

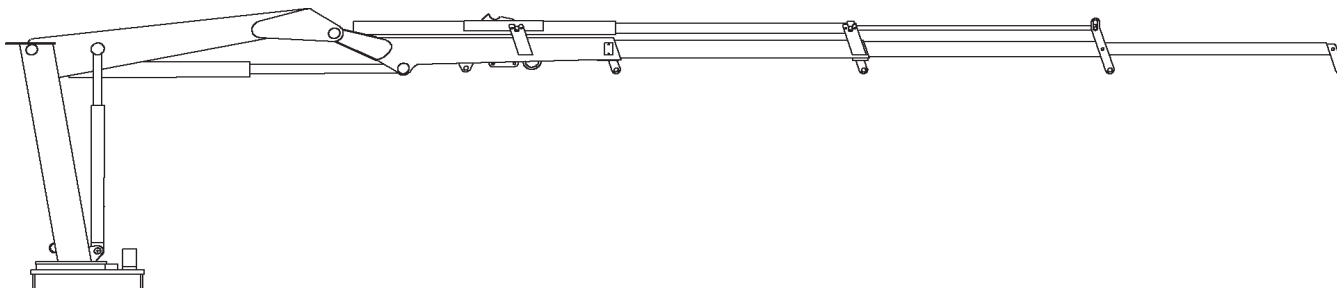


Model 5200R Crane

(Previously Model 5226S)

Volume 2 - PARTS AND SPECIFICATIONS

- Section 1 CRANE SPECIFICATIONS**
- Section 2 CRANE REFERENCE**
- Section 3 REPLACEMENT PARTS**
- Section 4 GENERAL REFERENCE**



IOWA MOLD TOOLING CO., INC.

BOX 189, GARNER, IA 50438-0189
TEL: 641-923-3711

MANUAL PART NUMBER 99900761

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

REVISIONS LIST

DATE	LOCATION	DESCRIPTION OF CHANGE
20000811	3-49	ECN 8597: ADD 41716220 BASE & ORASM-LH SIDE MNT W/PO
20001102	2-5	REV SPL
	3-9	ECN8615-41710920-CHG INNER CYL PN (CBAL VLV)
	3-14	3B270000-REPLACE INNER CYLASM
	3-23	91712955-CHG BOM & DWG (CBAL VLV)
	3-39	91713877-CHG CBAL VLV
	3-41	91713542-CHG CBAL VLV
20010109	3-39	91713877-ADD RC TO VB, ADD 44&45 STUD & NUT
	3-41	91713542-ADD 48&49 STUD & NUT
20010115	3-50&51	ADD WIRE HARNESS-VB 73733411-1&-2
20010213	3-23	ECN9000-91712955-CHG VB AND HOSES
	3-39	ECN9000-91713877-CHG HOSES
20010223	3-39	ECN8668-91713877-ROTATE VB 180°
	3-52	ECN8668-ADD HYD KIT-SIDE MNT-PROPL RMT-LH 91716561
	3-53	ECN8668-ADD VB ASM 51716557 & VB 51716556
20010417	3-30	ITEM #5 77041345 WAS 77041014
20010427	3-28	REVISED DRAWING - DELETED #'S 25,26,27
		REVISED #23 - 70394228 WAS 71392255, #24 - 70394229 WAS 71392256
		REVISED NOTE #1, ADDED NOTE #4
	3-53	REVISED DRAWING 5171557 - DELETED #'S 10 & 11
		REVISED DRAWING 5171556 - ADDED #'S 19 & 20
20010524	3-35	REVISED DRAWING 90713580 - ADD LH VB ORIENTATION
20010720	3-27	ECN #8723 - #5 73540044 WAS 73054936
20011112	3-53	ECN #9000 - CHANGED ITEMS 5,6,8,9 - REVISED DRAWING
20011112	4-1,14	ECN #8780 - RMV WARRANTY POLICY FROM INDIV MANUALS
20011130	3-4-6,45,49	ADDED MOBILTAC NOTE
	3-41	EDITED BOM AND DRAWING FOR HYD KIT
	3-30	ECN 8834 - NEW LIGHT KIT
20020520	3-37	ECN 8917, 8926 - CONTROL KIT 90717616 WAS 90713583
20020808	3-6, 30	ECN 8972 - CHANGES TO 31717218 AND 41712925
20020826	3-24	ECN 8987 - UPDATED 91715924 HYDRAULIC KIT TO INCLUDE NEW ORIFICE TEE
20030327	3-9,10	ECN 9130 - CHANGED INNER BOOM ASM FROM 41710920 TO 41718078 AND INNER BOOM CYL FROM 3B270000 TO 51718058
	3-24, 29	ECN 9141 - ADDED 91717600 HYDRAULIC KIT, 73540118 CBAL VALVE
20030527	3-24	ECN 9185 - ADDED 72532728 AND 73054426 ON 91717600
20031006	2-7	REMOVED INCORRECT TORQUE SETTING, PROCEDURE FROM CRANE MOUTING-CENTER MT SECT.
	3-28	ADDED PART NUMBER OF PLASTIC NUT W/O-RING FOR COIL
20040520	3-24	ECN 9414 - CHANGED HOSE ROUTING ON 91717600
	3-9,14	ECN 9501 - NEW ROD ON CYL. 51718058
	3-15	ECN 9468 - NEW ROD ON CYL. 3C180920
20051104	3-5,6,9,10,14,16,20,26,40,44,46,50,54,57	ECN 9832 - REPL. CYL 3B221850 W/ 71411814; 3C180920 W/71411815; 51718058 W/71411816
		ECN 9843 - ADDED VALVES TO HYD KITS 91713542, 91713877, 91716561, 91712955
20060523	5,6,9,10,50,54	ECN 9832-2 - REMOVED 71411814, 71411815, 71411816 CYLINDERS FROM ASSEMBLY DRAWINGS, CHANGED BACK TO 3B221850, 3C180920 AND 51718058
20061020	1-1, 3-3	NEW OWNERSHIP STATEMENT; UPDATED SERIAL TAG LOCATION INFO.
	3-11,12	ECN 10300-1, CHANGED HOOK IN 41710943, 41710939
20070607	3-37.38	ECN 10452 - UPDATED 90713580 - PAGE 1 SHOWS LEFT HAND VALVEBANK MOUNTING; PAGE 2 SHOWS RIGHT HAND VALVEBANK MOUNTING.
20080421	3-42,55	ECN 10712 - UPDATED HYD KITS
		ECN 10652 - 91712955 HYD KIT REVISION
20081104	3-28	ECN 10800 - VALVE BANK CHANGES
	3-4,5,6,48,52	ECN 10767 - CHANGE FROM 71056361 TURNTABLE GEAR TO 71056627 - HARDENED TEETH
20100322	3-42	ECN 10779 - 91713877 HOSE CHANGE TO 100R17
20100621	3-24,28	ECN 11134 - CHANGED VB FROM 73733366 TO 73734493
	3-33	ECN 11262 - UPDATE 31705637 CABLE/HOOK KIT
20110211	3-41,42	ADDED 51717643 HANDLE ASSEMBLY DRAWING
20111220	SECTION 1,2,3	ECN 11628 - UPDATED STABILIZER WORDING.
	3-20	ECN 11606 - ADDED TWO-BLOCK DAMAGE PREVENTION SYSTEM 51724349
20120419	3-15,16,18,40	ECN 11616 - UPDATED CYLINDER DRAWINGS, ADDED REMOTE CALIBRATION PROCEDURE
20120531	3-10,12,20	ECN 11736 - TAPPED BLOCK FOR CORD REEL GUIDE FOR TWO-BLOCK PREVENT. FEATURE
20140814	SECTION 3	REMOVED 31705637 PER ENGINEERING MARKUP

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

Three means are used throughout this manual to gain the attention of personnel. They are NOTE's, CAUTION's and WARNING's and 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.

Treat this equipment with respect and service it regularly. These two things can add up to a safer working environment.

**Read and familiarize yourself with the
IMT OPERATOR'S CRANE SAFETY MANUAL
before operating or performing any maintenance
on your crane.**

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NOTES

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SECTION 1. MODEL 5200R CRANE SPECIFICATIONS

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NOTES

5200R CRANE SPECIFICATIONS

(Center Mount and Side Mount Applications)

GENERAL SPECIFICATIONS

	1H	2H	2H1M
*CRANE RATING (ANSI B30.22)	51330 ft-lbs	51330 ft-lbs	51330 ft-lbs
*MAXIMUM CRANE RATING	52000 ft-lbs	52000 ft-lbs	52000 ft-lbs
HORIZONTAL REACH from centerline of rotation	20'-1"	26'-4"	32'-2"
HYDRAULIC EXTENSION	70"	70"	70" X 2
MANUAL EXTENSION	NONE	NONE	70"
VERTICAL REACH-CTR MNT from mounting surface	26'-4"	32'-2"	37'-8"
VERTICAL REACH-SIDE MNT from mounting surface	26'-8"	32'-6"	37'-11"
CRANE WEIGHT-CTR MNT	2550 lbs	2835 lbs	2915 lbs
CRANE WEIGHT-SIDE MNT	3540 lbs	3820 lbs	3900 lbs
CRANE STORAGE HEIGHT-CTR MNT from mounting surface in horizontal position	7'-0"	7'-0"	7'-0"
CRANE STORAGE HEIGHT-SIDE MNT from mounting surface in horizontal position	7'-2"	7'-2"	7'-2"
MOUNTING SPACE REQUIRED-CTR MNT	24" x 34-1/2"	24" x 34-1/2"	24" x 34-1/2"
MOUNTING SPACE REQUIRED-SIDE MNT	29"	29"	29"
STABILIZER SPAN-SIDE MNT	12'-0"	12'-0"	12'-0"
STABILIZER PAD-SIDE MNT	12" x 12"	12" x 12"	12" x 12"
ROTATIONAL TORQUE	7800 ft-lbs	7800 ft-lbs	7800 ft-lbs
OPTIMUM PUMP CAPACITY (Side mount appl.)	9 U.S. GPM	9 U.S. GPM	9 U.S. GPM
OPTIMUM PUMP CAPACITY (Center mount appl.)	8 U.S. GPM	8 U.S. GPM	8 U.S. GPM
SYSTEM OPERATING PRESSURE	2500 PSI	2500 PSI	2500 PSI
OIL RESERVOIR CAPACITY REQUIRED	17 U.S. Gallons	17 U.S. Gallons	17 U.S. Gallons
HOOK APPROACH-HORIZONTAL-CTR MNT from centerline of rotation	29"	30.5"	32"
SIDE MNT	29"	30.5"	32"
HOOK APPROACH-VERTICAL-CTR MNT from mounting surface	84"	79"	74"
SIDE MNT	87"	82"	77"

* Maximum Crane Rating (ft-lbs) is defined as that rated load (lbs) which when multiplied by its respective distance (ft) from centerline of rotation gives the greatest ft-lb value.

ANSI B30.22 Crane Rating (ft-lbs) = With all extensions retracted and inner plus outer boom in a horizontal position, rated load (lbs) X respective distance (ft) from centerline of rotation = nominal ft-lb value.

PERFORMANCE CHARACTERISTICS

		SIDE MOUNT	CENTER MOUNT
ROTATION-SIDE MOUNT:	450°	30 seconds	51 seconds
INNER BOOM ELEVATION:	-49° to +77°	24 seconds	28 seconds
OUTER BOOM ARTICULATION:	139°	21 seconds	28 seconds
TELESCOPIC EXTENSIONS:	70"/70"	26/15 seconds	31/19 seconds
SINGLE STAGE EXTENSION:	70"	15 seconds	18 seconds
VERTICAL STABILIZER STROKE:	24"	6 seconds	N/A
HORIZONTAL STABILIZER STROKE:	48"	5 seconds	N/A

POWER SOURCE

Integral-mounted hydraulic pump and PTO application. Other standard power sources may be utilized - minimum power required is 17 horsepower.

CYLINDER HOLDING VALVES

The holding sides of all standard cylinders are equipped with integral-mounted holding or counter-balance valves to prevent sudden cylinder collapse in case of hose or other hydraulic failure. The stabilizer cylinders have positive, pilot-operated holding valves that open only on command.

The inner cylinders have single pilot-operated counter balance valves while the outer and extension boom cylinders have double counter-balance valves. The counter-balance valve serves several functions. First, it is a holding valve. Secondly, it is so constructed that it will control the lowering function and allow that motion to be feathered while under load. Finally, if a hose breaks, the only oil loss will be that in the hose.

ROTATION SYSTEM

Rotation of the crane is accomplished through a turntable bearing, powered by a high torque hydraulic motor through a ring and pinion type spur gear train. Total gear reduction is 39.61 : 1 for side mount application and 50.7 : 1 for center mount application.

HYDRAULIC SYSTEM

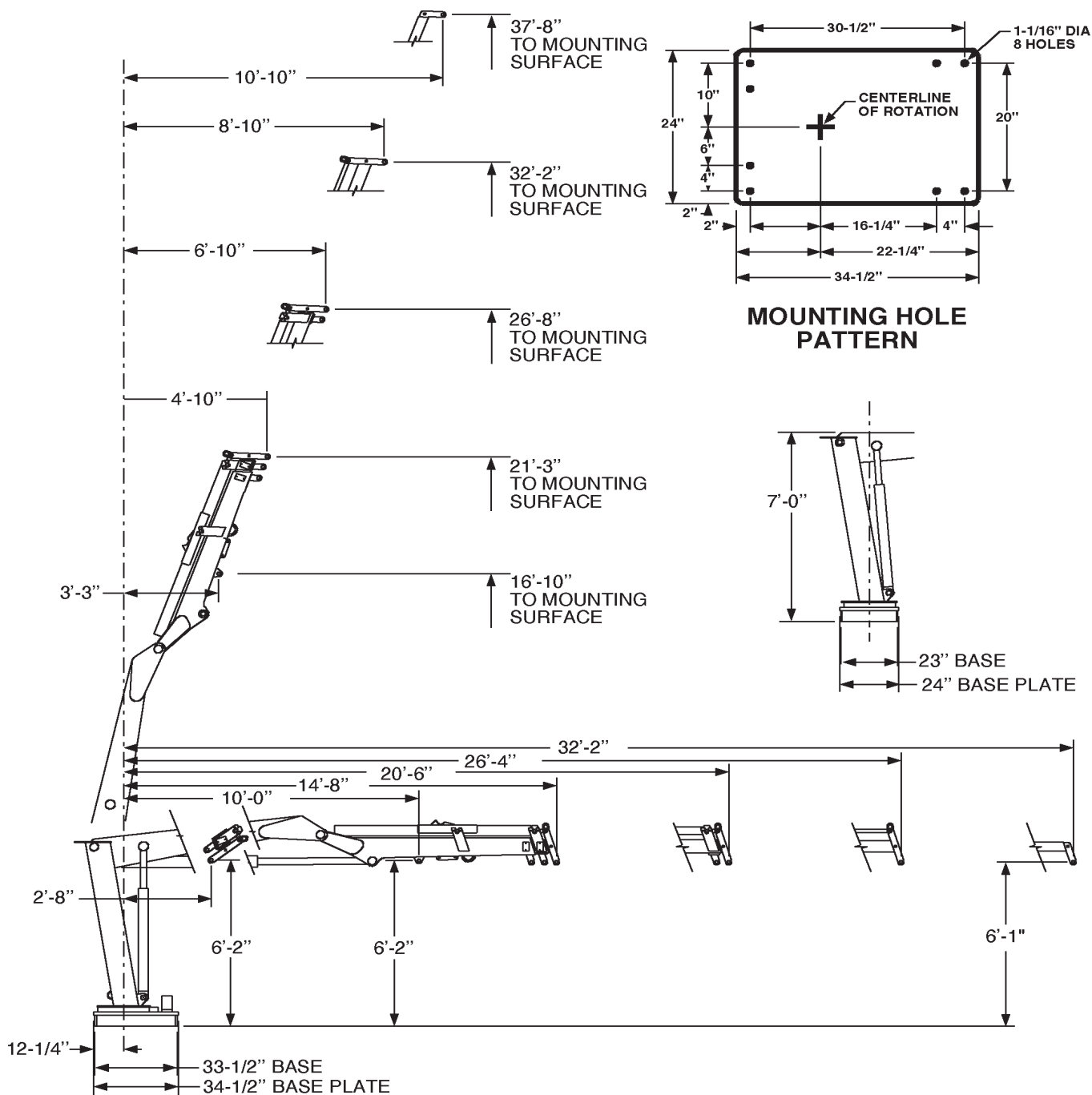
SIDE MOUNT APPLICATION: The hydraulic system is an open centered, full pressure system, requiring 9 GPM optimum oil flow, at 2500 PSI. Eight-spool, stack-type control valve, six of which are used for the standard crane and the remaining two are plugged, but easily adapted for additional optional features. Dual operational handles for six functions are located at both sides of crane for convenient operation. System includes suction-line filter, 8-section control valve, return-line filter and all hoses and fittings. A hydraulic reservoir of at least 17 U.S. gallons is required.

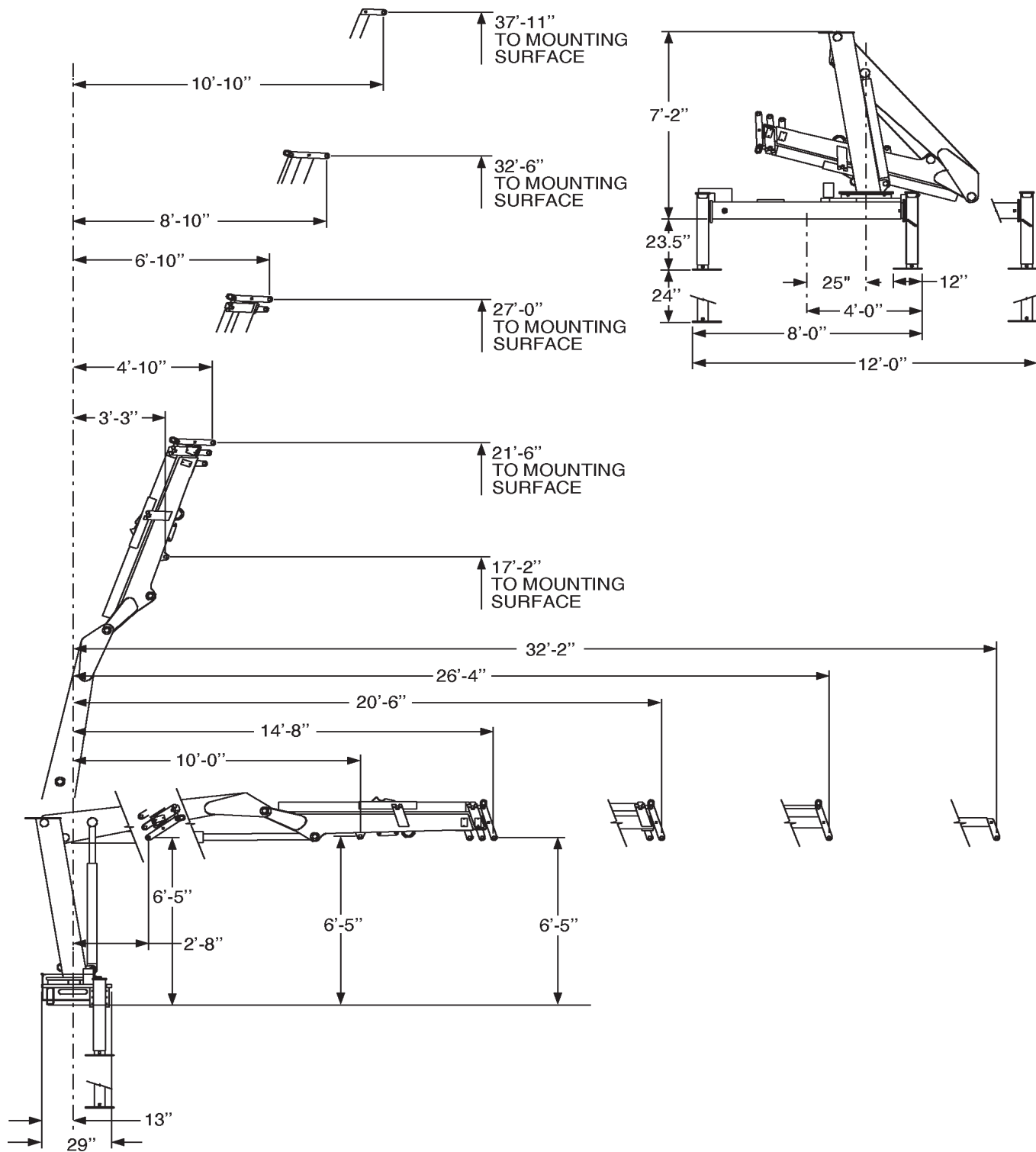
CENTER MOUNT APPLICATION: The hydraulic system is an open centered, full pressure system, requiring maximum flow of 8 GPM optimum oil flow, at 2500 PSI. It is equipped with a five-spool, electric remote, stack type control valve. The control valve is operated/activated remotely via a 45 foot control cable. System includes suction line and return line filters, and all hoses and fittings.

MINIMUM CHASSIS SPECIFICATIONS

Consult the factory for your particular application. All chassis and crane combinations must be stability tested to ensure stability per ANSI B30.22.

IMT reserves the right to change specifications and design without notice.

GEOMETRIC CONFIGURATION-CENTER MOUNT

GEOMETRIC CONFIGURATION-SIDE MOUNT

CAPACITY CHART

IOWA MOLD TOOLING CO., INC. • BOX 189 • GARNER • IA • 50438 • 641-923-3711

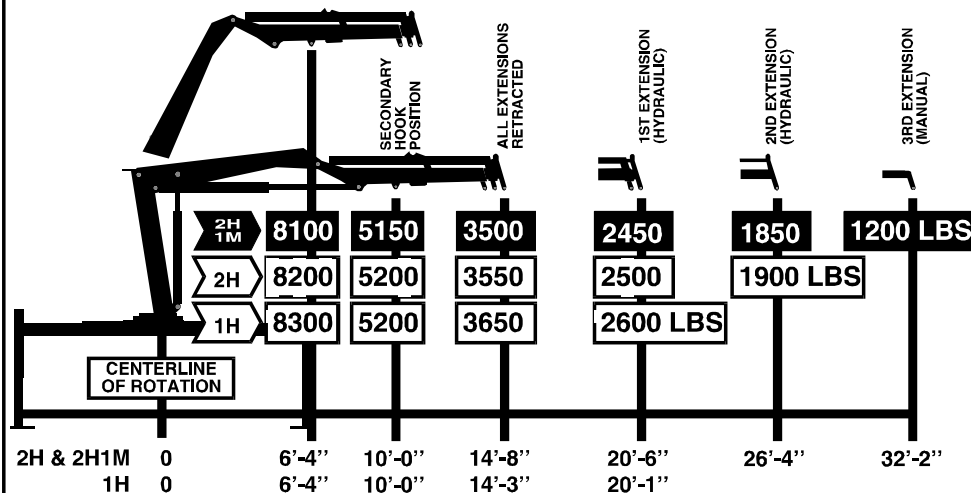
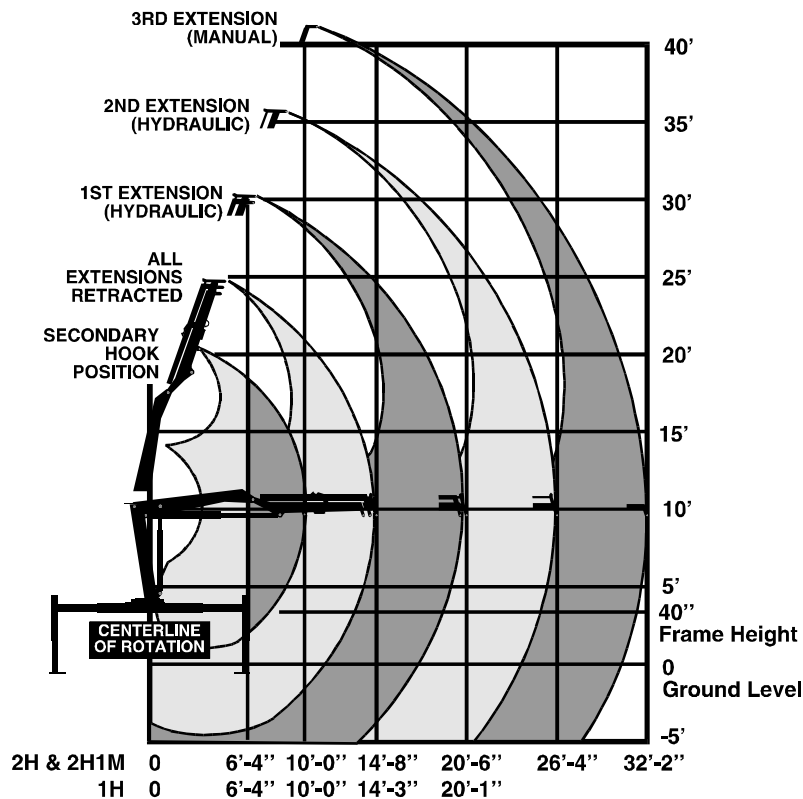
Capacities through geometric range are limited to those shown in horizontal position.



5200

Series Crane

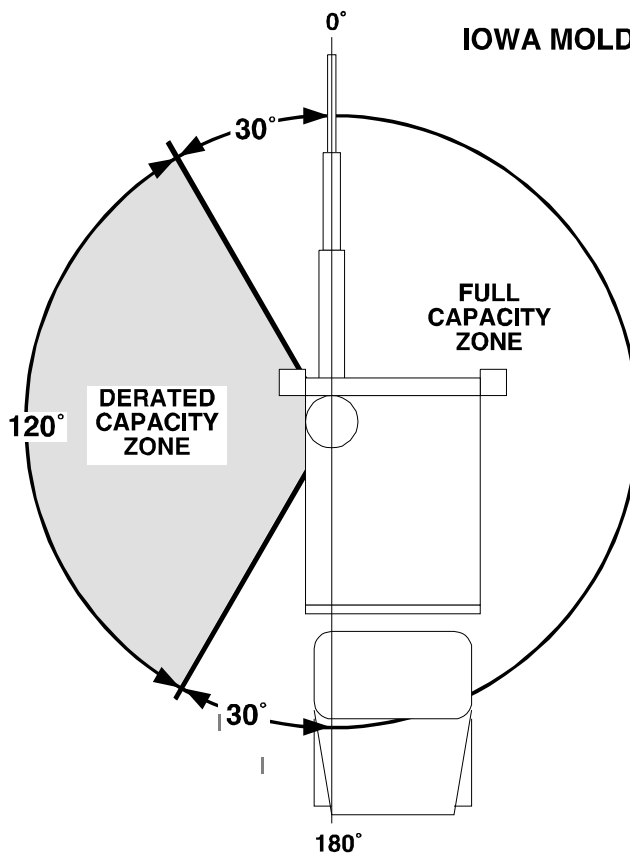
- Loads shown are based on crane structural or hydraulic capability. Before lift is made, stability must be checked per SAE J765A.
- Working loads will be limited to those shown. Deduct the weight of load handling devices.
- Winch lifting capacity is limited to those shown - Maximum 4000 LBS for 1-part line.



CAPACITY CHART BASED ON STABILITY

CAPACITY CHART Based on STABILITY

MODEL: 5200R

IOWA MOLD TOOLING CO., INC.
GARNER, IA 50438

Capacities limited by stability are based on an unloaded vehicle weight of 22,780 lbs. and are 85% of tipping loads.

Deduct the weight of load handling devices from capacities shown.

Derated zone is based on operating the crane on high rail gear with the stabilizer retracted in and extended to ground.

All stabilizer must be extended and set firmly on the ground before operating the crane when high rail gear is not deployed.

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RANGE	REACH	LOAD	
		FULL CAPACITY ZONE	DERATED CAPACITY ZONE
1	6'-4"	8200 LBS	6700 LBS
2	10'-0"	5200 LBS	4250 LBS
3	14'-8"	3550 LBS	2830 LBS
4	20'-6"	2500 LBS	2065 LBS
5	26'-4"	1900 LBS	1630 LBS

SECTION 2. 5200R CRANE REFERENCE

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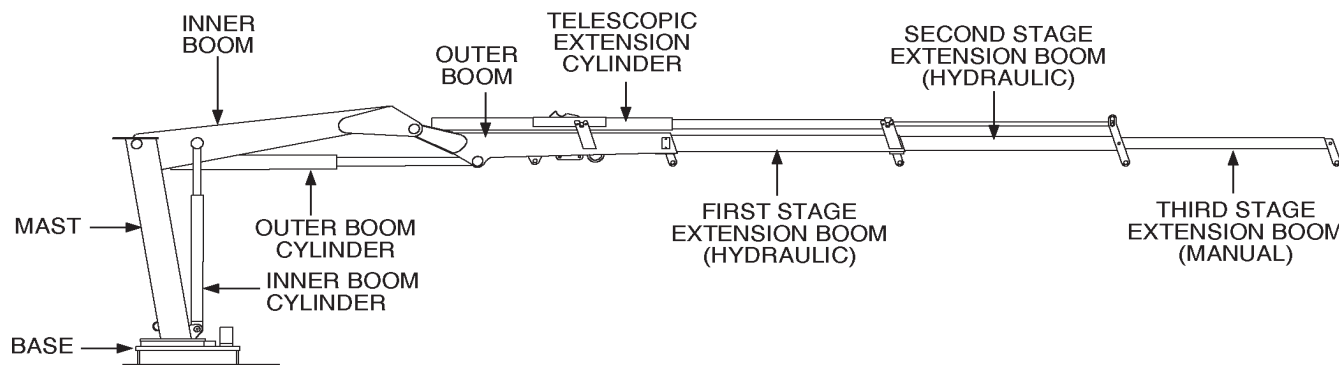
INSTALLATION 7

HYDRAULIC INSTALLATION 8

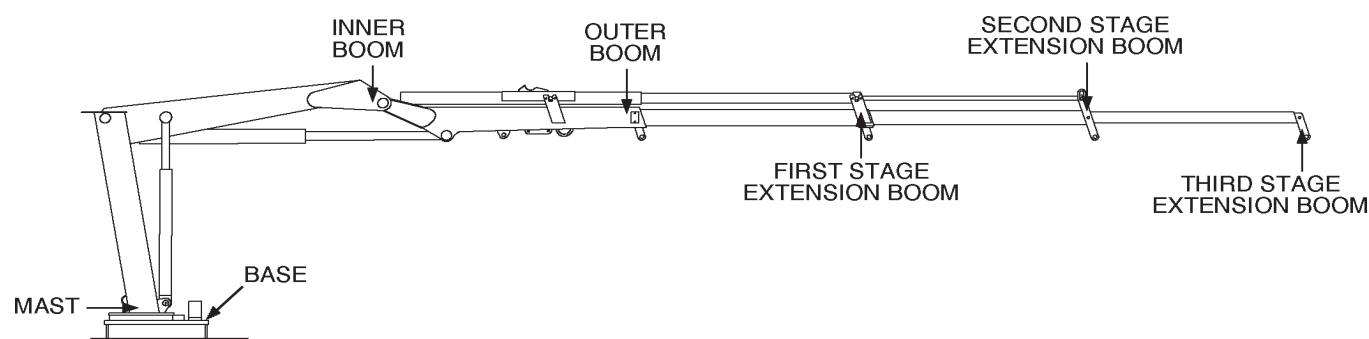
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NOTES

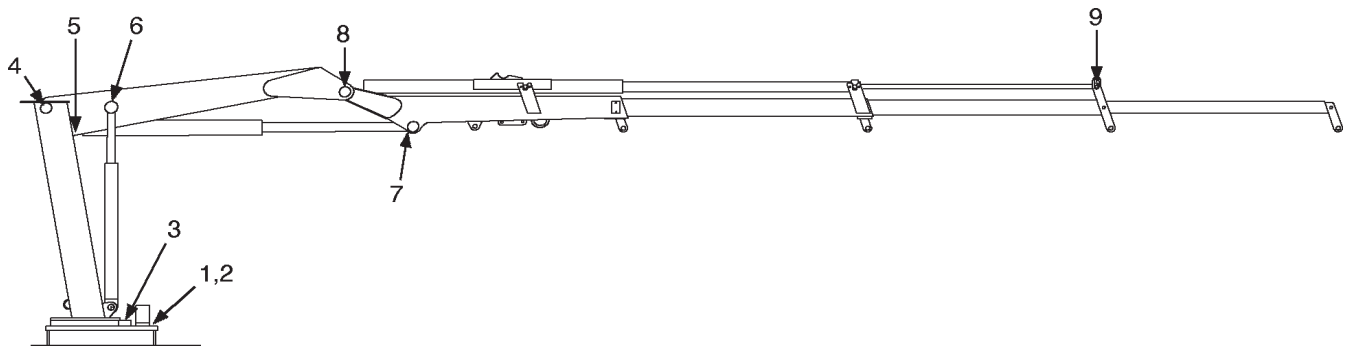
MAJOR CRANE ASSEMBLIES



WELDMENT PART NUMBER LOCATIONS



GREASE ZERK LOCATIONS & LUBRICANT REQUIREMENTS



ITEM	LOCATION DESCRIPTION	LUBRICANT	FREQUENCY
1.	DRIVE GEAR GREASE EXTENSION	SHELL ALVANIA 2EP OR SHELL RETINAX "A"	WEEKLY
2.	TURNTABLE/BEARING GREASE EXTENSION *ROTATE CRANE WHILE GREASING		
3.	PINION GEAR		
4.	MAST/INNER BOOM HINGE PIN		
5.	OUTER CYLINDER BASE		
6.	INNER CYLINDER ROD		
7.	OUTER CYLINDER ROD		
8.	INNER/OUTER BOOM HINGE PIN		
9.	EXTENSION CYLINDER ROD (2H ONLY)		

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. See Volume 1; Operation, Maintenance and Repair for additional lubrication requirements.

RECOMMENDED SPARE PARTS LIST**1 YEAR SUPPLY****5200R CRANE****FOR MANUAL: 99900761**

This spare parts list does not necessarily indicate that the items can be expected to fail in the course of a year. It 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. 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.

ASSEMBLY DESIGNATION	ITEM NO.	PART NO.	DESCRIPTION	QTY	CODE	SHELF LIFE (MO)	ORDER QTY
41712939.01.19960423	BASE ASM						
	3	60020115	BUSHING	1	W		
	4	60020116	BUSHING	1	W		
	5	60020187	BUSHING	1	W		
	6	60020188	BUSHING	1	W		
	16	71056265	PINION GEAR	1	W		
	37	73054538	VALVE	2	C		
	38	7Q072012	O-RING	2	W		
41712944.01.19960423	BASE & STAB ASM-SIDE MOUNT/MANUAL OUT						
	25	71056265	PINION GEAR	1	W		
	53	60020115	BUSHING	1	W		
	54	60020116	BUSHING	1	W		
	55	60020187	BUSHING	1	W		
	56	60020188	BUSHING	1	W		
	61	7Q072112	O-RING	2	W		
	62	73054538	CARTRIDGE-C'BAL	2	C		
41712925.01.19960423	BASE & STAB ASM-CENTER MOUNT/POWER OUT						
	25	71056265	PINION GEAR	1	W		
	53	60020115	BUSHING	1	W		
	54	60020116	BUSHING	1	W		
	55	60020187	BUSHING	1	W		
	56	60020188	BUSHING	1	W		
	60	7Q072112	O-RING	2	W		
	61	73054538	CARTRIDGE-C'BAL	2	C		
41710870.01.19951125	MAST ASM-SIDE MOUNT						
	2	7BF81520	BUSHING	2	W		
41715939.01.20000306	MAST ASM-CENTER MOUNT						
	2	7BF81520	BUSHING	2	W		
41710920.01.19960417	INNER BOOM ASM						
	4	7BF81220	BUSHING	12	W		
41710914.01.19950609	OUTER BOOM ASM						
	5	7BF81220	BUSHING	4	W		
	9	60030175	WEAR PAD	1	W		
	10	60030060	WEAR PAD	2	W		
41710943.01.19950609	EXTENSION BOOM ASM-1H						
	3	60030238	WEAR PAD	1	W		
41710939.01.19951005	EXTENSION BOOM ASM-2H						
	16	60030173	WEAR PAD	1	W		
	17	60030172	WEAR PAD	1	W		
	18	60030174	WEAR PAD	1	W		
	22	60030060	WEAR PAD	2	W		
41710940.01.19951005	EXTENSION BOOM ASM-2H1M						
	16	60030173	WEAR PAD	1	W		
	17	60030172	WEAR PAD	1	W		
	18	60030174	WEAR PAD	1	W		
	22	60030060	WEAR PAD	2	W		
3B270000.01.20001102	INNER BOOM CYLINDER						
	3	6I035125	PISTON	1	W		
	4	6H035025	HEAD	1	W		
	5	9C142020	SEAL KIT	2	W		
	16	73054887	C'BAL VALVE	2	C		
	20	7BF81020	BUSHING	8	W		
3C180920.01.19950509	OUTER BOOM CYLINDER						
	3	6I045143	PISTON	1	W		
	4	6H045030	HEAD	1	W		
	5	9C182423	SEAL KIT	1	W		
	15	73054242	VALVE 25GPM	2	C		
	19	7BF81220	BUSHING	2	W		
	20	7BF81520	BUSHING	2	W		

(CONTINUED)

RECOMMENDED SPARE PARTS LIST (CONT.)

ASSEMBLY DESIGNATION	ITEM NO.	PART NO.	DESCRIPTION	QTY	CODE	SHELF LIFE (MO)	ORDER QTY
3K185920.01.19970721			EXTENSION BOOM CYLINDER-2H				
	5	6I095850	PISTON	1	W		
	6	6I025087	PISTON	1	W		
	7	6H271511	HEAD	1	W		
	8	6H112820	HEAD	1	W		
	11	73054242	VALVE	2	C		
	12	9X095850	SEAL KIT	1	W		
3B221850.01.19950509			POWER DOWN STAB CYLINDER				
	5	73054004	VALVE	2	C		
	9	9B101214	SEAL KIT	1	W		
3B267811.01.19970925			POWER OUT STAB CYLINDER				
	8	9B081012	SEAL KIT	1	W		
93712950.01.19950509			INSTALLATION KIT-CENTER MOUNT				
	REF	73052006	ELEMENT-10MIC-SPIN	6	P		
	REF	70048149	ELEMENT 100MESH	6	P		
	REF	73052014	ELEMENT 25MIC-SPIN	6	P		
93713063.01.19950724			INSTALLATION KIT-SIDE MOUNT				
	REF	73052006	ELEMENT-10MIC-SPIN	6	P		
	REF	70048149	ELEMENT 100MESH	6	P		
	REF	73052014	ELEMENT 25MIC-SPIN	6	P		
90713580.01.19961126			CONTROL KIT-V20R 4R/3M				
	1	77041390	AMP DRIVER	1	C		
	10	77041251	RELAY	2	W		
	11	77041237	SOLENOID 12V	1	W		
51713570.01.19980218			CABLE ASM-JIC BOX 50"				
	3	77041345	TOGGLE SWITCH ST	2	W		
	4	77041354	TOGGLE SWITCH DT	1	W		
90713583.01.19960712			REMOTE CONTROL KIT-CENTER MOUNT				
	1	77041390	AMP DRIVER	1	C		
	6	77041251	RELAY	2	W		
	7	77041237	SOLENOID 12V	1	W		
51713429.01.19980218			PROPORTIONAL REMOTE HANDLE ASM				
	11	51707507	POTENTIOMETER	1	W		
	16	77040371	TOGGLE SWITCH SPST	1	W		
	17	77040372	TOGGLE SWITCH SPDT	6	W		
	18	77040373	TOGGLE SWITCH SPST	2	W		
41715941.01.20000306			INNER BOOM ASM-CTR MNT				
	3	7BF81020	BUSHING	8	W		
	5	7BF81220	BUSHING	12	W		
3B354990.01.20000306			INNER BOOM CYL-RH/CM				
	3	6I035125	PISTON	1	W		
	4	6H035025	HEAD	1	W		
	5	9C142020	SEAL KIT	2	W		
	16	73540049	C'BAL VALVE	1	C		
	20	7BF81020	BUSHING	4	W		
3B355990.01.20000306			INNER BOOM CYL-LH/CM				
	3	6I035125	PISTON	1	W		
	4	6H035025	HEAD	1	W		
	5	9C142020	SEAL KIT	2	W		
	20	7BF81020	BUSHING	4	W		
	28	73540049	C'BAL VALVE	1	C		

INSTALLATION

GENERAL

This section contains specific instructions for the installation of your crane. Prior to installing the crane and hydraulic components, make sure that the chassis is ready to receive the crane (refer to Section 5, Volume 1). Reinforce the chassis frame, as necessary, and install the PTO, hydraulic pump, filters, etc. as necessary.

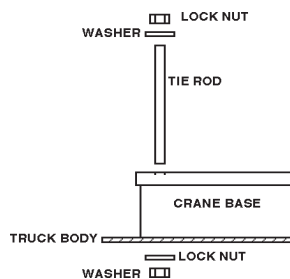
Each installation may vary in components used. It is important to use hoses of proper length, pumps of correct size, and PTO's of adequate speed.

CRANE MOUNTING-CENTER MNT

Install the crane only on an IMT-designed and approved truck body. The body must be designed to sustain the forces imposed by the crane when lifting the full rated load. Before attempting to install the crane, first install the truck body.

To install the crane:

1. Use a lifting device capable of lifting the weight of the crane, per the information provided in the Specifications section. Lift the crane and move the carrier vehicle with body installed under the crane. Lower the crane into position on the body.
2. Install the mounting tie rods, washers, and nuts to secure the crane base to the truck body (figure below). Tighten and torque to 442 ft- lbs. (61 kg-m)



CRANE MOUNTING-CENTER MNT

CRANE MOUNTING-SIDE MOUNT

1. See SPECIFICATIONS in Section 1 for crane weight. Using an overhead hoist and fabric slings of adequate capacity, lift the crane about a foot to see if the crane is adequately balanced. If not, lower hoist and adjust slings. Re-check balance and re-position crane until mounting surface is level.

2. Install the truck frame support so that the tie-down studs pass through the supports (Figure on following page). Cut the support to the inside dimensions of the truck frame. Allow about 1/16" extra. Grind the end of the support to fit inside the frame channel. Use a hammer to drive it into position if necessary.

3. Allow sufficient clearance between the cab and crane base, at least 5". Position the crane on the chassis per the applicable installation drawing, centering the mounting slots over the truck frame rails. While holding crane with hoist, start mounting hardware per figure below. Note position of support weldments on truck frame. Hand tighten nuts. Observe underside of crane base. No clearance between base and frame is allowed.

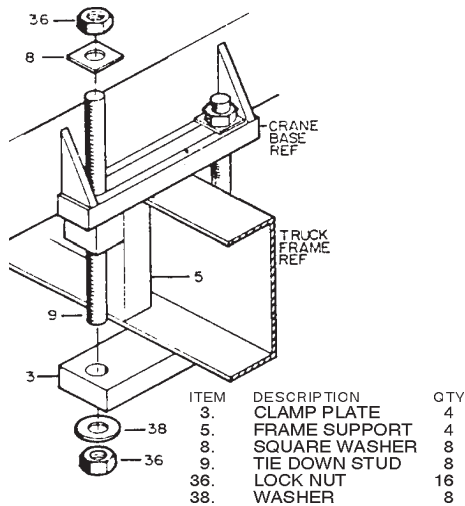
4. Torque the 1"-UNC Grade 5 mounting hardware to 442 ft-lbs. When torquing the mounting hardware the following precautions must be followed:

- A. Never use lock washers.
- B. Hardened washers must be used, and under the turning element, whether the turning element is the nut or the head of the bolt.
- C. Torque values specified are with residual oils or without special lubricants applied to the threads. If special lubricants are used, such as Never-Seize compound graphite and oil, molybdenum disulphite colloidal copper or white lead, reduce torque values 10%. Torque values for threaded fasteners are not affected with the use of Loctite.
- D. Do not use rusty fasteners, the rust will alter torque values significantly.
- E. Touch-up paint around mounting anchor plates.

CAUTION

Do not attempt to apply the same torque to the tie rod and self-locking nuts as shown in the Torque Data Chart. Do not exceed 442 ft. lbs. Exceeding this torque value could damage either the chassis or crane base.

Power wrenching is not recommended until the lead thread of the nut insert is engaged by hand turning.

**CRANE MOUNTING-SIDE MNT****HYDRAULIC INSTALLATION**

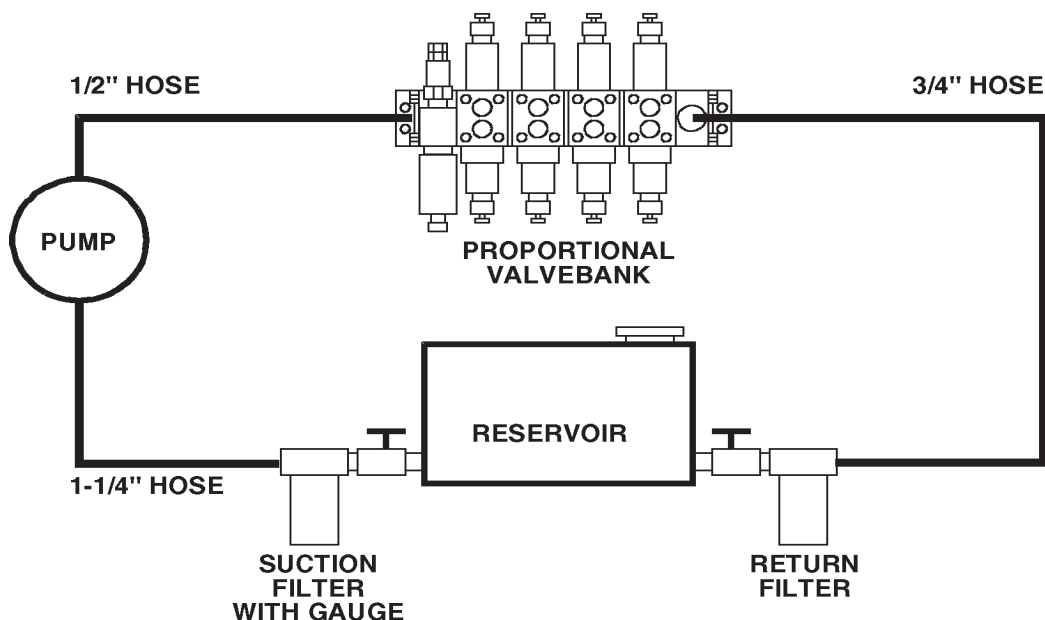
Installations vary and it will be necessary for the installer to determine the best configuration for his individual installation. Following is a general guide to installation (see figure below).

1. Install the suction filter to the suction port, and a return filter to the return port of the chosen reservoir with 1-1/4" nipples and gate valves.
2. Install a 1-1/4" diameter hose between the pump and the suction filter, using barbed nipples and hose clamps.
3. Install a 1/2" diameter hose between the pump and the valvebank inlet section.
4. Install a 3/4" diameter hose between the valvebank outlet section and the reservoir.
5. Fill the hydraulic reservoir (refer to Volume 1 for hydraulic oil specifications).
6. Check all connections for leaks.
7. Open the gate valves.

CAUTION

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

8. Start the vehicle engine and test each crane function individually. Conduct a visual inspection to make certain there are no leaks and that everything is operating properly.
9. Check the oil level in the reservoir and add oil if necessary.

**GENERAL HYDRAULIC INSTALLATION**

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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 REPAIR section in Volume 1. 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 IN VOLUME 1. 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) 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. All inquiries should be addressed to:

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

IOWA MOLD TOOLING CO., INC. BOX 189, GARNER, IA 50438-0189	
MODEL NUMBER	
SERIAL NUMBER	
MFG DATE	
70029119	

SERIAL NUMBER PLACARD

CYLINDER IDENTIFICATION

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

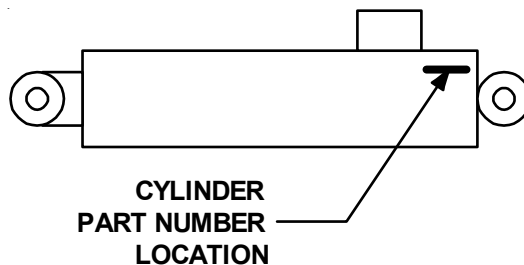
WELDMENT IDENTIFICATION

Each of the major weldments - base, mast, inner boom, outer boom, extension boom and stabilizer weldments bear a stamped part number. Any time a major weldment is replaced, you must specify the complete part number as stamped on the weldment. The locations of the part numbers are shown in Section 2.

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.



CYLINDER PART NUMBER LOCATION

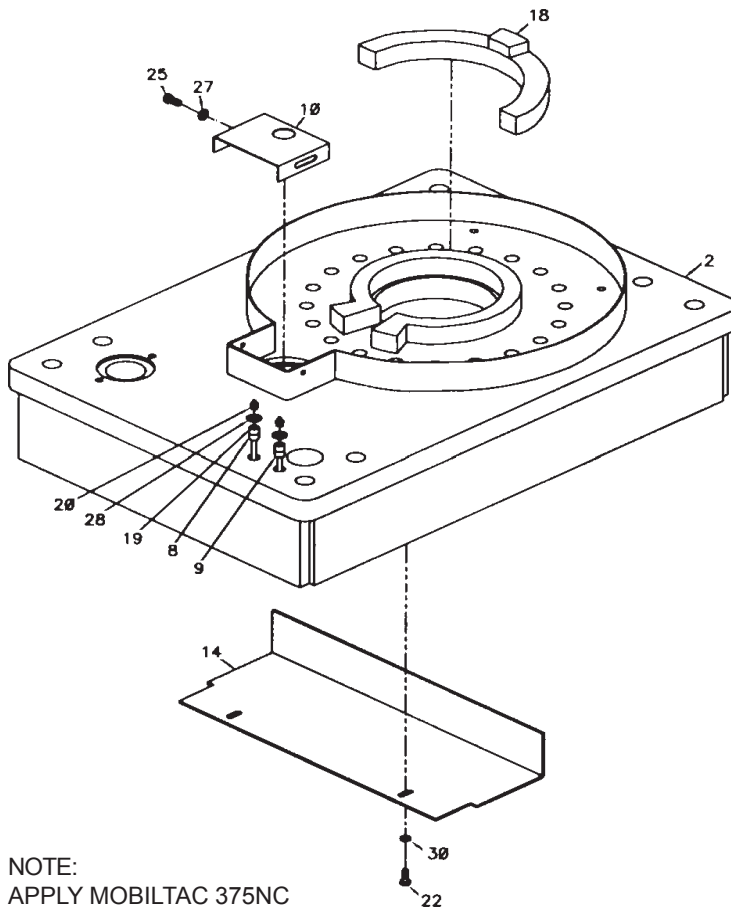
BASE ASM-STD (41712939)

ITEM	PART NO.	DESCRIPTION	QTY
2.	52712938	BASE (INCL: 3-7)	1
3.	60020115	BUSHING (PART OF 2)	1REF
4.	60020116	BUSHING (PART OF 2)	1REF
5.	60020187	BUSHING (PART OF 2)	1REF
6.	60020188	BUSHING (PART OF 2)	1REF
7.	71056011	DRIVE GEAR (PART OF 2)	1REF
8.	53000711	GREASE EXTENSION 23"	1
9.	53000713	GREASE EXTENSION 38"	1
10.	60010235	PINION COVER	1
11.	60010844	GREASE PLATE	1
12.	60106032	STUD 1/2-13 X 2	2
13.	60106886	PINION SPACER	1
14.	60109991	GEAR GUARD	1
15.	71056072	INTERMEDIATE GEAR	1
16.	71056265	PINION GEAR	1
17.	71056627	TURNTABLE BEARING	1
18.	71145016	ROTATION SLIDE 450o	1
19.	72053301	COUPLING 1/8NPT	2
20.	72053508	ZERK 1/8NPT	3
21.	72053589	STREET ELBOW 1/8NPT 90°	1
22.	72060023	CAP SCR 5/16-18X3/4 HHGR5	2
23.	72060092	CAP SCR 1/2-13X1-1/4 HHGR5	2
25.	72060833	CAP SCR 5/16-18X3/4 HHGR5	2

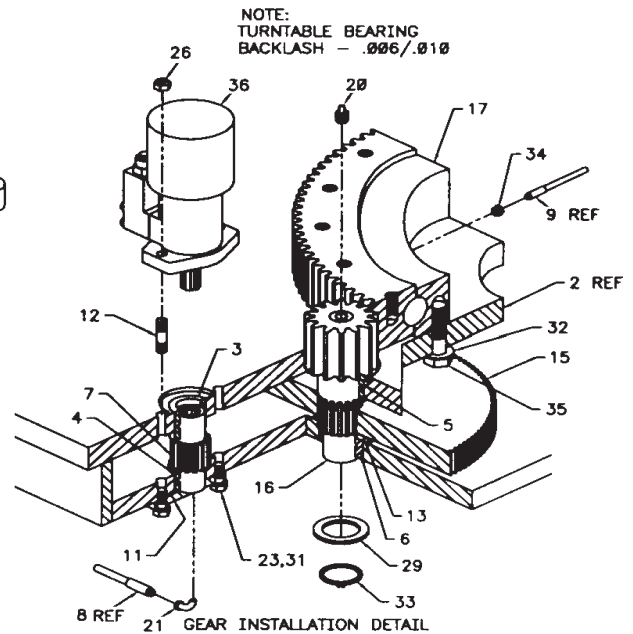
26.	72062080	NUT 1/2-13 LOCK	2
27.	72063002	WASHER 5/16 WRT	2
28.	72063003	WASHER 3/8 WRT	2
29.	72063039	MACH BUSHING 2 X 10GA	1
30.	72063050	WASHER 5/16 LOCK	2
31.	72063053	WASHER 1/2 LOCK	2
32.	72063116	WASHER 3/4 HARDENED	20
33.	72066095	RETAINING RING 2"	1
34.	72531826	REDUCER BUSHING 1/4-1/8NPT	1
35.	72601295	CAP SCR 3/4-10X3-1/2 HHGR8	20
36.	73540004	HYD MOTOR (FROM 5-15-98)	1
	73051004	HYD MOTOR (TO 5-15-98)	1
	73054538	VALVE (TO 5-15-98)	2
	72060738	CAP SCR (TO 5-15-98)	4
	5V151830	MOTOR BLOCK (TO 5-15-98)	1
	7Q072012	O-RING (TO 5-15-98)	2

WARNING

ANY TIME THE GEAR-BEARING BOLTS HAVE BEEN REMOVED, THEY MUST BE REPLACED WITH NEW BOLTS OF IDENTICAL GRADE AND SIZE. FAILURE TO REPLACE GEAR-BEARING BOLTS MAY RESULT IN BOLT FAILURE DUE TO METAL FATIGUE CAUSING SERIOUS INJURY OR DEATH.



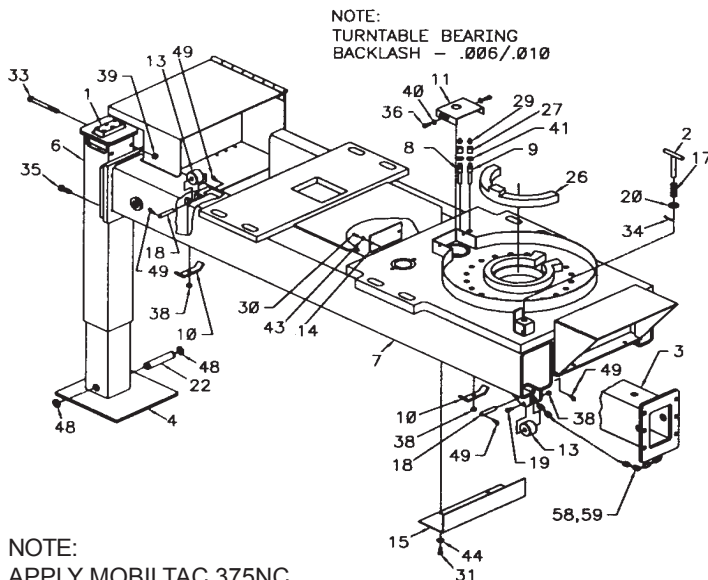
NOTE:
APPLY MOBILTAC 375NC
LUBRICANT (OR EQUIVALENT)
TO THE EXTERNAL TEETH OF
THE TURNTABLE BEARING AND
PINION GEAR.



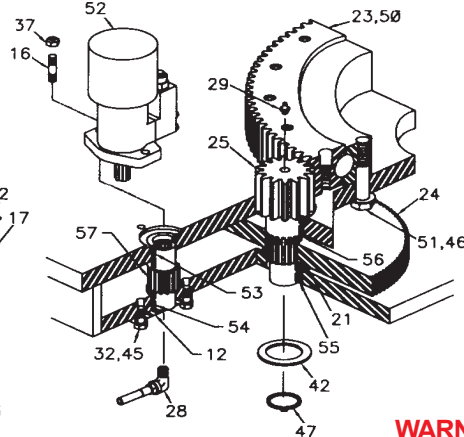
BASE & STABILIZER ASM-SIDE MNT/ MNL OUT (41712944)

ITEM	PART NO.	DESCRIPTION	QTY
1.	3B221850	POWER DOWN CYLINDER	2
2.	52705037	PIN	1
3.	52713122	ARM-STABILIZER	1
4.	52705871	LEG-STABILIZER	2
5.	52712193	HOUSING-STABILIZER	1
6.	52712194	HOUSING-STABILIZER	1
7.	52712924	BASE (INCL:53-57)	1
8.	53000710	GREASE EXT 29"	1
9.	53000715	GREASE EXT 18"	1
10.	60010118	HOSE CLAMP	2
11.	60010235	PINION GEAR COVER	1
12.	60010844	GREASE PLATE	1
13.	60030053	ROLLER	2
14.	60102767	ACCESS COVER	1
15.	60102769	INT GEAR GUARD	1
16.	60106032	STUD	2
17.	60010351	SPRING	1
18.	60106314	PIN	2
19.	72060053	CAP SCR 3/8-16X2-3/4 HHGR5	1
20.	72063027	MACH BUSHING 5/8X14GA NR	1
21.	60106886	SPACER	1
22.	60106968	PIN	2
23.	71056627	GEAR BEARING	1
	71056361	GEAR BEARING(1-96 THRU 6-08)	
	71056001	GEAR BEARING(BEFORE 1-1-96)	
	(LAST SERIAL #5200R951021)		
24.	71056264	INTERMEDIATE GEAR	1
25.	71056265	PINION GEAR	1
26.	71145016	SLIDE-ROTATION STOP	1
27.	72053301	COUPLING 1/8NPT	2
28.	72053281	STREET ELBOW 1/8NPT 90°	1
29.	72053508	ZERK 1/8NPT	3
30.	72060002	CAP SCR 1/4-20X3/4 HHGR5	2
31.	72060023	CAP SCR 5/16-18X3/4 HHGR5	2

32.	72060092	CAP SCR 1/2-13X1-1/4 HHGR5	2
33.	72060102	CAP SCR 1/2-13X5-1/2 HHGR5	4
34.	72066185	COTTER PIN .16X1 PLAIN	1
35.	72060795	CAP SCR 1/2-13X1-1/2 SH	12
36.	72060833	SCR 5/16-18X3/4 THDCTG HWH	2
37.	72062080	NUT 1/2-13 LOCK	2
38.	72062103	NUT 3/8-16 LOCK	3
39.	72062107	NUT 1/2-13 HEX CTR LOCK	4
40.	72063002	WASHER 5/16 WRT	2
41.	72063003	WASHER 3/8 WRT	2
42.	72063039	MACH BUSHING 2X10GA NR	1
43.	72063049	WASHER 1/4 LOCK	2
44.	72063050	WASHER 5/16 LOCK	2
45.	72063053	WASHER 1/2 LOCK	2
46.	72063116	WASHER 3/4 HARD FLAT	20
47.	72066095	RETAINING RING 2" EXT STD	1
48.	72066125	RETAING RING 1" EXT HD	4
49.	72066180	COTTER PIN 1/8X1-1/2	4
50.	72531826	REDUCER BUSHING 1/4-1/8NPT	1
51.	72601295	CAP SCR 3/4-10X3-1/2 HHGR8	20
	(FROM 1-1-96)		
	72060207	CAP SCR 3/4-10X3 HHGR8	20
	(BEFORE 1-1-96, LAST SER #5200R951021)		
52.	73540004	HYD MOTOR (FROM 5-15-98)	1
	73051004	HYD MOTOR (TO 5-15-98)	1
	5V151830	MOTOR BLOCK (TO 5-15-98)	1
	7Q072112	O-RING (TO 5-15-98)	2
	73054538	C'BAL VALVE (TO 5-15-98)	2
	72060738	CAP SCR (TO 5-15-98)	2
53.	60020115	BUSHING (PART OF 7)	1REF
54.	60020116	BUSHING (PART OF 7)	1REF
55.	60020187	BUSHING (PART OF 7)	1REF
56.	60020188	BUSHING (PART OF 7)	1REF
57.	71056011	DRIVE GEAR (PART OF 7)	1REF
58.	60102556	CHAIN 40-5/8	1
59.	70058060	LINK-COLD SHUT 1/4	1



NOTE:
APPLY MOBILTAC 375NC
LUBRICANT (OR EQUIVALENT)
TO THE EXTERNAL TEETH OF
THE TURNABLE BEARING AND
PINION GEAR.



NOTE

INSTALL 70399271 -
DECAL - FULLY
DEPLOYED - ON TOP
OF STABILIZER BEAMS
WHEN BEAMS ARE
FULLY EXTENDED.
DECAL MUST BE
VISIBLE.

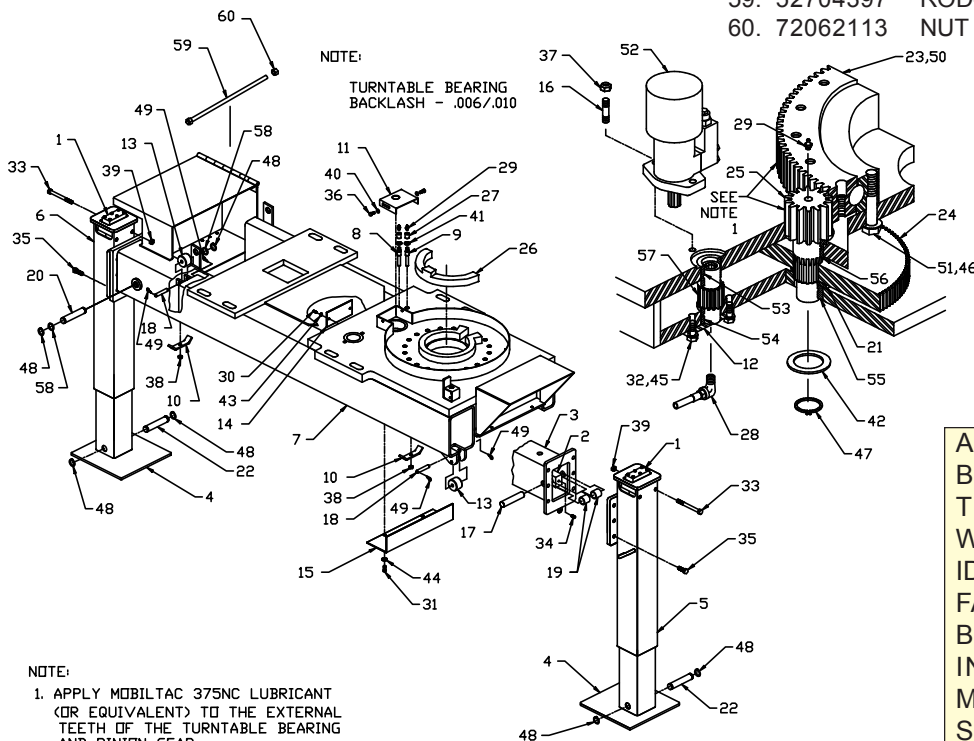
WARNING

ANY TIME THE GEAR-BEARING
BOLTS HAVE BEEN REMOVED,
THEY MUST BE REPLACED WITH
NEW BOLTS OF IDENTICAL
GRADE AND SIZE. FAILURE TO
REPLACE GEAR-BEARING
BOLTS MAY RESULT IN BOLT
FAILURE DUE TO METAL FATIGUE
CAUSING SERIOUS INJURY OR
DEATH.

BASE & STABILIZER ASM-SIDE MNT/ PWR OUT (41712925)

ITEM	PART NO.	DESCRIPTION	QTY
1.	3B221850	POWER DOWN CYLINDER	2
2.	3B267811	POWER OUT CYLINDER	1
3.	52713122	ARM-STABILIZER	1
4.	52705871	LEG-STABILIZER	2
5.	52712193	HOUSING-STABILIZER	1
6.	52712194	HOUSING-STABILIZER	1
7.	52712924	BASE (INCL:53-57)	1
8.	53000710	GREASE EXT 29"	1
9.	53000715	GREASE EXT 18"	1
10.	60010118	HOSE CLAMP	2
11.	60010235	PINION GEAR COVER	1
12.	60010844	GREASE PLATE	1
13.	60030053	ROLLER	2
14.	60102767	ACCESS COVER	1
15.	60102769	INT GEAR GUARD	1
16.	60106032	STUD	2
17.	60106281	PIN	1
18.	60106314	PIN	2
19.	60106380	PIPE 1" SCH40 X 1-1/4	2
20.	60106833	PIN	1
21.	60106886	SPACER	1
22.	60106968	PIN	2
23.	71056627	GEAR BEARING	1
	71056361	GEAR BEARING(1-96 THRU 6-08)	
	71056001	GEAR BEARING(BEFORE 1-1-96)	
	(LAST SERIAL #5200R951021)		
24.	71056264	INTERMEDIATE GEAR	1
25.	71056265	PINION GEAR	1
26.	71145016	SLIDE-ROTATION STOP	1
27.	72053301	COUPLING 1/8NPT	2
28.	72053281	STREET ELBOW 1/8NPT 90°	1
29.	72053508	ZERK 1/8NPT	3
30.	72060002	CAP SCR 1/4-20X3/4 HHGR5	2

31.	72060023	CAP SCR 5/16-18X3/4 HHGR5	2
32.	72060092	CAP SCR 1/2-13X1-1/4 HHGR5	2
33.	72060102	CAP SCR 1/2-13X5-1/2 HHGR5	4
34.	72060581	SET SCR 3/8-16X3/4 SH	1
35.	72060795	CAP SCR 1/2-13X1-1/2 SH	12
36.	72060833	SCR 5/16-18X3/4 THDCTG HWH	2
37.	72062080	NUT 1/2-13 LOCK	2
38.	72062103	NUT 3/8-16 LOCK	2
39.	72062107	NUT 1/2-13 HEX CTR LOCK	4
40.	72063002	WASHER 5/16 WRT	2
41.	72063003	WASHER 3/8 WRT	2
42.	72063039	MACH BUSHING 2X10GA NR	1
43.	72063049	WASHER 1/4 LOCK	2
44.	72063050	WASHER 5/16 LOCK	2
45.	72063053	WASHER 1/2 LOCK	2
46.	72063116	WASHER 3/4 HARD FLAT	20
47.	72066095	RETAINING RING 2" EXT STD	1
48.	72066125	RETAINING RING 1" EXT HD	6
49.	72066180	COTTER PIN 1/8X1-1/2	4
50.	72531826	REDUCER BUSHING 1/4-1/8NPT	1
51.	72601295	CAP SCR 3/4-10X3-1/2 HHGR8	20
	(FROM 1-1-96)		
	72060207	CAP SCR 3/4-10X3 HHGR8	20
	(BEFORE 1-1-96, LAST SER #5200R951021)		
52.	73540004	HYD MOTOR (FROM 5-15-98)	1
	73051378	HYD MOTOR TO 5-15-98)	1
	5V151830	MOTOR BLOCK (TO 5-15-98)	1
	7Q072112	O-RING (TO 5-15-98)	2
	73054538	C'BAL VALVE (TO 5-15-98)	2
	72060738	CAP SCR (TO 5-15-98)	2
53.	60020115	BUSHING (PART OF 7)	1REF
54.	60020116	BUSHING (PART OF 7)	1REF
55.	60020187	BUSHING (PART OF 7)	1REF
56.	60020188	BUSHING (PART OF 7)	1REF
57.	71056011	DRIVE GEAR (PART OF 7)	1REF
58.	72063034	MACH BUSHING 1X10GA NR	2
59.	52704397	ROD-CONTROL HANDLE	1
60.	72062113	NUT 5/8-18 HEX NYLOC	1



MAST ASM-SIDE MNT (41710870)

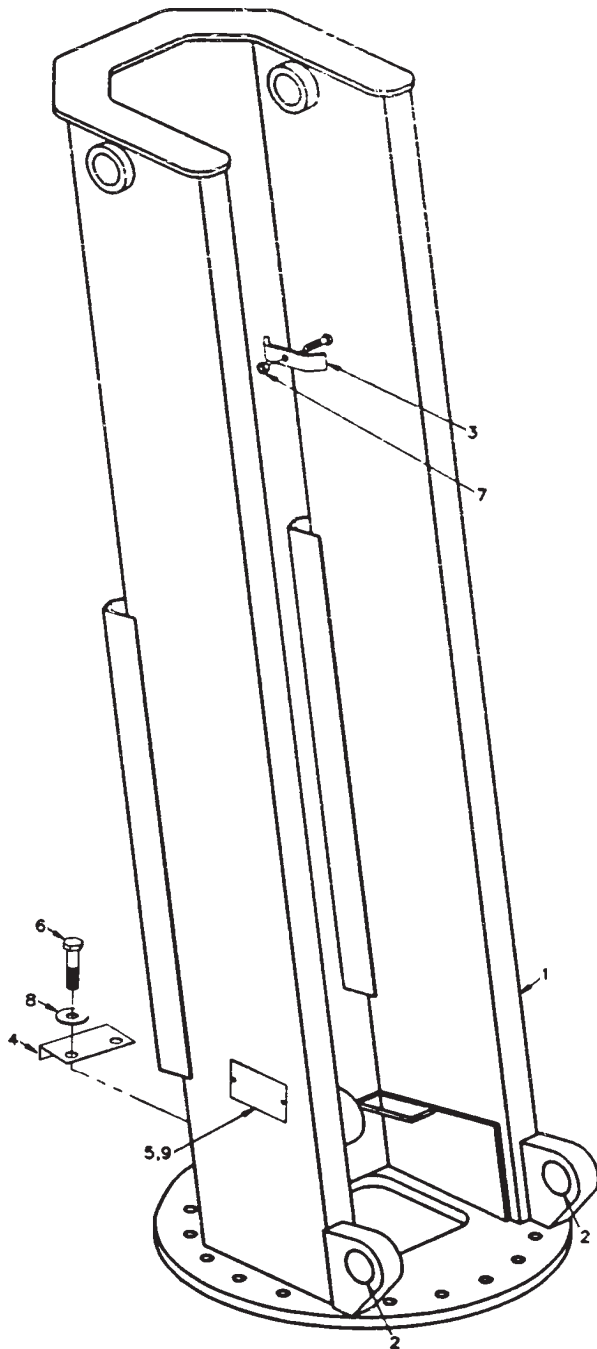
ITEM	PART NO.	DESCRIPTION	QTY
1.	52710871	MAST (INCL:2)	1
2.	7BF81520	BUSHING (PART OF 1)	2REF
3.	60010118	HOSE CLAMP	2
4.	60104539	PINION GEAR COVER	1
5.	70029119	SERIAL NO. PLACARD	1
6.	72060931	CAP SCR 5/8-11X2-3/4 HHGR8 (FROM 1-1-96)	18
	72060151	CAP SCR 5/8-11X2 HHGR8 (BEFORE 1-1-96)	20
7.	72062103	NUT 3/8-16 LOCK	2
8.	72063119	WASHER 5/8 FLAT HARD	18
9.	72066340	POP RIVET 1/8	2

WARNING

ANYTIME A GEAR-BEARING BOLT IS REMOVED, IT MUST BE REPLACED WITH A NEW BOLT OF THE IDENTICAL GRADE AND SIZE. FAILURE TO REPLACE GEAR-BEARING BOLTS MAY RESULT IN BOLT FAILURE DUE TO METAL FATIGUE, CAUSING SERIOUS INJURY OR DEATH.

CAUTION

BEFORE TIGHTENING TURNTABLE BEARING BOLTS, REFER TO THE TURNTABLE BEARING FASTENER TIGHTENING SEQUENCE AND TORQUE DATA CHART IN THE REFERENCE SECTION.



MAST ASM-CTR MNT (41715939)

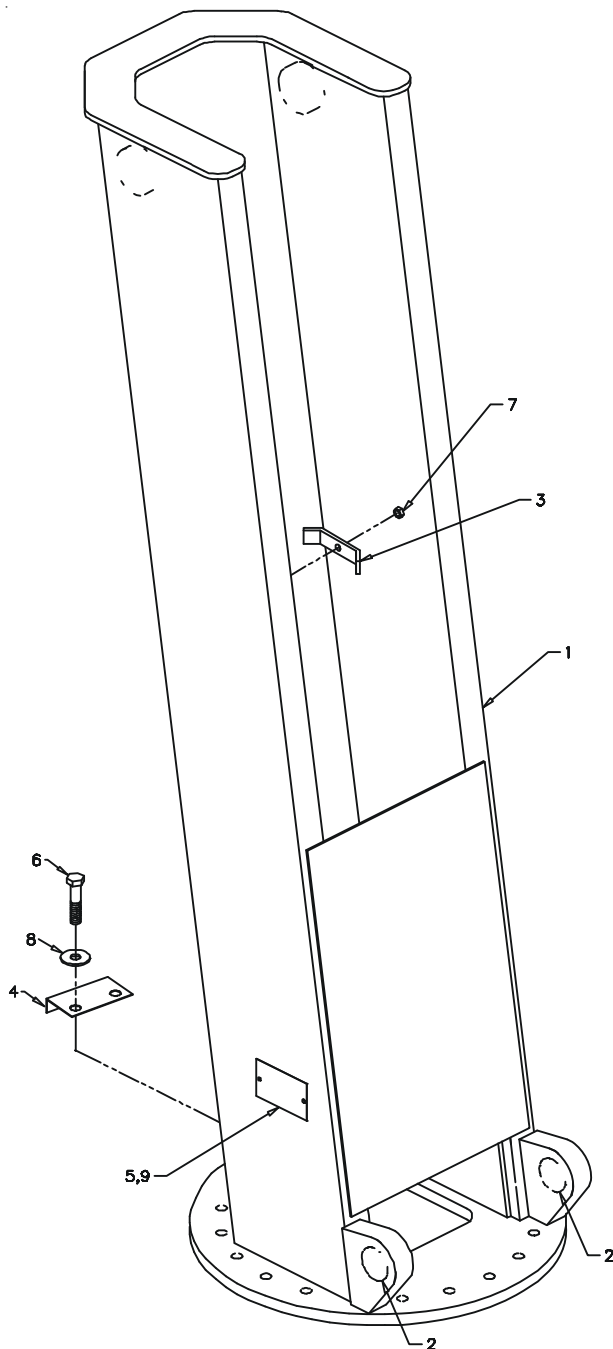
1.	52715940	MAST (INCL:2)	1
2.	7BF81520	BUSHING (PART OF 1)	2REF
3.	60010118	HOSE CLAMP	1
4.	60104539	PINION GEAR COVER	1
5.	70029119	SERIAL NO. PLACARD	1
6.	72060931	CAP SCR 5/8-11X2-3/4 HHGR8	18
7.	72062103	NUT 3/8-16 LOCK	1
8.	72063119	WASHER 5/8 FLAT HARD	18
9.	72066340	POP RIVET 1/8	2

WARNING

ANYTIME A GEAR-BEARING BOLT IS REMOVED, IT MUST BE REPLACED WITH A NEW BOLT OF THE IDENTICAL GRADE AND SIZE. FAILURE TO REPLACE GEAR-BEARING BOLTS MAY RESULT IN BOLT FAILURE DUE TO METAL FATIGUE, CAUSING SERIOUS INJURY OR DEATH.

CAUTION

BEFORE TIGHTENING TURNTABLE BEARING BOLTS, REFER TO THE TURNTABLE BEARING FASTENER TIGHTENING SEQUENCE AND TORQUE DATA CHART IN THE REFERENCE SECTION.



INNER BOOM (41718078)

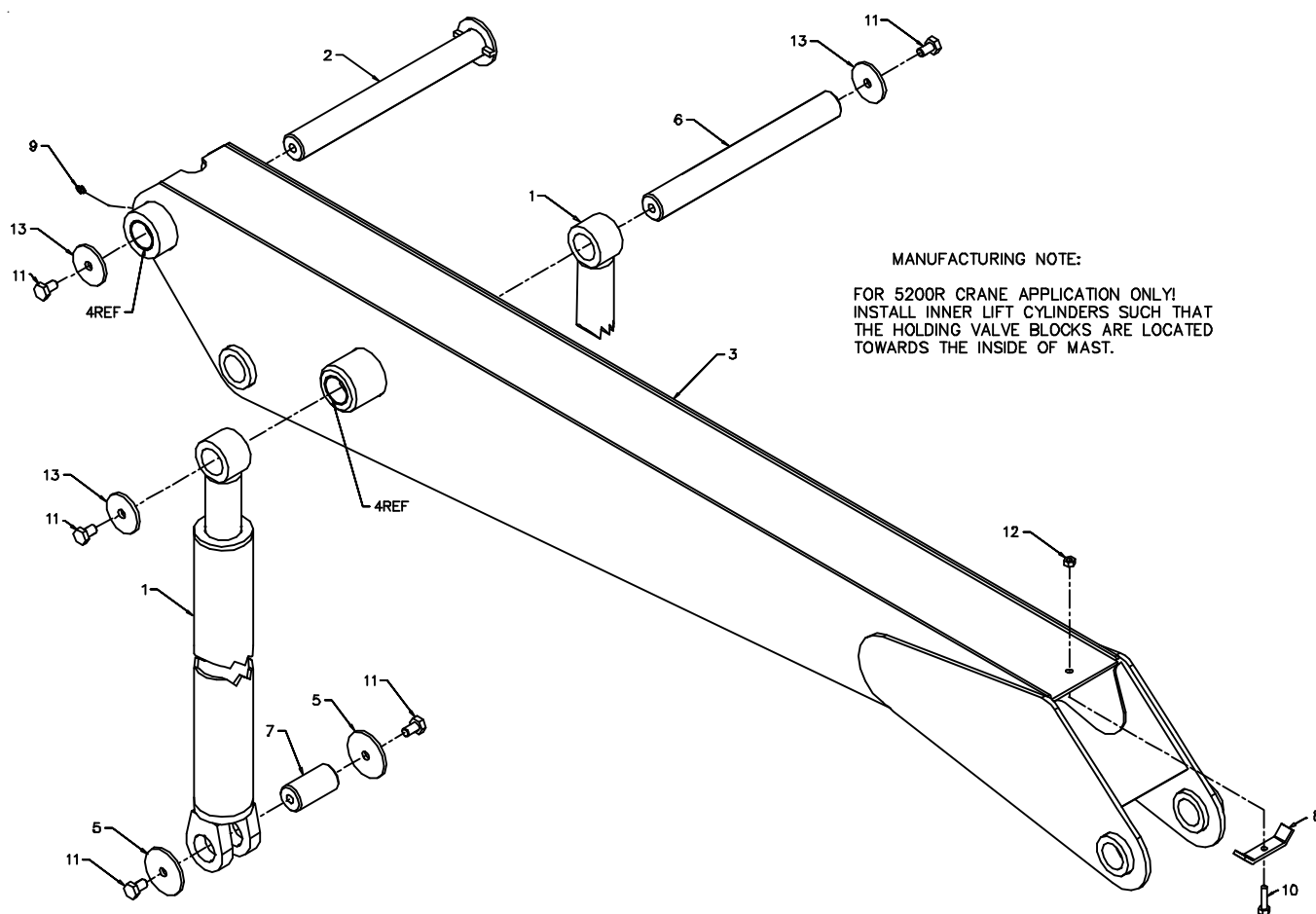
1. 51718058	INNER BOOM CYLINDER (WAS 3B270000)	2
2. 52704342	PIN	1
3. 52710909	INNER BOOM (INCL:4)	1
4. 7BF81220	BUSHING (PART OF 3)	12REF
5. 60106331	PIN RETAINER PLATE 3-1/2"	4
6. 60107303	PIN	1
7. 60107305	PIN	2
8. 60010118	HOSE CLAMP	1
9. 72053508	ZERK 1/8 NPT	1
10. 72060049	CAP SCR 3/8-16X1-3/4 HHGR5	1
11. 72060147	CAP SCR 5/8X11X1 HHGR5	7
12. 72062103	NUT 3/8-16 LOCK	1
13. 60109337	PIN RETAINER PLATE 3"	3

NOTE

ANYTIME THE PIN RETAINER PLATE BOLTS (ITEM 11) HAVE BEEN REMOVED, APPLY LOCTITE 262 TO THE THREADS BEFORE REASSEMBLY.

NOTE

CRANES WITH SERIAL NUMBERS BELOW 5271031001 USE INNER BOOM ASM 41710920 AND INNER BOOM CYLINDER NO. 3B270000. CRANES WITH SERIAL NUMBER 5271031001 AND ABOVE USE INNER BOOM ASM 41718078 AND INNER BOOM CYLINDER NO. 51718057.

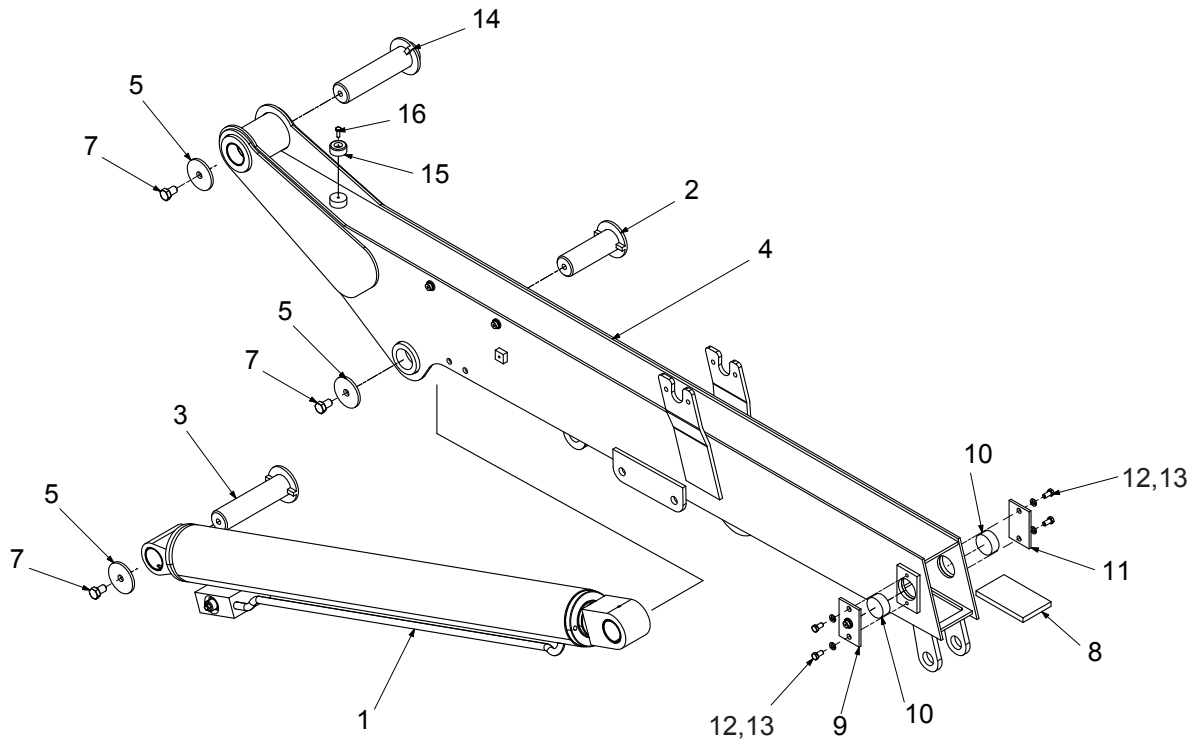


OUTER BOOM ASM (41710914)

ITEM	PART NO.	DESCRIPTION	QTY
1.	3C180920	OUTER CYLINDER	1
2.	52704432	PIN	1
3.	52704341	PIN	1
4.	52710916	OUTER BOOM (INCL:5)	1
5.	60109337	PIN RETAINER PLATE 3"	3
6.	72053508	ZERK 1/8NPT	2
7.	72060147	CAP SCR 5/8-11X1 HH GR5	3
8.	60030175	WEAR PAD	1
9.	52724660	PLATE W/ TAPPED BLOCK	1
10.	60030060	WEAR PAD	2
11.	60107550	LOCK PLATE	2
12.	72063051	WASHER 3/8 LOCK	4
13.	72060044	CAP SCR 3/8-16X3/4 HH GR5	4
14.	52703767	PIN	1
15.	70392190	BUMPER	1
16.	72060002	CAP SCR 1/4-20X3/4 HHGR5	1

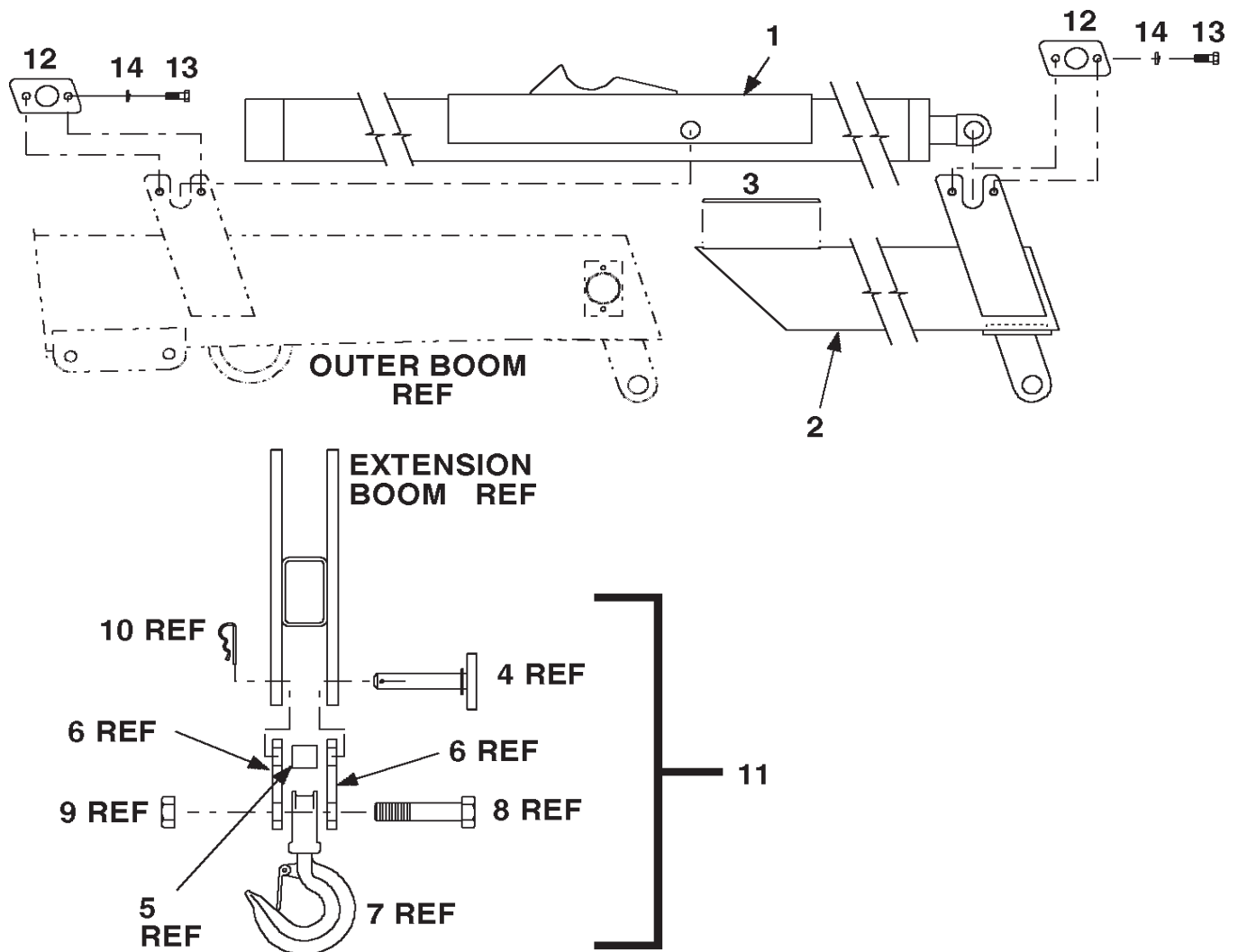
NOTE

ANYTIME THE PIN RETAINER PLATE BOLTS HAVE BEEN REMOVED, APPLY LOCTITE® 262 TO THE THREADS BEFORE RE-ASSEMBLY.



EXTENSION BOOM ASM-1H (41710943)

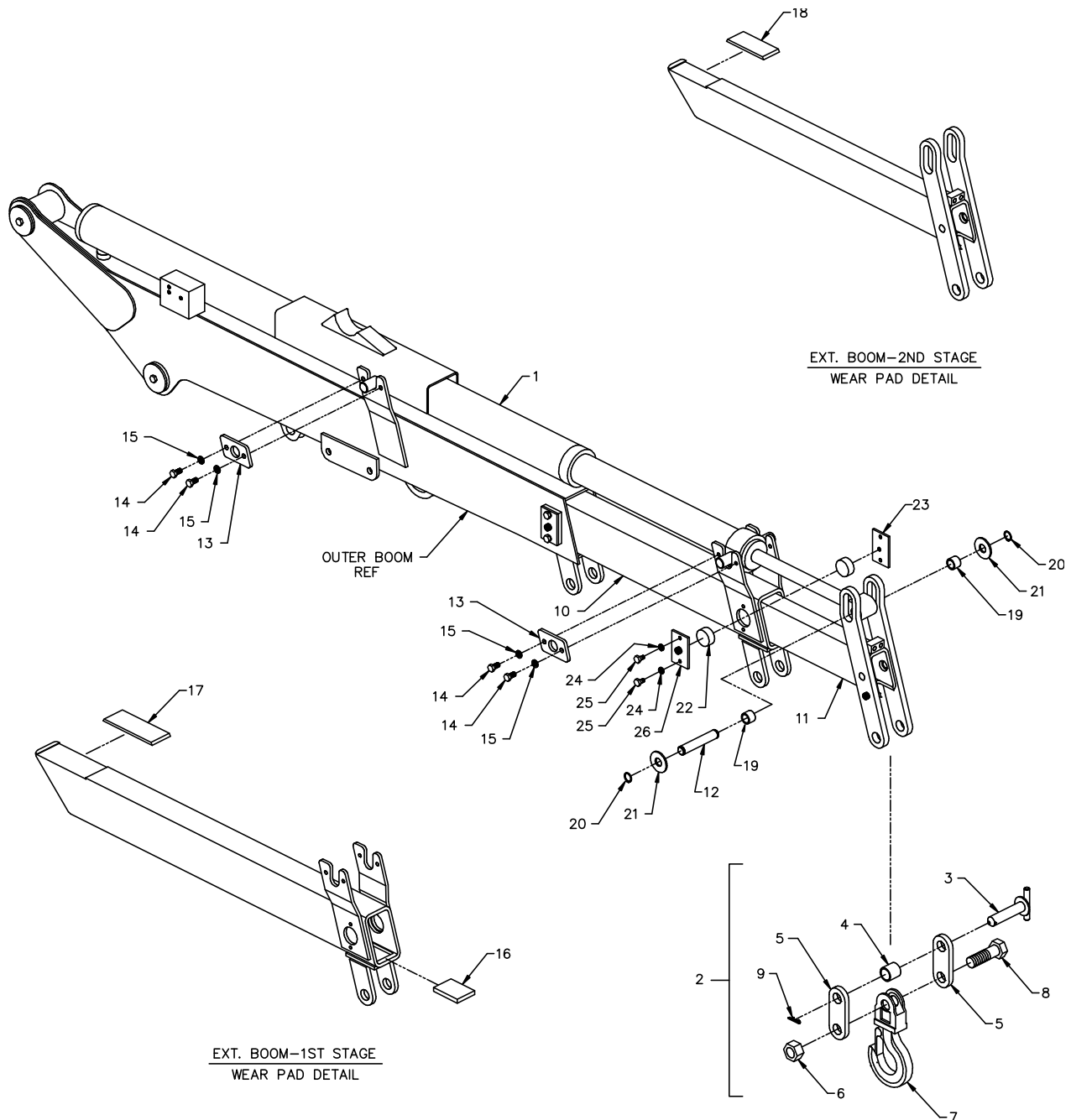
ITEM	PART NO.	DESCRIPTION	QTY
1.	3B200920	EXTENSION CYLINDER-1H	1
2.	52710942	1ST STG EXTENSION BOOM	1
3.	60030238	WEAR PAD-BVLD	1
4.	52705801	PIN (PART OF 11)	1REF
5.	60108902	PIPE (PART OF 11)	1REF
6.	60107324	HOOK LINK (PART OF 11)	2REF
7.	70734177	SWIVEL HOOK 7-TON (PART OF 11) (WAS 60103575)	1REF
8.	72601666	CAP SCR 1 1/4-7X4 HH GR5 (PART OF 11)	1REF
9.	72062073	NUT 1 1/4-7 LOCK (PART OF 11)	1REF
10.	72066145	HAIR PIN 3/16 (PART OF 11)	1REF
11.	51706200	HOOK ASM (INCL:4-10)	1
12.	60107292	LOCK PLATE	4
13.	72060091	CAP SCR 1/2-13X1 HH GR5	8
14.	72063053	WASHER 1/2 LOCK	8



EXTENSION BOOM ASM-2H (41710939)

ITEM	PART NO.	DESCRIPTION	QTY
1.	3K185920	TELESCOPIC CYLINDER	1
2.	51706200	HOOK ASM (INCL:3-9)	1
3.	52705801	PIN (PART OF 2)	1REF
4.	60108902	SPACER (PART OF 2)	1REF
5.	60107324	HOOK LINK (PART OF 2)	2REF
6.	72062073	NUT 1 1/4-7 LOCK (PART OF 2)	1REF
7.	70734177	SWVL HOOK 7TON (PART OF 2)	1REF
		(WAS 60103575)	
8.	72601666	CAP SCR 1 1/4-7X4 HHGR5 (PART OF 2)	1REF
9.	72066145	HAIR PIN 3/16 (PART OF 2)	1REF
10.	52710941	1ST STG EXT BOOM	1
11.	52706708	2ND STG EXT BOOM	1

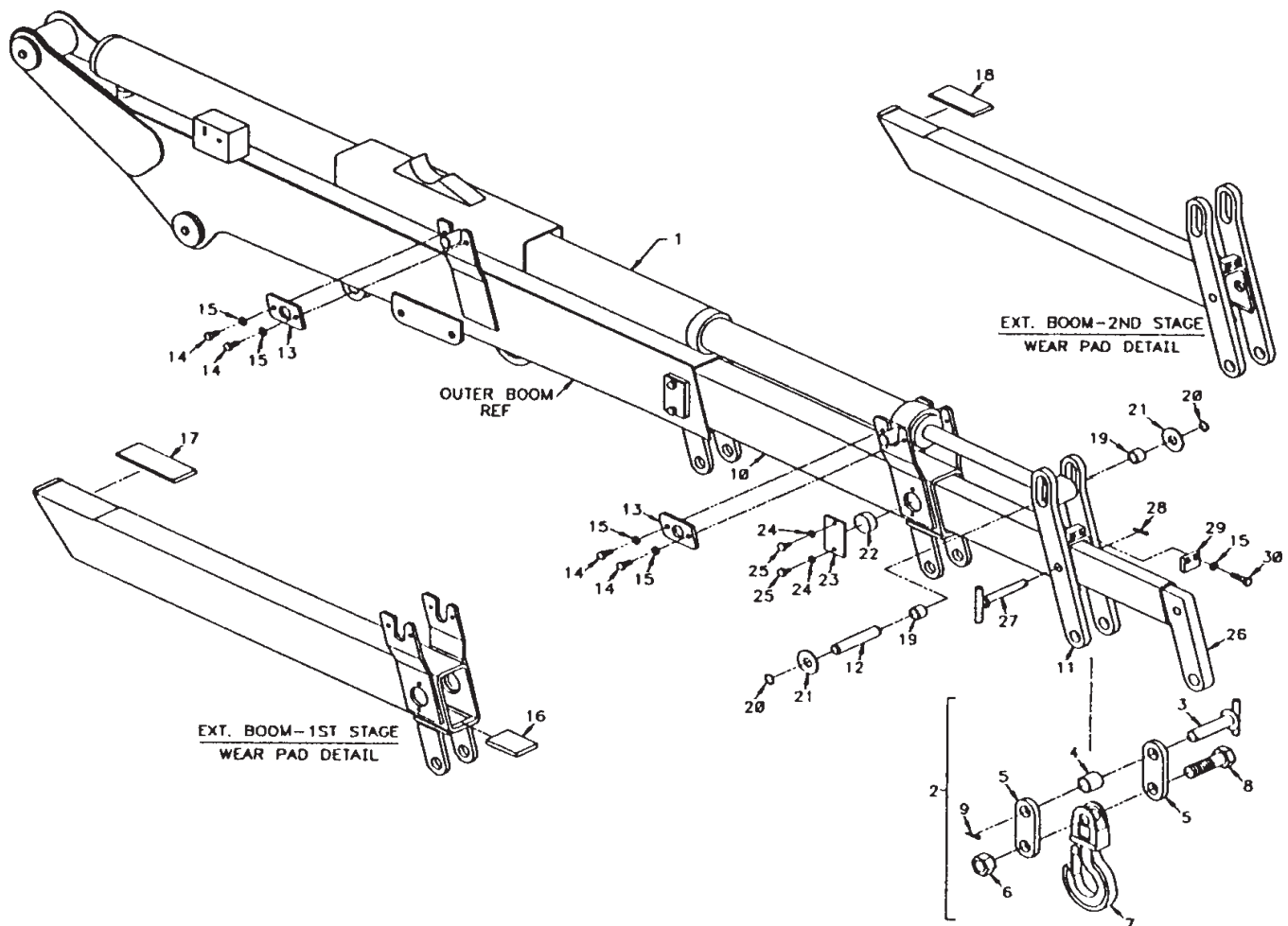
12.	60101906	PIN	1
13.	60107292	LOCK PLATE	4
14.	72060091	CAP SCR 1/2-13X1 HH GR5	8
15.	72063053	WASHER 1/2 LOCK	8
16.	60030173	WEAR PAD	1
17.	60030172	WEAR PAD	1
18.	60030174	WEAR PAD	1
19.	60020197	ROLLER	2
20.	72066125	RETAINING RING 1"	2
21.	72063010	WASHER 1 WRT	2
22.	60030060	WEAR PAD	2
23.	60107550	LOCK PLATE (WAS 2)	1
24.	72063051	WASHER 3/8 LOCK	4
25.	72060044	CAP SCR 3/8-16X3/4 HH GR5	4
26.	52724660	PLATE W/TAPPED BLOCK	1



EXTENSION BOOM ASM-2H1M (41710940)

ITEM	PART NO.	DESCRIPTION	QTY
1.	3K185920	TELESCOPIC CYLINDER	1
2.	51706200	HOOK ASM (INCL:3-9)	1
3.	52705801	PIN (PART OF 2)	1REF
4.	60108902	SPACER (PART OF 2)	4REF
5.	60107324	HOOK LINK (PART OF 2)	2REF
6.	72062073	NUT 1 1/4-7 LOCK (PART OF 2)	1REF
7.	70734177	SWVL HOOK 7TON (PART OF 2) (WAS 60103575)	1REF
8.	72601666	CAP SCR 1 1/4-7X4 HH GR5 (PART OF 2)	1REF
9.	72066145	HAIR PIN 3/16 (PART OF 2)	1REF
10.	52710941	1ST STG EXT BOOM	1
11.	52706708	2ND STG EXT BOOM	1
12.	60101906	PIN	1

13.	60107292	LOCK PLATE	4
14.	72060091	CAP SCR 1/2-13X1 HH GR5	8
15.	72063053	WASHER 1/2 LOCK	8
16.	60030173	WEAR PAD	1
17.	60030172	WEAR PAD	1
18.	60030174	WEAR PAD	1
19.	60020197	ROLLER	2
20.	72066125	RETAINING RING 1"	2
21.	72063010	WASHER 1 WRT	2
22.	60030060	WEAR PAD	2
23.	60107550	LOCK PLATE	2
24.	72063051	WASHER 3/8 LOCK	4
25.	72060044	CAP SCR 3/8-16X3/4 HHGR5	4
26.	52710938	3RD STG EXT BOOM	1
27.	52704383	PIN	1
28.	72066145	HAIR PIN 3/16	1
29.	60107294	STOP	1
30.	72060094	CAP SCR 1/2-13X1-3/4 HHGR5	2



INNER BOOM CYLINDER (51718058)

1.	4B142920	CASE ASM (INCL:20 & 21)	1
2.	52718720	ROD ASM (INCL. 19,20)	1
		(WAS 52718057; 4H142920 ON 3B270000)	
3.	6I035125	PISTON	1
4.	6H035025	HEAD	1
5.	9C142020	SEAL KIT (INCL:6-15)	1
6.	7Q072338	O-RING (PART OF 5)	1REF
7.	7Q10P338	BACK-UP RING (PART OF 5)	1REF
8.	7T2N8027	WEAR RING (PART OF 5)	1REF
9.	7R546025	ROD SEAL (PART OF 5)	1REF
10.	7R14P025	ROD WIPER (PART OF 5)	1REF
11.	7Q072151	O-RING (PART OF 5)	1REF
12.	7T66P035	PISTON SEAL (PART OF 5)	1REF
13.	7T65I035	PISTON RING (PART OF 5)	2REF
14.	7T61N125	LOCK RING (PART OF 5)	1REF
15.	6A025025	WAFFER LOCK (PART OF 5)	1REF
16.	73054887	VALVE 25GPM	1
17.	6C150025	STOP TUBE	1
18.	6C300025	STOP TUBE	1
19.	72053507	ZERK 1/4-28 (PART OF 2)	1REF
20.	7BF81020	BUSHING (PART OF 1 & 2)	4REF
21.	7PNPXT02	PLUG 1/8NPT (PART OF 1)	3REF

NOTE

IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

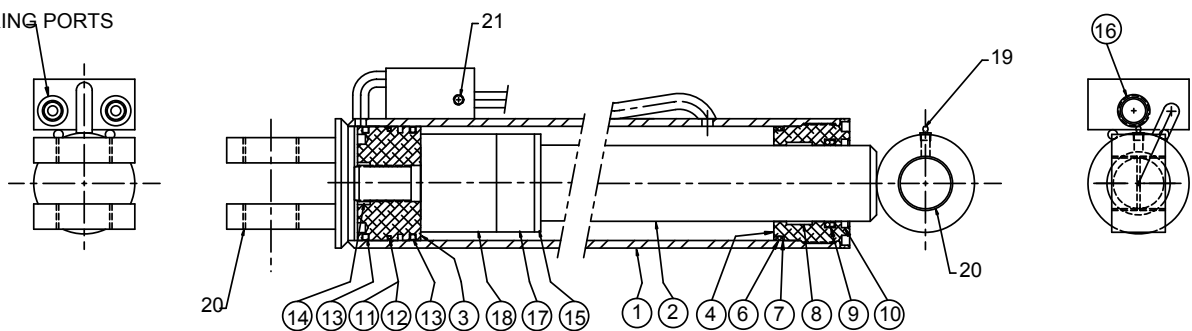
APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON AND HEAD GLANDS, LOCK RING AND ROD THREADS BEFORE ASSEMBLY.

USE "NEVER-SEEZ" OR EQUIVALENT BETWEEN THE HEAD AND THE CASE WHEN ASSEMBLING THE CYLINDER.

NOTE

USED ON CRANES WITH SERIAL NUMBERS 5217031001 AND ABOVE. CRANES WITH SERIAL NUMBERS BELOW 5217031001 USED CYLINDER 3B270000.

SAE #8 O-RING PORTS

**CYLINDER DATA**

EXT.	9.62 SQ.IN.	4.71 GAL	DRY WGT.	93 #
RETR.	1.49 SQ.IN.	.73 GAL	BRG. SPAN:	12.93%
CASE	4.00OD X 3.50ID X 45.88L		TEST PSI:	3000
ROD	2.50 X 46.44 X 1.25S		OPER PSI:	2300

Notes:

- 1) Apply "Never-Seez" regular grade anti-seize and lubricating compound to threads on cylinder head only. Keep away from all seals.
- 2) Apply "Lubriplate" 630-2 Medium Heavy, Multipurpose Lubricant to all piston, head gland, and holding valve seals, nylon lock ring, cast iron piston rings, and rod stinger threads.

OUTER BOOM CYLINDER (3C180920)

ITEM	PART NO.	DESCRIPTION	QTY
1.	4C258870	CASE ASM (INCL:20-22)	1
2.	52718647	ROD (INCL:19,21) (WAS 4H180920)	1
3.	6I045143	PISTON	1
4.	6H045030	HEAD	1
5.	9C182423	SEAL KIT (INCL:6-14,18)	1
6.	7Q072345	O-RING (PART OF 5)	1REF
7.	7Q10P346	BACK-UP RING (PART OF 5)	1REF
8.	7T2N8032	ROD WEAR RING (PART OF 5)	1REF
9.	7R546030	U-CUP SEAL (PART OF 5)	1REF
10.	7R14P030	ROD WIPER (PART OF 5)	1REF
11.	7Q072155	O-RING (PART OF 5)	1REF
12.	7T66P045	PISTON SEAL (PART OF 5)	1REF
13.	7T65I045	PISTON RING (PART OF 5)	2REF
14.	7T61N143	LOCK RING (PART OF 5)	1REF
15.	73054242	VALVE 25GPM	2REF
16.	6C150030	STOP TUBE 1-1/2	1
17.	6C300030	STOP TUBE 3	1
18.	60138277	STOP TUBE (PART OF 5) (WAS 6A025030)	1REF
19.	7BF81220	BUSHING (PART OF 2)	2REF
20.	7BF81520	BUSHING (PART OF 1)	2REF
21.	72053507	ZERK 1/4-28 (PART OF 1 & 2)	2REF
22.	7PNPXT02	PLUG 1/8NPT (PART OF 1)	2REF
23.	60125699	PIN-LOCK TUBE	1

NOTE

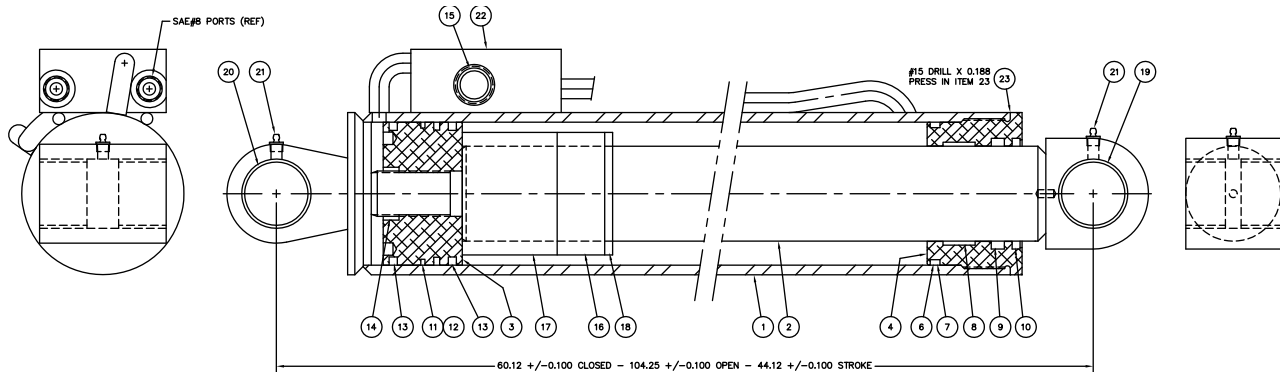
IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO CYLINDER HEAD AND CASE THREADS.

ITEM #18, STOP TUBE, REPLACES 6A025030 WAFER LOCK. USE STOP TUBE INSTEAD OF WAFER LOCK WHEN RESEALING CYLINDER.

PRESS LOCKING PIN (ITEM #23) INTO #15 HOLE DRILLED 0.188" DEEP.



EXT BOOM CYLINDER-2H (3K185920)

ITEM	PART NO.	DESCRIPTION	QTY
1.	4K185920	CASE ASM (INCL:29)	1
2.	4H185920	CASE/ROD ASM	1
3.	4G185920	ROD ASM (INCL:30)	1
4.	4FG12085	MOUNTING RING	1
5.	6I095850	PISTON	1
6.	6I025087	PISTON	1
7.	6H271511	HEAD	1
8.	6H112820	HEAD	1
9.	6C300015	STOP TUBE 3"	1
10.	6C050015	STOP TUBE 1/2"	1
11.	73054242	VALVE	2
12.	9X095850	SEAL KIT (INCL:13-28,31)	1
13.	7R546035	U-CUP SEAL (PART OF 12)	1REF
14.	7R14P035	ROD WIPER (PART OF 12)	1REF
15.	7Q072342	O-RING (PART OF 12)	1REF
16.	7Q10P342	BACK-UP RING (PART OF 12)	1REF
17.	7Q072153	O-RING (PART OF 12)	1REF
18.	7T66P040	PISTON SEAL (PART OF 12)	1REF
19.	7Q072147	O-RING (PART OF 12)	1REF
20.	7T65I040	PISTON RING (PART OF 12)	2REF
21.	7R546015	U-CUP SEAL (PART OF 12)	1REF
22.	7R14P015	ROD WIPER (PART OF 12)	1REF
23.	7Q072228	O-RING (PART OF 12)	1REF
24.	7Q10P228	BACK-UP RING (PART OF 12)	1REF
25.	7Q072137	O-RING (PART OF 12)	1REF
26.	7T66P025	PISTON SEAL (PART OF 12)	1REF
27.	7T61N087	LOCK RING (PART OF 12)	1REF
28.	60138272	STOP TUBE (PART OF 12)	1REF
	(WAS 6A025015)		
29.	7PNPXT02	PLUG 1/8NPT (PART OF 1)	8REF
30.	72053507	ZERK 1/4-28 (PART OF 3)	1REF
31.	7T2N4037	WEAR RING (PART OF 12)	1REF
32.	7T2N8015	WEAR RING (PART OF 12)	1REF

NOTE

IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

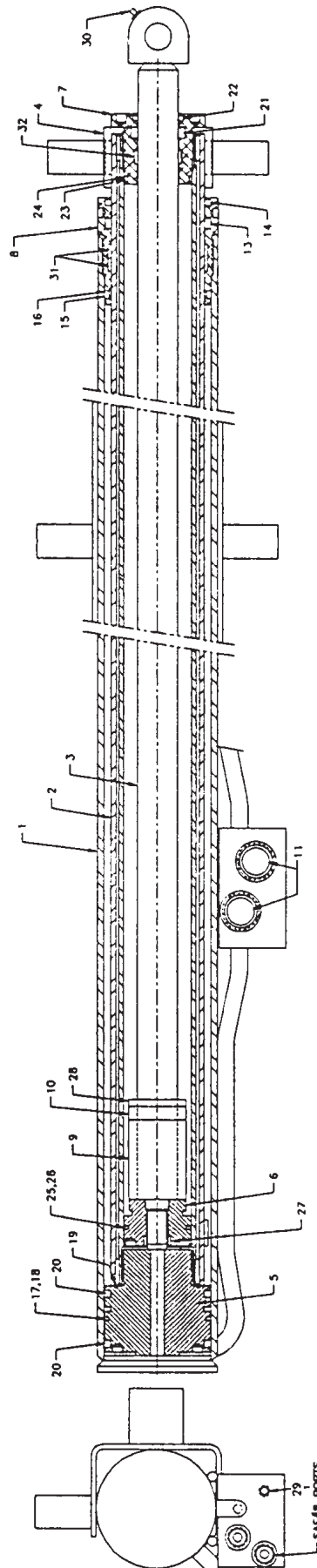
APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO CYLINDER HEAD AND CASE THREADS.

ITEM #28, STOP TUBE, REPLACES 6A025015 WAFER LOCK. USE STOP TUBE INSTEAD OF WAFER LOCK WHEN RESEALING CYLINDER.

1ST STAGE CYLINDER TORQUES: PISTON: 100-130 FT-LB, HEAD: 350 FT-LB, CARTRIDGE - 30-35 FT-LB.

2ND STAGE CYLINDER TORQUES: PISTON: 100-130 FT-LB, HEAD: 250 FT-LB, CARTRIDGE - 30-35 FT-LB.



EXTENSION BOOM CYLINDER-1H (3B200920)

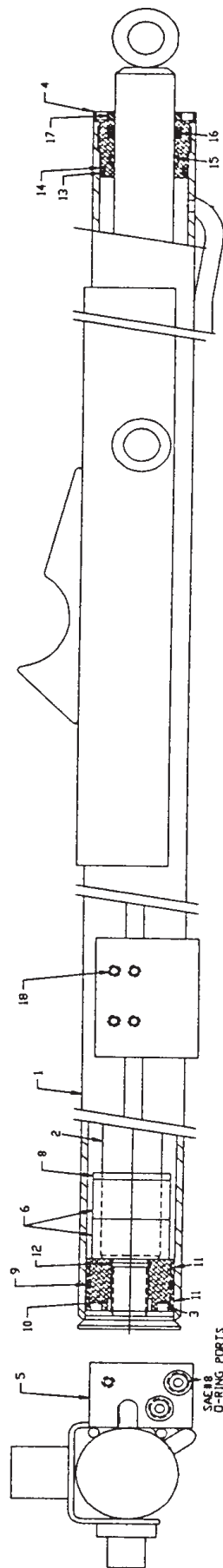
ITEM	PART NO.	DESCRIPTION	QTY
1.	4K200920	CASE ASM (INCL:18)	1
2.	4G200920	ROD ASM	1
3.	6I302125	PISTON	1
4.	6H030020	HEAD	1
5.	73054242	VALVE	2
6.	6C150020	STOP TUBE	2
7.	9C156920	SEAL KIT (INCL:8-17)	1
8.	6A025020	WAFER LOCK (PART OF 7)	1REF
9.	7T66P300	PISTON SEAL (PART OF 7)	1REF
10.	7T61N125	LOCK RING (PART OF 7)	1REF
11.	7T2N4030	WEAR RING (PART OF 7)	2REF
12.	7Q072124	O-RING (PART OF 7)	1REF
13.	7Q072334	O-RING (PART OF 7)	1REF
14.	7Q10P334	BACKUP RING (PART OF 7)	1REF
15.	7T2N4022	ROD WEAR RING (PART OF 7)	1REF
16.	7R546020	U-CUP SEAL (PART OF 7)	1REF
17.	7R14P020	ROD WIPER (PART OF 7)	1REF
18.	7PNPXT02	PLUG 1/8NPT (PART OF 1)	8REF

NOTE

IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO CYLINDER HEAD AND CASE THREADS.



PWR DN STABILIZER CYL-STD (3B221850)

ITEM	PART NO	DESCRIPTION	QTY
1.	4B221850	CASE (INCL:6)	1
2.	2G221850	ROD	1
3.	6I025087	PISTON	1
4.	6H025015	HEAD	1
5.	73054004	LOCKING/ HOLDING VALVE	1
6.	7PNPXT02	PLUG 1/8NPT (PART OF 1)	3REF
7.	6C150015	STOP TUBE	1
8.	72060708	CAP SCR 1/4-20 X 1 1/4 SH	6
9.	9B101214	SEAL KIT (INCL:10-18)	1
10.	7Q072137	O-RING (PART OF 9)	1REF
11.	7T66P025	SEAL, PISTON (PART OF 9)	1REF
12.	7T61N087	LOCK RING SEAL (PART OF 9)	1REF
13.	7T2N8015	WEAR RING (PART OF 9)	1REF
14.	60138272	STOP TUBE (PART OF 9) (WAS 6A025015)	1REF
15.	7Q072228	O-RING (PART OF 9)	1REF
16.	7Q10P228	BACK-UP RING (PART OF 9)	1REF
17.	7R546015	ROD SEAL (PART OF 9)	1REF
18.	7R14P015	ROD WIPER (PART OF 9)	1REF
19.	60125699	PIN-LOCK TUBE (PART OF 9)	1REF

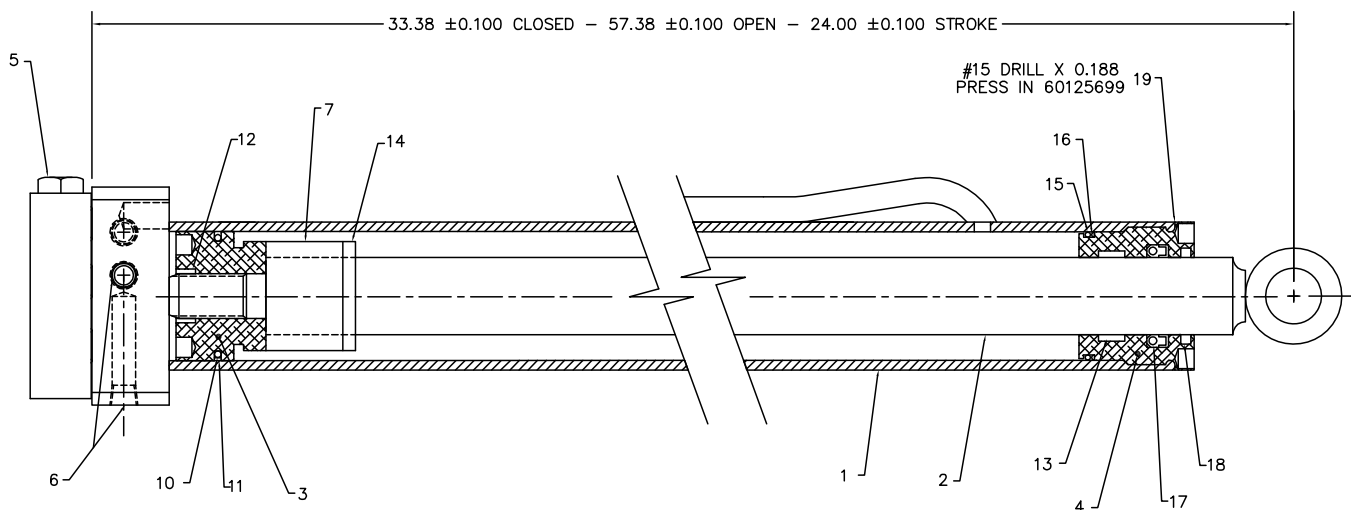
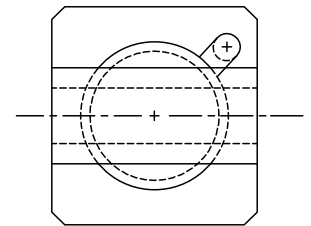
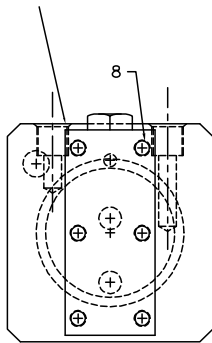
NOTE

IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO CYLINDER HEAD AND CASE THREADS.

SAE #8 O-RING PORTS



PWR OUT STABILIZER CYLINDER (3B267811)

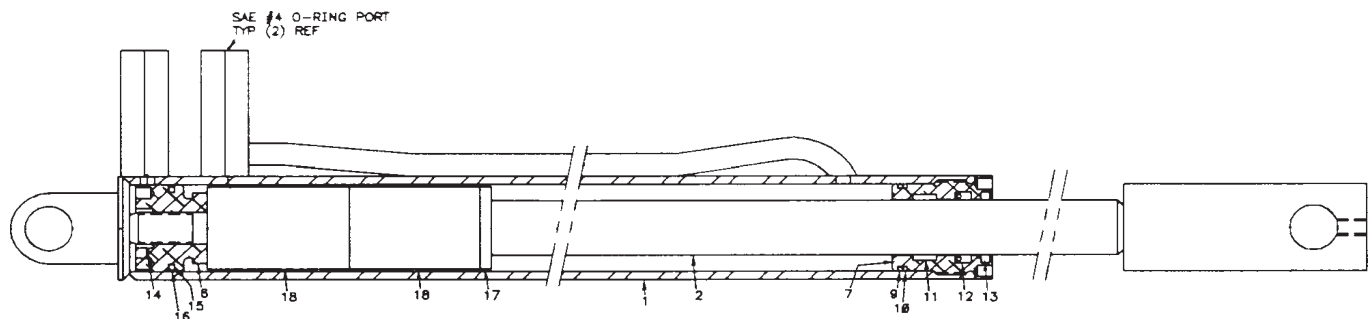
ITEM	PART NO.	DESCRIPTION	QTY
1.	4B267811	CASE ASM	1
2.	4G267811	ROD ASM	1
6.	6I020075	PISTON	1
7.	6H020012	HEAD	1
8.	9B081012	SEAL KIT (INCL:9-17)	1
9.	7Q072224	O-RING (PART OF 8)	1REF
10.	7Q10P224	BACKUP RING (PART OF 8)	1REF
11.	7T2N8012	WEAR RING (PART OF 8)	1REF
12.	7R546012	ROD SEAL (PART OF 8)	1REF
13.	7R14P012	ROD WIPER (PART OF 8)	1REF
14.	7T61N075	LOCK RING SEAL (PART OF 8)	1REF
15.	7Q072129	O-RING (PART OF 8)	1REF
16.	7T66P020	PISTON SEAL (PART OF 8)	1REF
17.	6A025012	WAFFER LOCK (PART OF 8)	1REF
18.	6C300012	STOP TUBE	2

NOTE

IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

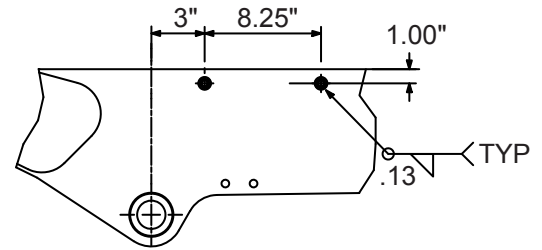
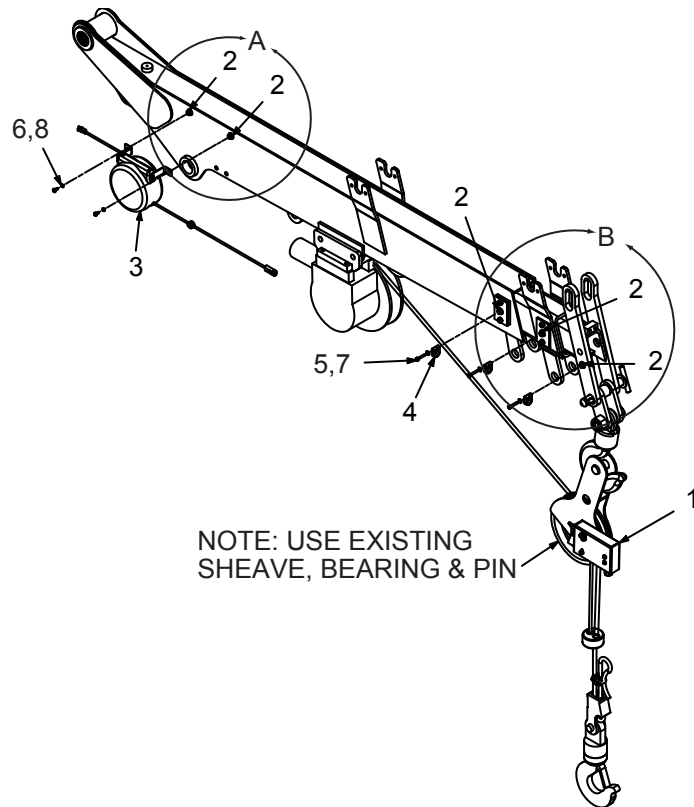
APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO CYLINDER HEAD AND CASE THREADS.

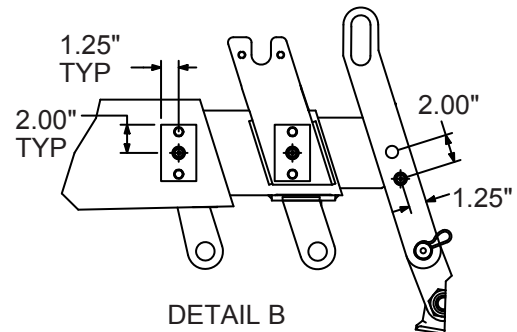


TWO-BLOCK DAMAGE PREVENTION KIT (51724349 / DWG 99905322)

ITEM	PART NO.	DESCRIPTION	QTY
1.	51724375	YOKE-A2BASM	1
2.	72661693	BLOCK-TPD .25-20X .44X 0.91DIA	5
3.	51724374	CORD REEL ASM	1
4.	70034381	SUPPORT	3
5.	72060006	CAP SCR .25-20X 1.50 HH GR5 Z	3
6.	72060000	CAP SCR .25-20X .50 HH GR5 Z	2
7.	72063001	WASHER .25 FLAT	3
8.	72063049	WASHER .25 LOCK	2



DETAIL A

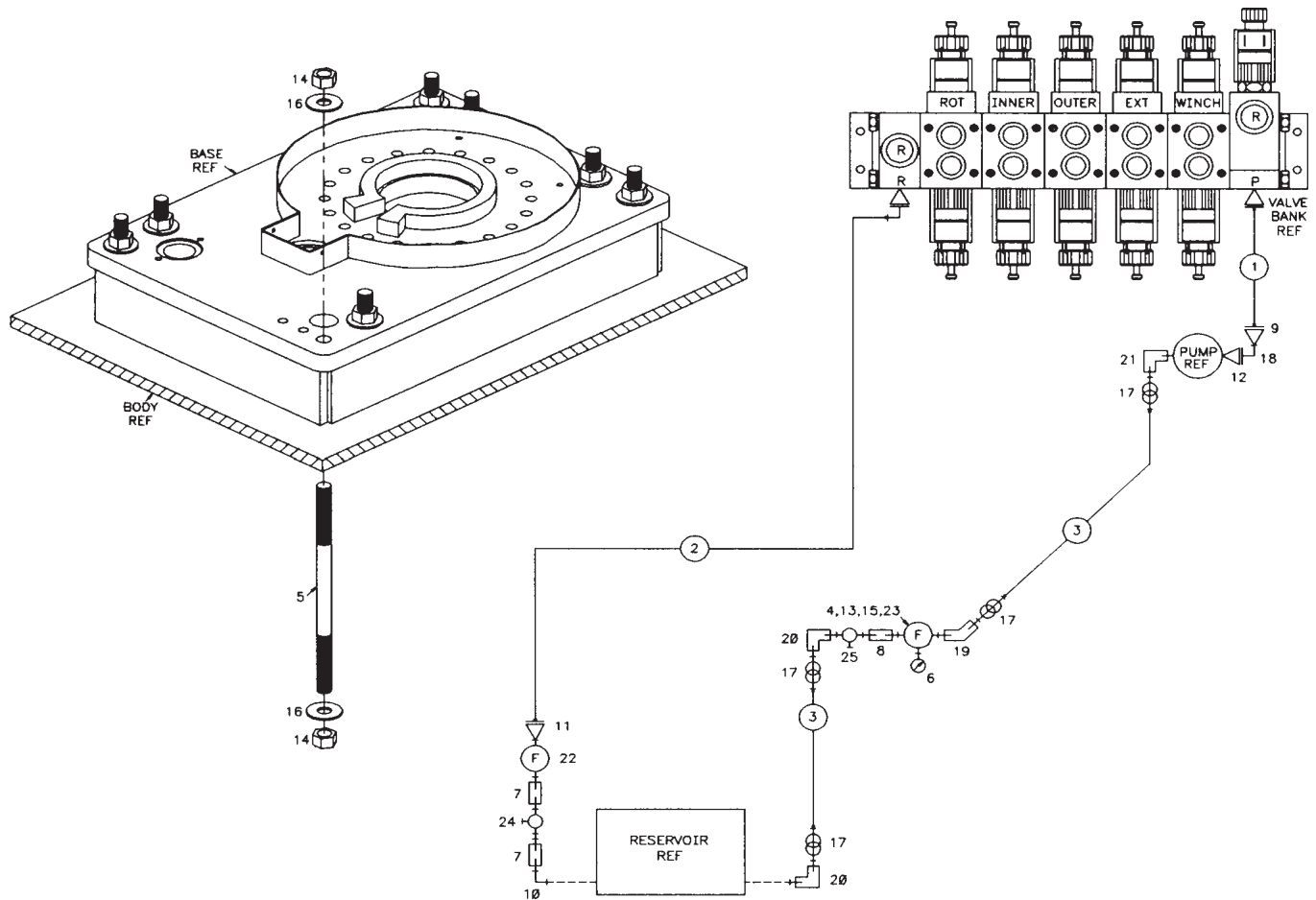


DETAIL B

INSTALLATION KIT-CTR MNT (93712950)

ITEM	PART NO.	DESCRIPTION	QTY
1.	51703873	HOSE ASM 1/2X270 #8F #8F	1
2.	51703875	HOSE ASM 3/4X264 #12F #12F	1
3.	60035829	HOSE 1-1/4 100R4 X 48	2
4.	60103870	OIL FILTER BRACKET	1
5.	60107829	TIE DOWN STUD 1X18	8
6.	70048031	VACUUM GAUGE	1
7.	72053141	PIPE NIPPLE 3/4 X CLOSE	2
8.	72053211	PIPE NIPPLE 1-1/4 X CLOSE	1
9.	72053497	ADAPTER 1/2MPT #8MJIC	1
10.	72053556	STREET ELBOW 3/4NPT 90°	1
11.	72053676	ADAPTER 3/4MPT #12MJIC	1
12.	72053749	ADAPTER #16MSTR 1/2FPT	1

13.	72060025	CAP SCR 5/16-18X1 HHGR5	2
14.	72062141	NUT 1-8 HEXSTL INSERT LOCK	16
15.	72063050	WASHER 5/16 LOCK	2
16.	72063066	WASHER 1 HI-STRENGTH	16
17.	72066516	HOSE CLAMP 1-1/4 2-BOLT	4
18.	72531133	STREET ELBOW 1/2NPT 90°	1
19.	72531196	BARB NIPPLE 1-1/4MPT 1-1/4 45°	1
20.	72532346	BARB NIPPLE 1-1/4MPT 1-1/4 90°	2
21.	72532708	BEAD NIPPLE #16MSTR 1-1/4 90°	1
22.	73052000	RETURN FILTER	1
23.	73052012	SUCTION FILTER	1
24.	73054129	GATE VALVE 3/4NPT BRASS	1
25.	73054130	GATE VALVE 1-1/4NPT BRASS	1



0005200R: 93713063.01.19950724

INSTALLATION KIT-SIDE MNT (93713063)

3-22

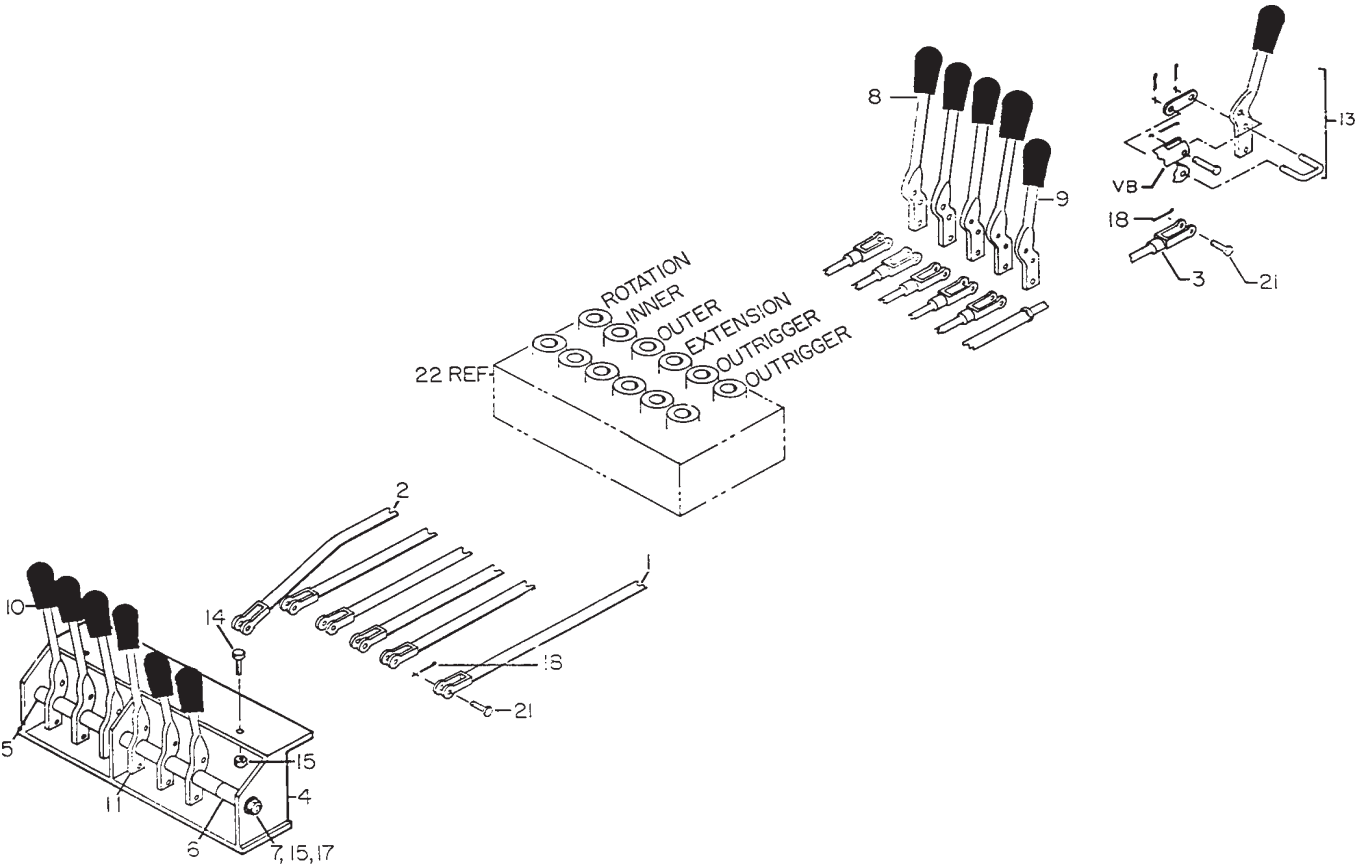
ITEM	PART NO.	DESCRIPTION	QTY
1.	51703703	HOSE ASM 1/2X72	1
2.	60035822	HOSE 3/4 100R4X 25	1
3.	60035828	HOSE 1-1/4 100R4 X 74	1
4.	60035836	HOSE 1-1/4 100R4 X 12	1
6.	52706660	FRAME SUPPORT	4
7.	60010354	CLAMP PLATE	4
8.	60103870	OIL FILTER BRACKET	1
9.	71014053	TIE DOWN STUD 1X26	8
10.	72053141	PIPE NIPPLE 3/4NPT X CLOSE	2
11.	72053185	PIPE NIPPLE 1NPT X CLOSE	1
12.	72053211	PIPE NIPPLE 1-1/4NPT X CLOSE	1
13.	72053437	REDUCE COUPLING 1-1/4 1NPT	1
14.	72053458	BARB NIPPLE 3/4MPT 3/4HOSE	2
15.	72053535	STREET ELBOW 3/4NPT 45°	1
16.	72053556	STREET ELBOW 3/4NPT 90°	2

17.	72053753	ADAPTER #20MSTR 1-1/4FPT	1
18.	72053764	ELBOW #10MSTR #8MJIC 90°	1
19.	72060025	CAP SCR 5/16-18X1 HHGR5	2
20.	72060092	CAP SCR 1/2-13X1-1/4 HHGR5	4
21.	72062141	NUT 1-8 HEXLOCK STL INSERT	16
22.	72063050	WASHER 5/16 LOCK	2
23.	72063053	WASHER 1/2 LOCK	4
24.	72063066	WASHER 1 HI-STRENGTH	16
25.	72066000	HOSE CLAMP 1/2 1-1/4 SAE#12	2
26.	72066516	HOSE CLAMP 1-1/4 2-BOLT	4
27.	72531104	ELBOW 1-1/4NPT 90°	1
28.	72531196	BARB NIPPLE 1-1/4NPT 1-1/4 45°	2
29.	72531550	BARB NIPPLE 1-1/4MPT 1-1/4	1
30.	72532261	SIGHT GAUGE 3/4	1
31.	72532346	BARB NIPPLE 1-1/4NPT 1-1/4 90°	1
32.	73052000	RETURN FILTER	1
33.	73052012	SUCTION FILTER	1
34.	73054130	GATE VALVE 1-1/4NPT BRASS	1

DRAWING NOT AVAILABLE AT TIME OF PRINTING

CONTROL KIT-MNL 6F (90713135)

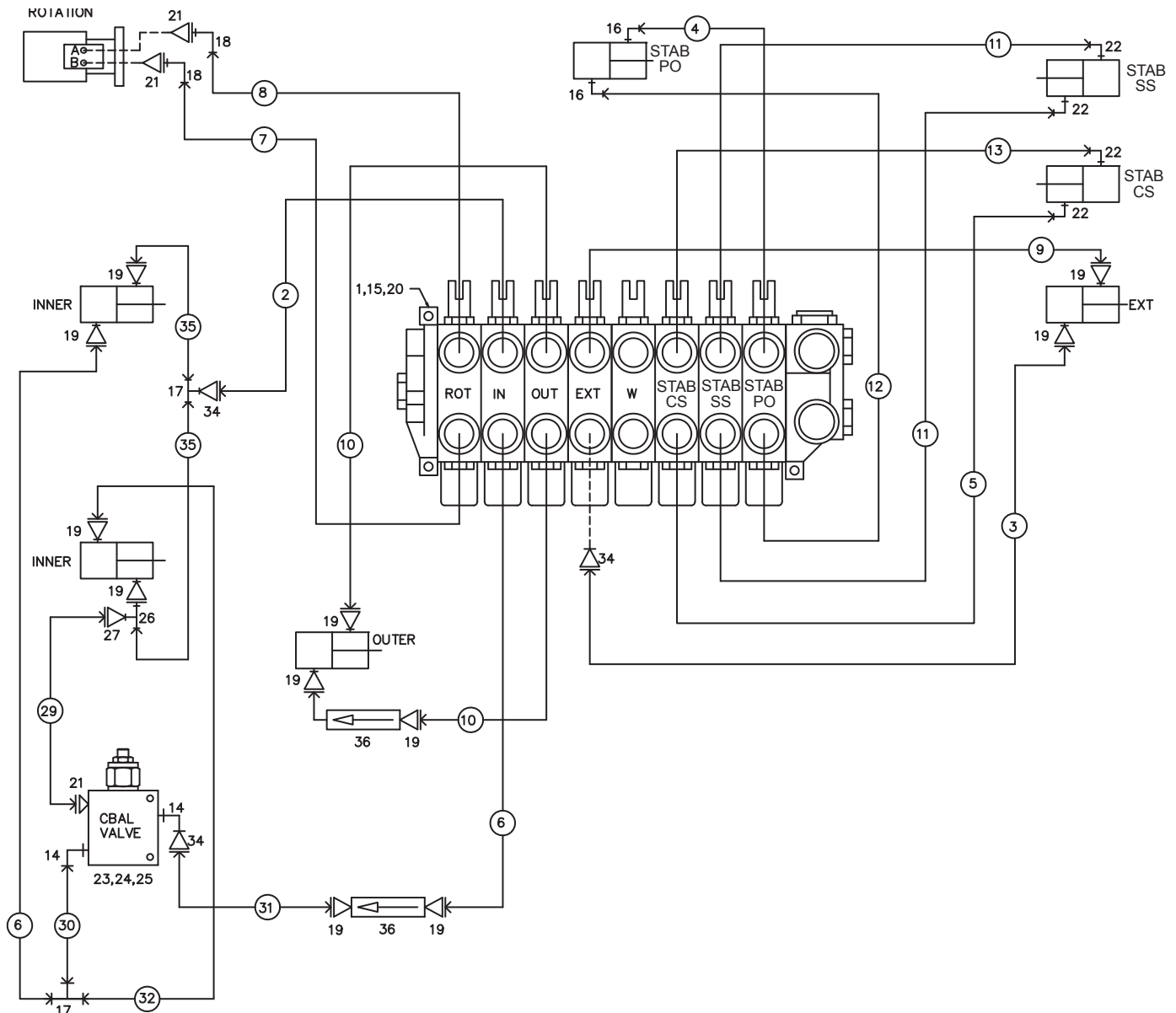
ITEM	PART NO.	DESCRIPTION	QTY				
1.	52702016	CONTROL ROD-F	5	9.	70141983	CONTROL HANDLE VB SHORT	2
2.	52702017	CONTROL ROD-BENT F	1	10.	70141984	CONTROL HANDLE DVB LONG	4
3.	52702018	CONTROL ROD-M	6	11.	70141985	CONTROL HANDLE DVB SHORT	2
4.	52713126	DUMMY VALVEBANK	1	13.	94731839	LINK & PIN KIT	6
5.	60030045	SPACER 5/8	3	14.	72060025	CAP SCR 5/16-18X1 HHGR5	2
6.	60030046	SPACER 1-1/2	6	15.	72062109	NUT 5/16-18 LOCK	4
7.	60105501	ROD-DUMMY VB	1	17.	72063002	WASHER 5/16 WRT	2
8.	70141982	CONTROL HANDLE VB LONG	4	18.	72066168	COTTER PIN .09X3/4	12
				21.	72066338	CLEVIS PIN 5/16X1	12
				22.		VALVEBANK	REF



HYD KIT-SIDE MNT 7-SECT (91712955)

1. 51712954	VALVEBANK ASM	1REF
2. 51394519	HOSE-FF .38X73 #8#8	1REF
3. 51394405	HOSE-FF .38X285 #8#8	1REF
4. 51394412	HOSE-FF .25X29.5 #4#4	1REF
5. 51394402	HOSE-FF .38X141 #8#8	1REF
6. 51392462	HOSE-FF .38X28 #8#8	2REF
7. 51394413	HOSE-FF .25X47.5 #4#4	1REF
8. 51394414	HOSE-FF .25X49.5 #4#4	1REF
9. 51394407	HOSE-FF .50X285 #8#8	1REF
10. 51394404	HOSE-FF .38X171 #8#8	2REF
11. 51394400	HOSE-FF .38X63 #8#8	2REF
12. 51394411	HOSE-FF .25X31.5 #4#4	1REF
13. 51394403	HOSE-FF .38X143 #8#8	1REF
14. 72053763	ELBOW #8MSTR #8MJIC 90°	2
15. 72060027	CAP SCR 5/16-18X1-1/2 HHGR5	3
16. 72053758	ELBOW #4MSTR #4MJIC 90°	2
17. 72531205	TEE #8MJIC	2

18. 72532690	ADAPTER #4MJIC #4FJIC	2
19. 72532358	ADAPTER #8MSTR #8MJIC (WAS 10)	11
20. 72062109	NUT 5/16-18 LOCK	3
21. 72532351	ADAPTER #4MSTR #4MJIC	3
22. 72532779	ELBOW #6MSTR #8MJIC XLG	4
23. 73540061	C'BAL VALVE	1
24. 72060008	CAP SCR 1/4-20X2 HHGR5	2
25. 72063049	WASHER 1/4 LOCK	2
26. 72532657	TEE #8JIC SWVLNUTRUN	1
27. 72532665	ADAPTER #4MJIC #8FJIC	1
29. 51395865	HOSE-FJ .25X18 #4#4	1REF
30. 51394481	HOSE-FF .38X16 #8#8	1REF
31. 51395991	HOSE-FF .38X52 #8#8	1REF
32. 51395864	HOSE-FF .38X6 #8#8	1REF
33. 51716370	HOSE KIT (INCL:2-13,29-32,35)	1
34. 72532980	SWIVEL #8MJIC #8FJIC IN-LINE	3
35. 51395802	HOSE-FJ .38X13.5 #4#4	2REF
36. 73054426	ADJ RELIEF VALVE (WAS 1)	2



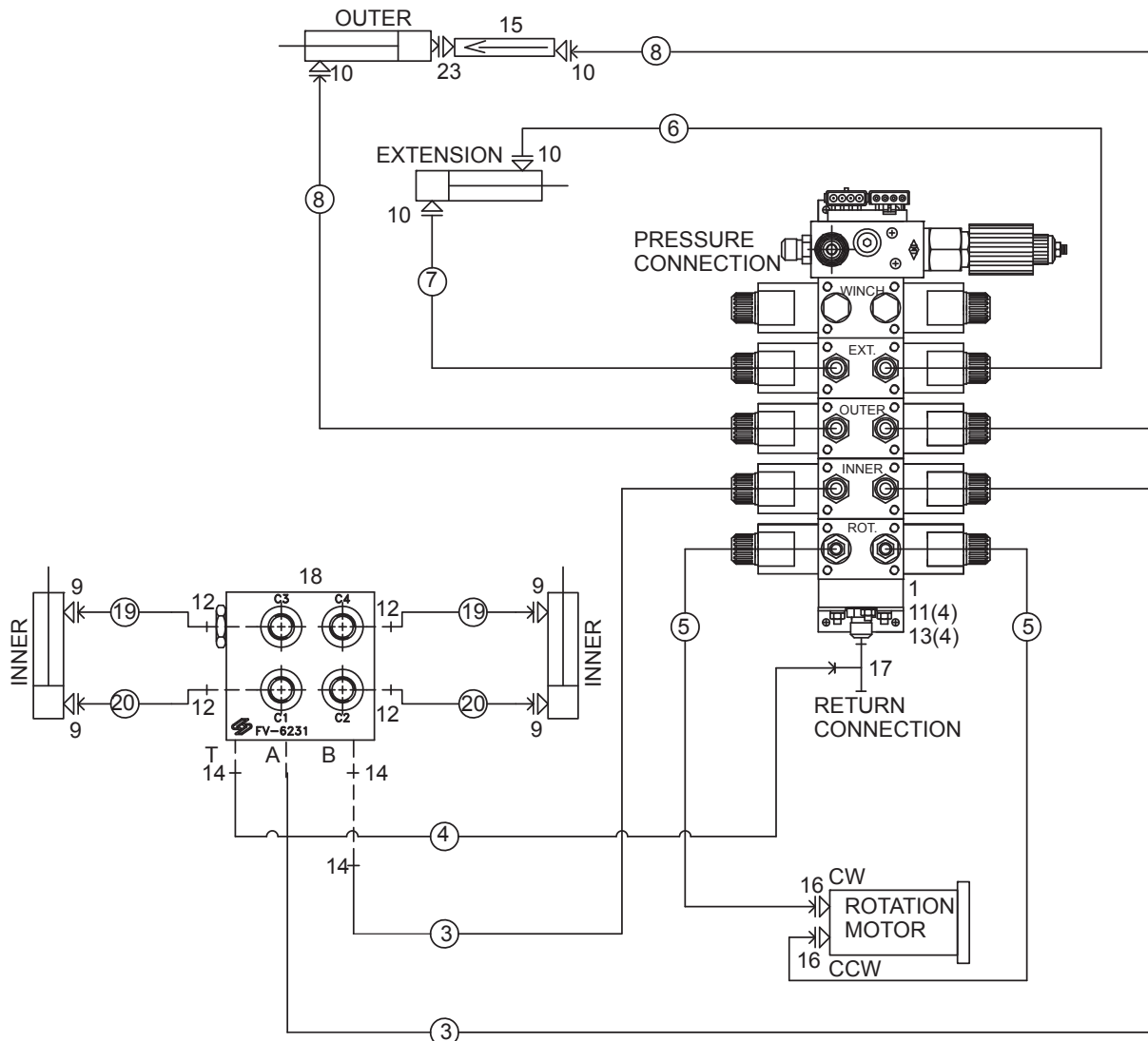
HYDRAULIC KIT 5-SECTION FAUVER (91717600) (EFF. 2-14-03)

1.	73734493	VALVE BANK ASM (WAS 73733366)	1
2.	51717601	HOSE KIT (INCL. 3-8)	1
3.	51396292	HOSE-FJ 3/8X19 OAL (6-8)	2REF
4.	51396293	HOSE-FF 3/8X18 OAL (6-8)	1REF
5.	51395709	HOSE-FJ 1/4X66 OAL (4-4)	2REF
6.	51395710	HOSE-FJ 3/8X186 OAL (8-8)	1REF
7.	51395711	HOSE-FJ 1/2X186 OAL (8-8)	1REF
8.	51395712	HOSE-FZ 3/8X70 OAL (8-8)	2REF
9.	72533186	ADPTR #6MFACE #6MSTR	4
10.	72532358	ADPTR #8MSTR #8MJIC	4
11.	72060000	CAP SCR 1/4-20X1/2 HHGR5	4
12.	72533163	ELBOW #6MSTR #6MFACE 90°	4

13.	72063049	WASHER 1/4 LOCK	4
14.	72532775	ADPTR #4MSTR #6MJIC	3
15.	72532728	UNION-3/4MSTR 3/4MSTR	1*
16.	72532351	ADPTR #4MSTR #4MJIC	2
17.	72532657	TEE-SWIVEL NUT RUN JIC 3/4	1
18.	73540118	VALVE, CBAL	1
19.	70147881	TUBE ASM, INNER CYL, SHORT	2
20.	70147882	TUBE ASM, INNER CYL, LONG	2
21.	70034474	BLOCK, SPACER PORT TUBES	2
22.	72661570	HOSE CLAMP	2
23.	73054426	RELIEF VALVE	1*

NOTE: ITEMS 15 & 23 EFFECTIVE ON CRANE SERIAL NUMBERS 5200R031001 AND ABOVE.

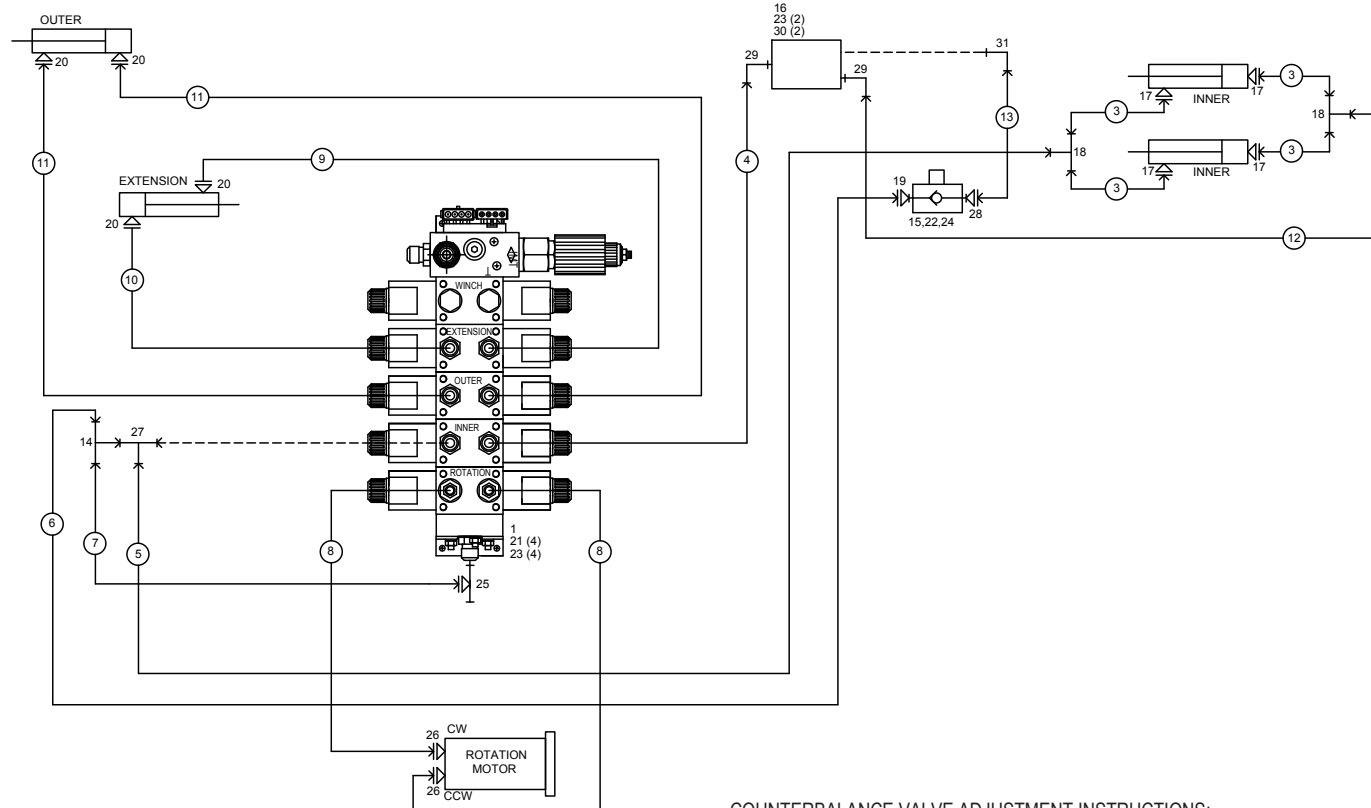
ITEM 1 EFFECTIVE S/N 5200R101010 AND BEYOND.



HYDRAULIC KIT-CTR MNT 5-SECT (91715924) (USED THRU 2-14-03)

1. 73733366	VALVEBANK ASM 5-SEC	1
2. 51715923	HOSE KIT (INCL:3-13)	1
3. 51395704	HOSE FF 3/8X30 #8#8	4REF
4. 51395705	HOSE FF 3/8X20 #8#8	1REF
5. 51395706	HOSE FF 3/8X28 #8#8	1REF
6. 51395707	HOSE FJ 3/8X10 #8#8	1REF
7. 51395708	HOSE FJ 3/8X12 #8#8	1REF
8. 51395709	HOSE FJ 1/4X66 #4#4	2REF
9. 51395710	HOSE FJ 3/8X186 #8#8	1REF
10. 51395711	HOSE FJ 1/2X186 #8#8	1REF
11. 51395712	HOSE FZ 3/8X70 #8#8	2REF
12. 51395200	HOSE FF 3/8X12 #8#8	1REF
13. 51395219	HOSE FF 1/2X18 #4#4	1REF
14. 72532671	TEE #8 SWVLNUTBRANCH	1

15. 73540060	NEEDLE VALVE	1
16. 73540061	C'BAL VALVE	1
17. 72532353	ADAPTER #6MSTR #4MJIC	4
18. 72532768	TEE #4MJIC	2
19. 72053669	ADAPTER 1/4MPT #8MJIC	1
20. 72532358	ADAPTER #8MSTR #8MJIC	4
21. 72060000	CAP SCR 1/4-20X1/2 HHGR5	4
22. 72062109	NUT 5/16-18 LOCK	1
23. 72063049	WASHER 1/4 LOCK	6
24. 72066526	HOSE CLAMP	1
25. 51716270	ORIFICE-TEE SWVL NUT RUN JIC (.042)	1
26. 72532351	ADAPTER #4MSTR #4MJIC	2
27. 72532657	TEE #8 SWVLNUTRUN	1
28. 72053499	ADAPTER 1/4MPT #4MJIC	1
29. 72053763	ELBOW #8MSTR #8MJIC 90°	2
30. 72060007	CAP SCR 1/4-20X1-3/4 HHGR5	2
31. 72053758	ELBOW #4MSTR #4MJIC 90°	1



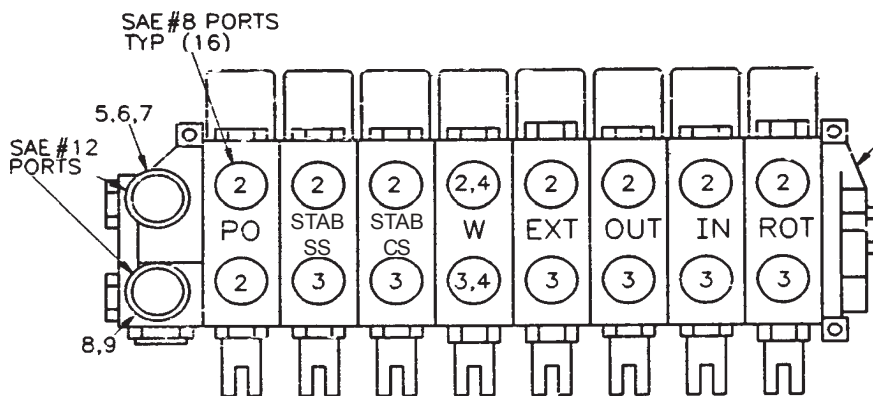
COUNTERBALANCE VALVE ADJUSTMENT INSTRUCTIONS:

- THE INNER BOOM CYLINDER COUNTERBALANCE VALVES MUST BE SET AT THEIR MAXIMUM SETTING.
- COUNTERBALANCE VALVE (ITEM #16) SHOULD BE SET AT APPROX. 3500 PSI. ADJUST VALVE BY LOWERING THE SETTING OF THE VALVE UNTIL THE CRANE IS UNSTABLE, THEN INCREASING THE SETTING UNTIL THE CRANE IS STABLE, PLUS 1/2 TURN.
- NEEDLE VALVE (ITEM #15) SHOULD BE BARELY OPEN.

VALVEBANK ASM 8-SECT MNL (51712954)

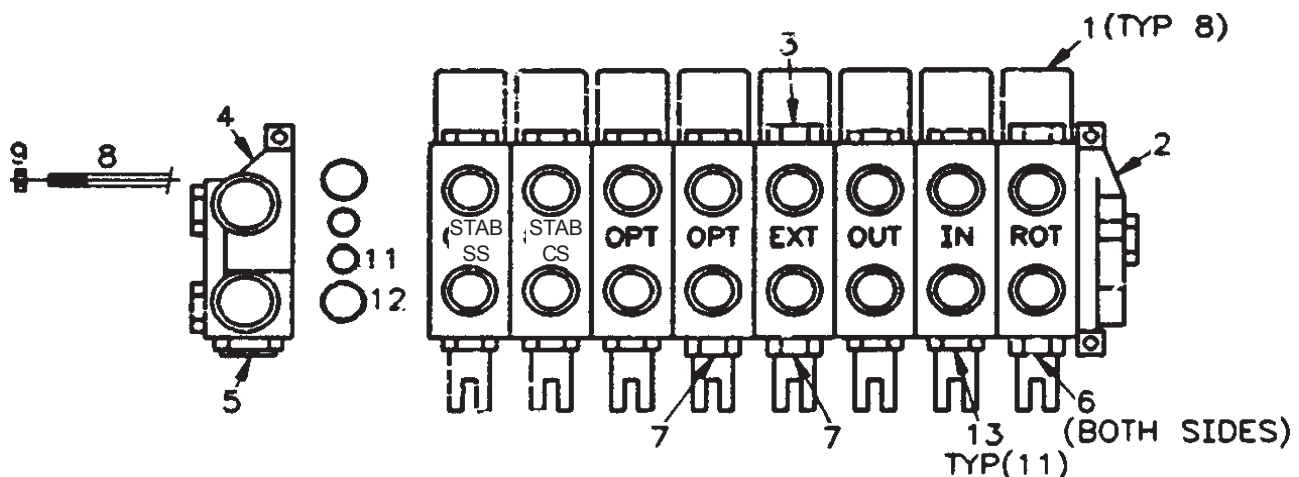
ITEM	PART NO.	DESCRIPTION	QTY
1.	73731768	VALVEBANK 8-SECT	1
2.	72053763	ELBOW #8MSTR #8MJIC 90°	8
3.	72532666	ELBOW #8MSTR #8MJIC XLG	8
4.	72532675	CAP #8JIC	2
5.	60106322	ELBOW-PR GAUGE MOD	1
6.	72532669	ADAPTER #8MJIC #10FJIC	1
7.	72053241	PIPE PLUG 1/4 HOLHEX	1
8.	72053747	ADAPTER #12MSTR 3/4FPT	1
9.	72053556	STREET ELBOW 3/4NPT 90°	1

NOTE: SET SYSTEM PRESSURE TO 2500 PSI.



VALVEBANK (73731768)

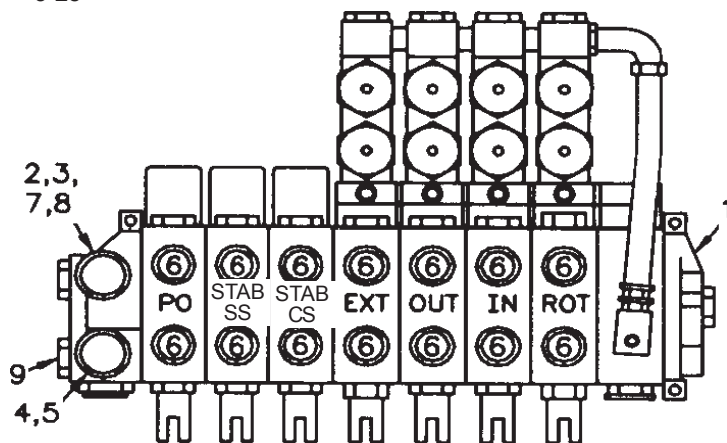
ITEM	PART NO.	DESCRIPTION	QTY
1.	73054432	VALVE SECTION	8
2.	73731241	END COVER RH W/CONV PLUG	1
3.	73054400	RELIEF 2300PSI NON-ADJ	1
4.	73731424	END COVER LH (INCL:5)	1
5.	73054673	RELIEF VALVE-ADJ (PART OF 4)	1REF
6.	73054516	RELIEF 1300PSI NON-ADJ	2
7.	73054007	RELIEF 1800PSI NON-ADJ	2
8.	73014668	STUD 3/8X17	3
9.	72062037	NUT 3/8-24 HEX	6
10.	51393494	O-RING KIT-SERVICE PART	REF
11.	7Q072117	O-RING	18
12.	7Q072119	O-RING	18
13.	73054010	LOAD CHECK PLUG ASM	11



VALVEBANK ASM 7-SECT 4R/3M (51712953)

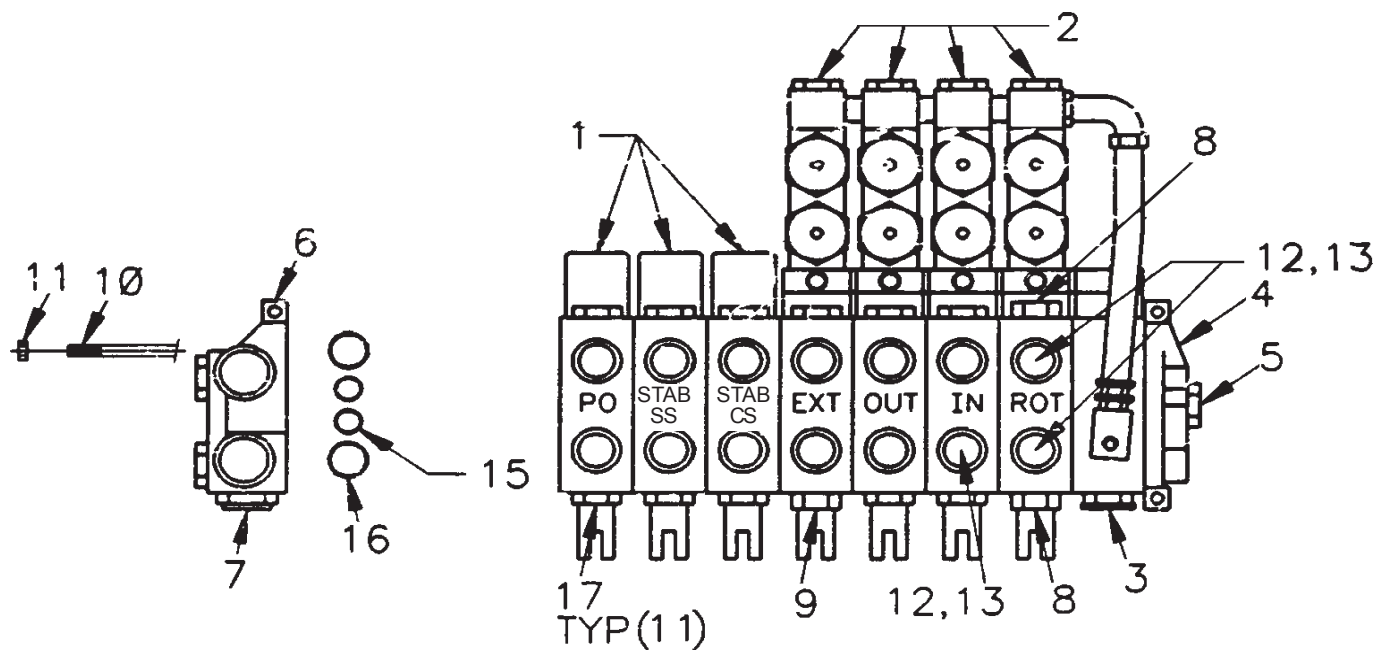
ITEM	PART NO.	DESCRIPTION	QTY
1.	51712970	VALVEBANK 7-SECT V20R	1
2.	60106322	ELBOW-PR GAUGE MOD	1
3.	72053241	PIPE PLUG 1/4 HOLHEX	1
4.	72053556	STREET ELBOW 3/4NPT 90°	1
5.	72053747	ADAPTER #12MSTR 3/4FPT	1
6.	72053777	ELBOW #8MSTR #8MJIC 45°	14
7.	72532669	ADAPTER #8MJIC #10FJIC	1
8.	72532658	ELBOW #8MJIC #8FJIC SWVL	1
9.	72052767	ELBOW #12MSTR #12MJIC 90°	1

NOTE: SET SYSTEM PRESSURE TO 2500 PSI.



VALVEBANK (51712970)

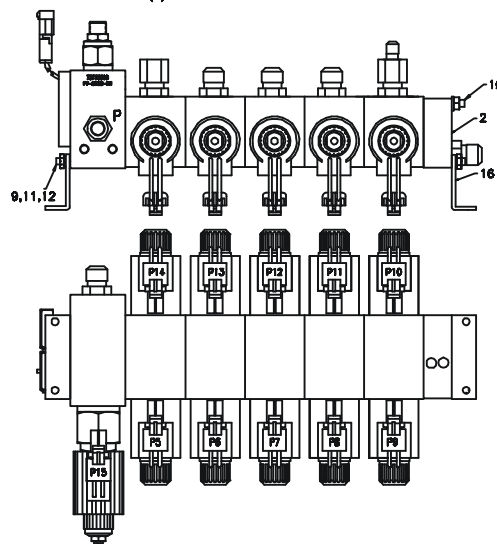
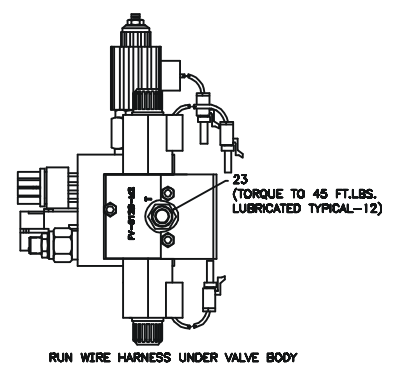
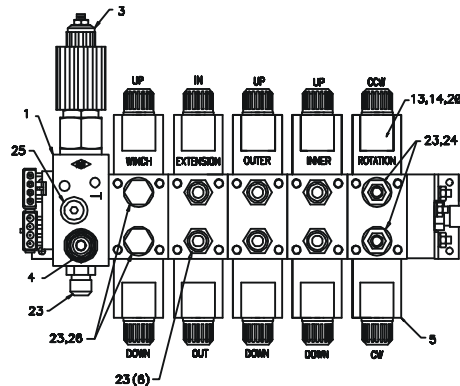
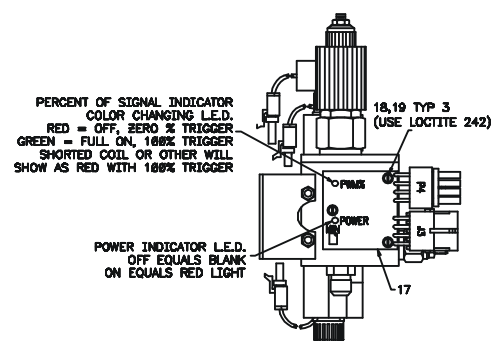
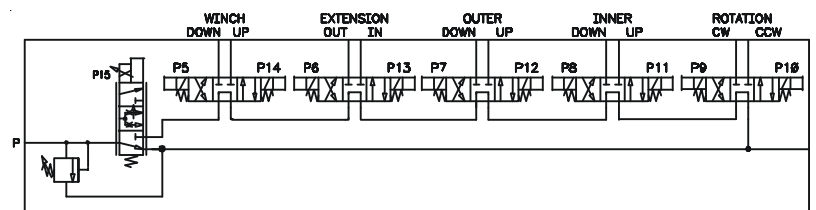
ITEM	PART NO.	DESCRIPTION	QTY
1.	73054432	VALVE SECTION V20	3
2.	73054468	VALVE SECTION V20R	4
3.	73054502	VALVE SECTION V20R UTIL	1
4.	73731241	END COVER RH W/CONV PLUG	1
6.	73731424	END COVER LH (INCL:6)	1
7.	73054673	RELIEF VALVE-ADJ (PART OF 5)	1REF
8.	73054516	RELIEF 1300PSI NON-ADJ	2
9.	73054400	RELIEF 2300PSI NON-ADJ	1
10.	73014668	STUD 3/8X17	3
11.	72062037	NUT 3/8-24 HEX	6
12.	70142402	ORIFICE PLATE	3
13.	70142403	SPRING-ORIFICE	3
14.	51393494	O-RING KIT-SERVICE PART	REF
15.	7Q072117	O-RING	18
16.	7Q072119	O-RING	18
17.	73054010	LOAD CHECK PLUG ASM	11



VB ASM 5-SECT CTR MNT (73734493)

1.	73540251	VALVE-BODY	1
2.	73540027	END CAP	1
3.	73540252	VALVE-PROPL FLOW CTRL	1
4.	73540254	VALVE-RELIEF	1
5.	91722649	VALVE SECT (WAS 73540044)	5
	or 91722723		
6.	7Q072013	O-RING	12
7.	72533477	PLUG 7/16STR HOLHEX	1
8.	70145829	EXPANDER PLUG	4
9.		ROD 1/4-20X14.69	2
10.		ROD 1/4-20X12.75	1

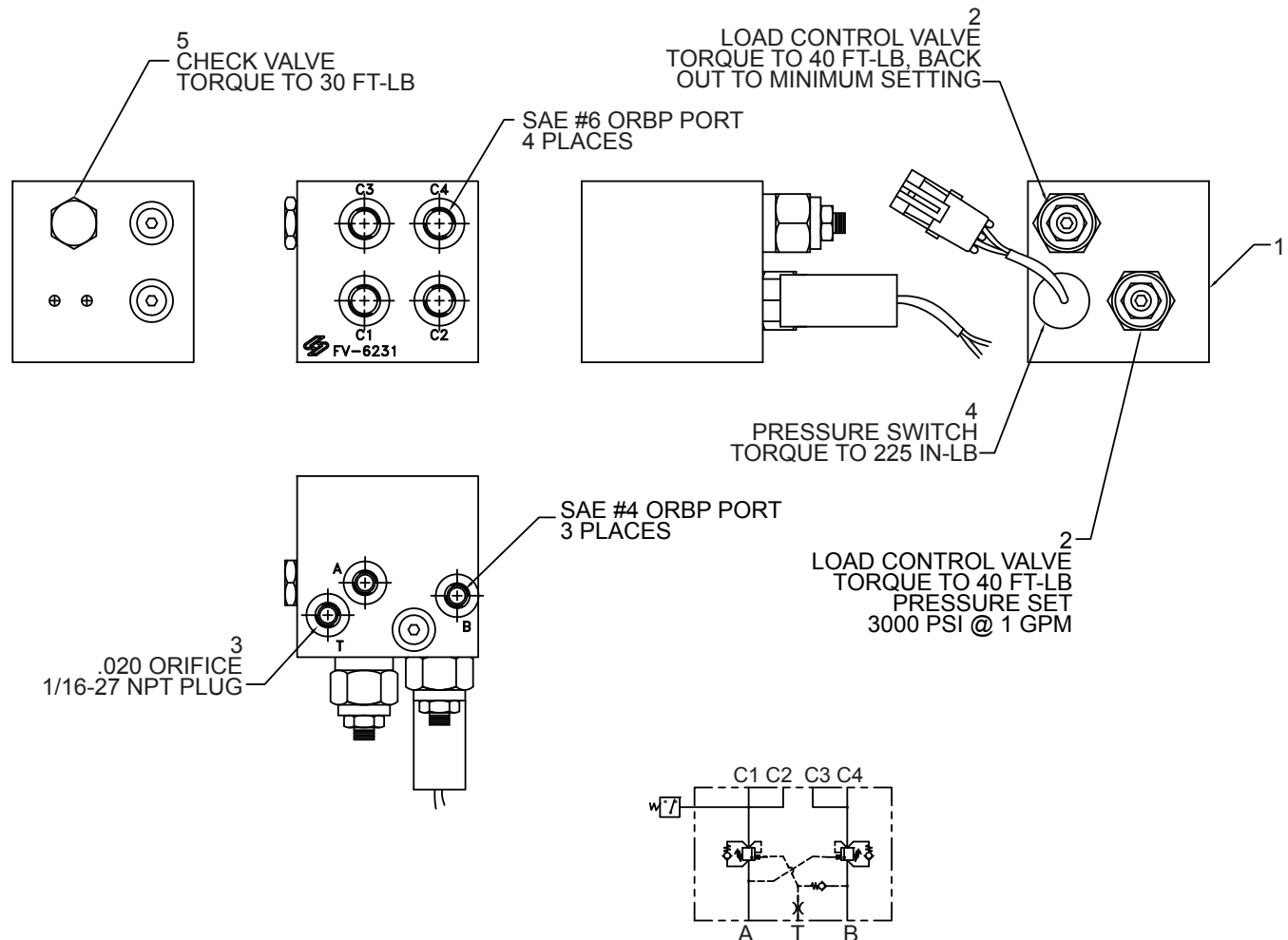
11.	72062000	NUT 1/4-20 HEX	5
12.	72063047	WASHER #10 LOCK	5
13.	77044574	CONNECTOR 2WAY	11
14.	77044550	TERMINAL F 18-20GA	22
15.	70394069	CABLE SEAL	2
16.	70145830	MTG BRKT XLG	2
17.	77044595	VALVE DRIVER	1
18.	72601704	MACH SCR #6-32X3/4 RDHD	3
19.	72061705	WASHER #6WRT	3
20.	77044594	CABLE SEAL-RED	22
23.	72532358	ADAPTER #8MSTR #8MJIC	12
24.	72532665	ADAPTER #4MJIC #8FJIC	2
25.	72533603	PLUG 9/16 HOLHEX	1
26.	72532675	CAP 3/4JIC	2
27.	73733411	WIRE HARNESS (NOT SHWN)	1
	70733875	NUT, PLASTIC, FOR COIL	REF

**VB ASM PARTS (73734493)**

3.	73544934	VALVE-PROPL FLOW CTRL	1
4.	73540254	VALVE-RELIEF	1
5.	73540375	VALVE SECTION	5
	90744198	COIL FOR 73540375	REF

VALVE, C'BAL (73540118)

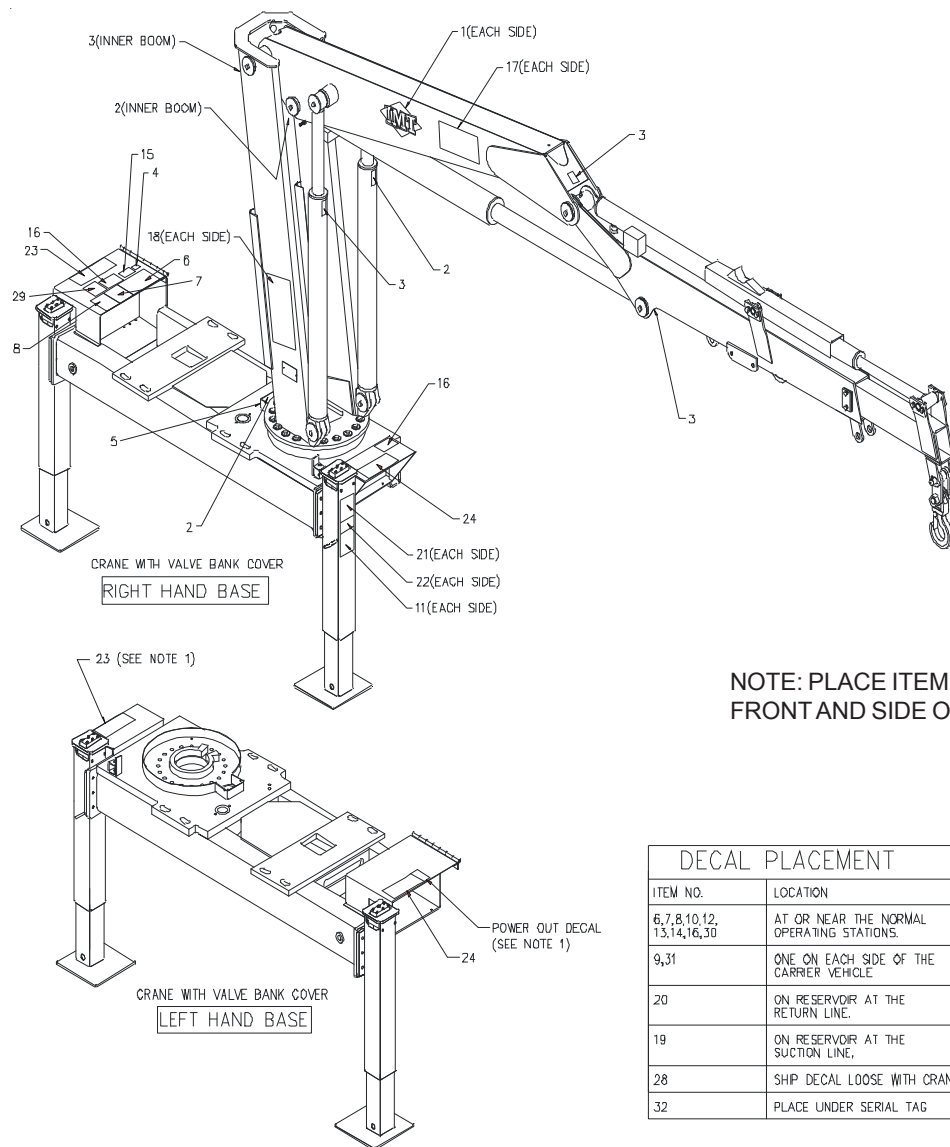
1.	73540093	CBAL VALVE BLOCK	1
2.	73540128	CBAL VALVE, 3000 PSI ADJ	2
3.	70146413	ORIFICE	1
4.	77041625	PRESSURE SWITCH	1
5.	70146414	CHECK VALVE	1



DECAL KIT-RH SIDE MNT (95712958)

1.	70029251	IMT DIAMOND	2
2.	70391612	DECAL-GREASE WEEKLY LH	3
3.	70391613	DECAL-GREASE WEEKLY RH	4
4.	70392213	DECAL-CAUTION WASH/WAX	1
5.	70392524	DECAL-ROTATE/GREASE	1
6.	70392813	DECAL-DANGER ELECTRO	2
7.	70392814	DECAL-WARN OPERATOR	2
8.	70392815	DECAL-WARN OPERATION	2
9.	70392865	DECAL-DANGER ELECTRO	4
10.	70392866	DECAL-WARN OPER COND	2
11.	70392888	DECAL-WARN OPER RESTRICT	2
12.	70392889	DECAL-DGR RC ELECTRO LG	2
13.	70392890	DECAL-DGR STOW/UNFOLD	2
14.	70392891	DECAL-DANGER DRIVELINE	2
15.	70392982	DECAL-CONTACT IMT	1

16.	71039134	DECAL-CAUTION OIL LEVEL	2
17.	71393822	DECAL-5200 SERIES IDENT	2
18.	71393864	CAPACITY PLACARD	2
19.	70392108	DECAL-SUCTION LINE	1
20.	70392109	DECAL-RETURN LINE	1
21.	70392864	DECAL-WARN STAB STD CLR	2
23.	70394228	DECAL-CNTRLRS STREET	1
24.	70394229	DECAL-CNTRLRS CURB	1
28.	71392365	DECAL-ROTATION ALIGNMENT	1
29.	70394189	DECAL-HYD OIL REC	1
30.	70392863	DECAL-DGR HOIST PERS	1
31.	70392868	DECAL-DGR CR LOADLINE	4
32.	70395323	DECAL-ASME/ANSI B30.22	1
33.	72042097	LEVEL	2

**NOTES:**

1. CUT POWER OUT DECAL SECTION FROM DECAL #23 AND PLACE ON VALVE BANK SIDE OF CRANE, LH VERSION ONLY.
2. POWER OUT DECAL IS USED ONLY IF CRANE HAS POWER OUT FUNCTION.
3. SEE SHEET 2 FOR CRANE VERSION WITHOUT VALVE BANK COVER LAYOUT.
4. ALL DECALS FOR THE LEFT HAND VERSION BASE ARE THE SAME AS THE RIGHT HAND VERSION WITH THE EXCEPTION OF THE VALVE BANK CONTROL DECALS #23 & 24.

NOTE: PLACE ITEM #33, LEVEL, ON FRONT AND SIDE OF CRANE BASE.

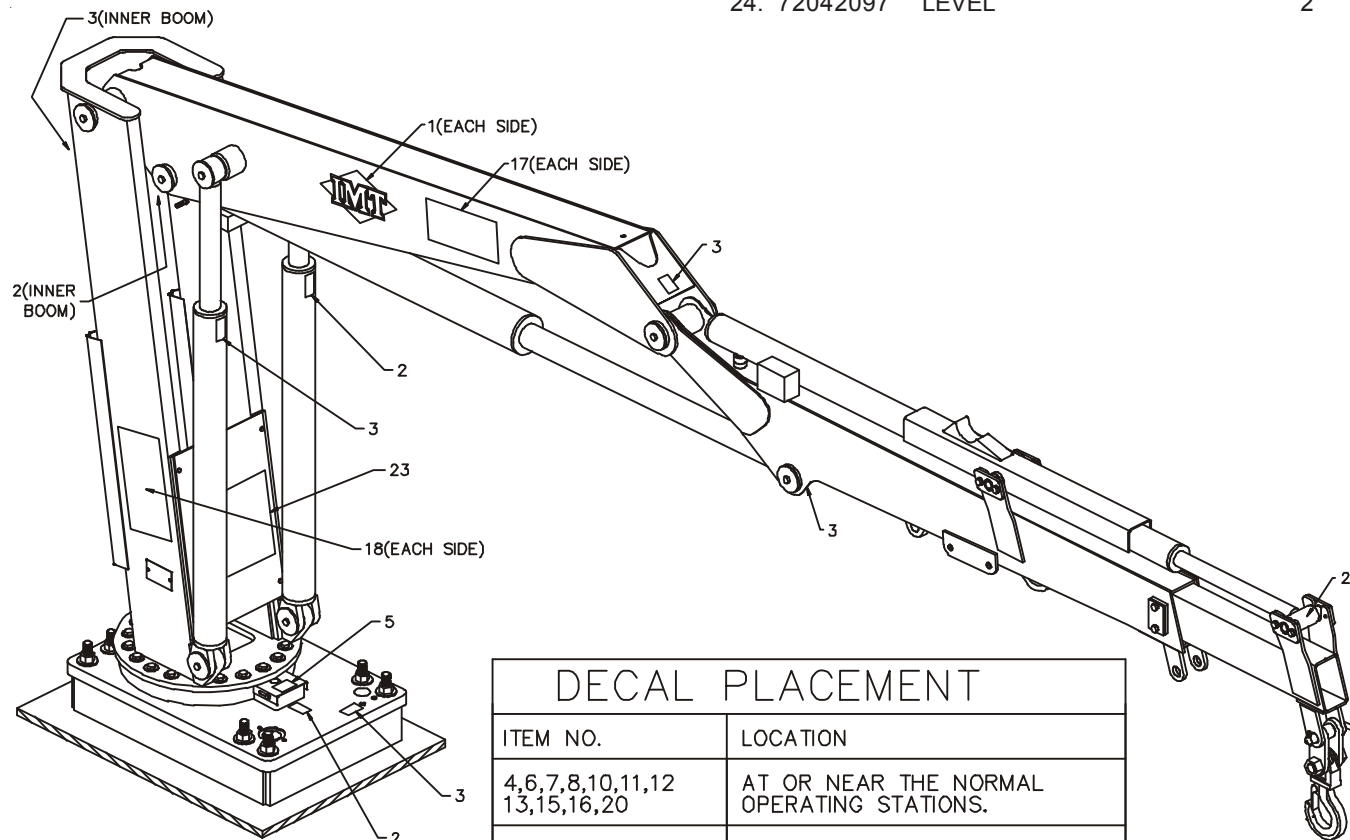
DECAL PLACEMENT

ITEM NO.	LOCATION
6,7,8,10,12,13,14,16,30	AT OR NEAR THE NORMAL OPERATING STATIONS.
9,31	ONE ON EACH SIDE OF THE CARRIER VEHICLE
20	ON RESERVOIR AT THE RETURN LINE.
19	ON RESERVOIR AT THE SUCTION LINE.
28	SHIP DECAL LOOSE WITH CRANE.
32	PLACE UNDER SERIAL TAG

DECAL KIT-CTR MNT (95712957)

1.	70029251	IMT DIAMOND	2
2.	70391612	DECAL-GREASE WEEKLY LH	4
3.	70391613	DECAL-GREASE WEEKLY RH	5
4.	70392213	DECAL-CAUTION WASH/WAX	1
5.	70392524	DECAL-ROTATE/GREASE	1
6.	70392813	DECAL-DANGER ELECTRO	1
7.	70392814	DECAL-WARN OPERATOR	1
8.	70392815	DECAL-WARN OPERATION	1
9.	70392865	DECAL-DANGER ELECTRO	4
10.	70392866	DECAL-WARN OPER COND	1

11.	70392888	DECAL-WARN OPER RESTRICT	1
12.	70392889	DECAL-DGR RC ELECTRO LG	2
13.	70392890	DECAL-DGR STOW/UNFOLD	2
14.	70392891	DECAL-DANGER DRIVELINE	2
15.	70392982	DECAL-CONTACT IMT	1
16.	71039134	DECAL-CAUTION OIL LEVEL	2
17.	71393822	DECAL-5200 SERIES IDENT	2
18.	70392864	DECAL-WARN STAB STD CLR	2
19.	70394189	DECAL-RECOMMEND HYD OIL	1
20.	70392863	DECAL-DGR HOIST PERS	1
21.	70392868	DECAL-DGR CR LOADLINE	4
22.	70395323	DECAL-ASME/ANSI B30.22	1
23.	70394764	DECAL-DGR 5-COMBINED	1
24.	72042097	LEVEL	2

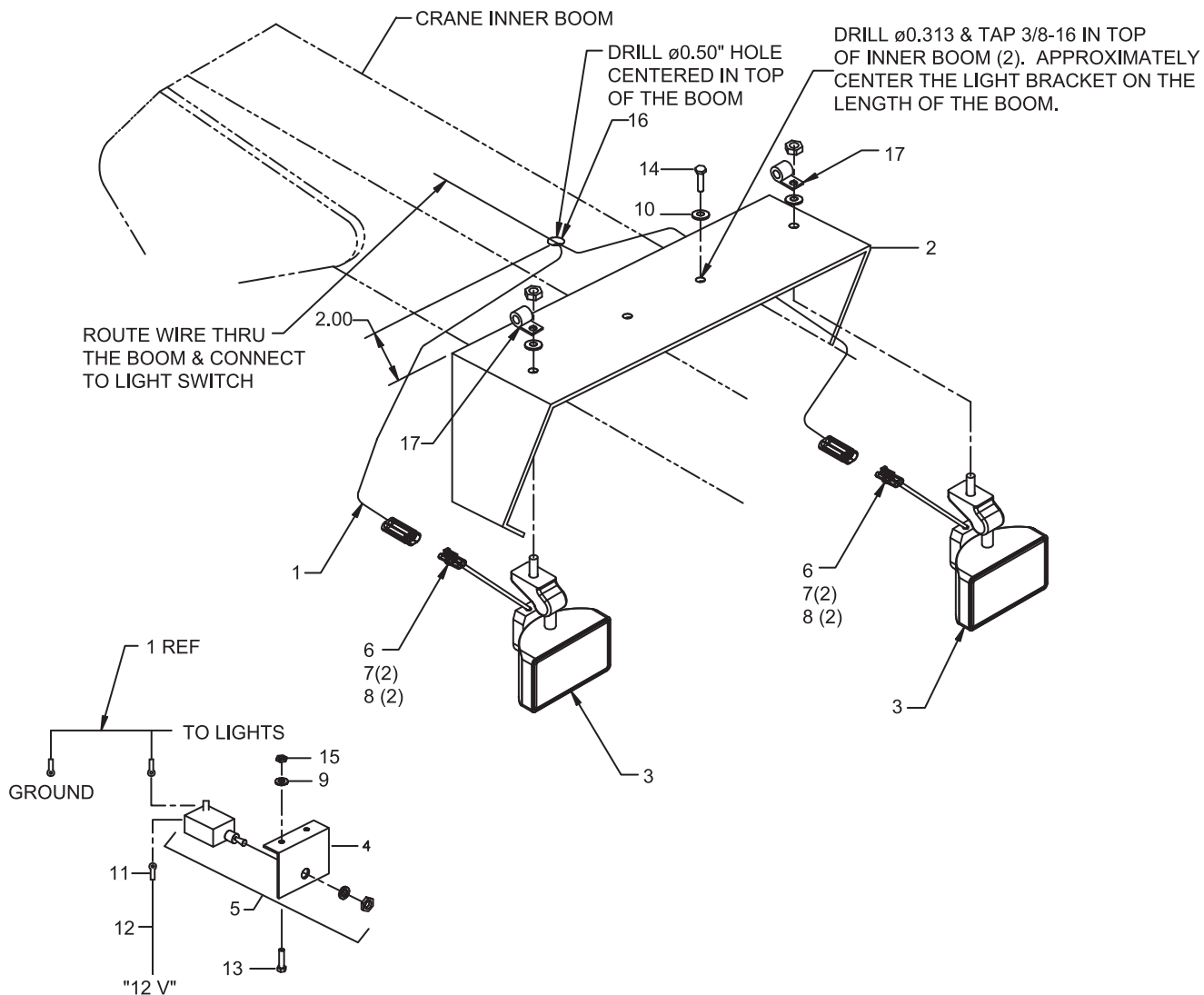


NOTE: PLACE ITEM #32, LEVEL, ON FRONT AND SIDE OF CRANE BASE.

DECAL PLACEMENT	
ITEM NO.	LOCATION
4,6,7,8,10,11,12 13,15,16,20	AT OR NEAR THE NORMAL OPERATING STATIONS.
9,21	ONE ON EACH SIDE OF THE CARRIER VEHICLE.
14	AT OR NEAR THE DRIVELINE.
22	UNDER SERIAL TAG
19	NEAR CONTROLS/ NEAR RESERVOIR

OPTION - LIGHT KIT (31717218)

ITEM	PART NO.	DESCRIPTION	QTY
1.	51717219	CABLE ASM- FLOOD LIGHTS	1
2.	60107762	GUARD	1
3.	77040424	FLOOD-LT-COMP WORK LAMP	2
4.	60103535	SWITCH BRACKET - 1 HOLE	1
5.	77041345	TOGGLE SWITCH	1
6.	77044574	CONNECTOR	2
7.	77044550	TERMINAL-F 18-20 GA	4
8.	70394069	SEAL CABLE CONNECTOR	4
9.	72063049	WASHER 1/4 LOCK	2
10.	72063051	WASHER 3/8 LOCK	2
11.	77040000	TERMINAL, RING #10 STUD 16-14	1
12.	89044274	WIRE-BLACK STRD TYPE	36"
13.	72060000	CAP SCR 1/4-20 X 1/2 HH GR5	2
14.	72060044	CAP SCR 3/8-16 X 3/4 HH GR5	2
15.	72062000	NUT 1/4-20 HEX ZINC	2
16.	76391200	GROMMET - RUBBER 9/16	1
17.	72661312	CLAMP 1/2 LOOP CUSHIONED	2



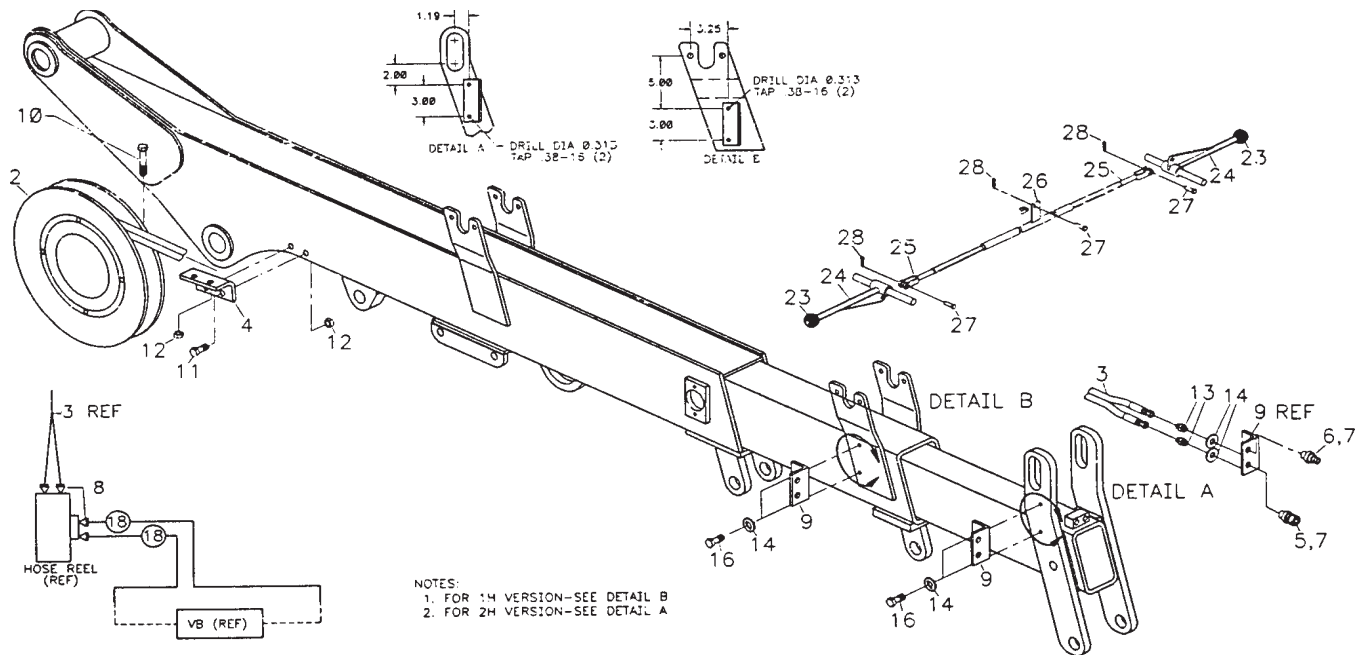
0005200R: 31712487.01.19950609

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HOSE REEL KIT-SGL (31712487)

ITEM	PART NO.	DESCRIPTION	QTY
2.	70732864	HOSE REEL-RH	1
3.	51393812	HOSE ASM 1/4X300 FF	1
4.	60117715	BRACKET	1
5.	72533380	DISC COUPLER 1/4NPT	1
6.	72533382	DISC NIPPLE 1/4NPT	1
7.	72533381	CAP 1/4	2
8.	72532353	ADAPTER #6MSTR #4MJIC	4
9.	60115137	ANGLE	1
10.	72060097	CAP SCR 1/2-13X3 HHGR5	2
11.	72060093	CAP SCR 1/2-13X1-1/2 HHGR5	2

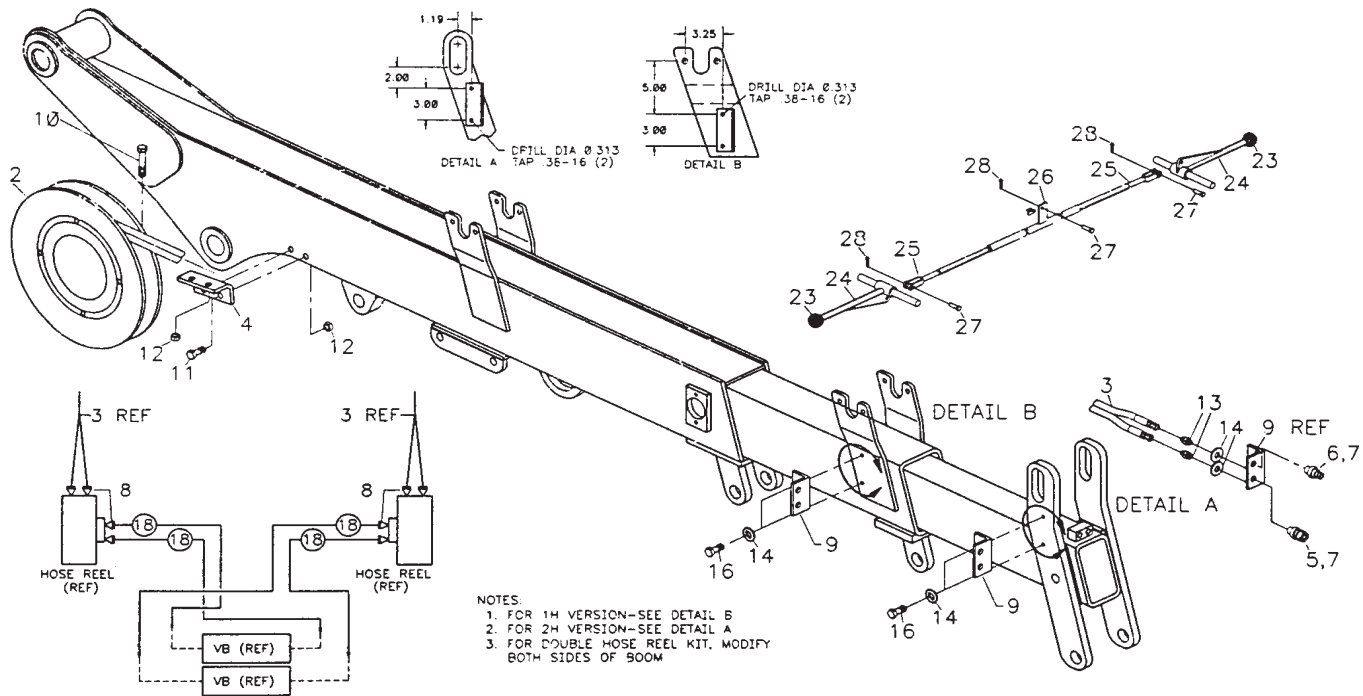
12.	72062080	NUT 1/2-13 LOCK	4
13.	72053499	ADAPTER 1/4MPT #4MJIC	2
14.	72063003	WASHER 3/8 WRT	4
16.	72060044	CAP SCR 3/8-16X3/4 HHGR5	2
18.	51708885	HOSE ASM 1/4X229 FF	2
23.	71039096	KNOB	2
24.	70029451	CONTROL HANDLE	2
25.	52704745	CONTROL ROD-M	2
26.	52704744	CONTROL ROD-F	1
27.	72066338	CLEVIS PIN 5/16X1	3
28.	72066168	COTTER PIN .09X3/4	3



HOSE REEL KIT-DBL (31712113)

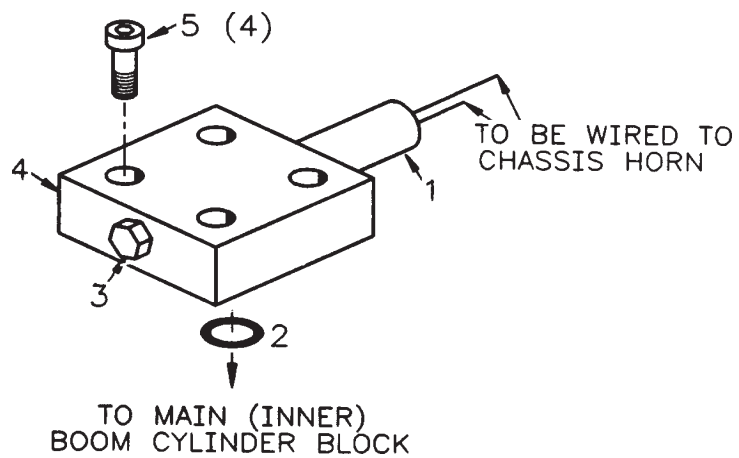
ITEM	PART NO.	DESCRIPTION	QTY
1.	70732863	HOSE REEL-LH	1
2.	70732864	HOSE REEL-RH	1
3.	51393812	HOSE ASM 1/4X300 FF	2
4.	60117715	BRACKET	2
5.	72533380	DISC COUPLER 1/4NPT	2
6.	72533382	DISC NIPPLE 1/4NPT	2
7.	72533381	CAP 1/4	4
8.	72532353	ADAPTER #6MSTR #4MJIC	8
9.	60115137	ANGLE	2
10.	72060097	CAP SCR 1/2-13X3 HHGR5	4

11.	72060093	CAP SCR 1/2-13X1-1/2 HHGR5	4
12.	72062080	NUT 1/2-13 LOCK	8
13.	72053499	ADAPTER 1/4MPT #4MJIC	4
14.	72063003	WASHER 3/8 WRT	8
16.	72060044	CAP SCR 3/8-16X3/4 HHGR5	4
18.	51708885	HOSE ASM 1/4X229 FF	4
23.	71039096	KNOB	4
24.	70029451	CONTROL HANDLE	4
25.	52704745	CONTROL ROD-M	4
26.	52704744	CONTROL ROD-F	2
27.	72066338	CLEVIS PIN 5/16X1	6
28.	72066168	COTTER PIN .09X3/4	6



**CAPACITY ALERT KIT-2800PSI
ELECTRIC (31705698)**

ITEM	PART NO.	DESCRIPTION	QTY
1.	77041283	PRESSURE SWITCH	1
2.	7Q072015	O-RING	1
3.	72532140	PLUG #6MSTR HH	1
4.	60025221	MANIFOLD	1
5.	72060731	CAP SCR 5/16-18X3/4 SH	4



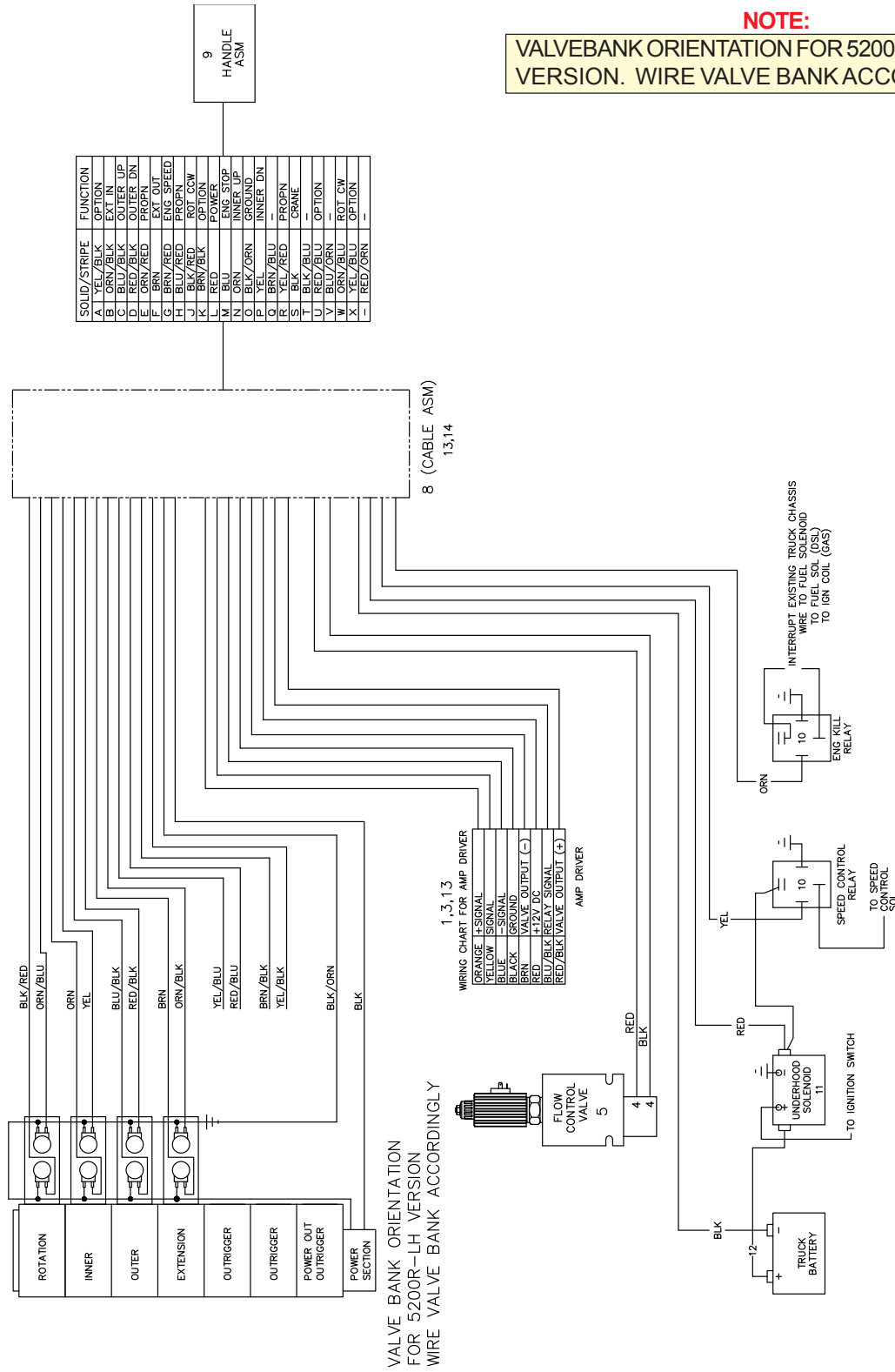
CONTROL KIT-V20R 4R/3M LEFT HAND
(90713580)

ITEM	PART NO.	DESCRIPTION	QTY
1.	77044837	VALVE DRIVER	1
3.	72063049	WASHER 1/4 LOCK	2
4.	77040186	TERM 1/4 FSLPON 16-14GA	2
5.	73054876	PRIORITY VALVE	1REF

8.	51713570	CABLE ASM	1
9.	51713429	HANDLE ASM	1
10.	77041251	RELAY	2
11.	77041237	SOLENOID 12V	1
12.	51704784	CABLE ASM #1WIRE X6	1
13.	72060004	CAP SCR 1/4-20X1 HHGR5	6
14.	72062104	NUT 1/4-20 LOCK	6
15.	60112887	MTG PLATE	1

NOTE:

VALVEBANK ORIENTATION FOR 5200R-LEFT HAND
VERSION. WIRE VALVE BANK ACCORDINGLY.



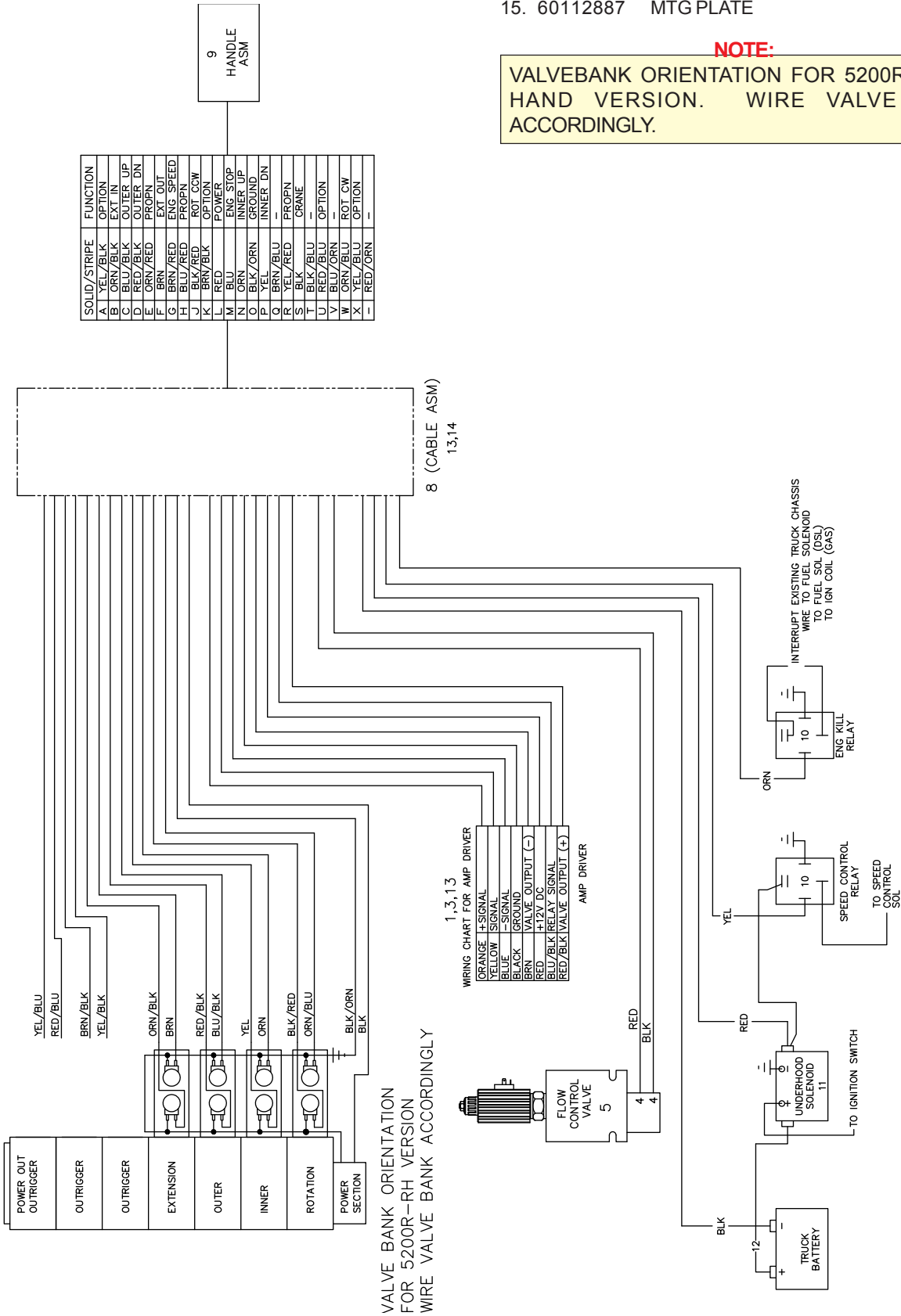
CONTROL KIT-V20R 4R/3M RIGHT HAND
(90713580)

ITEM	PART NO.	DESCRIPTION	QTY
1.	77044837	VALVE DRIVER	1
3.	72063049	WASHER 1/4 LOCK	2
4.	77040186	TERM 1/4 FSLPON 16-14GA	2
5.	73054876	PRIORITY VALVE	1REF

8.	51713570	CABLE ASM	1
9.	51713429	HANDLE ASM	1
10.	77041251	RELAY	2
11.	77041237	SOLENOID 12V	1
12.	51704784	CABLE ASM #1WIRE X6	1
13.	72060004	CAP SCR 1/4-20X1 HHGR5	6
14.	72062104	NUT 1/4-20 LOCK	6
15.	60112887	MTG PLATE	1

NOTE:

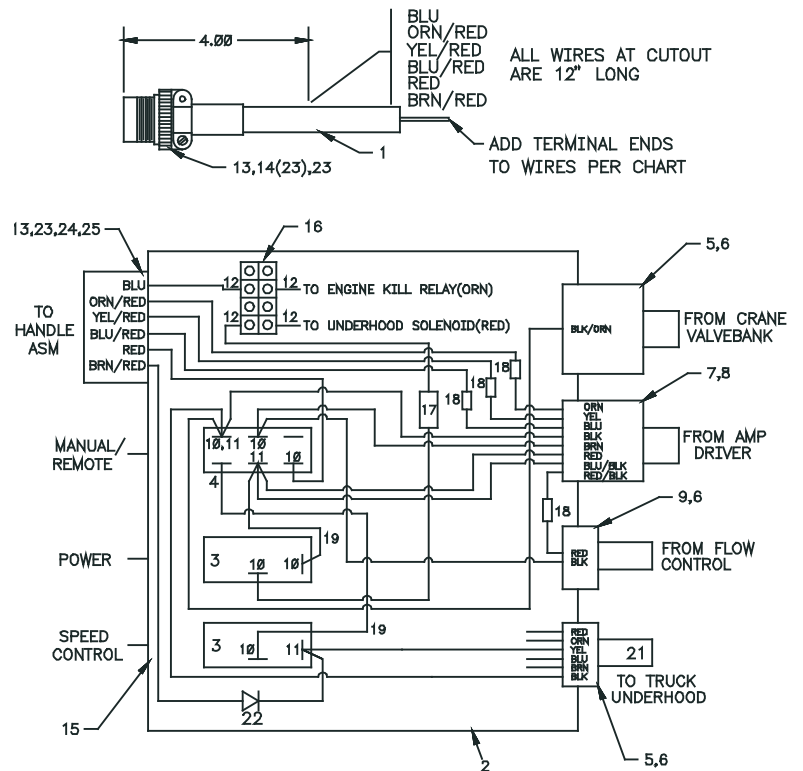
VALVEBANK ORIENTATION FOR 5200R-RIGHT
HAND VERSION. WIRE VALVE BANK
ACCORDINGLY.



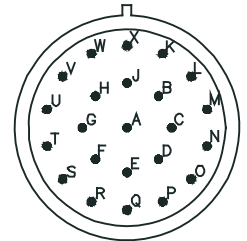
CABLE ASM-JIC BOX 50" (51713570)

1.	89044100	CABLE 18GA/24WIRE X 50	1
2.	90713575	JIC BOX	1
3.	77041345	TOGGLE SWITCH ST	2
4.	77041354	TOGGLE SWITCH DT	1
5.	77044018	STRAIN RELIEF 1/2	2
6.	77044201	NUT 1/2 ELEC LOCK	3
7.	77044196	STRAIN RELIEF 3/4	1
8.	77044202	NUT 3/4 ELEC LOCK	1
9.	77044468	STRAIN RELIEF 1/2	1
10.	77040186	TERM 1/4 FSLPON 16-14GA	25
11.	77040282	TERM 1/4 PIGBAC 16-14GA	3
12.	77040051	TERM #8 SPRSPD 16-14GA	4
13.	77044620	CONNECTOR	1
14.	77044580	SOCKET	23
15.	70393257	DECAL-JIC BOX	1
16.	77044341	TERMINAL BLOCK-4	1
17.	77041056	FUSE 20A IN-LINE	1
18.	77040048	BUTT CONNECTOR 16-14GA	4
19.	89044232	WIRE 14GA RED X 3	2
20.	77044668	PLUG-SEAL	1
21.	89044354	CABLE 14GA/6WIR	84"
22.	77041423	DIODE	1
23.	77044667	PLUG-CAP	1
24.	77044645	NUT	1
25.	77044646	WASHER-LOCK	1

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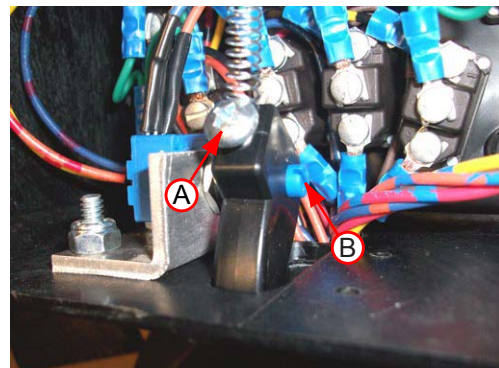


SOLID/STRIPE	TERM	ITEM NO
A YEL/BLK	10	
B ORN/BLK	10	
C BLU/BLK	10	
D RED/BLK	10	
E ORN/RED	10	
F BRN	10	
G BRN/RED	10	
H BLU/RED	10	
J BLK/RED	10	
K BRN/BLK	10	
L RED	10	
M BLU	12	
N ORN	10	
O #20	—	
P YEL	10	
Q BRN/BLU	—	
R YEL/RED	10	
S BLK	10	
T BLK/BLU	—	
U RED/BLU	10	
V BLU/ORN	—	
W ORN/BLU	10	
X YEL/BLU	10	
— RED/ORN	—	

**TETHERED PROPORTIONAL REMOTE POTENTIOMETER ADJUSTMENT**

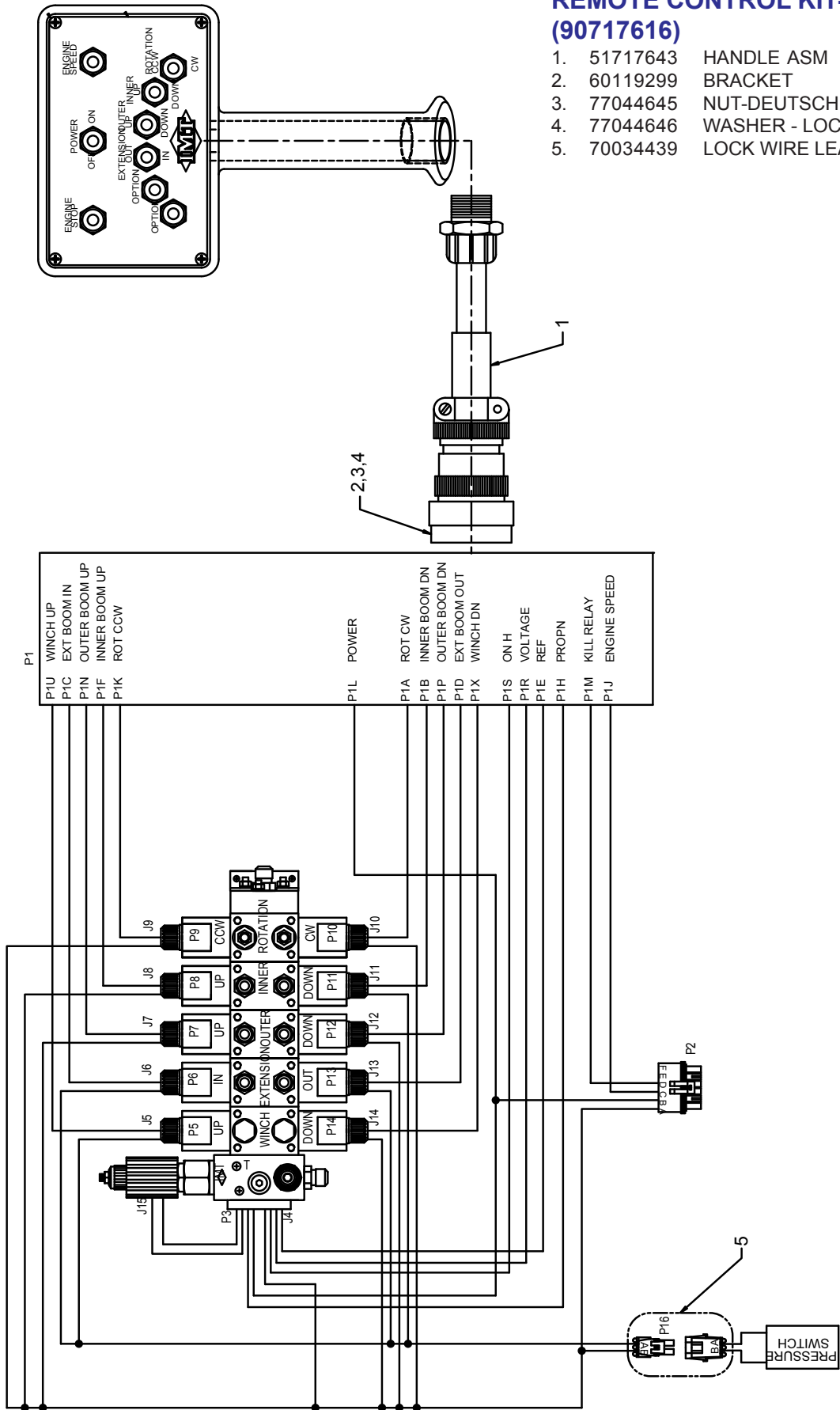
NOTES: ONLY use this procedure to set the low-end output on the remote handle assembly if crane functions operate without pulling the proportional trigger. You may need a second operator to help with steps 4 and 5.

- Following proper crane and stabilizer set-up, with the PTO engaged and the truck running, move the crane from the stowed position to a position off to the side of the truck. Unstow the winch cable hook and lower the winch approx (6) six feet.
- Remove the back cover of the remote control handle.
- Loosen screw "A" slightly. (Note: Screw style may vary).
- While holding "WINCH DOWN" function, very slowly, rotate screw "B" clockwise until all movement has stopped.
- Release "WINCH DOWN" function.
- Tighten screw "A"
- Test by operating "WINCH DOWN", "WINCH UP", "ROTATE CCW", and "ROTATE CW" without pulling the trigger. If any of these functions move, repeat steps 2 through 6.
- Replace control back cover and properly stow the crane and stabilizers.



**REMOTE CONTROL KIT-CTR MNT
(90717616)**

- | | | | |
|----|----------|-------------------------|---|
| 1. | 51717643 | HANDLE ASM | 1 |
| 2. | 60119299 | BRACKET | 1 |
| 3. | 77044645 | NUT-DEUTSCH 24 SHELL | 1 |
| 4. | 77044646 | WASHER - LOCK DEUTSCH | 1 |
| 5. | 70034439 | LOCK WIRE LEAD SEAL, 8" | 1 |



REMOTE HANDLE ASSEMBLY (51717643-1)

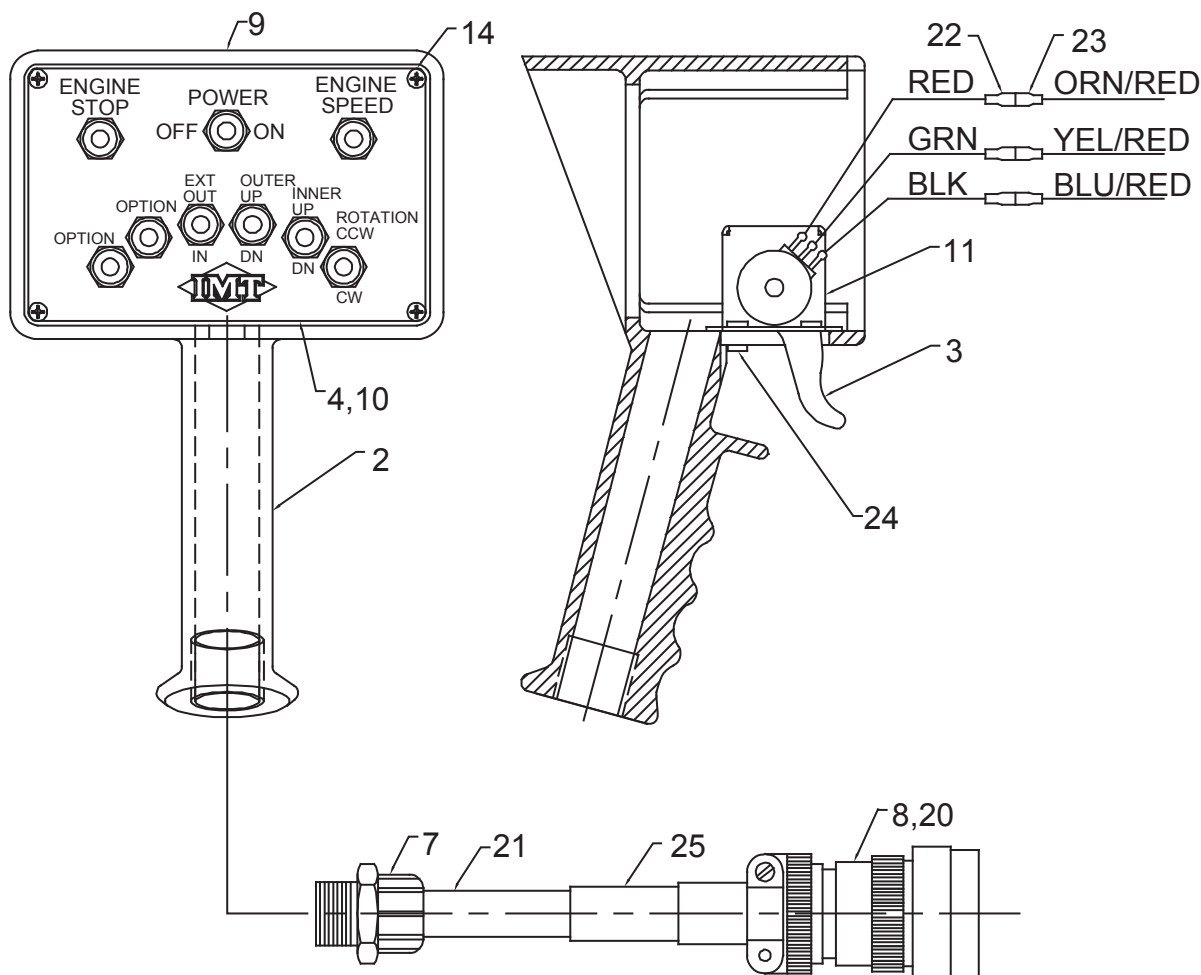
PART #	DESCRIPTION	QTY
1. 89044214	WIRE 18GA GRN	1.61'
2. 60119335	CONTROL HANDLE	1
3. 60111141	TRIGGER (PART OF 11)	1REF
4. 60119277	COVER	1
5. 70034306	BACK COVER	1
7. 77044196	STRAIN RELIEF 3/4	1
8. 77044621	PIN	23
9. 70392862	DECAL-DGR RC ELECTRO SM	1
10. 70394282	DECAL-RC HANDLE ARTIC.	1
11. 70394183	TRIGGER ASM (INCL 3)	1
14. 72061009	SHT MTL SCR #6X3/4 PH	8
15. 77040051	TERM-SPRSPD #8 16-14GA	31
16. 77040371	TOGGLE SWITCH SPST	1
17. 77040372	TOGGLE SWITCH SPDT	6
18. 77040373	TOGGLE SWITCH SPST	2
20. 77044579	CONNECTOR	1
21. 89044100	CABLE 18GA 24WIRE	45 FT
22. 77040147	TERM-FSLPON 1/4TAB 22-18	3
23. 77040047	TERM-MSLPON 1/4TAB 16-14	3
24. 72060602	MACH SCR #6-32X3/8 RDHD	4
25. 70145495	TUBING-HEAT SHRINK	.5 FT

WIRE FUNCTIONS

	SOLID/STRIPE	FUNCTION
A	YEL/BLK	ROT CW
B	ORN/BLK	INNER DOWN
C	BLU/BLK	EXTENSION IN
D	RED/BLK	EXTENSION OUT
E	ORN/RED	REF
F	BRN	INNER UP
G	BRN/RED	-
H	BLU/RED	SIGNAL COM
J	BLK/RED	ENG SPEED
K	BRN/BLK	ROT CCW
L	RED	POWER
M	BLU	ENG STOP
N	ORN	OUTER UP
O	BLK/ORN	-
P	YEL	OUTER DN
Q	BRN/BLU	-
R	YEL/RED	VOLTAGE
S	BLK	ON HANDLE
T	BLK/BLU	-
U	RED/BLU	WINCH UP
V	BLU/ORN	-
W	ORN/BLU	-
X	YEL/BLU	WINCH DN
-	RED/ORN	-

NOTE

CONTINUED ON NEXT PAGE



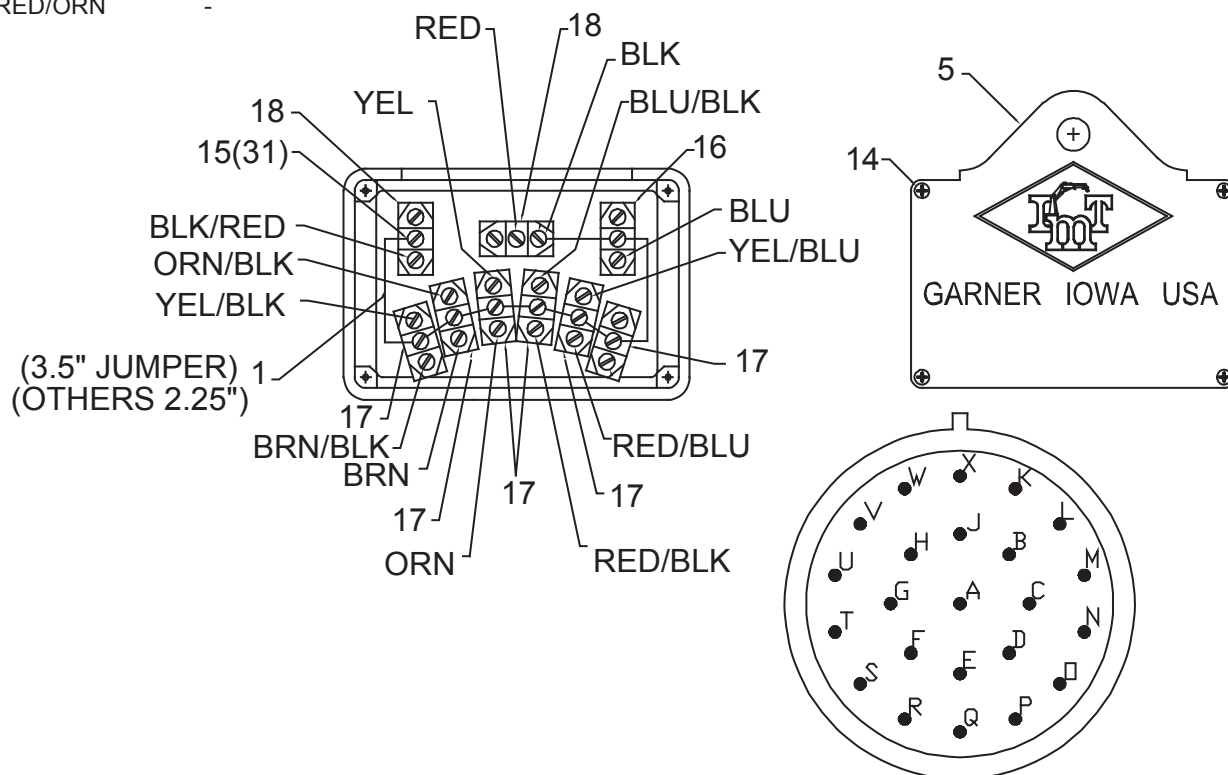
REMOTE HANDLE ASSEMBLY (51717643-2)

NOTE

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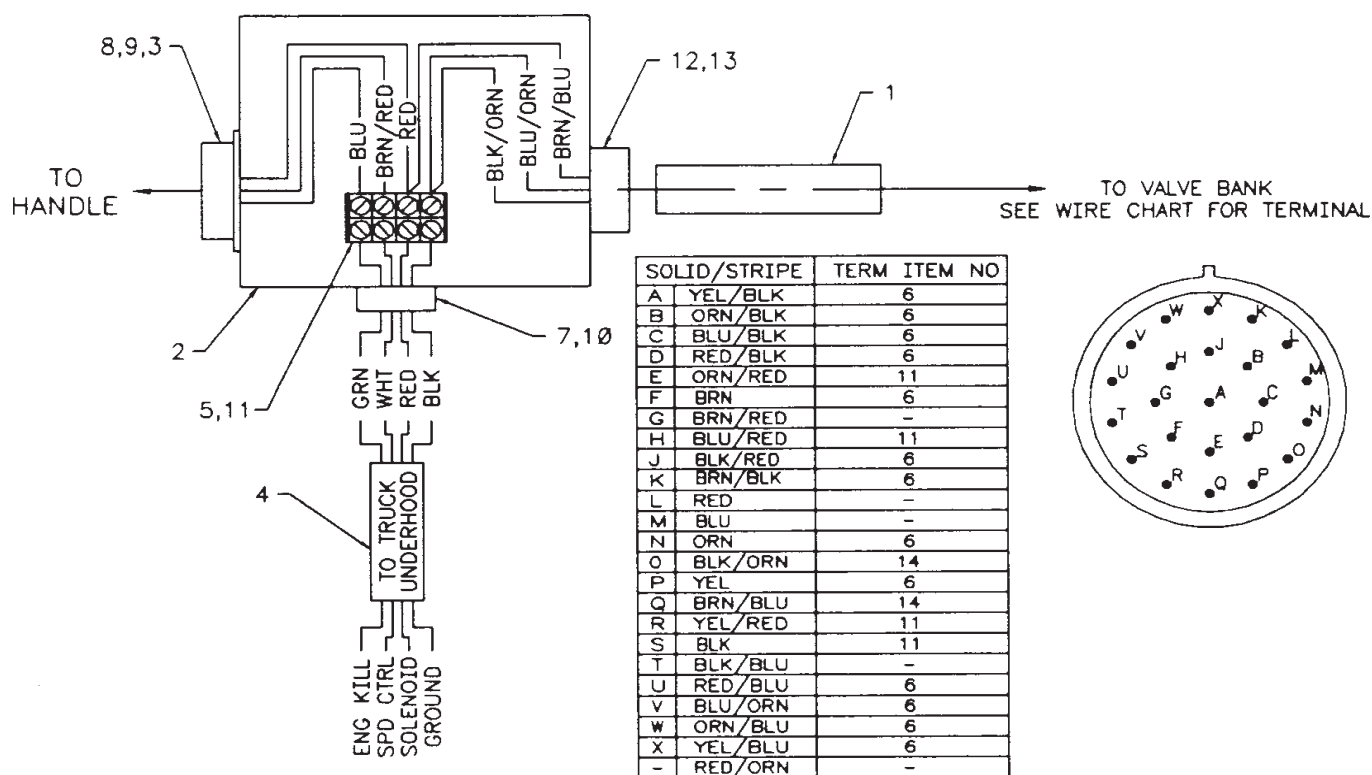
WIRE FUNCTIONS

	SOLID/STRIPE	FUNCTION
A	YEL/BLK	ROT CW
B	ORN/BLK	INNER DOWN
C	BLU/BLK	EXTENSION IN
D	RED/BLK	EXTENSION OUT
E	ORN/RED	REF
F	BRN	INNER UP
G	BRN/RED	-
H	BLU/RED	SIGNAL COM
J	BLK/RED	ENG SPEED
K	BRN/BLK	ROT CCW
L	RED	POWER
M	BLU	ENG STOP
N	ORN	OUTER UP
O	BLK/ORN	-
P	YEL	OUTER DN
Q	BRN/BLU	-
R	YEL/RED	VOLTAGE
S	BLK	ON HANDLE
T	BLK/BLU	-
U	RED/BLU	WINCH UP
V	BLU/ORN	-
W	ORN/BLU	-
X	YEL/BLU	WINCH DN
-	RED/ORN	-



CABLE ASM-JIC BOX SM 144" **(51713617)**

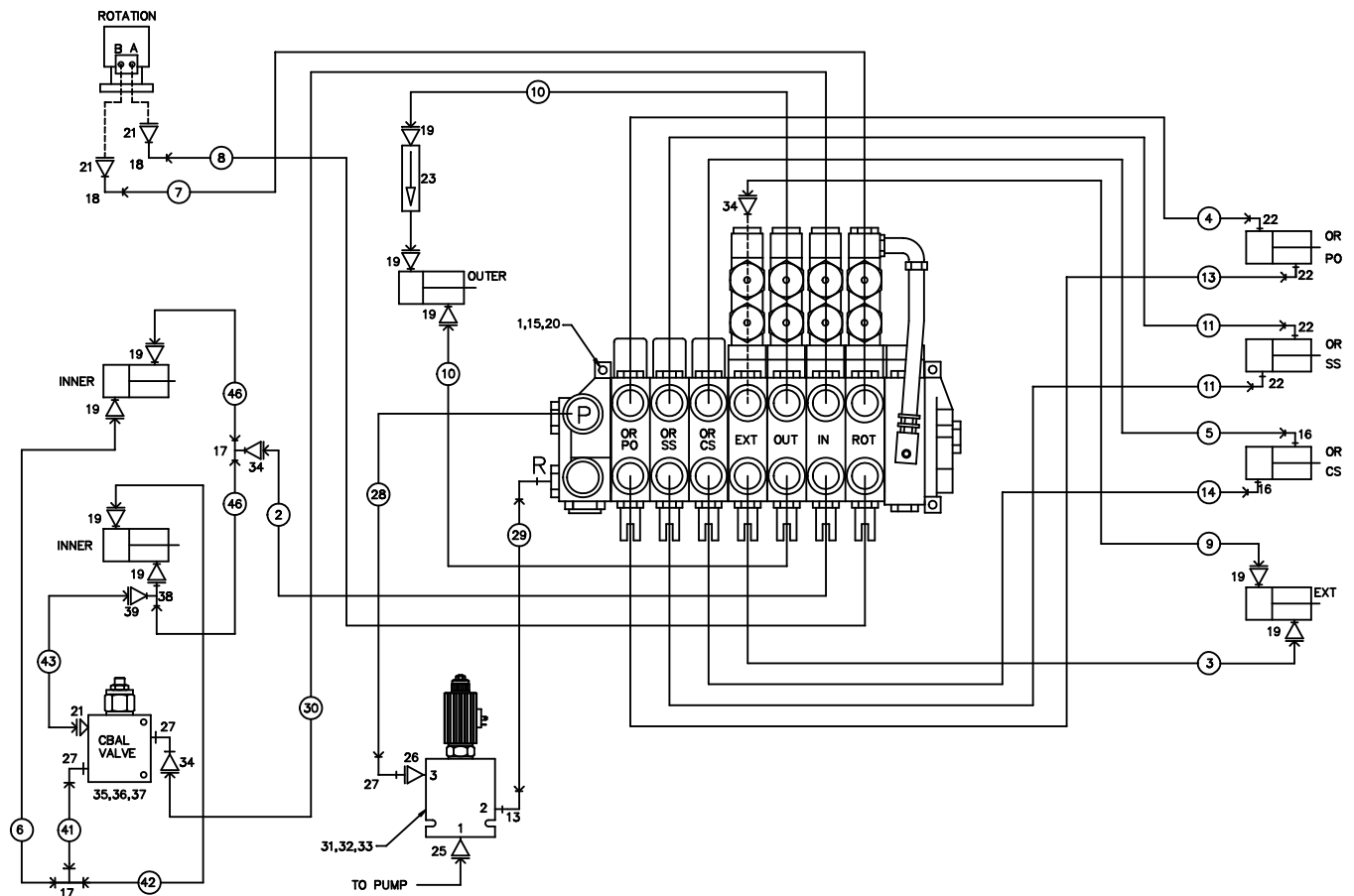
ITEM	PART NO.	DESCRIPTION	QTY
1.	89044100	CABLE 18GA/24WIRE X 144	1
2.	90713577	JIC BOX	1
3.	77044667	PLUG-CAP	1
4.	89044034	CABLE 16GA/4WIRE X 360	1
5.	77044341	TERM BLOCK-4	1
6.	77040186	TERM 1/4 FSLPON 16-14GA	13
7.	77044018	STRAIN RELIEF 1/2	1
8.	77044620	CONNECTOR	1
9.	77044580	SOCKET	23
10.	77044201	NUT 1/2 ELEC LOCK	1
11.	77040051	TERM #8 SPRSPD 16-14GA	14
12.	77044196	STRAIN RELIEF 3/4	1
13.	77044202	NUT 3/4 ELEC LOCK	1
14.	77040047	TERM 1/4 MSLPON 16-14GA	2



HYD KIT-SIDE MNT-PROP'L RMT (91713877)

1. 51712953	VALVEBANKASM	1*REF
2. 51397471	HOSE-3/8X73 #8F#8F 100R17	1*REF
3. 51397476	HOSE-3/8X285 #8F#8F 100R17	1*REF
4. 51397461	HOSE-1/4X29.5 #4F#4F 100R17	1*REF
5. 51397473	HOSE-3/8X141 #8F#8F 100R17	1*REF
6. 51395306	HOSE-3/8X27 #8F#8F 100R17	1*REF
7. 51397462	HOSE-1/4X47.5 #4F#4F 100R17	1*REF
8. 51395775	HOSE-1/4X50 #4F#4F 100R17	1*REF
9. 51397478	HOSE-1/2X285 #8F#8F 100R17	1*REF
10. 51397474	HOSE-3/8X171 #8F#8F 100R17	2*REF
11. 51397469	HOSE-3/8X63 #8F#8F 100R17	2*REF
12. 51716373	HOSE KIT	1
(INCL: 2-11,13,14,28-30,41-43,46)		
13. 51395405	HOSE-1/4X32.5 #4F#4F 100R17	1*REF
14. 51395382	HOSE-3/8X142 #8F#8F 100R17	1*REF
15. 72060027	CAP SCR 5/16-18X1-1/2 HHGR5	3
16. 72053758	ELBOW #4MSTR #4MJIC 90°	2
17. 72531205	TEE #8MJIC	2
18. 72532690	ADAPTER #4MJIC #4FJIC	2
19. 72532358	ADAPTER #8MSTR #8MJIC (WAS 10)	9
20. 72062109	NUT 5/16-18 LOCK	3
21. 72532351	ADAPTER #4MSTR #4MJIC	3

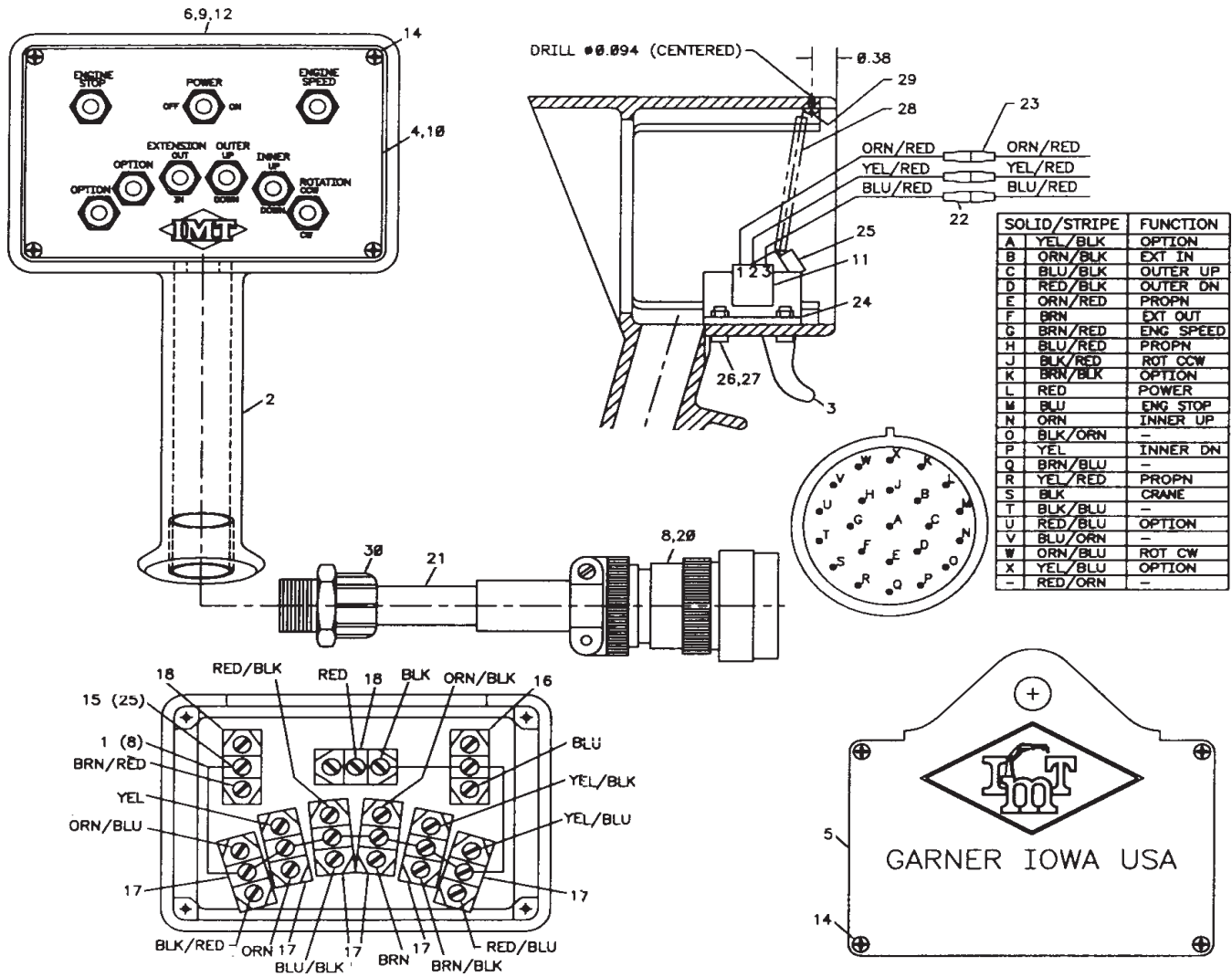
22. 72532779	ELBOW #6MSTR #8MJIC XLG	4
23. 73054426	RELIEF VALVE-ADJ (WAS 2)	1
24. 72053767	ELBOW #12MSTR #12MJIC 90°	1
25. 72532360	ADAPTER #12MSTR #8MJIC	1
26. 72532951	ADAPTER #12MSTR #8FSTR	1
27. 72053763	ELBOW #8MSTR #8MJIC 90°	3
28. 51395183	HOSE-1/2X35.5 #8F#8F 100R17	1*REF
29. 51397479	HOSE-3/4X39 #12#12 FJ 100R17	1*REF
30. 51397472	HOSE-3/8X85 #8F#8F 100R17	1*REF
31. 73054876	FLOW VALVE	1
32. 72060051	CAP SCR 3/8-16X2-1/4 HHGR5	2
33. 72062103	NUT 3/8-16 LOCK	2
34. 72532980	ADPTR-PR SW IN-LINE #8JIC	3
35. 73540061	C'BAL VALVE	1
36. 72060008	CAP SCR 1/4-20X2 HHGR5	2
37. 72063049	WASHER 1/4 LOCK	2
38. 72532657	TEE #8JIC SWVLNUTRUN	1
39. 72532665	ADAPTER #4MJIC #8FJIC	1
41. 51397466	HOSE-FF .38X16 #8#8 100R17	1*REF
42. 51397464	HOSE-FJ .38X6 #8#8 100R17	1*REF
43. 51396974	HOSE-FJ .25X18 #4#4 100R17	1*REF
44. 60107319	STUD-TIE DN 5/8X18-3/4	1
45. 72062006	NUT 5/8-11 HEX	2
46. 51397465	HOSE-FJ .38X13.5 #8#8 100R17	2*REF



PROP'L RMT HANDLE ASM (51713429)

ITEM	PART NO.	DESCRIPTION	QTY
1.	60045031	WIRE 18GA X 4 GRN	8
2.	60119335	CONTROL HANDLE BACK	1
3.	60111141	TRIGGER	1
4.	60119277	COVER	1
5.	70034306	BACK COVER	1
6.	70029119	SERIAL NUMBER PLACARD	1
8.	77044621	PIN	23
9.	70392862	DECAL-DGR RC ELECTRO	1
10.	71394282	DECAL-RC HANDLE	1
11.	51707507	POTENTIOMETER ASM (INCL:22)	1
12.	72066340	POP RIVET	2
14.	72061009	SHT MTL SCR #6X3/4 PH	8
15.	77040051	TERM #8 SPRSPD 16-14GA	25

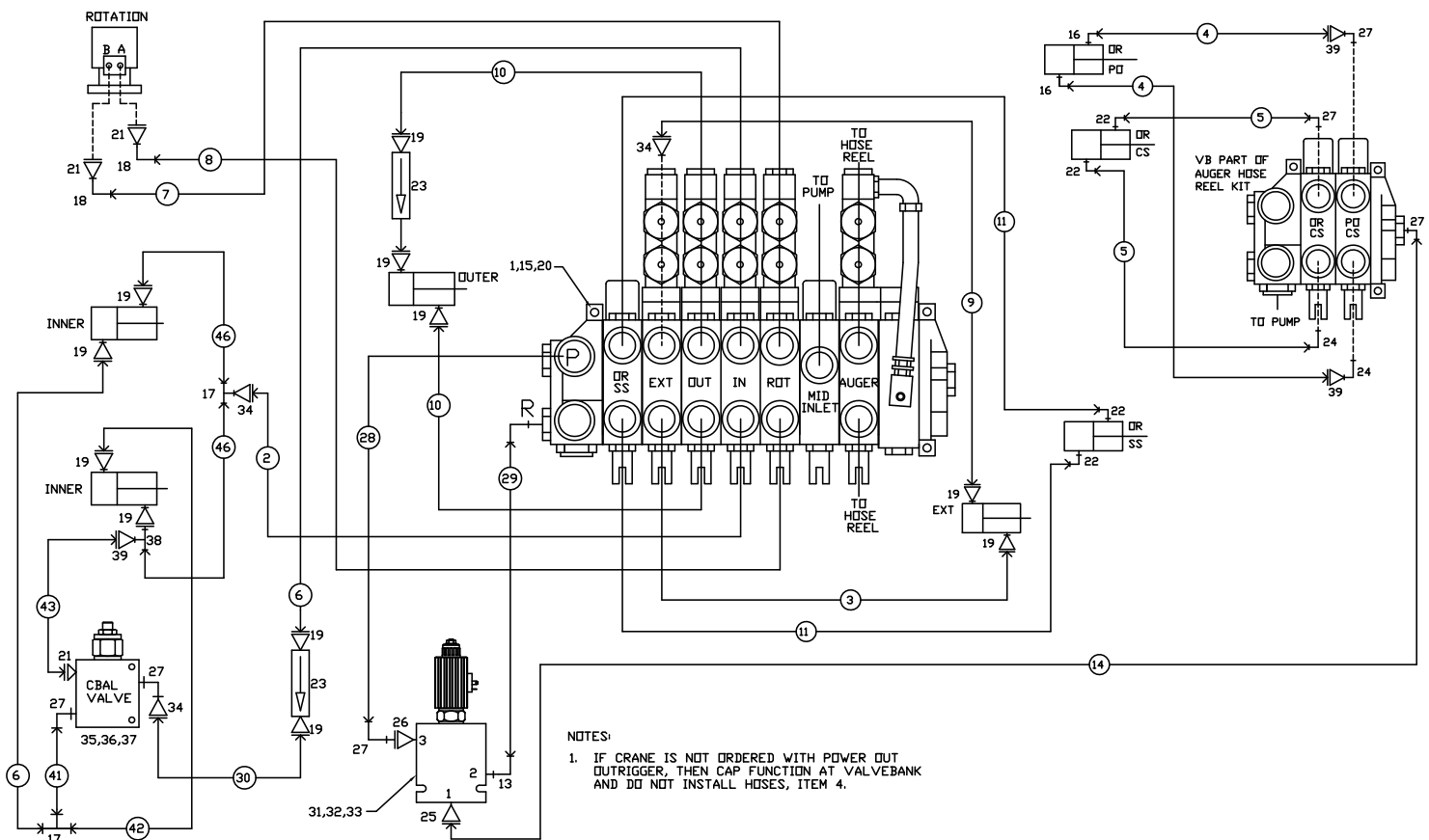
16.	77040371	TOGGLE SWITCH SPST	1
17.	77040372	TOGGLE SWITCH SPDT	6
18.	77040373	TOGGLE SWITCH SPST	2
20.	77044579	CONNECTOR	1
21.	89044100	CABLE 18GA/24WIRE X 45FT	45FT
22.	77040047	TERM MSLPON(PART OF 11)	3REF
23.	77040186	TERM 1/4 FSLPON 16-14GA	3
24.	60111142	MTG BRACKET	1
25.	72060669	CAP SCR #10-32X5/8 SH	1
26.	72060636	CAP SCR #10-24X3/4 SH	2
27.	72062106	NUT #10-24 LOCK	2
28.	70143223	SPRING	1
29.	72061000	SHT MTL SCR #6X1/2 PH	1
30.	77044196	CONNECTOR	1



HYD KIT-SIDE MNT W/AUGER (91713542)

1.	51713567	VALVEBANK ASM	1*REF
2.	51394519	HOSE ASM 3/8X73 #8F#8F	1*REF
3.	51394405	HOSE ASM 3/8X285 #8F#8F	1*REF
4.	51394614	HOSE ASM 1/4X73.5 #4F#4F	2*REF
5.	51396117	HOSE ASM 3/8X105 #8F#8F	2*REF
6.	51392462	HOSE ASM 3/8X27 #8F#8F	2*REF
7.	51394413	HOSE ASM 1/4X47.5 #4F#4F	1*REF
8.	51394414	HOSE ASM 1/4X49.5 #4F#4F	1*REF
9.	51394407	HOSE ASM 1/2X285 #8F#8F	1*REF
10.	51394404	HOSE ASM 3/8X171 #8F#8F	2*REF
11.	51394400	HOSE ASM 3/8X63 #8F#8F	2*REF
12.	51717198*	HOSE KIT (INCL: *)	1
13.	72053767	ELBOW #12MSTR #12MJIC 90°	1
14.	51394428	HOSE ASM 1/2X75 #8F#8F	1*REF
15.	72060027	CAP SCR 5/16-18X1-1/2 HHGR5	3
16.	72053758	ELBOW #4MSTR #4MJIC 90°	2
17.	72531205	TEE #8MJIC	2
18.	72532690	ADAPTER #4MJIC #4FJIC	2
19.	72532358	ADAPTER #8MSTR #8MJIC (WAS 10)	11
20.	72062109	NUT 5/16-18 LOCK	3
21.	72532351	ADAPTER #4MSTR #4MJIC	3

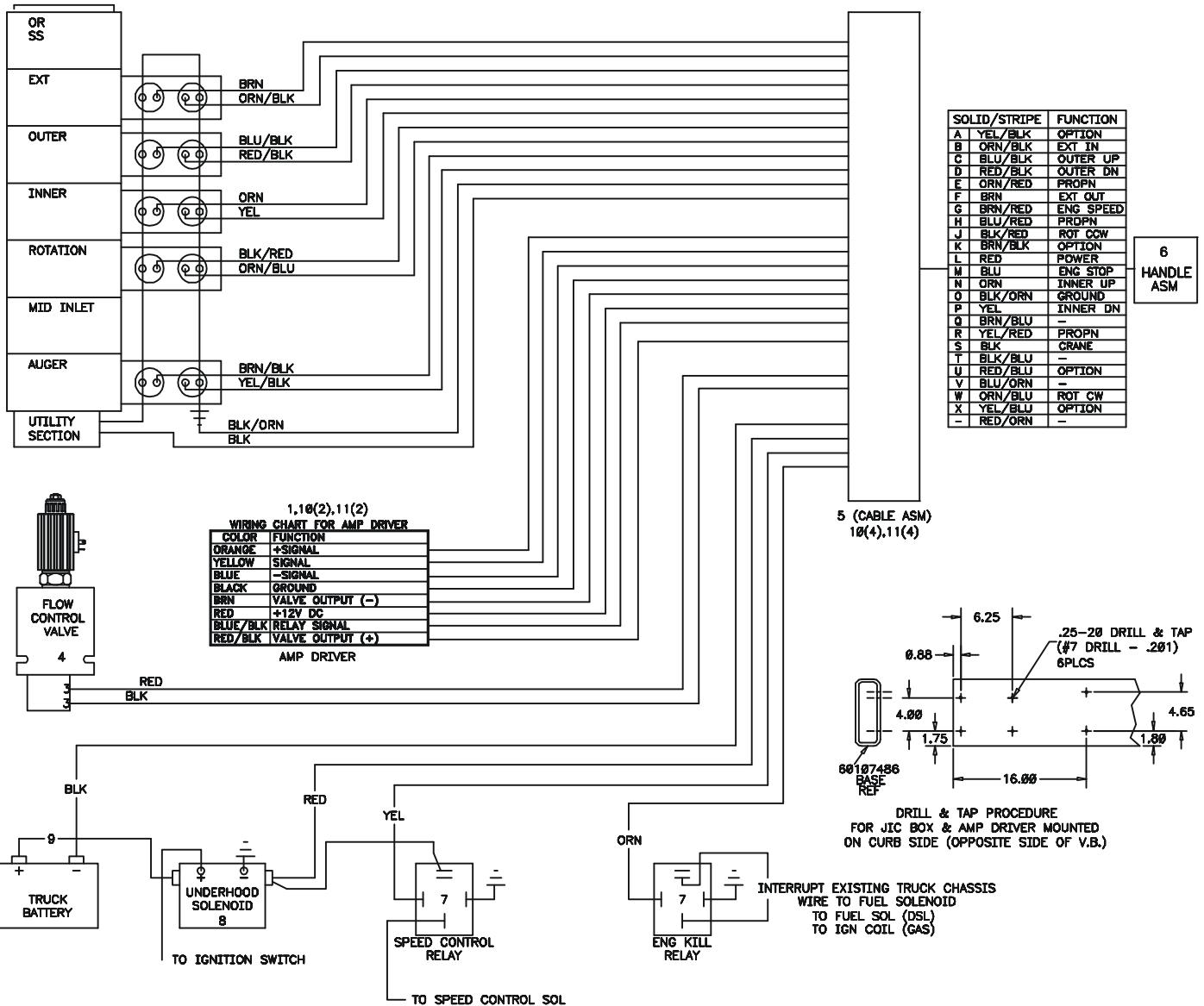
22.	72532779	ELBOW #6MSTR #8MJIC XLG	4
23.	73054426	RELIEF VALVE-ADJ (WAS 1)	2
24.	72532666*	ELBOW #8MSTR #8MJIC XLG	2
25.	72532360	ADAPTER #12MSTR #8MJIC	1
26.	72532951	ADAPTER #12MSTR #8FSTR	1
27.	72053763	ELBOW #8MSTR #8MJIC 90°	6
28.	51394406	HOSE ASM 1/2X35 #8F#8F	1*REF
29.	51394408	HOSE ASM 3/4X39 #12#12 FJ	1*REF
30.	51395991	HOSE ASM 3/8X52 #8F#8F	1*REF
31.	73054876	FLOW VALVE	1
32.	72060051	CAP SCR 3/8-16X2-1/4 HHGR5	2
33.	72062103	NUT 3/8-16 LOCK	2
34.	72532980	ADPTR-PR SW IN-LINE #8JIC	3
35.	73540061	C'BAL VALVE	1
36.	72060008	CAP SCR 1/4-20X2 HHGR5	2
37.	72063049	WASHER 1/4 LOCK	2
38.	72532657	TEE #8JIC SWVLNUTRUN	1
39.	72532665	ADAPTER #4MJIC #8FJIC	3
41.	51394481	HOSE-FF .38X16 #8#8	1*REF
42.	51395864	HOSE-FJ .38X6 #8#8	1*REF
43.	51395865	HOSE-FJ .25X18 #4#4	1*REF
44.	60107319	STUD-TIE DN 5/8X18-3/4	1
45.	72062006	NUT 5/8-11 HEX	2
46.	51395802	HOSE-FJ .38X13.5 #8#8	2*REF



ELECT. SCHEMATIC-PROP'L RMT CTRL-AUGER APPLICATION (99900887)

- | | | |
|-------------|-------------------------|---|
| 1. 77044837 | VALVE DRIVER | 1 |
| 2. SEE BOM | MTG PLATE | 1 |
| 3. 77040186 | TERM 1/4 FSLPON 16-14GA | 2 |
| 4. SEE BOM | PROPORTIONAL VALVE | 1 |

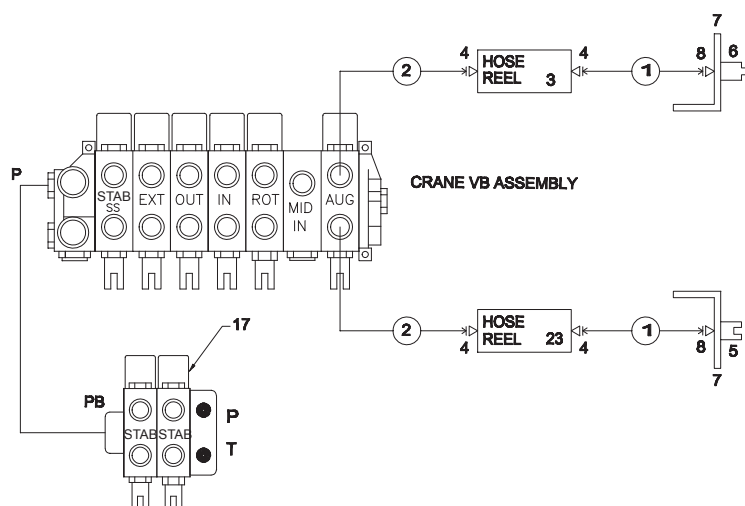
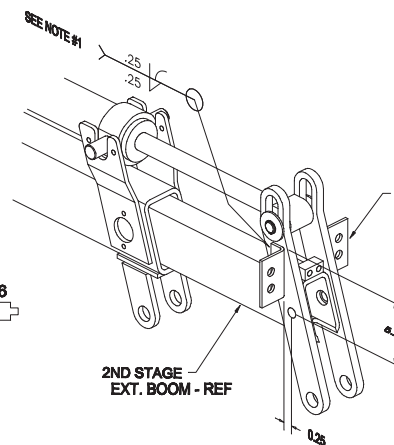
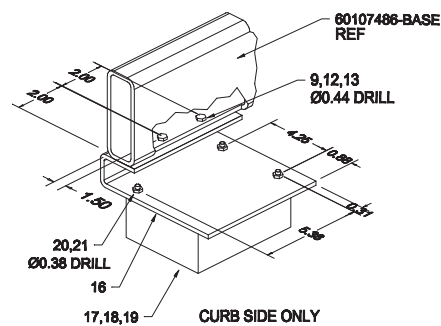
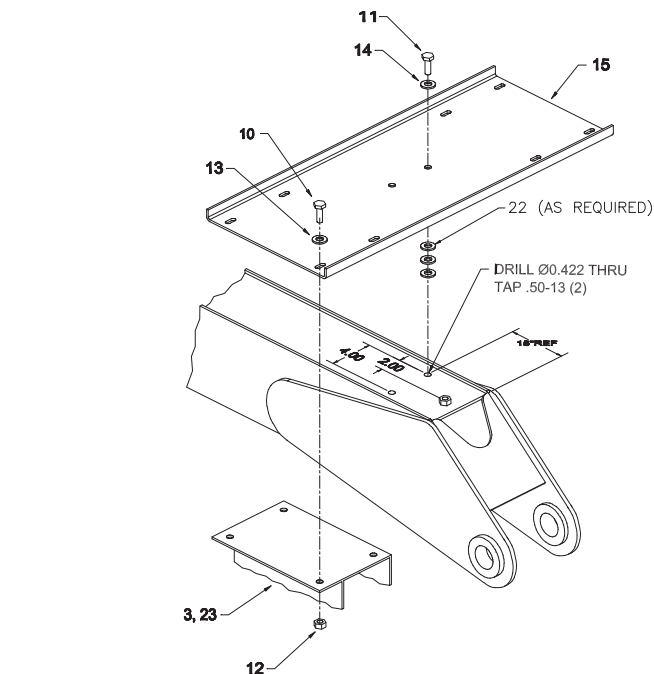
- | | | |
|--------------|--------------------------|---|
| 5. 51713568 | CABLE ASM-JIC BOX 94" | 1 |
| 6. 51713429 | HANDLE ASM | 1 |
| 7. 77041251 | RELAY | 2 |
| 8. 77041237 | SOLENOID 12V | 1 |
| 9. 51704784 | CABLE ASM #1WIRE X 6 | 1 |
| 10. 72060002 | CAP SCR 1/4-20X3/4 HHGR5 | 6 |
| 11. 72063049 | WASHER 1/4 LOCK | 6 |



HOSE REEL KIT-AUGER (51713540)

ITEM	PART NO.	DESCRIPTION	QTY
1.	51703615	HOSE ASM 1/2X264 FF	2
2.	51703614	HOSE ASM 1/2X240 FF	4
3.	70731877	HOSE REEL/JOINT RIGHT	1
4.	72053497	ADAPTER 1/2MPT #8MJIC	4
5.	72533101	DISC COUPLER 3/8FPT	1
6.	72533102	DIS NIPPLE 3/8FPT	1
7.	60109982	BULKHEAD PLATE	2
8.	72053670	ADAPTER 3/8MPT #8MJIC	2
9.	72060044	CAP SCR 3/8-16X3/4 HHGR5	2
10.	72060047	CAP SCR 3/8-16X1-1/4 HHGR5	8

11.	72060093	CAP SCR 1/2-13X1-1/2 HHGR5	2
12.	72062103	NUT 3/8-16 LOCK	10
13.	72063003	WASHER 3/8 WRT	10
14.	72063053	WASHER 1/2 LOCK	2
15.	60111412	BRACKET	1
16.	60118024	MTG BRACKET	1
17.	51705739	VALVEBANK 2-SECT	1
18.	73014848	VALVE HANDLE	2
19.	94731839	LINK & PIN KIT	2
20.	72060031	CAP SCR 5/16-18X2-1/2 HHGR5	3
21.	72062109	NUT 5/16-18 LOCK	3
22.	72063005	WASHER 1/2 WRT	6
23.	70733963	HOSE REEL- JOINT LEFT	1

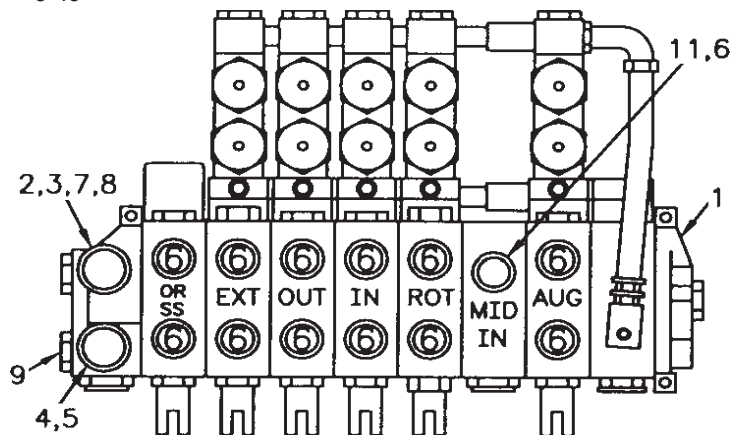


NOTES:

- NOTES:**
1. WELD WHEN BOTH EXTENSION BOOMS ARE IN. FILLET WELD MAY NOT REACH END OF PART.
2. ITEMS 16-21 ARE USED TO CONTROL THE HYDRAULIC POWER OUT AND DOWN STABILIZER NEXT TO THE MAST.

VALVEBANK ASM-6 SECT-W/AUGER **(51713567)**

ITEM	PART NO.	DESCRIPTION	QTY
1.	51713541	VB-6 SECT 5R/1M	1
2.	60106322	ELBOW PR-GAUGE MOD	1
3.	72053241	PLUG-PIPE 1/4	1
4.	72053556	ELBOW-3/4X90°	1
5.	72053747	ADAPTER#12MSTR 3/4FPT	1
6.	72053777	ELBOW #8MSTR #8MJIC 45°	13
7.	72532669	ADAPTER #8MJIC #10FJIC	1
8.	72532658	ELBOW #8MJIC #8FJIC SWVL	1
9.	72053767	ELBOW #12MSTR #12MJIC 90°	1
11.	72532951	ADAPTER #12MSTR #8FSTR	1



NOTE:

1. SET SYSTEM PRESSURE AT 2500 PSI

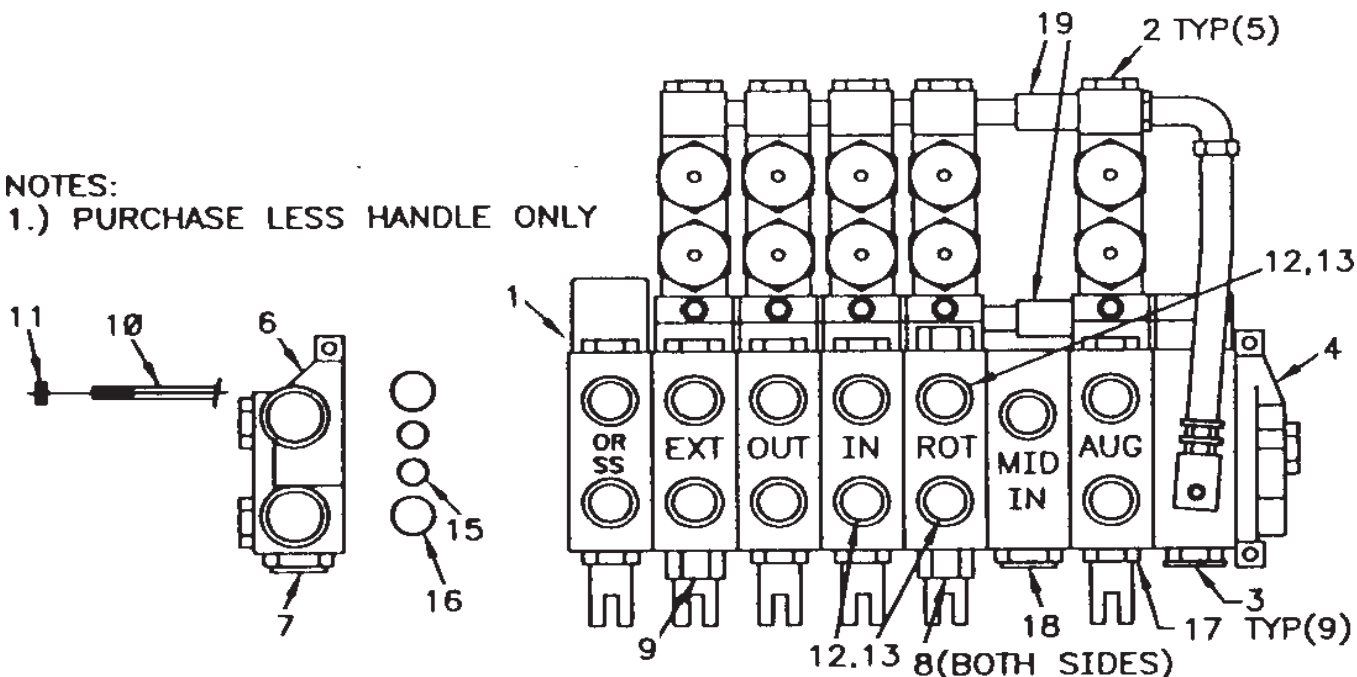
VALVEBANK-6 SECT-W/AUGER 5R/1M **(51713541)**

ITEM	PART NO.	DESCRIPTION	QTY
1.	73054432	VALVE SECT V20 4WAY #8SAE	1
2.	73054468	VALVE SECT V20R 4WAY #8SAE	5
3.	73054502	VALVE SECT V20R UTILITY	1
4.	73731241	END COVER-RH	1
6.	73731424	END COVER-LH	1
7.	73054673	RELIEF VALVE (PART OF ITEM 6)1REF	1
8.	73054516	RELIEF-RC NON-ADJ	2
9.	73054400	RELIEF-RC NON-ADJ	1

10.	73014668	STUD 3/8X17	3
11.	72062037	NUT 3/8-24	6
12.	70142402	ORIFICE PLATE	3
13.	70142403	ORIFICE SPRING	3
14.	51393494	O-RING KIT	REF
15.	7Q072117	O-RING	18
16.	7Q072119	O-RING	18
17.	73054010	LOAD CHECK PLUG ASM	9
18.	73054467	MID-INLET W/CVRSN PLUG	1
19.	73731542	KIT-SPACER TUBE ASM V20 VLV	2

NOTES:

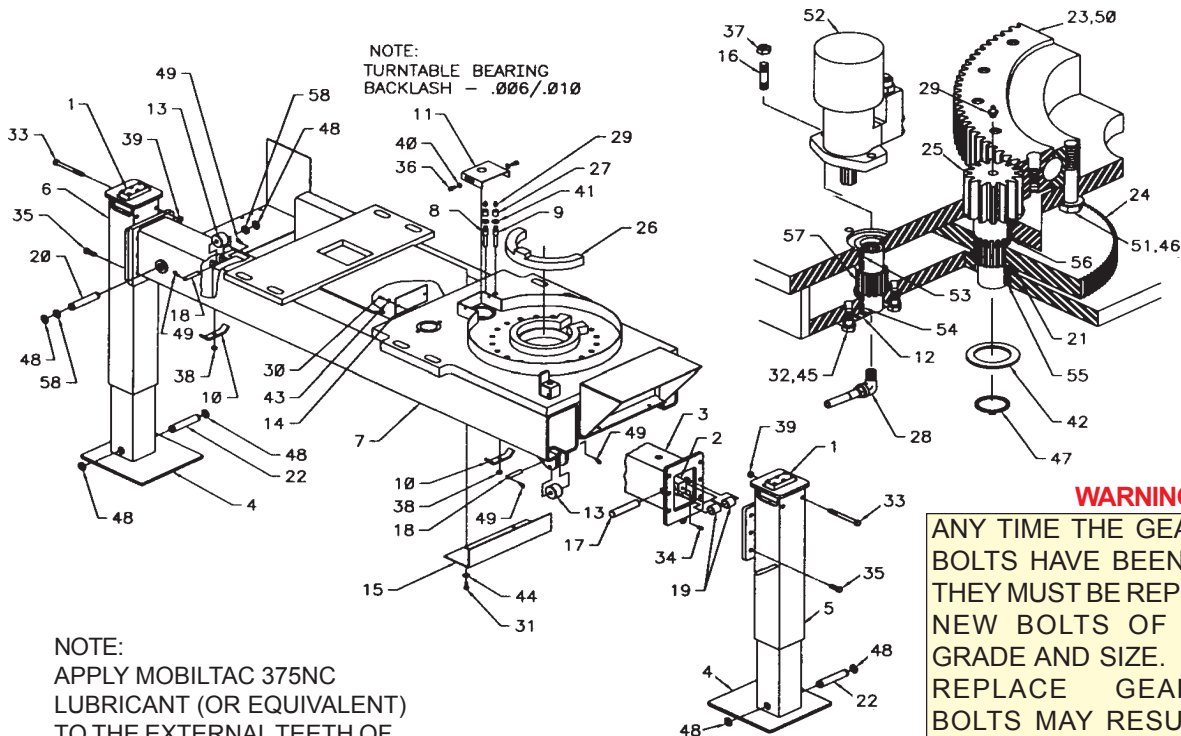
1.) PURCHASE LESS HANDLE ONLY



BASE & STABILIZER ASM-RH SIDE MNT (41714601)

ITEM	PART NO.	DESCRIPTION	QTY
1.	3B221850	POWER DOWN CYLINDER	2
2.	3B267811	POWER OUT CYLINDER	1
3.	52713122	ARM-STABILIZER	1
4.	52705871	LEG-STABILIZER	2
5.	52712193	HOUSING-STABILIZER	1
6.	52712194	HOUSING-STABILIZER	1
7.	52714600	BASE (INCL:53-57)	1
8.	53000710	GREASE EXT 29"	1
9.	53000715	GREASE EXT 18"	1
10.	60010118	HOSE CLAMP	2
11.	60010235	PINION GEAR COVER	1
12.	60010844	GREASE PLATE	1
13.	60030053	ROLLER	2
14.	60102767	ACCESS COVER	1
15.	60102769	INT GEAR GUARD	1
16.	60106032	STUD	2
17.	60106281	PIN	1
18.	60106314	PIN	2
19.	60106380	PIPE 1" SCH40 X 1-1/4	2
20.	60106833	PIN	1
21.	60106886	SPACER	1
22.	60106968	PIN	2
23.	71056627	GEAR BEARING	1
24.	71056264	INTERMEDIATE GEAR	1
25.	71056265	PINION GEAR	1
26.	71145016	SLIDE-ROTATION STOP	1
27.	72053301	COUPLING 1/8NPT	2
28.	72053281	STREET ELBOW 1/8NPT 90°	1
29.	72053508	ZERK 1/8NPT	3
30.	72060002	CAP SCR 1/4-20X3/4 HHGR5	2

31.	72060023	CAP SCR 5/16-18X3/4 HHGR5	2
32.	72060092	CAP SCR 1/2-13X1-1/4 HHGR5	2
33.	72060102	CAP SCR 1/2-13X5-1/2 HHGR5	4
34.	72060581	SET SCR 3/8-16X3/4 SH	1
35.	72060795	CAP SCR 1/2-13X1-1/2 SH	12
36.	72060833	SCR 5/16-18X3/4 THDCTG HWH	2
37.	72062080	NUT 1/2-13 LOCK	2
38.	72062103	NUT 3/8-16 LOCK	2
39.	72062107	NUT 1/2-13 HEX CTR LOCK	4
40.	72063002	WASHER 5/16 WRT	2
41.	72063003	WASHER 3/8 WRT	2
42.	72063039	MACH BUSHING 2X10GA NR	1
43.	72063049	WASHER 1/4 LOCK	2
44.	72063050	WASHER 5/16 LOCK	2
45.	72063053	WASHER 1/2 LOCK	2
46.	72063116	WASHER 3/4 HARD FLAT	20
47.	72066095	RETAINING RING 2" EXT STD	1
48.	72066125	RETAING RING 1" EXT HD	6
49.	72066180	COTTER PIN 1/8X1-1/2	4
50.	72531826	REDUCER BUSHING 1/4-1/8NPT	1
51.	72601295	CAP SCR 3/4-10X3-1/2 HHGR8	20
52.	73540004	HYD MOTOR (FROM 5-15-98)	1
	73051378	HYDC MOTOR (TO 5-15-98)	1
	5V151830	MOTOR BLOCK (TO 5-15-98)	1
	7Q072112	O-RING (TO 5-15-98)	2
	73054538	C'BAL VALVE (TO 5-15-98)	2
	72060738	CAP SCR (TO 5-15-98)	2
53.	60020115	BUSHING (PART OF 7)	1REF
54.	60020116	BUSHING (PART OF 7)	1REF
55.	60020187	BUSHING (PART OF 7)	1REF
56.	60020188	BUSHING (PART OF 7)	1REF
57.	71056011	DRIVE GEAR (PART OF 7)	1REF
58.	72063034	MACH BUSHING 1X10GA NR	2



WARNING

ANY TIME THE GEAR-BEARING BOLTS HAVE BEEN REMOVED, THEY MUST BE REPLACED WITH NEW BOLTS OF IDENTICAL GRADE AND SIZE. FAILURE TO REPLACE GEAR-BEARING BOLTS MAY RESULT IN BOLT FAILURE DUE TO METAL FATIGUE CAUSING SERIOUS INJURY OR DEATH.

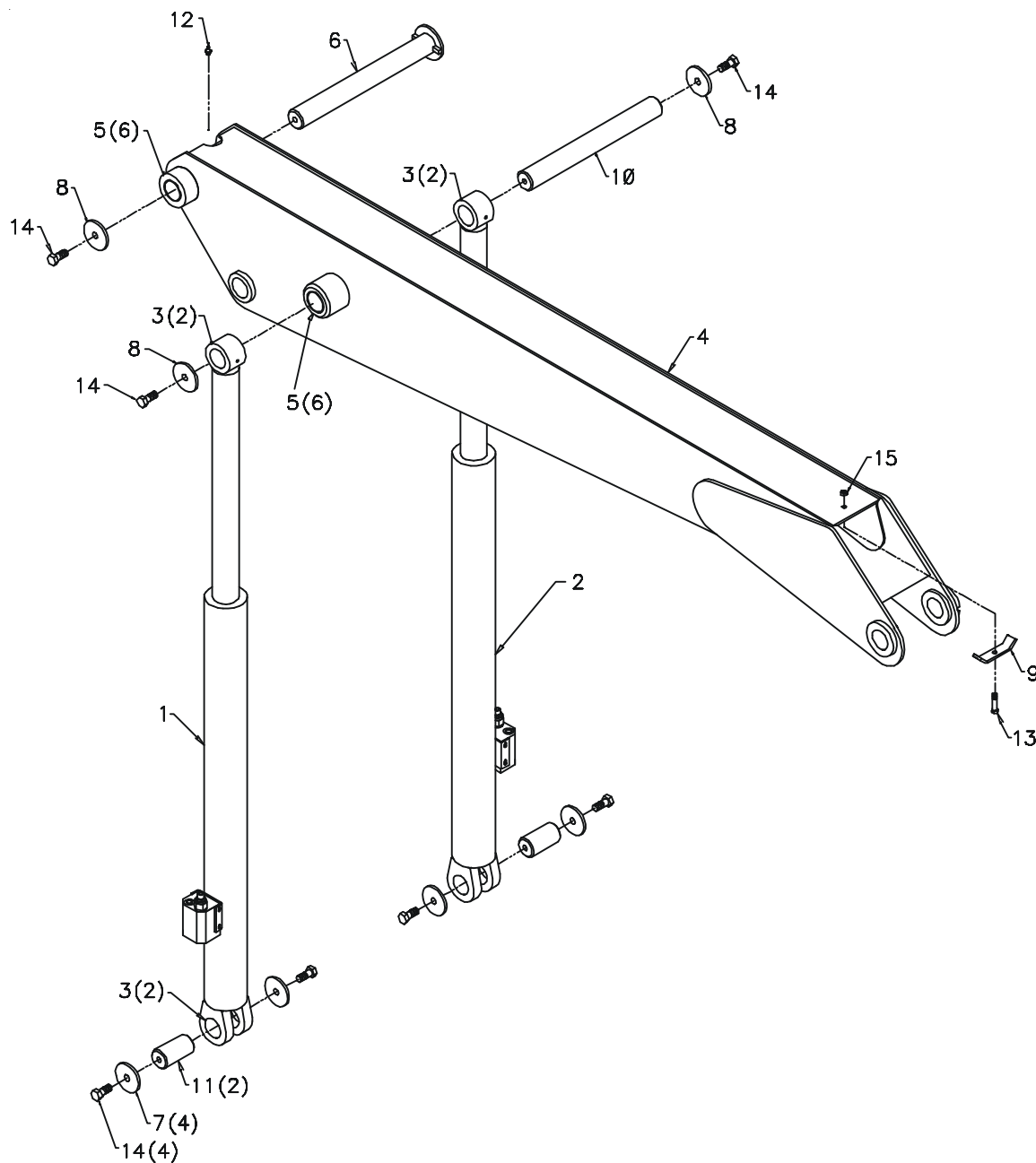
INNER BOOM ASM-CTR MNT (41715941)

1.	3B354990	INNER CYL RH (INCL:3)	1
2.	3B355990	INNER CYL LH (INCL:3)	1
3.	7BF81020	BUSHING (PART OF 1&2)	8REF
4.	52710909	INNER BOOM (INCL:5)	1
5.	7BF81220	BUSHING (PART OF 4)	12REF
6.	52704342	PIN	1
7.	60106331	PIN RETAINER PLATE	4
8.	60109337	PIN RETAINER PLATE	3
9.	60010118	HOSE CLAMP	1
10.	60107303	PIN	1
11.	60107305	PIN	2
12.	72053508	ZERK 1/8NPT	1
13.	72060049	CAP SCR 3/8-16X1-3/4 HHGR5	1
14.	72060147	CAP SCR 5/8-11X1 HH GR5	7
15.	72062103	NUT 3/8-16 LOCK	1

NOTE

ANYTIME THE PIN RETAINER PLATE BOLTS HAVE BEEN REMOVED, APPLY LOCTITE® 262 TO THE THREADS BEFORE RE-ASSEMBLY.

INNER LIFT CYLINDERS ARE INSTALLED WITH HOLDING VALVE LOCATED TO THE INSIDE.



INNER BOOM CYL-RH/CM (3B354990)

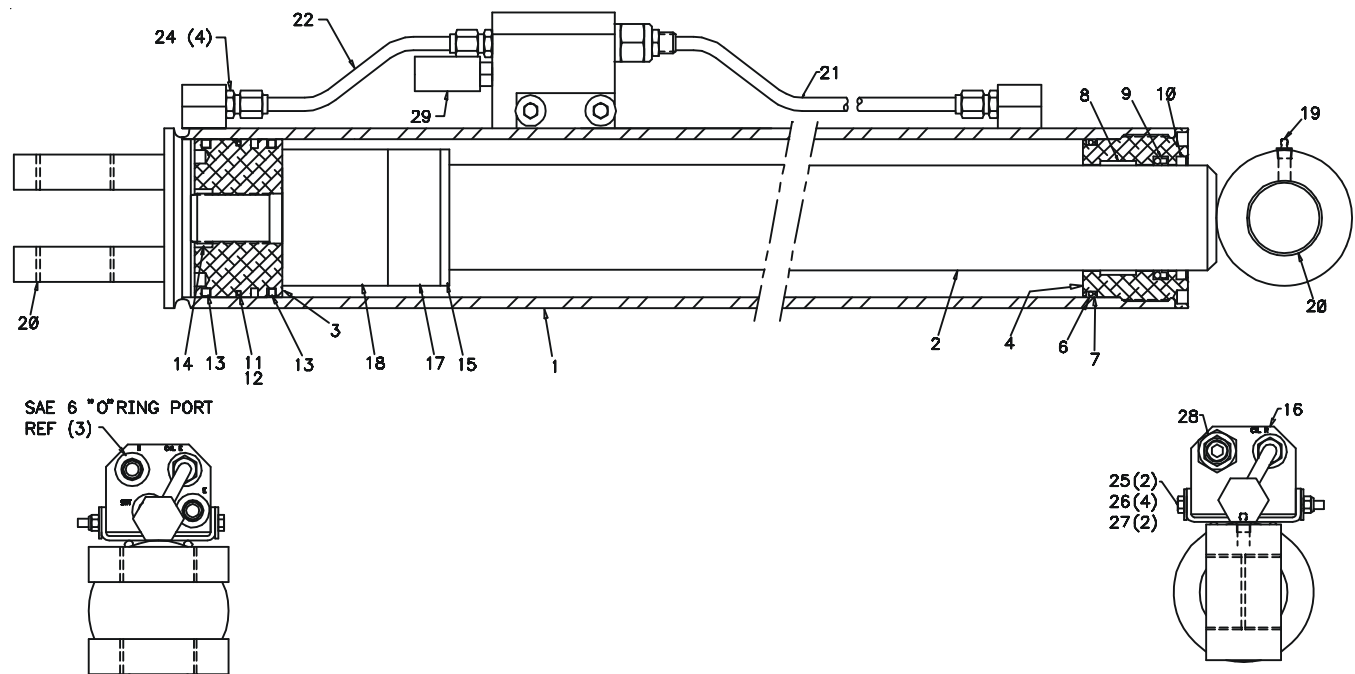
1.	4B354990	CASE ASM (INCL:20 &21)	1REF
2.	52718675	ROD ASM (INCL:19 & 20) (WAS 4H142920)	1REF
3.	6I035125	PISTON	1REF
4.	6H035025	HEAD	1REF
5.	9C142020	SEAL KIT (INCL:6-15)	1REF
6.	7Q072338	O-RING (PART OF 5)	1REF
7.	7Q10P338	BACK-UP RING (PART OF 5)	1REF
8.	7T2N8027	WEAR RING (PART OF 5)	1REF
9.	7R546025	ROD SEAL (PART OF 5)	1REF
10.	7R14P025	ROD WIPER (PART OF 5)	1REF
11.	7Q072151	O-RING (PART OF 5)	1REF
12.	7T66P035	PISTON SEAL (PART OF 5)	1REF
13.	7T65I035	PISTON RING (PART OF 5)	2REF
14.	7T61N125	LOCK RING (PART OF 5)	1REF
15.	6A025025	WAFFER LOCK (PART OF 5)	1REF
16.	73540058	C'BAL VALVE	1
17.	6C150025	STOP TUBE	1REF
18.	6C300025	STOP TUBE	1REF
19.	72053507	ZERK 1/4-28(PART OF 2)	1REF
20.	7BF81020	BUSHING (PART OF 1 & 2)	4REF
21.	70146094	TUBE ASM	1
22.	70145752	TUBE ASM	1
23.	3B354990A	CYLINDER	1
24.	72533186	ADAPTER #6MFACE #6MSTR	4
25.	72060037	CAP SCR 5/16-18X4 HHGR5	2
26.	72063002	WASHER 5/16 WRT	4
27.	72062109	NUT 5/16-18 LOCK	2
28.	73540049	C'BAL VALVE (PART OF 16)	1REF
29.	77041561	PR SWITCH (PART OF 16)	1REF

NOTE

IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO CYLINDER HEAD AND CASE THREADS.



INNER BOOM CYL-LH/CM (3B355990)

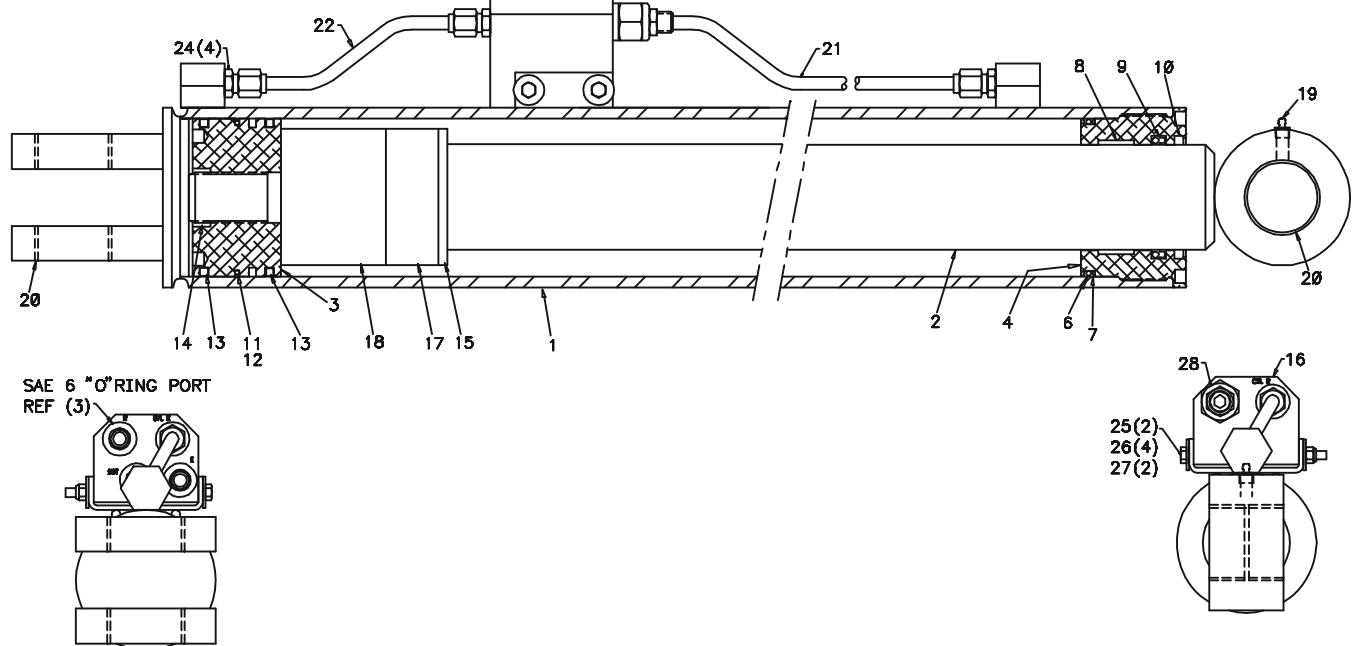
1.	4B354990	CASE ASM (INCL:20 & 21)	1REF
2.	52718675	ROD ASM (INCL:19 & 20) (WAS 4H142920)	1REF
3.	6I035125	PISTON	1REF
4.	6H035025	HEAD	1REF
5.	9C142020	SEAL KIT (INCL:6-15)	1REF
6.	7Q072338	O-RING (PART OF 5)	1REF
7.	7Q10P338	BACK-UP RING (PART OF 5)	1REF
8.	7T2N8027	WEAR RING (PART OF 5)	1REF
9.	7R546025	ROD SEAL (PART OF 5)	1REF
10.	7R14P025	ROD WIPER (PART OF 5)	1REF
11.	7Q072151	O-RING (PART OF 5)	1REF
12.	7T66P035	PISTON SEAL (PART OF 5)	1REF
13.	7T65I035	PISTON RING (PART OF 5)	2REF
14.	7T61N125	LOCK RING (PART OF 5)	1REF
15.	6A025025	WAFFER LOCK (PART OF 5)	1REF
16.	73540059	C'BAL VALVE (INCL:28)	1
17.	6C150025	STOP TUBE	1REF
18.	6C300025	STOP TUBE	1REF
19.	72053507	ZERK 1/4-28(PART OF 2)	1REF
20.	7BF81020	BUSHING (PART OF 1 & 2)	4REF
21.	70146094	TUBE ASM	1
22.	70145752	TUBE ASM	1
23.	3B355990A	CYLINDER	1
24.	72533186	ADAPTER #6MFACE #6MSTR	4
25.	72060037	CAP SCR 5/16-18X4 HHGR5	2
26.	72063002	WASHER 5/16 WRT	4
27.	72062109	NUT 5/16-18 LOCK	2
28.	73540049	C'BAL VALVE (PART OF 16)	1REF

NOTE

IT IS RECOMMENDED THAT ALL COMPONENTS OF THE SEAL KIT BE REPLACED WHENEVER THE CYLINDER IS DISASSEMBLED. THIS WILL REDUCE FUTURE DOWNTIME.

APPLY "LUBRIPLATE #630-2" MEDIUM HEAVY, MULTI-PURPOSE LUBRICANT OR EQUIVALENT TO ALL PISTON, HEAD GLAND, AND HOLDING VALVE SEALS, NYLON LOCK RING, CAST IRON PISTON RINGS, AND ROD STINGER THREADS.

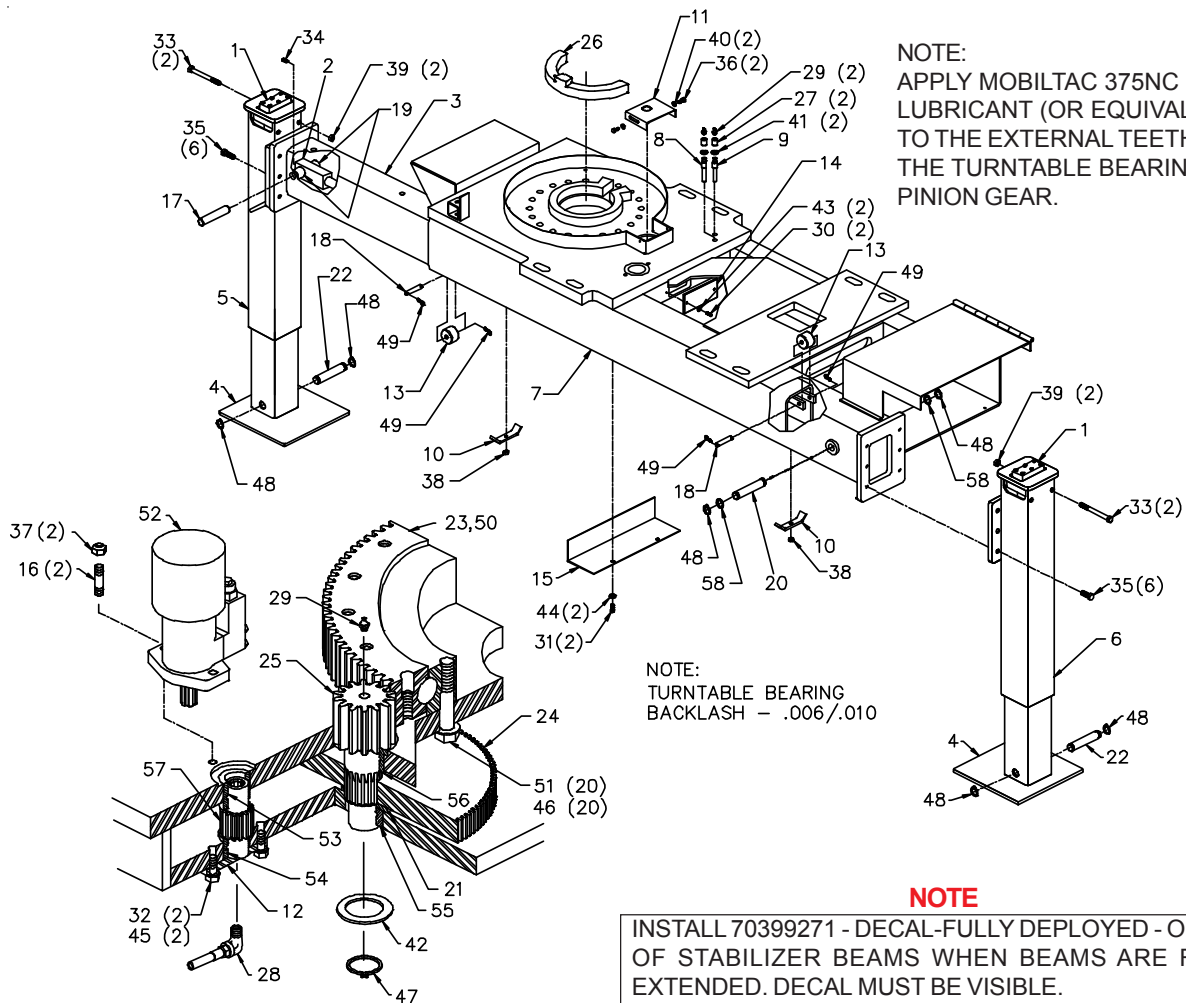
APPLY "NEVER-SEEZ" REGULAR GRADE ANTI-SEIZE AND LUBRICATING COMPOUND TO CYLINDER HEAD AND CASE THREADS.



BASE & STAB ASM-LH SIDE MNT/PWR OUT (41716220)

1.	3B221850	POWER DOWN CYLINDER	2
2.	3B267811	POWER OUT CYLINDER	1
3.	52704041	ARM-STABILIZER	1
4.	52705871	LEG-STABILIZER	2
5.	52712193	HOUSING-STABILIZER	1
6.	52712194	HOUSING-STABILIZER	1
7.	52716219	BASE (INCL:53-57)	1
8.	53000710	GREASE EXT 29"	1
9.	53000715	GREASE EXT 18"	1
10.	60010118	HOSE CLAMP	2
11.	60010235	PINION GEAR COVER	1
12.	60010844	GREASE PLATE	1
13.	60030053	ROLLER	2
14.	60102767	ACCESS COVER	1
15.	60102769	INT GEAR GUARD	1
16.	60106032	STUD	2
17.	60106281	PIN	1
18.	60106314	PIN	2
19.	60106380	PIPE 1" SCH40 X 1-1/4	2
20.	60106833	PIN	1
21.	60106886	SPACER	1
22.	60106968	PIN	2
23.	71056627	GEAR BEARING	1
24.	71056264	INTERMEDIATE GEAR	1
25.	71056265	PINION GEAR	1
26.	71145016	SLIDE-ROTATION STOP	1
27.	72053301	COUPLING 1/8NPT	2
28.	72053281	STREET ELBOW 1/8NPT 90°	1

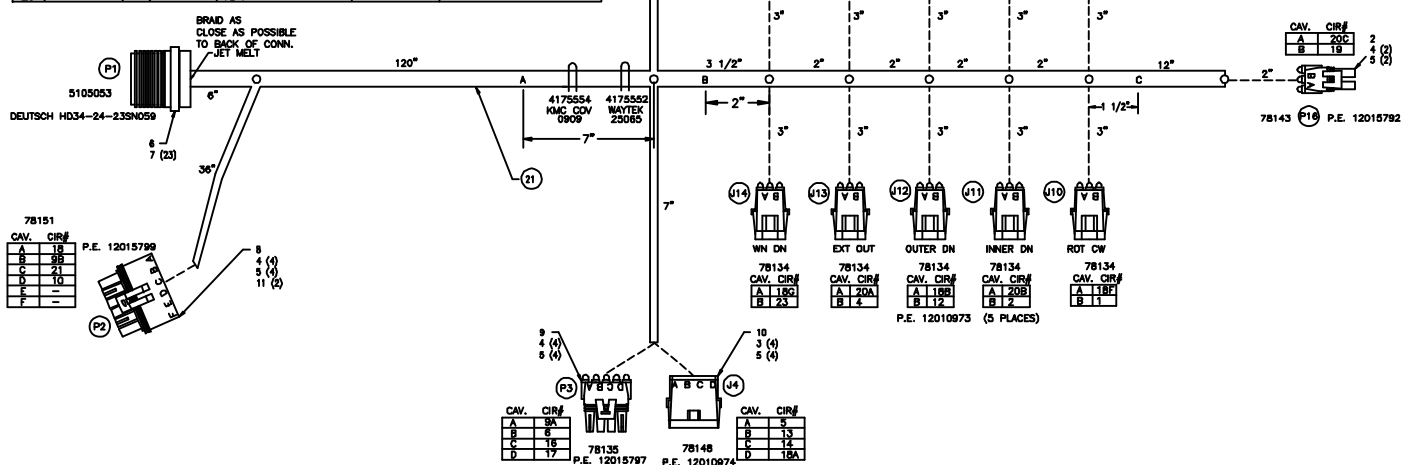
29.	72053508	ZERK 1/8NPT	3
30.	72060002	CAP SCR 1/4-20X3/4 HHGR5	2
31.	72060023	CAP SCR 5/16-18X3/4 HHGR5	2
32.	72060092	CAP SCR 1/2-13X1-1/4 HHGR5	2
33.	72060102	CAP SCR 1/2-13X5-1/2 HHGR5	4
34.	72060581	SET SCR 3/8-16X3/4 SH	1
35.	72060795	CAP SCR 1/2-13X1-1/2 SH	12
36.	72060833	SCR 5/16-18X3/4 THDCTG HWH	2
37.	72062080	NUT 1/2-13 LOCK	2
38.	72062103	NUT 3/8-16 LOCK	2
39.	72062107	NUT 1/2-13 HEX CTR LOCK	4
40.	72063002	WASHER 5/16 WRT	2
41.	72063003	WASHER 3/8 WRT	2
42.	72063039	MACH BUSHING 2X10GA NR	1
43.	72063049	WASHER 1/4 LOCK	2
44.	72063050	WASHER 5/16 LOCK	2
45.	72063053	WASHER 1/2 LOCK	2
46.	72063116	WASHER 3/4 HARD FLAT	20
47.	72066095	RETAINING RING 2" EXT STD	1
48.	72066125	RETAINING RING 1" EXT HD	6
49.	72066180	COTTER PIN 1/8X1-1/2	4
50.	72531826	REDUCER BUSHING 1/4-1/8NPT	1
51.	72601295	CAP SCR 3/4-10X3-1/2 HHGR8	20
52.	73540004	HYD MOTOR	1
53.	60020115	BUSHING (PART OF 7)	1REF
54.	60020116	BUSHING (PART OF 7)	1REF
55.	60020187	BUSHING (PART OF 7)	1REF
56.	60020188	BUSHING (PART OF 7)	1REF
57.	71056011	DRIVE GEAR (PART OF 7)	1REF
58.	72063034	MACH BUSHING 1X10GA NR	2

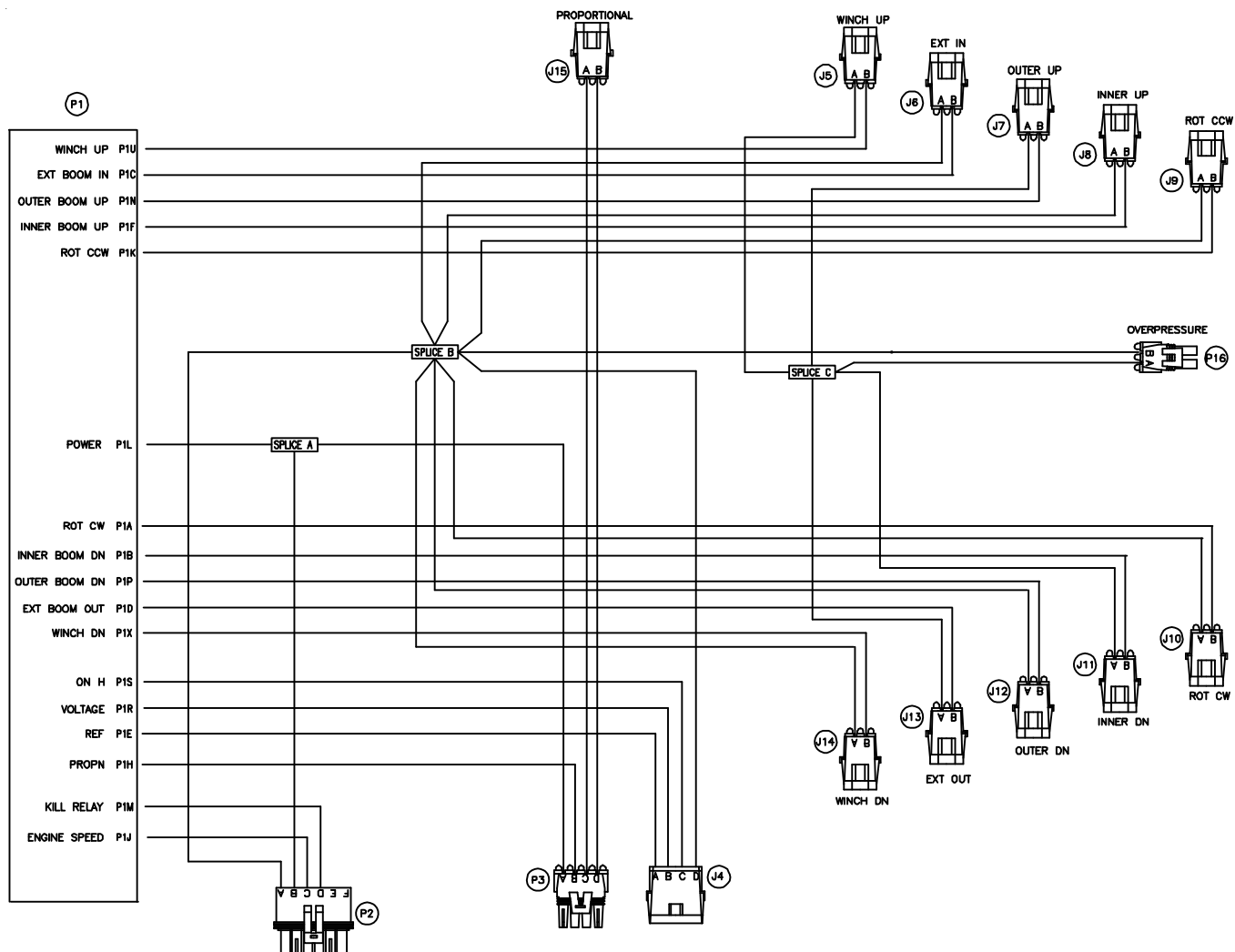


ALL ITEMS ARE REFERENCE ONLY

1.	77044573	SHROUD CONN 2-CONT	11
2.	77044574	TOWER CONN 2-CONT	1
3.	77044576	TERMINAL-M	26
4.	77044577	TERMINAL-F	10
5.	77044578	CABLE SEAL	36
6.	77044620	CONN RCPT	1
7.	77044550	SOCKET	23
8.	77044622	TOWER CONN 6-CONT	1
9.	77044623	TOWER CONN 4-CONT	1
10.	77044624	SHROUD CONN 4-CONT	1
11.	77044676	PLUG	2

		WIRE LEGEND				
CIR	5105053	COLOR	GA	WEATHER PAK	LABELING	FUNCTION
		PIN CAVITY		CONNECTOR		
1	A	YELLOW/BLK	18	PIA TO J10B	ROT J10B	ROTATION CW
2	B	ORANGE/BLK	18	PIB TO J11B	INR J11B	BOOM INNER DN
3	C	LT.BLUE/BLK	18	PIC TO J6B	EXT J6B	BOOM EXT IN
4	D	PINK/BLK	18	PID TO J13B	EXT J13B	BOOM EXT OUT
5	E	ORANGE/RED	18	PIE TO JAA	JAA	REF
6	U	LT.BLUE/RED	18	PIU TO J3B	W3B	PROP
7	U	GRAY/RED	18	PIU TO J5B	W5B	WINCH UP
8	K	TAN/BLK	18	PIK TO J9B	ROT J9B	ROTATION CCW
9	L	RED	18	PII TO SPI A	P3A	POWER -
9A	RED	RED	18	P3A TO SPI A	P3A	POWER +
9B	RED	RED	18	P2B TO SPI A	P2B	IGNITION SOLENOID
10	M	LT.BLUE	18	PIM TO P2D	P2D	BELL RELAY
11	N	ORANGE	18	PIN TO J7B	OUTER J7B	BOOM OUTER UP
12	P	YELLOW	18	PIP TO J12B	OUTER J12B	BOOM OUTER DN
13	R	YELLOW/RED	18	PIR TO J4B	J4B	VOLTAGE
14	S	BROWN	18	PIS TO J4C	J4C	OH
15	F	TAN	18	PIF TO J8B	INNER J8B	BOOM INNER UP
16	BLACK	BLACK	16	P3C TO J15A	PRMV J15A	PROP. VALVE & COIL -
17	BLACK	BLACK	16	P3D TO J15B	PRVJ J15B	PROP. VALVE & COIL +
18	BLACK	BLACK	16	P2A TO SPI B	P2A	BATTERY -
18A	BLACK	BLACK	16	J4D TO SPI B	J4D	POWER COMMON
18B	BLACK	BLACK	16	J12A TO SPI B	OUTER J12A	BOOM OUTER DOWN
18C	BLACK	BLACK	16	J6A TO SPI B	EXT J6A	BOOM EXT IN
18D	BLACK	BLACK	16	J8A TO SPI B	INNER J8A	BOOM INNER UP
18E	BLACK	BLACK	16	J1A TO SPI B	ROT J6A	ROTATE CCW
19	BLACK	BLACK	16	J10A TO SPI B	ROT J10A	ROTATE CW
19	BLACK	BLACK	16	J14A TO SPI B	WIN J14A	WINCH DOWN
19	BLACK	BLACK	16	P16B TO SPI B	OPSI P16B	OVER PRESSURE
20	BLACK	BLACK	16	J7A TO SPI C	OUTER J7A	BOOM OUTER UP
20A	BLACK	BLACK	16	J3A TO SPI C	EXT J13A	BOOM EXT OUT
20B	BLACK	BLACK	16	J11A TO SPI C	INNER J11A	BOOM INNER DOWN
20C	BLACK	BLACK	16	P16A TO SPI C	OPSI P16A	OVER PRESSURE
20D	BLACK	BLACK	16	J5A TO SPI C	WN J5A	WINCH UP
21	J	BRN/RED	16	PIJ TO J2C	ENG SPD P2C	ENGINE SPEED
22						
23	X	RED/BLUE	18	P1X TO J14B	WIN J14B	WINCH DN

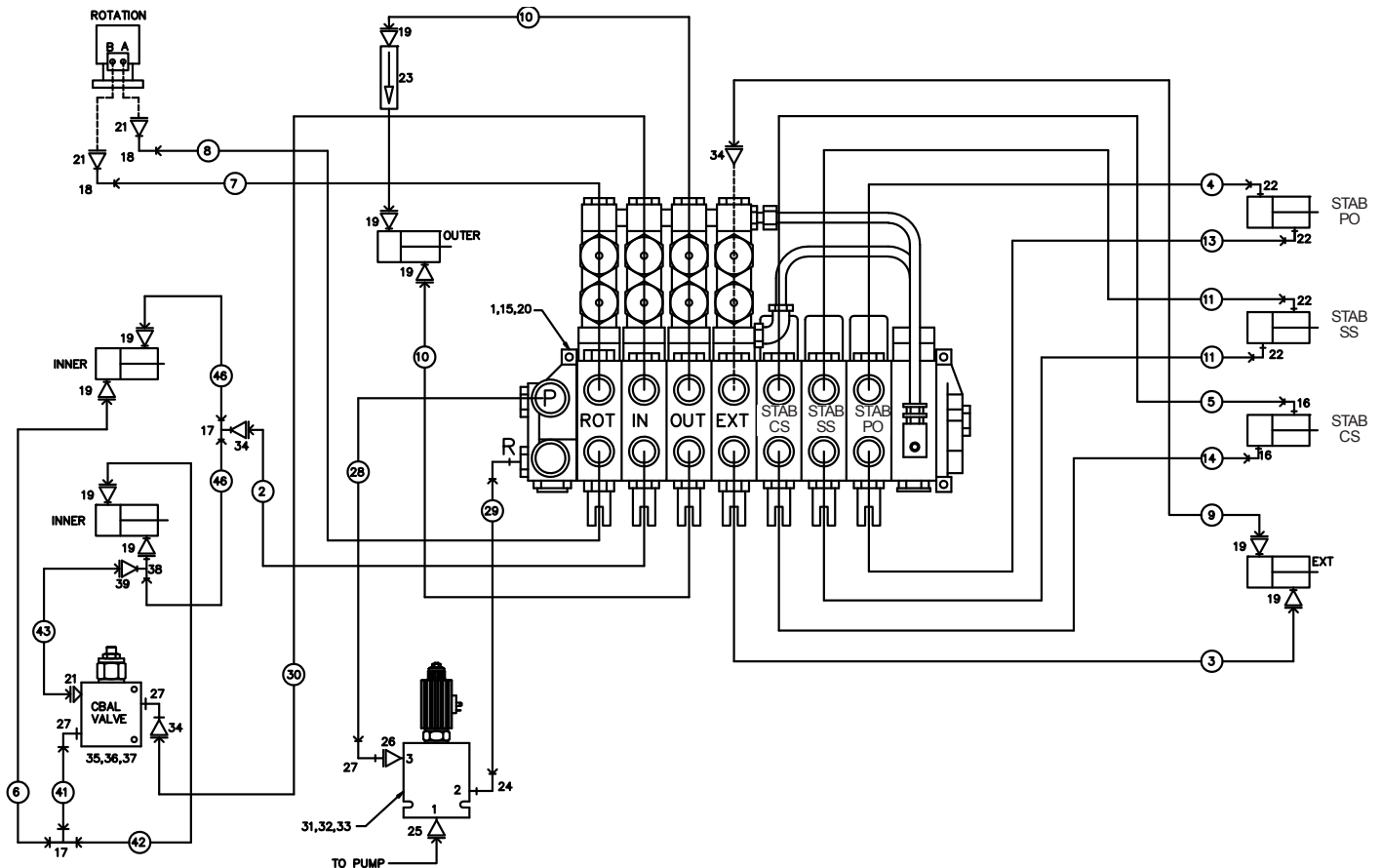


WIRE HARNESS-VB (73733411-2)

HYD KIT-SIDE MNT-PROP'L RMT-LH (91716561)

1. 51716557	VALVEBANK ASM	1*REF
2. 51394519	HOSE ASM 3/8X73 #8F#8F	1*REF
3. 51394405	HOSE ASM 3/8X285 #8F#8F	1*REF
4. 51394412	HOSE ASM 1/4X29.5 #4F#4F	1*REF
5. 51394402	HOSE ASM 3/8X141 #8F#8F	1*REF
6. 51392462	HOSE ASM 3/8X27 #8F#8F	1REF
7. 51394413	HOSE ASM 1/4X47.5 #4F#4F	1*REF
8. 51394414	HOSE ASM 1/4X49.5 #4F#4F	1*REF
9. 51394407	HOSE ASM 1/2X285 #8F#8F	1*REF
10. 51394404	HOSE ASM 3/8X171 #8F#8F	2*REF
11. 51394400	HOSE ASM 3/8X63 #8F#8F	2*REF
12. 51716373	HOSE KIT (INCL: *)	1
13. 51394411	HOSE ASM 1/4X31.5 #4F#4F	1*REF
14. 51394403	HOSE ASM 3/8X143 #8F#8F	1*REF
15. 72060027	CAP SCR 5/16-18X1-1/2 HHGR5	3
16. 72053758	ELBOW #4MSTR #4MJIC 90°	2
17. 72531205	TEE #8MJIC	2
18. 72532690	ADAPTER #4MJIC #4FJIC	2
19. 72532358	ADAPTER #8MSTR #8MJIC (WAS 10)	11
20. 72062109	NUT 5/16-18 LOCK	3
21. 72532351	ADAPTER #4MSTR #4MJIC	3

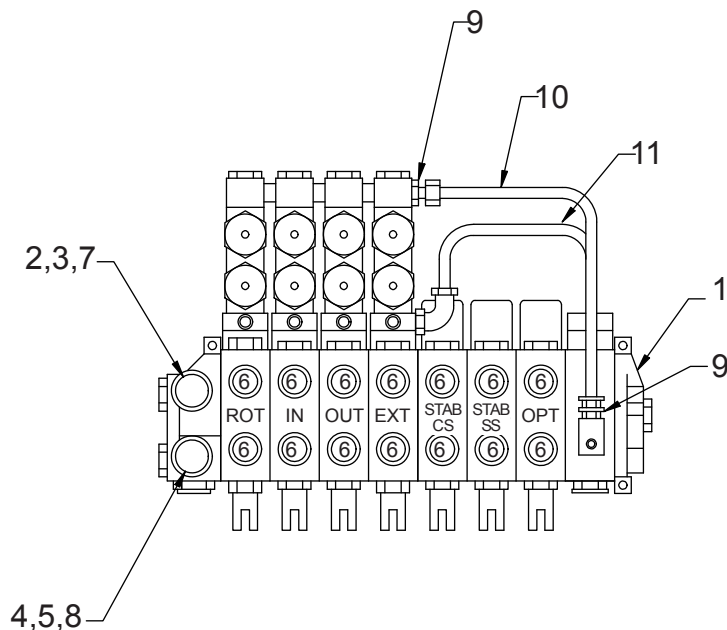
22. 72532779	ELBOW #6MSTR #8MJIC XLG	4
23. 73054426	RELIEF VALVE-ADJ (WAS 2)	1
24. 72053767	ELBOW #12MSTR #12MJIC 90°	1
25. 72532360	ADAPTER #12MSTR #8MJIC	1
26. 72532951	ADAPTER #12MSTR #8FSTR	1
27. 72053763	ELBOW #8MSTR #8MJIC 90°	3
28. 51394406	HOSE ASM 1/2X35 #8F#8F	1*REF
29. 51394408	HOSE ASM 3/4X39 #12#12 FJ	1*REF
30. 51395005	HOSE ASM 3/8X85 #8F#8F (WAS 51395991)	1*REF
31. 73054876	FLOW VALVE	1
32. 72060051	CAP SCR 3/8-16X2-1/4 HHGR5	2
33. 72062103	NUT 3/8-16 LOCK	2
34. 72532980	ADPTR-PR SW IN-LINE #8JIC	3
35. 73540061	C'BAL VALVE	1
36. 72060008	CAP SCR 1/4-20X2 HHGR5	2
37. 72063049	WASHER 1/4 LOCK	2
38. 72532657	TEE #8JIC SWVLNUTRUN	1
39. 72532665	ADAPTER #4MJIC #8FJIC	1
41. 51394481	HOSE-FF .38X16 #8#8	1*REF
42. 51395864	HOSE-FJ .38X6 #8#8	1*REF
43. 51395865	HOSE-FJ .25X18 #4#4	1*REF
44. 60107319	STUD-TIE DN 5/8X18-3/4	1
45. 72062006	NUT 5/8-11 HEX	2
46. 51395802	HOSE-FJ .38X13.5 #8#8	2*REF



VALVEBANK ASM 7-SECT 4R/3M-LH (51716557)

1.	51716556	VALVEBANK 7-SECT V20R	1
2.	60106322	ELBOW-PR GAUGE MOD	1
3.	72053241	PIPE PLUG 1/4 HOLHEX	1
4.	72532366	ADAPTER #12MSTR #12MJIC	1
5.	72532950	TEE-SWIVEL NUT RUN JIC #12	1
6.	72053777	ELBOW #8MSTR #8MJIC 45°	14
7.	72532669	ADAPTER #8MJIC #10FJIC	1
8.	72532696	ELBOW #8MJIC #8FJIC	1
9.	72532355	ADAPTER #6MSTR #6MJIC	2
10.	51706381	TUBE ASM	1
11.	51716593	TUBE ASM	1

NOTE: SET SYSTEM PRESSURE TO 2500 PSI.

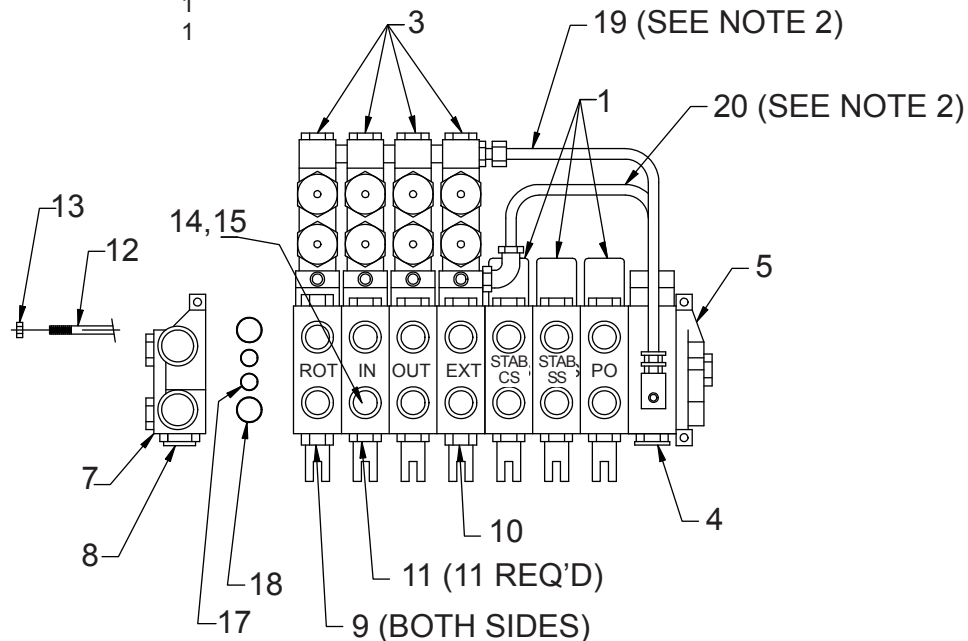


VALVEBANK (51716556)

1.	73054432	VALVE SECTION V20	3
3.	73054468	VALVE SECTION V20R 4-WAY	4
4.	73054502	VALVE SECTION V20R UTIL	1
5.	73731241	END COVER RH W/CONV PLUG	1
7.	73731424	END COVER LH (INCL:8)	1
8.	73054673	RELIEF VALVE-ADJ (PART OF 7)	1REF
9.	73054516	RELIEF 1300PSI NON-ADJ	2
10.	73054400	RELIEF 2300PSI NON-ADJ	1
11.	73054010	LOAD CHECK PLUG ASM	11
12.	73014668	STUD 3/8X17	3
13.	72062037	NUT 3/8-24 HEX	6
14.	70142402	ORIFICE PLATE	1
15.	70142403	SPRING-ORIFICE	1
16.	51393494	O-RING KIT-SERVICE PART	REF
17.	7Q072117	O-RING	18
18.	7Q072119	O-RING	18
19.	51706381	TUBE ASM	1
20.	51716593	TUBE ASM	1

NOTES:

- 1.) PURCHASE LESS COMPLETE
HANDLE ASSEMBLY
- 2.) TUBES #19 & 20 ARE INSTALLED AT IMT



SECTION 4. GENERAL REFERENCE

INSPECTION CHECKLIST 3

WIRE ROPE INSPECTION 7

HOOK INSPECTION 7

HOLDING VALVE INSPECTION 8

ANTI-TWO BLOCKING DEVICE INSPECTION 8

TORQUE DATA CHART - DOMESTIC 9

TORQUE DATA CHART - METRIC 10

TURNTABLE BEARING FASTENER TIGHTENING SEQUENCE 11

TURNTABLE BEARING INSPECTION FOR REPLACEMENT 12

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NOTICE

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

OWNER/COMPANY

CONTACT PERSON

CRANE MAKE & MODEL

CRANE SERIAL NUMBER

UNIT I.D. NUMBER

LOCATION OF UNIT

Inspection Checklist**CRANES****1**

REV: 11-22-11

TYPE OF INSPECTION (check one)

☐

DAILY (if deficiency found)

☐

QUARTERLY

☐

MONTHLY

☐

ANNUAL

DATE INSPECTED

HOUR METER READING (if applicable)

INSPECTED BY (print)

SIGNATURE OF INSPECTOR

TYPE OF INSPECTION**NOTES:**

Daily and monthly inspections are to be performed by a “competent person”, who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

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

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 stabilizers deployed according to the crane manufacturer’s directions.

DAILY (D): Before each shift of operation, those items designated with a (D) must be inspected.

MONTHLY (M): Monthly inspections or 100 hours of normal operation (which ever comes first) includes all daily inspections plus items designated with an (M). This inspection must be recorded and retained for a minimum of 3 months.

QUARTERLY (Q): Every three months or 300 hours of normal operation (which ever comes first) includes all daily and monthly inspection items plus items designated with a (Q). This inspection must be documented, maintained, and retained for a minimum of 12 months, by the employer that conducts the inspection.

ANNUAL (A): Each year or 1200 hours of normal operation (which ever 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 documented, maintained, and retained for a minimum of 12 months, by the employer that conducts the inspection.

FREQUENCY	ITEM	KEY	✓ = SATISFACTORY R = RECOMMENDATION (Should be considered for corrective action) NA = Not Applicable	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.)	STATUS ✓, R, X, NA
			INSPECTION DESCRIPTION		
D	1	Labels	All load charts, safety & warning labels, & 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 & cracks.		
D	4	Station	Control and operator’s station for dirt, contamination by lubricants, & foreign materials.		
D	5	Hyd System	Hydraulic system (hoses, tubes & fittings) for leakage & proper oil level.		
D	6	Hook	Presence & proper operation of hook safety latches.		
D	7	Wire Rope	Inspect for apparent deficiencies per applicable requirements and manufacturer’s specifications.		
D	8	Pins	Proper engagement of all connecting pins & pin retaining devices.		
D	9	General covers.	Overall observation of crane for damaged or missing parts, cracked welds & presence of safety		
D	10	Operation	During operation, observe crane for abnormal performance, unusual wear (loose pins, wire rope damage, etc.). If observed, discontinue use & determine cause & 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 Two-Block or Two-Block Damage Prevention	Operate anti-two-blocking or two-block prevention devices to check for proper operation.		

Inspection Checklist**CRANES****2**

FREQUENCY	ITEM	KEY	✓ = SATISFACTORY R = RECOMMENDATION (Should be considered for corrective action) NA = Not Applicable	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.)	STATUS ✓, R, X, NA
			INSPECTION DESCRIPTION		
D	14	Tires	Check tires (when in use) for proper inflation and condition.		
D	15	Ground conditions around and around stabilizers and supporting foundations, ground water accumulation, or similar.	Ground conditions around the equipment for proper support, including ground settling under and around stabilizers and supporting foundations, ground water accumulation,		
D	16	Level Position	The equipment for level position within tolerances specified by the equipment manufacturer's recommendations, both before each shift and after each move and setup.		
D	17	Operator Cab Windows	Significant cracks, breaks, or other deficiencies that would hamper the operator's view.		
D	18	Rails, rail stops, clamps, supporting surfaces.	Rails, rail stops, rail clamps and supporting surfaces when the equipment has rail traveling.		
D	19	Safety Devices	Safety devices and operational aids for proper operation.		
D	20	Electrical	Electrical apparatus for malfunctioning, signs of apparent excessive deterioration, dirt or moisture accumulation.		
D	21	Other			
D	22	Other			
M	23	Daily	All daily inspection items.		
M	24	Cylinders	Visual inspection of cylinders for leakage at rod, fittings & welds. Damage to rod & case.		
M	25	Valves	Holding valves for proper operation.		
M	26	Valves	Control valve for leaks at fittings & between sections.		
M	27	Valves	Control valve linkages for wear, smoothness of operation & tightness of fasteners. Relief valve for proper pressure settings.		
M	28	General	Bent, broken or significantly rusted/corroded parts.		
M	29	Electrical	Electrical apparatus for malfunctioning, signs of apparent excess deterioration, dirt or moisture accumulation. Electrical systems for presence of dirt, moisture and frayed wires.		
M	30	Structure	All structural members for damage.		
M	31	Welds	All welds for breaks & cracks.		
M	32	Pins	All pins for proper installation & condition.		
M	33	Hardware	All bolts, fasteners & retaining rings for tightness, wear & corrosion		
M	34	Wear Pads	Condition of wear pads.		
M	35	Pump & Motor mounting bolts.	Hydraulic pumps & motors for leakage at fittings, seals & between sections. Check tightness of		
M	36	PTO	Transmission/PTO for leakage, abnormal vibration & noise, alignment & mounting bolt torque.		
M	37	Hyd Fluid	Quality of hydraulic fluid and for presence of water.		
M	38	Hyd Lines	Hoses & tubes for leakage, abrasion damage, blistering, cracking, deterioration, fitting leakage & secured properly.		
M	39	Hook	Load hook for abnormal throat distance, twist, wear & cracks.		
M	40	Wire Rope	Condition of load line.		
M	41	Manual	Presence of operator's manuals with unit.		
M	42		Other		
M	43		Other		
Q	44	Daily	All daily inspection items.		
Q	45	Monthly	All monthly inspection items.		
Q	46	Rotation Sys	Rotation bearing for proper torque of all mounting bolts.		
Q	47	Hardware	Base mounting bolts for proper torque.		
Q	48	Structure	All structural members for deformation, cracks & corrosion.		
	49		1 Base		
	50		1 Stabilizer beams & legs		
	51		1 Mast		
	52		1 Inner boom		
	53		1 Outer boom		
	54		1 Extension(s)		
	55		1 Jib boom		
	56		1 Jib extension(s)		
	57		1 Other		
Q	58	Hardware	Pins, bearings, shafts, gears, rollers, & locking devices for wear, cracks, corrosion & distortion.		

Inspection Checklist			CRANES	3
FREQUENCY	ITEM	KEY	✓ = SATISFACTORY R = RECOMMENDATION (Should be considered for corrective action) NA = Not Applicable	STATUS ✓, R, X, NA
			INSPECTION DESCRIPTION	
	59		1 Rotation bearing(s)	
	60		1 Inner boom pivot pin(s) & retainer(s)	
	61		1 Outer boom pivot pin(s) & retainer(s)	
	62		1 Inner boom cylinder pin(s) & retainer(s)	
	63		1 Outer boom cylinder pin(s) & retainer(s)	
	64		1 Extension cylinder pin(s) & retainer(s)	
	65		1 Jib boom pin(s) & retainer(s)	
	66		1 Jib cylinder pin(s) & retainer(s)	
	67		1 Jib extension cylinder pin(s) & retainer(s)	
	68		1 Boom tip attachments	
	69		1 Other	
Q	70	Hyd Lines	Hoses, fittings & tubing for proper routing, leakage, blistering, deformation & excessive abrasion.	
	71		1 Pressure line(s) from pump to control valve	
	72		1 Return line(s) from control valve to reservoir	
	73		1 Suction line(s) from reservoir to pump	
	74		1 Pressure line(s) from control valve to each function	
	75		1 Load holding valve pipe(s) and hose(s)	
	76		1 Other	
Q	77	Pumps & Motors	Pumps & motors for loose bolts/fasteners, leaks, noise, vibration, loss of performance, heating & excess pressure.	
	78		1 Winch motor(s)	
	79		1 Rotation motor(s)	
	80		1 Other	
Q	81	Valves	Hydraulic valves for cracks, spool return to neutral, sticking spools, proper relief valve setting, relief valve failure.	
	82		1 Main control valve	
	83		1 Load holding valve(s)	
	84		1 Stabilizer or auxiliary control valve(s)	
	85		1 Other	
	86		1 Other	
Q	87	Cylinders	Hydraulic cylinders for drifting, rod seal leakage & leakage at welds. Rods for nicks, scores & dents. Case for damage. Case & rod ends for damage & abnormal wear.	
	88		1 Stabilizer cylinder(s)	
	89		1 Inner boom cylinder(s)	
	90		1 Outer boom cylinder(s)	
	91		1 Extension cylinder(s)	
	92		1 Rotation cylinder(s)	
	93		1 Jib lift cylinder(s)	
	94		1 Jib extension cylinder(s)	
	95		1 Other	
Q	96	Winch	Winch, sheaves & drums for damage, abnormal wear, abrasions & other irregularities.	
Q	97	Hyd Filters	Hydraulic filters for replacement per maintenance schedule.	
A	98	Daily	All daily inspection items.	
A	99	Monthly	All monthly inspection items.	
A	100	Quarterly	All quarterly inspection items.	
A	101	Hyd Sys	Hydraulic fluid change per maintenance schedule.	
A	102	Controls	Control valve calibration for correct pressures & relief valve settings	
A	103	Valves	Safety valve calibration for correct pressures & relief valve settings.	
A	104	Valves	Valves for failure to maintain correct settings.	
A	105	Rotation Sys	Rotation drive system for proper backlash clearance & abnormal wear, deformation & cracks.	
A	106	Lubrication	Gear oil change in rotation drive system per maintenance schedule.	
A	107	Hardware	Check tightness of all fasteners and bolts.	
A	108	Wear Pads	Wear pads for excessive wear.	
A	109	Loadline	Loadline for proper attachment to drum.	

Deficiency / Recommendation / Corrective Action Report

4

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If additional space is required, reproduce this page and attach to this report.

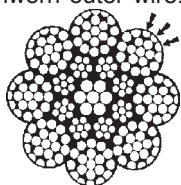
WIRE ROPE INSPECTION

Wire rope with any of the deficiencies shown below shall be removed and replaced immediately.

- A. Corrosion can be cause for replacement. Any development of corrosion must be noted and monitored closely.
- B. When there are either 3 broken wires in one strand or a total of six broken wires in all strands in any one rope lay.



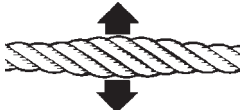
- C. When flat spots on the outer wires appear and those outside wires are less than 2/3 the thickness of the unworn outer wire.



- D. When there is a decrease of diameter indicating a core failure.



- E. When kinking, crushing, birdcaging or other distortion occurs.



- F. When there is noticeable heat damage (discoloration) of the rope by any means.



- G. When the diameter is reduced from nominal size by 1/32" or more.



- H. If a broken wire protrudes or loops out from the core of the rope.

**HOOK INSPECTION**

Hooks having any of the listed deficiencies shall be removed from service unless a qualified person approves their continued use and initiates corrective action. Hooks approved for continued use shall be subjected to periodic inspection.

A. DISTORTION**Bending / Twisting**

A bend or twist exceeding 10° from the plane of the unbent hook.

Increased Throat Opening

HOOK WITHOUT LATCH: An increase in throat opening exceeding 15% (Or as recommended by the manufacturer)

HOOK WITH LATCH: An increase of the dimension between a fully-opened latch and the tip section of the hook exceeding 8% (Or as recommended by the manufacturer)

B. WEAR

If wear exceeds 10% of the original sectional dimension. (Or as recommended by the manufacturer)

C. CRACKS, NICKS, GOUGES

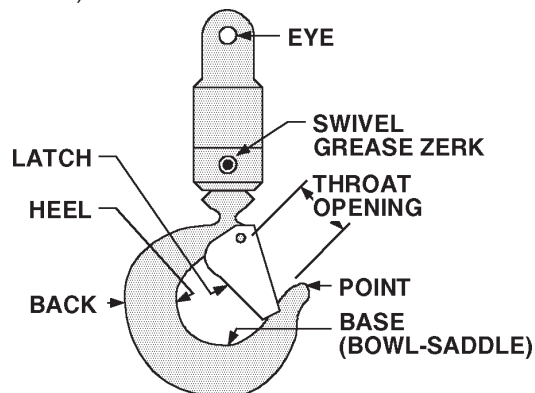
Repair of cracks, nicks, and gouges shall be carried out by a designated person by grinding longitudinally, following the contour of the hook, provided that no dimension is reduced more than 10% of its original value. (Or as recommended by the manufacturer) (A qualified person may authorize continued use if the reduced area is not critical.)

D. LATCH**Engagement, Damage & Malfunction**

If a latch becomes inoperative because of wear or deformation, and is required for the service involved, it shall be replaced or repaired before the hook is put back into service. If the latch fails to fully close the throat opening, the hook shall be removed from service or "moused" until repairs are made.

E. HOOK ATTACHMENTS & SECURING MEANS

If any indication of distortion, wear, cracks, nicks or gouges are present, unless a qualified person authorizes their use. (Or as recommended by the manufacturer)



HOLDING VALVE INSPECTION

The cylinders are equipped with holding valves that prevent sudden movement of the cylinder rods in the event of a hydraulic hose or other hydraulic component failure. The valve is checked in the following manner:

1. With a full rated load, extend the cylinder in question and kill the engine.
2. Operate the control valve to retract the cylinder. If the cylinder "creeps", replace the holding valve. If the cylinder does not "creep", the valve is serviceable.

TWO BLOCK PREVENTION DEVICE INSPECTION

(See Vol. 1, Operation, Maintenance and Repair for a complete description)

The two block prevention system halts the "winch-up" and "extension-out" crane functions before the block contacts the sheave. The two block prevention system should be checked daily as follows:

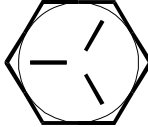
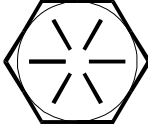
1. Examine flexible rod and weight to insure free unrestricted mechanical operation
2. Examine cord for damage, cuts or breaks. Grasp cord and pull to check operation of cord reel. The cord should retract on reel when released.
3. Start vehicle, engage PTO and slowly winch loadline up until anti-two block weight comes in contact with the hook end of the loadline cable. At the moment the weight is fully supported by the hook end, the winch up function should become non-functioning, because the two-block damage prevention switch will stop further movement.

If operation other than as described occurs, stop immediately and investigate. Failure to do so will risk damage to the cable or the crane.

Then, extend the winch cable to relieve the two-block condition, and actuate the boom extend function slowly. Again, once the weight is fully supported by the hook end, the boom extend function should become non-functioning, because the two-block damage prevention switch will stop further movement. If operation other than described occurs, stop immediately, reverse the function, and check the system.

If the anti two block function appears to be functioning normally, winch the cable down until the sensing weight swings free.

COARSE THREAD BOLTS

SIZE (DIA-TPI)	BOLT DIA (INCHES)	TIGHTENING TORQUE			
		 SAE J429 GRADE 5		 SAE J429 GRADE 8	
		PLAIN (FT-LBS)	PLATED (FT-LBS)	PLAIN (FT-LBS)	PLATED (FT-LBS)
5/16-18	0.3125	17	13	25	18
3/8-16	0.3750	31	23	44	33
7/16-14	0.4375	49	37	70	52
1/2-13	0.5000	75	57	105	80
9/16-12	0.5625	110	82	155	115
5/8-11	0.6250	150	115	220	160
3/4-10	0.7500	265	200	375	280
7/8-9	0.8750	395	295	605	455
1-8	1.0000	590	445	910	680
1 1/8-7	1.1250	795	595	1290	965
1 1/4-7	1.2500	1120	840	1815	1360
1 3/8-6	1.3750	1470	1100	2380	1780
1 1/2-6	1.5000	1950	1460	3160	2370

When using the torque data in the charts above, the following rules should be observed.

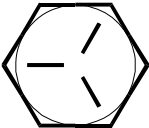
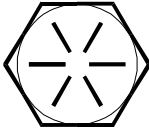
1. Bolt manufacturer's particular specifications should be consulted when provided.
2. Flat washers of equal strength must be used.
3. All torque measurements are given in foot-pounds. To convert to inch-pounds, multiply by 12.
4. Torque values specified are for bolts with residual oils or no special 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

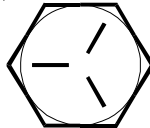
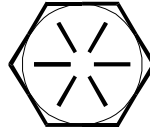
Anytime a gear-bearing bolt is removed, it must be replaced with a new bolt of the identical grade and size. Once a bolt has been torqued to 75% of its proof load and then removed, the torque coefficient may no longer be the same as when the bolt was new thus giving indeterminate clamp loads after torquing.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

TORQUE DATA CHART - DOMESTIC

FINE THREAD BOLTS

SIZE (DIA-TPI)	BOLT DIA (INCHES)	TIGHTENING TORQUE			
					
		SAE J429 GRADE 5		SAE J429 GRADE 8	
		PLAIN (FT-LBS)	PLATED (FT-LBS)	PLAIN (FT-LBS)	PLATED (FT-LBS)
5/16-24	0.3125	19	14	27	20
3/8-24	0.3750	35	26	49	35
7/16-20	0.4375	55	41	78	58
1/2-20	0.5000	90	64	120	90
9/16-18	0.5625	120	90	170	130
5/8-18	0.6250	170	130	240	180
3/4-16	0.7500	300	225	420	315
7/8-11	0.8750	445	325	670	500
1-12	1.0000	645	485	995	745
1 1/8-12	1.1250	890	670	1445	1085
1 1/4-12	1.2500	1240	930	2010	1510
1 3/8-12	1.3750	1675	1255	2710	2035
1 1/2-12	1.5000	2195	1645	3560	2670

COARSE THREAD BOLTS

SIZE (DIA-TPI)	BOLT DIA (INCHES)	TIGHTENING TORQUE			
					
		SAE J429 GRADE 5		SAE J429 GRADE 8	
		PLAIN (FT-LBS)	PLATED (FT-LBS)	PLAIN (FT-LBS)	PLATED (FT-LBS)
5/16-18	0.3125	17	13	25	18
3/8-16	0.3750	31	23	44	33
7/16-14	0.4375	49	37	70	52
1/2-13	0.5000	75	57	105	80
9/16-12	0.5625	110	82	155	115
5/8-11	0.6250	150	115	220	160
3/4-10	0.7500	265	200	375	280
7/8-9	0.8750	395	295	605	455
1-8	1.0000	590	445	910	680
1 1/8-7	1.1250	795	595	1290	965
1 1/4-7	1.2500	1120	840	1815	1360
1 3/8-6	1.3750	1470	1100	2380	1780
1 1/2-6	1.5000	1950	1460	3160	2370

When using the torque data in the charts above, the following rules should be observed.

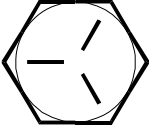
1. Bolt manufacturer's particular specifications should be consulted when provided.
2. Flat washers of equal strength must be used.
3. All torque measurements are given in foot-pounds. To convert to inch-pounds, multiply by 12.
4. Torque values specified are for bolts with residual oils or no special 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

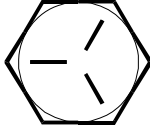
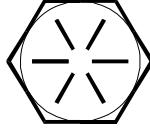
Anytime a gear-bearing bolt is removed, it must be replaced with a new bolt of the identical grade and size. Once a bolt has been torqued to 75% of its proof load and then removed, the torque coefficient may no longer be the same as when the bolt was new thus giving indeterminate clamp loads after torquing.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

TORQUE DATA CHART - METRIC

FINE THREAD BOLTS

SIZE (DIA-TPI)	BOLT DIA (INCHES)	TIGHTENING TORQUE			
		 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	0.3750	5	4	7	5
7/16-20	0.4375	8	6	11	8
1/2-20	0.5000	12	9	17	12
9/16-18	0.5625	17	12	24	18
5/8-18	0.6250	24	18	33	25
3/4-16	0.7500	41	31	58	44
7/8-11	0.8750	62	45	93	69
1-12	1.0000	89	67	138	103
1 1/8-12	1.1250	123	93	200	150
1 1/4-12	1.2500	171	129	278	209
1 3/8-12	1.3750	232	174	375	281
1 1/2-12	1.5000	304	228	492	369

COARSE THREAD BOLTS

SIZE (DIA-TPI)	BOLT DIA (INCHES)	TIGHTENING TORQUE			
		 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	0.3750	4	3	6	5
7/16-14	0.4375	7	5	10	7
1/2-13	0.5000	10	8	15	11
9/16-12	0.5625	15	11	21	16
5/8-11	0.6250	21	16	30	22
3/4-10	0.7500	37	28	52	39
7/8-9	0.8750	55	41	84	63
1-8	1.0000	82	62	126	94
1 1/8-7	1.1250	110	82	178	133
1 1/4-7	1.2500	155	116	251	188
1 3/8-6	1.3750	203	152	329	246
1 1/2-6	1.5000	270	210	438	328

When using the torque data in the charts above, the following rules should be observed.

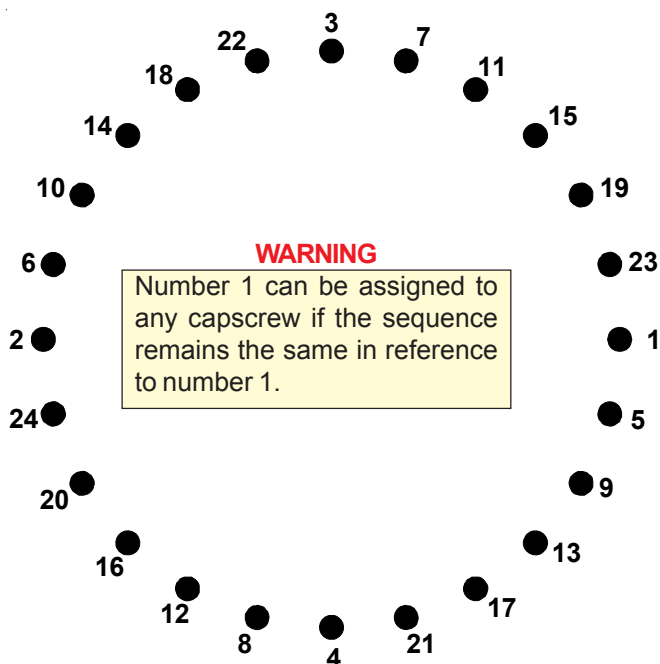
1. Bolt manufacturer's particular specifications should be consulted when provided.
2. Flat washers of equal strength must be used.
3. All torque measurements are given in kilogram-meters.
4. Torque values specified are for bolts with residual oils or no special lubricants applied.
If special lubricants 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 torquing. Failure to replace gear-bearing bolts may result in bolt failure due to metal fatigue causing serious injury or DEATH.

TURNTABLE BEARING FASTENER TIGHTENING SEQUENCE

Refer to the 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 capscrew used.
2. Follow the tightening sequence shown in the diagram. Note that the quantity of capscrews may differ from the diagram, but the sequence must follow the criss-cross pattern as shown in the diagram.
3. Torque all capscrews to approximately 40% of the specified torque value, by following the sequence.
(EXAMPLE: .40 x 265 FT-LBS = 106 FT-LBS)
(EXAMPLE-METRIC: .40 x 36 KG-M = 14.4 KG-M)
4. Repeat Step 3, but torquing all capscrews to 75% of the specified torque value. Continue to follow the tightening sequence.
(EXAMPLE: .75 x 265 FT-LBS = 199 FT-LBS)
(EXAMPLE-METRIC: .75 x 36 KG-M = 27 KG-M)
5. Using the proper sequence, torque all capscrews 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.

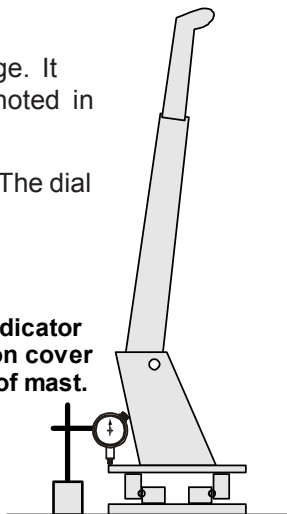
If none of the above conditions exists, the bearing is functioning properly and need not be replaced. But, if one or more of the above conditions exists, inspection may be required. Limits are measured in "TILT" which is dependent on the internal clearances of the bearing. TILT is the most practical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

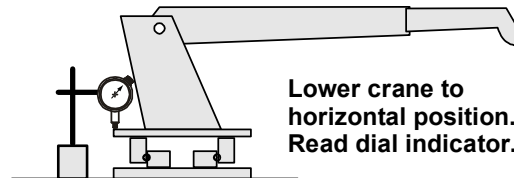
TEST PROCEDURE

1. Place crane in vertical position.
2. Set a dial indicator at 0 on the pinion cover plate at back side of mast.
3. Lower crane to the horizontal position.
4. Check and record the dial indicator change. It should not exceed the tilt measurement noted in the chart below.
5. Return the crane to the vertical position. The dial indicator should return to 0.

Set up dial indicator to 0" on pinion cover at back side of mast.



Lower crane to horizontal position. Read dial indicator.



COMPARISON CHART - MODEL TO MEASURED TILT DIMENSION

NOTE THE FIGURES LISTED IN THIS CHART ARE SERVICE GUIDELINES AND DO NOT, IN THEMSELVES, REQUIRE THAT THE BEARING BE INSPECTED. IF THERE IS REASON TO SUSPECT AN EXCESS OF BEARING WEAR AND THE MEASURED TILT DIMENSION EXCEEDS THE DIMENSION LISTED, REMOVE THE BEARING FOR INSPECTION.	IMT CRANE, LOADER OR TIREHAND MODEL	1007 1014 1014A 1015 2015/2020 2109 3000 3816/3820 3016/3020 421/425 4300 5016/5020 6016/6020 TH7 BODY ROT'N TH1449 BODY ROT'N TH15B CLAMP TH2551B CLAMP TH2557A CLAMP	5200 5200R 5217 5800 7020 7025 7200 7415 9000 TH10 BODY ROT'N TH14 BODY ROT'N	16000 32018 32027 32030 T30 T40	9800 12916 13031 13034 14000 15000 18000 20017 8000L H1200 H1200RR T50 TH2551B BODY ROT'N TH2557B BODY ROT'N TH2557A BODY ROT'N
	BALL DIA. (REF)	.875" (22mm)	1.00" (25mm)	1.18"-1.25" (30-32mm)	1.75" (44mm)
	TILT DIM. (A₁-A₂)	.060" (1.524mm)	.070" (1.778mm)	.075" (1.905mm)	.090" (2.286mm)

The information within this manual has been compiled and checked but errors do occur. To provide our customers with a method of communicating those errors we have provided the Manual Change Request form below. In addition to error reporting, you are encouraged to suggest changes or additions to the manual which would be of benefit to you. We cannot guarantee that these additions will be made but we do promise to consider them. When completing the form, please write or print clearly. Submit a copy of the completed form to the address listed below.

MANUAL CHANGE REQUEST

DATE	PRODUCT MANUAL	MANUAL PART NO.
SUBMITTED BY		
COMPANY		
ADDRESS		
CITY, STATE, ZIP		
TELEPHONE		

☐ ERROR FOUND

LOCATION OF ERROR (page no.):

DESCRIPTION OF ERROR:

☐ ERROR FOUND

DESCRIPTION OF ADDITION:

REASON FOR ADDITION:

MAIL TO:
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