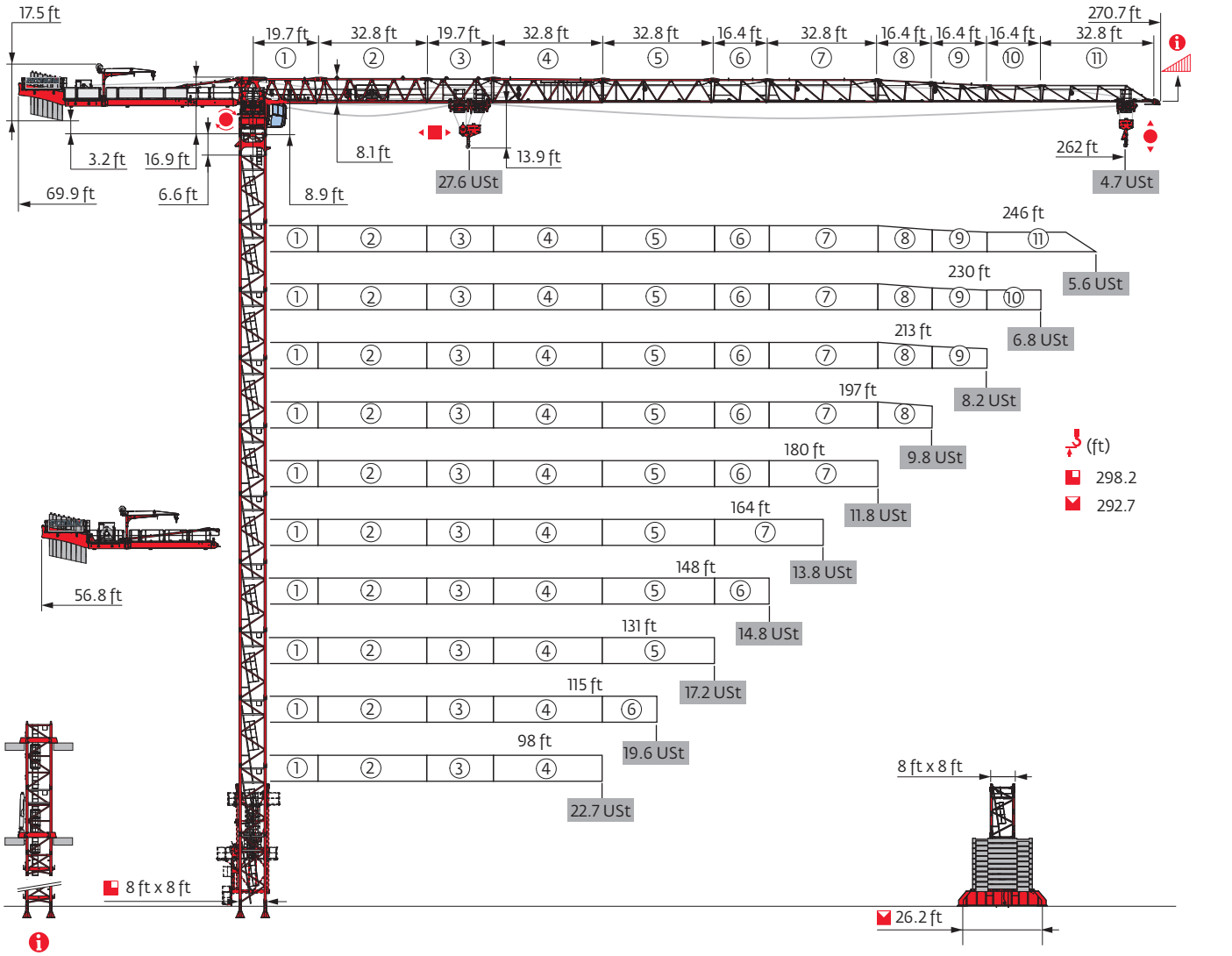
POTAIN®
by Manitowoc

MDT 569 M25



Potain Plus | Power Control | Top Site | Top Tracing 3

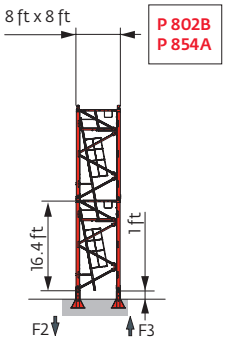
ASCE 7-10

Values have been rounded.

Mast - Reactions

8 ft - P 802B												
(ft)		98	115	131	148	164	180	197	213	230	246	262
(ft)		232.6	227	227	221.8	221.8	216.2	216.2	216.2	216.2	216.2	205.4
/P+ (ft)		232.6	227	227	221.8	221.8	216.2	216.2	216.2	216.2	216.2	205.4
6.6 ft		1	1	1	1	1	1	1	1	1	1	1
10.9 ft		0	1	1	2	2	0	0	0	0	0	2
16.4 ft		14	13	13	12	12	13	13	13	13	13	11
F2 (USt)	●	279	280	280	282	279	272	280	277	271	262	262
	■	351	332	338	334	330	325	330	332	347	354	333
F3 (USt)	●	182	182	174	175	169	168	174	173	167	158	157
	■	268	246	247	240	234	234	237	241	255	264	242

8 ft - P 854A												
(ft)		98	115	131	148	164	180	197	213	230	246	262
(ft)		298.2	292.7	298.2	292.7	298.2	292.7	292.7	292.7	287.4	281.8	276.3
/P+ (ft)		298.2	292.7	298.2	292.7	292.7	292.7	287.4	287.4	287.4	281.8	276.3
6.6 ft		1	1	1	1	1	1	1	1	1	1	1
10.9 ft		0	1	0	1	0	1	1	1	2	0	1
16.4 ft		18	17	18	17	18	17	17	17	16	17	16
F2 (USt)	●	353	355	359	360	356	357	355	355	359	342	351
	■	613	603	624	617	617	615	607	610	614	586	578
F3 (USt)	●	236	236	234	234	228	235	233	233	236	224	231
	■	510	496	513	504	503	506	498	501	504	480	471

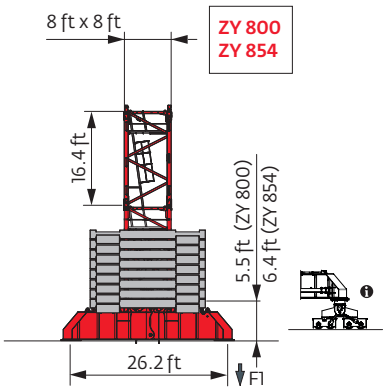


Motorized accesses: adapted mast compositions, base ballast and reactions.

Note: When "ASCE" is noted in this data sheet it is referring to 115 mph Wind Zone, Exposure B, Design Wind Speed = 98 mph.
See back cover for design wind speed calculations.

8 ft - ZY 800 -												
(ft)	98	115	131	148	164	180	197	213	230	246	262	
(ft)	220.8	215.2	220.8	220.8	215.2	215.2	209.7	209.7	215.2	209.7	198.8	
/P+ (ft)	220.8	215.2	209.7	198.8	204.4	188	209.7	209.7	215.2	209.7	198.8	
6.6 ft	1	1	1	1	1	1	1	1	1	1	1	
10.9 ft	0	1	0	0	1	1	2	2	1	2	1	
16.4 ft	13	12	13	13	12	12	11	11	12	11	11	
F1 (USt)	● 154	154	155	158	152	151	154	154	161	154	156	
	■ 148	138	146	152	140	152	149	150	168	167	154	

8 ft - ZY 854 -												
(ft)	98	115	131	148	164	180	197	213	230	246	262	
(ft)	292.7	287.1	292.7	287.1	287.1	287.1	281.8	281.8	281.8	276.3	265.4	
/P+ (ft)	292.7	287.1	292.7	287.1	287.1	287.1	281.8	281.8	281.8	276.3	265.4	
6.6 ft	1	1	1	1	1	1	1	1	1	1	1	
10.9 ft	2	0	2	0	0	0	1	1	1	2	1	
16.4 ft	16	17	16	17	17	17	16	16	16	15	15	
F1 (USt)	● 227	216	230	226	223	225	228	224	229	223	211	
	■ 312	292	320	306	298	305	307	308	313	308	280	



Anchorages

Base ballast

(USt) / 8 ft - ZY 800 -

↕ (ft) \ ↔ (ft)	98	115	131	148	164	180	197	213	230	246	262
220.8	92.6		79.4	79.4							
215.2	92.6	92.6	79.4	79.4	66.1	66.1			105.8		
209.7	79.4	79.4	79.4	66.1	66.1	66.1	79.4	79.4	92.6	105.8	
198.8	79.4	79.4	66.1	66.1	66.1	66.1	79.4	79.4	92.6	105.8	119.1
182.4	66.1	66.1	66.1	52.9	66.1	66.1	79.4	79.4	92.6	92.6	105.8
166	52.9	52.9	52.9	39.7	66.1	66.1	79.4	79.4	92.6	92.6	105.8
149.6	52.9	52.9	52.9	39.7	52.9	66.1	79.4	66.1	92.6	92.6	105.8
133.2	39.7	52.9	39.7	39.7	52.9	52.9	79.4	66.1	79.4	79.4	92.6
116.8	39.7	39.7	39.7	39.7	52.9	52.9	79.4	66.1	79.4	79.4	92.6
100.4	39.7	39.7	39.7	39.7	52.9	52.9	79.4	66.1	79.4	79.4	92.6
84	39.7	39.7	39.7	39.7	52.9	52.9	79.4	66.1	66.1	79.4	79.4
67.6	39.7	39.7	39.7	39.7	52.9	52.9	79.4	66.1	66.1	66.1	79.4

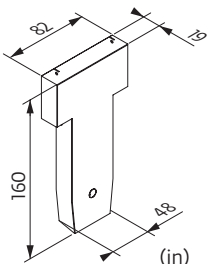
(USt) / 8 ft - ZY 854 -

↕ (ft) \ ↔ (ft)	98	115	131	148	164	180	197	213	230	246	262
292.7	224.9		211.6								
287.1	198.4	185.2	185.2	198.4	185.2	211.6					
281.8	185.2	172	172	185.2	172	198.4	211.6	198.4	224.9		
276.3	172	158.7	158.7	158.7	158.7	185.2	185.2	185.2	211.6	224.9	
265.4	145.5	132.3	119.1	132.3	119.1	145.5	145.5	158.7	172	185.2	185.2
249	105.8	105.8	92.6	92.6	92.6	105.8	105.8	105.8	119.1	132.3	132.3
232.6	92.6	92.6	79.4	79.4	79.4	79.4	79.4	79.4	92.6	92.6	105.8
216.2	79.4	79.4	66.1	66.1	66.1	66.1	79.4	66.1	92.6	92.6	105.8
199.8	66.1	66.1	66.1	52.9	52.9	52.9	66.1	66.1	92.6	92.6	105.8
183.4	52.9	52.9	52.9	39.7	52.9	52.9	66.1	66.1	79.4	92.6	105.8
167	52.9	52.9	39.7	39.7	52.9	52.9	66.1	66.1	79.4	79.4	92.6
150.6	39.7	39.7	39.7	39.7	52.9	52.9	66.1	66.1	79.4	79.4	92.6
134.2	39.7	39.7	26.5	39.7	52.9	52.9	66.1	52.9	79.4	79.4	92.6
117.8	26.5	39.7	26.5	26.5	52.9	52.9	66.1	52.9	66.1	66.1	79.4
101.4	26.5	39.7	26.5	26.5	52.9	52.9	66.1	52.9	66.1	66.1	79.4
85	26.5	39.7	26.5	26.5	52.9	52.9	66.1	52.9	66.1	66.1	79.4
68.6	26.5	39.7	26.5	26.5	52.9	52.9	66.1	52.9	52.9	66.1	66.1

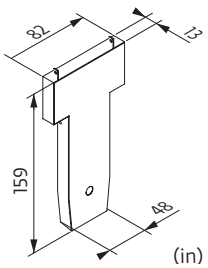
Counter-jib ballast

	100 LVF / 132 HPL™			180 HPL™ GH		
↔	14,551 lb	10,362 lb	(lb)	14,551 lb	10,362 lb	(lb)
262 ft	5	2	93,476	6	0	87,303
246 ft	4	3	89,287	5	1	83,114
230 ft	4	3	89,287	5	1	83,114
213 ft	4	3	89,287	5	1	83,114
197 ft	6	0	87,303	4	2	78,925
180 ft	5	1	83,114	3	3	74,737
164 ft	6	2	108,027	7	0	101,854
148 ft	7	0	101,854	5	2	93,476
131 ft	5	2	93,476	6	0	87,303
115 ft	5	1	83,114	4	2	78,925
98 ft	3	3	74,737	4	1	68,564

CCP - 14,551 lb



CCQ - 10,362 lb



Load curves

(ft)			49	66	82	98	105	115	121	131	138	148	154	164	171	180	187	197	203	213	220	230	236	246	253	262	ft
	27.6 USt	13.8 USt																									
262	14.8 → 55.5	98.1 - 106.8	27.6	22.6	17.2	13.8	13.8	12.7	11.9	10.8	10.2	9.4	8.9	8.2	7.8	7.3	7	6.5	6.3	5.9	5.6	5.3	5.1	4.8	4.7	4.4	USt
	14.8 → 60	105.6 - 114.8	27.6	24.8	19	15.1	13.9	13.8	13	11.9	11.2	10.3	9.8	9.1	8.6	8	7.7	7.1	6.8	6.4	6.1	5.7	5.5	5.2	5	4.7	USt P+
246	14.8 → 57.1	101.3 - 110	27.6	23.4	17.9	14.3	13.8	13.1	12.3	11.2	10.6	9.7	9.2	8.6	8.2	7.6	7.3	6.8	6.5	6.1	5.9	5.6	5.4	5.1	USt		
	14.8 → 61.9	109.2 - 118.1	27.6	25.8	19.7	15.7	14.5	13.8	13.5	12.3	11.6	10.7	10.2	9.4	9	8.4	8	7.5	7.2	6.8	6.5	6.1	5.9	5.6	USt P+		
230	14.8 → 64.7	115.3 - 124.9	27.6	27.1	20.9	16.8	15.5	13.9	13.8	13	12.3	11.3	10.8	10	9.6	8.9	8.5	8	7.7	7.3	7	6.6	USt				
	14.8 → 70.1	124.4 - 134.8	27.6	27.6	22.9	18.4	17	15.2	14.2	13.8	13.4	12.3	11.6	10.7	10.2	9.5	9	8.4	8.1	7.5	7.2	6.8	USt P+				
213	14.8 → 70.8	126.5 - 137	27.6	27.6	23.2	18.7	17.3	15.5	14.5	13.8	13.7	12.6	12	11.2	10.7	10	9.6	9	8.6	8.2	USt						
	14.8 → 76.9	132.4 - 142.5	27.6	27.6	25.5	20.4	18.8	16.7	15.5	13.9	13.8	13.2	12.5	11.5	11	10.2	9.7	9.1	8.7	8.2	USt P+						
197	14.8 → 74.6	133.3 - 144.5	27.6	27.6	24.7	19.9	18.5	16.6	15.5	14.1	13.8	13.4	12.8	11.9	11.4	10.6	10.2	9.6	USt								
	14.8 → 78.9	137.9 - 149	27.6	27.6	26.3	21.1	19.5	17.4	16.2	14.7	13.8	13.8	13.2	12.3	11.7	10.9	10.5	9.8	USt P+								
180	14.8 → 76.8	137.4 - 148.9	27.6	27.6	25.6	20.6	19.1	17.2	16.1	14.6	13.8	13.8	13.2	12.3	11.8	11	USt										
	14.8 → 77.9	143.7 - 156.4	27.6	27.6	26	21.3	19.8	17.9	16.8	15.3	14.5	13.8	13.8	13.1	12.5	11.8	USt P+										
164	14.8 → 81.6	146.1 - 158.3	27.6	27.6	27.4	22.2	20.6	18.5	17.3	15.7	14.8	13.8	13.8	13.2	USt												
	14.8 → 82.8		27.6	27.6	27.6	22.7	21.1	19	17.8	16.3	15.4	14.2	13.8	13.8	USt P+												
148	14.8 → 82.5		27.6	27.6	27.6	22.4	20.8	18.7	17.5	15.9	15	13.8	USt														
	14.8 → 82.4		27.6	27.6	27.6	22.6	21	19	17.8	16.3	15.4	14.2	USt P+														
131	14.8 → 82.7		27.6	27.6	27.6	22.5	20.9	18.8	17.6	16	USt																
	14.8 → 83.1		27.6	27.6	27.6	22.9	21.3	19.3	18.1	16.5	USt P+																
115	14.8 → 83.6		27.6	27.6	27.6	22.8	21.1	19	USt																		
	14.8 → 83.6		27.6	27.6	27.6	22.8	21.1	19	USt P+																		
98	14.8 → 81.2		27.6	27.6	27.2	22	USt																				
	14.8 → 81.2		27.6	27.6	27.2	22	USt P+																				

= - 1.58 USt max.

(ft)			49	66	82	98	105	115	121	131	138	148	154	164	171	180	187	197	203	213	220	230	236	246	253	262	ft
	27.6 USt	13.8 USt																									
262	13.1 → 56.5	101.2 - 103.1	27.6	23.2	17.8	14.3	13.5	12.1	11.3	10.2	9.6	8.8	8.3	7.6	7.2	6.7	6.4	5.9	5.7	5.3	5	4.7	4.5	4.2	4.1	3.8	USt
	13.1 → 61	108.7 - 110.6	27.6	25.4	19.5	15.6	14.4	13.3	12.4	11.3	10.6	9.7	9.2	8.4	8	7.4	7.1	6.5	6.2	5.8	5.5	5.1	4.9	4.5	4.3	4.1	USt P+
246	13.1 → 58.2	104.6 - 106.5	27.6	24	18.5	14.8	13.8	12.6	11.8	10.7	10	9.2	8.7	8	7.6	7.1	6.7	6.3	6	5.6	5.4	5	4.8	4.5	USt		
	13.1 → 62.9	112.4 - 114.1	27.6	26.3	20.2	16.2	15	13.7	13	11.8	11.1	10.1	9.6	8.9	8.4	7.8	7.4	6.9	6.6	6.2	5.9	5.6	5.3	5	USt P+		
230	13.1 → 65.6	118.7 - 120.9	27.6	27.5	21.3	17.2	16	14.3	13.7	12.5	11.8	10.8	10.3	9.5	9	8.4	8	7.5	7.2	6.8	6.5	6.1	USt				
	13.1 → 71.4	128.5 - 131.2	27.6	27.6	23.5	19	17.6	15.8	14.8	13.8	12.9	11.8	11.2	10.3	9.7	9	8.6	8	7.6	7.1	6.8	6.4	USt P+				
213	13.1 → 71.9	130.7 - 133.2	27.6	27.6	23.7	19.2	17.9	16.1	15	13.8	13.2	12.2	11.6	10.7	10.2	9.5	9.1	8.6	8.2	7.7	USt						
	13.1 → 78.4	136.9 - 139	27.6	27.6	26.2	21	19.4	17.3	16.1	14.6	13.8	12.8	12.1	11.1	10.6	9.8	9.3	8.7	8.3	7.8	USt P+						
197	13.1 → 76.5	139.2 - 141.8	27.6	27.6	25.5	20.7	19.2	17.3	16.2	14.8	13.9	13.1	12.5	11.6	11	10.3	9.9	9.3	USt								
	13.1 → 80.4	142.9 - 145.4	27.6	27.6	26.9	21.7	20.1	18	16.8	15.3	14.4	13.5	12.8	11.9	11.3	10.5	10.1	9.4	USt P+								
180	13.1 → 78.8	143.3 - 146.1	27.6	27.6	26.3	21.4	19.9	17.9	16.8	15.3	14.4	13.6	12.9	12	11.5	10.7	USt										
	13.1 → 79.4	149.4 - 152.5	27.6	27.6	26.7	21.9	20.4	18.5	17.4	15.9	15.1	14	13.6	12.7	12.1	11.4	USt P+										
164	13.1 → 83.6	152.3 - 155.2	27.6	27.6	27.6	22.9	21.3	19.2	18	16.4	15.5	14.3	13.8	12.9	USt												
	13.1 → 84.5	156.8 - 164	27.6	27.6	27.6	23.3	21.7	19.6	18.5	16.9	16	14.8	14.1	13.8	USt P+												
148	13.1 → 84		27.6	27.6	27.6	23	21.4	19.3	18.1	16.5	15.6	14.4	USt														
	13.1 → 84.1		27.6	27.6	27.6	23.2	21.6	19.6	18.4	16.9	16	14.8	USt P+														
131	13.1 → 84.2		27.6	27.6	27.6	23.1	21.5	19.4	18.2	16.6	USt																
	13.1 → 84.8		27.6	27.6	27.6	23.5	21.9	19.9	18.7	17.2	USt P+																
115	13.1 → 85.1		27.6	27.6	27.6	23.4	21.7	19.6	USt																		
	13.1 → 85.3		27.6	27.6	27.6	23.4	21.8	19.6	USt P+																		
98	13.1 → 82.8		27.6	27.6	27.6	22.6	USt																				
	13.1 → 82.8		27.6	27.6	27.6	22.7	USt P+																				

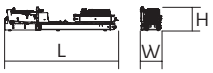
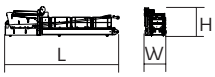
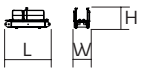
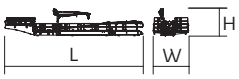
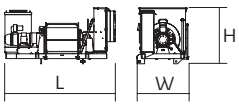
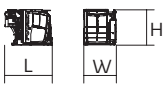
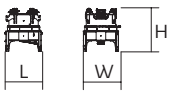
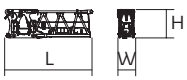
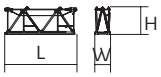
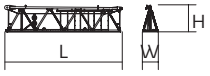
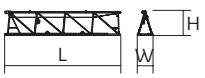
= - 0.71 USt max.

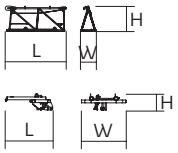
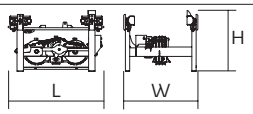
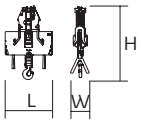
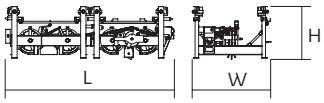
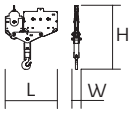
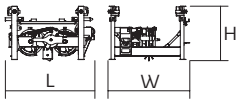
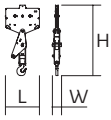
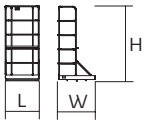
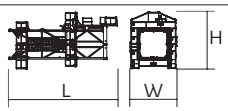
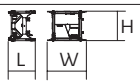
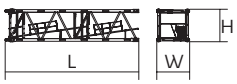
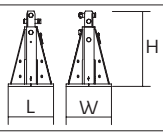
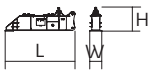
Dimensions and weight

Slewing crane part: 262 ft - 100 LVF

x 9

x 8

Slewing crane part			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib			39.4	7.2	8.2	29,690
			39.4	7.2	8.2	39,432
			39.1	7.2	9.2	29,573
			15	5.3	6.6	9,590
		100 LVF 132 HPL™ 180 HPL™ GH	53.3 53.3 53.3	17 18.6 21.9	12.9 12.9 12.9	32,747 32,902 34,458
		100 LVF 132 HPL™ 180 HPL™ GH	66.5 66.5 66.5	17 18.6 21.9	12.9 12.9 12.9	42,044 42,199 43,343
		100 LVF 132 HPL™	53.3 53.3	17 18.6	12.9 12.9	41,870 44,289
		100 LVF 132 HPL™	66.5 66.5	17 18.6	12.9 12.9	51,167 53,586
Hoisting winch (+ rope)		100 LVF 132 HPL™ 180 HPL™ GH	11.8 12.4 15.8	5.2 6.1 6.3	5.7 6.2 6.5	9,123 11,387 19,282
Cab		Ultra View	11	7.5	8.2	6,614
Towerhead		⍁8 ft	8.8	8.2	9.9	27,866
			21.9	8.2	9.9	34,480
Jib section		①	25.3	5.1	8.1	19,103
		②	34	7.4	8.1	18,122
		③	20.9	4.5	8	7,154
		④	34.1	4.5	7.8	9,466
		⑤ ⑦ ⑪	34.1 33.6 33.1	4.5 4.5 4.5	7.3 7.2 5.1	7,115 4,991 1,825

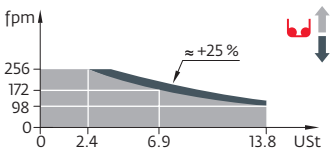
			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Jib section		⑥ ⑧ ⑨ ⑩ 5.5	17.6 17.4 17.1 17 5.5	4.5 4.5 4.5 4.5 5.2	7.3 7 6.1 5.2 1.9	3,007 1,719 1,464 1,246 575
Trolley		27.6 USt	7.3	5.7	4.7	1,676
Pulley block		27.6 USt	5.1	1.9	8	1,874
Trolley		27.6 USt	12.5	5.6	4.1	2,469
Pulley block		27.6 USt	6.3	1.1	7.7	2,028
Trolley		13.8 USt	6.6	5.6	4.1	1,323
Pulley block		13.8 USt	4.1	1.1	8.5	1,345
Trolley inspection platform			3.1	3.4	7	125
Crane tower						
T 851		⍁8 ft	36.7	15.9	19	34,723
K 84/K 84-2		⍁8 ft	7.3	10.6	8.2	6,724
K 85/KR 84B2 KM 850.10B KM 850.14B K 85/KR 84A2 KMT 850.10A KMT 850.14A K 849A KMT 849A KR 849A KRMT 849A KRMT 849C KMT 850.10C		⍁8 ft	33.6 33.9 33.9 17.2 17.5 17.5 17.2 17.2 17.2 17.2 11.7 12	8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.4 8.3 8.4 8.4 8.3	8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.3 8.2 8.3 8.3 8.2	21,242 22,201 24,670 12,236 12,015 13,206 7,496 6,945 9,458 9,017 7,066 9,326
Fixing angles		P 802B P 854A	2.5 3	2.5 3	4.2 4.9	1,025 2,072
1/2 Cross girder		ZY 800 ZY 854	18.6 18.6	3.2 3.2	6.3 7.4	10,406 13,095
Cross girder		ZY 800 ZY 854	39.2 39	4.6 4.7	6.3 7.4	22,212 29,432

Mechanisms

480 V - 60 Hz													hp	kW	
	100 LVF 63 Optima	fpm	98	126	172	226	256	49	64	89	116	128	100	75	2,382 ft
		USt	13.8	10.4	6.9	3.4	2.4	27.6	20.7	13.8	6.9	6			
	132 HPL™ 63	fpm	133	172	243	363	502	67	87	125	185	251	132	98	2,815 ft
		USt	13.8	10.4	6.9	3.4	1.1	27.6	20.7	13.8	6.9	2.9			
	180 HPL™ 63 GH	fpm	179	220	289	438	640	90	112	149	238	320	180	132	3,937 ft
		USt	13.8	10.4	6.9	3.4	0.9	27.6	20.7	13.8	6.9	3.3			
	10 DVF 10 Optima	fpm	0 → 217 (27.6 USt)			0 → 262 (22 USt)		0→ 328 (13.8 USt)			0 → 361 (6.9 USt)		10	7.4	
	RVF 174 Optima +	rpm	0 → 0.7										4 x 10	4 x 7.5	

IEC 60204-32	kVA
480 V (+6% -10%) 60 Hz	100 LVF : 126 → 86 kVA 132 HPL ™ : 152 → 99 kVA 180 HPL ™ GH : 190 → 118 kVA

100 LVF 63 Optima



These mast combinations meet the EN 14439 and ASME B30.3-2016 specifications for "out of service" wind conditions, provided the illustrated wind speed matches required design wind speed for the location of the tower crane. The "out of service" design wind speed was determined in accordance with ASCE 7-10, Figure 26.5-1A. The wind velocity, used for this configuration was 98 mph (158 kph), which represents a nominal design 3-second wind gust at 33 ft (10 m) above ground for Exposure B category. A factor of 0.85 was applied to the 700-year ultimate design wind speed of 115 mph (185 kph), per ASCE 37-02, with the assumption that this crane is considered a temporary structure used during a construction period of 2 years or less.

- Jib elevation
- Standard equipment
- Options
- Potain Plus function: Plus load curves
- Hook heights with Plus load curves
- Reactions in service
- Reactions out of service
- Total ballast weight
- Lorry 44 ft
- Container High Cube 40 ft, and/or Flat Rack 20 ft
- Hoisting
- Trolleying
- Slewing
- Travelling
- Required power
- Power Control Function: winch speeds adapted to the available power
- Consult us