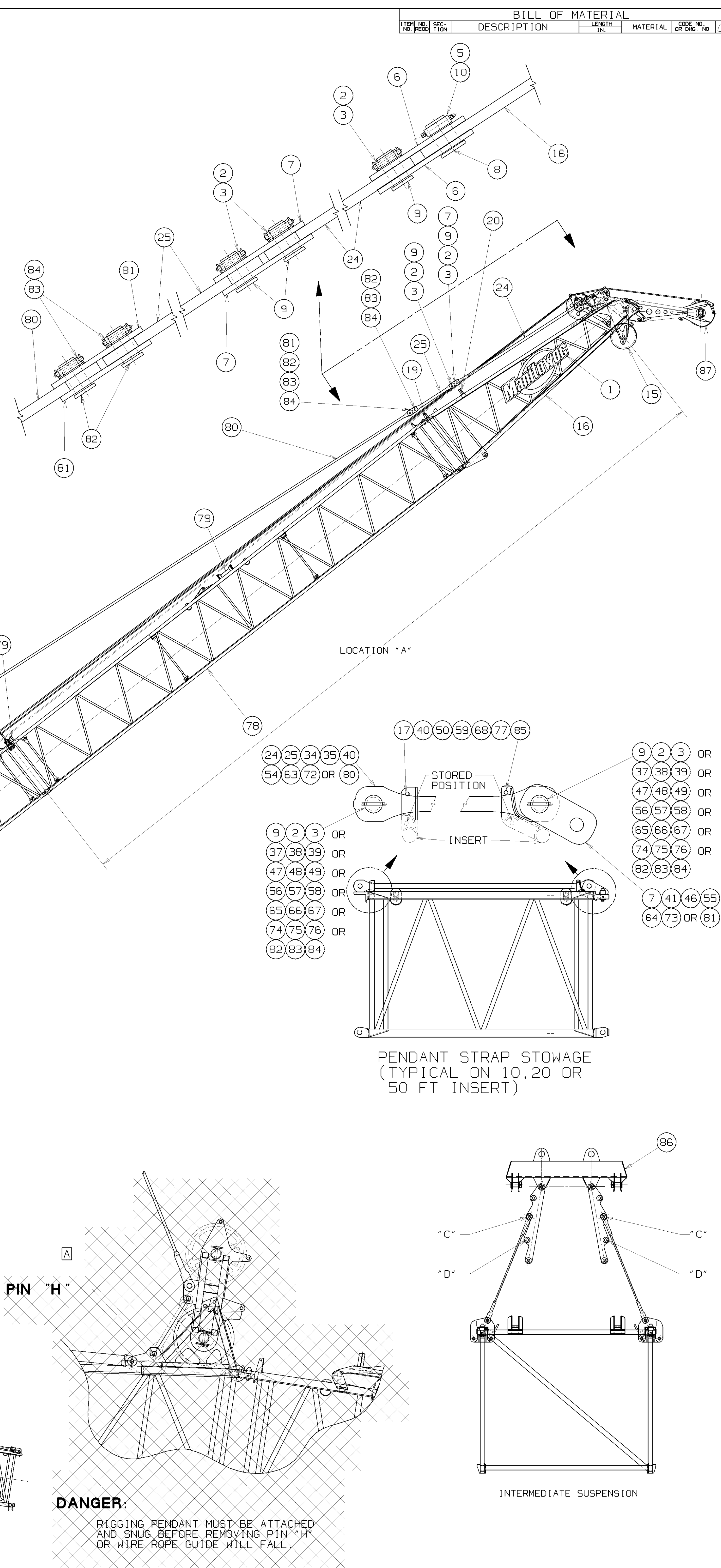
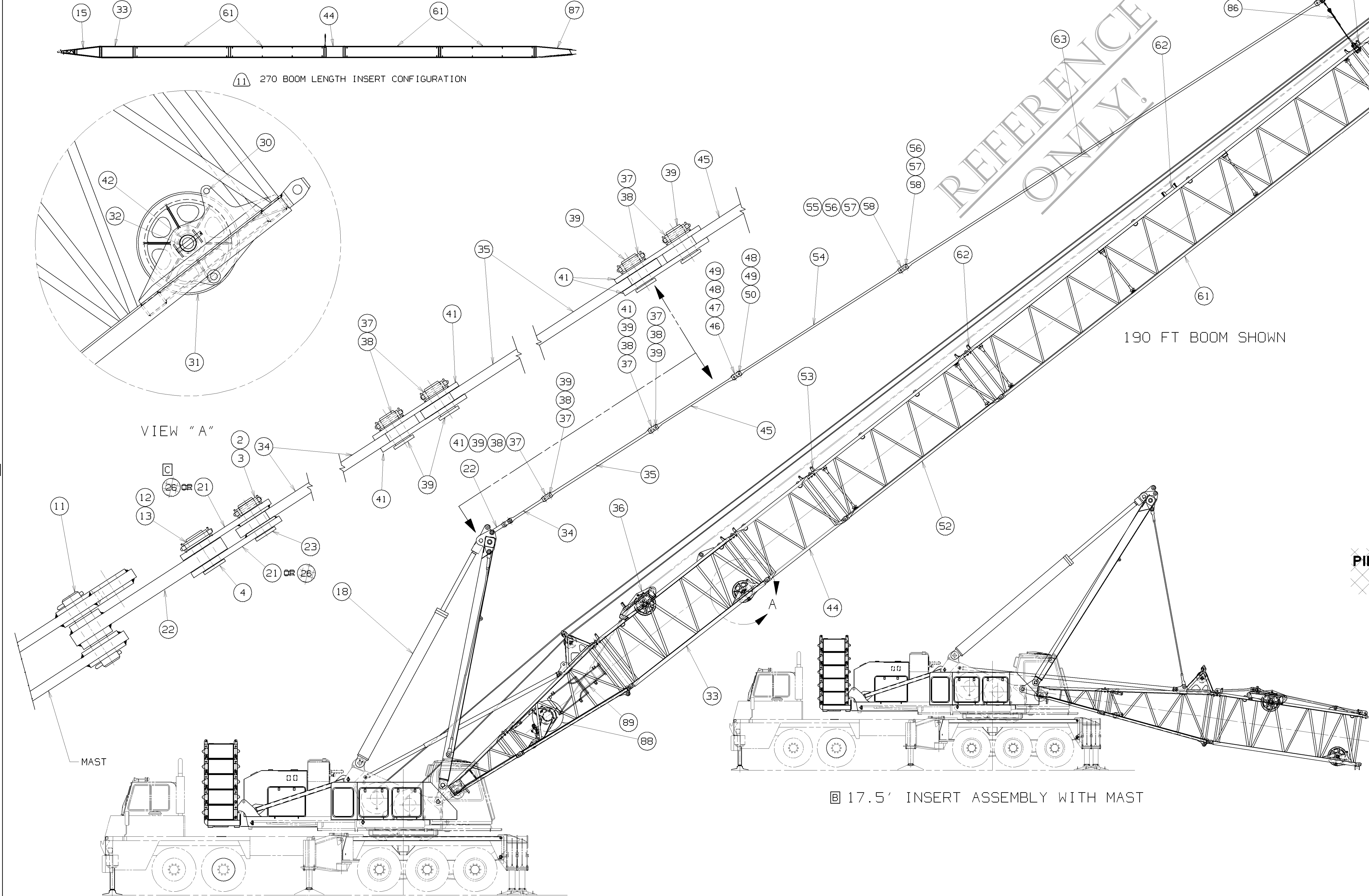


REQUIRED FOR VARIOUS BOOM LENGTHS

ITEM NO.		33	44	52 OR 70	61 OR 78	34	35	45	54 OR 72	63 OR 80	19, 53, 62, 71, OR 79	86			7, 41, 46, 55 64, 73 OR 61	9, 39, 47, 56 65, 74, OR 62	3, 38, 48, 57 66, 75, OR 63	2, 37, 49, 58 67, 76, OR 64	17, 40, 50, 59 58, 77, OR 65
BOOM LENGTH		17.5 FT 5.33 M INSERT	10 FT 3.05 M INSERT	20 FT 6.10 M INSERT	50 FT 15.24 M INSERT	4 FT 2 1.27 M STRAPS	12 FT 2 3.71 M STRAP	9 FT 5 2.87 M STRAP	19 FT 5 5.92 M STRAP	49 FT 5 15.06 M STRAP	TIMBER (PERMA POLY)	INTERMEDIATE SUSPENSION ASSEMBLY			LINK	PIN	COLLAR	PIN	STRAP STOWAGE PIN



TOLERANCE UNLESS OTHERWISE SPECIFIED		MACHINING		MATERIAL	
DECIMAL PLACES	FABRICATION	DECIMAL PLACES	FABRICATION	DESCRIPTION	QUANTITY
(1) PLACE 0.0	± 0.00	(1) PLACE 0.0	± 0.00	MANUFACTURING	1
(2) PLACE 0.00	± 0.00	(2) PLACE 0.00	± 0.00	WELDING	1
(3) PLACE 0.000	± 0.000	(3) PLACE 0.000	± 0.000	FINISH	1

REVISIONS

6-3-99 JCC
VIEWS UPDATED
8-17-99 JCC
TABLE UPDATED
3-2-00 JCC
DELETED
UPDATED
PICTURE
B WAS VIEW OF
HANDLING OF
WIRE ROPE
GUIDE FOR
TRANSPORT
4-19-01 DW
DELETED ITEM 26
7-30-01 GAO
D WAS SHT 1
OF 2

DATE
4-16-99

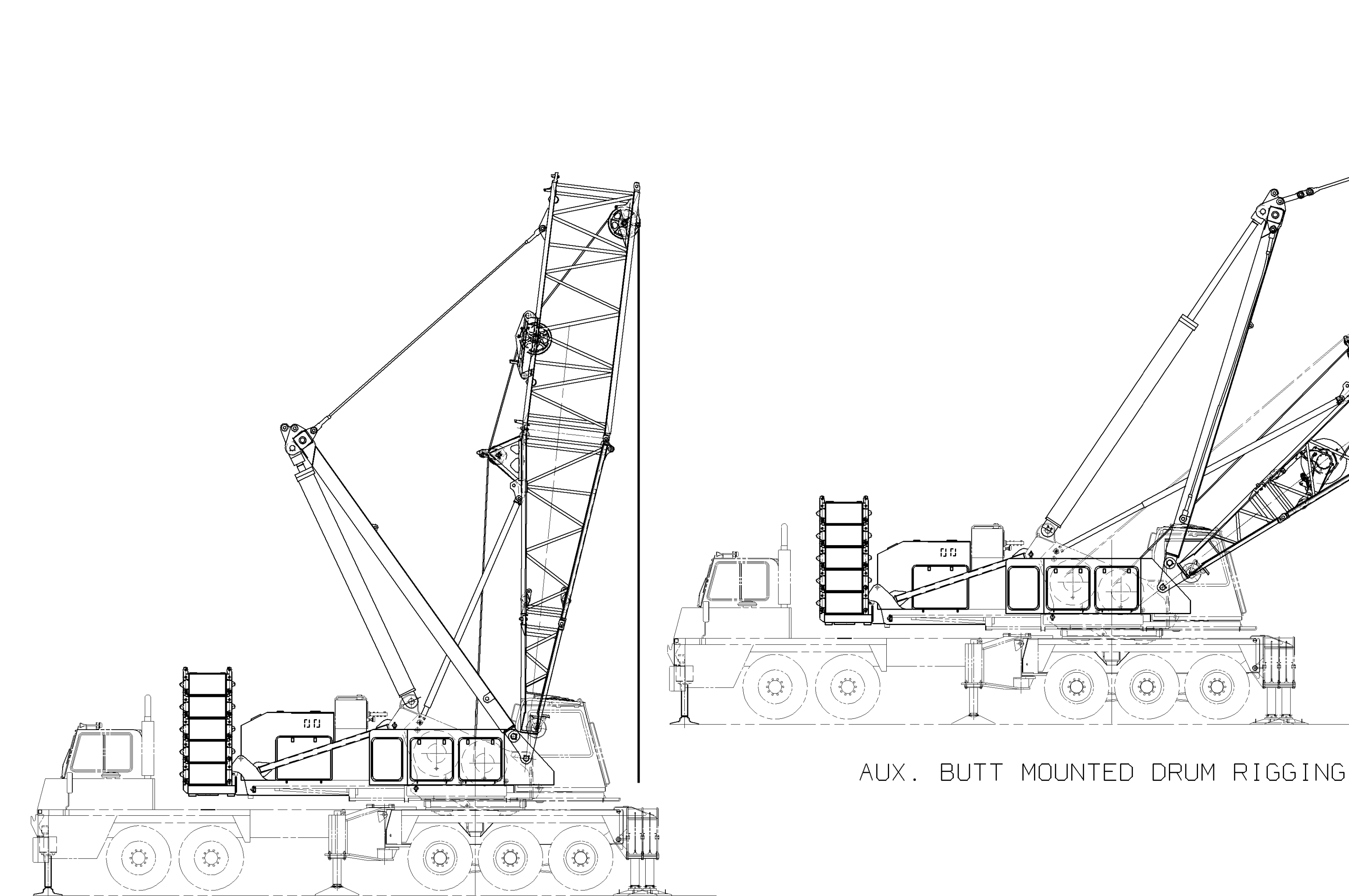
PATTERN NO.

192043

BOOM RIGGING ASSEMBLY
#78T BOOM

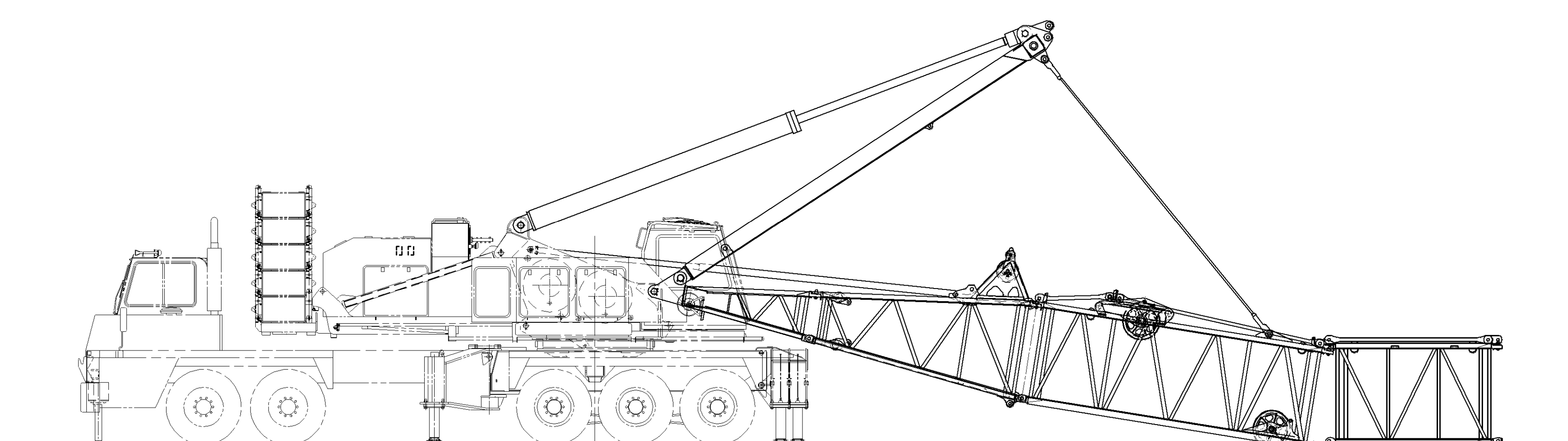
192043

SHT 1 OF 3

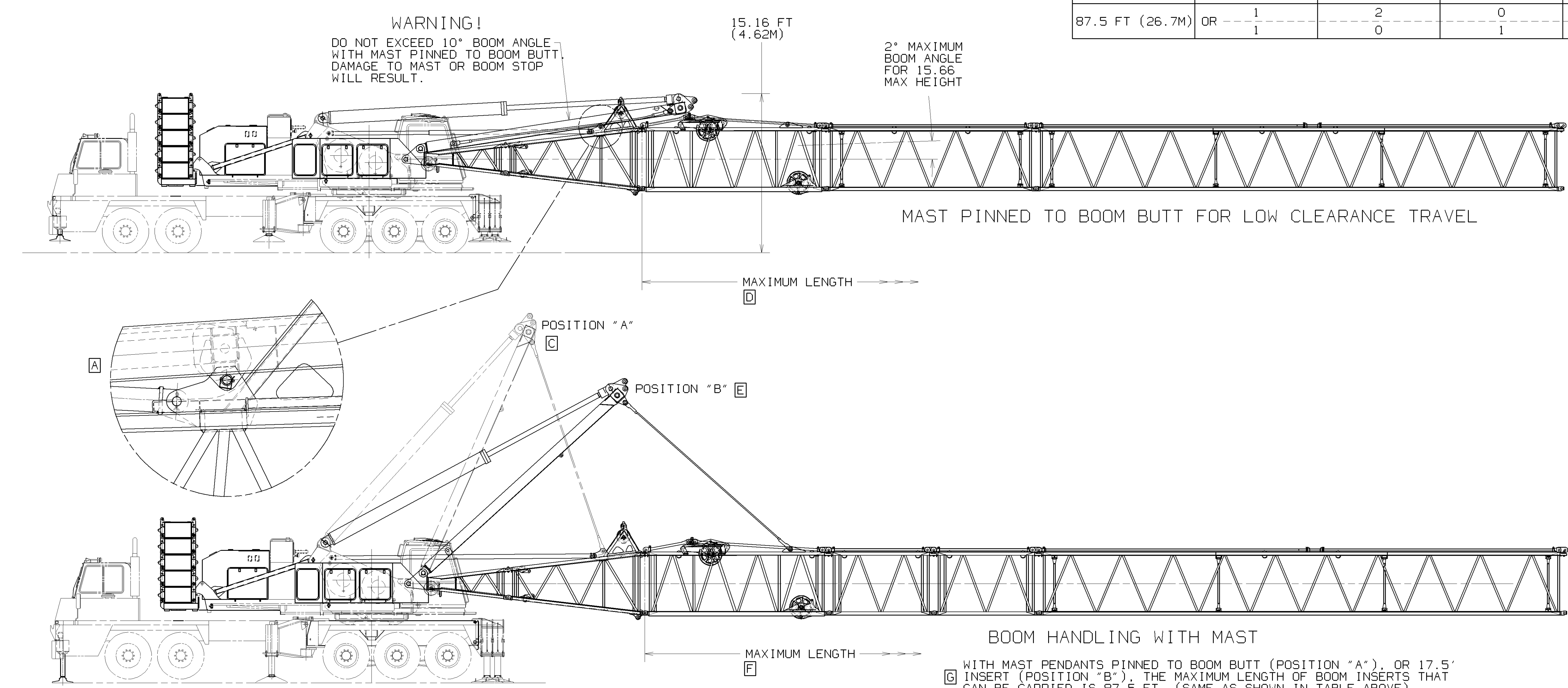


RIGGED FOR COMPONENT HANDLING

AUX. BUTT MOUNTED DRUM RIGGING



BOOM ASSEMBLY WITH MAST



BOOM HANDLING WITH MAST

WITH MAST PENDANTS PINNED TO BOOM BUTT (POSITION "A"), OR 17.5' INSERT (POSITION "B"), THE MAXIMUM LENGTH OF BOOM INSERTS THAT CAN BE CARRIED IS 87.5 FT. (SAME AS SHOWN IN TABLE ABOVE)

BILL OF MATERIAL				
ITEM NO.	REV.	DESCRIPTION	LENGTH	MATERIAL
7780-0060 INTERMEDIATE SUSPSN ASS'Y				
86	1	INTERMEDIATE SUSPENSION ASSEMBLY	193712	
OPTIONAL ASSEMBLY LIST				
87	1	UPPER BOOM POINT ASSEMBLY	170419	7
88	1	DRUM SHAFT ASSEMBLY - AUX.	179491	8
89	1	BOOM ASSEMBLY LADDER STORAGE	179678	

BOOM ASSEMBLY PROCEDURE

1. SEE SHEET 3 OF THIS DRAWING AND DRAWING 192746 FOR PROPER INSTALLATION OF BOOM BUTT TOP.
 2. ATTACH 17.5' INSERT TO BOOM BUTT. ATTACH RIGGING PENDANTS TO LUGS ON 17.5' INSERT.
 3. ASSEMBLE TOP AND INSERTS. (SEE TABLE SHEET 1)
 4. ATTACH STRAPS, INTERMEDIATE SUSPENSION, LINKS AND PINS AS REQ'D.
 5. POSITION MACHINE TO ALIGN UPPER FACT PIN CONNECTOR HOLES ON 17.5' INSERT WITH UPPER PIN CONNECTOR HOLES ON TOP OR BOOM INSERT.
 6. ENGAGE UPPER FACT PINS. CONTINUE BOOMING UP SLOWLY TO ALIGN LOWER PIN CONNECTOR HOLES ON 17.5' INSERT WITH LOWER PIN CONNECTOR HOLES IN TOP OR BOOM INSERT AND INSTALL PINS.
- WARNING: DO NOT BOOM UP AFTER LOWER FACT CONNECTORS MAKE CONTACT. IF BOOMING UP CONTINUES AFTER CONNECTORS BOTTOM OUT OR AFTER PINS ARE INSERTED, DAMAGE TO BOOM WILL OCCUR.
7. BOOM DOWN TO DISCONNECT RIGGING PENDANT FROM 17.5' INSERT AND STOW.
 8. ATTACH BOOM STRAPS TO MAST LINK.
 9. SEE INTERMEDIATE SUSPENSION DIAGRAMS ON SHEET 1 FOR 150 THROUGH 270 FT. BOOMS.
 10. BOOM UP TO DESIRED BOOM ANGLE.

TO DISASSEMBLE BOOM

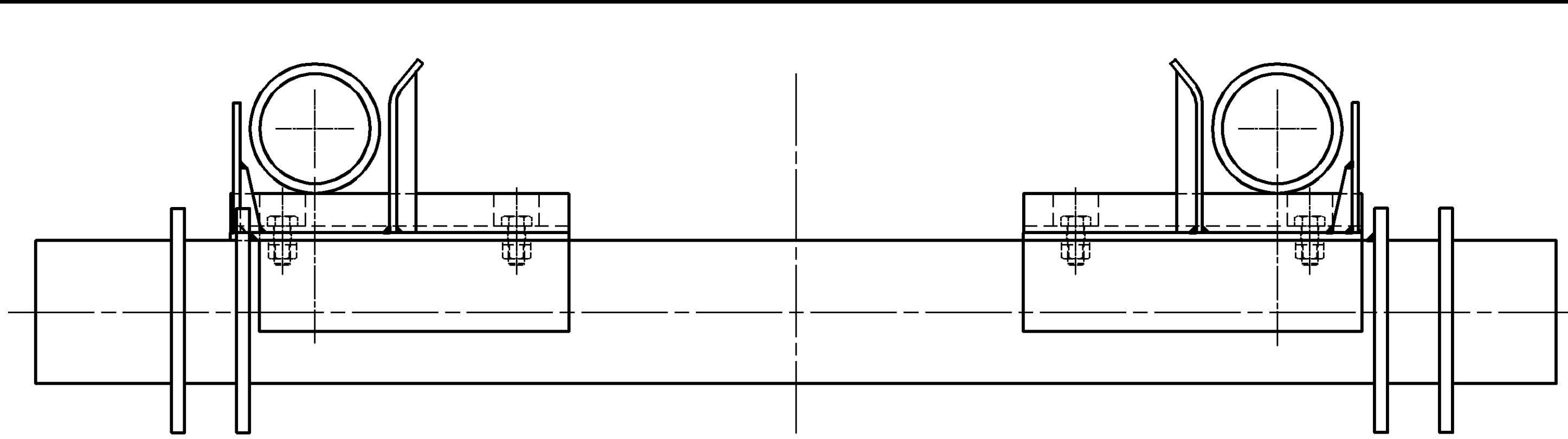
1. BOOM DOWN AND SUPPORT BOOM ON BLOCKING.
 2. DISCONNECT BOOM STRAPS FROM MAST LINKS.
 3. CONNECT RIGGING PENDANTS TO LUGS ON 17.5' INSERT.
 4. BOOM UP SLOWLY TO SUPPORT WEIGHT OF BOOM WITH RIGGING PENDANTS.
- WARNING: BOOMING UP TO SUPPORT FULL WEIGHT OF BOOM WILL DAMAGE BOOM.
5. REMOVE LOWER PIN CONNECTING 17.5' INSERT TO TOP OR INSERT.
- WARNING: BOOM MUST BE PROPERLY BLOCKED TO PREVENT SHIFTING DURING PIN REMOVAL.
6. SLOWLY BOOM DOWN TO DISENGAGE UPPER FACT CONNECTOR PINS AND BACK AWAY.
 7. SEE (HANDLING WIRE ROPE GUIDE ON SHEET 1)
 8. SEE SHEET 3 OF THIS DRAWING AND DRAWING 192746 FOR PROPER REMOVAL OF BOOM BUTT TOP. LINK 193144 MUST BE INSTALLED!

REFERENCE ONLY

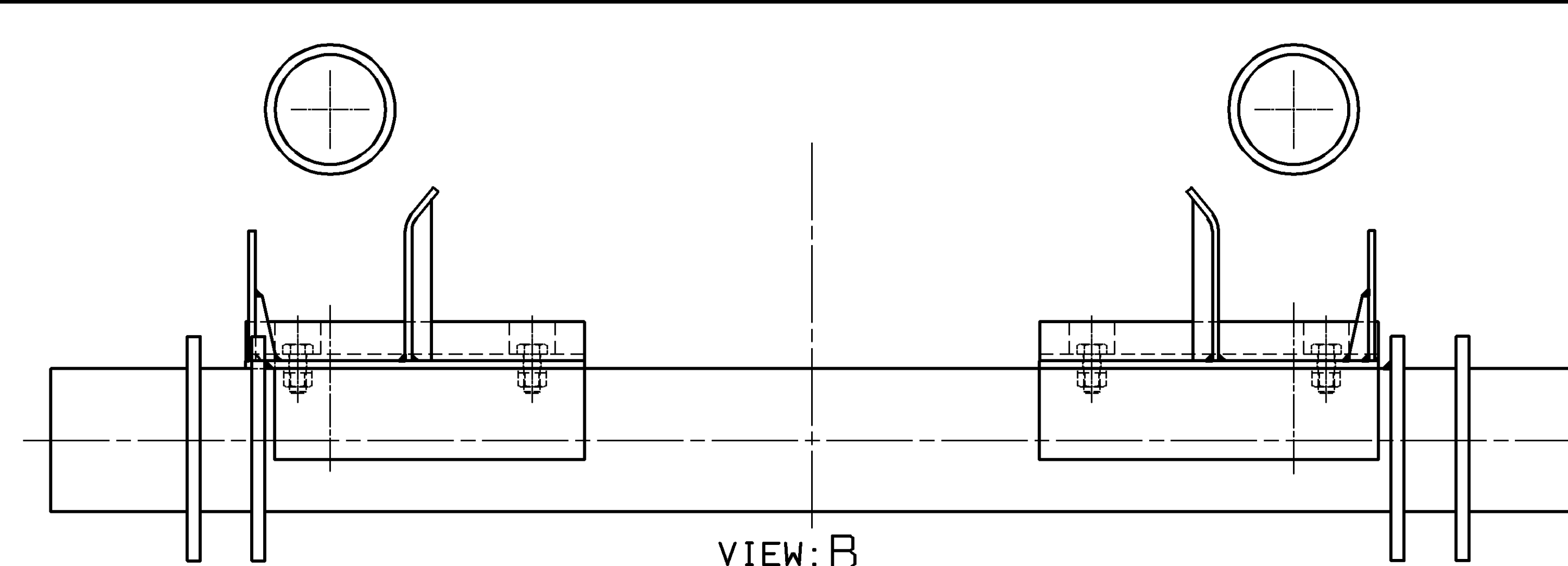
MAST PINNED TO BOOM BUTT FOR LOW CLEARANCE TRAVEL					
MAXIMUM BOOM THAT CAN BE CANTILEVERED FROM BOOM BUTT IS AS FOLLOWS:					
LENGTH	17.5 FT (5.3M)	10 FT (3.1M)	20 FT (6.1M)	50 FT (15.2M)	20.0 FT (6.10M)
	INSERT	INSERT	INSERT	INSERT	TOP
20.0 FT (6.10M) NO BLOCK	0	0	0	0	1
87.5 FT (26.7M)	OR 1 1	2 0	0 1	1 1	0 0

1. MAXIMUM NO. OF 10 FT. (3.05 M) INSERTS = 2.
2. MAXIMUM NO. OF 20 FT. (6.10 M) INSERTS = 2.
3. WHEN INTERMEDIATE SUSPENSION IS USED, PIN AND COLLAR FROM INTERMEDIATE SUSPENSION ASSEMBLY IS USED AT THIS LOCATION.
4. 17.5 FT (5.33M) INSERT MUST BE INSTALLED ADJACENT TO BOOM BUTT.
5. STARTING WITH THE 17.5 FT INSERT, INSERTS MUST BE INSTALLED IN ORDER OF ASCENDING LENGTH.
6. 6 - 30.00 DIA SHEAVES
7. JIB CANNOT BE USED WITH THIS ASSEMBLY
8. WHEN AUX. BUTT MOUNTED DRUM SHAFT ASSEMBLY (ITEM 88) IS REQUIRED, WIRE ROPE GUIDE ASSEMBLY FOR AUX. DRUM (ITEM 36) IS ALSO REQUIRED.
9. 192448 FOR S/D 7770
10. FOR 42-5 BOOM LENGTH USE LINK 193914
FOR ALL OTHER BOOM LENGTHS USE LINK 192325

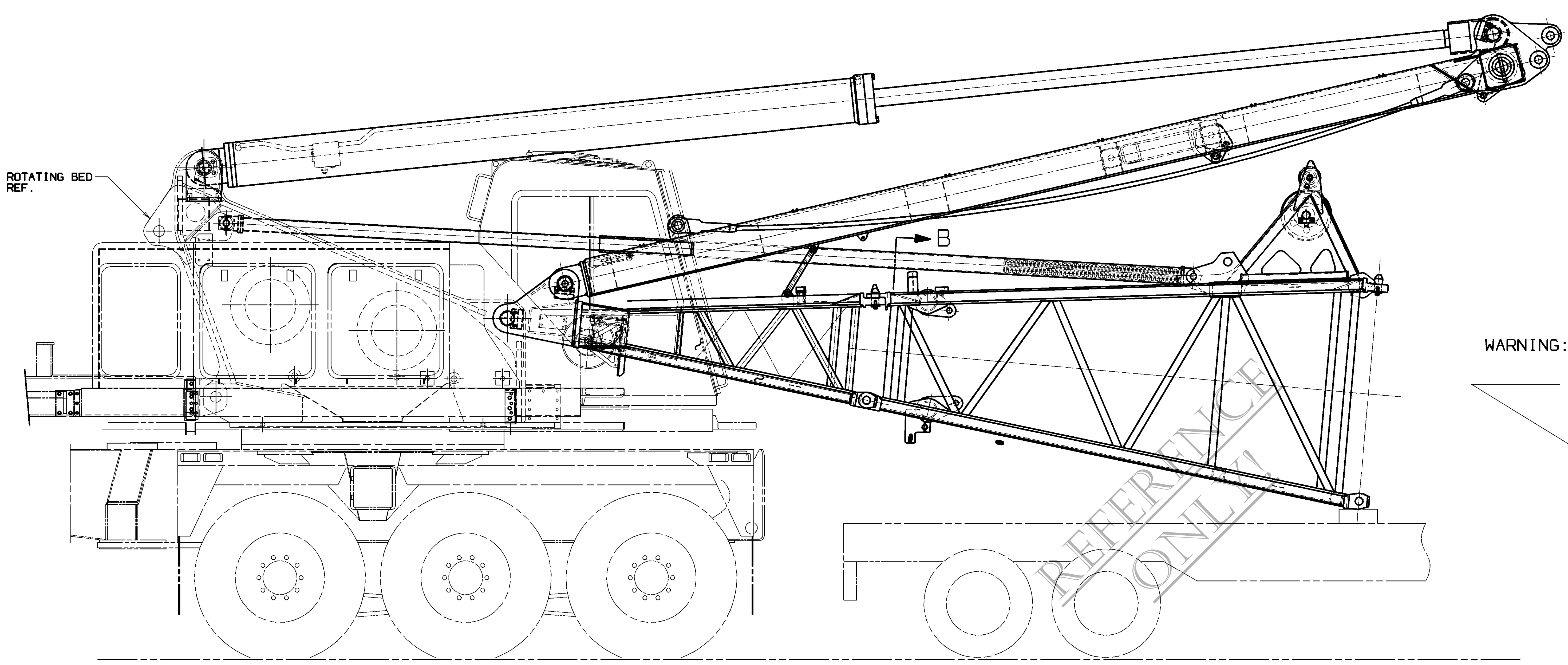
BILL OF MATERIAL					ASSEMBLIES USED IN
ITEM NO.	REV.	DESCRIPTION	LENGTH	MATERIAL	
7780-0000 BASIC BOOM 42.5 FT. (13.0M)					
1	2	BOOM SIGN	A02735		
2	8	PIN	179959		
3	8	COLLAR	179862		
4	2	PIN	192870		
5	2	COLLAR	192878		
6	4	LINK	192377		
7	4	LINK	192284		
8	2	PIN	192879		
9	6	PIN	179863		
10	2	PIN	192877		
11	2	PIN	192869		
12	2	COLLAR	179195		
13	2	PIN	179194		
14	1	WIRE ROPE GUIDE ASSEMBLY	195403		
15	1	BOOM POINT ASSEMBLY (LOWER)	192303		
16	1	BOOM TOP (20.0 FT) (6.1M)	179545		
17	2	PIN	78292		
18	1	MAST ASSEMBLY	192746		
19	1	TIMBER (PERMA POLY)	192330		
20	1	BOOM TOP STRAP SUPPORT	192174		
21	4	LINK	192325		
22	2	LINK	192324		
23	2	PIN	192871		
24	2	STRAP	192296		
25	2	STRAP	192345		
26	4	LINK	193914		
27					
28					
29					
7780-0005 INSERT 17.5 FT (5.33M)					
30	1	WIRE ROPE GUARD	193284		
31	1	SHEAVE	176712		
32	2	PIN	172277		
33	1	INSERT (17.50 FT) (5.33M)	192171	4	
34	2	STRAP	192345		
35	2	STRAP	192385		
36	1	WIRE ROPE GUIDE ASSEMBLY	192738		
37	8	PIN	179959		
38	8	COLLAR	179862		
39	8	PIN	179863		
40	4	PIN	78292		
41	8	LINK	192284		
42	1	SHAFT	192173		
43					
7780-0010 INSERT 10 FT (3.05M)					
44	1	INSERT 10 FT (3.05M)	192335		
45	2	STRAP	192293		
46	4	LINK	192284		
47	4	PIN	179863		
48	4	COLLAR	179862		
49	4	PIN	179959		
50	4	PIN	78292		
51					
7780-0020 INSERT 20 FT (6.10M)					
52	1	INSERT 20 FT (6.10M)	192336		
53	1	TIMBER (PERMA POLY)	192330		
54	2	STRAP	192294		
55	4	LINK	192284		
56	4	PIN	179863		
57	4	COLLAR	179862		
58	4	PIN	179959		
59	4	PIN	78292		
60					
7780-0030 INSERT 50 FT (15.24M)					
61	1	INSERT 50 FT (15.24M)	192072		
62	2	TIMBER (PERMA POLY)	192330		
63	2	STRAP	192295		
64	4	LINK	192284		
65	4	PIN	179863		
66	4	COLLAR	179862		
67	4	PIN	179959		
68	4	PIN	78292		
69					
7780-0040 INSERT 20 FT W/JIB BACKSTAY					
70	1	INSERT 20 FT (6.10M)	192337		
71	1	TIMBER (PERMA POLY)	192330		
72	2	STRAP	192294		
73	4	LINK	192284		
74	4	PIN	179863		
75	4	COLLAR	179862		
76	4	PIN	179959		
77	4	PIN	78292		
7780-0050 INSERT 50 FT W/JIB BACKSTAY					
78	1	INSERT 50 FT (15.24M)	192073		
79	2	TIMBER (PERMA POLY)	192330		
80	2	STRAP	192295		
81	4	LINK	192284		
82	4	PIN	179863		
83	4	COLLAR	179862		
84	4	PIN	179959		
85	4	PIN	78292		



VIEW: A
SETUP POSITION
SCALE: 3=1FT

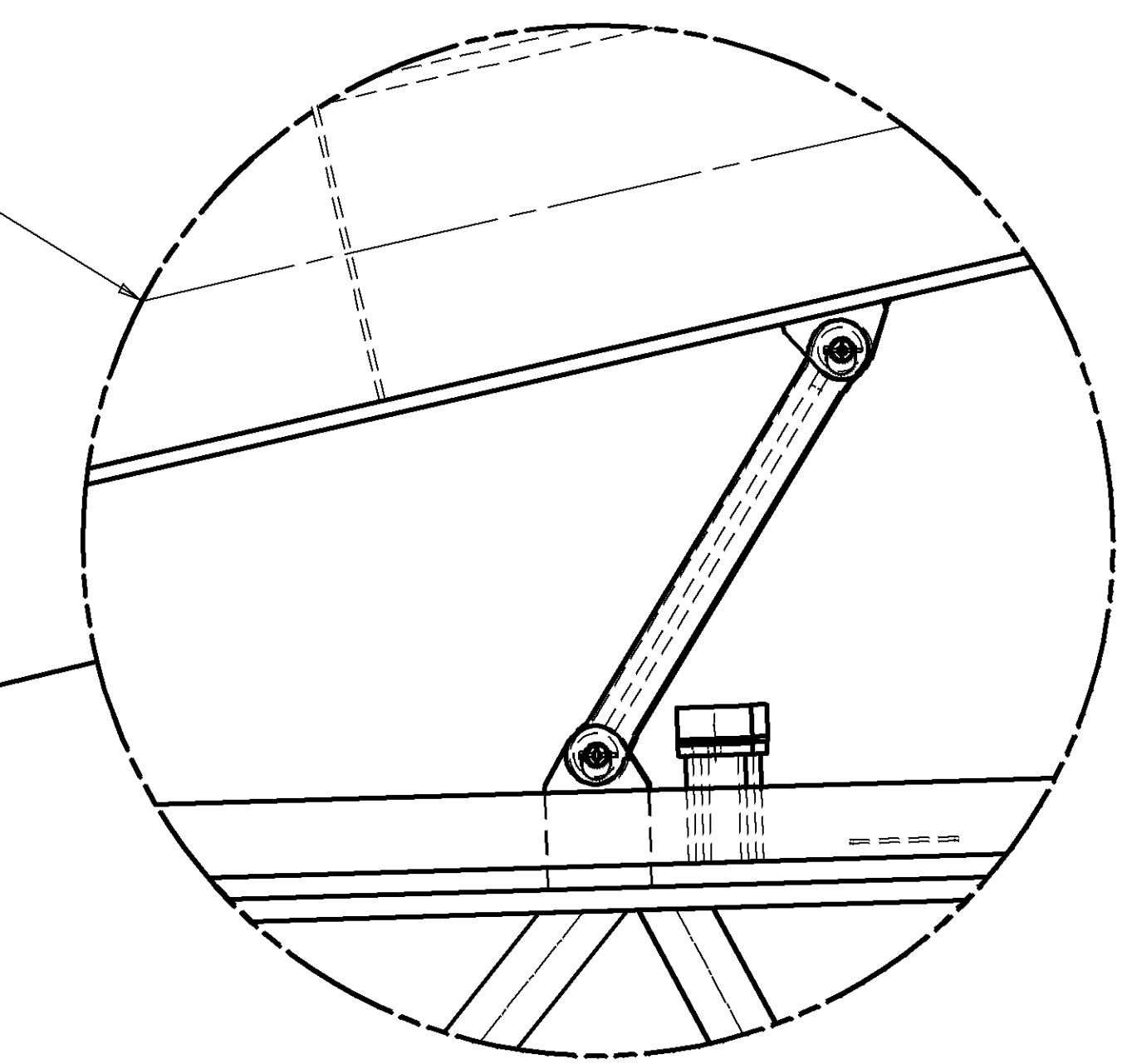


VIEW: B
OPERATING POSITION:
POSITION AFTER BOOM STOPS
ARE PINNED TO ROTATING BED.
SCALE: 3=1FT

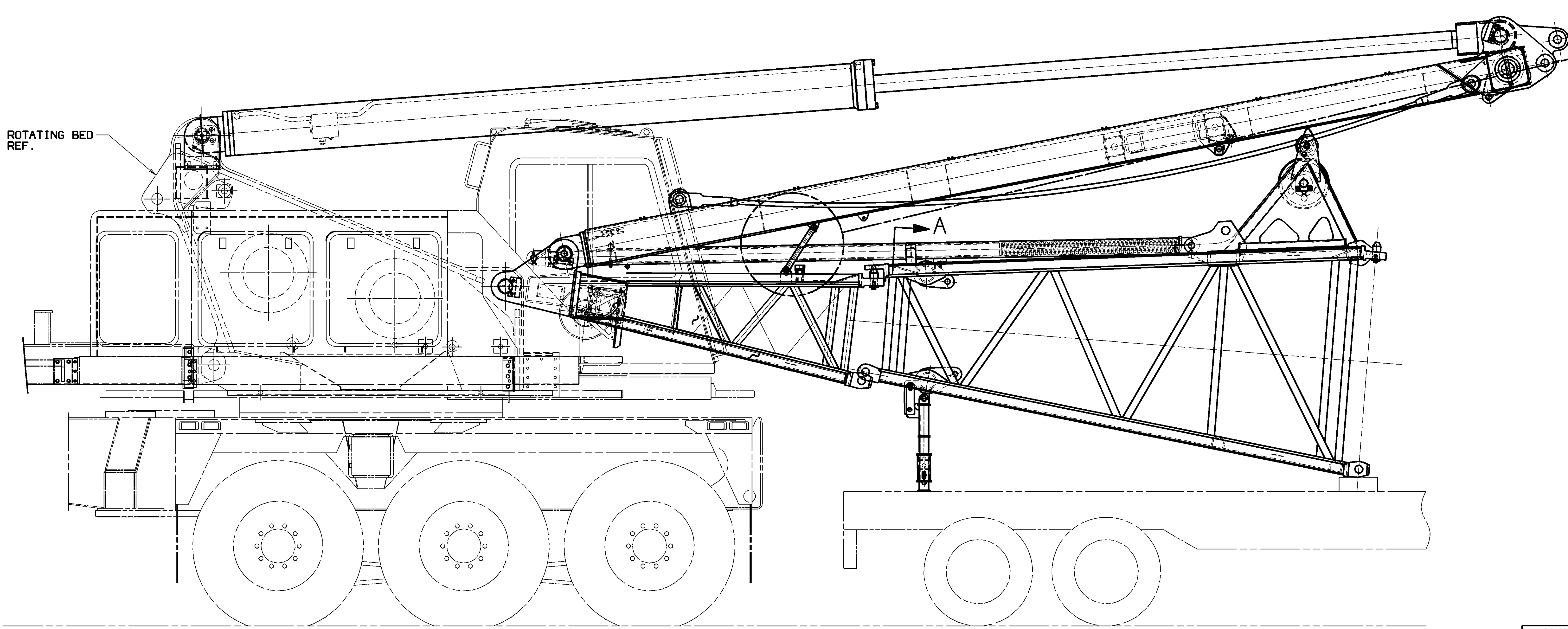


OPERATING POSITION

WARNING: LINK (193144) MUST BE INTALLED WHEN BOOM BUTT TOP (179548) IS NOT. BODILY INJURY AND OR DAMAGE TO MACHINE MAY OCCUR. PLEASE REF. DRAWING 192746 (MAST ASSEMBLY) FOR PROPER INTALLATION.



BOOM STOP AND STRAPS REMOVED FOR CLARITY



SETUP POSITION

DO NOT SCALE THIS DRAWING

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										FABRICATION		PATTERN NO.	
										MACHINING		7-30-01	
										DECIMAL PLACES		Mantowoc Cranes, Inc.	
										± 10 PERCENT		Mantowoc, Wisconsin	
										(1) PLACE 0.0		BOOM RIGGING ASSEMBLY	
										± 1.00		#78T BOOM	
										(2) PLACE 0.00			
										± 0.05			
										(3) PLACE 0.000			
										± 0.005			
										ANGLES			
										± 1°			
										± 30°			
										DR: GAO			
										CK: JAZ			
										APP: TLP			
										MODEL: 777T			
										SHEET 3 OF 3			