

ITEM NO.	DESCRIPTION	LENGTH	MATERIAL	QTY	NO.
169	DRUM SHAFT ASSEMBLY - AUXILIARY	177255	25		
170	WIRE ROPE GUIDE ASSEMBLY	177349	25		
171	BOOM ASSEMBLY LADDER STORAGE	177969			
172	BOOM BUTT SUPPORT ASSEMBLY	177055			

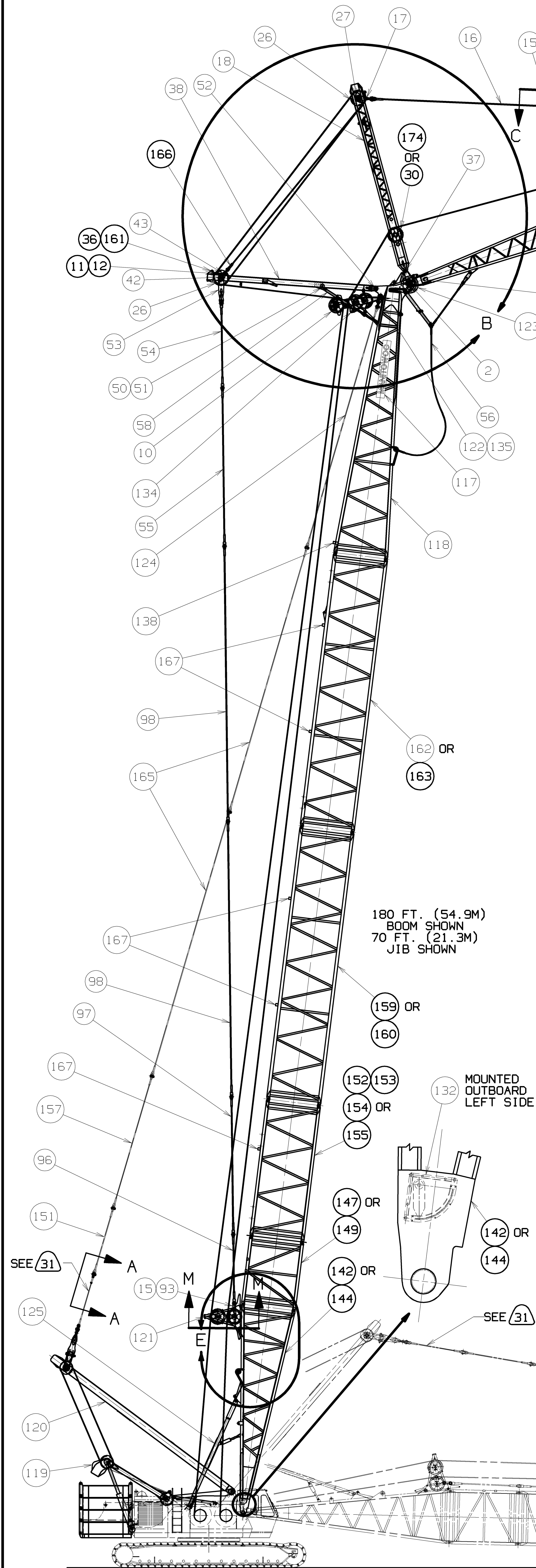
ITEM NO.	DESCRIPTION	LENGTH	MATERIAL	QTY	NO.
157	PENDANT 20 FT. (6.10M)	276862	11		
158					
159	INSERT 40 FT. (12.19M) #22(W/O JIB BKSTY)	50609	255		
160	INSERT 40 FT. (12.19M) #22E(W/O JIB BKSTY)	178756	49		
162	INSERT 40 FT. (12.19M) #22(W/JIB BKSTY)	623526	55		
163	INSERT 40 FT. (12.19M) #22E(W/JIB BKSTY)	178793	49		
165	PENDANT 40 FT. (12.19M)	276863	11		
167	TIMBER	192013			
168	TIMBER	192014	48		

ITEM NO.	DESCRIPTION	LENGTH	MATERIAL	QTY	NO.
142	BOOM BUTT #22E	176967	25		
143	BOOM BUTT #22E (AUX. DRUM)	177290	25		
144	MOD. TO BOOM BUTT #22E (176967)	421262	54		
145	MOD. TO BOOM BUTT #22E (177290)	421256	54		
146					
147	INSERT 10 FT. (3.05M) #22	33407	3		
148	INSERT 10 FT. (3.05M) #22E (AUX. DRUM)	177291	25		
149	INSERT 10 FT. (3.05M) #22E	178758	49		
150					
151	PENDANT 10 FT. (3.05M)	276861	11		
152	INSERT 20 FT. (6.10M) #22(W/O JIB BKSTY)	33426	3		
153	INSERT 20 FT. (6.10M) #22E(W/O JIB BKSTY)	178757	49		
154	INSERT 20 FT. (6.10M) #22(W/JIB BACKSTAY)	623580	19		
155	INSERT 20 FT. (6.10M) #22E(W/JIB BACKSTAY)	178794	49		
156					

ITEM NO.	DESCRIPTION	LENGTH	MATERIAL	QTY	NO.
117	BOOM SIGN	22656			
118	BOOM TOP 40 FT. #22L	196142	6		
119	GANTRY ASSEMBLY	176396			
120	MAST ASSEMBLY	176397			
121	WIRE ROPE GUIDE ASSEMBLY	176985			
122	PENDANT LINK	177209			
123	LOWER BOOM POINT SHAFT ASSEMBLY	177042	7		
124	PENDANT BASIC 36 FT. -6.00 (11.1 M)	277425	12		
125	BOOM STOP ASSEMBLY	176601			
126	CLAMP	345678			
127	TIMBER	176831			
128					
129					
130	SCREW CAP HEX .50-13UNC X 5.50 LG.	612583			
131	WASHER FLAT .50	709460			
132	BOOM ANGLE INDICATOR ASSEMBLY	168779			
133					
134	WIRE ROPE GUIDE ASSEMBLY	177191			
135	PIN	177242			
136	LINK	177609	40		
137	PIN	177613	40		
138	TIMBER (TOP)	177236			
139					
140					
141					

ITEM NO.	DESCRIPTION	LENGTH	MATERIAL	QTY	NO.
88	2PIN	170630	22		
89					
BASIC JIB 70 FT. (21.3M) CONTINUED					
1610-0060 PENDANTS & LINKS - JIB BACKSTAY BOOM LENGTHS 70-90 FT. (21.3-27.4M)					
90	2PENDANT LINK 39.00 (991mm)	177569	30		
91	2PENDANT 10 FT. (3.05M)	276823	24		
92					
1610-0070 LINKS - JIB BACKSTAY BOOM LENGTHS 100-200 FT. (30.5-61.0M)					
93	2PENDANT LINK 11.00 (279mm)	177570	30		
94					
1610-0080 PENDANT 10 FT. (3.05M) JIB BACKSTAY FOR USE WITH 10 FT. BOOM INSERT					
96	2PENDANT 10 FT. (3.05M)	276823	24		
1610-0090 PENDANT 20 FT. (6.10M) JIB BACKSTAY FOR USE WITH 20 FT. BOOM INSERT					
97	2PENDANT 20 FT. (6.10M)	276825	24		
1610-0100 PENDANT 40 FT. (12.19M) JIB BACKSTAY FOR USE WITH 40 FT. BOOM INSERT					
98	2PENDANT 40 FT. (12.19M)	276892	24		
99					

ITEM NO.	DESCRIPTION	LENGTH	MATERIAL	QTY	NO.
1610-0000	BASIC JIB 70 FT. (21.3M)				
SEE TABLE OF COMPONENTS FOR VARIOUS JIB LENGTHS					
1	127 FT. BUTT			177053	
2	2PIN			177479	
3	6PIN KEEPER			169810	
4	2BAR - .50 X 1.00 X 6.00 LG.			221009	44
5	1ADAPTER ASSEMBLY			177493	
6	123 FT. TOP			177560	
7	2BOOM SIGN			22656	
8	1JIB POINT ROLLER ASSEMBLY-2 SHEAVE			177448	
9	2PENDANT PIN			137919	29
10	1WIRE ROPE GUIDE ASSEMBLY			177612	
11	2STRUT			177634	
12	4PIN			172937	
13	2PENDANT 20 FT. (6.10M)			276825	24
14	2PENDANT LINK 24.00 (610mm)			177553	30
15	4PIN			170690	22
16	2PENDANT 25 FT. -11.00 (7.90M)			277437	38
17	1LINK SUB-ASSEMBLY			177481	
18	1JIB STRUT			177443	
19	4BEARING LOCKNUT			225105	13
20	2BEARING LOCKWASHER			225111	
21	4SPACER			170677	
22	10SLEEVE			177107	
23	10WASHER			177108	
24	1LINK			177639	
25	1PENDANT 11 FT. -3.00 (3.43M)			277241	
26	8SHEAVE ASSEMBLY			171693	
27	1SHAFT			177457	
28	1SHAFT			177456	
29	2PIN - HITCH .88 X 7.00 LG.			563699	
30	1SHEAVE ASSEMBLY			176799	
31	4CLAMP			174844	
32	4SCREW CAP .625-11UNC X 6.50 LG.			612691	42
33	6WASHER LOCK .625			710307	
34	12NUT ST. HEX .625-11UNC			546058	
35	2PIN			14902	3
36	1ROLLER			602170	
37	2PIN			176155	
38	1MAIN STRUT			177439	
39	1SPACER			177472	
40	2SPACER			171554	
41	1SPACER			177471	
42	1SHAFT			177458	
43	1LINK SUB-ASSEMBLY			179958	
44	1PIN			75368	
45	1WEDGE SOCKET			75298	
46	1WEDGE			75447	
47	1CLIP - WIRE ROPE			349291	
48	1ROLLER			177640	
49	1PIN COTTER STEEL .375 X 3.00 LG.			562150	
50	1PIN			13368	
51	3ROLLER			602162	
52	2PIN			143491	
53	1LINK SUB-ASSEMBLY			177565	
54	2PENDANT 12 FT. -3.00 (3.73M)			277439	30
55	2PENDANT 23 FT. (7.01M)			277440	30
56	1JIB STOP ASSEMBLY			177561	
57	1JIB STOP & ANGLE IND. ASSEM. (AUTO)			177573	
58	2STRUT STOP TUBE ASSEMBLY			177590	
59	1WIRE ROPE GUIDE FRAME ASSEMBLY			179379	56
60	124.00 DIA. SHEAVE ASSEMBLY			177636	
61	2CLAMP			177633	
62	2SCREW CAP HEX .625-11UNC X 6.00 LG.			612689	42
161	1SHAFT			178149	
166	1WEDGE/SOCKET ASSEMBLY 1.00 WIRE ROPE			646246	
173	10SHIM			A00038	60
174	1SHEAVE WIRE ROPE ASSY			81007542	

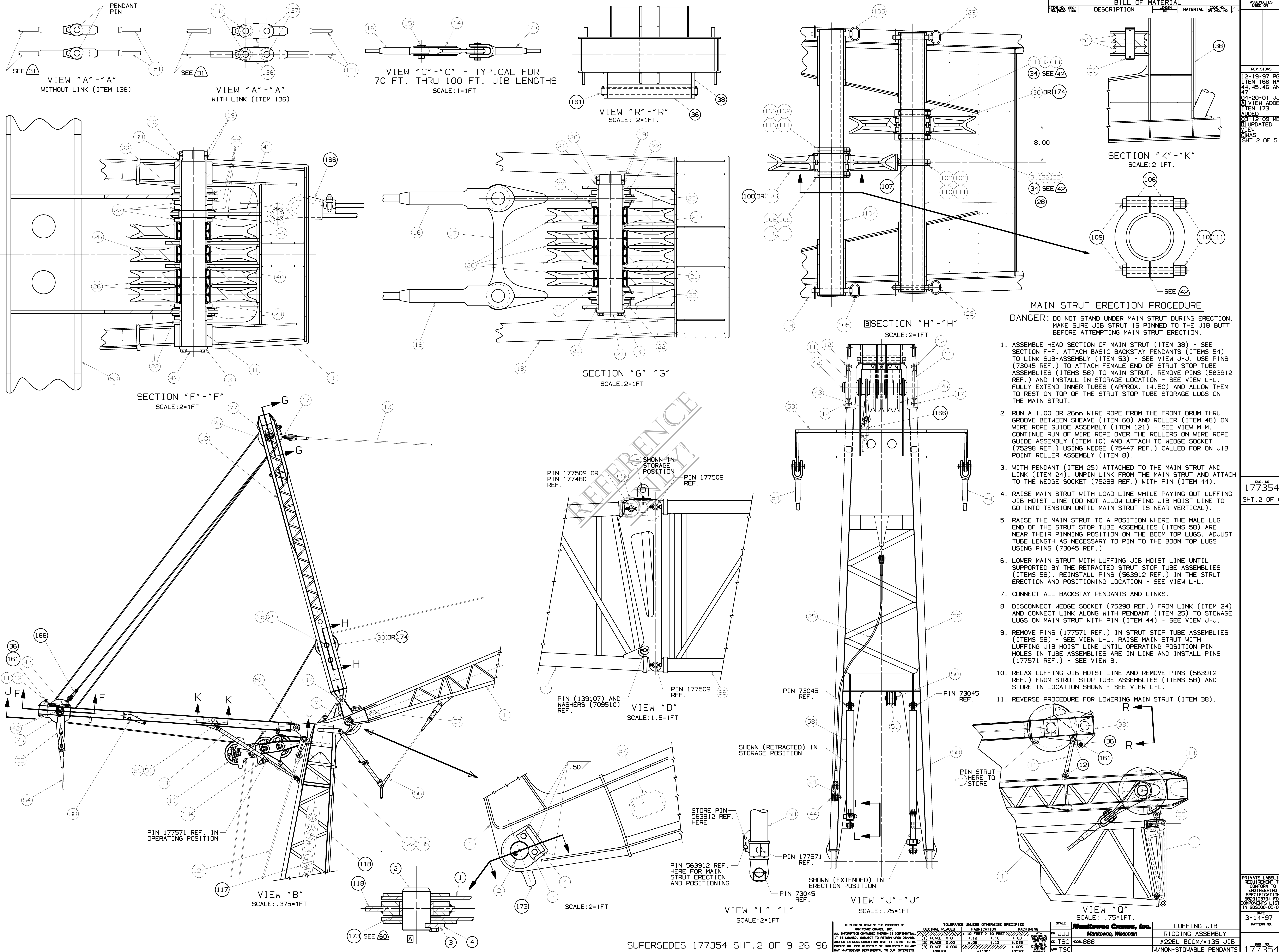


INSERTS, PENDANTS, ROLLER GUIDES, LINKS & PINS REQ'D. FOR VARIOUS JIB LENGTHS

ITEM NO.	63	69	75 OR 81	64 DWG. 78145	70 DWG. 78145	76 OR 82 DWG. 78145	66,72 DWG. 78 OR 84	67,73 DWG. 79 OR 85	14	15
JIB LENGTHS	10 FT 3.05 M INSERT	20 FT 6.10 M INSERT	40 FT 12.19 M INSERT	10 FT 3.05 M PENDANT	20 FT 6.10 M PENDANT	40 FT 12.19 M PENDANT	WIRE ROPE TIMBER	BOOM JOINT PIN	PENDANT LINK 24.00 (610mm)	PIN
FEET	METERS									
70	21.3	0	1	0	0	2	0	1	4	2
80	24.4	1	1	0	2	2	0	2	8	2
90	27.4	OR 0	2	0	0	4	0	2	8	2
100	30.5	OR 1	2	0	2	4	0	3	12	2
110	33.5	0	1	1	0	2	2	3	8	2
120	36.6	1	1	1	2	2	2	4	12	0
130	39.6	OR 0	2	1	0	4	2	4	12	0
140	42.7	OR 1	2	1	2	4	2	5	16	0
150	45.7	0	1	2	0	2	4	5	12	0
160	48.8	1	1	2	2	2	4	6	16	0
170	51.8	OR 0	2	2	0	4	4	6	16	0

INSERTS, PENDANTS, AND ROLLER GUIDES REQUIRED FOR VARIOUS BOOM LENGTHS

INSERTS, PENDANTS, AND ROLLER GUIDES REQUIRED FOR VARIOUS BOOM LENGTHS											JIB BACKSTAY PENDANTS, LINKS & PINS REQUIRED FOR VARIOUS BOOM LENGTHS						
ITEM NO.		147, 148, OR 149	152, 153, 154 OR 155	159, 160, 162 OR 163	151 DWG. 76280	157 DWG. 76280	165 DWG. 76280	167 OR 168	136	137	91 & 96	97	98	90	93	87	15 & 88
BOOM LENGTH		10 FT 3.05 M INSERT SEE (17)	20 FT 6.10 M INSERT SEE (18)	40 FT 12.19 M INSERT SEE (3)	10 FT 3.05 M PENDANT	20 FT 6.10 M PENDANT	40 FT 12.19 M PENDANT	WIRE ROPE TIMBER	9.00 0.23 M LINK	PIN	10 FT 3.05 M PENDANT SEE (39)	20 FT 6.10 M PENDANT SEE (39)	40 FT 12.19 M PENDANT SEE (39)	PENDANT LINK 39.00 (991mm)	PENDANT LINK 11.00 (279mm)	PENDANT LINK 24.00 (610mm)	PIN
FEET	METERS																
70	21.3	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2
80	24.4	1	0	0	4	0	0	0	0	0	OR 4 0	0 2	0 0	2 2	0 0	0 0	2 2
90	27.4	OR 2 0	0 1	0 0	8 0	0 4	0 0	0 1	0 0	0 0	OR 6 2	0 2	0 0	2 2	0 0	0 0	2 2
100	30.5	1	1	0	4	4	0	1	0	0	2	2	0	0	2	2	4
110	33.5	OR 2 0	1 2	0 0	8 0	4 8	0 0	1 2	0 0	0 0	OR 4 0	2 4	0 0	0 0	2 2	2 2	4 4
		OR 0 1	0 1	0 1	0 0	0 0	4 4	2 2	0 0	0 0	OR 0 0	0 0	2 2	0 0	2 2	2 2	4 4
120	36.6	OR 1 1	2 0	0 1	4 4	8 0	0 4	2 2	0 0	0 0	OR 2 2	4 0	0 2	0 0	2 2	2 2	4 4
130	39.6	OR 2 0	0 1	1 1	8 0	0 4	4 4	2 3	0 0	0 0	OR 4 0	0 2	2 2	0 0	2 2	2 2	4 4
140	42.7	1	1	1	4	4	4	3	0	0	2	2	2	0	2	0	2
150	45.7	OR 2 0	1 2	1 1	8 0	4 8	4 4	3 4	0 0	0 0	OR 0 4	2 4	4 2	0 0	2 2	0 0	2 2
		OR 0 0	0 0	2 2	0 0	0 0	8 8	4 4	0 0	0 0	OR 4 0	2 2	2 2	0 0	2 2	0 0	2 2
160	48.8	OR 1 1	2 0	1 2	4 4	8 0	4 8	4 0	0 0	0 0	OR 2 0	4 0	2 4	0 0	2 2	0 0	2 2
170	51.8	OR 2 0	0 1	2 2	8 0	0 4	8 8	4 5	0 0	0 0	OR 4 0	0 2	4 4	0 0	2 2	0 0	2 2
180	54.9	1	1	2	4	4	8	5	0	0	2	2	4	0	2	0	2
190	57.9	OR 2 0	1 2	2 2	8 0	4 8	4 12	5 6	4 4	8 8	OR 4 0	2 4	4 6	0 0	2 2	0 0	2 2
		OR 0 0	0 0	3 3	0 0	0 0	0 12	6 6	4 4	8 8	OR 0 0	4 4	6 6	0 0	2 2	0 0	2 2
200	61.0	OR 1 1	2 0	2 3	4 4	8 0	8 12	6 6	4 4	8 8	OR 2 0	4 4	4 6	0 0	2 2	0 0	2 2



BILL OF MATERIAL				REVISIONS	
ITEM NO.	QTY	DESCRIPTION	MATERIAL	DATE	BY

12-19-97	PGD	ITEM 166 WAS			
44-45-46	AND				
47					
04-20-01	JJJ	VIEW ADDED			
ITEM 173		ADDED			
03-12-09	MER	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			

12-19-97	PGD	ITEM 166 WAS			
44-45-46	AND				
47					
04-20-01	JJJ	VIEW ADDED			
ITEM 173		ADDED			
03-12-09	MER	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			

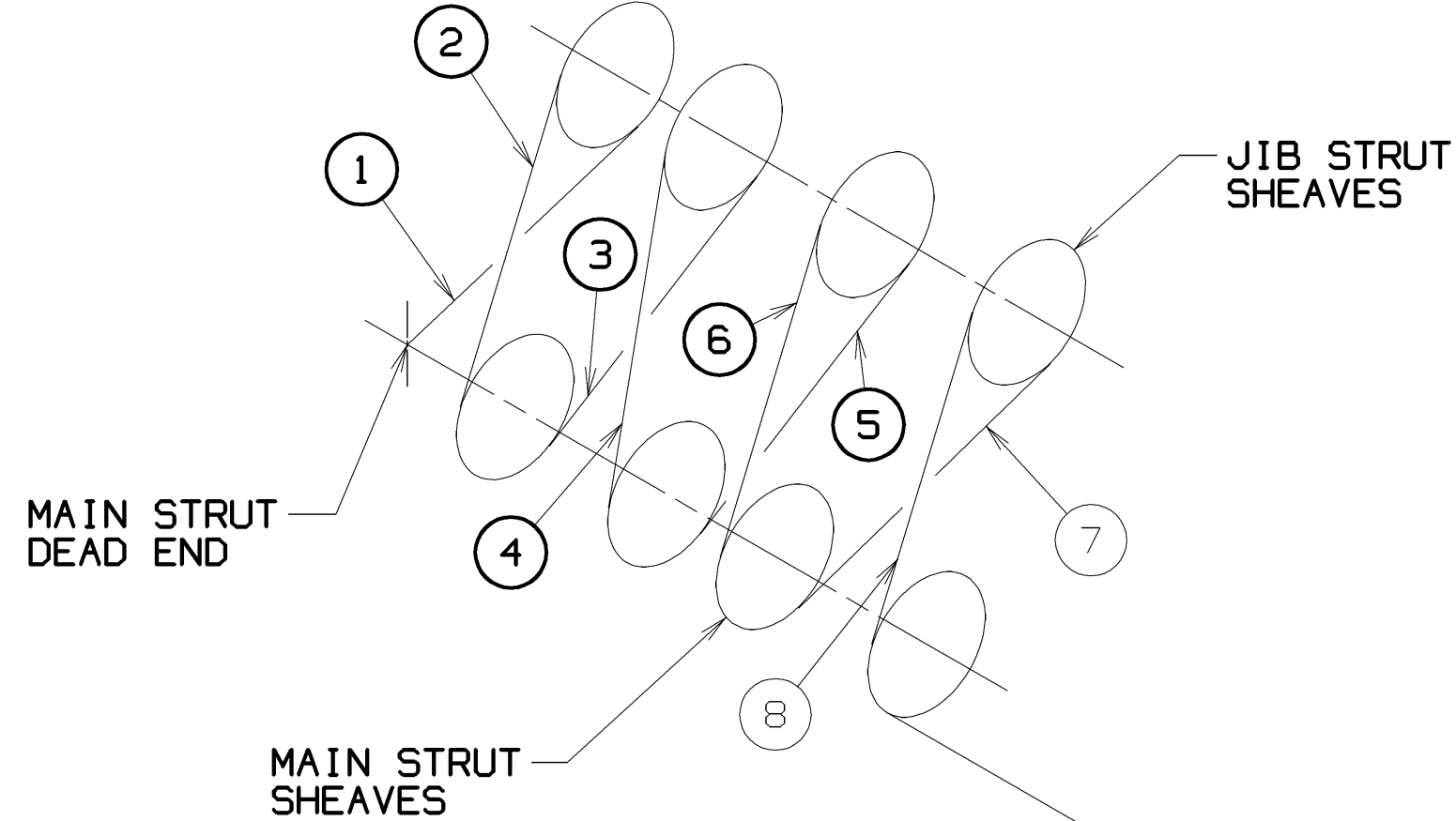
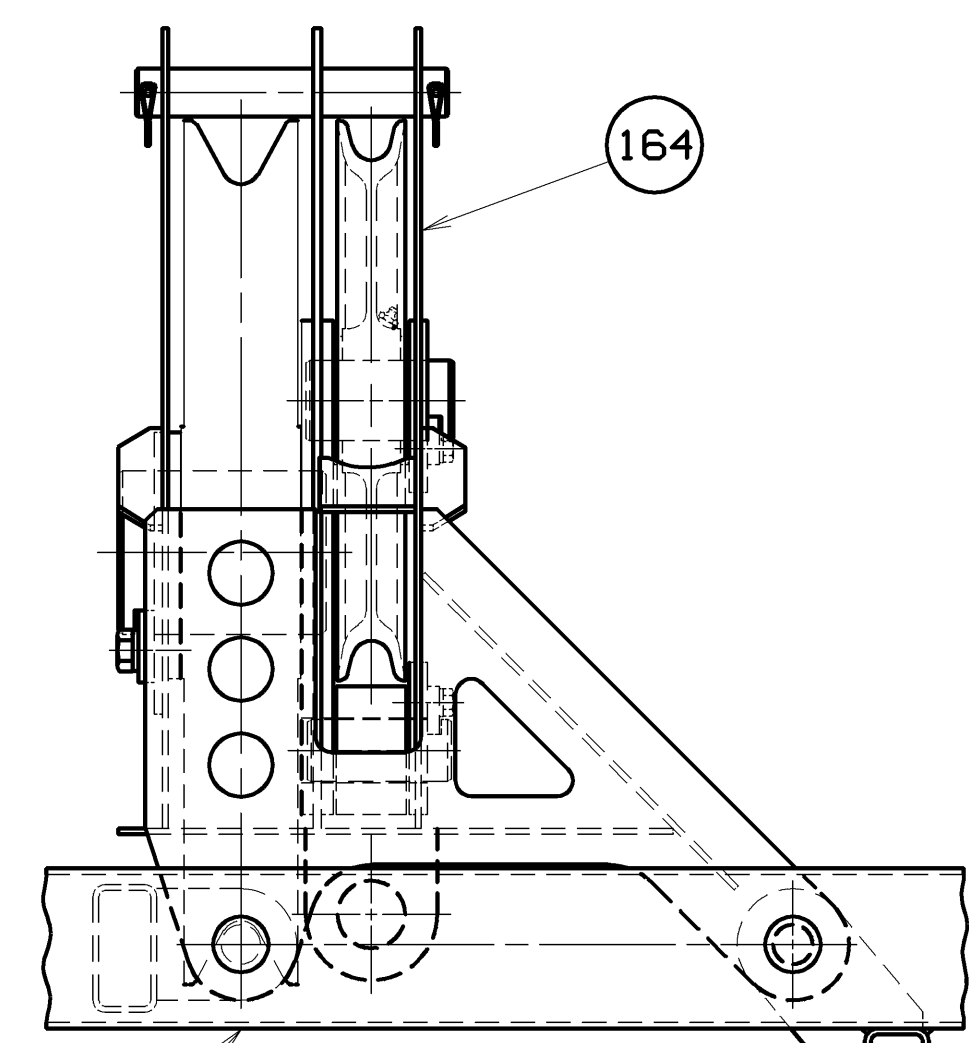
12-19-97	PGD	ITEM 166 WAS			
44-45-46	AND				
47					
04-20-01	JJJ	VIEW ADDED			
ITEM 173		ADDED			
03-12-09	MER	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			

12-19-97	PGD	ITEM 166 WAS			
44-45-46	AND				
47					
04-20-01	JJJ	VIEW ADDED			
ITEM 173		ADDED			
03-12-09	MER	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			

12-19-97	PGD	ITEM 166 WAS			
44-45-46	AND				
47					
04-20-01	JJJ	VIEW ADDED			
ITEM 173		ADDED			
03-12-09	MER	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			

12-19-97	PGD	ITEM 166 WAS			
44-45-46	AND				
47					
04-20-01	JJJ	VIEW ADDED			
ITEM 173		ADDED			
03-12-09	MER	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			
01-12-09	WAS	VIEW UPDATED			

SUPERSEDES 177354 SHT.2 OF 9-26-96

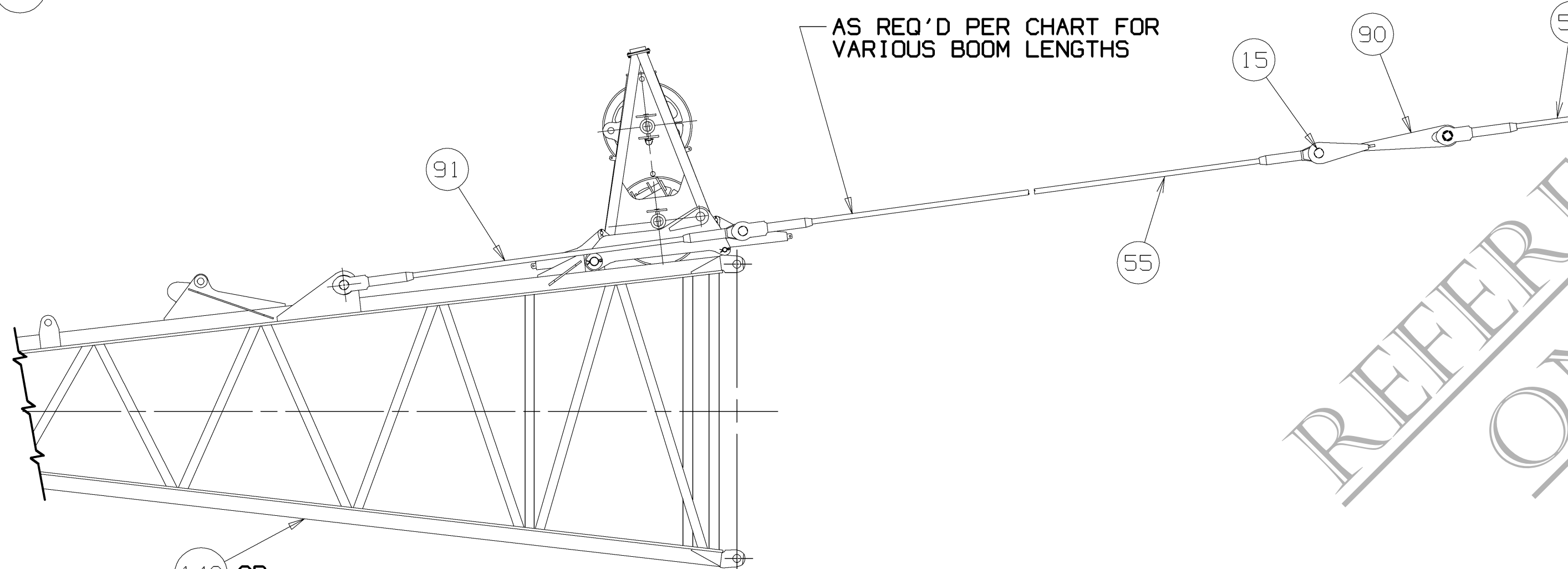
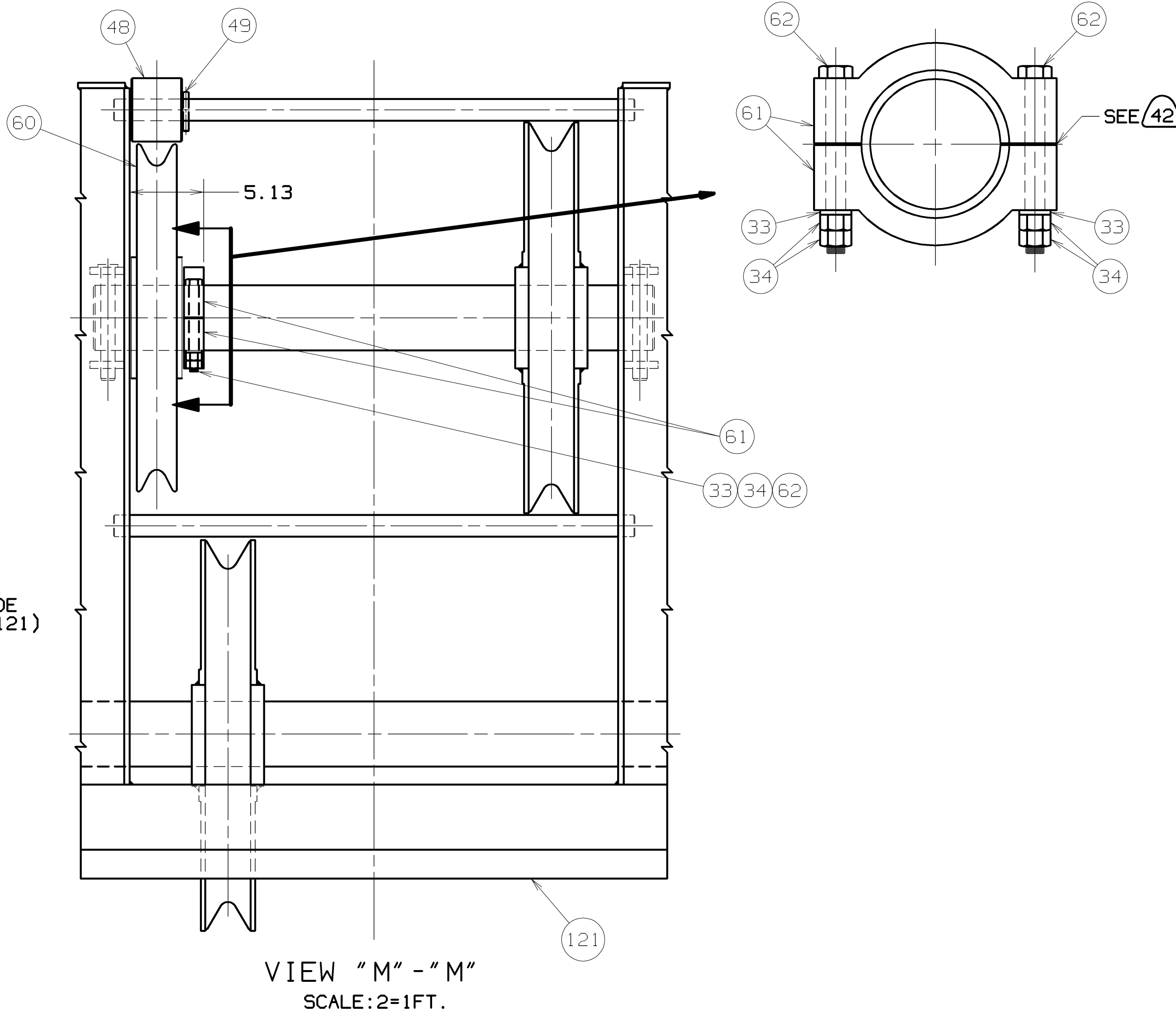


WIRE ROPE GUIDE ASSEM. (ITEM 10)

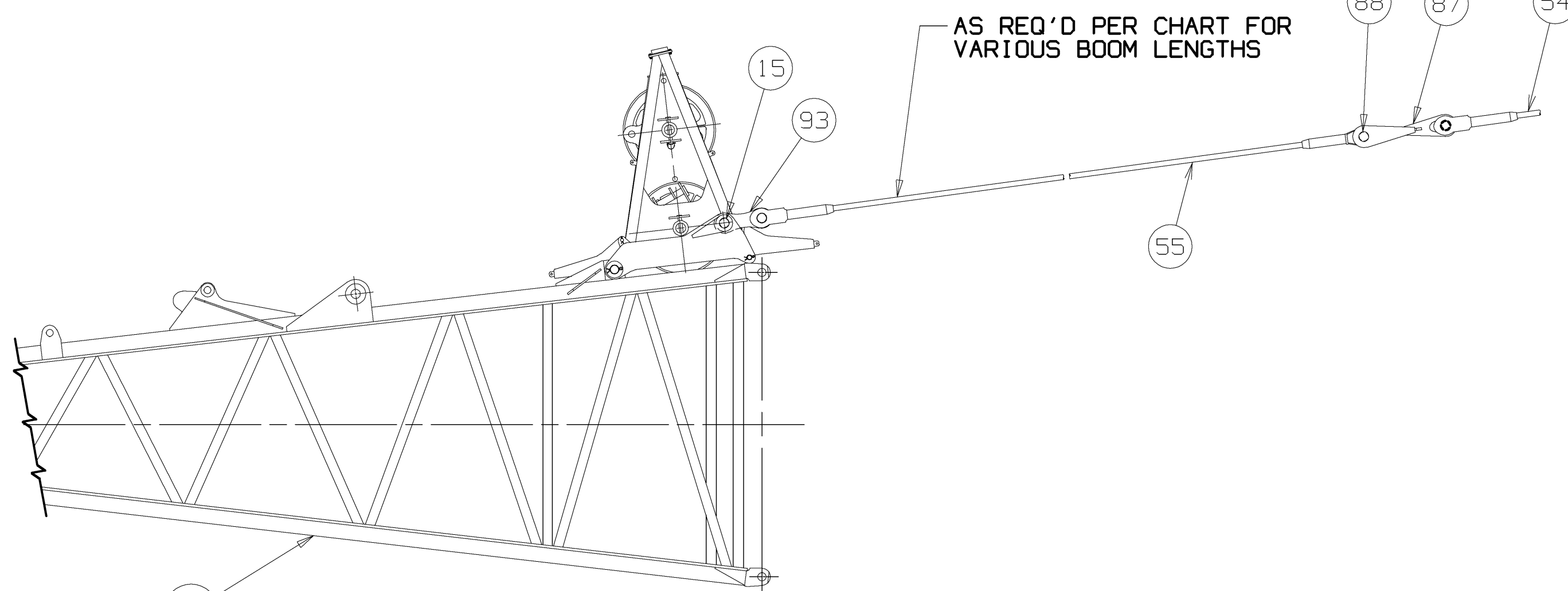
WIRE ROPE GUIDE ASSEM. (ITEM 121)

LUFFING JIB HOIST (REAR DRUM)

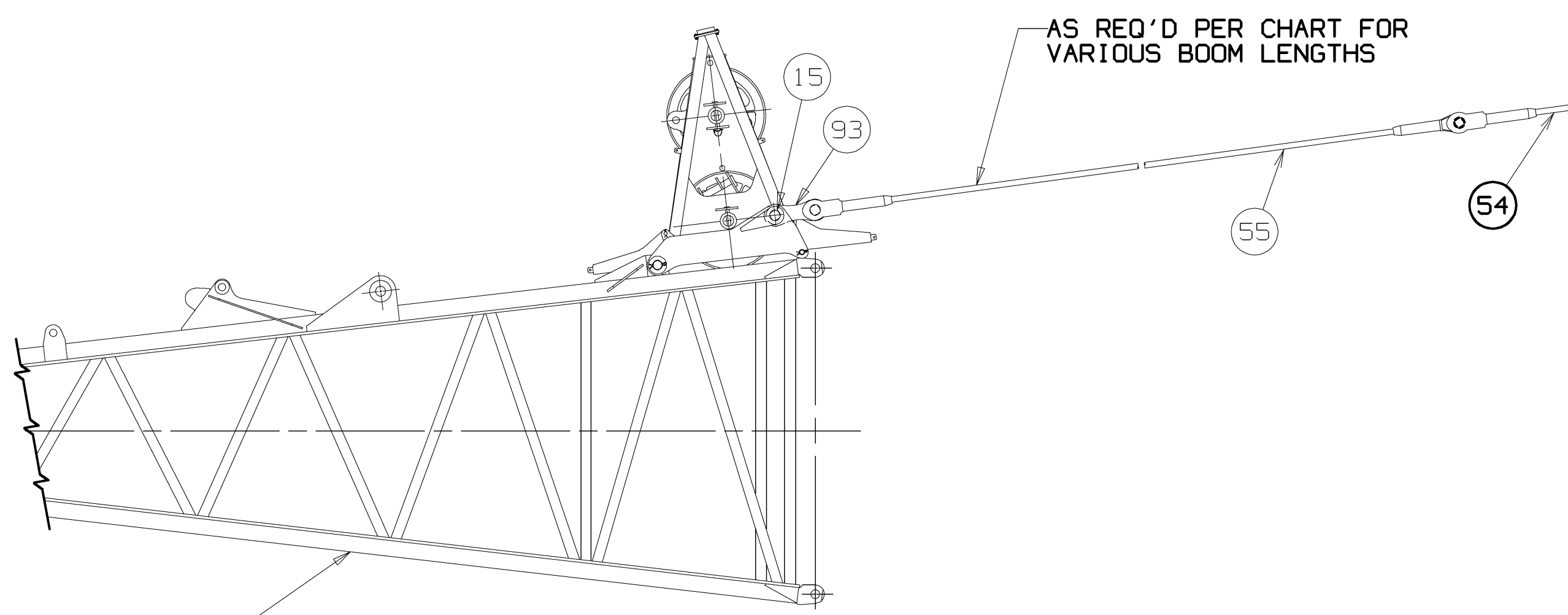
LUFFING JIB HOIST REEVING DIAGRAM FOR 8 PART LINE - SEE 34, 35 AND 36



TYP. 70 FT. - 90 FT. BOOM



TYP. 100 FT. - 130 FT. BOOM



TYP. 140 FT. - 200 FT. BOOM

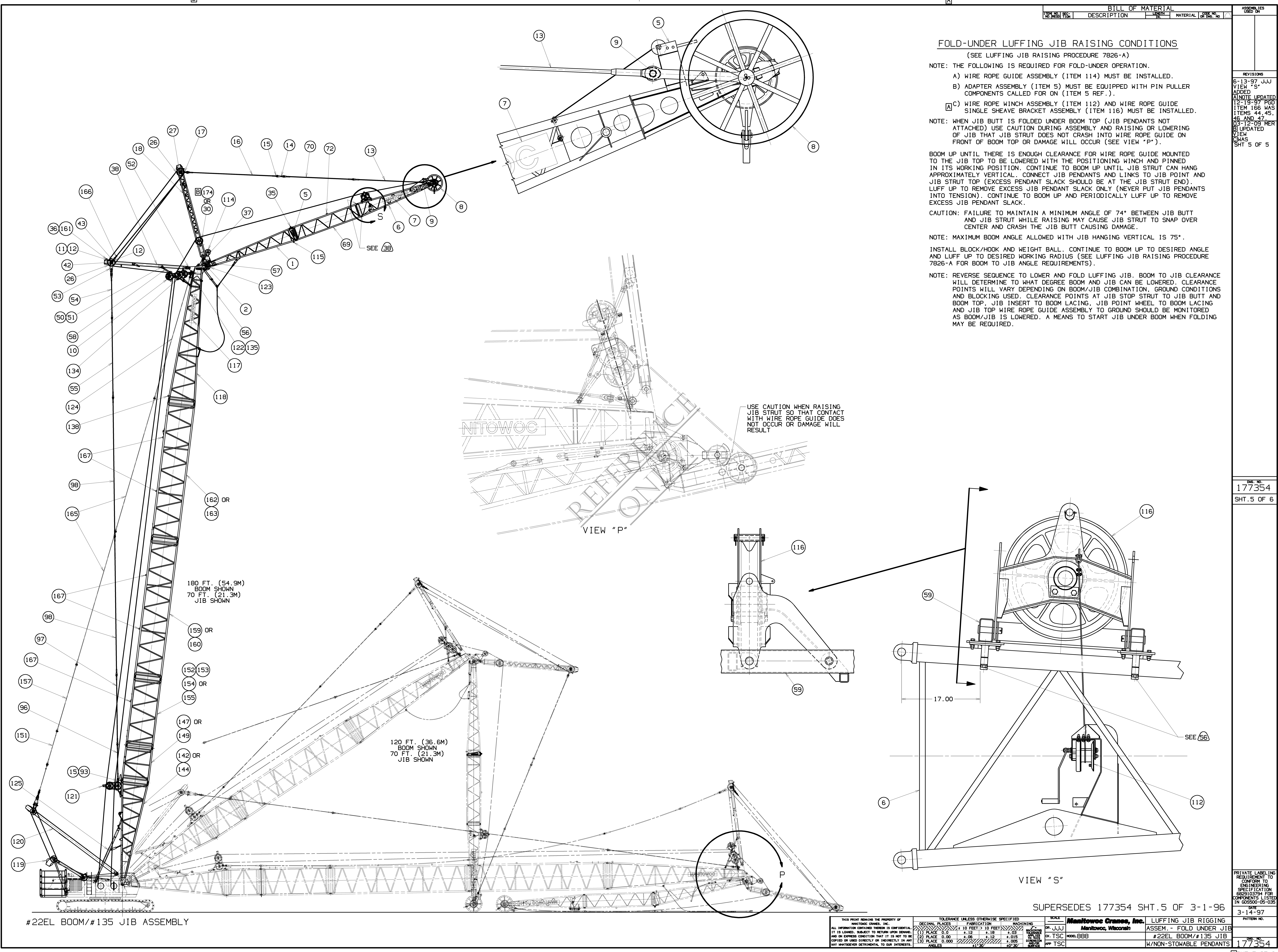
VIEW "E" BASIC JIB BACKSTAY PENDANT ARRANGEMENTS

#22EL BOOM/#135 JIB ASSEMBLY WITH AUX. DRUM SHAFT ASSEMBLY

- 1 EXISTING 10 FT. (3.05M) BOOM INSERT (33407-2) CAN ALSO BE USED.
- 2 (33426-3) IS WITHOUT JIB BACKSTAY LUGS. (623580) IS WITH JIB BACKSTAY LUGS. EXISTING 20 FT. (6.10M) BOOM INSERT (623564) WITHOUT JIB BACKSTAY LUGS CAN ALSO BE USED.
- 3 (50609-2) IS WITHOUT JIB BACKSTAY LUGS. (623526) IS WITH JIB BACKSTAY LUGS. THE FOLLOWING EXISTING 40 FT. (12.19M) BOOM INSERTS CAN ALSO BE USED: (623532), (623533), (623534), (623535), (623536) AND (623537) ARE WITHOUT BACKSTAY LUGS. (623527), (623530) AND (623579) ARE WITH BACKSTAY LUGS.
- 4 IF #23 BOOM TOP (191029) IS TO BE USED AS THE #135 LUFFING JIB TOP, MODIFY PER (421224).
- 5 IF #22E BOOM BUTT (ITEM 142) IS NOT EQUIPPED WITH LUFFING JIB BACKSTAY LUGS, MODIFY PER (421226).
- 6 IF #22L BOOM TOP (ITEM 118) IS NOT EQUIPPED WITH LUFFING JIB STOP LUGS, MODIFY PER (421225).
- 7 (7) - 30.00 DIA. SHEAVES
- 8 ON DRAWING (78145).
- 9 ON DRAWING (147109).
- 10 ON DRAWING (79335).
- 11 ON DRAWING (76280).
- 12 ON DRAWING (140773).
- 13 TIGHTEN BEARING LOCKNUT (ITEM 19) SUFFICIENTLY TO CLAMP BEARING INNER RACE.
- 14 MAXIMUM NO. OF 10 FT. (3.05M) BOOM INSERTS = (2)
- 15 MAXIMUM NO. OF 20 FT. (6.10M) BOOM INSERTS = (2)
- 16 COMBINATIONS OF 10 FT. (3.05M) AND 20 FT. (6.10M) BOOM INSERTS CANNOT EXCEED (2) - 10 FT. (3.05M) PLUS (1) - 20 FT. (6.10M) OR (1) - 10 FT. (3.05M) PLUS (2) - 20 FT. (6.10M).
- 17 SEE 1, 14, 16 AND 50
- 18 SEE 2, 19, 16 AND 51
- 19 STARTING WITH THE BOOM OR JIB BUTT, INSERTS AND PENDANTS MUST BE ASSEMBLED IN ORDER OF ASCENDING LENGTH. THE SHORTER INSERTS AND PENDANTS MUST BE CLOSEST TO THE BOOM OR JIB BUTT.
- 20 REQUIRED FOR BASIC BACKSTAY PENDANT. ATTACHES TO LINK SUB-ASSEMBLY (ITEM 53).
- 21 REQUIRED FOR BASIC JIB PENDANT. ATTACHES TO THE JIB TOP (ITEM 6) LINK.
- 22 (ITEMS 67, 73, 79 & 85) ARE THE SAME PART NO. (70366). (ITEMS 66, 72, 78 & 84) ARE THE SAME PART NO. (192022). (ITEMS 15 & 88) ARE THE SAME PART NO. (170690). (ITEMS 14 & 87) ARE THE SAME PART NO. (177553). (ITEMS 64, 91 & 96) ARE THE SAME PART NO. (276823). (ITEMS 13, 70 & 97) ARE THE SAME PART NO. (276825). (ITEMS 76, 82 & 98) ARE THE SAME PART NO. (276892).
- 23 SEE 8, 21 AND 22
- 24 SEE 8, 19 AND 22
- 25 WHEN AUXILIARY DRUM SHAFT ASSEMBLY (ITEM 169) IS USED, #22E BOOM BUTT (ITEM 143 OR 145), WIRE ROPE GUIDE ASSEMBLY (ITEM 170) AND 10 FT. (3.05M) #22E INSERT (ITEM 148) ARE REQUIRED. THE 10 FT. INSERT MUST BE ADJACENT TO THE BOOM BUTT AT ALL TIMES. MINIMUM BOOM LENGTH USING THESE COMPONENTS IS 80 FT. (24.38M).
- 26 IF BOOM BUTT (ITEM 142) IS TO BE USED WITH AUXILIARY DRUM SHAFT ASSEMBLY (ITEM 169), MODIFY PER (421218).
- 27 ATTACHES TO BASIC PENDANT (ITEM 16) 25 FT.-11 (7.90M).
- 28 ATTACHES TO JIB STRUT LINK SUB-ASSEMBLY (ITEM 17).
- 29 INSTALL WITH HEAD OF PENDANT PIN (ITEM 9) TO THE INSIDE.
- 30 SEE VIEW "E" FOR VARIOUS JIB BACKSTAY PENDANT (ITEM 55) AND PENDANT LINK (ITEMS 87, 90 AND 93) ARRANGEMENTS.
- 31 PENDANTS SHOWN - SEE VIEW A-A ARE CALLED FOR ON MAST ASSEMBLY (ITEM 120).
- 32 REFER TO SPECIFIC CAPACITY CHART FOR APPROPRIATE BOOM AND JIB COMBINATIONS.
- 33 REFER TO LUFFING JIB RAISING PROCEDURE (7826A) FOR RAISING AND LOWERING BOOM AND JIB.
- 34 WIRE ROPE - 1.00 INCH X 850 FT. CONSTRUCTEX. BREAKING STRENGTH OF 125,000 LBS. FOR USE WITH LAGGING (502382) ON REAR HOIST DRUM.
- 35 WIRE ROPE - 1.00 INCH X 850 FT. PYTHON 8F7KV RIGHT HAND REGULAR LAY. BREAKING STRENGTH OF 120,600 LBS. FOR USE WITH LAGGING (502382) ON REAR HOIST DRUM.
- 36 WIRE ROPE - 26MM X 850 FT. PYTHON 8F7KV RIGHT HAND REGULAR LAY. BREAKING STRENGTH OF 126,400 LBS. FOR USE WITH LAGGING (502372) ON REAR HOIST DRUM.
- 37 REAR DRUM MUST BE EQUIPPED WITH A LAGGING WHEN USED AS THE LUFFING HOIST. THE RECOMMENDED LAGGING FOR SPECIFIC WIRE ROPE DIA. MUST BE USED.
- 38 USE (4) PINS (70366) FROM INSERT ADJACENT TO ADAPTER ASSEMBLY (ITEM 5) FOR JIB TOP CONNECTION.
- 39 10 FT.-1.00 (3.07M) PENDANT (277382), 20 FT.-1.50 (6.13M) PENDANT (277383) AND 40 FT.-3.00 (12.27M) PENDANT (277384) MAY BE USED IN PLACE OF 10 FT. (3.05M) PENDANT (276823), 20 FT. (6.10M) PENDANT (276825) AND 40 FT. (12.19M) PENDANT (276892) FOR JIB/JIB BACKSTAY. DO NOT MIX PENDANTS OF DIFFERENT LENGTHS. PENDANTS MUST BE INSTALLED IN MATCHED SETS (PENDANTS ON ONE SIDE OF BOOM MUST MATCH LENGTH OF PENDANTS ON OTHER SIDE OF BOOM). FAILING TO OBSERVE THIS PRECAUTION WILL CAUSE MAST TO TWIST EXCESSIVELY WHEN BOOM IS RAISED. STRUCTURAL DAMAGE TO MAST OR BOOM WILL OCCUR.
- 40 LINKS (ITEM 136) AND PINS (ITEM 137) ARE REQUIRED FOR BOOM LENGTHS OF 190 FT. (57.91M) AND LONGER - SEE VIEWS A-A.

SUPERSEDES 177354 SHT.3 OF 9-26-96

BILL OF MATERIAL				ASSEMBLIES USED ON	
QTY	UOM	DESCRIPTION	LOGS	MATERIAL	QTY
1	EA	LUFFING JIB			
1	EA	RIGGING ASSEMBLY			
1	EA	#22EL BOOM/#135 JIB			
1	EA	W/NON-STOWABLE PENDANTS			



FOLD-UNDER LUFFING JIB RAISING CONDITIONS

(SEE LUFFING JIB RAISING PROCEDURE 7826-A)

NOTE: THE FOLLOWING IS REQUIRED FOR FOLD-UNDER OPERATION.

- A) WIRE ROPE GUIDE ASSEMBLY (ITEM 114) MUST BE INSTALLED.
- B) ADAPTER ASSEMBLY (ITEM 5) MUST BE EQUIPPED WITH PIN PULLER COMPONENTS CALLED FOR ON (ITEM 5 REF.).
- C) WIRE ROPE WINCH ASSEMBLY (ITEM 112) AND WIRE ROPE GUIDE SINGLE SHEAVE BRACKET ASSEMBLY (ITEM 116) MUST BE INSTALLED.

NOTE: WHEN JIB BUTT IS FOLDED UNDER BOOM TOP (JIB PENDANTS NOT ATTACHED) USE CAUTION DURING ASSEMBLY AND RAISING OR LOWERING OF JIB THAT JIB STRUT DOES NOT CRASH INTO WIRE ROPE GUIDE ON FRONT OF BOOM TOP OR DAMAGE WILL OCCUR (SEE VIEW "P").

BOOM UP UNTIL THERE IS ENOUGH CLEARANCE FOR WIRE ROPE GUIDE MOUNTED TO THE JIB TOP TO BE LOWERED WITH THE POSITIONING WINCH AND PINNED IN ITS WORKING POSITION. CONTINUE TO BOOM UP UNTIL JIB STRUT CAN HANG APPROXIMATELY VERTICAL. CONNECT JIB PENDANTS AND LINKS TO JIB POINT AND JIB STRUT TOP (EXCESS PENDANT SLACK SHOULD BE AT THE JIB STRUT END). LUFF UP TO REMOVE EXCESS JIB PENDANT SLACK ONLY (NEVER PUT JIB PENDANTS INTO TENSION). CONTINUE TO BOOM UP AND PERIODICALLY LUFF UP TO REMOVE EXCESS JIB PENDANT SLACK.

CAUTION: FAILURE TO MAINTAIN A MINIMUM ANGLE OF 74° BETWEEN JIB BUTT AND JIB STRUT WHILE RAISING MAY CAUSE JIB STRUT TO SNAP OVER CENTER AND CRASH THE JIB BUTT CAUSING DAMAGE.

NOTE: MAXIMUM BOOM ANGLE ALLOWED WITH JIB HANGING VERTICAL IS 75°.

INSTALL BLOCK/HOOK AND WEIGHT BALL. CONTINUE TO BOOM UP TO DESIRED ANGLE AND LUFF UP TO DESIRED WORKING RADIUS (SEE LUFFING JIB RAISING PROCEDURE 7826-A FOR BOOM TO JIB ANGLE REQUIREMENTS).

NOTE: REVERSE SEQUENCE TO LOWER AND FOLD LUFFING JIB. BOOM TO JIB CLEARANCE WILL DETERMINE TO WHAT DEGREE BOOM AND JIB CAN BE LOWERED. CLEARANCE POINTS WILL VARY DEPENDING ON BOOM/JIB COMBINATION, GROUND CONDITIONS AND BLOCKING USED. CLEARANCE POINTS AT JIB STOP STRUT TO JIB BUTT AND BOOM TOP, JIB INSERT TO BOOM LACING, JIB POINT WHEEL TO BOOM LACING AND JIB TOP WIRE ROPE GUIDE ASSEMBLY TO GROUND SHOULD BE MONITORED AS BOOM/JIB IS LOWERED. A MEANS TO START JIB UNDER BOOM WHEN FOLDING MAY BE REQUIRED.

BILL OF MATERIAL				
ITEM NO.	QTY.	DESCRIPTION	LOGS	MATERIAL

ASSEMBLIES USED ON

REVISIONS
6-13-97 JJJ VIEW "S" ADDED NOTE UPDATED 12-19-97 PGD ITEM 166 WAS ITEMS 44, 45, 46 AND 47 03-12-09 MER 8) UPDATED VIEW C WAS SHT 5 OF 5

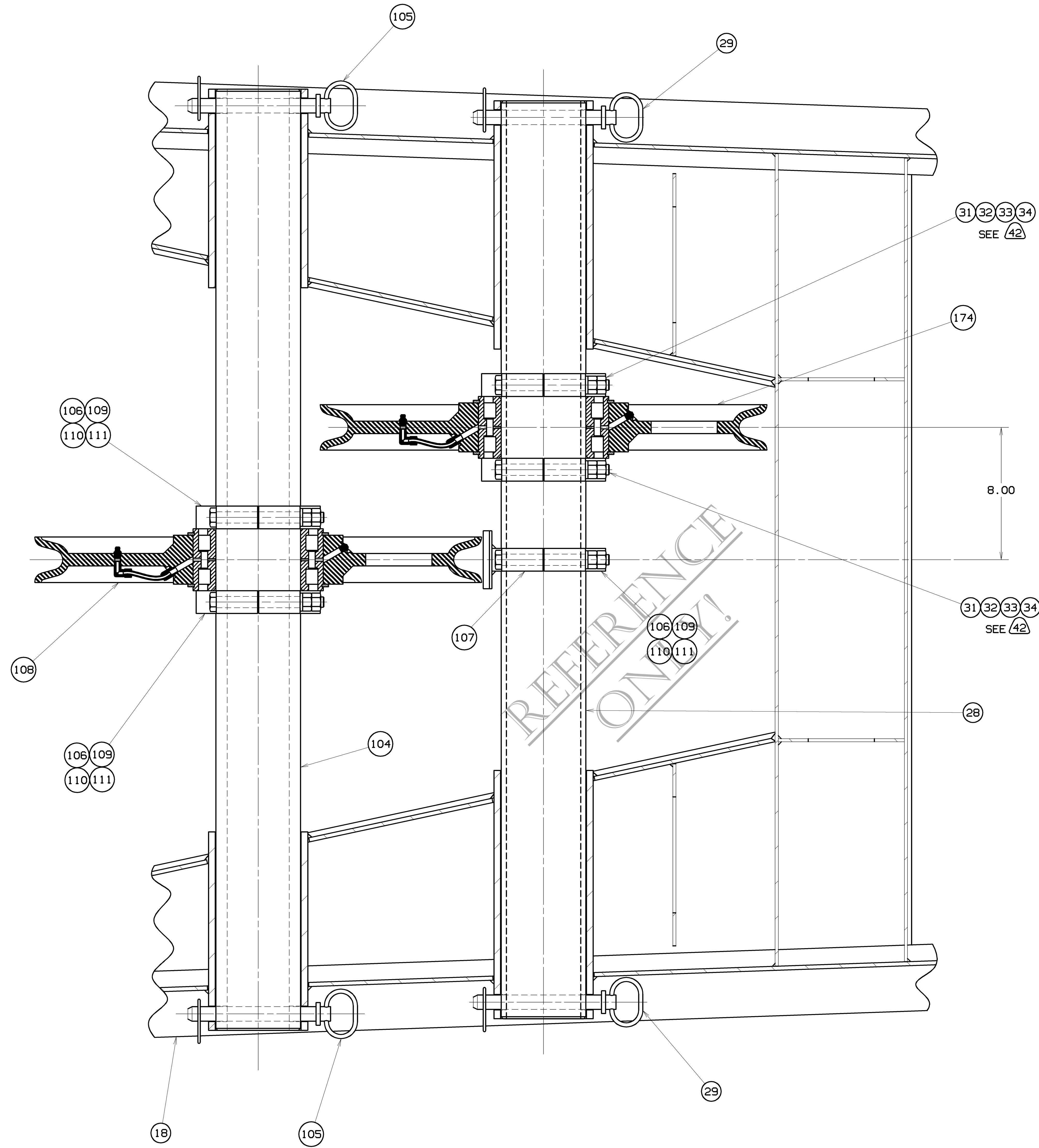
ENG. NO.
177354
SHT. 5 OF 6

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN 682901-06-026
DATE
3-14-97
PATTERN NO.

#22EL BOOM/#135 JIB ASSEMBLY

SUPERSEDES 177354 SHT.5 OF 3-1-96

TOLERANCE UNLESS OTHERWISE SPECIFIED:				SCALE			
DECIMAL PLACES	FABRICATION	MACHINING	WELDING	DR. JJJ	MANITOWOC CRANES, INC.	LUFFING JIB RIGGING	ASSEM. - FOLD UNDER JIB
(1) PLACE 0.0	± .12	± .12	± .05	DR. JJJ	Manitowoc, Wisconsin	MODEL 888	#22EL BOOM/#135 JIB
(2) PLACE 0.00	± .06	± .12	± .015	CK. TSC			W/NON-STOWABLE PENDANTS
(3) PLACE 0.000	± .005	± .005	± .005	APP. TSC			
ANGLES	± 1°	± .01°	± .01°				



SECTION "H" - "H"
SHOWN ITEMS 108 & 174, FOR ORIENTATION OF GREASING ONLY
SCALE: 2=1 FT

THIS PRINT REMAINS THE PROPERTY OF MANITOWOC CRANES, INC. ALL INFORMATION CONTAINED HEREIN 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 THAT WOULD BE DETRIMENTAL TO OUR INTERESTS.		TOLERANCE UNLESS OTHERWISE SPECIFIED		SCALE		Manitowoc Cranes, Inc.		LUFFING JIB	
DECIMAL PLACES	FABRICATION	MACHINING		DR. MER	Manitowoc, Wisconsin	RIGGING ASSEMBLY			
(1) PLACE 0.0	± 0.12	± 0.18	± 0.05	CK. MER	MODEL 888	#22EL BOOM/#135 JIB			
(2) PLACE 0.00	± 0.06	± 0.12	± 0.015	APP. PMP		W/NON-STOWABLE PENDANTS			
(3) PLACE 0.000	± 0.003	± 0.005	± 0.0005						
ANGLES	± 1° 30'	± 0° 30'	± 0° 30'						