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And remember - our name is our promise. We make everything available for delivery on-demand.

Table of Contents

Tower Cranes

Potain MR 605 B H 32 Luffing Jib Tower Crane

- Max capacity: 32 tons
- Full standard Luffing Jib 197’

Liebherr 316 EC-H 12 Litronic

- Max capacity: 13 tons
- Full standard jib 246’

Terex Peiner SK415

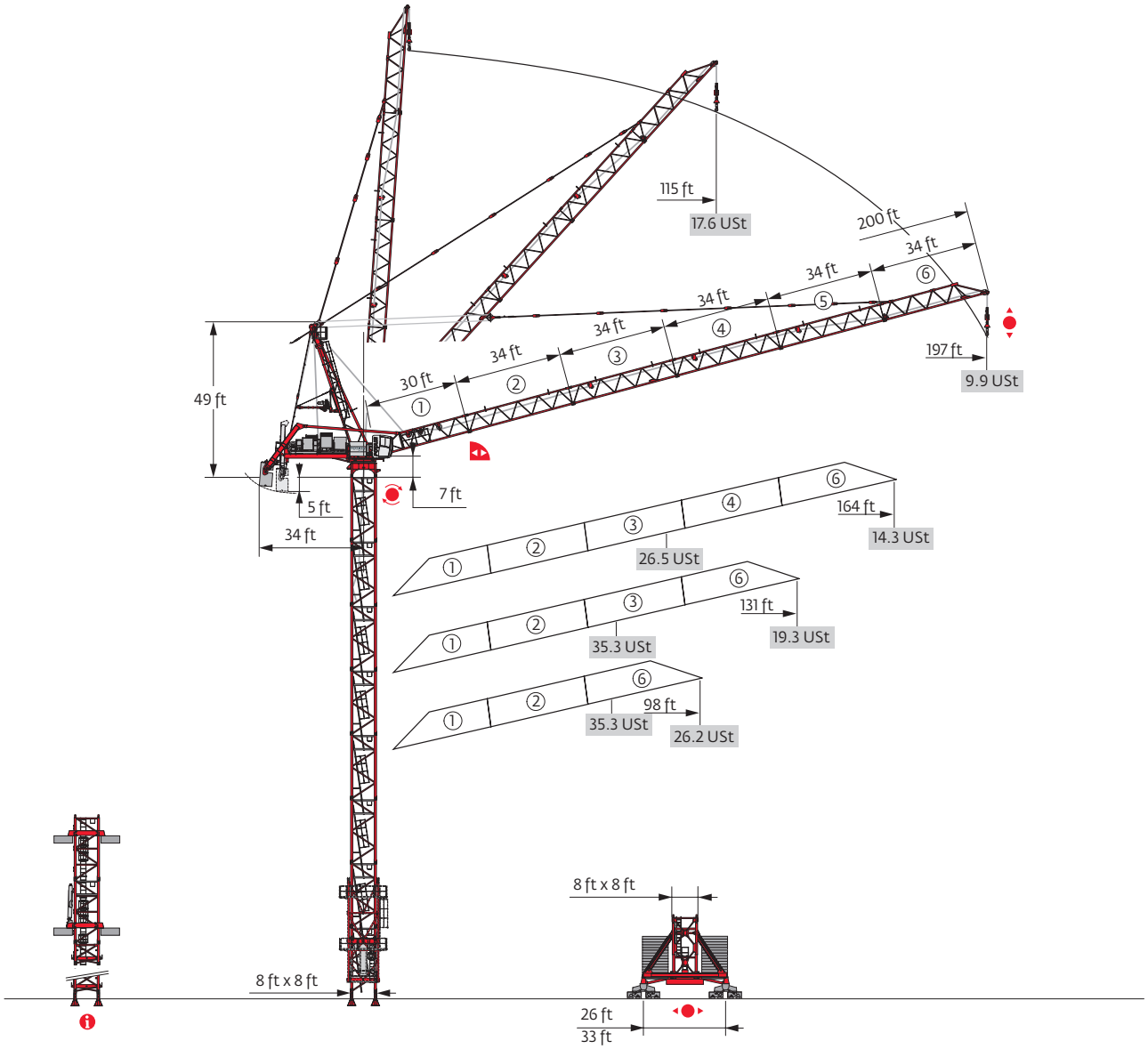
- Max capacity: 20 tons
- Full standard jib 262’

Note: All Heavy Equipment is quoted per project.

Potain MR 605 B H32

Data Sheet

FEM 1.001-A3

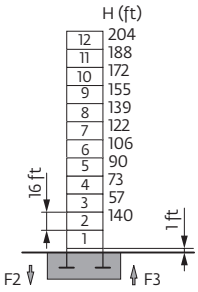


Values have been rounded

Mast

8 ft

98 ft

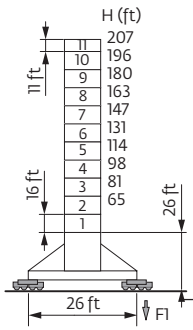


	H (ft)	16 ft	11 ft
131 ft	194	10	2
164 ft	194	10	2
197 ft	199	11	1

P 800B

F2	● 289 USt ■ 278 USt
F3	● 181 USt ■ 184 USt
	134 USt

98 ft

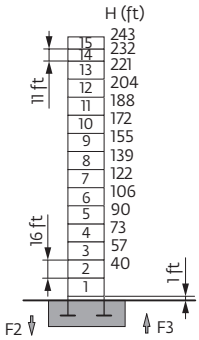


	H (ft)	16 ft	11 ft
131 ft	191	9	1
164 ft	191	9	1
197 ft	201	9	2

Y 800B

F1	● 166 USt ■ 155 USt
	172 USt

98 ft

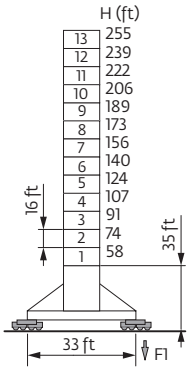


	H (ft)	16 ft	11 ft
131 ft	237	14	-
164 ft	237	14	-
197 ft	237	14	-

P 850A

F2	● 335 USt ■ 422 USt
F3	● 215 USt ■ 317 USt
	157 USt

98 ft



	H (ft)	16 ft	11 ft
131 ft	244	11	2
164 ft	244	11	2
197 ft	250	12	1

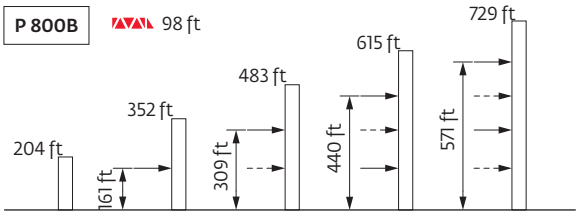
J 850A

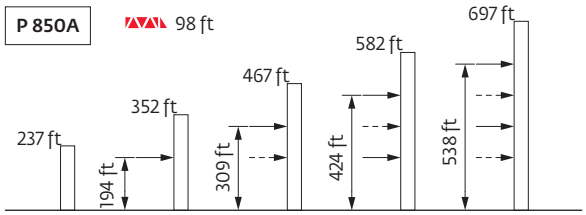
F1	● 170 USt ■ 204 USt
	219 USt

●	Reactions in service
■	Reactions out of service
	Weight without load, without ballast, with jib and max. height

Potain MR 605 B H32

Anchorages





Load charts

197 ft		18	▶					115	115	121	131	138	148	154	164	171	180	187	197	ft
								17.6	17.5	16.5	15.3	14.6	13.4	12.9	12	11.6	10.9	10.5	9.9	USt
164 ft		16	▶			93	98	105	115	121	131	135	148	154	164	ft				
						26.5	24.8	23.1	21.1	19.8	18.2	17.7	16.1	15.3	14.3	USt				
												17.6	16.0	15.3	14.3	USt				
131 ft		14	▶	74	82	89	98	105	115	121	131	ft								
				35.3	31.6	29.2	26.1	24.5	22.3	20.9	19.3	USt								
											17.6	USt								
98 ft		11	▶	74	82	89	98	ft												
				35.3	31.7	29.3	26.2	USt												
							17.6	USt												

Base ballast

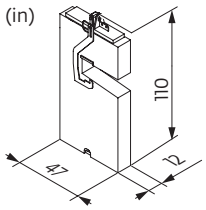
	⌀ 8 ft			
	Y 800B		J 850A	
	H (ft)	(USt)	H (ft)	(USt)
98 ft	207	105.8	255	79.4
131 ft	191	92.6	244	79.4
164 ft	191	79.4	244	92.6
197 ft	201	145.5	250	158.7

Counter-jib ballast

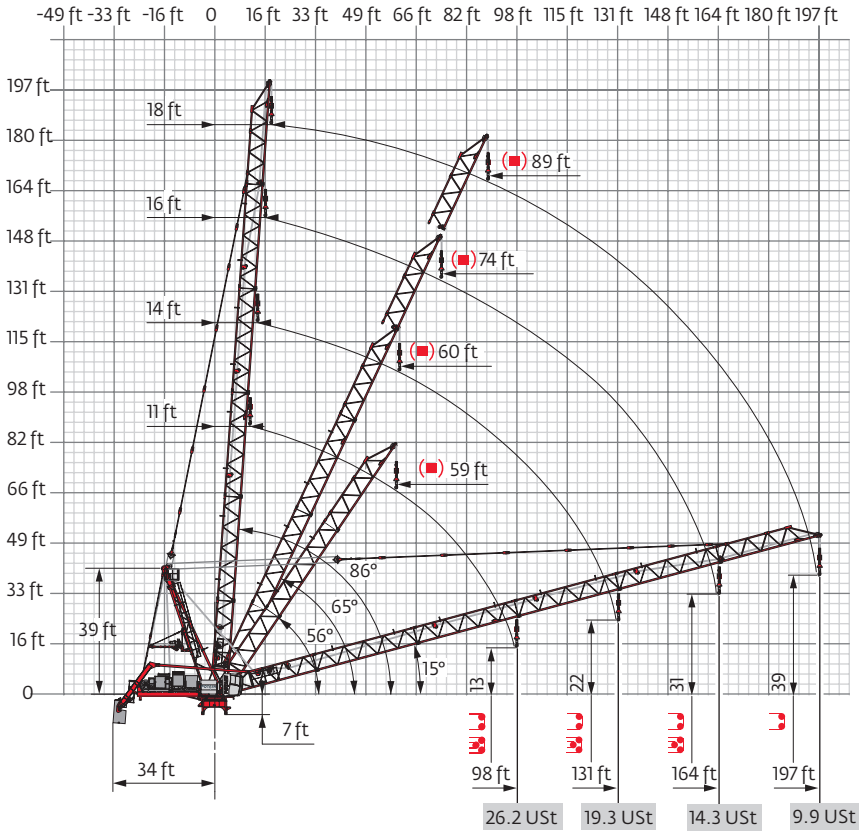
	13,228 lb	(lb)
98 ft	8	105,822
131 ft	9	119,050
164 ft	10	132,277
197 ft	10	132,277

13,228 lb

(in)



Luffing jib

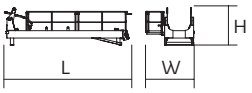
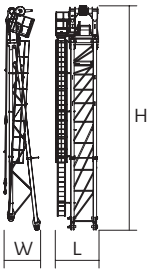
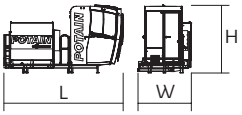
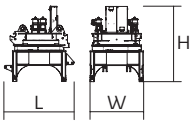
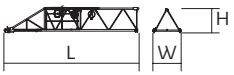
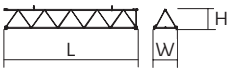
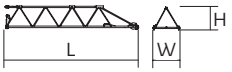
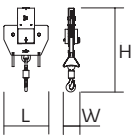
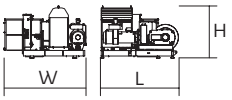


	Total ballast weight
	Weathervaning position
→	Tightened anchorage frame
- - →	Loosened anchorage frame

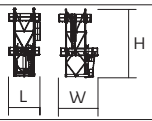
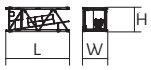
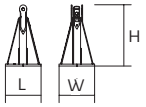
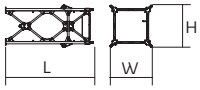
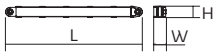
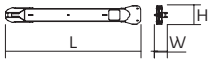
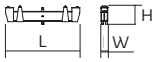
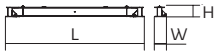
Component weights

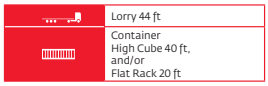
Crane upper : 197 ft - - 180/215 LBR

x 11
x 10

			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib			21.7	8.5	6.6	7385
Towerhead			8.8	6	45.9	19,621
Cab		Ultra View	14.7	6.5	8.2	3329
Pivot		⍁ 8 ft	9	8.2	9.9	28,991
Jib section		①	31.5	6.2	5.9	5732
Jib section		② ③ ④ ⑤	34.7 34.7 34.7 34.7	6.2 6.2 6.2 6.2	6 6 6 6	4211 4299 3616 3086
Jib section		⑥	34.1	6.2	6	5291
Hookblock			4.7	1.7	8.9	3549
Hoisting winch (+ rope)		180/215 LBR	13.3	9.3	7	23,248
Luffing winch (+ rope)		90/108 VBR	9.4	7.5	6.2	8047

Component weights

			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Climbing cage		☑8 ft	15.2	19	33.6	28,484
K 850/KR 849A KRMT 849A KMT 850.10A KMT 850.9A		☑8 ft	17.2 17.2 17.5 17.5	8.3 8.3 8.3 8.3	8.2 8.3 8.2 8.2	12,291 9017 12,015 10,582
KRMT 849C		☑8 ft	11.7	8.4	8.3	7066
Fixing angles		P 800B P 850A	2.5 3	2.5 3	4.2 4.9	1025 1841
Chassis mast		Y 800B J 850A	19.8 29.4	9.6 9.6	9.6 9.6	19,004 31,416
Strut		Y 800B J 850A	18.1 28.1	1.6 1.7	1.5 1.3	2447 3638
1/2 Side member		J 850A J 850A Y 800B	24 24.3 18.6	2.3 2.3 4.1	3.3 3.7 2.4	5688 5798 3351
Side member		Y 800B	39.4	4.1	2.4	6724
Ballast support		Y 800B	12.3	1.2	3	2392
Chassis beam		J 850A Y 800B	35.1 28.5	2.9 2.7	2.8 2.4	7319 4938



Potain MR 605 B H32

Mechanisms

400 V - 50 Hz										hp	kW	
	180 LBR 80	fpm	12/125	20/197	31/312	50/499	6/62	10/98	16/156	25/249	180	132	3576 ft
		USt	17.6	11.1	6.5	3.6	35.3	22.3	13	7.2			
	90 VBR	m/min	3 min 17 s								90	66	
	R - 13,2	rpm	0 → 0.67								3 x 6	3 x 4.4	
Y 800B	RT 584 A1 - 2V	fpm	44 - 89								8 x 7	8 x 5.2	
J 850A													

IEC 60204-32	kVA
400 V (+10% -10%) 50 Hz	180 LBR : 270 kVA

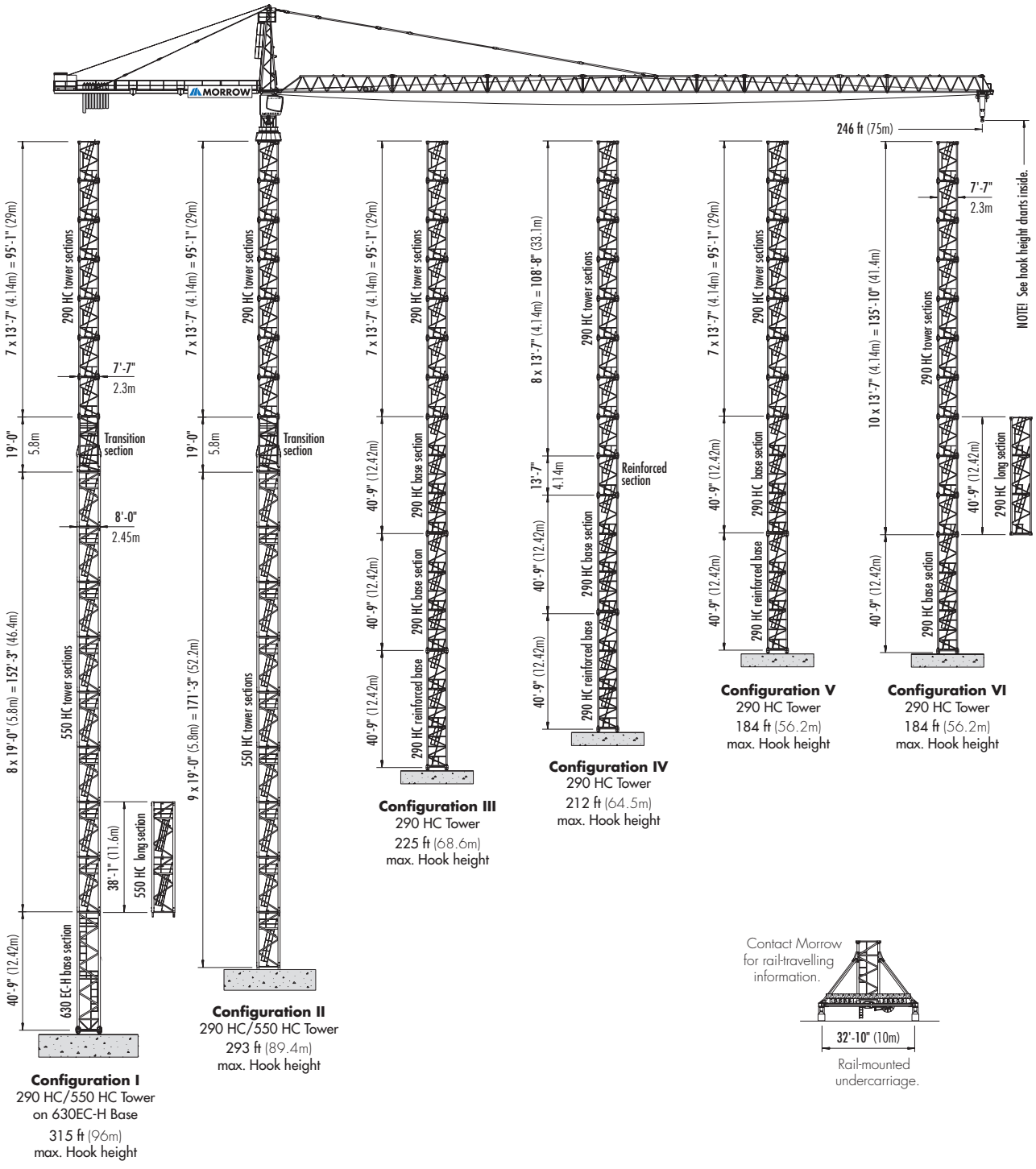
480 V - 60 Hz										hp	kW	
	215 LBR 80	fpm	15/151	24/236	37/374	60/597	8/75	12/118	19/187	30/299	215	158	3576 ft
		USt	17.6	11.1	6.5	3.6	35.3	22.3	13	7.2			
	108 VBR	m/min	2 min 44 s								108	79	
	R - 15,8	rpm	0 → 0.8								3 x 7.2	3 x 5.3	
Y 800B	RT 584 A1 - 2V	fpm	52 - 105								8 x 8.4	8 x 6.2	
J 850A													

IEC 60204-32	kVA
480 V (+6% -10%) 60 Hz	215 LBR : 325 kVA

	Hoisting
	Luffing
	Slewing
	Travelling
kVA	Rated power
	Consult us

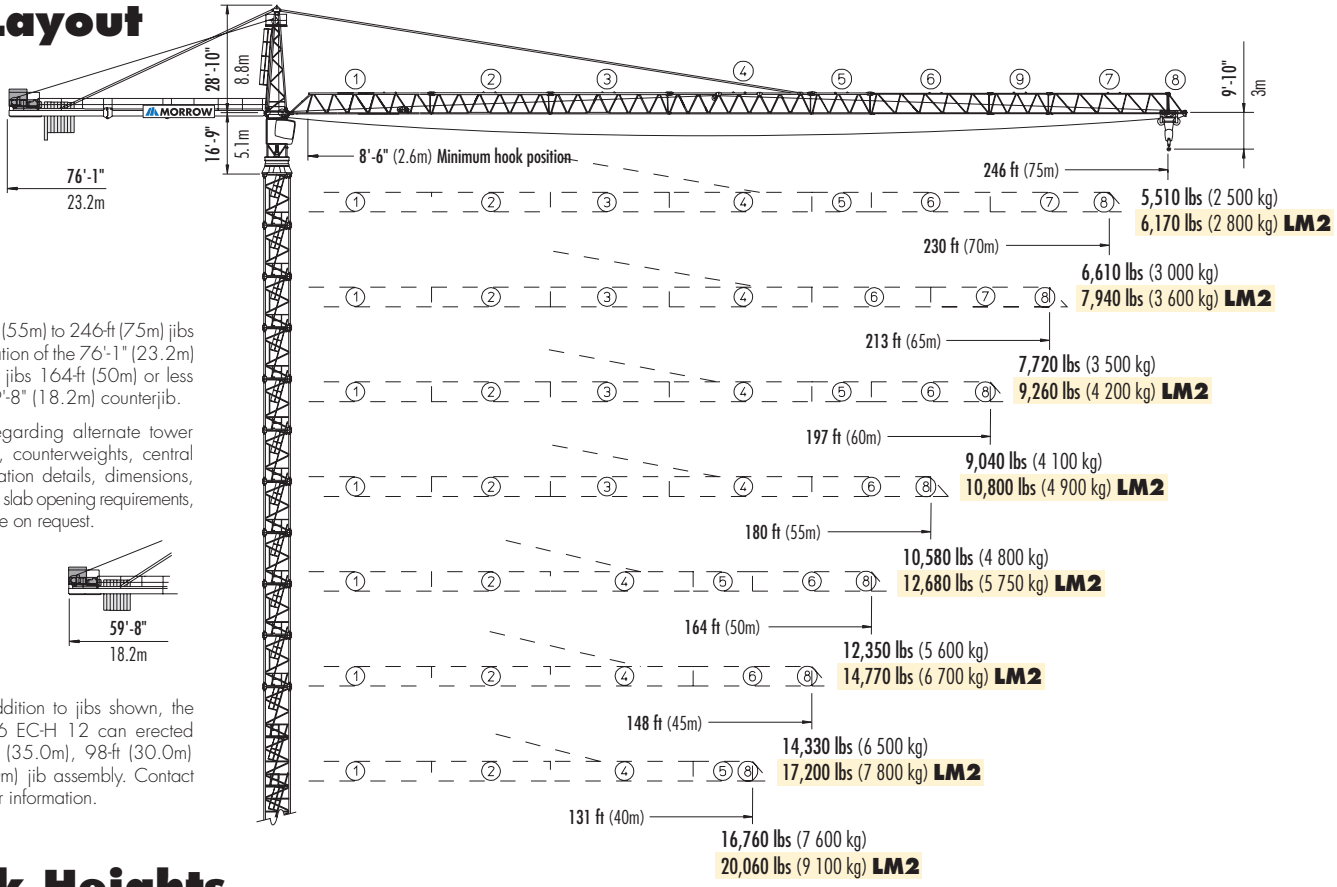
316 EC-H 12 Litronic®

LIEBHERR Hammerhead Tower Crane



MEC-MKT-1294
2/15/19

Jib Layout



NOTE: 180-ft (55m) to 246-ft (75m) jibs require installation of the 76'-1" (23.2m) counterjib. All jibs 164-ft (50m) or less require the 59'-8" (18.2m) counterjib.

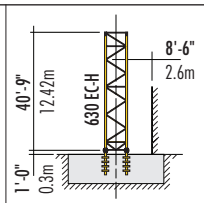
Information regarding alternate tower configurations, counterweights, central ballast, foundation details, dimensions, reaction forces, slab opening requirements, etc. is available on request.

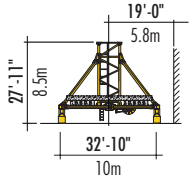
NOTE: In addition to jibs shown, the LIEBHERR 316 EC-H 12 can erected with a 115-ft (35.0m), 98-ft (30.0m) or 82-ft (25.0m) jib assembly. Contact MORROW for information.

Hook Heights

Configuration I[1]

550 HC and **290 HC** tower sections on 40'-9" (12.42m) **630 EC-H** base section

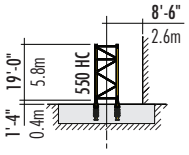


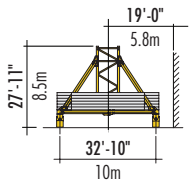


No. of Tower Elements	Tower Element Type	static concrete footing		rail-travelling undercarriage	
		feet	meters	feet	meters
1	630EC-H BS	48	14.7	76	23
2	550HC STS	67	20.5	95	28.8
3	550HC STS	86	26.3	114	34.6
4	550HC STS	105	32.1	133	40.4
5	550HC STS	125	37.9	152	46.2
6	550HC STS	144	43.7	171	52
7	550HC STS	163	49.5	190	57.8
8	550HC STS	182	55.3	209	63.6
9	550HC STS	201	61.1	228	69.4
10	Transition	220	66.9	247	75.2
11	290HC STS	233	71.1	260	79.4
12	290HC STS	247	75.2	274	83.5
13	290HC STS	260	79.4	288	87.6
14	290HC STS	274	83.5	301	91.8
15	290HC STS	288	87.6	315	95.9
16	290HC STS	301	91.8	328	100.1
17 [3,5]	290HC STS	315	96		

Configuration II

550 HC and **290 HC** tower sections on 19'-0" (5.8m) **550 HC** standard tower section





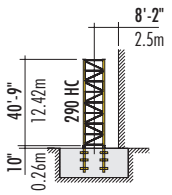
No. of Tower Elements	Tower Element Type	static concrete footing		rail-travelling undercarriage	
		feet	meters	feet	meters
1	550HC STS	27	8.3	54	16.4
2	550HC STS	46	14.1	73	22.2
3	550HC STS	65	19.9	92	28
4	550HC STS	84	25.7	111	33.8
5	550HC STS	103	31.5	130	39.6
6	550HC STS	122	37.3	149	45.4
7	550HC STS	142	43.1	168	51.2
8	550HC STS	161	48.9	187	57
9	550HC STS	180	54.7	206	62.8
10	Transition	199	60.5	225	68.6
11	290HC STS	212	64.7	239	72.7
12	290HC STS	226	68.8	252	76.9
13	290HC STS	239	72.9	266	81
14	290HC STS	253	77.1	279	85.2
15	290HC STS	267	81.2	293	89.3
16	290HC STS	280	85.4	307	93.4
17 [3,5]	290HC STS	293 [1]	89.4 [1]	320 [1,4]	97.6 [1,4]

Hook Heights

Configuration III [1]

290 HC
on 40'-9" (12.42m)
reinforced base section

LM1 ONLY

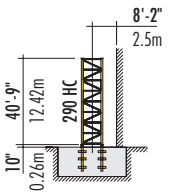


No. of Tower Elements	Tower Element Type	static concrete footing	
		feet	meters
1	290HC RBS	49	14.8
2	290HC BS	89	27.2
3	290HC BS	130	39.6
4	290HC STS	144	43.7
5	290HC STS	157	47.9
6	290HC STS	171	52
7	290HC STS	184	56.2
8	290HC STS	198	60.3
9	290HC STS	212	64.5
10	290HC STS	225	68.6

Configuration IV [1]

290 HC
on 40'-9" (12.42m)
reinforced base section

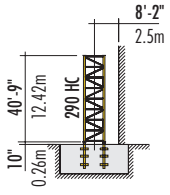
LM1 ONLY



No. of Tower Elements	Tower Element Type	static concrete footing	
		feet	meters
1	290HC RBS	49	14.8
2	290HC BS	89	27.2
3	290HC RTS	103	31.3
4	290HC STS	116	35.5
5	290HC STS	130	39.6
6	290HC STS	144	43.8
7	290HC STS	157	47.9
8	290HC STS	171	52
9	290HC STS	184	56.1
10	290HC STS	198	60.3
11	290HC STS	212	64.5

Configuration V [6, 1]

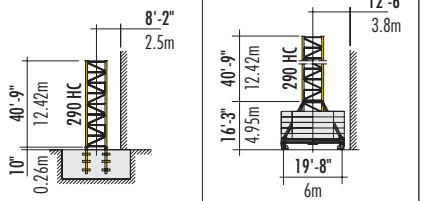
290 HC
on 40'-9" (12.42m)
reinforced base section



No. of Tower Elements	Tower Element Type	static concrete footing	
		feet	meters
1	290HC RBS	49	14.8
2	290HC BS	89	27.2
3	290HC STS	103	31.3
4	290HC STS	116	35.5
5	290HC STS	130	39.6
6	290HC STS	144	43.8
7	290HC STS	157	47.9
8	290HC STS	171	52
9 [3]	290HC STS	184	56.2

Configuration VI

290 HC
on 40'-9" (12.42m)
standard base section



No. of Tower Elements	Tower Element Type	static concrete footing		rail-travelling undercarriage	
		feet	meters	feet	meters
1	290HC BS	49	14.8	64	19.4
2	290HC STS	62	18.9	77	23.6
3	290HC STS	75	23	91	27.7
4	290HC STS	89	27.2	105	31.9
5	290HC STS	103	31.3	118	36
6	290HC STS	116	35.5	132	40.1
7	290HC STS	130	39.6	145	44.3
8	290HC STS	144	43.8	159	48.4
9	290HC STS	157	47.9	173	52.6
10 [5]	290HC STS	171 [2,5]	52 [2,5]	186 [2,4,5]	56.7 [2,4,5]
11 [5]	290HC STS	184 [2,3,5]	56.2 [2,3,5]	—	—

NOTE:

[1] Configuration is without top climbing unit.

[2] Lower top climbing unit to base of tower prior to operating crane.

[3] Crane must not be operated at this hook height if wind speed exceeds 40mph (64kph).

[4] No other crane operations permitted when travelling.

[5] Heavy lift mode (LM2) NOT permitted at this hook height.

[6] 180ft to 246ft (55m to 75m) hook reach only.

Alternate tower combinations are possible. Refer to Operation manual or contact MORROW for information.

Consult crane Operation Manual before erecting, operating, servicing, climbing or dismantling crane.

Specifications subject to change without prior notice. For additional information, contact MORROW.

Tie-in Details

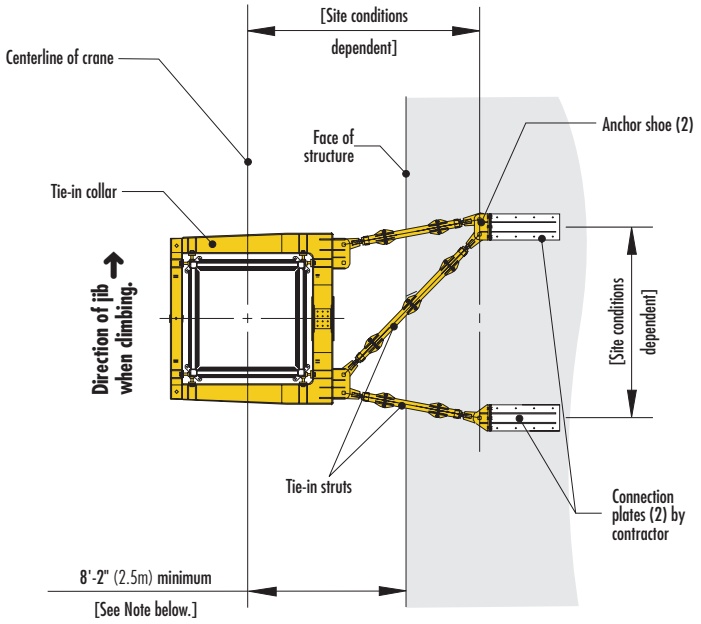
NOTE: For information regarding bottom climbing inside of structure, please contact Morrow.

NOTE: Restrictions apply; please consult Operations Manual or Morrow engineering.

[1] **LM1:** For hook heights below 330 ft (100m), a maximum of 9 tower sections may be installed above uppermost tie-in location. If hook height exceeds 330 ft (100m), a maximum of 8 tower sections may be installed.

[2] **LM2:** A maximum of 7 tower sections may be installed above uppermost tie-in location.

[3] Lower top climbing unit to upper tie-in assembly prior to operating crane.



TIE-IN ASSEMBLY
with 290 HC Tower Sections
plan view

NOTE: The tie-in assembly shown is an example of a typical installation when using 290HC tower. Please note, however, that factors determining the installation of tie-in assemblies may vary due to project specific requirements.

Verify all dimensions.

Contact Morrow for additional information regarding dimensions, alternate tower configurations, reactions forces, tie-in installation and slab opening requirements.

Consult Operation Manual before erecting, operating, servicing or dismantling crane.

TOP CLIMBING
with 290 HC Tower Sections
tied to structure

Radius and Capacities

2-Part Line

Hook Radius	Jib Tip Radius	Maximum Capacity – Radius	ft / m	72 / 22	82 / 25	92 / 28	102 / 31	112 / 34	121 / 37	131 / 40	148 / 45	164 / 50	180 / 55	197 / 60	213 / 65	230 / 70	246 / 75
246 ft 75m	251'-4" 76.6m	26,460 lbs – 70 ft 12 000 kg – 21.2m	lbs kg	25,350 11 500	21,940 9 950	19,290 8 750	17,130 7 770	15,370 6 970	13,910 6 310	12,650 5 740	10,960 4 970	9,590 4 350	8,470 3 840	7,540 3 420	6,770 3 070	6,080 2 760	5,510 2 500
230 ft 70m	234'-11" 71.6m	26,460 lbs – 73 ft 12 000 kg – 22.4m	lbs kg	26,460 12 000	23,410 10 620	20,590 9 340	18,320 8 310	16,470 7 470	14,900 6 760	13,580 6 160	11,770 5 340	10,320 4 680	9,150 4 150	8,160 3 700	7,320 3 320	6,610 3000	
213 ft 65m	218'-6" 66.6m	26,460 lbs –76 ft 12 000 kg – 23.3m	lbs kg	26,460 12 000	24,450 11 090	21,520 9 760	19,160 8 690	17,220 7 810	15,590 7 070	14,220 6 450	12,320 5 590	10,820 4 910	9,610 4 360	8,580 3 890	7,720 3 500		
197 ft 60m	202'-1" 61.6m	26,460 lbs – 80 ft 12 000 kg – 24.3m	lbs kg	26,460 12 000	25,570 11 600	22,510 10 210	20,040 9 090	18,030 8 180	16,340 7 410	14,900 6 760	12,940 5 870	11,380 5 160	10,100 4 580	9,040 4 100			
180 ft 55m	185'-8" 56.6m	26,460 lbs – 83 ft 12 000 kg – 25.2m	lbs kg	26,460 12 000	26,460 12 000	23,460 10 640	20,900 9 480	18,810 8 530	17,060 7 740	15,560 7 060	13,540 6 140	11,900 5 400	10,580 4 800				
164 ft 50m	169'-4" 51.6m	26,460 lbs – 85 ft 12 000 kg – 25.9m	lbs kg	26,460 12 000	26,460 12 000	24,250 11 000	21,610 9 800	19,440 8 820	17,640 8 000	16,120 7 310	14,020 6 360	12,350 5 600					
148 ft 45m	152'-11" 46.6m	26,460 lbs – 87 ft 12 000 kg – 26.4m	lbs kg	26,460 12 000	26,460 12 000	24,760 11 230	22,070 10 010	19,860 9 010	18,030 8 180	16,470 7 470	14,330 6 500						
131 ft 40m	136'-6" 41.6m	26,460 lbs – 88 ft 12 000 kg – 26.8m	lbs kg	26,460 12 000	26,460 12 000	25,150 11 410	22,440 10 180	20,220 9 170	18,340 8 320	16,760 7 600							

LM1
Standard mode

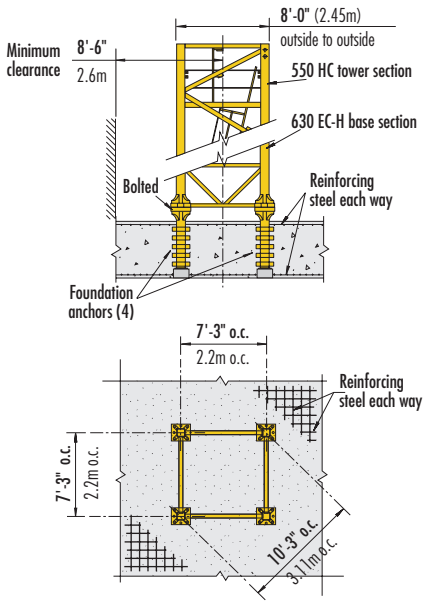
2-Part Line

Hook Radius	Jib Tip Radius	Maximum Capacity – Radius	ft / m	72 / 22	82 / 25	92 / 28	102 / 31	112 / 34	121 / 37	131 / 40	148 / 45	164 / 50	180 / 55	197 / 60	213 / 65	230 / 70	246 / 75
246 ft 75m	251'-4" 76.6m	26,460 lbs – 75 ft 12 000 kg – 22.9m	lbs kg	26,460 12 000	23,940 10 860	21,080 9 560	18,740 8 500	16,840 7 640	15,260 6 920	13,910 6 310	12,060 5 470	10,580 4 800	9,370 4 250	8,380 3 800	7,520 3 410	6,810 3 090	6,170 2 800
230 ft 70m	234'-11" 71.6m	26,460 lbs – 84 ft 12 000 kg – 25.6m	lbs kg	26,460 12 000	26,460 12 000	23,940 10 860	21,340 9 680	19,200 8 710	17,420 7 900	15,900 7 210	13,820 6 270	12,170 5 520	10,820 4 910	9,700 4 400	8,750 3 970	7,940 3 600	
213 ft 65m	218'-6" 66.6m	26,460 lbs –88 ft 12 000 kg – 26.7m	lbs kg	26,460 12 000	26,460 12 000	25,130 11 400	22,400 10 160	20,170 9 150	18,320 8 310	16,730 7 590	14,570 6 610	12,830 5 820	11,420 5 180	10,250 4 650	9,260 4 200		
197 ft 60m	202'-1" 61.6m	26,460 lbs – 92 ft 12 000 kg – 27.9m	lbs kg	26,460 12 000	26,460 12 000	26,320 11 940	23,480 10 650	21,160 9 600	19,200 8 710	17,570 7 970	15,300 6 940	13,490 6 120	12,040 5 460	10,800 4 900			
180 ft 55m	185'-8" 56.6m	26,460 lbs – 95 ft 12 000 kg – 29.1m	lbs kg	26,460 12 000	26,460 12 000	26,460 12 000	24,650 11 180	22,200 10 070	20,170 9 150	18,450 8 370	16,090 7 300	14,220 6 450	12,680 5 750				
164 ft 50m	169'-4" 51.6m	26,460 lbs – 98 ft 12 000 kg – 30m	lbs kg	26,460 12 000	26,460 12 000	26,460 12 000	25,550 11 590	23,040 10 450	20,940 9 500	19,160 8 690	16,710 7 580	14,770 6 700					
148 ft 45m	152'-11" 46.6m	26,460 lbs – 101 ft 12 000 kg – 30.8m	lbs kg	26,460 12 000	26,460 12 000	26,460 12 000	26,240 11 900	23,680 10 740	21,520 9 760	19,690 8 930	17,200 7 800						
131 ft 40m	136'-6" 41.6m	26,460 lbs – 103 ft 12 000 kg – 31.3m	lbs kg	26,460 12 000	26,460 12 000	26,460 12 000	26,460 12 000	24,100 10 930	21,910 9 940	20,060 9 100							

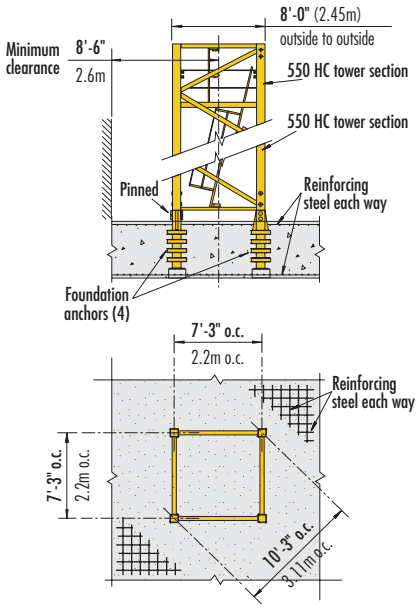
LM2
Heavy lift mode

IMPORTANT: Litronic® cranes are equipped with Liebherr's state of the art PLC system that provides precise monitoring, control and coordination of all cranes functions. This feature also permits a load increase of up to 20% as illustrated in the heavy lift mode (**LM2**) chart above. Contact Morrow for more information regarding the many features of the 316 EC-H 12 Litronic tower crane.

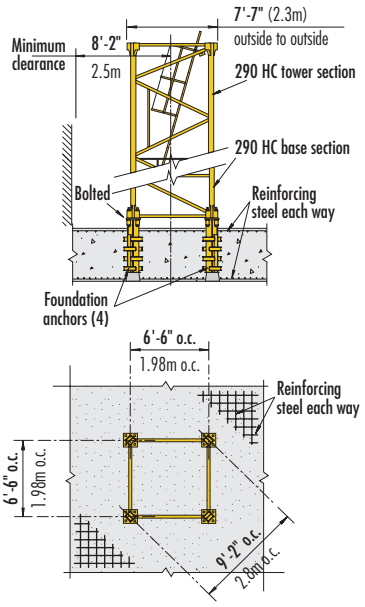
Foundation Details on concrete footing



on 630 EC-H Base Section

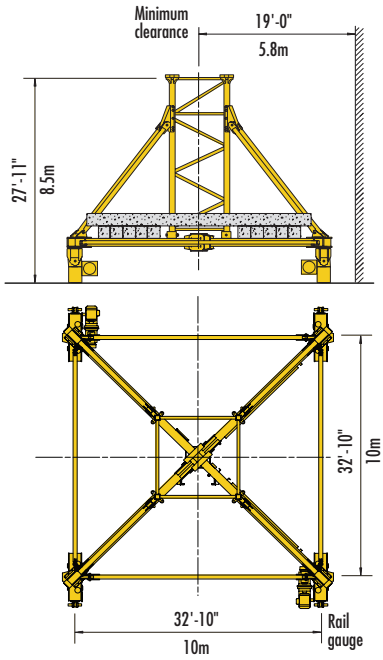


with 550 HC Tower

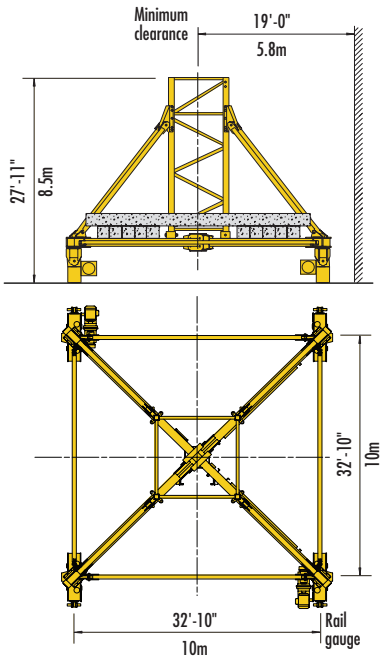


with 290 HC Tower

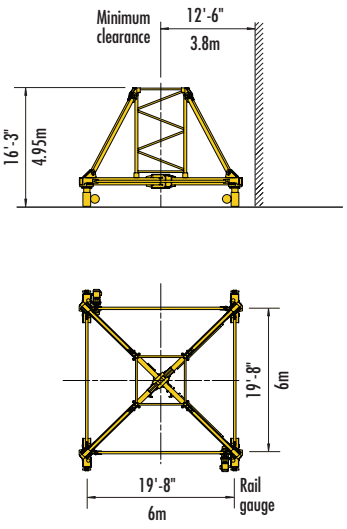
Undercarriage Details on rail-travelling undercarriage



630 EC-H



550 HC



290 HC

NOTE: For information regarding rail-travelling, static undercarriages and central ballast configurations, see 316 EC-H Litronic Operation Manual.

Hoist Speed and Capacity

Hoist Unit	2-Part Line				LM1
147 hp (110 kW) FC hoist unit Variable frequency drive (VFD)	Capacity	Hook Speed	Capacity	Hook Speed	
	26,460 lbs	@ 0 - 157 fpm	12 000 kg	@ 0 - 48m/min	
	14,110 lbs	@ 0 - 272 fpm	6 400 kg	@ 0 - 83m/min	
	11,900 lbs	@ 0 - 315 fpm	5 400 kg	@ 0 - 96m/min	
	6,170 lbs	@ 0 - 545 fpm	2 800 kg	@ 0 - 166m/min	
8L - 242	2,870 lbs	@ 0 - 906 fpm	1 300 kg	@ 0 - 276m/min	

IMPORTANT: Capacities and line speeds indicated will vary depending on the amount of hoist wire rope installed. This crane model may be equipped with a hoist unit other than that specified in the data shown above. To verify, check serial number and refer to 316 EC-H 12 Litronic Operation Manual for additional information.

Motor Information

Drive Unit	Horsepower	Kilowatts	Speed	
Trolley (VFD)	10 hp	7.5 kW	0 - 360 fpm	0 - 110m/min
Swing (VFD)	2 x 10 hp	2 x 7.5 kW	0.7 rpm	
Travelling (290 HC)	2 x 10 hp	2 x 7.5 kW	82 fpm	25m/min
Travelling (550 HC)	4 x 10 hp	4 x 7.5 kW	82 fpm	25m/min

Counterweights*

Counterjib	76-ft (23.2m)					60-ft (18.2m)		
Jib length	246-ft (75m)	230-ft (70m)	213-ft (65m)	197-ft (60m)	180-ft (55m)	164-ft (50m)	148-ft (45m)	131-ft (40m)
No. of blocks	1E + 8A	7A + 2B	6A + 2B	7A	6A	8A + 1B	6A + 2B	6A + 1B
Weight in lbs	51,030 lbs	46,410 lbs	41,450 lbs	40,010 lbs	35,050 lbs	48,170 lbs	41,450 lbs	38,250 lbs
Weight in kg	23 150 kg	21 050 kg	18 800 kg	18 150 kg	15 900 kg	21 850 kg	18 800 kg	17 350 kg

NOTE: Weight of the A Block is 4,960 lbs (2 250 kg); the B Block is 3,200 lbs (1 450 kg); the D Block is 5,290 lbs (2 400 kg), and the E Block is 6,060 lbs (2 750 kg). Counterweights must be installed from rear to front, i.e. towards the tower. It is recommended that the weight of each counterweight be verified before installation. Counterweight figures displayed in the chart above are for crane with hoist unit WiW 300 VZ 410 installed. If another hoist unit is installed, refer to the Liebherr 316 EC-H 12 Litronic Operation Manual or contact Morrow Equipment for additional information.

*** IMPORTANT:** One (1) D Block must be installed beneath the hoist unit frame of the counterjib.

Power Requirements

Power supply: 3-phase 480 V, 60 Hz; 3-wire plus ground; no Neutral.
480 V phase-phase, 277 V each phase to ground with 120° phase shift between phases.
Service size: 200 Amperes

NOTES:
1. For electric power provided by an electric utility, do not use open Delta transformers.
2. For electric power provided by a generator, the minimum generator size required is 200 kW.
Verify the generator provided is suitable for use with variable frequency drives (VFDs). A properly sized generator is critical to the safe operation of the crane.

Specifications subject to change without prior notice. For additional information, contact MORROW.

Component List

Description	Dimensions L x W x H	Weight
Tower Top	29'-9" x 5'-9" x 6'-4" 9.05m x 1.76m x 1.94m	6,170 lbs 2 800 kg
Slewing Assembly (Complete) [1]	18'-0" x 9'-0" x 9'-2" 5.49m x 2.74m x 2.8m	22,490 lbs 10 200 kg
Slewing Assembly Upper Part [2]	14'-11" x 9'-0" x 9'-2" 4.54m x 2.74m x 2.8m	14,550 lbs 6 600 kg
Slewing Assembly Lower Part [3]	3'-9" x 9'-0" x 7'-9" 1.15m x 2.74m x 2.36m	7,940 lbs 3 600 kg
Hoist Unit (VFD) [4] 147 hp *(110 kW)*	9'-5" x 7'-3" x 6'-9" 2.88m x 2.22m x 2.07m	9,040 lbs 4 100 kg
Counterjib A [5]	54'-9" x 8'-0" x 5'-7" 16.7m x 2.45m x 1.7m	17,420 lbs 7 900 kg
Counterjib B [6]	71'-2" x 8'-0" x 5'-7" 21.7m x 2.45m x 1.7m	21,380 lbs 9 700 kg
Counterweight Block A with frame	4'-4" x 11" x 7'-9" 1.31m x 0.28m x 2.35m	4,960 lbs 2 250 kg
Counterweight Block B with frame	4'-4" x 11" x 4'-9" 1.31m x 0.28m x 1.46m	3,200 lbs 1 450 kg
Counterweight Block E [7] with frame	4'-4" x 11" x 8'-9" 1.31m x 0.28m x 2.67m	6,060 lbs 2 750 kg
Base Section 290HC	40'-9" x 7'-7" x 7'-7" 12.42m x 2.3m x 2.3m	17,500 lbs 7 940 kg
Long Tower Sect. 290HC	40'-9" x 7'-7" x 7'-7" 12.42m x 2.3m x 2.3m	12,720 lbs 5 770 kg
Standard Tower Section 290HC	13'-7" x 7'-7" x 7'-7" 4.14m x 2.3m x 2.3m	5,070 lbs 2 300 kg
Reinforced Base 290HC	40'-9" x 7'-7" x 7'-7" 12.42m x 2.3m x 2.3m	16,400 lbs 7 440 kg
Reinforced Tower Section 290HC	13'-7" x 7'-7" x 7'-7" 4.14m x 2.3m x 2.3m	6,500 lbs 2 950 kg
Std. Tower Section 550HC	20'-7" x 8'-0" x 8'-0" 6.28m x 2.45m x 2.45m	14,290 lbs 6 480 kg
Long Tower Sect. 550HC	39'-8" x 8'-0" x 8'-0" 12.1m x 2.45m x 2.45m	23,480 lbs 10 650 kg
Base Section 630EC-H (B/P)	40'-9" x 8'-10" x 8'-10" 12.42m x 2.68m x 2.68m	31,970 lbs 14 500 kg

Description	Dimensions L x W x H	Weight
Jib Section ① [7,8] C051.023.611.111	40'-3" x 6'-1" x 6'-5" 12.26m x 1.86m x 1.96m	6,450 lbs 2 930 kg
Jib Section ②③ [8] #621	33'-7" x 5'-5" x 6'-2" 10.26m x 1.65m x 1.88m	4,140 lbs 1 880 kg
Jib Section ④ [7,8] C051.023.629.111	40'-4" x 5'-5" x 6'-1" 12.28m x 1.65m x 1.87m	4,500 lbs 2 040 kg
Jib Section ⑤ [8] #632	17'-5" x 5'-5" x 6'-1" 5.32m x 1.65m x 1.87m	1,810 lbs 820 kg
Jib Section ⑥ [8] #633	33'-8" x 5'-5" x 6'-1" 10.27m x 1.65m x 1.87m	2,690 lbs 1 220 kg
Jib Section ⑨ [8] #635	17'-3" x 5'-5" x 6'-0" 5.25m x 1.65m x 1.84m	1,120 lbs 510 kg
Jib Section ⑦ [8] #634	33'-7" x 5'-5" x 6'-0" 10.26m x 1.65m x 1.84m	1,760 lbs 800 kg
Jib Section ⑧ [8] #641	5'-7." x 6'-2" x 6'-9" 1.7m x 1.88m x 2.05m	630 lbs 285 kg
Jib Assembly [7,9] 246 ft *(75m)* ①②③④⑤⑥⑨⑦⑧	246'-9" x 6'-2" x 6'-9" 75.2m x 1.88m x 2.05m	35,710 lbs 16 200 kg
Jib Assembly [9] 230 ft *(70m)* ①②③④⑤⑥⑦⑧	230'-4" x 6'-2" x 6'-9" 70.2m x 1.88m x 2.05m	34,170 lbs 15 500 kg
Jib Assembly [9] 213 ft *(65m)* ①②③④⑥⑦⑧	213'-11" x 6'-2" x 6'-9" 65.2m x 1.88m x 2.05m	33,070 lbs 15 000 kg
Jib Assembly [9] 197 ft *(60m)* ①②③④⑤⑥⑧	197'-6" x 6'-2" x 6'-9" 60.2m x 1.88m x 2.05m	32,190 lbs 14 600 kg
Jib Assembly [9] 180 ft *(55m)* ①②③④⑥⑧	181'-1" x 6'-2" x 6'-9" 55.2m x 1.88m x 2.05m	29,760 lbs 13 500 kg
Jib Assembly [9] 164 ft *(50m)* ①②④⑤⑥⑧	164'-8" x 6'-2" x 6'-9" 50.2m x 1.88m x 2.05m	26,230 lbs 11 900 kg
Jib Assembly [9] 148 ft *(45m)* ①②④⑥⑧	148'-4" x 6'-2" x 6'-9" 45.2m x 1.88m x 2.05m	24,470 lbs 11 100 kg
Jib Assembly [9] 131 ft *(40m)* ①②④⑤⑧	131'-11" x 6'-2" x 6'-9" 40.2m x 1.88m x 2.05m	22,270 lbs 10 100 kg
Transition (P/B) 550HC/290HC	20'-7" x 8'-5" x 8'-5" 6.28m x 2.57m x 2.57m	13,050 lbs 5 920 kg
Top Climbing Unit & Hydraulics (290HC)	27'-7" x 9'-2" x 8'-10" 8.42m x 2.79m x 2.69m	16,530 lbs 7 500 kg

NOTE: Weights and dimensions are approximate. Scale components before lifting. Consult Operation Manual before erecting, operating, servicing or dismantling crane.

[1] Slewing Assembly Complete includes cab, platforms, 2 swing motors, slewing ring with support and 4 non-detachable climbing shoes. Dimensions include climbing shoes in transport position.
[2] Slewing Assembly Upper Part includes operator' cab, platforms and two swing motors.
[3] Slewing Assembly Lower Part includes slewing ring, slewing ring support and four non-detachable climbing shoes. Dimensions shown above are with climbing shoes in transport position.
[4] Includes 147 hp (110 kW) VFD hoist drive with rope drum, switchgear panels, hoist unit frame and wire rope. Typical rope installation of 790 ft (240m) weighs about 1,110 lbs (505 kg).
[5] Counterjib A includes sections #1 (4,980 lbs/2 260 kg), #3 (6,880 lbs/3 120 kg), connecting material, pendant bars, handrails and D block. Counterjib A is required for jibs 164 ft (50m) and shorter. D block is 5,290 lbs (2 400 kg).
[6] Counterjib B includes sections #1, #2 (3,420 lbs/1 550 kg), #3, connecting material, pendant bars, handrails and D block. Counterjib B is required for jibs 180 ft (55m) and longer. D block weighs 5,290 lbs (2 400 kg).
[7] IMPORTANT: Counterweight block E plus jib sections C051.023-611.111 and C051.023-629.111 required when installing 246 ft (75m) jib. SEE MANUAL FOR INFORMATION. VERIFY ALL COMPONENTS BEFORE INSTALLING.
[8] Jib layout details provided in 316EC-H12 Litronic Operation Manual. IMPORTANT: Please verify all jib components PRIOR to assembly and installation.
[9] Jibs include jib sections, pendant bars, pendant bar connecting pins and plates, trolley drive unit, trolley wire rope, hook block and trolley. See footnote 7 regarding 246 ft (75m) jib.

TEREX®

SK 415-20

HAMMERHEAD
TOWER CRANE

Specifications:

- Max jib length: 80,00 m
- Capacity at max length: 2,30 t
- Max capacity: 20,00 t

WORKS FOR YOU.™

Key

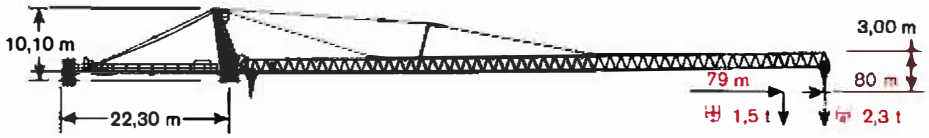
	Hoisting · Sollevamento · Heben · Levage · Elevación · Elevação · Подъем
	Trolleying · Traslazione carrello · Katzfahren · Distribution · Distribución · Distribuição · Передвижение каретки
	Slewing · Rotazione · Schwenken · Orientation · Orientació · Giro · Поворот
	Travelling · Traslazione · Schienenfahren · Translation · Traslación · Móvel · Передвижение
	Directive on noise level · Direttiva sul livello acustico · Richtlinie für den Schall-Leistungspegel · Directive sur le niveau acoustique · Directiva sobre el nivel acustico · Diretiva sobre nível de ruídos · Директива по уровню шума
	Consult us · Consultateci · Auf Anfrage · Nous consulter · Consultarnos · Consulte-nos · Проконсультироваться с нами
	Power requirements · Potenza totale richiesta · Geforderte Stromstärke · Puissance totale nécessaire · Potencia necesaria · Requisitos de energia · Требования по питанию
	Power supply · Alimentazione · Stromversorgung · Alimentation · Alimentación · Fonte de alimentação · Питание
	In service · In servizio · In Betrieb · En service · En servicio · Em serviço · При работе
	Out of service · Fuori servizio · Außer Betrieb · Hors service · Fuera de servicio · Fora de serviço · В режиме простоя
H	Max. under hook height · Altezza max. sotto gancio · Höchste Hakenhöhe · Hauteur maxi. sous crochet · Maxima altura bajo gancho · Alt. máx. sob o gancho · Макс высота крюка
	Without load, without ballast, max. jib and max. height · A vuoto, senza zavorra, braccio max., altezza max. · Ohne Last und Ballast, mit Maximalausleger und Maximalhöhe · A vide, sans lest, avec flèche et hauteur maximum · Sin carga, sin lastre, con pluma y altura máxima · Sem carga, sem lastro, lança máxima, altura máxima · Без груза, без балласта, на макс. Длине вспомогательной стрелы и макс. Высоте
	Counterweight · Zavorra controbraccio · Gegengewicht · Lest de contre-flèche · Lastre de contra flecha · Contrapeso · Противовес
C25	EN 14439-C25 · EN 14439 - C25 · EN14439 - C25 · EN 14439 - C25 · EN 14439 - C25 · EN 14439 - C25 · EN14439 - C25

CONTENTS

SK 415-20

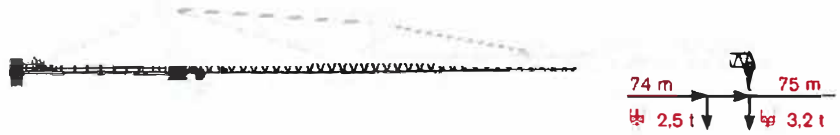
LOAD DIAGRAM

SR WB 66-100/4F — BG (3,10 t) — 8



			20 m	25 m	30 m	35 m	40 m	45 m	50 m	55 m	60 m	65 m	70 m	75 m	79 m	80 m
10 t →	27,30 m	t	10,00	10,00	8,90	7,30	6,20	5,30	4,60	4,00	3,50	3,10	2,80	2,50		2,30
20 t →	15,10 m	t	14,10	10,60	8,30	6,70	5,50	4,60	3,80	3,20	2,70	2,30	2,00	1,70	1,50	

SR WB 66-100/4F — BG (3,10 t) — 8

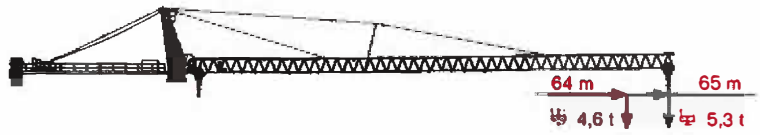


			20 m	25 m	30 m	35 m	40 m	45 m	50 m	55 m	60 m	65 m	70 m	74 m	75 m
10 t →	31,60 m	t	10,00	10,00	10,00	8,90	7,60	6,50	5,70	5,00	4,40	3,90	3,50		3,20
20 t →	17,60 m	t	17,00	12,90	10,20	8,30	6,90	5,90	5,00	4,30	3,70	3,20	2,80	2,50	

SR WB 66-100/4F — BG (3,10 t) — 8

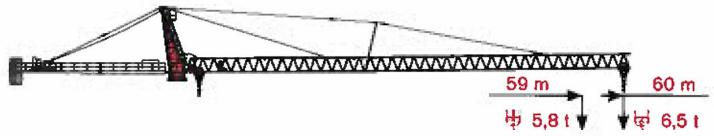
			20 m	25 m	30 m	35 m	40 m	45 m	50 m	55 m	60 m	65 m	69 m	70 m
10 t →	35,60 m	t	10,00	10,00	10,00	10,00	8,70	7,50	6,60	5,80	5,20	4,70		4,20
20 t →	19,40 m	t	19,20	14,60	11,70	9,60	8,00	6,80	5,90	5,10	4,40	3,90	3,50	

SR WB 66-100/4F — BG (3,10 t) — 8



			20 m	25 m	30 m	35 m	40 m	45 m	50 m	55 m	60 m	64 m	65 m
10 t →	39,20 m	t	10,00	10,00	10,00	10,00	9,80	8,50	7,40	6,60	5,90		5,30
20 t →	21,20 m	t	20,00	16,30	13,00	10,70	9,00	7,70	6,70	5,80	5,10	4,60	

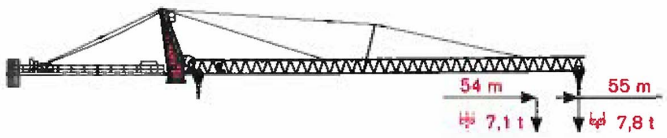
SR WB 66-100/4F — BG (3,10 t) — 8



			20 m	25 m	30 m	35 m	40 m	45 m	50 m	55 m	59 m	60 m
10 t →	42,40 m	t	10,00	10,00	10,00	10,00	10,00	9,30	8,20	7,30		6,50
20 t →	22,70 m	t	20,00	17,70	14,20	11,70	9,90	8,50	7,30	6,60	5,80	

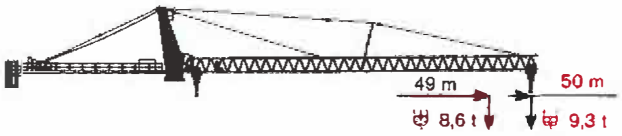
SK 415-20

SR WB 66-100/4F — BG (3,10 t) — 7



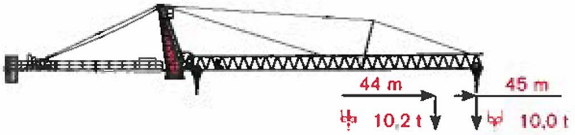
				20 m	25 m	30 m	35 m	40 m	45 m	50 m	54 m	55 m
10 t →	45,00 m	t		10,00	10,00	10,00	10,00	10,00	10,00	8,80		7,80
20 t →	24,00 m	t		20,00	18,80	15,1	12,50	10,60	9,10	7,90	7,10	

SR WB 66-100/4F — BG (3,10 t) — 7



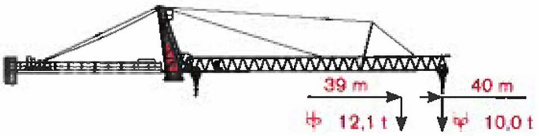
				20 m	25 m	30 m	35 m	40 m	45 m	49 m	50 m
10 t →	47,30 m	t		10,00	10,00	10,00	10,00	10,00	10,00		9,30
20 t →	25,10 m	t		20,00	20,00	16,00	13,20	11,20	9,60	8,60	

SR WB 66-100/4F — BG (3,10 t) — 7



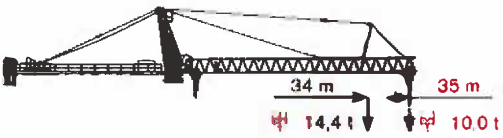
				20 m	25 m	30 m	35 m	40 m	44 m	45 m
10 t →	45,00 m	t		10,00	10,00	10,00	10,00	10,00		10,00
20 t →	25,60 m	t		20,00	20,00	16,40	13,60	11,50	10,20	

SR WB 66-100/4F — BG (3,10 t) — 6



				20 m	25 m	30 m	35 m	39 m	40 m
10 t →	40,00 m	t		10,00	10,00	10,00	10,00		10,00
20 t →	26,00 m	t		20,00	20,00	16,60	13,80	12,10	

SR WB 66-100/4F — BG (3,10 t) — 6

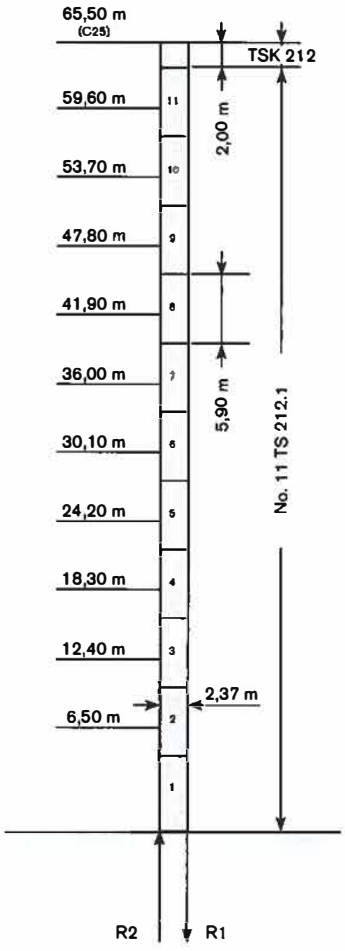


				20 m	25 m	30 m	34 m	35 m
10 t →	35,00 m	t		10,00	10,00	10,00		10,00
20 t →	26,10 m	t		20,00	20,00	16,70	14,40	

TOWER
Standard Configurations

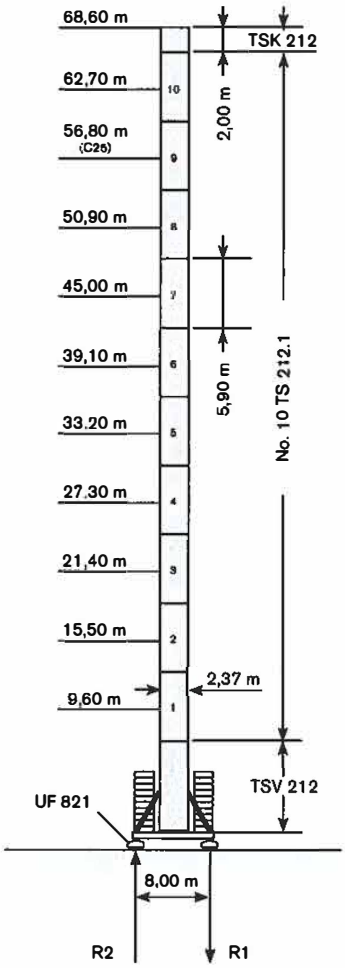
Basement: A

R1	-2655 kN	-2755 kN
R2	1992 kN	2186 kN
	890 kN	



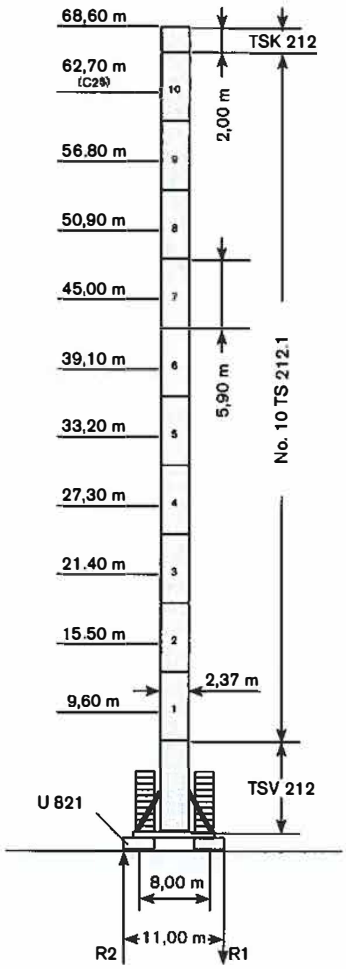
Basement: E

R1	-1121 kN	-1099 kN
R2	0 kN	-51 kN
	978 kN	



Basement: F

R1	1099 kN	-1113 kN
R2	0 kN	-18 kN
	978 kN	

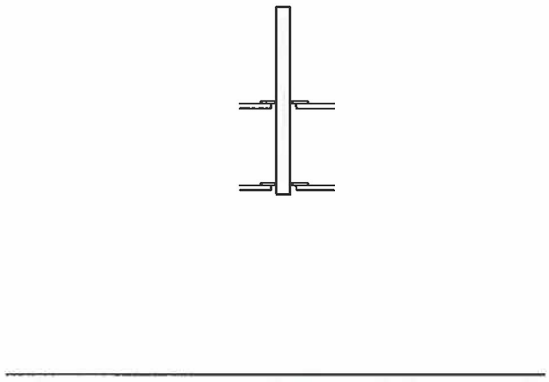


Max. under hook height · Altezza max. sotto gancio · Höchste Hakenhöhe · Hauteur maxi. sous crochet · Maxima altura bajo gancho · Alt. máx. sob o gancho · макс высота крюка

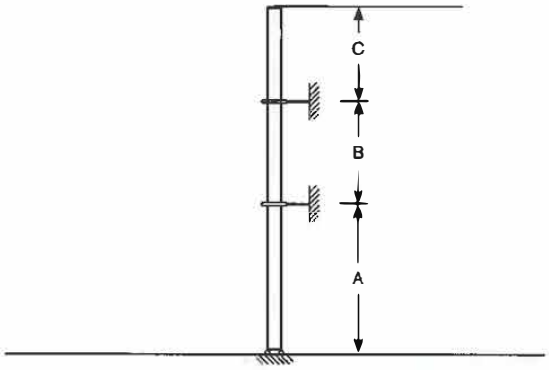
Different heights and tower combinations are available; please consult us · Altezze diverse e combinazioni di torre sono disponibili; consultateci · Andere Höhen und Turmkombinationen auf Anfrage · Différentes hauteurs et combinaisons de tour sont disponibles; nous consulter · Hay diferentes alturas y combinaciones de torre disponibles. Consúltenos · Diferentes alturas e combinações de torres disponíveis; fale conosco · Возможны другие сочетания высоты и конфигурации башни; проконсультируйтесь с нами

Other configurations

Bottom climbing crane



Crane tied to the structure



	min	max
A	20,80 m	51,30 m
B	14,80 m	35,90 m
C	50,40 m	

Different heights and tower combinations are available; please consult us • Altezze diverse e combinazioni di torre sono disponibili; consultateci • Andere Höhen und Turmkombinationen auf Anfrage • Différentes hauteurs et combinaisons de tour sont disponibles; nous consulter • Hay diferentes alturas y combinaciones de torre disponibles. Consúltenos • Diferentes alturas e combinações de torres disponíveis; fale conosco • Возможны другие сочетания высоты и конфигурации башни; проконсультируйтесь с нами

MECHANISMS

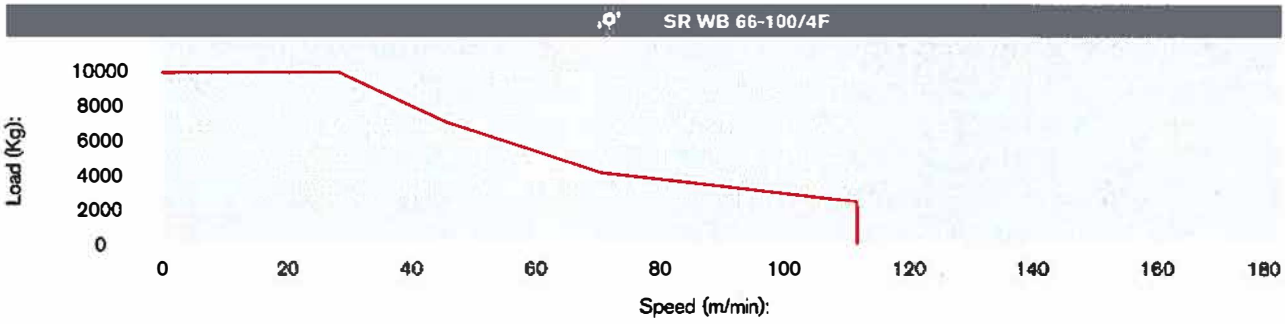
Power supply

	SR WB 66-100/4F	132 kVA	480V - 60Hz / 400V - 50Hz - 3 ph

Hoisting

		t	m/min	kW	
	SR WB 66-100/4F	10	0 → 28	66	
		7,1	0 → 45		
		4,2	0 → 70		
		2,5	0 → 112		
		20	0 → 14		
		14,2	0 → 22		
		8,4	0 → 35		
		5	0 → 56		

Hoisting Speed



Additional Specifications

	FU 9-320/4	0 ➔ 77 m/min	1 x 9,0 kW
	K WB 120/4	0 ➔ 0,75 min^{-1}	2 x 100 Nm (35m - 50m) 3 x 100 Nm (55m - 80m)
	SR 10-190/4	0 ➔ 25 m/min	4 x 7,5 kW

TRANSPORTATION

Transport

Packing list

Undercarriage

SK 415-20	DESCRIPTION · DESCRIZIONE · BESCHREIBUNG · DESCRIPTION · DESCRIPCIÓN · DESCRIÇÃO · ОПИСАНИЕ	WIDTH · LARGHEZZA · BREITE · LARGEUR · ANCHURA · LARGURA · ШИРИНА	HEIGHT · ALTEZZA · HÖHE · HAUTEUR · ALTURA · ALTURA · ВЫСОТА	QUANTITY · QUANTITÀ · MENGE · QUANTITÉ · CANTIDAD · QUANTIDADE · КОЛИЧЕСТВО	WEIGHT · PESO · GEWICHT · POIDS · PESO · PESO · ВЕС
	U821 UNDERCARRIAGE	10,54 m	2,76 m	0,85 m	7760 kg
	TS 212 FOUNDATION ANCHOR	0,60 m	0,60 m	1,00 m	300 kg

Tower

	TOWER SECTION TS 212.1	5,94 m	2,37 m	2,44 m	4220 kg
	TOWER SECTION TSV 212.1	9,50 m	3,00 m	3,05 m	9300 kg
	TOWER SECTION TSK 212	3,14 m	2,64 m	2,30 m	2850 kg
	SLEWING UNIT	3,45 m	2,17 m	2,00 m	11900 kg

Cab

	CAB EVO 15	3,67 m	2,20 m	2,46 m	1678 Kg

Upper Part

	JIB SECTION NO.1	11,86 m	1,97 m	2,20 m	3010 kg
	JIB SECTION NO.2	12,34 m	1,97 m	2,20 m	2960 kg
	JIB SECTION NO.3	11,84 m	1,97 m	2,31 m	2030 kg
	JIB SECTION NO.4	5,69 m	1,97 m	1,91 m	830 kg
	JIB SECTION NO.5	10,67 m	1,97 m	2,10 m	2000 kg
	JIB SECTION NO.6	10,80 m	1,97 m	1,93 m	1340 kg
	JIB SECTION NO.7	10,21 m	1,97 m	1,91 m	900 kg

Upper Part

SK 415-20	DESCRIPTION · DESCRIZIONE · BESCHREIBUNG · DESCRIPTION · DESCRIPCIÓN · DESCRIÇAO · ОПИСАНИЕ	WIDTH · LARGHEZZA · BREITE · LARGEUR · ANCHURA · LARGURA · ШИРИНА	HEIGHT · ALTEZZA · HÖHE · HAUTEUR · ALTURA · ALTURA · ВЫСОТА	QUANTITY · QUANTITÀ · MENGE · QUANTITÉ · CANTIDAD · QUANTIDADE · КОЛИЧЕСТВО	WEIGHT · PESO · GEWICHT · POIDS · PESO · PESO · ВЕС
	JIB SECTION NO.8	5,20 m	1,97 m	1,88 m	400 kg
	JIB SECTION NO.9	5,75 m	1,97 m	1,93 m	850 kg
	JIB TIP SECTION	1,37 m	2,00 m	0,90 m	330 kg
	TOWERTOP CPL	8,94 m	2,18 m	1,98 m	3750 kg
	OUTER JIB SUPPORT "A" FRAME	6,58 m	1,73 m	1,42 m	255 kg
	HOIST WINCH SR WB 66-100/4F	2,80 m	2,57 m	1,70 m	3750 kg
	COUNTERJIB G2	11,61 m	2,00 m	1,69 m	4700 kg
	COUNTERJIB G1	9,71 m	2,00 m	0,62 m	2400 kg
	OUTER TROLLEY	1,70 m	2,24 m	1,35 m	466 kg
	OUTER HOIST BLOCK	0,60 m	0,25 m	1,90 m	525 kg
	INNER TROLLEY	1,70 m	2,24 m	1,35 m	301 kg
	INNER HOIST BLOCK	0,65 m	0,25 m	1,40 m	400 kg
	COUNTERWEIGHT BLOCK 3.10 T	4,47 m	0,19 m	1,81 m	3100 kg
	COUNTERWEIGHT FRAME 3.10 T	4,47 m	0,19 m	1,81 m	280 kg

Mobile Cranes

Link-Belt 75 Ton Crawler Crane

- Telescopic Boom 38’ to 115’

Terex RT 65 Ton Crane

- Telescopic Boom 36’ to 111’

Note: All Heavy Equipment is quoted per project.

TCC 750

75 U.S. ton | 70 metric ton
Telescopic Crawler Crane

- 121 ft (36.9 m) maximum main boom tip height
- Four section full power boom
- Remarkable control, reliability & capacity performance
- Unbeatable hydraulic pilot-operated controls
- Goes places other cranes can't
- Spacious cab
- Quick mobilization - transports in one or two loads

TCC 750

75 U.S. ton | 70 metric ton
Telescopic Crawler Crane

Ergonomically designed for maximum visibility, comfort and control

- State of the art rated capacity limiter
- Sliding left side door
- AM/FM radio
- Air conditioner / hot water heater
- Hand and foot throttle
- Travel pedals
- Joystick controls – single axis optional

Remarkable control, reliability and capacity performance

- Diesel powered by **Cummins QSB** current EPA compliant 250 hp *(186 kW)*
- Variable displacement piston type main pumps with **total horsepower control**
- Main hoist's powered through piston motors & winch planetary drums grooved for 3/4" *(19mm)* wire rope with 16,880 lbs *(7 656.6 kg)* available **line pull**
- 460 fpm *(140.2 m/mm)* **line speed**
- **Mechanical drum rotation indicators**

Full power boom with attachment flexibility

- **Full power** 38 ft to 115 ft *(11.58 m to 35.05 m)* four-section boom
- Two boom extend modes: Exclusive **A-max** mode offers substantially increased capacities in close. Standard **mode** extends all four sections equally.
- **Maximum boom/fly length** is 115 ft + 58 ft *(35.05 m + 17.7 m)* = **maximum total attachment height** 179 ft *(54.6 m)*
- Lightweight **nylon head sheaves** reduce overall machine weight and increase lift capacities
- **Quick reeve boom head** with quick reeve block allows rope to be easily reeved over boom head
- **Hammerhead boom nose** allows operator to work at high boom angles
- **Auxiliary sheave** off main boom
- Fixed work platform mounting lugs
- Optional 20 ft to 58 ft *(6.09 m to 17.67 m)* **two-piece on-board lattice fly** with 2°, 15°, 30° and 45° offsets
- **Greaseless** boom wear pads
- Optional auger-ready package

Quick mobilization & superb job-site mobility

- Transports **COMPLETE IN ONE OR TWO LOADS**
- **Hydraulic retractable side frames** for transport
- **Fold-up catwalks**
- Fast and easy **hydraulic counter weight removal**
- **100%** self-assembly

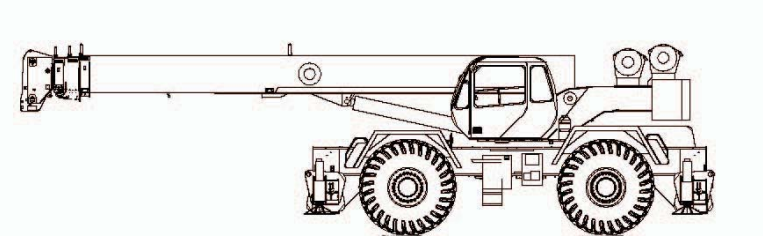
Link-Belt CRANES

Link-Belt Construction Equipment Company
Lexington, Kentucky | www.linkbelt.com

Litho in U.S.A. 12/16 1844 #4502 (supersedes #4446)

TEREX

Rough Terrain Crane Specifications | RT600 Series



STANDARD BOOM EQUIPMENT

BOOM

36-111' (10.67-33.53 m), four section full power boom. Telescoping is mechanically synchronized with single lever control. The synchronization system consists of a single telescope cylinder and high strength leaf chains to extend and retract the third section and the tip section. The boom is a high-strength four plate design, welded inside and out with anti-friction slide pads. Boom side plates are made with stamped impressions to reduce weight and increase strength. A single boom hoist cylinder provides for boom elevation of -4 to 76 degrees. Maximum tip height 115' (35.05 m).

BOOM HEAD

Welded to fourth section of boom. Five or six nylon load sheaves and two idler sheaves mounted on heavy duty, anti friction bearings. Quick reeving boom head. Provisions made for side-stow jib mounting.

OPTIONAL BOOM EQUIPMENT

JIBS

32' (9.68 m) side stow swing-on one-piece lattice type jib. Single nylon sheave mounted on anti-friction bearing. Jib is offsettable at 0˚, 15˚ or 30. Maximum tip height is 146' (44.50 m).

33-57' (10.15-17.30 m) side stow swing-on lattice type jib. Single nylon sheave mounted on anti-friction bearing. Jib is extendible to 57' (17.30 m) by means of a 25' (7.62 m) manual pull-out tip section, roller supported for ease of extension. Jib is offsettable at 0º, 15º, 30º. Maximum tip height is 170' (51.82 m).

AUXILIARY BOOM HEAD

Removable auxiliary boom head has single nylon sheave mounted on anti-friction bearing. Removable pin-type rope guard for quick reeving. Installs on main boom peak only. Removal is not required for jib use.

HOOK BLOCK

Five metallic sheaves on anti-friction bearings with hook and hook latch. Quick reeving design does not require removal of wedge and socket form rope.

HOOK AND BALL

12 ton (10.9 mt) top swivel ball with hook and hook latch.

STANDARD UPPERSTRUCTURE EQUIPMENT

UPPERSTRUCTURE FRAME

All welded one-piece structure fabricated with high tensile strength alloy steel. Counterweight is bolted to frame.

TURNTABLE CONNECTION

Swing bearing is a single row, ball type with internal teeth. The swing bearing is bolted to the revolving upperstructure and to the carrier frame.

SWING

A hydraulic motor drives a double planetary reduction gear for precise and smooth swing function. Swing speed (no load) is 1.9 rpm.

SWING BRAKE

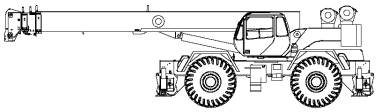
Heavy duty multiple disc swing brake is mechanically actuated from operator's cab by foot pedal. Brake may be locked on or used as a momentary brake. A 360º house mechanical house lock is standard.

RATED CAPACITY INDICATOR

Rated Capacity Indicator with visual and audible warning system and automatic function disconnects. Second generation pictographic display includes: boom radius, boom angle, boom length, allowable load, actual load, and percentage of allowable load registered by bar graph. Operator settable alarms provided for swing angle, boom length, boom angle, tip height, and work area exclusion zone. Anti-two block system includes audio/visual warning and automatic function disconnects.

OPERATORS CAB

Environmental cab with all steel construction, optimum visibility, tinted safety glass throughout. and rubber floor matting is mounted on vibration absorbing pads. The cab has a sliding door on the left side. Framed sliding window on the right side, hinged tinted all glass skylight and removable front windshield to provide optimum visibility of the load open or closed. Acoustical foam padding insulates against sound and weather. The deluxe six-way adjustable seat is equipped with a mechanical suspension and includes head and arm rests.



CONTROLS

Armrest mounted dual axis controls for winch(s), swing, and boom elevation. Winch rotation indication incorporated into control handles. Armrest swings up to improve access and egress. Vernier adjustable hand throttle included. Steering column mounted turn signal, wiper, and shift controls. Switches include ignition, engine stop, lights, horn, roof window wiper, defroster, steering mode, parking brake, outriggers, 360˚ house lock, etc. Horn and winch speed shift switches are mounted in the levers. Foot control pedals include swing brake, boom telescope, service brake, and accelerator.

INSTRUMENTATION AND ACCESSORIES

In-cab gauges include air pressure, bubble level, engine oil pressure, fuel, engine temperature, voltmeter, transmission temperature, and transmission oil pressure. Indicators include low air, high water temperature, low oil pressure, high transmission temperature, and low coolant level audio/visual warning, hoist drum rotation indicator(s), and Rated Capacity Indicator. Accessories include fire extinguisher; light package including headlights, tail light, brake lights, directional signals, four-way hazard flashers, dome light, and back-up lights with audible back-up alarm; windshield washer/wiper; skylight wiper; R.H. and L.H. rear view mirrors; dash lights; and seat belt. Circuit breakers protect electrical circuits.

HYDRAULIC CONTROL VALVES

Valves are mounted on the rear of the upperstructure and are easily accessible. Valves have electric/hydraulic operators and include one pressure compensated two spool valve for main and auxiliary winch, and one single spool valve for swing. Quick disconnects are provided for ease of installation of pressure check gauges.

OPTIONAL EQUIPMENT

Auxiliary Winch, Single axis armrest mounted controllers CLP Heater/Defroster, Hydraulically powered Air conditioner with or without hydraulic header, Diesel Heater/ Defroster, Work Lights, Rotating Beacon.

STANDARD CARRIER EQUIPMENT

CARRIER CHASSIS

Chassis is Terex designed with four-wheel drive and four-wheel steer (4x4x4). Has box-type construction with reinforcing cross members, a precision machined turn table mounting plate and integrally welded outrigger boxes. Decking has anti-skid surfaces, including between the frame rails lockable front tool storage compartment, and access steps and handles on the left and right sides and on all four corners.

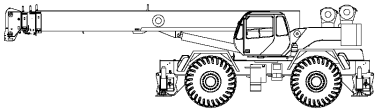
AXLES AND SUSPENSION

Rear axle is a planetary drive/steer type with 10.5' (.26 m) of total oscillation. Automatic oscillation lockouts that engage when the superstructure is swung 10˚in either direction. Front axle is a planetary drive/steer type, rigid mounted to the frame for increased stability.

STEERING

Hydraulic four-wheel power steering for two-wheel, four-wheel coordinated, or four-wheel crab steer is easily controlled by steering wheel. A rear axle centering light is provided.

	Turning Radius: (to CL of outside tire)	Curb Clearance Radius
Two-wheel:	41' 7" (12.7 m)	43' 2" (13.2 m)
Four-wheel:	22' 10" (7.0 m)	24' 7" (7.5 m)



TRANSMISSION

Range shift type power-shift transmission with integral torque converter provides six speeds forward and six speed reverse with neutral safety start. Four wheel drive engages automatically with low range and two wheel drive with high range. Automatic pulsating back-up alarm.

STANDARD CARRIER EQUIPMENT (CONTINUED)

MULTI-POSITION OUT AND DOWN OUTRIGGERS

Fully independent hydraulic outriggers may be utilized fully extended to 24' (7.32 m) centerline to centerline, in their 1/2 extended position, or fully retracted for maximum flexibility. Easily removable Almag floats, each with an area of 254 in² (1639 cm²), stow on the outrigger boxes at their point of use. Complete controls and a sight leveling bubble are located in the operator's cab.

WHEELS AND TIRES

Disc type wheels with full tapered bead seat rim. 157.56" (4 m) wheelbase.

TIRES

Wide earthmover (E3) style tread tires provide life and flotation. 29.50 x 25, 28 P.R.-std.

SERVICE BRAKES

Split system air over hydraulic 18.5" (470 mm) diameter disc dual caliper brakes on all wheels.

PARKING BRAKE

Front axle equipped with spring-set, air released parking brake.

OPTIONAL EQUIPMENT

Immersion Heater, Pintle Hook, Clearance Lights, Independent Rear Wheel Steer, Four Mode Rear Wheel Steer, 20,000 lb line pull front mounted winch.

HYDRAULIC SYSTEM

HYDRAULIC PUMPS

Three gear type pumps, one single and two in tandem , driven off the transmission. Combined system capability is 113 gpm (428 lpm). Includes pump disconnect on winch pump.

Main and Auxiliary Winch Pump
- 52.7 gpm (199.5 lpm) @ 4,500 psi (316.4 kg/cm²)

Boom Hoist and Telescope Pump
- 37.3 gpm (141.2 lpm) @ 3,500 psi (246.1 kg/cm²)

Power Steering, Outrigger and Swing Pump
- 18.7 gpm (70.8 lpm) @ 3,500 psi (246.1 kg/cm²)

FILTRATION

Full flow oil filtration system with bypass protection includes a removable 60 mesh (250 micron) suction screen-type filter and five micron replaceable return line filter.

HYDRAULIC RESERVOIR

All steel, welded construction with internal baffles and diffuser. Provides easy access to filters and is equipped with an external sight level gauge. The hydraulic tank is pressurized to aid in keeping out contaminants and in reducing potential pump cavitation. Capacity is 116 gal (439 L). Hydraulic oil cooler is standard.

MAIN WINCH SPECIFICATIONS

Hydraulic winch with bent axis piston motor and planetary reduction gearing provides two-speed operation with equal speeds for power up and down. Winch is equipped with an integral automatic brake, grooved drum, tapered flanges, standard cable roller on drum, and electronic rotation indicator.

Performance	LO-Range	HI-Range
Max line speed (no load)		
First layer	187 fpm (57 m/min)	300 fpm (91.4 m/min)
Fifth layer	269 fpm (82 m/min)	431 fpm (131.4 m/min)
Max. line pull-first layer	18,450 lb (8 369 kg)	10,002 lb (4 537 kg)
Max. line pull-fifth layer	12,845 lb (5 826 kg)	6,954 lb (3 158 kg)
Permissible line pull **Drum**	13,800 lb (6 260 kg)	Rated HP

Dimensions
- 13" (330 mm) drum diameter
- 20.16" (512 mm) length
- 12.5" (546 mm) flange dia.

Drum Capacity
Max. Storage: 561' (171 m)
Max. Useable: 561' (171 m)*

- Cable: 3/4" x 600' (19 mm x 182.9 m)
- Cable type: 3/4" (19 mm) 6 x 19 IWRC XIPS, right regular lay, performed.
- Min. breaking strength 29.4 tons (26.6 mt)

*Based on minimum flange height above top layer to comply with ANSI B30.5

OPTIONAL AUXILIARY WINCH

Hydraulic two-speed winch with bent axis piston motor, equal speed power up and down, planetary reduction with integral automatic brake, grooved drum with tapered flanges, drum roller, and rotation indicator.

Performance
- Max. line speed (no load) Fifth layer — 431 fpm (131.4 m/min)
- Max. line pull First layer — 18,450 lb (8 369 kg)

Drum Dimensions and Capacity — (Same as main winch)

OPTIONAL HOIST LINE

Main winch and optional auxiliary winch 3/4" (19 mm) rotation resistant compacted strand 34 x 7 grade 1960. Min. breaking strength 34.5 tons (31.7 mt).

ENGINE SPECIFICATIONS

Make and Model, Cummins QSB-215 (300 hp)	
Type	6 cylinder
Bore and Stroke	4.02 x 4.72" (102 x 120 mm)
Displacement	359 in³ (5.9 L)
Max. Gross HP	215 hp (160 kw) @ 2500 rpm
Max. Gross Torque	255 hp (168 kw) @ 2300 rpm 655 lb • ft (888 N•m) @ 1500 rpm
Aspiration	Turbocharged & charge air cooled
Air filter	dry type
Electrical System	12 volt
Alternator	102 amp
Battery	(2) 12V-1900 C.C.A.
Fuel Capacity	50 gal (189 L)

PERFORMANCE (STANDARD ENGINE)

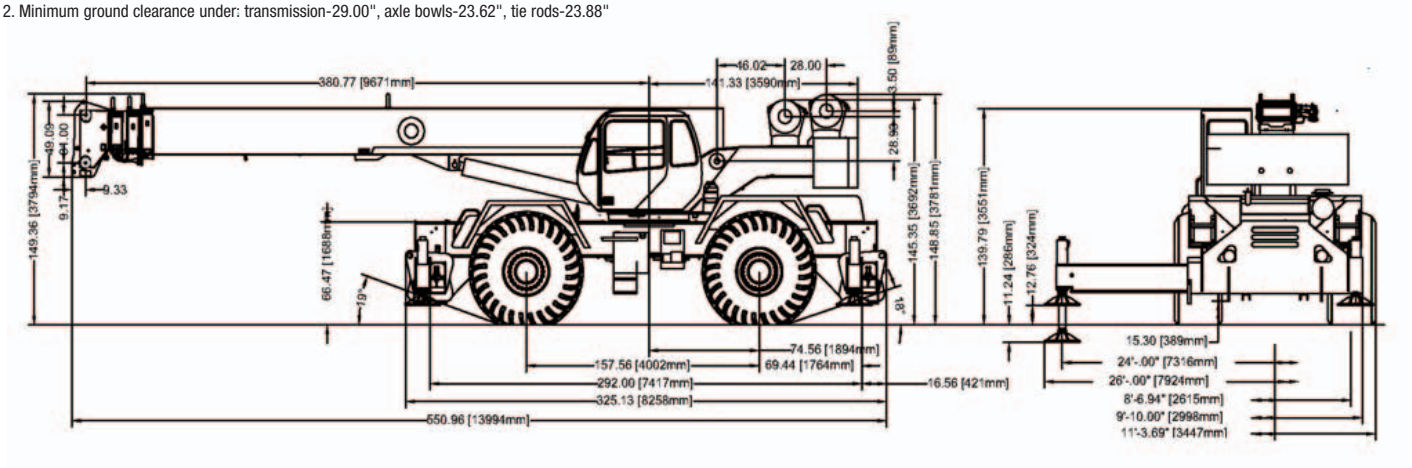
Transmission Gear	Forward Drive	Max. Speed	Max. Tractive Effort	Gradeability @ Stall
1	4-wheel	1.9 mph (3.1 kph)	86,330 lb (39 159 kg)	127.6%
2	4-wheel	3.8 mph (6.1 kph)	41,547 lb (18 845 kg)	48.5%
3	4-wheel	9.6 mph (15.4 kph)	15,220 lb (6 904 kg)	34.7%
4	2-wheel	5.2 mph (8.4 kph)	29,686 lb (13 465 kg)	18%
5	2-wheel	10.3 mph (16.6 kph)	14,260 lb (6 468 kg)	12%
6	2-wheel	23.4 mph (37.7 kph)	5,211 lb (2 364 kg)	5.9%

All performance data is based on a gross vehicle weight of 86,000 lb (39 009 kg) 29.5x25 tires, 4x4 drive. Performance may vary due to engine performance. Gradeability data is theoretical and is limited by tire slip, machine stability, or oil pan design.

TEREX

GENERAL DIMENSIONS

1. Dimensions given assume the boom is fully retracted in travel position and 29.50 x 25 tires.
2. Minimum ground clearance under: transmission-29.00", axle bowls-23.62", tie rods-23.88"

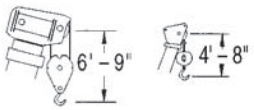


WEIGHTS & AXLE LOADS	GROSS WEIGHT LB	UPPER FACING FRONT		GROSS WEIGHT KG	UPPER FACING FRONT	
		FRONT	REAR		FRONT	REAR
Basic crane with 14,200 lb (6 440 kg) counterweight	85,694	45,238	40,456	38 870	20 520	18 350
Add Options:						
32' (9.68 m) Swing-on Jib (Stowed)	+ 1,270	+ 2,205	- 935	+ 576	+ 1 000	- 424
33'-57' (10.15-17.30 m) Swing-on Jib (Stowed)	+ 2,170	+ 3,580	- 1,410	+ 984	+ 1 624	- 640
Axillary Boom Head	+ 125	+ 365	- 240	+ 57	+ 166	- 109
Auxiliary Winch with Wire Rope, Controls, Etc.	+ 584	- 30	+ 614	+ 265	- 14	+ 279
75 T (68.0 mt) 5-Sheave Hook Block	+ 1,040	+ 1,971	- 931	+ 472	+ 894	- 422
60 T (54.4 mt) 5-Sheave Hook Block	+ 1,204	+ 2,233	- 1,029	+ 546	+ 1 013	- 467
20 T (18.1 mt) I-Sheave Hook Block	+ 570	+ 936	- 366	+ 259	+ 425	- 166
12 T (19.9 mt) Hook and Ball (In tool box)	+ 419	+ 443	- 24	+ 190	+ 201	- 11
Pintle Hook:						
Front	+ 45	+ 60	- 15	+ 20	+ 27	- 7
Rear	+ 45	- 25	+ 70	+ 20	- 11	+ 31
Substitute: 600' of 34x7 class spin resistant wire rope	+ 98	- 17	+ 115	+ 44	- 8	+ 52

Note: Weights are for Terex supplied equipment and are subject to 2% variation due to manufacturing tolerances.

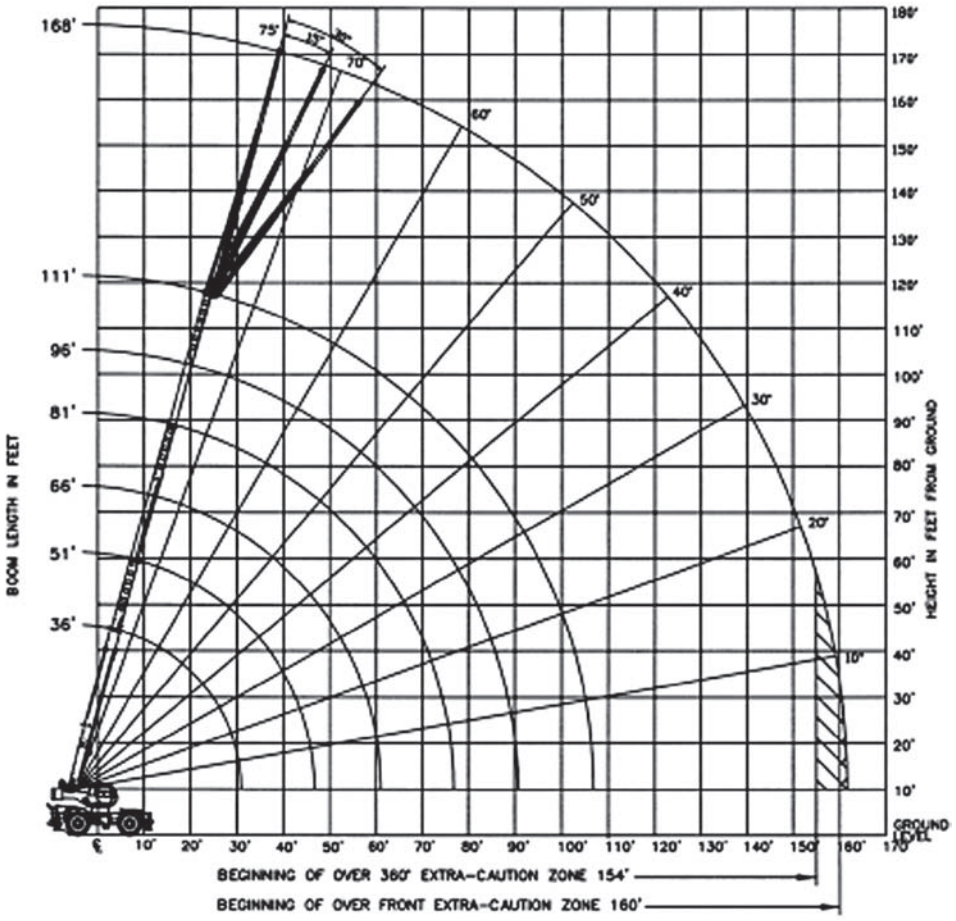
65 TON LIFTING CAPACITY

RANGE DIAGRAM 36' - 111' BOOM

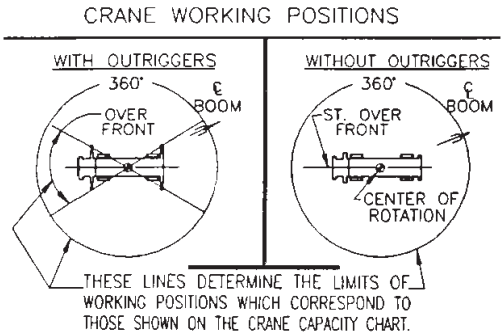


DIMENSIONS ARE FOR LARGEST FACTORY FURNISHED HOOK BLOCK AND HOOK & BALL, WITH ANTI-TWO BLOCK ACTIVATED

COUNTERWEIGHT	W/AUX. WINCH 13,100 LB W/O AUX. WINCH 14,200 LB
BOOM LENGTH	36'-111'
OUTRIGGER SPREAD	24'
STABILITY PERCENTAGE	ON OUTRIGGERS 85% ON TIRES 75%
PCSA CLASS	10-270



CRANE WORKING CONDITIONS



REDUCTION IN MAIN BOOM CAPACITY

All jib in stowed position	0 lb
Aux. boom in head sheave	100 lb

HOOK BLOCK WEIGHTS

Hook and ball	419 lb
Hook block (5 sheave)	1,204 lb

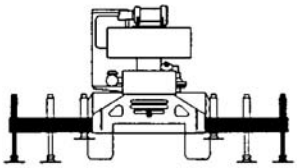
LIFTING CAPACITIES

CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

ON OUTRIGGERS - FULLY EXTENDED

LOAD RADIUS (FT)	BOOM LENGTH 36' BOOM ANGLE (DEG) REF.	OVER FRONT (LB)	360° (LB)	BOOM LENGTH 51' BOOM ANGLE (DEG) REF.	OVER FRONT (LB)	360° (LB)	BOOM LENGTH 66' BOOM ANGLE (DEG) REF.	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)
10	67.1	130,000*	130,000*	74.1	80,100*	80,100*				10
12	63.6	106,800*	106,800*	71.8	80,100*	80,100*				12
15	57.5	86,100*	85,900*	68.1	78,500*	78,500*	73.3	62,000*	62,000*	15
20	48.0	62,100*	62,100*	61.9	63,400*	63,400*	68.7	54,900*	54,900*	20
25	35.9	47,700*	47,700*	55.3	48,900*	48,900*	63.9	49,200*	49,200*	25
30	18.0	37,800*	37,800*	48.0	39,200*	39,200*	58.9	39,900*	39,900*	30
35	**			39.9	32,300*	32,300*	53.7	33,000*	33,000*	35
40				29.9	27,100*	27,000	48.0	27,700	27,500	40
45				15.0	22,200	21,400	41.9	23,000	2,200	45
50				**			34.8	19,100	18,300	50
55							26.2	16,000	15,200	55
60							13.2	13,500	12,700	60
65							**			65
70										70
75										75
80										80
85										85
90										90
95										95
100										100
105										105
110										110

USE THESE CHARTS ONLY WHEN ALL OUTRIGGERS ARE FULLY EXTENDED



LIFTING CAPACITIES

CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

ON OUTRIGGERS - FULLY EXTENDED

LOAD RADIUS (FT)	BOOM LENGTH 81'			BOOM LENGTH 96'			BOOM LENGTH 111'			LOAD RADIUS (FT)
	BOOM ANGLE (DEG) REF.	OVER FRONT (LB)	360° (LB)	BOOM ANGLE (DEG) REF.	OVER FRONT (LB)	360° (LB)	BOOM ANGLE (DEG) REF.	OVER FRONT (LB)	360° (LB)	
10										10
12										12
15										15
20	72.8	46,300*	46.300*							20
25	69.0	40,800*	40,800*	72.4	35,400*	35,400*				25
30	65.2	36,100*	36,100*	69.3	31,300*	31,300*	72.2	27,600*	27,600*	30
35	61.2	32,400*	32,400*	66.0	28,100*	28,100*	69.4	24,900*	24,900*	35
40	57.1	28,100*	27,900	62.7	25,400*	25,400*	66.7	22,600*	22,600*	40
45	52.7	23,300	22,500	59.3	23,200*	22,700	63.8	20,700*	20,700*	45
50	48.1	19,400	18,600	55.5	19,600	16,600	60.9	18,900*	18,900*	50
55	43.1	16,400	15,600	52.0	16,600	15,800	57.9	16,700	15,900	55
60	37.6	14,000	13,200	48.1	14,200	13,400	54.7	14,300	13,500	60
65	31.3	12,000	11,300	43.9	12,300	11,500	51.5	12,400	11,600	65
70	23.6	10,300	9,600	39.4	10,600	9,900	48.1	10,800	10,000	70
75	11.9	8,900	8,200	34.4	9,300	8,500	44.5	9,400	8,700	75
80	**			28.7	8,100	7,400	40.7	8,200	7,500	80
85				21.7	7,000	6,300	36.6	7,200	6,500	85
90				11.0	6,000	5,400	31.9	6,300	5,700	90
95				**			26.7	5,500	4,900	95
100							20.1	4,800	4,200	100
105							10.2	4,100	3,600	105
110							**			110

**MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LENGTH 36'			BOOM LENGTH 51'			BOOM LENGTH 66'			BOOM LENGTH 81'			BOOM LENGTH 96'			BOOM LENGTH 111'		
LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)	LOAD RADIUS (FT)	OVER FRONT (LB)	360° (LB)
31.7	20,400*	20,400*	46.7	12,400*	12,400*	61.7	8,000*	8,000*	76.7	5,300*	5,300*	91.7	3,400*	3,400*	106.7	2,100*	2,100*

LIFTING CAPACITIES

CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

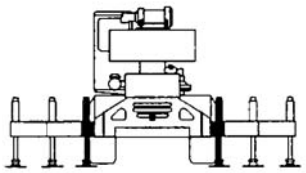
ON OUTRIGGERS - MID POSITION

	BOOM LENGTH 36'		BOOM LENGTH 51'		BOOM LENGTH 66'		BOOM LENGTH 81'		BOOM LENGTH 96'		BOOM LENGTH 111'		
LOAD RADIUS (FT)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	LOAD RADIUS (FT
10	67.1	121,200*	74.1	80,100*									10
12	63.6	106,800*	71.8	80,100*									12
15	57.5	86,000*	68.1	78,500*	73.3	62,000*							15
20	48.0	48,800	61.9	49,900	68.7	50,400	72.8	46,300*					20
25	35.9	31,300	55.3	32,700	63.9	33,200	69.0	33,500	72.4	33,700			25
30	18.0	21,800	48.0	23,400	58.9	23,900	65.2	24,200	69.3	24,400	72.2	24.500	30
35	**		39.9	17,500	53.7	18,100	61.2	18,300	66.0	18,500	69.4	18,600	35
40			29.9	13,300	48.0	14,100	57.1	14,300	62.7	14,500	66.7	14,600	40
45			15.0	10,300	41.9	11,100	52.7	11,400	59.3	11,600	63.8	11,700	45
50			**		34.8	8,800	48.1	9,200	55.5	9,400	60.9	9.500	50
55					26.2	7,000	43.1	7,400	52.0	7,600	57.9	7.800	55
60					13.2	5,400	37.6	5,900	48.1	6,200	54.7	6,300	60
65					**		31.3	4,700	43.9	5,000	51.5	5.200	65
70							23.6	3,700	39.4	4,000	48.1	4,200	70
75							11.9	2,800	34.4	3,100	44.5	3.300	75
80							**		28.7	2,400	40.7	2.600	80

**MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LENGTH 36'		BOOM LENGTH 51'		BOOM LENGTH 66'		BOOM LENGTH 81'		BOOM LENGTH 96'		BOOM LENGTH 111'	
LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)
31.7	19,200	46.7	9,300	61.7	4,900	76.7	2,500				

USE THESE CHARTS ONLY WHEN ALL OUTRIGGERS ARE PINNED IN MID POSITION



TEREX

ROUGH TERRAIN CRANE

RT665

LIFTING CAPACITIES

CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

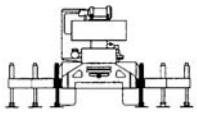
ON OUTRIGGERS - RETRACTED

	BOOM LENGTH 36'		BOOM LENGTH 51'		BOOM LENGTH 66'		BOOM LENGTH 81'		BOOM LENGTH 96'		BOOM LENGTH 111'		
LOAD RADIUS (FT)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	BOOM ANGLE (DEG) REF.	360° (LB)	LOAD RADIUS (FT
10	67.1	73,700	74.1	74,900									10
12	63.6	51,700	71.8	51,700									12
15	57.5	34,300	68.1	35,300	73.3	35,800							15
20	48.0	20,100	61.9	21,400	68.7	21,800	72.8	22,100					20
25	35.9	12,800	55.3	14,100	63.9	14,600	69.0	14,900	72.4	15,000			25
30	18.0	8,200	48.0	9,600	58.9	10,200	65.2	10,500	69.3	10,700	72.2	10,800	30
35	**		39.9	6,600	53.7	7,200	61.2	7,600	66.0	7,700	69.4	7,800	35
40			29.9	4,400	48.0	5,000	57.1	5,400	62.7	5,600	68.7	5,700	40
45			15.0	2,600	41.9	3,400	52.7	3,800	59.3	4,000	63.8	4,100	45
50							48.1	2,500	55.5	2,700	60.9	2,900	50
55													55

**MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

BOOM LENGTH 36'		BOOM LENGTH 51'		BOOM LENGTH 66'		BOOM LENGTH 81'		BOOM LENGTH 96'		BOOM LENGTH 111'	
LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)	LOAD RADIUS (FT)	360° (LB)
31.7	6,800										

USE THESE CHARS WHEN ALL OUTRIGGER BEAMS ARE NOT IN EITHER THE MID OR FULLY EXTENDED POSITION



LIFTING CAPACITIES

CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

SIDE STOW JIB ON FULLY EXTENDED OUTRIGGERS

	32' OFFSETTABLE JIB/NO PULL OUT INSTALLED									49' OFFSETTABLE JIB/PULL OUT RETRACTED										
	0° OFFSET			15° OFFSET			30° OFFSET			0° OFFSET			15° OFFSET			30° OFFSET			
LOADED BOOM ANGLE (DEG)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOADED BOOM ANGLE (DEG)
75	40	12,600*	12,600*	48	8,500*	8,500*	54	6,600*	6,600*	41	12,600*	12,600*	49	8,500*	8,500*	55	6,600*	6,600*	75
73	46	11,900*	11,900*	53	8,200*	8,200*	59	6,400*	6,400*	47	11,900*	11,900*	54	8,200*	8,200*	60	6,400*	6,400*	73
71	51	11,300*	11,300*	58	7,800*	7,800*	63	6,300*	6,300*	52	11,300*	11,300*	59	7,800*	7,800*	64	6,300*	6,300*	71
68	58	10,400*	10,400*	65	7,400*	7,400*	70	6,000*	6,000*	59	10,400*	10,400*	66	7,400*	7,400*	71	6,000*	6,000*	68
65	65	9,600*	9,600*	71	7,100*	7,100*	76	5,900*	5,900*	66	9,600*	9,600*	72	7,100*	7,100*	77	5,900*	5,900*	65
62	71	8,900*	8,900*	78	6,800*	6,800*	83	5,700*	5,700*	72	8,900*	8,900*	79	6,800*	6,800*	84	5,700*	5,700*	62
59	78	8,300*	8,300*	84	6,500*	6,500*	88	5,500*	5,500*	79	8,300*	8,200*	85	6,500*	6,500*	89	5,500*	5,500*	59
55	86	7,700*	7,700*	91	6,200*	6,200*	95	5,300*	5,300*	87	7,600*	6,800	92	6,200*	6,200*	96	5,300*	5,300*	55
51	93	7,100*	6,500	98	5,900*	5,900*	102	5,200*	5,200*	94	6,300	5,700	99	5,600	5,200	103	5,200*	5,000*	51
47	100	6,000	5,500	105	5,500	5,100	108	5,000*	5,000*	101	5,300	4,700	106	4,800	4,400	109	4,700	4,200	47
43	106	5,200	4,600	111	4,800	4,400	113	4,700	4,300	107	4,400	3,900	112	4,100	3,600	114	4,000	3,600	43
38	113	4,300	3,800	119	4,100	3,600	119	4,000	3,600	114	3,600	3,100	120	3,400	2,900	120	3,300	2,900	38
32	121	3,500	3,100	124	3,400	2,900	125	3,300	2,900	122	2,800	2,300	125	2,700	2,200	126	2,600	2,200	32
25	127	2,900	2,500	130	2,800	2,300				129	2,200	1,800	132	2,100	1,700				25
17	133	2,400	2,000	135	2,300	1,900				135	1,700	1,300	137	1,700	1,300				17

LIFTING CAPACITIES

CAUTION: Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change

SIDE STOW JIB ON FULLY EXTENDED OUTRIGGERS

LOADED BOOM ANGLE (DEG)	57' OFFSETTABLE JIB									LOADED BOOM ANGLE (DEG)
	0° OFFSET			15° OFFSET			30° OFFSET			
	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	LOAD RADIUS (REF) (FT)	FRONT ONLY (LB)	360° (LB)	
75	52	6,600*	6,600*	64	4,600*	4,600*	74	3,400*	3,400*	75
73	58	6,200*	6,200*	70	4,400*	4,400*	80	3,300*	3,300*	73
71	64	5,900*	5,900*	76	4,200*	4,200*	85	3,200*	3,200*	71
68	73	5,600*	5,600*	83	3,900*	3,900*	92	3,100*	3,100*	68
65	81	5,200*	5,200*	91	3,700*	3,700*	99	3,000*	3,000*	65
62	89	4,800*	4,800*	98	3,500*	3,500*	106	2,900*	2,900*	62
59	96	4,500*	4,500*	105	3,400*	3,400*	112	2,800*	2,800"	59
55	105	4,100*	4,100*	113	3,200*	3,200*	119	2,700*	2,700"	55
51	114	3,800*	3,800*	121	3,000*	3,000*	126	2,700*	2,700*	51
47	122	3,500*	3,500*	128	2,900*	2,900*	132	2,600*	2,600*	47
43	129	3,300*	3,000	135	2,800*	2,800*	138	2,600*	2,600*	43
38	137	2,700	2,400	142	2,600	2,200	144	2,500	2,200	38
32	145	2,200	1,800	149	2,100	1,700	149	2,000	1,700	32
25	153	1,600	1,300	155	1,600	1,200				25
17	159	1,200	1,000	160	1,200	900				17

Notes For Jib Capacities:

A. For all boom lengths less than the maximum with a jib erected, the rated loads are determined by boom angle only In the appropriate column.
B. For boom angle not shown, use the capacity of the next lower boom angle.
C. Listed radii are for extended main boom only.

ON TIRES

RADIUS (FT)	MAX BOOM LENGTH (FT)	29.5 X 25 28 PR			
		STATIONARY		PICK & CARRY	
		STATIC		CREEP	2.5 MPH
		360°	STRAIGHT OVER FRONT		
10	36	55,700	87,600*	68,800	51,900
12	36	42,800	77,300*	60,500	45,400
15	36	29,500	61,400	50,800	37,700
20	36	17,600	37,300	37,300	28,800
25	51	11,800	22,600	22,600	22,600
30	51	8,000	15,700	15,700	15,700
35	51	5,700	12,700	12,700	12,700
40	51	4,100	10,200	10,200	10,200
45	66	2,900	8,100	8,100	8,100
50	66	1,900	6,500	6,500	6,500
55	66		5,200	5,200	5,200
60	81		4,200	4,200	4,200
65	81		3,400	3,400	3,400
75	81		2,700	2,700	2,700

Notes For On Tire Capacities:

A. For Pick and Carry operations, boom must be centered over the front of the crane with swing brake and lock engaged. Use minimum boom point height and keep load close to ground surface.
B. The load should be restrained from swinging. NO ON TIRE OPERATION WITH JIB ERECTED.
C. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires to ensure stability.
D. Creep speed is crane movement of less than 200' (61 m) in a 30 minute period and not exceeding 1.0 mph (1.6 km/h).
E. Refer to General Notes for additional information.

RECOMMENDED TIRE PRESSURE

TIRE SIZE	STATIONARY	CREEP	2 1/2 MPH	TRAVEL
29.5 x 25-28 PR	81 PSI	81 PSI	65 PSI	55 PSI

MAXIMUM PERMISSIBLE HOIST LINE LOAD

LINE PARTS	1	2	3	4	5	6	7	8	9	10
MAIN & AUX. HOIST	13,800	27,600	41,400	55,200	69,000	82,800	96,600	100,400	124,200	130,000

WIRE ROPE: 3/4" ROTATION RESISTANT 34X7 COMPACTED STRAND, GRADE 2160, MINIMUM BREAKING STRENGTH - 34.5 TONS. 3/4" 6X19 OR 6X37, IPS, IWRC, PERFORMED RIGHT REGULAR LAY MINIMUM BREAKING STRENGTH - 25.6 TONS. WEIGHT 1.04 LB/FT.

General Notes | RT600 Series

GENERAL

1. Rated loads as shown on Lift Charts pertain to this machine as originally manufactured and equipped. Modifications to the machine or use of optional equipment or other than that specified can result in a reduction of capacity.
2. Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance of this machine shall be in compliance with the information in the Operator's, Parts and Safety Manuals supplied with this machine. If These manuals are missing, order replacements from the manufacturer through your distributor.
3. These warnings to not constitute all of the operating conditions for the crane. The operator and job site supervision must read the OPERATORS MANUAL, CIMA SAFETY MANUAL, APPLICABLE OSHA REGULATIONS, AND SOCIETY OF MECHANICAL ENGINEERS (ASME) SAFETY STANDINGS FOR CRANES.
4. This crane and its load ratings are in accordance with POWER CRANE & SHOVEL ASSOCIATION, STANDARD NO.4 SAE CRANE LOAD STABILITY TEST CODE J765A, SAE METHOD OF TEST FOR CRANE STRUCTURE J1063 AND APPLICABLE SAFETY CODE FOR CRANES, DERRICKS AND HOISTS, ASME/ANSI B30.5

DEFINITIONS

1. LOAD RADIUS - The horizontal distance from the axis of rotation before loading to the center of the vertical hoist line or tackle with a load applied.
2. LOADED BOOM ANGLE - It is the angle between the boom base section and the horizontal, after lifting the rated load at the rated radius. the boom angle before loading should be greater to account for deflections. The loaded boom angle combined with boom length give only an approximation of the operating radius.
3. WORKING AREA - Areas measured in a circular arc about the centerline of rotation as shown in the diagram.
4. FREELY SUSPENDED LOAD - Load hanging free with no direct external force applied except by the hoist rope.
5. SIDE LOAD - Horizontal force applied to he lifted load either on the ground or in the air.
6. NO LOAD STABILITY LIMIT - The stability limit radius shown on the range diagrams is the radius beyond which it is not permitted to position the boom, when the boom angle is less than the minimum shown on the applicable load chart, because the machine can overturn without any load.
7. BOOM SIDE OF CRANE - The side of the crane over which the boom is positions when in OVER SIDE working position.

SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended or in the case of partial extension ratings mechanically pinned in the appropriate position, and the tires free of the supporting surface.
3. Crane load ratings on tires depend on appropriate inflation pressure and the tire conditions. Caution must be exercised when increasing air pressures in tires. Consult Operator's Manual for precautions.
4. Use of jibs, lattice-type boom extensions, or fourth section pullouts extended is not permitted for pick and carry operations.
5. Consult appropriate section of the Operator's and Service Manual for more exact description of hoist line reeving.
6. The use of more parts of line than required by the load may result in having insufficient rope to allow the hook block to reach the ground.
7. Properly maintained wire rope is essential for save crane operation. Consult Operator's Manual for proper maintenance and inspection requirements.
8. When spin-resistant wire rope is used, the allowable rope loading shall be the breaking strength divided by five (5), unless otherwise specified by the wire rope manufacturer.
9. Do not elevate the boom above 60° unless the boom is positioned in-line with the crane's chassis or the outrigger are extended. Failure to observe this warning may result in loss of stability.

OPERATION

1. CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.
2. When either radius or boom length, or both, are between listed values, the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched areas shown on range diagrams.)
4. The boom angles shown on the Capacity Chart give an approximation of the operating radius for a specified boom length.The boom angle, before loading, should be greater to account for boom deflection. It may be necessary to retract the boom if maximum boom angle is insufficient to maintain rated radius.
5. Power telescoping boom sections must be extended equally.
6. Rated loads include the weight of hook block, slings, and auxiliary lifting devices. Their weights shall be subtracted from the listed rated load to obtain the net load that can be lifted. When lifting over the jib the weight of any hook block, slings, and auxiliary lifting devices at the boom head must be added to the load. When jibs are erected but unused add two (2) times the weight of any hook block, slings, and auxiliary lifting devices at the jib head to the load.
7. Rated loads do not exceed 85% on outriggers or 75% on tires, of the tipping load as determined by SAE Crane Stability Test Code J765a. Structural strength ratings in chart are indicated with an asterisk (*).
8. Rated loads are based on freely suspended loads. No attempt shall be made to drag a load horizontally on the ground in any direction.
9. The user shall operate at reduced ratings to allow for adverse job conditions, such as: soft or uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electric wires, etc. (side pull on boom or jib is hazardous). Derating of the cranes lifting capacity is required when wind speed exceeds 20 MPH. The center of the lifted load must never be allowed to move more then 3* off the center line of the base boom section due to the effects of wind, inertia, or any combination of the two.
   *"Use 2' off the center line of the base boom for a two section boom, 3' for a there section boom, or 4' for a four section boom."
10. The maximum load which can be telescoped is not definable, because of variations in loadings and crane maintenance, but it is permissible to attempt retraction and extension if load ratings are not exceeded.
11. Load ratings are dependent upon the crane being maintained according to manufacturer's specifications.
12. It is recommended that load handling devices, including hooks, and hook blocks, be kept away from boom head at all times.
13. FOR TRUCK CRANES ONLY: 360° capacities apply only to machines equipped with a front outrigger jack and all five(5) outrigger jacks properly set. If the front (5th) outrigger jack is not properly set, the work area is restricted to the over side and over rear ares as shown on the Crane Working Positions diagram. Use the 360° load ratings in the overside work areas.
14. Do not lift with outrigger beams positioned between the fully extended and intermediate (pinned) positions.
15. Truck Cranes not equipped with equalizing (bogie) beams between the rear axles may not be used for lifting "on tires". Truck Cranes equipped with equalizing beams and rear air suspension should "dump" the air before lifting "on tires".

CLAMSHELL, MAGNET, AND CONCRETE BUCKET SERVICE

1. Maximum boom length for clamshell and magnet service is 50'.
2. Weight of clamshell or magnet, plus contents are not to exceed 6,000 lb or 90% of rated lifting capacities, whichever is less. For concrete bucket operation, weight of bucket and load must not exceed 90% of rated lifting capacity.

Material Hoists & Rolling Platforms

USA 8000# Single Cage Rack and Pinion Personal / Material Hoist

- Cage size 14’8” – 5’W x 7’7”H
- Capacity 8,000#
- 8000lb hoist for 6 months rental and 1 overtime hoist jump

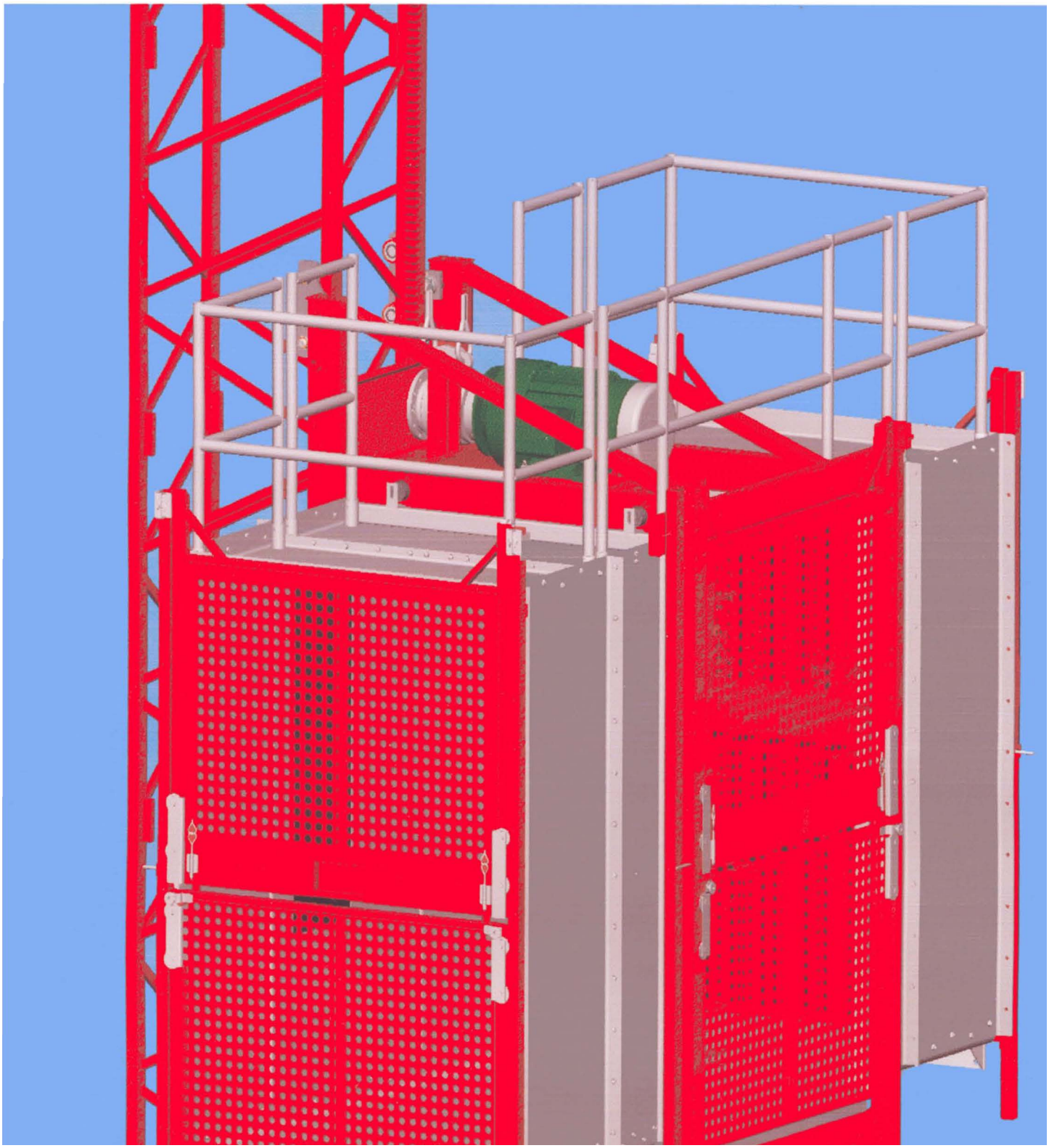
365 Rolling Landing Platforms

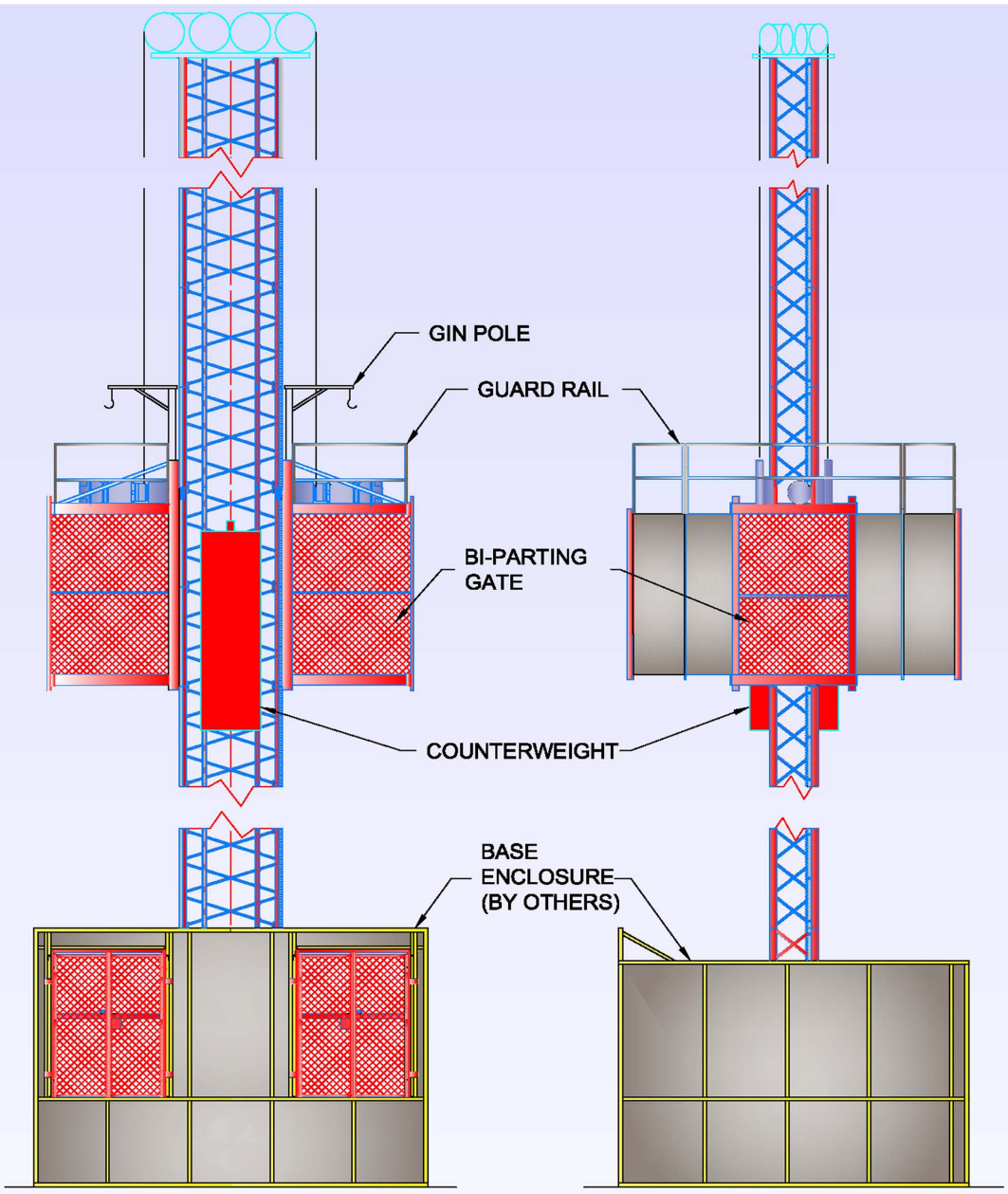
- RP-25 20’ L x 6.2’W Capacity 5,500#
- RP-29 26’ L x 9.4’W Capacity 11,000#
- RP-33 26’L x 10.7’W Capacity 11,000#

Note: All Heavy Equipment is quoted per project.

USA HOIST

MODEL USA-8000 Personnel / Material Hoist





ELEVATION-FRONT **ELEVATION-SIDE**

BASE UNIT COMPONENTS

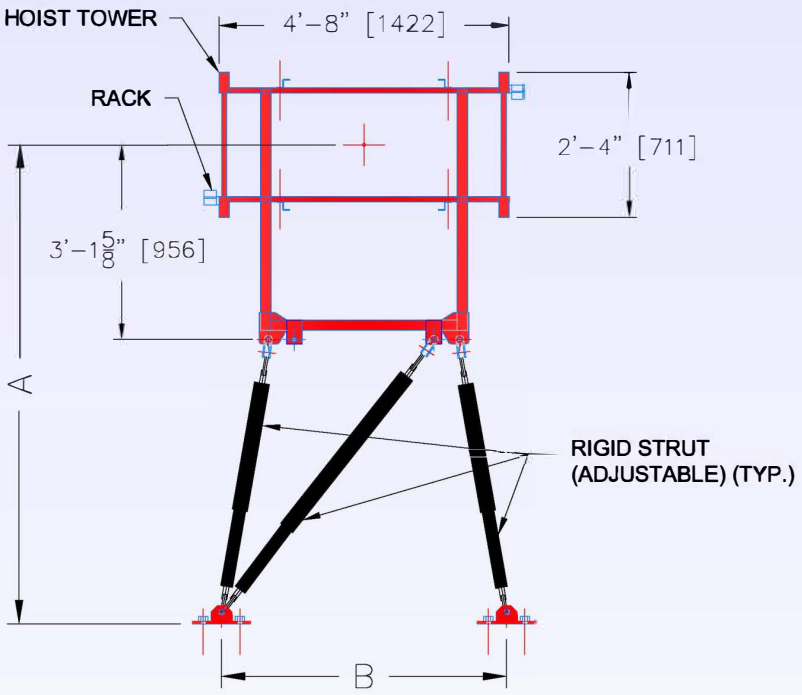
THE COMPONENTS LISTED BELOW ARE INCLUDED IN THE BASE PACKAGE.

- FULLY ASSEMBLED, CARS WITH OVERSPEED SAFETY BRAKE, MOTOR AND ALL DRIVE COMPONENTS
- 20 FT OF TOWER ON BASE
- LIMIT AND CONTROL SWITCHES
- MOTOR AND CAR CONTROL PANEL WITH CONSTANT-PRESSURE, HAND-LEVER CONTROLLER
- TWO-ROPE CATHEAD ASSEMBLY
- COUNTERWEIGHTS
- BUFFER SPRINGS
- POWER CABLE TROLLEY

ADJUSTABLE
TIE-IN ASSEMBLIES

TIE-IN SPECIFICATIONS

(A) Length, in	(B) Distance between mounting plates, in	Car Gate/Structure Clearance, in Wall Mount	Floor Mount
80"-105" [2032-2667]	50"-55" [1270-1397]	3"-28" [76-711]	3"-16" [76-406]



PLAN OF TIE-IN ASSEMBLY

USA HOIST COMPANY, INC.

AN AFFILIATE OF MID-AMERICAN ELEVATOR

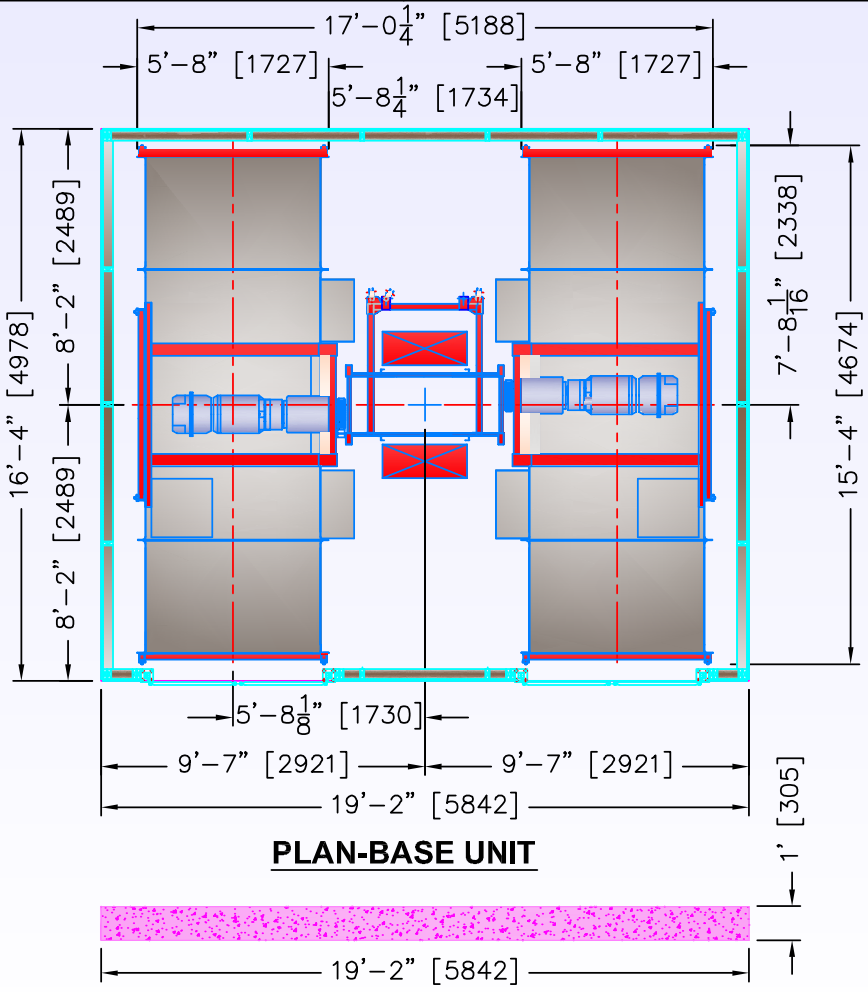
www.mid–americanelevator.com

USA HOIST

USA-8000J PERSONNEL AND MATERIAL HOIST

FEATURES	
New Higher Capacity – 8000 # (3629 kg)	Single or Dual Operation
Car–speed – 300 FPM (91.5 m/m)	Three Gates in Each Car
Proven Rack and Pinion Design	Reliable Single AC Motor Design
High Strength and Efficient Planetary Gearbox	Heavy Duty Steel Frame
Heavy Duty Disk Braking System	Light Weight Aluminum Fully Enclosed Car
Latest Technology Variable Speed AC Drive for Smooth Ride and Accurate Stops	Designed To Operate On Champion 6000 Single And Dual Tower
Industrial Duty Microprocessor Based Control System	Advanced Operator Interface Text Display of Status, Operating and Diagnostic Messages
Selectable Car Switch or Full Automatic Operation.	Made in the United States

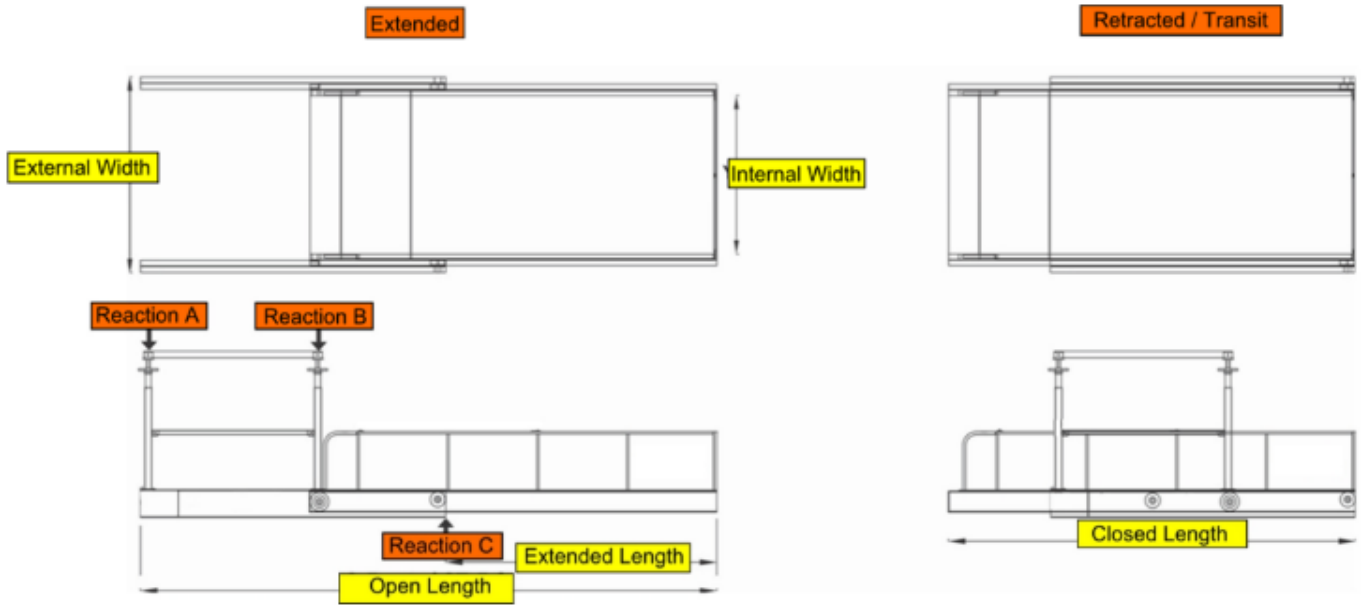
SPECIFICATIONS	
Capacity – 8000 # (3629 kg)	Car Weight –– 6400 # (2903 kg)
Car–speed – 300 FPM (91.5 m/m)	Counterweight Weight – 9600 # (4354 kg)
Passengers – 40	Total Dual Base Unit Wt. – 35,000 # (15900 kg)
Inside Car Dimensions ––	Total Single Base Unit Wt. – 22,000 # (10000 kg)
Length –– 14–8" (4.47 meters)	Maximum Tower Height – 1250 ft. (380 m)
Width –– 5'–0" (1.52 meters)	Electric Service Required – 480 VAC, 3 phase
Height –– 8'–4" (2.54 meters)	Single – 100 Amps, Dual – 200 Amps



PLAN-BASE UNIT

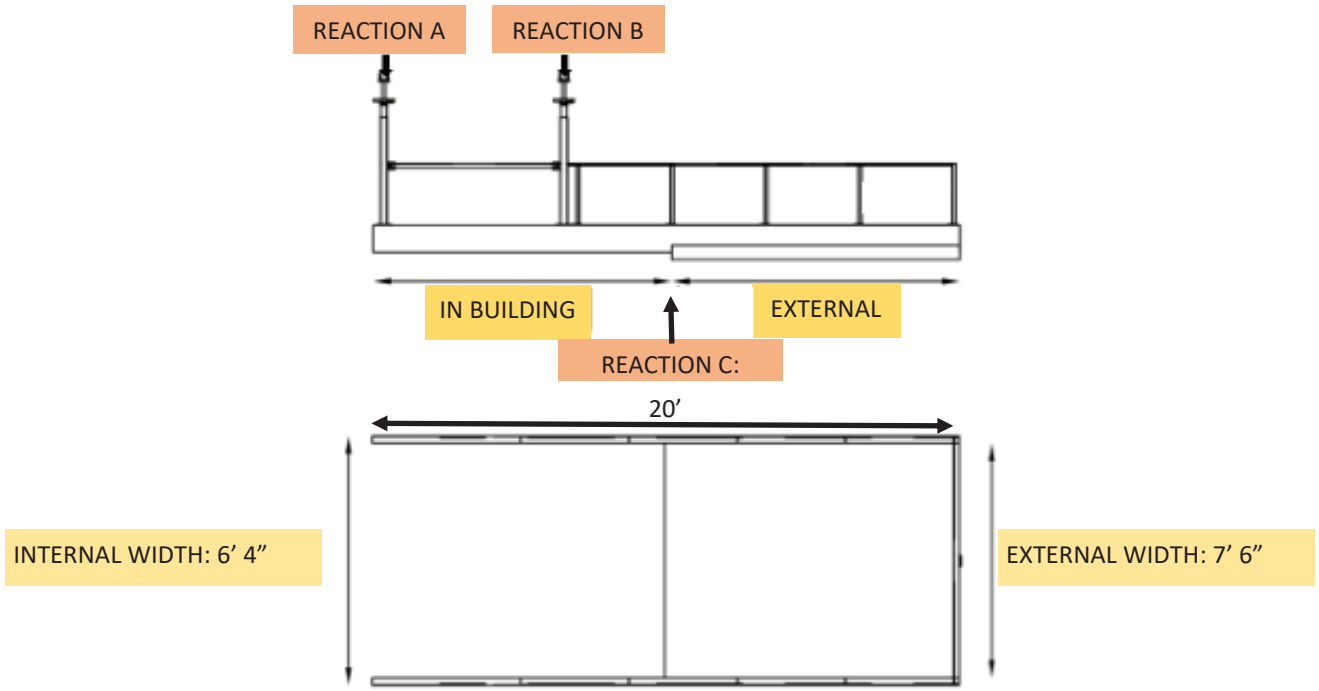
ELEVATION-BASE PAD

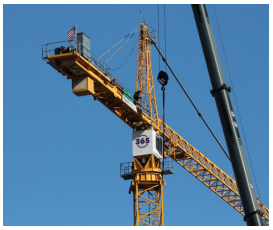
Rolling Platform Systems



	EXTERIOR WIDTH		INTERIOR WIDTH		EXTERIOR LENGTH		CLOSED LENGTH		OPEN LENGTH		UDL		TARE WEIGHT	
	FT	M	FT	M	FT	M	FT	M	FT	M	LBS	T	LBS	T
RP-25 ROLLING PLATFORM	8.2	2.5	6.2	1.9	9.8	3	16	5	20	6.5	5500	2.5	4180	1.9
RP-29 ROLLING PLATFORM	9.4	2.9	7.4	2.3	13	4	20	6	26	8.5	11000	5	5720	2.6
RP-33 ROLLING PLATFORM	10.7	3.3	8.7	2.7	13	4	20	6	26	8.5	11000	5	7370	2.9

Static Platforms





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