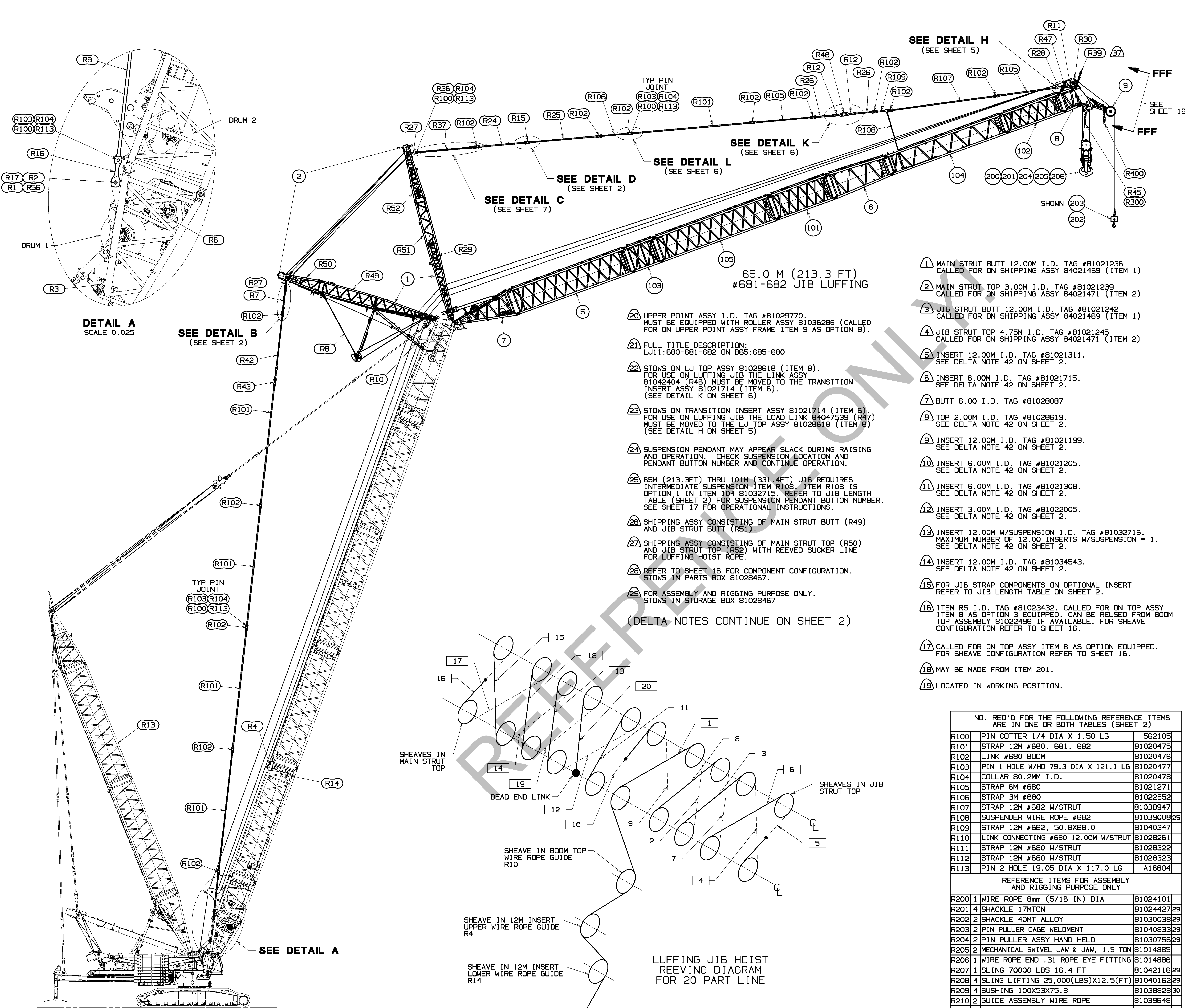


DETAIL A
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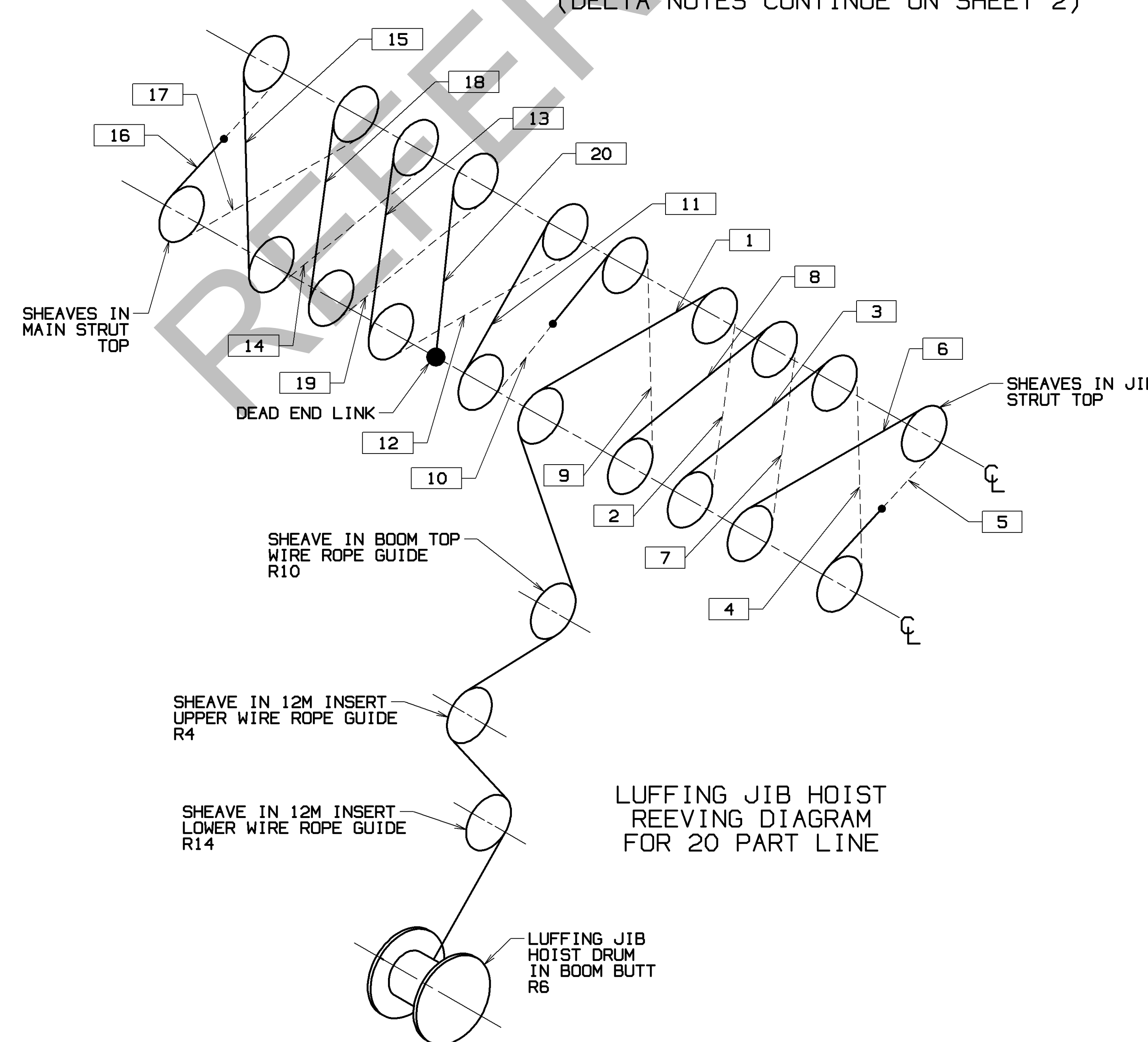
SEE DETAIL B
(SEE SHEET 2)



68.0 M (223.1 FT)
#685-680 BOOM SHOWN

SEE 34

LUFFING JIB HOIST
REEVING DIAGRAM
FOR 20 PART LINE



LUFFING JIB HOIST
DRUM IN BOOM BUTT
R6

DO NOT SCALE THIS DRAWING

SEE DETAIL H
(SEE SHEET 5)

SEE DETAIL K
(SEE SHEET 6)

SEE DETAIL L
(SEE SHEET 6)

SEE DETAIL C
(SEE SHEET 7)

SEE DETAIL D
(SEE SHEET 2)

SEE DETAIL B
(SEE SHEET 2)

TYP PIN JOINT
R103/R104
R100/R113

TYP PIN JOINT
R103/R104
R100/R113

TYP PIN JOINT
R103/R104
R100/R113

TYP PIN JOINT
R103/R104
R100/R113

20 UPPER POINT ASSY I.D. TAG #81029770.
MUST BE EQUIPPED WITH ROLLER ASSY 81036286 (CALLED
FOR ON UPPER POINT ASSY FRAME ITEM 9 AS OPTION 8).

21 FULL TITLE DESCRIPTION:
LJ11:680-681-682 ON B65:685-680

22 STOWS ON LJ TOP ASSY 81028618 (ITEM 8).
FOR USE ON LUFFING JIB THE LINK ASSY
81042404 (R46) MUST BE MOVED TO THE TRANSITION
INSERT ASSY 81021714 (ITEM 6).
(SEE DETAIL K ON SHEET 6)

23 STOWS ON TRANSITION INSERT ASSY 81021714 (ITEM 6).
FOR USE ON LUFFING JIB THE LOAD LINK 84047539 (R47)
MUST BE MOVED TO THE LJ TOP ASSY 81028618 (ITEM 8)
(SEE DETAIL H ON SHEET 5)

24 SUSPENSION PENDANT MAY APPEAR SLACK DURING RAISING
AND OPERATION. CHECK SUSPENSION LOCATION AND
PENDANT BUTTON NUMBER AND CONTINUE OPERATION.

25 65M (213.3FT) THRU 101M (331.4FT) JIB REQUIRES
INTERMEDIATE SUSPENSION ITEM R108. ITEM R108 IS
OPTION 1 IN ITEM 104 81032715. REFER TO JIB LENGTH
TABLE (SHEET 2) FOR SUSPENSION PENDANT BUTTON NUMBER.
SEE SHEET 17 FOR OPERATIONAL INSTRUCTIONS.

26 SHIPPING ASSY CONSISTING OF MAIN STRUT BUTT (R49)
AND JIB STRUT BUTT (R51).

27 SHIPPING ASSY CONSISTING OF MAIN STRUT TOP (R50)
AND JIB STRUT TOP (R52) WITH REEVED SUCKER LINE
FOR LUFFING HOIST ROPE.

28 REFER TO SHEET 16 FOR COMPONENT CONFIGURATION.
STOWS IN PARTS BOX 81028467.

29 FOR ASSEMBLY AND RIGGING PURPOSE ONLY.
STOWS IN STORAGE BOX 81028467

(DELTA NOTES CONTINUE ON SHEET 2)

1 MAIN STRUT BUTT 12.00M I.D. TAG #81021236
CALLED FOR ON SHIPPING ASSY 84021469 (ITEM 1)

2 MAIN STRUT TOP 3.00M I.D. TAG #81021239
CALLED FOR ON SHIPPING ASSY 84021471 (ITEM 2)

3 JIB STRUT BUTT 12.00M I.D. TAG #81021242
CALLED FOR ON SHIPPING ASSY 84021469 (ITEM 1)

4 JIB STRUT TOP 4.75M I.D. TAG #81021245
CALLED FOR ON SHIPPING ASSY 84021471 (ITEM 2)

5 INSERT 12.00M I.D. TAG #81021311.
SEE DELTA NOTE 42 ON SHEET 2.

6 INSERT 6.00M I.D. TAG #81021715.
SEE DELTA NOTE 42 ON SHEET 2.

7 BUTT 6.00 I.D. TAG #81028087

8 TOP 2.00M I.D. TAG #81028619.
SEE DELTA NOTE 42 ON SHEET 2.

9 INSERT 12.00M I.D. TAG #81021199.
SEE DELTA NOTE 42 ON SHEET 2.

10 INSERT 6.00M I.D. TAG #81021205.
SEE DELTA NOTE 42 ON SHEET 2.

11 INSERT 6.00M I.D. TAG #81021308.
SEE DELTA NOTE 42 ON SHEET 2.

12 INSERT 3.00M I.D. TAG #81022005.
SEE DELTA NOTE 42 ON SHEET 2.

13 INSERT 12.00M W/SUSPENSION I.D. TAG #81032716.
MAXIMUM NUMBER OF 12.00 INSERTS W/SUSPENSION = 1.
SEE DELTA NOTE 42 ON SHEET 2.

14 INSERT 12.00M I.D. TAG #81034543.
SEE DELTA NOTE 42 ON SHEET 2.

15 FOR JIB STRAP COMPONENTS ON OPTIONAL INSERT
REFER TO JIB LENGTH TABLE ON SHEET 2.

16 ITEM R5 I.D. TAG #81023432. CALLED FOR ON TOP ASSY
ITEM 8 AS OPTION 3 EQUIPPED. CAN BE REUSED FROM BOOM
TOP ASSEMBLY 81022496 IF AVAILABLE. FOR SHEAVE
CONFIGURATION REFER TO SHEET 16.

17 CALLED FOR ON TOP ASSY ITEM 8 AS OPTION EQUIPPED.
FOR SHEAVE CONFIGURATION REFER TO SHEET 16.

18 MAY BE MADE FROM ITEM 201.

19 LOCATED IN WORKING POSITION.

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

R100	PIN COTTER 1/4 DIA X 1.50 LG	562105
R101	STRAP 12M #680, 681, 682	81020475
R102	LINK #680 BOOM	81020476
R103	PIN 1 HOLE W/HD 79.3 DIA X 121.1 LG	81020477
R104	COLLAR 80.2MM I.D.	81020478
R105	STRAP 6M #680	81021271
R106	STRAP 3M #680	81022552
R107	STRAP 12M #682 W/STRUT	81038947
R108	SUSPENDER WIRE ROPE #682	81039008
R109	STRAP 12M #682, 50.8X88.0	81040347
R110	LINK CONNECTING #680 12.00M W/STRUT	81028261
R111	STRAP 12M #680 W/STRUT	81028322
R112	STRAP 12M #680 W/STRUT	81028323
R113	PIN 2 HOLE 19.05 DIA X 117.0 LG	A16804

REFERENCE ITEMS FOR ASSEMBLY
AND RIGGING PURPOSE ONLY

R200	1 WIRE ROPE 8mm (5/16 IN) DIA	81024101
R201	4 SHACKLE 17MTON	81024427
R202	2 SHACKLE 40MT ALLOY	81030038
R203	2 PIN PULLER CAGE WELDMENT	81040833
R204	2 PIN PULLER ASSY HAND HELD	81030756
R205	2 MECHANICAL SWIVEL JAW & JAW, 1.5 TON	81014885
R206	1 WIRE ROPE END .31 ROPE EYE FITTING	81014886
R207	1 SLING 70000 LBS 16.4 FT	81042116
R208	4 SLING LIFTING 25.000(LBS)X12.5(FT)	81040162
R209	4 BUSHING 100X53X75.8	81038828
R210	2 GUIDE ASSEMBLY WIRE ROPE	81039648
R211	1 WIRE ROPE STRUT RIG 22.2M	84030721
R212	1 WIRE ROPE STRUT RIG 38.7M	84030722
R213	1 GUIDE ASSEMBLY WIRE ROPE	A13182
R214	1 SHACKLE .375 (IN) 1 TON ROUND PIN GALV	81017572

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DATE: 04-28-17
REV: A

NO.	REV.	DESCRIPTION	DATE	BY	APP.
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BILL OF MATERIAL				
NO.	REV.	DESCRIPTION	MATERIAL	QTY
LUFFING JIB RIGGING LJ on B65				
1	1	STRUT #683 SHIPPING ASSY-BUTT	84021469	26
2	1	STRUT #683 SHIPPING ASSY-TOP	84021471	27
3				
4				
5	1	INSERT ASSY #680/681, 12.00M	81021310	5
6	1	TRANSITION INSERT ASSY #681/682, 6M	81021714	6
7	1	BUTT ASSY #680A, 6.0M	81028086	7
8	1	TOP ASSY #682, 2.0M	81028618	8
9	1	UPPER POINT ASSY FRAME	81029769	20

NO. REQ'D FOR THE FOLLOWING ITEMS ARE IN THE JIB LENGTH TABLE				
100		INSERT ASSY #682, 12.00M	81021198	9
101		INSERT ASSY #681, 6.00M	81021204	10
102		INSERT ASSY #682, 6.00M	81021307	11
103		INSERT ASSY #681, 3.00M	81022004	12
104		INSERT ASSY #682, 12M STRUT	81032715	13
105		INSERT ASSY #681, 12.00M	81034541	14
106		INSERT ASSY #680, 12.00M HEAVY	81020424	39
107		INSERT ASSY #680, 12.00M MEDIUM	81021299	40
108		INSERT ASSY #680, 12M W/SUSP	81035136	41

OPTION 1: HOOK BLOCKS				
200	1	BLOCK HOOK 135MT 32MM WR 3 SHEAVES	81023461	
201	1	BLOCK HOOK 450MT 32MM WR 10 SHEAVES	81029960	
202	1	BLOCK HOOK 100MT 28MM WR 3 SHEAVES	81031987	38
203	1	WEIGHT BALL SWIVEL 22.2MT, 28MM & 32MM WR	81033344	
204	1	BLOCK HOOK 325MT 32MM WR 7 SHEAVES	81033345	33
205	1	BLOCK HOOK 225MT 32MM WR 5 SHEAVES	81033346	18
206	1	HOOK BLOCK 160MT 3SH 32WR	84039500	

OPTION 2: UPPER BOOM POINT				
300				

BASIC REFERENCE ITEMS				
R1	4	PIN COTTER 3/16 DIA X 2.00 LG	562087	
R2	2	COLLAR 103.0 I.D.	81009827	
R3	1	WINCH RIGGING	81009957	
R4	1	FRAME ASSY LJ WRG-UPPER	81022256	19
R5	1	BOOM POINT LOWER ASSY 8 SHEAVE	81023433	16
R6	1	DRUM ASSY LUFFING JIB	81023464	
R7	1	SPREADER ASSY #683 LJ BACKSTAY	81023808	
R8	1	ARM RAISING ASSY #683	81023848	
R9	2	STRAP 4M #680	81023853	
R10	1	FRAME ASSY LJ WRG #680 TOP	81024976	19
R11	4	LINK #680 BOOM STRAP	81025609	
R12	8	LINK #680 BOOM STRAP	81025610	
R13	1	MAST RIGGING M1:684	84050187	
R14	1	FRAME ASSY LJ WRG-LOWER	81027187	
R15	4	LINK #680, 4M INSERT	81027236	
R16	4	STRAP 25.4X272.3X969.8	81027282	
R17	2	PIN 1 HOLE W/HD 101.6 DIA X 122.5 LG	81027283	
R18	8	PIN 1 HOLE W/HD 105.0 DIA X 121.1 LG	81028258	
R19	2	PIN 1 HOLE W/HD 127.0 DIA X 121.1 LG	81028259	
R20	8	COLLAR 106.5 MM I.D.	81028260	
R21	8	PIN 2 HOLE 19.05 DIA X 142.0 LG	81028262	
R22	2	COLLAR 128.2 MM I.D.	81028264	
R23	2	PIN 2 HOLE 19.05 DIA X 167.8 LG	81028265	
R24	2	STRAP 12M #680/681	81030485	
R25	2	STRAP 12M #680/681	81030486	
R26	4	STRAP 6M #681/682 TRNSN	81030487	
R27	8	LINK STRUT SHAFT #683	81031790	
R28	4	LINK #682 JIB TOP STRAP	81032029	
R29	1	LADDER ASSY	81034258	
R30	1	GUIDE WIRE ROPE ASSY #682, TOP	84045801	
R31	2	CYLINDER HYDR MAIN STRUT STOP	81035271	
R32	2	GUIDE STRUT STOP ROLLER	81036409	
R33	2	JIB STOP ASSY	81037121	
R34	2	SUPPORT STRUT	81037910	
R35	2	STRUT SUPPORT	81039015	
R36	4	PIN 1 HOLE W/HD 79.3 DIA X 205.1 LG	81039254	
R37	1	SPREADER ASSY #683 FRONTSTAY	81039526	
R38				
R39	1	ESI POSITION LIGHT AND ANEMOMETER	81031642	37
R40	1	TOP OPTION #682 SEALED	81040338	17
R41	1	TOP OPTION #682 GREASED	81040339	17
R42	2	STRAP #683 BUTT	81041146	
R43	4	LINK #683 BUTT	81041147	
R44	2	TUBE STRAP STOWAGE	81041200	
R45	1	LINK ASSY DEAD END	81042356	28
R46	2	LINK ASSY	81042404	22
R47	2	LINK ASSY LOAD	84047539	23
R48	1	PENDANT 0.313 DIA X 54.0(FT)	81040473	
R49	1	STRUT ASSY #683, 12M BUTT	81021235	1
R50	1	STRUT ASSY #683, 3.0M TOP	81021238	2
R51	1	STRUT ASSY #683, 12M BUTT	81021241	3
R52	1	STRUT ASSY #683, 4.75M JIB TOP	81021244	4
R53	2	STAND #683 RAISING STRUT	81032296	
R54	2	CYL HYD JIB STOP SUPPORT	84027345	
R55	2	BRACKET JIB STOP SUPPORT	81039610	
R56	2	PIN 2 HOLE 22.2 DIA X 152.0 LG	A15390	
R57	4	PIN 2 HOLE 2.25 DIA X 3.89 LG (IN)	81031296	
R58				

84038308
SHT 1 OF 17

REFERENCE OPTION 3: JIB TOP DEAD END				
R300	1	LINK ASSY DEAD END	81042356	28

REFERENCE OPTION 4: UPPER POINT DEAD END				
R400	1	LINK ASSY DEAD END	81042356	28

ITEMS REQ'D FOR VARIOUS JIB LENGTHS - SEE SHEETS 5, 6 & 7 FOR JIB MAKE-UP

BILL OF MATERIAL				ASSEMBLY USED ON
QTY	DESC	MATERIAL	REF. NO.	

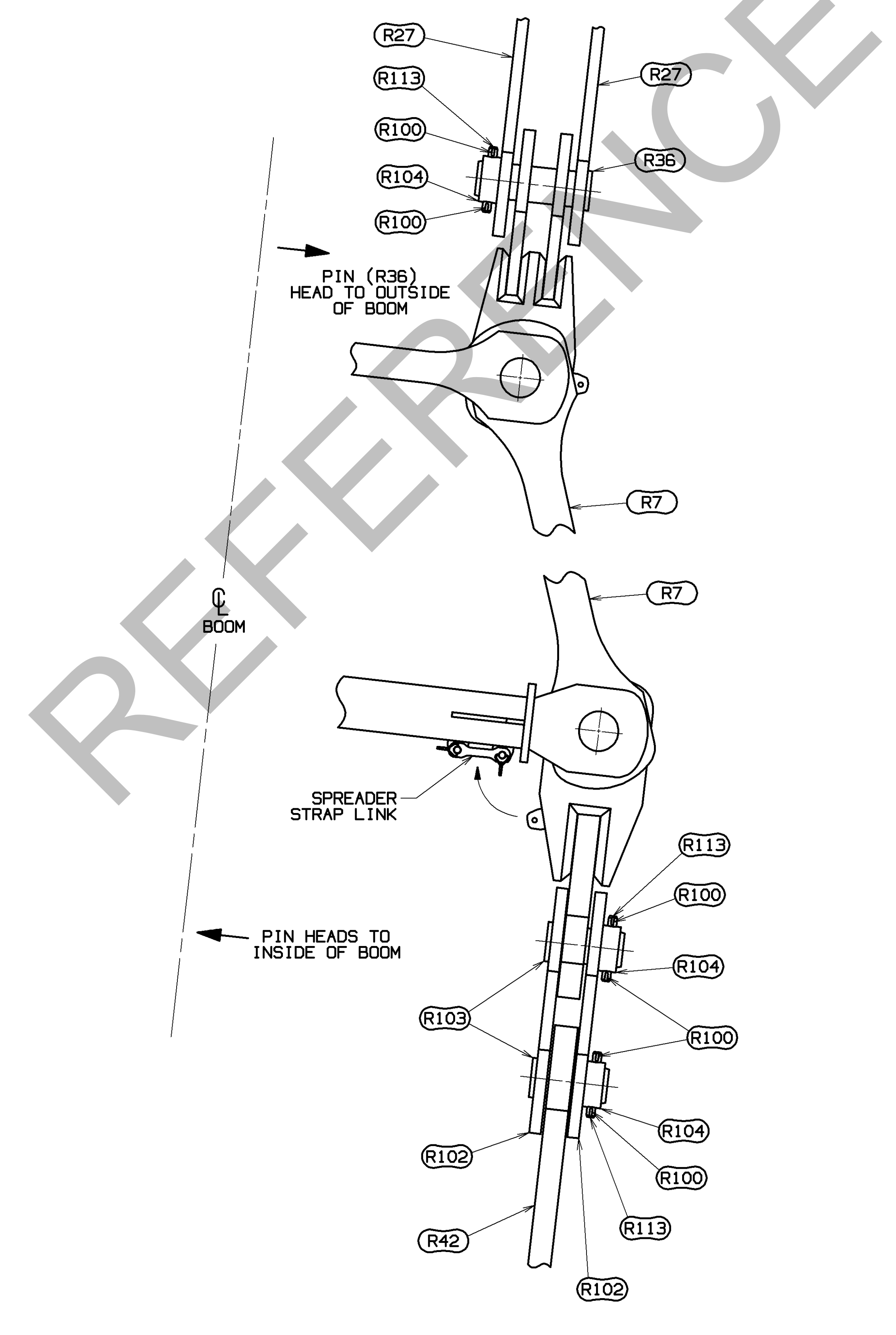
ITEM NO.	#680 INSERTS			#681 INSERTS			#682 INSERTS			STRAP							LINK		PIN		COTTER	COLLAR	SUSPENSION	
	106	107	108	105	101	103	100	104	102	R101	R107	R109	R105	R106	R111	R112	R102	R110	R103	R113	R100	R104	R108 (24)	
JIB LENGTH	INSERT 12M (39.4FT) ASSY	INSERT 12M (39.4FT) ASSY	INSERT 12M (39.4FT) SUSP ASSY	INSERT 12M (39.4FT) SUSP ASSY	INSERT 6M (19.7FT) ASSY	INSERT 3M (9.8FT) ASSY	INSERT 12M (39.4FT) ASSY	INSERT 12M (39.4FT) SUSP ASSY	INSERT 6M (19.7FT) ASSY	STRAP 12M (39.4FT)	STRAP LONG W/SUSP	STRAP SHORT W/SUSP	STRAP 6M (19.7FT)	STRAP 3M (9.8FT)	STRAP SHORT W/SUSP	STRAP LONG W/SUSP	LINK	LINK CONNECT W/SUSP	PIN	PIN	COTTER	COLLAR	PENDANT BUTTON NUMBER SEE (25)	
METERS	FEET																							
26	85.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	18	20	60	20	-	
29	95.1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	12	0	22	24	68	24	-	
32	105.0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	12	0	22	24	68	24	-	
35	114.8	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	16	0	26	28	76	28	-	
38	124.7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	12	0	22	24	68	24	-	
41	134.5	0	0	0	1	0	1	0	0	0	0	0	2	0	0	0	16	0	26	28	76	28	-	
44	144.4	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	16	0	26	28	76	28	-	
47	154.2	0	0	0	1	1	1	0	0	0	0	0	2	2	0	0	20	0	30	32	84	32	-	
50	164.0	0	0	0	1	1	0	0	0	1	2	0	0	0	0	0	20	0	30	32	84	32	-	
53	173.9	0	0	0	1	1	1	0	0	1	2	0	0	4	0	0	24	0	34	36	92	36	-	
59	193.6	0	0	0	1	1	1	OR 0/1	1	0	2	2	2	2	0	0	28	0	38	40	100	40	-	
65	213.3	0	0	0	1	1	1	0	1	1	2	2	2	4	2	0	0	32	0	42	44	108	44	4
71	232.9	0	OR 0/1	1	1	1	0	1	0	0	4	2	2	2	0	0	32	0	42	44	108	44	2	
77	252.6	0	OR 0/1	1	1	1	0	1	1	1	4	2	2	4	2	0	0	36	0	46	48	116	48	3
83	272.3	0	OR 0/1	1	1	1	1	1	0	0	6	2	2	2	2	0	0	36	0	46	48	116	48	3
89	292.0	1	OR 0/1	1	1	1	0	1	1	1	4	2	2	4	2	0	0	48	2	58	60	140	60	1
95	311.7	1	OR 0/1	1	1	1	1	1	0	0	6	2	2	4	2	0	0	48	2	58	60	140	60	1
101	331.4	1	OR 0/1	1	1	1	1	1	1	1	6	2	2	4	2	0	0	52	2	62	64	148	64	3

(DELTA NOTES CONTINUED FROM SHEET 1)

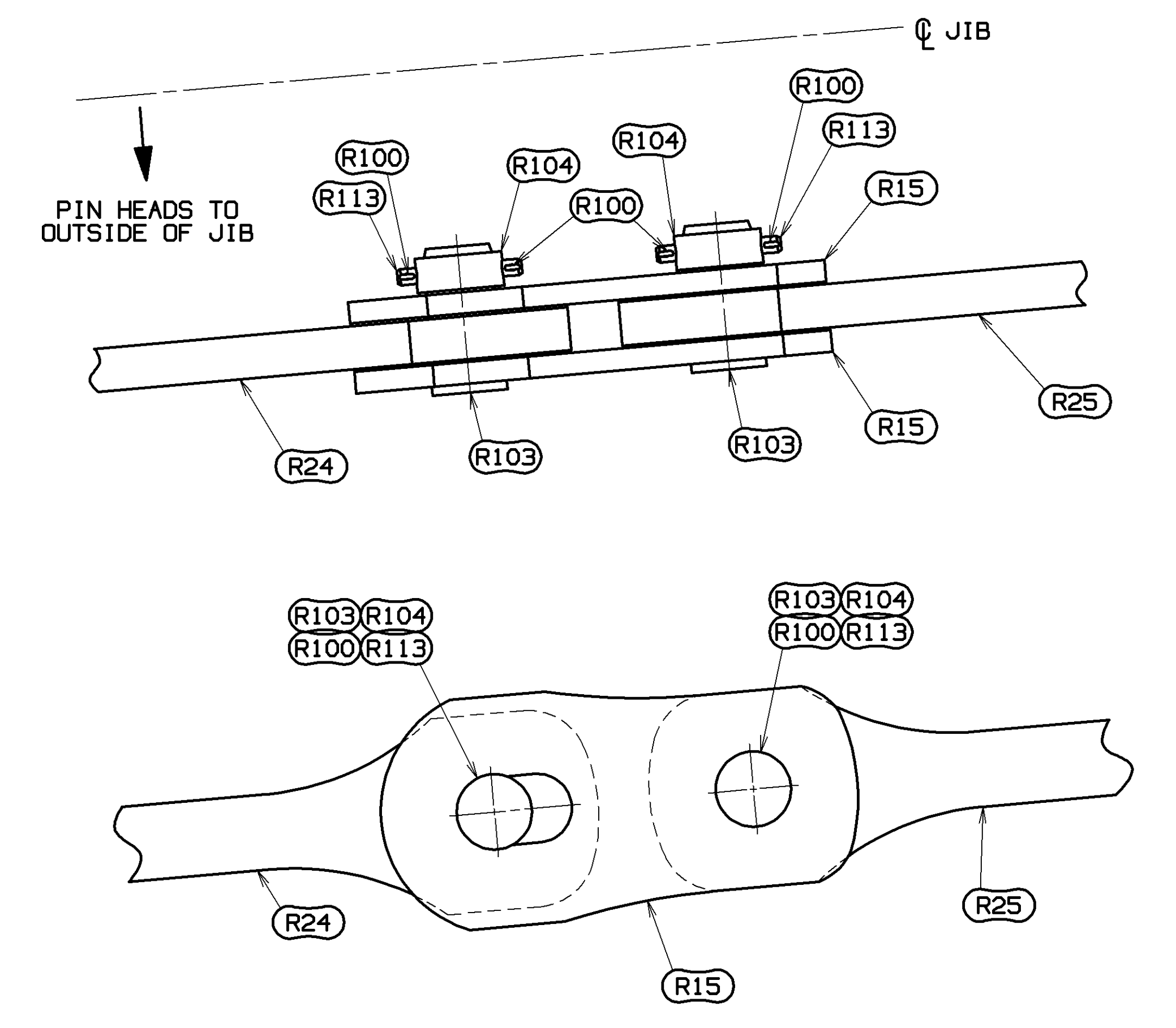
- (30) FOR ASSEMBLY AND RIGGING PURPOSE ONLY. STOWS ON 12M INSERT 81021310 (ITEM 5). SEE DETAIL AAA ON SHEET 12.
- (31) FOR SHIPPING OF STRUT TOP (ITEM 2) AND REEVING OF LUFFING HOIST ROPE (DRUM 6).
- (32) USE DRUM 2 IF AVAILABLE. WHEN USING DRUM 1 FOR STRUT RAISING 74M MINIMUM OF BOOM IS REQUIRED FOR PROPER WRAP ON THE 4M FLEETING SHEAVE. FOR SHORTER BOOMS AN ASSIST CRANE IS REQUIRED FOR STRUT RAISING OR DRUM 1 CAN BE USED PER INSTRUCTIONS AT STEP 10 ON SHEET 12.
- (33) CAN BE MADE FROM 81029961
- (34) FOR MAKEUP OF BOOM SEE BOOM RIGGING B65:685-680 DRAWING 84038307.
- (35) SEE BLOCK REEVING DRAWING 84029919 FOR 1 DRUM RIGGING CONFIGURATION OPTIONS AND INSTRUCTIONS. SEE RIGGING WINCH ASSY 81026267 FOR BLOCK AND WIRE ROPE ASSEMBLY.
- (36) SEE BLOCK REEVING DRAWING 84029920 FOR 2 DRUM RIGGING CONFIGURATION OPTIONS AND INSTRUCTIONS. SEE RIGGING WINCH ASSY 81026267 FOR BLOCK AND WIRE ROPE ASSEMBLY.
- (37) RELOCATE FROM MAIN BOOM. (STOWS ON #680 BOOM INSERT 81021996).
- (38) USE FOR 2 PART LINE ON UPPER BOOM POINT. CAN BE USED WITH 26MM ROPE ONLY.
- (39) INSERT 12.00M HEAVY I.D. TAG #81020425. SEE DELTA NOTES 42 AND 45.
- (40) INSERT 12.00M MEDIUM I.D. TAG #81021300. SEE DELTA NOTES 42 & 44.
- (41) INSERT 12.00M MEDIUM W/SUSPENSION I.D. #81035137. SEE DELTA NOTES 42, 43 & 45.
- (42) IF EQUIPPED WITH LOWER BOOM CONNECTOR PIN COMPONENTS USED WITH HAND HELD CYLINDER (R204) 81030756. SEE DETAIL HHH ON SHEET 12.
IF EQUIPPED WITH MANUAL LOWER BOOM CONNECTOR PINS, SEE DETAIL LLL ON SHEET 12.
- (43) REMOVE BOOM SUSPENSION STRAPS (R110, R111, R112) AND LINKS (R102) FROM SUSPENSION INSERT ITEM 108. (SEE DETAIL MMM ON SHEET 6).
RELOCATE STRAPS (R24, R25) AND LINKS (R102, R15) FROM INSERT ITEM 5 TO LOCATION VACATED BY SUSPENSION STRAPS AND LINKS ON SUSPENSION INSERT ITEM 108 AS SHOWN ON SHEET 6. (SEE DELTA NOTE 47).
- (44) STRAPS AND LINKS OF INSERTS ITEM 107 AND ITEM 5 ARE TO BE INTERCHANGED AS SHOWN ON SHEET 6.
- (45) BOOM STRAPS AND LINKS OF INSERTS ITEM 106 AND ITEM 5 ARE TO BE INTERCHANGED AS SHOWN ON SHEET 7. (SEE DELTA NOTE 47). BACKSTAY STRAPS ARE TO BE REMOVED FROM INSERTS ITEMS 106 AND 108 PER CAPACITY CHART.
- (46) RIGGERS TO DETERMINE PREFERRED PICK POINTS BASED ON CENTER OF GRAVITY USING SLINGS ITEM R207.
- (47) IF INSERT ITEMS 106 OR 108 NEED AN ADDITIONAL BRACKET TO SUPPORT RELOCATED STRAP R25, REFER TO INSERT MODIFICATION DRAWING 84047767.

ITEMS REQ'D FOR VARIOUS BOOM LENGTHS - SEE SHEETS 3 & 4 FOR BOOM MAKE-UP

ITEM NO.	STRAP		LINK	PIN		COTTER	COLLAR	JIB BACKSTAY ADJUSTMENT HOLE SEE DETAIL F ON SHEET 3
	R101	R105	R102	R103	R113	R100	R104	
BOOM LENGTH	STRAP 12M (39.4FT)	STRAP 6M (19.7FT)	LINK	PIN	PIN	COTTER	COLLAR	
METERS	FEET							
56	183.7	6	0	16	24	24	48	A
62	203.4	6	2	20	26	28	56	B
68	223.1	8	0	20	26	28	56	B
74	242.8	8	2	24	30	32	64	B
80	262.5	10	0	24	30	32	64	B
86	282.2	10	2	28	34	36	72	B
92	301.8	12	0	28	34	36	72	B
98	321.5	12	2	32	38	40	80	B
104	341.2	14	0	32	38	40	80	B



DETAIL B (FROM SHEET 1) SCALE 0.100



DETAIL D (FROM SHEET 1) SCALE 0.200

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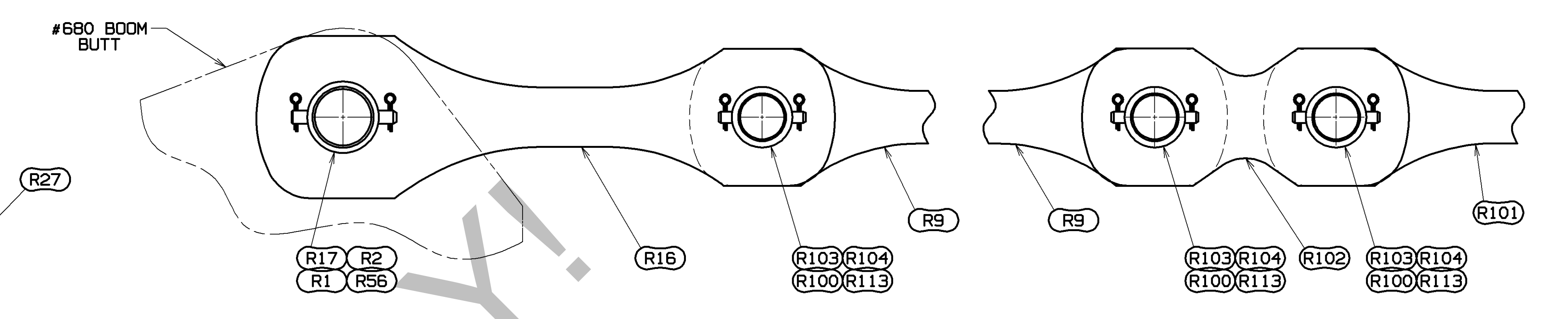
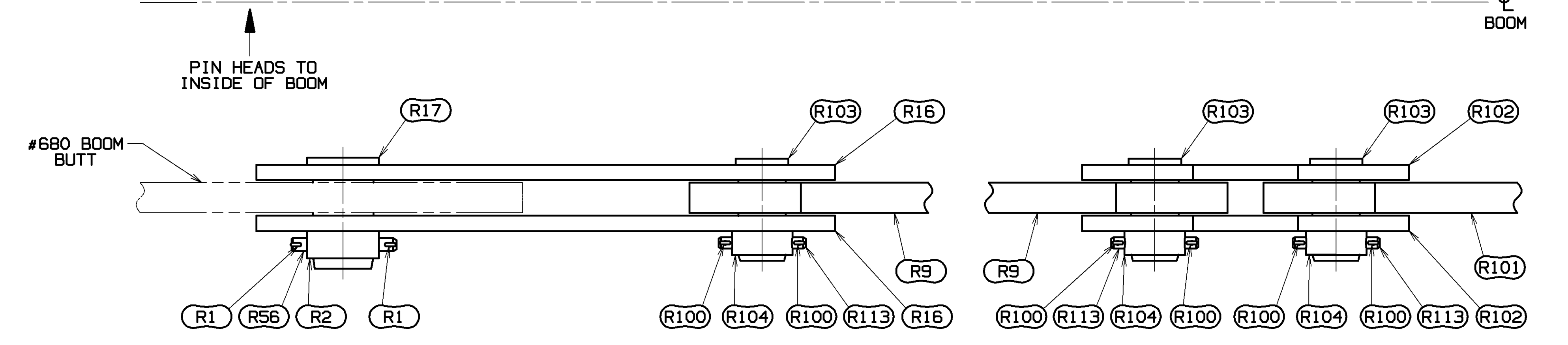
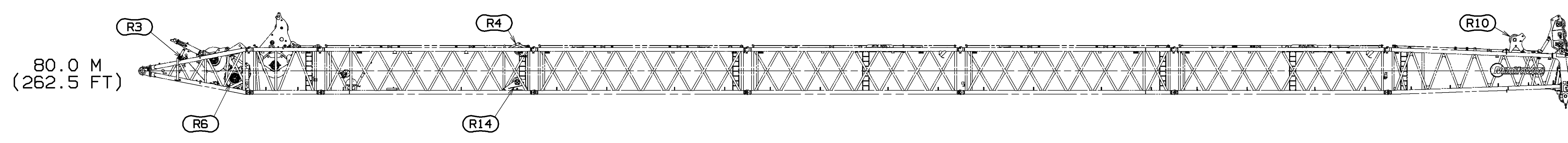
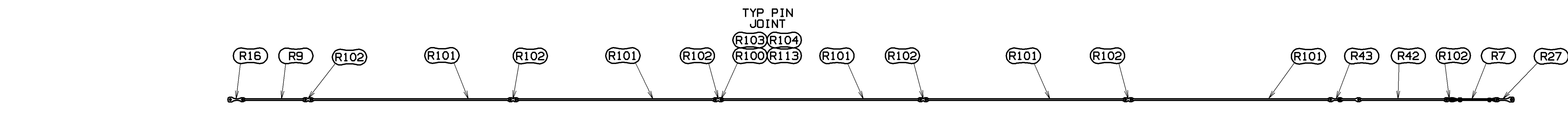
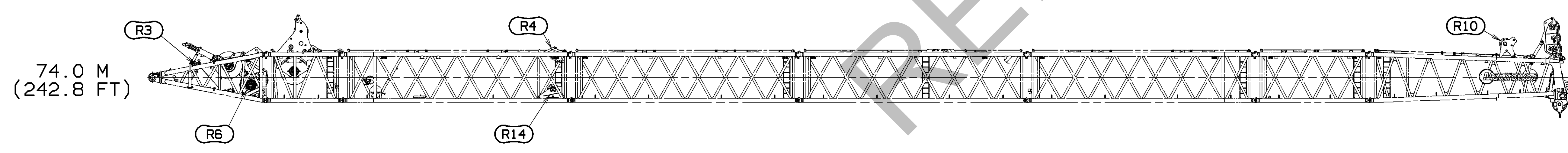
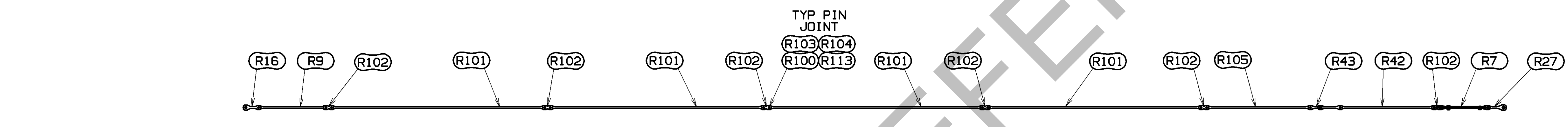
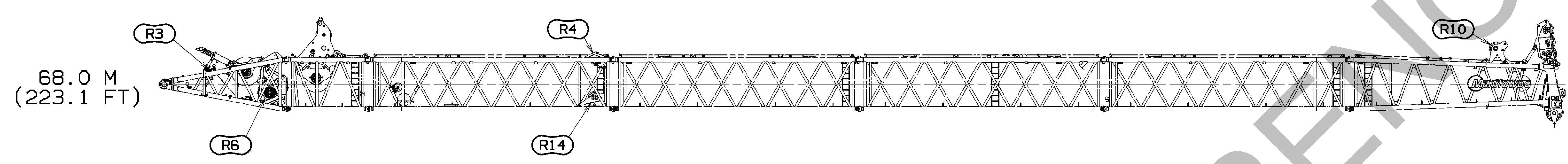
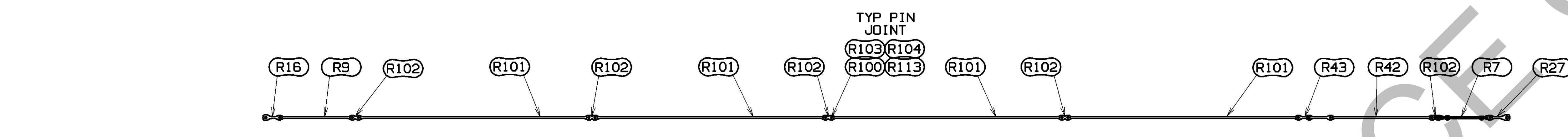
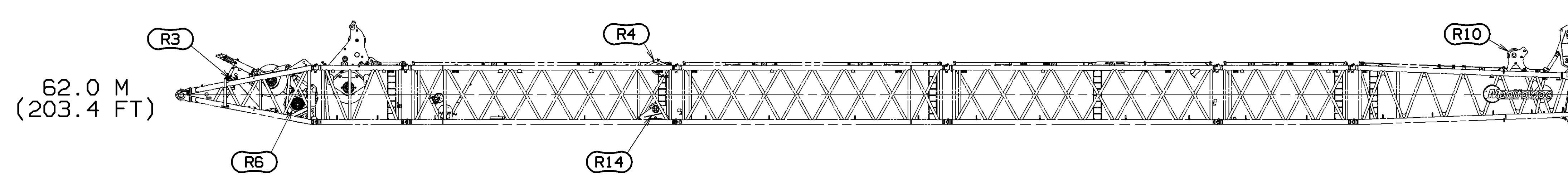
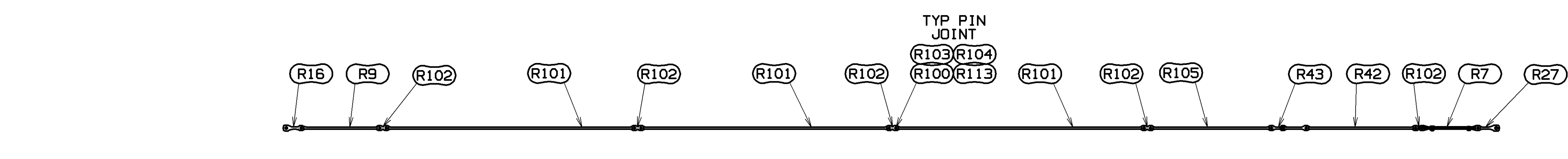
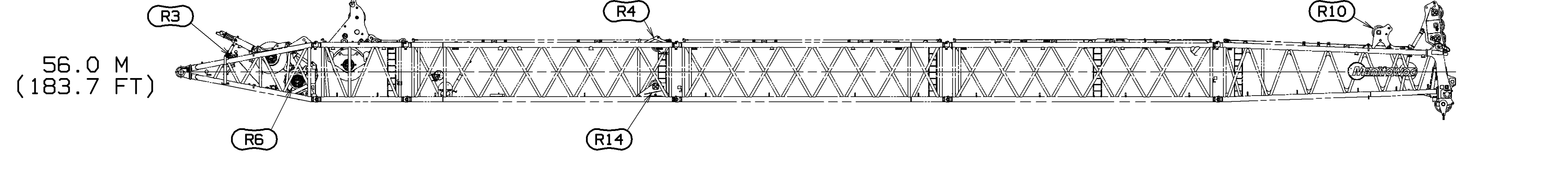
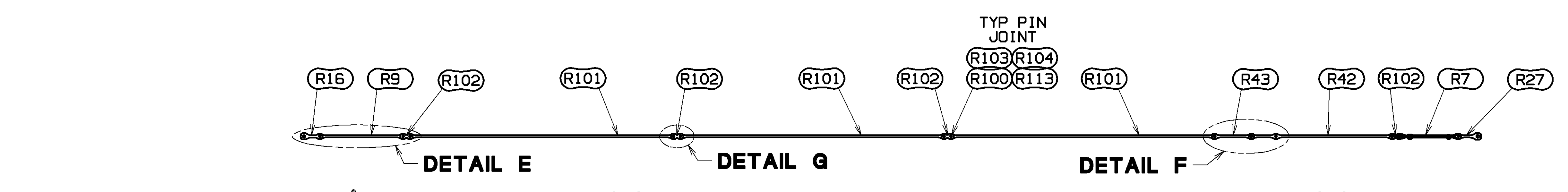
DECIMAL PLACES	FRACTIONS	FINISHING	DATE	BY	CHK.	APP.
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(2) PLACE 0.00	1/16	1/16				
(3) PLACE 0.000	1/64	1/64				

MANITOWOC CRANES, INC. LUFFING JIB RIGGING
MODEL MLC650
LUJ on B65

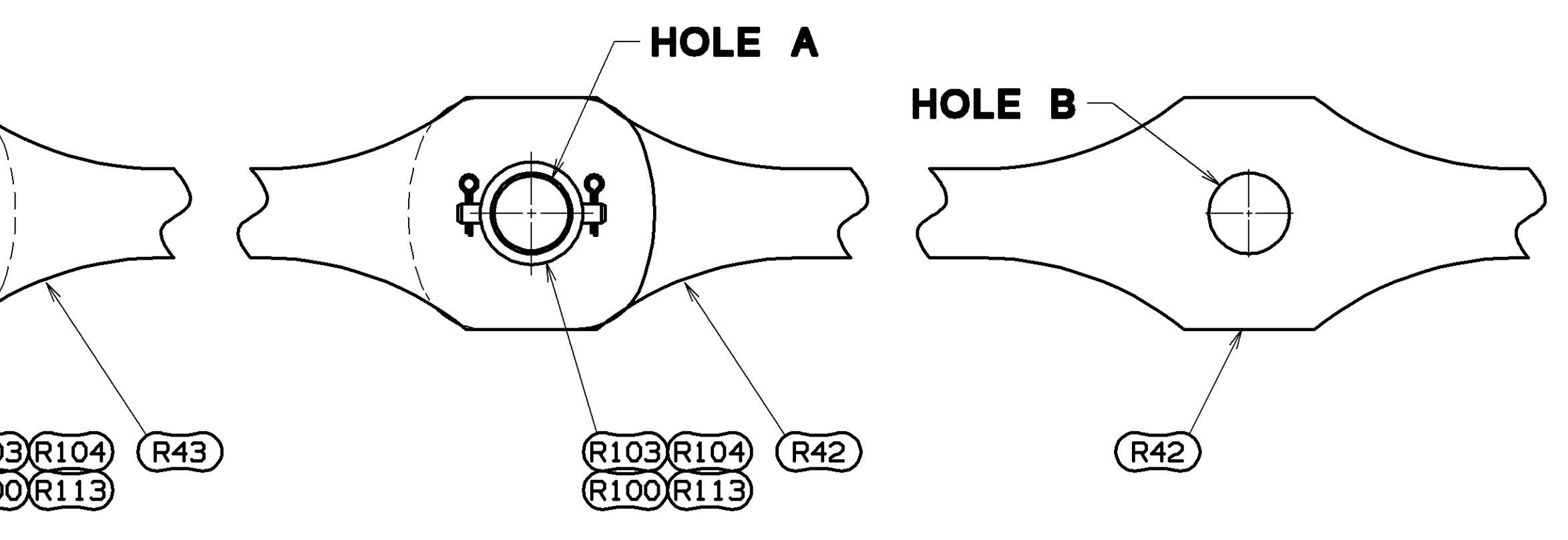
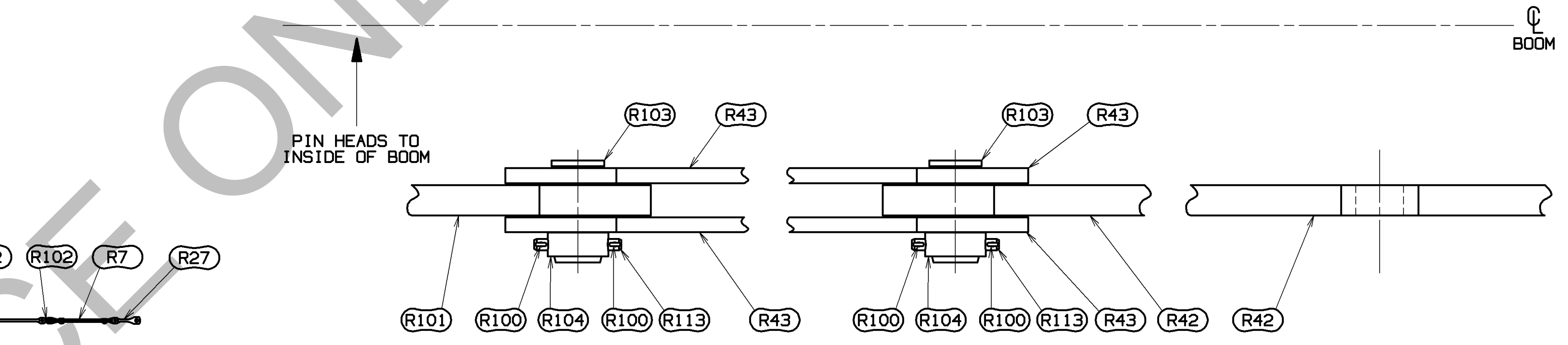
DATE 04-28-17
REV. LTR. A

84038308
SHT 2 OF 17

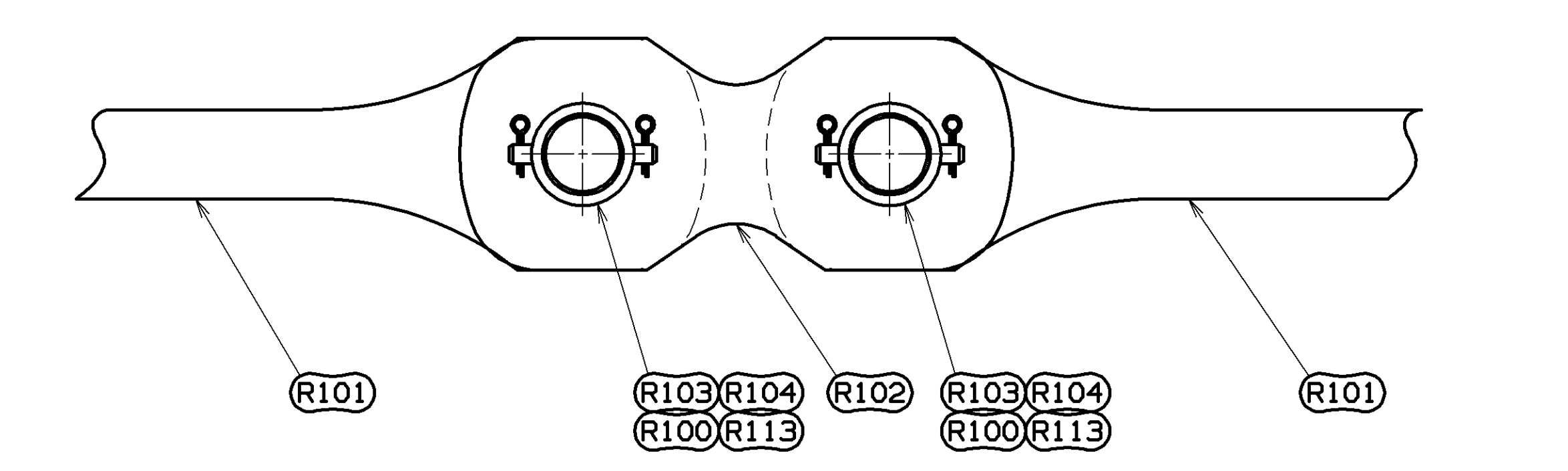
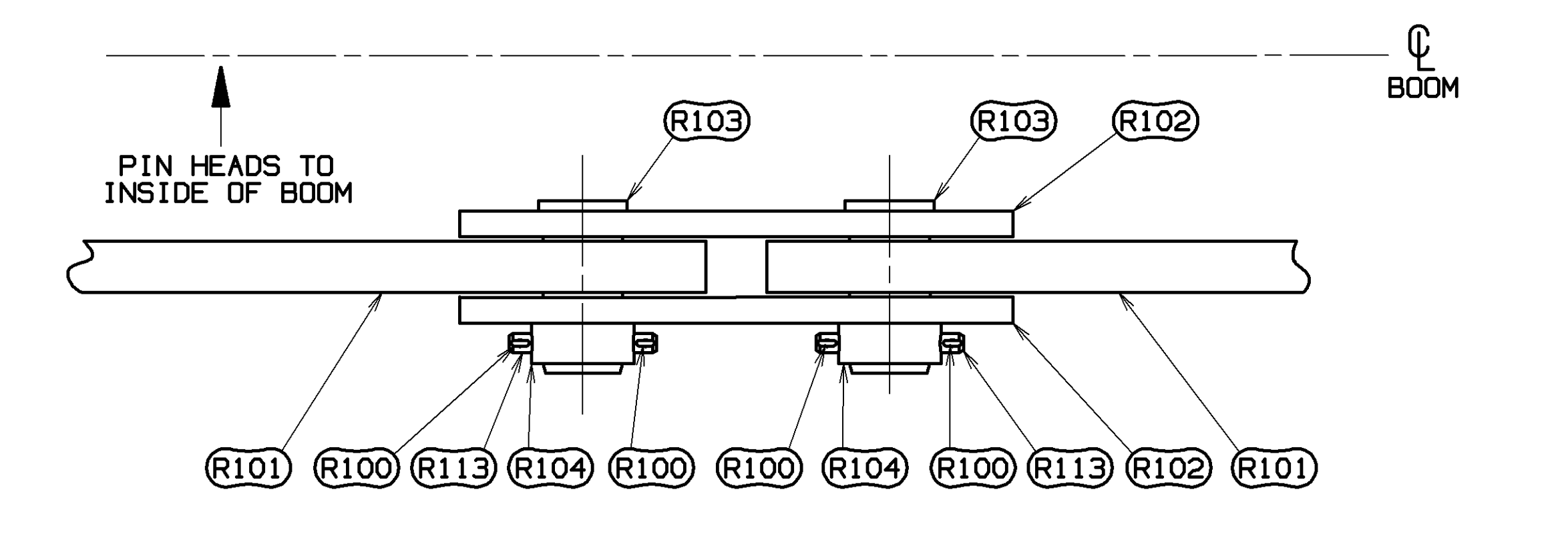
BILL OF MATERIAL				ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL	QTY	REV. DATE



DETAIL E
SCALE 0.200



DETAIL F
JIB BACKSTAY ADJUSTMENT
SEE TABLE (SHEET 2) FOR HOLE "A" OR HOLE "B"
ATTACHMENT FOR VARIOUS BOOM LENGTHS
SCALE 0.200



DETAIL G
SCALE 0.200

REQ'D. #685-680 BOOM/BACKSTAY STRAP ASSEMBLY
SEE TABLE ON SHEET 2
FOR TYP PIN JOINT SEE DETAILS A, B, E, F & G
SEE 3A

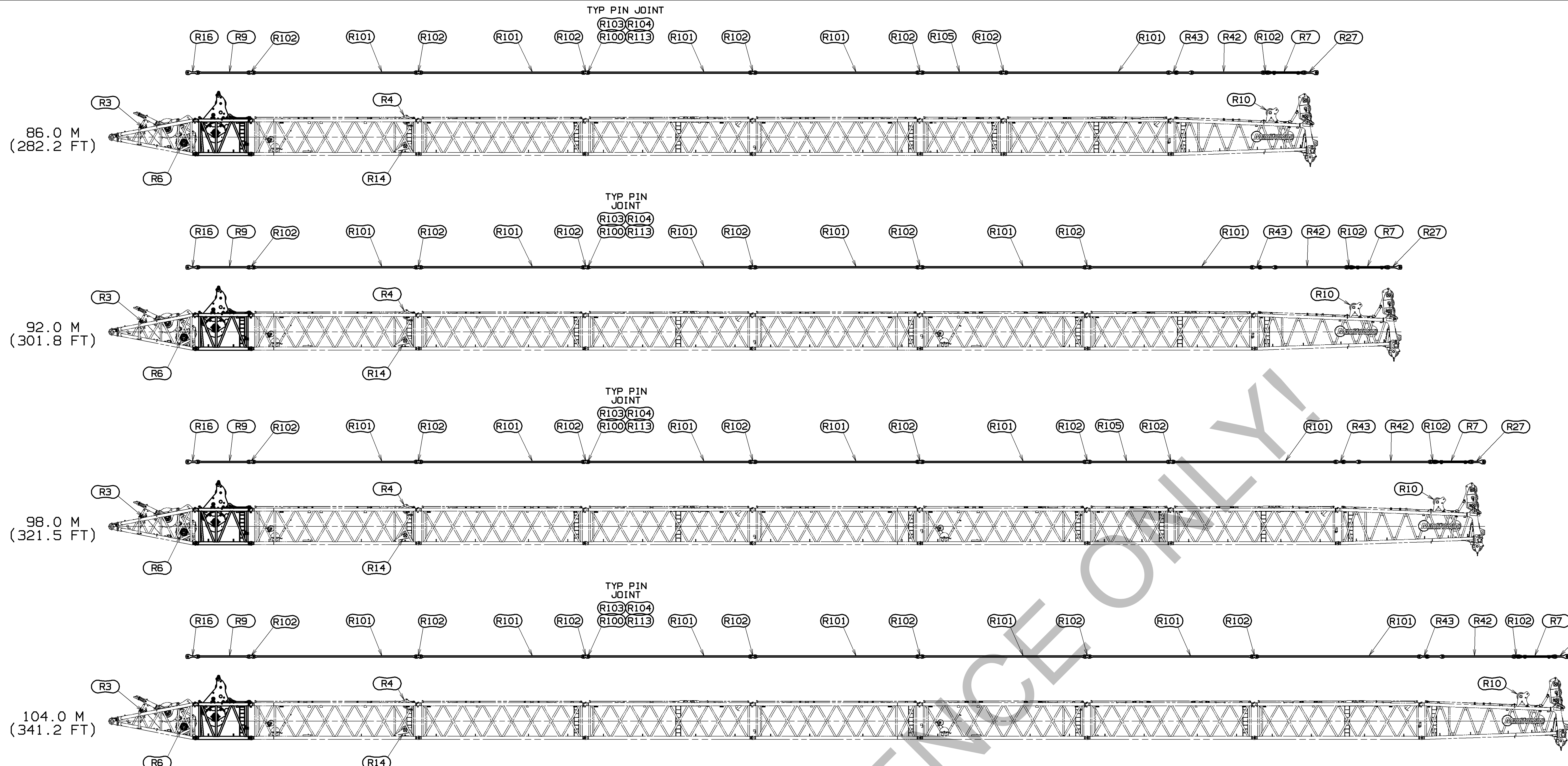
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(2) PLACE 0.00	1/64	12	±.015	±.005		
(3) PLACE 0.000	1/128	12	±.005	±.002		

TOLERANCE UNLESS OTHERWISE SPECIFIED:
 DECIMAL PLACES: 1/10 FEET > 1/10 FEET ±.18; 1/10 FEET ±.05
 FRACTIONS: 1/2 ±.18; 1/4 ±.05; 1/8 ±.015; 1/16 ±.005
 MILLIMETERS: ±.18; ±.05; ±.015; ±.005
 MACHINING: ±.05; ±.015; ±.005
 MATERIAL: 304 STAINLESS STEEL
 QTY: 1
 REV. DATE: 04-28-17
 MFG. PART: MLC650
 APP. JRR

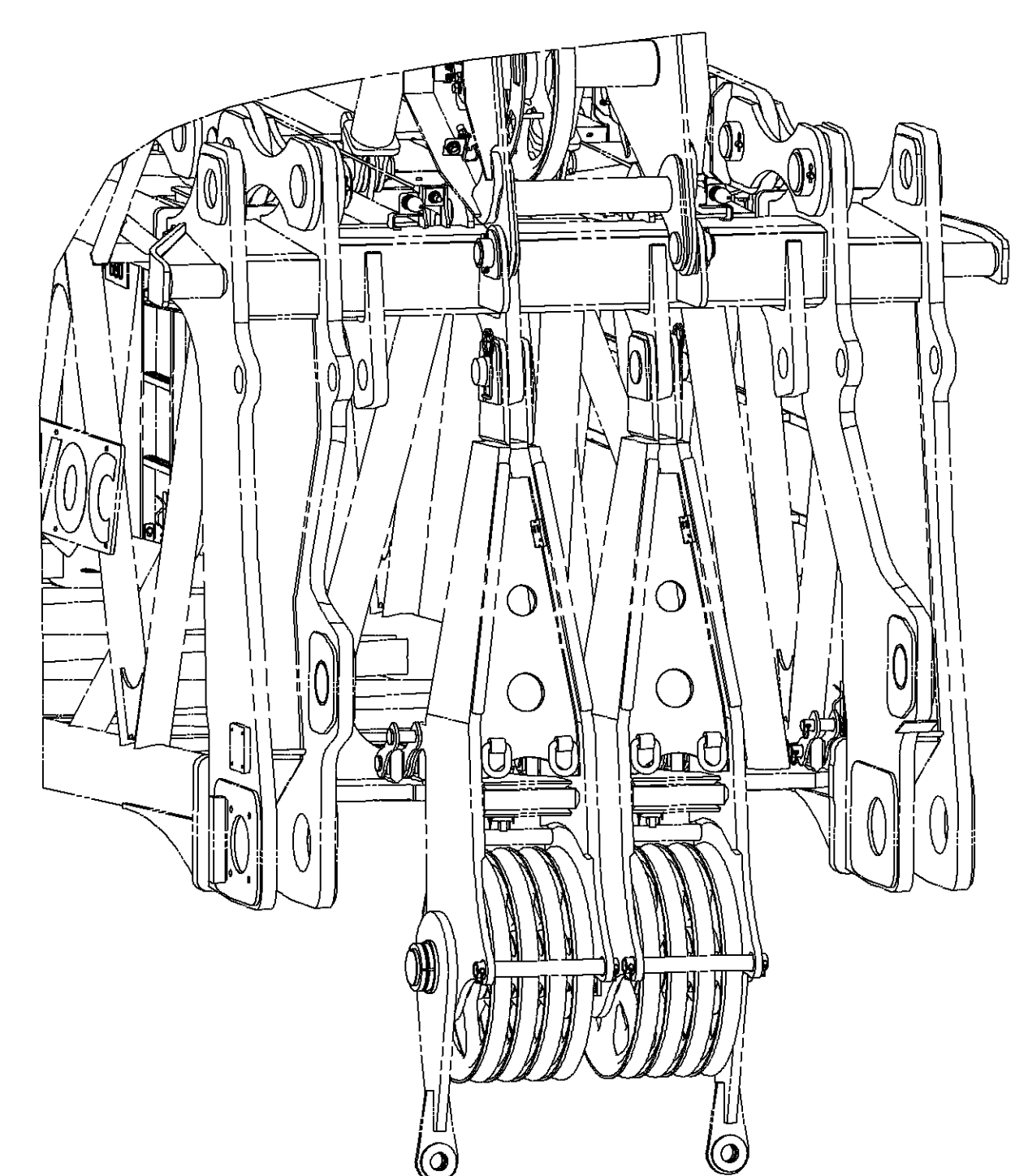
84038308
SHT 3 OF 17

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN SECTION 05-026
DATE: 04-28-17
REV. LTR. A
84038308
SHT 3 OF 17

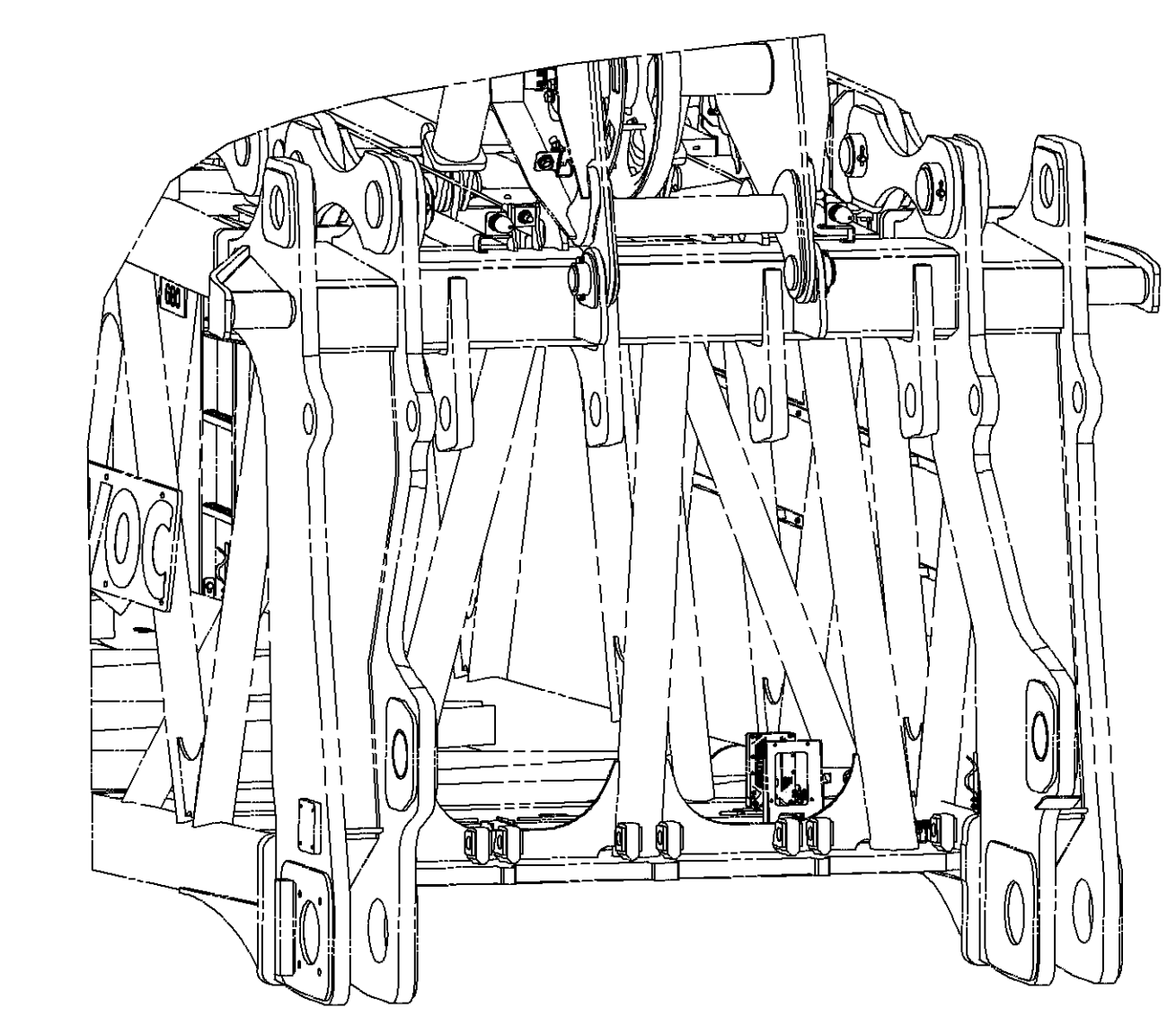
BILL OF MATERIAL				ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL	QTY	NO.



REQ'D. #685-680 BOOM/BACKSTAY STRAP ASSEMBLY
 SEE TABLE ON SHEET 2
 FOR TYP PIN JOINT SEE DETAILS A, B, E, F & G
 SEE 3A



OPTION W/O BASIC CONFIGURATION
 FOR BOOM W/LUFFING JIB
 (2) 4 SHEAVE CENTER PACKS
 SCALE 0.050

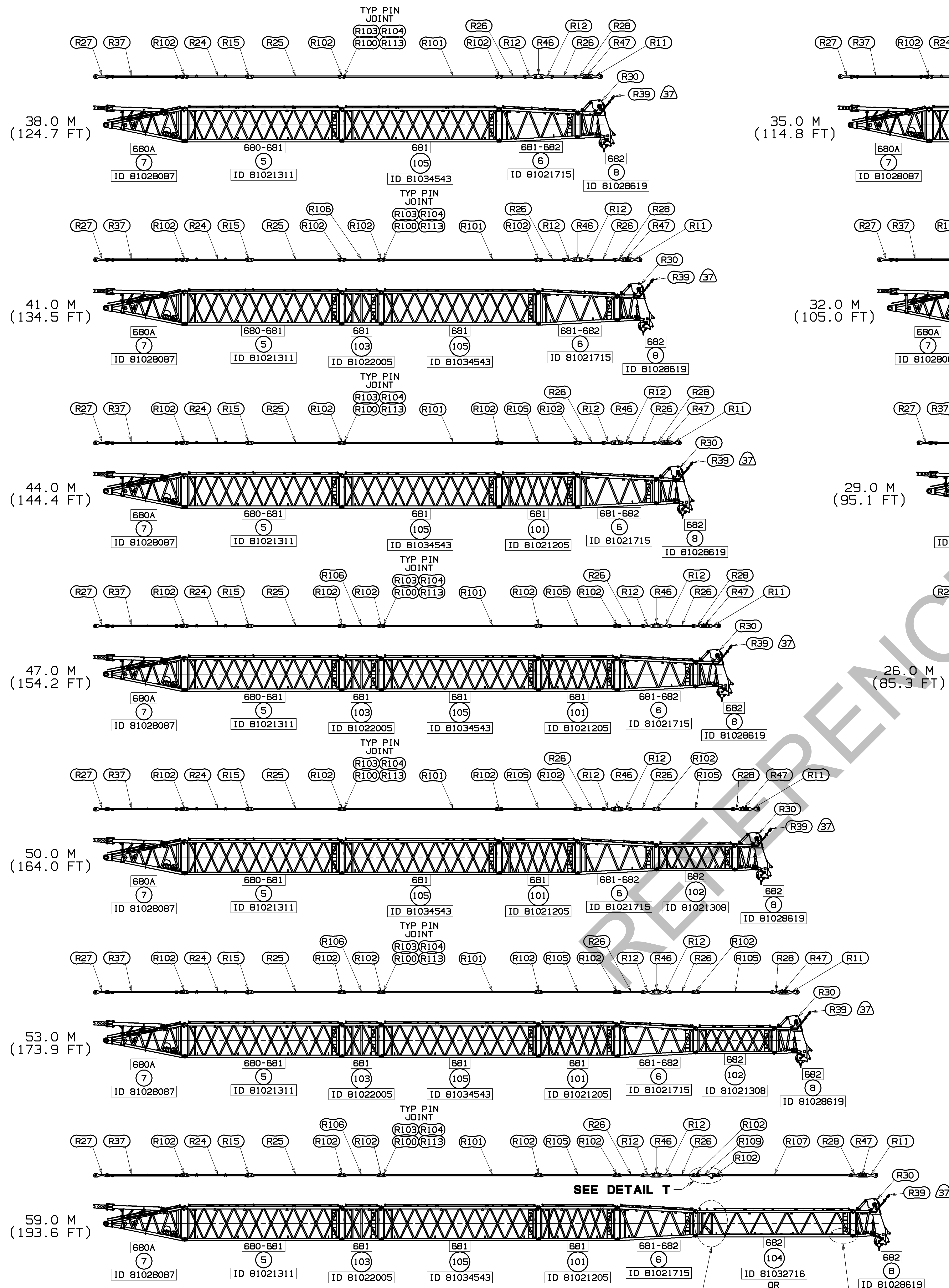


W/O BASIC AND OPTION CONFIGURATION
 FOR BOOM W/LUFFING JIB
 WITHOUT SHEAVE PACKS
 SCALE 0.050

84038308
 SHT 4 OF 17

PRIVATE LABELING
 REQUIREMENT TO
 CONFORM TO
 ENGINEERING
 SPECIFICATION
 8629103794 FOR
 COMPONENTS LISTED
 IN SECTION 05-1036
 DATE
 04-28-17
 REV. LTR.
 A

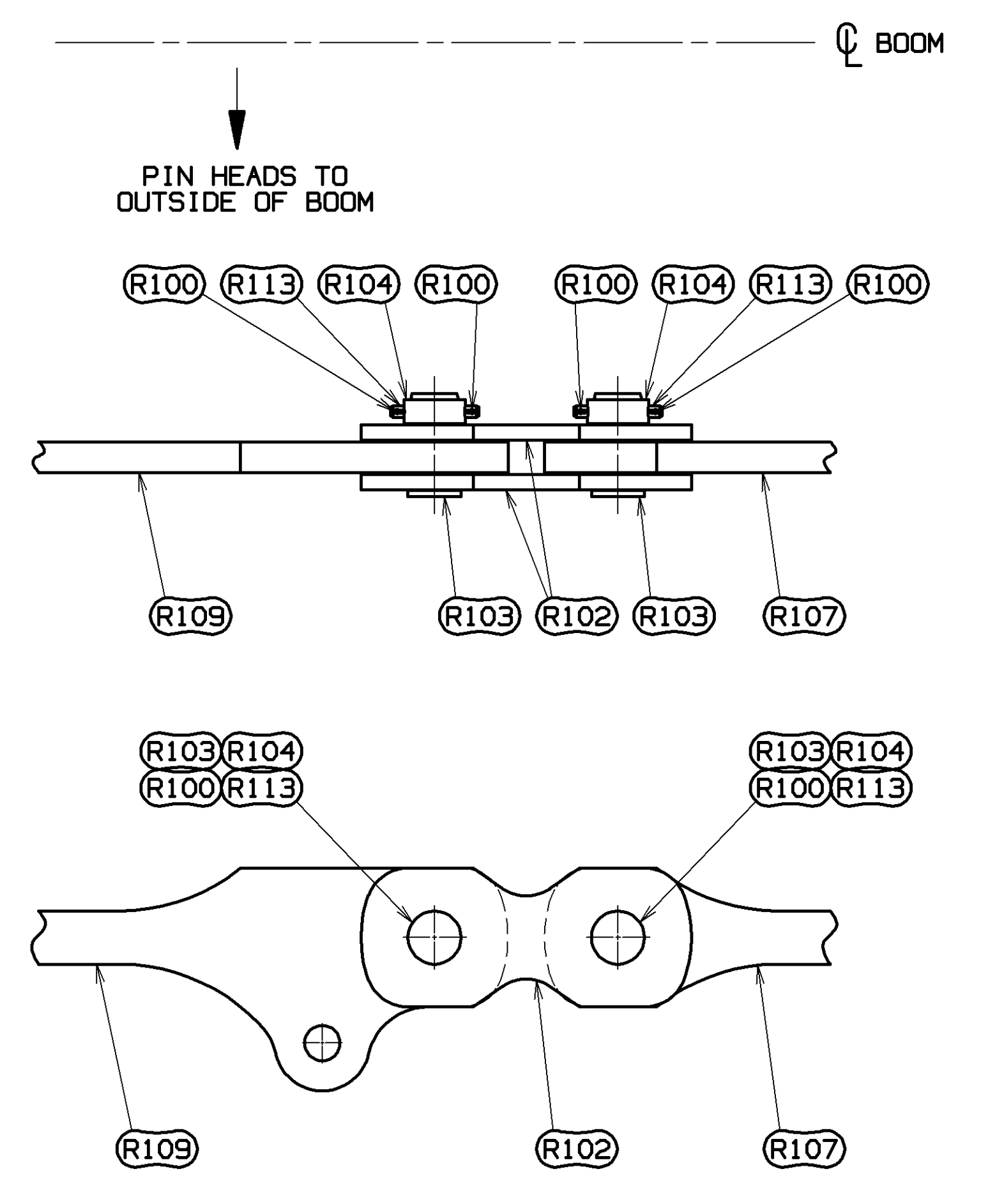
<small>THIS PRINT REMAINS THE PROPERTY OF MARITOWEE CRANES, INC. ALL INFORMATION CONTAINED HEREIN IS CONFIDENTIAL IT IS LOANED, SUBJECT TO RETURN UPON DEMAND, AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY MANNER DETRIMENTAL TO OUR INTERESTS.</small>	<small>TELERANCE UNLESS OTHERWISE SPECIFIED</small> DECIMAL PLACES FABRICATION MACHINING			MODEL Manitowoc Cranes, Inc. Maritowoc, Wisconsin MODEL MLC650 APP JRR	LUFFING JIB RIGGING LJ on B65	
	(1) PLACE 0.5	± 0.12	± 0.18			± 0.05
	(2) PLACE 0.00	± 0.08	± 0.12			± 0.015
	(3) PLACE 0.000	± 0.008	± 0.008			± 0.005
<small>ANGLES</small> 11-30'		<small>APPROXIMATE</small> 40° 30'		DATE 04-28-17		



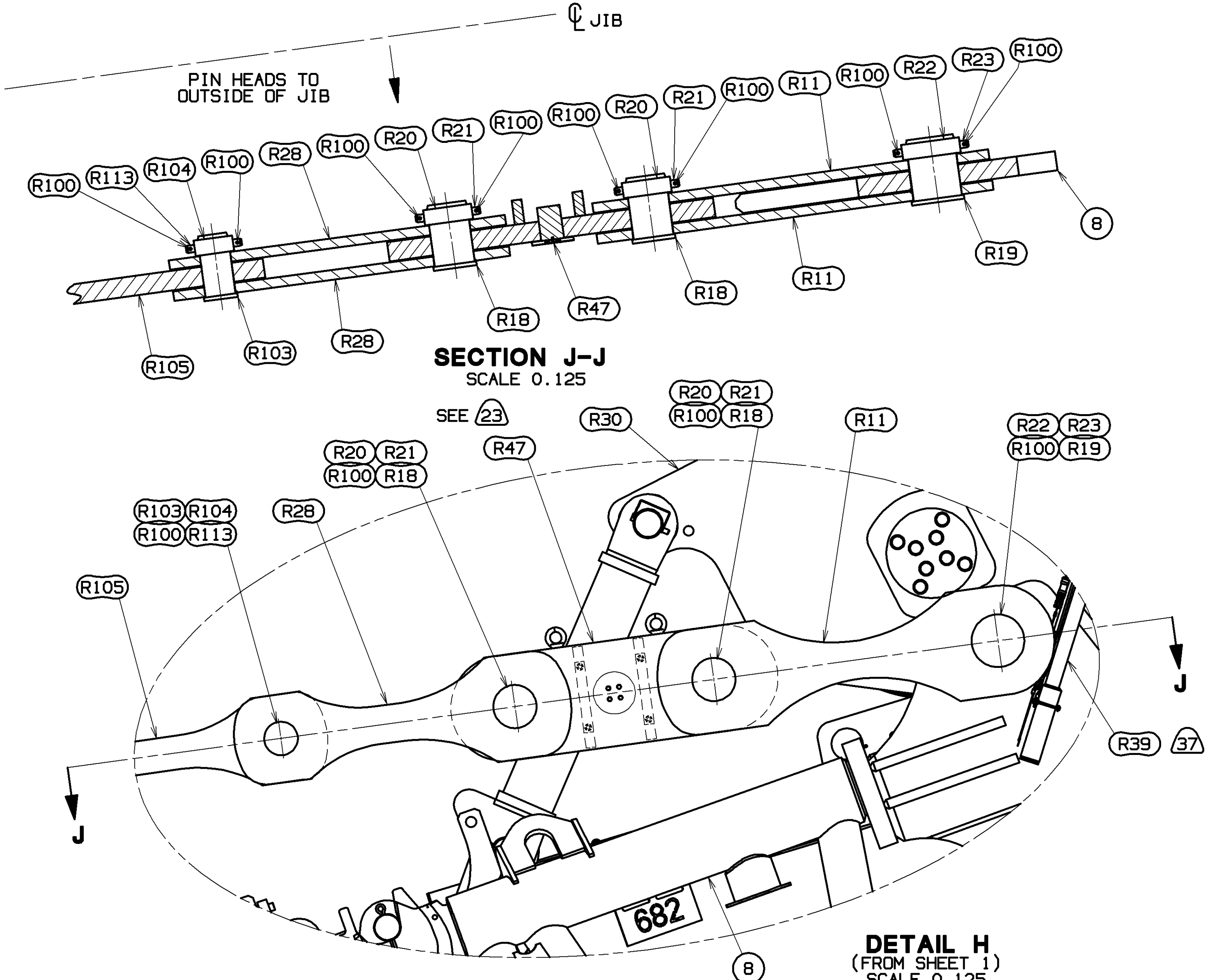
REQ'D. #681-682 JIB AND STRAP ASSEMBLY
SEE TABLE ON SHEET 2
FOR TYP PIN JOINT SEE DETAILS C, D, H, K, L & T

SEE DETAIL AA
(SEE SHEET 17)

SEE DETAIL BB
(SEE SHEET 17)



DETAIL T
SCALE 0.125



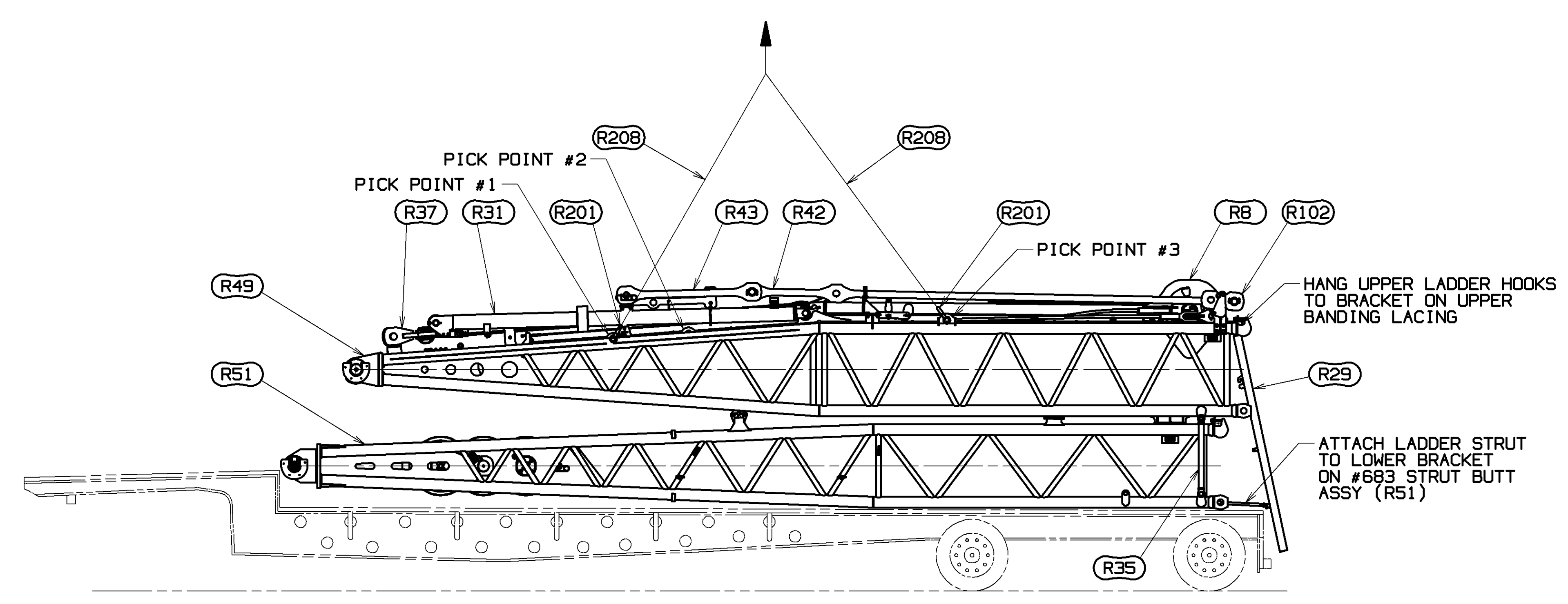
SECTION J-J
SCALE 0.125

DETAIL H
(FROM SHEET 1)
SCALE 0.125

DECIMAL PLACES	FRACTIONS	ANGLE	WELDING	FINISH	DR. RHY	CHK. TRG	APP. JRR
1) PLACE 0.0	1/16	1/2	1/16	1/16			
2) PLACE 0.00	1/32	1/4	1/32	1/32			
3) PLACE 0.000	1/64	3/16	1/64	1/64			

MANITOWOC CRANES, INC.
LUFFING JIB RIGGING
LJ on B65

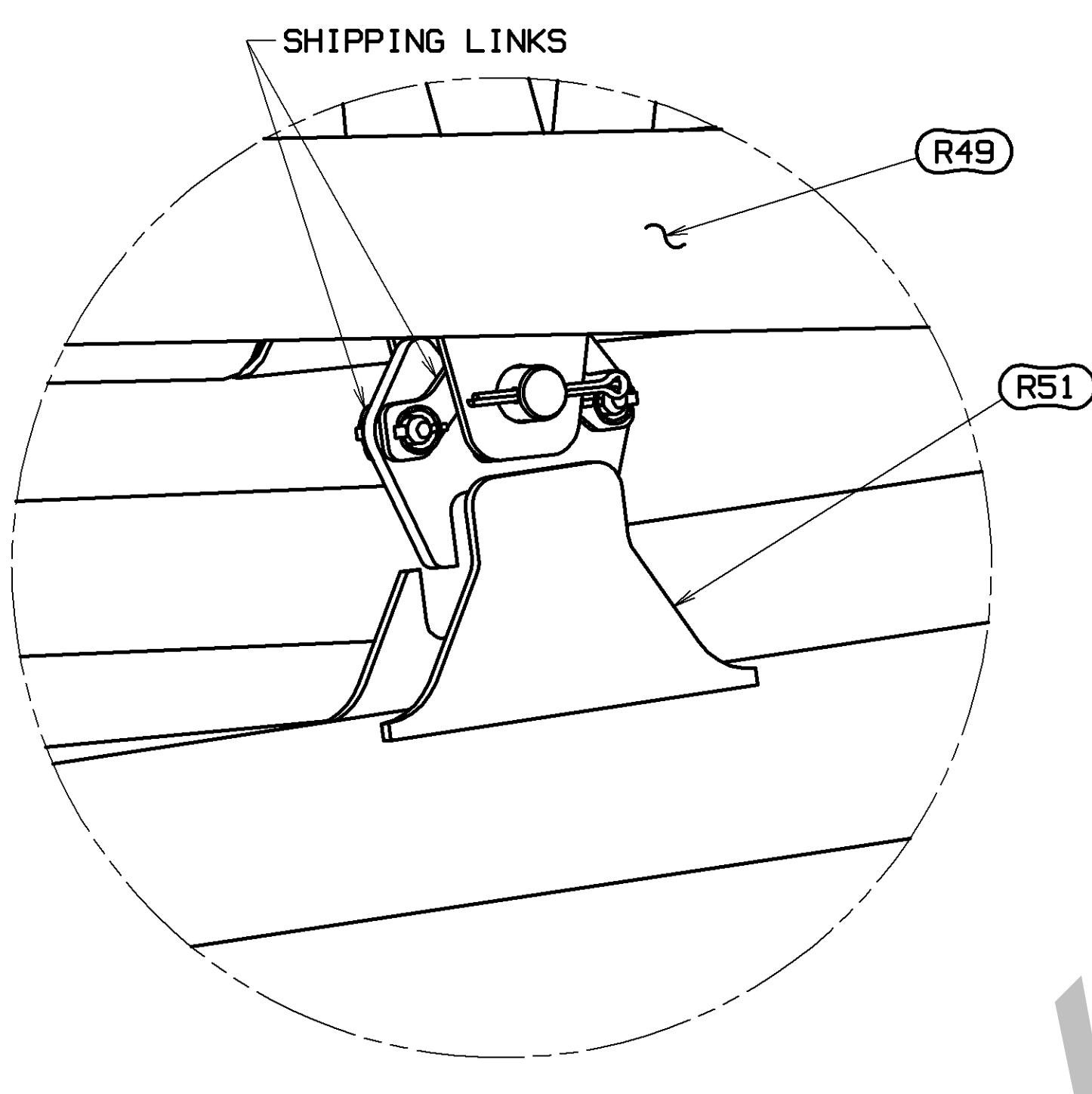
BILL OF MATERIAL		ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL



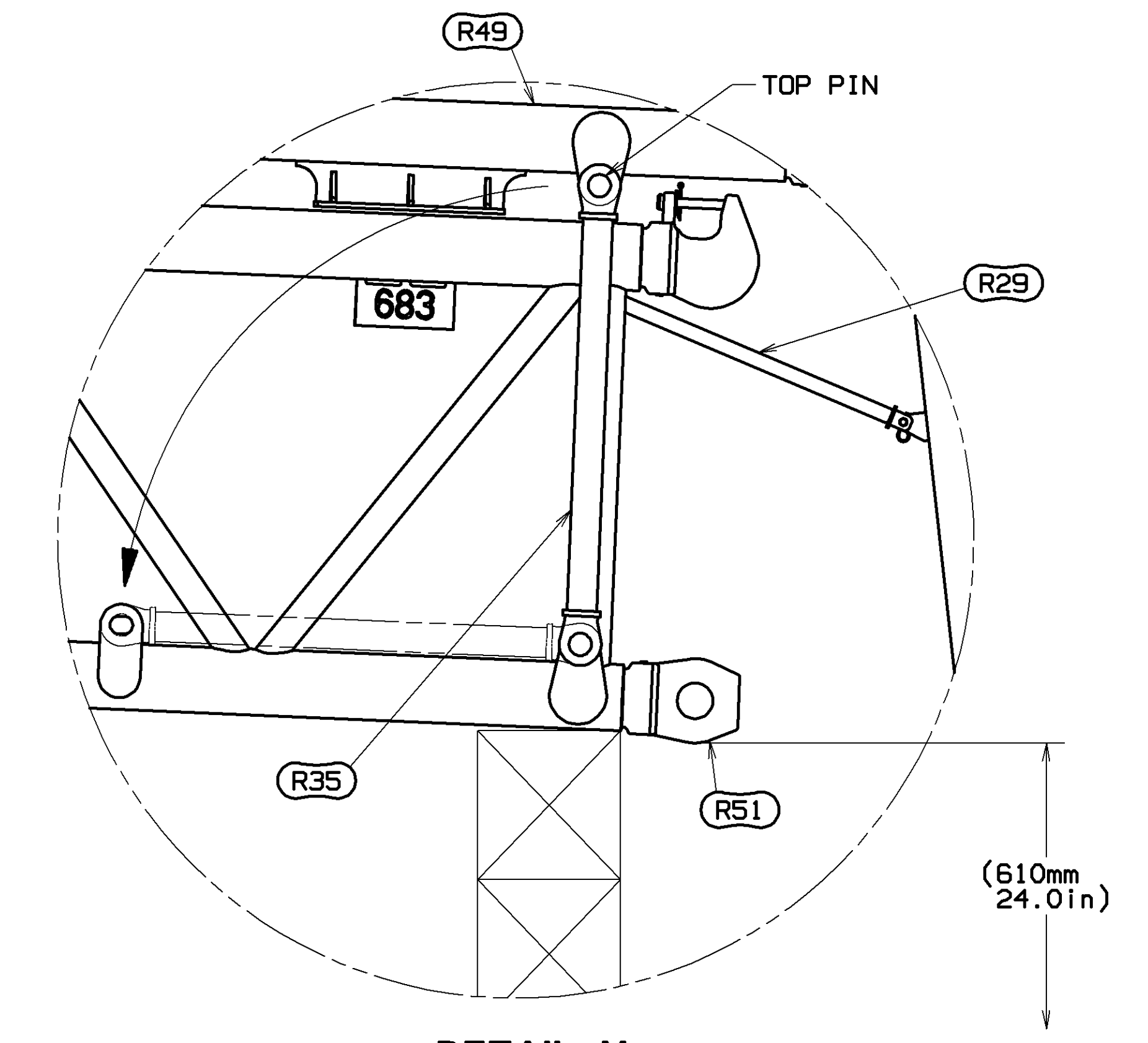
STEP 1
UNLOAD

REMOVE LADDER (R29) FROM STOWAGE LOCATION ON JIB STRUT BUTT ASSY (R51). PLACE UPPER LADDER HOOKS ON BRACKET OF UPPER BANDING LACING ON MAIN STRUT BUTT ASSY (R49). ATTACH LADDER STRUT TO LOWER BRACKET ON JIB STRUT BUTT ASSY (R51).

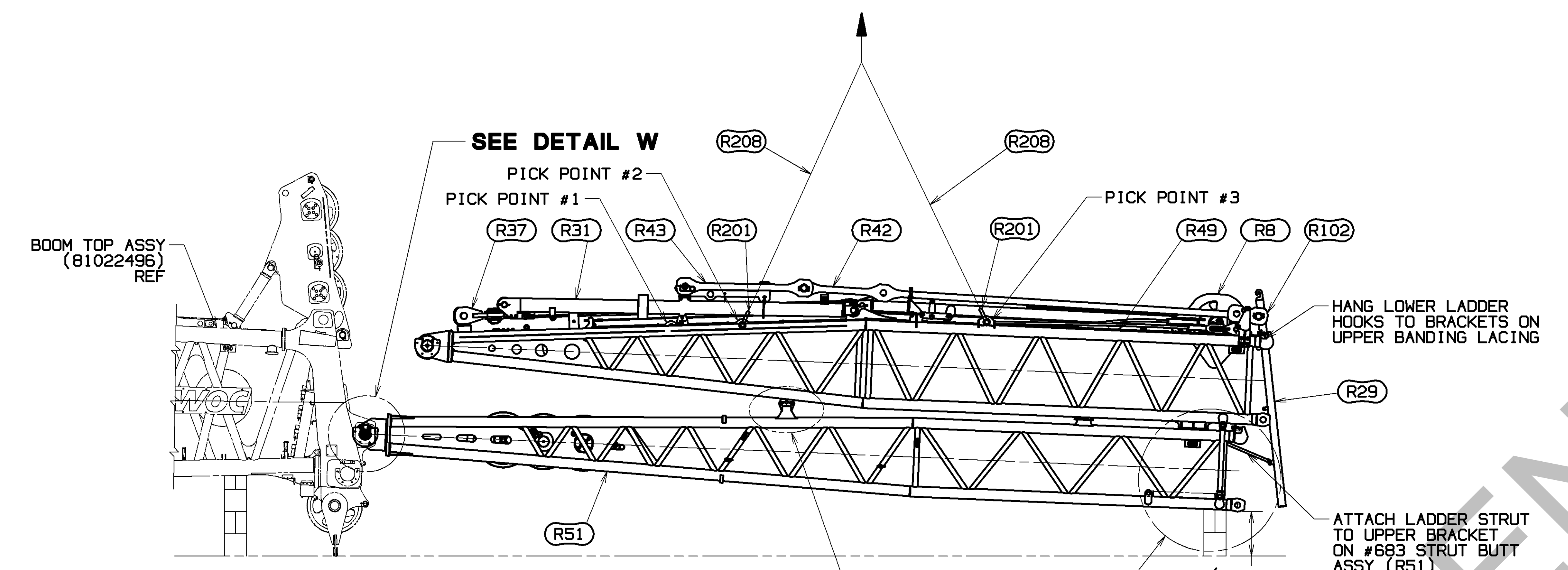
USING LADDER (R29) FOR ACCESS, ATTACH STRUT BUTT SHIPPING ASSY (ITEM 1) TO ASSIST CRANE WITH (4) SLINGS (R208) AND (4) SHACKLES (R201) ATTACHED TO PICK POINTS #1 AND #3 OF MAIN STRUT BUTT. LIFT BOTH STRUT BUTTS (ITEM 1) FROM TRAILER AND PROCEED TO STEP 2.



DETAIL U
SCALE 0.250



DETAIL V
SCALE 0.100

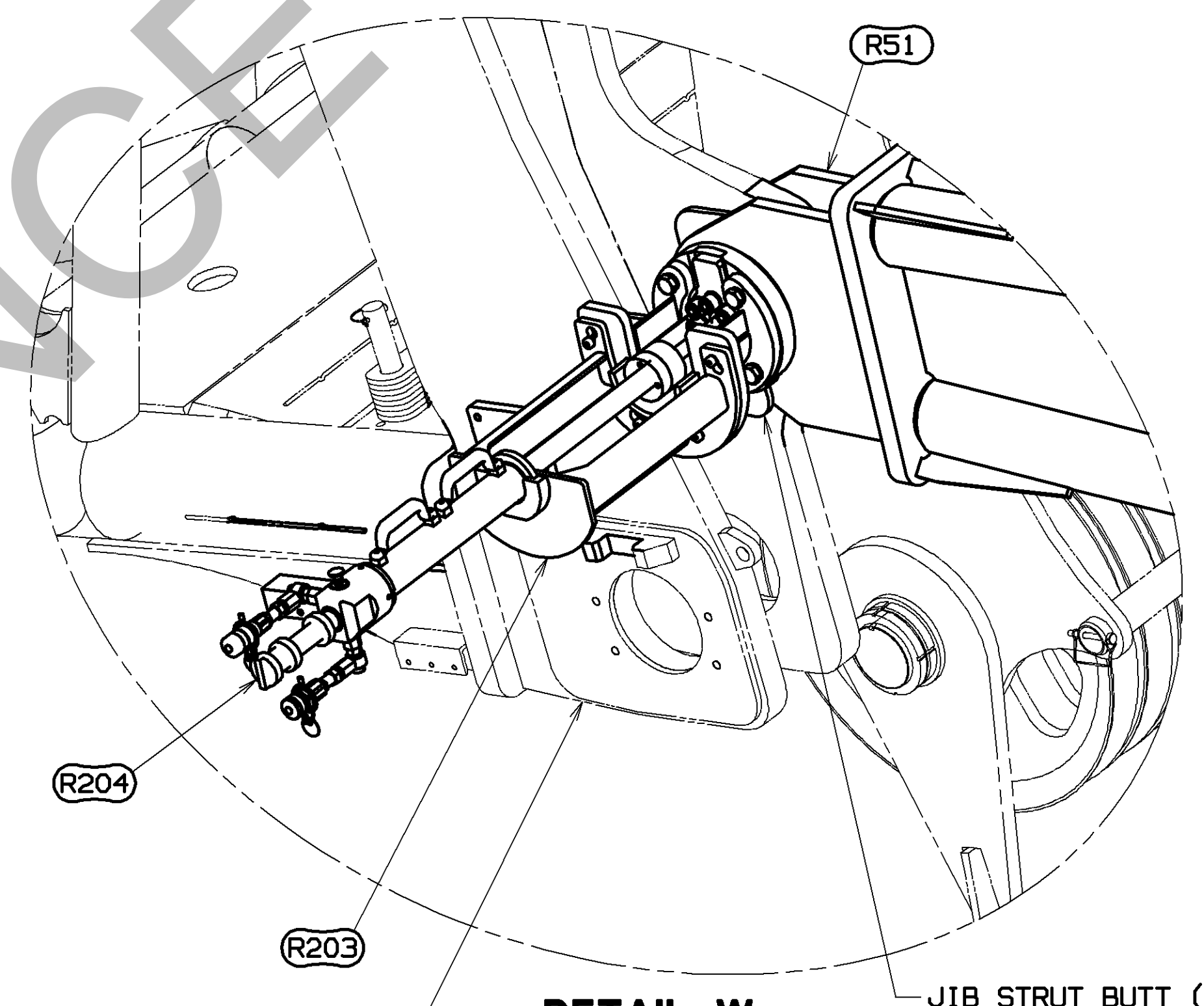


STEP 2
JIB STRUT BUTT ASSEMBLY

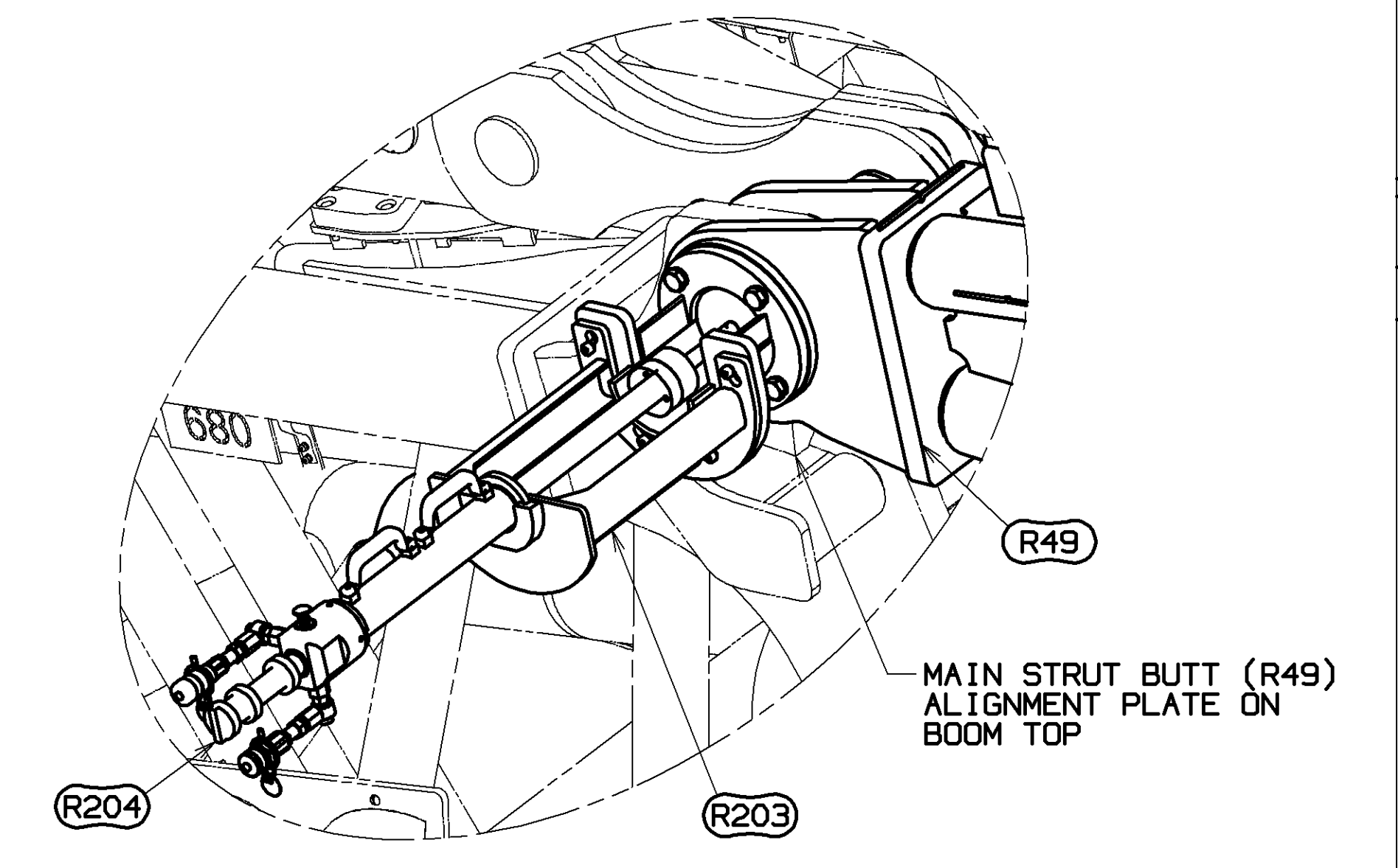
USING ASSIST CRANE POSITION JIB STRUT BUTT (R51) ON BOOM TOP ALIGNMENT PLATES. (SEE DETAIL W). ATTACH PIN PULLER CAGE WELDMENT (R203) 2-PLACES AND POSITION PIN PULLER ASSY (R204). ACTIVATE CYLINDER TO INSTALL HINGE PIN INTO JIB STRUT BUTT (R51).

BLOCK JIB STRUT BUTT (R51) APPROXIMATELY AS INDICATED TO ACCOMMODATE PROPER FIT OF JIB STRUT TOP (R52) IN STEP 5 ON SHEET 8. HANG LADDER HOOKS ON BRACKET OF UPPER BANDING LACING. REATTACH LADDER STRUT TO UPPER BRACKET ON STRUT BUTT ASSY (R51). USING LADDER (R29) FOR ACCESS, REPOSITION TO LIFTING POINTS #2 AND #3 TO HANDLE MAIN STRUT BUTT ASSY (R49) INDEPENDANT FROM JIB STRUT BUTT ASSY (R51). WHEN COMPLETED RETURN LADDER (R29) TO STOWAGE POSITION ON JIB STRUT BUTT ASSY (R51).

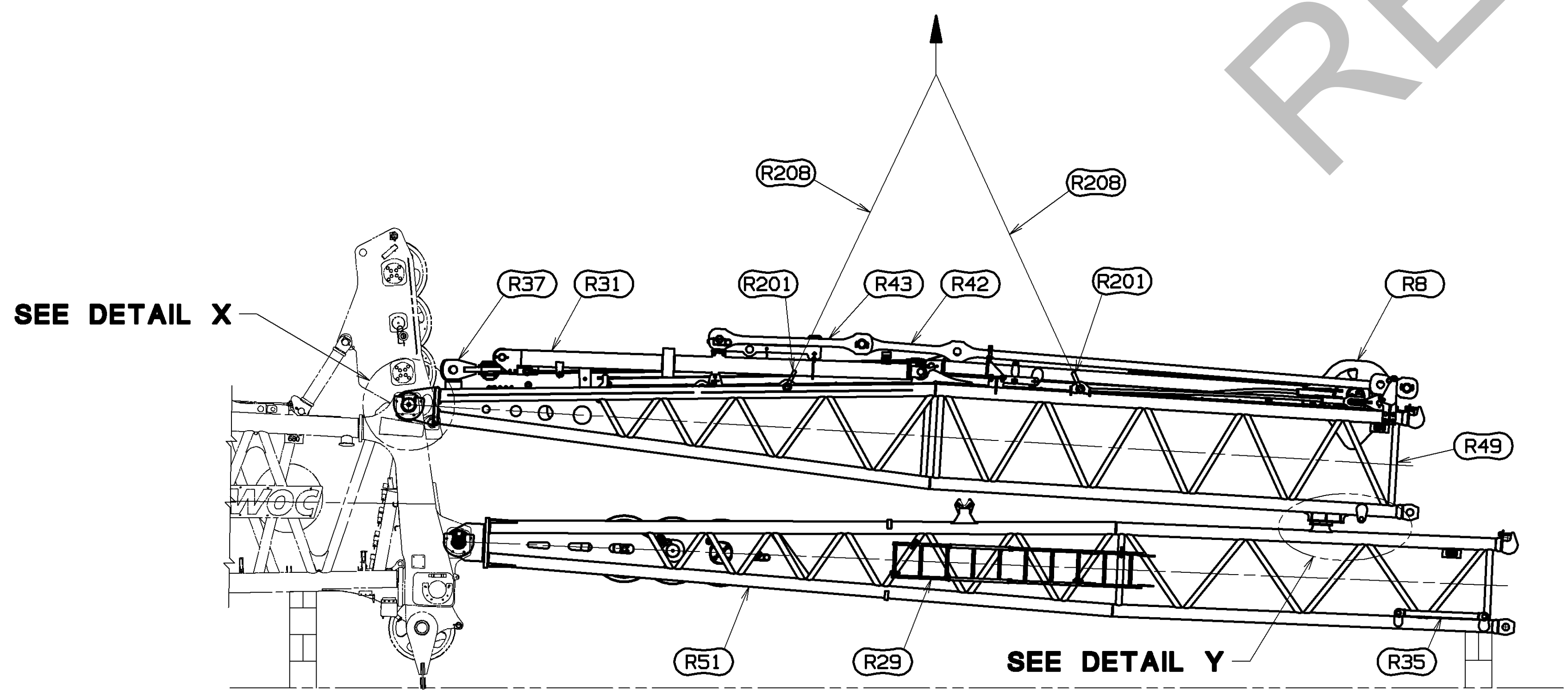
REMOVE SHIPPING LINKS (SEE DETAIL U). REMOVE TOP PIN OF STRUT SUPPORT (R35) AND ROTATE STRUT INTO HORIZONTAL OR STOWAGE POSITION ON JIB STRUT BUTT (R51). (SEE DETAIL V)



DETAIL W
SCALE 0.120



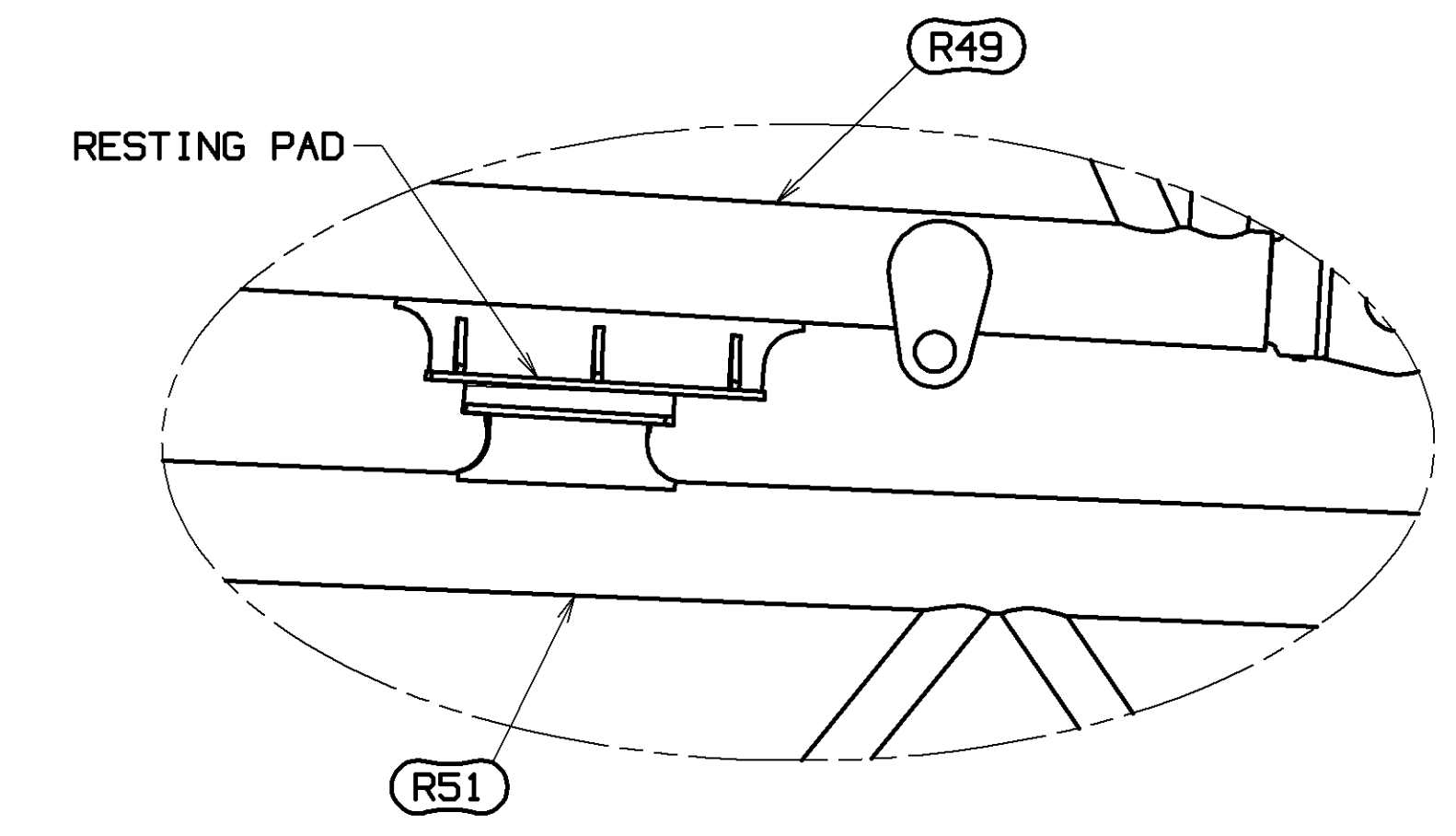
DETAIL X
SCALE 0.120



STEP 3
MAIN STRUT BUTT ASSEMBLY

USING ASSIST CRANE POSITION MAIN STRUT BUTT ASSY (R49) ON BOOM TOP ALIGNMENT PLATES (SEE DETAIL X). ATTACH PIN PULLER CAGE WELDMENT (R203) 2-PLACES AND POSITION PIN PULLER ASSY (R204). ACTIVATE CYLINDER TO INSTALL HINGE PIN INTO MAIN STRUT BUTT (R49).

LOWER MAIN STRUT BUTT (R49) ON JIB STRUT BUTT (R51) AT RESTING PAD. (SEE DETAIL Y).



DETAIL Y
SCALE 0.120

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(1) PLACE	0.5	±.12	±.18	±.03	±.03	±.03	DR. TRG	REV. 1
(2) PLACE	0.00	±.08	±.12	±.015	±.015	±.015	APP. JRR	
(3) PLACE	0.000	±.008	±.012	±.006	±.006	±.006		
ANGLES			±.30					
MATERIAL		MANUFACTURER		MODEL		PART NAME		

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 8629103794 FOR COMPONENTS LISTED IN SECTION 05-056

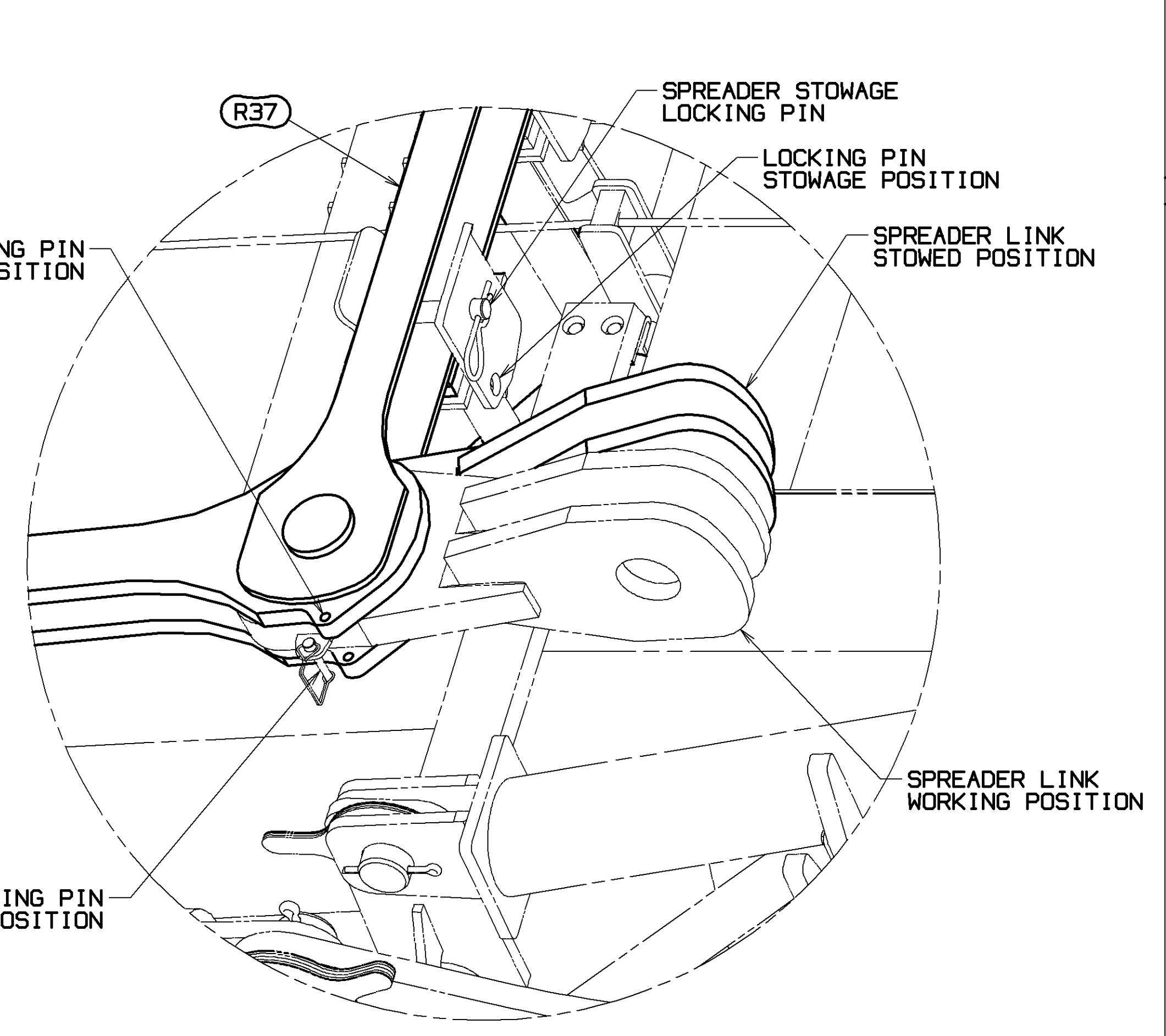
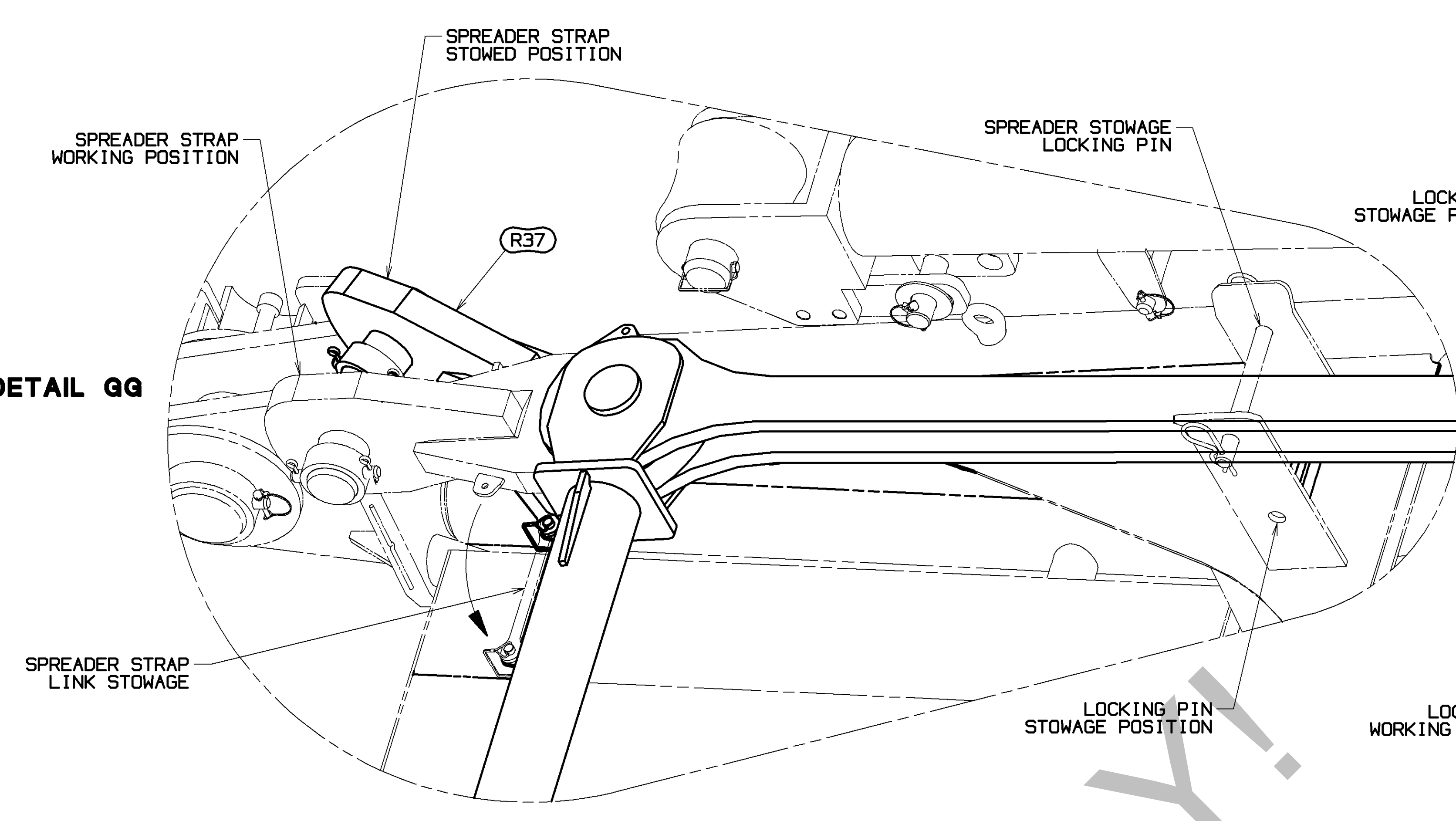
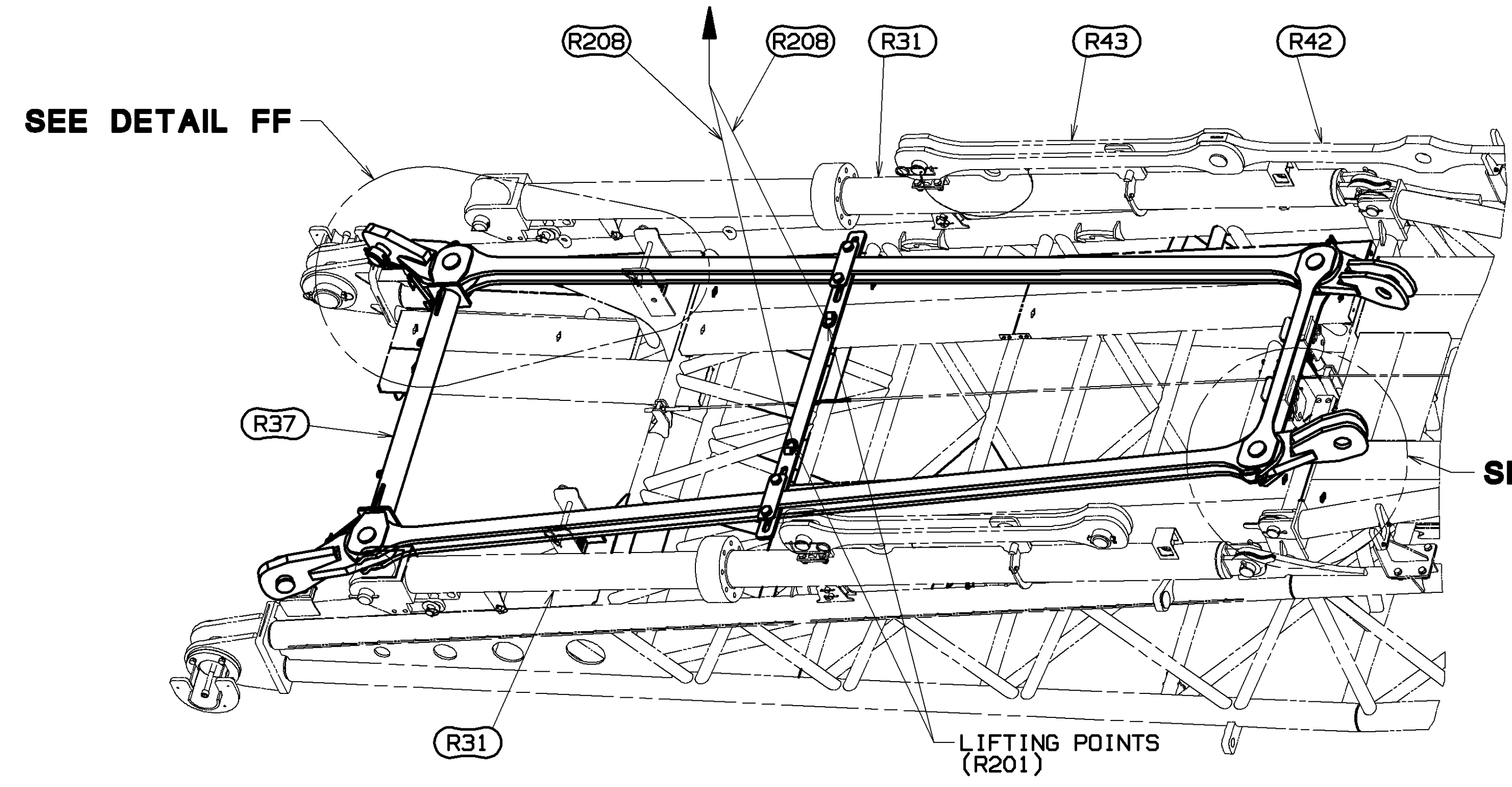
DATE: 04-28-17

REV. 1

84038308

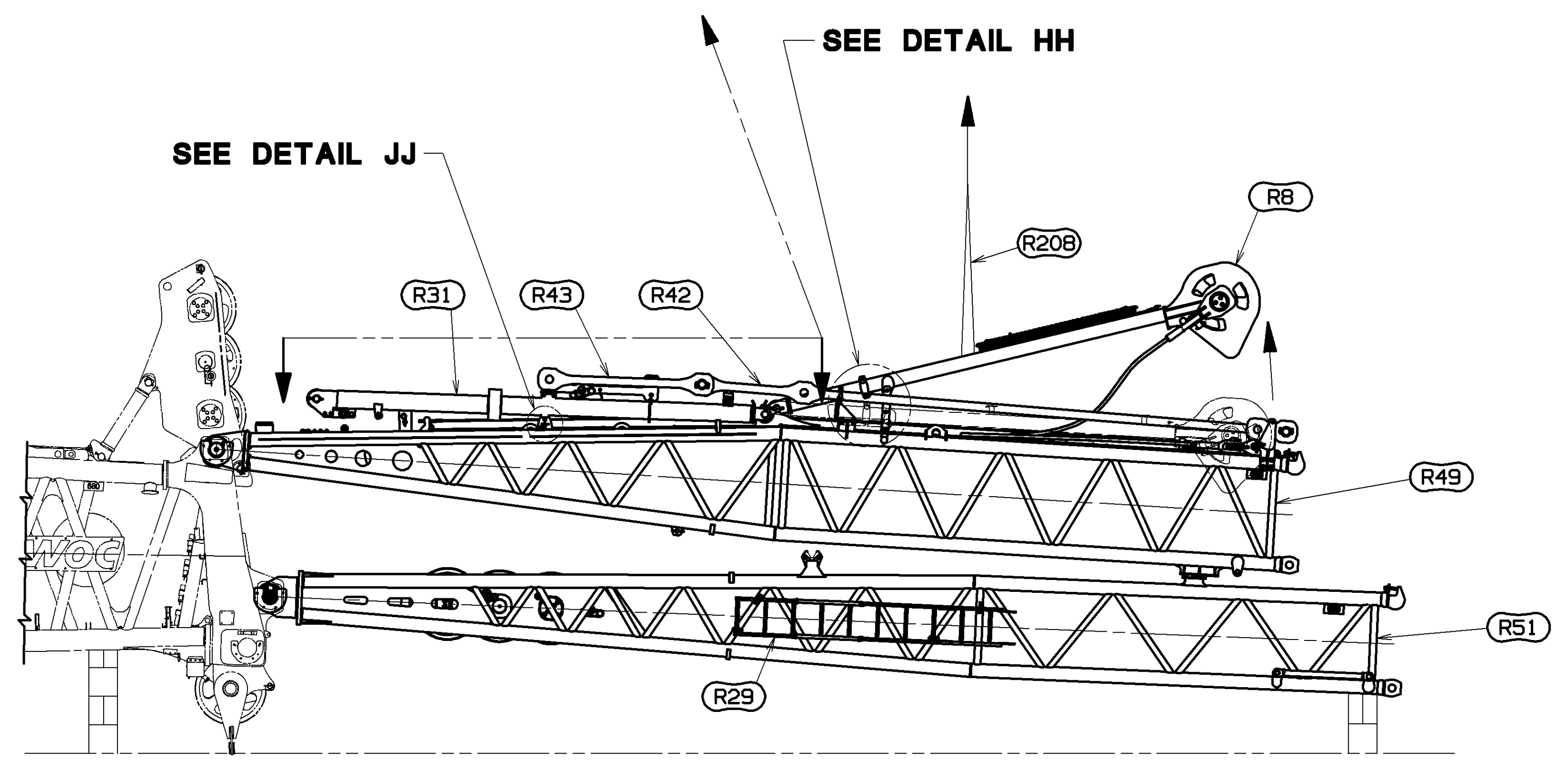
SHT 8 OF 17

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



DETAIL FF
SCALE 0.200

DETAIL GG
SCALE 0.200

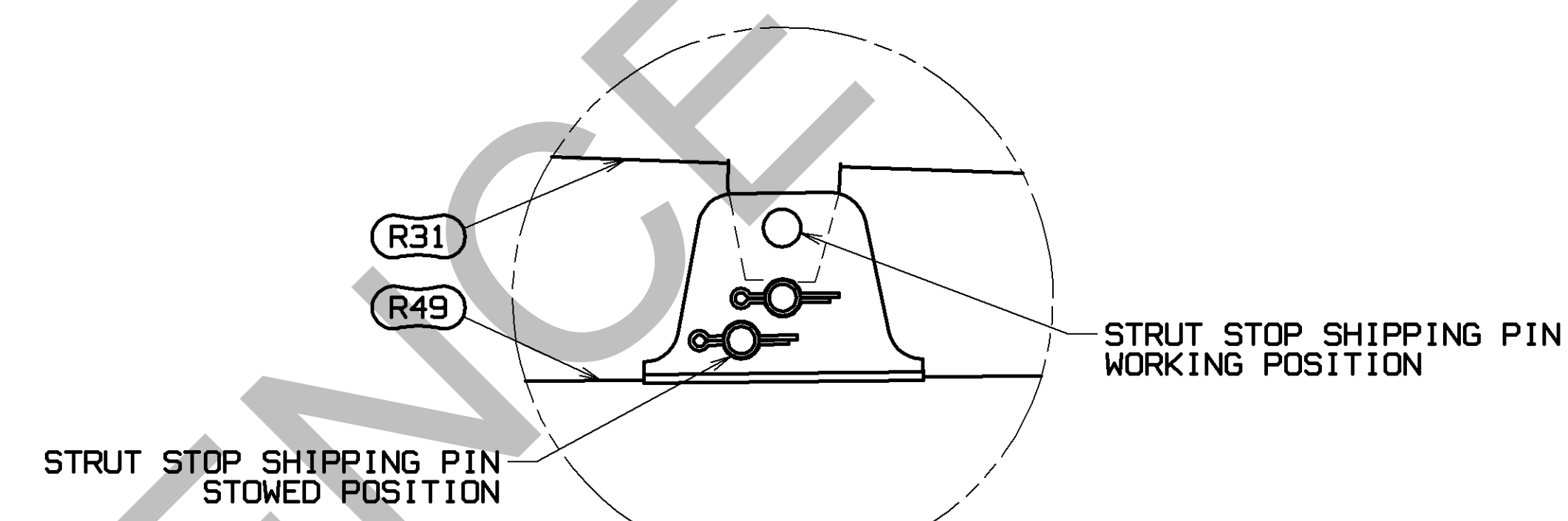


STEP 4
STRUT RAISING ARM ERECTION

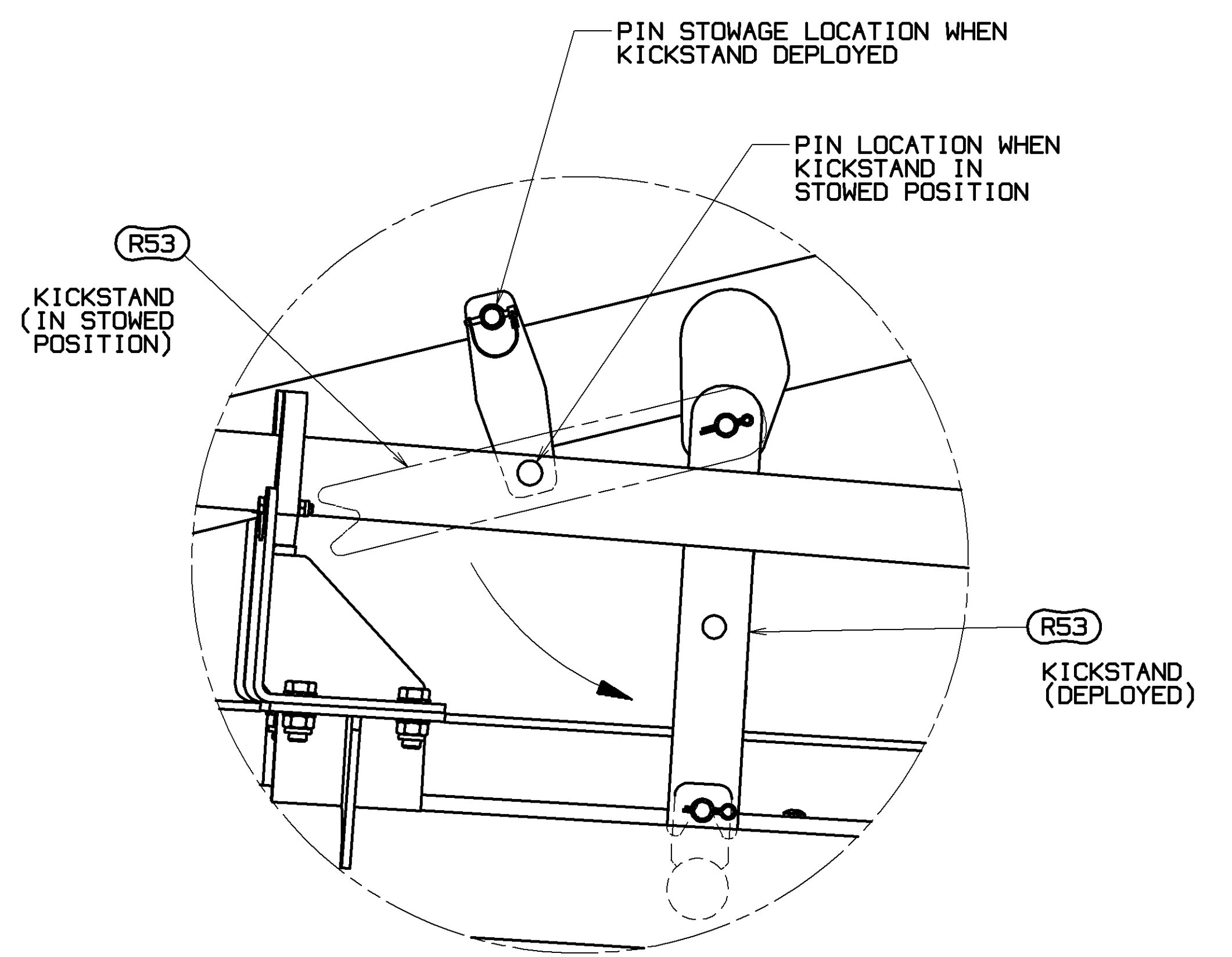
USING LIFTING POINTS PROVIDED REMOVE FRONTSTAY SPREADER ASSY (R37) FROM MAIN STRUT BUTT ASSY (R49). PLACE SPREADER ASSY (R37) IN A LOCATION TO BE USED FOR ASSEMBLY STEP 8. (SEE SHEET 11). POSITION SPREADER STRAPS (SEE DETAIL FF) AND SPREADER LINKS (SEE DETAIL GG) IN WORKING POSITION.

USING ASSIST CRANE SLING (R208) AROUND THE HORIZONTAL SUPPORT MIDWAY UP THE STRUT RAISING ARM (R8) RAISE STRUT RAISING ARM (R8) TO DEPLOY KICKSTAND (R53). (SEE DETAIL HH).

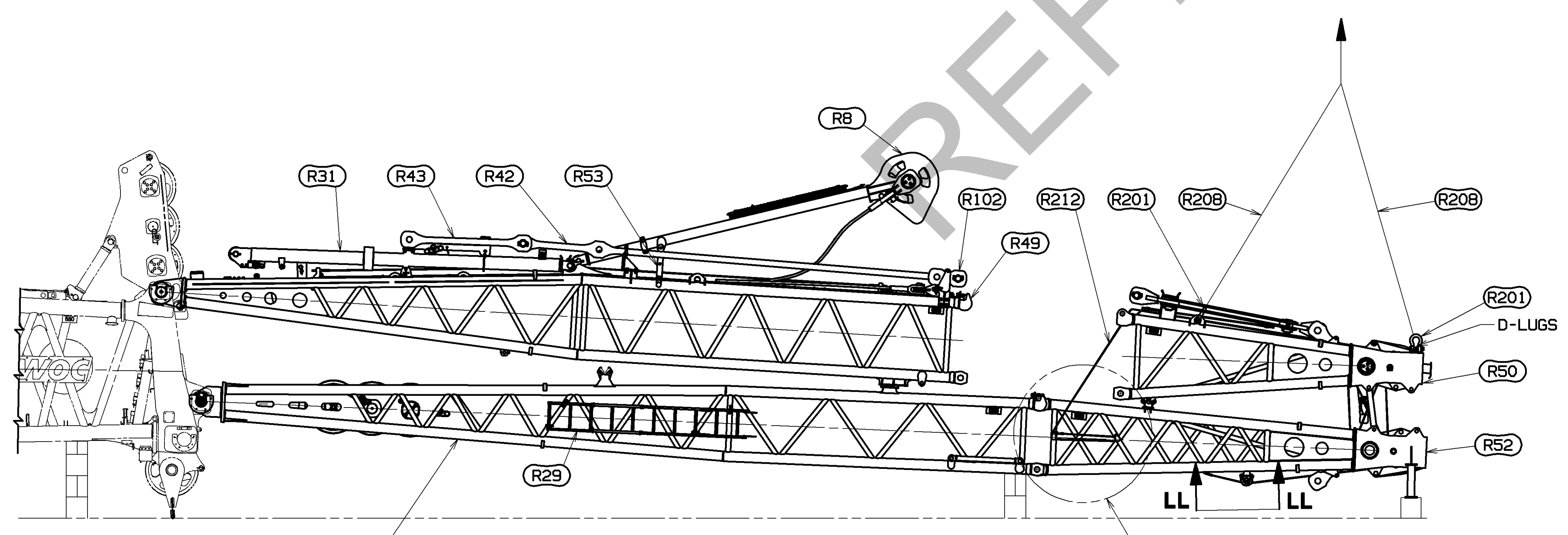
REMOVE STRUT STOP (R31) SHIPPING PIN AND LOCATE IN STOWED POSITION. (SEE DETAIL JJ). STRUT STOP (R31) IS NOW FREE TO PIVOT INTO POSITION AT STEP 13 ON SHEET 13.



DETAIL JJ
SCALE 0.250

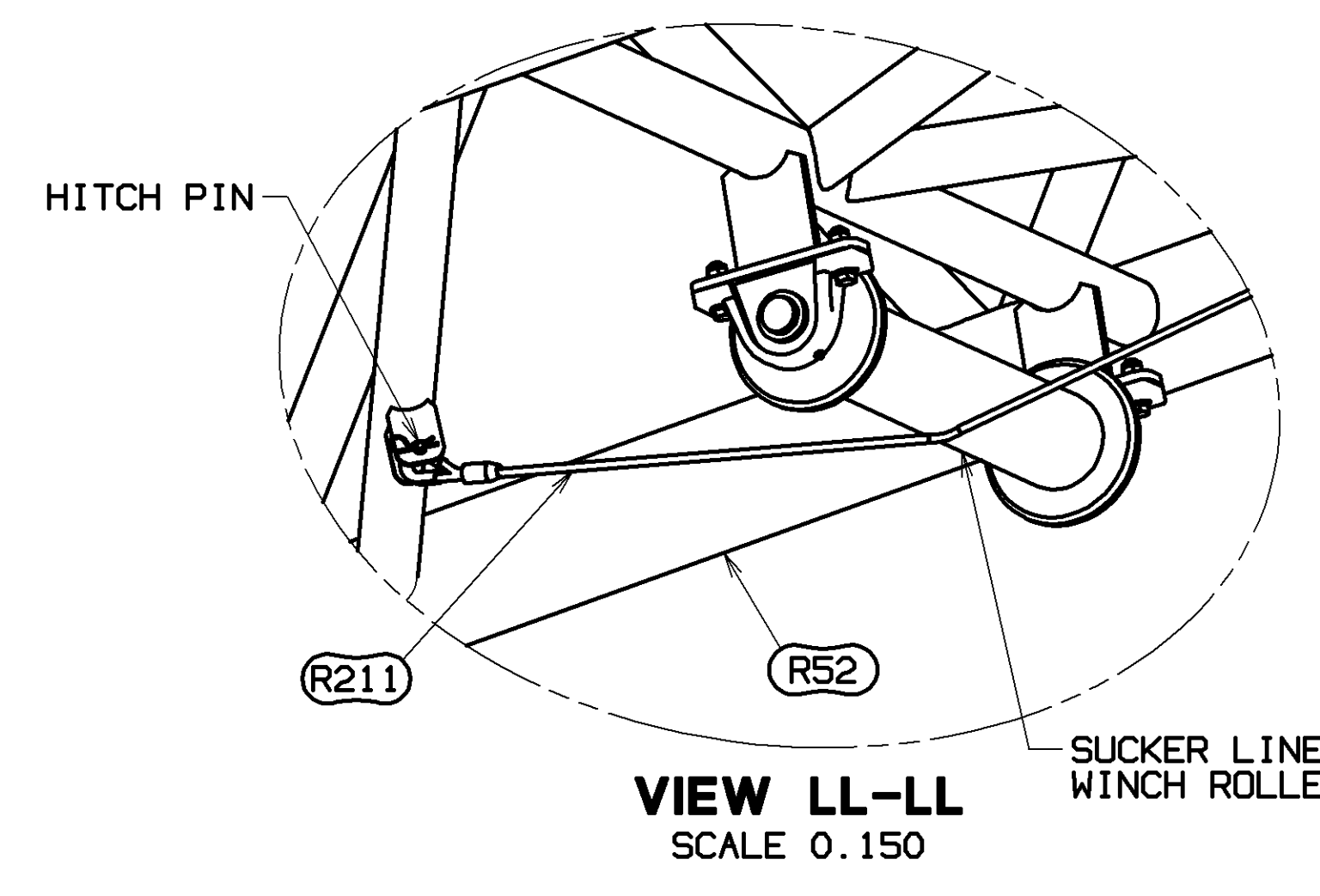


DETAIL HH
SCALE 0.200

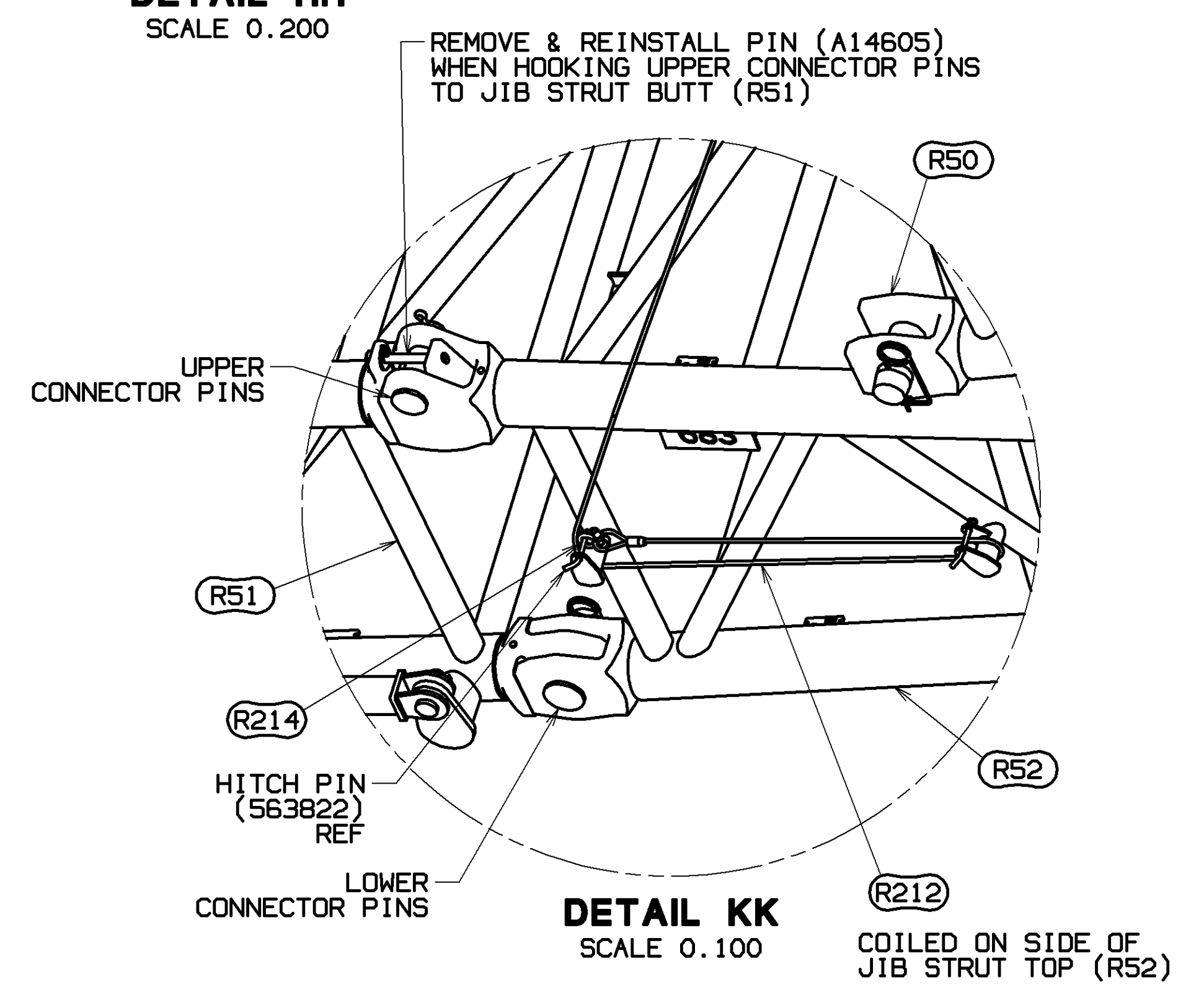


STEP 5
JIB STRUT TOP ASSEMBLY

USING ASSIST CRANE ATTACH (4) SLINGS (R208) AND (4) SHACKLES (R201) TO MAIN STRUT TOP (R50) AT CHAIN LIFTING LUGS AND D-LUGS. LIFT JIB STRUT TOP ASSEMBLY (ITEM 2) FROM TRAILER AND POSITION LOWER PORTION OF JIB STRUT TOP ASSY (R52) TO ALIGN UPPER PIN CONNECTOR WITH UPPER PIN CONNECTOR ON JIB STRUT BUTT ASSY (R51) AND ENGAGE PINS. LOWER JIB STRUT TOP ASSEMBLY (ITEM 2) TO ALIGN LOWER PIN CONNECTOR HOLES AND INSTALL LOWER CONNECTOR PINS. (SEE DETAIL KK).



VIEW LL-LL
SCALE 0.150



DETAIL KK
SCALE 0.100

TOLERANCE UNLESS OTHERWISE SPECIFIED		FINISHING		MATERIAL	
DECIMAL PLACES	FRACTIONS	WELDING	WELDING	DR. RHY	DR. TRG
(1) PLACE 0.5	±.12	±.18	±.05	MANITOWOC	MANITOWOC
(2) PLACE 0.00	±.08	±.12	±.015	MANITOWOC	MANITOWOC
(3) PLACE 0.000	±.008	±.012	±.008	MANITOWOC	MANITOWOC
ANGLES	±.30	±.30	±.30	MANITOWOC	MANITOWOC

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN 682900-08-026

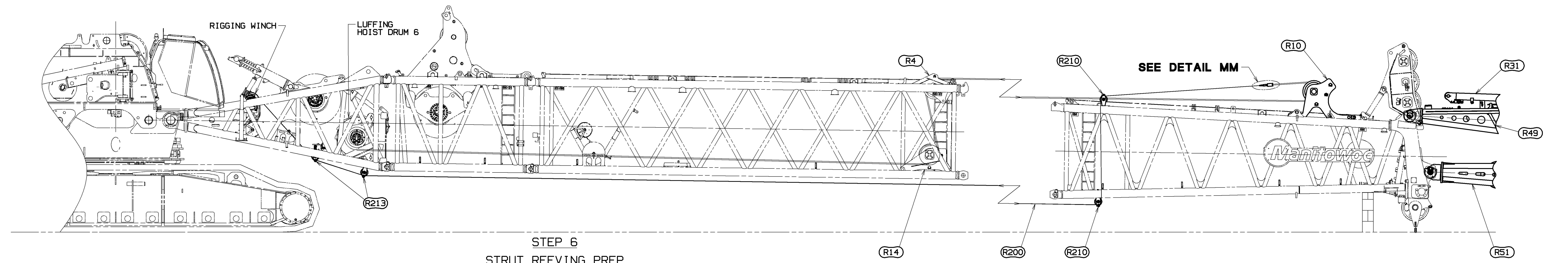
DATE 04-28-17

REV. LTR. A

MANITOWOC Cranes, Inc.
Manitowoc, Wisconsin

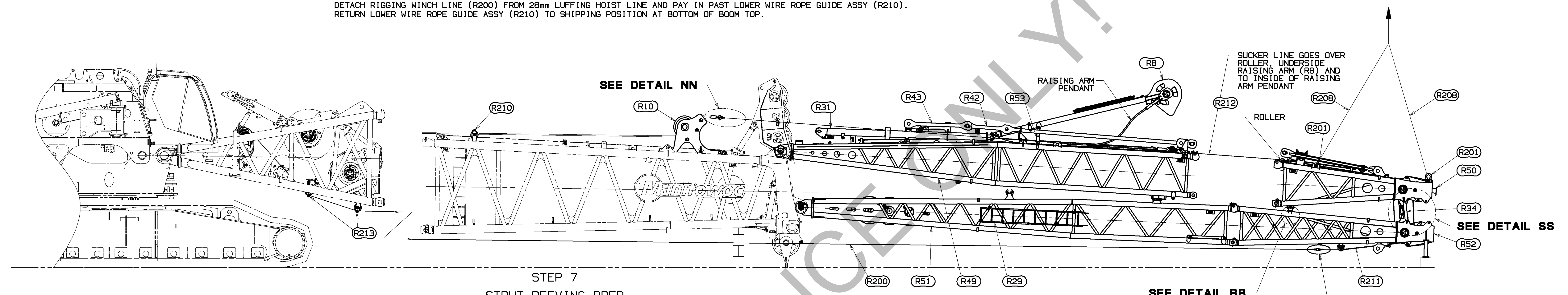
LUFFING JIB RIGGING
LJ on B65

84038308
SHT 9 OF 17



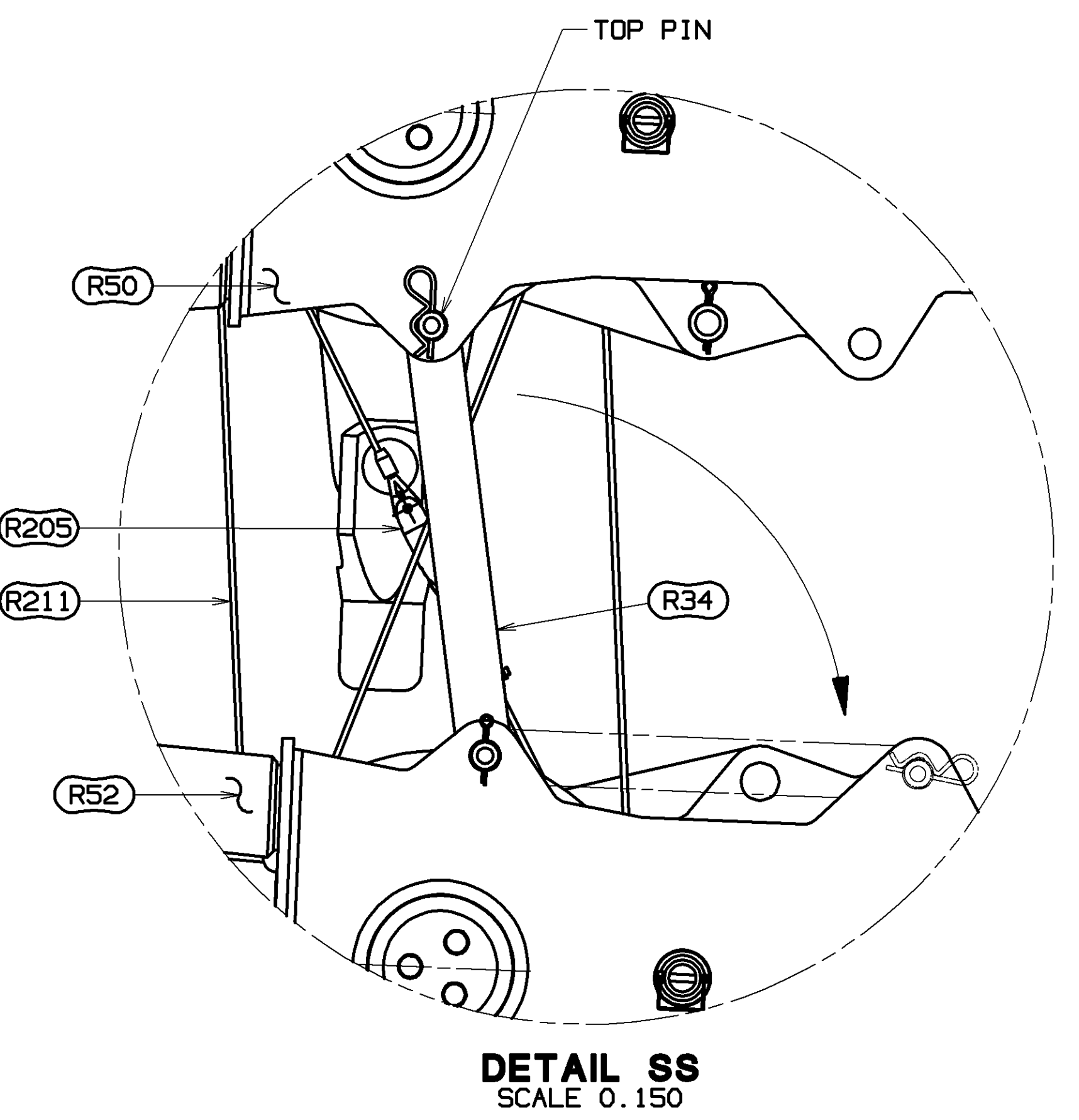
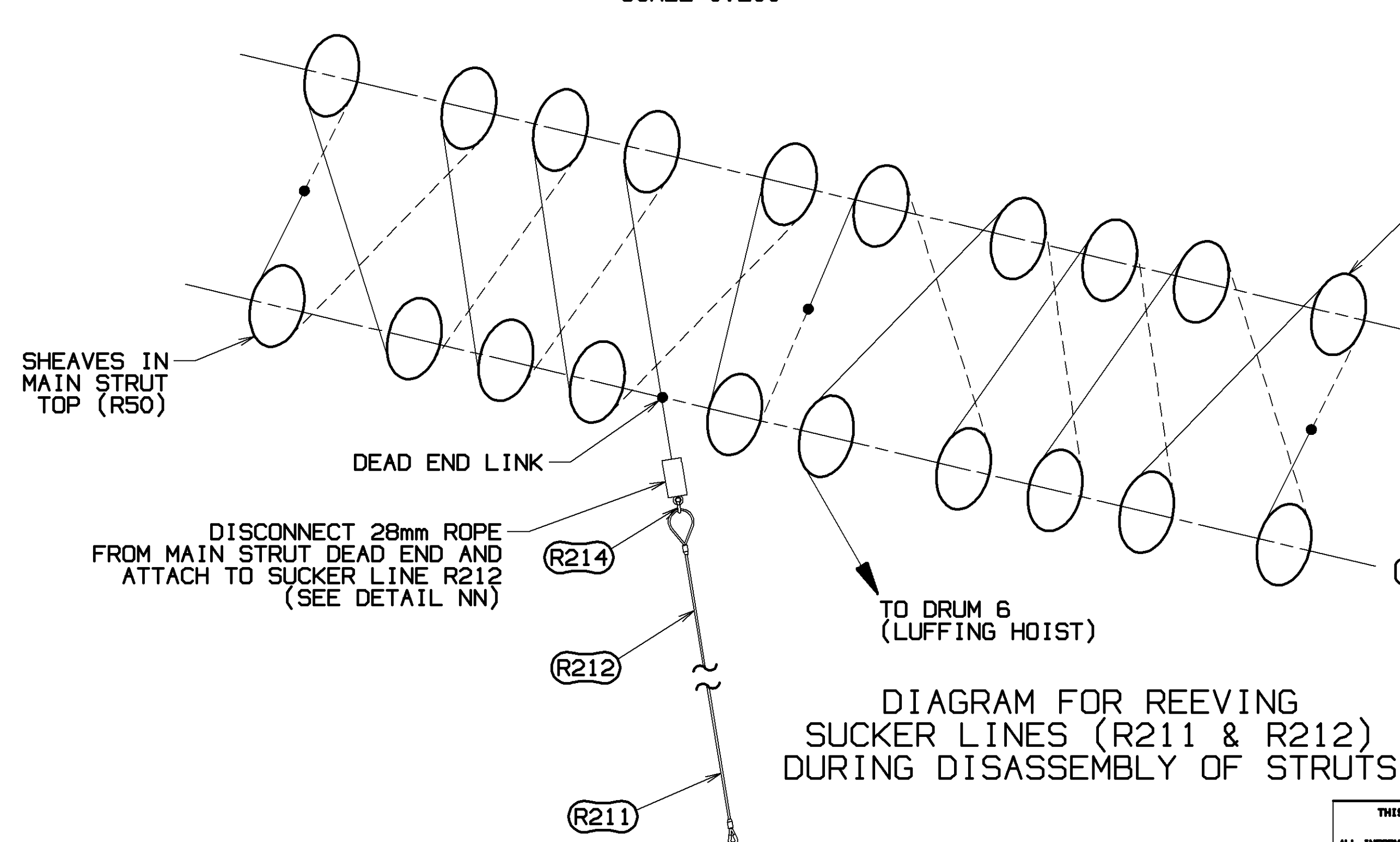
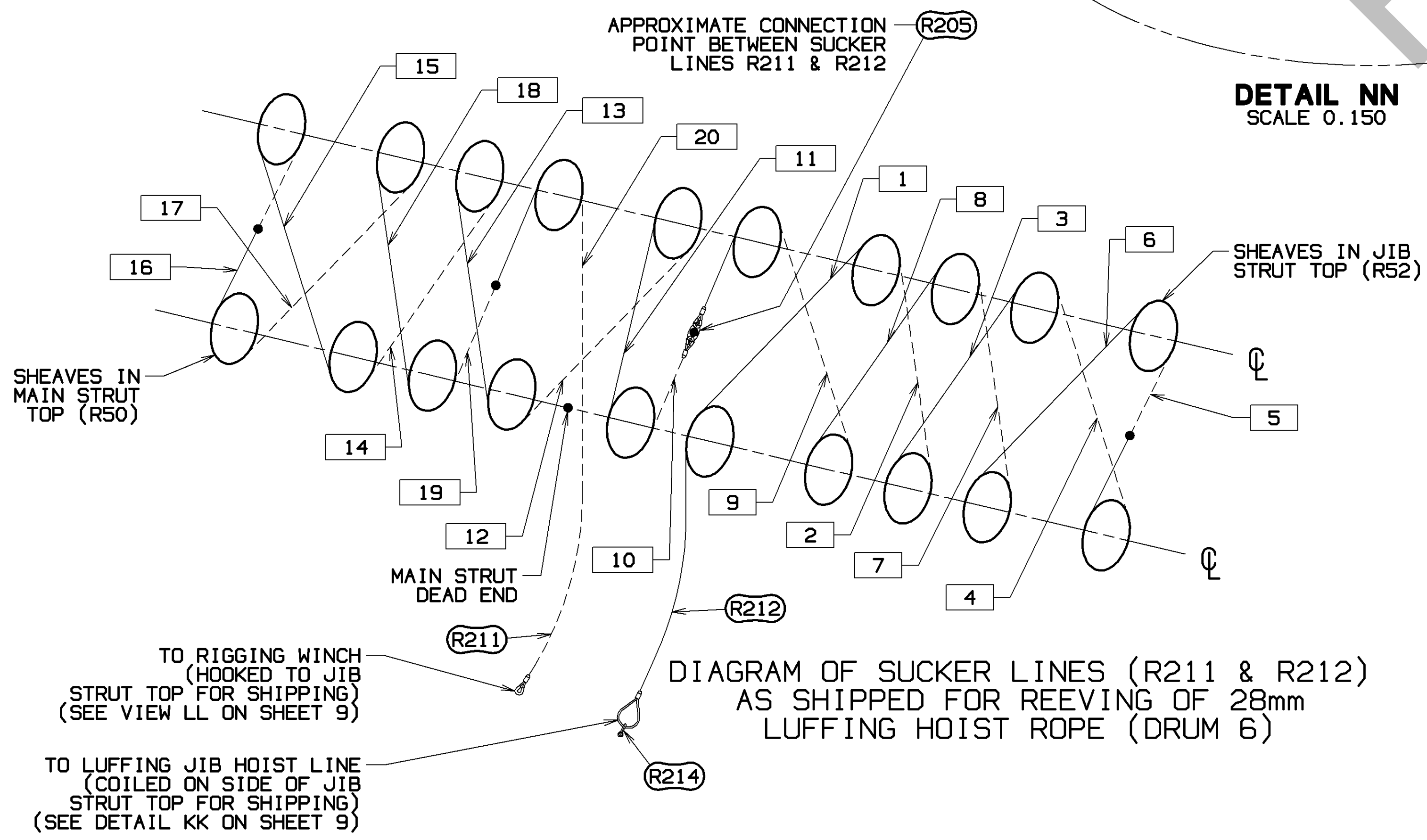
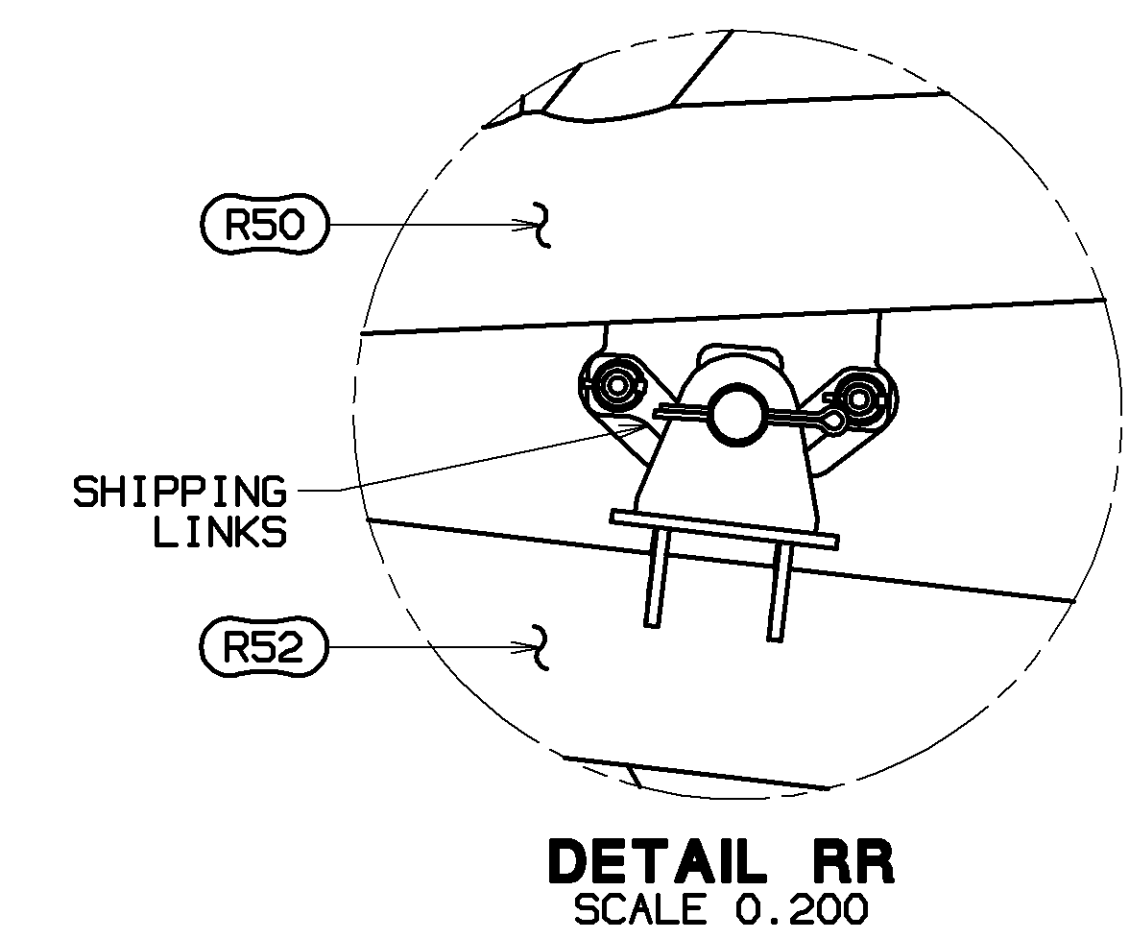
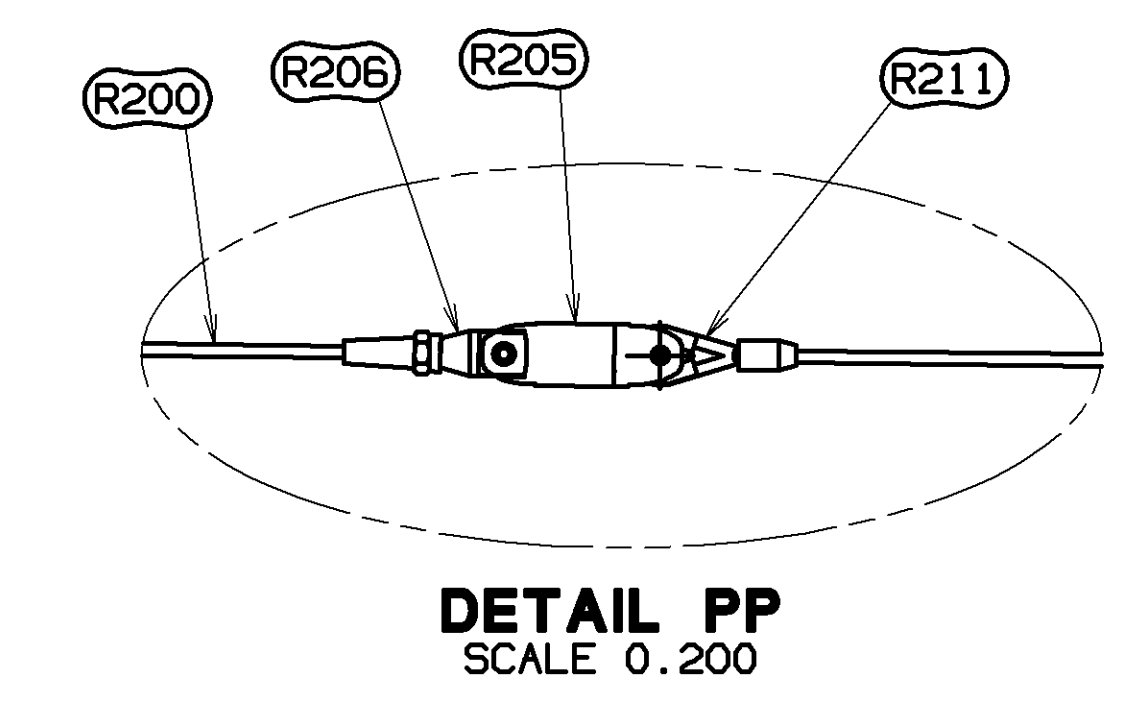
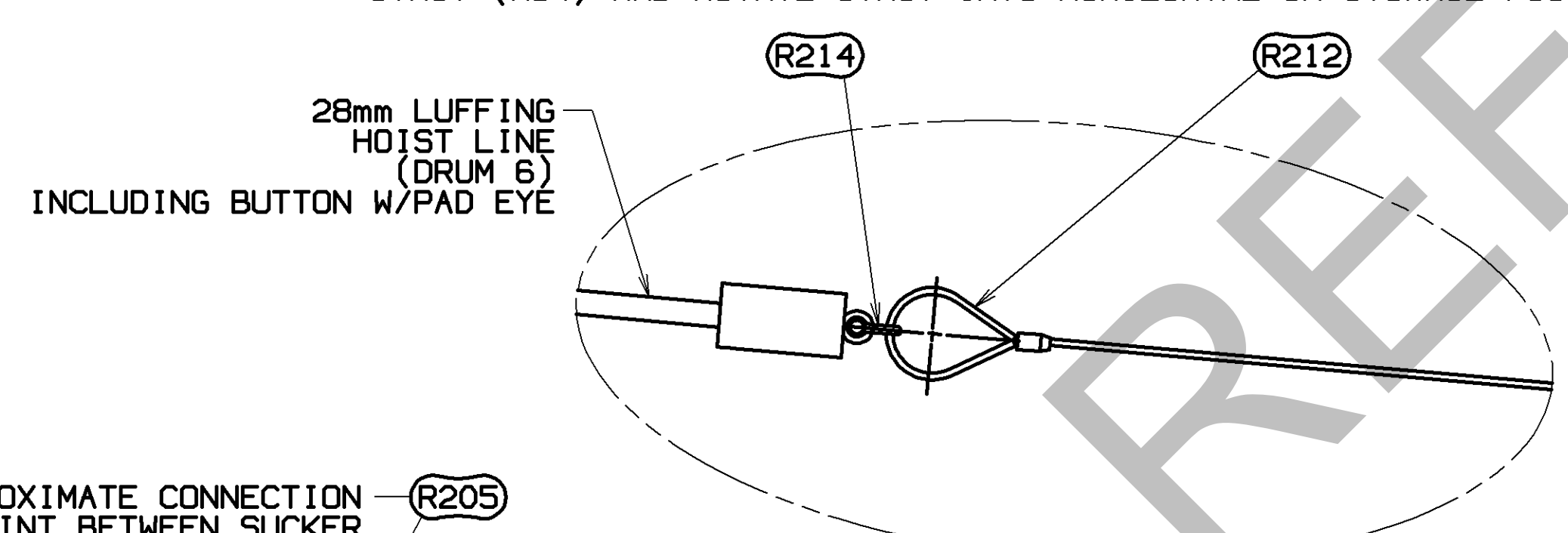
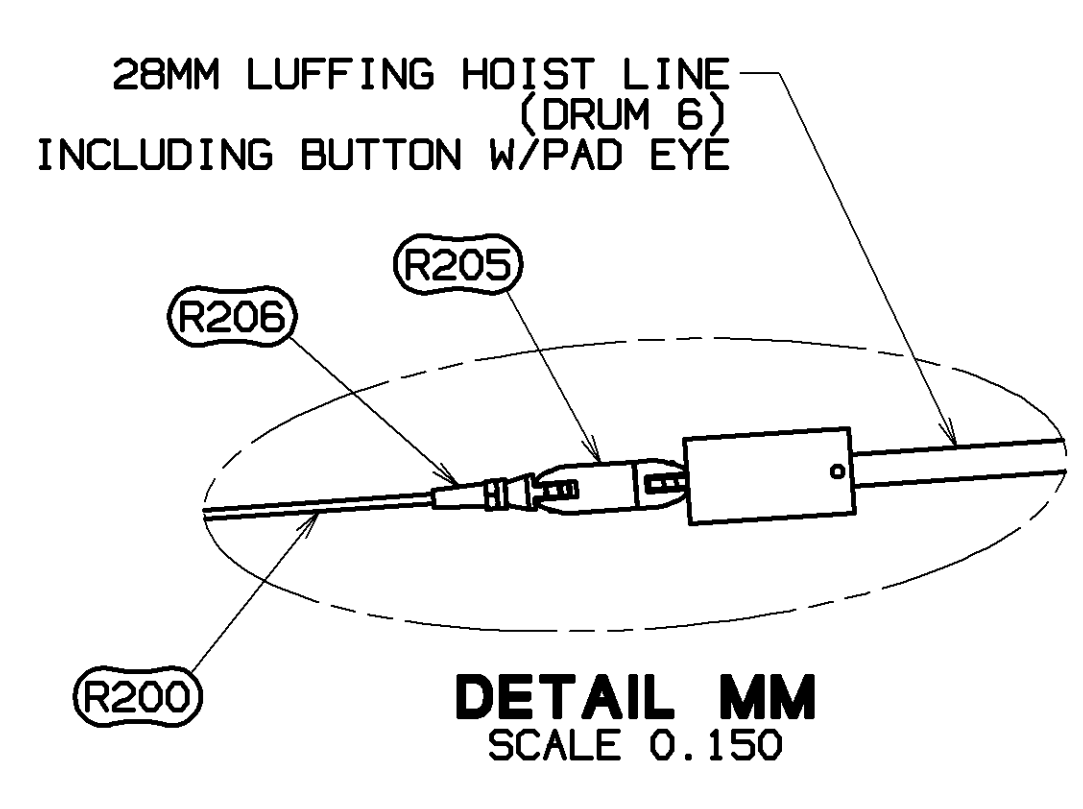
STEP 6
STRUT REEVING PREP

VERIFY THAT ALL RIGGING WINCH WIRE ROPE GUIDE ASSY'S (R210 & R213) ARE IN WORKING POSITION.
 ROUTE RIGGING WINCH LINE (R200) AS SHOWN. RIGGING WINCH LINE (R200) TO ROUTE THRU ROPE GUIDES (R213 & R210), OVER AND UNDER BOOM TOP LJ WRG (R10), OVER UPPER WIRE ROPE GUIDE (R4) AND UNDER LOWER WIRE ROPE GUIDE (R14).
 ATTACH RIGGING WINCH LINE (R200) TO 28mm LUFFING HOIST LINE (DRUM 6) AND PAY IN RIGGING WINCH UNTIL LUFFING HOIST LINE IS OVER TOP OF WIRE ROPE GUIDE (R10). (SEE DETAIL MM).
 DETACH RIGGING WINCH LINE (R200) FROM 28mm LUFFING HOIST LINE AND PAY IN PAST LOWER WIRE ROPE GUIDE ASSY (R210).
 RETURN LOWER WIRE ROPE GUIDE ASSY (R210) TO SHIPPING POSITION AT BOTTOM OF BOOM TOP.



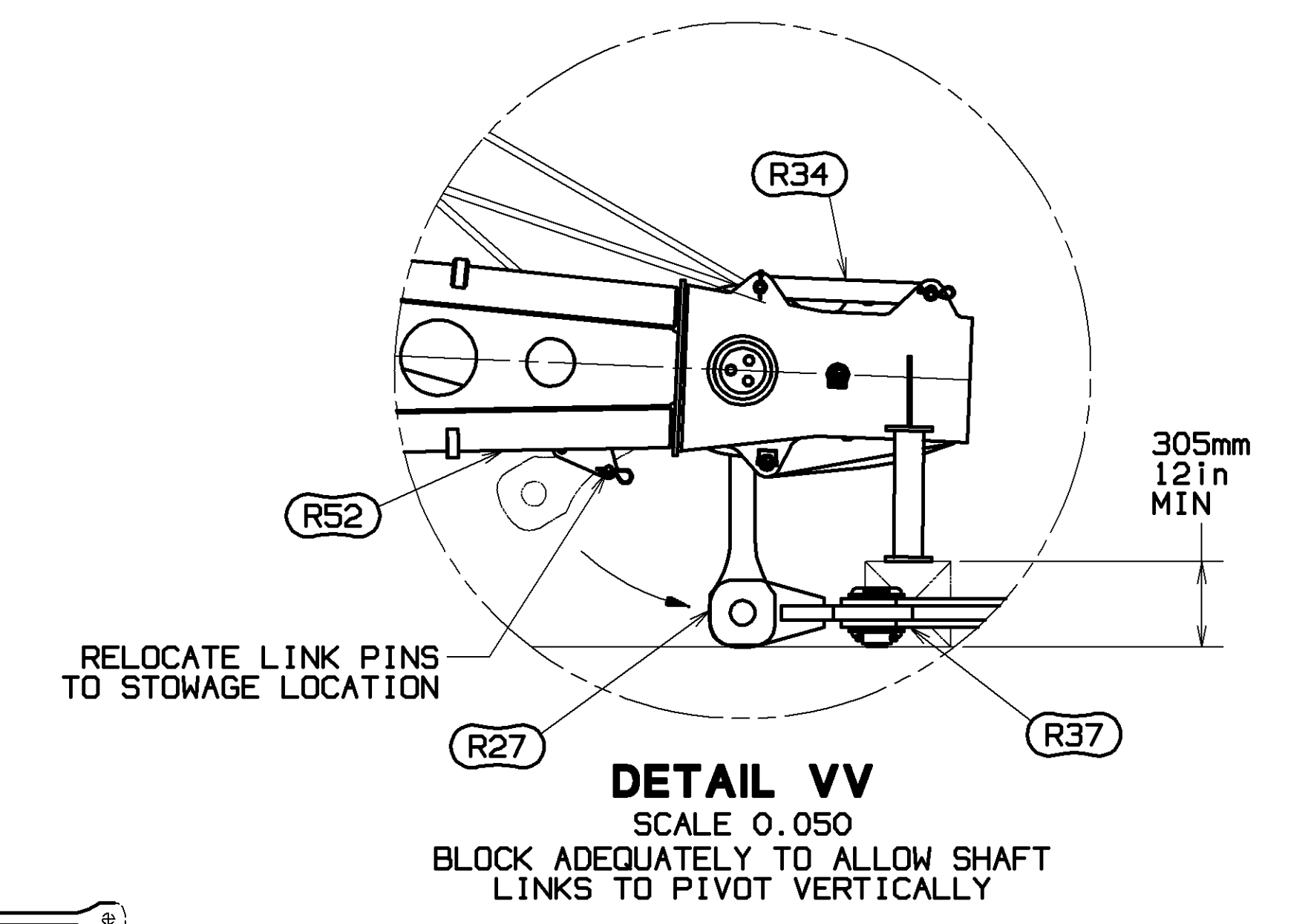
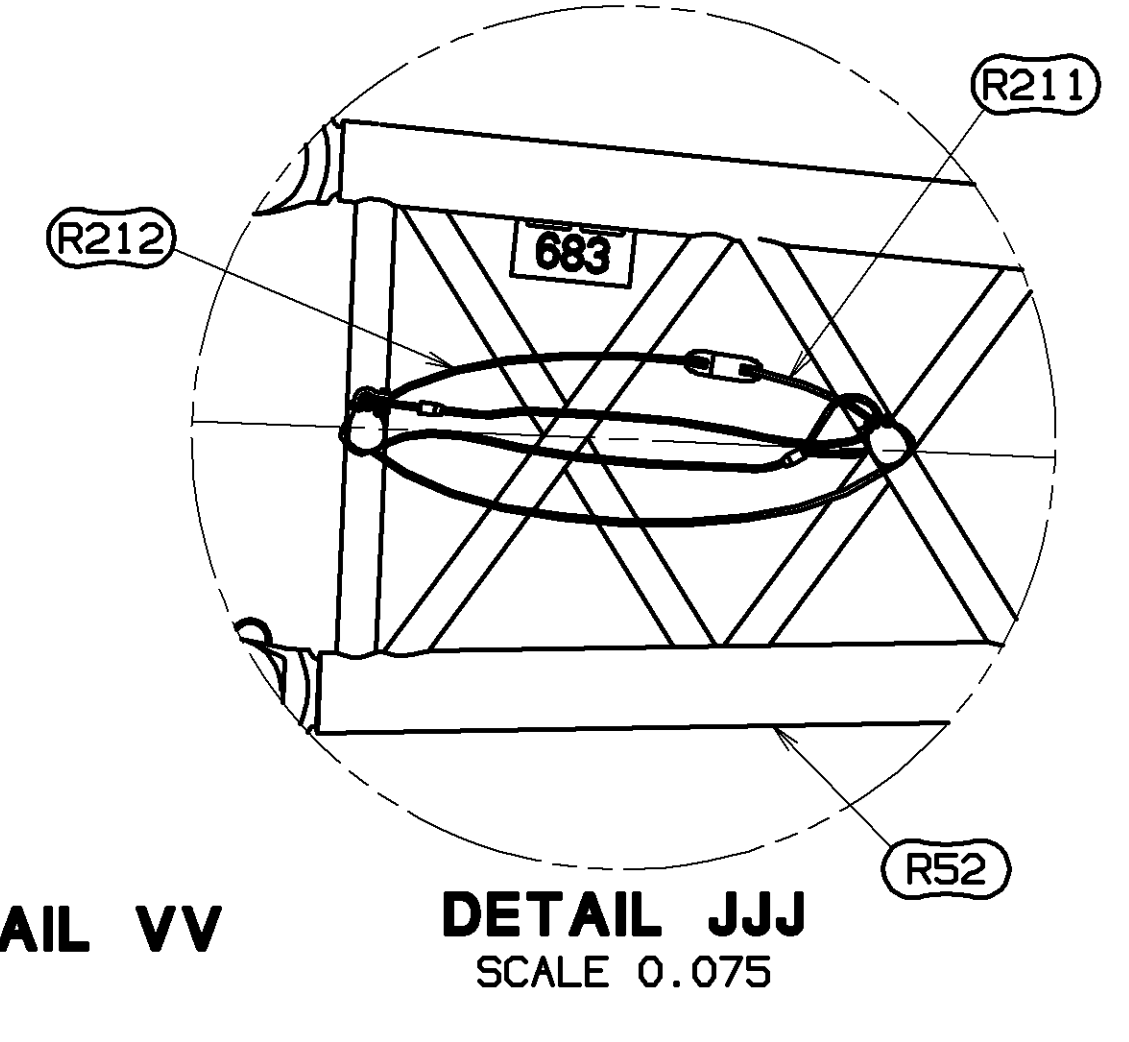
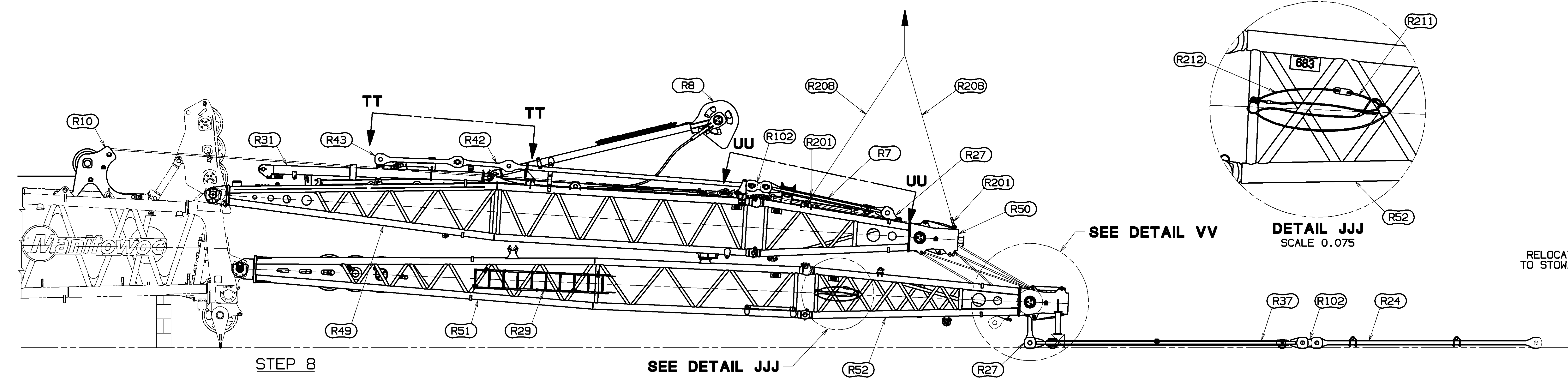
STEP 7
STRUT REEVING PREP

REMOVE HITCH PIN TO DETACH SUCKER LINE (R211) FROM BOTTOM OF JIB STRUT TOP (R52). (SEE SECTION LL-LL ON SHEET 9).
 PAY OUT RIGGING WINCH LINE (R200) TO ATTACH TO SUCKER LINE (R211). (SEE DETAIL PP).
 REMOVE HITCH PIN TO DETACH SUCKER LINE (R212) W/SHACKLE (R214) FROM COILED STOWAGE LOCATION ON JIB STRUT TOP (R52). (SEE DETAIL KK ON SHEET 9). POSITION THIS END OF SUCKER LINE (R212) ONTO MAIN STRUT BUTT (R49) AND CONNECT TO 28mm LUFFING HOIST LINE (DRUM 6) FROM OVER TOP OF ROLLER ON WIRE ROPE GUIDE (R10). (SEE DETAIL NN).
 PAY IN RIGGING WINCH LINE (R200) TO PULL 28mm LUFFING HOIST LINE (DRUM 6) INTO REEVING OF MAIN AND JIB STRUT SHEAVES. PULL LUFFING HOIST LINE FAR ENOUGH TO MANUALLY RE-REEVE LAST SHEAVE AND ATTACH TO DEAD END LOCATED IN THE MAIN STRUT (R50).
 NOTE:
 FOR BOOM LENGTHS LESS THAN 56M REMOVE SUCKER LINE (R211) WHEN IT REACHES SHEAVE (R213) IN BOOM BUTT.
 PAY OUT RIGGING WINCH LINE (R200) AND RECONNECT TO REMAINING SUCKER LINE (R212).
 STORE/COIL SUCKER LINES (R211 & R212) AT SIDE OF JIB STRUT TOP (R52). (SEE DETAIL JJJ ON SHEET 11).
 REATTACH (IF PREVIOUSLY DETACHED) ASSIST CRANE TO LIFTING POINTS ON MAIN STRUT TOP ASSEMBLY (ITEM 2) OR R50. REMOVE SHIPPING LINKS (SEE DETAIL RR) AND UNPIN TOP PIN OF SUPPORT STRUT (R34) AND ROTATE STRUT INTO HORIZONTAL OR STOWAGE POSITION ON JIB STRUT TOP (R52). (SEE DETAIL SS).



PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 8629103794 FOR COMPONENTS LISTED IN 862900-05-026
 DATE 04-28-17
 REF. LIT. A
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 TOLERANCE UNLESS OTHERWISE SPECIFIED
 DECIMAL PLACES FABRICATION FINISHING
 (1) PLACE 0.5 ±.12 ±.18 ±.03
 (2) PLACE 0.00 ±.08 ±.12 ±.015
 (3) PLACE 0.000 ±.008 ±.008
 ANGLES 11.25°
 MANITOWOC CRANES, INC.
 DR. RHY
 CK. TRG
 APP. JRR
 MODEL MLC650
 LUFFING JIB RIGGING
 LJ on B65
 84038308
 SHT 10 OF 17

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



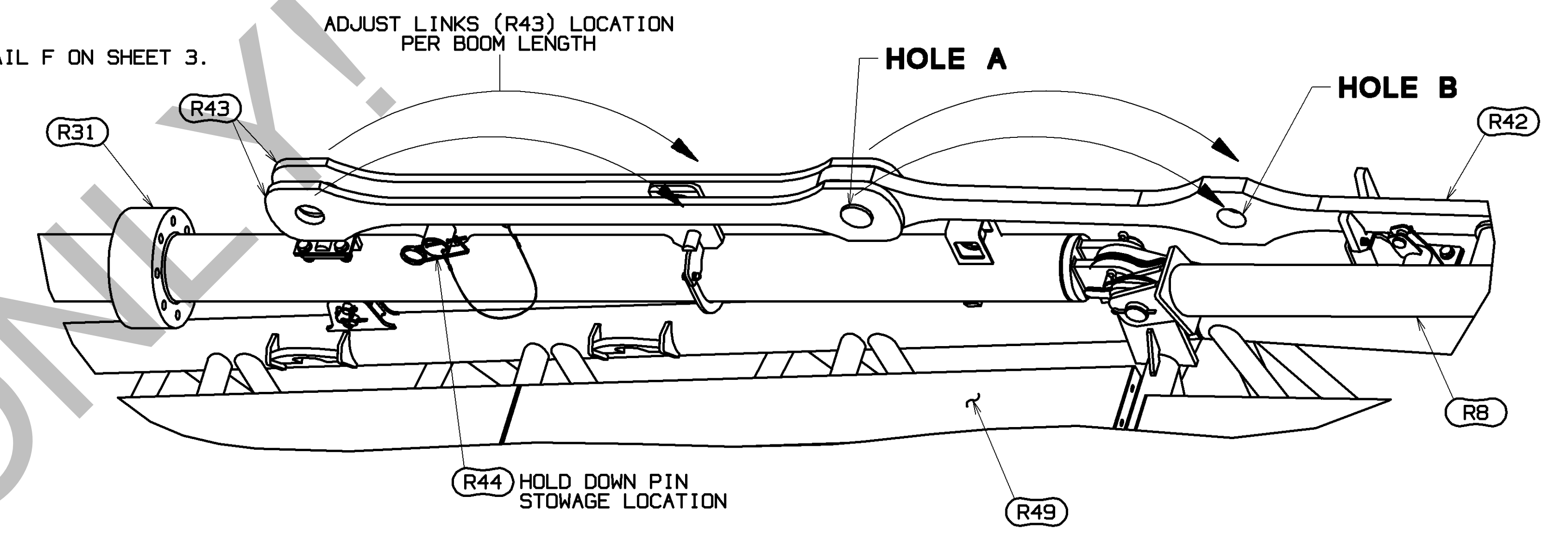
STEP 8
BACKSTAY AND JIB STRAP MAKEUP

USING ASSIST CRANE LIFT MAIN STRUT TOP ASSY (R50) AND ALIGN UPPER PIN CONNECTOR WITH UPPER PIN CONNECTOR ON MAIN STRUT BUTT ASSY (R49) AND ENGAGE PINS. LOWER MAIN STRUT TOP ASSY (R50) TO ALIGN LOWER PIN CONNECTOR HOLES AND INSTALL LOWER CONNECTOR PINS.

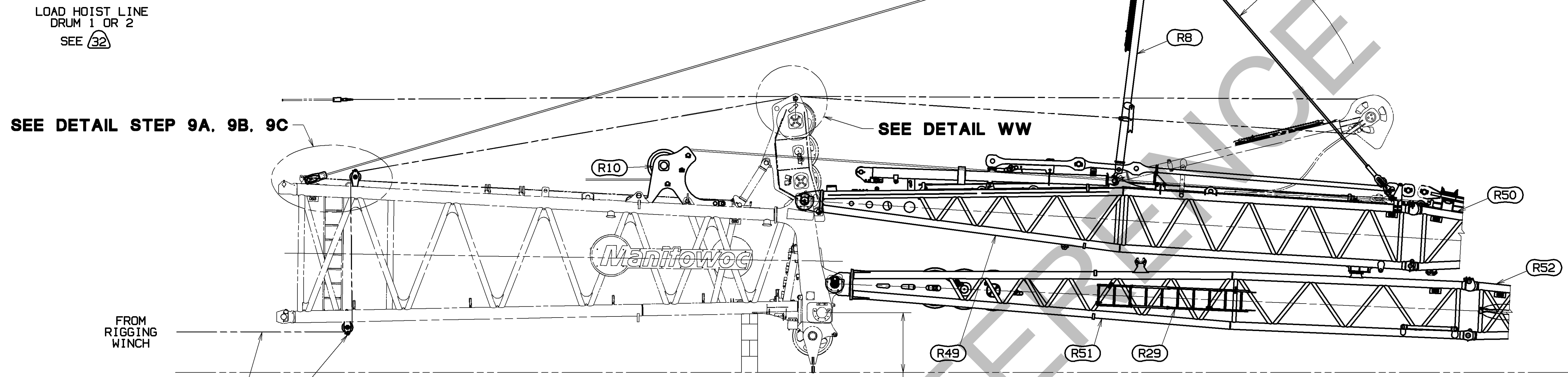
REMOVE HOLD DOWN PIN (R44) FROM LINKS (R43) AND PLACE IN STORED POSITION. (SEE VIEW TT). VERIFY ADJUSTABLE BACKSTAY STRAP LOCATION PER BOOM LENGTH TABLE ON SHEET 2 AND DETAIL F ON SHEET 3.

REMOVE ADJUSTABLE BACKSTAY STRAP (R42) HOLD DOWN PINS AND LOCATE IN STOWED POSITION. (SEE VIEW UU). REMOVE LJ BACKSTAY SPREADER (R7) HOLD DOWN PINS AND LOCATE IN STOWED POSITION. (SEE VIEW UU). REMOVE SHAFT STRUT LINK (R27) PINS AND LOCATE IN STOWED POSITION. (SEE VIEW UU). POSITION SPREADER STRAPS AND SPREADER LINKS IN WORKING POSITION AND CONNECT SPREADER STRAPS TO LINKS (R102). (SEE VIEW UU AND DETAIL B ON SHEET 2).

WITH JIB STRUT TOP (R52) ADEQUATELY BLOCKED REMOVE STRUT SHAFT LINK (R27) RETAINING PIN AND LOCATE IN STOWED POSITION. (SEE DETAIL VV). WITH STRUT SHAFT LINK (R27) IN VERTICAL POSITION LOCATE AND PIN TO FRONTSTAY SPREADER ASSY (R37) (SEE DETAIL VV) WHICH WAS PREVIOUSLY REMOVED FROM MAIN STRUT BUTT (R49) AT STEP 4 ON SHEET 9. REMOVE STRAPS (R24) AND LINKS (R102) FROM #680/681 12M INSERT (ITEM 5) AND CONNECT TO FRONTSTAY SPREADER ASSY (R37).



VIEW TT
SCALE 0.100



STEP 9
STRUT RAISING ARM REEVING

ROUTE RIGGING WINCH LINE (R200) AROUND BOTTOM BOOM TOP WIRE ROPE GUIDE ASSY (R210) AND UPPER BOOM TOP WIRE ROPE GUIDE ASSY (R210) AS SHOWN IN "DETAIL STEP 9A". ATTACH RIGGING WINCH LINE TO LOAD HOIST LINE (DRUM 1 OR 2, SEE DELTA NOTE 32). PAY IN RIGGING WINCH LINE (R200) TO PULL LOAD HOIST LINE TO BOOM TOP AND DETACH RIGGING WINCH LINE.

REROUTE RIGGING WINCH LINE (R200) AROUND BOOM TOP WIRE ROPE GUIDE ASSY (R210) AS SHOWN IN "DETAIL STEP 9B", OVER BOOM TOP WIRE ROPE GUIDE ROLLER (SEE DETAIL WW) AND UNDER TO OVER STRUT RAISING ARM SHEAVE (R8). ATTACH RIGGING WINCH LINE TO LOAD HOIST LINE. PAY IN RIGGING WINCH LINE (R200) TO PULL LOAD HOIST LINE PAST BOOM TOP WIRE ROPE GUIDE ASSY (R210) AND DETACH RIGGING WINCH LINE.

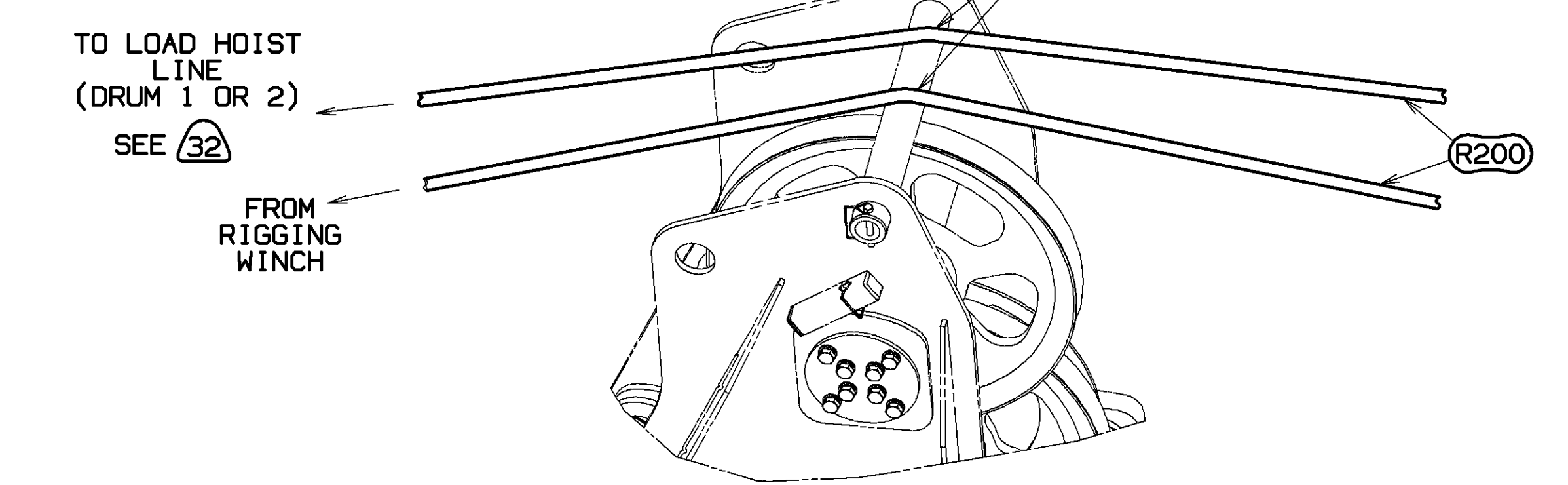
ATTACH SOCKET BUTTON (A06278) FROM LOWER BOOM POINT LINK ASSY DEAD END (R45) TO LOAD HOIST LINE. ATTACH LOAD HOIST LINE TO BOOM TOP BRACKET AS SHOWN IN "DETAIL STEP 9C".

PAY IN LOAD HOIST RAISING THE STRUT RAISING ARM (R8) UNTIL PENDANTS PULL TIGHT.

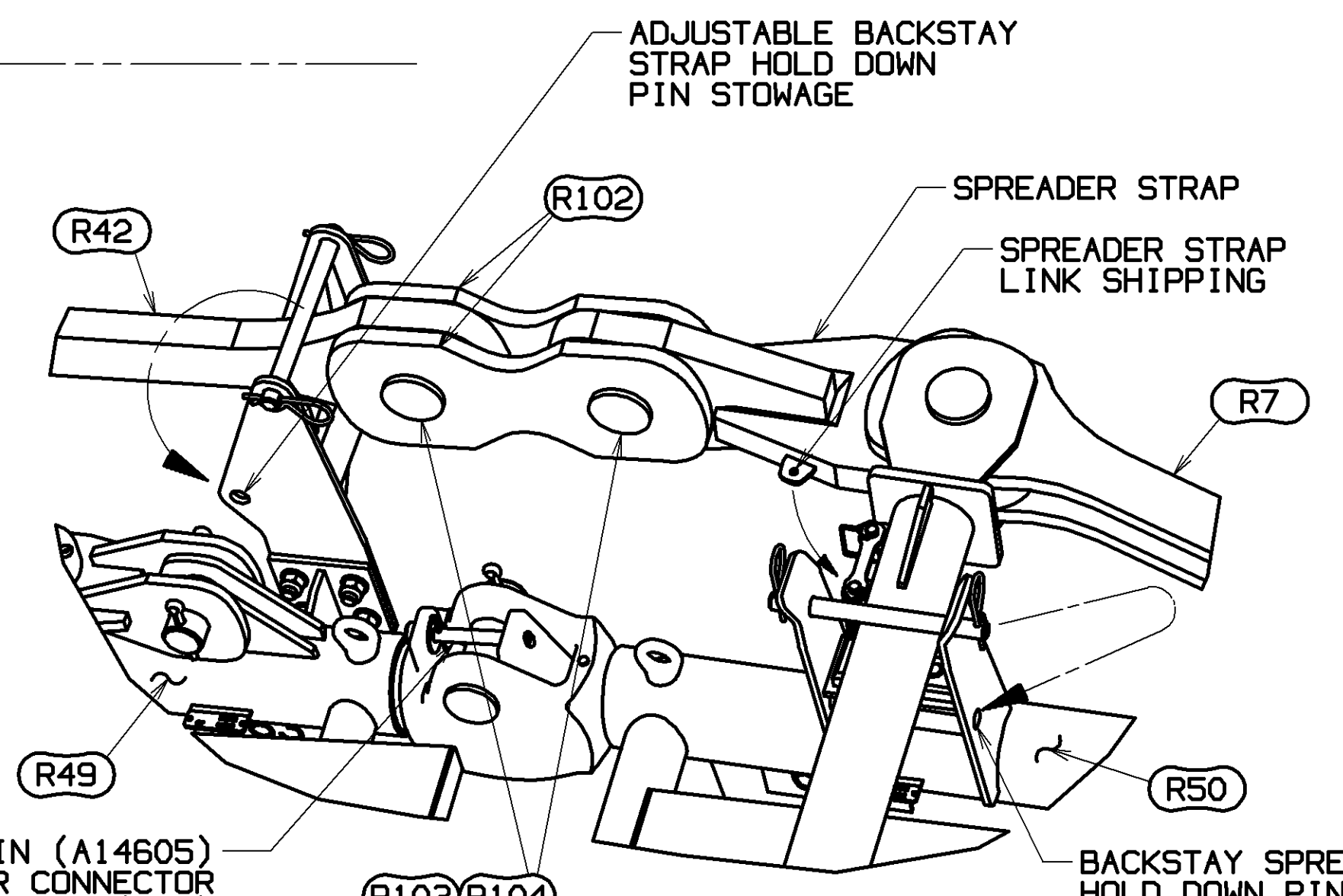
NOTE: REQUIRED MINIMUM BLOCK HEIGHT TO ASSEMBLE LUFFING JIB (STEP 10) EQUAL 1700mm FROM JIB HINGE & TO GROUND. (ASSUMES APPROX. 305mm UNDER LJ BUTT CONNECTOR).

>62M BOOM:
RAISE EQUALIZER AND REEVE LOAD HOIST LINE UNDER EQUALIZER PRIOR TO REEVING STRUT RAISING ARM SHEAVES (R8).

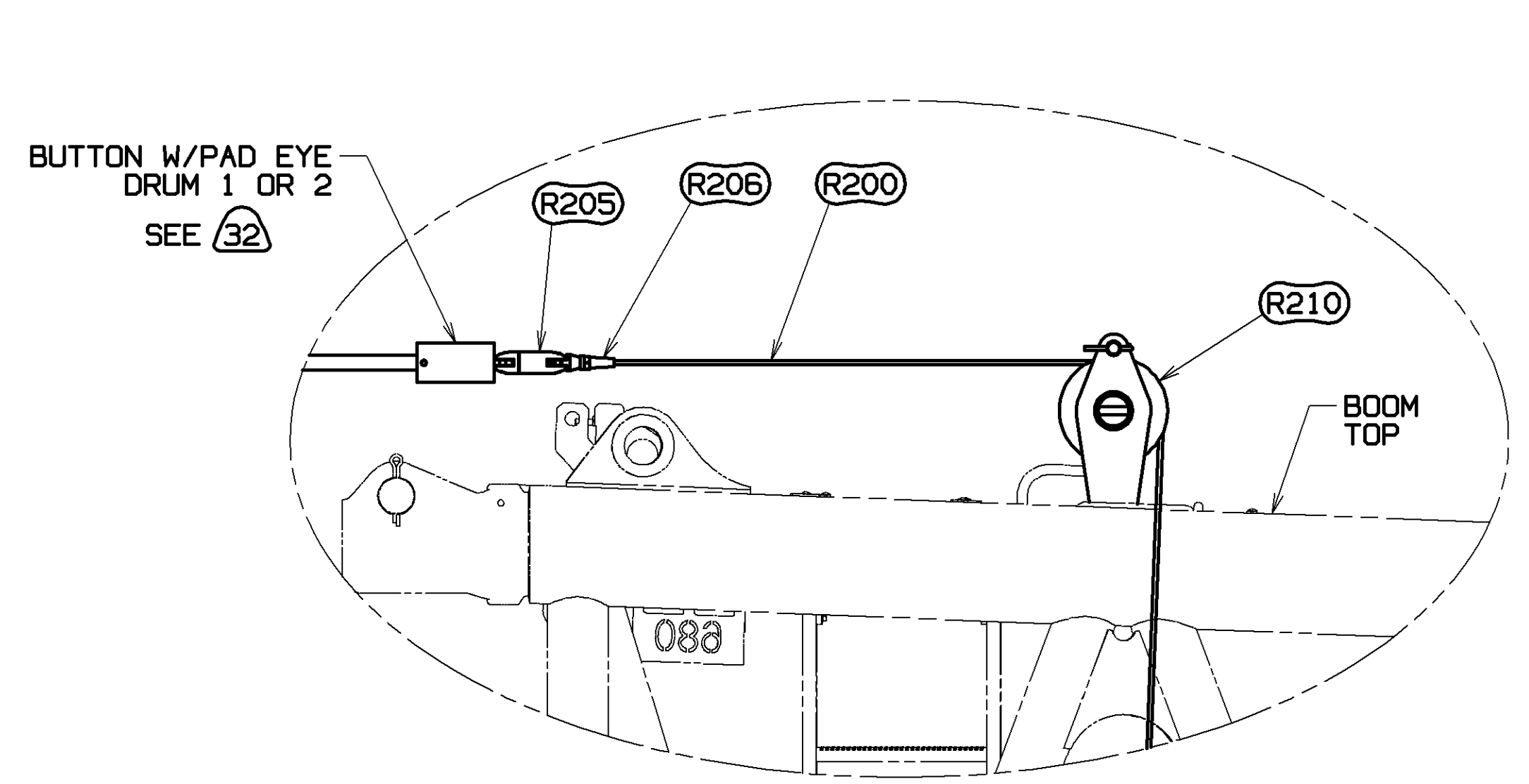
56M BOOM:
PROPER BLOCKING HEIGHT TO ASSEMBLE JIB IS REQUIRED AND EQUALIZER MUST BE DOWN, REEVE LOAD HOIST LINE TO STRUT RAISING ARM SHEAVE (R8) THRU THE BOOM HOIST REEVING.



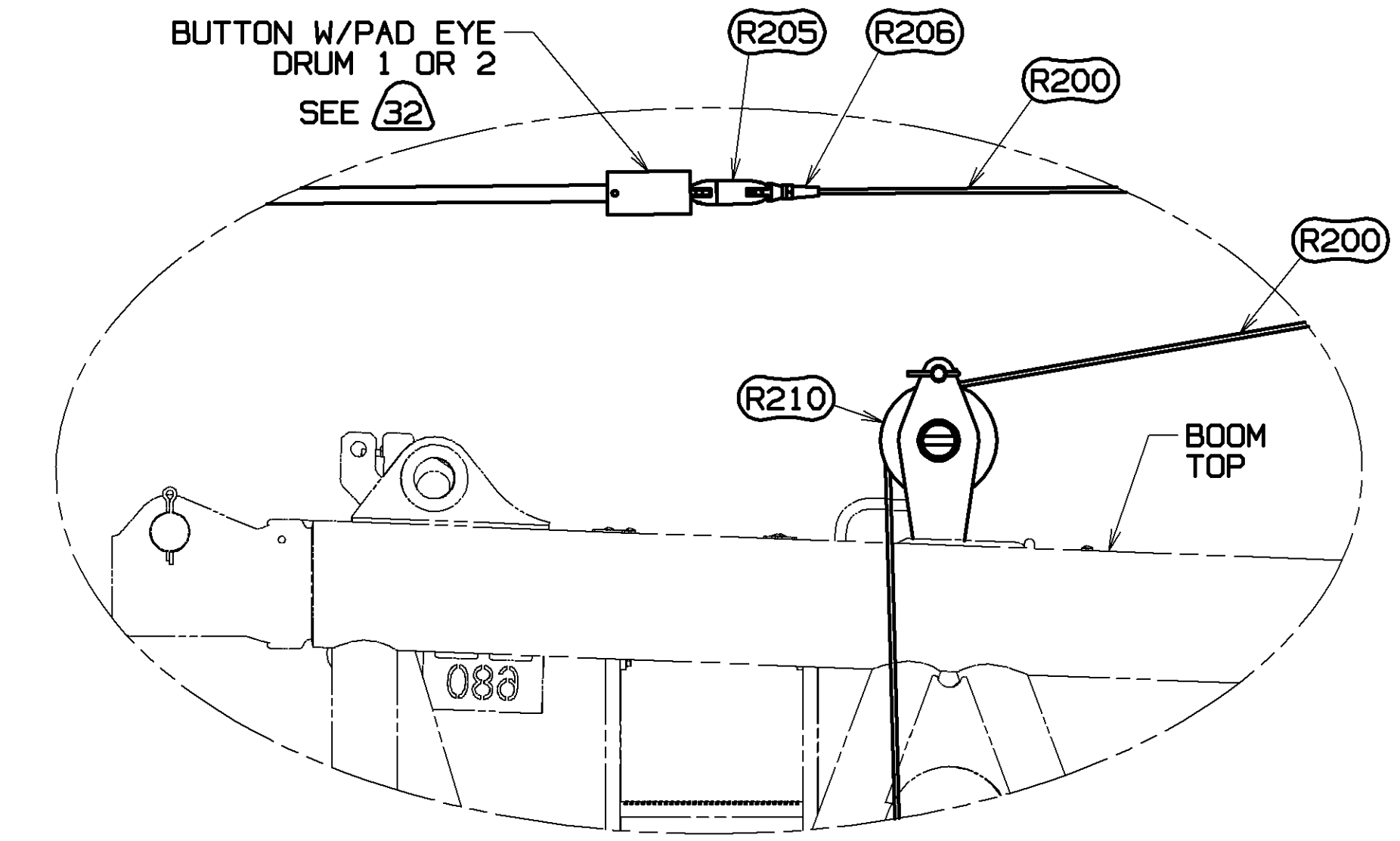
DETAIL WW
SCALE 0.100



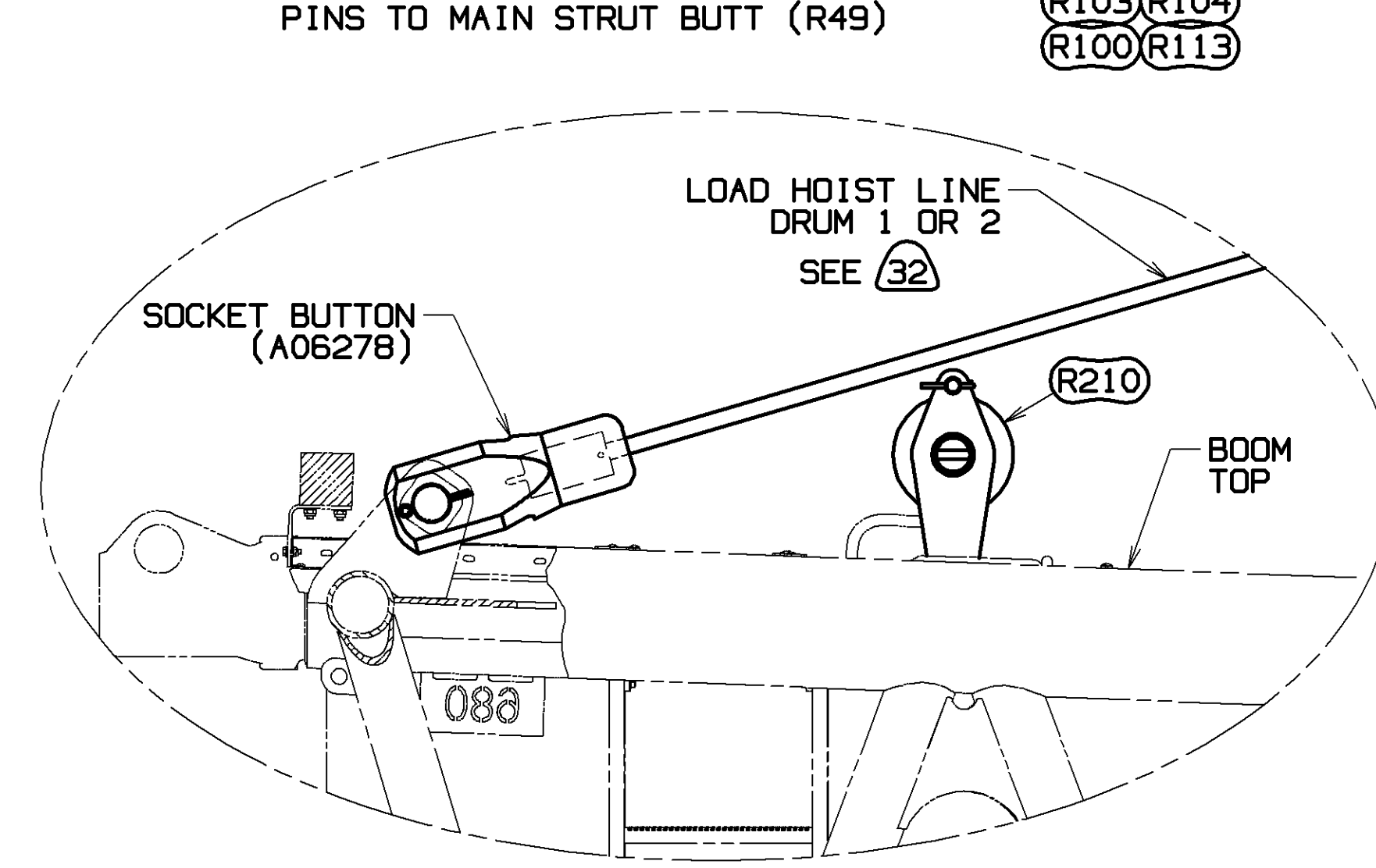
VIEW UU
SCALE 0.125



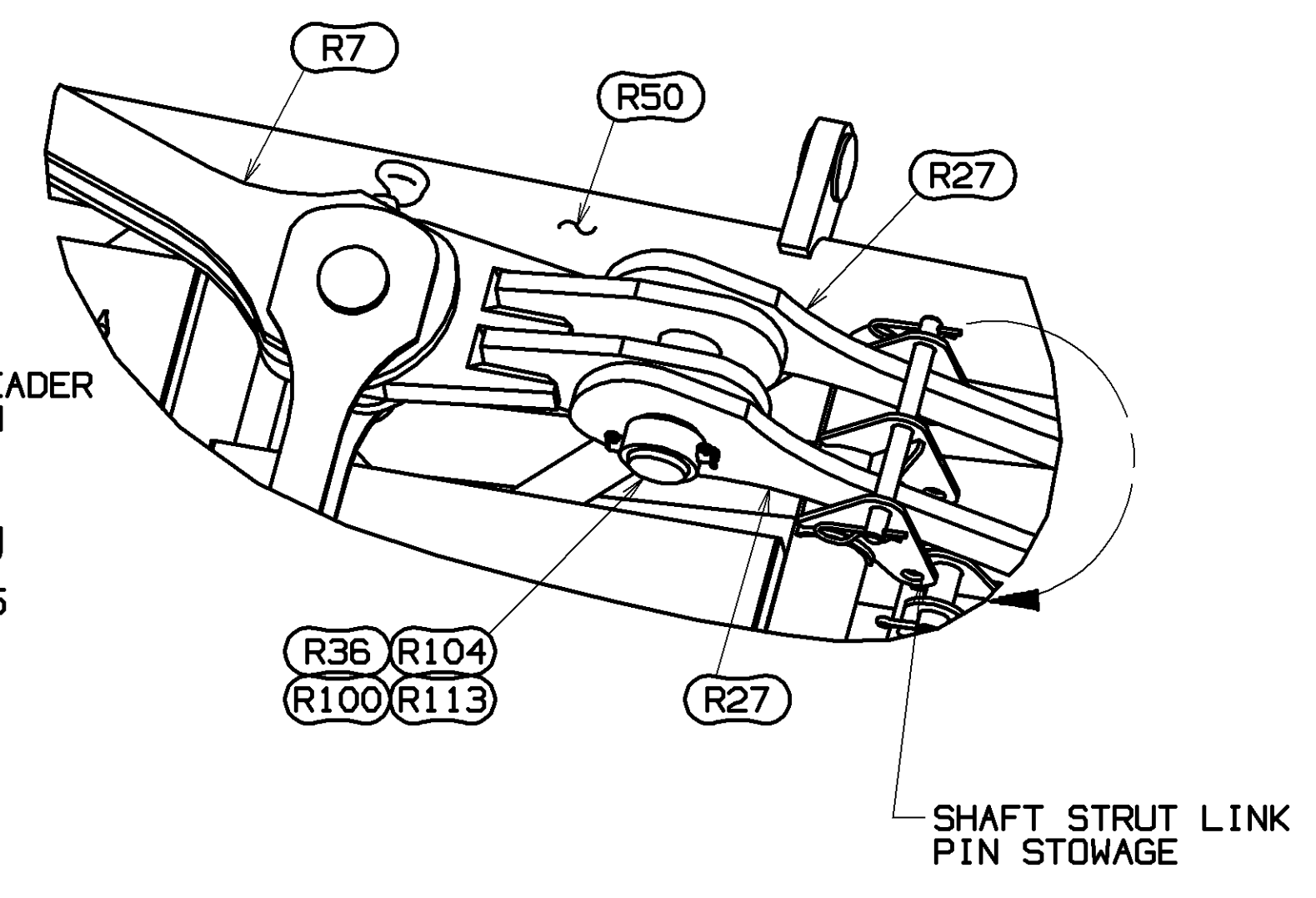
DETAIL STEP 9A
SCALE 0.100



DETAIL STEP 9B
SCALE 0.100



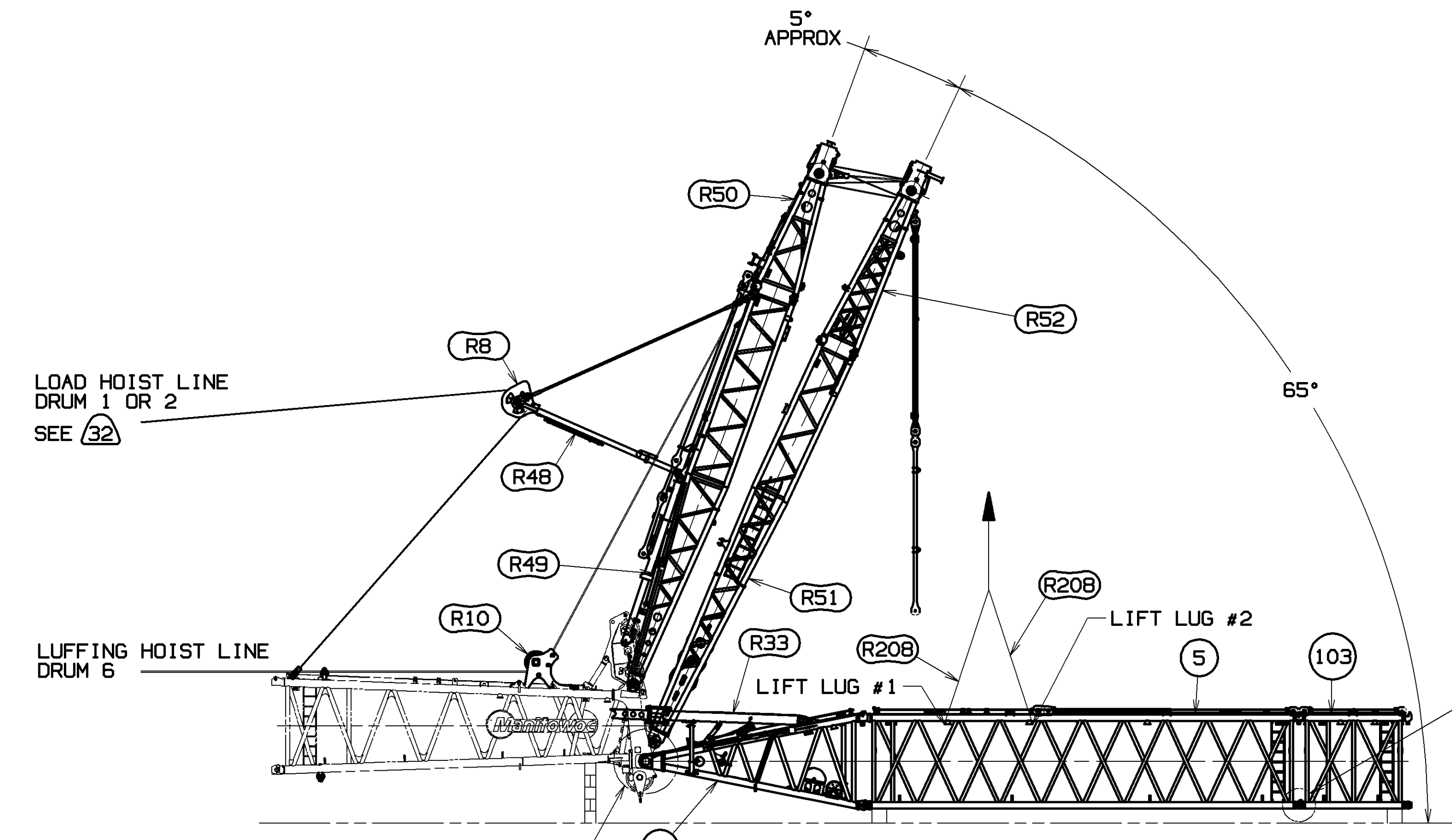
DETAIL STEP 9C
SCALE 0.100



TOLERANCE UNLESS OTHERWISE SPECIFIED		MATERIAL		FINISHING		MANUFACTURING		DRAWING		DATE	
DECIMAL PLACES	FRACTIONS										
(1) PLACE 0.5	1/2	1/4	1/8	1/16	1/32	1/64	1/128	1/256	1/512	1/1024	04-28-17
(2) PLACE 0.00	1/16	1/32	1/64	1/128	1/256	1/512	1/1024	1/2048	1/4096	1/8192	
(3) PLACE 0.000	1/64	1/128	1/256	1/512	1/1024	1/2048	1/4096	1/8192	1/16384	1/32768	
ANGLES	11.25°	22.5°	45°	90°	135°	180°	225°	270°	315°	360°	

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BILL OF MATERIAL		ASSEMBLIES USED IN
QTY	DESCRIPTION	MATERIAL



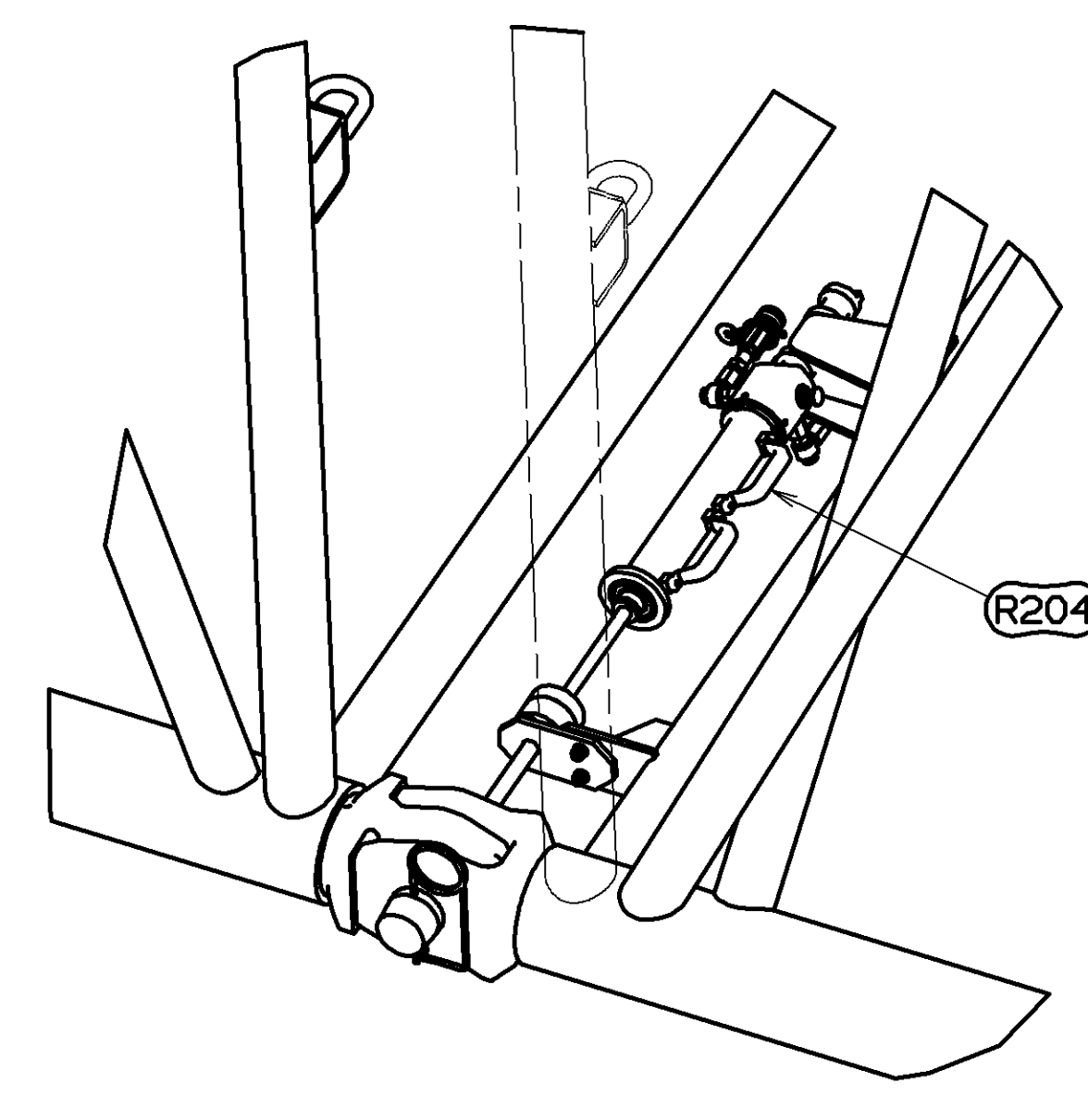
STEP 10
STRUT RAISING AND JIB BUTT ASSEMBLY
(JIB SECTION SHOWN FOR BOOM LENGTHS 29M, 35M, 41M, 47M, 53M, 59M & 65M)

FROM STEP 9 WHEN USING DRUM 2 (PREFERRED) AS LOAD HOIST CONTINUE TO HOIST IN RAISING BOTH STRUTS. STRUTS WILL AUTOMATICALLY SEPARATE. WHEN USING DRUM 1 FOR STRUT RAISING 74M MINIMUM OF BOOM IS REQUIRED FOR PROPER WRAP ON THE 4M FLEETING SHEAVE. BOOM LENGTHS LESS THAN 74M MUST USE AN ASSISTANT TO MONITOR THE ROPE WRAP ON THE 4M FLEETING SHEAVE WHEN USING DRUM 1 FOR STRUT RAISING. THE ROPE WILL LEAVE THE SHEAVE AND RETURN. THE LOCATION OF THE FLEETING SHEAVE MUST BE POSITIONED TO ALLOW THE ROPE TO RETURN INTO THE SHEAVE. STOP HOISTING IN AT 65° JIB STRUT ANGLE.

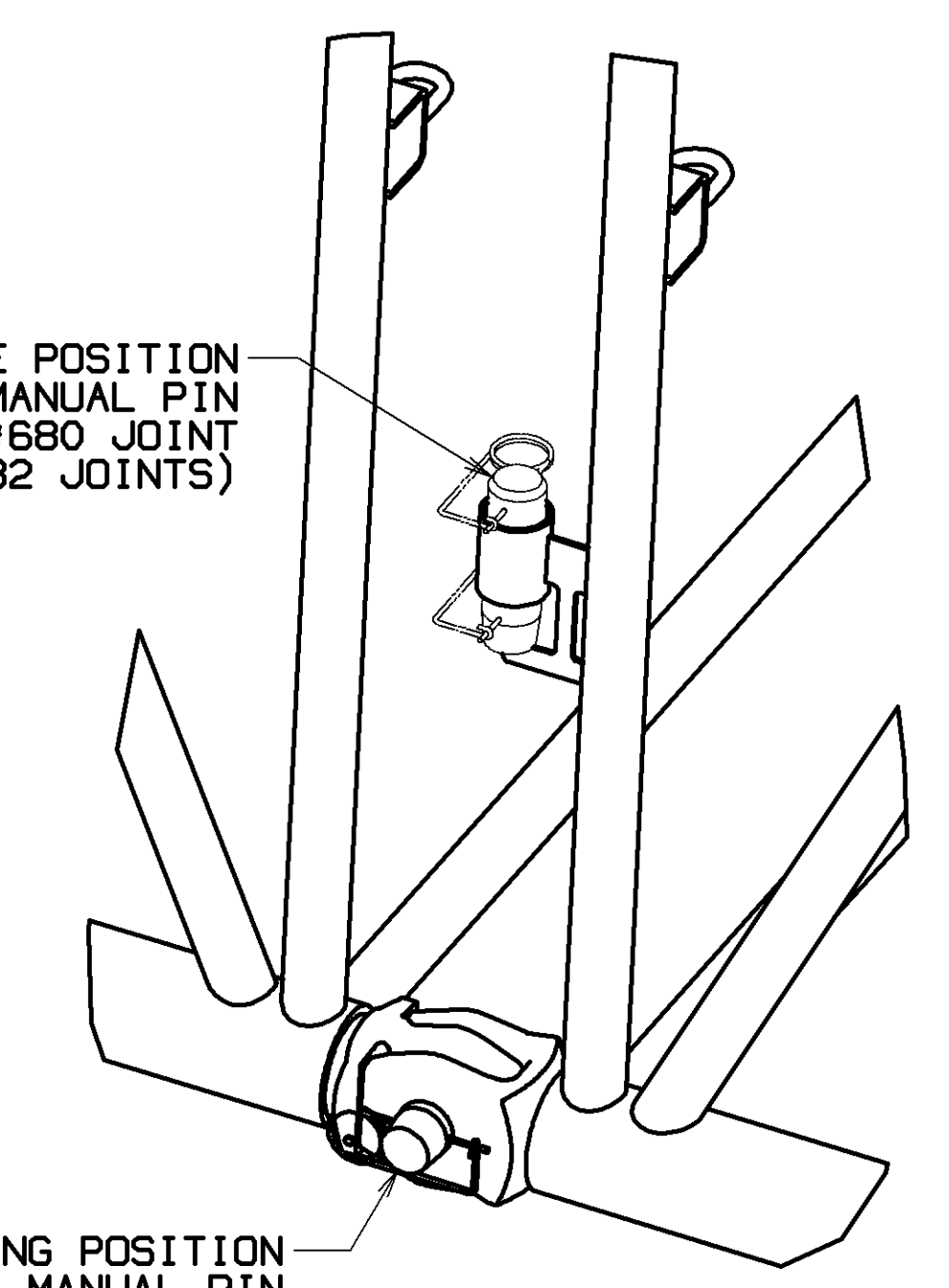
ASSEMBLE NEXT TWO INSERTS ONTO JIB BUTT (ITEM 7) AS REQUIRED PER BOOM LENGTH CONFIGURATION ON SHEETS 5, 6 & 7. (REFER TO SHEET 14 FOR PICK POINT INFORMATION OF JIB SECTION). (FOR LOWER CONNECTOR PIN INSTALLATION SEE DETAIL HHH OR DETAIL LLL. - SEE 42).

NOTE: JIB STOPS (R33) MUST BE LOWERED (STOWAGE POSITION) PRIOR TO ATTACHING JIB TO BOOM TOP.

USING ASSIST CRANE POSITION JIB SECTION ONTO BOOM TOP. ATTACH PIN PULLER CAGE WELDMENT (R203) 2-PLACES AND POSITION PIN PULLER ASSY (R204). ACTIVATE CYLINDER TO INSTALL HINGE PIN INTO JIB BUTT (ITEM 7). (SEE DETAL YY).



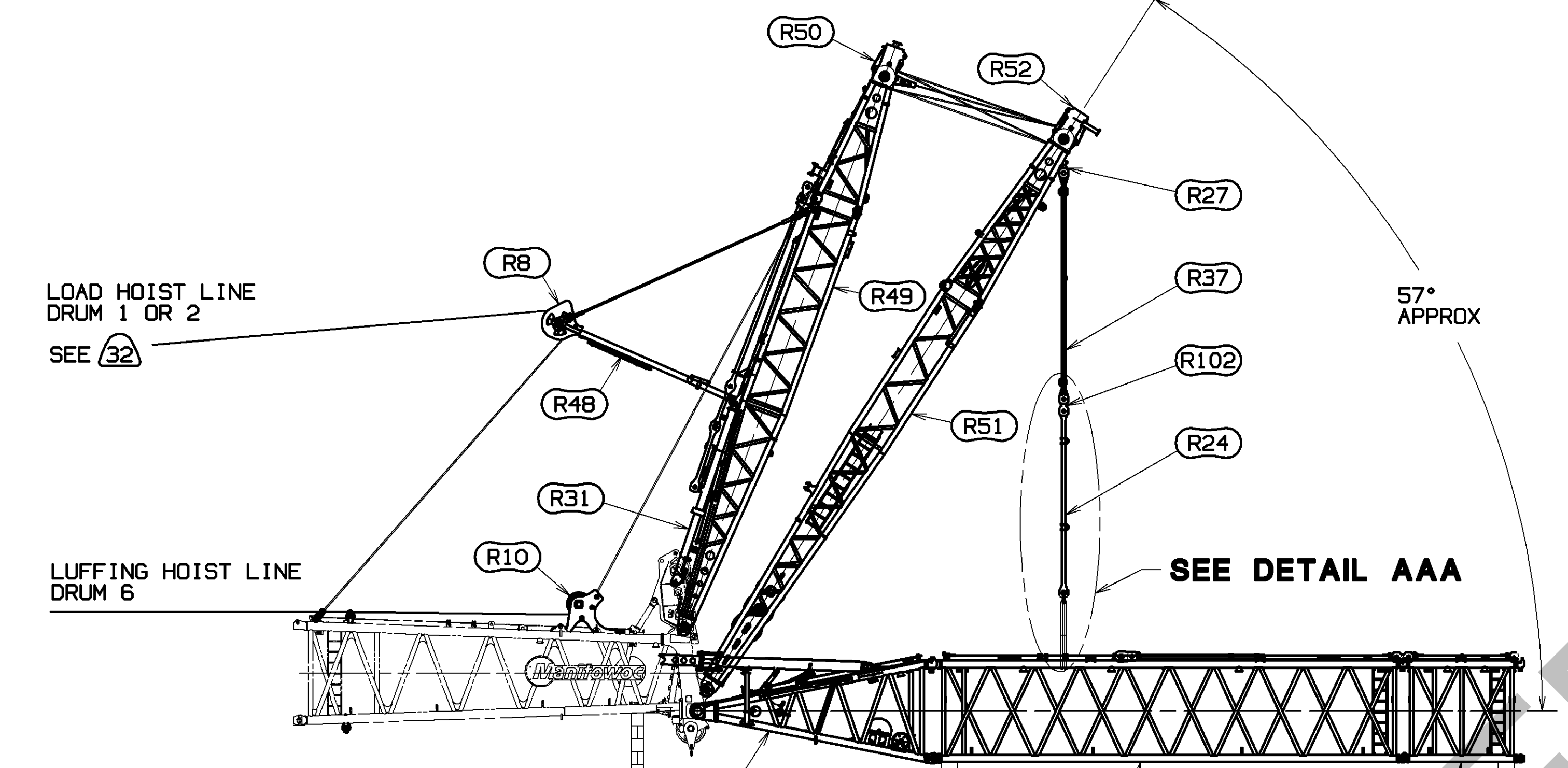
DETAIL HHH
TYPICAL LOWER JIB CONNECTOR HYDRAULIC PIN INSTALLATION
SCALE 0.100
SEE 42



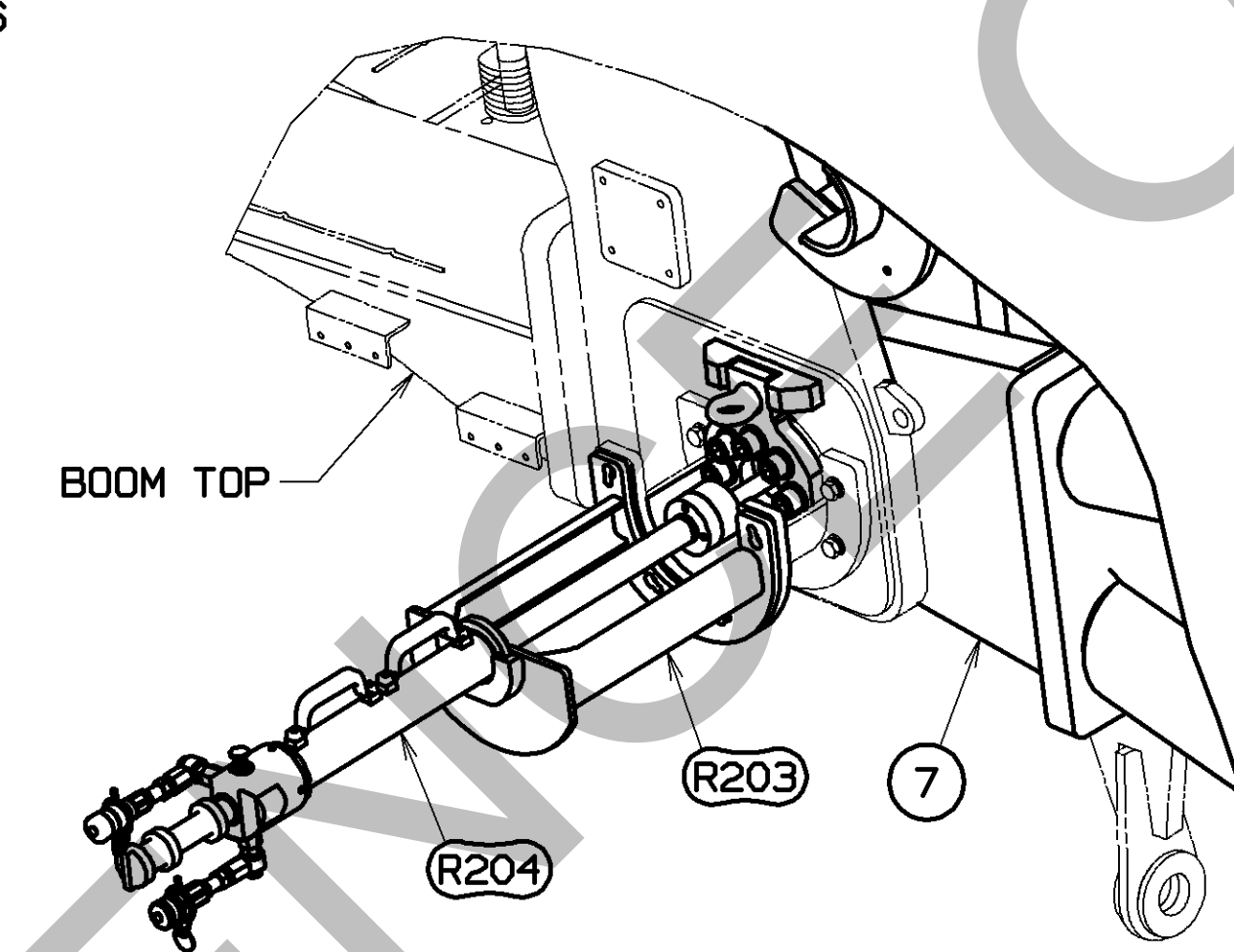
DETAIL LLL
TYPICAL LOWER JIB CONNECTOR MANUAL PIN INSTALLATION
SCALE 0.100
SEE 42

STOWAGE POSITION MANUAL PIN (REF 84036353 AT #680 JOINT 84047892 AT #681 & 682 JOINTS)

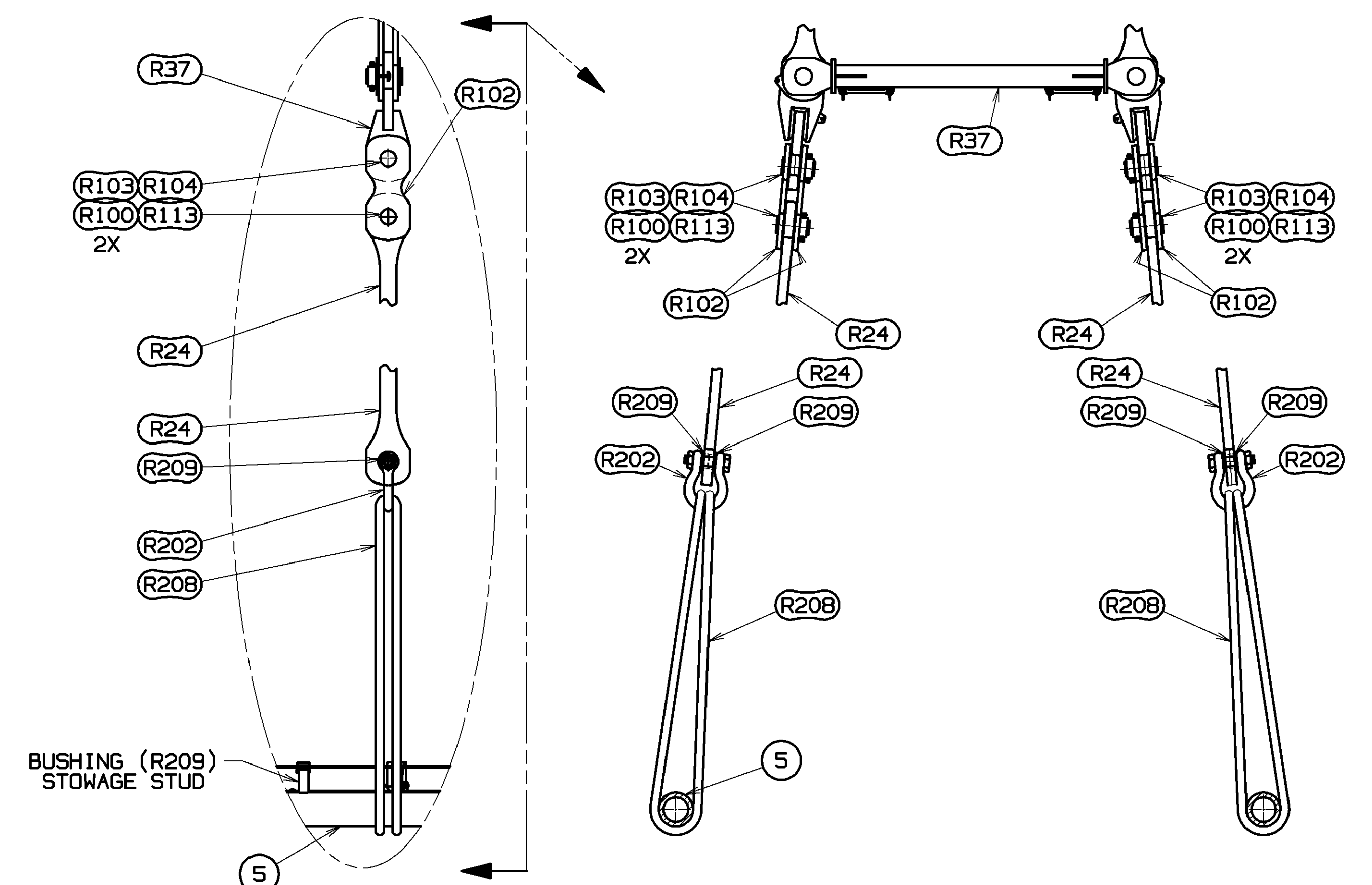
WORKING POSITION MANUAL PIN (REF 84036353 AT #680 JOINT 84047892 AT #681 & 682 JOINTS)



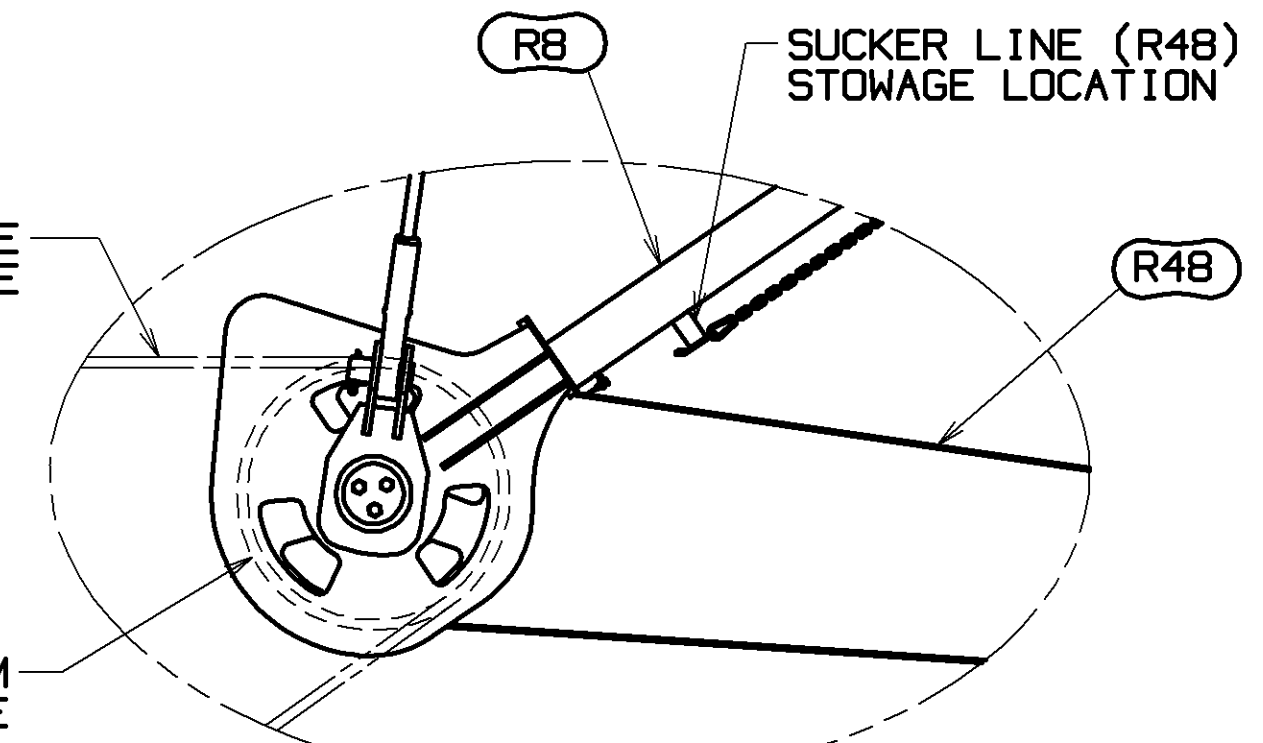
STEP 11
JIB AS HOLDBACK
LUFF DOWN TO BASKET SLING (R208) AROUND 12M INSERT ATTACHED TO JIB BUTT (ITEM 7). INSTALL BUSHINGS (R209) (STOWED ON 12M INSERT-ITEM 5) INTO STRAP (R24) HOLES WITH SHACKLE (R202) (SEE DETAIL AAA).



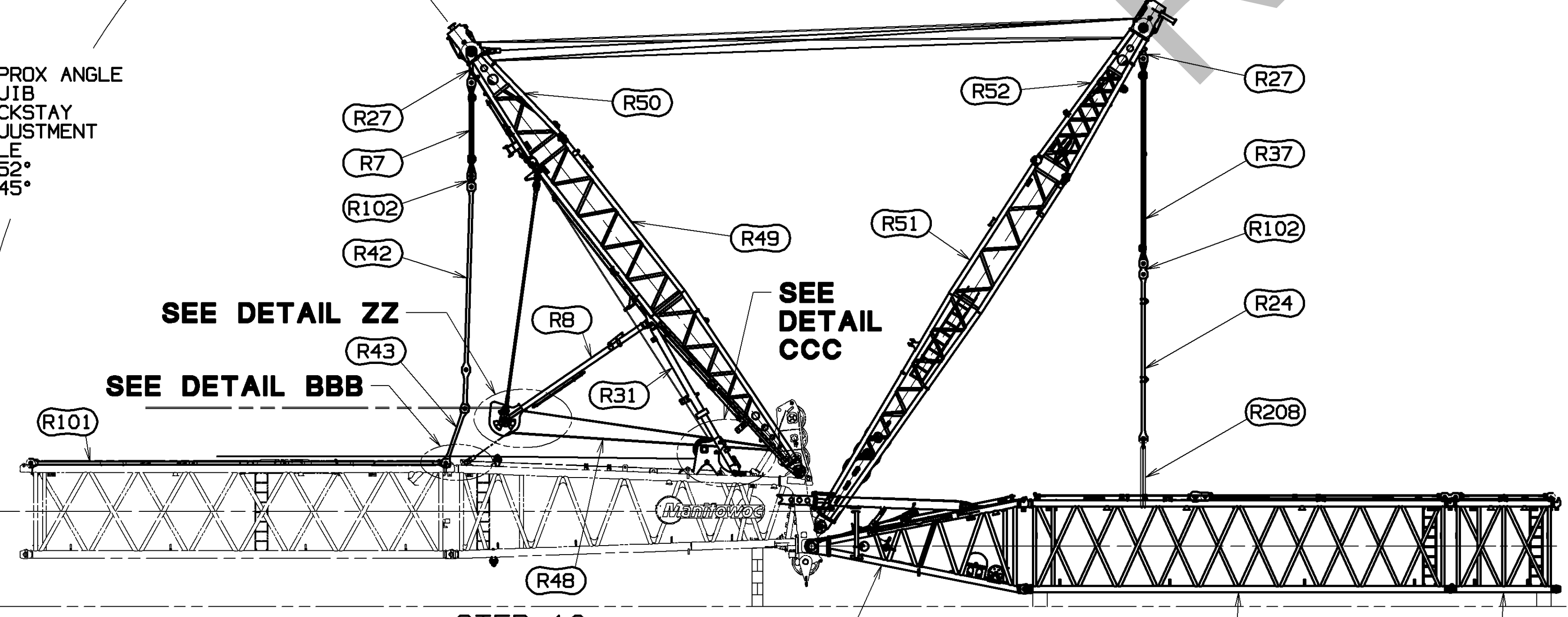
DETAIL YY
SCALE 0.100



DETAIL AAA
SCALE 0.075



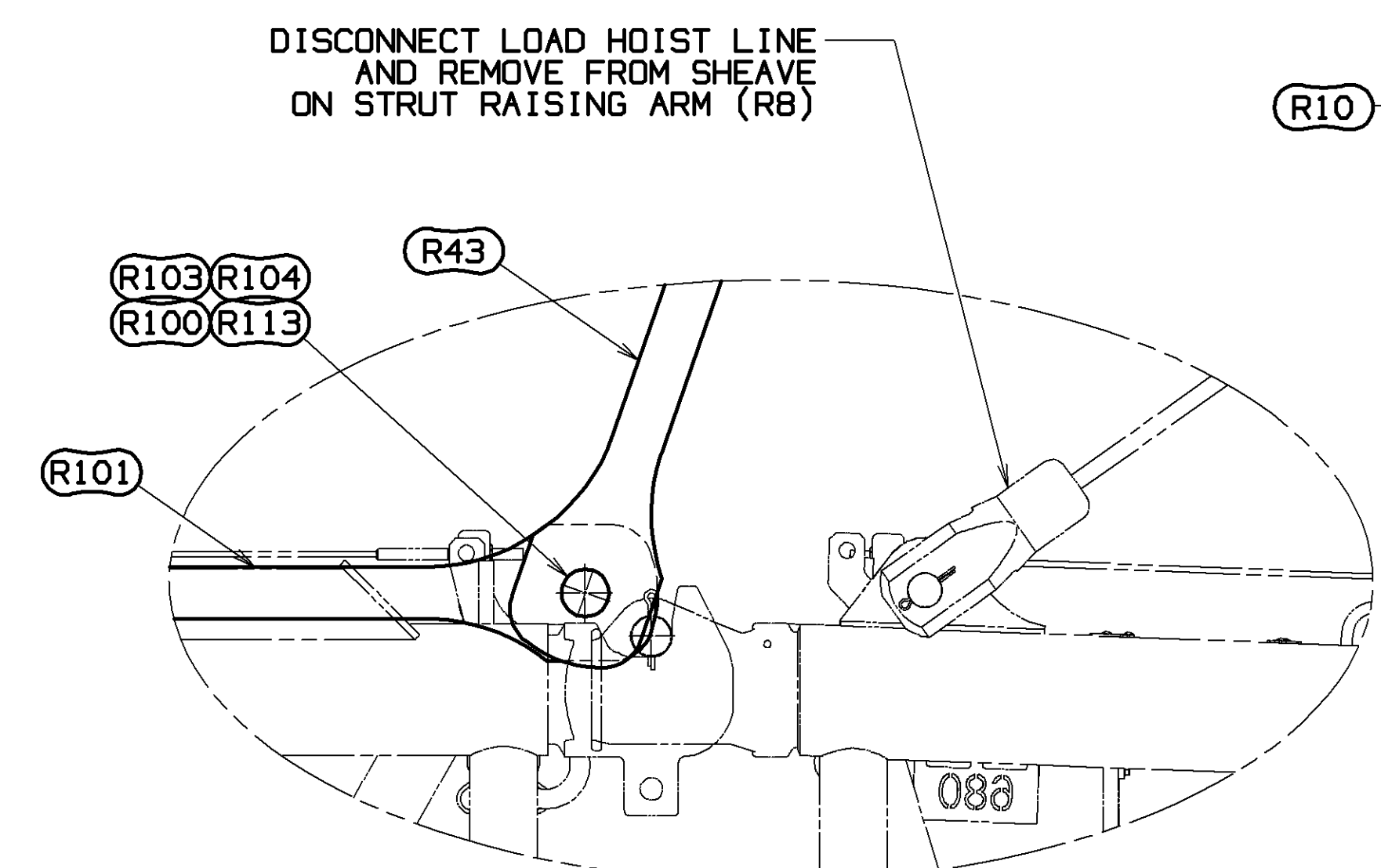
DETAIL ZZ
SCALE 0.050



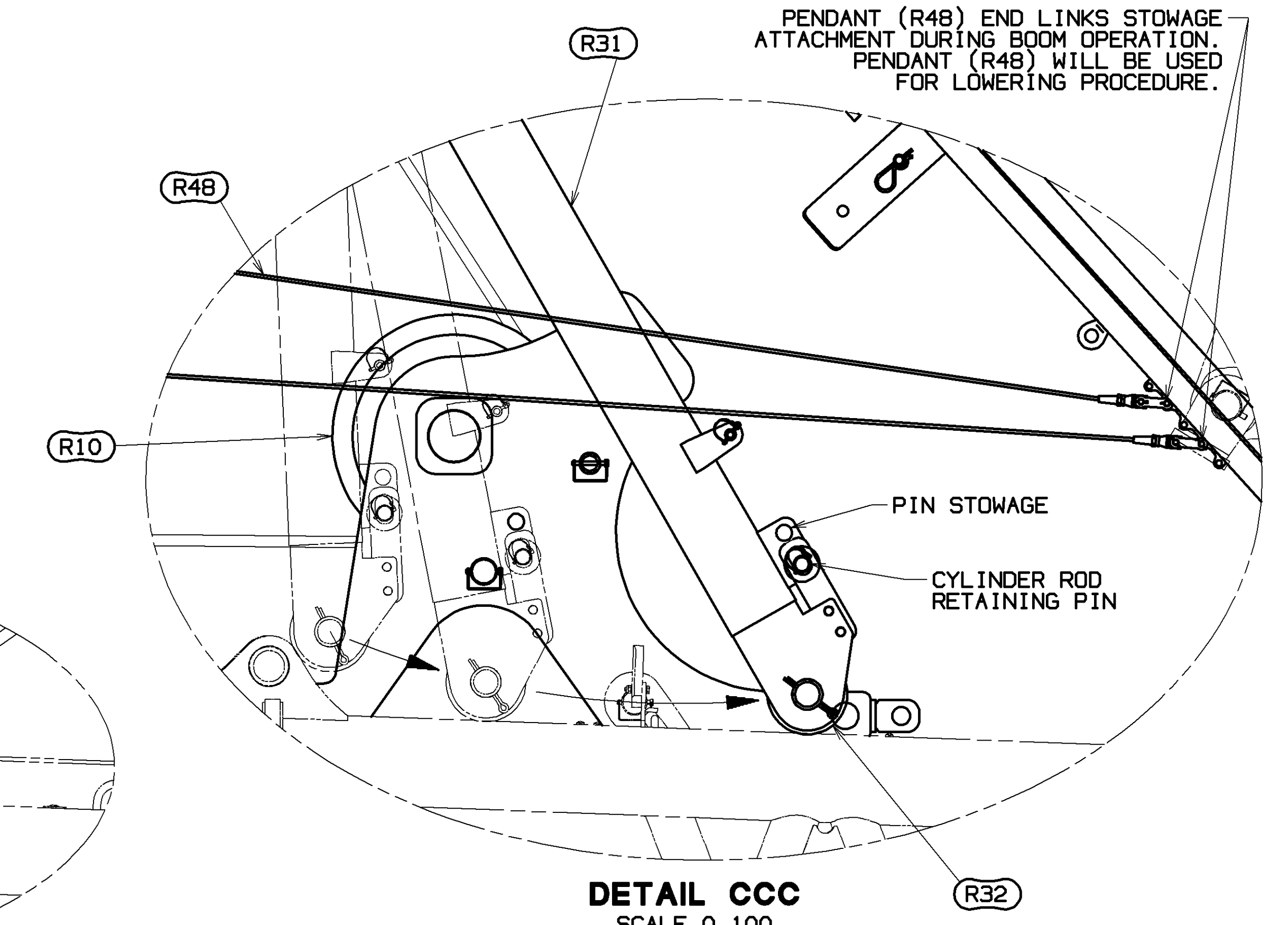
STEP 12
BACKSTAY STRAP HOOK UP

PAY IN LOAD HOIST, RAISING THE MAIN STRUT (R49 & R50) OVER VERTICAL, ENSURING THAT THE LUFFING HOIST REEVING DOES NOT BECOME SLACK. LUFF HOIST OUT AS NECESSARY AS TO NOT LIFT JIB SECTION OFF OF BLOCKING. WITH THE MAIN STRUT BEYOND VERTICAL, CONTROL OF ITS ANGLE WILL TRANSITION FROM THE LOAD LINE (ATTACHED TO THE STRUT RAISING ARM R8) TO THE LUFFING HOIST (DRUM 6).

AS THE MAIN STRUT PASSES BEYOND VERTICAL, THE BACKSTAY STRAPS (R27 & R42), LINKS (R102 & R43) AND SPREADER (R7) WILL BEGIN TO HANG VERTICALLY. RAISE THE MAIN STRUT UNTIL THE BACKSTAY LINKS (R43) HANG IN POSITION OVER THE LUFFING JIB BACKSTAY STRAPS LOCATED ON THE MAIN BOOM AND ATTACH. (SEE DETAIL BBB). THE STRUT STOP (R31) WITH ROLLER (R32) WILL RIDE ON STOP LUG AND CHORD AS THE MAIN STRUT CONTINUES TO ROTATE BACK. (SEE DETAIL CCC).



DETAIL BBB
SCALE 0.100



DETAIL CCC
SCALE 0.100

DECIMAL PLACES	FRACTIONS	MACHINING	WELDING	DR. RHY	CK. TRG	APP. JRR
(1) PLACE 0.5	1/2	±.18	±.05			
(2) PLACE 0.00	1/16	±.12	±.015			
(3) PLACE 0.000	1/32	±.08	±.008			

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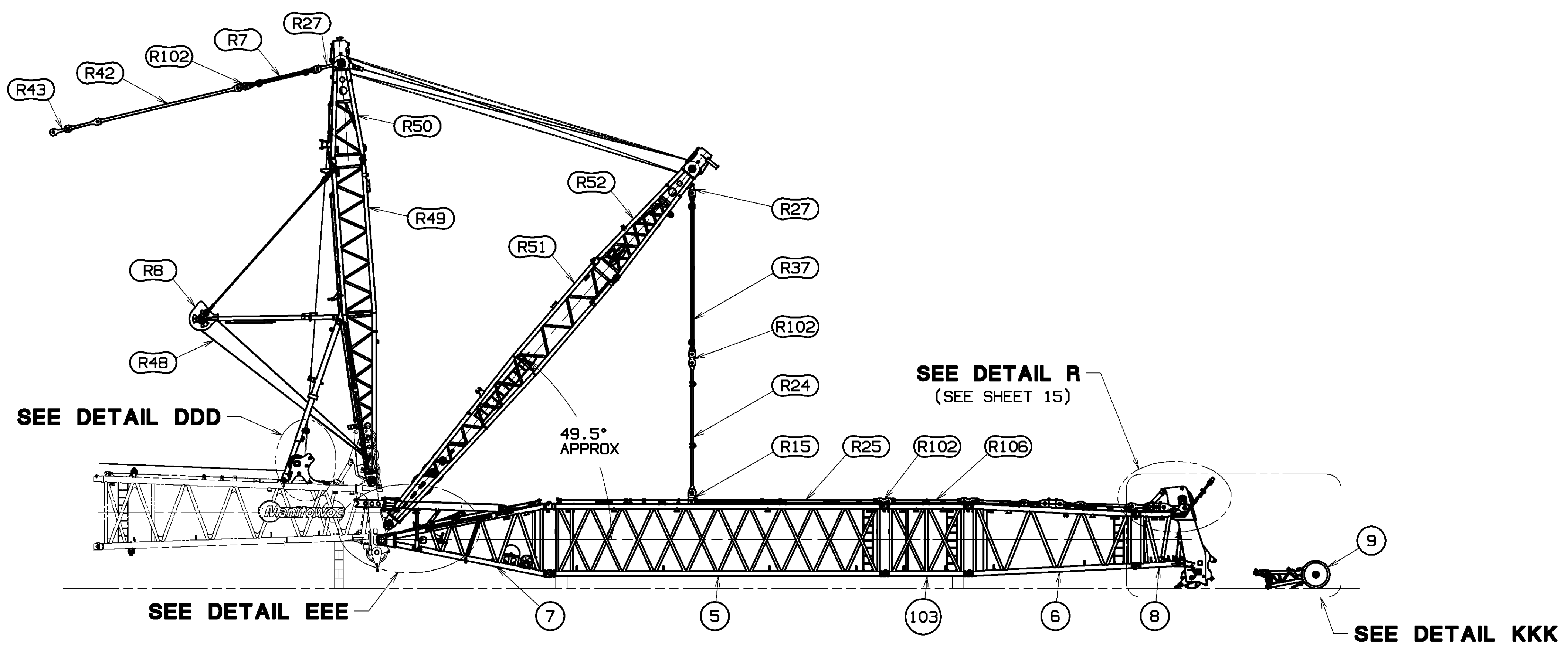
MANITOWOC CRANES, INC.
LUFFING JIB RIGGING
LJ on B65

DATE: 04-28-17
REV. (A)

84038308
SHT 12 OF 17

PRIVATE LABELING REQUIREMENT TO CONFORM TO SPECIFICATION 8629103794 FOR COMPONENTS LISTED IN SECTION 08-006
DATE: 04-28-17
REV. (A)

BILL OF MATERIAL		ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL



STEP 13

STRUT STOP, JIB STRAP AND STOP PENDANT ATTACHMENT

PAY IN LUFFING HOIST TO PULL THE MAIN STRUT (R49 & R50) BACK TOWARDS CENTER AND STRUT STOP (R31) TOWARDS ATTACHMENT LUGS ON BOOM TOP. WITH STRUT STOP NEAR VERTICAL REMOVE STOP ROLLER (R32) AND PLACE IN STOWAGE LOCATION AND PIN STRUT STOP (R31) TO LUG ON BOOM TOP. (SEE DETAIL DDD). PAY OUT LUFFING HOIST SLIGHTLY TO ALLOW MAIN STRUT ACCUMULATOR ROD TO BE UNPINNED FROM STRUT STOP CYLINDER (R31) AND RELOCATED TO STOWAGE POSITION. (SEE DETAIL DDD).

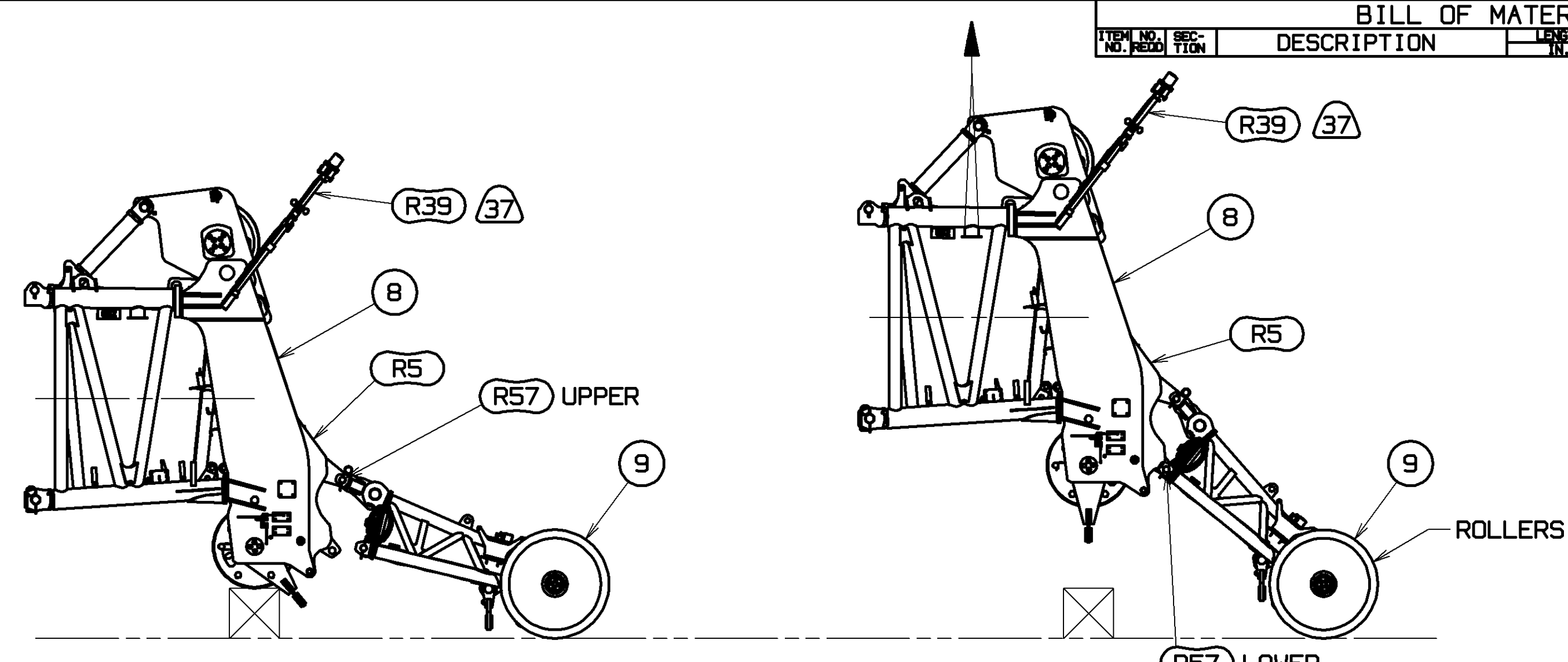
DETACH LOAD HOIST LINE FROM BOOM TOP BRACKET AND REMOVE FROM SHEAVE ON STRUT RAISING ARM (R8). (SEE DETAIL BBB ON SHEET 12). REMOVE LOAD HOIST BUTTON FROM SOCKET BUTTON (A06278) AND RETURN IT TO LOWER BOOM POINT LINK ASSY DEAD END (R45).

REMOVE SUCKER LINE (R48) FROM STOWAGE LOCATION (SEE DETAIL ZZ ON SHEET 12) AND REEVE AROUND RAISING ARM SHEAVE (SEE DETAIL ZZ ON SHEET 12) AND ATTACH END LINKS TO BRACKETS ON ARM RAISING ASSY (R8). (SEE DETAIL CCC ON SHEET 12)

LUFF DOWN TO REMOVE SHACKLES AND SLINGS (FROM STEP 11 ON SHEET 12) USED FOR HOLDBACK. REMOVE BUSHINGS (R209) FROM STRAP (R24) AND LOCATE TO STOWAGE STUD ON 12M INSERT (ITEM 5). (SEE DETAIL AAA ON SHEET 12).

COMPLETE JIB ASSEMBLY CONFIGURATION PER SHEETS 5, 6 & 7. (SEE DETAIL R ON SHEET 15). CONNECT JIB STRAPS/LINKS FROM JIB TOP (ITEM 8) TO 12M INSERT (ITEM 5) WITH A JIB STRUT TO JIB ANGLE OF APPROX 49.5° ATTACH STRAPS (R24) TO LINKS (R15). (SEE DETAIL D ON SHEET 2).

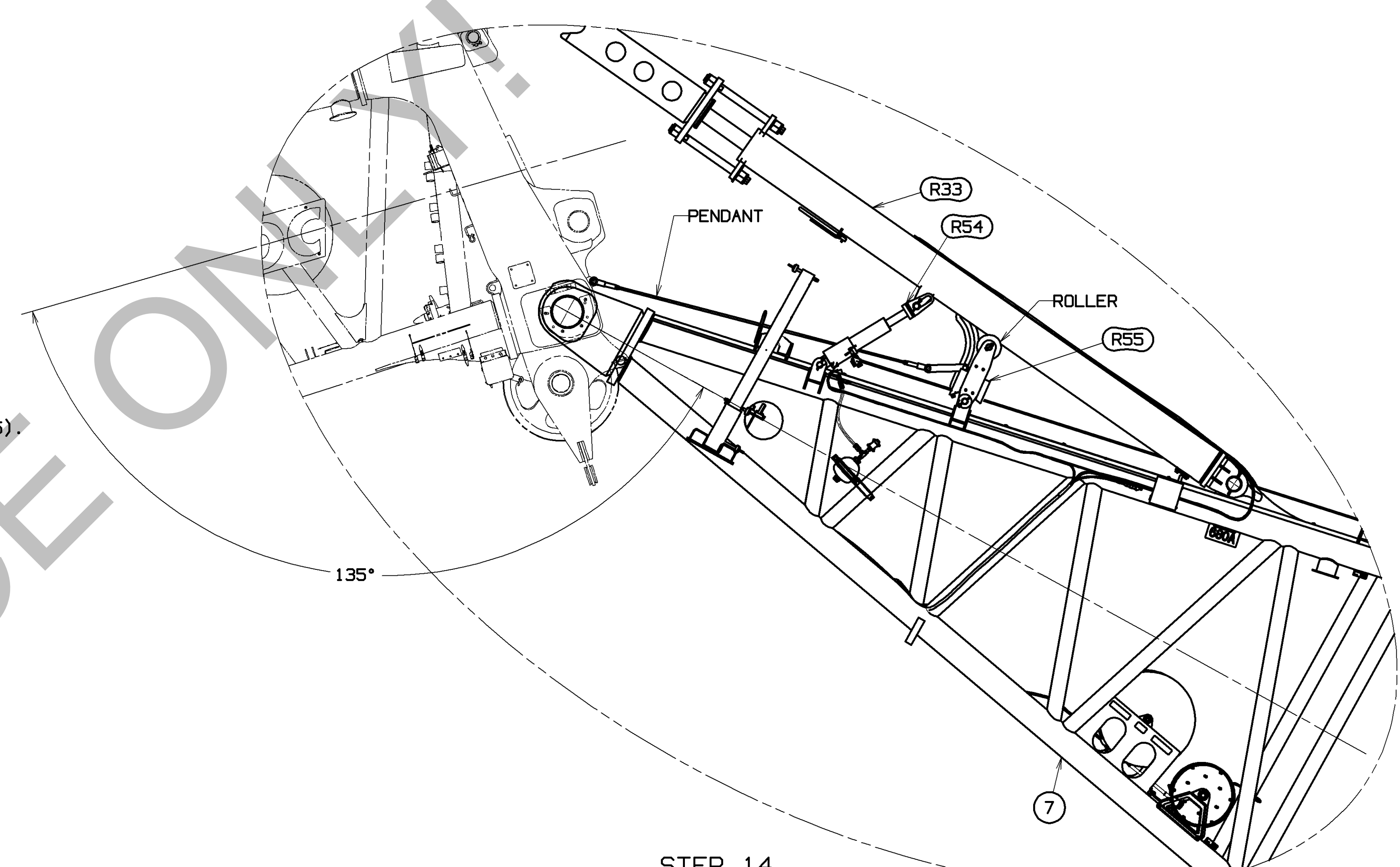
ATTACH JIB STOP PENDANT FROM JIB STOP RAISING ROLLER (R55) TO BOOM TOP LUG. PENDANTS TO BE SLACK WITH ROLLER ROTATED AWAY FROM BOOM TOP. (SEE DETAIL EEE).



ALIGN UPPER BOOM POINT (ITEM 9) UPPER HOLES WITH HOLES IN 8-SHEAVE LOWER BOOM POINT (R5) AND INSTALL (2) PINS (R57) 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 BOOM POINT (ITEM 9) WITH THE HOLES IN THE 8-SHEAVE LOWER BOOM POINT (R5). INSTALL (2) PINS (R57) AND SAFETY PINS. LOWER JIB TOP TO ALLOW ROLLERS TO CONTACT GROUND. REMOVE SLINGS.

DETAIL KKK
UPPER BOOM POINT INSTALLATION
SCALE 0.025

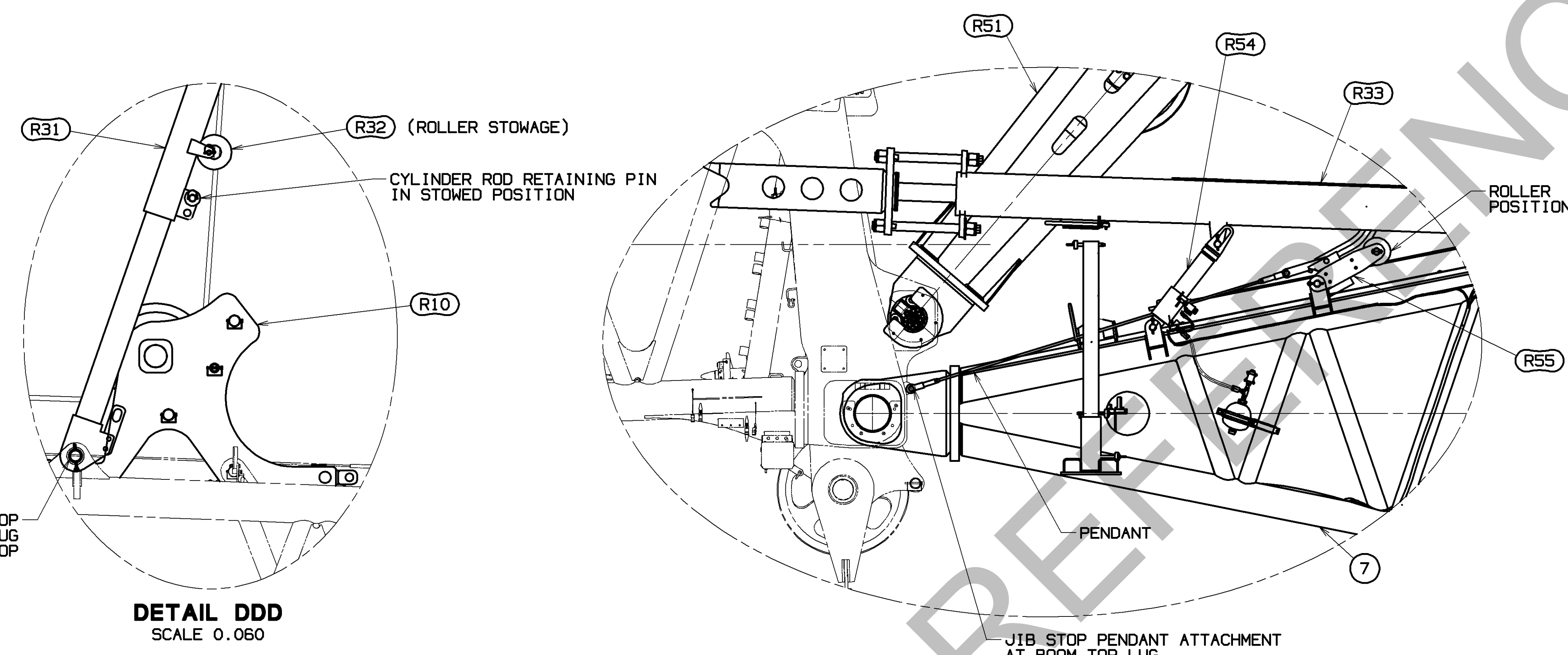


STEP 14
JIB STOP POSITIONING

JACKKNIFE TO 135° INCLUDED ANGLE. JIB STOP PENDANT BECOMES TIGHT AND PULLS JIB STOP BRACKET (R55) WITH ROLLER RAISING JIB STOP (R33) TO OPERATING POSITION AND EXTENDING SUPPORT CYLINDER (R54).

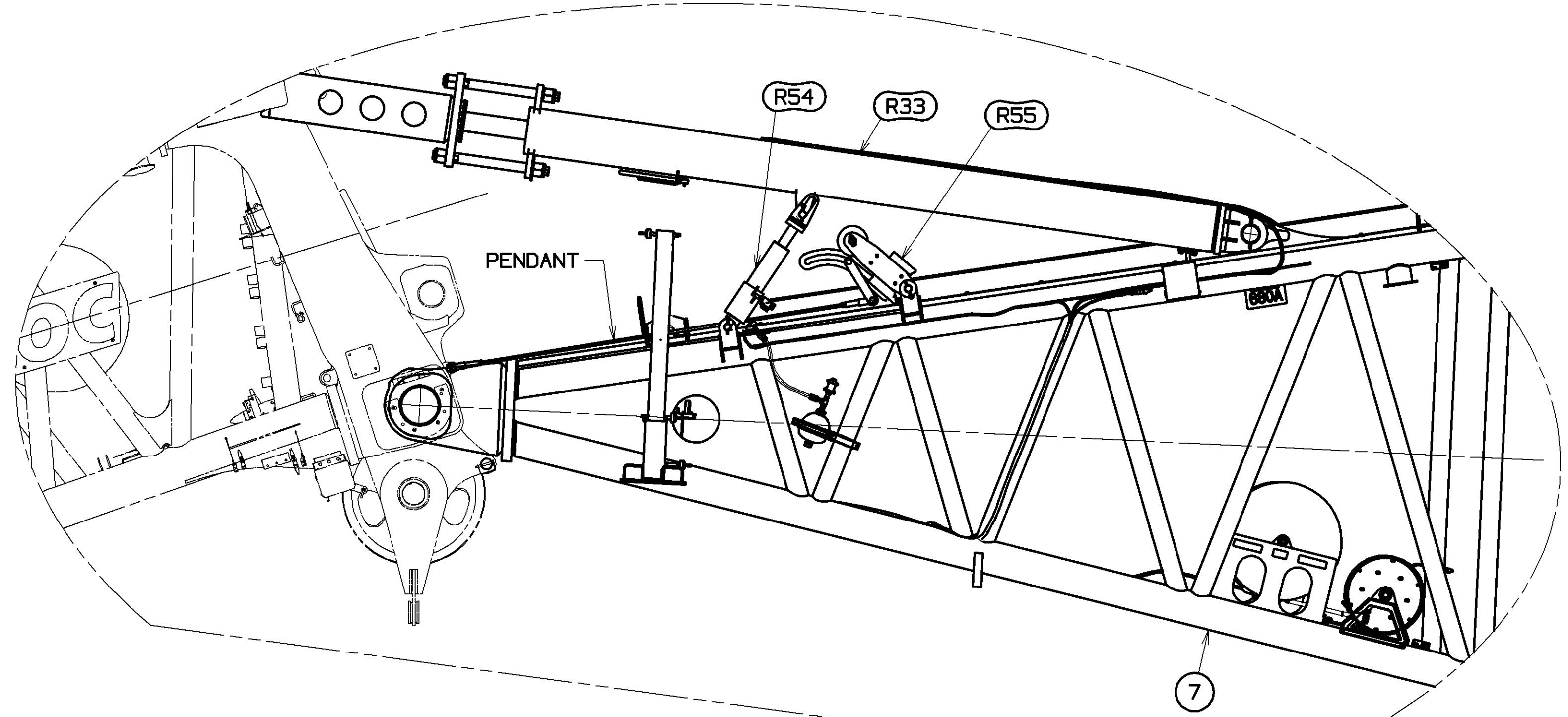
(JIB STRUT (R51) NOT SHOWN FOR CLARITY).

SCALE 0.050



DETAIL DDD
SCALE 0.060

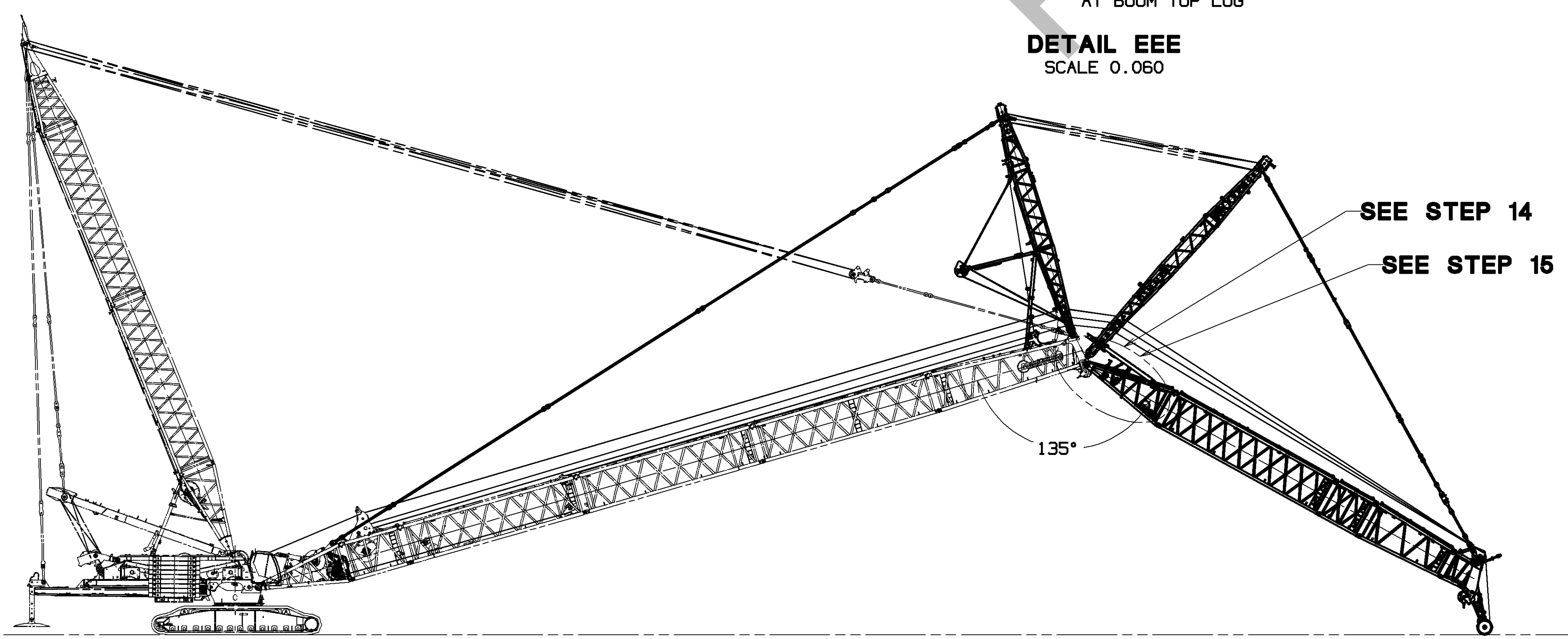
DETAIL EEE
SCALE 0.060



STEP 15
JIB STOP OPERATING

LUFF OUT TO DECREASE INCLUDED ANGLE TO <135°. JIB STOP SUPPORT BRACKET (R55) WITH ROLLER WILL REMAIN FLIPPED OVER CENTER WITH PENDANT SLACK DURING FULL RANGE OF JIB ANGLE. THE SUPPORT CYLINDERS (R54) REMAIN EXTENDED, HOLDING STOPS IN OPERATING POSITION. JIB COMES INTO ITS STOPS MAKING CONTACT AT 20° JIB OFFSET, STOPS FULLY BOTTOM OUT AT 7° JIB OFFSET.

(JIB STRUT (R51) NOT SHOWN FOR CLARITY).
SCALE 0.050



56.0 M (183.7 FT)
#685-680 BOOM SHOWN

JIB STOP JACKKNIFE POSITION
SCALE 0.005

29.0 M (95.1 FT)
#681-682 JIB LUFFING SHOWN

DO NOT SCALE THIS DRAWING

TOLERANCE UNLESS OTHERWISE SPECIFIED		MATERIAL		FINISHING		MATERIAL	
DECIMAL PLACES	FRACTION	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION
0.1	1/16	1	STEEL	1	PAINT	1	WELD
0.01	1/32	1	STEEL	1	PAINT	1	WELD
0.005	1/64	1	STEEL	1	PAINT	1	WELD
0.002	1/128	1	STEEL	1	PAINT	1	WELD
0.001	1/256	1	STEEL	1	PAINT	1	WELD

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN SECTION 05-026

DATE 04-28-17

REV. LTR. A

84038308

SHT 13 OF 17

BILL OF MATERIAL				ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL	DATE	

DISASSEMBLY PROCEDURE 1

JIB STOP LOWERING

(SEE ILLUSTRATION FOR STEP 15 ON SHEET 13)
 JACKKNIFE TO 150° MAX INCLUDED ANGLE TO ALLOW JIB STOP (R33) TO BE LOWERED INTO STOWAGE POSITION.

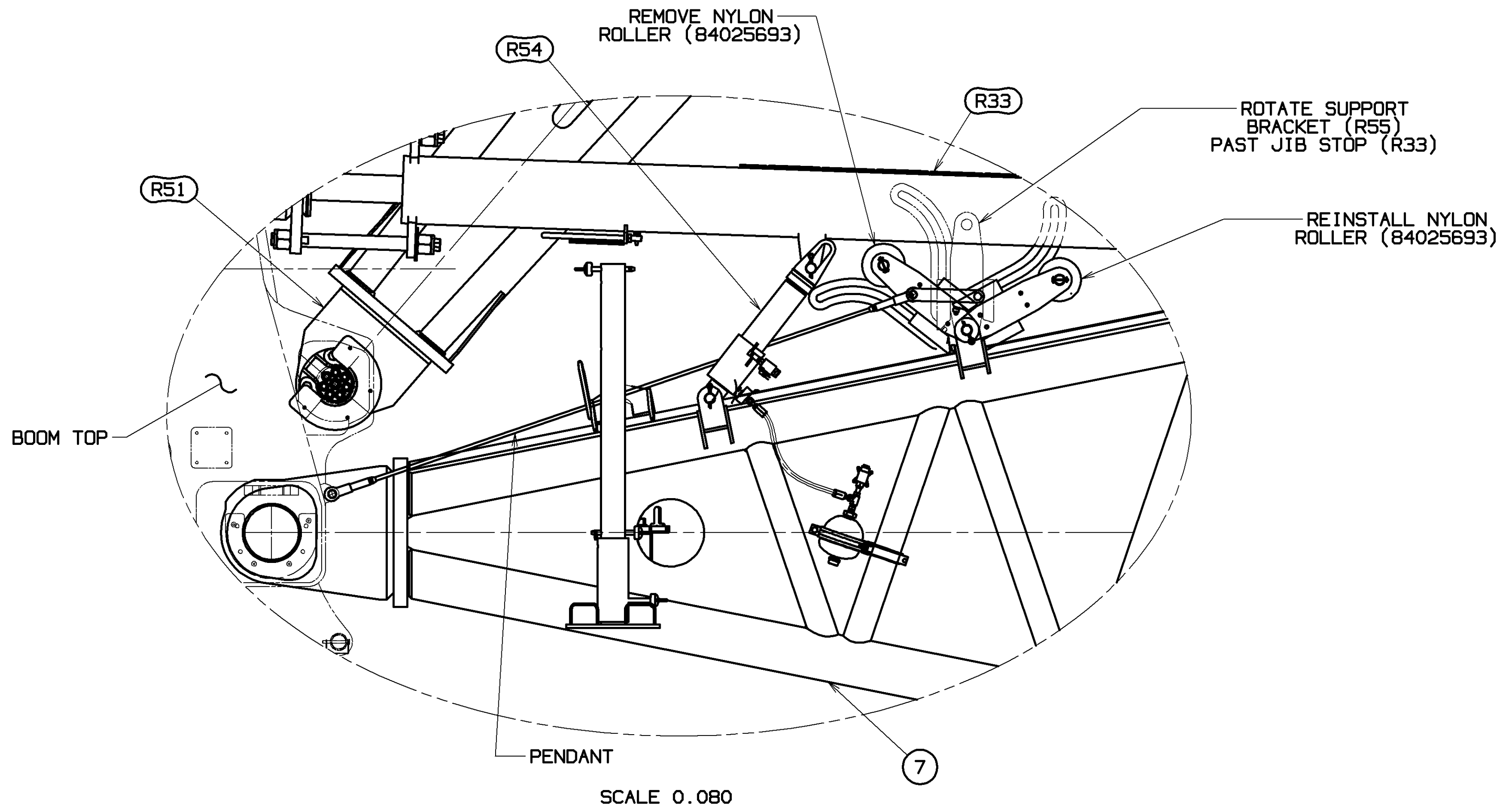
ACTIVATE ELECTRONIC VALVE IN SUPPORT CYLINDER (R54) TO ALLOW CYLINDER TO RETRACT UNDER WEIGHT OF THE JIB STOP (R33).
 BOOM DOWN UNTIL BOOM AND JIB ARE HORIZONTAL.

DISASSEMBLY PROCEDURE 2

JIB STRUT TIE OFF

(SEE ILLUSTRATION FOR STEP 13 ON SHEET 13)
 LUFF DOWN TO DETACH STRAPS (R24) FROM LINKS (R15) AT 12M INSERT (ITEM 5).

(SEE ILLUSTRATION FOR STEP 11 ON SHEET 12)
 TIE OFF JIB STRAPS TO LUFFING JIB (ITEM 5) WITH SLINGS, SHACKLES AND BUSHING FOR HOLD BACK (SAME AS STEP 11 ON SHEET 12).



DISASSEMBLY PROCEDURE 3

JIB STOP RAISING ROLLER (R55) RESET

REMOVE NYLON ROLLER (R54) FROM JIB STOP SUPPORT BRACKET (R55).
 FLIP BRACKET (R55) OVER CENTER (AWAY FROM BOOM TOP) AND REASSEMBLE NYLON ROLLER TO BRACKET (R55).
 DETACH JIB STOP PENDANTS FROM BOOM TOP LUG IF REMOVING JIB BUTT.

DISASSEMBLY PROCEDURE 4

MAIN STRUT ARM REEVING

(SEE ILLUSTRATION FOR STEPS 11 AND 12 ON SHEET 12)
 DETACH PENDANT (R48) AT MAIN STRUT BUTT (R49) (SEE DETAIL CCC ON SHEET 12)
 AND ATTACH TO LOAD HOIST LINE AND RIGGING WINCH LINE (R200).

PAY IN RIGGING WINCH LINE (R200) UNTIL ABLE TO ATTACH LOAD HOIST LINE W/SOCKET BUTTON (A06278)
 TO BOOM TOP BRACKET AS SHOWN IN "DETAIL STEP 9C" ON SHEET 11.

OPEN MAIN STRUT STOP (R31) BYPASS VALVES VIA CRANE CONTROLS TO ALLOW STRUT TO ROTATE BACK.
 LUFF DOWN TO RETRACT STRUT STOP TUBES. RELOCATE CYLINDER ROD RETAINING PIN SO
 CYLINDERS DO NOT EXTEND. (SEE DETAIL CCC ON SHEET 12).

LUFF UP WITH LUFFING HOIST TO TAKE LOAD OFF OF OUTER TUBE LOWER PINS.
 REMOVE STRUT STOP PINS AT LUG ON BOOM TOP (SEE DETAIL DDD ON SHEET 13).
 CONTINUE TO LUFF UP UNTIL STOP (R31) CAN BE SWUNG TOWARD MAIN STRUT TO
 REATTACH STOP ROLLER (R32) TO ROD END OF STRUT STOP (R31)

DISASSEMBLY PROCEDURE 5

DETACH BACKSTAYS

(SEE ILLUSTRATION FOR STEP 12 OF SHEET 12)
 PAY IN LOAD HOIST ROTATING THE MAIN STRUT (R49 & R50) REARWARD TO DETACH STRUT LINKS (R43)
 FROM BOOM BACKSTAY (R101). (SEE DETAIL BBB ON SHEET 12).

AS MAIN STRUT ROTATES BACK THE STRUT STOP (R31) WITH ROLLER (R32) WILL RIDE ON BOOM TOP STOP LUG
 AND CHORD AS THE MAIN STRUT CONTINUES TO ROTATE BACK (SEE DETAIL CCC ON SHEET 12).

DISASSEMBLY PROCEDURE 6

STRUT LOWERING

PAY OUT LOAD HOIST LINE WHILE PAYING IN LUFFING HOIST TO BRING MAIN AND JIB STRUTS TOGETHER.
 WHEN MAIN STRUT (R49 & R50) IS APPROXIMATELY 62° FROM JIB CENTERLINE DETACH SLINGS (R208),
 SHACKLE (R202), BUSHING (R209), AND SLING (R207).
 (REVERSE OF STEP 11 ON SHEET 12).

LOAD HOIST IN UNTIL JIB STRUT (R51 & R52) IS APPROXIMATELY 65° FROM HORIZONTAL.
 USE PIN PULLER ASSY (R204) TO REMOVE JIB HINGE PINS AND ASSIST CRANE TO DISASSEMBLE LUFFING JIB.
 (REVERSE OF STEP 10 ON SHEET 12).

(SEE ILLUSTRATIONS FOR STEP 9 ON SHEET 11 AND STEP 10 ON SHEET 12)

PAY OUT LOAD HOIST TO LOWER STRUTS TO BLOCKING AT GROUND.
 DETACH AND REMOVE JIB STRUT STRAPS (R24), LINKS (R102) AND SPREADER (R37).
 RETURN STRAPS (R24) AND LINKS (R102) TO #680/681 12M INSERT (ITEM 5) FOR SHIPPING LOCATION.
 ROTATE STRUT SHAFT LINK (R27) INTO STOWED POSITION AND SECURE WITH LINK PINS. (SEE DETAIL VV ON SHEET 11)

DISASSEMBLY PROCEDURE 7

LOWER STRUT RAISING ARM

(SEE ILLUSTRATION FOR STEP 9 ON SHEET 11)
 PAY OUT LOAD HOIST TO LOWER STRUT RAISING ARM (R8).
 VERIFY THAT PENDANTS LAY PROPERLY AND THAT KICKSTAND (R53) IS DEPLOYED TO HOLD
 UP STRUT RAISING ARM (R8). UNREEVE LOAD HOIST LINE FROM STRUT RAISING ARM (R8).

DISASSEMBLY PROCEDURE 8

STRUT TOPS SUCKER LINE REEVING AND TRAILERING

(SEE ILLUSTRATION FOR STEP 7 ON SHEET 10)
 USING ASSIST CRANE DETACH MAIN STRUT TOP (R50) FROM MAIN STRUT BUTT (R49) AND RELOCATE TO SHIPPING POSITION
 ON JIB STRUT TOP (R52). (SEE DETAILS RR & SS ON SHEET 10)
 REMOVE SUCKER LINES (R211) & (R212) FROM STOWAGE LOCATION ON JIB STRUT TOP (R52) (SEE DETAIL KK ON SHEET 9)
 AND REEVE TO RIGGING WINCH LINE (R200) (SEE DETAIL PP ON SHEET 10) AND LUFFING JIB HOIST LINE (SEE DETAIL NN ON SHEET 10).

(SEE ILLUSTRATION FOR STEP 5 ON SHEET 9)
 BRING SUCKER LINES (R211) & (R212) INTO REEVING. COIL EXCESS SUCKER LINE ON JIB STRUT TOP (R52) AND STOW BOTH ENDS.
 (SEE DETAIL KK AND SECTION LL-LL ON SHEET 9).
 DETACH JIB STRUT TOP (R52) FROM JIB STRUT BUTT (R51).
 TRAILER #683 STRUT TOP ASSY ITEM 2 (R50 & R52).

DISASSEMBLY PROCEDURE 9

LOWERING OF STRUT RAISING ARM

(REVERSE OF STEP 4 ON SHEET 9)
 SECURE STRUT STOP (R31) IN STOWED POSITION. (SEE DETAIL JJ ON SHEET 9).

USING ASSIST CRANE BASKET A SLING (R208) AROUND THE HORIZONTAL SUPPORT MIDWAY UP THE STRUT RAISING ARM (R8).
 LIFT STRUT RAISING ARM ENOUGH TO DISENGAGE AND SECURE KICKSTAND (R53) IN STOWED POSITION (SEE DETAIL HH ON SHEET 9).
 LOWER STRUT RAISING ARM TO REST ON MAIN STRUT BUTT (R49).

LIFT FRONTSTAY SPREADER ASSY (R37), FROM DISASSEMBLY PROCEDURE 5, TO STOWED POSITION ON MAIN STRUT BUTT ASSY (R49).
 POSITION SPREADER STRAPS (SEE DETAIL FF ON SHEET 9) AND SPREADER LINKS (SEE DETAIL GG ON SHEET 9) IN STOWAGE POSITION.

DISASSEMBLY PROCEDURE 10

MAIN STRUT BUTT DISASSEMBLY

(REVERSE OF STEP 3 AND STEP 2 ON SHEET 8)
 USING ASSIST CRANE TO SUPPORT MAIN STRUT BUTT (R49) REMOVE HINGE PINS (SEE DETAIL X ON SHEET 8).
 POSITION MAIN STRUT BUTT (R49) ON TOP OF JIB STRUT BUTT (R51). INSTALL SHIPPING LINKS
 (SEE DETAIL U ON SHEET 8) AND POSITION STRUT SUPPORT (R35) TO ATTACH TO MAIN STRUT BUTT ASSY (R49)
 (SEE DETAIL V ON SHEET 8).

DISASSEMBLY PROCEDURE 11

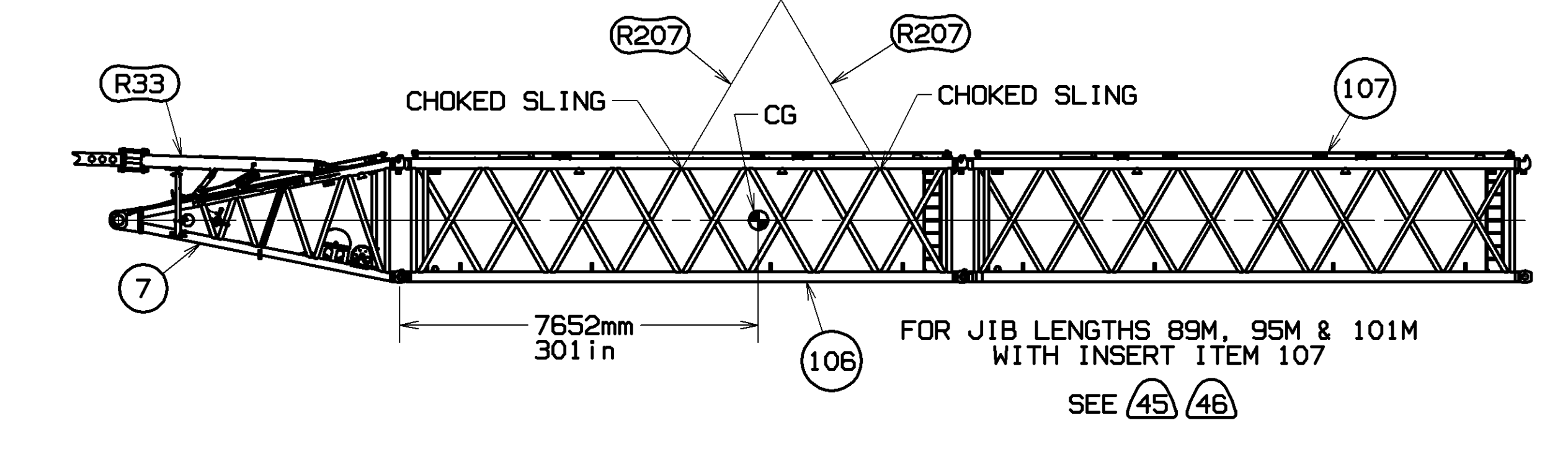
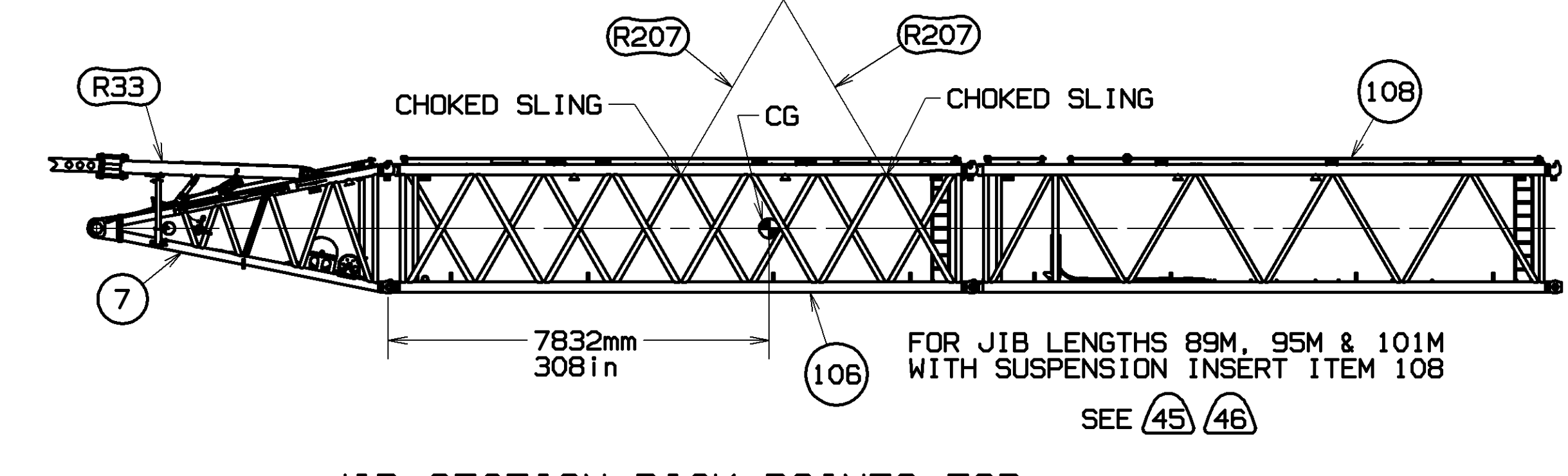
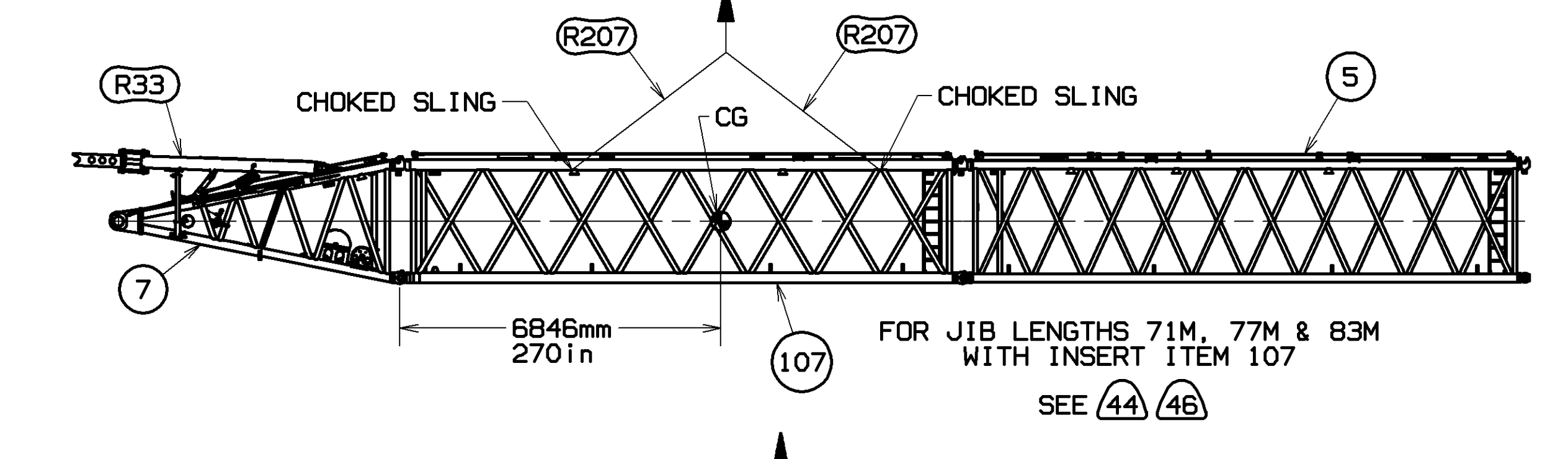
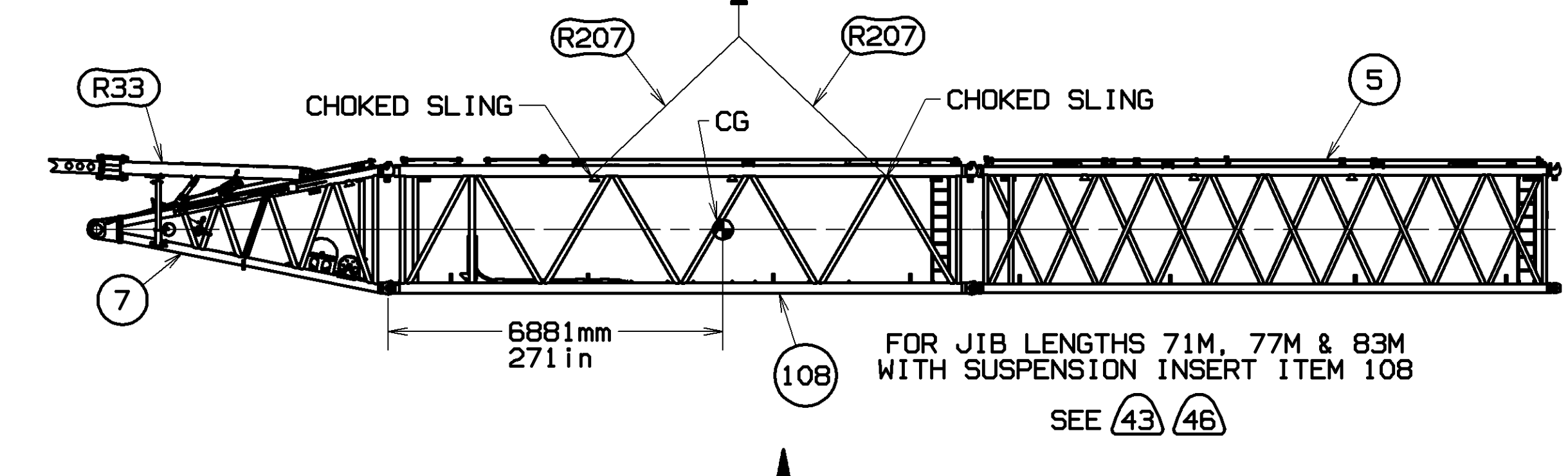
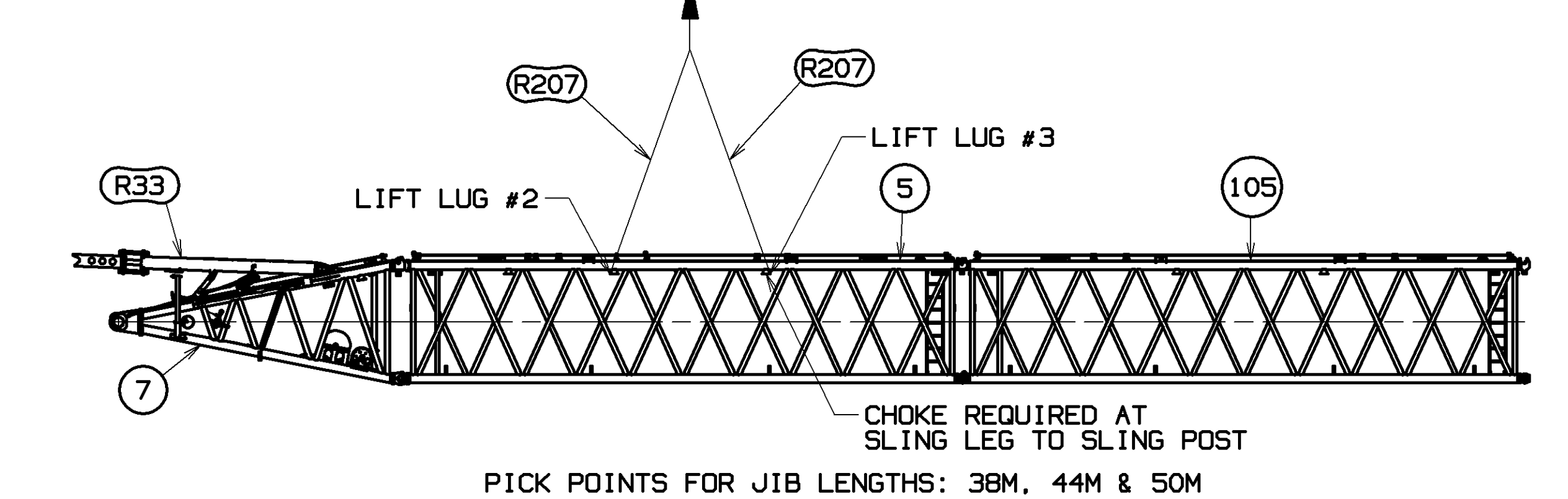
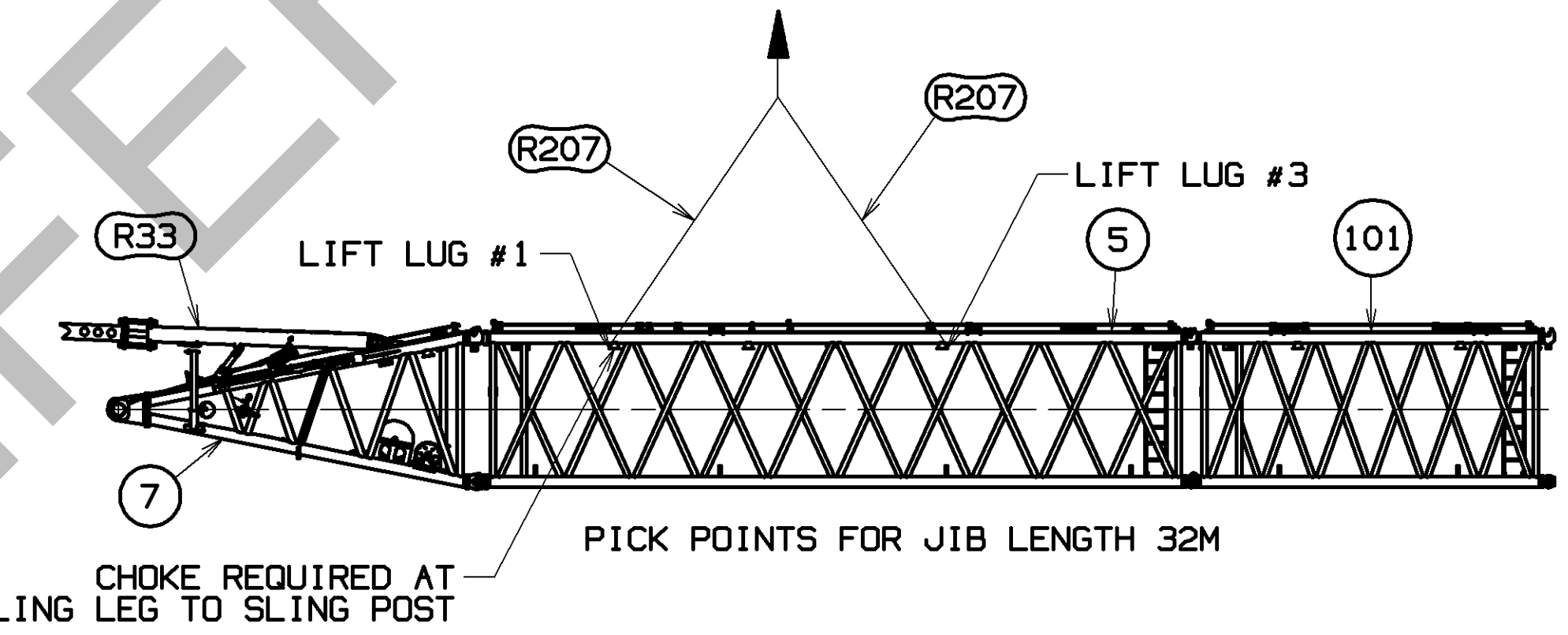
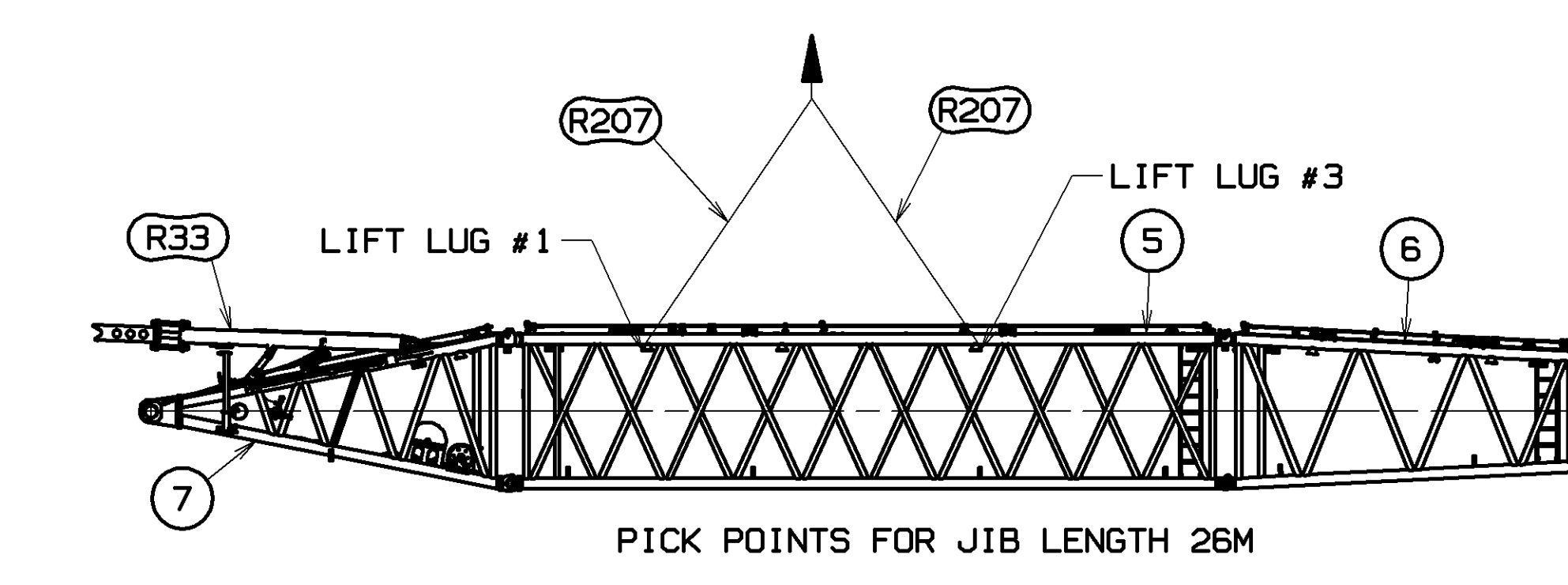
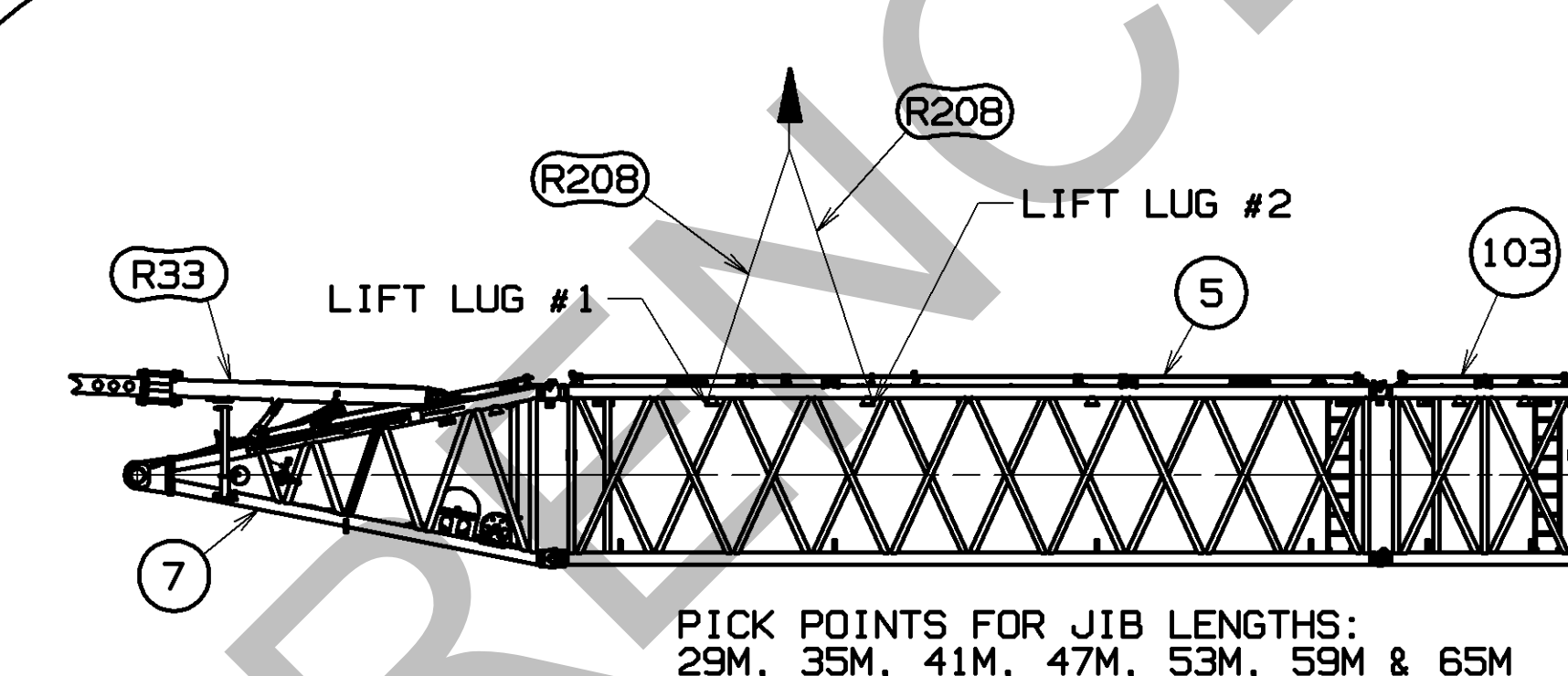
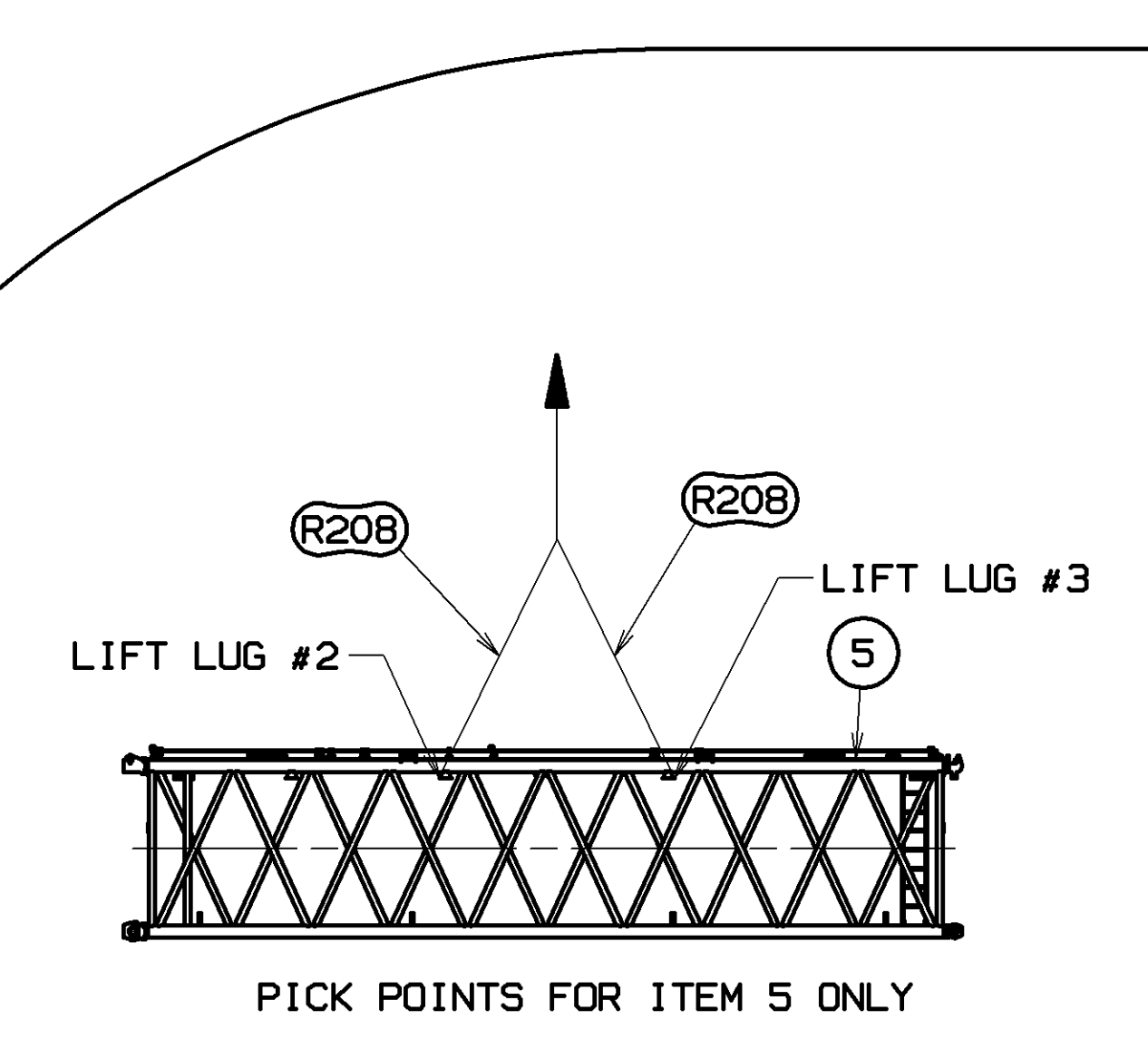
JIB STRUT BUTT DISASSEMBLY

(REVERSE OF STEP 2 ON SHEET 8)
 USING ASSIST CRANE TO SUPPORT JIB STRUT BUTT (R51) REMOVE HINGE PINS (SEE DETAIL W ON SHEET 8).
 POSITION LADDER (R29) ON STRUT BUTT SHIPPING ASSY (ITEM 1) TO PROVIDE ACCESS TO POINTS TOWARD HINGE PIN.

DISASSEMBLY PROCEDURE 12

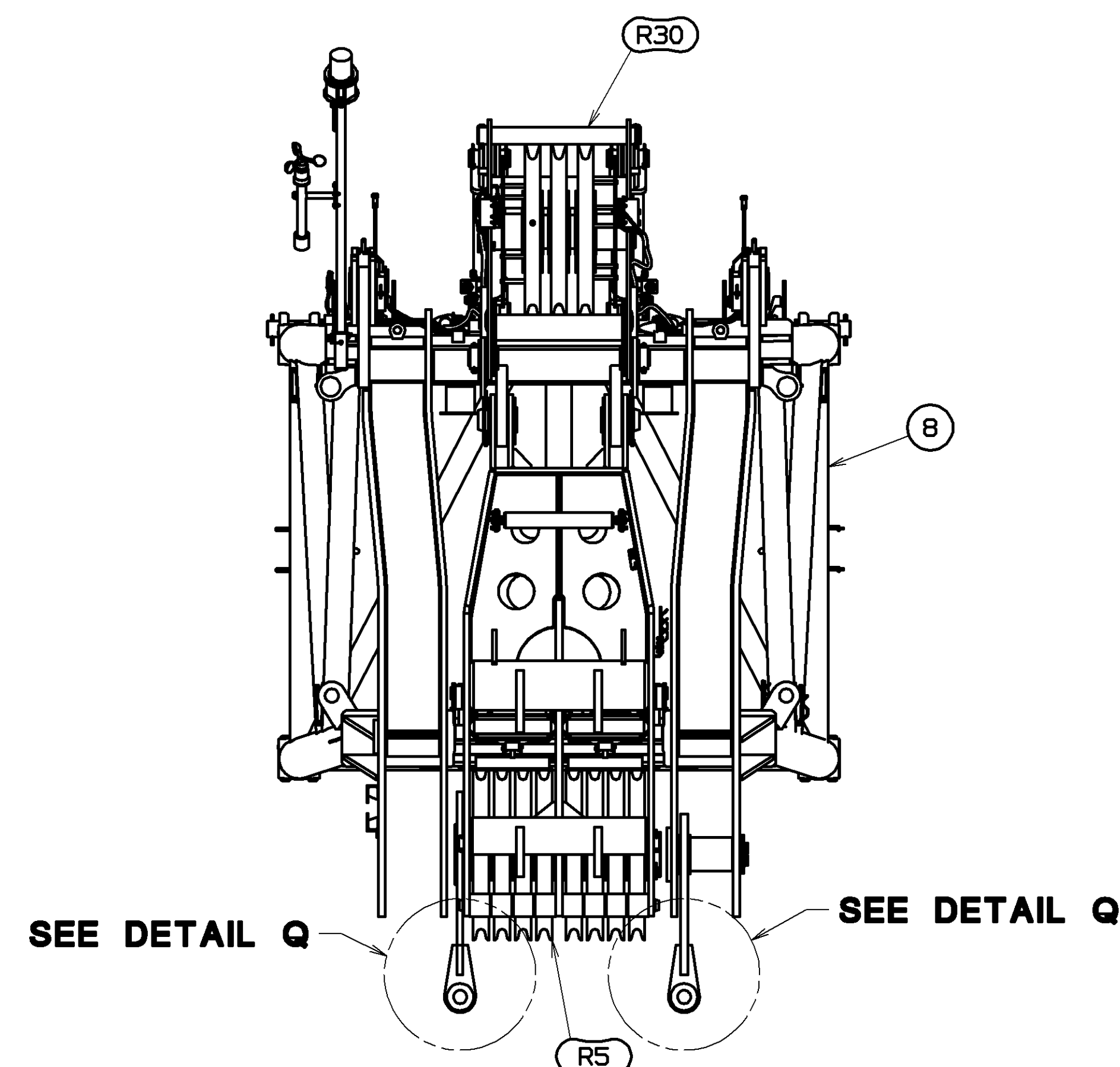
LOADING STRUT BUTT ASSEMBLY

(REVERSE OF STEP 1 ON SHEET 8)
 USING ASSIST CRANE LIFT BOTH STRUT BUTTS (ITEM 1) ON TRAILER.
 WHEN COMPLETED RETURN LADDER (R29) TO STOWAGE POSITION ON JIB
 STRUT BUTT ASSY (R51).

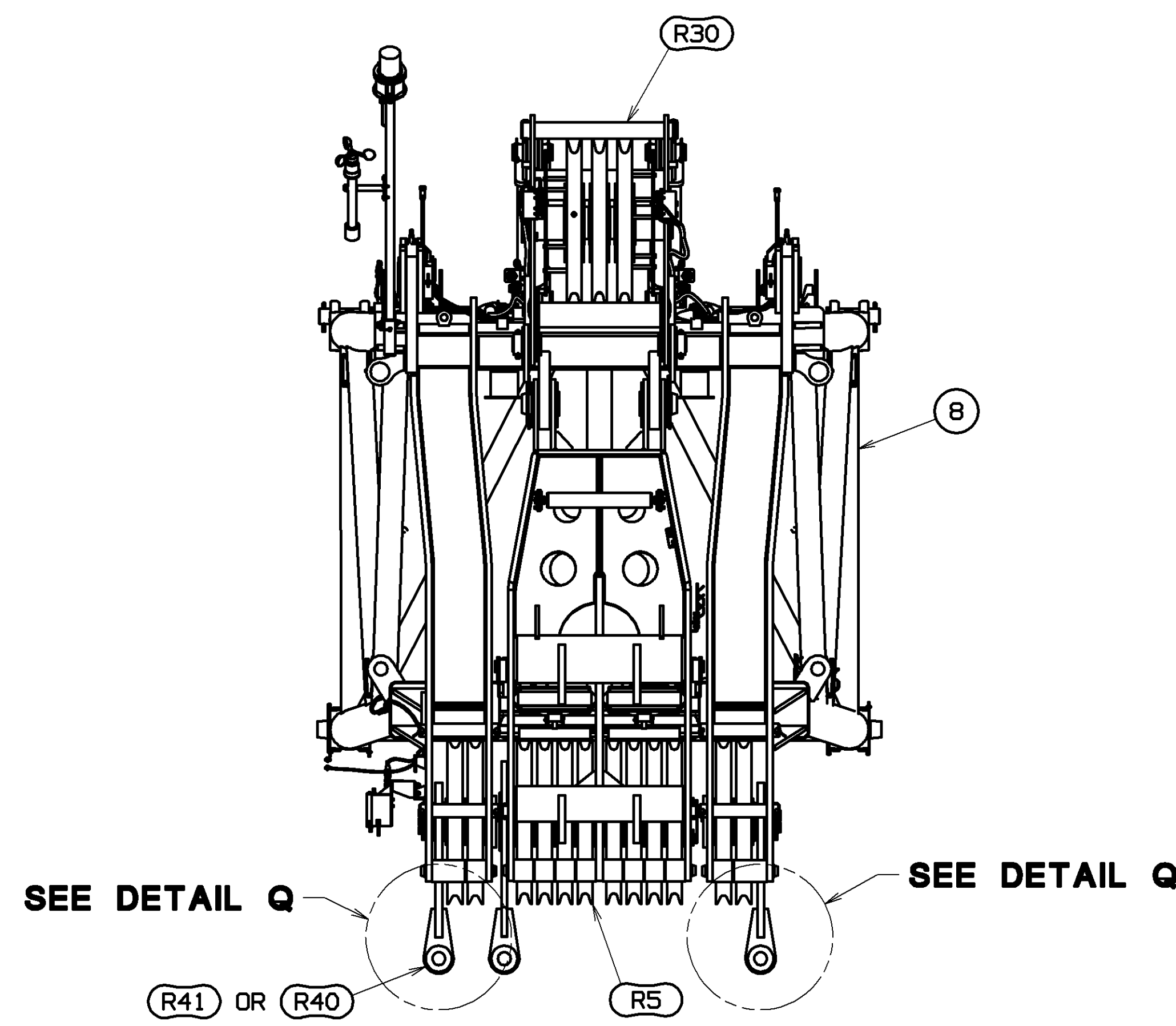


JIB SECTION PICK POINTS FOR
 ASSEMBLY STEP 10 ON SHEET 12
 SCALE 0.010

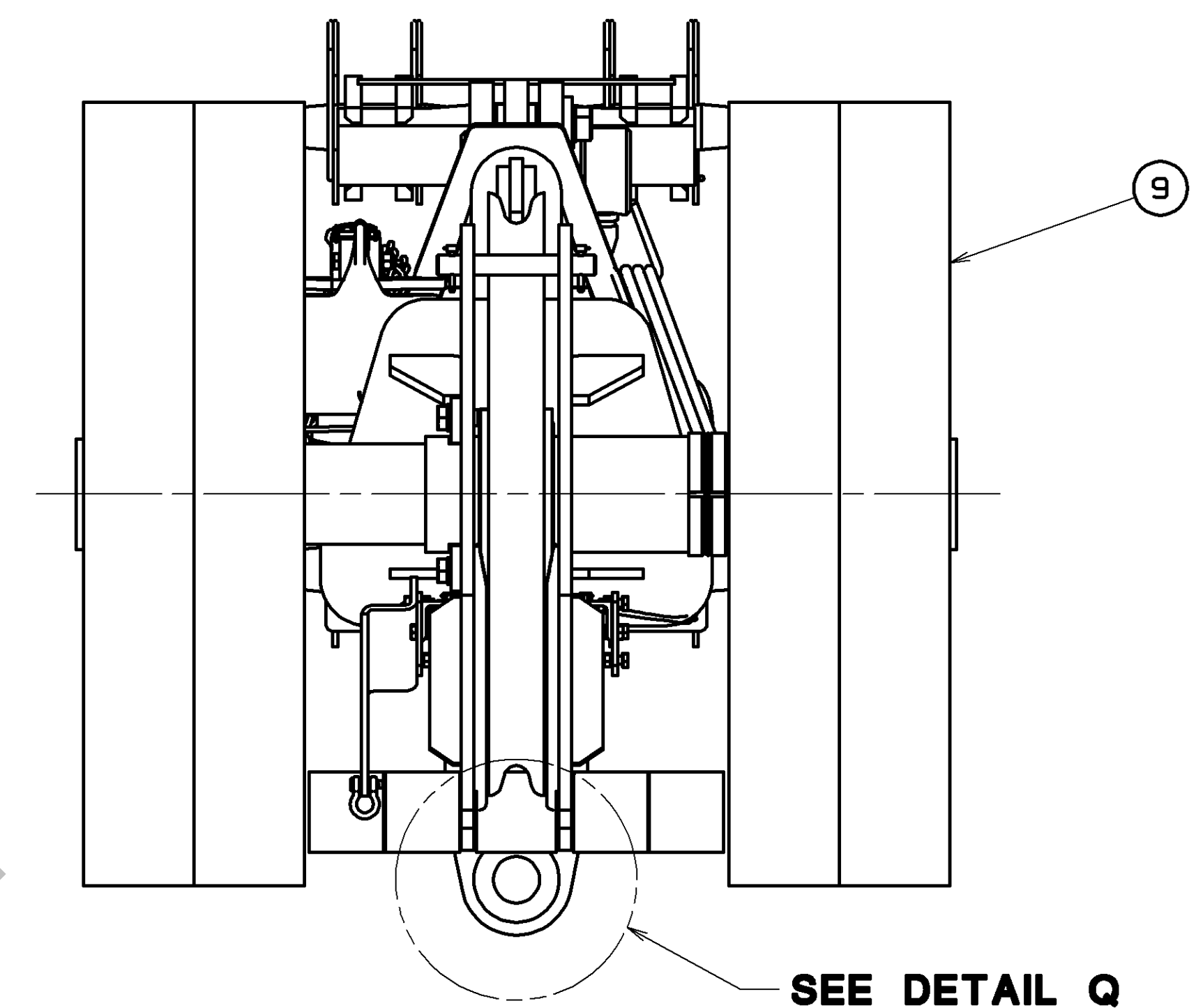
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DECIMAL PLACES	FRACTIONS	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET
(1) PLACE 0.5	1/2	1/16	1/8	1/16	1/8	1/16	1/8	1/16	1/8	1/16	1/8
(2) PLACE 0.00	1/32	1/64	1/32	1/64	1/32	1/64	1/32	1/64	1/32	1/64	1/32
(3) PLACE 0.000	1/64	1/128	1/64	1/128	1/64	1/128	1/64	1/128	1/64	1/128	1/64
ANGLES	11.25	22.5	33.75	45	56.25	67.5	78.75	90	101.25	112.5	123.75
DR. RHY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE
DR. TRG		DR. TRG		DR. TRG		DR. TRG		DR. TRG		DR. TRG	
APP. JRR		APP. JRR		APP. JRR		APP. JRR		APP. JRR		APP. JRR	
MARITOWAC CRANES, INC.				LUFFING JIB RIGGING				LJ on B65			
MODEL: MLC650				DATE: 04-28-17				REV. NO.: A			
SCALE: 0.010				SHEET: 14 OF 17				PART NO.: 84038308			



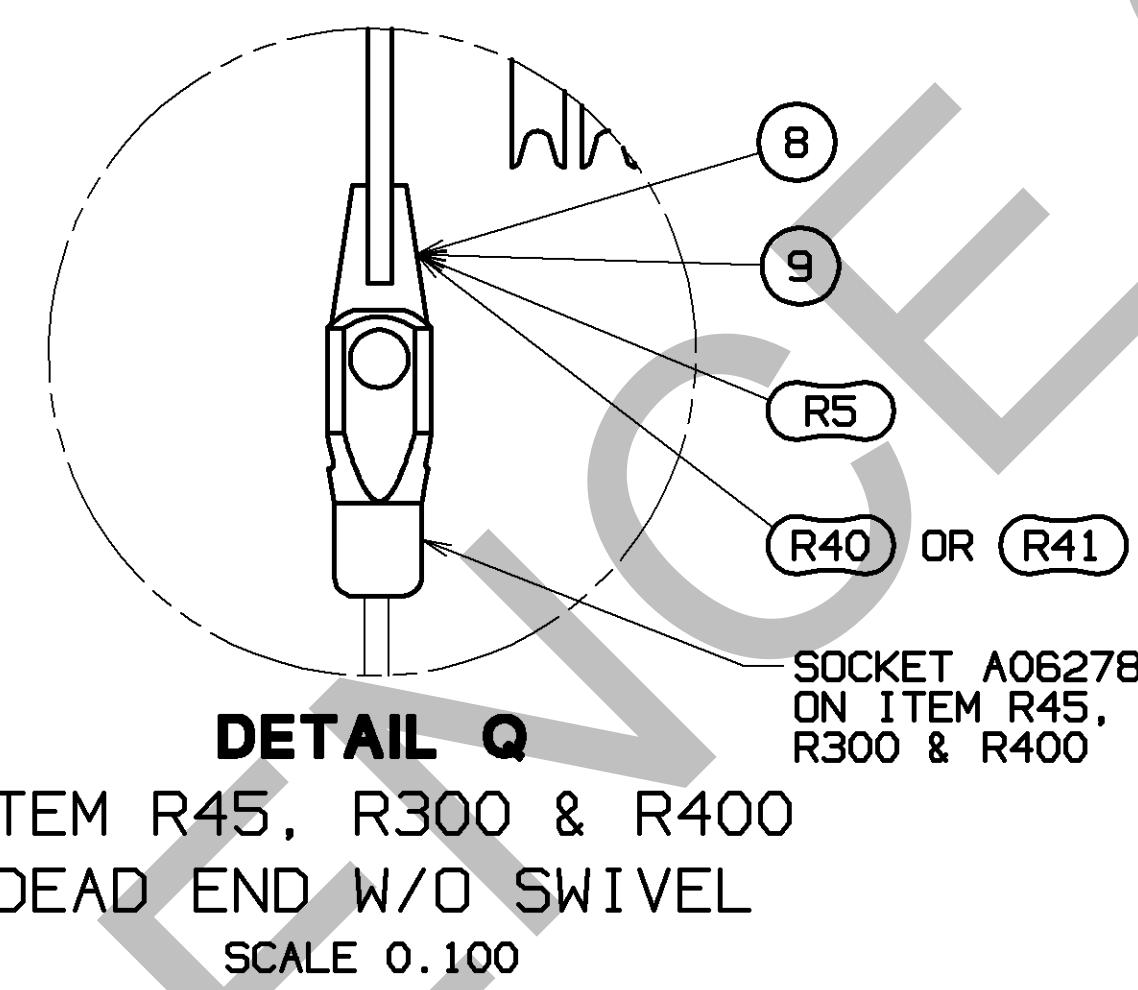
VIEW N-N
(FROM SHEET 7)
ALLOWS FOR REEVINGS UP TO 16 PARTS OF HOIST LINE
SCALE 0.050



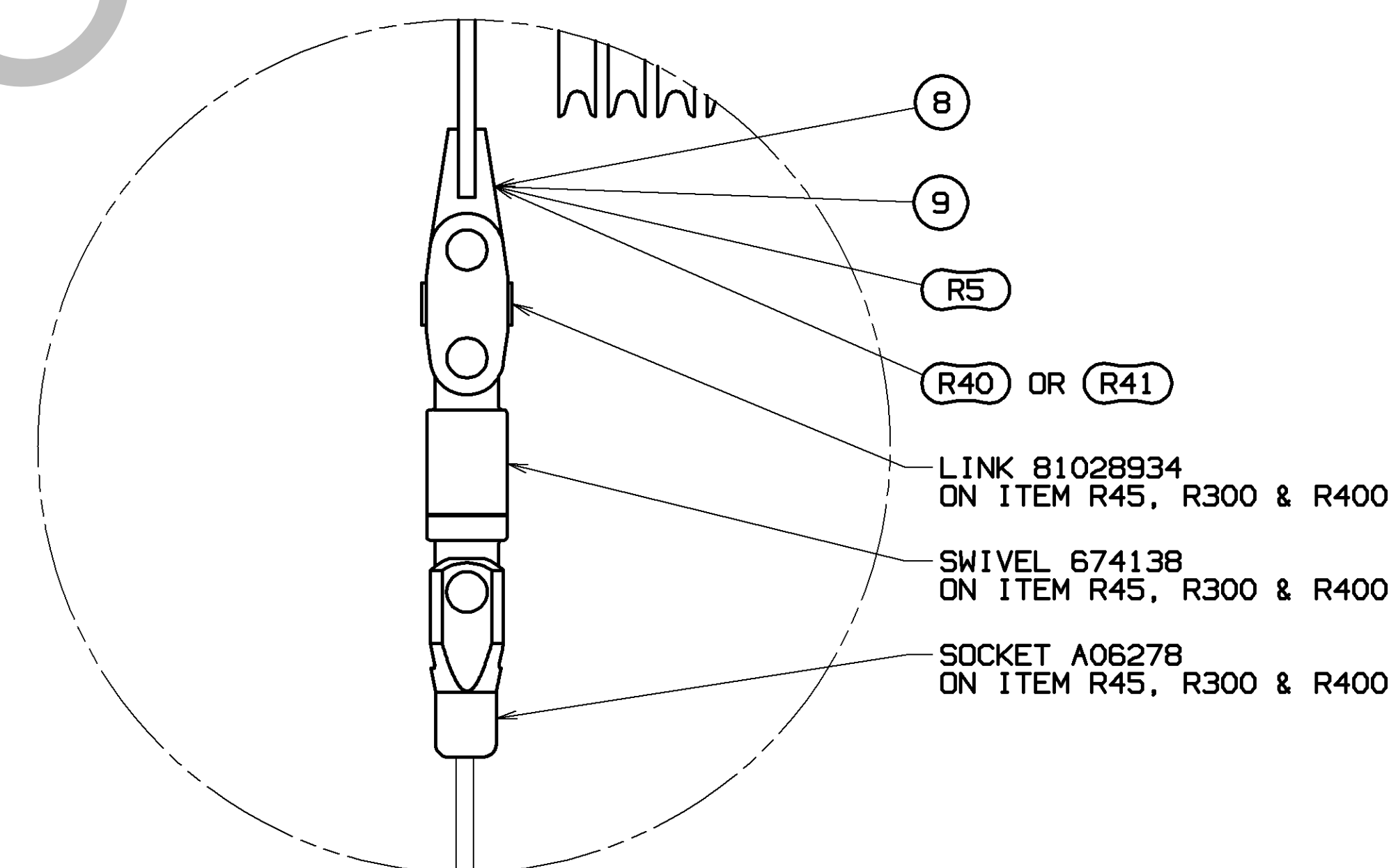
VIEW N-N
(FROM SHEET 7)
ALLOWS FOR REEVINGS UP TO 24 PARTS OF HOIST LINE
SCALE 0.050



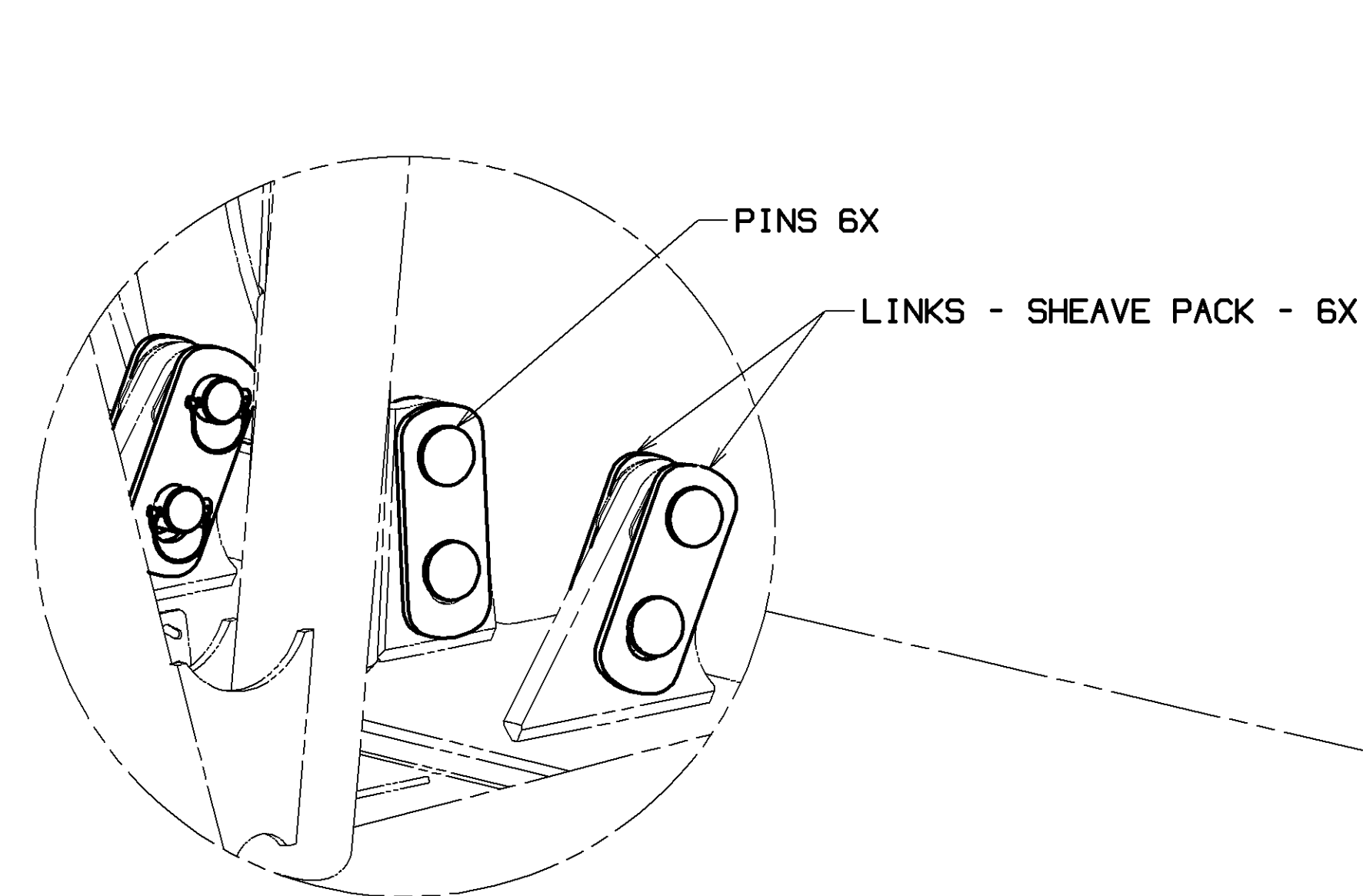
VIEW FFF-FFF
(FROM SHEET 1)
SCALE 0.150



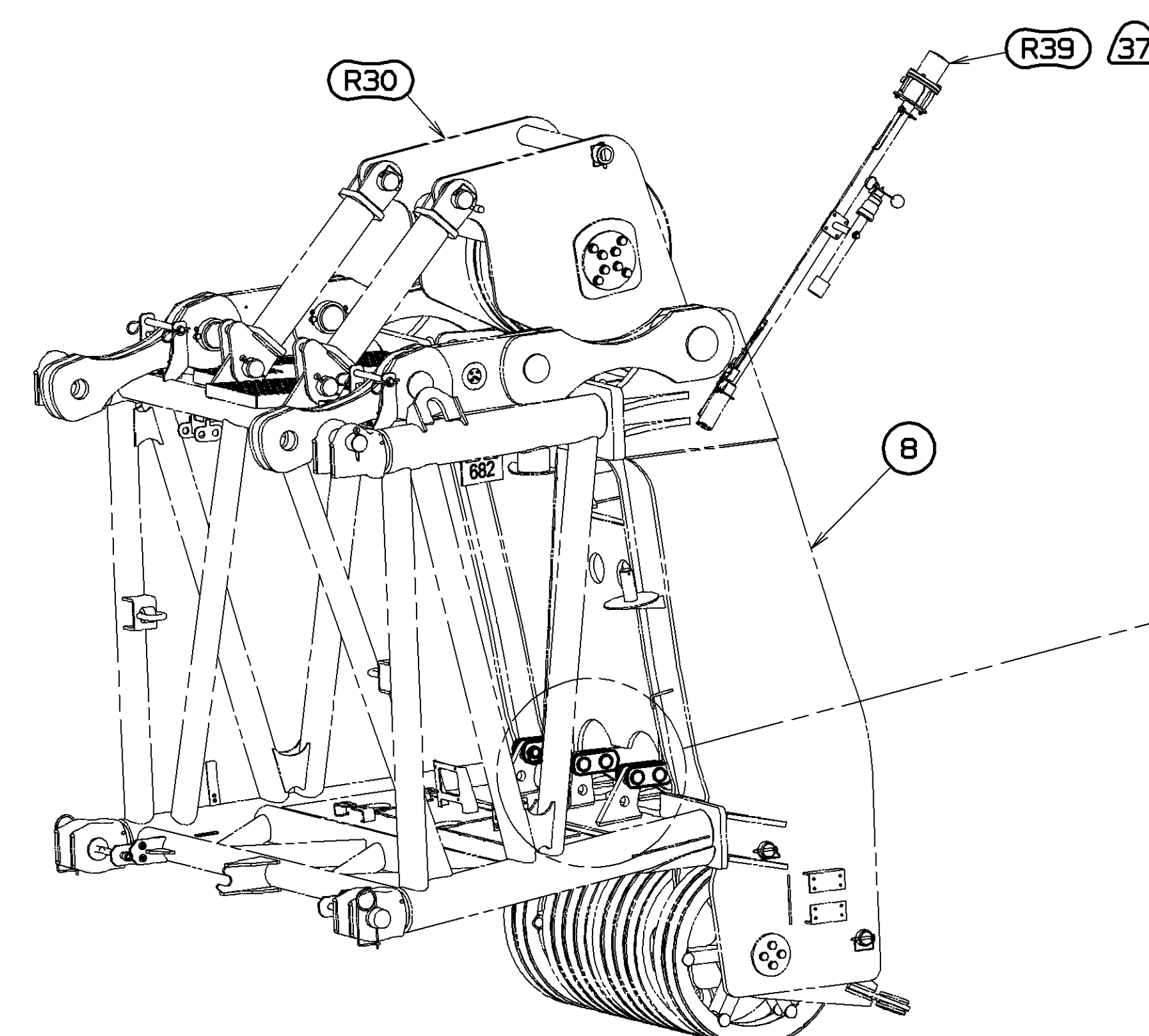
DETAIL Q
ITEM R45, R300 & R400
DEAD END W/O SWIVEL
SCALE 0.100



DETAIL Q
ITEM R45, R300 & R400
DEAD END W/SWIVEL
SCALE 0.100



POSITION OF LOWER SHEAVE POINT
PINS AND LINKS WITHOUT OPTIONAL SHEAVE PACK
SCALE 0.050



POSITION OF LOWER SHEAVE POINT
PINS AND LINKS WITH OPTIONAL SHEAVE PACK
SCALE 0.050

REFERENCE ONLY!

84038308
SHT 16 OF 17

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN SECTION 05-036
DATE
04-28-17
REV. LNK
A

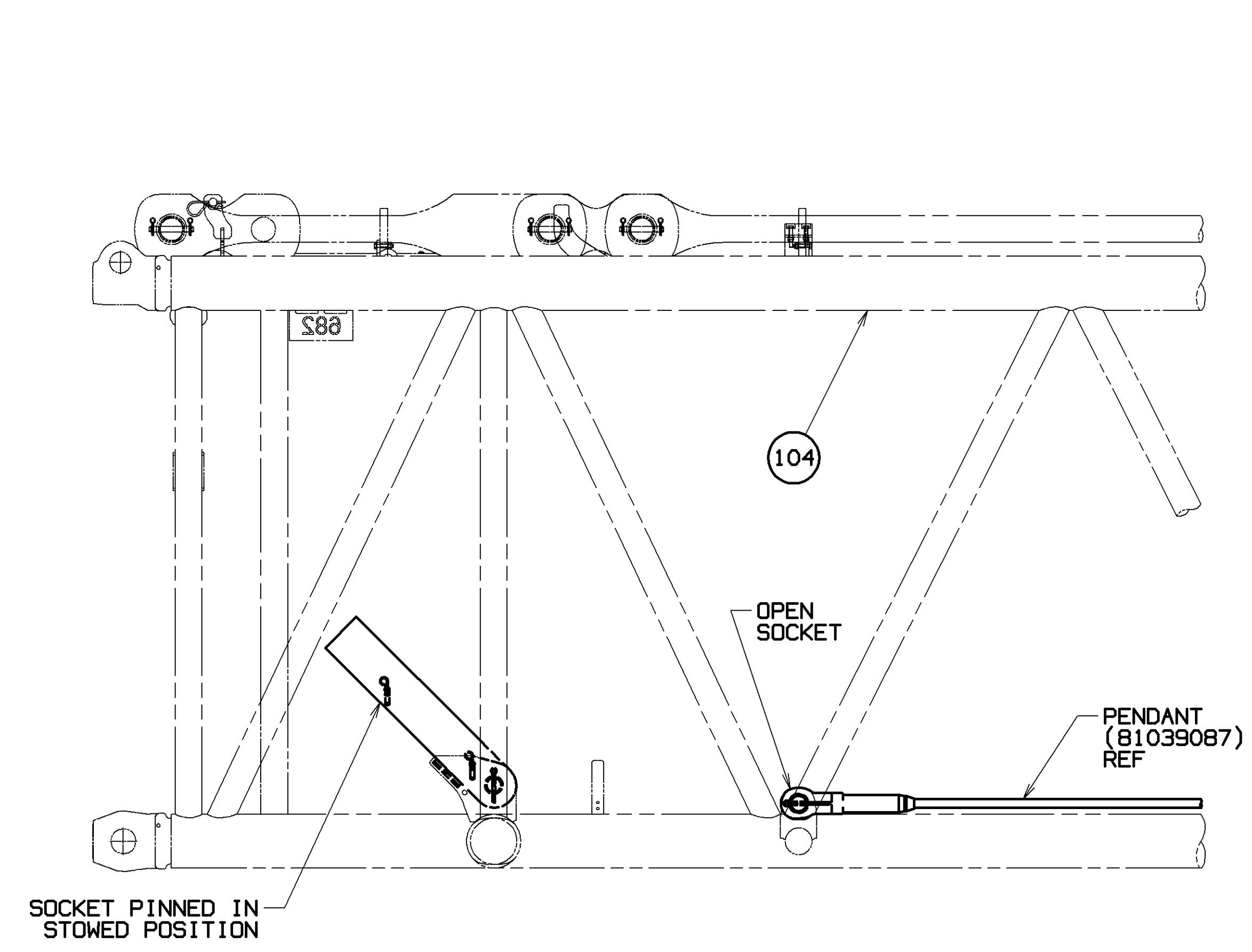
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	(1) PLACE 0.5	±.12				±.18	±.05
	(2) PLACE 0.00	±.08				±.12	±.015
	(3) PLACE 0.000	±.008				±.012	±.006
<small>ANGLES</small>		±.2°	±.03°				

INTERMEDIATE SUSPENSION (R108) INSTALLATION

SEE JIB MAKEUP VIEWS ON SHEETS 6 & 7, AND JIB LENGTH TABLE ON SHEET 2 FOR REQUIRED SUSPENSION & WIRE ROPE BUTTON IDENTIFICATION LOCATION.

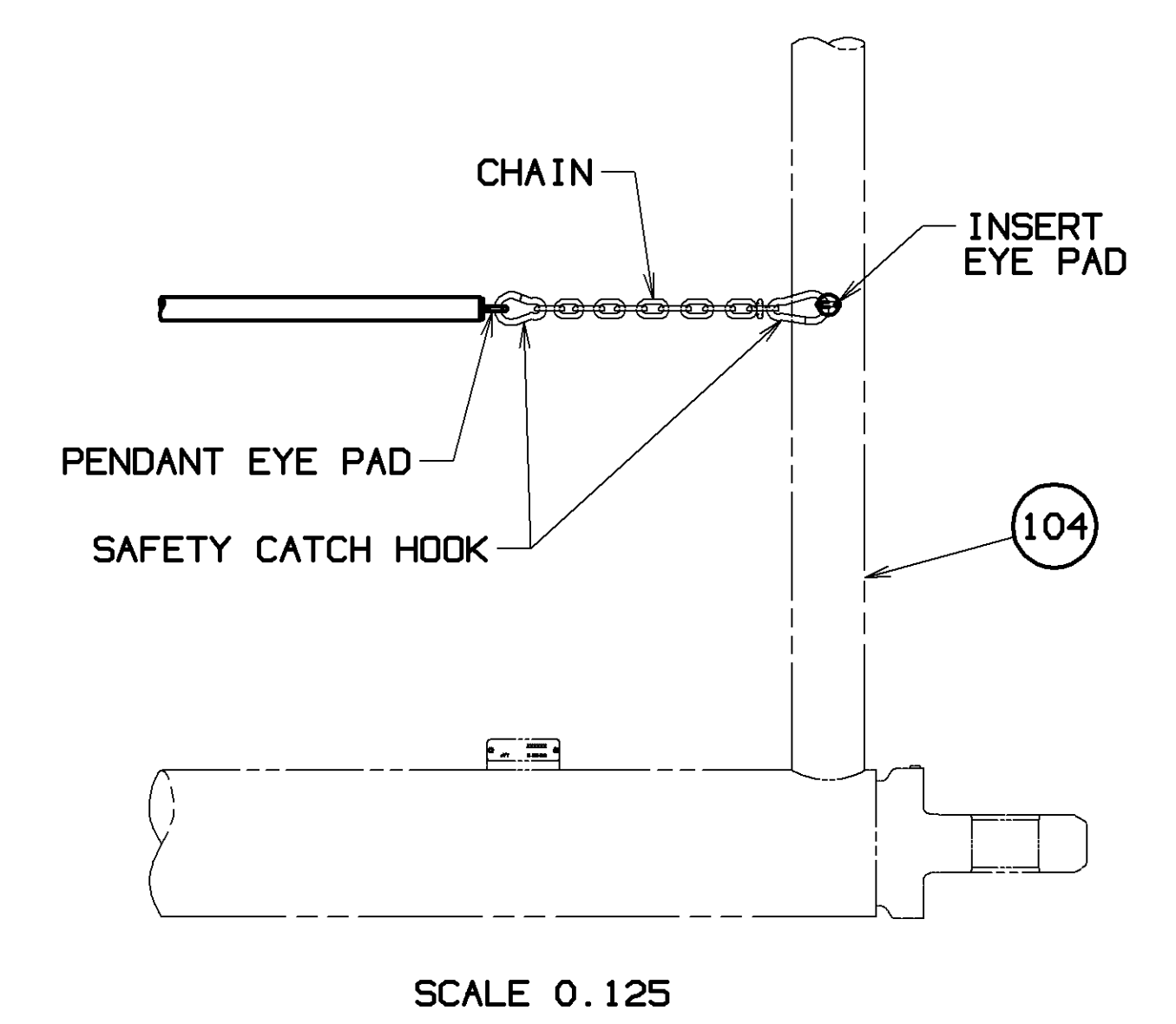
1. REMOVE MULTI-BUTTON PENDANT FROM STOWED SHIPPING POSITION. (SEE DETAIL AA & BB)
2. ATTACH OPEN SOCKET END OF PENDANT TO CONNECTING LINK R109 AT TOP OF INSERT ITEM 104. (SEE DETAIL CC - PREPPED NON-WORKING)
3. SLOWLY RAISE JIB. AS THE STRAPS RISE, GUIDE THE INTERMEDIATE SUSPENSION PENDANTS THROUGH THE OPENINGS IN THE JIB INSERT. STOP THE JIB RAISING PROCEDURE WHEN THE REQUIRED PENDANT BUTTON NEARS THE SOCKET. FROM STOWED POSITION 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 CC-PREPPED NON-WORKING)
4. RELOCATE SOCKET LOCKING HITCH PIN FROM SOCKET AND UPPER BRACKET HOLE TO LOWER BRACKET HOLE. (SEE DETAIL CC - WORKING)
5. ATTACH PENDANT EYE PAD TO INSERT EYE PADS USING A SAFETY CATCH HOOK AT EACH END OF CHAIN. ADJUST PENDANT TENSION BY POSITIONING SAFETY CATCH HOOK IN APPROPRIATE CHAIN LINK. (SEE DETAIL DD)
6. JIB UP SLOWLY AS PENDANT BECOMES TIGHT AND SOCKET PIVOTS INTO WORKING POSITION. (SEE DETAIL CC - WORKING)

FOR REMOVAL OF INTERMEDIATE SUSPENSION REVERSE INSTALLATION STEPS 1 THRU 6, ASSURING SOCKET PIVOTS TOWARD STORAGE POSITION.
VERIFY THAT SLACK IN PENDANT CHAIN ALLOWS FOR SOCKET TO PIVOT INTO STOWED POSITION.



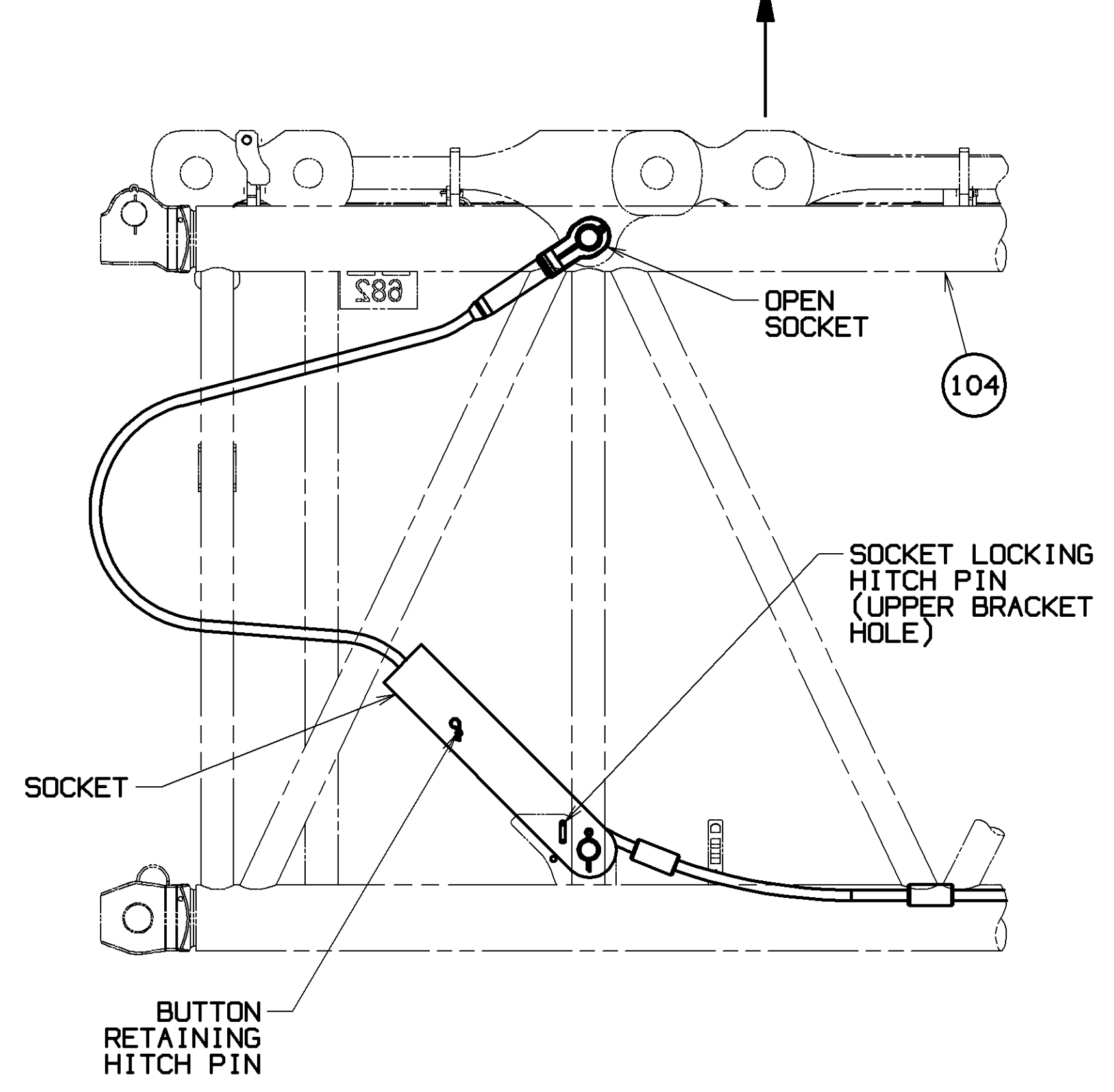
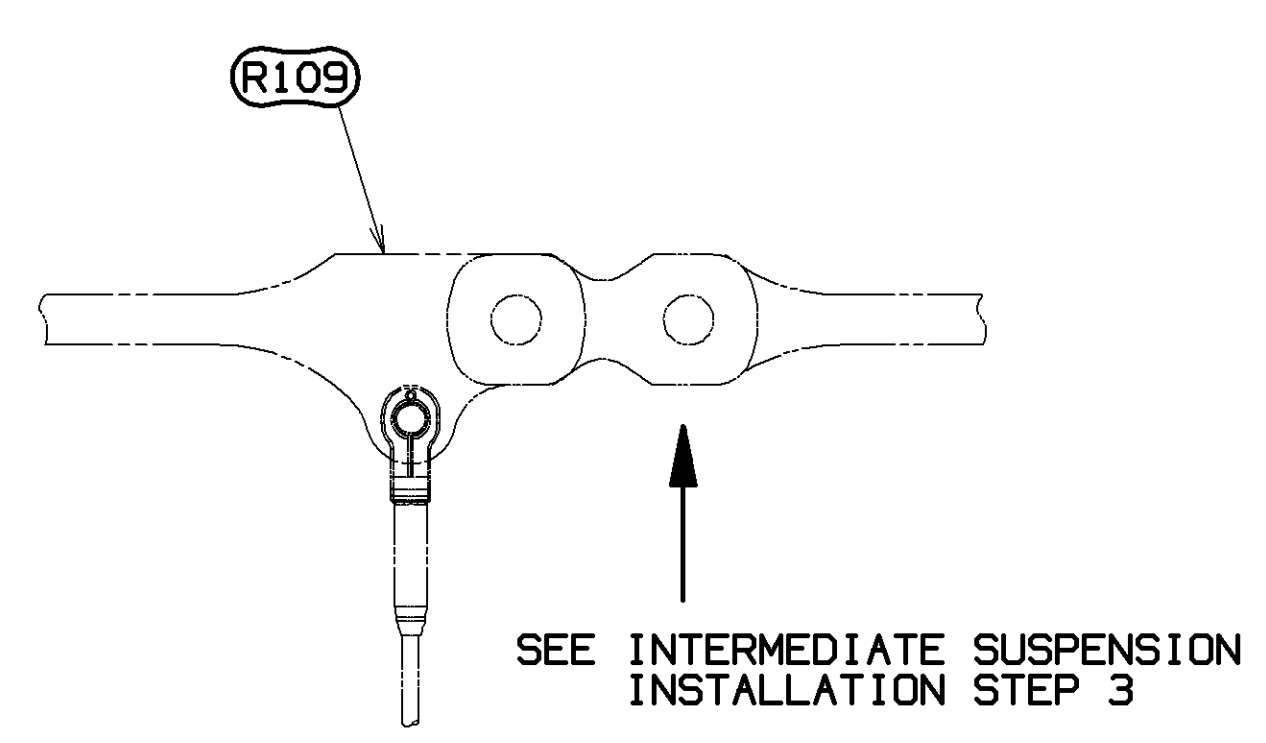
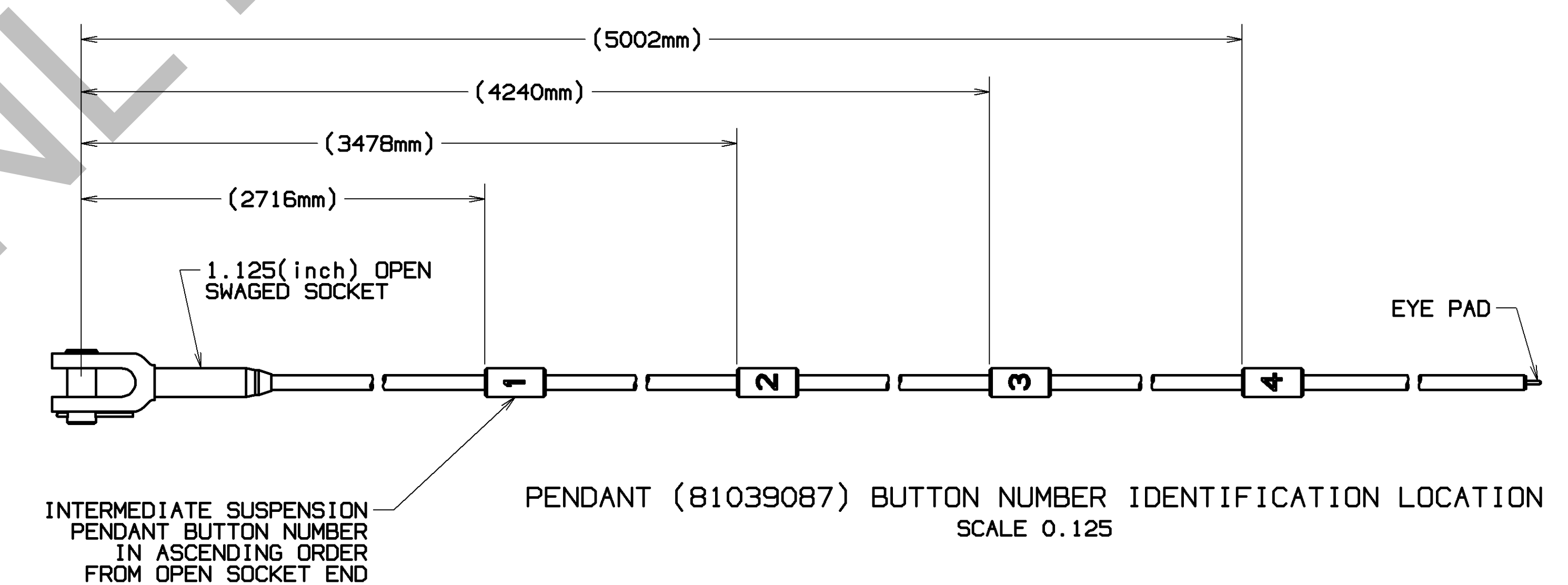
DETAIL AA - STOWED SHIPPING

SUSPENSION WIRE ROPE #682
ITEM R108, 81039008
(FROM SHEET 5)
SUSPENSION PENDANTS STOWED POSITION FOR SHIPPING OR WHEN INSERT WORKING W/O SUSPENSION (59M JIB ONLY)
SCALE 0.075



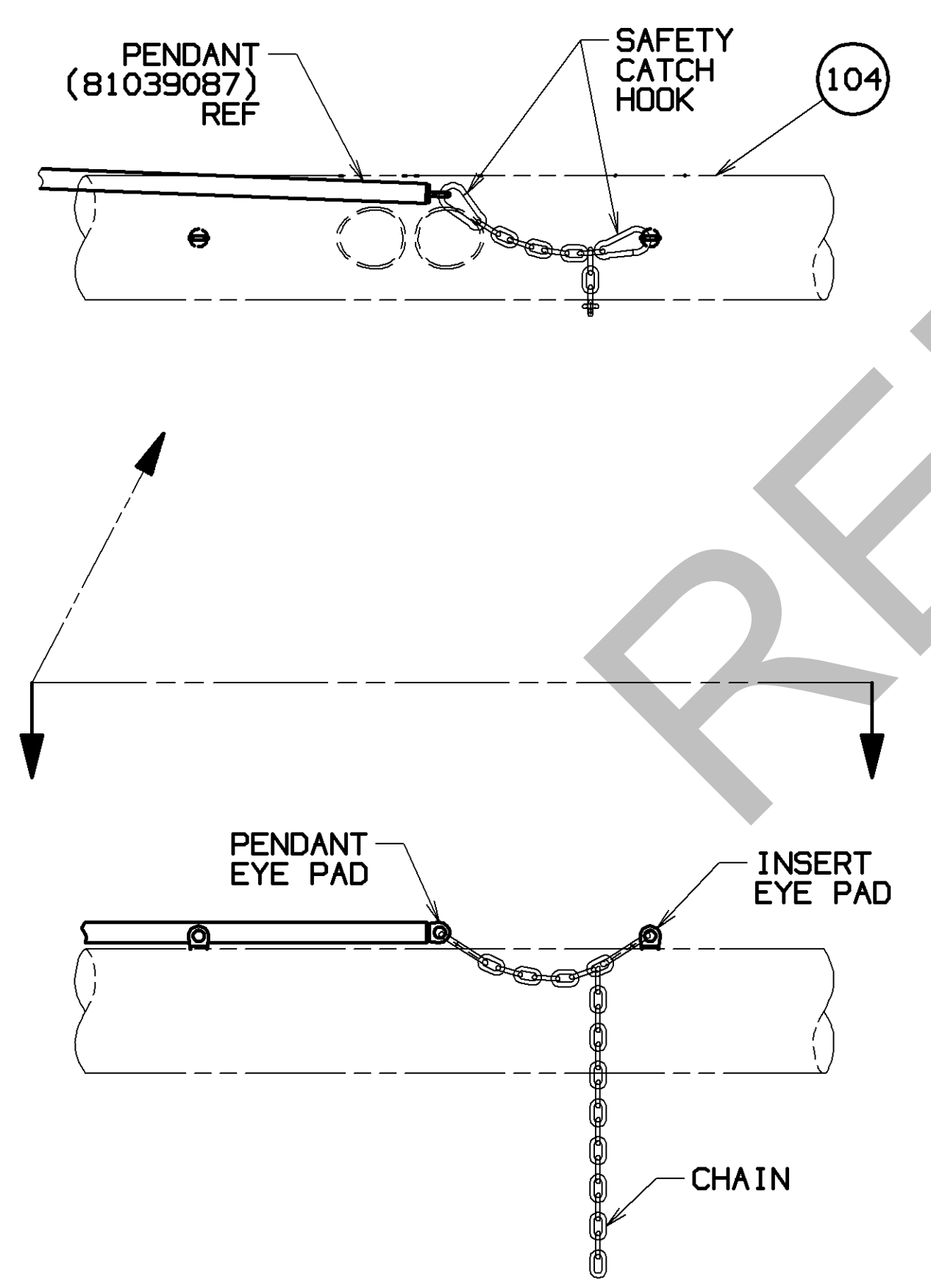
DETAIL BB - STOWED SHIPPING

SUSPENSION WIRE ROPE #682
ITEM R108, 81039008
(FROM SHEET 5)
SUSPENSION PENDANTS STOWED POSITION FOR SHIPPING OR WHEN INSERT WORKING W/O SUSPENSION (59M JIB ONLY)
SCALE 0.125



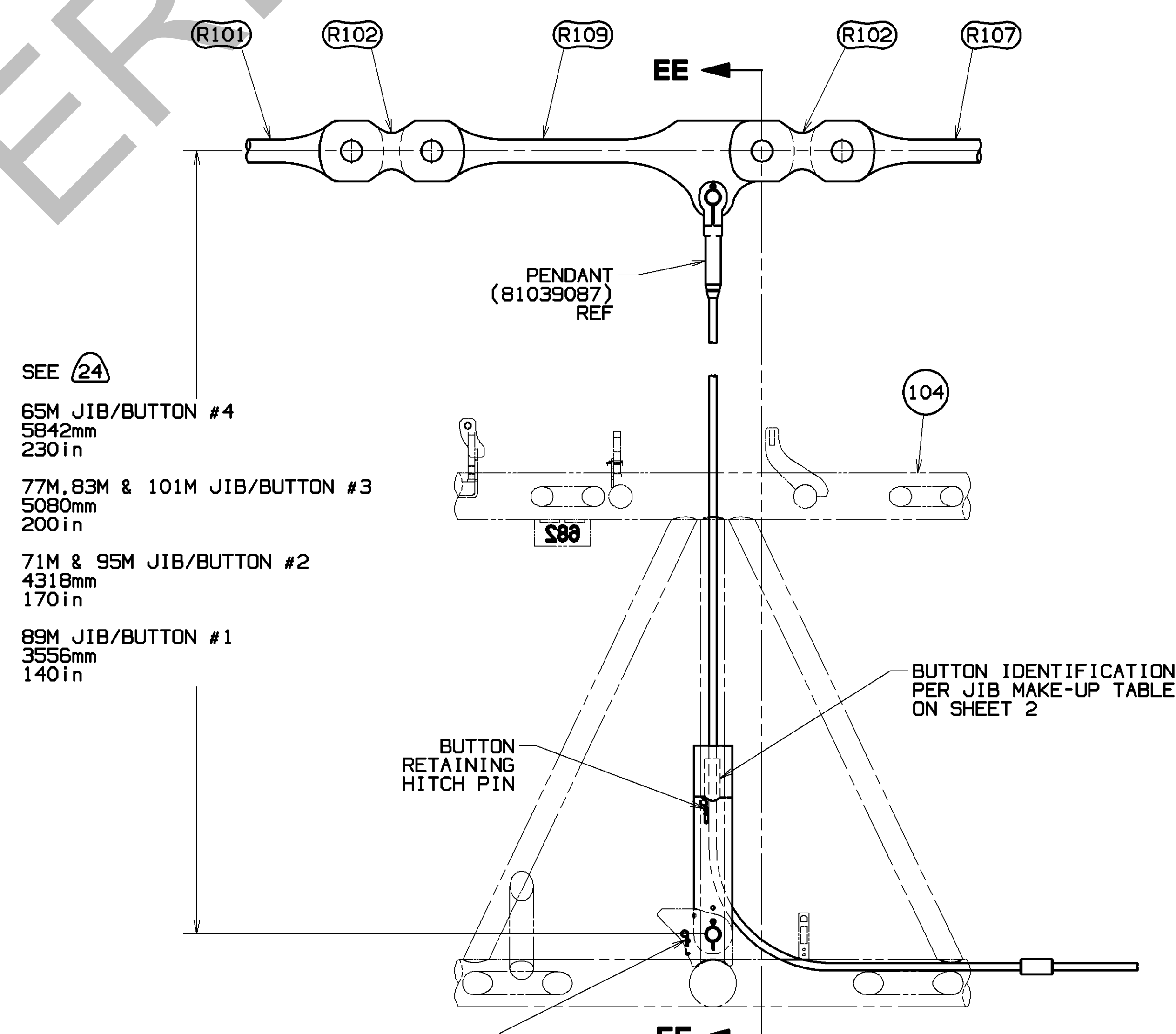
DETAIL CC - PREPPED NON-WORKING

SUSPENSION WIRE ROPE #682
ITEM R108, 81039008
(FROM SHEET 7)
SUSPENSION SOCKET & ROPE LOCATION FOR PREPPED NON-WORKING JIB LENGTHS 65M THRU 101M
SCALE 0.075



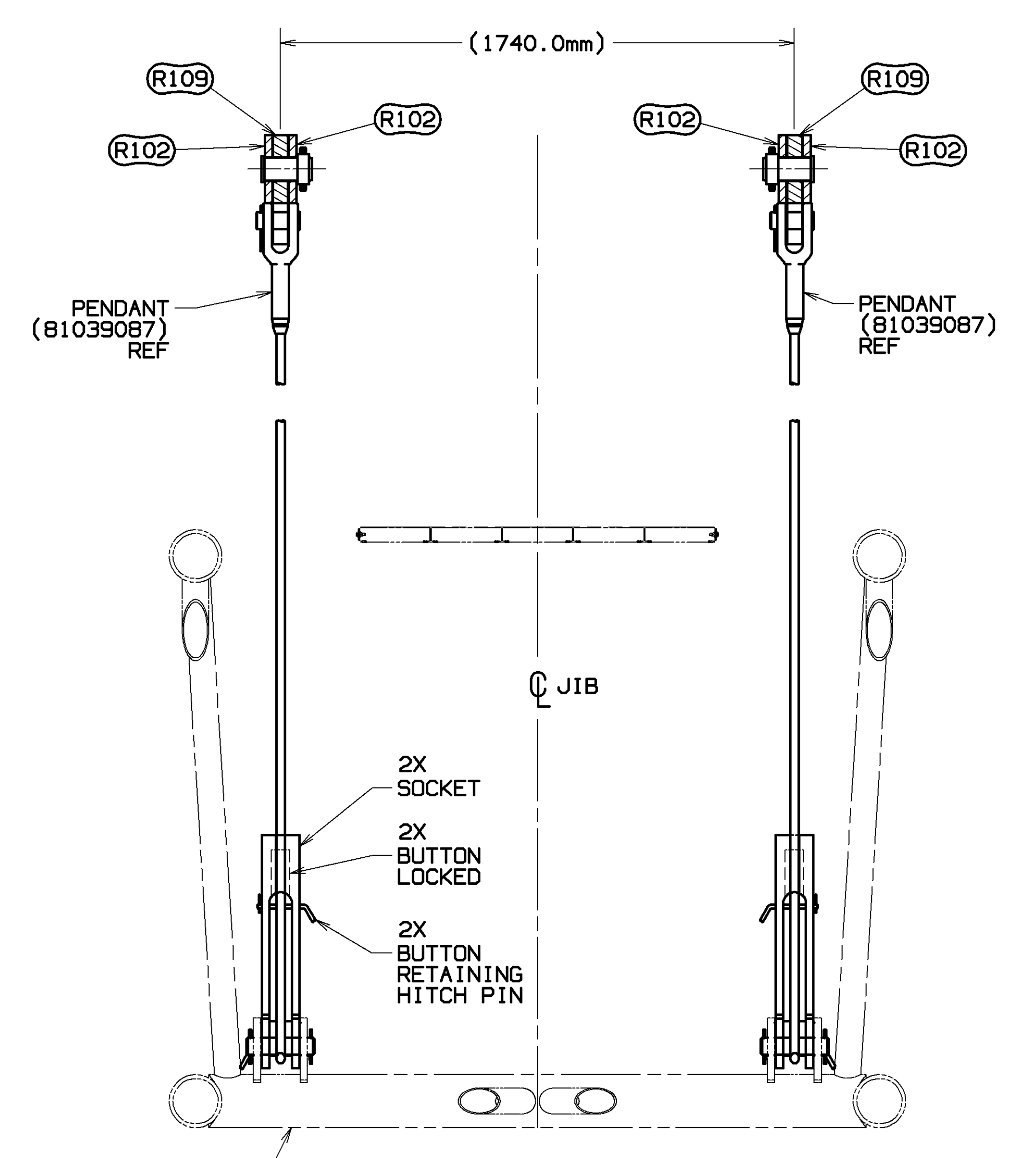
DETAIL DD

SUSPENSION WIRE ROPE #682
ITEM R108, 81039008
(FROM SHEET 7)
SCALE 0.125



DETAIL CC - WORKING

SUSPENSION WIRE ROPE #682
ITEM R108, 81039008
(FROM SHEET 7)
SUSPENSION SOCKET & ROPE LOCATION FOR WORKING JIB LENGTHS 65M THRU 101M
SCALE 0.075



SECTION EE - EE

- SEE (24)
- 65M JIB/BUTTON #4
5842mm
2301in
 - 77M, 83M & 101M JIB/BUTTON #3
5080mm
2001in
 - 71M & 95M JIB/BUTTON #2
4318mm
1701in
 - 89M JIB/BUTTON #1
3556mm
1401in

TOLERANCE UNLESS OTHERWISE SPECIFIED		MATERIAL		FINISHING		NOTES	
DECIMAL PLACES	FRACTIONS	STAINLESS STEEL	ALUMINUM	WELDING	PAINTING	DR. RHY	DR. TRG
(1) PLACE 0.5	±.12	304	6061-T6	AS PER DRAWING	AS PER DRAWING	APP. JRR	APP. JRR
(2) PLACE 0.00	±.08	304	6061-T6	AS PER DRAWING	AS PER DRAWING		
(3) PLACE 0.000	±.005	304	6061-T6	AS PER DRAWING	AS PER DRAWING		

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 8629103794 FOR COMPONENTS LISTED IN 862900-05-056
DATE 04-28-17
REV. LTR. A
84038308
SHT 17 OF 17