

Manitowoc

PARTS MANUAL

This Manual has been prepared for and is considered part of

M-80W

Model

801003

Serial Number

GROUP A = Rotating Structure (Includes rotating bed, operator's cab, cases, fuel tanks, transfer pump, counterweights, guards, platforms, catwalks, machinery enclosure, horn)

GROUP B = Upperworks Machinery (Includes front, rear, and auxiliary drums, boom hoist, swing and drive shafts, hand levers, foot pedals, control linkage, rotation indicators, upperworks hydraulic components, hydraulic piping, hydraulic oil reservoir, lubrication pump and piping, blowers)

GROUP C = Controls, Air/Electrical (Includes control console, air piping, electric wiring, auxiliary light plant and lighting, TV monitoring, compressor and air tank)

GROUP D = Power Plant (Includes engine or motor, radiator, auxiliary power plant, take off converters and piping, controls, VICON power lowering, torque limiter, hydraulic pumps and piping, fuel piping, battery box)

GROUP E = Lowerworks (Includes carbody, crawlers, travel shafts and control, steering travel locks, hydraulic travel, travel power outriggers, carrier, pedestal, lowerworks hydraulic piping, RINGER components, barge mounting and machinery, spud drums)

GROUP F = Attachments (Includes booms, jibs, masts, tower, wire rope guides, equalizer, gantry, fairlead, timber guards, boom angle indicator, block-up limit, tag line, hook block, weight ball, upper and lower boom point, wind speed indicator, crowd and retract dipper sticks, dippers,)

O-NUMBER SECTION = (Includes lacing drawings and purchased component parts drawings referenced in sections A through F)

This manual is arranged in sections as listed above. Sections A through F are arranged by group numerical order with an index after each section tab. An alphabetical index for groups A Through F combined is located after the O-number Section. The O-number section is arranged in numerical order by O-number. Following this cover page are the Basic Specifications, Accessories, Warranty Information, Tool List (if applicable) Outline Dimensions, Weights, and Dealer Listing.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

INSPECTION GUIDELINES

1. Position the crane on a level surface.
2. Block the attachment so it is level; blocking should be placed under each connection point to eliminate all sag.
3. Thoroughly clean the attachment of all dirt, grease, oil, etc. so a thorough inspection can be made.
4. Visually inspect the entire attachment looking for the following types of damage:
 - a. Dents in lacings, chords, and platework.
 - b. Corrosion or abrasion in lacings, chords, and platework.
 - c. Bent, kinked, or distorted lacings, chords, and platework.
 - d. Cracked lacings, chords, and platework.
 - e. Cracked welds.
5. Closely examine those areas where the paint is chipped, wrinkled, or missing and where faint rust lines or marks appear.
6. Fill in the inspection checklist at the end of this publication and make a detailed report of the type and degree of damage found.
7. Repair or replace damaged lattice sections.



WARNING

Structural Failure!

If damage not within allowable criteria is found, do not operate crane until appropriate lattice section has been properly repaired or replaced.

Operating crane with damaged lattice sections can result in structural failure or collapse of attachment.

REPLACEMENT CRITERIA

CAUTION

Lacing Replacement!

Any lacings damaged beyond the allowable criteria given in this publication must be replaced.

Contact Manitowoc Crane Care for any damage to chords or platework exceeding the allowable criteria contained in this publication. Special instructions are required for repair or replacement of these components.

Refer to Table 1 for the wall thickness of tubular lacings and chords on various past production attachments.

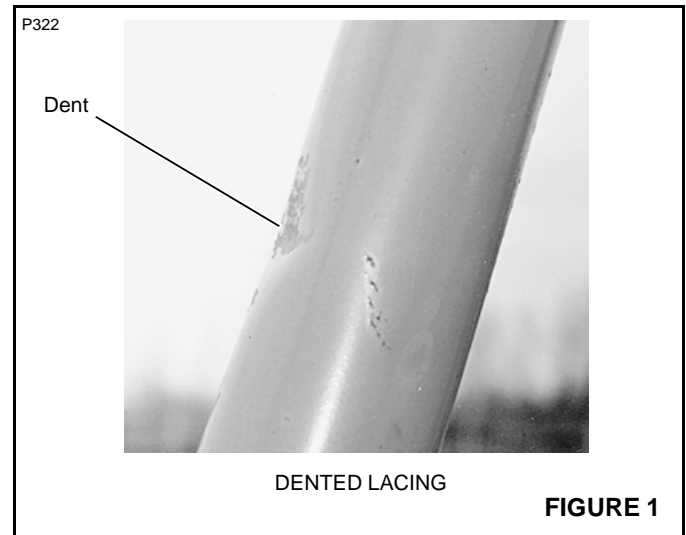
For attachments not listed, refer to the Lacing Drawings in the Attachment Section of the Parts Manual supplied with your crane, or contact your Manitowoc distributor.

Dents

Refer to Figure 1.

For tubular lacings or chords, dents must not be deeper than the wall thickness or 1/8 in (3.2 mm), whichever is less.

For angular lacings or chords and all platework, dents must not be deeper than 1/8 in (3.2 mm).

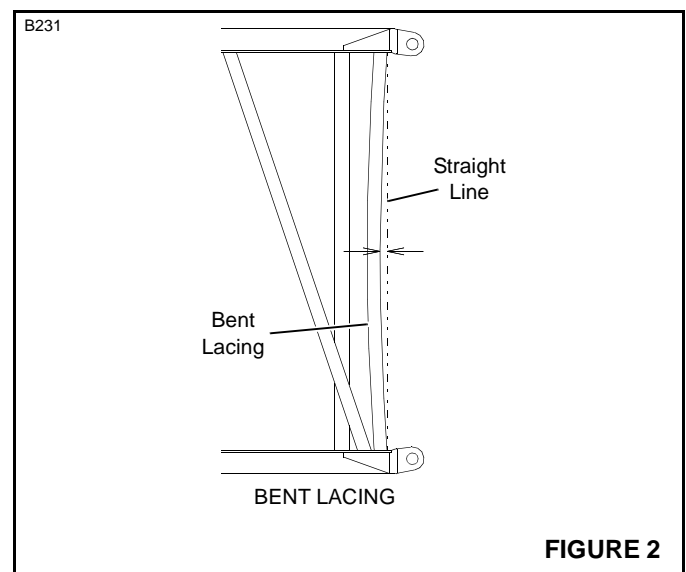


Gradual and Sweeping Bends

Refer to Figure 2.

For tubular lacing, gradual and sweeping bends must not deviate from straight more than 5 percent of the lacing diameter.

For angular lacing, gradual and sweeping bends must not deviate from straight more than 5 percent of the angle leg length.



Gradual and sweeping bends in lacings can be straightened by cold bending them back into alignment. Take extreme care not to kink or further damage the lacings.

End Lacing Replacement on an Insert (Angle and Tubular Chords)

1. This procedure can be used for replacing the end lacing on a top or butt lattice section with angle chords.
2. Pin another lattice section to the end of the section being repaired. The connectors should be wedged over to ensure no lateral movement.
3. If another lattice section is not available, tack weld a temporary brace to the connectors parallel to the damaged lacing (see Figure 15).

Care must be taken to not damage the machined surface of the connector.

- The temporary brace will need to be strong enough to not allow the connectors to move in or out. A minimum 4 in (102 mm) by 4 in (102 mm) by 3/8 in (10 mm) angle is required.
 - The connectors shall be preheated to a minimum of 150°F (66° C) before tacking.
 - Use 3/32 in (2,5 mm) E9018-M stick electrode for tacking the temporary brace.
 - Tacks shall be 1 to 1-1/2 in (25 to 38 mm) long. The tacks shall be sound with no undercut to the connector.
 - Do not tack to any machined surfaces.
4. Use the same process for removing and replacing lacing as specified in Lacing Replacement on page 11.
 5. Remove the temporary bracing without damaging the connectors.

Do not cut or gouge the connector. **Stop all work if connector is damaged and contact Manitowoc Crane Care.**

6. Send all completed inspection reports to Manitowoc Crane Care. Digital photographs should be taken and sent with the inspection reports.

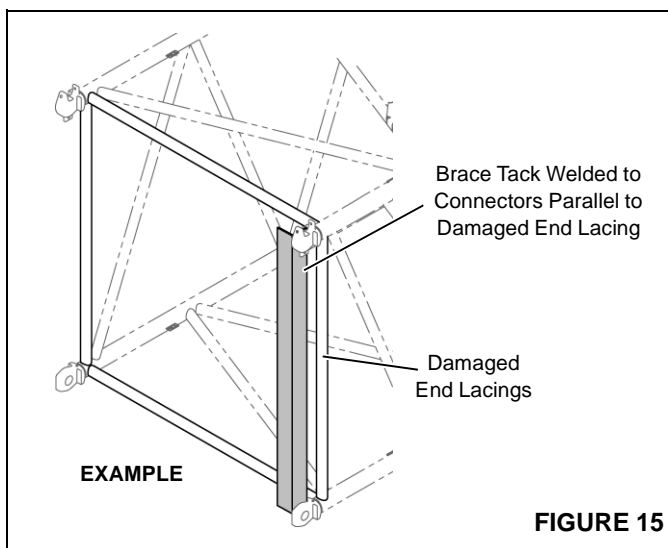


FIGURE 15

End Lacing Replacement on Tapered Sections (Tubular Chords)

1. This procedure applies specifically to tapered lattice sections that have tubular chords. Examples: tops, butts, and transition inserts.
2. The replacement end lacing cannot be installed into a tapered lattice section due to clearance issues with the connector. For this reason, the connectors cannot be restrained to install the replacement lacing. Therefore the section being repaired must be pinned to another section.
3. Perform Lacing Replacement steps 1-7 on page 11. **Do not replace more than one lacing at a time.**
4. The lacing must be installed and not tack welded.

Safety Note: Make sure the lacing cannot fall out and injure someone.
5. Pin another lattice section to the end of the section being repaired. The connectors should be wedged to prevent lateral movement of the sections.
6. Only after the section is pinned to another section can the replacement end lacing be tack welded into position.
7. Perform Lacing Replacement steps 8-14 starting on page 11.
8. Send all completed inspection reports to Manitowoc Crane Care. Digital photographs should be taken and sent with the inspection reports.

Lacing Removal — Boom Section with a Bent or Bowed Chord Member

1. This procedure applies to all lattice sections that have a bent/bowed chord member. Perform the Chord Straightness inspection on page 7 to determine if the chord is out of allowable tolerance.
2. Bent or bowed chords in a lattice section are typically the result of some form of structural damage such as kinked lacings. Perform a thorough inspection of the lacings and identify the lacings that will need to be replaced.
3. Remove all of the damaged lacings by performing Lacing Replacement steps 1-7 on page 11. It may be necessary to remove more than one lacing to straighten the chord.

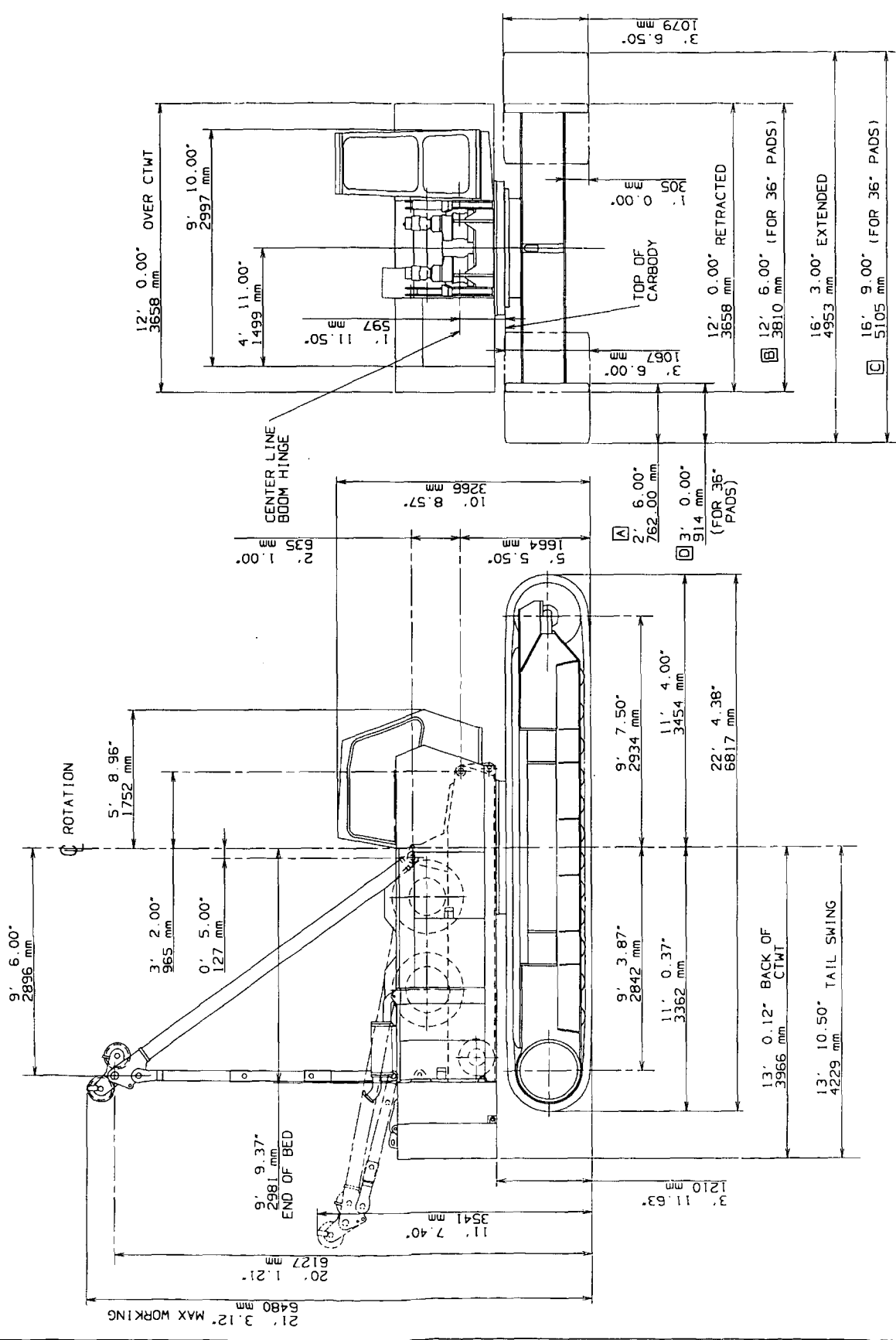
NOTE Pin another lattice section to the end of the section being repaired or install a temporary brace if replacing an end lacing.

4. Check the chord for straightness after removing the damaged lacings.

It may be necessary to manipulate the chord to achieve the desired results: use a pipe and a jack to move the chord out or a lever-operated hoist to bring the chord in.

Check the back-to-back dimensions to the inside of the chord on an insert.

ITEM NO.	QTY.	DESC.	UNIT	ASSEMBLIES USED ON
BILL OF MATERIAL				
DESCRIPTION		QTY.	MATERIAL	CODE NO.
REVISIONS				
3-1-89 - DG ALL CORRECTED 08-11-93 KC (BIDD) ADDED				
Dwg. No. 166111				
DATE 9-29-88				
PLATFORM NO.				
CODE NO.				
TAG NO.				
166111				



SCALE 3/8" = 1'-0"

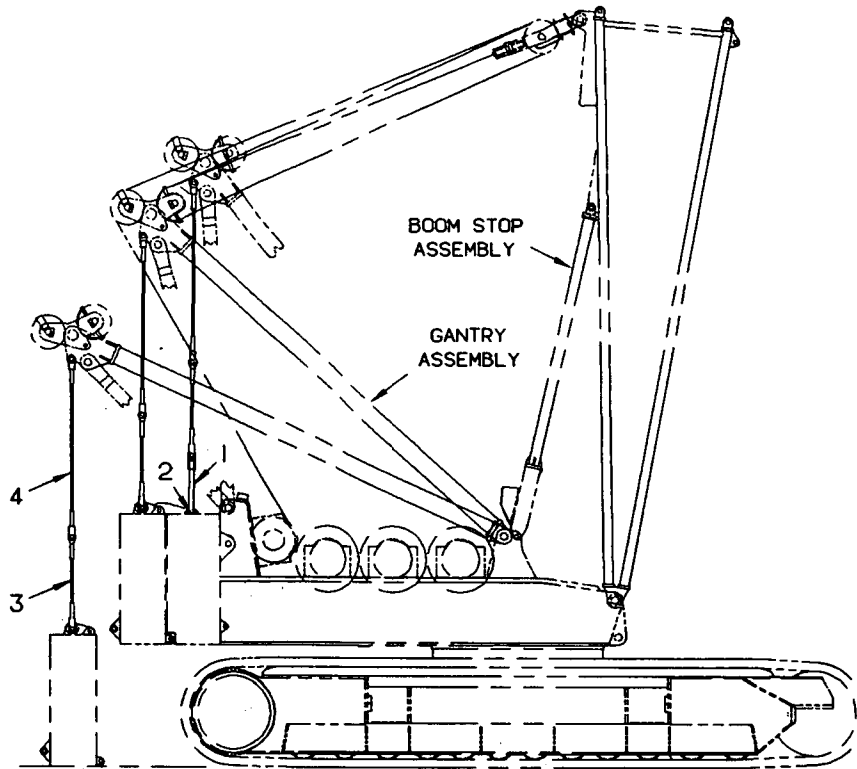
MANITOWOC ENGINEERING CO.
MANTOWOC, WISCONSIN

CRANE OUTLINE DIMENSIONS
LEFT SIDE
OPERATORS CAB

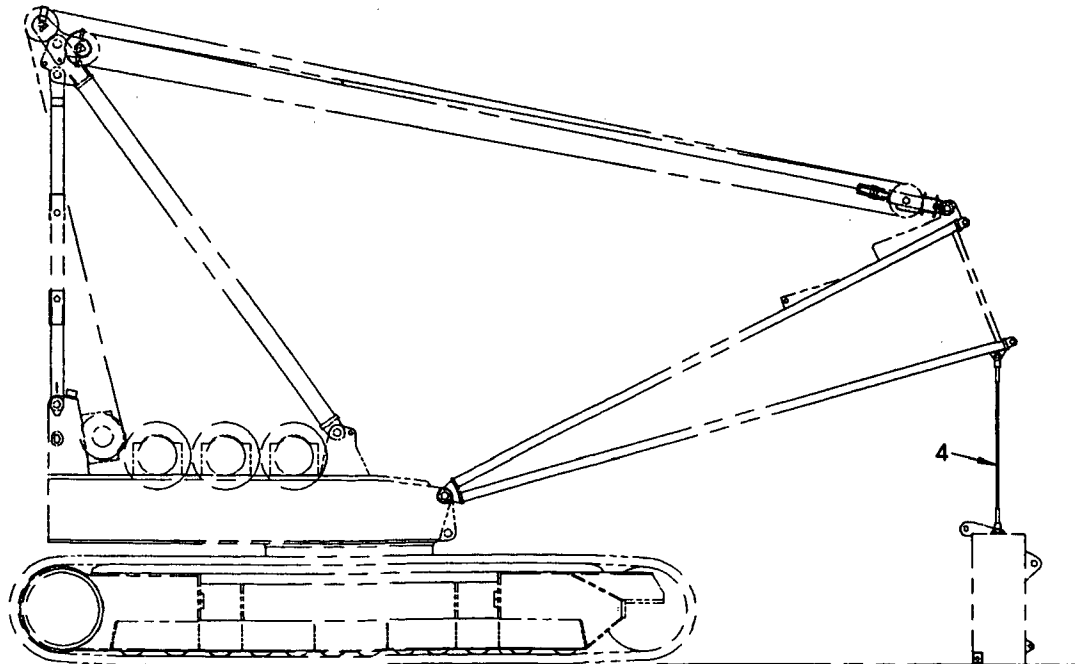
SUPERSEDES 166111 OF 12-12-85

TOLERANCE UNLESS OTHERWISE SPECIFIED	
DECIMAL PLACES	FRACTIONS
(1) PLACE 0.00	1/16
(2) PLACE 0.000	1/32
(3) PLACE 0.0000	1/64
ANGLES 1/16	
MACHINING	
TO FINISH	1/32
TO HIDE	1/64
TO HIDE	1/128
TO HIDE	1/256

DO NOT SCALE THIS DRAWING



ARRANGEMENT FOR HANDLING COUNTERWEIGHT WITH GANTRY



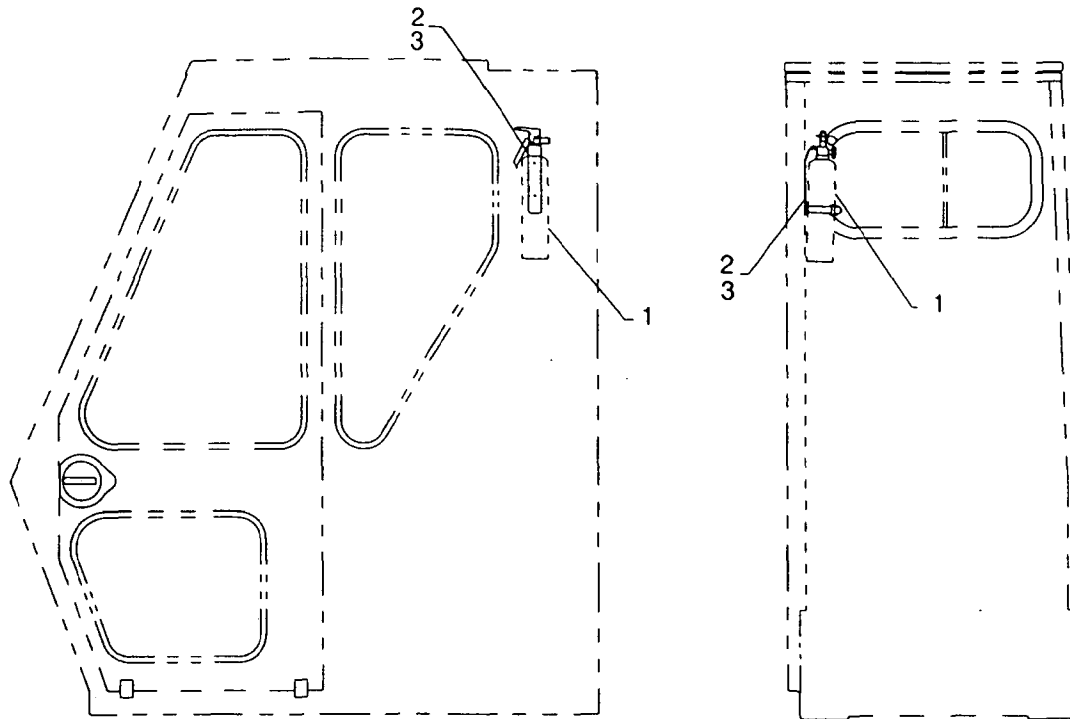
ARRANGEMENT FOR HANDLING COUNTERWEIGHT WITH BOOM BUTT

164286A2

MATERIAL LIST ON BACK

COUNTERWEIGHT HANDLING

ILLUSTRATION
169158 A



MODEL

M-50W, M-65W, M-80W, M-85W, M-250, M-250T, 888

FIRE EXTINGUISHER

ITEM	PART #	QTY.	DESCRIPTION OF PART
1	416800	1	EXTINGUISHER, Fire
2	620599	2	SCREW, Pan Head Self-Tapping Sheet Metal (#10-24 UNC-2A x 3/8" long)
3	710301	2	LOCKWASHER (#10)

PLEASE GIVE MACHINE SERIAL NUMBER WITH ORDER

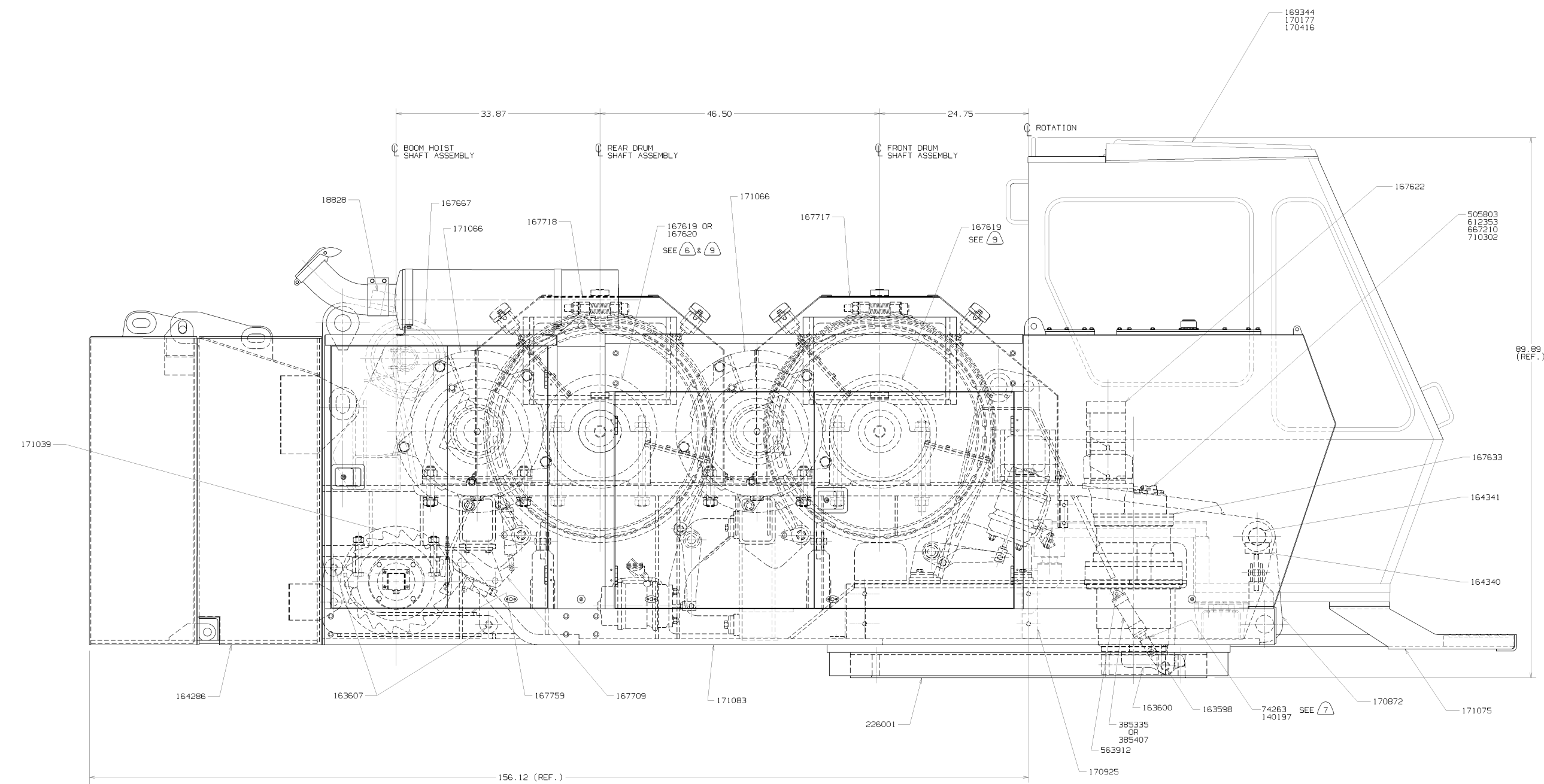
ASSEMBLY 169158	REVISION A
---------------------------	----------------------

FIRE EXTINGUISHER

C

C

BILL OF MATERIAL			
ITEM NO.	QTY	DESCRIPTION	ASSEMBLY NO.



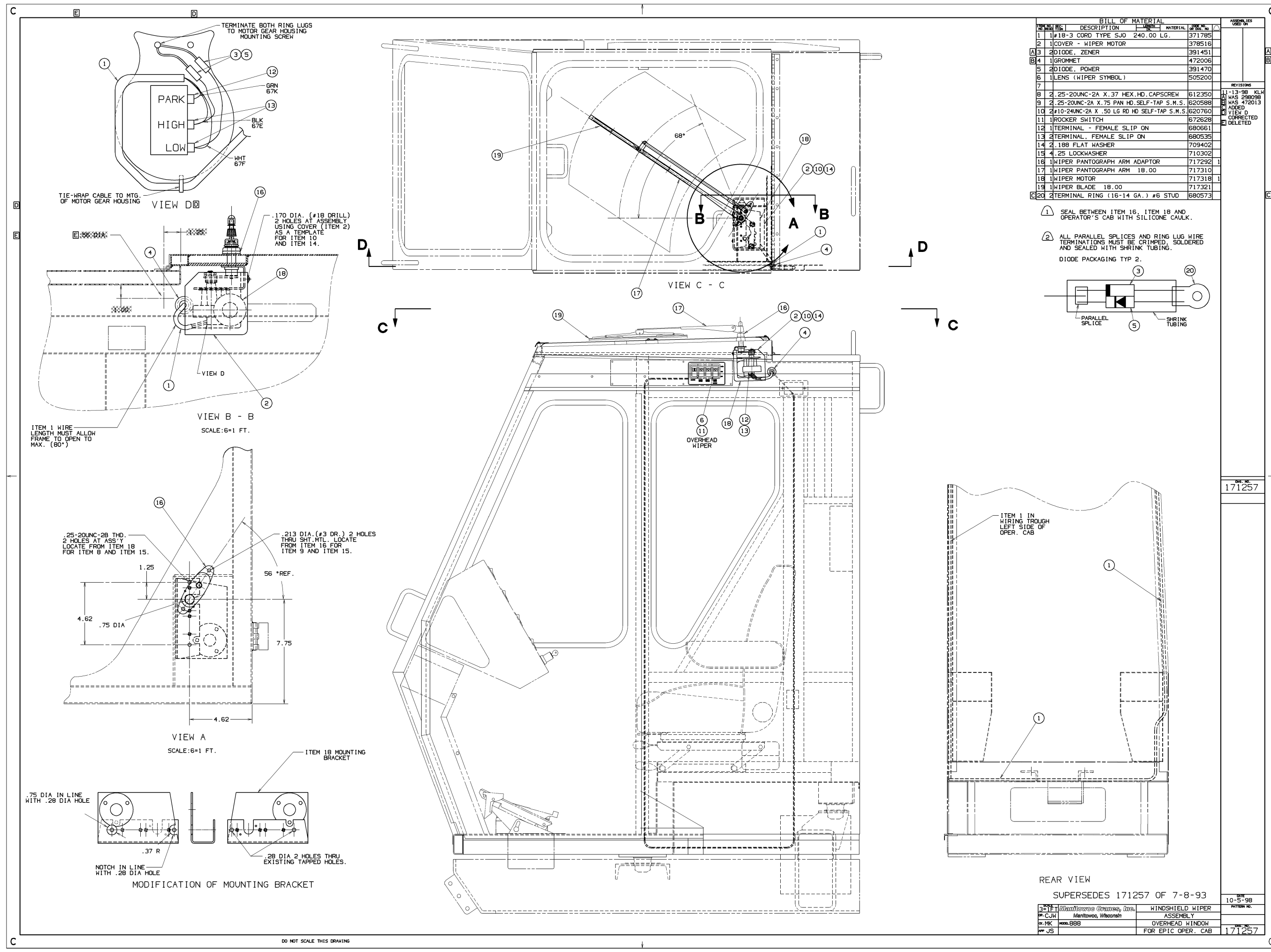
REVISIONS

171067
SHT. 1 OF 3

DATE	7-17-91
DRAWN BY	KB
CHECKED BY	JLD
APP. BY	AEP
DATE	7-17-91
DRAWN BY	KB
CHECKED BY	JLD
APP. BY	AEP

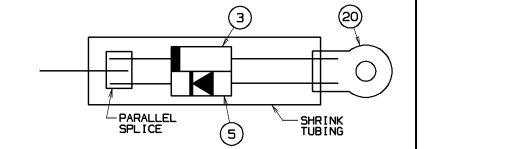
DO NOT SCALE THIS DRAWING

SHT. 1 OF 3



BILL OF MATERIAL				ASSEMBLIES USED ON
ITEM NO.	DESCRIPTION	QTY	MATERIAL	
1	#18-3 CORD TYPE SJD 240.00 LG.	371795		
2	COVER - WIPER MOTOR	378516		
3	DIODE, ZENER	391451		
4	GROMMET	472006		
5	DIODE, POWER	391470		
6	LENS (WIPER SYMBOL)	505200		
7				
8	2 .25-20UNC-2A X.37 HEX.HD.CAPSCREW	612350		
9	2 .25-20UNC-2A X.75 PAN.HD.SELF-TAP S.M.S.	620588		
10	2 #10-24UNC-2A X .50 LG RD HD SELF-TAP S.M.S.	620760		
11	ROCKER SWITCH	672628		
12	TERMINAL - FEMALE SLIP ON	680661		
13	TERMINAL - FEMALE SLIP ON	680535		
14	2 .188 FLAT WASHER	709402		
15	4 .25 LOCKWASHER	710302		
16	WIPER PANTOGRAPH ARM ADAPTOR	717292	1	
17	WIPER PANTOGRAPH ARM	717310	18.00	
18	WIPER MOTOR	717318	1	
19	WIPER BLADE	717321	18.00	
20	2 TERMINAL RING (16-14 GA.) #6 STUD	680573		

- REVISIONS
- 1 11-3-98 KLV WAS 298098
 - 2 WAS 472013 ADDED
 - 3 VIEW D CORRECTED
 - 4 DELETED
- 1 SEAL BETWEEN ITEM 16, ITEM 18 AND OPERATOR'S CAB WITH SILICONE CAULK.
- 2 ALL PARALLEL SPLICES AND RING LUG WIRE TERMINATIONS MUST BE CRIMPED, SOLDERED AND SEALED WITH SHRINK TUBING.
- DIODE PACKAGING TYP 2.



171257

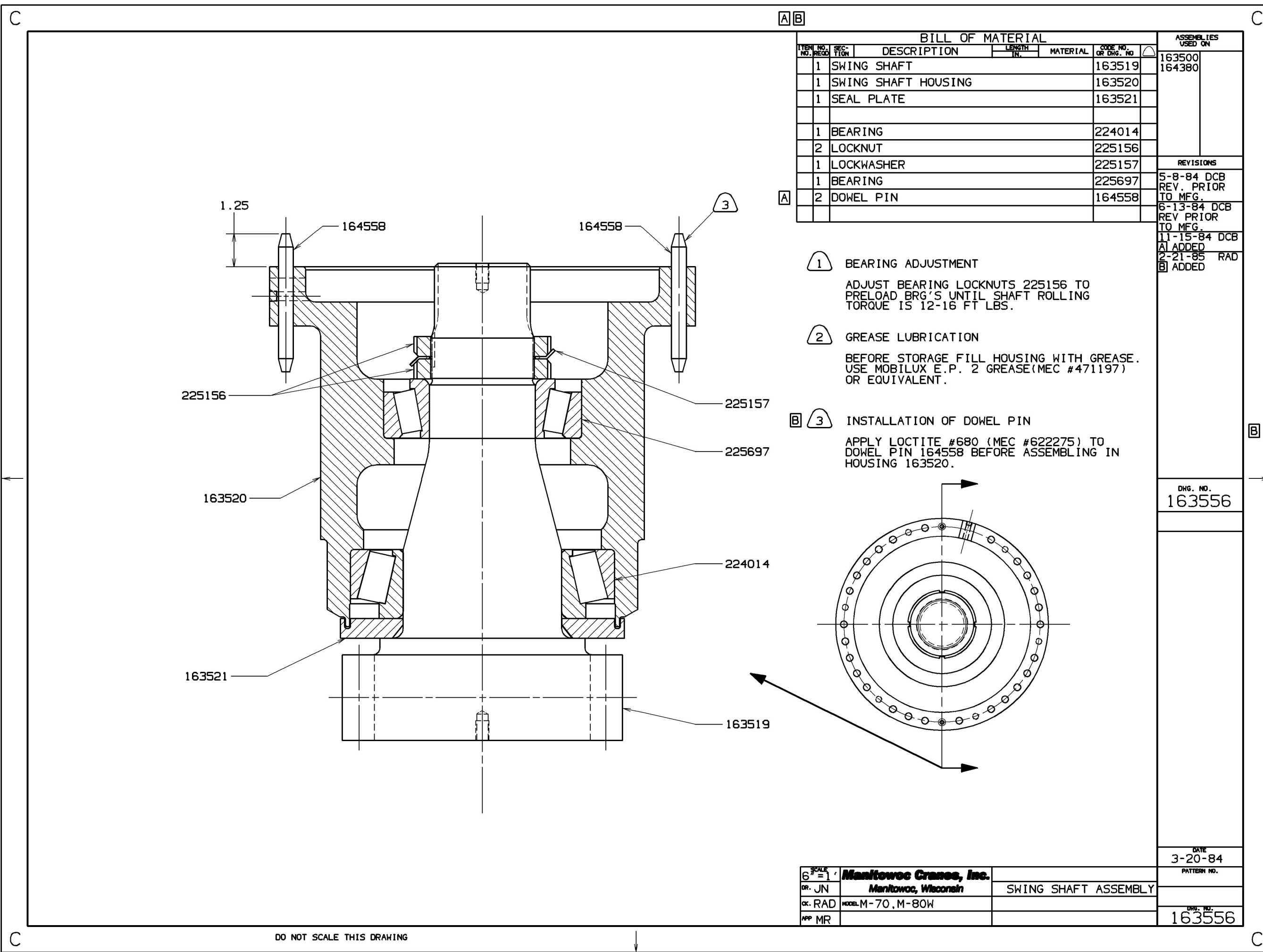
REAR VIEW

SUPERSEDES 171257 OF 7-8-93

BY	W. J. Johnson	DATE	10-5-98
CHKD	M. J. Johnson	DATE	
APP'D	M. J. Johnson	DATE	
REV	JS	DATE	

WINDSHIELD WIPER ASSEMBLY FOR EPIC OPER. CAB

DO NOT SCALE THIS DRAWING

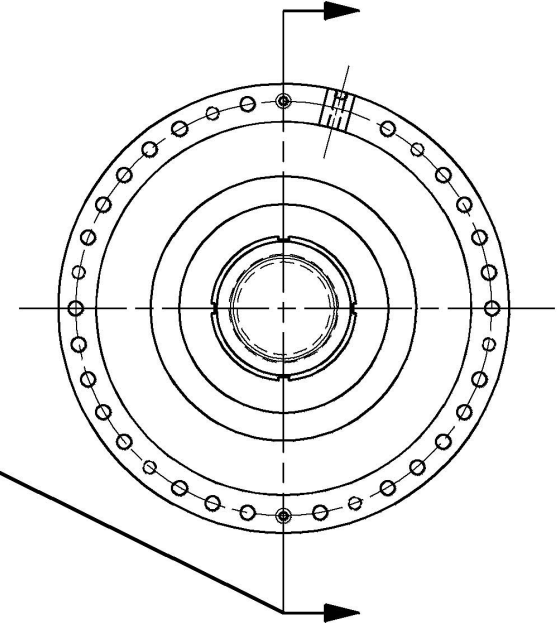


A B

ITEM NO.	NO. REQD.	SECTION	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OR DRG. NO.	ASSEMBLIES USED ON
1			SWING SHAFT			163519	163500 164380
1			SWING SHAFT HOUSING			163520	
1			SEAL PLATE			163521	
1			BEARING			224014	
2			LOCKNUT			225156	
1			LOCKWASHER			225157	
1			BEARING			225697	
2			DOWEL PIN			164558	

REVISIONS
5-8-84 DCB REV. PRIOR TO MFG.
6-13-84 DCB REV PRIOR TO MFG.
11-15-84 DCB A1 ADDED
2-21-85 RAD B1 ADDED

- 1** BEARING ADJUSTMENT
ADJUST BEARING LOCKNUTS 225156 TO PRELOAD BRG'S UNTIL SHAFT ROLLING TORQUE IS 12-16 FT LBS.
- 2** GREASE LUBRICATION
BEFORE STORAGE FILL HOUSING WITH GREASE. USE MOBILUX E.P. 2 GREASE (MEC #471197) OR EQUIVALENT.
- B 3** INSTALLATION OF DOWEL PIN
APPLY LOCTITE #680 (MEC #622275) TO DOWEL PIN 164558 BEFORE ASSEMBLING IN HOUSING 163520.



DWG. NO.
163556

SCALE 6" = 1'	Manitowoc Cranes, Inc.	
DR. JN	Manitowoc, Wisconsin	SWING SHAFT ASSEMBLY
CK. RAD	MODEL M-70, M-80W	
APP MR		

DATE
3-20-84
PATTERN NO.
DWG. NO.
163556

DO NOT SCALE THIS DRAWING

1 APPLY LOCTITE #242 (M.E.C. CODE NO. 622293) TO THREADS OF 167637, 167638 & 166577.

2 APPLY LOCTITE #222 (M.E.C. CODE NO. 622294) TO THREADS OF 620209.

BILL OF MATERIAL

ITEM NO.	SEC. NO.	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OF Dwg. NO.
1		SNAP ON PACKING CUP			12480
1		AIR CYLINDER			168233
1		NUT			166577 1
1		PISTON FOR SNAP ON PACKING CUP			167637 1
1		PISTON ROD			167638 1
1		CYLINDER BONNET			167639
1		BUSHING			290010
1		NAMEPLATE			539579
1		#10-24UNC-2A X .38 CUP PT SET SCREW			620209 2
1		SPRING			652169
1		SPRING			652170

ASSEMBLIES USED ON

167619
167620
167929

REVISIONS

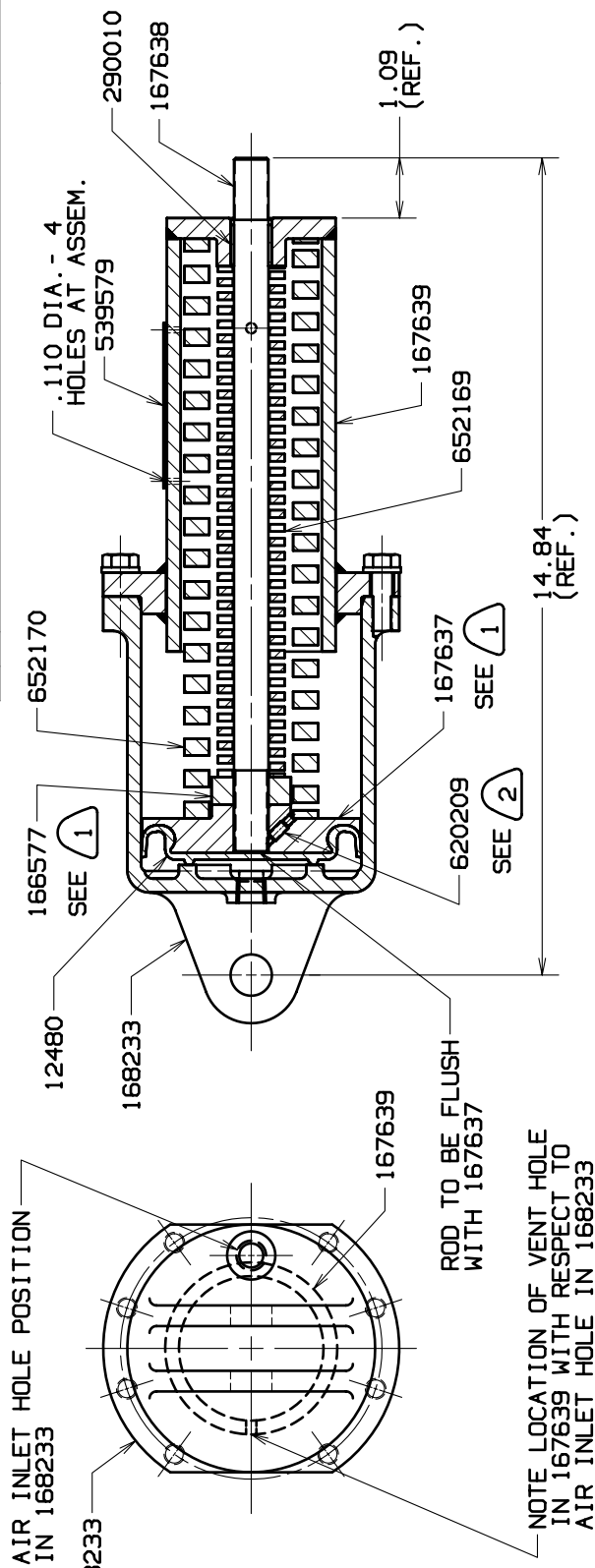
10-6-88 JJU	A	WAS 97517
9-6-90 BMK	1	ADDED
7-28-94 DP	B	ADDED
	2	ADDED

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN GD5500-05-035

DATE 4-27-88

PATTERN NO.

DWG. NO. 167640



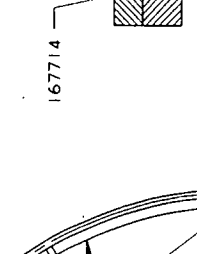
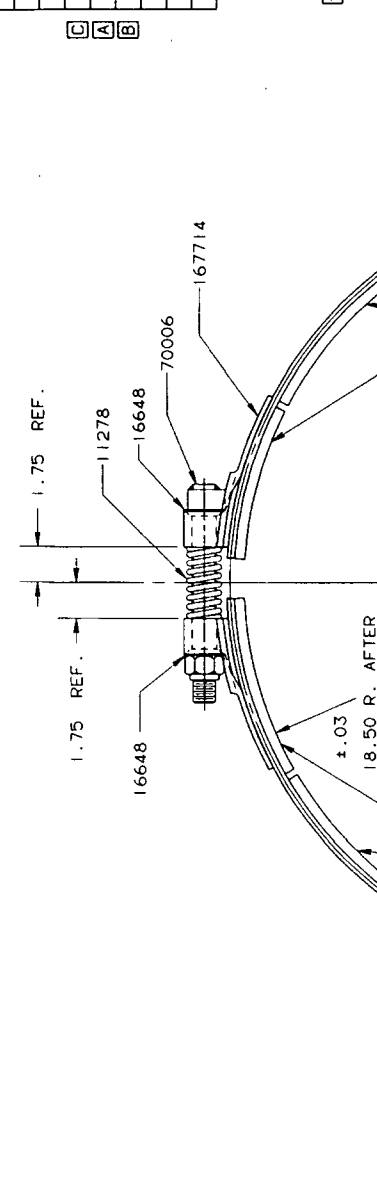
SCALE 5=1 FT	DR. JJU	167640	AIR CYLINDER
CR. AEP	APP TLP		SUB-ASSEMBLY
MODEL M-50W, M-80W		4.00 BORE 3.00 STROKE	

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin

E		BILL OF MATERIAL		ASSEMBLIES USED ON	
ITEM NO.	DESCRIPTION	QTY	UNIT	DATE	NO.
1	SPRING	1		11278	167718
2	WASHER	1		16648	
1	BOLT	1		70006	
1	BRAKE BAND LINING	1		508682	
1	BRAKE BAND LINING	1		508682	
2	BRAKE BAND LINING	2		508665	
1	BRAKE BAND	1		167714	
64	TUBULAR RIVETS	64		599833	

C		MATERIAL		REVISED PRIOR TO MANUFACTURE	
QTY	UNIT	DATE	NO.	REVISIONS	
1		10-3-88	JU	A	508665
2		9-27-91	KB	B	508665
				C	508665
				D	508665
				E	508665

- (1) STANDARD
- (2) OPTIONAL
- (3) ~~OPTIONAL~~



DATE	5-27-88
BY	
CHKD	
APP'D	
DATE	167716

NOTICE
 MANITOWOC ENGINEERING CO.
 1000 W. WISCONSIN ST., MILWAUKEE, WIS. 53233
 U.S. PATENT OFFICE REG. NO. 2,811,111
 U.S. PATENT OFFICE REG. NO. 2,811,112
 U.S. PATENT OFFICE REG. NO. 2,811,113
 U.S. PATENT OFFICE REG. NO. 2,811,114
 U.S. PATENT OFFICE REG. NO. 2,811,115
 U.S. PATENT OFFICE REG. NO. 2,811,116
 U.S. PATENT OFFICE REG. NO. 2,811,117
 U.S. PATENT OFFICE REG. NO. 2,811,118
 U.S. PATENT OFFICE REG. NO. 2,811,119
 U.S. PATENT OFFICE REG. NO. 2,811,120

SCALE	3 FT. = 1 IN.	MANITOWOC ENGINEERING CO.	REAR DRUM
BY	LS	MANITOWOC, WISCONSIN	BRAKE BAND
CHKD	TK	MODEL M-80W	SUBASSEMBLY
APP'D	TLP		

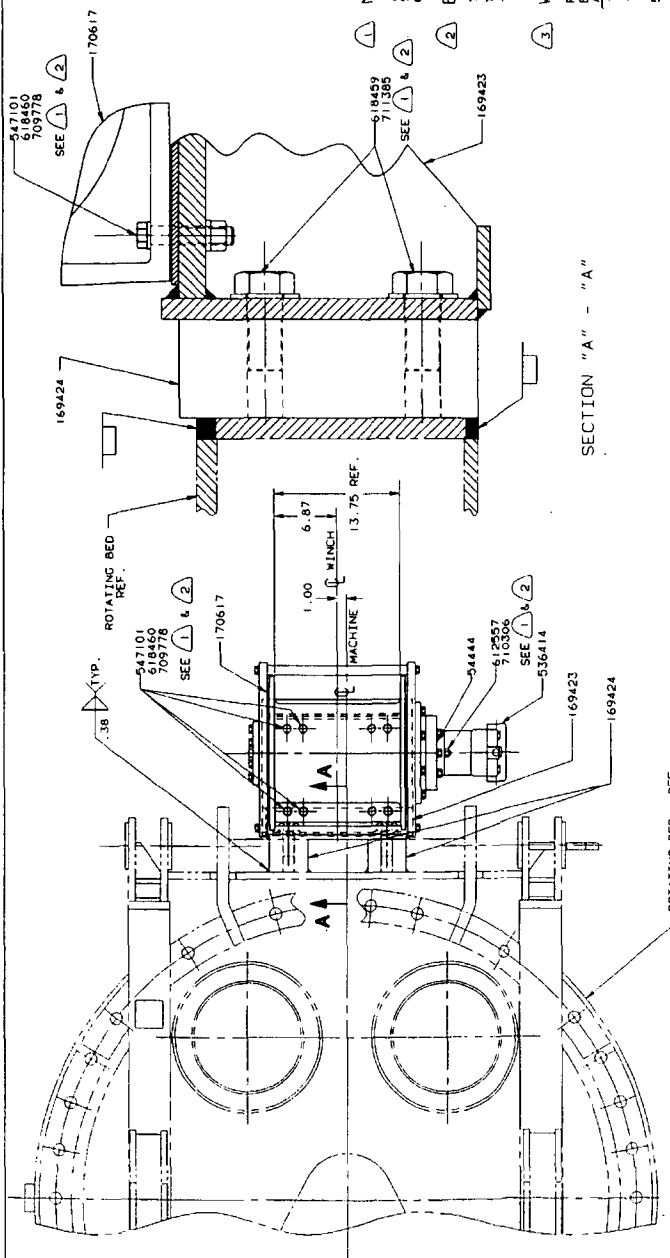
DO NOT SCALE THIS DRAWING

LINE	DESCRIPTION	MATERIAL	QTY	UNIT
1	CASNET	34444		
1	BRACKET	169423		
2	MOUNTING PAD	169424		
1	MOTOR - HYD.	536414		
8	625-11UNC-2B GR 5 - EX NUT	547101		
2	50-13UNC-2A X 1.53 LG. GR. 3 CPSCR.	612557		
4	25-7UNC-2A X 3.06 LG. GR. 8 CAPSCREWS	618459		
8	625-11UNC-2A X 3.30 LG. GR. 8 CPSCR.	618460		
8	625 HARDENED WASHER	709778		
2	30 LOCKWASHER	710306		
4	1.25 FLAT WASHER - HARDENED	711385		
1	WINCH	170617		

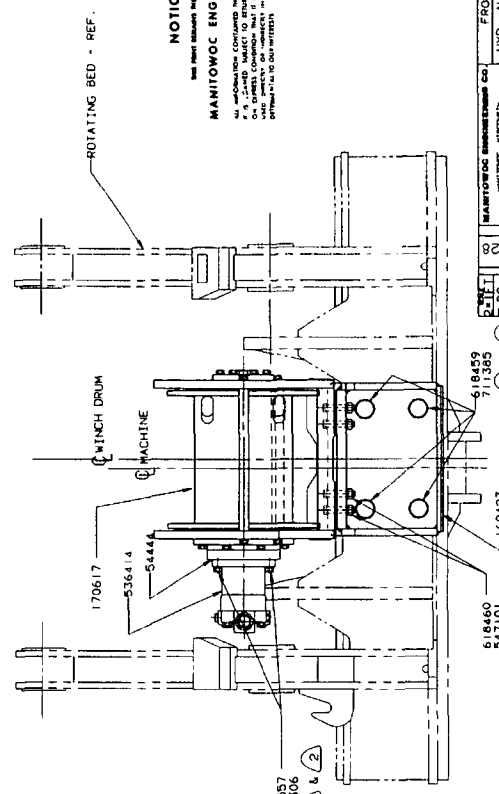
NEVER-SEEZ
 APPLY NEVER-SEEZ OR EQUIVALENT TO THE FOLLOWING:
 CAPSCREWS 618459, 612557 & 618460
 CAPSCREWS 618459, 612557 & 618460

BOLT TORQUE
 TORQUE CAPSCREWS 612557 TO 53 FT. LBS..
 TORQUE CAPSCREWS 618459 TO 720 FT. LBS..
 TORQUE CAPSCREWS 618460 TO 145 FT. LBS..

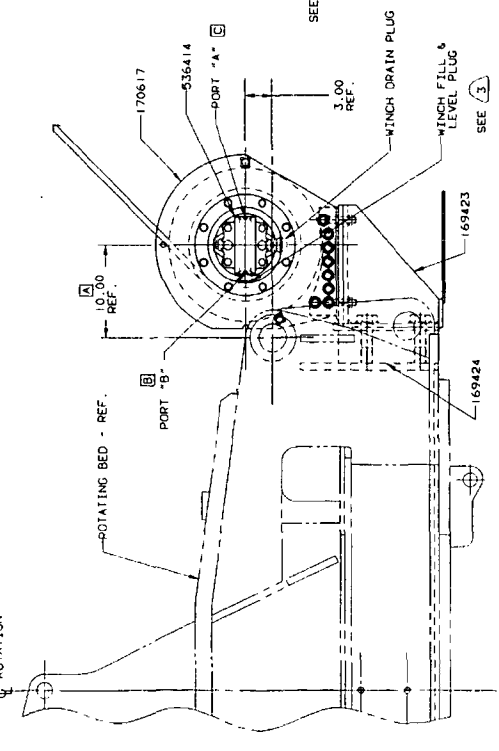
WINCH LUBRICATION
 FILL WINCH PLANETARY WITH PROPER GEAR LUBRICANT
 BASED ON PREVAILING AMBIENT TEMPERATURES:
 -40°F. TO -10°F. ----- MOBIL SHC 630 SYNTHETIC OR EQUIV.
 -10°F. TO 80°F. ----- TEXACO MEROPA 150-150VG/50 OR
 EQUIV. API GL-2/3
 80°F. TO 130°F. ----- TEXACO MEROPA 220-150VG220 OR
 EQUIV. API GL-2/3
 PLANETARY CAPACITY IS APPROX. 2 GAL.



SECTION "A" - "A"



SECTION "B" - "B"



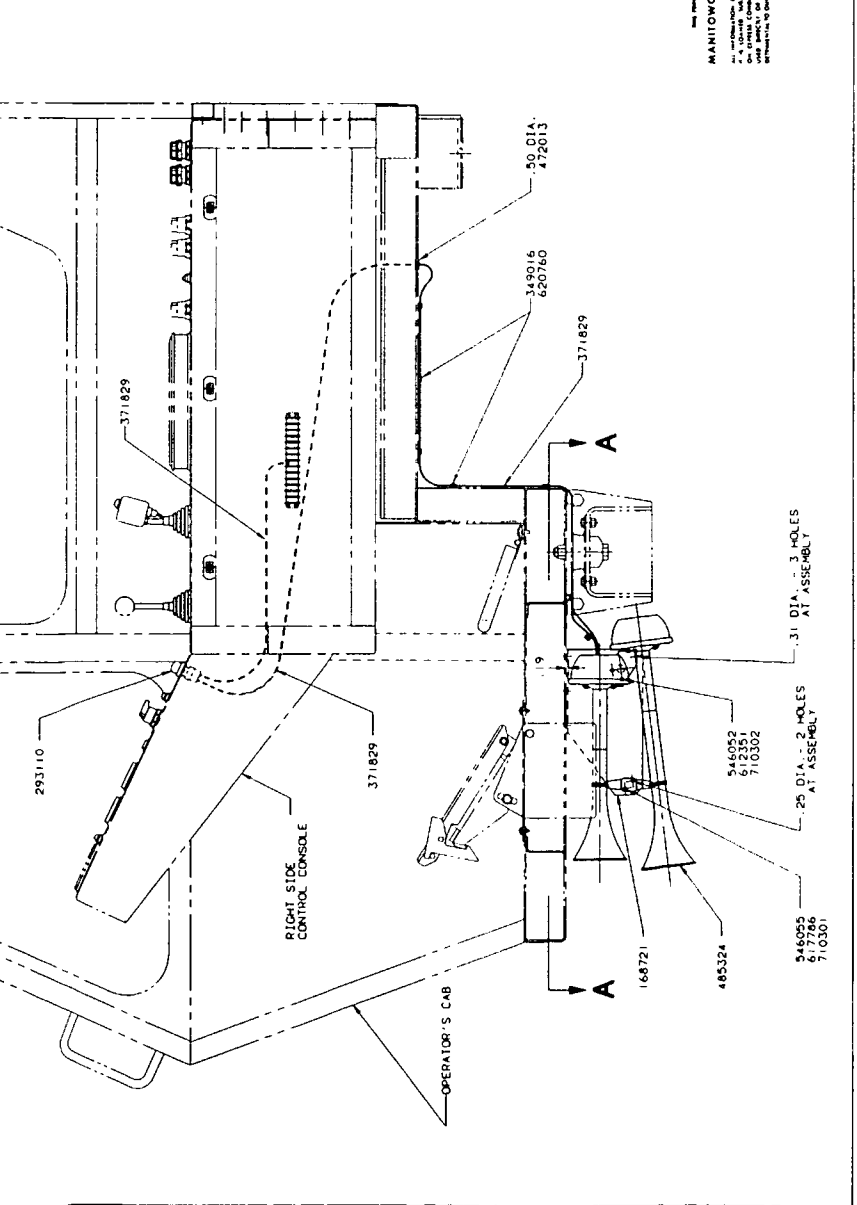
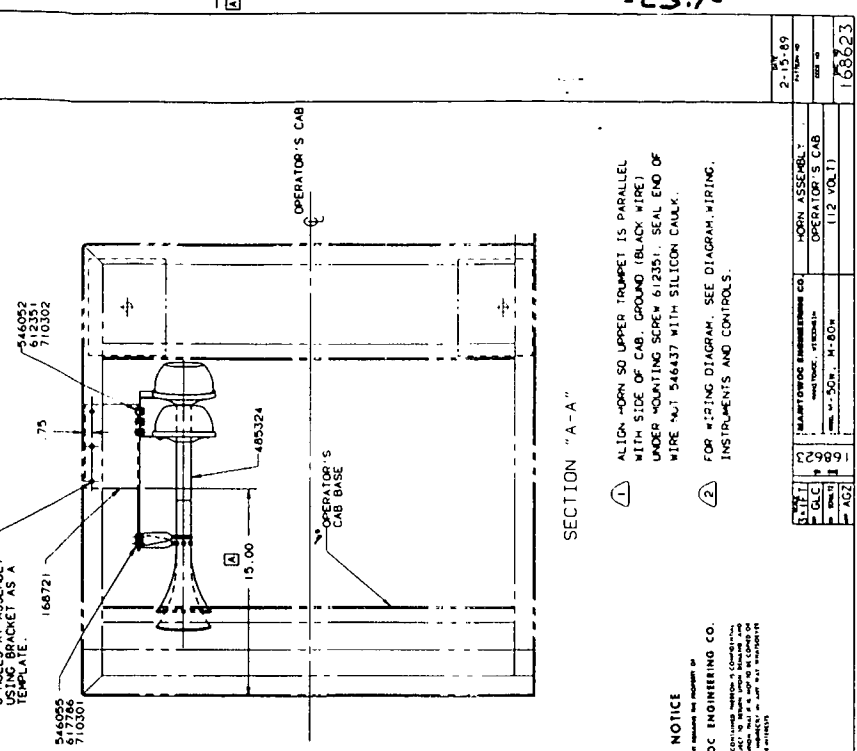
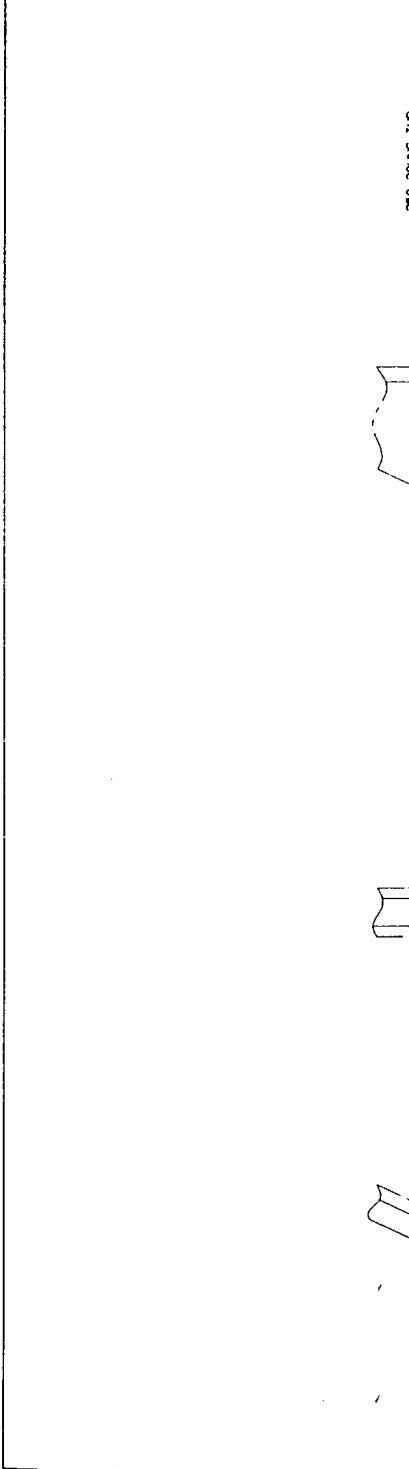
SECTION "C" - "C"

NOTICE
 See these drawings for reference to
MANITOWOC ENGINEERING CO.
 ALL MANITOWOC CONTACTS SHOULD BE CONSULTED
 FOR THE LATEST REVISIONS AND FOR THE
 LATEST LIST OF PARTS AND FOR THE
 LATEST LIST OF CONTACTS TO THE
 OFFICE IN YOUR AREA.

DATE	BY	DESCRIPTION
10-4-89		FRONT MOUNTED
		HYD. AUXILIARY DRUM
		ASSEMBLY
		11000 LB. LINE PULL

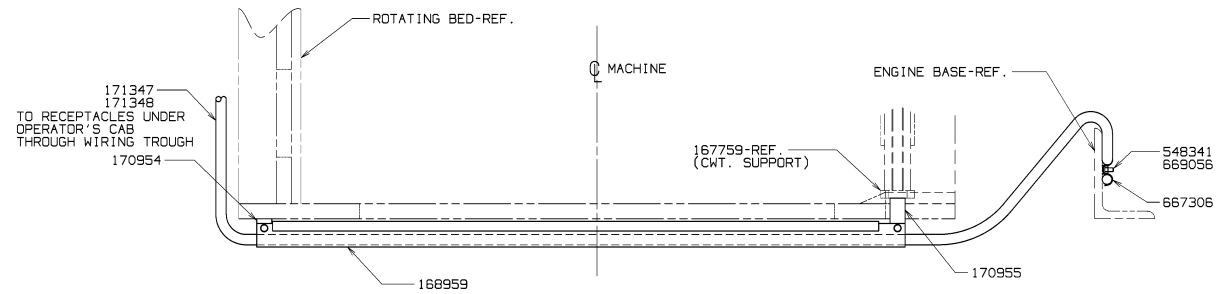
GROUP C - Air Components & Electrical

ITEM NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	BRACKET	1		168721	
1	HORN BUITON	1		293110	
6	.250 I.D. TUBE CLIP	6		349016	
1	#14-1 CONDUCTOR CABLE - 108 LG.	1		371829	
NOTES					
1	GROMET	472013			7-10-89 DC
1	SPARTON ELECTRIC HORN	485324			8 WAS 11.75
3	.250-20UNC HEX. NUT	546052			
2	#10-24UNC HEX. NUT	546055			
1	WIRE NUT	546437			
3	.250-20UNC X .50 HEX. HD. MACH. SCREW 612351				
2	#10-24UNC X .30 RD. HD. MACH. SCREW 617786				
6	#10-24UNC X .50 SELF TAP TYPE F SCR. 620760				
2	#10. LOCKWASHER	710301			
3	.250 LOCKWASHER	710302			

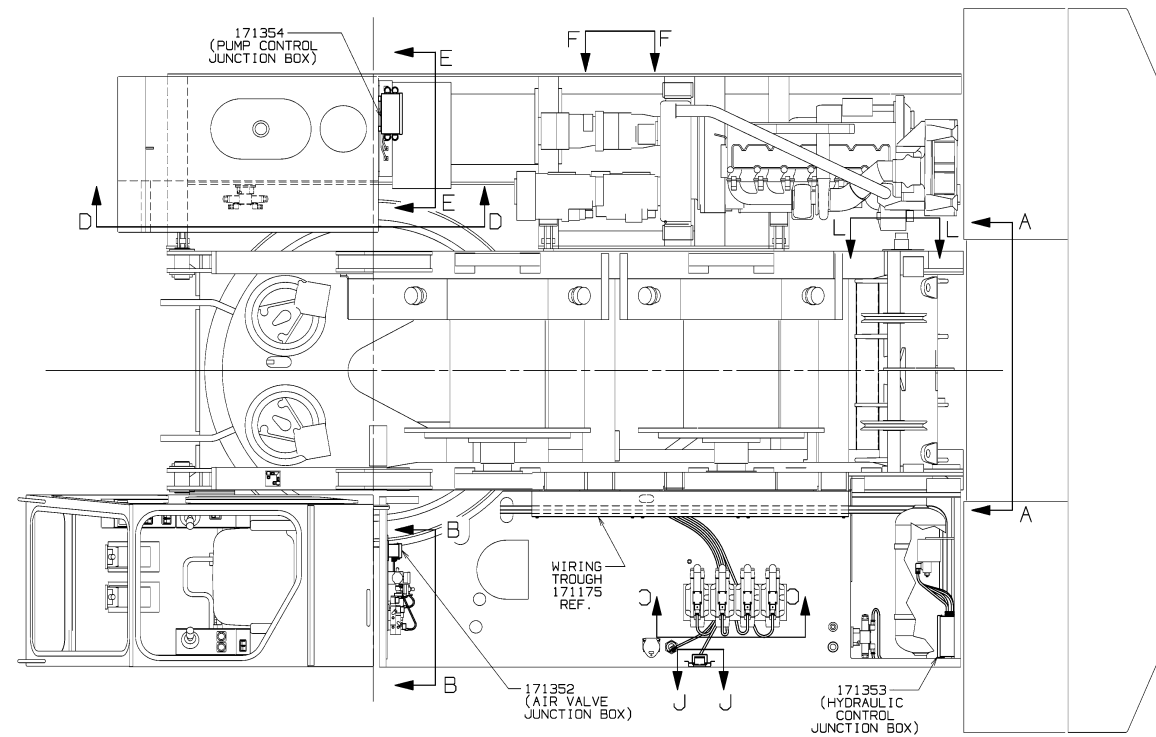


NOTICE
 This horn assembly is designed for
MANITOWOC ENGINEERING CO.
 MANITOWOC, WISCONSIN
 U.S. PATENT OFFICE
 U.S. PATENT OFFICE
 U.S. PATENT OFFICE
 U.S. PATENT OFFICE
 U.S. PATENT OFFICE

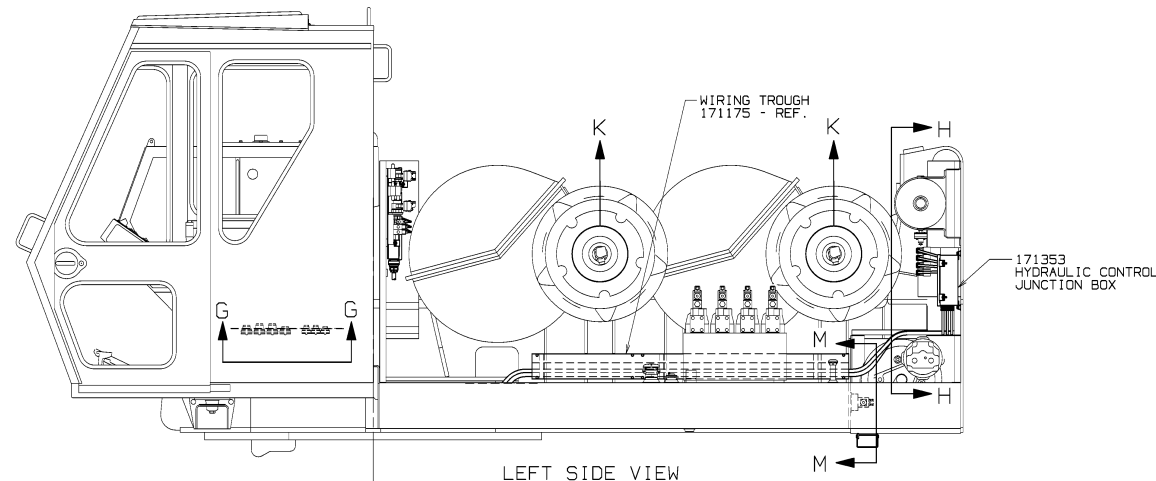
REV	DATE	BY
1	2-15-89	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		
76		
77		
78		
79		
80		
81		
82		
83		
84		
85		
86		
87		
88		
89		
90		
91		
92		
93		
94		
95		
96		
97		
98		
99		
100		



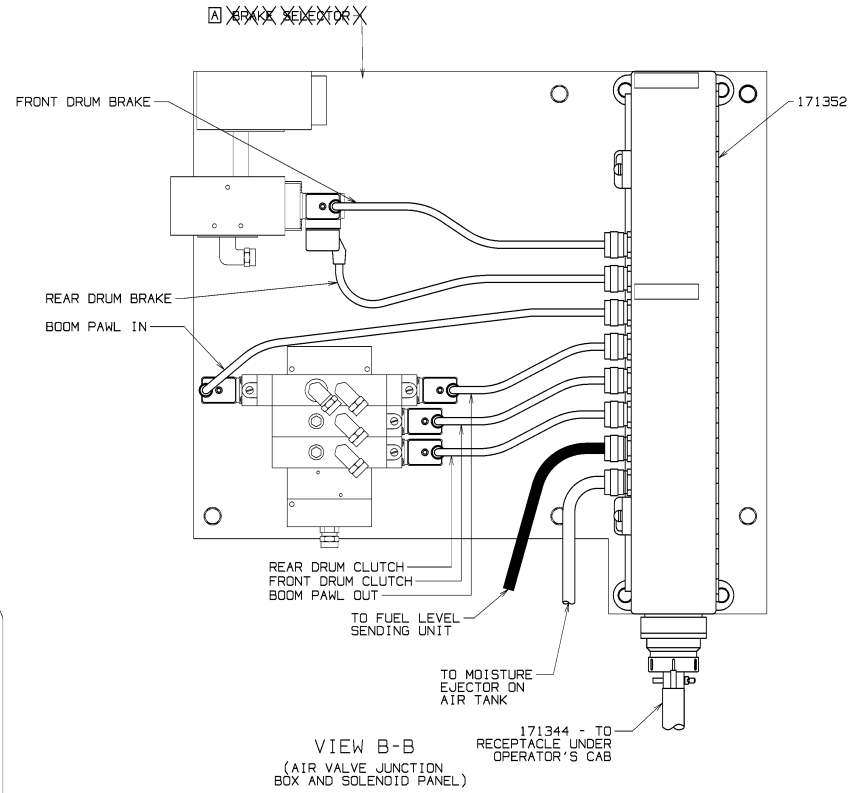
VIEW A-A
(WIRING TROUGH ACROSS ROTATING BED)



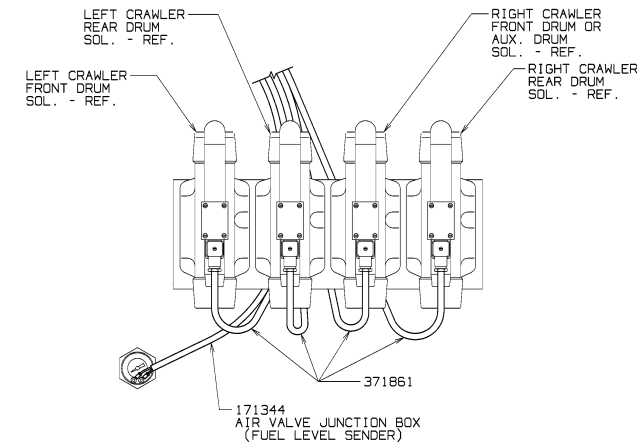
PLAN VIEW



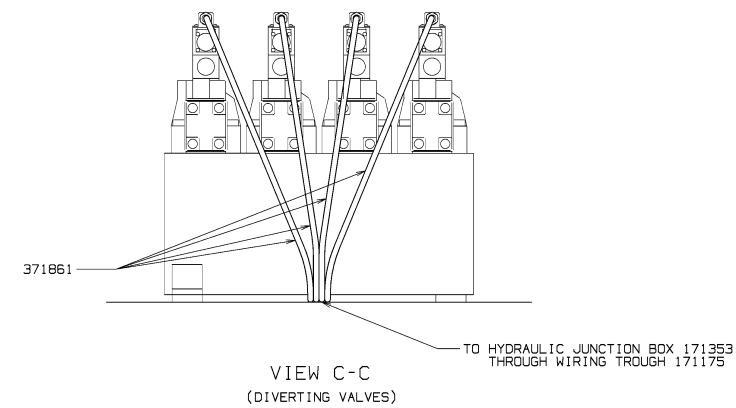
LEFT SIDE VIEW



VIEW B-B
(AIR VALVE JUNCTION BOX AND SOLENOID PANEL)



171344 AIR VALVE JUNCTION BOX (FUEL LEVEL SENDER)



VIEW C-C
(DIVERTING VALVES)

BILL OF MATERIAL				ASSEMBLIES USED BY
ITEM NO.	QTY	DESCRIPTION	MATERIAL	REV. NO.
8		MOUNTING PAD	145402	
1		MOUNTING PAD	166414	
1		WIRING TROUGH	168959	
2		MOUNTING PAD	170954	
2		MOUNTING PAD	170955	
1		CABLE ASS'Y - AIR VALVE CONTROL	171344	
1		CABLE ASS'Y - HYDRAULIC CONTROL	171345	
1		CABLE ASS'Y - DRUM SPEED SENSORS	171346	
1		CABLE ASS'Y - PUMP CONTROL	171347	
1		CABLE ASS'Y - PRESSURE TRANSDUCERS	171348	
1		JUNCTION BOX SUB-ASS'Y AIR VALVE	171352	
1		JUNCTION BOX SUB-ASS'Y HYDRAULIC	171353	
1		JUNCTION BOX SUB-ASS'Y PUMP CNTL.	171354	
1		BOX - HOFFMAN	268161	
1		CABLE 2 PAIR SHIELDED 18 AWG	297813	
1		BUTTON PUSH-PENDANT STATION	297974	
1		CAP - CLOSURE	304584	
1		CAP - CLOSURE PLUG	304595	
5		CLIP TUBE .81	349007	
6		CONNECTOR - AMPHENOL	363848	
3		CONNECTOR	363851	
1		16/3 VUTRON CORD	371858	
1		16/2 VUTRON CORD	371861	
2		.50 GASKET ASSEMBLY	456767	
1		.50 CORD GRIP	471715	
1		NAMEPLATE - AIR VALVE CONTROL	538509	
1		NAMEPLATE - HYDRAULIC CONTROL	538510	
1		NAMEPLATE - PUMP CONTROL	538511	
1		NAMEPLATE - TRANSDUCERS	538520	
1		NAMEPLATE - DRUM SPEED SENSORS	538522	
3		WIRENUT	546437	
1		.25-20UNC-2B ELASTIC STOP NUT	548341	
2		.50 LOCKNUT	548555	
8		PLUG ELECTRICAL GDM 2016 LED 24 HH	A16232	
1		PLUG WITH 25 FT. CORD (3 POLE)	572372	
1		RECEPTACLE 90° (3 POLE)	589636	
18		TERMINAL - INSULATED FERRULE	A16468	
4		.25-20UNC-2A X .37 LG CAPSCREW	612350	
8		.25-20UNC-2A X .50 LG CAPSCREW	612351	
1		SEALANT INSULATED SPRAY CLEAR	622202	
10		STRAP - CABLE TIE	667008	
4		STRAP - DUPLEX	667304	
1		STRAP - DUPLEX	667306	
1		.25 WELDING STUD	669056	
1		TAPE - DOUBLE STICK (12 IN.)	678008	
4		TUBING HEAT SHRINKABLE	695197	
4		TUBING HEAT SHRINKABLE	695199	
12		.25 LOCKWASHER	710302	

- ① MATERIAL AS REQUIRED.
- ② FOR MEC WIRE IDENTIFICATION SEE CHART 5605.
- ③ FOR CRANE ELECTRICAL SCHEMATICS SEE CHART 5637.
- ④ SPRAY 622202 (SEALANT INSULATED SPRAY CLEAR) OVER TERMINAL STRIPS IN JUNCTION BOXES AFTER ASSEMBLY IS COMPLETE.
- ⑤ FOR MANUFACTURED ELECTRICAL CABLE ASSEMBLY SPECIFICATIONS SEE M.C.C. DRAWING NO. 4605.

171092
SHT 1 OF 3

FIRST ON S.O. 3044		DATE
Mentowoc Cranes, Inc.		6-26-91
DR KLV	Mentowoc, Wisconsin	PATTERN NO.
DR DRN	MODEL M-BOW	CONTROL ASSEMBLY
APP JS		WITH EPIC CONTROL
		12 V.D.C.
		171092

SHT 1 OF 3

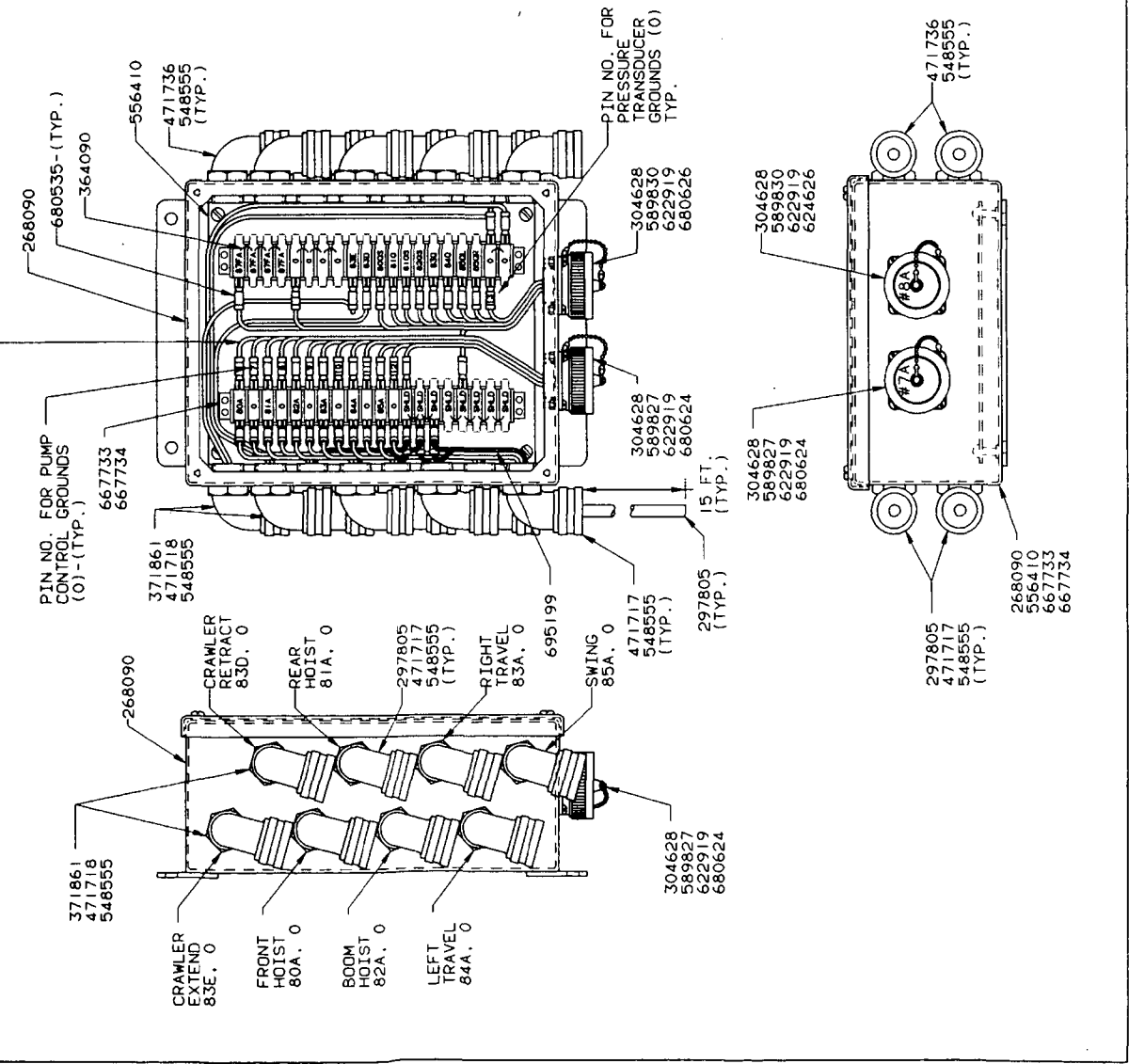
DO NOT SCALE THIS DRAWING

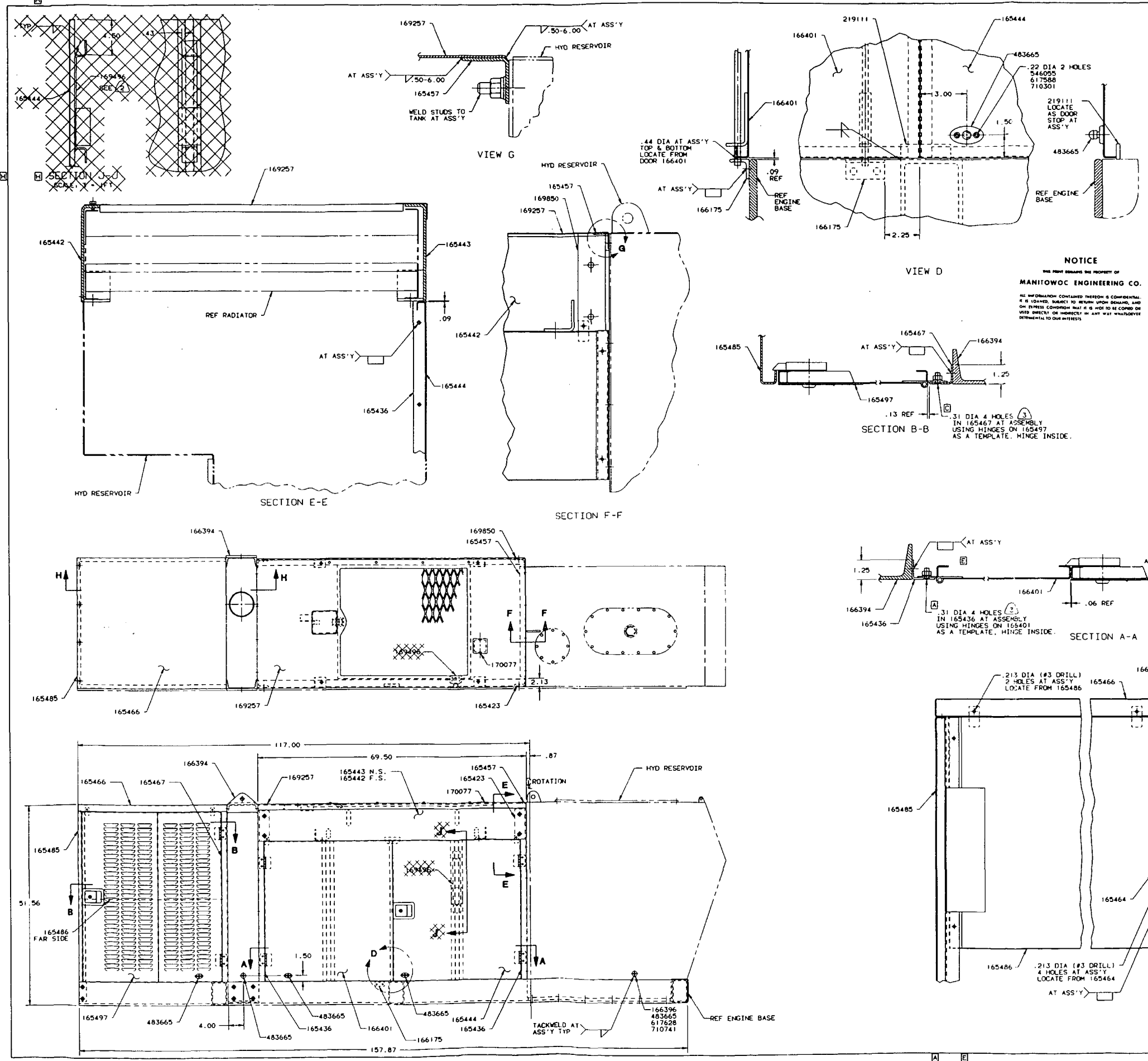
TOLERANCE UNLESS OTHERWISE SPECIFIED

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	QTY. USED	DATE
1		BOX - HOFFMAN #A-1008SC	268090		171092
2		#16 WIRE - RED PACKARD #R-64160	297715		
3		CABLE #16/2 SHIELD - BELDON #B719 - 100 FT	297805		
4		CAP SEALING - AMP #211903-1 SIZE 22	304628		
5		TERMINAL JUMPER - KULKA #600J	364090		
6		16/2 VUTRON CORD CAROL #02034-15 30FT.LG.	371861		
7		6.50 CORD GRIP - APPLETON #CG90-2950	471717		
8		2.50 CORD GRIP - APPLETON #CG90-3750	471718		
9		8.50 CORD GRIP - APPLETON #CG90-1250	471736		
10		16.50 LOCKNUT - APPLETON #BL50	548555		
11		PANEL - HOFFMAN #A-10P8	556410		
12		1 RECEPTACLE MALE - AMP #208489-1 22-16	589827		
13		1 RECEPTACLE FEMALE - AMP #208487-1 22-14	589830		
14		2 SEAL PERIPHERAL - AMP #206403-2	622919		
15		2 STRIP TERM. - KULKA #600A-20-KT19,KT20	667733		
16		2 STRIP MARKING - KULKA #MS670-20-1A	667734		
17		43 TERMINAL SLIP-ON - T&B #14RBD-182	680535		
18		13 TERMINAL MALE - AMP #66099-4	680524		
19		14 TERMINAL FEMALE - AMP #66101-4	680526		
20		38 TERMINAL SLIP-ON - T&B #18RAD-182	680661		
21		.19 SHRINK TUBE - VOL TIREX #FPS-012	695199		

ASSEMBLIES USED ON	171092
REVIEWS	
DATE	8-1-91
PATTERN NO.	
CODE NO.	171354-2
DRN	M-80W
APP	JS
REV	6
BY	TFT
DATE	8-1-91
BY	KLW
DATE	
BY	DRN
DATE	
BY	APP
DATE	

NOTICE
 THIS DRAWING IS THE PROPERTY OF
MANITOWOC ENGINEERING CO.
 IN CONNECTION WITH THE CONTRACT FOR THE SUPPLY OF
 MATERIALS AND SERVICES FOR THE CONSTRUCTION OF
 THE PORTLAND CEMENT PLANT AT THE PORT OF
 MANITOWOC, WISCONSIN. THIS DRAWING IS TO BE
 USED ONLY FOR THE PROJECT AND SHALL NOT BE
 REPRODUCED OR COPIED IN ANY MANNER WITHOUT
 THE WRITTEN PERMISSION OF MANITOWOC ENGINEERING CO.





QTY	DESCRIPTION	MATERIAL	QTY	QTY
1	ANGLE CLIP	165423	1	167621
1	ANGLE FILLER	165436	1	166257
1	RADIATOR SUPPORT INBOARD	165442		
1	RADIATOR SUPPORT OUTBOARD	165443		
1	RIGHT HAND DOOR	165444		
1	SUPPORT	165457		
1	SUPPORT ANGLE	165464		
1	ROOF	165466	4	3-90 DUM
1	ANGLE FILLER	165467	1	28 DIA.
1	REAR PANEL	165485	1	1-11 DG
1	PANEL	165486	1	PICTURE
1	DOOR	165497	1	2-1/2" RLY
1	CLIP	166175	1	5/8" X 1/2" RLY
1	SUPPORT	166394		
1	MOUNTING PAD	166396		
1	LEFT HAND DOOR	166401		
1	ROOF	169257		
1	BRACKET	169850		
1	ANGLE CLIP	169850		
1	COVER PLATE	170077		
1	BAR .250 X 1.00 X 3.25	219111		
1	DOOR HOLDER	483665		
1	6#10-24 UNC-2B-EX NUT	546055		
1	6#10-24 UNC-2A X .75 FL HD SCREW	617588		
1	1.250-20UNC-2A X .75 FL HD MACH SCR	617628		
1	6.187 LOCKWASHER	710301		
1	1.250 INT CTSK SHAKEPROOF WASHER	710741		

NOTICE
THIS PRINT REMAINS THE PROPERTY OF
MANITOWOC ENGINEERING CO.
ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL,
IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND
ON STRICT CONDITION THAT IT IS NOT TO BE COPIED OR
USED IN ANY MANNER OR FOR ANY PURPOSE WITHOUT THE
WRITTEN PERMISSION OF MANITOWOC ENGINEERING CO.

- 1 DO NOT LIFT POWER PLANT ENCLOSURE WITHOUT RADIATOR SUPPORTS 165442 & 165443 IN PLACE.
- 2 FOR MACHINES WITH HYD. CONTROLLED CRANER POSITIONING ONLY.
- 3 .31 DIA. HOLE EDGES MUST BE SHARP (DO NOT CHAMFER). APPLY PRESSURE UNTIL TOP OF THREDSUD IS FLUSH WITH SURFACE OF SHEET. USE A SMOOTH FACE SETTING PUNCH OF A DIA. GREATER THAN HEAD OF THREDSUD.

166395

SUPERSEDES 166395 OF 1-18-90

DATE	MANITOWOC ENGINEERING CO	POWER PLANT SUB-ASS'Y
BY	MANITOWOC ENGINEERING CO	ENGINE ENCLOSURE
CHKD	MANITOWOC ENGINEERING CO	LEFT HAND OPER. CAB
APP	MANITOWOC ENGINEERING CO	

2-6-90

166395

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



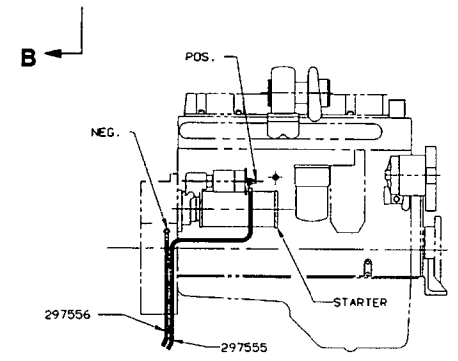
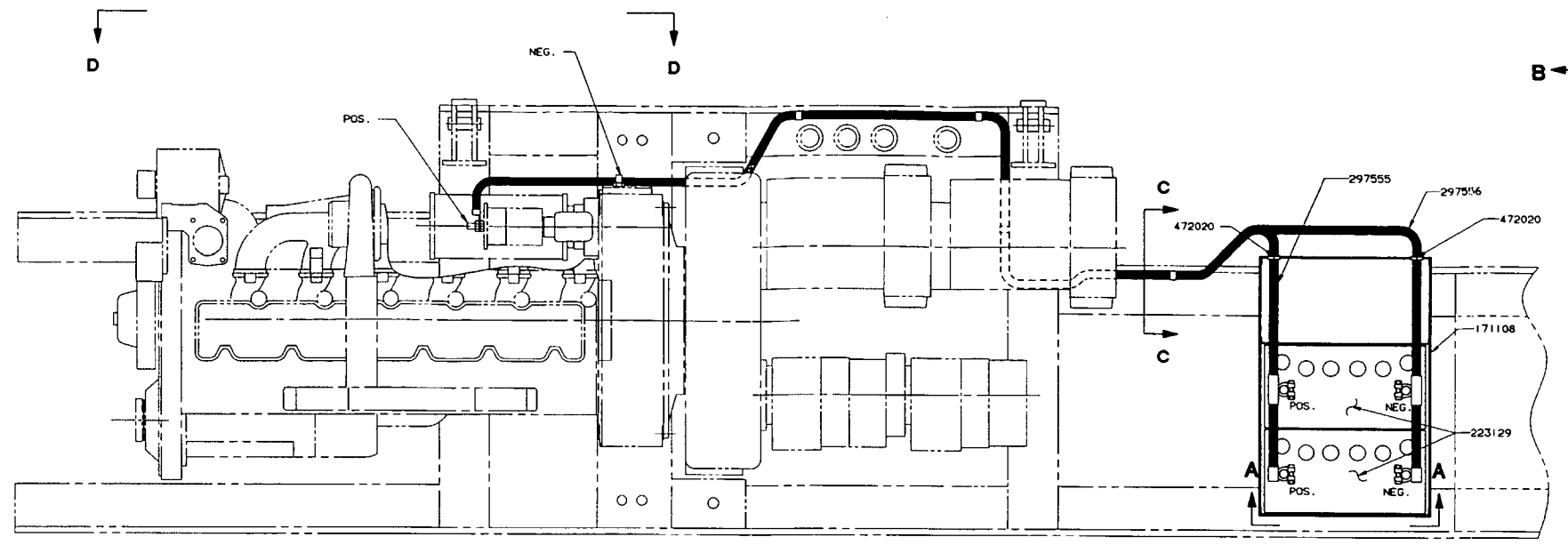
- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

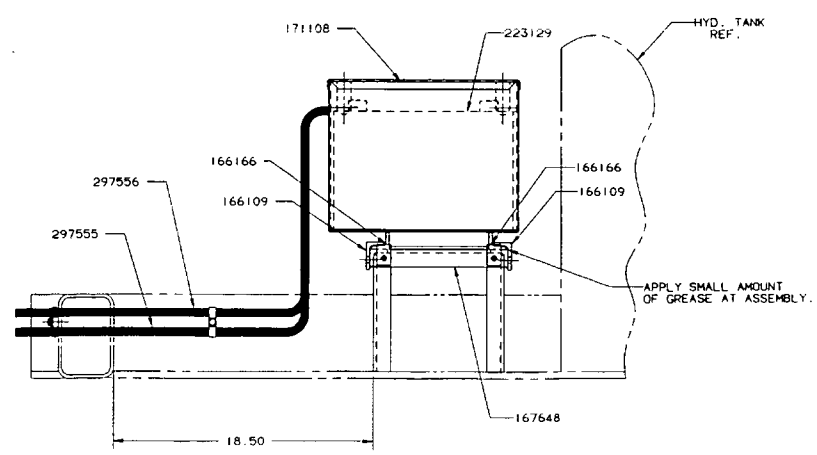
QTY	DESCRIPTION	MATERIAL	QTY	REV
2	CLIP	166019	168257	
2	LOCKING PLATE	166166	171083	
1	FRAME	168478		
1	BATTERY BOX	171108		
2	BATTERY - 12V - 950 C. CA.	223129		
1	BATTERY CABLE POS (SEE 184174)	297555		
1	BATTERY CABLE NEG (SEE 184174)	297556		
2	WASHER	472020		
4	MOUNTING PAD	554113		
4	.25-20UNC-2A X .50 LG. ST. SCR.	612351		
8	STRAP CABLE	667009		
4	.25 LOCKWASHER	710302		

SEE ELECTRICAL ASSEMBLY POWER PLANT WIRING FOR CONNECTION OF NEGATIVE BATTERY CABLE.

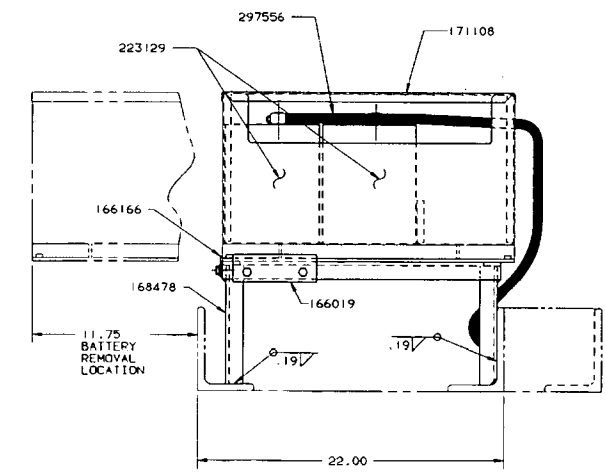
NOTICE
 THIS DRAWING IS THE PROPERTY OF
MANITOWOC ENGINEERING CO.
 ALL INFORMATION CONTAINED HEREON IS CONFIDENTIAL
 & IS LOANED SUBJECT TO RETURN UPON DEMAND, AND
 ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR
 USED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER
 DETRIMENTAL TO OUR INTERESTS.



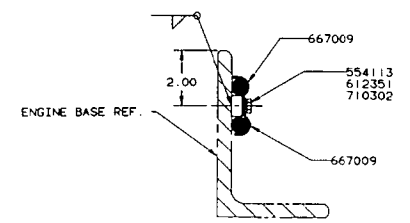
VIEW "D - D"
 SCALE: 1.50 = 1FT.



VIEW "A - A"



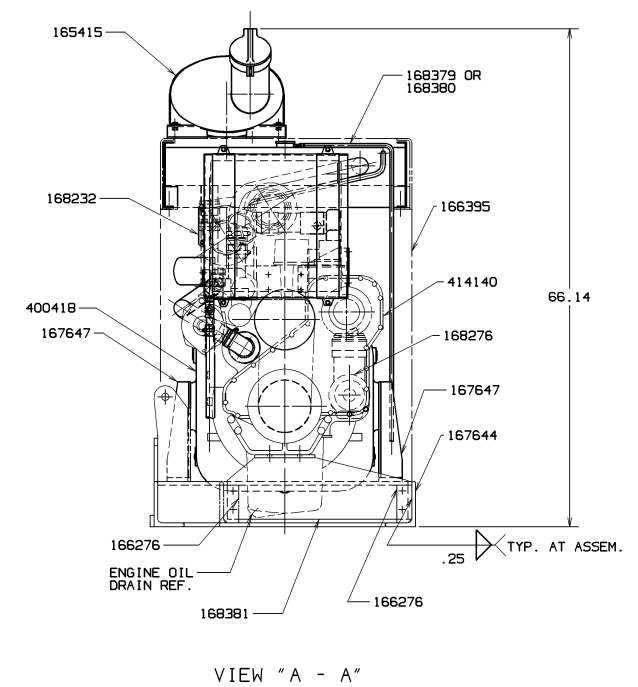
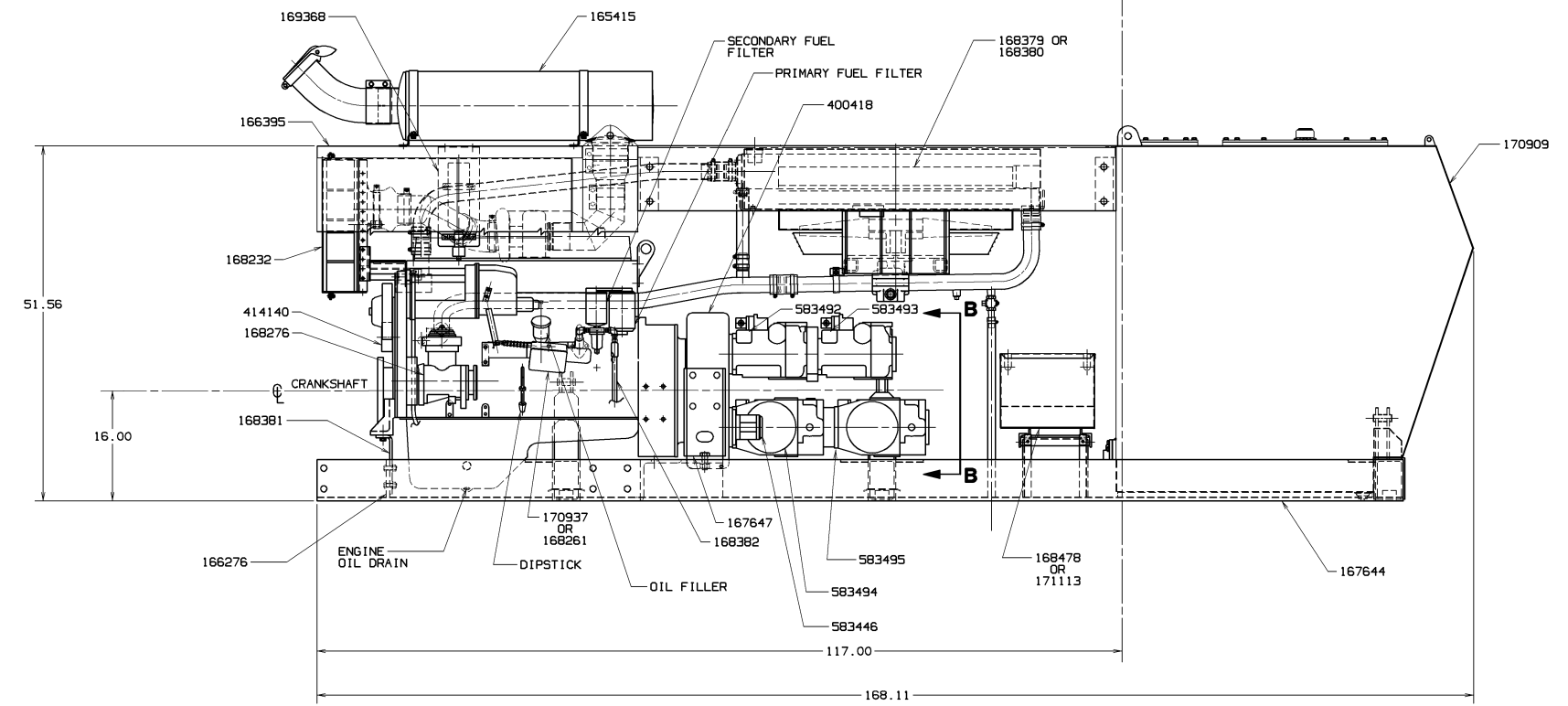
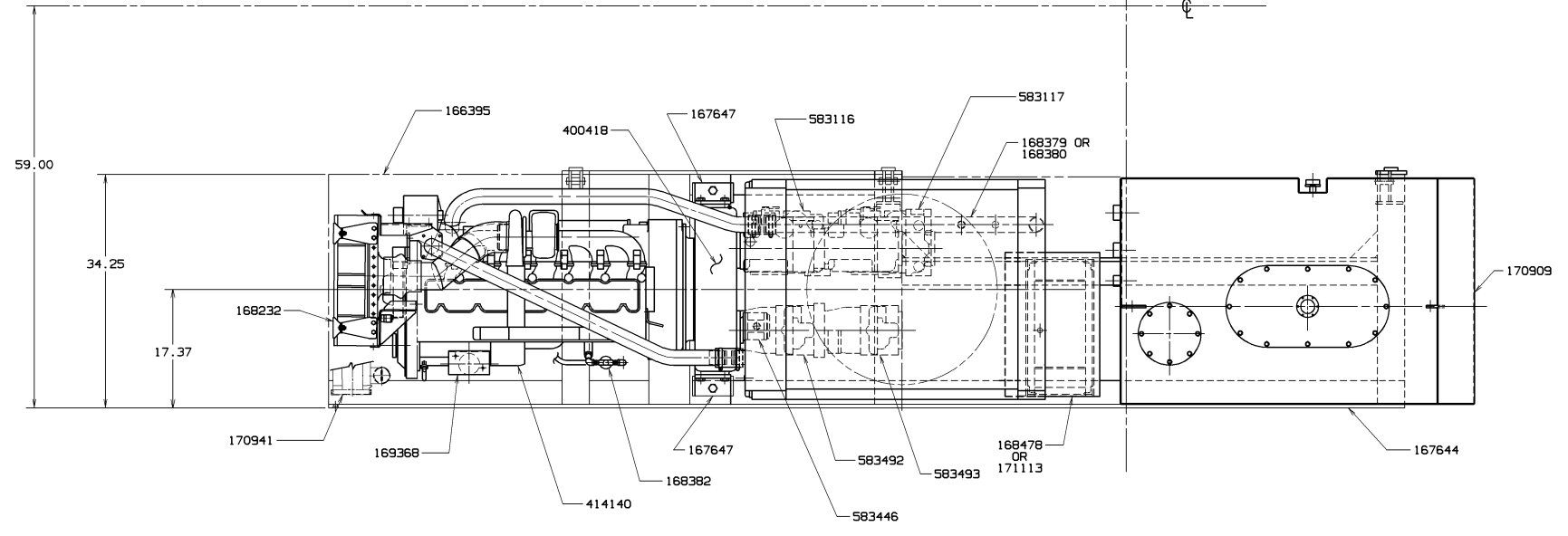
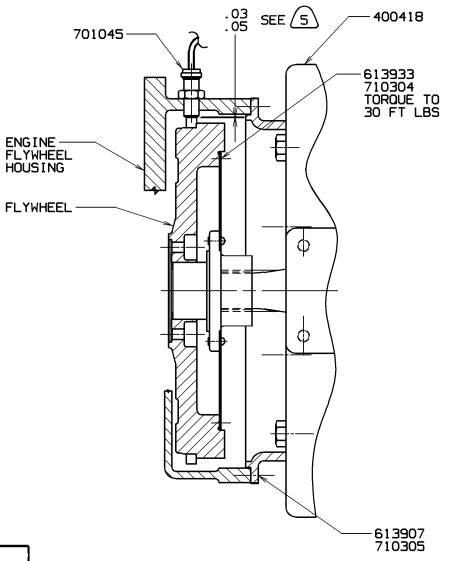
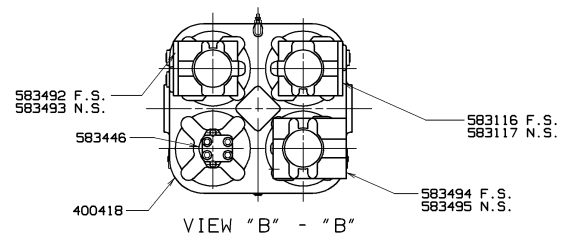
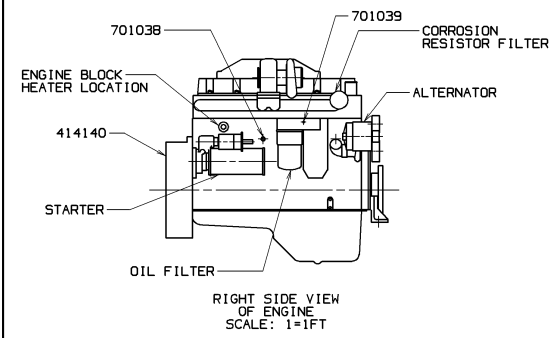
VIEW "B - B"



SECTION "C - C"
 SCALE: 6.00 = 1FT.
 (TYPICAL)

SUPERSEDES 168478 OF 2-8-89

3-11-91	MANITOWOC ENGINEERING CO.	POWER PLANT SUB-ASSY	2-11-91
KB	WELDING	BATTERY BOX MOUNTING	
JLD	M-80W	FOR CUMMINS ENGINE	
AEH			168478

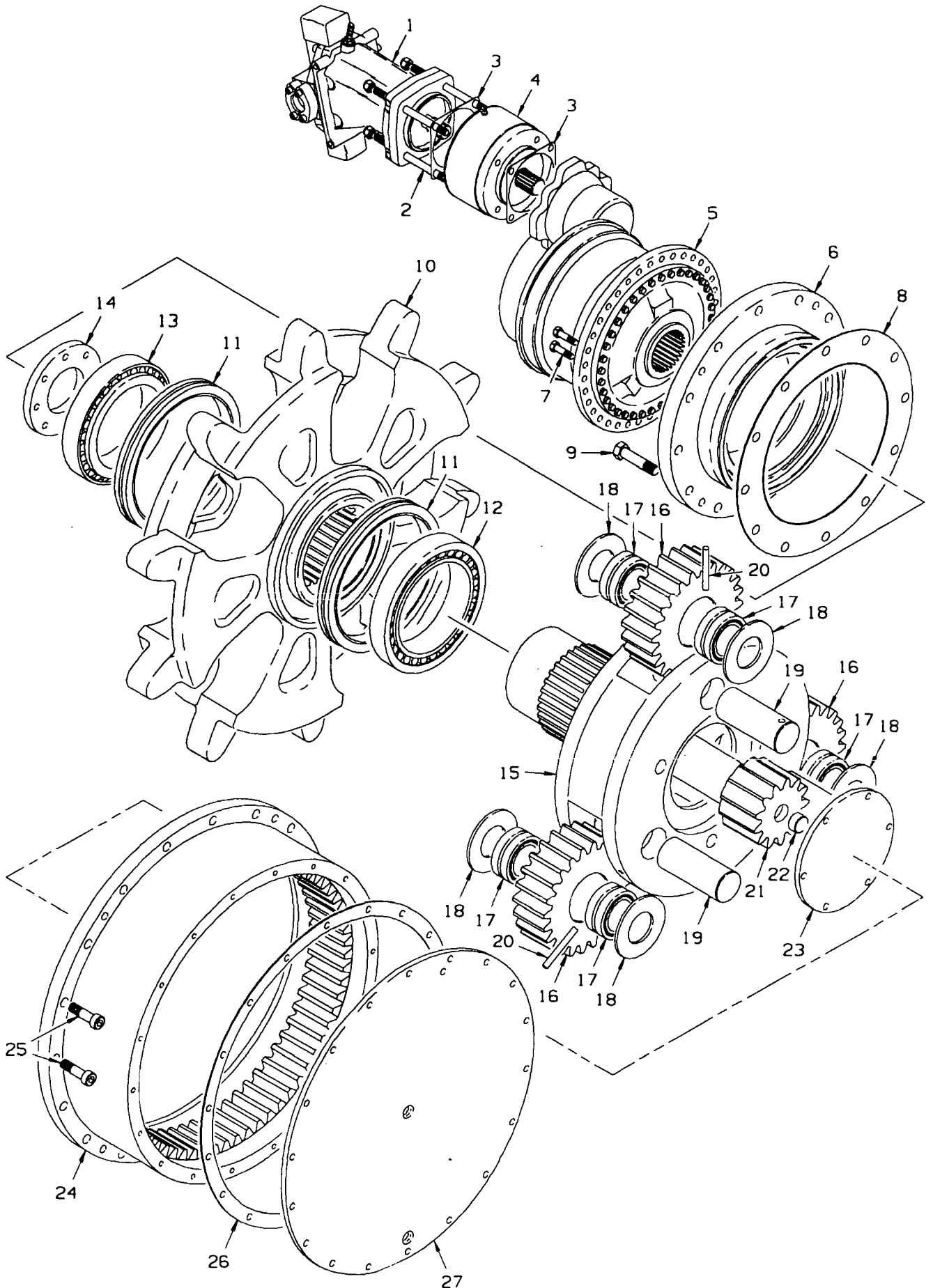


BILL OF MATERIAL				ASSEMBLY USED ON
QTY	DESCRIPTION	MATERIAL	QTY OF DES. NO.	171067
1	SERVICE PARTS LIST		4436	
1	SUB-ASS'Y ETHER START		169368	2
1	SUB-ASS'Y AIR CLEANER		168232	
1	SUB-ASS'Y MUFFLER		165415	
2	BRACKET		166276	
1	SUB-ASS'Y. POWER PLANT ENCLOSURE		166395	
1	ENGINE BASE		167644	
2	SUPPORT		167647	
1	HYD. RESERVOIR ASS'Y		170909	
1	SUB-ASS'Y POWER PLANT WIRING		170936	
1	SUB-ASS'Y AIR COMP. PIPING		168276	
1	SUB-ASS'Y MESABI RAD. MTG & PIPING		168379	2
OR	1	SUB-ASS'Y YOUNG RAD. MTG & PIPING	168380	1
1	SUPPORT		168381	
1	SUB-ASS'Y. FUEL PIPING		168382	
OR	1	SUB-ASS'Y. BATTERY BOX MOUNTING	168478	
1	SUB-ASS'Y COLD WEATHER STARTING		171113	2
1	MODIF. TO ENCLOSURE FOR EXHAUST		169029	4
1	SUB-ASS'Y. THROTTLE CONTROL ELEC.		170937	1
1	SUB-ASS'Y HEAVY DUTY AIR PRE-CLEANER		170941	2
A	1	SUB-ASS'Y. THROTTLE CONTROL MANUAL	168261	2
1	PUMP DRIVE		400418	
1	ENGINE 6CTA-8.3 CUMMINS		414140	
1	HYD. PUMP (LEFT CRAWLER)		583116	
1	HYD. PUMP (RIGHT CRAWLER)		583117	
1	HYD. PUMP FAN		583446	
1	HYD. PUMP (BOOM HOIST)		583492	
1	HYD. PUMP (SWING)		583493	
1	HYD. PUMP (REAR HOIST)		583494	
1	HYD. PUMP (FRONT HOIST)		583495	
26	.50-13UNC-2A X 1.25 LG. CAPSCREW		612555	3
12	M10 X 1.50-6G X 30MM LG. CAPSCREW		613907	
8	.375-16 UNC-2A X .875 LG. CAPSCREW		613933	
1	WATER TEMP SENDING UNIT		701038	
1	UNIT OIL PRESSURE SENDING		701039	
1	UNIT SPEED SENSOR		701045	5
8	.375 LOCKWASHER		710304	
12	.437 LOCKWASHER		710305	
26	.50 LOCKWASHER		710306	3

- (1) STANDARD (SHOWN)
- (2) OPTIONAL
- (3) HARDWARE FOR MOUNTING PUMPS TO PUMP DRIVE & PUMP TO PUMP.
- (4) NOT SHOWN
- (5) TURN IN UNTIL UNIT TOUCHES RING GEAR. BACK OFF .50 TO .75 TURN.

171083

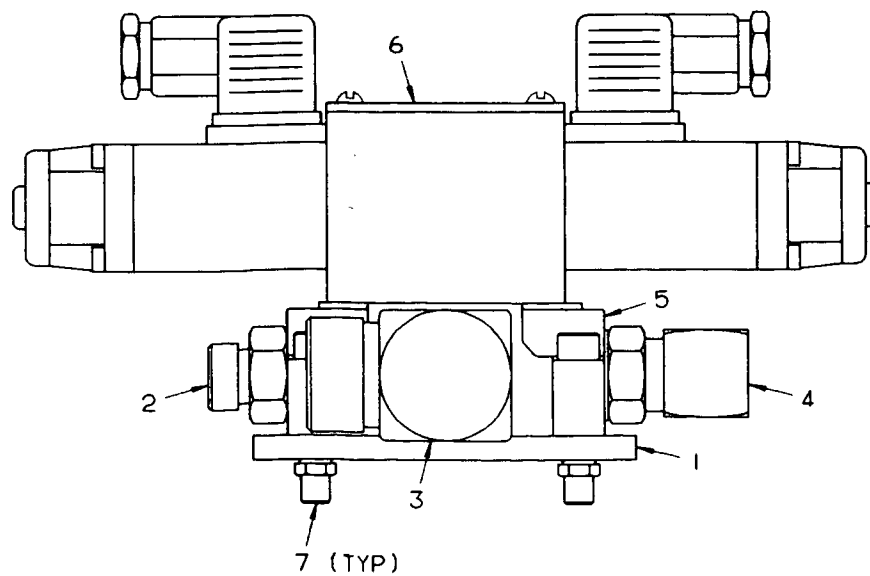
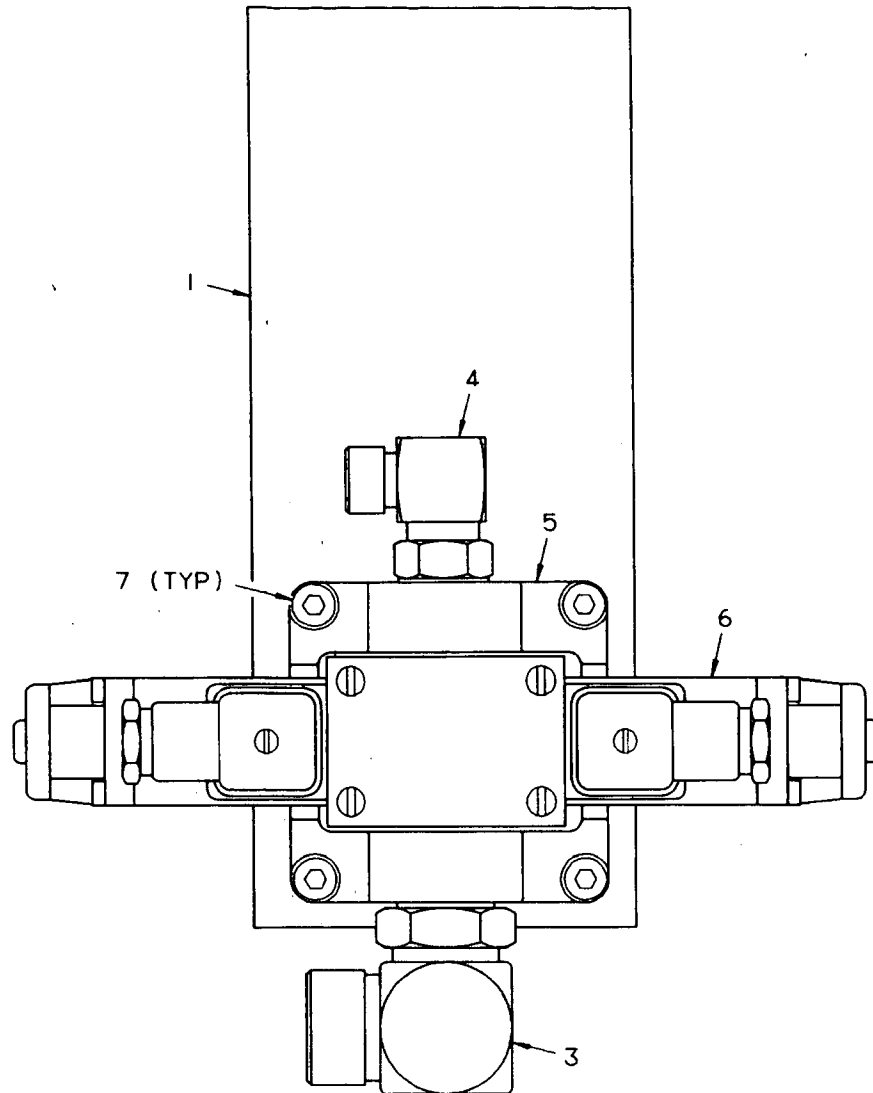
SCALE	1.5-1FT	DATE	2-12-91
BY	KB	DESIGNED BY	W. J. G. / M. B. W.
CHK	JLD	CHECKED BY	M. B. W.
APP	AEP	APPROVED BY	M. B. W.
PART NO.		171083	



167632 A1

MATERIAL LIST ON BACK

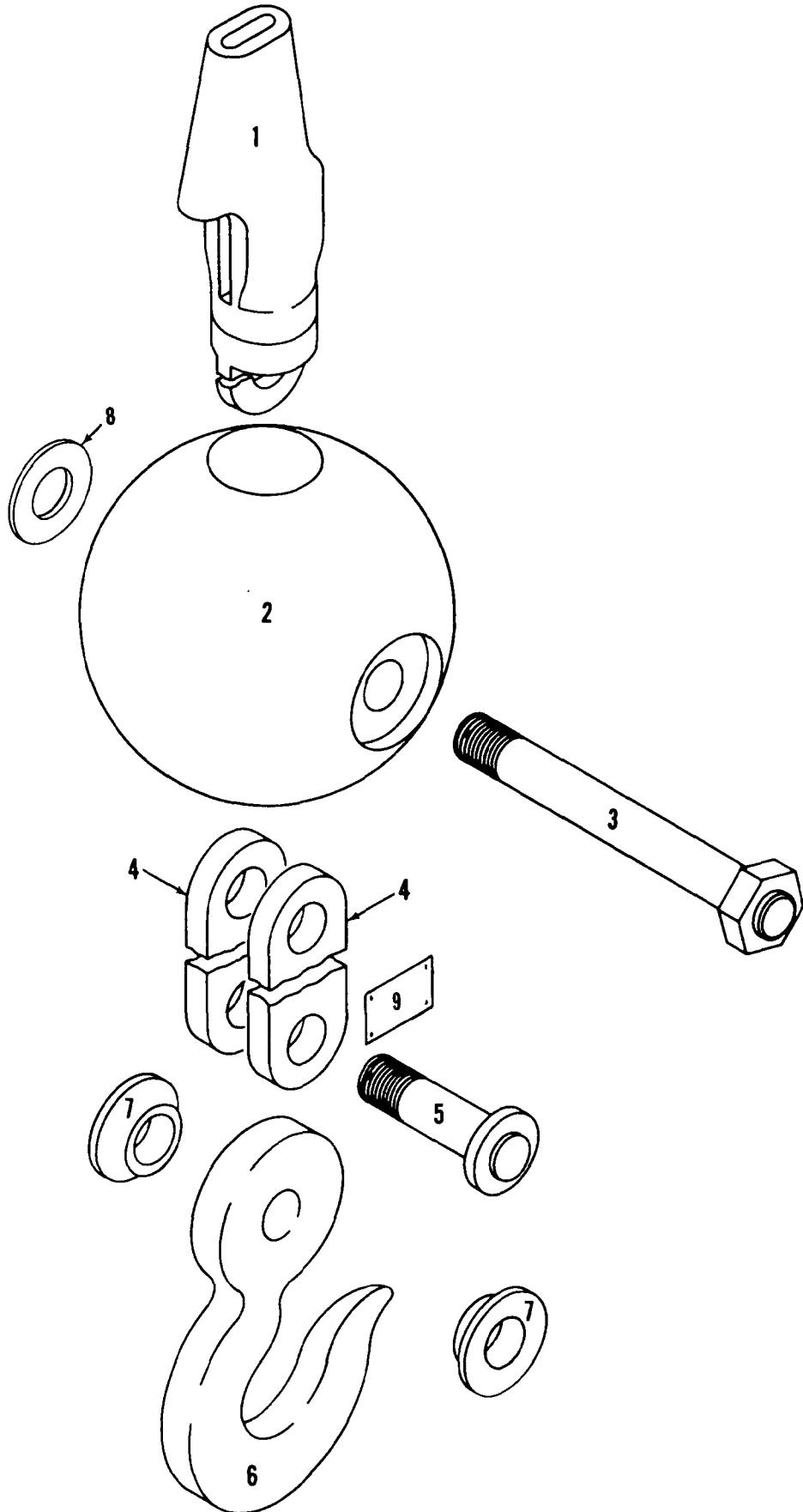
GEAR TRAIN



171307A1

MATERIAL LIST ON BACK

CONTROL VALVE ASSEMBLY



MASTER

95113A1

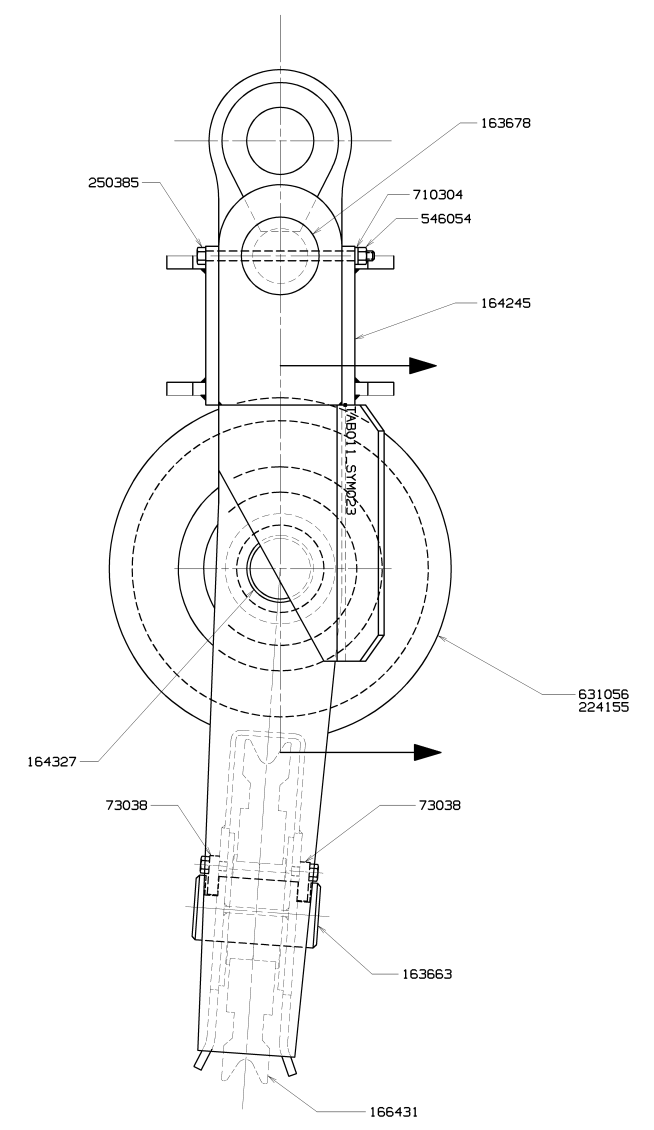
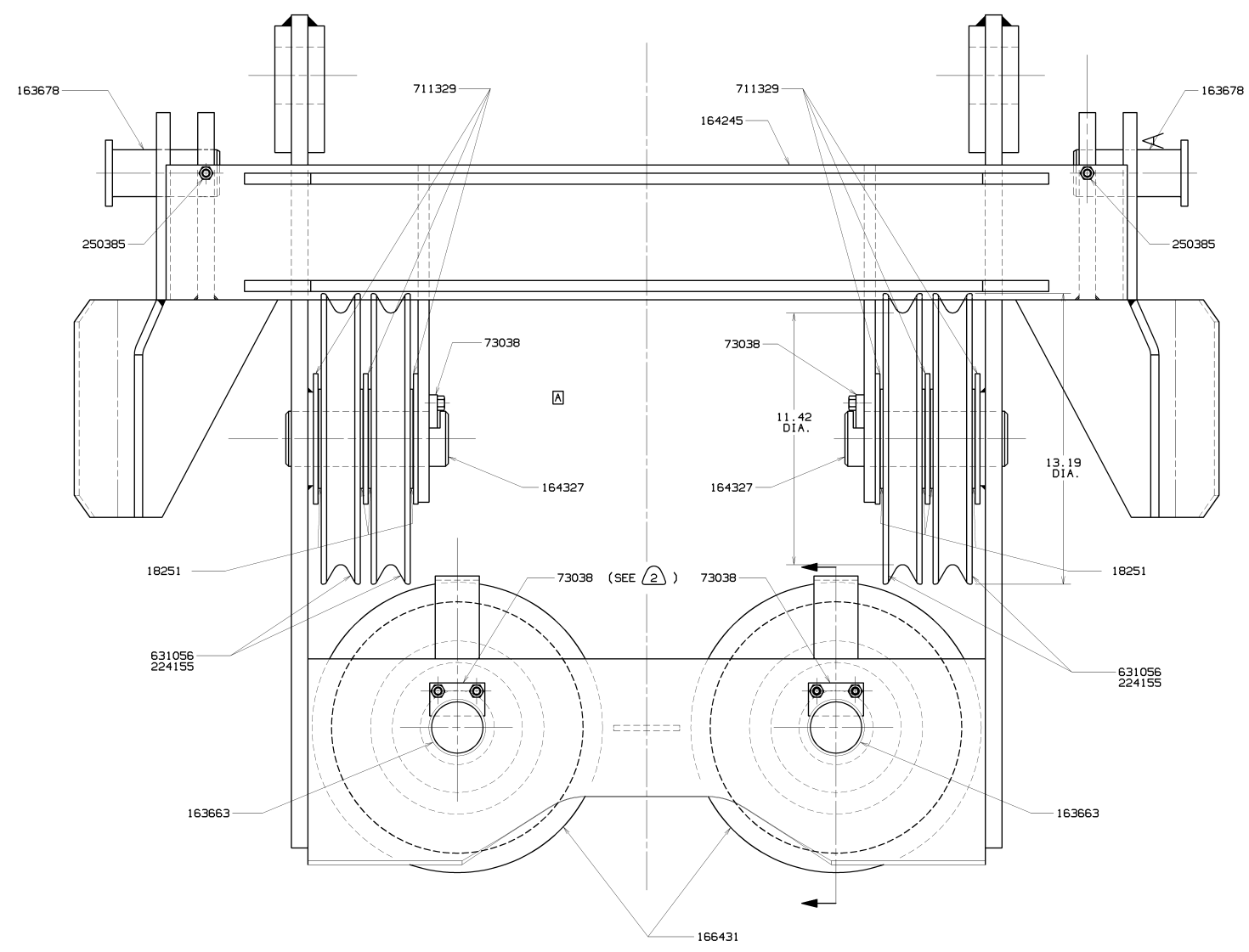
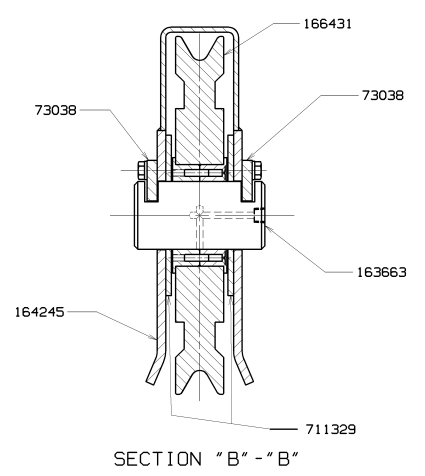
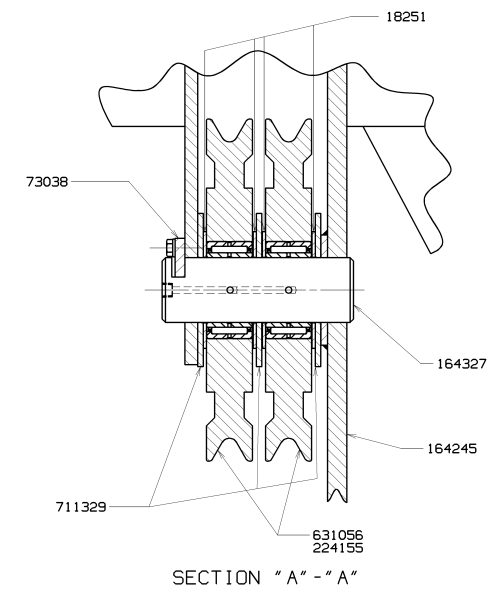
95113A1

MATERIAL LIST ON BACK

HOOK AND WEIGHT BALL

BILL OF MATERIAL							ASSEMBLIES USED ON	
ITEM NO.	REV.	DESCRIPTION	UNIT	MATERIAL	QTY	ORIG. NO.	REV.	DATE
6		KEEP PLATE		73038				
8		WASHER		18251				
2		PIN		163663				
2		PIN		163678				
1		EQUALIZER FRAME		164245				
2		PIN		164327				
2		SHEAVE ASSY.		166431				
2		HHCS 3/8-16UNC X 6.50 GR 5		613997				
2		.375-16UNC-2B HEX. HD. NUT		546054				
4		SHEAVE (13.19 DIA.)		631056				
2		.375 LOCKWASHER		710304				
10		WASHER		711329				
4		BEARING		224155				
8		.375-16UNC-2A X .75 LG. HEX. SCR.		612452				

- ① FOR .562 OR .625 WIRE ROPE.
- ② USE WITH KEEPER 73038 AT CROSSOVER SHEAVE.

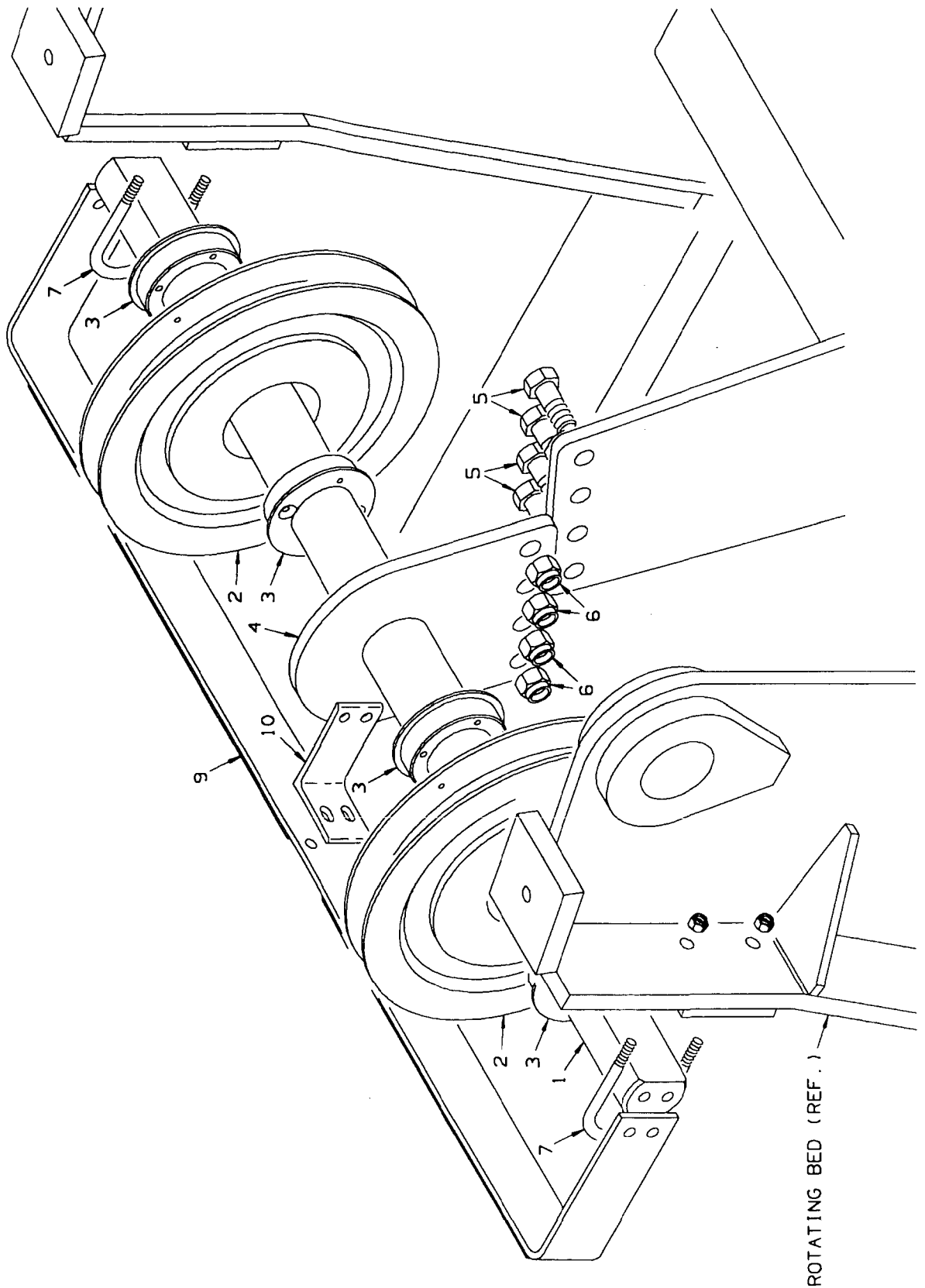


Ⓜ SUPERSEDES 420680 SHT. 1 OF 2.

SCALE	MANITOWOC GRADES, INC.	
DR SPS	Manitowoc, Wisconsin	EQUALIZER
DC LS	MODEL M-80N	ASSEMBLY
APP PWR		

PRIVATE LABELING
REQUIRED TO
CONFORM TO
ENGINEERING
SPECIFICATION
685110794 FOR
COMPONENTS LISTED
IN 605900-05-035
DATE
10-2-84
PATTERN NO.
164246

167667 A1



MATERIAL LIST ON BACK

FLEETING SHEAVES

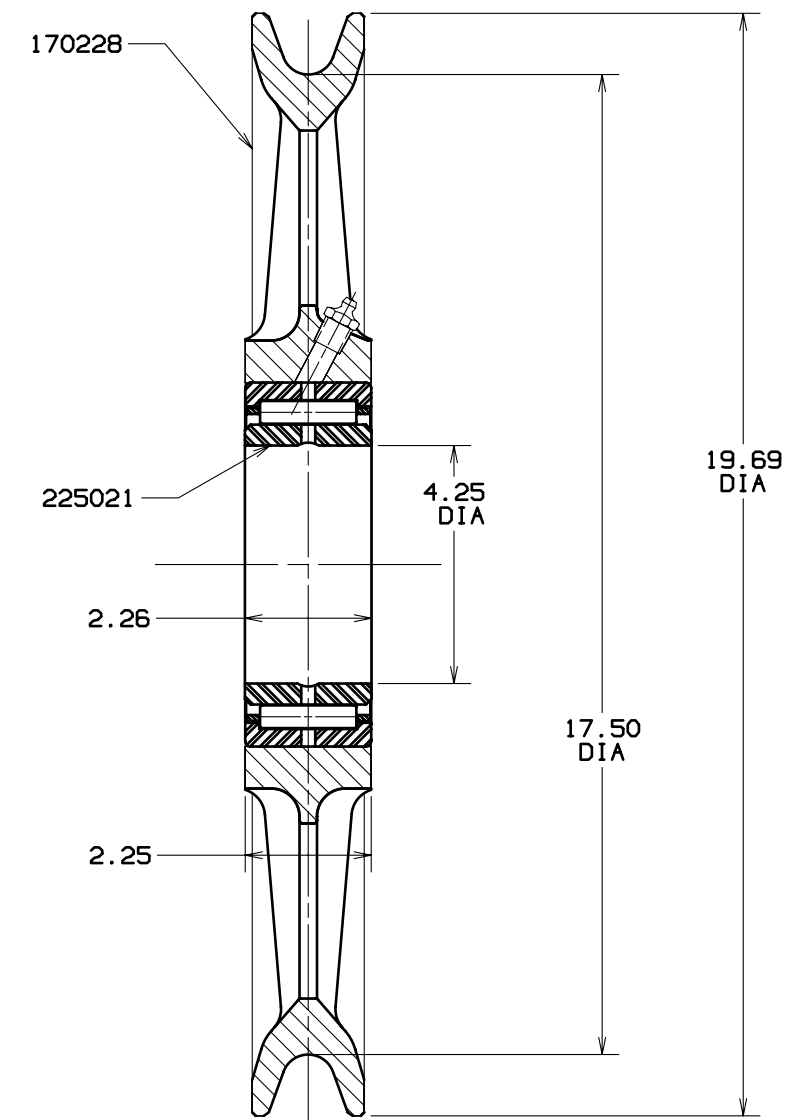
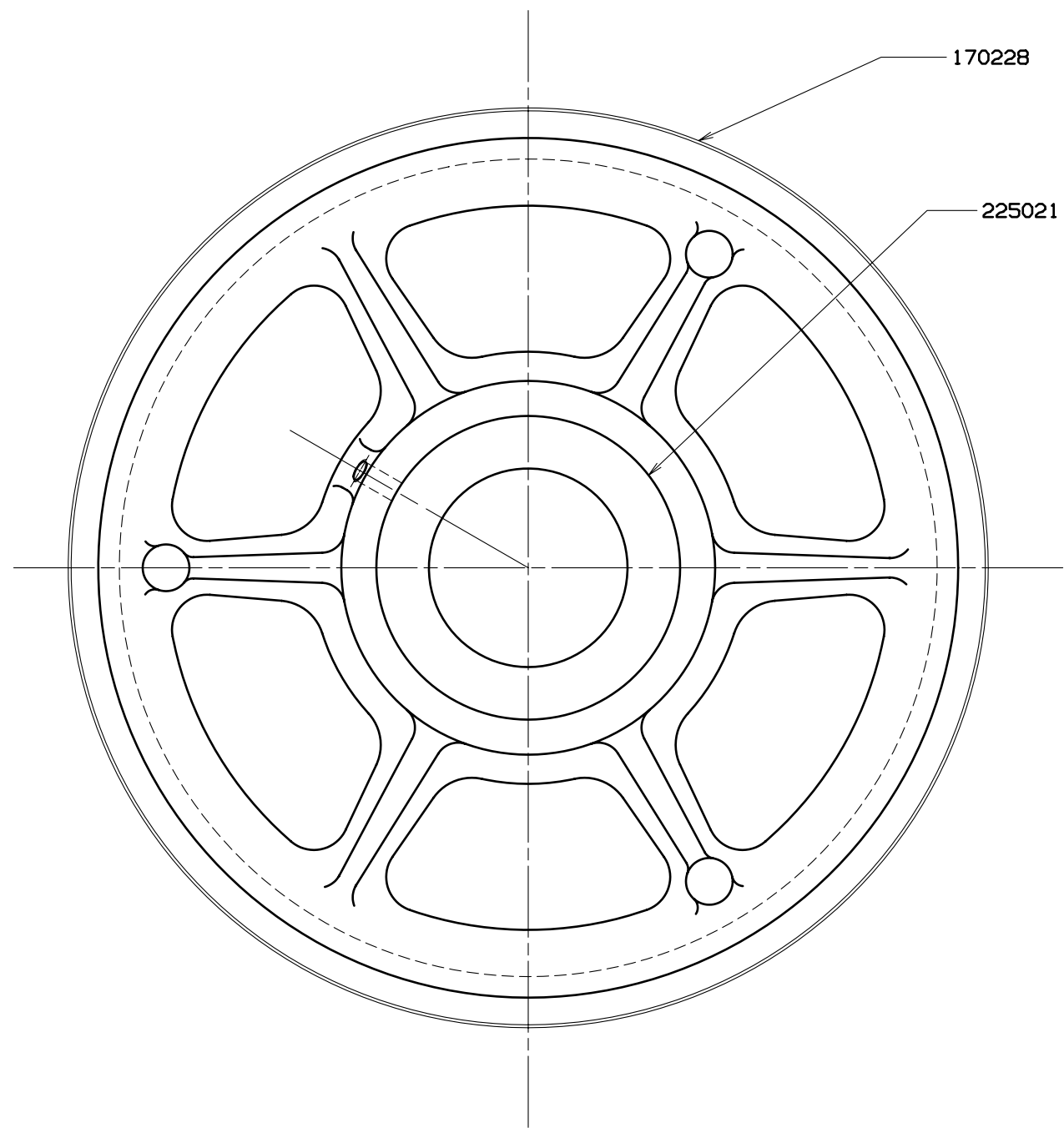
C

C

BILL OF MATERIAL					ASSEMBLIES USED ON	
ITEM NO.	NO. REQD.	SECTION	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OR DWG. NO.
1			SHEAVE			170228
1			BEARING			225021

170235
170245
170262
170278

REVISIONS



DWG. NO.
170236

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN GDS500-05-035

DATE
3-29-90

PATTERN NO.

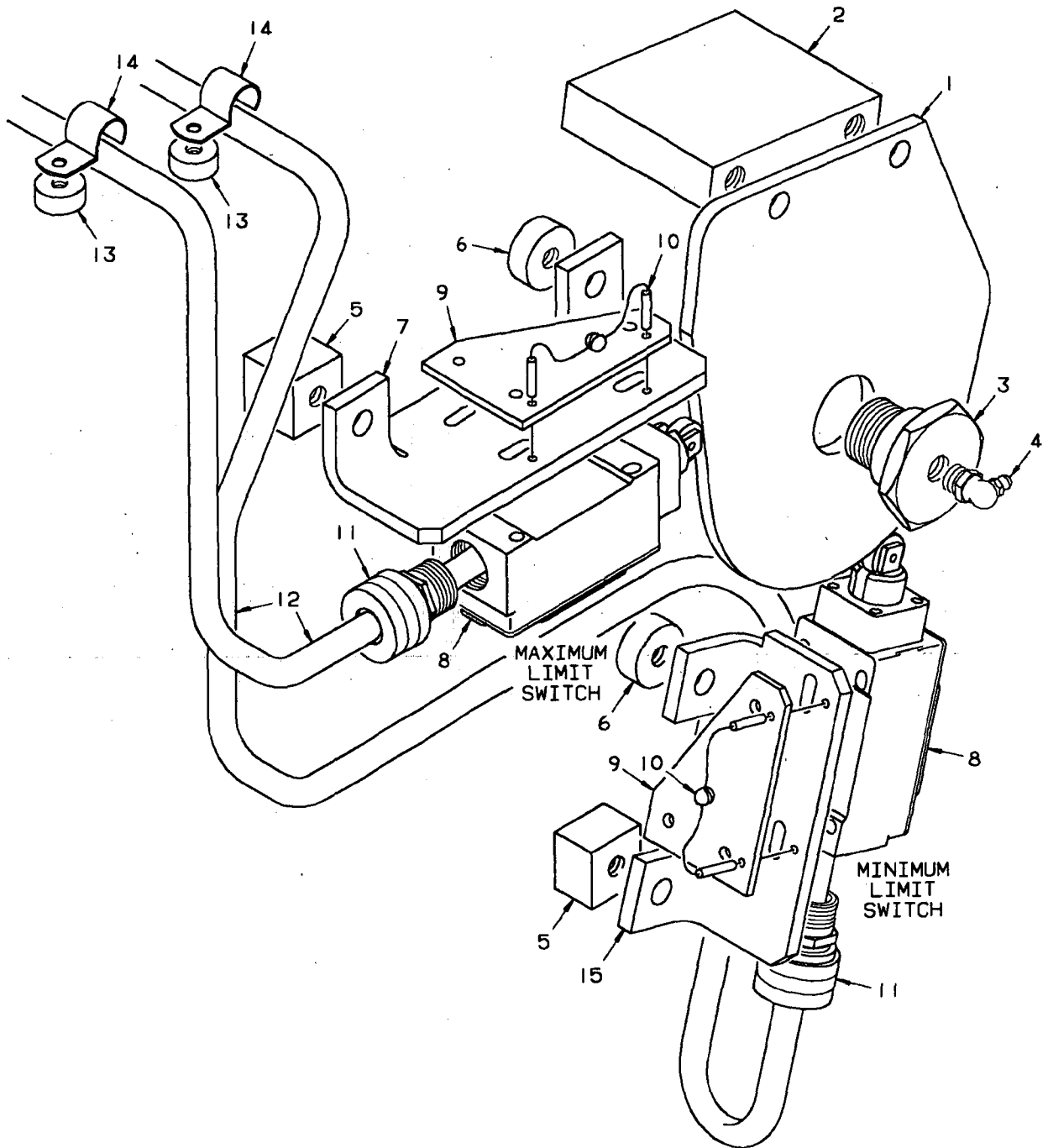
SCALE 4=1FT	Manitowoc Crane, Inc.	
DR. DG	Manitowoc, Wisconsin	SHEAVE ASSEMBLY
CK. LS	MODEL M-80W SERIES 1	19.69 DIA - .875 ROPE
APP TSC		

DWG. NO.
170236

DO NOT SCALE THIS DRAWING

C

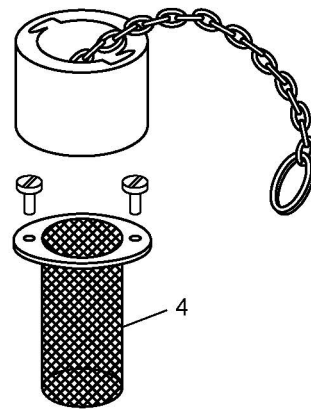
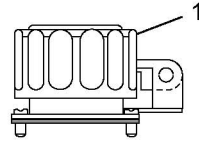
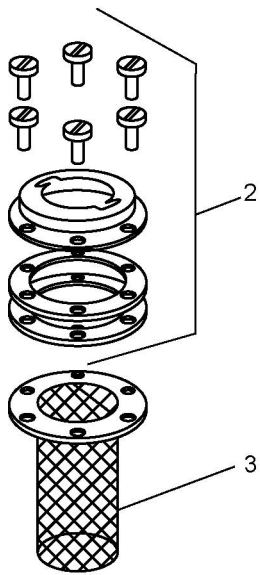
C



171871A1

MATERIAL LIST ON BACK

AUTOMATIC BOOM STOP



ASSEMBLY	REVISION
O-1958	A

0-415-1 Cont	REV. B	MODEL 2000-4600 Incl., 6400, 36' P.R., 60' P.R., S.C.-240
--------------	-----------	--

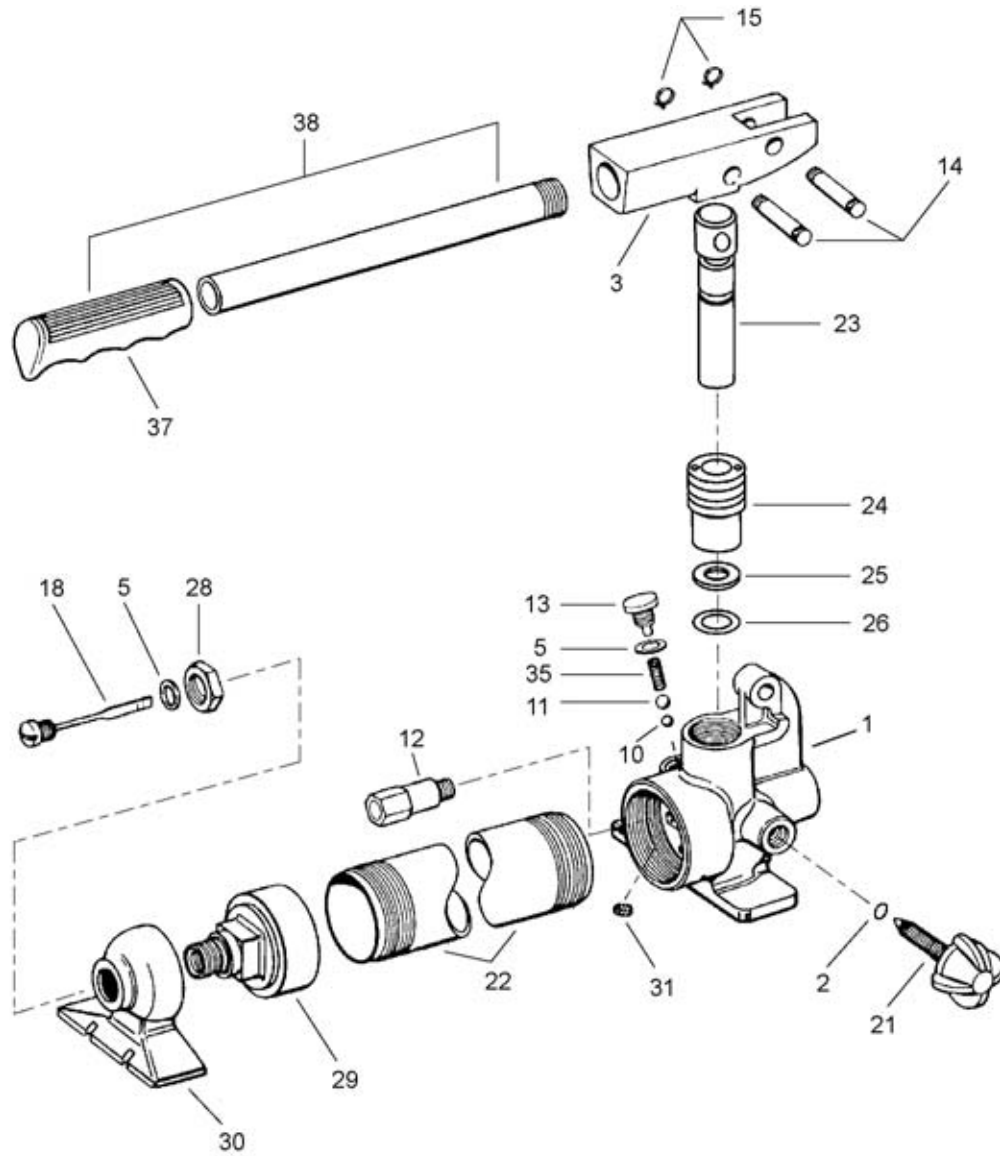
(MANITOWOC #717268 - SPRAGUE #MA-100-60 W/GCr - 851-1.5)
 (MANITOWOC #717269 - SPRAGUE #MA-100-70 W/GCr - 856 - 4) SEE NOTE 1
 (MANITOWOC #717270 - SPRAGUE #MA-100-105 W/GCr- 856 - 4)

REF. NO.	PART NUMBER	QUANTITY REQUIRED	DESCRIPTION OF PART	VENDORS PART NO.
			<p>The vendor is Sprague Devices, Inc., Michigan City, Indiana. Please so specify if ordering from Manitowoc Engineering Co.</p> <p><u>NOTE 1:</u> Manitowoc Aluminum bodied wiper motors 717268, 717269, 717270 supersede brass bodied wiper motors 717212, 717210, 717203 respectively. All parts listed above can be used to repair the previously used brass bodied motors.</p> <p>* Parts included in Sprague Repair Kit #43.</p> <p>** The suffix - 1.5 or -4 denotes the length in inches that the shaft extends from the motor.</p> <p>*** The suffix -60, -70, -105 designates degree of wiper swing.</p>	

Run as a Front
MASTER

0-415-B1 Cont

REV. B	0-415-1
-----------	---------



583136

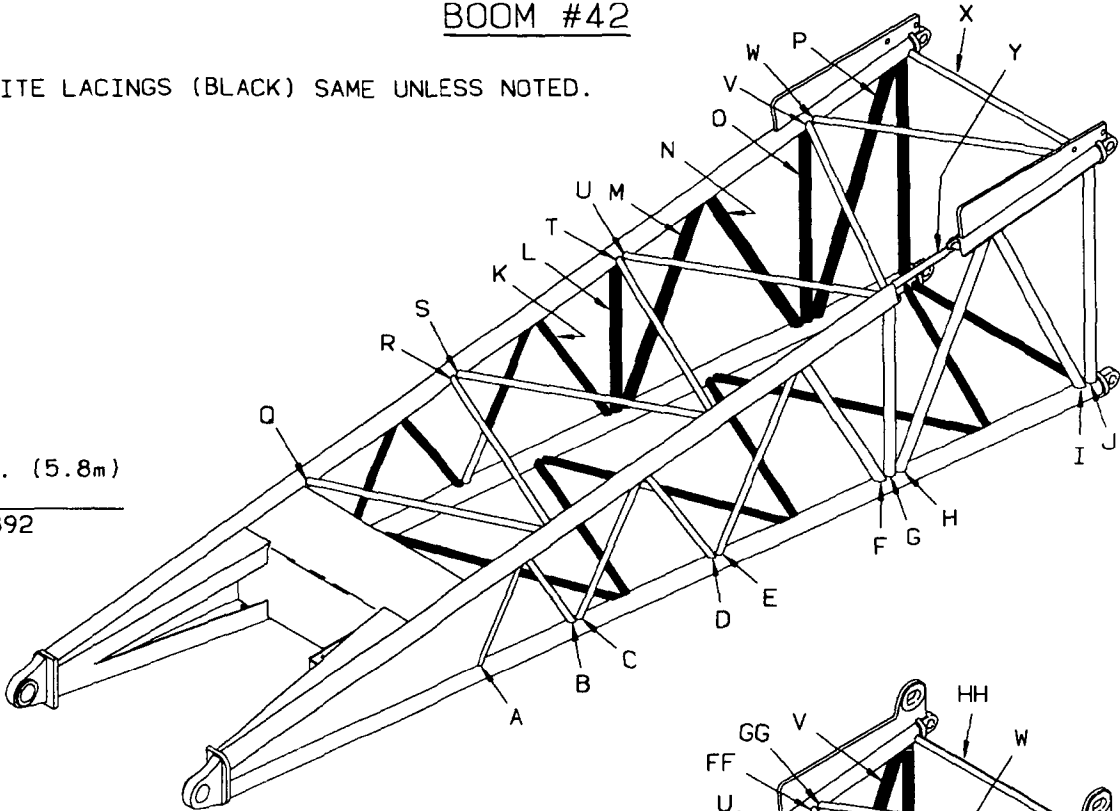
ASSEMBLY	REVISION
O-471	E

CYLINDER, CRAWLER ADJUSTING JACK

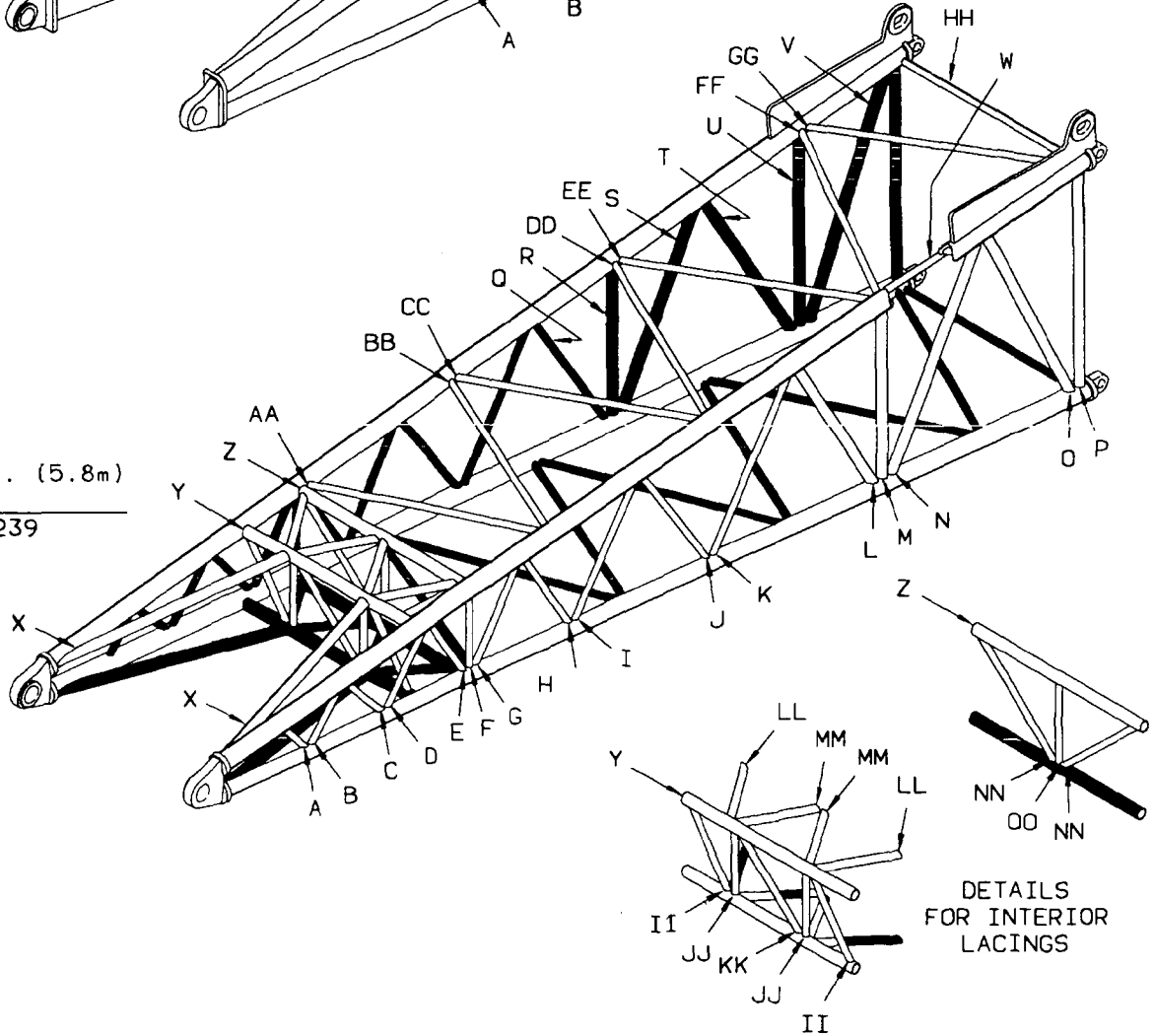
BOOM #42

OPPOSITE LACINGS (BLACK) SAME UNLESS NOTED.

19 FT. (5.8m)
BUTT
#170892



19 FT. (5.8m)
BUTT
#164239

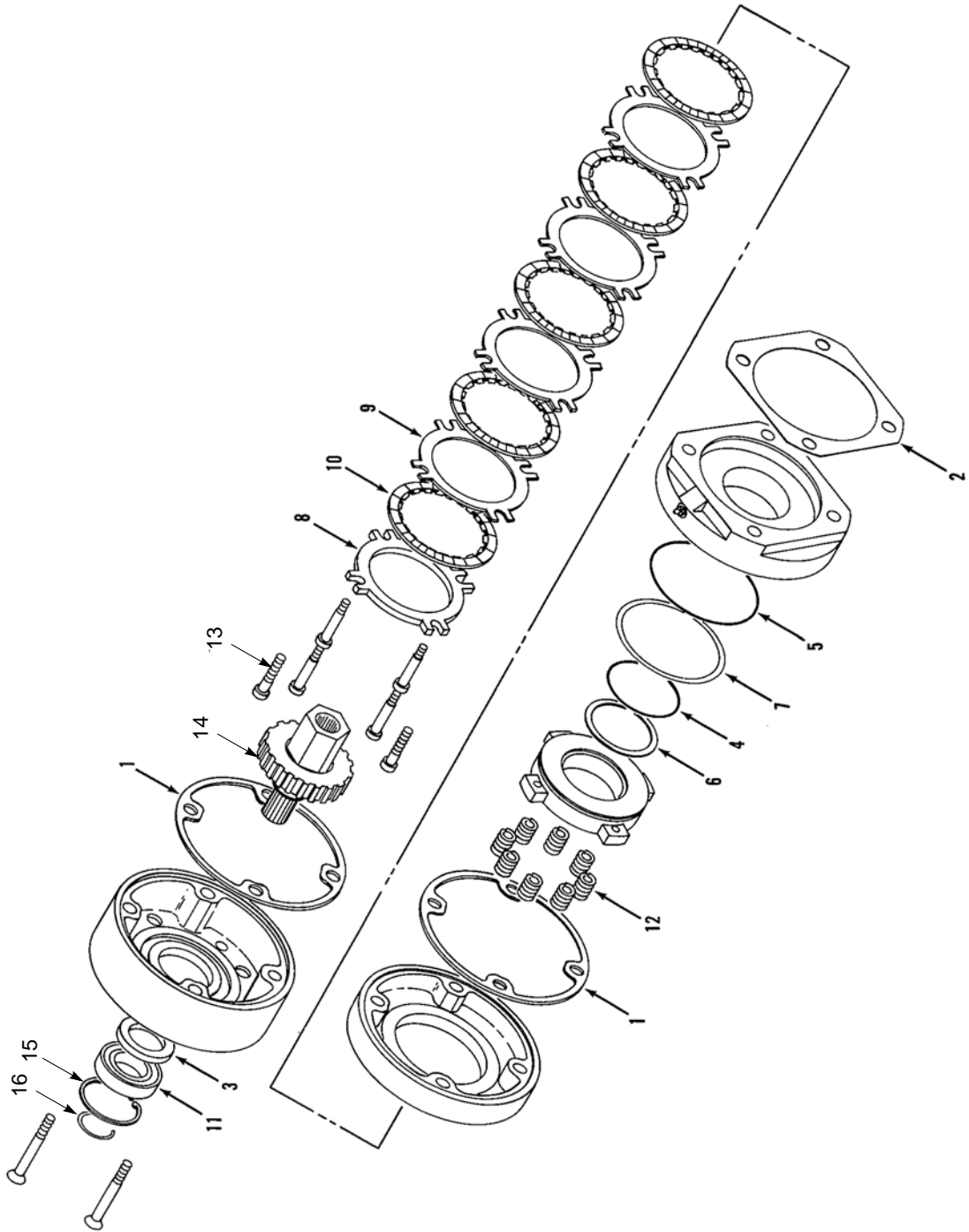


DETAILS
FOR INTERIOR
LACINGS

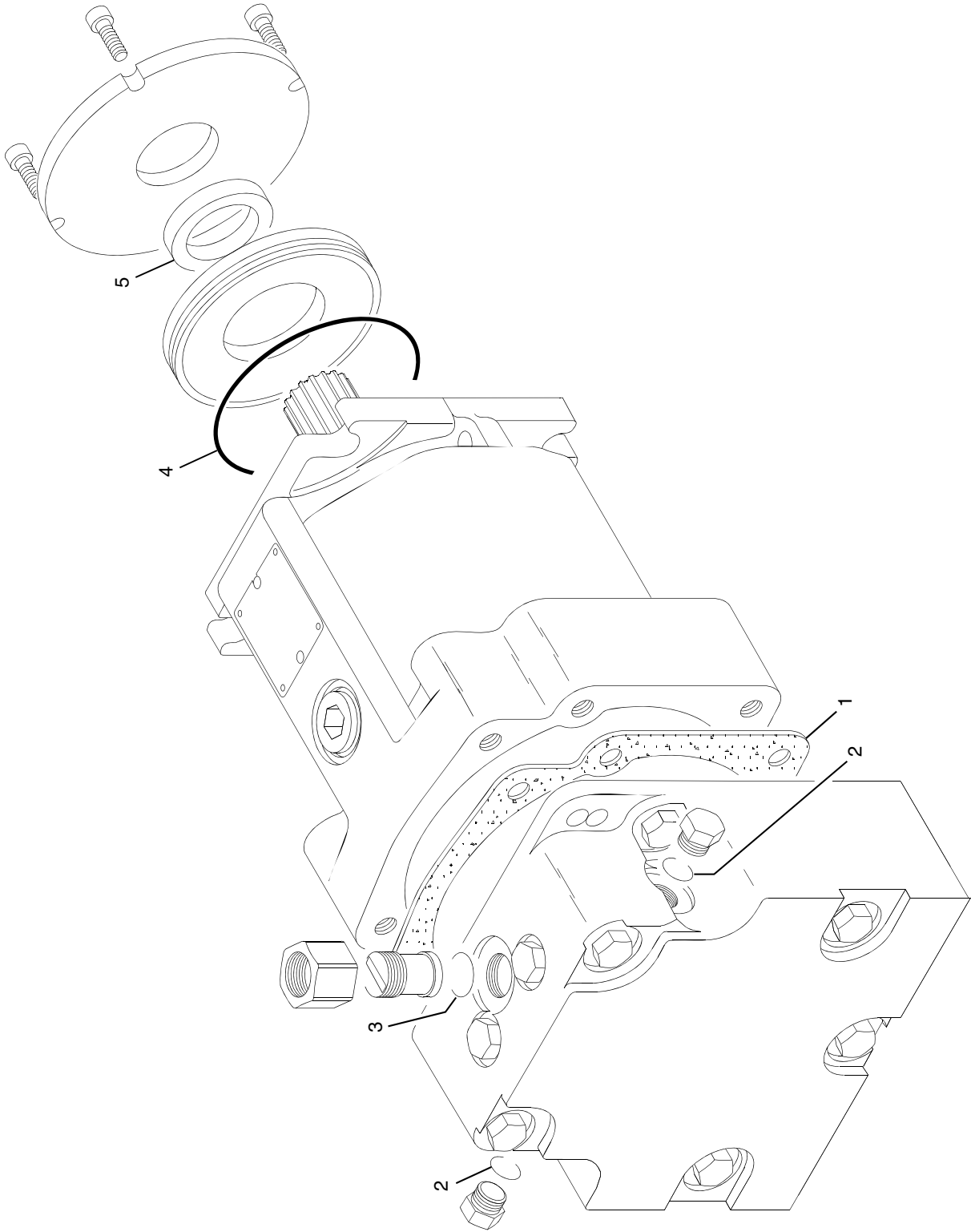
0-531B1

3-3-92
TO ORDER LACINGS SEE FOLIO #823

LACINGS

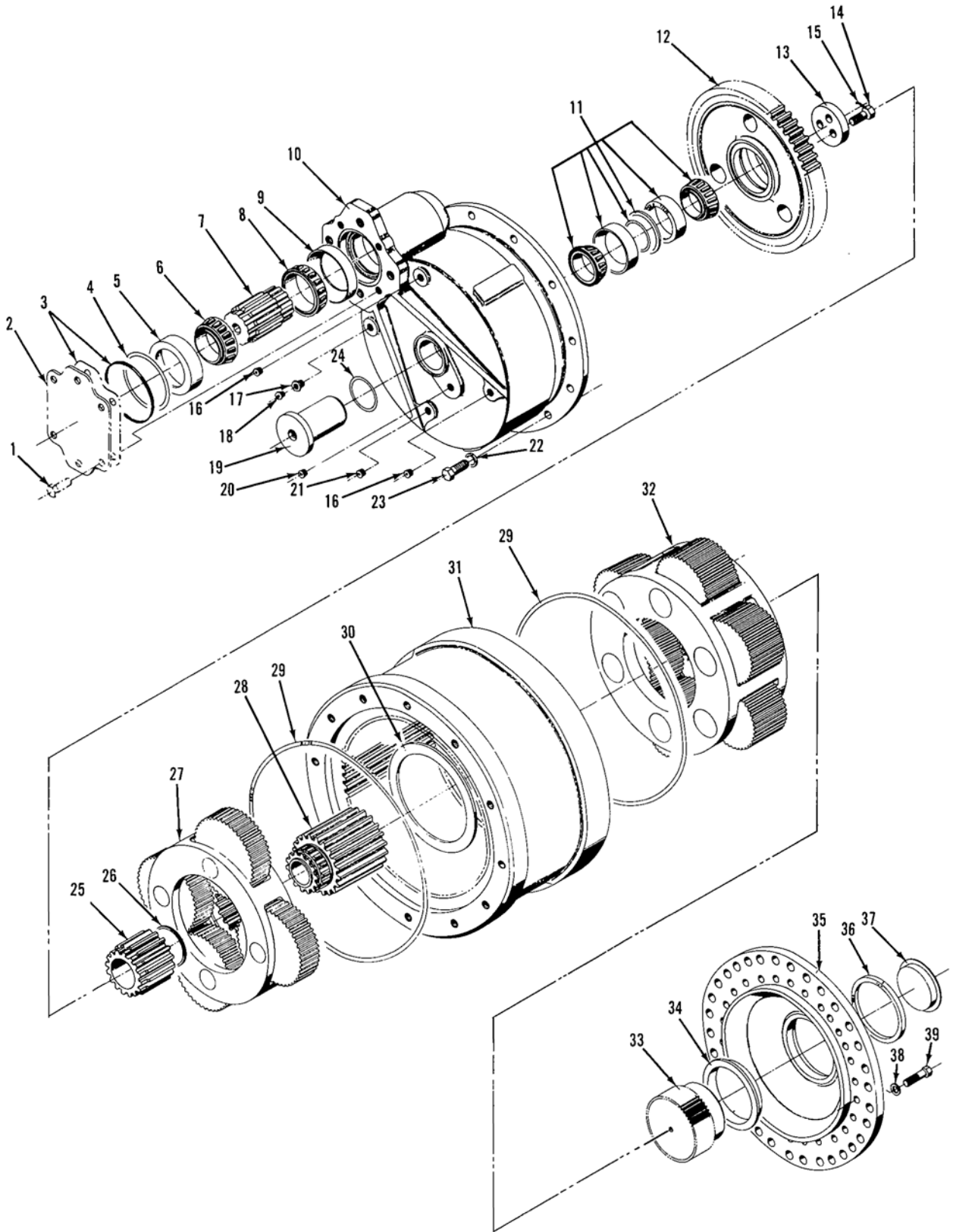


ASSEMBLY	REVISION
O-611	E



ASSEMBLY	REVISION
O-631	B

HYDRAULIC MOTOR



ASSEMBLY	REVISION
O-688	D

MODEL
M-80W, M-85W

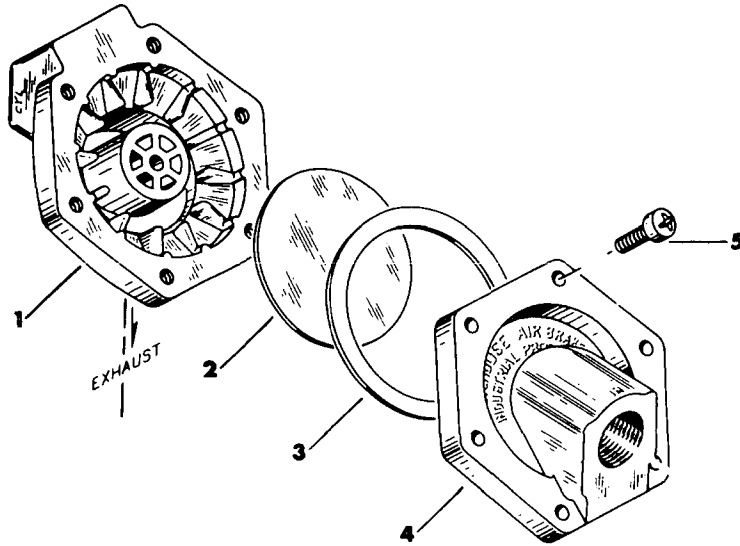
HYDRAULIC PUMP
55cc/rev
5831170, 5834490, 5834930, 5834970 (see Note1)

ITEM	PART #	QTY.	DESCRIPTION OF PART
20	5831165	1	KIT, Shaft Seal
21	9722220256	1	SEAL, Lip
21	9632220130	1	O-RING
			Note 1: Pumps 5831170 and 5834940 are side ported. Pumps 5834490 and 5834970 are twin ported.
			Note 2: Use charge pump kit 5834810 for pumps dated prior to 89-17. Use charge pump kit 5834710 for pumps dated after 89-17. See manufacturer's instructions for date code identification.

PLEASE GIVE MACHINE SERIAL NUMBER WITH ORDER

ASSEMBLY O-691	REVISION D
--------------------------	----------------------

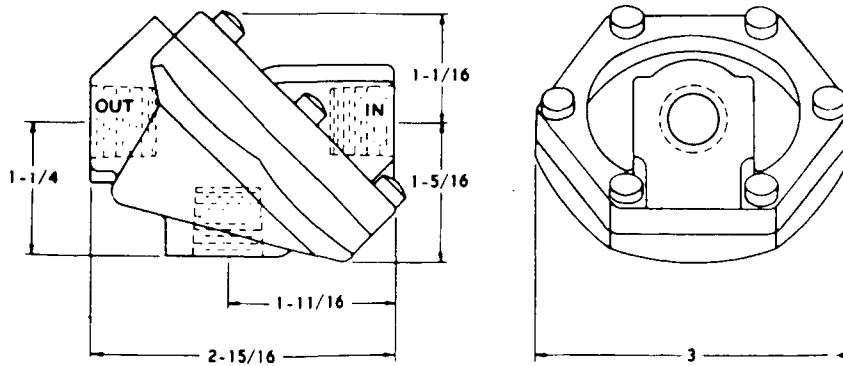
MANITOWOC NO. 714688 - WESTINGHOUSE NO. P52935-3



EXPLODED VIEW

PARTS LIST

Manitowoc Number	Westinghouse Number	Ref. No.	Description
	P52966	1	Body, Valve
714693	P5112	2	Diaphragm
714694	P5111-6	3	Gasket
	P52967	4	Cover, Valve
	P49502	5	Screw, Washer Head



OUTLINE VIEW

Used Approx. 1962 to _____. (See Reverse Side of Sheet)

MODEL

M-50W, M-65W, M-80W, M-85W, M-250, M-250T, 888, 777, 2250, 21000

CONTROL HANDLE

MCC 672663, 672664

ITEM	PART #	QTY.	DESCRIPTION OF PART
12	9872220039	2	SCREW (M5 x 12mm)
13	9872220040	2	WASHER, #10 Nylon
14	9872220002	1	P.C. BOARD WITH POTENTIOMETER
	575897	1	POTENTIOMETER (500 Ohm)
	9352220022	1	COUPLING, Potentiometer
	9352220023	1	GEAR, Slave
	672701	1	<p>Note: For past production handles without protective shroud order the following:</p> <p>SWITCH KIT (handle update - includes handle half with push button switch hole, switch w/protective shroud, and threaded sleeve)</p>

PLEASE GIVE MACHINE SERIAL NUMBER WITH ORDER

ASSEMBLY O-765	REVISION L
--------------------------	----------------------

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL