

INSERTS, PENDANTS, AND TIMBERS REQ'D. FOR VARIOUS BOOM LENGTHS
BASIC PARTS COMMON BETWEEN THIS AND #49A/#44 BOOM RIGGING ASSEMBLY ARE ALL THE ITEMS IN THIS TABLE.

ITEM NO.	(124)	(125)	(126)	(127)	(128)	(129)	(130)	(131)	(132)	(134)	
DWG. NO.	174425	174422	174514	171228	171229	277383 DWG. 78145	277384 DWG. 78145	174915	171697	666852	
BOOM LENGTHS	#49A 20 FT 6.10 M INSERT SEE (27)	#49A 40 FT 12.19 M INSERT SEE (28)	#49A-44 30 FT 9.14 M TRANSITION INSERT	#44 20 FT 6.10 M INSERT	#44 40 FT 12.19 M INSERT	INCLUDES JIB BACKSTAY PENDANTS (10)	20 FT 1.5 6.13 M PENDANT	40 FT 3.0 12.27 M PENDANT	WIRE ROPE TIMBER	WIRE ROPE TIMBER	(OPTIONAL) PENDANT TIE DOWN STRAPS SEE (17)
FEET											
METERS											
140 BASIC	42.7	40 FT(12.19 M) OF INSERTS.	1	0	0	6 (4/2)	0 (0/0)	2	1	0	
160	48.8	40 FT(12.19 M) OF INSERTS.	1	1	0	4 (4/0)	2 (0/2)	2	2	4	
180	54.9	80 FT(24.4 M) OF INSERTS.	OR 1	0	0	10 (8/2)	2 (0/2)	4	1	0	
200	61.0	80 FT(24.4 M) OF INSERTS.	OR 1	1	0	4 (4/0)	8 (4/4)	4	2	4	
220	67.1	80 FT(24.4 M) OF INSERTS.	OR 1	2	0	10 (8/2)	8 (4/4)	4	3	8	
240	73.2	80 FT(24.4 M) OF INSERTS.	OR 1	1	1	12 (12/0)	8 (4/4)	4	4	10	
260	79.2	80 FT(24.4 M) OF INSERTS.	OR 1	2	1	10 (8/2)	12 (8/4)	4	5	14	
280	85.3	80 FT(24.4 M) OF INSERTS.	OR 1	1	2	12 (12/0)	14 (8/6)	4	6	16	
300	91.4	80 FT(24.4 M) OF INSERTS.	OR 1	2	2	10 (8/2)	18 (12/6)	4	7	20	

INSERTS, PENDANTS, SPREADERS, AND TIMBERS REQ'D. FOR VARIOUS JIB LENGTHS
BASIC PARTS COMMON BETWEEN THIS AND #44 BOOM/#133A LUFFING JIB RIGGING ASSEMBLY ARE ALL THE ITEMS IN THIS TABLE.

ITEM NO.	(135)	(136)	(137)	(138)	(129)	(130)	(139)	(59)	(140)	(141)	(134)
DWG. NO.	171480	171481	171482	277382 DWG. 78145	277383 DWG. 78145	277384 DWG. 78145	171660	172197	173710	173711	666852
JIB LENGTHS	10 FT 3.05 M INSERT	20 FT 6.10 M INSERT	40 FT 12.19 M INSERT	10 FT 1.0 3.07 M PENDANT	20 FT 1.5 6.13 M PENDANT	40 FT 3.0 12.27 M PENDANT	WIRE ROPE TIMBER	JIB PENDANT LINK ADJUSTMENT	SPREADER	PINS	(OPTIONAL) PENDANT TIE DOWN STRAPS SEE (17)
FEET								INCHES			
METERS								mm			
70	21.3	0	0	0	0	0	0	55.00	1397	0	0
80	24.4	1	0	0	2	0	0	55.00	1397	1	2
90	27.4	0	1	0	0	2	0	55.00	1397	1	2
100	30.5	1	1	0	2	0	1	55.00	1397	2	4
110	33.5	OR 0	2	0	0	4	0	31.00	787	2	4
120	36.6	OR 1	2	0	2	4	0	31.00	787	2	4
130	39.6	0	1	1	2	0	2	31.00	787	2	4
140	42.7	1	1	1	2	2	3	31.00	787	2	4
150	45.7	OR 0	2	1	0	4	2	11.00	279	2	4
160	48.8	OR 1	2	1	2	4	2	11.00	279	2	4
170	51.8	0	1	2	0	2	4	11.00	279	2	4
180	54.9	1	1	2	2	4	5	11.00	279	2	4
190	57.9	OR 0	2	2	0	4	6	11.00	279	2	4
200	61.0	OR 1	2	3	2	4	6	11.00	279	2	4

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
70 FT. (21.3 M) #133A JIB			
BASIC PARTS COMMON BETWEEN THIS AND #44 BOOM/#133A LUFFING JIB RIGGING ASSEMBLY. ALSO SEE REQ'D FOR VARIOUS JIB LENGTHS TABLE.			
41	2KEEPER	15275	
42	2PIN	18302-2	
43	2PIN	138402	
44	2PIN	167015	
45	1SOCKET	162233	
46	1WEDGE	162234	
47	4PIN	165513	
48	1SOCKET	165547	
49	1WEDGE	165576	
50	2KEEPER	169810	
51	1JIB POINT SHAFT ASSEMBLY (LOWER)	170422	1
52	2SHEAVE ASSEMBLY	171250	1
53	1SPACER	171407	
54	10SHEAVE ASSEMBLY	171932	9
55	2SPACER	172082	7
56	1MAIN STRUT	174954	
57	1JIB STRUT	174953	
58	1LUFFING JIB UPPER POINT ROLLER ASSEMBLY	172147	1
59	2RATCHET LINK	172197	
60	1SHAFT	172497	
61	1SHAFT	172498	
62	2SPACER	172500	
63	4SPACER	172501	
64	1SPACER	172502	
65	1SLEEVE	172503	
66	1LINK	172504	
67	1THRUST WASHER	172505	
68	2LINK	172507	
69	1SHAFT	172511	
70	1SPACER	172512	
71	2PIN	172688	
72	1STRUT SUPPORT BEAM	172884	13
73	8PIN	172935	
74	8PIN	172937	
75	1STRUT SUPPORT BEAM	172947	
76	1JIB STOP ASSEMBLY	173017	5
77	1PIN R.H.	173035	
78	1PIN L.H.	173045	
79	1ROPE GUARD	173292	
80	2STRUT STOP TUBE ASSEMBLY	173649	
81	2LINK	173738	
82	1TIE LINK	173740	
83	2PIN	173741	
84	2PIN	173742	
85	1JIB BUTT (30 FT.)-(9.14 M)	174306	
86	1JIB TOP (40 FT.)-(12.19 M)	174307	
87	2LOCKNUT	225105	11
88	1LOCKWASHER	225111	
89	2LOCKWASHER	225144	
90	4LOCKNUT	225145	11
91	2BASIC JIB PENDANT (71 FT. 3 IN.)-(21.7 M)	277146	2
92	2BASIC BACKSTAY PENDANT (73 FT. 6 IN.)-(22.4 M)	277147	2
93	1STRUT HANDLING PENDANT	277293	3
94	1BUSHING	290028	
95	1QUICK RELEASE PIN	563803	
96	1PIN	564094	21
97	1PIN	564096	
98	4#4 X .31 (8mm) LG. TYPE J DRIVE SCREW	620656	20
99	1BUILDERS PLATE	181503	20
100	10PIN	14902-330	
101	2STRUT	176445	30
102	2STRUT	176451	30
103	1LINK ASSEMBLY	179956	
104	1WEDGE/SOCKET ASSEMBLY .88 WIRE ROPE	646245	
105			
106			
#133A JIB BASIC PARTS			
107	4WIRE ROPE CLIP	349281	5
108	1SHACKLE	824631	5
109	2THIMBLE	682702	5
110	2BACKSTAY LINK	176190	23
111	2PIN	174788	23
112	2PIN	176170	
113	2PIN	176171	
114	2PIN	176172	
115	1WIRE ROPE GUIDE ASSEMBLY	176189	13
116	1.188 WIRE ROPE 110 FT. (33.5 M)	719304	5
117	1ROPE GUIDE BEAM	176193	13
118	2LINK	176216	24
119	1WIRE ROPE GUIDE ASSEMBLY	176259	
120	1WIRE ROPE GUIDE ASSEMBLY	176260	
121	2BASIC BACKSTAY PENDANT (7FT-9IN)-(2.3M)	277350	2
#133A JIB OPTIONAL PARTS			
122			
123	6PENDANT TIE DOWN STRAP	666852	22

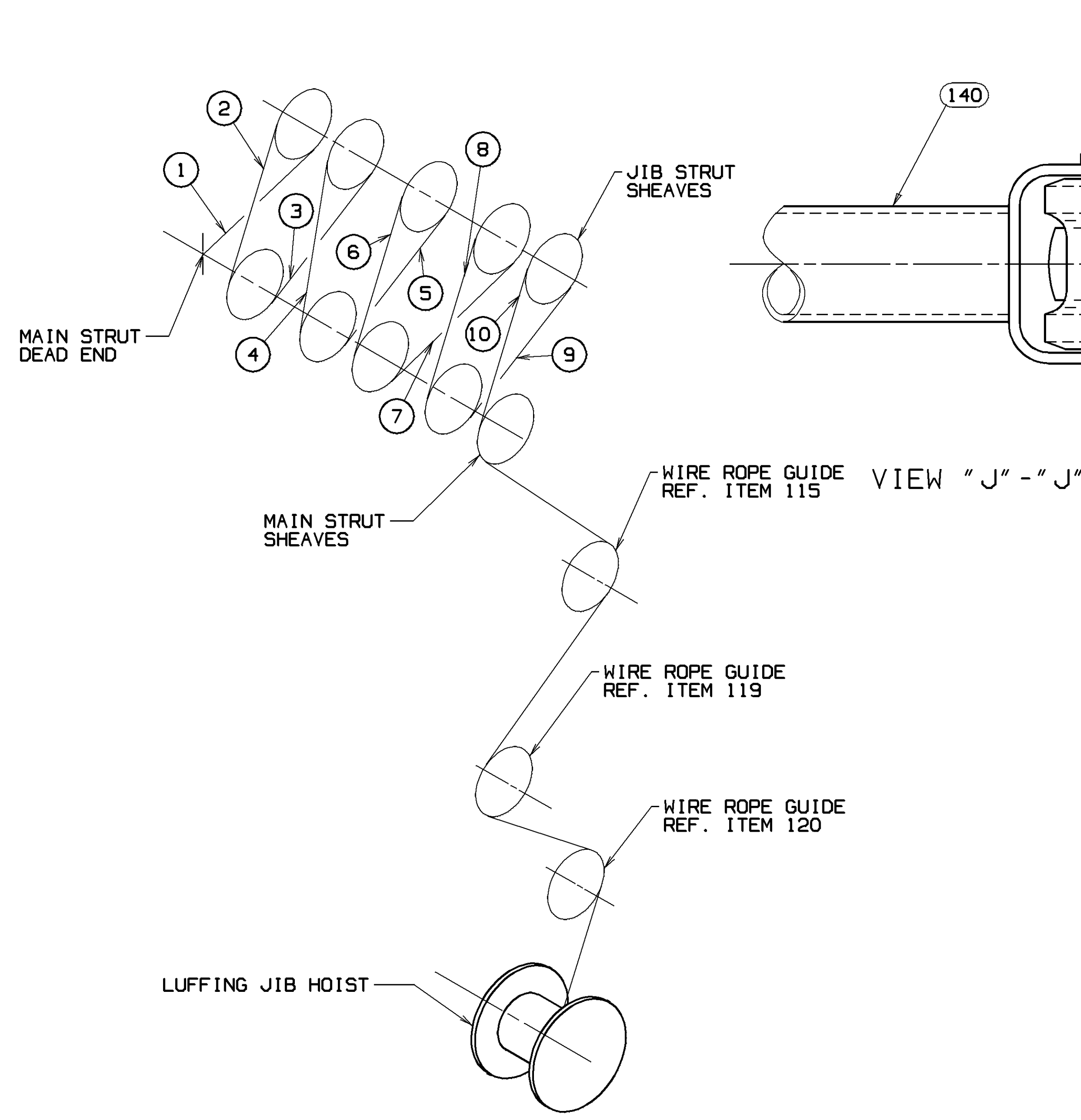
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
140 FT. (42.7 M) #44 BOOM			
BASIC PARTS COMMON BETWEEN THIS AND #49A/#44 BOOM RIGGING ASSEMBLY. ALSO SEE REQ'D FOR VARIOUS BOOM LENGTHS TABLE.			
1	2BOOM SIGN	22656	
2	2END PLATE	76095	6
3	2PIN	160720	
4	1BOOM ANGLE INDICATOR ASSEMBLY	168779	
5	2PENDANT LINK	169785	
6	2EQUALIZER PENDANT LINK	169834	
7	1#44 BOOM TOP (30 FT.)-(9.14M)	172878	26
8	4PIN	170690	
9	1EQUALIZER ASSEMBLY	171248	
10	2PIN	171500	6
11	1TIMBER (WIRE ROPE)	171704	
12	2PIN	172132	
13	1BOOM POINT SHAFT ASSEMBLY (LOWER)	172960	1
14	2PENDANT LINK	172669	
15	2PENDANT LINK	172670	
16	2PIN	172675	
17	1#49A BOOM BUTT (40 FT.)-(12.19 M)	174551	25
18	4WASHERS	174904	
19	1WIRE ROPE GUIDE ASSEMBLY	174944	
20	1WIRE ROPE GUIDE ASSEMBLY	174946	4
21	1BOOM STOP ASSEMBLY	174955	
22	1MAST ASSEMBLY	176403	
23			
24			
25			
26			
27			
28			
29			
30			
#49A-#44 BOOM OPTIONAL PARTS			
31			
32			
33			
34			
35			
36	1TIMBER (JIB STORAGE)	171697	12
37	4PENDANT TIE DOWN STRAP	666852	16
38			
39			
40			

INSERT NOTES:

- THE MAXIMUM NUMBER OF 20 FT. (6.10 M) #49A INSERTS (ITEM 124) IS 2 AND MUST BE LOCATED NEXT TO BUTT (ITEM 17).
- THE 20 FT. (6.10 M) #44 INSERTS (ITEM 127) MUST BE LOCATED NEXT TO TRANSITION INSERT (ITEM 126).
- THE SHORTER INSERTS MUST BE CLOSEST TO THE JIB BUTT (ITEM 85). THE 10 FT. (3.05 M) INSERT (ITEM 135) FIRST. THEN THE 20 FT. (6.10 M) INSERTS (ITEM 136).
- SEE CRANE ASSEMBLY AND RIGGING GUIDE IN THE OPERATORS MANUAL FOR INSTRUCTIONS ON JIB STORAGE.

PENDANT NOTES:

- THE SHORTER PENDANTS MUST BE CLOSEST TO THE BOOM BUTT AND JIB BUTT. (THE 10 FT. (3.05 M) PENDANTS FIRST, THEN THE 20 FT. (6.10 M) PENDANTS.)
- FOR BOOM LENGTHS OF 180 FT. (54.9 M) ON UP: FOUR 30 FT. (9.14 M) PENDANTS #276826 AND FOUR 10 FT. (3.07 M) PENDANTS #277382 CAN BE USED IN PLACE OF FOUR 40 FT. (12.27 M) PENDANTS #277384 OR EIGHT 20 FT. (6.13 M) PENDANTS 277383. IN THIS CASE, THE 30 FT. (9.14 M) PENDANTS ARE LOCATED AT THE BOOM TOP. THE 10 FT. (3.07 M) PENDANTS ARE LOCATED NEXT TO THE EQUALIZER. THEN THE 20 FT. (6.13 M) PENDANTS.



LUFFING JIB HOIST REEVING DIAGRAM FOR 10 PART LINE

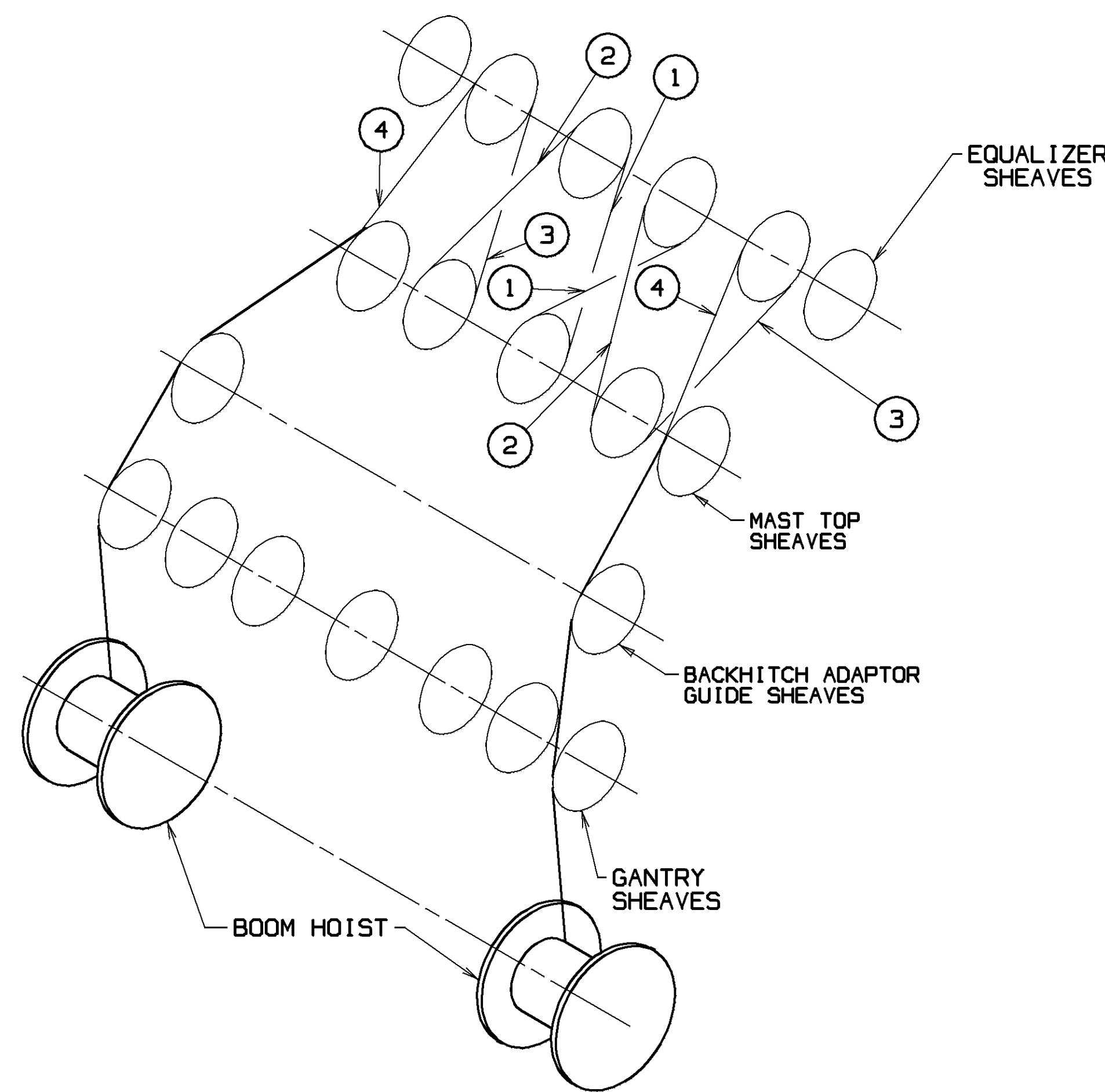
1100 FEET (335.3 M) OF .875" (22mm)-6 X 26 WARRINGTON SEALE, EXTRA IMPROVED PLOW STEEL, ALTERNATE LAY, IWRC (719094) - B.S. 79,600 LBS. (36 106 kg)

OR
ALTERNATE WIRE ROPE

1100 FEET (335.3 M) OF .875" (22mm)-6 X 26 WARRINGTON SEALE, EXTRA IMPROVED PLOW STEEL, REGULAR LAY, IWRC (719035) - B.S. 79,600 LBS. (36 106 kg)

OR
ALTERNATE WIRE ROPE

1100 FEET (335.3 M) OF .875" (22mm) DYFORM-6 (719335) - B.S. 87,600 LBS. (39 735 kg)



BOOM HOIST REEVING DIAGRAM FOR 8 PART LINE

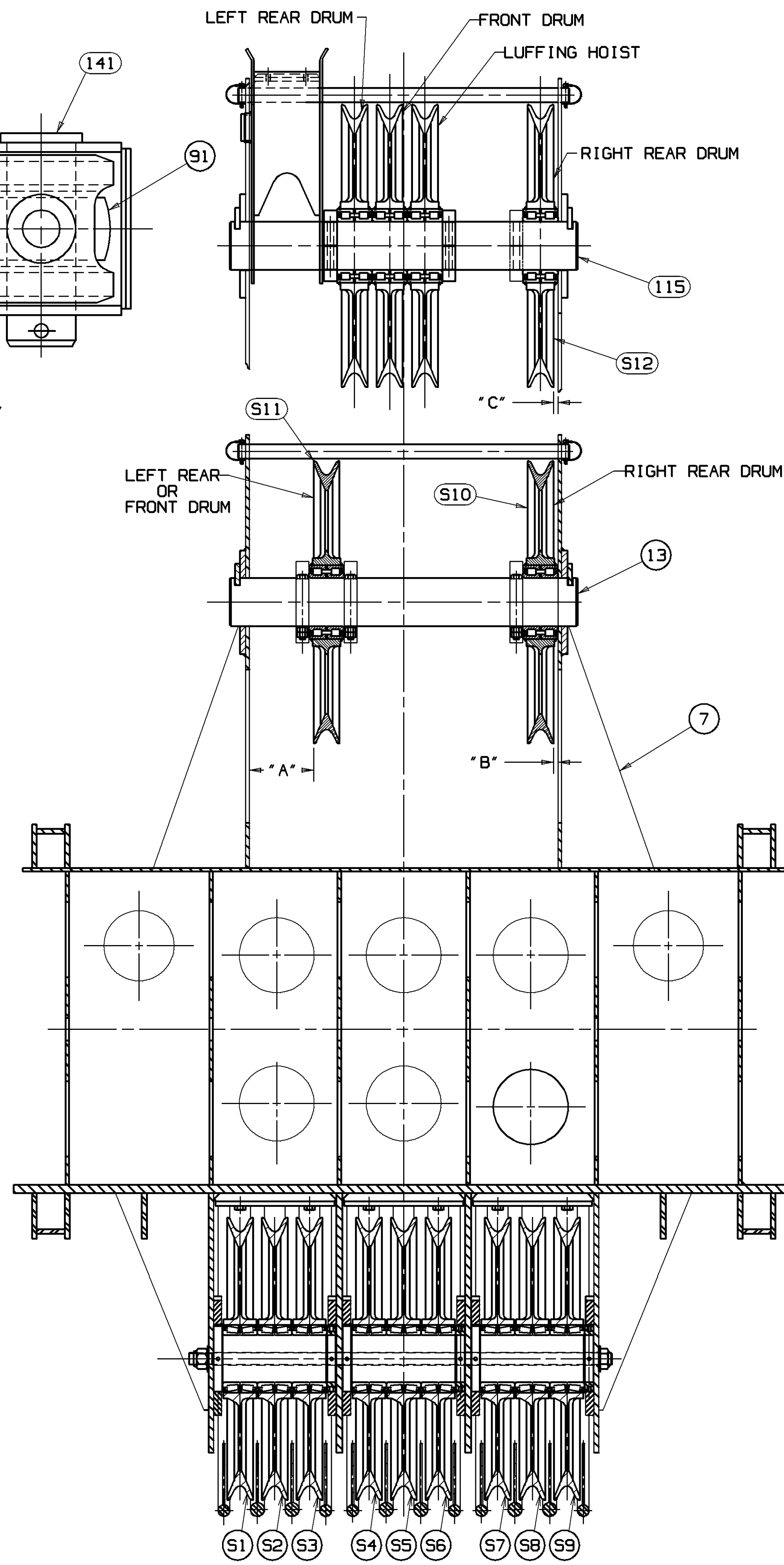
2150 FEET (655.3 M) OF 1.00" (26mm)-6 X 26 WARRINGTON SEALE, EXTRA IMPROVED PLOW STEEL, ALTERNATE LAY, IWRC (719095) - B.S. 103,400 LBS. (46 900 kg)

OR
ALTERNATE WIRE ROPE

2150 FEET (655.3 M) OF 1.00" (26mm)-6 X 26 WARRINGTON SEALE, EXTRA IMPROVED PLOW STEEL, REGULAR LAY, IWRC (719276) - B.S. 103,400 LBS. (46 900 kg)

OR
ALTERNATE WIRE ROPE

2150 FEET (655.3 M) OF 1.00" (26mm) DYFORM-6 (719359) - B.S. 113,800 LBS. (51 620 kg)



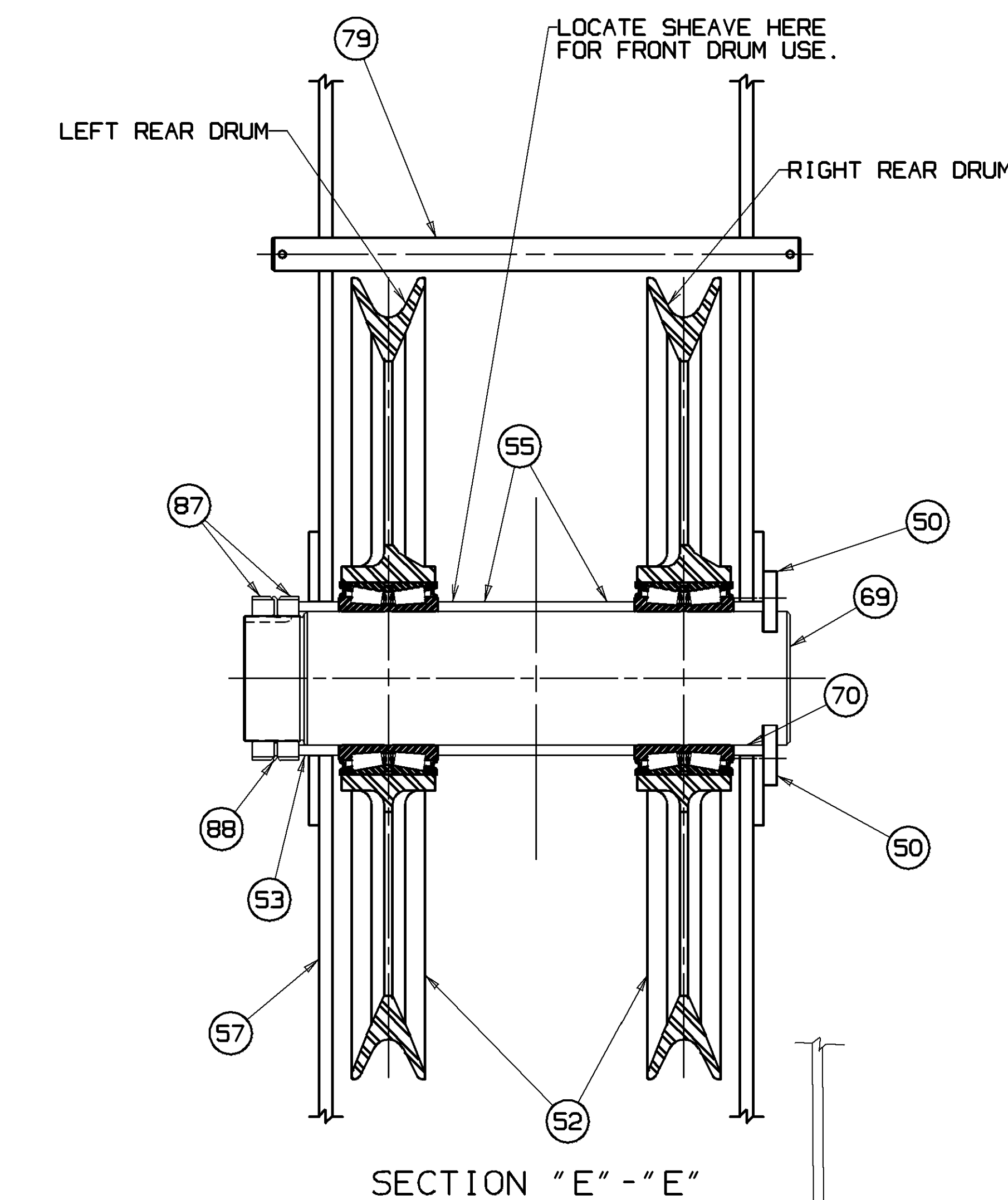
LOCATION OF SHEAVES WITH LEAD LINE GOING TO SHEAVES INDICATED.

RIGHT REAR DRUM SHEAVE		
LEAD LINE REEVING TO SHEAVE	DIMENSION "C"	DIMENSION "B"
S12 TO S10 TO S9	0.50 IN. (13mm)	0.50 IN. (13mm)
S12 TO S10 TO S8	1.94 IN. (49mm)	1.94 IN. (49mm)
S12 TO S10 TO S7	4.62 IN. (117mm)	4.62 IN. (117mm)
S12 TO S10 TO S6	9.03 IN. (229mm)	10.31 IN. (262mm)

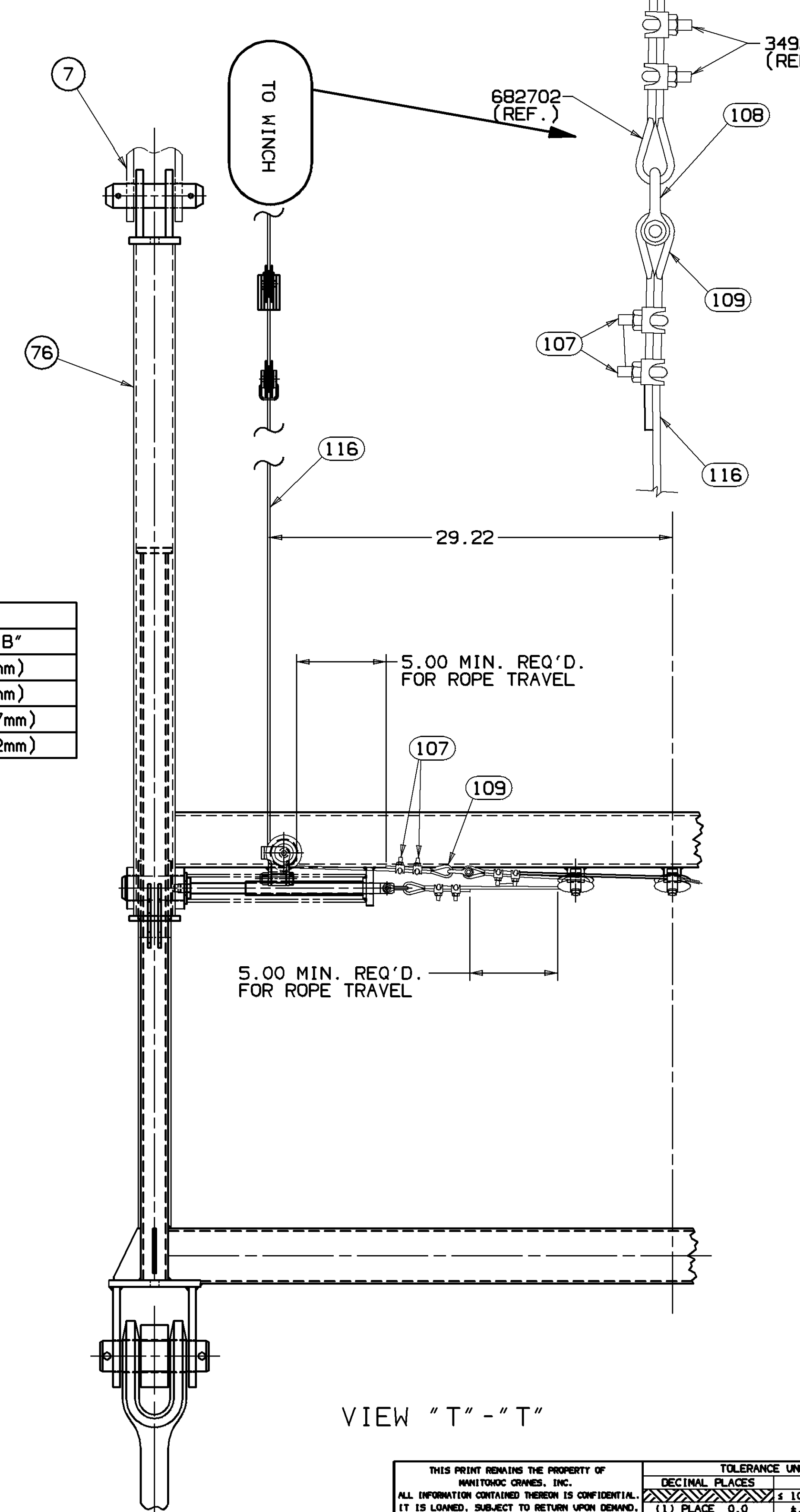
LEFT REAR DRUM SHEAVE	
LEAD LINE REEVING TO SHEAVE	DIMENSION "A"
S11 TO S4	9.31 IN. (237mm)
S11 TO S3	3.62 IN. (92mm)

FRONT DRUM SHEAVE	
LEAD LINE REEVING TO SHEAVE	DIMENSION "A"
S11 TO S4	10.56 IN. (268mm)

BOOM HANDLING INSTRUCTIONS			
TRAVEL SPEED NOT TO EXCEED 1/2 MPH (.80 km/h) BOOM ANGLE AT 10° OR LESS.			
MAST POSITION	MAX. LENGTH OF BOOM HANDLED		BOOM CONDITIONS OR LIMITATIONS
	FEET	METERS	
UP	230	70.1	BUTT & INSERTS EQUALIZER PINNED TO RAILS. CAN CANTILEVER 80 FT. (24.4 M) OF INSERTS.



SECTION "E" - "E"



VIEW "T" - "T"

- BILL OF MATERIAL**
- | ITEM NO. | DESCRIPTION | QUANTITY | MATERIAL | UNIT |
|----------|---|----------|----------|------|
| 1 | 1.125 (29mm) WIRE ROPE. | | | |
| 2 | ON DWG. 78145. | | | |
| 3 | ON DWG. 73026. | | | |
| 4 | BOOM STOP SUPPORT BEAM 174960 (REF.) AND MAST (ITEM 22) MUST BE IN PLACE BEFORE INSTALLING WIRE ROPE GUIDE ASSEMBLY (ITEM 20). ASSEMBLY (ITEM 20) MUST BE REMOVED PRIOR TO LOWERING MAST. | | | |
| 5 | SEE JIB STOP ASSEMBLY (ITEM 76) FOR JIB STOP ERECTION PROCEDURE. SEE VIEW T - T FOR ADDITIONAL ITEMS. | | | |
| 6 | INSTALL WITH HEAD ON BOTTOM. WIRE END PLATE SCREWS TOGETHER. | | | |
| 7 | LOCATE AS REQ'D SEE SECTION "E" - "E". | | | |
| 8 | | | | |
| 9 | .875 (22mm) WIRE ROPE. | | | |
| 10 | SHOWN IN THE FORMAT:
TOTAL PENDANTS REQ'D (BOOM PENDANTS REQ'D / JIB BACKSTAY PENDANTS REQ'D) | | | |
| 11 | TIGHTEN LOCKNUT SUFFICIENTLY TO CLAMP BEARING INNER RACE. | | | |
| 12 | | | | |

STOWAGE TIMBER REQUIRED		
STOWAGE CASE		TIMBERS (ITEM 36)
#133A JIB IN #44 BOOM		
FEET	METERS	
70 - 80	21.3 - 24.4	16
90 - 120	27.4 - 36.6	24
130 - 160	39.6 - 48.8	32
170 - 200	51.8 - 61.0	40

STOWAGE TIMBERS MUST BE REMOVED FROM BOOM SECTIONS FOR CRANE OPERATION.

- 13 BEAM (ITEM 72) AND (ITEM 117) AND ROPE GUIDE ASSEMBLY (ITEM 115) MUST BE REMOVED FOR LIFTCRANE OPERATION.
- 14 REFER TO SPECIFIC CAPACITY CHART FOR APPROPRIATE BOOM & JIB COMBINATIONS.
- 15 REFER TO LUFFING JIB RAISING PROCEDURE #7728A FOR RAISING & LOWERING BOOM & JIB.
- 16 USED ON BOOM TOP - SEE 17
- 17 SEE CRANE ASSEMBLY & RIGGING GUIDE IN THE OPERATIONS MANUAL FOR INSTRUCTIONS ON PENDANT STOWAGE.
- 18 SPREADER LOCATIONS:
A) FOR JIBS REQUIRING ONE SPREADER: LOCATE AT THE FIRST PENDANT CONNECTION CLOSEST TO THE LUFFING JIB TOP. (REF. VIEW "P" - "P").
B) FOR JIBS REQUIRING TWO SPREADERS: LOCATE ONE AT THE FIRST PENDANT CONNECTION CLOSEST TO THE LUFFING JIB TOP AND THE SECOND SPREADER AT THE PENDANT CONNECTION CLOSEST TO THE JIB STRUT.
- 19 PIN (ITEM 141) IS USED IN CONJUNCTION WITH SPREADER (ITEM 140) (2 PINS PER SPREADER) AND REPLACES PIN SUPPLIED WITH PENDANT. (REF. VIEW "P" - "P").
- 20 STAMP DATA ON (ITEM 99) AND INSTALL AFTER FINAL PAINTING.
- 21 PIN (ITEM 96) IS TO BE USED FOR MAIN STRUT ERECTION ONLY. IF WEDGE SOCKET (ITEM 45) IS USED FOR ANY LOAD LIFTING LINE, PIN 563960 (REF.) IS REQUIRED.
- 22 USED ON LUFFING JIB TOP - SEE 17
- 23 SEE VIEW S. FOR 280 AND 300 BOOM LENGTHS, ITEMS 110 AND 111 ARE REMOVED.
- 24 SEE VIEW P FOR LOCATION OF LINK (ITEM 118).
- 25 IF BOOM BUTT (ITEM 17) DOES NOT HAVE LUGS FOR WIRE ROPE GUIDE (ITEM 120) MODIFY PER DWG. 421168.
- 26 IF BOOM TOP (ITEM 7) DOES NOT HAVE LUGS FOR WIRE ROPE GUIDE (ITEM 10) MODIFY PER DWG. 421169.
- 27 IF INSERT (ITEM 124) DOES NOT HAVE LUGS FOR WIRE ROPE GUIDE (ITEM 119) MODIFY PER DWG. 421167.
- 28 IF INSERT (ITEM 125) DOES NOT HAVE LUGS FOR WIRE ROPE GUIDE (ITEM 119) MODIFY PER DWG. 421166.
- A 29 SEE DWG. 176265 (INDICATOR ASSEMBLY P.A.T. DUMMY LOAD LINK INSTALLATION) FOR USE WITH THE P.A.T. LOAD MOMENT INDICATOR.
- B 30 SEE VIEW U ON SHT. 4.

TOLERANCE UNLESS OTHERWISE SPECIFIED		SCALE	
DECIMAL PLACES	FABRICATION	ASSEMBLY	MACHINING
(1) PLACE 0.0	± 0.100	± 0.100	± 0.010
(2) PLACE 0.50	± 0.000	± 0.120	± 0.015
(3) PLACE 0.000	± 0.000	± 0.005	± 0.005
ANGLES	± 1° 30'	± 1° 30'	± 1° 30'

THIS PRINT REMAINS THE PROPERTY OF MANTAWAG CRANES, INC. ALL INFORMATION CONTAINED HEREON IS CONFIDENTIAL. IT IS LOANED, SUBJECT TO RETURN WHEN DEMAND. AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY MANNER DETRIMENTAL TO OUR INTERESTS.

DR: LS
CHK: LS
APP: TSC

Mantawag Cranes, Inc.
Mantawag, Wisconsin
MOD-250 MAX-ER 225

LUFFING JIB RIGGING ASSEMBLY
#49A-#44 BOOM/#133A JIB
1.50 SWAGED PENDANTS
(USA)

REVISIONS

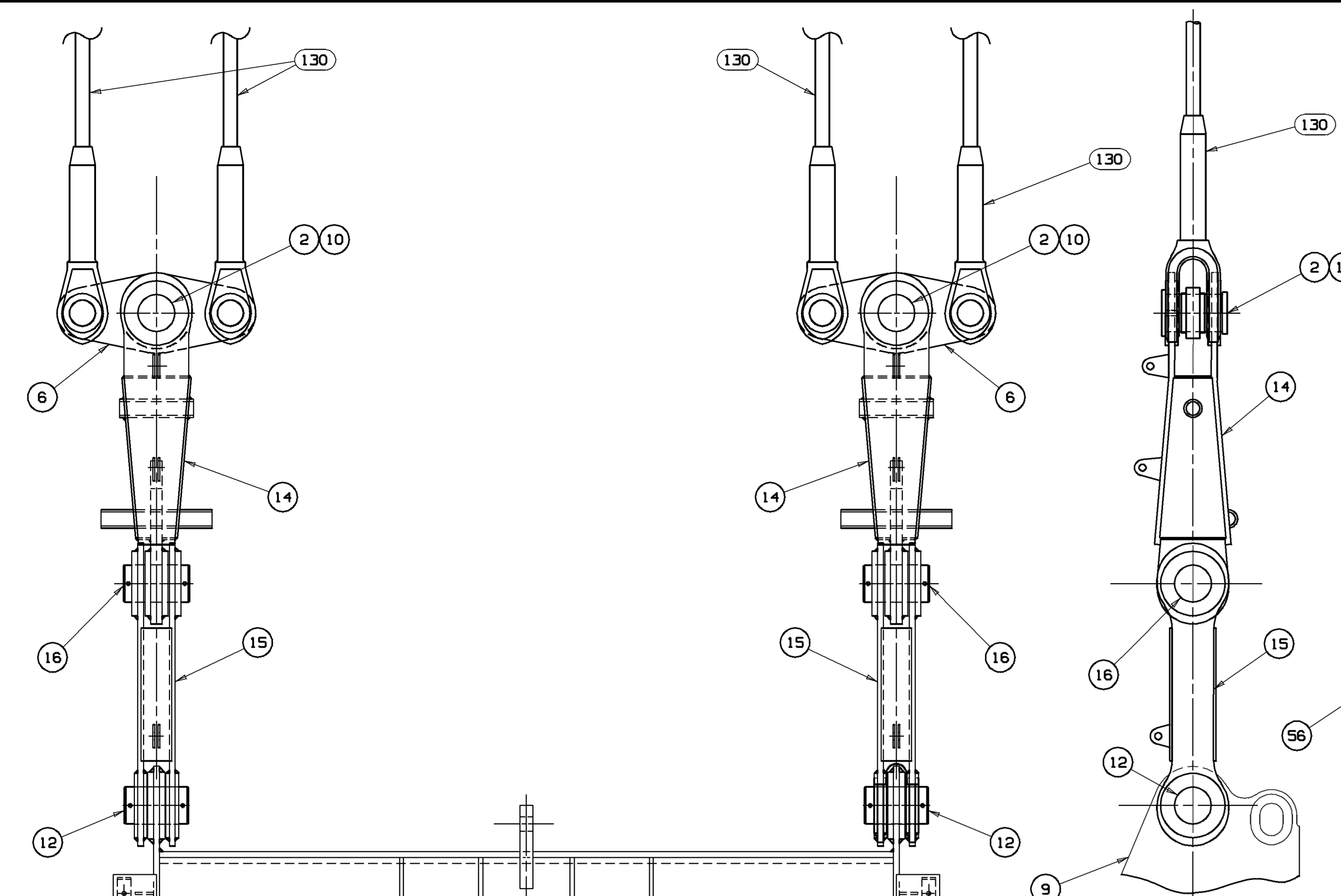
NO.	DATE	DESCRIPTION
1	12-15-94	LS
2	12-21-94	LS

10-20-94
PATTERN NO.

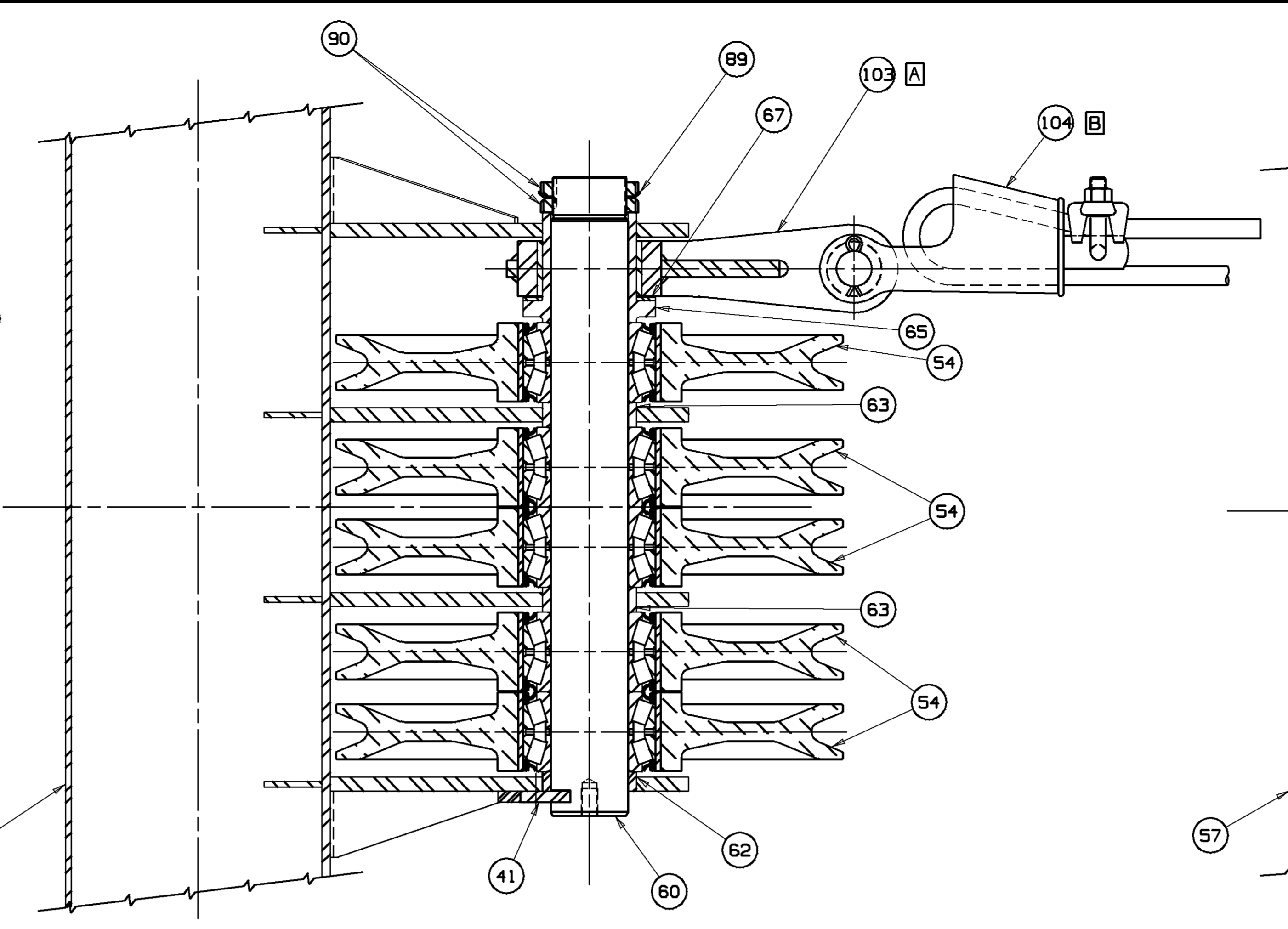
176153
SHT 2 OF 4

176153
(USA)

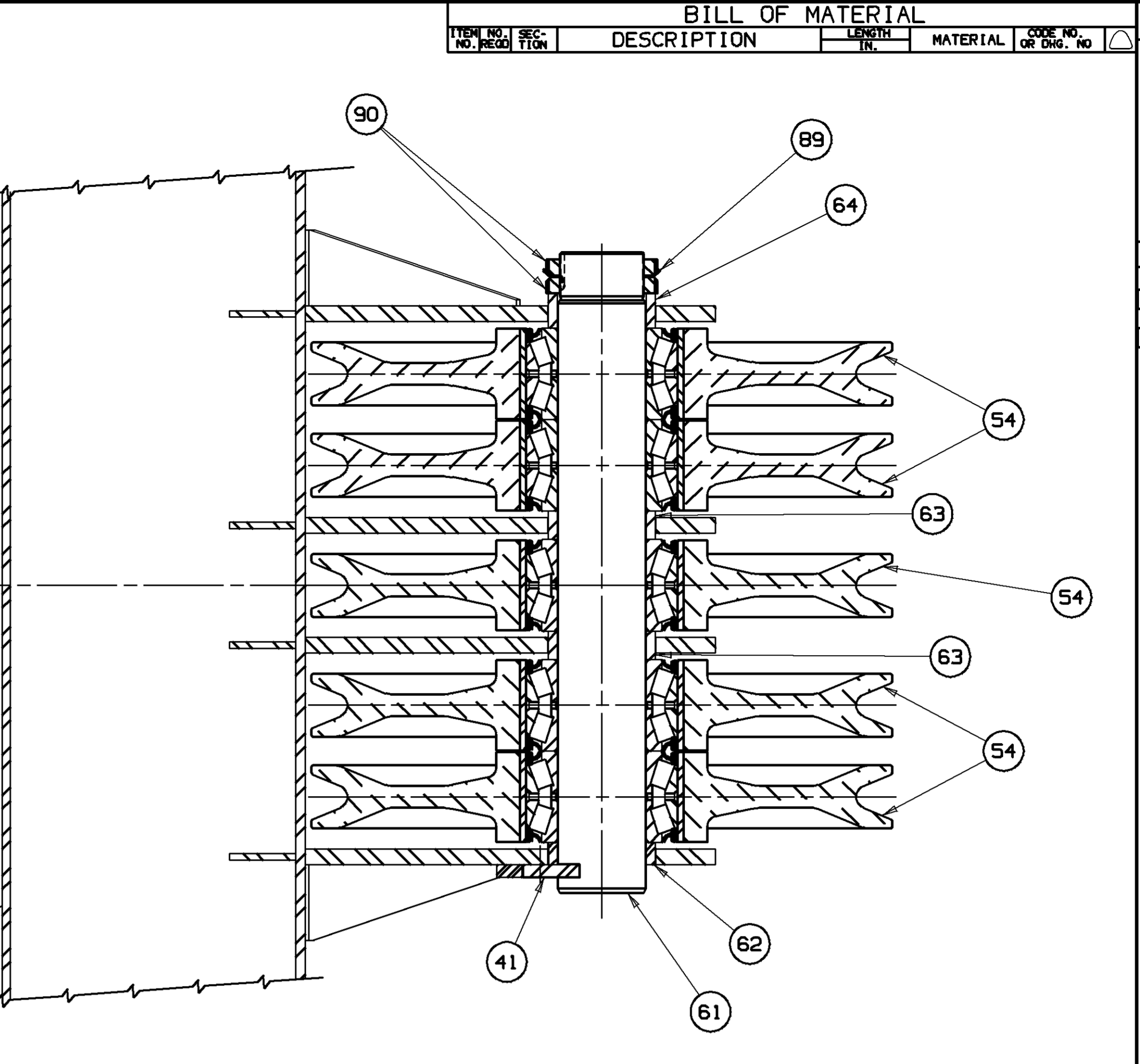
SHT 2 OF 4



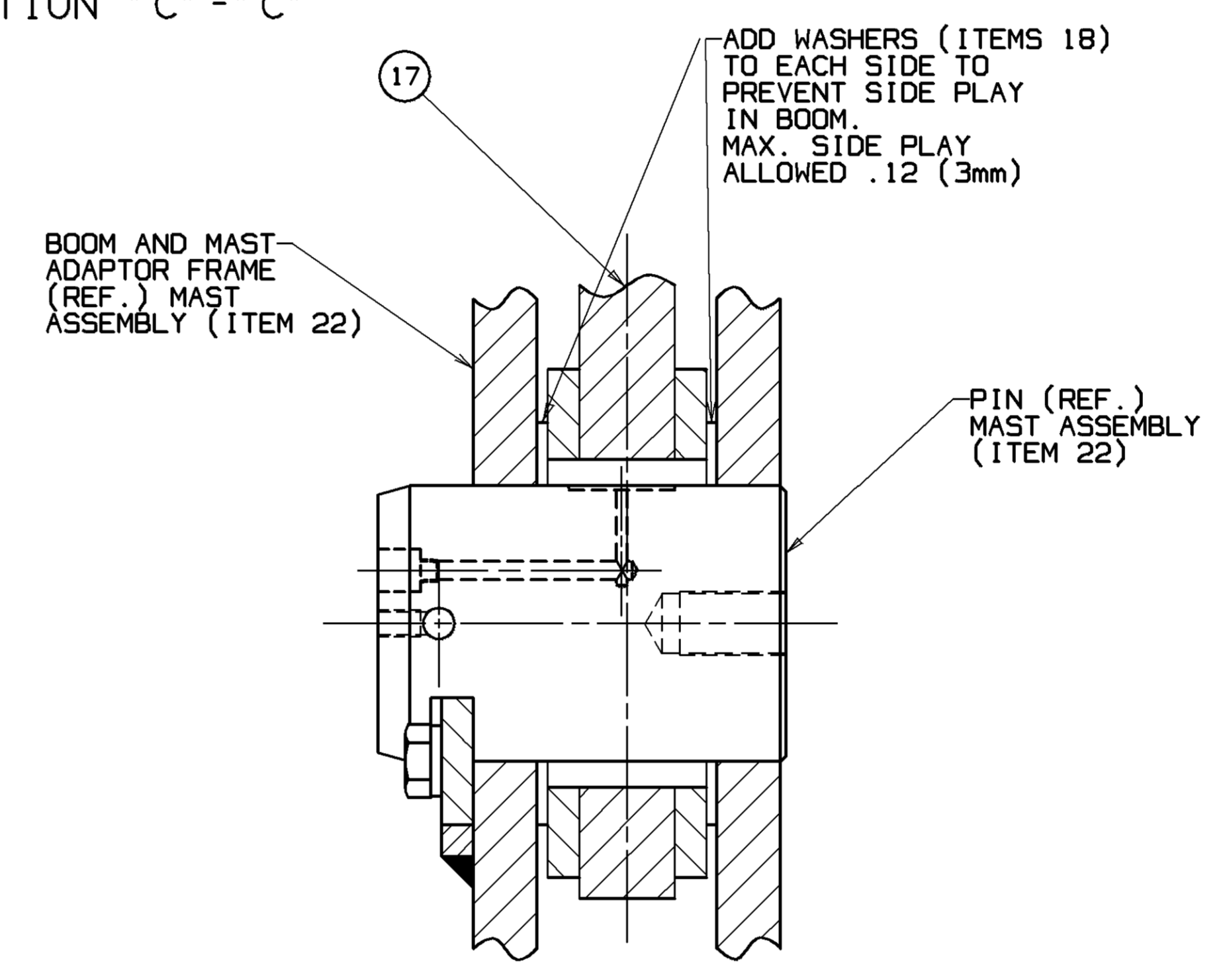
VIEW "A" - "A"



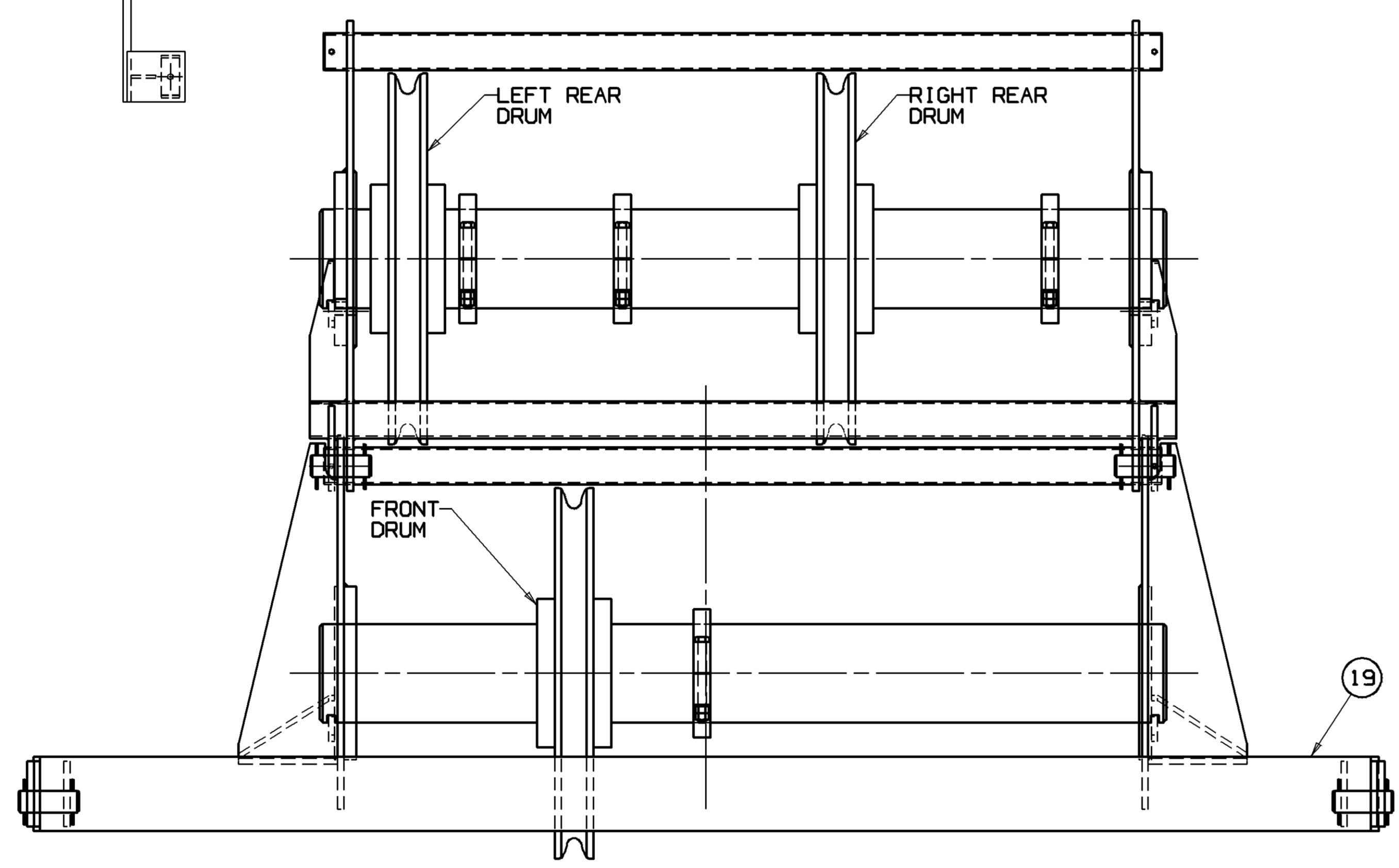
SECTION "C" - "C"



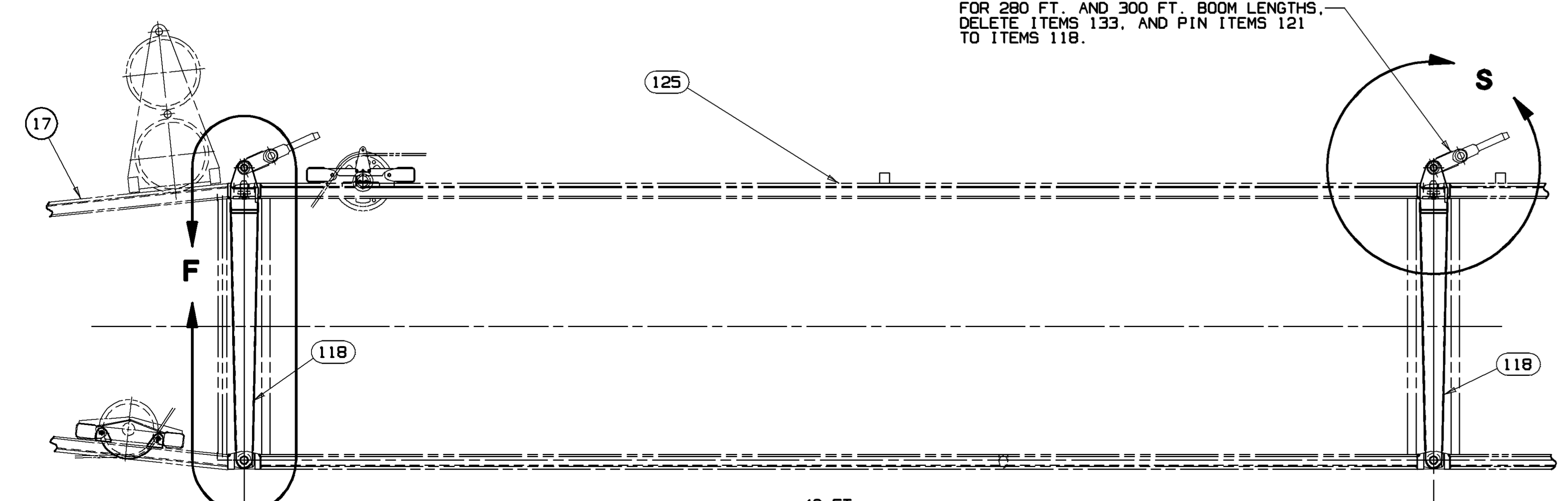
SECTION "D" - "D"



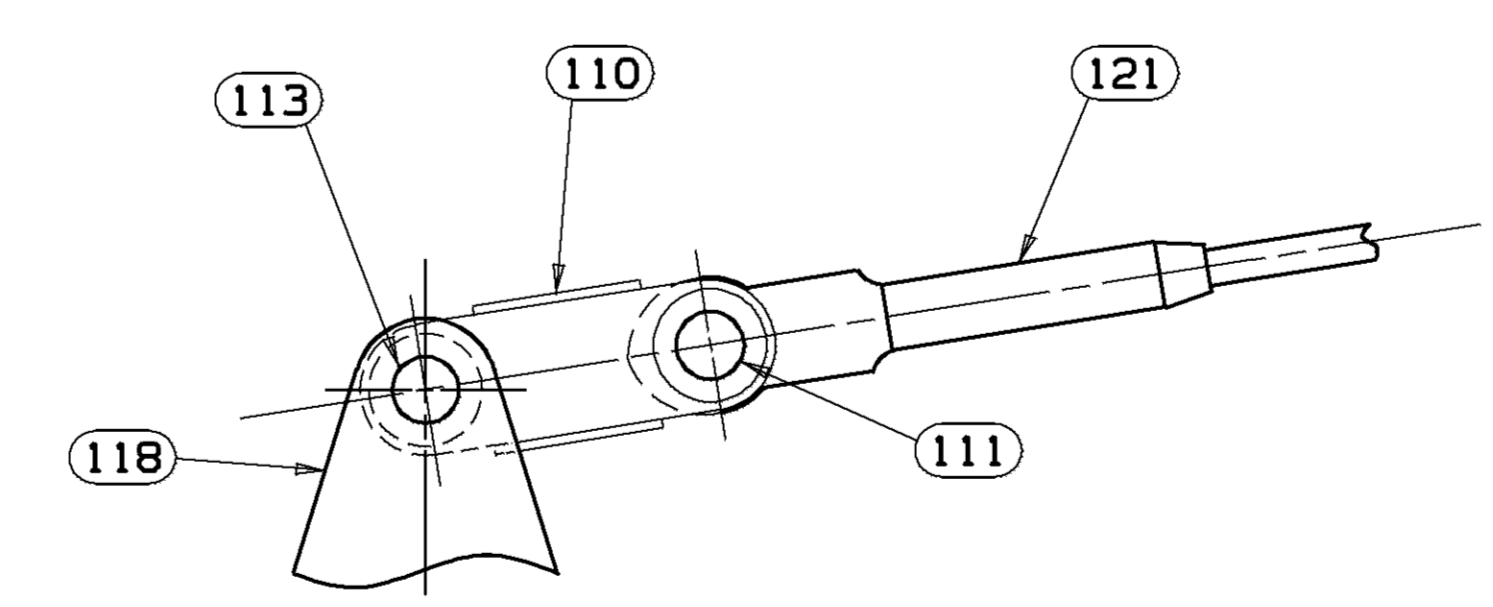
SECTION "B" - "B"



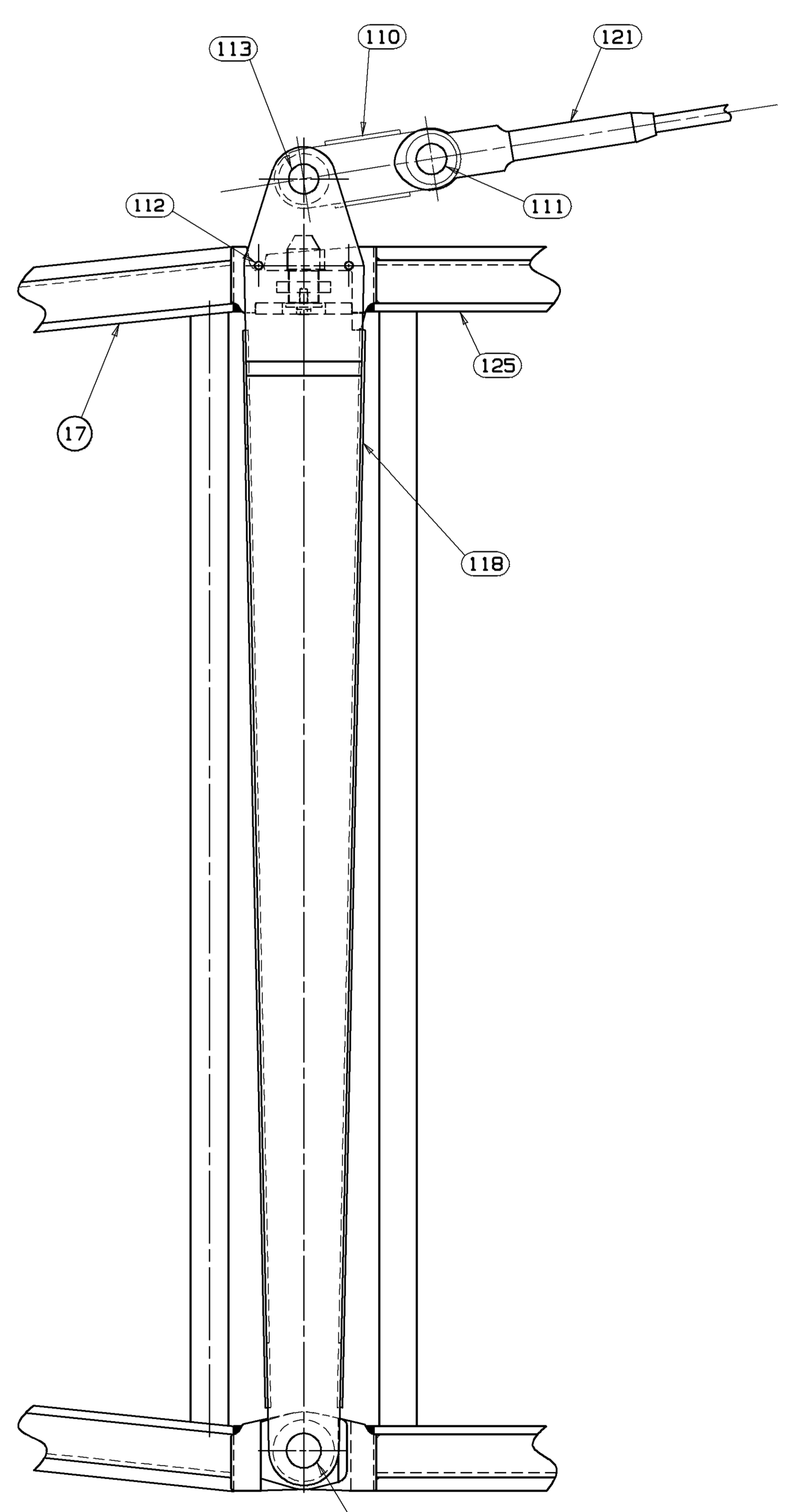
VIEW Q - Q



VIEW P



VIEW S



VIEW "F"

FOR 280 FT. AND 300 FT. BOOM LENGTHS, DELETE ITEMS 133, AND PIN ITEMS 121 TO ITEMS 118.

FOR 280 FT. AND 300 FT. BOOM LENGTHS, DELETE ITEMS 110 AND 111, AND PIN ITEMS 121 TO ITEMS 118.

REMOVE PIN 173877 (REF.) AND REPLACE WITH ITEM 114.

LOCATION OF ITEM 118 FOR BOOM LENGTHS OF 140 FT. THRU 220 FT.

LOCATION OF ITEM 118 FOR BOOM LENGTHS OF 240 FT. THRU 300 FT.

BILL OF MATERIAL			
ITEM NO.	DESCRIPTION	MATERIAL	QTY.

REV.	DESCRIPTION
12-17-97	PGD
A	WAS ITEMS 65 & 94
B	WAS ITEMS 48, 49 & 97

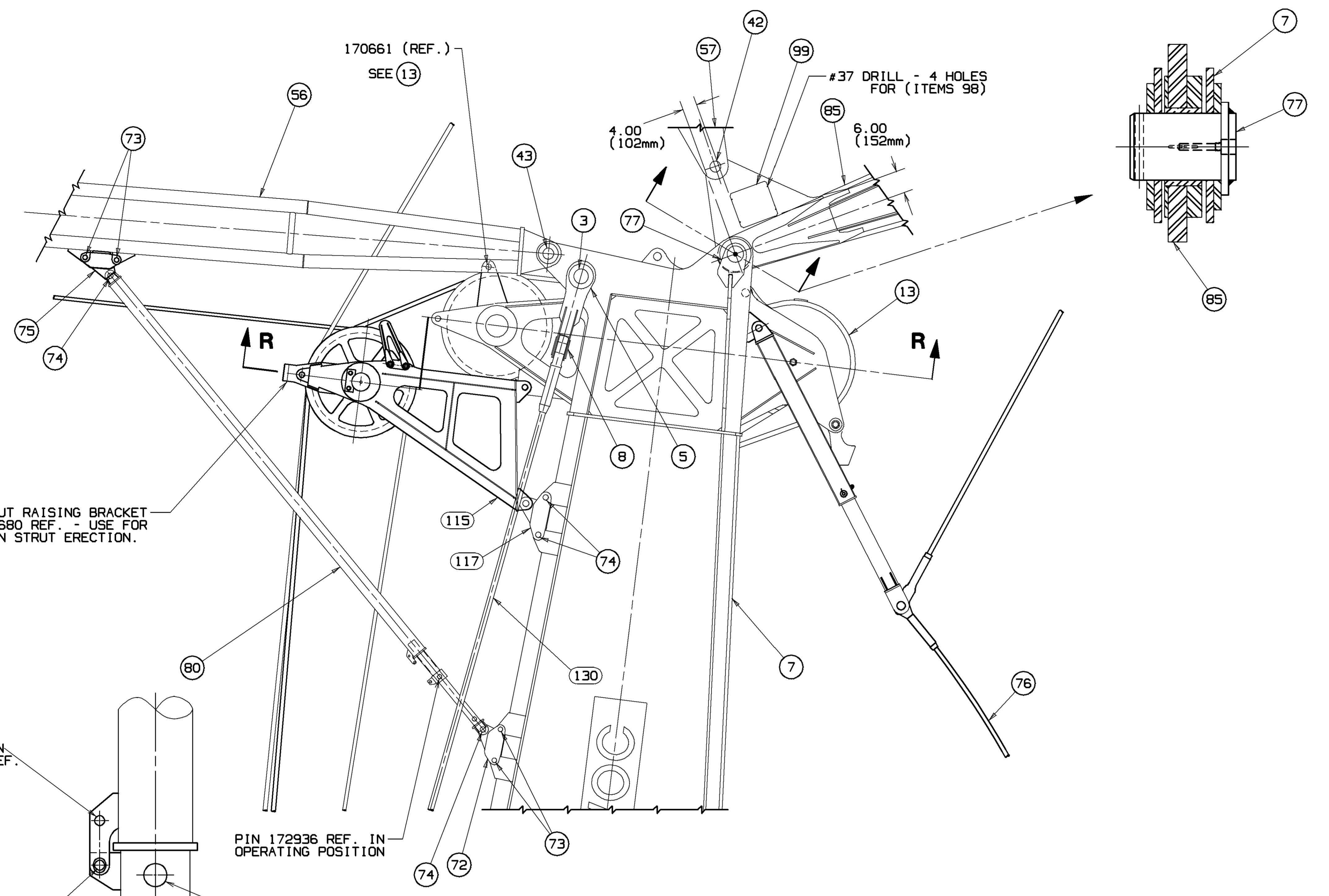
176153
SHT 3 OF 4

DECIMAL PLACES	FABRICATION	MACHINING
(1) PLACE 0.0	± 1.00	± 1.00
(2) PLACE 0.50	± 0.00	± 0.15
(3) PLACE 0.000	± 0.000	± 0.005
ANGLES	± 30'	± 30'

10-20-94
Mantowoc Cranes, Inc.
#49A-#44 BOOM/#133A JIB
MOD. M-250 MAX-ER 225
1.50 SWAGED PENDANTS
176153
SHT 3 OF 4

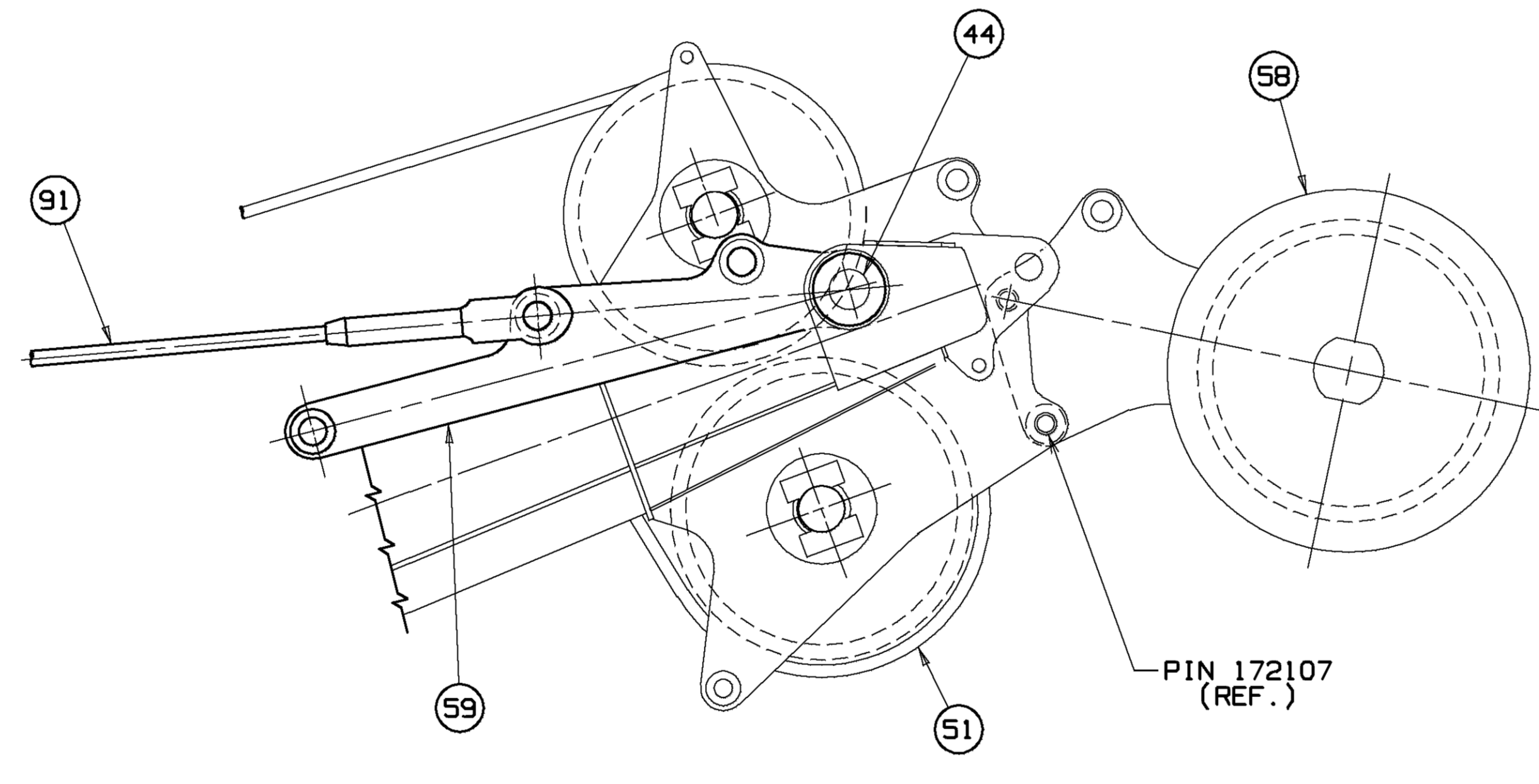
MAIN STRUT ERECTION PROCEDURE

1. ATTACH LINK (ITEM 68) AND BASIC BACKSTAY PENDANT (ITEM 92) TO MAIN STRUT. ATTACH STRUT STOP TUBE ASSEMBLY (ITEM 80) TO STRUT SUPPORT BEAM (ITEM 75). STRUT STOP TUBE ASSEMBLY SHOULD BE IN ITS RETRACTED POSITION WITH PIN 563912 REF. IN THE STRUT ERECTION AND POSITIONING LOCATION. (SEE VIEW "N"- "N"). ATTACH GUY LINES OR OTHER MEANS TO STRUT STOP TUBE ASSEMBLY TO AID STRUT POSITIONING DURING STRUT ERECTION.
DANGER:
 DO NOT STAND UNDER MAIN STRUT DURING ERECTION.
2. RUN A 1.125 (29 mm) ROPE FROM LEFT REAR DRUM OVER THE TOP OF THE STRUT RAISING BRACKET (176250 REF.) ON WIRE ROPE GUIDE ASSEMBLY (ITEM 115).
3. ATTACH ROPE TO SOCKET (ITEM 45) AND WEDGE (ITEM 46) AND PIN SOCKET (ITEM 45) TO PENDANT (ITEM 93) WITH PIN (ITEM 96).
4. RAISE MAIN STRUT 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).
5. WHEN MAIN STRUT HAS BEEN RAISED TO A POSITION WHERE RETRACTED STRUT STOP TUBE ASSEMBLY (ITEM 80) CONTACTS THE BOOM TOP PLATEWORK. REMOVE PIN 563912 (REF.) FROM STRUT STOP TUBE ASSEMBLY. STORE AS SHOWN IN VIEW "N-N". EXTEND STRUT STOP TUBE ASSEMBLY TO STRUT SUPPORT BEAM (ITEM 72) AND CONNECT USING PIN (ITEM 74).
6. SUPPORT MAIN STRUT WITH LUFFING JIB HOIST LINE AND MOVE INTO A POSITION SUPPORTED BY RETRACTED STRUT STOP TUBE ASSEMBLY (ITEM 80). AND REINSTALL PIN 563912 (REF.) IN STRUT ERECTION AND POSITIONING LOCATION (REF. VIEW "N-N").
7. WITH STRUT RESTING ON STRUT STOP TUBE ASSEMBLY (ITEM 80), DISCONNECT SOCKET (ITEM 45) AND PIN PENDANT (ITEM 93) TO STRUT USING PIN (ITEM 95). (REF. VIEW "M-M")
8. CONNECT ALL BACKSTAY PENDANTS AND LINKS.
9. AFTER ALL BACKSTAY PENDANTS AND LINKS ARE IN PLACE AND BACKSTAY IS PINNED TO LINK (ITEM 118) USING PIN (ITEM 113). REMOVE PIN 172936 (REF.) AND RAISE MAIN STRUT USING LUFFING JIB HOIST LINE UNTIL PIN HOLES IN STRUT STOP TUBE ASSEMBLY (ITEM 80) ALIGN IN OPERATING POSITION. (REF. VIEW "K")
NOTE: IF THE JIB STRUT (ITEM 57) BEGINS TO RAISE BEFORE THE HOLES IN STRUT STOP TUBE ASSEMBLY (ITEM 80) ALIGN, SECURE JIB STRUT TO JIB.
10. INSERT PIN 172936 (REF.) IN OPERATING POSITION. RELAX LUFFING JIB HOIST LINE. DISCONNECT JIB STRUT FROM JIB. AND REMOVE AND STORE PIN 563912 (REF.). SEE VIEW "N-N".
11. REVERSE PROCEDURE FOR LOWERING MAIN STRUT.

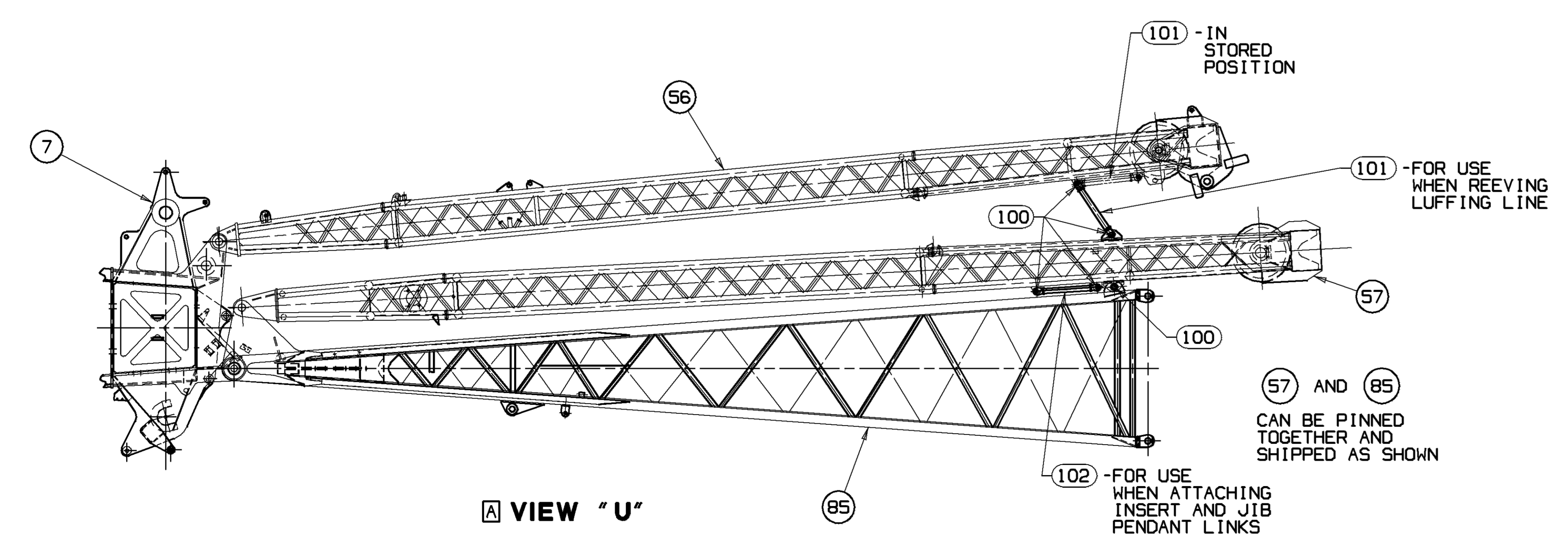


VIEW "K"

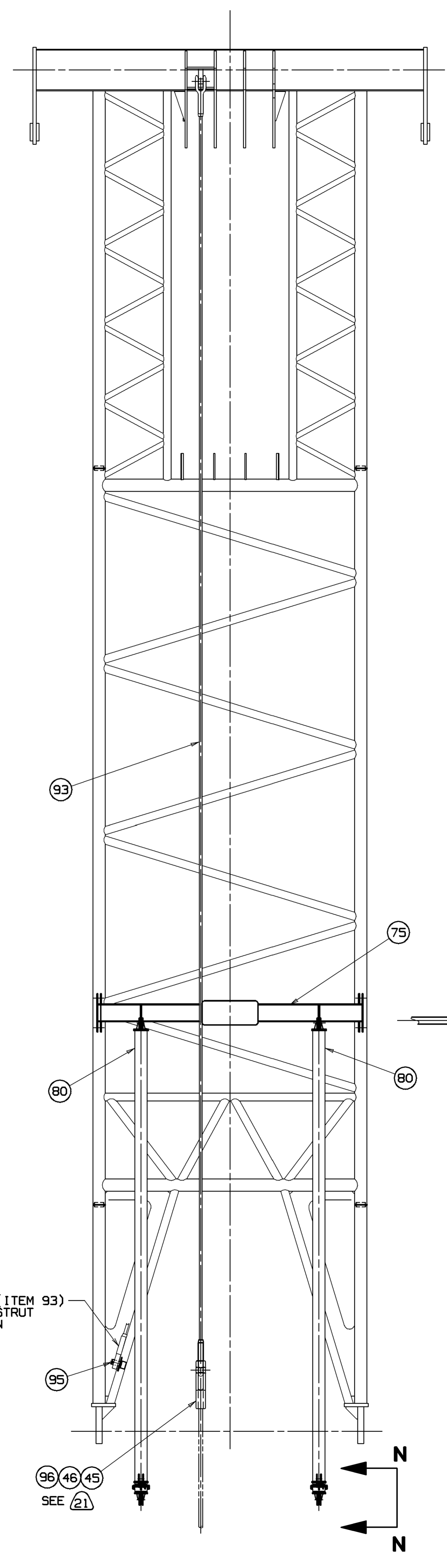
VIEW "N" - "N"



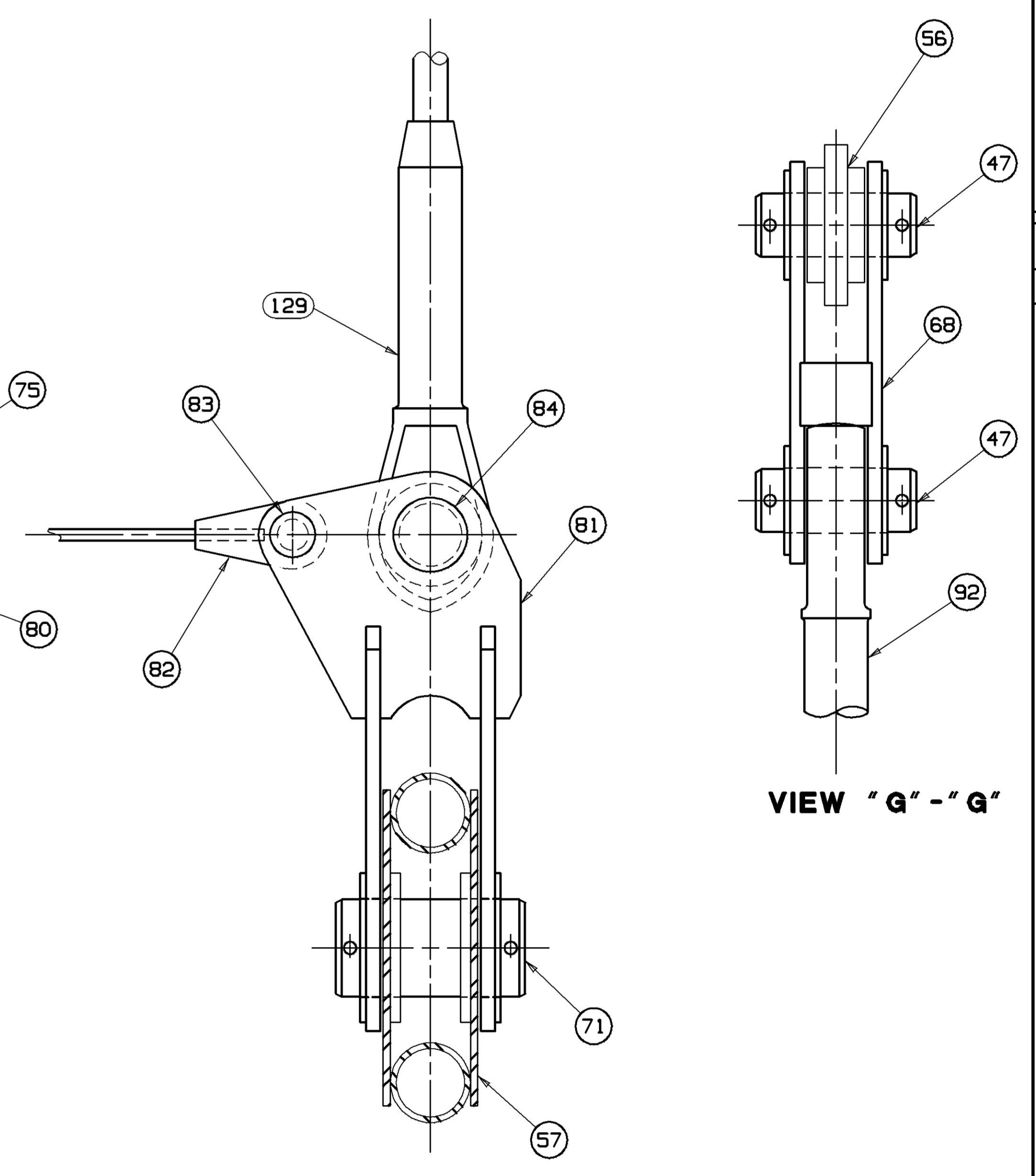
VIEW "L"



VIEW "U"



VIEW "M" - "M"



REVISIONS
12-21-94 LS
AD ADDED

THIS DRAWING IS THE PROPERTY OF MANITOWOC CRANES, INC. ALL INFORMATION CONTAINED HEREON 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 WHATSOEVER DETRIMENTAL TO OUR INTERESTS.		TOLERANCE UNLESS OTHERWISE SPECIFIED		MACHINING		MATERIAL		LUFFING JIB RIGGING ASSEMBLY	
DECIMAL PLACES	FRACTIONS	1/16	1/8	1/4	3/8	1/2	3/4	1	2
(1) PLACE 0.0	1/16	1/8	1/4	3/8	1/2	3/4	1	2	3
(2) PLACE 0.50	1/8	1/4	3/8	1/2	3/4	1	2	3	4
(3) PLACE 0.000	1/64	1/32	1/16	3/32	1/8	1/4	3/8	1/2	3/4
ANGLES	1/2	1	2	3	4	5	6	7	8
DR. LS	MANITOWOC CRANES, INC.	WISCONSIN	USA	176153	10-20-94	176153	USA	176153	USA