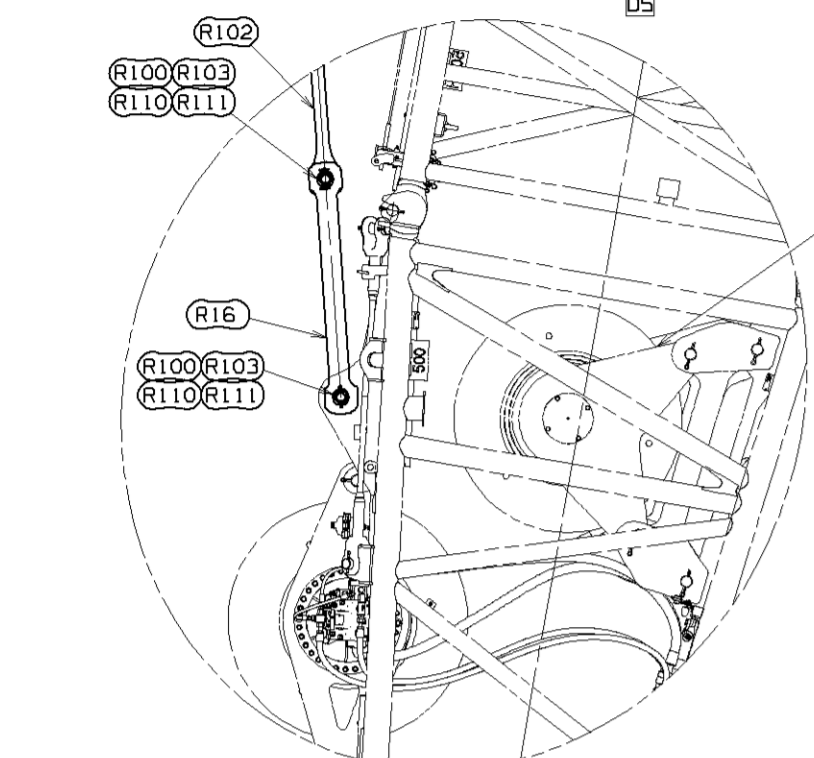
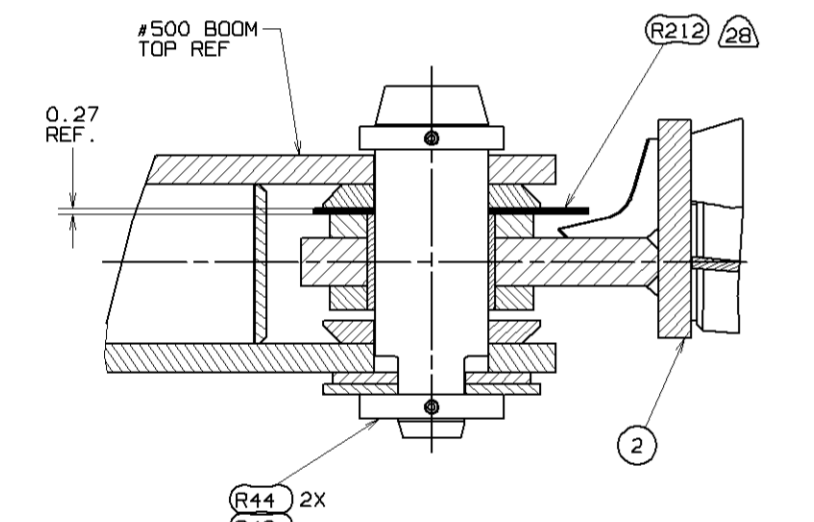


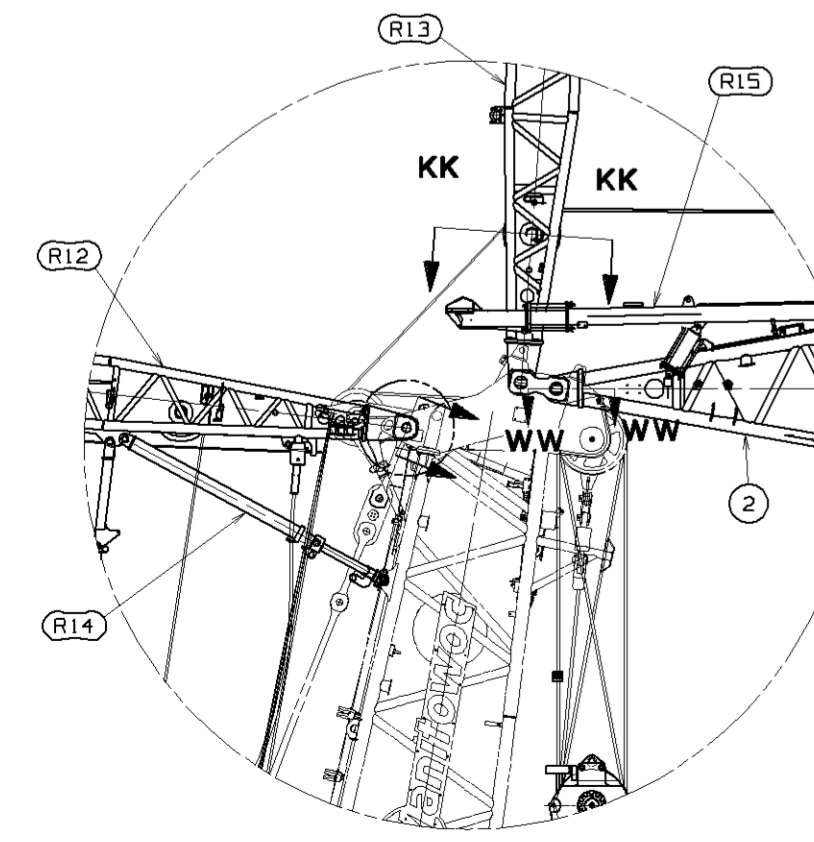
**SECTION KK-KK**  
#502 JIB STRUT  
ALIGN JIB STRUT SHEAVES WITH SHEAVES TO BE USED ON BOOM TOP SCALE 0.150



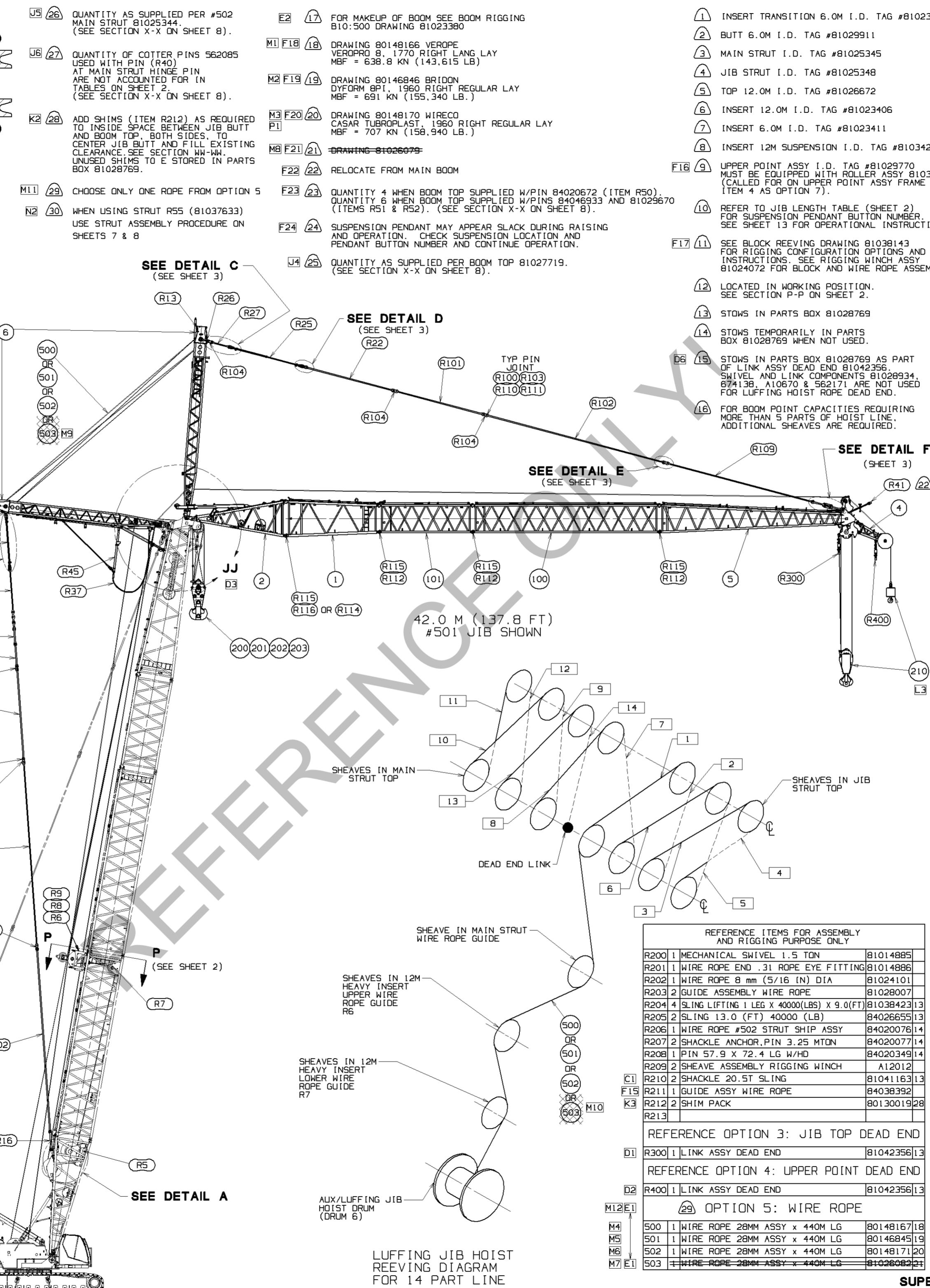
**DETAIL A**  
SCALE 0.050



**SECTION WW-WW**  
SCALE: 3 = 1 FT  
TYPICAL BOTH SIDES



**DETAIL JJ**  
SCALE 0.025



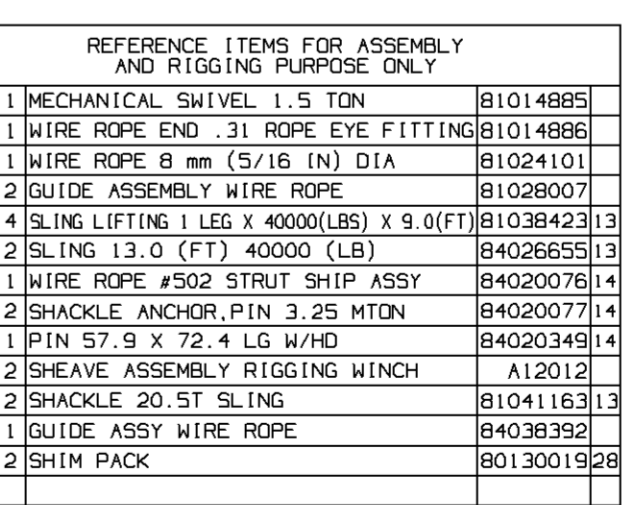
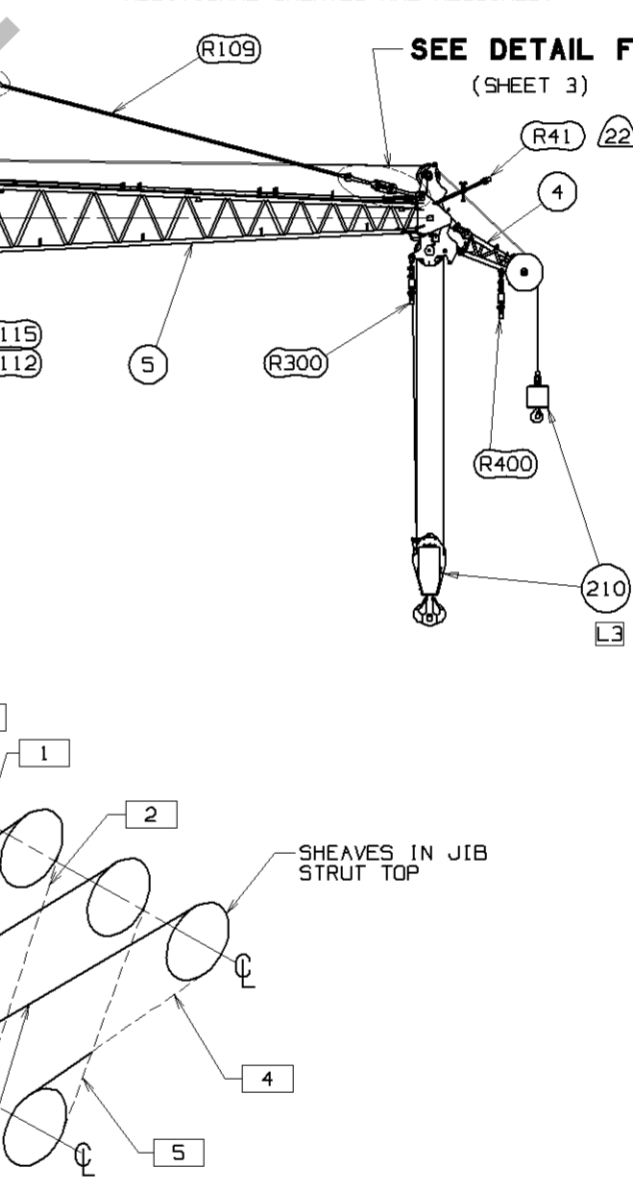
LUFFING JIB HOIST REEVING DIAGRAM FOR 14 PART LINE

48.0 M (157.5 FT) #500 BOOM SHOWN SEE (17)

- U5 26 QUANTITY AS SUPPLIED PER #502 MAIN STRUT 81025344. (SEE SECTION X-X ON SHEET 8).
- U6 27 QUANTITY OF COTTER PINS 562085 USED WITH PIN (R40) AT MAIN STRUT HINGE PIN ARE NOT ACCOUNTED FOR IN TABLES ON SHEET 2. (SEE SECTION X-X ON SHEET 8).
- K2 28 ADD SHIMS (ITEM R212) AS REQUIRED TO INSURE SPACE BETWEEN JIB BUTT AND BOOM TOP. BOTH SIDES TO CENTER JIB BUTT AND FILL EXISTING CLEARANCE. SEE SECTION WW-WW. UNUSED SHIMS TO E STORED IN PARTS BOX 81028769.
- M11 29 CHOOSE ONLY ONE ROPE FROM OPTION 5
- N2 30 WHEN USING STRUT R55 (81037633) USE STRUT ASSEMBLY PROCEDURE ON SHEETS 7 & 8

- E2 17 FOR MAKEUP OF BOOM SEE BOOM RIGGING B10:500 DRAWING 81023380
- M1 F18 18 DRAWING 80148166 VEROPE VEROPRO 8. 1770 RIGHT LANG LAY MBF = 638.8 KN (143,615 LB)
- M2 F19 19 DRAWING 80146846 BRIDON DYFORM 8P1. 1960 RIGHT REGULAR LAY MBF = 691 KN (155,340 LB.)
- M3 F20 20 DRAWING 80148170 WIRECO CASAR TUBROPLAST. 1960 RIGHT REGULAR LAY MBF = 707 KN (158,940 LB.)
- M8 F21 21 DRAWING 81026079
- F22 22 RELOCATE FROM MAIN BOOM
- F23 23 QUANTITY 4 WHEN BOOM TOP SUPPLIED W/PIN 84020672 (ITEM R50). QUANTITY 6 WHEN BOOM TOP SUPPLIED W/PINS 84046933 AND 81029670 (ITEMS R51 & R52). (SEE SECTION X-X ON SHEET 8).
- F24 24 SUSPENSION PENDANT MAY APPEAR SLACK DURING RAISING AND OPERATION. CHECK SUSPENSION LOCATION AND PENDANT BUTTON NUMBER AND CONTINUE OPERATION.
- J4 25 QUANTITY AS SUPPLIED PER BOOM TOP 81027719. (SEE SECTION X-X ON SHEET 8).

- 1 INSERT TRANSITION 6.0M I.D. TAG #81023400
- 2 BUTT 6.0M I.D. TAG #81029911
- 3 MAIN STRUT I.D. TAG #81025345
- 4 JIB STRUT I.D. TAG #81025348
- 5 TOP 12.0M I.D. TAG #81026672
- 6 INSERT 12.0M I.D. TAG #81023406
- 7 INSERT 6.0M I.D. TAG #81023411
- 8 INSERT 12M SUSPENSION I.D. TAG #81034272
- F16 9 UPPER POINT ASSY I.D. TAG #81029770 MUST BE EQUIPPED WITH ROLLER ASSY 81036285 (CALLED FOR ON UPPER POINT ASSY FRAME ITEM 4 AS OPTION 7).
- 10 REFER TO JIB LENGTH TABLE (SHEET 2) FOR SUSPENSION PENDANT BUTTON NUMBER. SEE SHEET 13 FOR OPERATIONAL INSTRUCTIONS
- F17 11 SEE BLOCK REEVING DRAWING 81038143 FOR RIGGING CONFIGURATION OPTIONS AND INSTRUCTIONS. SEE RIGGING W/CH ASSY 81024072 FOR BLOCK AND WIRE ROPE ASSEMBLY.
- 12 LOCATED IN WORKING POSITION. SEE SECTION P-P ON SHEET 2.
- 13 STOWS IN PARTS BOX 81028769
- 14 STOWS TEMPORARILY IN PARTS BOX 81028769 WHEN NOT USED.
- D6 15 STOWS IN PARTS BOX 81028769 AS PART OF LINK ASSY DEAD END 81042356. SHIVEL AND LINK COMPONENTS 81028934, 874138, A10670 & 562171 ARE NOT USED FOR LUFFING HOIST ROPE DEAD END.
- 16 FOR BOOM POINT CAPACITIES REQUIRING MORE THAN 5 PARTS OF HOIST LINE, ADDITIONAL SHEAVES ARE REQUIRED.



**REFERENCE OPTION 3: JIB TOP DEAD END**

R300	LINK ASSY DEAD END	81042356
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**REFERENCE OPTION 4: UPPER POINT DEAD END**

R400	LINK ASSY DEAD END	81042356
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**OPTION 5: WIRE ROPE**

500	WIRE ROPE 28MM ASSY X 440M LG	80148167
501	WIRE ROPE 28MM ASSY X 440M LG	80146845
502	WIRE ROPE 28MM ASSY X 440M LG	80148171
503	WIRE ROPE 28MM ASSY X 440M LG	81026082

**BILL OF MATERIAL**

ITEM NO.	DESCRIPTION	QTY	PART NO.	REV.
<b>LUFFING JIB RIGGING LJ ON B10</b>				
1	INSERT TRANSITION ASSY #500/501 6M	1	81023398	1
2	BUTT ASSY #500A 6.00 M	2	81024783	2
3				
4	UPPER POINT ASSY FRAME	1	81029769	9
5	TOP ASSY #501. 12M LJ	1	81026670	5
6	STRUT #502 SHIPPING ASSY	1	84020169	

**OPTION 1: HOOK BLOCKS**

210	HOOK BLOCK SHIP LOOSE OPTIONS	1	80136699	
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**OPTION 2: UPPER BOOM POINT**

300				
301				

**BASIC REFERENCE ITEMS**

R1	GUIDE WIRE ROPE ASSY	81027767
R2	PIN 1 HOLE W/HD 65.0 DIA X 94.3 LG	81024951
R3	LINK #500-BOOM	81024955
R4	LOAD CELL LINK 145.150 KGS	84038493
R5	HOIST ASSY LUFFING	81027708
R6	GUIDE ASSY DRUM 6 UPPER	81027946
R7	GUIDE ASSY DRUM 6 LOWER	81027949
R8	GUIDE ASSY DRUM 2.3 LOWER	81029022
R9	GUIDE ASSY DRUM 2.3 UPPER	81029628
R10	COLLAR 70.50 MM I.D.	81029689
R11	PIN 2 HOLE 12.8 DIA X 98.0 LG	81029708
R12	STRUT #502, MAIN ASSY	81025344
R13	STRUT ASSY #502, JIB	81025347
R14	STRUT STOP MAIN STRUT #502	81032853
R15	STOP ASSY, JIB #501A	84037517
R16	LINK #501 BOOM BUTT	81030028
R17	PIN 1 HOLE W/HD 100.0 X 86.3 LG	81032176
R18	SPREADER ASSY #501 MAIN STRUT	81033881
R19	LINK #501 12M LJ TOP	81034288
R20	LINK #501 12M LJ BOT	81034289
R21	PIN 1 HOLE X/HD 65.0 DIA X 82.3 LG	81034298
R22	STRAP 5.78M #500/501 JIB	81036029
R23	PIN 1 HOLE W/HD 69.5 DIA X 86.3 LG	81036091
R24	PLATE JIB STRUT HOLDBACK	81036997
R25	SPREADER ASSY #500/501 TRANSITION INSERT	81036402
R26	STRAP #502 JIB STRUT, BASIC	81036865
R27	STRAP #502 JIB STRUT, BASIC	81036866
R28	PIN 1 HOLE W/HD 62.0 DIA X 85.8 LG	81036908
R29	SHIM .134 (IN) THK	81036908
R30	STRAP #502 MAIN STRUT, BASIC	81037361
R31	STRAP BASIC #502 MAIN STRUT BACKSTAY	81037362
R32	LINK #501 BACKSTAY, 1.38 M	81038262
R33	STRAP 1.42M #501 JIB 31.75 X 63.0	81038263
R34	PIN 1 HOLE W/HD 62.0 DIA X 92.0 LG	81039328
R35	LINK #500/501 BOOM	81039439
R36	PLATE 106X86X86	81039323
R37	PENDANT 31.8 (1.25 IN) DIA X 180.0 IN LG	277127
R38	SOCKET BUTTON FOR 28MM OR 32MM HR WITH PIN	A06278
R39	COLLAR 101MM I.D.	A12945
R40	PIN 2 HOLE 12.7 DIA X 128.0 LG	A12946
R41	EST POSITION LIGHT AND ANEMOMETER	81031642
R42	LADDER 401 X 2400	81037823
R43	COLLAR 131.0MM ID	81033386
R44	COLLAR 121.0MM ID	81034036
R45	ARM 502 M STRUT RAISING	81036879
R46	STRUT SHIPPING, #502	84039032
R47	PIN #502 JIB STRUT HINGE	81039304
R48	PIN #501 JIB HINGE	81039305
R49	PLATE ANTIROTATION	81039285
R50	PIN WITH HEAD 100.0 DIA X 336.7 LG	84020672
R51	PIN 1 HOLE W/HD 100.0 DIA X 162.3 LG	84046933
R52	PIN 1 HOLE W/HD 100.0 DIA X 94.3 LG	81029670
R53	PIN 2 HOLE 2.25 DIA X 3.89 LG (IN)	81021296
R54	STAND ASSEMBLY	84046763
R55	STRUT SHIPPING, #502	81037633

**NO. REQ'D FOR THE FOLLOWING REFERENCE ITEMS ARE IN ONE OR BOTH TABLES (SHEET 2)**

R100	PIN COTTER 3/16 DIA X 1.50 LG	562085
R101	STRAP 6.00M #501 JIB 31.75 X 63.0	81029726
R102	STRAP 12.00M #501 JIB 31.75 X 63.0	81029728
R103	PIN 1 HOLE W/HD 62.0 DIA X 77.8 LG	81029806
R104	LINK #501 JIB	81029807
R105		
R106	LINK #501 SUSPENSION	81036108
R107	LINK #501 JIB SUSP	81036112
R108	STRAP 0.66M #501 JIB 31.75 X 63.0	81036224
R109	STRAP 9.67M #501 JIB 31.75 X 63.0	81036226
R110	STRAP 2 HOLES 12.7 DIA X 93.0 LG	A11799
R111	COLLAR 66MM I.D.	A11800
R112	PIN 1 HOLE W/HD 70.00 DIA X 132.4 LG	A16733
R113		
R114	PIN 1 HOLE W/HD 75.80 DIA X 160.4 LG	A13294
R115	PIN SAFETY .243 OD X 5.00	563640
R116	PIN 2 HOLE 75.80 X 171.9 LG	84026091

**SUPERSEDES 81023383. ALL SHEETS. OF 04-17-15**

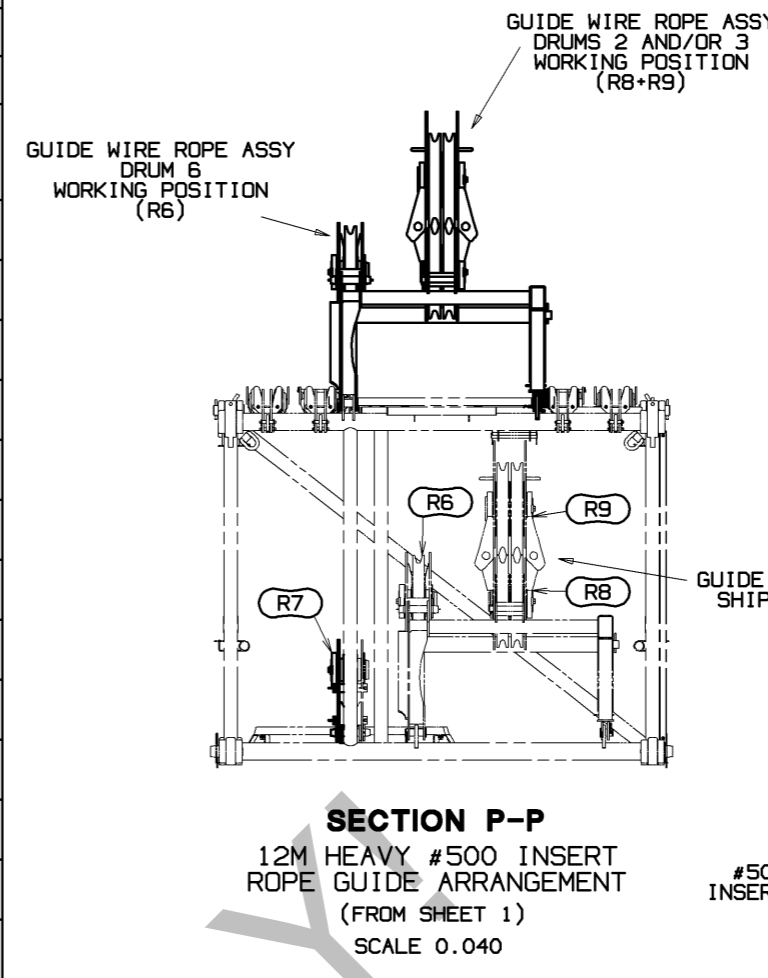
MANITOWOC CRANES, INC.  
LUFFING JIB RIGGING  
LJ10:501 ON B10:500

ITEMS REQ'D FOR VARIOUS JIB LENGTHS - SEE SHEET 5 & 6 FOR JIB MAKE-UP

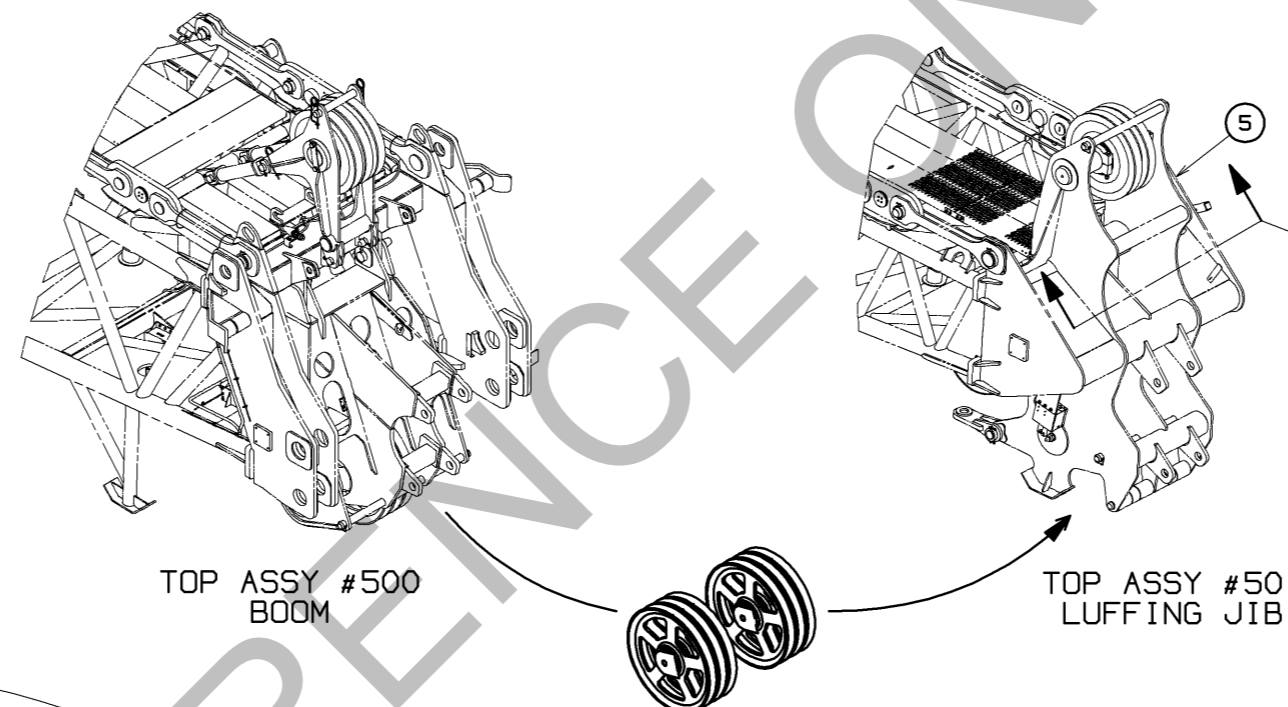
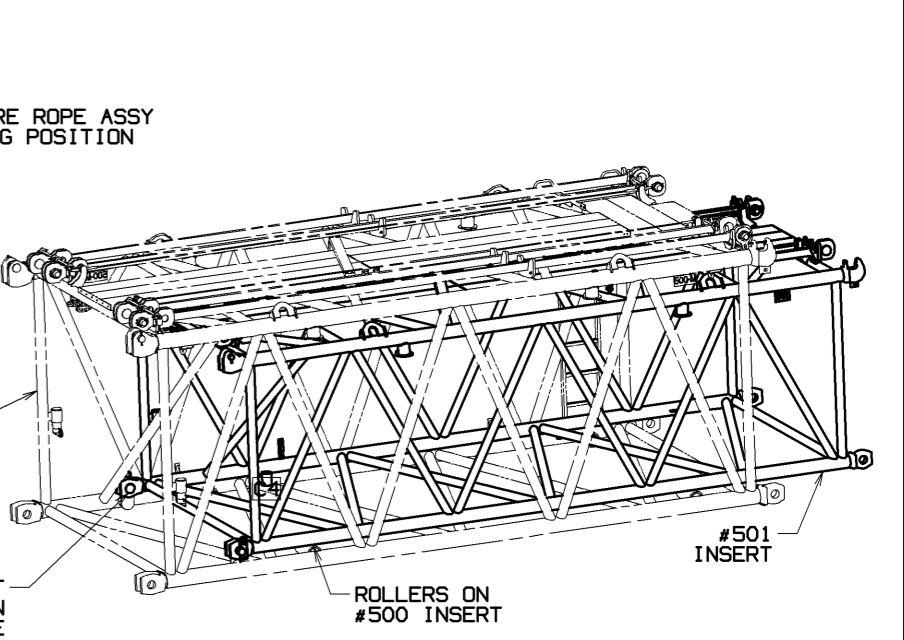
ITEM NO.	#501 INSERTS			STRAP				LINK			PIN		COTTER	COLLAR	SUSPENSION	LOWER CONN PIN		SAFETY PIN	
	100	102	101	R102	R109	R101	R108	R104	R106	R107	R103	R110	R100	R111	(2)	R112	R116 OR R114	R115	
JIB LENGTH	INSERT 12M (39.4 FT) ASSY	INSERT 12M (39.4 FT) SUSP ASSY	INSERT 6M (19.7 FT) ASSY	STRAP 12M (39.4 FT)	STRAP 9.70M (31.8 FT)	STRAP 6M (19.7 FT)	STRAP 0.66M (2.2 FT)	LINK	LINK CONNECT W/SUSP	LINK W/SUSP	PIN	PIN	COTTER	COLLAR	PENDANT BUTTON NUMBER SEE (10)	PIN	PIN	USED W/ R116 & R112	USED W/ R114 & R112
METERS	FEET																		
24	78.7	0	0	0	2	0	0	8	0	0	8	16	44	16	-	2	2	6	4
30	98.4	0	0	1	0	2	0	12	0	0	12	20	52	20	-	4	2	8	6
36	118.1	1	0	0	2	2	0	12	0	0	12	20	52	20	-	4	2	8	6
42	137.8	1	0	1	2	2	0	16	0	0	16	24	60	24	-	6	2	10	8
48	157.5	1	1	0	2	4	0	20	2	4	24	32	76	32	2	6	2	10	8
54	177.2	1	1	1	2	4	2	24	2	4	28	36	84	36	1	8	2	12	10
60	196.9	2	1	0	4	4	0	24	2	4	28	36	84	36	4	8	2	12	10
66	216.5	2	1	1	4	4	2	28	2	4	32	40	92	40	3	10	2	14	12
72	236.2	3	1	0	6	4	0	28	2	4	32	40	92	40	2	10	2	14	12
78	255.9	3	1	1	6	4	2	32	2	4	36	44	100	44	1	12	2	16	14
84	275.6	4	1	0	8	4	0	32	2	4	36	44	100	44	3	12	2	16	14
90	295.3	4	1	1	8	4	2	36	2	4	40	48	108	48	2	14	2	18	16
96	315.0	5	1	0	10	4	0	36	2	4	40	48	108	48	1	14	2	18	16

ITEMS REQ'D FOR VARIOUS BOOM LENGTHS - SEE SHEET 4 BOOM MAKE-UP

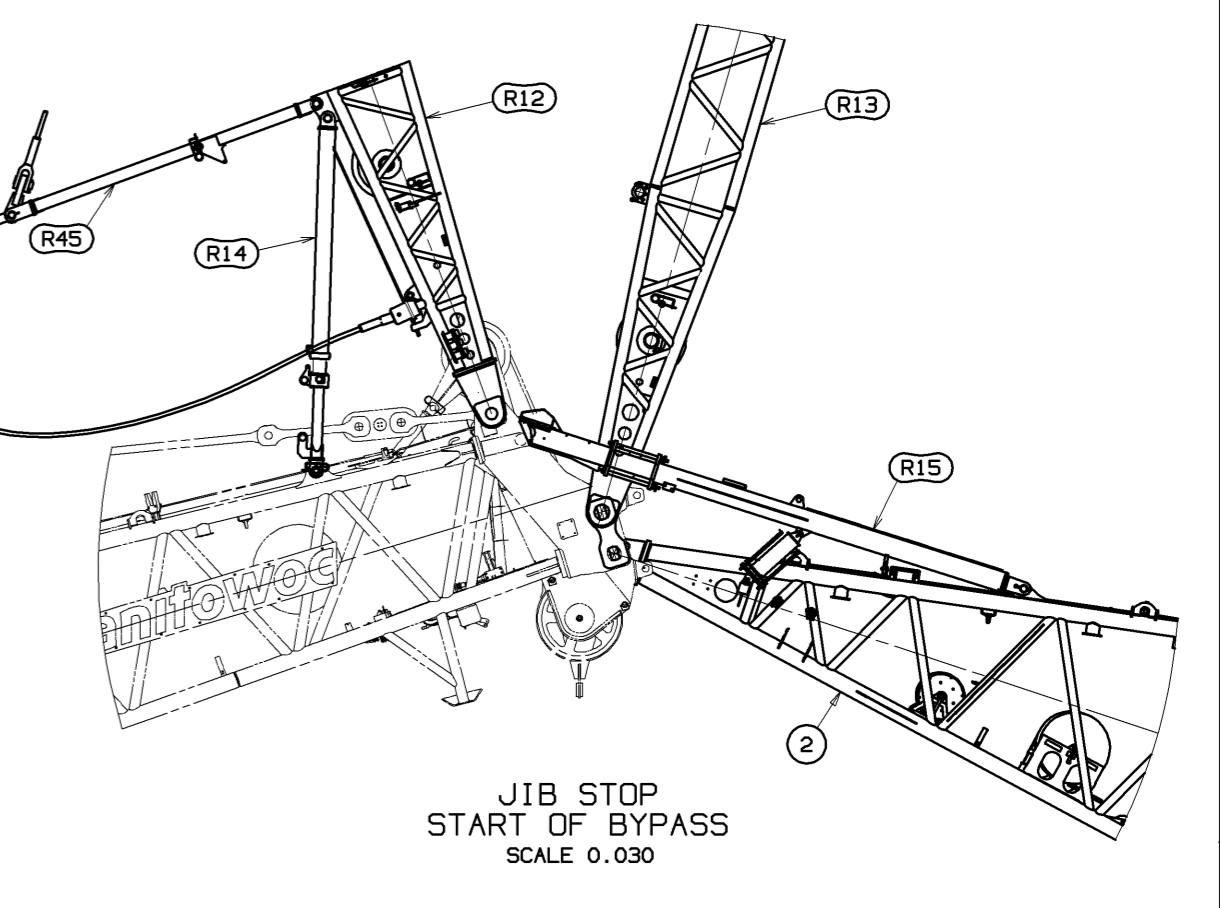
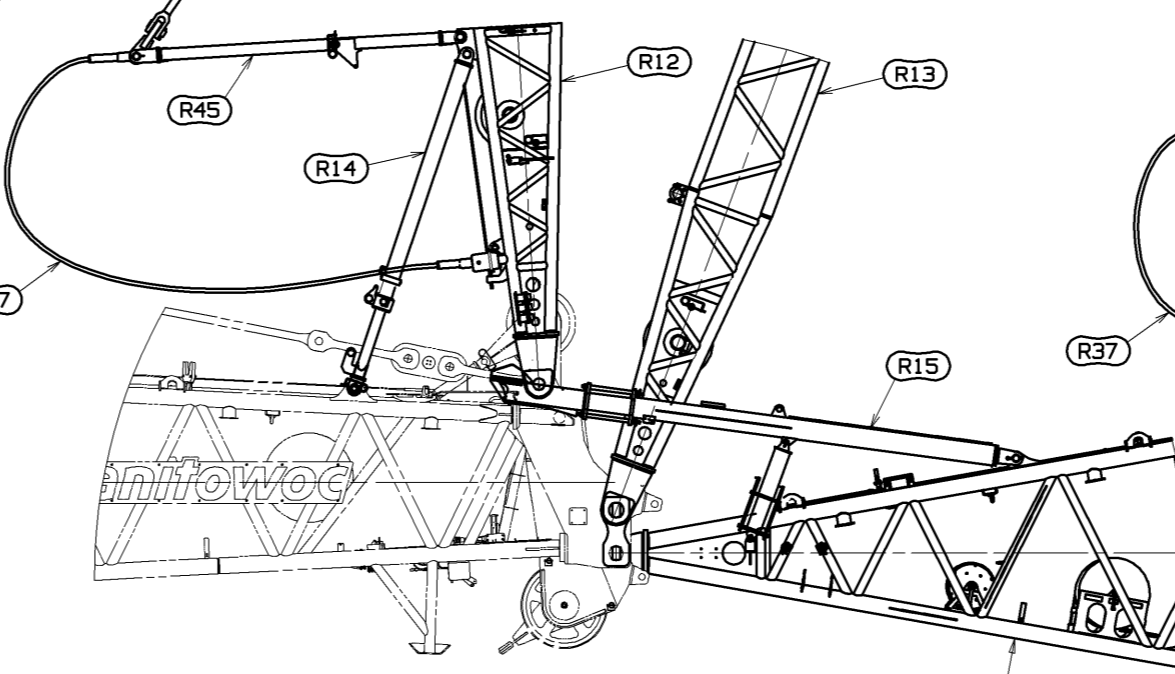
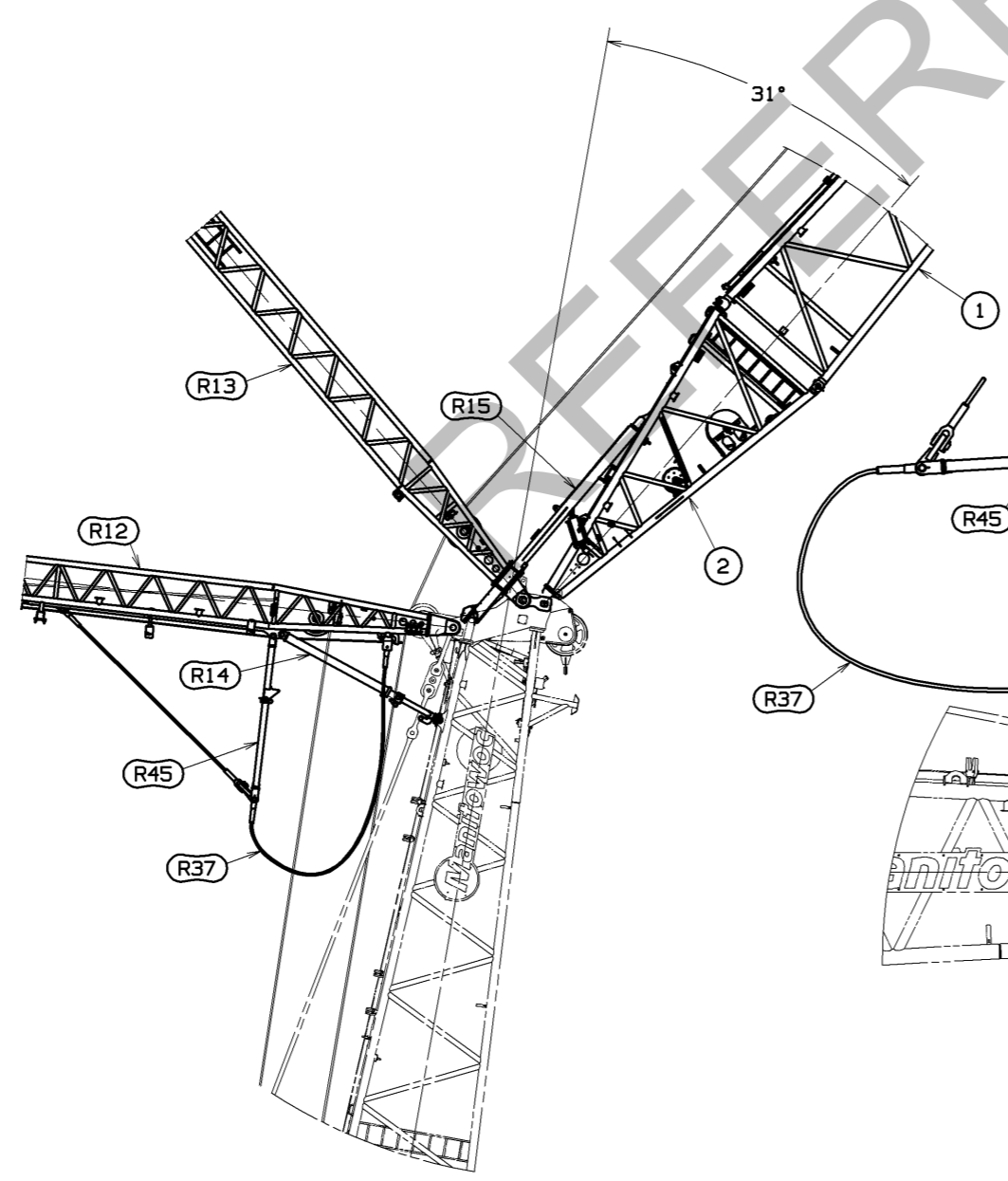
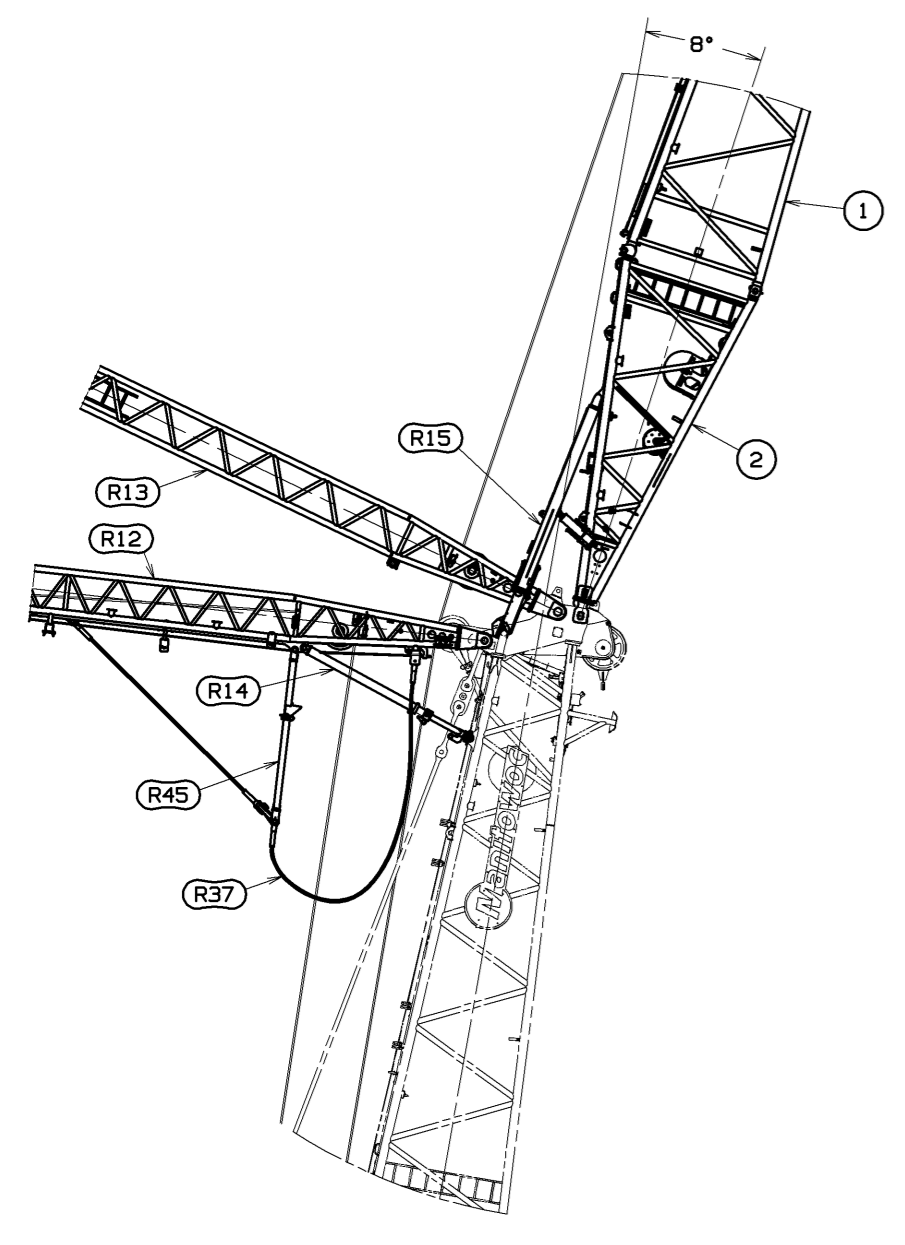
ITEM NO.	STRAP		LINK	PIN		COTTER	COLLAR	JIB BACKSTAY ADJUSTMENT HOLE SEE DETAIL G ON SHEET 4
	R101	R102	R104	R103	R110	R109	R111	
BOOM LENGTH	STRAP 6M (19.7 FT)	STRAP 12M (39.4 FT)	LINK	PIN	(7) PIN	(9) COTTER	(8) COLLAR	
METERS	FEET							
30	98.4	0	2	4	12	16	32	A
36	118.1	2	2	8	16	20	40	A
42	137.8	0	4	8	16	20	40	B
48	157.5	2	4	12	20	24	48	B
54	177.2	0	6	12	20	24	48	C
60	196.9	2	6	16	24	28	56	C
66	216.5	0	8	16	24	28	56	C



BILL OF MATERIAL		
QTY	DESCRIPTION	MATERIAL
STOWABLE INSERT CONFIGURATION (#501 INTO #500)		
#500 INSERT W/STOWABLE #501 INSERT FEATURE	#501 (6M) STOWABLE INSERT	#501 (12M) STOWABLE INSERT
81027820 (6M)	81023410 (ITEM 101)	-----
81027808 (12M)	-----	81023405 (ITEM 100) 81034271 (ITEM 102)
81027811 (12M)	-----	81023405 (ITEM 100) 81034271 (ITEM 102)
81027814 (12M)	-----	81023405 (ITEM 100) 81034271 (ITEM 102)



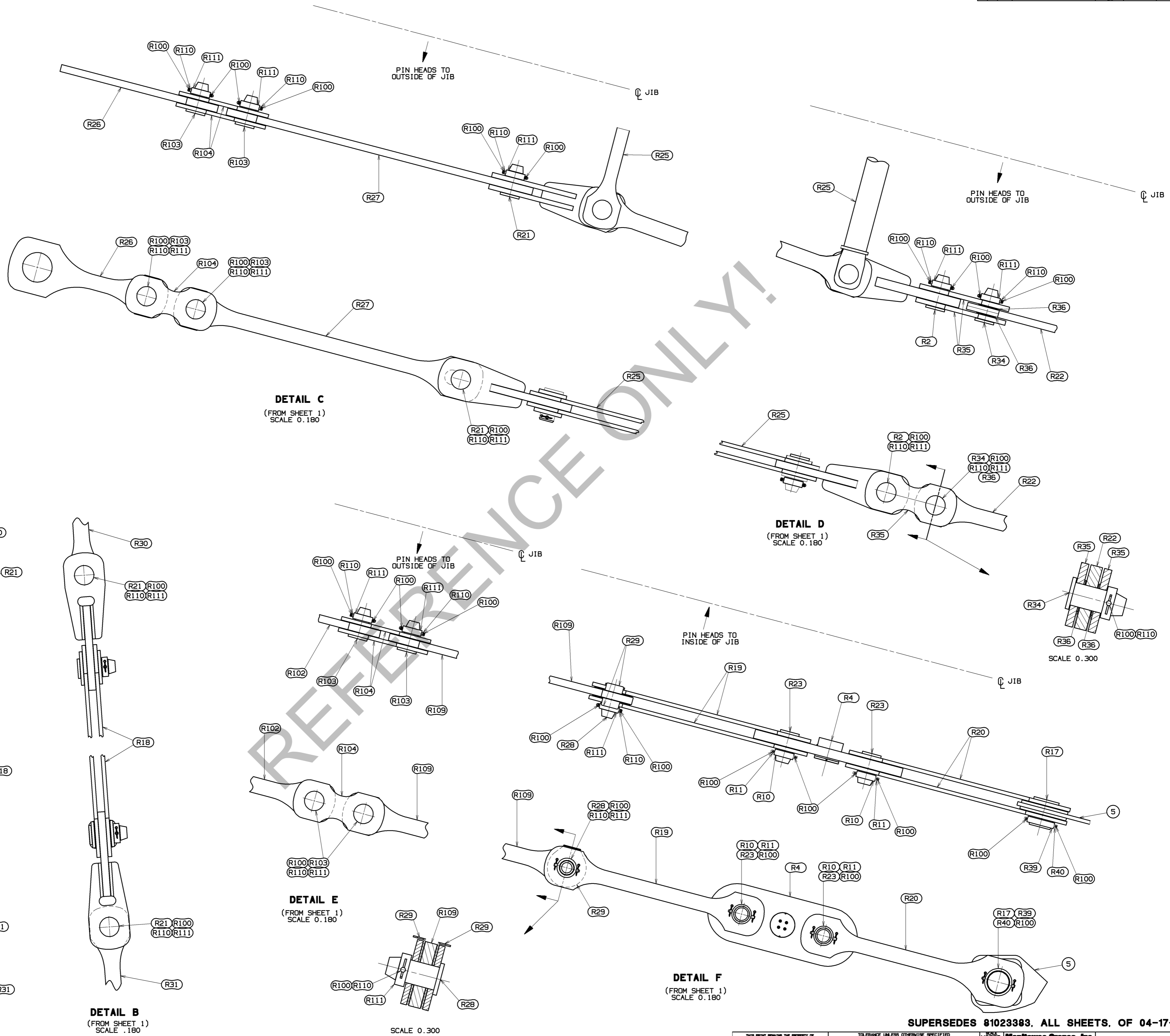
SHEAVES FROM #500 LOWER POINT MAY BE MOVED TO THE LUFFING JIB TOP IF 5 PARTS OF BOOM TOP LOAD LINE OR LESS ARE TO BE USED WITH LUFFING JIB ATTACHED.  
IF MORE THAN 5 PARTS OF LINE ARE DESIRED, ADDITIONAL SHEAVE PACKS ARE REQUIRED.



SUPERSEDES 81023383. ALL SHEETS. OF 04-17-16

DECIMAL PLACES	FABRICATION	MACHINING	WELDING	DR. AUB	MANITOWOC CRANES, INC.	DATE
(1) PLACE 0.12	± 0.12	± 0.12	± 0.12	DR. RHY	Manitowoc, Wisconsin	09-09-15
(2) PLACE 0.00	± 0.08	± 0.12	± 0.05	DR. MLC300	LUFFING JIB RIGGING	
(3) PLACE 0.000	± 0.008	± 0.008	± 0.008	APP DLG	LJ10:501 ON B10:500	

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN SECTION 05-05E  
DATE 09-09-15  
REV. 1  
81023383  
SHT 2 OF 15



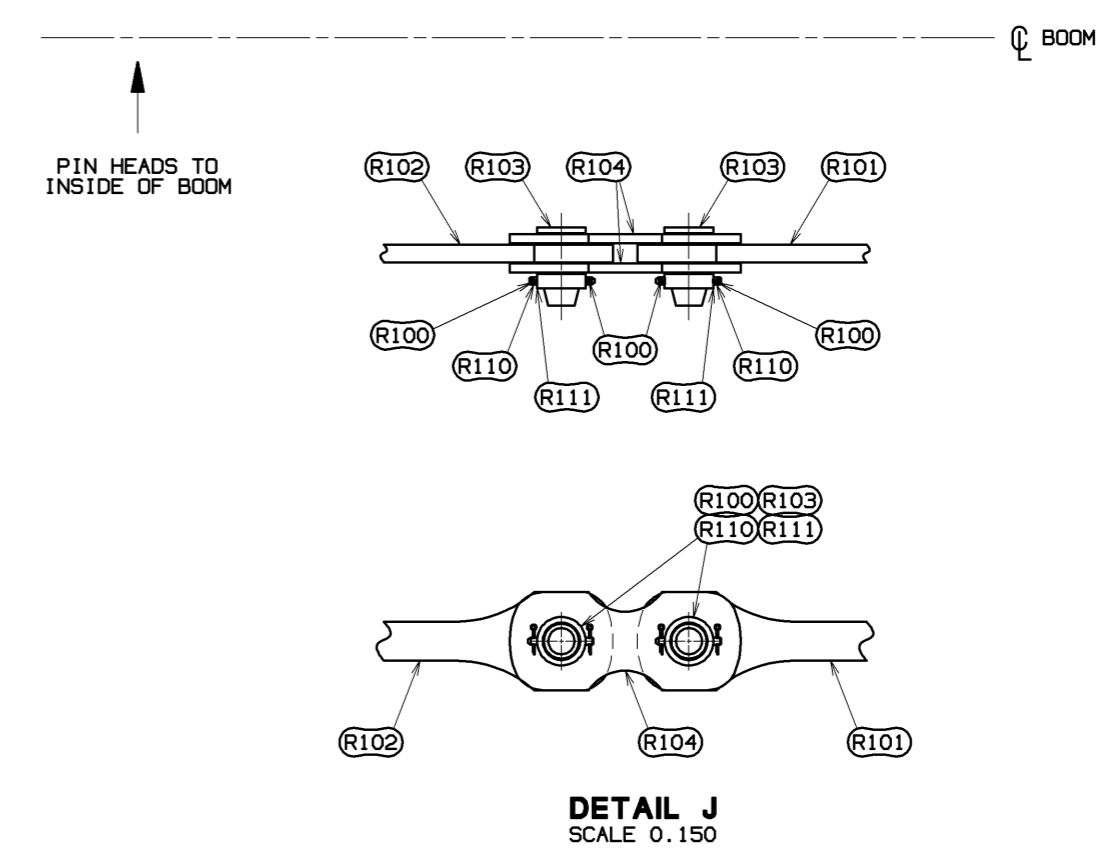
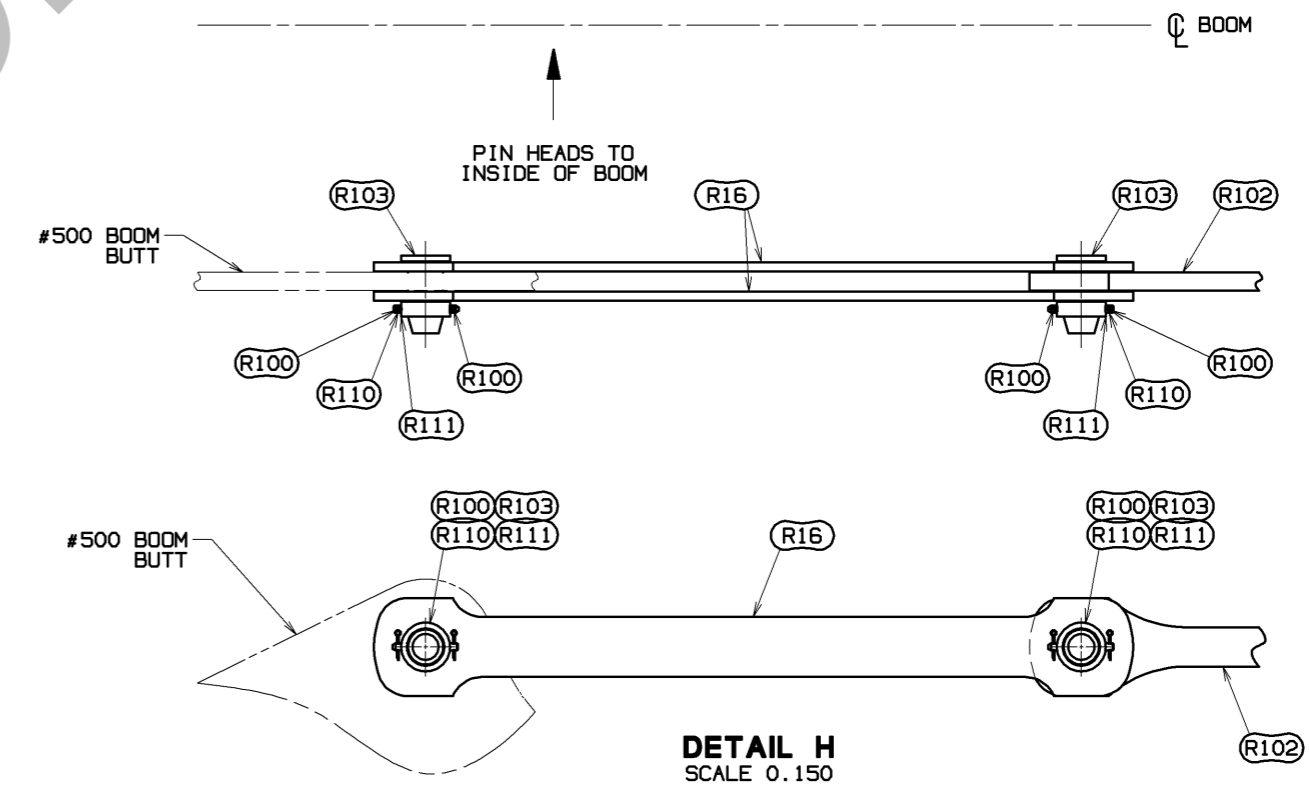
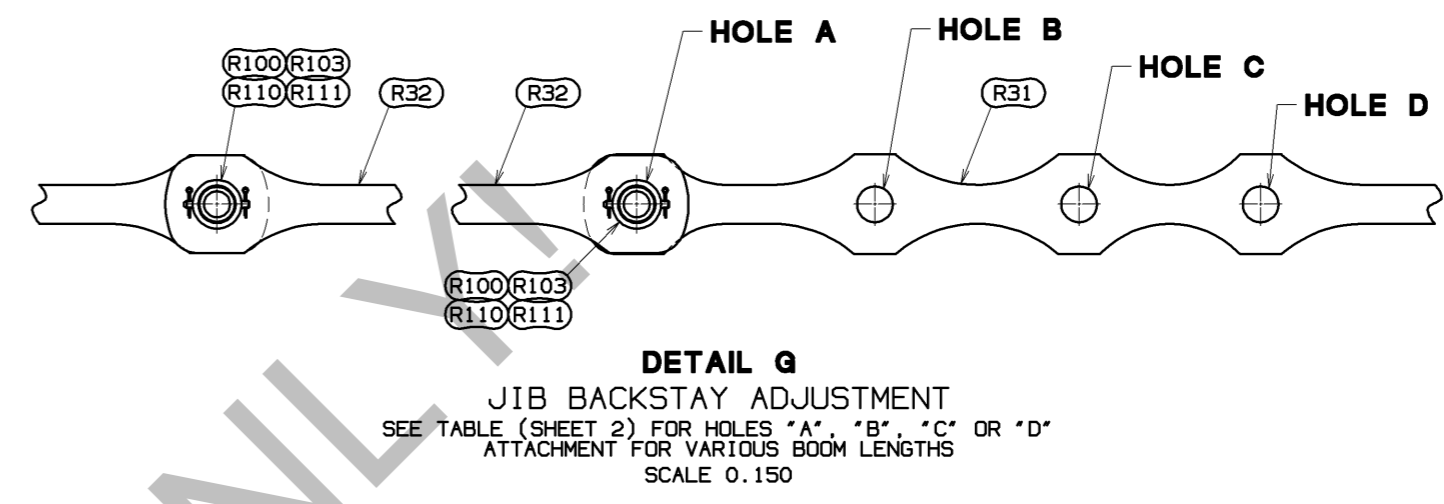
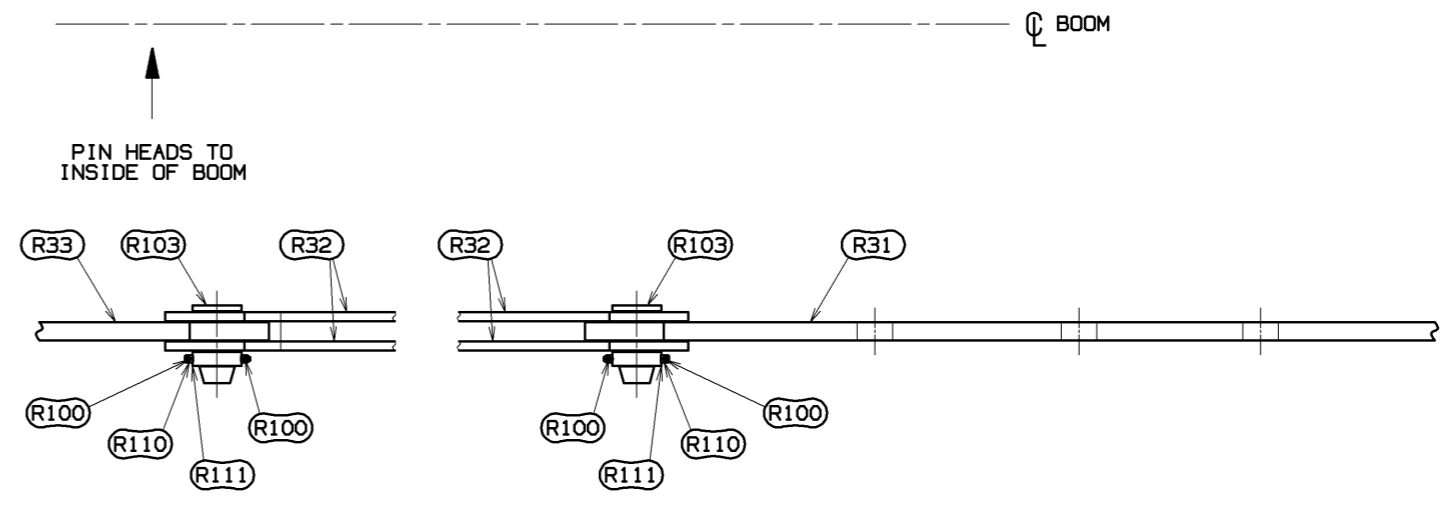
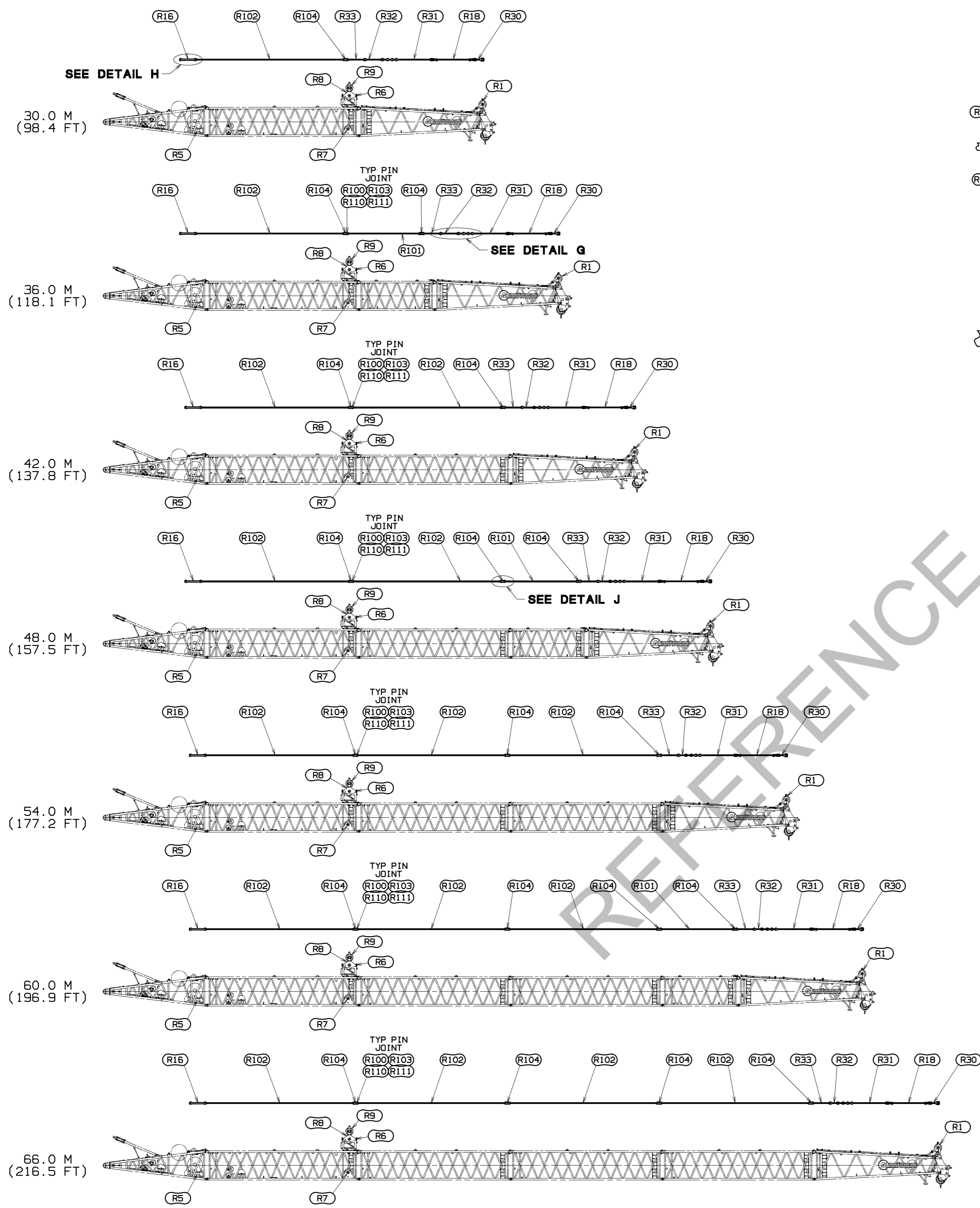
SUPERSEDES 81023383. ALL SHEETS. OF 04-17-16

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TOLERANCE UNLESS OTHERWISE SPECIFIED	FABRICATION	MACHINING
DECIMAL PLACES	F. 10 FEET > 10 FEET	INCHES
(1) PLACE 0.5	+0.12	+0.18
(2) PLACE 0.00	+0.08	+0.15
(3) PLACE 0.000	+0.005	+0.006
ANGLES	+1.30'	+0.90'

NOTED  
 DR. AUB  
 CK. RHY  
 APP. DLG  
**Manitowoc Cranes, Inc.**  
 Manitowoc, Wisconsin  
 MODEL MLC300

LUFFING JIB RIGGING  
 LJ10:501 ON B10:500

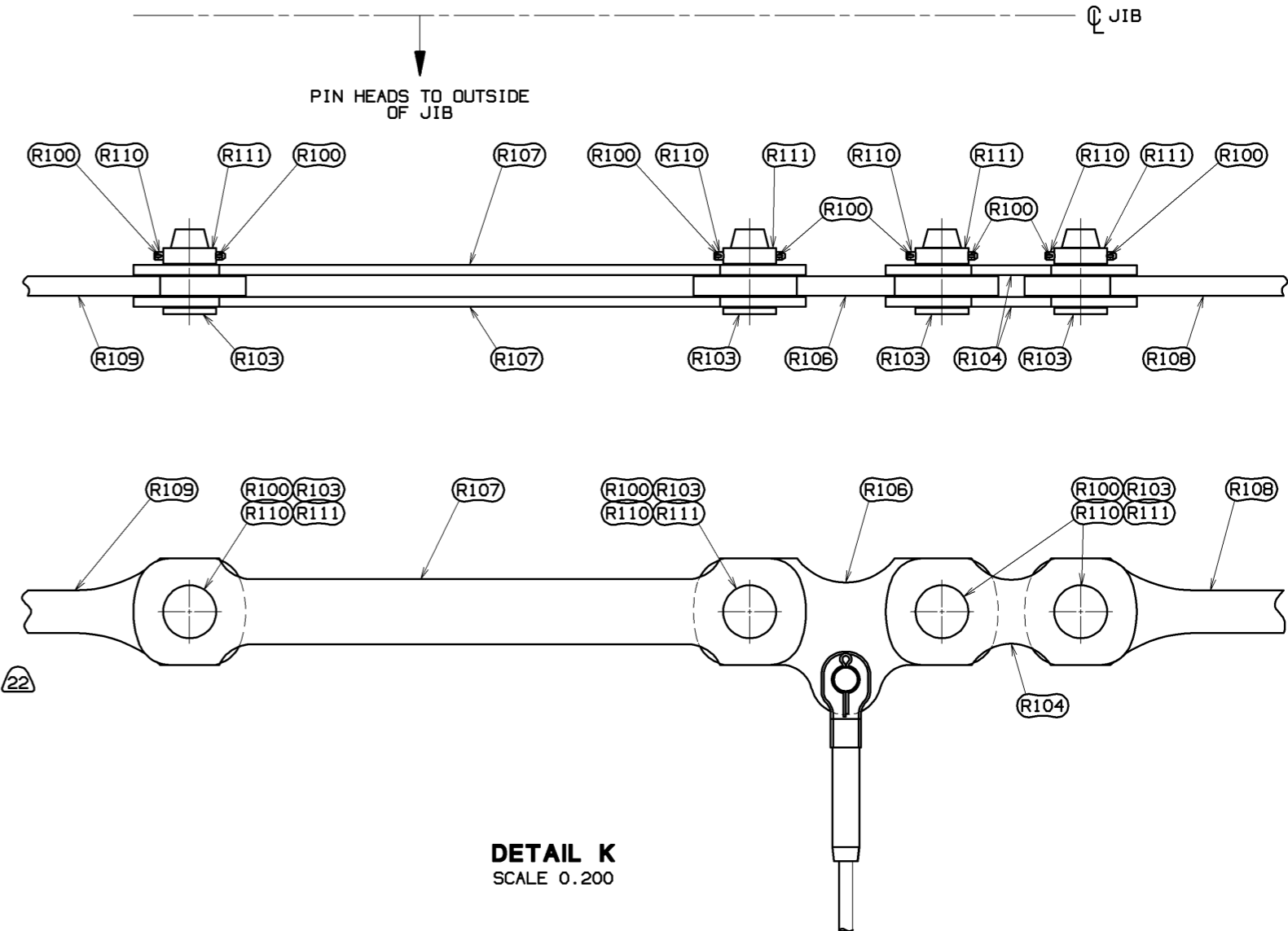
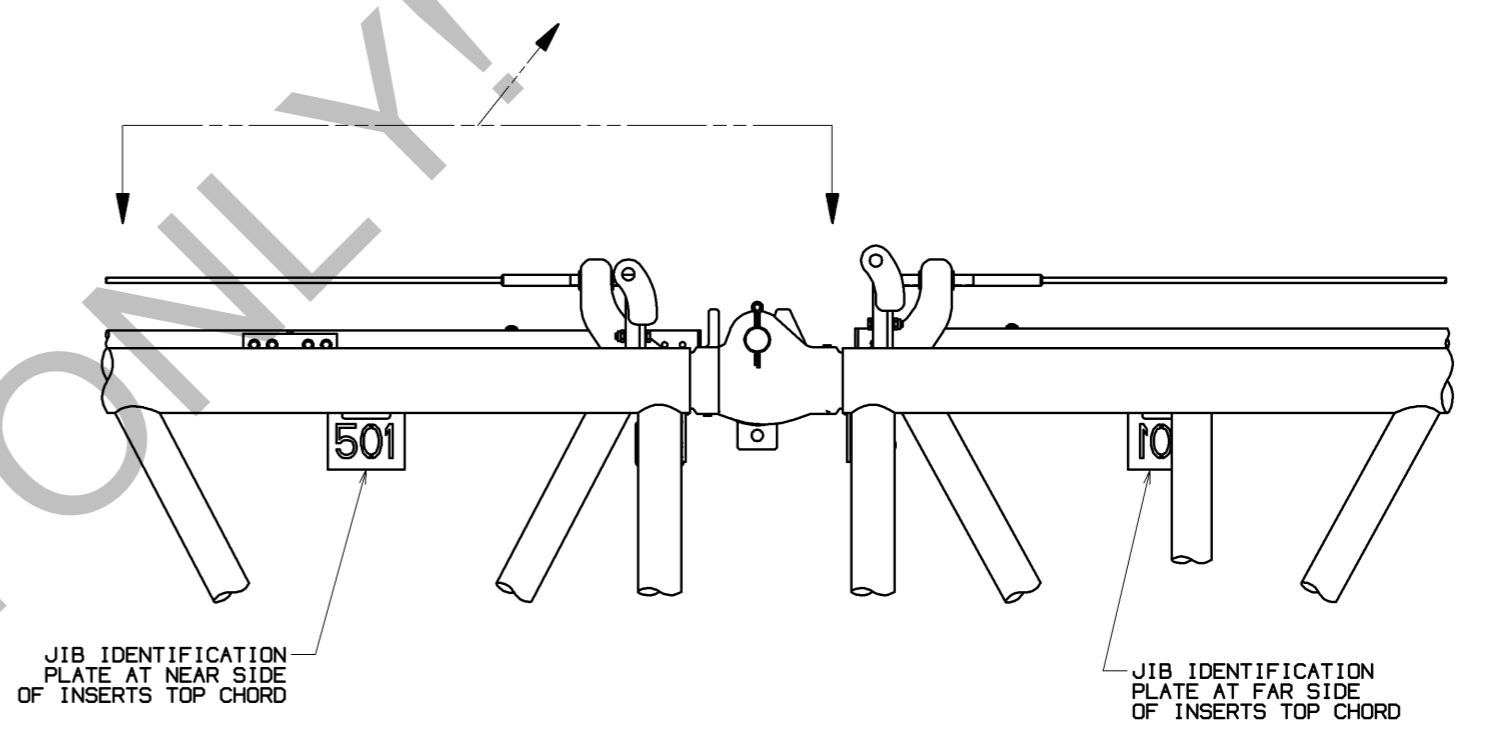
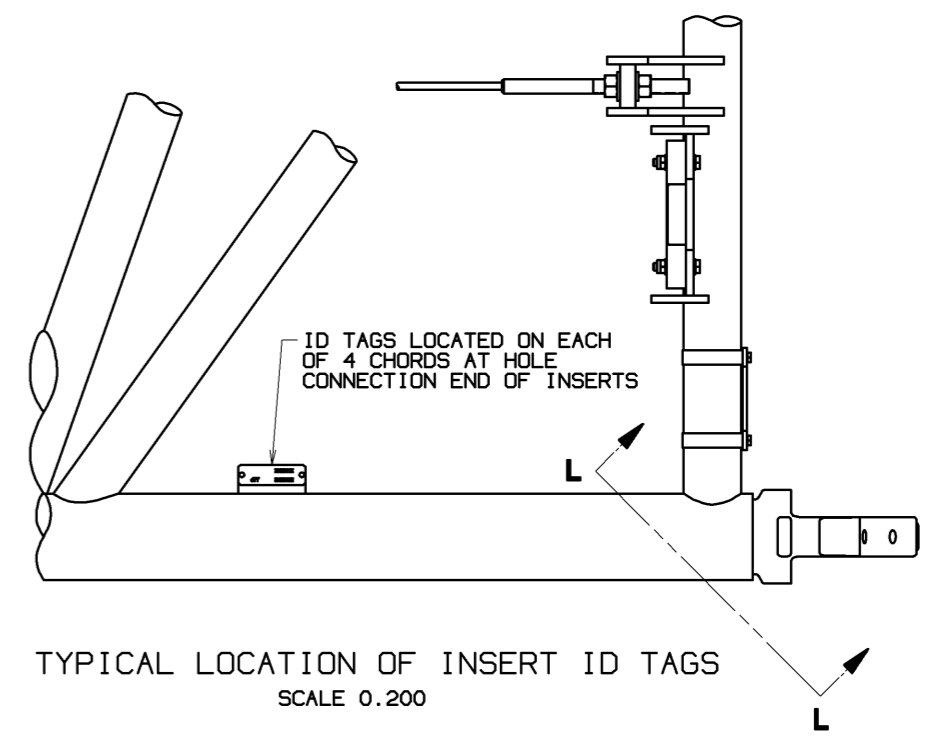
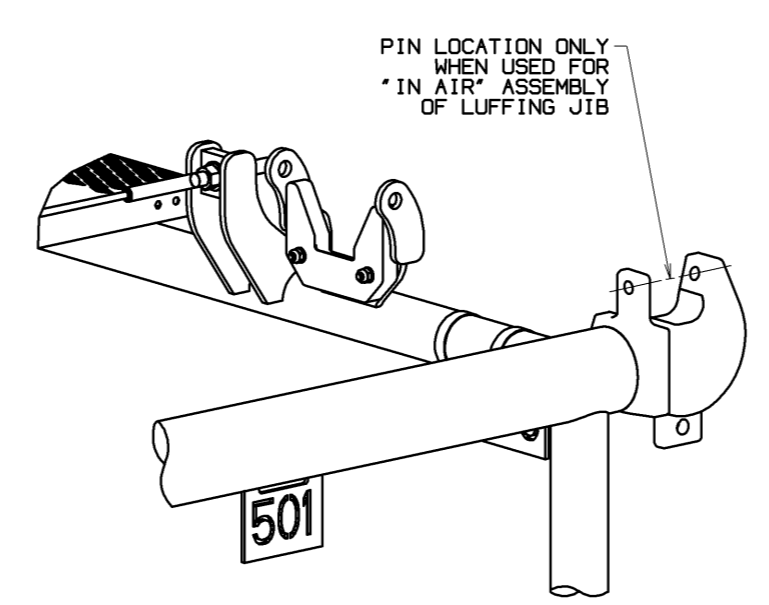
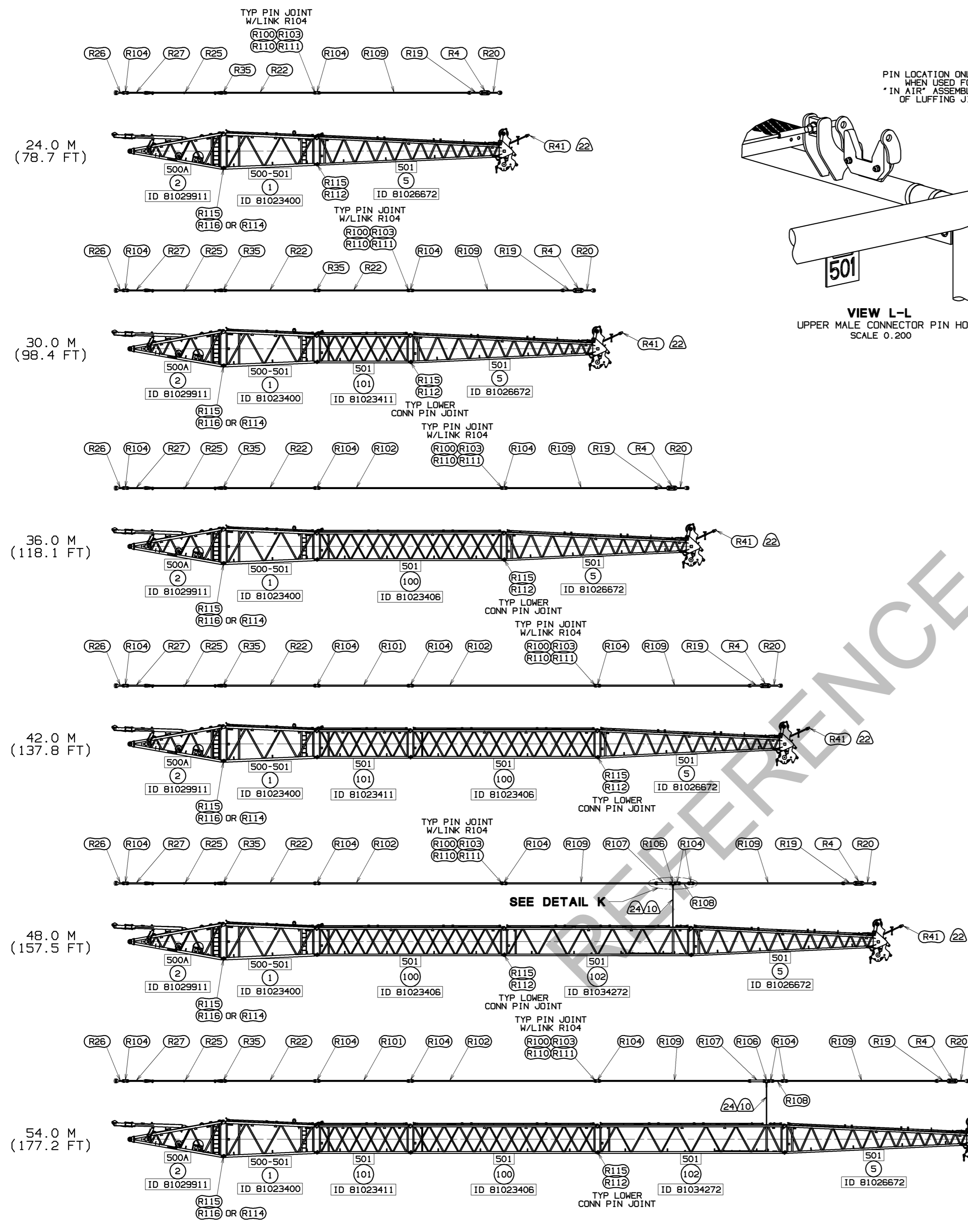


REQ'D #500 BOOM/#501 BACKSTAY STRAP ASSEMBLY  
 SEE TABLE ON SHEET 2  
 FOR TYP PIN JOINT SEE DETAILS A, B, G, H AND J

DETAIL J  
 SCALE 0.150

SUPERSEDES 81023383, ALL SHEETS, OF 04-17-15

<small>THIS PRINT REMAINS THE PROPERTY OF          MANITOWOC 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 DETRIMENTAL TO OUR INTERESTS.</small>	<small>TOLERANCE UNLESS OTHERWISE SPECIFIED</small> DECIMAL PLACES FABRICATION MACHINING (1) PLACE 0.12 ±.12 ±.18 ±.03 (2) PLACE 0.00 ±.08 ±.12 ±.015 (3) PLACE 0.000 ±.008 ±.005 ANGLES 11.25° 15° 30°		QTY. 006 DR. AUB CK. RHY APP. DLG	<b>Manitowoc Cranes, Inc.</b> Manitowoc, Wisconsin MODEL MLC300	LUFFING JIB RIGGING LJ10:501 ON B10:500	DATE 09-09-15 REV. 1 P. 1
	<small>PRIVATE LABELING          REQUIREMENT TO          CONFORM TO          ENGINEERING          SPECIFICATION          6629103794 FOR          COMPONENTS LISTED          IN SECTION 05-05E</small>			REF. LIT. P. 1		
	SHT 4 OF 15					



REQ'D. #501 JIB/BACKSTAY STRAP ASSEMBLY  
SEE TABLE ON SHEET 2  
FOR TYP PIN JOINT SEE DETAILS C, D, E, F AND K

SUPERSEDES 81023383. ALL SHEETS, OF 04-17-15

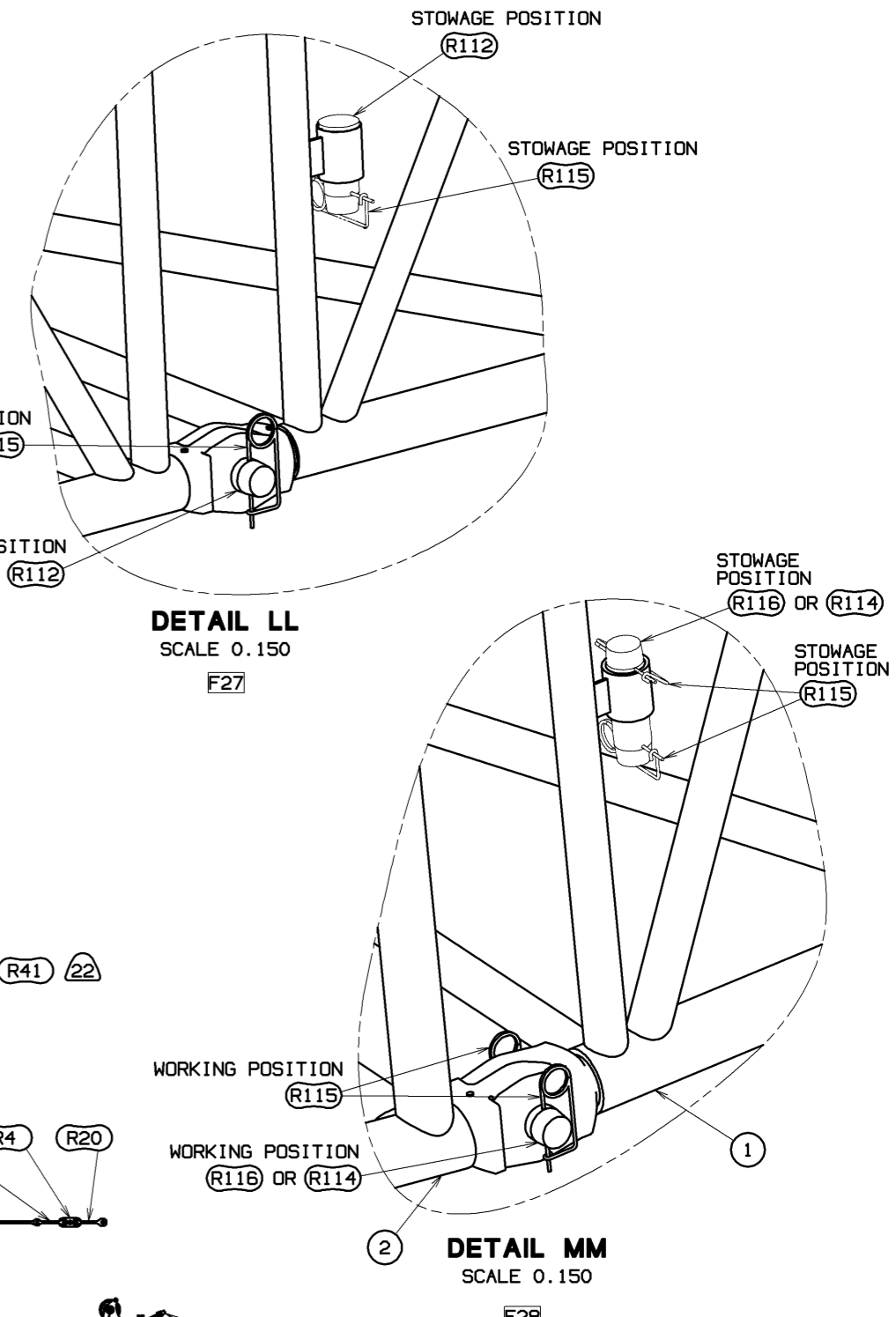
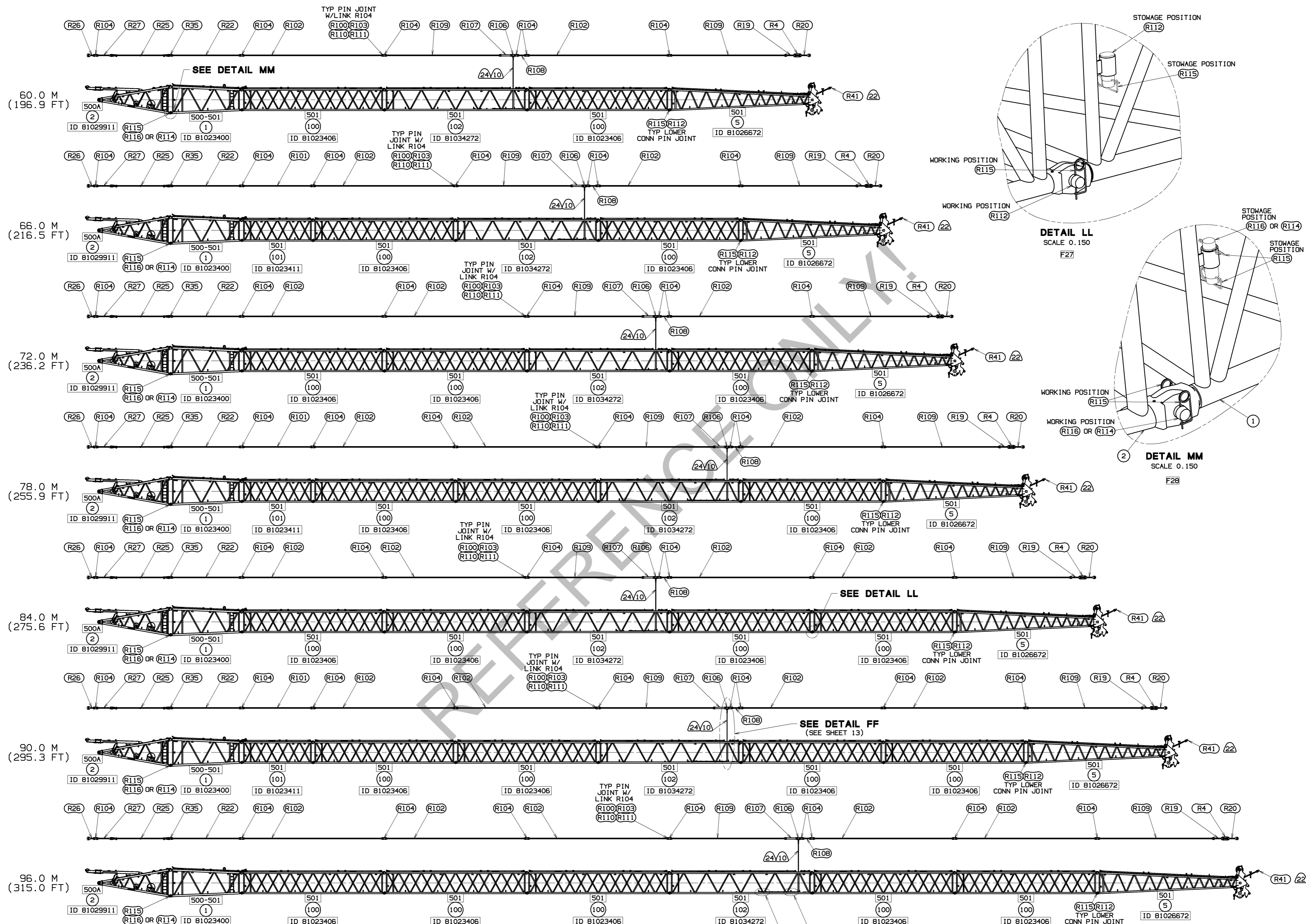
DECIMAL PLACES	FABRICATION	MACHINING	DATE	REV.	BY	CHK.	APP.
(1) PLACE 0.5	+0.12	+0.18	09-09-15	1	AJB	RHW	DLG
(2) PLACE 0.00	+0.08	+0.12					
(3) PLACE 0.000	+0.008	+0.015					
ANGLES	+1.30	+0.008					

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MANITOWOC CRANES, INC. LUFFING JIB RIGGING  
MODEL MLC300  
LJ10:501 ON B10:500

PRIVATE LABELING REQUIREMENT TO CONFORM TO SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN SECTION 05-05E  
DATE 09-09-15  
REV. 1  
81023383  
SHT 5 OF 15

NO.	DATE	DESCRIPTION	BY	APP'D.	MATERIAL	QTY	UNIT	NO.	ASSEMBLIES USED ON
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REQ'D. #501 JIB/BACKSTAY STRAP ASSEMBLY  
SEE TABLE ON SHEET 2  
FOR TYP PIN JOINT SEE DETAILS C, D, E, F AND K

SEE DETAIL GG (SEE SHEET 13)  
SEE DETAIL HH (SEE SHEET 13)

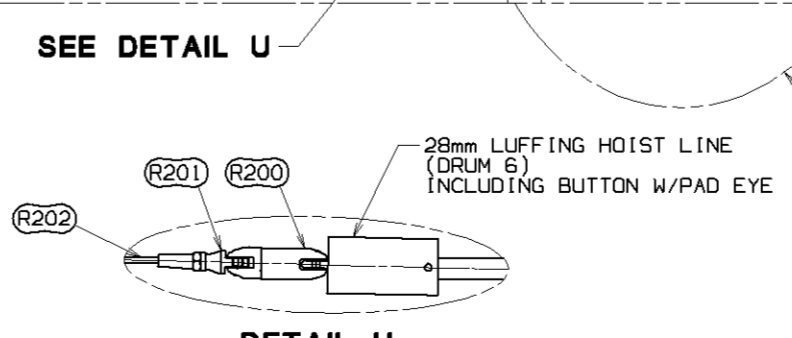
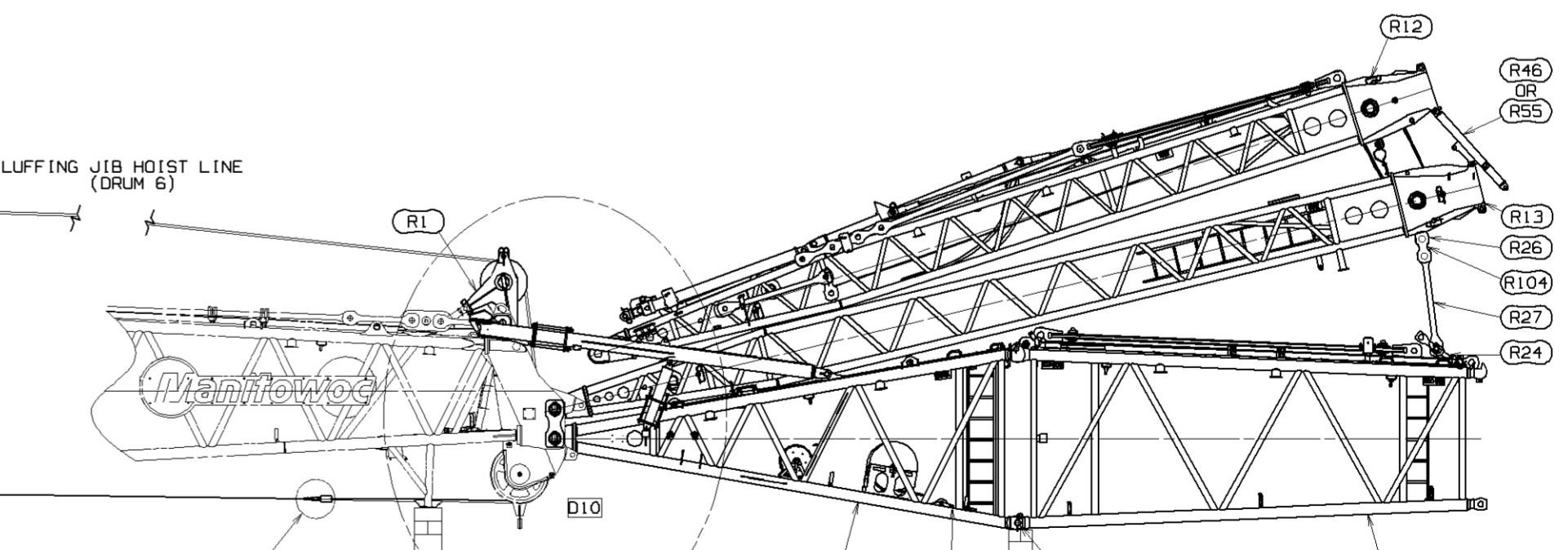
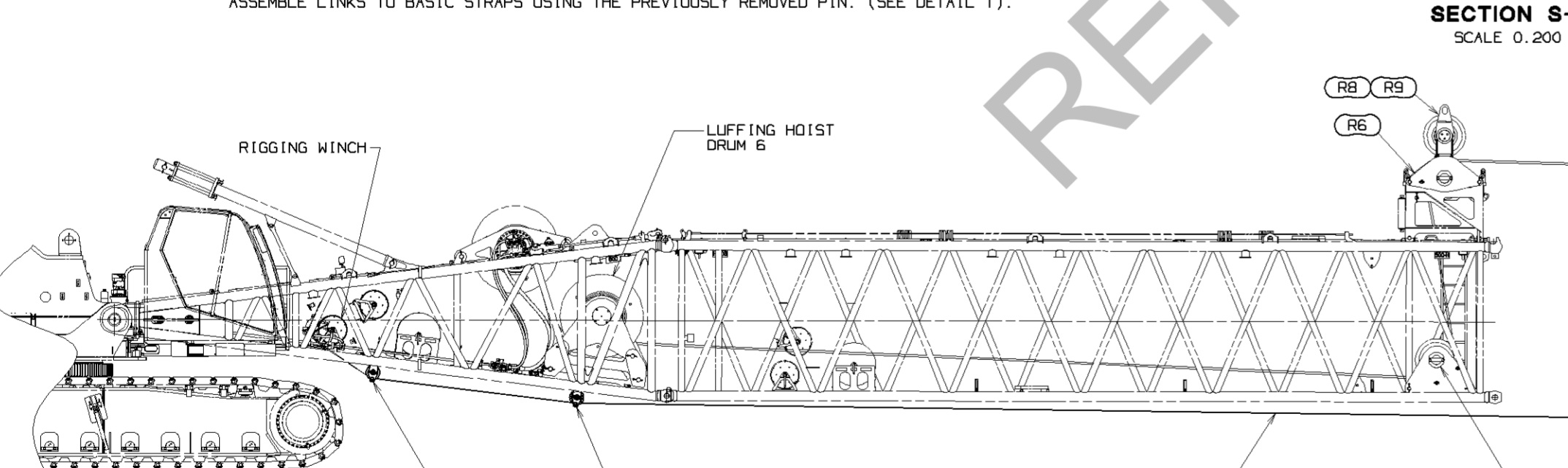
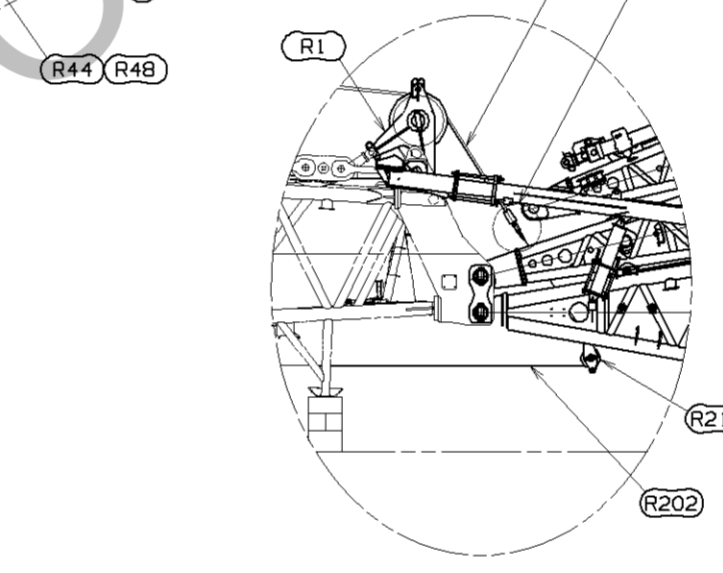
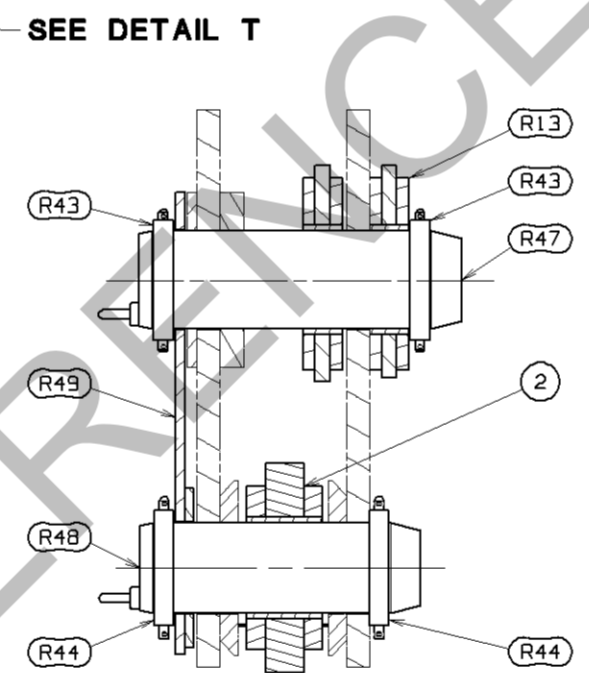
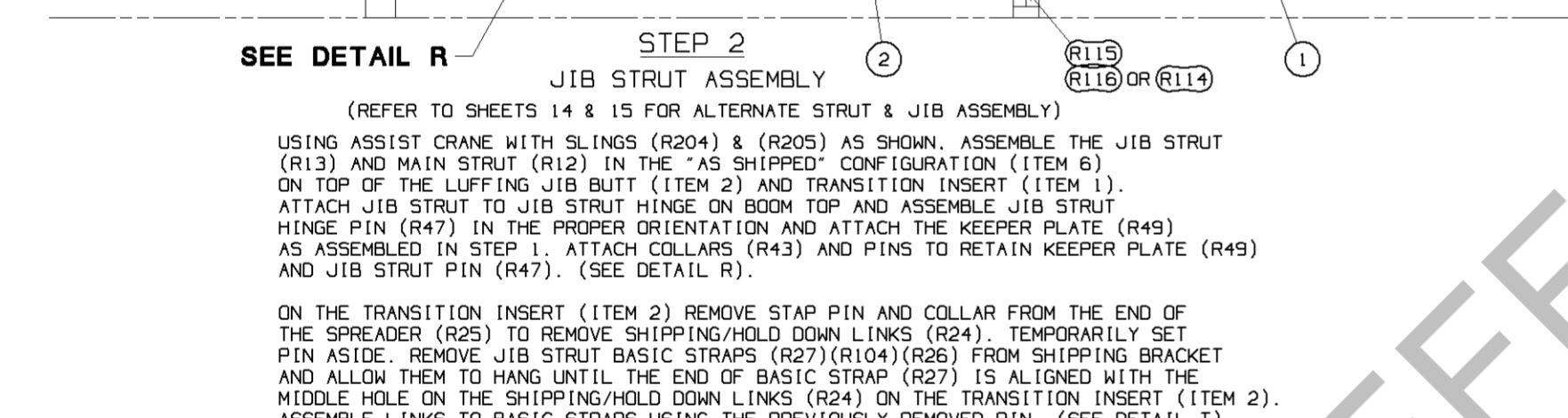
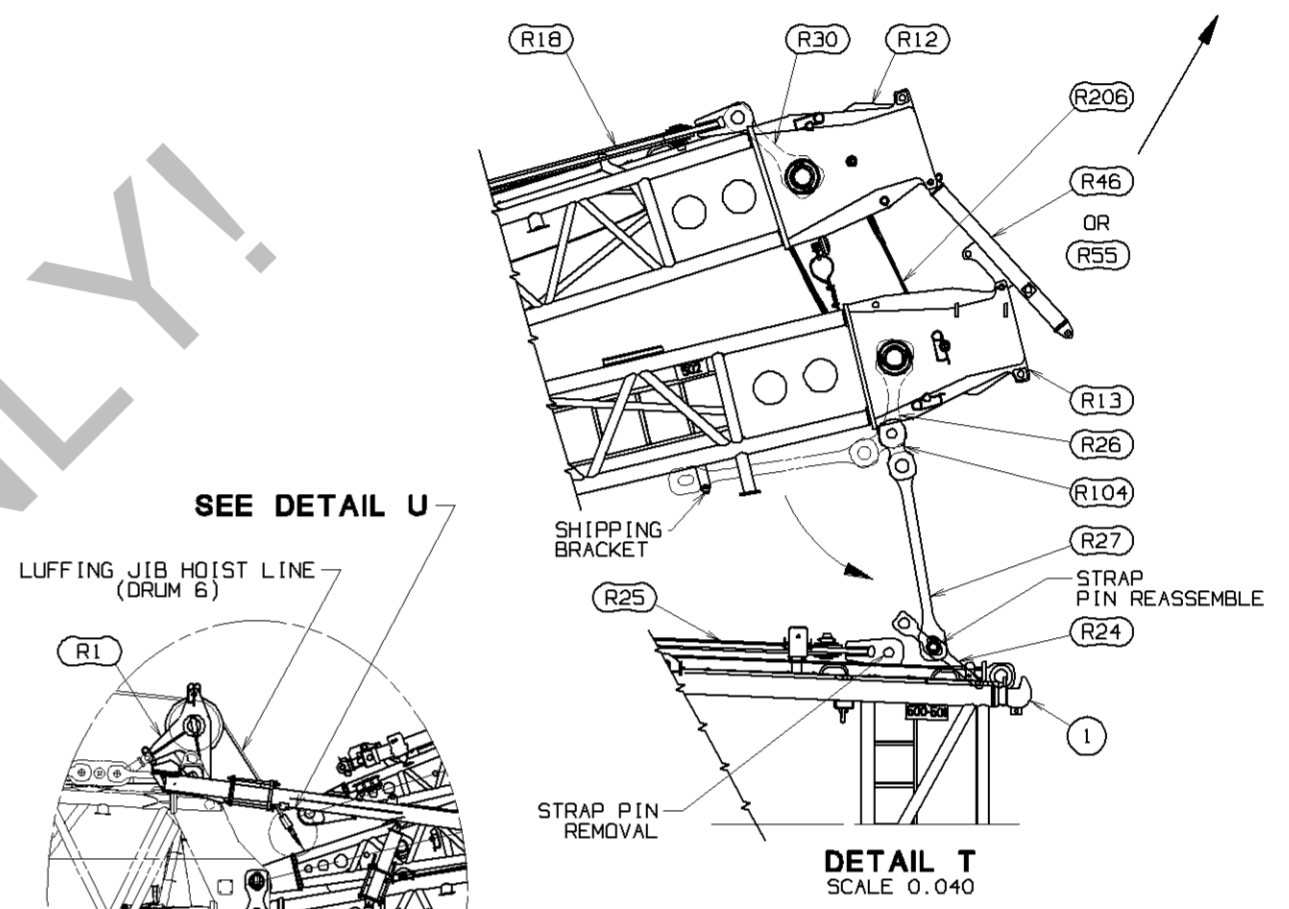
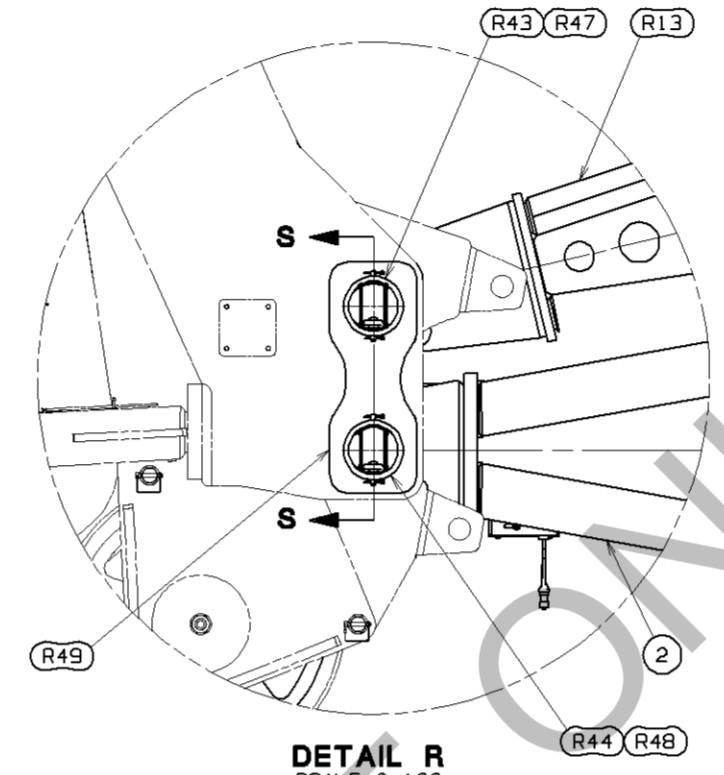
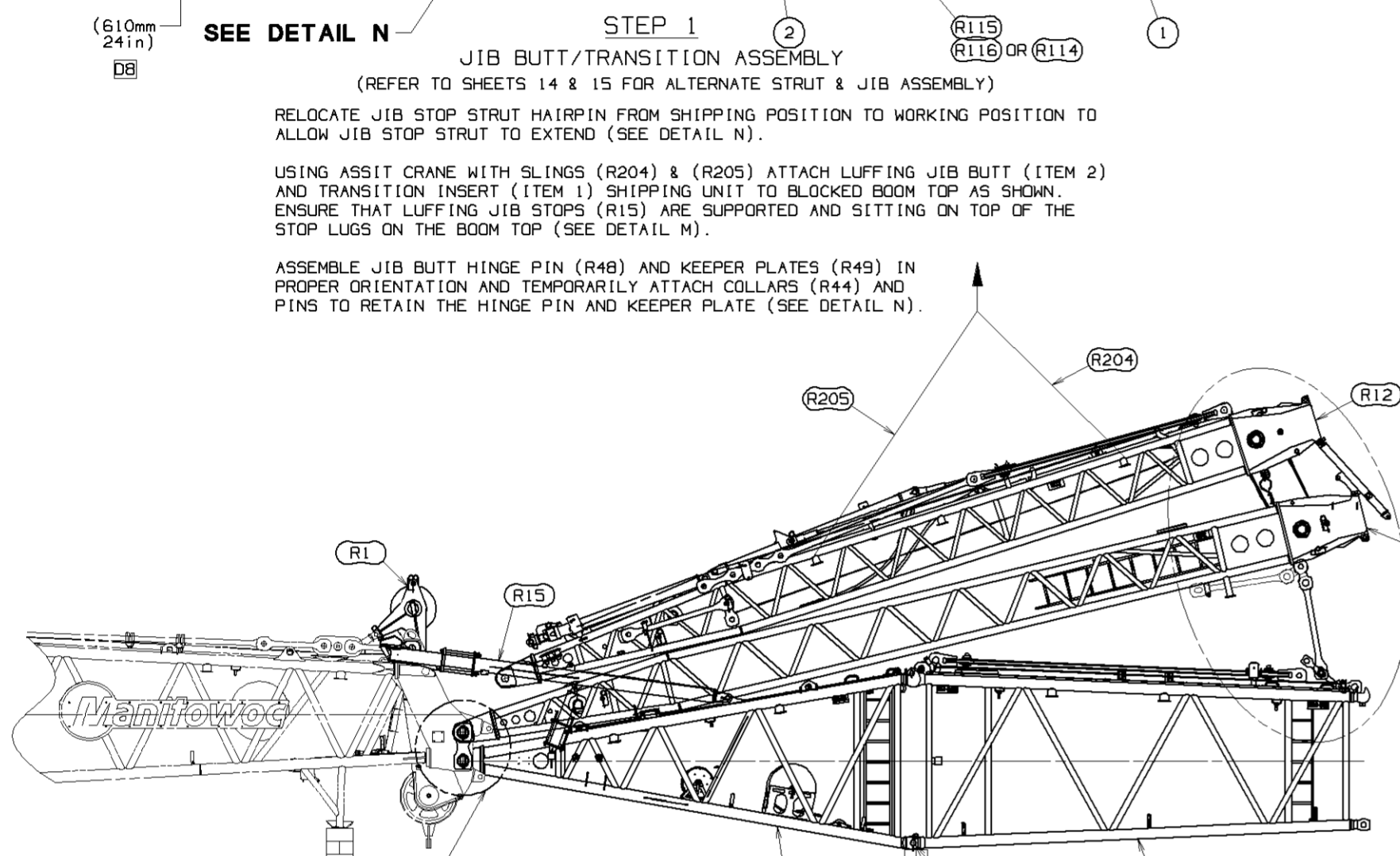
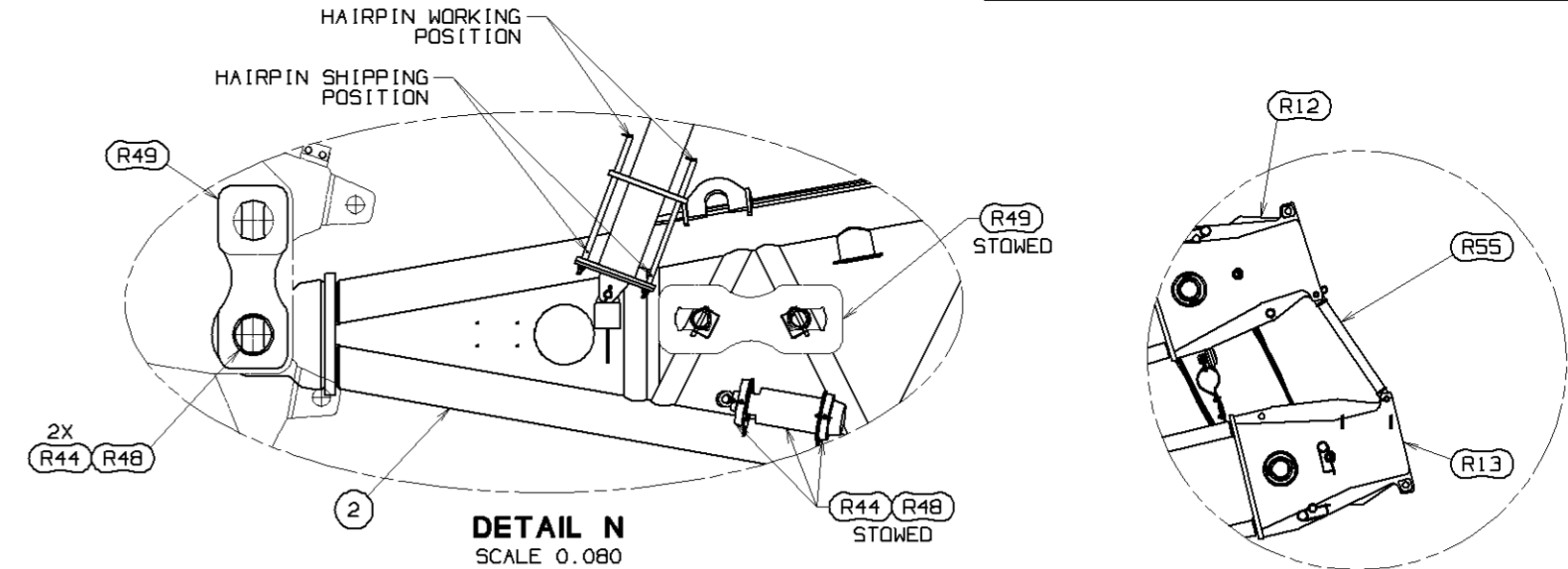
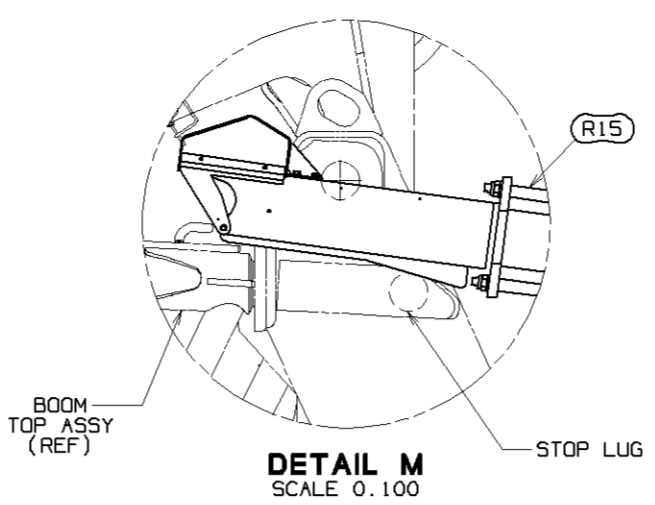
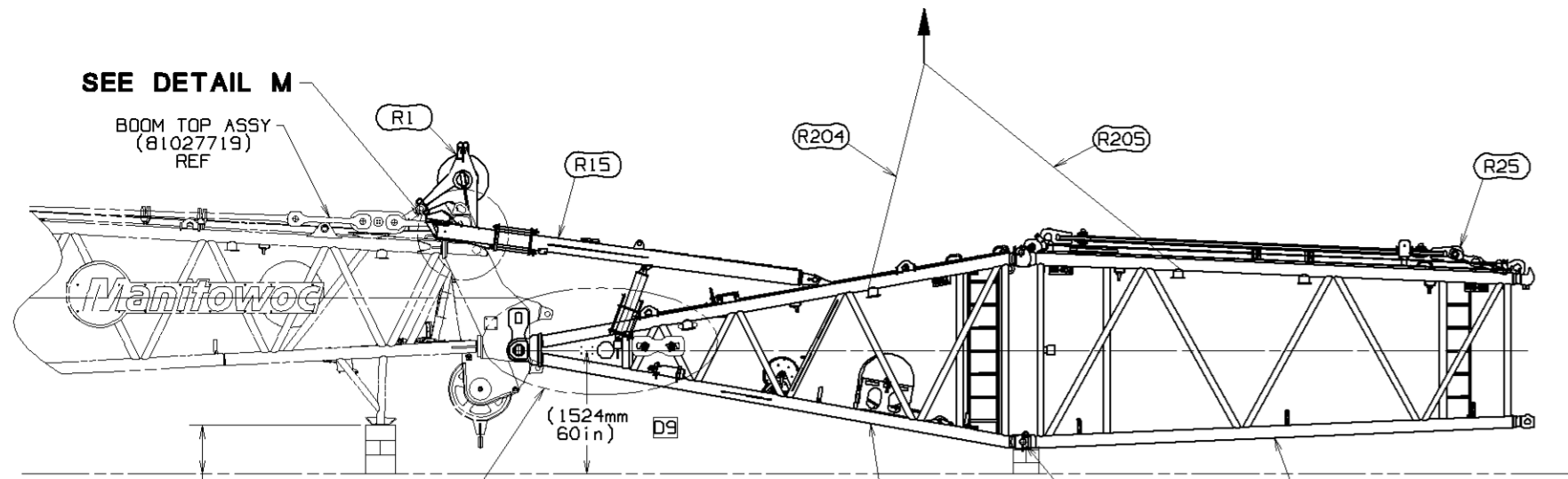
**SUPERSEDES 81023383, ALL SHEETS, OF 04-17-15**

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	DECIMAL PLACES	FABRICATION	MACHINING	
	(1) PLACE 0.1	± 0.12	± 0.18	
	(2) PLACE 0.00	± 0.08	± 0.12	
	(3) PLACE 0.000	± 0.008	± 0.015	

DR: AUB	MANITOWEE CRANES, INC.	LUFFING JIB RIGGING
CK: RHY	Manitowoc, Wisconsin	LJ10:501 ON B10:500
APP: DLG	MODEL: MLC300	

PRIVATE LABELING REQUIREMENT TO CONFORM TO SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN 02000-05-026

BILL OF MATERIAL			
ITEM NO.	DESCRIPTION	MATERIAL	QTY



RELOCATE JIB STOP STRUT HAIRPIN FROM SHIPPING POSITION TO WORKING POSITION TO ALLOW JIB STOP STRUT TO EXTEND (SEE DETAIL N).

USING ASSIST CRANE WITH SLINGS (R204) & (R205) ATTACH LUFFING JIB BUTT (ITEM 2) AND TRANSITION INSERT (ITEM 1) SHIPPING UNIT TO BLOCKED BOOM TOP AS SHOWN. ENSURE THAT LUFFING JIB STOPS (R15) ARE SUPPORTED AND SITTING ON TOP OF THE STOP LUGS ON THE BOOM TOP (SEE DETAIL M).

ASSEMBLE JIB BUTT HINGE PIN (R48) AND KEEPER PLATES (R49) IN PROPER ORIENTATION AND TEMPORARILY ATTACH COLLARS (R44) AND PINS TO RETAIN THE HINGE PIN AND KEEPER PLATE (SEE DETAIL N).

USING ASSIST CRANE WITH SLINGS (R204) & (R205) AS SHOWN, ASSEMBLE THE JIB STRUT (R13) AND MAIN STRUT (R12) IN THE "AS SHIPPED" CONFIGURATION (ITEM 6) ON TOP OF THE LUFFING JIB BUTT (ITEM 2) AND TRANSITION INSERT (ITEM 1). ATTACH JIB STRUT TO JIB STRUT HINGE ON BOOM TOP AND ASSEMBLE JIB STRUT HINGE PIN (R47) IN THE PROPER ORIENTATION AND ATTACH THE KEEPER PLATE (R49) AS ASSEMBLED IN STEP 1. ATTACH COLLARS (R43) AND PINS TO RETAIN KEEPER PLATE (R49) AND JIB STRUT PIN (R47). (SEE DETAIL R).

ON THE TRANSITION INSERT (ITEM 2) REMOVE STAP PIN AND COLLAR FROM THE END OF THE SPREADER (R25) TO REMOVE SHIPPING/HOLD DOWN LINKS (R24). TEMPORARILY SET PIN ASIDE. REMOVE JIB STRUT BASIC STRAPS (R27)(R104)(R26) FROM SHIPPING BRACKET AND ALLOW THEM TO HANG UNTIL THE END OF BASIC STRAP (R27) IS ALIGNED WITH THE MIDDLE HOLE ON THE SHIPPING/HOLD DOWN LINKS (R24) ON THE TRANSITION INSERT (ITEM 2). ASSEMBLE LINKS TO BASIC STRAPS USING THE PREVIOUSLY REMOVED PIN. (SEE DETAIL T).

VERIFY THAT ALL RIGGING WINCH WIRE ROPE GUIDE ASSY'S (R203) AND (R211) ARE IN WORKING POSITION. REFER TO STEP 3 AND DETAIL NN TO ROUTE RIGGING WINCH LINE (R202). RIGGING WINCH LINE (R202) TO ROUTE THRU ROPE GUIDES (R203) AND (R211) TO OVER BOOM TOP WIRE ROPE GUIDE (R1), OVER WIRE ROPE GUIDE (R6) AND UNDER WIRE ROPE GUIDE (R7).

CONTINUE AS NOTED IN STEP 3 ATTACHING RIGGING WINCH LINE TO LUFFING JIB HOIST LINE.

WHEN EQUIPPED WITH LOWER BOOM POINT SHEAVES, VERIFY THAT ALL RIGGING WINCH WIRE ROPE GUIDE ASSY'S (R203) ARE IN WORKING POSITION. ROUTE RIGGING WINCH LINE (R202) AS SHOWN. RIGGING WINCH LINE (R202) TO ROUTE THRU ROPE GUIDES (R203) UNDER LOWER BOOM POINT TO OVER BOOM TOP WIRE ROPE GUIDE (R1), OVER WIRE ROPE GUIDE (R6) AND UNDER WIRE ROPE GUIDE (R7).

WHEN NOT EQUIPPED WITH LOWER BOOM POINT SHEAVES SEE DETAIL NN FOR ROUTING OF RIGGING WINCH LINE (R202).

WITH RIGGING WINCH LINE ROUTED PER PREVIOUS INSTRUCTIONS, ATTACH RIGGING WINCH LINE (R202) TO 28mm LUFFING HOIST LINE (DRUM 6) AND PAY IN RIGGING WINCH UNTIL LUFFING HOIST IS UNDER BOTTOM OF LOWER BOOM POINT OR BETWEEN BOOM TOP WIRE ROPE GUARD (R1) AND WIRE ROPE GUIDE ASSY (R211). (SEE DETAIL U).

DETACH RIGGING WINCH LINE (R202) FROM 28mm LUFFING HOIST LINE. REMOVE LUFFING HOIST LINE FROM LOWER BOOM POINT (IF EQUIPPED) AND BOOM TOP WIRE ROPE GUARD (R1) FOR USE IN STRUT REEVING STEP 4 ON SHEET 8.

**SUPERSEDES 81023383. ALL SHEETS. OF 04-17-15**

DECIMAL PLACES	FRACTION	TOLERANCE	FINISH	NOTE
1	1/16	±0.0625	AS SUPPLIED	
2	1/32	±0.03125	AS SUPPLIED	
3	1/64	±0.015625	AS SUPPLIED	

MANUFACTURER	MANITOWOC CRANES, INC.
MODEL	MLC300
DATE	09-09-15
REV.	F

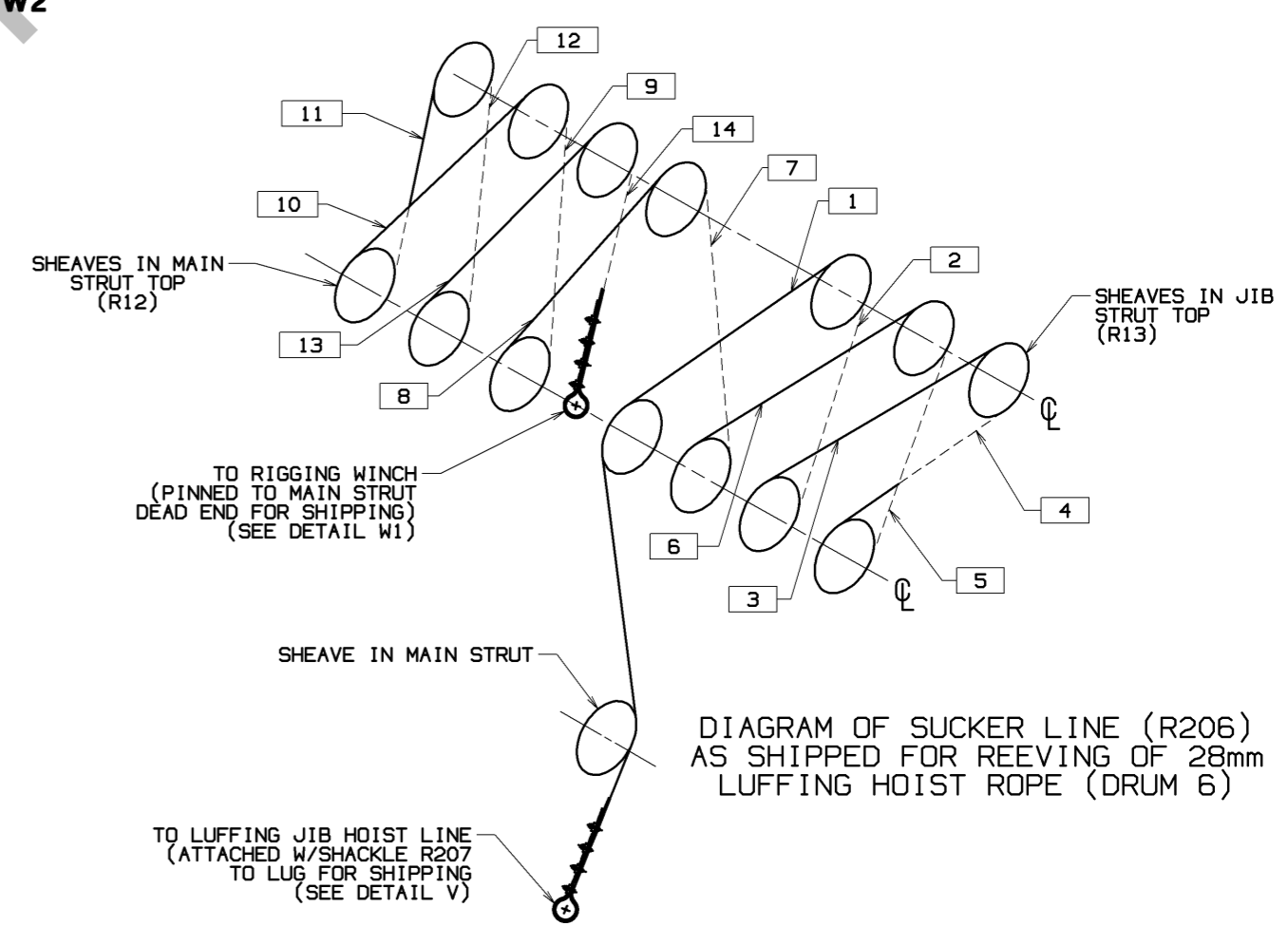
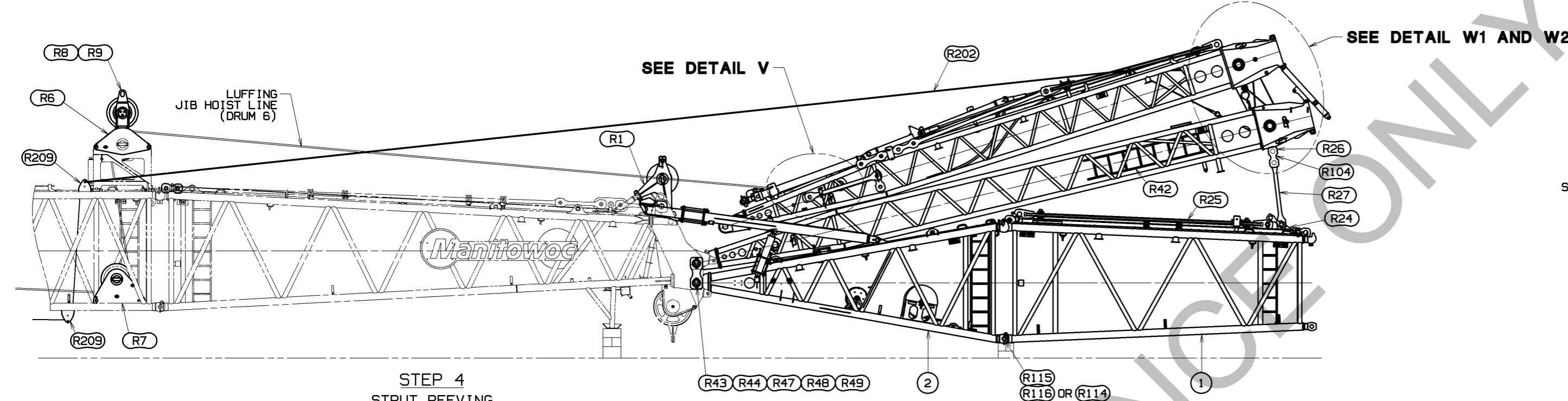
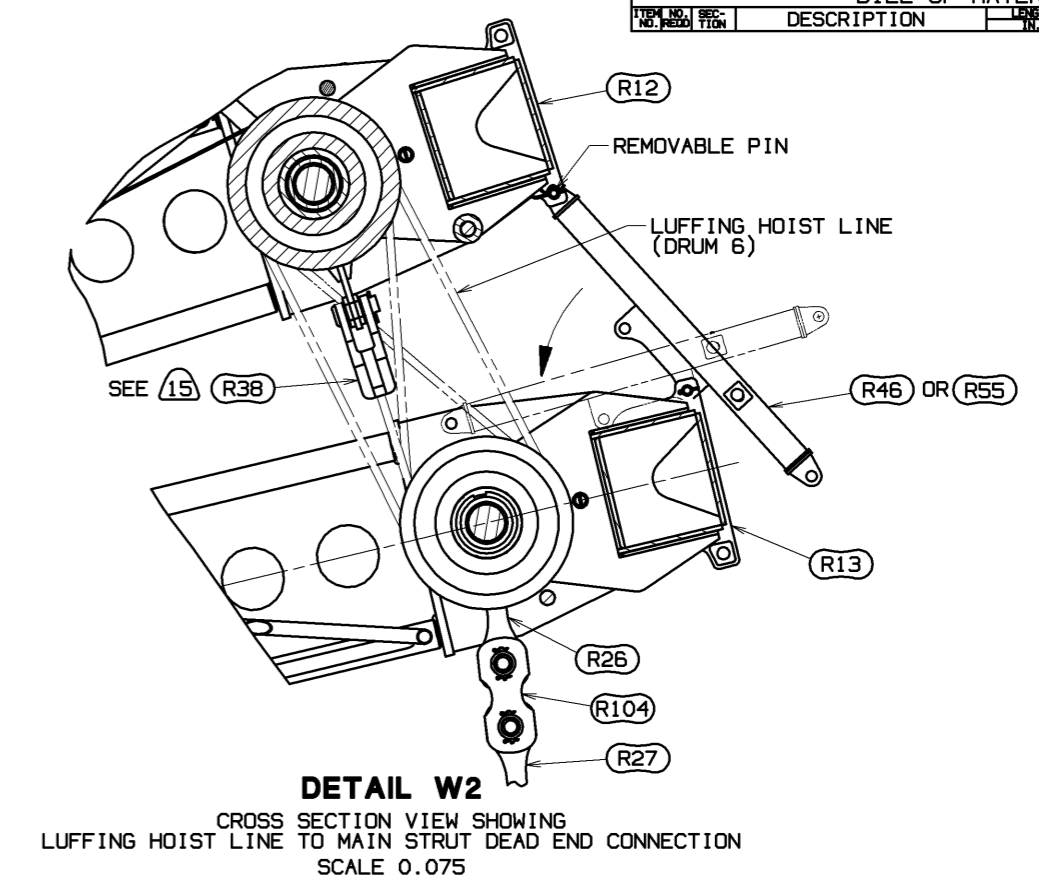
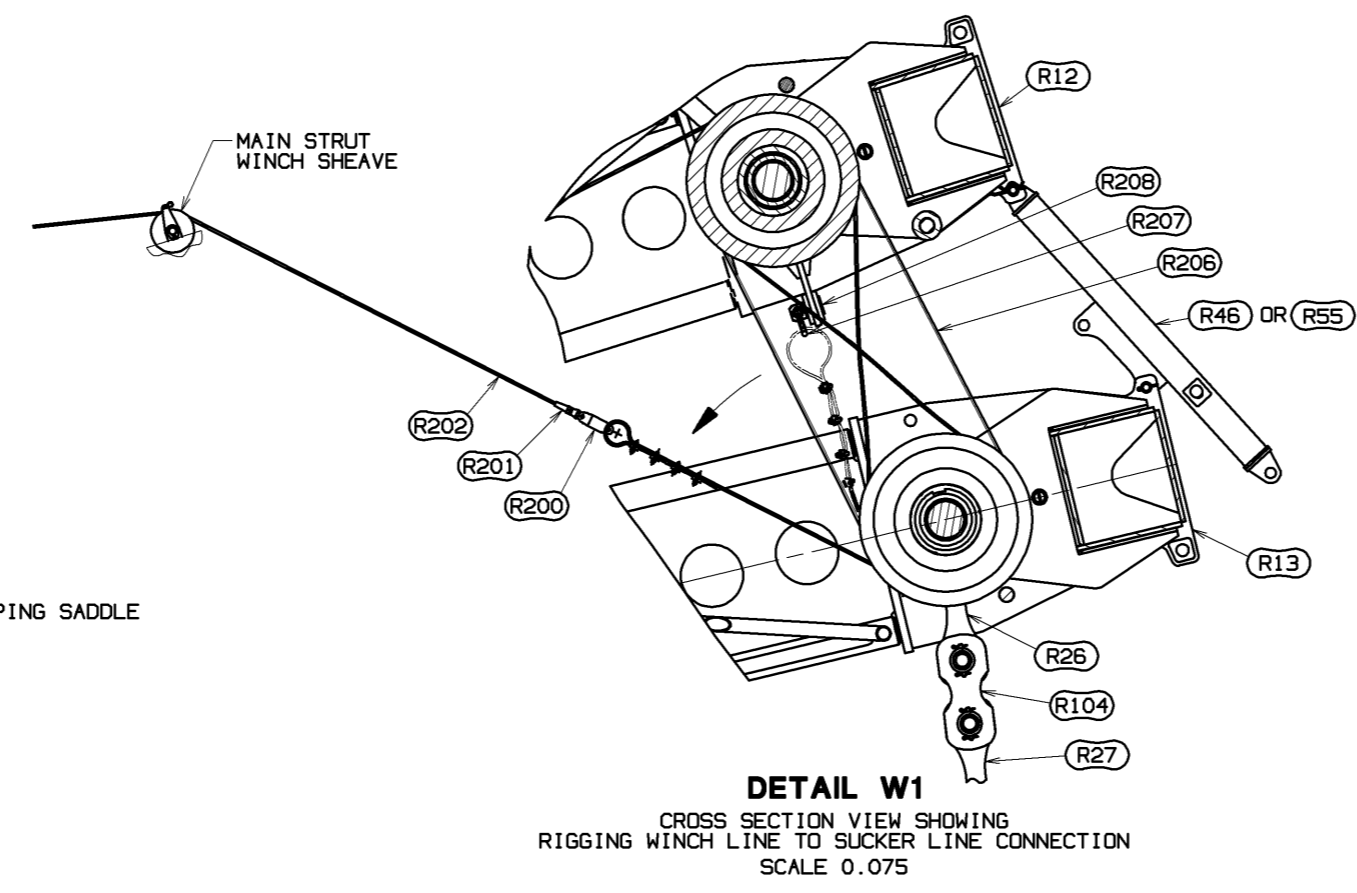
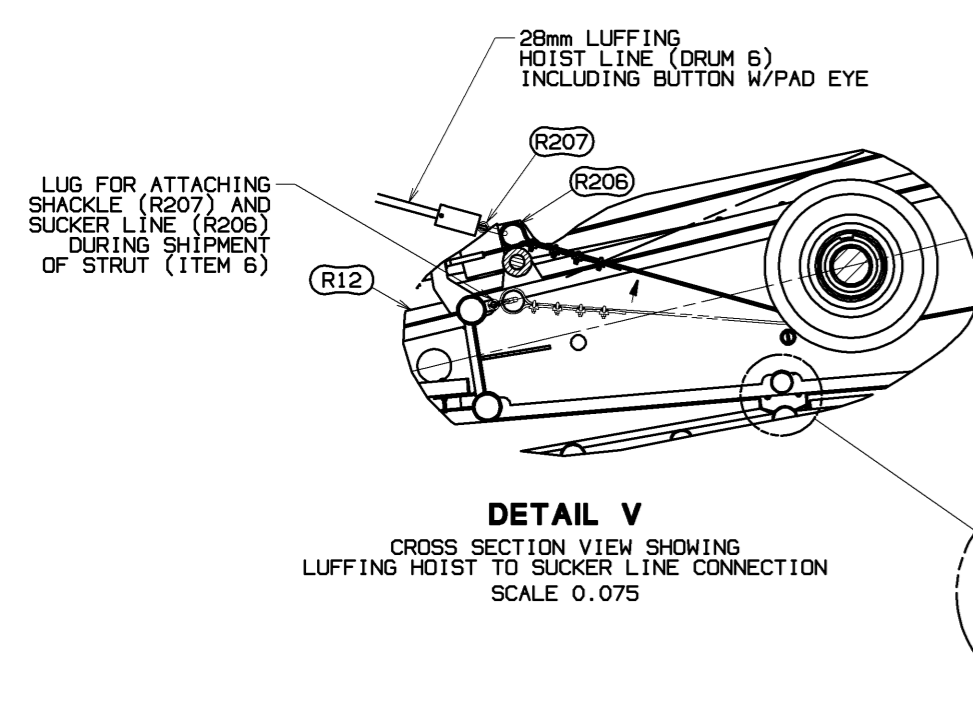
DESCRIPTION	LUFFING JIB RIGGING
ITEM NO.	LJ10:501 ON B10:500

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN 620500-05-025

81023383  
SHT 7 OF 15

BILL OF MATERIAL				ASSEMBLIES USED ON
QTY	PKG	DESCRIPTION	MATERIAL	REF. NO.

REV	DESCRIPTION



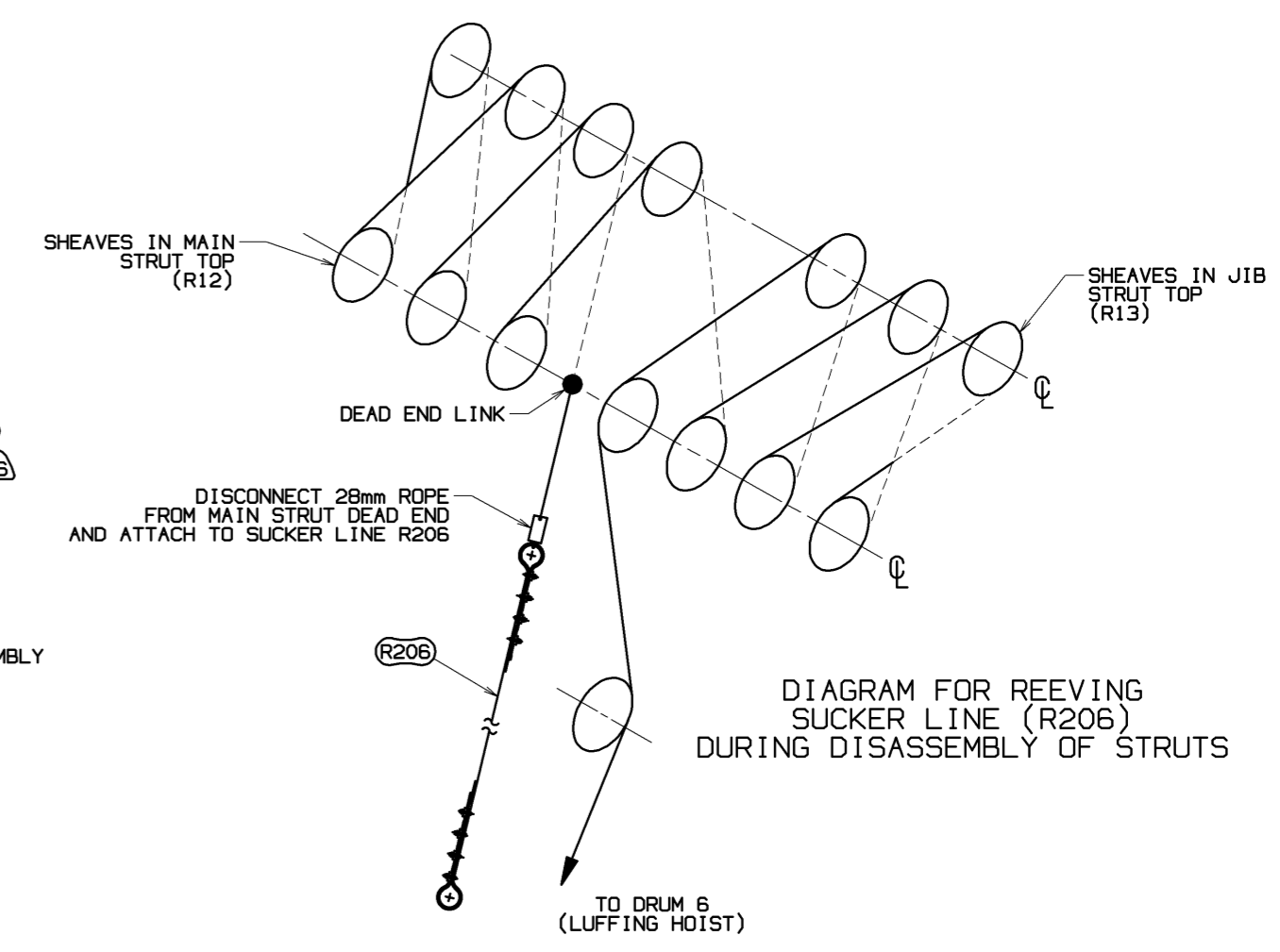
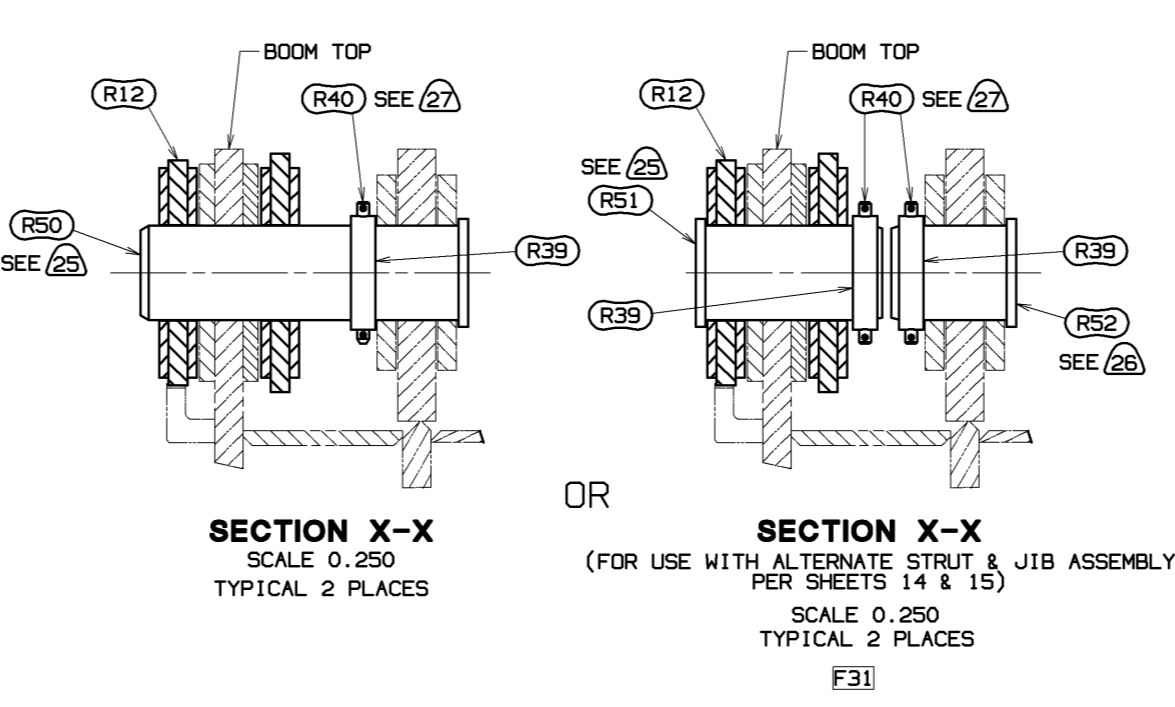
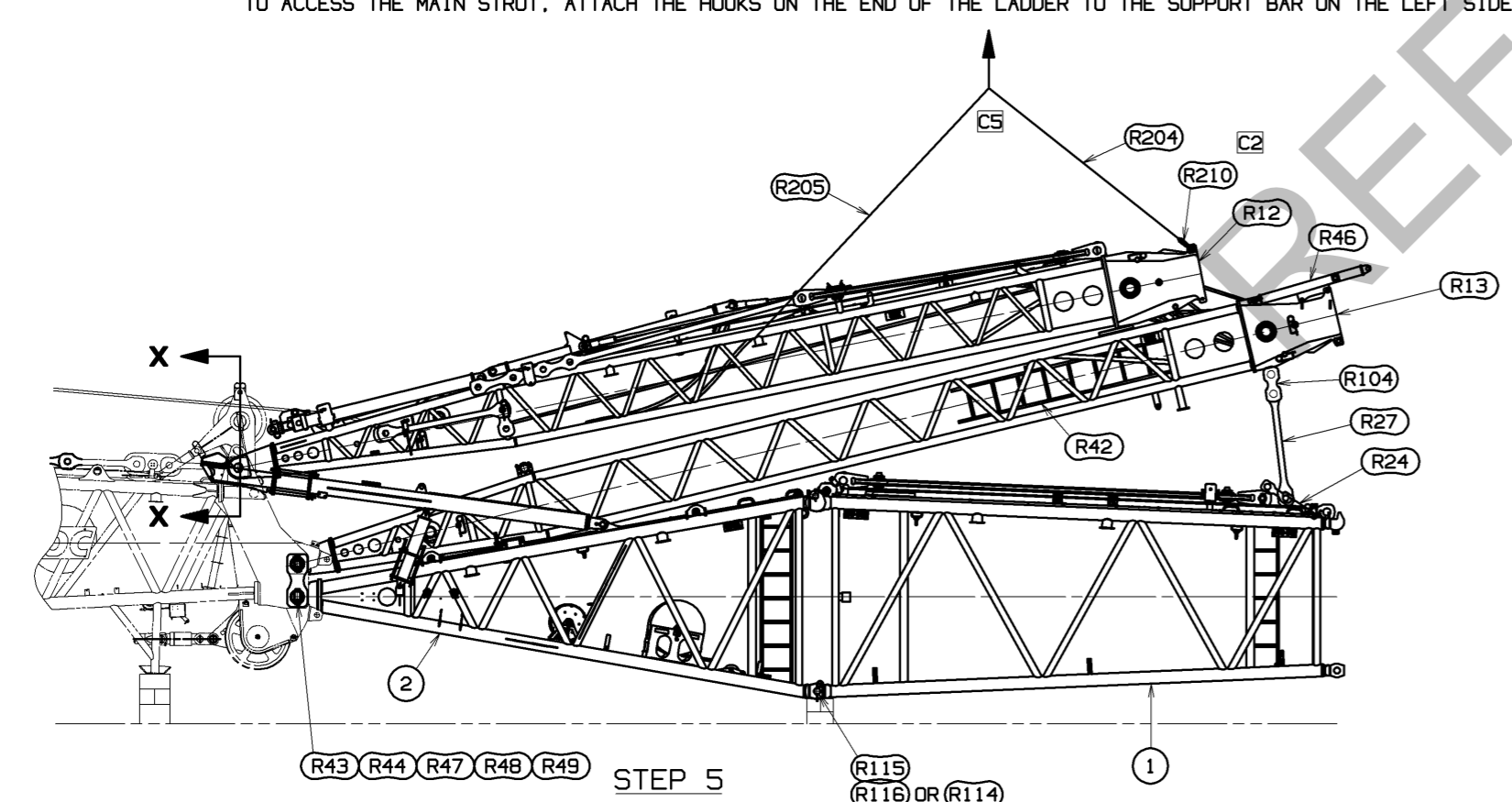
DETACH SHACKLE (R207) AND SUCKER LINE (R206) FROM STOWAGE LUG NEAR THE HINGE END OF THE MAIN STRUT (R12) AND ATTACH TO 28mm LUFFING HOIST LINE (DRUM 6). (SEE DETAIL V).

DETACH PIN (R208) AND SHACKLE (R207) FROM MAIN STRUT DEAD END AND SUCKER LINE (R206). STOW PIN AND SHACKLE IN PARTS BOX 81028769. PAY OUT RIGGING WINCH LINE (R202) OVER MAIN STRUT WINCH SHEAVE AND ATTACH TO THIS END OF SUCKER LINE (R206). (SEE DETAIL W1)

PAY IN RIGGING WINCH LINE (R202) TO PULL 28mm LUFFING HOIST LINE (DRUM 6) INTO REEVING OF MAIN AND JIB STRUT SHEAVES. DETACH RIGGING WINCH LINE (R202) FROM SUCKER LINE (R206) AND POSITION RIGGING WINCH LINE (R202) ON BOOM TOP FOR USE IN RAISING ARM HOOK-UP STEP 7 ON SHEET 9. DETACH SUCKER LINE (R206) AND SHACKLE (R207) FROM LUFFING HOIST LINE AND ATTACH LUFFING LINE TO DEAD END (R38) LOCATED IN THE MAIN STRUT (R12). (SEE DETAIL W2).

STORE SUCKER LINE (R206) AND SHACKLE (R207) IN PARTS BOX 81028769 WHEN NOT USED.

NOTE: THE LADDER (R42) STORED WITH THE JIB STRUT MAY BE USED TO PROVIDE ACCESS TO THE TOP OF THE MAIN STRUT DURING THE REEVING OPERATION. TO ACCESS THE MAIN STRUT, ATTACH THE HOOKS ON THE END OF THE LADDER TO THE SUPPORT BAR ON THE LEFT SIDE OF THE MAIN STRUT.



DISCONNECT THE SHIPPING LINKS LOCATED ON THE HINGE END OF THE JIB STRUT TO ALLOW THE MAIN STRUT (R12) TO LIFT FREE. (SEE DETAIL V). USING AN ASSIST CRANE WITH SLINGS (R204) & (R205) AND SHACKLE (R210) AS SHOWN LIFT THE MAIN STRUT (R12) SLIGHTLY FROM ITS SHIPPING POSITION UNTIL THE STRUT SUPPORTS (R46) OR (R55) CONNECTING THE STRUT HEADS ARE ABLE TO BE DISCONNECTED. REMOVE THE PIN FROM THE MAIN STRUT SIDE OF THE STRUT SUPPORTS AND ROTATE STRUT INTO HORIZONTAL OR STOWAGE POSITION ON JIB STRUT (R13). REATTACH STRUT (R46) OR (R55) WITH PIN PREVIOUSLY REMOVED FROM MAIN STRUT. (SEE DETAIL W2).

WITH THE MAIN STRUT (R12) FREE, PAY OUT LUFFING HOIST LINE (DRUM 6) AS THE MAIN STRUT (R12) IS LIFTED AND THE HINGE IS ATTACHED TO THE BOOM TOP. SECURE MAIN STRUT HINGE PIN (R50) WITH PROVIDED COLLARS (R39) AND PINS (R40). (SEE SECTION X-X).

LOWER THE MAIN STRUT UNTIL THE HEAD IS RESTING ON THE PLASTIC PAD ON THE JIB STRUT.

NOTE: THE LADDER (R42) STORED WITH THE JIB STRUT MAY BE USED TO PROVIDE ACCESS TO THE SUPPORT LINKS. TO ACCESS THE SUPPORT LINKS, ATTACH THE RUNG OF THE LADDER THAT WILL SUPPORT IT AT AN APPROPRIATE HEIGHT ON THE HOOKS LOCATED ON EITHER SIDE OF THE JIB STRUT HEAD.

**SUPERSEDES 81023383. ALL SHEETS, OF 04-17-16**

DECIMAL PLACES	FRACTIONAL PLACES	F. TO 10 FEET	10 FEET TO 100 FEET	100 FEET TO 1000 FEET	1000 FEET TO 10000 FEET	10000 FEET TO 100000 FEET	100000 FEET TO 1000000 FEET	1000000 FEET TO 10000000 FEET	10000000 FEET TO 100000000 FEET	100000000 FEET TO 1000000000 FEET	1000000000 FEET TO 10000000000 FEET	10000000000 FEET TO 100000000000 FEET	100000000000 FEET TO 1000000000000 FEET	1000000000000 FEET TO 10000000000000 FEET	10000000000000 FEET TO 100000000000000 FEET	100000000000000 FEET TO 1000000000000000 FEET	1000000000000000 FEET TO 10000000000000000 FEET	10000000000000000 FEET TO 100000000000000000 FEET	100000000000000000 FEET TO 1000000000000000000 FEET	
0.0001	1/10000	±0.0001	±0.0002	±0.0003	±0.0004	±0.0005	±0.0006	±0.0007	±0.0008	±0.0009	±0.0010	±0.0011	±0.0012	±0.0013	±0.0014	±0.0015	±0.0016	±0.0017	±0.0018	±0.0019

DR. 025	MANITOWOC CRANES, INC.	SCALE	0.025
DR. AUB	Manitowoc, Wisconsin	DATE	09-09-15
DR. RHY	MODEL: MLC300	DESCRIPTION	LUFFING JIB RIGGING
APP. DLG		REF. NO.	LJ10:501 ON B10:500

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN 66290-05-05E

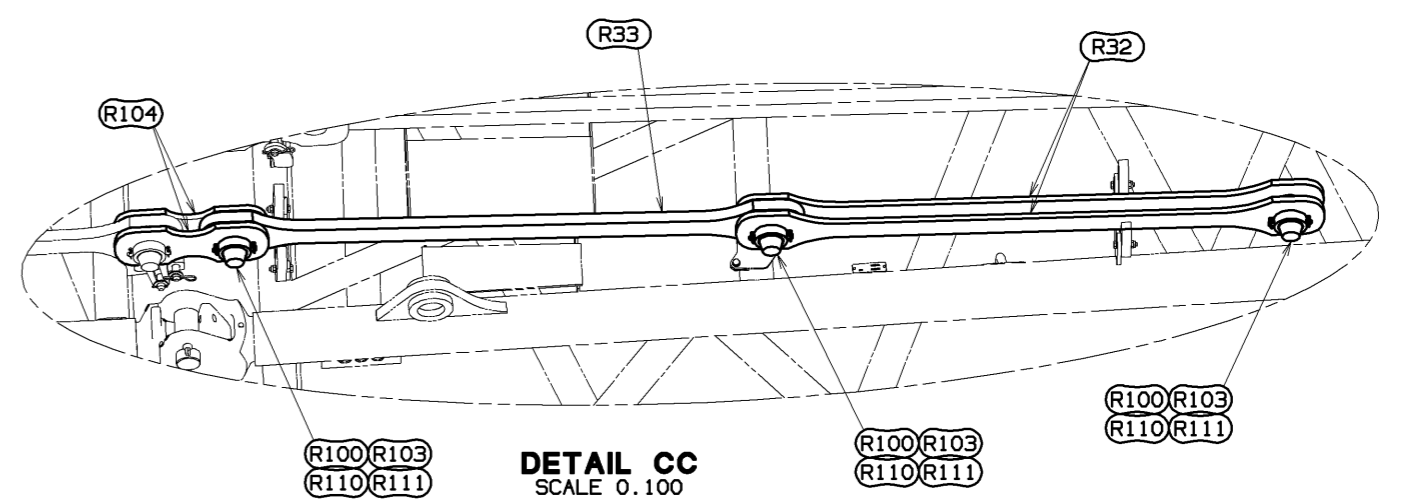
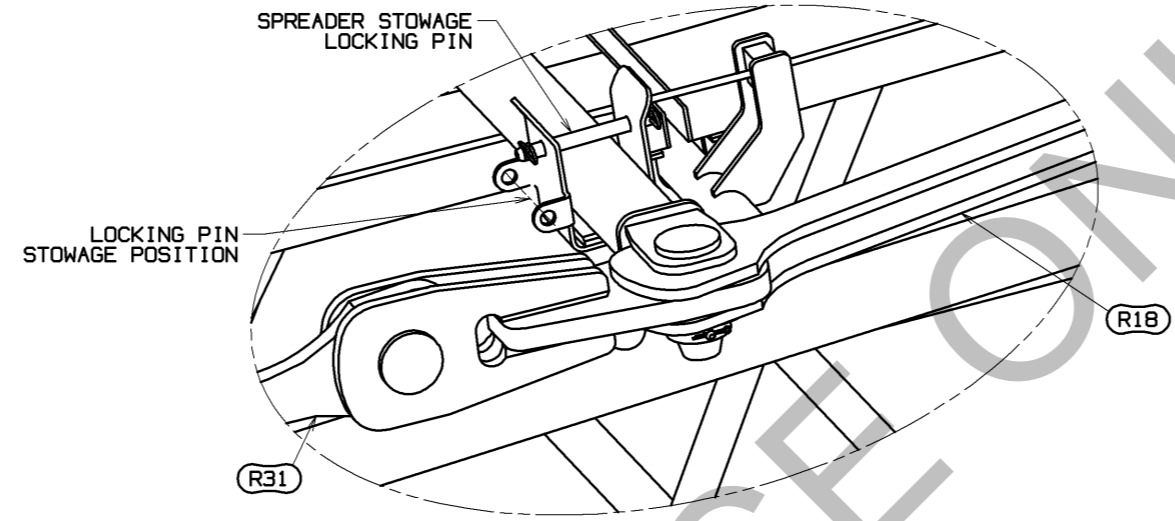
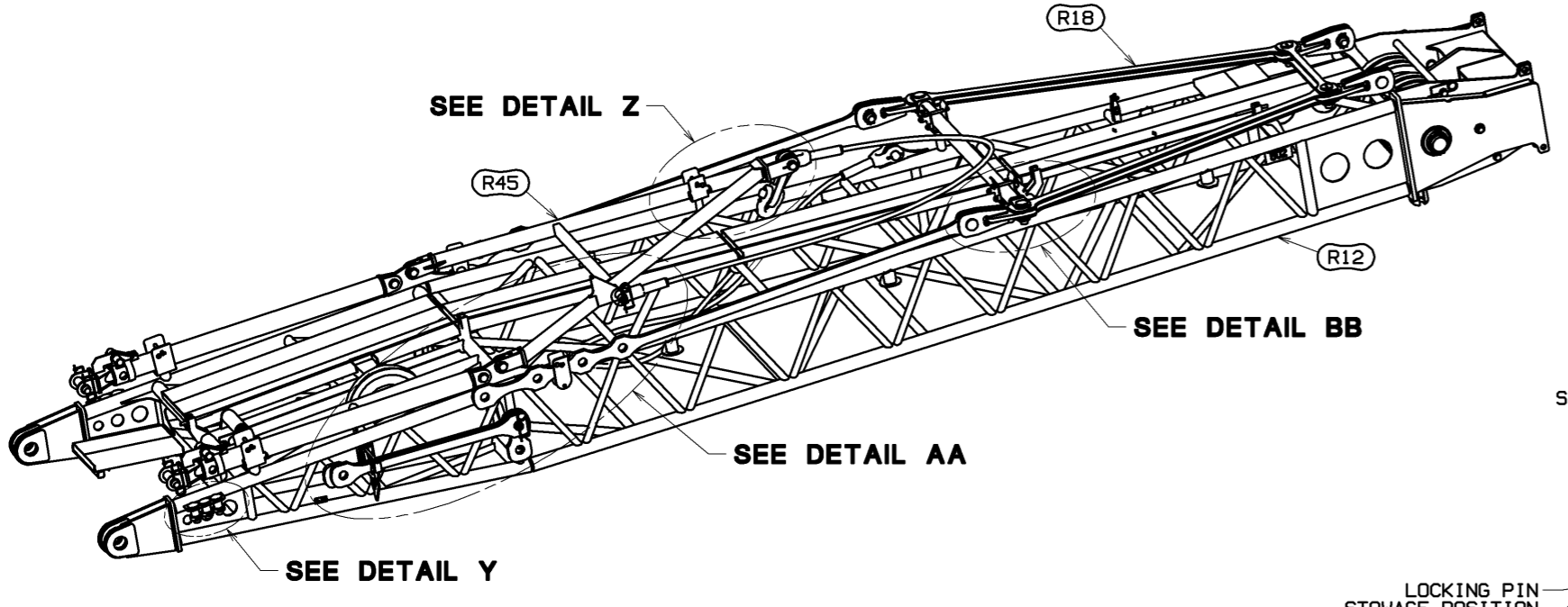
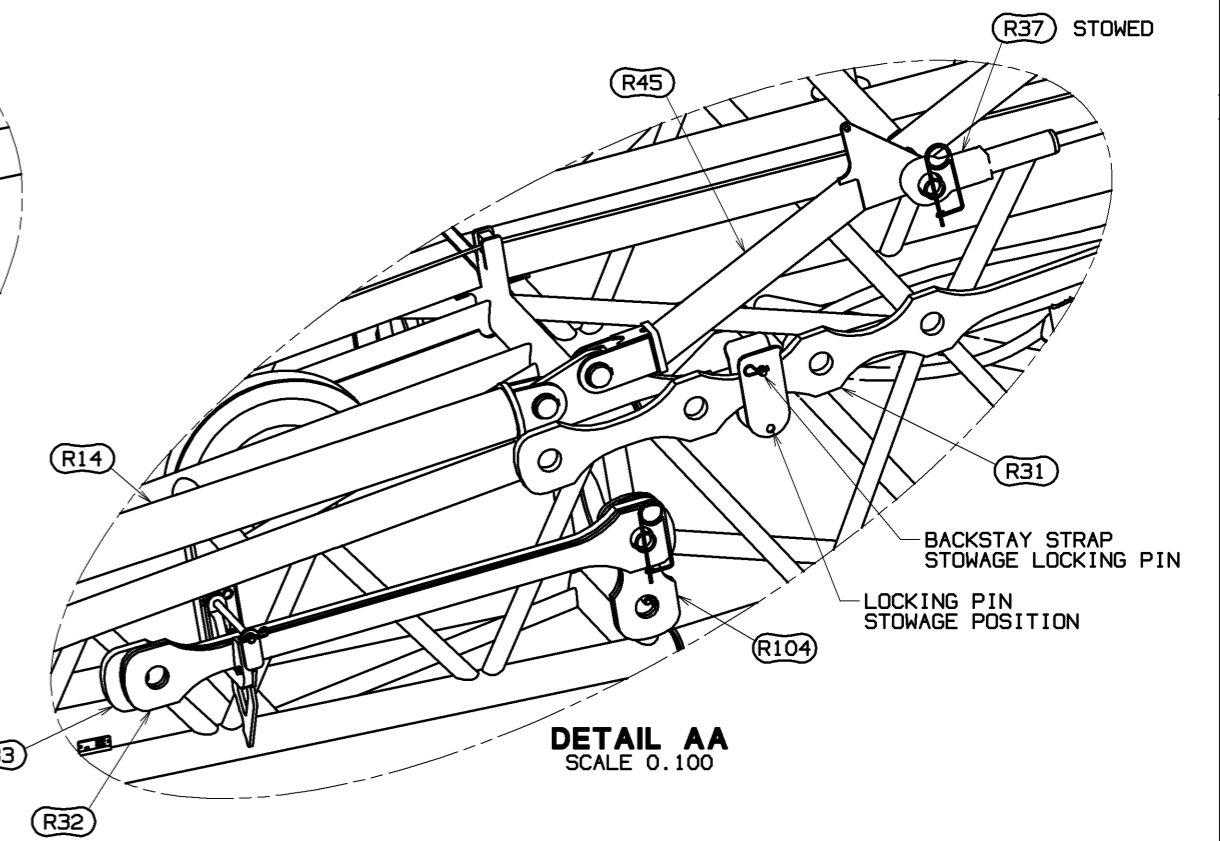
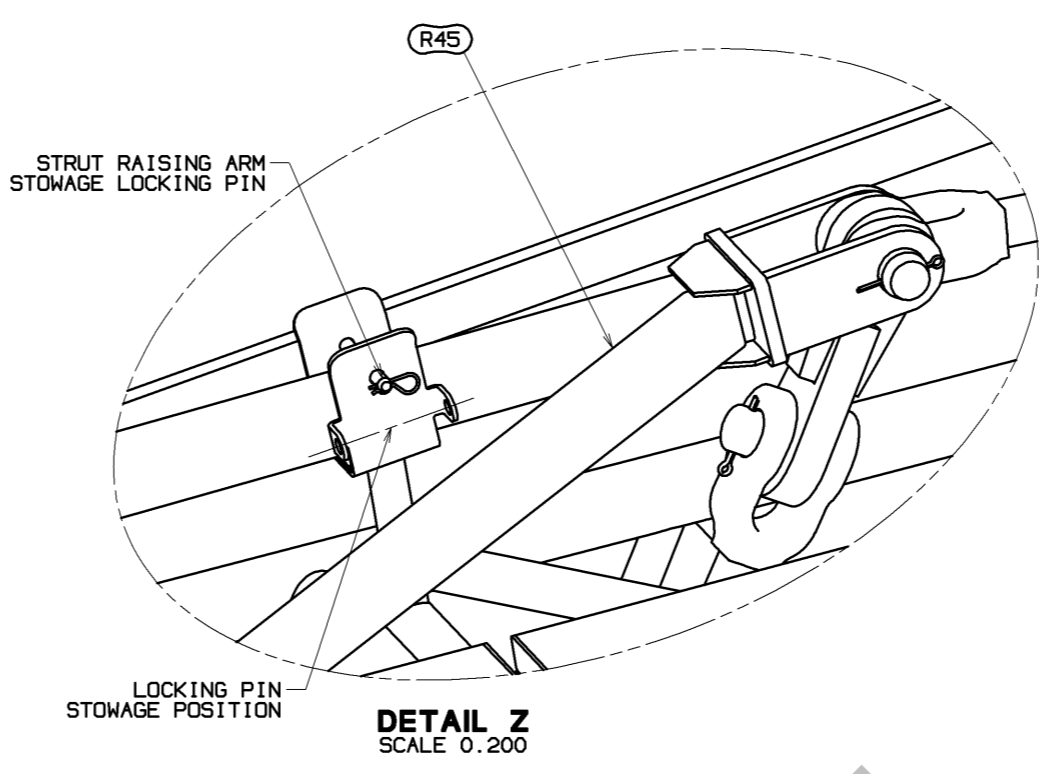
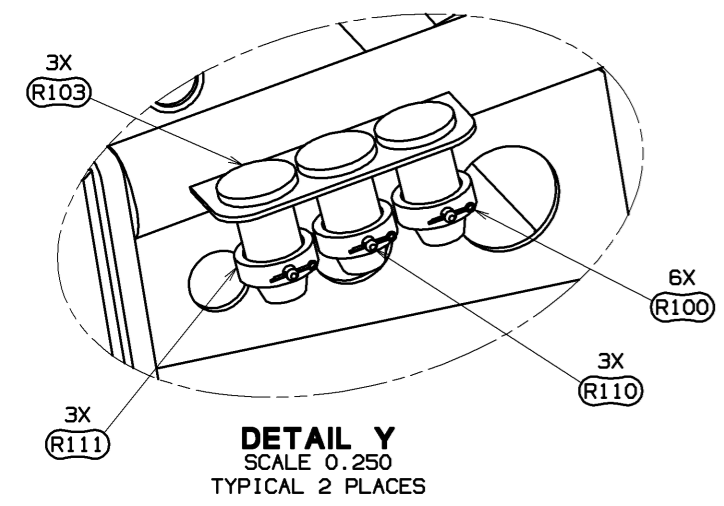
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REF. NO. [ ]

81023383

SHT 8 OF 15



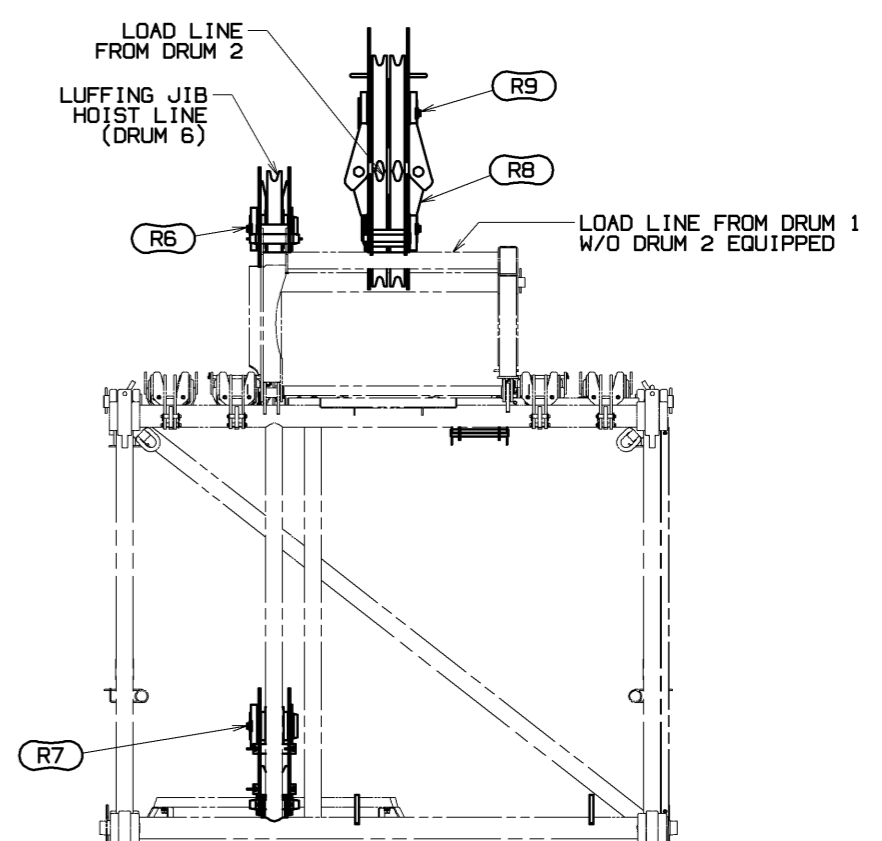
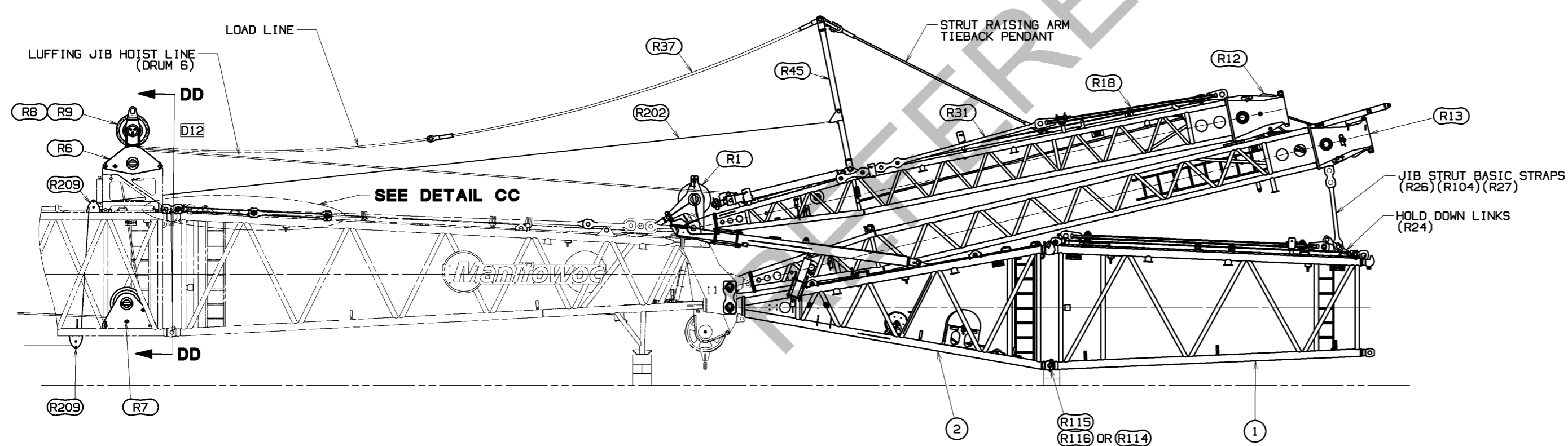


**STEP 6**  
PINS AND STRAP REMOVAL FROM MAIN STRUT (R12)  
(REFER TO SHEETS 14 & 15 FOR ALTERNATE STRUT & JIB ASSEMBLY)

FROM THE TOP OF THE MAIN STRUT (R12) REMOVE THE PIN HOLDING THE STRUT RAISING ARM (R45) IN SHIPPING POSITION AND STOW PIN IN THE TABS ON THE SHIPPING BRACKET. (SEE DETAIL Z)

REMOVE PINS HOLDING MAIN STRUT BACKSTAY STRAPS (R31) AND SPREADER ASSY (R18) IN SHIPPING POSITION AND STOW PINS IN DESIGNATED STOWAGE LOCATIONS. (SEE DETAILS AA & BB)

REMOVE STRAPS (R33) AND LINKS (R32 & R104) FROM SHIPPING POSITION. (SEE DETAIL AA)  
REMOVE STRAP PINS (R103), COLLARS (R111) AND PINS (R110) FROM SHIPPING POSITION. (SEE DETAIL Y)  
POSITION STRAPS, LINKS, PINS AND COLLARS ON BOOM TOP (81027719) WITH LINKS (R104) ATTACHED TO PRECEDING INSERT STRAP. (SEE DETAIL CC)



**STEP 7**  
RAISING ARM HOOK-UP  
(REFER TO SHEETS 14 & 15 FOR ALTERNATE STRUT & JIB ASSEMBLY)

DETACH RAISING PENDANT (R37) FROM ITS SHIPPING LOCATION (SEE DETAIL AA) AND ATTACH THE FREE END OF THE PENDANT TO AN APPROPRIATE LOAD LINE. ATTACH RIGGING WINCH LINE (R202) TO MAIN STRUT RAISING ARM (R45).

NOTE: IF DRUM 2 IS EQUIPPED, DRUM 2 MUST BE USED FOR STRUT RAISING. DRUM 1 OR 3 CANNOT BE USED.  
D12 THE LOAD LINE FROM DRUM 2 MUST BE CONTAINED BETWEEN THE TWO SHEAVES ON THE WIRE ROPE GUIDES (R8 & R9).  
D13 IF USING LOAD LINE FROM DRUM 1 (WITHOUT DRUM 2 EQUIPPED), THE LOAD LINE MUST LAY ON THE TOP OF THE WIRE ROPE GUIDE FRAME AND THE UPPER AND LOWER SHEAVES (R8 & R9) MUST BE REMOVED FROM THE FRAME. SPECIAL CARE MUST BE TAKEN TO ENSURE THAT THE ROPE PROPERLY SPOOLS ON THE DRUM DURING THE FOLLOWING STEPS. (SEE SECTION DD-DD)

CAUTION: IF RIGGING WINCH IS NOT USED, MAIN STRUT RAISING ARM (R45) MAY RAISE SUDDENLY WHEN LOAD LINE IS RETRACTED CAUSING LOAD LINE AND DEAD END TO DROP ONTO BOOM TOP.

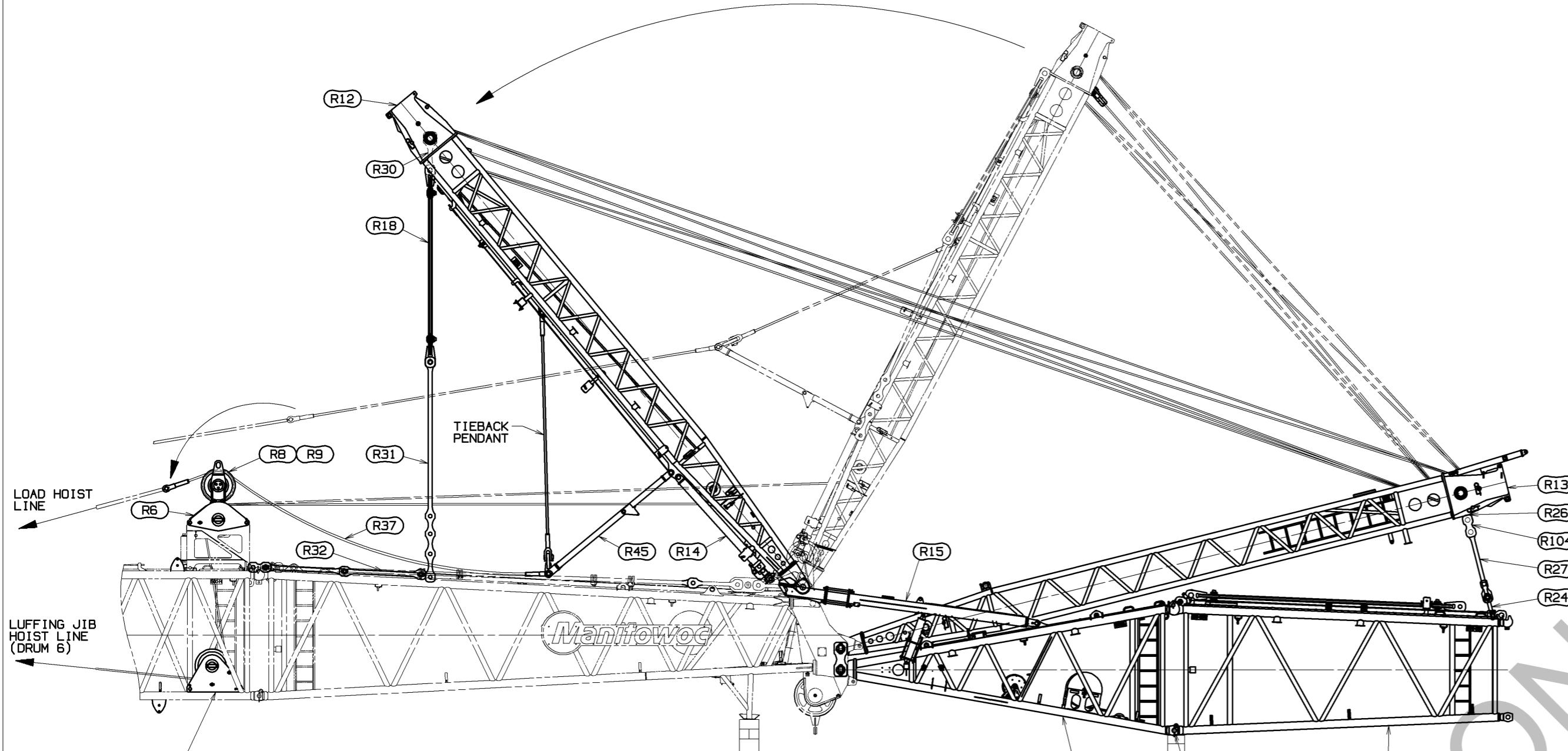
PAY IN RIGGING WINCH LINE (R202) RAISING THE MAIN STRUT RAISING ARM (R45) INTO WORKING POSITION. PAY IN THE LOAD LINE UNTIL THE STRUT RAISING ARM TIE BACK PENDANT IS TAUT. AT THIS POINT, THE RIGGING WINCH LINE MAY BE DISCONNECTED OR KEPT TAUT THROUGH RAISING PROCESS.

CONTINUE TO RETRACT THE LOAD LINE WHILE PAYING OUT THE LUFFING HOIST LINE (DRUM 6) TO RAISE THE MAIN STRUT (R12). DO NOT ALLOW THE JIB STRUT (R13) OR TRANSITION INSERT (ITEM 1) TO RAISE MORE THAN 300mm (12 inches) ABOVE GROUND OR BLOCKING. CONTROL HOIST SPEED BY WATCHING THE SLACK IN THE HOLD DOWN LINKS/JIB STRUT BASIC STRAP (R24)(R26)(R27)(R104).

**SUPERSEDES 81023383. ALL SHEETS, OF 04-17-16**

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DR. AUB	DR. RHY	APP. DLG	MODEL MLC300	LUFFING JIB RIGGING	LJ10:501 ON B10:500	REF. LIT. P1

BILL OF MATERIAL		ASSEMBLY USED ON
QTY	DESCRIPTION	MATERIAL



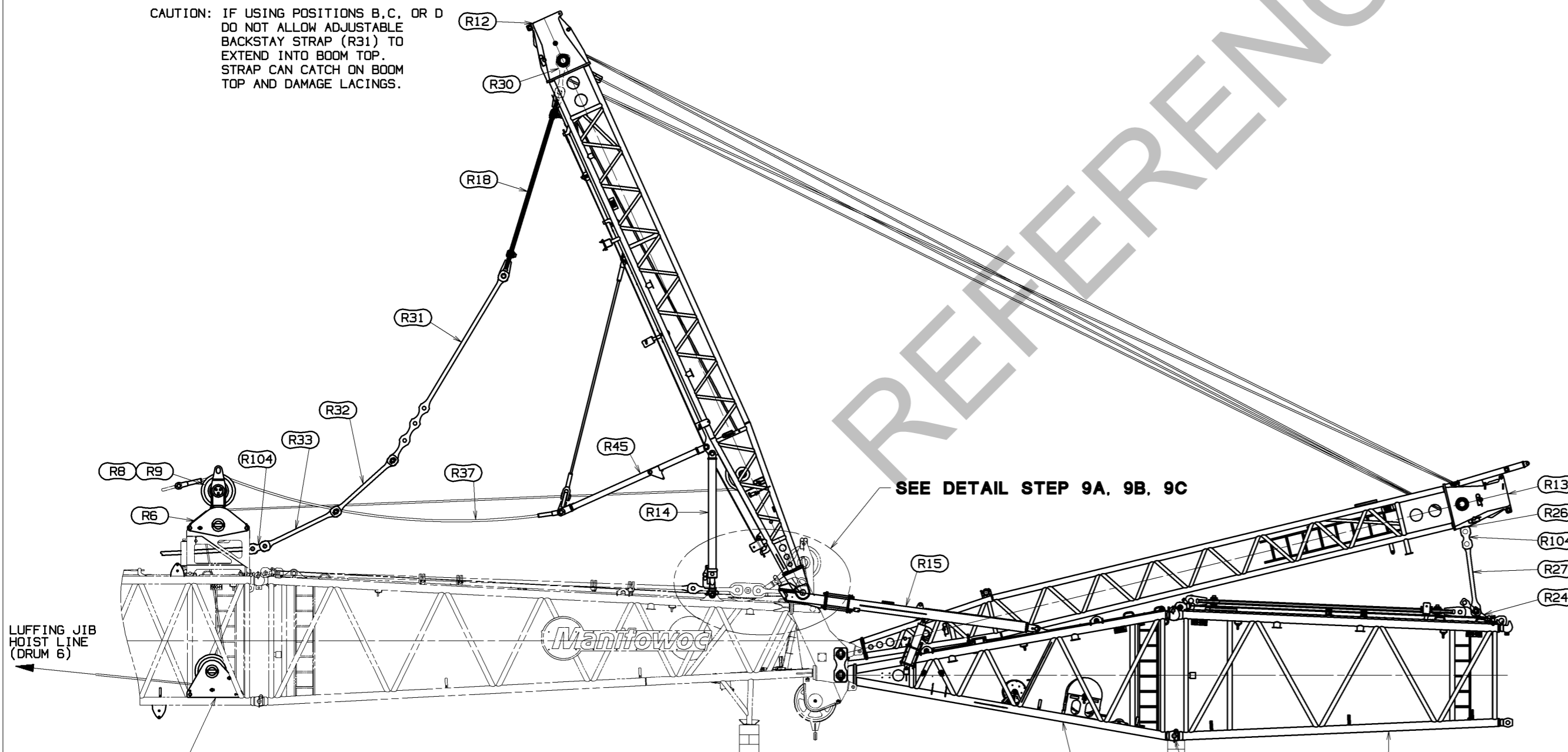
**STEP 8**  
**MAIN STRUT RAISING AND BACKSTAY CONNECTION**  
 (REFER TO SHEETS 14 & 15 FOR ALTERNATE STRUT & JIB ASSEMBLY)

CONTINUE TO PAY IN LOAD HOIST, RAISING THE MAIN STRUT (R12) OVER VERTICAL, ENSURING THAT THE LUFFING HOIST REEVING DOES NOT BECOME SLACK. WITH THE MAIN STRUT BEYOND VERTICAL, CONTROL OF ITS ANGLE WILL TRANSITION FROM THE LOAD LINE (ATTACHED TO THE RAISING PENDANT R37) TO THE LUFFING HOIST (DRUM 6).

AS THE MAIN STRUT (R12) CONTINUES BEYOND VERTICAL, THE BACKSTAY STRAPS (R30)(R31) AND SPREADER (R18) WILL BEGIN TO HANG VERTICALLY. RAISE THE MAIN STRUT UNTIL THE BACKSTAY STRAPS (R31) HANG IN POSITION OVER THE LUFFING JIB BACKSTAY STRAPS LOCATED ON THE MAIN BOOM.

ATTACH THE LINKS (R32) FROM THE MAIN BOOM TOP TO THE ADJUSTABLE BACKSTAY STRAP (R31). VERIFY HOLE LOCATION (A,B,C, OR D) PER BOOM LENGTH TABLE ON SHEET 2 AND DETAIL G ON SHEET 4.

CAUTION: IF USING POSITIONS B,C, OR D DO NOT ALLOW ADJUSTABLE BACKSTAY STRAP (R31) TO EXTEND INTO BOOM TOP. STRAP CAN CATCH ON BOOM TOP AND DAMAGE LACINGS.

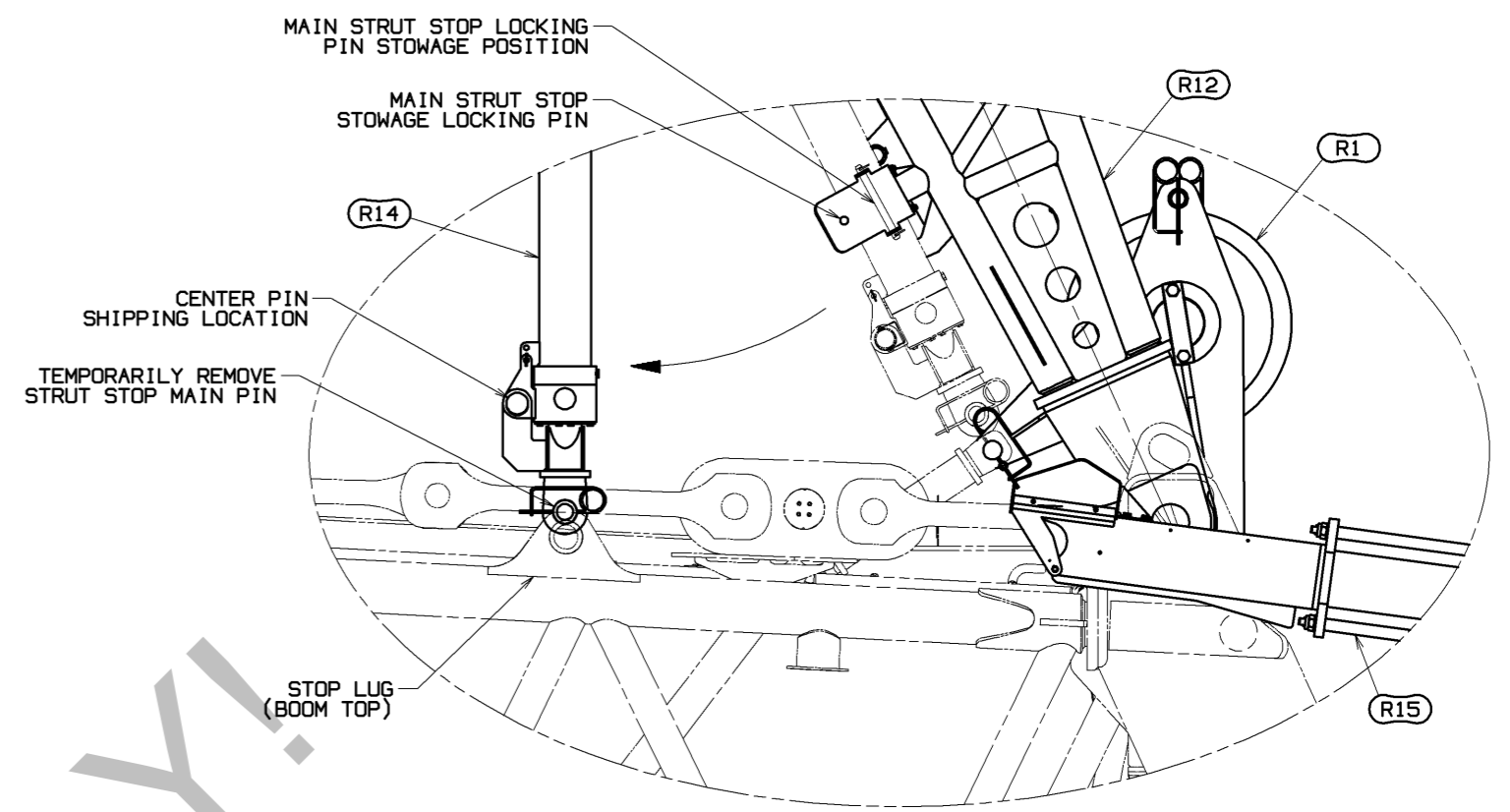


**STEP 9**  
**STRUT STOP CONNECTION**  
 (REFER TO SHEETS 14 & 15 FOR ALTERNATE STRUT & JIB ASSEMBLY)

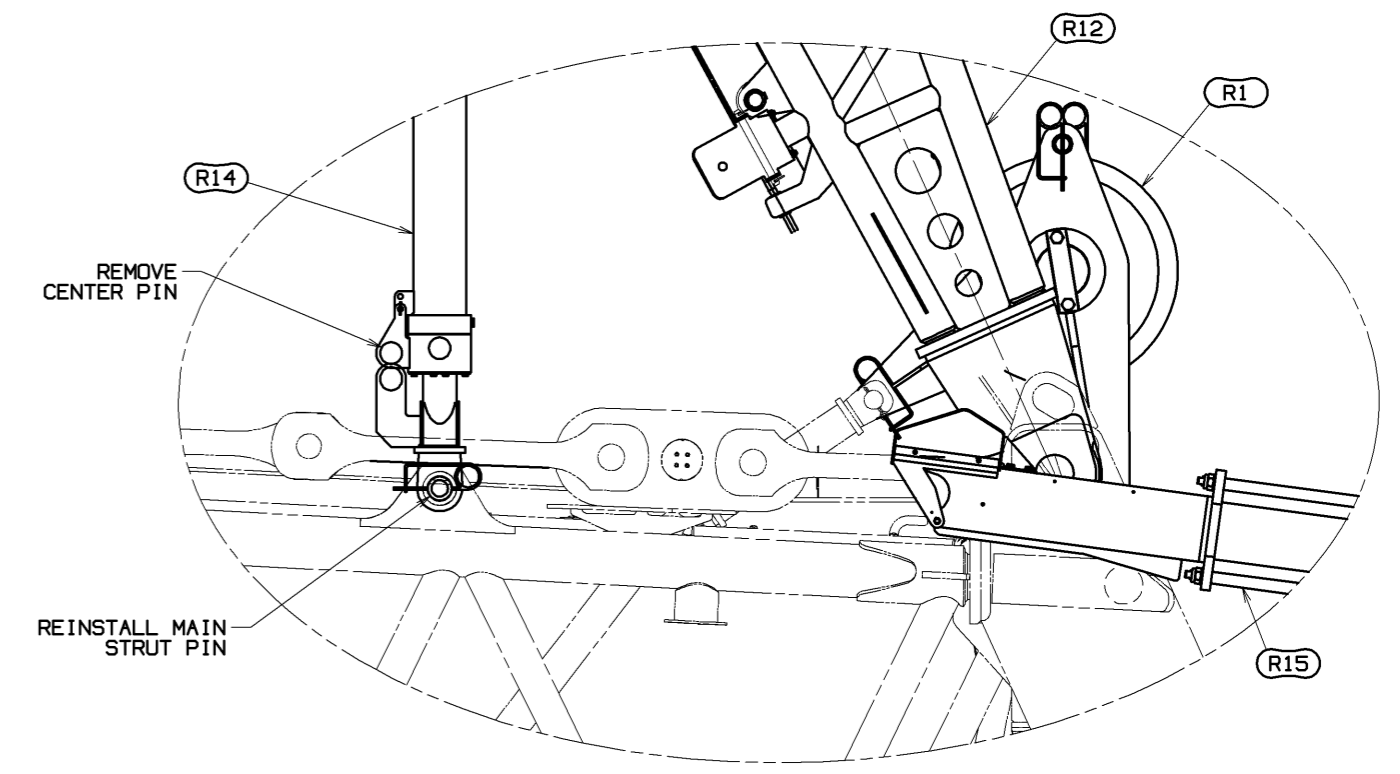
PAY IN THE LUFFING JIB HOIST LINE (DRUM 6) TO BRING THE MAIN STRUT (R12) BACK TOWARDS VERTICAL AND TO POSITION STRUT STOP (R14) OVER THE STOP LUG ON THE MAIN BOOM TOP. WITH MAIN STRUT STOP (R14) IN STOWED POSITION REMOVE STRUT STOP STORAGE LOCKING PINS, ALLOWING STOP TO HANG VERTICALLY ABOVE THE STOP LUGS. PLACE LOCKING PINS IN THE TABS ON THE BRACKET. TEMPORARILY REMOVE THE MAIN PIN FROM THE END OF THE MAIN STRUT STOP (R14). (SEE DETAIL STEP 9A)

REMOVE THE CENTER PIN FROM ITS SHIPPING LOCATION ON THE MAIN STRUT STOP AND ALLOW THE INNER MOST TUBE TO TELESCOPE OUTWARD UNTIL THE END OF THE STOP CAN BE CONNECTED TO THE STOP LUG USING THE PREVIOUSLY REMOVED MAIN PIN. (SEE DETAIL STEP 9B)

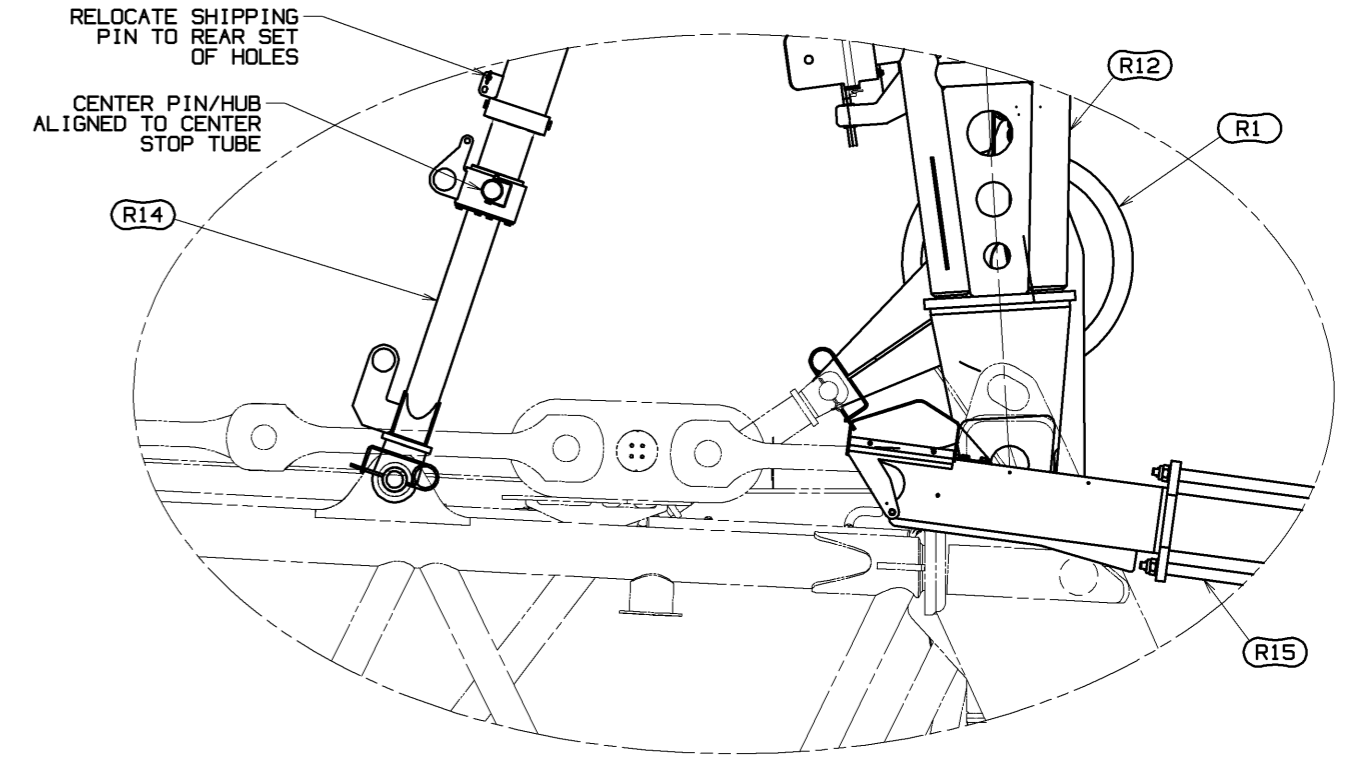
BEGIN RETRACTING THE LUFFING JIB HOIST LINE (DRUM 6) WHILE ALLOWING THE INNER MOST STOP TUBE TO TELESCOPE. WHEN THE CENTER HUB ON THE INNER MOST TUBE IS ALIGNED WITH THE EQUIVALENT HOLE ON THE MIDDLE STOP TUBE, USE THE CENTER PIN (REMOVED IN 'DETAIL STEP 9B') TO LOCK THE TUBES TOGETHER. REMOVE THE SHIPPING PIN CONNECTING THE MIDDLE TUBE TO THE OUTER MOST TUBE AND STORE PIN IN THE REAR MOST SET OF HOLES. (SEE DETAIL STEP 9C)



**DETAIL STEP 9A**  
 SCALE 0.100



**DETAIL STEP 9B**  
 SCALE 0.100



**DETAIL STEP 9C**  
 SCALE 0.100

REFERENCE ONLY!

**SUPERSEDES 81023383. ALL SHEETS, OF 04-17-16**

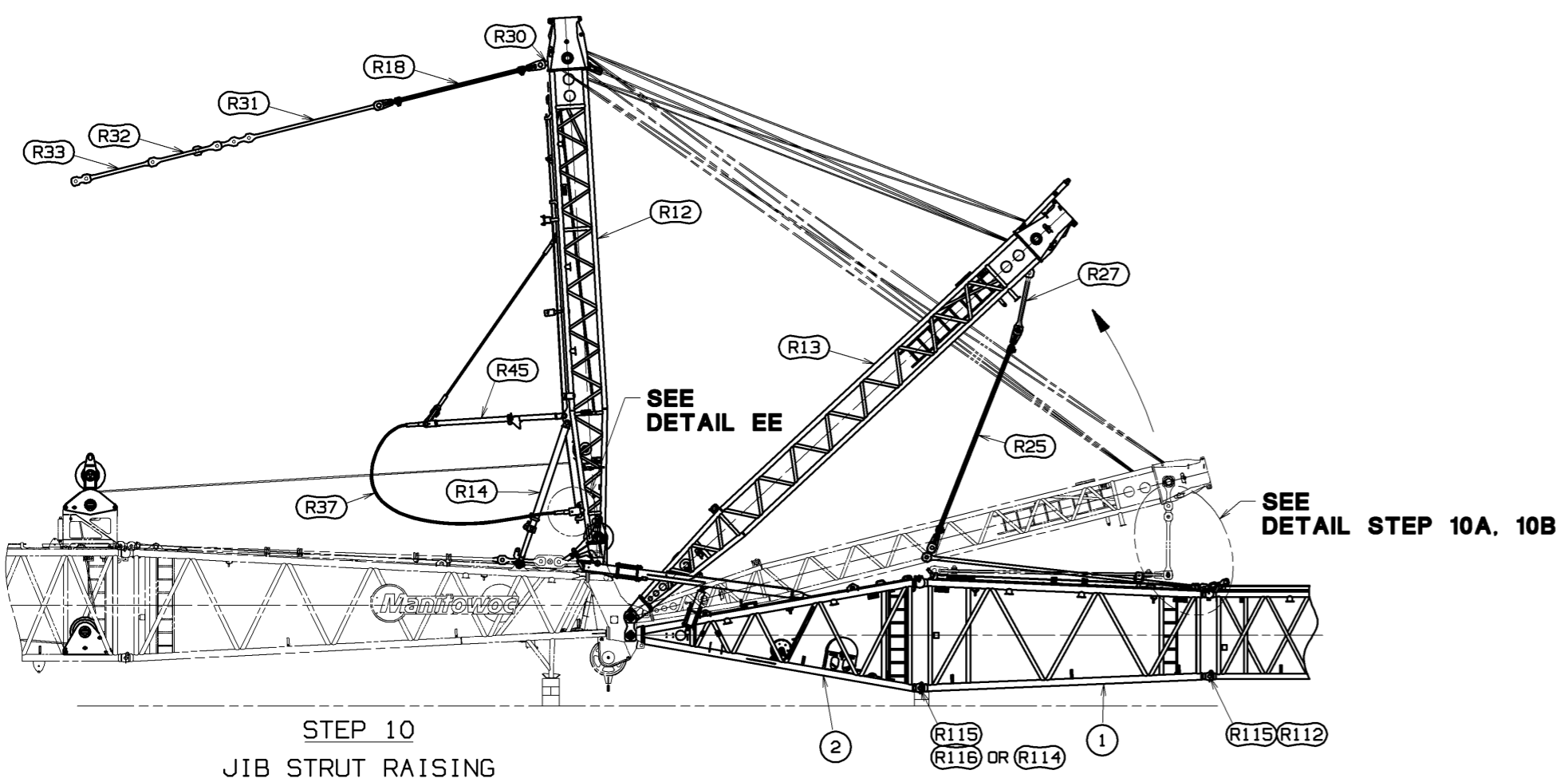
<small>THIS PRINT REMAINS THE PROPERTY OF MANITOWOC CRANES, INC. IF IT IS LOST, SUBJECT TO RETURN (WITH CHARGE) AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY MANNER DETRIMENTAL TO OUR INTERESTS.</small>	<small>TOLERANCE UNLESS OTHERWISE SPECIFIED</small>		<small>DATE 025</small> <small>MANITOWOC CRANES, INC.</small> <small>MANITOWOC, WISCONSIN</small> <small>MODEL MLC300</small> <small>APP DLG</small>	<small>REVISIONS</small> <small>REV. 1</small> <small>DATE 09-09-15</small>
	<small>DECIMAL PLACES</small> <small>F. 10 FEET &gt; 10 FEET</small> <small>1) PLACE 0.5</small> <small>2) PLACE 0.00</small> <small>3) PLACE 0.000</small>	<small>FABRICATION</small> <small>1) PLACE 0.12</small> <small>2) PLACE 0.08</small> <small>3) PLACE 0.006</small> <small>ANGLES 1:20</small>		

PRIVATE LABELING REQUIREMENT TO CONFORM TO SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN 662901-05-006

81023383

SHT 10 OF 15

BILL OF MATERIAL		ASSEMBLIES USED ON
ITEM NO.	DESCRIPTION	MATERIAL



**STEP 10**  
**JIB STRUT RAISING**

(REFER TO SHEETS 14 & 15 FOR ALTERNATE STRUT & JIB ASSEMBLY)

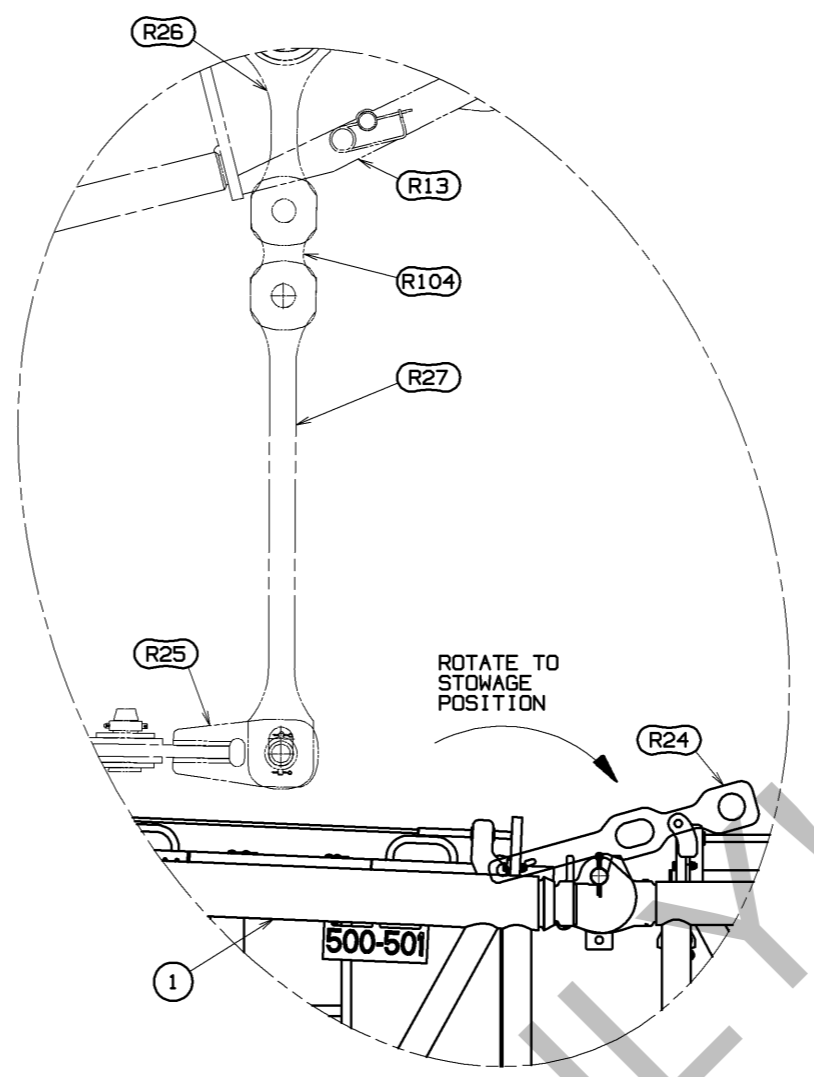
PAYOUT THE LUFFING JIB HOIST LINE (DRUM 6) UNTIL THE MAIN STRUT (R12) RESTS ON THE MAIN STRUT STOPS (R14). DETACH THE LOAD LINE FROM THE STRUT RAISING PENDANT (R37) AND ATTACH END OF STRUT RAISING PENDANT TO STRUT STOP STORAGE BRACKET. (SEE DETAIL EE).

COMPLETE THE ASSEMBLY OF DESIRED JIB CONFIGURATION TO JIB BUTT (ITEM 2) AND TRANSITION INSERT (ITEM 1). INSTALL LOWER JIB CONNECTOR PINS. (SEE DETAIL LL ON SHEET 6). ASSEMBLE STRAP/LINK CONNECTIONS BEGINNING AT JIB TOP. DETACH THE HOLD BACK LINKS (R24) CONNECTING THE JIB STRUT BASIC STRAPS (R27)(R104)(R26) TO THE TRANSITION INSERT (ITEM 1). ATTACH THE BASIC STRAP (R27) TO THE FRONTSTAY SPREADER (R25). (SEE DETAIL STEP 10A).

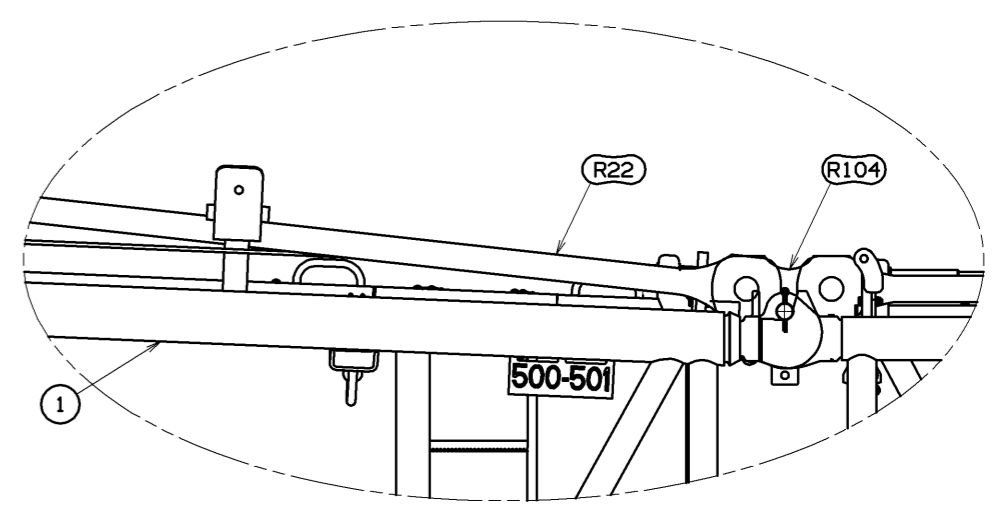
ASSEMBLE STRAP/LINK CONNECTION (R22 & R104) AT TRANSITION INSERT (ITEM 1) AND #501 INSERT. (SEE DETAIL STEP 10B).

RETRACT THE LUFFING JIB HOIST LINE (DRUM 6) TO RAISE THE JIB STRUT (R13) FROM ITS ASSEMBLY POSITION.

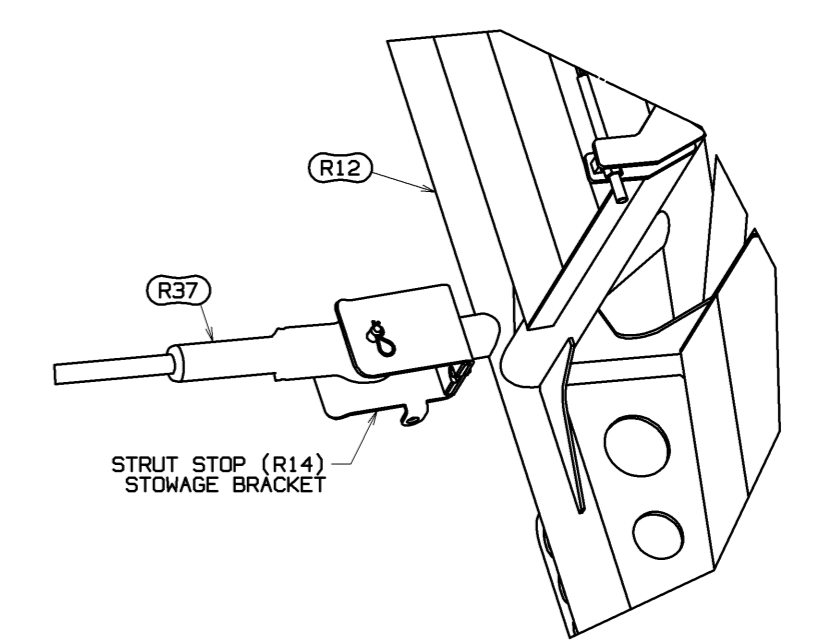
THE LUFFING JIB IS READY FOR RAISING AND OPERATION.



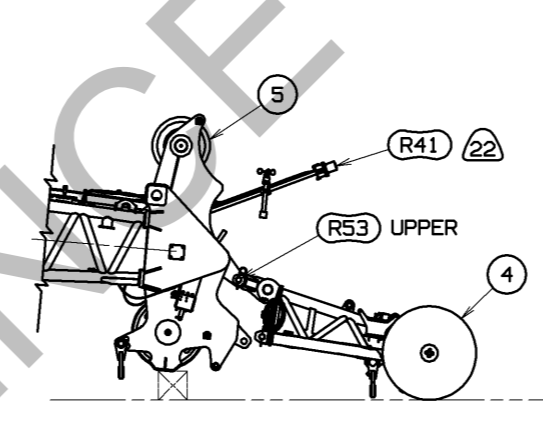
**DETAIL STEP 10A**  
SCALE 0.100



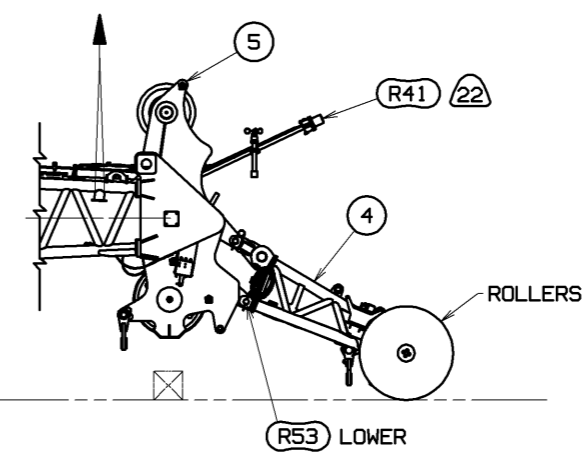
**DETAIL STEP 10B**  
SCALE 0.100



**DETAIL EE**  
SCALE 0.150

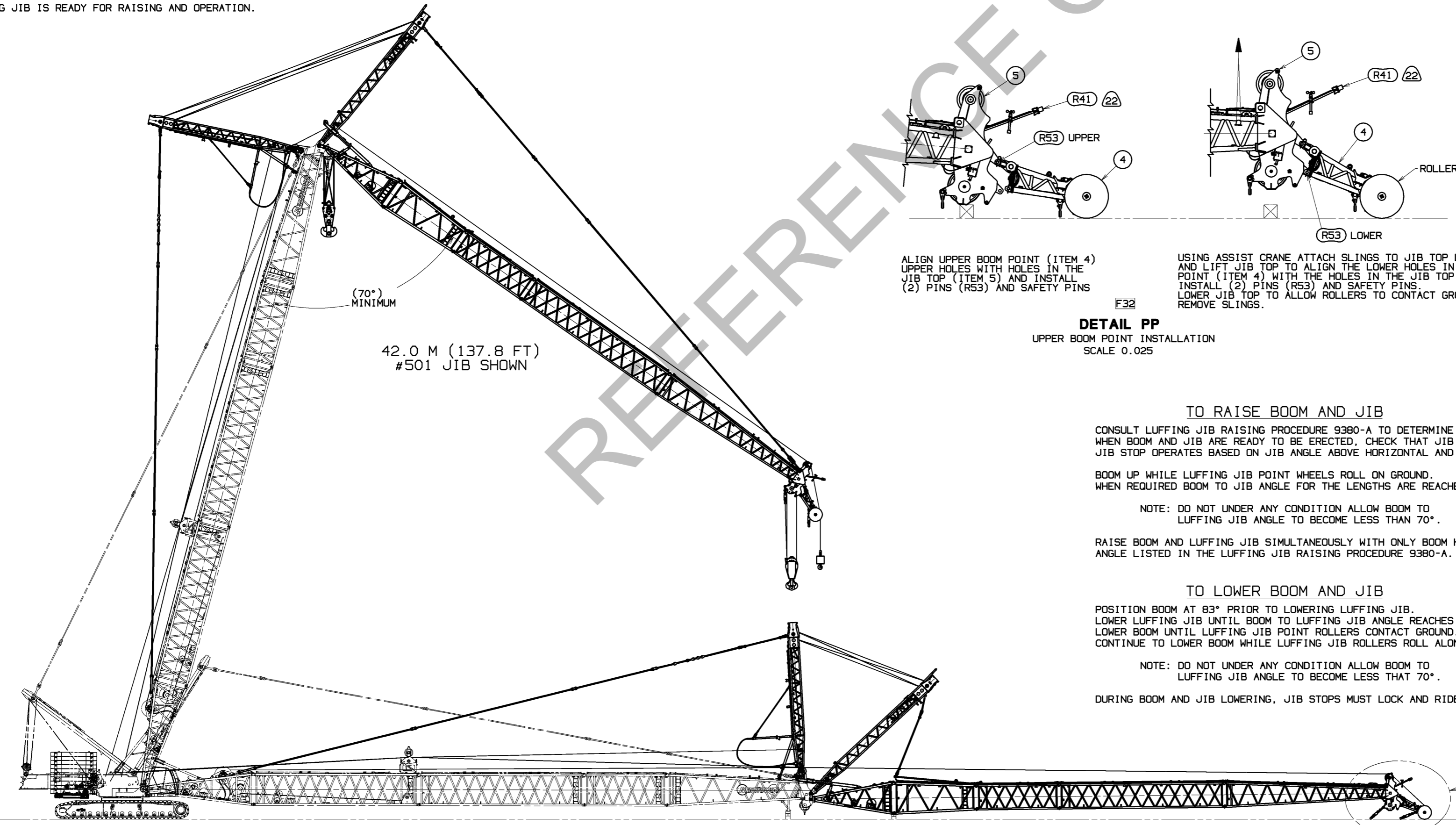


**DETAIL PP**  
UPPER BOOM POINT INSTALLATION  
SCALE 0.025



ALIGN UPPER BOOM POINT (ITEM 4) UPPER HOLES WITH HOLES IN THE JIB TOP (ITEM 5) AND INSTALL (2) PINS (R53) AND SAFETY PINS

USING ASSIST CRANE ATTACH SLINGS TO JIB TOP LIFTING LUGS AND LIFT JIB TOP TO ALIGN THE LOWER HOLES IN THE UPPER POINT (ITEM 4) WITH THE HOLES IN THE JIB TOP (ITEM 5). INSTALL (2) PINS (R53) AND SAFETY PINS. LOWER JIB TOP TO ALLOW ROLLERS TO CONTACT GROUND. REMOVE SLINGS.



42.0 M (137.8 FT)  
#501 JIB SHOWN

(70°)  
MINIMUM

**TO RAISE BOOM AND JIB**

CONSULT LUFFING JIB RAISING PROCEDURE 9380-A TO DETERMINE WHEN LOWER POINTS NEED TO BE REMOVED. WHEN BOOM AND JIB ARE READY TO BE ERECTED, CHECK THAT JIB STOP LATCH AND LOCK OPERATE FREELY. JIB STOP OPERATES BASED ON JIB ANGLE ABOVE HORIZONTAL AND REQUIRES NO FURTHER OPERATOR INTERACTION.

BOOM UP WHILE LUFFING JIB POINT WHEELS ROLL ON GROUND. WHEN REQUIRED BOOM TO JIB ANGLE FOR THE LENGTHS ARE REACHED, REMOVE EXCESS JIB PENDANT SLACK.

NOTE: DO NOT UNDER ANY CONDITION ALLOW BOOM TO LUFFING JIB ANGLE TO BECOME LESS THAN 70°.

RAISE BOOM AND LUFFING JIB SIMULTANEOUSLY WITH ONLY BOOM HOIST UNTIL BOOM REACHES ANGLE LISTED IN THE LUFFING JIB RAISING PROCEDURE 9380-A.

**TO LOWER BOOM AND JIB**

POSITION BOOM AT 83° PRIOR TO LOWERING LUFFING JIB. LOWER LUFFING JIB UNTIL BOOM TO LUFFING JIB ANGLE REACHES VALUE SPECIFIED IN LUFFING JIB RAISING PROCEDURE 9380-A. LOWER BOOM UNTIL LUFFING JIB POINT ROLLERS CONTACT GROUND. CONTINUE TO LOWER BOOM WHILE LUFFING JIB ROLLERS ROLL ALONG GROUND.

NOTE: DO NOT UNDER ANY CONDITION ALLOW BOOM TO LUFFING JIB ANGLE TO BECOME LESS THAN 70°.

DURING BOOM AND JIB LOWERING, JIB STOPS MUST LOCK AND RIDE OVER TOP OF JIB STOP TUBES. (SEE DETAIL M ON SHEET 7).

SEE DETAIL PP

48.0 M (157.5 FT)  
#500 BOOM SHOWN  
SCALE 0.008

**SUPERSEDES 81023383. ALL SHEETS, OF 04-17-16**

DECIMAL PLACES	FABRICATION	MACHINING	DATE	BY	CHK	APP	REV.
(1) PLACE 0.1	± 0.12	± 0.18	09-09-15	DLG	DLG	DLG	1
(2) PLACE 0.00	± 0.08	± 0.12					
(3) PLACE 0.000	± 0.008	± 0.012					

PRIVATE LABELING REQUIREMENT TO CONFORM TO SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN 09300-05-005

DATE 09-09-15

REV. 1

81023383

SHT 11 OF 15

DISASSEMBLY PROCEDURE FOR THE REMOVING OF STRUTS PRIOR TO REMOVAL OF JIB BUTT AND TRANSITION INSERT

DISASSEMBLY PROCEDURE 1

JIB STRUT TIE OFF

(REVERSE OF STEP 10 ON SHEET 11)  
LUFF DOWN TO DETACH STRAP/LINK CONNECTION AT TRANSITION INSERT (ITEM 1) AND #501 INSERT. (SEE DETAIL STEP 10B ON SHEET 11).

DETACH BASIC STRAP (R27) FROM FRONTSTAY SPREADER (R25).  
ATTACH HOLD BACK LINKS (R24) TO BASIC STRAP (R27). (SEE DETAIL STEP 10A ON SHEET 11).

DETACH #501 JIB INSERTS FROM TRANSITION INSERT (ITEM 1).  
ATTACH STRUT RAISING PENDANT (R37) TO LOAD LINE.

DISASSEMBLY PROCEDURE 2

STRUT STOP DISCONNECT

(REVERSE OF STEP 9 ON SHEET 10)  
PAY OUT LUFFING JIB HOIST LINE (DRUM 6) TO ALLOW LOCKING OF MAIN STRUT STOP TUBES (R14). (SEE DETAIL STEPS 9C AND 9B ON SHEET 10).

WITH MAIN STRUT STOP (R14) RETRACTED TEMPORARILY REMOVE THE MAIN PIN FROM THE END OF THE MAIN STRUT STOP AND STOW STRUT STOP TO MAIN STRUT (R12).  
RETURN MAIN PIN TO END OF MAIN STRUT STOP (R14). (SEE DETAIL STEP 9A ON SHEET 10).

DISASSEMBLY PROCEDURE 3

BACKSTAY DISCONNECT AND MAIN STRUT LOWERING

(REVERSE OF STEP 8 ON SHEET 10 AND STEP 7 ON SHEET 9)  
PAY OUT LUFFING HOIST TO POSITION SPREADER (R18) AND MAIN STRUT BACKSTAY STRAPS (R31) VERTICALLY. WITH LINKS (R32) HORIZONTALLY SUPPORTED ON BOOM TOP STRAP BRACKETS. DISCONNECT ADJUSTABLE BACKSTAY STRAP (R31) FROM LINKS (R32). (SEE DETAIL CC ON SHEET 9).  
CAUTION: IF USING POSITIONS B, C, OR D DO NOT ALLOW ADJUSTABLE BACKSTAY STRAP (R31) TO EXTEND INTO BOOM TOP. STRAP CAN CATCH ON BOOM TOP AND DAMAGE LACINGS.

ATTACH RIGGING WINCH LINE (R202) TO THE MAIN STRUT RAISING ARM (R45).  
CAUTION: IF RIGGING WINCH IS NOT USED MAIN STRUT RAISING ARM (R45) MAY COLLAPSE SUDDENLY WHEN LOAD LINE IS PAYED OUT CAUSING LOAD LINE AND DEAD END TO DROP ONTO BOOM TOP.

PAY IN LUFFING HOIST TO BRING MAIN STRUT TOWARD VERTICAL. [CONTROL OF ITS ANGLE WILL TRANSITION FROM THE LUFFING HOIST LINE TO THE LOAD LINE ATTACHED TO THE RAISING PENDANT (R37)].  
CONTINUE TO PAY OUT LOAD LINE WHILE PAYING IN LUFFING HOIST LINE (DRUM 6), ENSURING THAT THE LUFFING HOIST REEVEING DOES NOT BECOME SLACK. LOWER THE MAIN STRUT UNTIL THE HEAD IS RESTING ON THE PLASTIC PAD ON THE JIB STRUT.

NOTE: DO NOT ALLOW THE JIB STRUT (R13) OR TRANSITION INSERT (ITEM 1) TO RAISE MORE THAN 300mm (12 INCHES) ABOVE GROUND OR BLOCKING.

CONTROL HOIST SPEED BY WATCHING THE SLACK IN THE HOLD DOWN LINKS/JIB STRUT BASIC STRAPS (R24)(R27)(R104)(R26).

WITH RIGGING WINCH LINE (R202) CONTROLLING MAIN STRUT RAISING ARM (R45), DETACH LOAD LINE FROM STRUT RAISING PENDANT (R37) AND STOW FREE END OF PENDANT (R37) ON RAISING ARM (R45). (SEE DETAIL AA ON SHEET 9).

PAY OUT RIGGING WINCH LINE (R202) LOWERING THE MAIN STRUT RAISING ARM (R45) INTO STOWAGE POSITION. ENGAGE LOCKING PINS TO SECURE RAISING ARM (R45). (SEE DETAIL Z ON SHEET 9).  
DETACH RIGGING WINCH LINE (R202) FROM MAIN STRUT RAISING ARM (R45).

DISASSEMBLY PROCEDURE 4

BACKSTAY STRAP STOWAGE ON MAIN STRUT

RELOCATE STRAPS/LINKS (R32)(R33)(R104) AND PINS/COLLARS (R100)(R103)(R110)(R111) FROM BOOM TOP (SEE DETAIL CC ON SHEET 9) TO STOWED POSITION ON MAIN STRUT (R12). (SEE DETAIL Y AND DETAIL AA ON SHEET 9).

ENGAGE LOCKING PINS TO SECURE BACKSTAY STRAPS (R31) AND SPREADER ASSY (R18) IN SHIPPING POSITION. (SEE DETAIL BB ON SHEET 9).

DISASSEMBLY PROCEDURE 5

MAIN STRUT DISASSEMBLY

(REVERSE OF STEP 5 ON SHEET 8)  
USING AN ASSIST CRANE TO SUPPORT THE MAIN STRUT (R12), DETACH THE MAIN STRUT HINGE FROM THE BOOM TOP. HINGE PINS (R40) AND COLLARS (R39) ARE TO REMAIN WITH BOOM TOP. (SEE SECTION X-X ON SHEET 8).  
CONTINUE TO SUPPORT MAIN STRUT UNTIL STRUT SUPPORTS (R46) BETWEEN THE STRUTS CAN BE CONNECTED. (SEE DETAIL W2 ON SHEET 8).

LOWER MAIN STRUT ONTO JIB STRUT AND ATTACH SHIPPING LINKS LOCATED ON THE HINGE END. (SEE DETAIL V ON SHEET 8).

DISASSEMBLY PROCEDURE 6

STRUT SUCKER LINE REEVEING

(REVERSE OF STEP 4 ON SHEET 8)  
DETACH LUFFING HOIST LINE (DRUM 6) FROM MAIN STRUT (R12) DEAD END (R38). (SEE DETAIL W2 ON SHEET 8).  
ATTACH SUCKER LINE (R206) AND SHACKLE (R207) TO UNATTACHED END OF LUFFING HOIST LINE. (SEE DETAIL V ON SHEET 8 FOR ROPE CONNECTION).  
PAY IN HOIST LINE BRINGING SUCKER LINE INTO REEVEING.  
DETACH HOIST LINE AND SECURE BOTH ENDS OF SUCKER LINE (R206) PER DETAIL V AND W1 ON SHEET 8.

DISASSEMBLY PROCEDURE 7

JIB STRUT DISASSEMBLY

(REVERSE OF STEP 2 ON SHEET 7)  
USING AN ASSIST CRANE TO SUPPORT THE MAIN STRUT (R12) AND JIB STRUT (R13).  
DETACH BASIC STRAP (R27) FROM SHIPPING/HOLD DOWN LINKS.  
POSITION JIB STRUT BASIC STRAPS (R27)(R104)(R26) TO SHIPPING BRACKET AND ENGAGE LOCKING PIN.  
REPIN SHIPPING/HOLD DOWN LINK (R24) TO SPREADER (R25) LOCATED ON TRANSITION INSERT (ITEM 1). (SEE DETAIL T ON SHEET 7).

DETACH JIB STRUT (R13) FROM JIB STRUT HINGE ON BOOM TOP. HINGE PINS (R47). COLLARS (R43) AND RETAINING HARDWARE TO BE REASSEMBLED INTO JIB STRUT HINGE FOR SHIPPING. (SEE DETAIL R AND SECTION S-S ON SHEET 7).

TRAILER STRUT #502 SHIPPING ASSY (ITEM 6).

DISASSEMBLY PROCEDURE 8

JIB DISASSEMBLY

(REVERSE OF STEP 1 ON SHEET 7)  
USING AN ASSIST CRANE DETACH TRANSITION INSERT (ITEM 1) FROM JIB BUTT (ITEM 2).

USING AN ASSIST CRANE TO SUPPORT JIB BUTT (ITEM 2), DETACH JIB BUTT FROM JIB BUTT HINGE ON BOOM TOP.  
POSITION HINGE PINS (R48), COLLARS (R44), KEEPER PLATES (R49) AND RETAINING HARDWARE TO SHIPPING POSITION ON JIB BUTT. (SEE DETAIL N ON SHEET 7).

ALTERNATE DISASSEMBLY PROCEDURE FOR THE REMOVING OF JIB PRIOR TO REMOVAL OF STRUTS

ALTERNATE DISASSEMBLY PROCEDURE 1

JIB STRUT TIE OFF

(REVERSE OF ALTERNATE STEP 8 ON SHEET 15)  
LUFF DOWN TO DETACH STRAP/LINK CONNECTION AT TRANSITION INSERT (ITEM 1) AND #501 INSERT. (SEE DETAIL STEP 10B ON SHEET 11).

DETACH BASIC STRAP (R27) FROM FRONTSTAY SPREADER (R25) AND SECURE IT TO JIB STRUT (R13). (SEE DETAIL UU ON SHEET 15).

DETACH #501 JIB INSERTS AND TOP FROM PRE-ASSEMBLED JIB SECTIONS. (SEE SHEET 15).  
DETACH RAISING PENDANT (R37) FROM STOWAGE BRACKET (SEE DETAIL EE ON SHEET 11) AND ATTACH THE FREE END OF THE PENDANT TO AN APPROPRIATE LOAD LINE.

ALTERNATE DISASSEMBLY PROCEDURE 2

PRE-ASSEMBLED JIB SECTION REMOVAL AND STRUT STOP DISCONNECT

(REVERSE OF ALTERNATE STEP 7 ON SHEET 15)  
LUFF UP TO BRING THE JIB STRUT (R13) TOWARDS VERTICAL TO ALLOW CLEARANCE FOR REMOVAL OF PRE-ASSEMBLED JIB SECTION.

WITH JIB SECTION PROPERLY BLOCKED, DETACH JIB BUTT (ITEM 2) FROM JIB BUTT HINGE ON BOOM TOP. (SEE DETAIL R AND SECTION S-S ON SHEET 7).

REMOVE JIB STOP STRUT HAIRPIN FROM WORKING POSITION TO ALLOW JIB STOP STRUT TO RETRACT. (SEE DETAIL VV ON SHEET 15).  
USING AN ASSIST CRANE LIFT THE JIB BUTT (ITEM 2) AND PRE-ASSEMBLED JIB SECTIONS UP AND AWAY FROM THE JIB STOP LUGS ON BOTH SIDES OF THE BOOM.  
WITH THE JIB STOP STRUT NOW RETRACTED REINSTALL JIB STOP STRUT HAIRPIN IN SHIPPING POSITION. (SEE DETAIL VV ON SHEET 15).

PROVIDE BLOCKING AND (1) 10T CTWT BOX AS SHOWN IN ALTERNATE STEP 1 (SHEET 14). LOWER JIB STRUT (R13) AND ATTACH TO CTWT BOX WITH SLINGS (R204) AND SHACKLES (R210).

ALTERNATE DISASSEMBLY PROCEDURE 3

STRUT STOP DISCONNECT

(REVERSE OF STEP 9 ON SHEET 10)  
PAY OUT LUFFING JIB HOIST LINE (DRUM 6) TO ALLOW LOCKING OF MAIN STRUT STOP TUBES (R14). (SEE DETAIL STEPS 9C AND 9B ON SHEET 10).

WITH MAIN STRUT STOP (R14) RETRACTED TEMPORARILY REMOVE THE MAIN PIN FROM THE END OF THE MAIN STRUT STOP AND STOW STRUT STOP TO MAIN STRUT (R12).  
RETURN MAIN PIN TO END OF MAIN STRUT STOP (R14). (SEE DETAIL STEP 9A ON SHEET 10).

ALTERNATE DISASSEMBLY PROCEDURE 4

BACKSTAY DISCONNECT, RAISING ARM HOOK-UP & LOWERING AND MAIN STRUT LOWERING

(REVERSE OF ALTERNATE STEP 6 ON SHEET 15 AND ALTERNATE STEP 5 ON SHEET 14)  
PAY IN LOAD HOIST TO POSITION SPREADER (R18) AND MAIN STRUT BACKSTAY STRAPS (R31) VERTICALLY. WITH LINKS (R32) HORIZONTALLY SUPPORTED ON BOOM TOP STRAP BRACKETS. DISCONNECT ADJUSTABLE BACKSTAY STRAPS (R31) FROM LINKS (R32). (SEE DETAIL CC ON SHEET 9).  
CAUTION: IF USING POSITIONS B, C, OR D DO NOT ALLOW ADJUSTABLE BACKSTAY STRAP (R31) TO EXTEND INTO BOOM TOP. STRAP CAN CATCH ON BOOM TOP AND DAMAGE LACINGS.

ATTACH RIGGING WINCH LINE (R202) TO THE MAIN STRUT RAISING ARM (R45).  
CAUTION: IF RIGGING WINCH IS NOT USED MAIN STRUT RAISING ARM (R45) MAY COLLAPSE SUDDENLY WHEN LOAD LINE IS PAYED OUT CAUSING LOAD LINE AND DEAD END TO DROP ONTO BOOM TOP.

PAY IN LUFFING HOIST TO BRING MAIN STRUT (R12) TOWARD VERTICAL. [CONTROL OF ITS ANGLE WILL TRANSITION FROM THE LUFFING HOIST LINE TO THE LOAD LINE ATTACHED TO THE RAISING PENDANT (R37)].  
CONTINUE TO PAY OUT LOAD LINE WHILE PAYING IN LUFFING HOIST LINE (DRUM 6), ENSURING THAT THE LUFFING HOIST REEVEING DOES NOT BECOME SLACK. LOWER THE MAIN STRUT (R12) SLIGHTLY ABOVE HORIZONTAL ALLOWING SHIPPING STRUT (R46) ON JIB STRUT (R13) TO BE EXTENDED AND ATTACHED TO MAIN STRUT (R12). (SEE DETAIL TT ON SHEET 14).

NOTE: DO NOT ALLOW THE JIB STRUT (R13) TO RAISE MORE THAN 300mm (12 INCHES) ABOVE BLOCKING.

WITH RIGGING WINCH LINE (R202) CONTROLLING MAIN STRUT RAISING ARM (R45), DETACH LOAD LINE FROM STRUT RAISING PENDANT (R37) AND STOW FREE END OF PENDANT (R37) ON RAISING ARM. (SEE DETAIL AA ON SHEET 9).

PAY OUT RIGGING WINCH LINE (R202) LOWERING THE MAIN STRUT RAISING ARM (R45) INTO STOWAGE POSITION. ENGAGE LOCKING PINS TO SECURE RAISING ARM (R45). (SEE DETAIL Z ON SHEET 9).

ALTERNATE DISASSEMBLY PROCEDURE 5

BACKSTAY STRAP STOWAGE ON MAIN STRUT

RELOCATE STRAPS/LINKS (R32)(R33)(R104) AND PINS/COLLARS (R100)(R103)(R110)(R111) FROM BOOM TOP (SEE DETAIL CC ON SHEET 9) TO STOWED POSITION ON MAIN STRUT (R12). (SEE DETAIL Y AND DETAIL AA ON SHEET 9).

ENGAGE LOCKING PINS TO SECURE BACKSTAY STRAPS (R31) AND SPREADER ASSY (R18) IN SHIPPING POSITION. (SEE DETAIL BB ON SHEET 9).

ALTERNATE DISASSEMBLY PROCEDURE 6

MAIN STRUT DISASSEMBLY

(REVERSE OF ALTERNATE STEP 3 ON SHEET 14)  
USING AN ASSIST CRANE TO SUPPORT THE MAIN STRUT (R12), DETACH THE MAIN STRUT HINGE FROM THE BOOM TOP. HINGE PINS (R50 OR R56) AND CORRESPONDING COLLAR PINS (R40) AND COLLARS (R39) ARE TO REMAIN WITH BOOM TOP. (SEE SECTION X-X ON SHEET 8).

LOWER MAIN STRUT ONTO JIB STRUT AND ATTACH SHIPPING LINKS LOCATED ON THE HINGE END. (SEE DETAIL V ON SHEET 8).

ALTERNATE DISASSEMBLY PROCEDURE 7

STRUT SUCKER LINE REEVEING

(REVERSE OF ALTERNATE STEP 2 ON SHEET 14)  
DETACH LUFFING HOIST LINE (DRUM 6) FROM MAIN STRUT (R12) DEAD END (R38). (SEE DETAIL W2 ON SHEET 8).  
ATTACH SUCKER LINE (R206) AND SHACKLE (R207) TO UNATTACHED END OF LUFFING HOIST LINE. (SEE DETAIL V ON SHEET 8 FOR ROPE CONNECTION).  
PAY IN HOIST LINE BRINGING SUCKER LINE INTO REEVEING.  
DETACH HOIST LINE AND SECURE BOTH ENDS OF SUCKER LINE (R206) PER DETAIL V AND W1 ON SHEET 8.

ALTERNATE DISASSEMBLY PROCEDURE 8

JIB STRUT DISASSEMBLY

DETACH SLING (R204) AND SHACKLE (R210) FROM 10T CTWT BOX AND JIB STRUT (R13).

USING AN ASSIST CRANE TO SUPPORT THE MAIN STRUT (R12) AND JIB STRUT (R13).  
DETACH JIB STRUT (R13) FROM JIB STRUT HINGE ON BOOM TOP.  
HINGE PINS (R47), COLLARS (R43) AND RETAINING HARDWARE TO BE REASSEMBLED INTO JIB STRUT HINGE FOR SHIPPING. (SEE DETAIL R AND SECTION S-S ON SHEET 7).

TRAILER STRUT #502 SHIPPING ASSY (ITEM 6). SEE DETAILS QQ AND RR ON SHEET 14 FOR POSITION OF SHIPPING STRUT (R46) WHEN TRANSPORTED ON A FLATBED OR A DROP-DECK TRAILER.

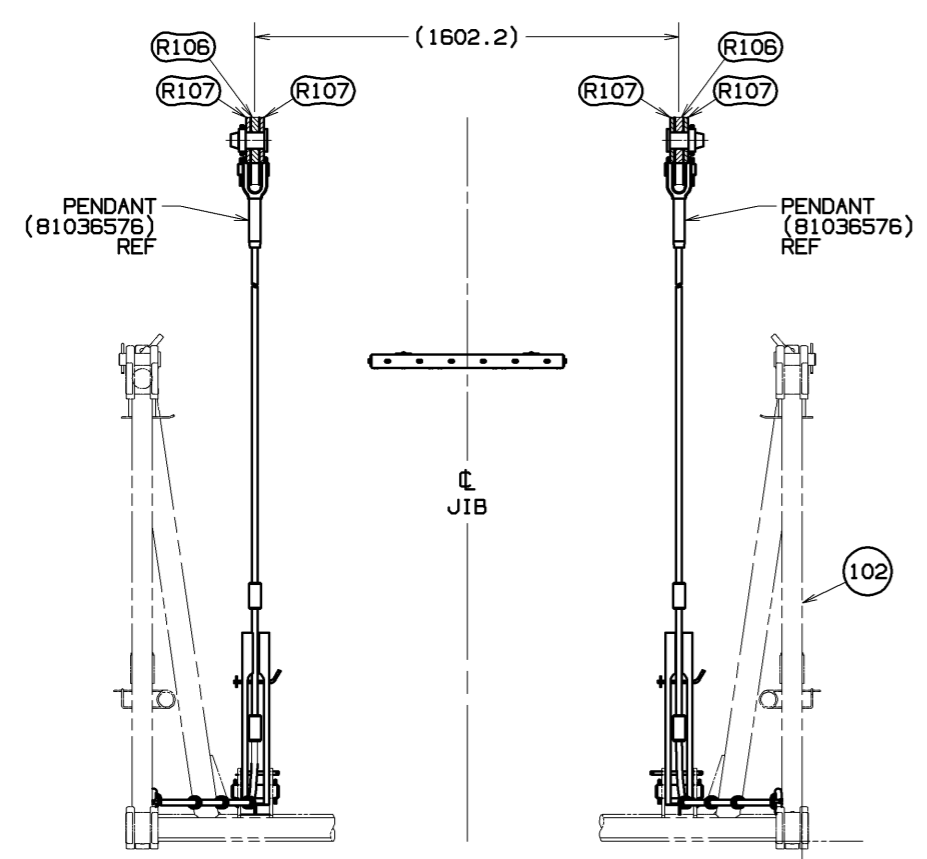
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REVISIONS table with columns: NO., DATE, DESCRIPTION, APP'D, BY

81023383 SHT 12 OF 15

SUPERSEDES 81023383. ALL SHEETS. OF 04-17-16

Technical drawing footer table containing title, company name (Manitowoc Crane, Inc.), drawing title (LUFFING JIB RIGGING), drawing number (LJ10:501 ON B10:500), and other project details.



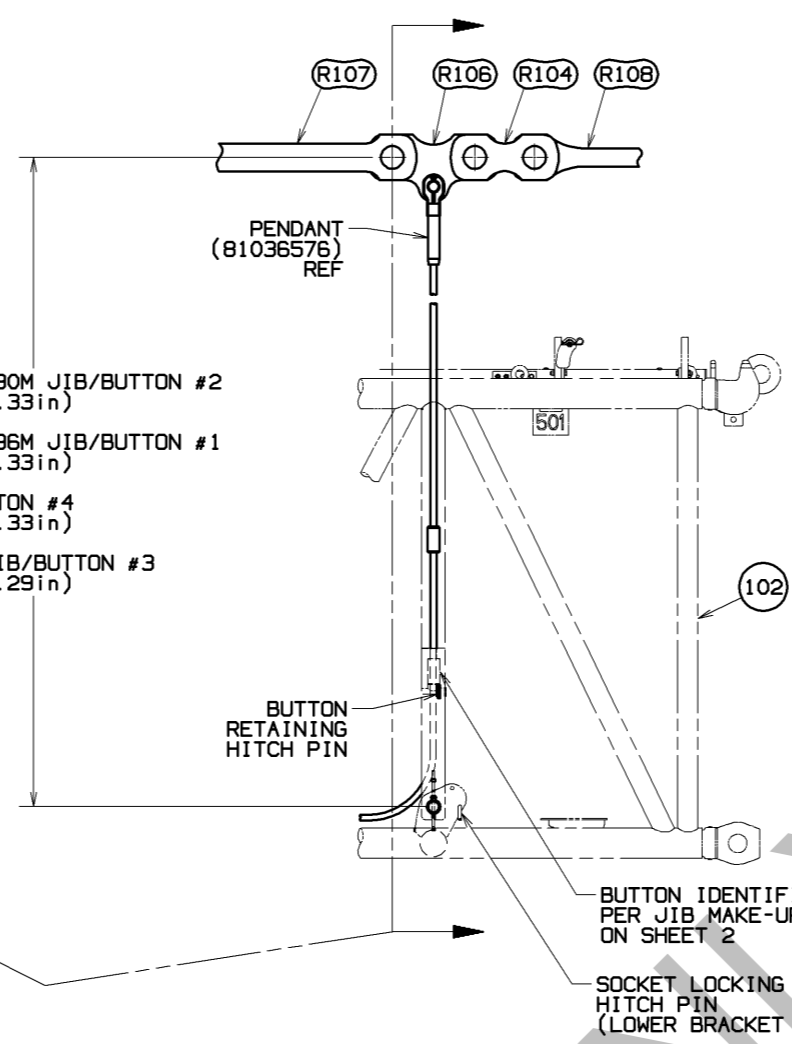
SEE 24

48M, 72M & 90M JIB/BUTTON #2  
4301mm (169.33in)

54M, 78M & 96M JIB/BUTTON #1  
3793mm (149.33in)

60M JIB/BUTTON #4  
5317mm (209.33in)

66M & 84M JIB/BUTTON #3  
4808mm (189.29in)



**DETAIL FF**  
(FROM SHEET 6)  
SCALE 0.070

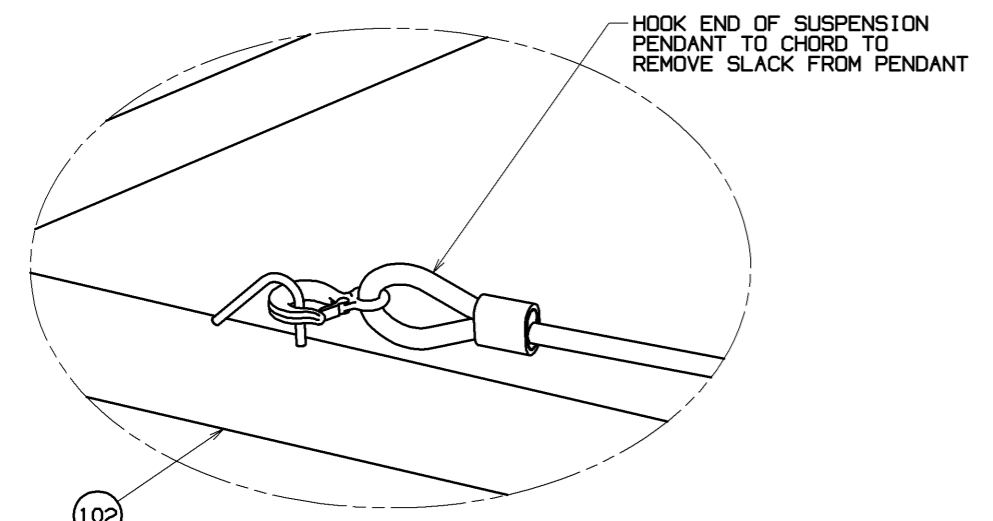
**INTERMEDIATE SUSPENSION OPERATIONAL INSTRUCTIONS**

SEE JIB MAKEUP VIEWS ON SHEETS 5 & 6 AND JIB LENGTH TABLE ON SHEET 2 FOR REQUIRED SUSPENSION AND WIRE ROPE BUTTON IDENTIFICATION LOCATION.

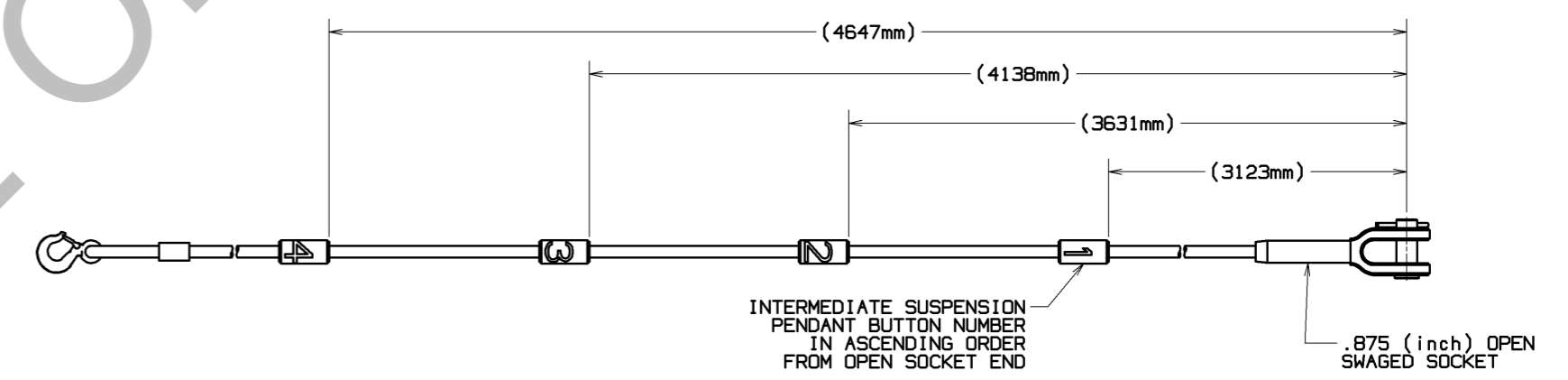
1. FROM STOWED POSITION REMOVE SOCKET LOCKING HITCH PIN FROM SOCKET AND LOWER BRACKET HOLE. (SEE DETAIL HH - STOWED)  
PIVOT SOCKET INTO ASSEMBLY PREP POSITION AND REINSTALL SOCKET LOCKING HITCH PIN INTO SOCKET AND UPPER BRACKET HOLE. (SEE DETAIL HH - ASSEMBLY PREP)
2. VERIFY THAT CORRECT PENDANT BUTTON IS INSTALLED IN SOCKET. IF NEEDED REMOVE BUTTON RETAINING HITCH PIN FROM SOCKET AND POSITION THE IDENTIFIED PENDANT BUTTON INTO SOCKET. REINSTALL BUTTON RETAINING HITCH PIN INTO SOCKET, LOCKING PENDANT IN POSITION. (SEE DETAIL HH - ASSEMBLY PREP)
3. RELOCATE SOCKET LOCKING HITCH PIN FROM SOCKET AND UPPER BRACKET HOLE TO LOWER BRACKET HOLE. (SEE DETAIL HH - WORKING)
4. BOOM UP SLOWLY AS PENDANT BECOMES TIGHT AND SOCKET PIVOTS INTO WORKING POSITION. (SEE DETAIL HH - WORKING)

FOR STOWAGE OF INTERMEDIATE SUSPENSION REVERSE SETUP INSTRUCTION STEPS 1 THRU 4, ASSURING SOCKET PIVOTS TOWARD STOWAGE POSITION.

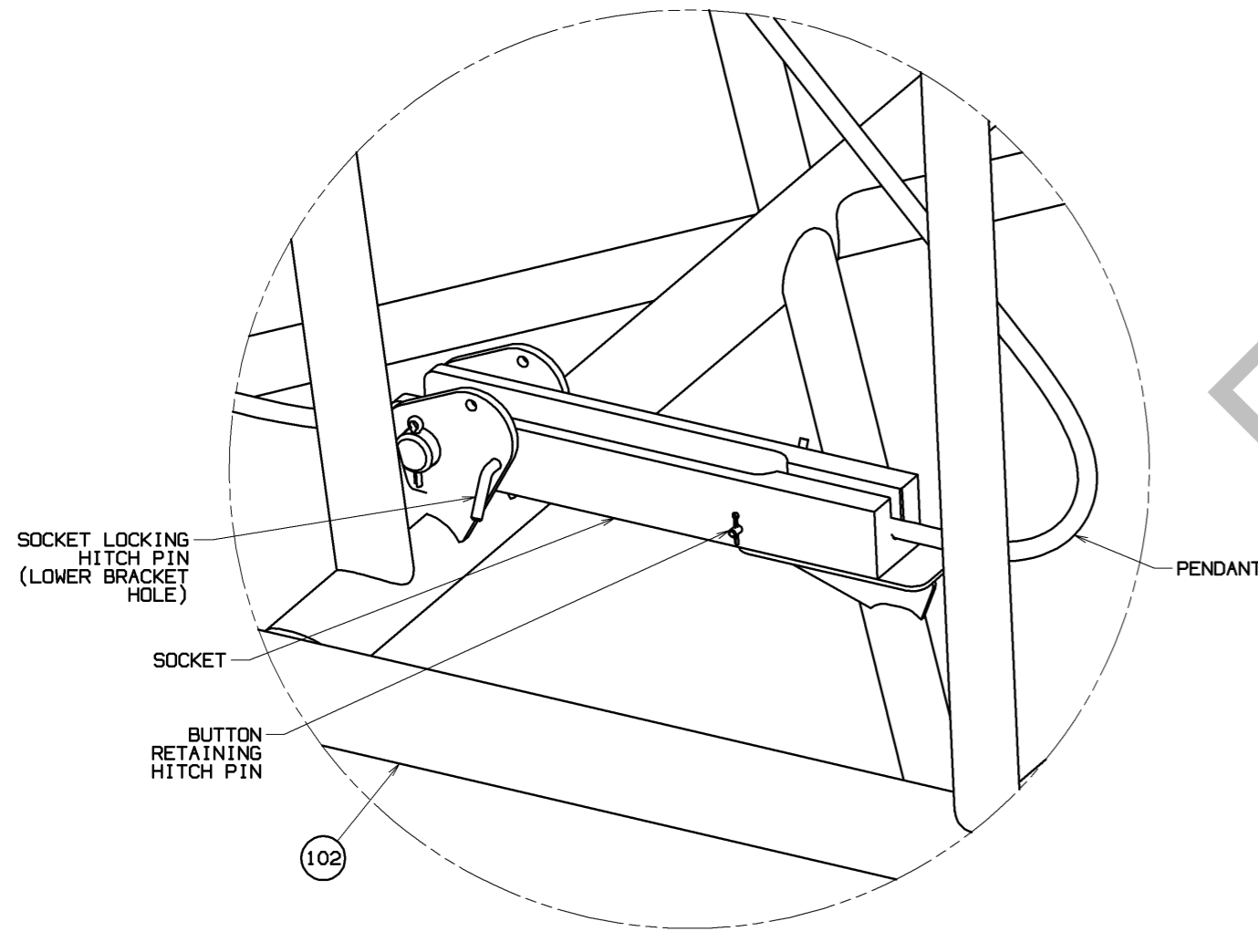
VERIFY THAT SLACK IN PENDANT ALLOWS FOR SOCKET TO PIVOT INTO STOWED POSITION. (SEE DETAIL GG).



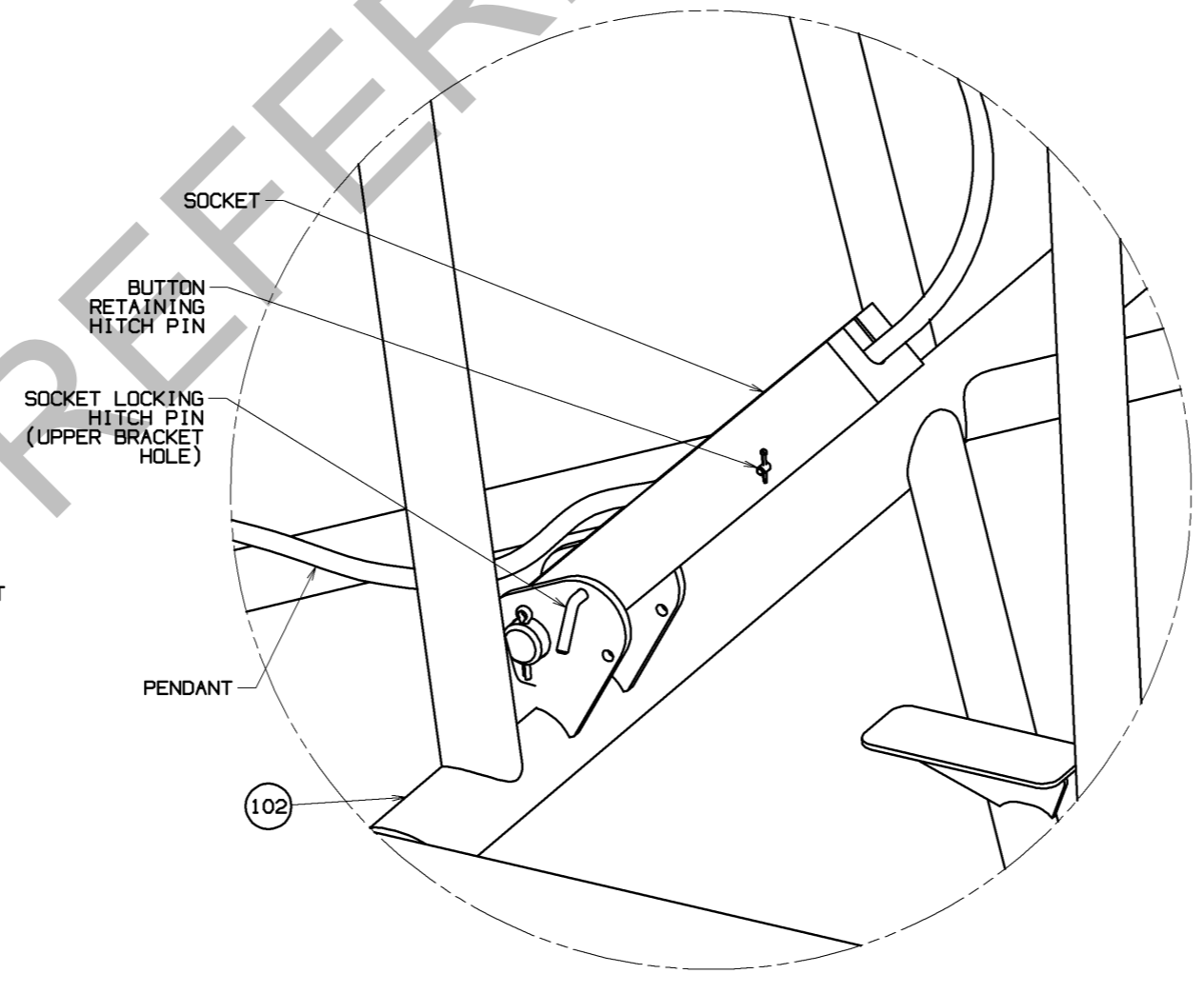
**DETAIL GG**  
(FROM SHEET 6)  
SCALE .250



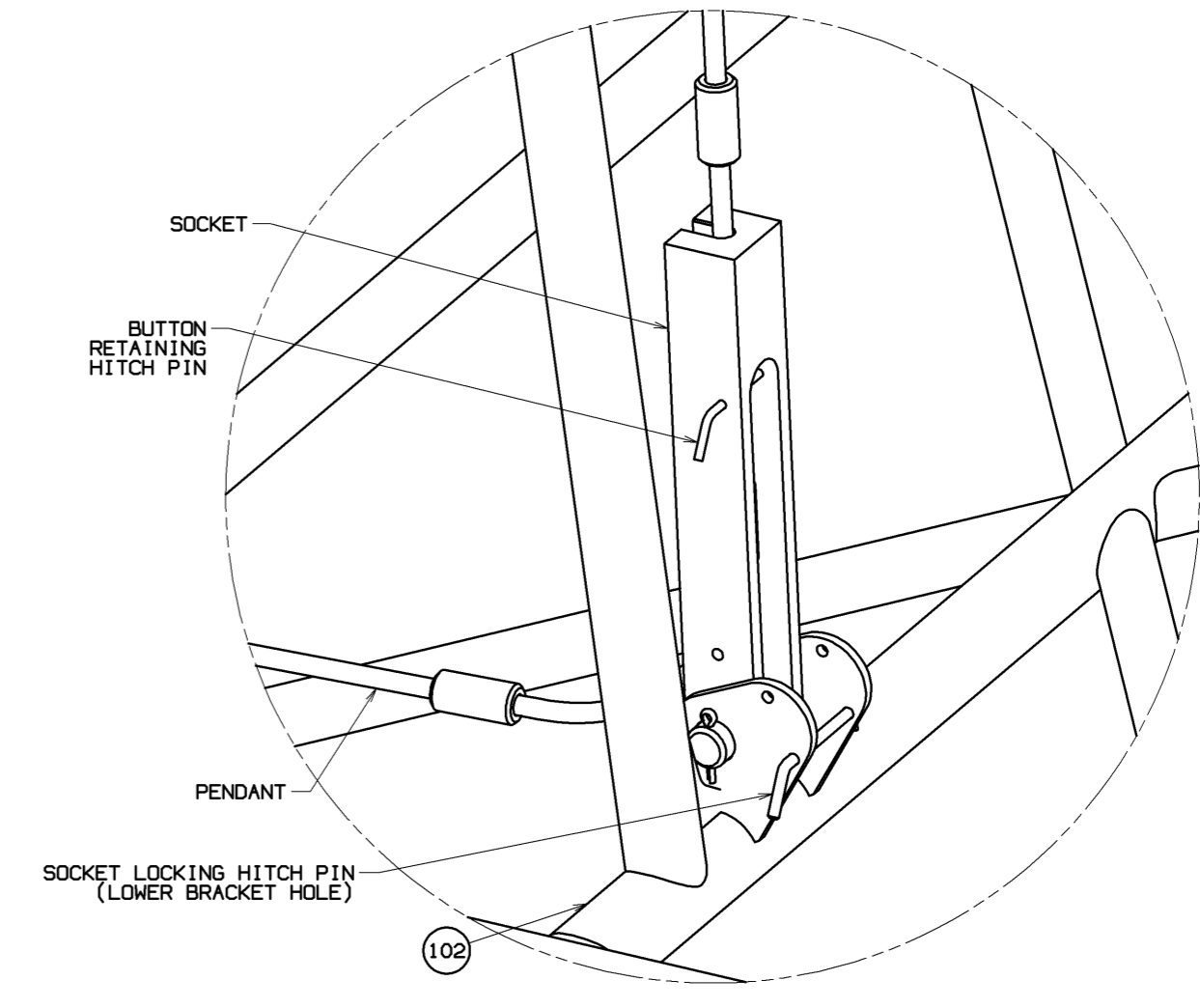
**PENDANT (81036576) BUTTON NUMBER IDENTIFICATION LOCATION**  
SCALE 0.150



**DETAIL HH - STOWED**  
(FROM SHEET 6)  
SCALE 0.250



**DETAIL HH - ASSEMBLY PREP**  
(FROM SHEET 6)  
SCALE 0.250



**DETAIL HH - WORKING**  
(FROM SHEET 6)  
SCALE 0.250

**SUPERSEDES 81023383, ALL SHEETS, OF 04-17-15**

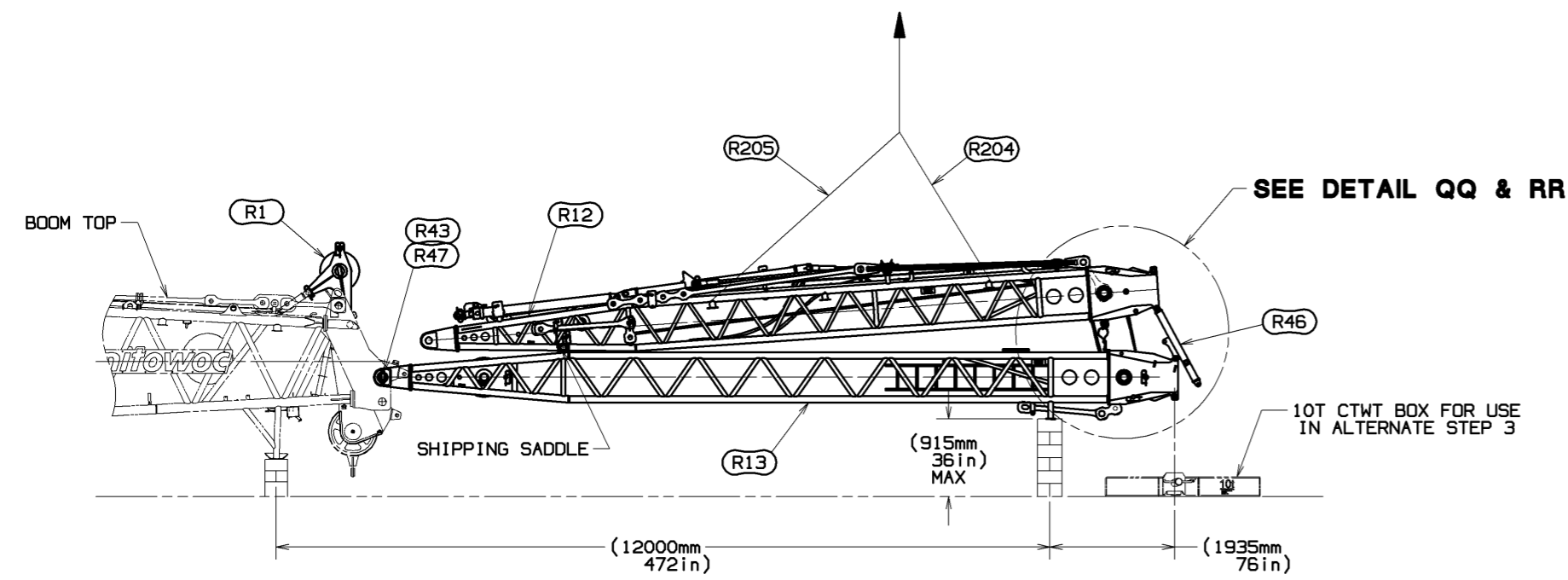
<small>THIS PRINT REMAINS THE PROPERTY OF MARITOWAC CRANES, INC. ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL. IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY MANNER WHATSOEVER DETRIMENTAL TO OUR INTERESTS.</small>	<small>TOLERANCE UNLESS OTHERWISE SPECIFIED:</small>		<small>NOTED</small> <small>DR: AJB</small> <small>CHK: RHV</small> <small>APP: DLG</small>	<small>Maritowac Cranes, Inc.</small> <small>Maritowac, Wisconsin</small> <small>MODEL: MLC300</small>	<small>LUFFING JIB RIGGING</small> <small>LJ10:501 ON B10:500</small>
	<small>DECIMAL PLACES</small> <small>F. 10 FEET &gt; 10 FEET</small>	<small>FABRICATION</small> <small>F. 10 FEET &gt; 10 FEET</small>			
	(1) PLACE 0.5	+0.12	+0.18		
	(2) PLACE 0.00	+0.08	+0.12		
	(3) PLACE 0.000	+0.005	+0.008		
	ANGLES	+1.30	+0.50		

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN SECTION 05-05E

DATE: 09-09-15  
REV: 1  
P

81023383  
SHT 13 OF 15

BILL OF MATERIAL		ASSEMBLY USED ON
QTY	DESCRIPTION	MATERIAL



**ALTERNATE STEP 1**  
JIB STRUT ASSEMBLY

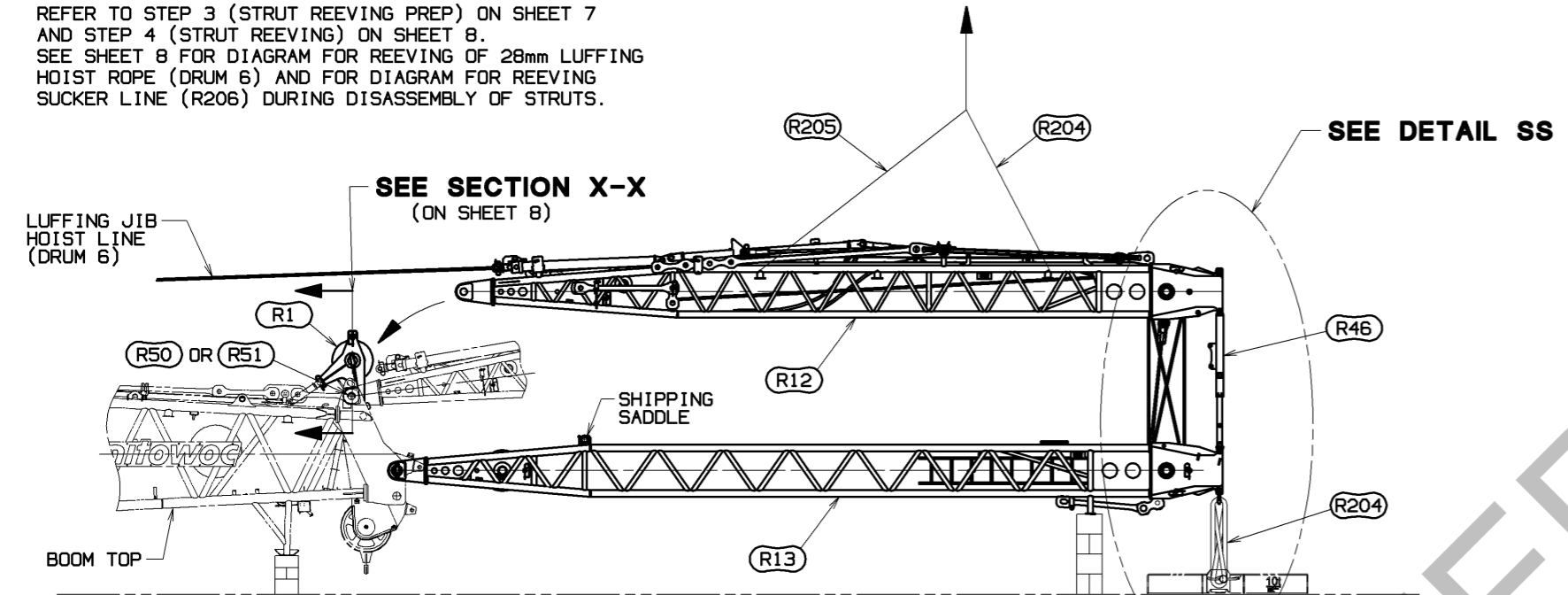
PROVIDE BLOCKING AND (1) 10T CTWT BOX AS SHOWN. USING ASSIST CRANE WITH SLINGS (R204) & (R205) AS SHOWN, LIFT THE JIB STRUT (R13) AND MAIN STRUT (R12) IN THE "AS SHIPPED" CONFIGURATION (ITEM 6) AND ATTACH JIB STRUT (R13) TO JIB STRUT HINGE ON BOOM TOP AS SHOWN.

ASSEMBLE JIB STRUT HINGE PIN (R47) AND TEMPORARILY ATTACH COLLARS (R43) AND PINS TO RETAIN THE HINGE PIN. (REFER TO DETAIL R AND SECTION S-S ON SHEET 7).

IF SHIPPING STRUT (R46) IS ATTACHED PER DETAIL QQ, MAIN STRUT (R12) MAY BE ELEVATED USING ASSIST CRANE TO PIVOT AROUND SHIPPING SADDLE (SEE DETAIL V ON SHEET 8) AND RELOCATE SHIPPING STRUT (R46) TO JIB STRUT (R13) PER DETAIL RR. (REPOSITION OF THE SHIPPING STRUT WILL AID IN THE REEVING OF STRUTS PER STEP 2).

**ALTERNATE STEP 2**  
STRUT REEVING

REFER TO STEP 3 (STRUT REEVING PREP) ON SHEET 7 AND STEP 4 (STRUT REEVING) ON SHEET 8. SEE SHEET 8 FOR DIAGRAM FOR REEVING OF 28mm LUFFING HOIST ROPE (DRUM 6) AND FOR DIAGRAM FOR REEVING SUCKER LINE (R206) DURING DISASSEMBLY OF STRUTS.



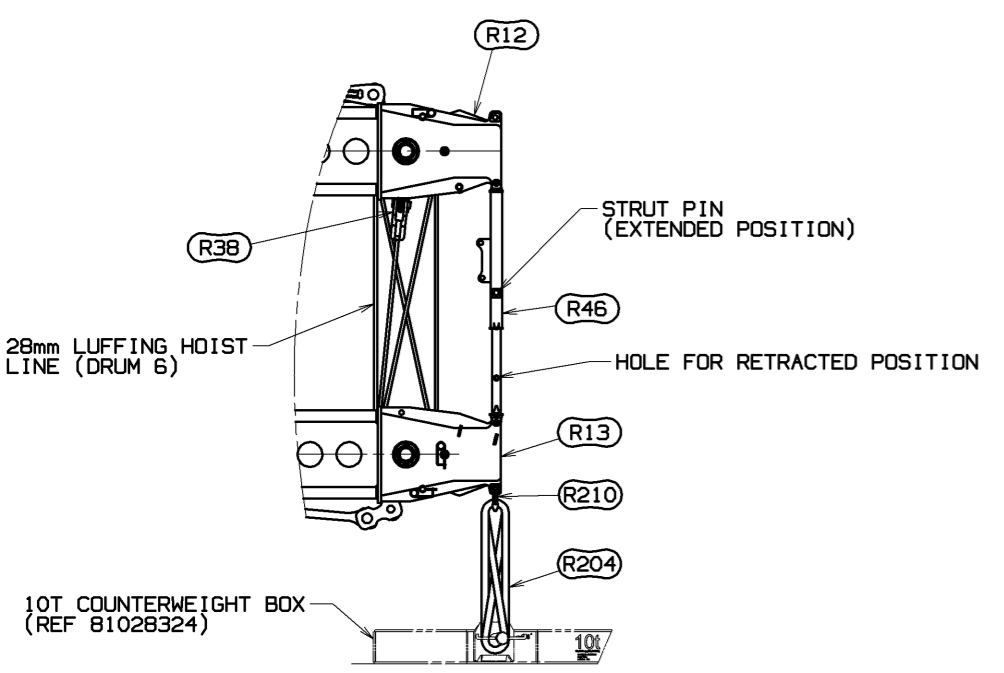
**ALTERNATE STEP 3**  
MAIN STRUT ASSEMBLY

SECURE JIB STRUT (R13) TO 10T CTWT BOX WITH SHACKLE (R210) AND DOUBLE WRAP SLING (R204) (2-PLACES). WITH SHIPPING STRUT (R46) POSITIONED AS SHOWN IN DETAIL RR, REMOVE STRUT PIN FROM SHIPPING STRUT RETRACTED POSITION. (SEE DETAIL SS).

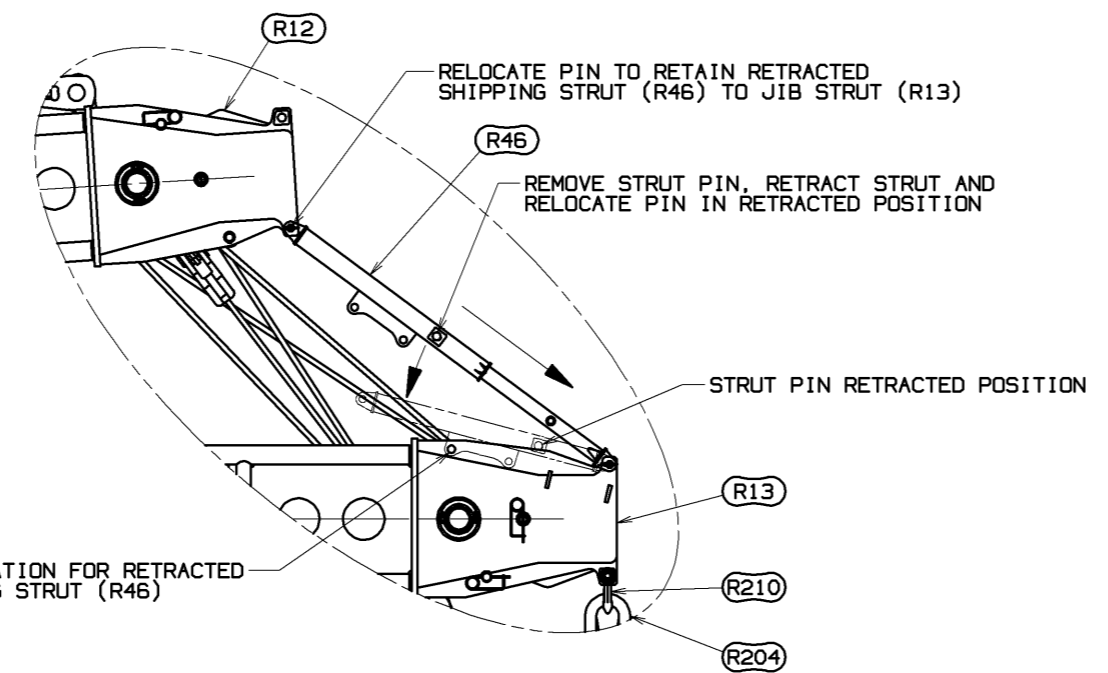
DISCONNECT THE SHIPPING LINKS AT THE SHIPPING SADDLES ON THE JIB STRUT (R13) TO ALLOW THE MAIN STRUT (R12) TO LIFT FREELY. (SEE DETAIL V ON SHEET 8). USING AN ASSIST CRANE WITH SLINGS (R204) & (R205) AS SHOWN LIFT THE MAIN STRUT (R12) FROM ITS SHIPPING POSITION WHILE PAYING OUT LUFFING HOIST LINE (DRUM 6) ALLOWING SHIPPING STRUT (R46) TO TELESCOPE TO EXTENDED POSITION. REPLACE STRUT PIN INTO SHIPPING STRUT EXTENDED POSITION. (SEE DETAIL SS).

WITH THE MAIN STRUT (R12) FREE, PIVOT MAIN STRUT HINGE TO THE BOOM TOP. SECURE MAIN STRUT HINGE PIN (R50 OR R51) WITH PROVIDED COLLARS (R39) AND PINS (R40). (SEE SECTION X-X ON SHEET 8).

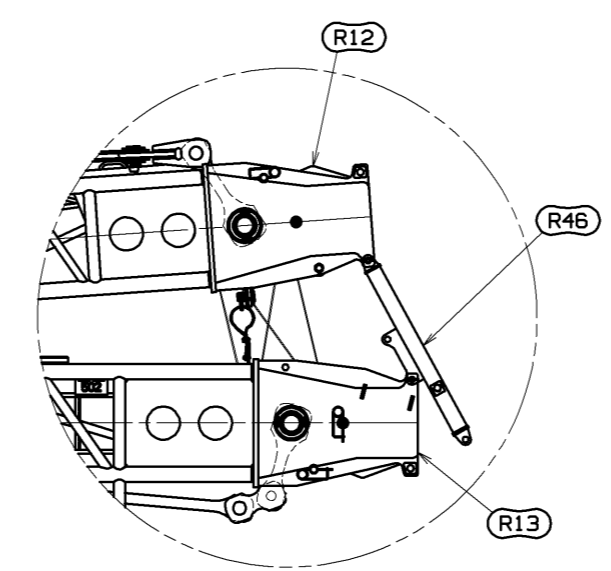
CAUTION: DO NOT ALLOW MAIN STRUT (R12) TO ROTATE BELOW HORIZONTAL WHEN PINNED TO BOOM TOP. DAMAGE MAY OCCUR.



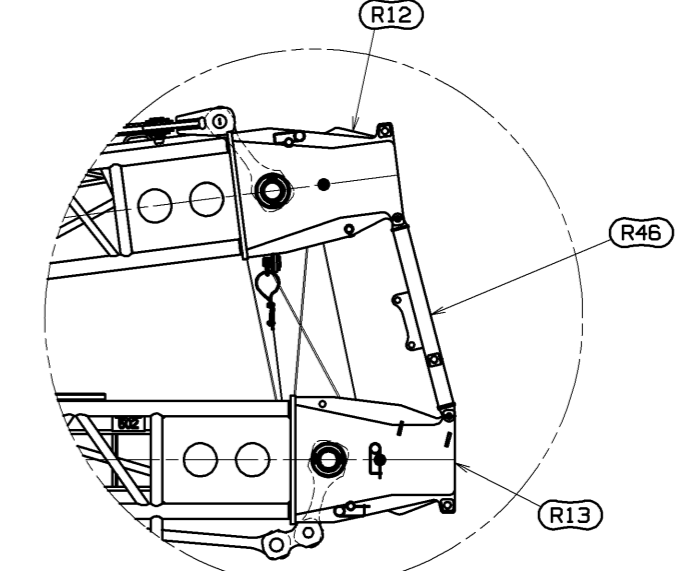
**DETAIL SS**  
SCALE 0.030



**DETAIL TT**  
SCALE 0.050



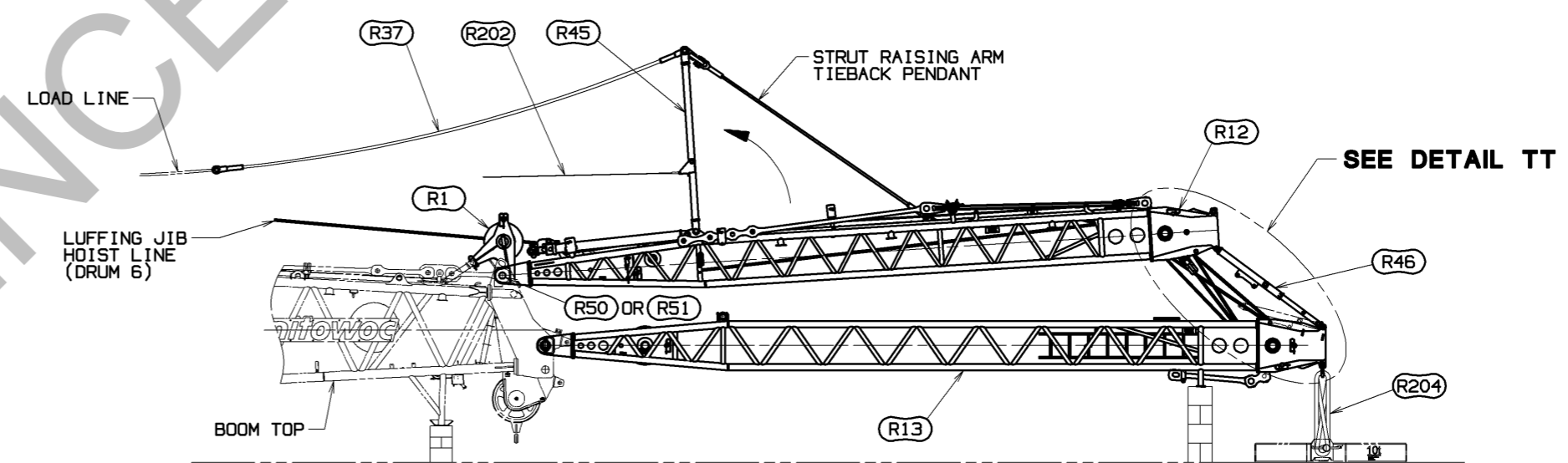
**DETAIL QQ**  
POSITION OF SHIPPING STRUT (R46) WHEN TRANSPORTED ON A FLATBED TRAILER  
SCALE 0.040



**DETAIL RR**  
POSITION OF SHIPPING STRUT (R46) WHEN TRANSPORTED ON A DROP-DECK TRAILER  
SCALE 0.040

**ALTERNATE STEP 4**  
PINS AND STRAP REMOVAL FROM MAIN STRUT (R12)

REFER TO STEP 6 (PINS AND STRAP REMOVAL FROM MAIN STRUT (R12)) ON SHEET 9 TO PREP MAIN STRUT FOR RAISING ARM HOOK UP AND BACKSTAY CONNECTION



**ALTERNATE STEP 5**  
RAISING ARM HOOK-UP

DETACH RAISING PENDANT (R37) FROM ITS SHIPPING LOCATION (SEE DETAIL AA ON SHEET 9) AND ATTACH THE FREE END OF THE PENDANT TO AN APPROPRIATE LOAD LINE. ATTACH RIGGING LINE (R202) TO MAIN STRUT RAISING ARM (R45).

NOTE: IF DRUM 2 IS EQUIPPED, DRUM 2 MUST BE USED FOR STRUT RAISING. DRUM 1 OR 3 CANNOT BE USED. THE LOAD LINE FROM DRUM 2 MUST BE CONTAINED BETWEEN THE TWO SHEAVES ON THE WIRE ROPE GUIDES (R8 & R9). IF USING LOAD LINE FROM DRUM 1 (WITHOUT DRUM 2 EQUIPPED), THE LOAD LINE MUST LAY ON THE TOP OF THE WIRE ROPE GUIDE FRAME AND THE UPPER AND LOWER SHEAVES (R8 & R9) MUST BE REMOVED FROM THE FRAME. SPECIAL CARE MUST BE TAKEN TO ENSURE THAT THE ROPE PROPERLY SPOOLS ON THE DRUM DURING THE FOLLOWING STEPS. (SEE SECTION DD-DD ON SHEET 9)

CAUTION: IF RIGGING WINCH IS NOT USED, MAIN STRUT RAISING ARM (R45) MAY RAISE SUDDENLY WHEN LOAD LINE IS RETRACTED CAUSING LOAD LINE AND DEAD END TO DROP ONTO BOOM TOP.

PAY IN RIGGING WINCH LINE (R202) RAISING THE MAIN STRUT RAISING ARM (R45) INTO WORKING POSITION. PAY IN THE LOAD LINE UNTIL THE STRUT RAISING ARM TIE BACK PENDANT IS TAUT. AT THIS POINT THE RIGGING WINCH LINE MAY BE DISCONNECTED OR KEPT TAUT THROUGH THE RAISING PROCESS.

CONTINUE TO SUPPORT MAIN STRUT (R12) WITH LOAD LINE AND REMOVE THE STRUT PIN FROM THE SHIPPING STRUT EXTENDED LOCATION AND THE PIN ATTACHING THE SHIPPING STRUT (R46) TO THE MAIN STRUT (R12). (SEE DETAIL TT).

RETRACT SHIPPING STRUT (R46) AND RELOCATE THE STRUT PIN TO THE RETRACTED POSITION. ROTATE THE SHIPPING STRUT (R46) INTO STOWAGE POSITION ON JIB STRUT (R13). REATTACH STRUT (R46) WITH THE PIN PREVIOUSLY REMOVED FROM MAIN STRUT. (SEE DETAIL TT).

DECIMAL PLACES	FABRICATION	MACHINING	WELDING	FINISHING
(1) PLACE 0.1	± 0.12	± 0.18	± 0.05	± 0.05
(2) PLACE 0.00	± 0.08	± 0.12	± 0.015	± 0.015
(3) PLACE 0.000	± 0.005	± 0.008	± 0.005	± 0.005

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		10-19-16	PH	

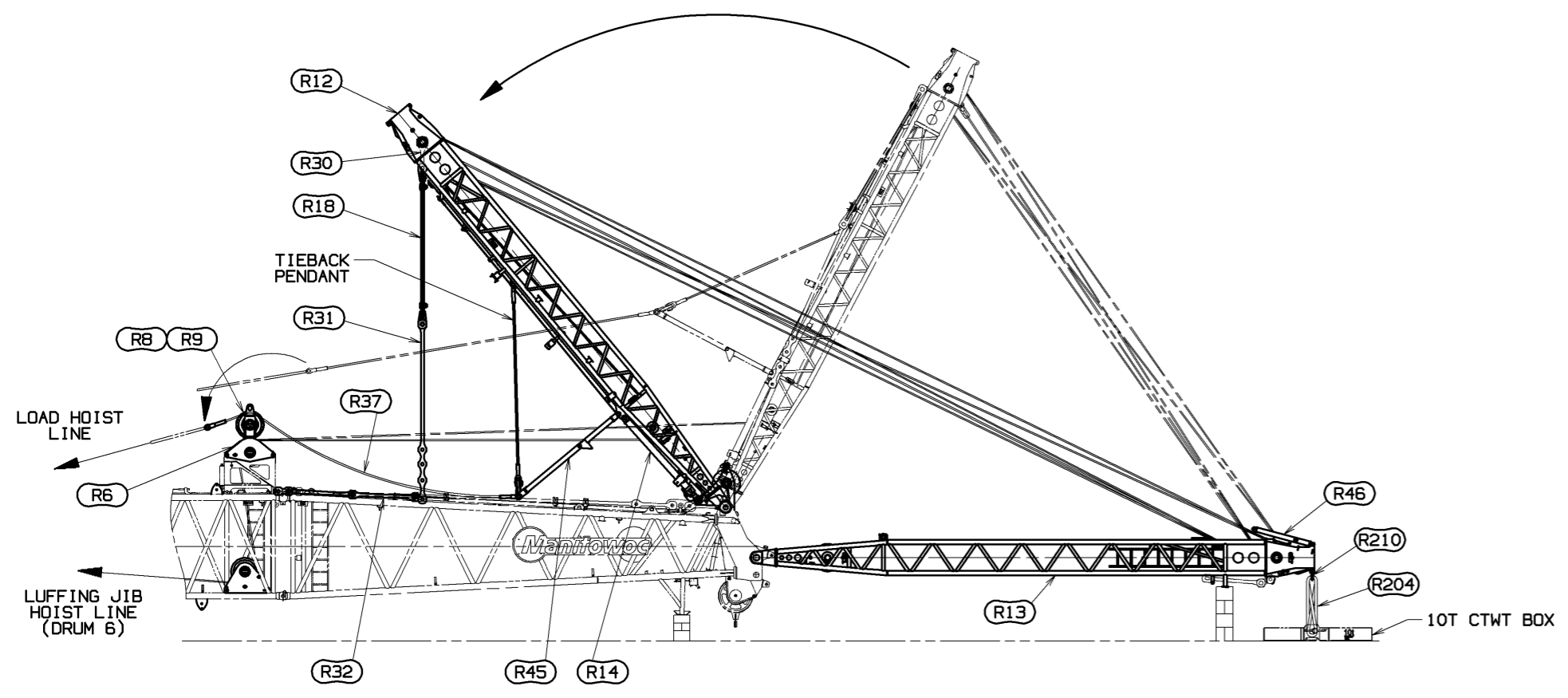
MANITOWOC CRANES, INC.	LUFFING JIB RIGGING
Marinette, Wisconsin	LJ10:501 ON B10:500
MODEL: MLC300	
APP: DLG	

81023383  
SHT 14 OF 15

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN QCS00-06-006  
DATE 10-19-16  
REV. BY PH  
REV. DATE

BILL OF MATERIAL				
NO.	QTY	DESCRIPTION	UNIT	MATERIAL

REVISIONS	
NO.	DESCRIPTION



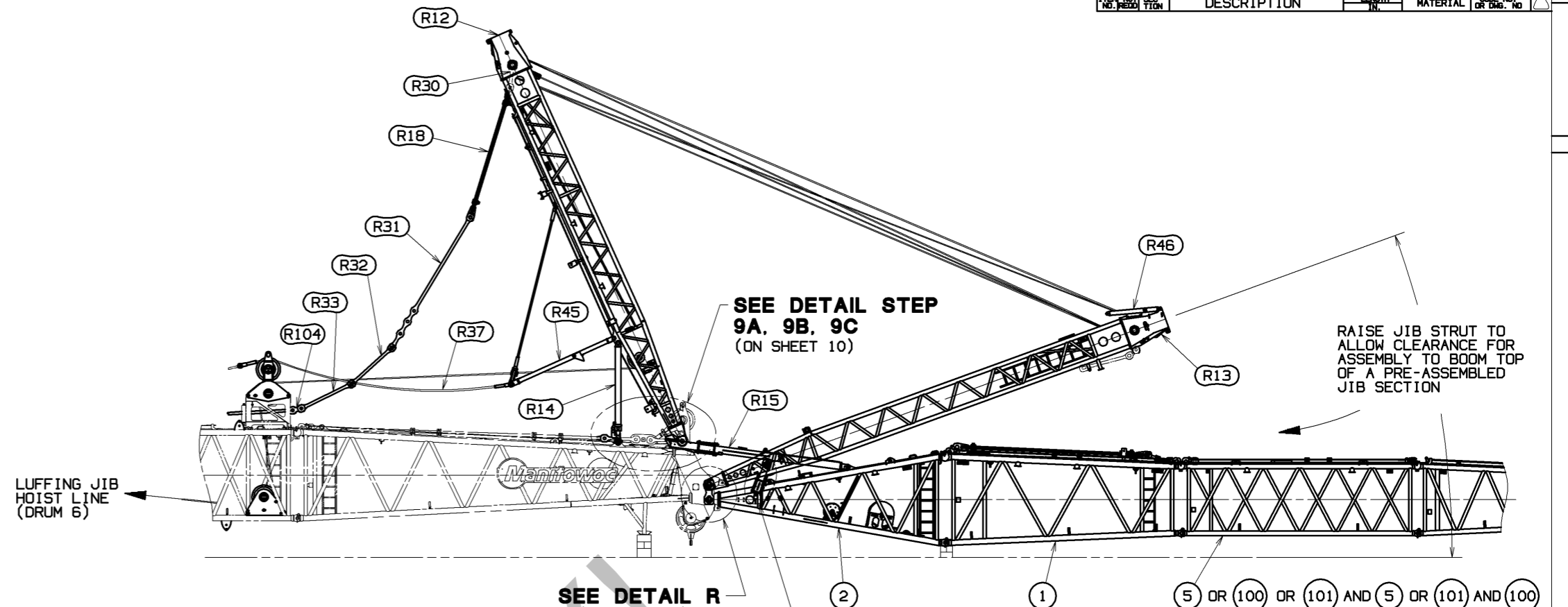
ALTERNATE STEP 6  
MAIN STRUT RAISING AND BACKSTAY CONNECTION

CONTINUE TO PAY IN LOAD HOIST, RAISING THE MAIN STRUT (R12) OVER VERTICAL, ENSURING THAT THE LUFFING HOIST REEVING DOES NOT BECOME SLACK. WITH THE MAIN STRUT BEYOND VERTICAL, CONTROL OF ITS ANGLE WILL TRANSITION FROM THE LOAD LINE (ATTACHED TO THE RAISING PENDANT R37) TO THE LUFFING HOIST (DRUM 6).

AS THE MAIN STRUT (R12) CONTINUES BEYOND VERTICAL, THE BACKSTAY STRAPS (R30)(R31) AND SPREADER (R18) WILL BEGIN TO HANG VERTICALLY. RAISE THE MAIN STRUT UNTIL THE BACKSTAY STRAPS (R31) HANG IN POSITION OVER THE LUFFING JIB BACKSTAY STRAPS LOCATED ON THE MAIN BOOM.

ATTACH THE LINKS (R32) FROM THE MAIN BOOM TOP TO THE ADJUSTABLE BACKSTAY STRAP (R31). VERIFY HOLE LOCATION (A,B,C, OR D) PER BOOM LENGTH TABLE ON SHEET 2 AND DETAIL G ON SHEET 4.

CAUTION: IF USING POSITIONS B,C, OR D DO NOT ALLOW ADJUSTABLE BACKSTAY STRAP (R31) TO EXTEND INTO BOOM TOP. STRAP CAN CATCH ON BOOM TOP AND DAMAGE LACINGS.



ALTERNATE STEP 7  
STRUT STOP CONNECTION AND JIB BUTT ASSEMBLY

PAY IN THE LUFFING JIB HOIST LINE (DRUM 6) TO BRING THE MAIN STRUT (R12) BACK TOWARDS VERTICAL AND TO POSITION STRUT STOP (R14) OVER THE STOP LUG ON THE MAIN BOOM TOP. WITH MAIN STRUT STOP (R14) IN STOWED POSITION REMOVE STRUT STOP STOWAGE LOCKING PINS, ALLOWING STOP TO HANG VERTICALLY ABOVE THE STOP LUGS. PLACE LOCKING PINS IN THE TABS ON THE BRACKET. TEMPORARILY REMOVE THE MAIN PIN FROM THE END OF THE MAIN STRUT STOP (R14). (SEE DETAIL STEP 9A ON SHEET 10)

REMOVE THE CENTER PIN FROM ITS SHIPPING LOCATION ON THE MAIN STRUT STOP AND ALLOW THE INNER MOST TUBE TO TELESCOPE OUTWARD UNTIL THE END OF THE STOP CAN BE CONNECTED TO THE STOP LUG USING THE PREVIOUSLY REMOVED MAIN PIN. (SEE DETAIL STEP 9B ON SHEET 10)

BEGIN RETRACTING THE LUFFING JIB HOIST LINE (DRUM 6) WHILE ALLOWING THE INNER MOST STOP TUBE TO TELESCOPE. WHEN THE CENTER HUB ON THE INNER MOST TUBE IS ALIGNED WITH THE EQUIVALENT HOLE ON THE MIDDLE STOP TUBE, USE THE CENTER PIN (REMOVED IN DETAIL STEP 9B ON SHEET 10) TO LOCK THE TUBES TOGETHER. REMOVE THE SHIPPING PIN CONNECTING THE MIDDLE TUBE TO THE OUTER MOST TUBE AND STORE PIN IN THE REAR MOST SET OF HOLES. (SEE DETAIL STEP 9C ON SHEET 10)

PAYOUT THE LUFFING JIB HOIST LINE (DRUM 6) UNTIL THE MAIN STRUT (R12) RESTS ON THE MAIN STRUT STOPS (R14). (SEE ALTERNATE STEP 8 VIEW). DETACH THE LOAD LINE FROM THE STRUT RAISING PENDANT (R37) AND ATTACH END OF STRUT RAISING PENDANT TO STRUT STOP STOWAGE BRACKET. (SEE ALTERNATE STEP 8 VIEW ON SHEET 15 AND SEE DETAIL EE ON SHEET 11).

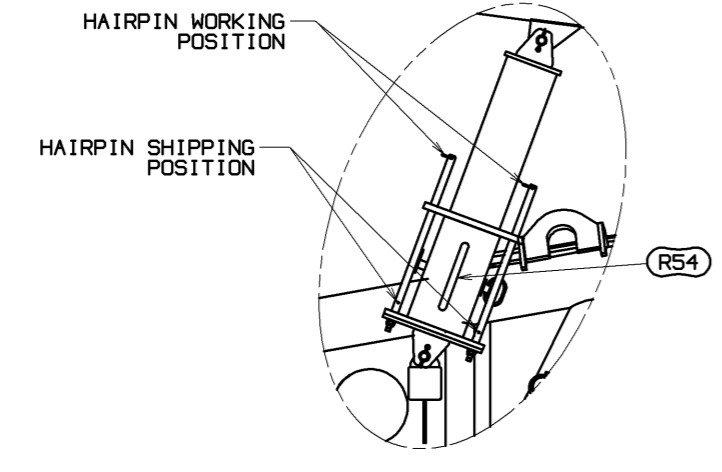
DETACH 10T CTWT BOX FROM JIB STRUT (R13) AND STOW SLINGS (R209) AND SHACKLES (R210) IN PARTS BOX 81028769.

PRE-ASSEMBLE (PER DESIRED JIB CONFIGURATION) THE #501 JIB BUTT (ITEM 2) AND #500/501 TRANSITION INSERT (ITEM 1) TO INSERTS AND/OR JIB TOP AS SHOWN.

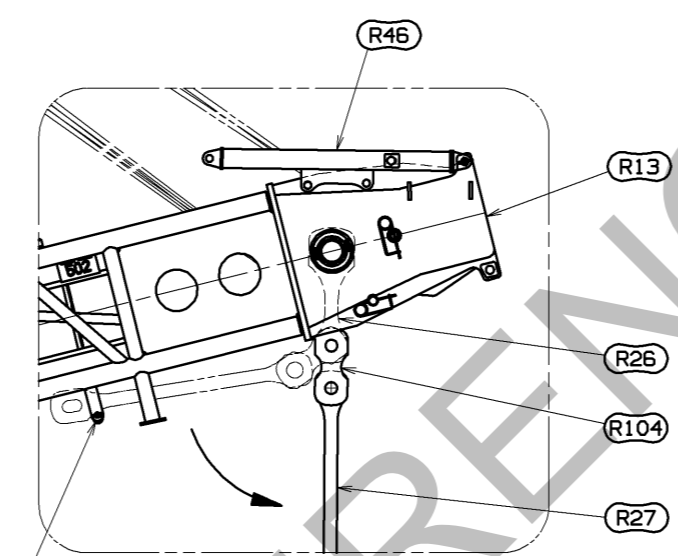
USING ASSIST CRANE AND STAND ASSEMBLY (R54) RAISE JIB STOPS TO ASSEMBLY POSITION. RELOCATE JIB STOP STRUT HAIRPIN FROM SHIPPING POSITION TO WORKING POSITION TO ALLOW JIB STOP STRUT TO EXTEND. (SEE DETAIL VV).

RAISE JIB STRUT (R13) TO ALLOW THE PRE-ASSEMBLED JIB SECTION (ITEMS 2, 1, AND 5 OR 100 OR 101) TO BE LOCATED AND ASSEMBLED TO BOOM TOP AS SHOWN. (REFER TO PRE-ASSEMBLED JIB SECTIONS BELOW FOR CENTER OF GRAVITY AND APPROX. WEIGHT WHEN HANDLING DESIRED CONFIGURATIONS). ENSURE THAT LUFFING JIB STOPS (R15) ARE SUPPORTED AND SITTING ON TOP OF THE STOP LUGS ON THE BOOM TOP (SEE DETAIL STEP 9A, 9B AND 9C ON SHEET 10).

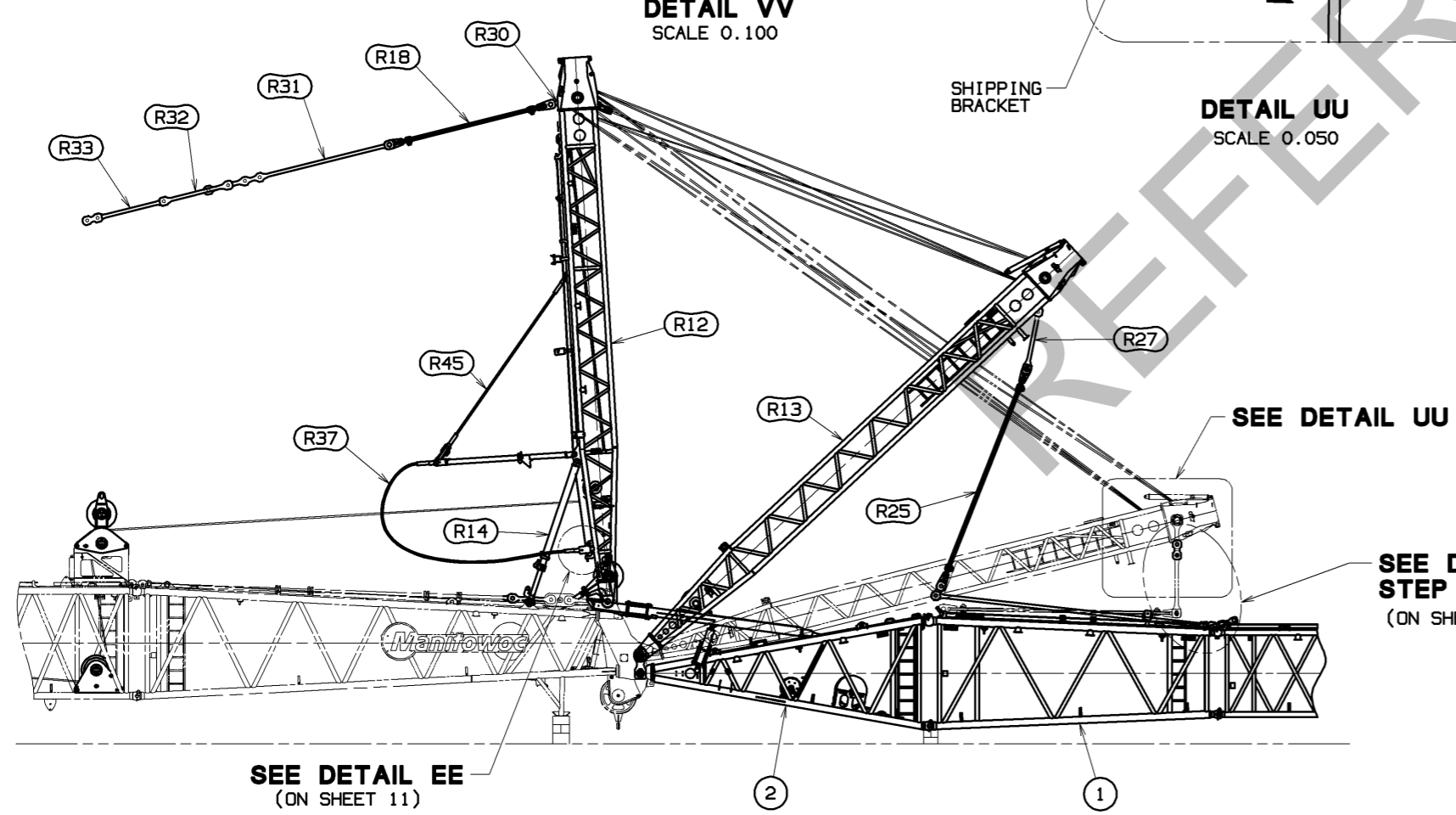
REMOVE STAND ASSEMBLY (R54) AND STORE IN PARTS BOX 81028769. ASSEMBLE JIB BUTT HINGE PIN (R48) AND KEEPER PLATE (R49) IN PROPER ORIENTATION AND ATTACH COLLARS (R44) AND PINS TO RETAIN THE HINGE PIN AND KEEPER PLATE. (SEE DETAIL R AND SECTION S-S ON SHEET 7).



DETAIL VV  
SCALE 0.100



DETAIL UU  
SCALE 0.050



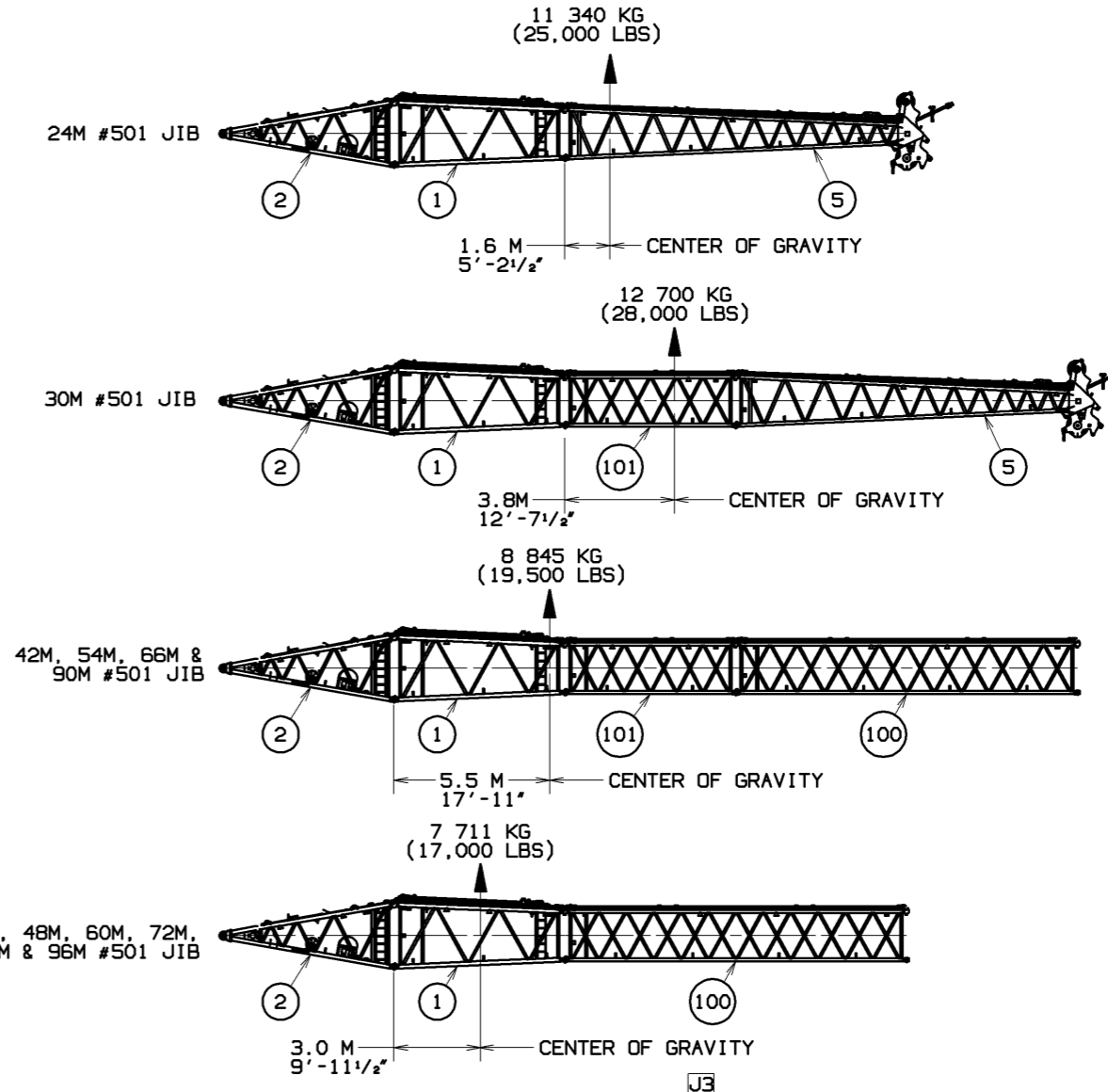
SEE DETAIL EE  
(ON SHEET 11)

ALTERNATE STEP 8  
JIB STRUT RAISING

COMPLETE THE ASSEMBLY OF DESIRED JIB CONFIGURATION TO PRE-ASSEMBLED JIB BUTT ASSY. INSTALL LOWER JIB CONNECTOR PINS. (SEE DETAIL LL ON SHEET 6). ASSEMBLE STRAP/LINK CONNECTIONS BEGINNING AT THE JIB TOP. LOWER JIB STRUT TO REMOVE JIB STRUT BASIC STRAPS (R27) (R104) (R26) FROM SHIPPING BRACKET. (SEE DETAIL UU). ALIGN AND ATTACH THE BASIC STRAP (R27) TO THE FRONTSTAY SPREADER (R25). (SEE DETAIL STEP 10A ON SHEET 11). ASSEMBLE STRAP/LINK CONNECTION (R22 & R104) AT TRANSITION INSERT (ITEM 1) AND #501 INSERT. (SEE DETAIL STEP 10B ON SHEET 11). RETRACT THE LUFFING JIB HOIST LINE (DRUM 6) TO RAISE THE JIB STRUT (R13) FROM ITS ASSEMBLY POSITION.

THE LUFFING JIB IS READY FOR RAISING AND OPERATION.

RETURN TO SHEET 11 FOR UPPER BOOM POINT INSTALLATION (DETAIL PP) AND INSTRUCTIONS TO RAISE AND LOWER BOOM AND JIB.



PRE-ASSEMBLED JIB SECTIONS FOR ALTERNATE STEP 7  
SCALE: .008

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