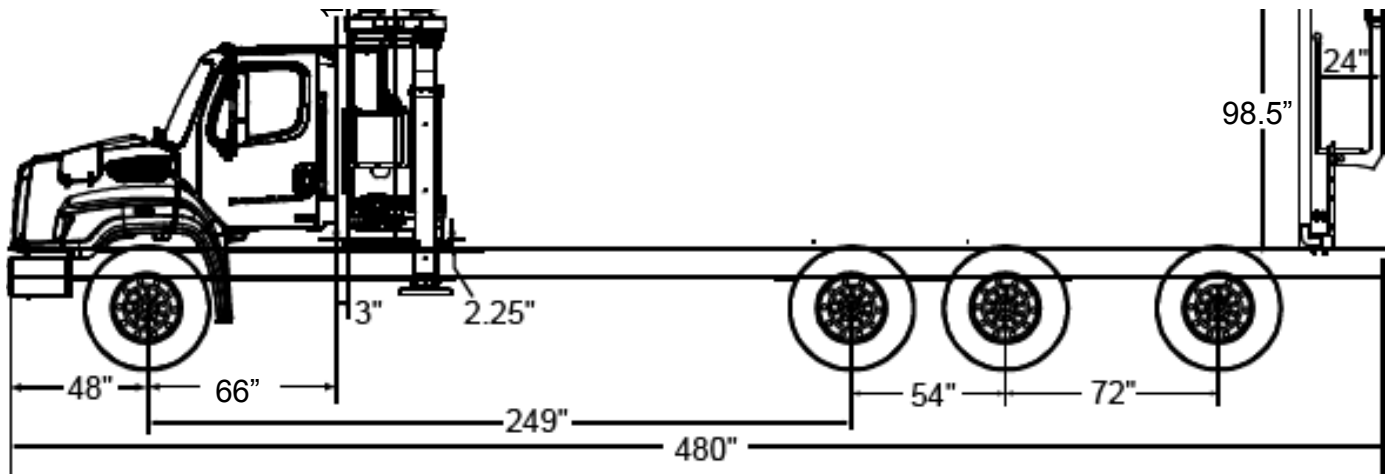
16000 Ground Control - Capacity Load Chart



16000 Ground Control - Geometric Configuration - 42'



16000 Ground Control - Reference Dimensions

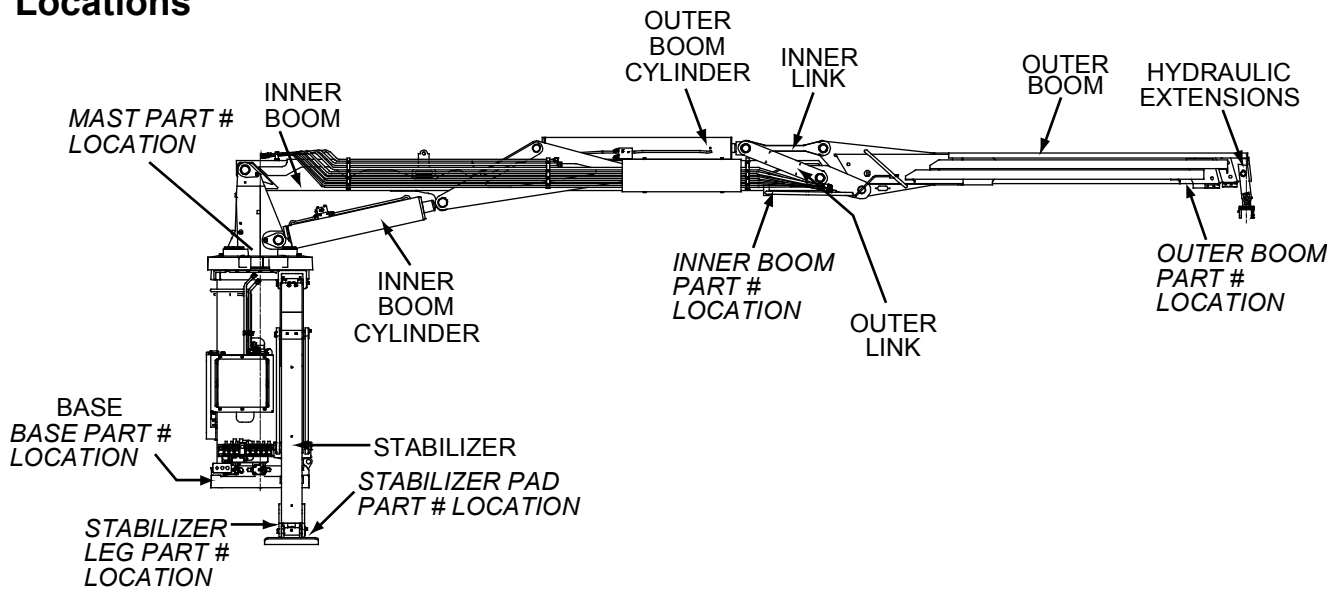


INCHES	CENTIMETERS
2.25	5.7
3	7.6
24	61
48	122
54	137
66	167
72	183
98.5	250
249	632
480	1219

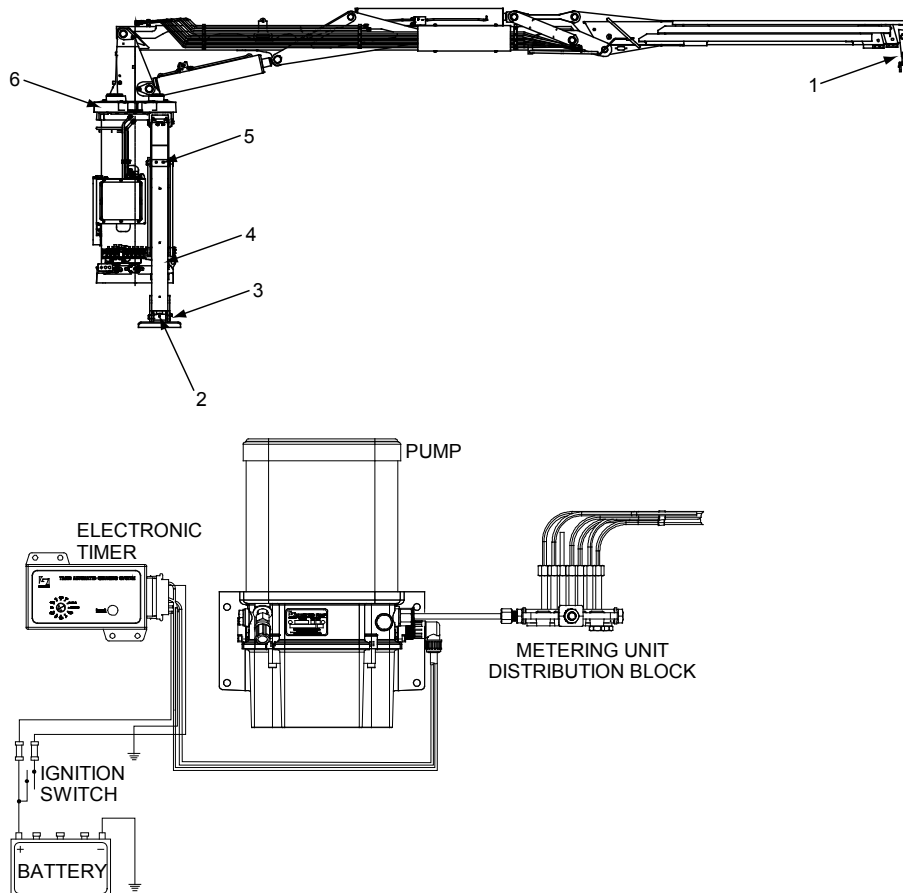
Crane Reference

Section - 3

16000 Ground Control - Major Assemblies, Weldment Part Number Locations



16000 Ground Control - Grease Zerk Locations



GREASE ZERK

The 16000 Ground Control crane has an electrically-operated grease pump for automatic greasing. At a time set by the electronic timer or PLC, a gear pump under the grease reservoir is started. The lubricant is pumped from the reservoir via the main pipe, to the metering unit blocks. The metering units then simultaneously allow a measured quantity of lubricant to be pressurized to the points to be lubricated. A pressure bypass valve keeps the system at a preset pressure during the pumping cycle. To end the lubrication cycle, the electronic timer or PLC opens the electrical circuit, the gear pump then stops. Pressure in the output main (primary) pipe to the metering units then falls by means of a built-in pressure discharge valve. The metering units then automatically refill themselves after which they are ready for the next lubrication cycle.

The Grease System Kit part number is: 93724736. Additional information on the grease system is part of the manual kit.

ITEM NO.	LOCATION DESCRIPTION	LUBRICANT RECOMMENDATION	FREQUENCY
1.	SWIVEL LINK	SHELL ALVANIA 2EP OR SHELL RETINAX "A".	WEEKLY
		HELL ALVANIA 2EP OR SHELL RETINAX "A"	
2.	STABILIZER CYLINDER BASE	NLGI CLASS 0 AND 00, V QUALITY, WITHOUT GRAPHITE, TEFLON, COPPER BASE OR SILICON. CLASS 0 FOR NORMAL OPERATIONS, AND CLASS 00 IS FOR LOW TEMPERATURE OPERATIONS.	PER AUTOMATIC GREASE TIMER
3.	STABILIZER LEG / PAD (2 EACH SIDE)		
4.	STABILIZER LINK / BASE		
5.	STABILIZER LINK / LEG (2 EACH SIDE)		
6.	TURNTABLE BEARING GREASE EXTENSION		

NOTE

ALL APPLICATION POINTS MUST BE GREASED WEEKLY UNDER NORMAL WORK LOADS AND MODERATE WEATHER CONDITIONS. UNDER SEVERE OPERATING CONDITIONS, LUBRICATION SHOULD BE PERFORMED MORE FREQUENTLY.

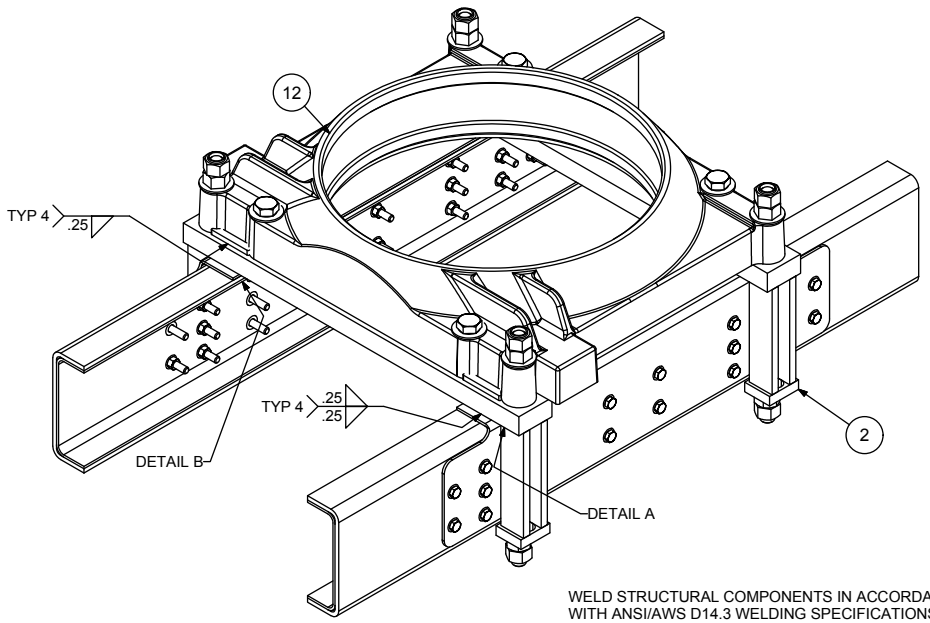
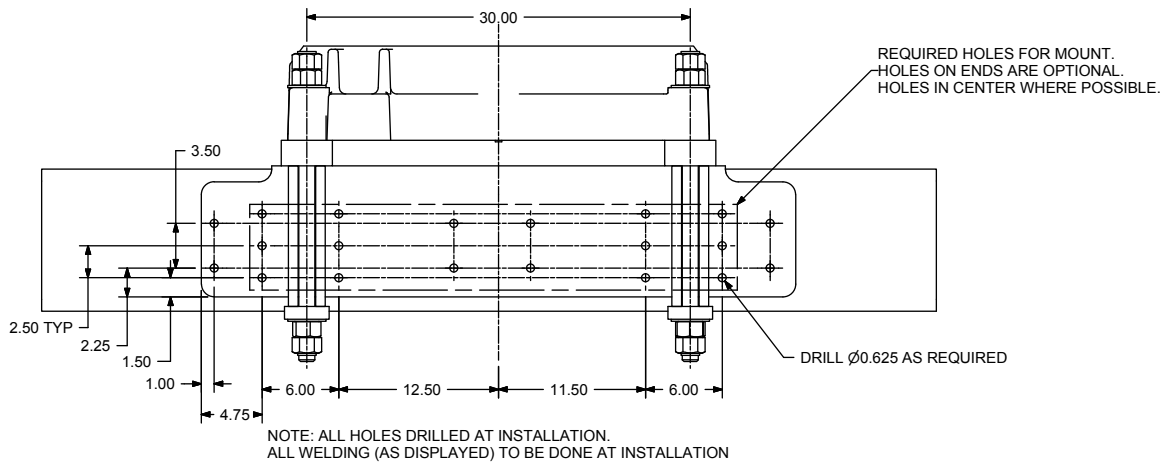
16000 Ground Control - Recommended Spare Parts

Recommended Spare Parts for One Year for the 16000-SIII Crane:

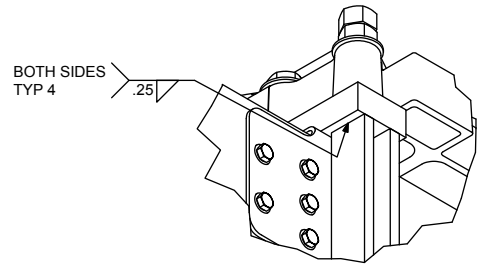
BASE ASSEMBLY (99905461 OR 99905671)		QTY.
60030297	WEAR PAD	2
60030303	WEAR PAD	2
60350055	RUBBER PAD	2
MAST ASSEMBLY (99905462)		
72601793	CAP SCREW 7/8-9 X 3.50	10
72601293	CAP SCREW 7/8-9 X 6.00	14
73054425	OVERLOAD SENSE VALVE	1
STABILIZER CYLINDER (51717736)		
60124587	PISTON	1
60124588	HEAD	1
73052097	CHECK VALVE	1
9B08000	SEAL KIT	1
GEARBOX (70056594)		
94396701	ORBIT MOTOR SEAL KIT	1
94396703	BRAKE PISTON SEAL KIT	1
INNER BOOM ASSEMBLY (99903427)		
70034283	BEARING (PART OF 52717244 WELDMENT	2
70034285	BEARING (PART OF 52717244 WELDMENT	2
INNER CYLINDER (51718466)		
73054242	COUNTERBALANCE VALVE	1
60125927	PISTON	1
60124617	HEAD	1
51744129	SEAL KIT	1
OUTER BOOM ASSEMBLY (99903425)		
60122985	WEAR PAD	4
60124036	WEAR PAD	1
70034467	BEARING	6
72063106	BUSHING	12
70034283	BEARING	10
60127464	WEAR PAD	2
OUTER CYLINDER (51717738)		
60124593	HEAD	1
60124596	PISTON	1
73054242	COUNTERBALANCE VALVE	2
51744112	SEAL KIT	1
EXTENSION BOOM ASSEMBLY (99903426)		
52713127	PIN	

EXTENSION BOOM ASSEMBLY (99903426 CONTINUED)		
51709475	SWIVEL LINK	1
70055207	BEARING	2
60030288	ROLLER-TRACK GUIDE	4
60122985	WEAR PAD	2
60124155	WEAR PAD	1
60124156	WEAR PAD	1
60124157	WEAR PAD	1
72062141	NUT - LOCK	1
72063066	WASHER - HIGH-STRENGTH	1
60123777	WEAR PAD	2
60030319	WEAR PAD	2
60127464	WEAR PAD	2
60125478	WEAR PAD	6
EXTENSION CYLINDER, 1ST STAGE (51717731)		
51744123	SEAL KIT	1
60124582	HEAD	1
60125661	PISTON	1
73054304	COUNTERBALANCE VALVE	2
EXTENSION CYLINDER, 2ND STAGE (51717734)		
60125661	PISTON	1
60124581	HEAD	1
51744124	SEAL KIT	1
HYDRAULIC ASSEMBLY (99905473)		
77041659	SWITCH - TEMPERATURE FAN	1
73054549	CHECK VALVE	1
73054462	BOOM DOWN VALVE	1
73054424	OVERSTRESS VALVE	1
73540570	VALVE-LS UNLOAD 12 VDC DEUTSCH	1
HYDRAULIC MOTOR SEAL KIT (94394208)		
SWIVEL LINK REPLACEMENT KIT (51709479)		
70055207	BUSHING	2
BOOM SUPPORT (51712758)		
60118677	PAD	2
PM HYDRAULIC FILTRATION KIT (91727328)		
73054974	BREATHER ELEMENT	2
73052163	RETURN FILTER ELEMENT	2
73052155	PRESSURE FILTER ELEMENT	2
76397652	O-RING, BOWL SEAL	2
76397653	ANTI-EXTRUSION RING	2
70490074	CHART - PM SERVICE - SCHEDULE	1

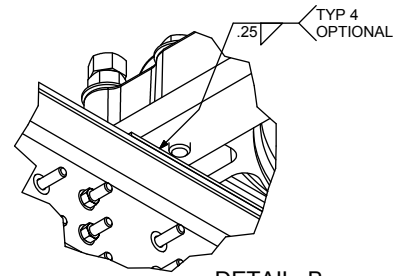
16000 Ground Control - Frame Mount Installation Kit (99903957)



WELD STRUCTURAL COMPONENTS IN ACCORDANCE WITH ANSI/AWS D14.3 WELDING SPECIFICATIONS



DETAIL A SCALE 1 / 4



DETAIL B SCALE 1 / 4

99903957 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	93720242	INSTL KIT-16000 III FRAME MNT		1
2.	52720142	FRAME MOUNT-SHEAR PLATE WLDMT 16000 SIII	1	2
3.	60125712	STOP BLOCK-INSTL	1	4
4.	60129782	PLATE-2.00X 4.00X 40.50	1	2
5.	71411789	STUD-TIEDOWN 1.25-7 X 24.00	1	4
6.	72060177	CAP SCR .62-11X 3.00 HH GR8 Z	1	32 MIN.
7.	72062142	NUT 1.25- 7 HEX LOCK STIN GR5	1	16
8.	72062336	CAP SCR 1.25- 7X 7.00 HH GR5 Z	1	14
9.	72063119	WASHER .62 FLAT ASTM F436	1	64 MIN.
10.	72063067	WASHER 1.25 HI STR ZINC	1	12
11.	72601860	NUT .62-11 HEX ZINC GR8	1	38
12.	BASE	BASE-MACHINING 16000SIII		REF
REV. C				

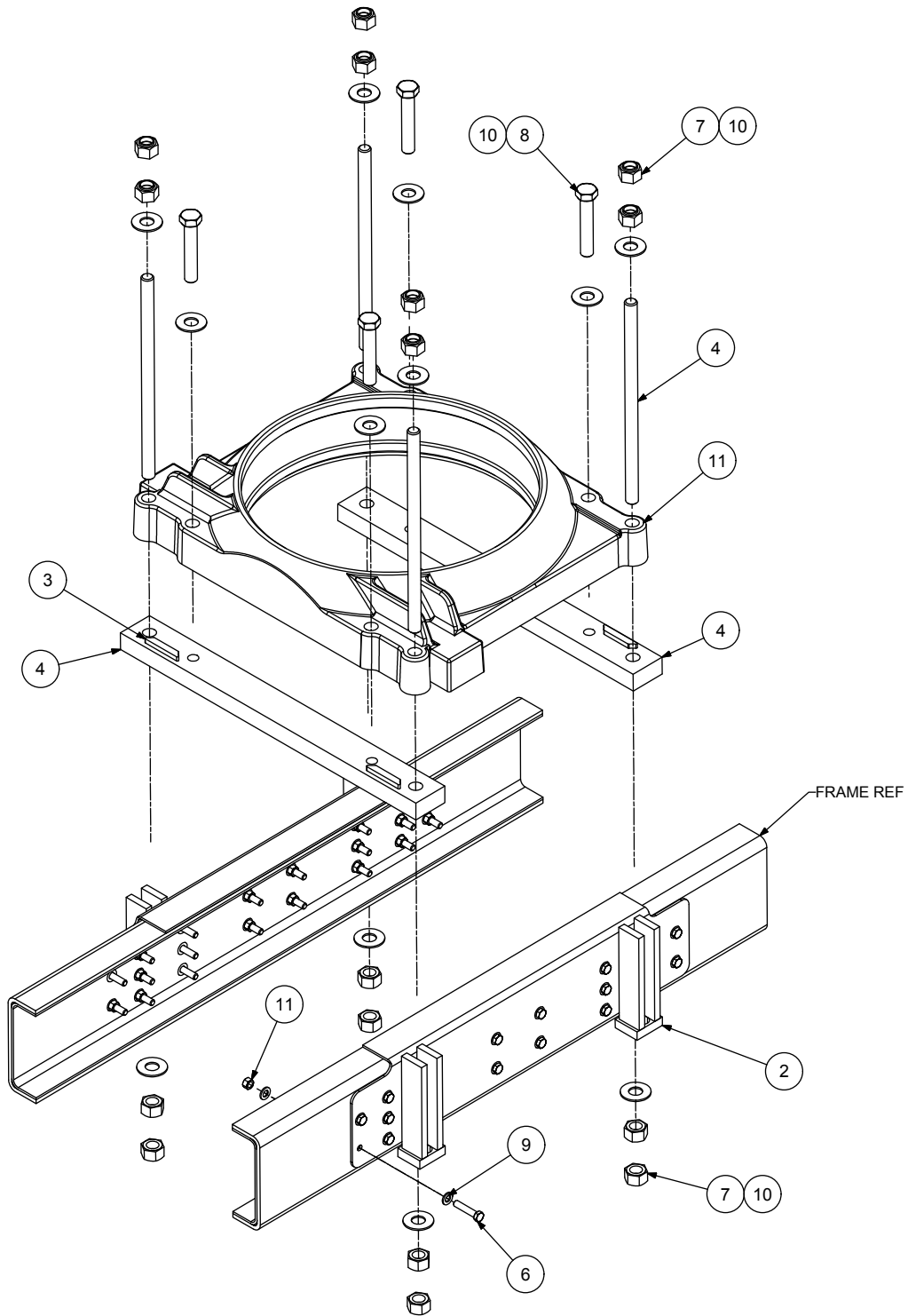
NOTES:

- ATTACH SHEAR PLATE WELDMENTS, DRILL FRAME AND BOLT IN PLACE. TORQUE 5/8" BOLT TO 160 FT-LB.
- BOLT BARS TO BASE, TORQUE TO 840 FT-LB (4 INNER BOLTS ONLY).
- POSITION BASE ON SHEAR PLATES.
- WELD IN POSITION.
- TORQUE TIE-DOWNS TO 840 FT-LB.

WELDING REQUIREMENTS:

- WELDER MUST BE CERTIFIED TO ONE OF THE FOLLOWING:
 - AWS D14.3 SPECIFICATION FOR WELDING EARTH MOVING AND CONSTRUCTION EQUIPMENT.
 - AWS D1.1 STRUCTURAL STEEL WELDING CODE.
 - ASME BOILER AND PRESSURE VESSEL CODE SECTION IX.
- ALL WELDING IS TO BE COMPLETED WITH AN E7018 ELECTRODE OR SOLID OR FLUX CORE WIRE OF COMPARABLE CHARACTERISTICS.
- ELECTRODES MUST BE IN GOOD CONDITION AND OF PROPER DRYNESS. NEW ELECTRODES FROM A SEALED CONTAINER ARE PREFERRED. ELECTRODES, WHICH HAVE BEEN OPENED PREVIOUSLY AND HAVE BEEN STORED PROPERLY, ARE ALSO ACCEPTABLE.
- ALL MATERIAL MUST BE A LEAST 70 DEGREES F BEFORE ANY TACK WELDING OR WELDING CAN BE PERFORMED.
- PREHEAT IS REQUIRED FOR HEAVY SECTIONS OR MATERIALS HIGH IN CARBON CONTENT.
- NO DOWNHILL WELDING IS ALLOWED! ALL VERTICAL WELDING MUST BE DONE IN AN UPHILL DIRECTION.
- ANY AREA WHERE CARBON ARC GOUGING HAS BEEN DONE MUST BE GROUND TO CLEAN METAL BEFORE WELDING CAN BEGIN.
- ALL PAINT, GREASE, AND OTHER CONTAMINATION MUST BE REMOVED FROM ANY AREA WHERE WELDING WILL BE DONE.

FRAME MOUNT INSTALLATION KIT, CONTINUED (99903957-1)



NOTES:

WELD STRUCTURAL COMPONENTS IN ACCORDANCE WITH ANSI / AWS D14.3 WELDING SPECIFICATIONS.

99903957-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	93720242	INSTL KIT-16000 III FRAME MNT		1
2.	52720142	FRAME MOUNT-SHEAR PLATE WLDMT 16000 SIII	1	2
3.	60125712	STOP BLOCK-INSTL	1	4
4.	60129782	PLATE-2.00X 4.00X 40.50	1	2
5.	71411789	STUD-TIE DOWN 1.25-7 X 24.00	1	4
6.	72060177	CAP SCR .62-11X 3.00 HH GR8 Z	1	32 MIN.
7.	72062142	NUT 1.25- 7 HEX LOCK STIN GR5	1	16
8.	72062336	CAP SCR 1.25- 7X 7.00 HH GR5 Z	1	14
9.	72063119	WASHER .62 FLAT ASTM F436	1	64 MIN.
10.	72063067	WASHER 1.25 HI STR ZINC	1	12
11.	72601860	NUT .62-11 HEX ZINC GR8	1	38
12.	BASE	BASE-MACHINING 16000SIII		REF
REV. C				

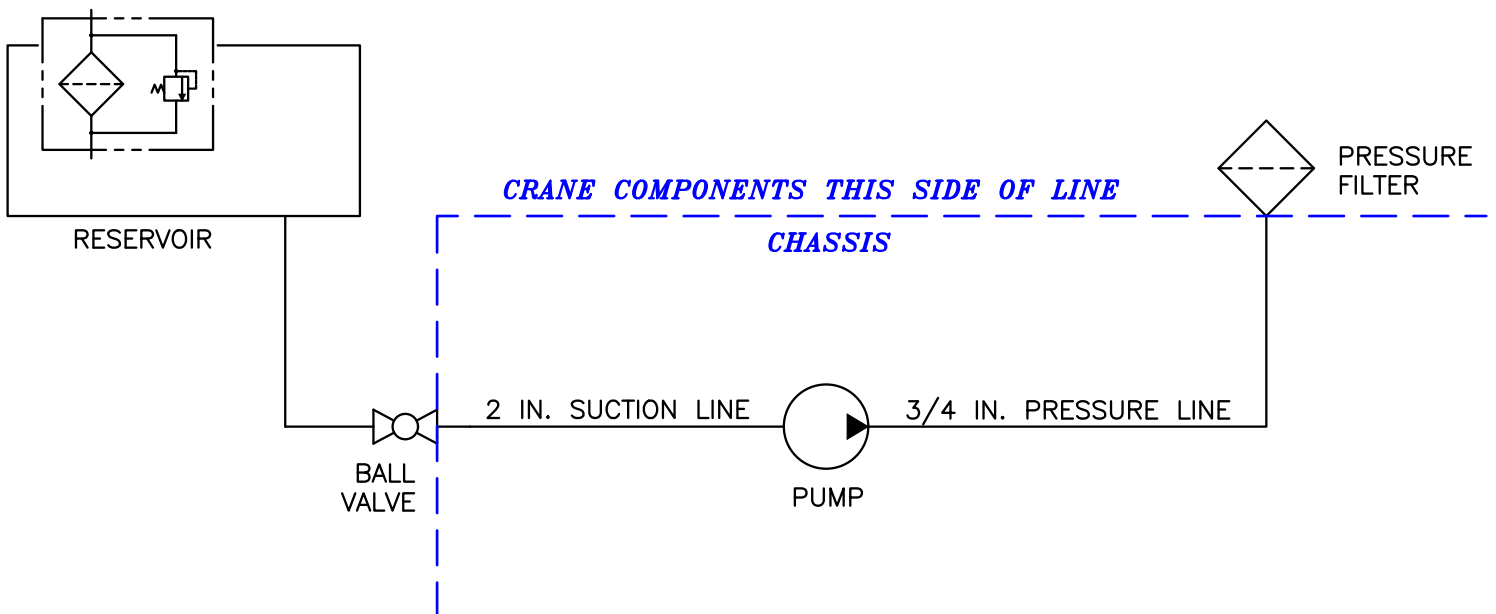
16000 Ground Control - Hydraulic Installation

To install the hydraulic hoses, fittings, etc:

1. Install the 2" suction hose to the pump. Tighten the hose clamps.
2. Install the 3/4" pressure hose between the pump outlet and the inlet port of the pressure filter.
3. Fill hydraulic oil reservoir.
4. Open the ball valve.
5. Start the vehicle's engine and engage the PTO. Allow the system to run for about five minutes.
6. Cycle all hydraulic functions. Check for leaks, and refill the reservoir if necessary.

CAUTION

Failure to open the ball valve will result in a dry running pump which may damage the pump.



16000 Ground Control - IMT PM Package Service Schedule

TYPE OF SERVICE	MONTHS	
	6	12
CHANGE BREATHER ELEMENT (73054974)	X	X
CHANGE RETURN FILTER (73052163)	X	X
CHANGE PRESSURE FILTER ELEMENT (73052155)	X	X
CHANGE HYDRAULIC OIL		X
START NEW 12 - MONTH PM CHART		X

DAILY CHECKS: CRANE FLUID LEVELS.

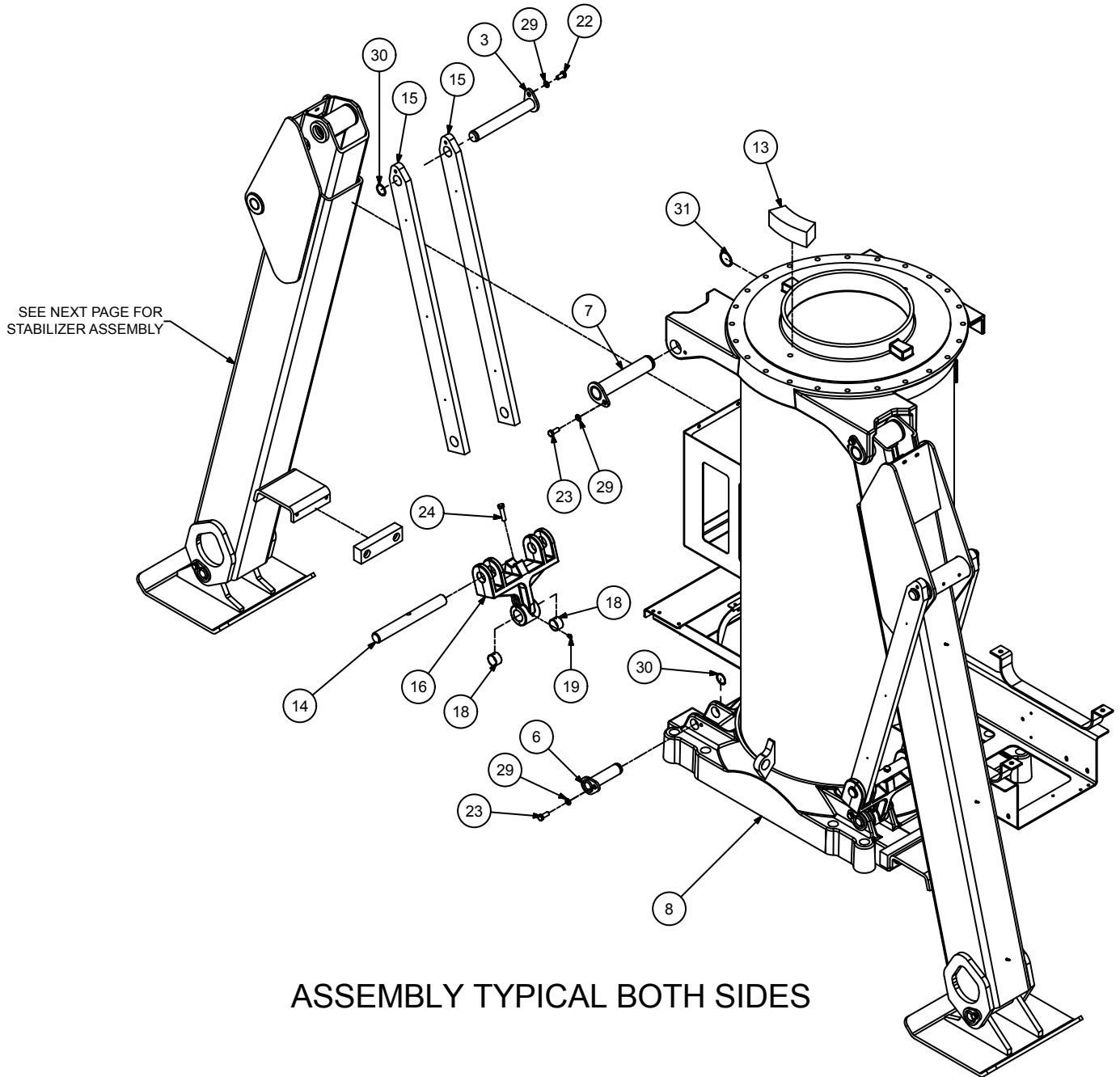
WEEKLY CHECKS: GREASING OF CRANE TURNTABLE AND PIN BOSSES.

RECOMMENDED FOR AVERAGE EQUIPMENT USAGE RATE. REQUIRED CRANE LUBRICANTS ARE NOT INCLUDED.

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16000 Ground Control - Base Assembly (99905461)



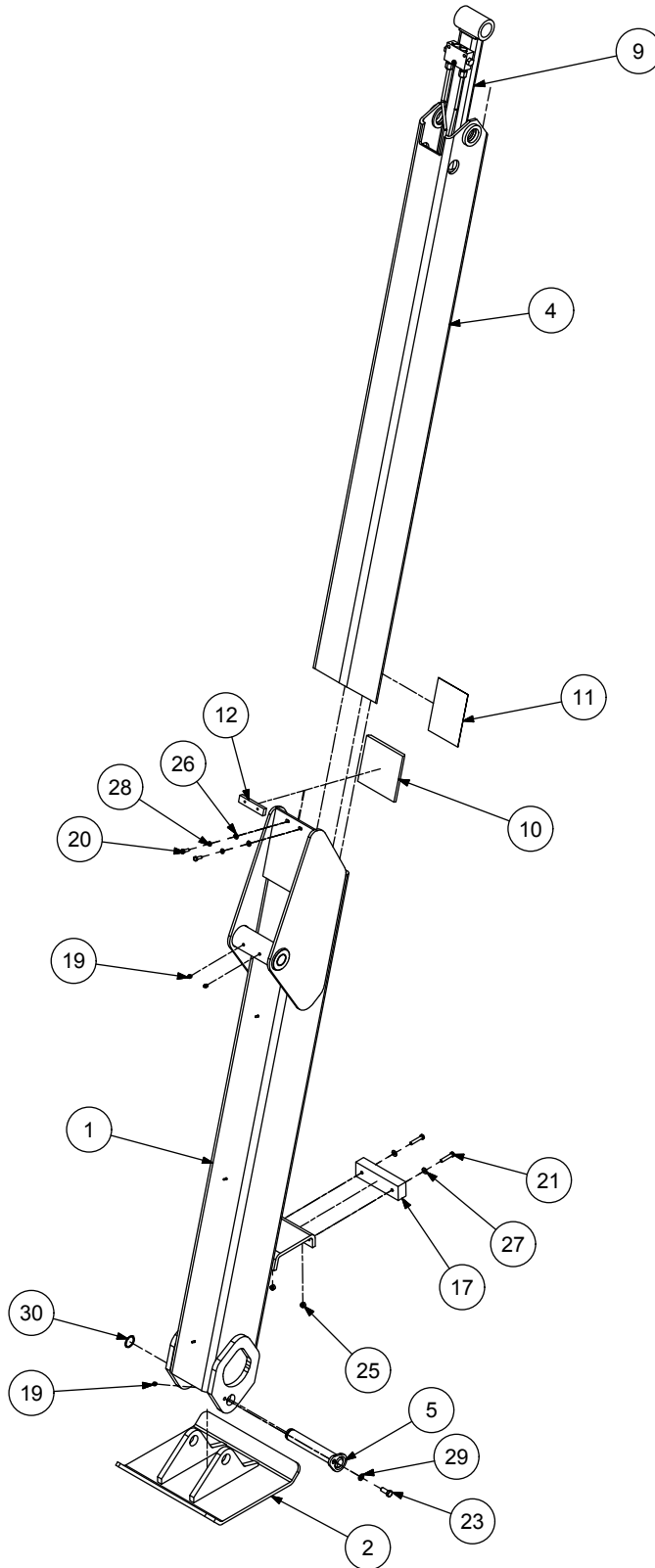
99905461 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	52715858	LEG-OUTRG WLDMT 16000 SIII		A/R (2)
1.	52716019	LEG-OUTRG WLDMT 16000 SIII HIGH FRAME		A/R (2)
2.	52715859	PAD WLDMT-16000 SII OUTRG		2
3.	52717606	PIN-TYPE M 1.50X11.50 (10.75)		2
4.	52717742	WLDMT OUTRIGGER ARM 16000 SII		2
5.	52718277	PIN-TYPE M 1.50X 9.50 (8.75)		2
6.	52718278	PIN-TYPE M 1.50X 6.00 (5.25)		2
7.	52718457	PIN-TYPE M 2.00X10.38 (9.63)		2
8.	52726814	WLDMT-CAST BASE 16000 GC 2016		A/R
8.	52727291	WLDMT-CAST BASE 16000 GC 2016 HIGH FRAME		A/R
9.	51717736	CYL-3.5/2.5 52.50S 86.00CC		2
10.	60030297	WEAR PAD-UHMW .62X 6.75 X 6.75		2
11.	60030303	WEAR PAD-BV NYL .31X7.75X5.50		2
12.	60120746	BAR- .50X1.00X 4.50		2
13.	60124569	STOP-16000 SIII		1
14.	60127553	PIN-1.50 DIA X 13.00 L		2
15.	50127554	PLATE-LINK ARM 16000 III OUTRIGGER		A/R (4)
15.	60128058	PLATE-LINK ARM 16000 III HIGH FRAME		A/R (4)
16.	60128818	MACHINING-OUTRIGGER DRAG LINK 16000 SIII		2
17.	60350055	RUBBER PAD-1.44X 2.25X 7.88		2
18.	70055173	BEARING-GAR DX 1.50X1.67X1.00		4
19.	72053508	ZERK-NPT .12	32	8
20.	72060025	CAP SCR .31-18X 1.00 HH GR5 Z	32	4
21.	72060050	CAP SCR .38-16X 2.00 HH GR5ZC	32	4
22.	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	32	2
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	32	6
24.	72060095	CAP SCR .50-13X 2.00 HH GR5 Z	32	2
25.	72062103	NUT .38-16 HEX NYLOCK	32	4
26.	72063002	WASHER .31 FLAT	32	4
27.	72063003	WASHER .38 FLAT	32	4
28.	72063050	WASHER .31 LOCK	32	4
29.	72063053	WASHER .50 LOCK	32	8
30.	72661584	RETAINING RING-EXT 1.50 SPIROLOX	32	6
31.	72661585	RETAINING RING-EXT 2.00 SPIROLOX	32	2
32.	51724727	KIT-HRDW 16000 BASE GROUND CONTROL		1
REV. E				

NOTES:

ITEMS 1, 8, 15 LIST STANDARD PARTS AND HIGH FRAME PARTS. HIGH FRAME PARTS TO BE USED FOR INSTALLATION ON CHASSIS WITH FRAME RAILS HIGHER THAN STANDARD CHASSIS FRAME RAILS.

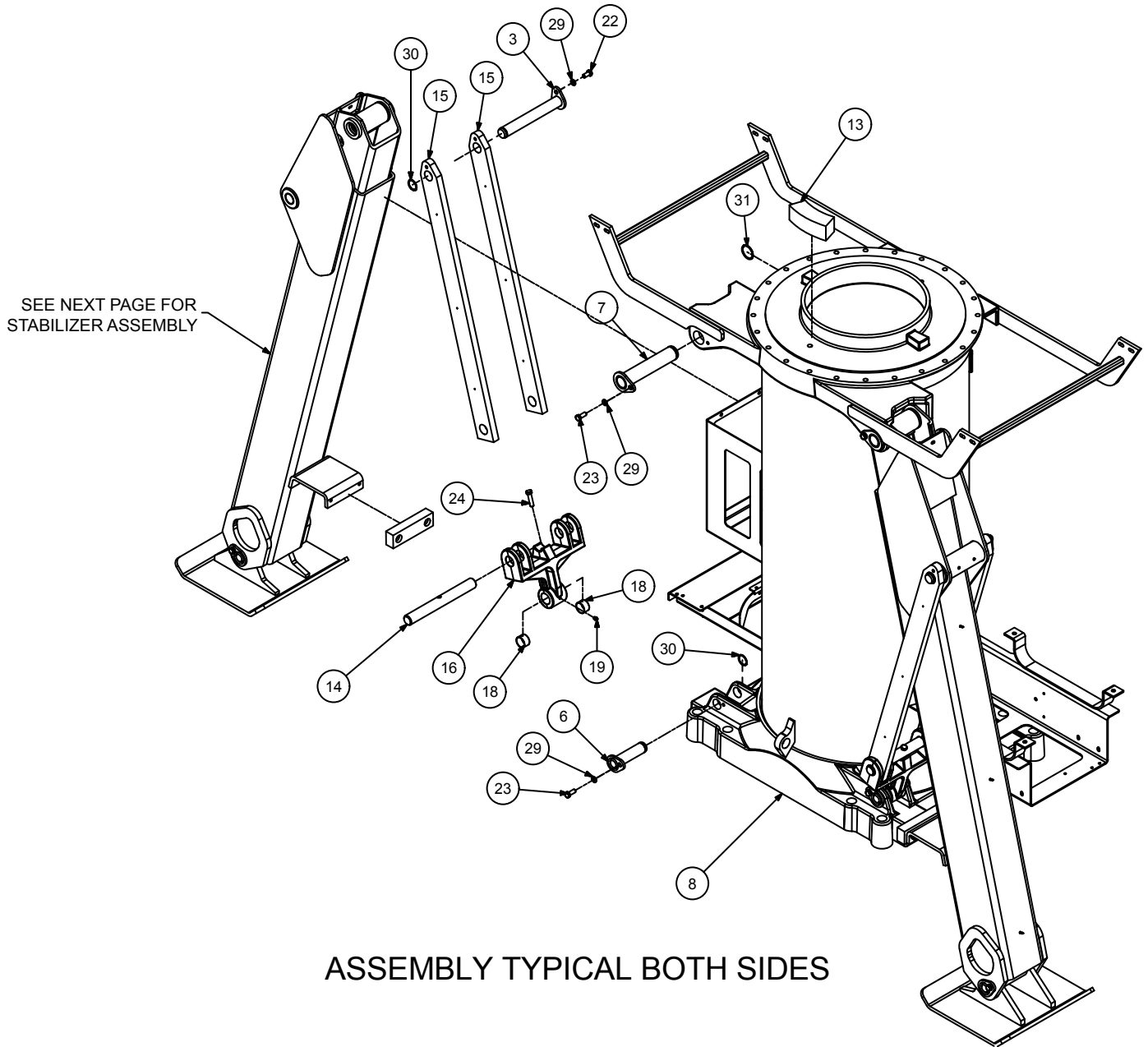
STABILIZER ASSEMBLY, CONTINUED (99905461-1)



99905461-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	52715858	LEG-OUTRG WLDMT 16000 SIII		A/R (2)
1.	52716019	LEG-OUTRG WLDMT 16000 SIII HIGH FRAME		A/R (2)
2.	52715859	PAD WLDMT-16000 SII OUTRG		2
3.	52717606	PIN-TYPE M 1.50X11.50 (10.75)		2
4.	52717742	WLDMT OUTRIGGER ARM 16000 SII		2
5.	52718277	PIN-TYPE M 1.50X 9.50 (8.75)		2
6.	52718278	PIN-TYPE M 1.50X 6.00 (5.25)		2
7.	52718457	PIN-TYPE M 2.00X10.38 (9.63)		2
8.	52726814	WLDMT-CAST BASE 16000 GC 2016		A/R
8.	52727291	WLDMT-CAST BASE 16000 GC 2016 HIGH FRAME		A/R
9.	51717736	CYL-3.5/2.5 52.50S 86.00CC		2
10.	60030297	WEAR PAD-UHMW .62X 6.75 X 6.75		2
11.	60030303	WEAR PAD-BV NYL .31X7.75X5.50		2
12.	60120746	BAR- .50X1.00X 4.50		2
13.	60124569	STOP-16000 SIII		1
14.	60127553	PIN-1.50 DIA X 13.00 L		2
15.	50127554	PLATE-LINK ARM 16000 III OUTRIGGER		A/R (4)
15.	60128058	PLATE-LINK ARM 16000 III HIGH FRAME		A/R (4)
16.	60128818	MACHINING-OUTRIGGER DRAG LINK 16000 SIII		2
17.	60350055	RUBBER PAD-1.44X 2.25X 7.88		2
18.	70055173	BEARING-GAR DX 1.50X1.67X1.00		4
19.	72053508	ZERK-NPT .12	32	8
20.	72060025	CAP SCR .31-18X 1.00 HH GR5 Z	32	4
21.	72060050	CAP SCR .38-16X 2.00 HH GR5ZC	32	4
22.	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	32	2
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	32	6
24.	72060095	CAP SCR .50-13X 2.00 HH GR5 Z	32	2
25.	72062103	NUT .38-16 HEX NYLOCK	32	4
26.	72063002	WASHER .31 FLAT	32	4
27.	72063003	WASHER .38 FLAT	32	4
28.	72063050	WASHER .31 LOCK	32	4
29.	72063053	WASHER .50 LOCK	32	8
30.	72661584	RETAINING RING-EXT 1.50 SPIROLOX	32	6
31.	72661585	RETAINING RING-EXT 2.00 SPIROLOX	32	2
32.	51724727	KIT-HRDW 16000 BASE GROUND CONTROL		1
REV. E				

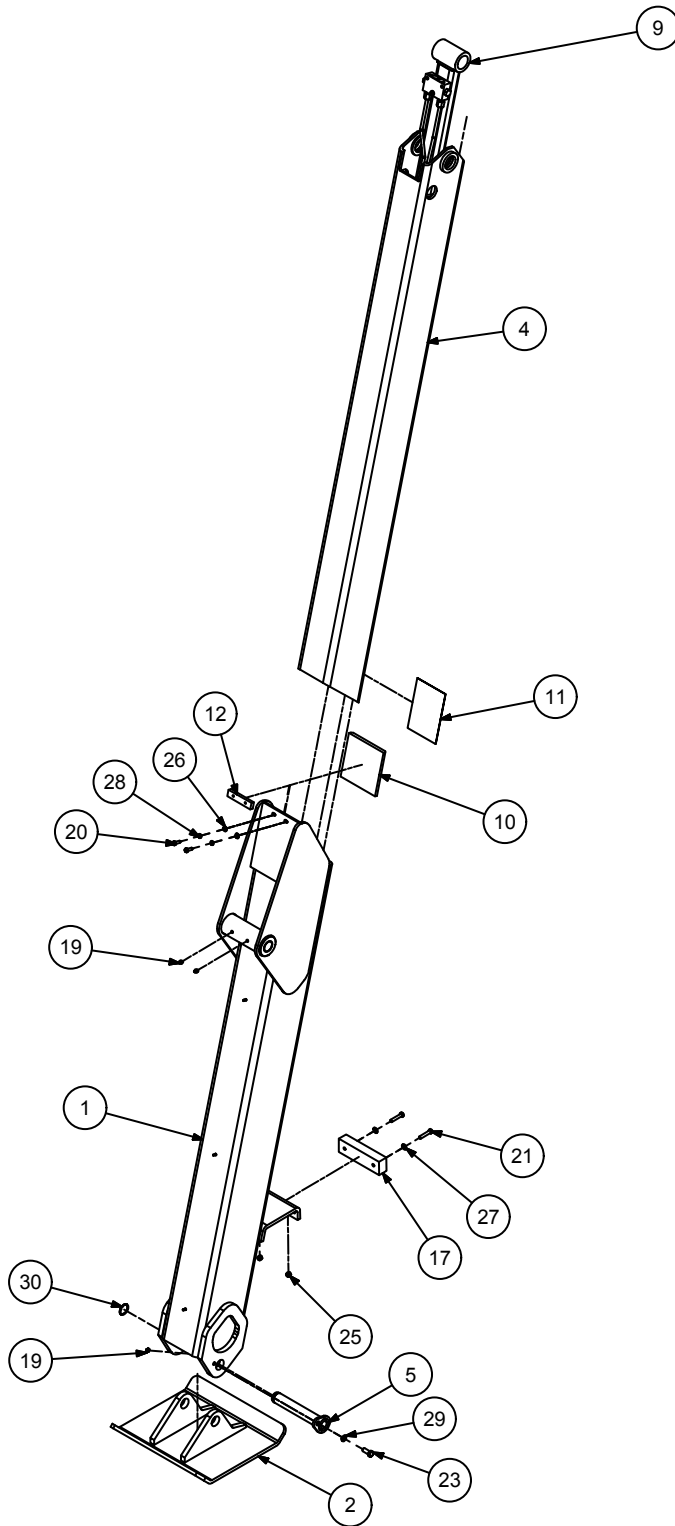
16000 Ground Control - Base Assembly With Platform (99905671)



99905671 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	52715858	LEG-OUTRG WLDMT 16000 SIII		2
2.	52715859	PAD WLDMT-16000 SII OUTRG		2
3.	52717606	PIN-TYPE M 1.50X11.50 (10.75)		2
4.	52717742	WLDMT OUTRIGGER ARM 16000 SII		2
5.	52718277	PIN-TYPE M 1.50X 9.50 (8.75)		2
6.	52718278	PIN-TYPE M 1.50X 6.00 (5.25)		2
7.	52718457	PIN-TYPE M 2.00X10.38 (9.63)		2
8.	52727290	WLDMT-CAST BASE 16000 GC 2016 W / PLATFORM		1
9.	51717736	CYL-3.5/2.5 52.50S 86.00CC		2
10.	60030297	WEAR PAD-UHMW .62X 6.75 X 6.75		2
11.	60030303	WEAR PAD-BV NYL .31X7.75X5.50		2
12.	60120746	BAR- .50X1.00X 4.50		2
13.	60124569	STOP-16000 SIII		1
14.	60127553	PIN-1.50 DIA X 13.00 L		2
15.	50127554	PLATE-LINK ARM 16000 III OUTRIGGER		4
16.	60128818	MACHINING-OUTRIGGER DRAG LINK 16000 SIII		2
17.	60350055	RUBBER PAD-1.44X 2.25X 7.88		2
18.	70055173	BEARING-GAR DX 1.50X1.67X1.00		4
19.	72053508	ZERK-NPT .12	32	8
20.	72060025	CAP SCR .31-18X 1.00 HH GR5 Z	32	4
21.	72060050	CAP SCR .38-16X 2.00 HH GR5ZC	32	4
22.	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	32	2
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	32	6
24.	72060095	CAP SCR .50-13X 2.00 HH GR5 Z	32	2
25.	72062103	NUT .38-16 HEX NYLOCK	32	40
26.	72063002	WASHER .31 FLAT	32	4
27.	72063003	WASHER .38 FLAT	32, 42	68
28.	72063050	WASHER .31 LOCK	32	4
29.	72063053	WASHER .50 LOCK	32, 27	8
30.	72661584	RETAINING RING-EXT 1.50 SPIROLOX	32	6
31.	72661585	RETAINING RING-EXT 2.00 SPIROLOX	32	2
32.	51724727	KIT-HRDW 16000 BASE GROUND CONTROL		1
33.	52726281	WLDMT - LADDER BRACE LH		2
34.	52726280	WLDMT - LADDER BRACE RH		2
35.	52718477	PLATFORM-WELDMENT 16000SIII		1
36.	52718476	LADDER-BOLT-ON 16000SIII		2
37.	60141840	PLATE-LADDER MNT	42	4
38.	72060054	CAP SCR .38-16X 3.00 HH GR5 Z	42	12
39.	72060047	CAP SCR .38-16X 1.25 HH GR5 Z	42	16
40.	72060048	CAP SCR .38-16X 1.50 HH GR5 Z		8
41.	52715594	WLDMT-LADDER EXTENSION 16035		2
42.	51726282	KIT-HRDW PLATFORM GROUND CONTROL		1
REV. B				

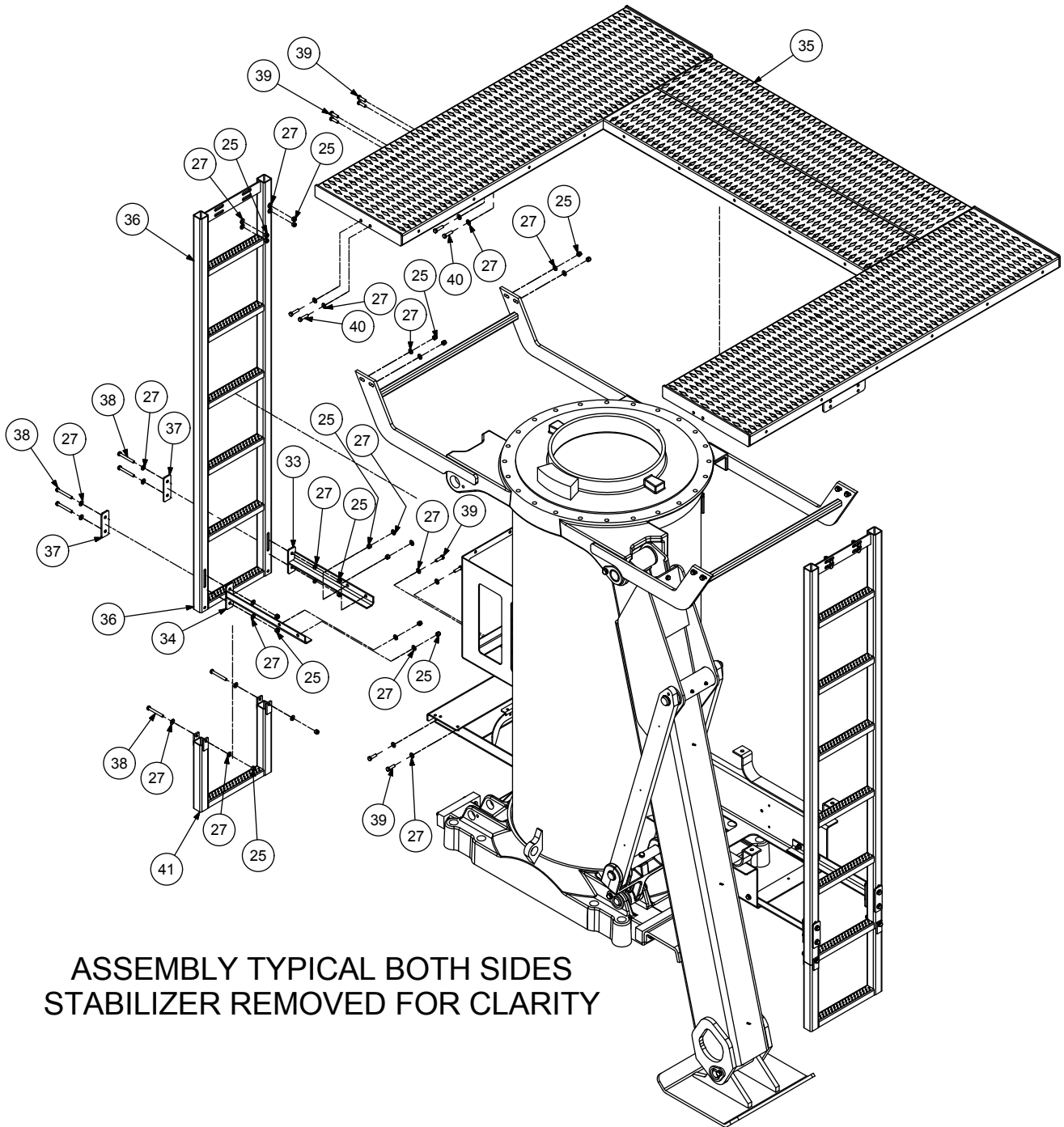
STABILIZER ASSEMBLY WITH PLATFORM, CONTINUED (99905671-1)



99905671-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	52715858	LEG-OUTRG WLDMT 16000 SIII		2
2.	52715859	PAD WLDMT-16000 SII OUTRG		2
3.	52717606	PIN-TYPE M 1.50X11.50 (10.75)		2
4.	52717742	WLDMT OUTRIGGER ARM 16000 SII		2
5.	52718277	PIN-TYPE M 1.50X 9.50 (8.75)		2
6.	52718278	PIN-TYPE M 1.50X 6.00 (5.25)		2
7.	52718457	PIN-TYPE M 2.00X10.38 (9.63)		2
8.	52727290	WLDMT-CAST BASE 16000 GC 2016 W / PLATFORM		1
9.	51717736	CYL-3.5/2.5 52.50S 86.00CC		2
10.	60030297	WEAR PAD-UHMW .62X 6.75 X 6.75		2
11.	60030303	WEAR PAD-BV NYL .31X7.75X5.50		2
12.	60120746	BAR- .50X1.00X 4.50		2
13.	60124569	STOP-16000 SIII		1
14.	60127553	PIN-1.50 DIA X 13.00 L		2
15.	50127554	PLATE-LINK ARM 16000 III OUTRIGGER		4
16.	60128818	MACHINING-OUTRIGGER DRAG LINK 16000 SIII		2
17.	60350055	RUBBER PAD-1.44X 2.25X 7.88		2
18.	70055173	BEARING-GAR DX 1.50X1.67X1.00		4
19.	72053508	ZERK-NPT .12	32	8
20.	72060025	CAP SCR .31-18X 1.00 HH GR5 Z	32	4
21.	72060050	CAP SCR .38-16X 2.00 HH GR5ZC	32	4
22.	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	32	2
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	32	6
24.	72060095	CAP SCR .50-13X 2.00 HH GR5 Z	32	2
25.	72062103	NUT .38-16 HEX NYLOCK	32	40
26.	72063002	WASHER .31 FLAT	32	4
27.	72063003	WASHER .38 FLAT	32, 42	68
28.	72063050	WASHER .31 LOCK	32	4
29.	72063053	WASHER .50 LOCK	32, 27	8
30.	72661584	RETAINING RING-EXT 1.50 SPIROLOX	32	6
31.	72661585	RETAINING RING-EXT 2.00 SPIROLOX	32	2
32.	51724727	KIT-HRDW 16000 BASE GROUND CONTROL		1
33.	52726281	WLDMT - LADDER BRACE LH		2
34.	52726280	WLDMT - LADDER BRACE RH		2
35.	52718477	PLATFORM-WELDMENT 16000SIII		1
36.	52718476	LADDER-BOLT-ON 16000SIII		2
37.	60141840	PLATE-LADDER MNT	42	4
38.	72060054	CAP SCR .38-16X 3.00 HH GR5 Z	42	12
39.	72060047	CAP SCR .38-16X 1.25 HH GR5 Z	42	16
40.	72060048	CAP SCR .38-16X 1.50 HH GR5 Z		8
41.	52715594	WLDMT-LADDER EXTENSION 16035		2
42.	51726282	KIT-HRDW PLATFORM GROUND CONTROL		1
REV. B				

BASE ASSEMBLY WITH PLATFORM, CONTINUED (99905671-2)

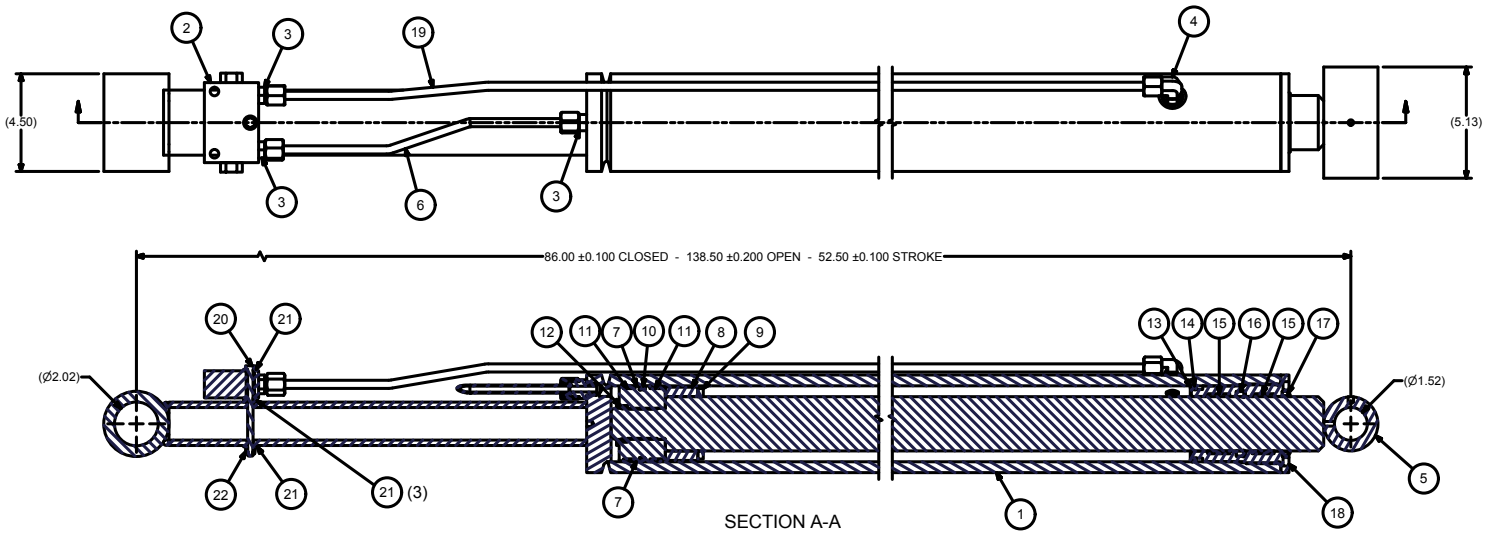


**ASSEMBLY TYPICAL BOTH SIDES
STABILIZER REMOVED FOR CLARITY**

99905671-2 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	52715858	LEG-OUTRG WLDMT 16000 SIII		2
2.	52715859	PAD WLDMT-16000 SII OUTRG		2
3.	52717606	PIN-TYPE M 1.50X11.50 (10.75)		2
4.	52717742	WLDMT OUTRIGGER ARM 16000 SII		2
5.	52718277	PIN-TYPE M 1.50X 9.50 (8.75)		2
6.	52718278	PIN-TYPE M 1.50X 6.00 (5.25)		2
7.	52718457	PIN-TYPE M 2.00X10.38 (9.63)		2
8.	52727290	WLDMT-CAST BASE 16000 GC 2016 W / PLATFORM		1
9.	51717736	CYL-3.5/2.5 52.50S 86.00CC		2
10.	60030297	WEAR PAD-UHMW .62X 6.75 X 6.75		2
11.	60030303	WEAR PAD-BV NYL .31X7.75X5.50		2
12.	60120746	BAR- .50X1.00X 4.50		2
13.	60124569	STOP-16000 SIII		1
14.	60127553	PIN-1.50 DIA X 13.00 L		2
15.	50127554	PLATE-LINK ARM 16000 III OUTRIGGER		4
16.	60128818	MACHINING-OUTRIGGER DRAG LINK 16000 SIII		2
17.	60350055	RUBBER PAD-1.44X 2.25X 7.88		2
18.	70055173	BEARING-GAR DX 1.50X1.67X1.00		4
19.	72053508	ZERK-NPT .12	32	8
20.	72060025	CAP SCR .31-18X 1.00 HH GR5 Z	32	4
21.	72060050	CAP SCR .38-16X 2.00 HH GR5ZC	32	4
22.	72060091	CAP SCR .50-13X 1.00 HH GR5 Z	32	2
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	32	6
24.	72060095	CAP SCR .50-13X 2.00 HH GR5 Z	32	2
25.	72062103	NUT .38-16 HEX NYLOCK	32	40
26.	72063002	WASHER .31 FLAT	32	4
27.	72063003	WASHER .38 FLAT	32, 42	68
28.	72063050	WASHER .31 LOCK	32	4
29.	72063053	WASHER .50 LOCK	32, 27	8
30.	72661584	RETAINING RING-EXT 1.50 SPIROLOX	32	6
31.	72661585	RETAINING RING-EXT 2.00 SPIROLOX	32	2
32.	51724727	KIT-HRDW 16000 BASE GROUND CONTROL		1
33.	52726281	WLDMT - LADDER BRACE LH		2
34.	52726280	WLDMT - LADDER BRACE RH		2
35.	52718477	PLATFORM-WELDMENT 16000SIII		1
36.	52718476	LADDER-BOLT-ON 16000SIII		2
37.	60141840	PLATE-LADDER MNT	42	4
38.	72060054	CAP SCR .38-16X 3.00 HH GR5 Z	42	12
39.	72060047	CAP SCR .38-16X 1.25 HH GR5 Z	42	16
40.	72060048	CAP SCR .38-16X 1.50 HH GR5 Z		8
41.	52715594	WLDMT-LADDER EXTENSION 16035		2
42.	51726282	KIT-HRDW PLATFORM GROUND CONTROL		1
REV. B				

16000 Ground Control - Stabilizer Cylinder (51717736)



CYLINDER DATA			
EXTEND:	9.73 SQ IN 2.21 GAL	DRY WEIGHT:	225 LB
RETRACT:	4.82 SQ IN 1.09 GAL	BRG. SPAN:	5%
CASE:	∅3.52 X 4.50 X 61.09	TEST PSI:	3000
ROD:	∅2.50 X 62.88 X 1.44STGR	OPER. PSI:	3000
STINGER:	——	PISTON TORQUE:	710-740 FT-LB
		HEAD TORQUE:	352 FT-LB
CYL STROKE:	52.50	CARTRIDGE TORQUE:	30-35 FT-LB
LOCKNUT TORQUE:	——	CAP SCR TORQUE:	16 FT-LB

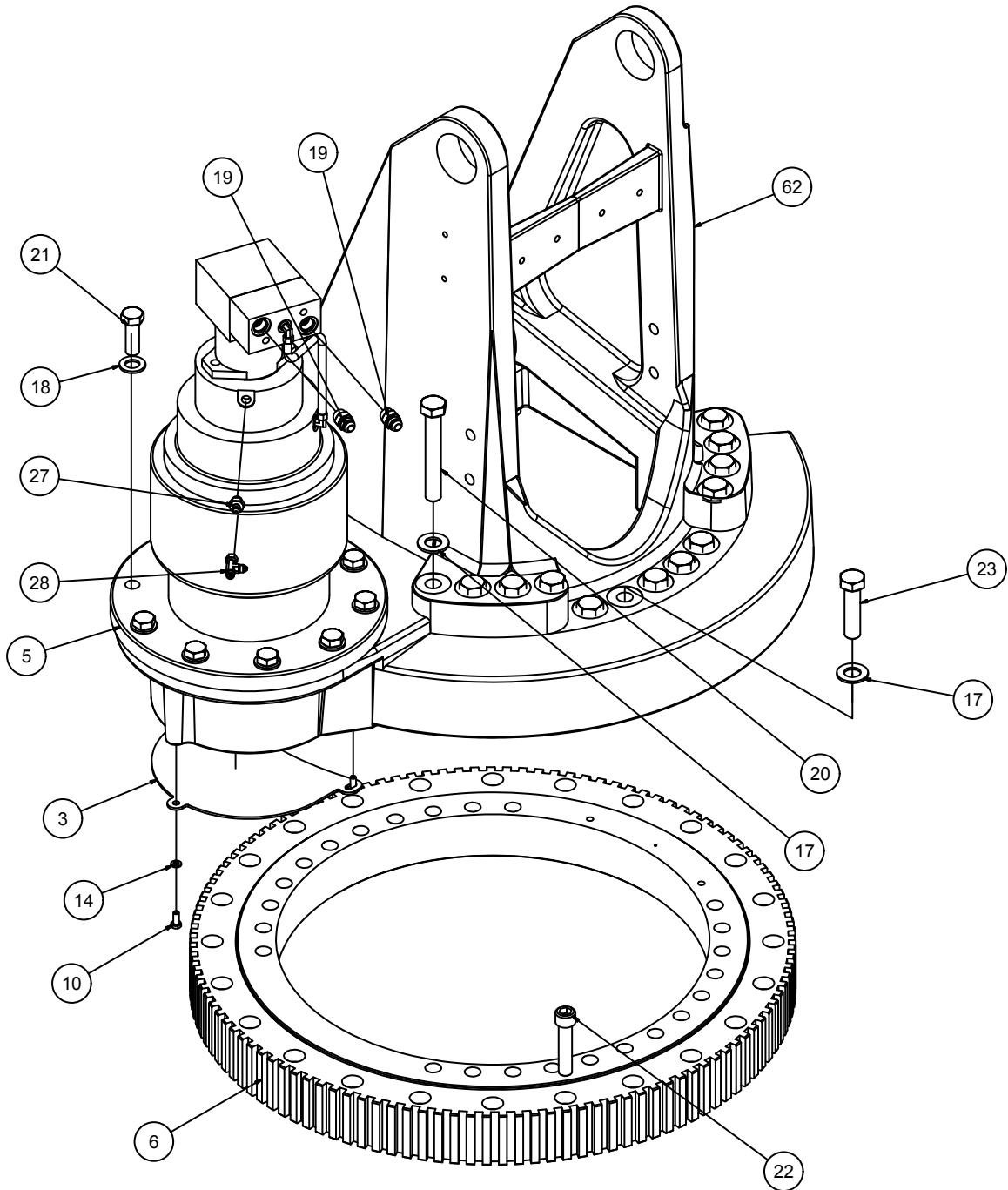
NOTES:

1. APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO THREADS ON THE CYLINDER HEAD ONLY. KEEP AWAY FROM ALL SEALS.
2. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY, MULTI PURPOSE LUBRICANT, TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, PISTON RINGS, AND ROD STINGER THREADS.
3. STAMP MANUFACTURER'S PART NO. "51717736" AND CYLINDER SERIAL NO. ON CYLINDER CASE BASE END.
4. STAMP MANUFACTURER'S NAME "IOWA MOLD TOOLING CO. INC." ON CYLINDER CASE.

51717736 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	52717735	CASE ASM-3.50 BORE X 82.78 LG		1
2.	71415729	VALVE BLOCK-16000 OR DBL CHECK		1
3.	72533186	ADPTR-M FACE/M STR 6 6		3
4.	72533163	ELBOW-M STR/90/M FACE 6 6		1
5.	4G340990	ROD ASM-2.50 DIA X 64.12 LG 1.44 S 1.50		1
6.	70146082	TUBE ASM-16000 OR CYC E		1
7.	60124587	PISTON-3.50 BORE X 1.44 STGR (DUCT IRON)		1
8.	6C150025	STOP TUBE-2.50 ROD X 1.50 LONG	23	1
9.	60138276	STOP TUBE-2.50 ROD X 0.25 LONG	23	1 REF
10.	7T66P350	PISTON SEAL-DYNAMIC 3.50" CP	23	1 REF
11.	7T2N4035	WEAR RING-PISTON 3.50X3.25X.5	23	2 REF
12.	7T61N143	LOCK RING-NYLON 1.43	23	1 REF
13.	7Q072338	O RING 3.12X 3.50X .19 70	23	1 REF
14.	7Q10P668	BACKUP RING-3.12 ID X 3.50 OD	23	1 REF
15.	7T080000	WEAR RING-ROD 2.50 X 2.75 X 1.00W	23	2 REF
16.	7R746025	U-CUP LOADED 2.00X2.50X.38 HAL	23	1 REF
17.	7R17P025	ROD WIPER-TYPE D 2.50 ROD HAL	23	1 REF
18.	60124588	HEAD-3.50 BORE X 2.50 ROD (DUCTILE IRON)		1
19.	70146083	TUBE ASM-16000 OR CYL R		1
20.	72060016	CAP SCR .25-20X 4.00 HH GR5 Z		1
21.	72063001	WASHER .25 FLAT		5
22.	72062104	NUT .25-20 HEX NYLOCK		1
23.	9B080000	SEAL KIT-IMT 3.52B 2.50R 1.44S (OUTRG)		1
REV. D				

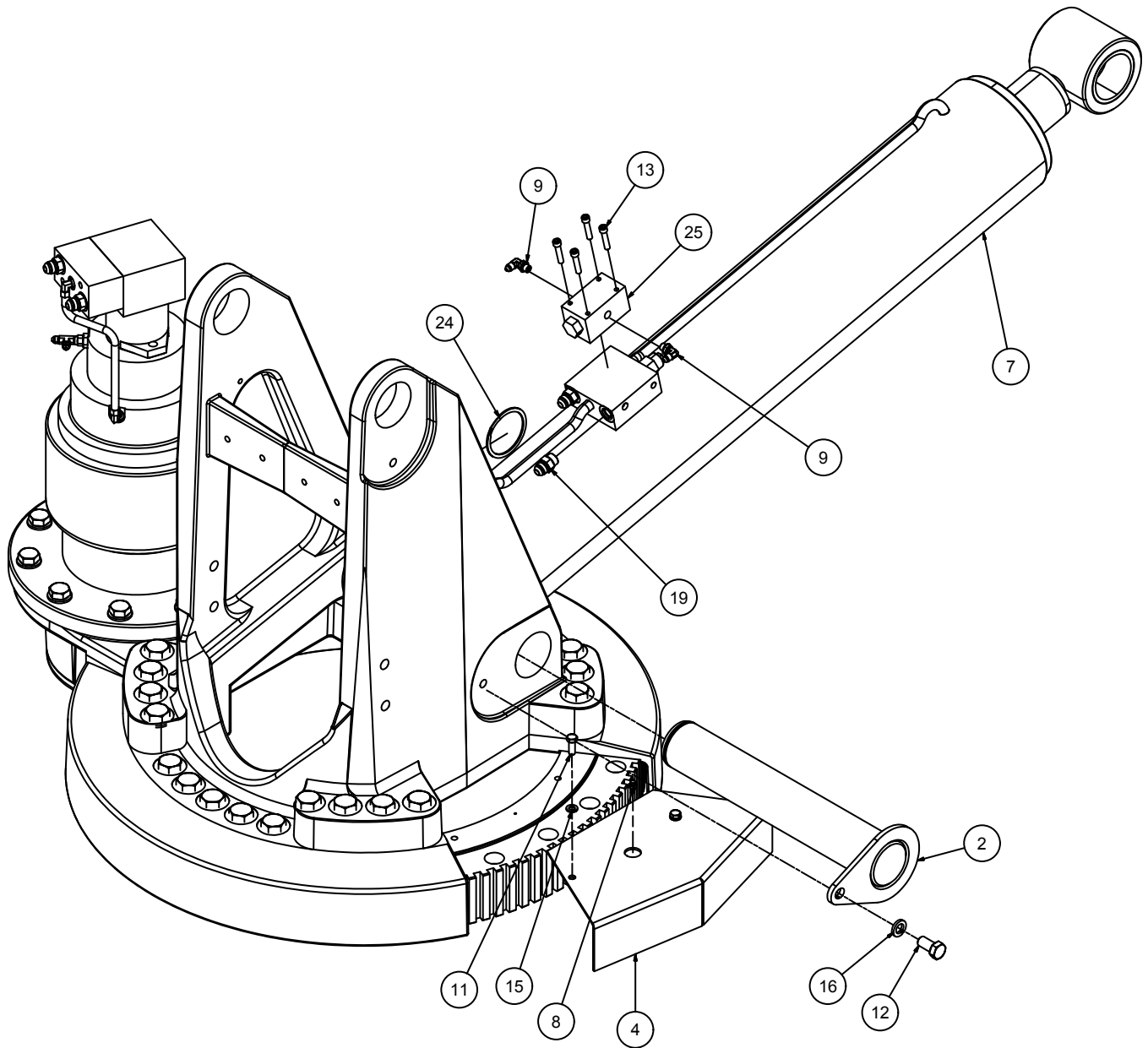
16000 Ground Control - Mast Assembly (99905462)



99905462 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
2.	52717687	PIN-TYPE M 3.00X18.00 (17.25)		1
3.	60124526	COVER-ROTATOR 16000 SIII		1
4.	60126263	COVER-GEAR BEARING 16000SIII		1
5.	70056594	GEAR BOX-ROT PLNTY W/BR 16000		1
6.	71056580	GEAR-TRNTBL BRG GP		1
7.	51718466	CYL-7.0/3.5 34.00S 54.00CC INNER		1
8.	72053508	ZERK-NPT .12	26	1
9.	72053758	ELBOW-M STR/90/M JIC 4 4	29	2
10.	72060023	CAP SCR .31-18X .75 HH GR5 Z	26	3
11.	72060046	CAP SCR .38-16X 1.00 HH GR5 Z	26	2
12.	72060148	CAP SCR .62-11X 1.25 HH GR5 Z	26	1
13.	72060734	CAP SCR .31-18 1.50 SH PLAIN	26	4
14.	72063050	WASHER .31 LOCK	26	3
15.	72063051	WASHER .38 LOCK	26	2
16.	72063055	WASHER .62 LOCK	26	1
17.	72063115	WASHER .88 FLAT ASTM F436	26	24
18.	72063116	WASHER .75 N FLAT H ASTM F436Z	26	10
19.	72532358	ADPTR-M STR/M JIC 8 8	29	4
20.	72601293	CAP SCR .88- 9X 6.00 HH GR8 Z	26	14
21.	72601625	CAP SCR .75-10X 2.25 HH GR5 Z	26	10
22.	72601630	CAP SCR .75-10X 3.50 SH BLACK	26	24
23.	72601793	CAP SCR .88- 9X 3.50 HH GR8 Z	26	10
24.	72661586	RETAINING RING-EXT 3.00 SPIROLOX	26	1
25.	73054425	VALVE-SENSOR RC HYD MODEL 860		1
26.	51724726	KIT-HRDW 16000 MAST GROUND CONTROL		1
27.	72533490	ADPTR-M BSPP/M JIC 4 4		1
28.	72532981	TEE-SWVL NUT RUN JIC 4	29	1
29.	51724729	HOSE/ADPTR KIT-16000 SIII GROUND CONTROL	29	1
62.	51717612 MACH	MACHINING-MAST 16000 SIII		1
REV. B				

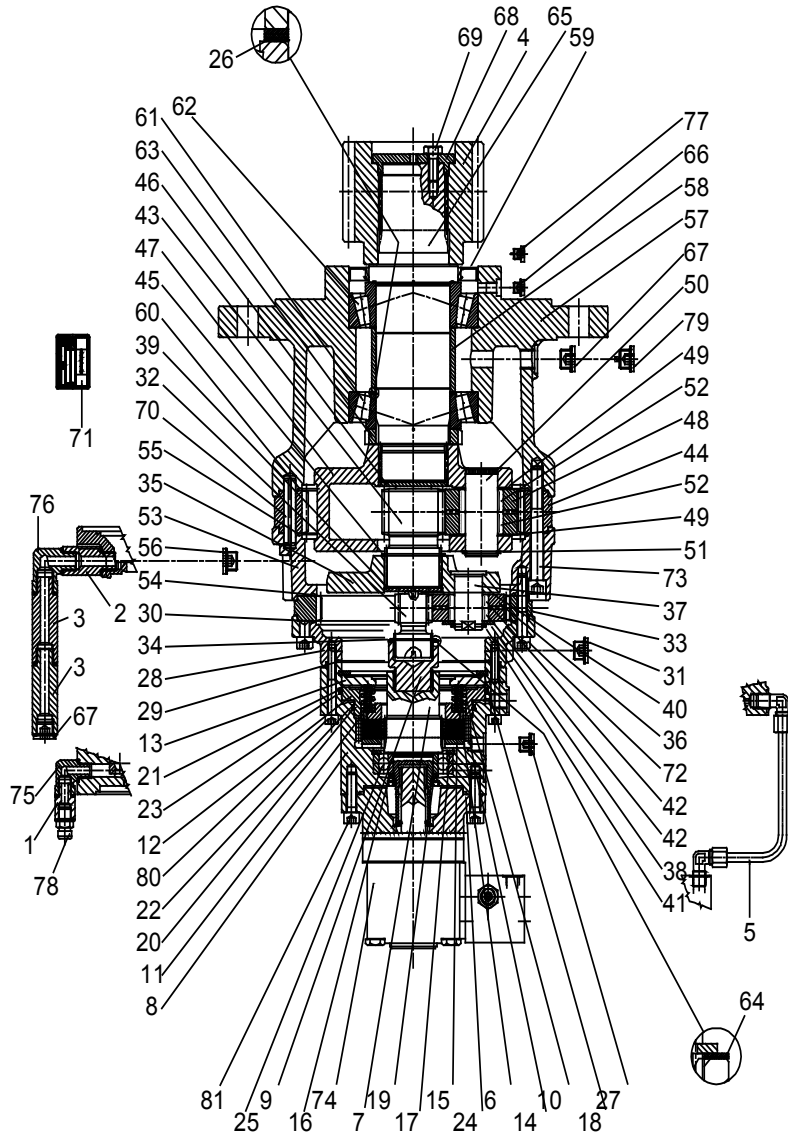
MAST ASSEMBLY, CONTINUED (99905462-1)



99905462-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
2.	52717687	PIN-TYPE M 3.00X18.00 (17.25)		1
3.	60124526	COVER-ROTATOR 16000 SIII		1
4.	60126263	COVER-GEAR BEARING 16000SIII		1
5.	70056594	GEAR BOX-ROT PLNTY W/BR 16000		1
6.	71056580	GEAR-TRNTBL BRG GP		1
7.	51718466	CYL-7.0/3.5 34.00S 54.00CC INNER		1
8.	72053508	ZERK-NPT .12	26	1
9.	72053758	ELBOW-M STR/90/M JIC 4 4	29	2
10.	72060023	CAP SCR .31-18X .75 HH GR5 Z	26	3
11.	72060046	CAP SCR .38-16X 1.00 HH GR5 Z	26	2
12.	72060148	CAP SCR .62-11X 1.25 HH GR5 Z	26	1
13.	72060734	CAP SCR .31-18 1.50 SH PLAIN	26	4
14.	72063050	WASHER .31 LOCK	26	3
15.	72063051	WASHER .38 LOCK	26	2
16.	72063055	WASHER .62 LOCK	26	1
17.	72063115	WASHER .88 FLAT ASTM F436	26	24
18.	72063116	WASHER .75 N FLAT H ASTM F436Z	26	10
19.	72532358	ADPTR-M STR/M JIC 8 8	29	4
20.	72601293	CAP SCR .88- 9X 6.00 HH GR8 Z	26	14
21.	72601625	CAP SCR .75-10X 2.25 HH GR5 Z	26	10
22.	72601630	CAP SCR .75-10X 3.50 SH BLACK	26	24
23.	72601793	CAP SCR .88- 9X 3.50 HH GR8 Z	26	10
24.	72661586	RETAINING RING-EXT 3.00 SPIROLOX	26	1
25.	73054425	VALVE-SENSOR RC HYD MODEL 860		1
26.	51724726	KIT-HRDW 16000 MAST GROUND CONTROL		1
27.	72533490	ADPTR-M BSPP/M JIC 4 4		1
28.	72532981	TEE-SWVL NUT RUN JIC 4	29	1
29.	51724729	HOSE/ADPTR KIT-16000 SIII GROUND CONTROL	29	1
62.	51717612 MACH	MACHINING-MAST 16000 SIII		1
REV. B				

16000 Ground Control - Gear Box (70056594)



ITEM NO.	PART NO.	DESCRIPTION	QTY.
	71056609	BRAKE ASSEMBLY, COMPLETE (INCL. 6-27)	REF
	70733994	OUTPUT ASSEMBLY, COMPLETE (INC. 57-67)	REF
	94396701	SEAL KIT, ORBIT MOTOR	REF
	7141566	BRAKE DISK KIT	REF
	94396703	BRAKE PISTON SEAL KIT	REF
1.	71412007	EXTENSION	1
2.	71411452	EXTENSION	1
3.	71411453	EXTENSION	2
4.	71411571	OUTPUT GEAR	1
5.		TUBE	1
6.	71416529	CLUTCH DISC	5
7.		COUPLING	1
8.		INPUT MOTOR BOX GLC	1
9.		COUPLING	1

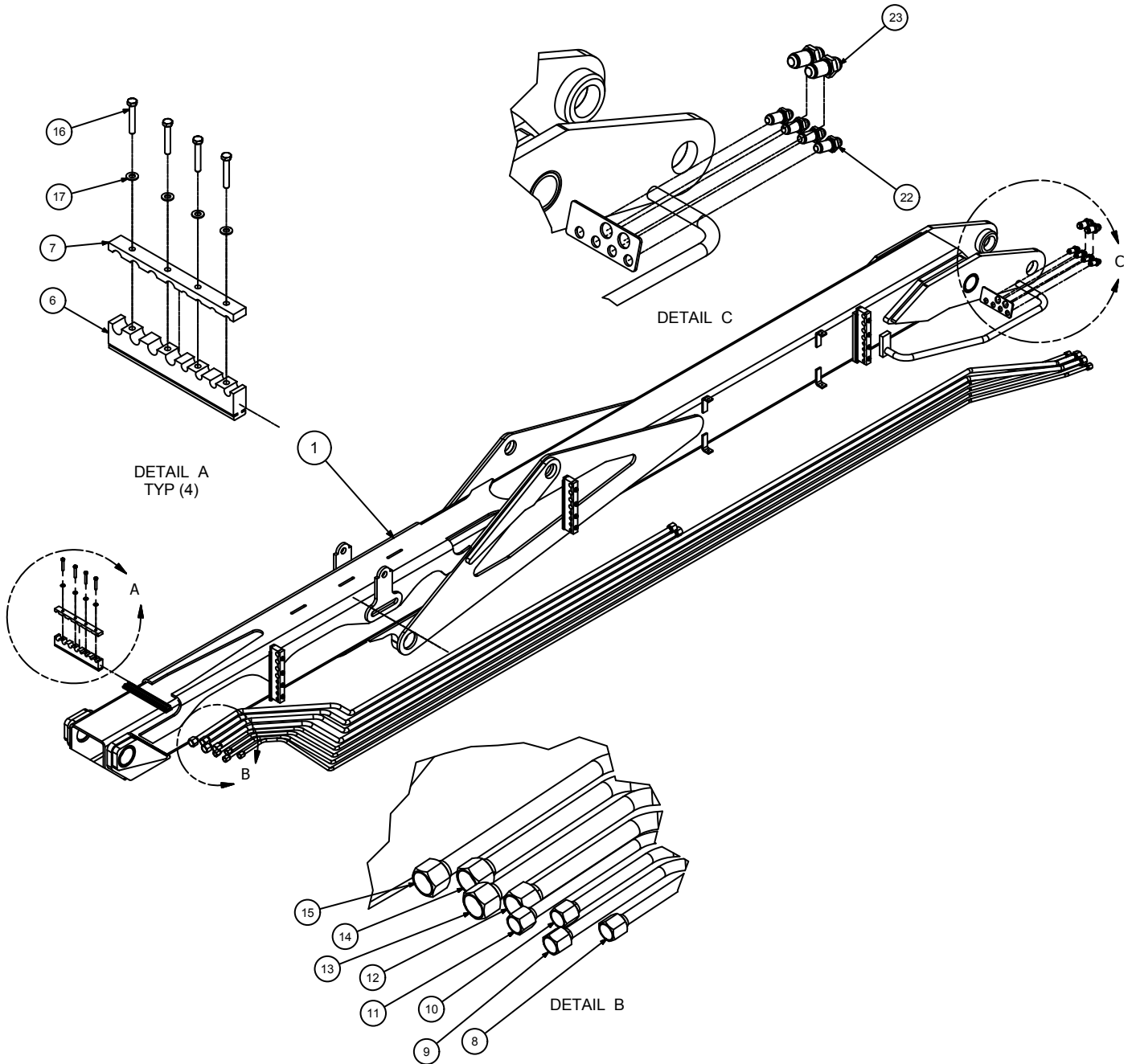
ITEM NO.	PART NO.	DESCRIPTION	QTY.
10.	71411567	SPRING	16
11.	71411568	SPRING	2
12.		BRAKE PISTON RA	1
13.		BRAKE END PLATE RA-RB	1
14.	71406530	BRAKE STILL MIDLE DISC RA	6
15.		BRAKE SPACER RA	1
16.		SEEGER Ø40 UNI 7435	1
17.		INT. RETAINING RING	1
18.		INT. RETAINING RING	1
19.	76396704	SEAL, LIP	1
20.		RING	1
21.		RING	1
22.	76397424	O RING	1
23.	76397425	O RING	1
24.	76396702	O RING	1
25.		BALL BEARING	1
26.		SHIM KIT	1
27.		OIL DRAIN PLUG	4
28.		JUNCTION BOX	1
29.	76396705	O RING	1
30.	76396706	O RING	1
31.		OIL DRAIN PLUG	2
32.		SUN GEAR	1
33.		RING GEAR	1
34.		PLANETARY CARRIER	1
35.		PLANETARY BOX	1
36.		PLANETARY GEAR	3
37.		PIN	3
38.		THRUST WASHER	3
39.		STOP BOTTOM	1
40.		THRUST WASHER	3
41.		SNAP RING	3
42.		NEEDLE	108
43.		SUN GEAR	1
44.		RING GEAR	1
45.		SEEGER	1
46.		STOP BOTTOM PLATE	1
47.		PPM M R=3,67	1
48.		SUN GEAR	3
49.		THRUST WASHER	6
50.		PIN	3
51.		SNAP RING	3
52.		NEEDLE	120
53.		CONNECTION BOX	1
54.	76396706	O RING	1
55.	76396707	O RING	1

ITEM NO.	PART NO.	DESCRIPTION	QTY.
56.		DRAIN PLUG	2
57.		OUTPUT BOX	1
58.	71411570	DISTANCE RING	1
59.	76396708	OIL SEAL	1
60.	76396707	O RING	1
61.	70055302	BEARING	1
62.	70055303	BEARING	1
63.	72062327	RING NUT	1
64.		SHIM KIT	1
65.	71411569	OUTPUT SHAFT PS	1
66.		DRAIN PLUG	1
67.	71411454	DRAIN PLUG 3/8"	4
68.	71411572	PLATE	1
69.	72062328	HEX. HEAD BOLT M10X30	3
70.		ELASTIC PIN	2
71.		ALUM. NAME PLATE	1
72.	72062347	HEX. S.H.S. M10X55 UNI 5931-8G	16
73.	72062348	V.T.C.E.I. M12X100 UNI 5931-12K	10
74.	73050185	MOTOR	1
75.	71412006	ELBOW M/F CIL. 1/4"GAS	1
76.	71411451	ELBOW M/F CIL. 3/8"GAS	1
77.		MAGNETIC PLUG 1/8"GAS DIN 908	1
78.	71412005	BREATHER PLUG 1/4"GAS	1
79.		MAGNETIC PLUG 3/8"GAS DIN 908	1
80.	72062349	HEX. S.H.S. M8X60 UNI 5931-8G	8
81.	72062350	HEX. S.H.S. M10X30 UNI 5931-8G	4
REV. INITIAL RELEASE			

NOTE: ITEMS SHOWN ARE COMMON SERVICE ITEMS. FOR PART NUMBERS NOT ASSIGNED CONTACT:

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

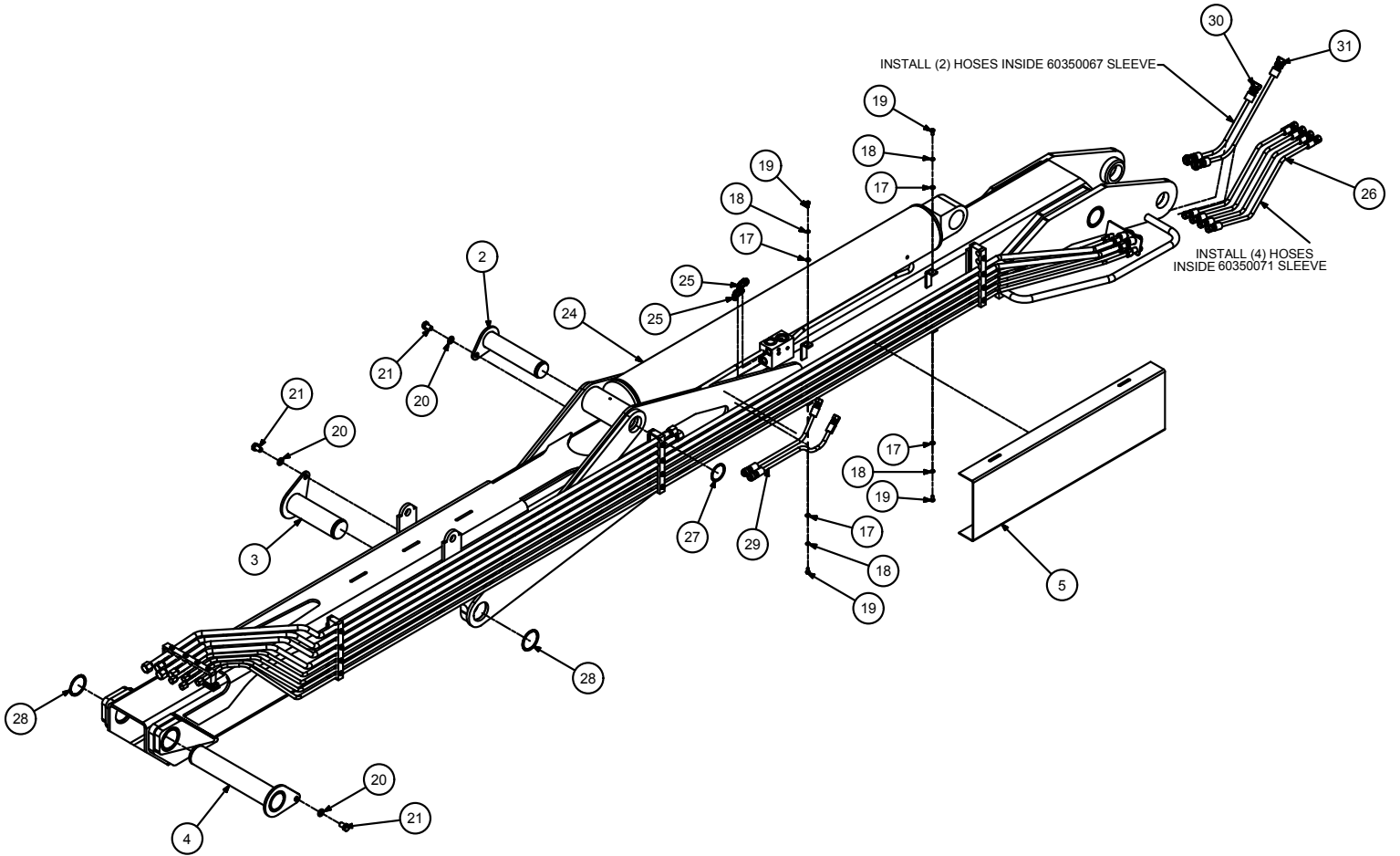
16000 Ground Control - Inner Boom Assembly (99905487)



99905487 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52717244	BOOM-INNER WLDMT 16000S3	1
2.	52717302	PIN-TYPE M 2.50X11.50 (10.75)	1
3.	52717303	PIN-TYPE M 3.00X10.00 (9.25)	1
4.	52717538	PIN-TYPE M 3.00X17.00 (16.50)	1
5.	60125796	COVER PLATE- DECALS	1
6.	60124346	TUBE GUIDE- BOTTOM 16000 SIII	4
7.	60124367	TUBE GUIDE-TOP 16000 SIII	4
8.	70145467	TUBE ASM-INR BM-TROMBONE 16042	1
9.	70145468	TUBE ASM-INR BM-TROMBONE 16042	1
10.	70145469	TUBE ASM-INR BM-TROMBONE 16042	1
11.	70145470	TUBE ASM-INR BM-TROMBONE 16042	1
12.	70145471	TUBE ASM-INR BM-EXT CYL 16042	1
13.	70145472	TUBE ASM-INR BM-EXT CYL 16042	1
14.	70145473	TUBE ASM-INR BM-OUTR CYL 16042	1
15.	70145474	TUBE ASM-INR BM-OUTR CYL 16042	1
16.	72060297	CAP SCR .31-24X 2.00 HH GR5 Z	16
17.	72063002	WASHER .31 FLAT	20
18.	72063050	WASHER .31 LOCK	4
19.	72060022	CAP SCR .31-18X .62 HH GR5 Z	4
20.	72063055	WASHER .62 LOCK	3
21.	72060147	CAP SCR .62-11X 1.00 HH GR5 Z	3
22.	72533373	UNION-BULKHEAD JIC 8 (3/4-16)	4
23.	72533371	UNION-BULKHEAD JIC 12 (1 1/16-12)	2
24.	51717738	CYL-6.5/3.0 50.00S 70.25CC OUTER 16000	REF
25.	72053777	ELBOW-M STR/45/M JIC 8 8	2
26.	51794398	HOSE-FF .38 X 27.00 (8-8) 100R16	4
27.	72661582	RETAINING RING-EXT 2.50 SPIROLOX	1
28.	72661586	RETAINING RING-EXT 3.00 SPIROLOX	2
29.	51396321	HOSE-AAF .50 X 23.00 (12-8) 100R17	2
30.	51396367	HOSE-FF .50 X 27.00 (12-8) 100R17	1
31.	51396366	HOSE-FF .50 X 31.00 (12-8) 100R17	1
32.	603550067	SLEEVE-HOSE AS-B-37 2.38IND X 20	1
33.	60350071	SLEEVE-HOSE AS-B-27 1.63IND X 20	1
REV. A			

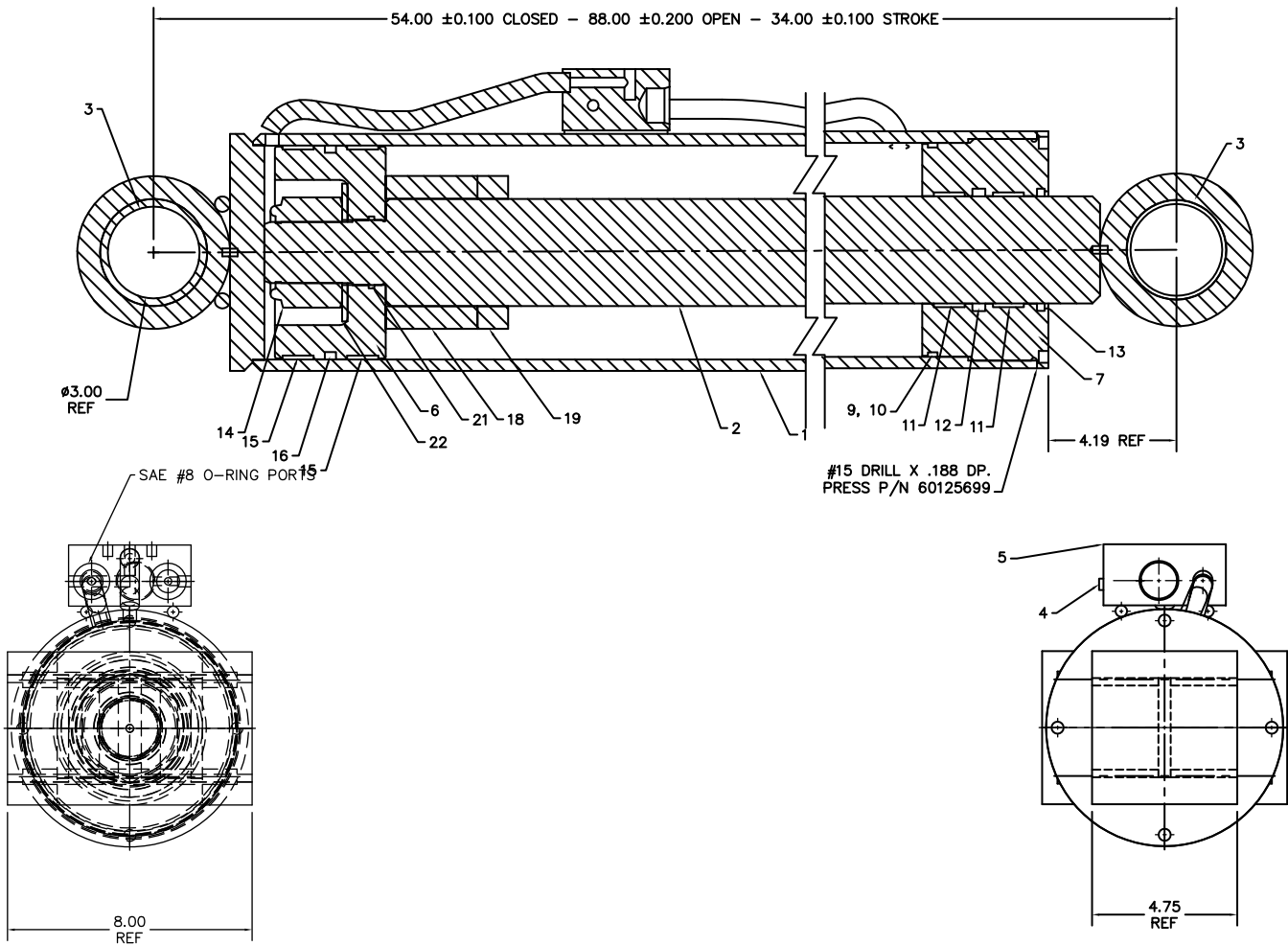
INNER BOOM ASSEMBLY, CONTINUED (99905487-1)



99905487-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52717244	BOOM-INNER WLDMT 16000S3	1
2.	52717302	PIN-TYPE M 2.50X11.50 (10.75)	1
3.	52717303	PIN-TYPE M 3.00X10.00 (9.25)	1
4.	52717538	PIN-TYPE M 3.00X17.00 (16.50)	1
5.	60125796	COVER PLATE- DECALS	1
6.	60124346	TUBE GUIDE- BOTTOM 16000 SIII	4
7.	60124367	TUBE GUIDE-TOP 16000 SIII	4
8.	70145467	TUBE ASM-INR BM-TROMBONE 16042	1
9.	70145468	TUBE ASM-INR BM-TROMBONE 16042	1
10.	70145469	TUBE ASM-INR BM-TROMBONE 16042	1
11.	70145470	TUBE ASM-INR BM-TROMBONE 16042	1
12.	70145471	TUBE ASM-INR BM-EXT CYL 16042	1
13.	70145472	TUBE ASM-INR BM-EXT CYL 16042	1
14.	70145473	TUBE ASM-INR BM-OUTR CYL 16042	1
15.	70145474	TUBE ASM-INR BM-OUTR CYL 16042	1
16.	72060297	CAP SCR .31-24X 2.00 HH GR5 Z	16
17.	72063002	WASHER .31 FLAT	20
18.	72063050	WASHER .31 LOCK	4
19.	72060022	CAP SCR .31-18X .62 HH GR5 Z	4
20.	72063055	WASHER .62 LOCK	3
21.	72060147	CAP SCR .62-11X 1.00 HH GR5 Z	3
22.	72533373	UNION-BULKHEAD JIC 8 (3/4-16)	4
23.	72533371	UNION-BULKHEAD JIC 12 (1 1/16-12)	2
24.	51717738	CYL-6.5/3.0 50.00S 70.25CC OUTER 16000	REF
25.	72053777	ELBOW-M STR/45/M JIC 8 8	2
26.	51794398	HOSE-FF .38 X 27.00 (8-8) 100R16	4
27.	72661582	RETAINING RING-EXT 2.50 SPIROLOX	1
28.	72661586	RETAINING RING-EXT 3.00 SPIROLOX	2
29.	51396321	HOSE-AAF .50 X 23.00 (12-8) 100R17	2
30.	51396367	HOSE-FF .50 X 27.00 (12-8) 100R17	1
31.	51396366	HOSE-FF .50 X 31.00 (12-8) 100R17	1
32.	60350067	SLEEVE-HOSE AS-B-37 2.38IND X 20	1
33.	60350071	SLEEVE-HOSE AS-B-27 1.63IND X 20	1
REV. A			

16000 Ground Control - Cylinder, Inner (51718466)



CYLINDER DATA			
EXT.	38.93 SQ IN / 5.73 GAL	DRY WEIGHT:	310 LB.
RETR:	29.30 SQ IN. / 4.31 GAL	BRG. SPAN::	12%
CAS:	7.04 X 7.75 X 46.19	TEST PSI::	3000
ROD:	∅3.50 X 47.88 L (2.44S)	OPER PSI::	3000
STINGER	—————	PISTON TORQUE:	710-740 FT-LB
		HEAD TORQUE:	700 FT-LB
STROKE:	34.00	CARTRIDGE TORQUE:	65 FT-LB
LOCKNUT TORQUE	—————	CAP SCREW TORQUE	—————

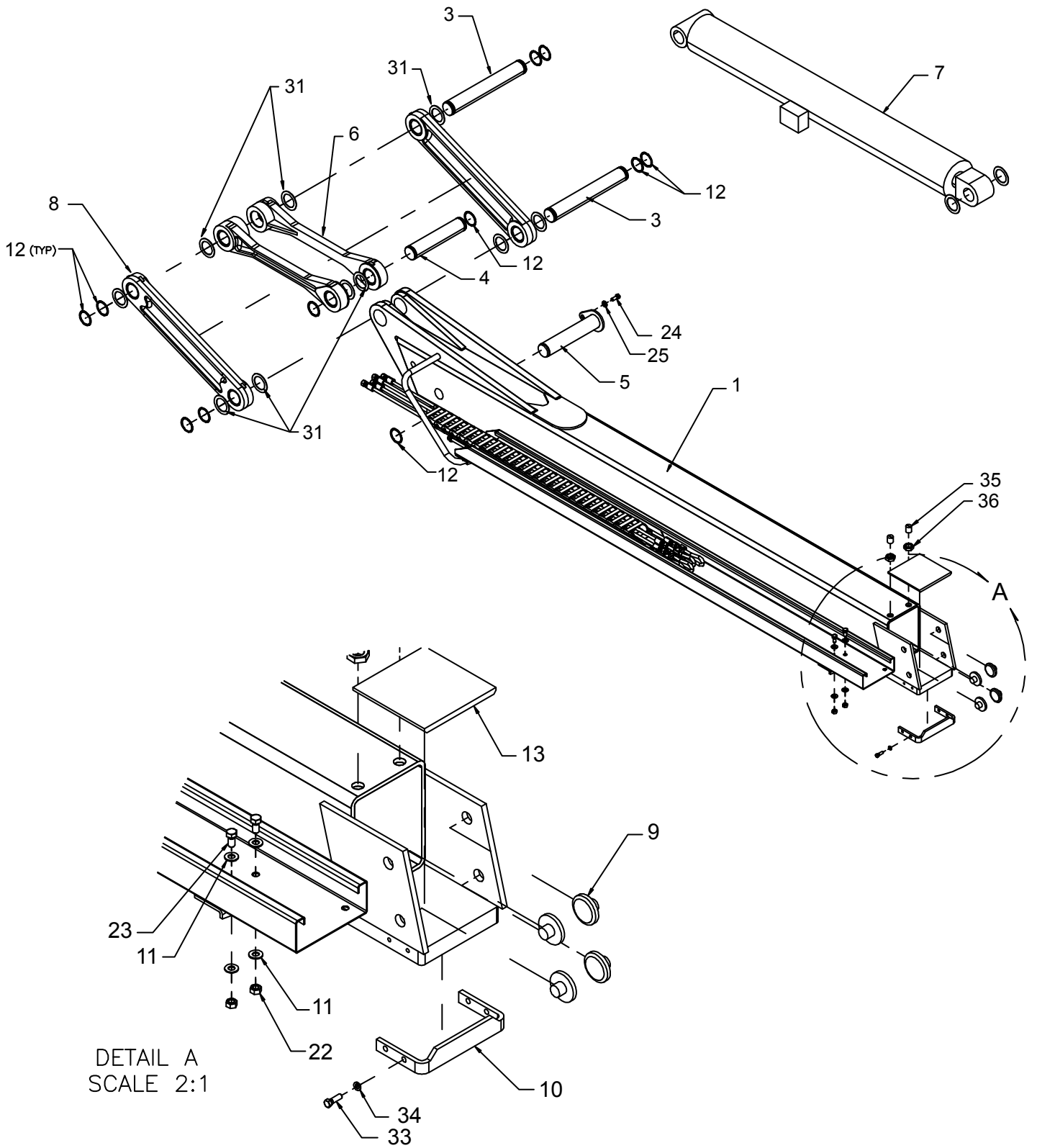
51718466 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52717751	CASE ASSEMBLY - 7.00B X 49.44L	1
2.	52718453	ROD ASM - 3.50 X 2.44S 3.00	1
3.	70034285	BEARING - 3.00 X 3.50 X 2.00 (PART 1 OF 2)	5 REF
4.	7PNPXT02	PLUG - .125 NPT (PART OF 1)	3 REF
5.	73054242	VALVE - CBAL 25 GPM	1
6.	60125927	PISTON - 7.00B 2.44S	1
7.	60124617	HEAD - 7.00B 3.50R	1
8.	51744129	SEAL KIT - IMT 7.00 BORE 3.50 ROD	1
9.	7Q072439	O RING 6.50X 7.00X .25 70 (PART OF 8)	1 REF
10.	7Q10P439	BACKUP RING - 6.50 ID X 7.00 OD (PART OF 8)	1 REF
11.	70148367	WEAR RING - ROD 3.50 ID X 1.00 WIDTH (PART OF 8)	2 FREF
12.	76534387	U-CUP LOADED 3.50 X 4.00 X .38 MPS (PART OF 8)	1 REF
13.	7R17P035	ROD WIPER - TYPE D 3.50 ROD HAL (PART OF 8)	1 REF
14.	72062144	NUT 2.0 - 12 HEX BUTTRESS THD	1
15.	7T2N8070	WEAR RING - PISTON 7.00 ODX1.00W (PART OF 8)	2REF
16.	7T66P704	PISTON SEAL - DYNAMIC 7.00" CP (PART OF 8)	1 REF
18.	6C300035	STOP TUBE - 3050 ROD X 3.00 LONG	1
19.	6C100035	STOP TUBE - 3.50 ROD X 1.00 LONG	1
20.	60125699	PIN - LOCK TUBE 0.19 OD X 0.065 WALL	1
21.	7Q072227	O-RING 2.12 X 2.38 X.12	1 REF
22.	72063016	WASHER - 2.00 FLAT	1
REV. E			

NOTES:

1. APPLY NEVER-SEEZ REGULAR GRADE ANTI-SEEZ AND LUBRICATING COMPOUND TO THREADS ON THE CYLINDER HEAD ONLY. KEEP AWAY FROM ALL SEALS
2. APPLY LUBRIPLATE NO. 630-2 MEDIUM HEAVY MULTI-PURPOSE LUBRICANT, TO ALL PISTONS, HEAD GLAND, HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.
3. STAMP MANUFACTURER'S NAME, IOWA MOLD TOOLING CO., INC. ON CYLINDER CASE.
4. STAMP MANUFACTURER'S PART NO. 51717752 ON CYLINDER CASE.

16000 Ground Control - Outer Boom Assembly (99903425)



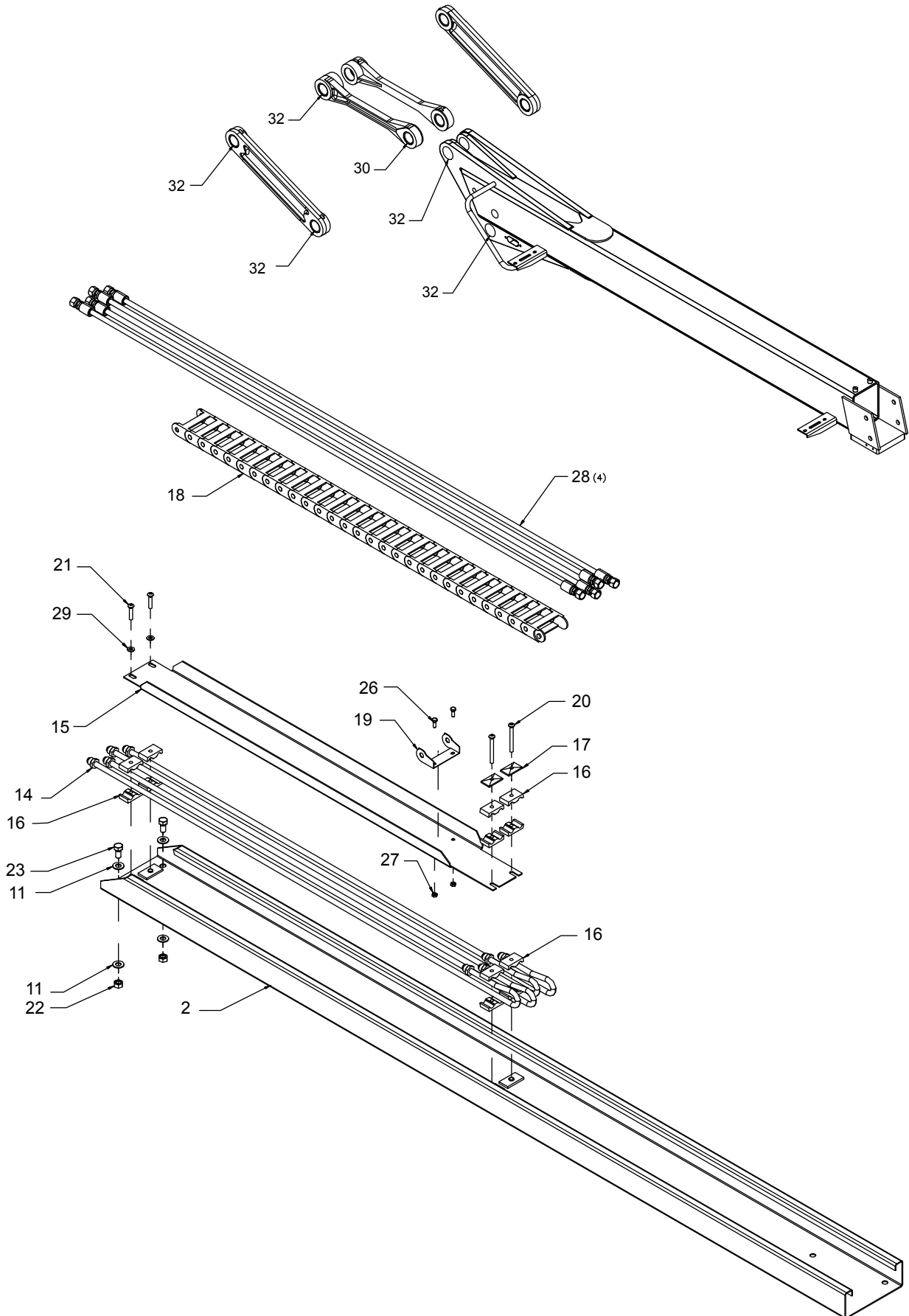
99903425 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52717245	WLDMT-OUTER BOOM 16000 SIII (INCLUDES 32)	1
2.	52714279	WLDMT-HOSE TRACK, BOTTOM 16042	1
3.	60125582	PIN-TYPE A 2.50 X 17.92 (17.00)	2
4.	60125581	PIN-TYPE A 2.50 X 10.67 (11.75)	1
5.	52717345	PIN-TYPE M 2.50 X 13.00 (12.25)	1
6.	51717597	LINK-MACHINING 16000 SIII OUTER (INCLUDES 30 & 31)	2
7.	51717738	CYL-6.5/3.0 50.00S 70.25CC OUTER 16000	1
8.	51717598	LINK - MACHINING 16000 SIII OUTER (INCLUDES 30)	2
9.	60140630	WEAR PAD-RND 0.50X 2.50X 1.00X .75	4
10.	60125113	RETAINER PLATE-OUT BM WEAR PAD 16000 SIII	1
11.	72063005	WASHER .50 W FLAT ANSI B27.2Z	8
12.	72661582	SNAP RING-EXTERNAL 2.50"	11
13.	60124036	WEAR PAD 0.50 X 7.75 X 7.75	1
14.	70145250	TUBE ASM-HYD .50X 49.50 8 8 U	4
15.	60120424	TRAY-HOSE GUIDE 16042	1
16.	70034432	CLAMP-TWIN TUBE .50 OD	6
17.	70143829	COVER PLT-PAR29 CPT2	2
18.	70145607	E-CHAIN-31LINKS (4.66FT) 16042	1
19.	70145611	E-CHAIN MTG BRKT (IGUS 2070-1)	1
20.	72601740	CAP SCR .31-18X 3.00SOC BTNHD	2
21.	72601741	CAP SCR .31-18X 1.50SOC BTNHD	2
22.	72062080	NUT .50-13 HEX NYLOC ZINC	4
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	4
24.	72060148	CAP SCR .62-11X 1.25 HH GR5 Z	1
25.	72063055	WASHER .62 LOCK ZINC	1
26.	72060002	CAP SCR .25-20X .75 HH GR5 Z	2
27.	72062104	NUT .25-20 HEX NYLOC ZINC	2
28.	51395668	HOSE-FF 0.38 X 72.00 OAL (8-8) (PART OF CRANE HOSE KIT)	4 REF
29.	72063002	WASHER .31 W FLAT ANSI B27.2Z	2
30.	70034467	BEARING-GAR-MAX 2.50X3.00X1.70 (PART OF 6 (2) & 8 (4))	6 REF
31.	72063106	MACHY BUSHING 2.50X14 GA NR	12
32.	70034283	BEARING-GAR-MAX 2.50X3.00X1.11 (PART OF 1 (8) & 6 (2))	10 REF
33.	72060047	CAP SCR .38-16X 1.25 HH GR5 Z	4
34.	72063051	WASHER .38 LOCK ZINC	4
35.	60127464	WEAR PAD 1.00-14 X 1.13 LG	2
36.	72062293	NUT 1.00-14 HEX ZINC JAM	4
REV. G			

NOTES:

- CLEAN / PRIMER ALL PIN RETAINING PLATE CAP SCREWS AND APPLY A SERVICEABLE THREAD LOCKER TO A MINIMUM OF THREE THREADS. TORQUE PIN RETAINING PLATE CAP SCREWS AS FOLLOWS:
0.63-11 CAP SCREW (GR5 PLATED) 115 FT-LB.

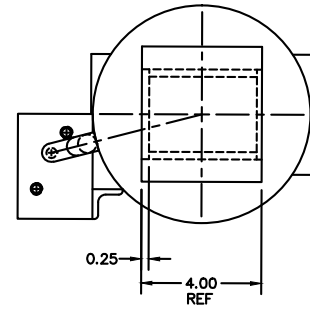
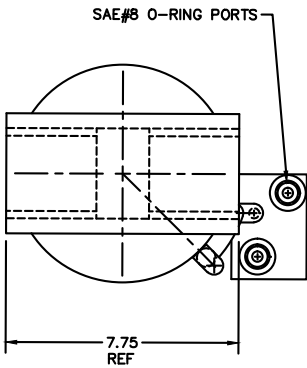
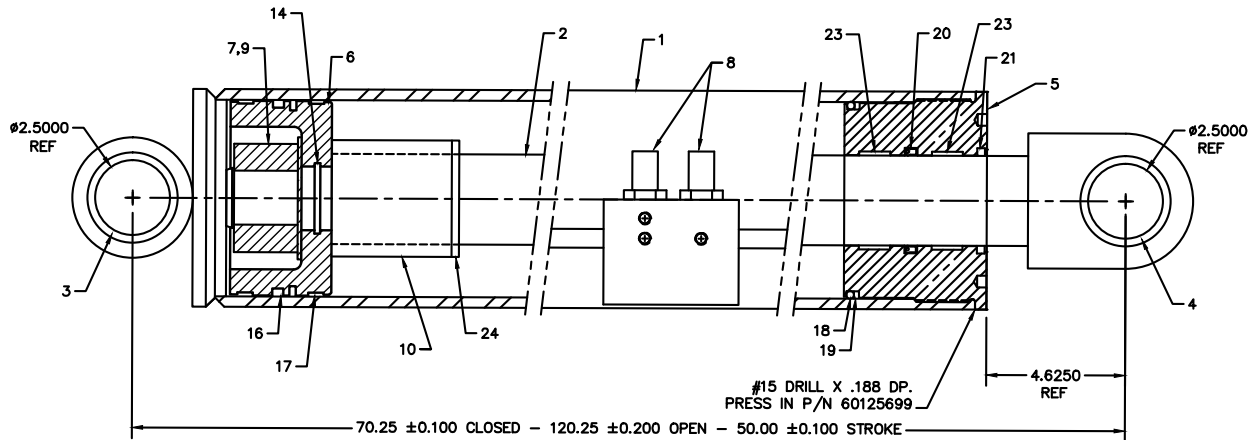
OUTER BOOM ASSEMBLY, CONTINUED (99903425-1)



99903425-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52717245	WLDMT-OUTER BOOM 16000 SIII (INCLUDES 32)	1
2.	52714279	WLDMT-HOSE TRACK, BOTTOM 16042	1
3.	60125582	PIN-TYPE A 2.50 X 17.92 (17.00)	2
4.	60125581	PIN-TYPE A 2.50 X 10.67 (11.75)	1
5.	52717345	PIN-TYPE M 2.50 X 13.00 (12.25)	1
6.	51717597	LINK-MACHINING 16000 SIII OUTER (INCLUDES 30 & 31)	2
7.	51717738	CYL-6.5/3.0 50.00S 70.25CC OUTER 16000	1
8.	51717598	LINK - MACHINING 16000 SIII OUTER (INCLUDES 30)	2
9.	60140630	WEAR PAD-RND 0.50X 2.50X 1.00X .75	4
10.	60125113	RETAINER PLATE-OUT BM WEAR PAD 16000 SIII	1
11.	72063005	WASHER .50 W FLAT ANSI B27.2Z	8
12.	72661582	SNAP RING-EXTERNAL 2.50"	11
13.	60124036	WEAR PAD 0.50 X 7.75 X 7.75	1
14.	70145250	TUBE ASM-HYD .50X 49.50 8 8 U	4
15.	60120424	TRAY-HOSE GUIDE 16042	1
16.	70034432	CLAMP-TWIN TUBE .50 OD	6
17.	70143829	COVER PLT-PAR29 CPT2	2
18.	70145607	E-CHAIN-31LINKS (4.66FT) 16042	1
19.	70145611	E-CHAIN MTG BRKT (IGUS 2070-1)	1
20.	72601740	CAP SCR .31-18X 3.00SOC BTNHD	2
21.	72601741	CAP SCR .31-18X 1.50SOC BTNHD	2
22.	72062080	NUT .50-13 HEX NYLOC ZINC	4
23.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	4
24.	72060148	CAP SCR .62-11X 1.25 HH GR5 Z	1
25.	72063055	WASHER .62 LOCK ZINC	1
26.	72060002	CAP SCR .25-20X .75 HH GR5 Z	2
27.	72062104	NUT .25-20 HEX NYLOC ZINC	2
28.	51395668	HOSE-FF 0.38 X 72.00 OAL (8-8) (PART OF CRANE HOSE KIT)	4 REF
29.	72063002	WASHER .31 W FLAT ANSI B27.2Z	2
30.	70034467	BEARING-GAR-MAX 2.50X3.00X1.70 (PART OF 6 (2) & 8 (4))	6 REF
31.	72063106	MACHY BUSHING 2.50X14 GA NR	12
32.	70034283	BEARING-GAR-MAX 2.50X3.00X1.11 (PART OF 1 (8) & 6 (2))	10 REF
33.	72060047	CAP SCR .38-16X 1.25 HH GR5 Z	4
34.	72063051	WASHER .38 LOCK ZINC	4
35.	60127464	WEAR PAD 1.00-14 X 1.13 LG	2
36.	72062293	NUT 1.00-14 HEX ZINC JAM	4
REV. G			

16000 Ground Control - Cylinder, Outer (51717738)



CYLINDER DATA			
EXT:	33.18 SQ IN / 7.81 GAL	DRY WEIGHT:	400 LB.
RETR:	26.12 SQ IN. / 5.65 GAL	BRG. SPAN:	9.06%
CASE:	6.50 X 7.25 X 62.50	TEST PSI:	3000
ROD:	Ø3.00 X 64.62 L (2.00S)	OPER PSI:	3000
STINGER	————	PISTON TORQUE:	710-740 FT-LB
		HEAD TORQUE:	650 FT-LB
STROKE	50.00	CARTRIDGE TORQUE:	65 FT-LB
LOCKNUT TORQUE	————	CAP SCREW TORQUE	————

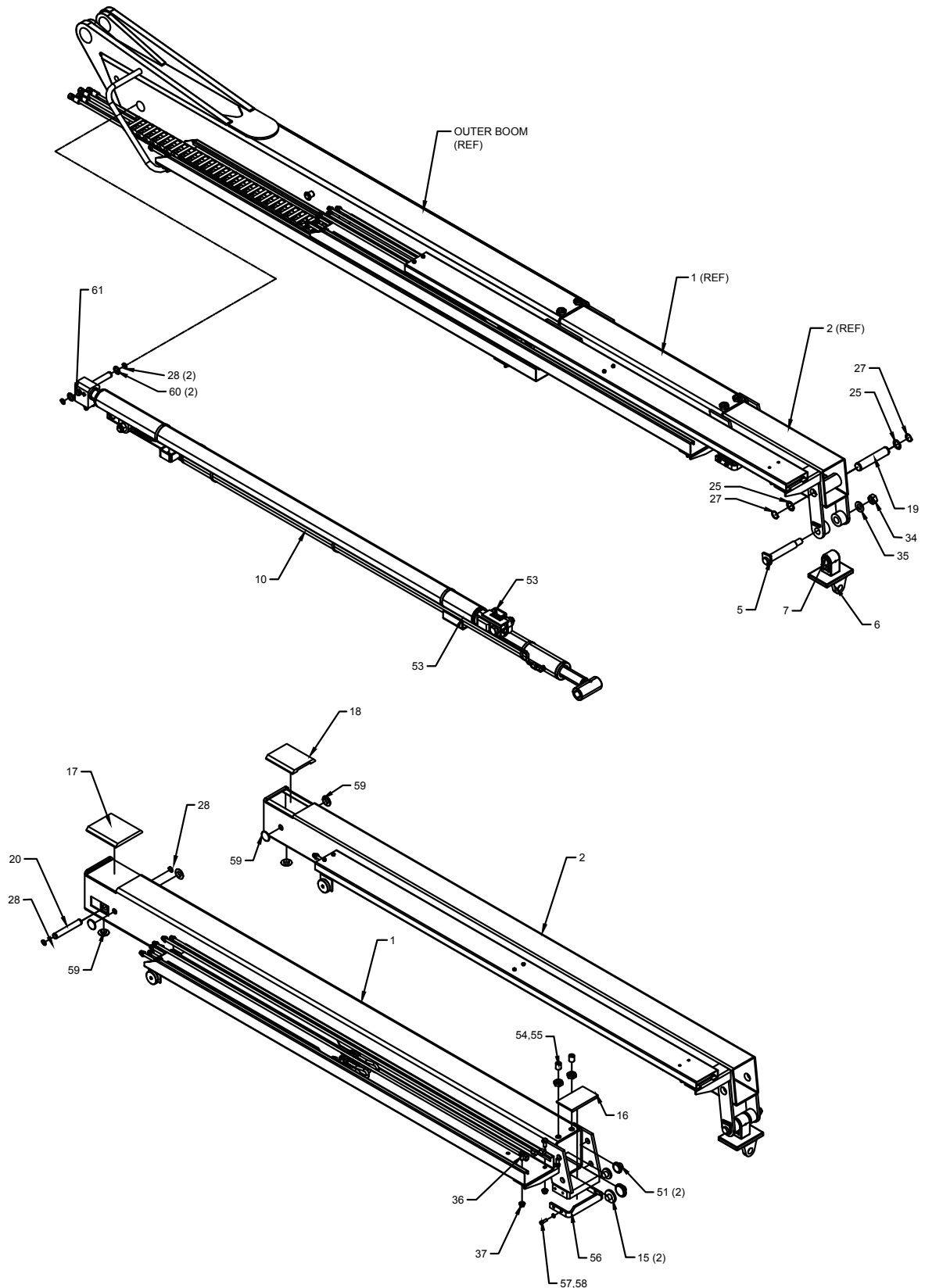
51717738 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52717739	CASE ASM	1
2.	4G170860	ROD ASM	1
3.	70034284	BEARING	2 REF
4.	70034465	BEARING	1 REF
5.	60124593	HEAD	1
6.	60124596	PISTON	1
7.	72062144	NUT 2.00-12 BUTTRESS HEX	1
8.	73054242	VALVE, C'BAL 25 GPM	2
9.	72063016	WASHER 2.00 FLAT	1
10.	60124598	STOP TUBE	1
13.	51744112	SEAL KIT	1
14.	7Q072227	O-RING	1 REF
16.	7T66P650	PISTON SEAL	1 REF
17.	7T2N4065	WEAR RING	2 REF
18.	7Q072437	O-RING	1 REF
19.	7Q10P437	BACKUP RING	1 REF
20.	76534388	U-CUP, LOADED	1 REF
21.	7R17P030	ROD WIPER	1 REF
23.	70148368	WEAR RING	2 REF
24.	60138277	STOP TUBE-3.00 ROD X 0.25 LONG (WAS 6A025030)	1 REF
25.	60125699	PIN	1 REF
REV. G			

NOTES:

1. APPLY NEVER-SEEZ REGULAR GRADE ANTI-SEEZ AND LUBRICATING COMPOUND TO THREADS ON THE CYLINDER HEAD ONLY. KEEP AWAY FROM ALL SEALS
2. APPLY LUBRIPLATE NO. 630-2 MEDIUM HEAVY MULTI-PURPOSE LUBRICANT, TO ALL PISTONS, HEAD GLAND, HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.
3. STAMP MANUFACTURER'S NAME, IOWA MOLD TOOLING CO., INC. ON CYLINDER CASE.
4. STAMP MANUFACTURER'S PART NO. 51717752 ON CYLINDER CASE.

16000 Ground Control - Extension Boom Assembly (99903426)

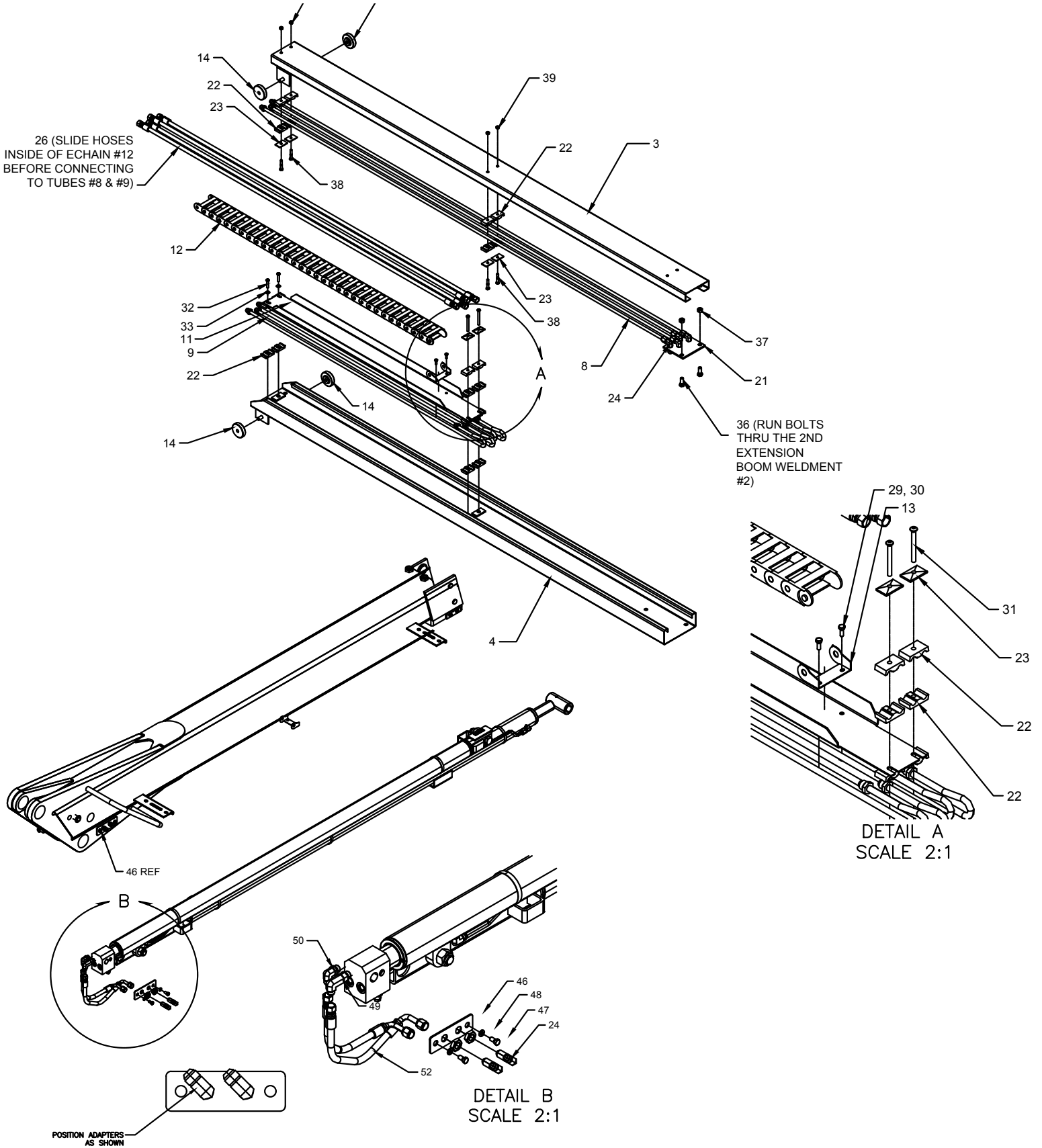


99903426 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	52717246	EXTENSION BOOM WELDMENT-1ST	1
2.	52717247	EXTENSION BOOM WELDMENT-2ND	1
5.	52713127	PIN-TYPE MM 1.25X 7.00	1
6.	51709475	SWIVEL LINK-13034 (INCLUDES #7)	1
7.	70055207	BEARING-GAR DX 1.25X1.41X1.00 (PART OF #6)	2 REF
10.	51717730	EXTENSION CYLINDER ASSEMBLY-16000 SIII	1
15.	60122985	WEAR PAD-RND 6625 BOOMS	2
16.	60124155	WEAR PAD-RC NYL 0.50 X 4.00 X 6.88	1
17.	60124156	WEAR PAD-RC NYL 0.75 X 7.00 X 7.75	1
18.	60124157	WEAR PAD-RC NYL 0.75 X 6.00 X 7.00	1
19.	60122027	PIN-TYPE A 1.50X 7.13 (7.63)	1
20.	60101874	PIN-TYPE A 1.00X 6.75 (6.31)	1
25.	72063036	MACHY BUSHING 1.50X14 GA NR	2
27.	72066132	RETAINING RING-EXT 1.50 HD	2
28.	72066125	RETAINING RING-EXT 1.00 HD	4
34.	72062141	NUT 1.00- 8 HEX LOCK STIN GR5	1
35.	72063066	WASHER 1.00 HI STR ZINC YELLOW	1
36.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	4
37.	72062080	NUT .50-13 HEX NYLOC ZINC	4
51.	60123777	WEAR PAD-RND 2.00 DIA	2
53.	60030319	WEAR PAD-EXT CYLINDER 16000 SIII	2
54.	60127464	WEAR PAD 1.00-14 X 1.13 LG	2
55.	72062293	NUT 1.00-14 HEX ZINC JAM	2
56.	60125113	RETAINER PLATE-OUT BM WEAR PAD 16000SIII	1
57.	72060047	CAP SCR .38-16X 1.25 HH GR5 Z	4
58.	72063051	WASHER .38 LOCK ZINC	4
59.	60125478	WEAR PAD-RND 2.00 DIA	6
60.	72063033	MACHY BUSHING 1.00X14 GA NR	2
61.	60103821	PIN-TYPE A 1.00X 8.62 (8.19)	1

REV. F

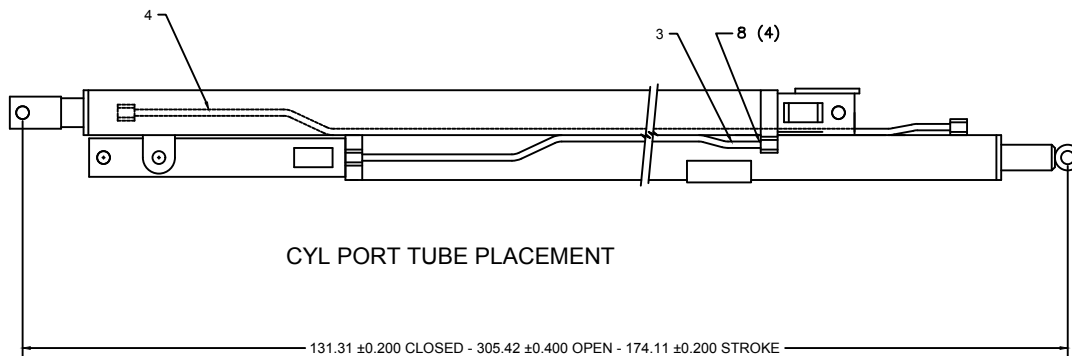
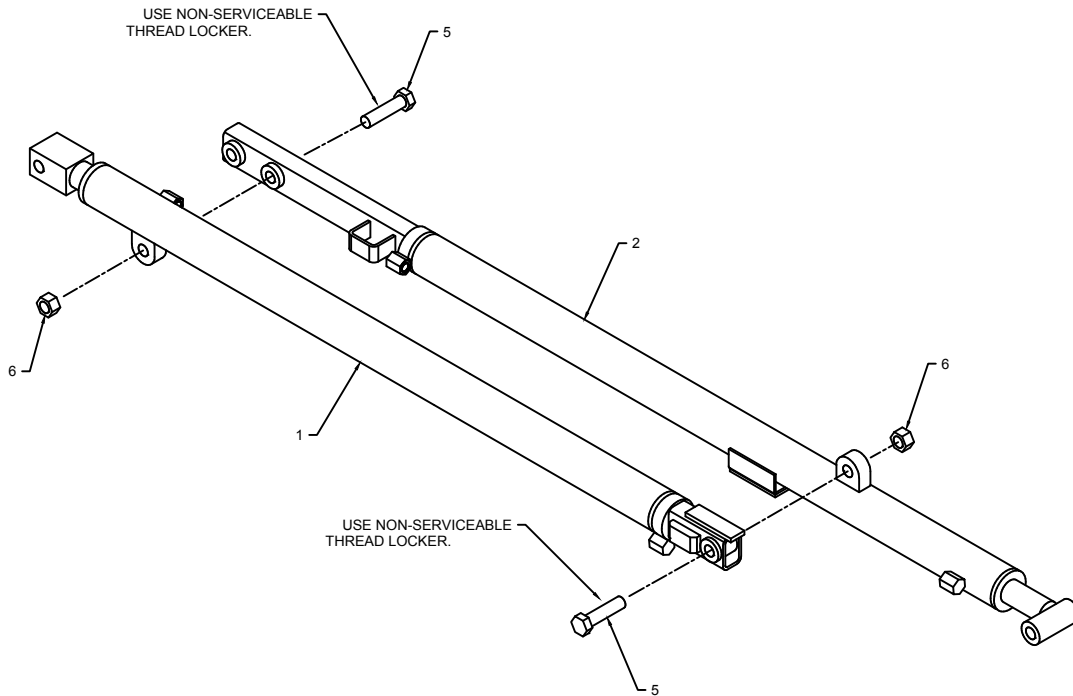
EXTENSION BOOM ASSEMBLY, CONTINUED (99903426-1)



99903426-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
3.	52713124	WLDMT-HOSE TRACK, TOP	1
4.	52713125	WLDMT-HOSE TRACK, MID	1
8.	70145520	TUBE ASM-TROMBONE STR 16042	4
9.	70145250	TUBE ASM-HYD .50X 49.50 8 8 U	4
11.	60120424	TRAY-HOSE GUIDE 16042	1
12.	70145607	E-CHAIN-31 LINKS (4.66FT) 16042	1
13.	70145611	E-CHAIN MTG BRKT (IGUS 2070-1)	1
14.	60030288	ROLLER-TRACK GUIDE	4
21.	60120348	BRACKET-HOSE GUIDE BLKHD 16042	1
22.	70034432	CLAMP-TWIN TUBE .50 OD	10
23.	70143829	COVER PLT-PAR29 CPT2	6
24.	72532986	ELBOW-MJIC/BULKHD/MJIC 8 8	6
29.	72060002	CAP SCR .25-20X .75 HH GR5 Z	2
30.	72062104	NUT .25-20 HEX NYLOC ZINC	2
31.	72601740	CAP SCR .31-18X 3.00SOC BTNHD	2
32.	72601741	CAP SCR .31-18X 1.50SOC BTNHD	2
33.	72063002	WASHER .31 W FLAT ANSI B27.2Z	2
36.	72060092	CAP SCR .50-13X 1.25 HH GR5 Z	4
37.	72062080	NUT .50-13 HEX NYLOC ZINC	4
38.	72060028	CAP SCR .31-18X 1.75 HH GR5 Z	4
39.	72062109	NUT .31-18 HEX NYLOC ZINC	4
46.	60124366	PLT-BULKHEAD 16000 SIII OUTER BOOM	1
47.	72060089	CAP SCR .50-13X .75 HH GR5 Z	2
48.	72063053	WASHER .50 LOCK ZINC	2
50.	72053763	ELBOW-M STR/90/M JIC 8 8	1
REV. F			

16000 Ground Control - Extension Cylinder Assembly (51717730)



CYLINDER DATA ITEM #1				CYLINDER DATA ITEM #2			
EXT:	7.16 SQ. IN. 2.69 GAL.	DRY WT:	206 LB.	EXT:	7.16 SQ. IN. 2.69 GAL.	DRY WT:	201 LB
RETR:	3.19 SQ. IN 1.20 GAL.	BRG SPAN:	_____	RETR:	4.01 SQ.IN. 1.50 GAL	BRG SPAN:	_____
CASE:	3.02 X 3.50 X 97.69	TEST PSI:	3000	CASE:	3.02 X 3.50 X99.25	TEST PSI:	3000
ROD:	Ø2.00 X 103.62 (1.06S)	OPER PSI:	3000	ROD:	Ø2.00 X 103.62 (1.06S)	OPER PSI:	3000

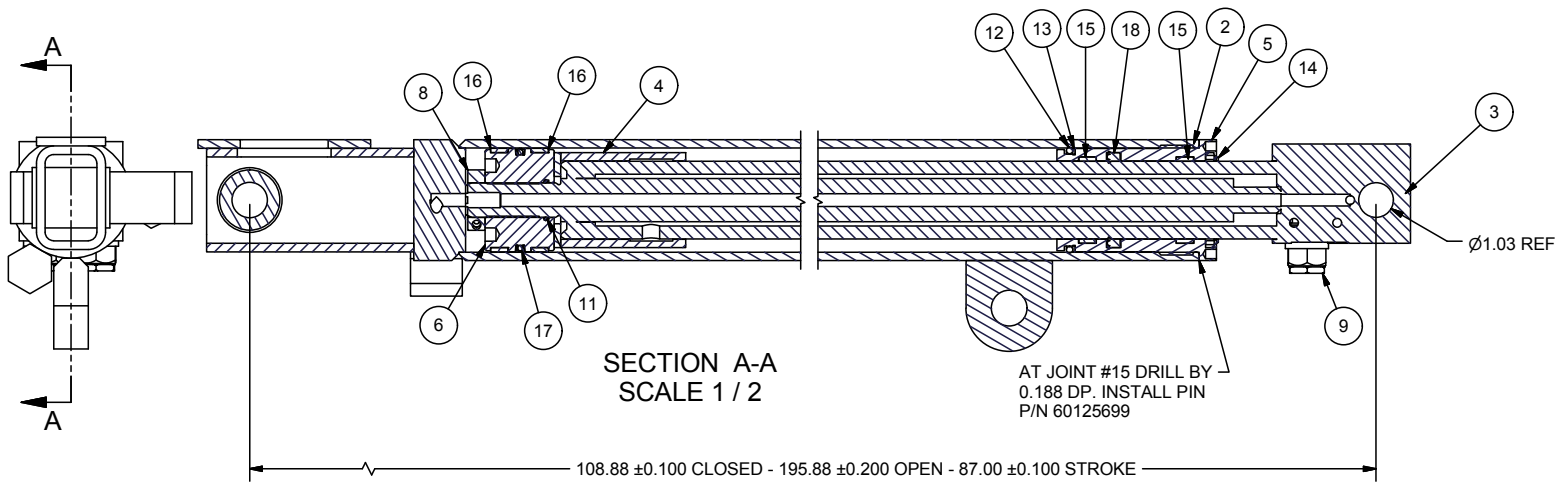
51717730 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	51717731	CYL-3.0/2.2 87.00S 108.88CC S	1
2.	51717734	CYL-3.0/2.0 87.15S 125.00CC C DI	1
3.	70145251	TUBE ASM-HYD .50 X 74.00 F/F	1
4.	70145252	TUBE ASM-HYD .50 X 102.00 F/F	1
5.	72060247	CAP SCREW 1.00-8X4.50 HHGR5	2
6.	72062268	NUT 1.00-8 HEX CENTER LOCK	2
8.	72532358	ADPTR-M STR/M JIC #8 #8	4

REV. D

NOTES: TORQUE SPECIFICATION OF 18 FT-LB IS TO BE APPLIED TO PORT TUBE HYDRAULIC FITTING.

16000 Ground Control - Extension Cylinder (51717731)



CYLINDER DATA			
EXT:	7.16 SQ. IN. 2.69 GAL	DRY WEIGHT:	206 LB
RETR:	3.19 SQ. IN. 1.20 GAL	BRG. SPAN:	4.72
CASE:	3.00 X 3.50 X 97.69	TEST PSI:	3500
ROD:	2.00 X 102.62	OPER PSI:	3500
STINGER:	1.00 DIA X 2.76 LG	PISTON TORQUE:	300-330 FT-LB
		HEAD TORQUE:	300-325 FT-LB
CYL.STROKE:	87.00 IN.	CARTRIDGE TORQUE	_____
LOCKNUT TORQUE:	12 FT-LB	CAP SCREW TORQUE:	16 FT-LB

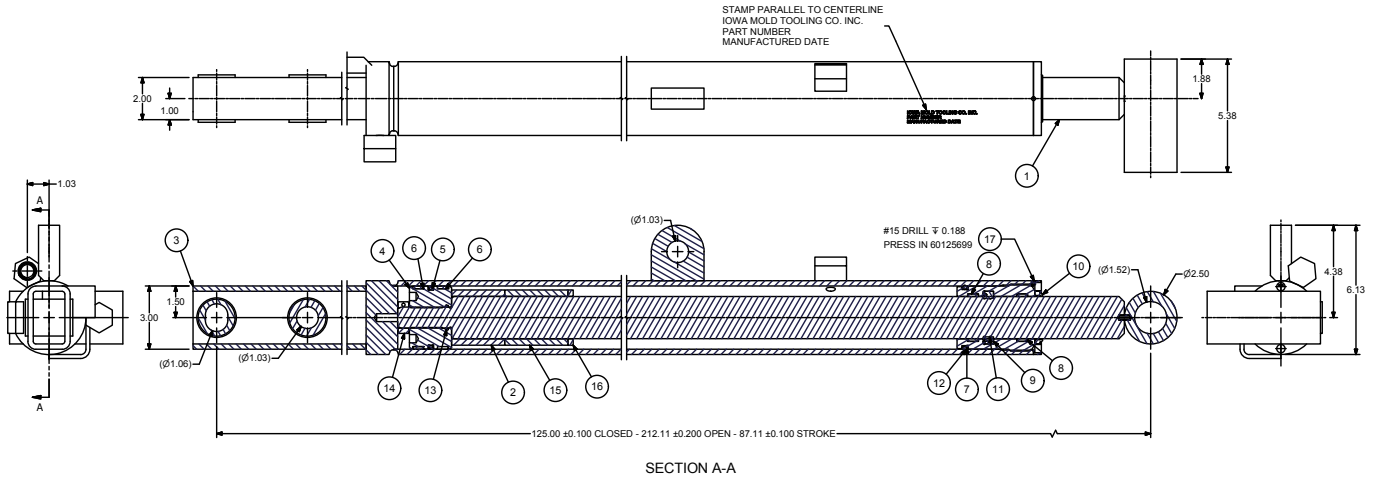
51717731 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	51744123	SEAL KIT-IMT 3.00B X 2.25R 1.00STGR	1
2.	52717732	CASE ASM-3.00 BORE X103.75 LG	1
3.	52718290	ROD ASM - 2.25 X 102.62 1.00 STGR	1
4.	52718292	STOP TUBE-2.25 ROD X 3.81 SPEC	1
5.	60124582	HEAD - 3.00B 2.25R 4.63 LG	1
6.	60125661	PISTON - 3.00 BORE X 1.00 STGR	1
7.	60125699	PIN - LOCK TUBE 0.19 OD X 0.065 WALL	1
8.	72062302	COLLAR-LOCK 1-14 X 1.75 X 1/2	1
9.	73054304	VALVE-CBAL 10GPM (7:1)	2
11.	7Q072120	O-RING - 1.00 X 1.019 0.09 70	1
12.	7Q072334	O RING 2.62X 3.00X .19 70	1
13.	7Q10P334	BACKUP RING- 2.62 ID X 3.00 OD	1
14.	7R17P022	ROD WIPER-TYPE D 2.25 ROD HAL	1
15.	7T103000	WEAR RING-ROD 2.25X2.50X0.50 HALITE	2
16.	7T2N4030	WEAR RING-PISTON 3.00 OD X 0.50 W	2
17.	7T66P300	PISTON SEAL-PSP 3.00	1
18.	7R746022	U-CUP 2.25 ID X 2.75 OD	1
REV. M			

NOTES:

1. APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO THREADS ON THE CYLINDER HEAD ONLY. KEEP AWAY FROM ALL SEALS.
2. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY MULTI PURPOSE LUBRICANT, TO ALL PISTONS, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS

16000 Ground Control - Extension Cylinder (51717734)



CYLINDER DATA			
EXT:	7.07 SQ. IN. 2.69 GAL	DRY WEIGHT:	184.55 LB
RETR:	3.93 SQ. IN. 1.48 GAL	BRG. SPAN:	5.31%
CASE	3.50 X 3.00B X 99.25LG	TEST PSI:	300
ROD:	2.00 X 103.37LG X 1.00STGR	OPER PSI:	2300
STINGER:	Ø1.00 DIA X 2.56 LG	PISTON TORQUE:	300-330 FT-LB
		HEAD TORQUE:	325 FT-LB
CYL.STROKE:	87.11 IN.	CARTRIDGE TORQUE:	————
LOCKNUT TORQUE:	12 FT-LB	CAP SCREW TORQUE:	16 FT-LB

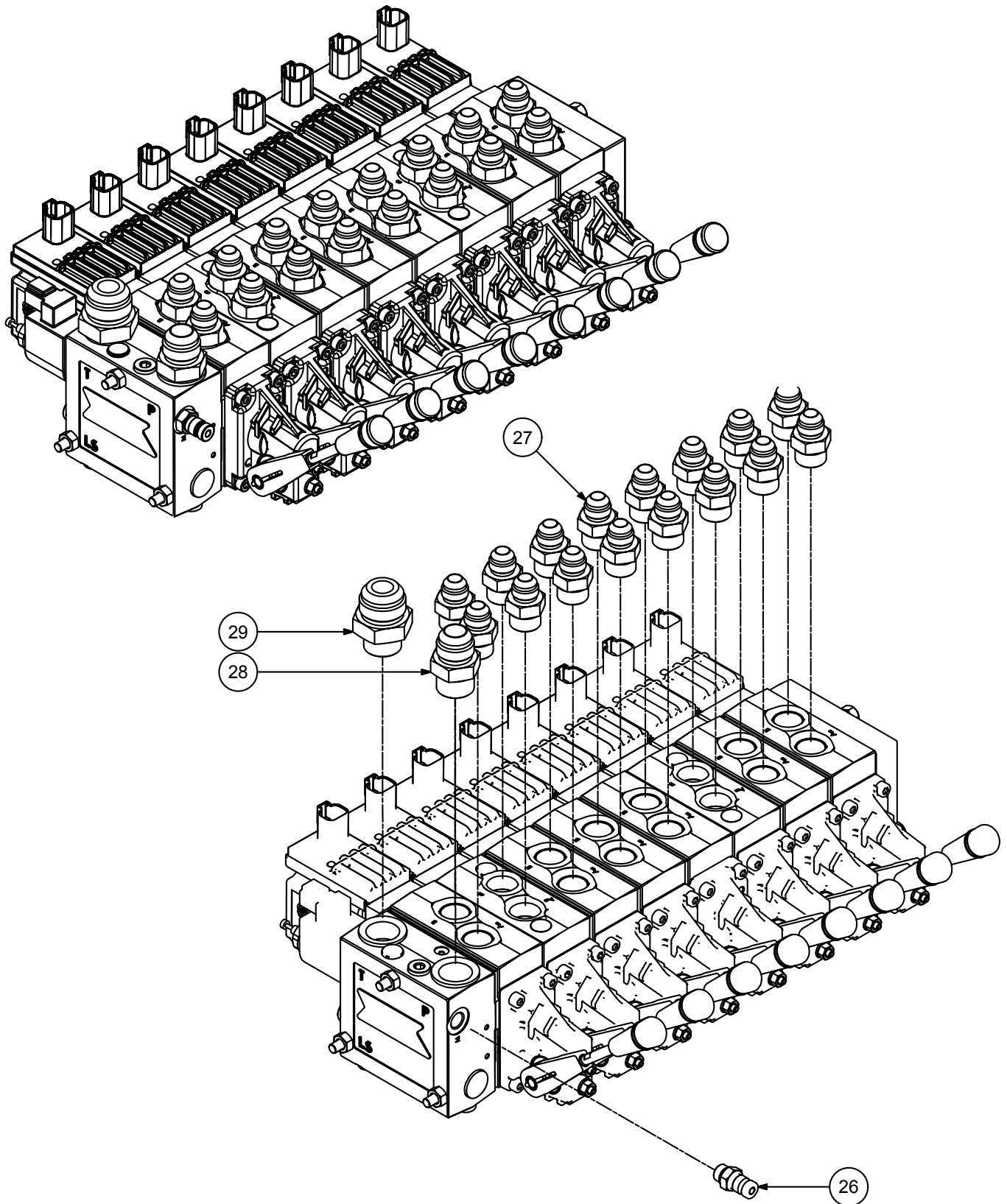
51717734 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	52718291	ROD ASSEMBLY - 2.00 DIA X 104.62L		1
2.	60125680	STOP TUBE-2.00 R X 2.518 L		1
3.	52717733	CASE ASSEMBLY - 3.00B X 119.44L		1
4.	60125661	PISTON - 3.00 BORE X 1.00 STGR		1
5.	7T66P300	PISTON SEAL-PSP 3.00	#18	1
6.	7T2N4030	WEAR RING-PISTON 3.00 OD X 0.50 W	#18	2
7.	7Q10P334	BACKUP RING- 2.62 ID X 3.00 OD	#18	1
8.	7T104000	WEAR RING-ROD 2.00 ID X 0.50W HAL	#18	2
9.	60124581	HEAD-3.00B 2.00R 4.0 LG		1
10.	7R17P020	ROD WIPER-TYPE D 2.00 ROD HAL	#18	1
11.	76534386	U-CUP LOADED 2.00X2.50X.38 MPS	#18	1
12.	7Q072334	O RING 2.62X 3.00X .19 70	#18	1
13.	7Q072120	O-RING - 1.00 X 1.019 0.09 70	#18	1
14.	72062302	COLLAR-LOCK 1-14 UNS	#18	1
15.	6C300020	SPACER - IMT 2.00 ROD X 3.00 LONG		1
16.	60138274	STOP TUBE-2.00 ROD X 0.25 LONG		1
17.	60125699	PIN - LOCK TUBE 0.19 OD X 0.065 WALL	#18	1
18.	51744124	SEAL KIT - IMT 3.00B X 2.00R 1.00 STGR		1

NOTES:

1. APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO THREADS ON THE CYLINDER HEAD ONLY. KEEP AWAY FROM ALL SEALS.
2. APPLY "LUBRIPLATE" NO. 630-2 MEDIUM HEAVY MULTI PURPOSE LUBRICANT, TO ALL PISTONS, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS

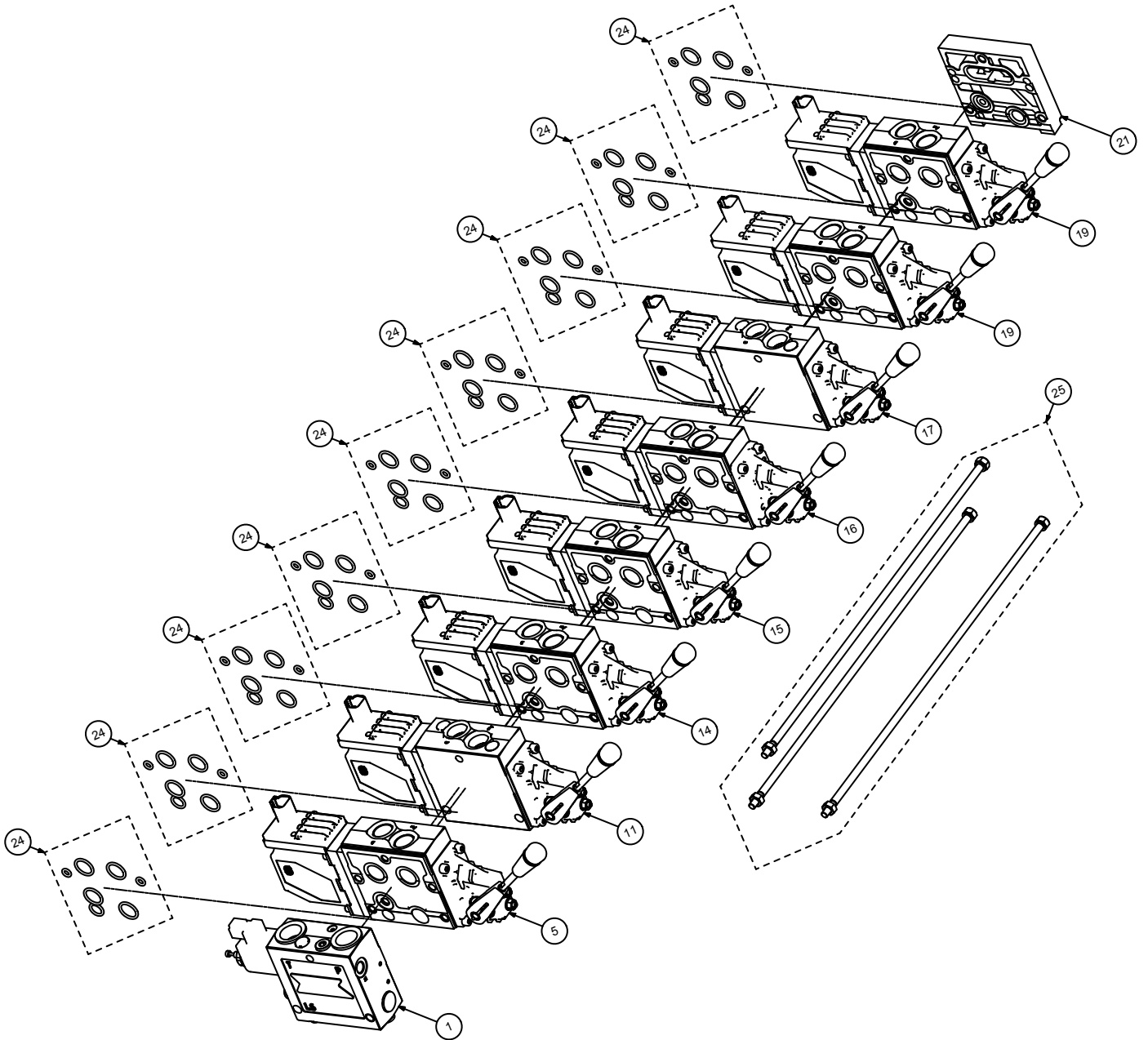
16000 SIII - Valve Bank (73540566)



73540566 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
26.	72534972	NIPPLE-DISC DIAGNSTC W/CAP -5 SAE O-RING	1
27.	72532359	ADPTR-M STR/M JIC 10 8	16
28.	72532366	ADPTR-M STR/M JIC 12 12	1
29.	72532369	ADPTR-M STR/M JIC 12 16	1
REV. INTIAL RELEASE			

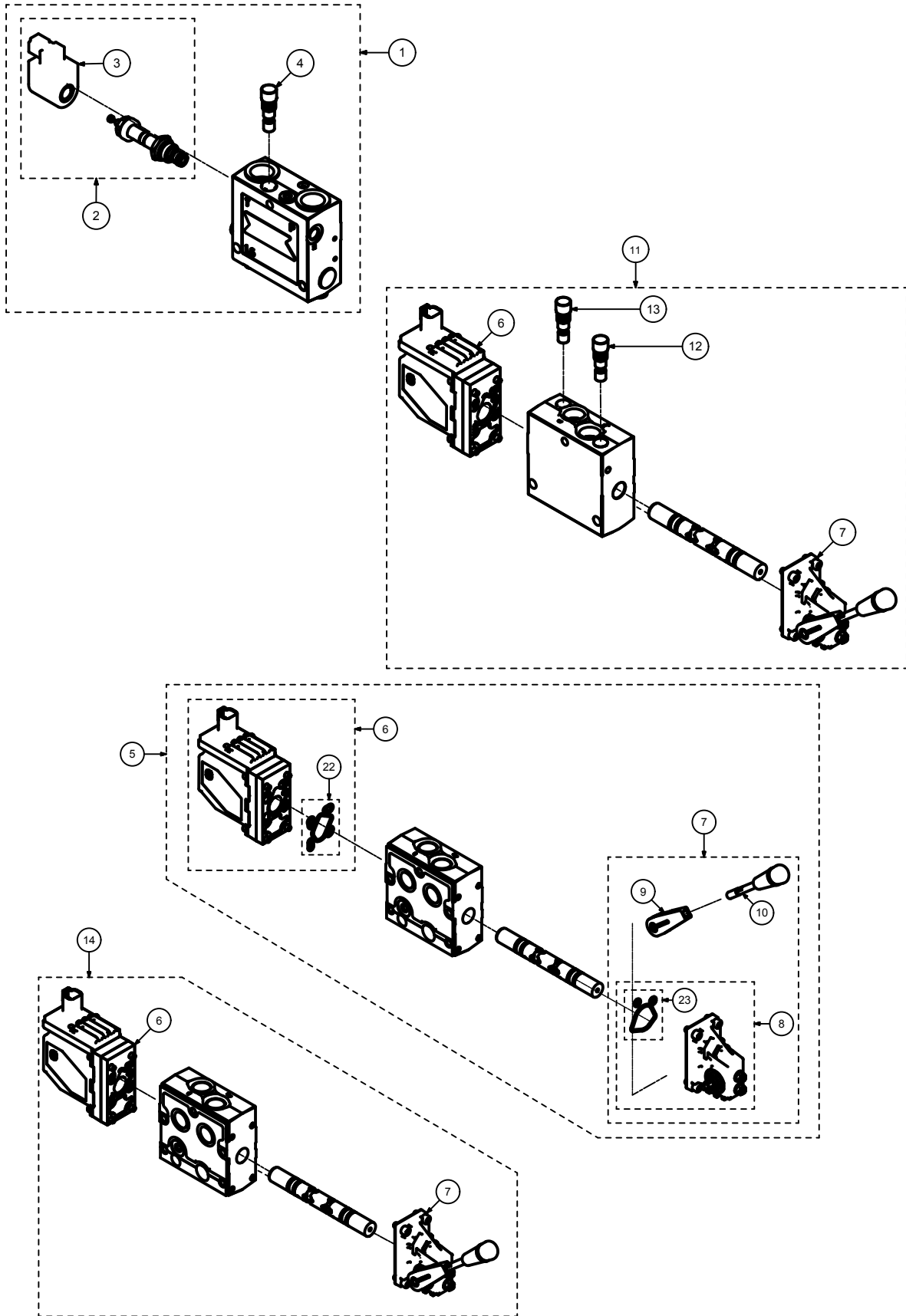
7354056-1, VALVE BANK



73540566-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	73540580	SECT-PVG32 GC INLET OPEN CENTER	1
5.	73540581	SECT-PVG32 GC SLEW	1
11.	73540582	SECT-PVG32 GC INNER BOOM	1
14.	73540583	SECT-PVG32 GC OUTER BOOM	1
15.	73540584	SECT-PVG32 GC EXTENSION BOOM	1
16.	73540585	SECT-PVG32 GC FORK ROTATE	1
17.	73540586	SECT-PVG32 GC FORK TILT	1
19.	73540587	SECT-PVG32 GC STABILIZER	2
21.	73540588	END COVER-PVG32	1
24.	73540571	SEAL KIT-PVG32 SECTION	9
25.	73540594	TIE ROD KIT-PVG32 8-SECTION	1
REV. INITIAL RELEASE			

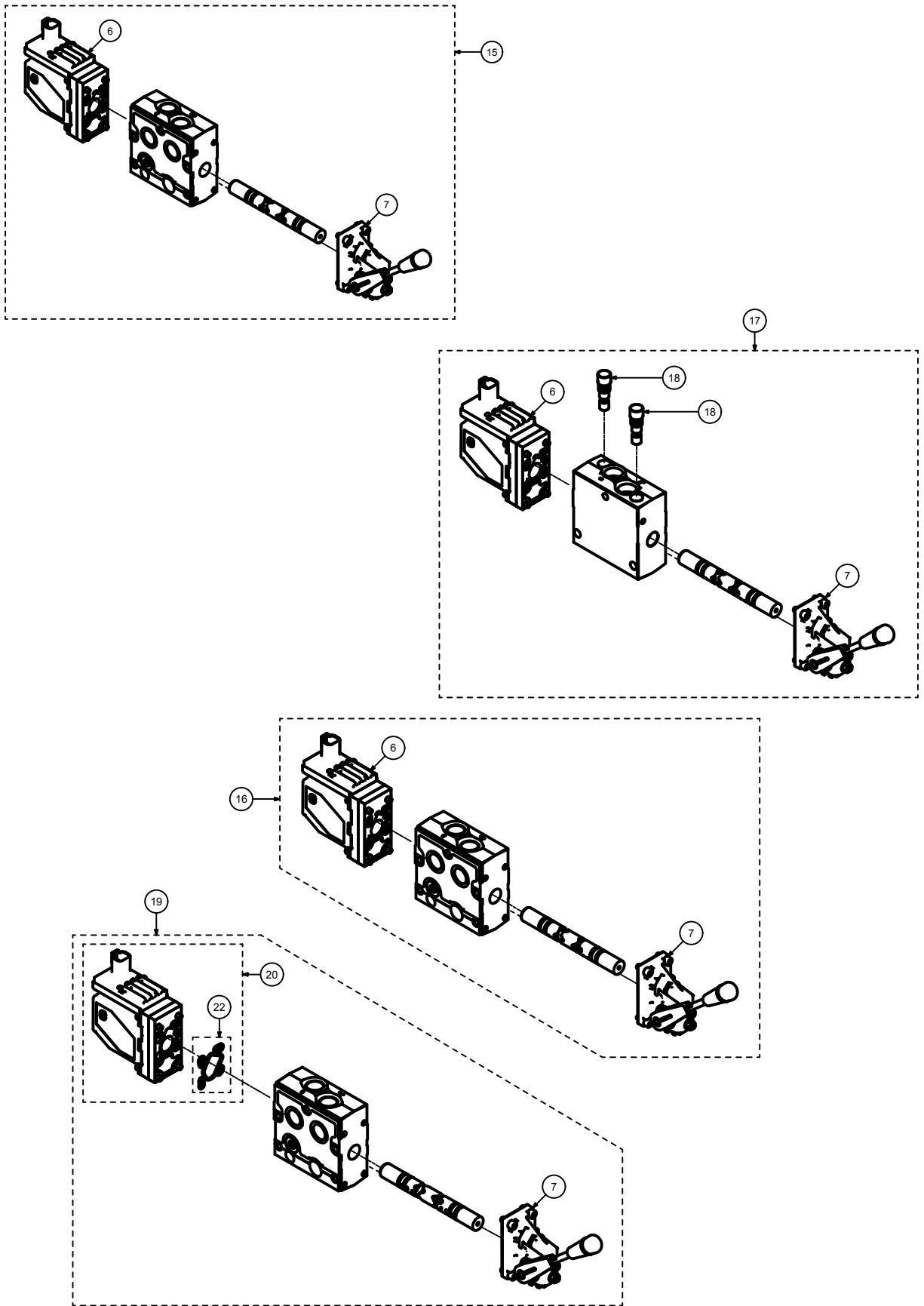
73540566-2, VALVE BANK



73540566-2 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	73540580	SECT-PVG32 GC INLET OPEN CENTER	1
2.	73540570	VALVE-LS UNLOAD NO W MNL OVRIDE 12VDC DEUTSCH	1
3.	73540591	COIL-FOR 73540570 LS UNLOAD 12VDC DEUTSCH	1
4.	73540576	RELIEF VALVE-PVG32 FOR 73540566 @ 3300 PSI	1
5.	73540581	SECT-PVG32 GC SLEW	1
6.	73540589	COIL-PVG32 PVEH DEUTSCH FOR 73540566	6
7.	73540593	ACTUATOR KIT-PVG32 MECHANICAL W ADJUSTERS	8
8.	73540592	ACTUATOR-PVG32 MECHANICAL W ADJUSTERS	8
9.	73540575	LEVER BASE-PVG32	8
10.	73540574	LEVER-PVG32	8
11.	73540582	SECT-PVG32 GC INNER BOOM	1
12.	73540578	RELIEF VALVE-PVG32 LS FOR 73540566 @ 1160 PSI	1
13.	73540577	RELIEF VALVE-PVG32 LS FOR 73540566 @ MAX	1
14.	73540583	SECT-PVG32 GC OUTER BOOM	1
22.	73540573	SEAL KIT-PVG32 PVE COIL	1
REV. INITIAL RELEASE			

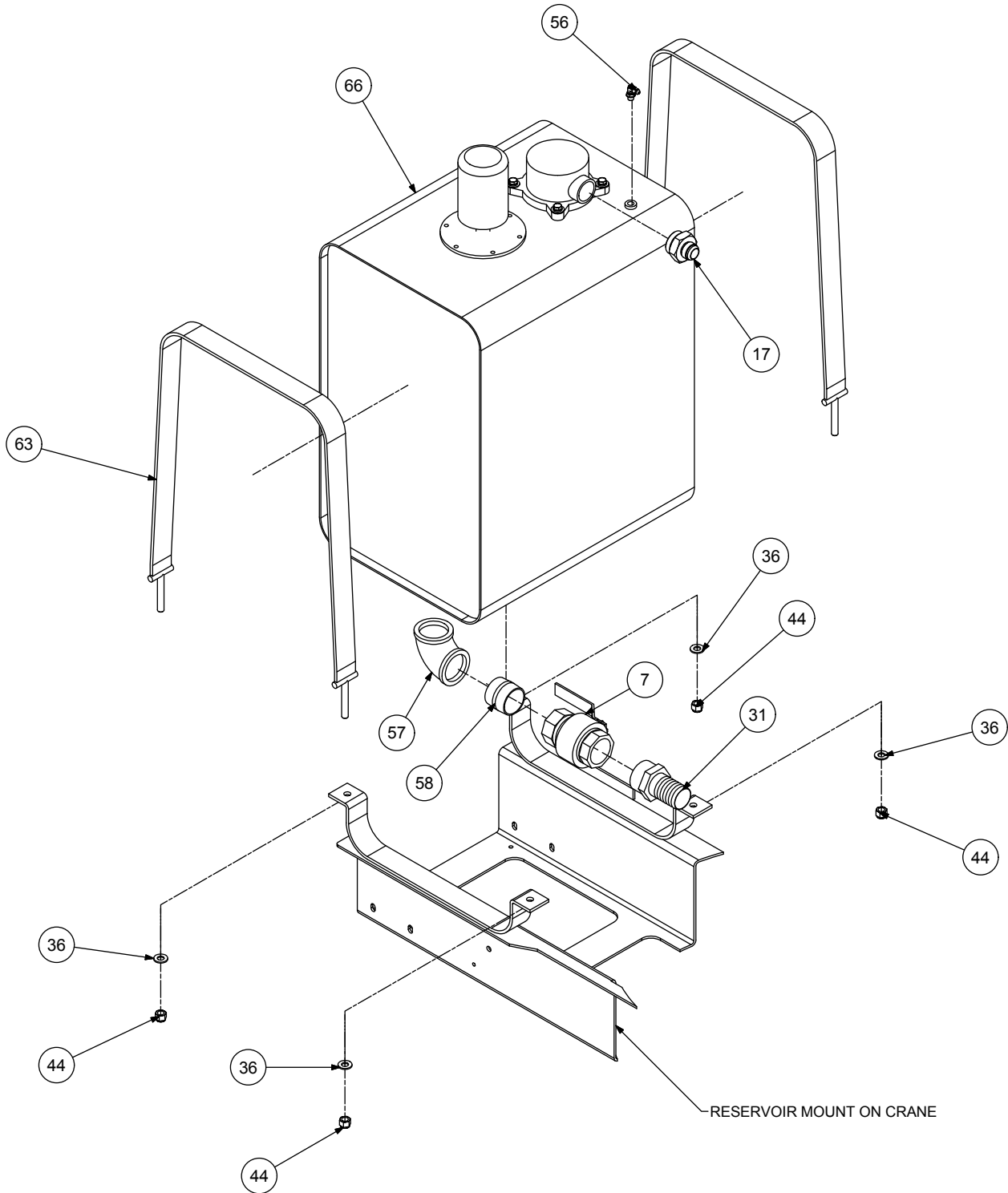
73540566-3, VALVE BANK



73540566-3 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
6.	73540589	COIL-PVG32 PVEH DEUTSCH FOR 73540566	6
7.	73540593	ACTUATOR KIT-PVG32 MECHANICAL W ADJUSTERS	8
15.	73540584	SECT-PVG32 GC EXTENSION BOOM	1
16.	73540585	SECT-PVG32 GC FORK ROTATE	1
17.	73540586	SECT-PVG32 GC FORK TILT	1
18.	73540579	RELIEF VALVE-PVG32 LS FOR 73540566 @ 2320 PSI	2
19.	73540587	SECT-PVG32 GC STABILIZER	2
20.	73540590	COIL-PVG32 PVEO DEUTSCH FOR 73540566	2
22.	73540573	SEAL KIT-PVG32 PVE COIL	8
REV. INITIAL RELEASE			

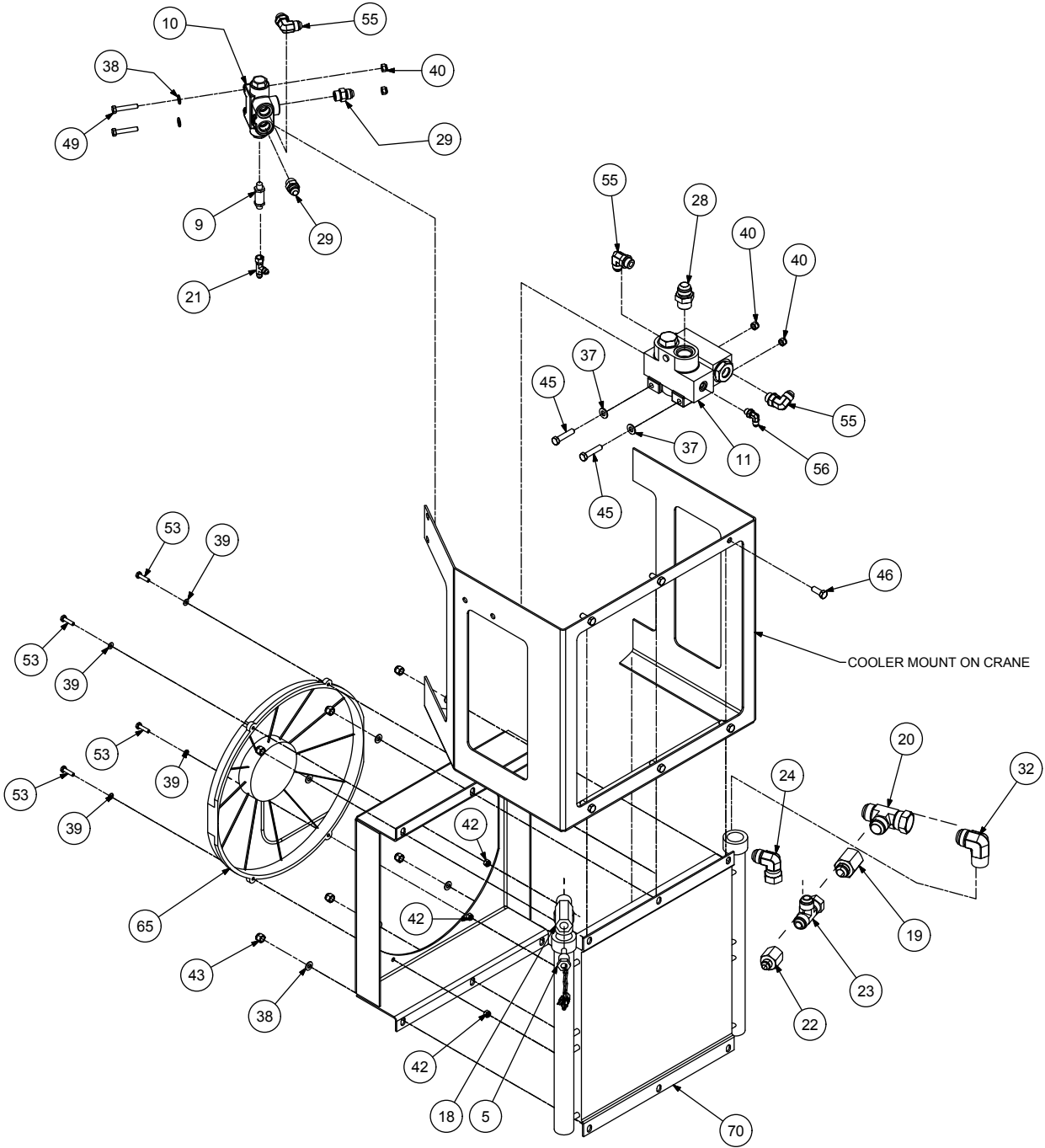
16000 Ground Control - Hydraulic Assembly (99905473)



99905473 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
7.	73540126	VALVE-BALL 1.50	77	1
17.	72534852	ADPTR-M STR/M JIC 24 16	77	1
31.	72531553	NIPPLE-BARB STL 2.0MPT 2.0	77	1
36.	72063005	WASHER .50 FLAT	76	4
44.	72062080	NUT .50-13 HEX NYLOCK	76	4
56.	72053758	ELBOW-M STR/90/M JIC 4 4	77	2
57.	72053329	ELBOW-BLK 2.00 X 90 DEG		1
58.	72053260	NIPPLE-PIPE BLK 2.00X CLOSE		2
63.	71410001	STRAP-16000 SIII RESERVOIR		2
66.	71415475	RESERVOIR-16000 SIII 48 GAL R1		1
REV. N				

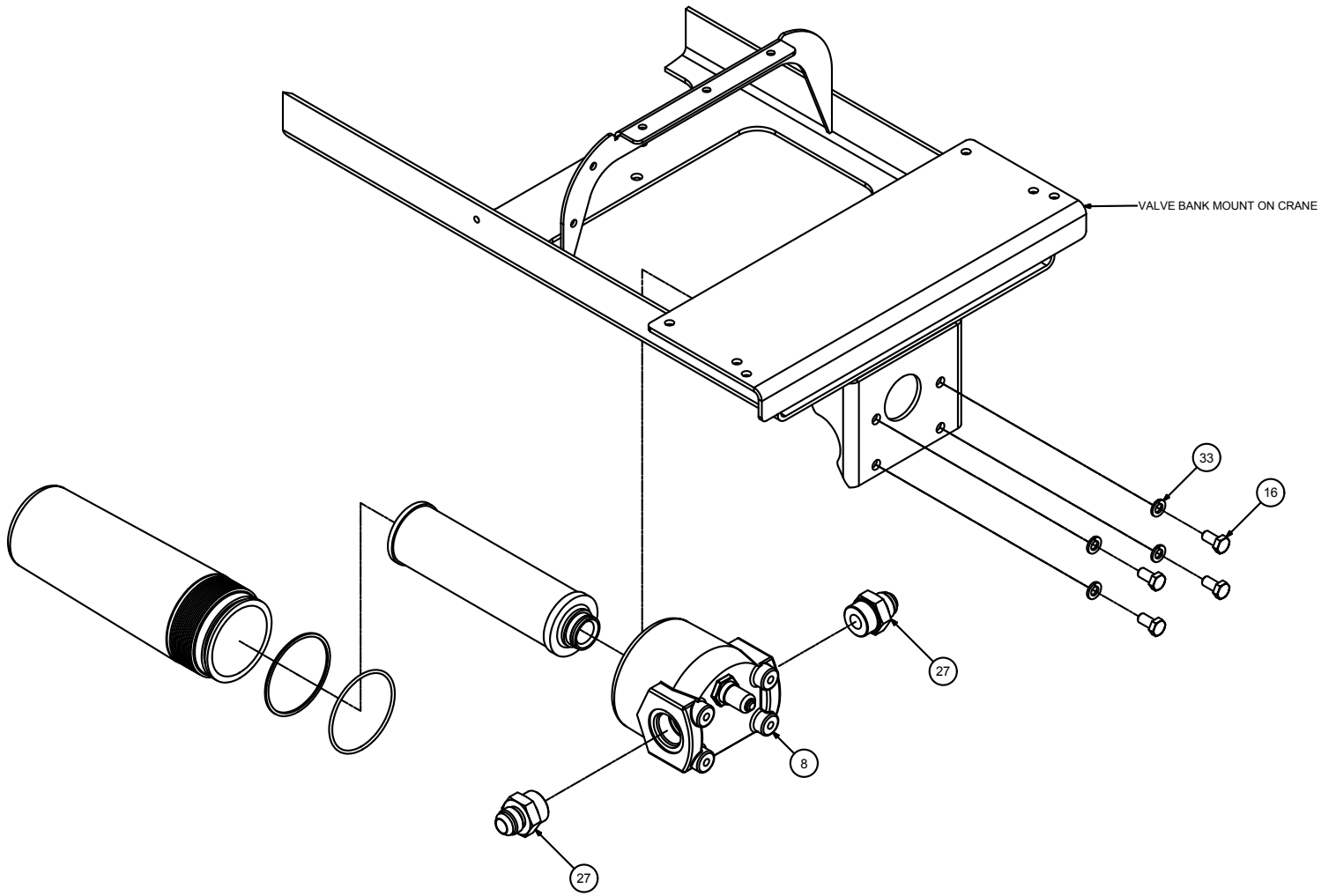
HYDRAULIC ASSEMBLY, CONTINUED (99905473-1)



99905473-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	99905462	MAST ASM-16000 SIII GROUND CONTROL		1
2.	99905461	BASE ASM-16000 GROUND CONTROL 2016		A/R
2.	99905968	BASE ASM-16000 GROUND CONTROL 2016 HI FRAME		A/R
5.	77041659	SWITCH-TEMP FAN NO 120 DEGREES		1
9.	73054549	VALVE-CHECK INLINE M STR/M JIC 4 4		1
10.	73054462	VALVE-OVERSTRS 902-OS(LESS FTG		1
11.	73054424	VALVE-OVERSTRESS 904OS-2C-8		1
18.	72534379	TEE-STL JIC/MPT/FPT 16 16 8	77	1
19.	72533028	ADPTR-M JIC/F JIC 12 16	77	1
20.	72533000	TEE-SWVL NUT RUN JIC 16	77	1
21.	72532981	TEE-SWVL NUT RUN JIC 4	77	1
22.	72532972	ADPTR-M JIC/F JIC 8 12	77	1
23.	72532950	TEE-SWVL NUT RUN JIC 12	77	1
24.	72532696	ELBOW-M JIC/90/F JIC SW 12 12	77	1
28.	72532366	ADPTR-M STR/M JIC 12 12	77	1
29.	72532358	ADPTR-M STR/M JIC 8 8	77	2
32.	72531430	ELBOW-MPT/90/M JIC 1.00 16	77	1
37.	72063003	WASHER .38 FLAT	76	2
38.	72063002	WASHER .31 FLAT	76	14
39.	72063000	WASHER .19 W FLAT ANSI B27.2Z	76	4
40.	72062109	NUT .31-18 HEX NYLOCK	76	9
42.	72062104	NUT .25-20 HEX NYLOCK	76	10
43.	72062103	NUT .38-16 HEX NYLOCK	76	6
45.	72060049	CAP SCR .38-16X 1.75 HH GR5 Z	76	2
46.	72060046	CAP SCR .38-16X 1.00 HH GR5 Z	76	6
49.	72060028	CAP SCR .31-18X 1.75 HH GR5 Z	76	3
53.	72060004	CAP SCR .25-20X 1.00 HH GR5 Z	76	4
55.	72053763	ELBOW-M STR/90/M JIC 8 8	77	3
56.	72053758	ELBOW-M STR/90/M JIC 4 4	77	2
65.	70733695	FAN-16 IN. PULLER STR BLADE 12VDC		1
70.	70143815	OIL COOLER W/O FAN-FAU20 65082		1
REV. N				

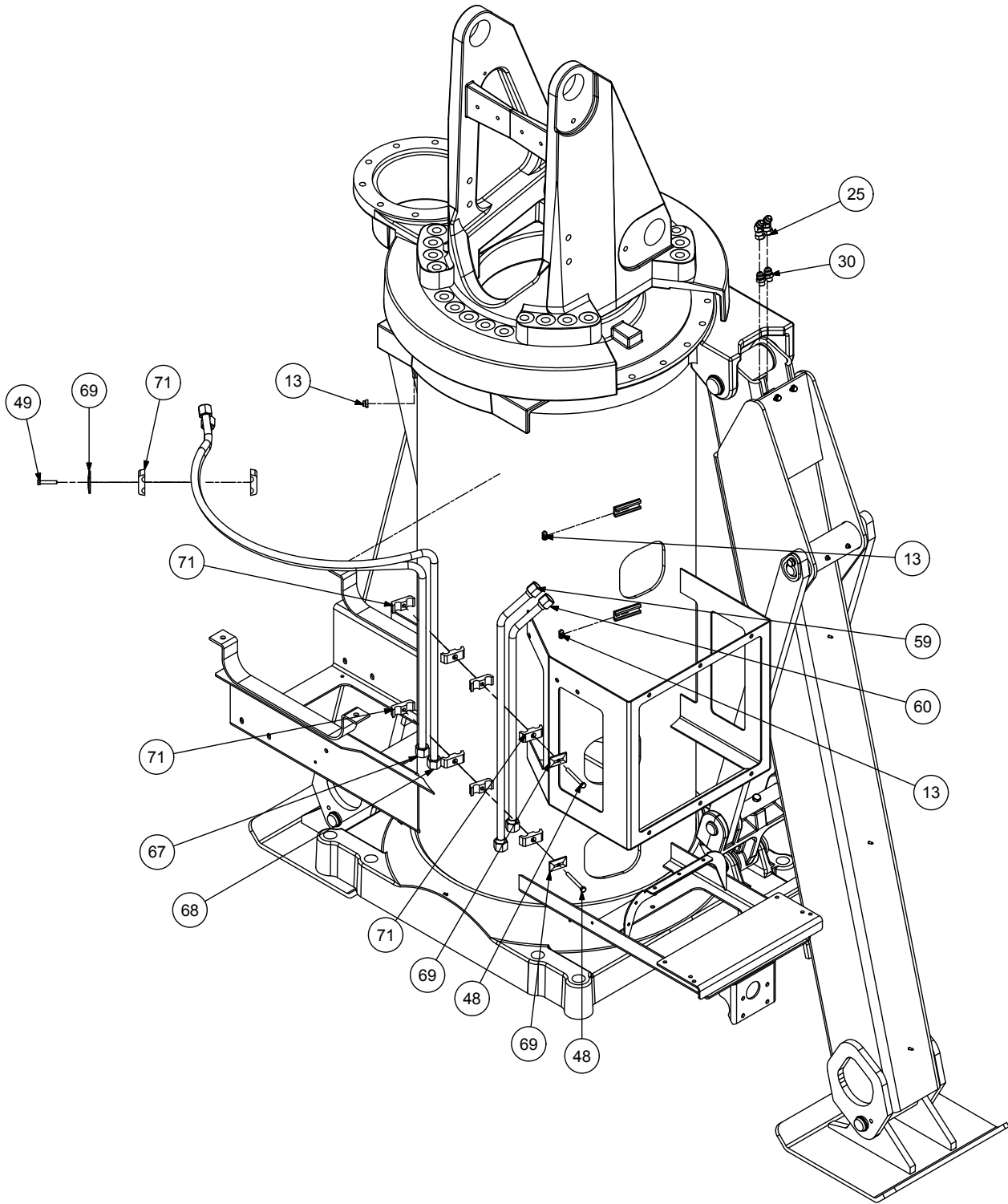
HYDRAULIC ASSEMBLY, CONTINUED (99905473-2)



99905473-2 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
8.	73540000	FILTER-PRES PARKER 28P205QM298N4N41		1
16.	72601571	CAP SCR M10-1.50X 20 HHZ		4
27.	72532367	ADPTR-M STR/M JIC 16 12		2
33.	72063227	WASHER-LOCK 10MM		4
	73052155	PRESSURE FILTER ELEMENT	91727328	2
	76397652	O-RING, BOWL SEAL	91727328	2
	76397653	ANTI-EXTRUSION UNION RING	91727328	2
REV. N				

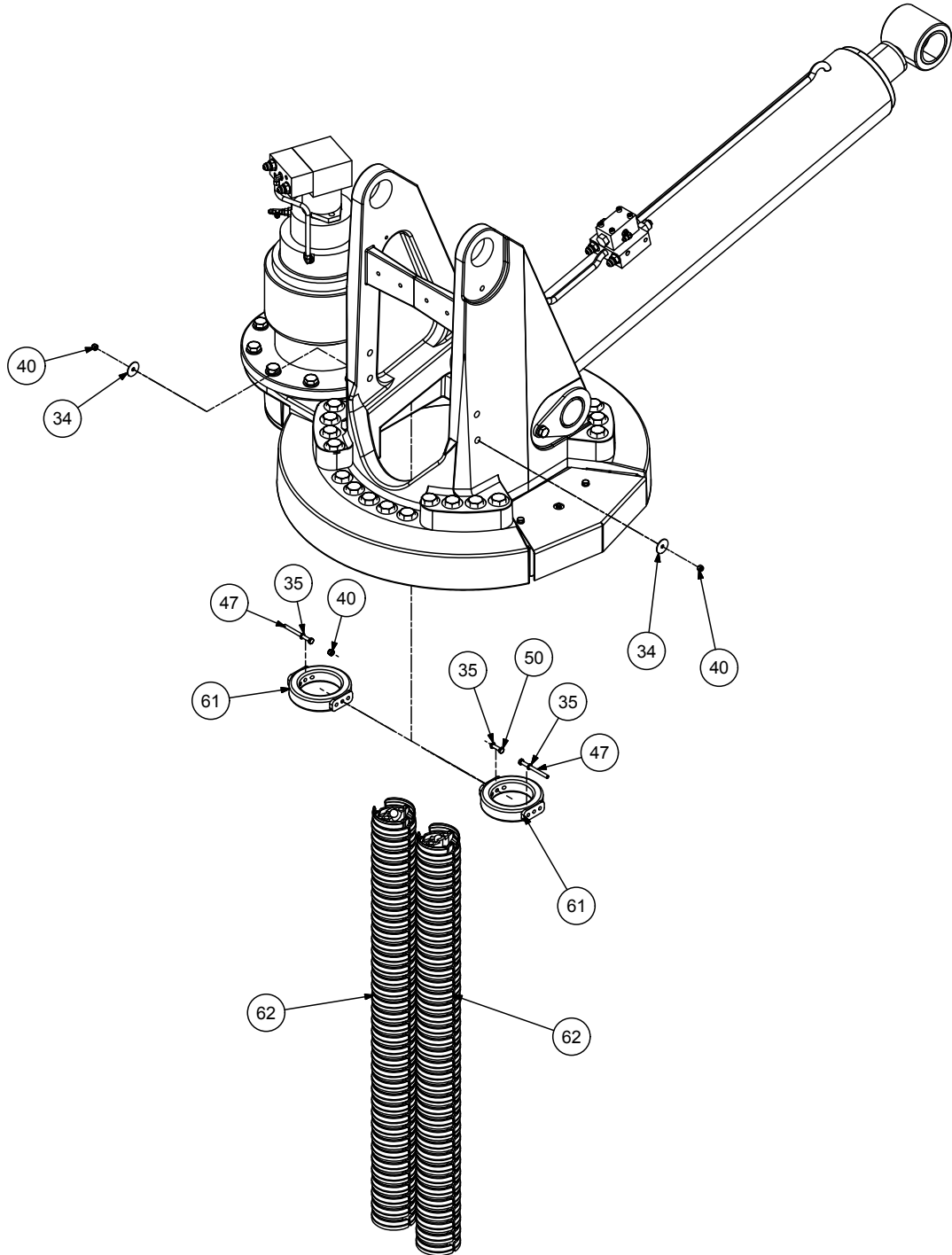
HYDRAULIC ASSEMBLY, CONTINUED (99905473-3)



99905473-3 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
13.	72601729	NUT-MTG RAIL TWIN PAR29		3
25.	72532670	ELBOW-M JIC/45/F JIC 8 8	77	4
30.	72532357	ADPTR-M STR/M JIC 6 8	77	4
48.	72060034	CAP SCR .31-18X 3.25 HH GR5 Z	76	2
49.	72060028	CAP SCR .31-18X 1.75 HH GR5 Z	76	3
59.	71415078	TUBE ASM, OR SS A-PORT (GROUND CONTROL)		1
60.	71415077	TUBE ASM, OR SS B-PORT (GROUND CONTROL)		1
67.	70145823	TUBE ASM-OUTRG CS A-PORT		1
68.	70145822	TUBE ASM-OUTRG CS B-PORT		1
69.	70144819	COVER PLT-PAR29 CPT3		3
71.	70034417	CLAMP-TWIN TUBE .75 OD (PAIR)		5
REV. N				

HYDRAULIC ASSEMBLY, CONTINUED (99905473-4)



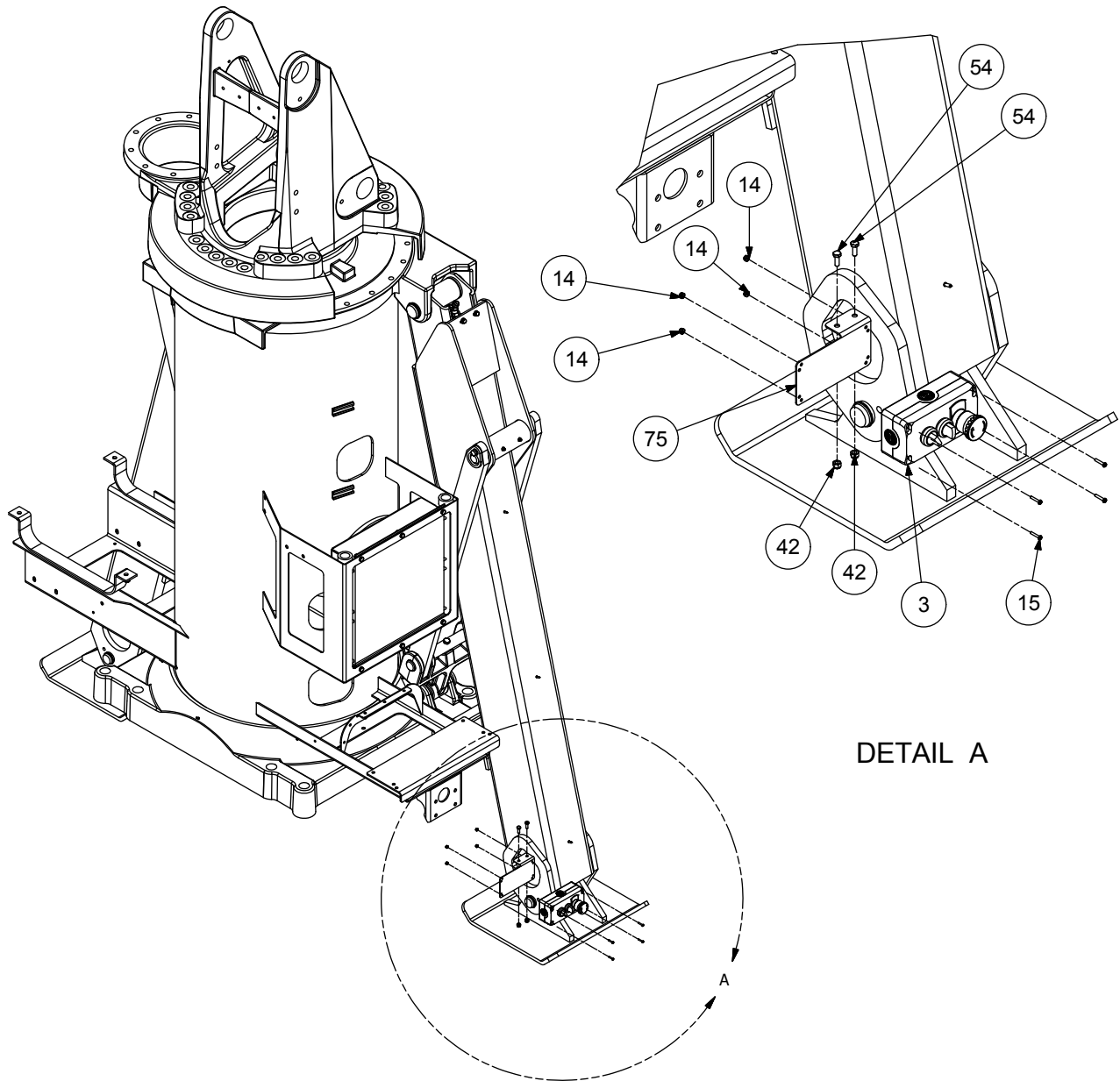
99905473-4 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
34.	72063078	WASHER .31X1.50 OD ZINC	76	2
35.	72063050	WASHER .31 LOCK	76	7
40.	72062109	NUT .31-18 HEX NYLOCK	76	9
47.	72060035	CAP SCR .31-18X 3.50 HH GR5 Z	76	2
50.	72060026	CAP SCR .31-18X 1.25 HH GR5 Z	76	1
61.	71415076	E-CHAIN-TRIFLEX MOUNTING BRKT TR.100.2		2
62.	71415075	E-CHAIN-TRIFLEX TRE-100-145-0 7FT		2 A/R
62.	71416140	E-CHAIN-TRIFLEX TRE-100-145-0 6FT HIGH FRAME		2 A/R
REV. N				

NOTE:

ITEMS 2, 62, 78 LIST STANDARD PARTS AND HIGH FRAME PARTS. HIGH FRAME PARTS TO BE USED FOR INSTALLATION ON CHASSIS WITH FRAME RAILS HIGHER THAN STANDARD CHASSIS FRAME RAILS.

HYDRAULIC ASSEMBLY, CONTINUED (99905473-5)

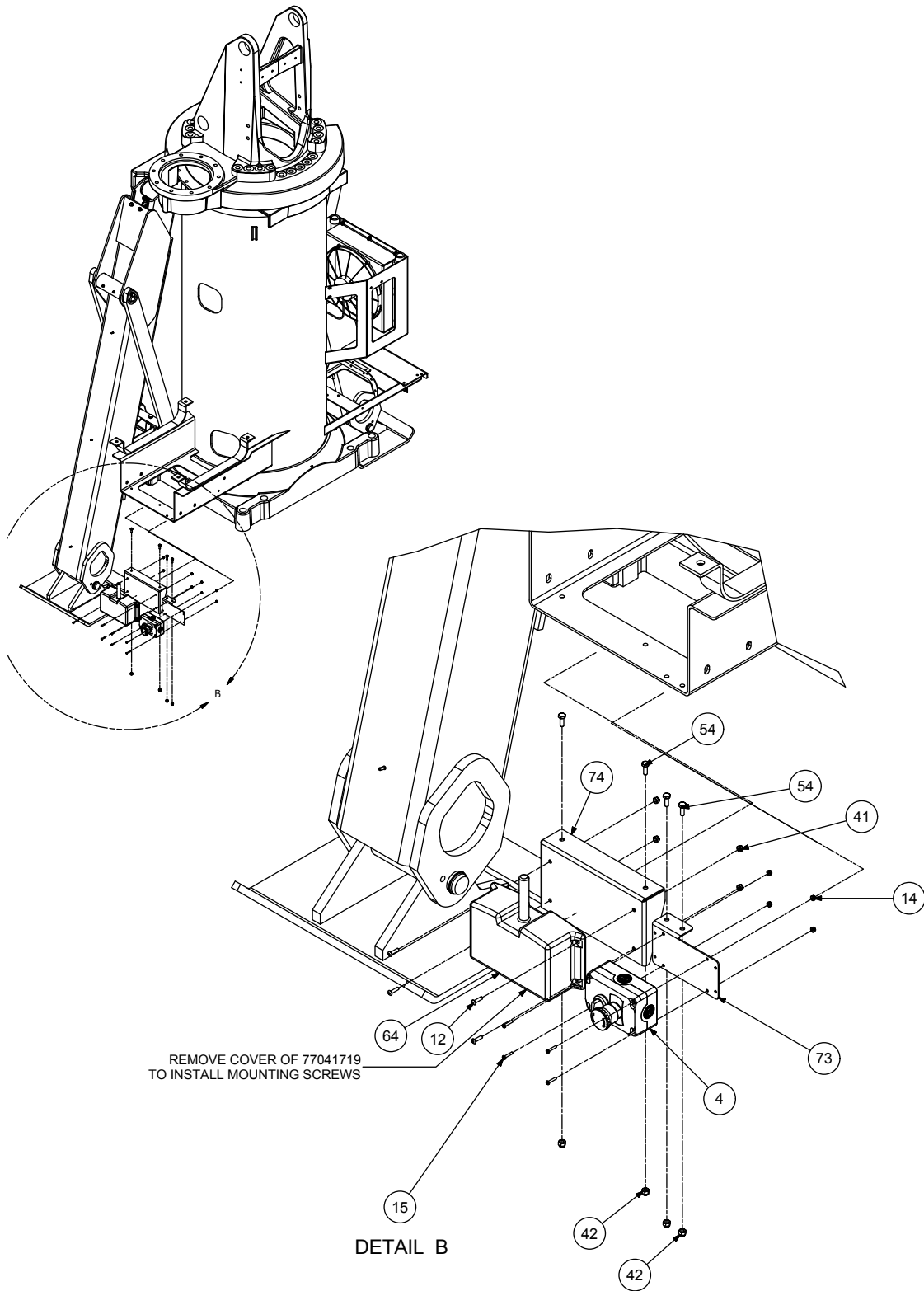


DETAIL A

99905743-5 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
3.	77040667	SWITCH BOX-16000 GROUND CONRTOL LEFT		1
14.	72601726	NUT 6-32 HEX NYLOCK	76	8
15.	72601704	SCR-MACH # 6-32X .75 RDH	76	8
42.	72062104	NUT .25-20 HEX NYLOCK	76	10
54.	72060002	CAP SCR .25-20X .75 HH GR5 Z	76	6
64.	70734705	SCANRECO G2B RECEIVER KIT		1
75.	60139820	BRACKET-STAB CTRL 16000 GROUND STREET		1
REV. N				

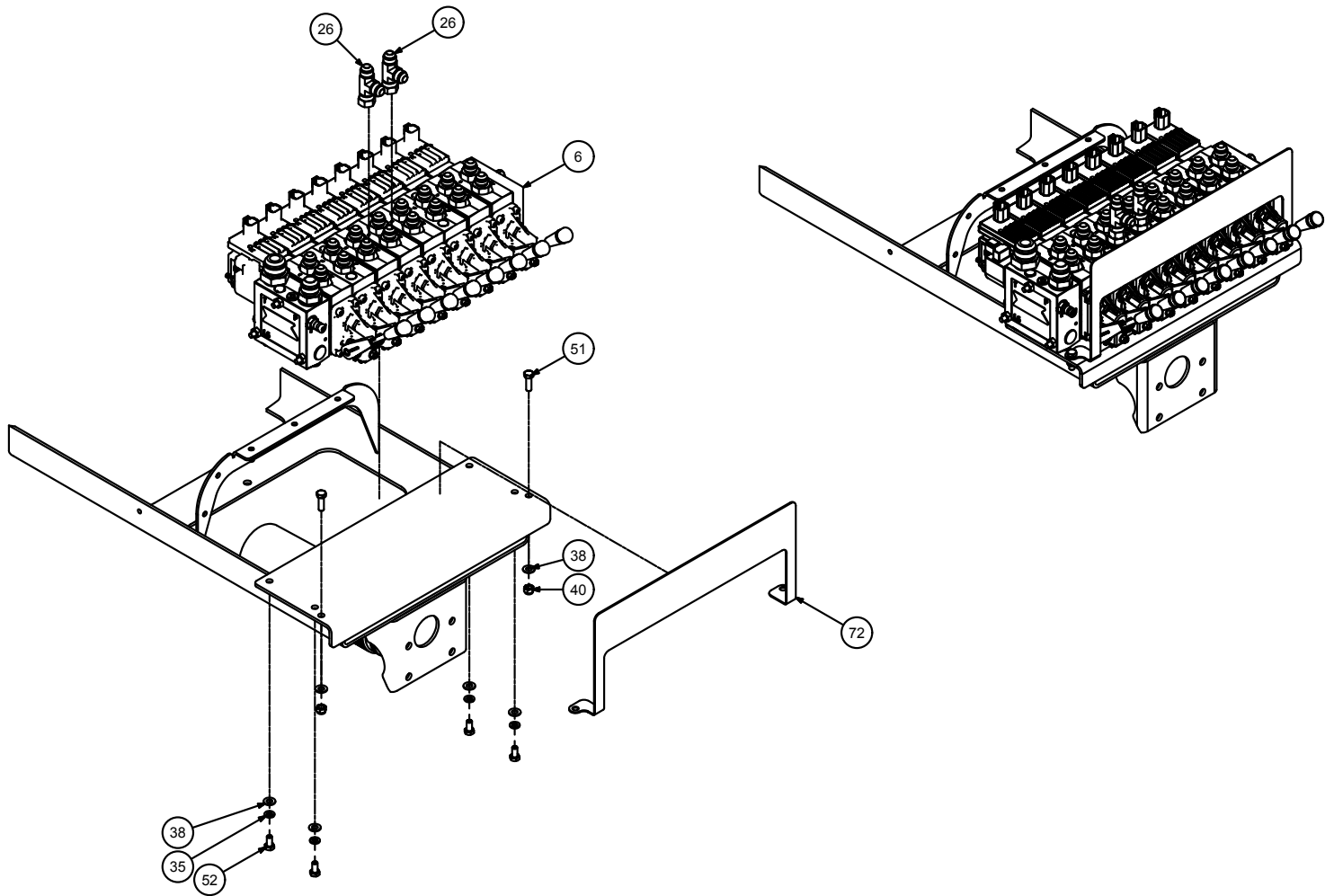
HYDRAULIC ASSEMBLY, CONTINUED (99905473-6)



99905473-6 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
4.	77040668	SWITCH BOX-16000 GROUND CONRTOL LEFT		1
12.	72601994	SCR-MACH #10-24X .75 BTNHD ZC	76	4
14.	72601726	NUT 6-32 HEX NYLOCK	76	8
15.	72601704	SCR-MACH # 6-32X .75 RDH	76	8
41.	72062106	NUT 10-24 HEX NYLOCK	76	4
42.	72062104	NUT .25-20 HEX NYLOCK	76	10
54.	72060002	CAP SCR .25-20X .75 HH GR5 Z	76	6
64.	70734705	SCANRECO G2B RECEIVER KIT		1
73.	60139914	BRACKET-STAB CTRL 16000 GROUND CURB		1
REV. N				

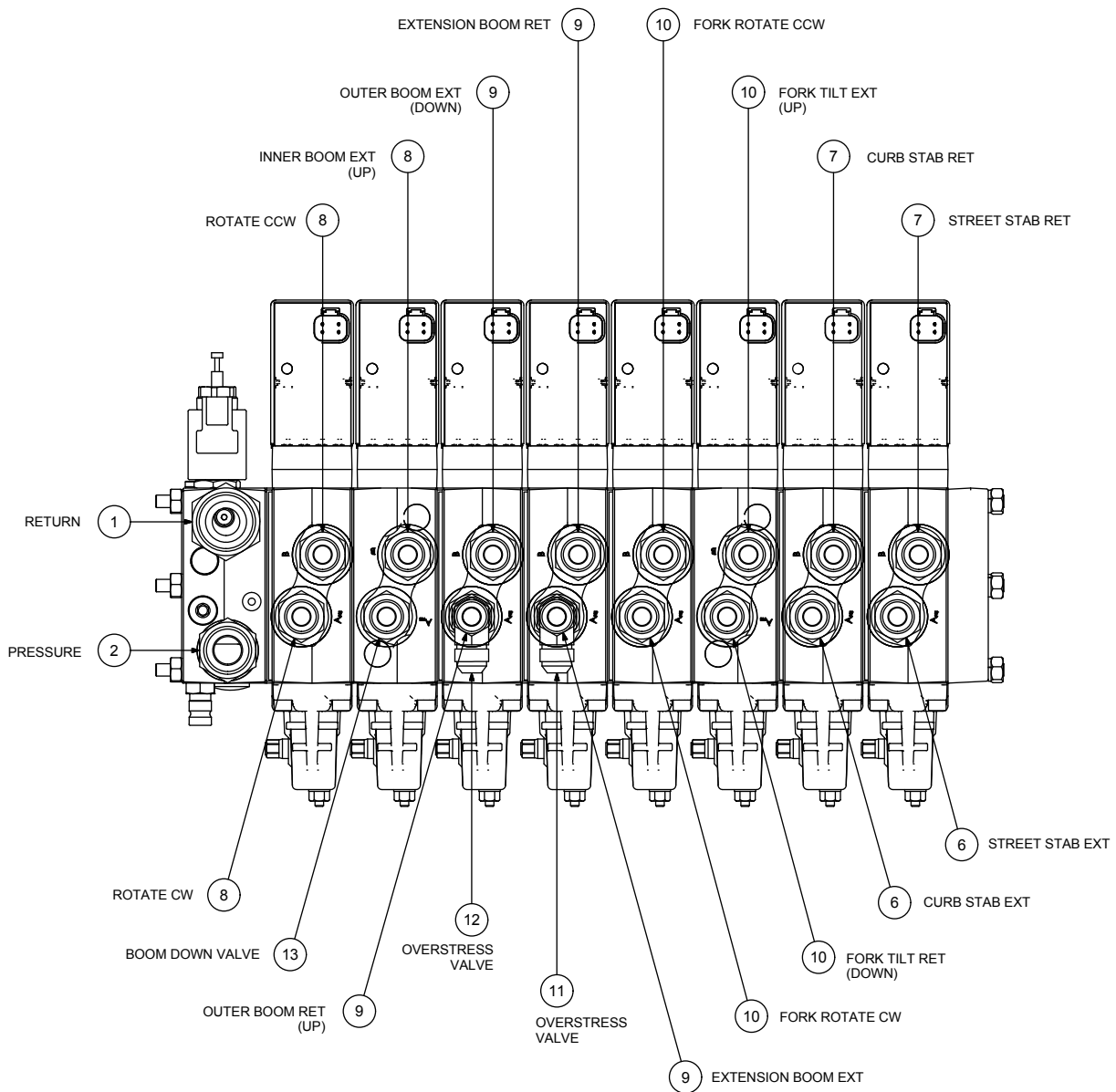
HYDRAULIC ASSEMBLY, CONTINUED (99905473-7)



99905473-7 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
6.	73540566	VALVE BANK-8-SECT PVG32 W OC INLT LS UNL		1
26.	72532657	TEE-SWVL NUT RUN JIC 8	77	2
35.	72063050	WASHER .31 LOCK	76	7
38.	72063002	WASHER .31 FLAT	76	14
40.	72062109	NUT .31-18 HEX NYLOCK	76	9
51.	72060025	CAP SCR .31-18X 1.00 HH GR5 Z		2
52.	72060022	CAP SCR .31-18X .62 HH GR5 Z		4
72.	60144203	BRKT-DECAL GROUND CONTROL VB 2016		1
REV. N				

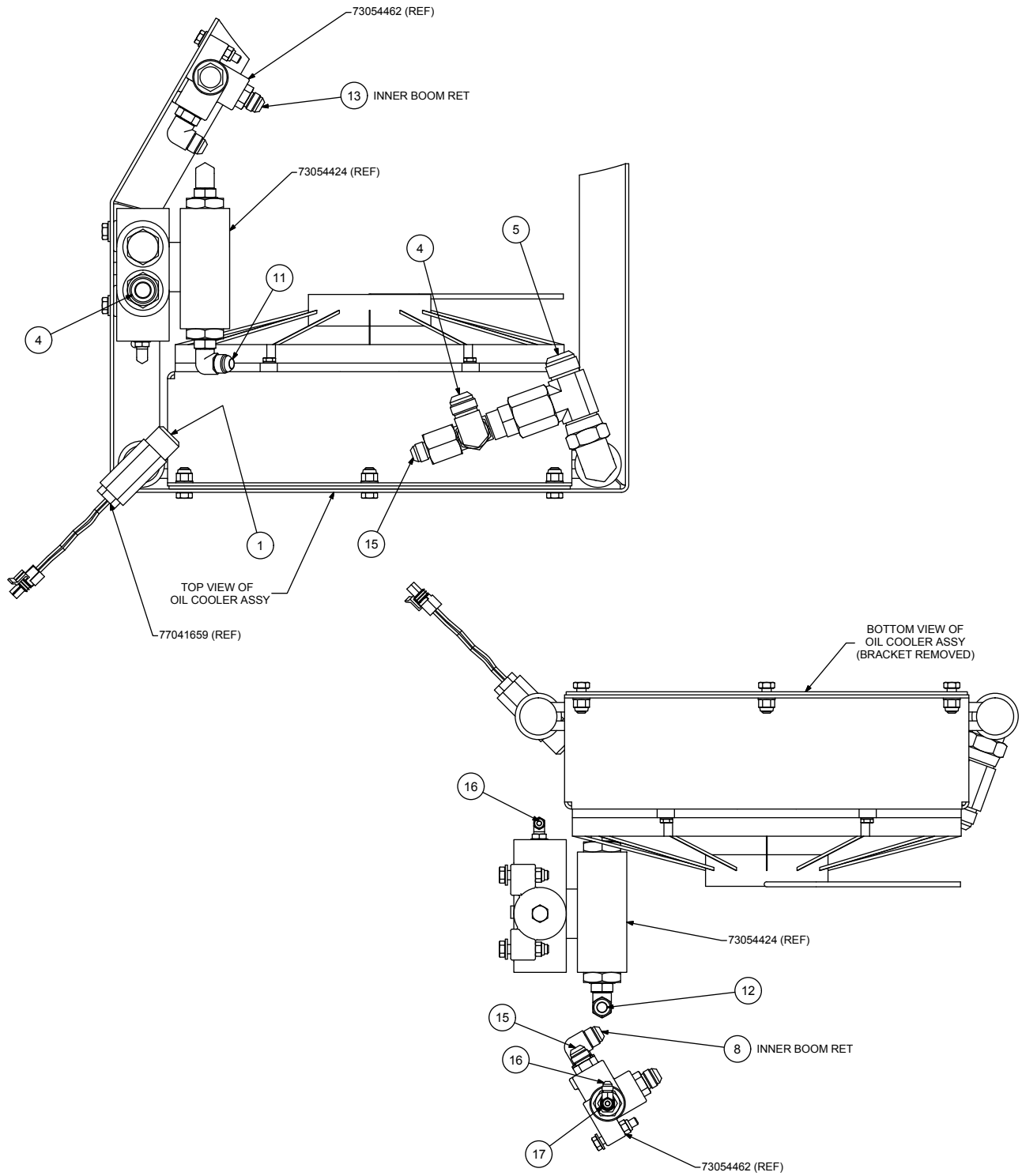
16000 Ground Control - Hose Routing (99905483)



99905483 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	51399927	HOSE-FJ 1.00 X 49.00 (16-16) 100R17	1
2.	51399926	HOSE-ZZ .75 X 40.00 (12-12) CCW90DEG R17	1
6.	51399360	HOSE-AAF .50 X 36.00 (12-8) 100R17	2
8.	51399362	HOSE-FF .50 X 139.00 (8-8) 100R17	4
9.	51399363	HOSE-AAF .50 X 147.00 (12-8) 100R17	4
10.	51399364	HOSE-AAF .38 X 142.00 (8-8) 100R17	4
11.	51399928	HOSE-JJ .50 X 46.50 (8-8) 180DEG100R17	1
12.	51399929	HOSE-FJ .50 X 47.00 (8-8) 100R17	1
13.	51399367	HOSE-FJ .50 X 42.00 (8-8) 100R17	1
REV. F			

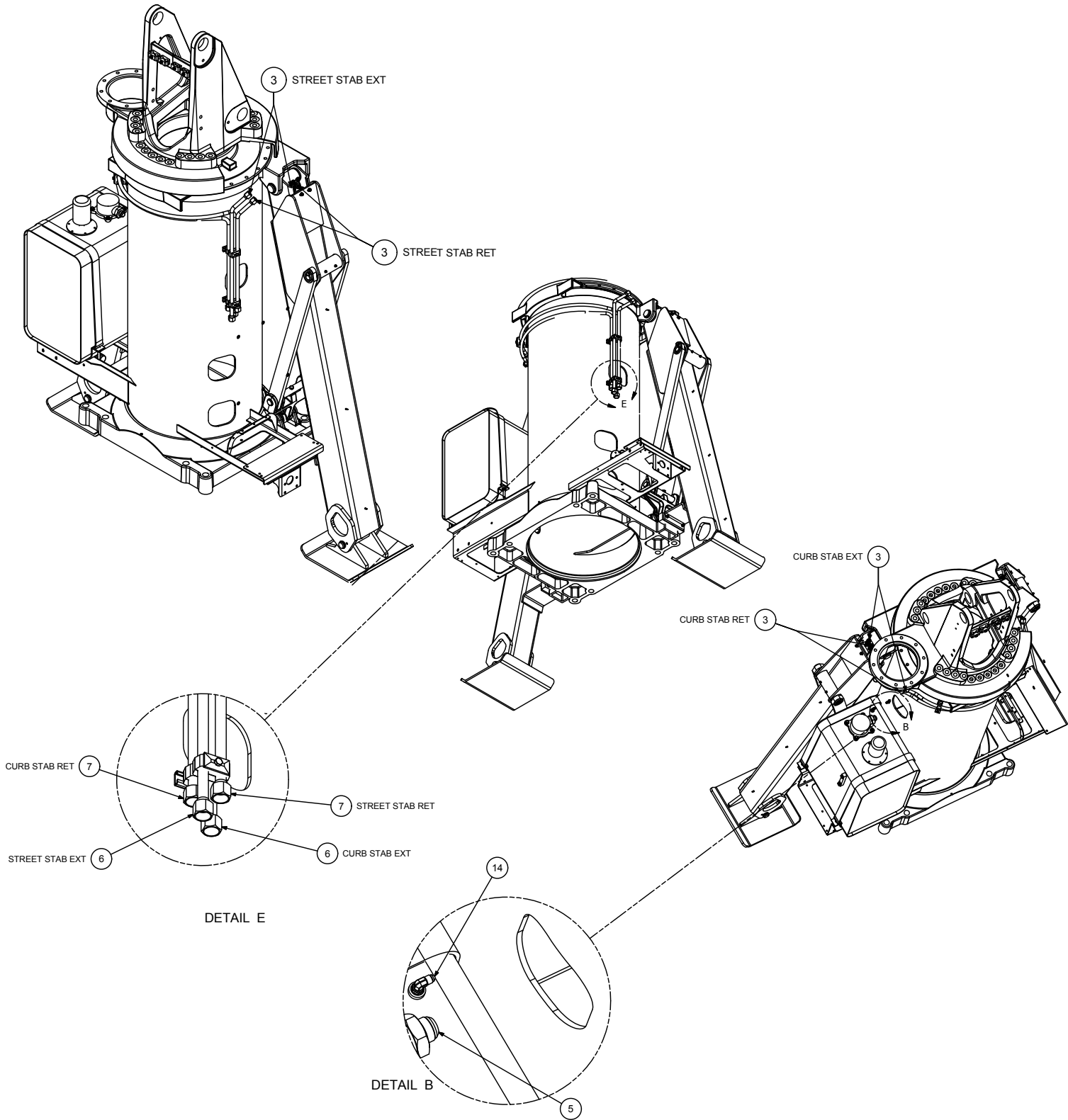
HOSE ROUTING, CONTINUED (99905483-1)



99905483-1 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	51399927	HOSE-FJ 1.00 X 49.00 (16-16) 100R17	1
4.	51396385	HOSE-FJ .75 X 17.00 (12-12) 100R17	1
5.	51396459	HOSE-FF 1.00 X 46.50 (16-16) 100R17	1
8.	51399362	HOSE-FF .50 X 139.00 (8-8) 100R17	4
11.	51399928	HOSE-JJ .50 X 46.50 (8-8) 180DEG100R17	1
12.	51399929	HOSE-FJ .50 X 47.00 (8-8) 100R17	1
13.	51399367	HOSE-FJ .50 X 42.00 (8-8) 100R17	1
15.	51399371	HOSE-FJ .50 X 37.00 (8-8) 100R17	1
16.	51399372	HOSE-FF .25 X 16.00 (4-4) 100R17	1
17.	51399373	HOSE-FF .25 X 132.00 (4-4) 100R17	1
REV. F			

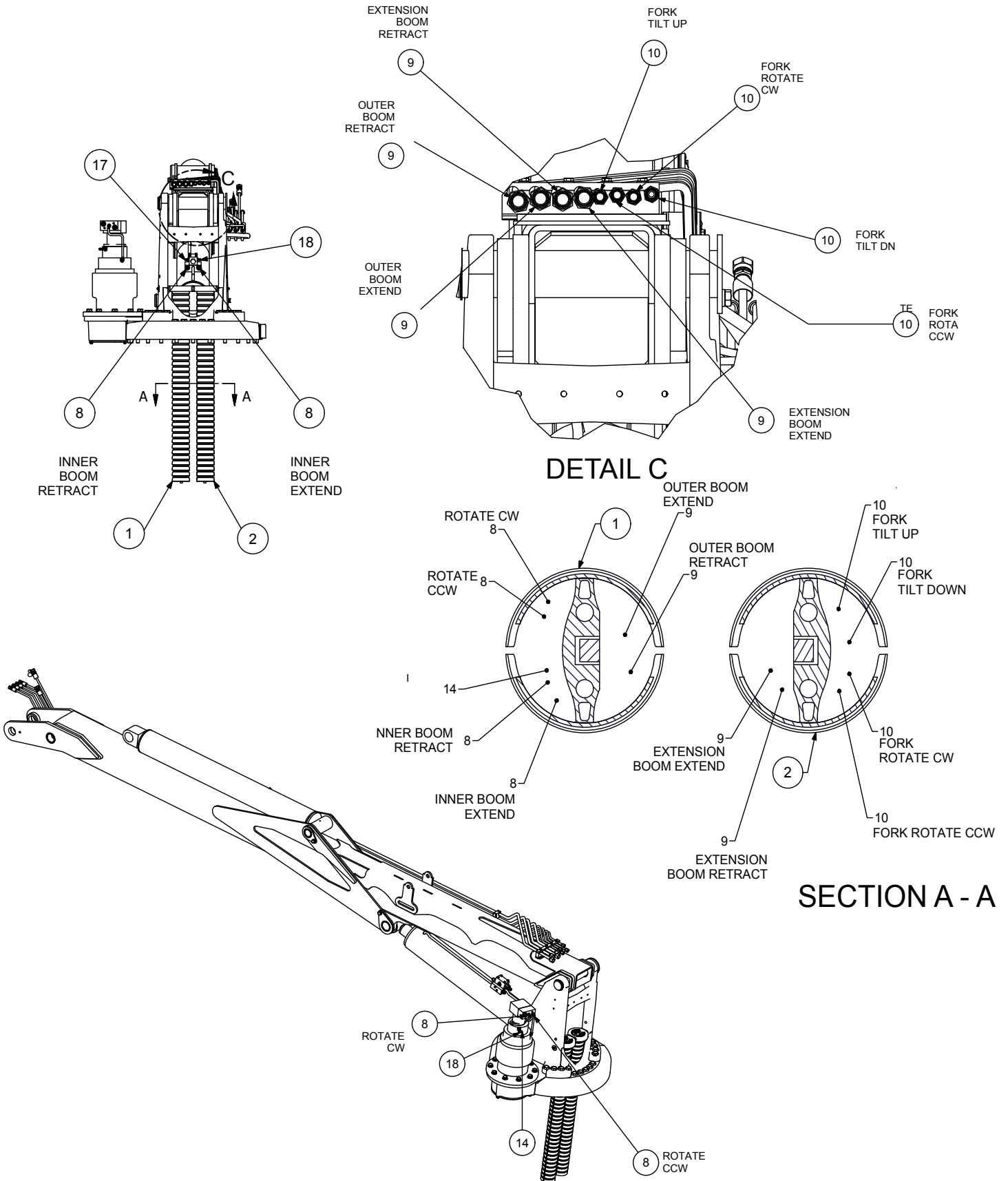
HOSE ROUTING, CONTINUED (99905483-2)



99905483 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
3.	51396368	HOSE-AAZ .50 X 30.00 (12-8) 100R17	4
5.	51396459	HOSE-FF 1.00 X 46.50 (16-16) 100R17	1
6.	51399360	HOSE-AAF .50 X 36.00 (12-8) 100R17	2
7.	51399361	HOSE-AAF .50 X 34.00 (12-8) 100R17	2
14.	51399930	HOSE-FF .25 X 95.00 (4-4) 100R17	1
REV. F			

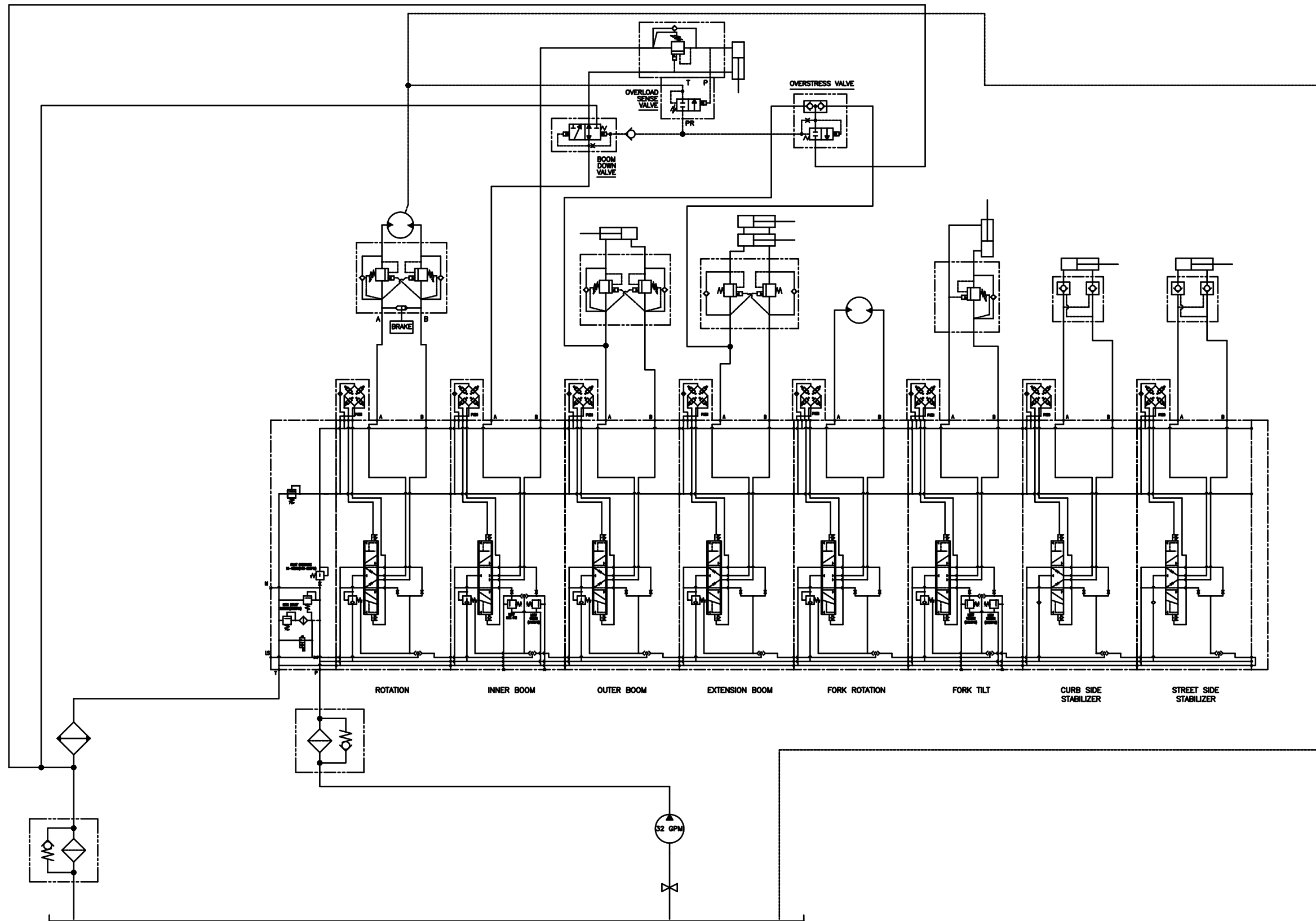
HOSE ROUTING, CONTINUED (99905483-3)



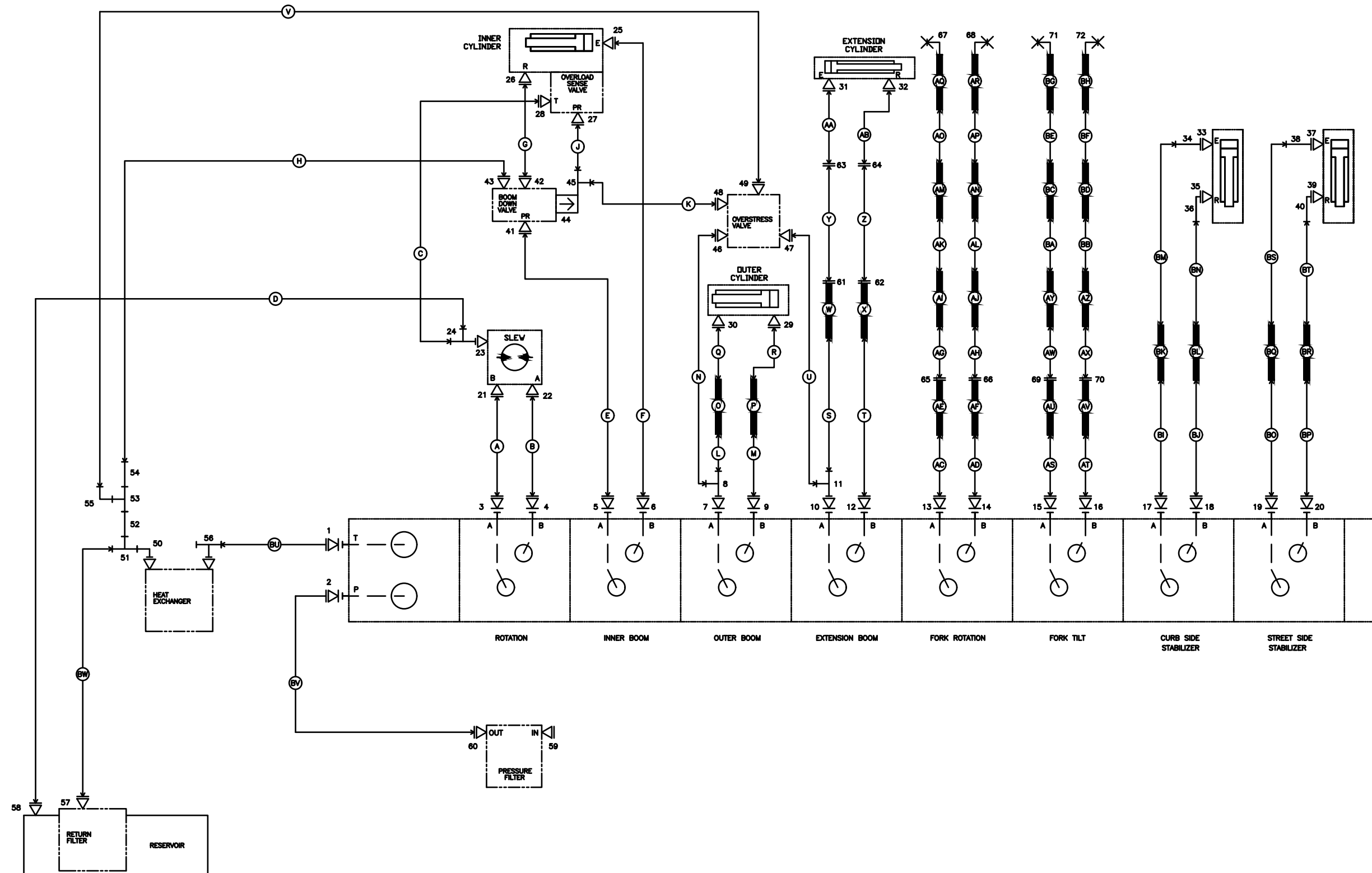
99905483-3 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	51399927	HOSE-FJ 1.00 X 49.00 (16-16) 100R17	1
2.	51399926	HOSE-ZZ .75 X 40.00 (12-12) CCW90DEG R17	1
8.	51399362	HOSE-FF .50 X 139.00 (8-8) 100R17	4
9.	51399363	HOSE-AAF .50 X 147.00 (12-8) 100R17	4
10.	51399364	HOSE-AAF .38 X 142.00 (8-8) 100R17	4
14.	51399930	HOSE-FF .25 X 95.00 (4-4) 100R17	1
17.	51399373	HOSE-FF .25 X 132.00 (4-4) 100R17	1
18.	51399374	HOSE-FJ .25 X 53.00 (4-4) 100R17	1
REV. F			

16000 Ground Control - Hydraulic Schematic 999906032)



16000 Ground Control - Plumbing Diagram (99906033)



99906033 - COMPLETE PARTS LIST

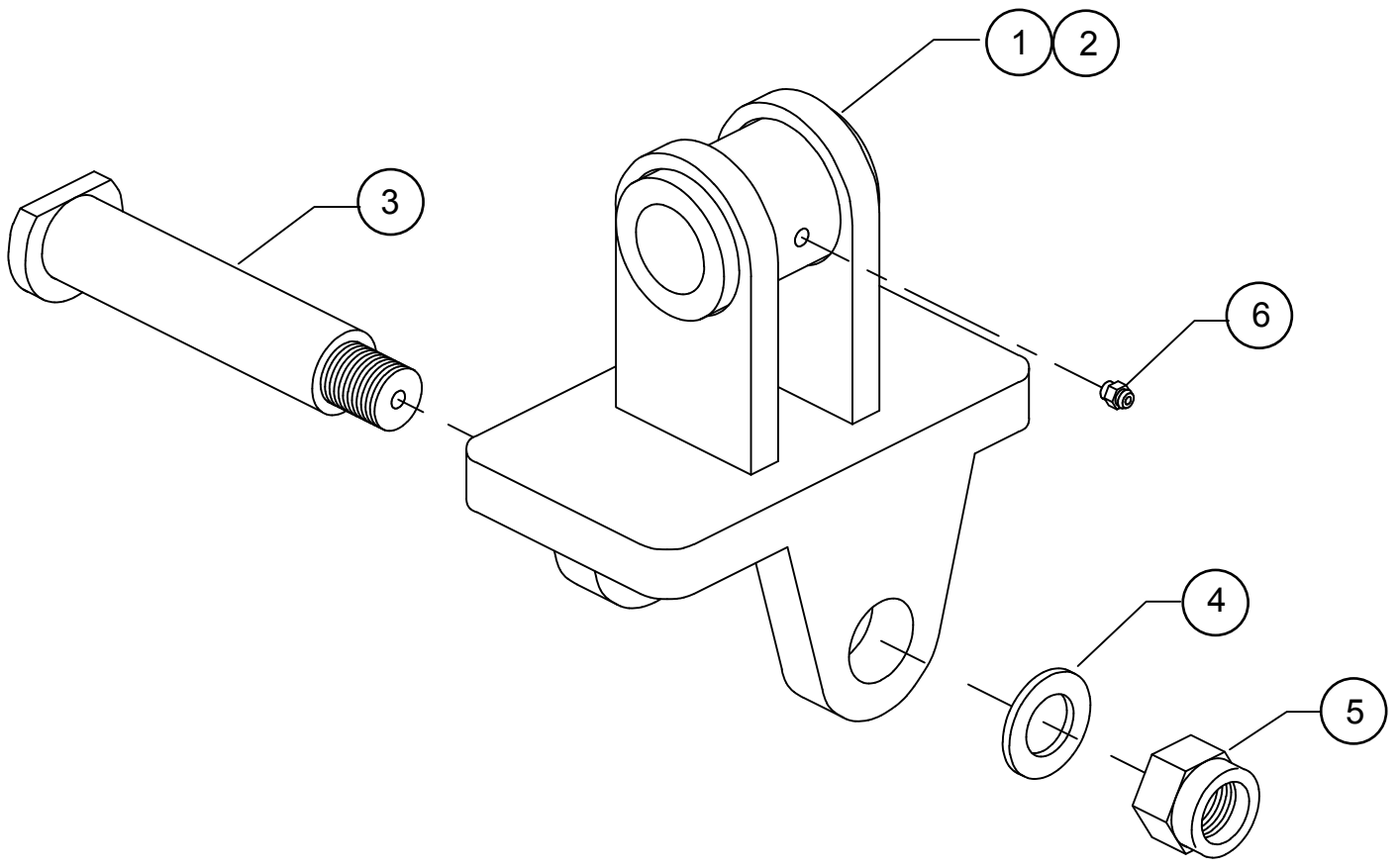
ITEM NO.	PART NO.	DESCIRPTION	KIT NO.	QTY.
1.	72532369	ADPTR-M STR/M JIC 12 16	REF	1
2.	72532366	ADPTR-M STR/M JIC 12 12	REF	1
3.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
4.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
5.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
6.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
7.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
8.	72532657	TEE-SWVL NUT RUN JIC 8		1
9.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
10.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
11.	72532657	TEE-SWVL NUT RUN JIC 8		1
12.	72532359	ADPTR-M STR/M JIC 10 8		1
13.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
14.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
15.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
16.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
17.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
18.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
19.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
20.	72532359	ADPTR-M STR/M JIC 10 8	REF	1
21.	72532358	ADPTR-M STR/M JIC 8 8		1
22.	72532358	ADPTR-M STR/M JIC 8 8		1
23.	72533490	ADPTR-M BSPP/M JIC 4 4		1
24.	72532981	TEE-SWVL NUT RUN JIC 4		1
25.	72532358	ADPTR-M STR/M JIC 8 8		1
26.	72532358	ADPTR-M STR/M JIC 8 8		1
27.	72053758	ELBOW-M STR/90/M JIC 4 4		1
28.	72053758	ELBOW-M STR/90/M JIC 4 4		1
29.	72053777	ELBOW-M STR/45/M JIC 8 8		1
30.	72053777	ELBOW-M STR/45/M JIC 8 8		1
31.	72532666	ELBOW-M STR/90/M JIC XLG 8 8		1
32.	72053763	ELBOW-M STR/90/M JIC 8 8		1
33.	72532357	ADPTR-M STR/M JIC 6 8		1
34.	72532670	ELBOW-M JIC/45/F JIC 8 8		1
35.	72532357	ADPTR-M STR/M JIC 6 8		1
36.	72532670	ELBOW-M JIC/45/F JIC 8 8		1
37.	72532357	ADPTR-M STR/M JIC 6 8		1
38.	72532670	ELBOW-M JIC/45/F JIC 8 8		1
39.	72532357	ADPTR-M STR/M JIC 6 8		1
40.	72532670	ELBOW-M JIC/45/F JIC 8 8		1
41.	72532358	ADPTR-M STR/M JIC 8 8		1
42.	72053763	ELBOW-M STR/90/M JIC 8 8		1
43.	72532358	ADPTR-M STR/M JIC 8 8		1
44.	73054549	VALVE-CHECK INLINE PSI 4MSTR/4MJIC		1

ITEM NO.	PART NO.	DESCIRPTION	KIT NO.	QTY.
45.	72532981	TEE-SWVL NUT RUN JIC 4		1
46.	72053763	ELBOW-M STR/90/M JIC 8 8		1
47.	72053763	ELBOW-M STR/90/M JIC 8 8		1
48.	72053758	ELBOW-M STR/90/M JIC 4 4		1
49.	72532366	ADPTR-M STR/M JIC 12 12		1
50.	72531430	ELBOW-MPT/90/M JIC 1.00 16		1
51.	72533000	TEE-SWVL NUT RUN JIC 16		1
52.	72533028	ADPTR-M JIC/F JIC 12 16		1
53.	72532950	TEE-SWVL NUT RUN JIC 12		1
54.	72532972	ADPTR-M JIC/F JIC 8 12 TWO PIECE		1
55.	72532696	ELBOW-M JIC/90/F JIC SW 12 12		1
56.	72534379	TEE-STL MJIC/MPT/FPT 16 16 8		1
57.	72534852	ADPTR-M STR/M JIC 24 16		1
58.	72053758	ELBOW-M STR/90/M JIC 4 4		1
59.	72532367	ADPTR-M STR/M JIC 16 12		1
60.	72532367	ADPTR-M STR/M JIC 16 12		1
61.	72533371	UNION-BULKHEAD JIC 12 (1 1/16-12)		1
62.	72533371	UNION-BULKHEAD JIC 12 (1 1/16-12)		1
63.	72532986	ELBOW-M JIC/90/M JIC 8 8 BLKHD		1
64.	72532986	ELBOW-M JIC/90/M JIC 8 8 BLKHD		1
65.	72533373	UNION-BULKHEAD JIC 8 (3/4-16)		1
66.	72533373	UNION-BULKHEAD JIC 8 (3/4-16)		1
67.	72532986	ELBOW-M JIC/90/M JIC 8 8 BLKHD		1
68.	72532986	ELBOW-M JIC/90/M JIC 8 8 BLKHD		1
69.	72533373	UNION-BULKHEAD JIC 8 (3/4-16)		1
70.	72533373	UNION-BULKHEAD JIC 8 (3/4-16)		1
71.	72532986	ELBOW-M JIC/90/M JIC 8 8 BLKHD		1
72.	72532986	ELBOW-M JIC/90/M JIC 8 8 BLKHD		1
REV. INITIAL RELEASE				

ITEM NO.	PART NO.	DESCRIPTION	QTY.
A.	51399362	HOSE-FF .50 X 139.00 (8-8) 100R17	1
B.	51399362	HOSE-FF .50 X 139.00 (8-8) 100R17	1
C.	51399374	HOSE-FJ .25 X 53.00 (4-4) 100R17	1
D.	51399930	HOSE-FF .25 X 95.00 (4-4) 100R17	1
E.	51399367	HOSE-FJ .50 X 42.00 (8-8) 100R17	1
F.	50399362	HOSE-FF .50 X 139.00 (8-8) 100R17	1
G.	51399362	HOSE-FF .50 X 139.00 (8-8) 100R17	1
H.	51399371	HOSE-FJ .50 X 37.00 (8-8) 100R17	1
J.	51399373	HOSE-FF .25 X 132.00 (4-4) 100R17	1
K.	51399372	HOSE-FF .25 X 16.00 (4-4) 100R17	1
L.	51399363	HOSE-AAF .50 X 147.00 (12-8) 100R17	1
M.	51399363	HOSE-AAF .50 X 147.00 (12-8) 100R17	1
N.	51399929	HOSE-FJ .50 X 47.00 (8-8) 100R17	1
O.	70145474	TUBE ASM-INR BM-OUTR CYL 16042	1
P.	70145473	TUBE ASM-INR BM-OUTR CYL 16042	1
Q.	51396321	HOSE-AAF .50 X 23.00 (12-8) 100R17	1
R.	51396321	HOSE-AAF .50 X 23.00 (12-8) 100R17	1
S.	51399363	HOSE-AAF .50 X 147.00 (12-8) 100R17	1
T.	51399363	HOSE-AAF .50 X 147.00 (12-8) 100R17	1
U.	51399928	HOSE-JJ .50 X 46.50 (8-8) 180DEG100R17	1
V.	51393385	HOSE-FJ .75 X 17.00 (12-12) 100R17	1
W.	70145471	TUBE ASM-INR BM-EXT CYL 16042	1
X.	70145472	TUBE ASM-INR BM-EXT CYL 16042	1
Y.	51396366	HOSE-FF .50 X 31.00 (12-8) 100R17	1
Z.	51396367	HOSE-FF .50 X 27.00 (12-8) 100R17	1
AA.	51396456	HOSE-FZ .38 X 25.00 (8-8) 100R17	1
AB.	51396456	HOSE-FZ .38 X 25.00 (8-8) 100R17	1
AC.	51399364	HOSE-AAF .38 X 142.00 (8-8) 100R17	1
AD.	51399364	HOSE-AAF .38 X 142.00 (8-8) 100R17	1
AE.	70145469	TUBE ASM-INR BM-TROMBONE 16042	1
AF.	70145468	TUBE ASM-INR BM-TROMBONE 16042	1
AG.	51394398	HOSE-FF .38 X 27.00 (8-8) 100R16	1
AH.	51964398	HOSE-FF .38 X 27.00 (8-8) 100R16	1
AI.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
AJ.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
AK.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
AL.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
AM.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
AN.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
AO.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
AP.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
AQ.	70145520	TUBE ASM-TROMBONE STR 16042	1
AS.	51399364	TUBE ASM-TROMBONE STR 16042	1
AT.	51399364	HOSE-AAF .38 X 142.00 (8-8) 100R17	1
AU.	70145470	TUBE ASM-INR BM-TROMBONE 16042	1
AV.	70145467	TUBE ASM-INR BM-TROMBONE 16042	1

ITEM NO.	PART NO.	DESCRIPTION	QTY.
AW.	51394398	HOSE-FF .38 X 27.00 (8-8) 100R16	1
AX.	51394398	HOSE-FF .38 X 27.00 (8-8) 100R16	1
AY.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
AZ.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
BA.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
BB.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
BC.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
BD.	70145250	TUBE ASM-HYD .50 X 49.50 8-8 U	1
BE.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
BF.	51395668	HOSE-FF .38 X 72.00 (8-8) 100R17	1
BG.	70145520	TUBE ASM-TROMBONE STR 16042	1
BH.	70145520	TUBE ASM-TROMBONE STR 16042	1
BI.	51399360	HOSE-AAF .50 X 36.00 (12-8) 100R17	1
BJ.	51399361	HOSE-AAF .50 X 34.00 (12-8) 100R17	1
BK.	70145823	TUBE ASM-OUTRG CS A-PORT	1
BL.	701458222	TUBE ASM-OUTRG CS B-PORT	1
BM.	51396368	HOSE-AAZ .50 X 30.00 (12-8) 100R17	1
BN.	51396368	HOSE-AAZ .50 X 30.00 (12-8) 100R17	1
BO.	51399360	HOSE-AAF .50 X 36.00 (12-8) 100R17	1
BP.	51399361	HOSE-AAF .50 X 34.00 (12-8) 100R17	1
BQ.	71415078	TUBE ASM, OR SS A-PORT (GND CTRL)	1
BR.	71415077	TUBE ASM, OR SS B-PORT (GND CTRL)	1
BS.	51396368	HOSE-AAZ .50 X 30.00 (12-8) 100R17	1
BT.	51396368	HOSE-AAZ .50 X 30.00 (12-8) 100R17	1
BU.	51399927	HOSE-FJ 1.00 X 49.00 (16-16) 100R17	1
BV.	51399926	HOSE-ZZ .75 X 40.00 (12-12) CCW90DEG R17	1
BW.	51796459	HOSE-FF 1.00 X 46.50 (16-16) 100R17	1
REV. INITIAL RELEASE			

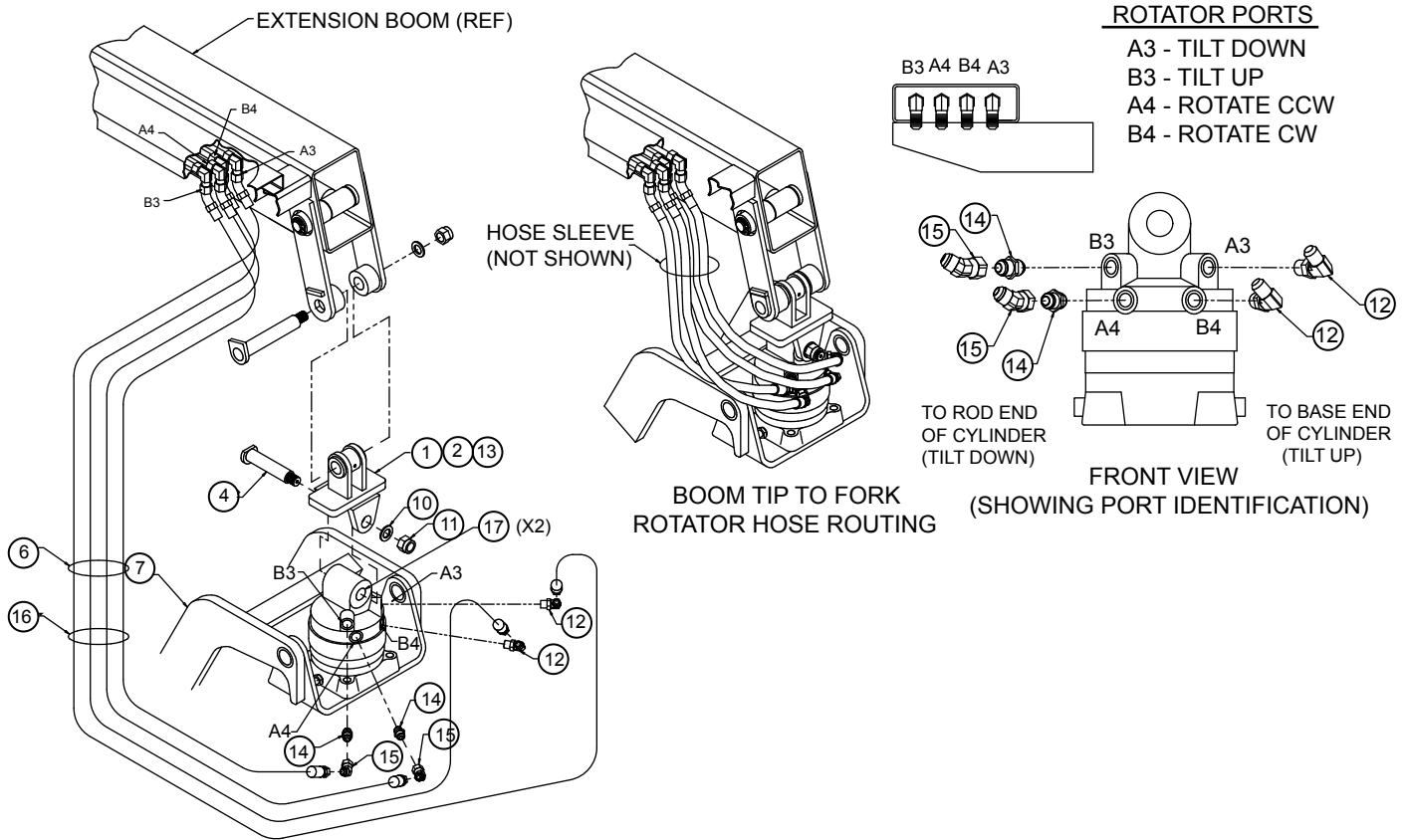
16000 Ground Control - Swivel Link Replacement Kit (51709479)



51709479 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	51709475	SWIVEL LINK (INCLUDE ITEM 2,6)	1
2.	70055207	BUSHING (PART OF ITEM 1)	2 REF
3.	70143730	PIN - ROTATOR KIN28	1
4.	72063182	WASHER - FLAT	1
5.	72062234	NUT - LOCK KIN28	1
6.	72053508	ZERK - NPT .12 (PART OF ITEM 1)	1 REF
REV. A			

16000 Ground Control - Kinshofer Fork Mounting Kit (51713903)

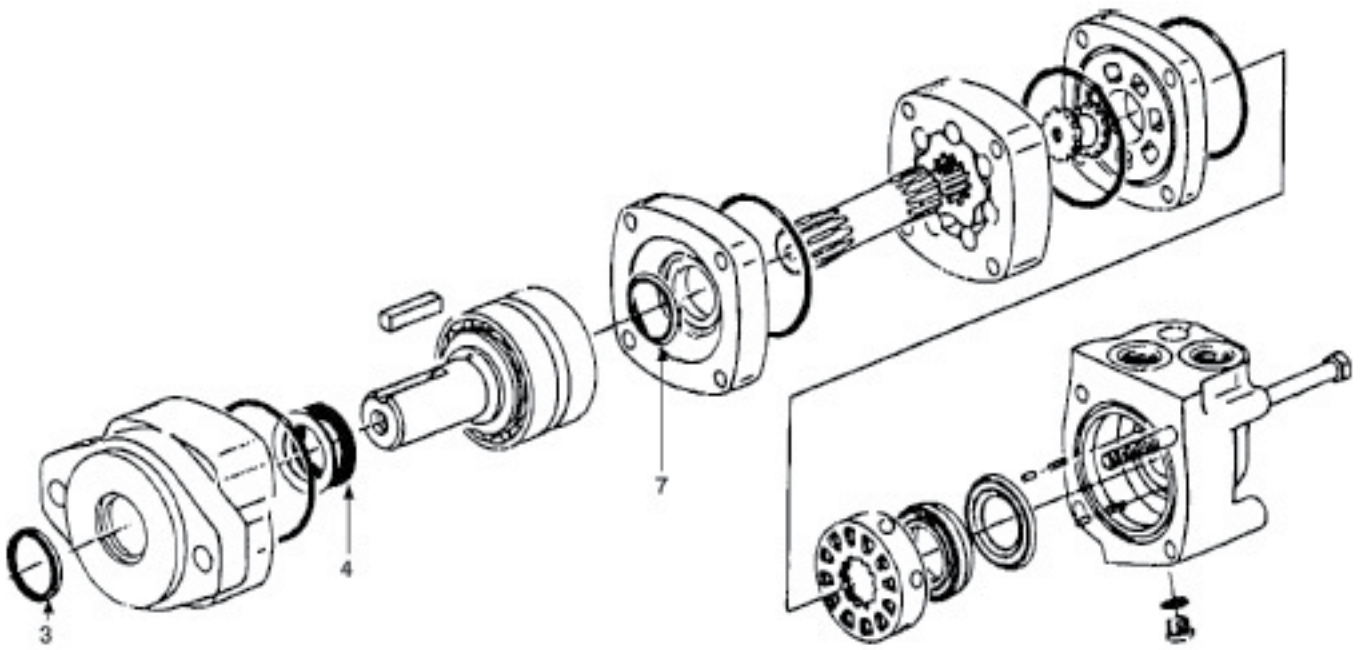


NOTE: ITEMS 1,2,3,8,9 AND 13 ARE PART OF EXTENSION BOOM ASM.

51713903 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	51709475	SWIVEL LINK - 13034 (INCL 2,13)	1 REF
2.	70055207	BEARING - GAR DX 1.25 X 1.41 X 1.00	2 REF
4.	70143730	PIN - ROTATOR KIN25 51017 (PART OF 7)	1 REF
6.	51394466	HOSE ASM - TYPE F1 .38 X 29.00 (8-8)	4
7.	_____	FORK (INCL 4,10-12 & 17)	1 REF
10.	72063182	WASHER - FLAT KIN28 10459 (PART OF 7)	1 REF
11.	72062234	NUT - LOCK KIN 28 121.0005.18 (PART OF 7)	1 REF
12.	72533476	ELBOW - MJIC / 90 / MM #8 X MX8X 1.5 (PART OF 7)	2 REF
13.	72053508	ZERK - NPT .12 (PART OF 1)	1 REF
14.	72533025	ADPTR - M JIC / MM .75 X M18X 1.5	2
15.	72532670	ELBOW - M JIC / 45 / F JIC #8 #8	2
16.	60350067	SLEEVE - HOSE PRTK AS-B-37 2.38"DX 20	1
17.	70143529	BUSHING - KIN28 1.36.000814 (PART OF 7)	2 REF
REV. F			

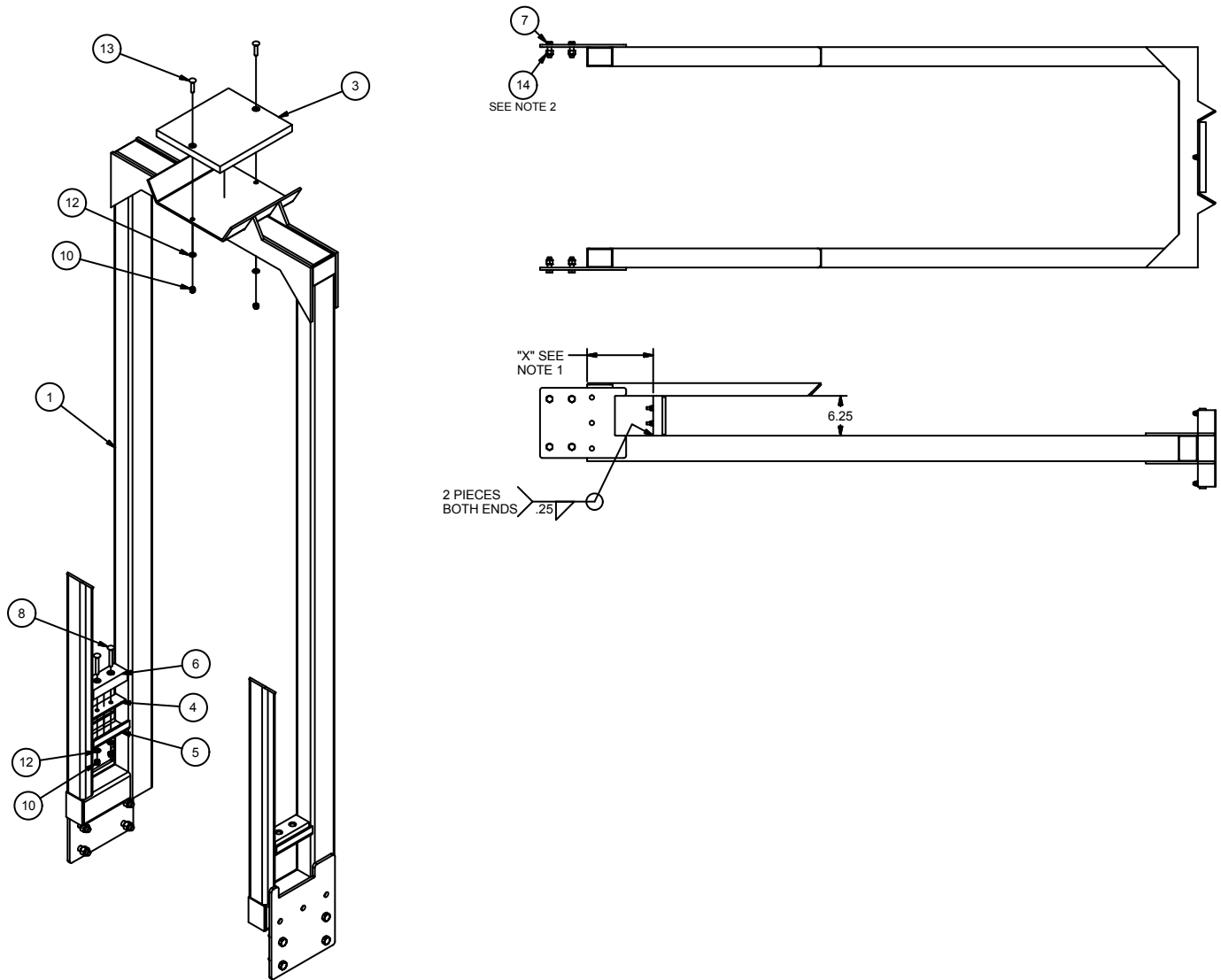
16000 Ground Control - Hydraulic Motor Seal Kit (94394208)



94394208 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	94394208	SEAL KIT (INCL 3.4.7)	1
3.		SEAL - EXCLUSION	1 REF
4.		SEAL - SHAFT	1 REF
7.		SEAL - SHAFT FACE	1 REF
REV. INITIAL RELEASE			

16000 Ground Control - Boom Support Assembly (51726278)



NOTES:

1. WELD FORK SUPPORT CHANNEL, (ITEM #3) IN PLACE AFTER FORK IS MOUNTED ONTO CRANE AND POSITIONED INTO BOOM SUPPORT. THE FOLLOWING DIMENSIONS REPRESENT APPROXIMATE PLACEMENT OF FORK SUPPORT:

“X” = 10.62” FOR 54” FORK APPLICATION ON 16042 CRANE.

“X” = 16.62” FOR 48” FORK APPLICATION ON 16042 CRANE.

2. TORQUE 5 / 8” BOLTS TO 160 FT-LB.

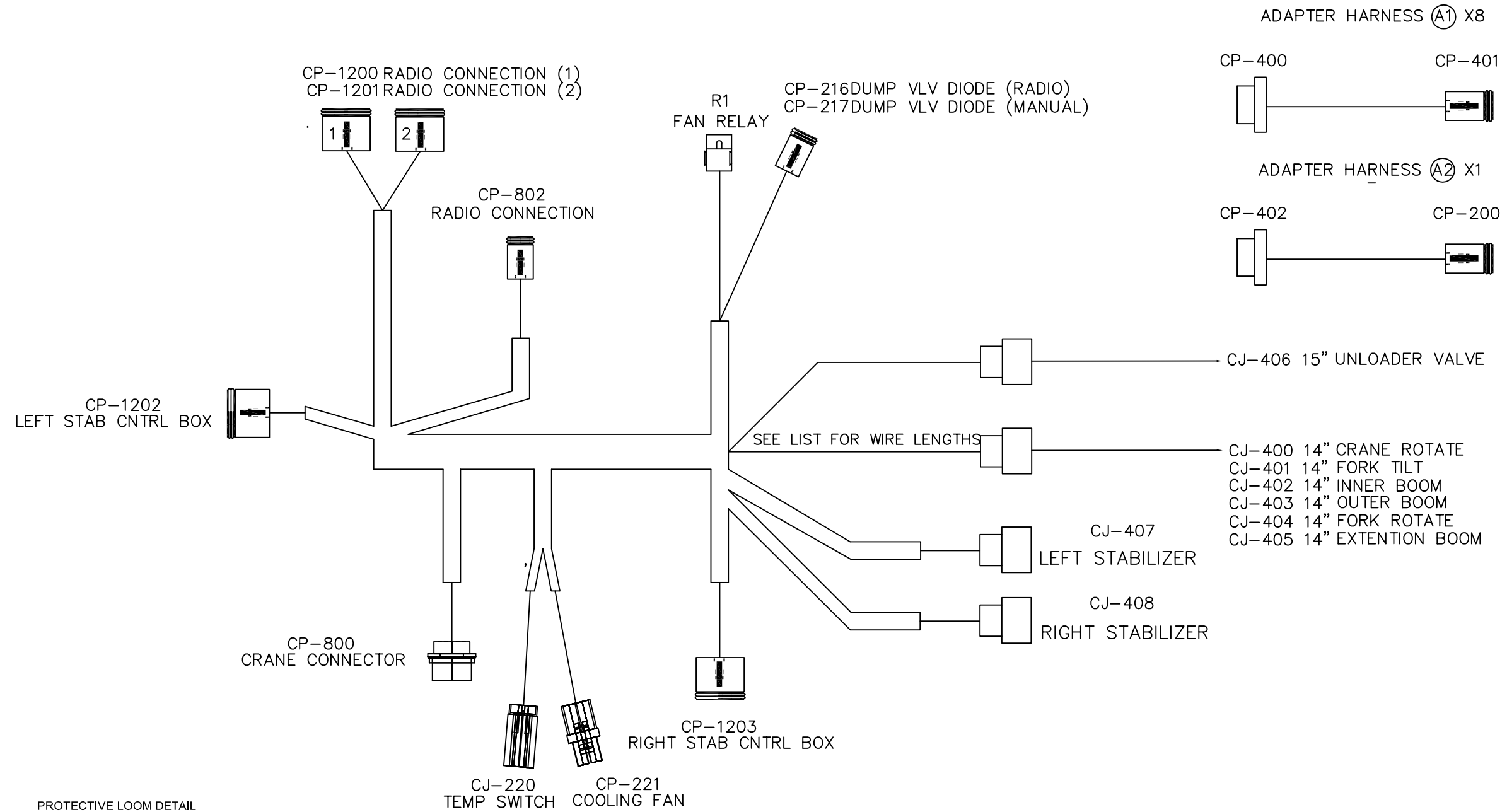
51726278 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	51726320	KIT-BOOM SUPPORT HARDWARE 16000SIII		1
2.	52726279	WLDMT-BOOM SUPPORT 16000 SII		1
3.	60030481	PAD_BOOM SUPPORT WALLBOARD		1
4.	60118670	PLATE-SHIM FORK SUPPORT	1	2
5.	60118671	CHANNEL-FORM FORK SUPPORT	1	2
6.	60118677	RUBBER PAD-1.44 X 2.25 X 5.88	1	2
7.	72060151	CAP SCR .62-11X 2.00 HH GR8 Z	1	8
8.	72060959	BOLT-CRG .38-16X 2.50 SQNK GR2	1	4
9.	72062103	NUT .38-16 HEX NYLOCK		2
10.	72062103	NUT .38-16 HEX NYLOCK	1	4
11.	72063003	WASHER .38 FLAT		2
12.	72063003	WASHER .38 FLAT	1	4
13.	72601310	BOLT-CRG .38-16X 1.50 SQNK GR2		2
14.	72601859	NUT .62-11 HEX GR8 YZ NYLOCK	1	8
REV. A				

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Electrical and Lighting **Section - 5**

16000 Ground Control - Wiring Harness (77441623)



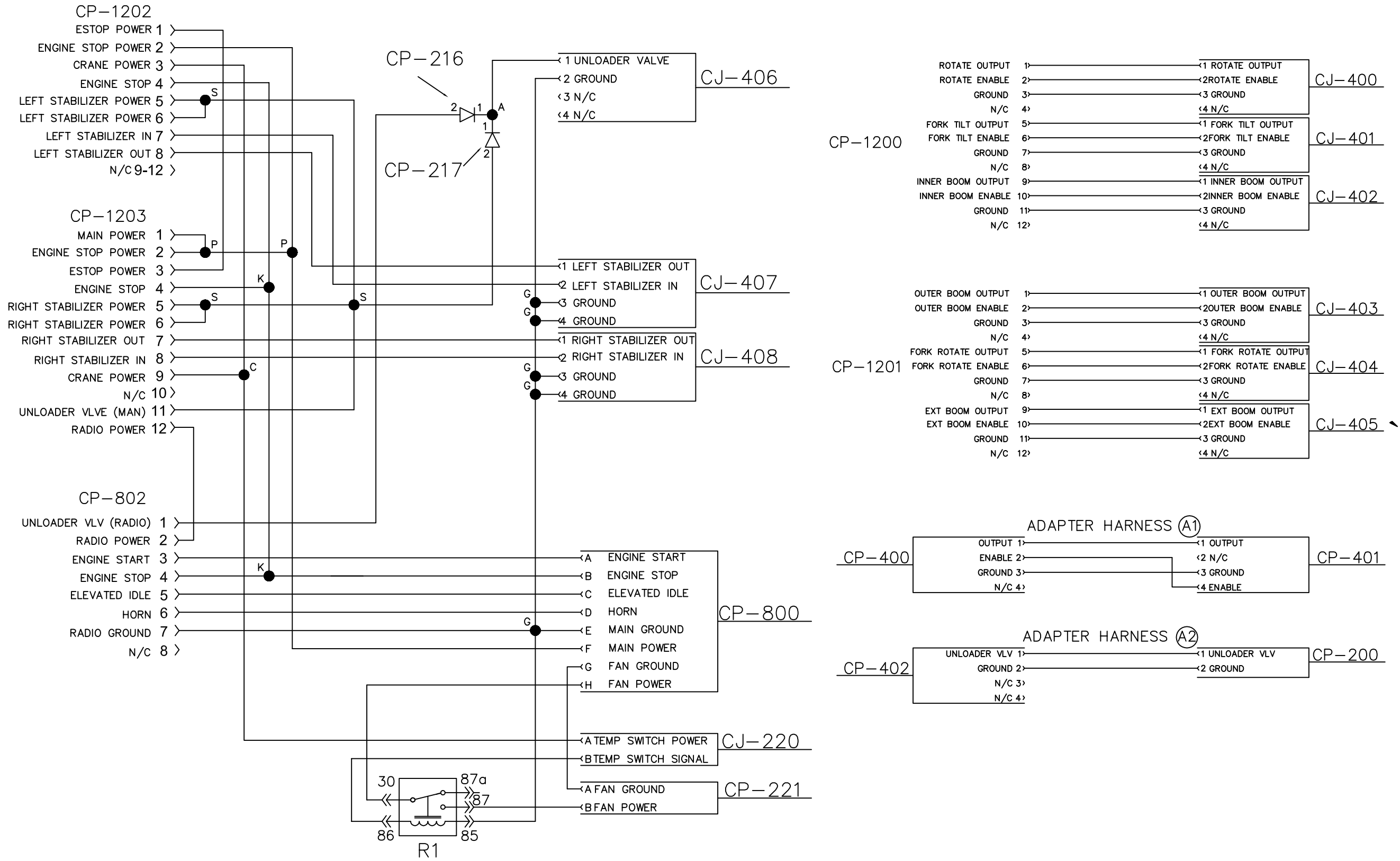
PROTECTIVE LOOM DETAIL

HIGH TEMPERATURE RESISTANT VINYL COATED YARN
 PHYSICAL PROPERTIES:

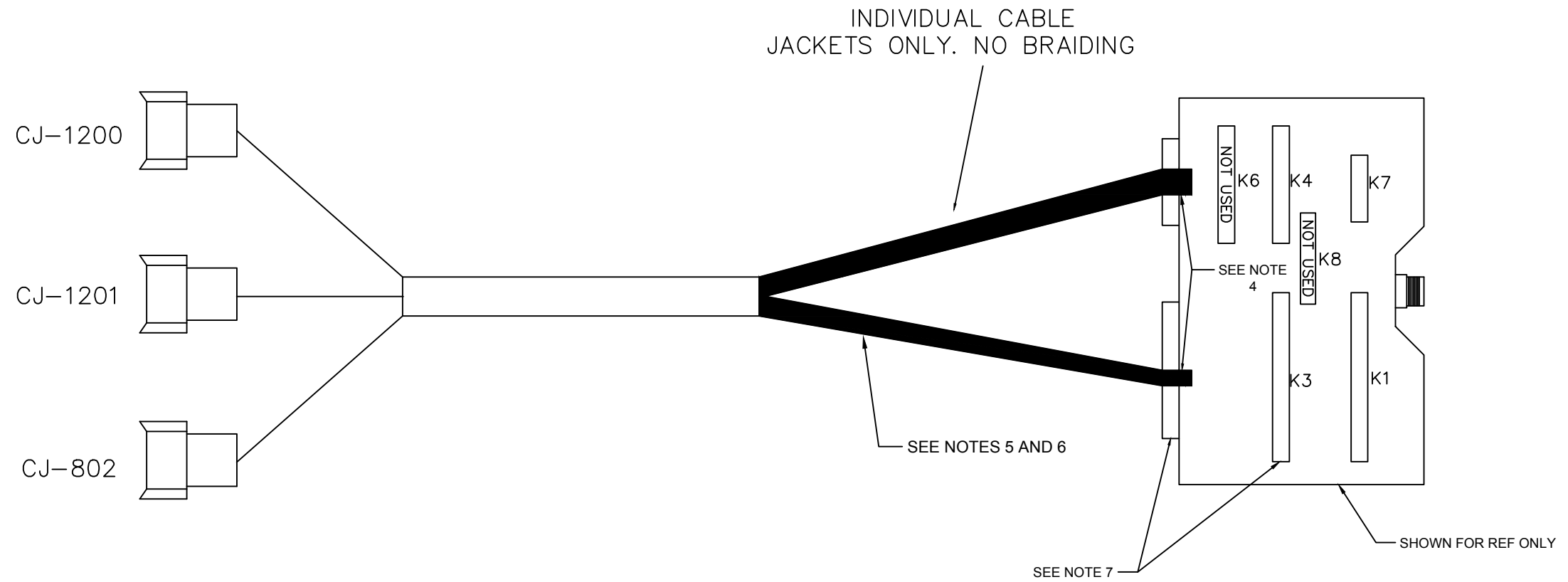
- MOISTURE AND WEATHER RESISTANT
- FIRE AND OIL RESISTANT
- HIGH ABRASION RESISTANT (SEE SAE 20:20.106 J562)
- TEMPERATURE RESISTANT FROM +280°F TO -65°F

YARN COLOR TO BE BLACK WITH YELLOW STRIPING
 YARN SHOULD BE BRAIDED WITH WEAVE TIGHTNESS OF 12 PICKS PER INCH

77441623-1 - WIRING HARNESS



16000 Ground Control - Radio Remote Harness (77441624)



PROTECTIVE LOOM DETAIL

HIGH TEMPERATURE RESISTANT VINYL COATED YARN

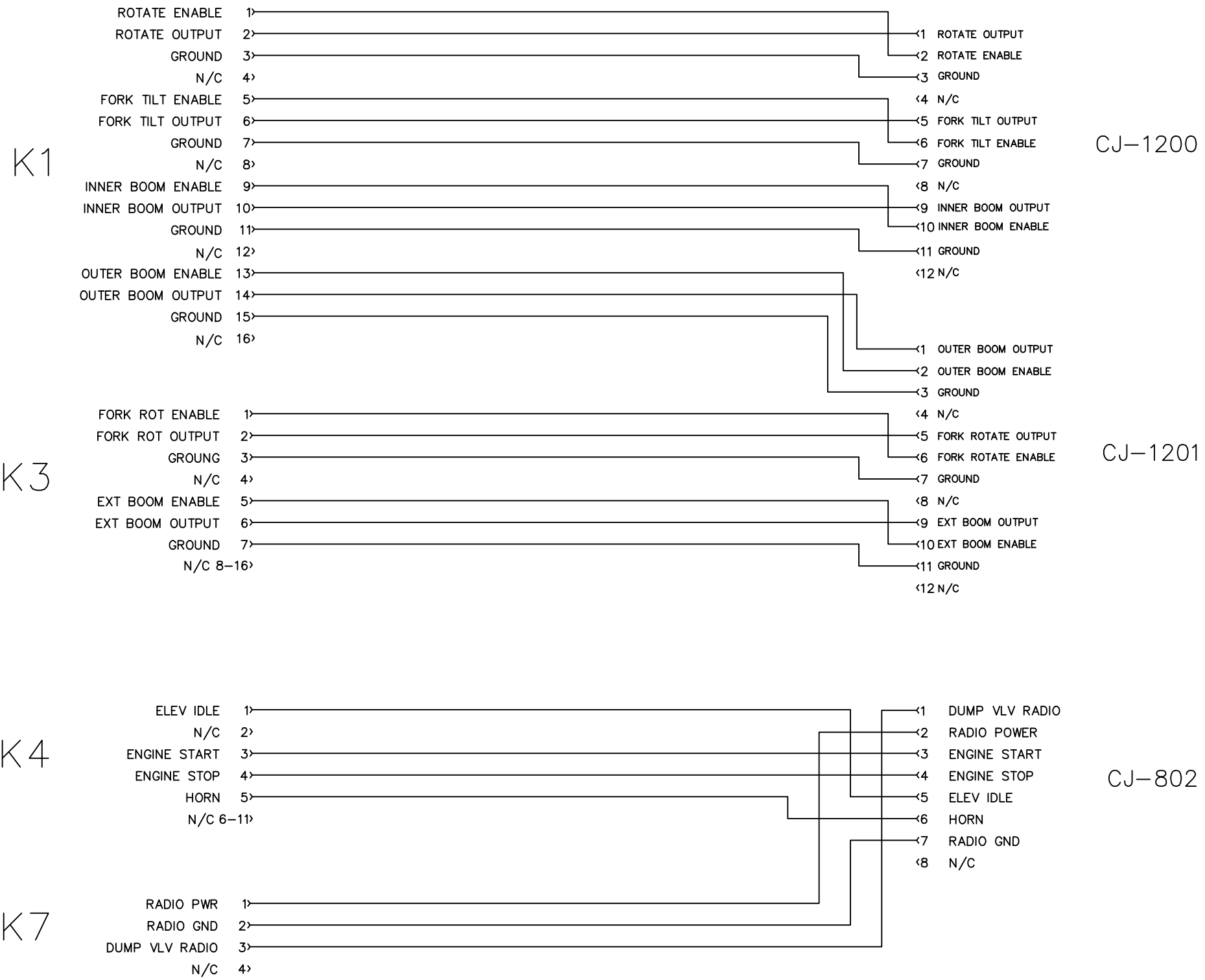
PHYSICAL PROPERTIES:

- MOISTURE AND WEATHER RESISTANT
- FIRE AND OIL RESISTANT
- HIGH ABRASION RESISTANT (SEE SAE 20:20.106 J562)
- TEMPERATURE RESISTANT FROM +280°F TO -65°F

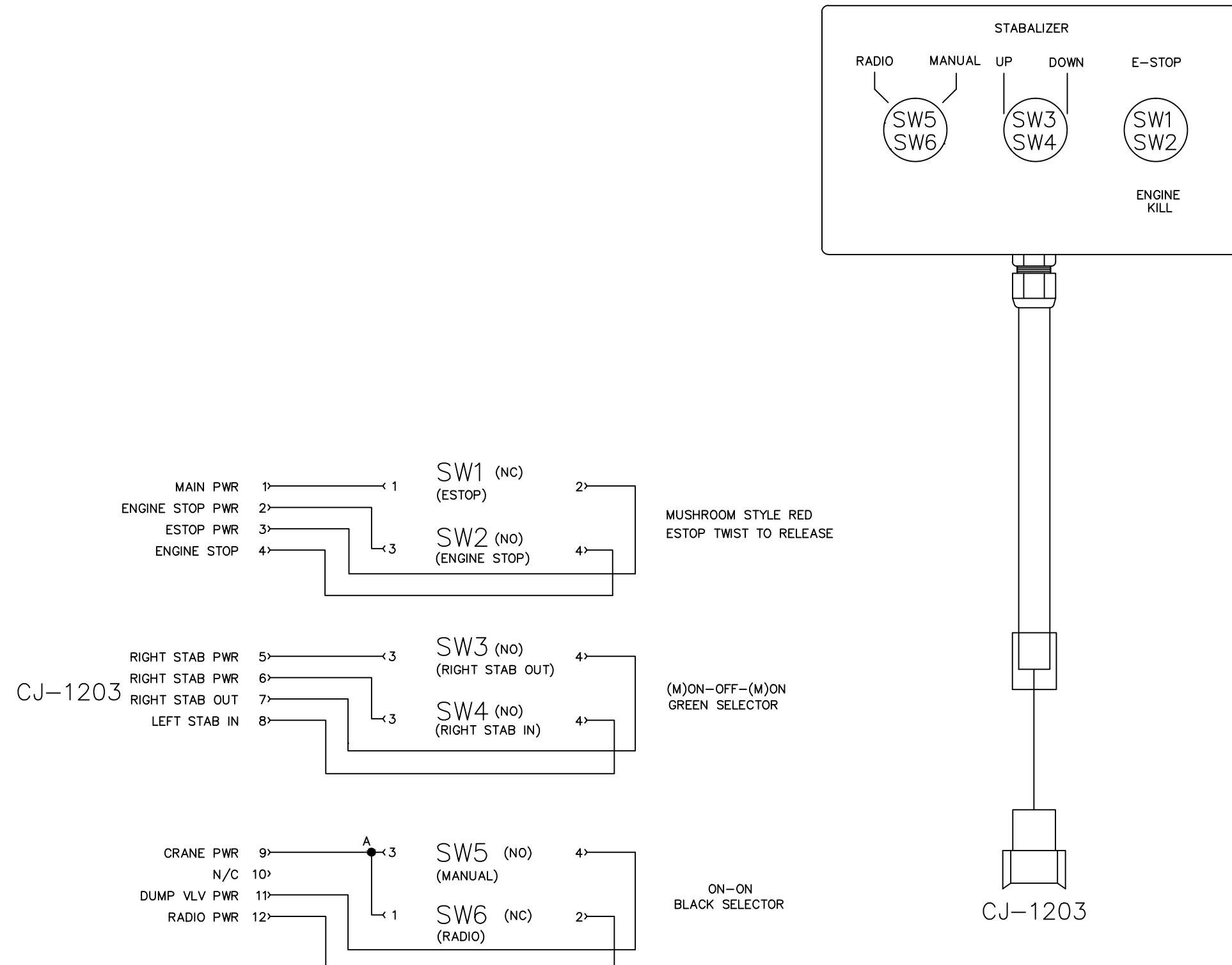
YARN COLOR TO BE BLACK WITH YELLOW STRIPING

YARN SHOULD BE BRAIDED WITH WEAVE TIGHTNESS OF 12 PICKS PER INCH

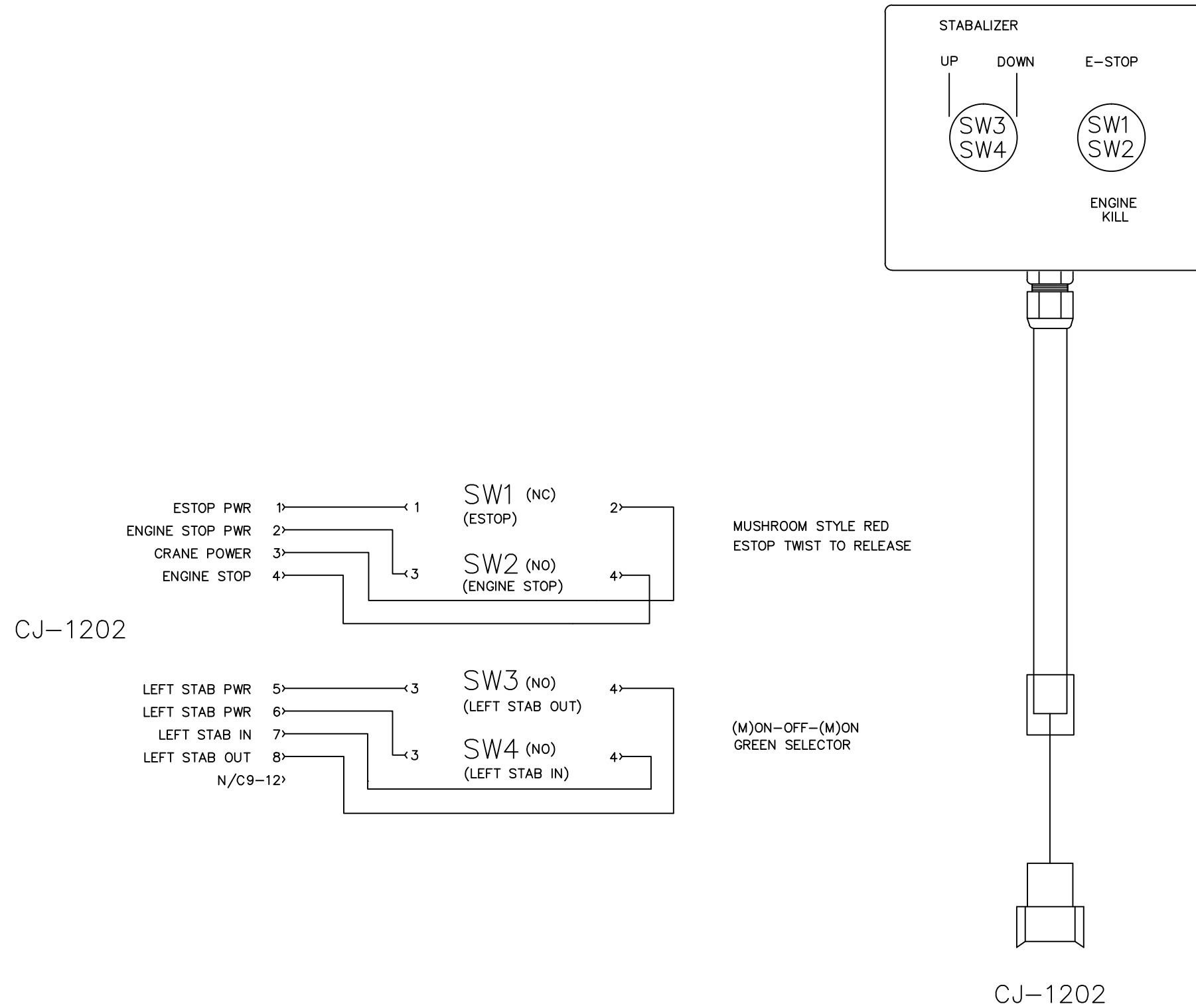
77441624-1 -



16000 Ground Control - Switch Box - Right Side (77040667)



16000 Ground Control - Switch Box - Left Side (77040668)



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General Information

Section - 6

16000 Ground Control - Controls

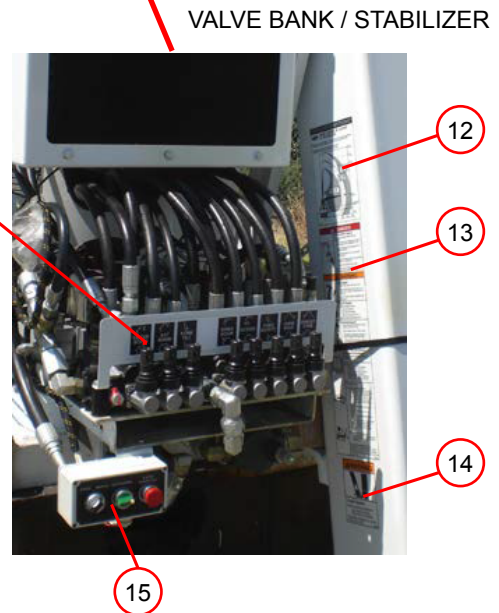
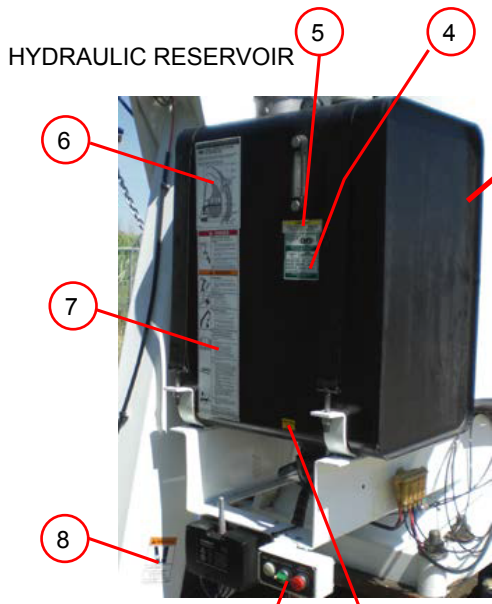


CONTROLS PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	70734704	TRANSMITTER	1
2.	70734708	RECEIVER W/ANTENNA	1
3.	70734711	BATTERY CHARGER	1
4.	70734710	BATTERY	2
5.	70734709	TETHER CABLE, 10 M	1
6.	70734707	E-STOP FOR TRANSMITTER (PART OF 1)	REF
7.	70734706	PADDLES FOR TRANSMITTER (PART OF 1)	REF
8.	70734705	RECEIVER KIT (INCL 2-6)	1REF
9	99905492	MANUAL, RADIO	1REF

16000 Ground Control - Decal Placement

16000 SIII
(CRANE SHOWN MOUNTED ON STAND)



DECAL PLACEMENT PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	70029252	DECAL-DIAMOND IMT 9.25X18.50		2
2.	70396324	DECAL-16000 SERIES III IDENT	95717769	2
3.	70394625	DECAL-FORK HOSE ROUTING	95717769	1
4.	70394189	DECAL-HYDRAULIC OIL RESERVOIR	95717769	1
5.	71039134	DECAL-CAUTION OIL LEVEL	95717769	1
6.	70396325	DECAL-CP 16000 SIII 42ft		REF
7.	70396919	DECAL-DANGER ARTICULATING SM	95717769	2
8.	70392864	DECAL-WARNING STAB STAND CLEAR	95717769	2
9.	70397047	DECAL-SWITCH PANEL 16000SIII		1
10.	70392108	DECAL-SUCTION LINE	95717769	1
11.	70399381	DECAL-GROUND CONTROL 16000SIII		1
12.	70396325	DECAL-CP 16000 SIII 42ft		REF
13.	70396919	DECAL-DANGER ARTICULATING SM	95717769	2
14.	70392864	DECAL-WARNING STAB STAND CLEAR	95717769	2
15.	70397047	DECAL-SWITCH PANEL 16000SIII		1
16.	—	SERIAL NUMBER TAG		
17.	70395323	DECAL-ASME/ANSI B30.22 ARTICUL	95717769	1
18.	70392213	DECAL-CAUTION DONT WASH/WAX	95717769	1

16000 Ground Control - Thread Torque Charts

FINE THREAD BOLTS (ENGLISH)					
SIZE	BOLT DIA.	GRADE 5		GRADE 8	
		PLAIN	PLATED	PLAIN	PLATED
(DIA-TPI)	(INCHES)	(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		GRADE 8	
		PLAIN	PLATED	PLAIN	PLATED
(DIA-TPI)	(INCHES)	(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 MID-RANGE.
2. CONSULT BOLT MANUFACTURER'S 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 DISULFIDE, COLLOIDAL COPPER OR WHITE LEAD ARE APPLIED, MULTIPLY THE TORQUE VALUES IN THE CHARTS BY THE FACTOR .90. THE USE OF LOCTITE DOES NOT AFFECT THE TORQUE VALUES LISTED ABOVE.

⚠ WARNING

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

16000 Ground Control - 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)	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)	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

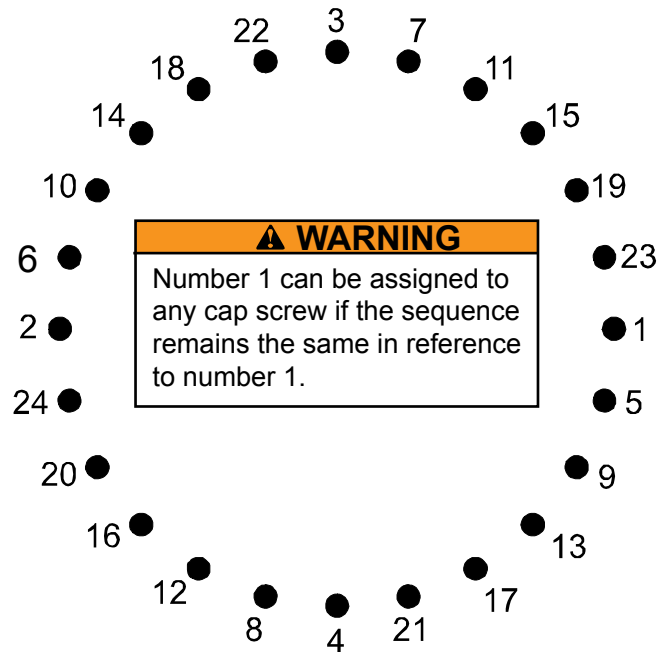
NOTES:

1. TIGHTENING TORQUES PROVIDED ARE MID-RANGE.
2. CONSULT BOLT MANUFACTURER'S 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 DISULFIDE, COLLOIDAL COPPER OR WHITE LEAD ARE APPLIED, MULTIPLY THE TORQUE VALUES IN THE CHARTS BY THE FACTOR .90. THE USE OF LOCTITE DOES NOT AFFECT THE TORQUE VALUES LISTED ABOVE.

⚠ WARNING

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

16000 Ground Control - Turntable Bearing Thread Tightening Sequence



NOTES:

REFER TO THE TURNABLE BEARING THREAD TIGHTENING DIAGRAM FOR PROPER TIGHTENING TORQUING SEQUENCE OF THE TURNABLE 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 CRISSCROSS PATTERN AS SHOWN IN THE DIAGRAM.
3. TORQUE ALL CAP SCREWS TO APPROXIMATELY 40% OF THE SPECIFIED TORQUE VALUE, BY FOLLOWING THE SEQUENCE.
 - (EXAMPLE: .40 X 265 FT-LB = 106 FT-LB)
 - (EXAMPLE-METRIC: .40 X 36 KG-M = 14.4 KG-M)
4. REPEAT STEP 3, BUT TORQUING ALL CAP SCREWS TO 75% OF THE SPECIFIED TORQUE VALUE. CONTINUE TO FOLLOW THE TIGHTENING SEQUENCE.
 - (EXAMPLE: .75 X 265 FT-LB = 199 FT-LB)
 - (EXAMPLE-METRIC: .75 X 36 KG-M = 27 KG-M)
5. USING THE PROPER SEQUENCE, TORQUE ALL CAP SCREWS TO THE LISTED TORQUE VALUE AS DETERMINED FROM THE TORQUE DATA CHART.



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