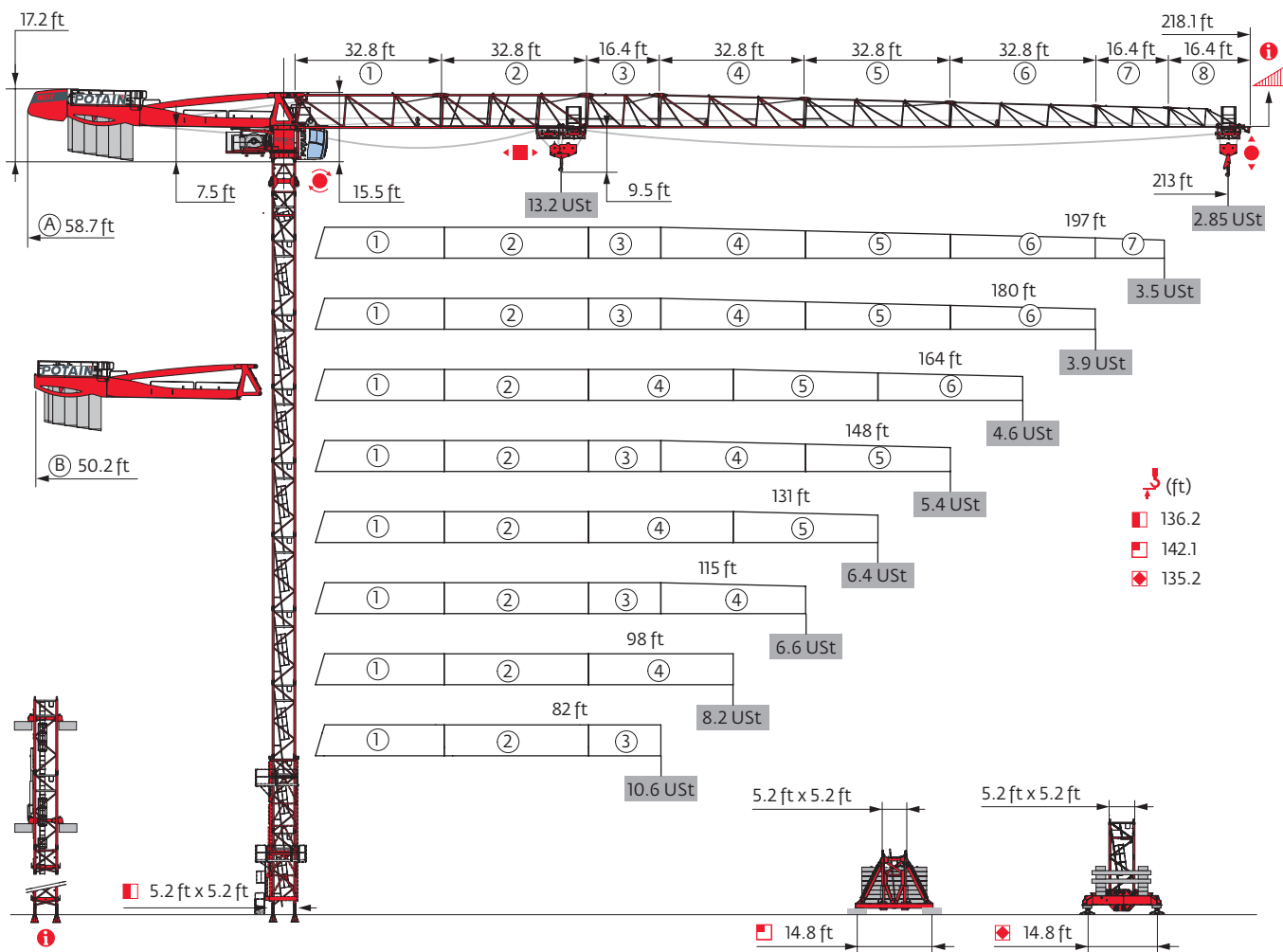


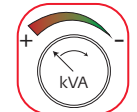
# MDT 249 J12



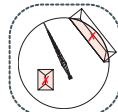
Potain Plus



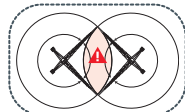
Power Control



Top Site



Top Tracing 3

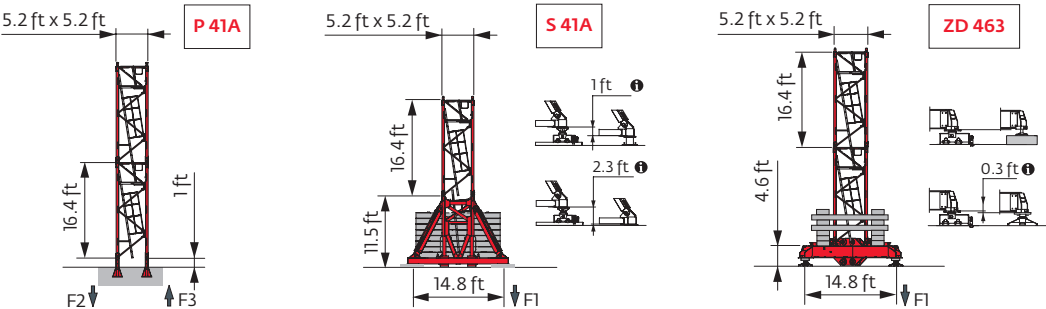


Mast - Reactions

5.2 ft City - P 41A									
W (ft)	82	98	115	131	148	164	180	197	213
h (ft)	136.2	136.2	130.6	130.6	136.2	136.2	125.3	125.3	125.3
h/P <sub>+</sub> (ft)	136.2	136.2	130.6	130.6	136.2	136.2	125.3	125.3	125.3
10.9 ft	2	2	0	0	2	2	1	1	1
	7	7	8	8	7	7	7	7	7
F2 (Ust)	145	144	136	138	141	139	139	139	140
	107	105	98	96	115	117	103	102	110
F3 (Ust)	111	109	101	101	96	94	93	92	93
	73	71	63	59	77	78	64	62	70


5.2 ft City - S 41A									
W (ft)	82	98	115	131	148	164	180	197	213
h (ft)	141.1	141.1	141.1	141.1	141.1	141.1	135.5	130.2	135.5
h/P <sub>+</sub> (ft)	141.1	141.1	141.1	141.1	141.1	141.1	135.5	130.2	135.5
10.9 ft	0	0	0	0	0	0	1	2	1
	8	8	8	8	8	8	7	6	7
F1 (Ust)	88	86	88	88	87	87	89	87	89
	71	71	73	72	74	74	74	71	77



5.2 ft City - ZD 463									
W (ft)	82	98	115	131	148	164	180	197	213
h (ft)	134.2	134.2	134.2	134.2	134.2	134.2	128.6	123.4	128.6
h/P <sub>+</sub> (ft)	134.2	134.2	134.2	134.2	134.2	134.2	128.6	123.4	128.6
10.9 ft	0	0	0	0	0	0	1	2	1
	8	8	8	8	8	8	7	6	7
F1 (Ust)	85	83	84	84	84	83	85	83	86
	67	67	68	68	68	69	69	65	72





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.

5.2 ft - P 41A									
▲▲▲ (ft)	82	98	115	131	148	164	180	197	213
↗ (ft)	131.9	131.9	126.3	131.9	131.9	131.9	126.3	120.7	120.7
↗/P+ (ft)	131.9	131.9	126.3	131.9	131.9	131.9	126.3	120.7	120.7
	6.6 ft	1	1	1	1	1	1	1	1
	10.9 ft	1	1	2	1	1	2	0	0
	16.4 ft	7	7	6	7	7	6	7	7
F2 (Ust)	● 144	142	136	141	140	138	142	137	138
	■ 108	106	103	108	116	117	117	103	111
F3 (Ust)	● 110	108	100	104	95	93	96	91	91
	■ 74	72	67	71	78	79	77	63	71





5.2 ft - S 41A - 									
▲▲▲ (ft)	82	98	115	131	148	164	180	197	213
↗ (ft)	136.8	136.8	136.8	136.8	136.8	142.1	131.2	131.2	131.2
↗/P+ (ft)	136.8	136.8	136.8	136.8	136.8	142.1	131.2	131.2	131.2
	6.6 ft	1	1	1	1	1	1	1	1
	10.9 ft	2	2	2	2	1	0	0	0
	16.4 ft	6	6	6	6	7	7	7	7
F1 (Ust)	● 90	86	88	88	88	90	88	89	89
	■ 76	73	76	75	76	81	76	76	78





5.2 ft - ZD 463 - 									
▲▲▲ (ft)	82	98	115	131	148	164	180	197	213
↗ (ft)	135.2	135.2	129.9	129.9	135.2	135.2	129.9	124.3	124.3
↗/P+ (ft)	135.2	135.2	129.9	129.9	135.2	135.2	129.9	124.3	124.3
	6.6 ft	1	1	1	1	1	1	1	1
	10.9 ft	1	1	2	2	1	2	0	0
	16.4 ft	7	7	6	6	7	6	7	7
F1 (Ust)	● 88	86	84	84	87	86	88	85	85
	■ 74	72	70	69	75	75	76	70	73





Anchorage







## Base ballast

 (USt) /  5.2 ft City - S 41A - 									
 (ft)	82	98	115	131	148	164	180	197	213
141.1	99.2	99.2	99.2	99.2	92.6	92.6			
135.5	99.2	92.6	92.6	92.6	86	86	92.6		92.6
130.2	92.6	92.6	92.6	86	79.4	79.4	86	92.6	86
113.8	79.4	72.8	72.8	72.8	66.1	66.1	72.8	72.8	72.8
97.4	66.1	66.1	59.5	66.1	59.5	52.9	52.9	59.5	66.1
81	66.1	59.5	52.9	59.5	52.9	52.9	46.3	52.9	66.1
64.6	66.1	59.5	52.9	59.5	52.9	52.9	46.3	52.9	59.5







 (USt) /  5.2 ft City - ZD 463 - 									
 (ft)	82	98	115	131	148	164	180	197	213
134.2	93.7	88.2	88.2	88.2	82.7	82.7			
128.6	88.2	88.2	82.7	82.7	77.2	77.2	82.7		82.7
123.4	82.7	82.7	82.7	77.2	71.7	71.7	77.2	77.2	77.2
107	66.1	66.1	66.1	66.1	55.1	55.1	60.6	60.6	66.1
90.6	66.1	60.6	55.1	60.6	55.1	49.6	44.1	55.1	60.6
74.2	66.1	55.1	49.6	55.1	55.1	49.6	44.1	49.6	60.6
57.7	66.1	55.1	49.6	55.1	55.1	49.6	44.1	49.6	60.6


 (USt) /  5.2 ft - S 41A - 									
 (ft)	82	98	115	131	148	164	180	197	213
142.1						99.2			
136.8	105.8	99.2	99.2	99.2	92.6	92.6			
131.2	99.2	92.6	92.6	92.6	86	86	92.6	92.6	92.6
114.8	79.4	79.4	79.4	79.4	72.8	72.8	72.8	79.4	72.8
98.4	66.1	66.1	66.1	66.1	59.5	59.5	59.5	59.5	66.1
82	66.1	59.5	52.9	59.5	52.9	52.9	46.3	59.5	66.1
65.6	66.1	59.5	52.9	52.9	52.9	52.9	46.3	52.9	66.1

 (USt) /  5.2 ft - ZD 463 - 									
 (ft)	82	98	115	131	148	164	180	197	213
135.2	99.2	93.7			88.2	88.2			
129.9	93.7	88.2	88.2	88.2	82.7	82.7	88.2		
124.3	88.2	82.7	82.7	82.7	77.2	77.2	82.7	82.7	82.7
107.9	71.7	71.7	66.1	66.1	60.6	60.6	66.1	66.1	66.1
91.5	66.1	60.6	55.1	60.6	49.6	55.1	49.6	55.1	60.6
75.1	66.1	55.1	49.6	55.1	49.6	49.6	44.1	49.6	60.6
58.7	66.1	55.1	49.6	49.6	49.6	49.6	44.1	49.6	60.6


Load curves



<div> (ft)</div>			49	56	66	72	82	89	98	105	115	121	131	138	148	154	164	171	180	187	197	203	213	ft
<div></div>	<div> 13.2 USt</div>	<div> 6.6 USt</div>	<div></div>						<div></div>															
213	10 → 53	94 - 102	13.2	12.4	10.2	9.1	7.8	7.1	6.6	6.4	5.7	5.4	4.9	4.6	4.3	4	3.7	3.6	3.3	3.2	3	2.85	2.7	USt
	10 → 54	97 - 105	13.2	12.7	10.6	9.4	8.1	7.4	6.6	6.6	6	5.6	5.1	4.9	4.5	4.3	4	3.8	3.5	3.4	3.2	3	2.85	USt <b>P+</b>
197	10 → 56	101 - 108	13.2	13.2	11.1	9.9	8.5	7.8	6.8	6.6	6.2	5.8	5.3	5	4.6	4.4	4.1	3.9	3.6	3.5	3.3	USt		
	10 → 58	105 - 113	13.2	13.2	11.5	10.3	8.9	8.1	7.2	6.6	6.5	6.1	5.6	5.3	4.9	4.7	4.3	4.1	3.9	3.7	3.5	USt <b>P+</b>		
180	10 → 56	101 - 109	13.2	13.2	11.1	9.9	8.5	7.8	6.9	6.6	6.2	5.8	5.3	5	4.6	4.4	4.1	3.9	3.6	USt				
	10 → 58	106 - 115	13.2	13.2	11.6	10.4	9	8.2	7.2	6.7	6.6	6.2	5.6	5.3	4.9	4.7	4.4	4.2	3.9	USt <b>P+</b>				
164	10 → 59	106 - 113	13.2	13.2	11.7	10.4	9	8.2	7.2	6.7	6.5	6.1	5.6	5.3	4.9	4.6	4.3	USt						
	10 → 61	111 - 120	13.2	13.2	12.2	11	9.5	8.7	7.7	7.1	6.6	6.5	6	5.6	5.2	5	4.6	USt <b>P+</b>						
148	10 → 61	109 - 118	13.2	13.2	12.1	10.8	9.3	8.5	7.5	6.9	6.6	6.4	5.8	5.5	5.1	USt								
	10 → 64	116 - 125	13.2	13.2	12.8	11.4	9.9	9.1	8	7.4	6.7	6.6	6.2	5.9	5.4	USt <b>P+</b>								
131	10 → 62	111 - 120	13.2	13.2	12.4	11.1	9.6	8.7	7.7	7.1	6.6	6.5	6	USt										
	10 → 65	118 - 128	13.2	13.2	13.1	11.8	10.2	9.3	8.2	7.6	6.9	6.6	6.4	USt <b>P+</b>										
115	10 → 60	107 - 115	13.2	13.2	11.8	10.6	9.1	8.3	7.3	6.8	6.6	USt												
	10 → 63	114 - 115	13.2	13.2	12.6	11.3	9.7	8.9	7.9	7.3	6.6	USt <b>P+</b>												
98	10 → 61		13.2	13.2	12.2	10.9	9.4	8.6	7.5	USt														
	10 → 64		13.2	13.2	13	11.6	10.1	9.2	8.1	USt <b>P+</b>														
82	10 → 63		13.2	13.2	12.6	11.3	9.7	USt																
	10 → 67		13.2	13.2	13.2	12.2	10.5	USt <b>P+</b>																



= 



 - 0.63 USt max.

$USt = USt - 0.63 USt \text{ max.}$



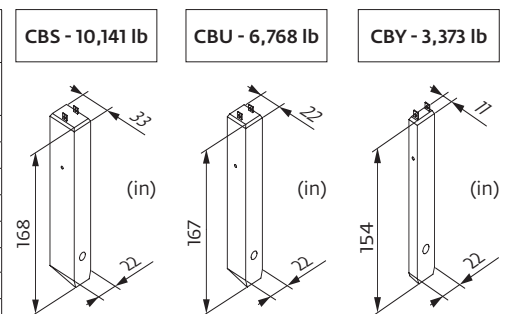
<div><div><div></div><div></div><div></div><div></div><div></div></div><div>(ft)</div></div>			49	56	66	72	82	89	98	105	115	121	131	138	148	154	164	171	180	187	197	203	213	ft
<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div> 13.2 Ust	<div><div></div><div></div><div></div></div> 6.6 Ust	<div><div></div><div></div><div></div></div>						<div><div></div><div></div><div></div></div>															
213	8 → 53	95 - 97	13.2	12.5	10.3	9.2	7.9	7.2	6.5	6	5.4	5	4.5	4.3	3.9	3.7	3.4	3.2	2.95	2.8	2.6	2.5	2.3	USt
	8 → 54	98 - 100	13.2	12.8	10.6	9.5	8.2	7.5	6.6	6.3	5.6	5.3	4.8	4.5	4.1	3.9	3.6	3.4	3.2	3	2.8	2.7	2.5	USt P+
197	8 → 57	102 - 104	13.2	13.2	11.1	10	8.6	7.8	6.9	6.5	5.9	5.5	5	4.7	4.3	4.1	3.7	3.5	3.3	3.1	2.9	USt		
	8 → 58	106 - 108	13.2	13.2	11.6	10.4	9	8.2	7.2	6.7	6.2	5.8	5.3	5	4.6	4.3	4	3.8	3.5	3.4	3.2	USt P+		
180	8 → 57	102 - 104	13.2	13.2	11.2	10	8.6	7.9	6.9	6.6	5.9	5.5	5	4.7	4.3	4.1	3.8	3.6	3.3	USt				
	8 → 59	107 - 109	13.2	13.2	11.7	10.5	9	8.3	7.3	6.8	6.2	5.8	5.3	5	4.6	4.4	4	3.8	3.6	USt P+				
164	8 → 59	106 - 109	13.2	13.2	11.7	10.5	9	8.3	7.3	6.7	6.2	5.8	5.3	5	4.5	4.3	4	USt						
	8 → 61	112 - 115	13.2	13.2	12.3	11	9.5	8.7	7.7	7.2	6.6	6.2	5.6	5.3	4.9	4.6	4.3	USt P+						
148	8 → 61	110 - 112	13.2	13.2	12.2	10.9	9.4	8.6	7.6	7	6.4	6	5.5	5.2	4.7	USt								
	8 → 64	117 - 119	13.2	13.2	12.8	11.5	10	9.1	8.1	7.5	6.7	6.5	5.9	5.6	5.1	USt P+								
131	8 → 62	112 - 115	13.2	13.2	12.5	11.2	9.6	8.8	7.8	7.2	6.6	6.2	5.6	USt										
	8 → 65	119 - 122	13.2	13.2	13.2	11.8	10.2	9.4	8.3	7.7	6.9	6.6	6.1	USt P+										
115	8 → 60	108 - 110	13.2	13.2	11.9	10.6	9.2	8.4	7.4	6.8	6.3	USt												
	8 → 63		13.2	13.2	12.6	11.3	9.8	9	7.9	7.4	6.6	USt P+												
98	8 → 61		13.2	13.2	12.2	11	9.4	8.6	7.6	USt														
	8 → 65		13.2	13.2	13	11.7	10.1	9.3	8.2	USt P+														
82	8 → 63		13.2	13.2	12.7	11.4	9.8	USt																
	8 → 67		13.2	13.2	13.2	12.2	10.6	USt P+																

=  - 0.18 USt max.

$USt = USt - 0.18 USt \text{ max.}$

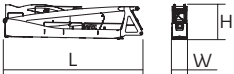

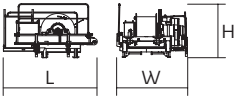

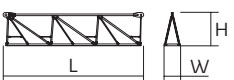
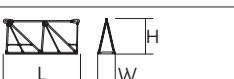
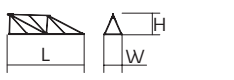


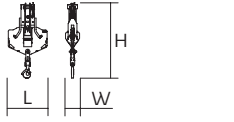

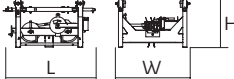

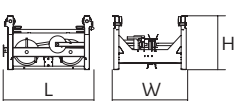


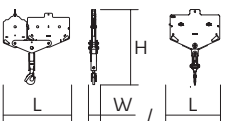


Jib weight & counter-jib ballast

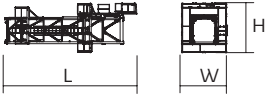
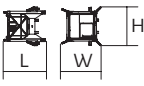
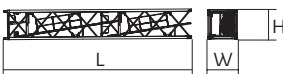

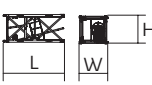
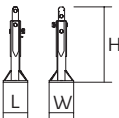
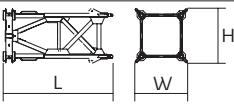
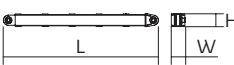
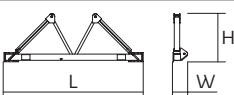

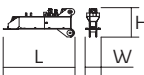
	(lb) (+/- 5%)											
				10,141 lb	3,373 lb	(lb)	6,768 lb	3,373 lb	(lb)			
213 ft	27,448	26,764	27,613	5	1	54,079	7	2	54,123			
197 ft	26,830	26,169	26,963	5	1	54,079	7	2	54,123			
180 ft	26,147	25,485	26,279	5	0	50,706	7	1	50,750			
164 ft	24,052	23,391	24,185	4	2	47,311	6	2	47,355			
148 ft	24,339	23,678	24,471	4	2	47,311	6	2	47,355			
131 ft	22,245	21,583	22,377	4	1	43,938	6	1	43,982			
115 ft	21,914	21,253	22,046	4	0	40,565	5	2	40,587			
98 ft	20,084	19,423	20,216	3	2	37,170	5	1	37,214			
82 ft	19,004	18,342	19,136	3	1	33,797	4	2	33,819			












## Dimensions and weight

Slewing crane part :  213 ft -  -  50 LVF

Slewing crane part			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib		Ⓐ Ⓑ	36.1 36.1	3.8 3.8	8.1 8.1	19,213 18,629
Towerhead + cab		5.2 ft	15.6	7.5	8.4	17,372
Hoisting winch (+ rope)		50 LVF 90 HPL™	10.6 10.6	8.1 10.8	6.2 5.8	6,945 9,235
Jib section		① 6 DVF	35.5	5.6	8.9	7,760
Jib section		② ④ ⑤ ⑥	33.8 33.5 33.6 33.4	3.9 3.9 3.9 3.9	7.9 7.8 6.9 6	5,335 3,439 2,723 1,753
Jib section		③ ⑦	17.3 16.7	3.9 3.9	7.8 5	2,116 683
Jib section		⑧	16.7	3.9	4.6	485
Trolley		 13.2 USt	6.1	5	3.4	882
Pulley block		 13.2 USt	3.9	1.4	7.6	1,003
Trolley		 13.2 USt	5.2	5	3.2	463
Trolley		 13.2 USt  6.6 USt	5.6 6.1	5 5	3 3.2	540 520
Pulley block		 13.2 USt  6.6 USt	5.4 3.6	0.7 0.9	5.8 5.3	992 584

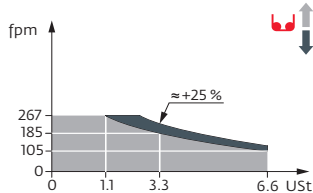
Crane tower			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Telescopic cage T 41		□ 5.2 ft	35.6	12.3	13.5	15,653
K40/K40-2		□ 5.2 ft	7.3	6.9	6.8	2,932
K 447E KM 447E KM 449E		□ 5.2 ft	33.5 33.5 33.5	5.3 5.3 5.3	5.3 5.3 5.3	7,474 7,088 8,444
K 447A KMT 447A K 449A KMT 449A		□ 5.2 ft	17.1 17.1 17.1 17.1	5.5 5.5 5.5 5.5	5.3 5.3 5.3 5.3	4,079 3,847 4,916 4,696
K 447C		□ 5.2 ft	11.3	5.5	5.3	2,998
Fixing angles		P 41A	1.2	1.2	3.7	293
Basic mast unit		S 41A	11.9	6.4	6.8	6,537
Struts		S 41A	10.4	0.9	0.8	489
Half-bearer		S 41A	16.7	2	5.8	2,524
Cross girder		ZD 463	25.1	3.8	4.5	7,904
1/2 Cross girder		ZD 463	11.2	2.3	4.4	3,649

## Mechanisms

480 V - 60 Hz											hp	kW		
	50 LVF 30 Optima	fpm	105	135	185	267	54	71	97	135	50	37	1,106 ft	
		USt	6.6	5	3.3	1.1	13.2	9.9	6.6	2.5				
	90 HPL™ 30	fpm	176	228	326	469	723	90	120	172	244	361	90	66
USt		6.6	5	3.3	1.7	0.2	13.2	9.9	6.6	3.3	0.9			
	6 DVF 4 Optima	fpm	0 → 164 (13.2 USt) 0 → 328 (6.6 USt) 0 → 394 (3.3 USt)									5.5	4	
	RVF 162 Optima+	rpm	0 → 0.9									2 x 7.5	2 x 5.5	
														

IEC 60204-32	kVA	
480 V (+6% -10%) 60 Hz	50 LVF: 58 → 38 kVA 90 HPL™: 90 → 54 kVA	

## 50 LVF 30 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		Total ballast weight		Travelling
	Standard equipment		Jib weight		Required power
	Options		Lorry 44 ft		Power Control Function: winch speeds adapted to the available power
	Potain Plus function: Plus load curves		Container High Cube 40 ft, and/or Flat Rack 20 ft		Consult us
	Hook heights with Plus load curves				
	Reactions in service				
	Reactions out of service				

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

