

42M (137.8FT)
#74A BOOM SHOWN

- 1 72 M (236.2 FT), 75 M (246.1 FT), 78 M (255.9 FT), 81 M (265.7 FT), 84 M (275.6 FT), BOOM REQUIRES INTERMEDIATE STRUT ITEM 115. (SEE SHEET 6, 7 AND 9).
- 2 MAXIMUM NUMBER OF 3 METER INSERTS = 1.
- 3 FOR BOOM LENGTHS 21M THROUGH 78M MAXIMUM NUMBER OF 6 METER INSERTS = 2.
- 4 FOR BOOM LENGTHS 81M THROUGH 84M MAXIMUM NUMBER OF 6 METER INSERTS = 3.
- 5 BUTT 6.00M I.D. TAG #81023606.
- 6 TOP 9.00M I.D. TAG #81023610.
- 7 INSERT 3.00M I.D. TAG #81024288.
- 8 INSERT 6.00M I.D. TAG #81024290.
- 9 INSERT 6.00M W/SHEAVES I.D. TAG #81024292
- 10 INSERT 12.00M I.D. TAG #81024294.
- 11 INSERT 12.00M W/BACKSTAY LUG I.D. TAG #81024296
- 12 6M INSERT W/OUT SHEAVES (ITEM 101) CAN BE USED IN PLACES OF 6M INSERT W/SHEAVES (ITEM 102).
- 13 12M INSERT W/OUT BACKSTAY LUGS (ITEM 103) CAN BE USED IN PLACES OF 12 METER INSERT W/BACKSTAY LUG (ITEM 104).
- 14 6M INSERT W/SHEAVES (ITEM 102) MUST BE ASSEMBLED ADJACENT TO BOOM BUTT.
- 15 12M INSERT W/BACKSTAY (ITEM 104) MUST BE ASSEMBLED ADJACENT TO BOOM TOP.
- 16 FOR BLOCK REEVING SEE 81022907.
- 17 STARTING WITH THE BOOM BUTT OR 6M INSERT W/SHEAVES INSERTS MUST BE INSTALLED IN ASCENDING LENGTHS AS SHOW ON SHEET 3 THRU 7.
- 18 ITEMS 110, 111, 112, AND 113 QUANTITIES INCLUDE ITEMS THAT ARE STOWED WHEN INTERMEDIATE STRUT IS USED. (SEE SHEET 9)
- 19 3 SHEAVE CONFIGURATION IN MAIN BOOM TOP IS TO BE USED WHEN THE MAIN BOOM COMBINATION EQUALS 63M OR GREATER. ALL SHEAVE CONFIGURATION SEE 81023611.
- 20 WHEN ONLY 3 SHEAVES ARE REQUIRED, REPLACE THE SHAFT 81022204 WITH SHORTER SHAFT 81038762.
- 21 UPPER POINT ASSY I.D. TAG #174208
- 22 STOWS IN PARTS BOX 81042586.
- 23 ITEM R29 MAY BE USED IN PLACE OF ITEM R16 (LOAD PIN) FOR DUTY CYCLE OPERATION ONLY. ITEM R16 SHALL BE INSTALLED WHEN CRANE IS USED FOR LIFT CRANE OPERATION. (SEE MAST ASSY 81023630)
- 24 ITEM R29 IS CALLED FOR AND STOWS IN PARTS BOX 81042596.

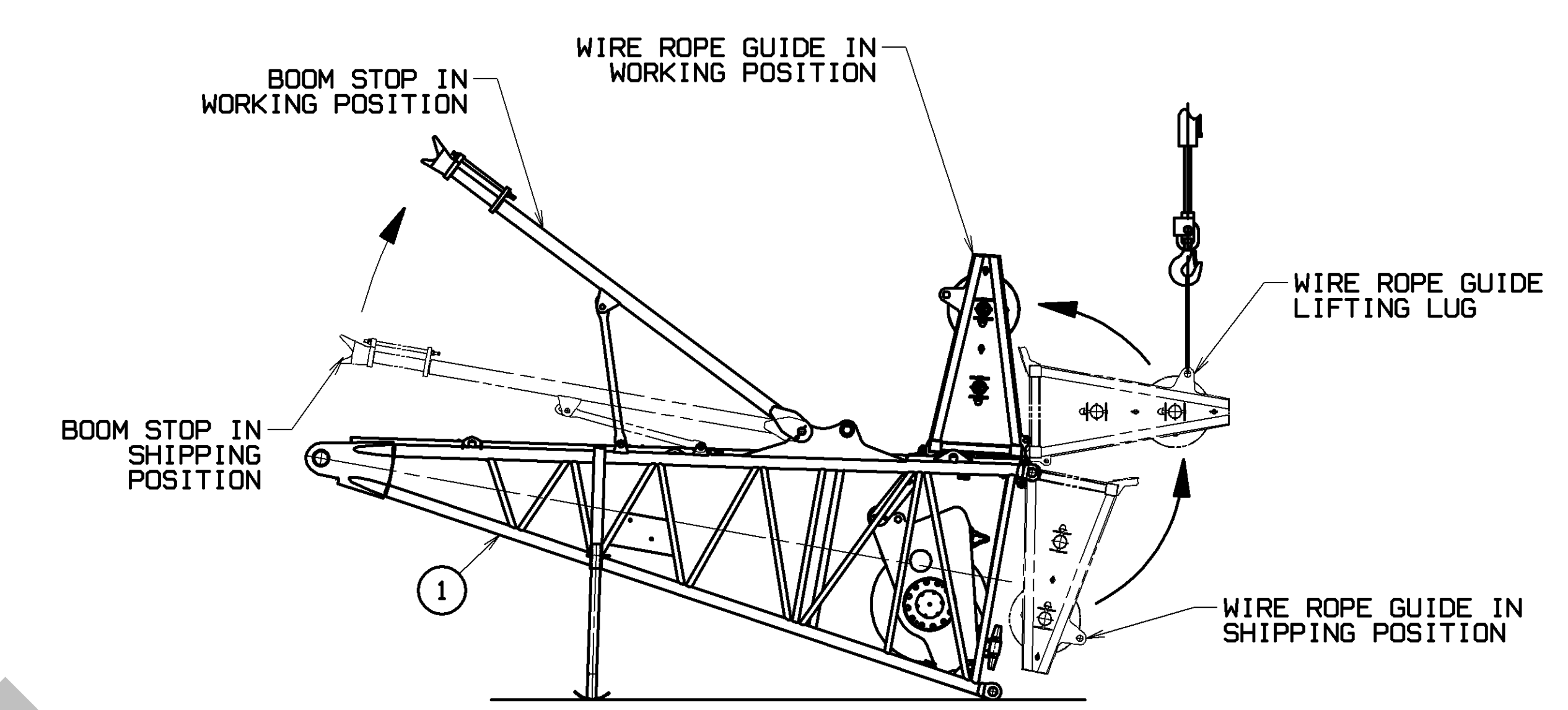
BILL OF MATERIAL				ASSEMBLIES USED IN
QTY	DESCRIPTION	MATERIAL	TAG NO	81023600
BOOMING RIGGING B10:74A				
1	BUTT #74A, 6.00M ASSY		81023605	5
2	TOP ASSY #74A, 9.00M		81023609	6
3	STRAP TOP, #74A BOOM		81023612	
4	LINK TOP, #74A BOOM		81024460	
5				
REVISIONS				
6	PIN 1 HOLE W/HD 65.0 DIA X 86.25 LG		81026589	07-21-16 RHW
7	PIN 2 HOLES 12.7 DIA X 93.0 LG		A11799	B1 ADDED (B/M)
8	COLLAR 66.0 MM I.D.		A11800	B2 ADDED DELTA
9	PIN COTTER 3/16 DIA X 1.75 LG		562086	NOTE 23 (SHT 1)
10				
11				
12				
13				
NO. REQ'D FOR THE FOLLOWING ITEMS ARE IN THE TABLE				
100	INSERT ASSY #74A, 3.00M		81024287	7
101	INSERT ASSY #74A, 6.00M		81024289	8
102	INSERT ASSY #74A, 6.00M W/SHEAVE		81024291	9
103	INSERT ASSY #74A, 12.00M		81024293	10
104	INSERT ASSY #74A, 12.00M W/LUG		81024295	11
105	STRAP 3.00M, #74A BOOM		81024359	
106	STRAP 6.00M, #74A BOOM		81024360	
107	STRAP 12.00M, #74A BOOM		81024361	
108	LINK #74A BOOM		81026421	
109	PIN 1 HOLE W/HD 70.0 DIA X 126.0 LG		81027310	
110	COLLAR 2.50 DIA X 1.00 LG (in)		81027355	18
111	PIN 1 HOLE W/HD 45.0 DIA X 65.75 LG		81027356	18
112	PIN CLEVIS 9.5 DIA X 76.2 LG SST		81037242	18
113	PIN COTTER 1/8 DIA X 1.00 LG		562043	18
114	PIN SAFETY .243 OD X 5.00		563640	
115	INTERMEDIATE STRUT		81027152	1
OPTION 1: HOOK BLOCKS				
200	BLOCK 75 US TON 1.00 WR 4 SHEAVES		A10622	
201	HOOK & WEIGHT BALL 15 TON (13.6 METRIC T ON)		218214	
202	BLOCK HOOK 200 TON/200 MTON 1.12 WR 7 SHEAVE		237082	
203	BLOCK HOOK 100 TON/91 MTON 1.12 WR 3 SHEAVE		237099	
204				
OPTION 2: UPPER BOOM POINT				
300	POINT ASSY UPPER BOOM		81042782	21
301				
BASIC REFERENCE ITEMS				
R1	PIN COTTER 1/8 DIA X 1.00 LG		562043	
R2	PIN COTTER 3/16 DIA X 1.75 LG		562086	
R3	PIN 1 HOLE W/HD 25.0 DIA X 108.0 LG		81021403	
R4	LINK MAST, #74A BOOM		81024382	
R5	STRAP MAST, #74A BOOM		81024390	
R6	LINK 600.0 LG		81024403	
R7	PIN 80.0 DIA X 212.0 LG		81024404	
R8	SPACER 110X82X33.8		81024405	
R9	SHIM 3.0 MM THK		81025492	22
R10	SHIM 1.5 MM THK		81025493	22
R11	PLATE 6.0X135.0X135.0		81026558	
R12	COLLAR 2.50 DIA X 1.00 LG (in)		81027355	
R13	PIN 1 HOLE W/HD 45.0 DIA X 65.75 LG		81027356	
R14	RECTANGULAR BAR 9.5X38.1X114.0		81033320	
R15	SPACER 110X82X28		81033945	
R16	PIN LOAD 72.0 MM DIA X 50.000 KGS		81034208	23
R17	RING SNAP EXTERNAL 74.5 DIA		81034265	
R18	PIN CLEVIS 9.5 DIA X 76.2 LG SST		81037242	
R19	HHCS 12 X 35 8.8, FULL THREAD		7126211453	
R20	F WASHER 12 ST ISO 7089		7951210014	
R21	PIN COTTER 1/4 DIA X 3.00 LG		562110	
R22	PIN COTTER 1 HOLE W/HEAD 2.00 OD X 6.63 LG		A07948	
R23	SHACKLE 74mm 9.5 M TON		81006724	22
R24	SLING LIFTING 1 LEG X 21200 LB X 6.0 FT		81019564	22
R25	LINK ASSY MAST		81028811	
R26	CYL HYD ASSY SELF ERECT		81036092	
R27	PIN 2 HOLE 70.0 DIA X 138.0 LG		81026766	
R28	POINT #74A, LOWER ASSY		81023611	
R29	PIN 72.0X88.0		84044307	23
R30	PIN SAFETY .243 OD X 5.00		563640	
REFERENCE ITEMS FOR INTERMEDIATE STRUT ASSY (ITEM 115)				
R100	PIN COTTER 1/8 DIA X 1.00 LG		562043	
R101	PIN HITCH 1.00 DIA X 4.75 GRIP		84019321	
R102	STRUT MACHINING #74A INTERMEDIATE LOWER		81039440	
R103	STRUT MACHINING #74A INTERMEDIATE UPPER		81039441	
R104	COLLAR 2.50 DIA X 1.00 LG (in)		81027355	
R105	PIN 1 HOLE W/HD 45.0 DIA X 89.7 LG		81027358	
R106	PIN CLEVIS 9.5 DIA X 76.2 LG SST		81037242	
R107				
R108				
R109	PIN COTTER 3/8 DIA X 3.50 LG		562151	22
R110	PLATE KEEPER INTERMEDIATE STRUT		81022559	22
R111	BRACKET ASSY INTERMEDIATE STRUT		81022560	22
R112	PIN 1 HOLE W/HD 70.0 DIA X 145.0 MM LG		81022561	22
R113	SCR CAP HEX HD M16-2 X 170 8.8 ZC		7126243353	22
R114	HEX NUT 16 8 ISO 4032		7661240003	22
R115	F WASHER 16ST ISO 7089		7951240014	22
R116	L WASHER ST DIN 127B		7951240220	22

TOLERANCE UNLESS OTHERWISE SPECIFIED		MACHINING	
DECIMAL PLACES	FRACTIONS	FINISH	SPRUE
(1) PLACE 0.5	1/16	1/16	1/16
(2) PLACE 0.00	1/32	1/32	1/32
(3) PLACE 0.000	1/64	1/64	1/64
ANGLES	11.30		

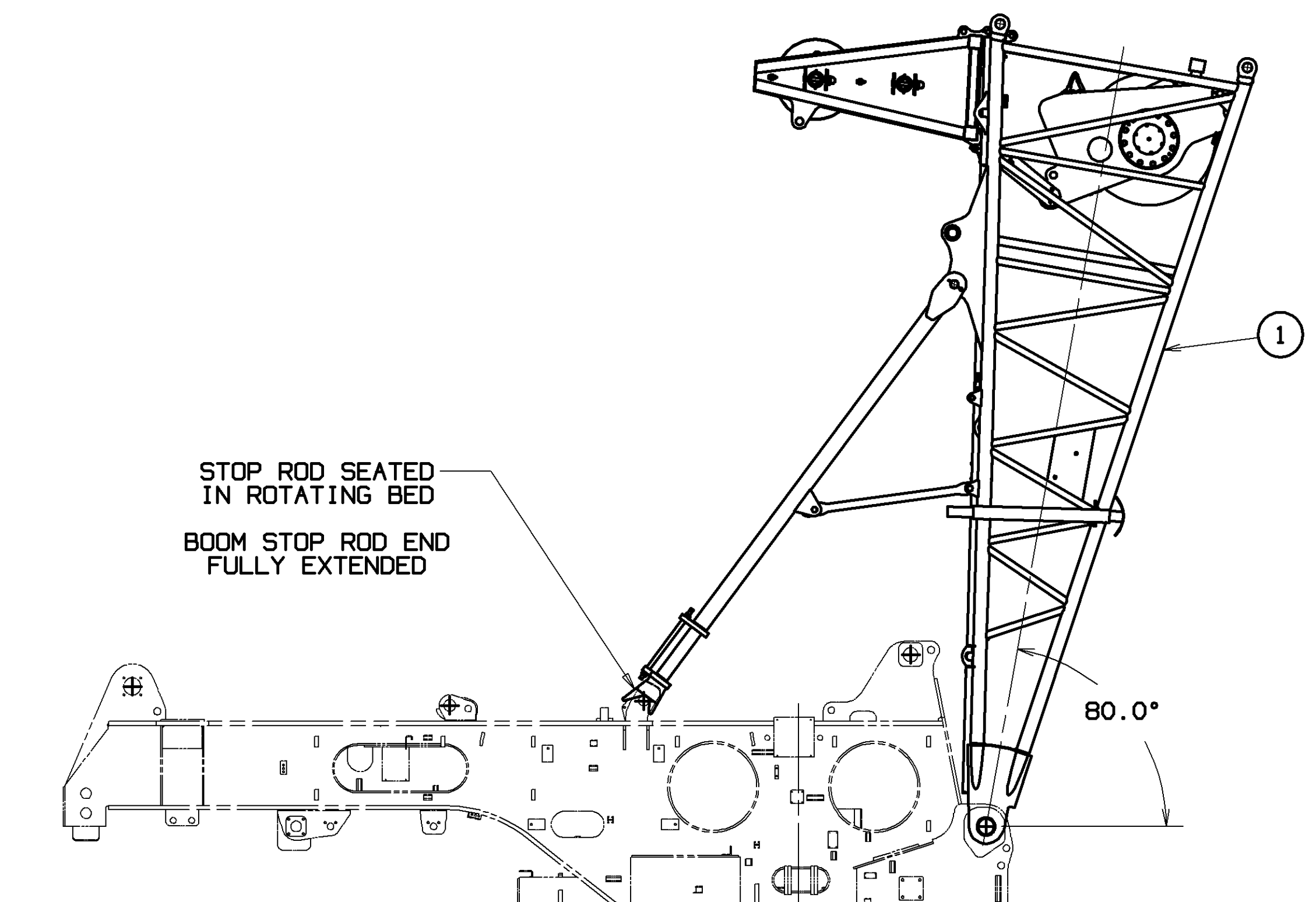
MATERIALS		MATERIALS	
QTY	DESCRIPTION	QTY	DESCRIPTION
1	MANITOWOC CRANE, INC.	1	MANITOWOC CRANE, INC.
1	MANITOWOC CRANE, INC.	1	MANITOWOC CRANE, INC.
1	MANITOWOC CRANE, INC.	1	MANITOWOC CRANE, INC.

ITEMS REQUIRED FOR VARIOUS BOOM LENGTHS - SEE SHEETS 3 THRU 7 FOR BOOM MAKE-UP

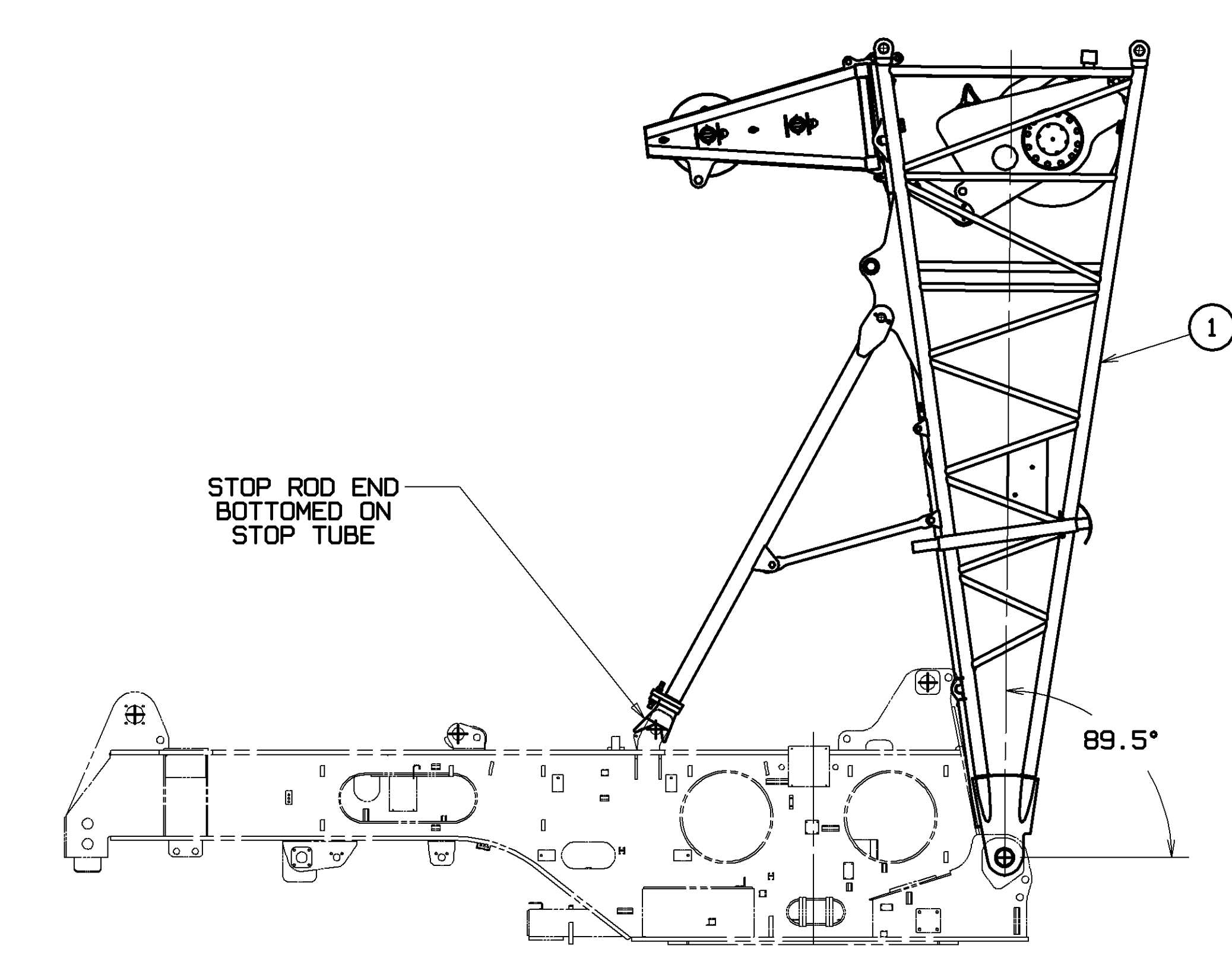
ITEM NO.		100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115
BOOM LENGTH		INSERT 3.00M (9.8 FT) ASSY	INSERT 6.00M (19.7 FT) ASSY	INSERT 6.00M (19.7 FT) W/SHEAVES ASSY	INSERT 12.00M (39.4 FT) ASSY	INSERT 12.00M (39.4 FT) W/BACKSTAY ASSY	STRAP 3.0M (9.8 FT)	STRAP 6.00M (19.7 FT)	STRAP 12.00M (39.4 FT)	LINK	PIN	COLLAR	PIN	PIN	COTTER	PIN SAFETY	INTERMEDIATE STRUT SEE 1
METERS	FEET																
15	49.2	0	0	0	0	0	0	0	0	0	4	2	2	2	2	4	0
18	59.1	1	0	0	0	0	2	0	0	4	8	6	6	6	6	8	0
21	68.9	DR 0	1	0	0	0	0	2	0	4	8	6	6	6	6	8	0
24	78.7	DR 1	1	0	0	0	2	2	0	8	12	10	10	10	10	12	0
27	88.6	DR 0	0	0	0	1	0	0	2	4	8	6	6	6	6	8	0
30	98.4	DR 1	0	0	0	1	0	0	2	8	12	10	10	10	10	12	0
33	108.3	DR 0	1	0	0	0	2	2	0	12	16	14	14	14	14	16	0
36	118.3	DR 1	1	0	0	1	2	2	2	12	16	14	14	14	14	16	0
39	128.0	DR 0	0	0	1	1	0	0	4	8	12	10	10	10	10	12	0
42	137.8	DR 1	0	0	1	1	0	4	2	12	16	14	14	14	14	16	0
45	147.6	DR 0	1	0	1	1	0	2	4	12	16	14	14	14	14	16	0
48	157.5	DR 1	1	0	1	1	2	2	4	16	20	18	18	18	18	20	0
51	167.3	DR 0	0	0	2	1	0	0	6	12	16	14	14	14	14	16	0
54	177.2	DR 1	0	0	2	1	2	0	6	16	20	18	18	18	18	20	0
57	187.0	DR 0	1	0	2	1	0	2	6	16	20	18	18	18	18	20	0
60	196.9	DR 1	1	0	2	1	2	2	6	20	24	22	22	22	22	24	0
63	206.7	DR 0	0	0	3	1	0	0	8	16	20	18	18	18	18	20	0
66	216.5	DR 1	0	0	3	1	2	0	8	20	24	22	22	22	22	24	0
69	226.4	DR 0	1	0	3	1	0	2	8	20	24	22	22	22	22	24	0
72	236.2	DR 1	1	0	3	1	2	2	8	24	28	26	26	26	26	28	1
75	246.1	DR 0	0	0	4	1	0	0	10	20	24	22	22	22	22	24	1
78	255.9	DR 1	0	0	4	1	2	0	10	24	28	26	26	26	26	28	1
81	265.7	DR 0	1	0	4	1	0	2	10	24	28	26	26	26	26	28	1
84	275.6	DR 1	0	1	4	1	2	2	10	28	32	30	30	30	30	32	1



BOOM BUTT WIRE ROPE GUIDE ARRANGEMENT
SCALE 0.025



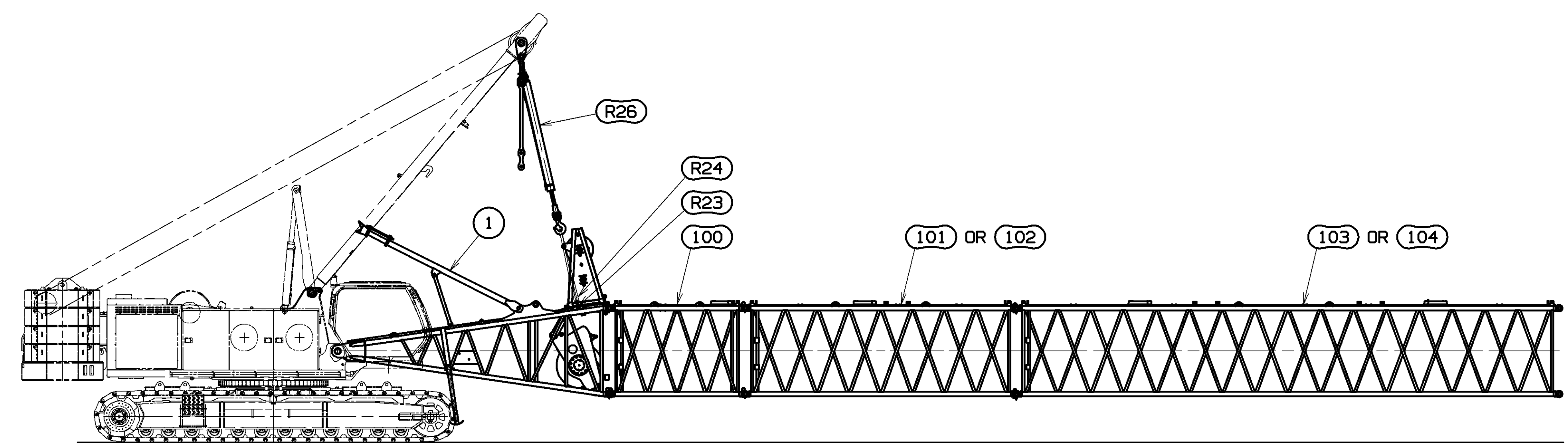
BOOM STOP START OF CUSHION
SCALE 0.030



BOOM STOP PHYSICAL STOP
SCALE 0.030

BOOM HANDLING WITH MAST
WITH MAST CYLINDER ATTACHED WITH SLINGS TO LUG ON BOOM BUTT MAXIMUM BOOM THAT CAN BE CANTILEVERED IS AS FOLLOWS

LENGTH	INSERT 3.00M (9.8 FT) ASSY	INSERT 6.00M (19.7 FT) ASSY	INSERT 12.00M (39.4 FT) ASSY
3.00M (9.8 FT)	1	0	0
6.00M (19.7 FT)	0	1	0
9.00M (29.5 FT)	1	1	0
12.00M (39.4 FT)	DR 0	0	1
15.00M (49.2 FT)	DR 1	0	1
18.00M (59.0 FT)	0	1	1
21.00M (68.9 FT)	1	1	1
24.00M (78.7 FT)	DR 0	2	1



BOOM HANDLING WITH MAST
SCALE 0.015

DO NOT SCALE THIS DRAWING

BILL OF MATERIAL

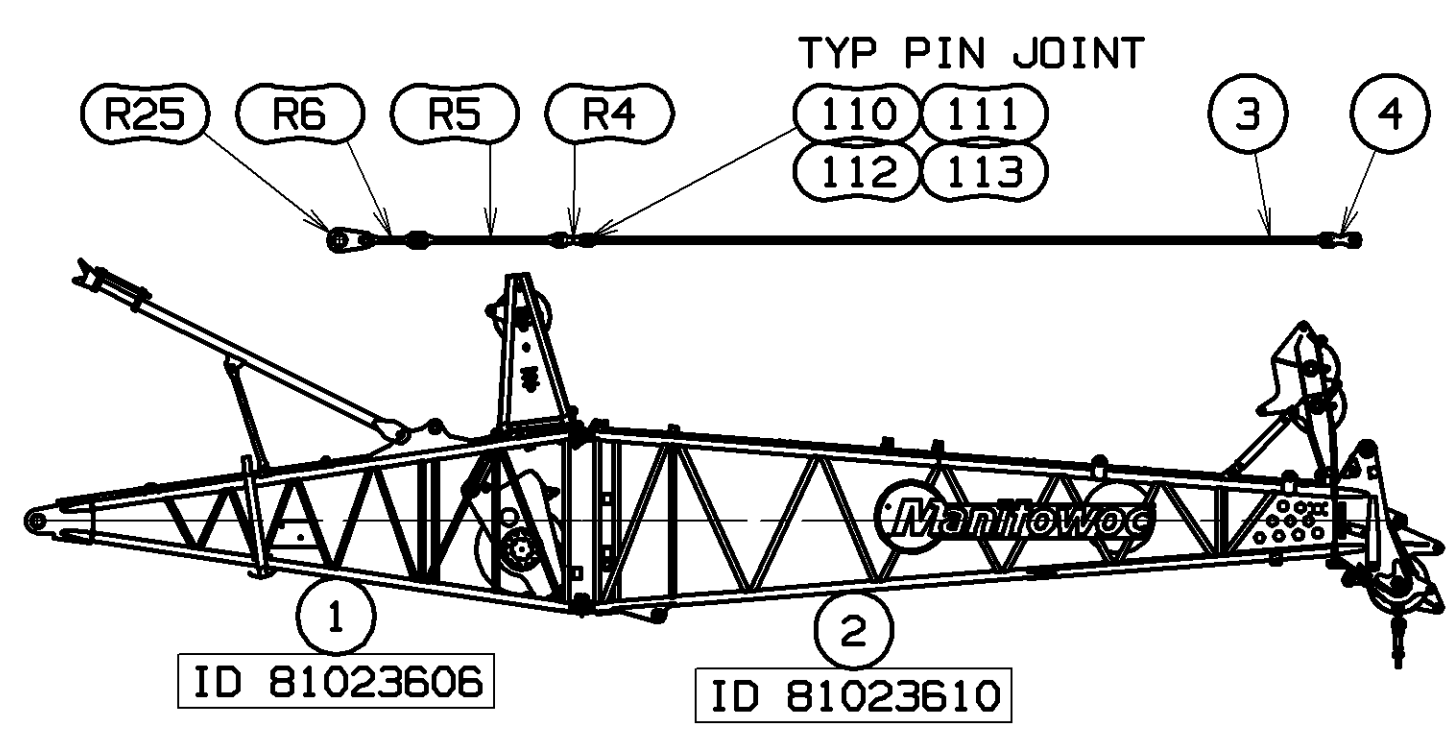
QTY	DESCRIPTION	MATERIAL	QTY	DESCRIPTION	MATERIAL
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81023602
SHT 2 OF 9

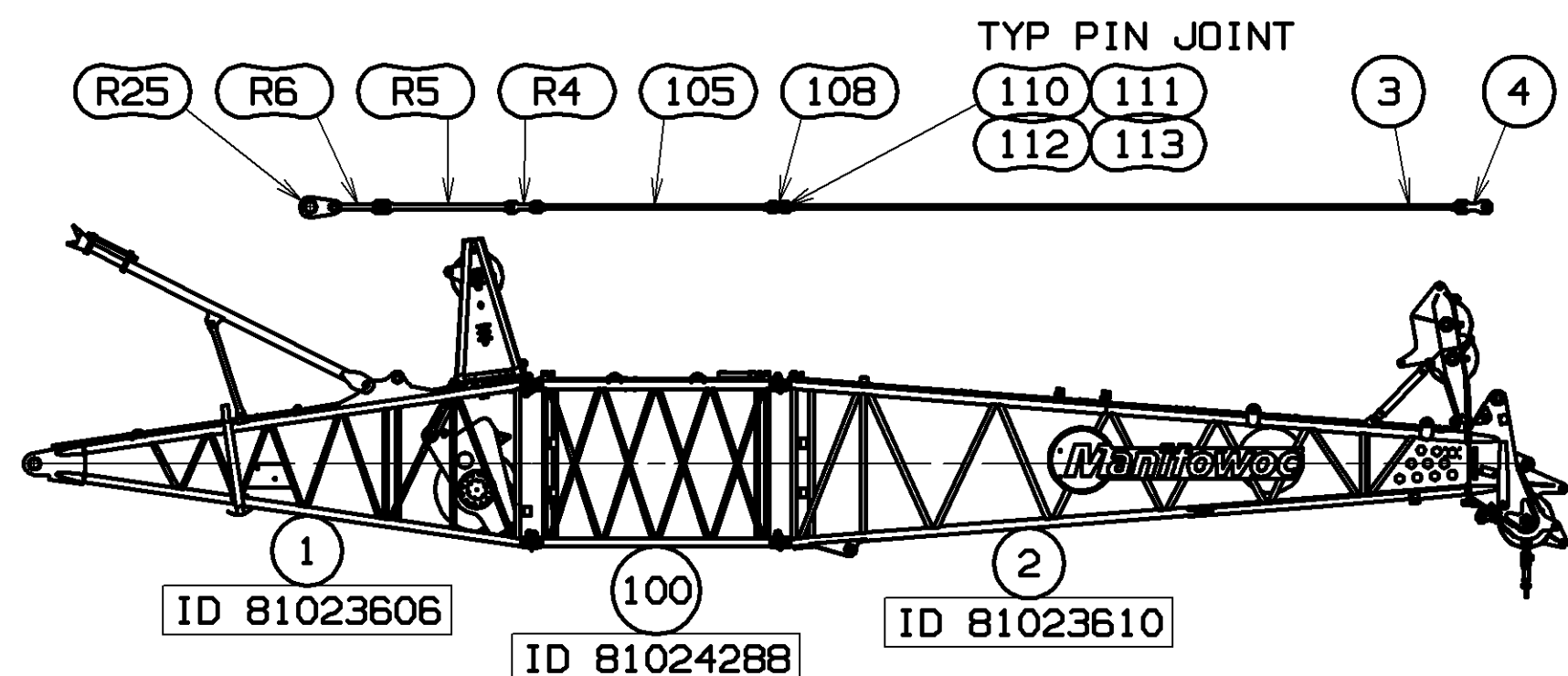
PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 8629103794 FOR COMPONENTS LISTED IN SECTION 05-056

<p>THIS DRAWING IS THE PROPERTY OF HINTEGRIC 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.</p>	<p>DECIMAL PLACES: 1) PLACE 0.5 2) PLACE 0.00 3) PLACE 0.000</p>	<p>TOLERANCE UNLESS OTHERWISE SPECIFIED: ±.12 ±.18 ±.03 ±.06 ±.12 ±.015 ±.006 ±.003</p>	<p>DATE: 10-22-15 REV: 1 BY: []</p>	<p>MANUFACTURED BY: Manitowoc Cranes, Inc. MODEL: MLC165-1</p>	<p>BOOM RIGGING B10:74A</p>
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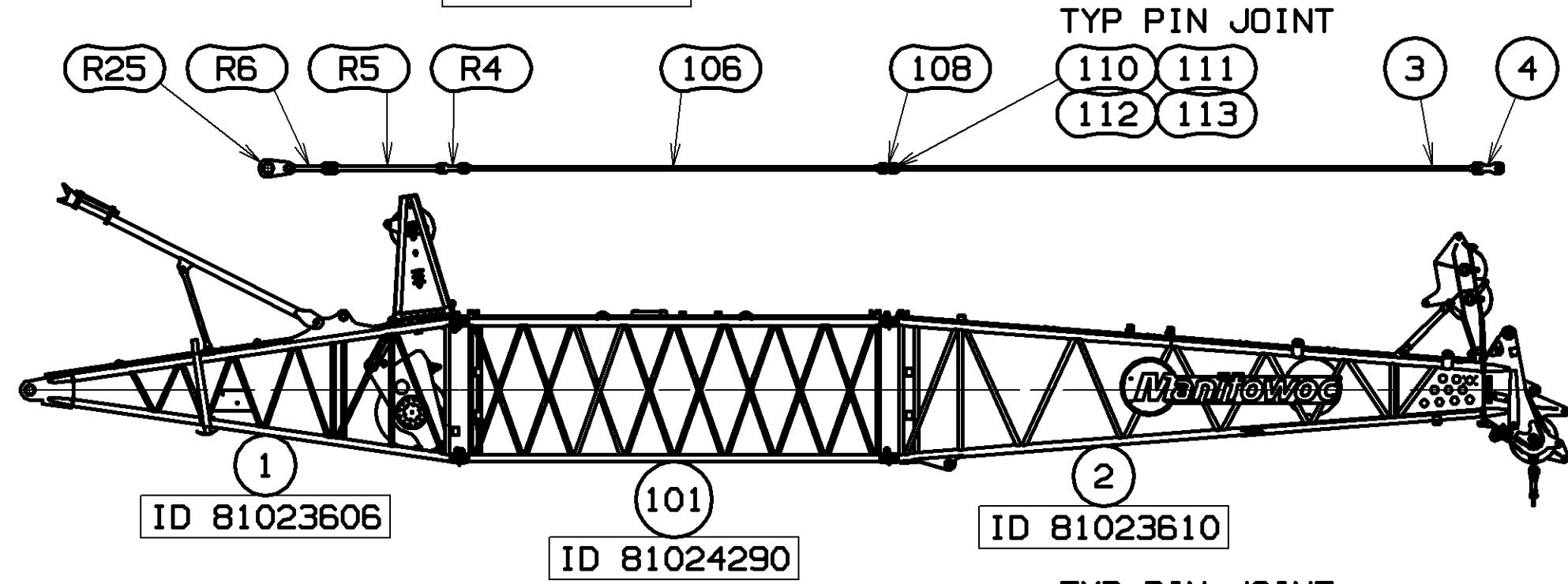
15.0 M BOOM
(49.2 FT)



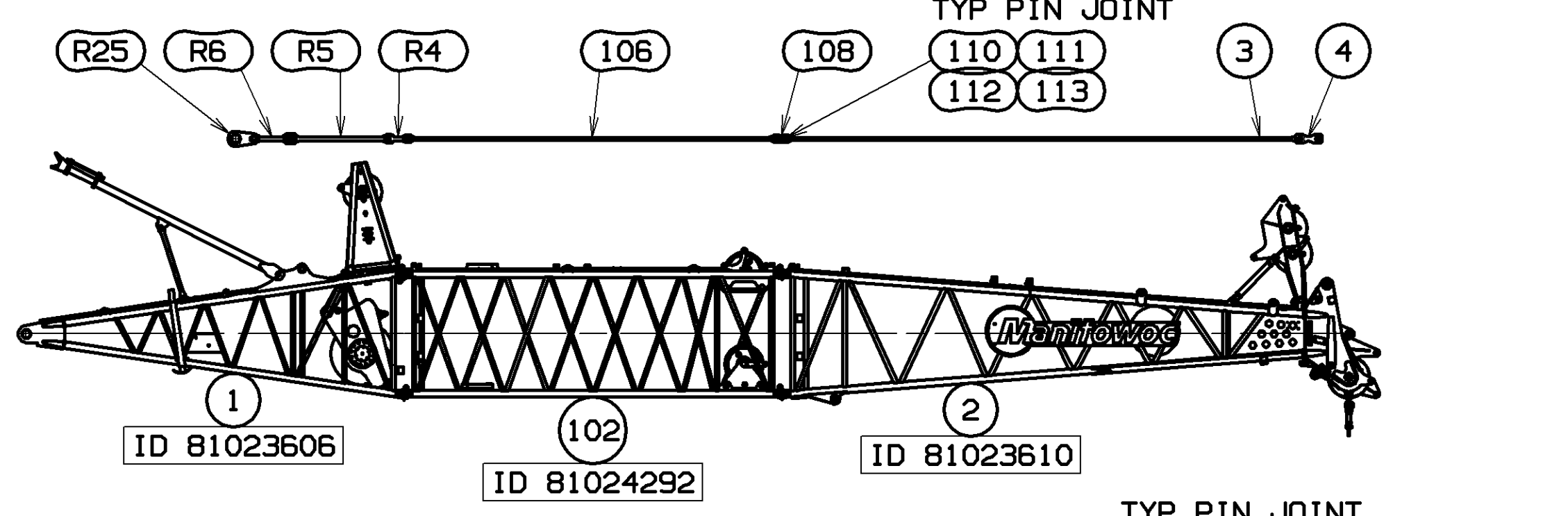
18.0 M BOOM
(59.1 FT)



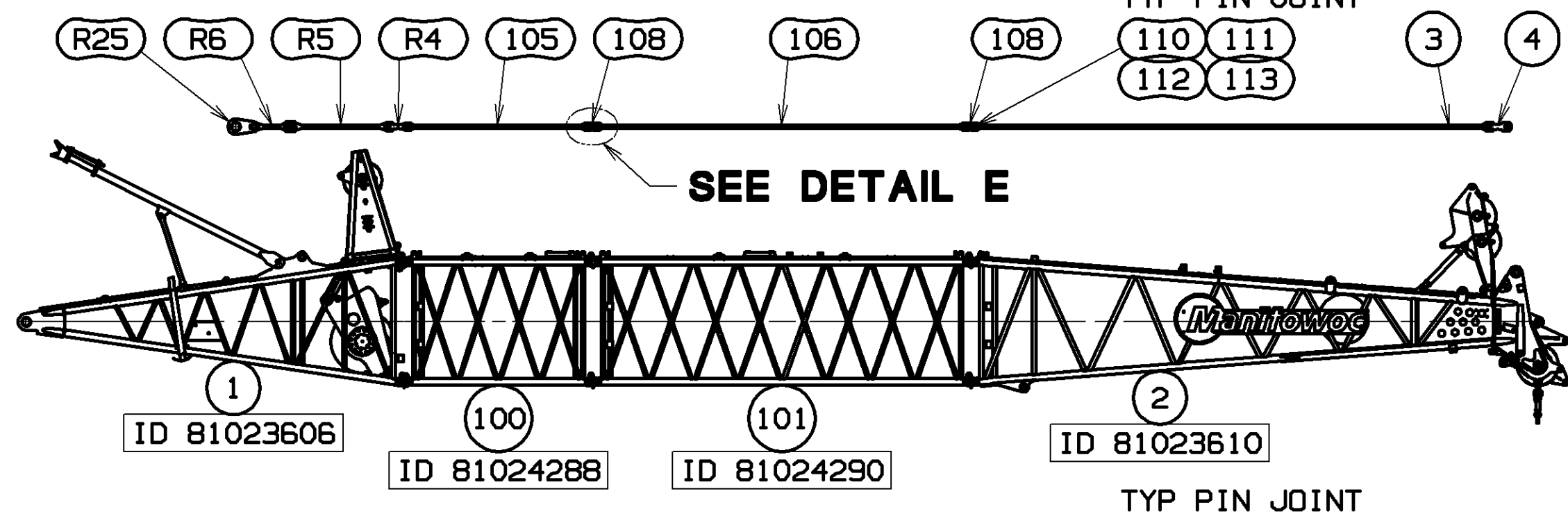
21.0 M BOOM
(68.9 FT)



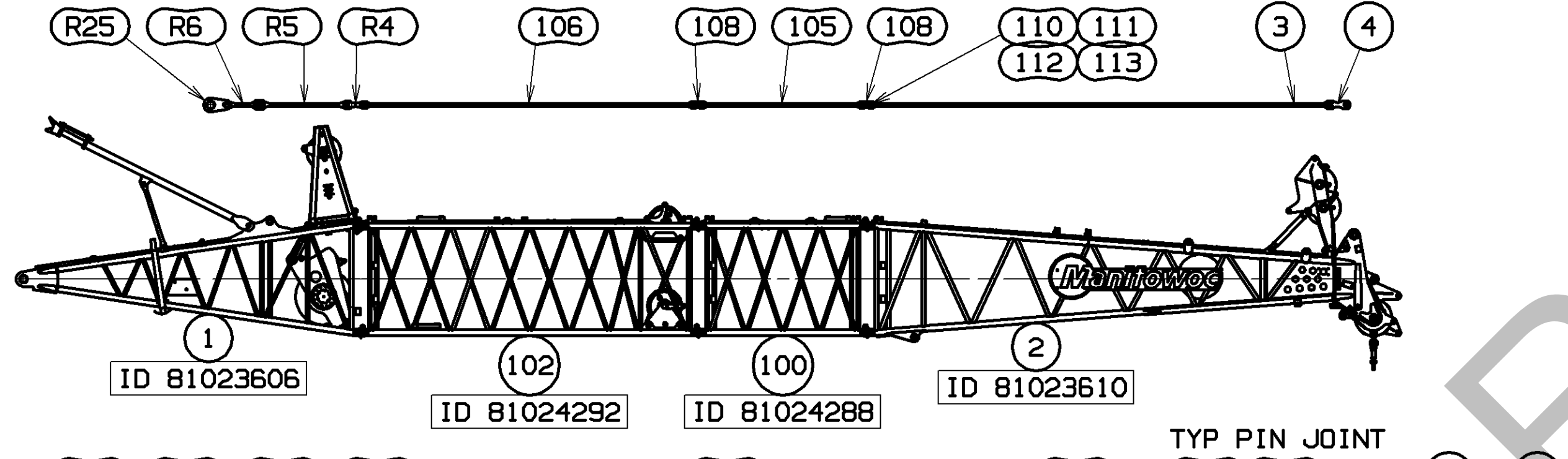
21.0 M BOOM
(68.9 FT)



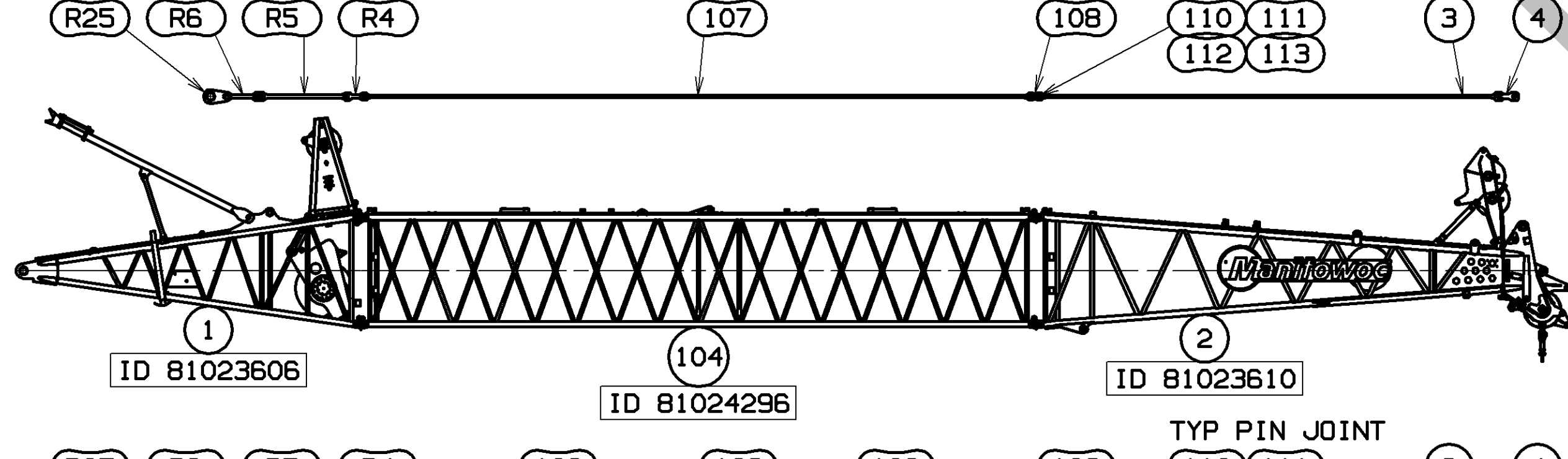
24.0 M BOOM
(78.7 FT)



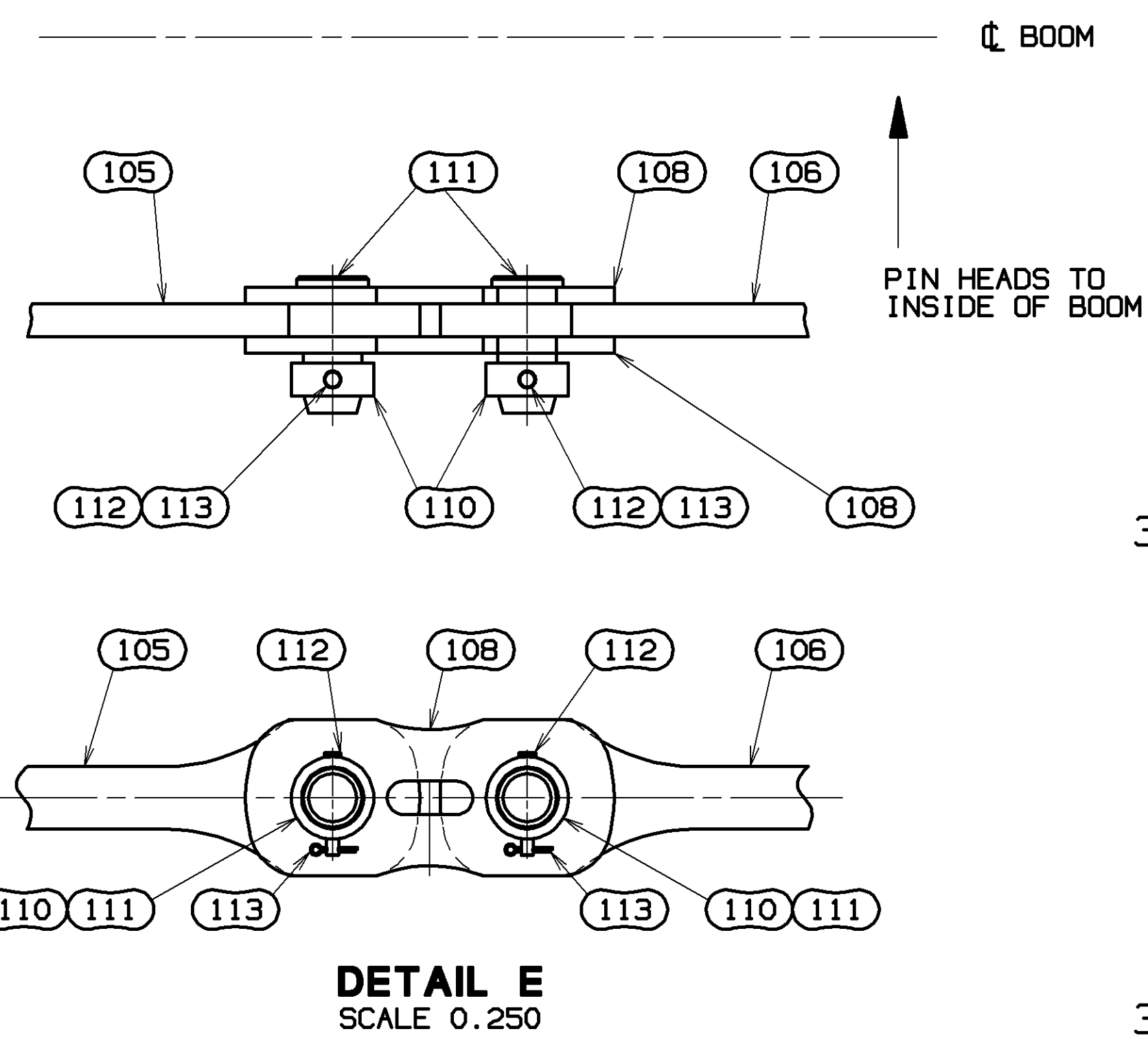
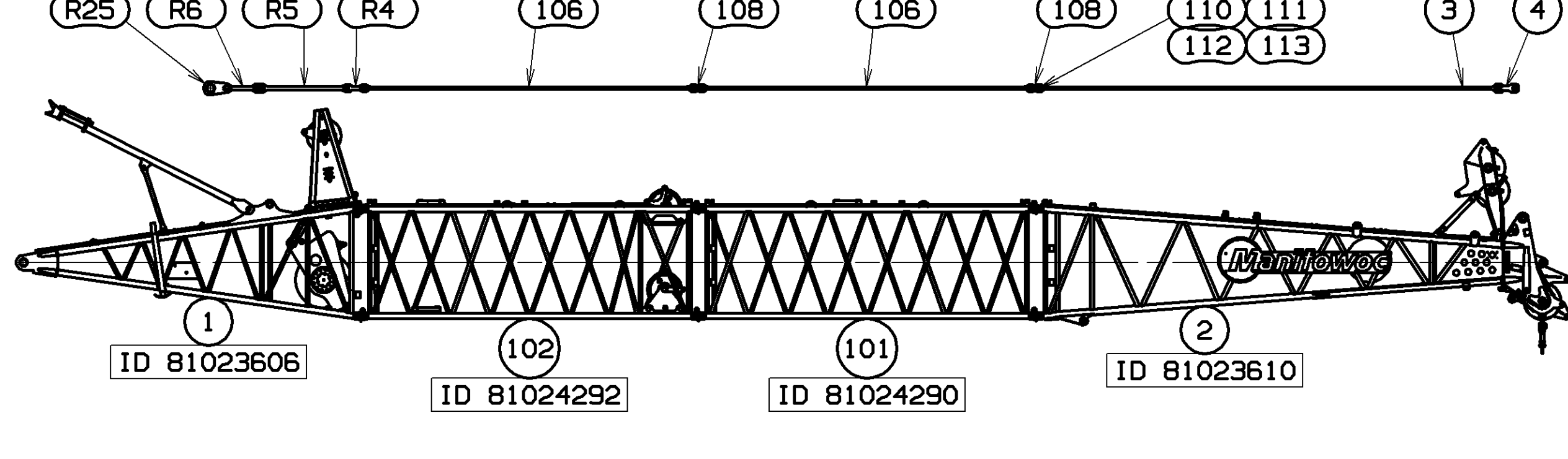
24.0 M BOOM
(78.7 FT)



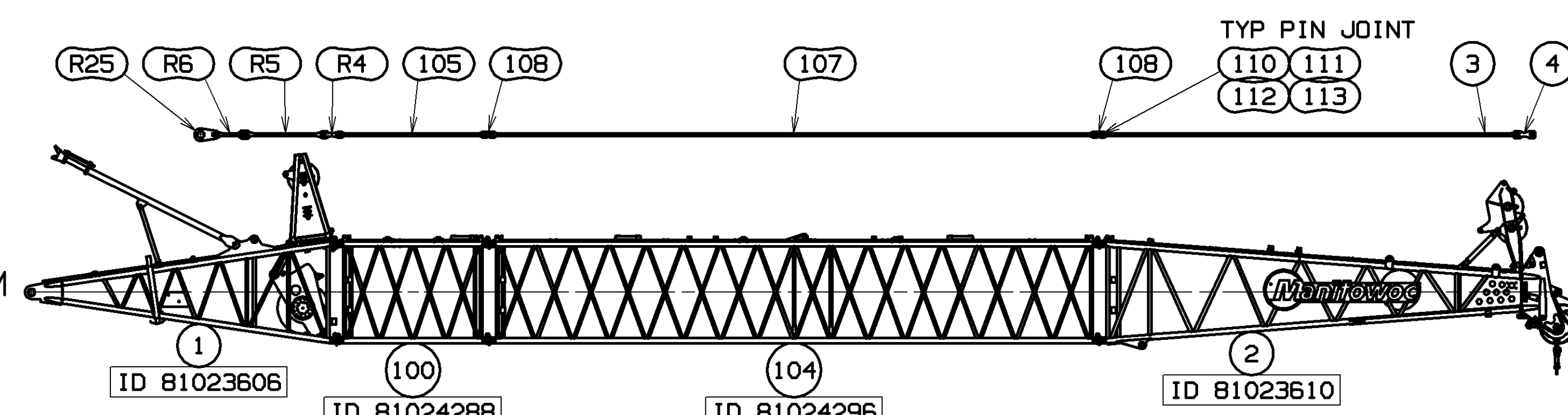
27.0 M BOOM
(88.6 FT)



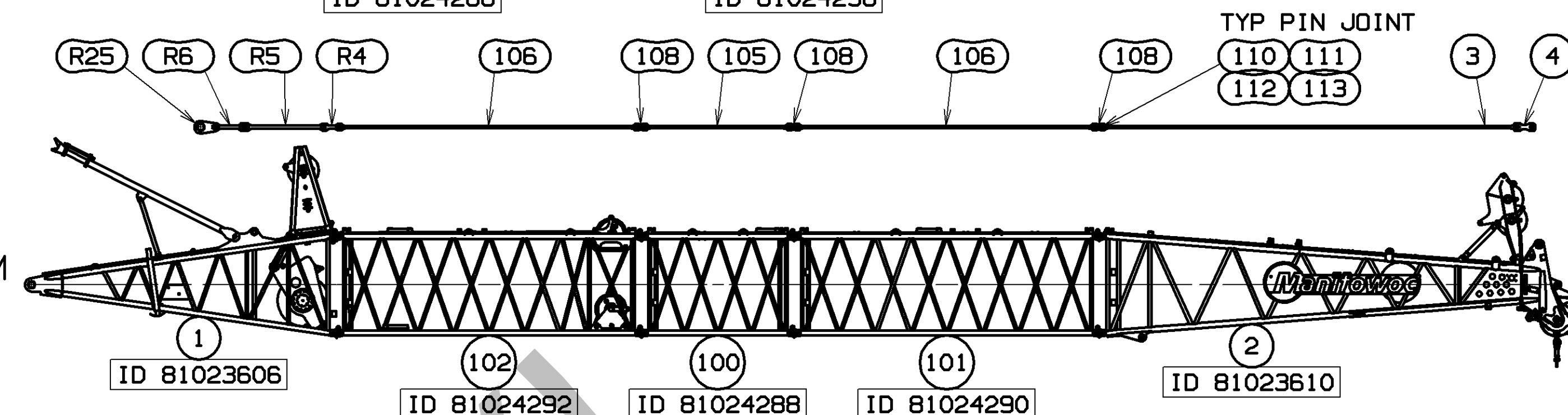
27.0 M BOOM
(88.6 FT)



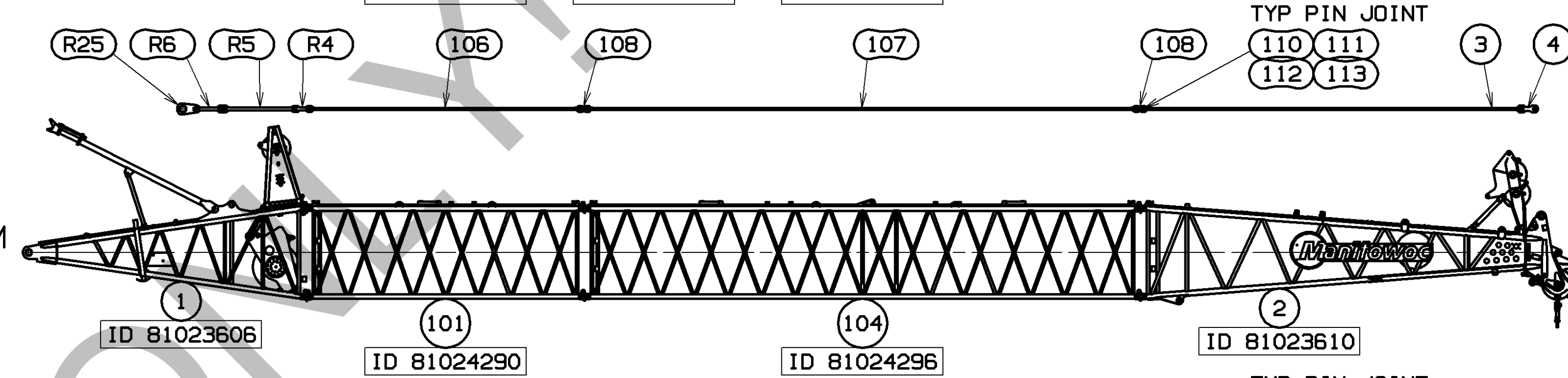
30.0 M BOOM
(98.4 FT)



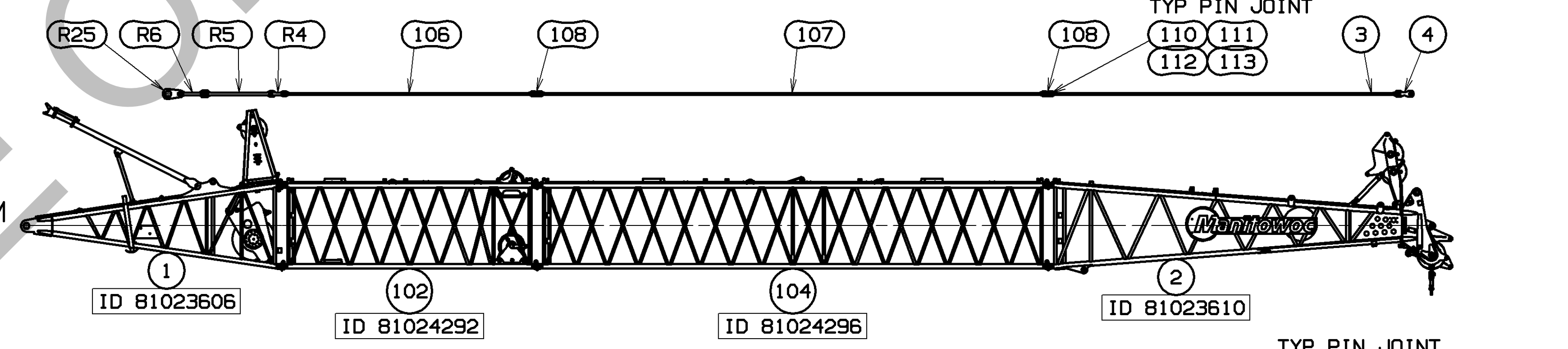
30.0 M BOOM
(98.4 FT)



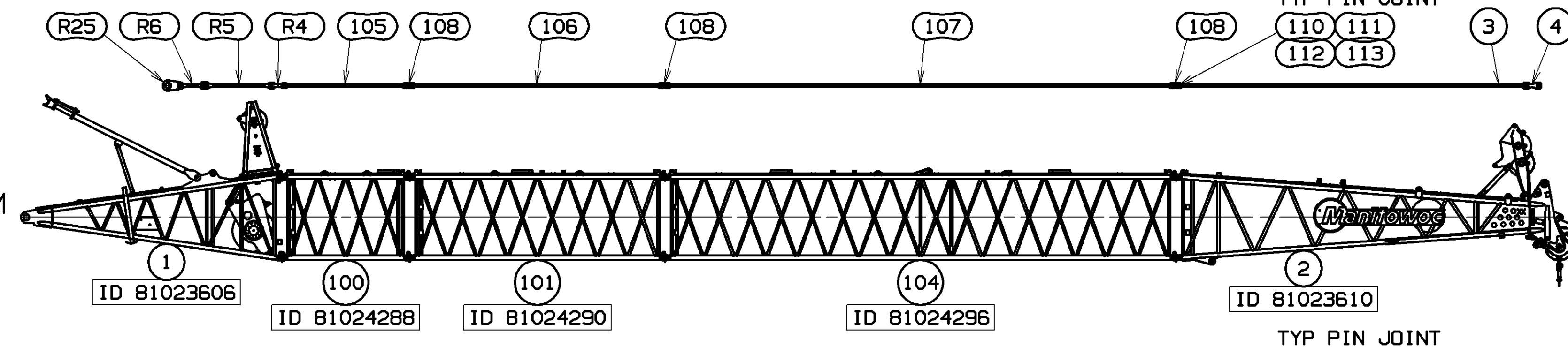
33.0 M BOOM
(108.3 FT)



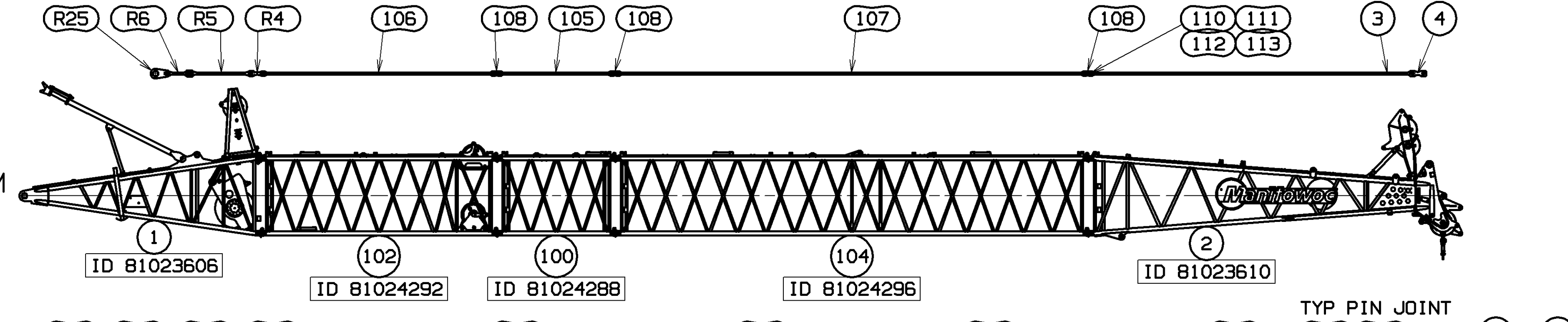
33.0 M BOOM
(108.3 FT)



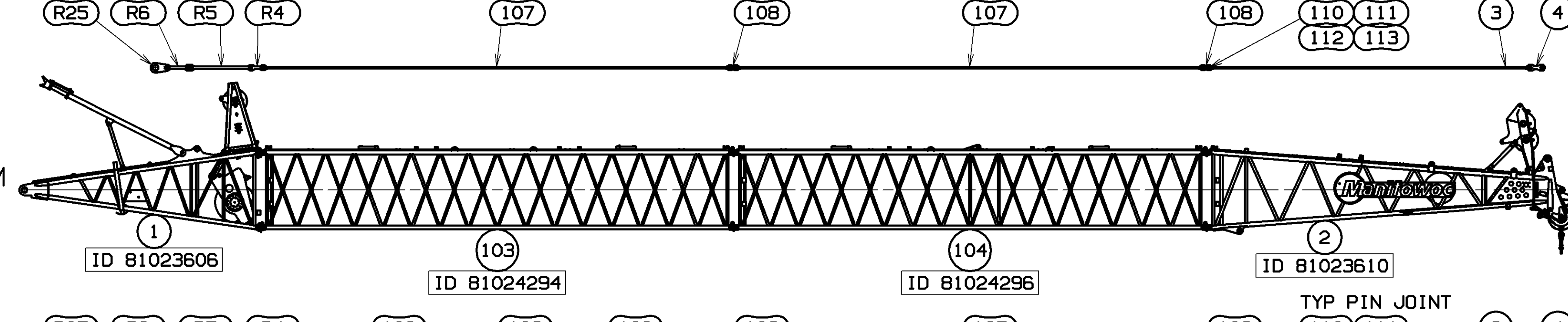
36.0 M BOOM
(118.1 FT)



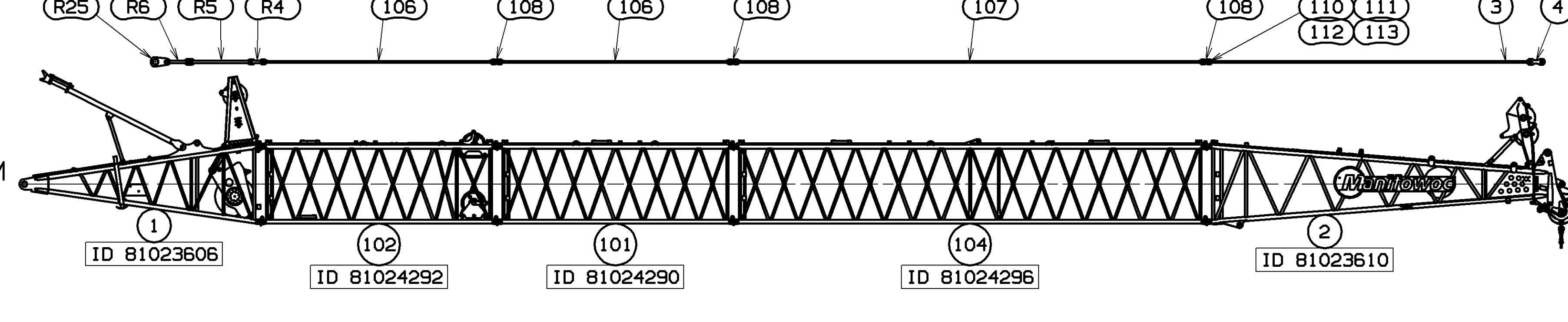
36.0 M BOOM
(118.1 FT)



39.0 M BOOM
(128.0 FT)



39.0 M BOOM
(128.0 FT)



RECOMMENDED BOOM MAKE-UP
 FOR TYP PIN JOINTS SEE DETAILS B, C, D, AND E

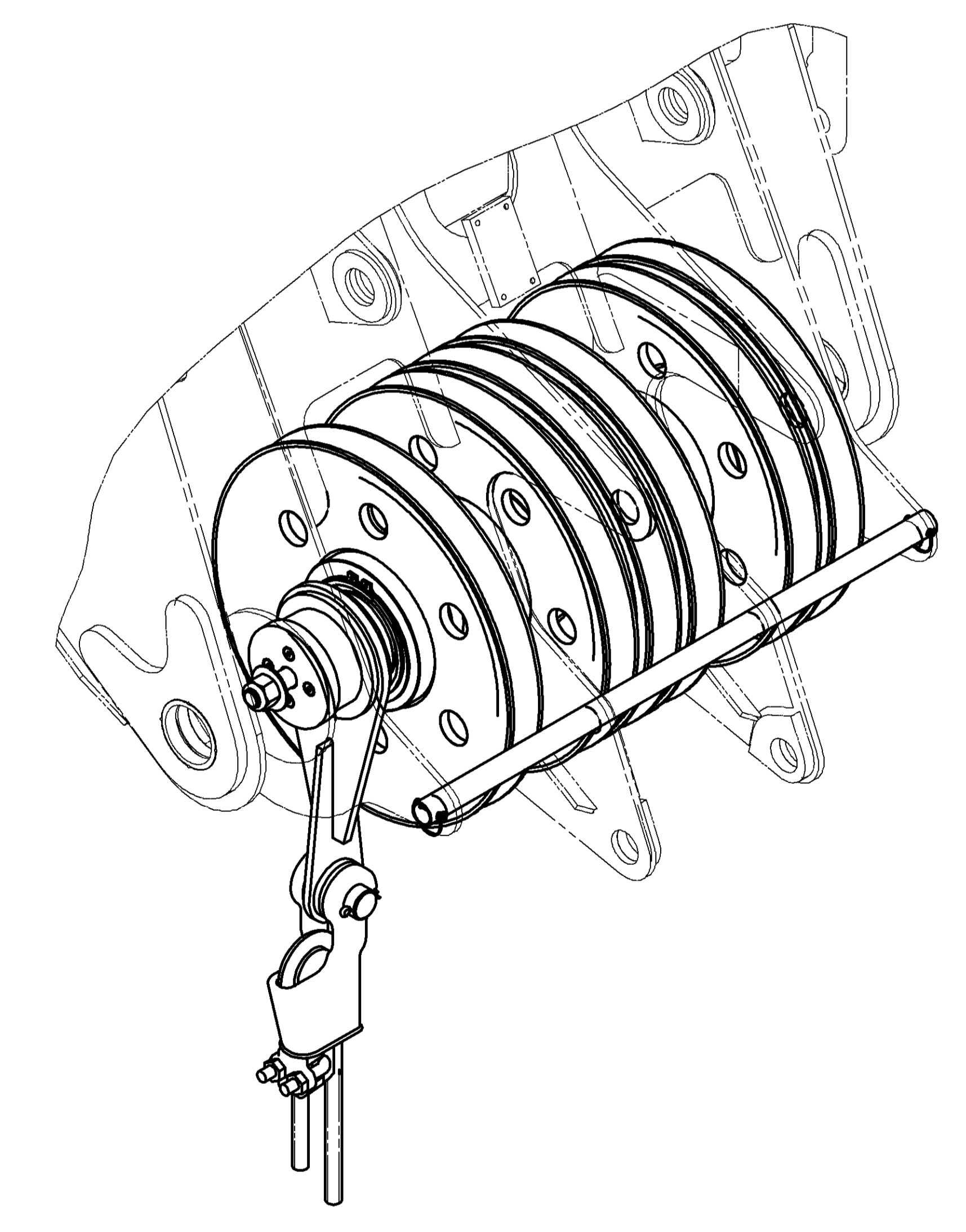
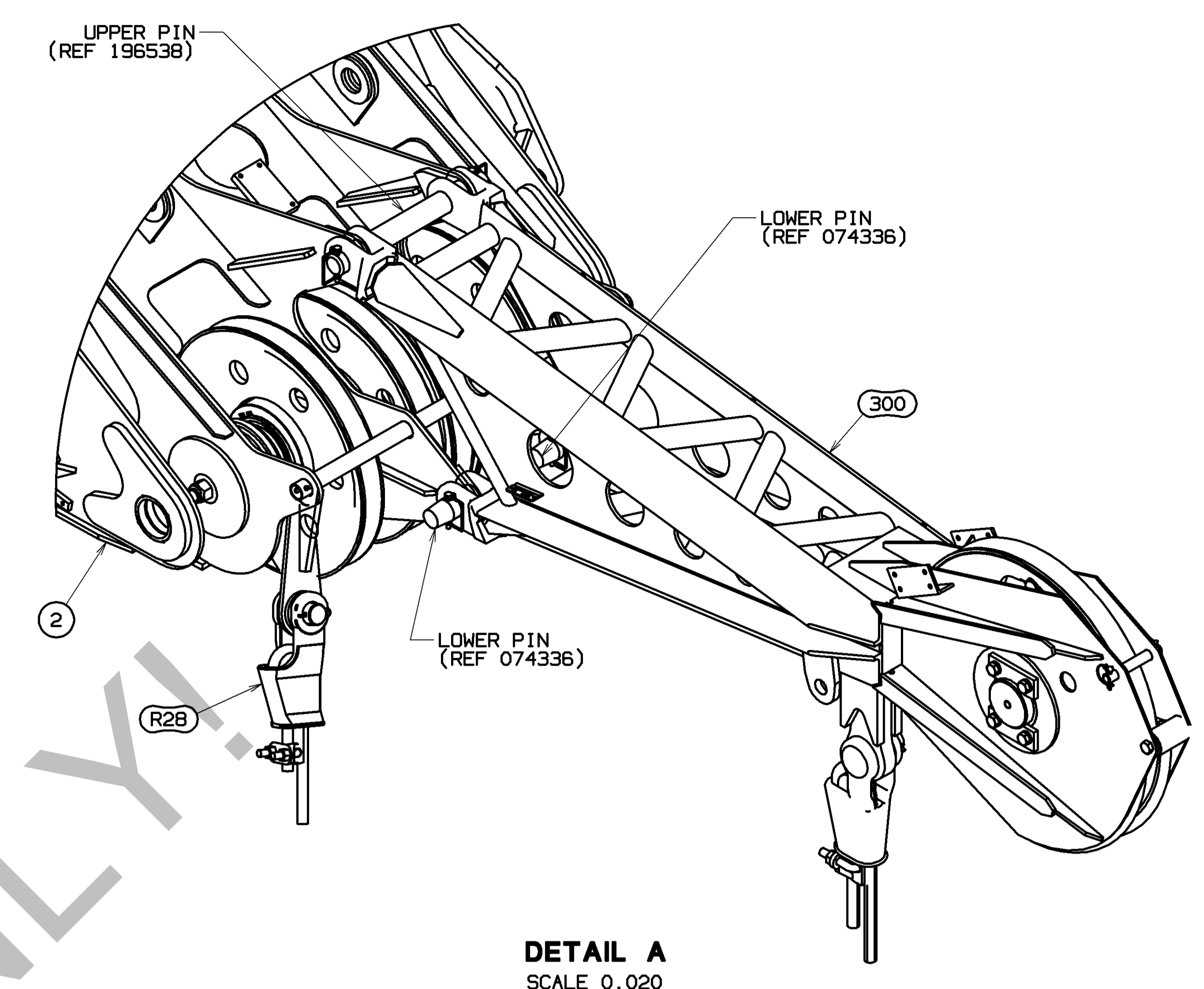
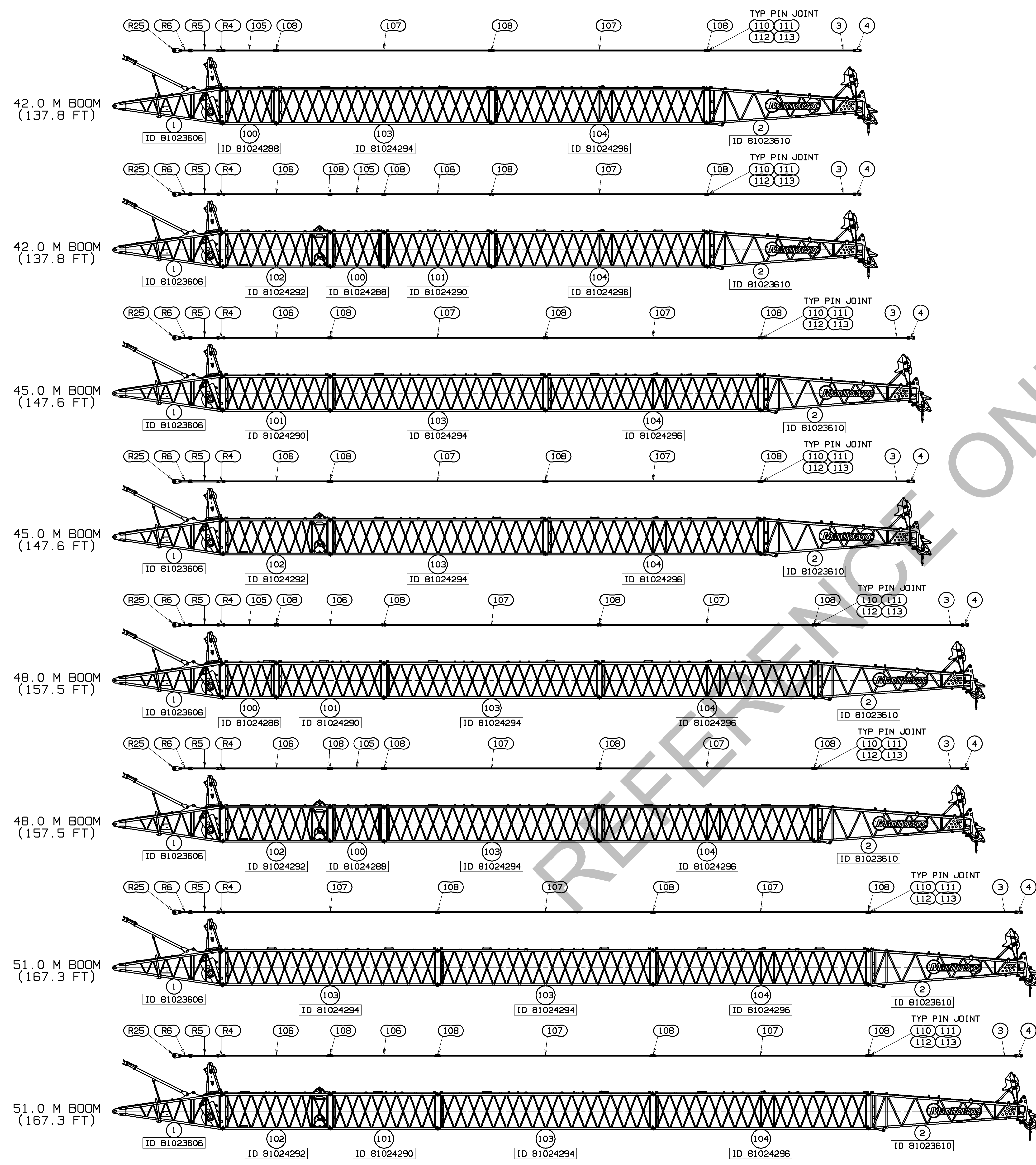
TOLERANCE UNLESS OTHERWISE SPECIFIED		FINISHING		MATERIAL	
DECIMAL PLACES	FRACTIONS	WELDING	DR. AUB	MANITOWOC	BOOM RIGGING
(1) PLACE 0.5	1/16	TO BE	OK. RHW	MODEL MLC165-1	B10:74A
(2) PLACE 0.00	1/32	BY THE	APP. RMM		
(3) PLACE 0.000	1/64	WORKING			
ANGLES	1/32"	DR. AUB			

81023602
 SHT 3 OF 9

PRIVATE LABELING
 REQUIREMENT TO
 CONFORM TO
 ENGINEERING
 SPECIFICATION
 8629103794 FOR
 COMPONENTS LISTED
 IN 81023602-05-026

DATE
 10-22-15
 REF. LIT.
 B

81023602
 SHT 3 OF 9



81023602
SHT 4 OF 9

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 8625103794 FOR COMPONENTS LISTED IN SECTION 05-036

DATE 10-22-15

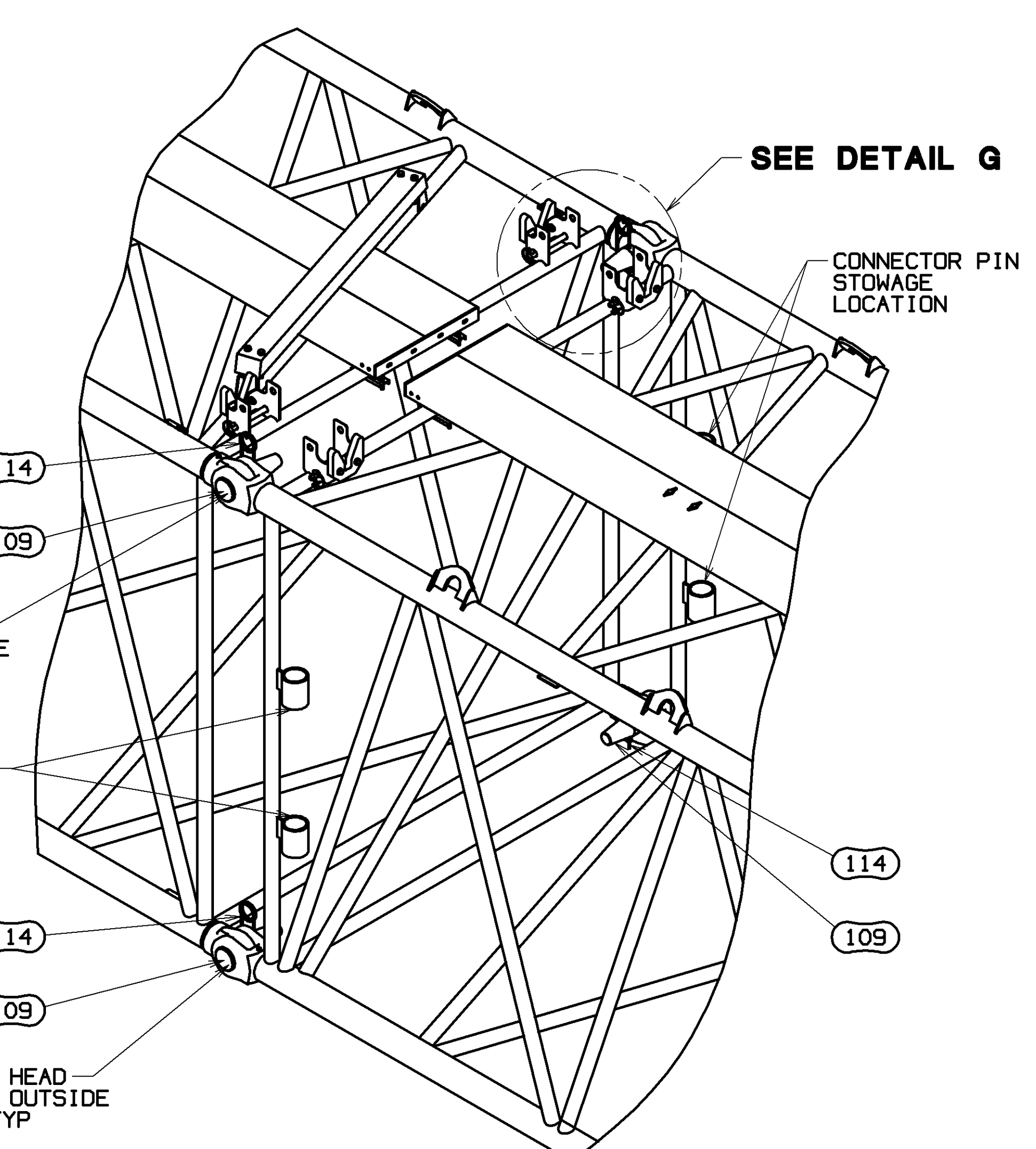
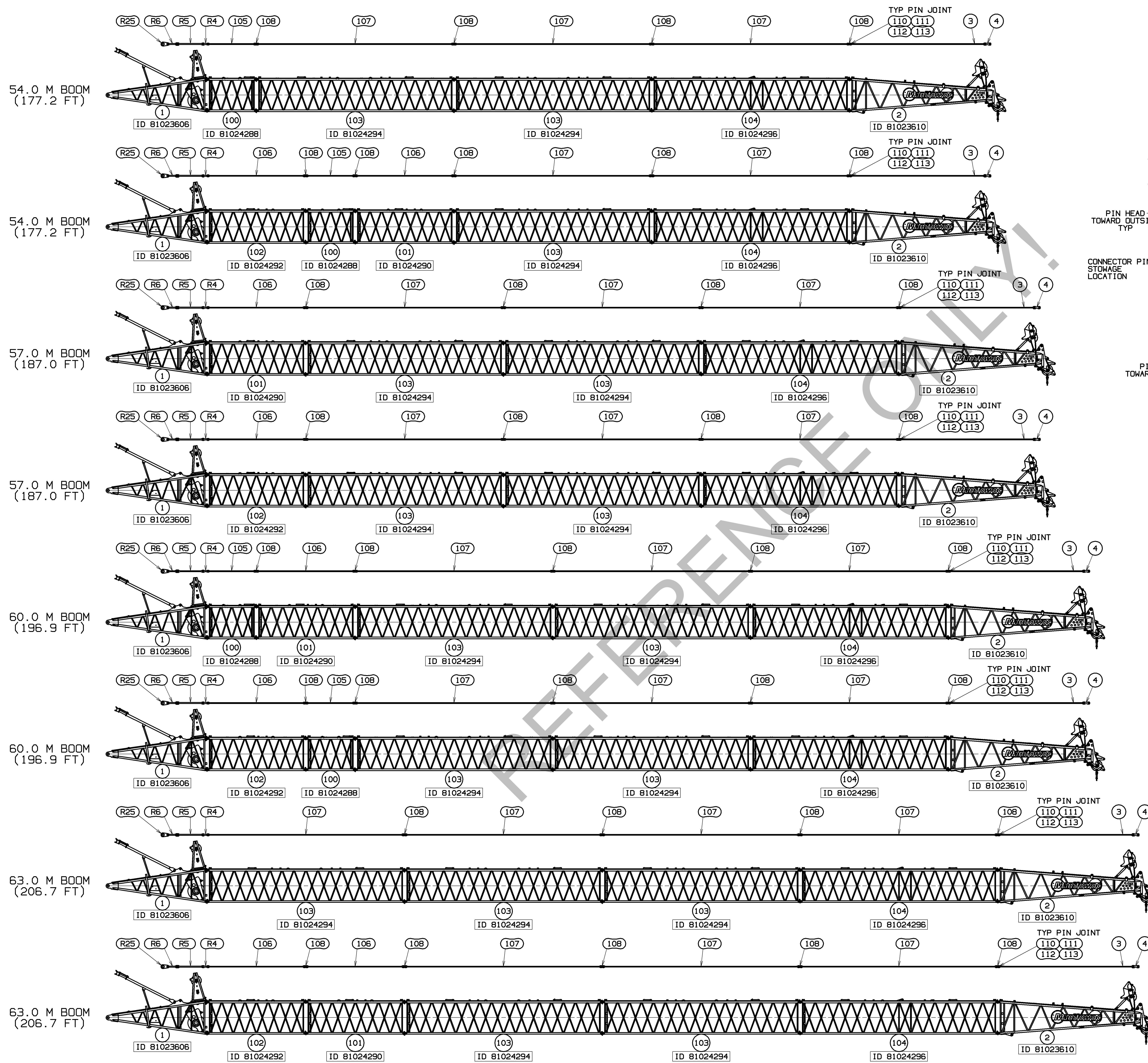
REF. LIT. B

81023602
SHT 4 OF 9

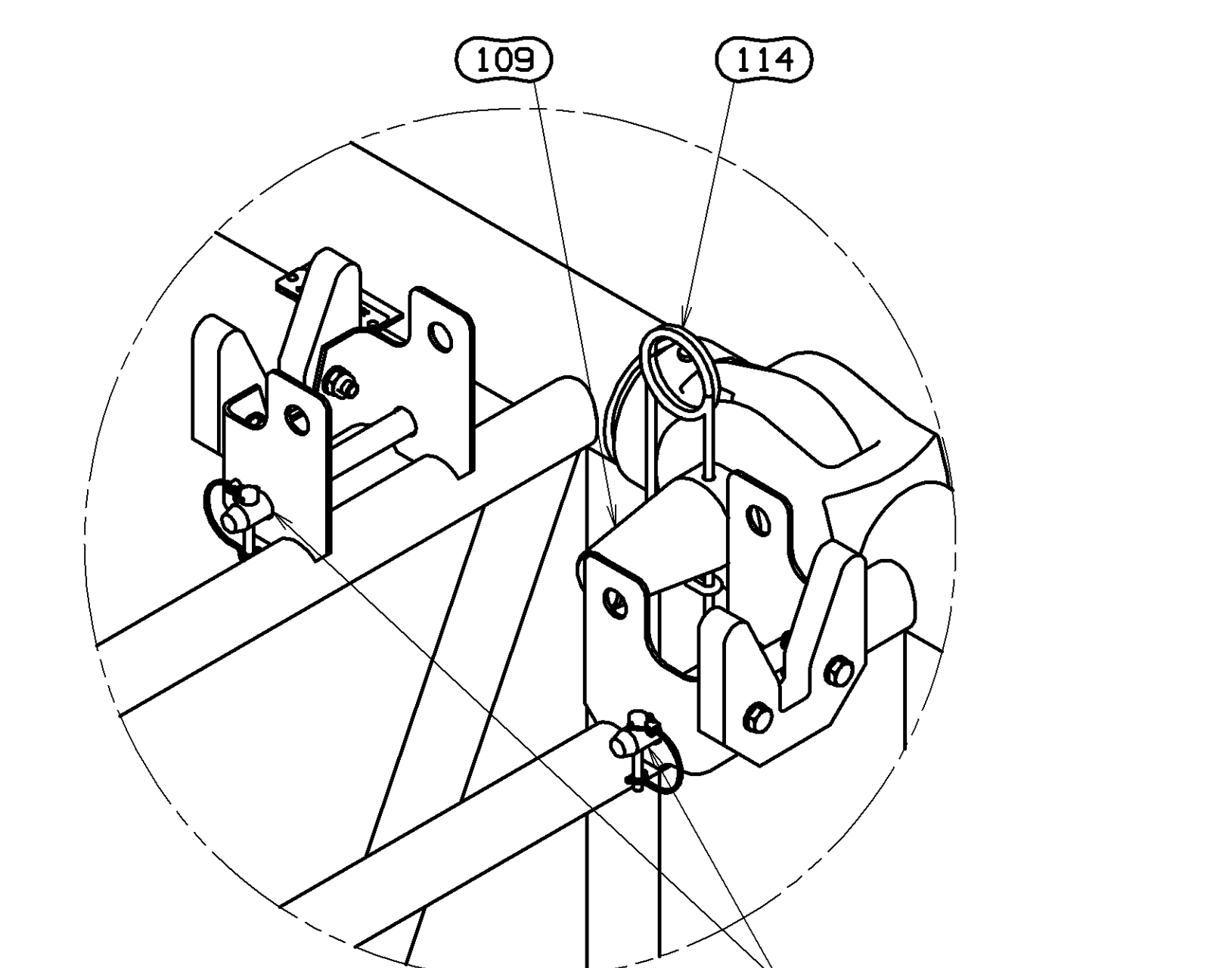
TOLERANCE UNLESS OTHERWISE SPECIFIED		MACHINING		MATERIAL	
DECIMAL PLACES	FABRICATION	FINISH	OPERATION	DESCRIPTION	ITEM
±.12	±.18	±.015	±.015	STEEL	81023602
±.00	±.08	±.015	±.015	ALUMINUM	81023602
±.000	±.005	±.005	±.005	ALUMINUM	81023602
ANGLES	±.5°	±.030°	±.030°	ALUMINUM	81023602

DR. AJB	MANITOWOC, WISCONSIN	BOOM RIGGING
CHK. RHM	MODEL MLC165-1	B10:74A
APP. RMM		

BILL OF MATERIAL		ASSEMBLIES USED ON
QTY	DESCRIPTION	MATERIAL



DETAIL F
TYPICAL BOOM JOINT PIN
(FROM SHEET 1)
SCALE 0.075



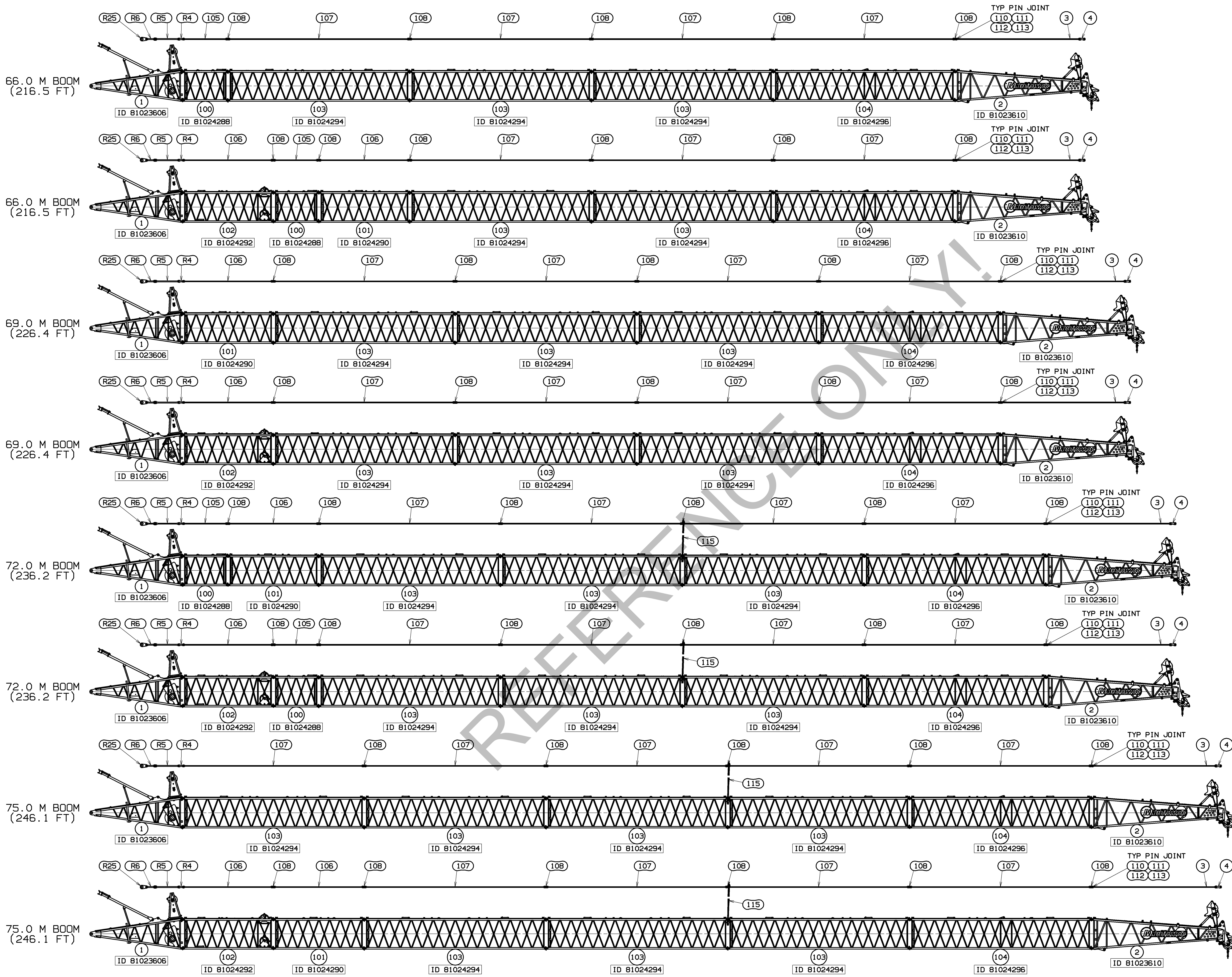
DETAIL G
SCALE 0.075

RECOMMENDED BOOM MAKE-UP
FOR TYP PIN JOINTS SEE DETAILS B, C, D, AND E

TOLERANCE UNLESS OTHERWISE SPECIFIED		FINISH	DATE	BY	CHK	APP	COMP	PROJECT	REV
DECIMAL PLACES	FRACTIONS	FABRICATION	10-22-15	AJB	RHV	RMM	Mantowoc Cranes, Inc.	BOOM RIGGING	B
(1) PLACE 0.5	±.12	±.18							
(2) PLACE 0.00	±.06	±.12							
(3) PLACE 0.000	±.006	±.012							
ANGLES	±1.30°	±0.90°							

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SHT 5 OF 9

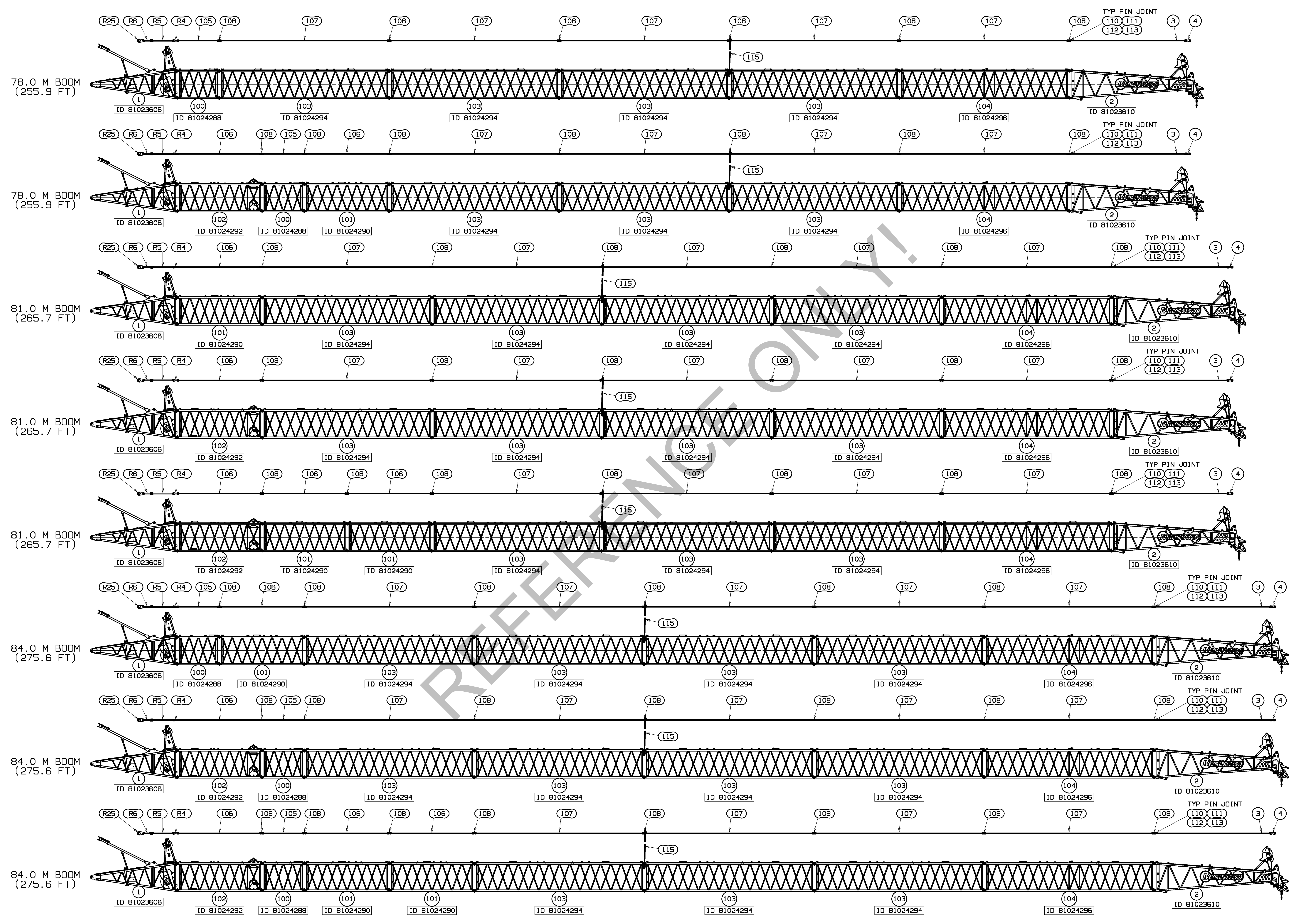
PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN SECTION 05-1056
DATE
10-22-15
REF. LIT.
B



RECOMMENDED BOOM MAKE-UP
FOR TYP PIN JOINTS SEE DETAILS B, C, D, AND E

TOLERANCE UNLESS OTHERWISE SPECIFIED		FINISH		MATERIAL		DATE	
DECIMAL PLACES	FABRICATION	F. ID FEET	I.D. FEET	DR. AUB	DATE	REV. LIT.	REF. LIT.
(1) PLACE 0.5	±.12	±.12	±.18	DR. AUB	10-22-15	B	
(2) PLACE 0.00	±.08	±.12	±.015	DR. RHM			
(3) PLACE 0.000	±.008	±.008	±.008	APP. RMM			

81023602	BOOM RIGGING	81023602
SHT 6 OF 9	B10:74A	SHT 6 OF 9

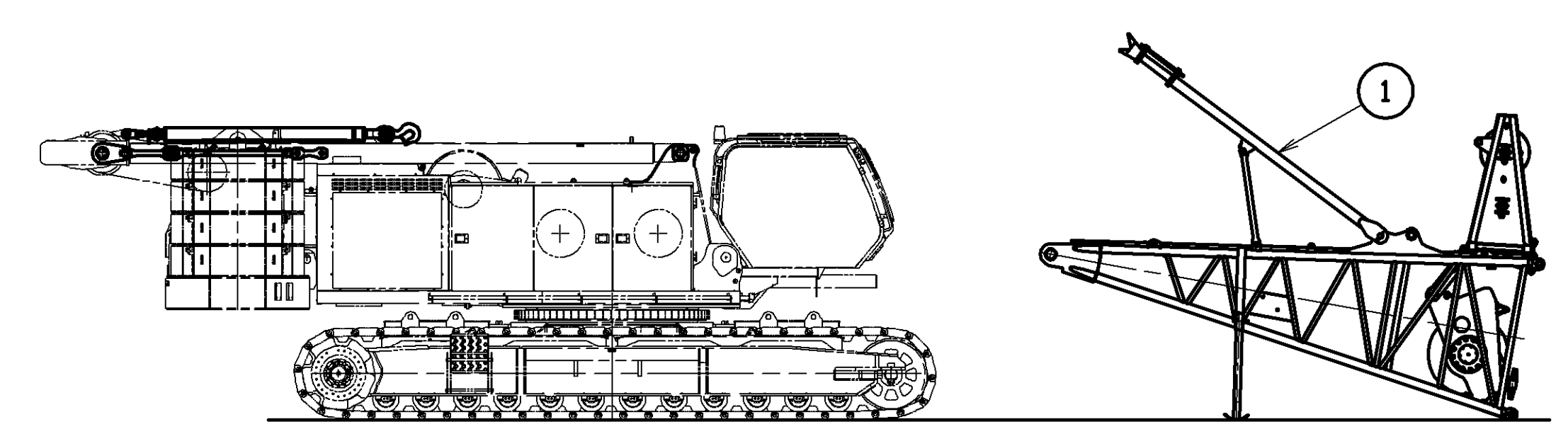


RECOMMENDED BOOM MAKE-UP
 FOR TYP PIN JOINTS SEE DETAILS B, C, D, AND E

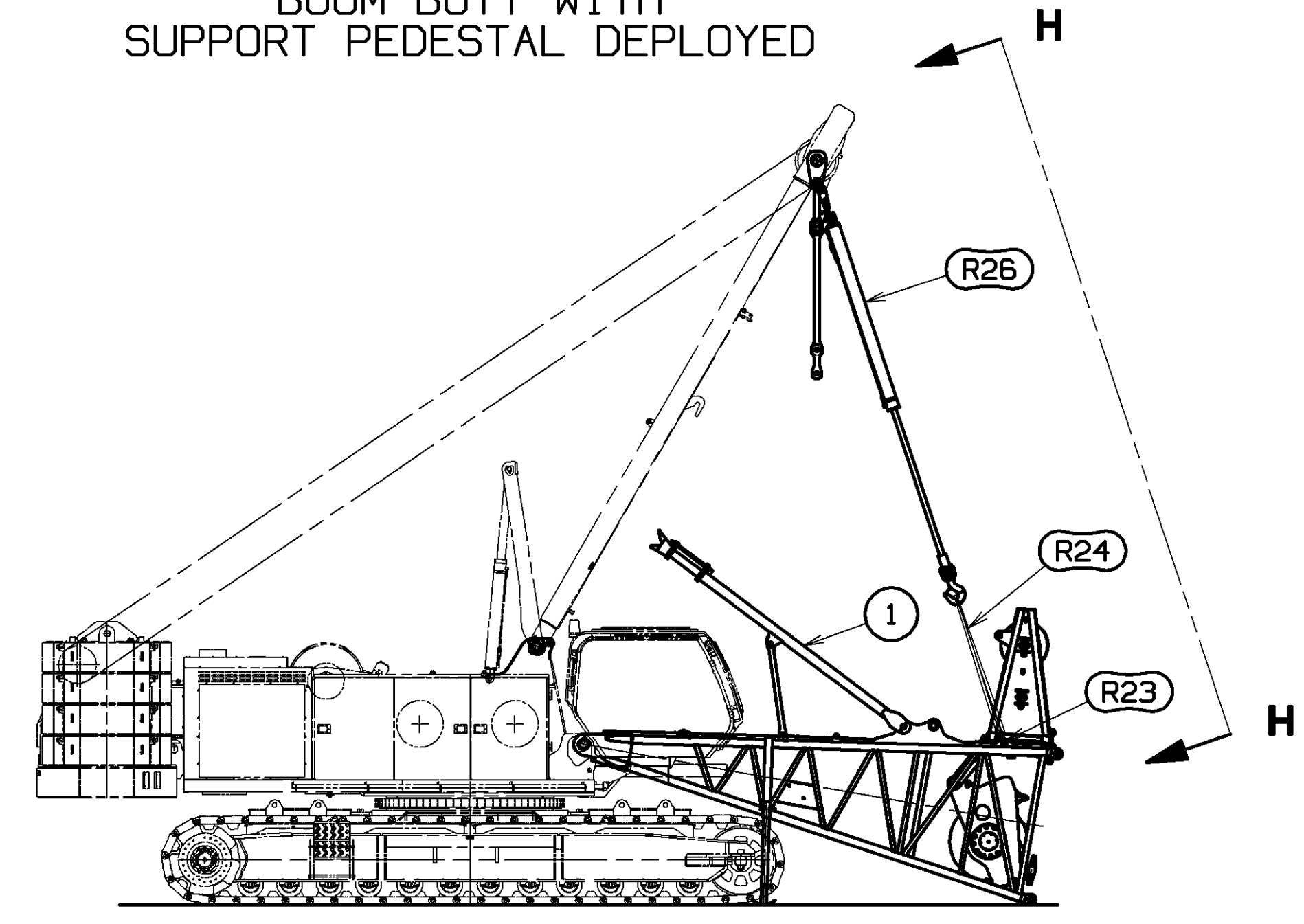
TOLERANCE UNLESS OTHERWISE SPECIFIED		FABRICATION		MACHINING		MATERIAL	
DECIMAL PLACES	FRACTIONS	F. 10 FEET >	F. 10 FEET <	F. 10 FEET >	F. 10 FEET <	GRADE	MANUFACTURER
(1) PLACE 0.5	±.12	±.18	±.03	±.12	±.015	A-36	Manitowoc, Wisconsin
(2) PLACE 0.00	±.06	±.12	±.015	±.06	±.008	A-36	Manitowoc, Wisconsin
(3) PLACE 0.000	±.003	±.006	±.000	±.003	±.000	A-36	Manitowoc, Wisconsin

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 SHT 7 OF 9

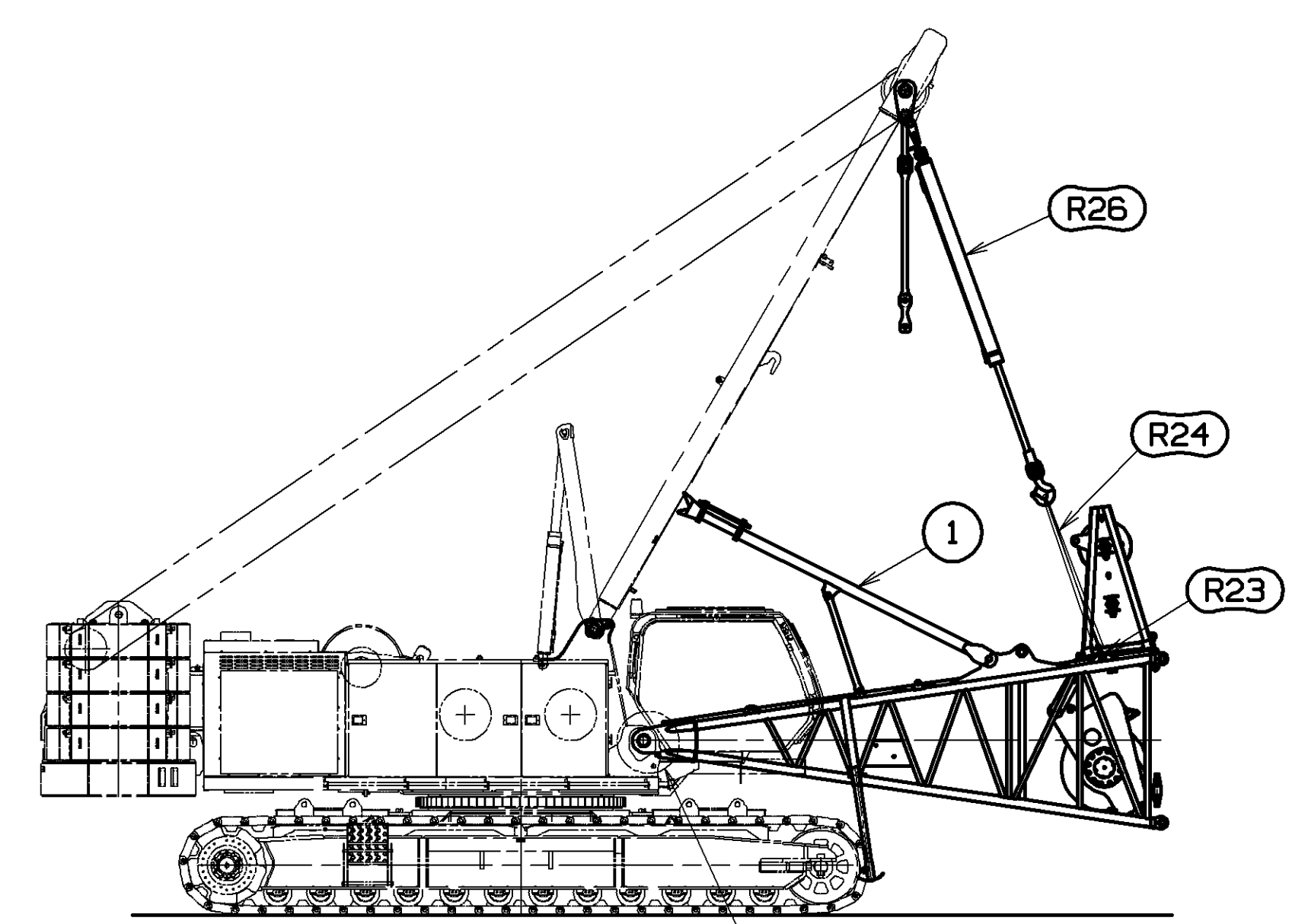
PRIVATE LABELING
 REQUIREMENT TO
 CONFORM TO
 ENGINEERING
 SPECIFICATION
 8629103794 FOR
 COMPONENTS LISTED
 IN SECTION 05-1056
 DATE
 10-22-15
 REF. LIT.
 B
 81023602
 SHT 7 OF 9



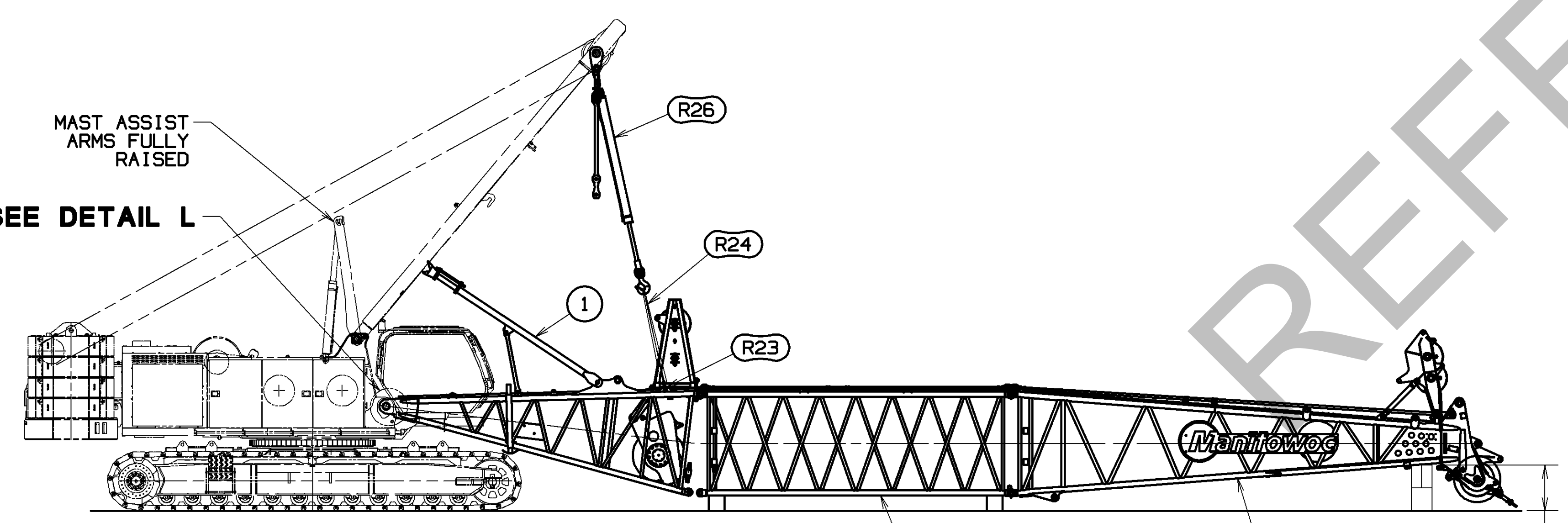
STEP 1
BOOM BUTT WITH SUPPORT PEDESTAL DEPLOYED



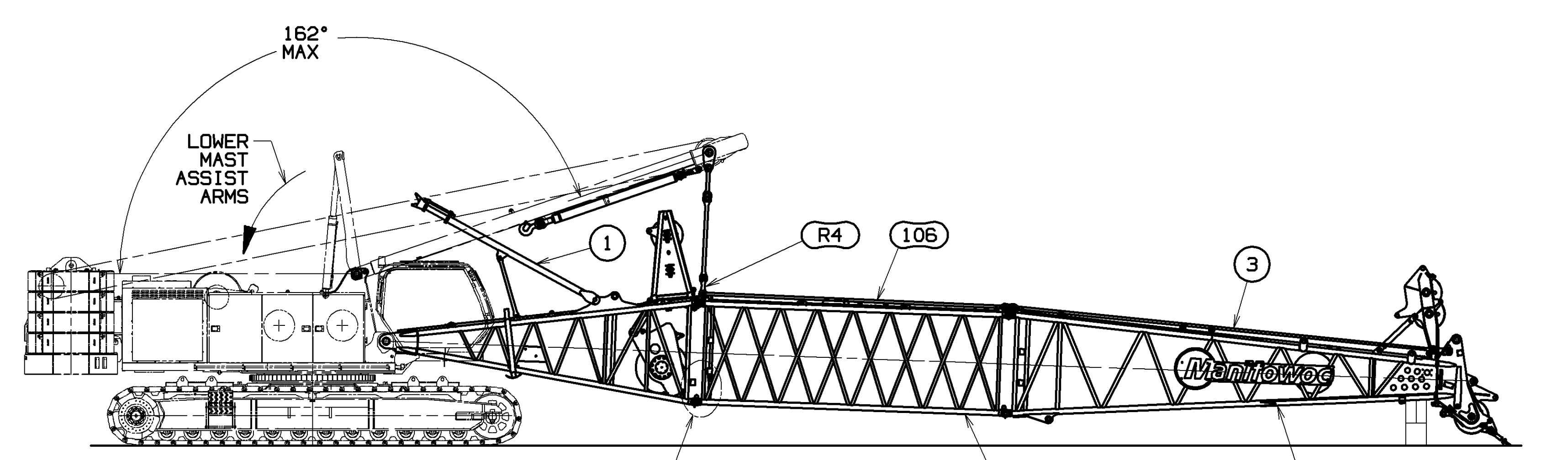
STEP 2
BOOM BUTT HINGE ALIGNMENT



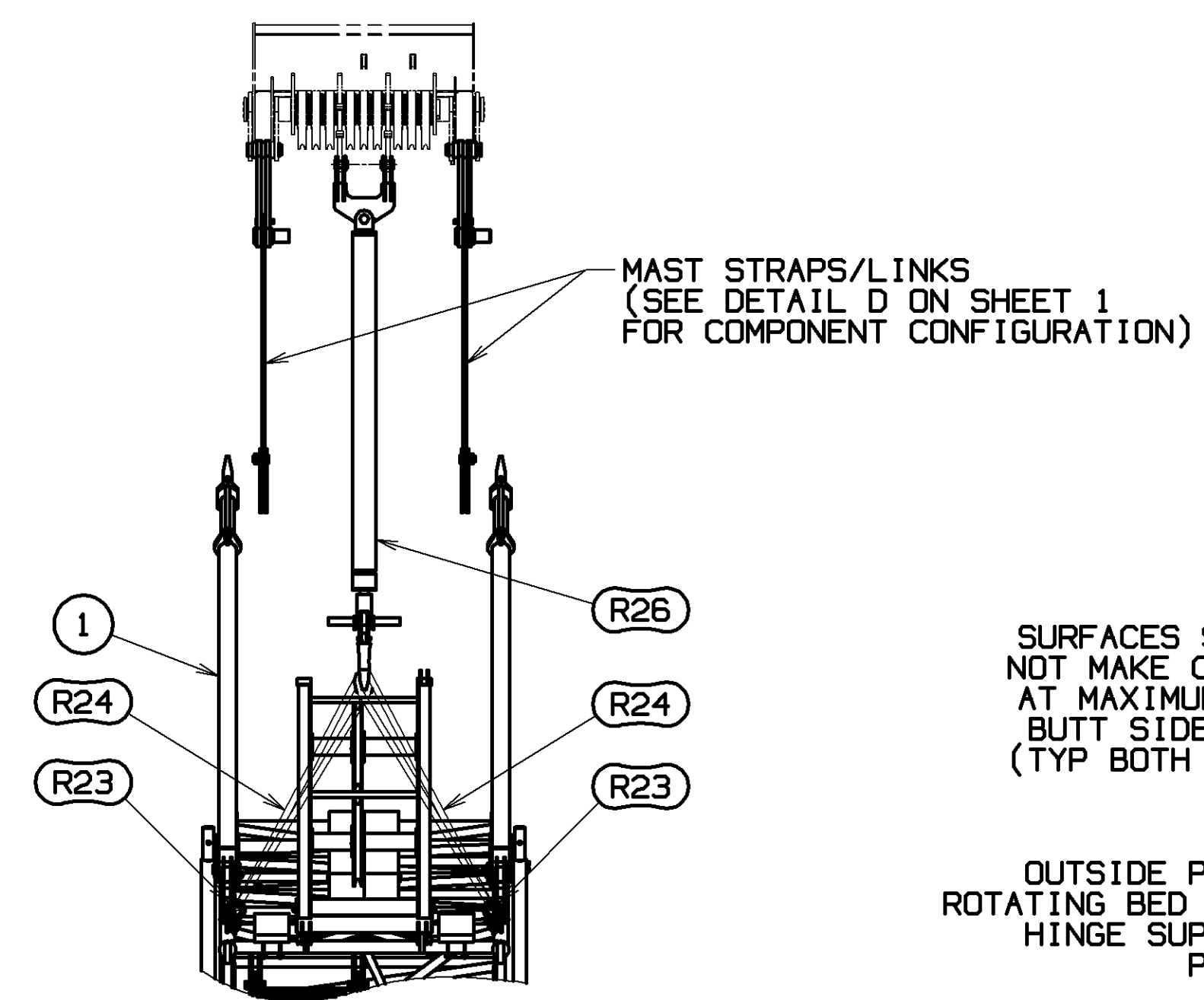
STEP 3
BOOM BUTT HINGE PIN INSTALLATION



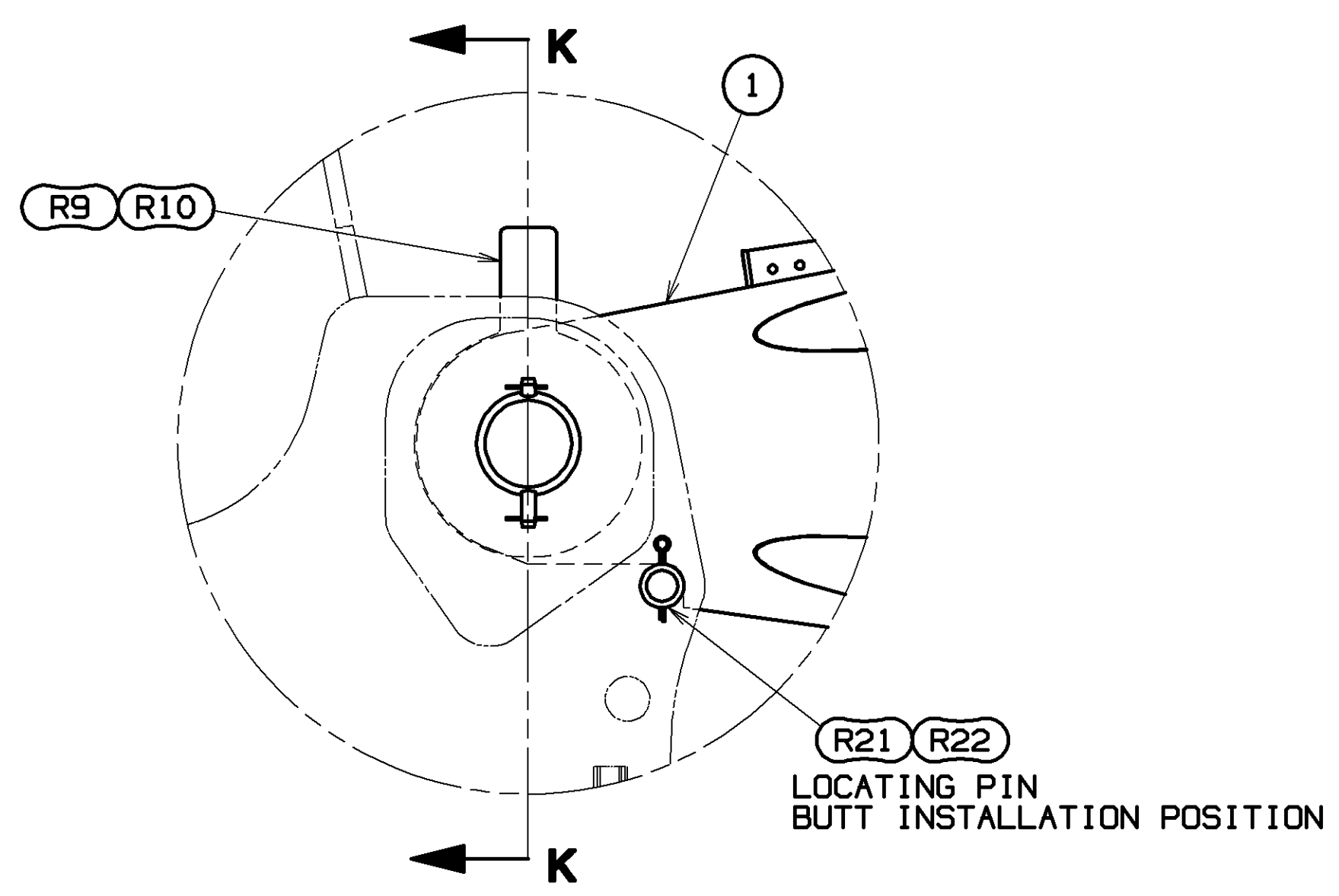
STEP 4
BOOM CLOSING



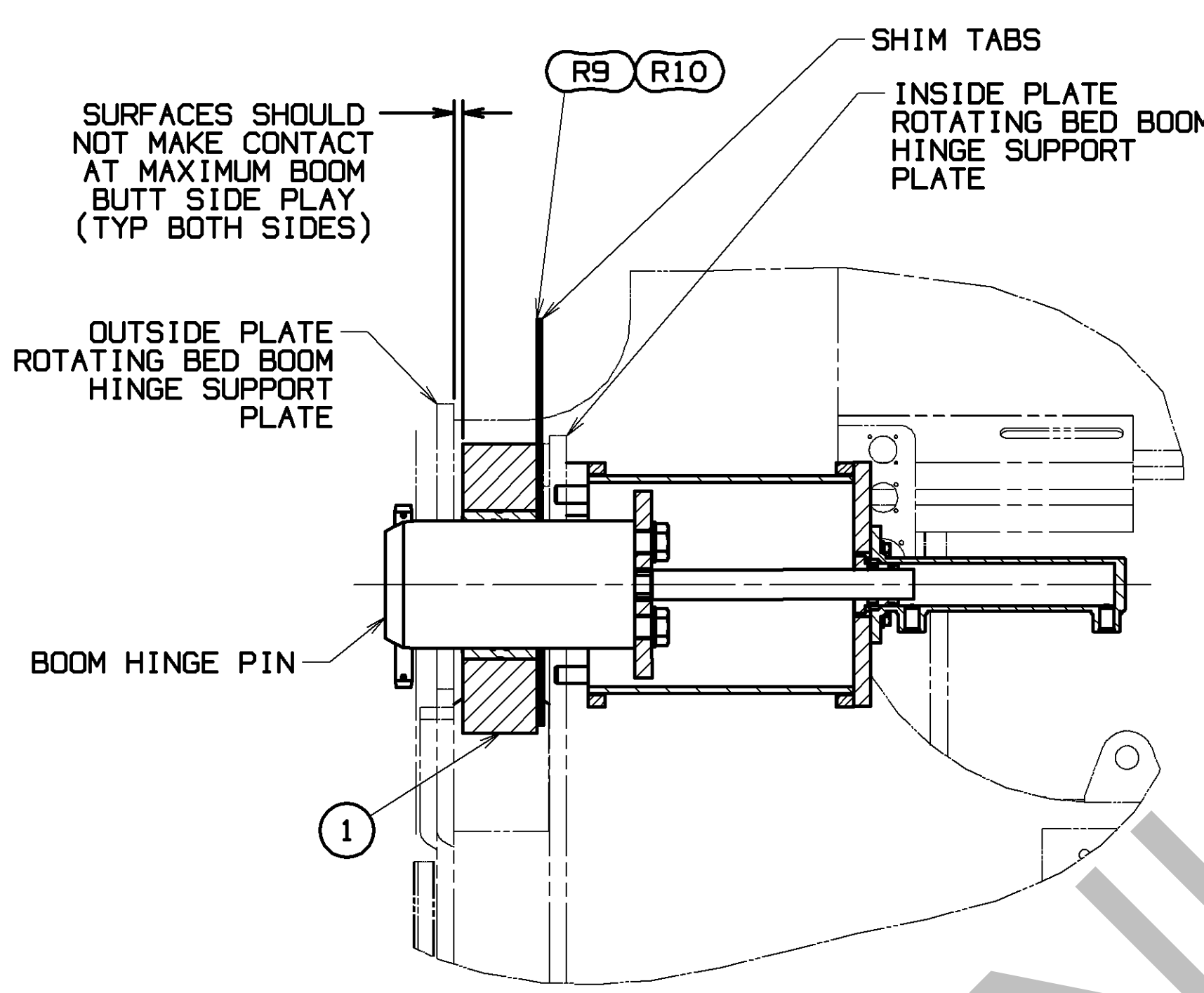
STEP 5
STRAP HOOK UP



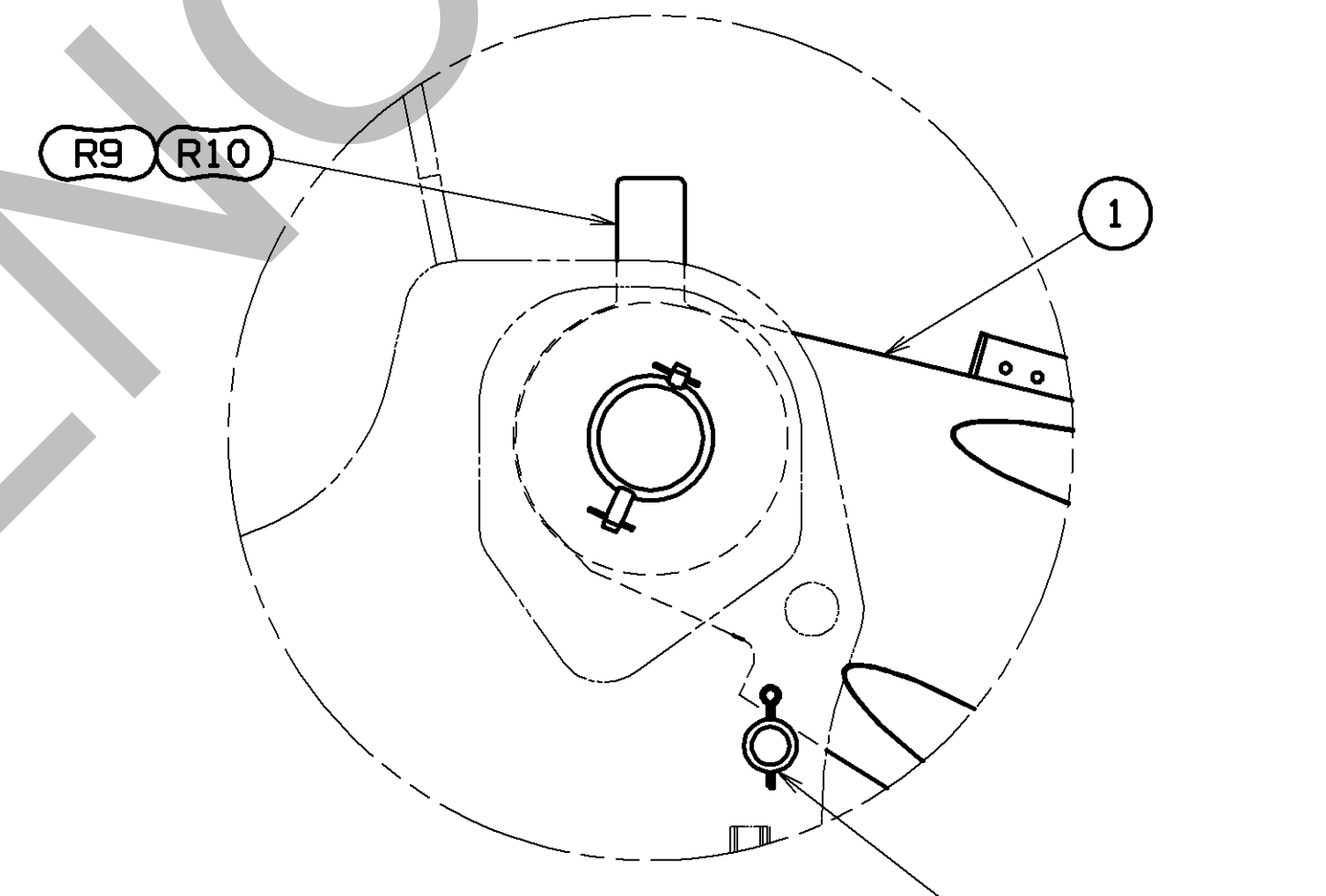
VIEW H-H
SCALE 0.025



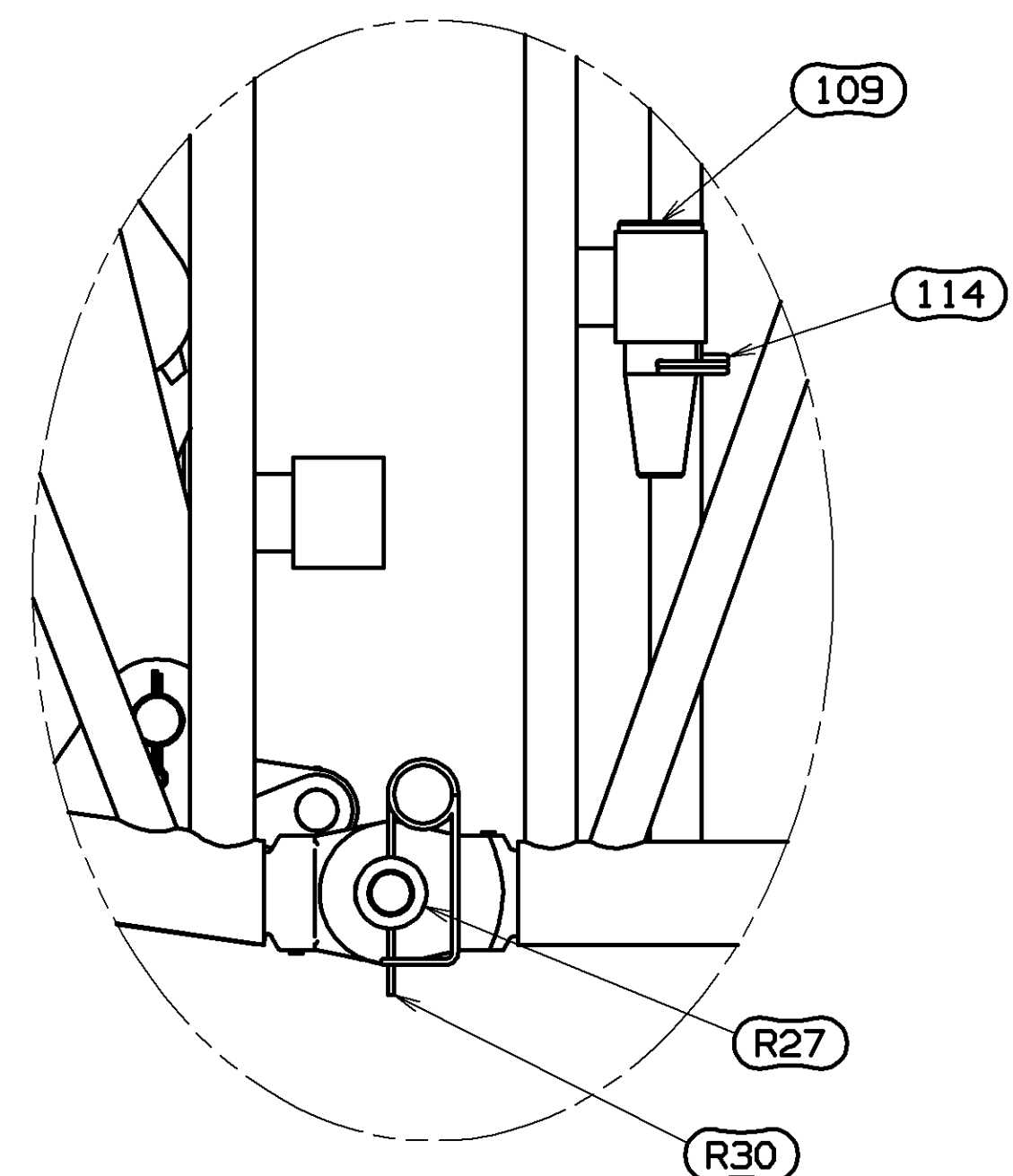
DETAIL J
PIN LOCATION FOR BOOM BUTT INSTALLATION USING BOOM BUTT SUPPORT
SCALE 0.150



SECTION K-K
SHIM LOCATION FOR BOOM BUTT INSTALLATION
SCALE 0.200



DETAIL L
PIN LOCATION DURING OPERATION
SCALE 0.150



DETAIL M
SCALE 0.150

TO ASSEMBLE BOOM
(MAST CAN BE USED TO ASSEMBLE ALL RIGGING COMPONENTS)

- ASSEMBLE BOOM COMPLETE, WITHOUT BUTT.

NOTE:

- BOOM MUST BE PROPERLY BLOCKED. (SEE STEP 4 FOR MINIMUM BLOCKING HEIGHT 880mm)
- ATTACH ROPE GUIDES, STRAPS, LINKS AND PINS AS REQUIRED. (SEE BOOM BUTT WIRE ROPE GUIDE ARRANGEMENT-SHEET 2)
- INSTALL BUTT WITH MAST AND ASSEMBLY CYLINDER.

- POSITION BOOM BUTT WITH SUPPORT PEDESTAL DEPLOYED. (STEP 1)
- SUPPORT BUTT WITH CYLINDER, ATTACH SLINGS (R24) AND SHACKLES (R23) TO HANG BUTT. (STEP 2)
 - BEFORE RAISING MAST, DISASSEMBLE MAST STRAP STOWING PINS.
- WITH BOOM BUTT SUPPORTED BY BOOM BUTT SUPPORT, POSITION LOCATING PINS (R22) AS SHOWN IN "DETAIL J"
- POSITION CRANE TO INSERT BOOM BUTT HINGE PLATES BETWEEN BOOM SUPPORT PLATES ON ROTATING BED WITH NOTCH IN BUTT RESTING AGAINST LOCATION PIN AS SHOWN IN "DETAIL J"
- SLOWLY RAISE THE BOOM BUTT WITH THE SELF-ASSEMBLY CYLINDER (R26) TO ALIGN BOOM HINGE HOLES IN BUTT AND ROTATE BED. (STEP 3)

NOTE:

- THE MAXIMUM BOOM BUTT SIDE PLAY SHOULD CAUSE THE BOOM BUTT HINGE PLATE TO MAKE CONTACT WITH THE INSIDE ROTATING BED LUG, NOT ALLOWING IT TO CONTACT THE OUTSIDE ROTATING BED LUGS.
- IF NEEDED TO PREVENT BOOM BUTT CONTACT WITH OUTSIDE ROTATION BED SUPPORT PLATES, INSERT SHIMS (R9) & (R10) BETWEEN THE BOOM BUTT HINGE PLATE AND THE INSIDE ROTATION BED LUGS ON EACH SIDE OF THE MACHINE AS SHOWN IN "SECTION K-K"
- LOCATE THE SHIM TABS TOWARD THE TOP OF THE BOOM BUTT HINGE PLATE WITH PIN HOLES ALIGNED. (SEE SECTION K-K)
- INSERT BOOM HINGE PINS. (SEE SECTION K-K)
- STOW LOCATING PINS (R22) AS SHOWN IN "DETAIL L"
- STOW BOOM BUTT SUPPORT PEDESTAL.
- LOWER BUTT DOWN FOR BOOM CLOSING. (STEP 4)

WARNING

REPOSITION LOCATING PINS (R22) AS SHOWN IN "DETAIL L" BEFORE OPERATING BOOM OR DAMAGE TO BUTT, ROTATING BED AND/OR LOCATING PINS WILL OCCUR.

- POSITION MACHINE TO ALIGN UPPER PIN CONNECTOR ON BOOM BUTT WITH UPPER PIN CONNECTOR PINS ON FIRST BOOM INSERT AND ENGAGE PINS. (STEP 4)(SEE DETAIL F ON SHEET 5)
- SLOWLY BOOM UP TO ALIGN LOWER PIN CONNECTOR ON BOOM BUTT WITH LOWER PIN CONNECTOR HOLES IN FIRST BOOM INSERT AND INSERT DOUBLE TAPER PINS (R27) STOWED ON BOOM BUTT. (SEE DETAIL M)

WARNING:

DO NOT BOOM UP PAST LOWER CONNECTOR HOLES. IF BOOMING UP CONTINUES AFTER CONNECTORS BOTTOM OUT OR AFTER PINS ARE INSERTED, DAMAGE TO MAST AND/OR BOOM BUTT WILL OCCUR.

- BOOM DOWN TO DISCONNECT ASSEMBLY CYLINDER (R26) FROM BUTT AND REMOVE SLINGS (R24) FROM ASSEMBLY CYLINDER HOOK.
- CONFIRM THAT THE MAST-ASSIST ARMS ARE FULLY RAISED. (STEP 4)
- BOOM UP TO VERTICAL AND ASSEMBLE CYLINDER (R26) ON STOWING BRACKET, RETRACT CYLINDER TO LOCK CYLINDER HEAD IN STOWING BRACKET.
- BOOM DOWN TO ATTACH STRAPS ON MAST TO INSERT STRAPS WITH MAST LINKS (R4). (STEP 5)

WARNING:

DO NOT BOOM DOWN MAST BEYOND 162° WITHOUT ATTACHING ASSIST CRANE OR MAST CAN FALL.

- FULLY LOWER THE MAST-ASSIST ARMS. (STEP 5)
- BOOM UP TO DESIRED BOOM ANGLE.

WARNING:

CONFIRM THAT STRAP STOWAGE PINS ARE IN STOWED POSITION OR DAMAGE WILL OCCUR WHEN THE BOOM IS RAISED. (SEE DETAIL G ON SHEET 5)

FULLY LOWER THE MAST-ASSIST ARMS BEFORE RAISING THE BOOM. THE MAST CAN BUCKLE AND COLLAPSE IF IT CONTACTS THE MAST-ASSIST ARMS WITH A FULLY RIGGED BOOM.

TO DISASSEMBLE BOOM

- BOOM DOWN AND SUPPORT ON BLOCKING. LAY INSERT STRAPS ON INSERT TOP.
- DISCONNECT MAST STRAPS FROM BOOM INSERT STRAPS.
- ATTACH ASSEMBLY CYLINDER TO LUGS ON BOOM BUTT WITH SLINGS AND SHACKLES.
- BOOM UP TO REMOVE SLACK FROM BUTT HANDLING SLINGS.

WARNING:

DO NOT BOOM UP MAST TO PUT EXCESSIVE TENSION INTO BUTT HANDLING SLINGS. (ENOUGH TENSION IS REQUIRED TO SUPPORT BOOM BUTT WHEN LOWERING PINS ARE REMOVED.) LIFTING BOOM WITH HANDLING SLINGS WILL DAMAGE MAST AND/OR BOOM BUTT.

- REMOVE LOWER BUTT TO INSERT PINS (R27) AND BOOM DOWN TO BLOCKING TO DISENGAGE UPPER BOOM BUTT TO INSERT PINS. (ITEM 109)

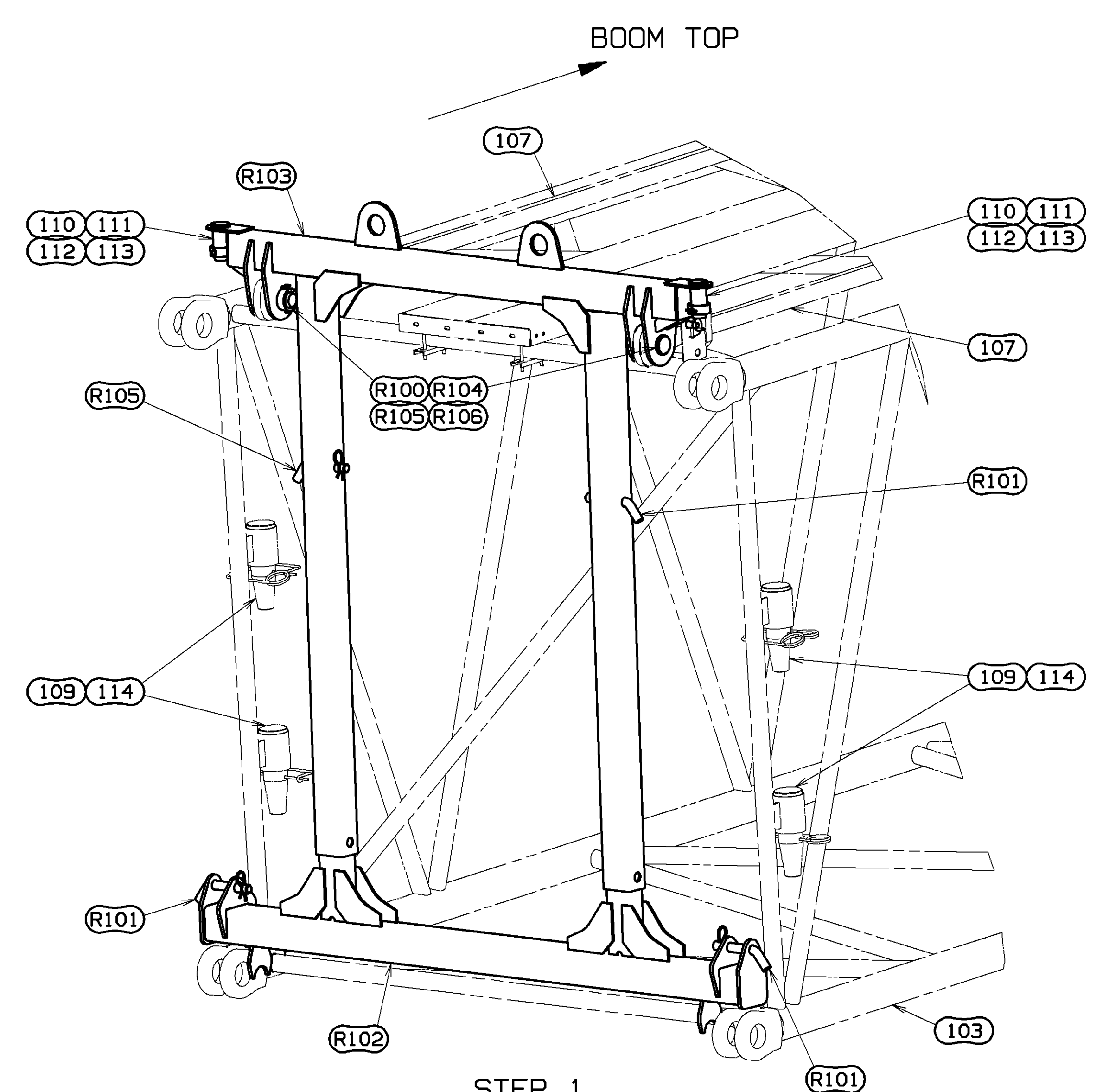
WARNING:

BOOM MUST BE PROPERLY BLOCKED TO PREVENT SHIFTING DURING REMOVAL.

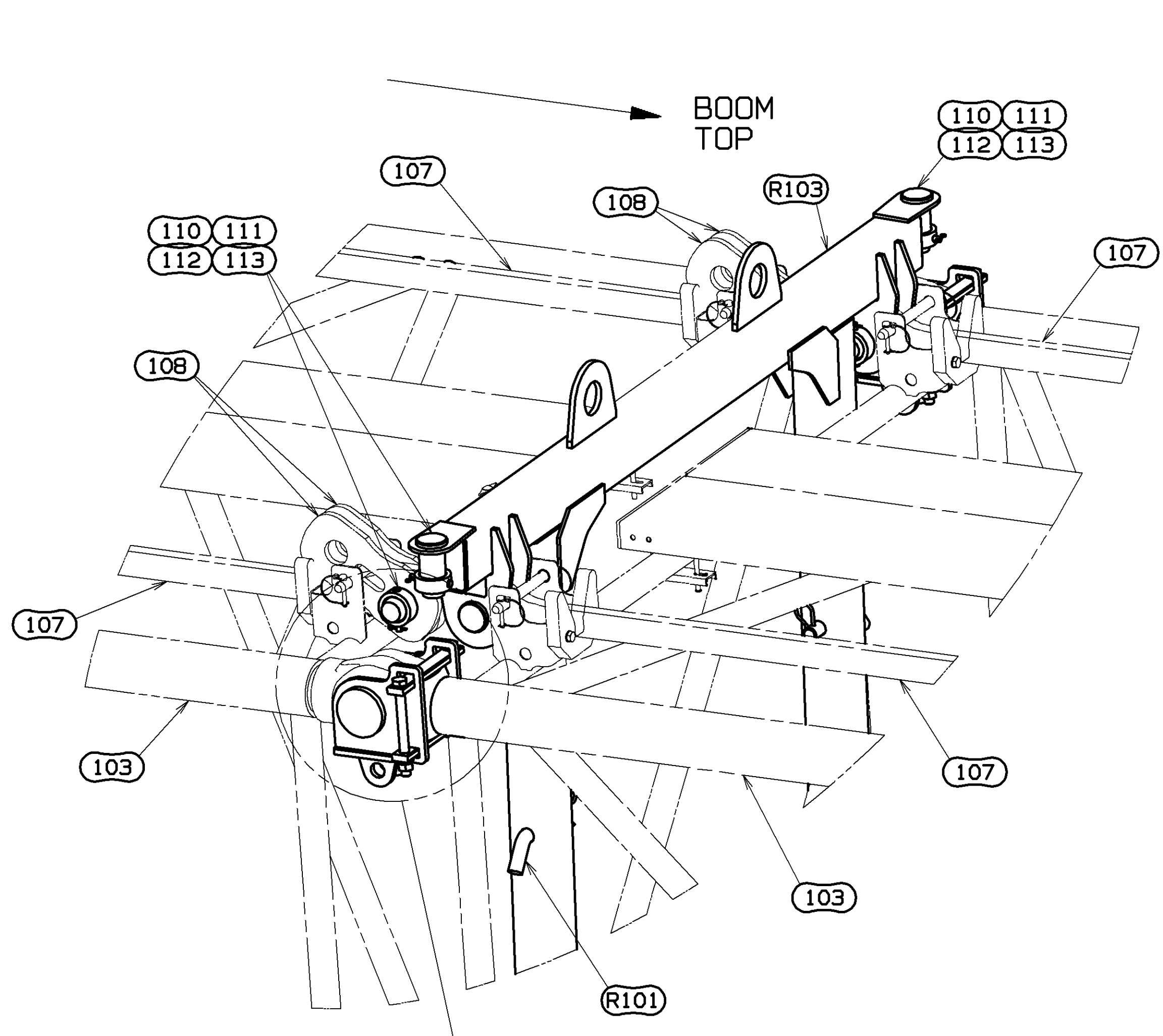
- SLOWLY BACK AWAY FROM BOOM.
- REMOVE BOOM BUTT FROM ROTATING BED.
- DISASSEMBLE BOOM WITH MAST. REMOVE UPPER CONNECTOR PINS FIRST.

WARNING

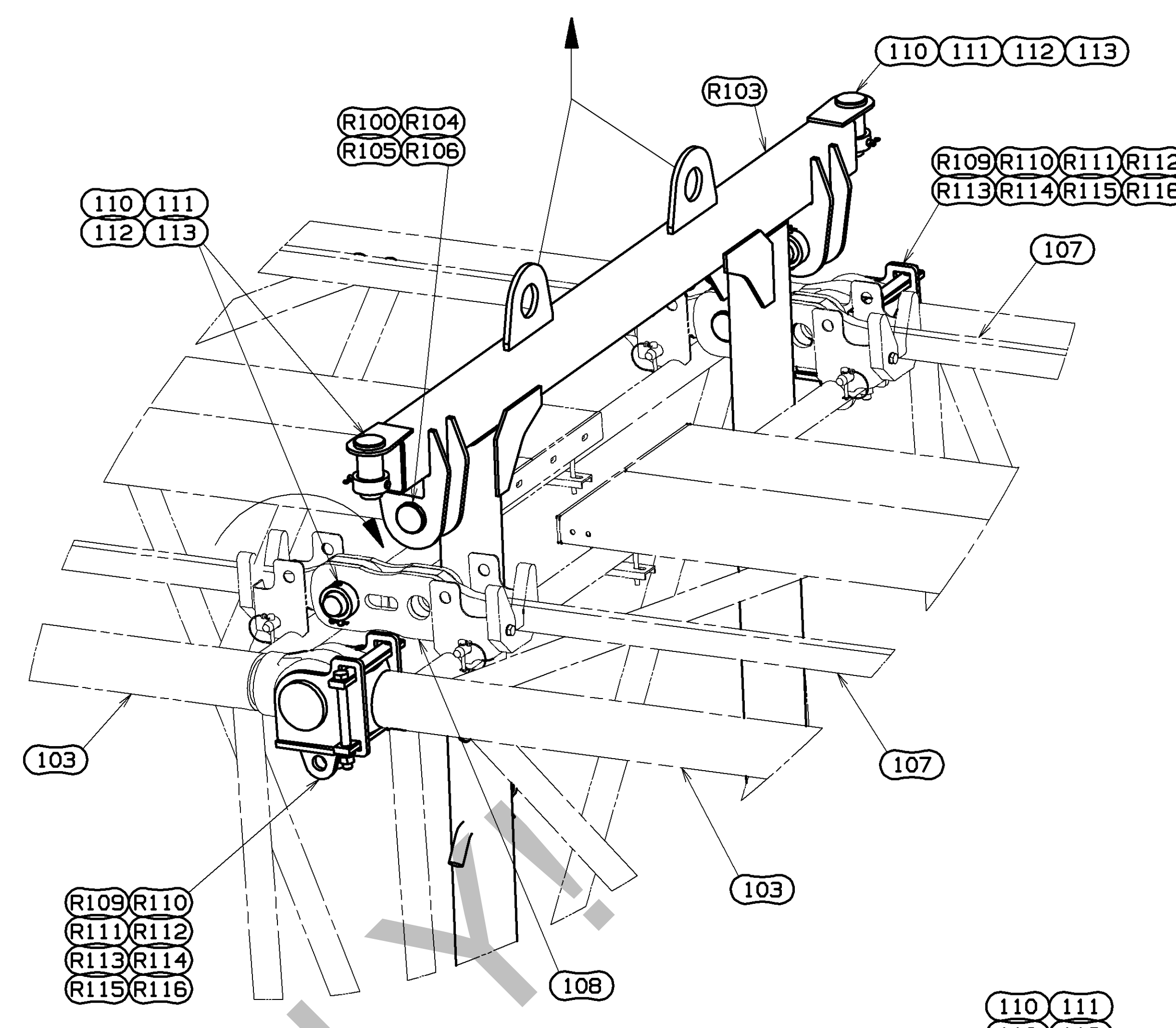
DURING BOOM ASSEMBLY/DISASSEMBLY MAST RAISING CYLINDER MUST BE EXTENDED TO MAX STROKE TO PROTECT AGAINST MAST TURNOVER. MAST ANGLES BELOW 104° WITHOUT LOAD ATTACHED OR MAST RAISING CYLINDER SUPPORT WILL RESULT IN MAST TURNOVER. DAMAGE TO MACHINE AND MAST WILL OCCUR.



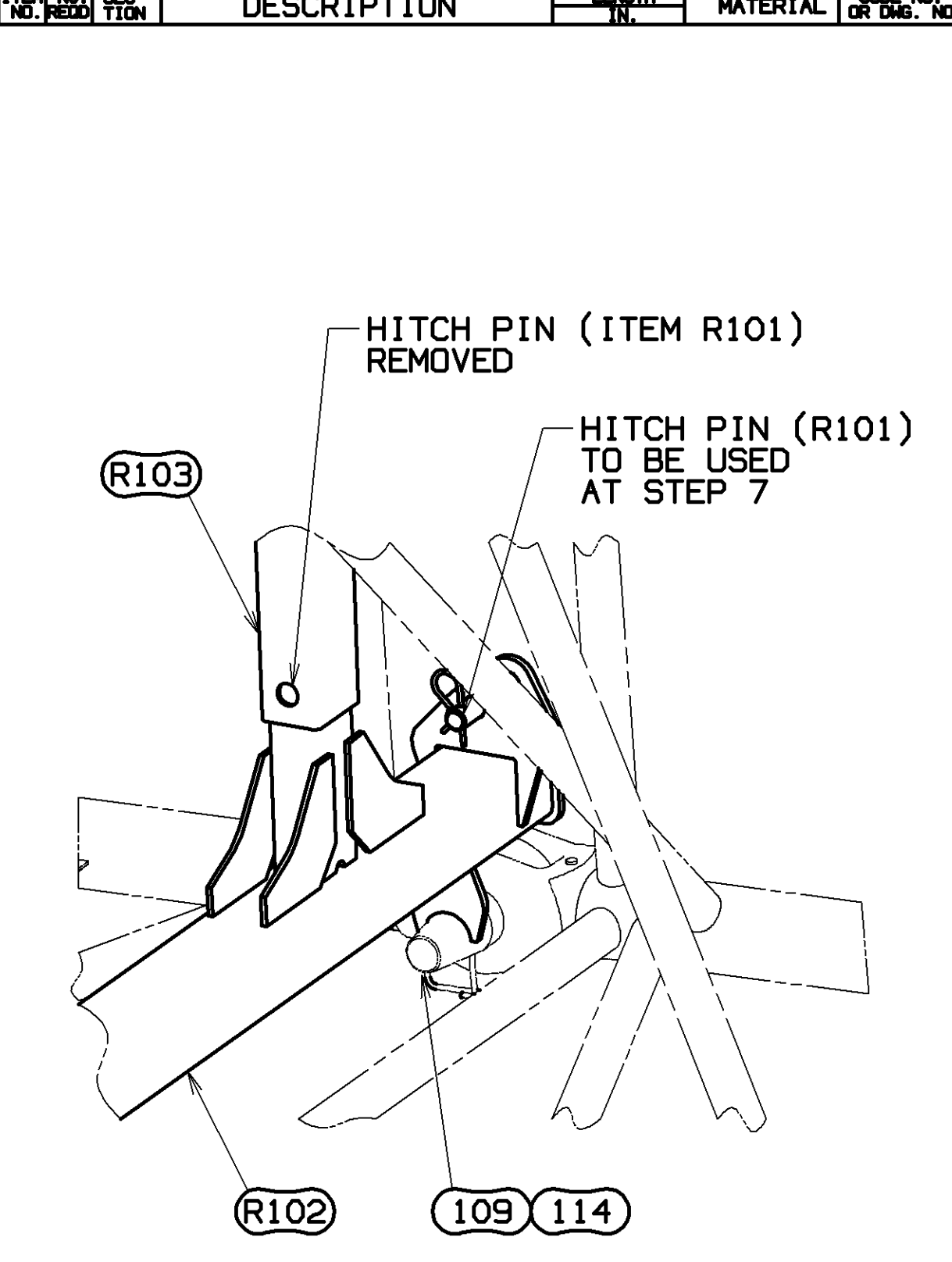
STEP 1
INTERMEDIATE STRUT TO BUTT END OF 12M INSERT
SCALE 0.100



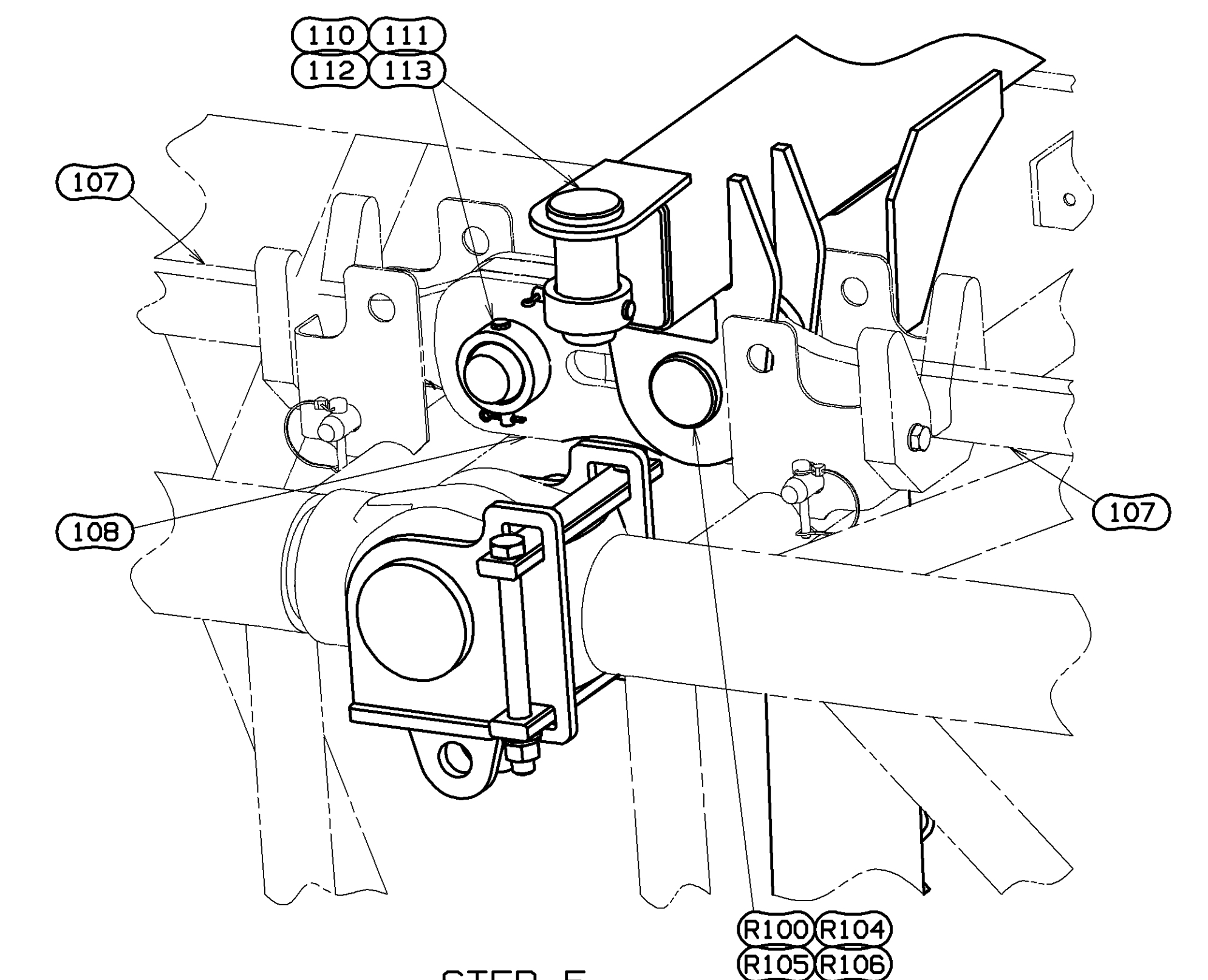
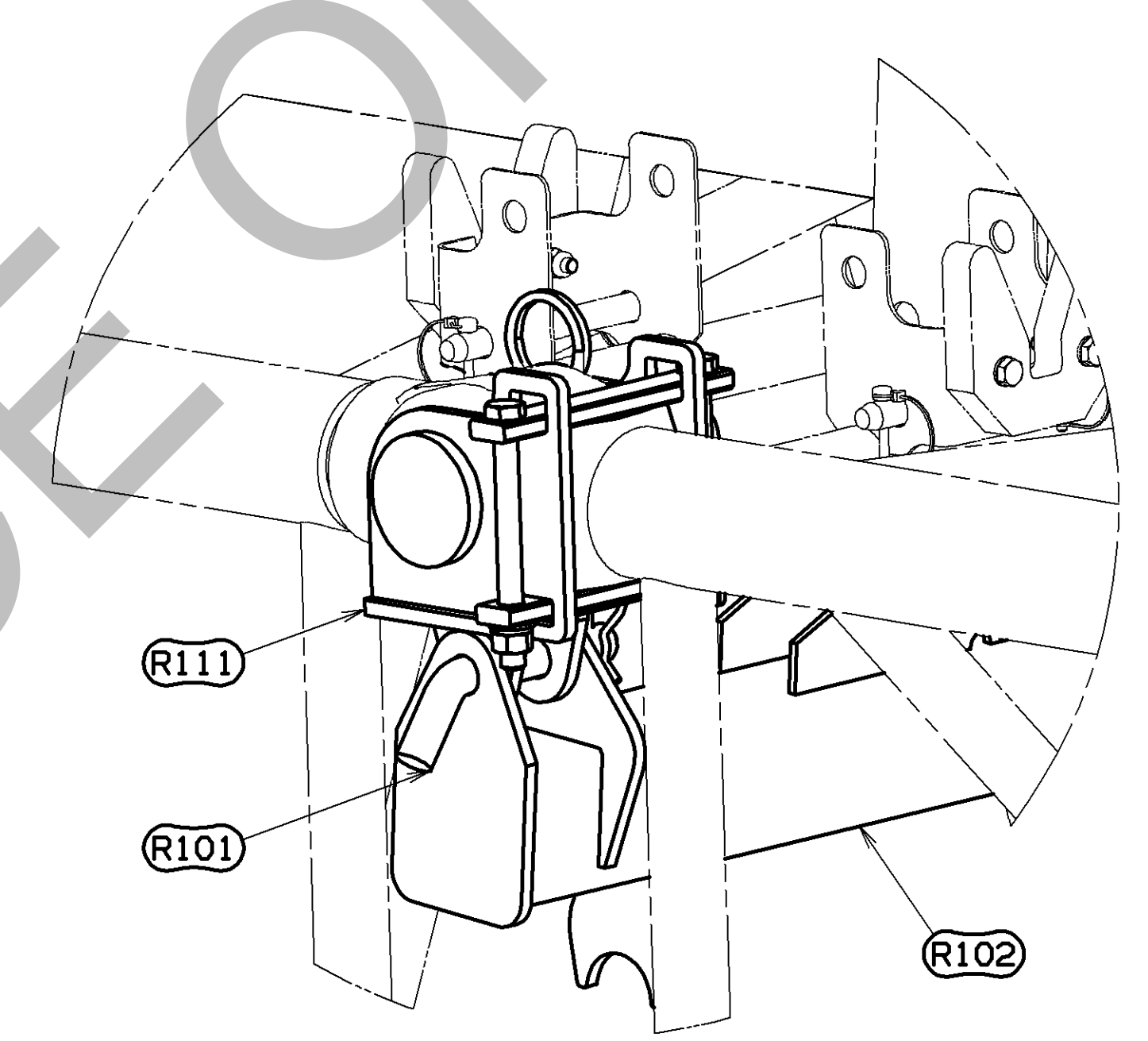
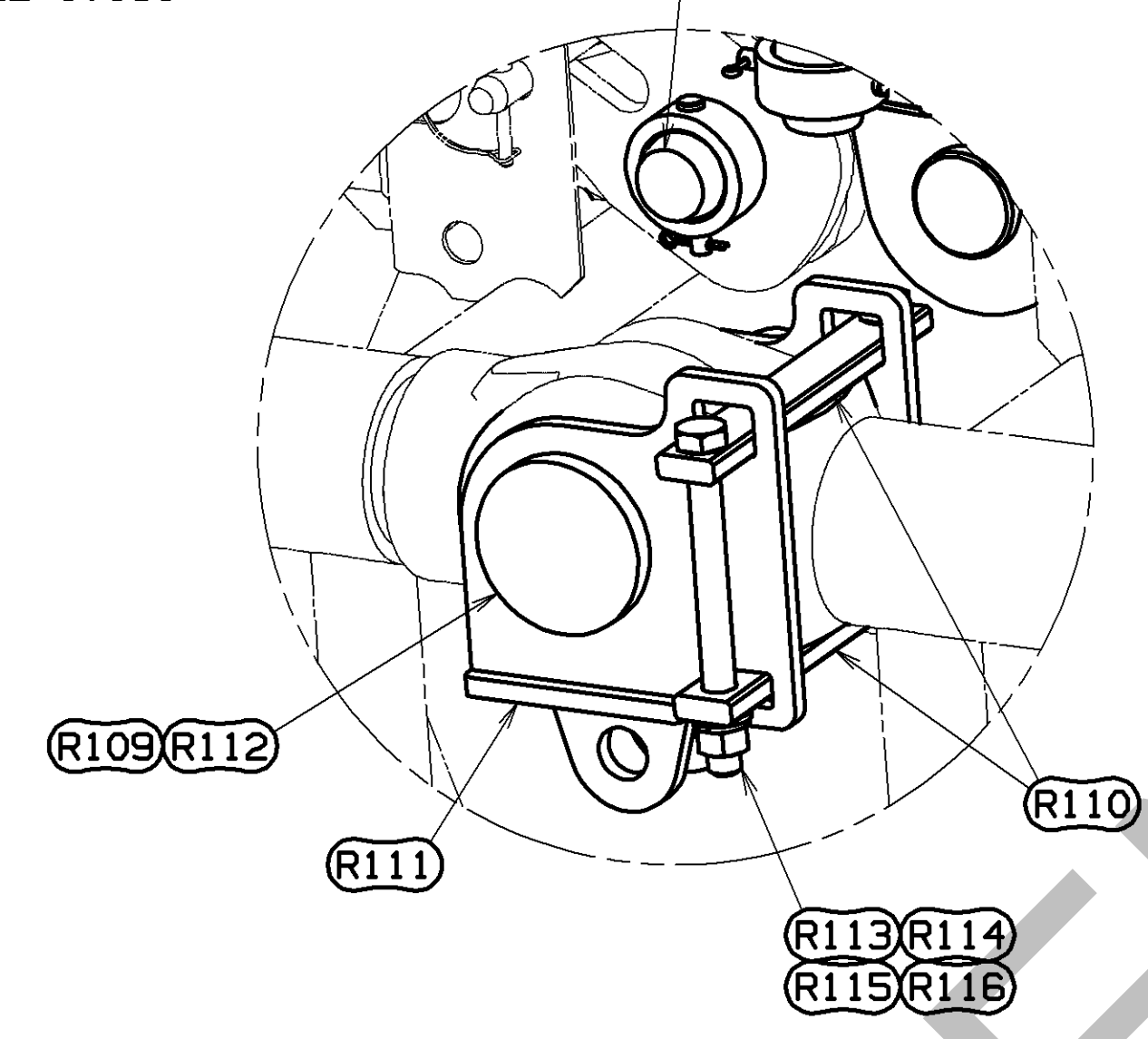
STEP 2
INSERTS (ITEM 103) AND BRACKET (R111) ASSEMBLY
SCALE 0.150



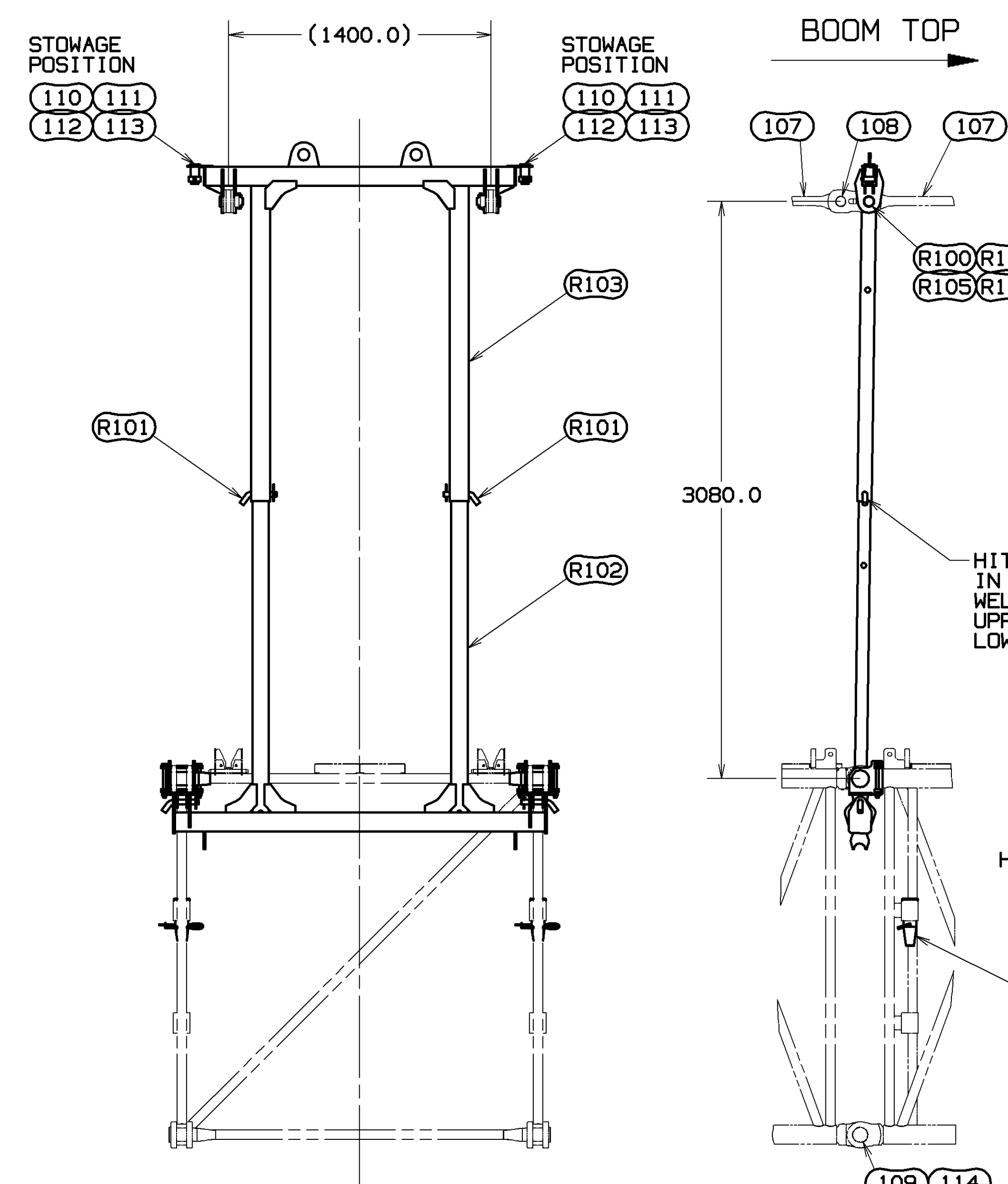
STEP 3
RAISING INTERMEDIATE STRUT TO ROTATE LINKS (ITEM 108)
SCALE 0.150



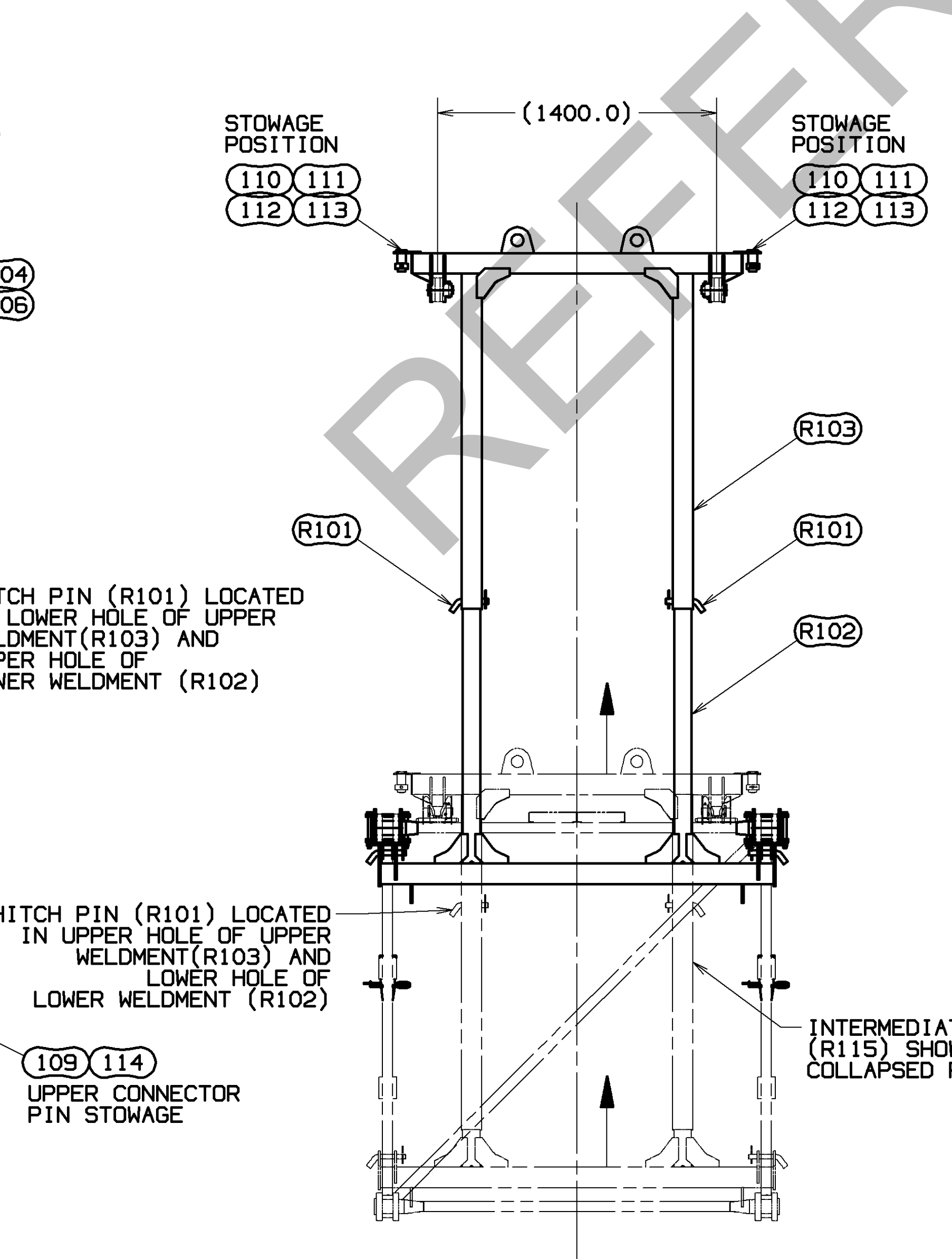
STEP 4
LOWERING INTERMEDIATE STRUT IN PREP OF STEP 5
SCALE 0.150



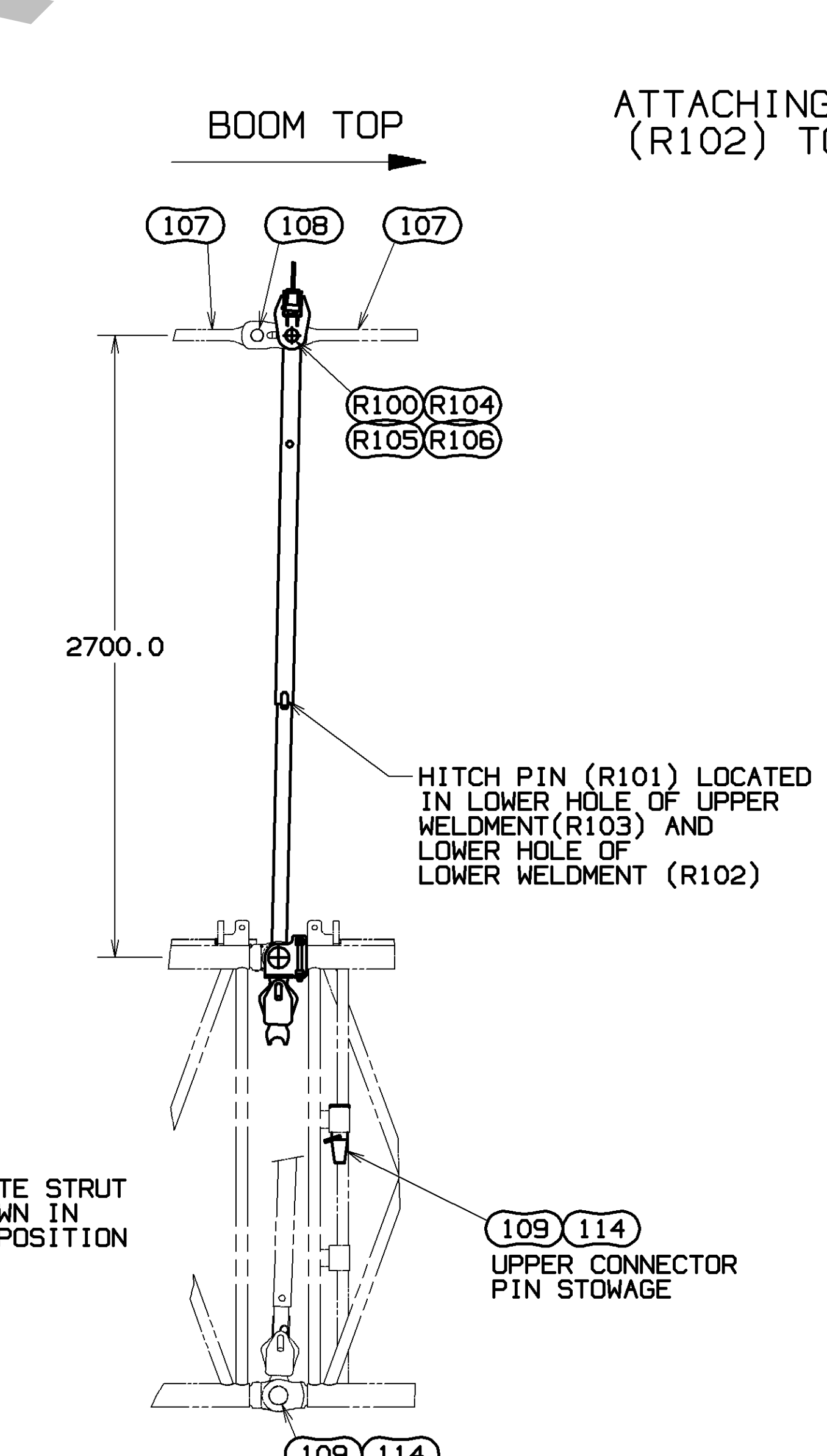
STEP 5
ATTACHING INTERMEDIATE STRUT TO BOOM STRAPS AND LINKS
SCALE 0.300



LONG STRUT CONFIGURATION
81M & 84M BOOM



STEP 6
INTERMEDIATE STRUT CONFIGURATION
SCALE 0.050



SHORT STRUT CONFIGURATION
72M, 75M & 78M BOOM

STEP 7
ATTACHING LOWER STRUT WELDMENT (R102) TO BRACKET ASSY (R111)
SCALE 0.250

INTERMEDIATE STRUT (R115) INSTALLATION

- SEE BOOM MAKEUP VIEWS ON SHEETS 3, 4, 5, 6 & 7 AND BOOM LENGTH TABLE ON SHEET 2 FOR INTERMEDIATE STRUT LOCATIONS FOR VARIOUS BOOM LENGTHS.
- LOCATE INTERMEDIATE STRUT (ITEM 115) IN COLLAPSED OR SHIPPING CONFIGURATION AT BUTT END OF 12 METER INSERT (ITEM 103). REMOVE PIN/COLLAR/PINS (ITEMS 110, 111, 112 & 113) FROM STRAP (ITEM 107) AND REPLACE WITH PIN/COLLAR/PINS (ITEMS R100, R104, R105 & R106) PROVIDED WITH INTERMEDIATE STRUT. STOW STANDARD STRAP PIN/COLLAR/PINS IN LOCATION PROVIDED ON INTERMEDIATE STRUT UPPER WELDMENT (R103).
 - ASSEMBLE BOOM COMPLETE WITH INTERMEDIATE STRUT (ITEM 115) LOCATED BETWEEN 12 METER INSERTS (ITEM 103). INSTALL BOTTOM CONNECTOR PINS (ITEM 109) AND SAFETY PINS (ITEM 114). ALIGN BRACKET ASSY (R111) TO TOP CONNECTORS ON THE ADJACENT BOOM INSERT AND SECURE USING PLATE KEEPERS (R110) AND HARDWARE (R113, R114, R115 & R116). ALIGN CONNECTING HOLES IN BRACKET ASSY (R111) AND INSERT TOP CONNECTORS. INSTALL PINS (R112) AND SECURE WITH SAFETY PINS (ITEM 109).
 - DISASSEMBLE STRAPS (ITEM 107) FROM INTERMEDIATE STRUT AND RAISE INTERMEDIATE STRUT ASSEMBLY TO ALLOW CLEARANCE TO ROTATE LINKS (ITEM 108) INTO POSITION WITH STRAPS FROM 12 METER INSERT TOWARD BOOM TOP.
 - LOWER INTERMEDIATE STRUT WELDMENT (R102) TO REST ON LOWER BOOM CONNECTOR PIN (ITEM 109). REMOVE HITCH PINS (R101) FROM SHIPPING LOCATION.
 - POSITION INTERMEDIATE STRUT (ITEM 115) TO ALIGN WITH LINKS (ITEM 108) AND STRAPS (ITEM 107). REASSEMBLE PIN/COLLAR/PINS (R100, R104, R105 & R106) PROVIDED WITH INTERMEDIATE STRUT.
 - BOOM UP SLOWLY TO CONFIGURE INTERMEDIATE STRUT TO REQUIRED LENGTH. REINSERT HITCH PINS (R101) FROM STEP 4 INTO APPROPRIATE HOLES ON STRUTS.
 - CONTINUE TO BOOM UP SLOWLY TO ATTACH LOWER STRUT WELDMENT (R102) TO BRACKET ASSY (R111) WITH HITCH PINS (R101).