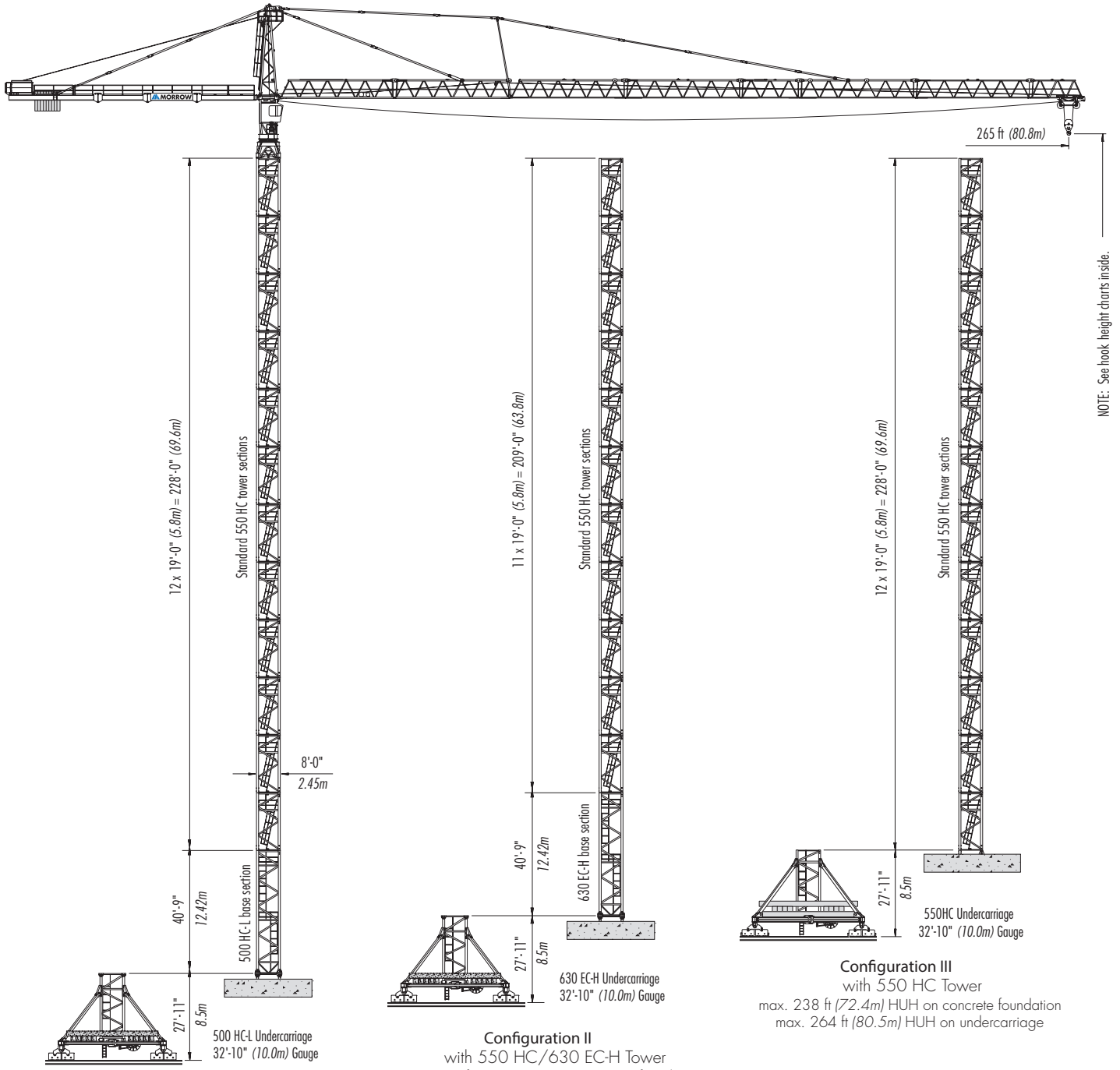


# 550 HC 20

## LIEBHERR Hammerhead Tower Crane



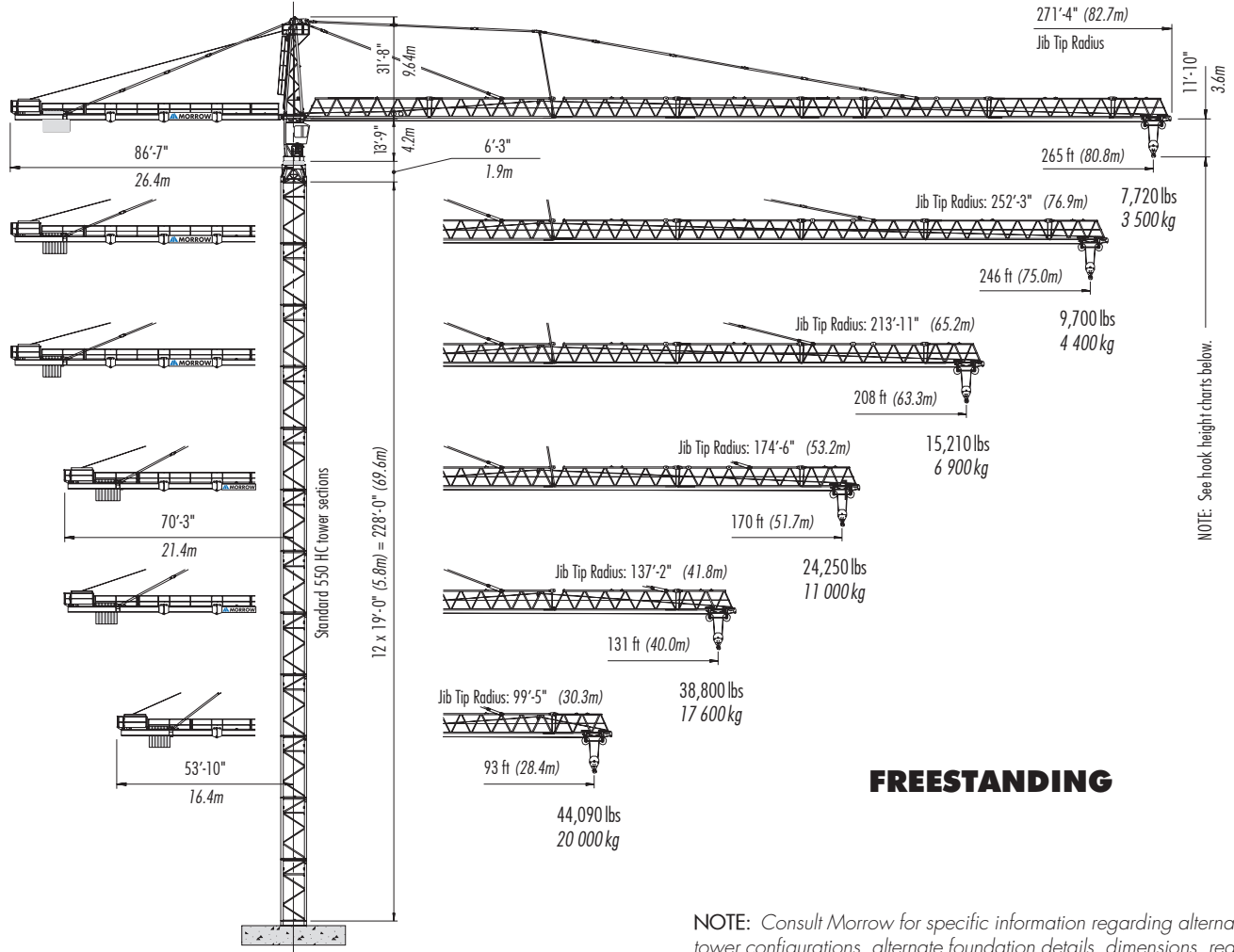
**Configuration I**  
with 550 HC/500 HC-L Tower  
max. 278 ft (84.8m) HUH on concrete foundation  
max. 305 ft (93.1m) HUH on undercarriage

**Configuration II**  
with 550 HC/630 EC-H Tower  
max. 259 ft (79.0m) HUH on concrete foundation  
max. 286 ft (87.3m) HUH on undercarriage

**Configuration III**  
with 550 HC Tower  
max. 238 ft (72.4m) HUH on concrete foundation  
max. 264 ft (80.5m) HUH on undercarriage

**FREESTANDING**

# LIEBHERR 550 HC 20



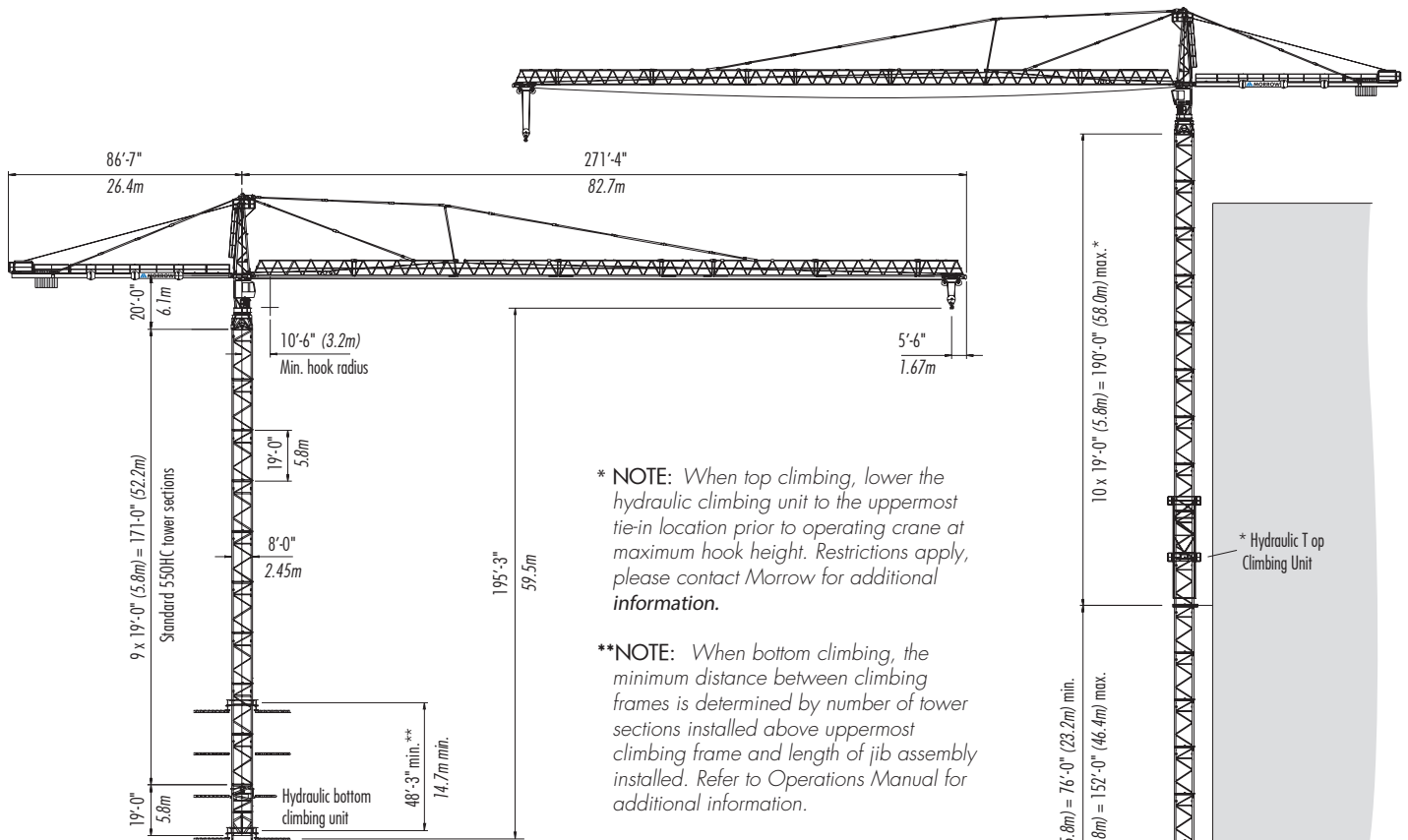
## FREESTANDING

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

## Hook Heights

No. of Tower Sections	Tower Configuration I	Hook Height Concrete Foundation		Hook Height 10m Undercarriage		No. of Tower Sections	Tower Configuration II	Hook Height Concrete Foundation		Hook Height 10m Undercarriage		No. of Tower Sections	Tower Configuration III	Hook Height Concrete Foundation		Hook Height 10m Undercarriage	
		ft	m	ft	m			ft	m	ft	m			ft	m	ft	m
0	500HCL BTS	50.0	15.2	77.0	23.5	0	630ECH BTS	50.0	15.2	77.0	23.5	1	550HC STS	28.2	8.6	54.8	16.7
1	550HC STS	69.0	21.0	96.0	29.3	1	550HC STS	69.0	21.0	96.0	29.3	2	550HC STS	47.2	14.4	73.8	22.5
2	550HC STS	88.1	26.8	115.0	35.1	2	550HC STS	88.1	26.8	115.0	35.1	3	550HC STS	66.3	20.2	92.8	28.3
3	550HC STS	107.1	32.6	134.1	40.9	3	550HC STS	107.1	32.6	134.1	40.9	4	550HC STS	85.3	26.0	111.9	34.1
4	550HC STS	126.1	38.4	153.1	46.7	4	550HC STS	126.1	38.4	153.1	46.7	5	550HC STS	104.3	31.8	130.9	39.9
5	550HC STS	145.1	44.2	172.1	52.5	5	550HC STS	145.1	44.2	172.1	52.5	6	550HC STS	123.4	37.6	149.9	45.7
6	550HC STS	164.2	50.0	191.1	58.3	6	550HC STS	164.2	50.0	191.1	58.3	7	550HC STS	142.4	43.4	169.0	51.5
7	550HC STS	183.2	55.8	210.2	64.1	7	550HC STS	183.2	55.8	210.2	64.1	8	550HC STS	161.4	49.2	188.0	57.3
8	550HC STS	202.2	61.6	229.2	69.9	8	550HC STS	202.2	61.6	229.2	69.9	9	550HC STS	180.4	55.0	207.0	63.1
9	550HC STS	221.3	67.4	248.2	75.7	9	550HC STS	221.3	67.4	248.2	75.7	10	550HC STS	199.5	60.8	226.0	68.9
10	550HC STS	240.3	73.2	267.3	81.5	10	550HC STS	240.3	73.2	267.3	81.5	11	550HC STS	218.5	66.6	245.1	74.7
11	550HC STS	259.3	79.0	286.3	87.3	11 <sup>1</sup>	550HC STS	259.3	79.0	286.3	87.3	12 <sup>1</sup>	550HC STS	237.5	72.4	264.1	80.5
12 <sup>1</sup>	550HC STS	278.3	84.8	305.3	93.1												

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

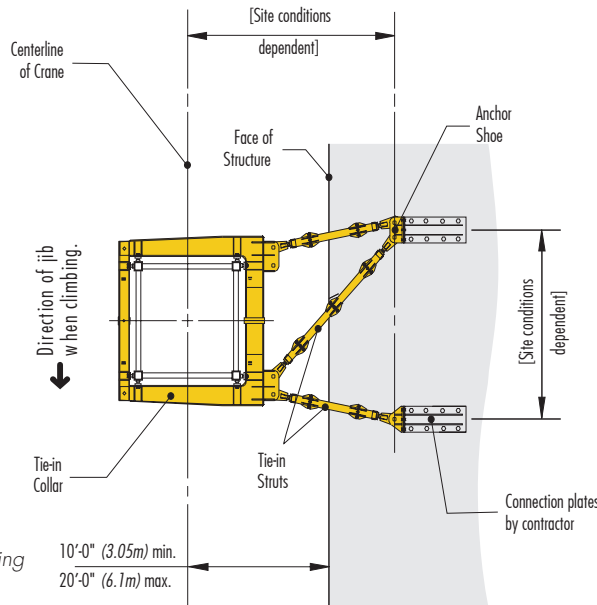


## BOTTOM CLIMBING with 550 HC tower sections inside structure

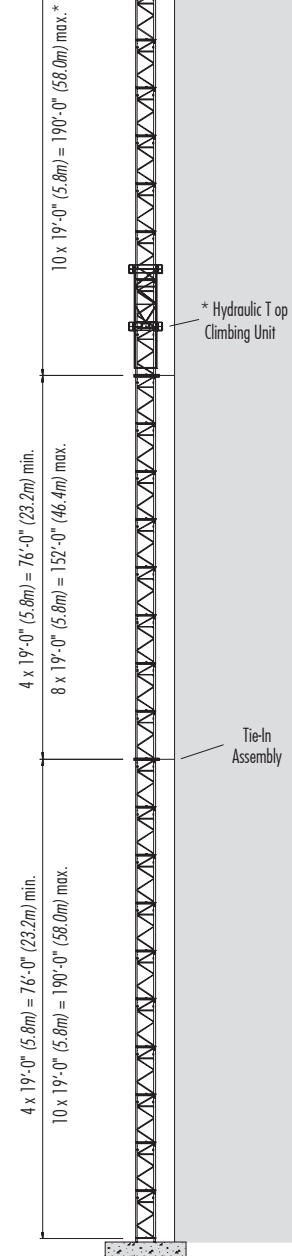
NOTE: The tie-in assembly shown is an example of a typical installation. Please note, however, that factors determining the installation of tie-in assemblies may vary due to project specific conditions.

Contact Morrow for information regarding dimensions, reaction forces, tie-in locations and slab opening requirements.

NOTE: Please consult 550 HC 20 Operations Manual before erecting, operating, climbing, servicing or dismantling crane.



**TIE-IN ASSEMBLY**  
Plan View



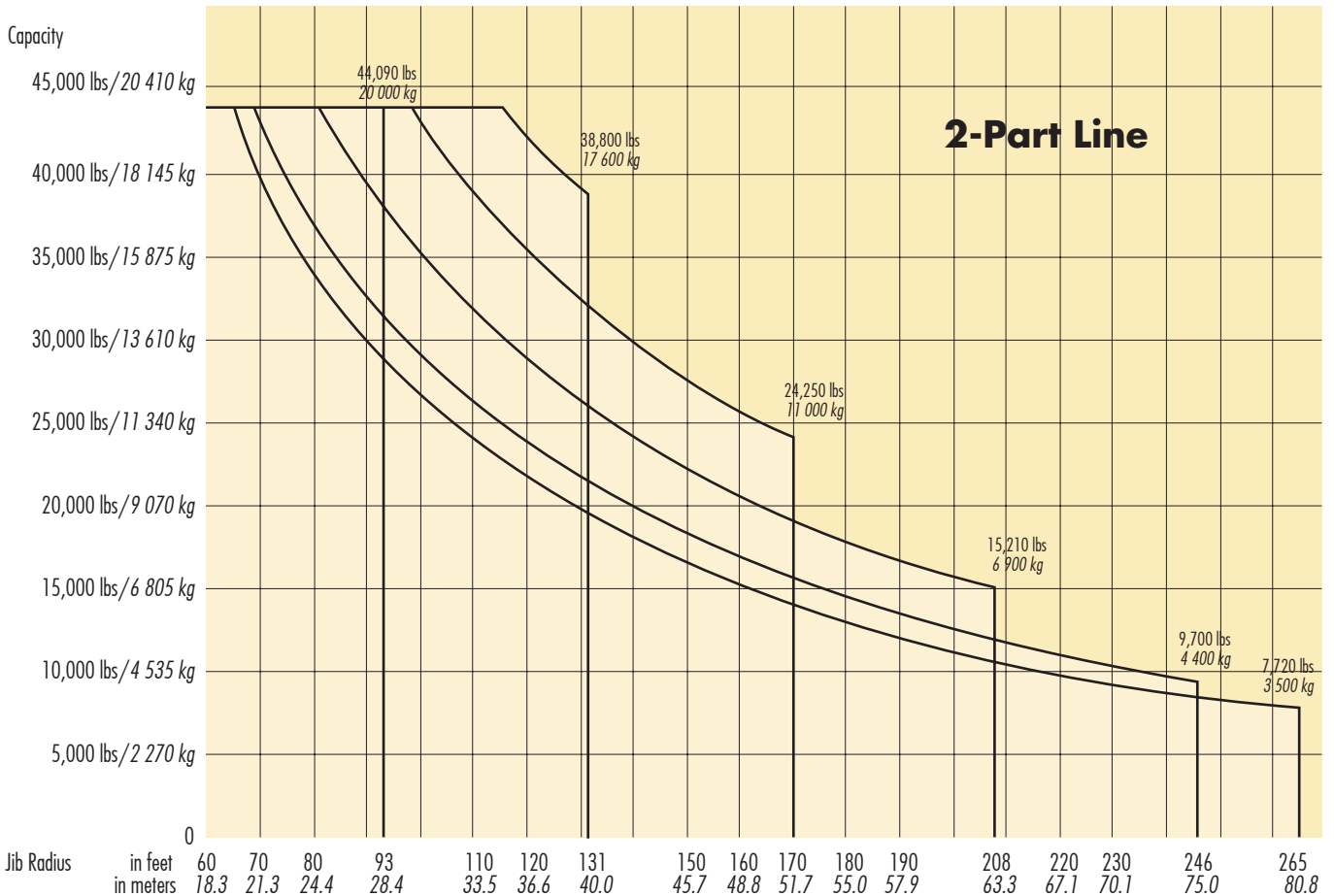
## TOP CLIMBING with 550 HC tower sections tied to structure

# LIEBHERR 550 HC 20

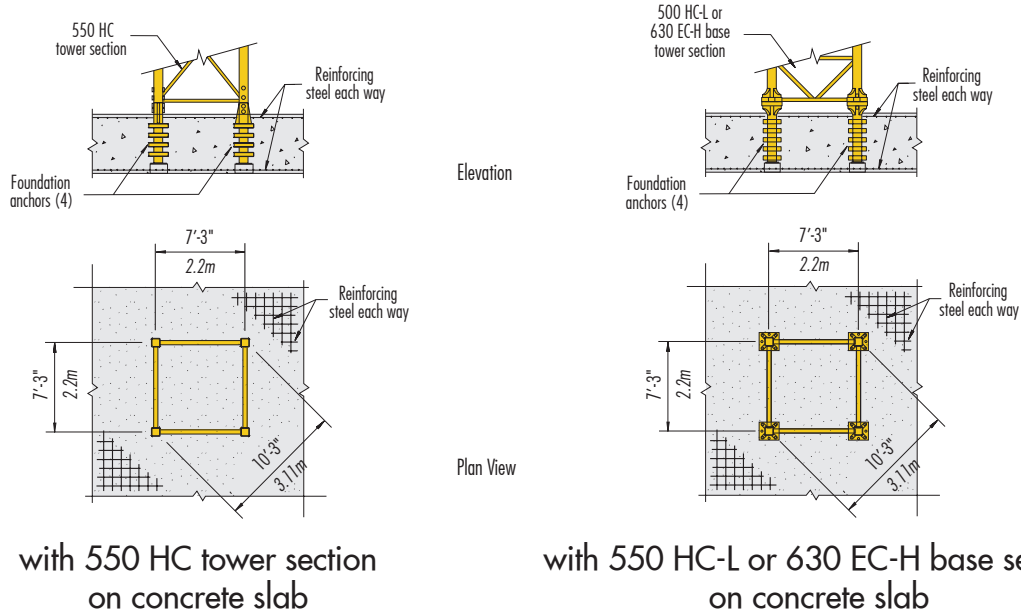
## Radius and Capacities

### 2-Part Line

Hook Radius	Maximum Capacity – Radius	ft m	66 20.0	79 24.0	93 28.4	105 32.0	110 33.5	120 36.6	131 40.0	140 42.7	150 45.7	160 48.8	170 51.7	180 55.0	190 57.9	208 63.3	223 68.0	246 75.0	265 80.8	
265 ft 80.8m	44,090 lbs – 65 ft 20 000 kg – 19.6m	lbs kg	43,120 19 560	35,010 15 880	29,275 13 280	25,550 11 590	23,965 10 870	21,760 9 870	19,755 8 960	18,210 8 260	16,730 7 590	15,540 7 048	14,415 6 540	13,315 6 040	12,435 5 640	11,025 5 000	9,965 4 520	8,640 3 920	7,720 3 500	
246 ft 75.0m	44,090 lbs – 69 ft 20 000 kg – 21.1m	lbs kg	44,090 20 000	38,160 17 310	31,990 14 510	27,955 12 680	26,235 11 900	23,855 10 820	21,695 9 840	20,015 9 080	18,430 8 360	17,140 7 776	15,940 7 230	14,750 6 690	13,800 6 260	12,280 5 570	11,135 5 050	9,700 4 400		
208 ft 63.3m	44,090 lbs – 81 ft 20 000 kg – 24.8m	lbs kg	44,090 20 000	44,090 20 000	38,360 17 400	33,620 15 250	31,615 14 340	28,815 13 070	26,280 11 920	24,295 11 020	22,440 10 180	20,930 9 493	19,510 8 850	18,120 8 220	17,020 7 720	15,210 6 900				
170 ft 51.7m	44,090 lbs – 98 ft 20 000 kg – 30.0m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	41,135 18 660	38,735 17 570	35,385 16 050	32,365 14 680	29,980 13 600	27,755 12 590	25,945 11 769	24,250 11 000							
131 ft 40.0m	44,090 lbs – 116 ft 20 000 kg – 35.5m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	42,330 19 200	38,800 17 600											
93 ft 28.4m	44,090 lbs – 93 ft 20 000 kg – 28.4m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000															



## Foundation Details



## Hoist Speed and Capacity

Morrow offers the **LIEBHERR** 550 HC with a variety of alternative hoist units. For specific information regarding line speeds and lifting capacities, please contact a Morrow representative.

## Motor Information

Drive Unit	Horsepower	Kilowatts	Speed	
Trolley (2-part line)	7.4 hp	5.5 kW	25 - 50 - 164 - 328 fpm	7.5 - 15 - 50 - 100 m/min
Trolley FC (2-part line) *	14.7 hp	11 kW	0 - 394 fpm	0 - 120 m/min
Swing (fluid coupling)	2 x 14.2 hp	2 x 10.6 kW	0.6 rpm	
Traveling (fluid coupling)	4 x 10 hp	4 x 7.5 kW	0 - 82 fpm	0 - 25.0 m/min

\*Trolley drive with variable speed frequency converter available on 550 HC cranes with serial nos. 41.222, 41.223 and 41.224. Contact Morrow for more information.

## 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.




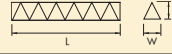
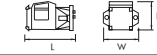
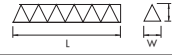

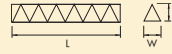
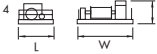
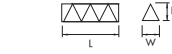
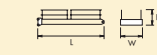
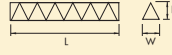

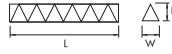
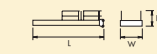
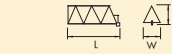


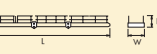
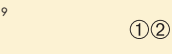




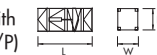

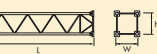




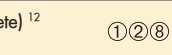




**Service size:** For hoist size 80 kW, 250 Amperes and for hoist size 110 kW, 300 Amperes.

### NOTES:

- For electric power provided by an electric utility, do not use open Delta transformers.
- For electric power provided by a generator, the minimum generator size required is 350 kW for 80 kW hoist size and 500 kW for 110 kW hoist size. 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 Equipment.

## Component List

Description	Dimensions L x W x H	Weight	Description	Dimensions L x W x H	Weight
Tower Top 	30'-10" x 5'-9" x 6'-3" 9.4m x 1.75m x 1.91m	11,685 lbs 5 300 kg	Jib Section ① #611 	39'-6" x 6'-4" x 6'-8" 12.03m x 1.93m x 2.03m	8,575 lbs 3 890 kg
Slewing Assembly (Complete) <sup>1</sup> 	22'-5" x 9'-9" x 9'-0" 6.82m x 2.98m x 2.75m	37,765 lbs 17 130 kg	Jib Section ② #621 	39'-5" x 5'-9" x 6'-6" 12.02m x 1.74m x 1.98m	6,105 lbs 2 770 kg
Slewing Assembly Upper Part <sup>2</sup> 	15'-2" x 9'-9" x 9'-0" 4.63m x 2.98m x 2.75m	21,230 lbs 9 630 kg	Jib Section ③ #631 	39'-5" x 5'-9" x 6'-5" 12.02m x 1.74m x 1.96m	4,885 lbs 2 215 kg
Slewing Assembly Lower Part <sup>3</sup> 	7'-3" x 8'-0" x 8'-0" 2.2m x 2.44m x 2.44m	16,535 lbs 7 500 kg	Jib Section ④ #632 	39'-5" x 5'-9" x 6'-5" 12.02m x 1.74m x 1.96m	4,355 lbs 1 975 kg
AC Hoist Unit w/Frame <sup>4</sup> 147 hp (110 kW) 	8'-4" x 19'-3" x 6'-2" 2.54m x 5.86m x 1.89m	23,280 lbs 10 560 kg	Jib Section ⑤ #635 	20'-8" x 5'-9" x 6'-5" 6.3m x 1.74m x 1.96m	2,335 lbs 1 060 kg
Counterjib Section #1 (Inner) 	20'-10" x 6'-4" x 6'-1" 6.35m x 1.93m x 1.85m	5,620 lbs 2 550 kg	Jib Section ⑥ #633 	39'-5" x 5'-9" x 6'-5" 12.02m x 1.74m x 1.96m	5,070 lbs 2 300 kg
Counterjib Section #2 (Intermediate) 	17'-1" x 6'-2" x 6'-1" 5.21m x 1.88m x 1.85m	4,950 lbs 2 245 kg	Jib Section ⑦ #634 	39'-5" x 5'-9" x 6'-5" 12.02m x 1.74m x 1.96m	3,440 lbs 1 560 kg
Counterjib Section #3 (Outer) 	31'-8" x 7'-11" x 6'-1" 9.65m x 2.42m x 1.85m	8,820 lbs 4 000 kg	Jib Section ⑧ #641 	19'-2" x 5'-9" x 7'-7" 5.85m x 1.74m x 2.3m	2,515 lbs 1 140 kg
Counterjib A <sup>5</sup> 	51'-10" x 7'-11" x 6'-1" 15.8m x 2.42m x 1.85m	17,195 lbs 7 800 kg	Jib Assembly (Part 1) <sup>9</sup> for 170-ft to 265-ft jibs 	77'-6" x 6'-4" x 6'-8" 23.62m x 1.93m x 2.03m	20,945 lbs 9 500 kg
Counterjib B <sup>6</sup> 	68'-3" x 7'-11" x 6'-1" 20.8m x 2.42m x 1.85m	22,930 lbs 10 400 kg	Jib Assembly (Part 1) <sup>9</sup> for 131-ft jib 	77'-6" x 6'-4" x 6'-8" 23.62m x 1.93m x 2.03m	21,605 lbs 9 800 kg
Counterjib C <sup>7</sup> 	84'-8" x 7'-11" x 6'-1" 25.8m x 2.42m x 1.85m	28,880 lbs 13 100 kg	Jib Assembly (Part 2) <sup>10</sup> 265-ft (80.8m) 	190'-11" x 5'-9" x 7'-3" 58.2m x 1.74m x 2.2m	29,320 lbs 13 300 kg
Standard Tower Section 550 HC (Pin/Pin) 	22'-2" x 8'-0" x 8'-0" 6.75m x 2.45m x 2.45m	14,155 lbs 6 420 kg	Jib Assembly (Part 2) <sup>10</sup> 246-ft (75.0m) 	171'-7" x 5'-9" x 7'-3" 52.3m x 1.74m x 2.2m	26,675 lbs 12 100 kg
Bottom Climbing Unit with hydraulics 500 HC-L (P/P) 	20'-8" x 8'-4" x 8'-0" 6.3m x 2.55m x 2.45m	40,940 lbs 18 570 kg	Jib Assembly (Part 2) <sup>10</sup> 208-ft (63.3m) 	133'-2" x 5'-9" x 7'-3" 40.6m x 1.74m x 2.2m	22,265 lbs 10 100 kg
Base Section <sup>8</sup> 500 HC-L (P/B) 	40'-9" x 8'-10" x 8'-10" 12.42m x 2.68m x 2.68m	40,125 lbs 18 200 kg	Jib Assembly (Part 2) <sup>10</sup> 170-ft (51.7m) 	95'-2" x 5'-9" x 7'-3" 29.0m x 1.74m x 2.2m	17,860 lbs 8 100 kg
Base Section 630 EC-H (P/B) 	40'-9" x 8'-10" x 8'-10" 12.42m x 2.68m x 2.68m	31,965 lbs 14 500 kg	Jib Assembly (Part 2) <sup>11</sup> 131-ft (40.0m) 	56'-9" x 5'-9" x 7'-3" 17.3m x 1.74m x 2.2m	8,820 lbs 4 000 kg
Top Climbing Unit <sup>8</sup> w/hydraulics 	40'-9" x 9'-1" x 10'-4" 12.43m x 2.77m x 3.16m	22,420 lbs 10 170 kg	Jib Assembly (Complete) <sup>12</sup> 93-ft (28.4m) 	94'-11" x 6'-5" x 7'-3" 28.94m x 1.95m x 2.2m	21,385 lbs 9 700 kg
Trolley 	7'-10" x 7'-0" x 4'-7" 2.4m x 2.14m x 1.4m	1,810 lbs 820 kg	Counterweight <sup>13</sup> Block A 	4'-6" x 11" x 10'-9" 1.37m x 0.28 x 3.28m	6,350 lbs 2 880 kg
Hook Block 	2'-10" x 2'-0" x 5'-7" 0.86m x 0.61m x 1.69m	2,110 lbs 957 kg	Counterweight <sup>13</sup> Block B 	4'-6" x 11" x 7'-5" 1.37m x 0.28 x 2.25m	4,410 lbs 2 000 kg

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

<sup>1</sup> Slewing Assembly Complete includes operator's cab, swing motors, slewing ring, slewing ring support and 4 climbing shoes. Climbing shoes are detachable; deduct 380 lbs (173 kg) each. Dimensions above are without climbing shoes. Does not include monorail assembly. Monorail assembly weighs approximately 970 lbs (440 kg).  
<sup>2</sup> Slewing Assembly Upper Part includes operator's cab, swing motors and service platforms. Does not include slewing ring and slewing ring support.  
<sup>3</sup> Slewing Assembly Lower Part includes slewing ring, slewing ring support and 4 climbing shoes. Climbing shoes are detachable; deduct 380 lbs (173 kg) each. Dimensions above are without climbing shoes.  
<sup>4</sup> Includes hoist unit, electrical panel and handrails. Does not include wire rope. An alternate 108 hp (80 kW) hoist unit may be installed. The 108 hp hoist unit weighs 16,535 lbs (7,500 kg) without wire rope.  
<sup>5</sup> Counterjib A includes one each counterjib sections #1, #3, plus handrails and pendant bars. Counterjib A is required for jib 93 ft (28.4m).  
<sup>6</sup> Counterjib B includes one each counterjib sections #1, #2, #3, plus handrails and pendant bars. Counterjib B is required for jibs 131 ft (40.0m) and 170 ft (51.7m).  
<sup>7</sup> Counterjib C includes one each counterjib sections #1 and #3, two each counterjib section #2, plus handrails and pendant bars. Counterjib C is required for jibs 208 ft (63.3m) and longer.  
<sup>8</sup> Can be broken down into two panels.  
<sup>9</sup> Jib Assembly (Part 1) includes jib sections, pendant bars, pendant bar connecting pins and plates, trolley drive unit, erection wire rope, trolley wire rope and trolley.  
<sup>10</sup> Jib Assemblies (Part 2) for 170-ft (51.7m) to 265-ft (80.8m) include jib sections, A-frame, pendant bars with connecting pins and plates. Weight of A-frame: 1,720 lbs (780 kg).  
<sup>11</sup> Jib Assembly (Part 2) for 131 ft (40.0m) includes jib sections, pendant bars with connecting pins and plates.  
<sup>12</sup> Jib Assembly (Complete) includes jib sections, pendant bars with connecting pins and plates, trolley drive, trolley, trolley wire rope and erection wire rope.  
<sup>13</sup> Counterweight block dimensions are for blocks constructed without frames. When fabricating counterweights, consult 550 HC 20 Operations Manual for concrete requirements.

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MEC-MKT-1300 1/23/19