

INSERTS, PENDANTS, AND TIMBERS REQ'D. FOR VARIOUS BOOM LENGTHS

ITEM NO.	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(33)	(47)	
DWG. NO.	174425	174422	174514	171228	171229	277382 DWG. 78145	277383 DWG. 78145	277384 DWG. 78145	174915	171697	666852	176358	EQUALIZER PLATFORM ITEM 47 POSITION SEE VIEW C
BOOM LENGTH	#49A 20 FT 6.10 M INSERT	#49A 40 FT 12.19 M INSERT	#49A-44 30 FT 9.14 M TRANSITION INSERT	#44 20 FT 6.10 M INSERT	#44 40 FT 12.19 M INSERT	10 FT 1.00 3.07 M PENDANT	20 FT 1.50 6.13 M PENDANT	40 FT 3.00 12.27 M PENDANT	WIRE ROPE TIMBER	WIRE ROPE TIMBER	(OPTIONAL) PENDANT TIE DOWN STRAPS SEE (5)	EQUALIZER PLATFORM SEE (11)	SEE VIEW C SEE (11)
FEET	METERS												
100 BASIC	42.7	0 FT OF INSERTS	1	0	0	4	4	0	1	1	8	1	29 FT 8.00(9.04 M) SEE (10)
120	48.8	0 FT OF INSERTS	1	1	0	4	8	0	1	2	12	1	49 FT 8.00(15.14 M) SEE (10)
140	42.7	40 FT(12.19 M) OF INSERTS	1	0	0	0	8	0	3	1	8	0	LANDS ON ITEM 39 PLATFORM
160	48.8	40 FT(12.19 M) OF INSERTS	1	1	0	0	4	4	3	2	10	0	LANDS ON ITEM 39 PLATFORM
180	54.9	80 FT(24.4 M) OF INSERTS	OR 1	0	0	0	8	4	5	1	14	1	79 FT 4.75 (24.20 M)
200	61.0	80 FT(24.4 M) OF INSERTS	OR 1	1	0	0	4	8	5	2	16	1	99 FT 4.75 (30.29 M)
220	67.1	80 FT(24.4 M) OF INSERTS	OR 1	2	0	0	8	8	5	3	20	1	119 FT 4.75 (36.39 M)
240	73.2	80 FT(24.4 M) OF INSERTS	OR 1	1	1	0	0	12	5	3	18	1	139 FT 4.75 (42.58 M)
260	79.2	80 FT(24.4 M) OF INSERTS	OR 1	2	1	0	8	12	5	4	22	1	159 FT 4.75 (48.58 M)
280	85.3	80 FT(24.4 M) OF INSERTS	OR 1	1	2	0	0	16	5	5	24	1	179 FT 4.75 (54.68 M)
300	91.4	80 FT(24.4 M) OF INSERTS	OR 1	2	2	0	8	12	5	6	30	1	199 FT 4.75 (60.77 M)

INSERT NOTES:

- THE MAXIMUM NUMBER OF 20 FT. (6.10 M) #49A INSERTS (ITEM 37) IS 2 AND MUST BE LOCATED NEXT TO BUTT (ITEM 18).
- THE 20 FT. (6.10 M) #44 INSERTS (ITEM 40) MUST BE LOCATED NEXT TO TRANSITION INSERT (ITEM 39).
- SEE CRANE ASSEMBLY AND RIGGING GUIDE IN THE OPERATORS MANUAL FOR INSTRUCTIONS ON JIB STOWAGE.

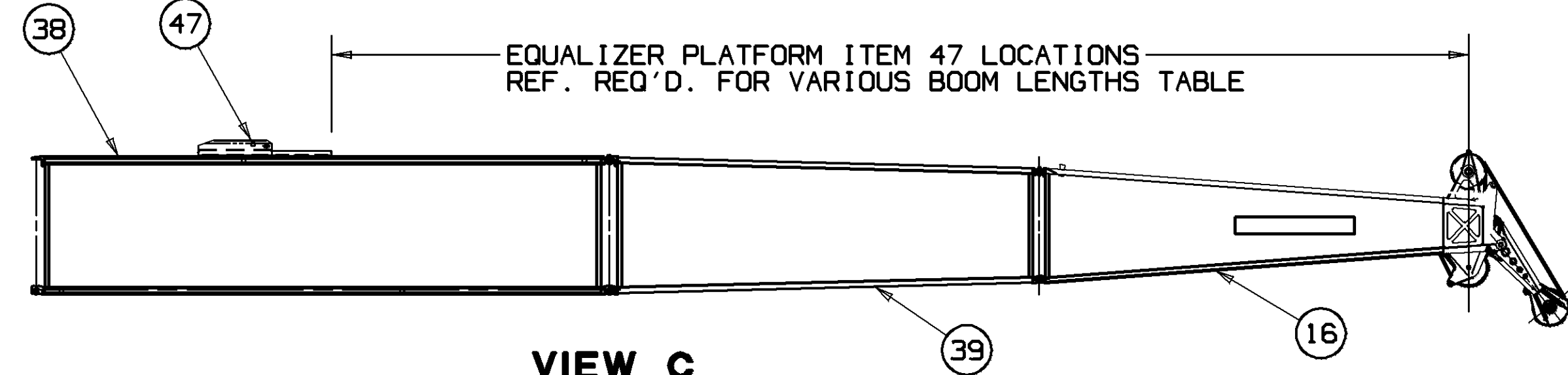
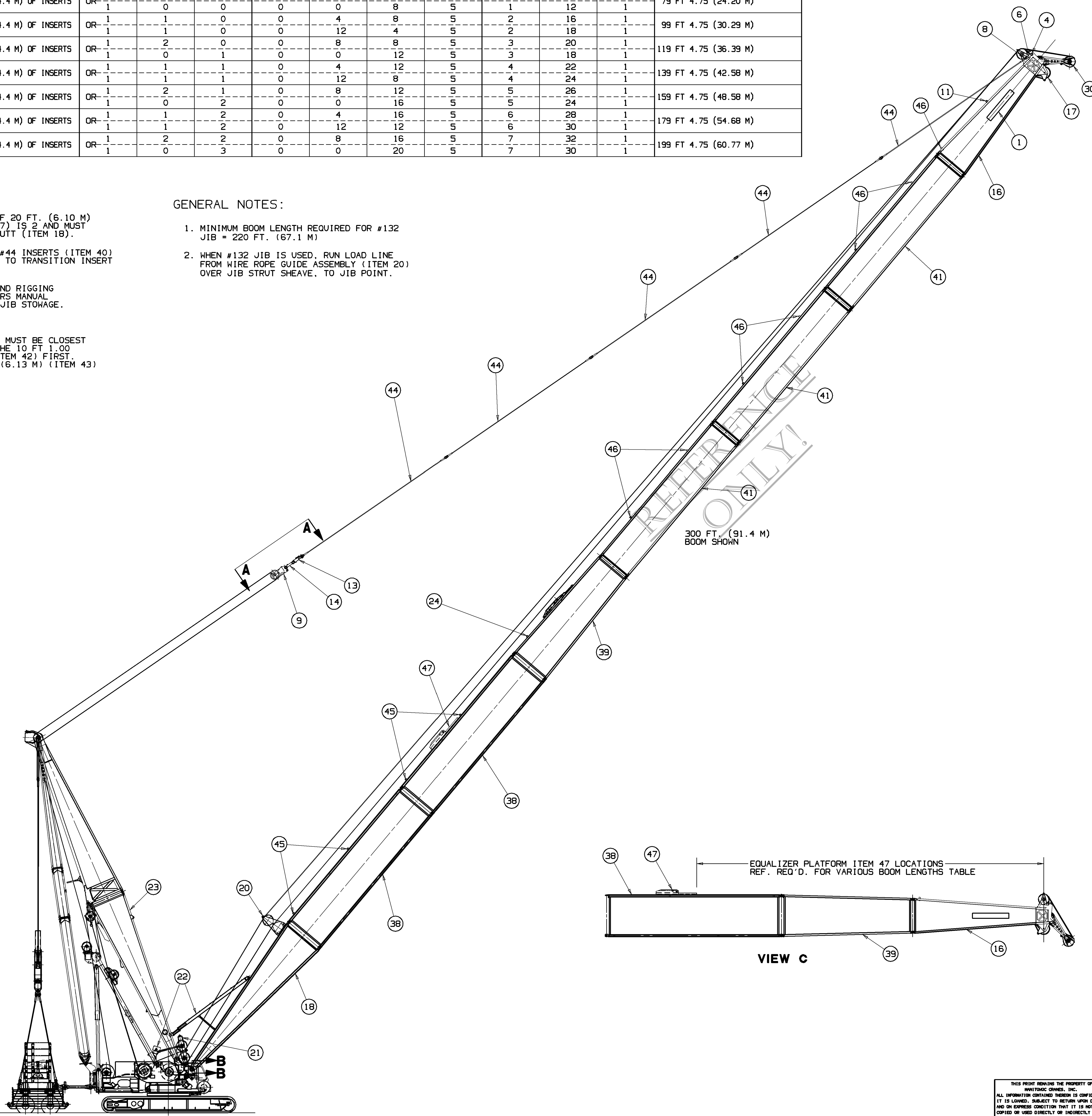
GENERAL NOTES:

- MINIMUM BOOM LENGTH REQUIRED FOR #132 JIB = 220 FT. (67.1 M)
- WHEN #132 JIB IS USED, RUN LOAD LINE FROM WIRE ROPE GUIDE ASSEMBLY (ITEM 20) OVER JIB STRUT SHEAVE, TO JIB POINT.

PENDANT NOTES:

- THE SHORTER PENDANTS MUST BE CLOSEST TO THE BOOM BUTT (THE 10 FT 1.00 (3.07 M) PENDANTS (ITEM 42) FIRST, THEN THE 20 FT 1.50 (6.13 M) (ITEM 43) PENDANTS).

ITEM NO.	DESCRIPTION	QUANTITY	ASSEMBLIES USED ON
BILL OF MATERIAL			
100 FT. (30.5 M) BASIC BOOM			
ALSO SEE REQ'D. FOR VARIOUS BOOM LENGTHS TABLE			
1	BOOM SIGN	22656	
2	END PLATE	76095	2
3			
4	PIN	160720	
5	BOOM ANGLE INDICATOR ASSEMBLY	168779	6
6	PENDANT LINK	169785	
7	EQUALIZER PENDANT LINK	169834	
8	PIN	170690	
9	EQUALIZER ASSEMBLY	171248	
10	PIN	171500	2
11	TIMBER (WIRE ROPE)	171704	
12	PIN	172132	
13	PENDANT LINK	172669	
14	PENDANT LINK	172670	
15	PIN	172675	
16	#44 BOOM TOP (30 FT.)-(9.14 M)	172878	
17	BOOM POINT SHAFT ASSEMBLY (LOWER)	172960	1
18	#49A BOOM BUTT (40 FT.)-(12.19 M)	174551	
19	WASHERS	174904	
20	WIRE ROPE GUIDE ASSEMBLY	174944	
21	WIRE ROPE GUIDE ASSEMBLY	174946	4
22	BOOM STOP ASSEMBLY	174955	
23	MAST ASSEMBLY	176113	
24			
25			
26			
27			
28			
OPTIONAL PARTS			
29			
30	BOOM POINT ASSEMBLY (UPPER)	170419	1,3
31	TIMBER (JIB STORAGE)	171697	7
32			
33			
34			
35			
36			



- 1.125 (29mm) WIRE ROPE.
- INSTALL WITH HEAD ON BOTTOM. WIRE END PLATE SCREWS TOGETHER.
- REMOVE WHEN JIB IS USED.
- BOOM STOP SUPPORT BEAM 174960 (REF.) AND MAST (ITEM 23) MUST BE IN PLACE BEFORE INSTALLING WIRE ROPE GUIDE ASSEMBLY (ITEM 21). ASSEMBLY (ITEM 21) MUST BE REMOVED PRIOR TO LOWERING MAST.
- SEE CRANE ASSEMBLY AND RIGGING GUIDE IN THE OPERATIONS MANUAL FOR INSTRUCTIONS ON PENDANT STOWAGE.
- NOT SHOWN
-

STOWAGE TIMBER REQUIRED			
STOWAGE CASE		TIMBERS (ITEM 31)	
#132 JIB IN #44 BOOM			
FEET	METERS		
40	12.19	8	
60 - 120	18.29 - 36.6	16	

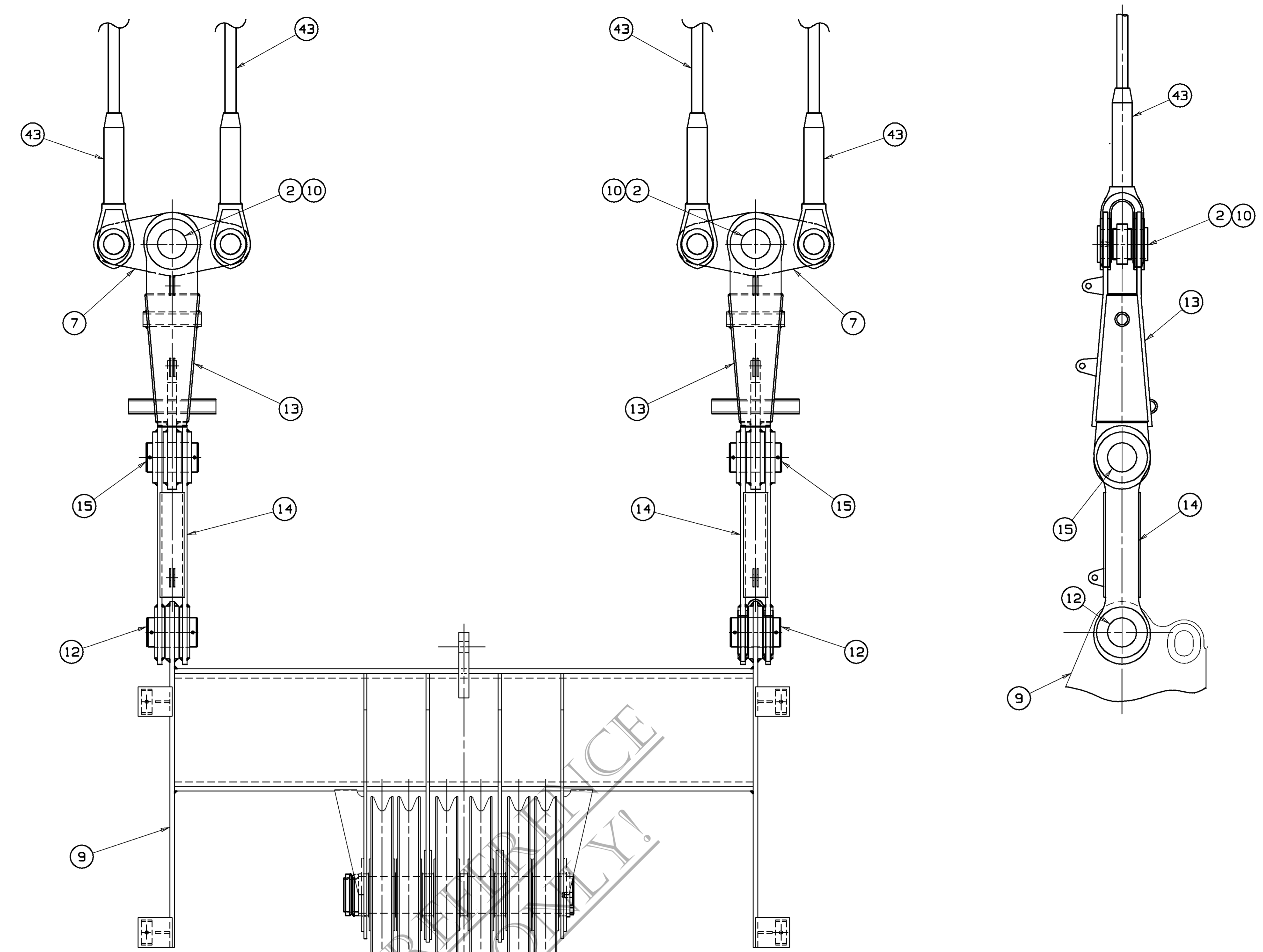
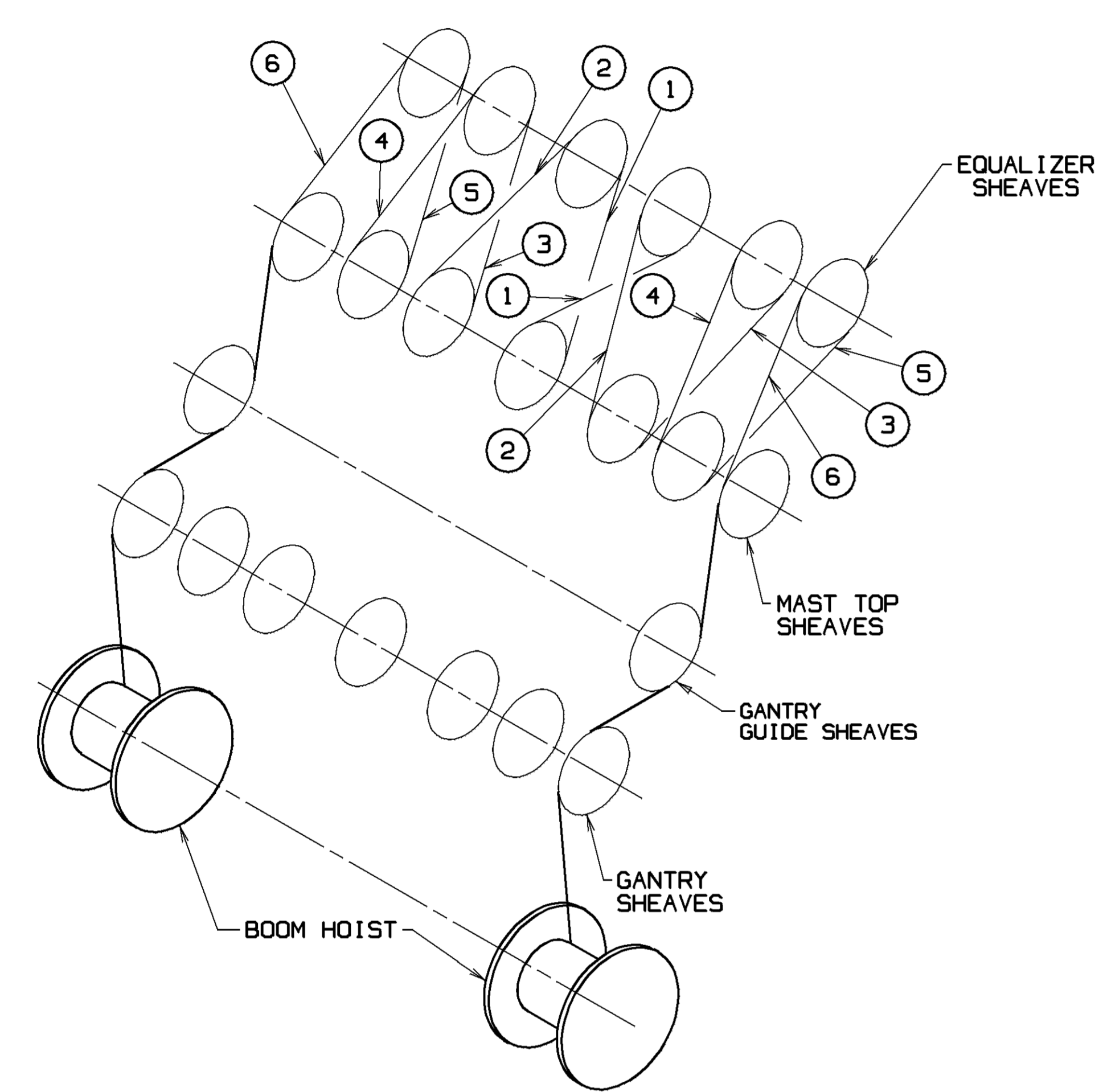
- STOWAGE TIMBERS MUST BE REMOVED FROM BOOM SECTIONS FOR CRANE OPERATION.
- REFER TO SPECIFIC CAPACITY CHART FOR APPROPRIATE BOOM AND BOOM/JIB COMBINATIONS.
 - SEE DWG. 176265 (INDICATOR ASSEMBLY P.A.T. DUMMY LOAD LINK INSTALLATION) FOR USE WITH THE P.A.T. LOAD MOMENT INDICATOR.
 - PLATFORM MUST BE REMOVED TO ASSEMBLE OR DIS-ASSEMBLE THE BOOM.
 - EQUALIZER PLATFORM ASSEMBLY ITEM 47 IS DESIGNED SOLELY TO FACILITATE PENDANT INSTALLATION AND REMOVAL. DO NOT APPLY TENSION TO BOOM HOIST LINE WHEN EQUALIZER IS PINNED TO PLATFORM.

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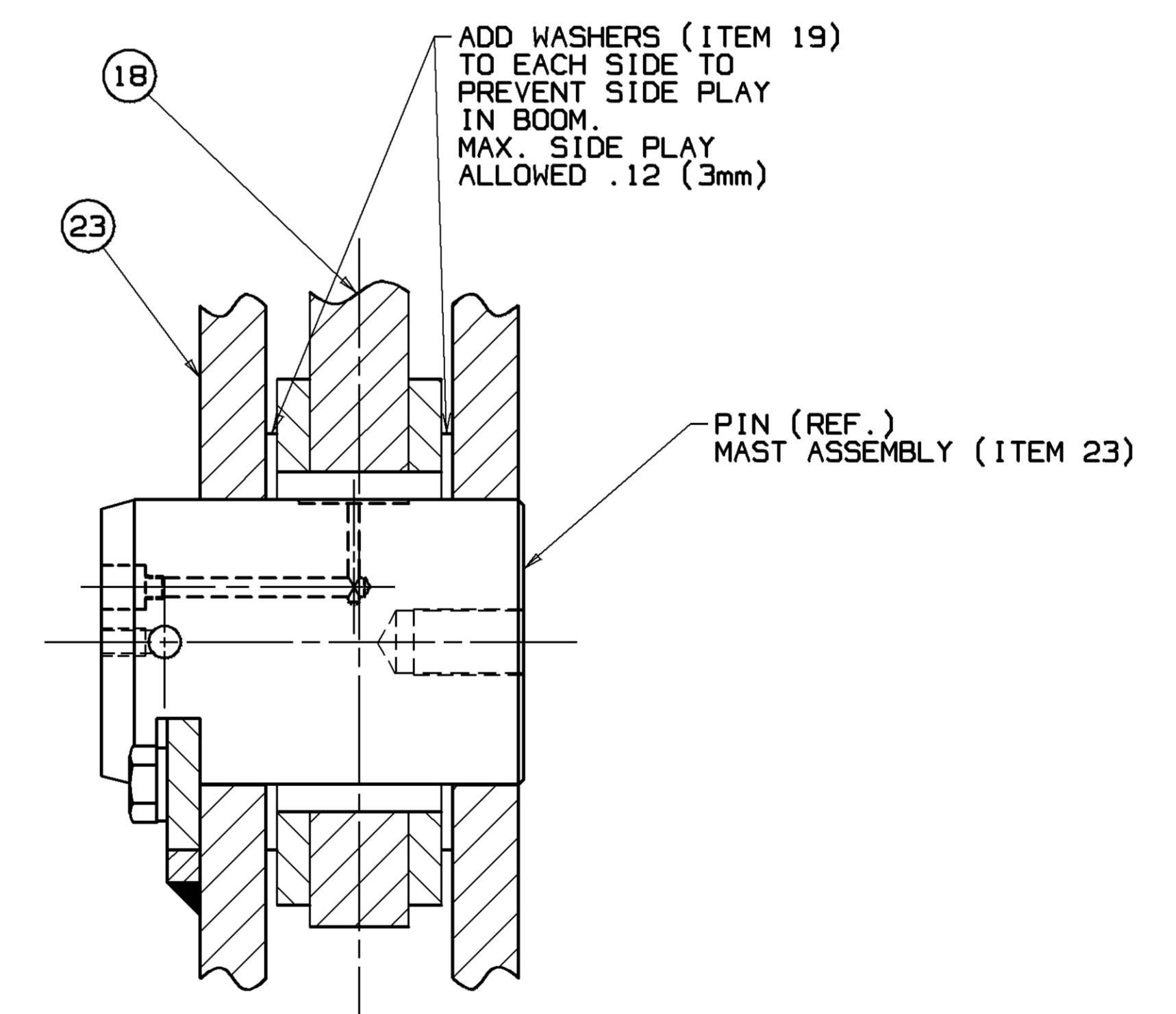
DECIMAL PLACES	FABRICATION	MACHINING
(1) PLACE 0.0	± 1.00	± 0.50
(2) PLACE 0.50	± 0.90	± 0.15
(3) PLACE 0.000	± 0.005	± 0.005
ANGLES	± 1° 30'	± 0° 30'

DATE: 12-14-94
 DRAWING NO.: 176364
 SHEET NO.: SHT 1 OF 2

MANITOWOC CRANES, INC.
 Manitowoc, Wisconsin
 MODEL-250 MAX-ER 400
 BOOM RIGGING ASSEMBLY
 #49A - 44 BOOM
 1.50 SWAGED PENDANTS
 (USA)



VIEW "A" - "A"



SECTION "B" - "B"

BOOM HOIST REEVING DIAGRAM FOR 12 PART LINE
 2150 FEET (655.3 M) OF 1.00" (26mm)-6 X 26 HARRINGTON 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 HARRINGTON 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)

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DECIMAL PLACES	FABRICATION	MACHINING	DR. LS	MANITOWOC, WISCONSIN	# 49A - 44 BOOM	DATE	12-14-94	PATTERN NO.		
(1) PLACE	± .150	± .120	DR. LS	MODEL M-250 MAX-ER 400	1.50 SWAGED PENDANTS	DATE	176364	SHT 2 OF 2		
(2) PLACE	± .080	± .015	APP TSC	(USA)		176364		SHT 2 OF 2		
(3) PLACE	± .000	± .005								
ANGLES	± .50	± .30								