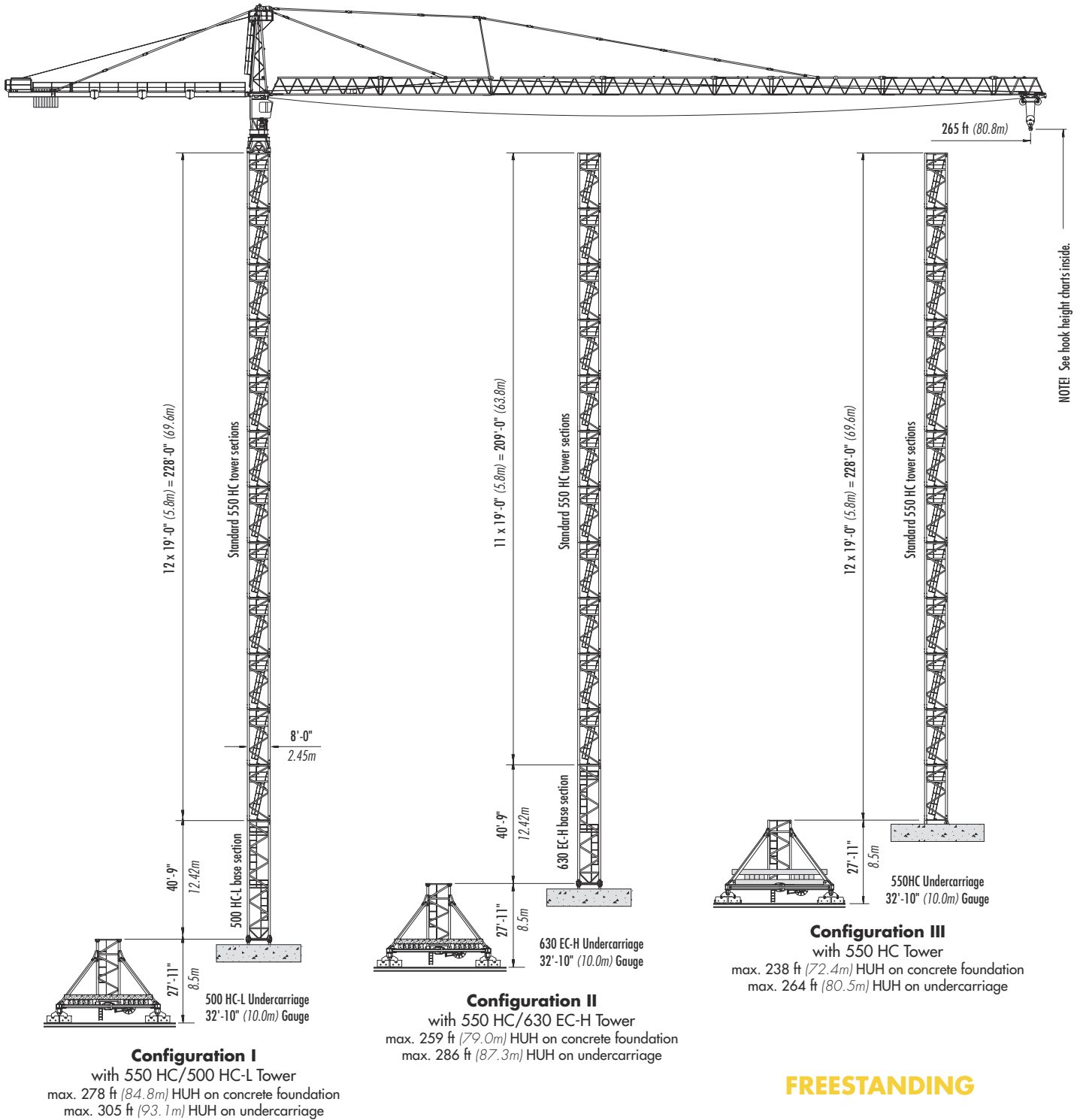


LIEBHERR 550 HC 20

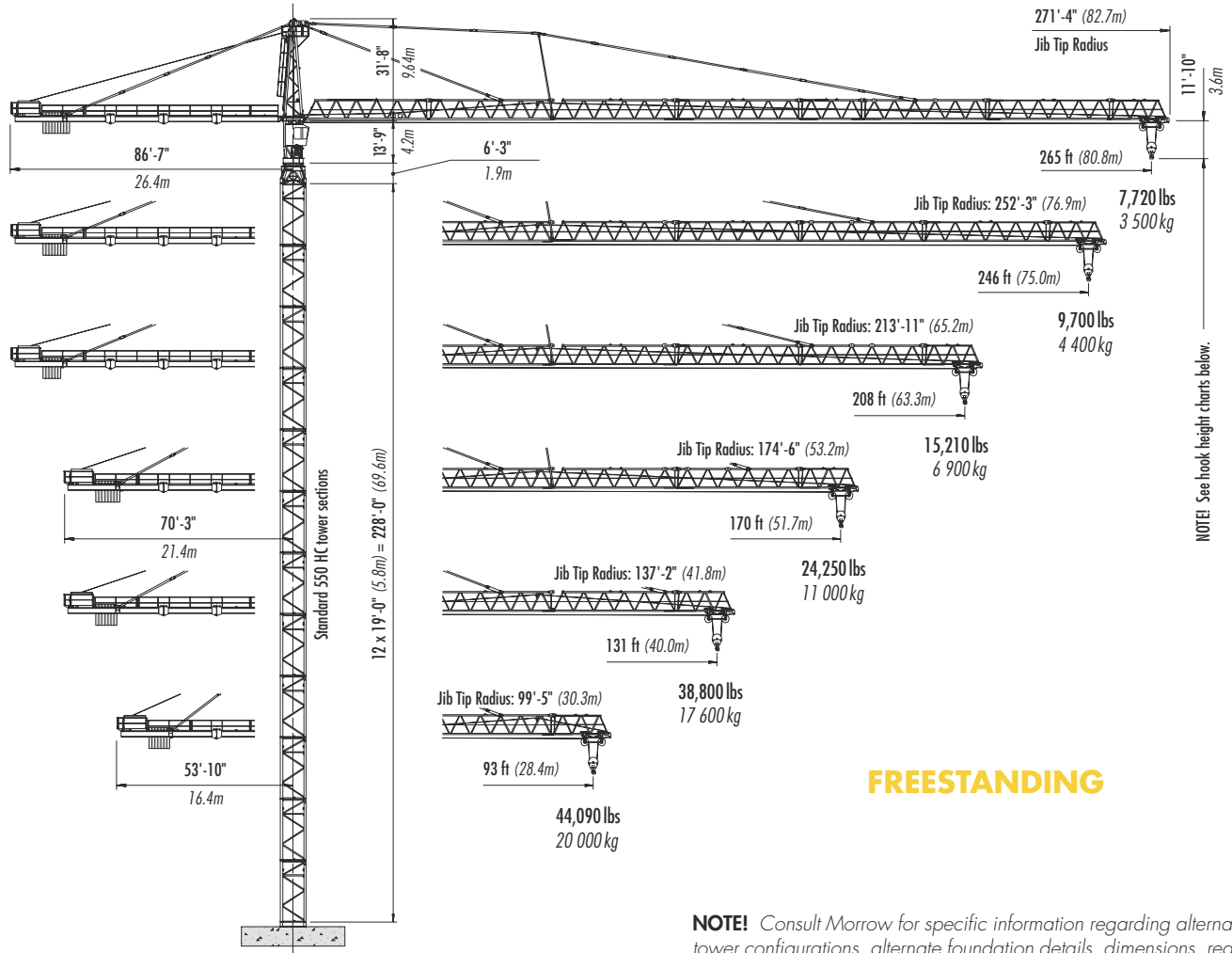
TOWER CRANE



Morrow Equipment

Configurations

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.

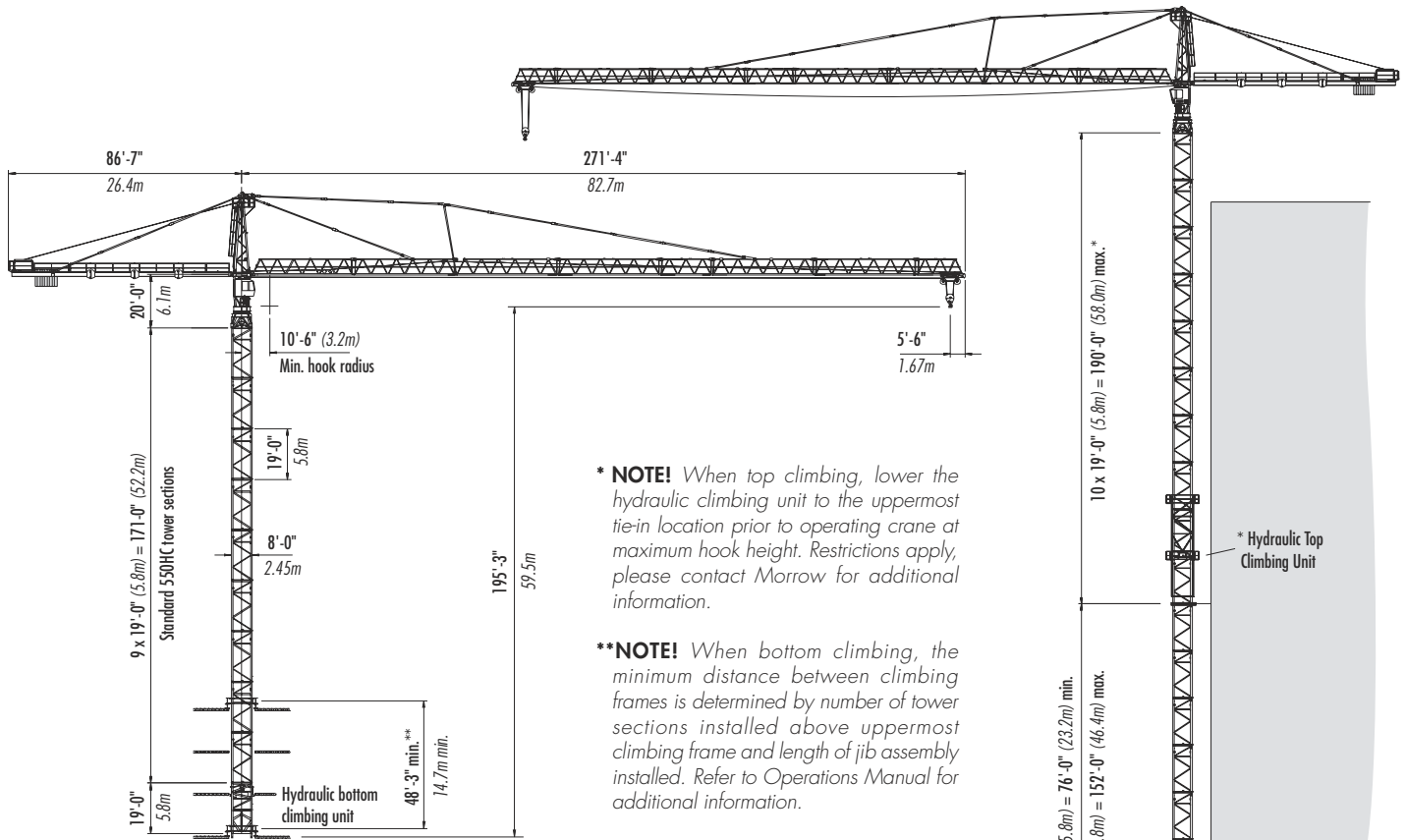
Hook Heights

| 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 ¹ | 550HC STS | 259.3 | 79.0 | 286.3 | 87.3 | 12 ¹ | 550HC STS | 237.5 | 72.4 | 264.1 | 80.5 |
| 12 ¹ | 550HC STS | 278.3 | 84.8 | 305.3 | 93.1 | | | | | | | | | | | | |

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

Configurations

LIEBHERR 550 HC 20

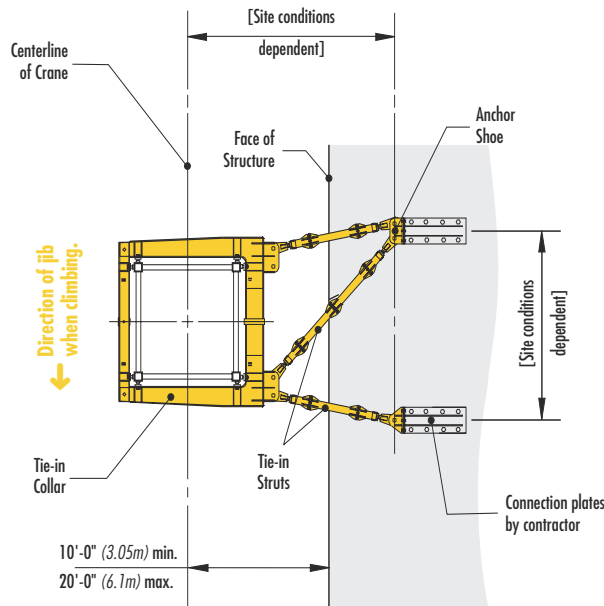


BOTTOM CLIMBING with 550 HC Tower Sections Inside Structure

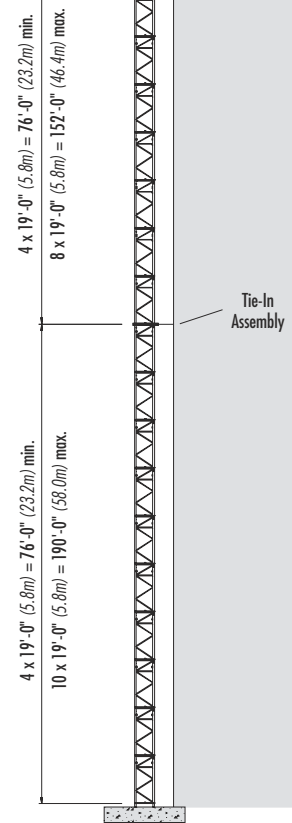
NOTE! The tie-in assembly shown is an example of a typical installation. Please note, however, that factors determining the installation of tie-in assemblies may vary due to project specific conditions.

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



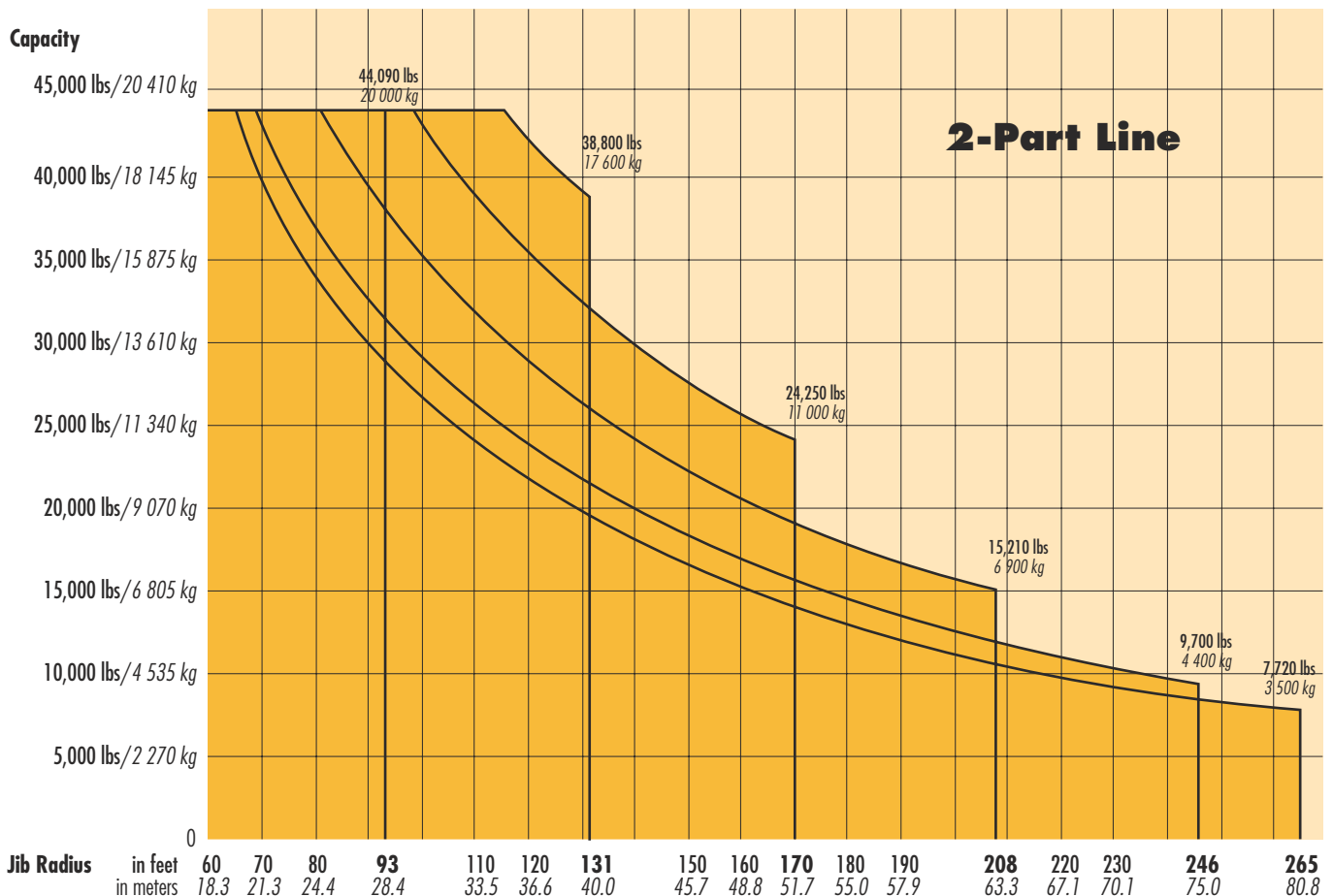
TOP CLIMBING with 550 HC Tower Sections Tied to Structure

Radius and Capacities

LIEBHERR Tower Crane Model 550 HC 20

2-Part Line

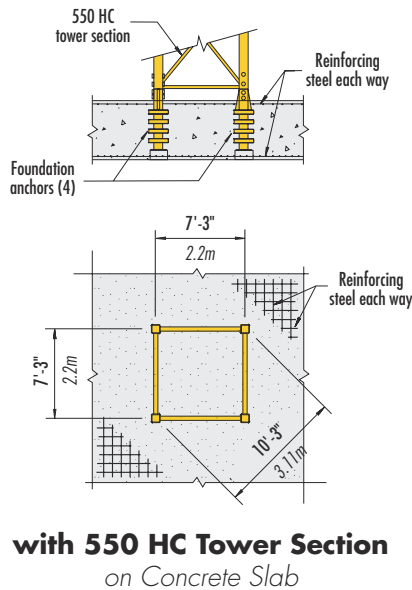
| Hook Radius | Maximum Capacity – Radius | ft m | 66 20.0 | 79 24.0 | 93 28.4 | 105 32.0 | 110 33.5 | 120 36.6 | 131 40.0 | 140 42.7 | 150 45.7 | 160 48.8 | 170 51.7 | 180 55.0 | 190 57.9 | 208 63.3 | 223 68.0 | 246 75.0 | 265 80.8 |
|-----------------|--|-----------|------------------|------------------|--------------------------------|------------------|------------------|------------------|--------------------------------|------------------|------------------|------------------|--------------------------------|-----------------|-----------------|-------------------------------|-----------------|------------------------------|------------------------------|
| 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 | | | | | | | | | | | | | | |



Foundations/Drive information

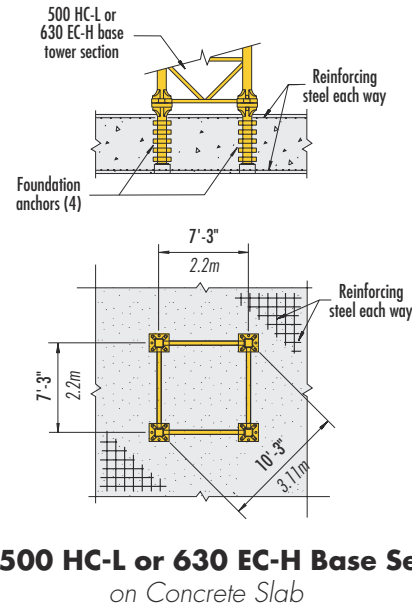
LIEBHERR Tower Crane Model 550 HC 20

Foundation Details



Elevation

Plan View



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.

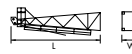
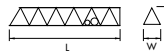
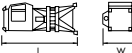
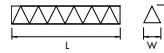
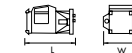
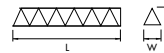

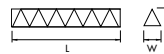

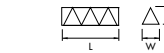
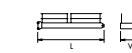
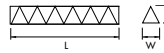

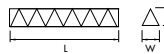

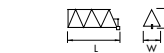





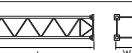
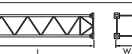
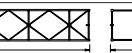
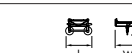



Power Requirements

480 Volts — 3-phase — 60-cycle — 225 Amperes service with 108 hp (80 kW) 4-speed hoist unit
 300 Amperes service with 147 hp (110 kW) 4-speed hoist unit

Specifications subject to change without notice. For other configurations and specifications, contact Morrow Equipment.

Component List

LIEBHERR 550 HC 20

| 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) ¹  | 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 ²  | 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 ³  | 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 ⁴ 147 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 ⁵  | 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) ⁹ for 170-ft to 265-ft jibs ①② | 77'-6" x 6'-4" x 6'-8" 23.62m x 1.93m x 2.03m | 20,945 lbs 9 500 kg |
| Counterjib B ⁶  | 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) ⁹ for 131-ft jib ①② | 77'-6" x 6'-4" x 6'-8" 23.62m x 1.93m x 2.03m | 21,605 lbs 9 800 kg |
| Counterjib C ⁷  | 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) ¹⁰ 265-ft (80.8m) ③④⑤⑥⑦⑧ | 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) ¹⁰ 246-ft (75.0m) ③④⑥⑦⑧ | 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) ¹⁰ 208-ft (63.3m) ③④⑥⑧ | 133'-2" x 5'-9" x 7'-3" 40.6m x 1.74m x 2.2m | 22,265 lbs 10 100 kg |
| Base Section ⁸ 500 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) ¹⁰ 170-ft (51.7m) ③⑥⑧ | 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) ¹¹ 131-ft (40.0m) ③⑧ | 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 ⁸ 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) ¹² 93-ft (28.4m) ①②⑧ | 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 ¹³ 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 ¹³ 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.

- ¹ 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).
- ² Slewing Assembly Upper Part includes operator's cab, swing motors and service platforms. Does not include slewing ring and slewing ring support.
- ³ 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.
- ⁴ 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.
- ⁵ Counterjib A includes one each counterjib sections #1, #3, plus handrails and pendant bars. Counterjib A is required for jib 93 ft (28.4m).
- ⁶ 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).
- ⁷ 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.
- ⁸ Can be broken down into two panels.
- ⁹ 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.
- ¹⁰ Jib Assemblies (Part 2) for 170ft (51.7m) to 265ft (80.8m) include jib sections, A-frame, pendant bars with connecting pins and plates. Weight of A-frame: 1,720 lbs (780 kg).
- ¹¹ Jib Assembly (Part 2) for 131 ft (40.0m) includes jib sections, pendant bars with connecting pins and plates.
- ¹² Jib Assembly (Complete) includes jib sections, pendant bars with connecting pins and plates, trolley drive, trolley, trolley wire rope and erection wire rope.
- ¹³ Counterweight block dimensions are for blocks constructed without frames. When fabricating counterweights, consult 550 HC 20 Operations Manual for concrete requirements.



Morrow Equipment C O M P A N Y, L. L. C.

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