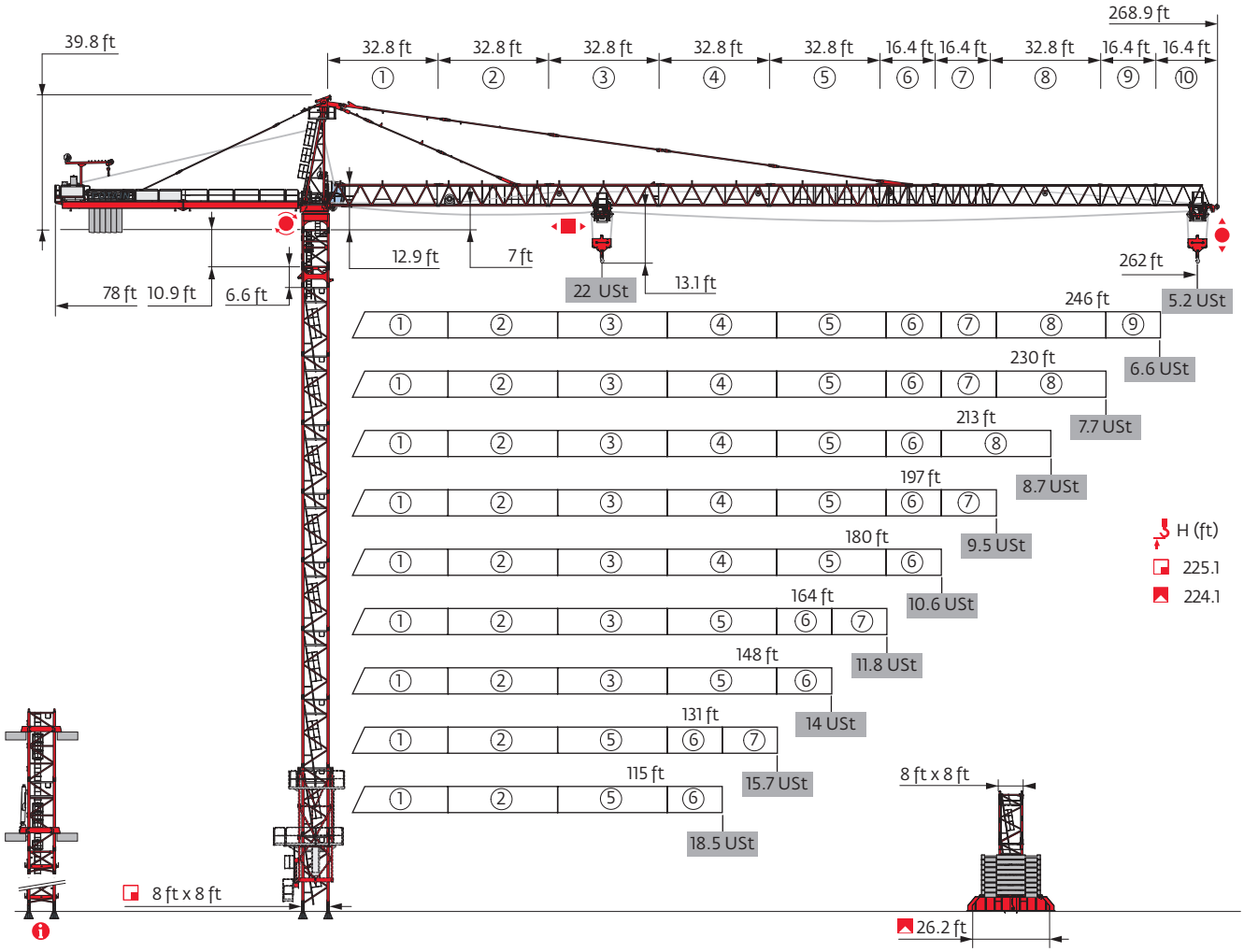
POTAIN®

REYNOLDS TOWER & HOIST

MD 559



Potain Plus

Power Control

Top Site

Top Tracing 3

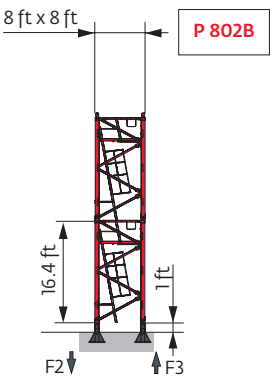
ASCE 7-10

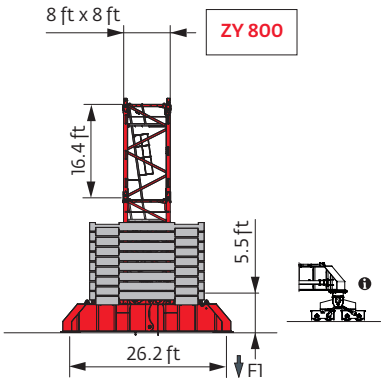
Values have been rounded.

Mast - Reactions

8 ft - P 802B											
(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		219.5	219.5	219.5	225.1	219.5	219.5	219.5	213.9	208.7	208.7
/P+ (ft)		219.5	219.5	219.5	225.1	219.5	219.5	219.5	213.9	208.7	208.7
10.9 ft		1	1	1	1	1	1	1	1	1	1
6.6 ft		1	1	1	1	1	1	1	1	1	1
10.9 ft		1	1	1	0	1	1	1	2	0	0
16.4 ft		12	12	12	13	12	12	12	11	12	12
F2 (USt)	●	252	250	251	250	250	254	260	257	251	250
	■	287	290	285	305	293	293	289	280	263	267
F3 (USt)	●	168	165	173	160	167	168	173	168	161	158
	■	214	215	208	225	210	207	202	191	173	176

8 ft - ZY 800 -											
(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		218.5	218.5	212.9	224.1	218.5	218.5	218.5	212.9	207.7	207.7
/P+ (ft)		196.5	196.5	185.7	196.5	191.3	196.5	196.5	202.1	207.7	207.7
10.9 ft		1	1	1	1	1	1	1	1	1	1
6.6 ft		1	1	1	1	1	1	1	1	1	1
10.9 ft		2	2	0	1	2	2	2	0	1	1
16.4 ft		11	11	12	12	11	11	11	12	11	11
F1 (USt)	●	141	139	137	141	142	143	144	146	146	146
	■	134	135	126	143	137	138	137	136	134	136





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.

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

Anchorages

Base ballast

(USt) / 8 ft - ZY 800 -											
(ft)	115	131	148	164	180	197	213	230	246	262
224.1				92.6						
218.5	105.8	92.6		92.6	92.6	92.6	92.6			
212.9	92.6	92.6	92.6	92.6	92.6	92.6	92.6	105.8		
207.7	92.6	92.6	92.6	92.6	92.6	92.6	92.6	105.8	105.8	105.8
191.3	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	105.8	105.8
174.9	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	105.8
158.5	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
142.1	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
125.7	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
109.3	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
92.9	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
76.4	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6

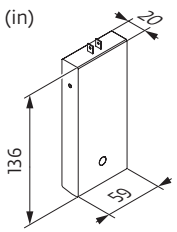
Load curves

(ft)		72	82	89	98	105	115	121	131	138	148	154	164	171	180	187	197	203	213	220	230	236	246	253	262	ft
	22 USt																									
262	10 → 84	22	22	20.6	18.2	16.9	15.1	14.1	12.8	12.1	11.1	10.5	9.8	9.3	8.7	8.3	7.7	7.4	7	6.7	6.2	5.9	5.5	5.2	4.9	USt
	10 → 86	22	22	21.3	18.9	17.5	15.7	14.7	13.3	12.6	11.6	11	10.2	9.7	9.1	8.7	8.1	7.8	7.4	7.1	6.6	6.3	5.9	5.6	5.2	USt P+
246	10 → 90	22	22	22	19.9	18.5	16.6	15.6	14.2	13.4	12.3	11.6	10.8	10.3	9.5	9.1	8.5	8.2	7.7	7.4	6.9	6.7	6.3	USt		
	10 → 91	22	22	22	20.3	18.9	17	16	14.6	13.8	12.7	12	11.2	10.6	9.9	9.5	8.9	8.5	8	7.7	7.3	7	6.6	USt	P+	
230	10 → 93	22	22	22	20.7	19.2	17.3	16.2	14.8	14	12.9	12.2	11.3	10.8	10.1	9.6	9	8.7	8.1	7.8	7.4	USt				
	10 → 94	22	22	22	21.1	19.6	17.7	16.6	15.2	14.4	13.3	12.6	11.7	11.2	10.4	10	9.4	9	8.5	8.2	7.7	USt	P+			
213	10 → 95	22	22	22	21.2	19.7	17.8	16.7	15.2	14.4	13.2	12.5	11.6	11.1	10.4	9.9	9.3	8.9	8.4	USt						
	10 → 96	22	22	22	21.6	20.1	18.1	17	15.6	14.7	13.6	12.9	12	11.4	10.7	10.2	9.6	9.2	8.7	USt	P+					
197	10 → 94	22	22	22	20.9	19.4	17.5	16.4	15	14.2	13	12.4	11.5	10.9	10.2	9.8	9.1	USt								
	10 → 95	22	22	22	21.3	19.8	17.9	16.8	15.4	14.5	13.4	12.7	11.8	11.3	10.5	10.1	9.5	USt	P+							
180	10 → 94	22	22	22	21	19.5	17.6	16.5	15.1	14.2	13.1	12.4	11.5	11	10.3	USt										
	10 → 96	22	22	22	21.3	19.8	17.9	16.8	15.4	14.6	13.4	12.8	11.9	11.3	10.6	USt	P+									
164	10 → 94	22	22	22	20.9	19.4	17.5	16.4	15	14.1	13	12.4	11.5	USt												
	10 → 95	22	22	22	21.2	19.7	17.8	16.7	15.3	14.5	13.4	12.7	11.8	USt	P+											
148	10 → 98	22	22	22	21.9	20.3	18.3	17.2	15.7	14.8	13.7	USt														
	10 → 99	22	22	22	22	20.6	18.7	17.5	16	15.2	14	USt	P+													
131	10 → 96	22	22	22	21.4	19.8	17.9	16.8	15.3	USt																
	10 → 97	22	22	22	21.7	20.2	18.2	17.1	15.7	USt	P+															
115	10 → 97	22	22	22	21.7	20.2	18.2	USt																		
	10 → 98	22	22	22	22	20.5	18.5	USt	P+																	

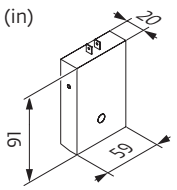
Jib weight & counter-jib ballast

	(lb) (+/- 5%)			
		13,228 lb	8,818 lb	(lb)
262 ft	57,739	6	0	79,366
246 ft	56,637	5	1	74,957
230 ft	54,983	4	2	70,548
213 ft	52,591	4	1	61,729
197 ft	51,908	3	2	57,320
180 ft	49,516	3	1	48,502
164 ft	45,801	2	1	35,274
148 ft	43,409	1	2	30,865
131 ft	39,165	1	1	22,046
115 ft	36,784	0	2	17,637

CBC - 13,228 lb



CBD - 8,818 lb

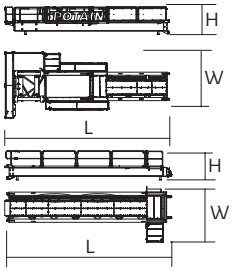
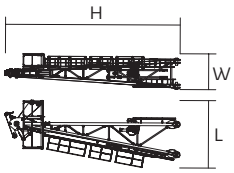
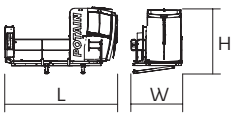
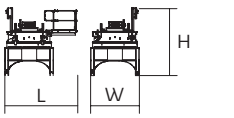
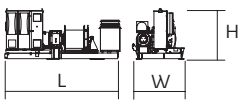
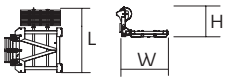
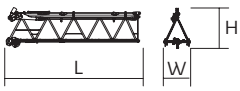
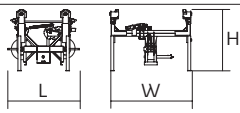
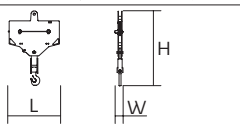


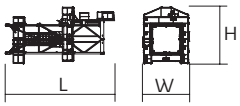
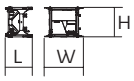
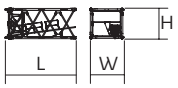
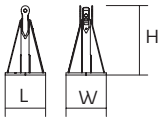
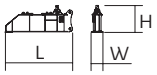
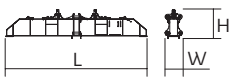
Dimensions and weight

Slewing crane part: 262 ft - 320 LVF

x 14

x 10

Slewing crane part		L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib		38.4 36.2	15.4 12.3	6.4 6.8	14,551 10,858
Cathead		11.6	6.5	32.3	18,221
Cab	 Ultra View	16.4	8.2	9.1	4,134
Towerhead	 8 ft	12.1	9.5	12.7	24,670
Hoisting winch (+ rope)	 320 LVF	16.7	7.5	7.3	21,793
Intermediate winch frame		10.7	9.5	5.4	12,485
Jib section	 ① ②15 DVF ③ ④ ⑤ ⑧	34 33.9 33.6 33.6 33.6 33.5	6.2 6.2 6.2 6.2 6.2 6.2	8.3 7.7 7.9 7.6 7.6 6.6	11,244 11,442 6,636 6,107 6,250 3,075
Jib section	⑥ ⑦ ⑨ ⑩	17.5 17.2 17 16.7	6.2 6.2 6.2 6.2	7.4 6.7 6.5 6.5	3,803 2,381 1,213 1,102
Trolley		6.4	7.3	5.5	1,731
Pulley block		5.5	0.9	8	1,257

Crane Tower			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Telescopic cage T 851		⍁8 ft	36.7	15.9	19	34,723
K 84/K 84-2 Telescoping mast		⍁8 ft	7.3	10.6	8.2	6,724
KMT 849A KR 849A KRMT 849A KRMT 849C		⍁8 ft	17.2 17.2 17.2 11.7	8.4 8.3 8.4 8.4	8.3 8.2 8.3 8.3	6,945 9,458 9,017 7,066
Fixing angles		P 802B	2.5	2.5	4.2	1,025
1/2 Cross girder		ZY 800	18.6	3.2	6.3	10,406
Cross girder		ZY 800	39.2	4.6	6.3	22,212

Mechanisms

480 V - 60 Hz								hp	kW	
	320 LVF 100 Optima	fpm	220	282	387	486	531	320	240	1,745 ft
		USt	22	16.5	11	7.5	6.6			
	15 DVF 16 Optima	fpm	0 → 164 (22 USt)		0 → 220 (11 USt)		0 → 328 (2.8 USt)	15	11	
	RVF 173 Optima+	rpm	0 → 0.8					3 x 10	3 x 7.5	

IEC 60204-32	kVA	
480 V (+6% -10%) 60 Hz	297 → 169 kVA	

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.

- 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
- Jib 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

This commercial document is not legally binding. For any technical information, please refer to the corresponding instructions.

REYNOLDS TOWER & HOIST

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