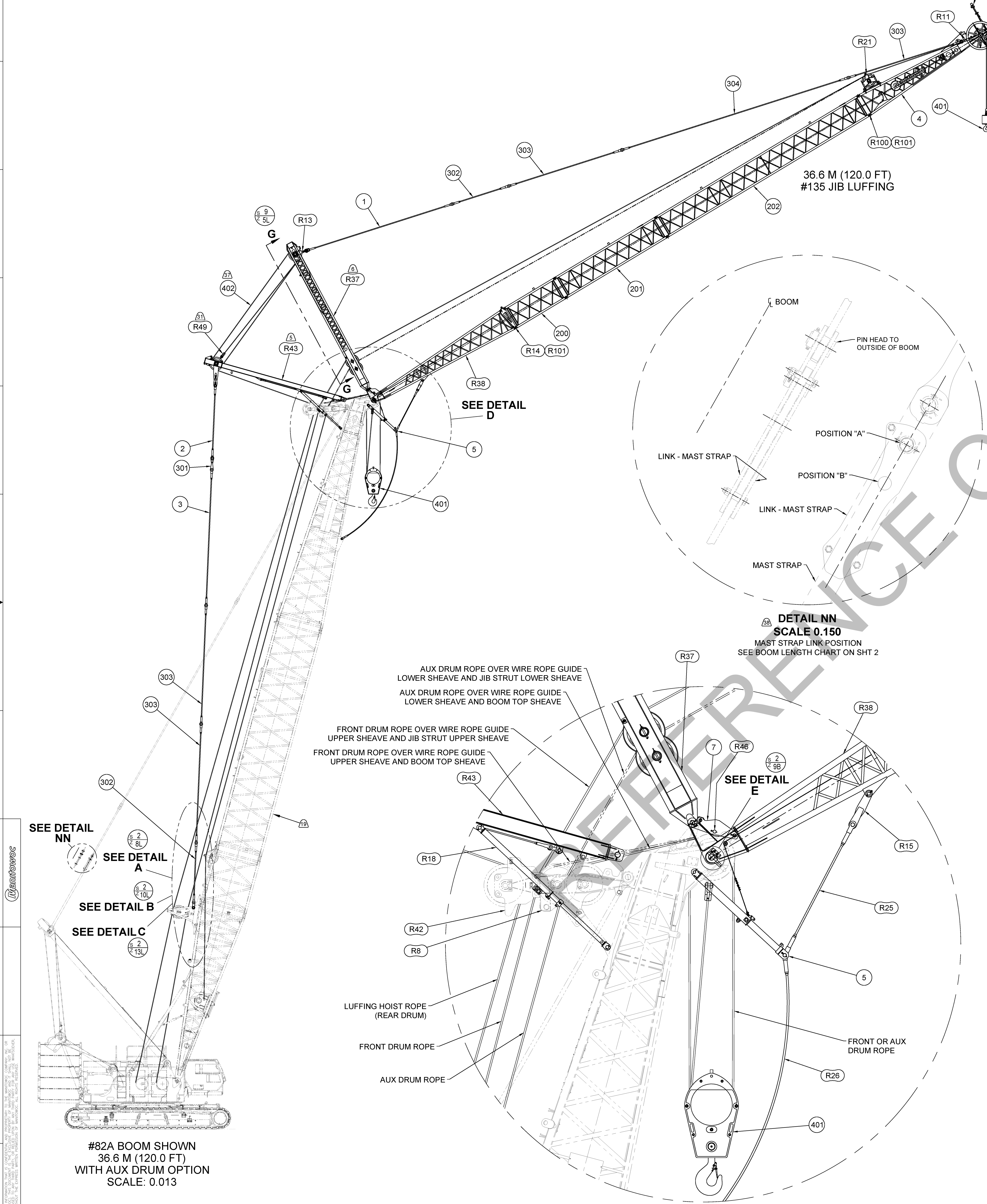


| SHEET | ZONE | REV | DESCRIPTION OF MODIFICATION | DATE | BY | CHK'D BY |
|-------|------|-----|---|----------|----|----------|
| 1 | BOM | C1 | ITEM 402, 80162118 WAS 80146665 | 09-02-25 | | |
| 1 | 10J | C2 | REMOVED DELTA NOTE 37 | | | |
| 1 | BOM | C3 | R2 QTY WAS 2, R31 QTY WAS 4, R32 QTY WAS 4 | | | |
| 5 | 2H | C4 | STEP 1 NOTE: 80127848 WAS 80127864, 177053 WAS 80127863 | | | |



- ① TOP 7.01 M (23 FT) I.D. TAG #80127678
- ② INSERT 3.05 M (10 FT) I.D. TAG #180136
- ③ INSERT 6.10 M (20 FT) I.D. TAG #180137
- ④ INSERT 12.19 M (40 FT) I.D. TAG #048208-4
- ⑤ MAIN STRUT I.D. TAG #80144926 - WIRE ROPE BUTTON WILL PASS THRU OPTIONAL I.D. TAG #177439 - WIRE ROPE BUTTON WILL NOT PASS THRU
- ⑥ JIB STRUT I.D. TAG #80144973 - WIRE ROPE BUTTON WILL PASS THRU OPTIONAL I.D. TAG #177443 - WIRE ROPE BUTTON WILL NOT PASS THRU
- ⑦ ON DRAWING A16684
- ⑧ ON DRAWING A03603
- ⑨ ON DRAWING A03150
- ⑩ ON DRAWING A02308
- ⑪ ON DRAWING A02422
- ⑫ ON DRAWING A02331
- ⑬ MAXIMUM NUMBER OF 3.05 M (10 FT) JIB INSERTS = 1.
- ⑭ MAXIMUM NUMBER OF 6.10 M (20 FT) JIB INSERTS = 2.
- ⑮ STARTING WITH JIB BUTT (R38), INSERTS AND PENDANTS MUST BE INSTALLED IN ORDER OF ASCENDING LENGTH. THE SHORTEST INSERTS AND PENDANTS MUST BE CLOSEST TO THE JIB BUTT.
- ⑯ SEE SHEET 3 FOR BOOM BACKSTAY PENDANT MAKE-UP.
- ⑰ SEE SHEET 4 FOR JIB AND JIB PENDANT MAKE-UP.
- ⑱ DO NOT MIX PENDANTS OF DIFFERENT LENGTHS. PENDANTS MUST BE INSTALLED IN MATCHED SETS. PENDANTS ON ONE SIDE OF BOOM OR JIB MUST MATCH LENGTH OF PENDANTS ON THE OTHER SIDE.
- ⑲ FOR MAKE UP OF BOOM SEE BOOM RIGGING B10:82A DRAWING 80137888.
- ⑳ REFER TO SPECIFIC CAPACITY CHART FOR APPROPRIATE BOOM AND JIB COMBINATIONS.
- ㉑ NO. REQ'D FOR ITEMS 300, 301, 302, 303 & 304 ARE SUM OF QUANTITIES PER BOOM & JIB LENGTH TABLES.
- ㉒ INSTALL PINS WITH HEAD TOWARDS THE CENTERLINE OF JIB AND BOOM. 137919 (R3), 170890 (ITEM 300) A08716 (R48). SEE DETAILS H, J, K, L, M ON SHEET 3 AND Q & R ON SHEET 4.
- ㉓ REMOVE EXISTING CONNECTOR PINS 070366 (R100) AND COTTERS 562158 (R101) FROM INSERT AT JOINT TO BUTT (R38). (SEE DETAIL U ON SHEET 5). STOW IN PARTS BOX 80137468. USE PINS 177509 (R14) AND COTTERS 562158 (R101) FROM BUTT (R38).
- ㉔ STOWED IN PARTS BOX 80137468.
- ㉕ BUTT 8.23 M (27 FT) I.D. TAG #80127848 (BOLTED HINGE RETENTION) OR I.D. TAG #177053 (WELDED HINGE RETENTION).
- ㉖ RELOCATE ESI ANEMOMETER (R39) FROM MAIN BOOM TOP
- ㉗ #135A JIB IS NOT INTERCHANGEABLE WITH #135 JIB
- ㉘ IF ROPE GUARD (ITEM 7) IS NOT INSTALLED BEFORE JIB BUTT (R38) IS ATTACHED, LOWER BOOM POINT CANNOT BE REEVED IF WIRE ROPE HAS A BUTTON. ROPE GUARD (R46) IN BOOM TOP HOLES CANNOT BE REMOVED. (SEE DETAIL MM ON SHEET 5)
- ㉙ THIS IS A LOOSE SHIP ITEM. ALL LOOSE SHIP ITEMS ARE TO BE CRATED AND SHIPPED TOGETHER WITH THE LUFFING JIB.
- ㉚ SEE BLOCK REEVING DRAWING 80148051 FOR RIGGING CONFIGURATION OPTIONS AND INSTRUCTIONS.
- ㉛ SOCKET WEDGE #846246 REQUIRED IF WIRE ROPE DOES NOT HAVE SOCKET BUTTON.
- ㉜ NOT USED WITH (R43) MAIN STRUT OPTIONAL I.D. TAG #177439.
- ㉝ NOT USED WITH (R37) JIB STRUT OPTIONAL I.D. TAG #177443.
- ㉞ INSERT 12.19 M (40 FT) I.D. TAG #048208-6 CAN BE USED IN PLACE OF I.D. TAG #048208-4. MAXIMUM NUMBER OF JIB INSERTS WITH I.D. TAG #048208-6 = 1
- ㉟ ON DRAWING 80117873 AS OPTION 4
- ㊱ FULL TITLE DESCRIPTION: LJ 135 ON B10:82A
- ㊲ STRAP LINKS AND PINS ARE CALLED FOR ON BOOM RIGGING DRAWING 80137888. LOCATE PIN, COLLAR, PIN AS SHOWN.

| BILL OF MATERIAL - BASIC JIB (A) | | | | | |
|----------------------------------|-------|---------------------|----------|----------|----------------|
| ITEM | REQ'D | DESCRIPTION | MATERIAL | MASS KGS | DRWG NO DELTA |
| 1 | 2 | PENDANT 25FT - 11IN | | | 277437 7 |
| 2 | 2 | PENDANT 12FT - 3IN | | | 277439 8 |
| 3 | 2 | PENDANT 23FT | | | 277440 9 |
| 4 | 1 | TOP ASSY | | | 80117873 1 |
| 5 | 1 | STOP JIB ASSY #135 | | | 80140456 |
| 6 | 1 | BUTT SHIPPING ASSY | | | 80140457 |
| 7 | 1 | GUARD ROPE ASSY | | | 80151999 28.29 |

| SEE BOOM LENGTH TABLE FOR NO REQ'D (SHEET 2) (A) | | | | | |
|--|-------|----------------------|----------|----------|---------------|
| ITEM | REQ'D | DESCRIPTION | MATERIAL | MASS KGS | DRWG NO DELTA |
| 100 | - | LINK PENDANT 39.0 IN | | | 177569 |
| 101 | - | LINK PENDANT 11.0 IN | | | 177570 |

| SEE JIB LENGTH TABLE FOR NO REQ'D (SHEET 2) (A) | | | | | |
|---|-------|------------------------|----------|----------|---------------|
| ITEM | REQ'D | DESCRIPTION | MATERIAL | MASS KGS | DRWG NO DELTA |
| 200 | - | INSERT ASSY #135 10 FT | | | 80117870 2 |
| 201 | - | INSERT ASSY #135 20 FT | | | 80117871 3 |
| 202 | - | INSERT ASSY #135 40 FT | | | 80117872 4 |

| SEE BOTH JIB AND BOOM LENGTH TABLES FOR NO REQ'D (SHEET 2) (A, B, C, D) | | | | | |
|---|-------|-----------------------------------|----------|----------|---------------|
| ITEM | REQ'D | DESCRIPTION | MATERIAL | MASS KGS | DRWG NO DELTA |
| 300 | - | PIN 1 HOLE WHD 2.75 DIA X 4.36 LG | | | 170690 22 |
| 301 | - | LINK PENDANT 24.0 IN | | | 177553 |
| 302 | - | PENDANT 10 FT - 1.0 IN | | | 277382 9 |
| 303 | - | PENDANT 20 FT - 1.5 IN | | | 277383 9 |
| 304 | - | PENDANT 40 FT - 3.0 IN | | | 277384 9 |

| OPTIONAL JIB PARTS | | | | | |
|--------------------|-------|--------------------------------|----------|----------|---------------|
| ITEM | REQ'D | DESCRIPTION | MATERIAL | MASS KGS | DRWG NO DELTA |
| 400 | - | ANCHOR UNIV WR JOINT #135 | | | 80128061 35 |
| 401 | - | HOOK BLOCK SHIP LOOSE OPTIONS | | | 80141414 |
| 402 | - | WIRE ROPE 26MM X 214M DYFORM 8 | | | 80162118 |

| BASIC REFERENCE ITEMS | | | | | |
|-----------------------|-------|---|----------|----------|----------------|
| ITEM | REQ'D | DESCRIPTION | MATERIAL | MASS KGS | DRWG NO DELTA |
| R1 | 2 | PIN 2 HOLE 1.50 DIA X 3.24 LG | | | 014902 |
| R2 | 6 | PIN 2 HOLE 2.00 DIA X 2.59 LG | | | 073045 |
| R3 | 2 | PIN 1 HOLE WHD 2.75 DIA X 3.83 LG | | | 137919 22 |
| R4 | 2 | PIN 2 HOLES 1.00 DIA X 3.22 LG | | | 139676 |
| R5 | 2 | PIN 2 HOLES 2.25 DIA X 6.35 LG | | | 141707 |
| R6 | 2 | PIN 2 HOLE 3.50 DIA X 4.34 LG | | | 143491 |
| R7 | 2 | PLATE KEEPER .500 THICK | | | 80127818 |
| R8 | 1 | ROPE GUIDE ASSY #22L OR #82 TOP | | | 177191 |
| R9 | 1 | GUARD WIRE ROPE 2.0 DIA X 25VX27.5 LG | | | 177292 |
| R10 | 1 | ADAPTER FRAME MACHINING AND WELDMENT #135 JIB | | | 177432 |
| R11 | 2 | LINK ASSY JIB TOP | | | 177461 |
| R12 | 2 | PIN KEEPER 4.00 DIA X 6.12 LG | | | 177479 |
| R13 | 1 | LINK ASSY | | | 177481 |
| R14 | 4 | PIN 2 HOLE 1.75 DIA X 4.84 LG | | | 177509 23 |
| R15 | 1 | JIB STOP BEAM | | | 177562 |
| R16 | 1 | LINK ASSY | | | 177565 |
| R17 | 2 | PIN 1 HOLE WHD 1.250 DIA X 4.24 LG | | | 177571 |
| R18 | 2 | STRUT STOP LUFFING JIB #135 | | | 177590 |
| R19 | 2 | STRUT | | | 177634 |
| R20 | 1 | LINK 6.0 IN | | | 177639 |
| R21 | 1 | GUIDE WIRE ROPE ASSY SINGLE SHEAVE BRACKET | | | 179380 |
| R22 | 1 | LINK ASSY | | | 179958 |
| R24 | 1 | PENDANT .75 DIA X 135.00 IN | | | 277241 12 |
| R25 | 2 | PENDANT 1.12 DIA X 93.50 IN | | | 277369 10 |
| R26 | 2 | PENDANT 1.12 DIA X 289.0 IN | | | 277438 11 |
| R27 | 4 | PIN COTTER 1/2 DIA X 3.0 LG | | | 562170 |
| R28 | 2 | PIN COTTER 1/2 DIA X 4.0 LG | | | 562172 |
| R29 | - | PIN COTTER 1/2 DIA X 5.0 LG | | | 562178 |
| R30 | 2 | PIN QUICK RELEASE .75 DIA X 3.75 LG | | | 563797 |
| R31 | 8 | PIN SAFETY .25 DIA X 1.75 LG | | | 563823 |
| R32 | 12 | PIN SAFETY .375 X 2.25 LG | | | 563871 |
| R33 | 2 | PIN QUICK RELEASE .50 DIA X 2.00 LG | | | 563912 |
| R34 | 8 | HHCS 3/4-10UNC X 1.50 GR 5 | | | 612715 |
| R36 | 8 | L WASHER .75 | | | 710308 |
| R37 | 1 | STRUT ASSY #135 JIB | | | 80117869 6 |
| R38 | 1 | BUTT ASSY #135 JIB | | | 80127432 25 |
| R39 | 1 | ESI-L JIB ANEMOMETER POSN LT | | | 80128066 |
| R40 | 1 | ROPE GUIDE ASSY #82A BUTT | | | 80136053 |
| R41 | 1 | SHEAVE STRUT RAISING #82 BUTT | | | 80136139 |
| R42 | 1 | ROPE GUIDE ASSY UPPER TOP | | | 80140054 |
| R43 | 1 | STRUT ASSY #135 MAIN | | | 80140432 5 |
| R44 | 3 | ROPE GUARD 1.63 OD X .28 W(IN) | | | 80145880 32.33 |
| R45 | 1 | ROPE GUARD 1.63 OD X .28 W(IN) | | | 80145881 33 |
| R46 | 1 | ROPE GUARD 2.00DX 25W(IN) | | | 80151627 28 |
| R47 | 10 | SHIM .059 THICK | | | A00038 |
| R48 | - | PIN 1 HOLE WHD 2.75 DIA X 6.75 LG | | | A08716 22 |
| R49 | - | SOCKET BUTTON 22-26 MM (.88-1.0 IN) | | | A11041 24 |

| SEE JIB LENGTH TABLE FOR REFERENCE ITEMS NO REQ'D (SEE SHEET 2) | | | | | |
|---|-------|-------------------------------|----------|----------|---------------|
| ITEM | REQ'D | DESCRIPTION | MATERIAL | MASS KGS | DRWG NO DELTA |
| R100 | - | PIN 2 HOLE 1.75 DIA X 3.41 LG | | | 070366 23 |
| R101 | - | PIN COTTER 3/8 DIA X 6.00 LG | | | 562158 23 |

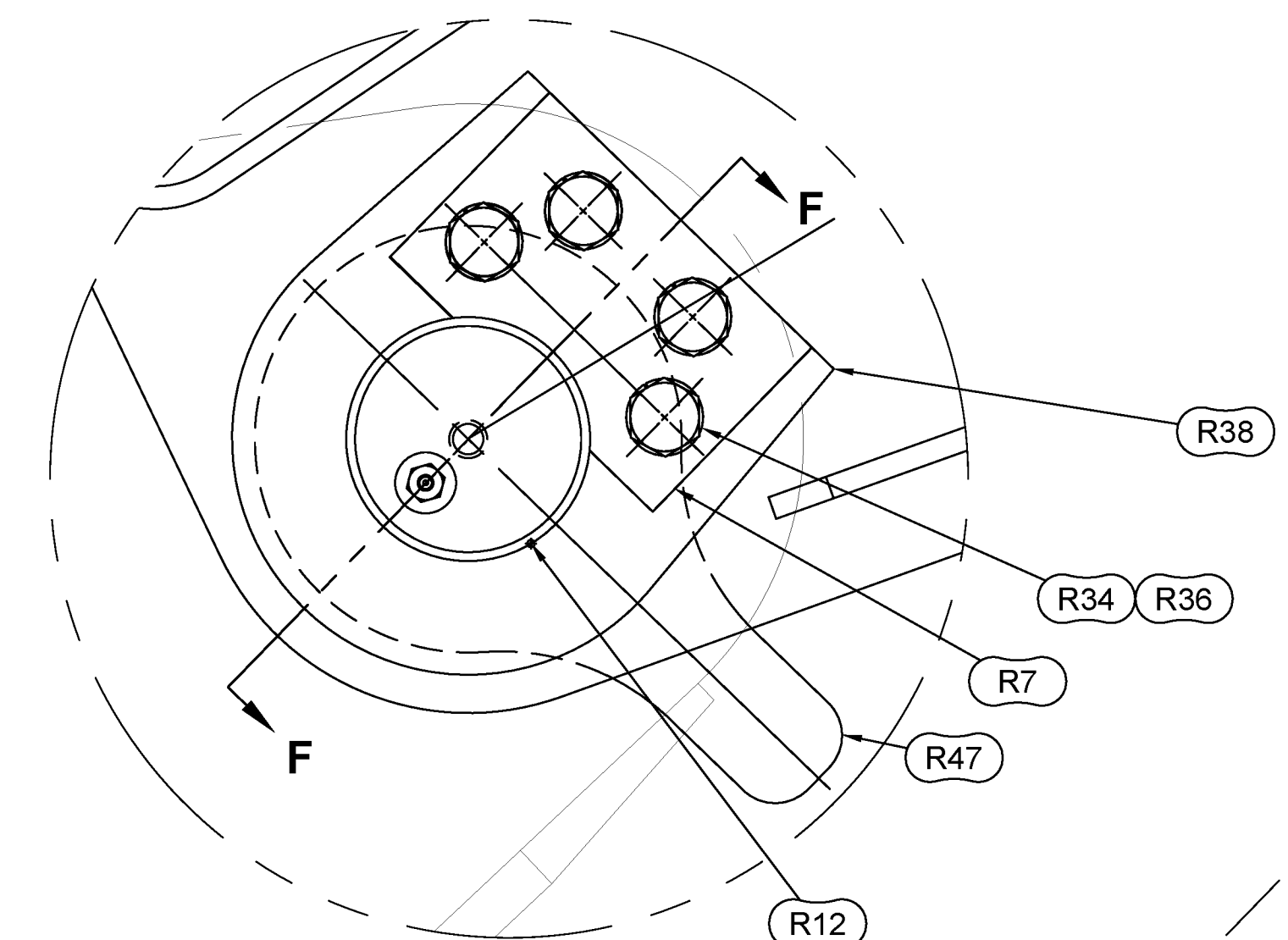
#82A BOOM SHOWN
36.6 M (120.0 FT)
WITH AUX DRUM OPTION
SCALE: 0.013

DETAIL D
SCALE 0.040

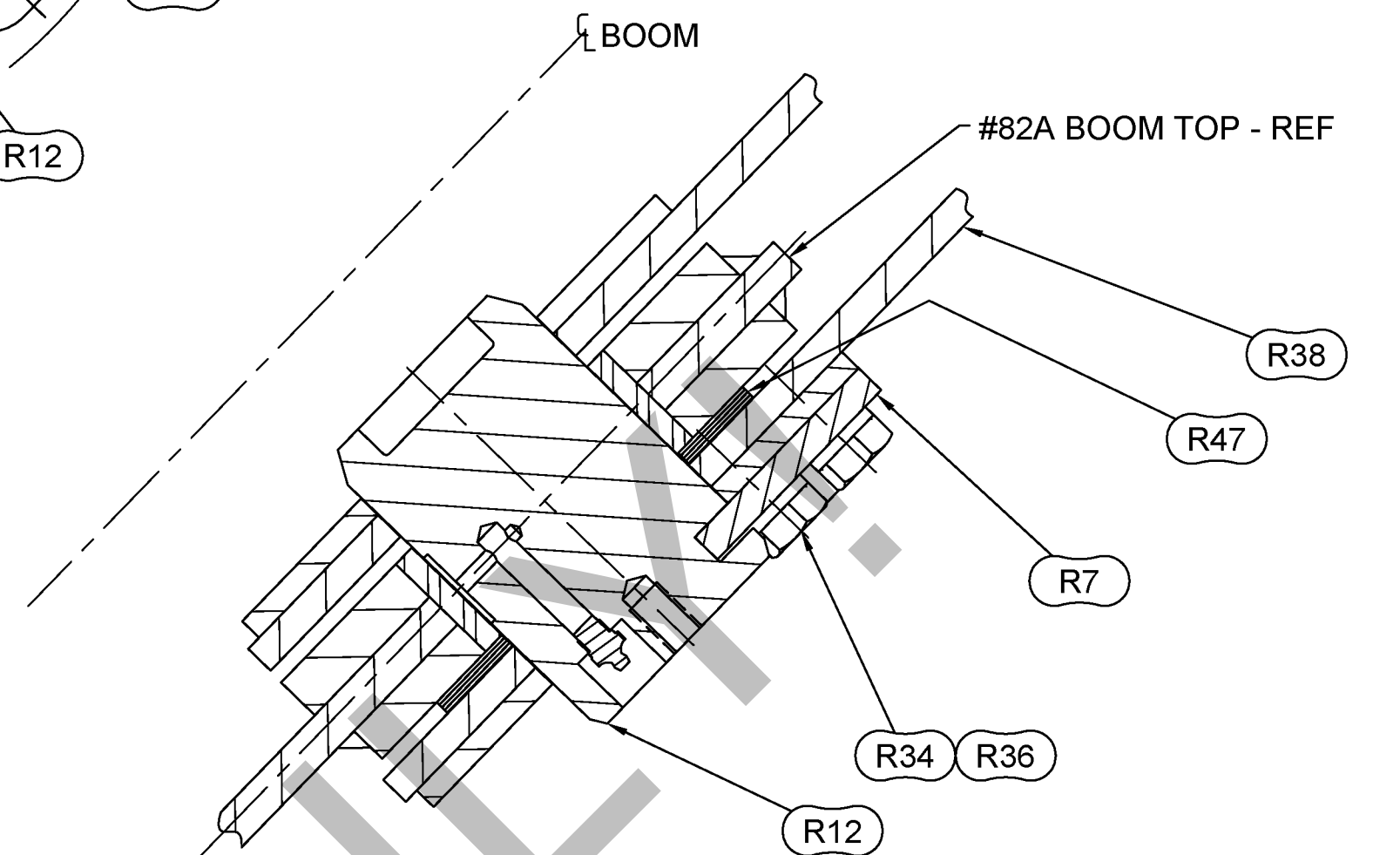
| TOLERANCE TABLE | | TOLERANCES FOR WELDED CONSTRUCTION | | TITLE IN PRIMARY LANGUAGE | |
|-----------------|--|------------------------------------|--|---------------------------|--|
| DECIMAL PLACES | | | | | |

INSERTS, PENDANTS, LINKS AND PINS REQUIRED FOR VARIOUS JIB LENGTHS

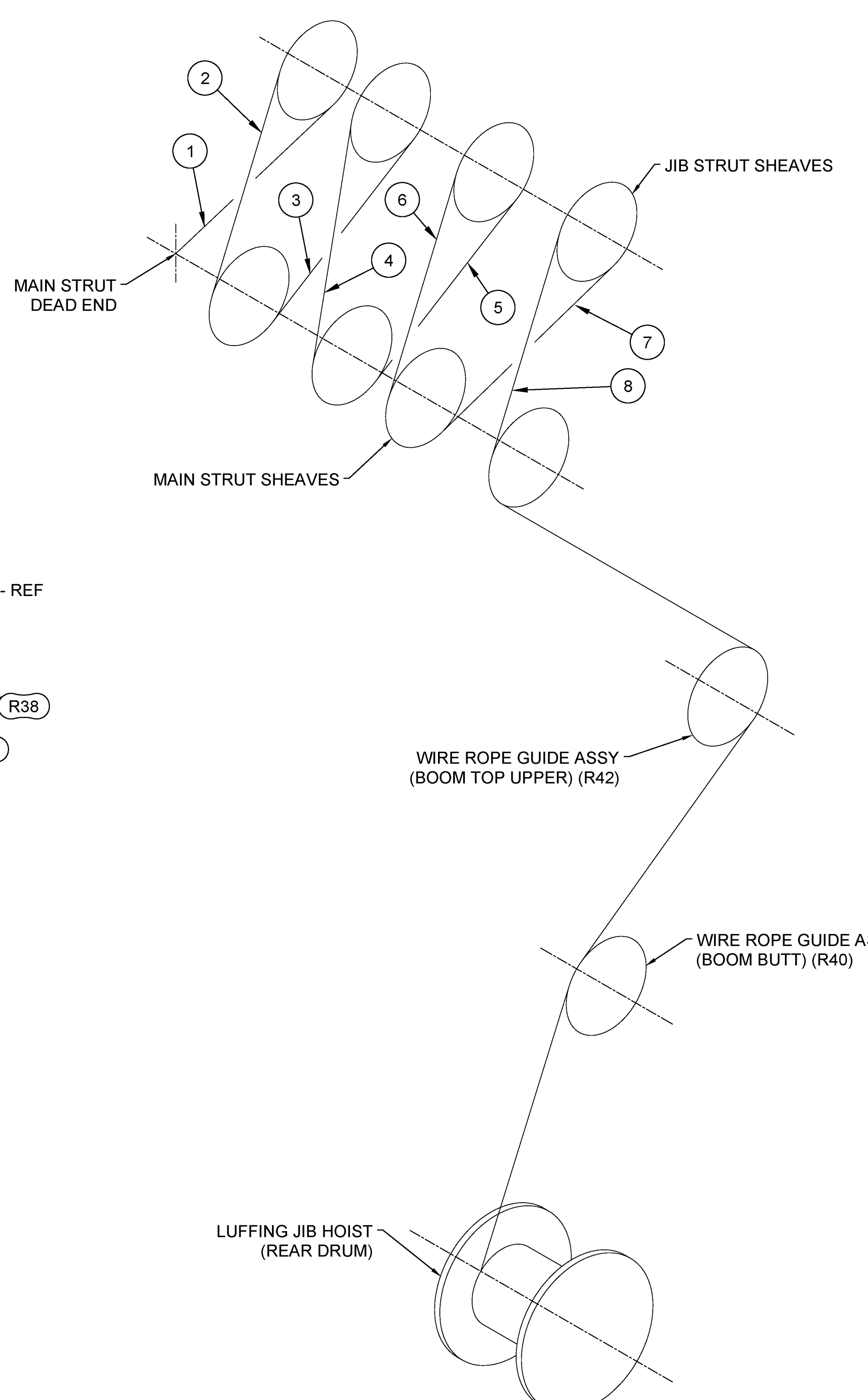
| | | #135 INSERTS | | | PENDANTS | | | LINK | PINS | | COTTER PINS | |
|-------------|------|-----------------------------|-----------------------------|------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|-------------------------------|---------------|-----------------------|---------------------|--------------------|
| ITEM NO. | | 200 | 201 | 202 | 302 | 303 | 304 | 301 | R100 | 300 | R101 | R29 |
| DRWG NO. | | 80117870 | 80117871 | 80117872 | 277382 | 277383 | 277384 | 177553 | 070366 | 170690 | 562158 | 562178 |
| JIB LENGTHS | | INSERT 3.05 M (10 FT) | INSERT 6.10 M (20 FT) | INSERT 12.19 M (40 FT) | PENDANT 3.07 M (10 FT-1.0 IN) | PENDANT 6.13 M (20 FT-1.5 IN) | PENDANT 12.27 M (40 FT-3.0 IN) | LINK 610.0 MM (24.0 IN) | PIN 2 HOLE | PIN 1 HOLE W/HD | COTTER 375 X 6.0 | COTTER 50 X 5.0 |
| METERS | FEET | | | | | | | | | | | |
| 21.3 | 70 | 0 | 1 | 0 | 0 | 4 | 0 | 2 | 4 | 2 | 8 | 2 |
| 24.4 | 80 | 1 | 1 | 0 | 2 | 4 | 0 | 2 | 8 | 2 | 16 | 2 |
| 27.4 | 90 | 0 | 2 | 0 | 0 | 6 | 0 | 2 | 8 | 2 | 16 | 2 |
| | | 0 | 0 | 1 | 0 | 2 | 2 | 2 | 4 | 2 | 8 | 2 |
| 30.5 | 100 | 1 | 2 | 0 | 2 | 6 | 0 | 2 | 12 | 2 | 24 | 2 |
| | | 1 | 0 | 1 | 2 | 2 | 2 | 2 | 8 | 2 | 16 | 2 |
| 33.5 | 110 | 0 | 1 | 1 | 0 | 4 | 2 | 0 | 8 | 0 | 16 | 0 |
| 36.6 | 120 | 1 | 1 | 1 | 2 | 4 | 2 | 0 | 12 | 0 | 24 | 0 |
| 39.6 | 130 | 0 | 2 | 1 | 0 | 6 | 2 | 0 | 12 | 0 | 24 | 0 |
| | | 0 | 0 | 2 | 0 | 2 | 4 | 0 | 8 | 0 | 16 | 0 |
| 42.7 | 140 | 1 | 2 | 1 | 2 | 6 | 2 | 0 | 16 | 0 | 32 | 0 |
| | | 1 | 0 | 2 | 2 | 2 | 4 | 0 | 12 | 0 | 24 | 0 |
| 45.7 | 150 | 0 | 1 | 2 | 0 | 4 | 4 | 0 | 12 | 0 | 24 | 0 |
| 48.8 | 160 | 1 | 1 | 2 | 2 | 4 | 4 | 0 | 16 | 0 | 32 | 0 |
| | | 0 | 2 | 2 | 0 | 6 | 4 | 0 | 16 | 0 | 32 | 0 |
| 51.8 | 170 | 0 | 0 | 3 | 0 | 2 | 6 | 0 | 12 | 0 | 24 | 0 |



DETAIL E
SCALE 0.375



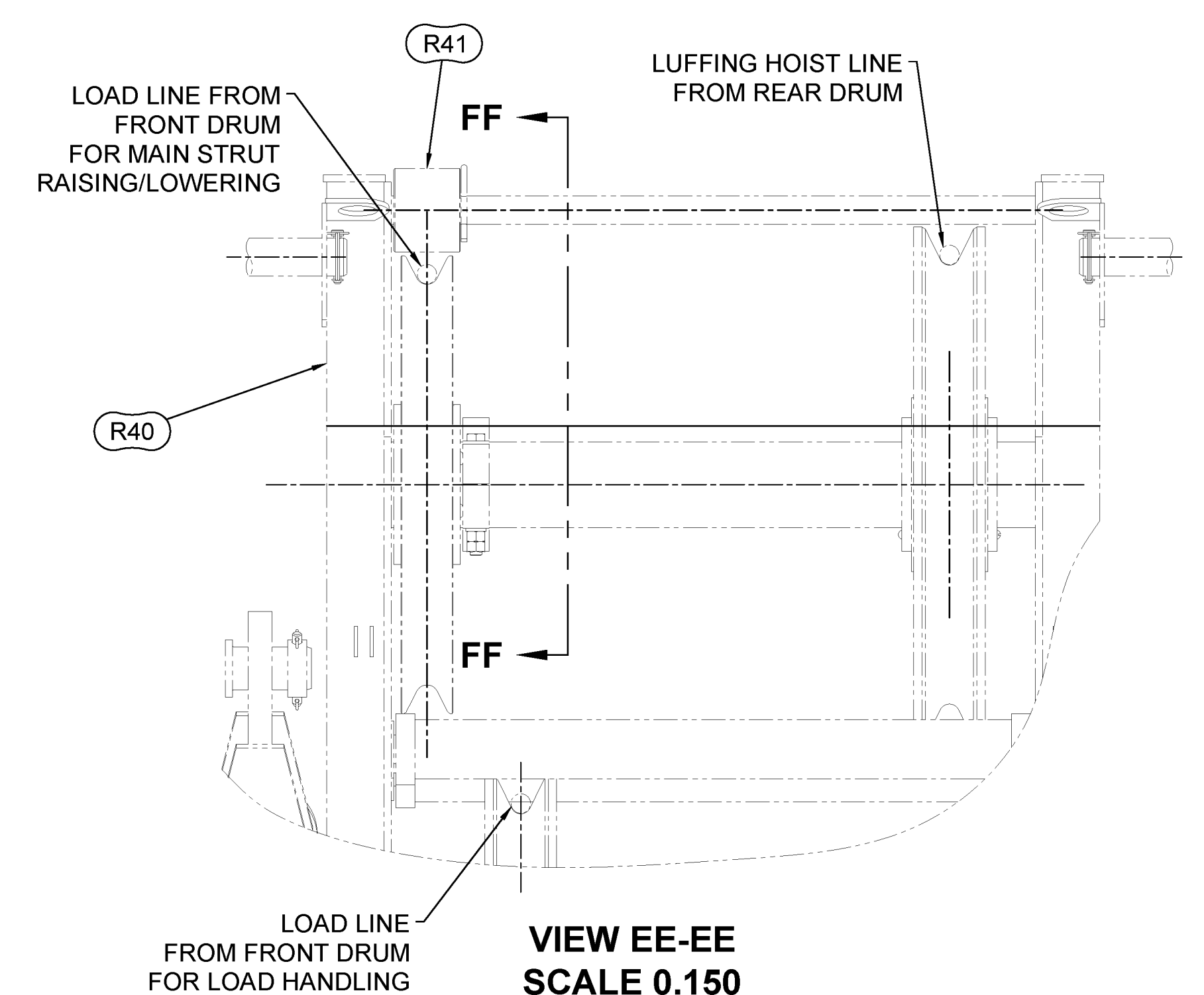
SECTION F-F
SCALE 0.375



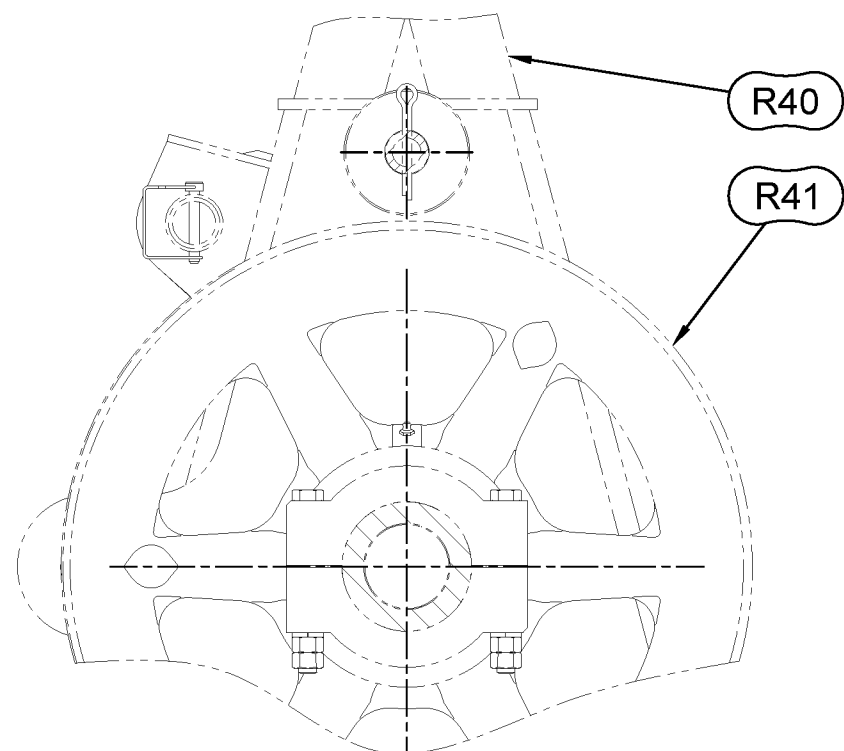
LUFFING JIB HOIST REEVING
DIAGRAM FOR 8 PART LINE

BACKSTAY PENDANTS, LINKS AND PINS REQ'D FOR VARIOUS BOOM LENGTHS

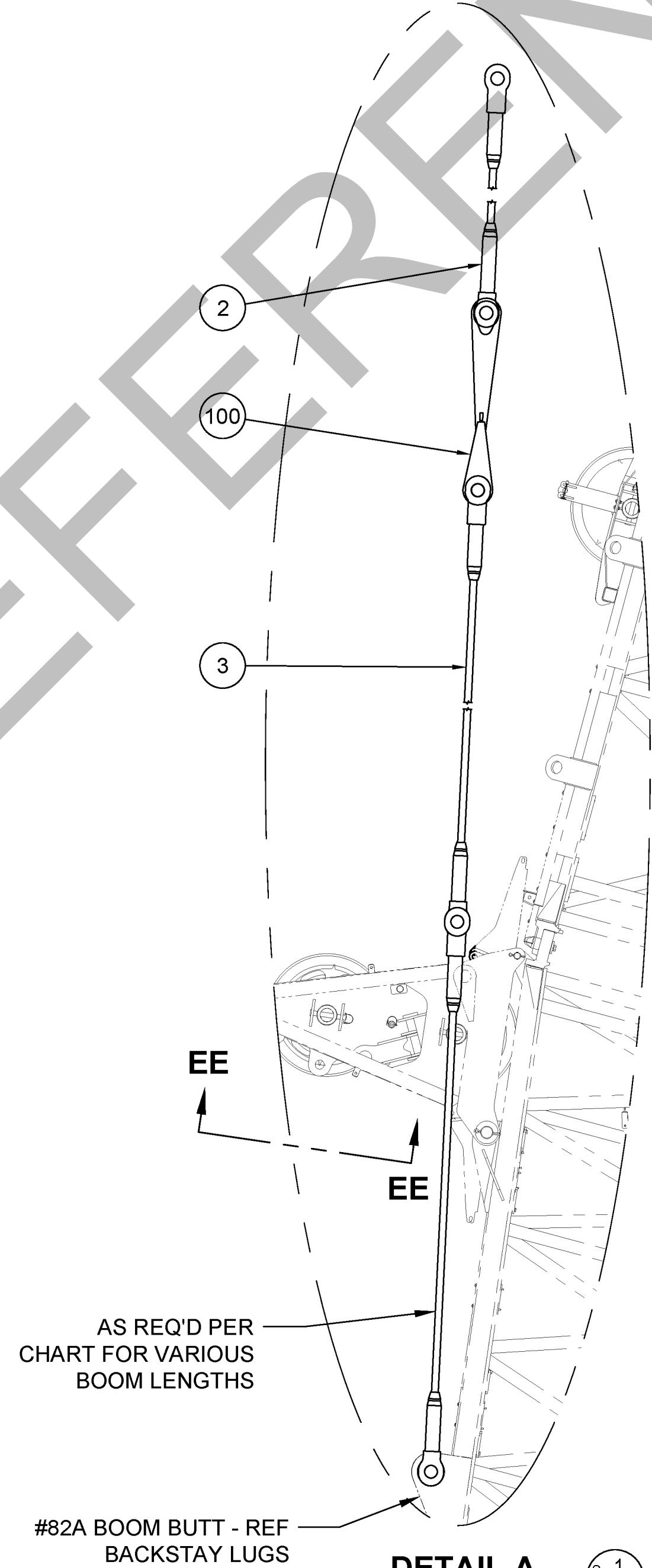
| | | PENDANTS | | | | LINKS | | | PIN | COTTER |
|--------------|------|-------------------------------------|-------------------------------------|--------------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------------|--------------------|
| ITEM NO. | | 302 | 303 | 304 | | 101 | 301 | 100 | 300 | R29 |
| DRWG NO. | | 277382 | 277383 | 277384 | | 177570 | 177553 | 177569 | 170690 | 562178 |
| BOOM LENGTHS | | PENDANT 3.07 M (10 FT-1.0 IN) | PENDANT 6.13 M (20 FT-1.5 IN) | PENDANT 12.27 M (40 FT-3.0 IN) | MAST STRAP LINK POSITION | LINK 279.0 MM (11.0 IN) | LINK 610.0 MM (24.0 IN) | LINK 991.0 MM (39.0 IN) | PIN 1 HOLE W/HD | COTTER 50 X 5.0 |
| METERS | FEET | | | | | | | | | |
| 24.4 | 80 | 4 | 0 | 0 | A | 0 | 0 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | | 0 | 0 | 2 | 2 | 2 |
| 27.4 | 90 | 6 | 0 | 0 | A | 0 | 0 | 2 | 2 | 2 |
| | | 2 | 2 | 0 | | 0 | 0 | 2 | 2 | 2 |
| 30.5 | 100 | 2 | 2 | 0 | A | 2 | 2 | 0 | 4 | 4 |
| | | 4 | 2 | 0 | | 2 | 2 | 0 | 4 | 4 |
| 33.5 | 110 | 0 | 4 | 0 | A | 2 | 2 | 0 | 4 | 4 |
| | | 0 | 0 | 2 | | 2 | 2 | 0 | 4 | 4 |
| 36.6 | 120 | 2 | 4 | 0 | A | 2 | 2 | 0 | 4 | 4 |
| | | 2 | 0 | 2 | | 2 | 2 | 0 | 4 | 4 |
| 39.6 | 130 | 4 | 0 | 2 | A | 2 | 2 | 0 | 4 | 4 |
| | | 0 | 6 | 0 | | 2 | 2 | 0 | 4 | 4 |
| 42.7 | 140 | 2 | 2 | 2 | A | 2 | 0 | 0 | 2 | 2 |
| | | 0 | 0 | 4 | | 2 | 0 | 0 | 2 | 2 |
| 45.7 | 150 | 0 | 4 | 2 | A | 2 | 0 | 0 | 2 | 2 |
| | | 4 | 2 | 2 | | 2 | 0 | 0 | 2 | 2 |
| 48.8 | 160 | 2 | 4 | 2 | A | 2 | 0 | 0 | 2 | 2 |
| | | 2 | 0 | 4 | | 2 | 0 | 0 | 2 | 2 |
| 51.8 | 170 | 4 | 0 | 4 | A | 2 | 0 | 0 | 2 | 2 |
| | | 0 | 2 | 4 | | 2 | 0 | 0 | 2 | 2 |
| 54.9 | 180 | 2 | 2 | 4 | A | 2 | 0 | 0 | 2 | 2 |
| | | 4 | 2 | 4 | | 2 | 0 | 0 | 2 | 2 |
| 57.9 | 190 | 0 | 0 | 6 | B | 2 | 0 | 0 | 2 | 2 |
| | | 0 | 4 | 4 | | 2 | 0 | 0 | 2 | 2 |
| 61.0 | 200 | 2 | 4 | 4 | B | 2 | 0 | 0 | 2 | 2 |
| | | 2 | 0 | 6 | | 2 | 0 | 0 | 2 | 2 |



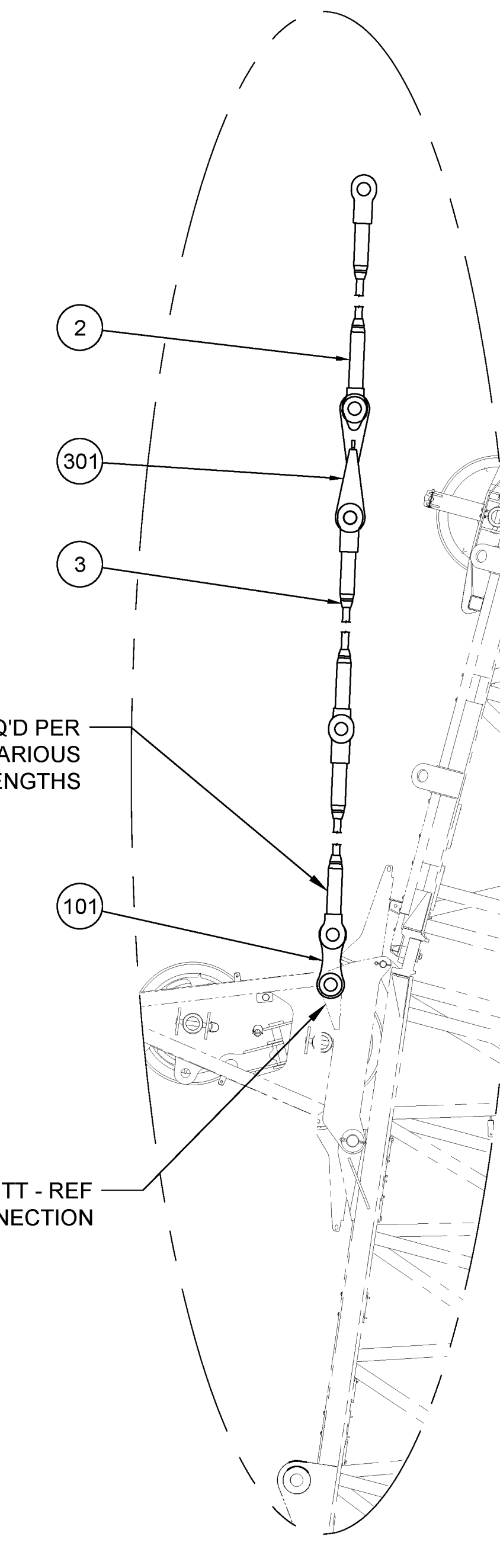
VIEW EE-EE
SCALE 0.150



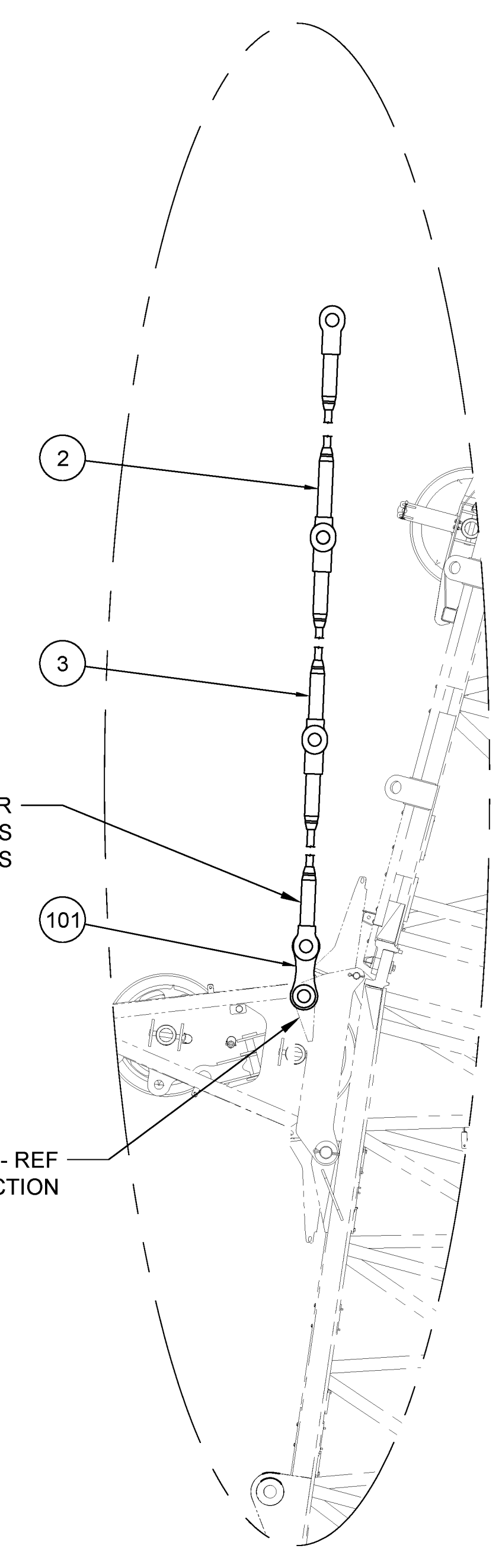
SECTION FF-FF
SCALE 0.150



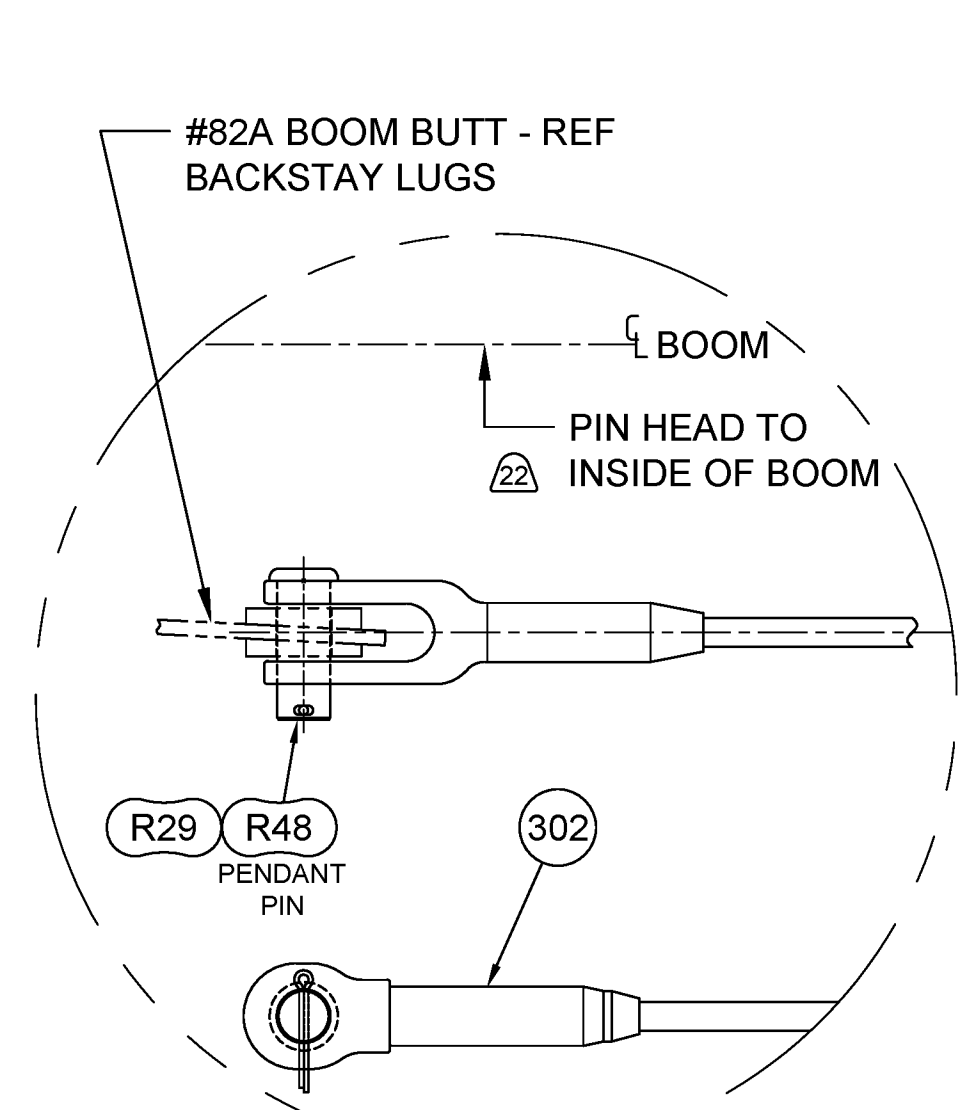
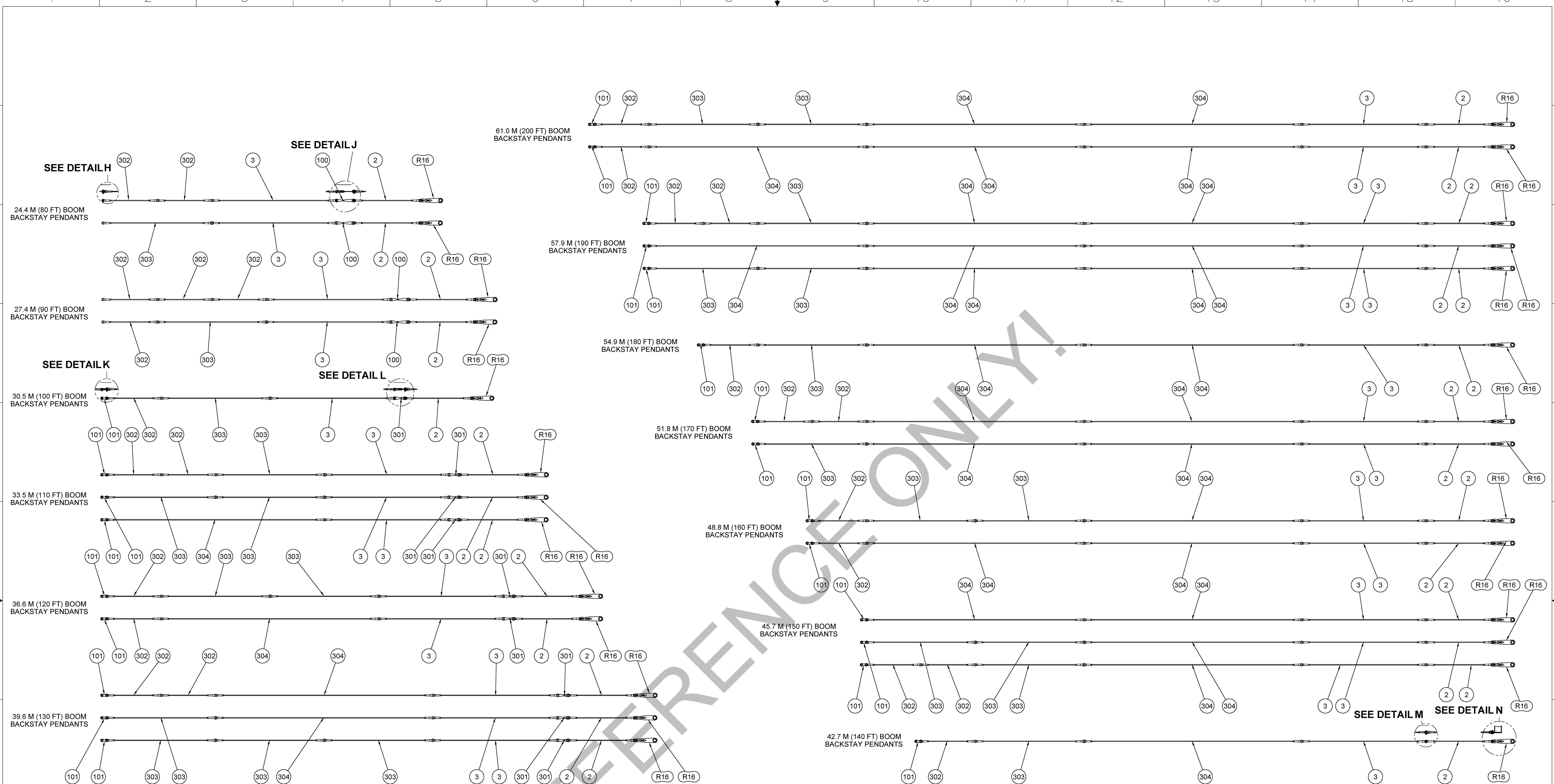
DETAIL A
SCALE 0.040
JIB BACKSTAY PENDANT
TYP 24.4 - 27.4 M (80 - 90 FT) BOOM



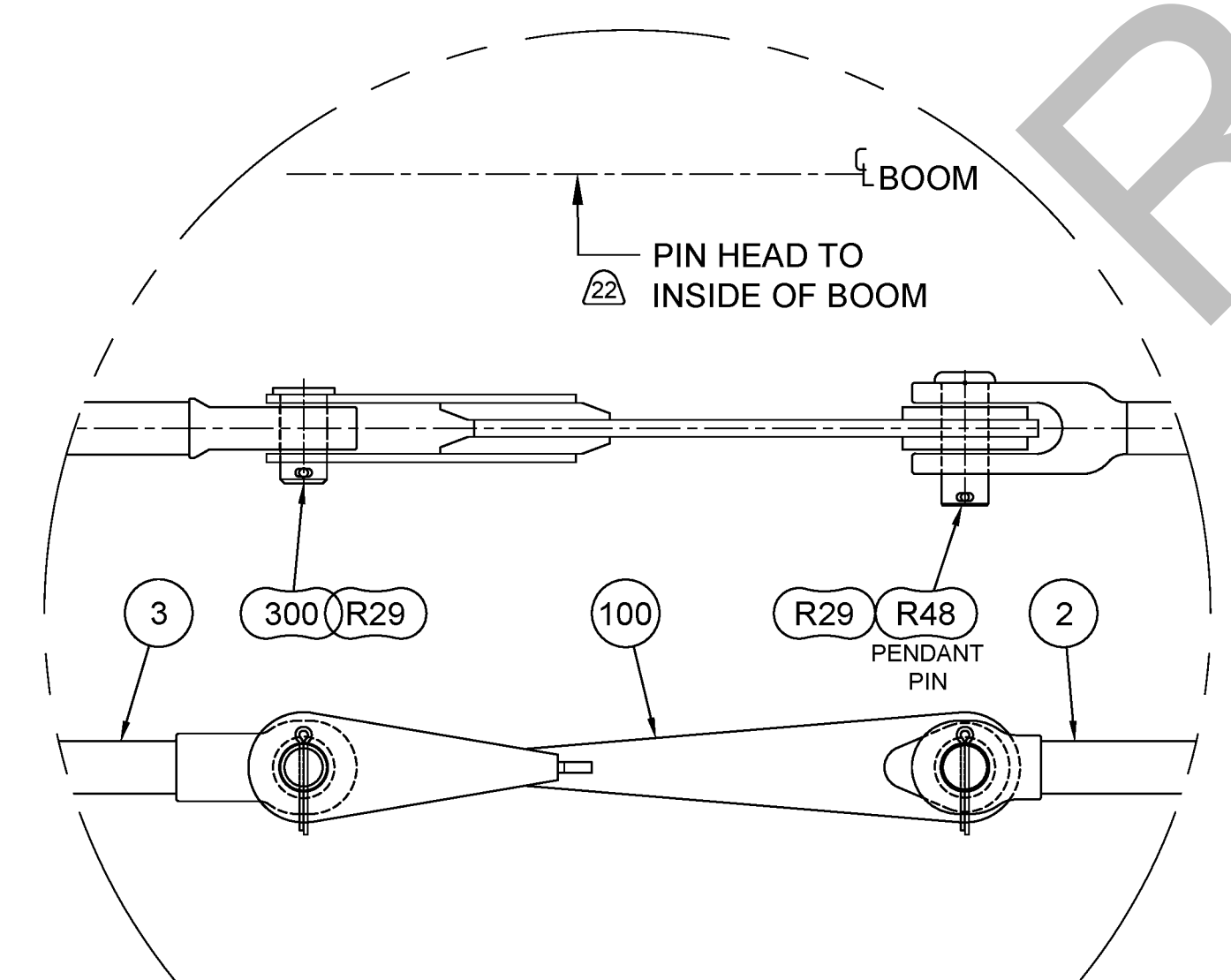
DETAIL B
SCALE 0.040
JIB BACKSTAY PENDANT
TYP 30.5 - 39.6 M (100 - 130 FT) BOOM



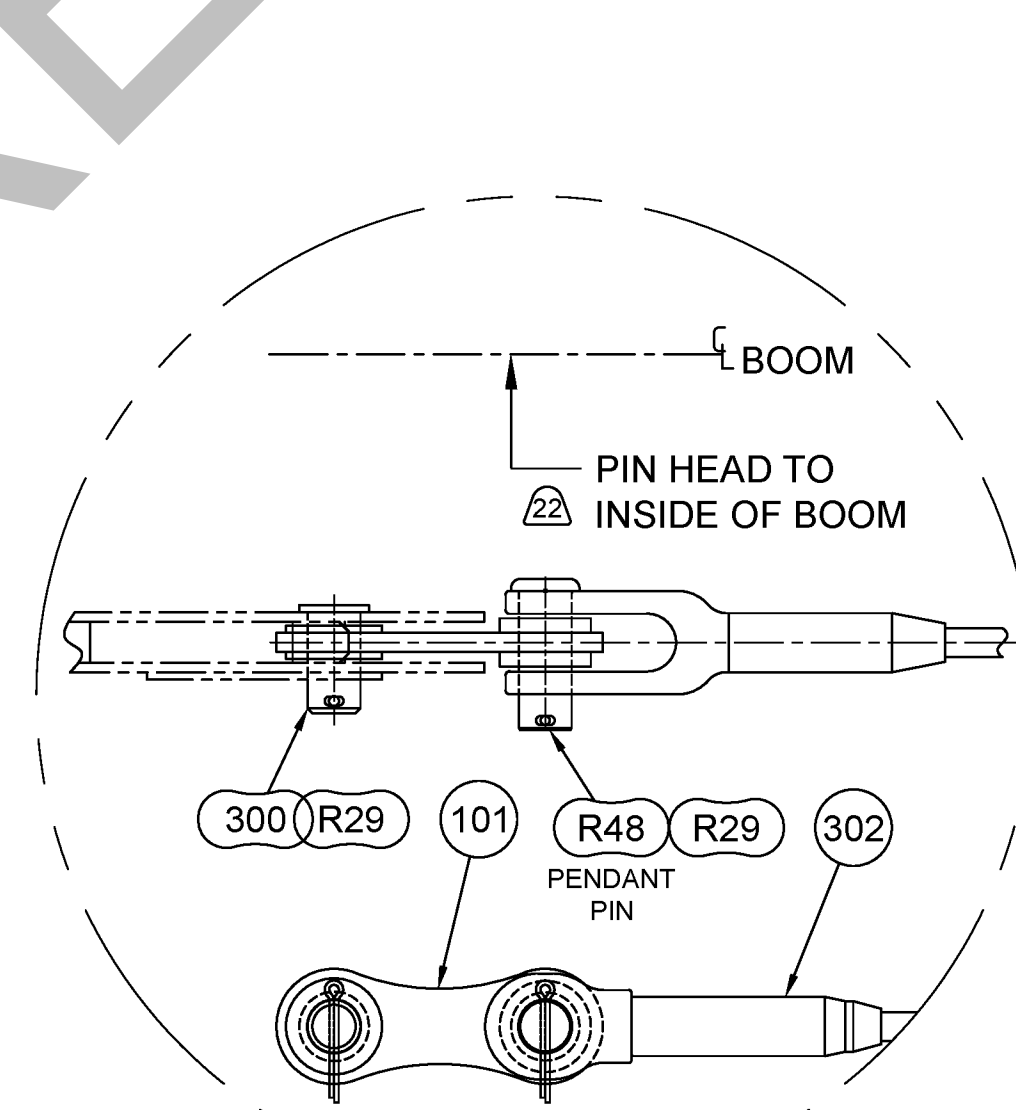
DETAIL C
SCALE 0.040
JIB BACKSTAY PENDANT
TYP 42.7 - 61.0 M (140 - 200 FT) BOOM



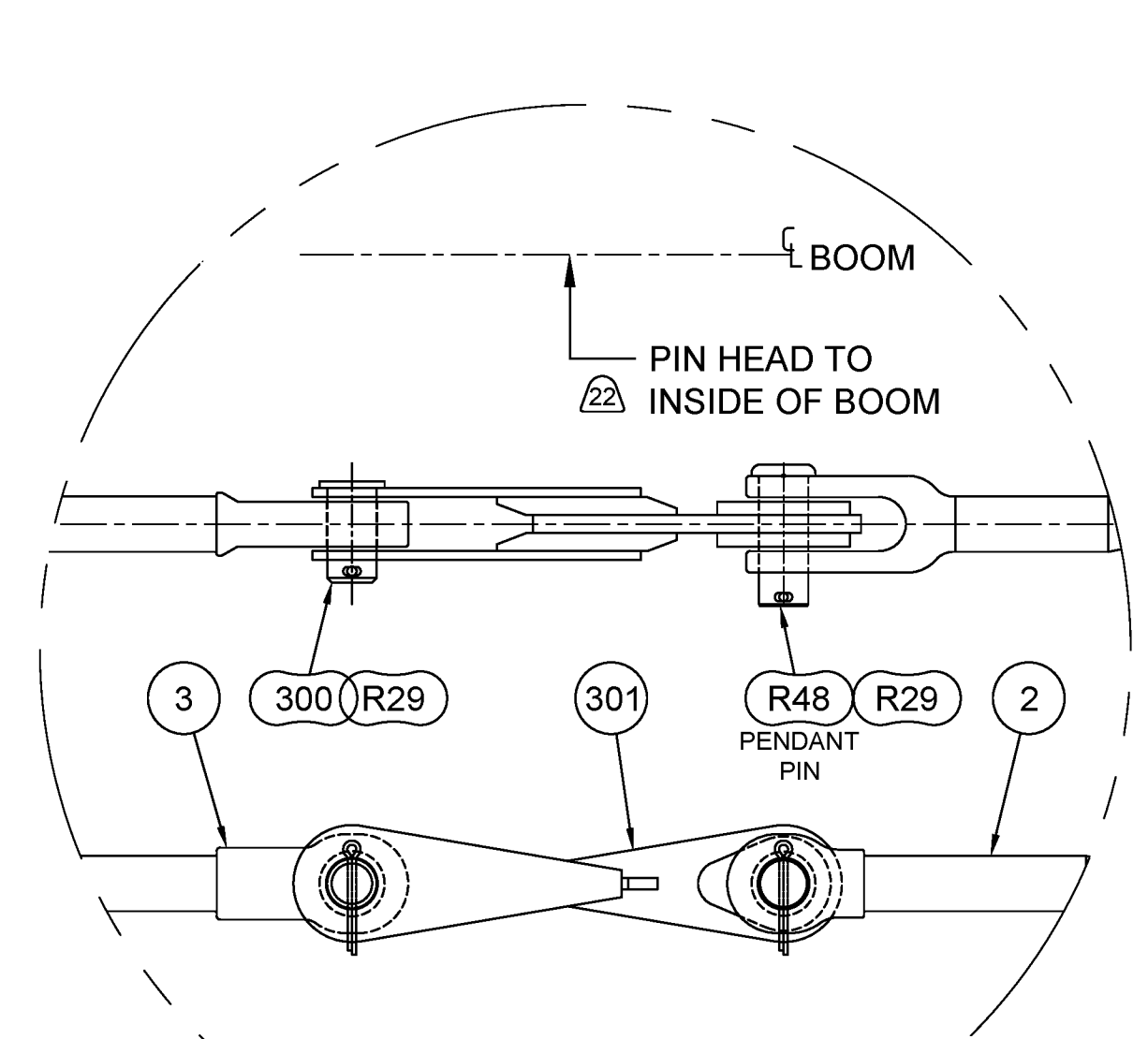
DETAIL H
SCALE 0.100
PENDANT TO BOOM BUTT
TYP FOR 24.4 - 27.4 M (80 - 90 FT) BOOM



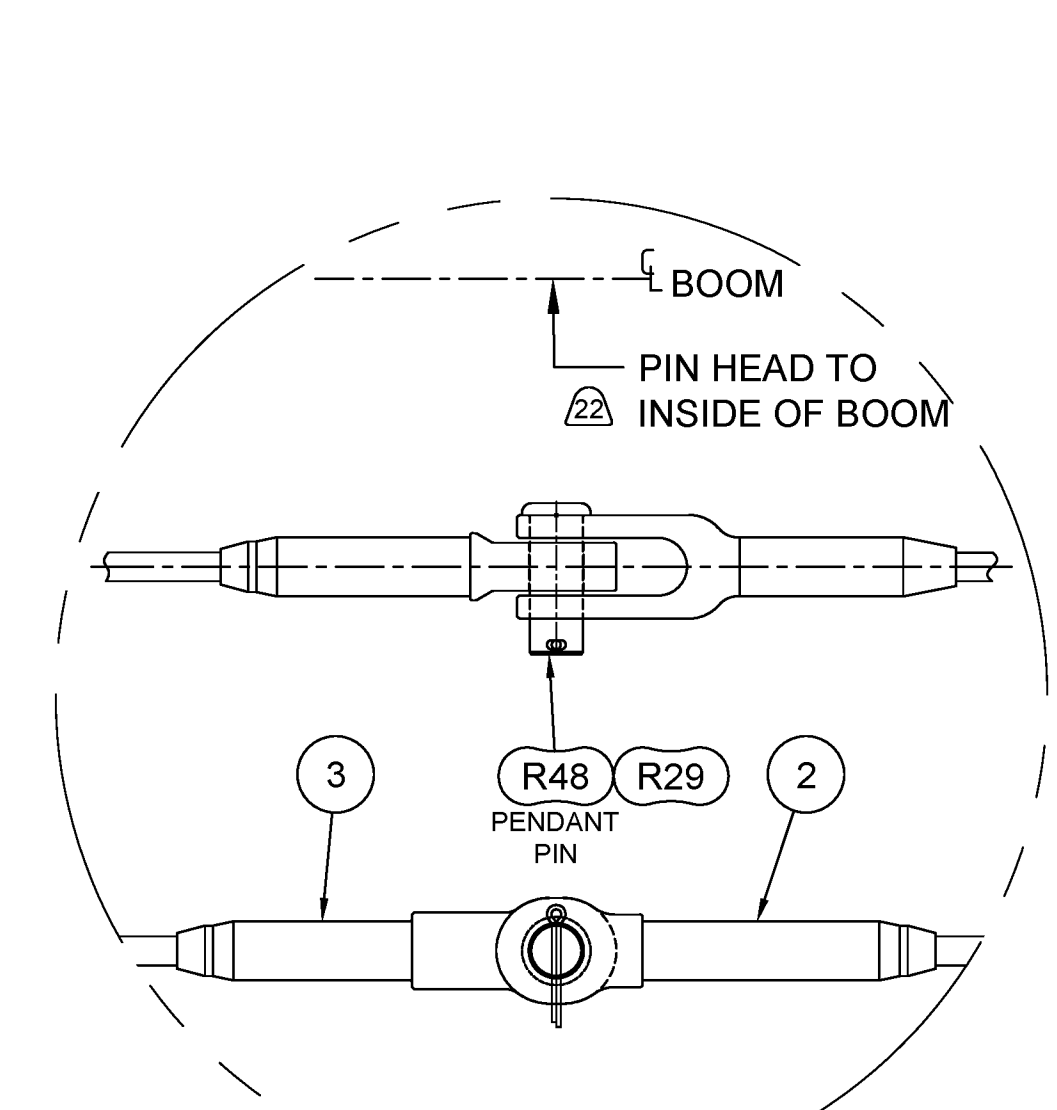
DETAIL J
SCALE 0.100
PENDANT TO LINK
TYP FOR 24.4 - 27.4 M (80 - 90 FT) BOOM



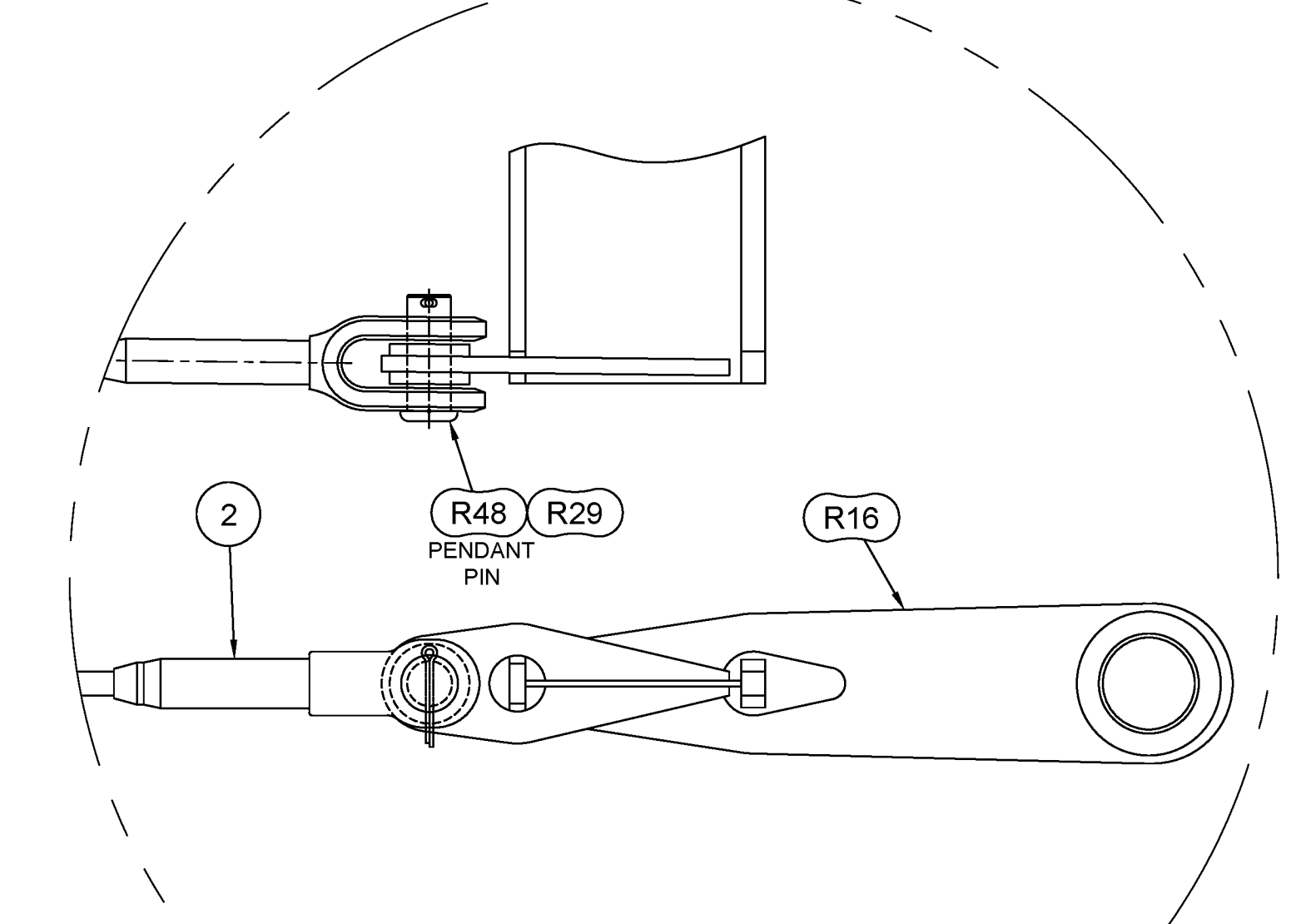
DETAIL K
SCALE 0.100
PENDANT TO LINK/ROPE GUIDE
TYP FOR 30.5 - 61.0 M (100 - 200 FT) BOOM



DETAIL L
SCALE 0.100
PENDANT TO LINK
TYP FOR 30.5 - 39.6 M (100 - 130 FT) BOOM

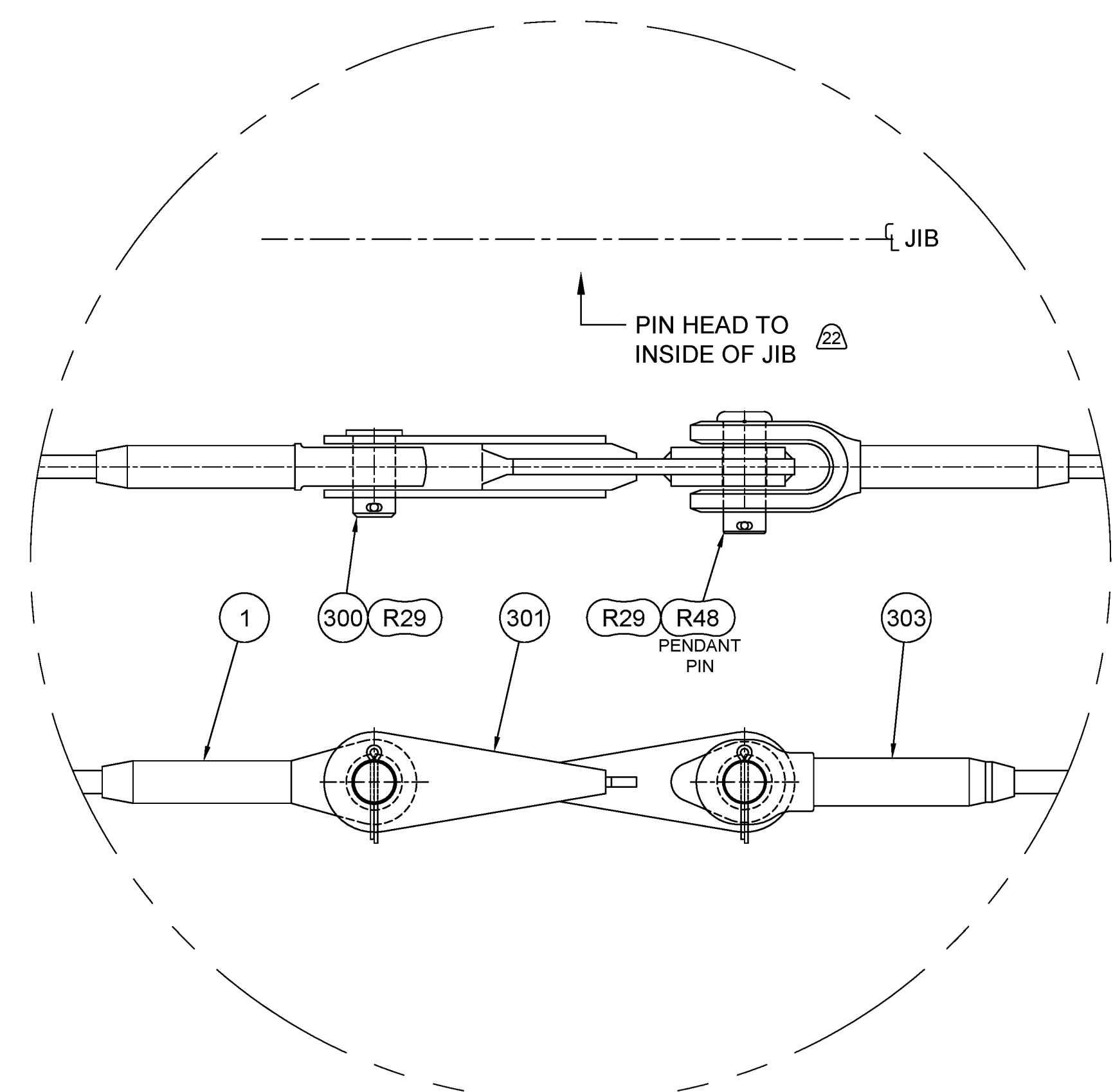
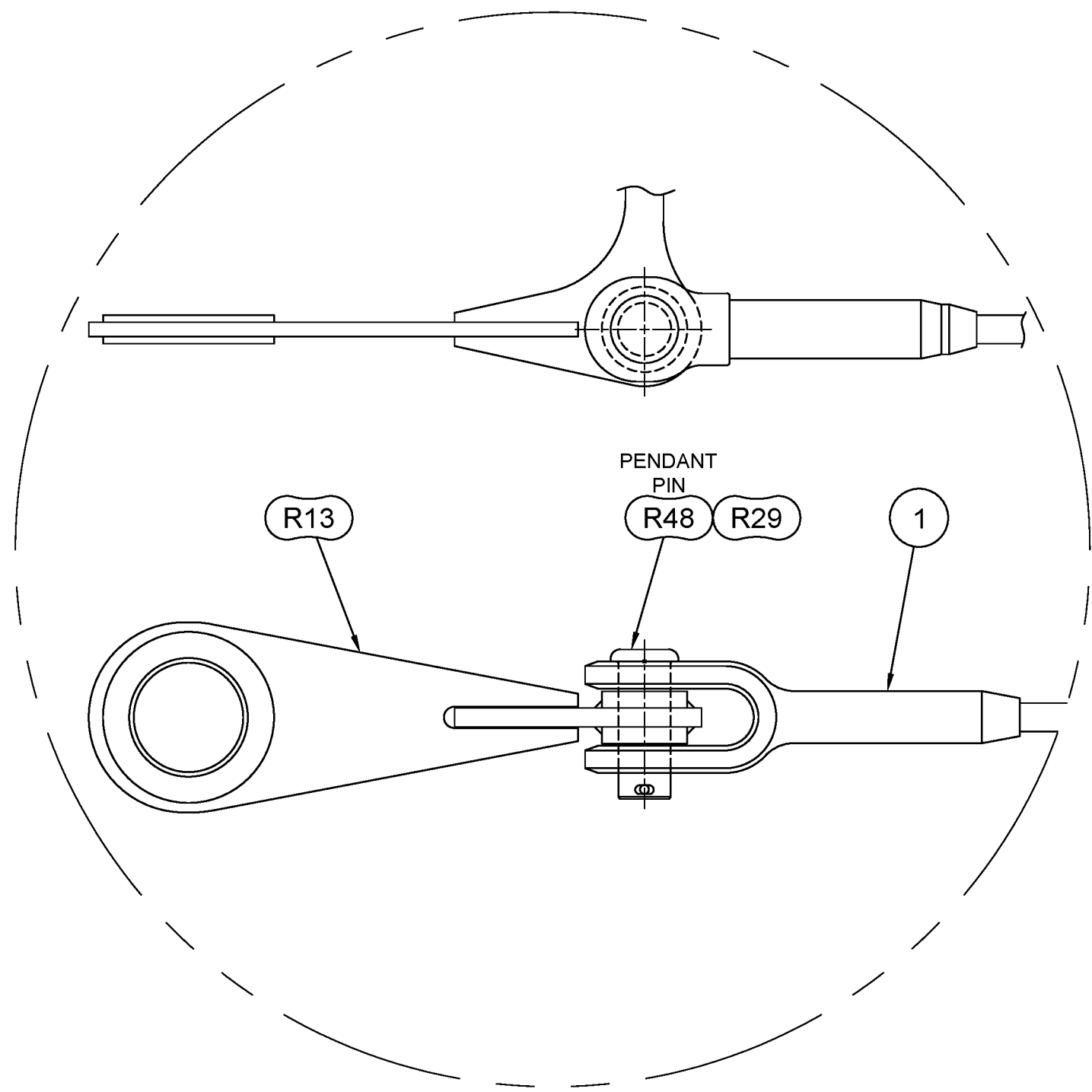
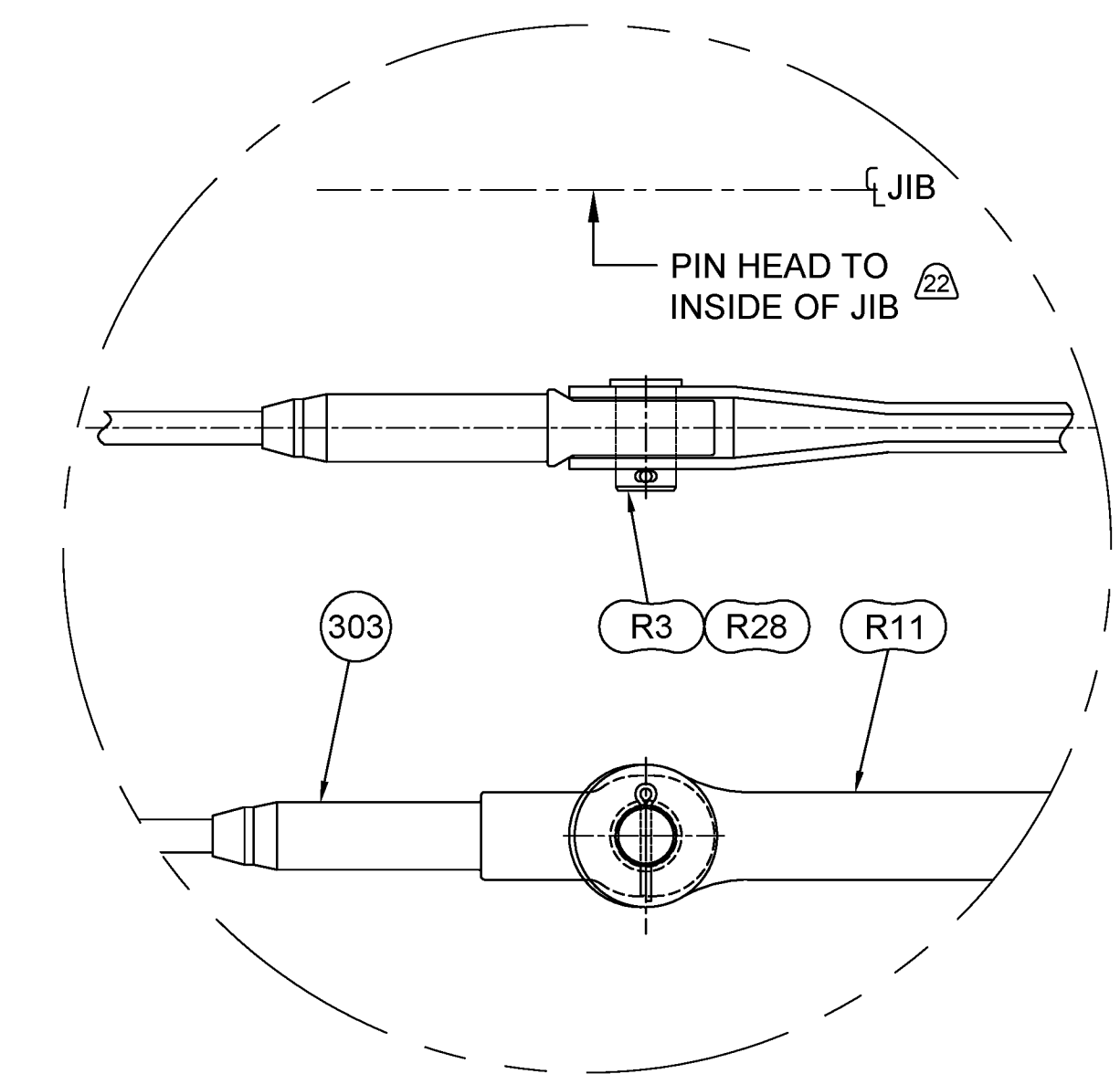
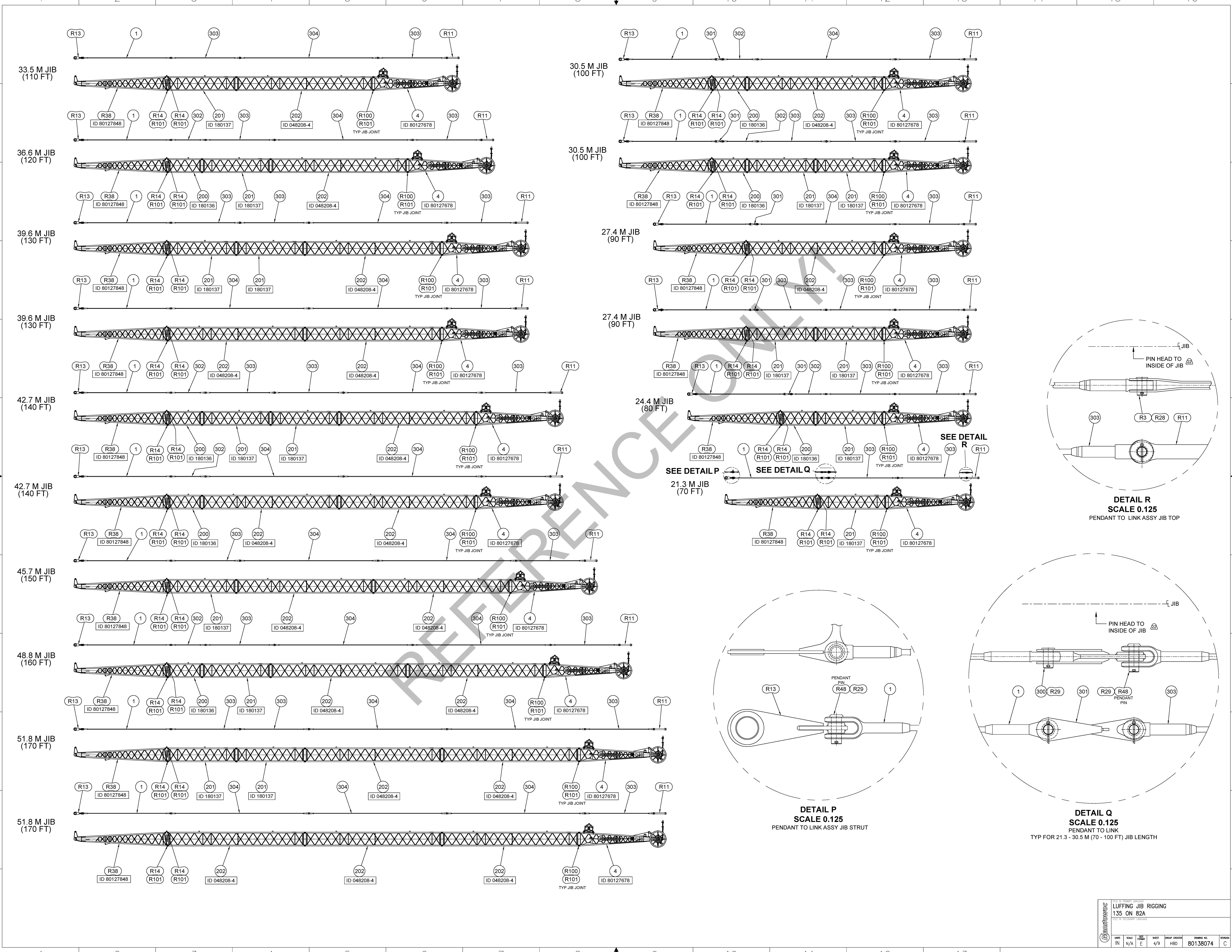


DETAIL M
SCALE 0.100
PENDANT TO PENDANT

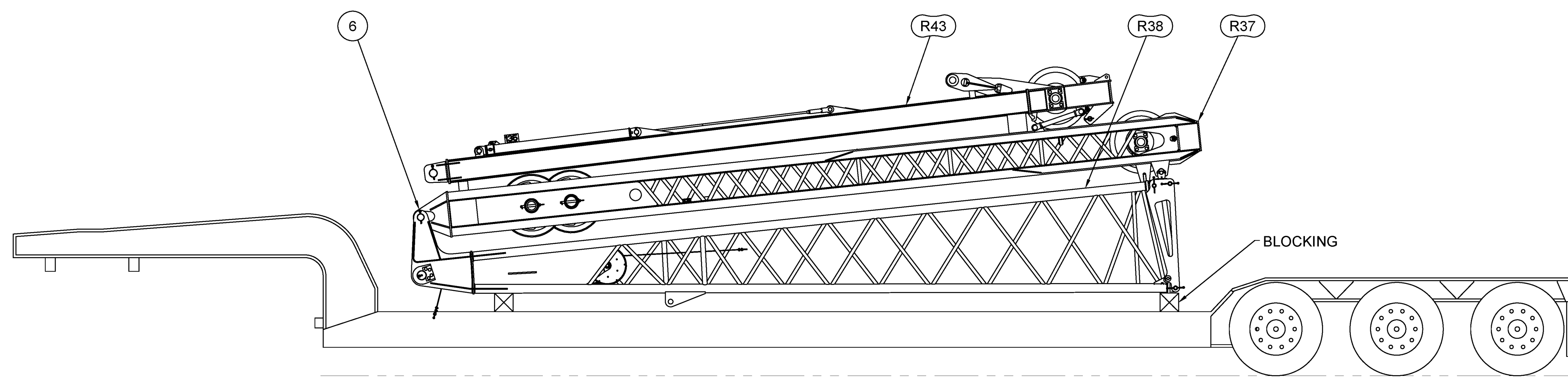


DETAIL N
SCALE 0.100
PENDANT TO LINK ASSY MAIN STRUT

| | | | | | | | | |
|-------|--|-------|------|-------|-------|--------|-------------|----------|
| UNITS | | SCALE | DATE | SHEET | GROUP | ORIGIN | DRAWING NO. | REVISION |
| IN | | N/A | E | 3/8 | HBD | | 80138074 | C |

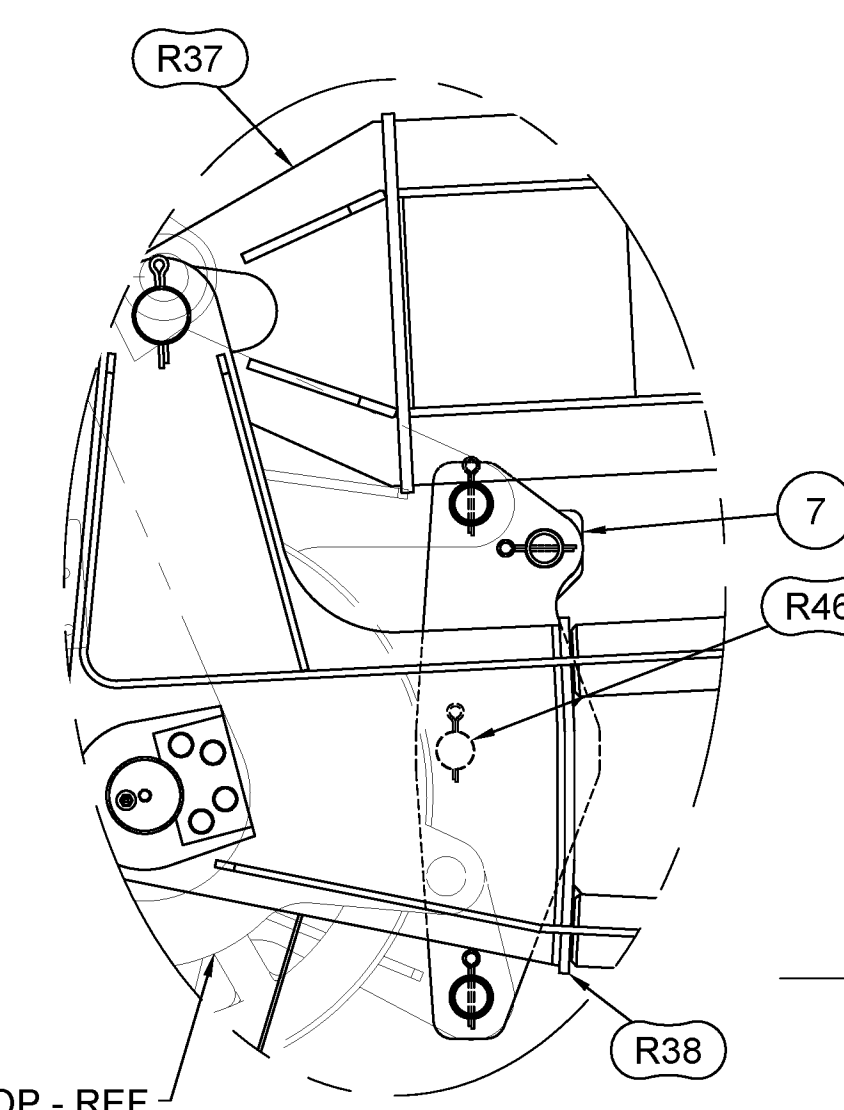


| | | | | | |
|-------|-------|---|-------|--|----------|
| | | LUFFING JIB RIGGING 135 ON 82A | | <small>FIG. 10 (REVISED) 10/2008</small> <small>FIG. 11 (REVISED) 10/2008</small> | |
| UNITS | SCALE | DATE | SHEET | GROUP | ORIGIN |
| IN | N/A | E | 4/8 | HBD | 80138074 |
| | | | | | REVISION |
| | | | | | C |

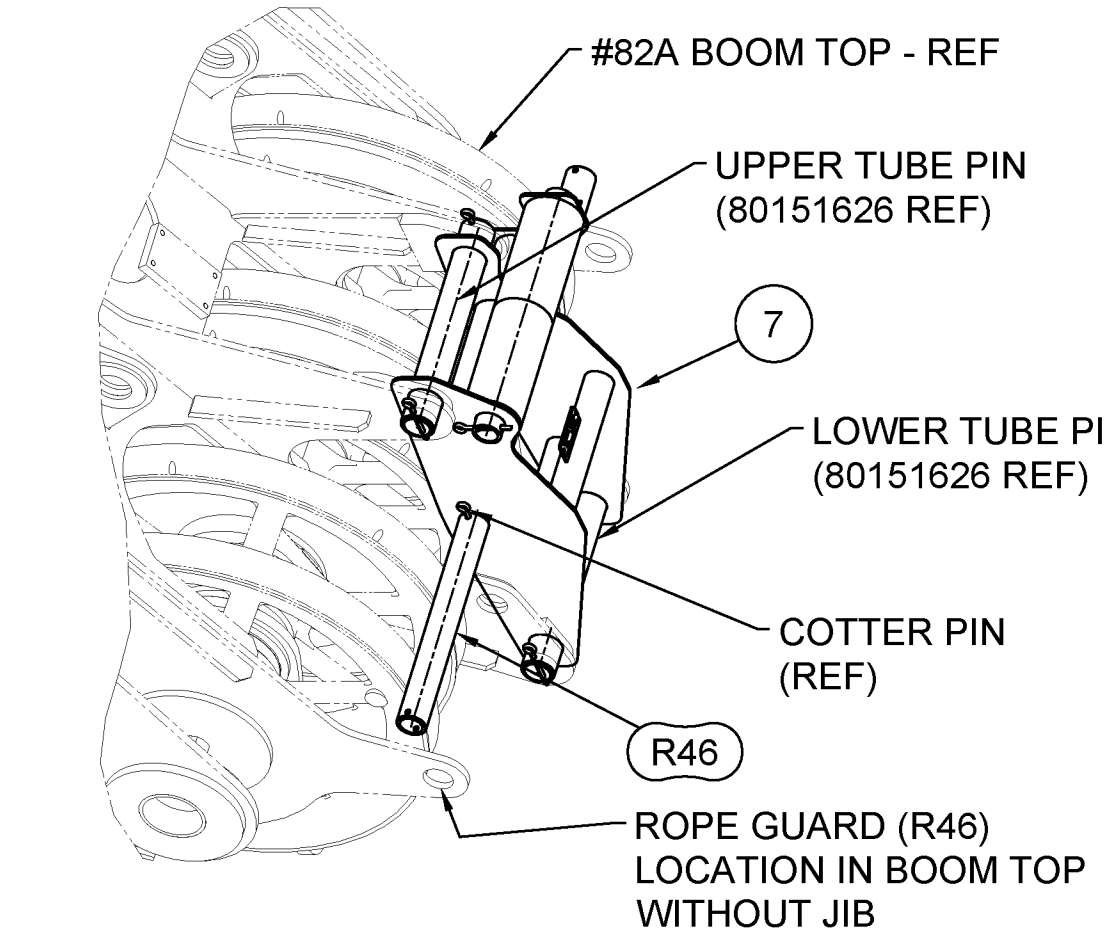


LUFFING JIB BUTT SHIPPING CONFIGURATION - ITEM 6
SCALE: 0.031

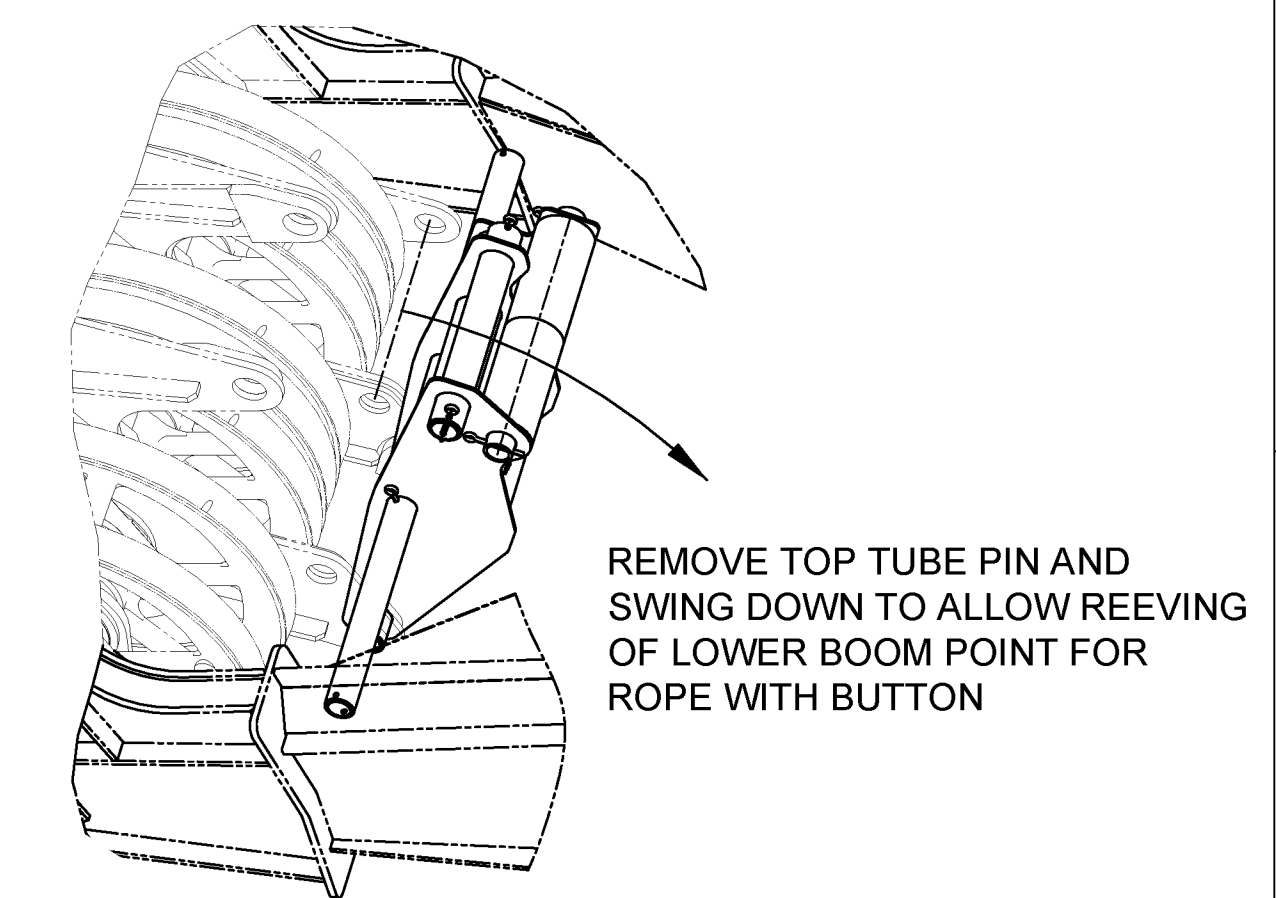
SHIPPING CONFIGURATION CONSISTS OF THE
JIB BUTT (R38), MAIN STRUT (R43), JIB STRUT (R37)



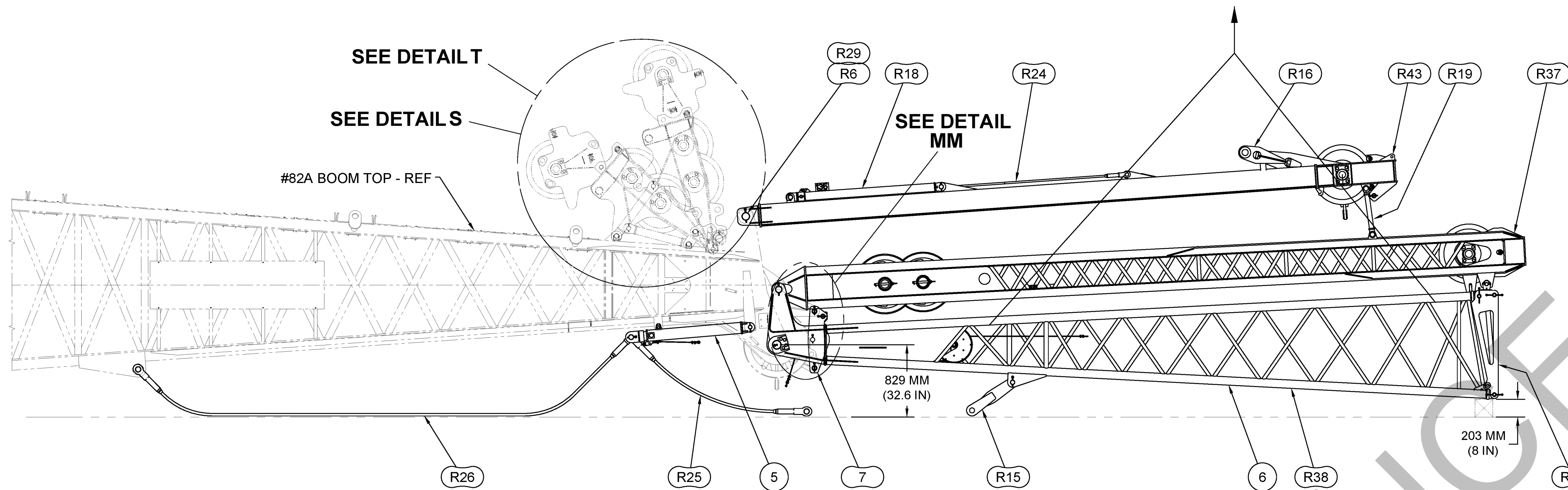
DETAIL MM
SCALE 0.100



DETAIL MM - ISO VIEW
WORKING POSITION (ITEM 7)
(JIB BUTT NOT SHOWN)



DETAIL MM - ISO VIEW
ROTATION OF ROPE GUARD ASSY (ITEM 7)
FOR REEVING OF LOWER BOOM POINT
WITH #135 JIB BUTT (R38) ATTACHED



STEP 1
JIB BUTT ASSEMBLY TO BOOM TOP
SCALE: 0.031

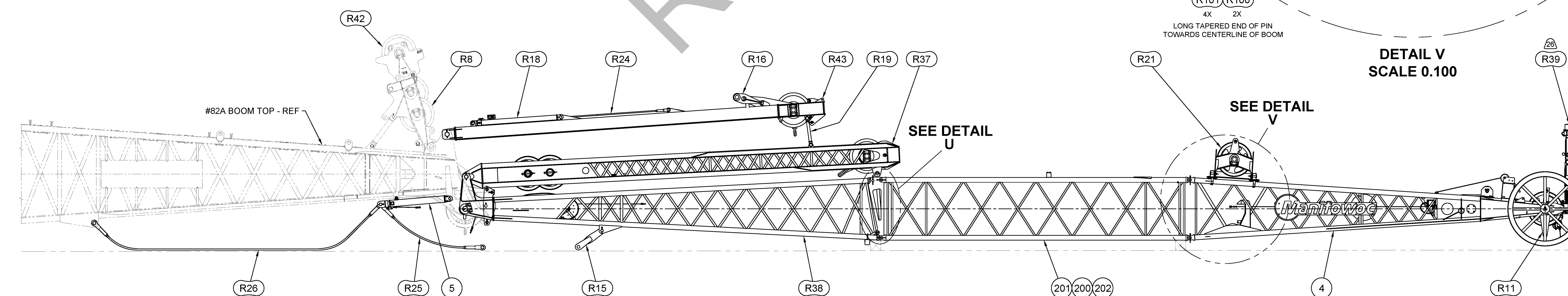
BOOM TOP PREP: REMOVE LOWER POINT ROPE GUARD (R46) FROM BOOM TOP AND SET ASIDE. USING UPPER AND LOWER TUBE PINS, INSTALL ROPE GUARD ASSY (ITEM 7) ONTO BOOM TOP AS SHOWN. INSTALL (ITEM 6), LOWER AND ALIGN HOLES ON JIB BUTT WITH HOLES IN BOOM TOP LUGS. FASTEN WITH PINS AND KEEPER PLATES USING A BOLTED HINGE (80127848 - SHOWN) OR WELDED HINGE (177053) RETENTION. ONE OF THESE METHODS MUST BE USED. AS PINS ARE INSTALLED USE AN EQUAL AMOUNT OF SHIMS (R47) ON OUTBOARD SIDE SO JIB IS CENTERED ON BOOM TOP (SEE DETAIL E AND SECTION F-F ON SHEET 2).

ATTACH LIFTING SLINGS CHOKED AROUND JIB BUTT CHORDS AND LIFT SHIPPING CONFIGURATION (ITEM 6) INTO POSITION AT END OF BOOM TOP AS SHOWN. WITH BLOCKING IN PLACE TO SUPPORT (ITEM 6), LOWER AND ALIGN HOLES ON JIB BUTT WITH HOLES IN BOOM TOP LUGS. FASTEN WITH PINS AND KEEPER PLATES USING A BOLTED HINGE (80127848 - SHOWN) OR WELDED HINGE (177053) RETENTION. ONE OF THESE METHODS MUST BE USED. AS PINS ARE INSTALLED USE AN EQUAL AMOUNT OF SHIMS (R47) ON OUTBOARD SIDE SO JIB IS CENTERED ON BOOM TOP (SEE DETAIL E AND SECTION F-F ON SHEET 2).

ATTACH LIFTING SLINGS TO MAIN STRUT ASSY (R43) AND LIFT INTO POSITION. ALIGN HOLES ON MAIN STRUT TO LUGS ON BOOM TOP. FASTEN WITH PINS (R6) AND COTTER PINS (R29).

IF JIB STOP ASSY (ITEM 5) IS NOT ALREADY ASSEMBLED TO BOOM TOP, USE A FORKLIFT TO RAISE INTO POSITION UNDER BOOM TOP. ALIGN HOLES AND PIN JIB STOP ASSY TO BOOM TOP IN THE SHIPPING OR RETRACTED POSITION. PIN PENDANT (R25) TO JIB STOP STRUT AND LAY ON GROUND TOWARDS JIB BUTT. PIN PENDANT (R26) TO JIB STOP STRUT AND JIB STOP PENDANT LUGS ON BOTTOM OF BOOM TOP. IF NOT ALREADY ASSEMBLED, PIN JIB STOP BEAM (R15) TO LUGS ON JIB BUTT.

USING AN ASSIST CRANE LIFT AND ROTATE WIRE ROPE GUIDE ASSY (R8) AND UPPER ROPE GUIDE ASSY (R42) TO WORKING POSITION (SEE DETAILS S AND T). ATTACH PINS AS SHOWN TO SECURE WIRE ROPE GUIDES.

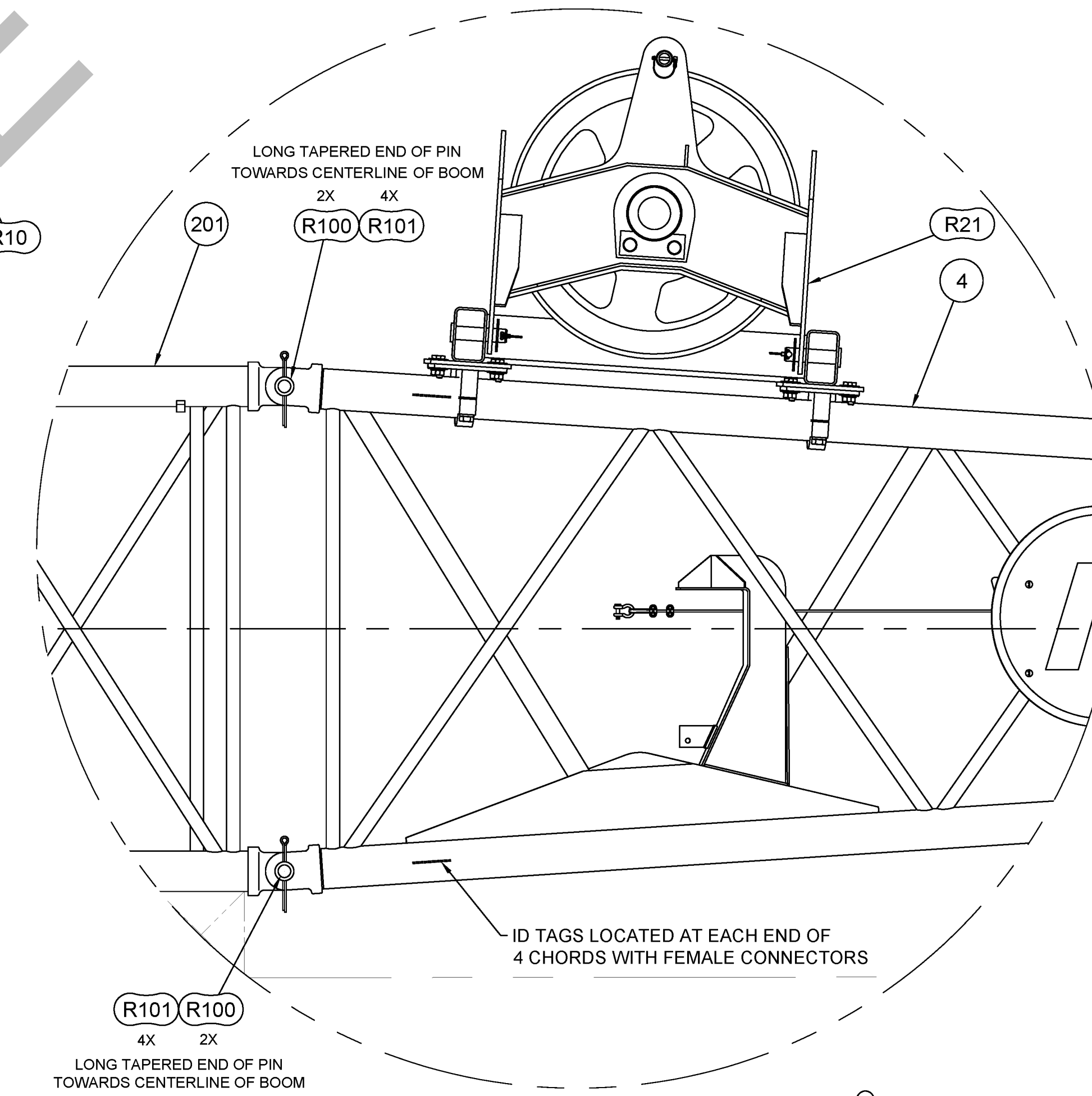


STEP 2
JIB TOP, JIB INSERTS TO JIB BUTT ASSEMBLY
SCALE: 0.025

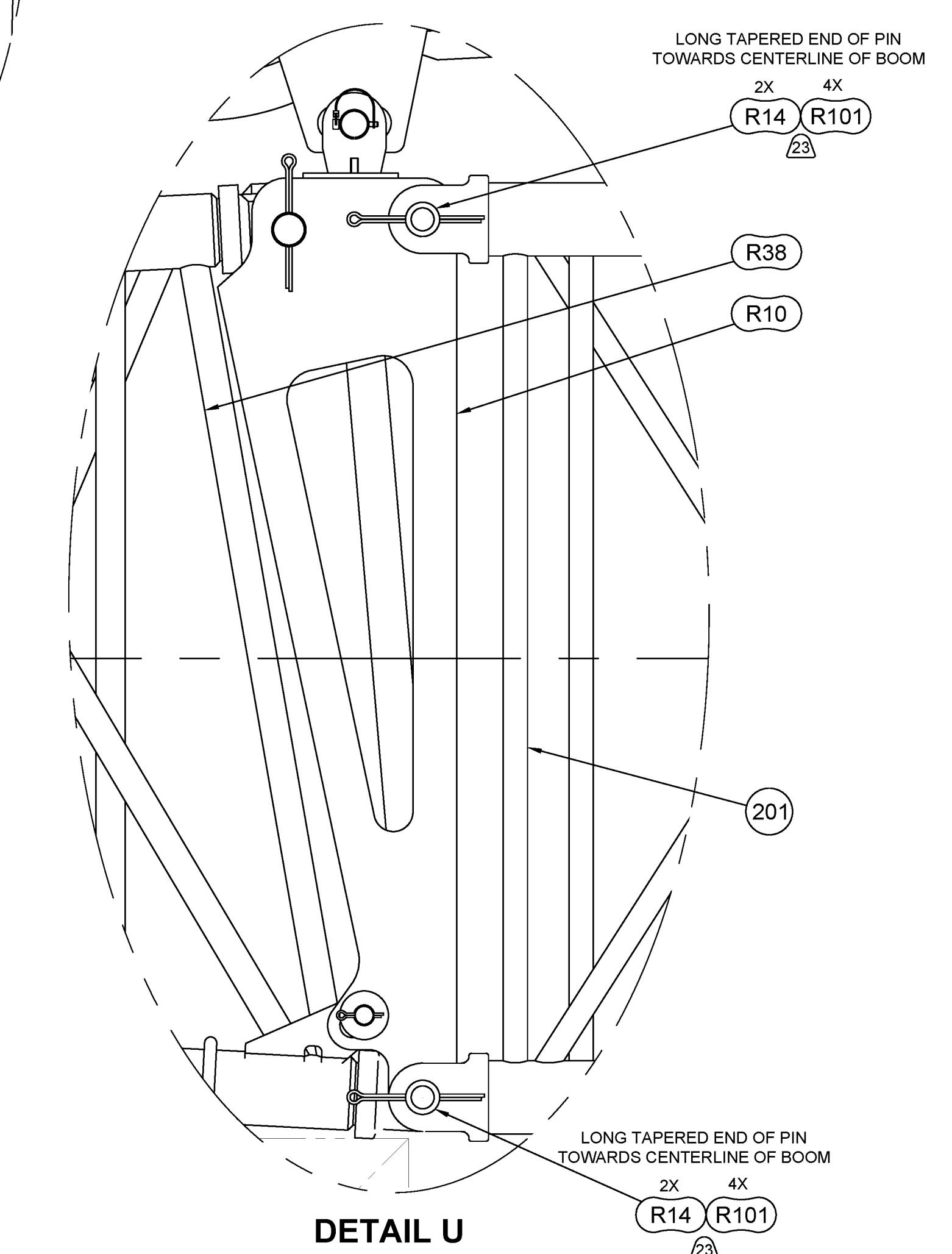
WITH BLOCKING IN PLACE PIN INSERTS (ITEMS 200, 201 AND/OR 202) AND JIB TOP (ITEM 4) TO JIB BUTT (R38) IN PROPER SEQUENCE (SEE SHEET 4).

FOR JIB INSERT TO INSERT AND INSERT TO JIB TOP JOINTS REFER TO DETAIL V. (LONG TAPERED END OF CONNECTING PINS (R100) MUST POINT TOWARDS CENTERLINE OF BOOM).

FOR JIB INSERT TO JIB BUTT JOINT REFER TO DETAIL U. REMOVE EXISTING INSERT PINS (R100) AND COTTERS (R101) FROM INSERT NEAREST BUTT. STOW IN PARTS BOX. CONNECT INSERT TO BUTT USING BUTT JOINT PINS (R14) AND COTTERS (R101) - (LONG TAPERED END OF CONNECTING PINS (R14) MUST POINT TOWARDS CENTERLINE OF BOOM).

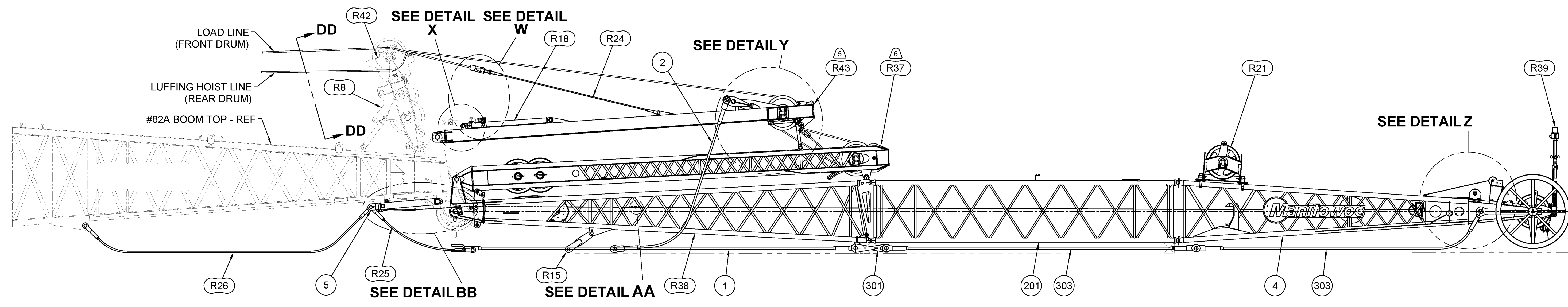


DETAIL V
SCALE 0.100

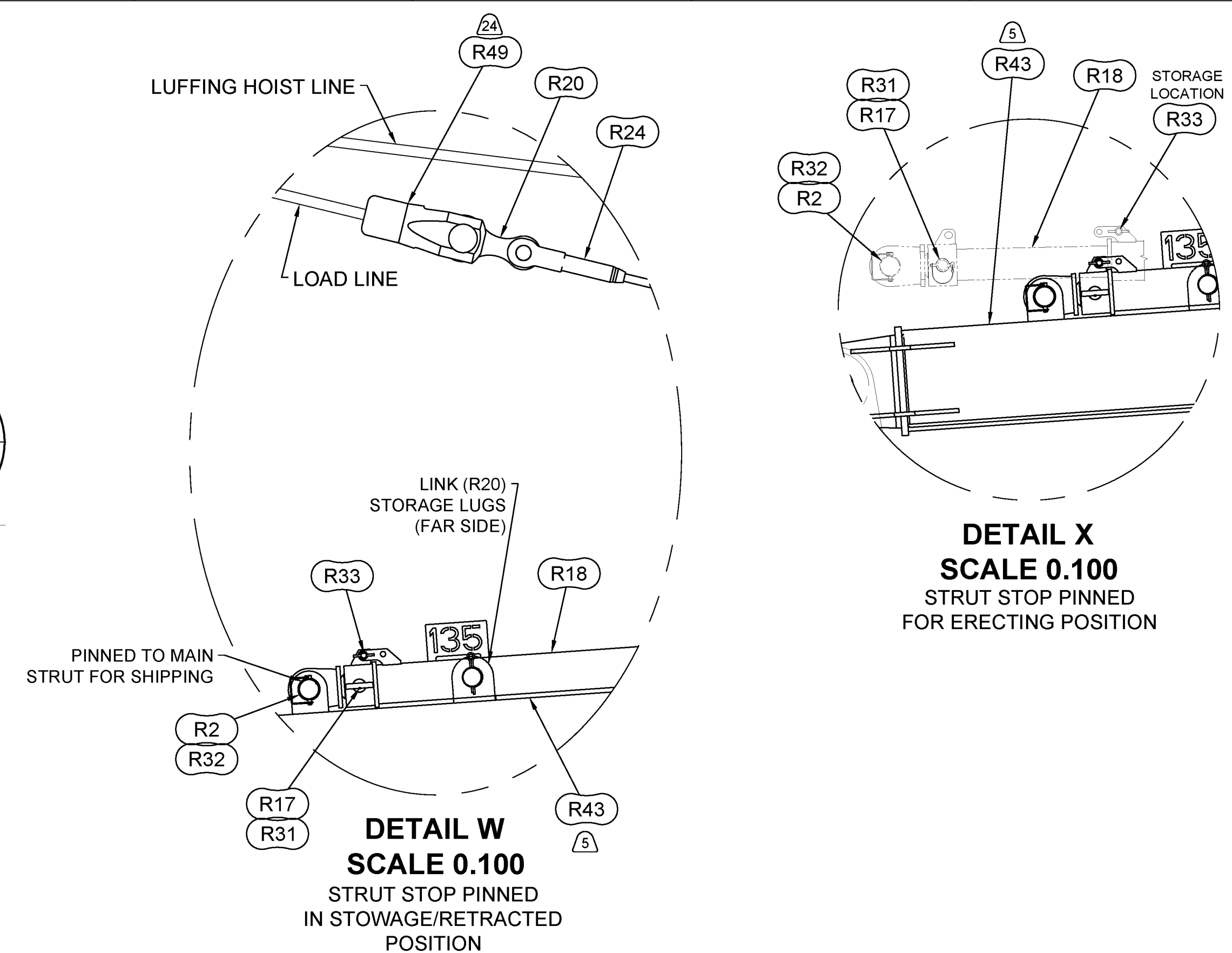


DETAIL U
SCALE 0.167

| UNITS | SCALE | DATE | SHEET | GROUP | ORIGIN | DRAWING NO. | REVISION |
|-------|-------|------|-------|-------|--------|-------------|----------|
| IN | N/A | E | 5/8 | HBD | | 80138074 | C |



STEP 3
JIB PENDANT ASSY AND MAIN STRUT RAISING PREP
 SCALE: 0.025



ATTACH FRONTSTAY PENDANTS (ITEM 303) TO JIB TOP LINK ASSY (R11) USING PINS (R3) AND COTTERS (R28) - (SEE DETAIL R ON SHEET 4 AND DETAIL Z ON SHEET 6). WHILE WORKING TOWARD JIB BUTT, PIN PENDANT TO PENDANT AND/OR PENDANT TO LINK PER DESIRED JIB LENGTH (SEE DETAIL M ON SHEET 3 AND DETAIL Q ON SHEET 4). LAY ASSEMBLED FRONTSTAY PENDANTS ON THE GROUND ALONG SIDE THE JIB (SEE JIB CONFIGURATIONS ON SHEET 4).

IF SHIPPED LOOSE, ATTACH BACKSTAY PENDANTS (ITEM 2) TO MAIN STRUT LINK ASSY (R16) USING PENDANT PINS (R48) AND COTTERS (R29). LAY BACKSTAY PENDANTS ON GROUND ALONGSIDE JIB (SEE DETAIL N ON SHEET 3 AND DETAIL Y).

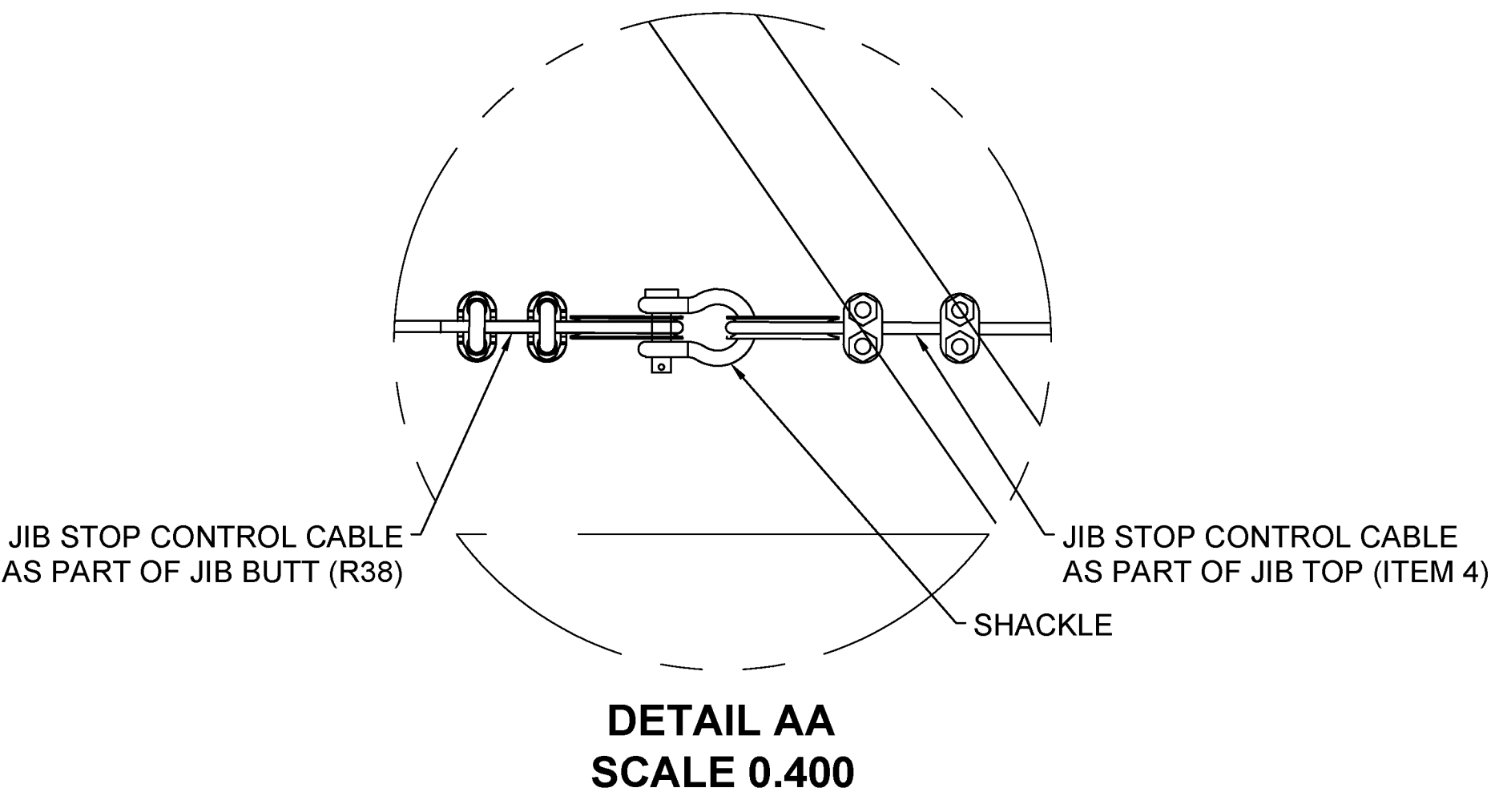
TO CONNECT JIB STOP (ITEM 5) CONTROL CABLE, PAY OUT CABLE FROM HAND WINCH ON JIB TOP (ITEM 4) - (SEE DETAIL Z). CONNECT CONTROL CABLE FROM THE HAND WINCH TO CABLE EXTENSION IN THE JIB BUTT (R38) WITH SHACKLE FROM END OF HAND WINCH CONTROL CABLE (SEE DETAIL AA). CONNECT END OF JIB BUTT CONTROL CABLE NEAR JIB HINGE TO END OF JIB STOP ASSY (ITEM 5) CONTROL CABLE WITH SHACKLE FROM END ON JIB BUTT CONTROL CABLE (SEE DETAIL BB).

UNPIN TELESCOPING END OF STRUT STOP ASSY (R18) FROM MAIN STRUT (R43). REMOVE PINS (R33) AND INSTALL IN STORAGE LOCATION. REMOVE PINS (R2). FULLY EXTEND MIDDLE STRUT STOP TUBES (R18) APPROXIMATELY 368 MM (14.5 IN) AND ALLOW THEM TO REST ON STRUT STOP STORAGE LUGS ON MAIN STRUT (R43). RE-INSTALL PINS (R2) INTO STOP ASSY (R18). (SEE DETAILS W AND X).

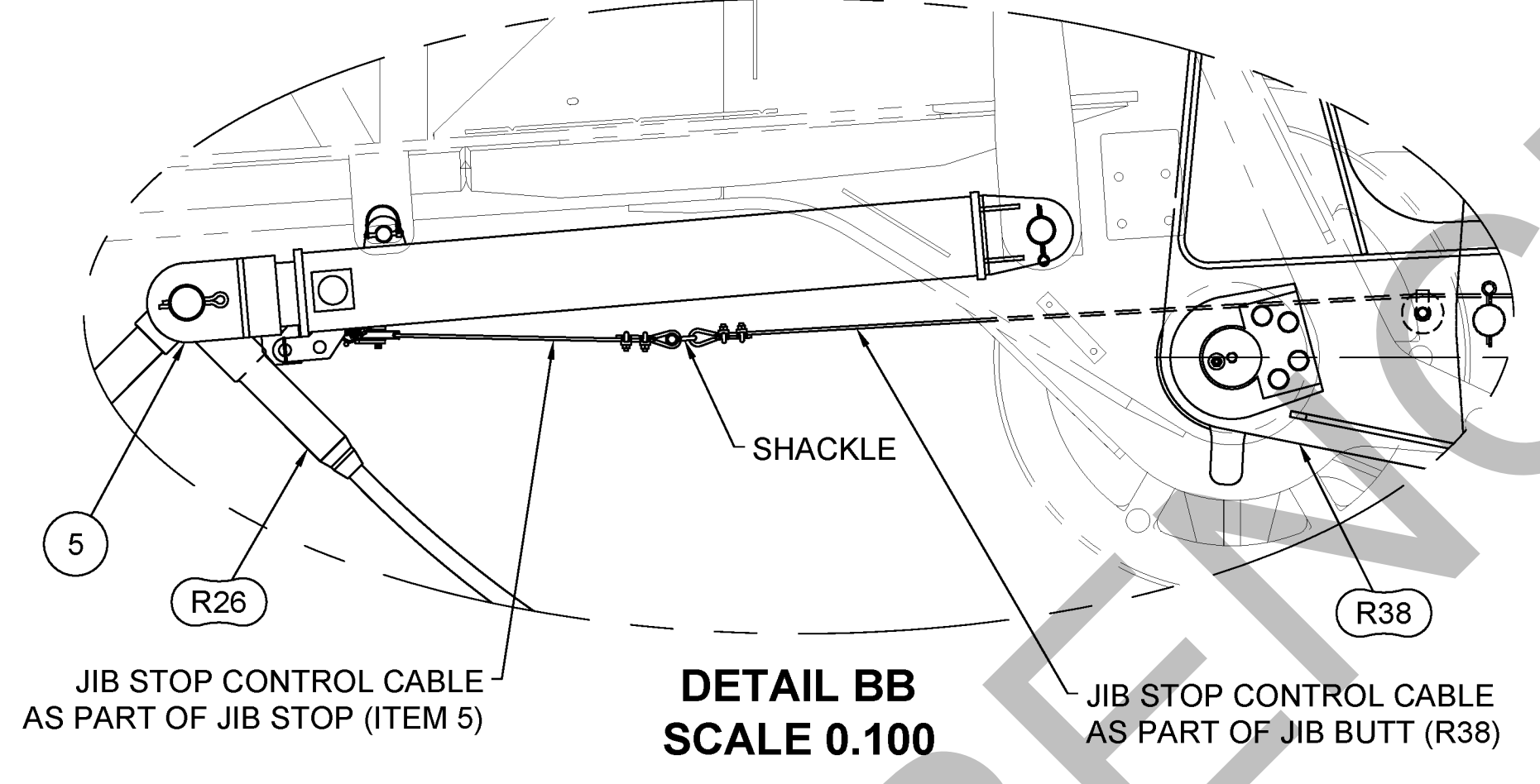
ROUTE LUFFING HOIST WIRE ROPE FROM THE LUFFING HOIST DRUM (REAR) OVER SHEAVE IN WIRE ROPE GUIDE ASSY BOOM BUTT (R40) - (SEE VIEW EE-EE ON SHEET 2). CONTINUE AROUND GUIDE SHEAVE AND BETWEEN 2 ROLLERS IN WIRE ROPE GUIDE ASSY UPPER BOOM TOP (R42) - (SEE VIEW DD-DD). ROUTE THE WIRE ROPE AROUND MAIN STRUT SHEAVES AND JIB STRUT SHEAVES AND ATTACH TO SOCKET BUTTON (R49) - (SEE REEVING DIAGRAM ON SHEET 2 AND DETAIL Y). ANCHOR THE FREE END OF LUFFING HOIST WIRE ROPE TO MAIN STRUT DEAD-END LINK ASSY (R22) - (SEE DETAIL Y). REMOVE AND REPLACE ROPE GUARDS (R44) AND (R45) AS REQ'D.
 NOTE: MAIN STRUT I.D. TAG #177439 AND JIB STRUT I.D. TAG #177443 WIRE ROPE BUTTON WILL NOT PASS THRU WHERE NOTED. SEE DETAIL Y, DETAIL JJ ON SHEET 7 AND VIEW GG-GG ON SHEET 9.

RUN A 26 MM WIRE ROPE FROM THE FRONT DRUM THRU GROOVE BETWEEN SHEAVE AND ROLLER ON SHEAVE STRUT RAISING OPTION (R41) ON #82A BOOM BUTT WIRE ROPE GUIDE ASSY (R40) - (SEE VIEW EE-EE ON SHEET 2). CONTINUE RUN OF WIRE ROPE OVER THE ROLLERS ON BOOM TOP WIRE ROPE GUIDE ASSY (R42) (SEE VIEW DD-DD). WITH PENDANT (R24) ATTACHED TO THE MAIN STRUT (R43) AND LINK (R20), UNPIN LINK FROM THE MAIN STRUT AND ATTACH TO THE SOCKET BUTTON (R49) - (SEE DETAIL W).

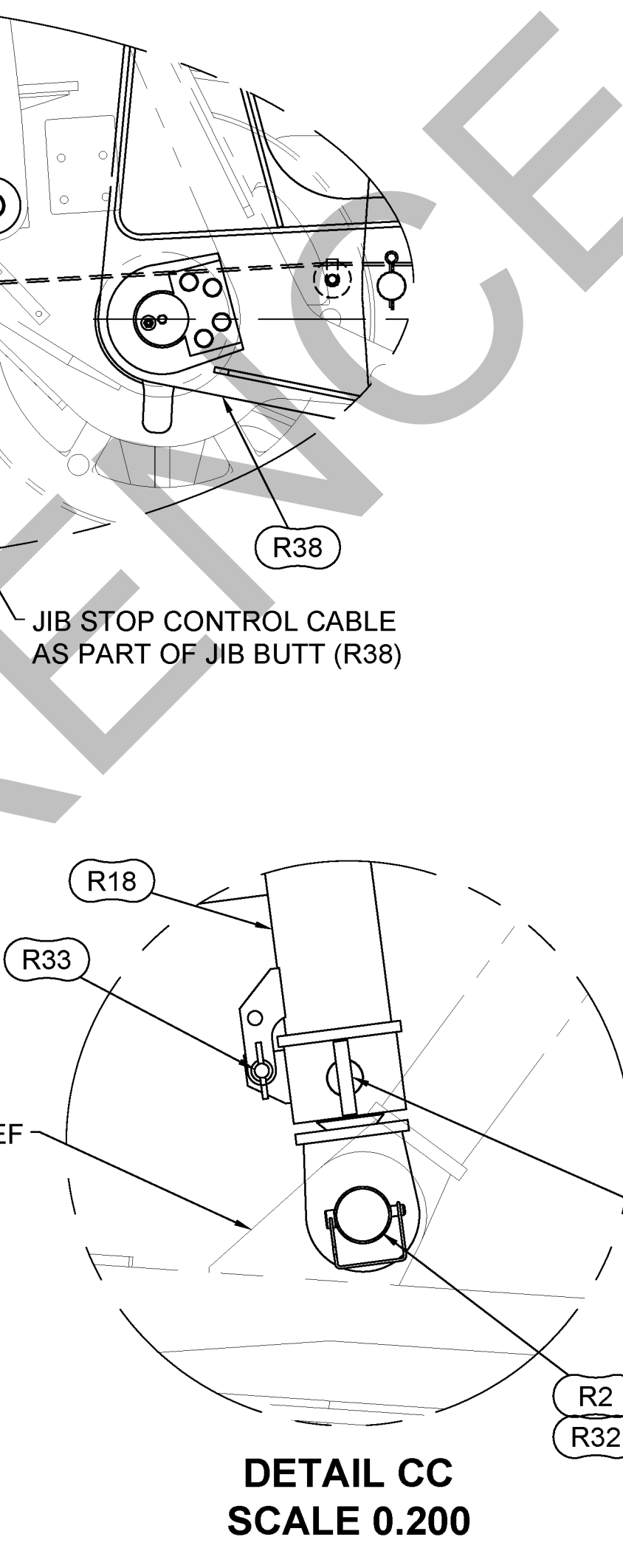
HAUL IN THE LOAD LINE JUST ENOUGH TO SUPPORT THE MAIN STRUT (R43). THEN, UNPIN STRUT SUPPORTS (R19) FROM THE JIB STRUT (R37) AND ROTATE STRUT SUPPORTS INTO STOWAGE POSITION ON THE MAIN STRUT (R43) - (SEE DETAIL Y).



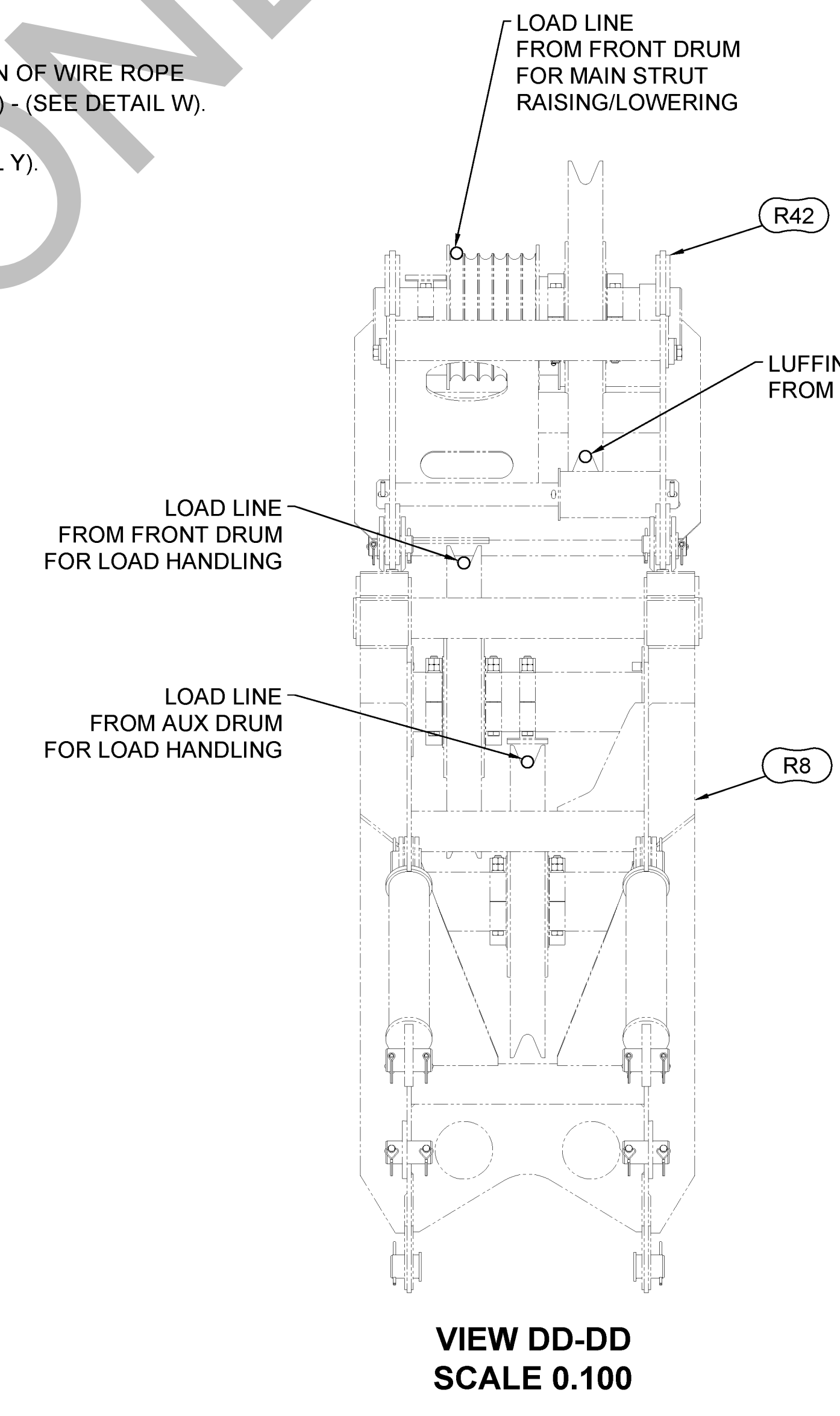
DETAIL AA
 SCALE 0.400



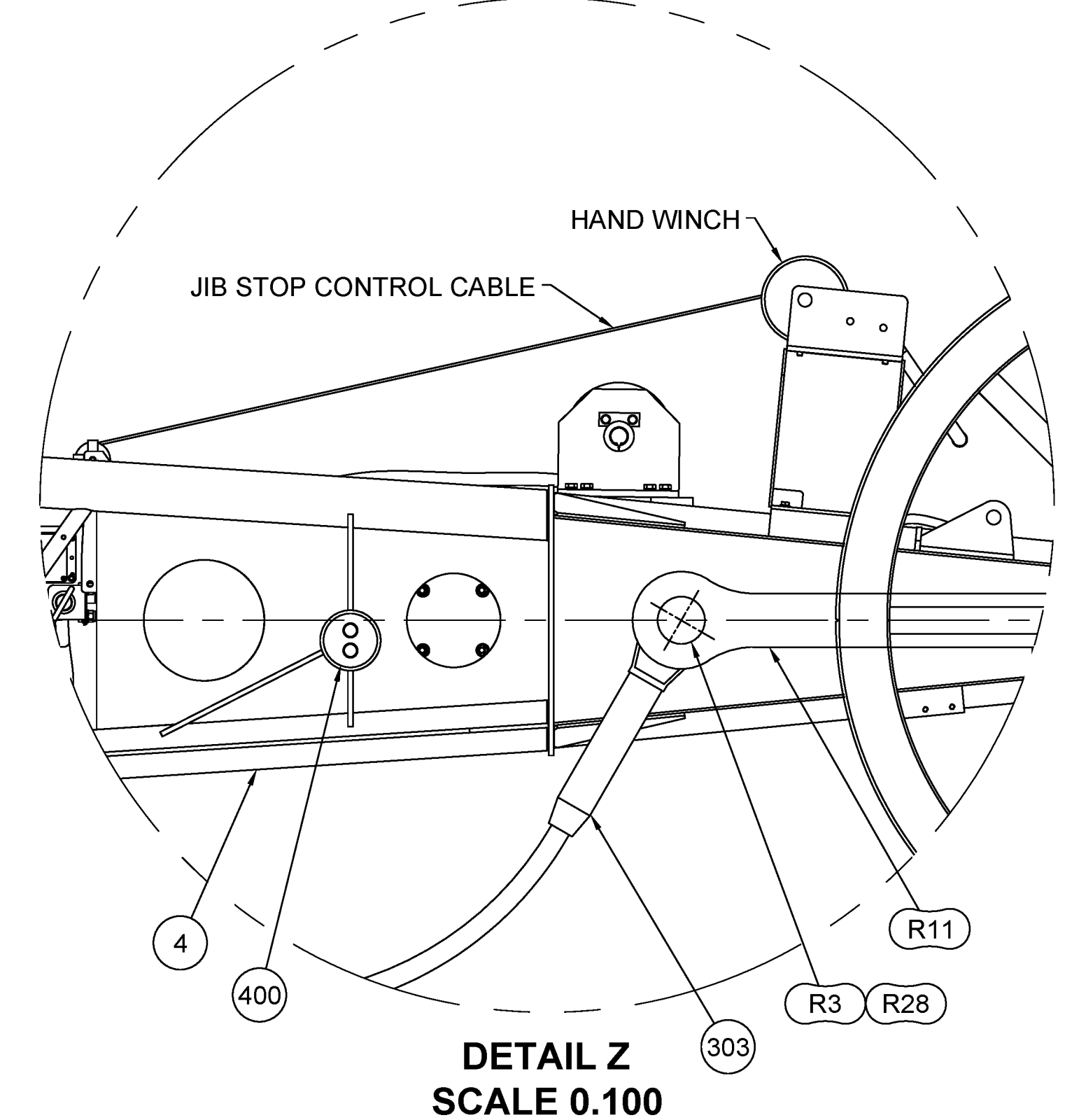
DETAIL BB
 SCALE 0.100



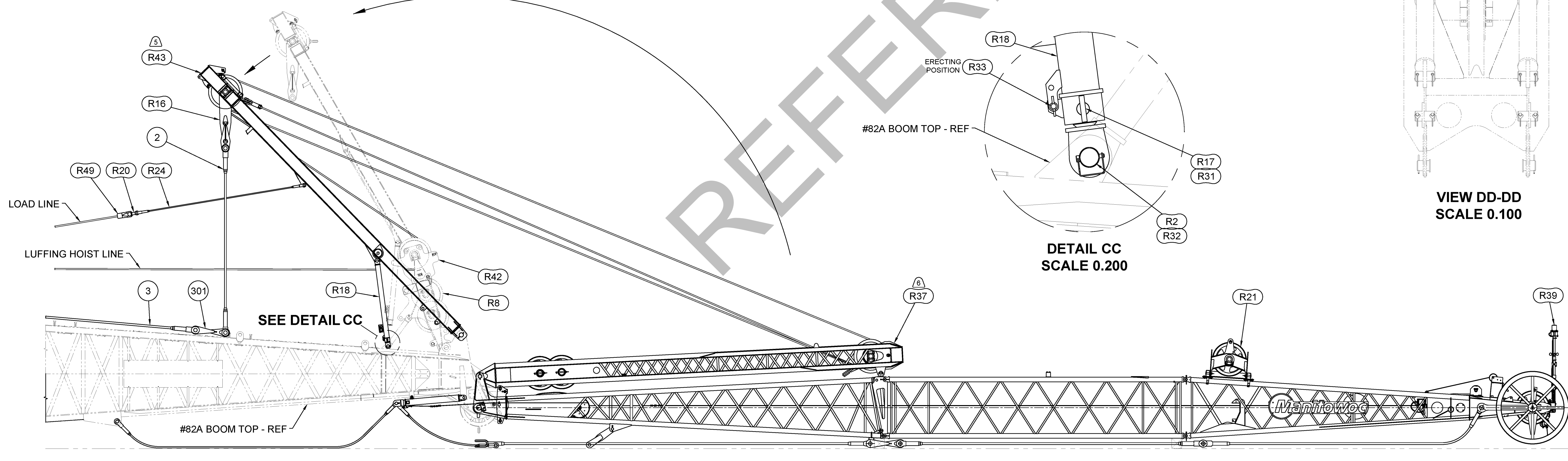
DETAIL CC
 SCALE 0.200



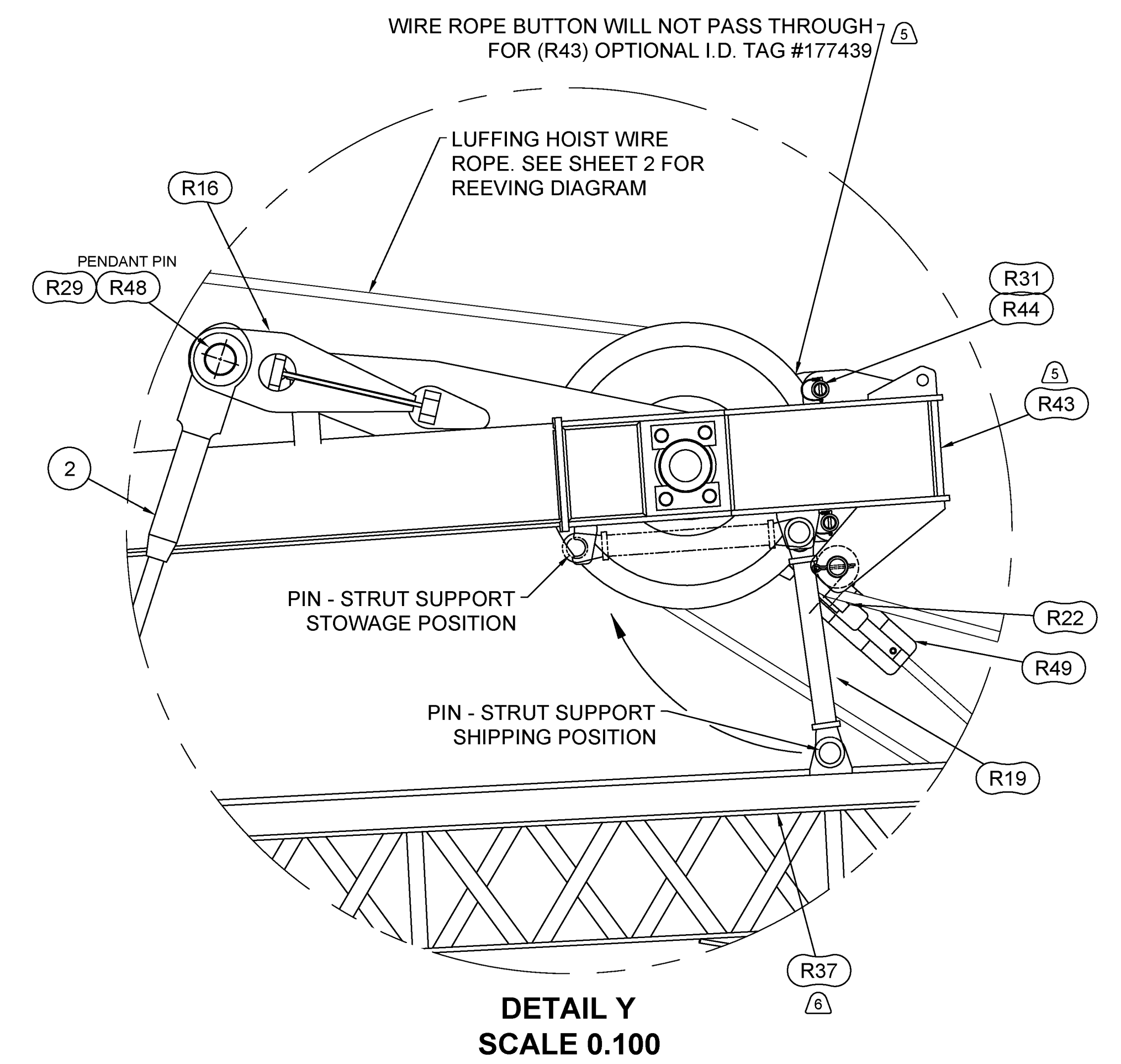
VIEW DD-DD
 SCALE 0.100



DETAIL Z
 SCALE 0.100



STEP 4
MAIN STRUT RAISING, STRUT STOP ATTACHMENT AND BACKSTAY CONNECTION
 SCALE: 0.025



DETAIL Y
 SCALE 0.100

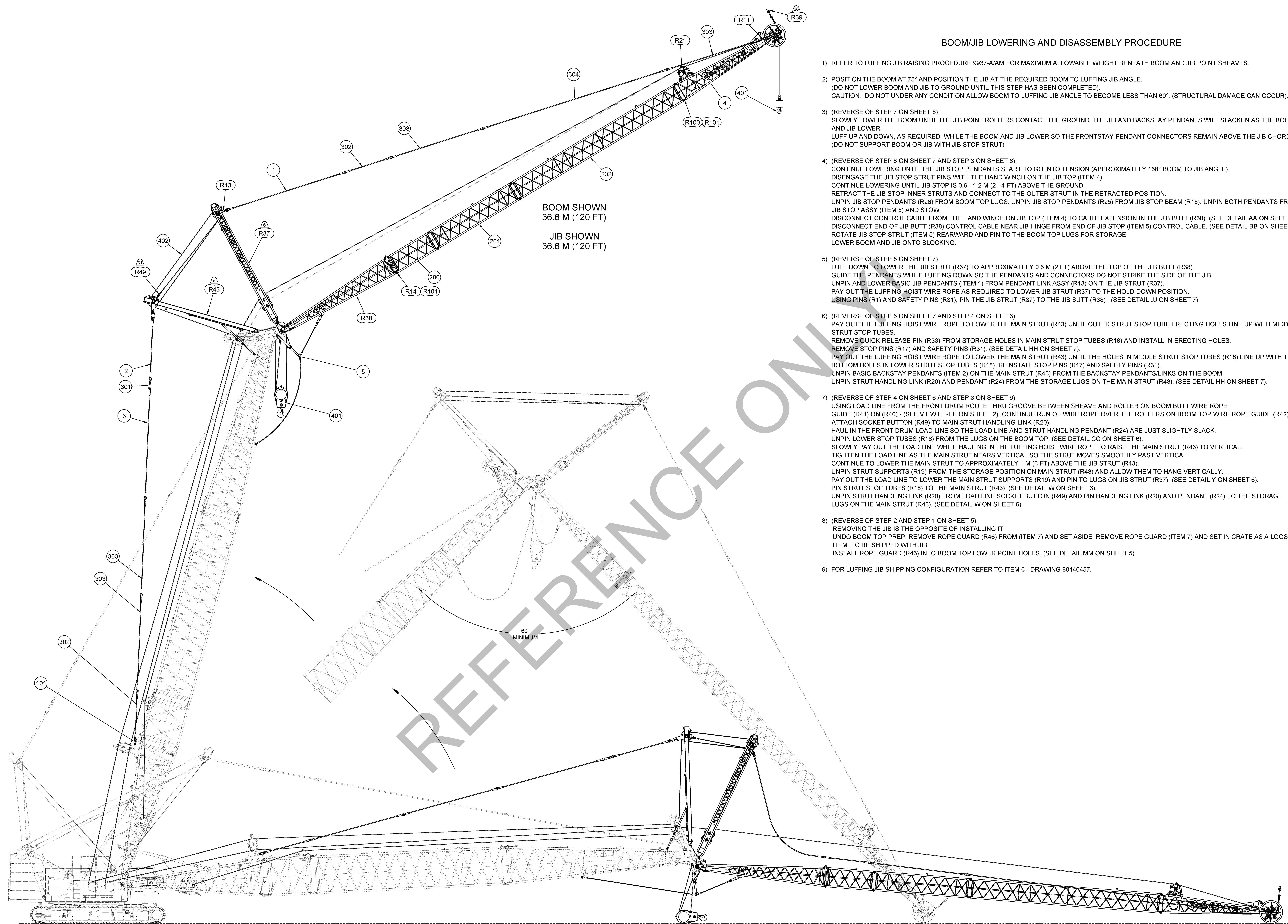
CAUTION: RAISE MAIN STRUT (R43) WITH LOAD LINE WHILE PAYING OUT LUFFING JIB HOIST LINE (DO NOT ALLOW LUFFING JIB HOIST LINE TO GO INTO TENSION UNTIL MAIN STRUT IS NEAR VERTICAL).

CONTINUE TO HAUL IN LOAD LINE AND PAY OUT LUFFING HOIST WIRE ROPE TO LOWER MAIN STRUT TO REAR. STOP LOWERING THE MAIN STRUT (R43) WHEN THE HOLES IN LUGS ON ENDS OF STRUT STOP INNER TUBES (R18) LINE UP WITH THE HOLES IN LUGS ON THE BOOM TOP. ATTACH THE LOWER STOP TUBE TO THE LUGS ON THE BOOM TOP WITH PINS (R2) FROM STRUT STOP ASSY (R18) - (SEE DETAIL CC). CONTINUE LOWERING STRUT UNTIL SUPPORTED BY THE RETRACTED STRUT STOP TUBES (R18). RE-INSTALL PIN (R33) IN THE STRUT ERECTING POSITION (SEE DETAIL CC).

ASSEMBLE BACKSTAY PENDANTS AND LINKS IN THE PROPER SEQUENCE PER DESIRED JIB LENGTH STARTING AT BACKSTAY LUGS OR WIRE ROPE GUIDE ON THE BOOM BUTT (SEE SHEET 3 AND DETAILS A, B AND C ON SHEET 2).

FROM MAIN STRUT (R43) ATTACH VERTICALLY HANGING BACKSTAY PENDANT (ITEM 2) TO PRE-ASSEMBLED BOOM BACKSTAY PENDANTS/LINKS (SEE SHEET 3).

| | | | | | |
|-------|-------|---|-------|--|----------|
| | | LUFFING JIB RIGGING 135 ON 82A | | <small>FIG. 10 PREPARED BY: J. H. HARRIS</small> <small>FIG. 11 PREPARED BY: J. H. HARRIS</small> | |
| UNITS | SCALE | DATE | SHEET | GROUP | DESIGNER |
| IN | N/A | E | 6/9 | HBD | 80138074 |
| | | | | | REVISION |
| | | | | | C |



BOOM/JIB LOWERING AND DISASSEMBLY PROCEDURE

- 1) REFER TO LUFFING JIB RAISING PROCEDURE 9937-A/AM FOR MAXIMUM ALLOWABLE WEIGHT BENEATH BOOM AND JIB POINT SHEAVES.
- 2) POSITION THE BOOM AT 75° AND POSITION THE JIB AT THE REQUIRED BOOM TO LUFFING JIB ANGLE. (DO NOT LOWER BOOM AND JIB TO GROUND UNTIL THIS STEP HAS BEEN COMPLETED). CAUTION: DO NOT UNDER ANY CONDITION ALLOW BOOM TO LUFFING JIB ANGLE TO BECOME LESS THAN 60°. (STRUCTURAL DAMAGE CAN OCCUR).
- 3) (REVERSE OF STEP 7 ON SHEET 8). SLOWLY LOWER THE BOOM UNTIL THE JIB POINT ROLLERS CONTACT THE GROUND. THE JIB AND BACKSTAY PENDANTS WILL SLACKEN AS THE BOOM AND JIB LOWER. LUFF UP AND DOWN, AS REQUIRED, WHILE THE BOOM AND JIB LOWER SO THE FRONTSTAY PENDANT CONNECTORS REMAIN ABOVE THE JIB CHORD. (DO NOT SUPPORT BOOM OR JIB WITH JIB STOP STRUT)
- 4) (REVERSE OF STEP 6 ON SHEET 7 AND STEP 3 ON SHEET 6). CONTINUE LOWERING UNTIL THE JIB STOP PENDANTS START TO GO INTO TENSION (APPROXIMATELY 168° BOOM TO JIB ANGLE). DISENGAGE THE JIB STOP STRUT PINS WITH THE HAND WINCH ON THE JIB TOP (ITEM 4). CONTINUE LOWERING UNTIL JIB STOP IS 0.6 - 1.2 M (2 - 4 FT) ABOVE THE GROUND. RETRACT THE JIB STOP INNER STRUTS AND CONNECT TO THE OUTER STRUT IN THE RETRACTED POSITION. UNPIN JIB STOP PENDANTS (R26) FROM BOOM TOP LUGS. UNPIN JIB STOP PENDANTS (R25) FROM JIB STOP BEAM (R15). UNPIN BOTH PENDANTS FROM JIB STOP ASSY (ITEM 5) AND STOW. DISCONNECT CONTROL CABLE FROM THE HAND WINCH ON JIB TOP (ITEM 4) TO CABLE EXTENSION IN THE JIB BUTT (R38). (SEE DETAIL AA ON SHEET 6). DISCONNECT END OF JIB BUTT (R38) CONTROL CABLE NEAR JIB HINGE FROM END OF JIB STOP (ITEM 5) CONTROL CABLE. (SEE DETAIL BB ON SHEET 6). ROTATE JIB STOP STRUT (ITEM 5) REARWARD AND PIN TO THE BOOM TOP LUGS FOR STORAGE. LOWER BOOM AND JIB ONTO BLOCKING.
- 5) (REVERSE OF STEP 5 ON SHEET 7). LUFF DOWN TO LOWER THE JIB STRUT (R37) TO APPROXIMATELY 0.6 M (2 FT) ABOVE THE TOP OF THE JIB BUTT (R38). GUIDE THE PENDANTS WHILE LUFFING DOWN SO THE PENDANTS AND CONNECTORS DO NOT STRIKE THE SIDE OF THE JIB. UNPIN AND LOWER BASIC JIB PENDANTS (ITEM 1) FROM PENDANT LINK ASSY (R13) ON THE JIB STRUT (R37). PAY OUT THE LUFFING HOIST WIRE ROPE AS REQUIRED TO LOWER JIB STRUT (R37) TO THE HOLD-DOWN POSITION. USING PINS (R1) AND SAFETY PINS (R31), PIN THE JIB STRUT (R37) TO THE JIB BUTT (R38). (SEE DETAIL JJ ON SHEET 7).
- 6) (REVERSE OF STEP 5 ON SHEET 7 AND STEP 4 ON SHEET 6). PAY OUT THE LUFFING HOIST WIRE ROPE TO LOWER THE MAIN STRUT (R43) UNTIL OUTER STRUT STOP TUBE ERECTING HOLES LINE UP WITH MIDDLE STRUT STOP TUBES. REMOVE QUICK-RELEASE PIN (R33) FROM STORAGE HOLES IN MAIN STRUT STOP TUBES (R18) AND INSTALL IN ERECTING HOLES. REMOVE STOP PINS (R17) AND SAFETY PINS (R31). (SEE DETAIL HH ON SHEET 7). PAY OUT THE LUFFING HOIST WIRE ROPE TO LOWER THE MAIN STRUT (R43) UNTIL THE HOLES IN MIDDLE STRUT STOP TUBES (R18) LINE UP WITH THE BOTTOM HOLES IN LOWER STRUT STOP TUBES (R18). REINSTALL STOP PINS (R17) AND SAFETY PINS (R31). UNPIN BASIC BACKSTAY PENDANTS (ITEM 2) ON THE MAIN STRUT (R43) FROM THE BACKSTAY PENDANTS/LINKS ON THE BOOM. UNPIN STRUT HANDLING LINK (R20) AND PENDANT (R24) FROM THE STORAGE LUGS ON THE MAIN STRUT (R43). (SEE DETAIL HH ON SHEET 7).
- 7) (REVERSE OF STEP 4 ON SHEET 6 AND STEP 3 ON SHEET 6). USING LOAD LINE FROM THE FRONT DRUM ROUTE THRU GROOVE BETWEEN SHEAVE AND ROLLER ON BOOM BUTT WIRE ROPE GUIDE (R41) ON (R40) - (SEE VIEW EE-EE ON SHEET 2). CONTINUE RUN OF WIRE ROPE OVER THE ROLLERS ON BOOM TOP WIRE ROPE GUIDE (R42) ATTACH SOCKET BUTTON (R49) TO MAIN STRUT HANDLING LINK (R20). HAUL IN THE FRONT DRUM LOAD LINE SO THE LOAD LINE AND STRUT HANDLING PENDANT (R24) ARE JUST SLIGHTLY SLACK. UNPIN LOWER STOP TUBES (R18) FROM THE LUGS ON THE BOOM TOP. (SEE DETAIL CC ON SHEET 6). SLOWLY PAY OUT THE LOAD LINE WHILE HAULING IN THE LUFFING HOIST WIRE ROPE TO RAISE THE MAIN STRUT (R43) TO VERTICAL. TIGHTEN THE LOAD LINE AS THE MAIN STRUT NEARS VERTICAL SO THE STRUT MOVES SMOOTHLY PAST VERTICAL. CONTINUE TO LOWER THE MAIN STRUT TO APPROXIMATELY 1 M (3 FT) ABOVE THE JIB STRUT (R43). UNPIN STRUT SUPPORTS (R19) FROM THE STORAGE POSITION ON MAIN STRUT (R43) AND ALLOW THEM TO HANG VERTICALLY. PAY OUT THE LOAD LINE TO LOWER THE MAIN STRUT SUPPORTS (R19) AND PIN TO LUGS ON JIB STRUT (R37). (SEE DETAIL Y ON SHEET 6). PIN STRUT STOP TUBES (R18) TO THE MAIN STRUT (R43). (SEE DETAIL W ON SHEET 6). UNPIN STRUT HANDLING LINK (R20) FROM LOAD LINE SOCKET BUTTON (R49) AND PIN HANDLING LINK (R20) AND PENDANT (R24) TO THE STORAGE LUGS ON THE MAIN STRUT (R43). (SEE DETAIL W ON SHEET 6).
- 8) (REVERSE OF STEP 2 AND STEP 1 ON SHEET 5). REMOVING THE JIB IS THE OPPOSITE OF INSTALLING IT. UNDO BOOM TOP PREP: REMOVE ROPE GUARD (R46) FROM (ITEM 7) AND SET ASIDE. REMOVE ROPE GUARD (ITEM 7) AND SET IN CRATE AS A LOOSE ITEM TO BE SHIPPED WITH JIB. INSTALL ROPE GUARD (R46) INTO BOOM TOP LOWER POINT HOLES. (SEE DETAIL MM ON SHEET 5)
- 9) FOR LUFFING JIB SHIPPING CONFIGURATION REFER TO ITEM 6 - DRAWING 80140457.

STEP 7
JACK-KNIFE LUFFING JIB RAISING PROCEDURE
 SCALE: 0.013

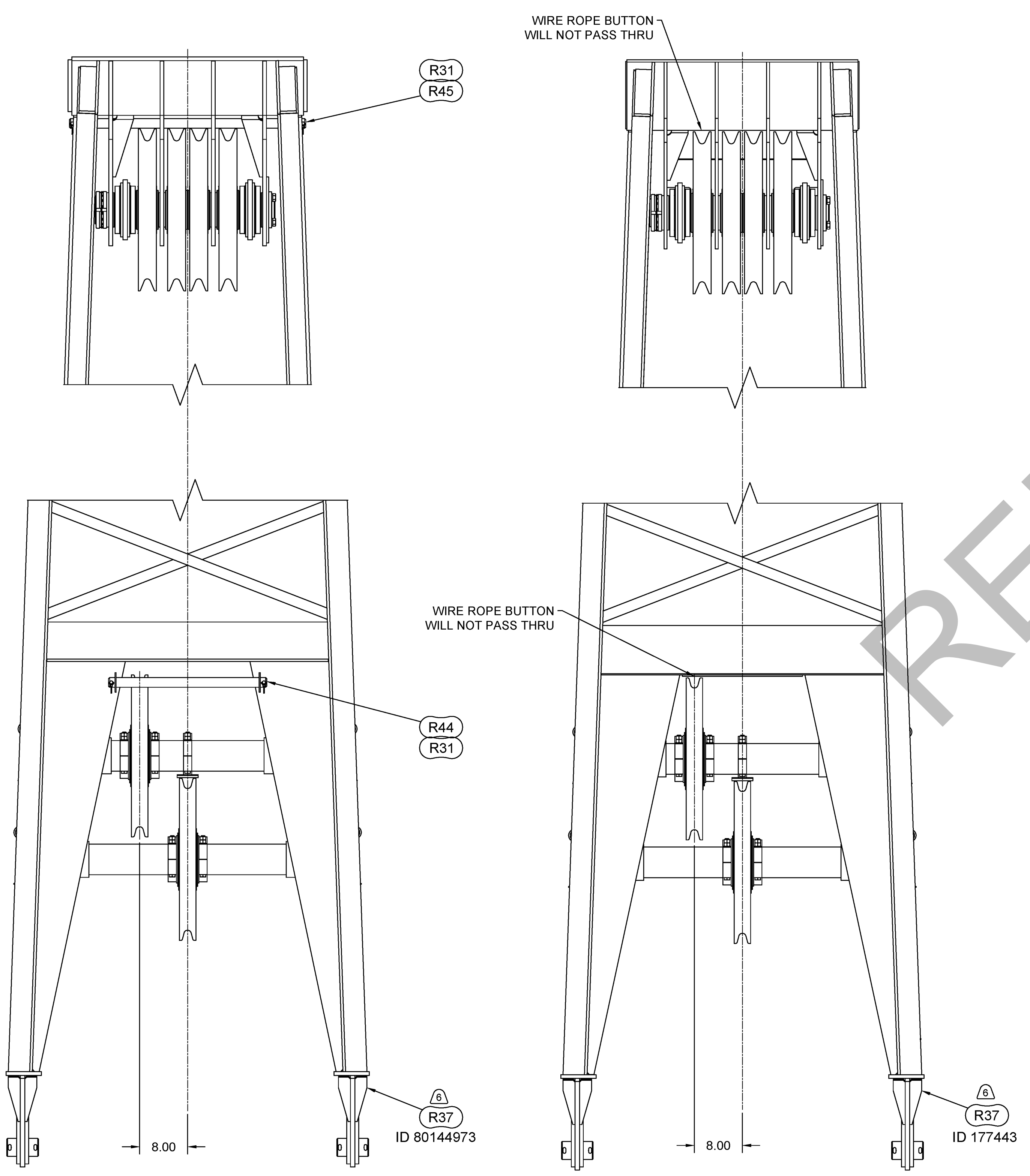
BOOM UP WHILE LUFFING JIB POINT WHEELS ROLL ON GROUND.
 LUFF UP AND DOWN, AS REQUIRED, WHILE THE BOOM AND JIB RISE SO THE JIB PENDANT CONNECTORS REMAIN 150 - 300 MM (6 - 12 IN) ABOVE THE JIB CHORD.

WHEN REQUIRED BOOM TO JIB ANGLE IS REACHED, REMOVE EXCESS JIB PENDANT SLACK.
CAUTION: DO NOT UNDER ANY CONDITION ALLOW BOOM TO LUFFING JIB ANGLE TO BECOME LESS THAN 60°. (STRUCTURAL DAMAGE CAN OCCUR).

RAISE BOOM AND LUFFING JIB SIMULTANEOUSLY WITH ONLY BOOM HOIST UNTIL BOOM REACHES ANGLE LISTED IN THE LUFFING JIB RAISING PROCEDURE 9937-A/AM.

| | | | |
|--------------------------------|-------|---|-------|
| | | LUFFING JIB RIGGING 135 ON 82A | |
| UNITS | SCALE | SHEET | GROUP |
| IN | N/A | E | 8/9 |
| DRAWING NO. 80138074 | | REVISION C | |

REFERENCE ONLY!



VIEW G-G $\frac{1}{32}$
SCALE: .083
I.D. TAG 80144973
JIB STRUT (R37) SHEAVE LOCATION WHEN
#135 LUFFING JIB USED WITH MLC250

VIEW G-G $\frac{1}{32}$
SCALE: .083
OPTIONAL I.D. TAG #177443
JIB STRUT (R37) SHEAVE LOCATION WHEN
#135 LUFFING JIB USED WITH MLC250

| | | | | | | | | | |
|-----------------------------------|-------|------|-------|-------|---------|-------------|----------|--|--|
| LUFFING JIB RIGGING 135 ON 82A | | | | | | | | | |
| UNITS | SCALE | DATE | SHEET | GROUP | CREATOR | DRAWING NO. | REVISION | | |
| IN | N/A | E | 9/9 | HBD | | 80138074 | C | | |