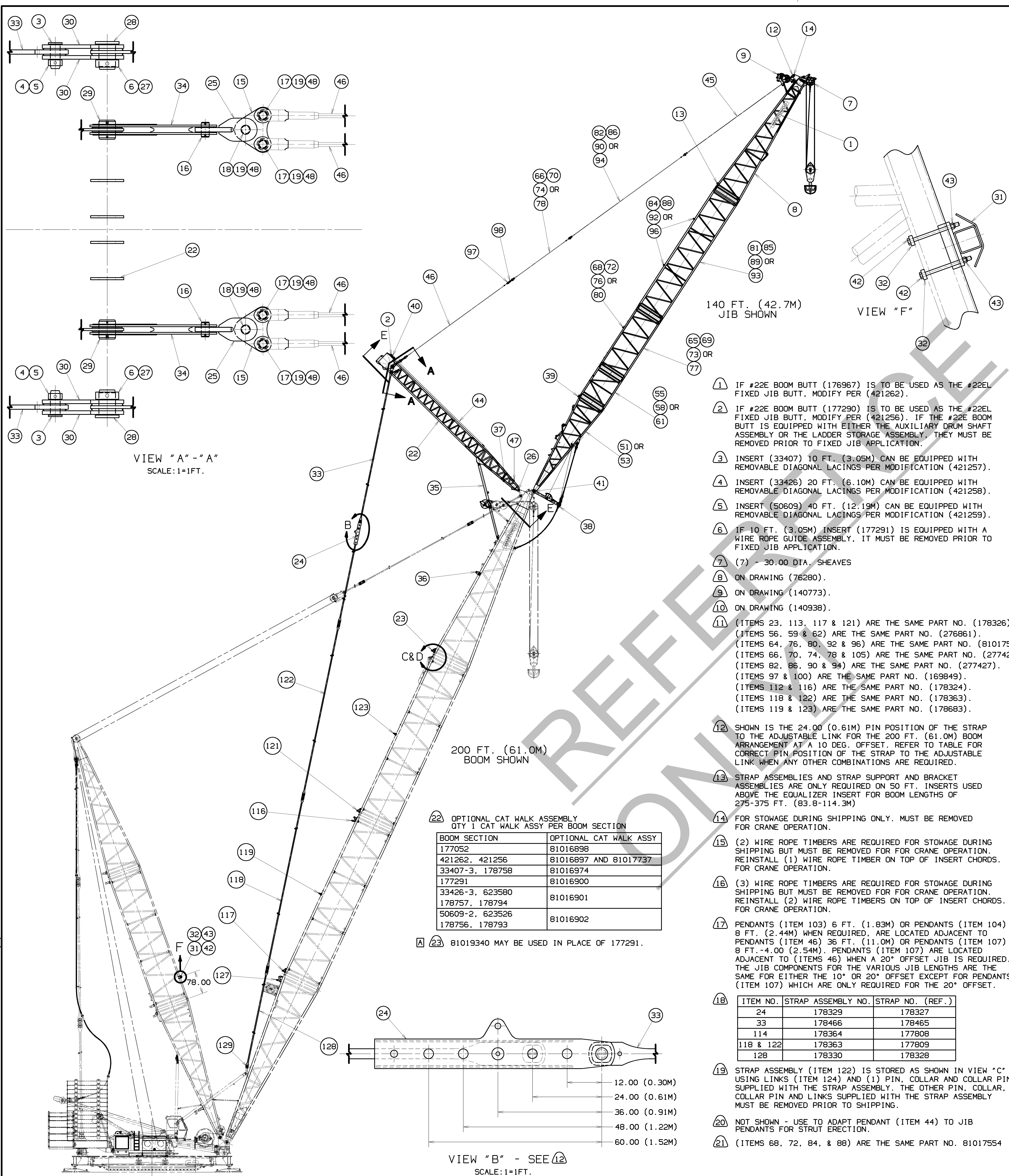




22 OPTIONAL CAT WALK ASSEMBLY
QTY 1 CAT WALK ASSY PER BOOM SECTION

BOOM SECTION	OPTIONAL CAT WALK ASSY
177052	81016898
421262, 421256	81016897 AND 81017737
33407-3, 178758	81016974
177291	81016900
33426-3, 623580	81016901
178757, 178794	81016901
50609-2, 623526	81016902
178756, 178793	81016902

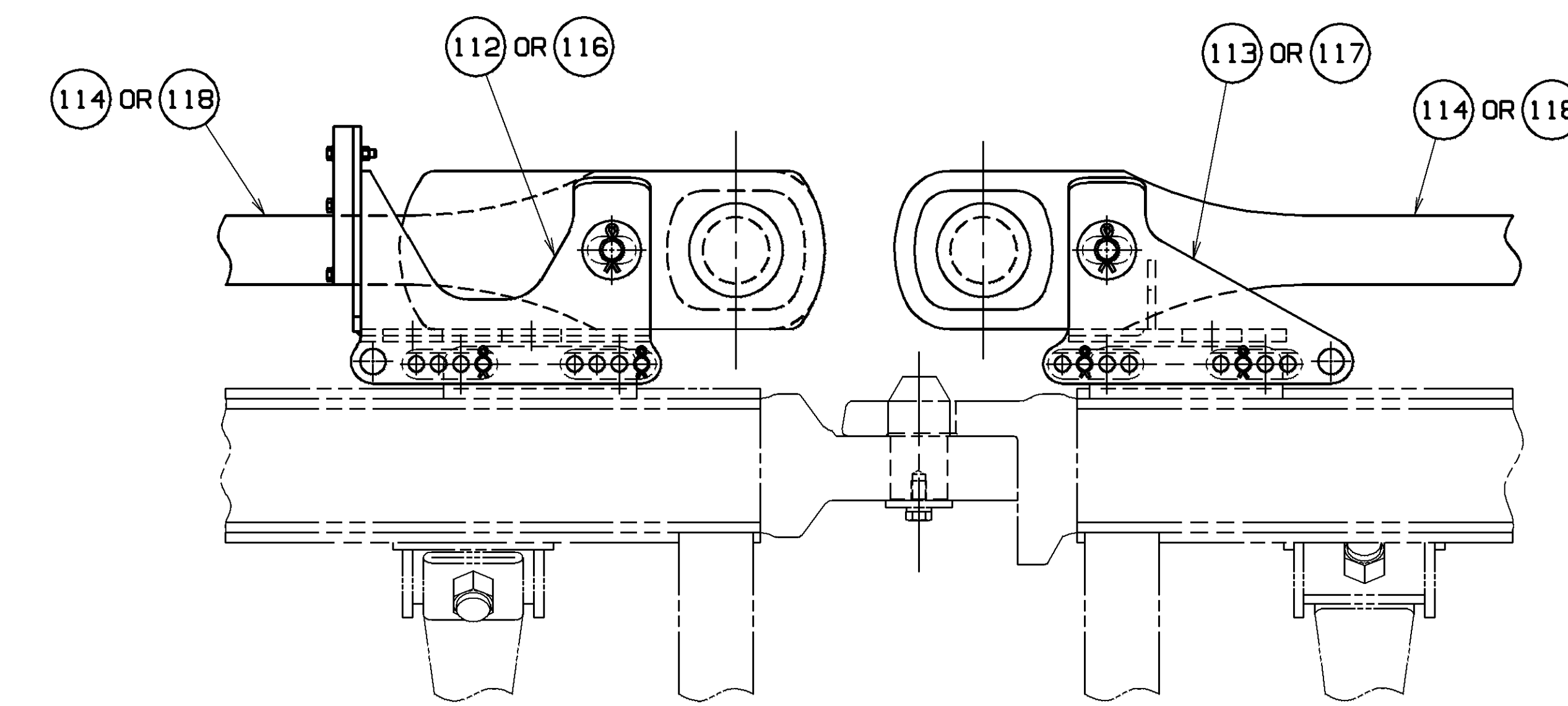
A 23 81019340 MAY BE USED IN PLACE OF 177291.

VIEW "B" - SEE 12
SCALE: 1=1FT.

- 1 IF #22E BOOM BUTT (178967) IS TO BE USED AS THE #22EL FIXED JIB BUTT, MODIFY PER (421262).
- 2 IF #22E BOOM BUTT (177290) IS TO BE USED AS THE #22EL FIXED JIB BUTT, MODIFY PER (421256). IF THE #22E BOOM BUTT IS EQUIPPED WITH EITHER THE AUXILIARY DRUM SHAFT ASSEMBLY OR THE LADDER STORAGE ASSEMBLY, THEY MUST BE REMOVED PRIOR TO FIXED JIB APPLICATION.
- 3 INSERT (33407) 10 FT. (3.05M) CAN BE EQUIPPED WITH REMOVABLE DIAGONAL LACINGS PER MODIFICATION (421257).
- 4 INSERT (33426) 20 FT. (6.10M) CAN BE EQUIPPED WITH REMOVABLE DIAGONAL LACINGS PER MODIFICATION (421258).
- 5 INSERT (50609) 40 FT. (12.19M) CAN BE EQUIPPED WITH REMOVABLE DIAGONAL LACINGS PER MODIFICATION (421259).
- 6 IF 10 FT. (3.05M) INSERT (177291) IS EQUIPPED WITH A WIRE ROPE GUIDE ASSEMBLY, IT MUST BE REMOVED PRIOR TO FIXED JIB APPLICATION.
- 7 (7) - 30.00 DIA. SHEAVES
- 8 ON DRAWING (76280).
- 9 ON DRAWING (140773).
- 10 ON DRAWING (140938).
- 11 (ITEMS 23, 113, 117 & 121) ARE THE SAME PART NO. (178326). (ITEMS 56, 59 & 62) ARE THE SAME PART NO. (276861). (ITEMS 64, 76, 80, 92 & 96) ARE THE SAME PART NO. (81017555). (ITEMS 66, 70, 74, 78 & 105) ARE THE SAME PART NO. (277426). (ITEMS 82, 86, 90 & 94) ARE THE SAME PART NO. (277427). (ITEMS 97 & 100) ARE THE SAME PART NO. (169849). (ITEMS 112 & 116) ARE THE SAME PART NO. (178324). (ITEMS 118 & 122) ARE THE SAME PART NO. (178363). (ITEMS 119 & 123) ARE THE SAME PART NO. (178683).
- 12 SHOWN IS THE 24.00 (0.61M) PIN POSITION OF THE STRAP TO THE ADJUSTABLE LINK FOR THE 200 FT. (61.0M) BOOM ARRANGEMENT AT A 10 DEG. OFFSET. REFER TO TABLE FOR CORRECT PIN POSITION OF THE STRAP TO THE ADJUSTABLE LINK WHEN ANY OTHER COMBINATIONS ARE REQUIRED.
- 13 STRAP ASSEMBLIES AND STRAP SUPPORT AND BRACKET ASSEMBLIES ARE ONLY REQUIRED ON 50 FT. INSERTS USED ABOVE THE EQUALIZER INSERT FOR BOOM LENGTHS OF 275-375 FT. (83.8-114.3M)
- 14 FOR STOWAGE DURING SHIPPING ONLY. MUST BE REMOVED FOR CRANE OPERATION.
- 15 (2) WIRE ROPE TIMBERS ARE REQUIRED FOR STOWAGE DURING SHIPPING BUT MUST BE REMOVED FOR CRANE OPERATION. REINSTALL (1) WIRE ROPE TIMBER ON TOP OF INSERT CHORDS. FOR CRANE OPERATION.
- 16 (3) WIRE ROPE TIMBERS ARE REQUIRED FOR STOWAGE DURING SHIPPING BUT MUST BE REMOVED FOR CRANE OPERATION. REINSTALL (2) WIRE ROPE TIMBERS ON TOP OF INSERT CHORDS. FOR CRANE OPERATION.
- 17 PENDANTS (ITEM 103) 6 FT. (1.83M) OR PENDANTS (ITEM 104) 8 FT. (2.44M) WHEN REQUIRED, ARE LOCATED ADJACENT TO PENDANTS (ITEM 46) 36 FT. (11.0M) OR PENDANTS (ITEM 107) 8 FT.-4.00 (2.54M). PENDANTS (ITEM 107) ARE LOCATED ADJACENT TO (ITEMS 46) WHEN A 20° OFFSET JIB IS REQUIRED. THE JIB COMPONENTS FOR THE VARIOUS JIB LENGTHS ARE THE SAME FOR EITHER THE 10° OR 20° OFFSET EXCEPT FOR PENDANTS (ITEM 107) WHICH ARE ONLY REQUIRED FOR THE 20° OFFSET.
- 18
- | ITEM NO. | STRAP ASSEMBLY NO. | STRAP NO. (REF.) |
|-----------|--------------------|------------------|
| 24 | 178329 | 178327 |
| 33 | 178466 | 178465 |
| 114 | 178364 | 177808 |
| 118 & 122 | 178363 | 177809 |
| 128 | 178330 | 178328 |
- 19 STRAP ASSEMBLY (ITEM 122) IS STORED AS SHOWN IN VIEW "C" USING LINKS (ITEM 124) AND (1) PIN, COLLAR AND COLLAR PIN SUPPLIED WITH THE STRAP ASSEMBLY. THE OTHER PIN, COLLAR, COLLAR PIN AND LINKS SUPPLIED WITH THE STRAP ASSEMBLY MUST BE REMOVED PRIOR TO SHIPPING.
- 20 NOT SHOWN - USE TO ADAPT PENDANT (ITEM 44) TO JIB PENDANTS FOR STRUT ERECTION.
- 21 (ITEMS 68, 72, 84, & 88) ARE THE SAME PART NO. 81017554

BILL OF MATERIAL			
ITEM NO.	DESCRIPTION	QTY	UNIT
FIXED JIB RIGGING ASSEMBLY WITH STOWABLE PENDANTS (CONTINUED)			
2185-1100 INSERT 40 FT. W/OUT JIB BACKSTAY			
811	INSERT 40 FT. (12.19M)	50609-25.22	
824	PENDANT 40 FT.-3.00 (12.27M)	2774278.11	
83			
842	TIMBER 94.50IN X 3.50IN X 3.50IN	8101755421	
2185-1110 INSERT 40 FT. WITH JIB BACKSTAY			
851	INSERT 40 FT. (12.19M)	6235265.22	
864	PENDANT 40 FT.-3.00 (12.27M)	2774278.11	
87			
882	TIMBER 94.50IN X 3.50IN X 3.50IN	8101755421	
2185-1120 INSERT 40 FT. W/OUT JIB BACKSTAY EQUIPPED WITH REMOVABLE DIAGONAL LACINGS			
891	INSERT 40 FT. (12.19M)	17875622	
904	PENDANT 40 FT.-3.00 (12.27M)	2774278.11	
91			
923	TIMBER 85.50IN X 3.50IN X 3.50IN	8101755511.16	
2185-1130 INSERT 40 FT. WITH JIB BACKSTAY EQUIPPED WITH REMOVABLE DIAGONAL LACINGS			
931	INSERT 40 FT. (12.19M)	17879322	
944	PENDANT 40 FT.-3.00 (12.27M)	2774278.11	
95			
963	TIMBER 85.50IN X 3.50IN X 3.50IN	8101755511.16	
2185-1140 LINK 18.00 (0.46M) & PIN - SEE TABLE			
974	PIN	16984911	
984	LINK	178470	
2185-1150 LINK 36.00 (0.91M) & PIN - SEE TABLE			
1004	PIN	16984911	
1014	LINK	178471	
2185-1160 PENDANT 6 FT. (1.83M) - SEE TABLE			
1034	PENDANT 6 FT. (1.83M)	2774518.17	
2185-1170 PENDANT 8 FT. (2.44M) - SEE TABLE			
1044	PENDANT 8 FT. (2.44M)	2774528.17	
2185-1180 PENDANT 20 FT.-1.50 (6.13M) - SEE TABLE			
1054	PENDANT 20 FT.-1.50 (6.13M)	2774268.11	
106			
2185-1190 PENDANT 8 FT.-4.00 (2.54M) - REQUIRED FOR 20° OFFSET JIB			
1074	PENDANT 8 FT.-4.00 (2.54M)	2774418.17	
108			
OPTIONAL FIXED JIB PARTS ASSEMBLY LIST			
1091	UPPER BOOM POINT ASSEMBLY	170419	
110			
BOOM COMPONENTS REQUIRED FOR USE WITH VARIOUS BOOM LENGTHS - SEE TABLE			
2185-1200 STRAP ASSEMBLY 25 FT. (7.6M) USED WITH 25 FT. INSERT-BOOM LENGTHS OF 125-375 FT. (38.1-114.3M)-SEE TABLE			
1122	STRAP SUPPORT ASSEMBLY (LOWER)	17832411	
1132	STRAP SUPPORT ASSEMBLY (UPPER)	17832611	
1142	STRAP ASSEMBLY 25 FT. (7.62M)	17836418	
115			
2185-1210 STRAP ASSEMBLY 50 FT. (15.2M) USED WITH 50 FT. INSERT - SEE TABLE & 13			
1162	STRAP SUPPORT ASSEMBLY (LOWER)	17832411	
1172	STRAP SUPPORT ASSEMBLY (UPPER)	17832611	
1182	STRAP ASSEMBLY 50 FT. (15.2M)	17836318	
1192	STRAP BRACKET ASSEMBLY	17868311	
2185-1220 STRAP ASSEMBLY 50 FT. (15.2M) USED WITH 50 FT. EQUALIZER INSERT - BOOM LENGTHS OF 175-250 FT. (53.3-76.2M) - SEE TABLE & 19			
1212	STRAP SUPPORT ASSEMBLY (UPPER)	17832611	
1222	STRAP ASSEMBLY 50 FT. (15.2M)	17836318	
1232	STRAP BRACKET ASSEMBLY	17868311	
1244	LINK	178742	
1252	PIN	178322	
2185-1230 STRAP & STRAP BRACKET ASSEMBLY & PINS-REQ'D. FOR BOOM LENGTHS OF 125-250 FT. (38.1-76.2M)			
1272	STRAP BRACKET ASSEMBLY (LOWER)	178325	
1282	STRAP ASSEMBLY 28FT.-7.0 (8.7M)	17833018	
1292	PIN	178469	
2185-1240 LINKS, SPACERS, COLLARS AND PINS - REQ'D FOR BOOM LENGTHS OF 275-375 FT. (83.8-114.3M) - SEE VIEW "D"			
1312	PIN	173633	
1322	COLLAR	173678	
1332	PIN	173678	
1342	SPACER	178740	
1354	LINK 20.50 (0.52M)	178741	
1362	PIN	179002	
OPTIONAL ASSEMBLY LIST			
138	CAT WALK ASSY 40FT #22L OR #82 TOP	8101689822	
139	CAT WALK ASSY 30FT #22E OR #22EL BUTT	8101689722	
140	CAT WALK ASSY 10FT #22 INSERT	8101697422	
141	CAT WALK ASSY 10FT #22 INSERT	8101690022	
142	CAT WALK ASSY 20FT #22 OR #82 INSERT	8101690122	
143	CAT WALK ASSY 40FT #22 OR #82 INSERT	8101690222	
144	CAT WALK ASSY 30FT #22EL BUTT	8101773722	

BILL OF MATERIAL							ASSEMBLIES USED ON
ITEM NO.	SEC. TYP.	DESCRIPTION	QTY	MATERIAL	QTY	OR ENG. NO.	
2185-1000 FIXED JIB RIGGING ASSEMBLY WITH STOWABLE PENDANTS							
1	2	BOOM SIGN			22656		REVISIONS 03-23-12 RTS AJ ADDED NOTE
2	1	PIN			166901		
3	2	PIN			173633		
4	2	COLLAR			173678		
5	2	PIN			173678		
6	2	PIN			174149		
7	1	LOWER BOOM POINT ASSEMBLY			177042		
8	1	40 FT. TOP #22L BOOM			177052	22	
9	1	WIRE ROPE GUIDE ASSEMBLY			177191		
10							
11	1	TIMBER 93.5IN X 3.5IN X 3.5IN			81017553		
12		PENDANT LINK			177209		
13							
14	2	PIN			177242		
15	2	LINK			177608		
16	2	PIN			177611		
17	4	PIN			177624		
18	2	PIN			177625		
19	6	END PLATE			177626		
20							
21	1	PENDANT LINK			179312	20	
22		MAIN STRUT			178300		
23	2	STRAP SUPPORT ASSEMBLY (UPPER)			178326	11	
24	2	ADJUSTABLE STRAP ASSEMBLY			178329	16	
25	2	PENDANT LINK			178458		
26	2	PIN			178459		
27	2	COLLAR			178460		
28	2	PIN			178461		
29	2	PIN			178462		
30	4	LINK			178463		
31	1	STRAP SUPPORT			179356		
32		CLAMP BAR			179357		
33	2	STRAP ASSEMBLY 43FT. -4.0			178466	16	
34	2	PENDANT LINK			178467		
35	2	STRUT STOP TUBE ASSEMBLY			178574		
36	2	STRAP SUPPORT ASSEMBLY			178728		
37	2	STRAP SUPPORT ASSEMBLY			178734		
38	1	JIB STOP ASSEMBLY			178869		
39	1	WIRE ROPE TIMBER			177236		
40	1	LINK			178926		
41	2	PIN			178929		
42	8	BOLT MACH HEX HD .625-11UNC X 9.50 LG			250527		
43		NUT ELASTIC STOP NUT			548345		
44	1	PENDANT 49FT.			277349	10	
45	4	PENDANT 36FT. -6.0			277425	9	
46	4	PENDANT 36FT.			277453	6	
47	1	PIN COTTER STL .50 X 4.00 LG.			562172		
48	18	SCREW ST.CAP.HEX .50-13UNC X 1.00LG			621725		
49							
50							
2185-1010 JIB BUTT 30 FT. (9.14M)							ONE NO. 178021
51	1	MOD. TO #22E BOOM BUTT (176967)			421262	1,22	
2185-1020 JIB BUTT 30 FT. (9.14M)							SHT.1 OF 2
53	1	MOD. TO #22E BOOM BUTT (177290)			421256	2,22	
54							
2185-1030 INSERT 10 FT. (3.05M)							
55	1	INSERT 10 FT. (3.05M)			33407-38.22		
56	4	PENDANT 10 FT. (3.05M)			276861	8.11	
57							
2185-1040 INSERT 10 FT. (3.05M)							
58	1	INSERT 10 FT. (3.05M)			177291	6.22	
59	4	PENDANT 10 FT. (3.05M)			276861	8.11	
60							
2185-1050 INSERT 10 FT. (3.05M) EQUIPPED WITH REMOVABLE DIAGONAL LACINGS							
61	1	INSERT 10 FT. (3.05M)			178758	22	
62	4	PENDANT 10 FT. (3.05M)			276861	8.11	
63							
64	2	TIMBER 85.50IN X 3.50IN X 3.50IN			81017555	14.11	
2185-1060 INSERT 20 FT. W/OUT JIB BACKSTAY							
65	1	INSERT 20 FT. (6.10M)			33426-34.22		
66	4	PENDANT 20 FT. -1.50 (6.13M)			277426	8.11	
67							
68	1	TIMBER 94.50IN X 3.50IN X 3.50IN			81017554	21	
2185-1070 INSERT 20 FT. WITH JIB BACKSTAY							
69	1	INSERT 20 FT. (6.10M)			623580	4.22	
70	4	PENDANT 20 FT. -1.50 (6.13M)			277426	8.11	
71							
72	1	TIMBER 94.50IN X 3.50IN X 3.50IN			81017554	21	
2185-1080 INSERT 20 FT. W/OUT JIB BACKSTAY EQUIPPED WITH REMOVABLE DIAGONAL LACINGS							
73	1	INSERT 20 FT. (6.10M)			178757	22	
74	4	PENDANT 20 FT. -1.50 (6.13M)			277426	8.11	
75							
76	2	TIMBER 85.50IN X 3.50IN X 3.50IN			81017555	11.15	
2185-1090 INSERT 20 FT. WITH JIB BACKSTAY EQUIPPED WITH REMOVABLE DIAGONAL LACINGS							
77	1	INSERT 20 FT. (6.10M)			178794	22	
78	4	PENDANT 20 FT. -1.50 (6.13M)			277426	8.11	
79							
80	2	TIMBER 85.50IN X 3.50IN X 3.50IN			81017555	11.15	
PERSEDES 178021 SHT 1 OF 2 OF 1-23-98							DATE 1-06-12
SOURCE Manitowoc Cranes, Inc. Manitowoc, Wisconsin							PATTERN NO.
DR: JMG CR: BDR APP: BDR							
Model: 888 RINGER							
JIB ASSEMBLY FIXED JIB #22EL (WITH STOWABLE JIB PENDANTS)							
ONE NO. 178021							



NO. REVISION

DESCRIPTION

131 132 133

114 OR 118

135

136

134

50 FT. EQUALIZER INSERT (REF.)

MANITOWOC

109

INSERTS, PENDANTS, ROLLER GUIDES, LINKS & PINS REQ'D. FOR VARIOUS JIB LENGTHS													
ITEM NO.		55.58 OR 61	65.69 73 OR 77	81.85 89 OR 93	58.59 OR 62 DWG. 76280	66.70.74 78 OR 105 DWG. 76280	82.86. 90 OR 94 DWG. 76280	97 OR 100	98	101	103	104	64.68.72. 76.80.84. 88.92 OR 96
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	20FT-1.5 6.13 M PENDANT	40FT-3.0 12.27 M PENDANT	PIN	18.00 0.46 M LINK	36.00 0.91 M LINK	6 FT 1.83 M PENDANT	8 FT 2.44 M PENDANT	WIRE ROPE TIMBER
FEET	METERS												A
70	21.3	0	0	0	0	0	0	4	4	0	0	0	0
80	24.4	1	0	0	0	0	0	4	4	0	0	4	0
100	30.5	1	1	0	0	4	0	0	0	0	4	0	1
120	36.6	OR 1 1	2 0	0 1	0 0	8 0	0 4	4 4	0 0	4 4	0 0	0 0	2 2
140	42.7	1	1	1	0	4	4	4	4	0	0	0	3
160	48.8	OR 1 1	2 0	1 2	0 0	8 0	4 8	0 0	0 0	0 0	0 0	0 0	4 4
180	54.9	1	1	2	4	0	8	4	4	0	0	4	5
200	61.0	OR 1 1	2 0	2 3	4 4	4 4	8 8	0 0	0 0	0 0	0 0	4 4	6 6
220	67.1	1	1	3	4	0	12	4	4	0	4	0	7
240	73.2	OR 1 1	2 0	3 4	4 4	4 4	12 12	4 4	4 4	0 0	4 4	0 0	8 8
260	79.2	1	1	4	4	0	16	0	0	0	4	0	9
280	85.3	OR 1 1	2 0	4 5	4 4	4 4	16 16	0 0	0 0	0 0	4 4	0 0	10 10
300	91.4	1	1	5	4	0	20	0	0	0	4	0	11

JIB BACKSTAY STRAPS, SUPPORTS, LINKS & PINS REQ'D. FOR VARIOUS BOOM LENGTHS																		
ITEM NO.		127	113,117 OR 121	112 OR 116	114	118 OR 122	128	129	136	134	135	131	132	133	24	124	125	119 OR 123
BOOM LENGTHS		STRAP BRACKET ASSEMBLY LOWER	STRAP SUPPORT ASSEMBLY UPPER	STRAP SUPPORT ASSEMBLY LOWER	25 FT 7.62 M STRAP ASSEMBLY	50 FT 15.24 M STRAP ASSEMBLY	28FT-7.0 8.7 M STRAP ASSEMBLY	PIN	PIN	SPACER	20.50 0.52 M LINK	PIN	COLLAR	PIN	ADJUSTABLE STRAP ASSEMBLY LENGTH	5.69 0.14 M LINK	PIN	STRAP BRACKET ASSEMBLY
FEET	METERS																	
125	38.1	2	4	2	2	0	2	2	0	0	0	0	0	0	60.00 IN	0	0	0
150	45.7	OR 2	4	4	4	0	2	2	0	0	0	0	0	0	48.00 IN	0	0	0
175	53.3	2	6	2	2	2	2	2	0	0	0	0	0	0	48.00 IN	0	0	2
200	61.0	OR 2	8	4	4	2	2	2	0	0	0	0	0	0	36.00 IN	4	2	2
225	68.6	2	6	2	0	4	2	2	0	0	0	0	0	0	36.00 IN	4	2	2
250	76.2	OR 2	8	4	4	4	2	2	0	0	0	0	0	0	24.00 IN	4	2	4
275	83.8	0	10	6	4	4	2	2	0	0	0	0	0	0	24.00 IN	4	2	4
300	91.4	OR 0	8	6	4	2	0	0	2	2	4	2	2	2	12.00 IN	4	2	6
325	99.1	0	6	4	0	4	0	0	2	2	0	2	2	2	48.00 IN	0	0	2
350	106.7	OR 0	8	6	2	4	0	0	2	2	4	2	2	2	36.00 IN	0	0	2
375	114.3	0	10	8	2	6	0	0	2	2	4	2	2	2	24.00 IN	0	0	4
		0	8	6	0	6	0	0	2	2	4	2	2	2	12.00 IN	0	0	6
		0	10	8	2	6	0	0	2	2	4	2	2	2	12.00 IN	0	0	6

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	DECIMAL, 1/16"	FABRICATION	WELDING	DR. J.J.J.	Manitowoc, Wisconsin	FIXED JIB #22EL	
	± 1/16"	± 1/16"	± 1/16"	CR. TSC	H00L888 RINGER	(WITH STOWABLE)	
	(1) PLACE 0.0	± 1/16"	± 1/16"	APP. TSC	W00L888 RINGER	(JIB PENDANTS)	17802
	(2) PLACE 0.00	± 1/16"	± 1/16"				