



222 PARTS MANUAL

This manual has been prepared for and is considered part of -

222
(EPIC Conversion)
Crane Model No.

2280102
Crane Serial No.

This Manual is Divided into the following Groups:

INDEX	Alphabetical and Numerical
GROUP A	Rotating Structure
GROUP B	Upperworks Machinery
GROUP C	Controls, Hydraulic/Electrical
GROUP D	Power Plant
GROUP E	Lowerworks
GROUP F	Attachments

NOTICE

The crane serial number is the only method your distributor or the factory has of providing correct parts and answers to service problems.

The crane serial number is stamped on the builder's plate attached to the operator's cab. ***Always furnish crane serial number*** when ordering parts or communicating service problems with your distributor or the factory.

MANITOWOC CRANES, INC.

2401 SO. 30TH STREET • PO BOX 70 • PHONE 920-684-6621 • FAX 920-683-6278
MANITOWOC, WI 54221-0070 USA

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

Procedure Photos

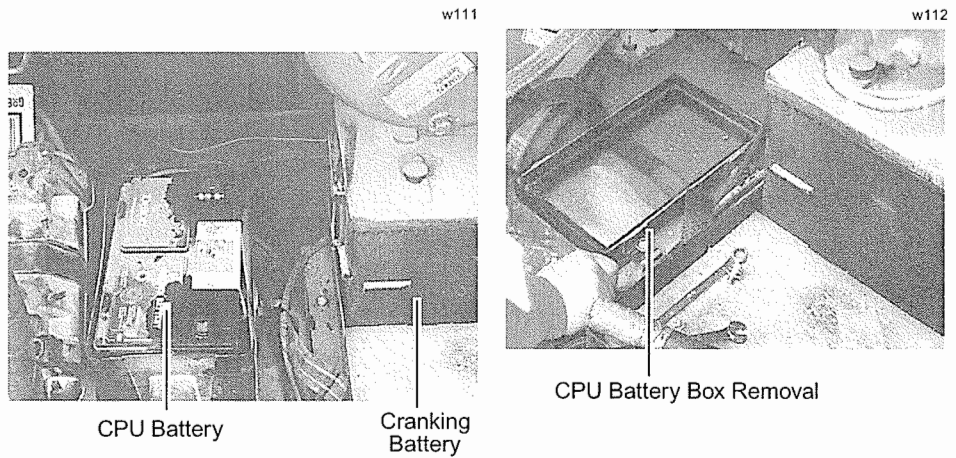


FIGURE 5

BATTERY ISOLATOR WIRING

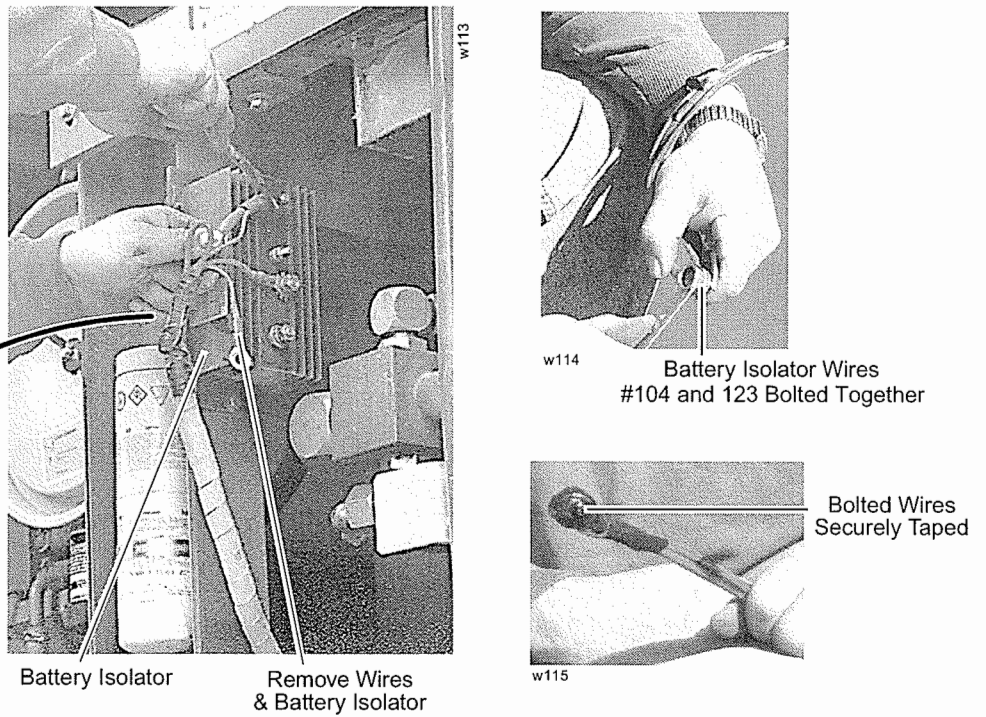
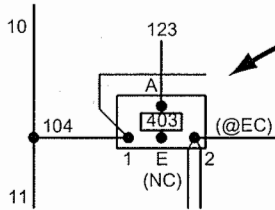
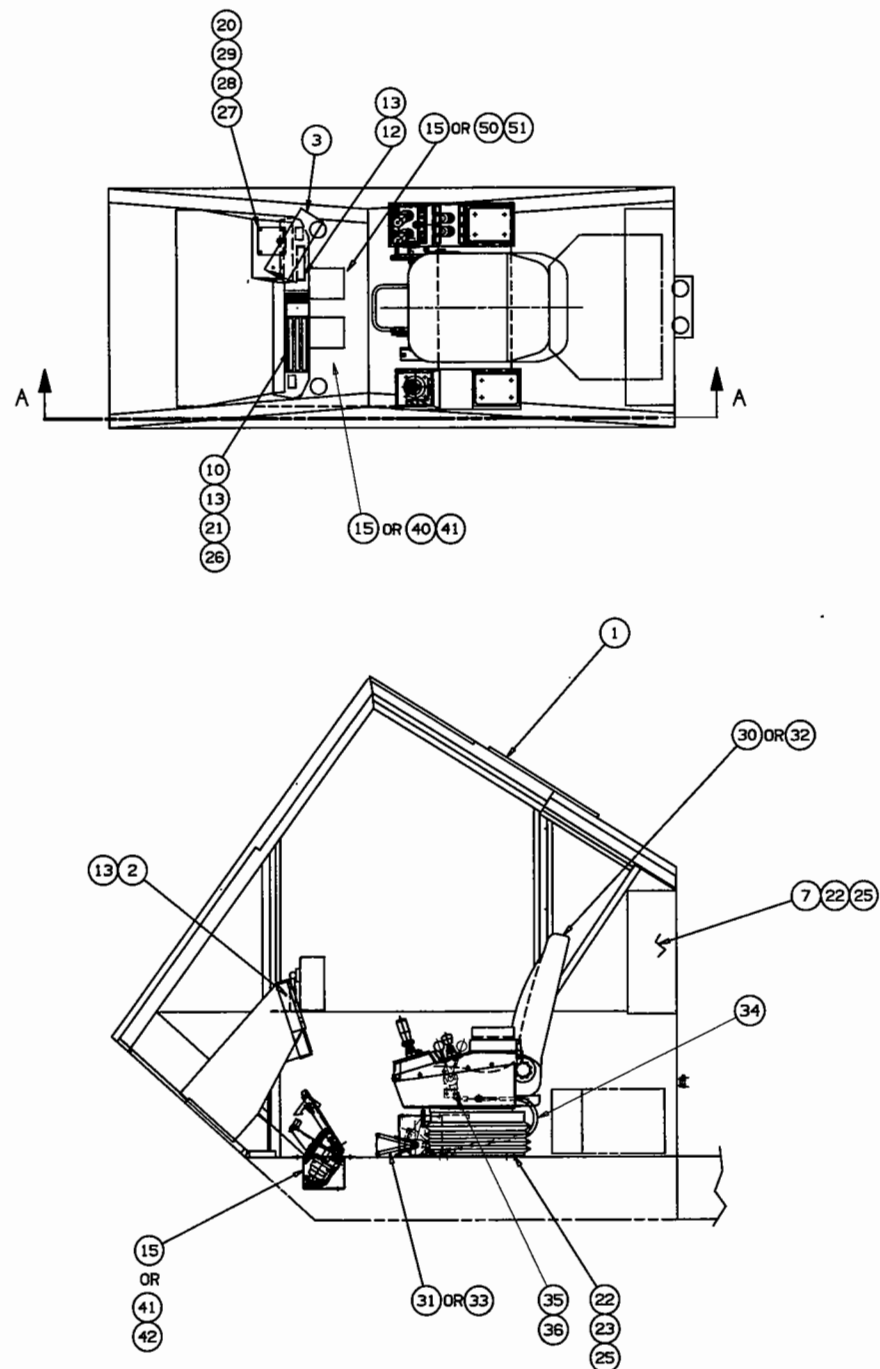


FIGURE 6



VIEW A-A
SCALE: 1=1FT

① SEE ELECTRICAL INSTALLATION.

BILL OF MATERIAL					ASSEMBLIES USED ON
ITEM NO.	QTY	DESCRIPTION	MATERIAL	QTY	912917
1130-0000 CAB ASS'Y-BASIC BILL					
1	1	CAB GROUP, OPERATOR	910569		
2	1	FRONT CONSOLE, THERMOFORM	913104		
3	1	JUNCTION BOX ASSEMBLY, GAUGE	192856		
4	1	WIRING HARNESS, DASH A	911991		
5	1	WIRING HARNESS, A/C	910775		
6	1	WIRING HARNESS ASSEMBLY	910776		
7	1	ASSY, J-BOX & PWR DISTRIBUTION	192859		
8	1	WIRING HARNESS, DASH B	911988		
9					
10	1	FRONT CONSOLE ASSEMBLY	912055		
11					
12	1	CONTROLLER, A/C	913100		
13	7	BTN SHCS, BLK #10-24UNC X .50	911138		
14	7	J NUT, BLACK #10-24	911139		
15					
16					
17					
18	1	TREADLE VALVE ASSEMBLY	167858		
19					
20	1	BASE PLATE	970072		
21	8	NUT, HEX #10-24UNC	546055		
22	8	NUT, HEX .375-16UNC	546054		
23	4	HHCS, .375-16 UNC X .75	612452		
24					
25	8	LOCKWASHER, .375	709440		
26	8	LOCKWASHER, #10	710301		
27	4	HHCS, .3125-18UNC X .625	612402		
28	4	NUT, HEX .3125-18UNC	546053		
29	4	LOCKWASHER, .3125	710303		
1130-0010 W/CUMMINS M11 ENGINE					
30	1	SEAT ASSEMBLY	911131		
31	1	ENGINE THROTTLE CONTROL ASSEMBLY	910852		
1130-0020 W/CUMMINS C6 ENGINE					
32	1	SEAT ASSEMBLY	192851		
33	1	ENGINE THROTTLE CONTROL ASSEMBLY	192948		
34	1	CABLE, THROTTLE - PULL CABLE	297842		
35	1	PIN, COTTER .125 X .75	562042		
36	1	PIN, CLEVIS	563642		
1130-0030 W/FREEFALL F. DRUM					
40	1	TREADLE VALVE ASSEMBLY	911742		
41	1	FREEFALL LIGHT KIT	912904		
1130-0040 W/FREEFALL R. DRUM					
50	1	TREADLE VALVE ASSEMBLY	911742		
51	1	FREEFALL LIGHT KIT	912904		
1130-0050 W/O FREEFALL F. DRUM					
60	1	COVER PLATE	912371		
1130-0060 W/O FREEFALL R. DRUM					
70	1	COVER PLATE	912371		

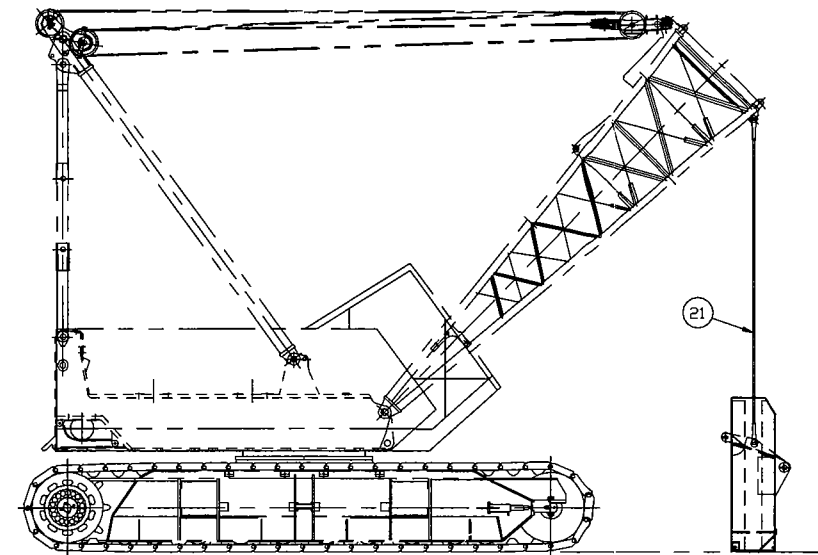
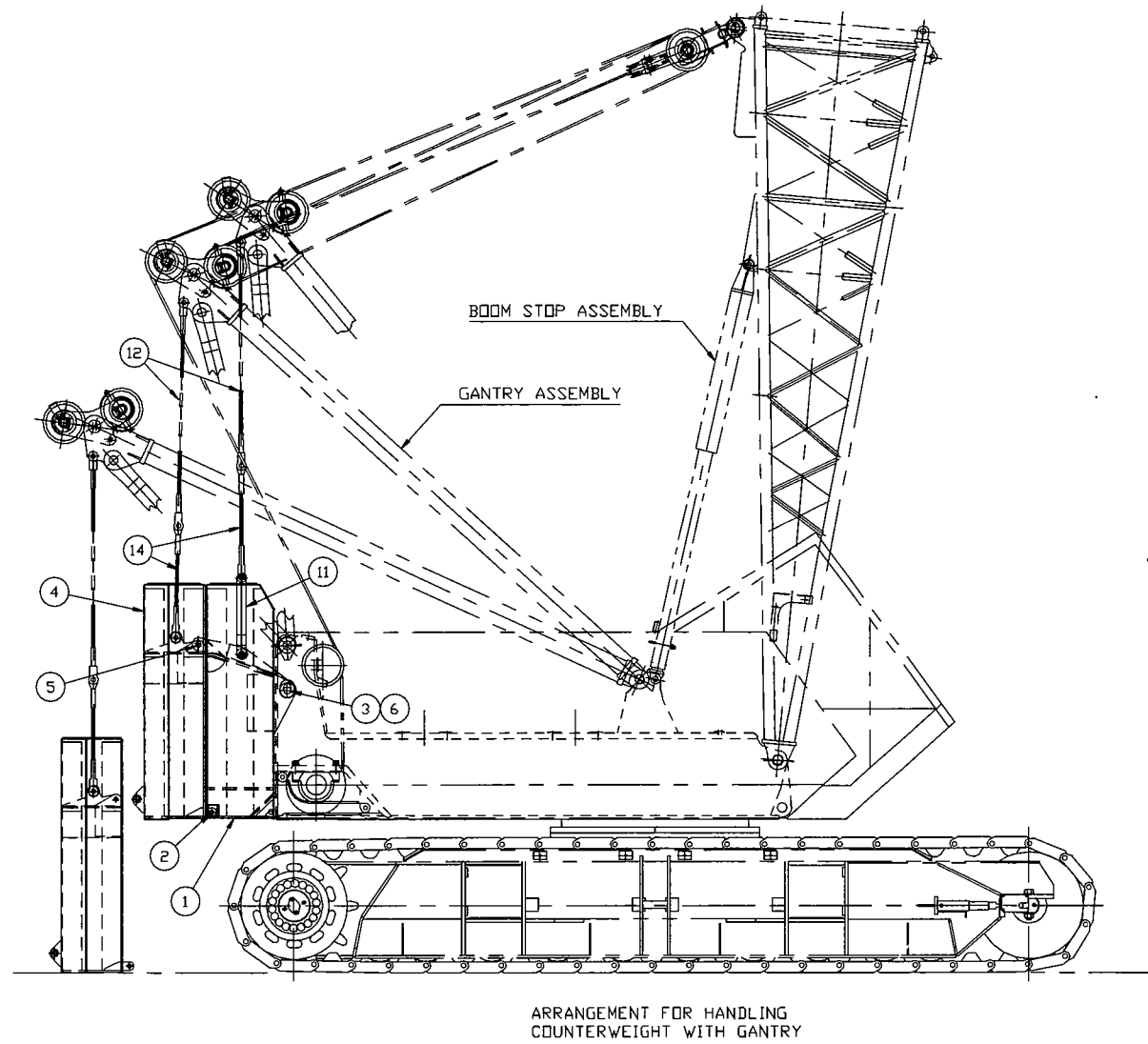
REVISIONS
 01-14-99 SLD
 A) DELETED
 167858
 B) ADDED P/N
 912371
 C) ADDED P/N
 911742 &
 912904 AS
 OPTIONAL
 D) ADDED P/N
 912371
 E) ADDED P/N
 911742 &
 912904 AS
 OPTIONAL

THIS PRINT REMAINS THE PROPERTY OF HYUNDAI CRANES, INC. ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL IT 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 MANNER UNLESS OTHERWISE SPECIFIED BY THE OWNER.		TOLERANCE UNLESS OTHERWISE SPECIFIED		1=1FT		192855		Mitsubishi Cranes, Inc.		OPERATOR CAB ASSEMBLY	
DECIMAL PLACES	FABRICATION	MACHINING	1/16"	1/32"	1/64"	1/32"	1/64"	Milwaukee, Wisconsin	EPIC CONTROLS-CUMMINS		
(1) PLACE 0.0	±.120	±.180	±.030	±.015	±.010	±.005	±.002	W111, 222, 222EX, 222HD	C6 AND M11 ENGINES		
(2) PLACE 0.00	±.005	±.007	±.002	±.001	±.0005	±.0002	±.0001		192855		
(3) PLACE 0.000	±.0005	±.0007	±.0002	±.0001	±.00005	±.00002	±.00001		DATE 10-27-98 PATTERN NO.		

GROUP A - ROTATING STRUCTURE

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Door Post Assembly	WM70376	970376
3	1	Door Assembly, Front	WM70313	970313
4	1	Door Assembly, Rear	WM70314	970314
5	1	Panel Assembly, Rear	WM70379	970379
7	1	Panel Assembly, Side	WM70403	970403
11	1	Cover, Assembly	WM70380	970380
13	1	Door Hold Open-895276-00R	WM70421	970421
25	1	Front Assembly	WM70401	970401
OPTIONAL PARTS				
26	1	Shim for Enclosure Door Latch	WM13103	913103



SCALE: 1/15

ASSEMBLY USED ON
REVISIONS
RELEASE ECH 307722 AutoCad Rel. -
SE ECH 310427 AutoCad Rel.

GROUP A - ROTATING STRUCTURE

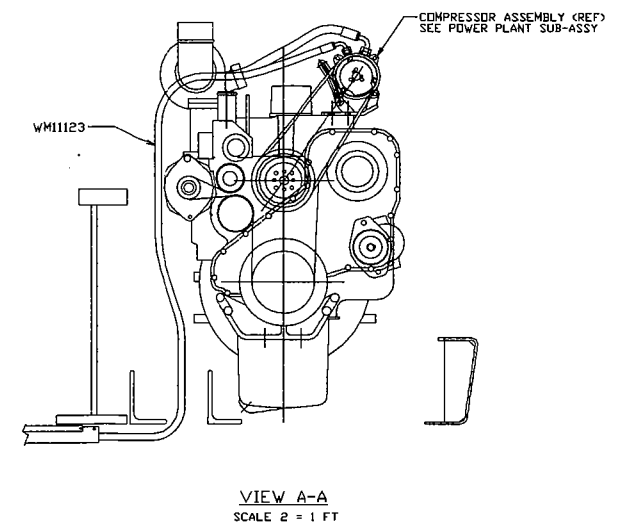
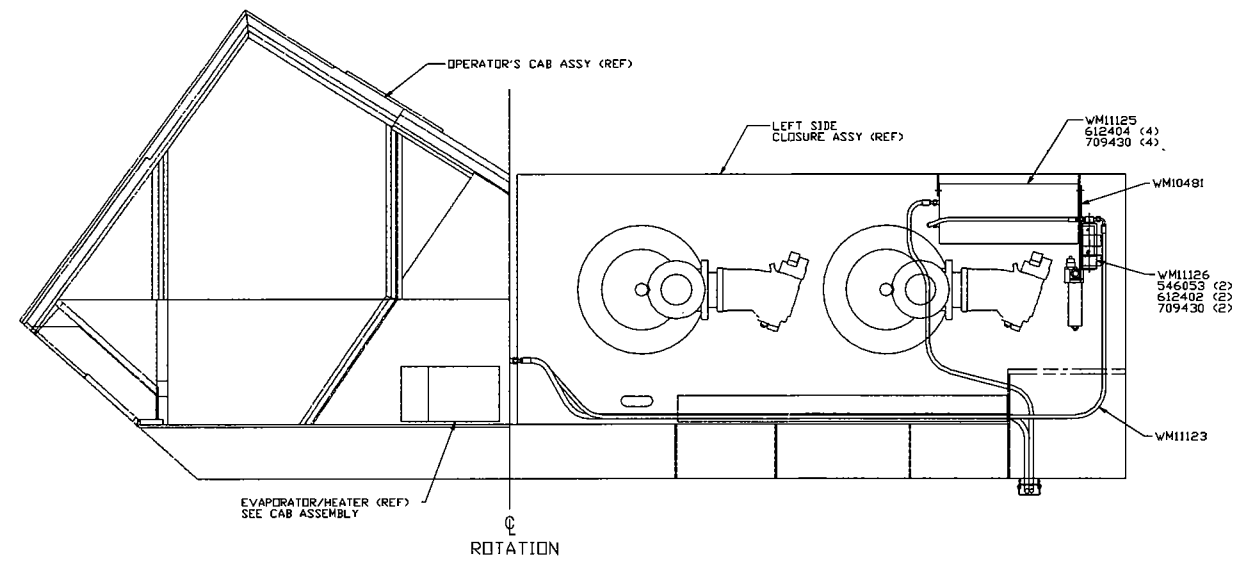
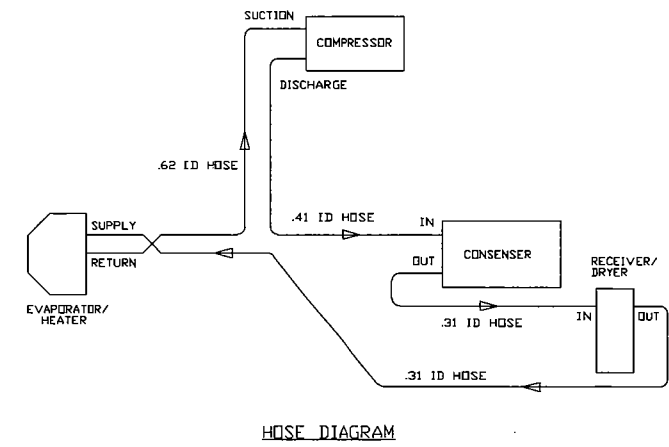
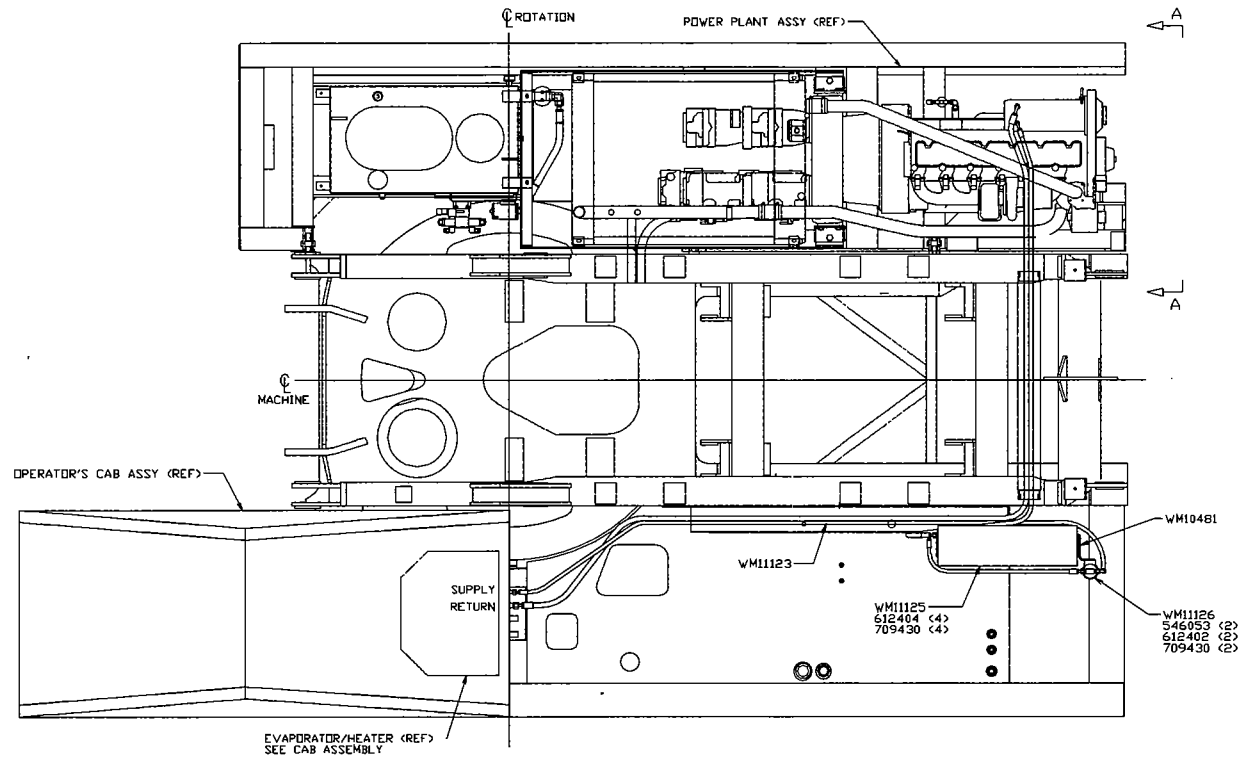
<small>THIS PRINT REMAINS THE PROPERTY OF WEST-MANTOWOC, INC. ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL. IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS.</small>	SCALE 1/24		MANTOWOC, WISCONSIN MODEL W-100	COUNTERWEIGHT	TOTAL WT. LBS. 53,492
	DRK			AND	DATE 3-17-95
	DMG APP. DJS			COUNTERWEIGHT HANDLING ASSEMBLY	WM10687

DO NOT SCALE THIS DRAWING

SHT. 1 OF 1

222 PARTS MANUAL

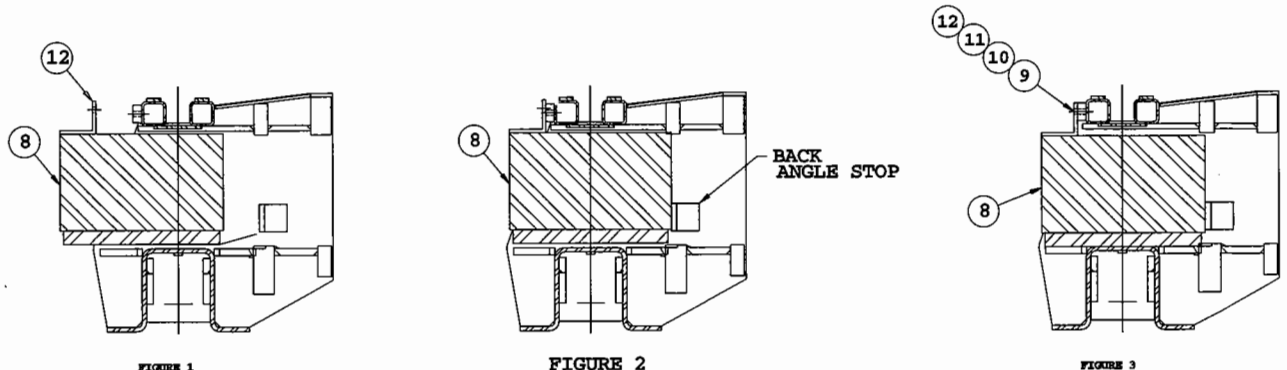
BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
	2	Rubber Recessed Bumper	WM10816	910816
	3	Pin	WM10817	910817
	1	Catwalk Weldment	WM10818	910818
	2	Nut Hex Plated	546055	546055
	2	MS RD HD Plated	617790	617790
	2	Washer Flat Plated	709402	709402
	4	Washer Flat Plated	709460	709460
	2	Lock Washer	710301	710301



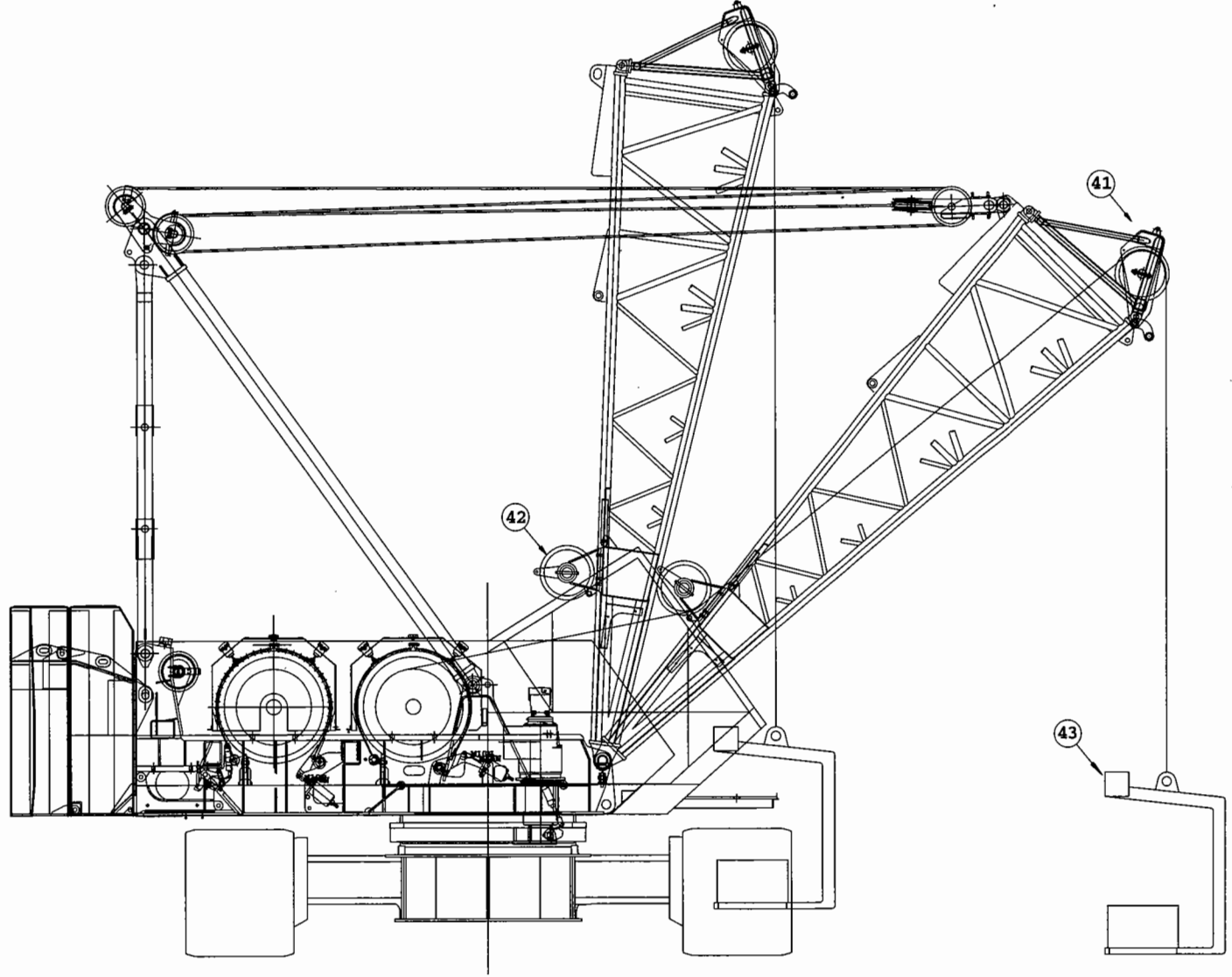
GROUP A - ROTATING STRUCTURE

DO NOT SCALE THIS DRAWING

WESTINGHOUSE	WESTINGHOUSE	AIR CONDITIONING	94-3
WESTINGHOUSE	WESTINGHOUSE	PIPING ASSEMBLY	10-71-94
WESTINGHOUSE	WESTINGHOUSE	PIPING ASSEMBLY	WM1128



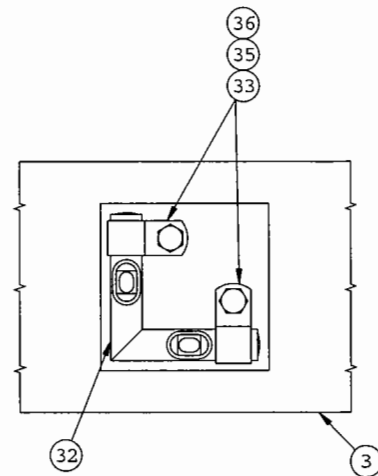
SECTION A
 1/12 SH 1



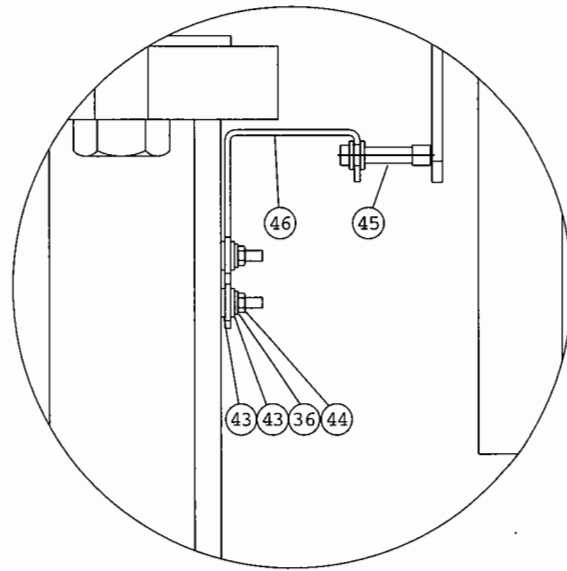
310427
AutoCad Rel. 12
7-31-97 JMM
A SEE ECN 4311703
AutoCad Rel. 12
11-7-97 BOB
B SEE ECN 311716
AutoCad Rel. 13
1-6-98 BOB
C SEE ECN 311747
AutoCad Rel. 13
7-9-98 SLD
D SEE ECN 1998028
AutoCad Rel. 14
9-8-98 BOB
E SEE ECN 1998026
AutoCad Rel. 14

GROUP A - ROTATING STRUCTURE

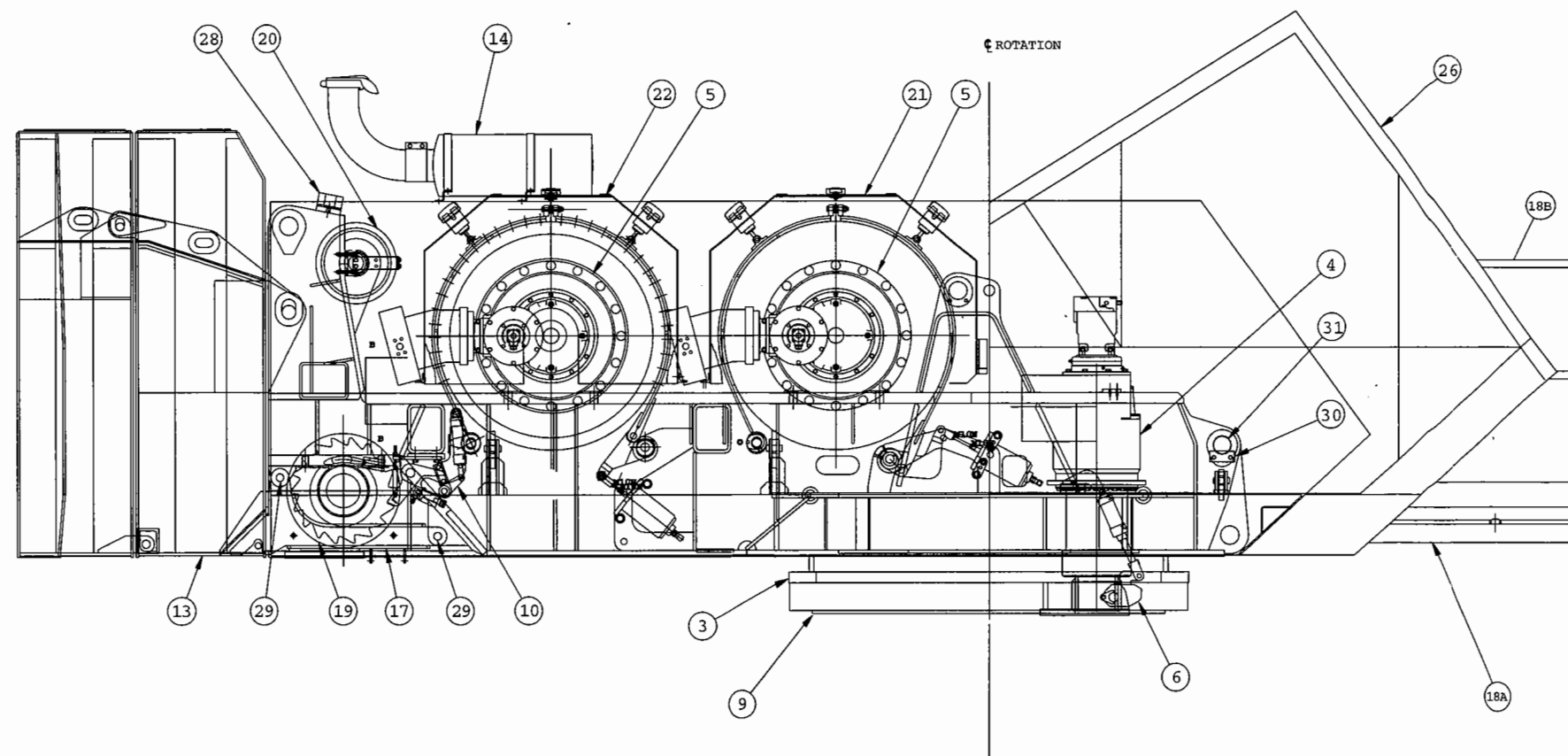
1/24	WEST : W222 SERIES "B" REF. WM10687	COUNTERWEIGHT &	77,578
JMM		COUNTERWEIGHT HANDLING	7-31-96
CAC		ASSEMBLY	WM1599
CAC		(OPTIONAL EXTRA CTWT.)	



VIEW A
SCALE 1/12 SH 1



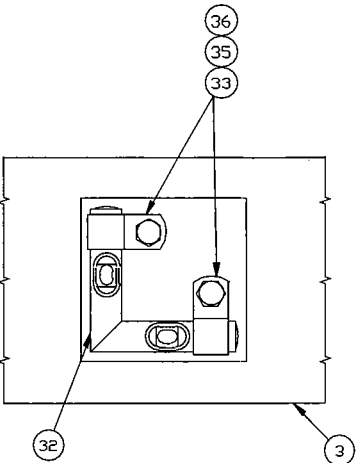
VIEW B
SCALE 1/12 SH 2
TYPICAL 2 PLACES



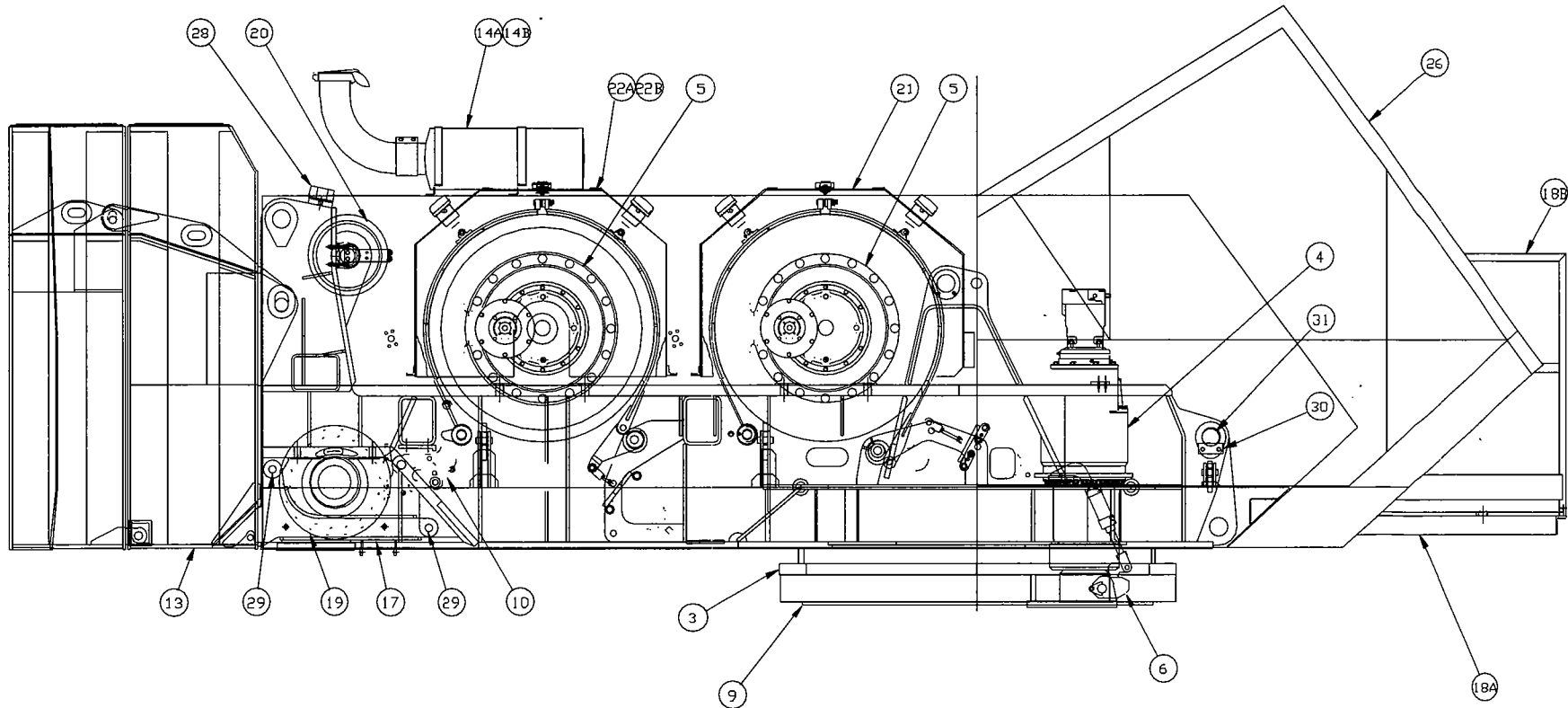
REVISIONS	
DATE	DESCRIPTION
313125	AutoCad Rel. 12
4-15-98	RSM
A	DCM 19980003
	AutoCad Rel. 13
06-30-98	RSM
B	DCM 19980016
	AutoCad Rel. 14
7-9-98	RSM
C	DCM 19980017
	AutoCad Rel. 14
8-24-98	RSM
D	DCM 19980028
	AutoCad Rel. 14

GROUP A - ROTATING STRUCTURE

1/12	WEST	ROTATING BED ASSEMBLY	
LAD			4-28-97
DHR			WML2388
PKK	WML2388	WML0034	



VIEW A
SCALE 1/12 SH 1



ASSEMBLY REVISED
19980003 AutoCad Rev. 13 06-22-98 RMW [A] RMW 19980014 AutoCad Rev. 11 7-9-98 RMW [B] RMW 19980017 AutoCad Rev. 14

GROUP A - ROTATING STRUCTURE

<small>THIS DRAWING IS THE PROPERTY OF WEST MANITOWOC, INC. ALL INFORMATION CONTAINED THEREIN IS CONFIDENTIAL. IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND IN EXPRESS AGREEMENT THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WITHOUT THE WRITTEN CONSENT OF WEST MANITOWOC, INC.</small>	SCALE	1/12		MANITOWOC, WISCONSIN	ROTATING BED	TOTAL # OF SHEETS	
	REV.	RMW		DATE	4-15-98		
	APP.	SLD		MODEL	WM12388	MATERIAL	-
	APP.	SLD		REV.	0	WM12862	

DO NOT SCALE THIS DRAWING

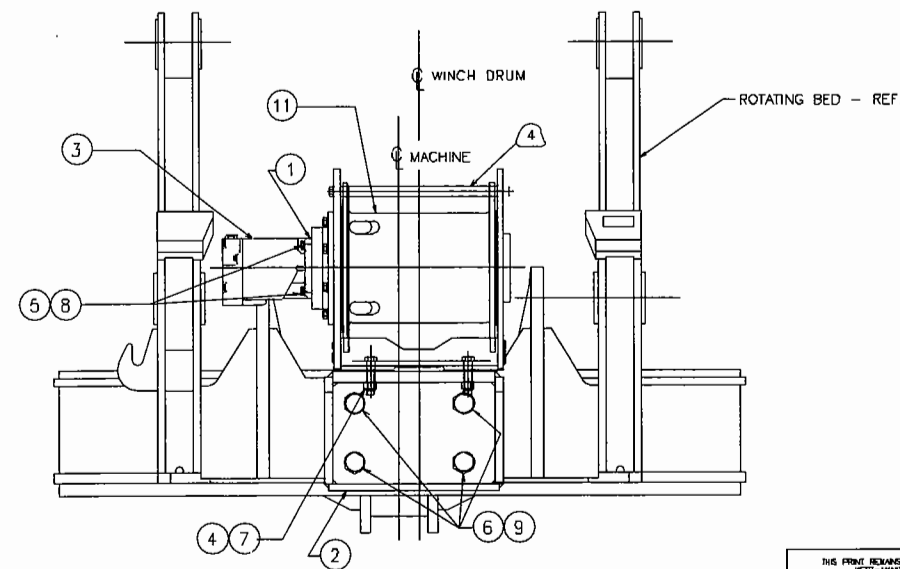
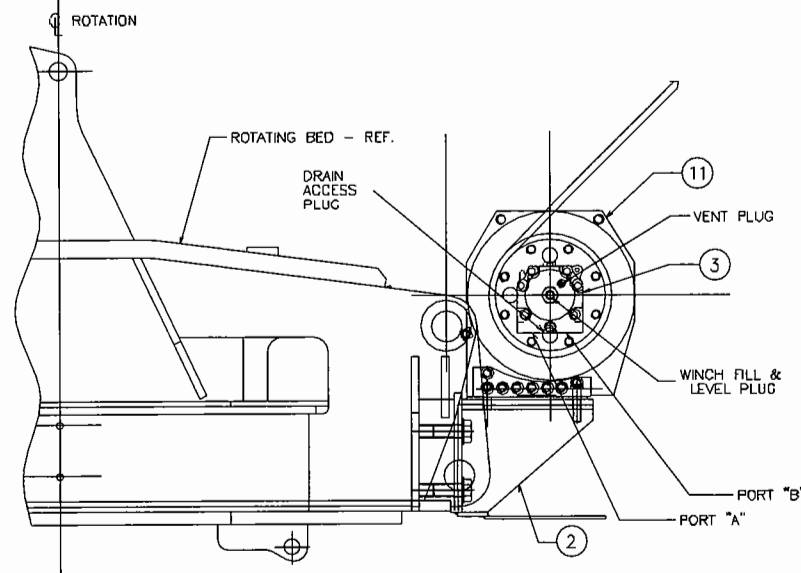
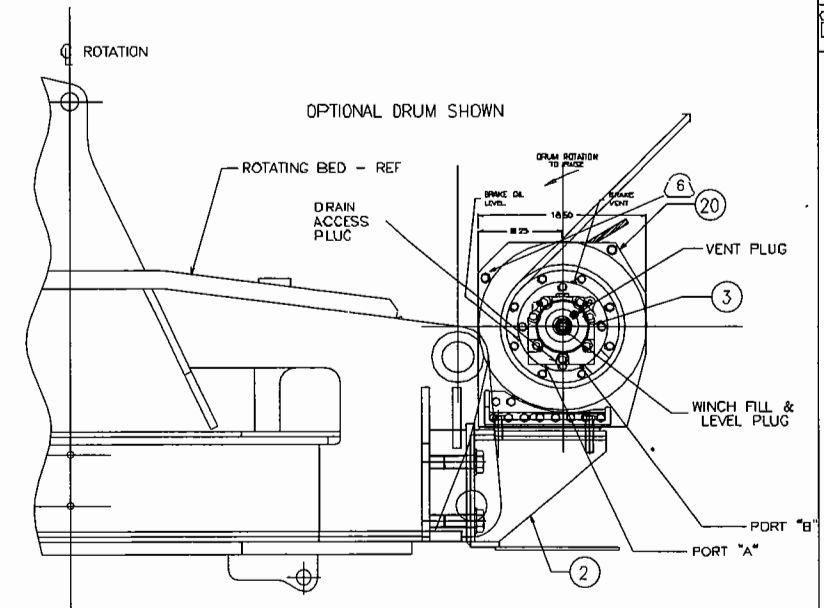
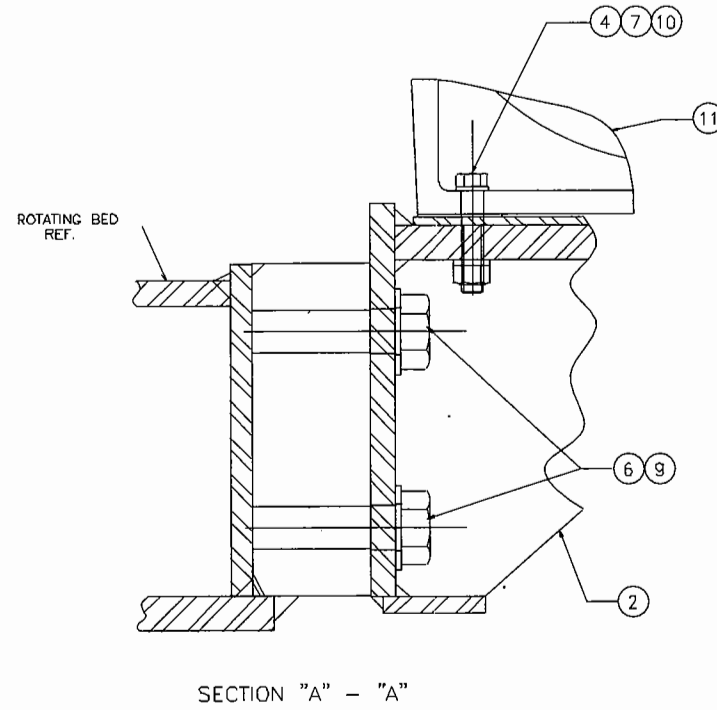
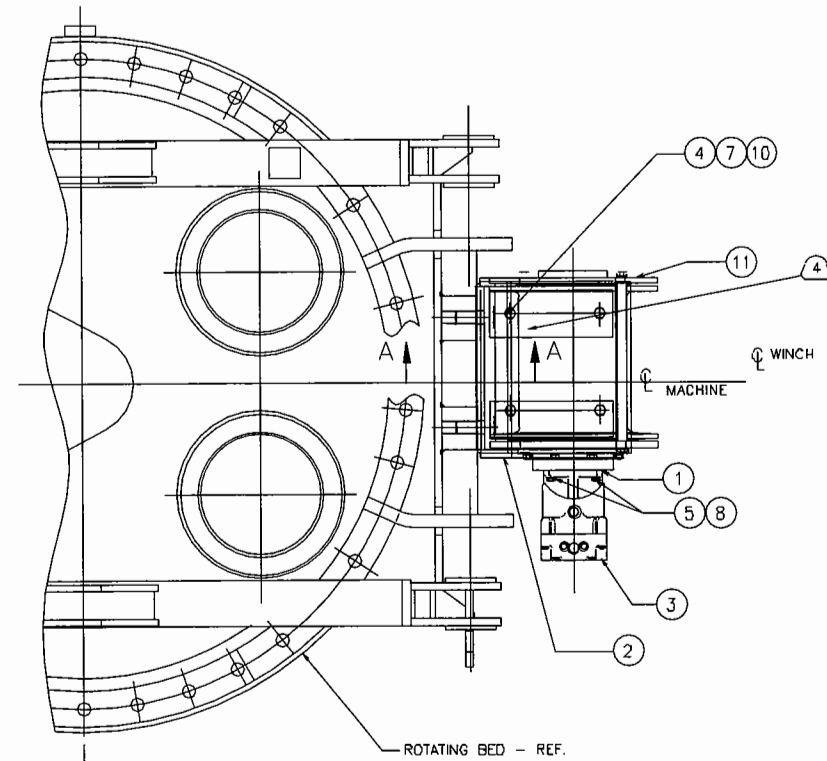
222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
		COMBO	WM13094	913094
		A/C HOSE KIT	WM13095	913095
		CONDENSER	WM13096	913096
		COMPRESSOR MOUNTING KIT FOR CUMMINS 6CT8.3 ENGINE	WM13097	913097
		COMPRESSOR MOUNTING KIT FOR CUMMINS M11 ENGINE	WM13098	913098
		ATC RETROFIT KIT	WM13099	913099

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Bracket, Mounting, Swing Lock	WM10045	910045
2	2	Elbow	WM10097	910097
3	1	Swing Lock	WM10787	910787
4	1	Shim	WM10788	910788
5	1	Cylinder, Hydraulic 2450 PSI	WM11272	911272
6	1	Rod End	74263	74263
7	1	Pin	140562	140562
8	1	Shaft, Swing Lock	168097	168097
9	2	Capscrew, Hex Head	612464	612464
10	2	Lockwasher	710304	710304

ASSEMBLIES USED ON
WM13146
WM13147
REVISIONS
308988
AutoCad. Rev. 13
03/16/98 RMW
A RE ELM 311735
AutoCad. Rev. 13
06/22/98 SLD
B ELM 1998001B
AutoCad. Rev. 13
08/07/98 BOB
C ELM 1998002B
AutoCad. Rev. 14



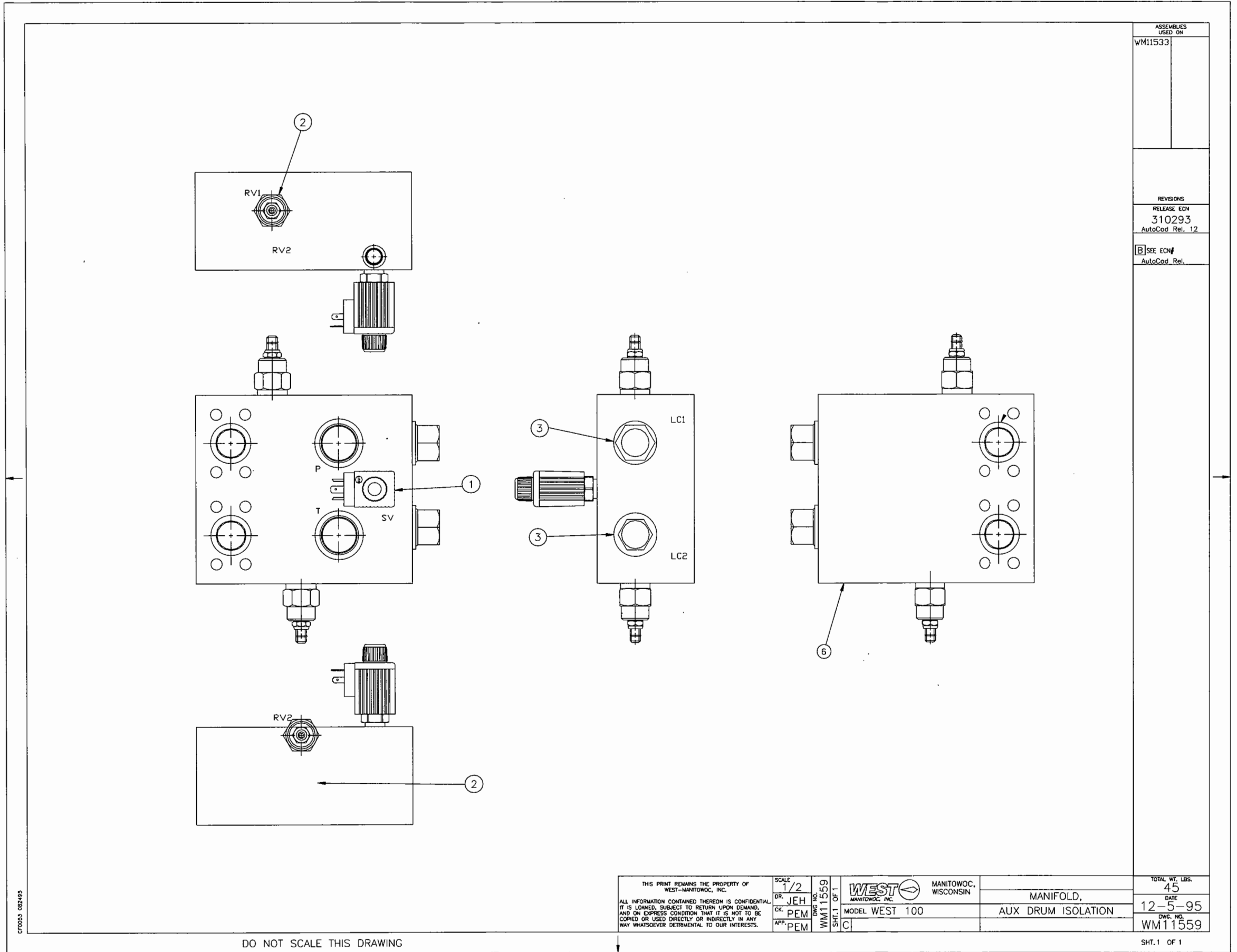
THIS DRAWING IS THE PROPERTY OF WEST-MANITOWOC, INC. ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS.	SCALE 1/5	DR JMB	CHK PEM	APP PEM	WM11206	SHEET 1 OF 1	WEST-MANITOWOC, INC. MANITOWOC, WISCONSIN	FRONT MOUNTED HYD. AUX DRUM ASSEMBLY	15000 LB. LINE PULL	SEE BOM	DATE 2-21-95	PART NO. WM11206
---	-----------	--------	---------	---------	---------	--------------	---	--------------------------------------	---------------------	---------	--------------	------------------

DO NOT SCALE THIS DRAWING

GROUP B - UPPERWORKS MACHINERY

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Swing Drive	WM11344	911344
2	1	Motor, Hydraulic	WM10613	910613
3	1	Swing Drive Mounting Ring	WM11396	911396
4	2	Dowel Pin	WM11397	911397
5	35	Hex Head Capscrew GR8	WM70083	970083
6	4	Washer, Flat	709460	709460
7	4	Washer, Flat	710306	710306



ASSEMBLIES USED ON	WM11533
REVISIONS	
RELEASE ECH	310293
AutoCod Rel.	12
<input checked="" type="checkbox"/> SEE ECH	
AutoCod Rel.	

GROUP B - UPPERWORKS MACHINERY

<small>THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC. ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL. IT 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.</small>	SCALE	1/2		MANITOWOC, WISCONSIN	TOTAL WT. LBS.	45	
	DR.	JEH		MODEL WEST 100	MANIFOLD, AUX DRUM ISOLATION	DATE	12-5-95
	CK.	PEM				DWG. NO.	WM11559
	APP.	PEM					
	DWG. NO.	WM11559	SHT. 1 OF 1				

DO NOT SCALE THIS DRAWING

SHT. 1 OF 1

CF0003 082495

222 PARTS MANUAL

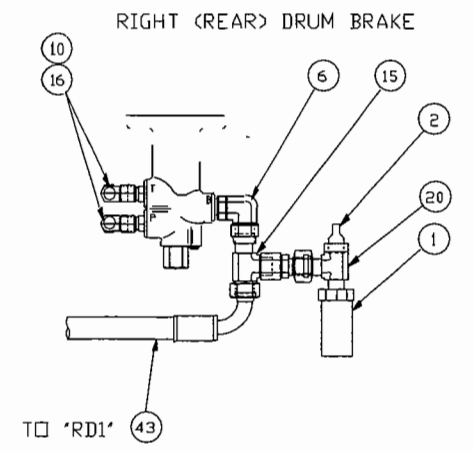
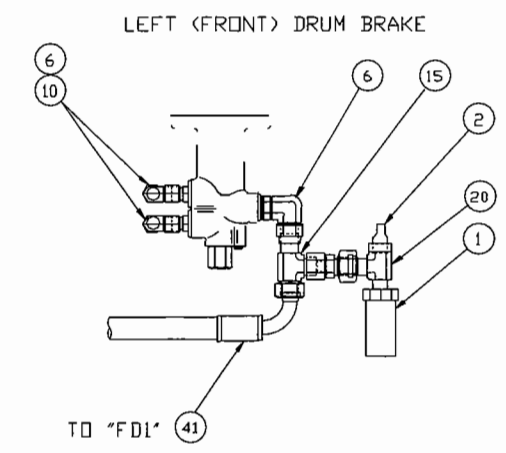
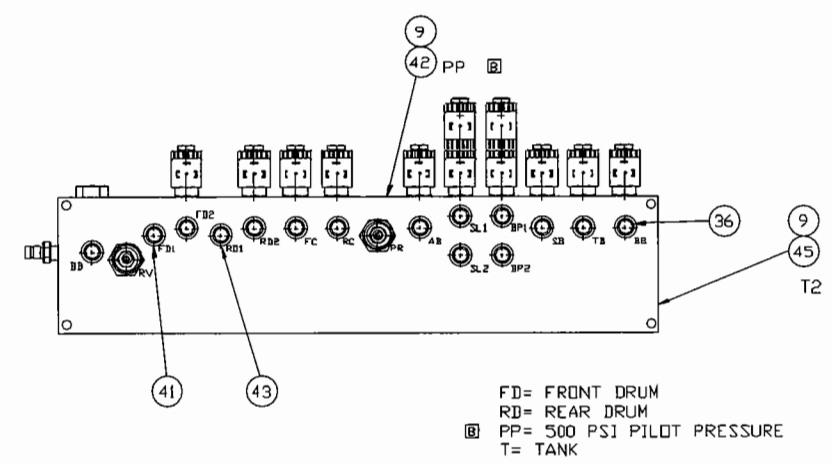
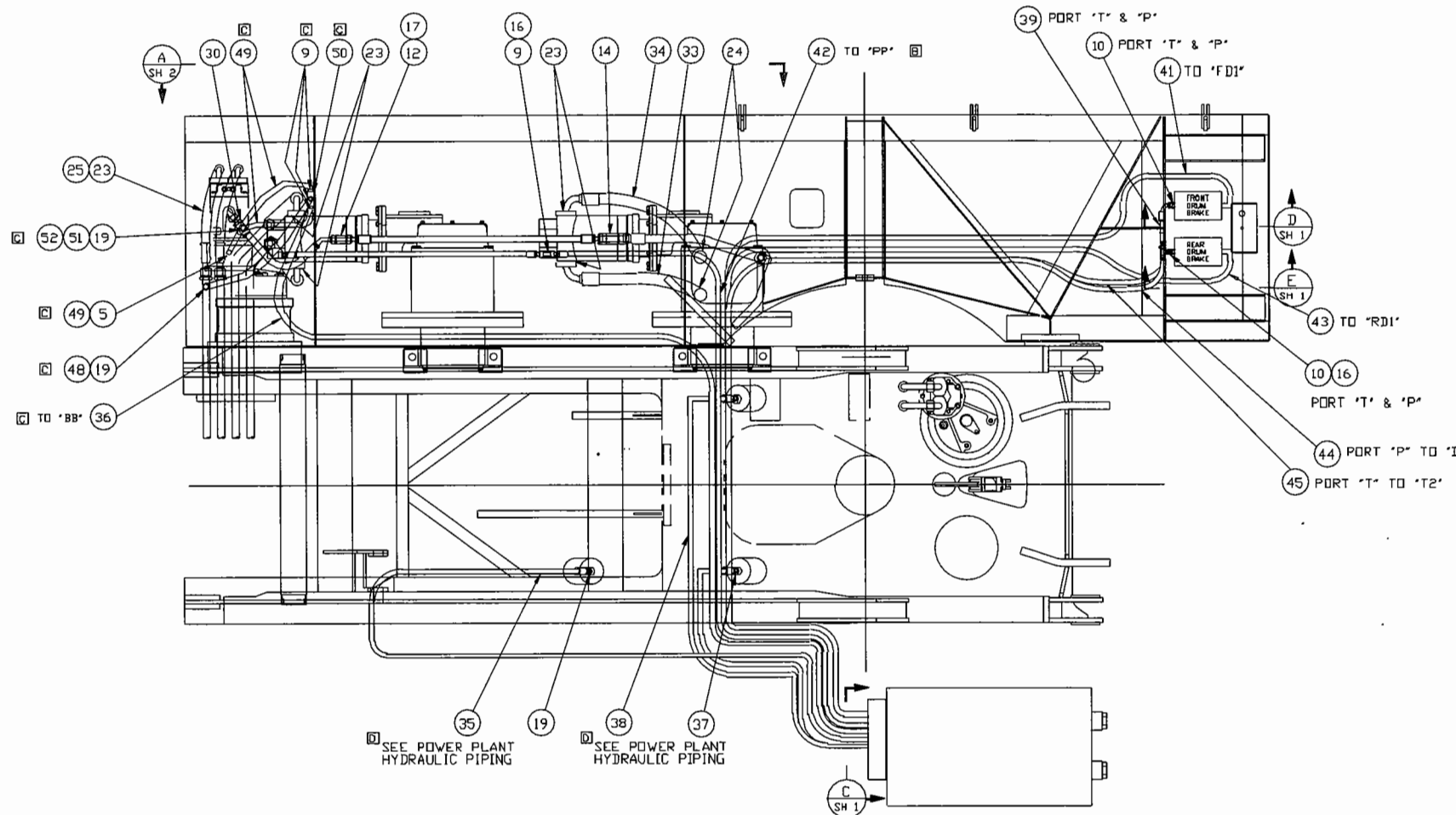
BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	DRUM, 25.50 DIA. FOR 1.25" ROPE	WM11604	911604
2	1	GEARBOX	WM11616	911616
3	1	BLOCK, PILLOW	WM11608	911608
4	1	SHAFT, DRUM	WM11605	911605
5	1	FLANGE, BRAKE AND CLUTCH	WM10681	910681
6	1	SPIDER, DRUM CLUTCH	WM11606	911606
7	1	MOTOR, HYDRAULIC	WM10028	910028
8	1	BLOCK, PILLOW	WM11735	911735
9	1	BAND ASSEMBLY, DRUM CLUTCH	WM12648	912648
10	1	PLATE, TIMING	WM10863	910863
11	2	BEARING, TAPERED ROLLER	224397	224397
12	1	BEARING, SPHERICAL ROLLER	225295	225295
13	1	BEARING, SPHERICAL ROLLER	224414	224414
14	1	ACTUATOR, HYDRAULIC, CLUTCH	WM12726	912726
15	1	RETAINER, BEARING	WM13193	913193
16	1	RETAINER, SEAL	WM11614	911614
17	1	RETAINER, SEAL	167731	167731
18	1	RETAINER, SEAL	WM11607	911607
19	1	LEVER, DRUM CLUTCH	WM12399	912399
20	1	ADAPTER, SAE-6 ORB TO SAE-6 ORS	WM11631	911631
21	1	WEDGE, ANCHOR	79558	79558
22	1	LOCKNUT, BEARING	225218	225218
23	1	LOCKWASHER, BEARING	225170	225170
24	1	FLANGE, BRAKE	WM11609	911609
25	3	BUSHING, DURALON	290009	290009
26	1	BUSHING, DURALON	290218	290218
27	3	BAND GUIDE, DRUM CLUTCH	71308	71308
28	1	SHAFT, ENCODER	WM11347	911347
29	1	EYE BOLT	WM10892	910892
30	2	ELBOW	WM10884	910884
31	6	FITTING, LUBRICATION	429000	429000
32	1	HOSE ASSEMBLY	WM11630	911630
33	1	ENCODER, INCREMENTAL, OPTICAL	WM10383	910383
34	1	PLATE, KEEPER	167673	167673
35	1	LINK	WM12649	912649
36	6	NUT, HEX FLG GR8	548705	548705
37	1	NUT, HEX GR 5 ZINC PLATED	546103	546103
38	1	PIN	140197	140197
39	1	PIN	167668	167668
40	1	PIN	167672	167672
41	1	PIN	167674	167674

Drum Shaft, Free Fall,
Dual Brakes, 222 HD, 1.25" Rope
WM11603_F

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	GUARD, BRAKE, REAR, RIGHT HAND	WM10810	910810
2				
3	1	DRUM BRAKE BAND SUB-ASSEMBLY	167716	167716
4	1	ACTUATOR, HYDRAULIC BRAKE	WM11650	911650
5	1	BRACKET, ACTUATOR	WM11521	911521
6	1	LEVER	WM11522	911522
7	2	BEARING	225711	225711
8	1	BOLT (SPECIAL)	70006	70006
9	2	BOLT, EYE	14863	14863
10	1	BUSHING	290013	290013
11	1	BUSHING	290218	290218
12	4	BUSHING, MACH.	WM11015	911015
13	1	END, ROD	WM11613	911613
14	1	GREASE FITTING	429389	429389
15	2	FITTING	429087	429087
16	1	MOUNTING ANGLE R.S.	WM12757	912757
17	1	MOUNTING ANGLE R.S.	WM12758	912758
18	1	NUT, HEX,ELASTIC STOP GR ZP	548371	548371
19	4	NUT, HEX, ELASTIC STOP	548344	548344
20	1	NUT, HEX,M10 ZP	WM11632	911632
21	2	NUT, HEX,M12 ZP	WM11633	911633
22	2	PIN ANCHOR	14856	14856
23	2	PIN	140193	140193
24	1	PIN	140197	140197
25	1	PIN	167724	167724
26	1	PIN	WM12011	912011
27	1	PIN	167726	167726
28	2	PIN	WM10092	910092
29	2	PIN, COTTER ZP	562043	562043
30	1	PIN, COTTER ZP	562064	562064
31	2	PIN, COTTER ZP	562087	562087
32	4	PIN, COTTER ZP	562107	562107
33	2	PIPE CAP	304231	304231
34	1	ROD, THD M10	WM11619	911619
35	12	SCR,CAP,HEX GR5 ZP	612452	612452
36	1	SCR,CAP,HEX GR5 ZP	612555	612555
37	2	SCR,SET AL HD NYLOK	620239	620239
38	1	SCR,SET AL HD NYLOK	620275	620275
39	1	SHIM	167824	167824

Guard, Drum Brake,
Rear Drum, Single Brake
WM11651_C



VIEW C SH 1
SCALE NTS

VIEW D SH 1
SCALE NTS

VIEW E SH 1
SCALE NTS

ASSEMBLIES USED ON
311133
Autocl. Rev. 12
5-10-95 LAO
A) SEE ECH 3111472
Autocl. Rev. 12
8-19-95 JMM
B) SEE ECH 311703
Autocl. Rev. 12
9-17-95 JMM
C) SEE ECH 311707
Autocl. Rev. 12
9-1-98 RMW
D) ECH 19880031
Autocl. Rev. 14

GROUP B - UPPERWORKS MACHINERY

<small>THIS PRINT BECOMES THE PROPERTY OF WEST-MANITOWOC, INC. ALL INFORMATION CONTAINED THEREIN IS CONFIDENTIAL. IT 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 DEPENDENT TO OUR INTEREST.</small>	SCALE 1/12		ASSEMBLY, LEFT SIDE	208.6
	EA. TDP		MODEL W-222HD	12-18-95
	CC. PEM		REP WM10001	WM11669
	APP. PEM			

DO NOT SCALE THIS DRAWING

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	2	SWITCH, PRESSURE	WM11712	911712
2	2	PORT, TEST, MALE	WM10610	910610
3	2	ORIFICE ASSY	WM10960	910960
4	2	TUBE ASSY	WM10961	910961
5	4	ELBOW, 90 DEGREE	WM10097	910097
6	5	ELBOW, 90 DEGREE	WM10099	910099
7	1	ELBOW, 90 DEGREE	WM10106	910106
8	2	ADAPTER	WM10119	910119
9	3	ADAPTER	WM10121	910121
10	4	ADAPTER	WM10123	910123
11	3	ADAPTER	WM10126	910126
12	1	ADAPTER	WM10134	910134
13	2	ADAPTER	WM10152	910152
14	1	TEE	WM10154	910154
15	3	TEE, SWIVEL	WM10169	910169
16	4	TEE	WM10176	910176
17	1	TEE	WM10178	910178
18	2	ADAPTER	WM10334	910334
19	3	SWIVEL, 90 DEGREE ELBOW	WM10884	910884
20	2	TEE	WM11816	911816
21	2	PORT, TEST, MALE	WM10611	910611
22	1	BLOCK, CONNECTOR	WM11846	911846
23	4	FLANGE ASSY	WM10229	910229
24	4	FLANGE ASSY	WM10230	910230
25	2	HOSE, FLEX	WM10053	910053
26	1	HOSE, FLEX	WM10064	910064
27	1	HOSE, FLEX	WM10067	910067
28	1	HOSE, FLEX	WM11081	911081
29	1	HOSE, FLEX	WM11865	911865
30	1	HOSE, FLEX	WM12988	912988
31	1	HOSE, FLEX	WM11797	911797
32	1	HOSE, FLEX	WM11798	911798
33	1	HOSE, FLEX	WM11801	911801
34	1	HOSE, FLEX	WM11803	911803
35	1	HOSE, FLEX	WM12507	912507
36	1	HOSE, FLEX	WM11809	911809
37	1	HOSE, FLEX	WM11813	911813
38	1	HOSE, FLEX	WM13207	913207
39	2	HOSE, FLEX	WM11837	911837
40	1	HOSE, FLEX	WM11869	911869

Hydraulic Piping, Rotating Bed,
Left Side, 222HD
WM11849_C

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	2	ELBOW, 90 DEGREE	WM10097	910097
2	1	ELBOW, 90 DEGREE	WM10884	910884
3	1	ADAPTER	WM10122	910122
4	2	ELBOW, 90 DEGREE	WM10353	910353
5	2	ADAPTER	WM10119	910119
6	6	ADAPTER	WM10121	910121
7	2	ADAPTER	WM10334	910334
8	4	ADAPTER	WM10135	910135
9	2	ADAPTER	WM10338	910338
10	2	FLANGE KIT	WM10229	910229
11	2	ELBOW, 45 DEGREE	WM10267	910267
12	2	CAP	WM10595	910595
13	1	TEE, SWIVEL	WM10173	910173
14	2	REDUCER	WM11069	911069
15	2	ELBOW, 90 DEGREE, FLANGE	WM10874	910874
16	2	BULKHEAD ELBOW, 90 DEGREE	WM10186	910186
17	2	TEE BULKHEAD	WM11859	911859
18	1	TEE, BULKHEAD	WM11860	911860
19	1	TUBE, PREFORMED	WM10465	910465
20	1	TUBE, PREFORMED	WM10466	910466
21	1	TUBE, PREFORMED	WM10467	910467
22	1	TUBE, PREFORMED	WM10468	910468
23	1	TUBE, PREFORMED	WM10476	910476
24	1	TUBE, PREFORMED	WM10475	910475
25				
26	1	TUBE, PREFORMED	WM10478	910478
27	1	TUBE, PREFORMED	WM11844	911844
28	1	TUBE, PREFORMED	WM11845	911845
29				
30	1	HOSE, FLEX	WM10490	910490
31	1	HOSE, FLEX	WM10491	910491
32	4	HOSE, FLEX	WM10893	910893
33	1	HOSE, FLEX	WM11152	911152
34	1	HOSE, FLEX	WM11153	911153
35	1	HOSE, FLEX	WM11154	911154
36	1	HOSE, FLEX	WM11155	911155
37	2	HOSE, FLEX	WM11806	911806
38	1	HOSE, FLEX	WM11807	911807
39	1	HOSE, FLEX	WM11810	911810
40	3	HOSE, FLEX	WM11812	911812

Hydraulic Piping,
Rotating Bed
WM11916_A

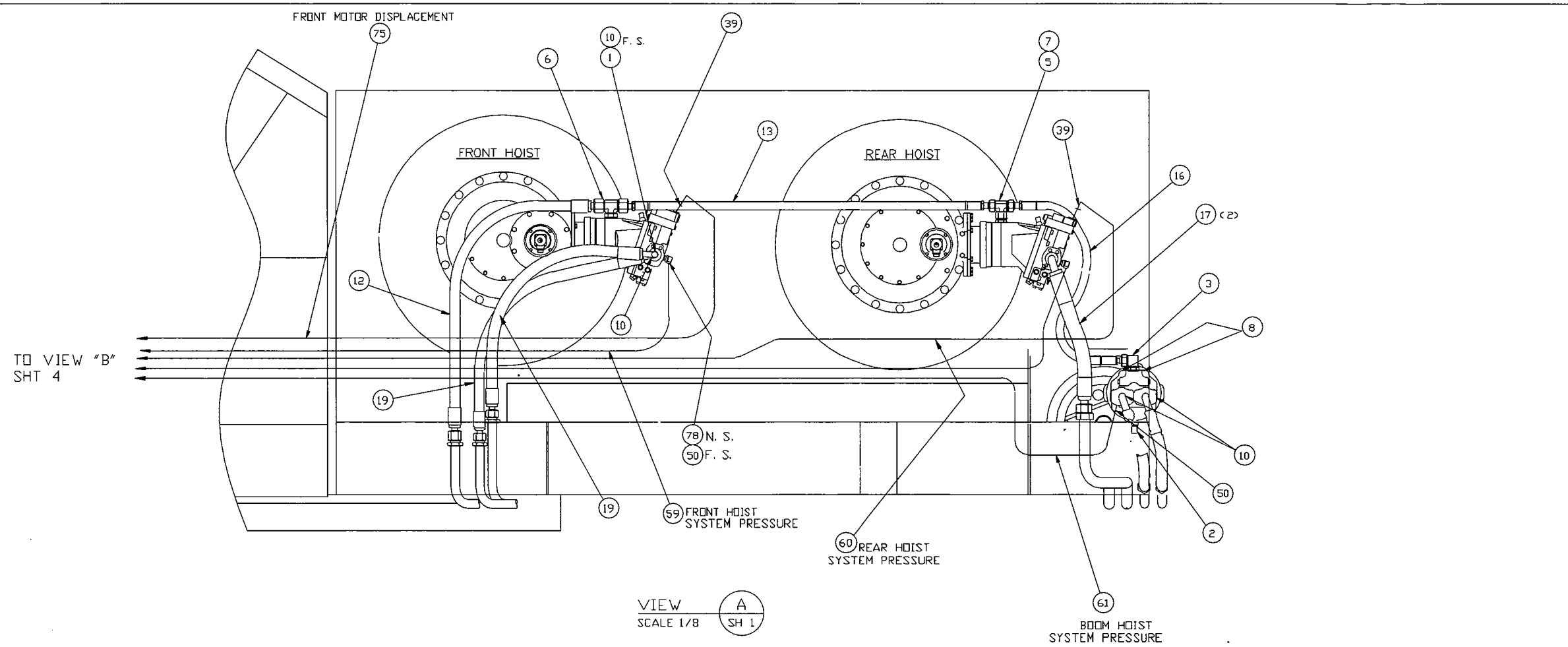
222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	DRUM	WM10384	910384
2	1	GEARBOX	WM10027	910027
3	1	BLOCK, PILLOW	WM10022	910022
4	1	DRUM SHAFT	WM11661	911661
5	1	BRAKE AND CLUTCH FLANGE	WM10681	910681
6	1	SPIDER, DRUM CLUTCH	WM11606	911606
7	1	MOTOR, HYDRAULIC	WM10028	910028
8	1	BLOCK, PILLOW	WM10041	910041
9	1	BAND, DRUM CLUTCH	167688	167688
10	1	PLATE, TIMING	WM10863	910863
11	2	BEARING, TAPERED ROLLER	224397	224397
12	1	BEARING, SPHERICAL ROLLER	225665	225665
13	1	BEARING, SPHERICAL ROLLER	224414	224414
14	1	ACTUATOR, HYDRAULIC CLUTCH	WM11650	911650
15	1	RETAINER, BEARING	WM13193	913193
16	1	RETAINER, SEAL	WM10891	910891
17	1	RETAINER, SEAL	167731	167731
18	1	RETAINER, SEAL	WM10021	910021
19	1	LEVER, DRUM CLUTCH	WM12399	912399
20	1	ADAPTER, SAE-6 ORB TO SAE-6 ORS	WM11631	911631
21	1	WEDGE, ANCHOR	79558	79558
22	1	LOCKNUT, BEARING	WM10025	910025
23	1	LOCKWASHER, BEARING	WM10026	910026
24				
25	3	BUSHING, DURALON	290009	290009
26	1	BUSHING, DURALON	290218	290218
27	3	BAND GUIDE, DRUM CLUTCH	71308	71308
28	1	SHAFT, ENCODER	WM11347	911347
29	1	EYE BOLT	WM10892	910892
30	2	ELBOW	WM10884	910884
31	4	FITTING, LUBRICATION	429000	429000
32	1	HOSE ASSY	WM11630	911630
33	1	ENCODER, INCREMENTAL, OPTICAL	WM10383	910383
34	1	KEEPER PLATE	167673	167673
35	1	LINK	167676	167676
36	4	NUT, HEX FLG GR8	548705	548705
37	1	NUT, HEX GR 5 ZP	546103	546103
38	1	PIN	140197	140197
39	1	PIN	167668	167668

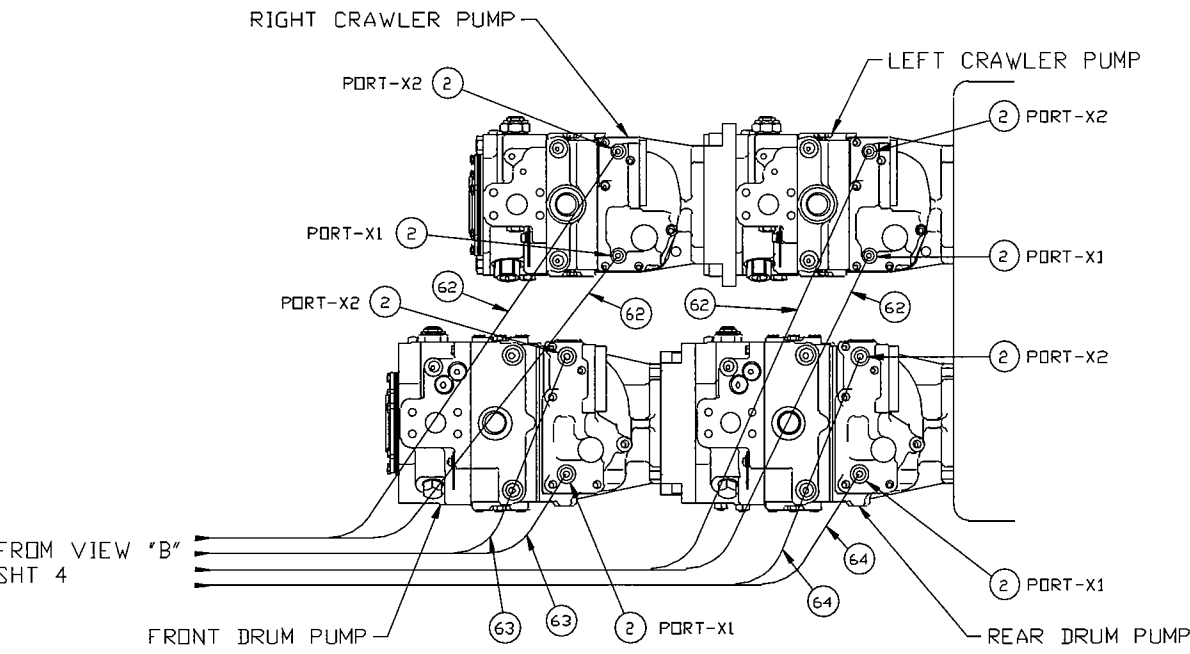
Drum Shaft, Free Fall,
7/8" Wire Rope
WM12002_D

ASSEMBLY
WM12336

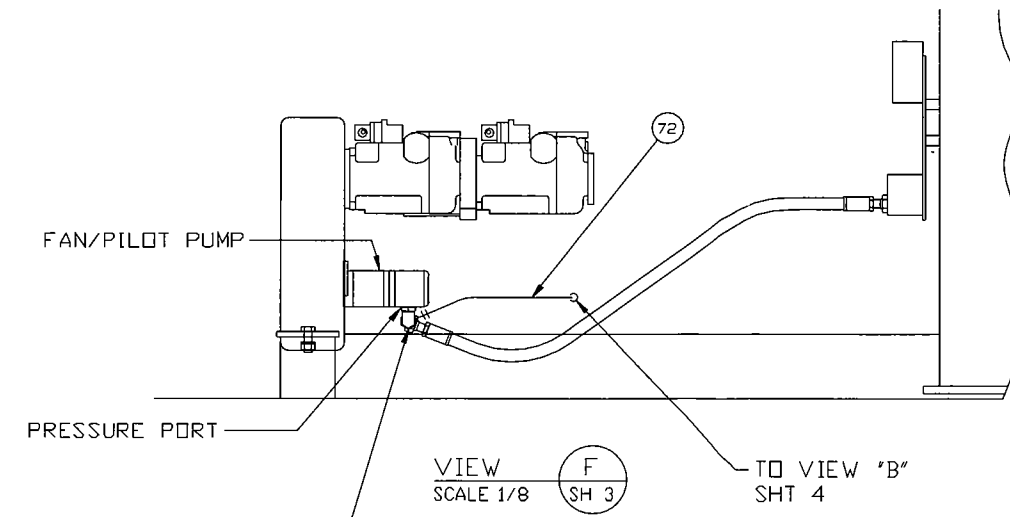
REVISING
RELEASE ECH
314222
AutCad Rel. 12



VIEW A
SCALE 1/8 SH 1



VIEW D
SCALE 1/4
ROTATED 180° SH 3



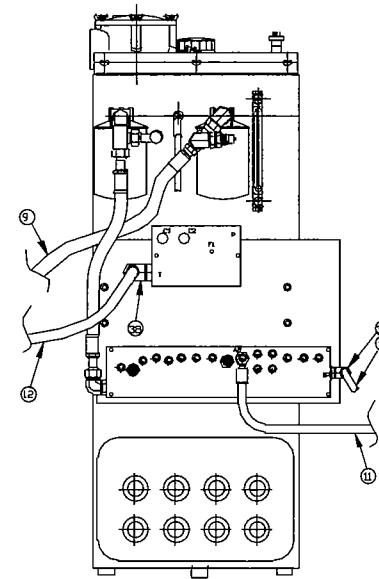
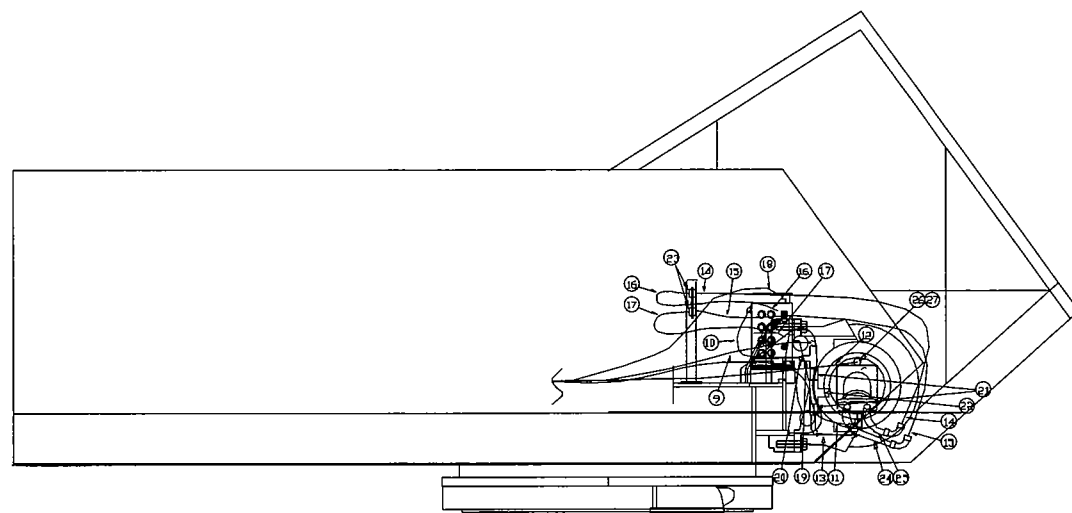
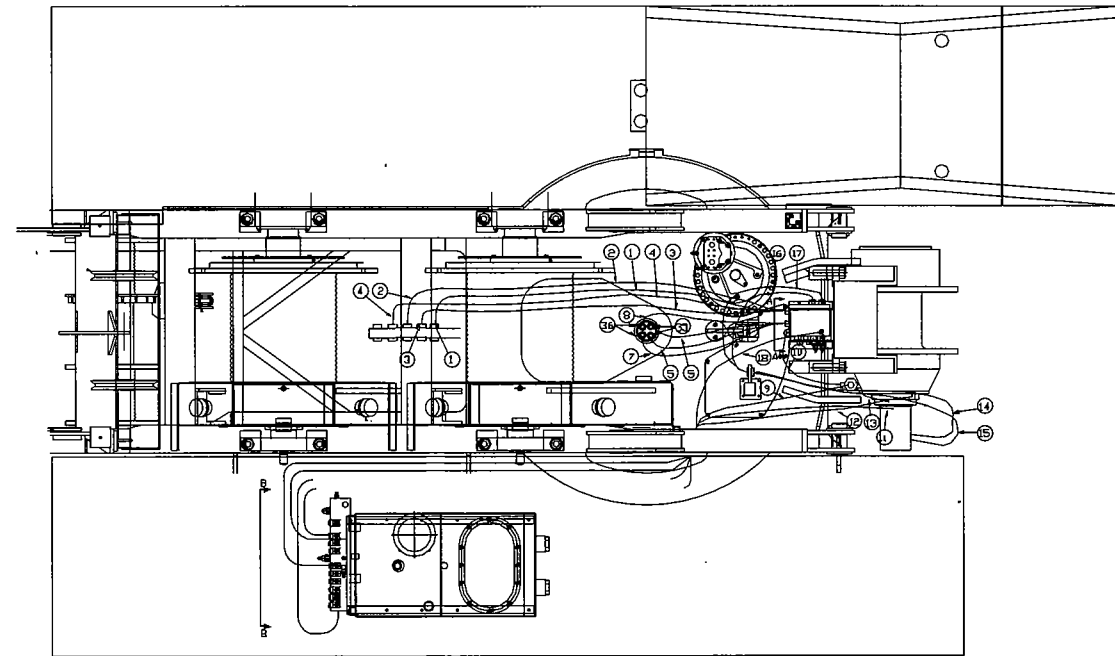
VIEW F
SCALE 1/8 SH 3

INSTALL BETWEEN EXISTING FITTING AND HOSE COUPLING

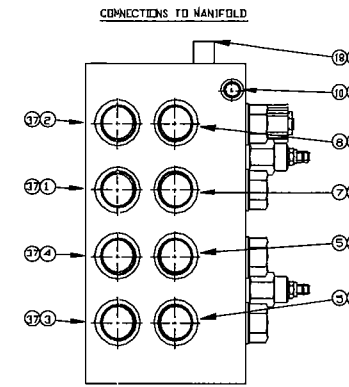
CSBMA 00118

DO NOT SCALE THIS DRAWING

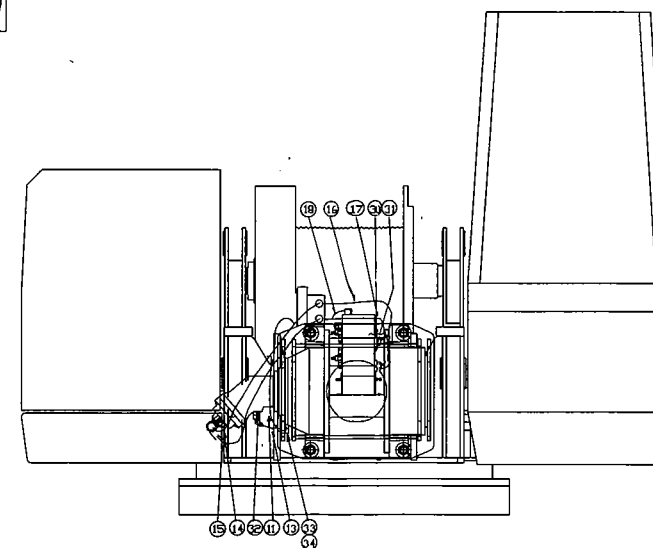
THIS DRAWING IS THE PROPERTY OF WEST MANITOWOC, INC.		SCALE 1/8	DATE	ASSEMBLY, FREE FALL	SEE SHT 1
ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND IS LOANED SUBJECT TO RETURN UPON DEMAND. AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY MANNER THAT WOULD BE DETRIMENTAL TO OUR INTERESTS.		DR. B.J.L.	REV. 02	HYDRAULIC PIPING	1-12-98
		DR. R.D.B.	REV. 03	DUAL FREE FALL	WM12688
		DR. P.E.M.	REV. 04	MATERIAL	SH 2 OF 6



VIEW B-B,
SCALE: NTS



VIEW A-A
SCALE: NTS



ASSEMBLES USED ON	WM12871
REVISED RELEASE FOR	19980014 AutoCad Rev 13

GROUP B - UPPERWORKS MACHINERY

<small>THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC. ALL INFORMATION CONTAINED THEREIN IS CONFIDENTIAL. IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND NO EXPRESS WARRANTY THAT IT IS NOT TO BE COPIED OR LOANED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS.</small>	SCALE	1/16		MANITOWOC, WISCONSIN	ASSEMBLY, 25K AUX WINCH	160.8
	SR.	RMW			HYDRAULIC PIPING	06-18-98
	DR.	SLD				
	APP.	SLD				
	DATE	01/01/98			MATERIAL	WM12740

DO NOT SCALE THIS DRAWING

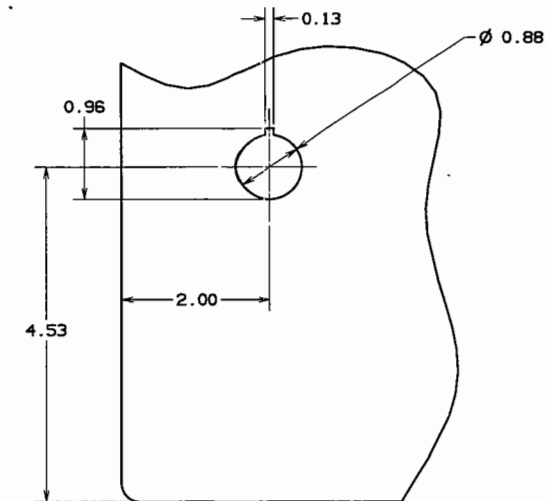
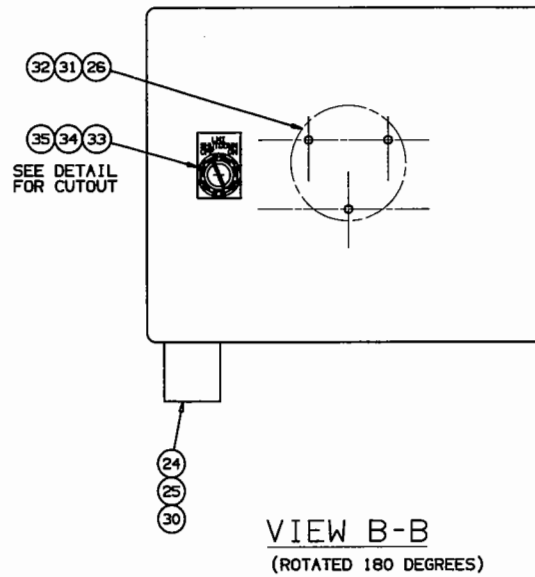
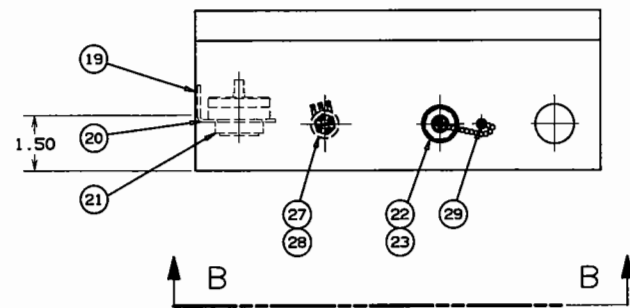
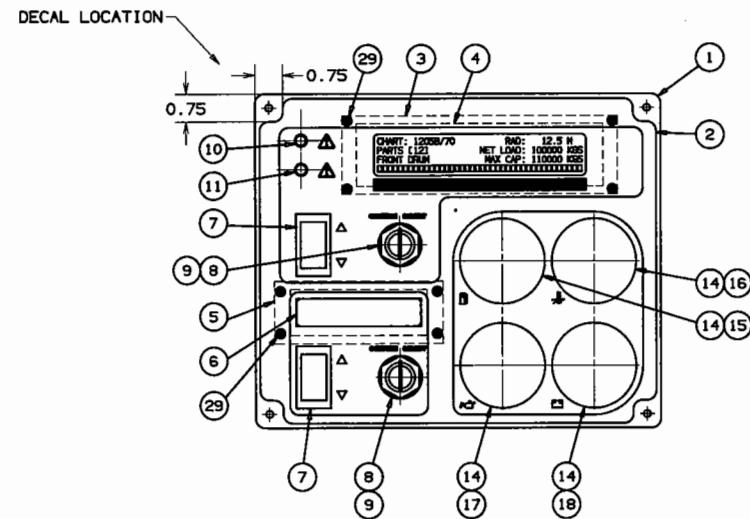
222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	2	SWITCH, PRESSURE	WM11712	911712
2	2	TUBE ASSEMBLY	WM10961	910961
3	1	VALVE, BOOM BRAKE	WM11310	911310
4	1	HOSE, FLEX	WM10064	910064
5	2	HOSE, FLEX	WM10856	910856
6	2	HOSE, FLEX	WM10053	910053
7	2	HOSE, FLEX	WM11161	911161
8	1	HOSE, FLEX	WM10067	910067
9	1	HOSE, FLEX	WM12988	912988
10	1	HOSE, FLEX	WM11843	911843
11	1	HOSE, FLEX	WM11839	911839
12	1	HOSE, FLEX	WM11842	911842
13	1	HOSE, FLEX	WM11841	911841
14	1	HOSE, FLEX	WM11809	911809
15	1	HOSE, FLEX	WM12507	912507
16	1	HOSE, FLEX	WM11840	911840
17	1	HOSE, FLEX	WM11081	911081
18	1	HOSE, FLEX	WM11813	911813
19	1	HOSE, FLEX	WM10484	910484
20	2	HOSE, FLEX	WM10405	910405
21	2	HOSE, FLEX	WM11837	911837
22	1	ADAPTER	WM10134	910134
23	1	REDUCER	WM11065	911065
24	4	ADAPTER	WM10123	910123
25	5	ADAPTER	WM10121	910121
26	2	ADAPTER	WM10119	910119
27	1	ELBOW, 90 DEGREE	WM10106	910106
28	2	ELBOW, 90 DEGREE	WM10099	910099
29	4	ELBOW, 90 DEGREE	WM10097	910097
30	2	SWIVEL, ELBOW, 90 DEGREE	WM10884	910884
31				
32	1	TEE	WM10154	910154
33	1	TEE	WM10178	910178
34	1	TEE, RUN, SWIVEL	WM10176	910176
35	3	TEE	WM10176	910176
36	2	TEE, SWIVEL	WM10169	910169
37	2	TEE	WM11816	911816
38	2	PORT, TEST, MALE	WM10611	910611
39	2	PORT, TEST, MALE	WM10610	910610
40	2	ORIFICE	WM10960	910960

Hydraulic Piping, Rotating Bed,
Left Side, Dual Free Fall
WM12985_A

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	2	Switch, Pressure	WM11712	911712
2	2	Test Port, Male	WM10610	910610
3	2	Orifice Assembly	WM10960	910960
4	2	Tube Assembly	WM10961	910961
5	4	Elbow, 90 Degree	WM10097	910097
6	2	Elbow, 90 Degree	WM10099	910099
7	1	Elbow, 90 Degree	WM10106	910106
8	2	Adapter	WM10119	910119
9	3	Adapter	WM10121	910121
10	4	Adapter	WM10123	910123
11	3	Adapter	WM10126	910126
12	1	Adapter	WM10134	910134
13	2	Adapter	WM10152	910152
14	1	Tee	WM10154	910154
15	3	Tee, Swivel	WM10169	910169
16	4	Tee	WM10176	910176
17	1	Tee	WM10178	910178
18	2	Adapter	WM10334	910334
19	5	Swivel, Elbow, 90 Degree	WM10884	910884
20	2	Tee	WM11816	911816
21	2	Test Port, Male	WM10611	910611
22	2	Connector Block	WM11846	911846
23	6	Flange Assembly	WM10229	910229
24	2	Flange Assembly	WM10230	910230
25	2	Hose, Flex	WM10053	910053
26	1	Hose, Flex	WM10064	910064
27	1	Hose, Flex	WM10067	910067
28	1	Hose, Flex	WM11081	911081
29	2	Hose, Flex	WM11161	911161
30	1	Hose, Flex	WM12988	912988
31	1	Hose, Flex	WM11797	911797
32	1	Hose, Flex	WM11798	911798
33	1	Hose, Flex	WM11801	911801
34	1	Hose, Flex	WM11803	911803
35	1	Hose, Flex	WM12507	912507
36	1	Hose, Flex	WM11809	911809
37	1	Hose, Flex	WM11813	911813
38				
39	2	Hose, Flex	WM11837	911837
40				



CUTOUT AT ASSEMBLY FOR LMI SHUTDOWN SWITCH - ITEM 35 SCALE: 1/1

BILL OF MATERIAL				ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL	QTY	ASSEMBLY
1	BOX, JUNCTION	192857	1	192855
2	DECAL, JUNCTION BOX-EPIC	192858		
3	LCD, 4 X 40	393404		
4	WINDOW, DISPLAY READOUT	179439		
5	LCD, 2 X 20	393402		
6	WINDOW, DISPLAY READOUT	911389		SIM. TO WH11967
7	SWITCH, ROCKER-COLE HERSEE	911140		REVISIONS
8	SWITCH, KEY OPERATED	672704		01-13-99 BB
9	CONTACT BLOCK, N.O.	672695		AWAS 912053
10	LAMP, RED LED-DATA DISPLAY	502732		
11	LAMP, AMBER LED-DATA DISPLAY	502733		
12				
13				
14	LIGHT KIT, DATCON 06215-00	507311		
15	GAUGE, FUEL-DATCON	912021		
16	GAUGE, WATER TEMP.-DATCON	911940		
17	GAUGE, OIL PRESSURE-DATCON	911942		
18	VOLTMETER-DATCON	911943		
19	TAPE, FOAM-DOUBLE COATED 3/4X2	678008		
20	BRACKET	179461		
21	BUZZER	201600		
22	RECEPTACLE, MALE 4P MICRO-CHG	589870		
23	CAP, SEALING PLUG-BRAD HARRISON	304637		
24	CORD GRIP W/SPIRAL-HEYCO 3239	371891		
25	HARNESS ASSEMBLY, GAUGE PANEL	477467		
26	CONVERTER, UP/DOWN	970078		
27	INSTRUMENT KNOB	500835		
28	POTENTIOMETER, 2.5K	575893		
29	SCR, TRUSS HD BLK 6-32UNC X .312	618419		
30	LOCKNUT, 3/4" NPT-HEYCO 8465	548710		
31	SCR, AL HD 10-32UNF X .75	614824		
32	LOCKWASHER, #10	710310		
33	NAMEPLATE, LMI SHUTDOWN	538285		
34	CONTACT BLOCK, N.C.	672726		
35	SWITCH, KEY OPERATED	672723		

THIS PRINT BEHINDS THE PROPERTY OF WHITING CORP., INC.		TOLERANCE UNLESS OTHERWISE SPECIFIED		175		MILWAUKEE CRANES, INC.		JUNCTION BOX, GAUGE AND DISPLAY ASSEMBLY	
DECIMAL PLACES	FABRICATION	WASHING	± 10 FEET > 10 FEET	DR. RMW	192856	W111, W222/EX/HD			
(1) PLACE 0.5	± .120	± .180	± .030	DR. SLD					
(2) PLACE 0.33	± .060	± .100	± .015	APP. SLD					
(3) PLACE 0.000	± .000	± .000	± .000						
ANGLES	± 1° 30'	± 30'							

DATE 9-17-98

PATTERN NO.

192856

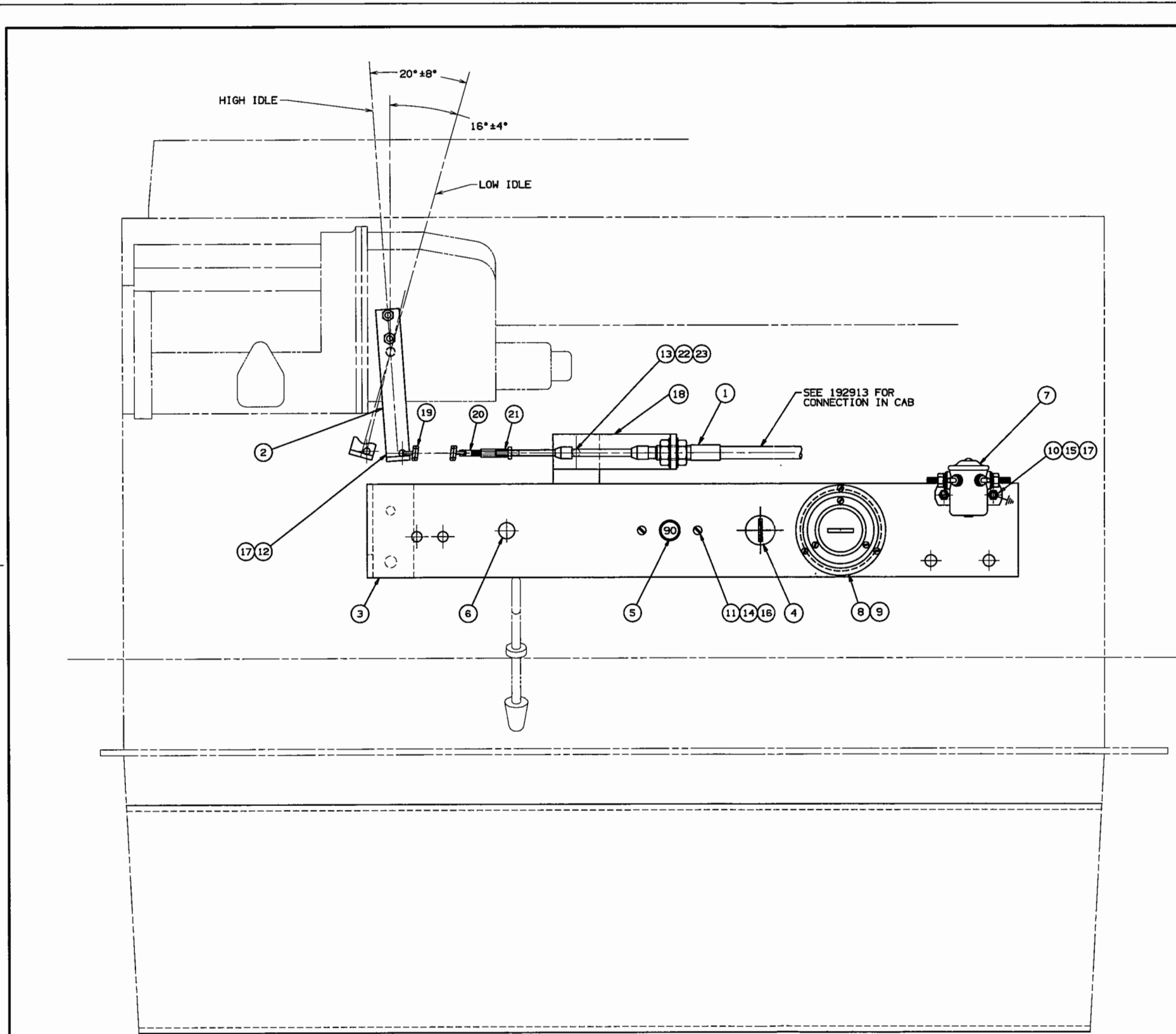
GROUP C - CONTROLS, ELECTRICAL, & HYDRAULIC

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Enclosure, Control		
2	1	Wiring Harness, Engine Remote Start, Ether, Charge System, and Pumps	WM12442	912442
3	1	Wiring Harness, Solenoid Valves	WM11719	911719
4	1	Wiring Harness, Hydraulic Solenoids, Aux Drum and Bails	WM11718	911718
5	1	Wiring Harness, Encoders, Drum Speed Switches, and Load Pins	WM10765	910765
6	1	Wiring Harness, Pressure Transducer, Hydraulic	WM10771	910771
7	1	Pendant Assembly	WM10773	910773
8	1	Wiring Harness, Crawler, LTL, and Reservoir	WM12045	912045
9	1	Wiring Harness , Safety Switch, Horn, Moisture Ejector & Bm Connections	WM10772	910772
10	25	Cable Tie, Releasable	WM11075	911075
11	2	Travel Light 12VDC/50W With Pigtail	WM11077	911077
12	2	Bracket, Travel Light	WM11078	911078
13	1	Wiring Harness, Cab Power	WM12443	912443
14	1	Switch Installation, Anti Two Block	WM11012	911012
15	1	Wiring Harness, Dash-B	WM10782	910782
16	1	Wiring Harness , Seat and Joysticks	WM10776	910776
17	1	Internal Interconnect, J-Box	WM11010	911010
18	1	Wiring Harness, Air Conditioning	WM12438	912438
19	1	Angle Sensor, Rotating Bed	WM11011	911011
20		Limit Switch Installation, Bail (Optional)	WM11048	911048
21	4	Lockwasher	710304	710304
22	1	Sensor, Boom Angle	WM11009	911009
23	2	Bracket, Speed Switch	WM10861	910861
24	1	Wiring Harness, Dash-A	WM10774	910774
25				
26	4	Capscrew, Hex Head, GR5	612450	612450
27				
28	25	Locknut, Nylon Stop	548341	548341
29	25	Cable Tie/Retainer	WM11076	911076
30	4	Nut, Hex	546054	546054
31	2	Speed Switch	WM10864	910864
32	4	Capscrew, Hex Head	612355	612355
33	8	Nut, Hex	547100	547100
34	8	Lockwasher	710302	710302

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
	1	Battery Isolator	WM11049	911049
	6	Screw, Button Head	WM53067	953067
	2	Washer, Flat	WM52658	952658
	2	Capscrew, Hex Head	WM50632	950632
	2	Lockwasher	WM52727	952727
	1	Plate, Battery Isolator	WM11202	911202



BILL OF MATERIAL				ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL	QTY	912404 912983
1170-6000 THROTTLE CONTROL ASS'Y				
1	CABLE, PUSH-PULL		297169	
2	ARM, THROTTLE		911199	
3	MTG PLATE, ACCESSORY		911197	
4	SWITCH		911229	
5	CIRCUIT BREAKER, 90 AMP		275240	
6	SWITCH, PUSH BUTTON		293110	
7	CONTACTOR - 12VDC - 1 POLE		365389	
8	DAMPENER		386001	
9	HOURMETER		531008	
10	NUT, HEX .25-20UNC		546052	
11	NUT, HEX #10-24UNC		546055	
12	NUT, HEX .25-28UNF		546830	
13	HHCS, .3125-18UNC X 1.50		612409	
14	SCR, MACH #10-24UNC X .75		617788	
15	SCR, MACH .25-20 X .50		617827	
16	LOCKWASHER, #10		710301	
17	LOCKWASHER, .25		710302	
18	BRACKET, MTG - THROTTLE CABLE		192922	
19	SPRING, EXTENSION		970168	
20	ANCHOR, EXT.SPRING - .25-28UNF		206819	2
21	NUT, COUPLING - .25-28UNF		546197	
22	NUT, HEX .3125-18UNC		546053	
23	LOCKWASHER, .3125		710303	

- ① FOR WIRING SEE 911868 AND 912961. FORMERLY WM11868 AND WM12961
- ② DRILL HOLE LARGER FOR SPRING CLEARANCE

GROUP D - POWER PLANT

<small>THIS PRINT REMAINS THE PROPERTY OF WESTBAC CORP., INC. ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL. IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY OR ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS.</small>	<small>TOLERANCE UNLESS OTHERWISE SPECIFIED</small> DECIMAL PLACES FABRICATION MACHINING (1) PLACE 0.0 ±.150 ±.050 (2) PLACE 0.00 ±.080 ±.015 (3) PLACE 0.000 ±.005 ±.005 ANGLES 1° 30'		DATE: 11-04-98 126201	MANITOWOC CRANES, INC. Manitowoc, Wisconsin MODEL: W111, W222	ASSEMBLY, THROTTLE CONTROL - CUMMINS C6 ENGINES	DATE: 11-04-98 192921
	DR: RMH CR: SLD APP: GMP	11-04-98	192921			

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Rain Cap	WM70032	970032
2	1	Band Clamp	WM70033	970033
3	3	Band Clamp	WM70034	970034
4	1	Muffler	WM70035	970035
5	1	Reducer	WM70036	970036
6	1	Elbow	WM70037	970037
7	1	Elbow	WM70038	970038

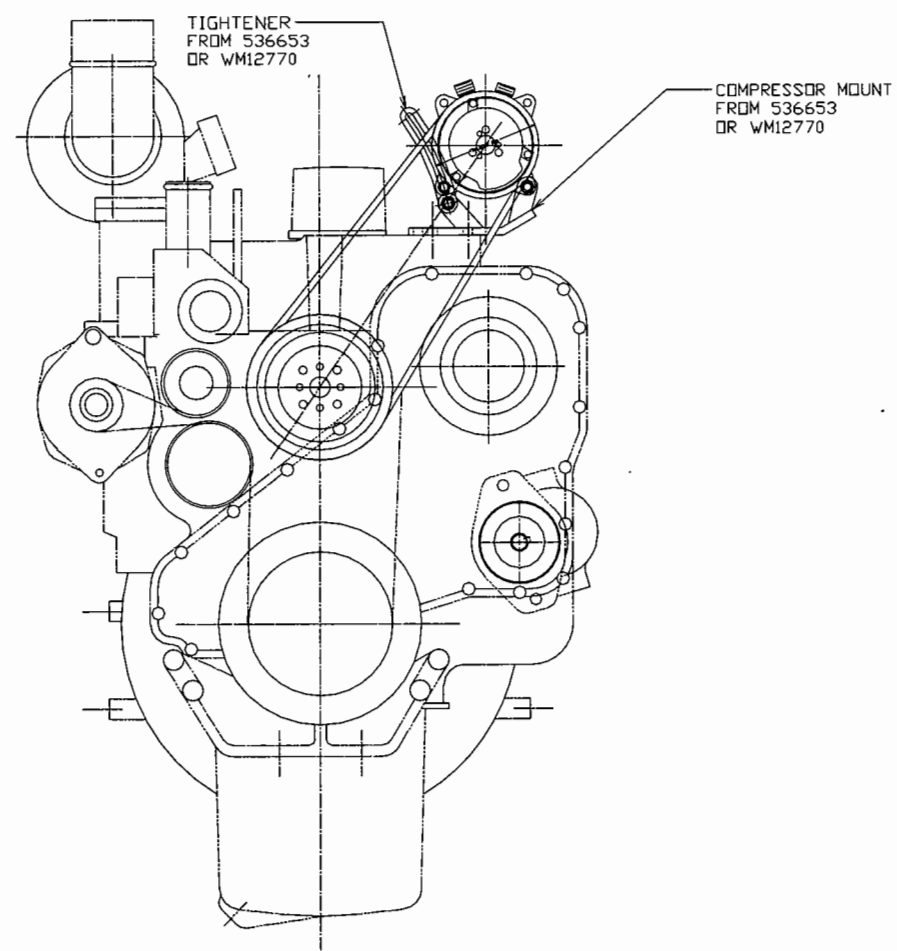
CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- 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

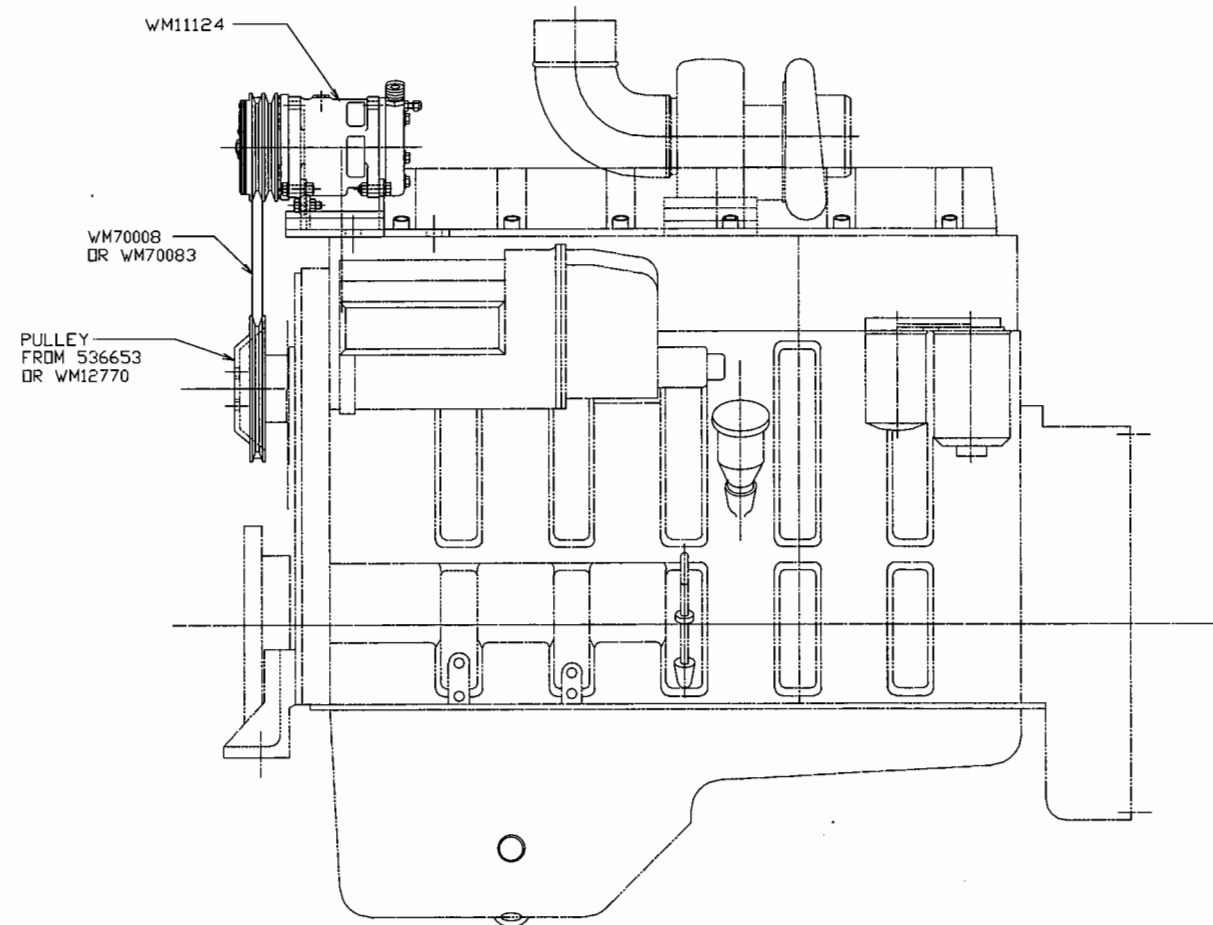


- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL



REAR VIEW



RIGHT SIDE VIEW

ASSEMBLIES USED ON
REVISIONS RELEASE ECH 308514 AutoCad Rel. -
<input checked="" type="checkbox"/> SEE ECH AutoCad Rel.

GROUP D - POWER PLANT

<small>THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC. ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL. IT 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 THAT WOULD BE DETRIMENTAL TO OUR INTERESTS.</small>	SCALE 1=4		COMPRESSOR	TOTAL WT. LBS 12.5
	DR. KK		INSTALLATION	DATE 10-27-94
	CHK. PEM		(AIR CONDITIONER)	ENG. NO. WM11127
	APP. PEM			
	SENT. 1 OF 1 WM11127			

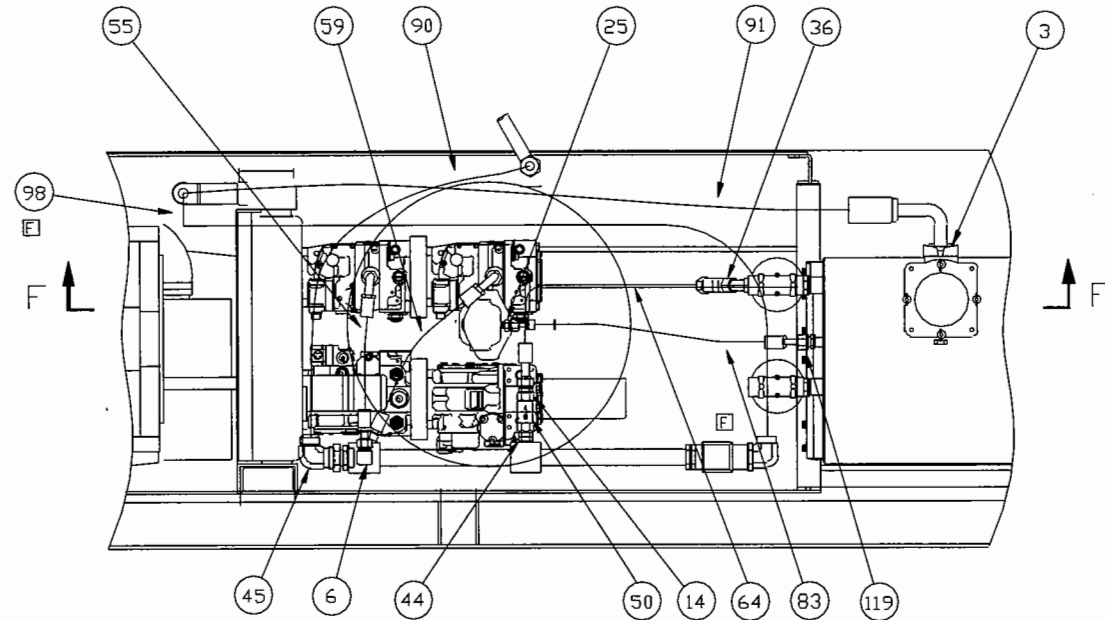
DO NOT SCALE THIS DRAWING

SHT. 1 OF 1

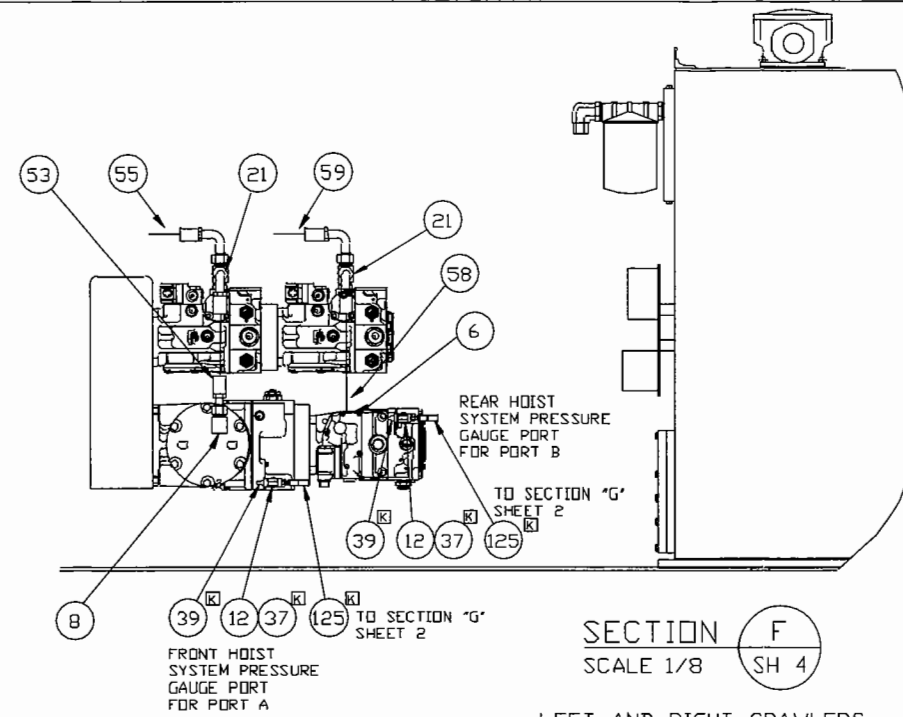
222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	MANIFOLD, FAN RELIEF	WM11584	911584
2	1	MANIFOLD, BRAKE	WM11717	911717
3	1	FLANGE KIT	WM10166	910166
4	5	ELBOW, 90 DEGREE	WM10097	910097
5	1	PLUG	WM10160	910160
6	9	ELBOW, 90 DEGREE	WM10106	910106
7	1	TEE, RUN	WM10171	910171
8	3	ELBOW, 90 DEGREE	WM10109	910109
9	1	ELBOW, 90 DEGREE	WM10110	910110
10	1	ADAPTER	WM10114	910114
11	2	ADAPTER	WM10119	910119
12	21	ADAPTER	WM10121	910121
13	2	ADAPTER	WM10125	910125
14	2	ADAPTER	WM10131	910131
15	2	ADAPTER	WM10132	910132
16	1	ELBOW, 90 DEGREE	WM10451	910451
17	5	ADAPTER	WM10135	910135
18	1	COUPLING	WM10511	910511
19	5	ADAPTER	WM10137	910137
20	2	ADAPTER	WM10138	910138
21	3	ADAPTER	WM10146	910146
22	4	ELBOW, 90 DEGREE	WM10186	910186
23	1	ELBOW, 90 DEGREE	WM10261	910261
24	1	ELBOW, 90 DEGREE	WM10267	910267
25	1	ADAPTER	WM10334	910334
26	1	ADAPTER	WM10338	910338
27	1	COUPLING	WM10652	910652
28	2	ADAPTER	WM10869	910869
29	4	ELBOW, 90 DEGREE	WM10874	910874
30	5	ELBOW, 90 DEGREE	WM10884	910884
31	1	ELBOW, 90 DEGREE	WM10888	910888
32	1	ELBOW, 90 DEGREE	WM10889	910889
33	2	TUBE, PREFORMED	WM11817	911817
34	1	TEE, W/ ORIFICE	WM10089	910089
35	2	TEE	WM10169	910169
36	1	TEE	WM10171	910171
37	11	TEE	WM11816	911816
38	1	ELBOW, 90 DEGREE	WM10887	910887
39	8	TEST PORT	WM10610	910610

Hydraulic Piping,
Power Plant, Heavy Duty Front
WM11667_L

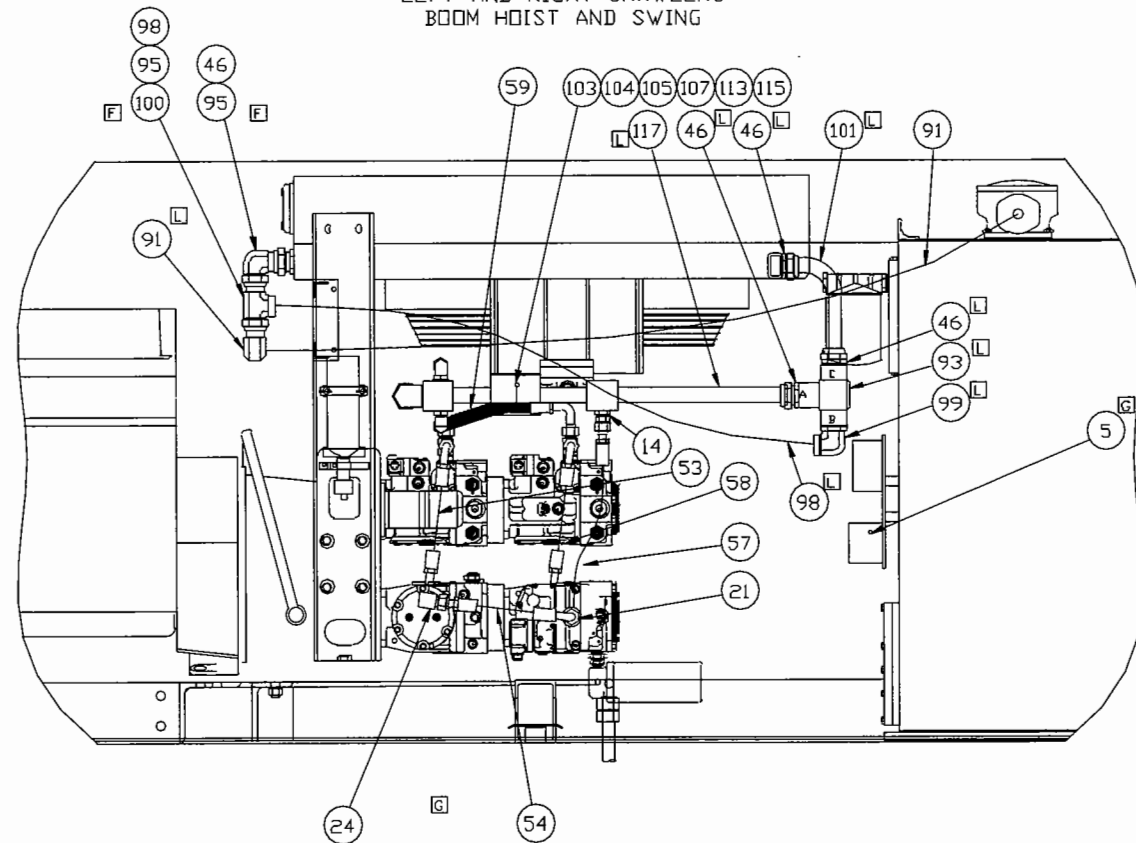


LEFT AND RIGHT CRAWLERS
BOOM HOIST AND SWING



SECTION F
SCALE 1/8 SH 4

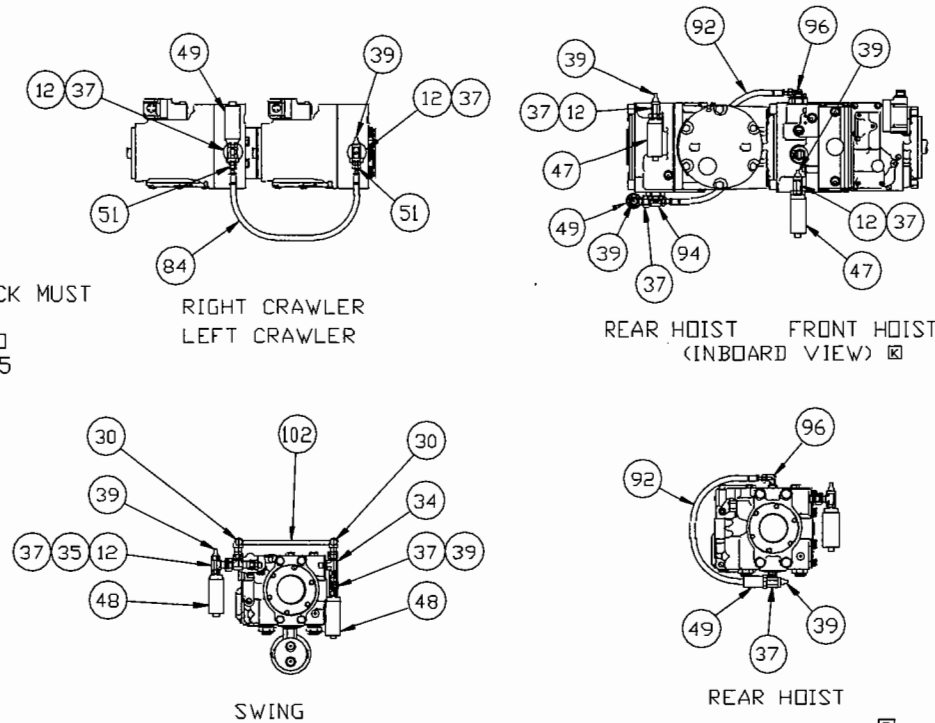
LEFT AND RIGHT CRAWLERS
FRONT AND REAR HOISTS



LEFT AND RIGHT CRAWLERS
BOOM HOIST AND SWING

DO NOT SCALE THIS DRAWING

NOTE: PLUG INSIDE BLOCK MUST
BE TAKEN OUT OF
BP PORT PRIOR TO
INSTALLING ITEM 5



<p>THIS PRINT REMAINS THE PROPERTY OF WEST MANITOWOC, INC. IT IS LOANED SUBJECT TO RETURN UPON DEMAND, AND IN EXPRESS RECOGNITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WITHOUT OUR RETRIBUTION TO OUR INTERESTS.</p>	<p>SCALE 1/8 TOP PEM APP. PEM</p>	<p>DATE: 11/11/87 SHEET 4 OF 4 MODEL F</p>	<p>WEST MANITOWOC, WISCONSIN</p>	<p>ASSEMBLY, POWER PLANT HYDRAULIC PIPING HEAVY DUTY FRONT</p>	<p>SEE SHT 1 12-7-95 WM11667</p>
---	---	--	----------------------------------	--	--

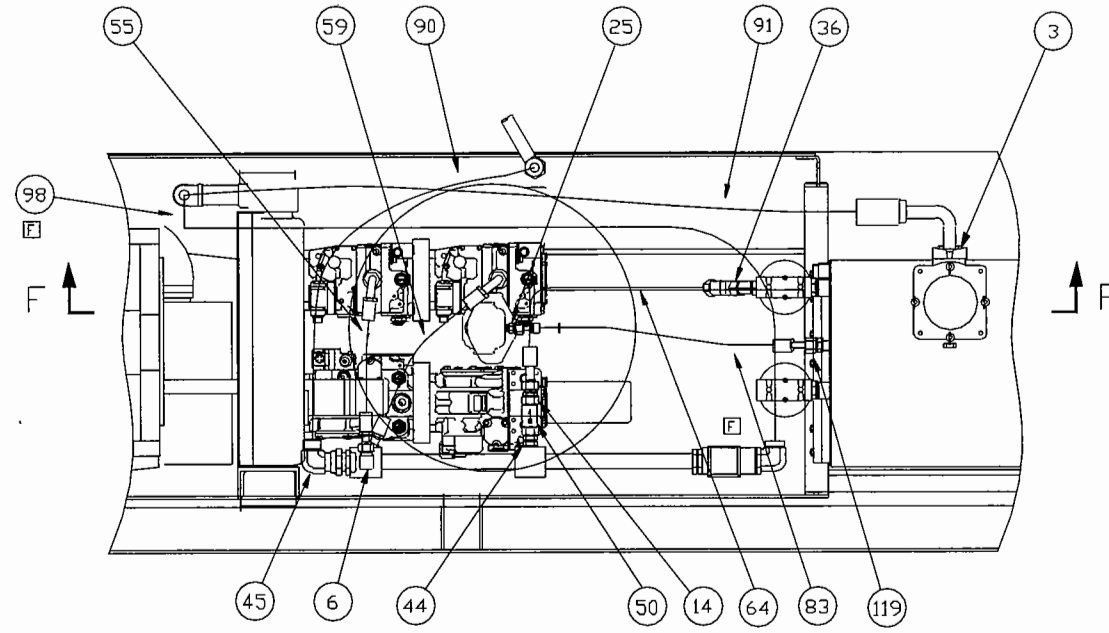
ASSEMBLY REV. 04
<p>REVISED DESCRIPTION 310428 AutoCad Rev. 12 5-27-96 LAQ A SEE EXH 311421 AutoCad Rev. 12 6-17-96 LAQ B SEE EXH 311514 AutoCad Rev. 12 9-3-96 JMM C SEE EXH 311704 AutoCad Rev. 12 9-12-96 JMM D SEE EXH 311706 AutoCad Rev. 12 5-22-97 DPH E SEE EXH 313216 AutoCad Rev. 12 02-23-98 ROB F SEE EXH 304502 AutoCad Rev. 12 4-13-98 RMW G IOW 1988001 AutoCad Rev. 13 5-27-98 BOB H IOW 19980010 AutoCad Rev. 13 7-7-98 RMW J IOW 19980012 AutoCad Rev. 14 9-1-98 RMW K IOW 19980031 AutoCad Rev. 14 9-29-98 RMW L IOW 19980037 AutoCad Rev. 14</p>

GROUP D - POWER PLANT

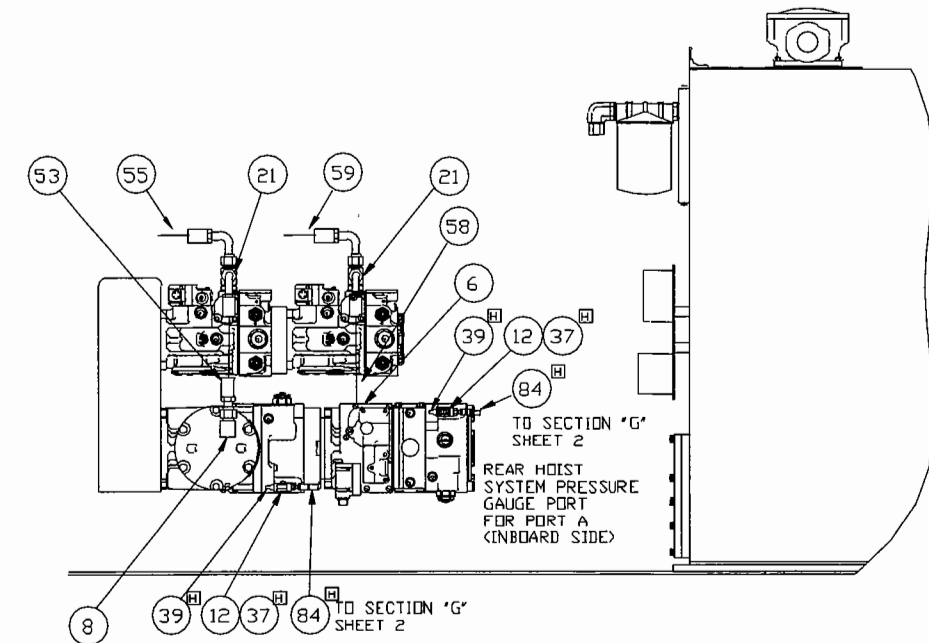
222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	MANIFOLD, FAN RELIEF	WM11584	911584
2	1	MANIFOLD, BRAKE	WM11717	911717
3	1	KIT, FLANGE	WM10166	910166
4	1	ELBOW, 90 DEGREE	WM10097	910097
5	1	PLUG	WM10160	910160
6	7	ELBOW, 90 DEGREE	WM10106	910106
7	2	ELBOW, 90 DEGREE	WM10108	910108
8	3	ELBOW, 90 DEGREE	WM10109	910109
9	1	ELBOW, 90 DEGREE	WM10111	910111
10	1	ADAPTER	WM10114	910114
11	2	ADAPTER	WM10119	910119
12	21	ADAPTER	WM10121	910121
13	2	ADAPTER	WM10125	910125
14	2	ADAPTER	WM10131	910131
15	2	ADAPTER	WM10132	910132
16	2	ELBOW, 90 DEGREE	WM10095	910095
17	4	ADAPTER	WM10135	910135
18	1	ADAPTER	WM10136	910136
19	5	ADAPTER	WM10137	910137
20	2	ADAPTER	WM10138	910138
21	3	ADAPTER	WM10146	910146
22	4	ELBOW, 90 DEGREE	WM10186	910186
23	1	ELBOW, 90 DEGREE	WM10261	910261
24	1	ELBOW, 90 DEGREE	WM10267	910267
25	1	ADAPTER	WM10334	910334
26	1	ADAPTER	WM10338	910338
27	1	COUPLING	WM10652	910652
28	2	ADAPTER	WM10869	910869
29	2	ELBOW, 90 DEGREE	WM10874	910874
30	5	ELBOW, 90 DEGREE	WM10884	910884
31	1	ELBOW, 90 DEGREE	WM10888	910888
32	1	ELBOW, 90 DEGREE	WM10889	910889
33	1	TEE	WM10151	910151
34	1	TEE, W/ ORIFICE	WM10089	910089
35	2	TEE	WM10169	910169
36	1	TEE	WM10171	910171
37	11	TEE	WM11816	911816
38	1	ELBOW, 90 DEGREE	WM10887	910887
39	10	PORT, TEST	WM10610	910610
40	8	KIT, FLANGE	WM10229	910229

Hydraulic Piping, Power Plant,
HD, Front and Rear
WM11848_J



LEFT AND RIGHT CRAWLERS
BOOM HOIST AND SWING



FRONT HOIST
SYSTEM PRESSURE
GAUGE PORT
FOR PORT A

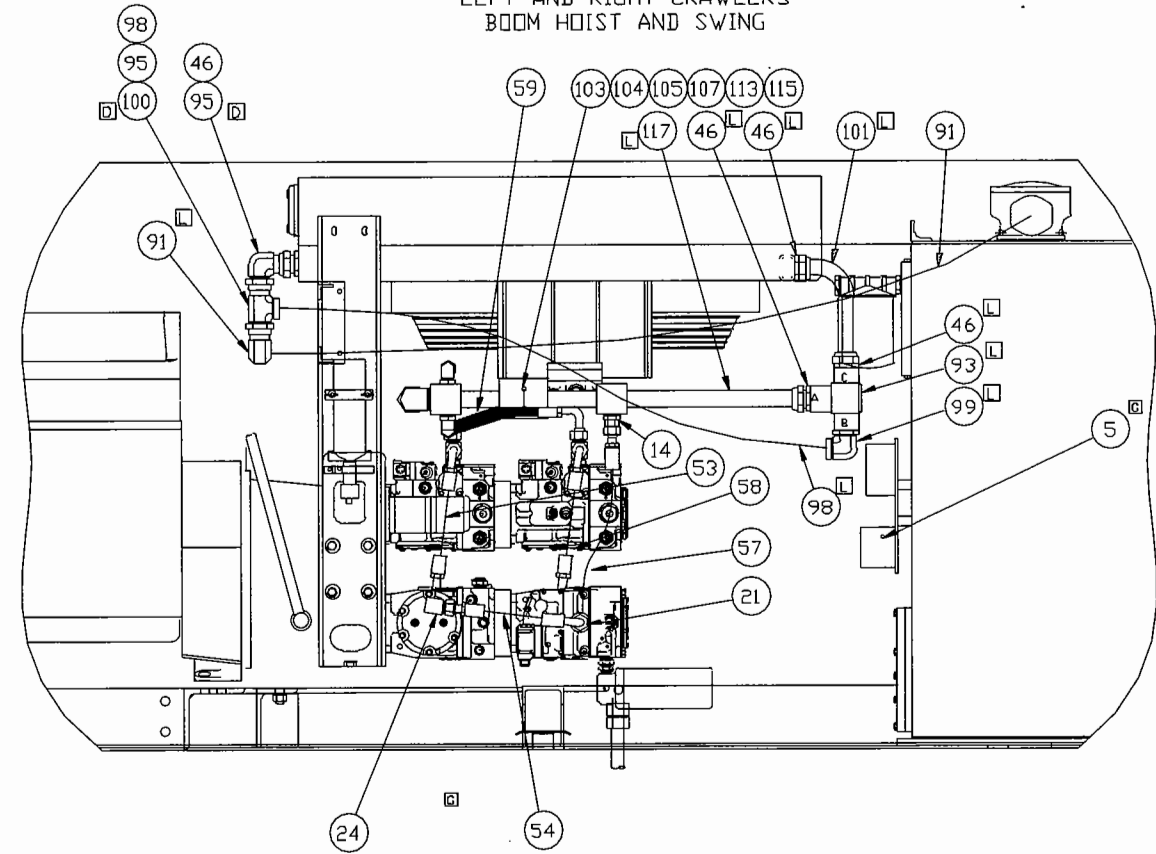
TO SECTION 'G'
SHEET 2

REAR HOIST
SYSTEM PRESSURE
GAUGE PORT
FOR PORT A
(INBOARD SIDE)

TO SECTION 'G'
SHEET 2

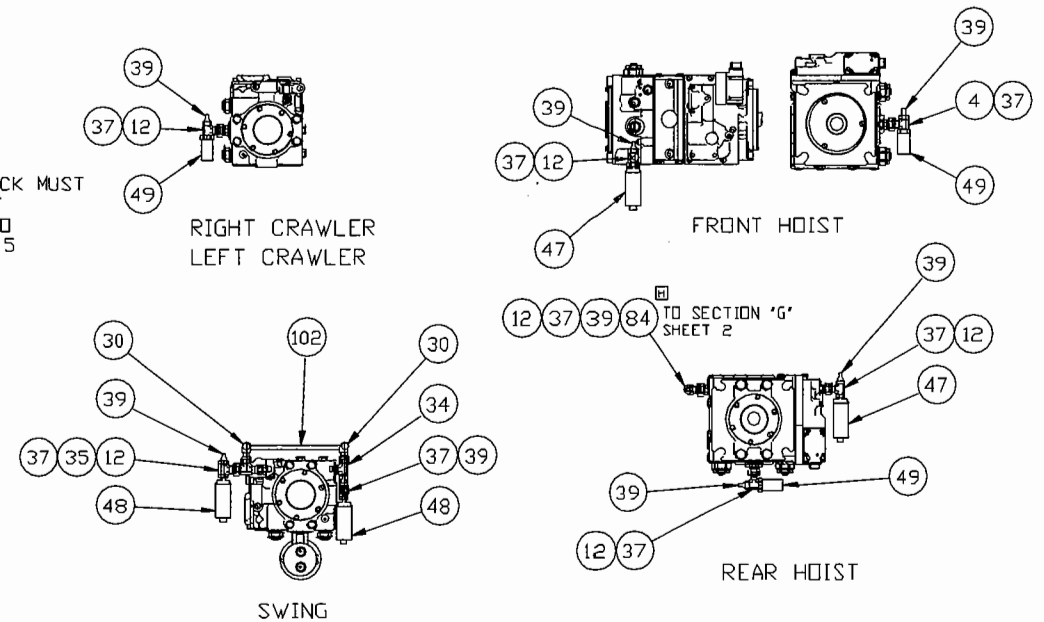
SECTION F
SCALE 1/8 SH 4

LEFT AND RIGHT CRAWLERS
FRONT AND REAR HOISTS



LEFT AND RIGHT CRAWLERS
BOOM HOIST AND SWING

NOTE: PLUG INSIDE BLOCK MUST
BE TAKEN OUT OF
BP PORT PRIOR TO
INSTALLING ITEM 5



RIGHT CRAWLER
LEFT CRAWLER

FRONT HOIST

SWING

REAR HOIST

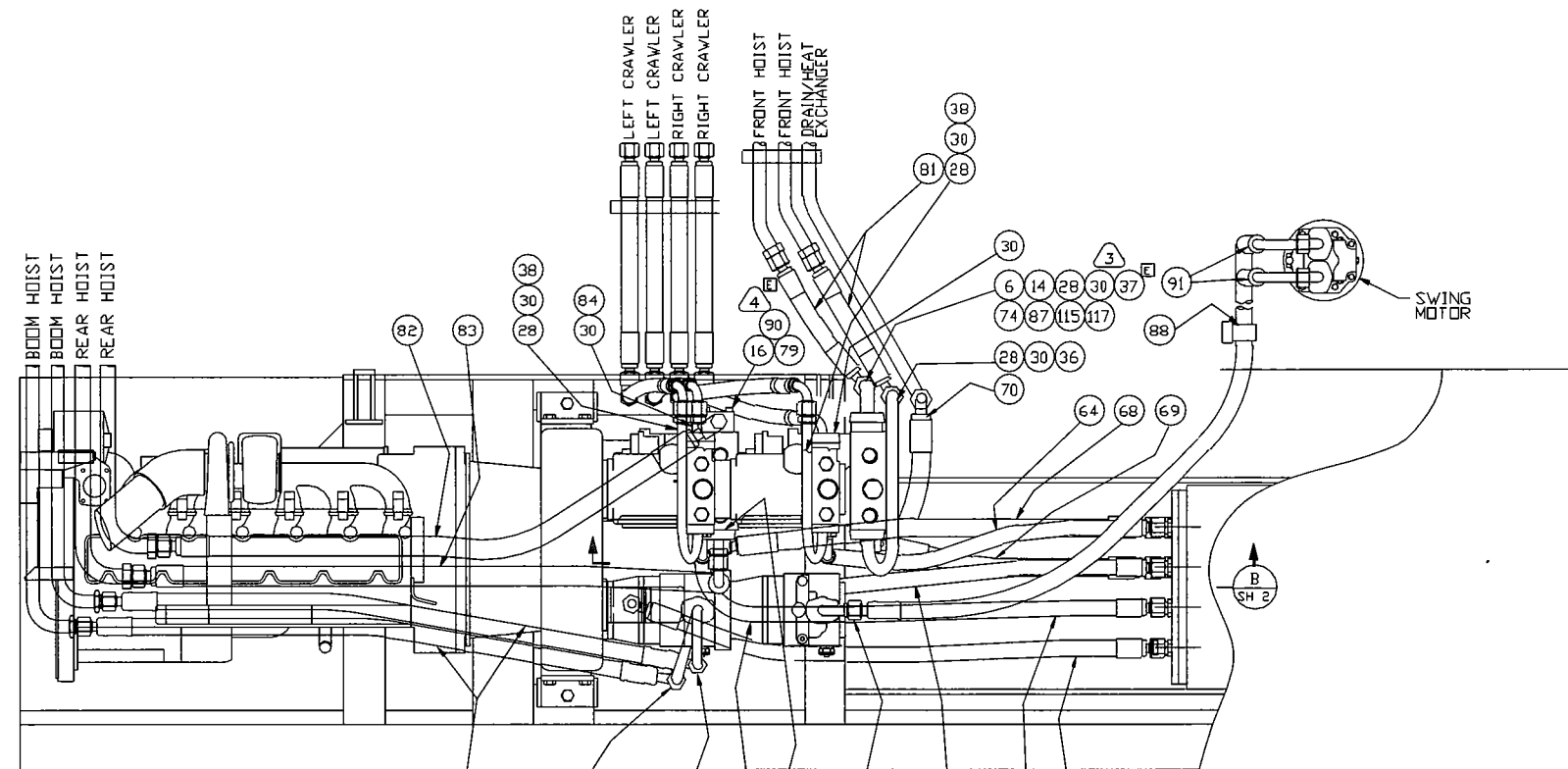
ASSEMBLIES	WM11665
REVISED	
310513	
AutoCut Ref. 12	
5-27-96 LAO	
A) SEE EDW 311421	
AutoCut Ref. 12	
6-17-96 LAO	
B) SEE EDW 311514	
AutoCut Ref. 12	
9-4-96 JMM	
C) SEE EDW 311704	
AutoCut Ref. 12	
02-23-98 RDB	
D) SEE EDW 314502	
AutoCut Ref. 12	
03-25-98 RDB	
E) SEE EDW 313216	
AutoCut Ref. 12	
5-27-98 BOB	
F) EDW 19980010	
AutoCut Ref. 12	
7-7-98 RMW	
G) EDW 19980012	
AutoCut Ref. 14	
9-1-98 RMW	
H) EDW 19980031	
AutoCut Ref. 14	
9-29-98 RMW	
I) EDW 19980037	
AutoCut Ref. 14	

GROUP D - POWER PLANT

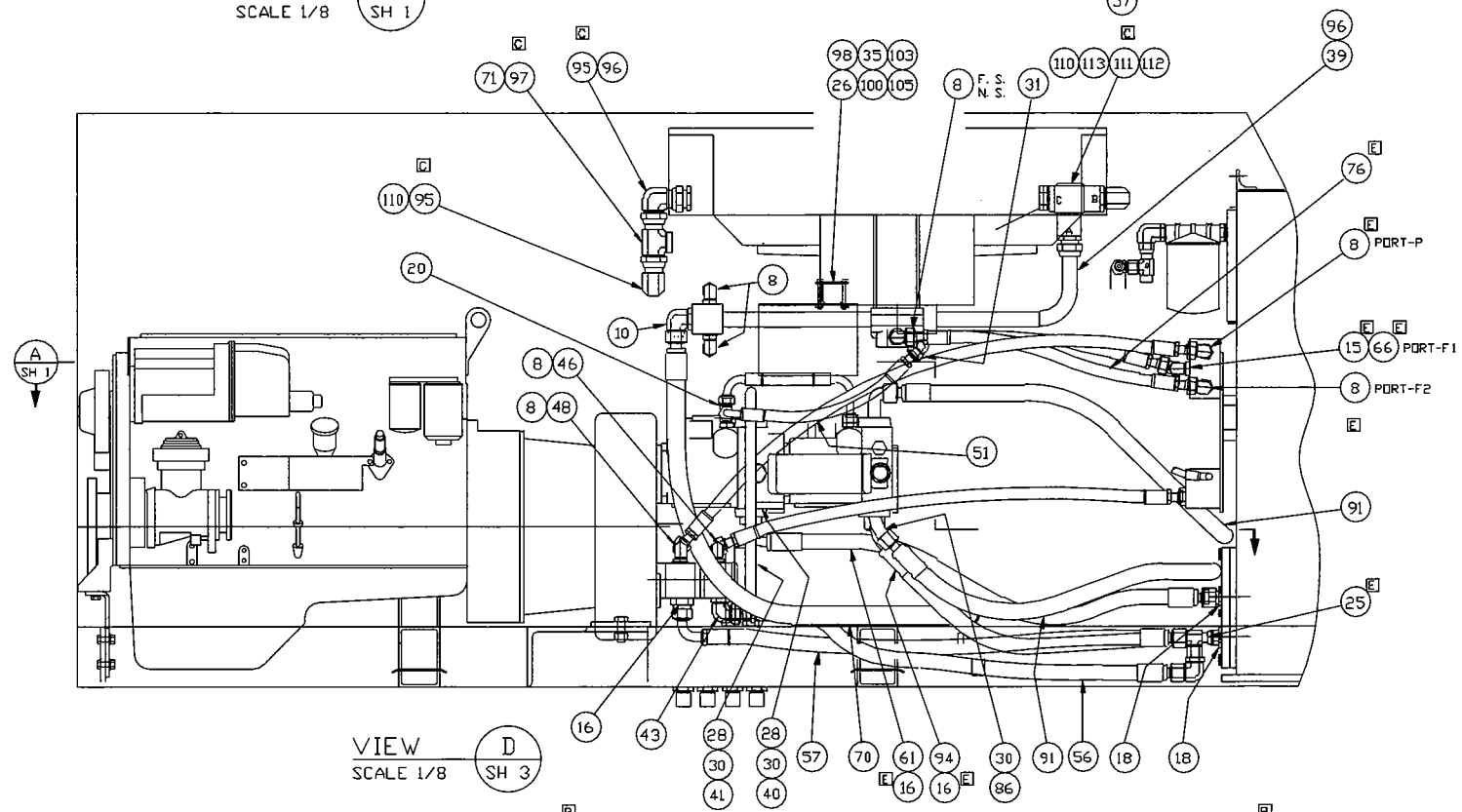
THIS PRINT REMAINS THE PROPERTY OF WEST MANITOWOC, INC.	SCALE 1/8	WEST MANITOWOC, WISCONSIN	ASSEMBLY, POWER PLANT	SEE SHT 1
ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND IS LOANED TO YOU BY WEST MANITOWOC, INC. IT IS TO BE USED ONLY FOR THE PURPOSES SPECIFIED AND IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF WEST MANITOWOC, INC.	OR LAO	MODEL WM11667	HYDRAULIC PIPING	4-29-96
	OR PFM		H.D. FRONT & REAR	WM11848
	OR PFM			

DO NOT SCALE THIS DRAWING

SHT. 4 OF 4



SECTION A
SCALE 1/8 SH 1



VIEW D
SCALE 1/8 SH 3

DO NOT SCALE THIS DRAWING

ASSEMBLY WM12404 WM12983
REVISED 312521 2-05-97 LAO [A] RE ENJ 312660 [B] RE ENJ 315216 [C] RE ENJ 314502 [D] RE ENJ 19980010 [E] RE ENJ 19980012 [F] RE ENJ 19980031

THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC. ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS.	SCALE 1/8 OR LAO OR TMP OR PPM	WMT 1918 SHT 1 OF 3 MOD. [] REF. []	WEST-MANITOWOC, INC. MANITOWOC, WISCONSIN	ASSEMBLY, POWER PLANT, HYDRAULIC PIPING	539.6 1-06-97 WM11918
---	---	--	--	--	-----------------------------

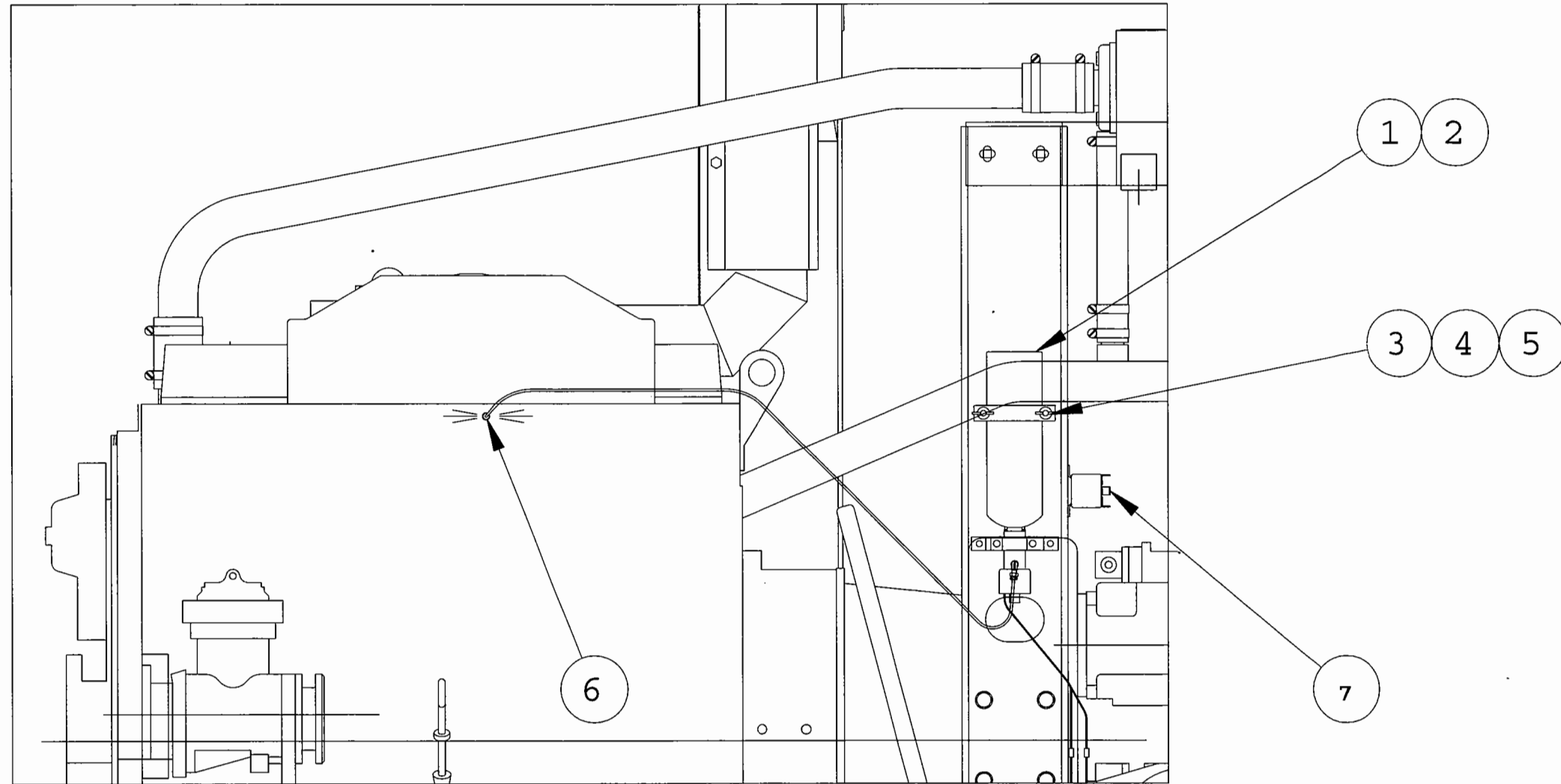
GROUP D - POWER PLANT

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Battery Cable Positive	WM11192	911192
2	1	Battery Cable Negative	WM11193	911193
3	1	Battery 12V	WM70017	970017
4	1	Battery Box	WM70019	970019
5	1	Battery Box Mounting Bracket	WM11886	911886
6	4	Lockwasher	710304	710304
7	4	Capscrew, Hex Head	612451	612451

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Air Cleaner Mounting Assembly	WM11198	911198
2	1	Air Cleaner	WM70025	970025
3	1	Res. Indicator	WM70026	970026
4	2	Mounting Band	WM70027	970027
5	3	Clamp	WM70028	970028
6	1	Clamp	WM70029	970029
7	1	Elbow	WM70030	970030
8	1	Hump Hose	WM70031	970031
9	8	Capscrew	612454	612454
10	8	Hex Nut	546054	546054
11	8	Washer	709440	709440
		Service Ref.		
		Filter Element, Air, Safety	WM70056	970056
		Filter Element, Air, Primary	WM70062	970062

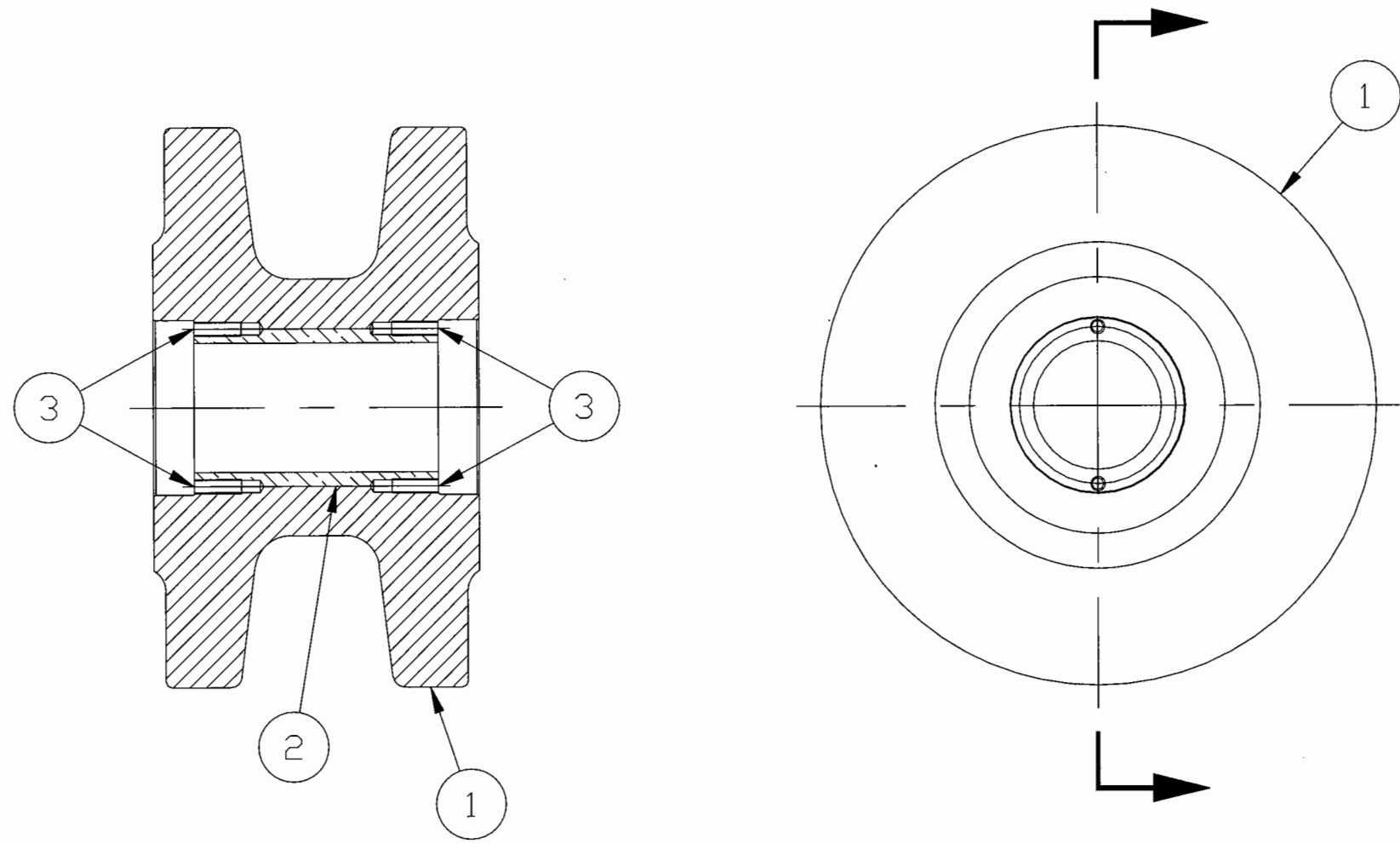


FOR WIRING
SEE ELEC.
INSTALLATION

ASSEMBLIES USED ON	
WM12404	
REVISIONS	
RELEASE ECN	
313421	
AutoCad Rel.	12
TOTAL WT. LBS.	14.7
DATE	1-8-98
ENG. NO.	WM12920

GROUP D - POWER PLANT

<p>THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC.</p> <p>ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL. IT 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.</p>	SCALE	1/10	<p>WEST MANITOWOC, INC.</p> <p>MANITOWOC, WISCONSIN</p>	ETHER STARTING AID	14.7	
	DR.	BJL		MODEL	SUB-ASSEMBLY	DATE
	CK.	RDB		REV	FOR CUMMINS C6TA-8.3	1-8-98
	APP.	PEM				ENG. NO.
	ENG. NO.	WM12920			WM12920	



ASSEMBLIES USED ON	
WM11556	

REVISIONS	
RELEASE ECN	313422
AutoCad Rel.	12
[A] SEE ECN#	311736
AutoCad Rel.	

TOTAL WT. LBS.	125
DATE	9-11-97
DWG. NO.	WM12487

THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC.
 ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL. IT 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.

SCALE	1/3
DR.	DRK
CK.	
APP.	
DWG. NO.	WM12487
SHT. 1 OF 1	
MANITOWOC, WISCONSIN	
MODEL	
B REF	172871-C

INTERMEDIATE CRAWLER ROLLER ASSEMBLY
MATERIAL SEE B/M ABOVE

CF0052 19970212

DO NOT SCALE THIS DRAWING

SHT. 1 OF 1

GROUP E - LOWERWORKS

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
96	2	Screw, Hex	612725	612725
97	2	Nut, Hex	546059	546059
98	2	Lockwasher	710308	710308
99	2	Washer, Flat	709490	709490
100	2	Plate		
101	2	Plate		
102	1	Mounting Bracket	WM11051	911051
103	4	Weld Stud		
104	2	Boom Sign Support	WM11106	911106
105	4	Pin Connection, Boom Joint, Female	164463	164463
106	4	Pin, Boom Joint	164466	164466
107				

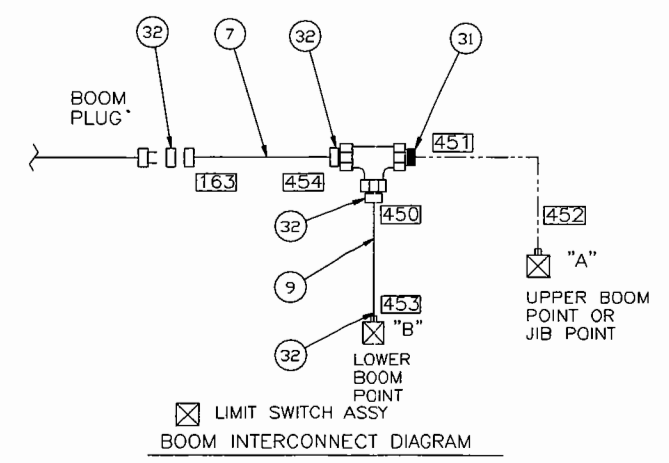
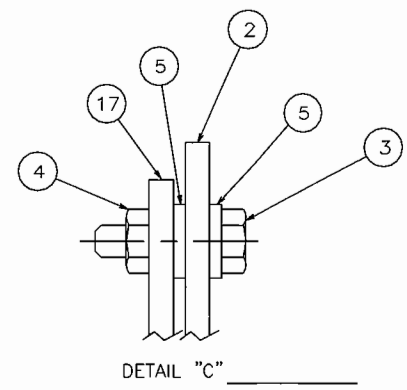
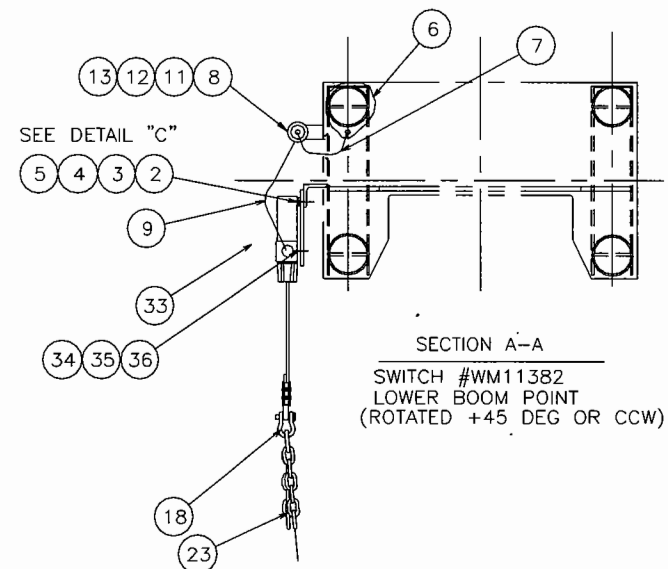
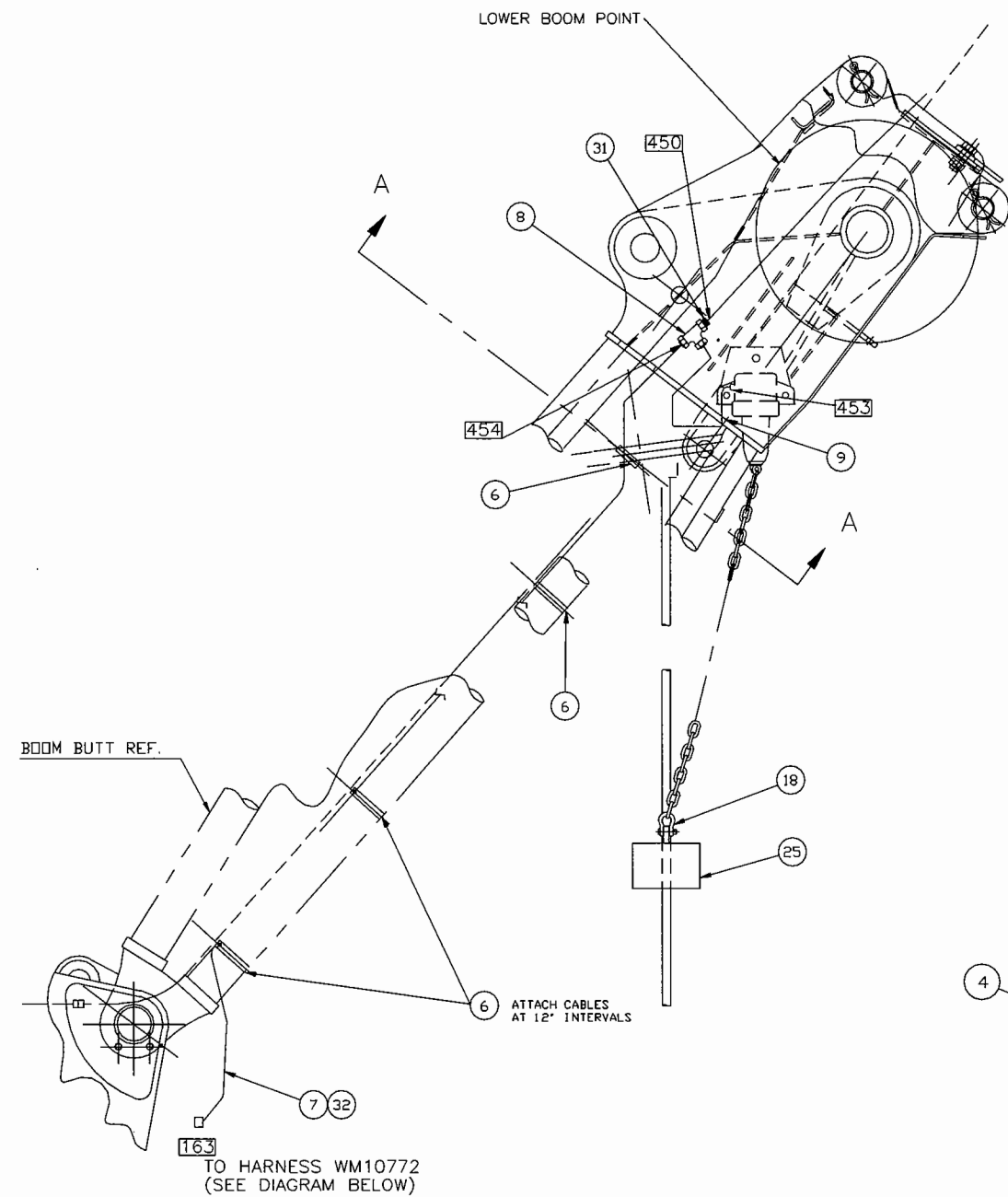
Boom Top, 21 FT,
W222 Boom,
WM10381_H

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1				
2				
3				
4	2	Shaft End	166436	166436
5	1	Sleeve	170229	170229
6	3	Washer	170230	170230
7	2	Washer	170231	170231
8	8	Washer	170232	170232
9	1	Boom Point Shaft	170233	170233
10	4	Sheave Assy	170236	170236
11	1	Rope Guide	WM10244	910244

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	2	Sheave Assembly	166431	166431
2	1	Shaft	167664	167664
3	1	Rope Guard	WM11184	911184
4	1	Rope Guard Support	167681	167681
5	2	U-Bolt	WM10994	910994
6	2	Spacer Plate	WM10996	910996
7	4	Flat Washer	709440	709440
8	4	Elastic Stop Nut	548342	548342
9	4	Capscrew, Hex Head	612456	612456
10	4	Lockwasher	710304	710304



REVISIONS USED ON
REVISIONS
RELEASE EDN
308308
AutoCad Rel. -
SEE EDN 311715
AutoCad Rel.

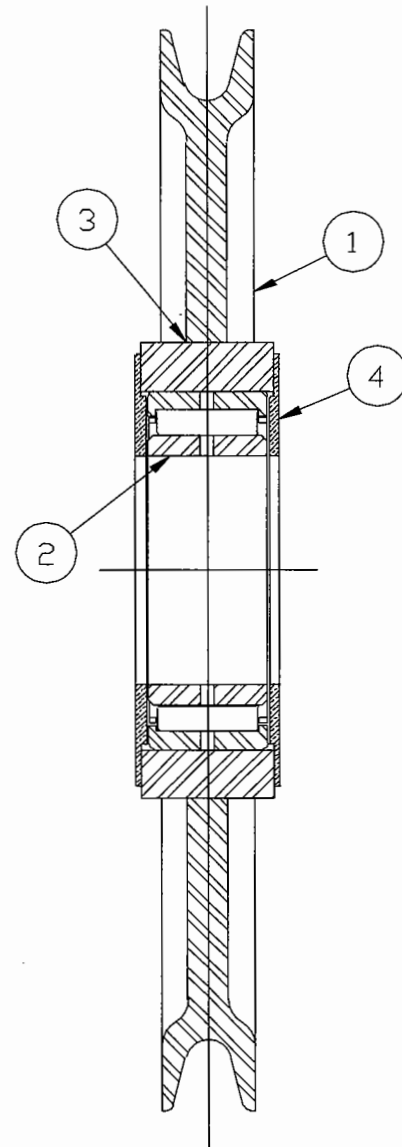
THIS PRINT REMAINS THE PROPERTY OF WEST-MANTOWOC, INC.	SCALE 1/2	OR JMB	WEST-MANTOWOC, WISCONSIN	ANTI-TWO BLOCK	TOTAL WT. LBS 70 LBS
ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS.	DR HLH	APP. PEM	MANITOWOC, WISCONSIN	INSTALLATION	DATE 9-20-94
	WM11012	WM11012	MODEL W-222		DWG. NO. WM11012
					SHT. 1 OF 1

DO NOT SCALE THIS DRAWING

222 PARTS MANUAL

		BILL OF MATERIAL	Previous	Current
Item	Qty.	Description	West No.	MCC No.
	4	Jib Joint Connector - Female	75738	75738
	4	Mounting Pad	170843	170843

Jib Top, 15 FT,
W10 Jib
WM11090_A



ASSEMBLIES USED ON	
WM11097	
WM11103	
WM11105	
WM11108	
WM12880	
WM12881	
WM12883	
WM12885	

REVISIONS	
RELEASE	ECN
308421	
AutoCad_Rel.	
11-14-94	DRK
<input type="checkbox"/> A	SEE ECN# 308453
AutoCad_Rel.	
01-24-95	JMB
<input type="checkbox"/> B	SEE ECN# 308854
AutoCad_Rel.	
5-12-98	BOB
<input type="checkbox"/> C	ECN# 19980007
AutoCad_Rel.	13

GROUP F - ATTACHMENTS

THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC. ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL. IT 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.	SCALE	1/3	WEST MANITOWOC, INC.	MANITOWOC, WISCONSIN	SHEAVE ASSEMBLY		TOTAL WT. LBS.	
	DR.	DRK			20.0 DIA - .875 ROPE		82.4	
	CK.	PEM			MODEL		DATE	10-10-94
	APP.	PEM			B REF	MATERIAL	SEE B/M ABOVE	DWG. NO.

CF0052 020196

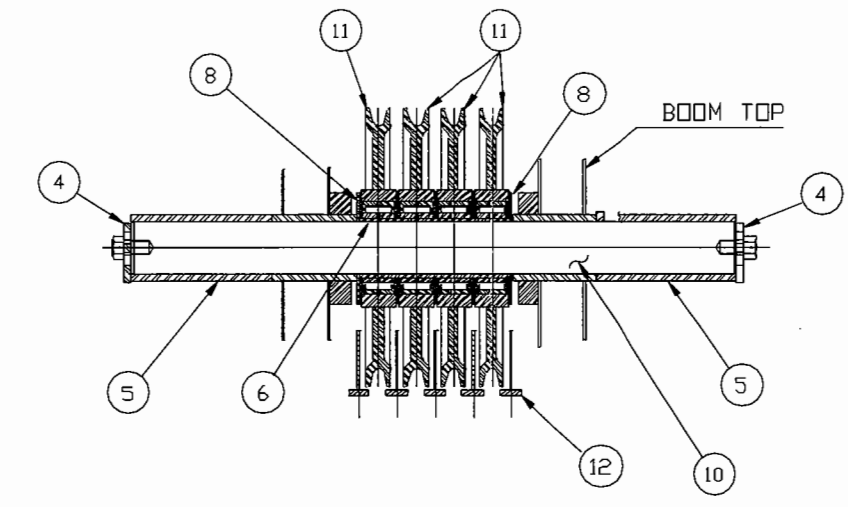
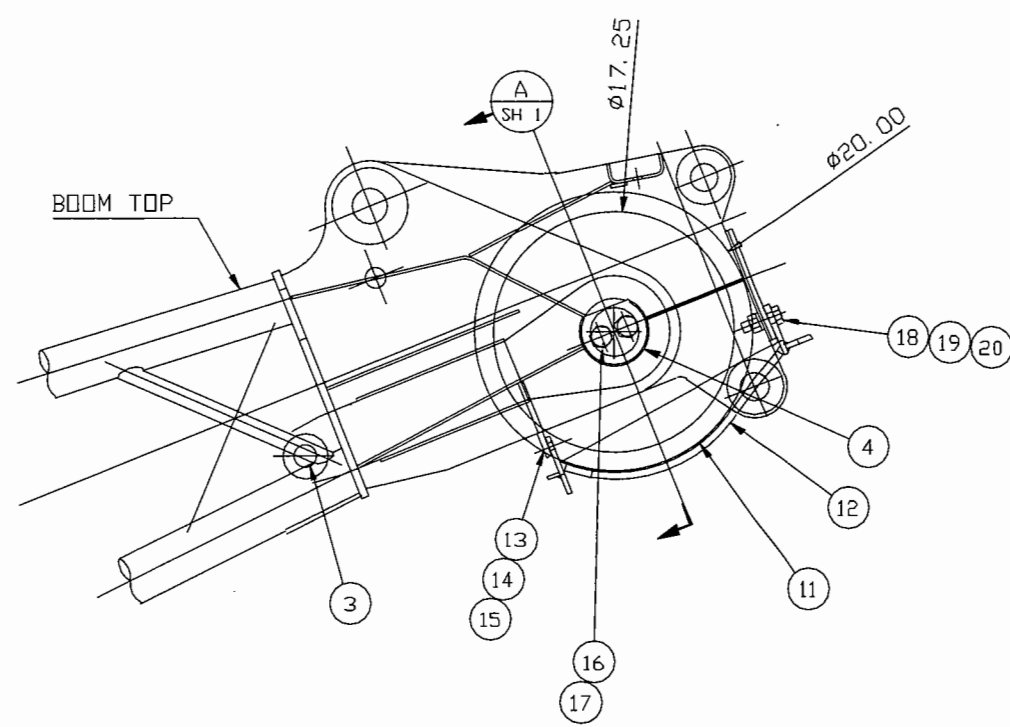
DO NOT SCALE THIS DRAWING

SHT. 1 OF 1

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Sheave Assembly	WM11093	911093
2	1	Upper Boom Point	WM11102	911102
3	2	End Plate	75017	75017
4	4	Pin	141621	141621
5	1	Guard	163834	163834
6	1	Guard	163919	163919
7	2	Washer	163940	163940
8	2	Washer	170230	170230
9	2	Washer	170232	170232
10	1	Sleeve	170243	170243
11	1	Pin	170244	170244
12	1	Anti Two Blk Switch Mod & Assy	WM11382	911382
13	1	Anti Two Blk Switch Mtg Plate	WM11033	911033
14	1	Scr Cap Hxhd	613885	613885
15	1	Nut Hx	547131	547131
16	2	Washer flat	709480	709480
17	8	Scr Cap Hxhd	612451	612451
18	8	Lock Washer	710304	710304
19	2	Scr Cap Hxhd	612353	612353
20	1	Anti Two Blk Upper Point Cable	WM11046	911046
21	as req	Cable Tie Retainer	WM11076	911076
22	as req	Locknut	548341	548341
23	1	Weight Upper Point or Jib	169744	169744
24	2	Scr Cap Hxhd	612559	612559
25	2	Nut Hex	547103	547103
26	2	Lock Washer	710306	710306
27	2	Mounting Bracket	WM11052	911052
28	4	Anchor Shackle	624633	624633
29	1	Lift Block	93705	93705
30	1	Chain - 13 Feet	334101	334101

Upper Boom Point, Single Sheave,
W222 Boom
WM11103_C



SECTION A
SCALE 1/8 SH 1

ASSEMBLIES USED ON	
1	
REVISIONS RELEASED ON	
308453	
AutoCad Rel. -	
7-30-96	LAO
A	SEE EDNY 311796
AutoCad Rel. 12	
10-23-97	DRK
B	SEE EDNY 313698
AutoCad Rel. 12	
6-12-98	BOB
C	EDNY 19980009
AutoCad Rel. 13	
8-4-98	RMW
D	EDNY 19980022
AutoCad Rel. 14	

GROUP F - ATTACHMENTS

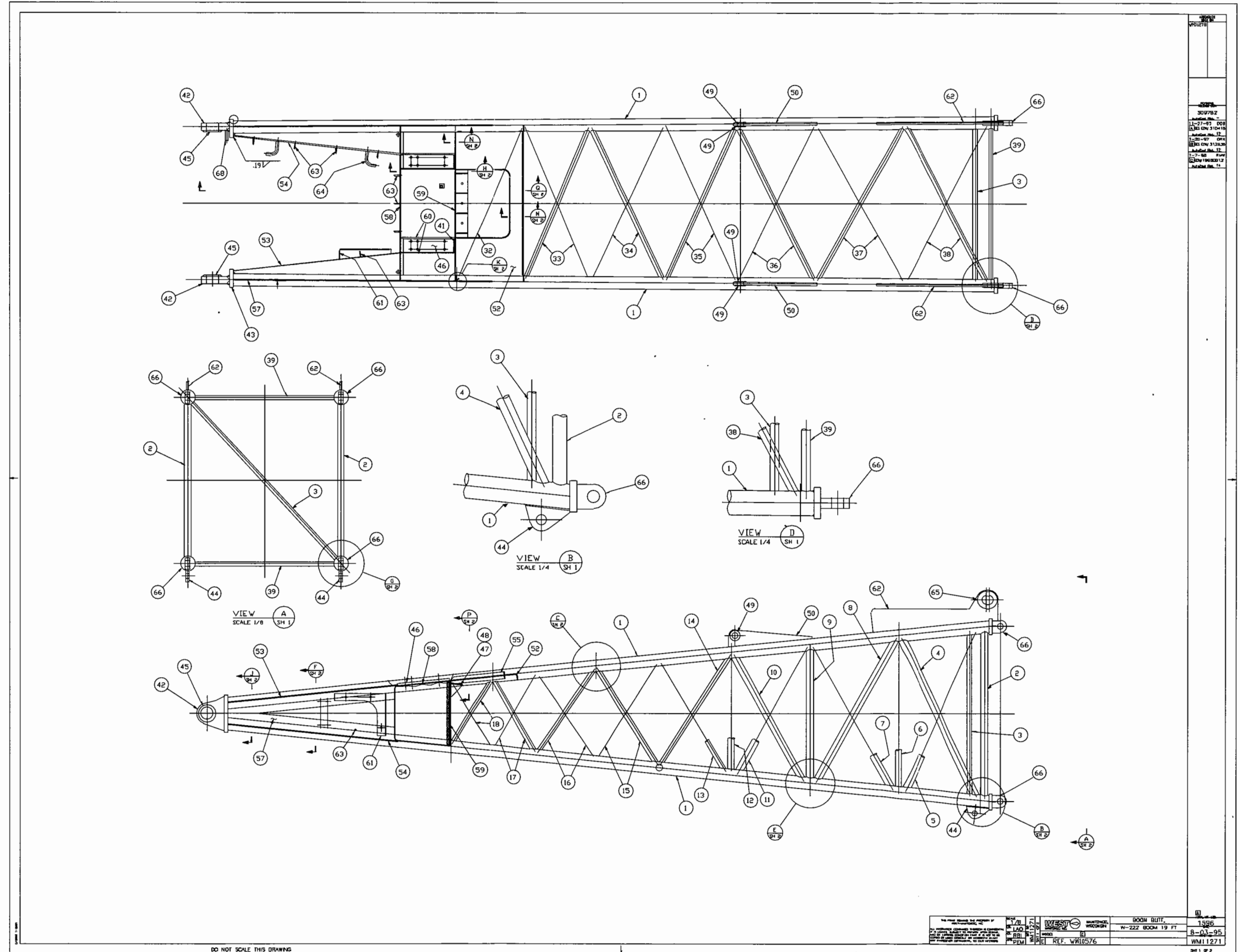
THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC. IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS		SCALE 1/8	DR. DRK	CHK. PEM	APP. PEM	WM1110B	1 OF 1	WEST MANITOWOC, INC. MANITOWOC, WISCONSIN	BOOM POINT SHAFT ASSY LOWER (PILE DRIVING)	TOTAL WT. LBS. 598 LBS
									10-18-94	
									WM11108	

DO NOT SCALE THIS DRAWING

SH 1 OF 1

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	2	Support	WM11212	911212
2	1	Timber	165532	165532
3	8	Hex Screw	612555	612555
4	8	Lockwasher	710306	710306
5	4	Carriage Bolt	244136	244136
6	4	Hex Nut	546058	546058
7	4	Lockwasher	710307	710307



309782
1-27-93 001
1-28-97 001
1-29-98 001
1-30-99 001
1-31-00 001
1-32-01 001
1-33-02 001
1-34-03 001
1-35-04 001
1-36-05 001
1-37-06 001
1-38-07 001
1-39-08 001
1-40-09 001
1-41-10 001
1-42-11 001
1-43-12 001
1-44-13 001
1-45-14 001
1-46-15 001
1-47-16 001
1-48-17 001
1-49-18 001
1-50-19 001
1-51-20 001
1-52-21 001
1-53-22 001
1-54-23 001
1-55-24 001
1-56-25 001
1-57-26 001
1-58-27 001
1-59-28 001
1-60-29 001
1-61-30 001
1-62-31 001
1-63-32 001
1-64-33 001
1-65-34 001
1-66-35 001

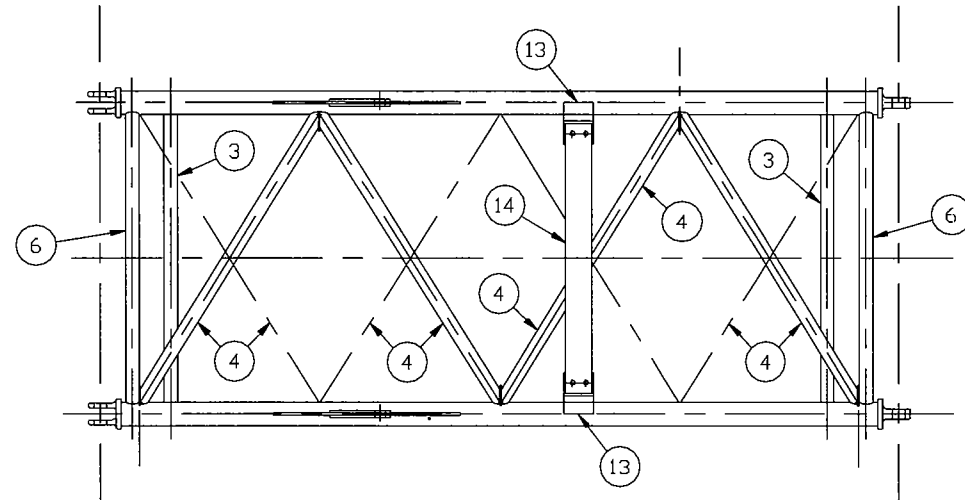
GROUP F - ATTACHMENTS

309782	1/4	WESTINGHOUSE	BOOM BUFT.	1526
1-27-93 001	1/4	WESTINGHOUSE	W-222 BOOM 19 FT	8-03-95
1-28-97 001	1/4	WESTINGHOUSE	REF. WH10576	WM11271
1-29-98 001	1/4	WESTINGHOUSE		
1-30-99 001	1/4	WESTINGHOUSE		
1-31-00 001	1/4	WESTINGHOUSE		
1-32-01 001	1/4	WESTINGHOUSE		
1-33-02 001	1/4	WESTINGHOUSE		
1-34-03 001	1/4	WESTINGHOUSE		
1-35-04 001	1/4	WESTINGHOUSE		
1-36-05 001	1/4	WESTINGHOUSE		
1-37-06 001	1/4	WESTINGHOUSE		
1-38-07 001	1/4	WESTINGHOUSE		
1-39-08 001	1/4	WESTINGHOUSE		
1-40-09 001	1/4	WESTINGHOUSE		
1-41-10 001	1/4	WESTINGHOUSE		
1-42-11 001	1/4	WESTINGHOUSE		
1-43-12 001	1/4	WESTINGHOUSE		
1-44-13 001	1/4	WESTINGHOUSE		
1-45-14 001	1/4	WESTINGHOUSE		
1-46-15 001	1/4	WESTINGHOUSE		
1-47-16 001	1/4	WESTINGHOUSE		
1-48-17 001	1/4	WESTINGHOUSE		
1-49-18 001	1/4	WESTINGHOUSE		
1-50-19 001	1/4	WESTINGHOUSE		
1-51-20 001	1/4	WESTINGHOUSE		
1-52-21 001	1/4	WESTINGHOUSE		
1-53-22 001	1/4	WESTINGHOUSE		
1-54-23 001	1/4	WESTINGHOUSE		
1-55-24 001	1/4	WESTINGHOUSE		
1-56-25 001	1/4	WESTINGHOUSE		
1-57-26 001	1/4	WESTINGHOUSE		
1-58-27 001	1/4	WESTINGHOUSE		
1-59-28 001	1/4	WESTINGHOUSE		
1-60-29 001	1/4	WESTINGHOUSE		
1-61-30 001	1/4	WESTINGHOUSE		
1-62-31 001	1/4	WESTINGHOUSE		
1-63-32 001	1/4	WESTINGHOUSE		
1-64-33 001	1/4	WESTINGHOUSE		
1-65-34 001	1/4	WESTINGHOUSE		
1-66-35 001	1/4	WESTINGHOUSE		

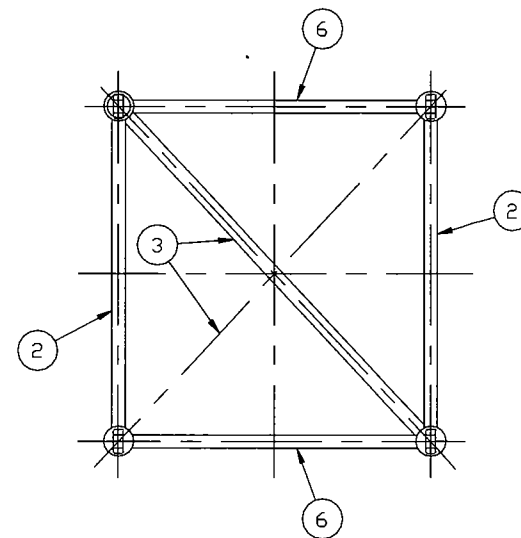
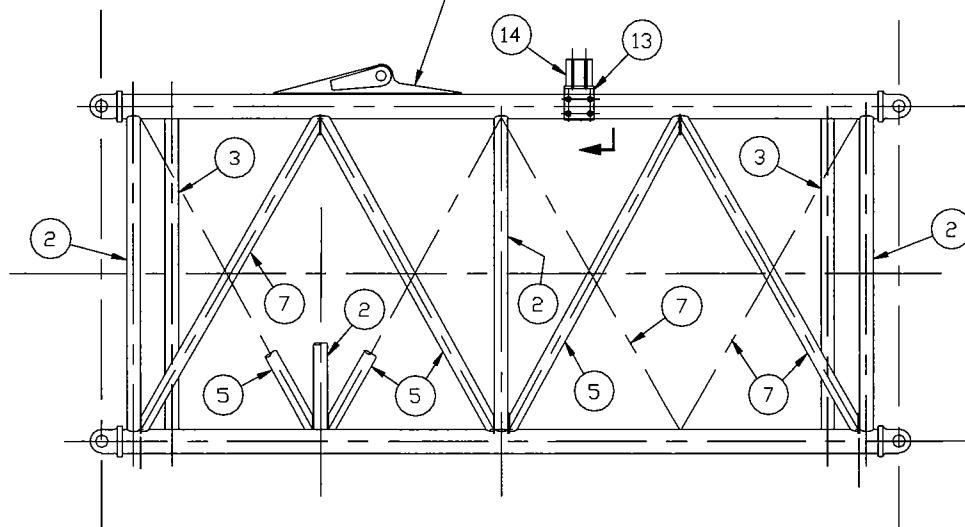
DO NOT SCALE THIS DRAWING

222 PARTS MANUAL

BILL OF MATERIAL					Previous	Current
Item	Qty.	Description	West No.	MCC No.		
1	2	Weldment, Boom Stop Outer Tube	WM11577	911577		
2	2	Weldment, Boom Stop Inner	WM11578	911578		
3	2	Spring, Compression	WM11579	911579		
4	2	Pin, Boom Stop	WM11581	911581		
5	2	Pin, 2-Cotter	WM11580	911580		
6	2	Pin, 2-Cotter	164378	164378		
7	2	Cotter, Hair Pin	563816	563816		
8	8	Pin, Cotter Zinc Plated	562096	562096		



9 NOTE: ADDITION OF ITEM 9, JIB BACKSTAY ANCHOR, IS ONLY DIFFERENCE BETWEEN WM11701 AND WM11700.



THIS DRAWING COVERS WM 11700 AND WM11701
SEE NOTE AT ITEM 9.

ASSEMBLIES USED ON
REVISIONS
RELEASE ECM 310472 AutoCod. Rel. 12

GROUP F - ATTACHMENTS

THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC.	SCALE 1 1/16"	MANITOWOC, WISCONSIN	10 FT. INSERT	TOTAL WT. LBS. 906
ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND 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.	DRK	WEST-MANITOWOC, INC.	FOR W222HD BOOM	DATE 1-5-96
	PEM	MODEL W222HD	WITH JIB BACKSTAY	DWG. NO. WM11701
	PEM	REF. WM10841		

DO NOT SCALE THIS DRAWING

SHT. 1 OF 1

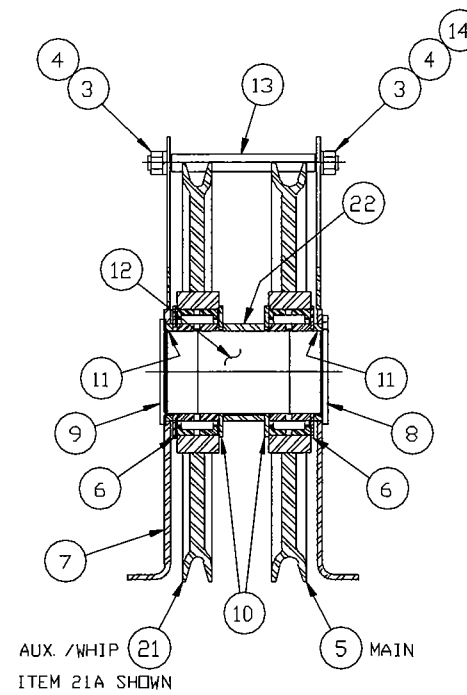
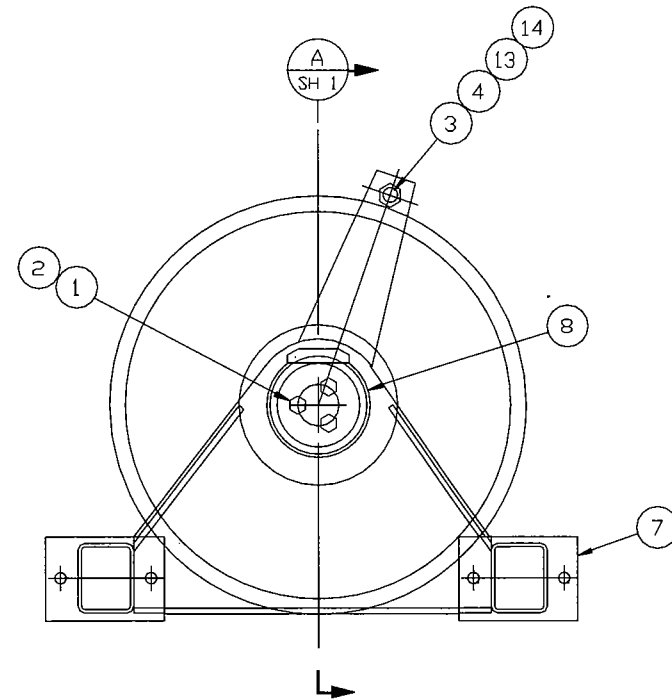
222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
66	4	PIN CONNECTOR, BOOM JOINT , MALE	WM11703	911703

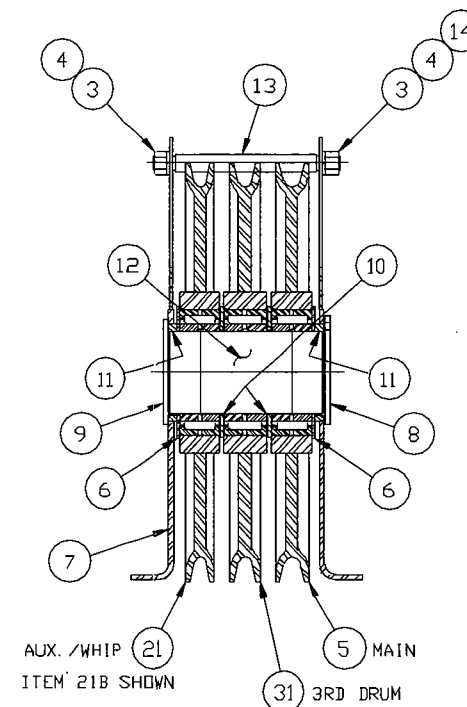
222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1				
2	6	CAPSCREW, HEX HEAD, GR 5	WM70173	970173
3	2	WIRE, IRON, 16 GA, 24.0 LONG		
4				
5	8	NUT, HEX, GR 5	546056	546056
6	8	CAPSCREW, HEX HEAD, GR 5	612559	612559
7	8	LOCK WASHER	710306	710306
8				
9	2	SHEAVE ASSEMBLY	WM11709	911709
10	1	PLATE, END	WM11753	911753
11	2	SPACER	WM11726	911726
12	1	GUIDE, ROPE	WM11736	911736
13	1	SPACER	WM11746	911746
14	2	SPACER	WM11747	911747
15	1	PLATE, END	WM11748	911748
16	1	SHAFT	WM11749	911749

Lower Shaft Assembly,
 Boom Top
 WM11738_B



SECTION A
SCALE 1/8 SH 1
ITEM 1 NOT SHOWN



SECTION A
SCALE 1/8 SH 1
ITEM 1 NOT SHOWN

ASSEMBLIES USED ON
WM11753
REVISIONS RESERVED FOR
31072B
AutoCad Rel. 12
4-17-96 LAO
A SEE ECN# 311297
AutoCad Rel. 12
6-12-98 BOB
B ECN# 19980009
AutoCad Rel. 13

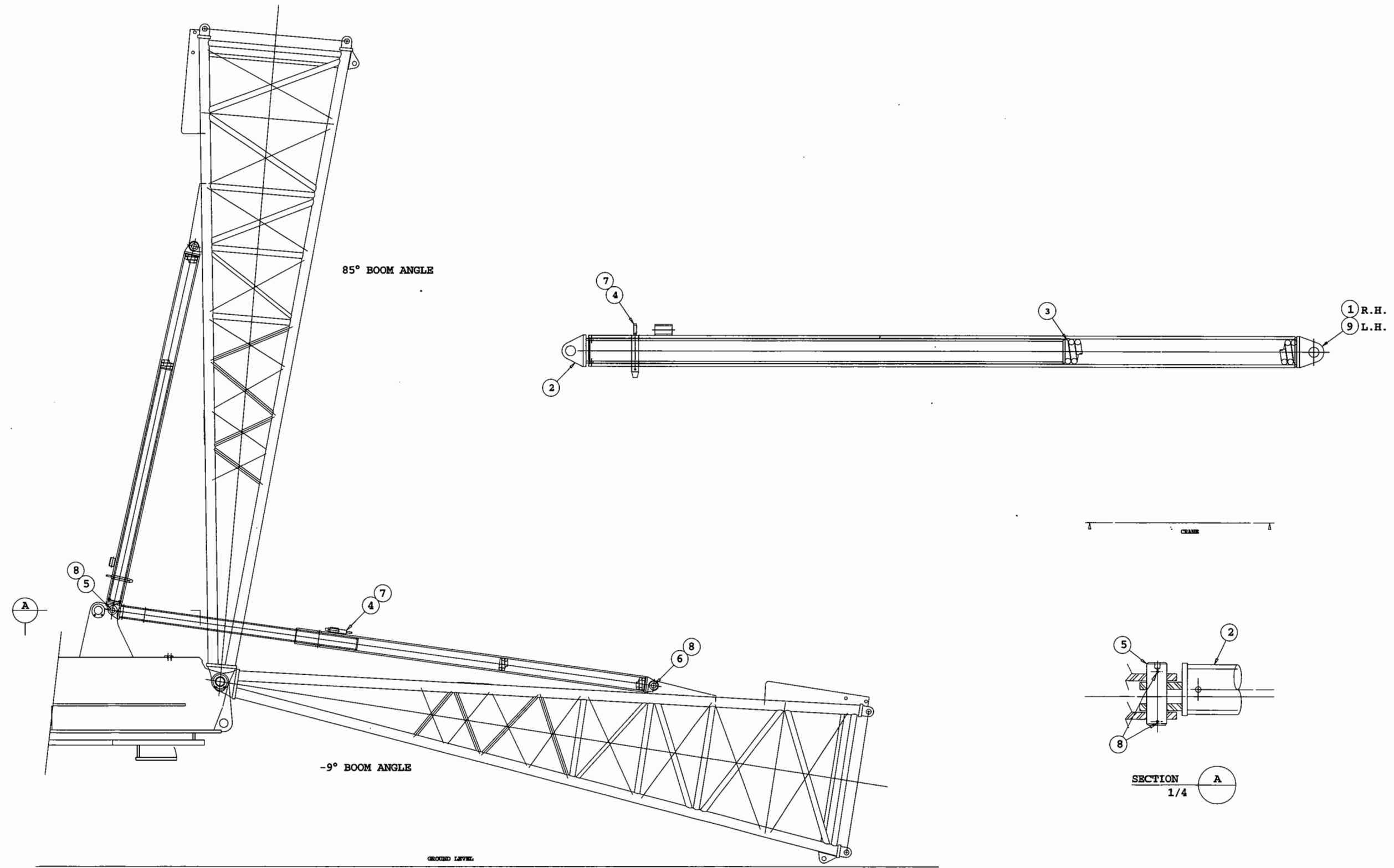
GROUP F - ATTACHMENTS

<small>THIS PRINT REMAINS THE PROPERTY OF WEST-MANTOWOC, INC. ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL IT 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</small>	SCALE	1/8		MANITOWOC, WISCONSIN	WIRE ROPE GUIDE	TOTAL WT. LBS.
	DR.	DRK			ASSEMBLY	SEE ABOVE
	CK.	KST			(DEFLECTOR SHV)	2-7-96
	APP.	PEM			SEE B/M ABOVE	WM11752
<small>DATE</small> <small>APP.</small> <small>REF.</small>	<small>DATE</small> WM11752 C	MODEL WM11095	MATERIAL SEE B/M ABOVE	DATE 2-7-96 <small>DATE</small>	DATE 2-7-96 <small>DATE</small>	

DO NOT SCALE THIS DRAWING

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	1	Inclinometer	WM11875	911875
2	1	Plate, Mounting	WM11874	911874
3	2	Nut	546055	546055
4	2	Nut	546056	546056
5	2	Screw	612550	612550
6	2	Screw, Machine, Round Head	617788	617788
7	2	Washer, Flat	709460	709460
8	2	Lockwasher	710301	710301



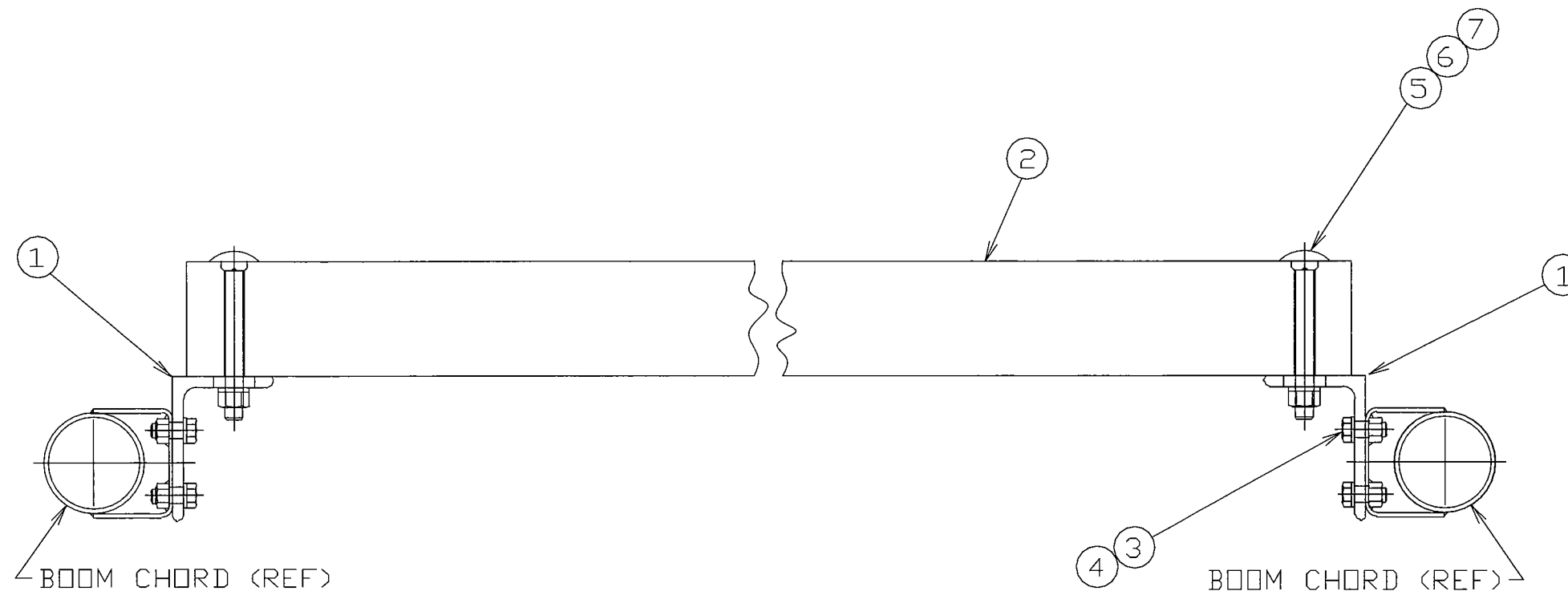
WM12307	A
312892	33
5-24-97	DMK
A	312894
10-22-97	DMK
B	312896
5-25-98	DMK
C	12989028

GROUP F - ATTACHMENTS

1/16	WEST	W222 BOOM STOP ASSEMBLY	1026
DMK			3-13-97
DMK			WM12307
DMK			

222 PARTS MANUAL

BILL OF MATERIAL			Previous	Current
Item	Qty.	Description	West No.	MCC No.
1	4	Washer	12535	12535
2	2	Pin	74079	74079
3	1	Equalizer Assembly	WM12009	912009
4	2	Pendant (Dwg. 73025)	276938	276938
5	2	Basic Pendant (21 ft Dwg. 75002)	277214	277214
6	4	Snap Pin	563823	563823
7	1	Boom Top Assembly	WM11207	911207
8	1	Boom Butt Assembly	WM11278	911278
9	1	Boom Stop Assembly	WM12643	912643
10	1	Gantry Assembly	WM11164	911164
11	1	Wire Rope Timber Guard Assembly	168494	168494
Additions For Longer Boom Lengths				
21	AR	10 Ft Insert	WM10840	910840
22	AR	10 Ft Insert with Jib Backstay	WM10841	910841
23	AR	20 Ft Insert	WM10838	910838
24	AR	20 Ft Insert with Jib Backstay	WM10839	910839
25	AR	40 Ft Insert	WM10836	910836
26	AR	40 Ft Insert with Jib Backstay	WM10837	910837
27	AR	10 Ft Pendant	276737	276737
28	AR	20 Ft Pendant	276738	276738
29	AR	40 Ft Pendant	276810	276810
Optional Parts				
40	AR	Wire Rope Roller Guide Assembly	164766	164766
41	1	Universal Wire Rope Anchor Joint Assembly	166936	166936
42	1	Upper Boom Point Assembly	WM11103	911103
43	1	Lower. Boom Pt. Shaft. Assembly (Pile Driving)	WM11108	911108
Qty. Dependent on Boom Length				
		20 Ft. Insert with Jib Backstay	WM10839	910839
		40 Ft. Insert	WM10836	910836
		40 Ft. Insert with Jib Backstay	WM10837	910837
		Pendant - 10 Feet	276737	276737
		Pendant - 20 Feet	276738	276738
		Pendant - 40 Feet	276810	276810
		10 Ft. Insert	WM10840	910840
		10 Ft. Insert with Jib Backstay	WM10841	910841
		20 Ft. Insert	WM10838	910838



ASSEMBLIES USED ON

REVISIONS
RELEASE EGN
19980009
AutoCad_Rel_13

TOTAL WT. LBS.

32.46

DATE

6-12-98

DWG. NO.

WM13053

THIS PRINT REMAINS THE PROPERTY OF WEST-MANITOWOC, INC.
ALL INFORMATION CONTAINED THEREON IS CONFIDENTIAL IT 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.

SCALE
1 = 4
DR. BOB
CK BOB
APP.

DWG. NO.
WM13053
SHT. 1 OF 1

WEST MANITOWOC, WISCONSIN
MODEL
B REF 168017

WIRE ROPE
TIMBER GUARD
ASSEMBLY
MATERIAL

CF0052 19970212

DO NOT SCALE THIS DRAWING

SHT. 1 OF 1

GROUP F - ATTACHMENTS

Arranged
Alphabetically
by Description

MASTER INDEX
ALPHABETICAL
222 (EPIC Conversion)
PARTS MANUAL

1 of 5
3/5/99

Description	Pts.	Previous	Current	Sheet	Rev.
	Grp.	West No.	MCC No.	No(s).	Level
Air Cleaner, Cummins 6CTA-8.3	D	WM12769	912769		-
Angle Sensor, Boom	F	WM11009	911009		C
Anti Two Block Installation	F	WM11012	911012		D
Backhitch, Left Hand Side	F	WM11247	911247		C
Backhitch, Right Hand Side	F	WM10955	910955		C
Battery Installation	D	WM12398	912398		-
Battery Installation, Cummins C6 Engines	D	WM12397	912397		B
Battery Installation, M11 Engine	D	WM12861	912861		A
Battery Isolator Installation	C	WM11113	911113		B
Boom Angle Indicator Installation	F	WM11876	911876		A
Boom Butt Assembly, 19', 222HD Boom	F	WM11715	911715		A
Boom Butt, 19'	F	WM11278	911278		A
Boom Butt, 19', 222 Boom	F	WM11271	911271		C
Boom Butt, 19', 222HD Boom	F	WM11714	911714		B
Boom Hoist	B	WM10823	910823		C
Boom Insert, 10', 222 Boom	F	WM10841	910841		C
Boom Insert, 10', 222HD Boom	F	WM11701	911701		-
Boom Insert, 20', 222 Boom	F	WM10839	910839		C
Boom Insert, 20', 222HD Boom	F	WM11699	911699		-
Boom Insert, 40', 222 Boom	F	WM10837	910837		D
Boom Point, Upper	F	WM11730	911730		B
Boom Point, Upper, Single Sheave, 222 Boom	F	WM11103	911103		C
Boom Rigging, Front Mounted Auxiliary Drum	F	WM11172	911172		B
Boom Rigging, 222 Boom	F	WM10557	910557		F
Boom Rigging, 222 Boom, 222EX and EXOL	F	WM12644	912644		A
Boom Rigging, 222HD Boom	F	WM11764	911764		D
Boom Rigging, 222HD Boom with Open Throat Top	F	WM13235	913235		-
Boom Stop	F	WM11576	911576		-
Boom Stop, 222 Boom	F	WM12307	912307		C
Boom Stop, 222EX and EXOL	F	WM12643	912643		-
Boom Stop, 222HD Boom	F	WM12639	912639		-
Boom Top, 21'	F	WM10381	910381	1 of 2	H
Boom Top, 21'	F	WM10381	910381	2 of 2	H
Boom Top, 21', 222HD Boom	F	WM11716	911716		B
Boom Top, 21', 222HD Boom	F	WM11763	911763		C
Boom Top, 222 Boom	F	WM11207	911207		C
Carbody	E	WM10009	910009		E

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