

Manitowoc

TRADITIONAL CRANE

PARTS MANUAL

This manual has been prepared for and is considered part of

4000W

Model

40451

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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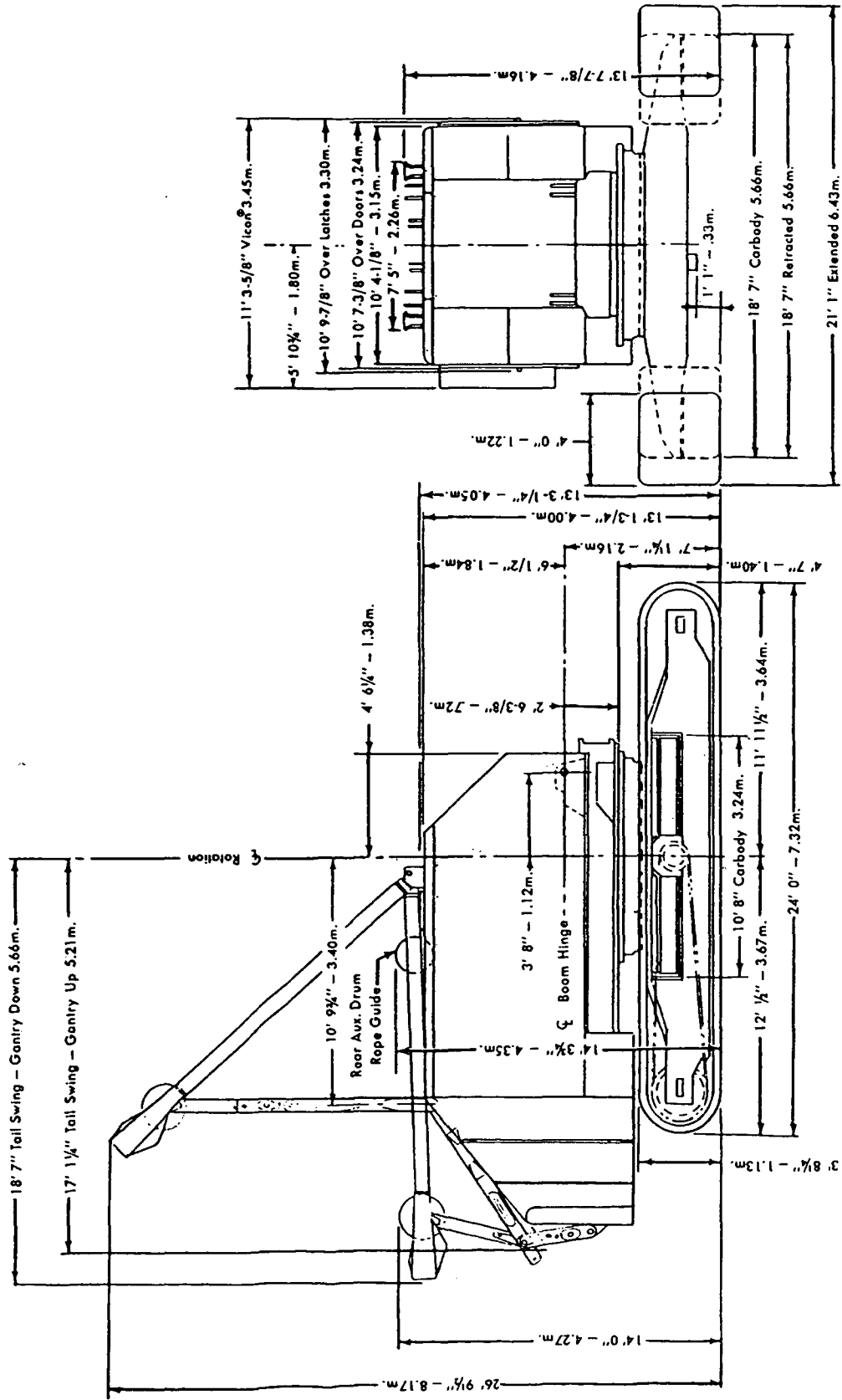
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Manitowoc, Wisconsin



8-27-71
5-1-70
3-21-68
Drwg. Date 1-24-68

MASTER

92022

92022

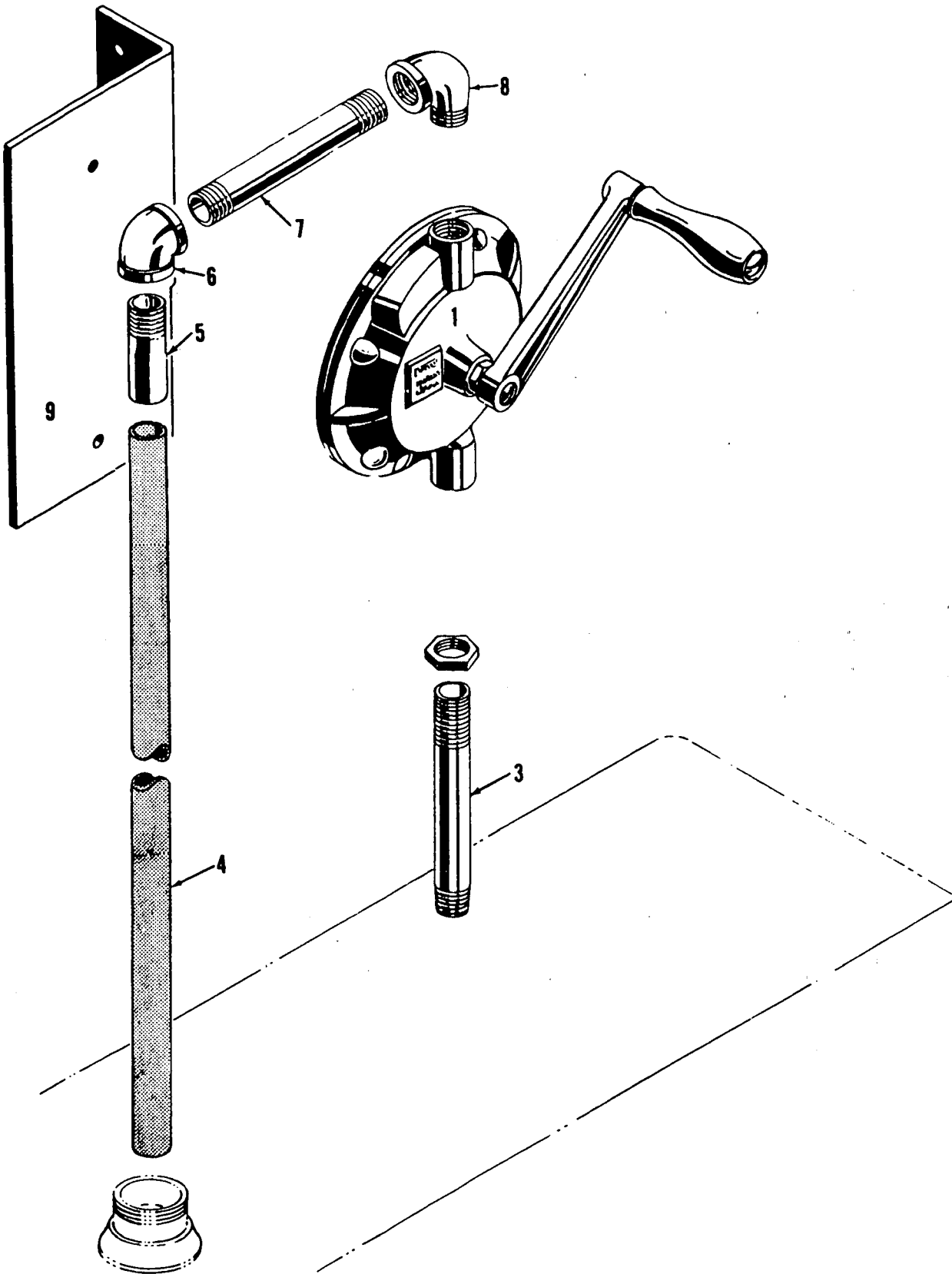
92022

OUTLINE DIMENSIONS M4000W SLOPING ROOF

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MANITOWOC

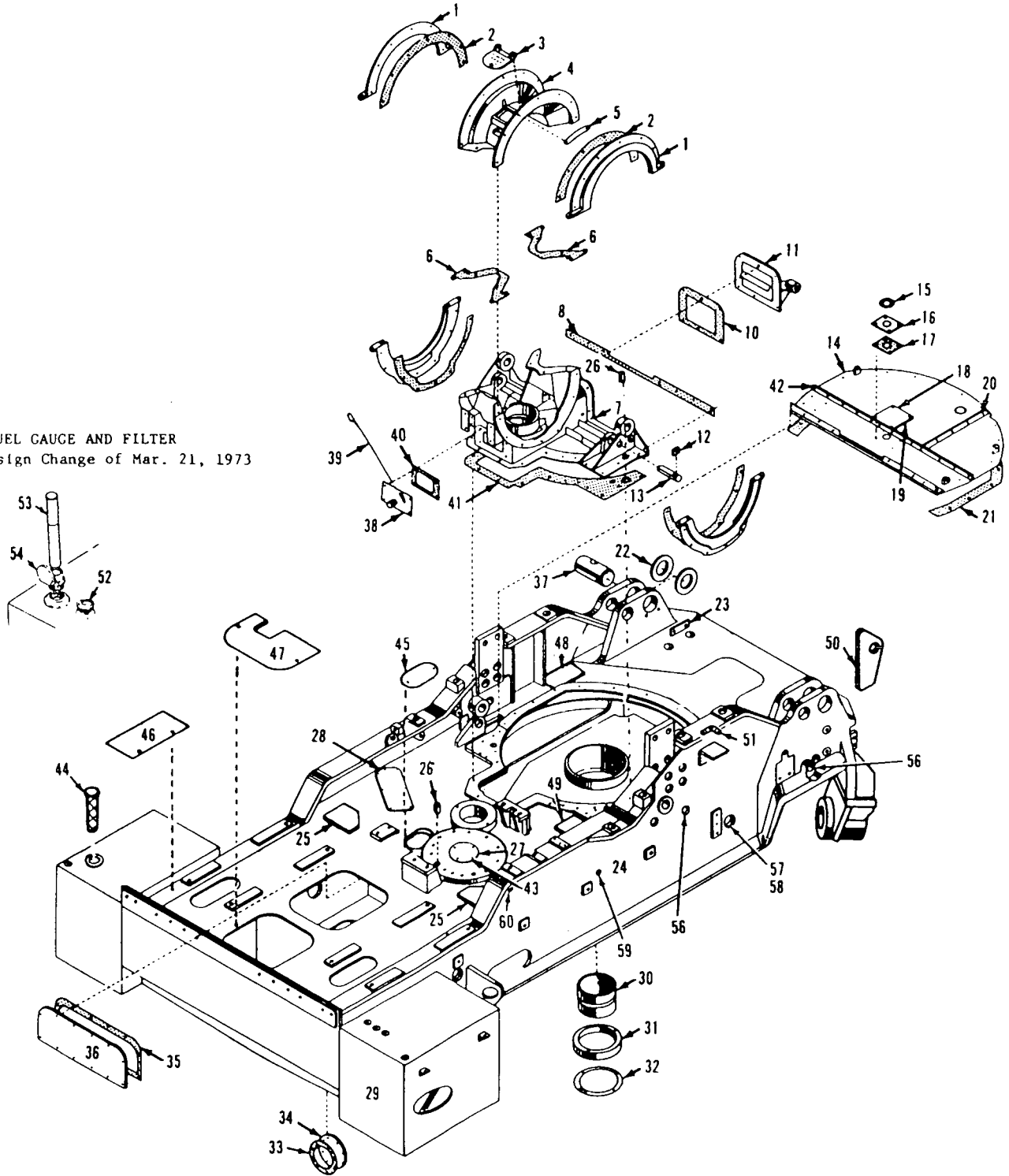
23415E1

MATERIAL LIST ON BACK

FUEL TRANSFER PUMP

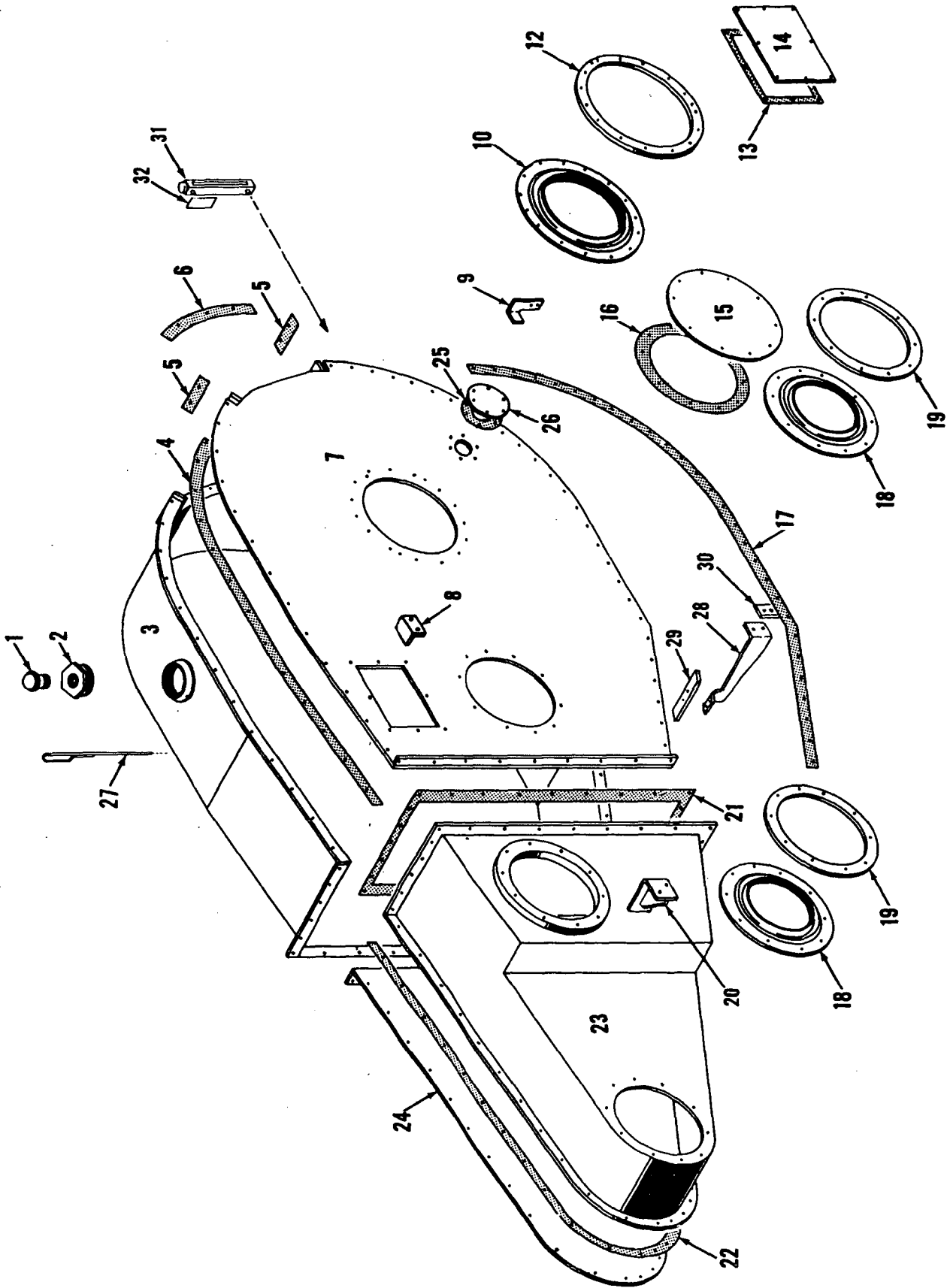
MASTER

FUEL GAUGE AND FILTER
Design Change of Mar. 21, 1973



42103K1

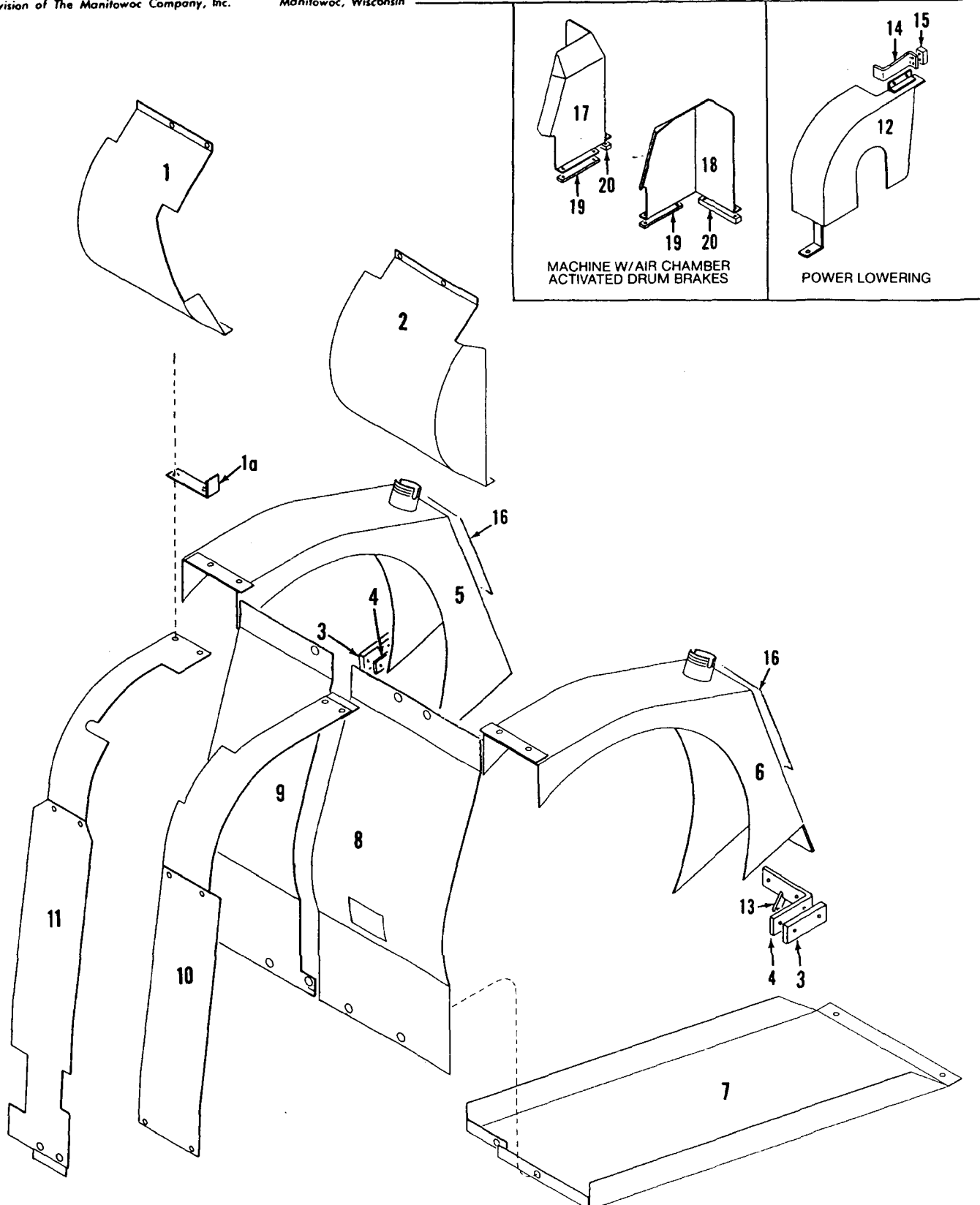
MAJIER



43331 C1

MATERIAL LIST ON BACK

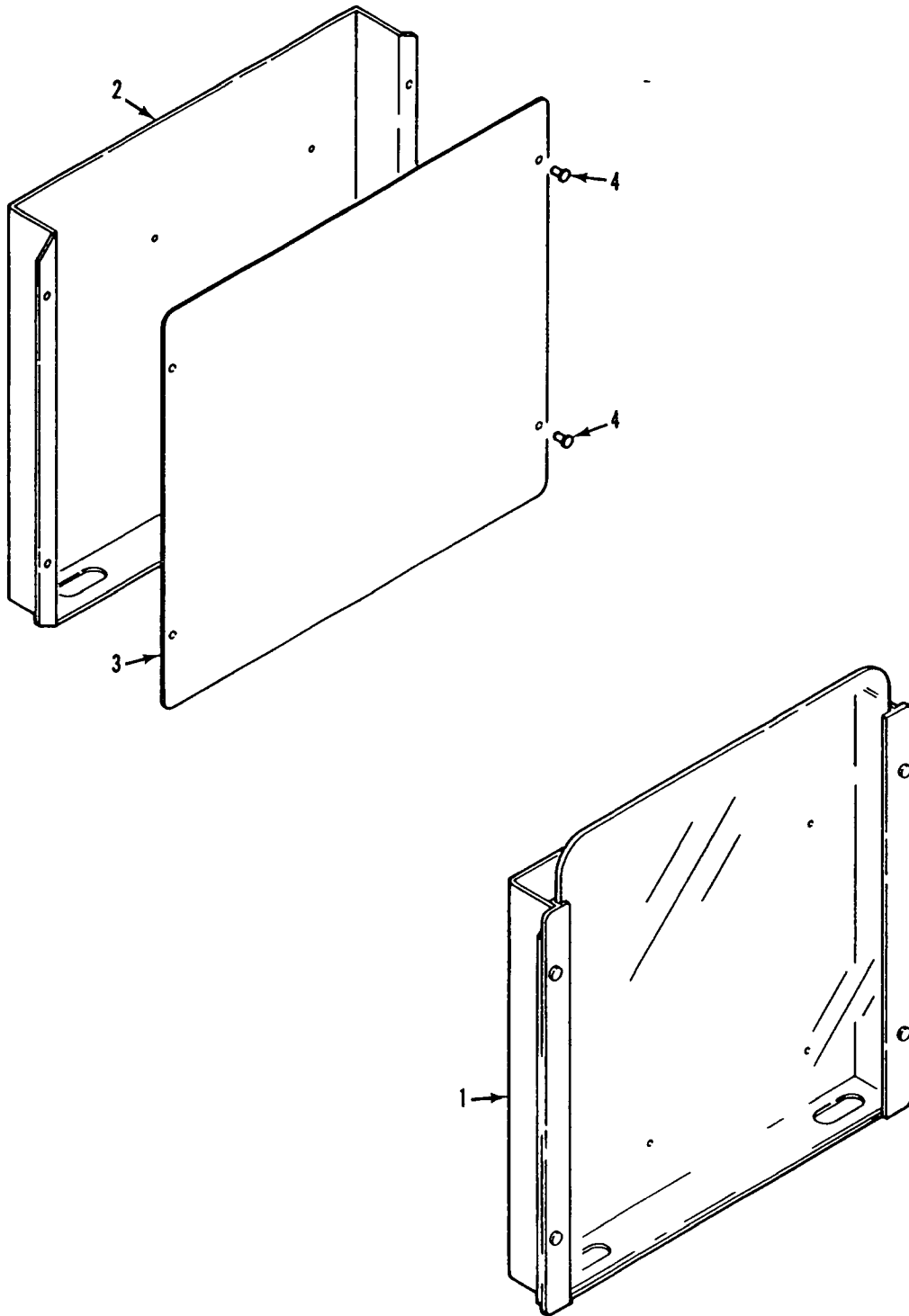
CHAIN CASE



49530C1

MATERIAL LIST ON BACK

GUARDS



94017A1

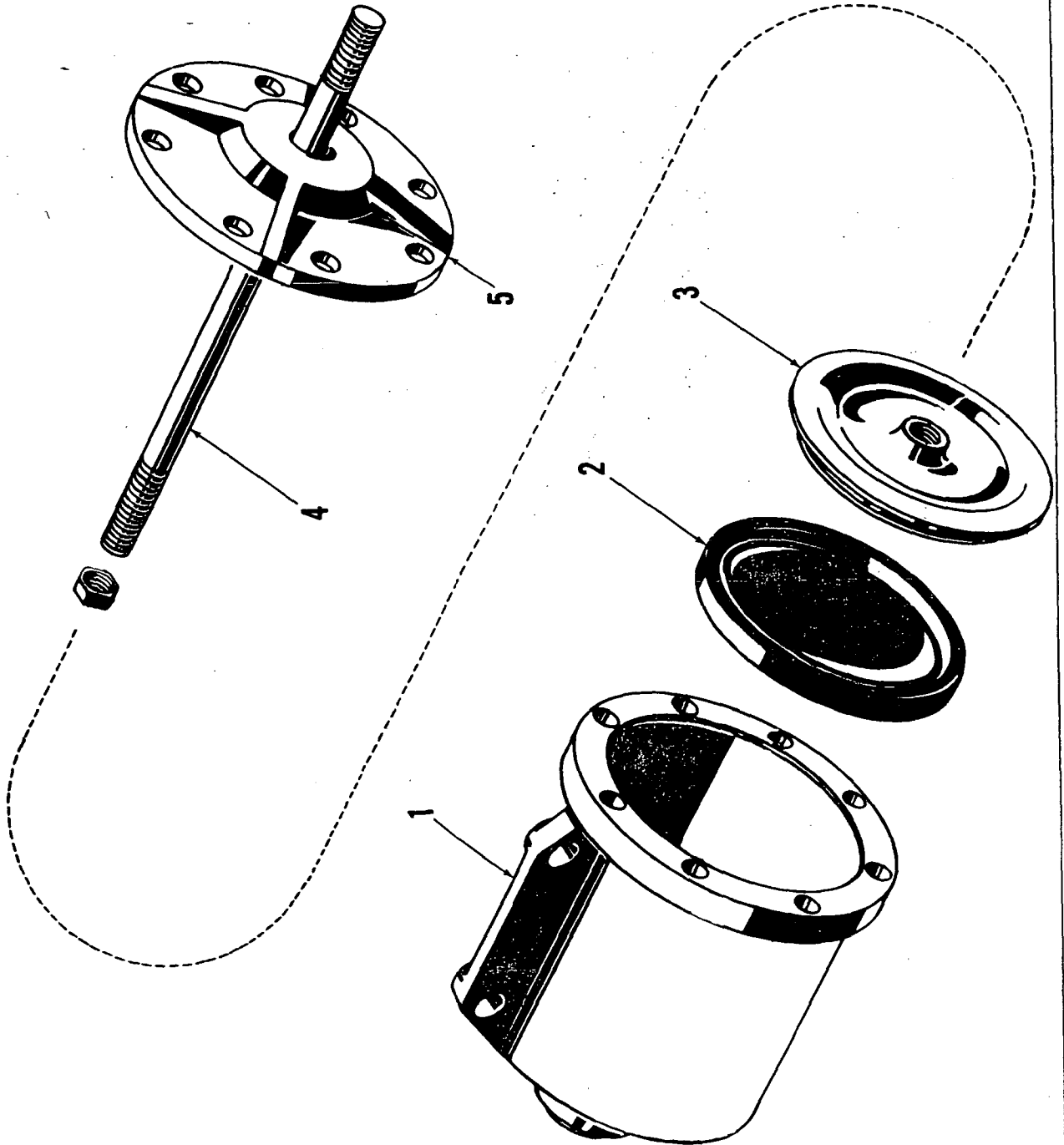
MATERIAL LIST ON BACK

CAPACITY CHART & SERVICE MANUAL HOLDERS

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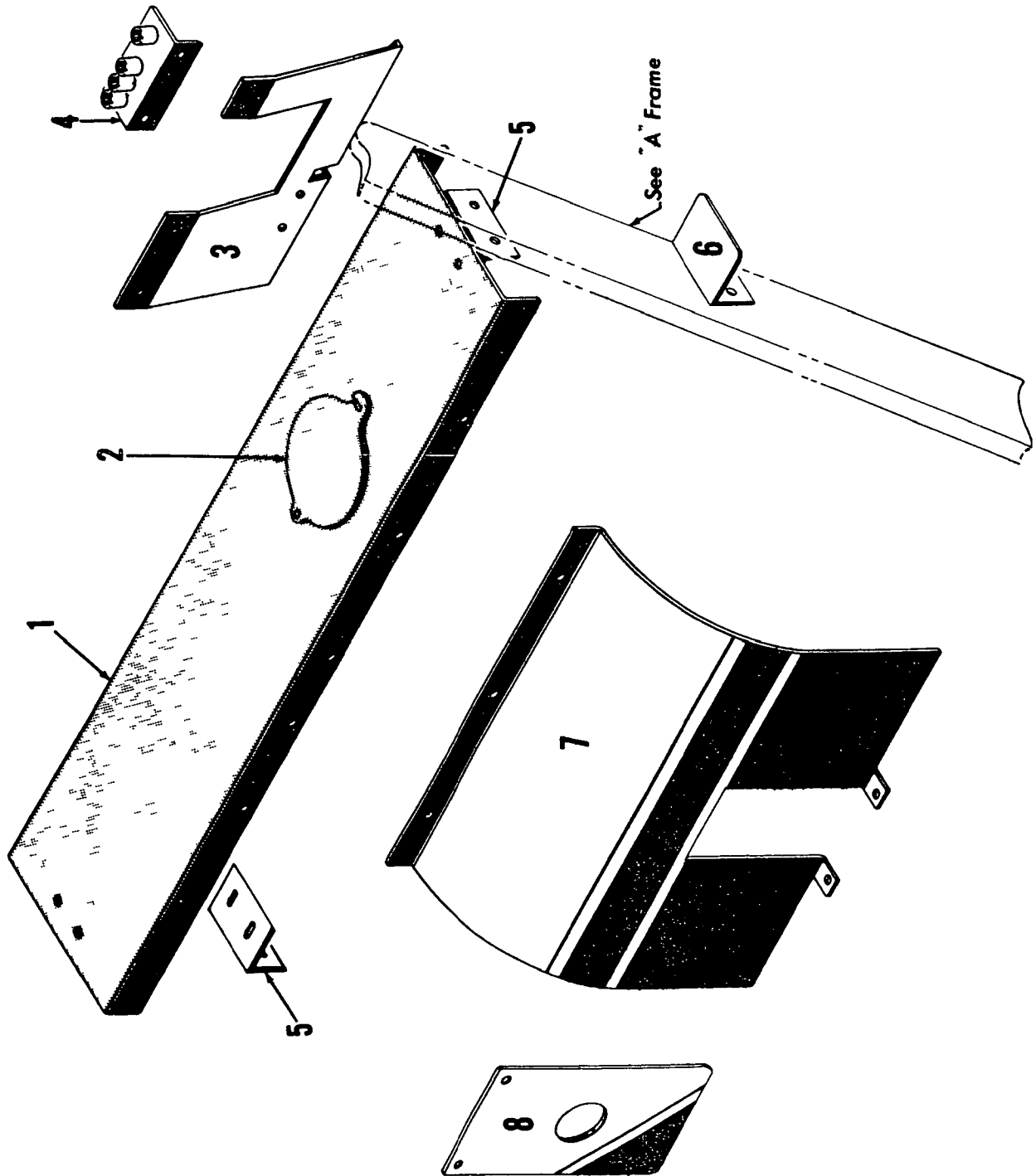
ILLUST. No. 20729 -A-1

MATERIAL LIST ON BACK

AIR CYLINDER

207291.

MADE



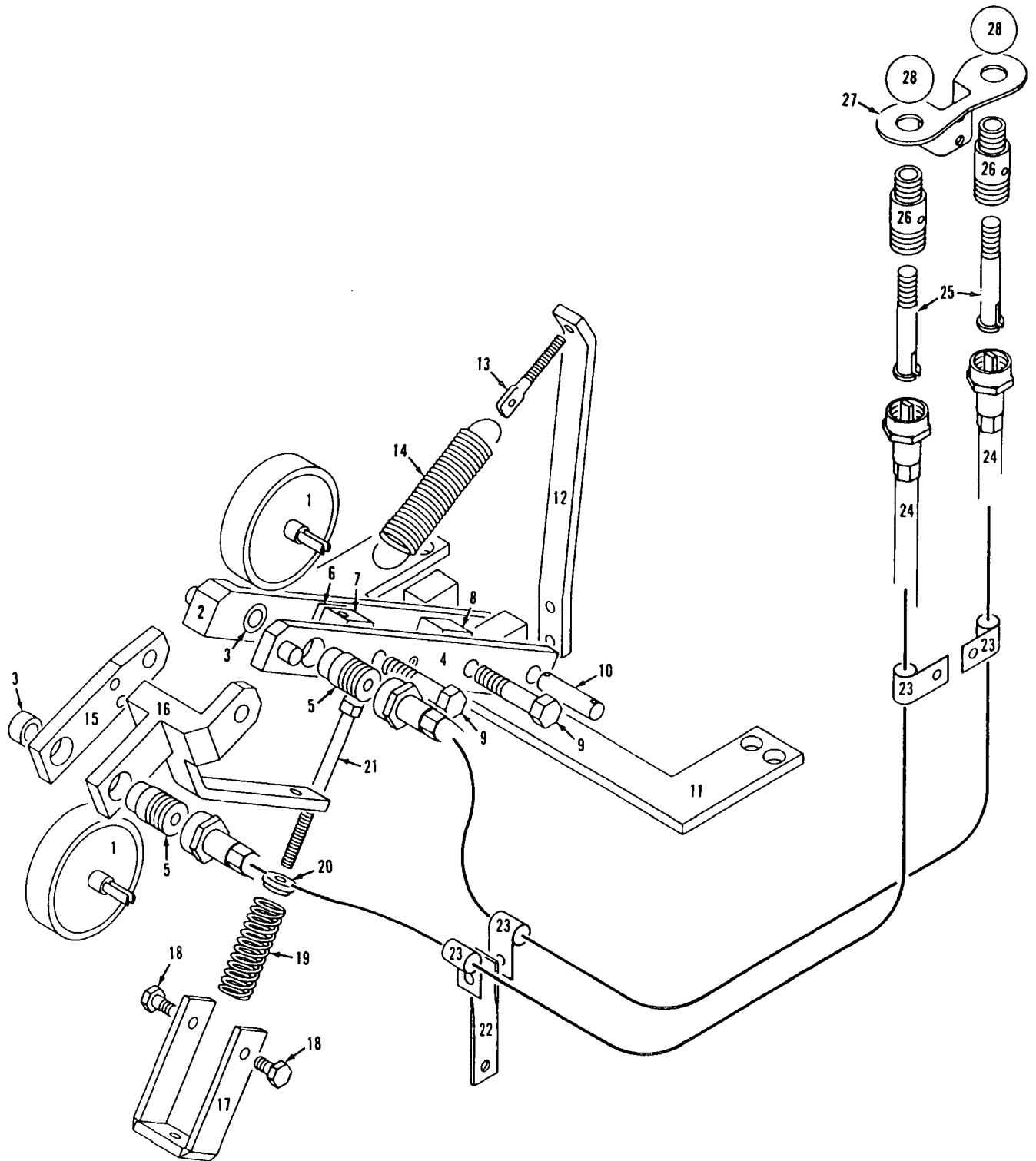
MASTER

31574C1

31574C1

MATERIAL LIST ON BACK

IND SWING GUARDS



33135B1

MATERIAL LIST ON BACK

DRUM ROTATION INDICATOR

42184

NOTE 3
ADD WASHERS 144434 AND 144435 AS REQUIRED TO LOCATE DRUM BRAKE BAND ON BRAKE FLANGE BETWEEN RAIN GROOVE AND OUTBOARD EDGE.

NOTE 4
DO NOT USE NUTS OR JAM NUTS ON UNDERSIDE OF BRAKE BAND HANGER SPRING ASSEMBLIES

ASSEMBLY NOTE:
BE SURE SET SCREW IN LEVER 22599 ENGAGES HOLE IN SHAFT 17990

SEE PLATFORM ASSEMBLY

NOTE 1
FOR STAINLESS STEEL PINS (OPTIONAL)

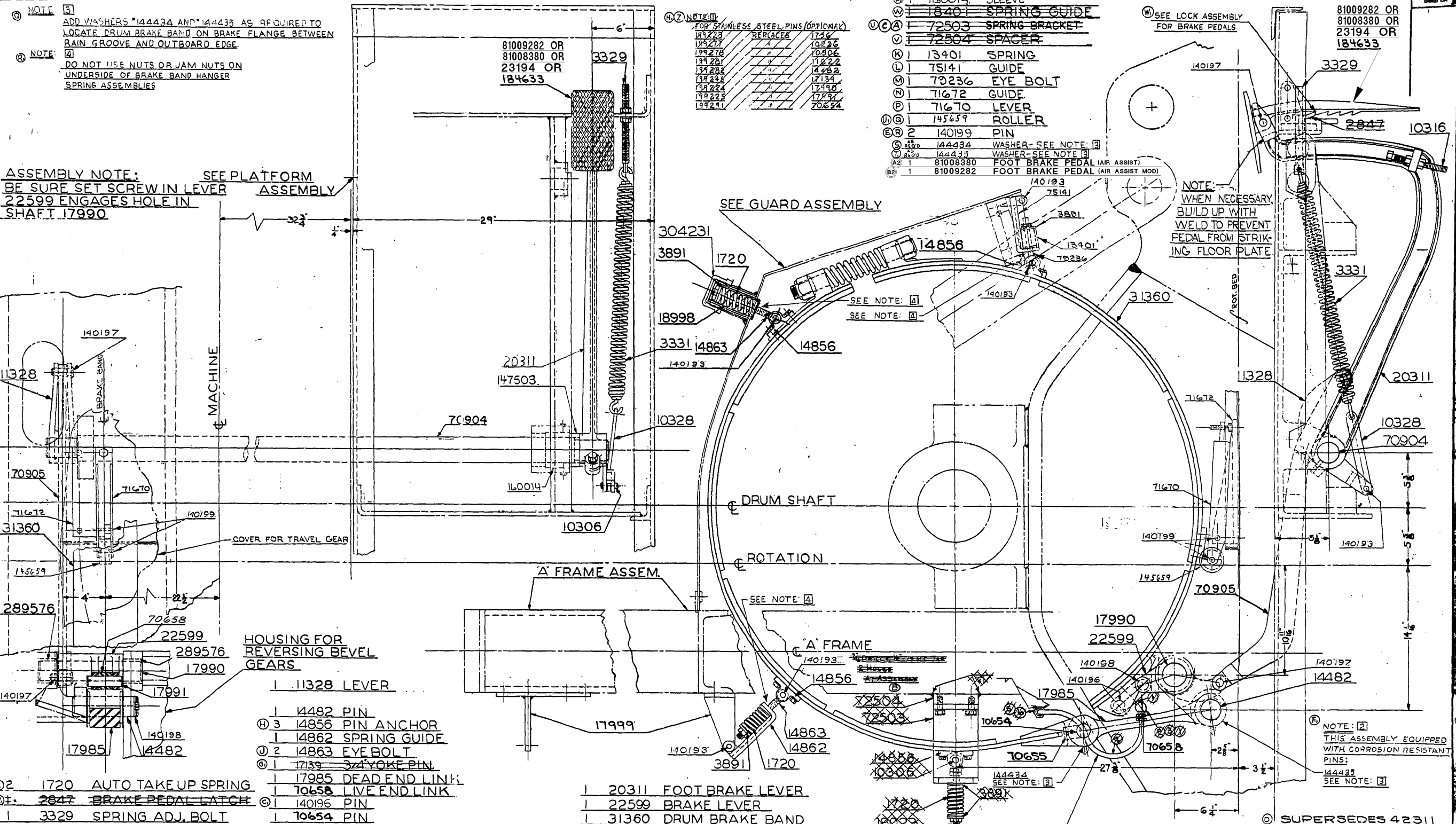
184223	REPLACES	1722
184227		10206
184275		10206
184281		11222
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184283		11222
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184286		17134
184287		17134
184288		17134
184289		17134
184290		17134
184291		17134
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184294		17134
184295		17134
184296		17134
184297		17134
184298		17134
184299		17134
184300		17134

- 1 160014 SLEEVE
- 1 18401 SPRING GUIDE
- 1 72503 SPRING BRACKET
- 1 72504 SPACER
- 1 13401 SPRING
- 1 75141 GUIDE
- 1 79236 EYE BOLT
- 1 71672 GUIDE
- 1 71670 LEVER
- 1 145659 ROLLER
- 2 140199 PIN
- 1 144434 WASHER - SEE NOTE 3
- 1 144435 WASHER - SEE NOTE 3
- 1 81008380 FOOT BRAKE PEDAL (AIR ASSIST)
- 1 81009282 FOOT BRAKE PEDAL (AIR ASSIST MOD)

SEE LOCK ASSEMBLY FOR BRAKE PEDALS

81009282 OR 81008380 OR 23194 OR 184633

NOTE:
WHEN NECESSARY BUILD UP WITH WELD TO PREVENT PEDAL FROM STRIKING FLOOR PLATE



- 1 11328 LEVER
- 1 1482 PIN
- 3 14856 PIN ANCHOR
- 1 14862 SPRING GUIDE
- 2 14863 EYE BOLT
- 1 17139 3/4 YOKE PIN
- 1 17985 DEAD END LINK
- 1 70658 LIVE END LINK
- 1 140196 PIN
- 1 70654 PIN
- 1 17990 BRAKE SHAFT
- 1 140198 PIN
- 1 18023 EYE BOLT
- 1 17993 SPRING GUIDE SUPPORT
- 1 19671 LOWER BRAKE GUIDE
- 1 70905 DRUM BRAKE OPERATING LINK
- 1 70904 FOOT BRAKE LEVER SHAFT
- 1 23194 FOOT BRAKE PEDAL (FOR AIR BOOSTER)
- 2 289576 BUSHING
- 1 304231 2 1/2 PIPE CAP
- 1 147503 SPACER
- 1 20311 FOOT BRAKE LEVER
- 1 22599 BRAKE LEVER
- 1 31360 DRUM BRAKE BAND
- 1 18998 SPRING CUP
- 1 70655 LOCKING PLATE
- 1 17999 SPRING GUIDE SUPPORT

NOTE 2
THIS ASSEMBLY EQUIPPED WITH CORROSION RESISTANT PINS:
144434
144435
SEE NOTE 3

SUPERSEDES 42311

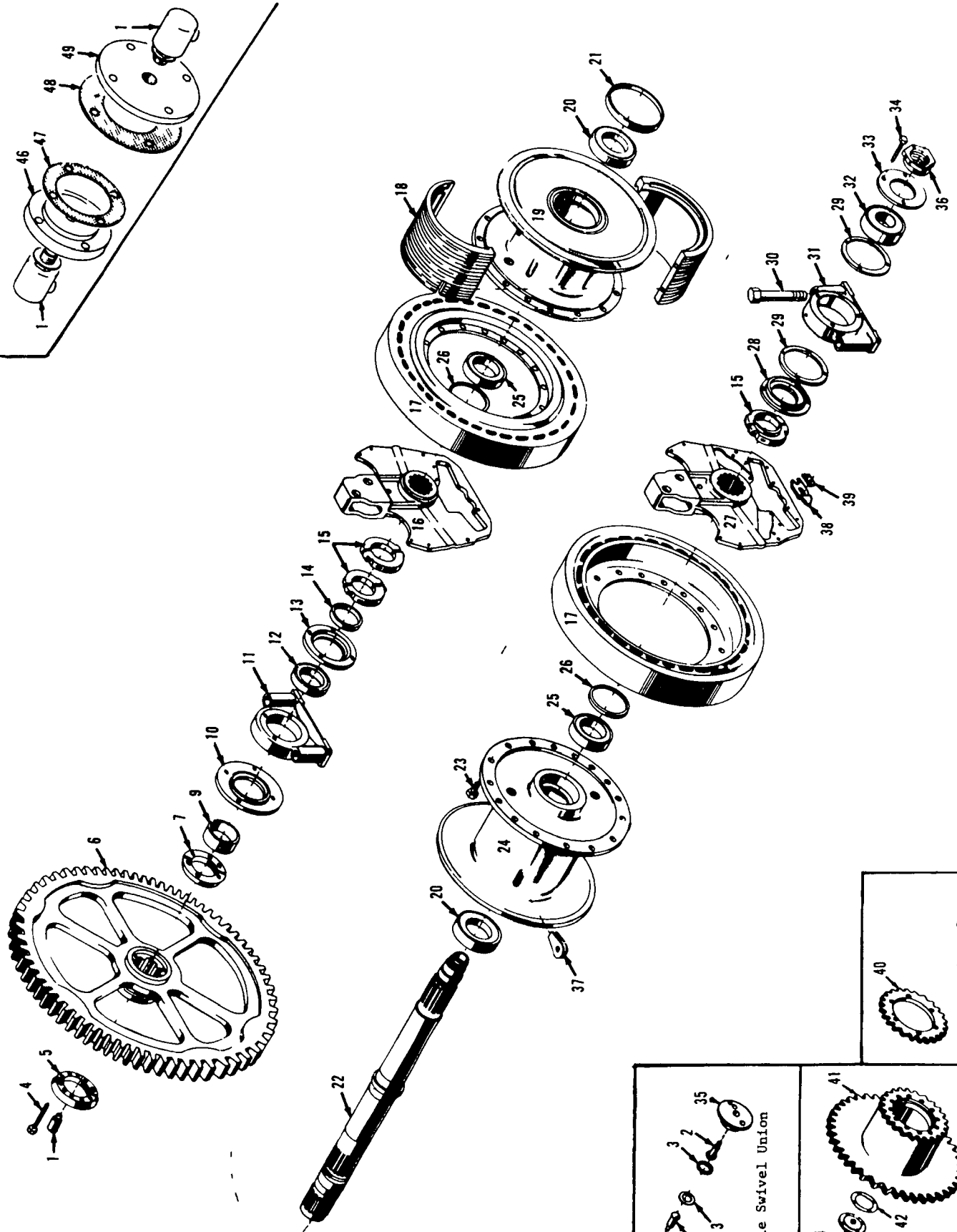
NO.	DESCRIPTION	REMARKS	CODE NO.
1	1/2 X 1/8 ALUMINUM ELL		AZ903E
2	1/8 CLOSE WIPPLE		27200
3	1/8 PIPE CAP		27200
4	1/8 FLEX OIL LINE		
5	1/8 ALUMINUM 90		AZ903E
6	GREASE LUBE SUPPORT		10256

REV.	DATE	DESCRIPTION	BY	CHKD.
A2	06-19-09	BDR		
A1		ADDED		
B2		ADDED		
1	06-19-09	ADDED		
2	06-19-09	ADDED		
3	06-19-09	ADDED		
4	06-19-09	ADDED		
5	06-19-09	ADDED		
6	06-19-09	ADDED		
7	06-19-09	ADDED		
8	06-19-09	ADDED		
9	06-19-09	ADDED		
10	06-19-09	ADDED		
11	06-19-09	ADDED		
12	06-19-09	ADDED		
13	06-19-09	ADDED		
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50	06-19-09	ADDED		

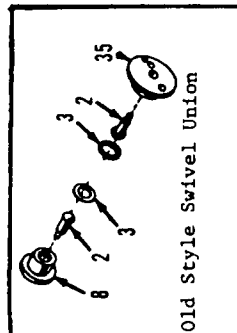
MANITOWOC ENGINEERING CORP MANITOWOC, WISCONSIN	
REVISION DATE	7-15-59
DESIGNED BY	WAS 18188
DRAWN BY	WAS 18188
CHECKED BY	WAS 18188
APPROVED BY	WAS 18188
DATE	7-15-59
SCALE	3"=1'-0"
FIG. NO.	42184

DO NOT SCALE THIS DRAWING

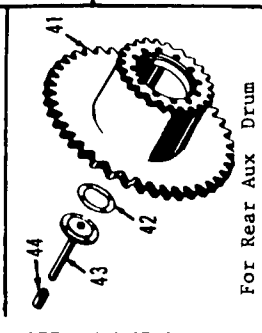
MASTER



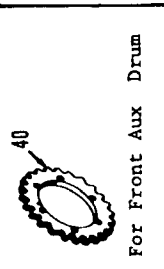
42385E1



Old Style Swivel Union



For Rear Aux Drum



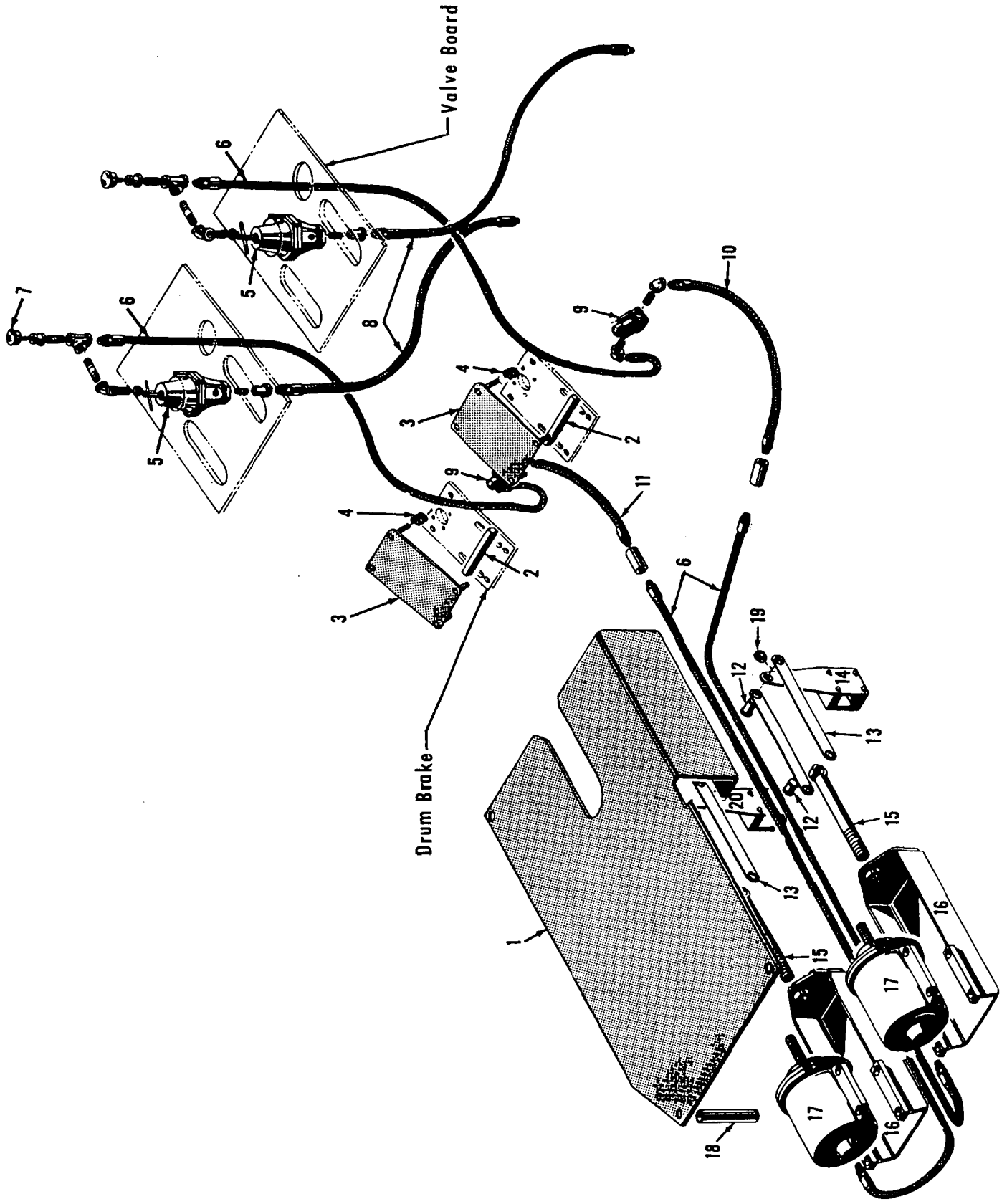
For Front Aux Drum

MATERIAL LIST ON BACK

DRUM SHAFT

MASTE

12404 A1

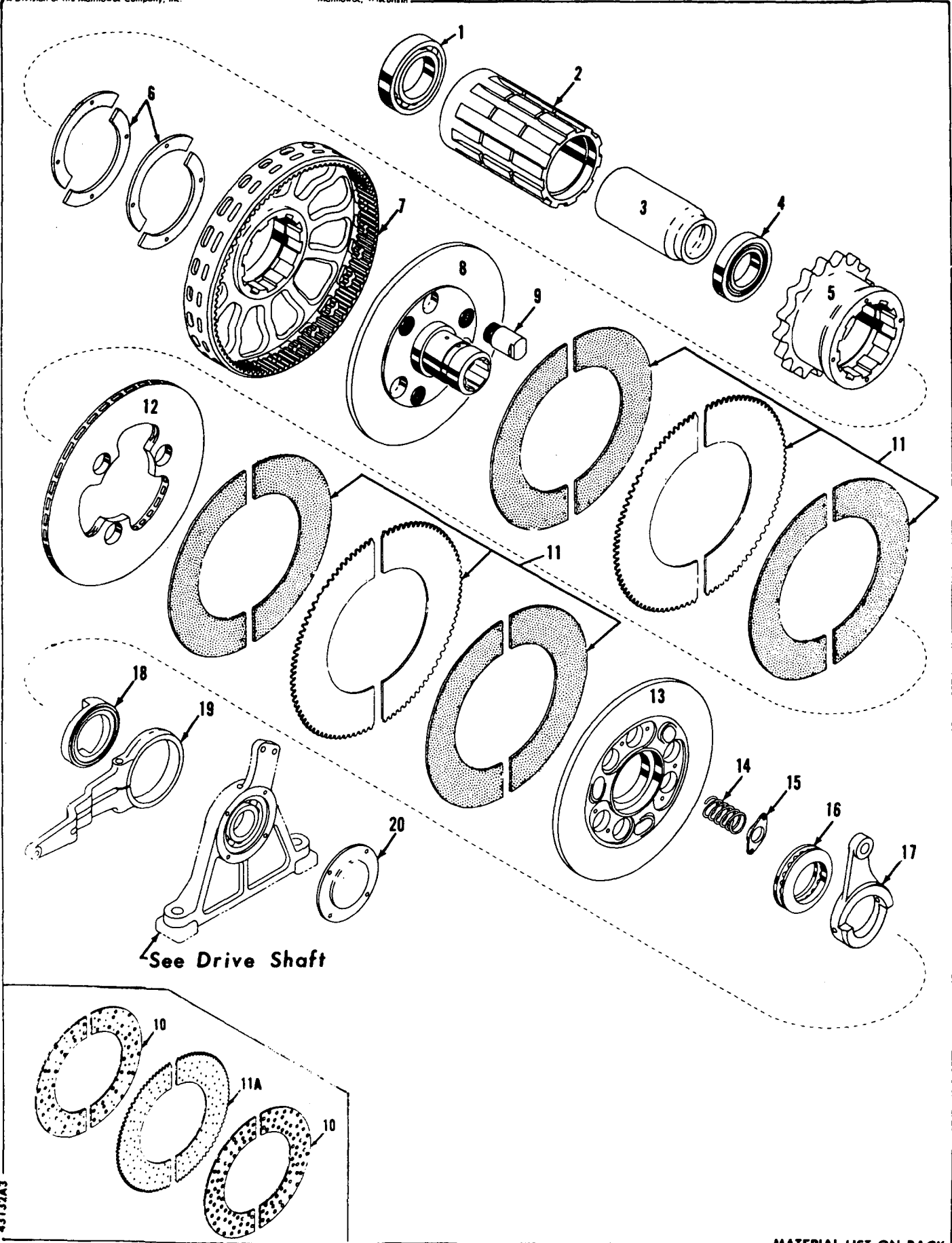


Valve Board

Drum Brake

DRUM BRAKE AIR BOOSTER

MATERIAL LIST ON BACK



43137A3

MATERIAL LIST ON BACK

MAIN DRIVE SHAFT

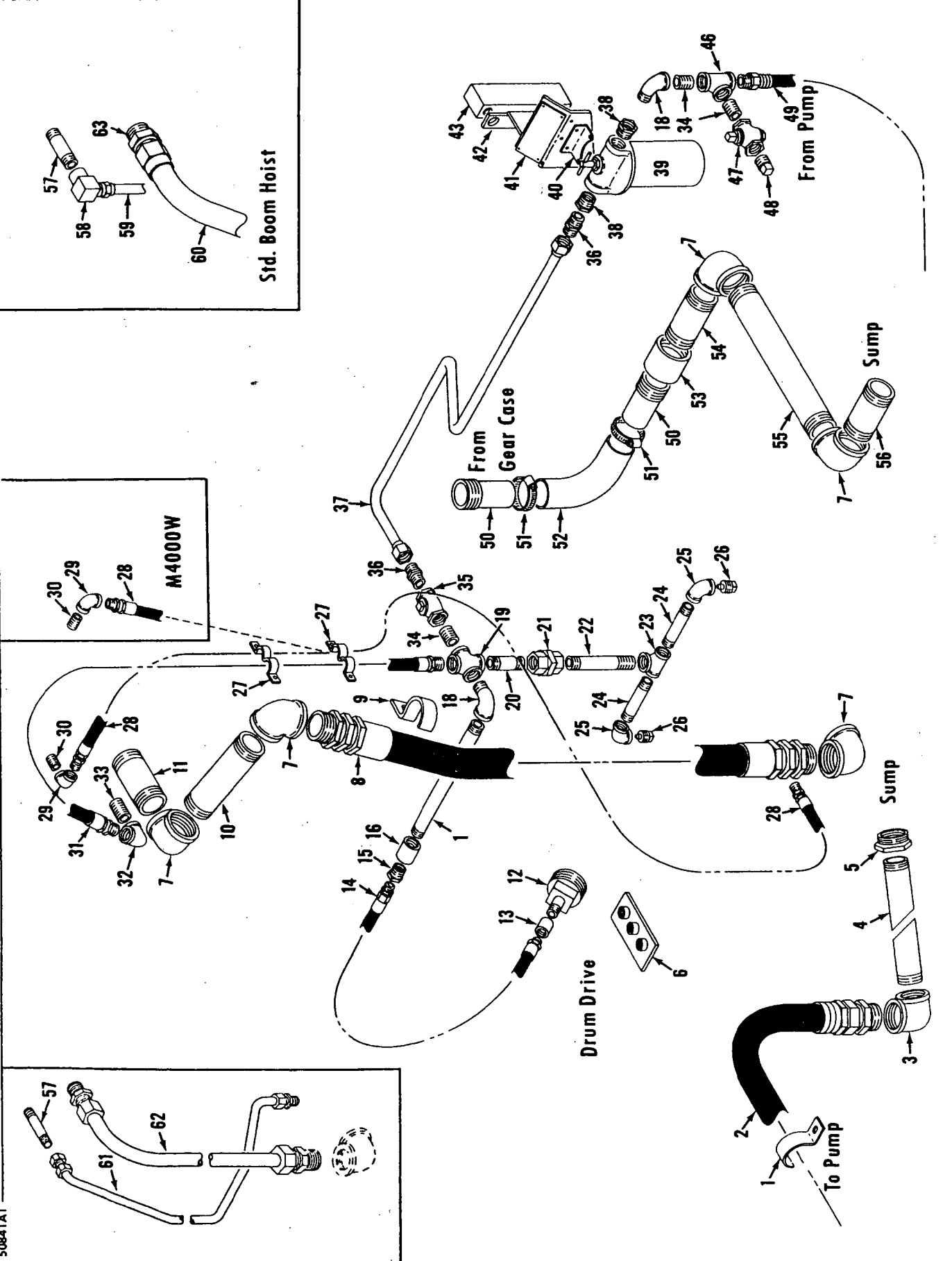
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Manitowoc, Wisconsin

MASTER

50841A1

50841A1



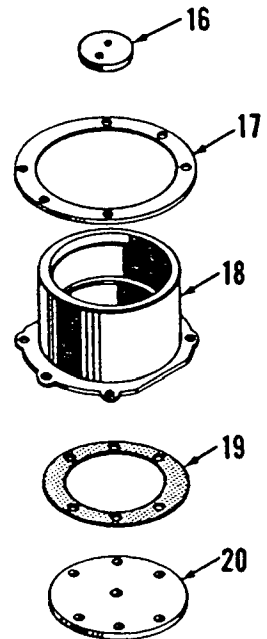
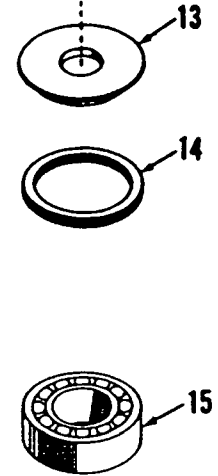
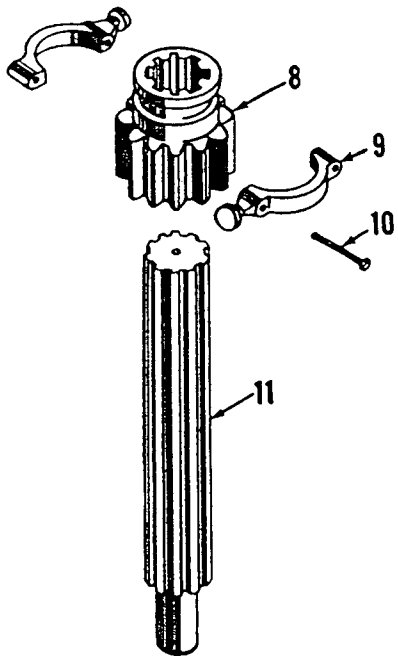
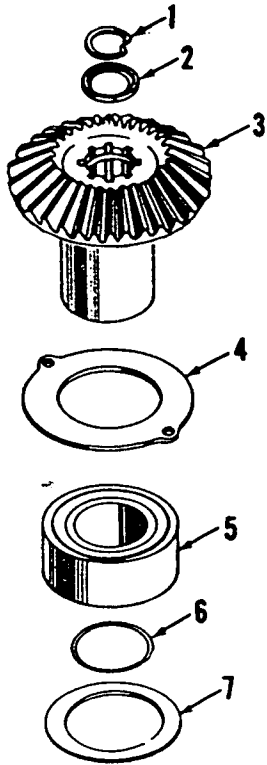
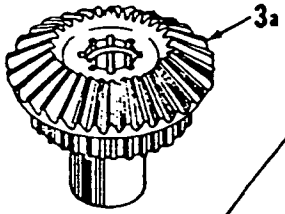
MATERIAL LIST ON BACK

LUBE. OIL PIPING

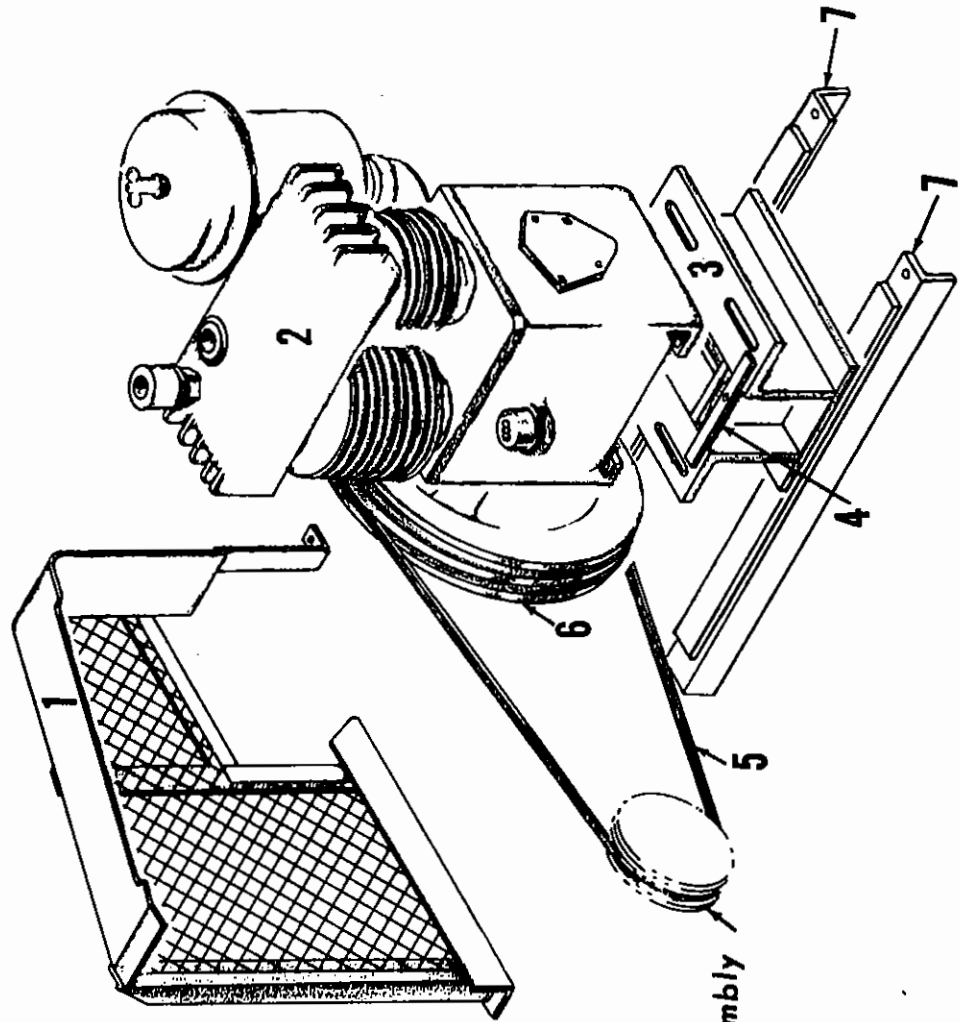
MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc.

Manitowoc Pumps



GROUP C - Air Components & Electrical



See Power Plant Assembly

MASTER

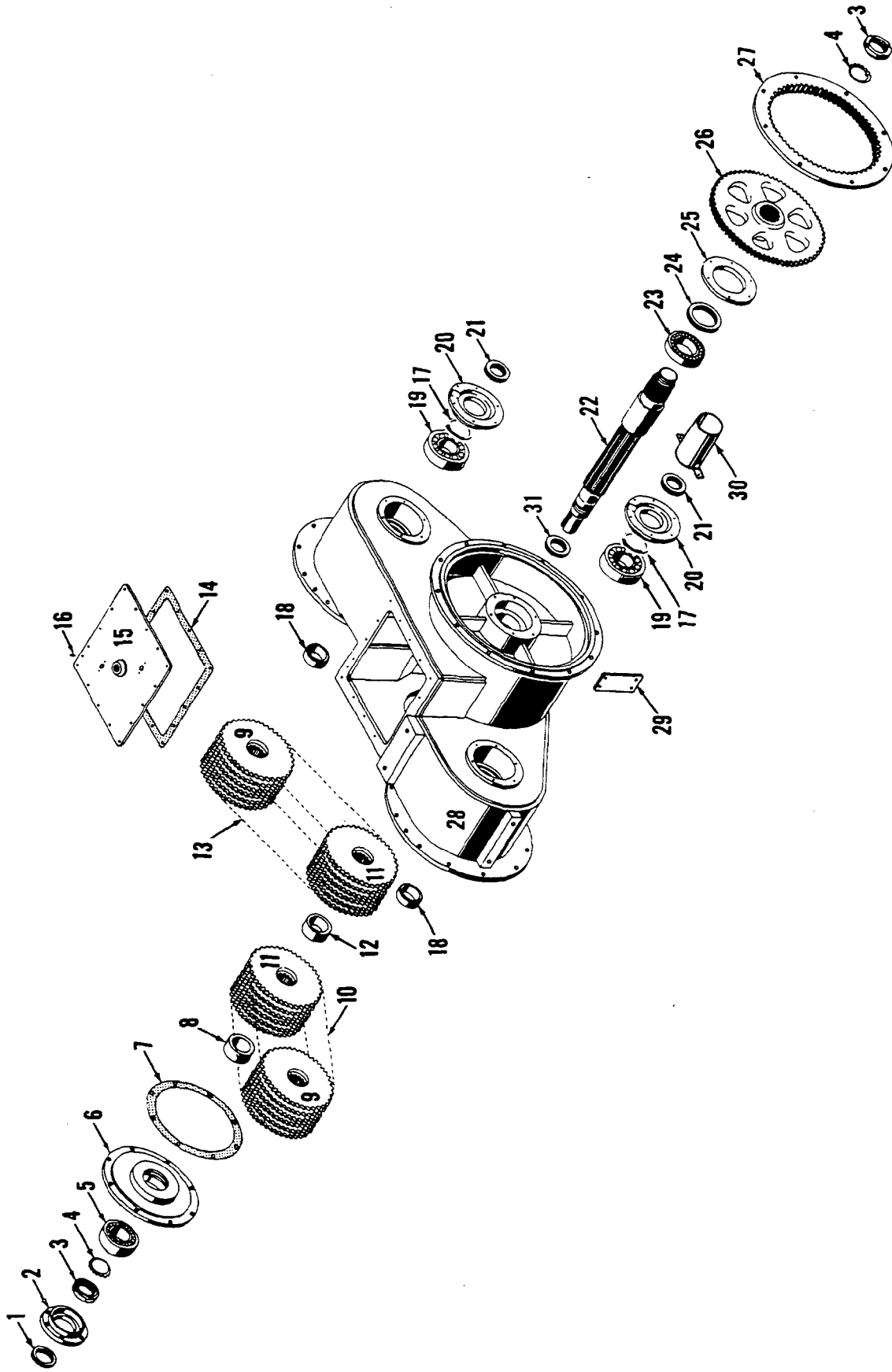
41990A1

41994A1

MATERIAL LIST ON BACK

COMPRESSOR ASSEMBLY

GROUP D - Power Components



42748G1

MATERIAL LIST ON BACK

TRANSMISSION CASE ASSEMBLY

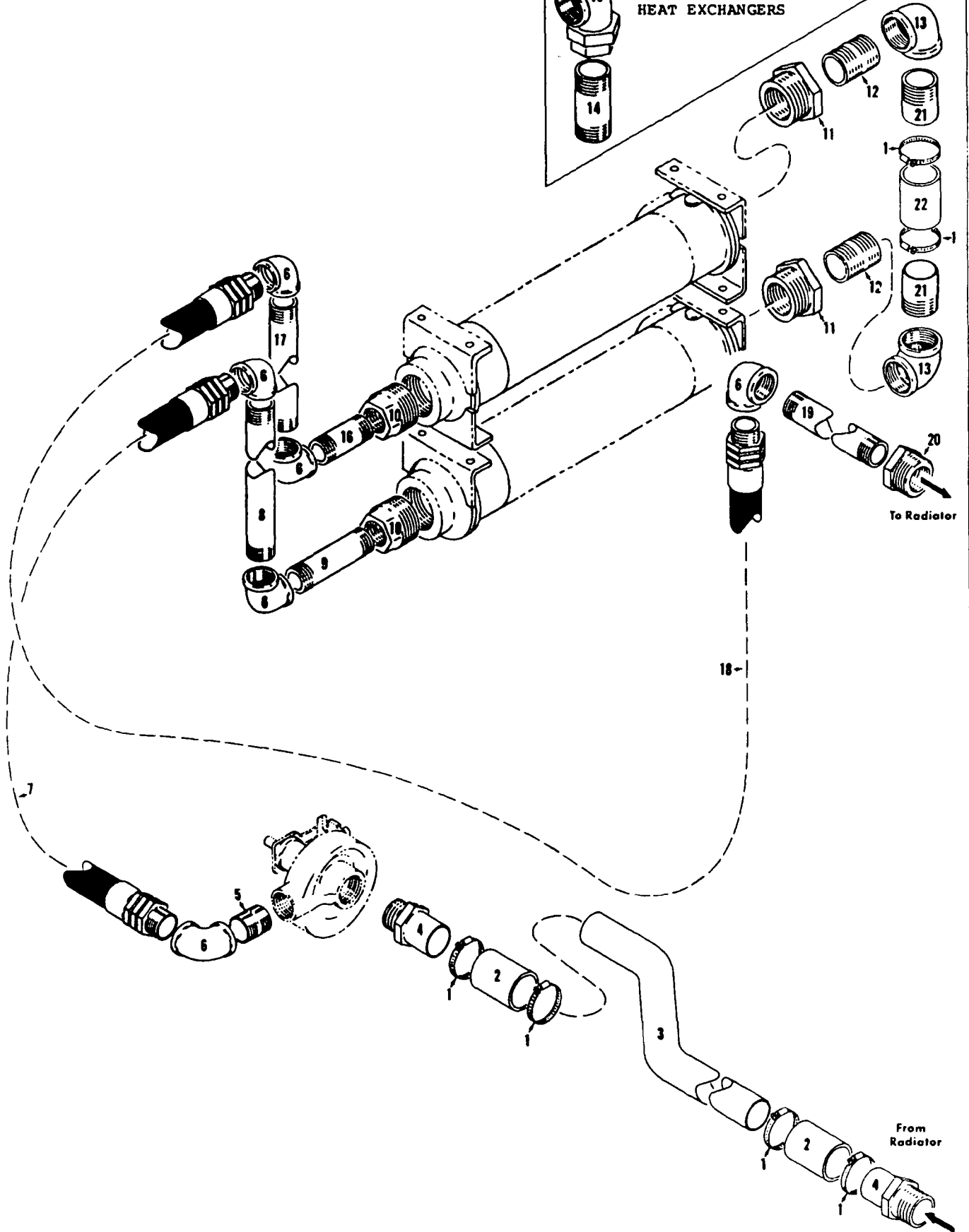
MANITOWOC ENGINEERING CO.

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Manitowoc, Wisconsin

MASTER

UNION CONNECTED
HEAT EXCHANGERS



486-48D2

MATERIAL LIST ON BACK

HEAT EXCHANGER COOLING

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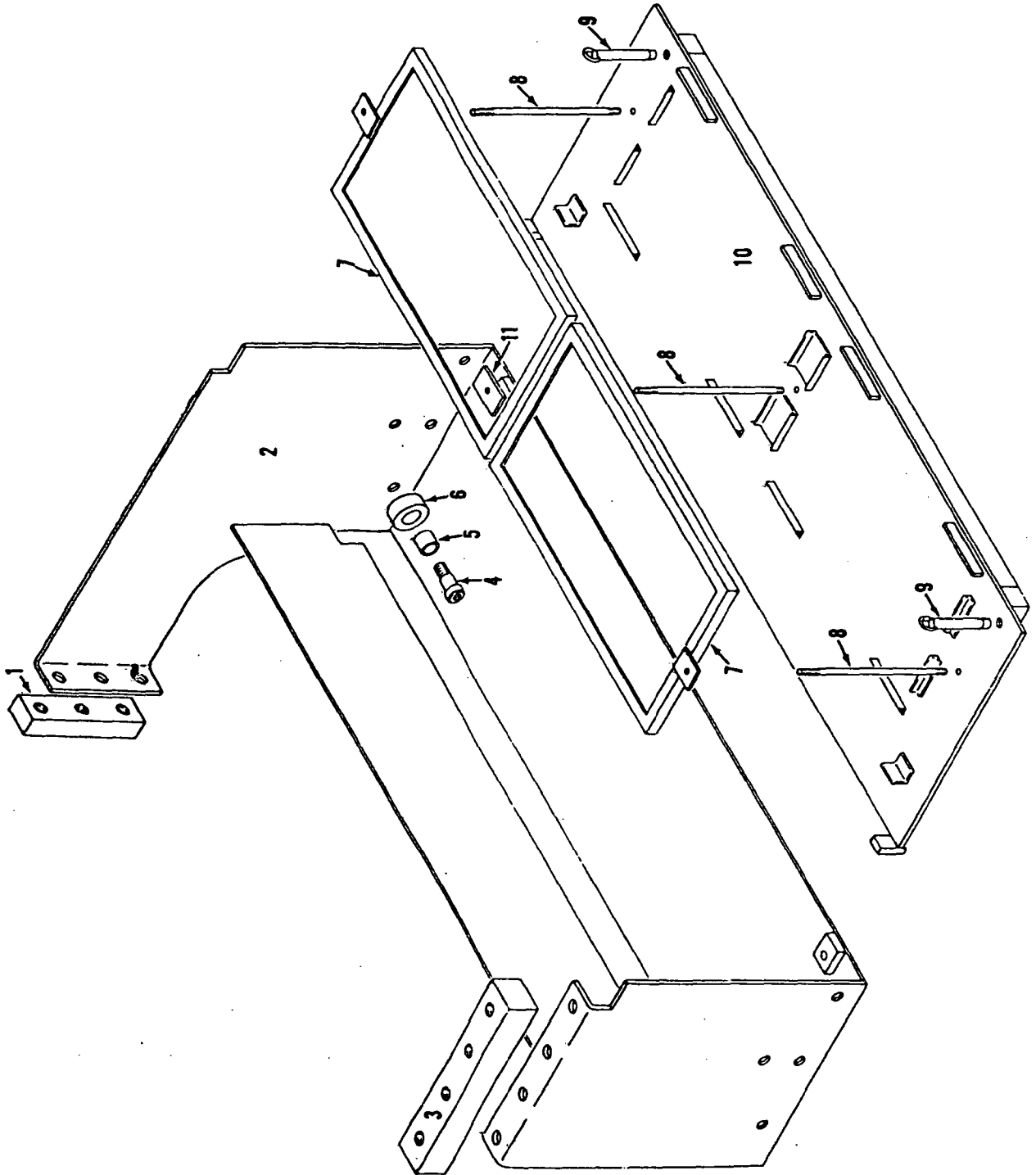
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Manitowoc, Wisconsin



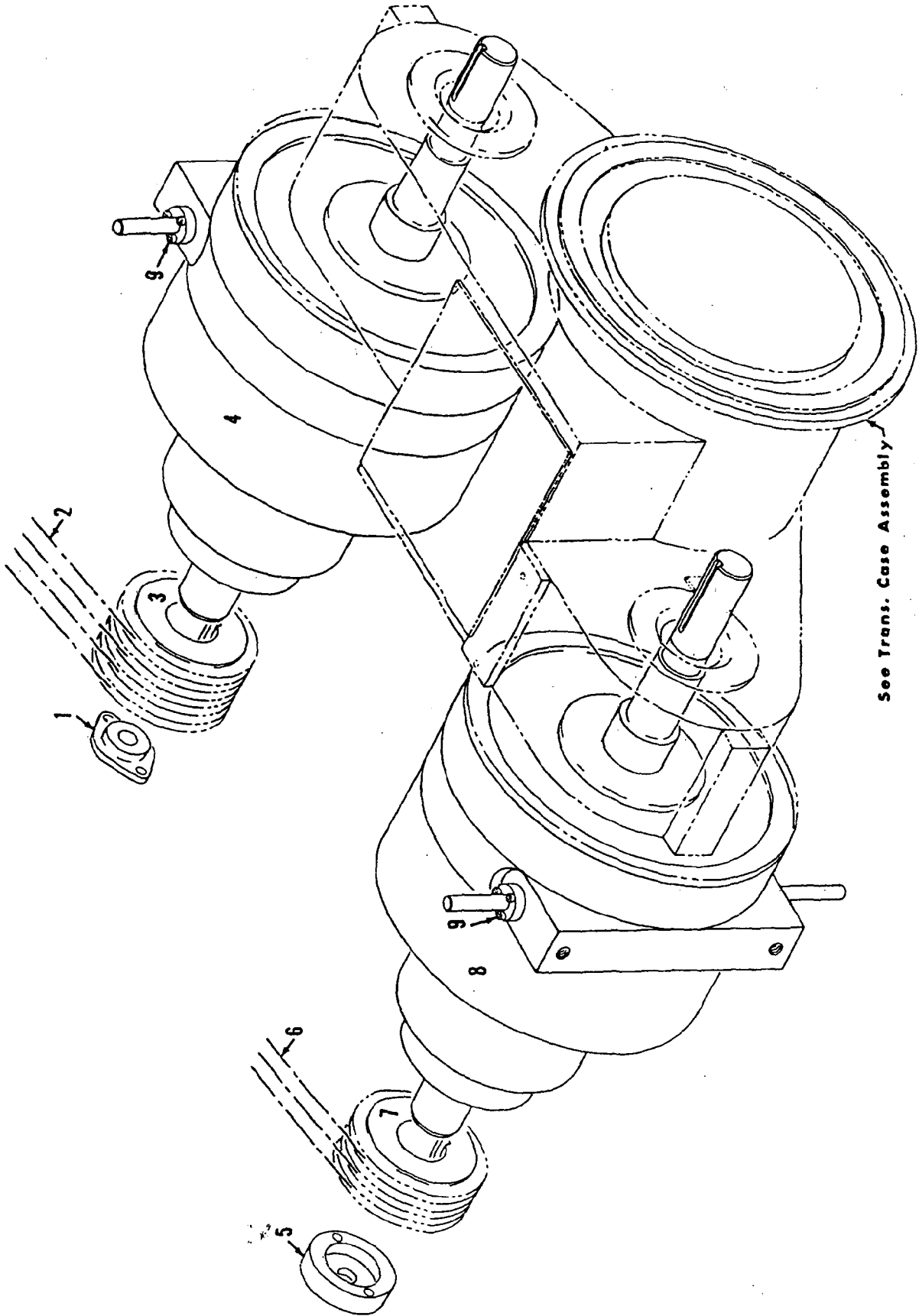
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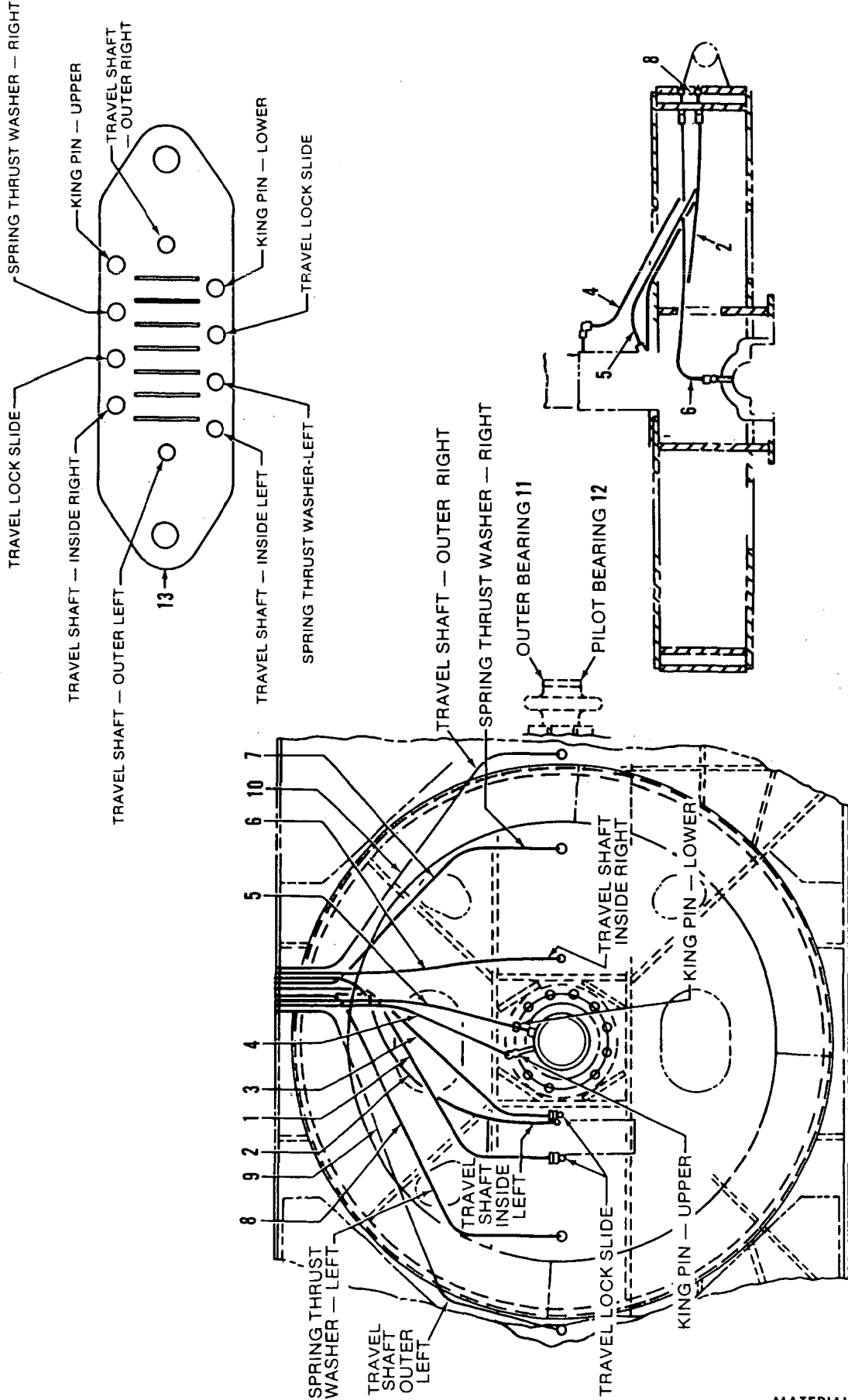
BATTERY BOX

MASTER

MASTER



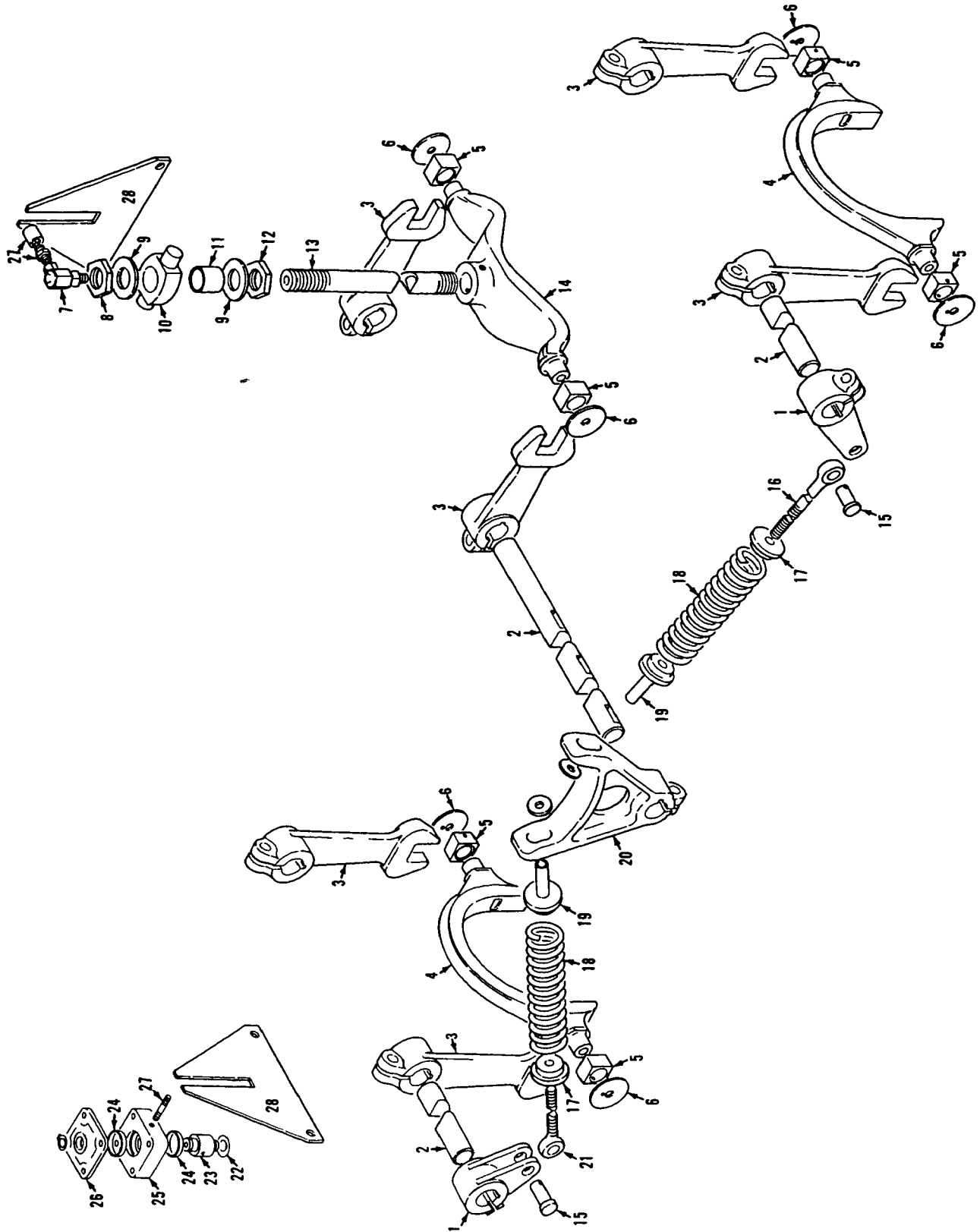
See Trans. Case Assembly



32233B1

MATERIAL LIST ON BACK

LUBRICATION PIPING ASSM. — CARBODY



40218B2

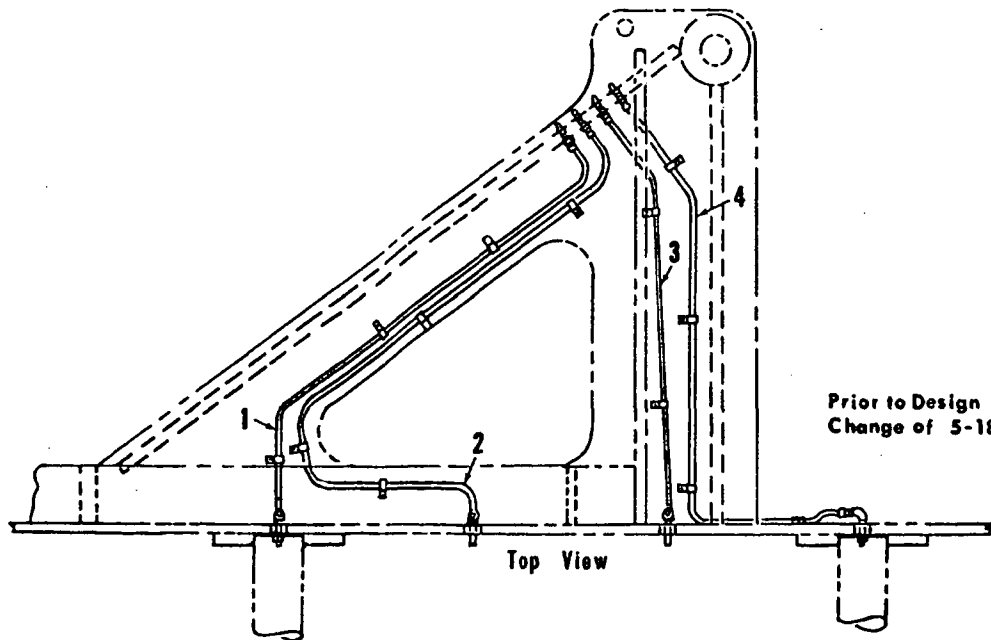
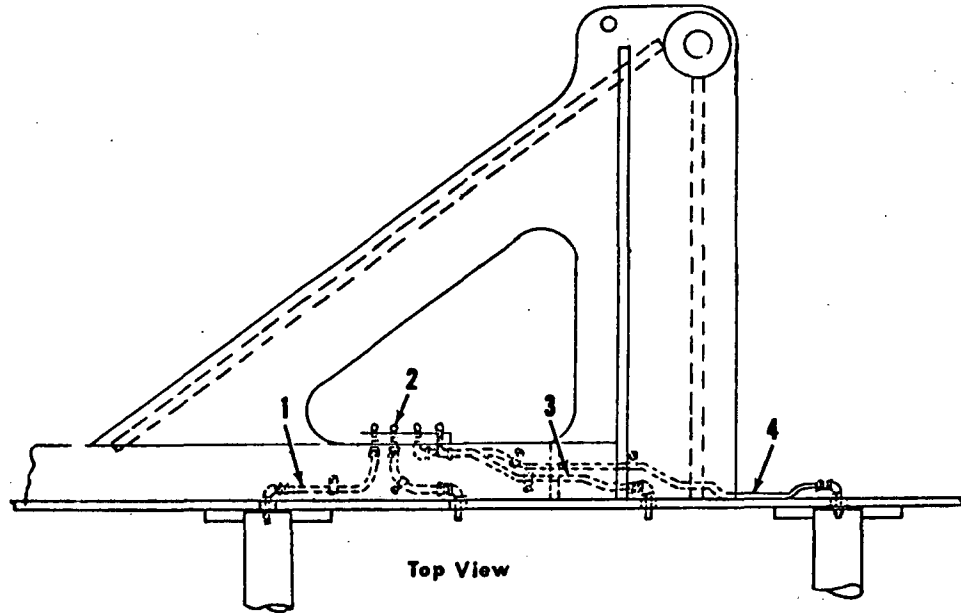
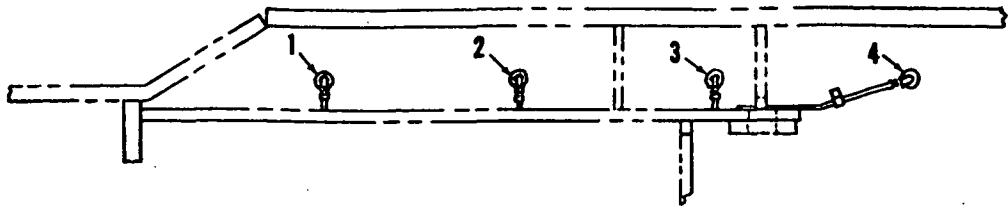
MATERIAL LIST ON BACK

Steering Control Carbody

MANITOWOC ENGINEERING CO.

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Manitowoc, Wisconsin



18023981

MATERIAL LIST ON BACK

LUB. PIPING

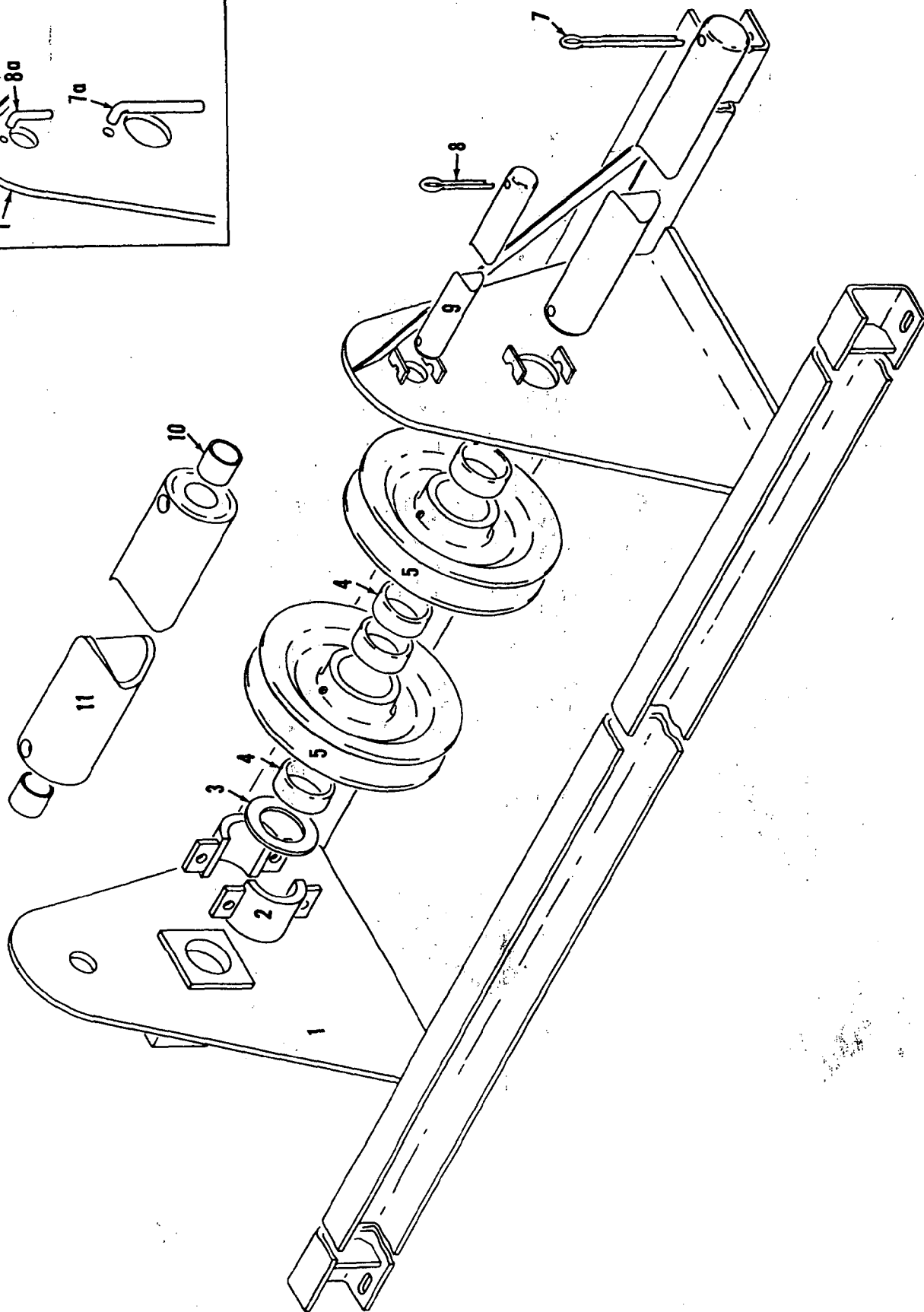
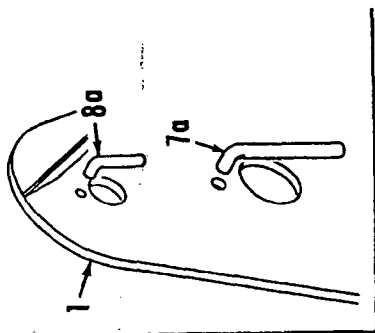
MASTER

18023981 D

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Manitowoc, Wisconsin



33624C1

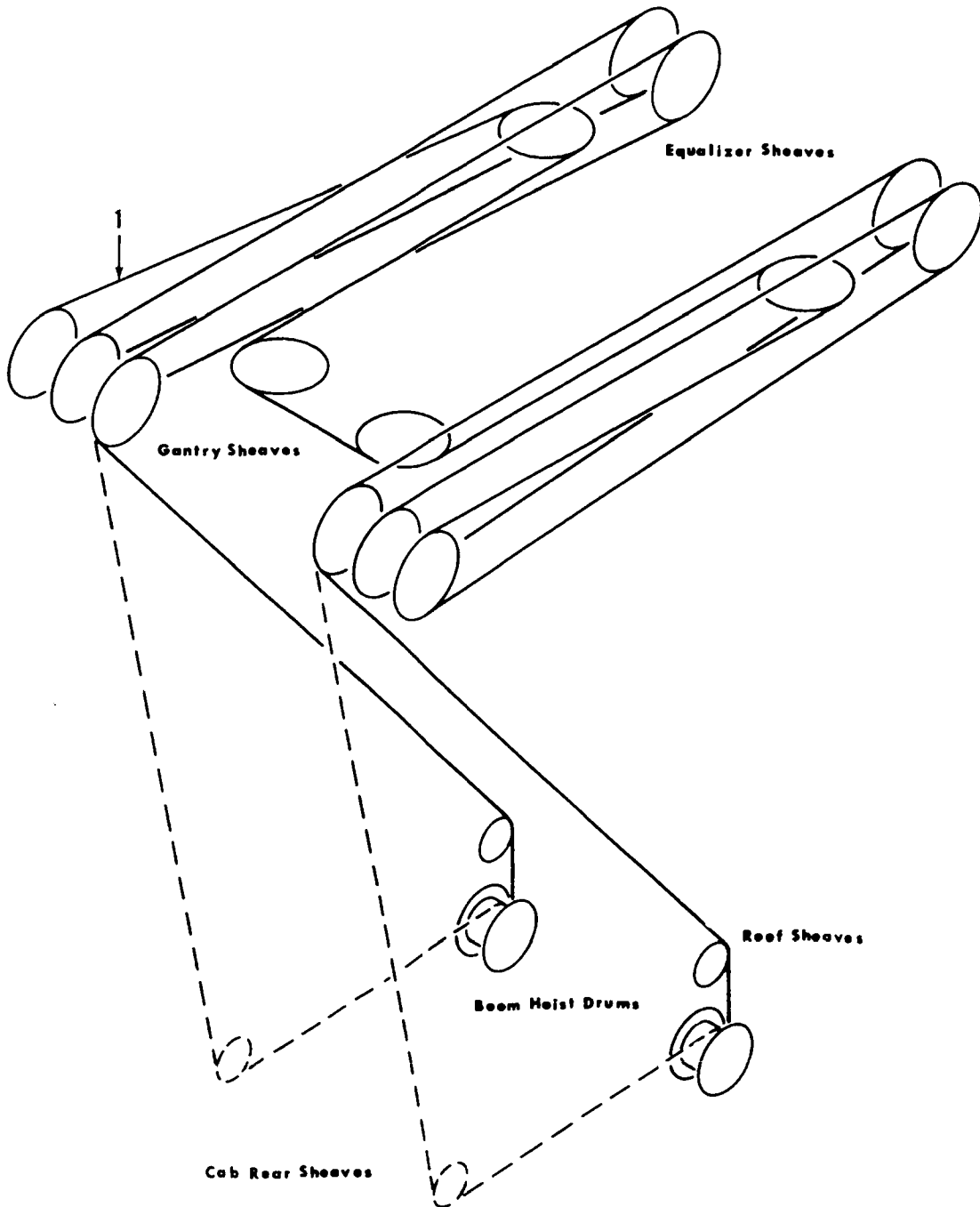
MATERIAL LIST ON BACK

WIRE ROPE GUIDE

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Manitowoc, Wisconsin

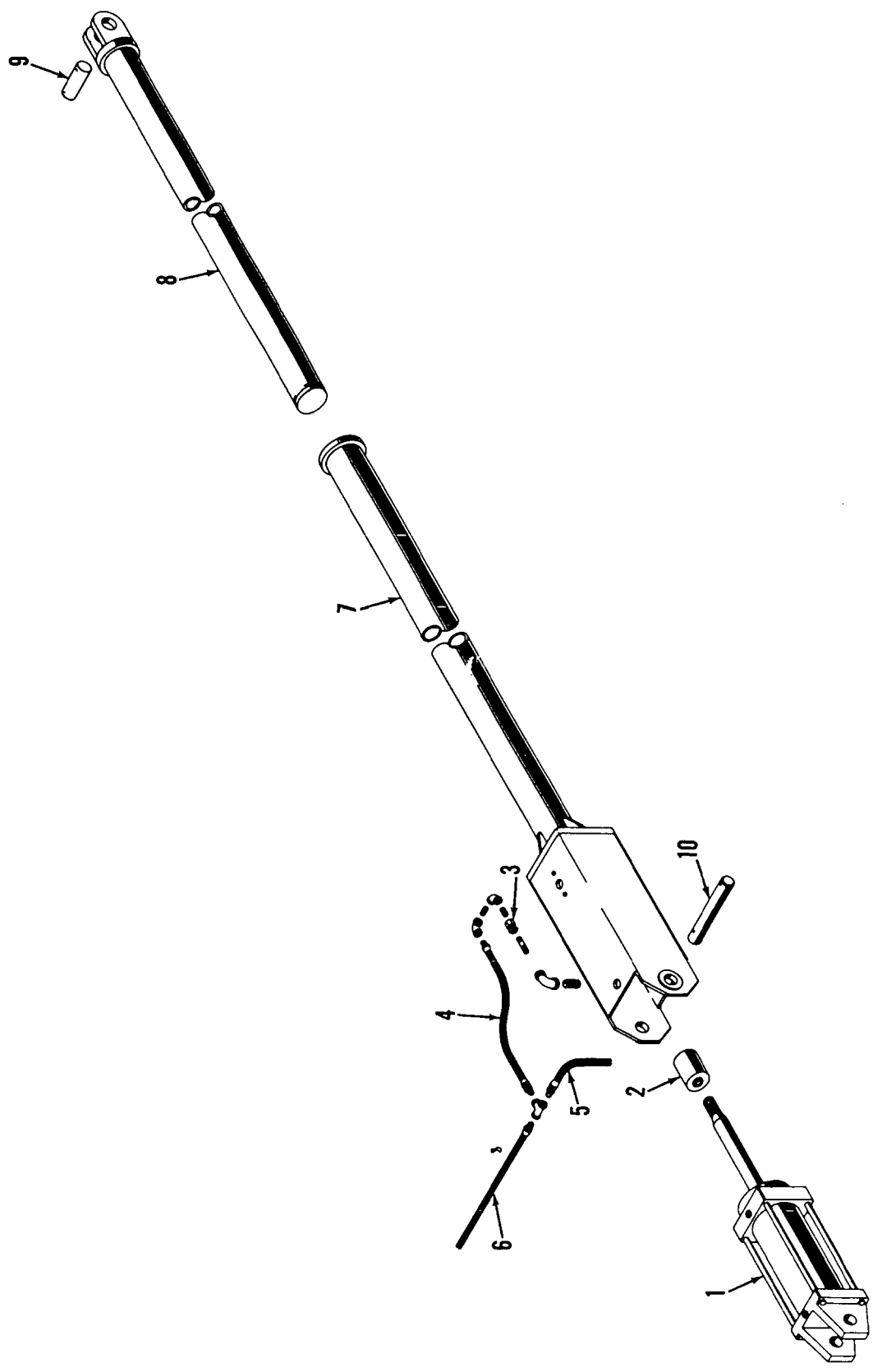


48168A2

MATERIAL LIST ON BACK

BOOM HOIST REEVING

MASTER



49321A1

49321A1

MATERIAL LIST ON BACK

TELESCOPIC AIR CUSHIONED BOOM STOP

A

A NOTE:
SET SCREWS TO BE REMOVED
FROM BOTH BEARINGS.

B

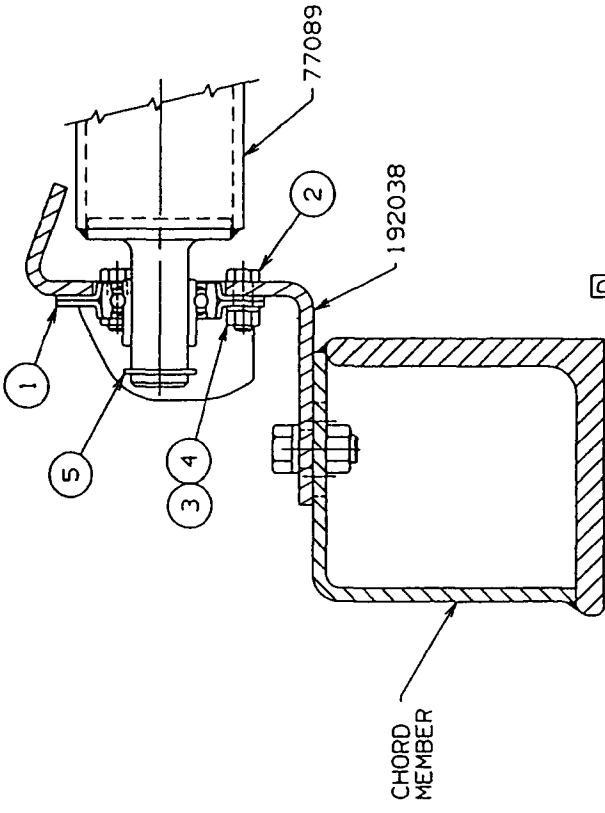
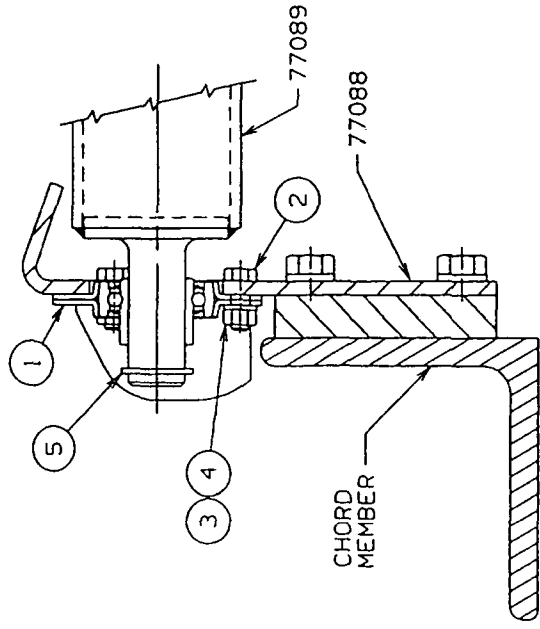
B 1 BEARING BRACKET 192038
REO'D FOR USE ON INSERTS
33426, 50609, 623525, 623526,
623527, 623528, 623529, 623530,
623531, 623532, 623533, 623534,
623535, 623536, 623537, 623538,
623545, 623564, 623579, 623580,
& 623586 WITH TIMBER BRACKETS

BILL OF MATERIAL

ITEM NO.	SEC. NO.	DESCRIPTION	LENGTH IN.	MATERIAL	CORE NO. OR Dwg. No.	ASSEMBLIES USED ON
1	2	BEARING. #F116 "NICE"			224218	43698
2	6	SCR. HEX. HD. CAP .312-18UNC-2A X .88 LG.			612404	49368 49377 49727
3	6	NUT, HEX .312-18UNC-2B			546053	65173
4	6	WASHER, LOCK .312			710303	65156 49379
5	2	RING, RET. TRUARC			596823	65388
	1	ROLLER			77089	
	2	BEARING BRACKET			77088	
	2	BEARING BRACKET			192038	

OR

REVISIONS
10-3-66 CEF
A NOTE
REVISED
PC. S. ADDED
1-29-68 LJE
REVERSED
POSITION
OF HEX SCR
7-19-82 CRP
REDRAW CADAM
CK:LS
APP: PWR
1-21-98 DM
B/C ADDED
D VIEW ADDED



SCALE
5 = 1 FT
DR: RLT
DC: EGT
APP

77090

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin
MOOD. 4000, 4000W

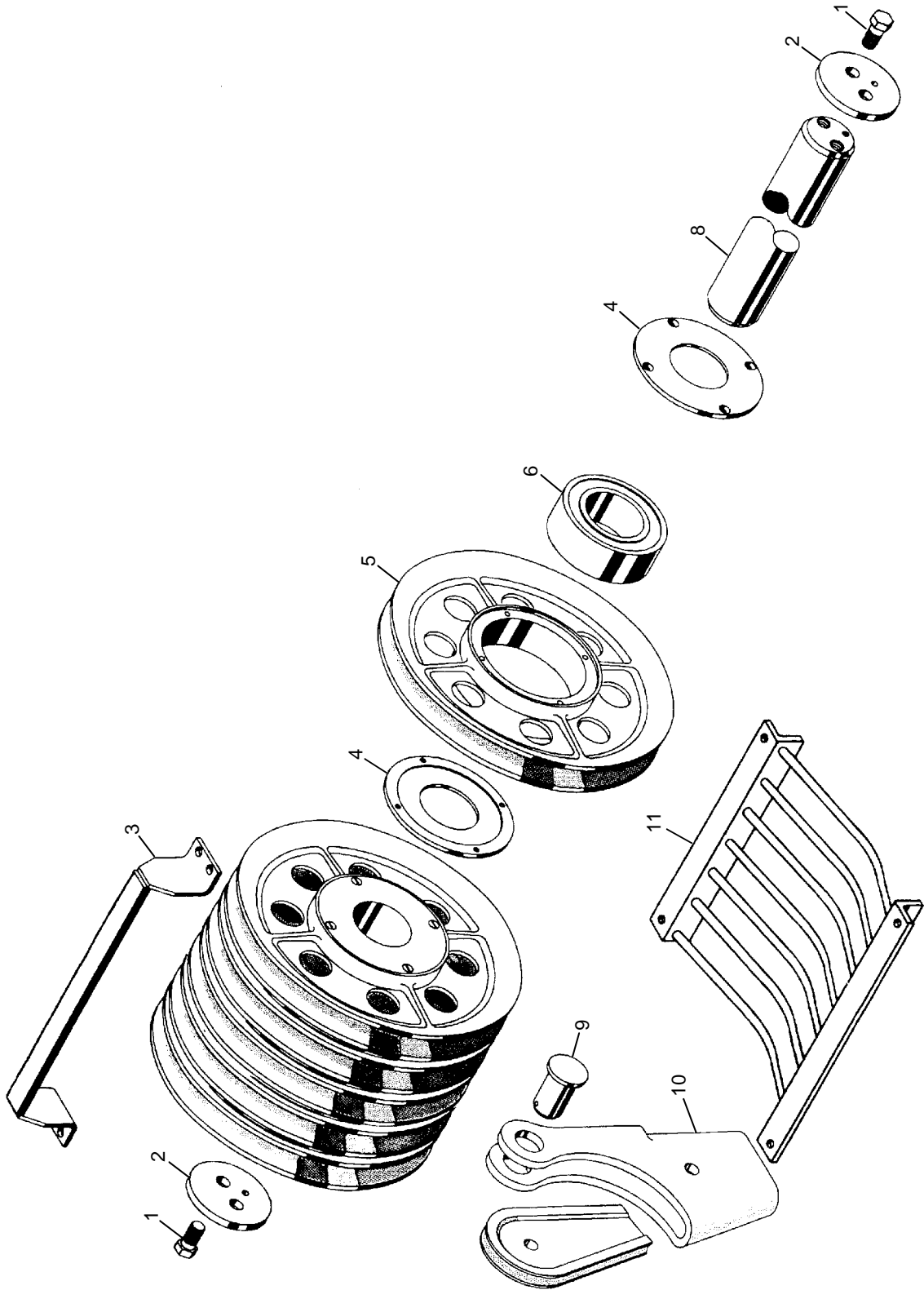
WIRE ROPE ROLLER
GUIDE ASSEMBLY
#22 BOOM

DATE
9-15-65

PATTERN NO.

DWG. NO.
77090

DO NOT SCALE THIS DRAWING

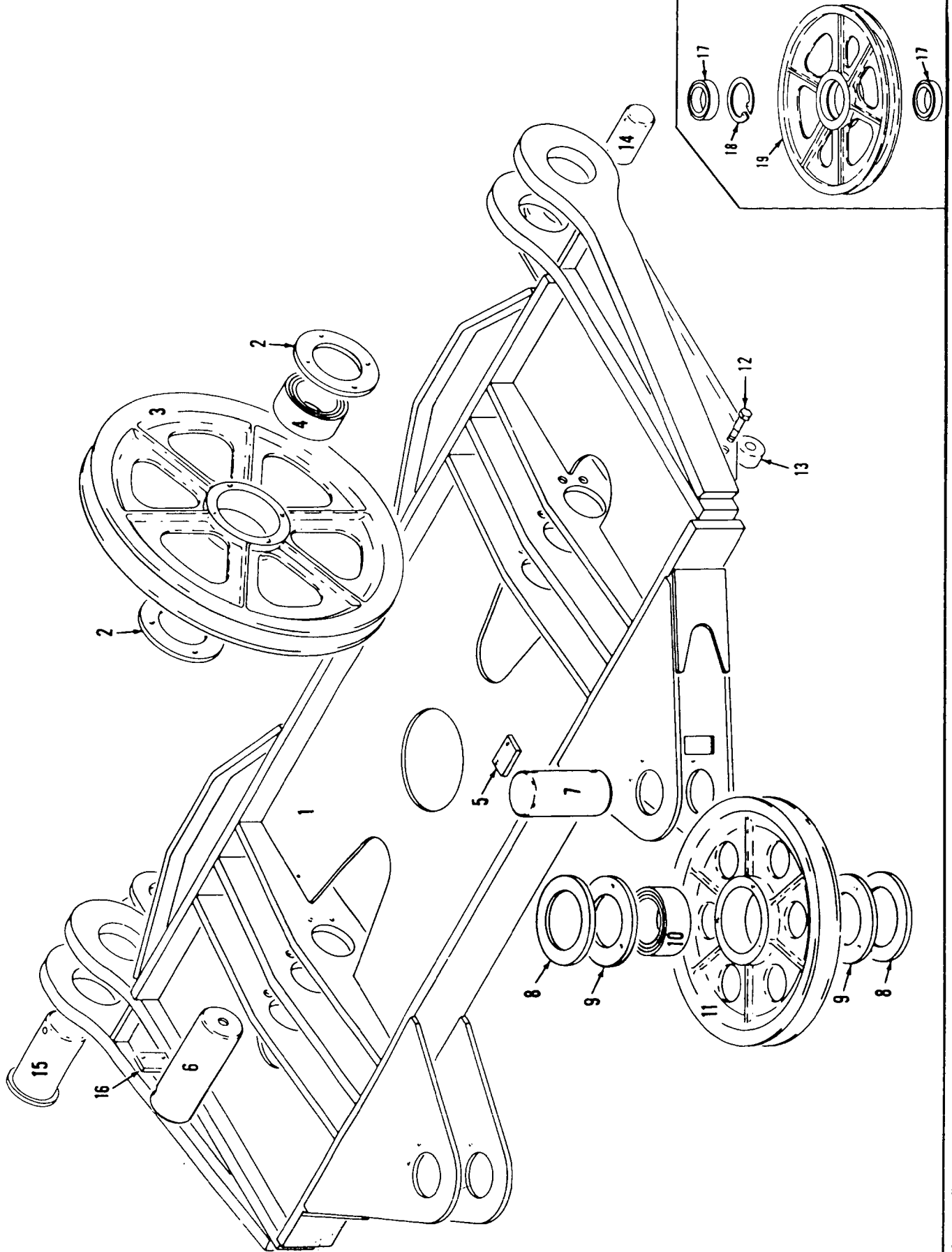


Eng Rev
03-15-00

ASSEMBLY	REVISION
91132	D

BOOM POINT SHAFT, #22 & 22A BOOM

MASTER



18173581

MATERIAL LIST ON BACK

EQUALIZER

0-64-1 Cont.	REV. B	MODEL 2900-3000-4600 Incl.
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AIR CONTROL VALVE (2HA-2Z)
 (MANITOWOC #714495)
 (WESTINGHOUSE #P59339 NEW)
 (WESTINGHOUSE #P54425-0310 OLD)

REF. NO.	PART NUMBER	QUANTITY REQUIRED	DESCRIPTION OF PART	VENDORS PART NO.
13		4	SCREW, Truss Head	P49861-3
14		4	LOCKWASHER	506608
15		2	FLANGE, Valve Retaining	P54463
16	714504	2	RING, "O" (15/16" O.D.)*	P49708-116
17		2	GUIDE, Plunger	P54147
18	714506	2	RING, "O" (7/16" O.D.)*	P49708-11
19		2	PLUNGER, Valve	P54146
20	714525	2	SPRING, Exhaust Valve*	P54144
21		2	SEAT, Inlet Valve	P54145
22	714441	2	RING, "O" (7/8" O.D.)*	P49708-115
23		2	WASHER	P53455-3
24	714442	2	VALVE, Inlet*	P5125
25		2	SPRING, Inlet Valve	539115
26		2	SPACER, Valve	P54794
27		1	BODY	P54306
28		2	LOCKWASHER	506607
29		2	SCREW, Fillet Head	P49835

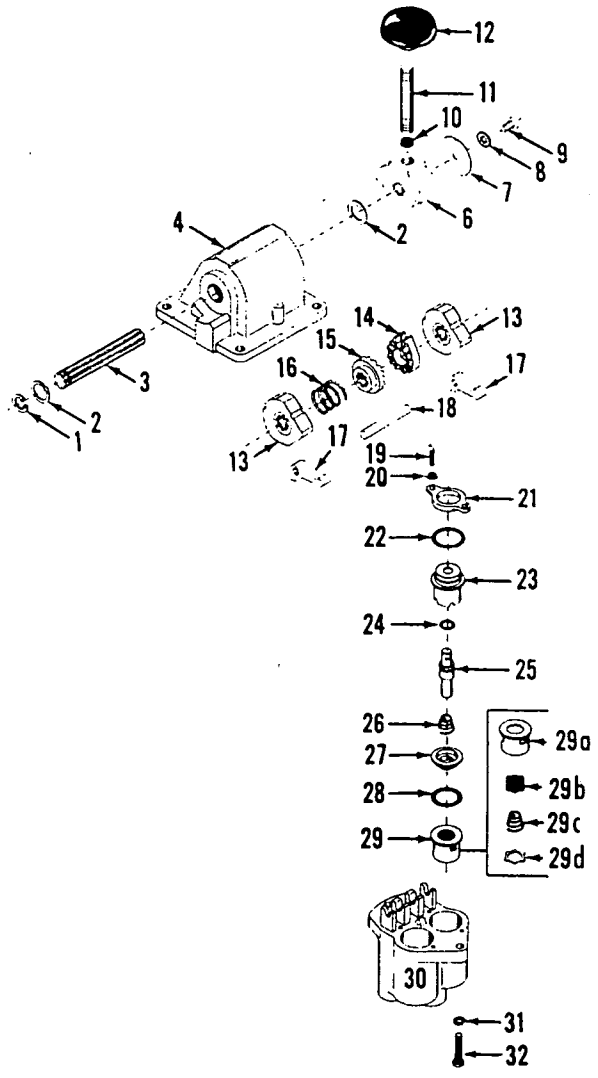
*Recommended to be stocked at all times.
 NOTE: Part numbers at right are Westinghouse. Please so specify if ordering.
 Valve changed approx. July 1969. Check nameplate for correct valve.

Run as a Front

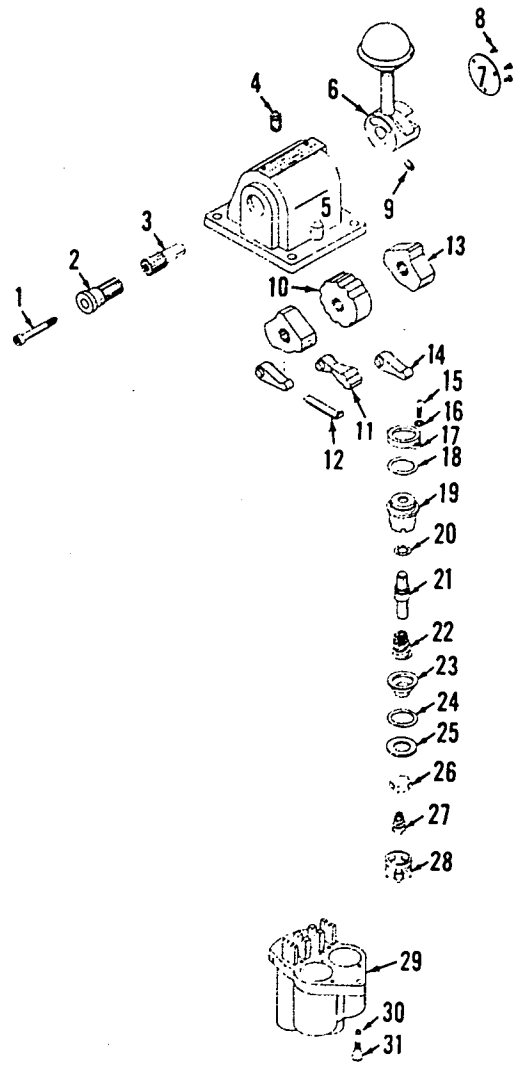
0-64 - 1 B Cont.

MAST

REV. B	0 - 64
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P59335



P54426-0312

MATERIAL LIST ON BACK

CONTROL VALVE

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Manitowoc, Wisconsin 54220



TUBING (soft copper)

Code No.	Tube O.D.
696205	3/16
696210	1/4
696214	5/16
696216	3/8
696218	1/2
696219	5/8
696220	3/4



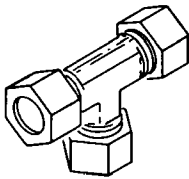
NUT

Code No.	Tube O.D.
424603	3/8
424604	1/2
424605	3/4
424633	5/16
424634	1/4
424635	3/16



FERRULE

Code No.	Tube O.D.
424600	1/4
424601	3/4
424602	3/8
424616	5/16
424617	1/2
424618	1/8
424619	3/16



UNION TEE

Code No.	Tube O.D.
429315	1/4
429316	3/8
429317	5/16



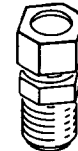
UNION

Code No.	Tube O.D.
429349	3/8
429361	1/4
429362	1/2
429397	5/16



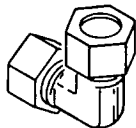
FEMALE CONNECTOR

Code No.	Tube O.D.	Pipe Thread
429312	3/16	1/8
429407	1/4	1/8
429830	1/4	1/4



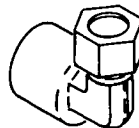
MALE CONNECTOR

Code No.	Tube O.D.	Pipe Thread
429324	3/4	3/4
429328	3/8	1/2
429351	5/16	1/8
429358	1/2	3/4
429359	1/2	3/8
429363	1/4	1/8
429364	1/4	1/4
429365	3/16	1/8
429366	3/8	1/8
429367	3/8	1/4
429368	3/8	3/8



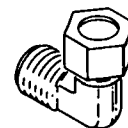
UNION ELBOW

Code No.	Tube O.D.
429372	3/8
429378	1/2
429381	1/4



FEMALE ELBOW

Code No.	Tube O.D.	Pipe Thread
429066	1/4	1/8
429825	1/4	1/4



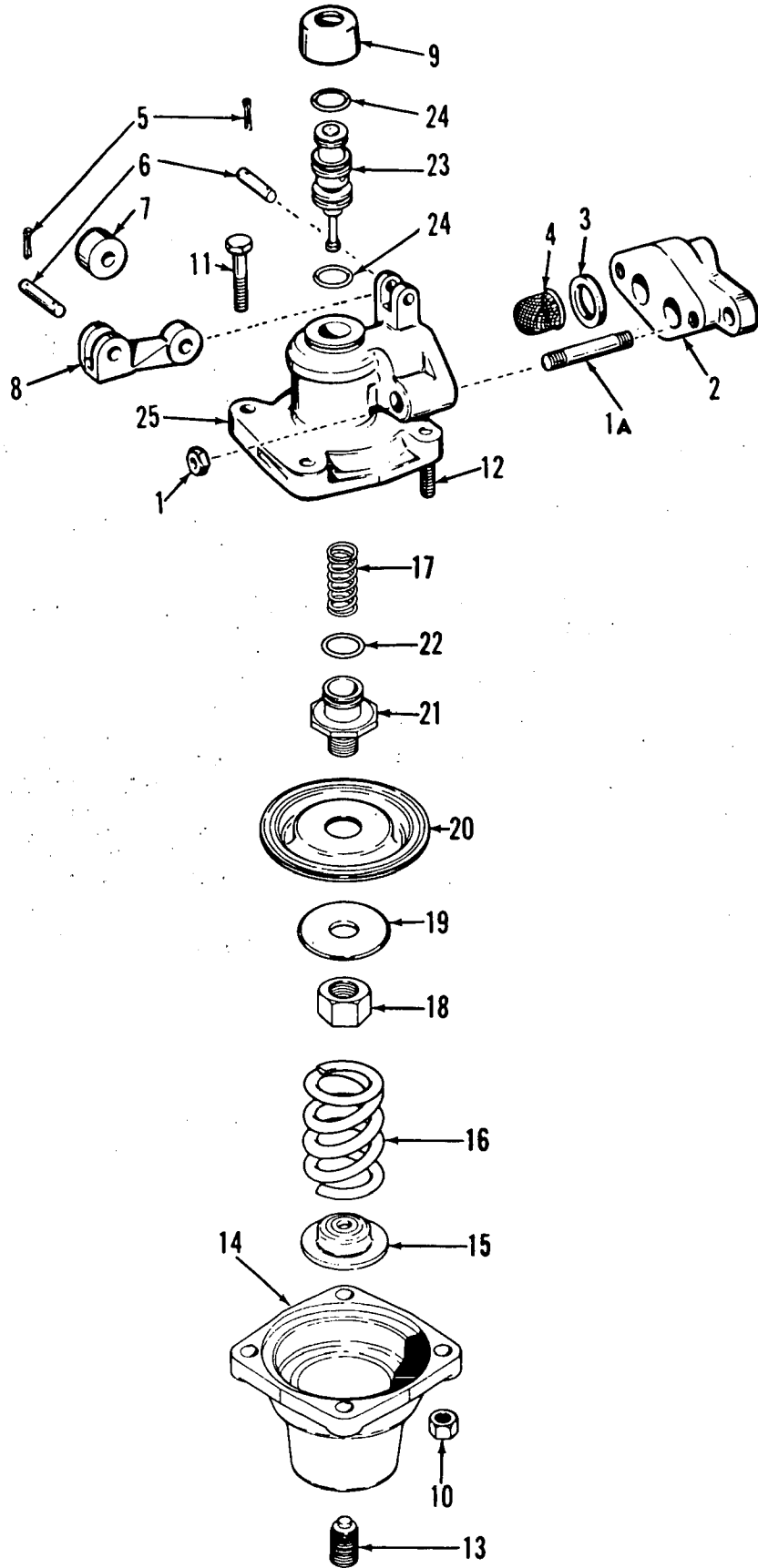
MALE ELBOW

Code No.	Tube O.D.	Pipe Thread
429371	1/2	1/2
429373	3/8	1/8
429374	1/4	1/4
429375	3/8	1/4
429376	1/2	3/8
429380	1/4	1/8
429384	3/8	1/2
429385	5/16	1/8
429386	3/16	1/8
429401	1/2	3/4
429422	3/8	3/8
429453	3/4	3/4

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MASTER

0-243

0243

MATERIAL LIST ON BACK

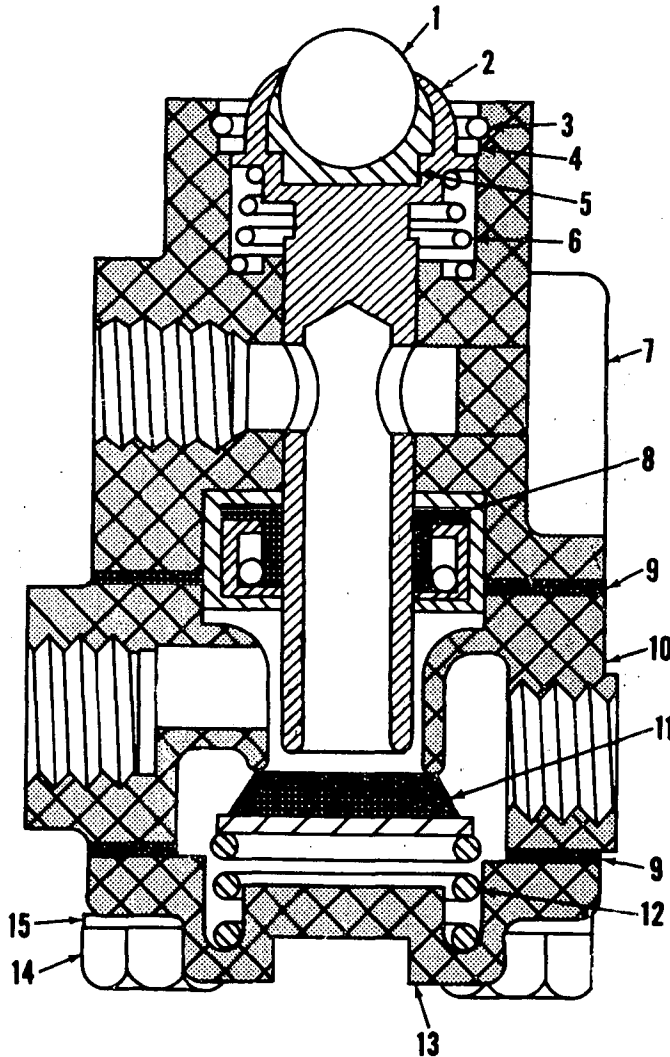
VALVE ASSEMBLY

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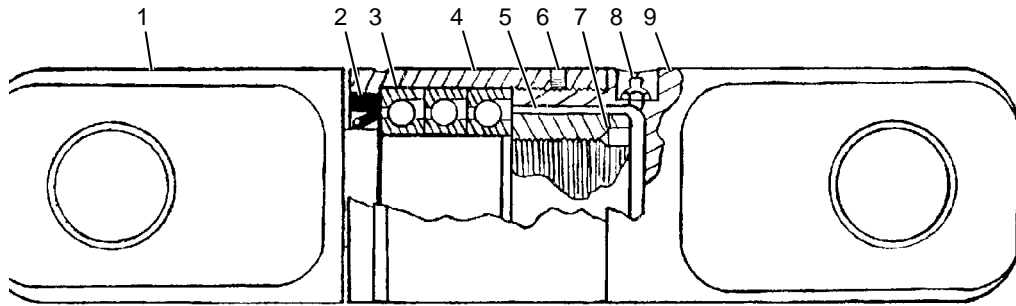
MASTER



0 250 A 1

O-250A1

MATERIAL LIST ON BACK



MODEL

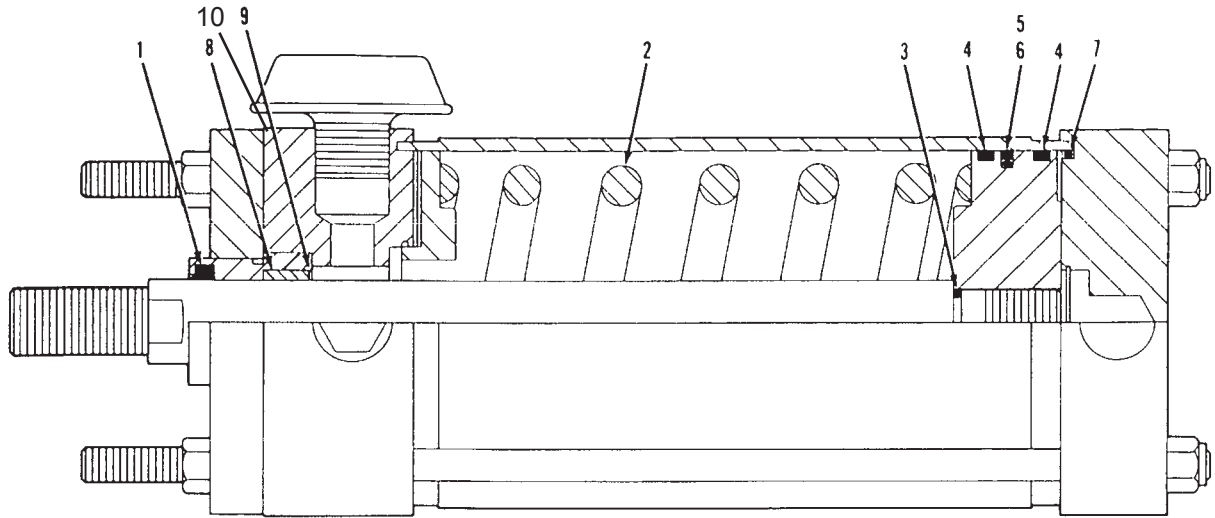
all

SWIVEL LINK
6741050

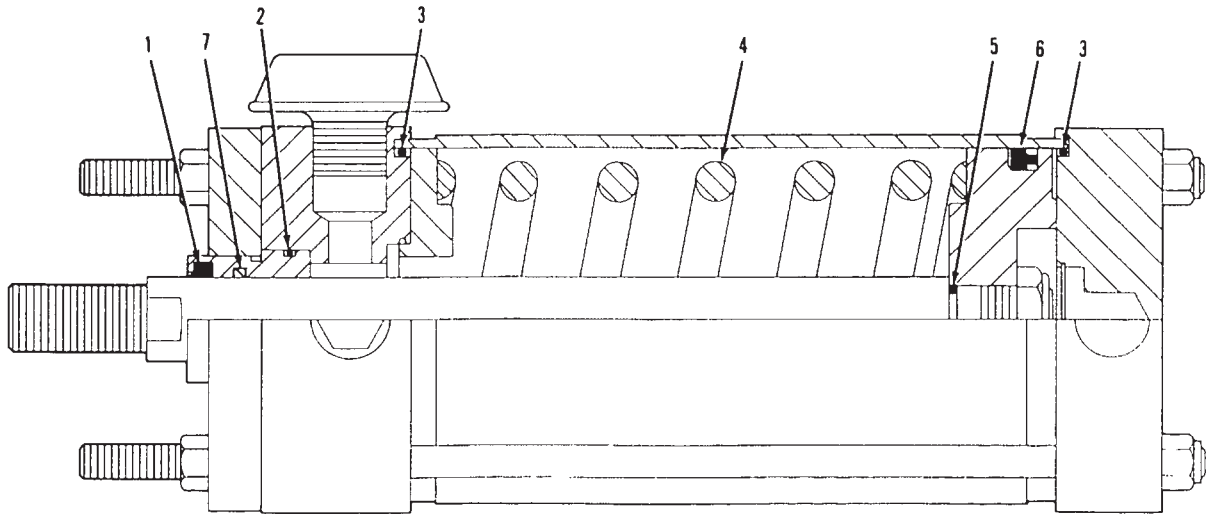
ITEM	PART #	QTY.	DESCRIPTION OF PART
1		1	SHANK, Eye
2		1	SEAL
3		3	BEARING
4		1	BARREL
5		1	NUT, Shank (2-1/2")
6	9364220117	1	SCREW, Set (5/16" - 18UNC-2A)
7		1	SCREW, Set (5/16" - 18UNC-2A)
8		1	FITTING, Grease (1/4" - 28 Zerk)
9		1	CAP, Eye

ASSEMBLY	REVISION
O-288	C

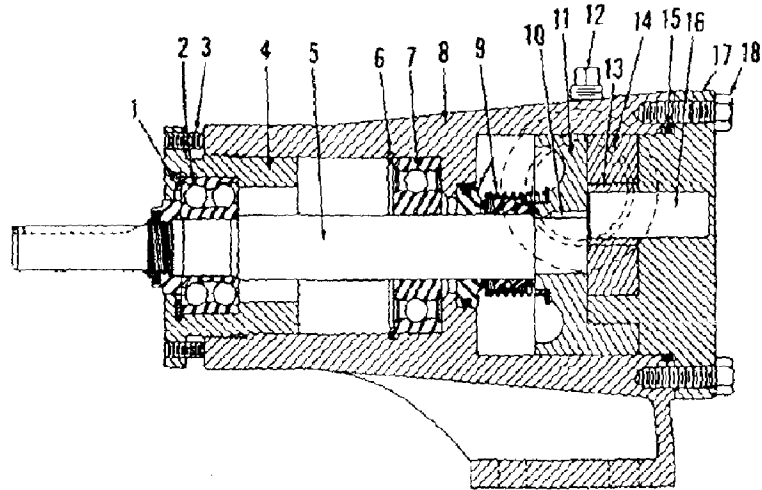
SWIVEL LINK



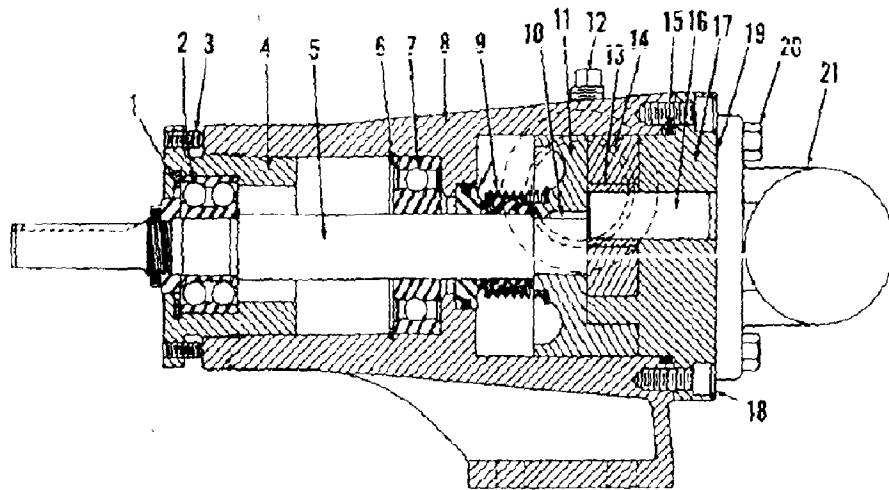
CURRENT PRODUCTION



PAST PRODUCTION



Pump No. 33252

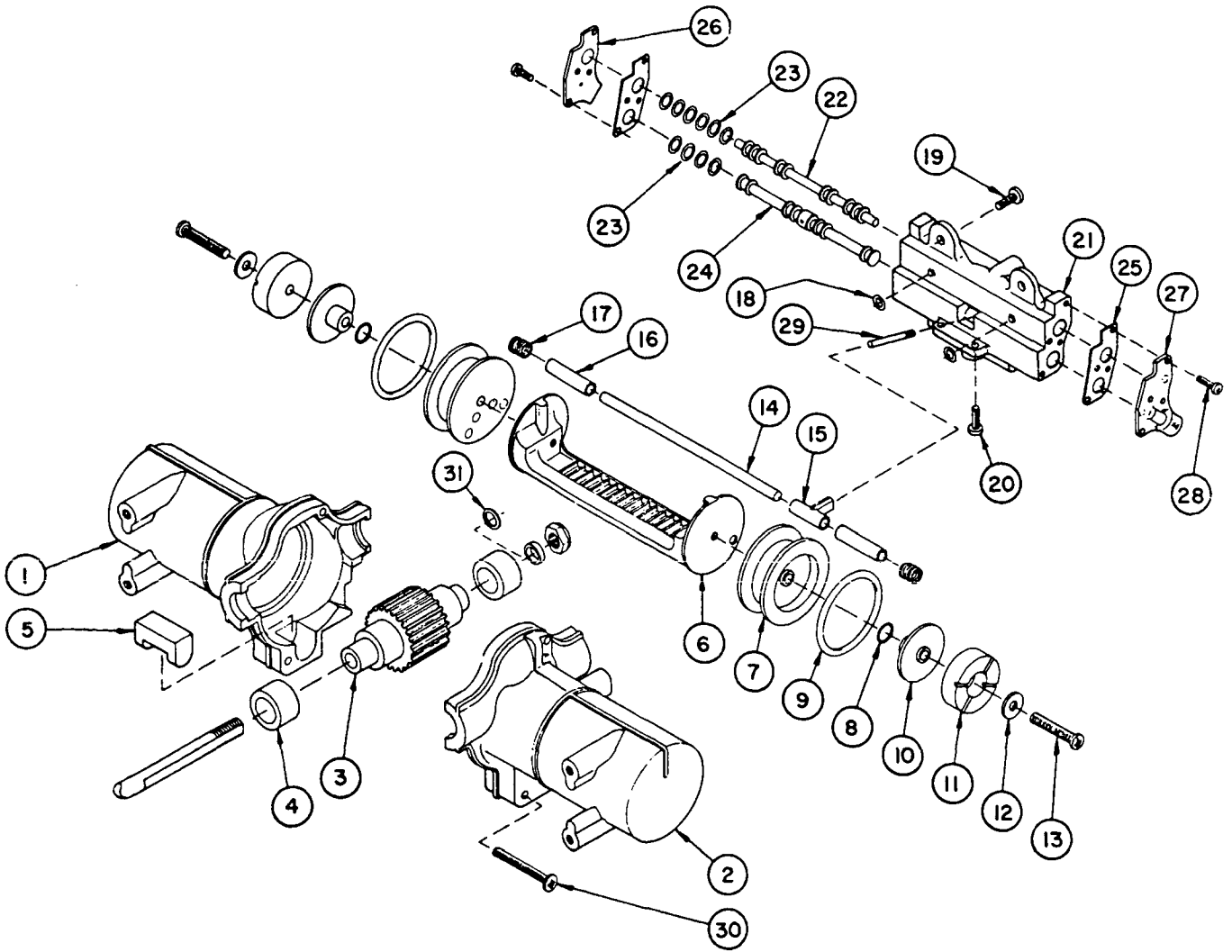


Pump No. 33019

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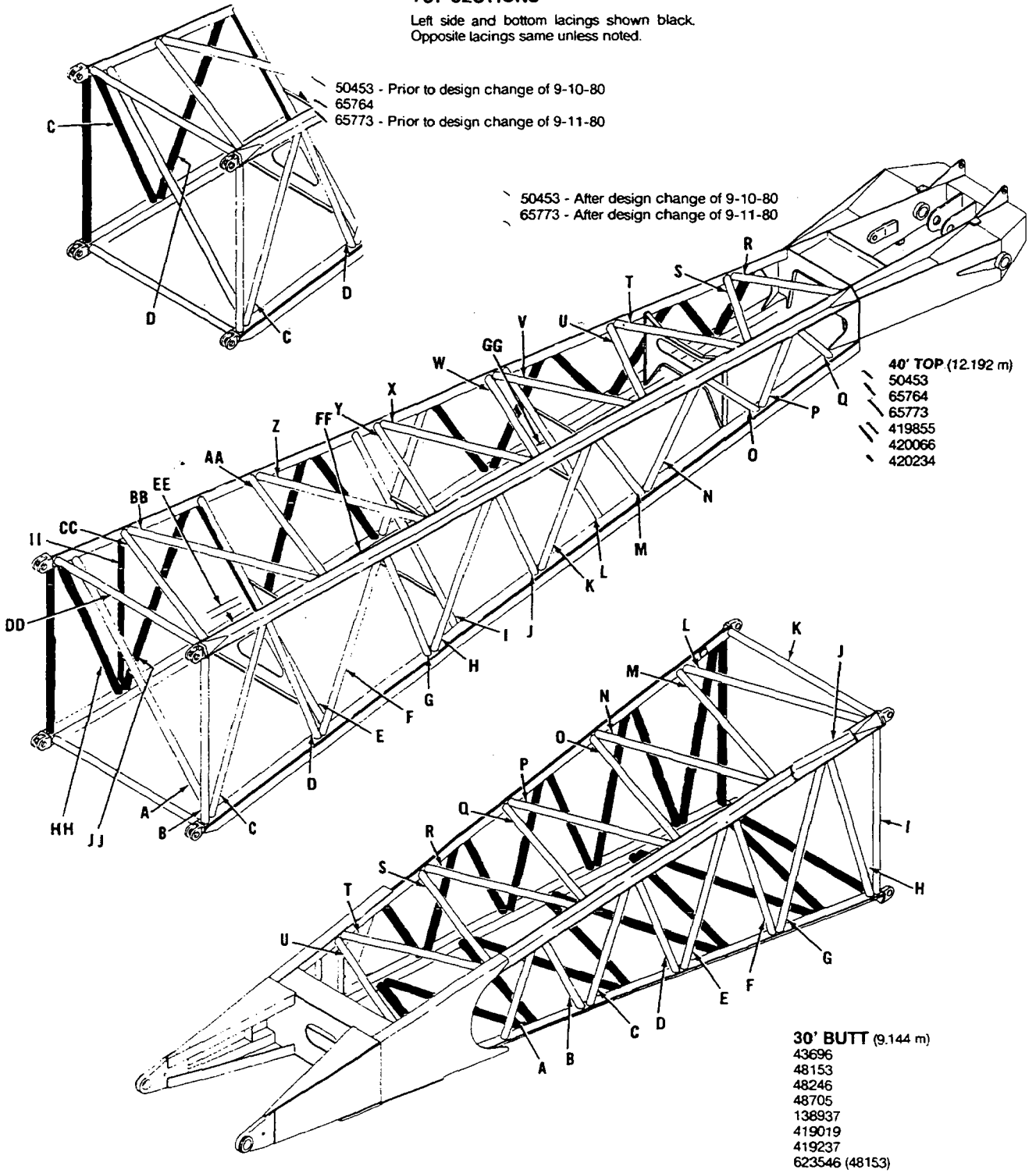
MODEL: M-550-1-Deg.

MATERIAL LIST ON BACK

WINDSHIELD WIPER MOTOR

BOOMS #22, #22A, #22C-BUTT & TOP SECTIONS

Left side and bottom lacings shown black.
Opposite lacings same unless noted.



O-503 C1

To order lacings see Folio #823

2-13-92
9-91

LACINGS

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