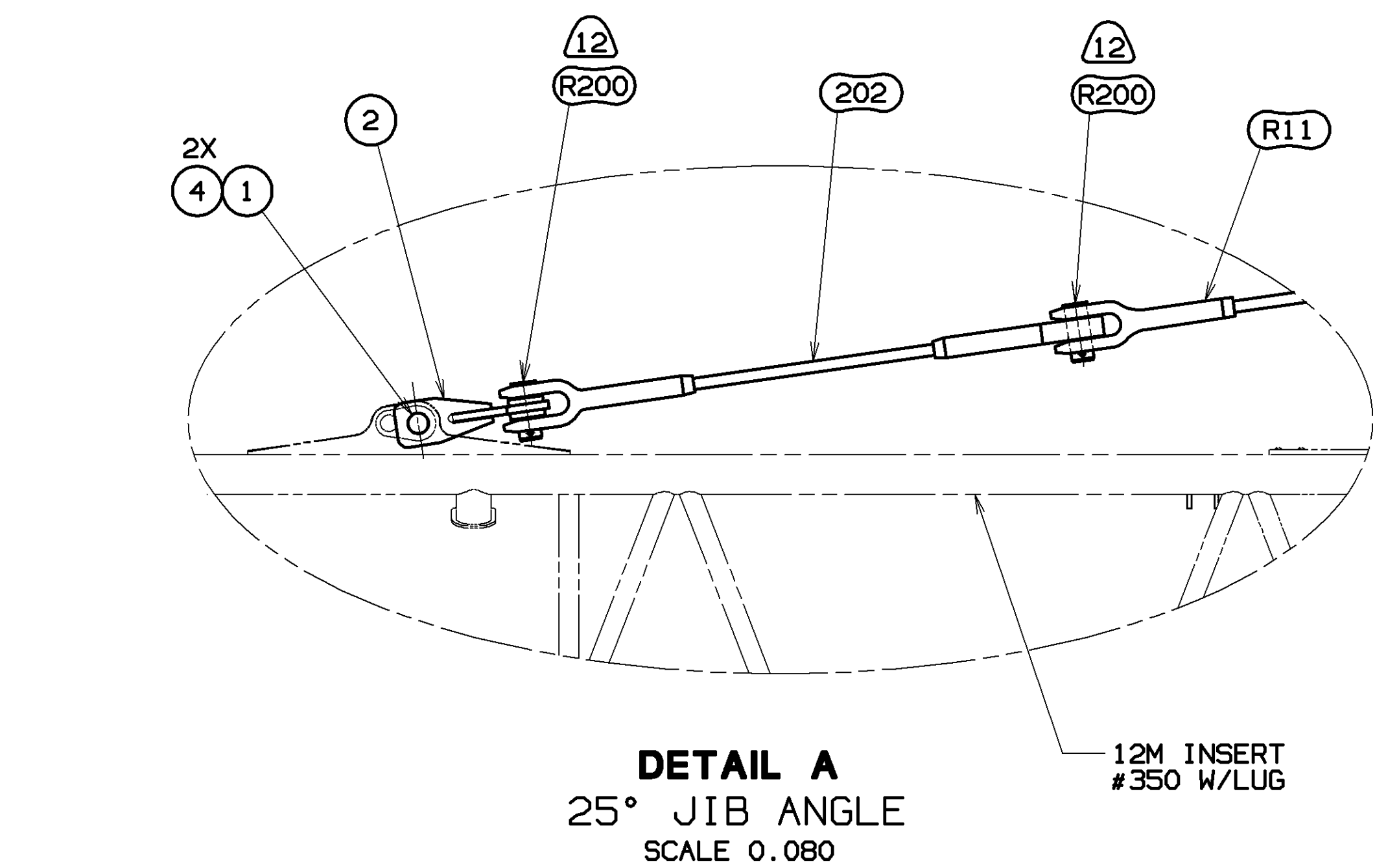
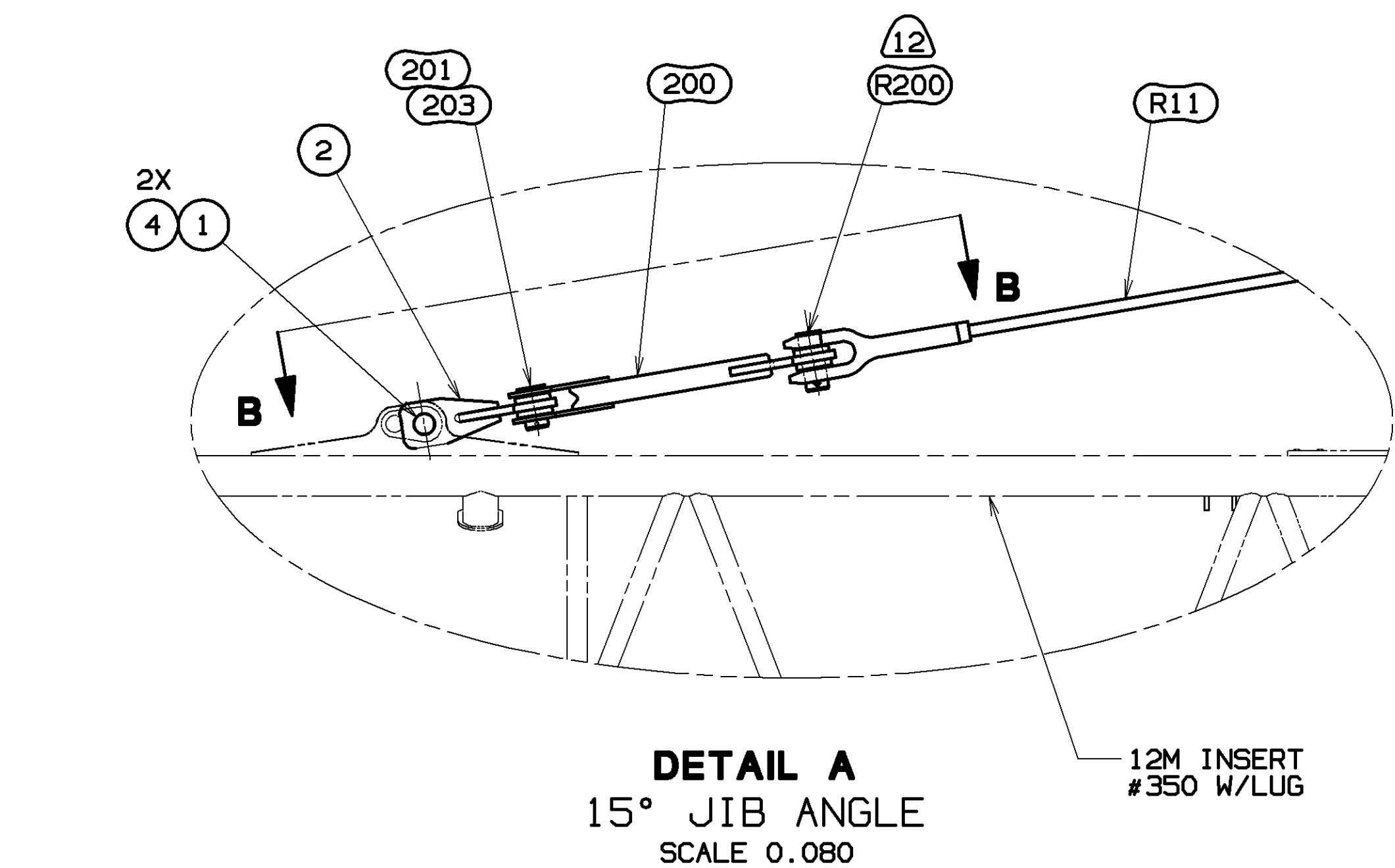
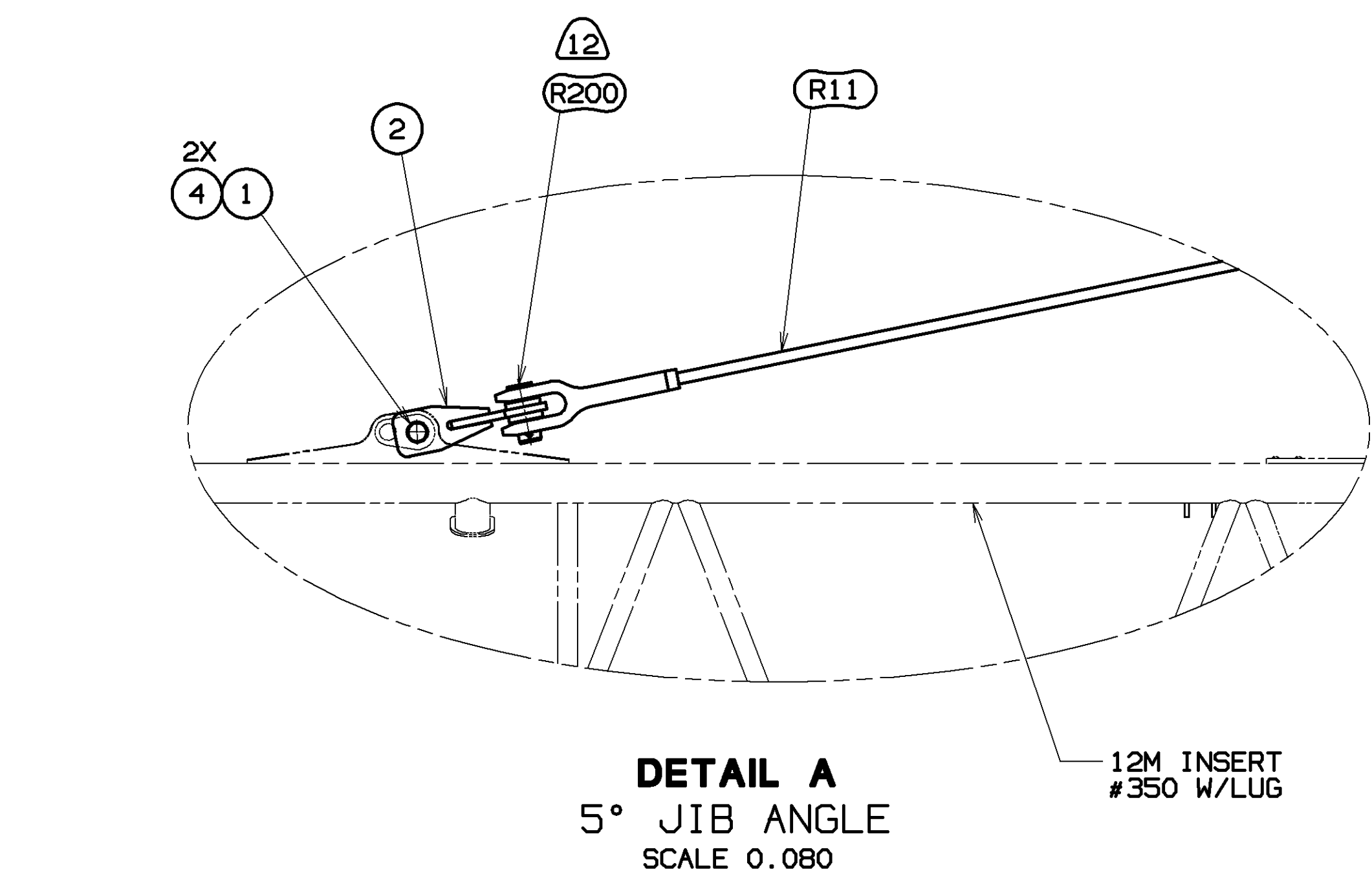
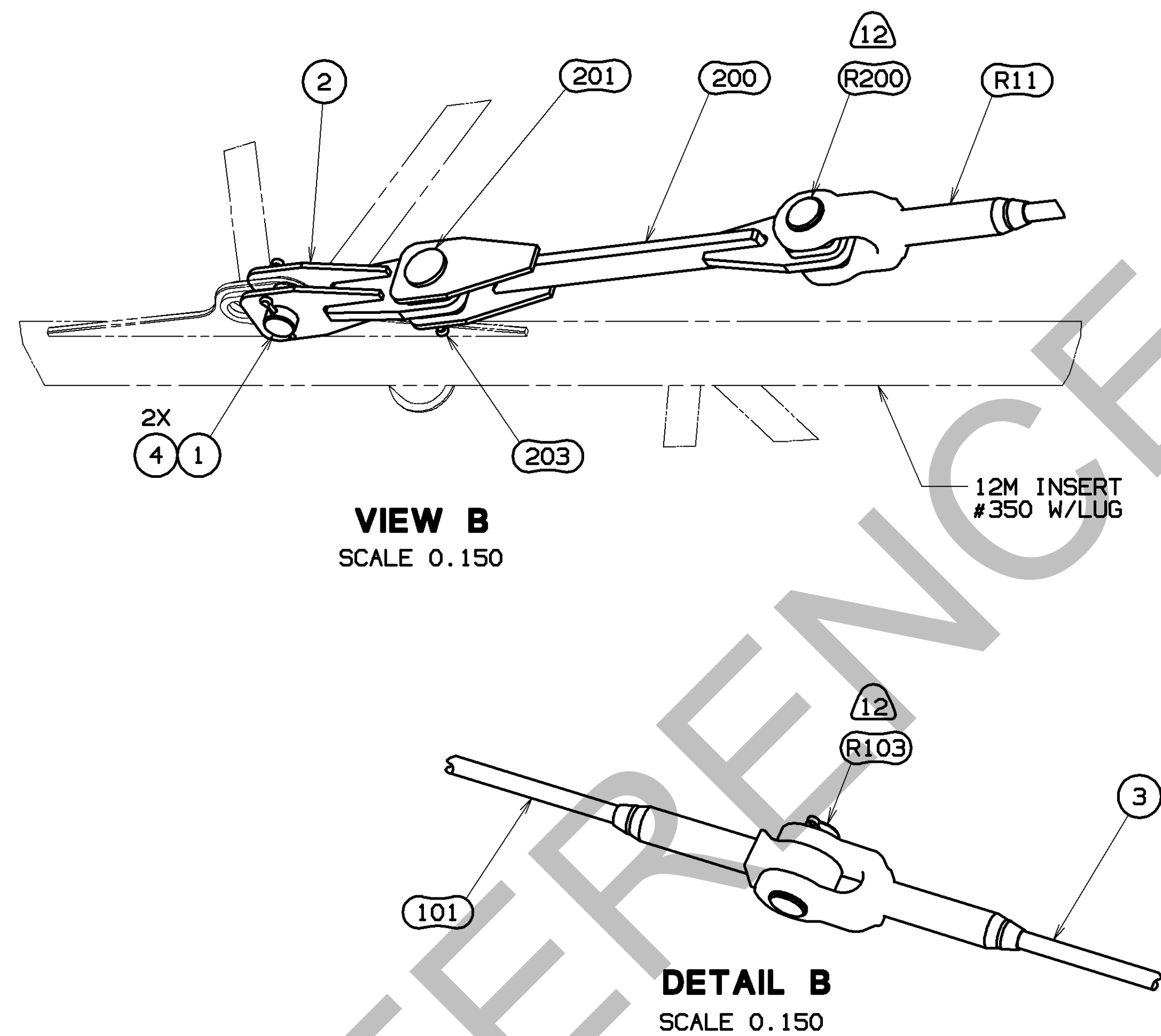


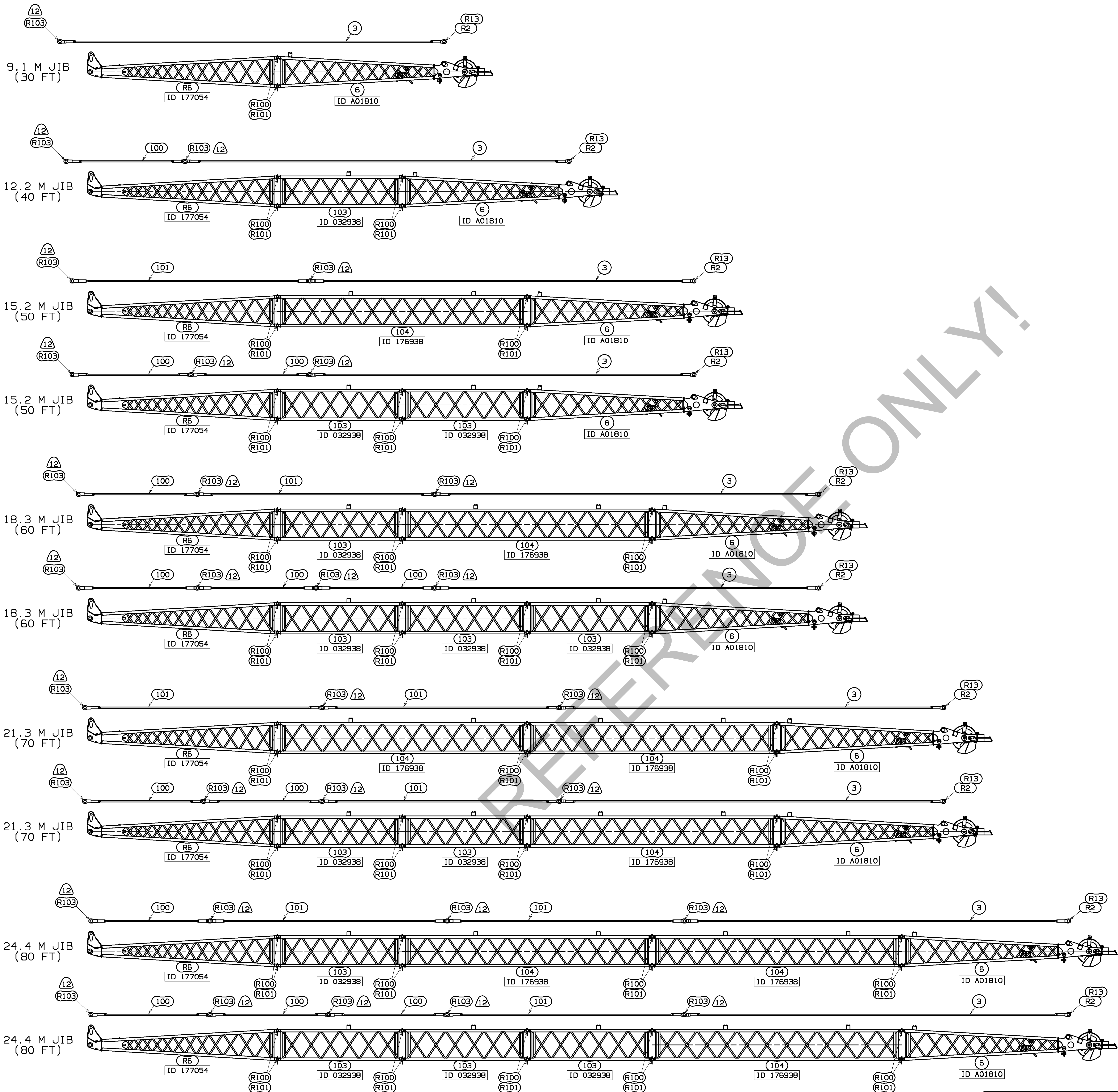
REQUIRED FOR VARIOUS JIB LENGTHS (2)								
ITEM NO.	103	104	100	101	R100	R101	R103	
JIB LENGTH	INSERT 3.05 M (10 FT-0) ASSY	INSERT 6.10 M (20 FT-0) ASSY	PENDANT 2.89 M (9 FT-6.0)	PENDANT 5.79 M (19 FT-0)	PIN JIB JOINT	PIN COTTER	PENDANT PIN	
METERS	FEET							
9.1	30	0	0	0	4	4	2	
12.2	40	1	0	2	8	8	4	
15.2	50	0	1	0	8	8	4	
18.3	60	1	0	2	12	12	6	
21.3	70	2	1	4	16	16	8	
24.4	80	3	2	6	20	20	10	

REQUIRED FOR VARIOUS JIB ANGLES					
ITEM NO.	202	200	201	203	R200
JIB ANGLE	PENDANT 1.42 M (4 FT-8.0)	LINK	PIN	PIN COTTER	PENDANT PIN
5°	0	0	0	0	2
15°	0	2	2	2	2
25°	2	0	0	0	4



- MINIMUM BOOM LENGTH REQUIRED FOR JIB = 27.0 M (88.6 FT)
- INSERTS AND CORRESPONDING PENDANTS MUST BE INSTALLED IN ORDER OF ASCENDING LENGTH STARTING AT JIB BUTT. PENDANTS MUST BE INSTALLED IN MATCHED SETS. SEE SHEET 2 FOR JIB/JIB PENDANT MAKE-UP.
- SEE SHEET 3 FOR FIXED JIB SHIPPING CONFIGURATION.
- ON DRAWING A02422
- ON DRAWING A02308
- TOP 15 FT (4.57 M) I.D. TAG #A01810.
- INSERT 10 FT (3.05 M) I.D. TAG #032938.
- INSERT 20 FT (6.10 M) I.D. TAG #176938.
- BUTT 15 FT (4.57 M) I.D. TAG #177054.
- ITEM R7 REPLACES PENDANT (ITEM R11) SUPPLIED PIN. THE PENDANT PIN IS REUSED/RELOCATED TO STOW THE SPREADER (ITEM R22) FOR SHIPPING. (SEE FIXED JIB SHIPPING CONFIGURATION ON SHEET 3). THIS PENDANT PIN IS NOT INCLUDED IN THE JIB ANGLE TABLE (SHEET 1) AS ITEM R200.
- RELOCATE FROM MAIN BOOM.
- FOR REPLACEMENT INFO ONLY. PENDANT PINS ARE FURNISHED WITH PENDANT.
- LOCATE PIN HEAD TOWARD OUTSIDE OF JIB.
- USE ADAPTER 196135 FROM OPTION 2 ON TOP ASSY 80117865 (ITEM 6).
- LOCATED IN PARTS BOX 80124069.
- SEE DETAIL H ON SHEET 4.

BILL OF MATERIAL				ASSEMBLIES USED ON	
ITEM NO.	DESCRIPTION	QUANTITY	MATERIAL	ITEM NO.	ITEM NO.
JIB RIGGING FJ134 ON B10:350					
1	PIN 2 HOLE 2.00 DIA X 2.59 LG	073045			
2	LINK	177299			
3	PENDANT 30 FT-9.00 (9.37 M)	277430	4		
4	PIN COTTER 3/8 DIA X 3.00 LG	562150			
5					
6	TOP ASSY #134	80117865	6		
7	FIXED JIB #134 BUTT ASSY	80118524	3		
8					
NO. REQ'D FOR THE FOLLOWING ITEMS ARE IN THE JIB LENGTH TABLE					
100	PENDANT 9 FT-6.00 (2.89 M)	276729	4		
101	PENDANT 19 FT-0.00 (5.79 M)	277422	4		
102					
103	INSERT ASSY #134 10FT	80117866	7		
104	INSERT ASSY #134 20FT	80117867	8		
105					
NO. REQ'D FOR THE FOLLOWING ITEMS ARE IN THE JIB ANGLE TABLE					
200	LINK	177298			
201	PIN 1 HOLE W/HD 2.25 X 3.17 LG	177302			
202	PENDANT 4 FT-8.00 (1.42 M)	277431	4		
203	PIN COTTER 3/8 DIA X 3.50 LG	562151			
204					
OPTIONAL PARTS FOR BLOCK HOOK AND WEDGE/BUTTON SOCKET AND ADAPTER (16)					
300	BLOCK 30 MTON 1 SHEAVE	80120391			
301	OVERHAUL BALL 15 MTON	80120392			
302					
303	WEDGE SOCKET	646246	15		
304	SOCKET BUTTON 22-26MM WIRE ROPE	A11041	15		
BASIC REFERENCE ITEMS					
R1	PIN 2 HOLE 1.00 DIA X 1.72 LG	070646			
R2	PIN 1 HOLE W/HD 2.25 DIA X 3.55 LG	075052	13		
R3					
R4	PIN 2 HOLE 2.00 DIA X 3.35 LG	166901			
R5	PIN 2 HOLE 2.00 DIA X 4.69 LG	170851			
R6	BUTT JIB 15 FT #134	177054	9		
R7	PIN 1 HOLE W/HD 2.25 DIA X 4.80 LG	177303	10		
R8	PIN 2 HOLE 1.75 DIA X 2.72 LG	177367			
R9	PIN 2 HOLE 2.50 DIA X 3.22 LG	177397			
R10					
R11	PENDANT #134 JIB BACKSTAY BASIC	277432	5		
R12					
R13	PIN COTTER 3/8 DIA X 3.50 LG	562151			
R14	PIN COTTER 3/8 DIA X 4.00 LG	562152			
R15	PIN COTTER 1/2 DIA X 3.50 LG	562171			
R16	PIN SAFETY .25x1.75 LG	563823			
R17	PIN SAFETY .375x2.25 LG	563871			
R18					
R19	SHACKLE ANCHOR ROUND PIN .250 GALV	624631			
R20					
R21	STRUT ASSY #134 JIB	80117864			
R22	SPREADER FRAME ASSY #134 JIB	80118012			
R23	STOP ASSY #134 JIB	80118515			
R24					
R25	ESI POSITION LIGHT AND ANEMOMETER	81031642	11		
R26					
R27	GUARD WIRE ROPE 1.63 00 X .281 W X 14.25 LG	A02370			
R28					
NO. REQ'D FOR THE FOLLOWING REFERENCE ITEMS ARE IN THE JIB LENGTH TABLE					
R100	PIN 1 HOLE W/HD 1.38 DIA X 2.48 LG	076225	13		
R101	PIN COTTER 3/8 DIA X 6.00 LG	562158			
R102					
R103	PIN 1 HOLE W/HD 2.25 DIA X 4.66 LG	546097	12		
R104					
NO. REQ'D FOR THE FOLLOWING REFERENCE ITEMS ARE IN THE JIB ANGLE TABLE					
R200	PIN 1 HOLE W/HD 2.25 DIA X 4.66 LG	546097	12		
R201					



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TOLERANCE UNLESS OTHERWISE SPECIFIED		FABRICATION		MACHINING	
DECIMAL PLACES		± 10 FEET	± 10 FEET	± 10 FEET	± 10 FEET
(1) PLACE 0.5	±.12	±.18	±.05	±.05	±.05
(2) PLACE 0.00	±.06	±.12	±.015	±.015	±.015
(3) PLACE 0.000	±.006	±.006	±.006	±.006	±.006
ANGLES		±1° 30'	±1° 30'	±1° 30'	±1° 30'

MANITOWOC CRANES, INC.	MANITOWOC, WISCONSIN
DR: RHV	MODEL: MLC150-1
CHK: DLG	
APP: JRR	

JIB RIGGING
FJ134 ON B10:350

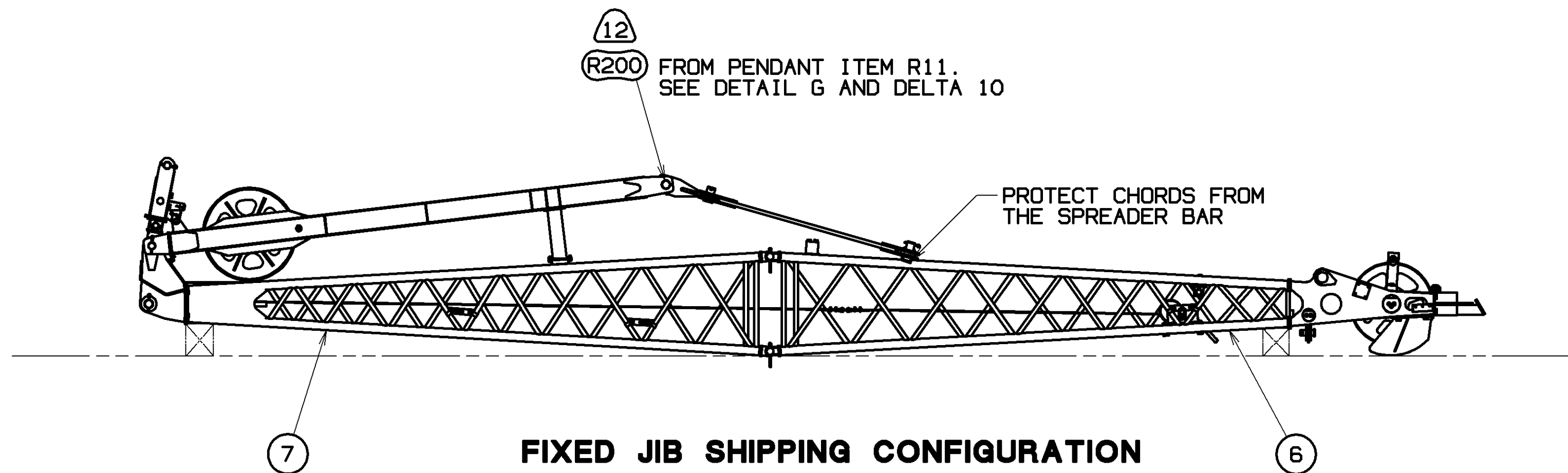
PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN 68290-05-026

DATE
01-27-21

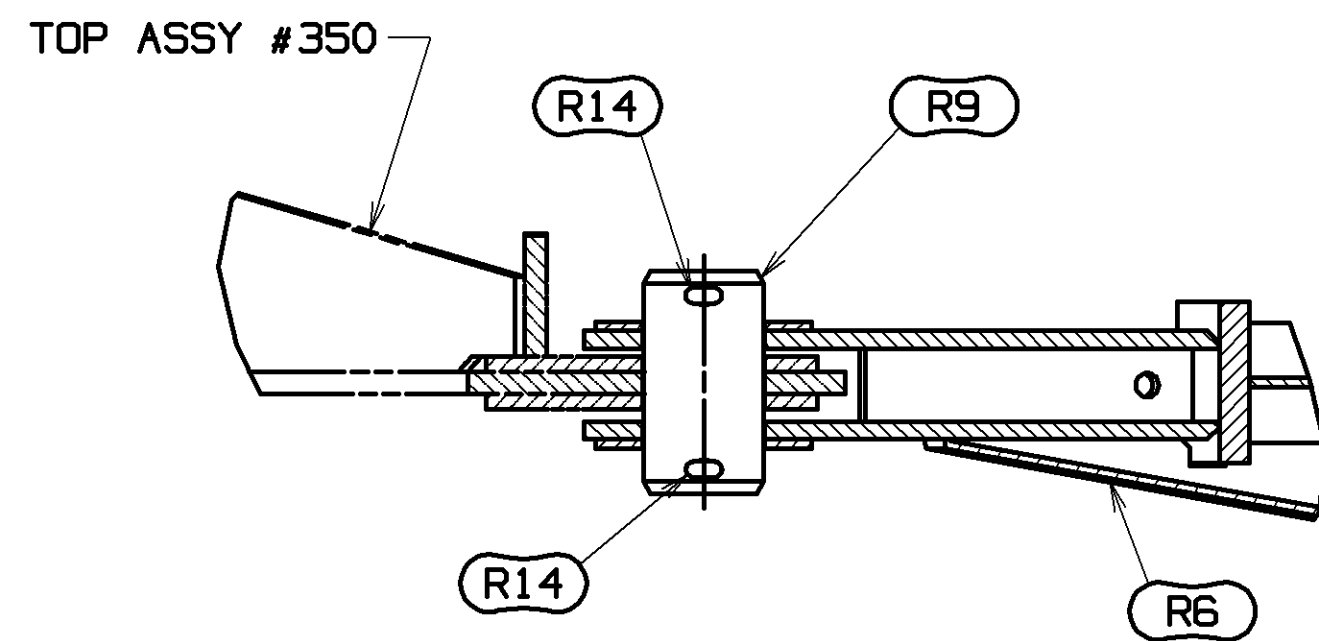
REV. LVL.
A

80117860

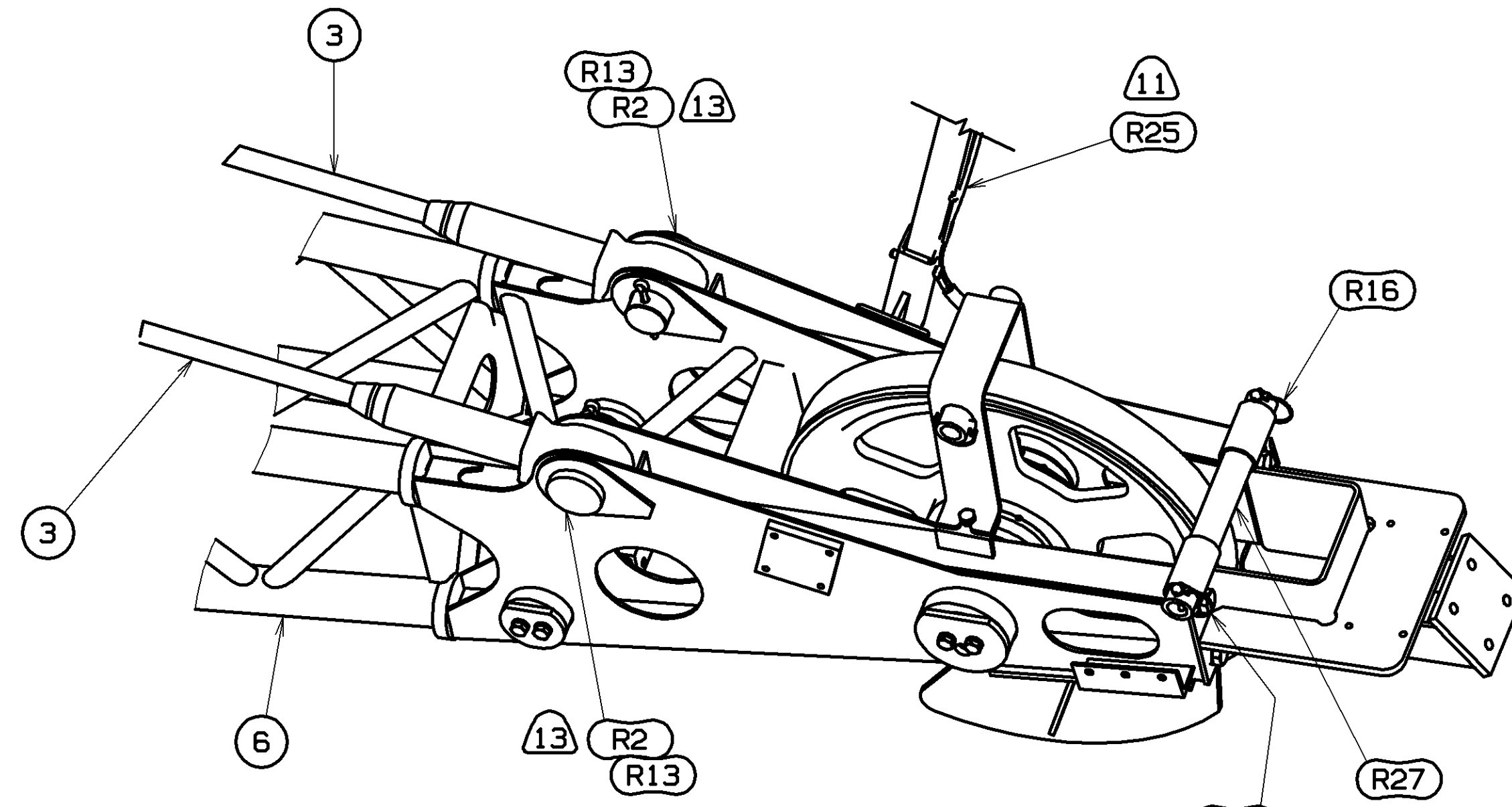
SHT 2 OF 4



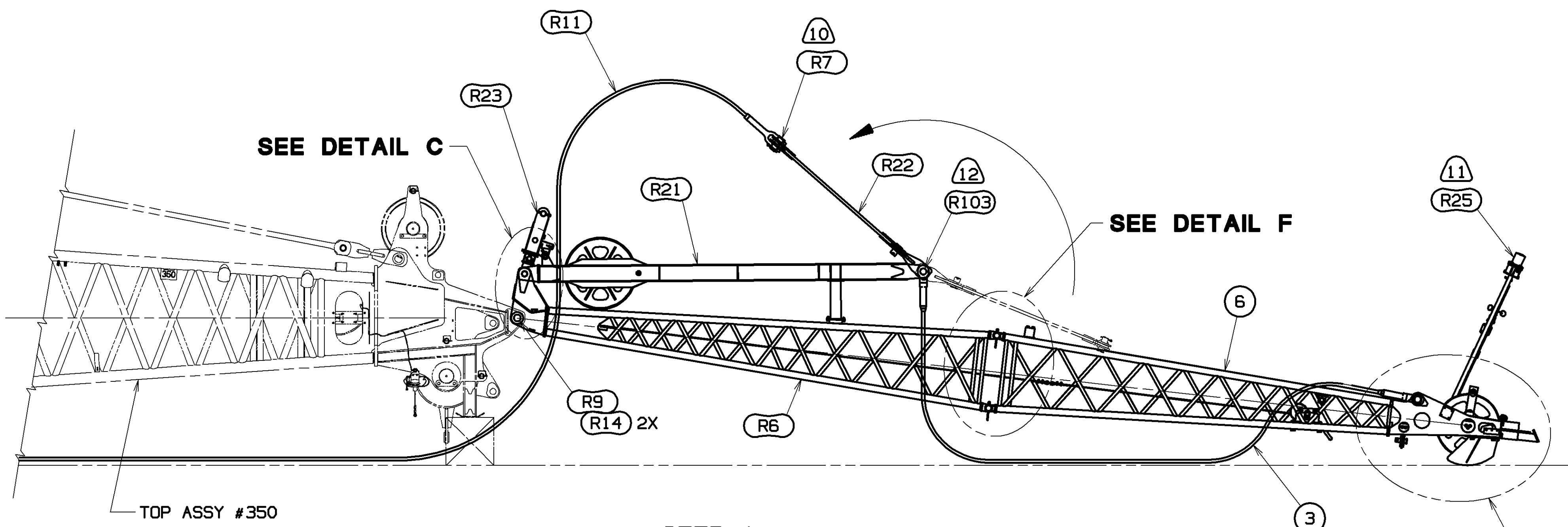
FIXED JIB SHIPPING CONFIGURATION



SECTION D-D
SCALE 0.250



DETAIL E
SCALE 0.150



STEP 1

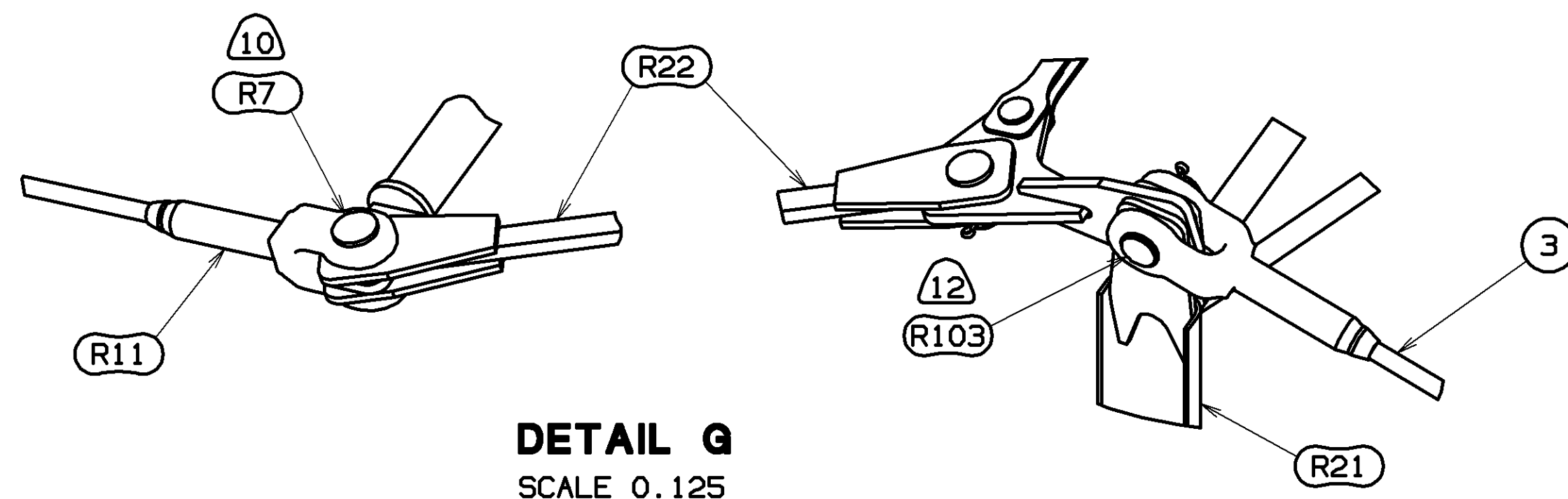
JIB TO BOOM TOP ASSEMBLY AND FRONTSTAY & BACKSTAY PENDANT INSTALLATION

RIG BOOM PER MAIN BOOM RIGGING DRAWING 80117858.
TEMPORARILY REMOVE JIB HINGE HARDWARE (R9 & R14) FROM JIB BUTT ASSY (R6 OF ITEM 7). (SEE DETAIL C).
USING AN ASSIST ALIGN JIB BUTT ASSY (R6 OF ITEM 7) TO BLOCKED BOOM TOP AS SHOWN.
REINSTALL JIB HINGE HARDWARE (R9 & R14). (SEE DETAIL C).

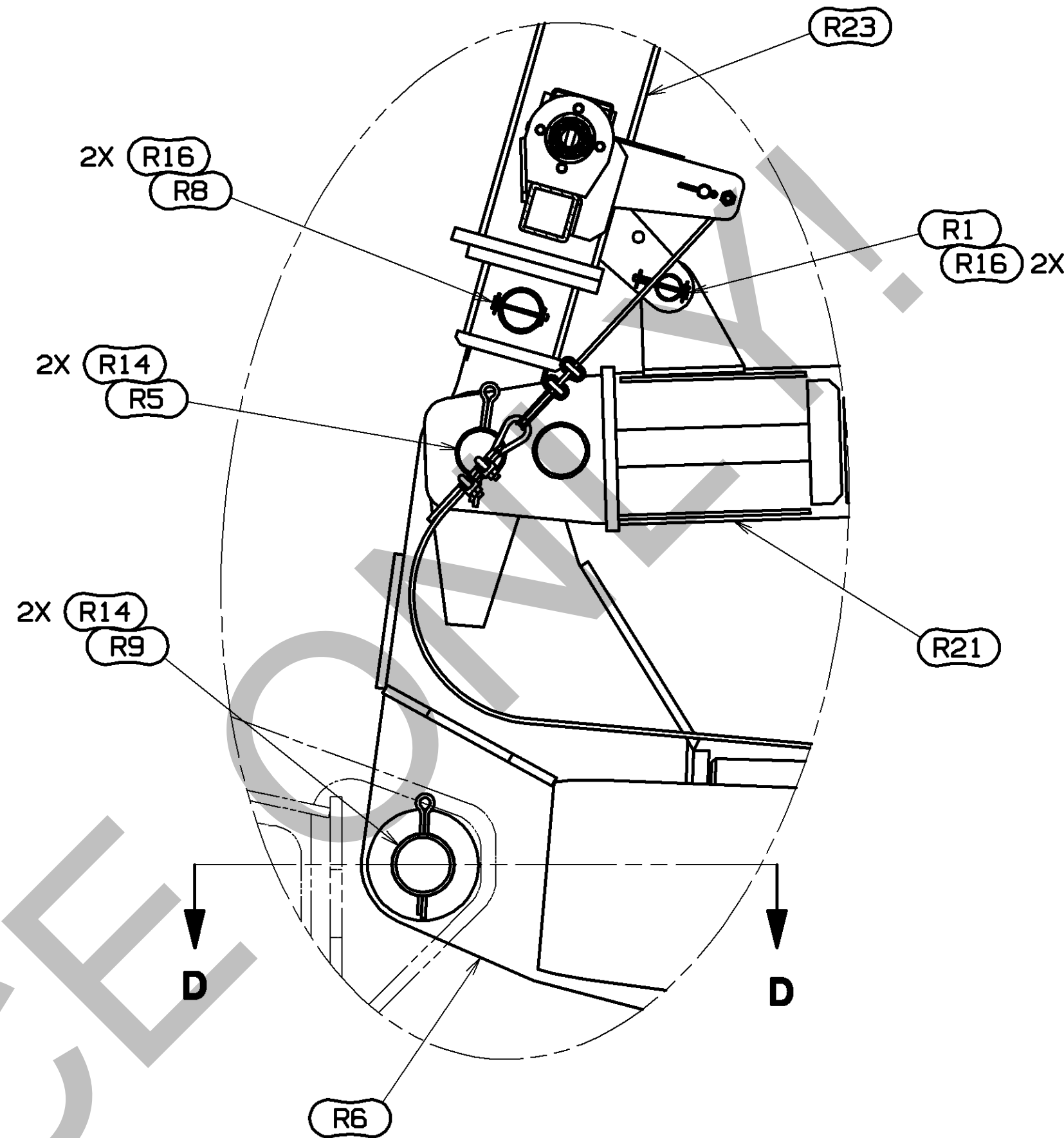
ASSEMBLE JIB INSERTS (ITEMS 103 AND 104) AND JIB TOP (ITEM 6) TO JIB BUTT ASSY (R6 OF ITEM 7) PER DESIRED JIB CONFIGURATION ON SHEET 2.
INSTALL UPPER AND LOWER CONNECTOR PINS (R100) AND COTTERS (R101). (SEE DETAIL F).

ATTACH FRONTSTAY PENDANT (ITEM 3) TO JIB TOP ASSY (ITEM 6) USING PIN (R2) AND COTTER (R13).
PIN PENDANT TO PENDANT (SEE DETAIL B ON SHEET 1) PER DESIRED JIB LENGTH. (SEE JIB CONFIGURATION ON SHEET 2).
PIN REMAINING FREE END OF FRONTSTAY PENDANT TO STRUT (R21) AND SPREADER (R22) ASSEMBLY. (SEE DETAIL G).

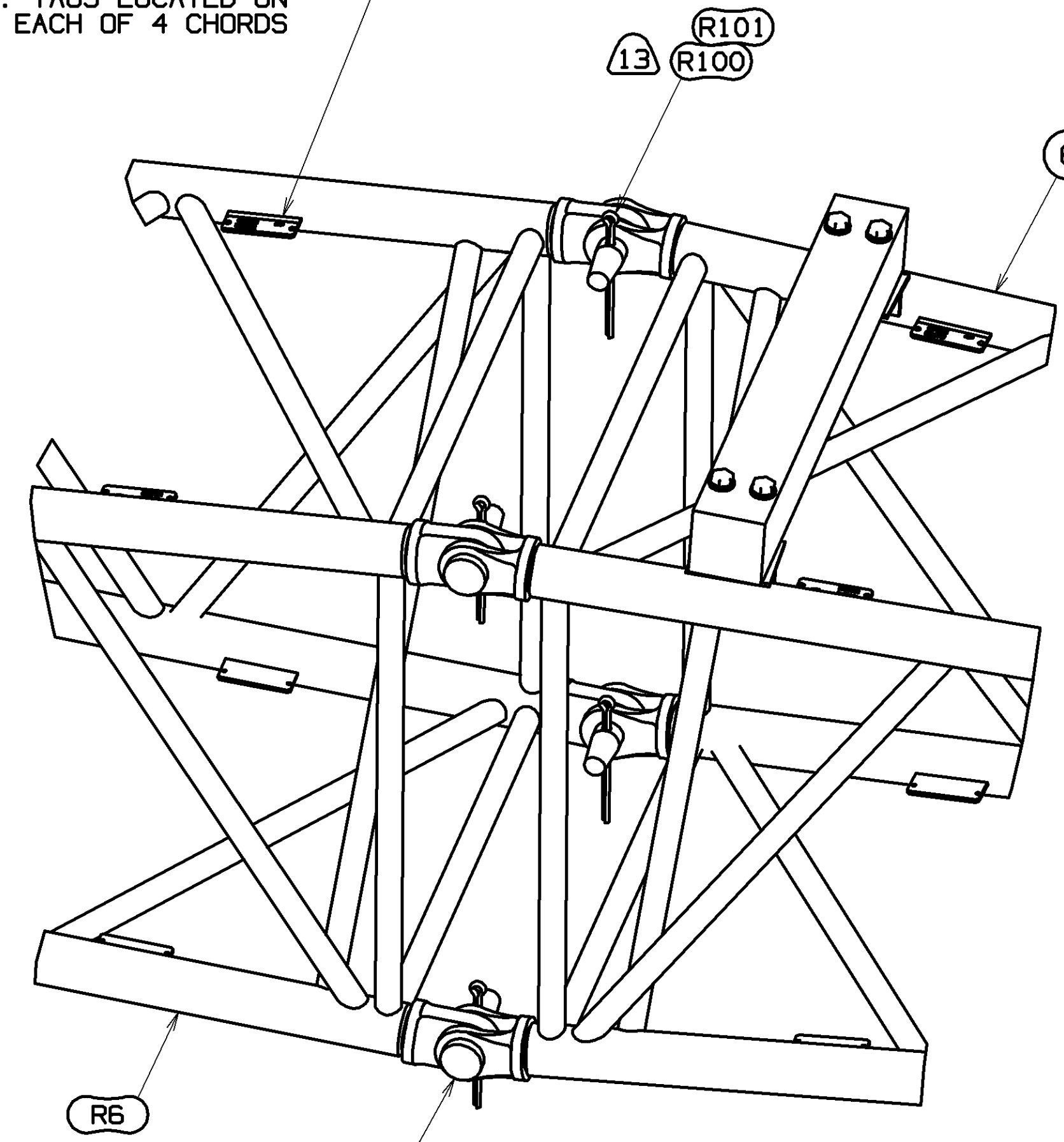
IF SHIPPED LOOSE, ATTACH BACKSTAY PENDANT (R11) TO SPREADER (R22) USING PIN (R7). (SEE DETAIL G).
WITH SPREADER (R22) ROTATED TOWARD BOOM TOP AS SHOWN, LAY BACKSTAY PENDANT (R11) ON GROUND ALONGSIDE BOOM.
IF JIB OFFSET IS TO BE 15° OR 25°, PIN REMAINING FREE END OF PENDANT (R11) TO EITHER LINK (ITEM 200) OR
PENDANT (ITEM 202). (SEE APPROPRIATE DETAIL A AND JIB ANGLE TABLE ON SHEET 1).



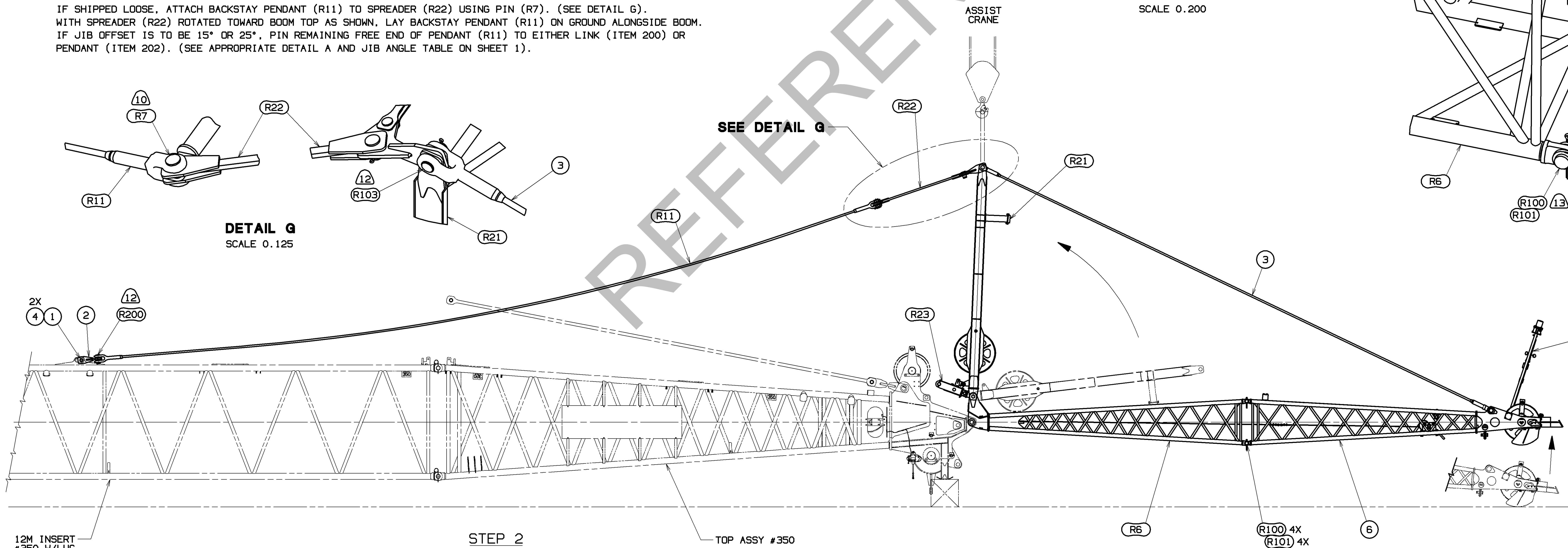
DETAIL G
SCALE 0.125



DETAIL C
SECTION AT JIB CENTERLINE
LOOKING TOWARDS FARSIDE
SCALE 0.200



DETAIL F
SCALE 0.175



STEP 2

STRUT RAISING AND BACKSTAY PENDANT TO BOOM TOP

ATTACH BACKSTAY LINK (ITEM 2) TO BACKSTAY LUG ON BOOM #350 12M INSERT USING PIN (ITEM 1) AND COTTERS (ITEM 4). (SEE DETAIL A ON SHEET 1).

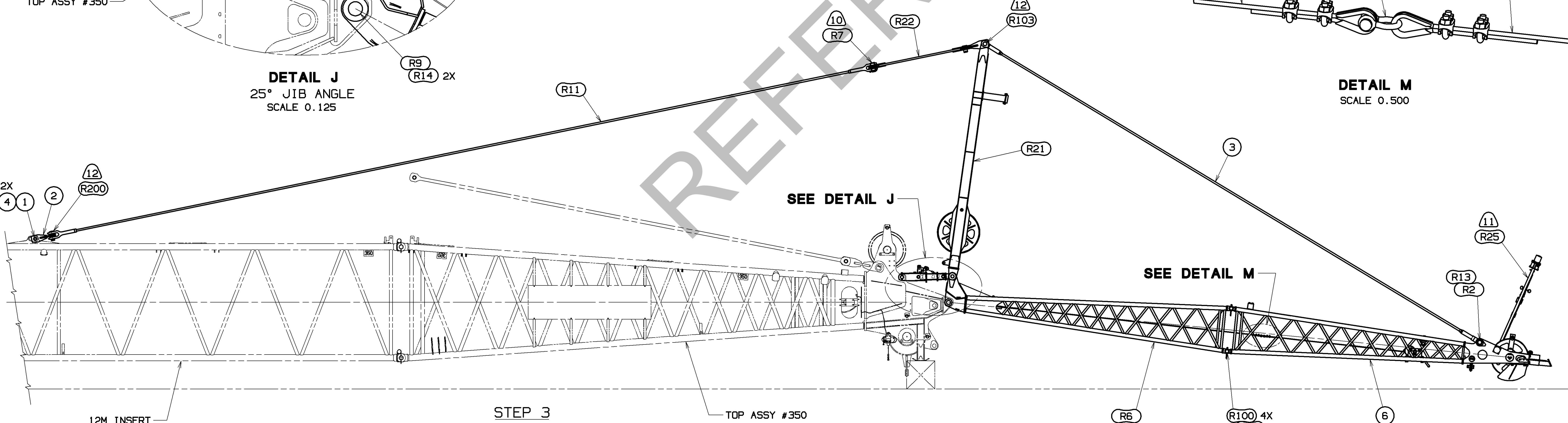
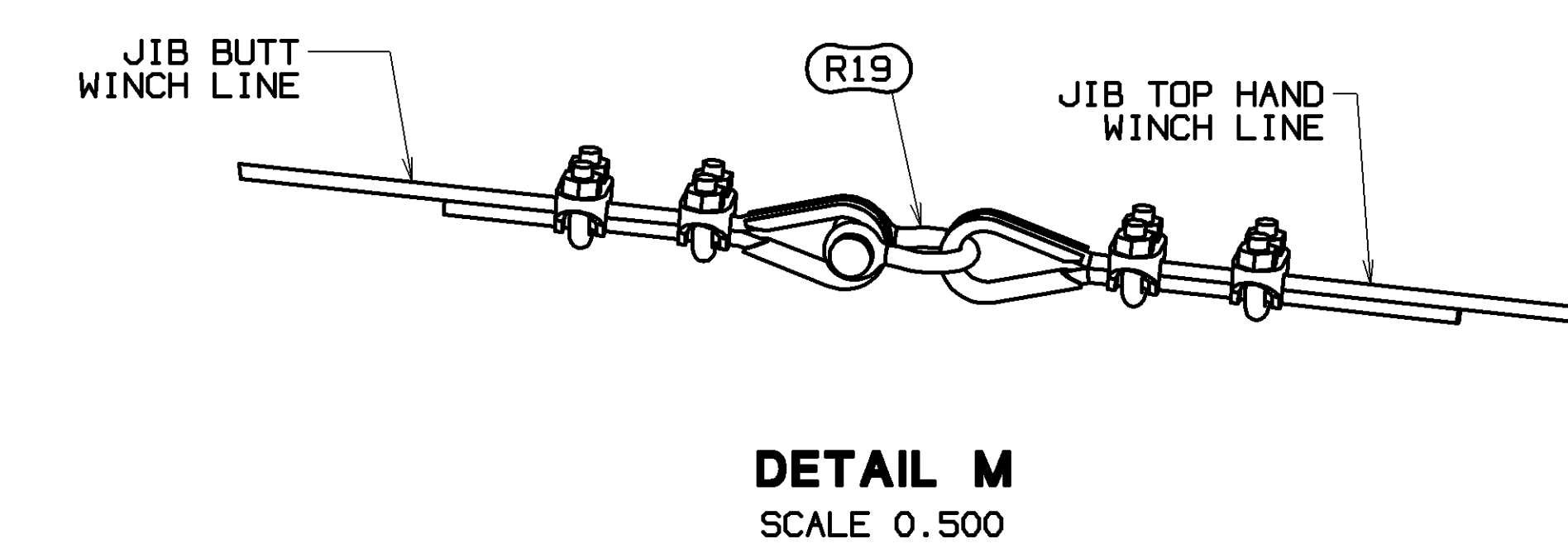
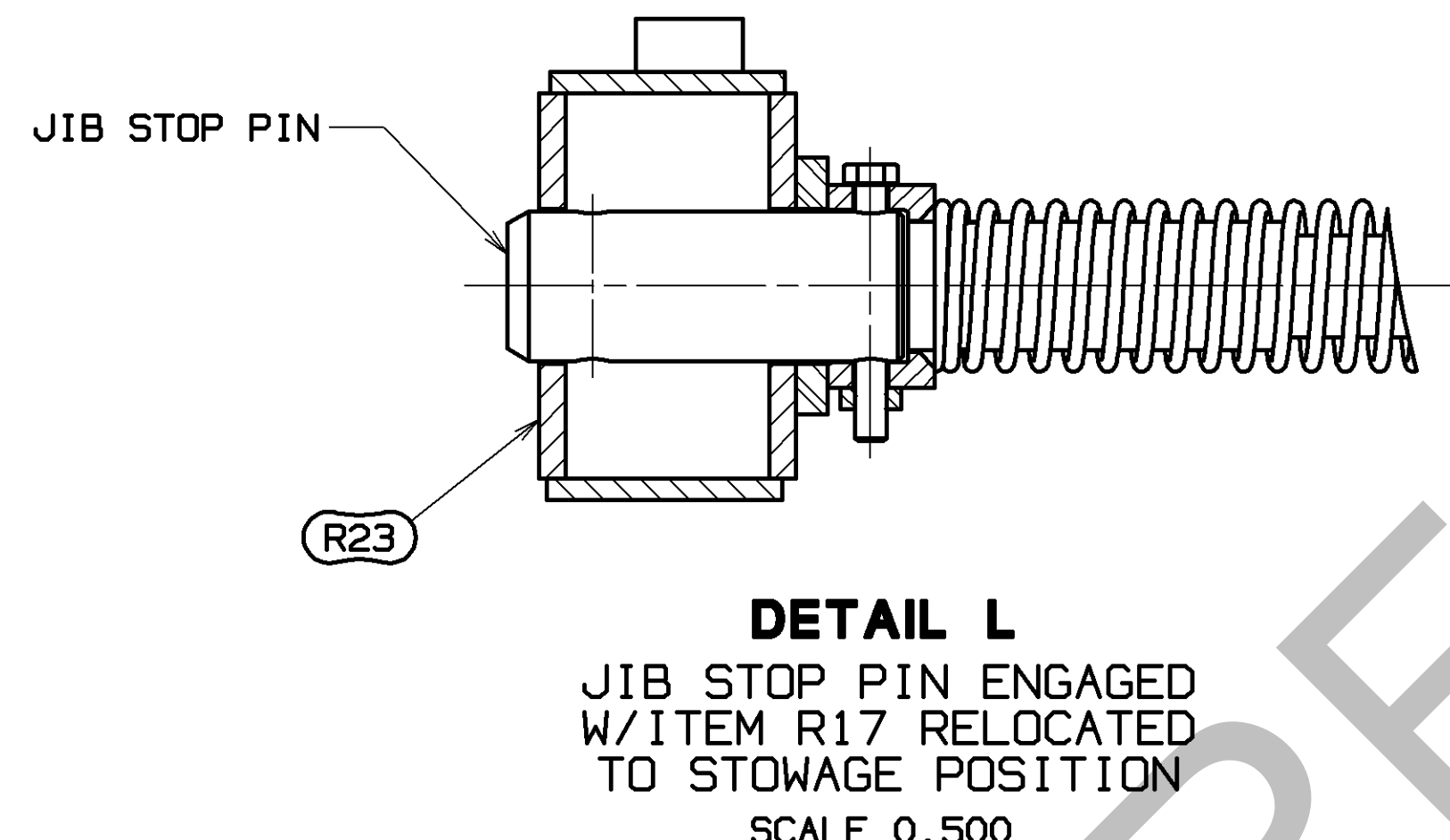
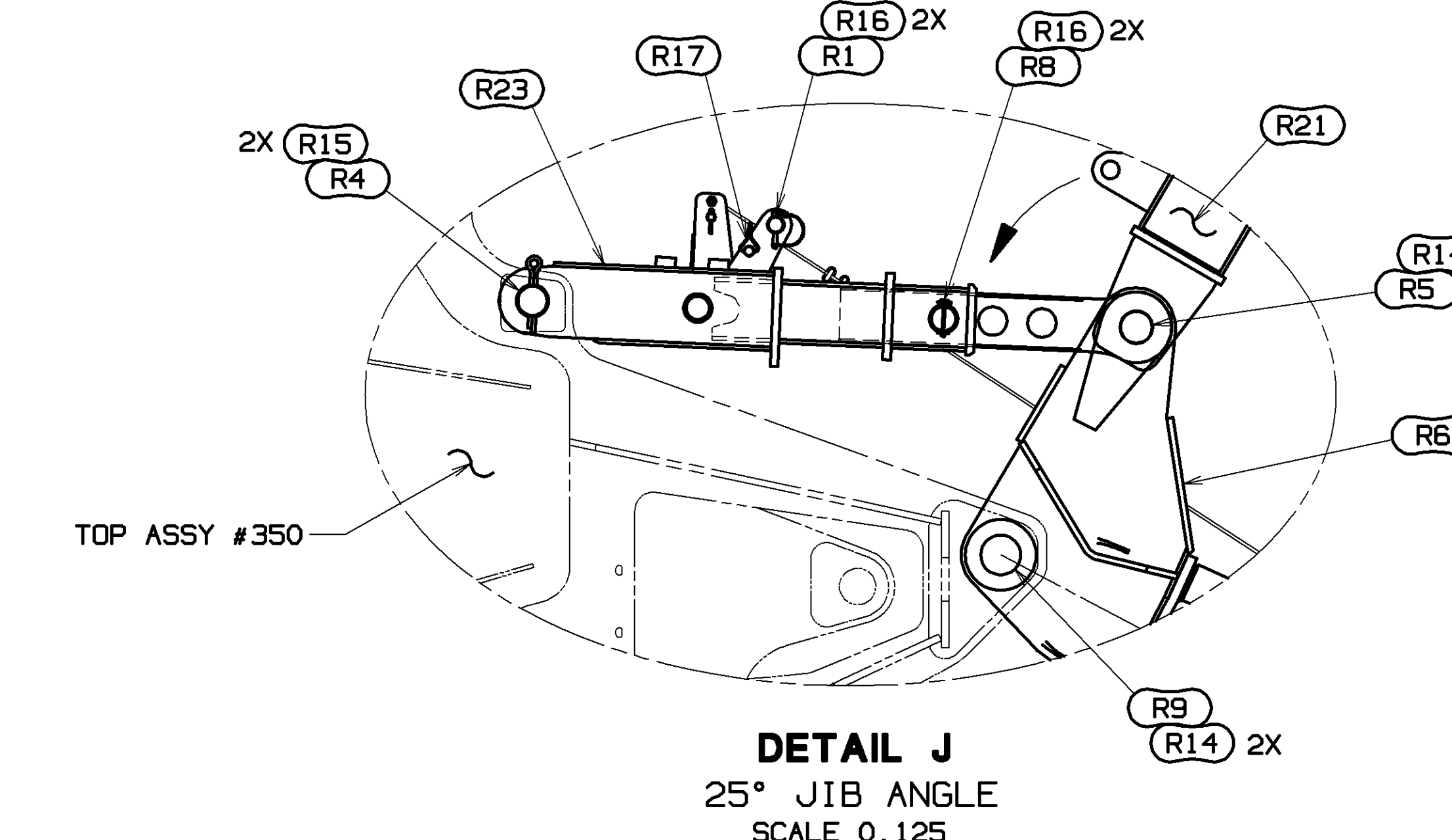
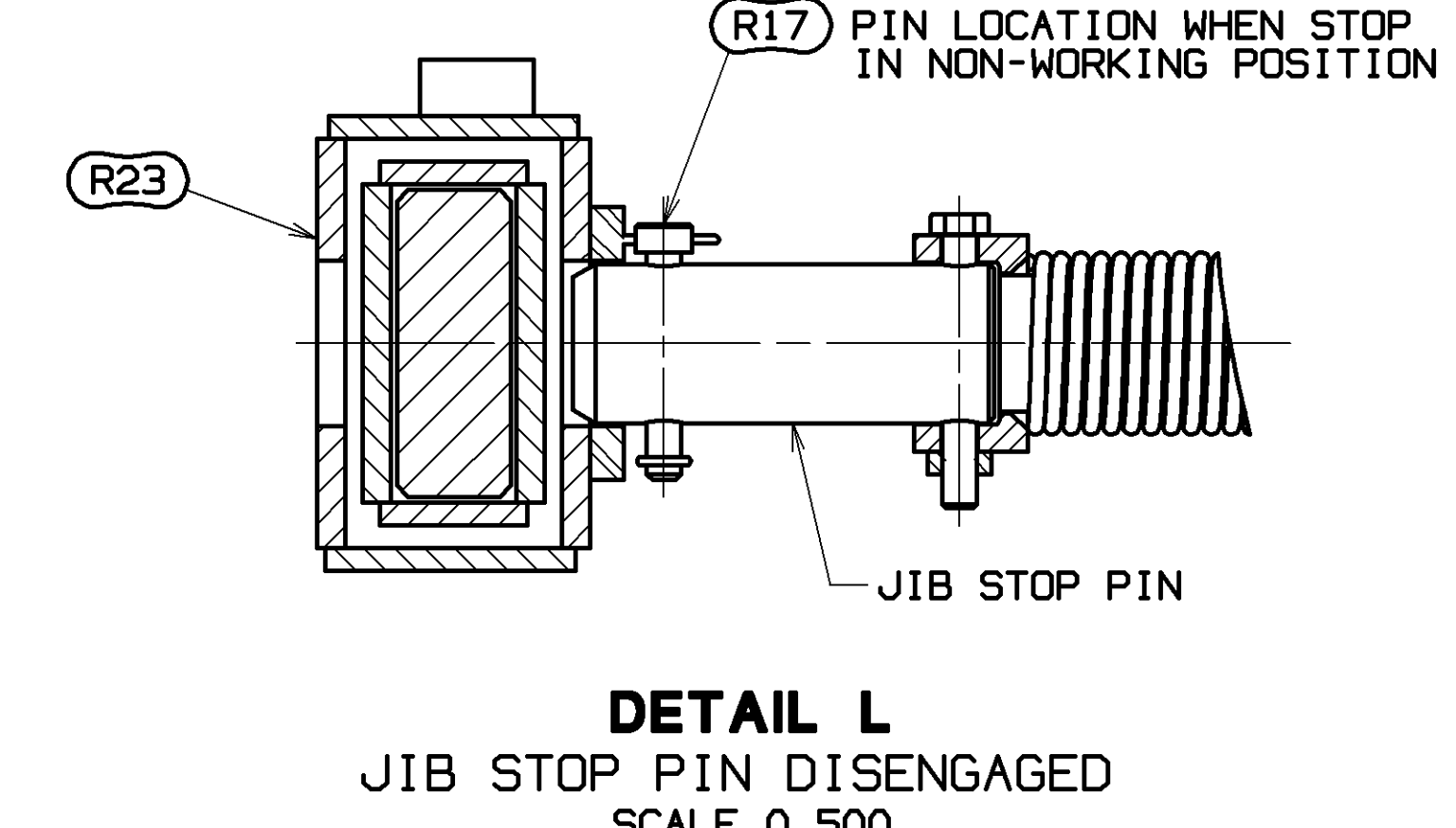
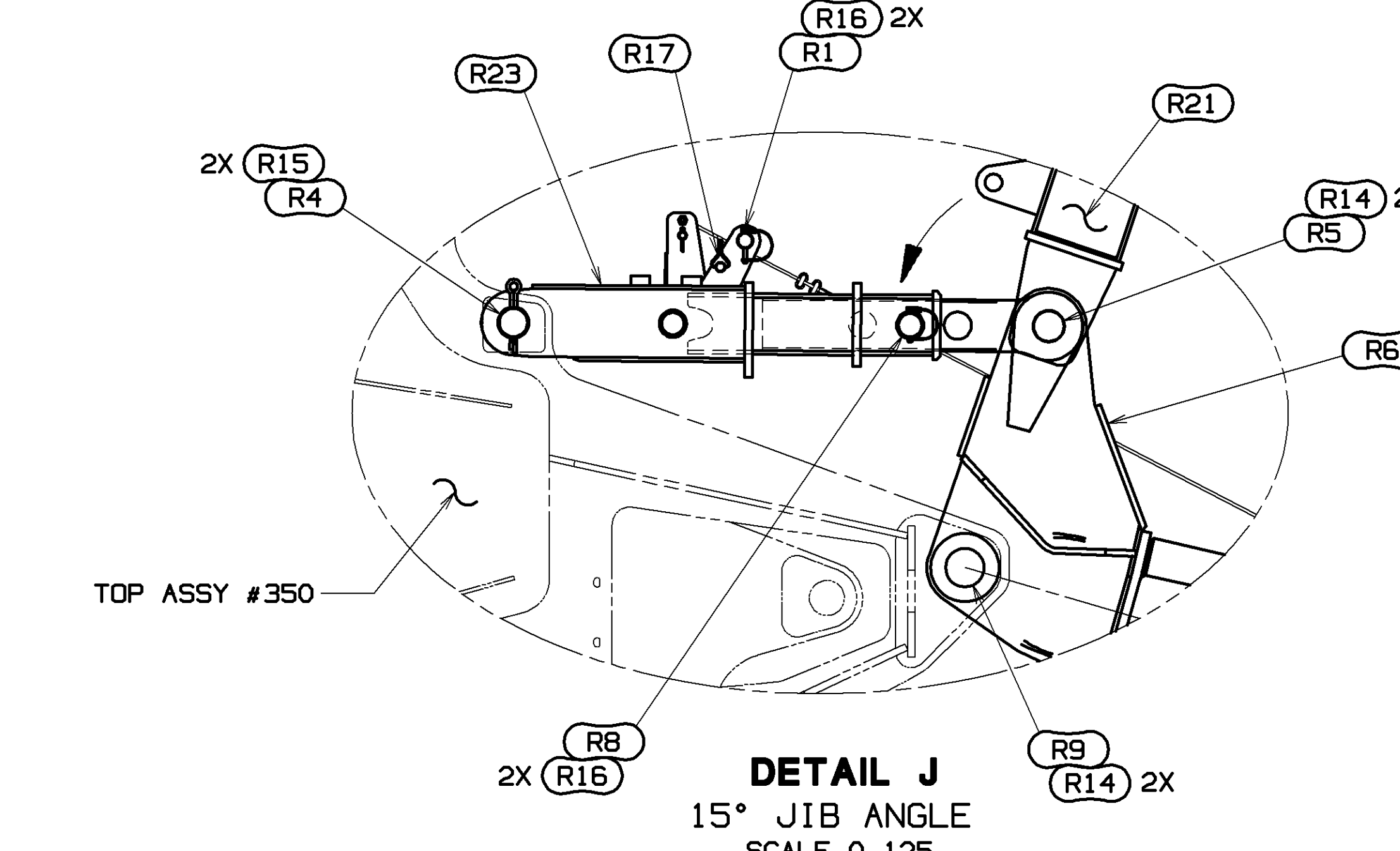
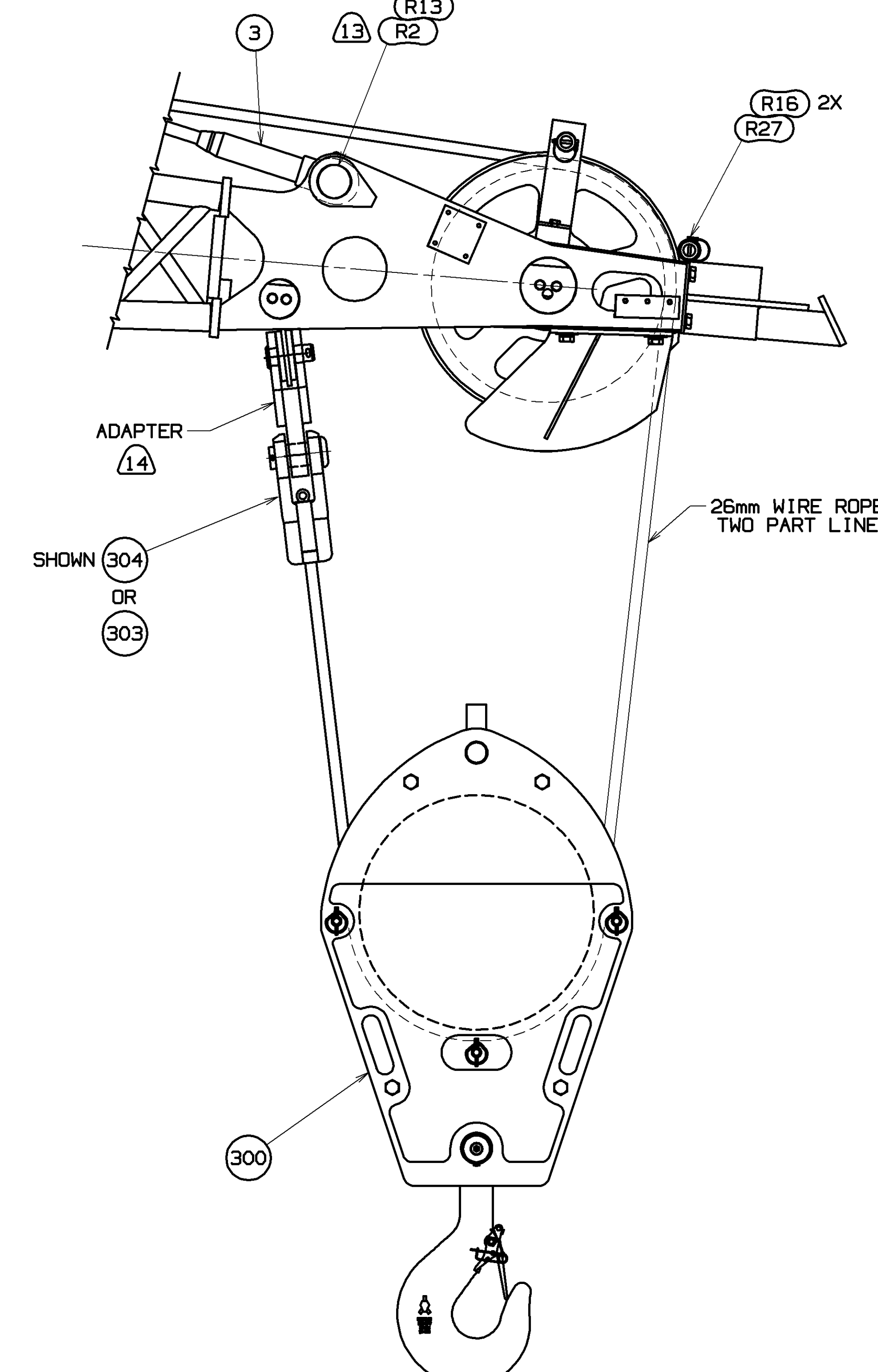
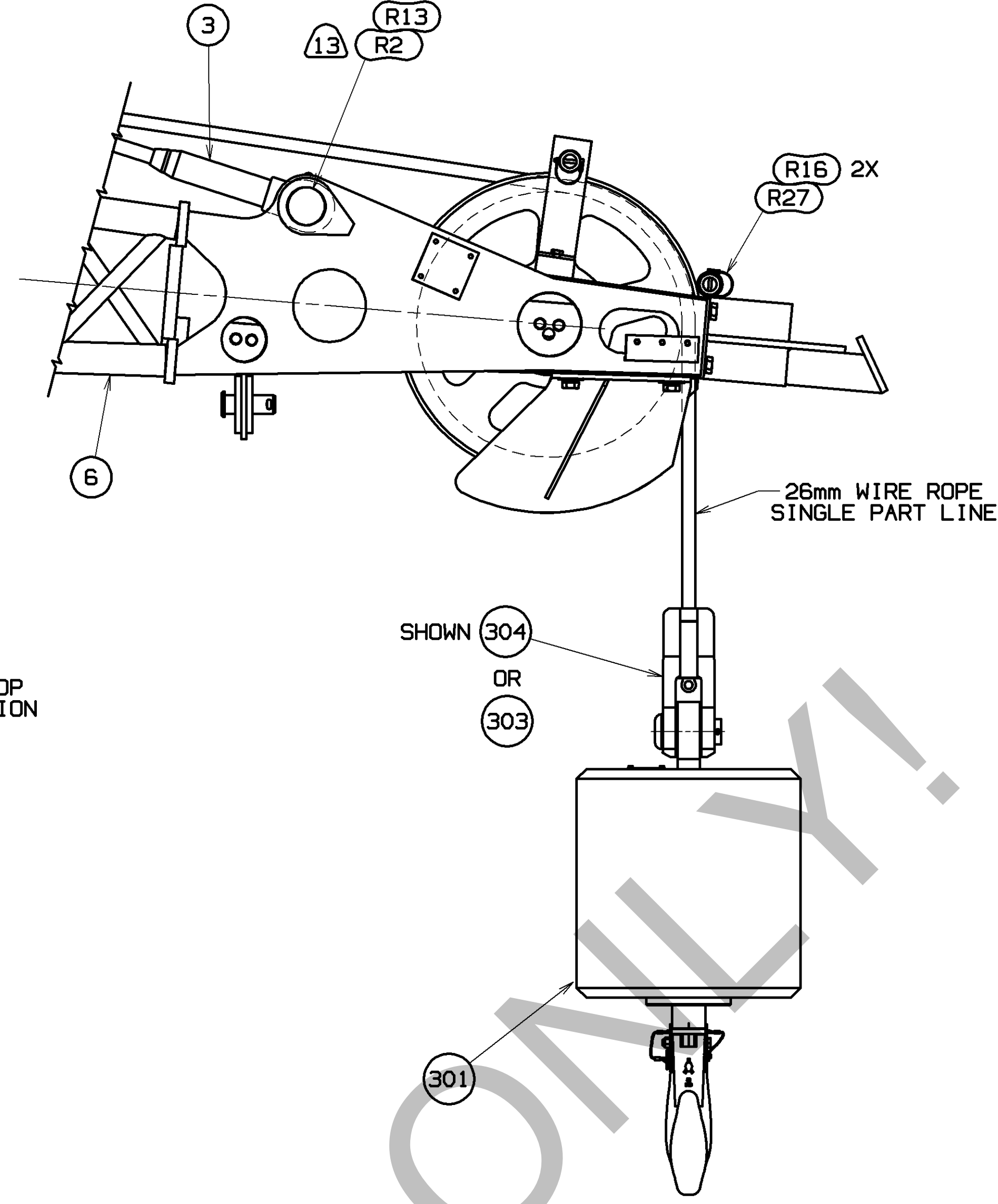
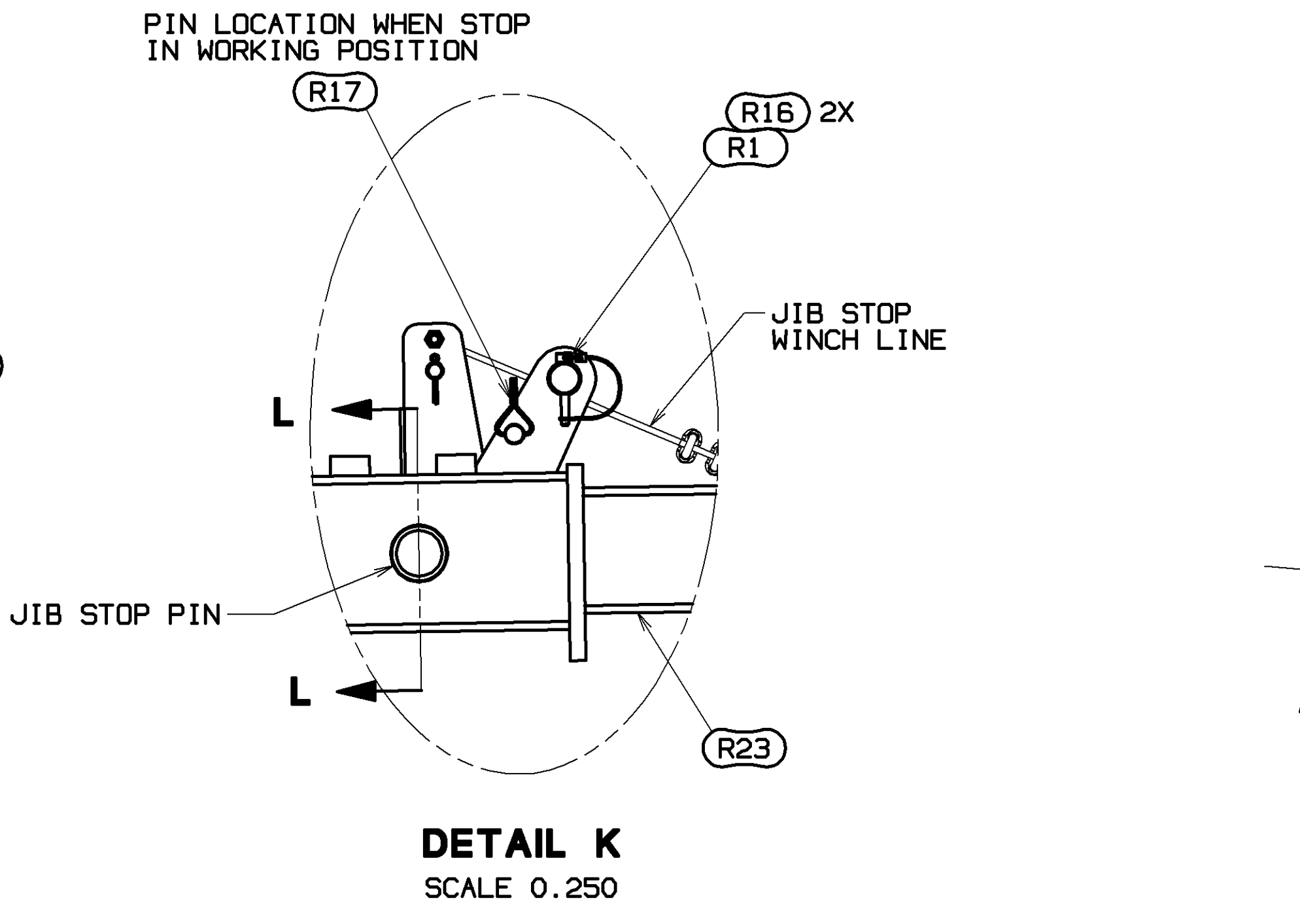
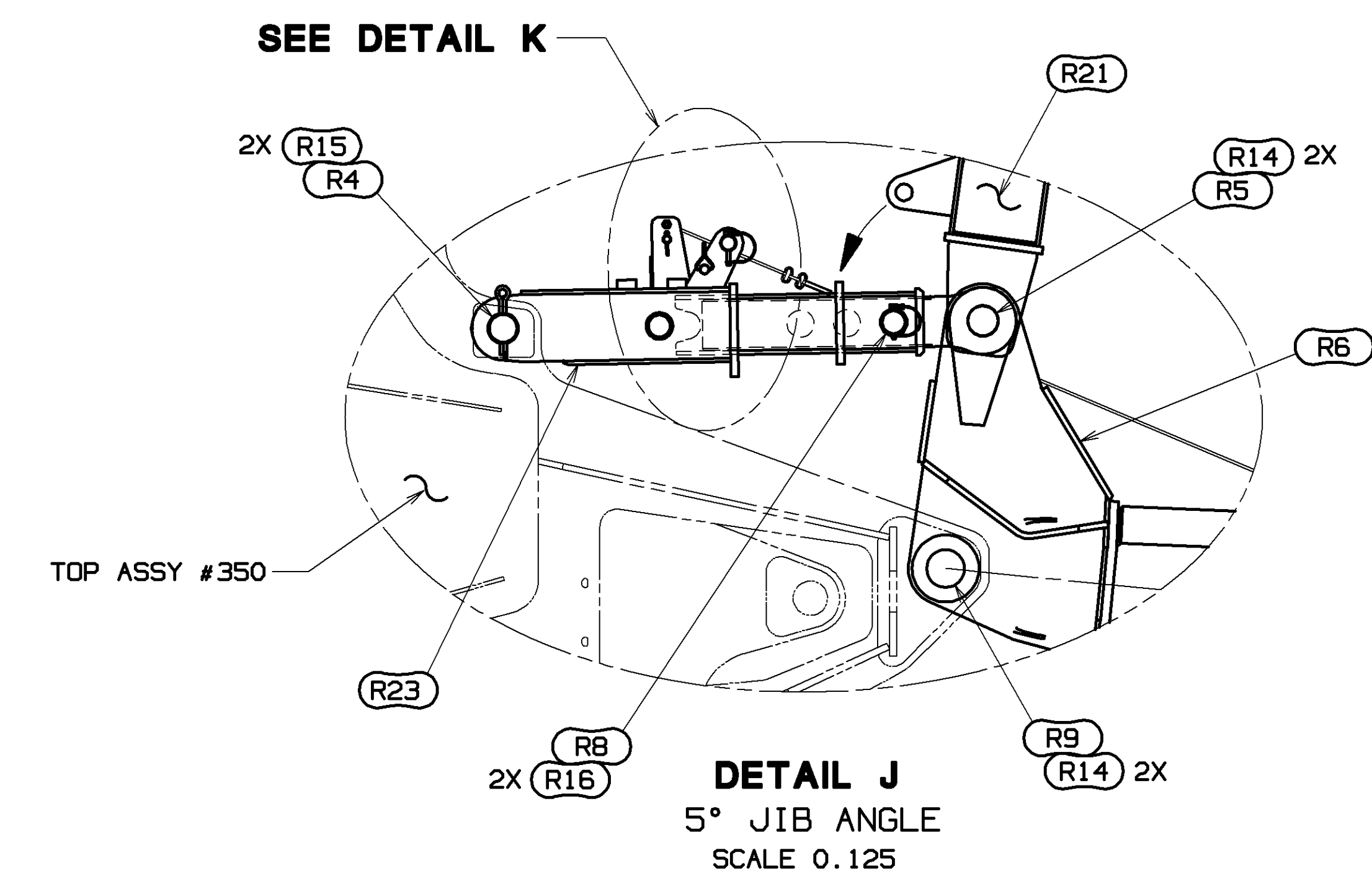
USING AN ASSIST SLOWLY LIFT STRUT (R21) TO ALLOW ATTACHMENT OF FREE END OF EITHER PENDANTS (R11 OR ITEM 202) OR LINK (ITEM 200) TO BACKSTAY LINK (ITEM 2).

NOTE:

RAISE JIB POINT WITH ASSIST (FORK-LIFT TRUCK OR ANOTHER CRANE) AS REQUIRED TO GAIN SLACK TO ALLOW PINNING OF THE BACKSTAY PENDANTS.
PENDANTS (R11 OR ITEM 202) ATTACH USING PENDANT SUPPLIED PIN. LINK (ITEM 200) ATTACHES USING PIN (ITEM 201) AND COTTER (ITEM 203). (SEE DETAILS A ON SHEET 1).

CAUTION:

DO NOT SIDE LOAD STRUT WHILE LIFTING. DAMAGE TO STRUT MAY OCCUR.



STEP 3
STOP ASSEMBLY INSTALLATION

CAUTION:
SAFETY PIN (R17) IS NOT TO BE REMOVED FROM JIB STOP PIN UNTIL STOP ASSEMBLY (R23) IS PINNED TO BOOM TOP AND THE JIB BUTT WINCH LINE IS ATTACHED TO JIB TOP WINCH LINE AND READY FOR OPERATION.

REMOVE STOWAGE PIN (R1) AND PIVOT THE STOP ASSEMBLY (R23) TO BOOM TOP. (SEE DETAIL J). STORE STOWAGE PINS (R1) IN LUGS ON OUTER TUBE OF JIB STOP ASSEMBLY (R23). (SEE DETAIL K). ATTACH OUTER TUBE OF JIB STOP ASSEMBLY (R23) TO LUGS ON BOOM TOP WITH PIN (R4) AND COTTERS (R15). (SEE DETAIL J). REMOVE THE OFFSET PINS (R8) AND ADJUST THE POSITION OF THE INNER TUBES FOR PROPER OFFSET ALIGNMENT WITH THE LINKS. REINSTALL THE OFFSET PINS (R8) AND COTTERS (R16). (SEE DETAIL J).

PULL HAND WINCH LINE FROM JIB TOP (ITEM 6) AND CONNECT TO WINCH LINE OF JIB BUTT (R6) WITH SHACKLE (R19). (SEE DETAIL M). USE JIB TOP HAND WINCH TO TAKE THE LOAD OFF THE (2) SAFETY PINS (R17) IN THE DISENGAGED JIB STOP PIN. (SEE DETAIL L-DISENGAGED). PAY OUT SUFFICIENT CONTROL CABLE TO ENGAGE JIB STOP PINS IN THE JIB STOP FRAME AS THE JIB POINT IS LIFTED CLEAR OF THE GROUND. (SEE DETAIL L-ENGAGED).

WARNING:
FAILURE TO ENGAGE JIB STOP PINS MAY RESULT IN LOSS OF JIB STABILITY. STRUCTURAL DAMAGE AND/OR LOSS OF STABILITY MAY OCCUR.

REEVE LOAD LINE THROUGH JIB STRUT WIRE ROPE GUIDE TO JIB TOP. RAISE BOOM UNTIL BACKSTAY AND FRONTSTAY PENDANTS ARE TIGHT.

- TO DISASSEMBLE JIB**
1. BOOM DOWN UNTIL JIB POINT IS APPROXIMATELY 12 INCHES (305mm) FROM GROUND.
 2. USING WINCH ON JIB TOP DISENGAGE JIB STOP PINS FROM FRAME AND INSTALL SAFETY PIN (R17) INTO JIB STOP PINS. (SEE DETAIL L-DISENGAGED ON SHEET 4). CAUTION: VERIFY PINS ARE FULLY DISENGAGED BEFORE LOWERING.
 3. LOWER BOOM ONTO BLOCKING.
 4. UNREEVE LOAD LINE.
 5. DISCONNECT JIB TOP WINCH LINE SHACKLE (R19) FROM JIB BUTT WINCH LINE AND SECURE APPROPRIATELY.
 6. RAISE JIB STOP ASSEMBLY (R23) AND PIN IT TO STRUT WITH STORAGE PINS (R1) AND SAFETY PINS (R16). (SEE DETAIL C ON SHEET 3).
 7. USING AN ASSIST ATTACHED TO THE FRONT SIDE OF THE SHEAVE IN THE JIB STRUT (R21) DISCONNECT BACKSTAY PENDANTS (R11 ITEM 202) AND/OR LINKS (ITEMS 2 AND 200) FROM BOOM INSERT.
 8. WITH JIB POINT LOWERED TO GROUND, LOWER JIB STRUT (R21) ONTO THE JIB BUTT (R6) AND DISCONNECT ASSIST.
 9. DISCONNECT PENDANTS.
 10. REVERSE ASSEMBLY STEPS TO DISASSEMBLE THE JIB SECTIONS.
 11. THE JIB TOP (ITEM 6), JIB BUTT (R6), STRUT (R21), SPREADER (R22) AND STOP (R23) CAN BE SHIPPED AS AN ASSEMBLED UNIT. (SEE "FIXED JIB SHIPPING CONFIGURATION" ON SHEET 3).
- NOTE:** PENDANT (R11) MAY SHIP AS A PART OF THIS ASSEMBLY OR IT MAY SHIP SEPARATELY.

TOLERANCE UNLESS OTHERWISE SPECIFIED				MATERIAL			
DECIMAL PLACES	FRACTIONS	INCHES	MILLIMETERS	DESCRIPTION	QUANTITY	UNIT	REMARKS
0.00	1/16	0.00	0.00	STEEL	1	PC	
0.01	1/32	0.01	0.01	STEEL	1	PC	
0.02	1/16	0.02	0.02	STEEL	1	PC	
0.03	1/16	0.03	0.03	STEEL	1	PC	
0.04	1/16	0.04	0.04	STEEL	1	PC	
0.05	1/16	0.05	0.05	STEEL	1	PC	
0.06	1/16	0.06	0.06	STEEL	1	PC	
0.07	1/16	0.07	0.07	STEEL	1	PC	
0.08	1/16	0.08	0.08	STEEL	1	PC	
0.09	1/16	0.09	0.09	STEEL	1	PC	
0.10	1/16	0.10	0.10	STEEL	1	PC	
0.12	1/16	0.12	0.12	STEEL	1	PC	
0.15	1/16	0.15	0.15	STEEL	1	PC	
0.20	1/8	0.20	0.20	STEEL	1	PC	
0.25	1/8	0.25	0.25	STEEL	1	PC	
0.30	1/8	0.30	0.30	STEEL	1	PC	
0.375	3/8	0.375	0.375	STEEL	1	PC	
0.50	1/2	0.50	0.50	STEEL	1	PC	
0.75	3/4	0.75	0.75	STEEL	1	PC	
1.00	1	1.00	1.00	STEEL	1	PC	
1.50	1 1/2	1.50	1.50	STEEL	1	PC	
2.00	2	2.00	2.00	STEEL	1	PC	
3.00	3	3.00	3.00	STEEL	1	PC	
4.00	4	4.00	4.00	STEEL	1	PC	
6.00	6	6.00	6.00	STEEL	1	PC	
8.00	8	8.00	8.00	STEEL	1	PC	
10.00	10	10.00	10.00	STEEL	1	PC	
12.00	12	12.00	12.00	STEEL	1	PC	
15.00	15	15.00	15.00	STEEL	1	PC	
20.00	20	20.00	20.00	STEEL	1	PC	
25.00	25	25.00	25.00	STEEL	1	PC	
30.00	30	30.00	30.00	STEEL	1	PC	
40.00	40	40.00	40.00	STEEL	1	PC	
50.00	50	50.00	50.00	STEEL	1	PC	
60.00	60	60.00	60.00	STEEL	1	PC	
70.00	70	70.00	70.00	STEEL	1	PC	
80.00	80	80.00	80.00	STEEL	1	PC	
90.00	90	90.00	90.00	STEEL	1	PC	
100.00	100	100.00	100.00	STEEL	1	PC	