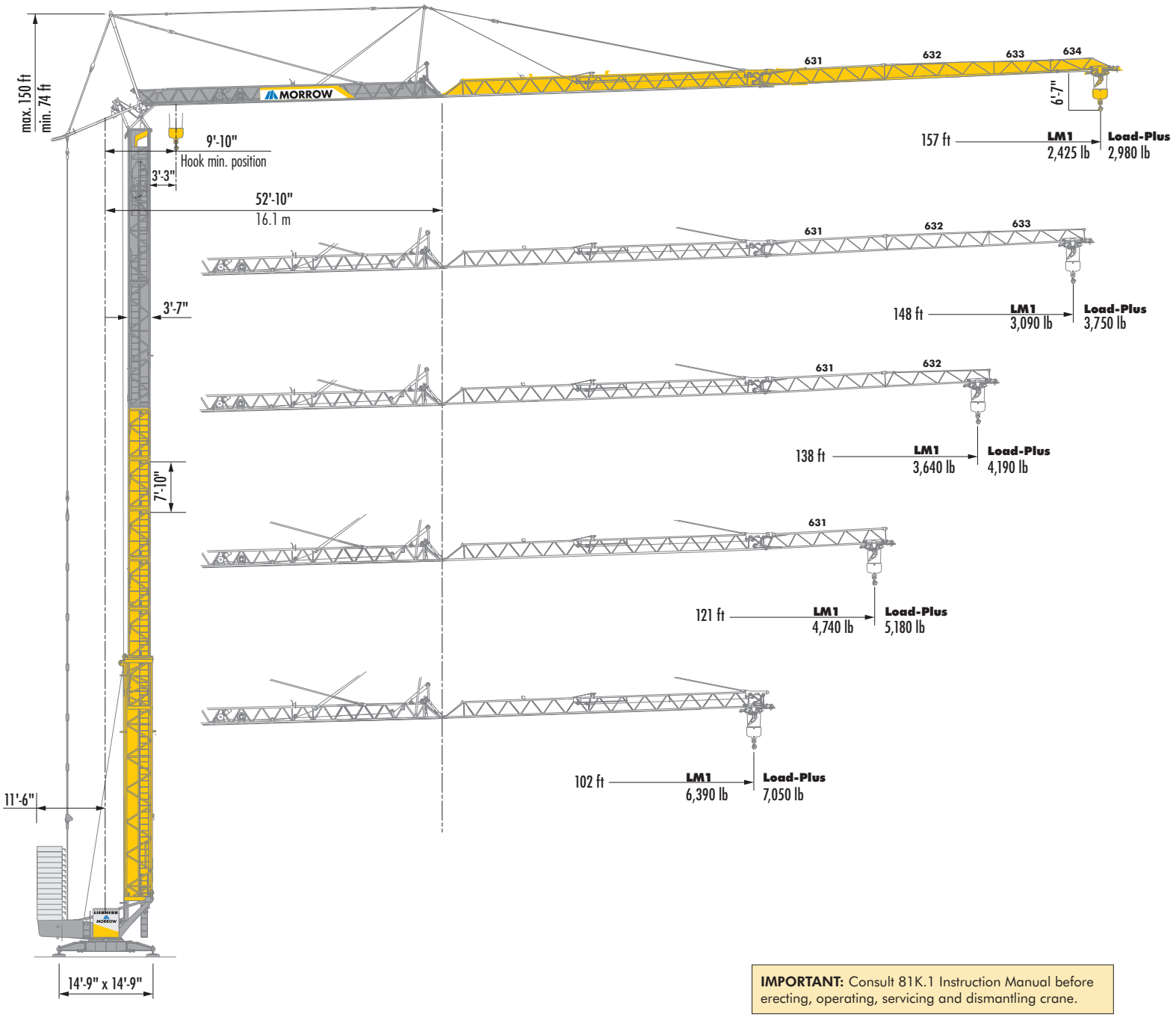
81K.1

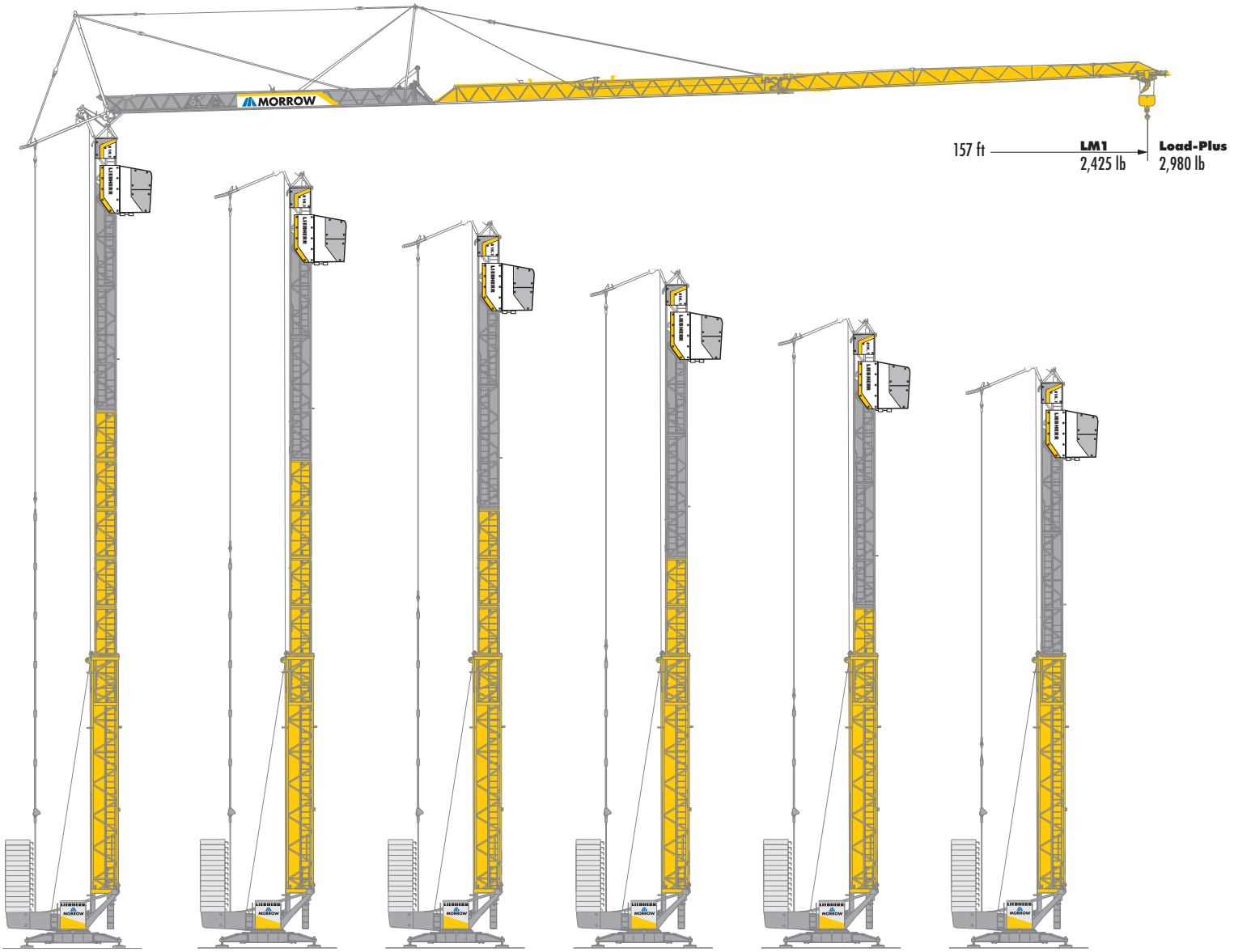
6t

LIEBHERR Fast-Erecting Tower Crane



IMPORTANT: Consult 81K.1 Instruction Manual before erecting, operating, servicing and dismantling crane.

Tower Configurations



Configuration 11
With six tower sections
133 ft hook height.

Configuration 10
With five tower sections
125 ft hook height.

Configuration 9
With four tower sections
117 ft hook height.

Configuration 8
With three tower sections
109 ft hook height.

Configuration 7
With two tower sections
101 ft hook height.

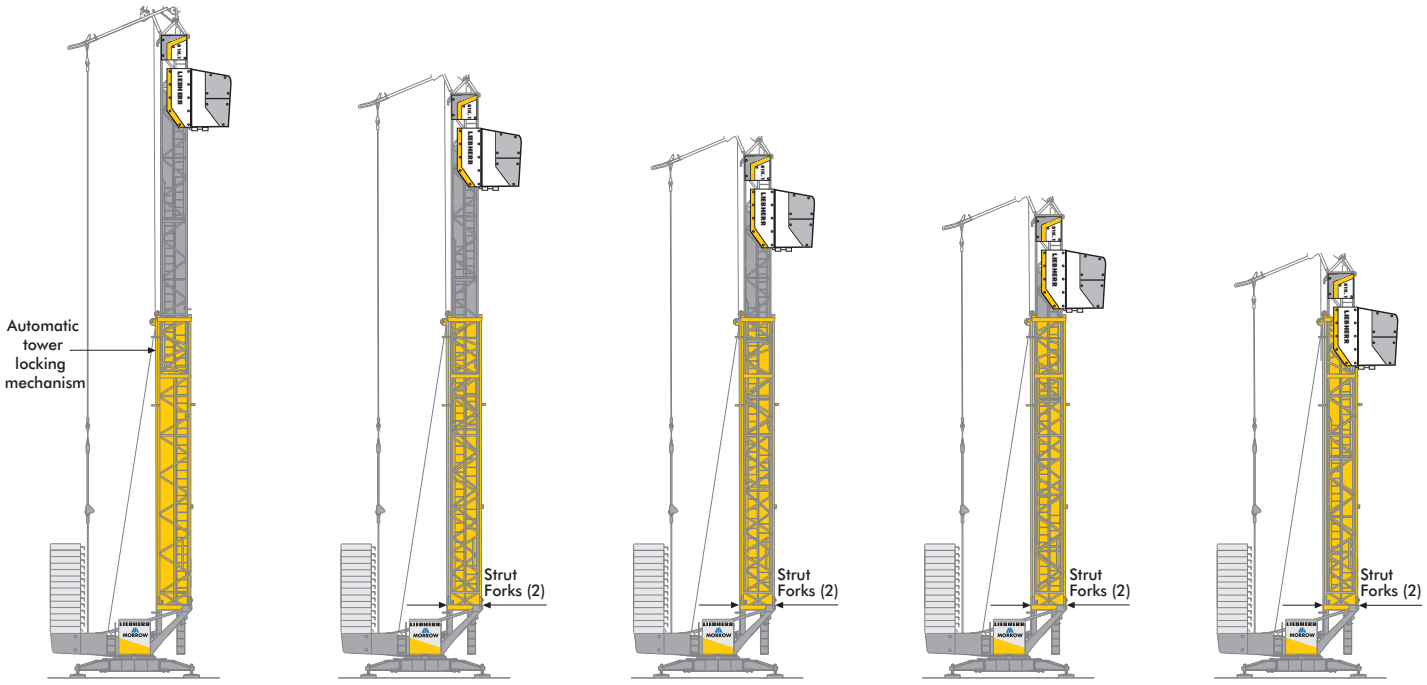
Configuration 6
With one tower section
93 ft hook height.

NOTE: Guying shown is for illustrative purposes only and may not indicate actual connections required. See 81K.1 Instruction Manual for more information.

Tower Configurations

The highly adaptable **81K.1 fast-erecting crane,** with 11 hook heights for added flexibility and functionality. The graphic on this and the adjoining page illustrates the 11 tower configurations, starting with tower fully retracted and supported by the strut forks **(Configuration 1)**, three intermediate positions supported by the strut forks **(Configurations 2-4)** and with tower completely extended, supported by the automatic tower locking mechanism **(Configuration 5)**.

With tower completely extended, the crane user can add up to 6 tower sections (some restrictions exist). Eleven tower configurations provide a hook height range of **57 ft** to **133 ft**.



Configuration 5
With tower fully extended **85 ft** hook height.

Configuration 4
With tower at intermediate position **81 ft** hook height. Requires three additional tower sections.

Configuration 3
With tower at intermediate position **73 ft** hook height. Requires two additional tower sections.

Configuration 2
With tower at intermediate position **65 ft** hook height. Requires one additional tower section.

Configuration 1
With tower fully retracted **57 ft** hook height.

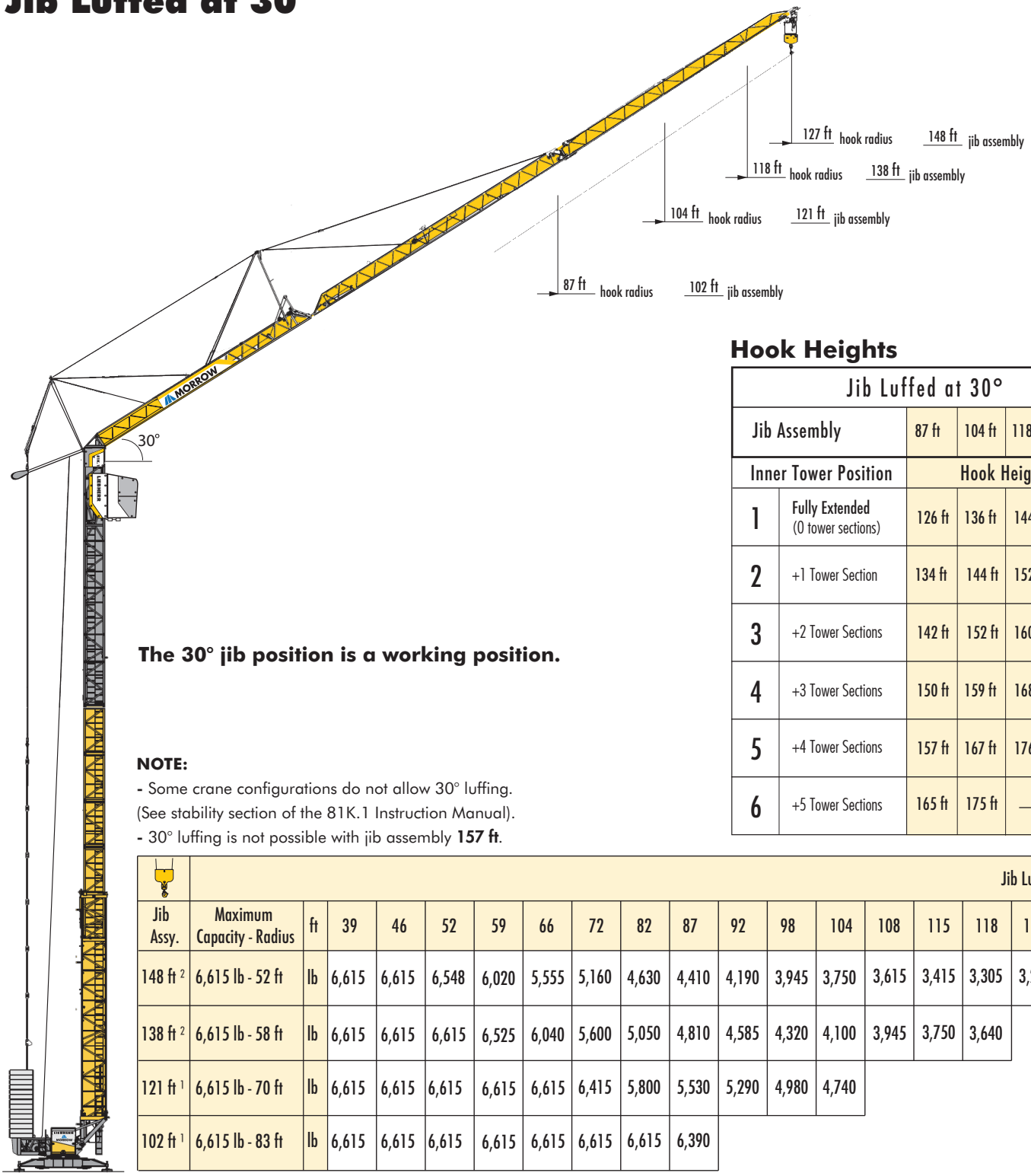
Radius and Capacities

		LM 1															
Hook Radius	Maximum Capacity - Radius	ft	39	49	59	69	75	82	88	95	102	108	115	121	131	138	148	157
157 ft	13,230 lb - 39 ft	lb	13,230	10,185	8,225	6,860	6,150	5,580	5,070	4,650	4,280	3,970	3,680	3,420	3,110	2,910	2,650	2,425
148 ft	13,230 lb - 44 ft	lb	13,230	11,510	9,330	7,800	7,010	6,370	5,820	5,340	4,920	4,560	4,230	3,970	3,590	3,370	3,090	
138 ft	13,230 lb - 46 ft	lb	13,230	12,280	9,960	8,360	7,520	6,810	6,220	5,710	5,290	4,894	4,560	4,250	3,860	3,640		
121 ft	13,230 lb - 50 ft	lb	13,230	13,230	10,870	9,150	8,250	7,500	6,860	6,330	5,840	5,420	5,070	4,740				
102 ft	13,230 lb - 53 ft	lb	13,230	13,230	11,840	9,960	8,990	8,180	7,500	6,900	6,390							

		Load-Plus*															
Hook Radius	Maximum Capacity - Radius	ft	39	49	59	69	75	82	88	95	102	108	115	121	131	138	148	157
157 ft	13,230 lb - 39 ft	lb	13,230	10,650	8,880	7,580	6,880	6,300	5,800	5,360	4,980	4,650	4,340	4,080	3,730	3,510	3,220	2,980
148 ft	13,230 lb - 44 ft	lb	13,230	11,820	9,920	8,530	7,780	7,140	6,590	6,110	5,690	5,310	4,980	4,700	4,300	4,060	3,750	
138 ft	13,230 lb - 46 ft	lb	13,230	12,430	10,380	8,880	8,090	7,430	6,830	6,330	5,890	5,510	5,160	4,850	4,430	4,190		
121 ft	13,230 lb - 50 ft	lb	13,230	13,230	11,110	9,500	8,660	7,940	7,320	6,770	6,370	5,890	5,510	5,180				
102 ft	13,230 lb - 53 ft	lb	13,230	13,230	12,060	10,410	9,520	8,770	8,140	7,560	7,050							

*Load-Plus is not standard and is available at an additional cost. Increases the lifting capacity with restrictions including wind speeds, reduced drive speeds and single function only operation. Please request pricing from your local Sales.

Jib Luffed at 30°



The 30° jib position is a working position.

NOTE:

- Some crane configurations do not allow 30° luffing. (See stability section of the 81K.1 Instruction Manual).
- 30° luffing is not possible with jib assembly **157 ft**.

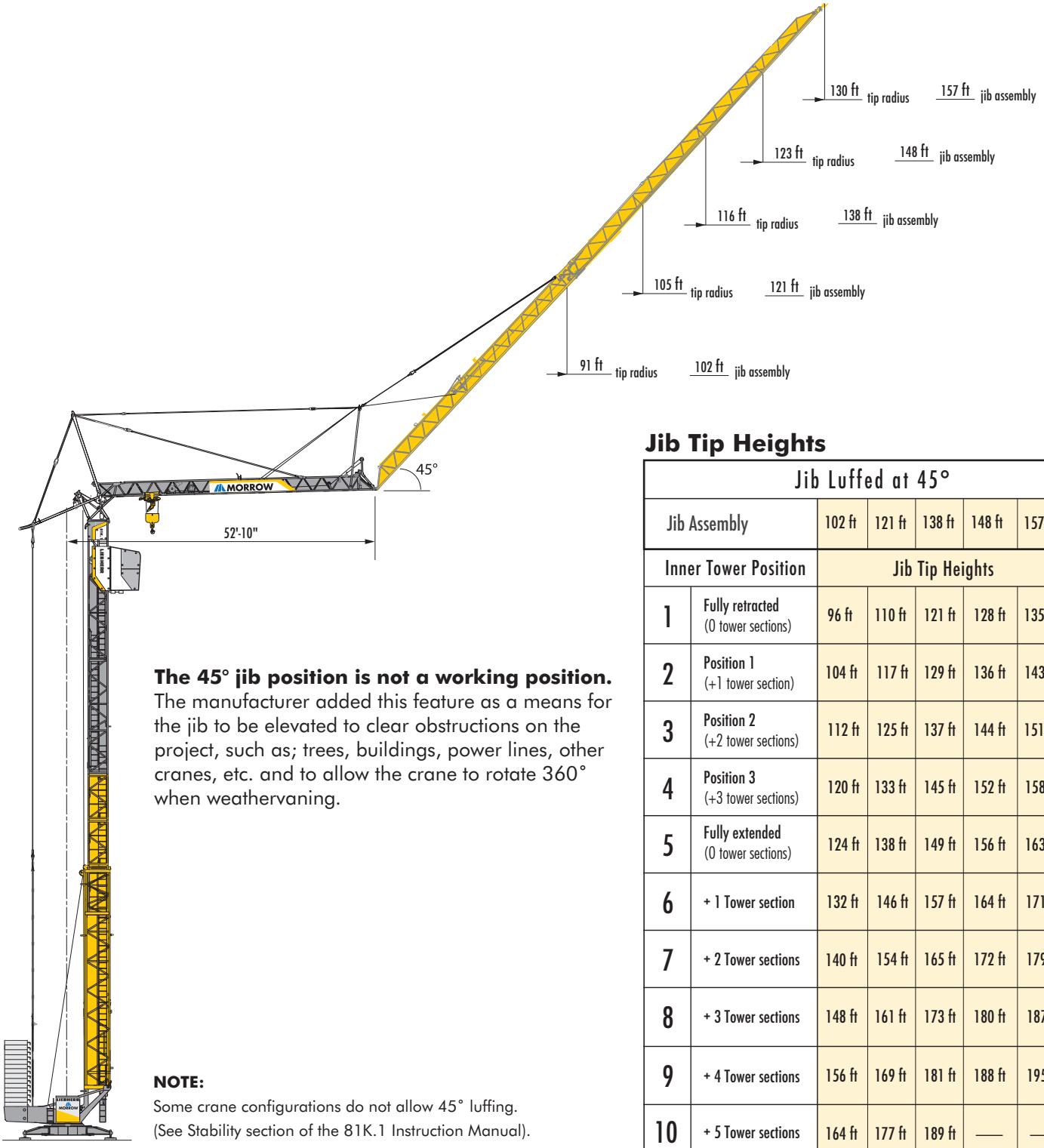
Hook Heights

Jib Luffed at 30°					
Jib Assembly		87 ft	104 ft	118 ft	127 ft
Inner Tower Position		Hook Heights			
1	Fully Extended (0 tower sections)	126 ft	136 ft	144 ft	149 ft
2	+1 Tower Section	134 ft	144 ft	152 ft	157 ft
3	+2 Tower Sections	142 ft	152 ft	160 ft	165 ft
4	+3 Tower Sections	150 ft	159 ft	168 ft	173 ft
5	+4 Tower Sections	157 ft	167 ft	176 ft	180 ft
6	+5 Tower Sections	165 ft	175 ft	—	—

			Jib Luffed at 30°															
Jib Assy.	Maximum Capacity - Radius	ft	39	46	52	59	66	72	82	87	92	98	104	108	115	118	121	127
148 ft [2]	6,615 lb - 52 ft	lb	6,615	6,615	6,548	6,020	5,555	5,160	4,630	4,410	4,190	3,945	3,750	3,615	3,415	3,305	3,220	3,085
138 ft [2]	6,615 lb - 58 ft	lb	6,615	6,615	6,615	6,525	6,040	5,600	5,050	4,810	4,585	4,320	4,100	3,945	3,750	3,640		
121 ft [1]	6,615 lb - 70 ft	lb	6,615	6,615	6,615	6,615	6,615	6,415	5,800	5,530	5,290	4,980	4,740					
102 ft [1]	6,615 lb - 83 ft	lb	6,615	6,615	6,615	6,615	6,615	6,615	6,615	6,390								

[1] Maximum 5 tower sections allowed with jib assemblies 102 ft and 121 ft when luffed 30°
[2] Maximum 4 tower sections allowed with jib assemblies 138 ft and 148 ft when luffed 30°

Jib Tip Clearances at 45°



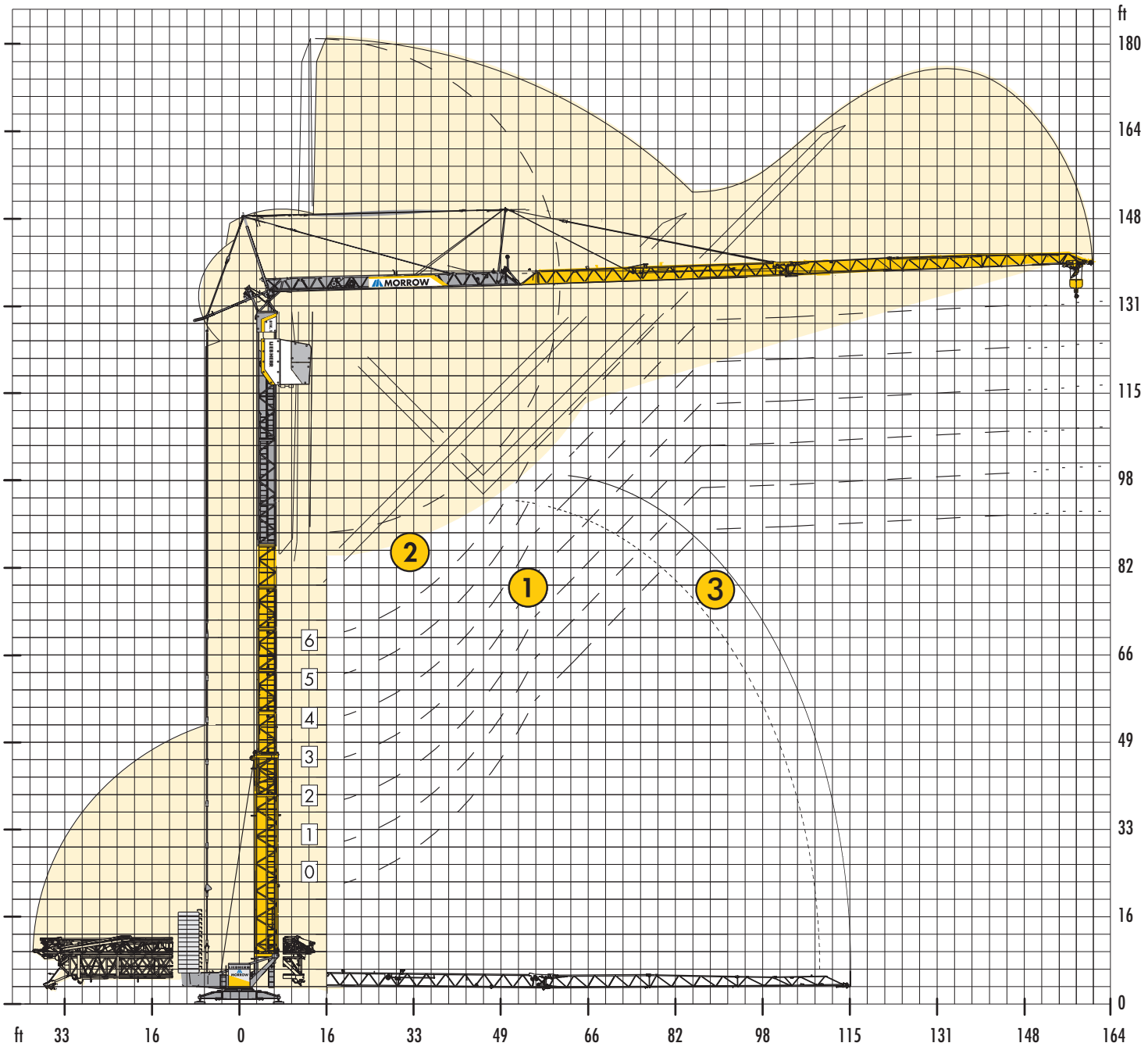
The 45° jib position is not a working position. The manufacturer added this feature as a means for the jib to be elevated to clear obstructions on the project, such as; trees, buildings, power lines, other cranes, etc. and to allow the crane to rotate 360° when weathervaning.

NOTE:
Some crane configurations do not allow 45° luffing. (See Stability section of the 81K.1 Instruction Manual).

Jib Tip Heights

Jib Luffed at 45°						
Jib Assembly		102 ft	121 ft	138 ft	148 ft	157 ft
Inner Tower Position		Jib Tip Heights				
1	Fully retracted (0 tower sections)	96 ft	110 ft	121 ft	128 ft	135 ft
2	Position 1 (+1 tower section)	104 ft	117 ft	129 ft	136 ft	143 ft
3	Position 2 (+2 tower sections)	112 ft	125 ft	137 ft	144 ft	151 ft
4	Position 3 (+3 tower sections)	120 ft	133 ft	145 ft	152 ft	158 ft
5	Fully extended (0 tower sections)	124 ft	138 ft	149 ft	156 ft	163 ft
6	+ 1 Tower section	132 ft	146 ft	157 ft	164 ft	171 ft
7	+ 2 Tower sections	140 ft	154 ft	165 ft	172 ft	179 ft
8	+ 3 Tower sections	148 ft	161 ft	173 ft	180 ft	187 ft
9	+ 4 Tower sections	156 ft	169 ft	181 ft	188 ft	195 ft
10	+ 5 Tower sections	164 ft	177 ft	189 ft	——	——

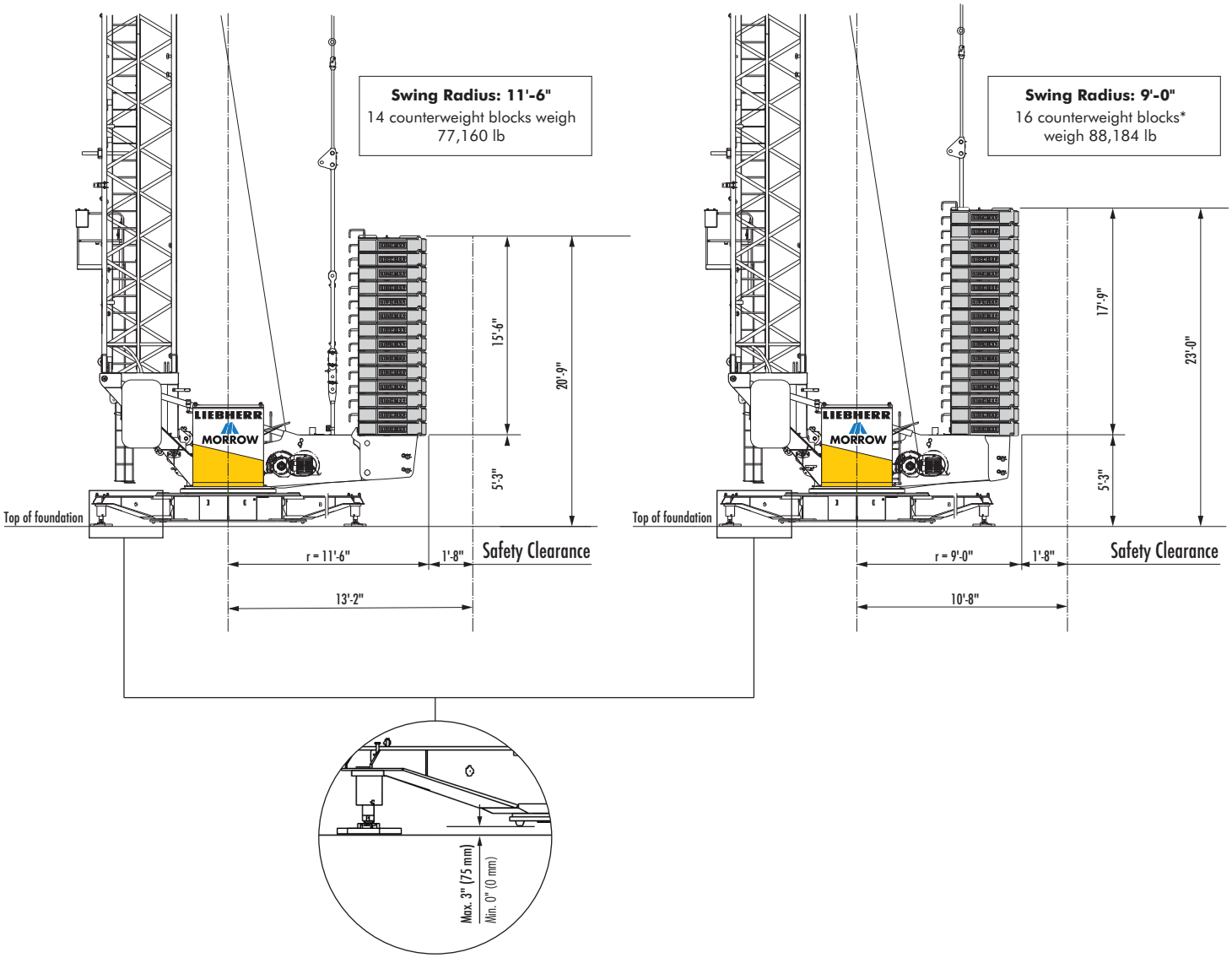
Erecting Clearances



① Standard erecting curves from 0 to 6 tower sections.
② Elevated erecting curve (+14'-8") using the example of 6 tower sections.
③ Erecting curve **157 ft** radius.

IMPORTANT: Consult 81K.1 Instruction Manual before erecting, operating, servicing and dismantling crane.

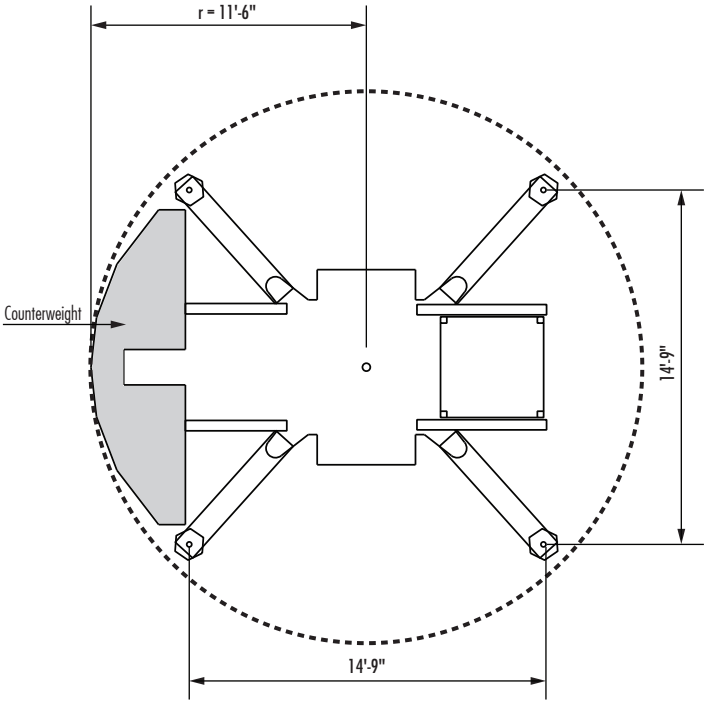
Counterweight and Clearances

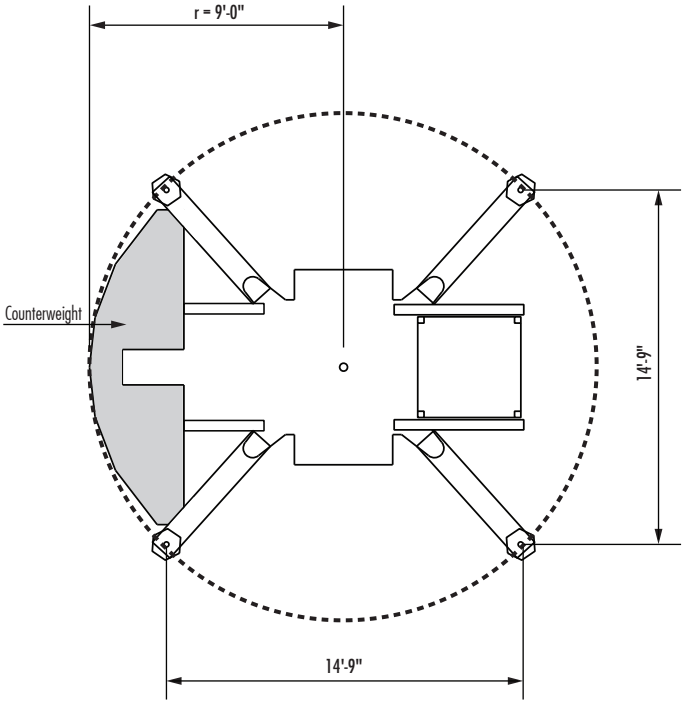


Counterweight Type	Counterweight Weight	Swing Radius	Quantity + Total Weight
Concrete Block	5,512 lb	11'-6"	14 blocks = 77,160 lb
		9'-0"	16 blocks = 88,184 lb* 18 blocks = 99,208 lb

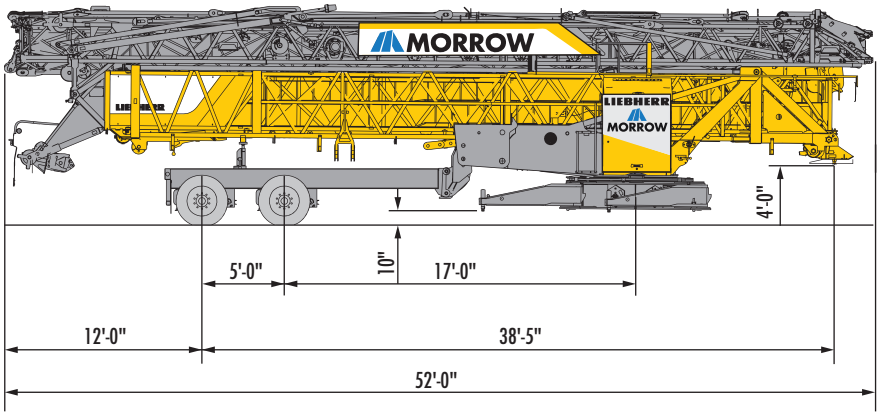
*Certain configurations require up to 18 counterweight blocks, and in some cases also require central ballast. Consult the 81K.1 Operations Manual for the specific requirements based on the applicable configuration.

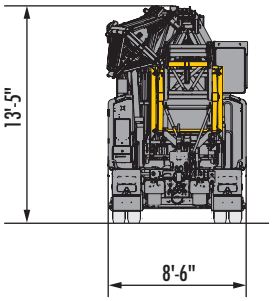
Swing Radius





Transporter





King pin towing assembly - double axle
52,840 lb

Hoist Speed and Capacity

Hoist Drive WiW 210 MZ 406	2-Part Line		
	Speed	Capacity	Hook Speed
20 hp (15 kW) AC hoist unit Variable frequency drive (VFD) Single-speed gearbox	1	13,230 lb 880 lb	@ 42 ft/min @ 250 ft/min

Drive Information

Drive Unit (VFD)	Horsepower	Kilowatts	Speed
Trolley	4	3	0 - 197 ft/min
Swing	6.7	5	0.8 rpm
Luffing	4	3	0° - 45° in 110 secs.

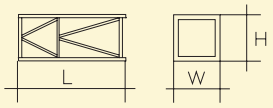
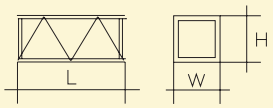
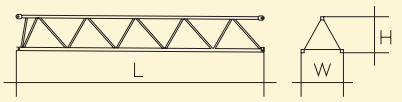
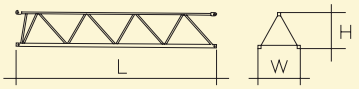
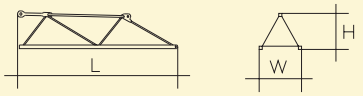
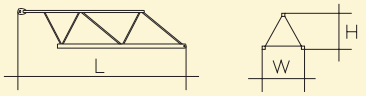
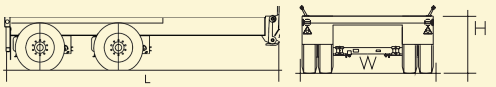
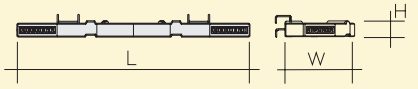
Power Requirements

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: 60 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 50kW. 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.

Components

Description	Dimensions L x W x H	Wt.
Tower Section with climbing support 	8'-2" x 3'-7" x 3'-7"	1,320 lb
Tower Section without climbing support 	8'-2" x 3'-7" x 3'-7"	1,100 lb
Jib Extension 631 102 ft to 121 ft radius 	20'-4" x 2'-10" x 2'-9"	700 lb
Jib Extension 632 121 ft to 138 ft radius 	17'-1" x 2'-10" x 2'-6"	350 lb
Jib Extension 633 138 ft to 148 ft radius 	10'-2" x 2'-10" x 2'-0"	175 lb
Jib Extension 634 148 ft to 157 ft radius 	13'-6" x 2'-10" x 2'-1"	187 lb
Road Axle Tandem Axle 	17'-4" x 8'-6" x 3'-3"	6,100 lb
Counterweight each 	13'-2" x 4'-6" x 1'-7"	5,512 lb

NOTE: Weights and dimensions are approximate. Scale components before lifting. Consult 81K.1 Instruction Manual before erecting, operating, servicing and dismantling crane.

Specifications are subject to change without prior notice. Drawings shown in this datasheet are for illustrative purposes only. Refer to the 81K.1 Instruction Manual. For additional information, contact MORROW. All rights reserved.