

BILL OF MATERIAL					ASSEMBLIES USED IN
QTY	ITEM NO.	DESCRIPTION	LOGS	MATERIAL	
1	1	BUTT ASSY #58 8.0M		A108829	
2	2	STRAP 5 METER #58 BOOM 40 X 83		A10919	
3	1	INSERT TRANSITION ASSY #58 5.0 M		A1139610	
4	1	INSERT 12.0M ASSY #58 W/ AUX SHEAVES		A1154311	
5	5	COLLAR		A14925	
6	6	PIN 1 HOLE W/ HD 115.0 mm X 92.0 LG		A14926	
7	6	PIN 2 HOLE 12.7 DIA		A14929	
8	2	PIN 1 HOLE W/ HD 100.0 DIA X 92.3 LG		A12944	
9	2	COLLAR 101 MM ID		A12945	
10	2	PIN 2 HOLE 12.7 DIA X 128.0 LG		A12946	
11	1	TOP ASSY #58WA 1 METER CAP		81009868	
12	1	BOOM POINT UPPER ASSY EXTENDED #58WA BOOM		81009978	
13	4	LINK #58WA BOOM CAP		81011854	
14	2	STRAP #58WA BOOM 40 X 83		81010227	
15	4	LINK #58 BOOM STRAP		A14907	
16	2	SHIM .119 (IN) THK		A13178	
17	2	SHIM 6MM THK		A15521	
18	2	SHIM .059 (IN) THK		A15522	
19	4	LINK #58WA BOOM STRAP		81010678	
20					
21	1	PARTS BOX FOR PART STORAGE		8100795716	
22	2	PIN 1 HOLE W/ HD 75.8 DIA X 194.4 LG		81010424	
23	2	BRACKET WELDMENT STRAP		81011868	
24	2	PIN 2 HOLE 19.0MM DIA X 132.0MM LG		A11795	
25	4	PIN COTTER .125 X 1.50		562045	
26	8	PIN COTTER .188 X 1.50		5620857	
27	20	PIN SAFETY .234 OD X 5.00		563640	
28	2	STRAP 6 METER #58 BOOM 40 X 83		A10918	
29	12	STRAP 12 METER #58 BOOM 40 X 83		A10920	
30	32	LINK #58 BOOM STRAP		A11539	
31	36	PIN 1 HOLE W/ HD 65.0 DIA X 92.0 LG		A117987	
32	36	PIN 2 HOLE 12.7 DIA X 93.0 LG		A117997	
33	36	COLLAR 66.0 ID		A118007	
34	18	PIN 1 HOLE W/ HD 75.8 DIA X 160.4 LG		A13294	
35	4	INSERT 12 M ASSY #58 (HEAVY)		8101191514	
36	1	INSERT 6 M ASSY #58 (HEAVY)		810098344	
37	1	INSERT 3 M ASSY #58 (HEAVY)		810098395	
38	2	STRAP 3 METER #58 BOOM 40 X 83		81009924	
39	1	INSERT 12 M ASSY #58 (MEDIUM)		A1153115	
40	1	BOOM ASSY #58WA INTERMEDIATE STRUT W/ BOOM RAISE		81017593	
41	1	COUNTERWEIGHT ASSY SPECIAL W/ BOOM RAISE ASSIST		81015475	
OPTIONAL PARTS					
100					
101	1	HOOK BLOCK ASSY 41 MT (45 US)		2365038	
102	1	HOOK BLOCK ASSY 226 MT (250 US)		A13155	
103	1	HOOK BLOCK ASSY 100 MT (110 US)		A13154	
104	1	HOOK BLOCK ASSY 181 MT (200 US)		A14824	
105	1	BOOM ASSY #58 LADDER STORAGE		A13170	
106	1	BLOCK 100 METRIC TON 28 MM ROPE		A15927	
107					
108	1	BOOM POINT UPPER ASSY EXTENDED		A1594618	
109	1	HOOK BLOCK ASSY DUPLEX 180 MT (200 US)		81007437	
110	1	DRUM ASSY LUFFING/AUX		A1088817	
111	1	PAWL ASSEMBLY LUFFING DRUM		A1391717	
112	1	GUIDE WIRE ROPE ASSY LUFFING/AUX LINE		A1194617	
113	1	BLOCK 226 METRIC TON DUPLEX HOOK		81015106	
114	1	BLOCK DUPLEX 100MTON 28MM 3 SHEAVE		81016675	
115					
116					

81018003
SHT 1 OF 5

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
SPECIFICATION
8829103794 FOR
COMPONENTS LISTED
IN 8829103794-05-026

DATE
10-12-11

PATTERN NO.

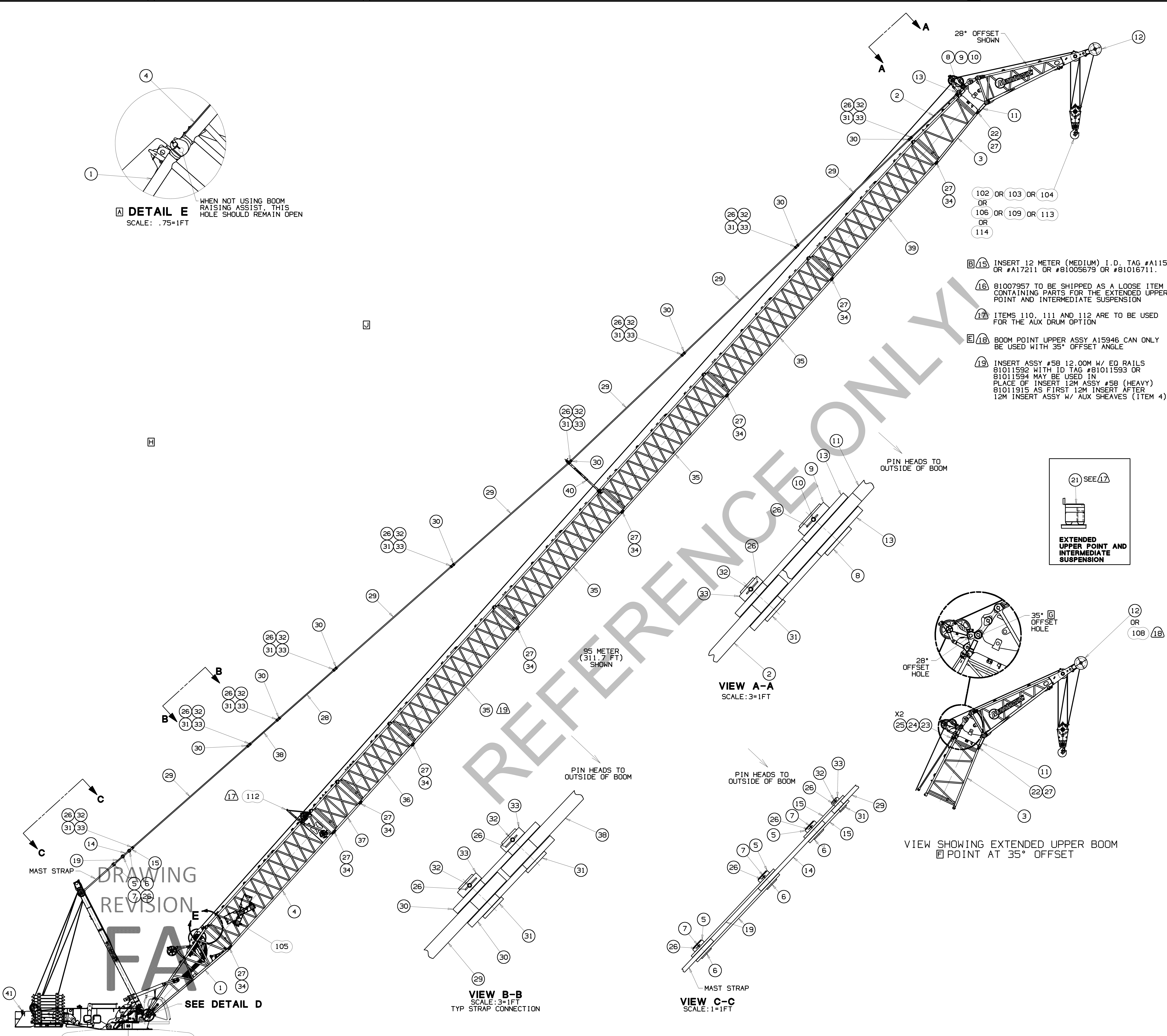
81018003
SHT 1 OF 5

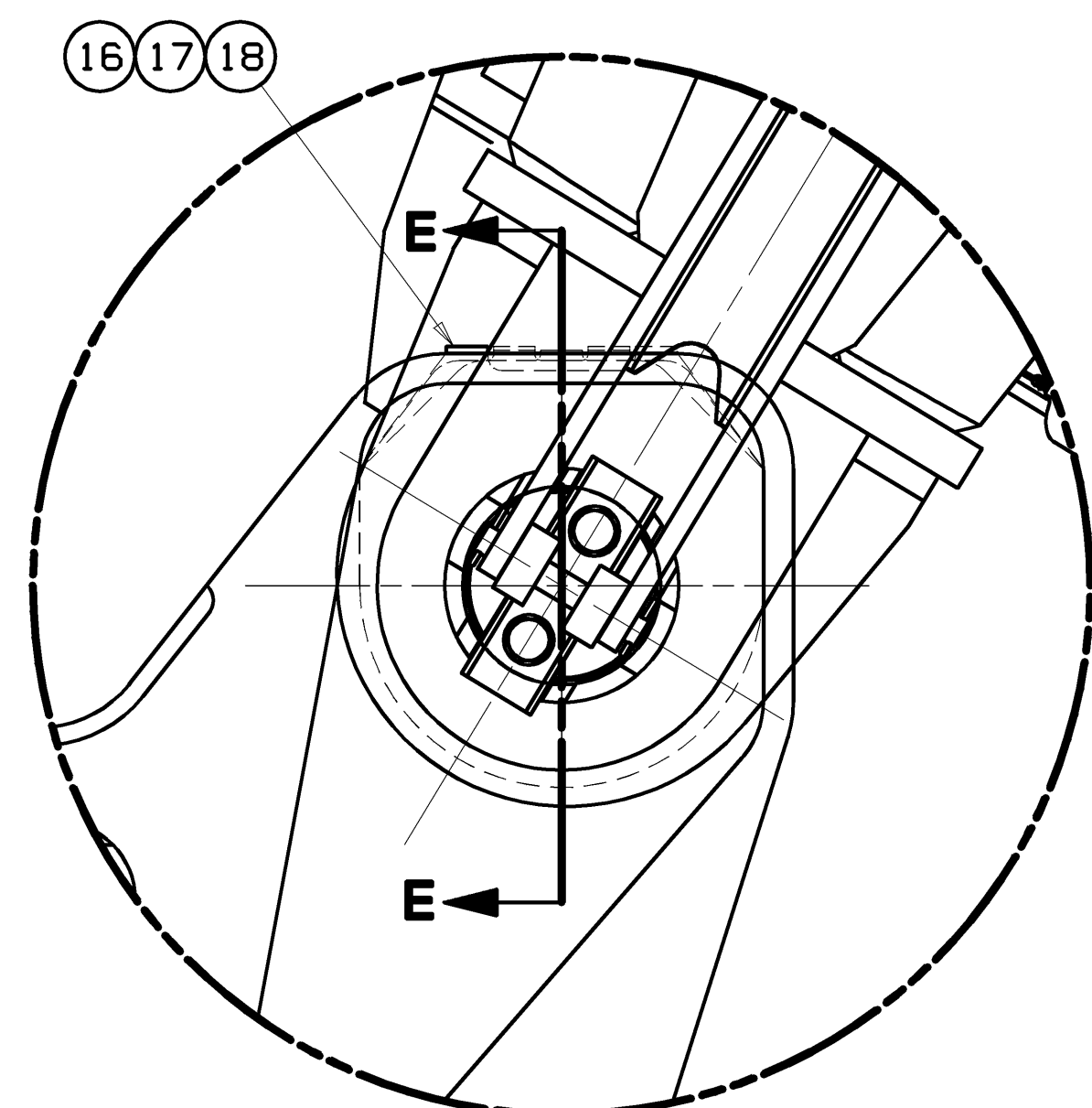
- 1 MAXIMUM NUMBER OF 6 METER INSERTS = 1
MAXIMUM NUMBER OF 3 METER INSERTS = 1
- 2 AFTER 12 METER INSERT W/ AUX SHEAVES
INSERT ASSEMBLIES MUST BE INSTALLED IN
ASCENDING LENGTH.
- 3 SEE SHEET 2 FOR BOOM MAKEUP
- 4 SEE 1 AND 2 AND 12
- 5 SEE 1 AND 2 AND 13
- 6 ALL LUFFING JIB AND BACKSTAY STRAPS, LINKS
AND PINS STOWED WITH INSERTS MUST BE
REMOVED FOR USE WITH THIS ASSEMBLY
- 7 ITEMS 26, 31, 32, AND 33 QUANTITIES
INCLUDE ITEMS THAT ARE STOWED WHEN
INTERMEDIATE SUSPENSION IS USED (SEE SHT 4)
- 8 USED FOR MACHINE ASSEMBLY WITH 9.75 M
(32 FT) LIVE MAST
- 9 BUTT 8 METER ID TAG #A10883 OR 81006893
OR 81017385
- 10 INSERT 5 METER TRANSITION
ID TAG #A11352 OR 81005868 OR 81006897
- 11 INSERT 12 METER W/AUX SHEAVES (HEAVY)
ID TAG #A11544 OR A17834 OR 81006890
OR 81017393
- 12 INSERT 6 METER (HEAVY)
ID TAG #81009835 OR 81010114
- 13 INSERT 3 METER (HEAVY)
ID TAG #81009840 OR 81010111
- 14 INSERT 12 METER (HEAVY)
ID TAG #81011916 OR 81011870

TOLERANCE UNLESS OTHERWISE SPECIFIED			
DECIMAL PLACES	FABRICATION	MACHINING	WELDING
(1) PLACE 0.5	± .12	± .18	± .05
(2) PLACE 0.00	± .06	± .12	± .015
(3) PLACE 0.000	± .006	± .006	± .006
ANGLES	± 1°	± 30'	± 30'

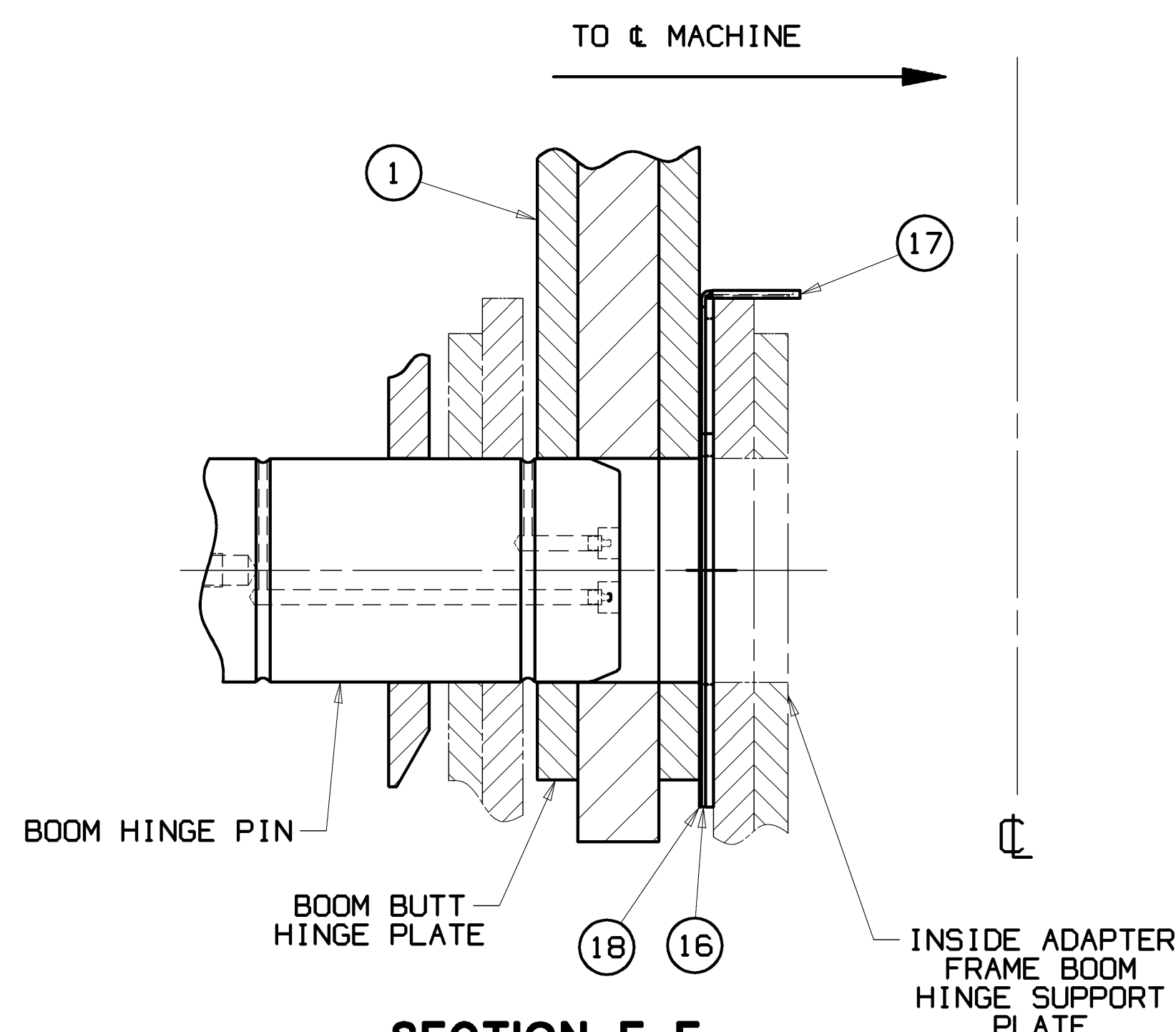
DATE 10-12-11	MANITOWOC CRANES, INC.	BOOM ASSY
DR: DJS	MANITOWOC, WISCONSIN	#58WA W/ AUX CWT
CK: JST	MODEL 16000	
APP: JST		

DO NOT SCALE THIS DRAWING





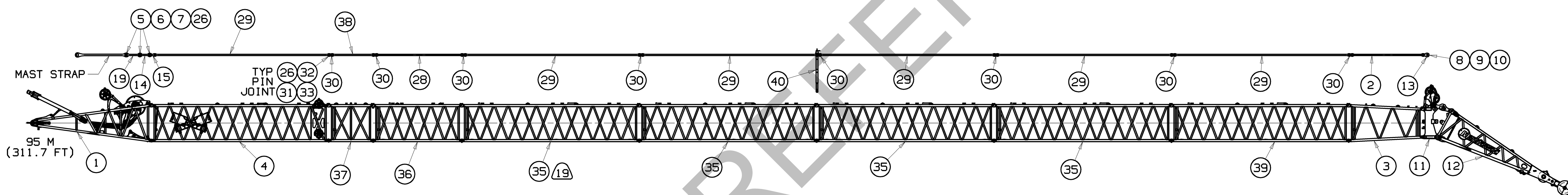
DETAIL D
SCALE: 2=1 FT



SECTION E-E
SCALE: 3 = 1 FT

10 BOOM BUTT SHIM INSTALLATION PROCEDURE

1. CENTER BOOM BUTT ON ROTATING BED.
2. INSERT THE THICKEST SHIM POSSIBLE BETWEEN THE BUTT HINGE PLATE AND THE INSIDE ADAPTER FRAME LUGS ON EACH SIDE OF THE MACHINE.
3. INSERT THE NEXT THICKEST SHIM POSSIBLE BETWEEN THE BUTT HINGE PLATE AND THE FIRST SHIM ON EACH SIDE OF THE MACHINE.
4. INSERT THE LAST SHIM IF POSSIBLE BETWEEN THE BUTT HINGE PLATE AND THE PREVIOUS SHIM ON BOTH SIDES OF THE MACHINE.
5. WITH THE SHIM TABS TO THE TOP SIDE RESTING ON THE ADAPTER FRAME HINGE SUPPORT PLATES, THE MAXIMUM BOOM BUTT SIDE PLAY IS TO BE 2mm.
6. ENGAGE BOOM HINGE PIN COMPLETELY.



DRAWING
REVISION
FA

STOP ROLLER SEATED
IN ROTATING BED.
BOOM STOP ROD END
FULLY EXTENDED.

START OF CUSHION

BOOM STOP SETUP
AND ADJUSTMENT
SCALE: .375=1 FT

SET STOP ROLLER AT FIRST
CONTACT TO DIMENSION SHOWN
ON EACH SIDE OF BOOM WITH
ADJUSTING SCREW AND NUT
ON STRUT. BOOM STOP TUBE
ROD END MUST BE FULLY
EXTENDED TO ADJUST STOPS.
DIMENSION TO BE WITHIN 3mm
FROM SIDE TO SIDE

ADJUSTING SCREW
AND NUT

77.9°

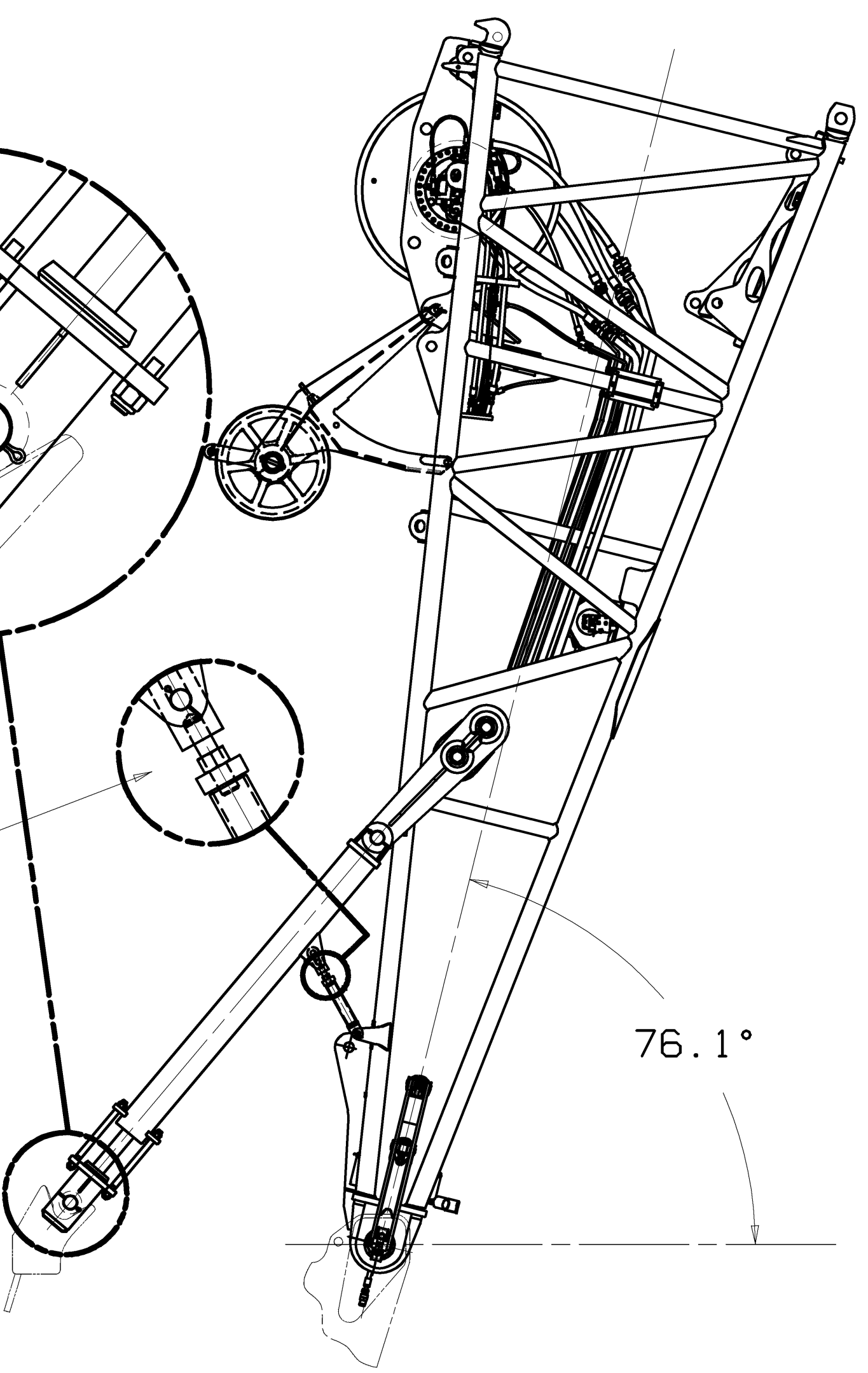
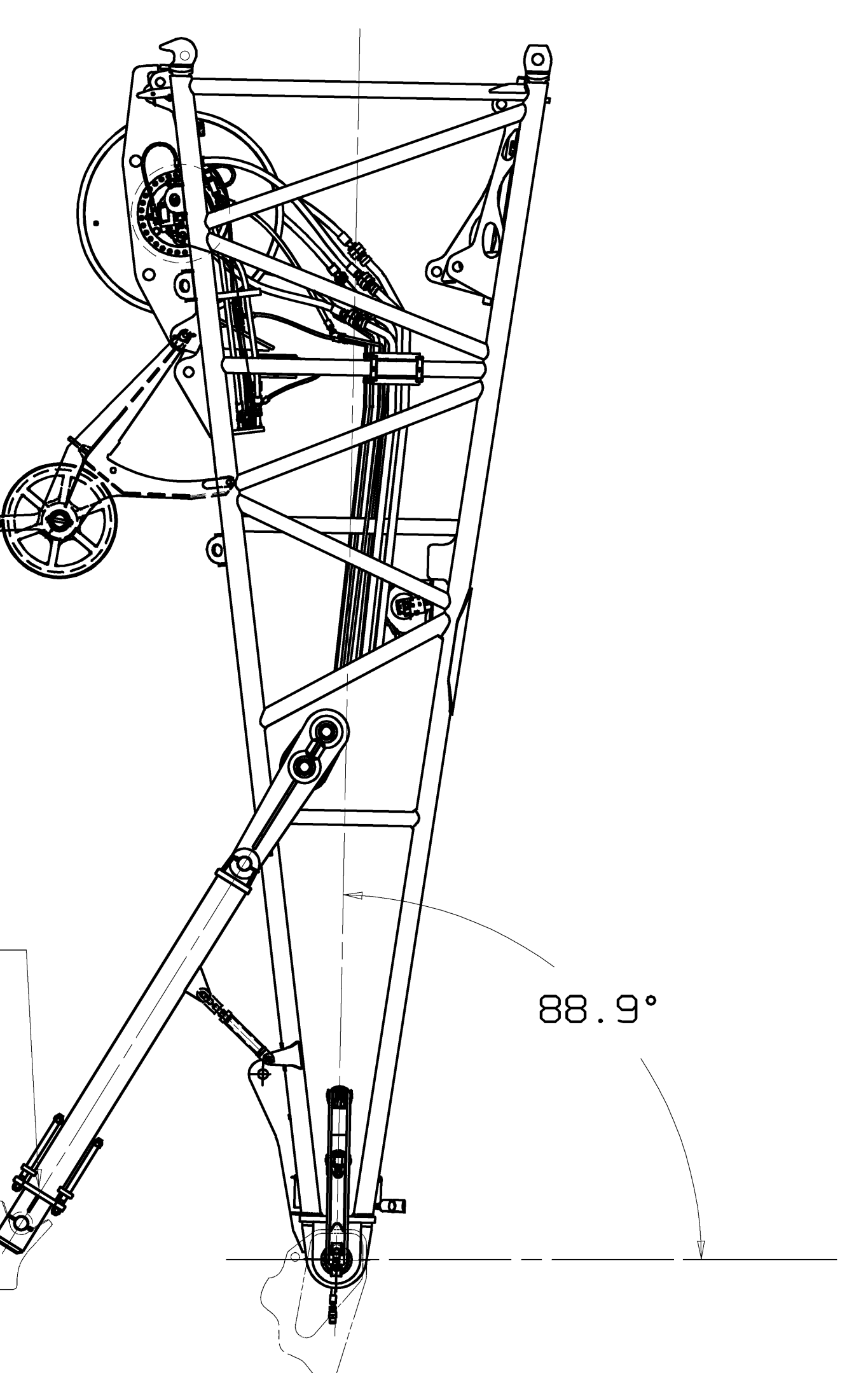
INITIAL CONTACT
SETUP

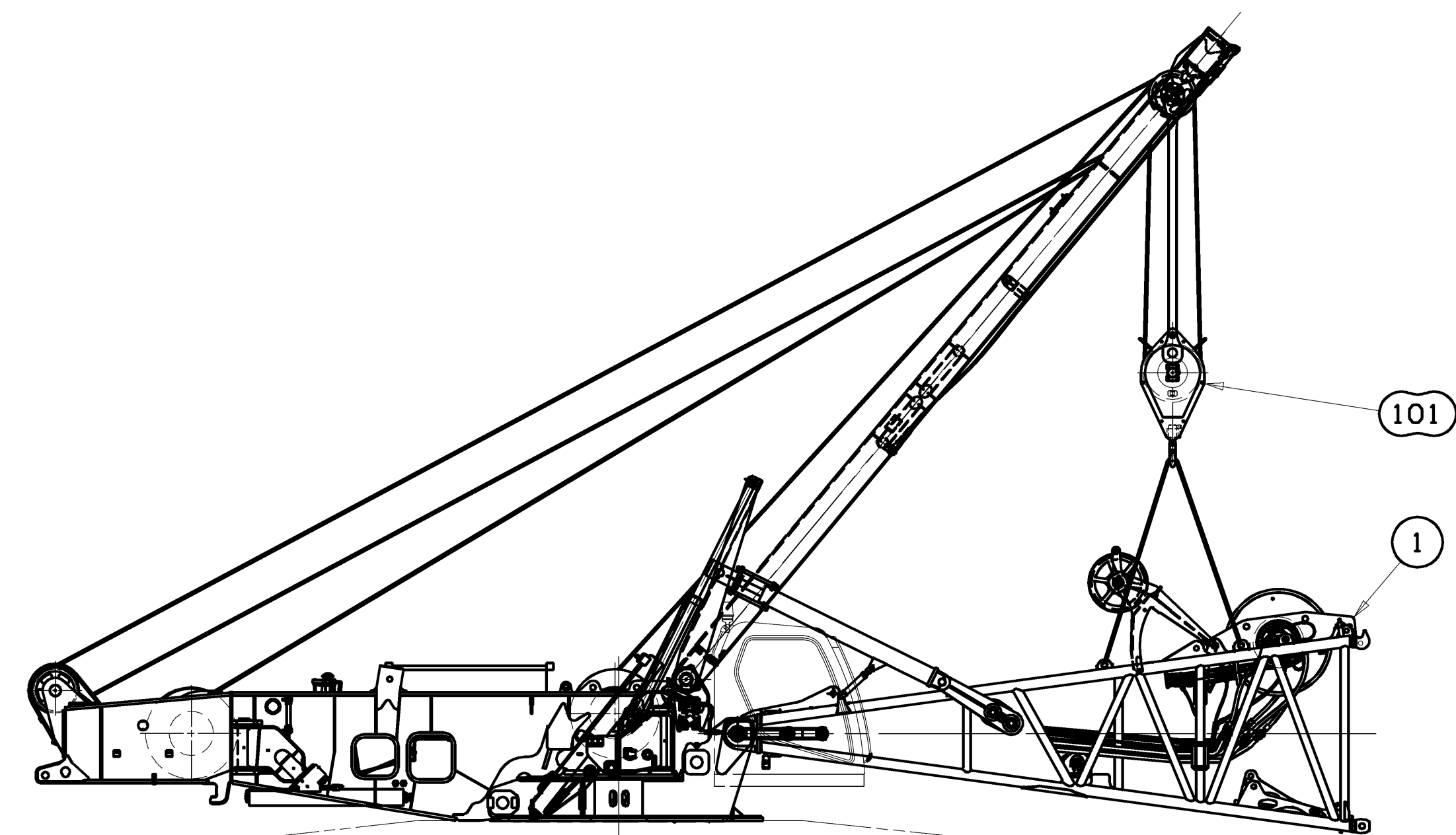
76.1°

STOP ROD END
BOTTOMED ON
STOP TUBE

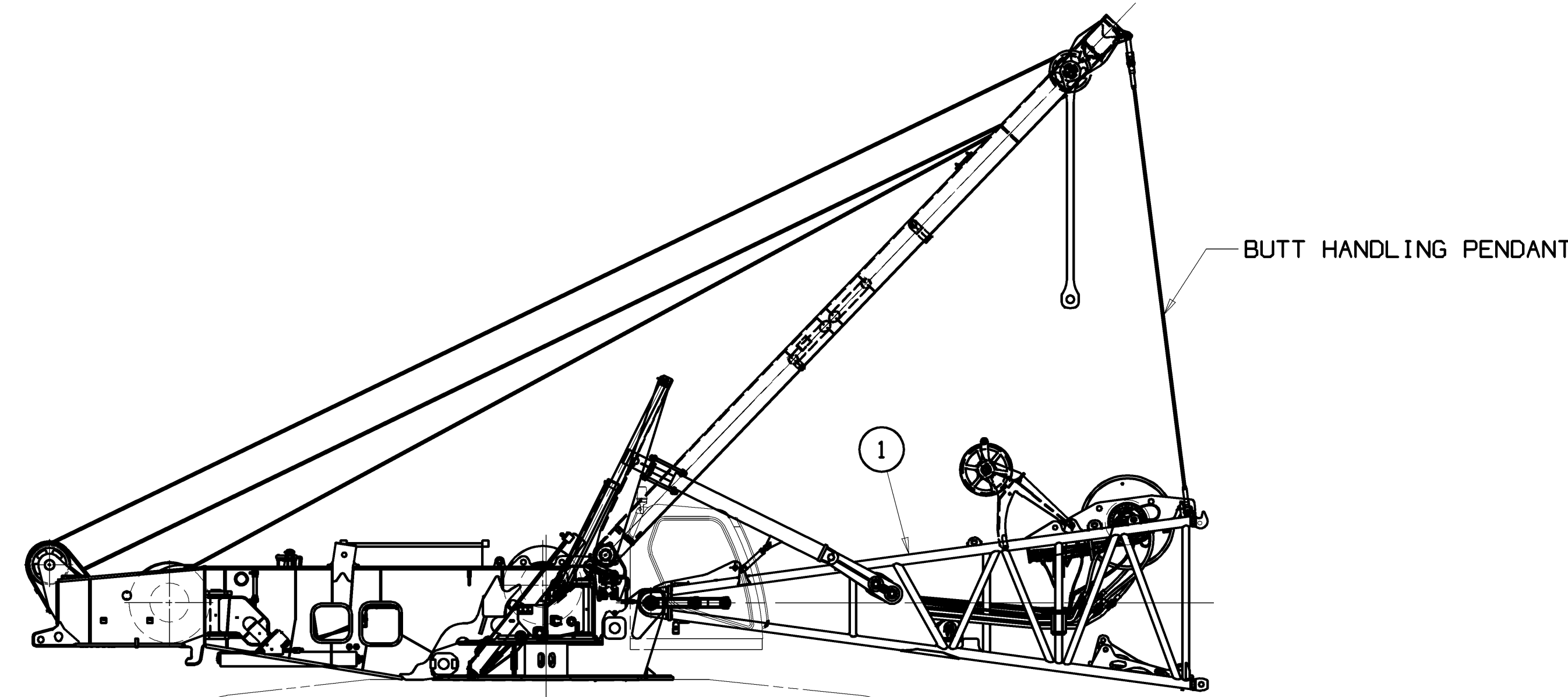
88.9°

PHYSICAL STOP

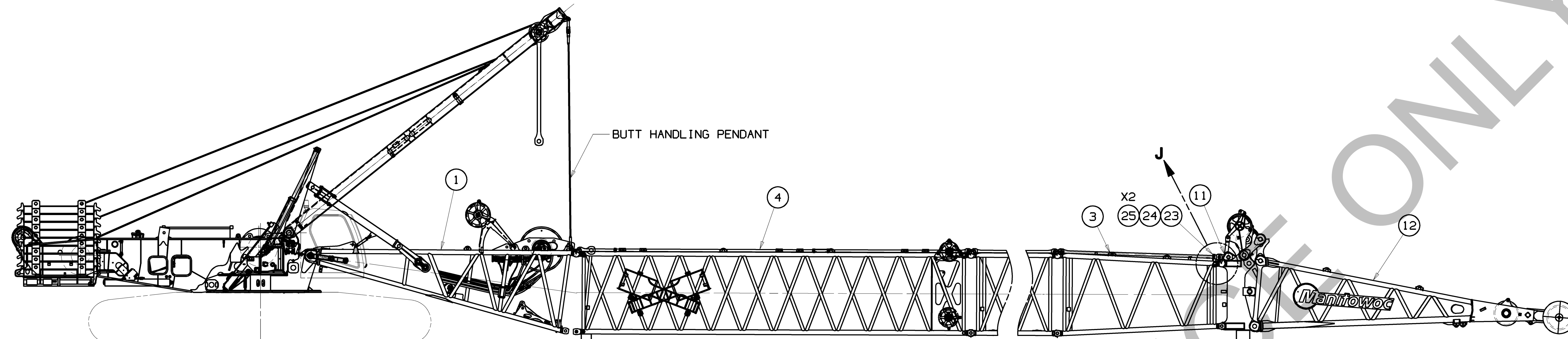
BILL OF MATERIAL					ASSEMBLIES USED ON			
ITEM NO.	REV. NO.	DESC.	UNIT	MATERIAL	QTY	OR	QTY	OR
REVISIONS								
02-15-12 TK PICTURE UPDATED								
04-22-13 RTS A1 CORRECTED VIEW								
B1 CORRECTED NOTE								
								
76.1°								
INITIAL CONTACT SETUP								
								
88.9°								
PHYSICAL STOP								
PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN 605500-05-035								
DATE 10-12-11								
PATTERN NO.								
81018003								



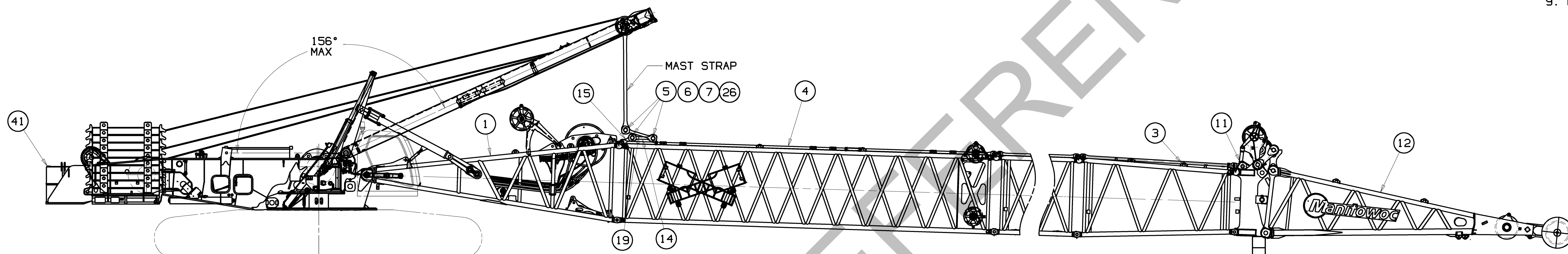
BOOM BUTT INSTALLATION WITH MAST



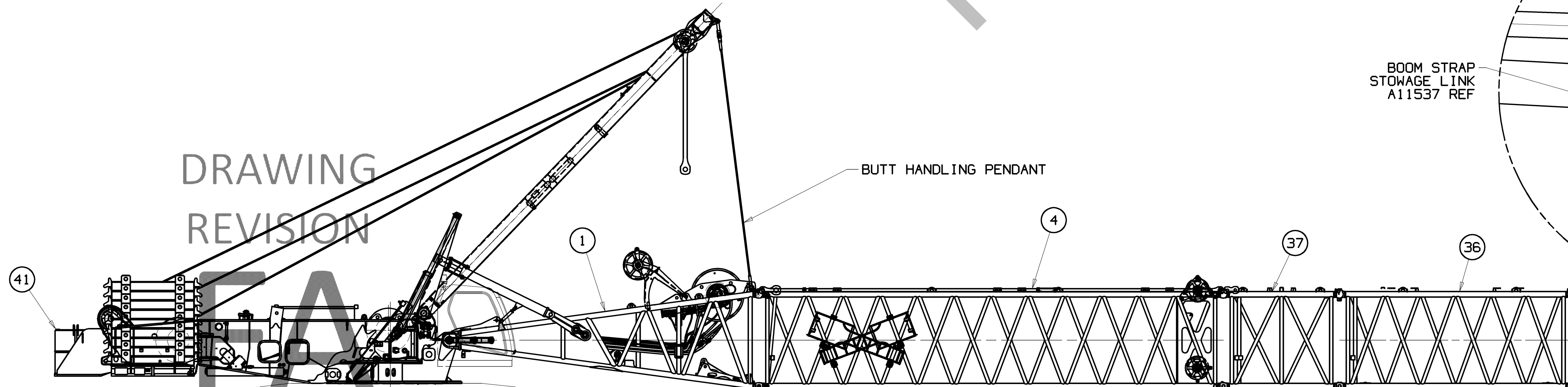
BOOM BUTT HANDLING WITH MAST



BOOM CLOSING



STRAP HOOKUP



BOOM HANDLING WITH MAST

TO ASSEMBLE BOOM

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

1. ASSEMBLE BOOM COMPLETE, WITHOUT BUTT.
2. ATTACH ROPE GUIDES, STRAPS, LINKS AND PINS AS REQ'D.
3. INSTALL BUTT WITH MAST AND ASSEMBLY BLOCK.
4. ATTACH BOOM BUTT HANDLING PENDANTS TO LUGS ON BOOM BUTT. BOOM UP TO CLEAR GROUND WITH BUTT.
5. POSITION MACHINE TO ALIGN UPPER PIN CONNECTOR ON BOOM BUTT WITH UPPER PIN CONNECTOR PINS ON FIRST BOOM INSERT AND ENGAGE PINS.
6. SLOWLY BOOM UP TO ALIGN LOWER PIN CONNECTOR HOLES ON BOOM BUTT WITH LOWER PIN CONNECTOR HOLES IN FIRST BOOM INSERT AND INSERT PINS.

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.

7. BOOM DOWN TO DISCONNECT BOOM HANDLING PENDANTS FROM BUTT AND STOW PENDANTS.
8. BOOM DOWN TO ATTACH BOOM STRAPS ON MAST TO INSERT STRAPS.

WARNING:

DO NOT BOOM DOWN MAST BEYOND 156° WITHOUT ATTACHING ASSIST CRANE OR MAST CAN FALL. UNDER SOME CONDITIONS IT MAY BE NECESSARY TO BLOCK UP STRAPS ON INSERT TO AID STRAP CONNECTION.

9. ATTACH SPECIAL REAR COUNTERWEIGHT ASSY (ITEM 41). REFERENCE DRAWING 81015475 FOR DETAILS.

WARNING:

FAILURE TO ASSEMBLE BOOM SECTIONS BEFORE INSTALLING SPECIAL REAR COUNTERWEIGHT ASSEMBLY MAY RESULT IN CRANE INSTABILITY.

10. BOOM UP TO DESIRED BOOM ANGLE.

TO DISASSEMBLE BOOM

1. BOOM DOWN AND SUPPORT BOOM ON BLOCKING.
2. REMOVE SPECIAL REAR COUNTERWEIGHT ASSY (ITEM 41). REFERENCE DRAWING 81015475 FOR DETAILS.

WARNING:

FAILURE TO REMOVE SPECIAL REAR COUNTERWEIGHT ASSEMBLY BEFORE REMOVING BOOM SECTIONS MAY RESULT IN CRANE INSTABILITY.

3. DISCONNECT MAST STRAPS FROM BOOM INSERT STRAPS.
4. CONNECT BOOM BUTT HANDLING PENDANTS FROM MAST TO BOOM BUTT LUGS.
5. BOOM UP TO REMOVE SLACK FROM BUTT HANDLING PENDANTS.

WARNING:

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

6. REMOVE LOWER BUTT TO INSERT PINS AND BOOM DOWN TO BLOCKING TO DISENGAGE UPPER BOOM BUTT TO INSERT PINS.

WARNING:

BOOM MUST BE PROPERLY BLOCKED TO PREVENT SHIFTING DURING PIN REMOVAL.

7. SLOWLY BACK AWAY FROM BOOM.
8. REMOVE BOOM BUTT FROM ADAPTER FRAME.
9. DISASSEMBLE BOOM WITH MAST.

TO ATTACH ASSEMBLY BLOCK

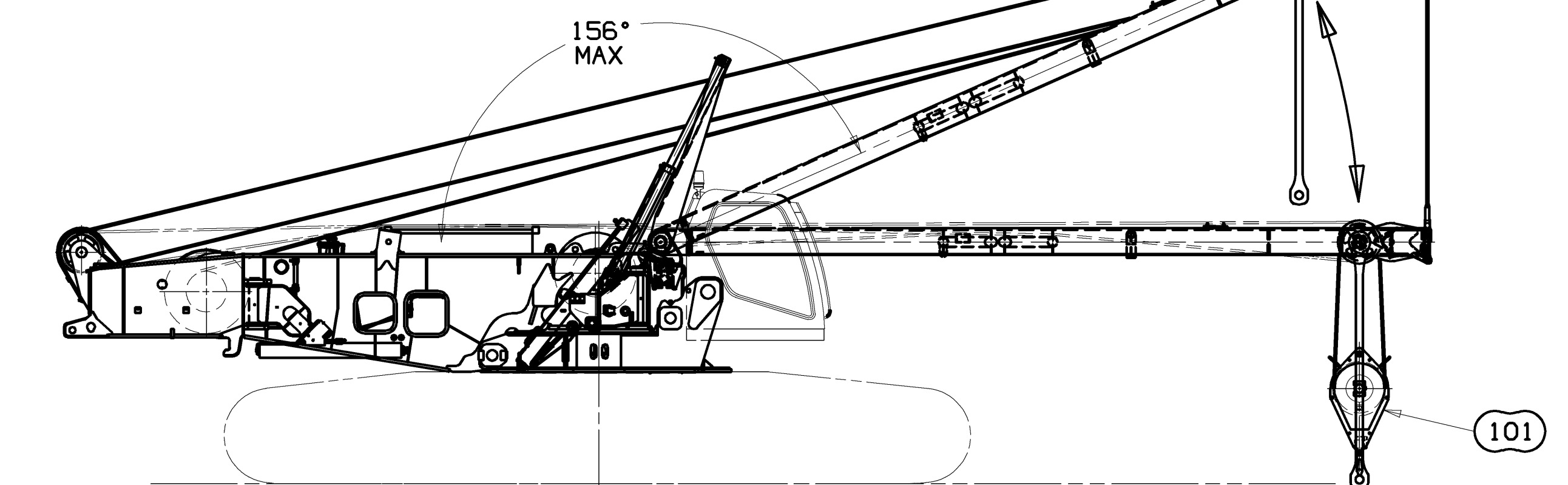
WITH MACHINE ON PEDESTALS FOR MACHINE ASSEMBLY
OR ON CRAWLERS FOR MACHINE DISASSEMBLY

1. BOOM DOWN MAST TO 156° MAXIMUM.

WARNING:

DO NOT BOOM DOWN MAST BEYOND 156° WITHOUT ATTACHING ASSIST CRANE OR MAST CAN FALL.

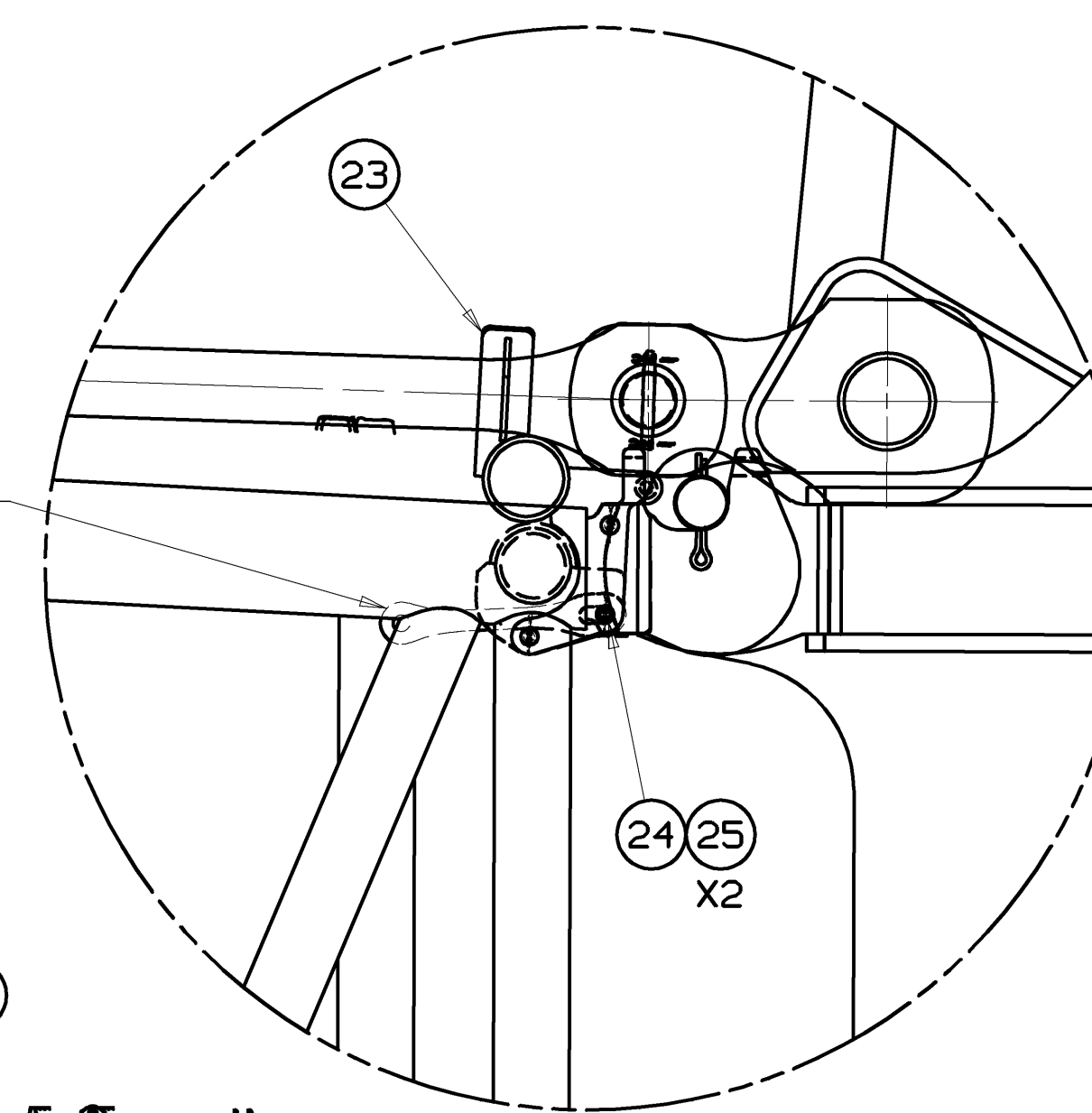
2. ATTACH ASSIST CRANE TO ONE OF THE BOOM BUTT HANDLING PENDANTS.
3. LOWER MAST WITH ASSIST CRANE WHILE BOOMING DOWN WITH BOOM HOIST TO LOWER MAST TO HORIZONTAL AND INSTALL BLOCK.
4. RAISE MAST WITH ASSIST CRANE WHILE BOOMING UP WITH BOOM HOIST TO RAISE MAST TO 156° OR LESS.
5. DISCONNECT ASSIST CRANE AND STOW PENDANT.



MAST LOWERING TO HORIZONTAL FOR ASSEMBLY BLOCK HOOKUP

BOOM HANDLING WITH MAST
WITH BOOM HANDLING PENDANTS ON MAST
ATTACHED TO LUG ON BOOM BUTT; MAXIMUM BOOM
THAT CAN BE CANTILEVERED IS AS FOLLOWS.

LENGTH	3 M (9.8 FT) INSERT	6 M (19.7 FT) INSERT	12 M (39.4 FT) INSERT
12 M (39.4 FT)	0	0	1
15 M (49.3 FT)	1	0	1
18 M (59.1 FT)	0	1	1
21 M (69.0 FT)	1	1	1



DETAIL J
SCALE: 1-1/2=1FT

DRAWING
REVISION

PIN (81013272)
OPERATING POSITION

PIN (81013272)
OPERATING POSITION

INTERMEDIATE
SUSPENSION
STRUT BEAM

INTERMEDIATE
SUSPENSION
STRUT

INTERMEDIATE SUSPENSION
STEP 1
SCALE: 1=1FT

STORAGE
LOCATION

STORAGE
LOCATION

BOOM STRAP LINK
CENTER LINE

132.00
5235.26mm
(STRUT
LENGTH)

PIN LOCATED IN
BOTTOM HOLE (FIRST
HOLE FROM BOTTOM
OF UPPER WELDMENT)

LOWER BOOM JOINT
CENTER LINE

STRUT CONFIGURATION FOR 95M BOOM

INTERMEDIATE SUSPENSION
STEP 6
SCALE: .75=1FT

INTERMEDIATE SUSPENSION
STEP 2
SCALE: .75=1FT

VIEW F-F
SCALE: .75=1FT

318.80mm
12.551in

VIEW G-G
SCALE: .75=1FT

REMOVE PINS
FROM SHIPPING
POSITION

INTERMEDIATE SUSPENSION
STEP 5
SCALE: 1.5=1FT

TOP HOLE
(FIFTH HOLE
FROM BOTTOM)

FOURTH HOLE
FROM BOTTOM

THIRD HOLE
FROM BOTTOM

SECOND HOLE
FROM BOTTOM

BOTTOM HOLE
(FIRST HOLE
FROM BOTTOM)

VIEW H-H
VIEW ROTATED FOR CLARITY
SCALE: 1=1FT

INTERMEDIATE SUSPENSION
STEP 7
SCALE: 1.5=1FT

INTERMEDIATE SUSPENSION
STEP 3
SCALE: 1=1FT

SECTION J-J
SCALE 1=1FT
TYP 2 PLACES

INTERMEDIATE SUSPENSION
STEP 4
SCALE: 1=1FT

INTERMEDIATE SUSPENSION INSTALLATION

SEE BOOM MAKEUP VIEW ON SHEET 2 FOR INTERMEDIATE SUSPENSION (ITEM 40)
LOCATION FOR 95M BOOM LENGTH. REFERENCE INTERMEDIATE SUSPENSION ASSY
81017593 FOR ADDITIONAL INFORMATION.

- STEP 1. LOCATE INTERMEDIATE SUSPENSION STRUT (ITEM 40) IN COLLAPSED CONFIGURATION AT END OF 12 METER INSERT (ITEM 35). REMOVE PIN/COLLAR/PINS (ITEMS 26, 31, 32 AND 33) FROM STRUT (ITEM 29) AND REPLACE WITH PIN/ COLLAR/PINS PROVIDED WITH INTERMEDIATE SUSPENSION. STOW STANDARD PIN/ COLLAR/PINS IN LOCATION PROVIDED ON INTERMEDIATE SUSPENSION STRUT. FASTEN INTERMEDIATE SUSPENSION STRUT BEAM TO UPPER MALE CONNECTORS USING PINS PROVIDED WITH INTERMEDIATE SUSPENSION.
- STEP 2. ASSEMBLE BOOM COMPLETE WITH INTERMEDIATE SUSPENSION (ITEM 40) LOCATED BETWEEN 12 METER INSERTS (ITEMS 35).
- STEP 3. DISASSEMBLE STRAPS (ITEM 29) FROM INTERMEDIATE SUSPENSION STRUT AND RAISE INTERMEDIATE SUSPENSION STRUT TO ALLOW CLEARANCE TO ROTATE LINKS (ITEM 30) INTO POSITION WITH STRAPS FROM ADJACENT 12 METER INSERT.
- STEP 4. POSITION INTERMEDIATE SUSPENSION STRUT (ITEM 40) TO ALIGN WITH LINKS AND STRAPS. USE PIN (81013272) (OPERATING POSITION SEE VIEW F-F AND G-G) TO ALIGN HOLES (SEE SECTION J-J) REASSEMBLE PIN/COLLAR/PINS FROM INTERMEDIATE SUSPENSION STRUT. REMOVE PIN (81013272) AND MOVE TO OPERATING POSITION. CONNECT THE REMAINDER OF THE BOOM STRAP LINKS.
- STEP 5. SLOWLY BOOM UP TO RAISE THE INTERMEDIATE SUSPENSION STRUT TO ATTACH THE INTERMEDIATE SUSPENSION STRUT SUPPORTS (SEE VIEWS F-F AND G-G). SLOWLY BOOM DOWN TO SUPPORT BOTTOM SECTION OF INTERMEDIATE SUSPENSION STRUT. SLOWLY BOOM UP OR DOWN TO UNLOAD PIN IN THE INTERMEDIATE SUSPENSION STRUT. REMOVE PINS FROM SHIPPING POSITION ALLOWING LOWER SECTION TO REST ON INTERMEDIATE SUSPENSION STRUT SUPPORTS.
- STEP 6. BOOM UP SLOWLY AND INSERT PINS IN HOLES FOR THE REQUIRED INTERMEDIATE SUSPENSION STRUT LENGTH. TAKE CARE THAT INTERMEDIATE SUSPENSION STRUT DOES NOT HANG UP ON THE BOOM STRAP BRACKETS.
- STEP 7. CONTINUE BOOMING UP TO ENGAGE INTERMEDIATE SUSPENSION STRUT SHAFT WITH INTERMEDIATE SUSPENSION STRUT BEAM. TAKE CARE THAT INTERMEDIATE SUSPENSION STRUT DOES NOT HANG UP. CLOSE INTERMEDIATE SUSPENSION STRUT LATCH AND SECURE WITH PROVIDED PINS.

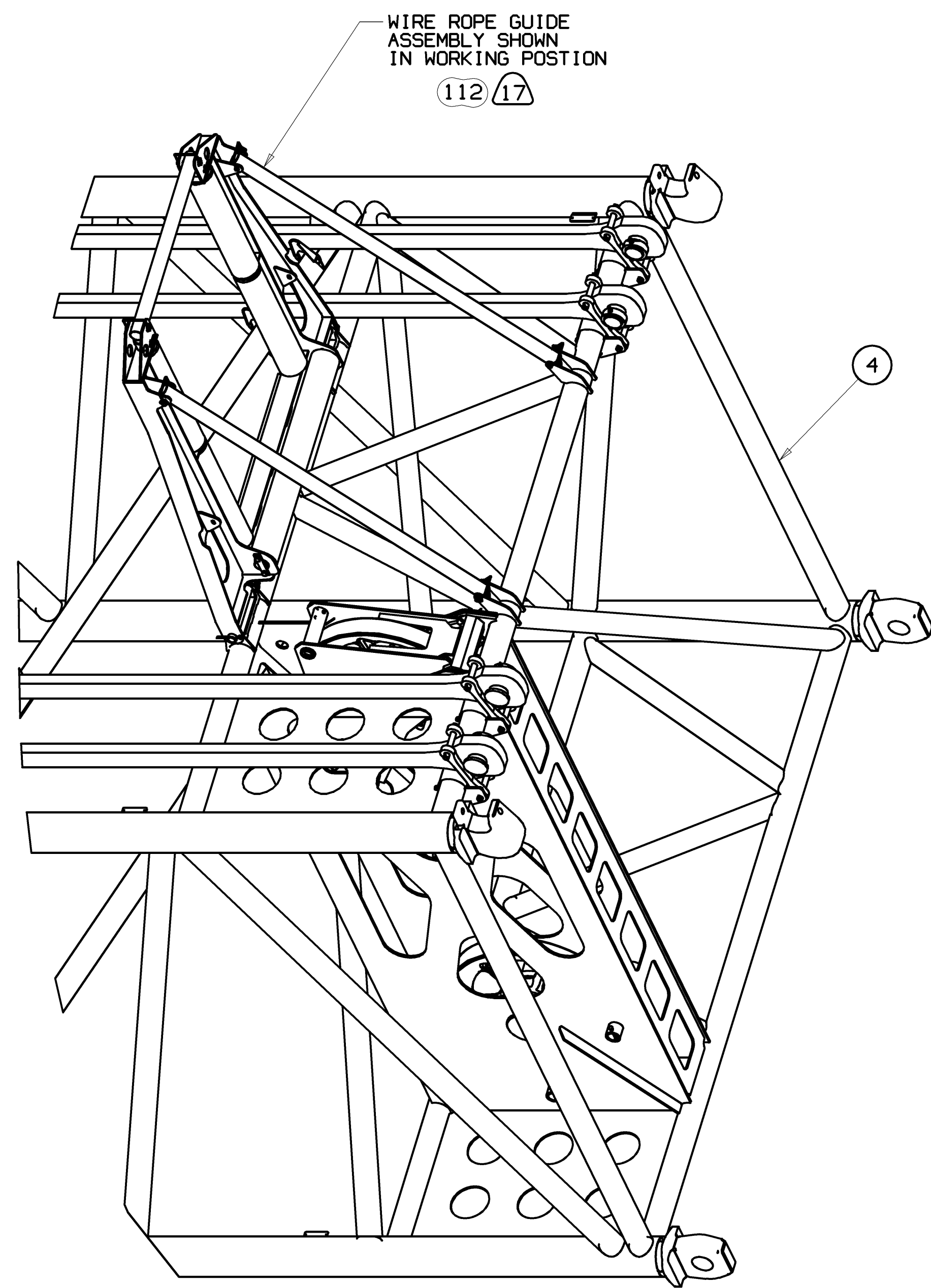
NOTE: TO DISASSEMBLE INTERMEDIATE SUSPENSION REVERSE STEPS IN THE INTERMEDIATE SUSPENSION INSTALLATION PROCEDURE.

THIS PRINT REMAINS THE PROPERTY OF MANITOWOC CRANES, INC. 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.		TOLERANCE UNLESS OTHERWISE SPECIFIED: FABRICATION DECIMAL PLACES ± 10 FEET > 10 FEET ± .12 ± .18 ± .015 (2) PLACE 0.00 ± .06 ± .12 ± .015 (3) PLACE 0.000 ± .005 ± .005 ANGLES ± 1° ± 30'		SCALE Manitowoc Cranes, Inc. Manitowoc, Wisconsin MODEL 16000 APP JST	DR. DJS CK. JST APP JST	BOOM ASSY #58WA W/ AUX CWT	DATE 10-12-11 PATTERN NO.
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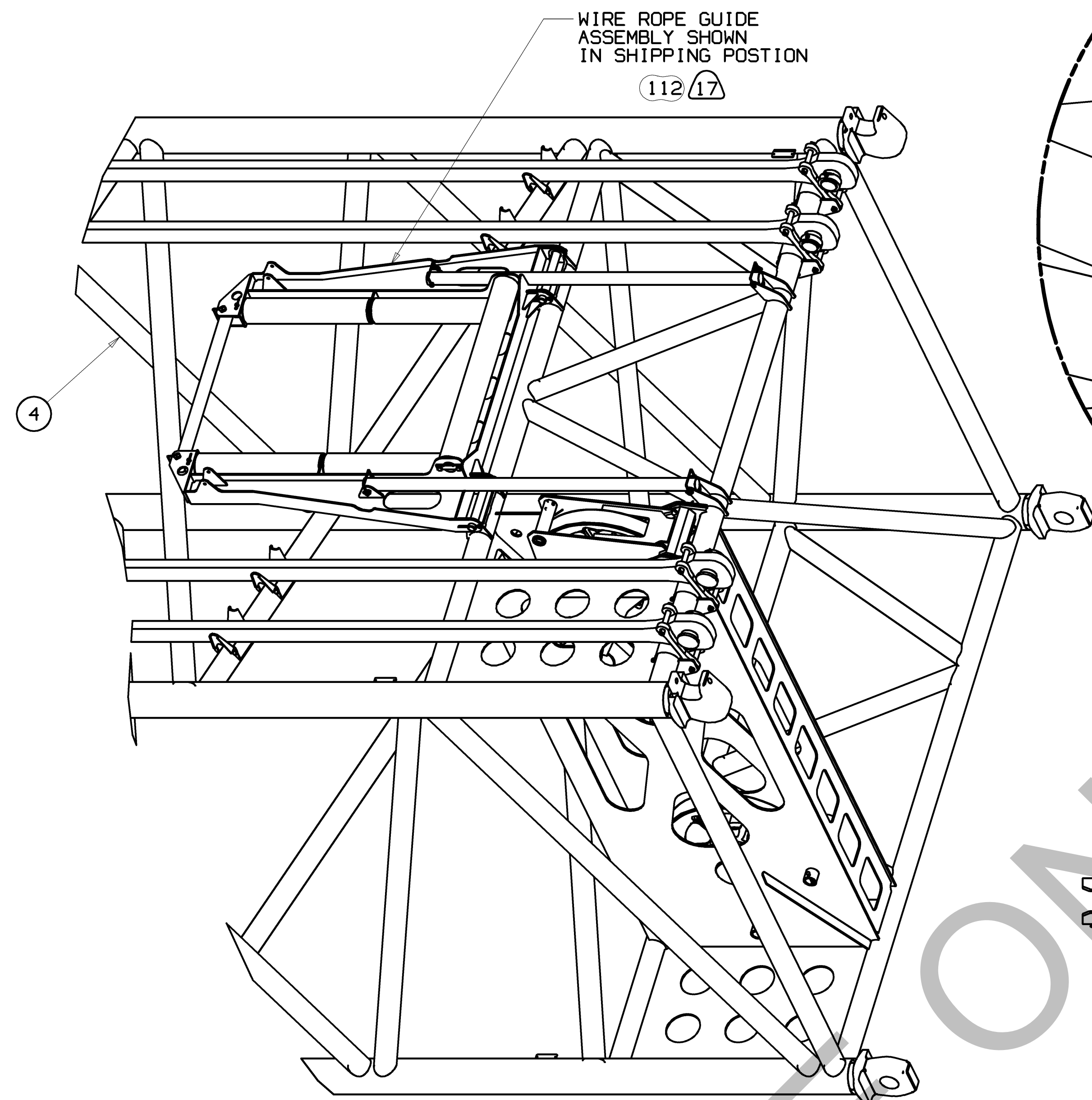
PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN 682900-06-026

81018003

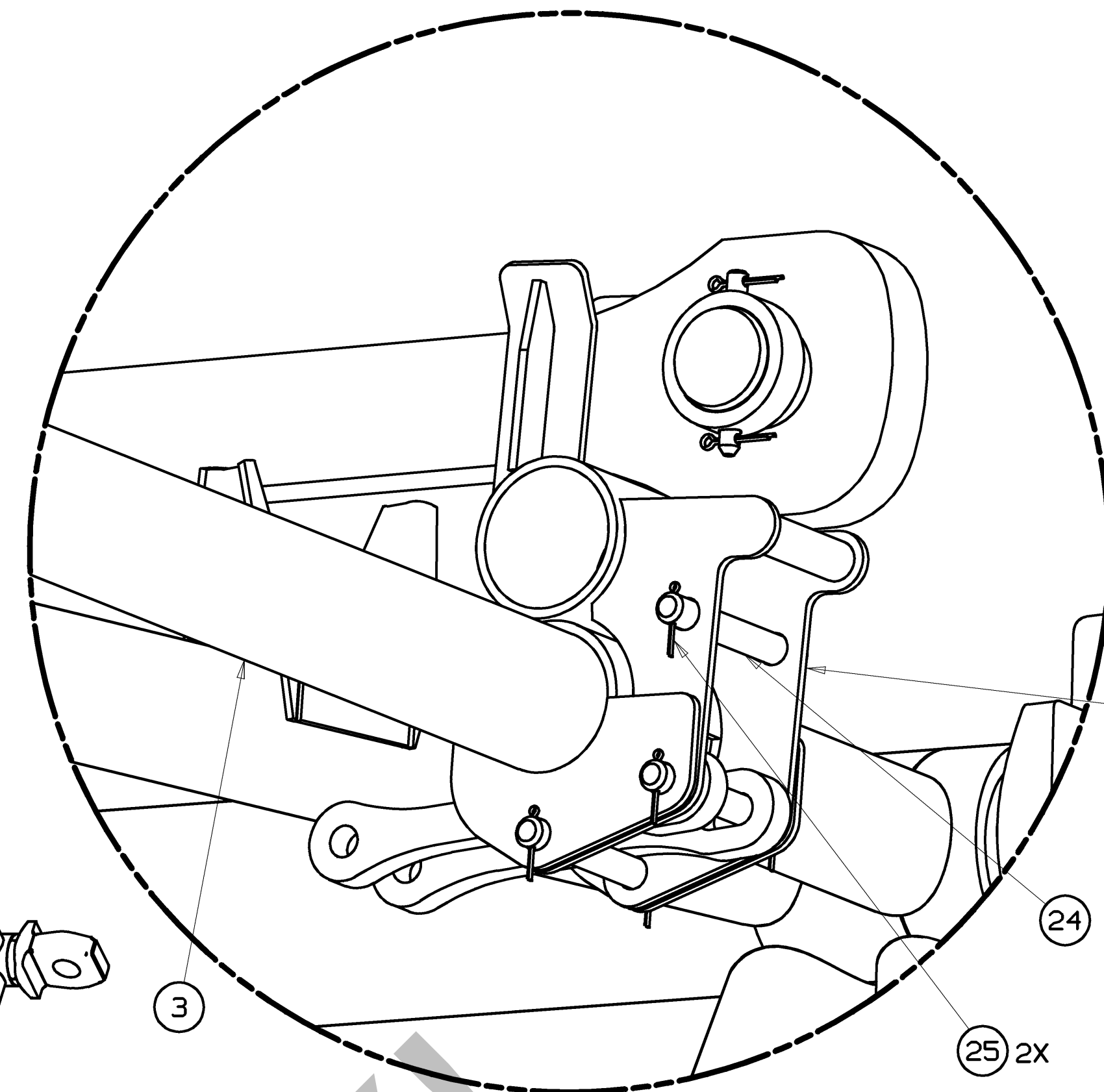
SHT 4 OF 5



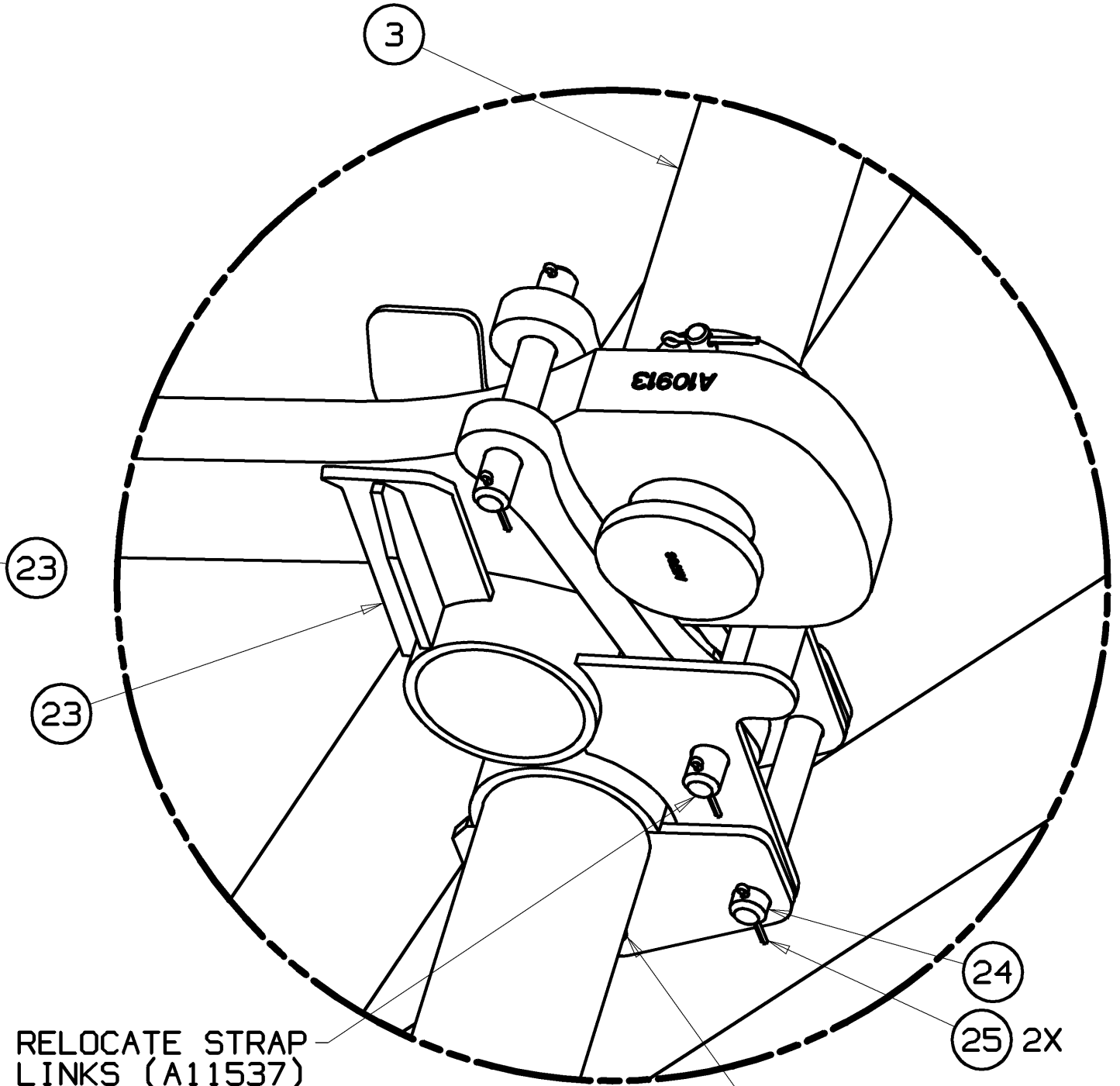
WIRE ROPE GUIDE IN WORKING POSITION



WIRE ROPE GUIDE IN SHIPPING POSITION



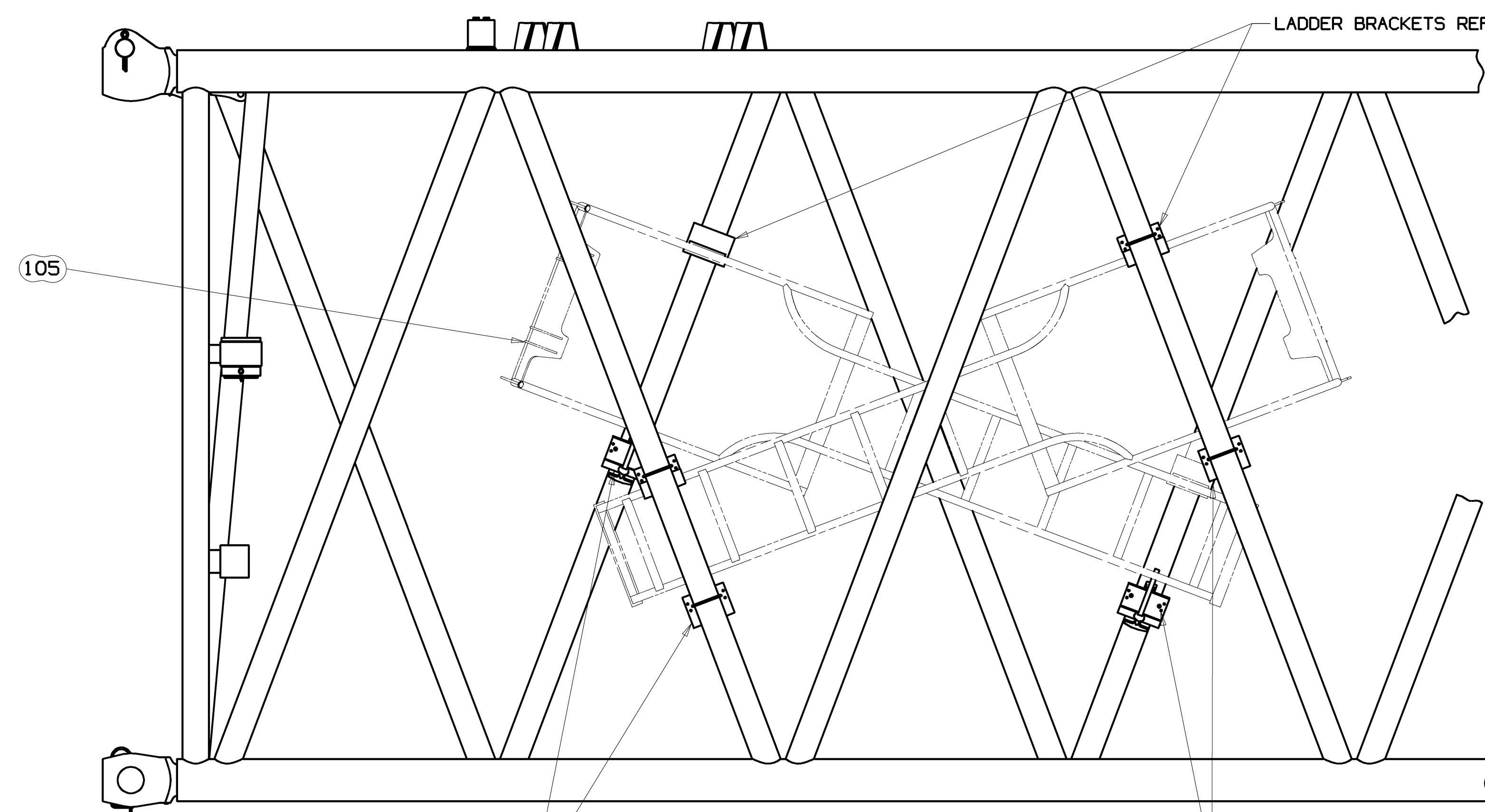
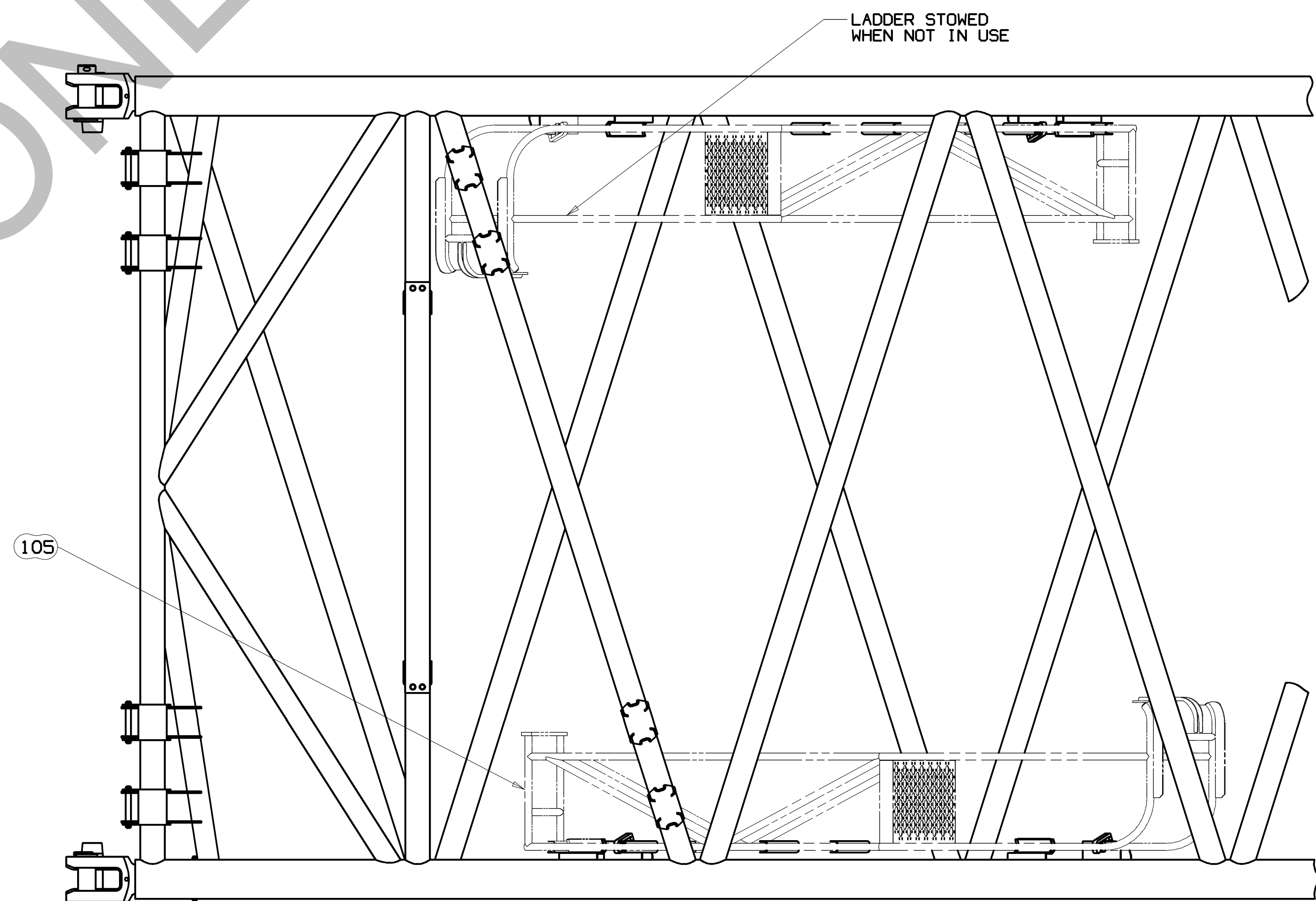
DETAIL K
SCALE 4=1FT
TYP 2 PLACES



DETAIL L
OPTIONAL SHIPPING POSITION
FOR ITEM 23 (81011868)
SCALE 4=1FT
TYP 2 PLACES

PIN A11795 AND
QTY 2 COTTER
PINS (A11795)
FROM BOOM CAP ASSY
81009868 (NOT SHOWN)

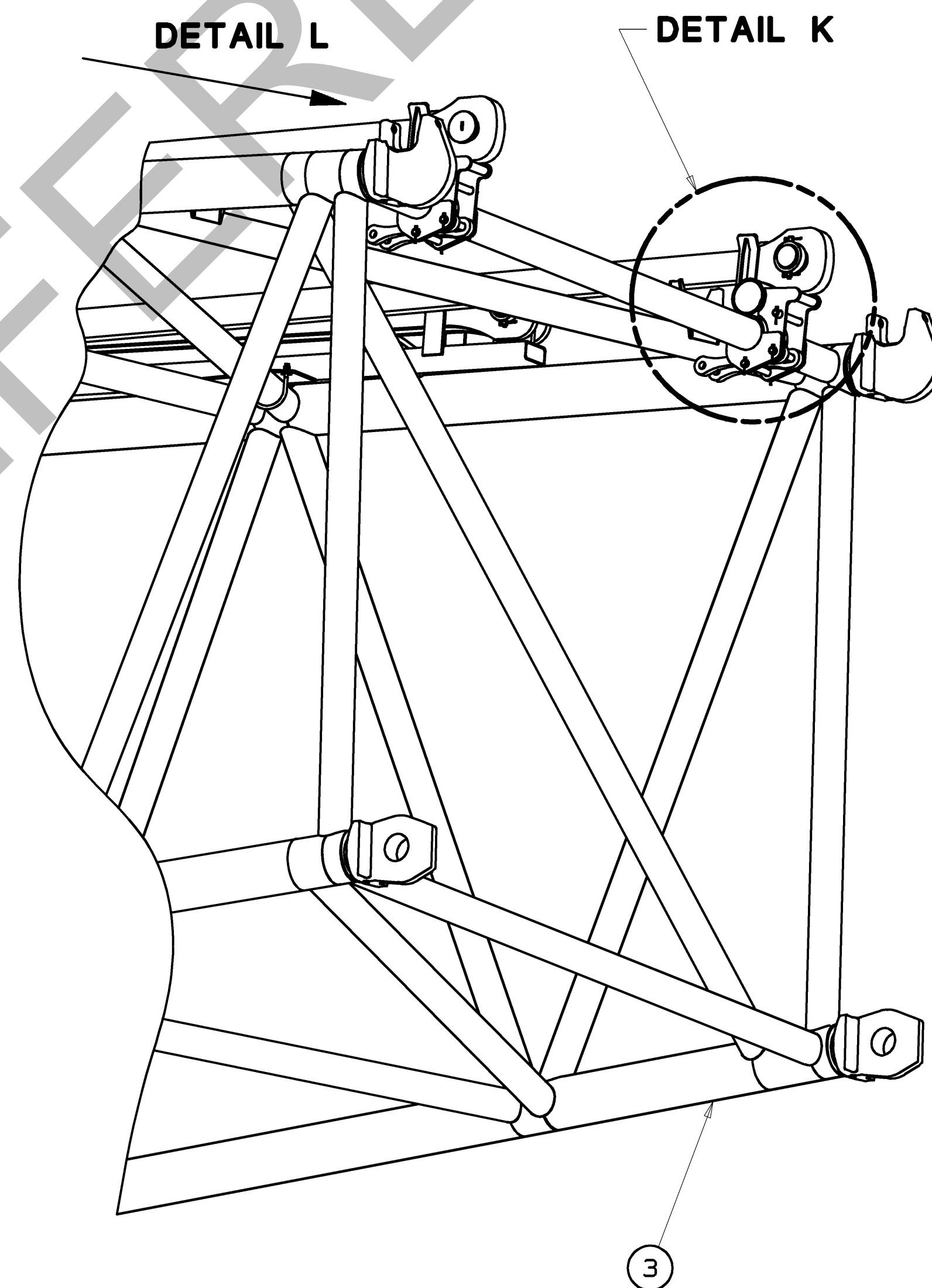
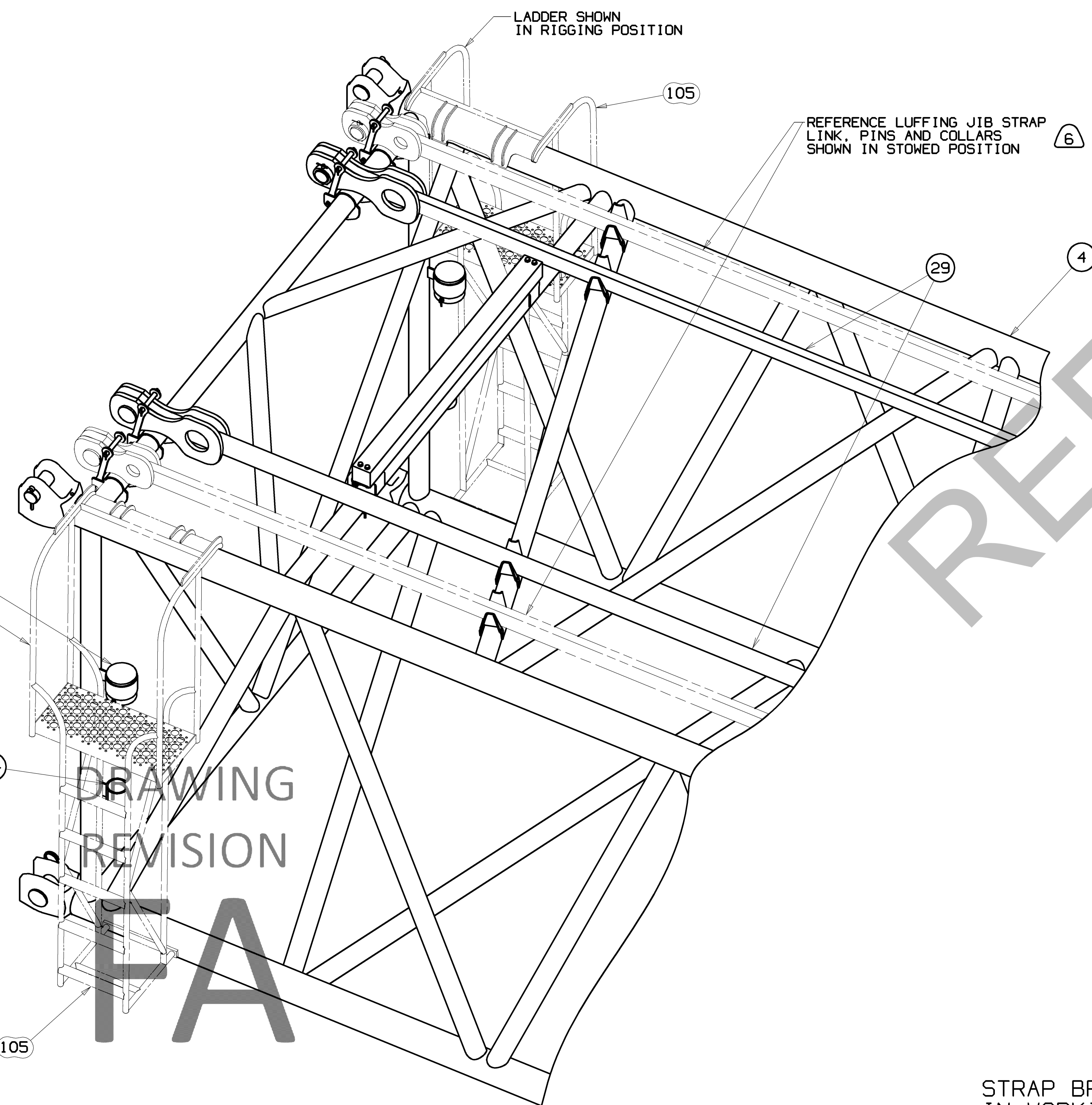
RELOCATE STRAP
STOWAGE LINKS (A11537)
AND PINS (A11795) FROM
TRANSITION INSERT HERE
2 PLACES



SECURE LADDERS IN BRACKETS
FOR STORAGE AND SHIPPING

LADDER BRACKETS REF

LADDER BRACKETS REF



STRAP BRACKET 81011868 STORED ON BOOM CAP
IN WORKING POSITION ON TRANSITION INSERT

LADDER SHOWN
IN RIGGING
POSITION

DRAWING
REVISION

FA

REFER TO INSERT ASSEMBLY
FOR DETAILED ITEMS

TOLERANCE UNLESS OTHERWISE SPECIFIED		SCALE	MANUFACTURED BY	
DECIMAL PLACES	FABRICATION	1/16"=1'-0"	DR. DJS	BOOM ASSY
(1) PLACE 0.0	± 0.00	1/32"=1'-0"	CK. JST	#58WA W/ AUX CWT
(2) PLACE 0.00	± 0.00	1/64"=1'-0"	APP. JST	
(3) PLACE 0.000	± 0.000	1/128"=1'-0"		
ANGLES	± 1°			