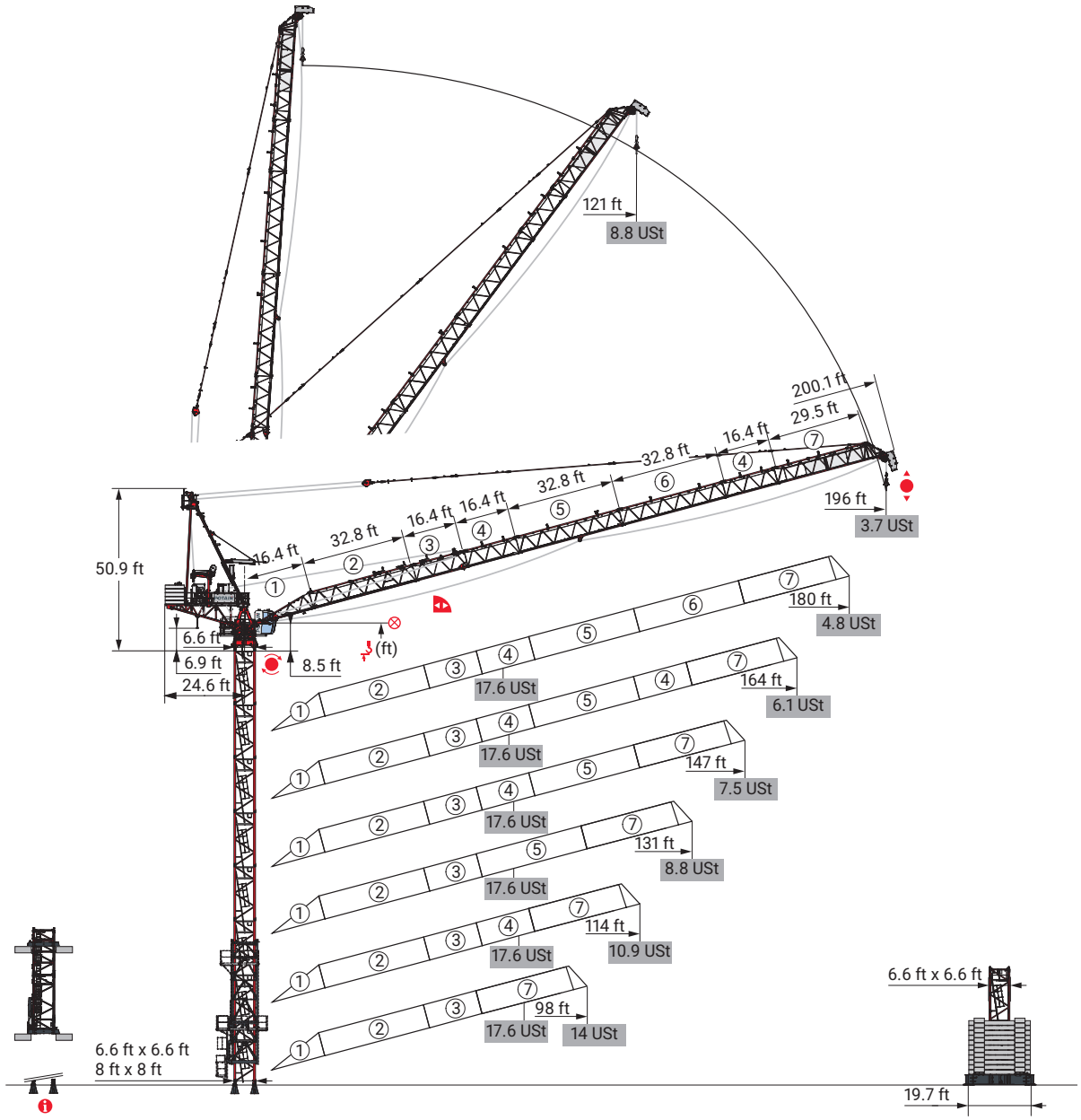
POTAIN®

MR 309 H16

ASME B30.3-2025



Auto-levelling

Potain Plus

Power Control

Anti-collision systems

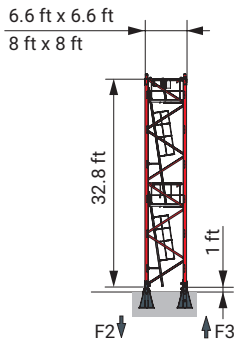
Values have been rounded.

Mast - Reactions

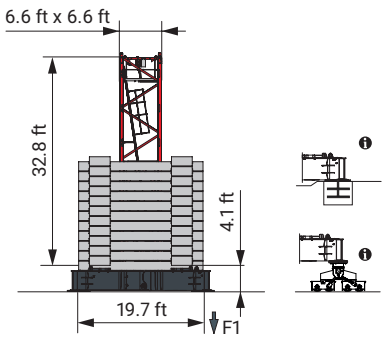
6.6 ft - P 63A							
(ft)	98	114	131	147	164	180	196
(ft)	168	162.7	157.2	151.6	146.3	140.8	129.9
/P+ (ft)	168	162.7	157.2	151.6	146.3	140.8	129.9
10.9 ft	1	2	0	1	2	0	2
16.4 ft	7	6	7	6	5	6	4
32.8 ft	1	1	1	1	1	1	1
F2 (USt) ●	249	247	244	241	239	237	233
F2 (USt) ■	260	263	263	268	272	274	261
F3 (USt) ●	190	187	185	182	180	179	175
F3 (USt) ■	201	204	206	210	214	217	204

6.6 ft - ZX 640 -							
(ft)	98	114	131	147	164	180	196
(ft)	171.3	165.7	160.4	154.9	149.3	144	132.9
/P+ (ft)	171.3	165.7	154.9	154.9	149.3	138.5	132.9
10.9 ft	1	2	0	1	2	0	2
16.4 ft	7	6	7	6	5	6	4
32.8 ft	1	1	1	1	1	1	1
F1 (USt) ●	146	148	147	147	147	147	143
F1 (USt) ■	152	156	156	157	158	160	154

P 63A / P 800C



ZX 640



Other mast compositions - Please consult us.

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

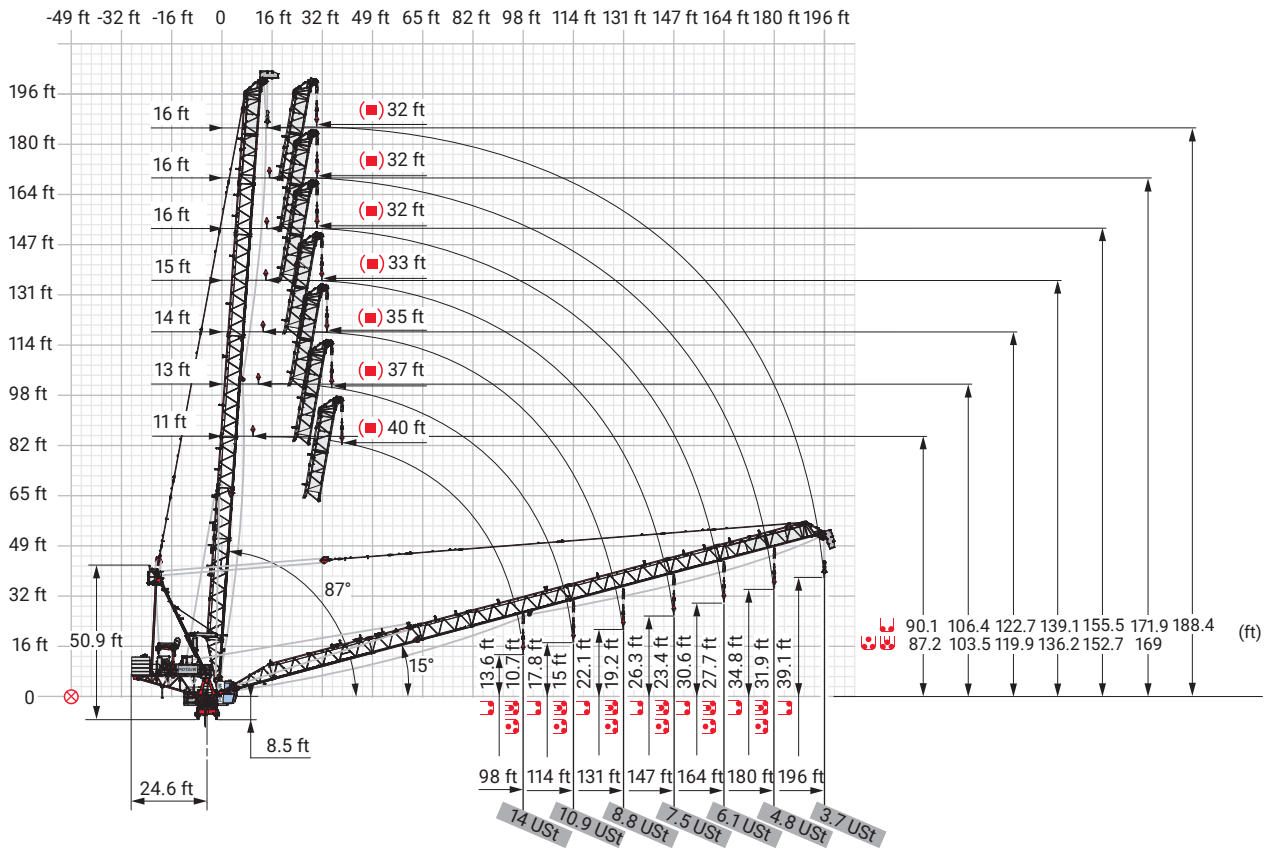
8 ft - P 800C								
(ft)		98	114	131	147	164	180	196
(ft)		212.9	202.1	196.5	190.9	185.7	180.1	174.5
/P+ (ft)		212.9	202.1	196.5	190.9	185.7	180.1	174.5
	10.9 ft	0	2	0	1	2	0	1
	16.4 ft	7	4	6	5	4	5	4
	6.6 ft	1	1	1	1	1	1	1
	16.4 ft	5	6	5	5	5	5	5
F2 (USt)	●	241	234	231	229	228	227	225
	■	349	337	335	339	343	344	347
F3 (USt)	●	173	167	166	164	155	154	161
	■	283	272	271	275	278	280	283

Anchorages

Base ballast

(USt) / 6.6 ft - ZX 640 -								
(ft)	98	114	131	147	164	180	196	
171.3	176.4							
165.7	165.4	187.4						
160.4	165.4	176.4	187.4					
154.9	154.3	165.4	176.4	187.4				
149.3	154.3	165.4	165.4	176.4	187.4			
144	143.3	154.3	165.4	165.4	176.4	187.4		
132.9	132.3	143.3	154.3	154.3	165.4	176.4	187.4	
116.5	110.2	121.3	132.3	143.3	143.3	154.3	165.4	
100.1	99.2	110.2	110.2	121.3	132.3	132.3	143.3	
83.7	77.2	88.2	99.2	99.2	110.2	121.3	132.3	

Luffing jib


-49 ft -32 ft -16 ft 0 16 ft 32 ft 49 ft 65 ft 82 ft 98 ft 114 ft 131 ft 147 ft 164 ft 180 ft 196 ft
196 ft
180 ft
164 ft
147 ft
131 ft
114 ft
98 ft
82 ft
65 ft
49 ft
32 ft
16 ft
0
16 ft
16 ft
16 ft
15 ft
14 ft
13 ft
11 ft
32 ft
32 ft
32 ft
33 ft
35 ft
37 ft
40 ft
87°
15°
50.9 ft
8.5 ft
24.6 ft
13.6 ft
10.7 ft
17.8 ft
15 ft
22.1 ft
19.2 ft
26.3 ft
23.4 ft
30.6 ft
27.7 ft
34.8 ft
31.9 ft
39.1 ft
98 ft 114 ft 131 ft 147 ft 164 ft 180 ft 196 ft
14 USt
10.9 USt
8.8 USt
7.5 USt
6.1 USt
4.8 USt
3.7 USt
90.1 106.4 122.7 139.1 155.5 171.9 188.4
87.2 103.5 119.9 136.2 152.7 169
(ft)

Load curves

(ft)			65	72	82	88	98	101	104	114	117	121	131	133	137	147	149	154	164	165	170	180	ft
		8.8 USt																					
180	16 → 72	119 - 122	17.6	17.6	15.1	13.6	11.8	-	10.7	9.4	-	8.8	7.9	-	7.2	6.4	-	5.8	5.1	-	4.7	4.1	USt
	16 → 72	119 - 122	17.6	17.6	15.1	13.6	11.8	-	10.7	9.4	-	8.8	7.9	-	7.3	6.4	-	5.9	5.3	-	4.8	4.3	USt P+
164	16 → 73	122 - 125	17.6	17.6	15.5	14.1	12.2	-	11.1	9.7	-	8.9	8.2	-	7.6	6.7	-	6.2	5.5	5.4	USt		
	16 → 73	122 - 125	17.6	17.6	15.5	14.1	12.2	-	11.1	9.7	-	8.9	8.2	-	7.6	6.8	-	6.3	5.6	5.5	USt P+		
147	15 → 75	124 - 128	17.6	17.6	15.9	14.4	12.5	-	11.5	10	-	9.2	8.5	-	7.9	7	6.8	USt					
	15 → 75	124 - 128	17.6	17.6	15.9	14.4	12.5	-	11.5	10	-	9.2	8.5	-	7.9	7	6.9	USt P+					
131	14 → 75	127 - 131	17.6	17.6	16	14.6	12.7	-	11.7	10.3	-	9.5	8.8	8.6	USt								
	14 → 75	127 - 131	17.6	17.6	16	14.6	12.7	-	11.7	10.3	-	9.5	8.8	8.6	USt P+								
114	13 → 77		17.6	17.6	16.5	15.1	13.3	-	12.3	10.9	10.6	USt											
	13 → 77		17.6	17.6	16.5	15.1	13.3	-	12.3	10.9	10.6	USt P+											
98	11 → 78		17.6	17.6	16.9	15.6	14	13.5	USt														
	11 → 79		17.6	17.6	16.9	15.6	14	13.5	USt P+														

= - 0.44 USt max.

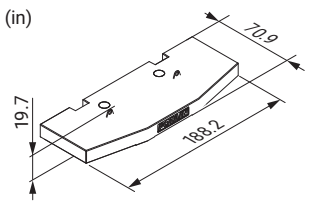
(ft)		65	72	82	88	98	101	104	114	117	121	131	133	137	147	149	154	164	165	170	180	196	ft
	8.8 USt																						
196	16 → 121	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	7.8	-	7.3	6.5	-	6	5.3	-	4.9	4.4	3.5	USt
	16 → 121	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	7.8	-	7.3	6.5	-	6.1	5.4	-	5.1	4.5	3.7	USt P+
180	16 → 121	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	7.9	-	7.4	6.6	-	6.2	5.5	-	5.1	4.6	USt	
	16 → 121	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	7.9	-	7.4	6.7	-	6.2	5.6	-	5.3	4.8	USt P+	
164	16 → 124	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	8.3	-	7.7	7	-	6.6	6	5.9	USt			
	16 → 124	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	8.3	-	7.7	7.1	-	6.6	6.1	6	USt P+			
147	15 → 127	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	8.6	-	8.1	7.4	7.3	USt						
	15 → 127	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	8.6	-	8.1	7.5	7.4	USt P+						
131	14 → 133	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	8.8	8.8	USt									
	14 → 133	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	-	8.8	8.8	8.8	USt P+									
114	13 → 117	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	8.8	USt												
	13 → 117	8.8	8.8	8.8	8.8	8.8	-	8.8	8.8	8.8	USt P+												
98	11 → 101	8.8	8.8	8.8	8.8	8.8	8.8	USt															
	11 → 101	8.8	8.8	8.8	8.8	8.8	8.8	USt P+															

Jib weight & counter-jib ballast

	(lb) (+/- 5%)			
			15,873 lb	(lb)
196 ft	24,030	14,771 / 9,259	5	79,366
180 ft	23,810	14,771 / 9,039	5	79,366
164 ft	22,487	14,771 / 7,716	5	79,366
147 ft	20,944	14,771 / 6,173	5	79,366
131 ft	18,739	9,700 / 9,039	5	79,366
114 ft	17,416	9,700 / 7,716	5	79,366
98 ft	15,873	9,700 / 6,173	5	79,366

CDJ - 15,873 lb

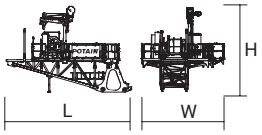
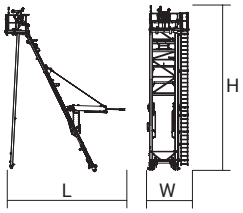
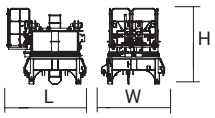
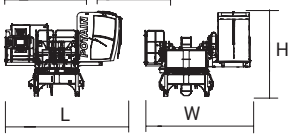
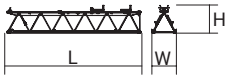
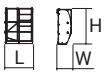
(in)

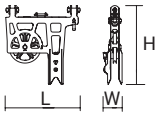
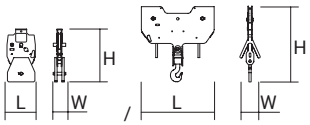
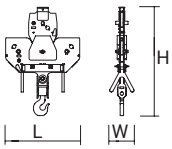
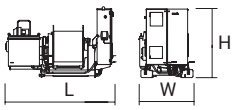
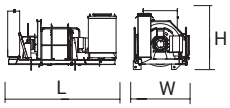
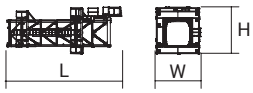
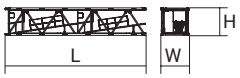
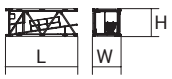
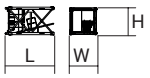
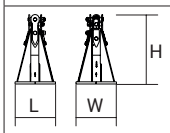
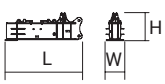


Dimensions and weight

Slewing crane part - : 196 ft - - 90 HPL™

x 7
x 6

Slewing crane part			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
	Counter-jib	100 VVF	28.3	16.5	19.3	24,482
	Strut		23.6	9	37.8	14,440
	Cab	Ultra View	17.1	6.4	8.2	4,079
	Towerhead	6.6 ft	10.2	8.1	9.7	20,944
			17.1	15.7	12.5	25,023
	Jib section	①	19.3	7.2	6.1	3,086
		② ⑤ ⑥ ⑦	33.4 33.4 33.4 31	6.2 6 6 6	6.9 6.6 6.6 6.6	3,086 2,866 2,756 3,086
		③ ④	17 17	6 6	6.9 6.6	2,116 1,521
			5.9	5.1	7.4	959
	Jib nose inspection platform		4.7	2.5	6	187

			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
			4.1	1	4.4	342
	Pulley block		2 5.3	0.9 1.5	3.8 5.6	805 915
			5.3	1.5	7.8	1,720
	Hoisting winch (+ rope)	90 HPL™ 132 HPL™	8.4 11.1	4.3 5.7	5.6 6.3	5,875 11,552
	Luffing winch (+ rope)	100 VVF	10.6	5.5	5.9	7,948
Crane tower						
	T 61 T 851	⍁ 6.6 ft ⍁ 8 ft	35.5 36.7	13.6 15.9	14.7 19	21,385 34,723
	K80/KR60-2 Connecting mast	⍁ 8/6.6 ft	7.3	10.7	8.1	8,852
	K 649B KM 649E KRM 6410B KRM 849B	⍁ 6.6 ft ⍁ 6.6 ft ⍁ 6.6 ft ⍁ 8 ft	33.6 33.8 33.6 33.6	6.8 6.7 6.9 8.4	6.7 6.7 6.8 8.3	11,663 10,692 15,653 17,196
	K 649A KMT 649A KR 649A KRMT 649A K 849A KMT 849A KR 849A KRMT 849A	⍁ 6.6 ft ⍁ 6.6 ft ⍁ 6.6 ft ⍁ 6.6 ft ⍁ 8 ft ⍁ 8 ft ⍁ 8 ft ⍁ 8 ft	17.2 17.2 17.2 17.2 17.2 17.2 17.2 17.2	6.8 6.8 6.9 6.9 8.3 8.4 8.3 8.4	6.7 6.7 6.8 6.8 8.2 8.3 8.2 8.3	6,184 5,666 7,165 6,724 7,496 6,945 9,458 9,017
	KRMT 649C KRMT 849C	⍁ 6.6 ft ⍁ 8 ft	11.7 11.7	6.9 8.4	6.8 8.3	5,401 7,066
	Fixing angles	P 63A / P 800C	2.5	2.5	4.2	1,025
	1/2 Cross girder	ZX 640	14.3	3.3	5.1	7,319
	Cross girder	ZX 640	30	3.9	5.1	15,168

Mechanisms

480 V - 60 Hz													hp	kW	
	90 HPL™ 40	fpm	133	174	249	366	548	69	90	130	190	274	90	66	1,768 ft
		USt	8.8	6.6	4.4	2.2	0.6	17.6	13.2	8.8	4.4	1.5			
	132 HPL™ 40	fpm	198	259	363	525	671	102	135	189	269	336	132	98	3,740 ft
		USt	8.8	6.6	4.4	2.2	0.8	17.6	13.2	8.8	4.4	2			
	100 VVF 50		2 min										100	75	
	RVF 172 Optima+	rpm	0 → 0.8										2 x 10	2 x 7.5	

IEC 60204-32	kVA	
480 V (+6% -10%) 60 Hz	90 HPL™ + 100 VVF: 171 → 95 kVA 132 HPL™ + 100 VVF: 205 → 112 kVA	

The reactions and mast compositions presented in this data sheet meet the specifications of EN 14439:2025 and ASME B30.3-2025 standards.
The “out of service” wind profile is determined in accordance with ASCE 7-22 and ASCE 37-25 specifications as follow:
The “standard” design wind is determined from an ultimate reference wind speed of 115 mph (185 kph) corresponding to an average recurrence interval of 700 years, calculated for an Exposure C category, and combined with a 0.85 reduction factor based on the assumption that the crane is considered as a temporary construction structure used for 2 years or less.
As a result, this “standard” wind profile is covered by the EN 14439:2025 C25 wind profile, which is used to determine all technical data provided in this document.

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

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