

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

DWG. NO.	174425	174422	174514	171228	171229	277383 DWG. 78145	277384 DWG. 78145	174915	171697	666852	
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	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 7	
FEET	METERS										
140 BASIC	42.7	40 FT(12.19 M) OF INSERTS.	1	0	0	4	0	3	1	0	
160	48.8	40 FT(12.19 M) OF INSERTS.	1	1	0	4	0	3	2	4	
180	54.9	80 FT(24.4 M) OF INSERTS.	OR 1	0	0	8	0	5	1	0	
200	61.0	80 FT(24.4 M) OF INSERTS.	OR 1	1	0	12	0	5	2	4	
220	67.1	80 FT(24.4 M) OF INSERTS.	OR 1	2	0	8	4	5	3	8	
240	73.2	80 FT(24.4 M) OF INSERTS.	OR 1	1	1	12	4	5	4	10	
260	79.2	80 FT(24.4 M) OF INSERTS.	OR 1	2	1	8	8	5	5	14	
280	85.3	80 FT(24.4 M) OF INSERTS.	OR 1	1	2	12	8	5	6	16	
300	91.4	80 FT(24.4 M) OF INSERTS.	OR 1	2	2	8	12	5	7	20	
320	97.5	80 FT(24.4 M) OF INSERTS.	OR 1	1	3	12	12	5	8	22	
340	103.6	80 FT(24.4 M) OF INSERTS.	OR 1	2	3	4	16	5	9	26	
			1	0	4	0	20	5	9	24	

BOOM HANDLING INSTRUCTIONS

TRAVEL SPEED NOT TO EXCEED 1/2 MPH (.80 km/h)  
BOOM ANGLE AT 10° OR LESS.

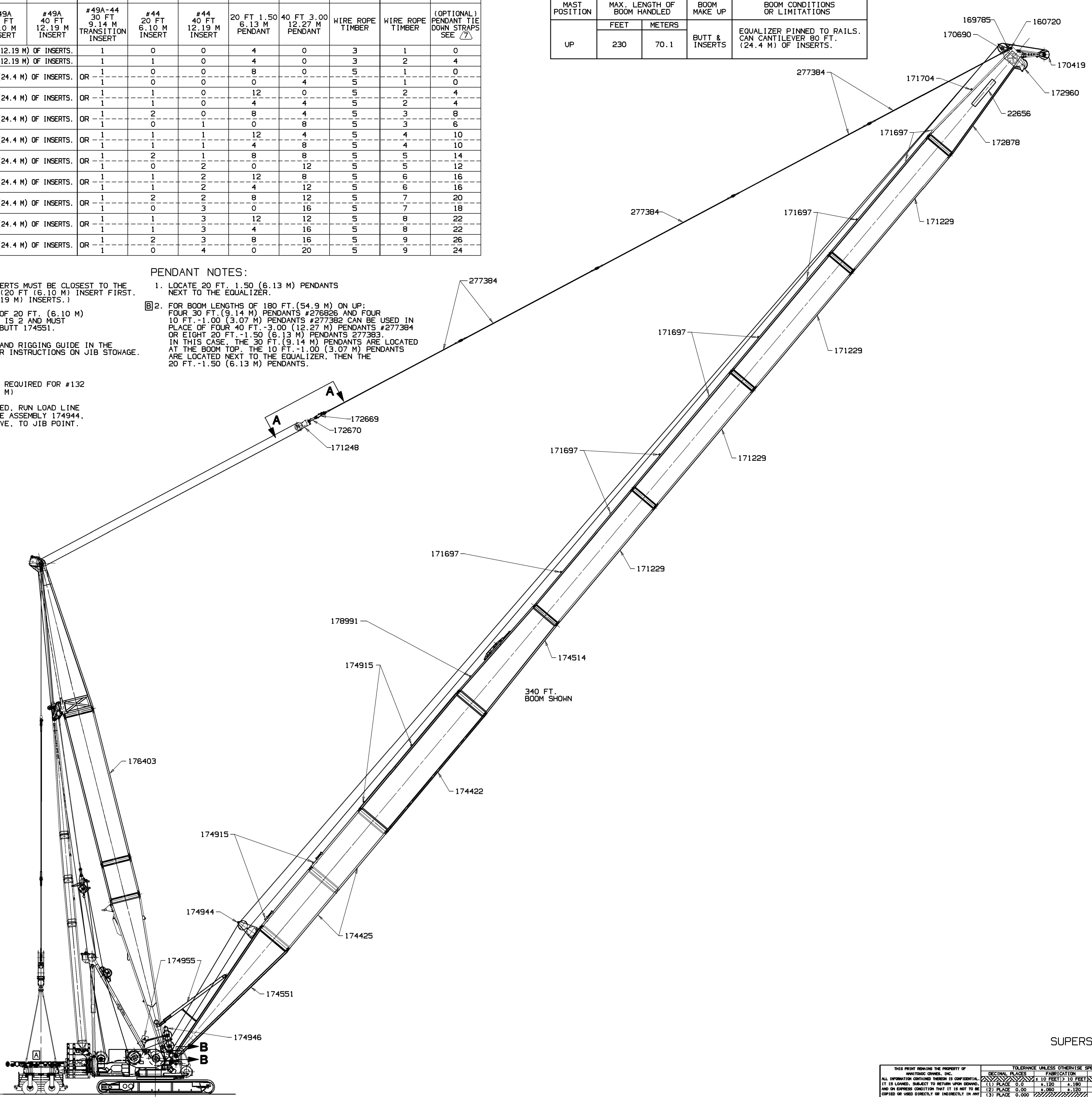
MAST POSITION	MAX. LENGTH OF BOOM HANDLED		BOOM MAKE UP	BOOM CONDITIONS OR LIMITATIONS
	FEET	METERS		
UP	230	70.1	BUTT & INSERTS	EQUALIZER PINNED TO RAILS. CAN CANTILEVER 80 FT. (24.4 M) OF INSERTS.

QTY	DESCRIPTION	MATERIAL	QTY	ASSEMBLIES USED ON
<b>140 FT. (42.7 M) BASIC BOOM</b>				
ALSO SEE REQ'D. FOR VARIOUS BOOM LENGTHS TABLE				
2	BOOM SIGN		22656	
2	END PLATE		76095	
2	PIN		160720	
1	BOOM ANGLE INDICATOR ASSEMBLY		168779	
2	PENDANT LINK		169785	
2	EQUALIZER PENDANT LINK		169834	
1	#44 BOOM TOP (30 FT.)-(9.14 M)		172878	
4	PIN		170690	
1	EQUALIZER ASSEMBLY		171248	
2	PIN		171500	
1	TIMBER (WIRE ROPE)		171704	
2	PIN		172132	
1	BOOM POINT SHAFT ASSEMBLY (LOWER)		172960	
2	PENDANT LINK		172669	
2	PENDANT LINK		172670	
2	PIN		172675	
1	#49A BOOM BUTT (40 FT.)-(12.19 M)		174551	
2	WASHERS		174904	
1	WIRE ROPE GUIDE ASSEMBLY		174944	
1	WIRE ROPE GUIDE ASSEMBLY		174946	
1	BOOM STOP ASSEMBLY		174955	
1	MAST ASSEMBLY		176403	
<b>OPTIONAL PARTS</b>				
2	PIN		139128	
1	TIMBER (JIB STORAGE)		171697	
1	BOOM POINT ASSEMBLY (UPPER)		170419	
4	PENDANT TIE DOWN STRAP		666852	

- INSERT NOTES:**
- THE SHORTER #44 INSERTS MUST BE CLOSEST TO THE TRANSITION INSERT. (20 FT (6.10 M) INSERT FIRST, THEN THE 40 FT (12.19 M) INSERTS.)
  - THE MAXIMUM NUMBER OF 20 FT. (6.10 M) #49A INSERTS 174425 IS 2 AND MUST BE LOCATED NEXT TO BUTT 174551.
  - SEE CRANE ASSEMBLY AND RIGGING GUIDE IN THE OPERATORS MANUAL FOR INSTRUCTIONS ON JIB STORAGE.

- PENDANT NOTES:**
- LOCATE 20 FT. 1.50 (6.13 M) PENDANTS NEXT TO THE EQUALIZER.
  - FOR BOOM LENGTHS OF 180 FT. (54.9 M) ON UP: FOUR 30 FT. (9.14 M) PENDANTS #276826 AND FOUR 10 FT. -1.00 (3.07 M) PENDANTS #277382 CAN BE USED IN PLACE OF FOUR 40 FT. -3.00 (12.27 M) PENDANTS #277384 OR EIGHT 20 FT. -1.50 (6.13 M) PENDANTS 277383. IN THIS CASE, THE 30 FT. (9.14 M) PENDANTS ARE LOCATED AT THE BOOM TOP. THE 10 FT. -1.00 (3.07 M) PENDANTS ARE LOCATED NEXT TO THE EQUALIZER. THEN THE 20 FT. -1.50 (6.13 M) PENDANTS.

- 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 174944, OVER JIB STRUT SHEAVE, TO JIB POINT.



- 1.125 (29mm) WIRE ROPE.
- ON DWG. 78145.
- INSTALL WITH HEAD ON BOTTOM. WIRE END PLATE SCREWS TOGETHER.
- REMOVE WHEN JIB IS USED.
- BOOM STOP SUPPORT BEAM 174960 (REF.) AND MAST 175402 MUST BE IN PLACE BEFORE INSTALLING WIRE ROPE GUIDE ASSEMBLY 174946. ASSEMBLY 174946 MUST BE REMOVED PRIOR TO LOWERING MAST.
- SEE CRANE ASSEMBLY AND RIGGING GUIDE IN THE OPERATIONS MANUAL FOR INSTRUCTIONS ON PENDANT STORAGE.
- PIN USED DURING MACHINE SET UP. IF REQUIRED. PIN TO BE STOWED FOR NORMAL CRANE OPERATION.
- USED ON BOOM TOP.

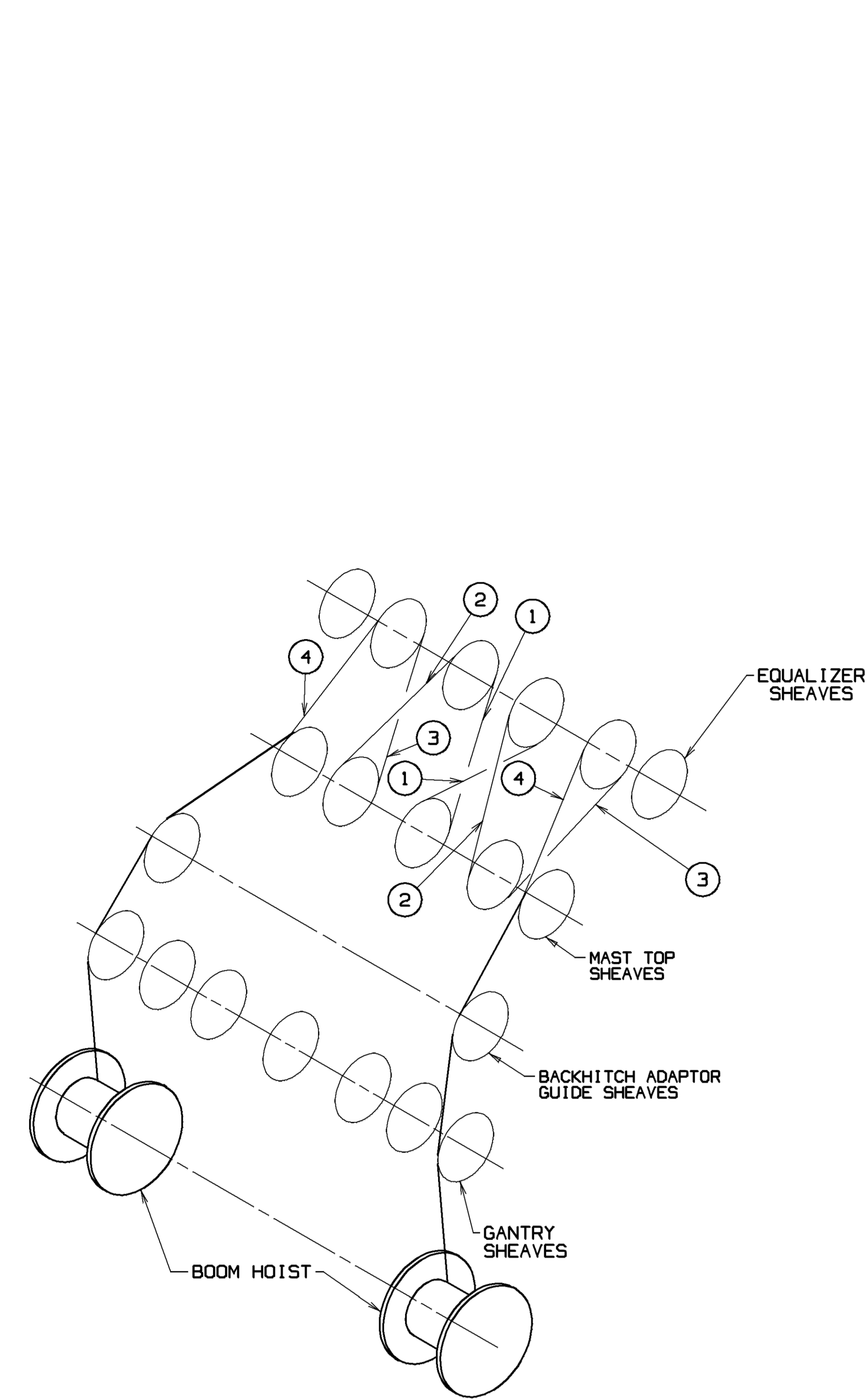
**STOWAGE TIMBER REQUIRED**

STOWAGE CASE		TIMBERS (171697)
#132 JIB IN #44 BOOM		
FEET	METERS	
40	12.19	8
60 - 120	18.29 - 36.6	16
#133 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

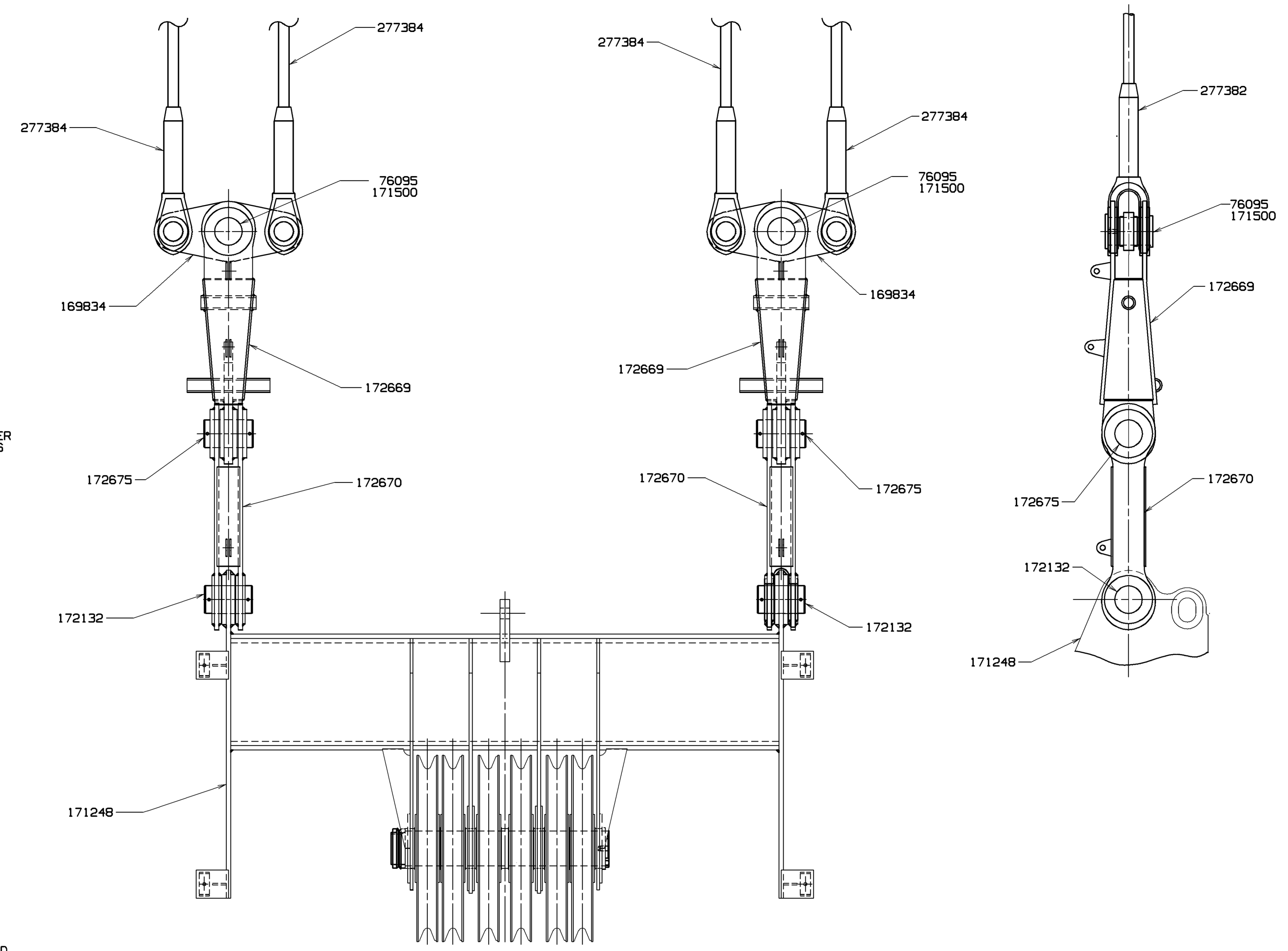
- STOWAGE TIMBERS MUST BE REMOVED FROM BOOM SECTIONS FOR CRANE OPERATION.
- REFER TO SPECIFIC CAPACITY CHART FOR APPROPRIATE BOOM AND BOOM/JIB COMBINATIONS.
  - SEE DWG. 176265 (INDICATOR ASSEMBLY P.A.T. DUMMY LOAD LINK INSTALLATION) FOR USE WITH THE P.A.T. LOAD MOMENT INDICATOR.

SUPERSEDES 175604 SHT 1 OF 2 DATED 5-26-94

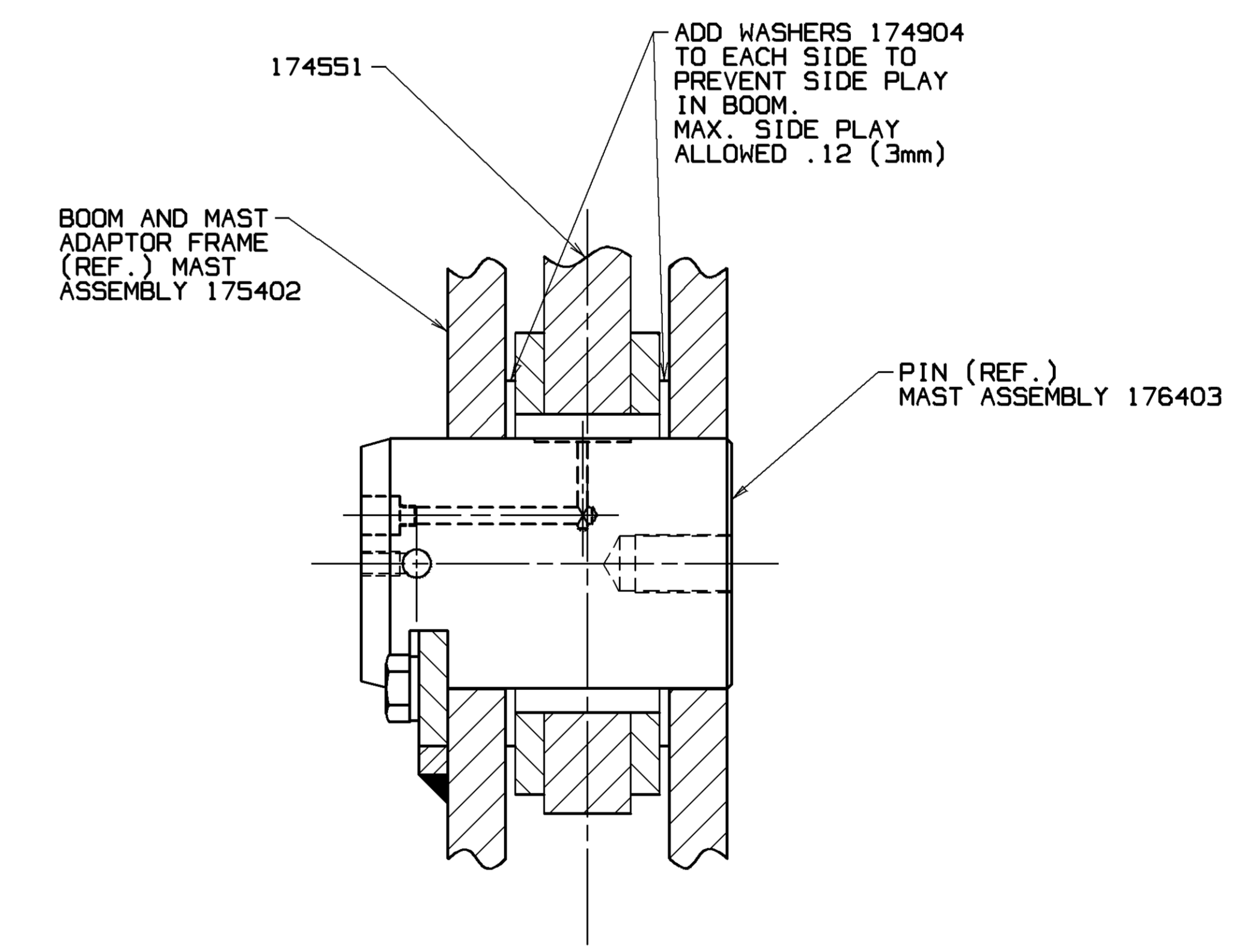
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DECIMAL PLACES	FABRICATION	MACHINING	DR. LS	MANITOWOC, WISCONSIN	BOOM RIGGING ASSEMBLY
(1) PLACE 0.0	± 1/32	± 1/32	OK. LS	MODEL-M-250 MAX-ER 225	#49A - 44 BOOM
(2) PLACE 0.50	± 0.005	± 0.015	APP. TSC	M-250 W/MAST 130 FT.	1.50 SWAGED PENDANTS
(3) PLACE 0.000	ANGLES	± 1/30			(USA)



BOOM HOIST REEVING DIAGRAM FOR 8 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)



VIEW "A" - "A"



SECTION "B" - "B"

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DECIMAL PLACES	FABRICATION	MACHINING	DR. LS	MANITOWOC CRANES, INC.	BOOM RIGGING ASSEMBLY	12-15-94					
(1) PLACE 0.0	± 1.50	± 1.00	DR. LS	Manitowoc, Wisconsin	# 49A - 44 BOOM						
(2) PLACE 0.50	± 0.80	± 1.20	DR. LS	MOD-M-250 MAX-ER 225	1.50 SWAGED PENDANTS						
(3) PLACE 0.000	± 0.005	± 0.015	APP TSC	M-250 W/MAST 130 FT.	(USA)						