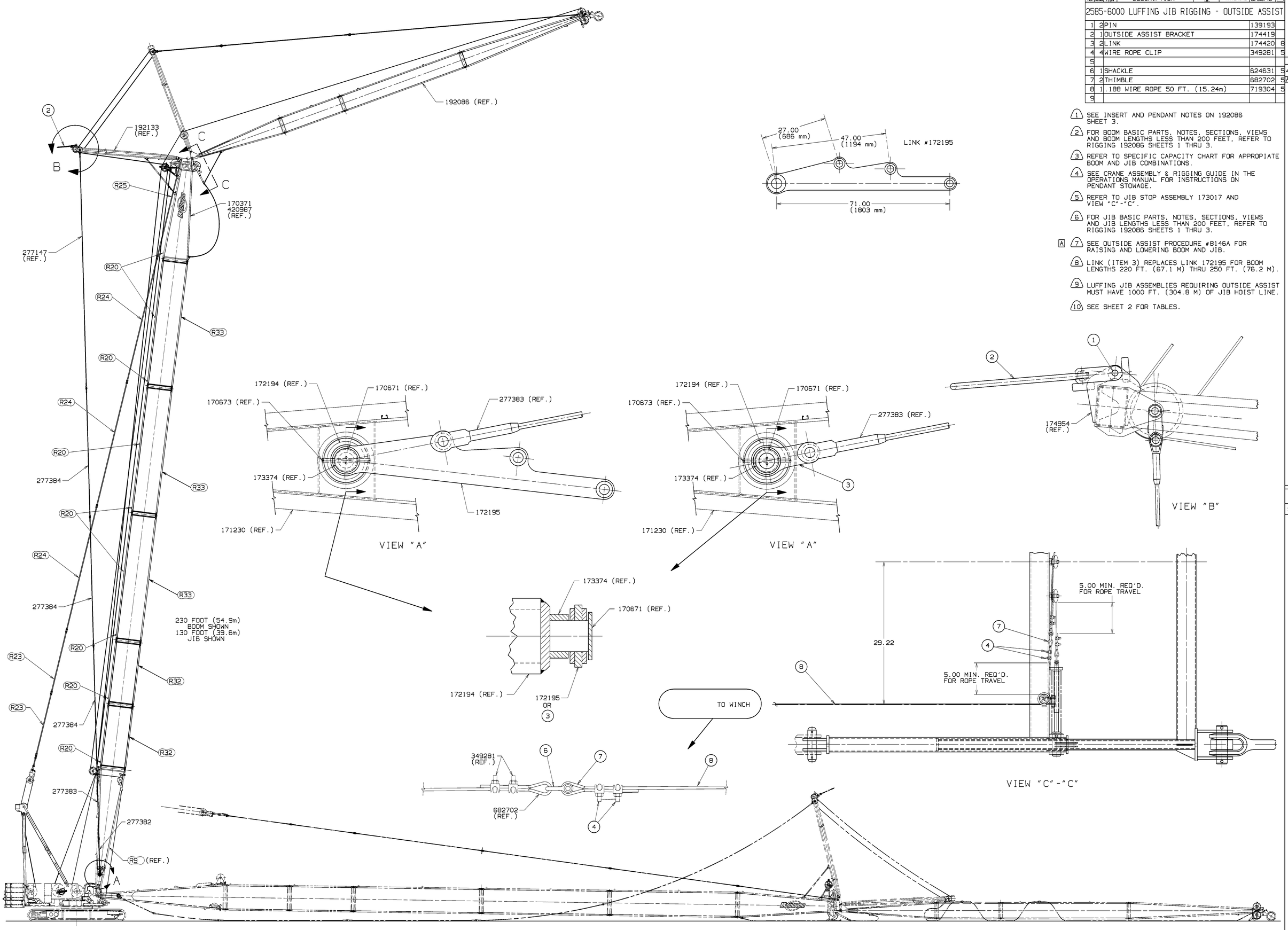

BILL OF MATERIAL

ITEM NO.	NO. REQD.	SECTION	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OR DWG. NO.	
			2585-6000 LUFFING JIB RIGGING - OUTSIDE ASSIST				
1	2		PIN			139193	
2	1		OUTSIDE ASSIST BRACKET			174419	
3	2		LINK			174420	8
4	4		WIRE ROPE CLIP			349281	5
5							
6	1		SHACKLE			624631	5
7	2		THIMBLE			682702	5
8	1		.188 WIRE ROPE 50 FT. (15.24m)			719304	5
9							

ASSEMBLIES USED ON

REVISIONS

4-9-04 PMP

A WAS 7652A

1. SEE INSERT AND PENDANT NOTES ON 192086 SHEET 3.
2. FOR BOOM BASIC PARTS, NOTES, SECTIONS, VIEWS AND BOOM LENGTHS LESS THAN 200 FEET, REFER TO RIGGING 192086 SHEETS 1 THRU 3.
3. REFER TO SPECIFIC CAPACITY CHART FOR APPROPIATE BOOM AND JIB COMBINATIONS.
4. SEE CRANE ASSEMBLY & RIGGING GUIDE IN THE OPERATIONS MANUAL FOR INSTRUCTIONS ON PENDANT STOWAGE.
5. REFER TO JIB STOP ASSEMBLY 173017 AND VIEW "C"-"C".
6. FOR JIB BASIC PARTS, NOTES, SECTIONS, VIEWS AND JIB LENGTHS LESS THAN 200 FEET, REFER TO RIGGING 192086 SHEETS 1 THRU 3.
7. A SEE OUTSIDE ASSIST PROCEDURE #8146A FOR RAISING AND LOWERING BOOM AND JIB.
8. LINK (ITEM 3) REPLACES LINK 172195 FOR BOOM LENGTHS 220 FT. (67.1 M) THRU 250 FT. (76.2 M).
9. LUFFING JIB ASSEMBLIES REQUIRING OUTSIDE ASSIST MUST HAVE 1000 FT. (304.8 M) OF JIB HOIST LINE.
10. SEE SHEET 2 FOR TABLES.

DWG. NO. 194186

SHT 1 OF 2

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TOLERANCE UNLESS OTHERWISE SPECIFIED

DECIMAL PLACES	FABRICATION ≤ 10 FEET	FABRICATION > 10 FEET	MACHINING	
(1) PLACE 0.0	±.12	±.18	±.03	MACHINE FINISHES TO BE 125 OR BETTER UNLESS OTHERWISE SPECIFIED
(2) PLACE 0.00	±.06	±.12	±.015	
(3) PLACE 0.000			±.005	
ANGLES	±1°30'		±0°30'	

SCALE 1/4FT

DR. CJW

CK. JAZ

APP. GMP

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin

MODEL 2250

LUFFING JIB RIGGING ASSEMBLY
FOR OUTSIDE ASSIST
#44 BOOM/#133 OR 133A JIB

DATE 6-08-99

PATTERN NO.

DWG. NO. 194186

DO NOT SCALE THIS DRAWING

SHEET 1 OF 2

BILL OF MATERIAL

ITEM NO.	NO. REQD	SEC-TION	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OR DWG. NO

ASSEMBLIES USED ON

REFERENCE BOOM PARTS LIST
(SEE BOOM RIGGING ASSEMBLY 179809)

R1	BOOM SIGN	A02735	
R2	PIN	78292	
R3	WASHERS	137502	
R4	PIN	139128	8,14
R5	PIN	160720	
R6	KEEPER	164479	
R7	BOOM ANGLE INDICATOR ASSEMBLY	168779	
R8	BOOM STOP ASSEMBLY	170474	
R9	40 FT. (12.19 M) BOOM BUTT	171230	3
R10	12 FT. (3.66 M) BUTT LOWER SECTION	171283	
R11	28 FT. (8.53 M) BUTT UPPER SECTION	171284	
R12	LINK	171522	14
R13	WIRE ROPE GUIDE ASSY CRAW. HANDLING	171621	14
R14	PIN	172111	14
R15	PIN	172112	14
R16	RIGGING WINCH ASSEMBLY	172577	14
R17	WIRE ROPE GUIDE ASSEMBLY	172559	5
R18	BOOM POINT SHAFT ASSEMBLY (LOWER)	172960	1
R19	TIMBER	172478	9
R20	TIMBER	178905	4
R21	GANTRY ASSEMBLY	179777	
R22	BOOM SUPPORT STRAP (10 FT)	179837	
R23	BOOM SUPPORT STRAP (20 FT)	179838	
R24	BOOM SUPPORT STRAP (40 FT)	179839	
R25	BOOM SUPPORT STRAP (BASIC)	179840	
R26	BOOM SUPPORT STRAP (BASIC)	179841	
R27	BOOM SUPPORT LINK	192250	
R28	COLLAR	179862	
R29	PIN	179863	
R30	EQUALIZER ASSEMBLY	179896	
R31	INSERT 10 FT (3.05M)	179912	11
R32	INSERT 20 FT (6.10M)	179913	12
R33	INSERT 40 FT (12.19M)	179914	13
R34	BOOM TOP (30 FT.)-(9.14 M)	179915	10
R35			
R36	PIN	179959	
R37	BOOM SUPPORT LINK	179983	
R38	BOOM SUPPORT LINK	179984	
R39	WIRE ROPE GUIDE ASSEMBLY	192000	
R40	PENDANT	277465	2
R41	BUSHING	290026	7,14
R42	CYLINDER	385413	6,14

REQUIRED FOR VARIOUS BOOM LENGTHS (REFERENCE) — SEE 1 ON SHT. 1

ITEM NO.		R31	R32	R33	R22	R23	R24	R2	R20	R27	R28	R29	R36	277382 DWG. 78145	277383 DWG. 78145	277384 DWG. 78145	172195		666852
BOOM LENGTH		10 FT 3.05 M INSERT	20 FT 6.10 M INSERT	40 FT 12.19 M INSERT	9 FT 4.75 (2.86M) STRAP	19 FT 4.75 (5.91M) STRAP	39 FT 4.75 (12.00M) STRAP	PIN	TIMBER	BOOM SUPPORT LINK	COLLAR	PIN	PIN	10 FT-1.00 (3.07M) PENDANT	20 FT-1.50 (6.13M) PENDANT	40 FT-3.00 (12.27M) PENDANT	BACKSTAY LINK ADJUSTMENT		(OPTIONAL) PENDANT TIE DOWN STRAPS 4
FEET	METERS																INCHES	mm	
210	64.0	0	1	3	0	2	6	16	7	16	16	16	16	2	0	6	27.00	686	22
220	67.1	1	1	3	2	2	6	20	8	20	20	20	20	0	2	6	LINK 174420		26
230	70.1	0	2	3	0	4	6	20	8	20	20	20	20	2	2	6			26
		OR 0	0	4	0	0	8	16	8	16	16	16	16	2	2	6			24
240	73.2	1	2	3	2	4	6	24	9	24	24	24	24	0	0	8			30
		OR 1	0	4	2	0	8	20	9	20	20	20	20	0	0	8			28
250	76.2	0	1	4	0	2	8	20	9	20	20	20	20	2	0	8			28

REQUIRED FOR VARIOUS JIB BACKSTAYS

R1 1.125 (29mm) WIRE ROPE.

R2 ON DWG. 139117, GANTRY TIE DOWN PENDANT.

R3 OPTIONAL 40 FT. (12.19 M) BUTT (ITEM R9) REPLACES THE COMBINATION OF BUTT SECTIONS (ITEM R10 & R11). ONE PIECE BUTT CANNOT BE USED WITH SELF-ERECT.

R4 ATTACH TIMBERS SO THEY ARE FREE TO SLIDE UNDER THERMAL EXPANSION/CONTRACTION OF PLASTIC.

R5 REQUIRED FOR LUFFING JIB, SELF-ERECT (CRAWLER HANDLING) AND RIGGING WINCH.

R6 BOOM BUTT HANDLING:
USED WITH 2-PIECE BOOM BUTT ONLY. MAX. COMBINATION THAT CAN BE HANDLED WITH CYLINDER (ITEM R42) IS: BUTT SECTIONS (ITEM R10 AND R11); ROPE GUIDES (ITEM R39, R13 AND R17); RIGGING WINCH (ITEM R17); EQUALIZER (ITEM R30); BOOM STOPS (ITEM R8).

R7 INSTALL 2 BUSHINGS (ITEM R41) (1 EACH SIDE) IN LOWER PIN EYE AND 2 (1 EACH SIDE) IN UPPER PIN EYE OF CYLINDER (ITEM R42). BUSHINGS TO BE FLUSH WITH OUTSIDE FACE OF PIN EYE.

R8 PIN IN PLACE ONLY DURING EQUALIZER RELOCATION FROM GANTRY STORAGE TO BOOM BUTT EQUALIZER RAIL. PIN TO BE STOWED FOR NORMAL CRANE OPERATION.

R9 USE LOCTITE #242 OR EQUIVALENT ON MOUNTING SCREW THREADS AT ASSEMBLY.

R10 SAME AS MODIFICATION #421309 WITH #421315.

R11 SAME AS MODIFICATION #421321.

R12 SAME AS MODIFICATION #421322.

R13 SAME AS MODIFICATION #421323.

R14 OPTIONAL

REVISIONS

3-16-00 EDB
A DELETED 200 FT BOOM LENGTH
1-15-02 EDB
B WAS 22656

DWG. NO. 194186
SHT 2 OF 2

DATE 6-08-99

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TOLERANCE UNLESS OTHERWISE SPECIFIED			
DECIMAL PLACES	FABRICATION		MACHINING
	≤ 10 FEET	> 10 FEET	
(1) PLACE 0.0	±.120	±.180	±.030
(2) PLACE 0.00	±.060	±.120	±.015
(3) PLACE 0.000			±.005
ANGLES	±1°30′		±0°30′

√ = MACHINING TOLERANCE APPLIES TO THIS DIMENSION AND/OR SURFACE

SCALE ----
DR. CJW
CK. JAZ
APP GMP

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin

MODEL 2250

LUFFING JIB RIGGING ASSEMBLY
FOR OUTSIDE ASSIST
#44 BOOM/#133 OR 133A JIB

PATTERN NO.

DWG. NO. 194186

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