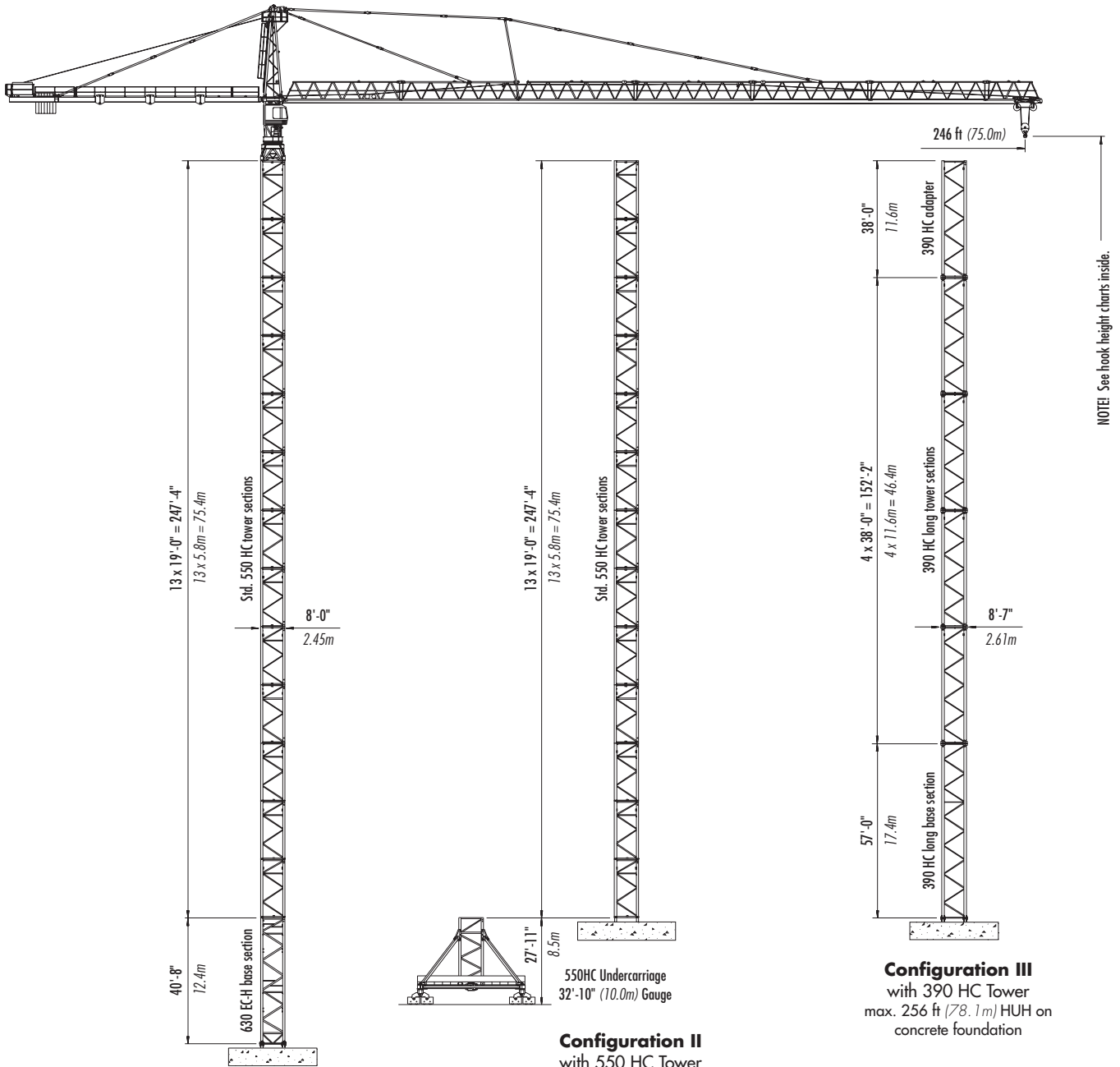


LIEBHERR 390 HC

TOWER CRANE



Configuration I
with 550 HC/500 HC-L Tower
max. 297 ft (90.5m) HUH on concrete foundation

Configuration II
with 550 HC Tower
max. 256 ft (78.1m) HUH on concrete foundation
max. 283 ft (86.3m) HUH on undercarriage

Configuration III
with 390 HC Tower
max. 256 ft (78.1m) HUH on
concrete foundation

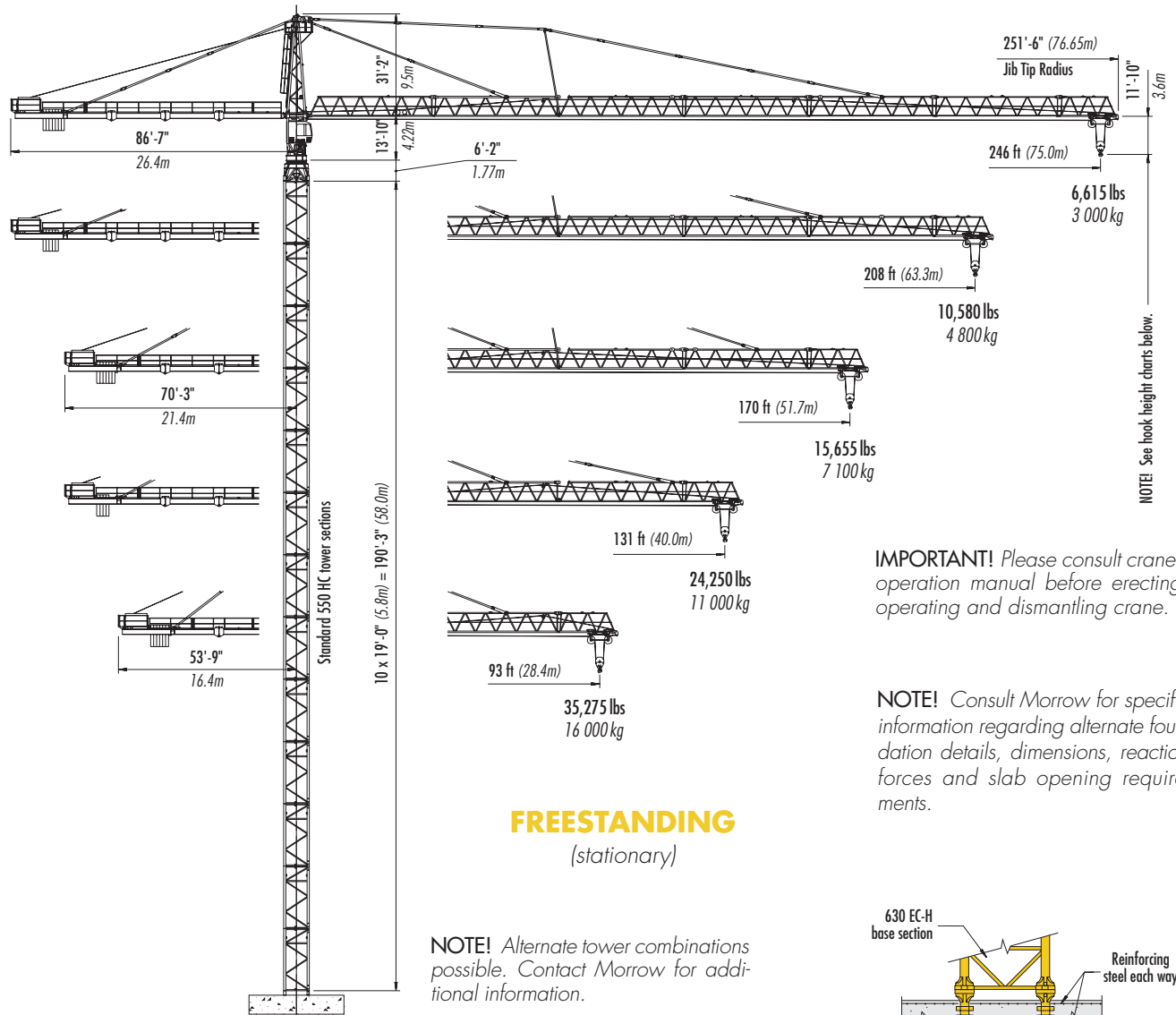
FREESTANDING
(traveling and stationary)



Morrow Equipment

Configurations

LIEBHERR 390 HC



FREESTANDING (stationary)

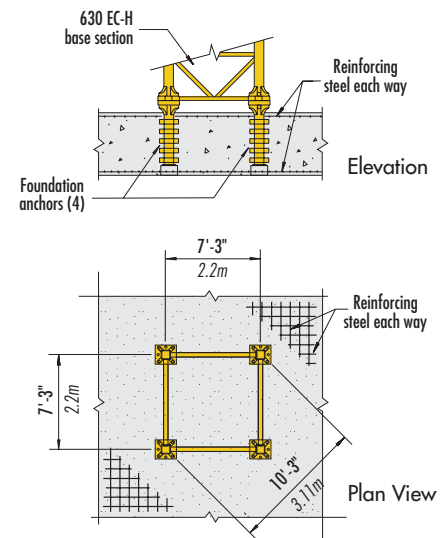
NOTE! Alternate tower combinations possible. Contact Morrow for additional information.

Hook Heights

No. of Tower Elements	Tower Configuration I	Hook Height Concrete Foundation		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	
		ft	m			ft	m	ft	m			ft	m
0	630ECH BTS	49.6	15.1	1	550HC STS	27.9	8.5	54.8	16.7	0	390HC BTS	65.9	20.1
1	550HC STS	68.6	20.9	2	550HC STS	46.9	14.3	73.8	22.5	1	390HC LTS	104.0	31.7
2	550HC STS	87.7	26.7	3	550HC STS	65.9	20.1	92.8	28.3	2	390HC LTS	142.1	43.3
3	550HC STS	106.7	32.5	4	550HC STS	85.0	25.9	111.9	34.1	3	390HC LTS	180.1	54.9
4	550HC STS	125.7	38.3	5	550HC STS	104.0	31.7	130.9	39.9	4	390HC LTS	218.2	66.5
5	550HC STS	144.8	44.1	6	550HC STS	123.0	37.5	149.9	45.7	5**	Adapter	256.2	78.1
6	550HC STS	163.8	49.9	7	550HC STS	142.0	43.3	169.0	51.5				
7	550HC STS	182.8	55.7	8	550HC STS	161.1	49.1	188.0	57.3				
8	550HC STS	201.8	61.5	9	550HC STS	180.1	54.9	207.0	63.1				
9	550HC STS	220.9	67.3	10	550HC STS	199.1	60.7	226.0	68.9				
10	550HC STS	239.9	73.1	11	550HC STS	218.2	66.5	245.1	74.7				
11	550HC STS	258.9	78.9	12	550HC STS	237.2	72.3	264.1	80.5				
12	550HC STS	278.0	84.7	13*	550HC STS	256.2	78.1	283.1	86.3				
13*	550HC STS	297.0	90.5										

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

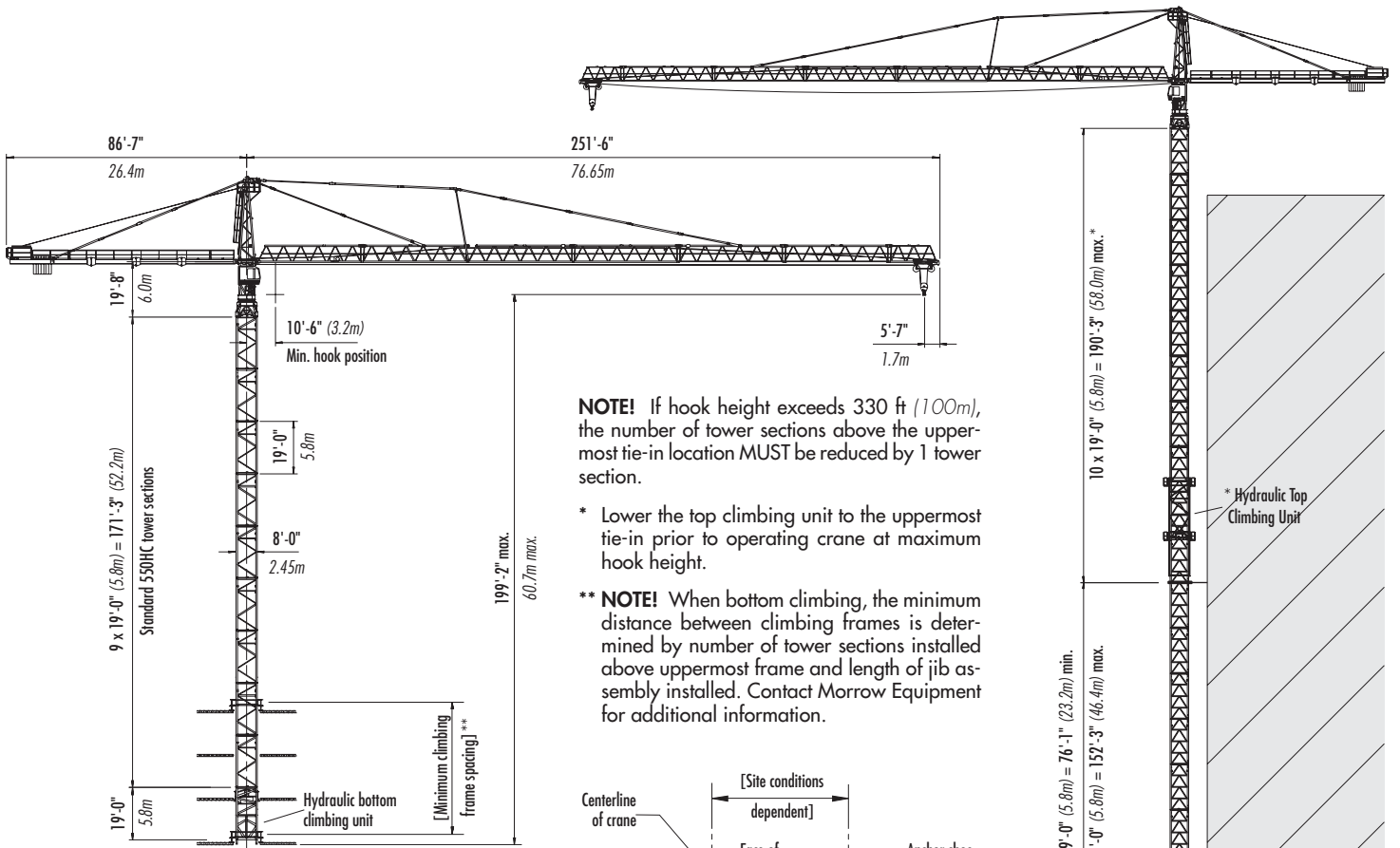
** Remove top climbing unit from crane prior to operating crane at maximum height hook height.



FOUNDATION DETAILS with 630 EC-H Base Section (Concrete Slab)

Configurations

LIEBHERR 390 HC

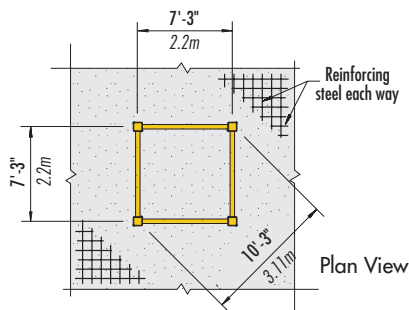
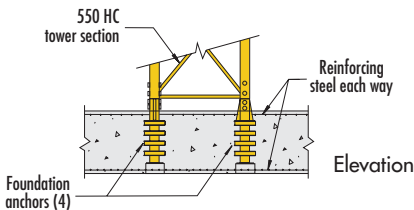


NOTE! If hook height exceeds 330 ft (100m), the number of tower sections above the uppermost tie-in location **MUST** be reduced by 1 tower section.

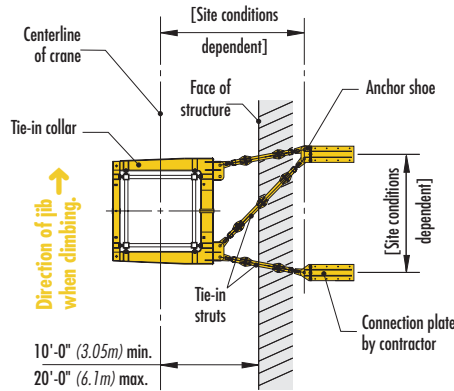
* Lower the top climbing unit to the uppermost tie-in prior to operating crane at maximum hook height.

** **NOTE!** When bottom climbing, the minimum distance between climbing frames is determined by number of tower sections installed above uppermost frame and length of jib assembly installed. Contact Morrow Equipment for additional information.

BOTTOM CLIMBING with 550 HC Tower Sections

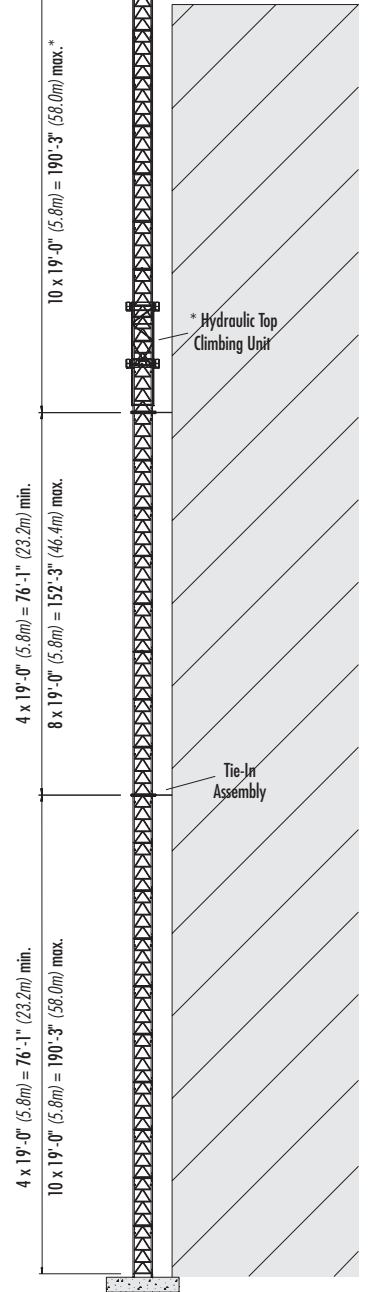


FOUNDATION DETAILS with 550 HC Tower Section (Concrete Slab)



TIE-IN ASSEMBLY (Plan View)

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



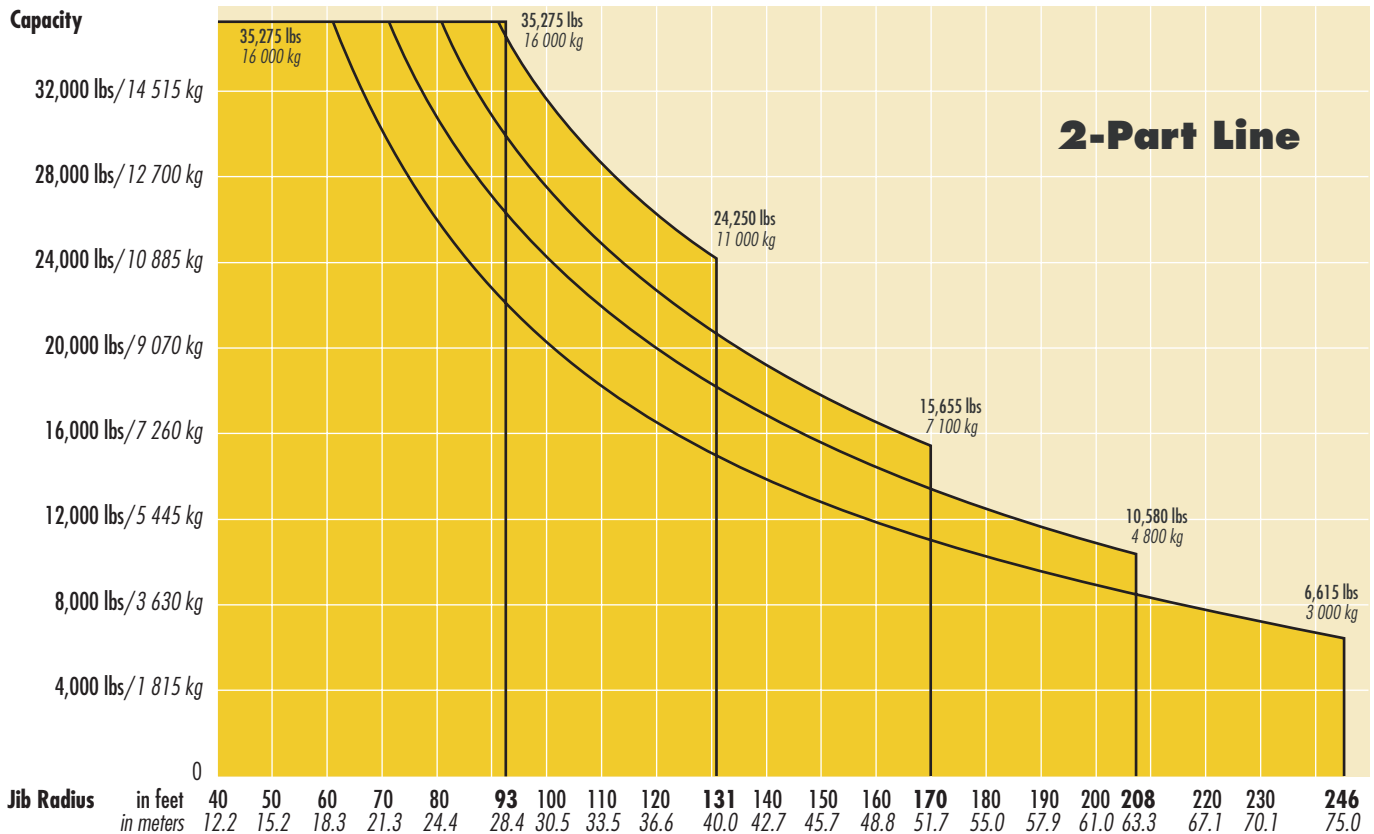
TOP CLIMBING with 550 HC Tower Sections (Tied to Structure)

Radius and Capacities

LIEBHERR Tower Crane Model 390 HC

2-Part Line

Hook Radius	2-Part Line Max Capacity – Radius	ft m	60 18.3	70 21.3	80 24.4	93 28.4	102 31.0	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	225 68.6	246 75.0	
246 ft 75.0m	35,275 lbs – 61 ft 16 000 kg – 18.7m	lbs kg	35,275 16 000	31,085 14 100	26,667 12 095	22,222 10 080	20,172 9 150	18,177 8 245	16,528 7 497	15,080 6 840	13,823 6 270	12,758 5 787	11,784 5 345	11,023 5 000	11,163 4 610	9,502 4 310	8,422 3 820	7,482 3 394	6,615 3 000	
208 ft 63.3m	35,275 lbs – 72 ft 16 000 kg – 22.0m	lbs kg	35,275 16 000	35,275 16 000	32,210 14 610	26,852 12 180	24,449 11 090	22,099 10 024	20,135 9 133	18,430 8 360	16,594 7 527	15,681 7 113	14,551 6 600	13,624 6 180	12,633 5 730	11,852 5 376	10,580 4 800			
170 ft 51.7m	35,275 lbs – 81 ft 16 000 kg – 24.6m	lbs kg	35,275 16 000	35,275 16 000	35,275 16 000	30,423 13 800	27,734 12 580	25,121 11 395	22,291 10 397	21,010 9 530	19,357 8 780	17,946 8 140	16,678 7 565	15,655 7 100						
131 ft 40.0m	35,275 lbs – 92 ft 16 000 kg – 28.1m	lbs kg	35,275 16 000	35,275 16 000	35,275 16 000	34,899 15 830	31,856 14 450	28,925 13 120	26,433 11 990	24,250 11 000										
93 ft 28.4m	35,275 lbs – 93 ft 16 000 kg – 28.4m	lbs kg	35,275 16 000	35,275 16 000	35,275 16 000	35,275 16 000														



SPECIFICATIONS

LIEBHERR Tower Crane Model 390 HC

Hoist Speed and Capacity

Hoist Unit	WiW301RX031	2-Part Line				
		Gear	Capacity	Line Speed	Capacity	Line Speed
147 hp (110 kW) AC hoist unit 4-speed gearbox Electromagnetic gear shifting Eddy current brake	2L-155	1	35,275 lbs @	85 fpm	16 000 kg @	25.8 m/min
		2	31,745 lbs @	134 fpm	14 400 kg @	40.8 m/min
		3	13,445 lbs @	279 fpm	6 100 kg @	85 m/min
		4	3,305 lbs @	707 fpm	1 500 kg @	215.6 m/min

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 Liebherr 390 HC Operation Manual for additional information.

Motor Information

Drive Unit	Horsepower	Kilowatts	Speed	
Trolley	7.4 hp	5.5 kW	25 - 50 - 164 - 328 fpm	7.5 - 15 - 50 - 100 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	82 fpm	25.0 m/min

Power Requirements

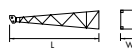
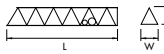
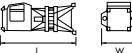
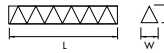
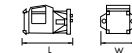
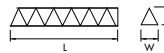
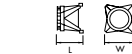
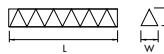
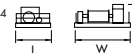
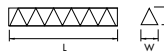

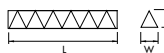
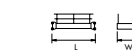




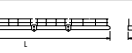
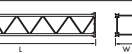
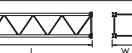
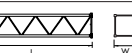
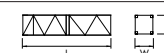
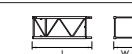



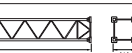

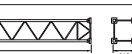
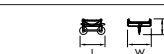
480 V — 3-phase — 60 Hz — 300 Amperes

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

Morrow Equipment Co., L.L.C.

Component List

LIEBHERR 390 HC

Description	Dimensions L x W x H	Weight	Description	Dimensions L x W x H	Weight
Tower Top 	31'-0" x 5'-10" x 6'-2" 9.45m x 1.78m x 1.88m	9,260 lbs 4 200 kg	Jib Section ① #611 	39'-2" x 6'-5" x 7'-2" 11.94m x 1.95m x 2.18m	7,600 lbs 3 450 kg
Slewing Assembly (Complete) ¹ 	22'-1" x 9'-9" x 8'-10" 6.74m x 2.98m x 2.7m	34,000 lbs 15 420 kg	Jib Section ② #621 	39'-4" x 5'-9" x 6'-5" 11.98m x 1.74m x 1.95m	5,600 lbs 2 540 kg
Slewing Assembly Upper Part ² 	15'-2" x 9'-9" x 8'-10" 4.62m x 2.98m x 2.7m	17,200 lbs 7 800 kg	Jib Section ③ #631 	39'-1" x 5'-9" x 6'-5" 11.91m x 1.74m x 1.95m	4,700 lbs 2 130 kg
Slewing Assembly Lower Part ³ 	7'-1" x 8'-0" x 8'-0" 2.17m x 2.44m x 2.44m	16,800 lbs 7 620 kg	Jib Section ④ #632 	39'-4" x 5'-9" x 6'-5" 11.98m x 1.74m x 1.95m	4,000 lbs 1 815 kg
AC Hoist Unit w/Frame ⁴ 147 hp (110 kW) 	19'-1" x 8'-7" x 6'-3" 5.82m x 2.61m x 1.9m	22,930 lbs 10 400 kg	Jib Section ⑤ #633 	39'-4" x 5'-9" x 6'-5" 11.98m x 1.74m x 1.95m	3,745 lbs 1 700 kg
Counterjib Section #1 (Inner) 	20'-10" x 6'-4" x 6'-1" 6.35m x 1.93m x 1.85m	4,410 lbs 2 000 kg	Jib Section ⑥ #634 	39'-4" x 5'-9" x 6'-5" 11.98m x 1.74m x 1.95m	3,470 lbs 1 575 kg
Counterjib Section #2 (Intermediate) 	17'-2" x 6'-2" x 6'-1" 5.2m x 1.87m x 1.85m	4,060 lbs 1 840 kg	Jib Section ⑦ #641 	18'-8" x 5'-9" x 7'-4" 5.68m x 1.74m x 2.24m	2,400 lbs 1 090 kg
Counterjib Section #3 (Outer) 	29'-11" x 7'-11" x 6'-1" 9.11m x 2.42m x 1.85m	7,430 lbs 3 370 kg	Jib Assembly (Part 1) ⁹ for 131-ft to 246-ft jibs ①②	77'-9" x 6'-5" x 7'-2" 23.7m x 1.95m x 2.18m	17,415 lbs 7 900 kg
Counterjib A ⁵ 	50'-2" x 7'-11" x 6'-1" 15.3m x 2.42m x 1.85m	11,840 lbs 5 370 kg	Jib Assembly (Part 2) ¹⁰ 246-ft (75.0m) ③④⑤⑥⑦	169'-3" x 5'-9" x 7'-4" 51.6m x 1.74m x 2.24m	24,690 lbs 11 200 kg
Counterjib B ⁶ 	66'-7" x 7'-11" x 6'-1" 20.3m x 2.42m x 1.85m	15,895 lbs 7 210 kg	Jib Assembly (Part 2) ¹⁰ 208-ft (63.3m) ③④⑤⑦	130'-11" x 5'-9" x 7'-4" 39.9m x 1.74m x 2.24m	19,180 lbs 8 700 kg
Counterjib C ⁷ 	83'-0" x 7'-11" x 6'-1" 25.3m x 2.42m x 1.85m	19,950 lbs 9 050 kg	Jib Assembly (Part 2) ¹⁰ 170-ft (51.7m) ③⑤⑦	92'-9" x 5'-9" x 7'-4" 28.3m x 1.74m x 2.24m	14,330 lbs 6 500 kg
Base Section 390 HC (B/B) 	57'-0" x 8'-10" x 8'-10" 17.4m x 2.68m x 2.68m	31,200 lbs 14 150 kg	Jib Assembly (Part 2) ¹¹ 131-ft (40.0m) ③⑦	54'-5" x 5'-9" x 7'-4" 16.6m x 1.74m x 2.24m	8,820 lbs 4 000 kg
Long Tower Section 390 HC (Bolt/Bolt) 	38'-1" x 8'-7" x 8'-7" 11.6m x 2.61m x 2.61m	16,865 lbs 7 650 kg	Jib Assembly (Complete) ¹² 93-ft (28.4m) ①②⑦	93'-11" x 6'-5" x 7'-4" 28.63m x 1.95m x 2.24m	17,855 lbs 8 100 kg
Adapter Section 390 HC (Pin/Bolt) 	38'-1" x 8'-7" x 8'-7" 11.6m x 2.61m x 2.61m	17,880 lbs 8 110 kg	Top Climbing Unit ⁸ w/hydraulics 	40'-9" x 9'-1" x 10'-2" 12.43m x 2.77m x 3.11m	19,995 lbs 9 070 kg
Standard Tower Section 550 HC (Pin/Pin) 	20'-7" x 7'-11" x 7'-11" 6.28m x 2.41m x 2.41m	13,340 lbs 6 050 kg	Hook Block 	2'-6" x 1'-6" x 5'-0" 0.76m x 0.46m x 1.52m	1,520 lbs 690 kg
Bottom Climbing Unit w/hydraulics (Bolt/Bolt) 	19'-0" x 8'-7" x 9'-2" 5.8m x 2.61m x 2.8m	19,290 lbs 8 750 kg	Counterweight Block A 	4'-6" x 11" x 6'-9" 1.37m x 0.28 x 2.06m	4,410 lbs 2 000 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	39,470 lbs 17 905 kg	Counterweight Block B 	4'-6" x 11" x 3'-1" 1.37m x 0.28 x 0.95m	2,205 lbs 1 000 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	Trolley 	7'-9" x 7'-0" x 4'-5" 2.36m x 2.14 x 1.35m	1,600 lbs 725 kg

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

- ¹ Slewing Assembly Complete includes operator's cab, swing motors, slewing ring, slewing ring support & 4 climbing shoes. Climbing shoes are detachable; deduct 430 lbs (195 kg) each. Dimensions above are without climbing shoes.
- ² Slewing Assembly Upper Part includes operator's cab and swing motors.
- ³ Slewing Assembly Lower Part includes slewing ring, slewing ring support and 4 climbing shoes. Climbing shoes are detachable; deduct 430 lbs (195 kg) each. Dimensions above are without climbing shoes.
- ⁴ Includes 147 hp (110 kW) hoist unit, electrical panel and handrails. Does not include 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 170-ft (51.7m) to 246-ft (75.0m) include jib sections, A-frame, pendant bars with connecting pins and plates. Weight of A-frame: 1,490 lbs (675 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.



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

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