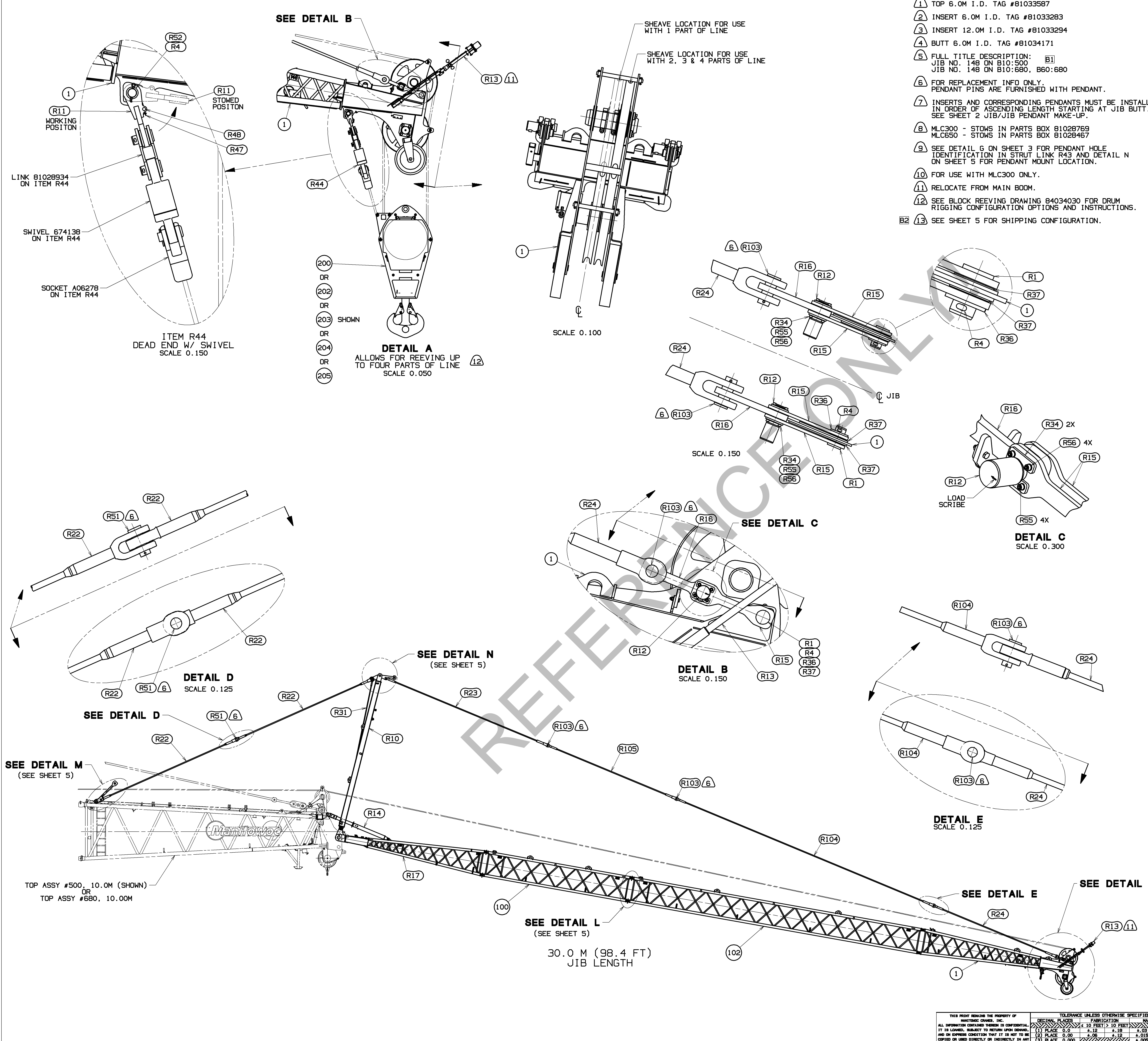
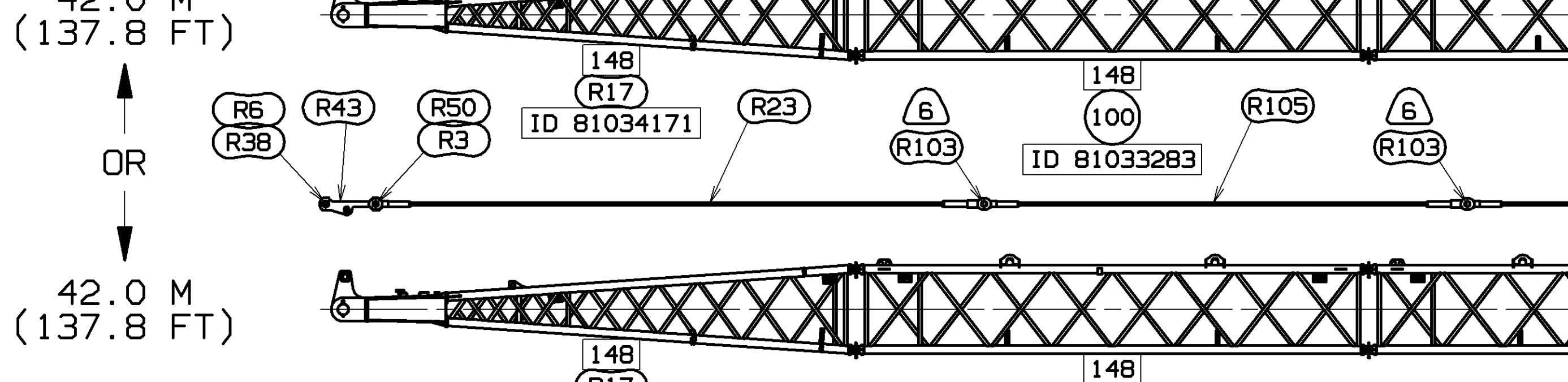
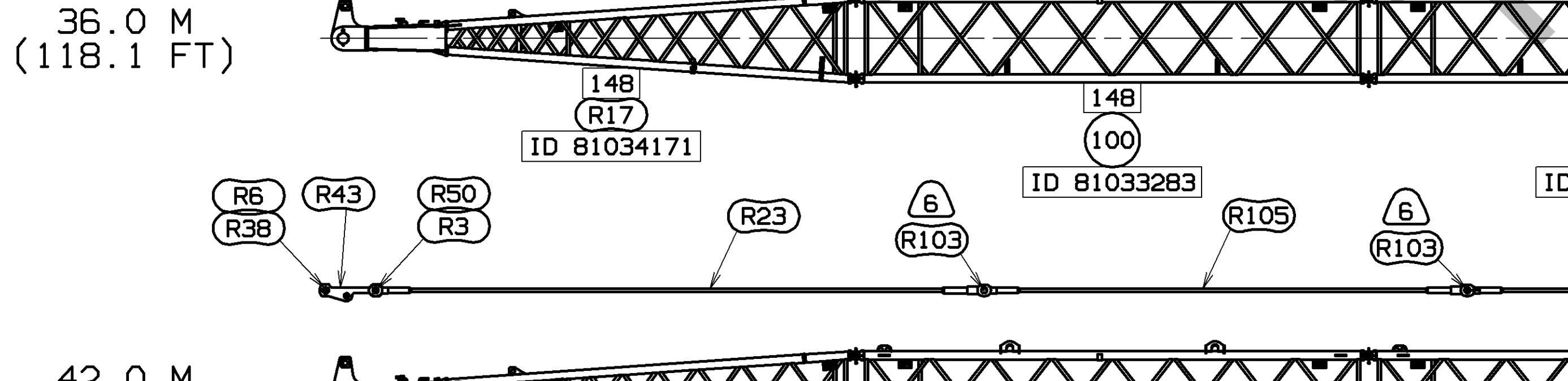
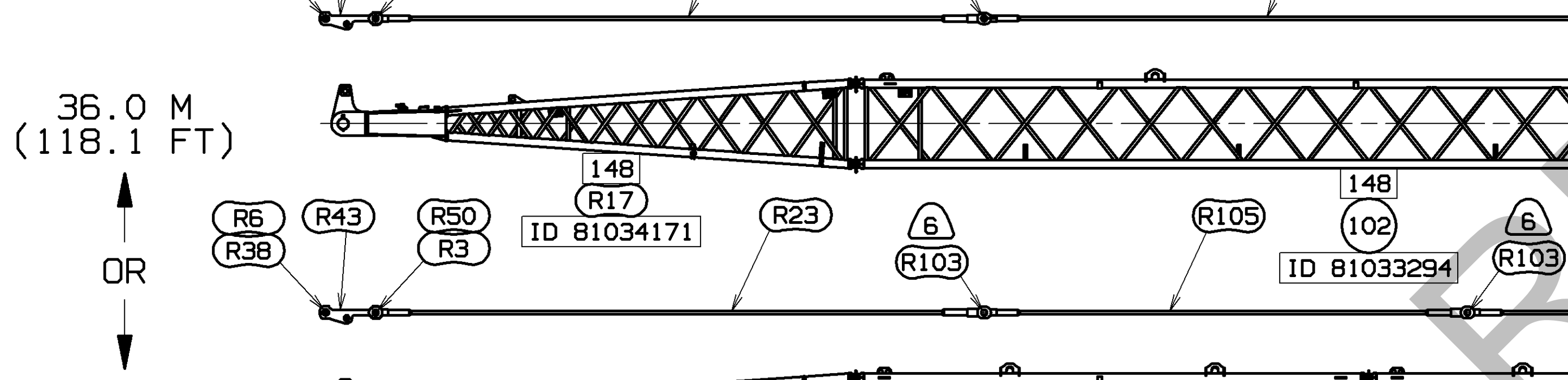
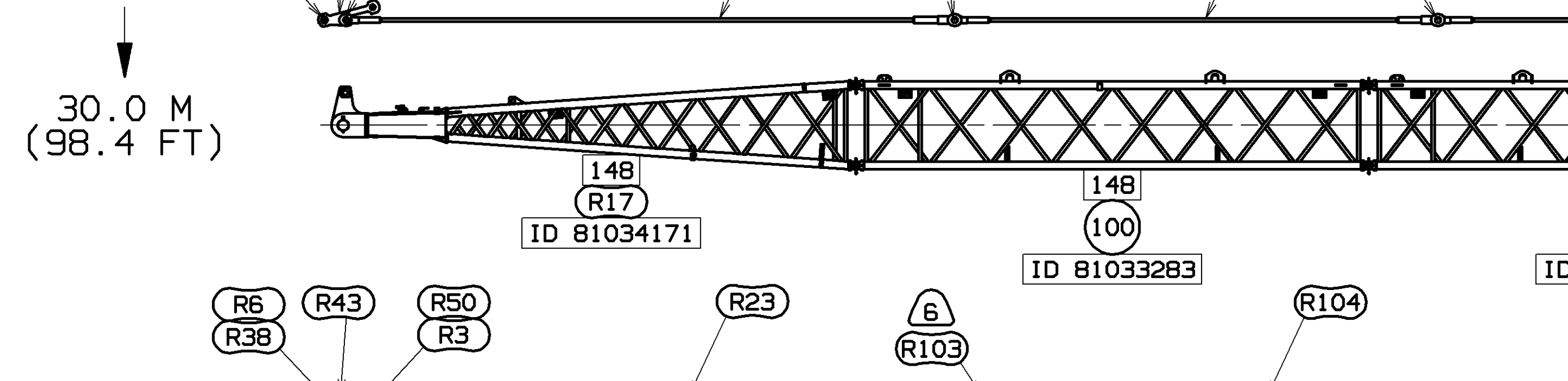
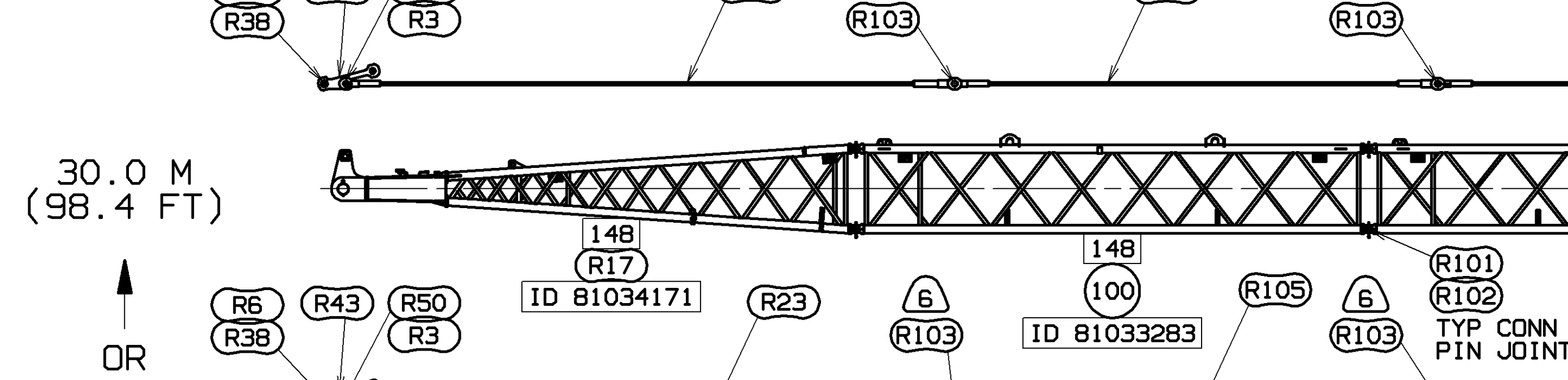
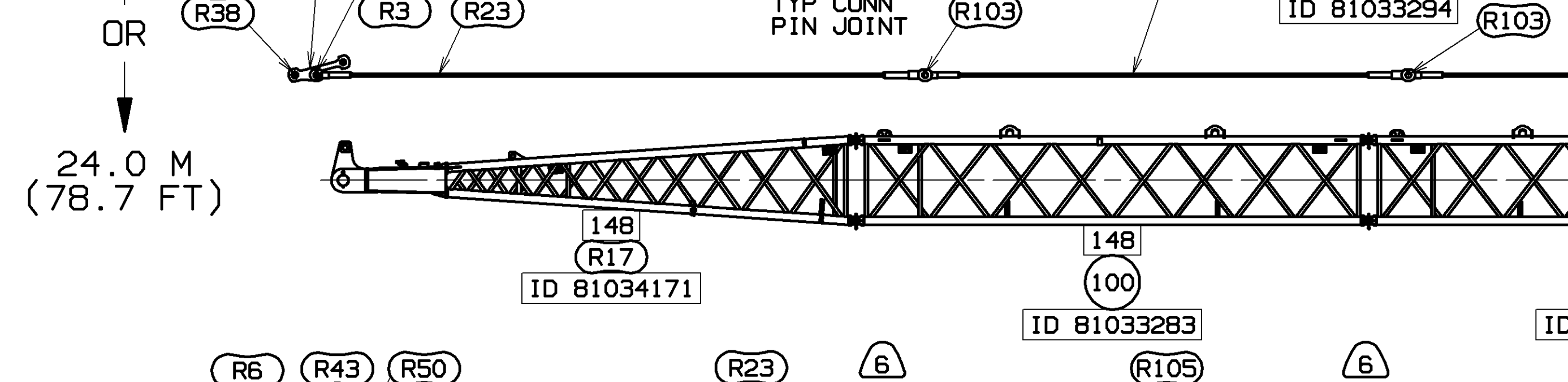
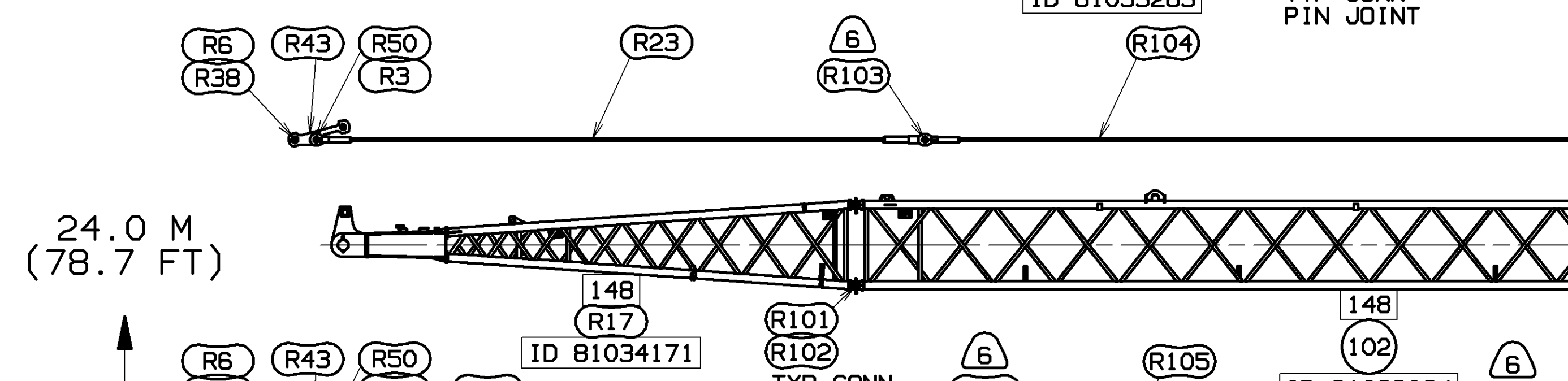
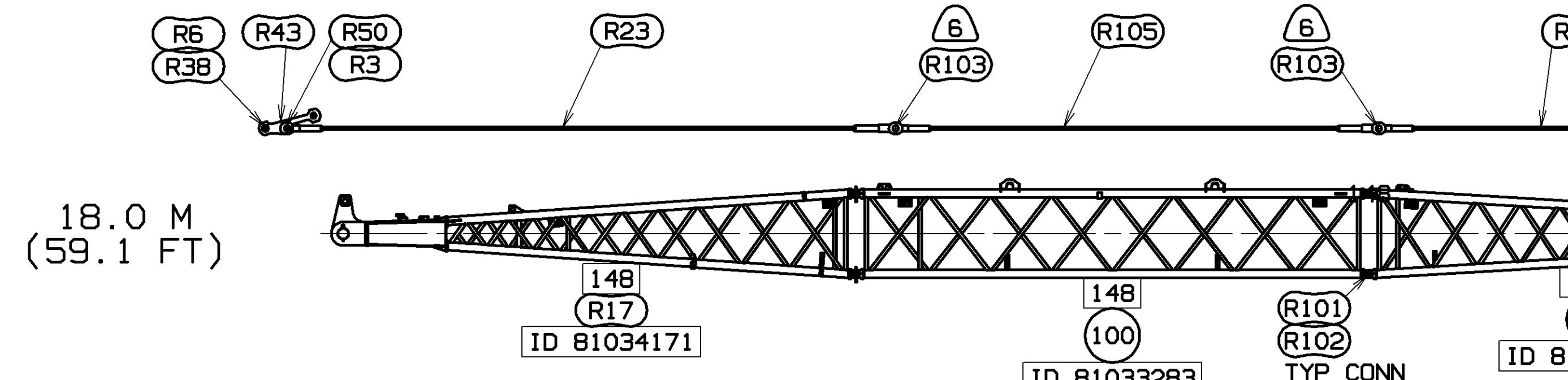
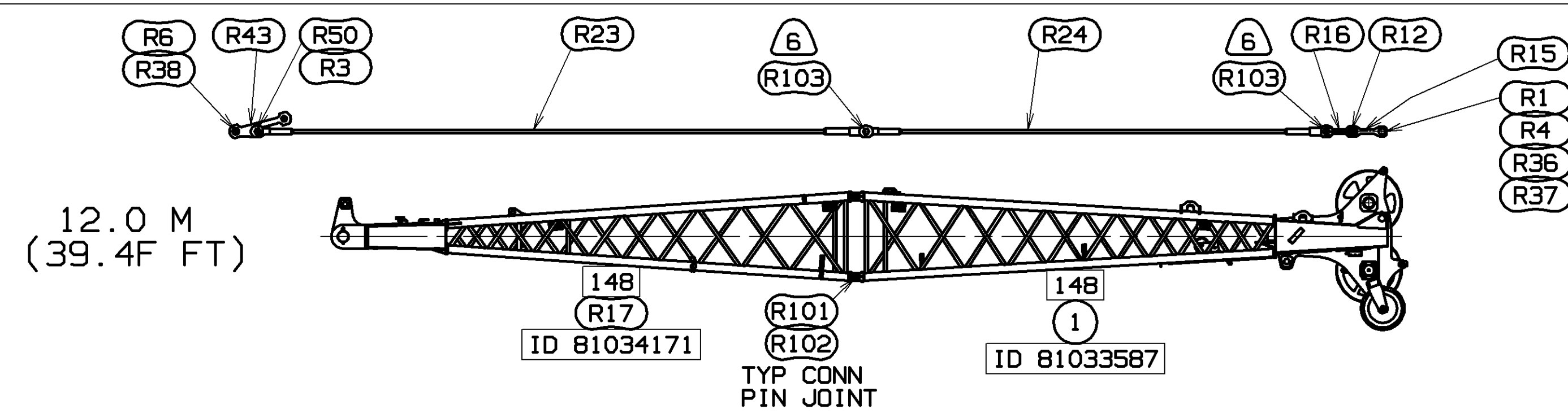


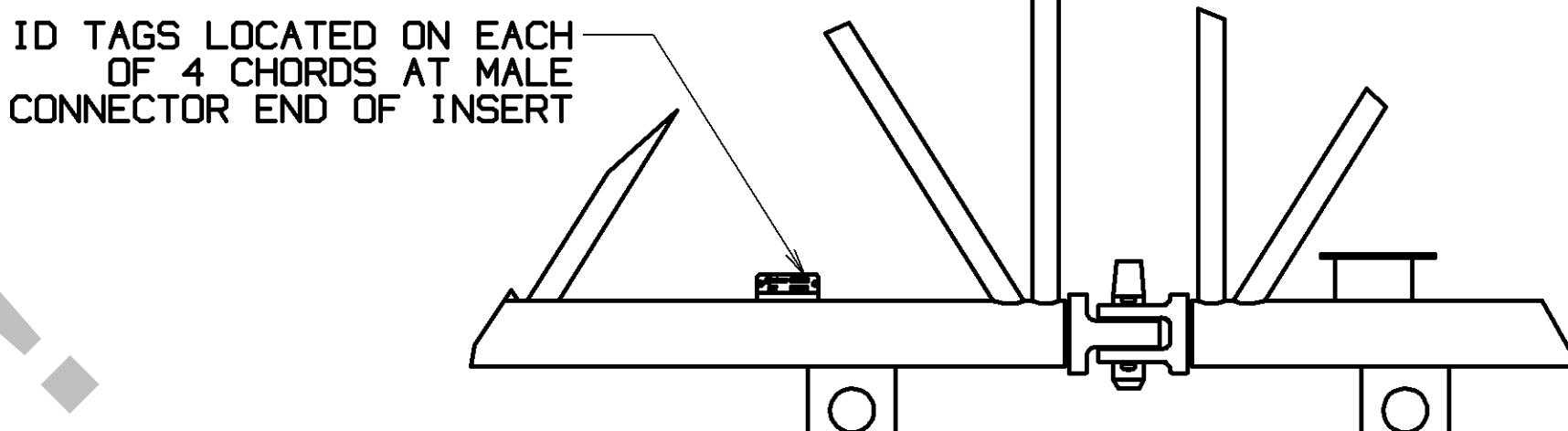


- 1 TOP 6.0M I.D. TAG #81033587
2 INSERT 6.0M I.D. TAG #81033283
3 INSERT 12.0M I.D. TAG #81033294
4 BUTT 6.0M I.D. TAG #81034171
5 FULL TITLE DESCRIPTION: B1
JIB NO. 148 ON B10:500
JIB NO. 148 ON B10:680, B60:680
6 FOR REPLACEMENT INFO ONLY.
PENDANT PINS ARE FURNISHED WITH PENDANT.
7 INSERTS AND CORRESPONDING PENDANTS MUST BE INSTALLED
IN ORDER OF ASCENDING LENGTH STARTING AT JIB BUTT.
SEE SHEET 2 JIB/JIB PENDANT MAKE-UP.
8 MLC300 - STOWS IN PARTS BOX 81028769
MLC650 - STOWS IN PARTS BOX 81028467
9 SEE DETAIL G ON SHEET 3 FOR PENDANT HOLE
IDENTIFICATION IN STRUT LINK R43 AND DETAIL N
ON SHEET 5 FOR PENDANT MOUNT LOCATION.
10 FOR USE WITH MLC300 ONLY.
11 RELOCATE FROM MAIN BOOM.
12 SEE BLOCK REEVING DRAWING 84034030 FOR DRUM
RIGGING CONFIGURATION OPTIONS AND INSTRUCTIONS.
B2 13 SEE SHEET 5 FOR SHIPPING CONFIGURATION.

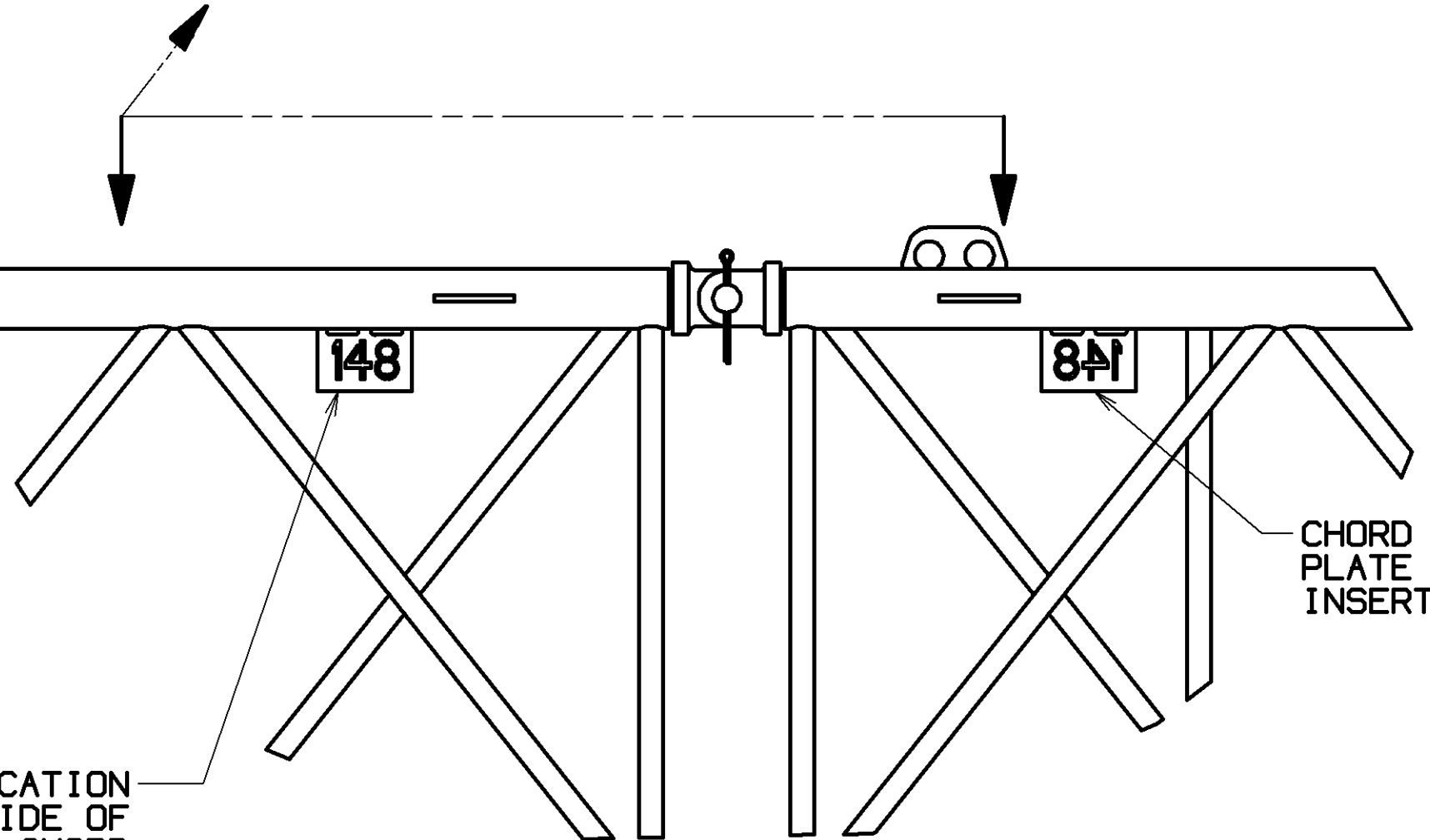
BILL OF MATERIAL				ASSEMBLIES USED IN	
ITEM NO.	QTY	DESCRIPTION	UNIT	MATERIAL	ITEM NO.
JIB RIGGING JIB NO. 148					
1	1	TOP ASSY #148, 6.00M		81033586	1
2	1	FIXED JIB #148 BOTTOM ASSY		81035648	13
3					
4					
NO. REQ'D FOR THE FOLLOWING ITEMS ARE IN THE JIB LENGTH TABLE (SHEET 2)					
100		INSERT ASSY #148, 6.00M		81032966	2
101					
102		INSERT ASSY #148, 12.00M		81032985	3
OPTION 1: HOOK BLOCKS					
200	1	BLOCK HOOK 45 TON/41 MT ON 1.12 DIA WR 1 SHEAVE		236503	
201					
202	1	BLOCK HOOK 135MT 32MM WR 3 SHEAVES		81023461	
203	1	BLOCK HOOK 100MT 28MM WR 3 SHEAVES		81031987	
204	1	WEIGHT BALL SWIVEL 22.2MT, 28MM & 32MM WR		81033344	
205	1	HOOK BLOCK 160MT 35H 32WR		84027344	
206					
BASIC REFERENCE ITEMS					
R1	2	PIN 1 HOLE W/HD 2.25 DIA X 3.11 LG		179863	
R2	2	PIN COTTER 1/4 DIA X 3.00 LG		562110	
R3	4	PIN COTTER 3/8 DIA X 4.00 LG		562152	
R4	7	PIN COTTER 1/2 DIA X 3.50 LG		562171	
R5	2	PIN COTTER 1/2 DIA X 4.50 LG		562174	
R6	10	PIN COTTER 1/2 DIA X 6.00 LG		562179	
R7	4	PIN 1 HOLE W/HD 1.625 DIA X 3.69 LG		564095	6
R8					
R9	4	PIN COTTER 3/16 DIA X 1.50 LG		562085	
R10	1	STRUT ASSY #148 JIB 6.4M		81023843	
R11	1	LINK CROSS, 58.8 DIA HOLE		81031099	
R12	2	PIN LOAD 55.0MM DIA X 32500 KGS		81031388	
R13	1	ESI POSITION LIGHT AND ANEMOMETER		81031642	11
R14	1	STOP ASSY #148 JIB		81033463	
R15	4	LINK TOP ASSY		81034020	
R16	2	LINK TOP ASSY		81034021	
R17	1	BUTT ASSY #148, 6.00M		81034170	4
R18	1	STOP RIGGING #148 JIB		81035649	
R19	1	GUIDE ASSY DRUM 6 UPPER		81027946	10
R20	1	GUIDE ASSY DRUM 6 LOWER		81027949	10
R21	2	COLLAR 131.0 MM ID		81033386	
R22	4	PENDANT 1.50 DIA X 6015.0 MM		81037322	
R23	2	PENDANT 1.375 DIA X 7119 MM		81037325	
R24	2	PENDANT 1.375 DIA X 5386 MM		81037326	
R25	2	PIN 2 HOLE 12.7 DIA X 167.0 LG		81039284	
R26	1	GUIDE ASSY DRUM 2,3 LOWER		81029022	10
R27	1	GUIDE ASSY DRUM 2,3 UPPER		81029628	10
R28	2	PIN 1H 41.0 DIA X 140.0		81040027	
R29	1	SPREADER WELDMENT 148 FIXED JIB		81040107	
R30	1	LINK #148 STRUT RAISING		81040480	
R31	2	PENDANT 0.875 DIA X 4877 MM		81040539	
R32	2	LINK BACKSTAY		81040662	
R33	2	LINK 6.00 MM		84021161	
R34	8	RETAINER PLATE 8 MM		84032307	
R35	2	PIN WITH HEAD 41.0 DIA X 150.0 LG		84036215	
R36	2	WASHER 100.0 X 60.0 X 8.0		84036725	
R37	4	WASHER 100.0 X 60.0 X 3.0		84036940	
R38	2	PIN 1H 76.0 DIA X 157.0		81040892	
R39	2	PIN 1H 57.15 DIA X 129.0		81040893	
R40					
R41	4	PIN 1H 46.4 DIA X 91.0		81041095	
R42	4	PIN 1H 70.4 DIA X 123.0		81041327	
R43	4	PLATE 20.0 MM		81042663	
R44	1	LINK ASSY DEAD END		81042356	8
R45	2	STOP RIGGING SUBASSY		84022405	
R46	1	PIN 55.0 DIA X 70.0 LG		84022406	
R47	1	SAFETY PIN 3.2 DIA X 50.8 LG		84024200	
R48	1	PIN 1 HOLE 12.7 DIA X 96.2 LG		84024240	
R49	2	PIN 1 HOLE 130.0 X 321.5		84028326	
R50	2	PIN 1 HOLE W/HD 2.50 DIA X 4.38 LG		A08665	
R51	4	PIN COTTER 1 HOLE W/HD 2.75 DIA X 6.75 LG		A08716	6
R52	1	PIN 1 HOLE W/HD 2.25 DIA X 4.02 LG		A10670	
R53					
R54					
R55	16	SCR SKT HD M10X25 10.9 FLZ4762		7127191254	
R56	16	WASHER 10 ST DIN 127B		7951190220	
R57					
R58					
NO. REQ'D FOR THE FOLLOWING REFERENCE ITEMS ARE IN THE JIB LENGTH TABLE (SHEET 2)					
R100					
R101		PIN 2 HOLE 1.75 DIA X 3.41 LG		070366	
R102		PIN COTTER 3/8 DIA X 6.00 LG		562158	
R103		PIN 1 HOLE W/HD WIRE ROPE SOCKET		564081	6
R104		PENDANT 1.375 DIA X 11309 MM		81037323	
R105		PENDANT 1.375 DIA X 5654 MM		81037324	
R106					
R107					
R108					
PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 8629103794 FOR COMPONENTS LISTED IN 862900-06-006					
DATE 03-29-16					
REV. B					
81023385					



ITEMS REQ'D FOR VARIOUS JIB LENGTHS (7)									
		#148 INSERTS		PENDANTS		PINS		COTTER	STRUT LINK
ITEM NO.		102	100	R104	R105	R101	R103	R102	R43
JIB LENGTH		INSERT 12M (39.4FT)	INSERT 6M (19.7FT)	PENDANT 11.3M (37.1FT)	PENDANT 5.7M (18.6FT)	PIN	PENDANT PIN (6)	COTTER	PENDANT HOLE MOUNT LOCATION (9)
METERS	FEET								
12	39.4	0	0	0	0	4	4	8	A
18	59.1	0	1	0	2	8	6	16	A
24	78.7	OR 1 0	0 2	2 0	0 4	8 12	6 8	16 24	A
30	98.4	OR 1 0	1 3	2 0	2 6	12 16	8 10	24 32	A
36	118.1	OR 2 1	0 2	4 2	0 4	12 16	8 10	24 32	B
42	137.8	OR 2 1	1 3	4 2	2 6	16 20	10 12	32 40	B



TYPICAL LOCATION OF INSERT IDENTIFICATION TAGS SCALE 0.10



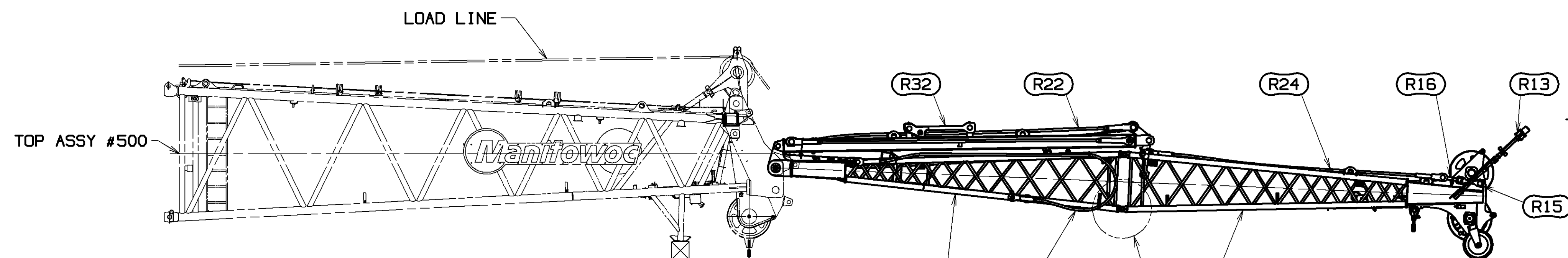
TYPICAL LOCATION OF JIB CHORD IDENTIFICATION PLATE SCALE 0.10

RECOMMENDED JIB MAKEUP
FOR TYP PIN JOINTS SEE
DETAIL B, DETAIL C, DETAIL E AND DETAIL L

DO NOT SCALE THIS DRAWING

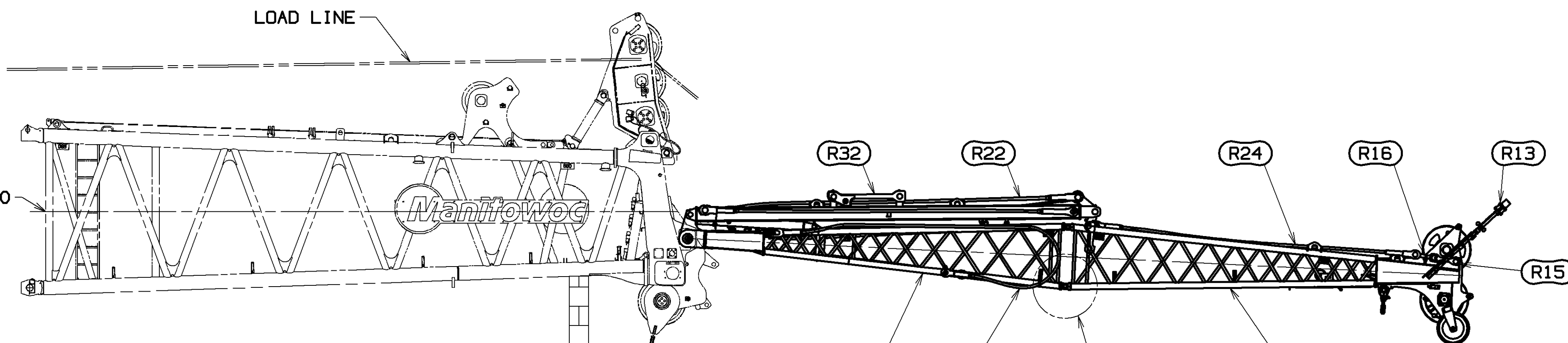
PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
SPECIFICATION
8629103794 FOR
COMPONENTS LISTED
IN 862900-06-006
DATE
03-29-16
REV. LVL.
B

81023385
SHT 2 OF 6



STEP 1
MLC300

SEE DETAIL F

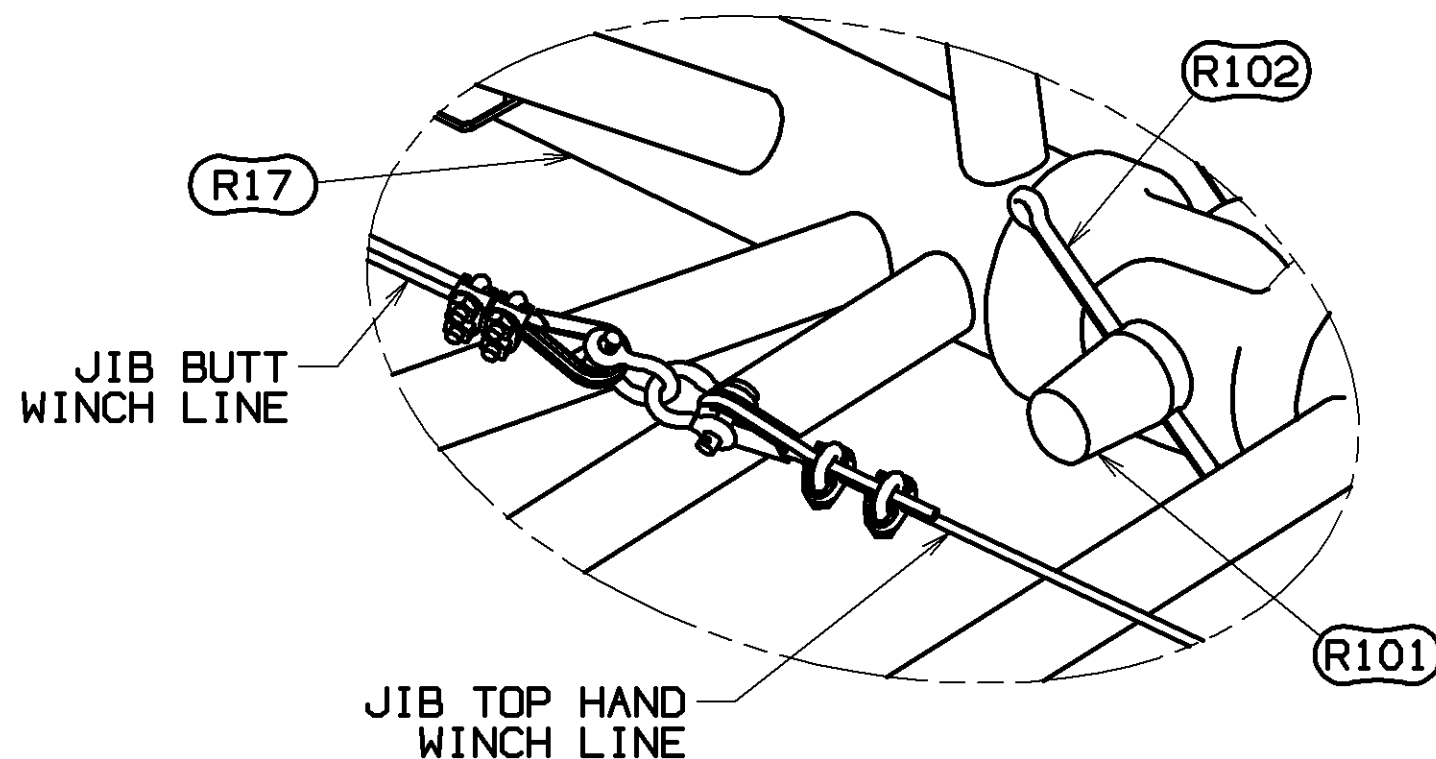


STEP 1
MLC650

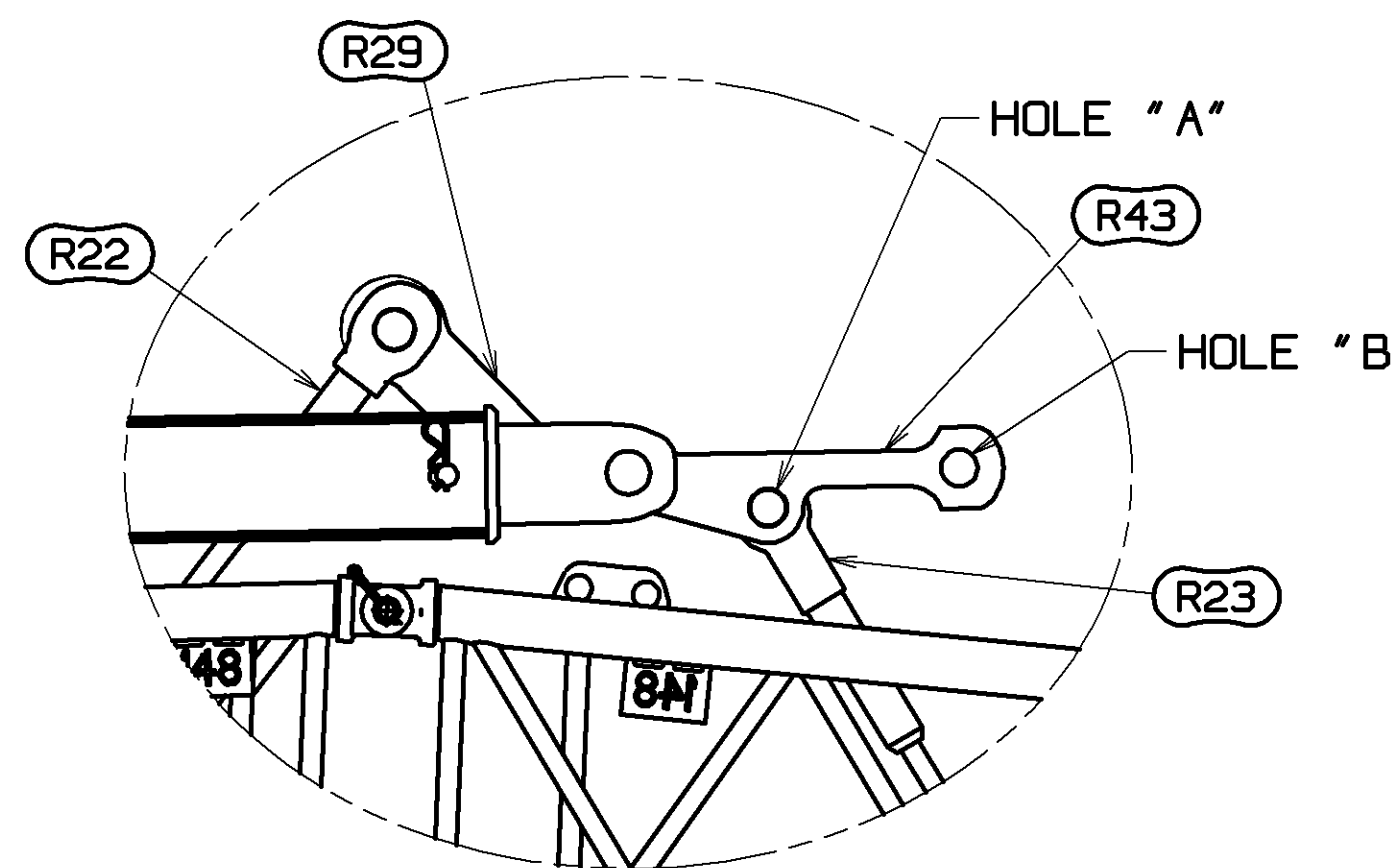
SEE DETAIL F

JIB TO BOOM TOP ASSEMBLY

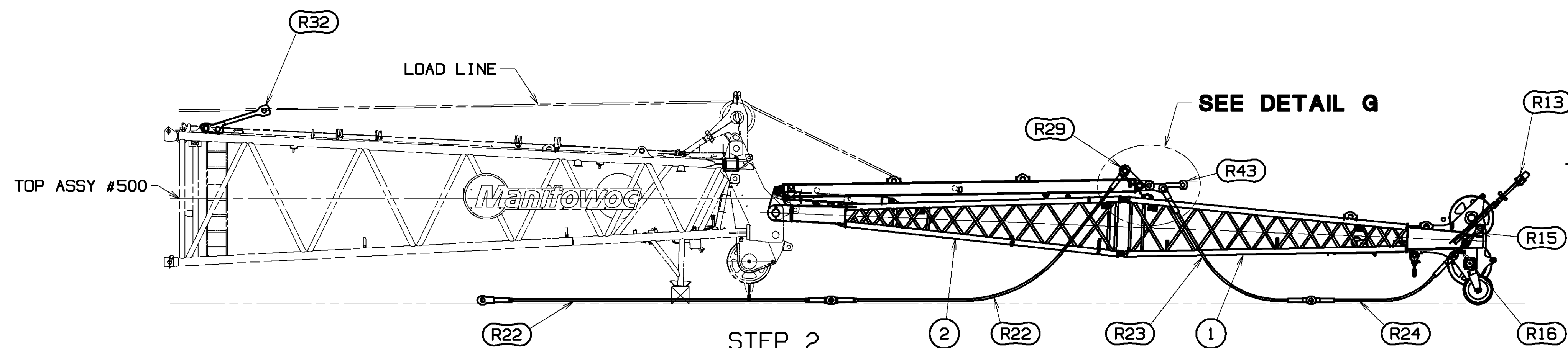
RIG BOOM PER MAIN BOOM RIGGING DRAWING.
TEMPORARILY REMOVE JIB HINGE HARDWARE (R9, R21, R25 & R49) FROM JIB BUTT (ITEM 2).
(SEE SECTION VIEWS R-R & S-S ON SHEET 6).
USING ASSIST CRANE ALIGN JIB BOTTOM ASSY SHIPPING UNIT (ITEM 2) TO BLOCKED BOOM TOP AS SHOWN.
REINSTALL JIB HARDWARE (R9, R21, R25, & R49)(SEE SECTION VIEWS R-R & S-S ON SHEET 6).
ASSEMBLE JIB INSERTS (ITEMS 100 & 102) AND JIB TOP (ITEM 1) TO JIB BOTTOM ASSY SHIPPING UNIT (ITEM 2)
PER DESIRED JIB CONFIGURATION ON SHEET 2.
INSTALL UPPER AND LOWER CONNECTOR PINS (R101) AND COTTERS (R102). (SEE DETAIL L ON SHEET 5).
PULL HAND WINCH LINE FROM JIB TOP (ITEM 1) AND CONNECT TO WINCH LINE ON JIB BUTT (R17) (SEE DETAIL F).
USE JIB TOP HAND WINCH TO DISENGAGE SPRING LOADED STOP PINS (R35). (SEE VIEW K-K ON SHEET 5).



DETAIL F
SCALE 0.300

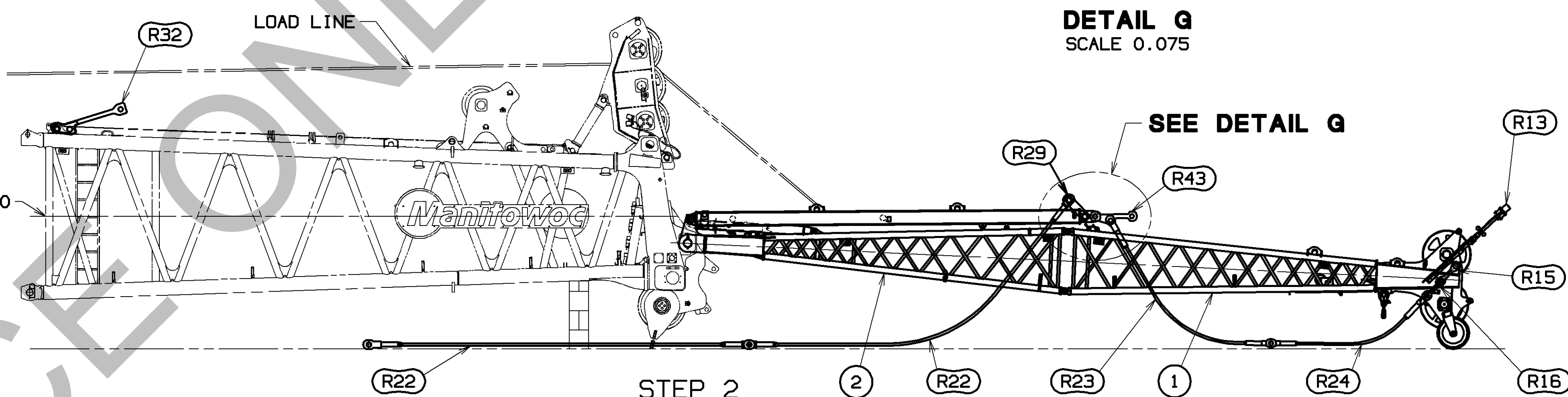


DETAIL G
SCALE 0.075



STEP 2
MLC300

SEE DETAIL G

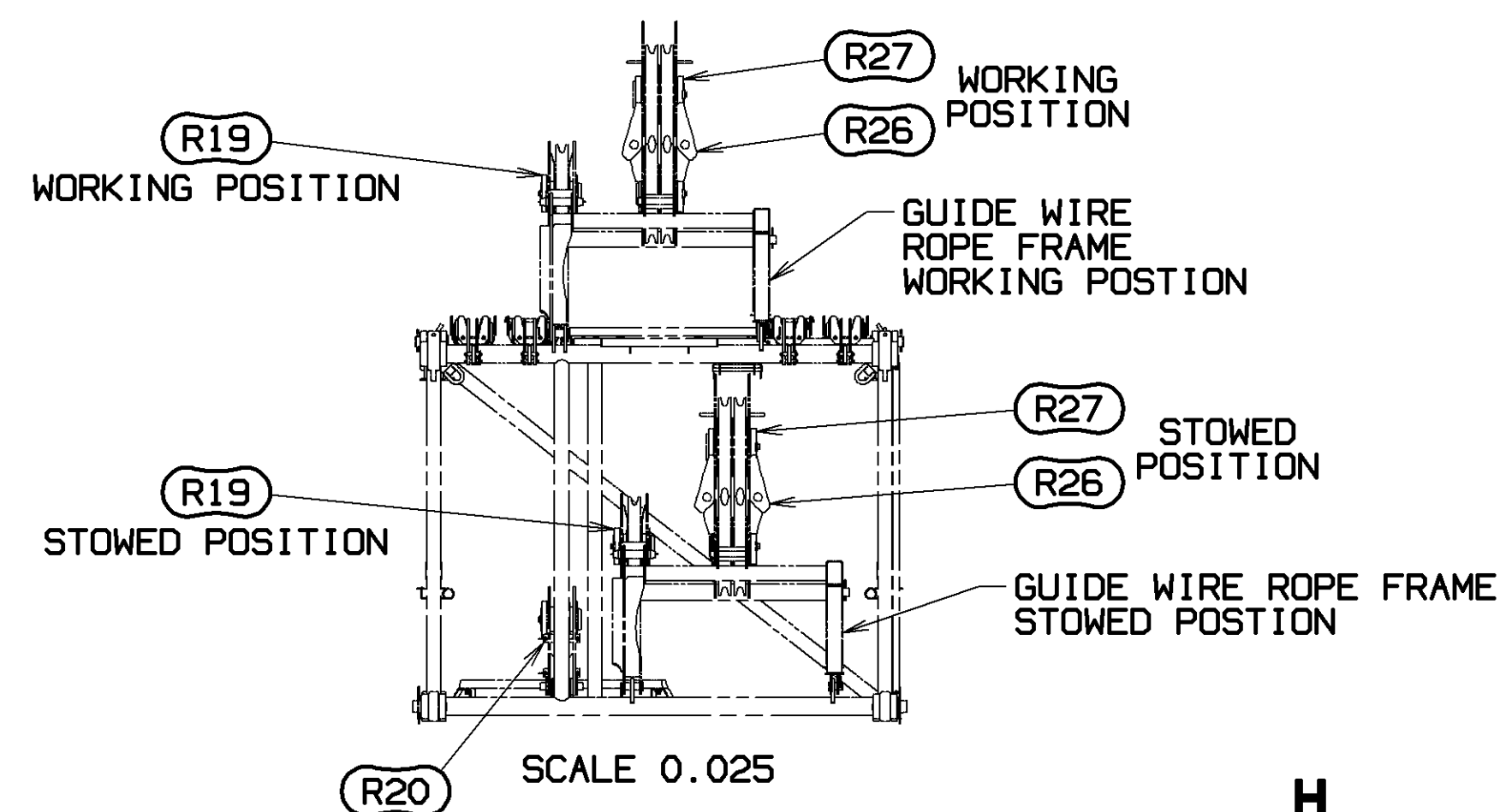


STEP 2
MLC650

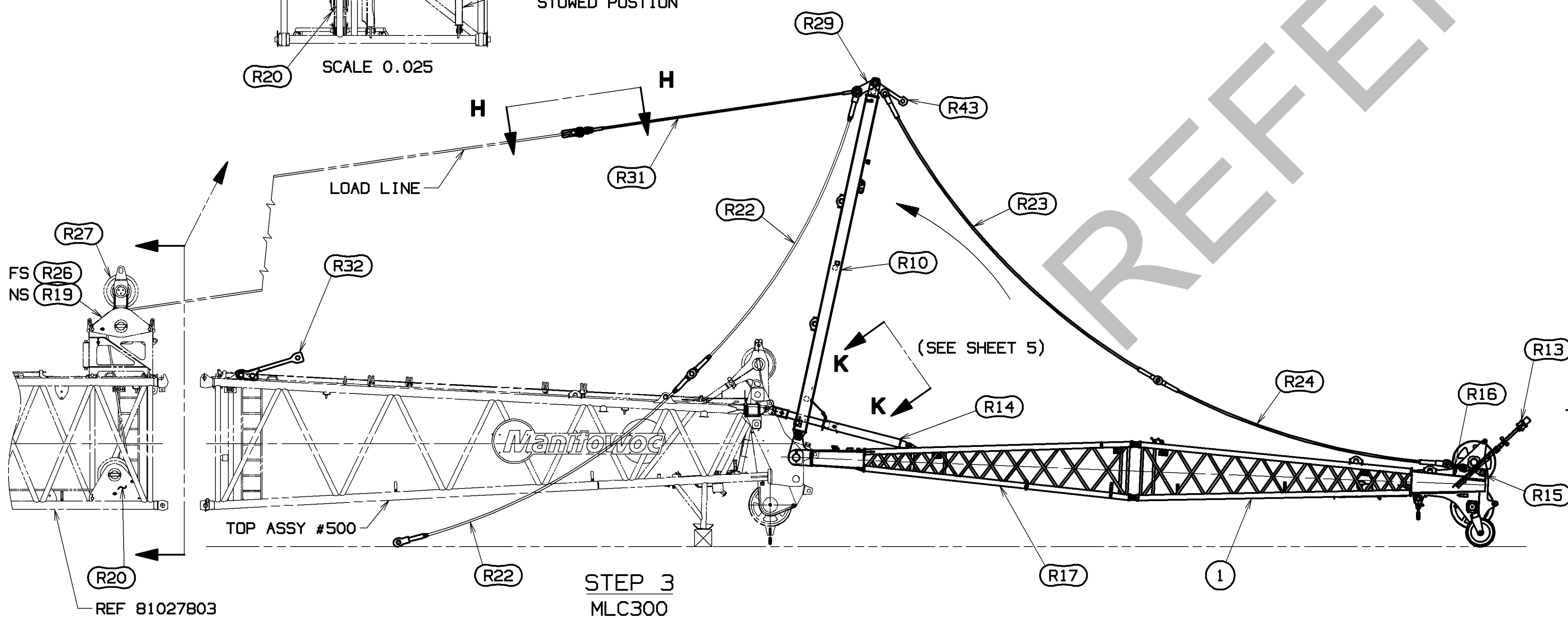
SEE DETAIL G

FRONTSTAY & BACKSTAY PENDANT INSTALLATION

REMOVE FRONTSTAY PENDANTS (R23, R24, R104 & R105) FROM STOWAGE POSITION.
(SEE DETAIL L ON SHEET 5 AND FIXED JIB BOTTOM ASSEMBLY SHIPPING CONFIGURATION ON SHEET 5).
PIN PENDANT TO PENDANT (SEE DETAIL E ON SHEET 1) AND PENDANT (R23) TO FRONTSTAY LINK (R43) PER JIB LENGTH.
(SEE DETAIL N ON SHEET 5 AND JIB LENGTH TABLE ON SHEET 2 FOR CORRECT PENDANT HOLE MOUNT LOCATION).
REMOVE BACKSTAY PENDANTS (R22) FROM STOWAGE POSITION. (SEE FIXED JIB BOTTOM ASSEMBLY SHIPPING CONFIGURATION ON SHEET 5).
PIN PENDANT TO PENDANT. (SEE DETAIL D ON SHEET 1).
DETACH BACKSTAY LINKS (R32) FROM FIXED JIB BOTTOM ASSEMBLY (ITEM 2) AND PIN TO BOOM TOP. (SEE DETAILS M & N ON SHEET 5).
DETACH LINKS (R33) HOLDING STRUT (R10) TO JIB BUTT (R17). (SEE DETAIL J ON SHEET 5).



SCALE 0.025

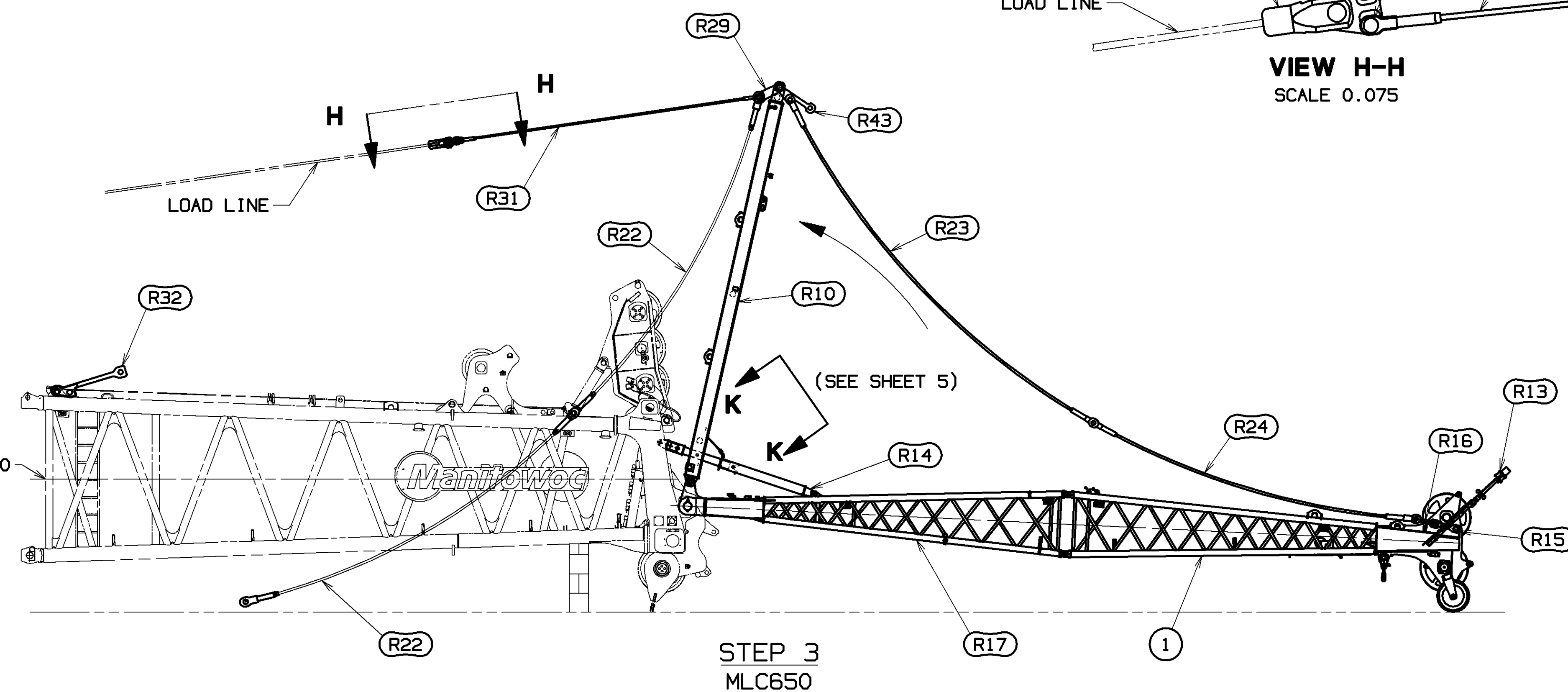


STEP 3
MLC300

MLC300 B10:500

NOTE: IF DRUM 2 OR 6 ARE EQUIPPED, DRUM 2 OR 6 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 R26 & R27.
THE LOAD LINE FROM DRUM 6 MUST BE ROUTED THROUGH ROPE GUIDES R20 & R19.

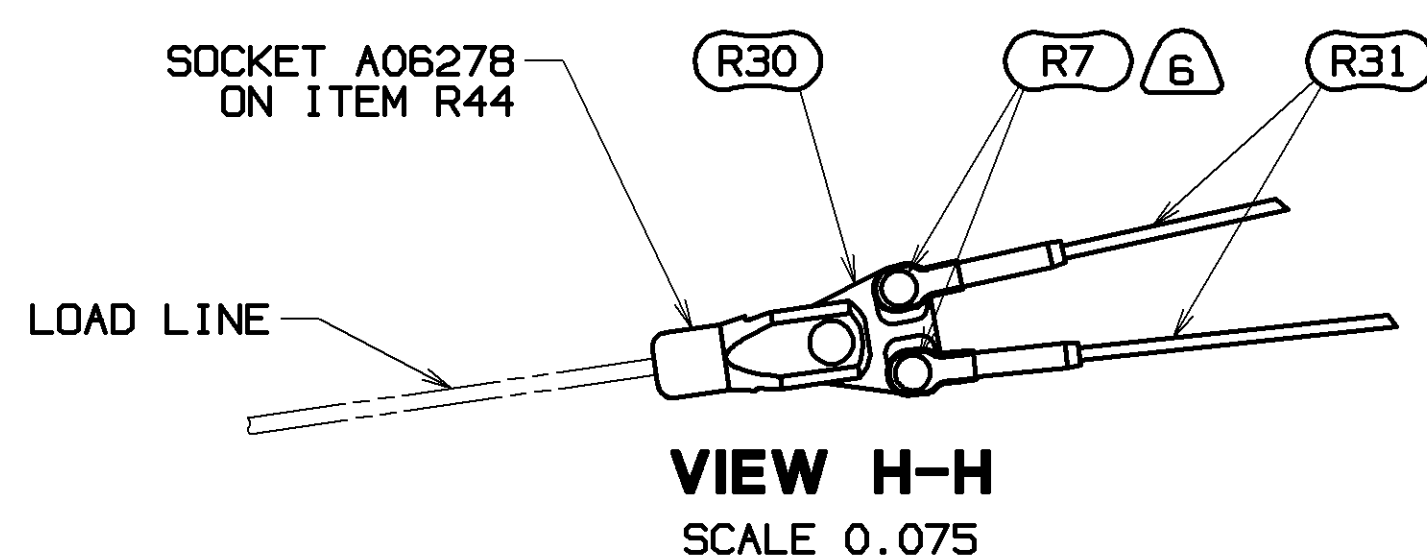
IF USING LOAD LINE FROM DRUM 1 (WITHOUT DRUM 2 OR 6 EQUIPPED), THE WIRE ROPE GUIDES R26 & R27 INCLUDING THE FRAME MUST BE STOWED.



STEP 3
MLC650

MLC650 B10:680 OR B60:680

NOTE: USE DRUM 2 IF AVAILABLE. WHEN USING DRUM 1 FOR STRUT RAISING 56M MINIMUM OF BOOM IS REQUIRED FOR PROPER WRAP ON THE 4M FLEETING SHEAVE. FOR SHORTER BOOMS AN ASSIST CRANE IS REQUIRED FOR STRUT RAISING.



VIEW H-H
SCALE 0.075

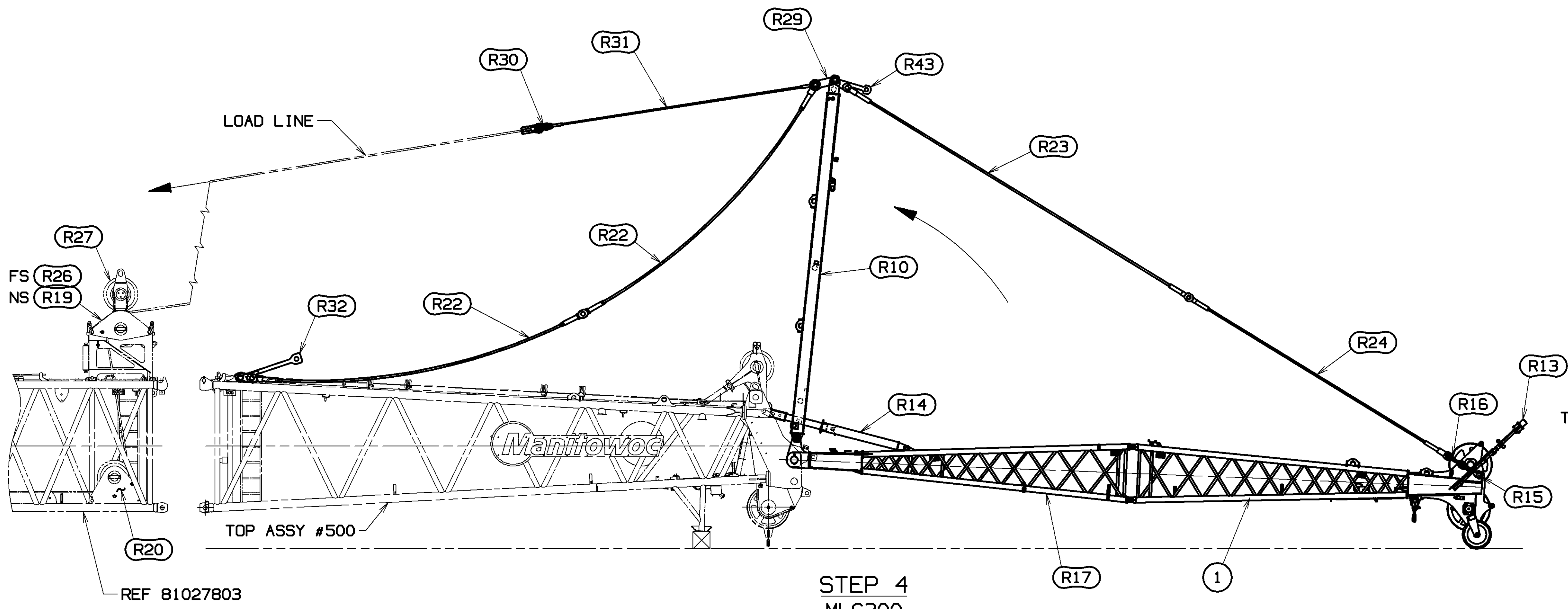
STOP ASSEMBLY INSTALLATION

DETACH STRUT RAISING LINK (R30) FROM STRUT (R10). (SEE DETAIL Z ON SHEET 5).
DETACH (1) STRUT RAISING PENDANT (R31) FROM STOWED POSITION AND ATTACH TO STRUT RAISING LINK (R30).
(SEE VIEW H-H ON SHEET 3 AND FIXED JIB BOTTOM ASSEMBLY SHIPPING CONFIGURATION ON SHEET 5).
ATTACH LOAD LINE TO STRUT RAISING LINK (R30). (SEE VIEW H-H AND NOTES FOR CONFIGURATION).
HOIST IN TO RAISE STRUT (R10) UNTIL STOP ASSY (R14) IS AT DESIRED ANGLE TO PIN TO BOOM TOP STOP LUG. (SEE VIEW K-K ON SHEET 5).
ENSURE STOP RAISING PENDANTS (R45) ARE PINNED IN THE STOP (R14) AND STRUT (R10) DURING STRUT RAISING. (SEE VIEW K-K ON SHEET 5).
POSITION PIN (R28) IN STOP TUBE PER DESIRED JIB OFFSET ANGLE. (SEE DETAIL U ON SHEET 6).
USING STOP TUBE HANDLES SLIDE STOP ASSY TOWARD BOOM TOP STOP LUGS.
INSTALL PIN (R41) AND COTTER (R4) TO ATTACH STOP (R14) TO BOOM TOP WHILE HOLDING STRUT (R10) WITH LOAD LINE. (SEE DETAIL U ON SHEET 6).
DISCONNECT STOP RAISING PENDANTS (R45) FROM STOP ASSY PENDANT LUG AND STOW ON STRUT PENDANT LUG. (SEE VIEW K-K ON SHEET 5).

DECIMAL PLACES	FRACTIONS	TOLERANCE UNLESS OTHERWISE SPECIFIED
(1) PLACE 0.5	1/2	±.12
(2) PLACE 0.00	1/16	±.06
(3) PLACE 0.000	1/64	±.015
ANGLES	11° 30'	±.006

DATE	03-29-16
REV. LVL.	B
APP. DLG	MANITOWOC CRANES, INC.
CHK. RHV	MANITOWOC, WISCONSIN
MODEL	MLC300, MLC650
JIB RIGGING	
JIB NO.	148

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN 682900-06-006



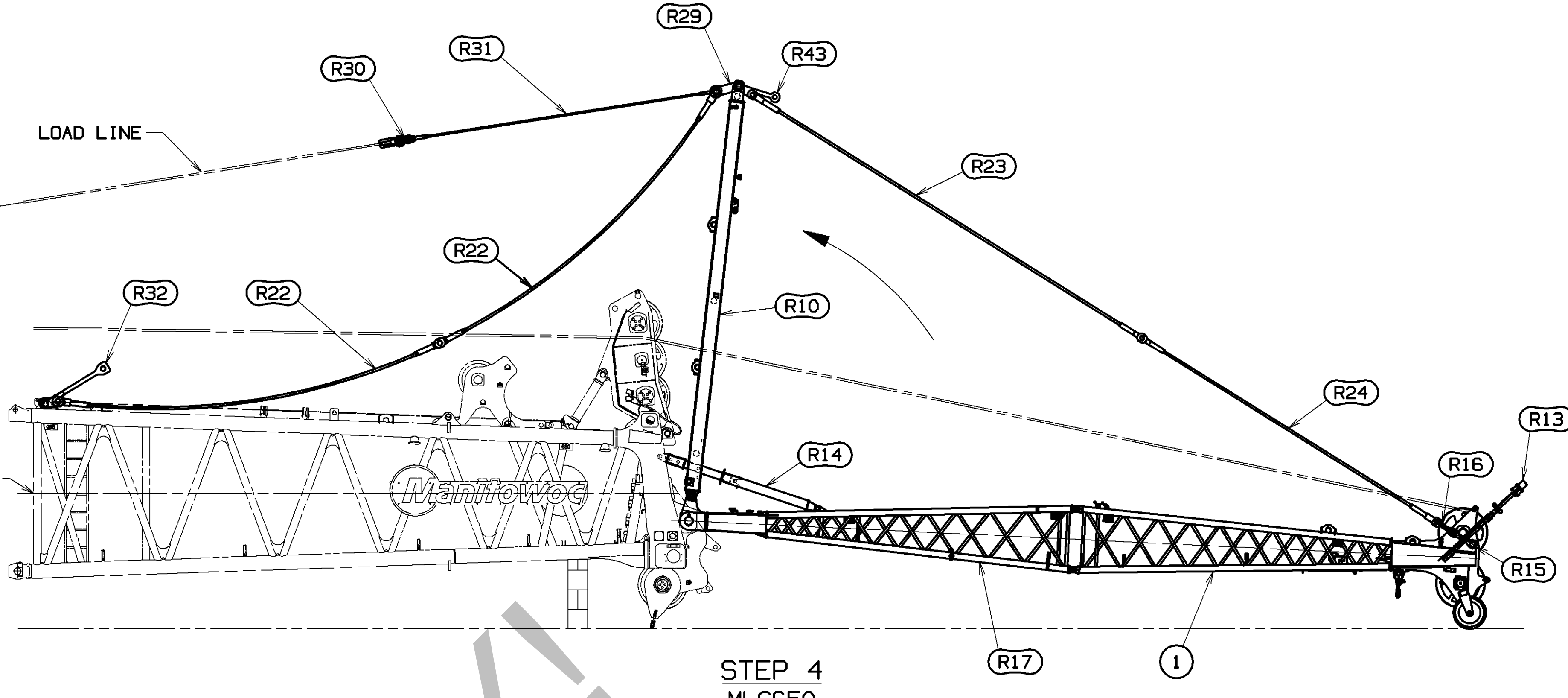
STEP 4
MLC300

STEP 4
BACKSTAY PENDANT TO BOOM TOP

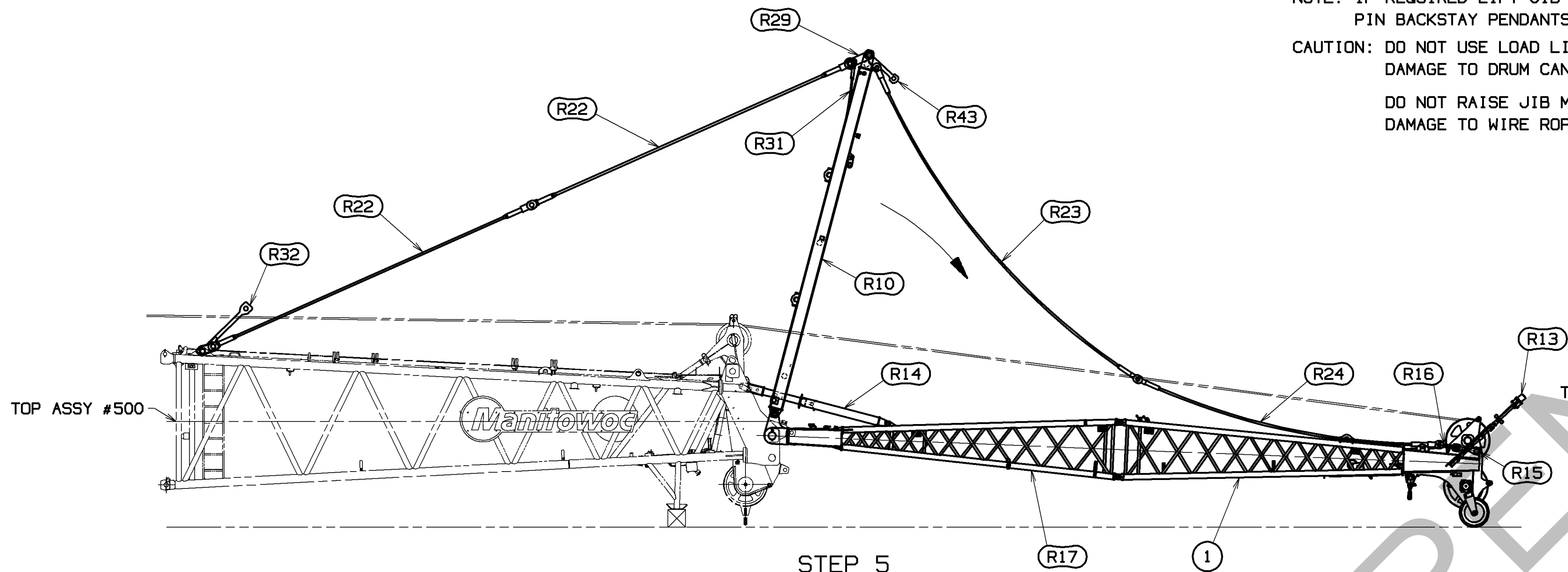
CONTINUE RAISING STRUT (R10) WITH LOAD LINE UNTIL FRONTSTAY PENDANTS ARE TIGHT.
PIN BACKSTAY PENDANTS (R22) TO BACKSTAY LINKS (R32) ON BOOM TOP.
(SEE DETAIL M ON SHEET 5 FOR CORRECT PIN LOCATIONS ON BACKSTAY LINKS BASED ON JIB OFFSET ANGLE).
NOTE: IF REQUIRED LIFT JIB OFF GROUND USING THE LOAD LINE TO
PIN BACKSTAY PENDANTS TO BACKSTAY LINKS.

CAUTION: DO NOT USE LOAD LINE TO LIFT 36M OR 42M JIBS OFF THE GROUND,
DAMAGE TO DRUM CAN OCCUR.

DO NOT RAISE JIB MORE THAN REQUIRED TO MAKE BACKSTAY CONNECTION.
DAMAGE TO WIRE ROPE GUIDE AND STRUT CAN OCCUR.



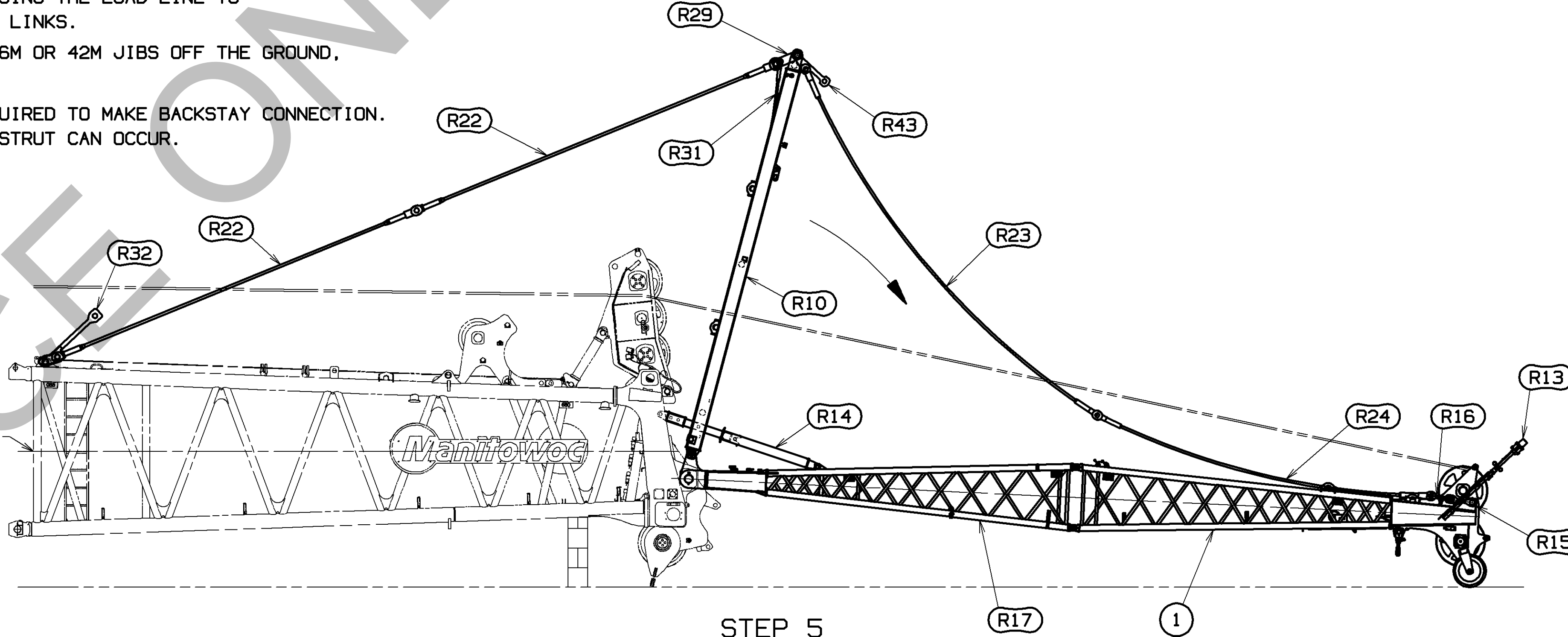
STEP 4
MLC650



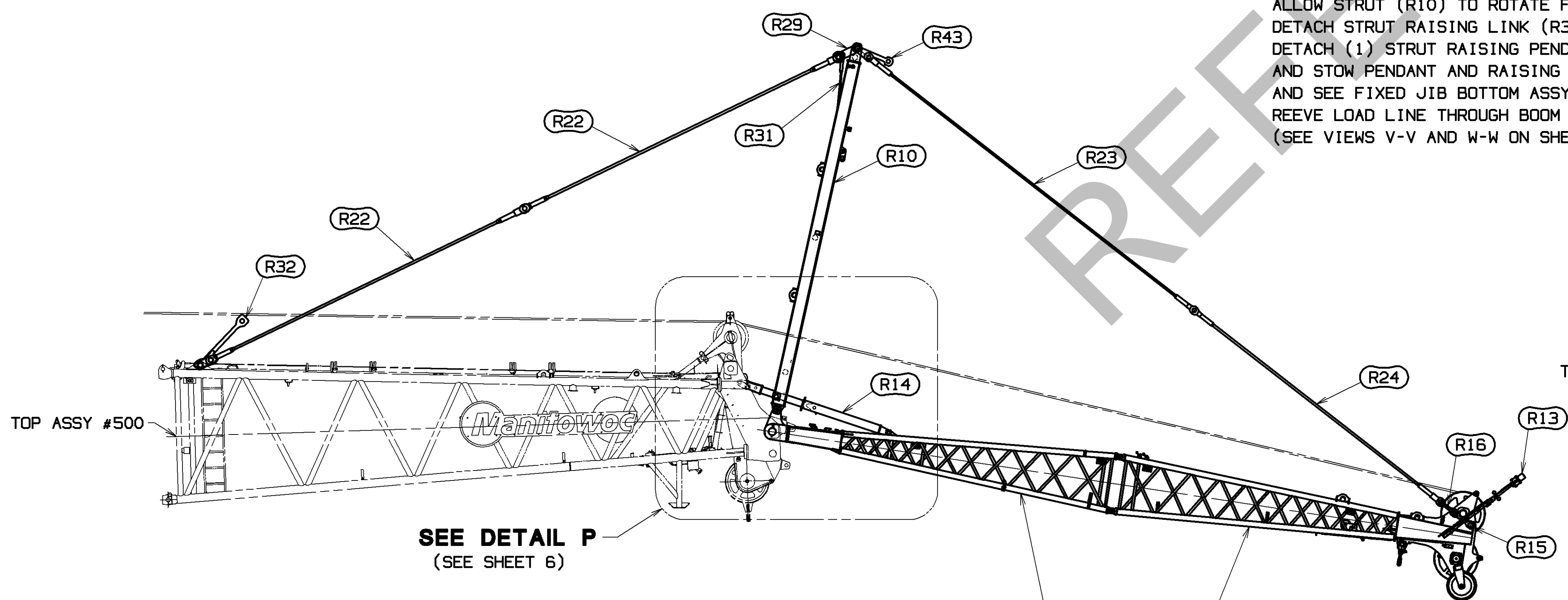
STEP 5
MLC300

STEP 5
STRUT RAISING PENDANT REMOVAL

ALLOW STRUT (R10) TO ROTATE FORWARD UNTIL BACKSTAY PENDANTS (R22) ARE TIGHT.
DETACH STRUT RAISING LINK (R30) FROM LOAD LINE. (SEE VIEW H-H ON SHEET 3).
DETACH (1) STRUT RAISING PENDANT (R31) FROM STRUT RAISING LINK (R30)
AND STOW PENDANT AND RAISING LINK TO STRUT (R10). (SEE DETAIL Z ON SHEET 5
AND SEE FIXED JIB BOTTOM ASSY SHIPPING CONFIGURATION ON SHEET 5).
REEVE LOAD LINE THROUGH BOOM TOP WIRE ROPE GUIDE TO JIB TOP.
(SEE VIEWS V-V AND W-W ON SHEET 6).



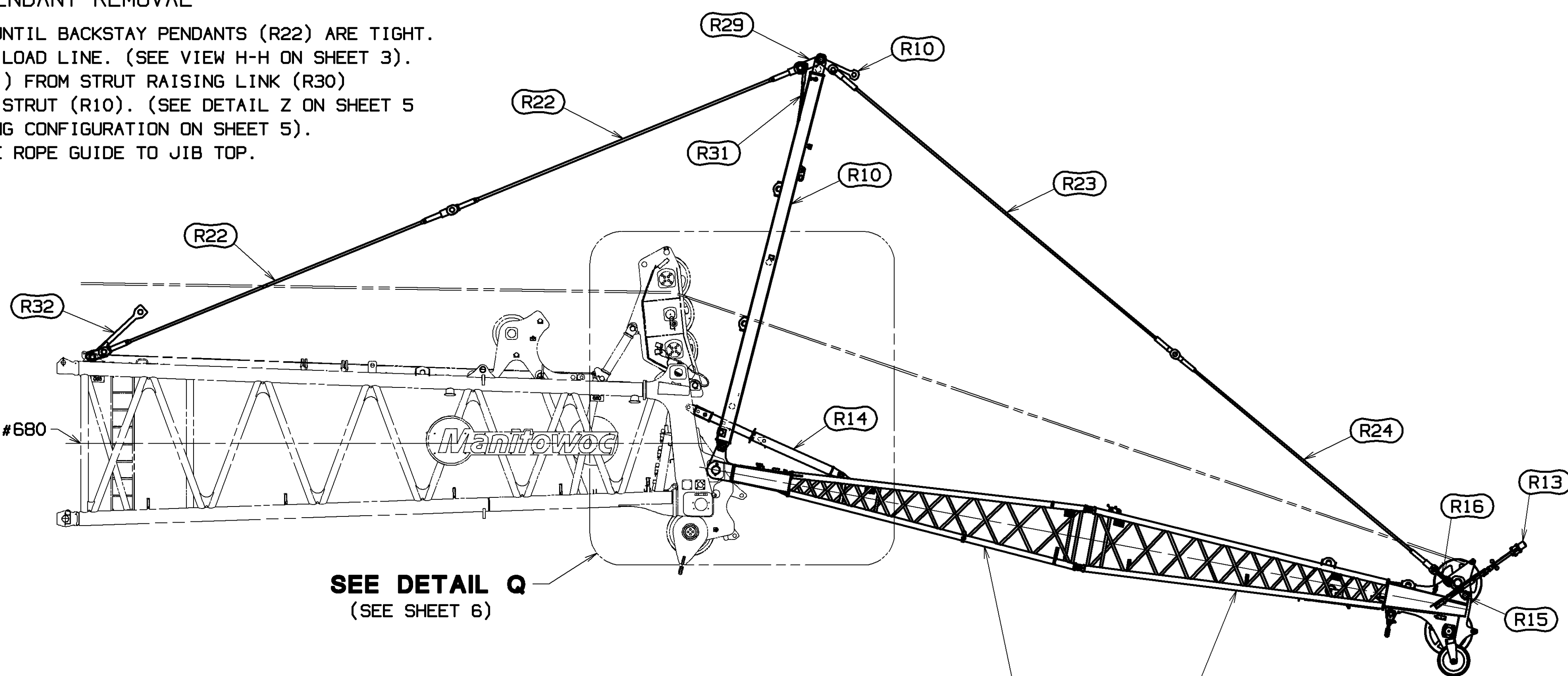
STEP 5
MLC650



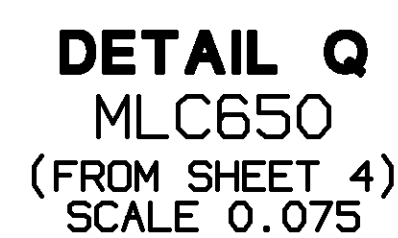
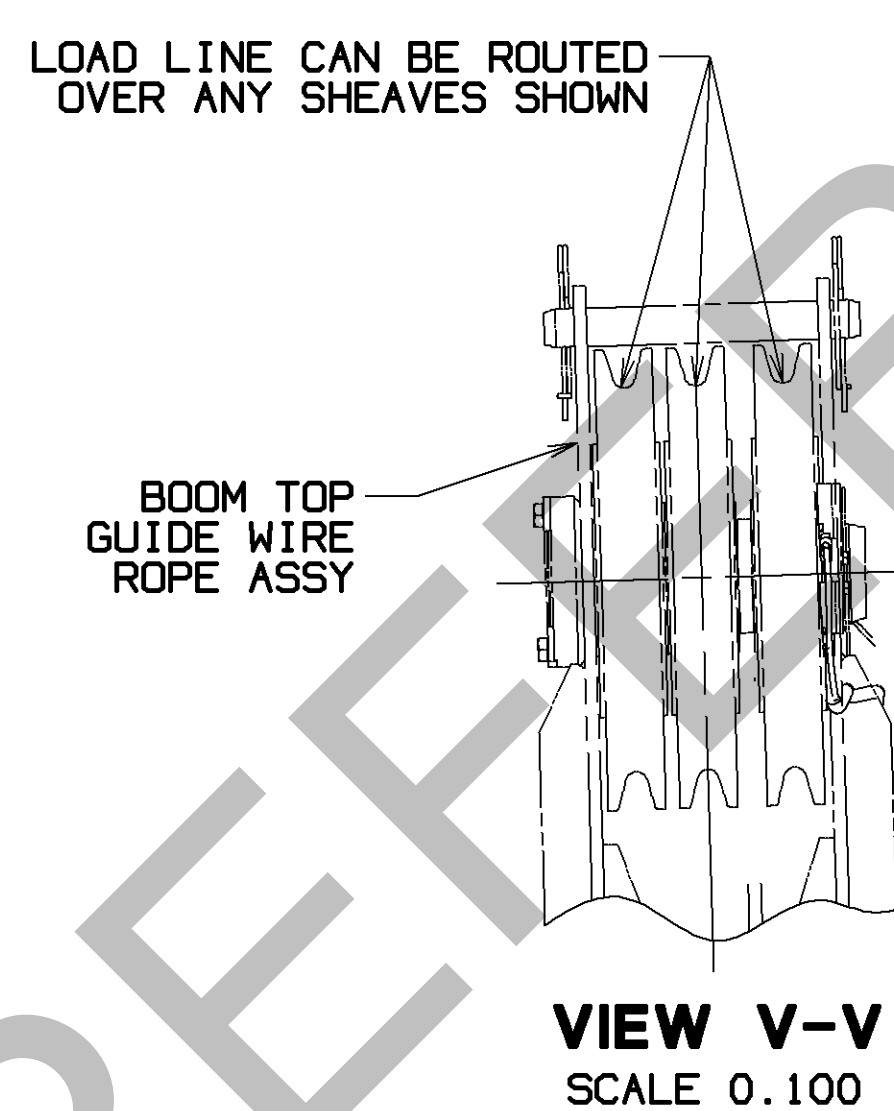
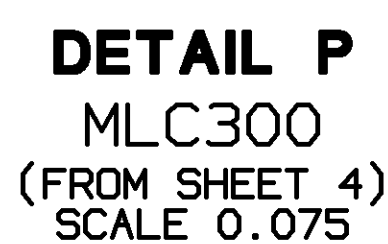
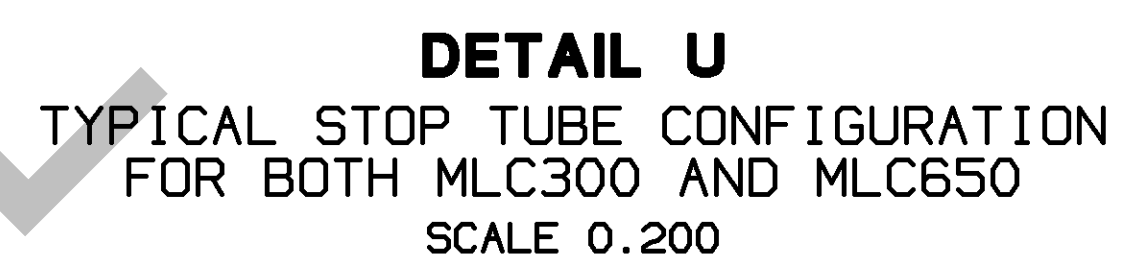
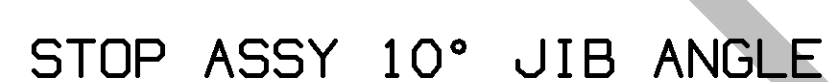
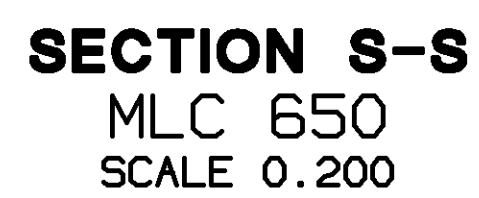
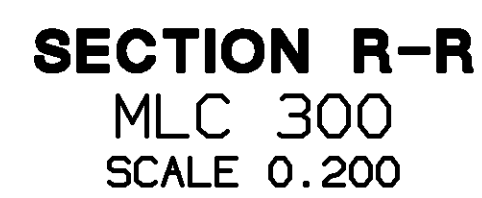
STEP 6
MLC300

STEP 6
BOOM RAISING

RAISE BOOM UNTIL BACKSTAY (R22) AND FRONTSTAY (R23)(R24) PENDANTS ARE TIGHT.
ENSURE SPRING LOADED STOP PINS (R35) ARE ENGAGED WITH USE OF JIB TOP HAND WINCH LINE (SEE VIEW K-K ON SHEET 5).



STEP 6
MLC650



SHT 6 OF 6