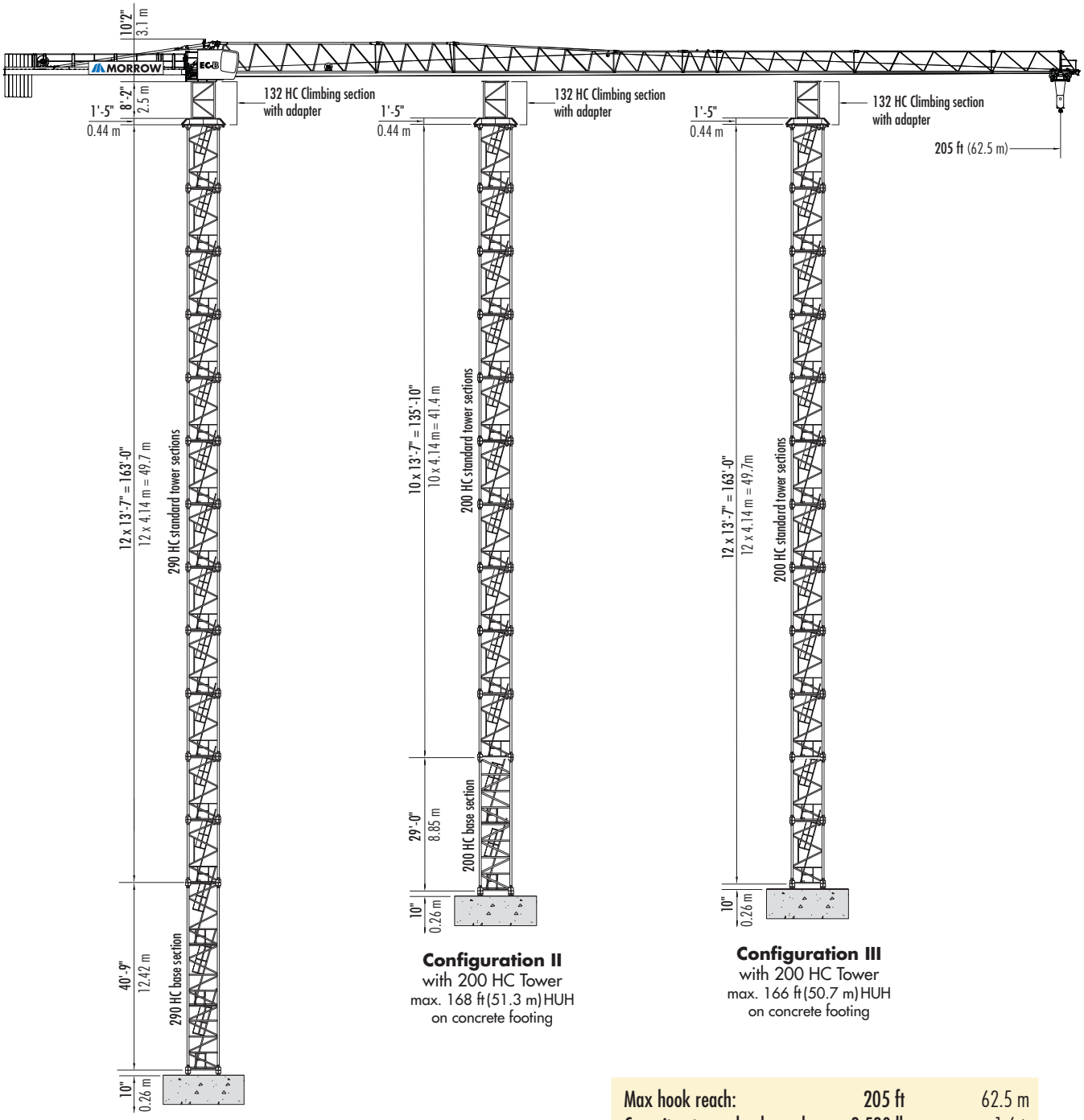
172 EC-B 8 Litronic®

LIEBHERR Flat-Top Tower Crane



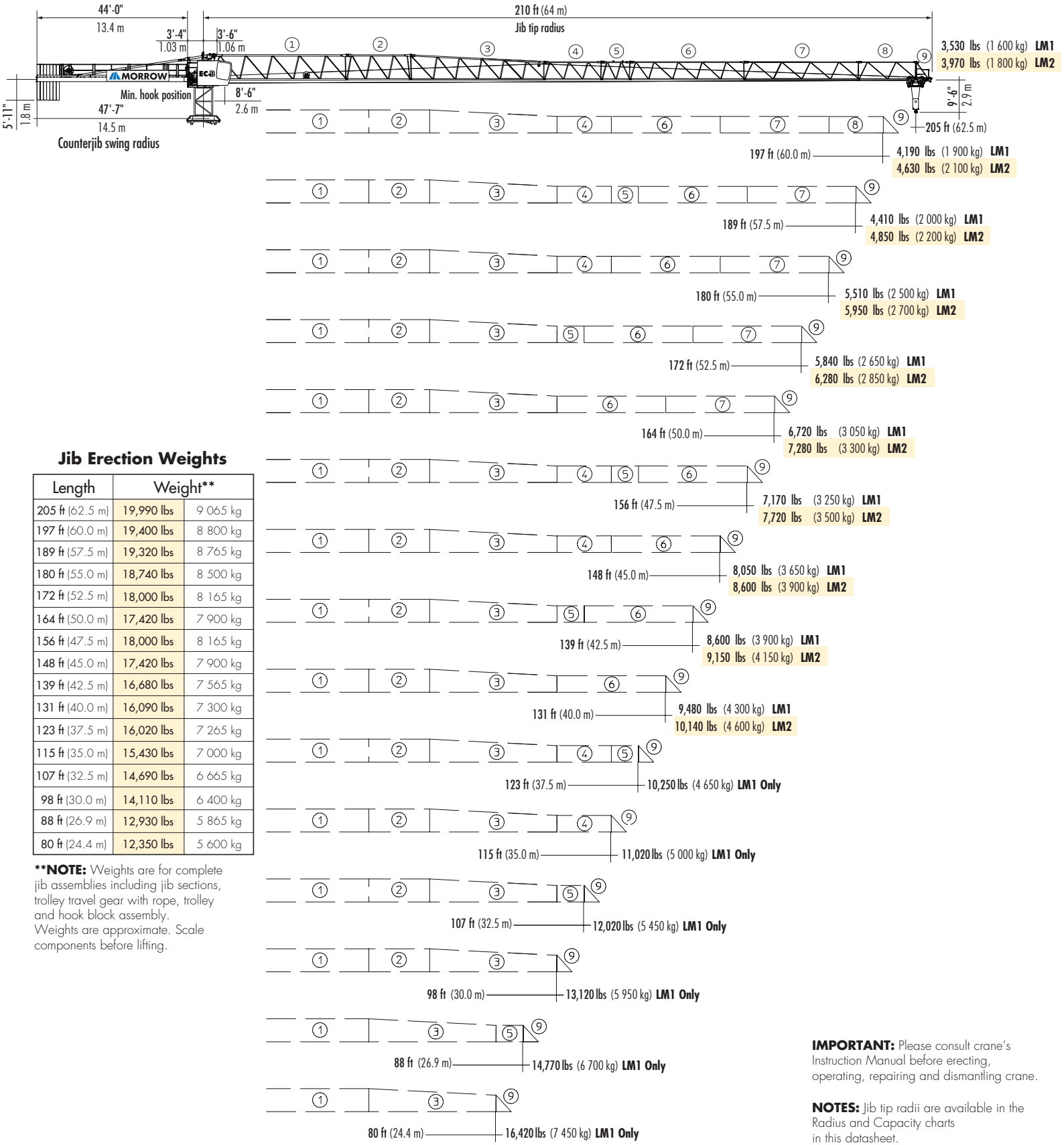
Configuration I
with 290 HC Tower
max. 207 ft (63.1 m) HUH
on concrete footing

Configuration II
with 200 HC Tower
max. 168 ft (51.3 m) HUH
on concrete footing

Configuration III
with 200 HC Tower
max. 166 ft (50.7 m) HUH
on concrete footing

Max hook reach:	205 ft	62.5 m
Capacity at max hook reach:	3,530 lbs	1.6 t
Maximum capacity:	17,640 lbs	8 t

172 EC-B 8 Litronic®



Jib Erection Weights

Length	Weight**	
205 ft (62.5 m)	19,990 lbs	9 065 kg
197 ft (60.0 m)	19,400 lbs	8 800 kg
189 ft (57.5 m)	19,320 lbs	8 765 kg
180 ft (55.0 m)	18,740 lbs	8 500 kg
172 ft (52.5 m)	18,000 lbs	8 165 kg
164 ft (50.0 m)	17,420 lbs	7 900 kg
156 ft (47.5 m)	18,000 lbs	8 165 kg
148 ft (45.0 m)	17,420 lbs	7 900 kg
139 ft (42.5 m)	16,680 lbs	7 565 kg
131 ft (40.0 m)	16,090 lbs	7 300 kg
123 ft (37.5 m)	16,020 lbs	7 265 kg
115 ft (35.0 m)	15,430 lbs	7 000 kg
107 ft (32.5 m)	14,690 lbs	6 665 kg
98 ft (30.0 m)	14,110 lbs	6 400 kg
88 ft (26.9 m)	12,930 lbs	5 865 kg
80 ft (24.4 m)	12,350 lbs	5 600 kg

****NOTE:** Weights are for complete jib assemblies including jib sections, trolley travel gear with rope, trolley and hook block assembly. Weights are approximate. Scale components before lifting.

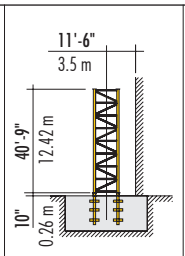
IMPORTANT: Please consult crane's Instruction Manual before erecting, operating, repairing and dismantling crane.

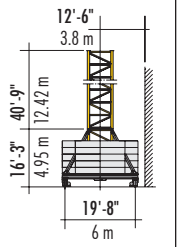
NOTES: Jib tip radii are available in the Radius and Capacity charts in this datasheet.

Hook Heights

Configuration I

290 HC tower sections on **290 HC** undercarriage or base section



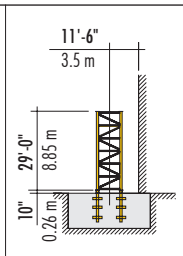


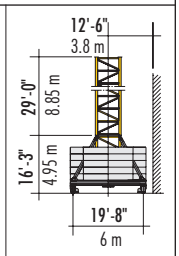
No. of Tower Sections	Element Type	static concrete footing		rail-travelling undercarriage	
		feet	meters	feet	meters
0	290HC BTS	**44**	13.4	**59**	18.1
1	290HC STS	**58**	17.6	**73**	22.3
2	290HC STS	**71**	21.7	**87**	26.4
3	290HC STS	**85**	25.8	**100**	30.5
4	290HC STS	**98**	30.0	**114**	34.7
5	290HC STS	**112**	34.1	**127**	38.8
6	290HC STS	**126**	38.3	**141**	43.0
7	290HC STS	**139**	42.4	**155**	47.1
8	290HC STS	**153**	46.5	**168**	51.3
9	290HC STS	**166**	50.7	**182**	55.4
10	290HC STS	**180**	54.8	**195***	59.5*
11	290HC STS	**194***	59.0*	—	—
12	290HC STS	**207***	63.1*	—	—

NOTE: Alternate tower combinations possible.
*Lower top climbing unit to base of crane prior to operating crane.

Configuration II

200 HC tower sections on **200 HC** base section or **290 HC** undercarriage

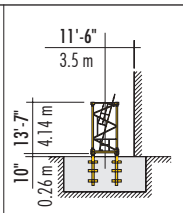


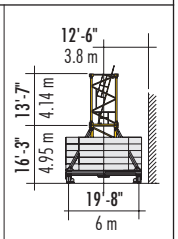


No. of Tower Sections	Element Type	static concrete footing		rail-travelling undercarriage	
		feet	meters	feet	meters
0	200HC BTS	**33**	9.9	**48**	14.6
1	200HC STS	**46**	14.0	**61**	18.7
2	200HC STS	**59**	18.1	**75**	22.8
3	200HC STS	**73**	22.3	**89**	27.0
4	200HC STS	**87**	26.4	**102**	31.1
5	200HC STS	**100**	30.6	**116**	35.3
6	200HC STS	**114**	34.7	**129**	39.4
7	200HC STS	**128**	38.9	**143**	43.5
8	200HC STS	**141**	43.0	**157**	47.7
9	200HC STS	**155***	47.1*	**170***	51.8*
10	200HC STS	**168***	51.3*	**184***	56.0*

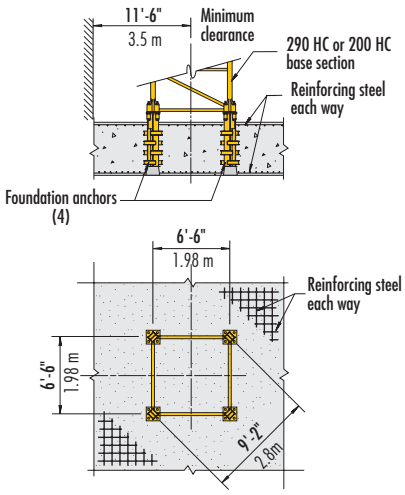
Configuration III

200 HC tower sections on **200 HC** tower or **290 HC** undercarriage

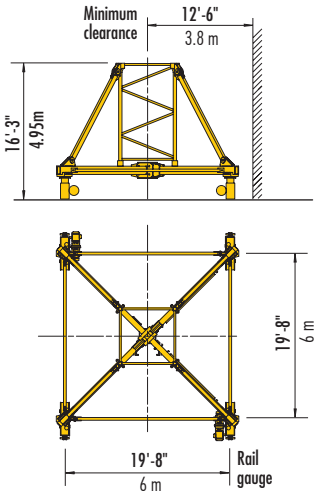




No. of Tower Sections	Element Type	static concrete footing		rail-travelling undercarriage	
		feet	meters	feet	meters
1	200HC STS	**17**	5.2	**32**	9.8
2	200HC STS	**30**	9.3	**46**	14.0
3	200HC STS	**44**	13.4	**59**	18.1
4	200HC STS	**58**	17.6	**73**	22.3
5	200HC STS	**71**	21.7	**87**	26.4
6	200HC STS	**85**	25.9	**100**	30.5
7	200HC STS	**98**	30.0	**114**	34.7
8	200HC STS	**112**	34.1	**127**	38.8
9	200HC STS	**126**	38.3	**141**	43.0
10	200HC STS	**139**	42.4	**155**	47.1
11	200HC STS	**153***	46.6*	**168***	51.3*
12	200HC STS	**166***	50.7*	**182***	55.4*



200 HC or 290 HC Tower
concrete footing

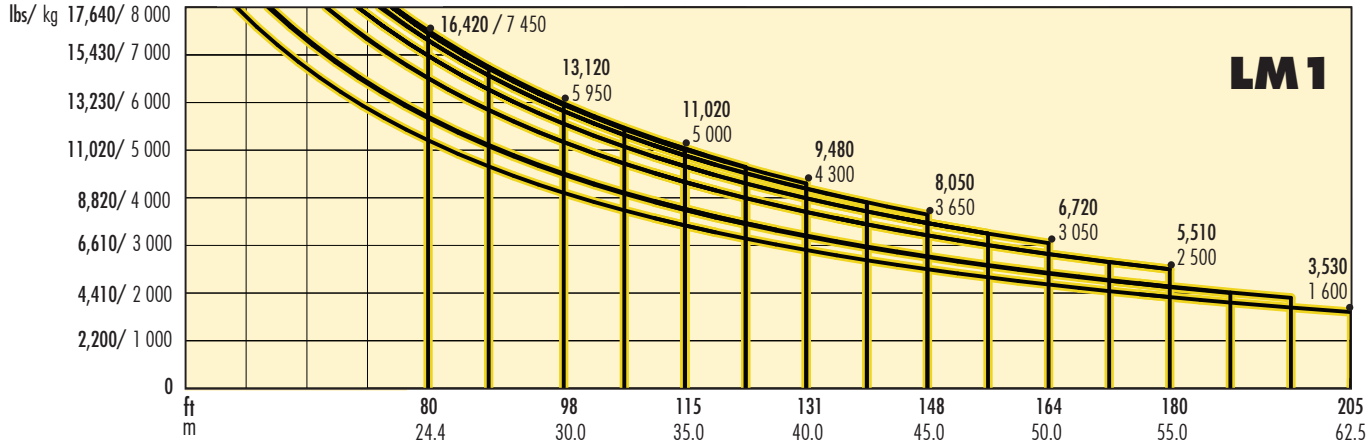


290 HC
rail-travelling undercarriage

Radius and Capacities

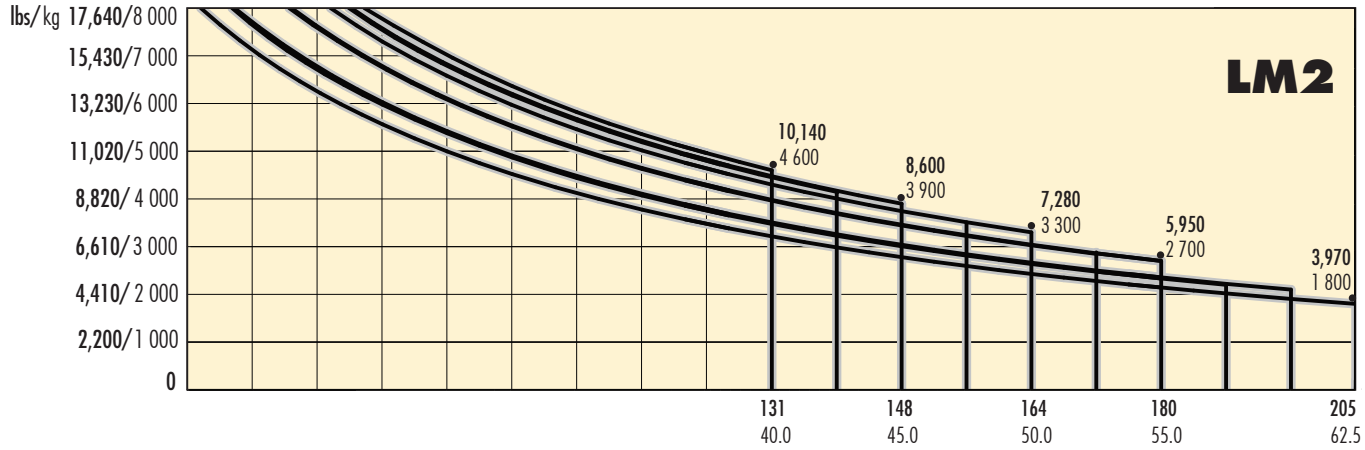
Hook Radius	Tip Radius	2-Part Line Max Capacity – Radius	ft / m	52 / 16.0	59 / 18.0	69 / 21.0	79 / 24.0	89 / 27.0	98 / 30.0	107 / 32.5	115 / 35.0	121 / 37.0	131 / 40.0	139 / 42.5	148 / 45.0	156 / 47.5	164 / 50.0	172 / 52.5	180 / 55.0	189 / 57.5	197 / 60.0	205 / 62.5
205 ft / 62.5 m	210 / 64.0	17,640 lbs – 54 ft / 8 000 kg – 16.5 m	lbs / kg	17,640 / 8 000	16,070 / 7 290	13,580 / 6 160	11,490 / 5 210	10,270 / 4 660	9,060 / 4 110	8,250 / 3 740	7,540 / 3 420	6,940 / 3 150	6,390 / 2 900	5,930 / 2 690	5,510 / 2 500	5,140 / 2 330	4,810 / 2 180	4,500 / 2 040	4,230 / 1 920	3,970 / 1 800	3,750 / 1 700	3,530 / 1 600
197 ft / 60.0 m	202 / 61.5	17,640 lbs – 58 ft / 8 000 kg – 17.9 m	lbs / kg	17,640 / 8 000	17,570 / 7 970	14,860 / 6 740	12,570 / 5 700	11,270 / 5 110	9,940 / 4 510	9,060 / 4 110	8,310 / 3 770	7,650 / 3 470	7,080 / 3 210	6,570 / 2 980	6,110 / 2 770	5,710 / 2 590	5,340 / 2 420	5,000 / 2 270	4,720 / 2 140	4,430 / 2 010	4,190 / 1 900	
189 ft / 57.5 m	194 / 59.0	17,640 lbs – 59 ft / 8 000 kg – 17.8 m	lbs / kg	17,640 / 8 000	17,460 / 7 920	14,770 / 6 700	12,500 / 5 670	11,200 / 5 080	9,900 / 4 490	9,020 / 4 090	8,250 / 3 740	7,610 / 3 450	7,030 / 3 190	6,610 / 3 000	6,080 / 2 760	5,670 / 2 570	5,310 / 2 410	5,050 / 2 290	4,670 / 2 120	4,410 / 2 000		
180 ft / 55.0 m	185 / 56.5	17,640 lbs – 66 ft / 8 000 kg – 20.2 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	16,930 / 7 680	14,370 / 6 520	12,900 / 5 850	11,400 / 5 170	10,410 / 4 720	9,550 / 4 330	8,820 / 4 000	8,160 / 3 700	7,610 / 3 450	7,080 / 3 210	6,640 / 3 010	6,220 / 2 820	5,840 / 2 650	5,510 / 2 500			
172 ft / 52.5 m	177 / 54.0	17,640 lbs – 66 ft / 8 000 kg – 20.2 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	16,910 / 7 670	14,350 / 6 510	12,880 / 5 840	11,400 / 5 170	10,410 / 4 720	9,550 / 4 330	8,950 / 4 060	8,160 / 3 700	7,580 / 3 440	7,080 / 3 210	6,610 / 3 000	6,220 / 2 820	5,840 / 2 650				
164 ft / 50.0 m	169 / 51.5	17,640 lbs – 70 ft / 8 000 kg – 21.5 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	15,390 / 6 980	13,820 / 6 270	12,240 / 5 550	11,180 / 5 070	10,270 / 4 660	9,480 / 4 300	8,800 / 3 990	8,180 / 3 710	7,650 / 3 470	7,160 / 3 250	6,720 / 3 050					
156 ft / 47.5 m	161 / 49.0	17,640 lbs – 70 ft / 8 000 kg – 21.5 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	15,410 / 6 990	13,820 / 6 270	12,560 / 5 560	11,200 / 5 080	10,270 / 4 660	9,500 / 4 310	8,800 / 3 990	8,200 / 3 720	7,650 / 3 470	7,160 / 3 250						
148 ft / 45.0 m	153 / 46.5	17,640 lbs – 73 ft / 8 000 kg – 22.5 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,140 / 7 320	14,480 / 6 570	12,830 / 5 820	11,730 / 5 320	10,780 / 4 890	9,960 / 4 520	9,260 / 4 200	8,620 / 3 910	8,050 / 3 650							
139 ft / 42.5 m	144 / 44.0	17,640 lbs – 73 ft / 8 000 kg – 22.4 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,120 / 7 310	14,460 / 6 560	12,830 / 5 820	11,730 / 5 320	10,780 / 4 890	9,940 / 4 510	9,240 / 4 190	8,600 / 3 900								
131 ft / 40.0 m	136 / 41.5	17,640 lbs – 75 ft / 8 000 kg – 23.0 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,510 / 7 490	14,840 / 6 730	13,160 / 5 970	12,010 / 5 450	11,050 / 5 010	10,210 / 4 630	9,480 / 4 300									
123 ft / 37.5 m	128 / 39.0	17,640 lbs – 75 ft / 8 000 kg – 23.0 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,560 / 7 510	14,880 / 6 750	13,210 / 5 990	12,060 / 5 470	11,090 / 5 030	10,250 / 4 650										
115 ft / 35.0 m	120 / 36.5	17,640 lbs – 75 ft / 8 000 kg – 22.9 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,470 / 7 470	14,790 / 6 710	13,120 / 5 950	11,990 / 5 440	11,020 / 5 000											
107 ft / 32.5 m	112 / 34.0	17,640 lbs – 75 ft / 8 000 kg – 22.9 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,490 / 7 480	14,840 / 6 730	13,140 / 5 960	12,010 / 5 450												
98 ft / 30.0 m	103 / 31.5	17,640 lbs – 75 ft / 8 000 kg – 22.9 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,470 / 7 470	14,790 / 6 710	13,120 / 5 950													
88 ft / 26.9 m	93 / 28.4	17,640 lbs – 74 ft / 8 000 kg – 22.8 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,450 / 7 460	14,770 / 6 700														
80 ft / 24.4 m	85 / 25.9	17,640 lbs – 74 ft / 8 000 kg – 22.8 m	lbs / kg	17,640 / 8 000	17,640 / 8 000	17,640 / 8 000	16,420 / 7 450															

LM1
Standard mode



Hook Radius	Tip Radius	2-Part Line Max Capacity – Radius	ft / m	52 / 16.0	59 / 18.0	69 / 21.0	79 / 24.0	89 / 27.0	98 / 30.0	115 / 35.0	121 / 37.0	131 / 40.0	139 / 42.5	148 / 45.0	156 / 47.5	164 / 50.0	172 / 52.5	180 / 55.0	189 / 57.5	197 / 60.0	205 / 62.5
205 ft	210	17,640 lbs – 59 ft	lbs	17,640	17,590	14,880	12,830	11,240	9,960	8,330	7,780	7,050	6,590	6,130	5,730	5,360	5,030	4,720	4,450	4,210	3,970
62.5 m	64.0	8 000 kg – 17.9 m	kg	8 000	7 980	6 750	5 820	5 100	4 520	3 780	3 530	3 220	2 990	2 780	2 600	2 430	2 280	2 140	2 020	1 910	1 800
197 ft	202	17,640 lbs – 63 ft	lbs	17,640	17,640	16,090	13,910	12,190	10,820	9,060	8,490	7,740	7,180	6,700	6,260	5,860	5,510	5,200	4,890	4,630	
60.0 m	61.5	8 000 kg – 19.3 m	kg	8 000	8 000	7 300	6 310	5 530	4 910	4 110	3 850	3 510	3 260	3 040	2 840	2 660	2 500	2 360	2 220	2 100	
189 ft	194	17,640 lbs – 63 ft	lbs	17,640	17,640	15,960	13,780	12,080	10,740	8,970	8,400	7,670	7,120	6,640	6,190	5,820	5,470	5,140	4,850		
57.5 m	59.0	8 000 kg – 19.3 m	kg	8 000	8 000	7 240	6 250	5 480	4 870	4 070	3 810	3 480	3 230	3 010	2 810	2 640	2 480	2 330	2 200		
180 ft	185	17,640 lbs – 71 ft	lbs	17,640	17,640	17,640	15,630	13,730	12,210	10,250	9,610	8,770	8,270	7,630	7,140	6,700	6,310	5,950			
55.0 m	56.5	8 000 kg – 21.5 m	kg	8 000	8 000	8 000	7 090	6 230	5 540	4 650	4 360	3 980	3 750	3 460	3 240	3 040	2 860	2 700			
172 ft	177	17,640 lbs – 70 ft	lbs	17,640	17,640	17,640	15,560	13,690	12,170	10,210	9,570	8,730	8,140	7,580	7,120	6,680	6,280				
52.5 m	54.0	8 000 kg – 21.4 m	kg	8 000	8 000	8 000	7 060	6 210	5 520	4 630	4 340	3 960	3 690	3 440	3 230	3 030	2 850				
164 ft	169	17,640 lbs – 76 ft	lbs	17,640	17,640	17,640	16,820	14,790	13,160	11,070	10,380	9,480	8,840	8,270	7,740	7,280					
50.0 m	51.5	8 000 kg – 23.0 m	kg	8 000	8 000	8 000	7 630	6 710	5 970	5 020	4 710	4 300	4 010	3 750	3 510	3 300					
156 ft	161	17,640 lbs – 75 ft	lbs	17,640	17,640	17,640	16,780	14,750	13,120	11,020	10,340	9,460	8,820	8,220	7,720						
47.5 m	49.0	8 000 kg – 22.9 m	kg	8 000	8 000	8 000	7 610	6 690	5 950	5 000	4 690	4 290	4 000	3 730	3 500						
148 ft	153	17,640 lbs – 78 ft	lbs	17,640	17,640	17,640	17,460	15,340	13,670	11,510	10,800	9,880	9,190	8,600							
45.0 m	46.5	8 000 kg – 23.8 m	kg	8 000	8 000	8 000	7 920	6 960	6 200	5 220	4 900	4 480	4 170	3 900							
139 ft	144	17,640 lbs – 77 ft	lbs	17,640	17,640	17,640	17,370	15,280	13,600	11,440	10,740	9,810	9,150								
42.5 m	44.0	8 000 kg – 23.6 m	kg	8 000	8 000	8 000	7 880	6 930	6 170	5 190	4 870	4 450	4 150								
131 ft	136	17,640 lbs – 80 ft	lbs	17,640	17,640	17,640	17,640	15,760	14,020	11,820	11,090	10,140									
40.0 m	41.5	8 000 kg – 24.3 m	kg	8 000	8 000	8 000	8 000	7 150	6 360	5 360	5 030	4 600									

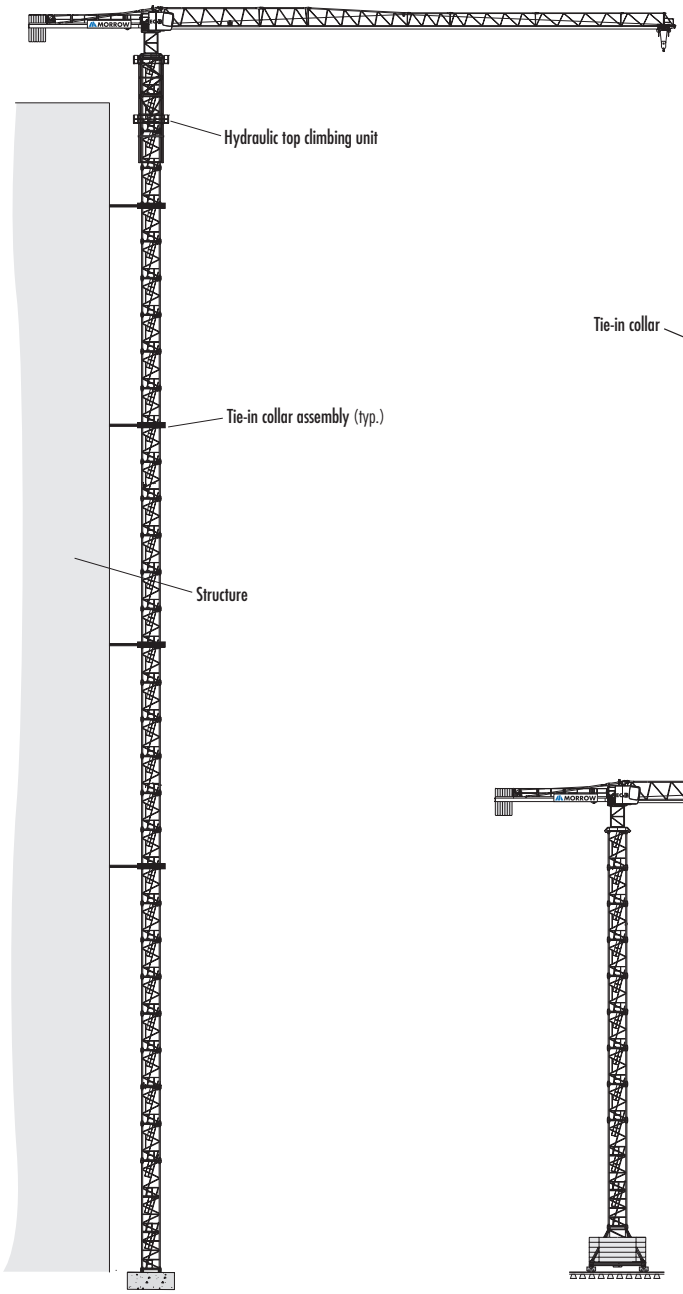
LM2
Heavy lift mode

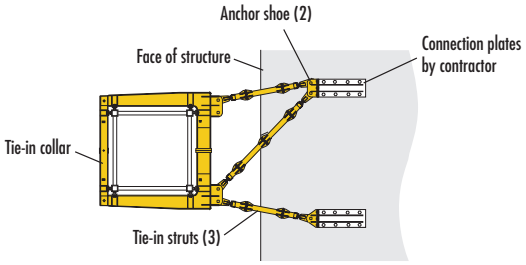


IMPORTANT: Litronic cranes are equipped with Liebherr's state of the art PLC system that provides precise monitoring, control and coordination of all cranes functions. This feature also permits a load increase in the heavy lift mode **(LM2).** Contact Morrow for more information regarding the many features of the 172 EC-B 8 Litronic tower crane.

Alternate Configurations

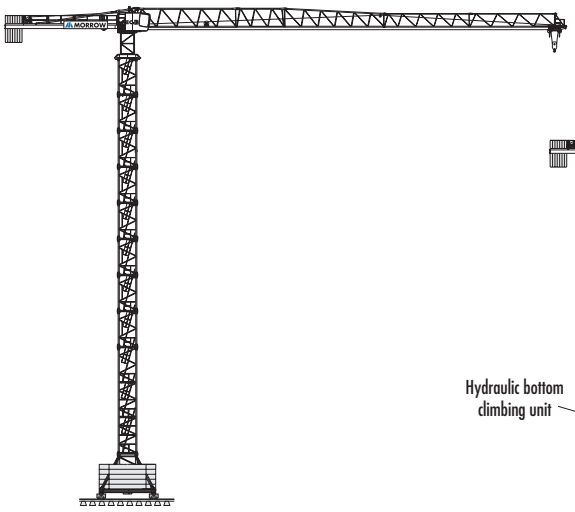
IMPORTANT: Configurations shown on this page are for illustrative purposes only. Actual configuration dependent on job site specific criteria. See instruction manual or contact MORROW for information.

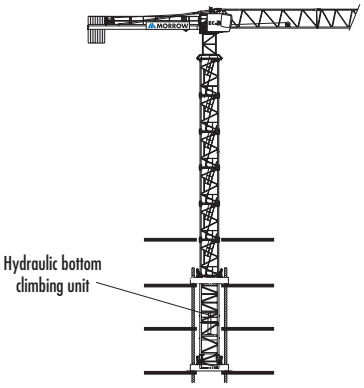




TIE-IN ASSEMBLY

(Top climbing tied to structure)





TOP CLIMBING

(Climbing tower installed)

Top climbing crane configuration can be used when freestanding crane or when tieing crane to structure.

RAIL TRAVELING or STATIC

(with undercarriage)

Rail traveling crane configuration offers convenience of greater hook coverage on job site.

BOTTOM CLIMBING

Bottom (internal) climbing configuration is used primarily when crane is situated within a structure. Crane climbs as floors are added to the structure.

Hoist Speed and Capacity

LM1

Hoist Unit WiW 260 MZ 419	2-Part Line					
60 hp (45 kW) AC hoist unit Variable frequency drive 1-speed planetary gearbox	Speed	Capacity	Line Speed	Capacity	Line Speed
	1	up to 17,640 lbs up to 1,410 lbs	@ 0 - 95 fpm @ 0 - 574 fpm	up to 8 000 kg up to 640 kg	@ 0 - 29 m/min @ 0 - 175 m/min
4L113	**NOTE:** Capacities and line speeds indicated will vary depending on the amount of hoist rope installed. This crane model may be equipped with a hoist unit other than that specified in the data above. To verify, check the serial number of the crane and refer to the 172 EC-B 8 instruction manual for additional information.				

Motor Information

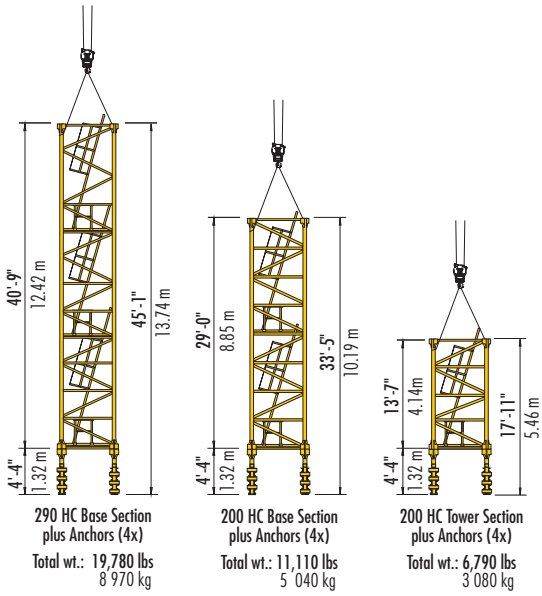
Drive Unit	Horsepower	Kilowatts	Speed	
Trolley (VFD)	7.4 hp	5.5 kW	0 - 328 fpm	0 - 100 m/min
Swing (VFD)	10 hp	7.5 kW	0.8 rpm	
Traveling (290 HC)	2 x 10 hp	2 x 7.5 kW	82 fpm	25 m/min

NOTE: VFD = variable frequency drive.

Counterweight

Jib	Block Arrangement							Weight	
205 ft (62.5 m)	A	A	A	A	A	A	A	38,580 lbs	17 500 kg
197 ft (60.0 m)	A	A	A	A	A	A	B	36,600 lbs	16 600 kg
189 ft (57.5 m)	A	A	A	A	A	A	B	36,600 lbs	16 600 kg
180 ft (55.0 m)	A	A	A	A	A	A	E	34,280 lbs	15 550 kg
172 ft (52.5 m)	A	A	A	A	A	B	E	32,300 lbs	14 650 kg
164 ft (50.0 m)	A	A	A	A	B	B	E	30,310 lbs	13 750 kg
156 ft (47.5 m)	A	A	A	A	A	B	E	32,300 lbs	14 650 kg
148 ft (45.0 m)	A	A	A	A	B	B	E	30,310 lbs	13 750 kg
139 ft (42.5 m)	A	A	A	A	A	E		28,770 lbs	13 050 kg
131 ft (40.0 m)	A	A	A	A	B	E		26,790 lbs	12 150 kg
123 ft (37.5 m)	A	A	A	A	B	E		26,790 lbs	12 150 kg
115 ft (35.0 m)	A	A	A	A	E	E		24,470 lbs	11 100 kg
107 ft (32.5 m)	A	A	A	A	E			23,260 lbs	10 550 kg
98 ft (30.0 m)	A	A	A	B	E			21,270 lbs	9 650 kg
88 ft (26.9 m)	A	A	A	E	E			18,960 lbs	8 600 kg
80 ft (24.4 m)	A	A	A					16,530 lbs	7 500 kg

A block = 5,510 lbs (2 500 kg); B block = 3,530 lbs (1 600 kg), and E block = 1,210 lbs (550 kg).



BASE ASSEMBLY
Installation weights

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: 125 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 100kW. 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.

Component List

Description	Dimensions L x W x H	Wt.
Slewing Assembly (Complete) [1]	18'-1" x 7'-7" x 8'-3" 5.52 m x 2.32 m x 2.52 m	17,090 lbs 7 750 kg
Counterjib (Compl) [2]	44'-4" x 9'-4" x 5'-10" 13.50 m x 2.85 m x 1.77 m	15,430 lbs 7 000 kg
Climbing Section (132 HC with 200/290 HC adapter)	10'-5" x 9'-3" x 8'-11" 3.18 m x 2.82 m x 2.72 m	5,840 lbs 2 650 kg
Base Tower Section 200 HC	29'-0" x 7'-7" x 7'-7" 8.85 m x 2.30 m x 2.30 m	8,960 lbs 4 065 kg
Base Tower Section 290 HC	40'-9" x 7'-7" x 7'-7" 12.42 m x 2.30 m x 2.30 m	17,500 lbs 7 940 kg
Long Tower Section 290 HC	40'-9" x 7'-7" x 7'-7" 12.42 m x 2.30 m x 2.30 m	12,720 lbs 5 770 kg
Standard Tower Section 200 HC	13'-7" x 7'-7" x 7'-7" 4.14 m x 2.30 m x 2.30 m	4,520 lbs 2 050 kg
Standard Tower Section 290 HC	13'-7" x 7'-7" x 7'-7" 4.14 m x 2.30 m x 2.30 m	5,070 lbs 2 300 kg
Top Climbing Unit 290 HC	27'-6" x 8'-10" x 9'-11" 8.39 m x 2.68 m x 3.04 m	11,460 lbs 5 200 kg
Top Climbing Unit Hydraulic unit/Cross members	7'-7" x 4'-1" x 3'-3" 2.30 m x 1.25 m x 1.00 m	2,540 lbs 1 150 kg

Description	Dimensions L x W x H	Wt.
Jib Butt Section [3] ① 611	39'-2" x 4'-11" x 8'-2" 11.95 m x 1.49 m x 2.50 m	8,050 lbs 3 650 kg
Jib Intermediate Section ② 621	19'-2" x 3'-11" x 7'-6" 5.84 m x 1.20 m x 2.28 m	1,980 lbs 900 kg
Jib Intermediate Section ③ 622	39'-1" x 3'-11" x 7'-5" 11.92 m x 1.20 m x 2.27 m	3,480 lbs 1 580 kg
Jib Intermediate Section ④ 631	17'-1" x 3'-11" x 5'-5" 5.21 m x 1.20 m x 1.65 m	1,300 lbs 590 kg
Jib Intermediate Section ⑤ 639	8'-9" x 3'-11" x 5'-5" 2.72 m x 1.20 m x 1.69 m	584 lbs 265 kg
Jib Intermediate Section ⑥ 632	33'-6" x 3'-11" x 5'-5" 10.20 m x 1.20 m x 1.65 m	2,030 lbs 920 kg
Jib Intermediate Section ⑦ 633	33'-6" x 3'-11" x 5'-5" 10.20 m x 1.20 m x 1.65 m	1,370 lbs 620 kg
Jib Intermediate Section ⑧ 634	17'-0" x 3'-11" x 5'-5" 5.17 m x 1.20 m x 1.65 m	660 lbs 300 kg
Jib Tip Section ⑨ 641	4'-11" x 4'-6" x 6'-1" 1.48 m x 1.36 m x 1.86 m	350 lbs 160 kg
Foundation Anchor (each) 21HC290FAr	4'-4" x 1'-2" x 1'-2" 1.32 m x 0.35 m x 0.35 m	510 lbs 230 kg

NOTE: Weights and dimensions are approximate. Scale components before lifting.

[1] Slewing gear with slewing ring support (11,700 lbs), switchbox cabinet (2,700 lbs) and cabin with platform (2,800 lbs).

[2] Counterjib complete includes counterjib parts one and two, hoist gear, pendent bar and guard rails. Counterjib can be broken into 2 parts for shipment via container.

[3] Jib butt section complete includes jib section, trolley travel gear with rope and hook assembly.