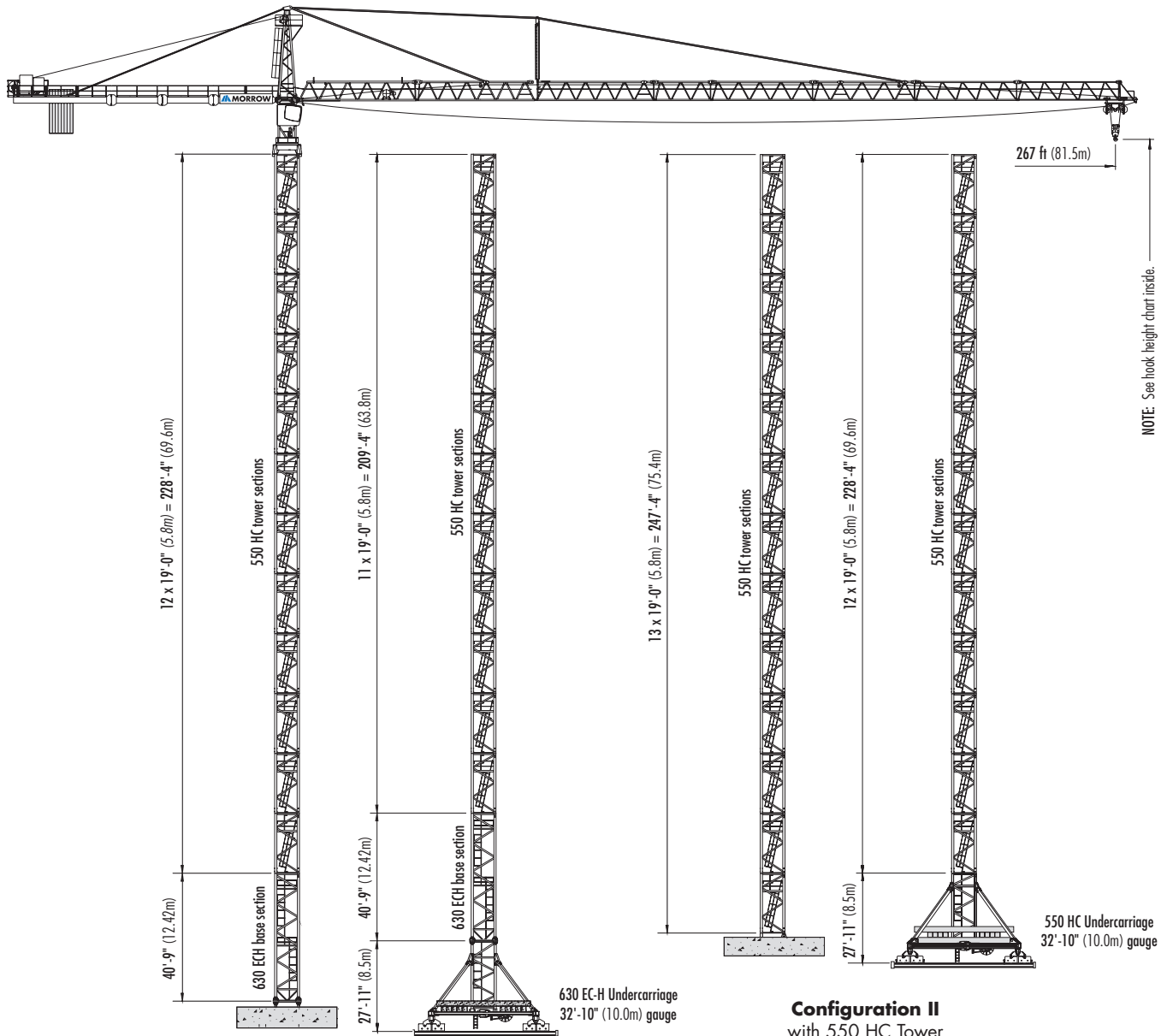


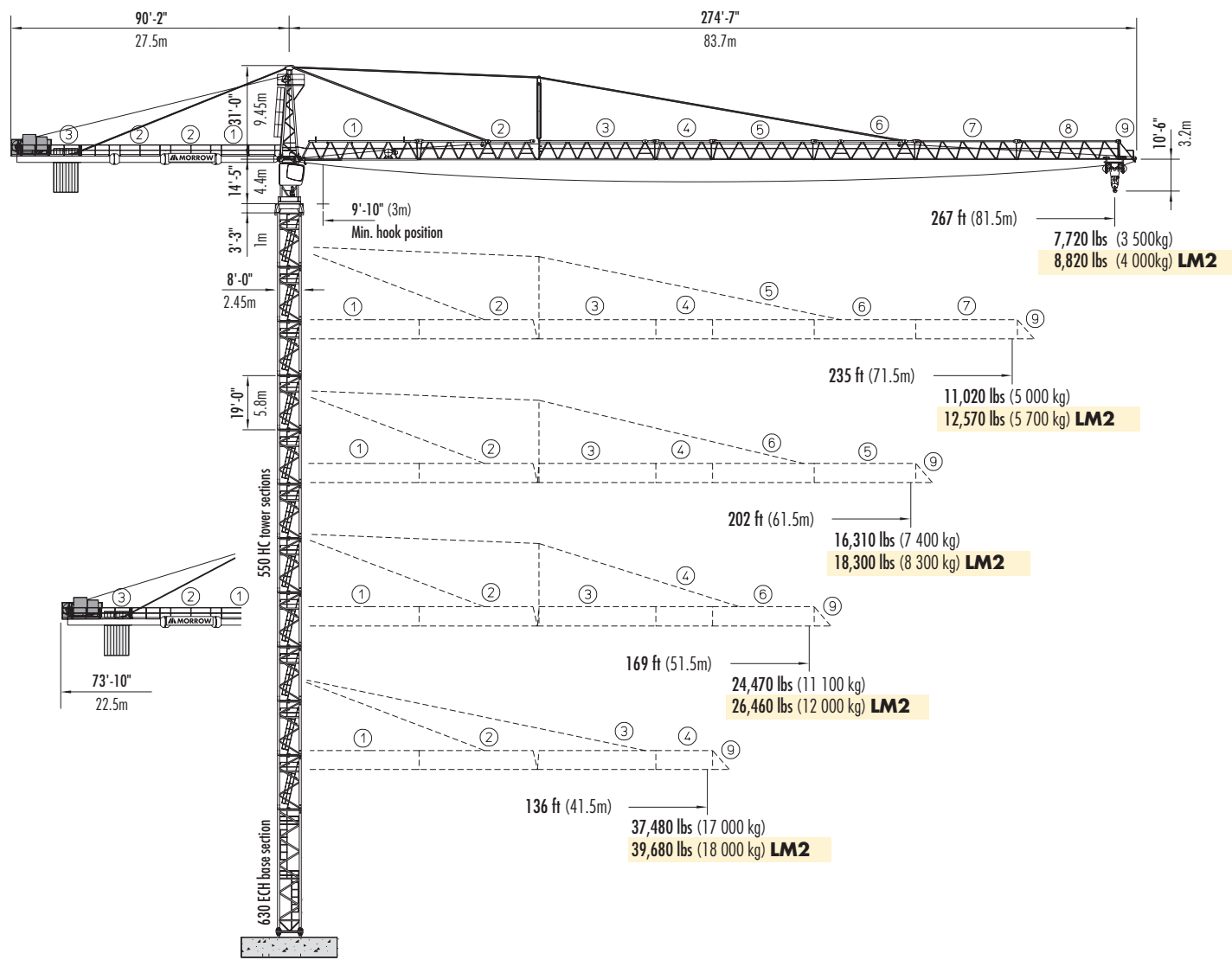
550 EC-H 20 Litronic® LIEBHERR Hammerhead Tower Crane



Configuration I
with 550 HC Tower
on 630 EC-H Base Section
max. 277 ft (84.5m) HUH on concrete footing
max. 285 ft (86.9m) HUH on undercarriage

Configuration II
with 550 HC Tower
max. 256 ft (78m) HUH on concrete footing
max. 263 ft (80.3m) HUH on undercarriage

Jib Assemblies



Configuration I
with 550 HC Tower
on 630 EC-H Base Section

NOTE! Consult Morrow for specific information regarding alternate tower configurations, foundation details, dimensions, reaction forces and slab opening requirements.

IMPORTANT! Please consult crane's operation manual before erecting, operating, servicing and dismantling crane.

Hook Heights

Configuration I					
550 HC tower sections on 630 EC-H undercarriage and base section					
		static concrete footing		rail-travelling undercarriage	
No. of Tower Elements	Tower Element Type	feet	meters	feet	meters
0	630 ECH BS	49	14.9	76	23.1
1	550 HC STS	68	20.7	95	28.9
2	550 HC STS	87	26.5	114	34.7
3	550 HC STS	106	32.3	133	40.5
4	550 HC STS	125	38.1	152	46.3
5	550 HC STS	144	43.9	171	52.1
6	550 HC STS	163	49.7	190	57.9
7	550 HC STS	182	55.5	209	63.7
8	550 HC STS	201	61.3	228	69.5
9	550 HC STS	220	67.1	247	75.3
10	550 HC STS	239	72.9	266 ¹	81.1 ¹
11	550 HC STS	258 ¹	78.7 ¹	285 ¹	86.9 ¹
12	550 HC STS	277 ¹	84.5 ¹	—	—

Configuration II					
550 HC tower sections on 19'-0" (5.8m) 550 HC standard tower section (undercarriage)					
		static concrete footing		rail-travelling undercarriage	
No. of Tower Elements	Tower Element Type	feet	meters	feet	meters
1	550 HC STS	28	8.4	54	16.5
2	550 HC STS	47	14.2	73	22.3
3	550 HC STS	66	20	92	28.1
4	550 HC STS	85	25.8	111	33.9
5	550 HC STS	104	31.6	130	39.7
6	550 HC STS	123	37.4	149	45.5
7	550 HC STS	142	43.2	168	51.3
8	550 HC STS	161	49	187	57.1
9	550 HC STS	180	54.8	206	62.9
10	550 HC STS	199	60.6	225	68.7
11	550 HC STS	218	66.4	244	74.5
12	550 HC STS	237 ¹	72.2 ¹	263 ¹	80.3 ¹
13	550 HC STS	256 ¹	78 ¹	—	—

¹ Lower top climbing unit to base of crane prior to operating crane at maximum hook height.

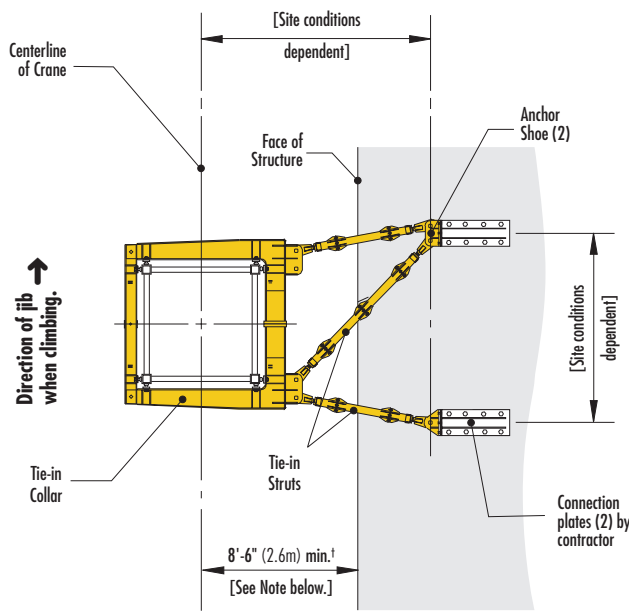
NOTE: Special tower configurations giving additional hook heights are available using reinforced base tower sections and/or reinforced tower sections. Contact MORROW for more information.

NOTE: Contact MORROW for specific information regarding climbing inside the structure details such as dimensions, reaction forces and slab opening requirements.

Tie-in Details

* **NOTE:** Tie-in assemblies must be positioned and installed according to manufacturer requirements. Restrictions apply; please consult operation manual or contact Morrow Equipment for specific recommendations.

Lower top climbing unit to upper tie-in prior to operating crane.



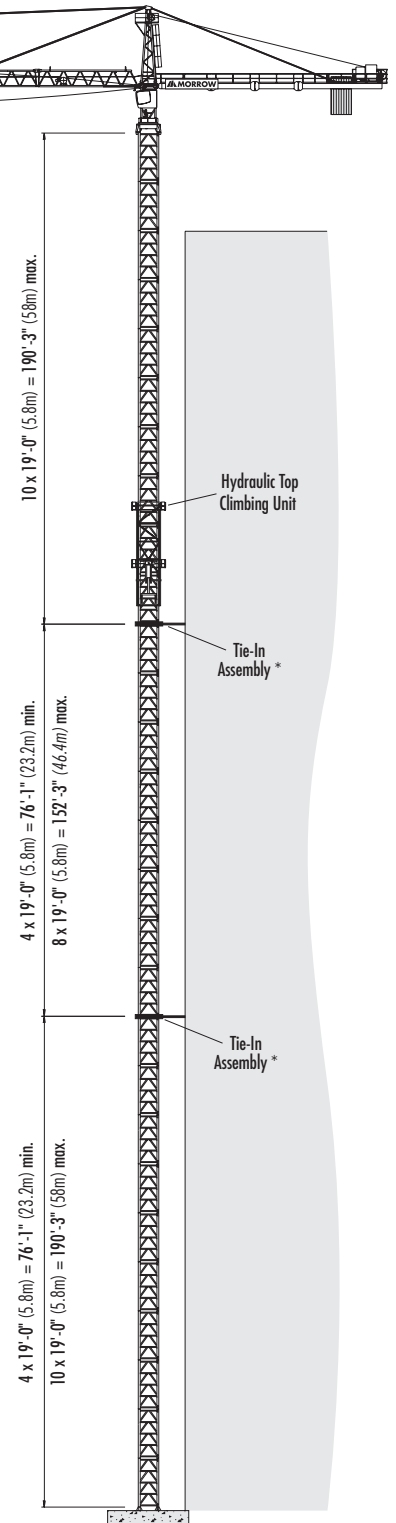
TIE-IN ASSEMBLY
with 550 HC Tower Sections
plan view

NOTE: The tie-in assembly shown above is an example of a typical installation. Please note, however, that factors determining the installation of tie-in assemblies may vary due to project specific criteria.

[†] Minimum clearance between face of structure and the center of crane is 8'-6" (2.6m) when using 550 HC tower. The maximum clearance is dependent upon project specific criteria.

Verify all dimensions.

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



TOP CLIMBING
with 550 HC Tower Sections
Tied to Structure

Radius and Capacities

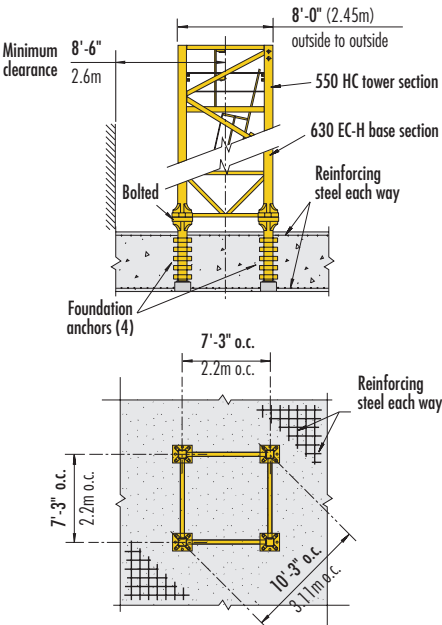
2-Part Line	Hook Radius	Jib Tip Radius	Maximum Capacity – Radius	ft m	69 21	82 25	95 29	108 33	121 37	136 41.5	154 47	169 51.5	187 57	202 61.5	220 67	235 71.5	253 77	267 81.5
	267 ft 81.5m	274'-7" 83.7m	44,090 lbs – 65 ft 20 000 kg – 19.8m	lbs kg	41 230 18 700	33,820 15 340	28,810 13 070	24,960 11 320	21,890 9 930	19,140 8 680	16,450 7 460	14,660 6 650	12,850 5 830	11,620 5 270	10,320 4 680	9 390 4 260	8,420 3 820	7,720 3 500
	235 ft 71.5m	241'-10" 73.7m	44,090 lbs – 72 ft 20 000 kg – 22m	lbs kg	44,090 20 000	38,290 17 370	32,690 14 830	28,370 12 870	24,960 11 320	21,890 9 930	18,890 8 570	16,910 7 670	14,880 6 750	13,490 6 120	12,040 5 460	11,020 5 000		
	202 ft 61.5m	209'-0" 63.7m	44,090 lbs – 84 ft 20 000 kg – 25.5m	lbs kg	44,090 20 000	44,090 20 000	38,490 17 460	33,510 15 200	29,560 13 410	26,010 11 800	22,550 10 230	20,240 9 180	17,920 8 130	16,310 7 400				
	169 ft 51.5m	176'-2" 53.7m	44,090 lbs – 99 ft 20 000 kg – 30.1m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	39,990 18 140	35,380 16 050	31,220 14 160	27,160 12 320	24,470 11 100						
	136 ft 41.5m	143'-4" 43.7m	44,090 lbs – 117 ft 20 000 kg – 35.6m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	42,370 19 220	37,480 17 000								
LM 1 Standard mode																		

2-Part Line	Hook Radius	Jib Tip Radius	Maximum Capacity – Radius	ft m	69 21	82 25	95 29	108 33	121 37	136 41.5	154 47	169 51.5	187 57	202 61.5	220 67	235 71.5	253 77	267 81.5
	267 ft 81.5m	274'-7" 83.7m	44,090 lbs – 71 ft 20 000 kg – 21.5m	lbs kg	44,090 20 000	37,260 16 900	31,790 14 420	27,600 12 520	24,250 11 000	20,860 9 460	18,320 8 310	16,380 7 430	14,420 6 540	13,070 5 930	11,640 5 280	10,650 4 830	9,590 4 350	8,820 4 000
	235 ft 71.5m	241'-10" 73.7m	44,090 lbs – 79 ft 20 000 kg – 24.2m	lbs kg	44,090 20 000	42,530 19 290	36,380 16 500	31,640 14 350	27,890 12 650	24,490 11 110	21,210 9 620	19,030 8 630	16,800 7 620	15,280 6 930	13,690 6 210	12,570 5 700		
	202 ft 61.5m	209'-0" 63.7m	44,090 lbs – 92 ft 20 000 kg – 28.1m	lbs kg	44,090 20 000	44,090 20 000	42,590 19 320	37,150 16 850	32,830 14 890	28,900 13 110	25,130 11 400	22,600 10 250	20,060 9 100	18,300 8 300				
	169 ft 51.5m	176'-2" 53.7m	44,090 lbs – 106 ft 20 000 kg – 32.3m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	43,060 19 530	38,120 17 290	33,660 15 270	29,320 13 300	26,460 12 000						
	136 ft 41.5m	143'-4" 43.7m	44,090 lbs – 123 ft 20 000 kg – 37.6m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	39,680 18 000								
LM2 Heavy lift mode																		

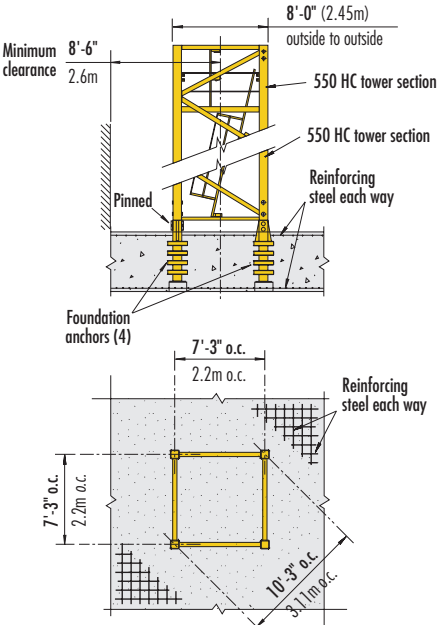
IMPORTANT: Litronic® cranes are equipped with Liebherr's state of the art PLC system that provides precise monitoring, control and coordination of all cranes functions. This feature also permits a load increase of up to 20% as illustrated in the heavy lift mode (**LM2**) chart above. Contact Morrow for more information regarding the many features of the 550 EC-H 20 Litronic tower crane.

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

Foundation Details on concrete footing

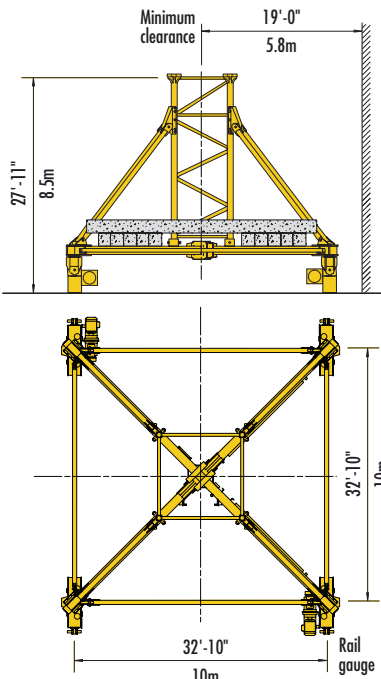


on 630 EC-H Base Section

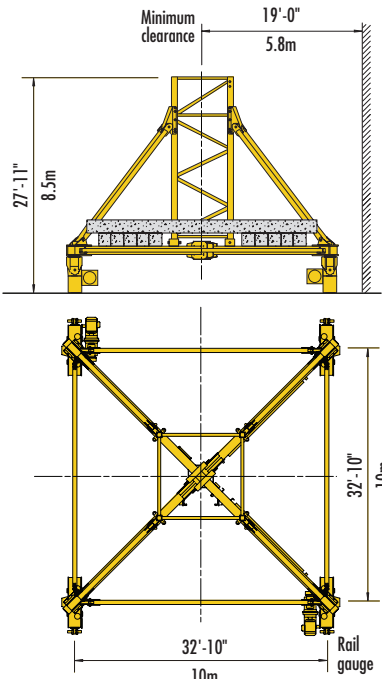


with 550 HC Tower

Undercarriage Details on rail-travelling undercarriage



630 EC-H



550 HC

NOTE: For information regarding rail-travelling, static undercarriages and central ballast configurations, see 550 EC-H Litronic Operation Manual.

Hoist Speed and Capacities

Hoist Unit	2-Part Line				LM 1
	Capacity	Line Speed	Capacity	Line Speed	
147 hp (110 kW) FC hoist unit Variable frequency drive (VFD) 6L - 237	44,090 lbs	@ 89 fpm	20 000 kg	@ 27 m/min	
	25,355 lbs	@ 151 fpm	11 500 kg	@ 46 m/min	
	14,110 lbs	@ 253 fpm	6 400 kg	@ 77 m/min	
	4,850 lbs	@ 459 fpm	2 200 kg	@ 140 m/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 550 EC-H 20 Litronic Operation Manual for additional information.

Motor Information

Drive Unit	Horsepower	Kilowatts	Speed	
Trolley (VFD)	14 hp	10.5 kW	0 - 299 fpm	0 - 91 m/min
Swing (VFD)	3 x 10 hp	3 x 7.5 kW	0.6 rpm	
Travelling	4 x 10 hp	4 x 7.5 kW	82 fpm	25 m/min

NOTE: VFD denotes variable frequency drive.

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.

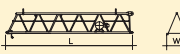
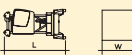
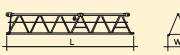
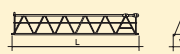
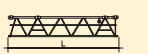
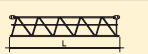
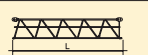
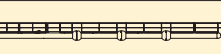
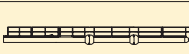
Service size: 200 Amperes

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	Description	Dimensions L x W x H	Weight
Tower Top (Complete) 	30'-10" x 5'-10" x 6'-3" 9.4m x 1.78m x 1.91m	12,020 lbs 5 450 kg	Jib Section #611 	39'-6" x 5'-9" x 7'-7" 12.03m x 1.74m x 2.3m	9,700 lbs 4 400 kg
Slewing Assembly (Complete) ¹ 	22'-5" x 9'-6" x 10'-8" 6.82m x 2.9m x 3.25m	37,700 lbs 17 100 kg	Jib Section #621 	39'-5" x 5'-9" x 6'-6" 12.02m x 1.74m x 1.98m	6,830 lbs 3 100 kg
Slewing Assembly Upper Part ² 	18'-3" x 9'-0" x 8'-10" 5.56m x 2.74m x 2.68m	21,500 lbs 9 750 kg	Jib Section #631 	39'-5" x 5'-9" x 6'-5" 12.02m x 1.74m x 1.96m	5,290 lbs 2 400 kg
Slewing Assembly Lower Part ³ 	4'-2" x 9'-6" x 10'-8" 1.26m x 2.9m x 3.25m	16,200 lbs 7 350 kg	Jib Section #635 	19'-8" x 5'-9" x 6'-5" 6m x 1.74m x 1.96m	2,755 lbs 1 250 kg
Hoist Unit (VFD) ⁴ 147 hp (110 kW) 	9'-10" x 7'-10" x 6'-11" 3m x 2.4m x 2.1m	14,550 lbs 6 600 kg	Jib Section #632 	34'-1" x 5'-9" x 6'-5" 10.4m x 1.74m x 1.96m	4,080 lbs 1 850 kg
Counterjib Section #1 (Inner) 	20'-10" x 6'-4" x 6'-1" 6.34m x 1.93m x 1.85m	6,170 lbs 2 800 kg	Jib Section #633 	34'-1" x 5'-9" x 6'-5" 10.4m x 1.74m x 1.96m	4,080 lbs 1 850 kg
Counterjib Section #2 (Intermediate) 	17'-1" x 6'-1" x 6'-1" 5.2m x 1.86m x 1.85m	5,290 lbs 2 400 kg	Jib Section #634 	34'-1" x 5'-9" x 6'-5" 10.4m x 1.74m x 1.96m	3,405 lbs 1 545 kg
Counterjib Section #3 (Outer) 	31'-10" x 7'-11" x 6'-1" 9.7m x 2.42m x 1.85m	10,580 lbs 4 800 kg	Jib Section #636 	34'-1" x 5'-9" x 6'-5" 10.4m x 1.74m x 1.96m	2,515 lbs 1 140 kg
Counterjib A ⁵ (90-ft version) 	85'-0" x 7'-11" x 6'-1" 25.9m x 2.42m x 1.85m	33,950 lbs 15 400 kg	Jib Tip Section #641 	6'-1" x 5'-9" x 6'-5" 1.86m x 1.74m x 1.96m	705 lbs 320 kg
Counterjib B ⁶ (74-ft version) 	68'-7" x 7'-11" x 6'-1" 20.9m x 2.42m x 1.85m	28,440 lbs 12 900 kg	Jib Assembly Pt 1 (Inner) ⁸ (All jibs) 	77'-9" x 5'-9" x 7'-7" 23.7m x 1.74m x 2.3m	25,350 lbs 11 500 kg
Counterweight ⁷ Block A 	4'-6" x 11" x 10'-9" 1.37m x 0.28m x 3.27m	6,350 lbs 2 880 kg	Jib Assembly Pt 2 ⁸ 267-ft (81.5m) 	194'-2" x 5'-9" x 6'-5" 59.2m x 1.74m x 1.96m	29,980 lbs 13 600 kg
Counterweight ⁷ Block C 	4'-6" x 11" x 13'-7" 1.37m x 0.28m x 4.14m	8,730 lbs 3 960 kg	Jib Assembly Pt 2 ⁸ 235-ft (71.5m) 	161'-5" x 5'-9" x 6'-5" 49.2m x 1.74m x 1.96m	27,120 lbs 12 300 kg
Counterweight ⁷ Block D 	2'-11" x 1'-6" x 5'-11" 0.9m x 0.43m x 2.64m	5,290 lbs 2 400 kg	Jib Assembly Pt 2 ⁸ 202-ft (61.5m) 	128'-7" x 5'-9" x 6'-5" 39.2m x 1.74m x 1.96m	22,930 lbs 10 400 kg
Base Section 630ECH (P/B) 	40'-9" x 8'-10" x 8'-10" 12.42m x 2.68m x 2.68m	31,970 lbs 14 500 kg	Jib Assembly Pt 2 ⁸ 169-ft (51.5m) 	95'-10" x 5'-9" x 6'-5" 29.2m x 1.74m x 1.96m	18,520 lbs 8 400 kg
Tower Section 550HC (P/P) 	20'-7" x 8'-0" x 8'-0" 6.28m x 2.45m x 2.45m	14,150 lbs 6 420 kg	Jib Assembly ⁸ 136-ft (41.5m) Complete 	139'-5" x 5'-9" x 7'-7" 42.5m x 1.74m x 2.3m	37,480 lbs 17 000 kg
Top Climbing Unit w/hydraulics 	40'-8" x 9'-1" x 10'-4" 12.4m x 2.77m x 3.16m	22,420 lbs 10 170 kg	Hook Block 	2'-7" x 1'-4" x 9'-10" 0.8m x 0.4m x 3m	2,200 lbs 1 000 kg
Jib A-frame w/ladder 	26'-11" x 1'-7" x 4'-8" 8.2m x 0.48m x 1.41m	1,100 lbs 500 kg	Trolley 	7'-10" x 7'-0" x 4'-7" 2.4m x 2.14m x 1.4m	1,810 lbs 820 kg

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

¹ Slewing Assembly Complete includes operator's cab, platforms, three swing motors, slewing ring, slewing ring support and four non-detachable climbing shoes.

² Slewing Assembly Upper Part includes operator's cab, platforms and three swing motors.

³ Slewing Assembly Lower Part includes slewing ring, slewing ring support and four non-detachable climbing shoes.

⁴ Includes 147 hp (110 kW) hoist drive with rope drum, switchgear & resistor panels, & hoist unit frame. Weight indicated includes 968 ft (295m) of wire rope. Contact Morrow for information.

⁵ Counterjib A includes counterjib sections 1, 2, 2, 3, pendant bars, handrails and D block. Counterjib A is required for jibs 202 ft (61.5m) and longer. D block weighs 5,290 lbs (2 400 kg).

⁶ Counterjib B includes counterjib sections 1, 2, 3, pendant bars, handrails and D block. Counterjib B is required for jibs 169 ft (51.5m) and shorter. D block weighs 5,290 lbs (2 400 kg).

⁷ When fabricating counterweights, consult 550 ECH 20 Litronic Operation Manual for concrete requirements.

⁸ Complete Jib Assemblies include jib sections, pendant bars, jib A-frame, pendant bar connecting pins and plates, trolley drive unit, trolley wire rope, hook block assembly and trolley assembly. The 131-ft (40m) Jib Assembly does not require a jib A-frame.