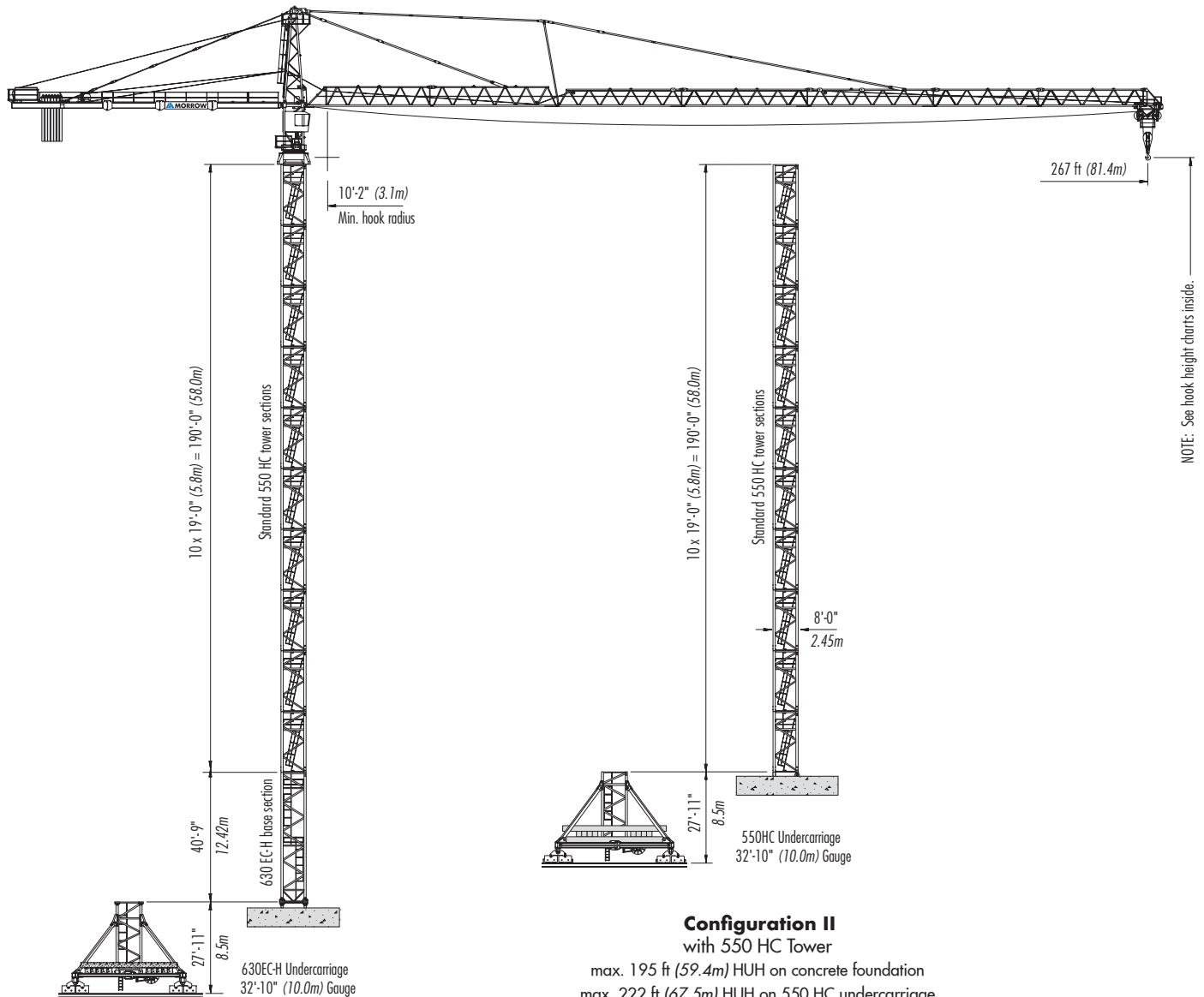


630 EC-H 20

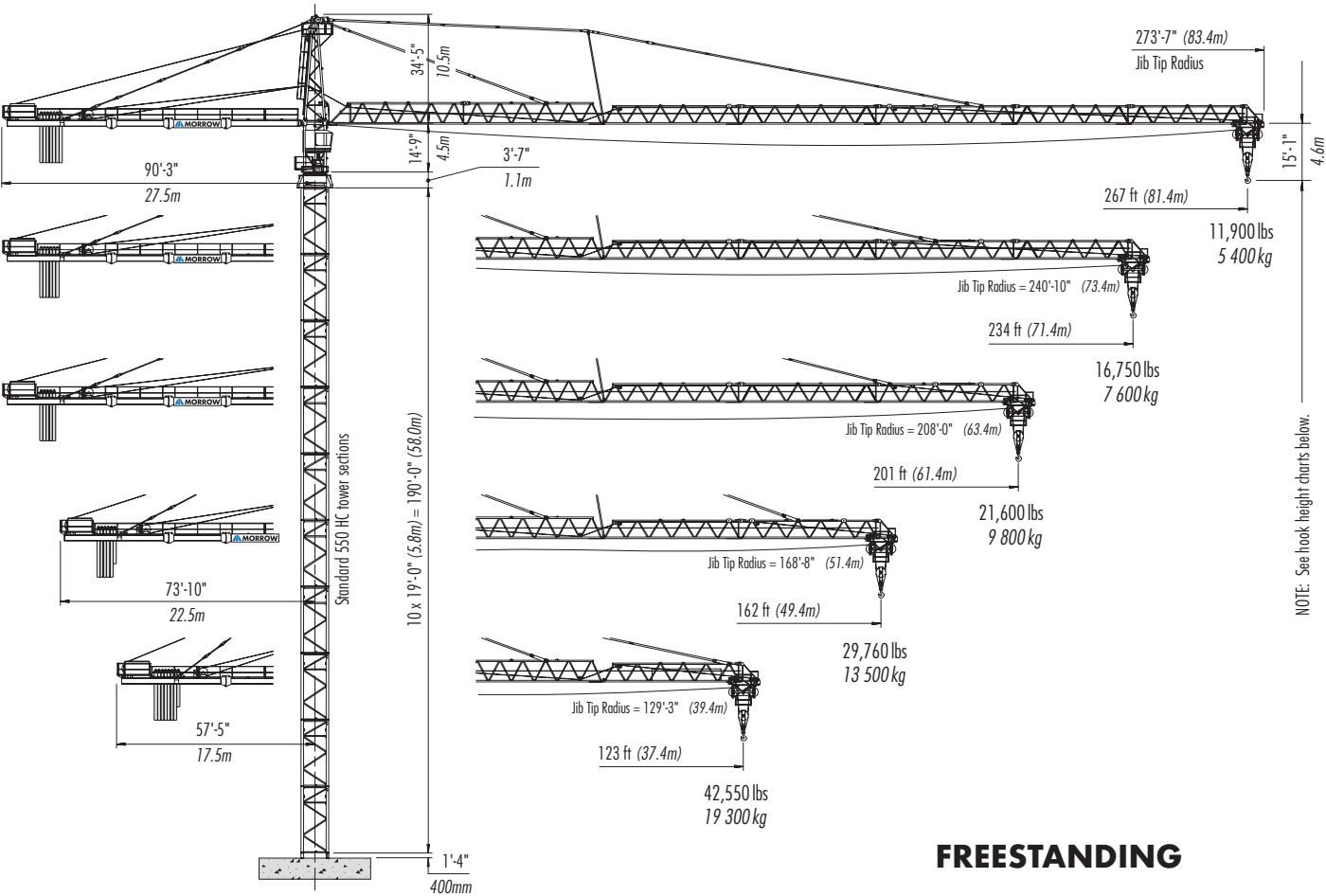
LIEBHERR Hammerhead Tower Crane



Configuration I
with 550 HC/630 EC-H Tower
max. 236 ft (71.8m) HUH on concrete foundation
max. 262 ft (80.0m) HUH on 630 EC-H undercarriage

Configuration II
with 550 HC Tower
max. 195 ft (59.4m) HUH on concrete foundation
max. 222 ft (67.5m) HUH on 550 HC undercarriage

FREESTANDING



FREESTANDING

Hook Heights

No. of Tower Elements	Tower Configuration I	Hook Height Concrete Foundation		Hook Height 10m Undercarriage	
		ft	m	ft	m
1	630ECH BTS	45.3	13.8	71.9	21.9
2	550 HC STS	64.3	19.6	90.9	27.7
3	550 HC STS	83.3	25.4	109.9	33.5
4	550 HC STS	102.4	31.2	128.9	39.3
5	550 HC STS	121.4	37.0	148.0	45.1
6	550 HC STS	140.4	42.8	167.0	50.9
7	550 HC STS	159.4	48.6	186.0	56.7
8	550 HC STS	178.5	54.4	205.0	62.5
9	550 HC STS	197.5	60.2	224.1	68.3
10	550 HC STS	216.5	66.0	243.1	74.1
11 ¹	550 HC STS	235.6	71.8	262.1	79.9

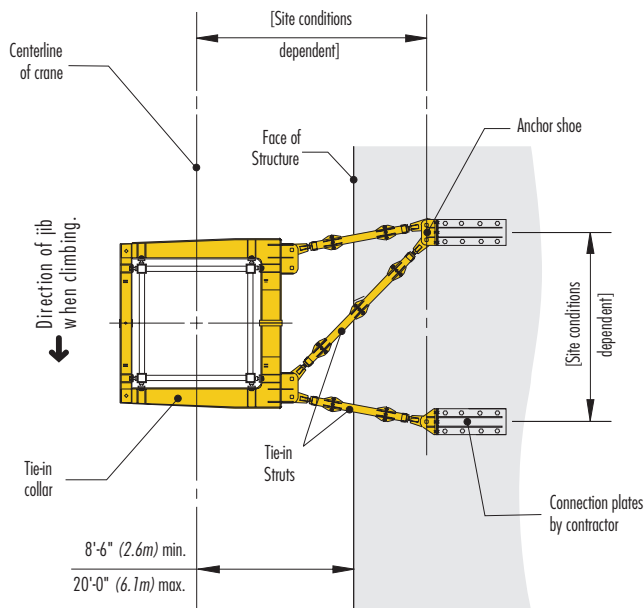
No. of Tower Sections	Tower Configuration II	Hook Height Concrete Foundation		Hook Height 10m Undercarriage	
		ft	m	ft	m
1	550HC STS	23.6	7.2	50.2	15.3
2	550HC STS	42.7	13.0	69.2	21.1
3	550HC STS	61.7	18.8	88.3	26.9
4	550HC STS	80.7	24.6	107.3	32.7
5	550HC STS	99.7	30.4	126.3	38.5
6	550HC STS	118.8	36.2	145.3	44.3
7	550HC STS	137.8	42.0	164.4	50.1
8	550HC STS	156.8	47.8	183.4	55.9
9	550HC STS	175.9	53.6	202.4	61.7
10 ¹	550HC STS	194.9	59.4	221.5	67.5

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

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

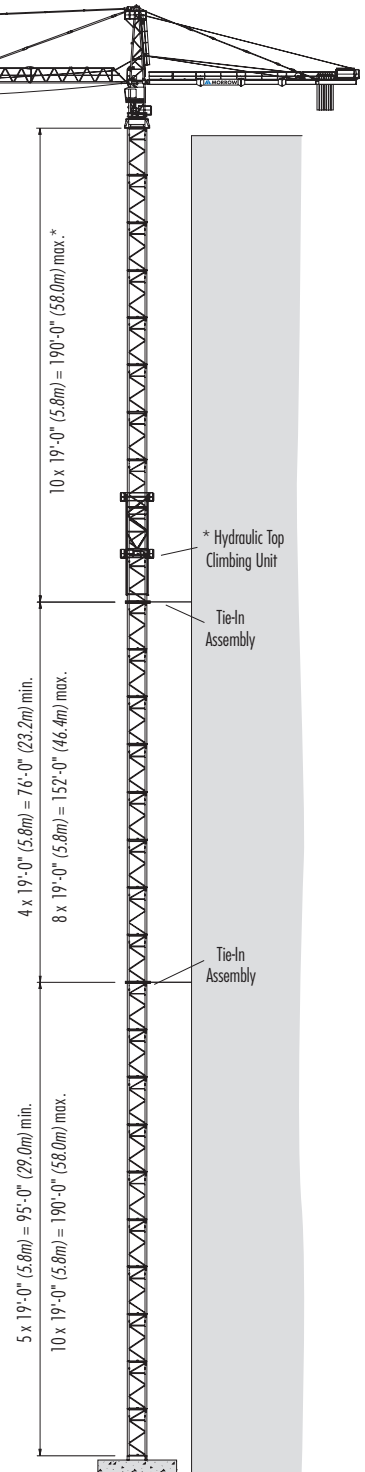
NOTE: Please consult 630 EC-H 20 Operations Manual before erecting, operating, servicing or dismantling crane.

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



TIE-IN ASSEMBLY
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 requirements.

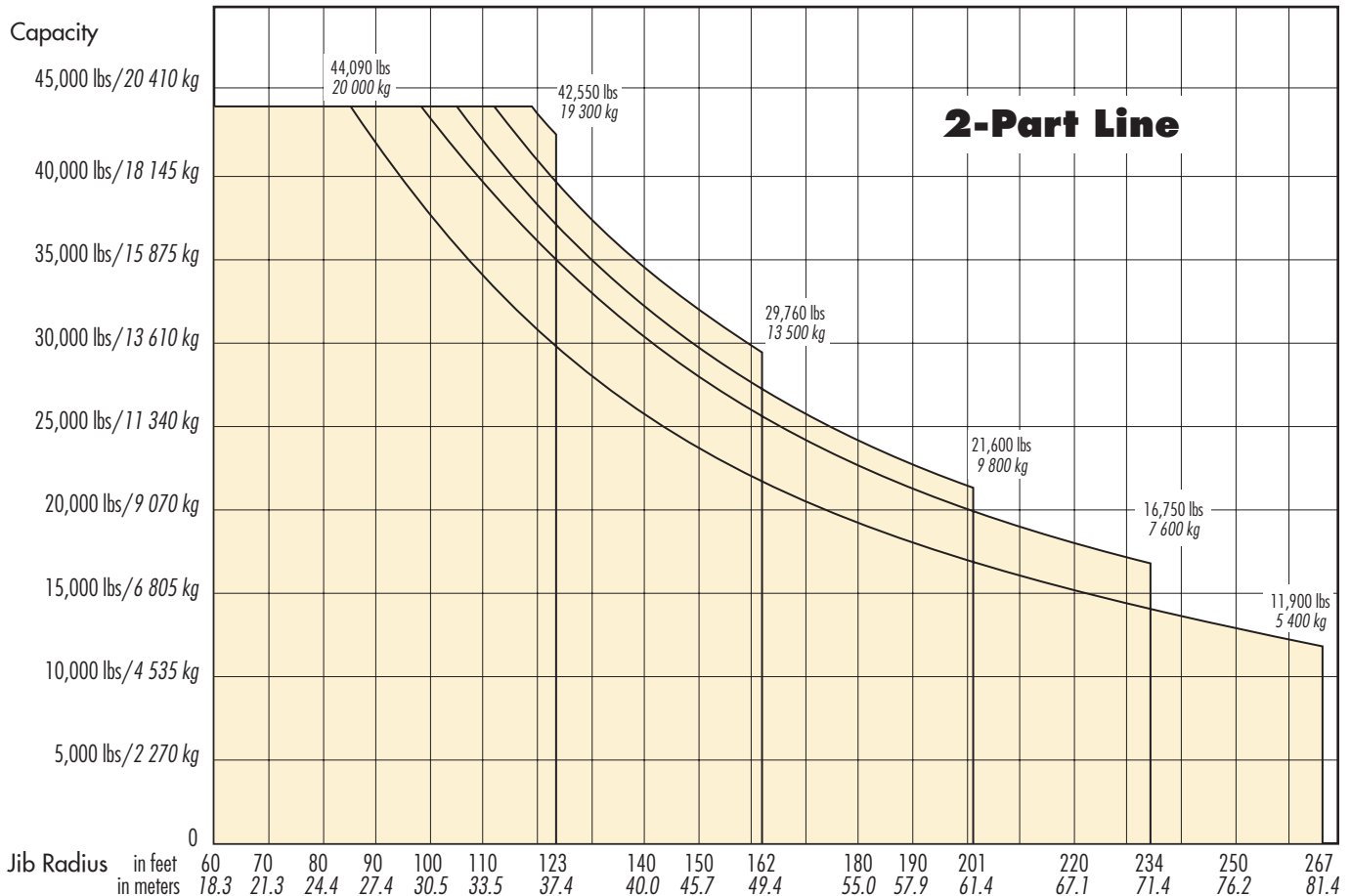


TOP CLIMBING
with 550 HC Tower Sections
Tied to Structure

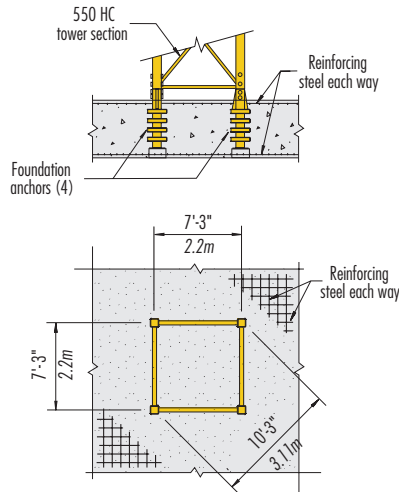
Radius and Capacities

2-Part Line

Hook Radius	Maximum Capacity – Radius	ft m	10 3.1	16 5.0	33 10.0	49 15.0	66 20.0	82 25.0	98 30.0	123 37.4	131 40.0	148 45.0	162 49.4	180 55.0	201 61.4	213 65.0	234 71.4	246 75.0	267 81.4
267 ft 81.4m	44,090 lbs – 85 ft 20 000 kg – 25.9m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	37,920 17 200	29,960 13 590	27,845 12 630	24,425 11 080	21,960 9 960	19,400 8 800	16,995 7 710	15,875 7 200	14,110 6 400	13,230 6 010	11,900 5 400
234 ft 71.4m	44,090 lbs – 98 ft 20 000 kg – 30.0m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	34,900 15 830	32,495 14 740	28,570 12 960	25,750 11 680	22,815 10 350	20,060 9 100	18,740 8 510	16,750 7 600		
201 ft 61.4m	44,090 lbs – 105 ft 20 000 kg – 32.0m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	37,390 16 960	34,820 15 795	30,665 13 910	27,645 12 540	24,515 11 120	21,600 9 800				
162 ft 49.4m	44,090 lbs – 112 ft 20 000 kg – 34.2m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	40,145 18 210	37,410 16 970	32,980 14 960	29,760 13 500						
123 ft 37.4m	44,090 lbs – 119 ft 20 000 kg – 36.2m	lbs kg	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	44,090 20 000	42,550 19 300									



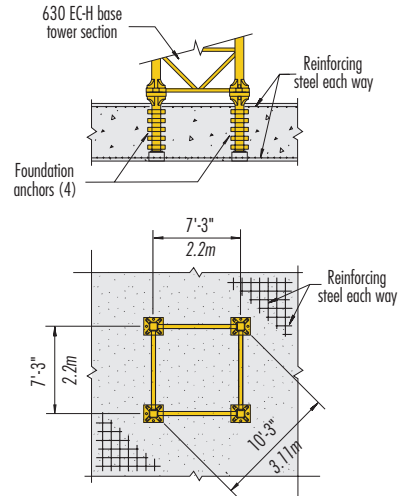
Foundation Details



with 550 HC Tower Section
on Concrete Slab

Elevation

Plan View



with 630 EC-H Base Section
on Concrete Slab

Hoist Speed and Capacity

Morrow offers the **LIEBHERR 630 EC-H** 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 (1st gear)	23.5 hp	17.5 kW	10 - 89 fpm	3 - 27 m/min
Trolley (2nd gear)			22 - 220 fpm	6.7 - 67 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

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.

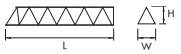
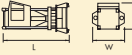
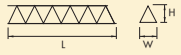
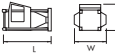
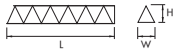
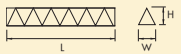
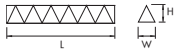
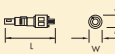
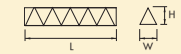
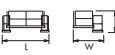
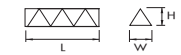
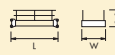
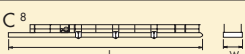
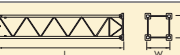
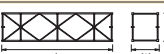
Service size: 300 Amperes with 147 hp (110 kW) 4-speed AC hoist unit.

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 500 kW.
- 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 ¹	 34'-3" x 5'-11" x 7'-3" 10.44m x 1.8m x 2.2m	13,450 lbs 6 100 kg	Jib Butt Section ① #611	 40'-5" x 6'-6" x 7'-8" 12.31m x 1.98m x 2.34m	10,140 lbs 4 600 kg
Slewing Assembly (Complete) ²	 21'-3" x 9'-9" x 10'-5" 6.47m x 2.98m x 3.17m	47,400 lbs 21 500 kg	Jib Section ② #621	 40'-5" x 5'-10" x 7'-4" 12.31m x 1.77m x 2.23m	9,040 lbs 4 100 kg
Slewing Assembly Upper Part ³	 15'-8" x 9'-10" x 9'-5" 4.77m x 3.0m x 2.86m	20,060 lbs 9 100 kg	Jib Section ③ #631	 40'-5" x 5'-10" x 6'-5" 12.31m x 1.77m x 1.96m	6,435 lbs 2 920 kg
Slewing Ring	 11" x 7'-3" x 7'-3" 0.28m x 2.22m x 2.22m	6,615 lbs 3 000 kg	Jib Section ④ #632	 40'-3" x 5'-10" x 6'-5" 12.27m x 1.77m x 1.96m	5,975 lbs 2 710 kg
Slewing Ring Support	 4'-11" x 9'-5" x 10'-4" 1.51m x 2.87m x 3.16m	14,550 lbs 6 600 kg	Jib Section ⑤ #633	 40'-3" x 5'-10" x 6'-5" 12.27m x 1.77m x 1.96m	5,885 lbs 2 670 kg
Slewing Gears (2) (each)	 6'-11" x 2'-0" x 2'-0" 2.12m x 0.6m x 0.6m	2,645 lbs 1 200 kg	Jib Section ⑥ #634	 33'-9" x 5'-10" x 6'-5" 10.29m x 1.77m x 1.96m	3,615 lbs 1 640 kg
Slewing Unit Access Platforms	 3'-3" x 3'-7" x 3'-7" 1.0m x 1.1m x 1.1m	880 lbs 400 kg	Jib Section ⑦ #635	 33'-8" x 5'-10" x 6'-5" 10.25m x 1.77m x 1.96m	2,625 lbs 1 190 kg
AC Hoist Unit w/Frame ⁴ 147 hp (110 kW)	 11'-8" x 9'-4" x 8'-4" 3.56m x 2.84m x 2.54m	16,865 lbs 7 650 kg	Jib Tip Section ⑧ #641	 8'-5" x 5'-10" x 7'-5" 2.56m x 1.77m x 2.25m	1,190 lbs 540 kg
Counterjib Section #1 ⁵ (Inner)	 22'-8" x 6'-6" x 6'-1" 6.9m x 1.98m x 1.85m	7,605 lbs 3 450 kg	Jib Assembly (Part 1) ¹⁰ for 162-ft to 267-ft jibs	①② 78'-9" x 6'-6" x 7'-8" 24.0m x 1.98m x 2.34m	31,965 lbs 14 500 kg
Counterjib Section #2 ⁵ (Intermediate)	 17'-1" x 6'-3" x 6'-1" 5.2m x 1.9m x 1.85m	5,950 lbs 2 700 kg	Jib Assembly (Part 2) ¹¹	③④⑤⑥⑦⑧ 189'-4" x 5'-10" x 7'-5" 57.7m x 1.77m x 2.25m	30,865 lbs 14 000 kg
Counterjib Section #3 ⁵ (Outer)	 30'-3" x 8'-1" x 6'-1" 9.21m x 2.46m x 1.85m	14,990 lbs 6 800 kg	Jib Assembly (Part 2) ¹¹	③④⑤⑥⑧ 156'-6" x 5'-10" x 7'-5" 47.7m x 1.77m x 2.25m	25,795 lbs 11 700 kg
Counterjib A ⁶ (1-3)	 53'-10" x 8'-1" x 6'-1" 16.4m x 2.46m x 1.85m	23,810 lbs 10 800 kg	Jib Assembly (Part 2) ¹¹	③④⑤⑧ 123'-8" x 5'-10" x 7'-5" 37.7m x 1.77m x 2.25m	21,825 lbs 9 900 kg
Counterjib B ⁷ (1-2-3)	 70'-3" x 8'-1" x 6'-1" 21.4m x 2.46m x 1.85m	30,645 lbs 13 900 kg	Jib Assembly (Part 2) ¹¹	③⑤⑧ 84'-4" x 5'-10" x 7'-5" 25.7m x 1.77m x 2.25m	15,210 lbs 6 900 kg
Counterjib C ⁸ (1-2-2-3)	 86'-7" x 8'-1" x 6'-1" 26.4m x 2.46m x 1.85m	37,480 lbs 17 000 kg	Jib Assembly (Part 1A) ¹² for 123-ft jib only	①② 78'-9" x 6'-6" x 7'-8" 24.0m x 1.98m x 2.34m	29,760 lbs 13 500 kg
Standard Tower Section 550 HC (Pin/Pin)	 20'-8" x 7'-11" x 7'-11" 6.3m x 2.41m x 2.41m	14,155 lbs 6 420 kg	Jib Assembly (Part 2A) ¹³	③⑧ 44'-11" x 5'-10" x 7'-5" 13.7m x 1.77m x 2.25m	8,600 lbs 3 900 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	Counterweight Block A	 4'-6" x 11" x 10'-9" 1.37m x 0.28 x 3.27m	6,350 lbs 2 880 kg
Top Climbing Unit ⁹ w/hydraulics	 40'-9" x 9'-1" x 10'-4" 12.42m x 2.77m x 3.16m	22,420 lbs 1 0170 kg	Counterweight Block C	 4'-6" x 11" x 14'-7" 1.37m x 0.28 x 4.44m	8,730 lbs 3 960 kg
Trolley	 10'-8" x 6'-8" x 6'-0" 3.25m x 2.02m x 1.83m	1,875 lbs 850 kg	Hook Block	 2'-7" x 1'-4" x 9'-10" 0.8m x 0.4m x 3.0m	1,655 lbs 750 kg

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

¹ Tower Top includes ladder, service platforms and pendants.

² Slewing Assembly Complete includes operator's cab, 2 slewing gears, slewing ring, slewing ring support, 2 service platforms and 4 climbing shoes. To facilitate erection/dismantlement process, the Slewing Assembly can be broken down into various components. See 630EC-H Operations Manual.

³ Slewing Assembly Upper Part includes operator's cab. Does not include slewing gears.

⁴ Includes hoist unit, electrical panel and handrails. Does not include wire rope.

⁵ Counterjib sections include handrails & hardware. Counterjib section #3 also includes trolley drive unit.

⁶ Counterjib A includes counterjib sections #1 and #3, handrails, hardware, trolley drive unit and pendant bars.

⁷ Counterjib B includes counterjib sections #1, #2 and #3, handrails, hardware, trolley drive unit and pendant bars.

⁸ Counterjib C includes counterjib sections #1, #2 (2) and #3, handrails, hardware, trolley drive unit and pendant bars.

⁹ Can be broken down into two panels.

¹⁰ Jib Assembly (Part 1) includes jib sections, A-frame [1,785 lbs (810 kg)], pendant bars with pins & plates and trolley with hook block.

¹¹ Jib Assemblies (Part 2) include jib sections, pendant bars with pins and plates.

¹² Jib Assembly (Part 1A) includes jib sections, pendant bars with pins & plates and trolley with hook block.

¹³ Jib Assembly (Part 2A) includes jib sections, pendant bars with pins and plates.