

# Manitowoc

## TRADITIONAL CRANE PARTS MANUAL

This manual has been prepared for and is considered part of

**2900WC**

Model

**29506**

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 = Air Components & Electrical** (Includes control console, air piping, electric wiring, auxiliary light plant and lighting, TV monitoring, compressor and air tank)

**GROUP D = Power Components - Upperworks** (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 = Lower Structure & Control** (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, Warranty Information, Tool List (if applicable) Outline Dimensions, Weights, and Dealer Listing.*

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## Corrosion and Abrasion

Refer to Figure 3.

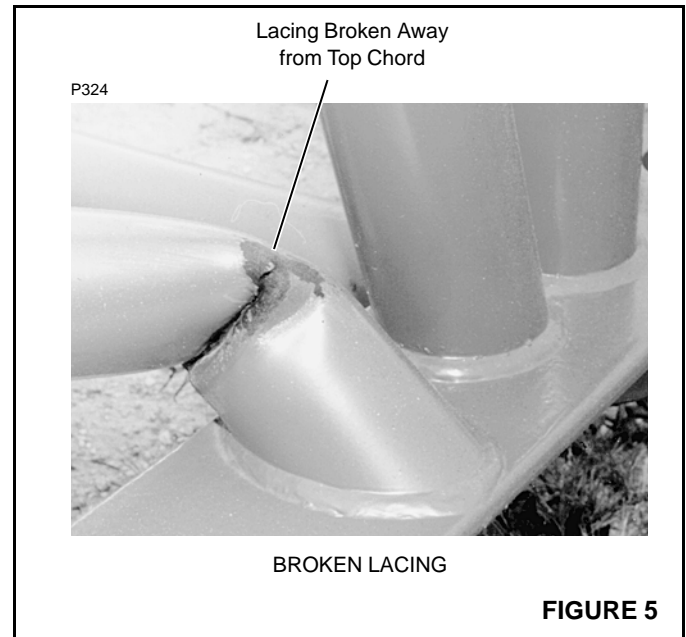
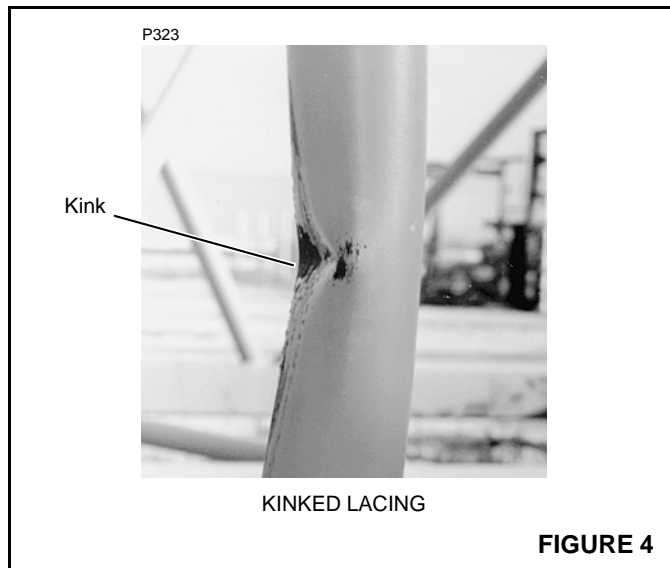
Corrosion and abrasion must not be deeper than 10 percent of the wall thickness, the angle thickness, or the plate thickness.

## Kinks

Refer to Figure 4.

Kinked lacings must be replaced; *do not bend kinked lacings back into alignment.*

If any chord or platework is kinked, contact Manitowoc Crane Care for approved repair instructions. *Do not bend kinked chords or platework back into alignment.*



## Cracks and Breaks

Refer to Figure 5.

Cracked and broken lacings must be replaced; *do not attempt to repair cracked or broken lacings.*

If any chord or platework is cracked or broken, contact Manitowoc Crane Care for approved repair instructions. *Do not attempt to repair cracked or broken chords or platework.*

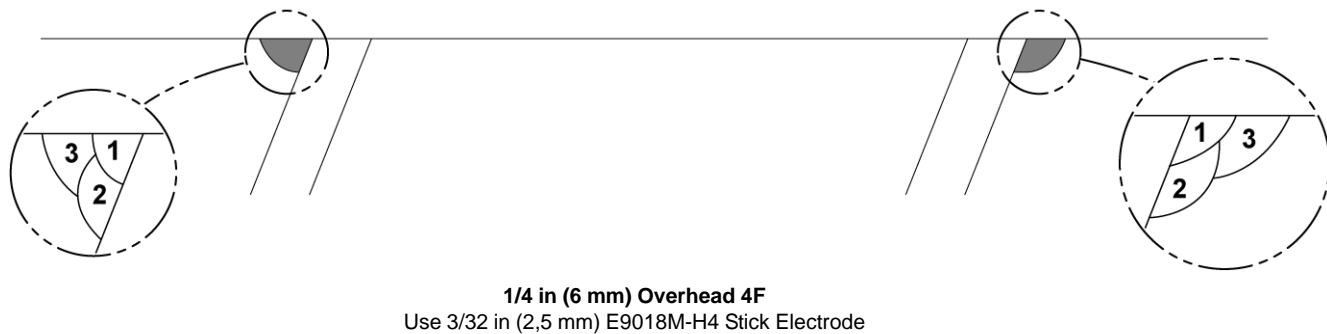
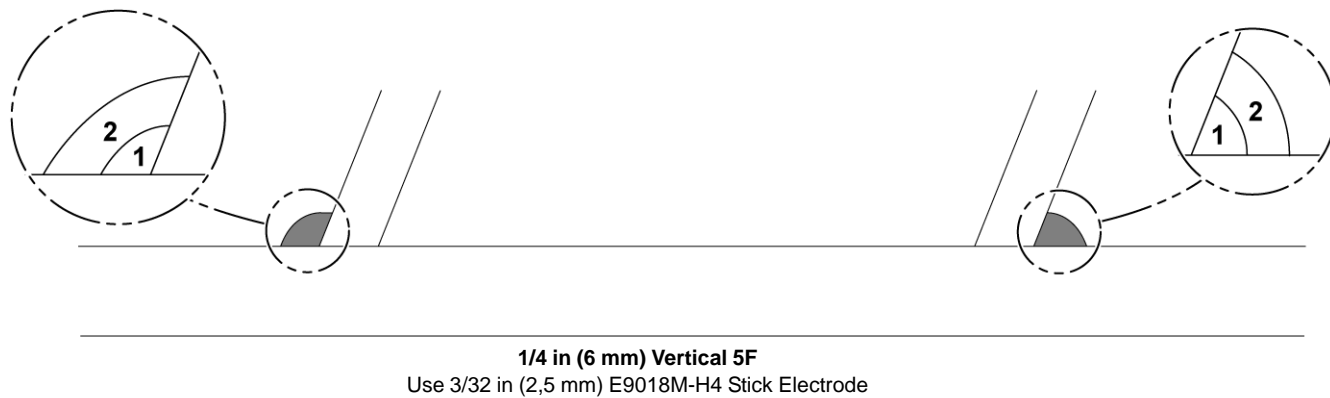
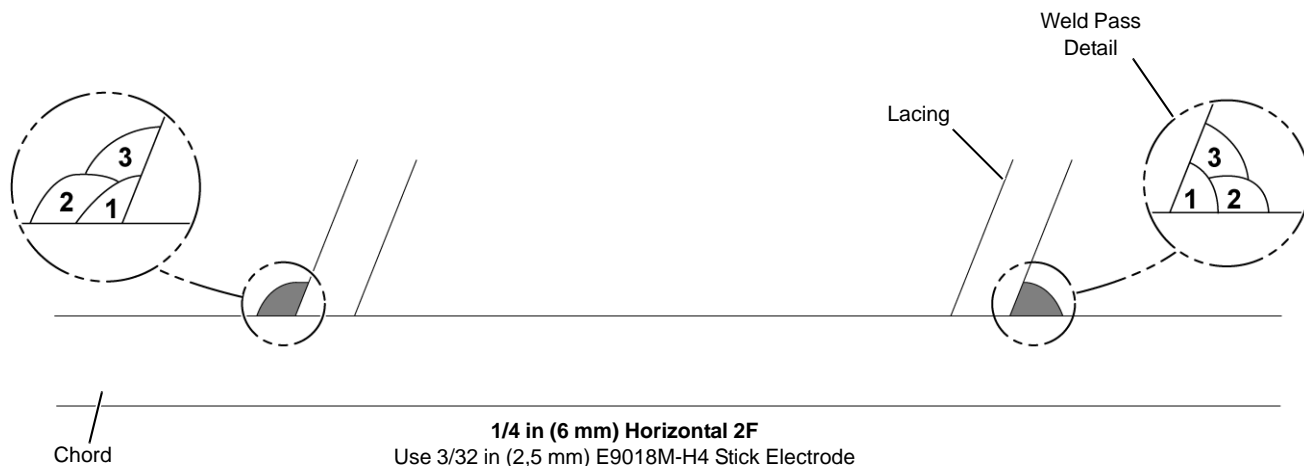


FIGURE 16



MANITOWOC ENGINEERING CO.

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Manitowoc, Wisconsin 54220

WEIGHTS

2900WC - NO. 16 BOOM

DESCRIPTION	APPROX. WEIGHT (IN LBS.)
LIFTCRANE - w/41' No. 16 boom, 36,000# counterweight, 9' folding gantry, 20' extendible crawlers w/hydrostatic drive and 36" treads, hydraulic system to extend and retract crawlers and raise machine, split front drums, full width rear drum, std. swing, ind. boom hoist, Cummins N-855-C250 engine, 14" dia. lagging for right front drum, 2-1/2" dia. lagging for left front drum, boom hoist rope, equalizer, telescopic boom stop, 70 ton load block, 6-1/2 ton hook and weight ball, single sheave upper boom point, and upper wire rope guide. . . . .	126,850*
UPPERWORKS - w/Cummins N-855-C250 engine, std. swing, ind. boom hoist, split front drums, full width rear drum, and right and left drum laggings; <u>LESS</u> boom, gantry, equalizer, load block, weight ball, counterweights, telescopic boom stop, and upper wire rope guide. . . . .	29,220*
UPPERWORKS as above - w/gantry, equalizer, boom hoist rope, and carbody; <u>LESS</u> crawlers . . . . .	49,770*
CARBODY - w/roller path, ring gear, king pin, and hydraulic cylinders to extend and retract crawlers and jacks to raise machine; <u>LESS</u> crawlers. . . . .	17,530
HYDROSTATIC DRIVE CRAWLERS, 20' w/36" treads. . . . .	17,410 each
HYDROSTATIC DRIVE CRAWLERS, 20' w/30" treads. . . . .	15,825 each
COUNTERWEIGHTS	
Inner . . . . .	18,000
Outer . . . . .	18,000
BOOM NO. 16	
Boom Butt - 16' . . . . .	970
Boom Top - 25' (w/lower boom point assembly). . . . .	2,415
Upper Boom Point (single sheave). . . . .	250
Boom Insert - 10' . . . . .	645
Boom Insert - 15' tapered (butt insert) . . . . .	970
Boom Insert - 15' tapered (top insert). . . . .	750
Boom Insert - 20' (w/rope guide roller assembly). . . . .	980
Boom Insert - 20' (w/rope guide roller assembly and jib backstay lugs). . . . .	1,020
Basic Pendant - 25'-5" (2 req'd.) . . . . .	165 each
Pendant - 10' (2 per insert). . . . .	100 each
Pendant - 15' (2 per insert). . . . .	130 each
Pendant - 20' (2 per insert). . . . .	140 each
Pendant Spreader Bar. . . . .	50

\*Weights do not include hoist line, whip line or fuel.

(Cont'd.)

32783-1 Cont.	REV. E	MODEL 2900-2900WC
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CAB  
(MACH. W/TANDEM DRUMS)

Run as a Front

MASTER

32783 E1 Cont'd.

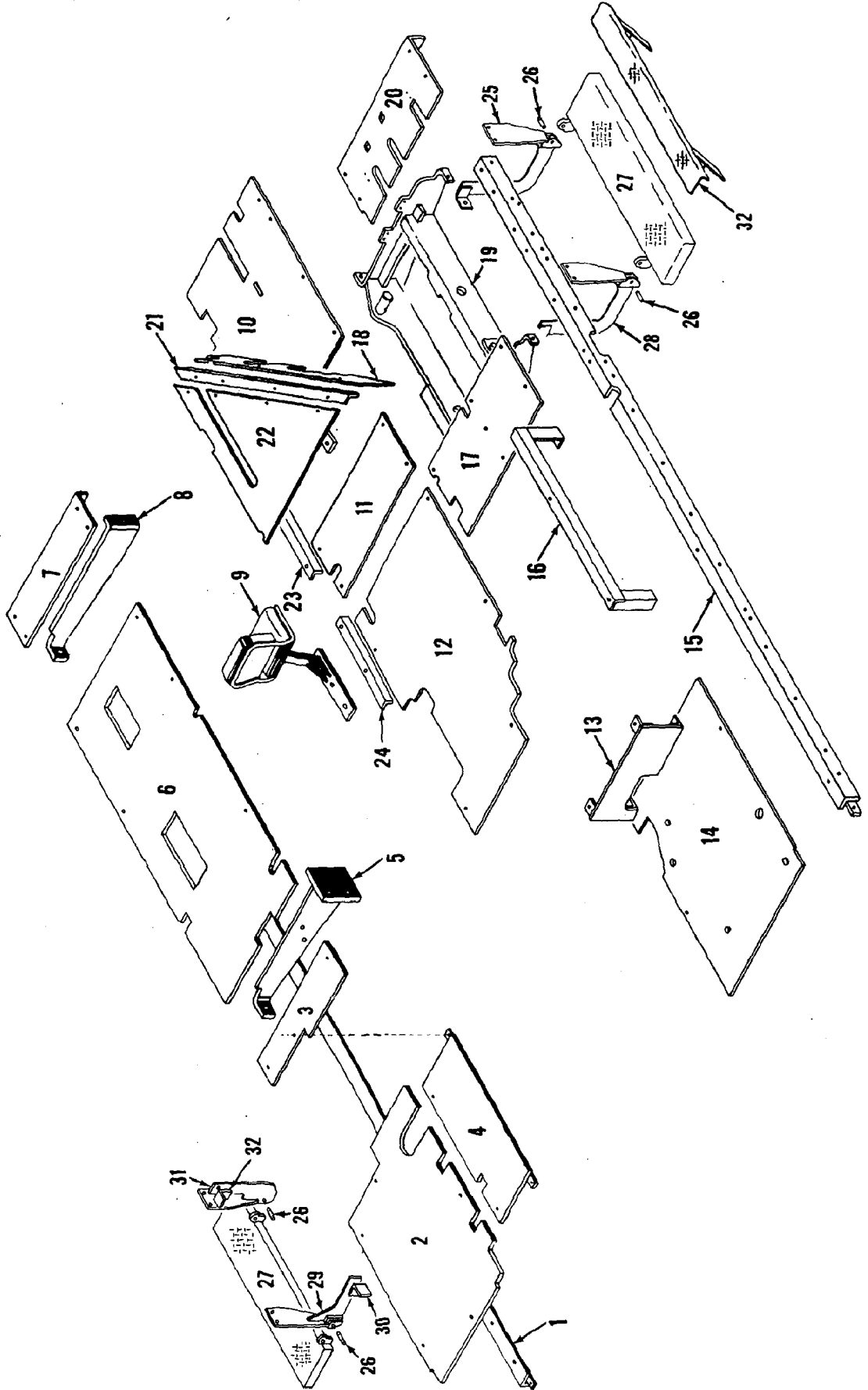
REF. NO.	PART NUMBER	QUANTITY REQUIRED	DESCRIPTION OF PART	VENDORS PART NO.
40	180112	1	CABINET, Tool W/padlock	
43	24963-2	1	SHEET, Rear Lower	
32	17834	1	GLASS, Window	
7	605301	1	CHANNEL, Rubber (7'4" - 2.236 m)	
34	31882	1	DOOR, Right Side (See Sheet #2)	
38	17836	1	GLASS, Window	
7	605301	1	CHANNEL, Rubber (9'6" - 2.895 m)	
41	32727	1	EXTENSION, W/capscrews, hex nuts and shake-proof washers	
42		1	PLATE, Cover	
44	30152	1	SHUTTER, Radiator W/hook, chain, stovebolts, hex nuts and lockwashers	
45	91349	1	CLOSING SHEET, Inside Right W/self tap screws and lockwashers	
46	32531	1	SHEET, Upper Inside Right W/mach. screws, stove bolts, hex nuts and lockwashers	
47	72803	1	SHEET, Inside Right Extension W/stove bolts, hex nuts, and lockwashers	
48	19144	1	GLASS, Window	
7	605301	1	CHANNEL, Rubber (8'10" - 2.692 m)	
	91350-6	1	SHEET, Left Inside (Complete) W/door, hinges, door buttons, self tap screws, mach. screws, hex nut, flat washers and lockwashers (W/Out Power Lowering)	
49	91350-2	1	SHEET, Closing	
50		1	ANGLE, Rear	
51		1	ANGLE, Front	
49a	77324	1	CLOSING SHEET, Left Inside W/capscrews and lockwashers (W/Power Lowering)	
52	76276	1	STOP, Latch W/capscrews, hex nuts and lockwashers	
53	76275	1	LATCH, Door W/capscrews, hex nut and lockwasher	
54	94239	1	LADDER, Roof	
	140651	2	BRACKET, Ladder	
	94053	1	HOLDERS, Chart and Manual	
55	93994	1	HOLDER, Chart	
56	181503	1	PLATE, Builder's	
57	139932	1	FRAME, Manual Holder	
56	181503	1	PLATE, Builder's	

REV. E	32783 - 1
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43104G1

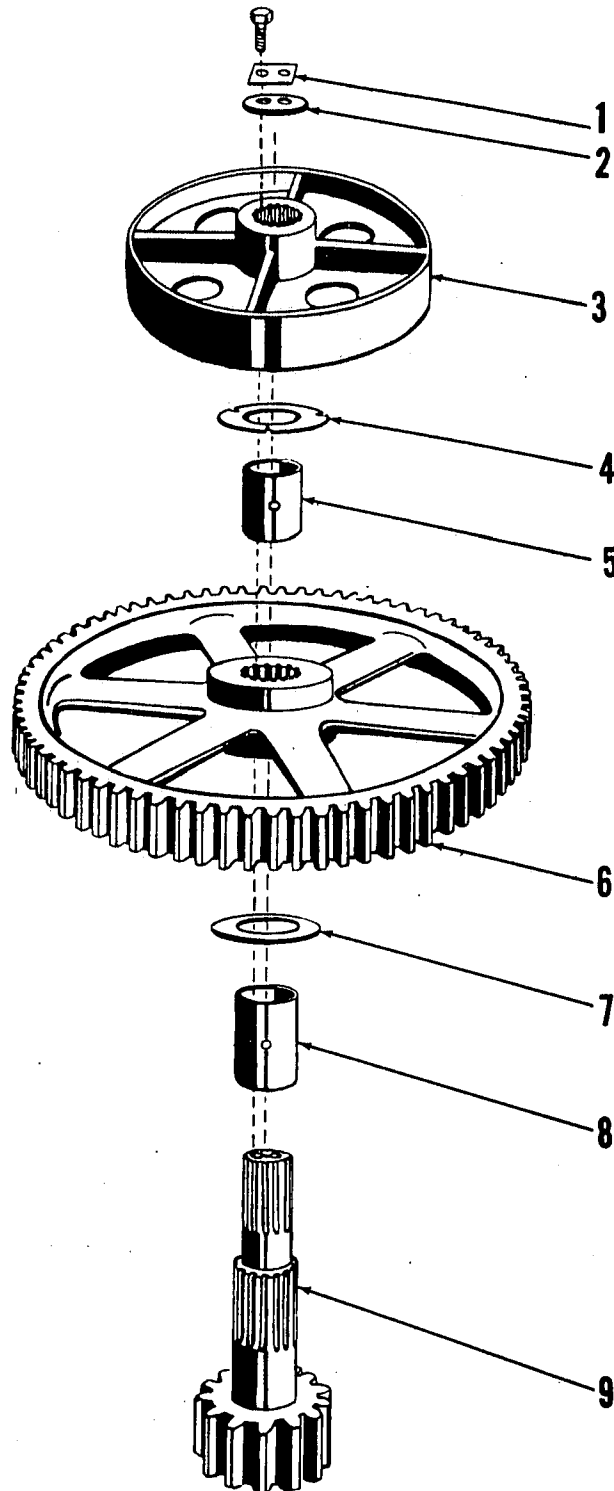
PLATFORM

MANITOWOC

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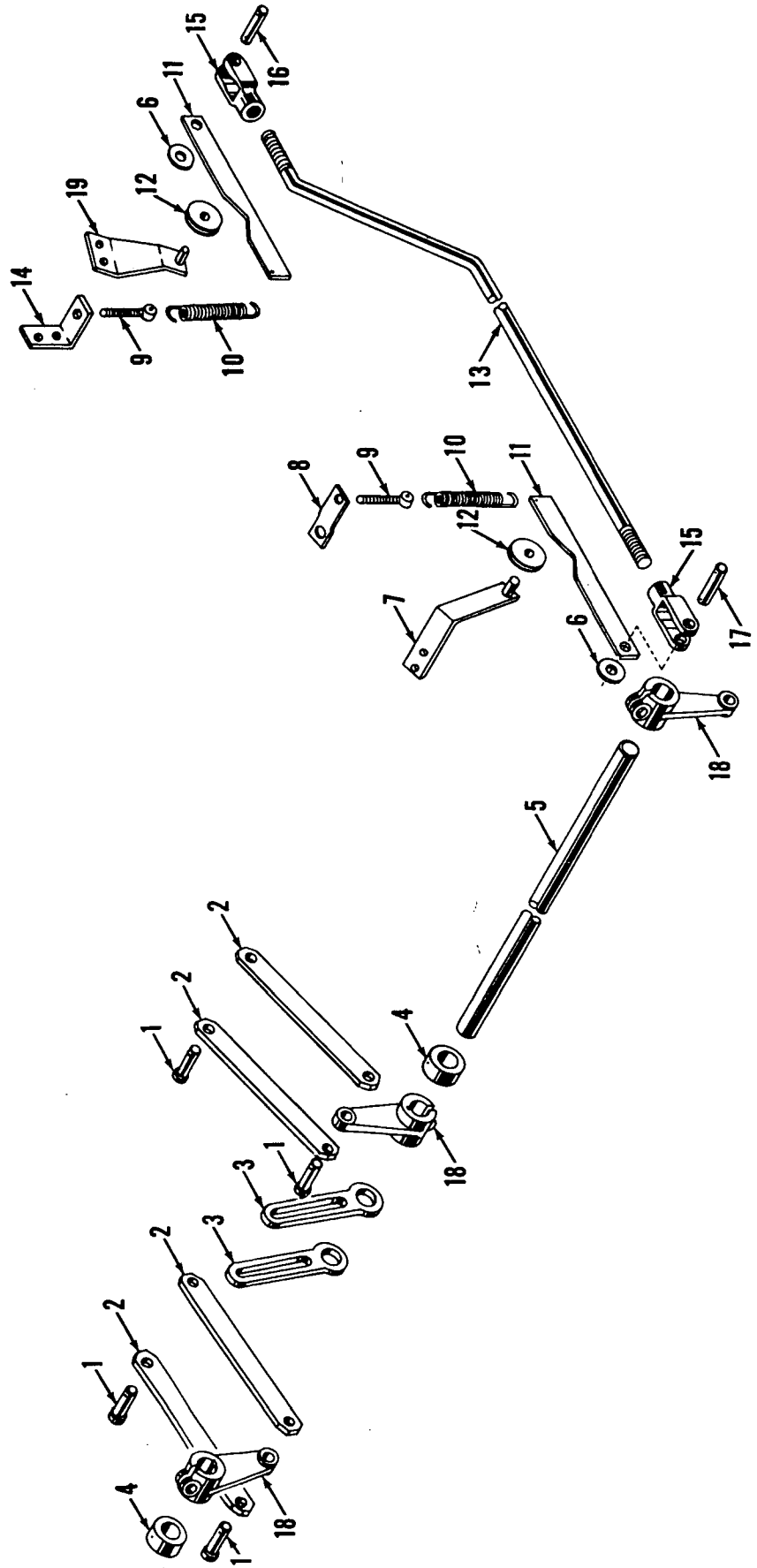
MASTER

23087 A-1

ILLUST. No. 23087 A-1

MATERIAL LIST ON BACK

SWING SHAFT



MASTER

41693 B1

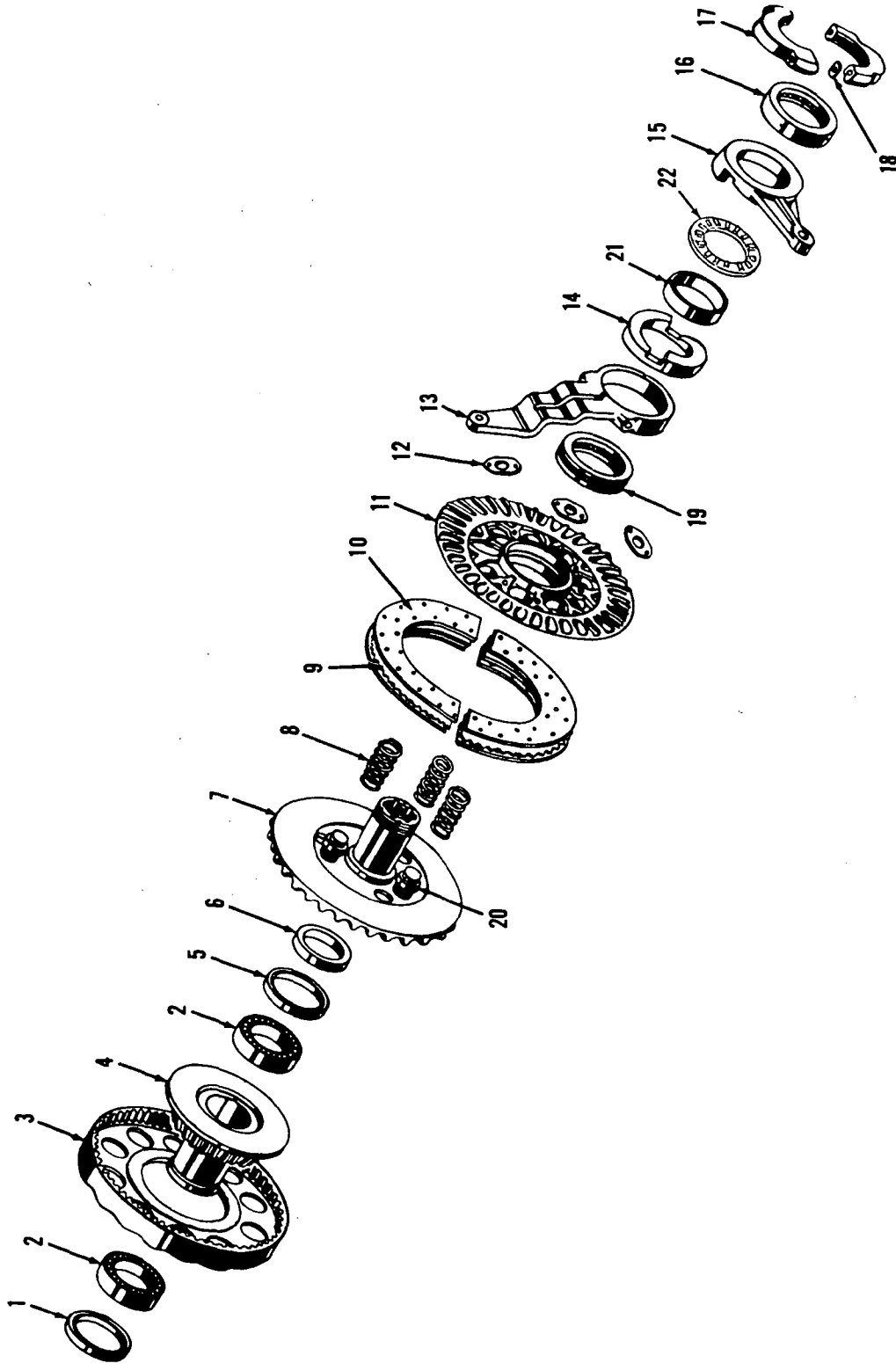
41693 - B - 1

MATERIAL LIST ON BACK

SWING CLUTCH CONTROL ASSEMBLY

42497-C2

MASTER



42497C2

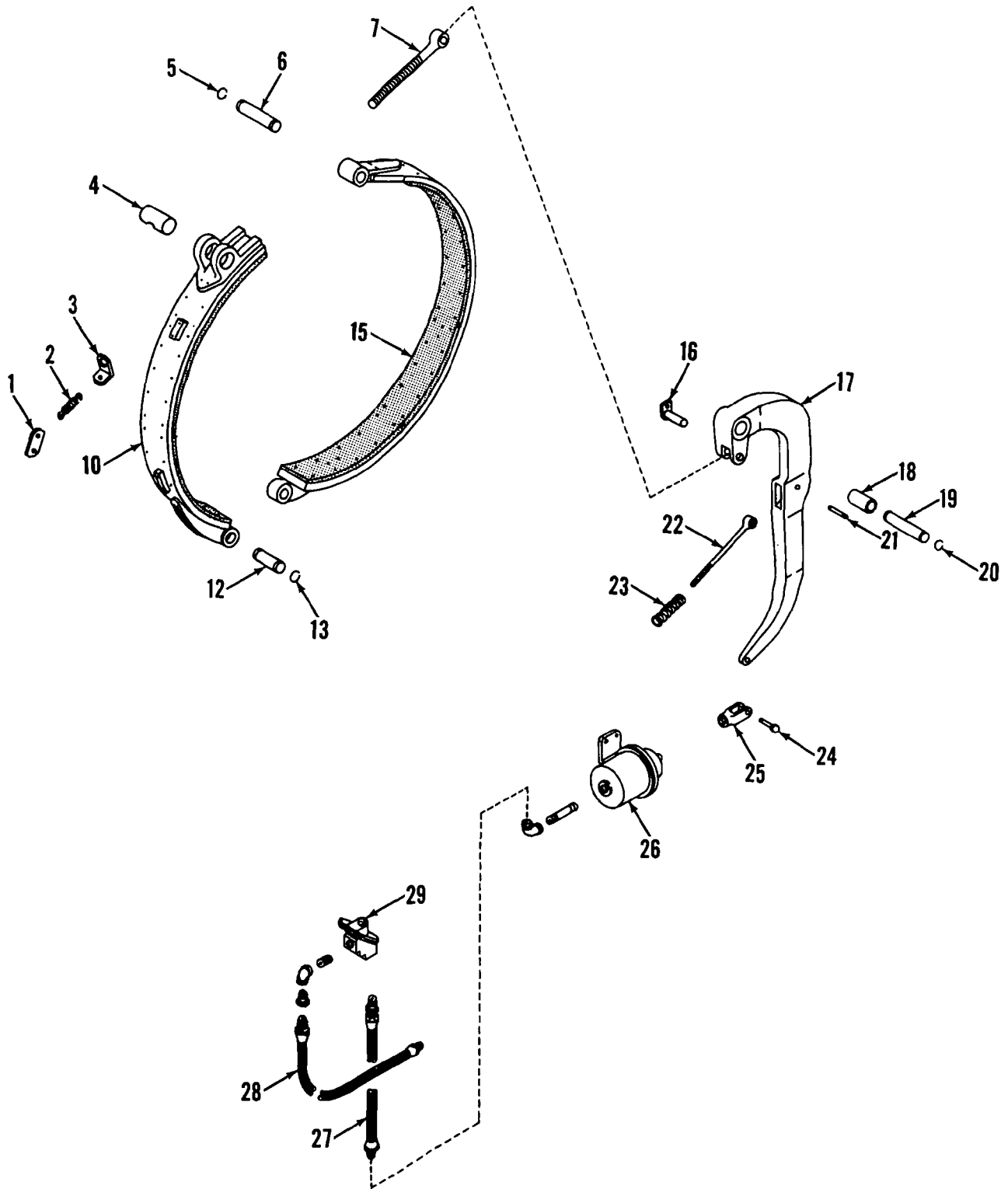
MATERIAL LIST ON BACK

MAIN DRIVE CLUTCH

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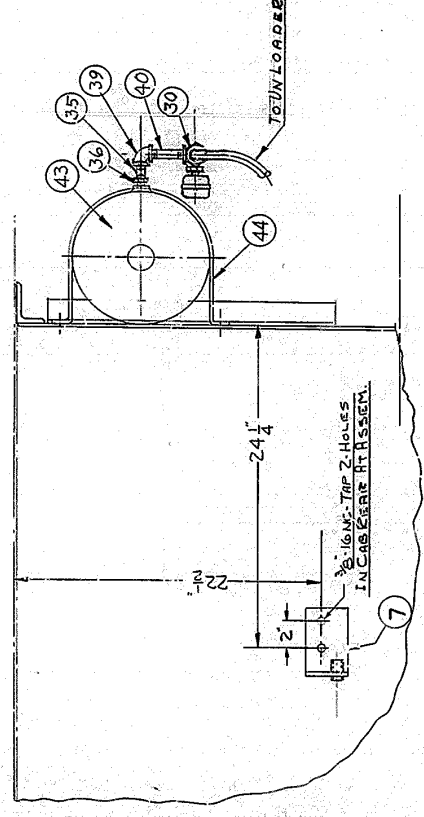
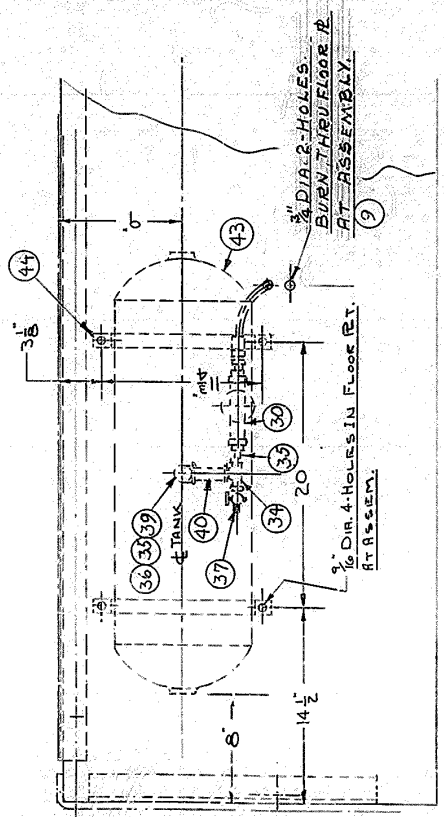
Manitowoc, Wisconsin



43000A2

MATERIAL LIST ON BACK

DRUM CLUTCH



ITEM NO. / QTY	DESCRIPTION	CODE NO.	REMARKS
56	1 3/4" x 11" HOSE	116738	
57	2 3/4" x 90° ELBOW	411955	
58	1 3/4" x 88" LG. STD. PIPE GALV.	512751	
59	3 3/4" x 1/2" RED. BUSH.	288753	
60	1 1/2" x 9'-4" HOSE	70188-2	
61	1 1/2" x 4'-11" HOSE	19840-2	
62			
63			
64			
65			
66			

ITEM NO. / QTY	DESCRIPTION	CODE NO.	REMARKS
1	1 FLEXIBLE HOSE 5/16" I.D.	17843-2	
2	1 1/4" x 1/2" NIPPLE	543442	
3	1 1/4" x 90° ELBOW	406952	
4	1 1/4" TEE	679301	
5	1 1/4" CLOSE NIPPLE	573402	
6	1 AIR GOVERNOR GARDNER DENVER	558902	
7	1 BECKET FOR GOV.		11703
8	1 1/2" x 1/4" RED. BUSH.	288758	
9	2 1/4" COUPLING		
10	2 FLEX HOSE 5/8" I.D.		
11	1 FLEX HOSE 5/8" I.D.		
12	1 FLEX HOSE 5/8" I.D.		
13			
14			
15	1 GASKET	155430	
16	1 FLANGE ON COMP.	15529	
17	1 3/4" x 2" NIPPLE	543445	
18	1 3/4" TEE	679304	
19	1 3/4" x 1/2" RED. BUSH.	288753	
20	1 1/2" SAFETY VALVE 150 LB.	702402	
21	1 3/4" x 1/2" NIPPLE - GALV.	543051	
22	2 3/4" x 45° ELBOW	406687	
23	1 FLEX HOSE 3/4" I.D.		
24	1 3/4" CLOSE NIPPLE	543405	
25	1 3/4" x 1/2" NIPPLE		
26			
27			
28			
29			
30	1 AUTO DRAIN VALVE	702504	
31			
32			
33			
34	1 1/4" TEE	679301	
35	2 1/4" x 1/2" NIPPLE		
36	1 1/2" x 1/4" RED. BUSH.	288758	
37	1 1/4" AIR COCK	355452	
38	1 1/4" x 90° ELL		
39	1 1/4" x 3" NIPPLE		
40	1 1/4" x 3" NIPPLE		
41			
42			
43	1 AIR TANK 10x33	714620	
44	2 STRAPS	11178	
45	1 3/4" CLOSE NIPPLE	543405	
46	1 1" x 3/4" NUT BUSH	288757	
47	1 3/4" TEE	679304	
48	1 3/4" x 1/4" BUSH.	288751	
49			
50			
51			
52			
53			
54			
55			

MANITOWOC ENGINEERING CO.  
 MANITOWOC, WISCONSIN

UNLESS NOTED  
 SCALE 1/2" = 1'-0"  
 DR. GOS  
 CR. R.M.  
 APP.

FRACT. DIM.  
 HOLE DIA.  
 HOLE CENTERS  
 FINISH

MANITOWOC ENGINEERING CO.  
 AIR TANK & PIPING ASSEM. FOR  
 GMC 2900 WITH ENGINE MTD.  
 COMPRESSOR TO BEAR  
 MODEL 2900WC

DATE 6-13-63  
 PATTERN NO.  
 CODE NO.  
 DWG NO. 32856

DO NOT SCALE THIS DRAWING

**PARTS MANUAL ALPHABETICAL INDEX**  
**Group D - Power Components**

<b>DESCRIPTION</b>	<b>PUBLICATION</b>	<b>REV</b>	<b>START DATE</b>	<b>END DATE</b>	<b>GROUP</b>
Hydraulic Pump/Engine Mounted	42977	A1	12/20/62	10/04/63	D0103
Power Plant	50306	L1	01/09/68	12/02/70	D0101
Power Plant	50306	E2	01/09/63	08/06/81	D0101
Power Plant	50306	A4	01/09/63	08/06/81	D0101

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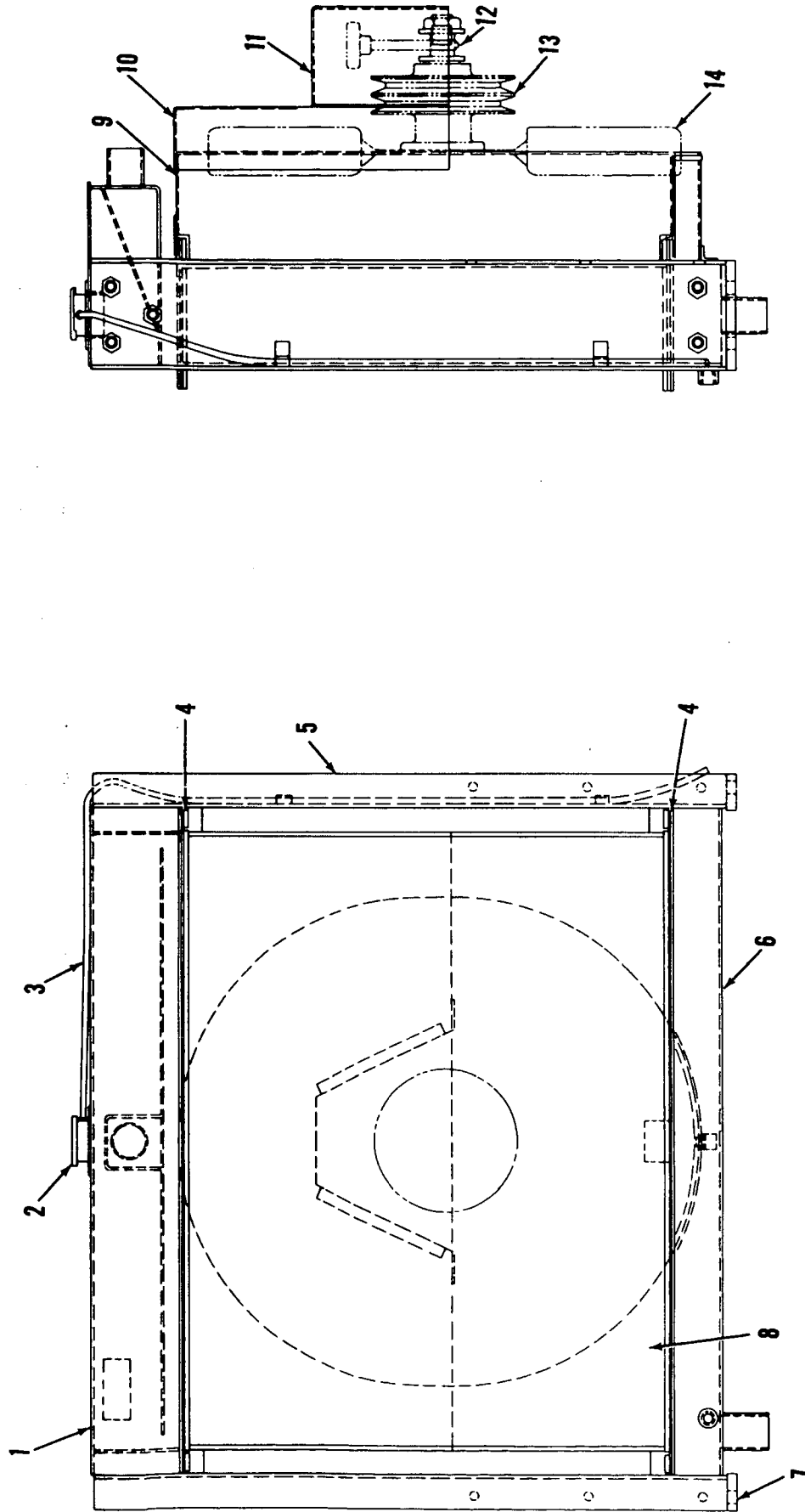
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50306A4

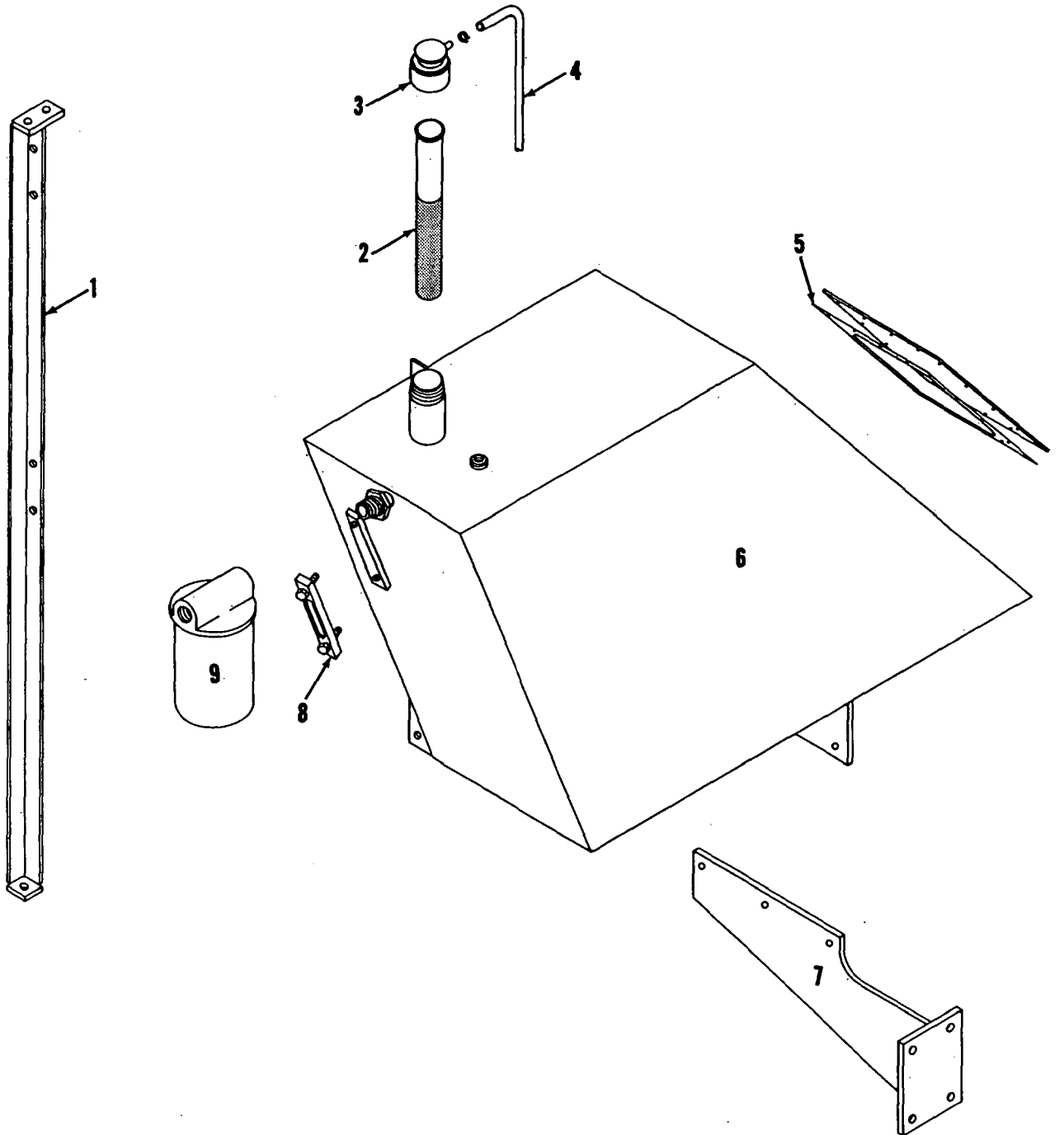
MATERIAL LIST ON BACK

RADIATOR

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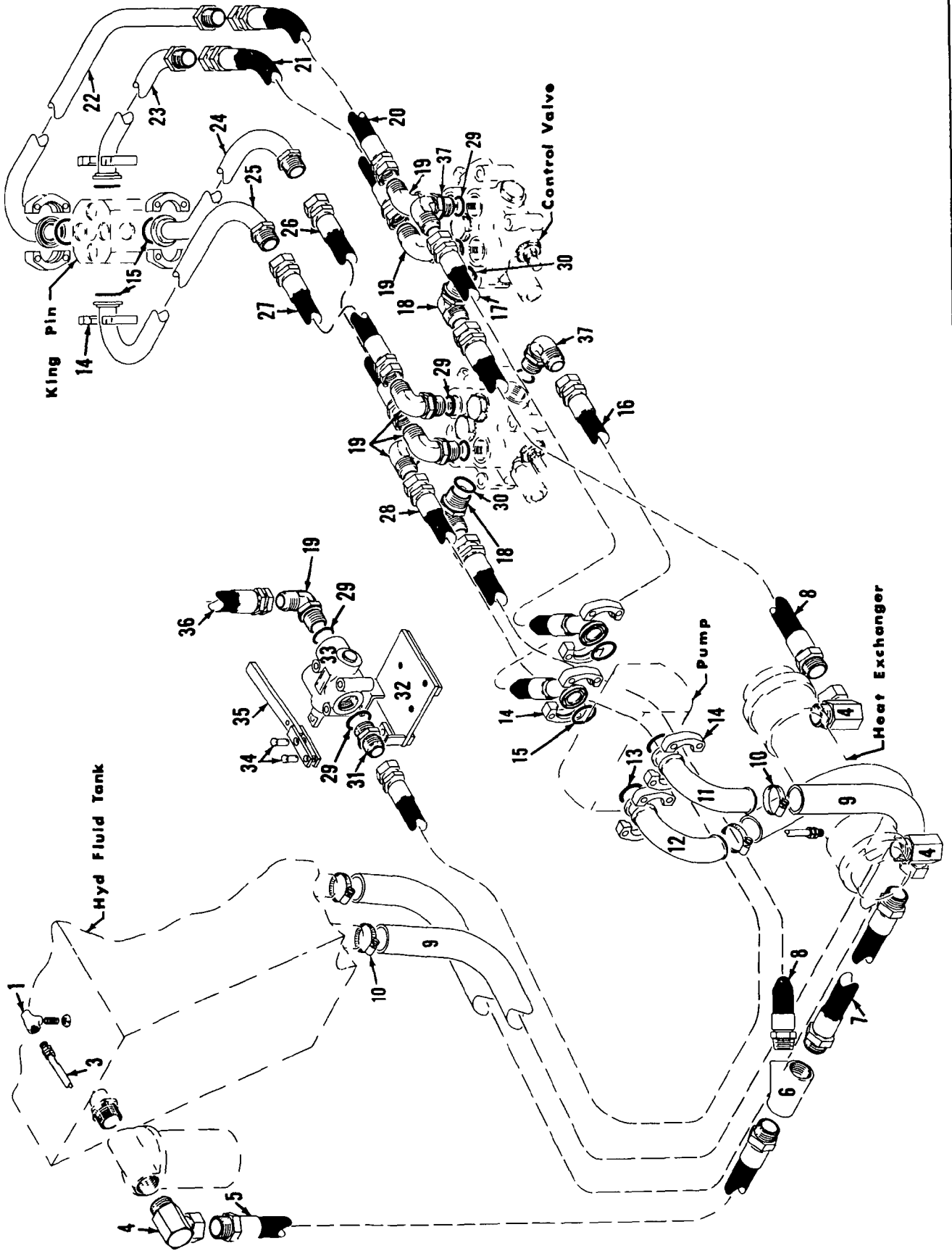
Manitowoc, Wisconsin



42837A1

MATERIAL LIST ON BACK

HYDRAULIC FLUID TANK



4307681

MATERIAL LIST ON BACK

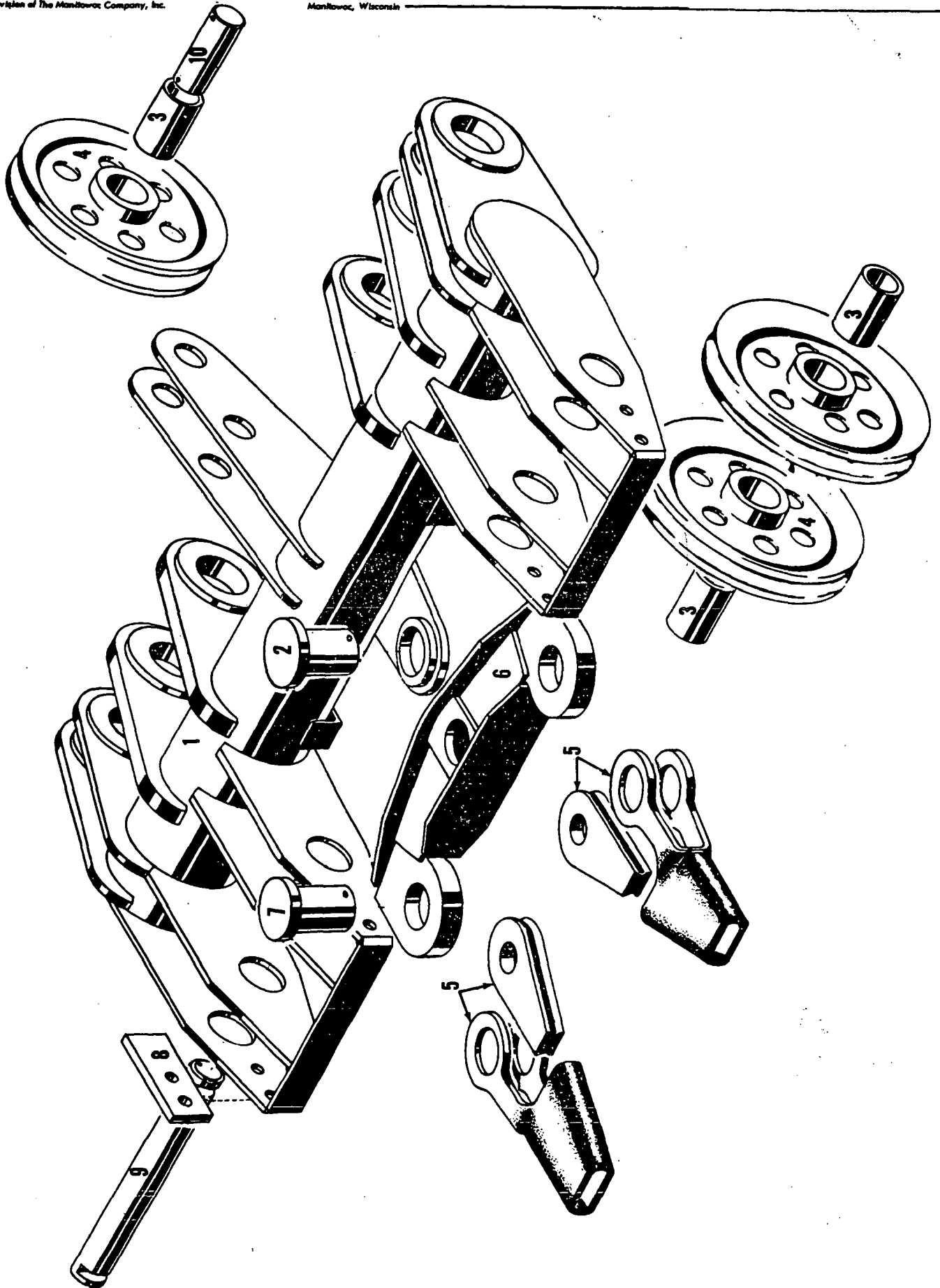
HYDRAULIC LINES IN ROTATING BED

GROUP F - Attachments

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2444981

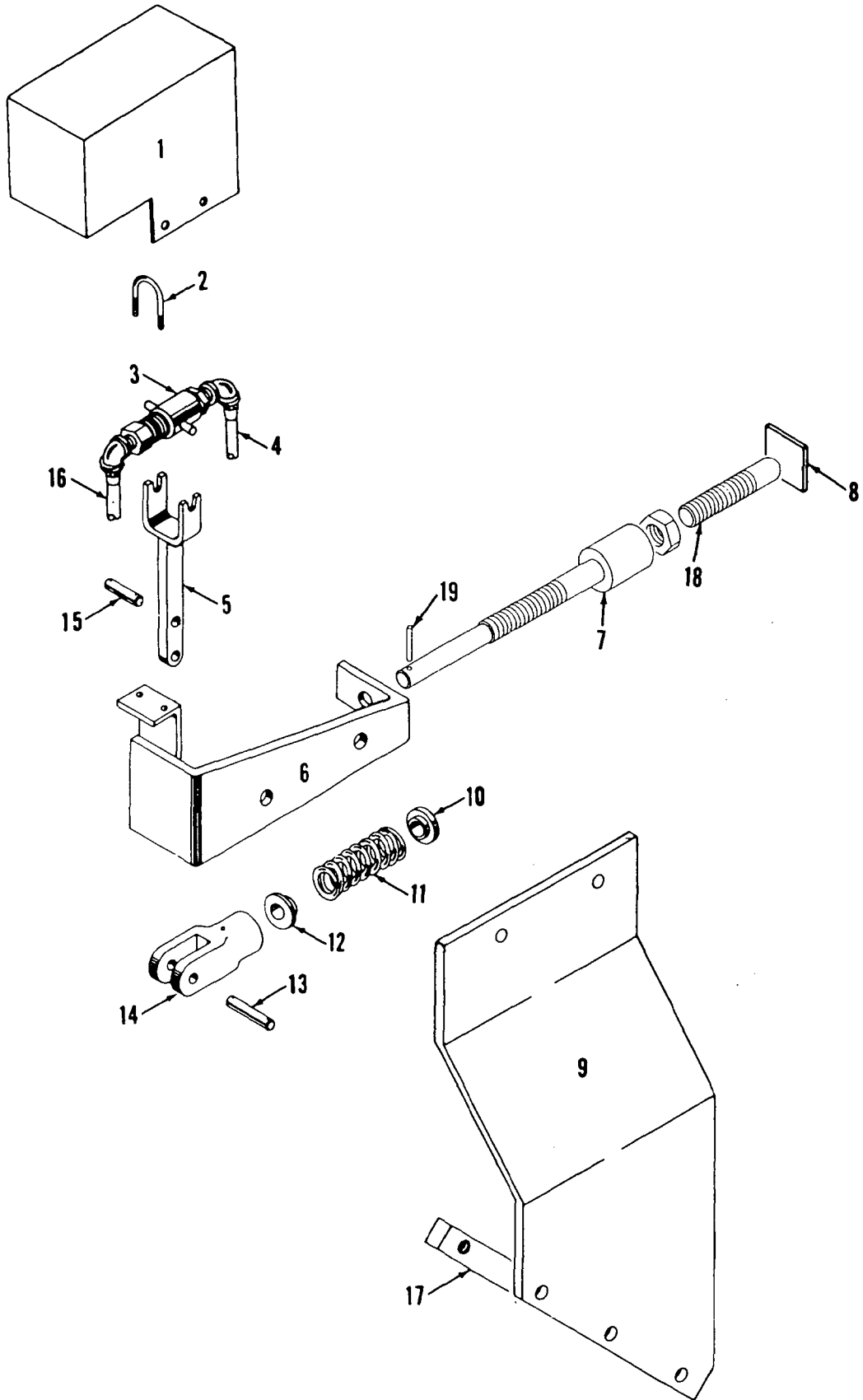
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UPPER SPREADER

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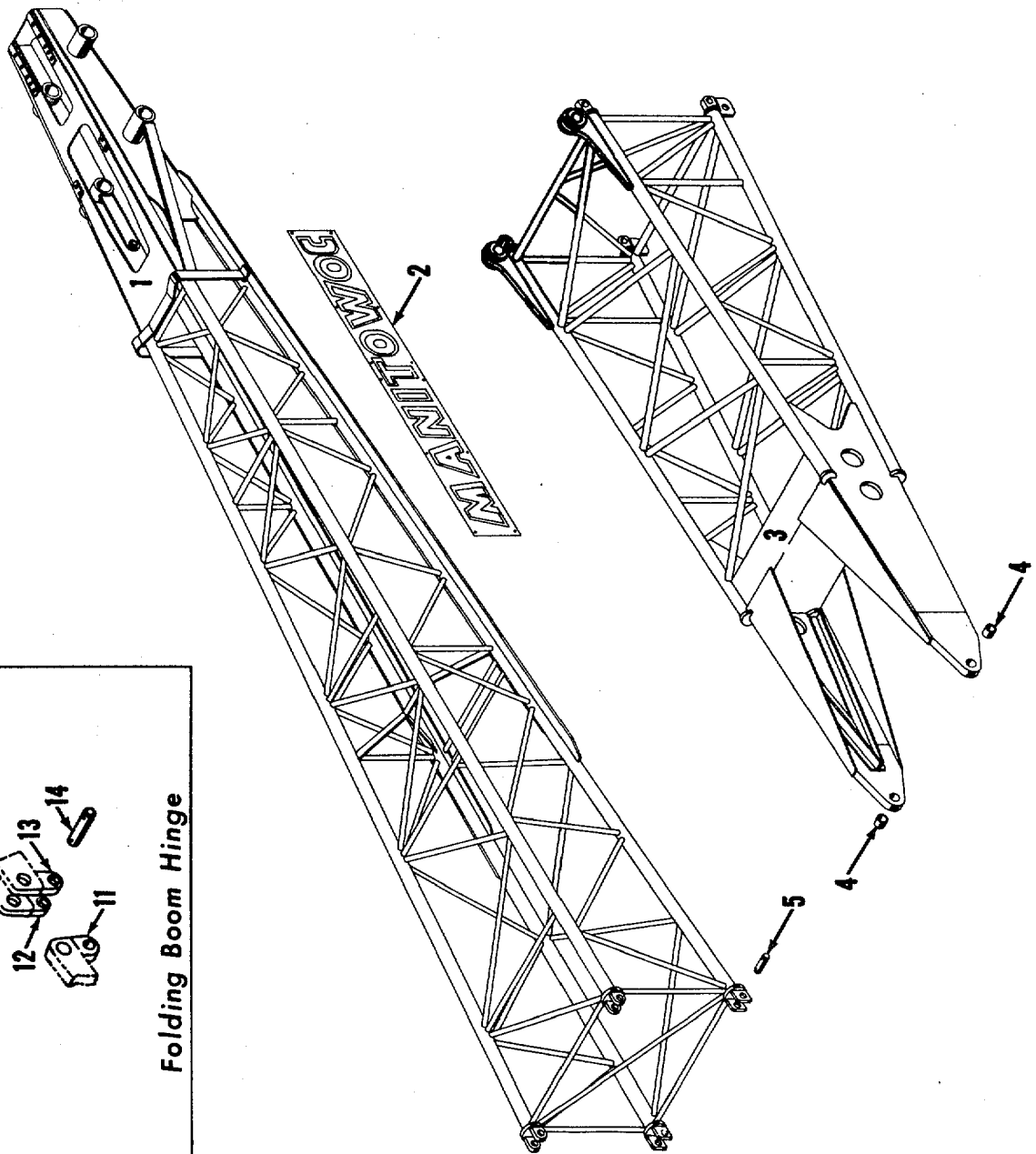
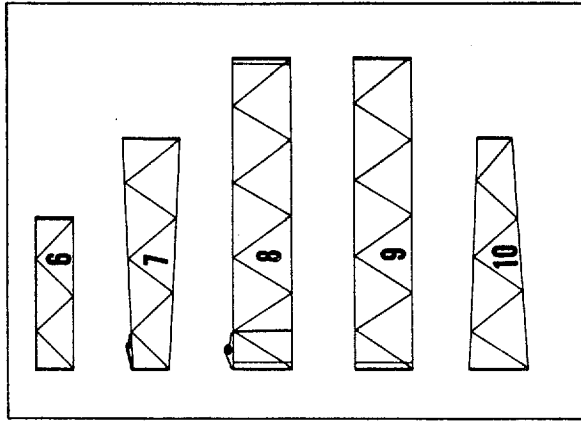


MASTER

3285781

MATERIAL LIST ON BACK

AUTOMATIC BOOM STOP ASSEMBLY



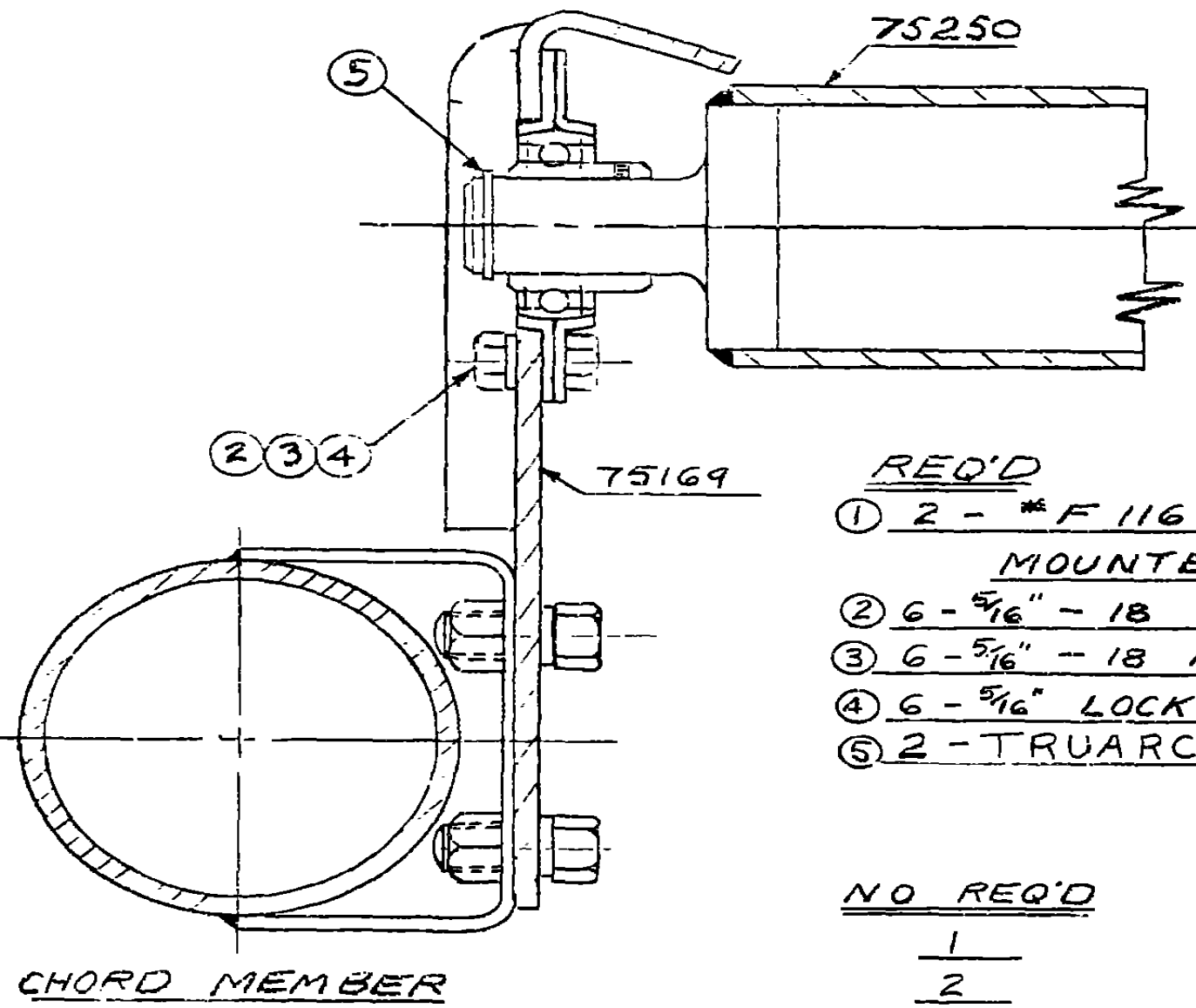
Folding Boom Hinge

42168-A-1

MATERIAL LIST ON BACK

BOOM

DWG. NO. 75251	WIRE ROPE GUIDE	SCALE 6"=1'-0"	UNLESS NOTED	MANITOWOC ENGINEERING CO. MANITOWOC, WISCONSIN	DATE 6-1-67
CODE NO.	ROLLER ASSEMBLY	DR. R/J/L	FRACT. DIM. _____		REVISOR
PATTERN NO.	FOR #16 BOOM	CK. E.G.T.	HOLE DIA. _____	MATERIAL	REVISED DATE
	MODEL 2900	APP.	HOLE CENTERS _____		
			FINISH _____		



NOTE:  
SET SCREWS TO BE  
REMOVED FROM BOTH  
BEARINGS

<u>REQ'D</u>	<u>CODE NO.</u>
① 2 - # F 116 NICE FLANGE MOUNTED BEARING	224218
② 6 - 5/16" - 18 N.C. - 7/8" HEX SCREW	612404
③ 6 - 5/16" - 18 N.C. HEX NUT	546053
④ 6 - 5/16" LOCKWASHER	710303
⑤ 2 - TRUARC RETAINER RINGS	596823

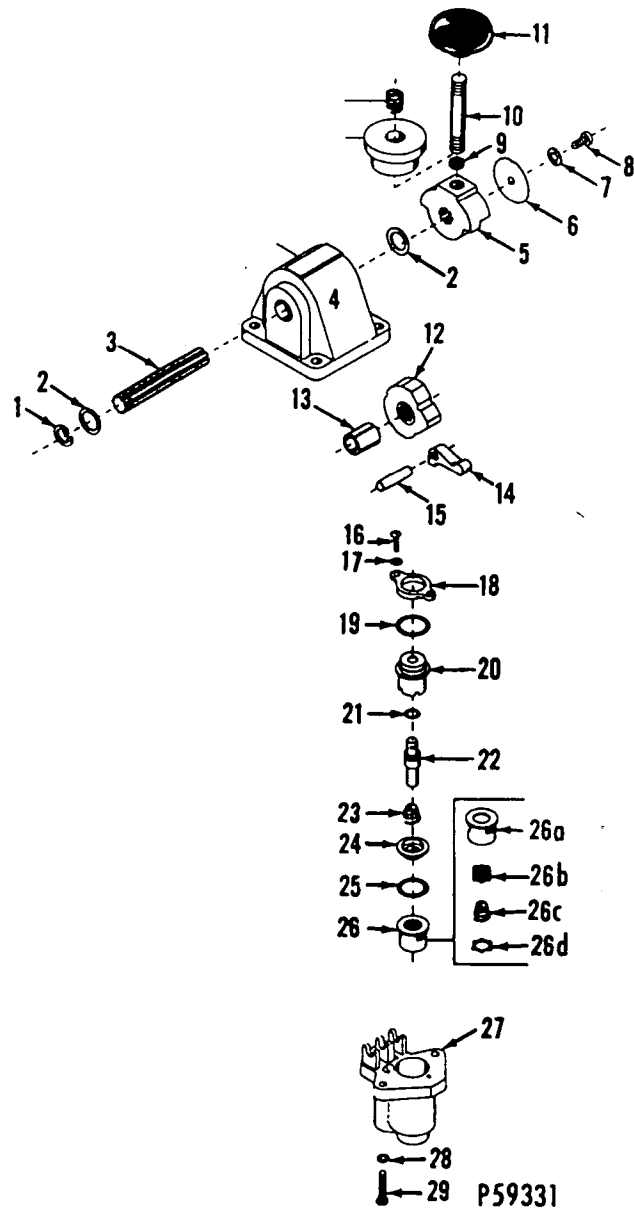
<u>NO REQ'D</u>	<u>DWG NO</u>	<u>TITLE</u>
1	75250	ROLLER
2	75169	BRG. BRACKET

182340  
181869  
42802  
42886

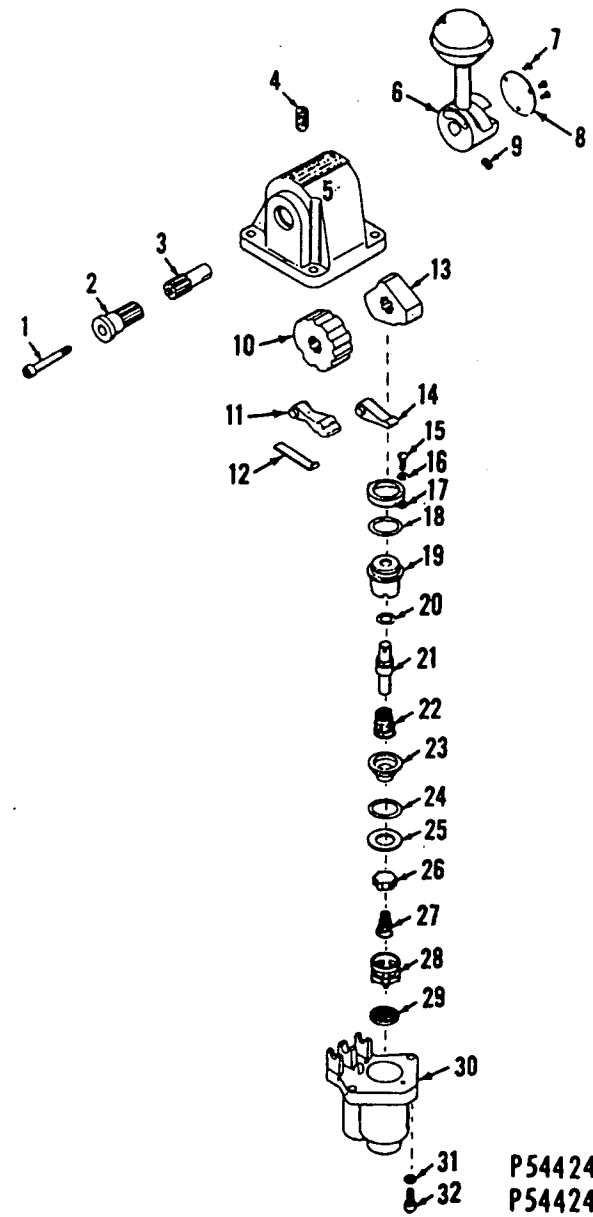
ASSEMBLIES  
USED ON  
DWG. NO.  
75251

SUPERSEDES 75251 OF 3-5-65

0-69



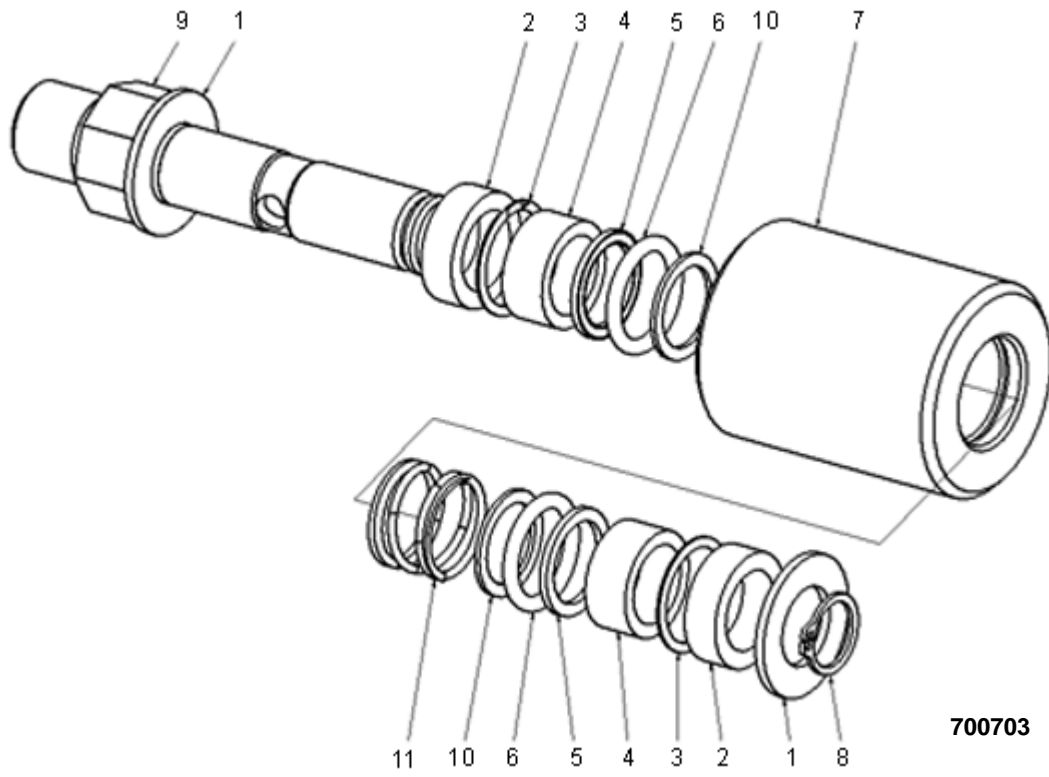
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P59333



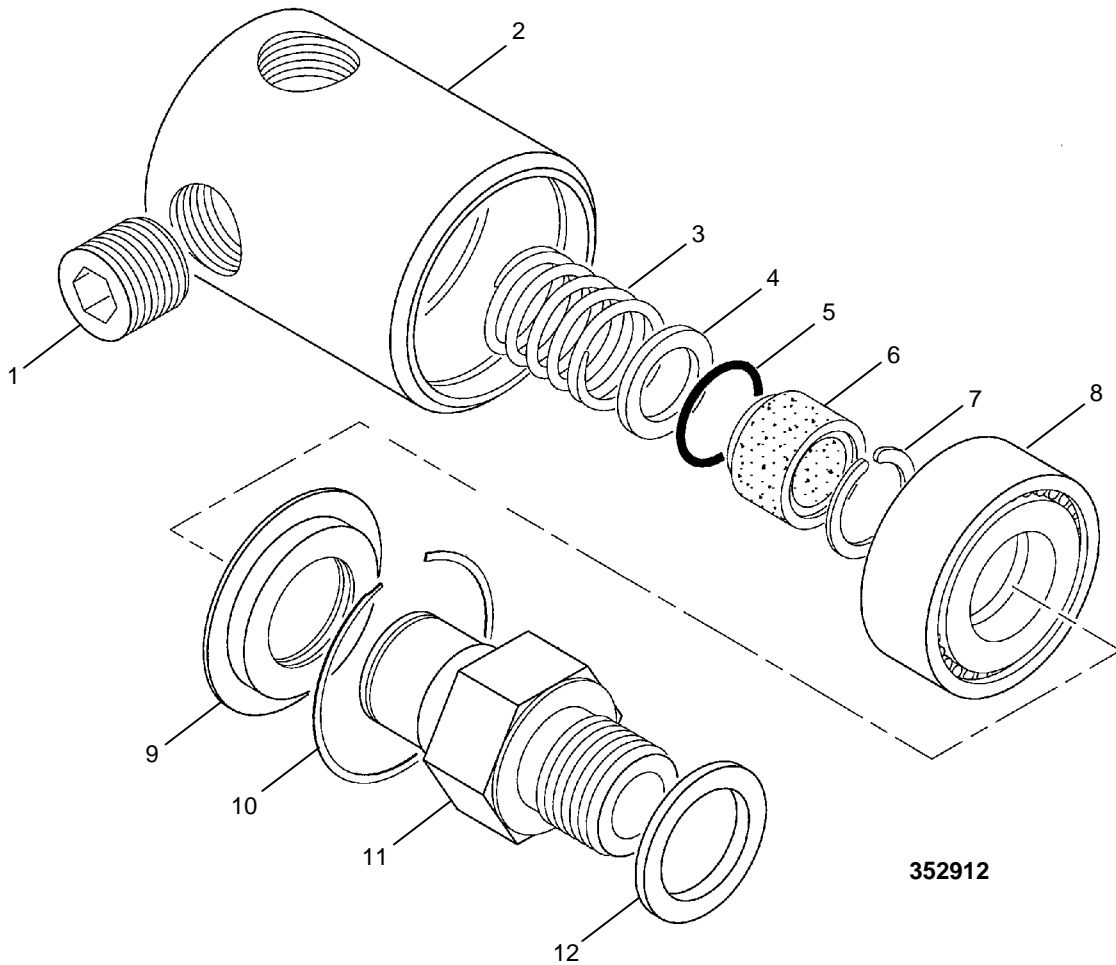
P54424-0101  
P54424-0301

MATERIAL LIST ON BACK

CONTROL VALVE



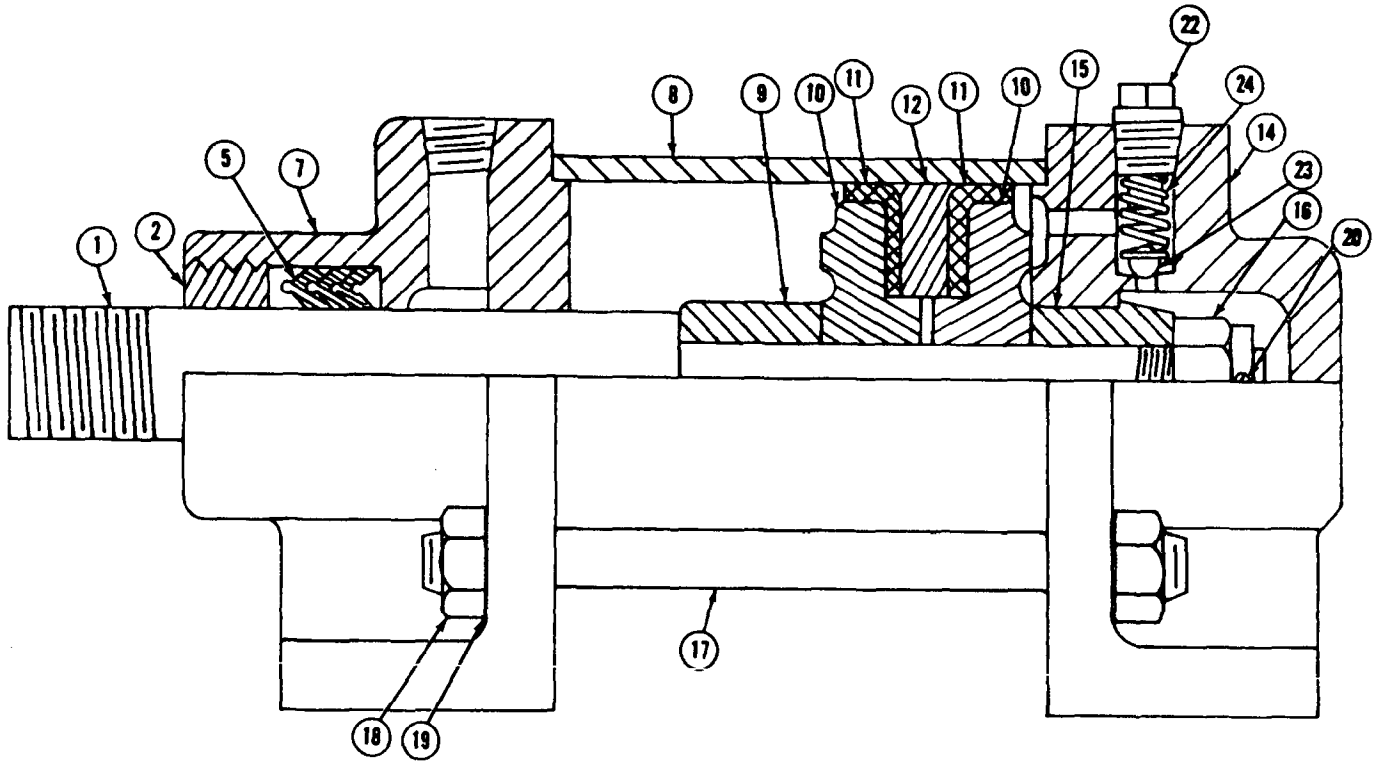
700703



352912

ASSEMBLY	REVISION
<b>O-157</b>	<b>C</b>

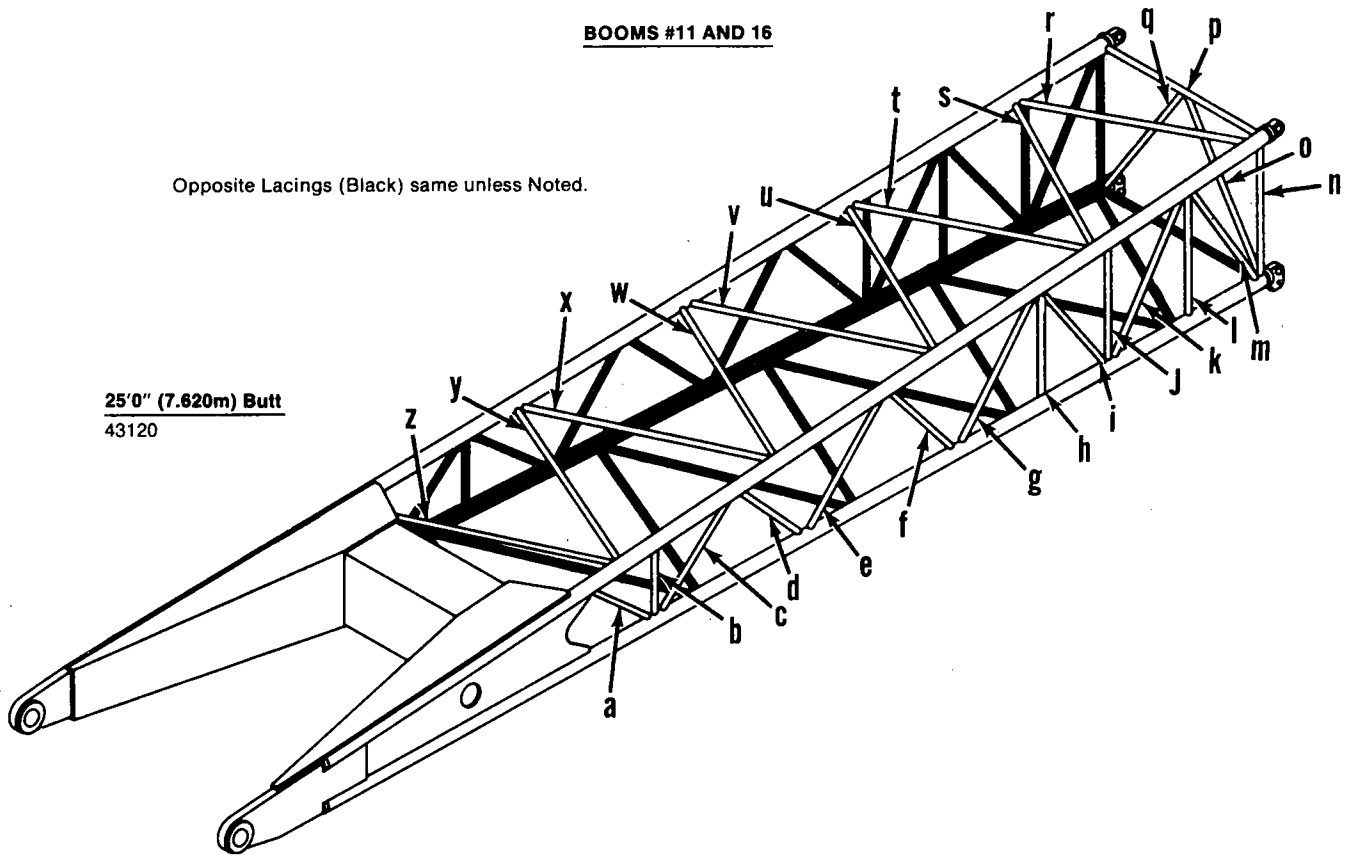
MASTER



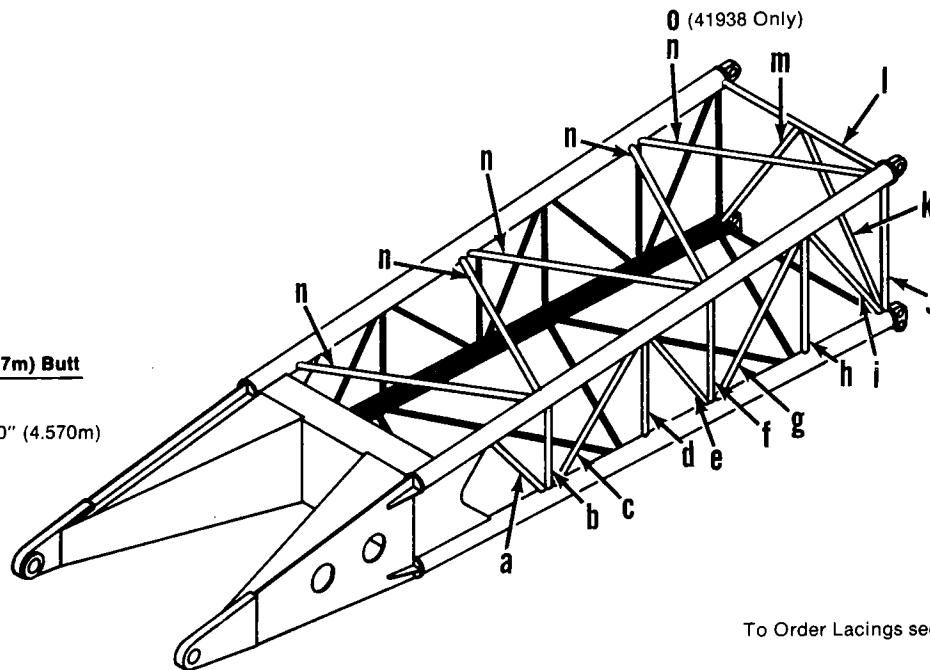
**BOOMS #11 AND 16**

Opposite Lacings (Black) same unless Noted.

**25'0" (7.620m) Butt**  
43120



**16'0" (4.877m) Butt**  
42883  
42632  
41938 15'0" (4.570m)



To Order Lacings see Folio #823

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