



# model 12000

## features

- 110 t (120 USt) Lift Capacity
- 397 mton-m (2,880 ft-kips) Maximum Load Moment
- 70,1 m (230 ft) Heavy-Lift Boom
- 82,3 m (270 ft) Fixed Jib on Heavy-Lift Boom
- 94,5 m (310 ft) Luffing Jib on Heavy-Lift Boom
- 247 kW (332 HP) engine
- 163 mpm (535 fpm) line speed
- 21 180 kg (46,700 lb) Maximum Line Pull
- 11 400 kg (25,100 lb) Rated Line Pull
- 10 000 kg (25,000 lb) Material Rehandling Clamshell capacity
- Fast, efficient self-assembly and disassembly
- Manitowoc Crane CARE comprehensive support

## product guide



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# **notes**

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**model 12000**



# specifications

## Upperworks



### Engine

Hino P11C-UN, 6 cylinder, water-cooled diesel, direct fuel injection with turbocharger, 247 kW (332 HP) at 2000 high-idle RPM. Maximum torque 1300 N·m (959 lb·ft) net at 1,500 rpm (SAE J 1349).

One diesel fuel tank, 400 liters (105 gallons) capacity.

Two 12 volt 136 AH capacity batteries, 24 volt system and 50 amp alternator.

All wiring harnesses and connectors are numbered for easier servicing. Machine is equipped with individual fused branch circuits.



### Controls

Full-flow hydraulic control system for constant variable pressure to front and rear drums, boom hoist brakes and clutches. Controls respond instantly to the touch, delivering smooth function operation.

#### Relief valve pressures:

##### Load hoist, boom hoist

and propel system ..... 315kg/cm<sup>2</sup> (4,480 psi)

Swing system ..... 280 kg/cm<sup>2</sup>, (3,980psi)

Control system ..... 80 kg/cm<sup>2</sup> (1,140 psi)



### Hydraulic System

All four variable displacement piston-type pumps are driven by a heavy-duty pump drive. One of these pumps is used in the right propel circuit and hook hoist circuit, and can accommodate an optional third circuit. Another is used in the left propel circuit and hook hoist circuit. The third variable displacement pump is used in the boom hoist circuit. The fourth variable displacement pump is used in the swing circuit. In addition, two gear pumps are used in the control system and auxiliary equipment, and two gear pumps serve the brake cooling system.

**Maximum pressure rating** .... 325 kg/cm<sup>2</sup> (4,640 psi)

**Load hoist, boom hoist and propel** .... 2 Piston pumps

**Boom Hoist** ..... 1 Piston pump

**Swing** ..... 1 Piston pump

**Control system and auxiliary** ..... 2 Gear pumps

**Brake cooling system** ..... 2 Gear pumps

**Reservoir capacity:** ..... 460 liter (121 US gallon).

**Cooling:** Oil-to-air heat exchanger (plate-fin type).

**Filtration:** Full-flow and bypass type with replaceable paper element.



## Drums

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Front and rear drums for load hoist powered by hydraulic variable displacement piston-type motors, driven through planetary reducers. Powered hoisting/lowering and free-fall operation is standard. Drum turn indicators for front and rear drums are also standard.

**Brake & Clutches (compatible):** Forced-circulation oil-cooled wet-type multi-disc brakes, each using positive and negative actuation. An external ratchet is fitted for locking the drums.

**Drums:** (front and rear) 613 mm (24.1") P.C.D. X 622 mm (24.5") wide drums, grooved for 26.0 mm (1.02") wire rope.

#### Wire rope capacity:

Front drum 260 m (853 ft) working length

Rear drum 230 m (754 ft) working length

Storage length (each drum) 253 m (830')

**Line speed:** Single line on the first drum layer

**Hoisting:** ..... 120m/min (394 ft/min)

**Lowering:** ..... 120m/min (394 ft/min)

**Optional third drum:** same dimensions and specifications as front and rear drums. Wire rope working length is 240 m (787').

## Swing System

**Swing unit:** Powered by a hydraulic piston-type motor driving spur gears through planetary reducers, the swing system provides 360° rotation.

**Swing brake:** A spring-set, hydraulically released multiple-disc brake is internally fitted in swing motor.

**Swing lock:** 2 Position lock for transportation.

**Rotating bed turntable:** Single-row ball bearing with an integral internally cut swing gear.

**Swing speed:** 2.7 rpm

## Boom Support System

Single drum powered by a hydraulic axial piston motor through a planetary reducer.

**Brake:** A spring-set, hydraulically released multiple-disc brake is internally fitted in the boom hoist motor and operated through a counter-balance valve. An external ratchet is fitted for locking the drum.

**Drum:** Single drum, grooved for 20 mm (13/16") dia. wire rope. Boom Hoist reeving is 10-part line.

model 12000

# specifications

## Wire Rope Capacity:

Drum 155 m (508 ft) working length.

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**Line speed:** Single line on the first drum layer

**Hoisting** ..... 48m/min (157 ft/min)

**Lowering** ..... 48m/min (157 ft/min)



## Gantry

This high folding type gantry is fitted with a sheave frame for boom hoist reeving. It provides full up, full down positions.



## Counterweight

QTY.	ITEM	UNIT WEIGHT		TOTAL WEIGHT	
		kg	lb	kg	lb
1	Counterweight A	10 000	22,050	10 000	22,050
2	Counterweight B	7 000	15,435	14 000	30,870
1	Counterweight C	10 000	22,050	10 000	22,050
<b>Counterweight TOTAL</b>		<b>34 000</b>	<b>74,970</b>		



## Operator's Cab

Totally enclosed, full vision cab fitted with tinted safety glass. A fully adjustable, highbacked seat with arm rests permits operators to set their ideal working position. Side mounted console for auxiliary controls and instruments. An air conditioner, a signal horn, cigarette lighter, windshield wiper and inspection lamp socket are standard features.

### Controls

In front of operator are the foot pedals for front, rear and third drum (option) brakes and foot throttle pedal. At operator's right side are the travel (propel) control levers and the function lock lever. To the operator's right front are the boom hoist control lever, front and rear winch control levers and the free-fall select switches for the front and rear winches and drum turn indicators (front/rear drum). To the operators left front are the swing control lever and third drum (option) control lever. To the operator's left are the crawler extend/retract lever and the positive swing lock. The left-hand console contains switches for the anti-two-block/boom overhoist. Directly in front of the console are the drum pawl lock for boom, front, rear and third drum (option) and the engine ignition key. The swing parking brake and signal horn are mounted on the swing control lever.

### Gauges

Fuel gauge, engine water temperature gauge, hour meter and tachometer are located on the monitor display.

### Warning display

All potential warnings, including battery charge, engine oil pressure, air cleaner, engine oil filter, control main pressure, and hydraulic oil temperature will appear on the monitor display when a fault occurs.

### Safety device

Function lock lever, anti-two-block, boom over hoist limit switch, boom angle indicator, signal horn, boom hoist drum lock, front and rear drum lock, swing lock, swing alarm (buzzer and lamps), boom backstops and load moment indicator.

## Lowerworks

### Carbody

The durable carbody features steel welded construction with extendible axles.

### Crawlers

Crawler assemblies can be hydraulically extended for wide-track operation or retracted for transportation. Crawler belt tension adjusted with hydraulic jack and maintained by shims between idler block and frame.

### Crawler drive

The independent hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor driving a propel sprocket through a planetary gearbox. The hydraulic motor and gearbox are built into the crawler side frame within the shoe width. The track rollers are sealed for maintenance-free operation.

### Crawler brakes

Spring set, hydraulically released, multiple disc-type parking brakes are built into each propel drive.

### Steering mechanism

The hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite direction) and differential track speed.

### Crawler shoes

66 shoes per side, 914 mm (36") wide each crawler.

**Travel speed** (High/Low) 1.4/1.0 km/h (0.87/0.62 mph)

## Attachments

### Boom

Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections. Boom tip is open throat construction. Two idler sheaves and four point sheaves are standard.

# specifications

Basic boom length 15,24 m (50') consists of the boom butt section 7,62 m (25' 0") and boom top section 7,62 m (25' 0").

Optional boom inserts are available to provide extension capabilities. They also have welded lattice construction with tubular, high-tension steel chords and pin connections on each one of 3,0 m (10'), 6,1 m (20'), 12,2 m (40') inserts.

Maximum total length of boom 70,1 m (230').



## Fixed Jib

The optional fixed jib employs welded lattice construction with tubular, high-tension steel chords with pin connections between sections.

Basic jib length 9,14 m (30') consists of Jib butt section 4,57 m (15') and jib top section 4,57 m (15').

Optional jib boom inserts of 3,0 m (10'), 6,1 m (20') are available for extension capabilities up to 21,3 m (70').

Maximum total length of boom and jib 61,0 m (200') + 21,3 m (70') is 82,3 m(270').



## Luffing Jib

► Optional: Components to make up 18,3 m (60') basic luffing boom including 7,62 m (25') butt, 9,14 m (30') special luffing boom insert (with idler sheave), 1,5 m (5') top, boom strut assembly, jib strut assembly, jib stop assembly, strut backstops, backstay pendants with sheaves, mounting parts and LMI hardware.

► Optional: 3,1 m (10'), 6,1 m (20'), and 12,2 m (40') luffing boom inserts. Utilize optional boom inserts to make up to 45,7 m (150') of luffing boom.

► Optional: 18,3 m (60') basic luffing jib assembly including 5,8 m (19') luffing jib butt, 6,1 m (20') luffing jib insert, 6,4 m (21') luffing jib top, 6,4 m (21') front strut assembly, 5,3 m (17' 5") rear strut assembly, and luffing jib point roller assembly (single sheave) which is required during erection of the jib.

Maximum 51,8 m (170') jib length for 42,7 m (140') boom length and maximum 30,4 m (100') jib length for 45,7 m (150') boom length.

Note: Luffing boom utilizes the liftcrane boom inserts (except for the 30' special luffing boom insert). Also, the third drum and wire rope must be ordered with luffing jib attachment.

## Tools and Accessories

A set of tools and accessories are furnished.

## Optional Equipment

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► Optional: Blocks and Hooks each with roller bearing sheaves grooved for 26.0 mm (1.02") diameter wire rope, and roller bearing swivel with hook latch.

► 12 t ball hook, 456 kg wedge socket for 26 mm wire rope.  
(15 USt ball hook, 1,310 lb wedge socket for 26 mm wire rope.)

► 35 t hook block, 700 kg with one 622 mm Nominal O.D. roller bearing sheave.  
(40 USt hook block, 1,881 lb with one 24" Nominal O.D. roller bearing sheaves.)

► 70 t hook block, 900 kg, three 622 mm Nominal O.D. roller bearing bearing sheave.  
(90 USt hook block, 4,060 lb, with three 24" Nominal O.D. roller bearing sheaves.)

► 110 t hook block, 1 700 kg, with five 622 mm Nominal O.D. roller bearing sheaves.  
(120 USt hook block, 3,760 lb with five 24" Nominal O.D. roller bearing sheaves.)

► Optional: Detachable upper boom point with one 575 mm (22.6") Nominal outer diameter roller bearing steel sheave grooved for 26mm (1.02") rope for liftcrane.

Travel kit

Custom color

## Working Weight

Approximately 99,000 kg (218,000 lb) including upperworks and lowerworks, full upper counterweights, full carbody counterweights and 15,2 m (50') basic boom.

## Ground Pressure

Approximately 92.9 kPa (13.5 psi) with basic boom and no load.

## Gradeability

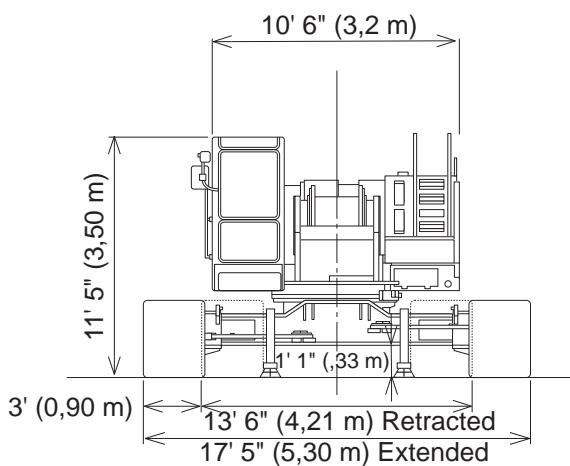
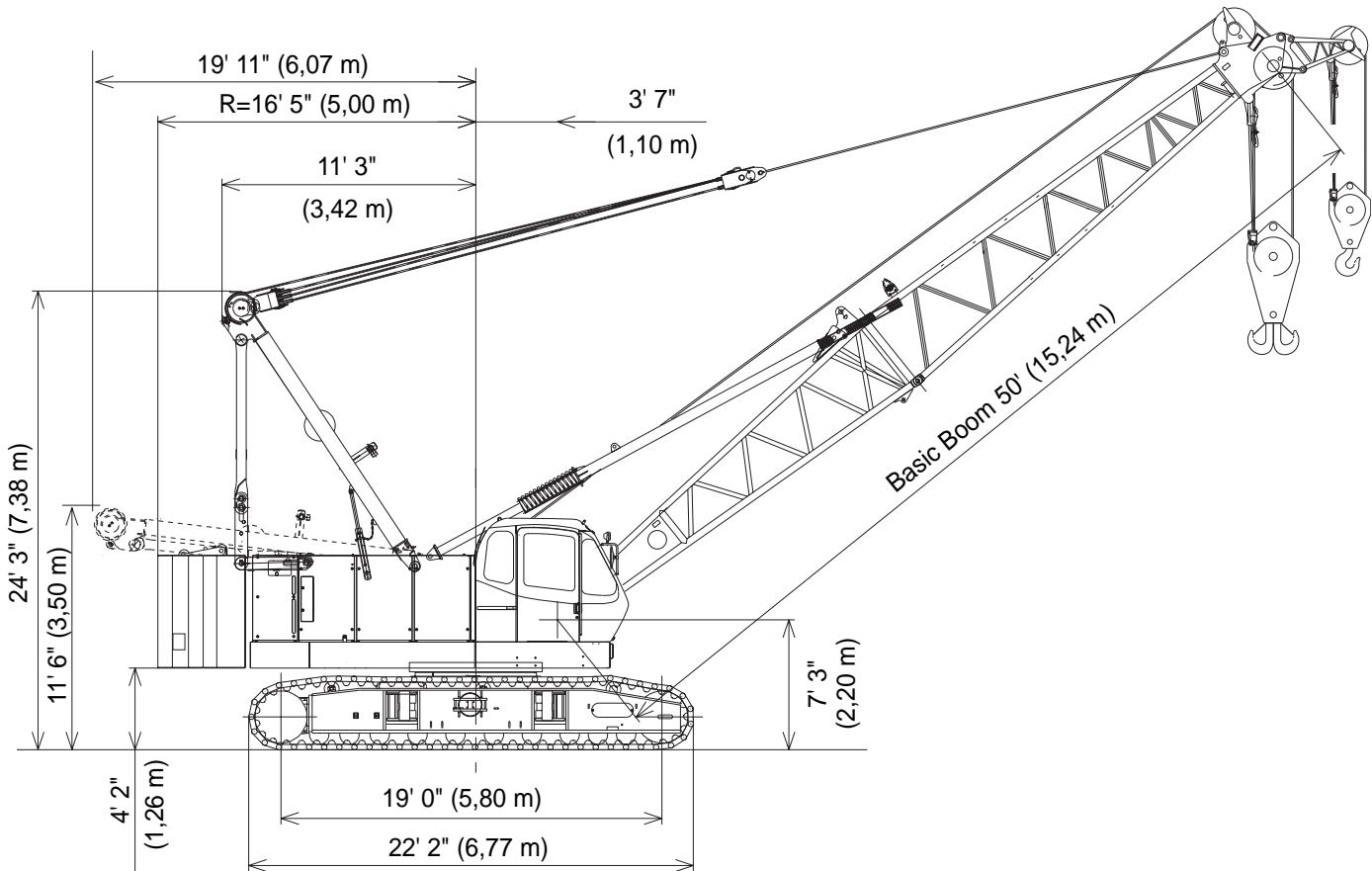
With basic boom: 30%.

model 12000



# outline dimensions

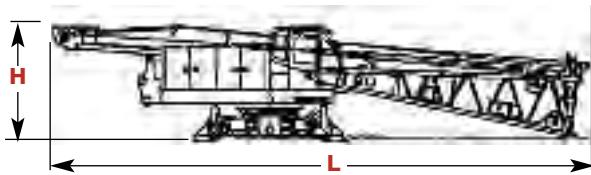
6



model 12000



# outline dimensions

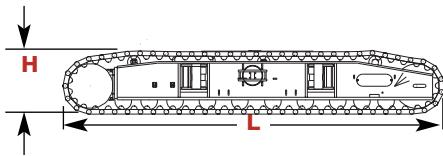


## Upperworks without Crawlers x 1

Length	15,12 m	49' 7"
Width	3,24 m	10' 8"
Height	3,15 m	10' 4"
Weight	42 661 kg	94,052 lb

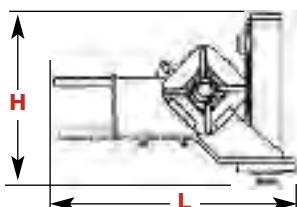
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Note: Weight includes base machine, gantry, maximum hoist and whip lines on drums, boom butt, full hydraulic fluid reservoir, and one third tank of fuel.



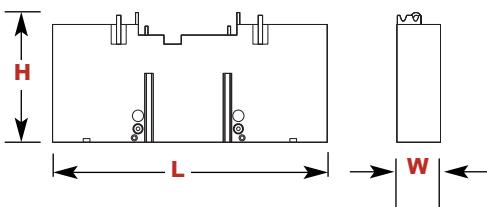
## Crawlers x 2

Length	6,77 m	22' 3"
Width	0,90 m	3' 0"
Height	1,15 m	3' 9"
Weight	11 830 kg	26,085 lb



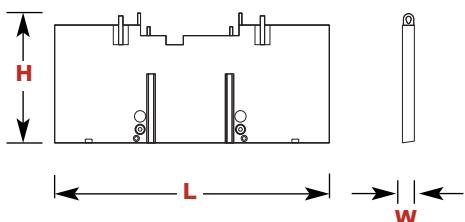
## Hydraulic Jack (if removed) x 4

Length	1,36 m	4' 5"
Width	0,32 m	1' 1"
Height	0,96 m	3' 2"
Weight	430 kg	950 lb



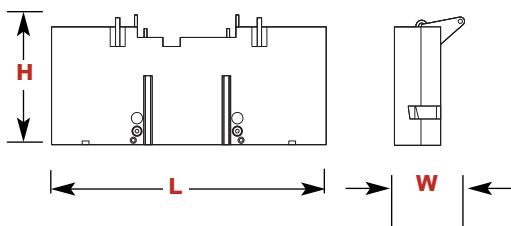
## Upper Counterweight A x 1

Length	3,20 m	10' 5"
Width	0,58 m	1' 11"
Height	1,94 m	6' 4"
Weight	10 000 kg	22,050 lb



## Upper Counterweight B x 2

Length	3,20 m	10' 5"
Width	0,49 m	1' 7"
Height	1,92 m	6' 3"
Weight	7 000 kg	15,435 lb

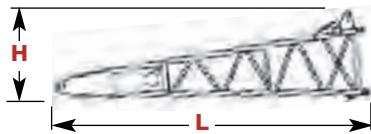


## Upper Counterweight C x 1

Length	3,20 m	10' 5"
Width	0,69 m	2' 3"
Height	1,92 m	6' 3"
Weight	10 000 kg	22,050 lb

## Optional 3rd Drum & Wire Rope x 1

Weight	2 660 kg	5,865 lb
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## Boom Butt 7.6m (25') x 1

Length	7,79 m	26' 3"
Width	1,68 m	5' 6"
Height	2,06 m	6' 9"
Weight	2 110 kg	4,652 lb

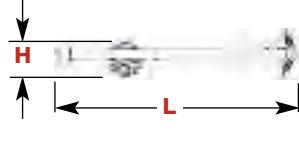
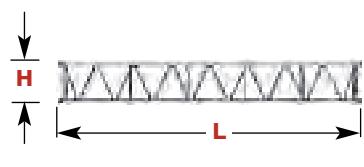
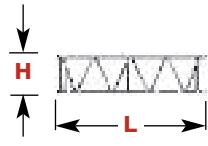
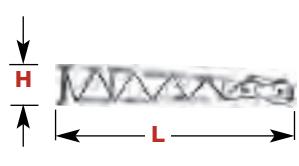
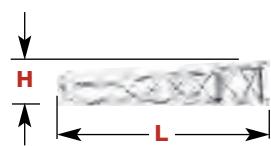
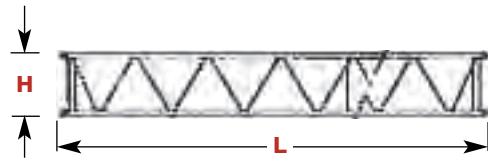
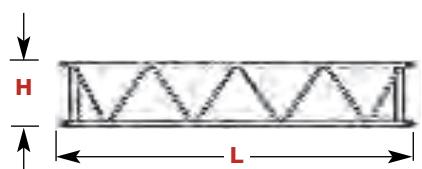
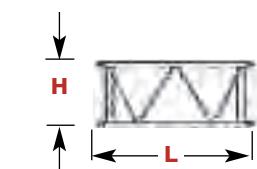
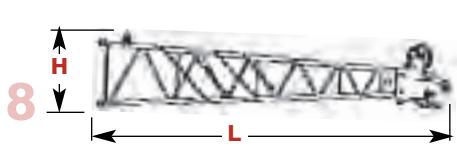
► Option

model 12000



# outline dimensions

**model 12000**



## Boom Top 7.6m (25') x 1

Length	8,32 m	27' 4"
Width	1,68 m	5' 6"
Height	1,69 m	5' 7"
Weight	1 525 kg	3,362 lb

## Boom Insert 3,0 m (10') x 1, 2

Length	3,17 m	10' 5"
Width	1,68 m	5' 6"
Height	1,69 m	5' 7"
Weight	380 kg	838 lb

## Boom Insert 6,1m (20') x 1, 2

Length	6,22 m	20' 5"
Width	1,68 m	5' 6"
Height	1,69 m	5' 7"
Weight	655 kg	1,445 lb

## Boom Insert 12,2 m (40') x 1, 2, 3

Length	12,31 m	40' 5"
Width	1,68 m	5' 6"
Height	1,69 m	5' 7"
Weight	1 195 kg	2,635 lb

Note: Use one "A" type insert with lug required for any boom combinations that require a 12,2 m (40') insert.

## Fixed Jib Butt x 1

Length	4,81 m	15' 9"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	200 kg	440 lb

## Fixed Jib Top x 1

Length	4,91 m	16' 1"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	280 kg	617 lb

## Fixed Jib Insert 3,0 m (10') x 1, 2

Length	3,12 m	10' 3"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	100 kg	220 lb

## Fixed Jib Insert 6,1 m (20') x 1, 2

Length	6,16 m	20' 3"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	180 kg	395 lb

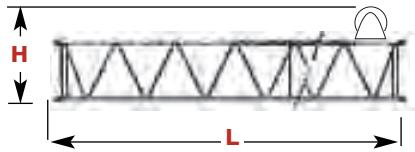
## Fixed Jib Strut x 1

Length	3,62 m	11' 11"
Height	0,62 m	2' 0"
Weight	250 kg	550 lb

► Option

# outline dimensions

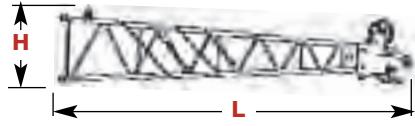
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► **Special Luffing Boom Insert**

**9,1 m (30')** x 1

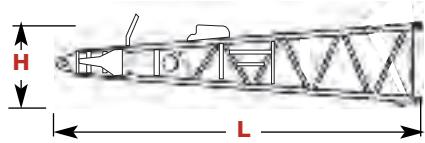
Length	9,27 m	30' 5"
Width	1,68 m	5' 6"
Height	2,41 m	7' 11"
Weight	1 160 kg	2,558 lb



► **Luffing Jib Top**

x 1

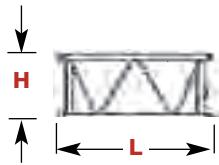
Length	6,91 m	22' 8"
Width	1,50 m	4' 11"
Height	1,48 m	4' 10"
Weight	1 170 kg	2,580 lb



► **Luffing Jib Butt**

x 1

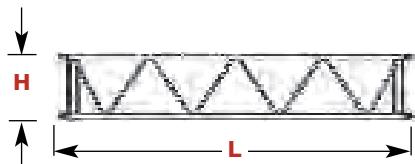
Length	5,97 m	19' 7"
Width	1,49 m	4' 11"
Height	1,32 m	4' 4"
Weight	863 kg	1,903 lb



► **Luffing Jib Insert 3,0 m (10')**

x 1, 2

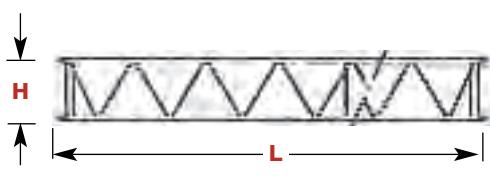
Length	3,16 m	10' 5"
Width	1,49 m	4' 11"
Height	1,29 m	4' 3"
Weight	310 kg	684 lb



► **Luffing Jib Insert 6,10 m (20')**

x 1, 2

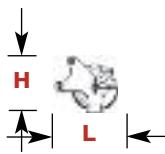
Length	6,21 m	20' 5"
Width	1,49 m	4' 11"
Height	1,29 m	4' 3"
Weight	540 kg	1,147 lb



► **Luffing Special Boom Insert**

**Luffing Jib Insert 12,2 m (40')** x 1, 2, 3

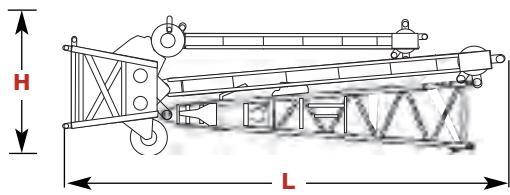
Length	12,31 m	40' 4"
Width	1,49 m	4' 11"
Height	1,29 m	4' 3"
Weight	960 kg	2,117 lb



► **Luffing Jib Point  
Roller Assembly**

x 1

Length	1,01 m	3' 4"
Width	0,89 m	2' 11"
Height	0,91 m	3' 0"
Weight	380 kg	838 lb



► **Luffing Boom Top Assembly  
(Shipping Style)**

x 1

Length	8,19 m	26' 10"
Height	2,65 m	8' 8"
Weight	3 580 kg	7,895 lb

► Option

model 12000



# transport data

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## Trailer Load Out Summary

Model 12000

No. 12000 Luffing Jib 39,6 m (130') on No. 260 Boom 38,1 m (125')

Weight each Item	Quantity on Trailer Load #
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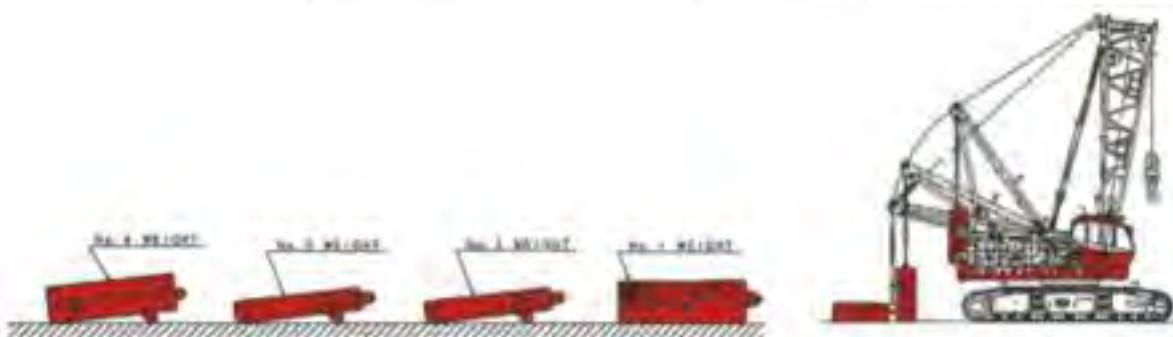
Item	kg (lb)	1	2	3	4	5	6
<b>No. 12000 Basic Crane with Crawlers Removed</b>	<b>42 661 (94,052)</b>	<b>1</b>					
<b>Crawler Frame</b>	<b>11 832 (26,085)</b>		<b>1</b>				
<b>Crawler Frame</b>	<b>12 832 (26,085)</b>			<b>1</b>			
<b>Counterweight A</b>	<b>10 000 (22,050)</b>					<b>1</b>	
<b>Counterweight B</b>	<b>7 000 (15,435)</b>				<b>1</b>		
<b>Counterweight B</b>	<b>7 000 (15,435)</b>					<b>1</b>	
<b>Counterweight C</b>	<b>10 000 (22,050)</b>						<b>1</b>
<b>12,2 m (40') No. 12000 Boom Insert, Pendants</b>	<b>1 209 (2,635)</b>		<b>1</b>				
<b>12,2 m (40') No. 12000 Boom Insert, Pendants</b>	<b>1 209 (2,635)</b>			<b>1</b>			
<b>12,2 m (40') No. 12000 Boom Insert, Pendants</b>	<b>1 209 (2,635)</b>				<b>1</b>		
<b>6,1 m (20') No. 12000 Boom Insert, Pendants</b>	<b>655 (1,445)</b>					<b>1</b>	
<b>6,1 m (20') No. 12000 Boom Insert, Pendants</b>	<b>655 (1,445)</b>						<b>1</b>
<b>3,0 m (10') No. 12000 Boom Insert, Pendants</b>	<b>380 (838)</b>		<b>1</b>				
<b>3,0 m (10') No. 12000 Boom Insert, Pendants</b>	<b>380 (838)</b>				<b>1</b>		
<b>Standard Boom Top 7,6 m (25')</b>	<b>1,525 (3,362)</b>						<b>1</b>
<b>Upper Boom Point</b>	<b>501 (1,105)</b>			<b>1</b>			
<b>4,6 m (15') No. 12000 Fixed Jib Top</b>	<b>280 (617)</b>				<b>1</b>		
<b>4,6 m (15') No. 12000 Fixed Jib Butt</b>	<b>134 (440)</b>						<b>1</b>
<b>6,1 m (20') No. 12000 Fixed Jib Insert</b>	<b>179 (395)</b>			<b>1</b>			
<b>6,1 m (20') No. 12000 Fixed Jib Insert</b>	<b>179 (395)</b>					<b>1</b>	
<b>Approximate Total Shipping Weight kg (lb)</b>		<b>42 661 (94,052)</b>	<b>13 594 (29,558)</b>	<b>13 528 (29,825)</b>	<b>8 655 (19,082)</b>	<b>18 038 (39,768)</b>	<b>12 561 (27,692)</b>

model 12000



# crane assembly

11



model 12000



# performance data

12

## Line Pull

	Rated line pull	* Maximum line pull
Front Drum	11 400 kg (25,100 lbs)	21 180 kg (46,700 lbs)
Rear Drum	11 400 kg (25,100 lb)	21 180 kg (46,700 lbs)
Optional 3rd Drum	11 400 kg (25,100 lbs)	21 180 kg (46,700 lbs)

\* Maximum line pull is not based on wire rope strength.

## Wire Rope Specifications

Use	Specs	Diameter mm (inch)	Working Length m (ft)	Breaking Strength kg(lbs)
Front Drum	IWRC 6 X Fi (29) C/O	26,0 (1-1/16")	260 (853')	54 431 (120,000)
Rear Drum	IWRC 6 X Fi (29) C/O	26,0 (1-1/16")	230 (754' )	54 431 (120,000)
Boom Hoist Drum	IWRC 6 X WS (31) C/O	20,0 (13/16")	155 (508')	33 430 (73,700)

## Model 12000 Front and Rear Winch Performance (Optional: Third Winch)

Line speed (ft/min)						
Layer	1	2	3	4	5	6
Line Pull (lbs)						
0	394	422	450	479	505	535
5,000	387	415	443	471	499	526
10,000	353	353	353	353	353	353
15,000	235	235	235	235	235	235
20,000	117	117	117	117	117	117
Rated Line pull	141	141	141	141	141	142
30,000	118	118	119	121	122	123
35,000	103	104	105	105		
40,000	92	92				

Line speed (m/min)						
Layer	1	2	3	4	5	6
Line Pull (kg)						
0	120	129	137	146	155	163
2 268	118	126	135	143	152	160
4 536	108	108	108	108	108	108
6 804	72	72	72	72	72	72
9 072	52	52	52	52	52	52
Rated Line pull	43	43	43	43	43	43
13 608	36	36	36	37	37	37
15 876	31	32	32	32		
18 144	28	28				

Note:

Line speeds and line pull based on single line.  
Line pulls are not based on wire rope strength.

model 12000



# load chart notes

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model 12000

- Rated loads included in the charts are the maximum allowable freely suspended loads at a given boom length, boom angle and load radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or de-rate rated loads to allow for adverse conditions (such as soft or uneven ground, out-of-level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, multiple machine lifts, and traveling with a load).
- Capacities do not exceed 75% of minimum tipping loads. Capacities based on factors other than machine stability such as structural competence are shown by asterisk \* in the charts located in the operator's crane cab.
- The machine must be reeved and set-up as stated in the operation manual and all the instruction manuals. If these manuals are missing, obtain replacements. Boom backstops are required for all boom lengths. Gantry must be in the fully raised position for all operations. Crawlers must be fully extended and be locked in position. The crane must be leveled to within 1% on a firm supporting surface.
- Do not attempt to lift where no radius or load is listed as crane may tip or collapse.
- Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine capacity.
- Weight of hooks, hook blocks, slings and other lifting devices are a part of the total load. Their total weight must be subtracted from the rated load to obtain the weight that can be lifted.
- When lifting over boom point with jib or upper boom point installed, rated loads for the boom must be deducted as shown below.

Jib length m (ft)	Upper Boom Point	9,1 (30)	12,2 (40)	15,2 (50)	18,3 (60)	21,3 (70)
Deduct kg (lbs)	318 (700)	1 100 (2,400)	1 500 (3,200)	2 000 (4,200)	2 400 (5,200)	2 900 (6,200)

When lifting over luffing jib point with luffing jib roller assembly or pin connected boom point sheave (on the luffing boom top) attached, rated loads for the jib and sheave must be deducted as shown below.

	Luffing Jib Point Roller	Pin Connected Boom Point Sheave
Deduct kg (lbs)	386 (850)	218 (480)

- The total load that can be lifted by the fixed jib is limited by rated jib loads. The total load that can be lifted with the upper boom point is limited by rated upper boom point loads.
- Boom lengths for fixed jib mounting are 27,4 m (90 ft) to 61,0 m (200 ft).
- The total load that can be lifted by the upper boom point is: the rated load for the luffing jib (without upper boom point installed) minus 386 kg (850 lbs); however, the upper boom point rated load should not exceed 11 300 kg (25,000 lbs).

- An upper boom point cannot be used on a 70,1 m (230 ft) boom length.
- The boom should be erected over the front of the crawlers, not laterally.
- Least stable position is over the side.
- Maximum hoist load for number of reeving parts of line for hoist rope.

## Maximum Load for Main Boom

No. of Parts of Line	1	2	3	4	5
Maximum Loads kg (lbs)	11 300 (25,000)	22 600 (50,000)	33 900 (75,000)	45 200 (100,000)	56 500 (125,000)

No. of Parts of Line	6	7	8	9	10
Maximum Loads m (lbs)	67 800 (150,000)	79 100 (175,000)	90 400 (200,000)	101 700 (225,000)	110 000 (240,000)

## Maximum Load for Luffing Jib

No. of Parts of Line	1	2	3	4
Maximum Loads kg (lbs)	11 300 (25,000)	22 600 (50,000)	33 900 (75,000)	36 200 (80,000)

## Maximum Load for Fixed Jib

No. of Parts of Line	1
Maximum Loads m (lbs)	10 800 (24,000)

## Maximum Load for Upper Boom Point (On Liftcrane Boom)

No. of Parts of Line	1	2
Maximum Loads kg (lbs)	11 300 (25,000)	22 600 (50,000)

## Maximum Load for Upper Boom Point (On Luffing Jib)

No. of Parts of Line	1
Maximum Loads kg (lbs)	11 300 (25,000)

## Minimum Weight of Hook Block Required for Lowering. (Luffing Jib Use)

No. of Parts of Line	1	2	3	4
Maximum Loads m (lbs)	272 (600)	544 (1,200)	680 (1,500)	800 (1,800)

- Lifting capacities listed apply only to the machine as originally manufactured for and supplied by Manitowoc Cranes, Inc. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.

- Designed and rated to comply with ANSI Code B30.5.

Operation of this equipment in excess of rated loads or disregard of instruction voids the warranty.



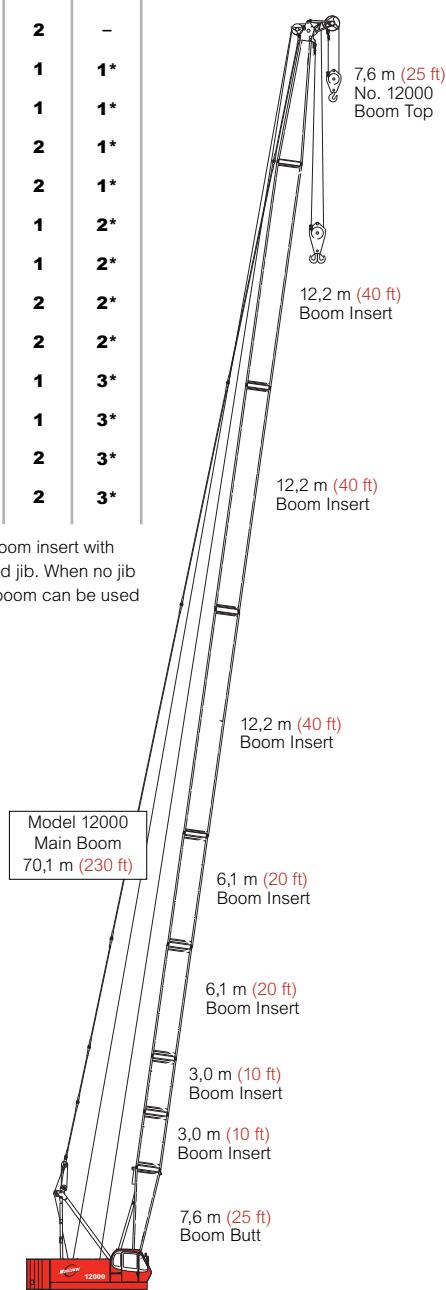
# boom combinations

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## No. 12000 Heavy-Lift Boom Combinations

Boom Length m (ft)	3,1 m (10 ft)	6,1 m (20 ft)	12,2 m (40 ft)
15,2 (50)	-	-	-
18,3 (60)	1	-	-
21,3 (70)	2	1	-
24,4 (80)	1	1	-
27,4 (90)	2	1	-
30,5 (100)	1	2	-
33,5 (110)	2	2	-
36,6 (120)	1	1	1*
39,6 (130)	2	1	1*
42,7 (140)	1	2	1*
45,7 (150)	2	2	1*
48,8 (160)	1	1	2*
51,8 (170)	2	1	2*
54,9 (180)	1	2	2*
57,9 (190)	2	2	2*
61,0 (200)	1	1	3*
64,0 (210)	2	1	3*
67,0 (220)	1	2	3*
70,1 (230)	2	2	3*

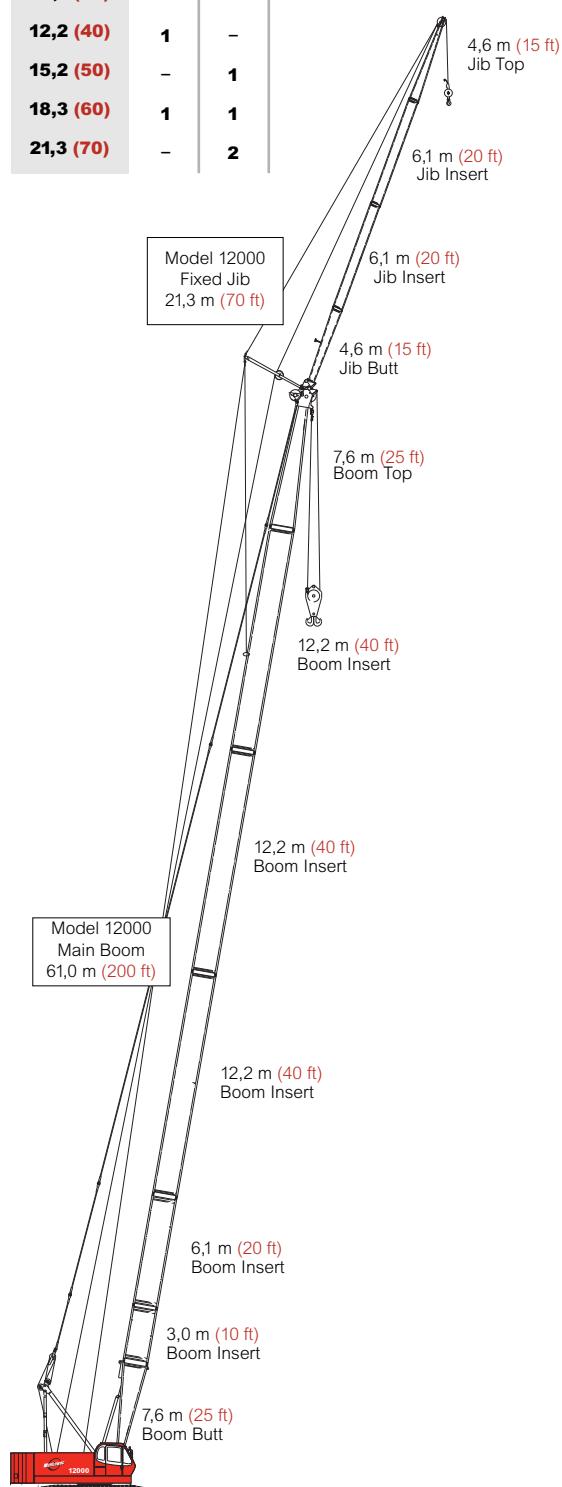
\*Note: One 40 ft. (12,2 m) boom insert with lug (40A) is required for fixed jib. When no jib is installed a 40 ft (12,2 m) boom can be used instead of 40A.



Model 12000  
Main Boom  
70,1 m (230 ft)

## No. 12000 Fixed Jib Combinations

Jib Length m (ft)	Fixed Jib Inserts
	3,1m (10 ft) 6,1m (20 ft)
9,1 (30)	- -
12,2 (40)	1 -
15,2 (50)	- 1
18,3 (60)	1 1
21,3 (70)	- 2



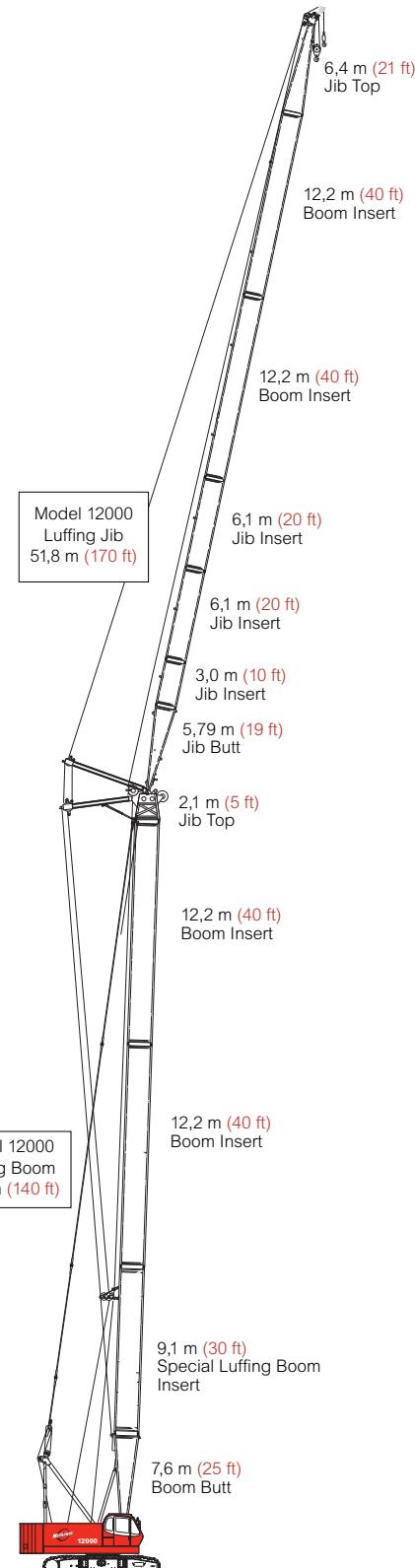
Model 12000  
Fixed Jib on Main Boom  
82,3 m (270 ft)

# boom combinations

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## No. 12000 Luffing Jib Combinations

Luffing Jib Length m (ft)	Boom Inserts	3,0 m (10 ft)	6,1 m (20 ft)	12,2 m (40 ft)
18,3 (60)	-	-	-	
21,3 (70)	1	-	-	
24,4 (80)	2	-	-	
27,4 (90)	1	1	-	
30,5 (100)	2	1	-	
33,5 (110)	1	-	1	
36,6 (120)	2	-	1	
39,6 (130)	1	1	1	
42,7 (140)	2	1	1	
45,7 (150)	1	-	2	
48,8 (160)	2	-	2	
51,8 (170)	1	1	2	



## No. 12000 Luffing Boom Combinations

Luffing Boom Length m (ft)	Boom Inserts	3,0 m (10 ft)	6,1 m (20 ft)	9,1 m (30 ft)	12,2 m (40 ft)
18,3 (60)	-	-	1*	-	
21,3 (70)	1	-	1*	-	
24,3 (80)	2	-	1*	-	
27,4 (90)	1	1	1*	-	
30,5 (100)	2	1	1*	-	
33,5 (110)	1	2	1*	-	
36,6 (120)	2	2	1*	-	
39,6 (130)	1	1	1*	1	
42,7 (140)	2	1	1*	1	
45,7 (150)	1	2	1*	1	

Model 12000  
Luffing Boom  
42,7 m (140 ft)

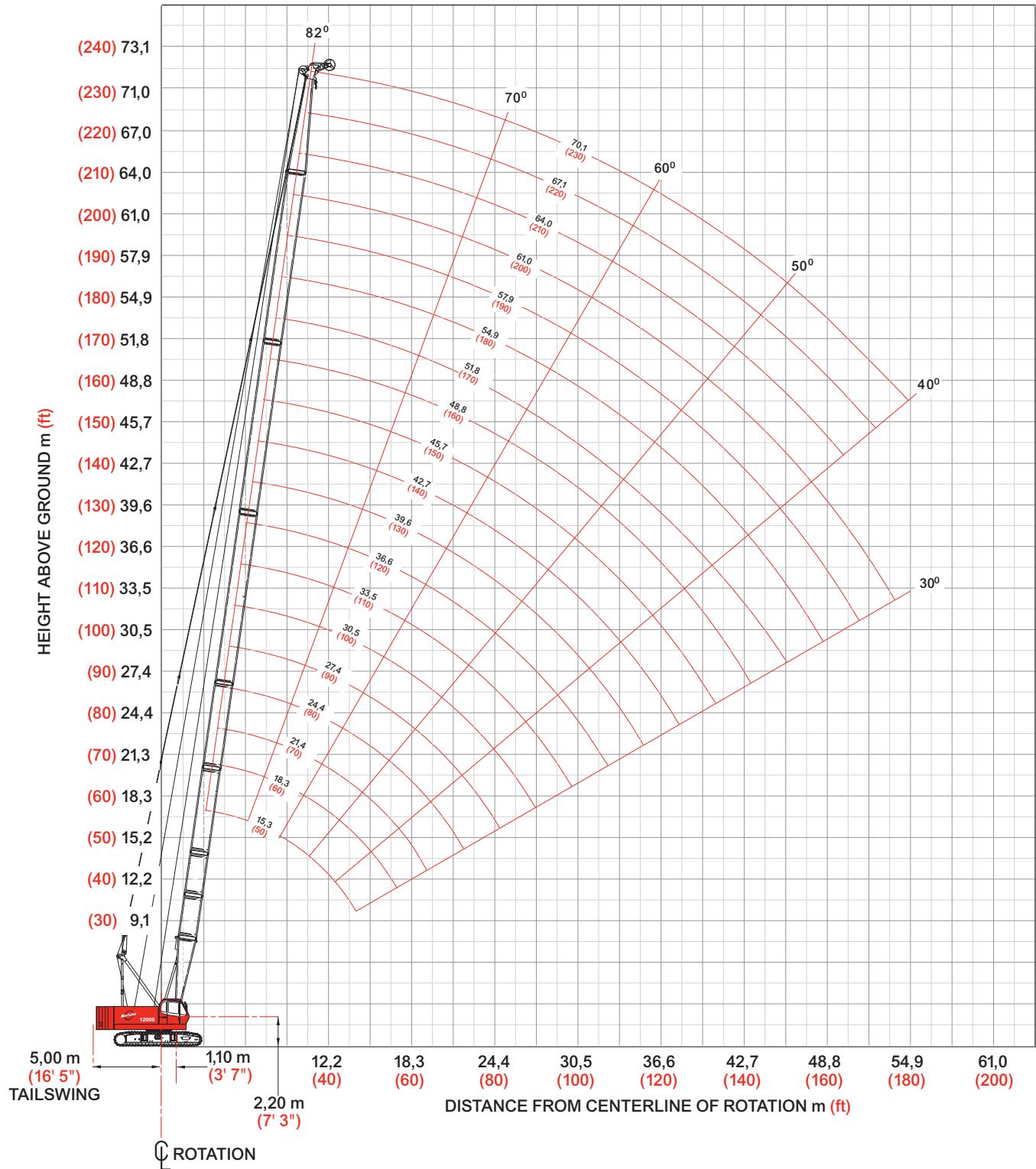
\*Note: One 9,14 m (30') special luffing boom insert is required for luffing boom.

Model 12000  
Luffing Jib on  
Luffing Boom  
94,5 m (310 ft)

# heavy-lift boom range diagram

No. 12000 Main Boom

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# heavy-lift load charts

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## Model 12000 Liftcrane Boom Capacities

### No. 12000 Main Boom

34 000 kg (75,000 lb) Upper Counterweight

360° Rating

kg (lb) x 1 000

Boom m (ft)	15,2 (50)	18,3 (60)	21,3 (70)	24,4 (80)	27,4 (90)	30,5 (100)	33,5 (110)	36,6 (120)	39,6 (130)	42,7 (140)	45,7 (150)	48,8 (160)	51,8 (170)	54,9 (180)	57,9 (190)	61,0 (200)	64,0 (210)	67,1 (220)	70,1 (230)	
Radius																				
3,6 (12)	110,0 (240.0)																			
4,0 (14)	99,1 (206.0)	— (204.0)																		
4,5 (16)	88,4 (177.0)	87,6 (177.0)	86,2 (177.0)																	
5,5 (18)	68,0 (150.0)	67,9 (150.0)	67,9 (150.0)	68,0 (150.0)	67,9 (150.0)															
6,0 (20)	62,0 (135.0)	61,9 (135.0)	61,9 (135.0)	62,0 (135.0)	61,9 (135.0)	61,9 (135.0)														
7,0 (24)	53,6 (111.9)	53,6 (111.7)	53,6 (111.7)	53,6 (111.5)	53,6 (111.5)	53,1 (111.3)	53,0 (111.1)	53,3 (100.0)	—											
8,0 (28)	44,5 (89.5)	44,3 (89.2)	44,3 (89.0)	44,3 (88.8)	44,3 (88.6)	44,2 (88.4)	44,1 (88.4)	44,1 (88.1)	44,0 (87.9)	43,9 (87.7)	—									
10,0 (34)	32,8 (68.3)	32,2 (68.1)	32,2 (67.9)	32,2 (67.4)	32,2 (67.4)	32,1 (67.2)	32,0 (67.0)	32,0 (67.0)	31,9 (66.7)	31,8 (66.5)	31,7 (66.3)	31,7 (66.3)	31,6 (66.1)	31,5 (65.9)	30,0 (65.4)	22,6 (50.0)	22,6 (50.0)	21,3 (46.7)	19,5 (42.7)	
12,0 (40)	25,6 (55.1)	25,6 (54.6)	25,3 (54.4)	25,3 (54.2)	24,6 (54.0)	24,9 (53.7)	24,8 (53.5)	24,8 (53.5)	24,7 (53.3)	24,6 (53.1)	24,4 (52.6)	24,5 (52.9)	24,3 (52.4)	24,2 (52.2)	24,1 (52.0)	22,6 (50.0)	22,6 (50.0)	21,3 (46.7)	19,5 (42.7)	
14,0 (45)	— (47.1)	20,5 (46.7)	20,5 (46.5)	20,5 (46.2)	20,5 (46.0)	20,3 (45.8)	20,2 (45.6)	20,2 (45.6)	20,1 (45.4)	20,0 (45.1)	19,8 (44.7)	19,9 (44.9)	19,7 (44.5)	19,6 (44.3)	19,5 (44.0)	19,5 (44.0)	19,4 (43.8)	19,2 (43.4)	17,9 (40.1)	
16,0 (55)		17,0 (36.1)	17,0 (35.9)	17,0 (35.4)	17,0 (35.4)	17,0 (35.0)	16,9 (34.8)	16,8 (34.8)	16,8 (34.6)	16,6 (34.3)	16,5 (33.9)	16,5 (33.9)	16,4 (33.7)	16,2 (33.2)	16,1 (33.0)	16,1 (33.0)	16,0 (32.8)	15,9 (32.6)	15,7 (32.1)	
22,0 (75)						11,5 (23.5)	11,0 (23.1)	11,0 (22.9)	10,9 (22.7)	10,8 (22.4)	10,6 (22.2)	10,5 (21.8)	10,5 (21.6)	10,4 (21.6)	10,2 (21.1)	10,0 (20.9)	10,1 (20.9)	10,0 (20.7)	9,8 (20.2)	9,6 (20.0)
28,0 (95)							7,9 (16.5)	7,8 (16.3)	7,7 (16.0)	7,5 (15.6)	7,4 (15.4)	7,4 (15.4)	7,2 (14.9)	7,0 (14.7)	6,9 (14.3)	6,9 (14.3)	6,8 (14.1)	6,7 (13.8)	6,5 (13.4)	
32,0 (105)								6,4 (14.1)	6,3 (13.8)	6,1 (13.4)	6,0 (13.2)	6,0 (13.2)	5,8 (12.7)	5,6 (12.3)	5,5 (12.1)	5,5 (12.1)	5,4 (11.9)	5,2 (11.4)	5,1 (11.2)	
34,0 (115)									5,8 (12.1)	5,5 (11.6)	5,4 (11.2)	5,4 (11.2)	5,2 (11.0)	5,0 (10.5)	4,9 (10.1)	5,0 (10.3)	4,8 (9.9)	4,6 (9.7)	4,5 (9.2)	
38,0 (125)										4,7 (10.3)	4,5 (9.9)	4,4 (9.7)	4,3 (9.4)	4,1 (9.0)	4,0 (8.8)	4,0 (8.8)	3,8 (8.3)	3,6 (7.9)	3,4 (7.4)	
40,0 (135)											4,1 (8.5)	3,9 (8.1)	3,7 (7.7)	3,5 (7.2)	3,5 (7.2)	3,4 (6.8)	3,2 (6.6)	3,2 (6.6)	3,0 (6.1)	
44,0 (145)												3,2 (7.0)	3,0 (6.6)	2,8 (6.1)	2,8 (6.1)	2,6 (5.7)	2,4 (5.2)	2,2 (4.8)		
46,0 (155)													2,7 (5.7)	2,5 (5.2)	2,5 (5.0)	2,3 (4.6)	2,1 (4.4)	1,9 (3.9)		
50,0 (165)														2,0 (4.4)	1,9 (4.1)	1,7 (3.7)	1,6 (3.5)			
53,3 (175)															1,6 (3.5)					

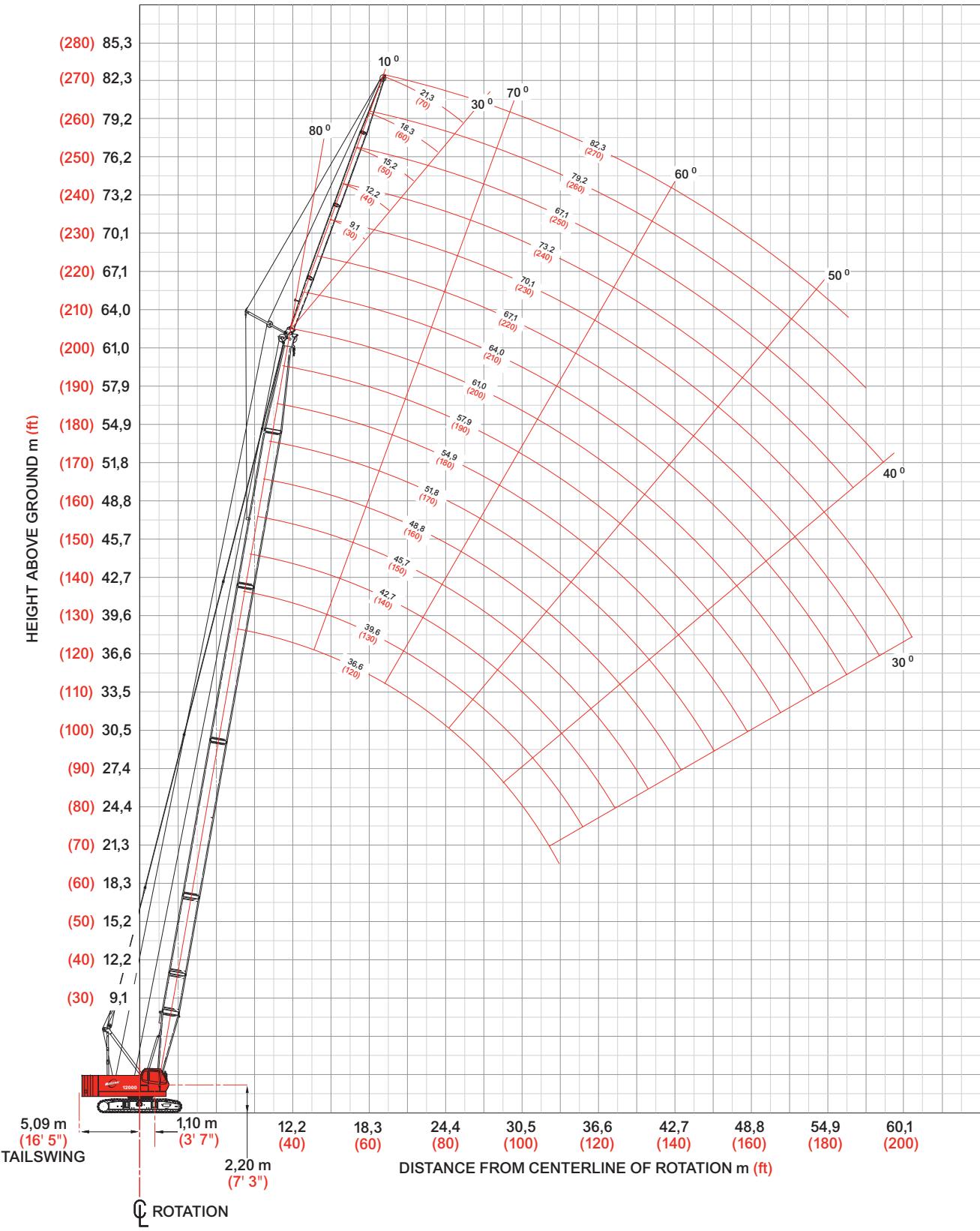
Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

model 12000  


# fixed jib range diagram

No. 12000 Fixed Jib on Main Boom

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# fixed jib load charts

## Model 12000 Series 2 Liftcrane Fixed Jib Capacities

### No. 12000 Fixed Jib on Main Boom

34 000 kg (75,000 lb) Counterweight

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360° Rating

kg (lb) x 1 000

		10° Offset					30° Offset							
		Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)	Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)	
		Radius	10,0 (30)	10,8 (24.0)				10,0 (30)					Radius	
Jib 9,1 m (30 ft)		12,0 (40)	10,8 (24.0)	10,8 (24.0)				12,0 (40)	—				Radius	
		14,0 (50)	10,8 (24.0)	10,8 (24.0)	10,8 (24.0)	—	(24.0)	14,0 (50)	9,5 (21.0)	9,5 (21.0)			Radius	
		18,0 (60)	10,8 (24.0)	10,8 (24.0)	10,8 (24.0)	10,8 (24.0)	(24.0)	18,0 (60)	9,5 (21.0)	9,5 (21.0)	9,5 (21.0)	9,5 (21.0)	Radius	
		24,0 (80)	10,1 (21.9)	9,7 (21.1)	9,3 (20.1)	9,0 (19.8)	(19.0)	24,0 (80)	8,6 (18.9)	9,4 (20.8)	9,4 (20.8)	9,2 (20.2)	9,1 (19.9)	Radius
		30,0 (100)	7,4 (16.1)	7,1 (15.3)	6,6 (14.2)	6,3 (13.6)	(13.1)	30,0 (100)	7,2 (15.6)	6,8 (14.7)	6,5 (14.1)	6,4 (13.7)	Radius	
		36,0 (120)		5,3 (11.6)	4,8 (10.4)	4,5 (9.8)	(9.3)	36,0 (120)		5,0 (10.7)	4,7 (10.2)	4,5 (9.7)	Radius	
		42,0 (140)			3,6 (7.8)	3,3 (7.1)	(6.5)	42,0 (140)			3,4 (7.4)	3,2 (7.0)	Radius	
		48,0 (160)			2,7 (5.8)	2,3 (4.9)	2,0 (4.2)	48,0 (160)				2,3 (—)	Radius	
		52,0 (175)			2,2 (—)	1,7 (3.6)	1,5 (—)	52,0 (175)					Radius	
		56,0 (185)						56,0 (185)					Radius	

		Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)	Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)	
		Radius	10,0 (30)	9,0 (—)				10,0 (30)					Radius	
Jib 15,2 m (50 ft)		12,0 (40)	9,0 (20.0)	9,0 (—)				12,0 (40)					Radius	
		14,0 (50)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)			14,0 (50)					Radius	
		18,0 (60)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	(20.0)	18,0 (60)	5,1 (11.4)	5,1 (11.4)	5,1 (—)			Radius
		24,0 (80)	7,7 (16.8)	8,9 (19.5)	9,0 (20.0)	9,0 (20.0)	(19.7)	24,0 (80)	5,1 (11.2)	5,1 (11.2)	5,1 (11.4)	5,1 (11.4)	5,1 (11.4)	Radius
		30,0 (100)	6,2 (13.6)	7,2 (15.7)	6,8 (14.7)	6,5 (14.1)	(13.6)	30,0 (100)	4,4 (9.8)	4,8 (10.6)	5,1 (11.4)	5,1 (11.4)	5,1 (11.4)	Radius
		36,0 (120)	5,2 (11.5)	5,5 (11.9)	5,0 (10.8)	4,7 (10.2)	(9.8)	36,0 (120)		4,3 (9.6)	4,7 (10.4)	4,9 (10.8)	4,9 (10.6)	Radius
		42,0 (140)		4,3 (9.3)	3,8 (8.2)	3,5 (7.5)	3,3 (7.1)	42,0 (140)			4,0 (8.6)	3,7 (8.1)	3,6 (7.7)	Radius
		48,0 (160)			2,9 (6.2)	2,5 (5.4)	2,2 (4.7)	48,0 (160)				2,7 (5.9)	2,5 (5.3)	Radius
		52,0 (175)			2,3 (4.9)	1,9 (4.0)	1,6 (3.3)	52,0 (175)					1,9 (3.8)	Radius
		58,0 (185)			1,8 (4.1)			58,0 (185)						Radius

Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.

NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

model 12000



# fixed jib load charts

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## Model 12000 Series 2 Liftcrane Fixed Jib Capacities

### No. 12000 Fixed Jib on Main Boom

34 000 kg (75,000 lb) Counterweight

360° Rating

kg (lb) x 1 000

10° Offset

30° Offset

Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)	Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)
Radius	12,0 (45)	7,1 (15.7)				Radius	12,0 (45)	3,6 (—)	3,6 (8.1)	3,6 (8.1)	3,6 (8.1)
18,0 (60)	6,7 (14.8)	6,8 (15.1)	6,9 (15.4)	7,0 (15.6)	7,1 (15.7)	18,0 (60)	3,6 (—)				
22,0 (75)	6,4 (13.9)	6,6 (14.4)	6,7 (14.8)	6,8 (15.0)	6,9 (15.1)	22,0 (75)	3,6 (8.1)	3,6 (8.1)			
26,0 (90)	5,5 (11.5)	6,3 (13.3)	6,5 (14.3)	6,6 (14.4)	6,7 (14.6)	26,0 (90)	3,5 (7.6)	3,6 (8.1)	3,6 (8.1)	3,6 (8.1)	3,6 (8.1)
32,0 (110)	4,4 (9.4)	5,1 (10.9)	6,0 (12.7)	6,0 (12.3)	5,8 (11.9)	32,0 (110)	3,0 (6.5)	3,3 (7.0)	3,5 (7.6)	3,6 (7.8)	3,6 (8.0)
38,0 (130)	3,7 (7.9)	4,3 (9.2)	4,7 (9.7)	4,4 (9.1)	4,2 (8.6)	38,0 (130)	2,7 (—)	2,9 (6.3)	3,1 (6.9)	3,2 (7.1)	3,3 (7.3)
44,0 (145)	3,2 (7.1)	3,7 (8.2)	3,6 (7.9)	3,3 (7.2)	3,1 (6.8)	44,0 (145)		2,6 (5.9)	2,9 (6.4)	3,0 (6.6)	3,0 (6.8)
50,0 (170)		3,2 (6.8)	2,7 (5.6)	2,4 (4.7)	2,0 (4.1)	50,0 (170)			2,6 (5.9)	2,7 (5.5)	2,5 (4.9)
54,0 (180)			2,2 (4.8)	1,8 (3.9)		54,0 (180)				2,1 (4.5)	1,8 (3.9)
56,0 (190)			2,0 (4.0)	1,6 (—)		56,0 (190)					1,6 (—)
60,0 (200)			1,6 (3.3)			60,0 (200)					

model 12000

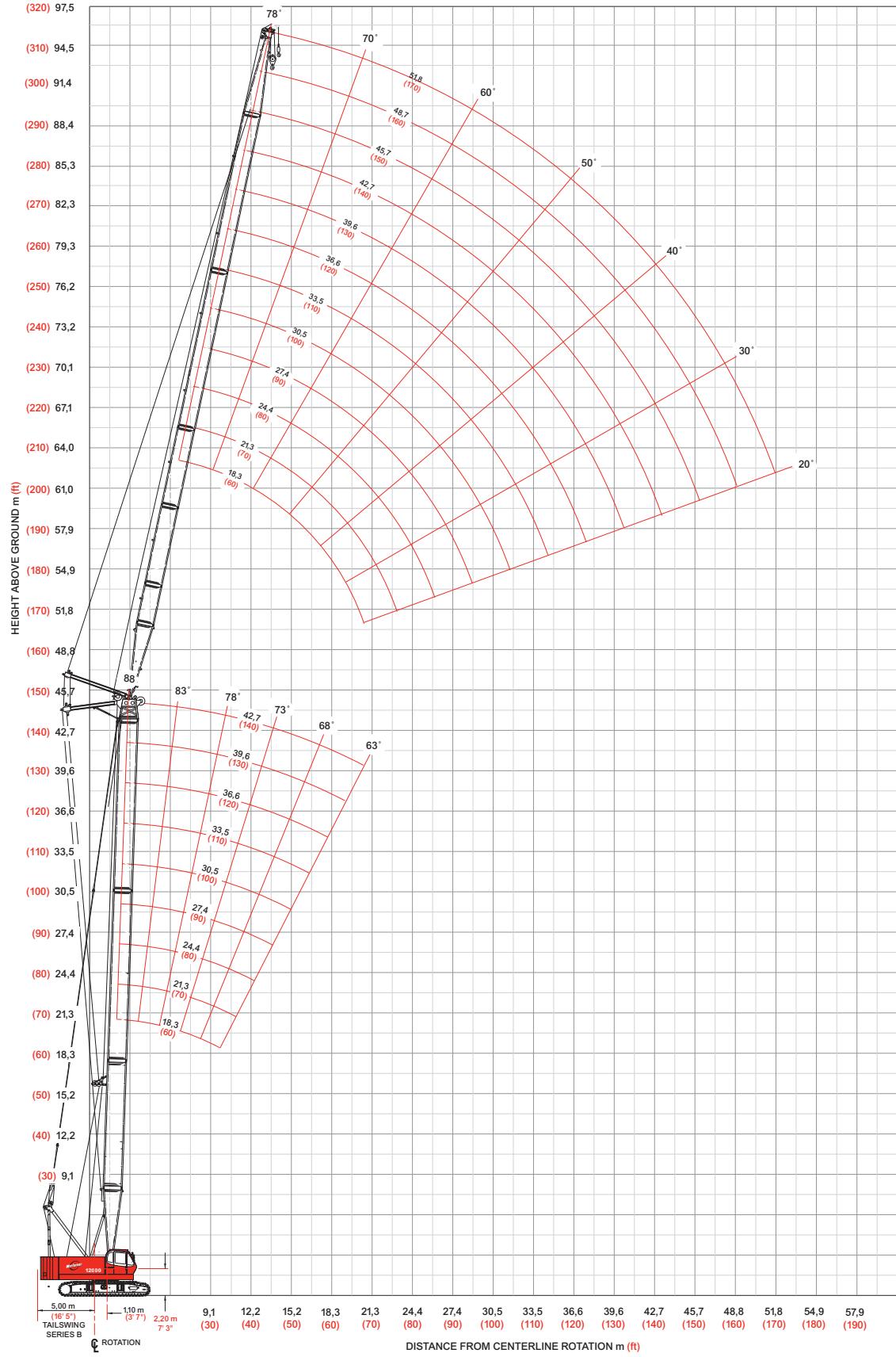


Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

# luffing jib range diagram

No. 12000 Luffing Jib on Luffing Boom

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model 12000



# Luffing jib load charts

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## Model 12000 Series 2 Liftcrane Luffing Jib Capacities

### No. 12000 Luffing Jib on Luffing Boom

34 000 kg (75,000 lb) Counterweight

360° Rating

kg (lb) x 1 000

88° Boom Angle

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)	45,7 (150)
Radius					
7,9 (26)	36,2 (80.0)	— (80.0)			
9,0 (30)	31,9 (69.3)	31,9 (69.3)	31,9 (69.3)	31,9 (69.3)	19,5 (42.5)
10,0 (36)	28,8 (57.7)	28,7 (57.7)	28,7 (57.7)	28,7 (57.7)	17,9 (36.4)
14,0 (45)	20,4 (46.2)	20,5 (46.2)	20,5 (46.2)	20,5 (46.2)	12,9 (29.1)
18,0 (65)	14,1 (—)	14,4 (26.9)	14,6 (27.3)	14,8 (27.6)	9,5 (18.3)
20,0 (80)	11,2 (—)	11,3 (—)	11,5 (—)	11,8 (—)	7,9 (—)
24,0 (80)					
30,0 (100)					
36,0 (120)					
44,0 (145)					

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)	45,7 (150)
Radius					
7,9 (26)					
9,0 (30)					
10,0 (36)		— (57.7)			
14,0 (45)	20,5 (46.2)	20,5 (46.2)	20,5 (46.2)	20,5 (46.2)	20,5 (46.2)
18,0 (65)	14,7 (28.0)	15,0 (28.4)	15,2 (28.9)	15,4 (29.1)	9,6 (19.0)
24,0 (80)	9,4 (20.3)	9,4 (20.3)	9,5 (20.5)	9,6 (20.7)	6,6 (14.3)
30,0 (100)	6,4 (13.7)	6,4 (13.7)	6,4 (13.7)	6,4 (13.7)	4,5 (9.7)
32,0 (120)					
36,0 (120)					
44,0 (145)					

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)
Radius				
14,0 (45)	20,7 (46.2)	20,7 (46.2)	20,7 (46.2)	
16,0 (55)	17,7 (36.8)	17,9 (37.5)	17,9 (37.5)	17,1 (36.4)
22,0 (75)	10,9 (22.7)	11,0 (22.9)	11,2 (23.1)	11,3 (23.4)
28,0 (95)	7,3 (15.2)	7,4 (15.4)	7,4 (15.4)	7,5 (15.7)
34,0 (115)	5,0 (10.6)	5,1 (10.6)	5,1 (10.6)	5,1 (10.8)
40,0 (130)	3,4 (8.2)	3,4 (8.2)	3,4 (8.2)	3,4 (8.2)
44,0 (150)				
50,0 (165)				
52,0 (175)				
56,0 (190)				

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)
Radius				
14,0 (45)				
16,0 (55)	— (30.0)	— (30.2)		
22,0 (75)	10,3 (21.6)	10,4 (21.8)	10,4 (22.0)	10,6 (22.3)
28,0 (95)	6,8 (14.1)	6,9 (14.3)	6,9 (14.3)	7,0 (14.6)
34,0 (115)	4,6 (9.7)	4,6 (9.7)	4,7 (9.7)	4,7 (9.7)
40,0 (130)	3,2 (7.3)	3,2 (7.3)	3,2 (7.3)	2,6 (6.2)
44,0 (150)	2,6 (4.9)	2,6 (4.0)	1,6 (—)	
50,0 (165)	— (2.2)			
52,0 (175)				
56,0 (190)				

model 12000



Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

# Luffing jib load charts

## Model 12000 Series 2 Liftcrane Luffing Jib Capacities

### No. 12000 Luffing Jib on Luffing Boom

34 000 kg (75,000 lb) Counterweight

360° Rating

kg (lb) x 1 000

73° Boom Angle

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Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)	45,7 (150)
Radius					
16,0 (55)	— (35.9)				
20,0 (65)	13,0 (29.1)	12,4 (27.6)			
22,0 (75)	11,5 (24.0)	11,0 (23.1)	10,4 (22.3)	— (20.3)	
26,0 (85)		8,5 (19.6)	8,4 (18.7)	8,0 (17.9)	6,9 (15.4)
28,0 (95)			7,4 (—)	7,2 (15.2)	6,6 (13.9)
32,0 (105)					5,3 (11.9)
34,0 (115)					
38,0 (125)					
40,0 (135)					
42,0 (140)					

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)	45,7 (150)
Radius					
16,0 (55)					
20,0 (65)					
22,0 (75)					
26,0 (85)		8,8 (19.6)	8,1 (17.9)		
28,0 (95)			7,5 (15.9)	6,9 (15.0)	— (13.0)
32,0 (105)		6,6 (14.6)	6,2 (13.7)	5,8 (13.0)	5,4 (12.1)
34,0 (115)		5,9 (12.8)	5,6 (11.9)	5,3 (11.2)	4,9 (10.4)
38,0 (125)			4,7 (—)	4,5 (9.9)	4,1 (9.0)
40,0 (135)					3,8 (7.9)
42,0 (140)					3,1 (6.6)
					2,8 (6.2)

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)
Radius				
28,0 (95)	— (15.2)			
32,0 (105)	6,3 (13.9)	5,8 (13.0)	— (11.2)	
34,0 (115)	5,7 (12.1)	5,3 (11.2)	5,0 (10.6)	4,2 (9.3)
38,0 (125)	4,8 (10.6)	4,5 (9.9)	4,2 (9.3)	3,7 (8.2)
40,0 (135)	4,4 (9.3)	4,1 (8.6)	3,8 (7.9)	3,4 (7.1)
44,0 (145)	3,7 (8.2)	3,5 (7.7)	3,1 (6.8)	2,8 (6.2)
46,0 (155)		3,2 (—)	2,8 (6.0)	2,5 (5.3)
48,0 (160)			2,6 (—)	2,3 (4.9)
52,0 (175)				
56,0 (185)				

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)
Radius				
28,0 (95)				
32,0 (105)				
34,0 (115)		— (10.1)		
38,0 (125)		4,3 (9.5)	3,8 (8.4)	— (6.6)
40,0 (135)		3,9 (8.4)	3,6 (7.5)	2,9 (6.6)
44,0 (145)		3,2 (7.1)	2,9 (6.4)	2,5 (5.5)
46,0 (155)		2,9 (6.2)	2,6 (5.5)	2,2 (4.6)
48,0 (160)		2,7 (5.7)	2,4 (5.1)	1,9 (4.2)
52,0 (175)		2,2 (4.6)	1,8 (4.0)	1,5 (3.3)
56,0 (185)		1,7 (—)	1,5 (3.3)	1,7 (3.5)

Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

model 12000  


# **luffing jib load charts**

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## **Model 12000 Series 2 Liftcrane Luffing Jib Capacities No. 12000 Luffing Jib on Luffing Boom**

**34 000 kg (75,000 lb) Counterweight**

## **360° Rating**

**kg (lb) x 1 000**

**63° Boom Angle**

Radius	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)	45,7 (150)	Radius	18,2 (60)	24,4 (80)	30,5 (100)	36,6 (120)
22,0 (75)	— (22.5)					22,0 (75)				
24,0 (80)	9,7 (21.2)					24,0 (80)				
26,0 (85)	8,6 (19.4)	7,9 (17.6)				26,0 (85)				
28,0 (95)		7,4 (15.7)	— (13.7)			28,0 (95)				
32,0 (105)			5,5 (12.3)	4,7 (10.4)		32,0 (105)	6,0 (13.4)			
34,0 (115)				4,6 (9.7)	— (6.4)	34,0 (115)	5,5 (11.7)	4,8 (10.6)		
38,0 (125)					2,9 (6.4)	38,0 (125)	4,7 (10.4)	4,2 (9.3)	3,5 (7.9)	
40,0 (135)						40,0 (135)		3,9 (8.2)	3,3 (7.1)	2,4 (5.3)
44,0 (145)						44,0 (145)			2,8 (6.2)	2,2 (4.9)
46,0 (150)						46,0 (150)				2,0 (4.4)

Boom m (ft)	18,2 (60)	24,4 (80)	30,5 (100)	Boom m (ft)	18,2 (60)
Radius				Radius	
36,0 (120)	— (9.7)			36,0 (120)	
38,0 (125)	4,4 (9.7)			38,0 (125)	
40,0 (130)	4,0 (9.0)	3,2 (7.1)		40,0 (130)	
42,0 (140)	3,6 (7.9)	3,1 (6.8)	— (4.6)	42,0 (140)	
44,0 (150)	3,4 (7.1)	2,9 (6.0)	2,0 (4.6)	44,0 (150)	— (5.1)
48,0 (160)	2,9 (—)	2,4 (5.1)	1,9 (4.0)	48,0 (160)	2,2 (4.9)
50,0 (170)		2,1 (—)	1,7 (3.3)	50,0 (170)	2,0 (4.0)
52,0 (175)			1,5 (3.1)	52,0 (175)	1,7 (3.7)
54,0 (180)				54,0 (180)	1,6 (3.3)
58,0 (190)				58,0 (190)	— (2.9)

Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purpose

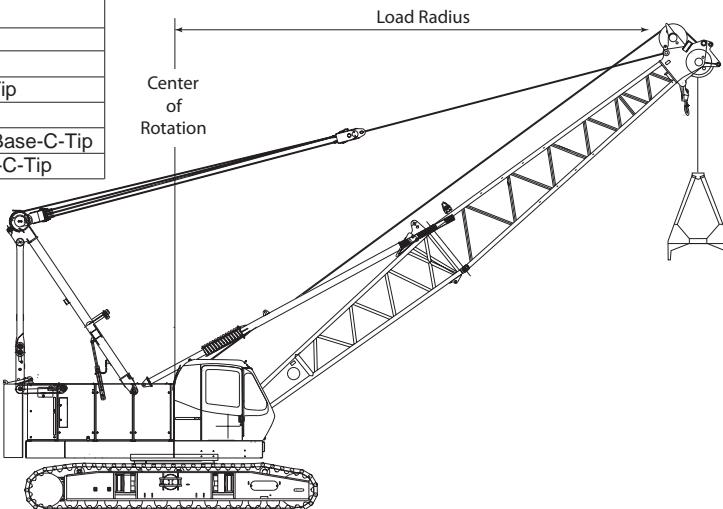
## Boom:

Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections.  
 Basic boom length: 15,2 m (50 ft)  
 Max. boom length: 30,5 m (100 ft)  
 Limit on clamshell bucket weight: 2 100 kg (4,600 lbs)

## Boom Component Chart

Boom length ft (m)	Boom arrangement
15,2 (50)	Base-Tip
18,3 (60)	Base-A-Tip
21,3 (70)	Base-A-A-Tip, Base-B-Tip
24,4 (80)	Base-A-B-Tip
27,4 (90)	Base-A-A-B-Tip, Base-B-B-Tip, Base-C-Tip
30,5 (100)	Base-A-B-B-Tip, Base-A-C-Tip

Base = 7,6 m (25 ft)  
 Insert: A = 3,05 m (10 ft)  
 B = 6,10 m (20 ft)  
 C = 12,2 m (40 ft)  
 Tip = 7,2 m (25 ft)



- Figures represent maximum allowable capacity, and assume level ground and ideal working conditions.
- Capacities are calculated at 66% of the minimum tipping loads.
- Capacities are maximum recommended by PCSA Standard #4. Allowances must be made by the user for such unfavorable conditions as a soft or uneven supporting surface, rapid cycle operations, or bucket suction.
- The combined weight of the bucket and load must not exceed these capacities.
- Boom length for clamshell operation should not exceed 30,5 m (100 ft).

## Clamshell Capacities

**10 000 kg (22,050 lb) Counterweight (One Upper Counterweight, Crawlers Extended)**

Boom m (ft)	15,2 (50)	18,3 (60)	21,3 (70)	24,4 (80)	27,4 (90)	30,5 (100)
<b>Radius</b>						
7,0 (22)	<b>10,0 (25,0)</b>					
8,0 (26)	<b>10,0 (25,0)</b>					
9,0 (30)	<b>10,0 (25,0)</b>	<b>10,0 (25,0)</b>				
10,0 (34)	<b>10,0 (25,0)</b>	<b>9,7 (25,0)</b>	<b>9,7 (25,0)</b>			
14,0 (45)	<b>10,0 (23,1)</b>	<b>7,8 (22,9)</b>	<b>7,8 (22,7)</b>	<b>7,8 (22,5)</b>	<b>7,8 (21,6)</b>	
15,0 (50)		<b>6,6 (19,8)</b>	<b>6,6 (19,6)</b>	<b>6,6 (19,4)</b>	<b>6,6 (19,2)</b>	<b>6,6 (18,5)</b>
17,0 (55)		<b>5,7 (12,5)</b>	<b>5,7 (17,2)</b>	<b>5,7 (17,0)</b>	<b>5,7 (16,8)</b>	<b>5,7 (16,5)</b>
18,0 (60)			<b>5,0 (15,2)</b>	<b>5,0 (15,0)</b>	<b>5,0 (14,8)</b>	<b>5,0 (14,6)</b>
21,0 (70)				<b>4,4 (11,9)</b>	<b>4,3 (11,7)</b>	<b>4,2 (11,5)</b>
24,0 (80)					<b>— (9,5)</b>	<b>— (9,3)</b>
25,0 (85)						<b>— (8,4)</b>
27,0 (90)						<b>— (7,7)</b>

model 12000



# Manitowoc Crane CARE

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**Crane CARE** is Manitowoc's comprehensive service and support program. It includes classroom and on-site training, prompt parts availability, expert field service, technical support and documentation — for every one of the more than 7,000 Manitowoc cranes currently in use throughout the world.

That's commitment you won't find anywhere else.

That's **Crane CARE**.

## Service Training

Manitowoc specialists work with you in our training center and in the field to make sure you know how to get maximum performance, reliability and life from your cranes.

Manitowoc Cranes Technical Training Center provides valuable multi-level training, which is available for all models and attachments, in the following format:

- **Basic** – Provides technicians with the basic skills required in our Level I and II classes covering hydraulic and electrical theory and schematics, pump, motor, control, and LMI operation, and the use of meters and gauges.
- **Level 1** – This model-specific class covers theory and offers hands-on training and trouble shooting for all crane systems.
- **Level 2** – This model-specific class provides in depth coverage of all crane systems and components, and advanced troubleshooting of simulated faults.  
(Requires Level 1.)
- **Level 3/Master** – Covering all EPIC models and the 4100W, this class stresses high level system knowledge and trouble shooting of simulated faults.  
(Requires Level 2.)

## Parts Availability

Genuine Manitowoc replacement parts are accessible through your distributor 24 hours a day, 7 days a week, 365 days a year.

### Service Interval Kits

Provides all the parts required by Manitowoc's Preventative Maintenance Checklist.

### Hydraulic Filter Kit

Consists of the following:

- Filter Element - Hydraulic in Tank (4)

### Cummins Model QSZ15-C600 Diesel

#### – Service Interval Kits

### 200 Hour Kit

Consists of the following:

#### Engine

- Filter Oil (1)
- Filter Water (1)
- Filter Fuel (1)

### 1,000 Hour Kit

Consists of the following:

#### Engine

- Filter Air Cleaner - Primary (1)
- Filter Oil (1)
- Filter Water (14)
- Filter Fuel (1)

#### Hydraulic

- Filter Element - Hydraulic in Tank (4)
- Element - Hydraulic Tank Breather (1)

### 2,000 Hour Kit

Consists of the following:

#### Engine

- Filter, Air Cleaner - Primary (1)
- Filter, Air Cleaner - Safety (1)
- Filter, Oil (1)
- Filter, Water (1)
- Filter, Fuel (1)
- Ether, (Bottle) (1)
- Sensor, Coolant Level (10)
- Belt, Fan (1)
- Belt, Alternator (set of two) (1)
- Filter, Element (1)

#### Hydraulic

- Filter Element - No substitutions allowed
- Filter - Hydraulic In-Tank Suction (4)

### Kit, Engine Coolant Additive (SCA) Test (1)

### Kit, Seal (for hydraulic in tank filter) (1)

### Seal, Radial (for air cleaner) (1)

### Hydraulic Test Kit

Protect your investment by demanding Genuine Manitowoc Parts Service Kits. The Hydraulic Service Kit consist of the following:

- All hydraulic fittings to access all pressures and flows.
- Hydraulic flow meters and pressure gauges to record hydraulic data.
- Electrical "Break out" harnesses to access voltages on all electrical circuits on all machines.
- Fluke Digital volt ohm meter, as used in all Manitowoc service literature.

# Manitowoc Crane CARE

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## Hydraulic Test Kit with case

The above kit plus a custom heavy-duty carrying case.

## U.S. Standard Tools Kit

All standard tools needed to properly maintain and service your crane. (Does not include torque wrench.)

## Field Service

Factory-trained service experts are always ready to help maintain your crane's peak performance.

For a worldwide listing of dealer locations, please consult our website at: [www.manitowoccranegroup.com](http://www.manitowoccranegroup.com)

## Technical Support

Manitowoc's dealer network and factory personnel are available 24 hours a day, 7 days a week, 365 days a year to answer your technical questions and more, with the help of computerized programs that simplify crane selection, lift planning, and ground-bearing calculations.

For a worldwide listing of dealer locations, please consult our website at: [www.manitowoccranegroup.com](http://www.manitowoccranegroup.com)

## Technical Documentation

Manitowoc has the industry's most extensive documentation, and the easiest to understand, available in major languages and formats that include print, disk and videotape.

Additional copies available through your Authorized Manitowoc Distributor.

- Crane Operator's Manual
- Crane Parts Manual
- Crane Capacity Manual
- Crane Vendor Manual
- Service Manual (EPIC)
- Luffing Jib Operator's/Parts Manual
- Capacity Chart Manual - Attachments

CD rom versions of the Operator's and Parts Manuals are shipped with each crane.

Also available are the following CDs:

- Crane CARE Owner CD –
- Ground Bearing Pressure Estimator CD
- Crane Selection and Planning Software (CompuCRANE®)
- EPIC® Crane Library CD consisting of capacity charts, range diagrams, wire rope specifications, travel specifications, crane weights, counterweight arrangements, luffing jib raising procedures, operating range diagrams, drum and lagging charts, boom rigging drawings, jib rigging drawings, outline dimensions and wind condition charts.

Available from your Authorized Manitowoc Cranes Distributor, these VHS videos are available in NTSC, PAL and SECAM formats.

- Your Capacity Chart Video
- Respect the Limits Video
- Crane Safety Video
- Boom Inspection/Repair Video

## Crane CARE Package

Manitowoc has assembled all of the available literature, CD's and videos listed above plus several Manitowoc premiums into one complete Crane CARE Package.



model 12000





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Seoul

Tel: +82 2 3439 0400

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### Factories

#### U.S.A.

Manitowoc

Shady Grove

#### Brazil

Alphaville

#### France

Charlieu

La Clayette

Moulins

#### India

Calcutta

Puna

#### Italy

Niella Tanaro

#### Germany

Wilhelmshaven

#### Portugal

Fânzeres

#### China

Zhangjiagang

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment and price changes without notice. Illustrations shown may include optional equipment and accessories, and may not include all standard equipment.



# Manitowoc 12000-1

## Product Guide

ASME B30.5

Metric / Imperial



### Features

- 110 t (120 USt) capacity
- 70,1 m (230 ft) heavy-lift boom
- Max boom + jib combination:  
61 m (200 ft) + 21,3 m (70 ft)
- 213 kW (285 HP) engine
- 163 m/min (525 fpm) maximum line speed
- 110 kN (25,000 lb) rated line pull

# Features

## Energy saving systems

Green-Engine mode conserves fuel during full speed drum operation under load, at a lower engine RPM. Other available options include Green-Winch Mode and Auto Idling Stop Mode.



## Self-erecting counterweight

Eliminates the need for an assist crane, and also allows for reduced counterweight chart operation.



## Retractable crawlers

Crawlers can be extended and retracted for better jobsite maneuverability. On some models, these crawlers can also ship attached for easier transport and quicker setup.



# Contents

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Manitowoc Crane Care	22

# Specifications

## Upperworks



### Engine

HINO J08E-UV, 6 cylinder, water-cooled diesel, direct fuel injection with turbocharger, 213 kW (285 HP) at 2100 high-idle RPM. Maximum torque 1017 N•m (750 lb•ft) net at 1,600 rpm; Interim Tier 4/Stage IIIB (Required for sale in the US/Canada/Europe; requires "Ultra Low Sulfur Diesel")

HINO J08E-VM, 6 cylinder, water-cooled diesel, direct fuel injection with turbocharger, 213 kW (285 HP) at 2100 high-idle RPM. Maximum torque 1017 N•m (750 lb•ft) net at 1,600 rpm; Tier 3 (Required for sale outside the US/Canada/Europe)

One diesel fuel tank, 400 liters (105 gallons) capacity.

Two 12 volt 136 AH capacity batteries, 24 volt system and 90 amp alternator.

All wiring harnesses and connectors are numbered for easier servicing. Machine is equipped with individual fused branch circuits.



### Controls

Full-flow hydraulic control system for constant variable pressure to front and rear drums, boom hoist brakes and clutches. Controls respond instantly to the touch, delivering smooth function operation.

#### Relief valve pressures:

Load hoist, boom hoist

and propel system ..... 31.9 MPa (4,630 psi)

Swing system ..... 27.5 MPa, (3,989psi)

Control system ..... 5.4 MPa (783 psi)



### Hydraulic system

All four variable displacement piston-type pumps are driven by a heavy-duty pump drive. One of these pumps is used in the right propel circuit and hook hoist circuit and can accommodate an optional third drum circuit. Another is used in the left propel circuit and hook hoist circuit. A third pump is used in the boom hoist circuit. The fourth variable displacement pump is used in the swing circuit. In addition, two gear pumps are used in the control system and auxiliary equipment, and two gear pumps serve the brake cooling system.

Maximum pressure rating ..... 31.9 MPa (4,630 psi)

Load hoist and propel ..... 2 Piston pumps

Boom hoist ..... 1 Piston pump

Swing ..... 1 Piston pump

Control system and auxiliary ..... 2 Gear pumps

Brake cooling system ..... 2 Gear pumps

Hydraulic tank ..... 535 liter (141 US gallon)

Cooling: Oil-to-air heat exchanger (plate-fin type).

Filtration: Full-flow and bypass type with replaceable paper element.



### Drums

Front and rear drums for load hoist powered by variable displacement piston-type motors, driven through planetary reducers. Powered hoisting/lowering and free-fall operation is standard. Drum turn indicators for front and rear drums are also standard.

**Brake & Clutches (compatible):** Forced-circulation oil-cooled wet-type multi-disc brakes, each using positive and negative actuation. An external ratchet is fitted for locking the drums.

**Drums:** (front and rear) 614 mm (24.2") P.C.D. x 617 mm (24.3") wide drums, grooved for 26.0 mm wire rope.

#### Wire rope capacity:

Front drum 260 m (853 ft) working length

Rear drum 230 m (754 ft) working length

**Line speed:** Single line on the first drum layer

**Hoisting:** ..... 120m/min (390 ft/min)

**Lowering:** ..... 120m/min (390 ft/min)

**Optional third drum:** free-fall is optional; drum grooved for 26 mm wire rope. Wire rope capacity working length is 190 m (623').



### Swing system

**Swing unit:** Powered by a hydraulic piston-type motor driving spur gears through planetary reducers, the swing system provides 360° rotation.

**Swing brake:** A spring-set, hydraulically released multiple-disc brake is internally fitted in swing motor.

**Swing lock:** 4-position lock for transportation.

# Specifications

**Rotating bed turntable:** Single-row ball bearing with an integral internally cut swing gear.

**Swing speed:** 3.2 rpm



## Boom support system

Single drum powered by a hydraulic axial piston motor through a planetary reducer.

**Brake:** A spring-set, hydraulically released multiple-disc brake is mounted on the boom hoist motor. An external ratchet is fitted for locking the drum.

**Drum:** Single drum, grooved for 20 mm diameter wire rope. Boom Hoist reeving is 10-part line.

### Wire Rope Capacity:

Drum 155 m (508 ft) working length.

**Line speed:** Single line on the first drum layer

**Hoisting:** ..... 48m/min (157 ft/min)

**Lowering:** ..... 48m/min (157 ft/min)



## Gantry

This high folding type gantry is fitted with a sheave frame for boom hoist reeving. It provides full up, full down positions. Hydraulic lift is standard.



## Counterweight

Upper weight (5 pieces): 76,280 lb (34,600 kg)  
Carbody weight (2 pieces): 14,330 lb (6,500 kg)



## Operator's cab

Totally enclosed, full vision cab fitted with tinted safety glass. A fully adjustable, highbacked seat with arm rests permits operators to set their ideal working position. Short handle control levers; electronic twist grip hand throttle. Joystick controls are optional. An air conditioner, a signal horn and windshield wiper are standard features.

### Controls

Full-flow hydraulic control system for constant variable pressure to front and rear drums, boom hoist brakes and clutches. Controls respond instantly to the touch, delivering smooth function operation.

### Safety device

New easy to read at a glance LMI and maintenance display. Function lock lever, anti-two-block, boom over hoist limit switch, boom angle indicator, signal horn, boom hoist drum lock, front and rear drum lock, swing lock, swing alarm (buzzer and lamps), boom backstops and load moment indicator.

### Lights:

2 - Front flood lights

1 - Cab inside light

## Lowerworks

### Carbody

The durable carbody features steel welded construction with extendible axles.

### Crawlers

Crawler assemblies can be hydraulically extended for wide-track operation. Crawler belt tension adjusted with hydraulic jack and maintained by shims between idler block and frame.

### Crawler drive

The independent hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor driving a propel sprocket through a planetary gearbox. The hydraulic motor and gearbox are built into the crawler side frame within the shoe width. The track rollers are sealed for maintenance-free operation.

### Crawler brakes

Spring set, hydraulically released, multiple disc-type parking brakes are built into each propel drive.

### Steering mechanism

The hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite direction) and differential track speed.

### Crawler shoes

914 mm (36") wide each crawler.

### Travel speed

(High/Low) 1.4/1.0 km/h (0.87/0.62 mph)

# Specifications

## Attachments



### Boom

Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections. Boom tip is open throat construction. Two idler sheaves and four point sheaves are standard.

Basic boom length 15,2 m (50') consists of the boom butt section 7,62 m (25' 0") and boom top section 7,62 m (25' 0").

Optional boom inserts are available to provide extension capabilities. They also have welded lattice construction with tubular, high-tensile steel chords and pin connections on each one of 3,0 m (10'), 6,1 m (20'), 12,2 m (40') inserts.

Maximum total length of boom 70,1 m (230').



### Fixed jib

The optional fixed jib employs welded lattice construction with tubular, high-tensile steel chords with pin connections between sections.

Basic jib length 9,14 m (30') consists of jib butt section 4,57 m (15') and jib top section 4,57 m (15').

Optional jib boom inserts of 3,0 m (10'), 6,1 m (20') are available for extension capabilities up to 21,3 m (70').

Maximum total length of boom and jib 61,0 m (200') + 21,3 m (70') is 82,3 m (270').

## Tools and accessories

A set of tools and accessories are furnished.

## Optional equipment

- Optional: Blocks and Hooks each with roller bearing sheaves grooved for 26.0 mm diameter wire rope, and roller bearing swivel with hook latch.
- 13,5 t ball hook, 450 kg, wedge socket for 26 mm wire rope. (15 USt ball hook, 1,310 lb wedge socket for 26 mm wire rope.)
- 35 t hook block, 700 kg with one 500 mm Nominal O.D. roller bearing sheaves. (40 USt hook block, 1,881 lb with one 24" Nominal O.D. roller bearing sheaves.)

► 70 t hook block, 900 kg, with three 500 mm Nominal O.D. roller bearing sheaves. (90 USt hook block, 4,060 lb, with three 24" Nominal O.D. roller bearing sheaves.)

► 110 t hook block, 1700 kg, with five 500 mm Nominal O.D. roller bearing sheaves. (120 USt hook block, 3,760 lb with five 24" Nominal O.D. roller bearing sheaves.)

► Optional: Detachable upper boom point with one 575 mm Nominal outer diameter roller bearing steel sheave grooved for 26mm rope for liftcrane.

► Machine inclination sensor.

► Swing angle detection and angle limiter.

► Hydraulic tagline.

► External lamp for overload alarm.

## Working weight

Approximately 99,900 kg (220,300 lb) including upperworks and lowerworks, full upper counterweights, full carbody counterweight and 15,2 m (50') basic boom.

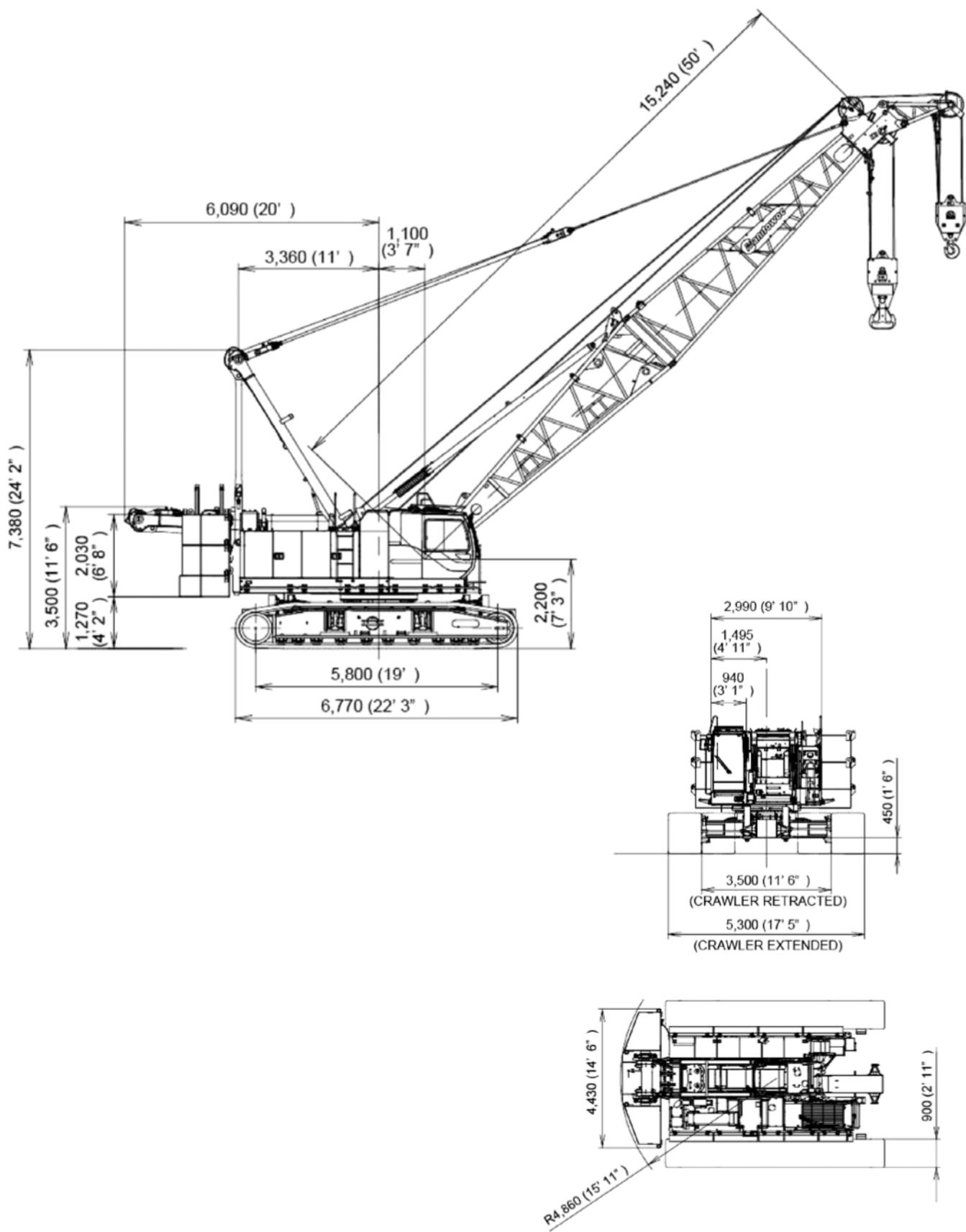
## Ground pressure

Approximately 93.9 kPa (13.6 psi) with basic boom and no load.

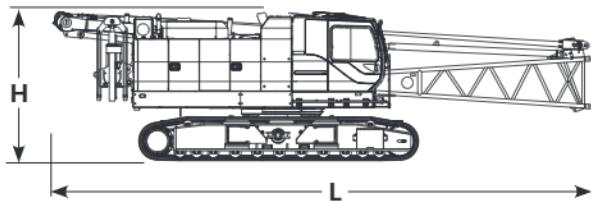
## Gradeability

With basic boom: 40%.

# Outline dimensions



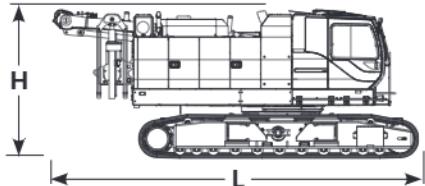
# Outline dimensions



## Upperworks x 1

Length	15,78 m	51' 9"
Width	3,50 m	11' 8"
Height	3,50 m	11' 6"
Weight	57 520 kg	126,808 lb

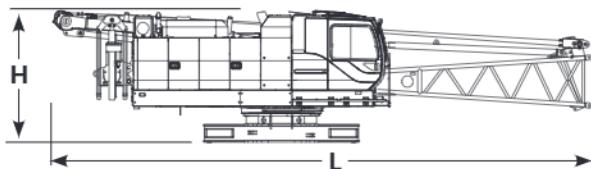
Note: Weight includes base machine, crawler, gantry, maximum hoist and whip lines on drums, boom butt, full hydraulic fluid reservoir, and one third tank of fuel.



## Upperworks x 1

Length	9,42 m	30' 11"
Width	3,50 m	11' 6"
Height	3,50 m	11' 6"
Weight	54 200 kg	119,808 lb

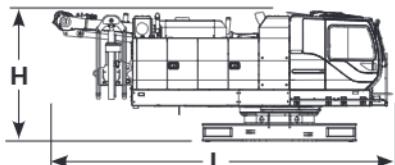
Note: Weight includes base machine, crawler, gantry, maximum hoist and whip lines on drums, full hydraulic fluid reservoir, and one third tank of fuel.



## Upperworks without crawlers x 1

Length	15,78 m	51' 9"
Width	2,99 m	9' 10"
Height	3,05 m	10' 0"
Weight	33 660 kg	74,206 lb

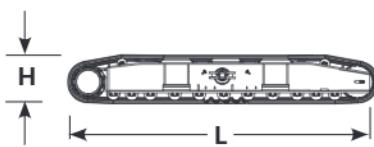
Note: Weight includes base machine, gantry, maximum hoist and whip lines on drums, full hydraulic fluid reservoir, and one third tank of fuel.



## Upperworks without crawlers x 1

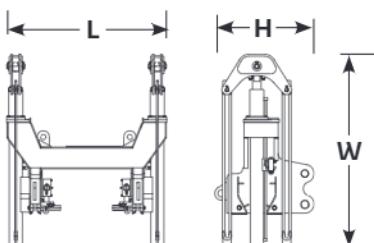
Length	8,65 m	28' 5"
Width	2,99 m	9' 10"
Height	3,05 m	10' 0"
Weight	30 340 kg	66,887 lb

Note: Weight includes base machine, gantry, maximum hoist and whip lines on drums, full hydraulic fluid reservoir, and one third tank of fuel.



## Crawlers x 2

Length	6,77 m	22' 2"
Width	0,90 m	2' 11"
Height	1,13 m	3' 9"
Weight	11 930 kg	26,301 lb

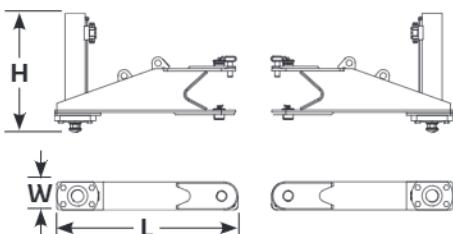


## Self removal unit x 1

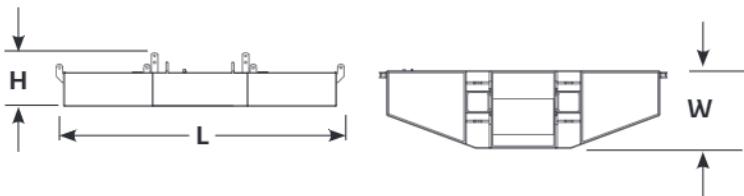
Length	1,59 m	5' 3"
Width	1,90 m	6' 3"
Height	0,98 m	3' 3"
Weight	870 kg	1,918 lb

► Option

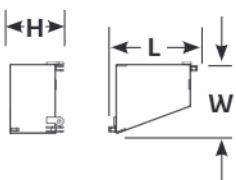
# Outline dimensions



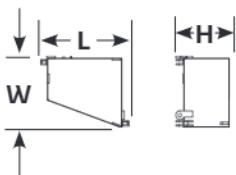
Hydraulic jack (if removed)	x 1
Length	1,48 m 4' 10"
Width	0,23 m 0' 9"
Height	0,97 m 3' 2"
Weight	320 kg 705 lb



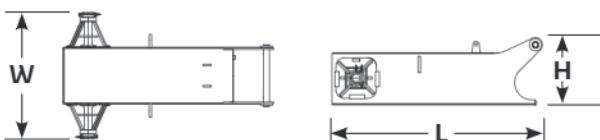
Upper counterweight A	x 1
Length	4,43 m 14' 6"
Width	1,19 m 3' 11"
Height	0,83 m 2' 9"
Weight	11 600 kg 25,573 lb



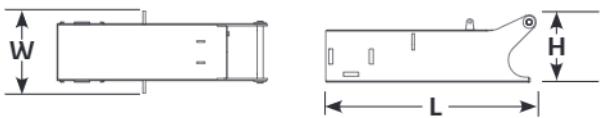
Upper counterweight B	x 2
Length	1,45 m 4' 9"
Width	1,17 m 3' 10"
Height	0,88 m 2' 11"
Weight	5 750 kg 12,676 lb



Upper counterweight C	x 2
Length	1,45 m 4' 9"
Width	1,17 m 3' 10"
Height	0,88 m 2' 11"
Weight	5 750 kg 12,676 lb



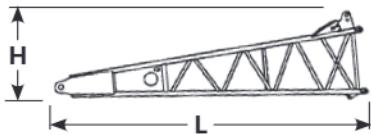
Carbody counterweight with float	x 1
Length	2,08 m 6' 10"
Width	1,26 m 4' 2"
Height	0,66 m 2' 2"
Weight	3 320 kg 7,319 lb



Carbody counterweight without float	x 1
Length	2,08 m 6' 10"
Width	0,82 m 2' 8"
Height	0,66 m 2' 2"
Weight	3 250 kg 7,165 lb

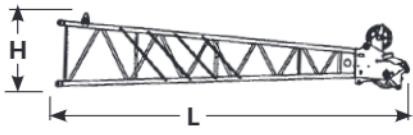
Option

# Outline dimensions



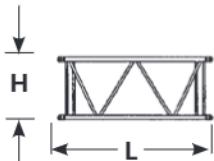
## Boom butt 7,6 m (25 ft) x1

Length	7,79 m	25' 7"
Width	1,73 m	5' 8"
Height	2,06 m	6' 9"
Weight	2235 kg	4,927 lb



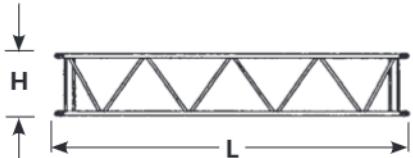
## Boom top 7,6 m (25 ft) x1

Length	8,32 m	27' 4"
Width	1,68 m	5' 6"
Height	1,65 m	5' 5"
Weight	1525 kg	3,360 lb



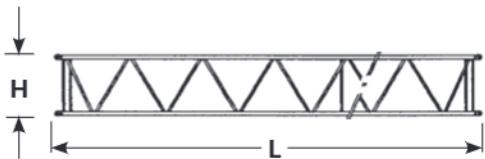
## Boom insert 3,0 m (10 ft) x1,2

Length	3,16 m	10' 4"
Width	1,68 m	5' 6"
Height	1,69 m	5' 7"
Weight	380 kg	840 lb



## Boom insert 6,1 m (20 ft) x1,2

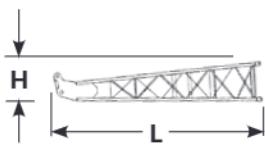
Length	6,21 m	20' 5"
Width	1,68 m	5' 6"
Height	1,69 m	5' 7"
Weight	655 kg	1,445 lb



## Boom insert 12,2 m (40 ft) x1,2,3

Length	12,31 m	40' 4"
Width	1,68 m	5' 6"
Height	1,69 m	5' 7"
Weight	1195 kg	2,635 lb

Note: Use of one "A" type insert with lug required for any boom combinations that require a 12,2 m (40') insert.

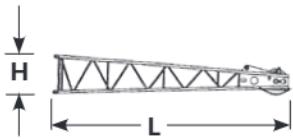


## Fixed jib butt x1

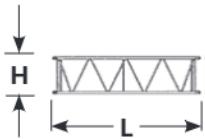
Length	4,81 m	15' 9"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	200 kg	440 lb

► Option

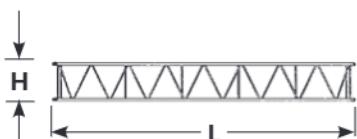
# Outline dimensions



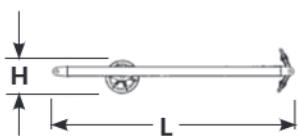
Fixed jib top		x1
Length	5,00 m	16' 5"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	280 kg	620 lb



Fixed jib insert 3,0 m (10 ft)		x1,2
Length	3,11 m	10' 2"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	100 kg	220 lb



Fixed jib insert 6,1 (20 ft)		x1,2
Length	6,16 m	20' 3"
Width	0,80 m	2' 8"
Height	0,80 m	2' 8"
Weight	180 kg	400 lb



Fixed jib strut		x1
Length	3,62 m	11' 11"
Width	0,84 m	2' 9"
Height	0,62 m	2' 1"
Weight	250 kg	550 lb

Option

# Performance data

Line pull		
	Rated line pull kg (lb)	*Maximum line pull kg (lb)
Front drum	11 400 (25,100)	21 200 (46,800)
Rear drum	11 400 (25,100)	21 200 (46,800)
Optional 3rd drum	11 400 (25,100)	21 200 (46,800)

\* Maximum line pull is not based on wire rope strength.

Wire rope specifications				
Use	Specs	Diameter mm	Working length m (ft)	Breaking strength kg (lb)
Front drum	IWRC 6 X Fi (29) C/O	26,0	260 (853)	54 431 (120,000)
Rear drum	IWRC 6 X Fi (29) C/O	26,0	230 (754)	54 431 (120,000)
Boom hoist drum	IWRC 6 X WS (31) C/O	20,0	155 (508)	33 430 (73,700)
Third drum (optional)	IWRC 6 X Fi (29) C/O	26,0	190 (623)	54 431 (120,000)

## Front and rear winch performance (optional: third winch)

Layer	Line speed m/min (ft/min)					
	1	2	3	4	5	6
Single line pull kg (lb)						
0 (0)	120 (394)	129 (422)	137 (450)	146 (479)	155 (505)	163 (535)
2 268 (5,000)	118 (387)	126 (415)	135 (443)	143 (471)	152 (499)	160 (526)
4 536 (10,000)	108 (353)	108 (353)	108 (353)	108 (353)	108 (353)	108 (353)
6 804 (15,000)	72 (235)	72 (235)	72 (235)	72 (235)	72 (235)	72 (235)
9 072 (20,000)	52 (117)	52 (117)	52 (117)	52 (117)	52 (117)	52 (117)
11 340 (25,000)	43 (141)	43 (141)	43 (141)	43 (141)	43 (141)	43 (141)
13 608 (30,000)	36 (118)	36 (118)	36 (119)	37 (121)	37 (122)	37 (123)
15 876 (35,000)	31 (103)	32 (104)	32 (105)	32 (105)	—	—
18 144 (40,000)	28 (92)	28 (92)	—	—	—	—

NOTE: Line speeds and line pull based on single line.  
Line pulls are not based on wire rope strength.

# Load chart notes

1. Rated loads included in the charts are the maximum allowable freely suspended loads at a given boom length, boom angle and load radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or de-rate rated loads to allow for adverse conditions (such as soft or uneven ground, out-of-level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, multiple machine lifts, and traveling with a load).
2. Capacities do not exceed 75% of minimum tipping loads. Capacities based on factors other than machine stability such as structural competence are shown by asterisk \* in the charts located in the operator's crane cab.
3. The machine must be reeved and set-up as stated in the operation manual and all the instruction manuals. If these manuals are missing, obtain replacements. Boom backstops are required for all boom lengths. Gantry must be in the fully raised position for all operations. Crawlers must be fully extended and be locked in position. The crane must be leveled to within 1% on a firm supporting surface.
4. Do not attempt to lift where no radius or load is listed as crane may tip or collapse.
5. Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine capacity.
6. Weight of hooks, hook blocks, slings and other lifting devices are a part of the total load. Their total weight must be subtracted from the rated load to obtain the weight that can be lifted.
7. When lifting over boom point with jib or upper boom point installed, rated loads for the boom must be deducted as shown below.

Jib length m (ft)	Upper boom point	9,1 (30)	12,2 (40)	15,2 (50)	18,3 (60)	21,3 (70)
Deduct kg (lb)	318 (700)	1100 (2,400)	1500 (3,200)	2 000 (4,200)	2 400 (5,200)	2 900 (6,200)

8. The total load that can be lifted by the fixed jib is limited by rated jib loads. The total load that can be lifted with the upper boom point is limited by rated upper boom point loads.
9. Boom lengths for fixed jib mounting are 27,4 m (90 ft) to 61,0 m (200 ft).
10. An upper boom point cannot be used on a 70,1 m (230 ft) boom length.
11. The boom should be erected over the front of the crawlers, not laterally.
12. Least stable position is over the side.
13. Maximum hoist load for number of reeving parts of line for hoist rope.

## Maximum load for main boom

No. of parts of line	1	2	3	4	5
Maximum loads kg (lb)	11 300 (25,000)	22 600 (50,000)	33 900 (75,000)	45 200 (100,000)	56 500 (125,000)

No. of parts of line	6	7	8	9	10
Maximum loads kg (lb)	67 800 (150,000)	79 100 (175,000)	90 400 (200,000)	101 700 (225,000)	110 000 (240,000)

## Maximum load for fixed jib

No. of parts of line	1
Maximum loads kg (lb)	10 800 (24,000)

## Maximum load for upper boom point (on liftcrane boom)

No. of parts of line	1	2
Maximum loads kg (lb)	11 300 (25,000)	22 600 (50,000)

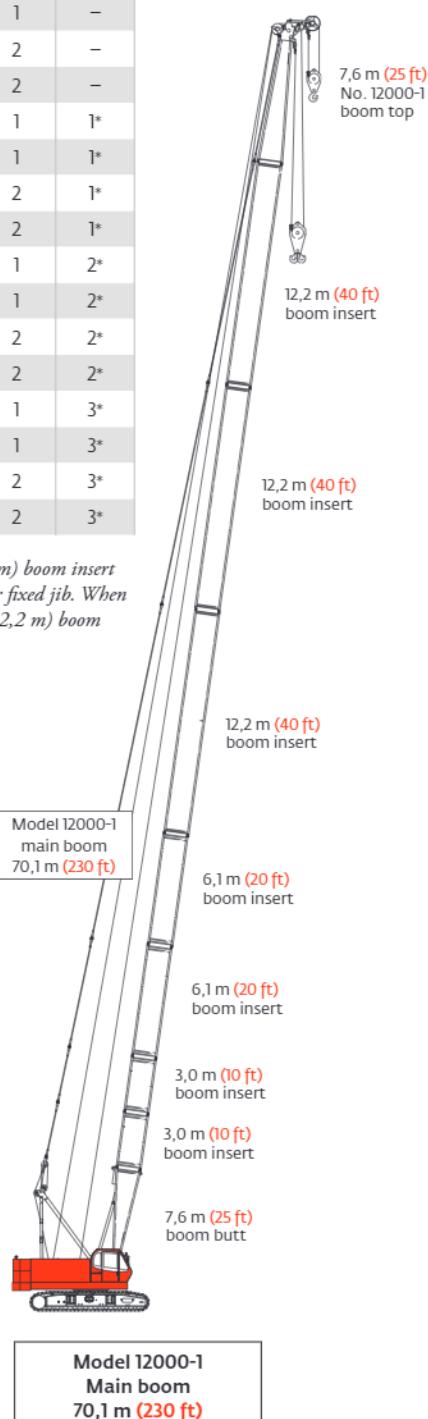
14. Lifting capacities listed apply only to the machine as originally manufactured for and supplied by Manitowoc Cranes, Inc. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.
15. Designed and rated to comply with ASME Code B30.5.

Operation of this equipment in excess of rated loads or disregard of instruction voids the warranty.

# Boom combinations

No. 12000-1 heavy-lift boom combinations			
Boom length m (ft)	Boom inserts		
	3,1 m (10 ft)	6,1 m (20 ft)	12,2 m (40 ft)
15,2 (50)	–	–	–
18,3 (60)	1	–	–
21,3 (70)	2	1	–
24,4 (80)	1	1	–
27,4 (90)	2	1	–
30,5 (100)	1	2	–
33,5 (110)	2	2	–
36,6 (120)	1	1	1*
39,6 (130)	2	1	1*
42,7 (140)	1	2	1*
45,7 (150)	2	2	1*
48,8 (160)	1	1	2*
51,8 (170)	2	1	2*
54,9 (180)	1	2	2*
57,9 (190)	2	2	2*
61,0 (200)	1	1	3*
64,0 (210)	2	1	3*
67,0 (220)	1	2	3*
70,1 (230)	2	2	3*

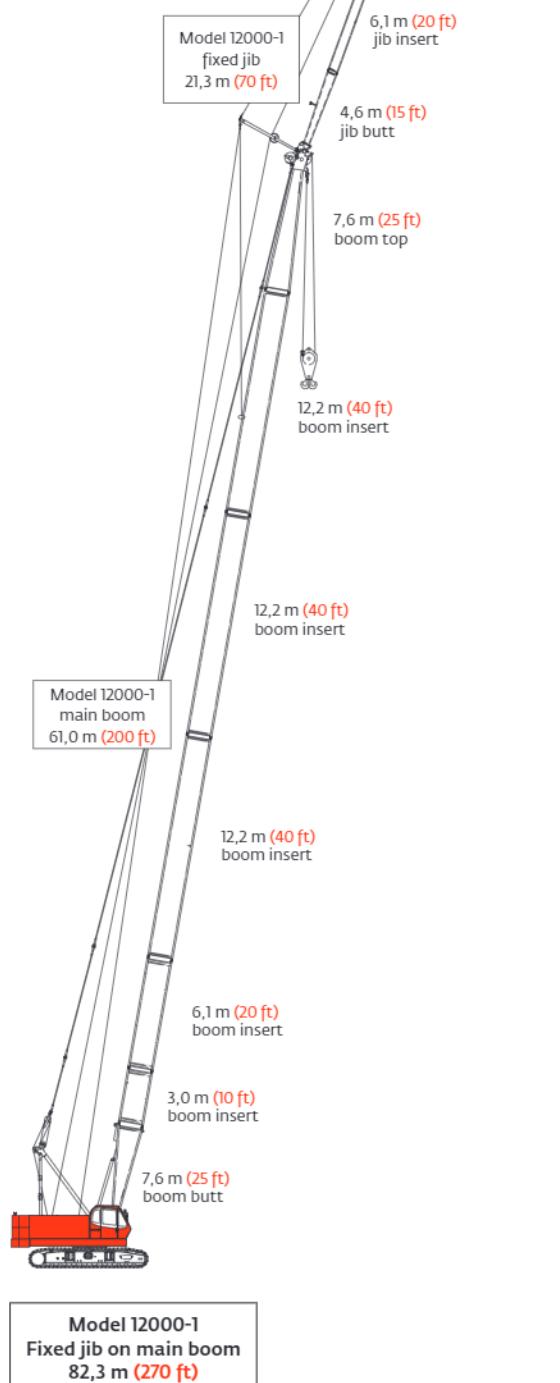
\* NOTE: One 40 ft (12,2 m) boom insert with lug 40A is required for fixed jib. When no jib is installed a 40 ft (12,2 m) boom can be used instead of 40A.



# Boom combinations

No. 12000-1 fixed jib combinations

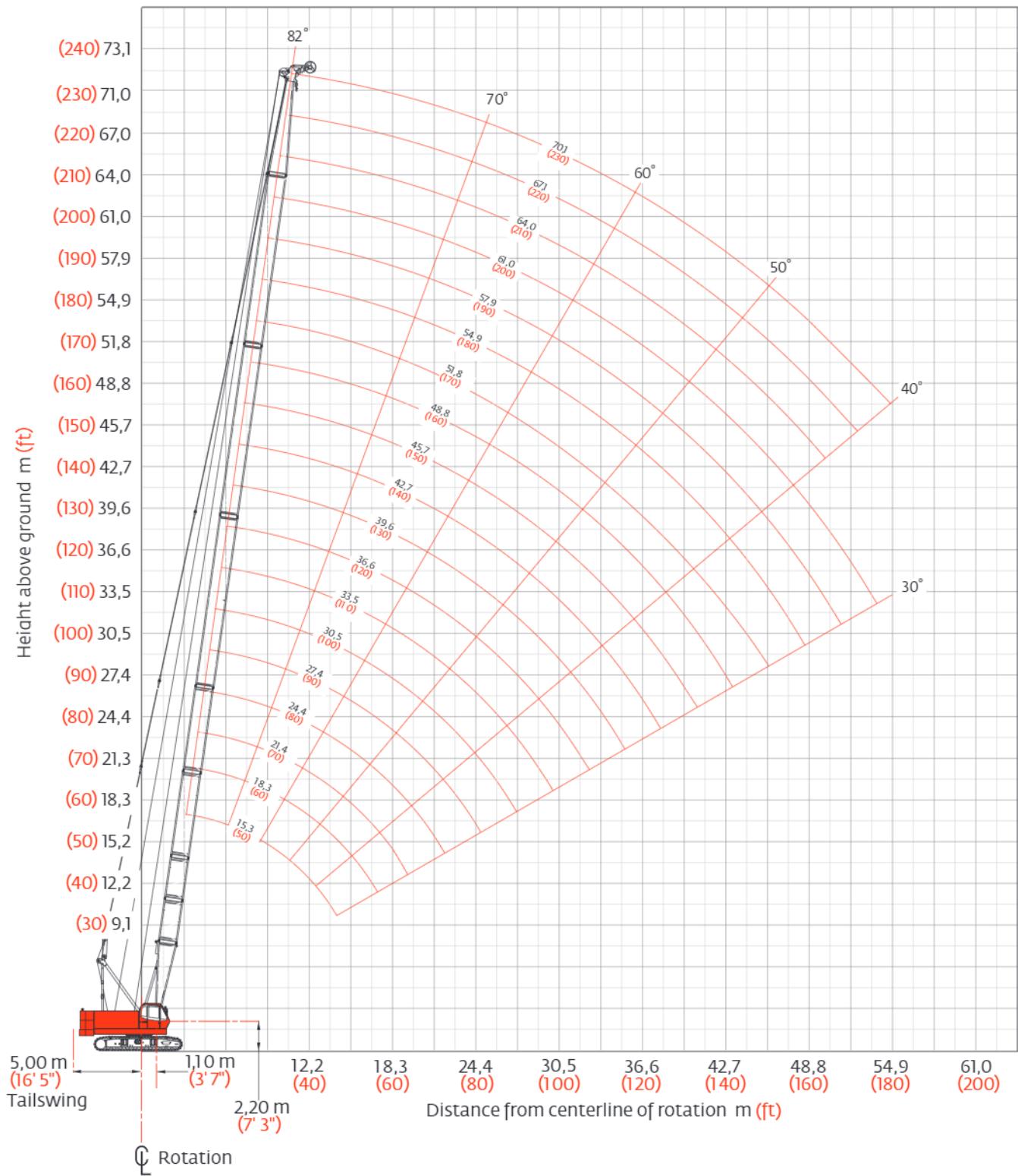
Fixed jib length m (ft)	Fixed jib inserts	
	3,1 m (10 ft)	6,1 m (20 ft)
9,1 (30)	–	–
12,2 (40)	1	–
15,2 (50)	–	1
18,3 (60)	1	1
21,3 (70)	–	2



Model 12000-1  
Fixed jib on main boom  
82,3 m (270 ft)

# Heavy-lift boom range diagram

No. 12000-1 main boom



# Heavy-lift boom load charts

## Model 12000-1 liftcrane boom capacities - 12000-1 main boom

34 600 kg (76,280 lb) crane counterweight, 6 500 kg (14,330 lb) carbonyl counterweight crawler extended

360° Rating

kg (lb) x 1 000

Boom m (ft)	15,2 (50)	18,3 (60)	21,3 (70)	24,4 (80)	27,4 (90)	30,5 (100)	33,5 (110)	36,6 (120)	39,6 (130)	42,7 (140)	45,7 (150)	48,8 (160)	51,8 (170)	54,9 (180)	57,9 (190)	61,0 (200)	64,0 (210)	67,1 (220)	70,1 (230)	
Radius																				
3,6 (12)	110,0 (240.0)																			
4,0 (14)	99,1 (206.0)	— (204.0)																		
4,5 (16)	88,4 (177.0)	87,6 (177.0)	86,2 (177.0)																	
5,5 (18)	68,0 (150.0)	67,9 (150.0)	67,9 (150.0)	68,0 (150.0)	67,9 (150.0)															
6,0 (20)	62,0 (135.0)	61,9 (135.0)	61,9 (135.0)	62,0 (135.0)	61,9 (135.0)	61,9 (135.0)														
7,0 (24)	53,6 (111.9)	53,6 (111.7)	53,6 (111.7)	53,6 (111.5)	53,6 (111.5)	53,1 (111.3)	53,0 (111.3)	53,3 (111.1)	— (100.0)											
8,0 (28)	44,5 (89.5)	44,3 (89.2)	44,3 (89.0)	44,3 (88.8)	44,3 (88.8)	44,2 (88.6)	44,1 (88.4)	44,1 (88.1)	44,0 (87.9)	43,9 (87.7)	— (87.7)									
10,0 (34)	32,8 (68.3)	32,2 (68.1)	32,2 (67.9)	32,2 (67.4)	32,2 (67.4)	32,1 (67.2)	32,0 (67.0)	32,0 (67.0)	31,9 (66.7)	31,8 (66.5)	31,7 (66.3)	31,7 (66.3)	31,6 (66.1)	31,5 (65.9)	30,0 (65.4)					
12,0 (40)	25,6 (55.1)	25,6 (54.6)	25,3 (54.4)	25,3 (54.2)	24,6 (54.0)	24,9 (53.7)	24,8 (53.5)	24,8 (53.5)	24,7 (53.3)	24,6 (53.1)	24,4 (52.6)	24,5 (52.9)	24,3 (52.4)	24,2 (52.2)	24,1 (52.0)	22,6 (50.0)	22,6 (50.0)	21,3 (46.7)	19,5 (42.7)	
14,0 (45)	— (47.1)	20,5 (46.7)	20,5 (46.5)	20,5 (46.2)	20,5 (46.0)	20,3 (45.8)	20,2 (45.6)	20,2 (45.6)	20,1 (45.4)	20,0 (45.1)	19,8 (44.7)	19,9 (44.9)	19,7 (44.5)	19,6 (44.3)	19,5 (44.0)	19,5 (44.0)	19,4 (43.8)	19,2 (43.4)	17,9 (40.1)	
16,0 (55)		17,0 (36.1)	17,0 (35.9)	17,0 (35.4)	17,0 (35.4)	16,9 (35.0)	16,8 (34.8)	16,8 (34.8)	16,6 (34.6)	16,6 (34.3)	16,5 (33.9)	16,5 (33.9)	16,4 (33.7)	16,2 (33.2)	16,1 (33.0)	16,1 (33.0)	16,0 (32.8)	15,9 (32.6)	15,7 (32.1)	
22,0 (75)						11,5 (23.5)	11,0 (23.1)	11,0 (22.9)	10,9 (22.7)	10,8 (22.4)	10,6 (22.2)	10,5 (21.8)	10,5 (21.8)	10,4 (21.6)	10,2 (21.1)	10,0 (20.9)	10,1 (20.9)	10,0 (20.7)	9,8 (20.2)	9,6 (20.0)
28,0 (95)							7,9 (16.5)	7,8 (16.3)	7,7 (16.0)	7,5 (15.6)	7,4 (15.4)	7,4 (15.4)	7,2 (14.9)	7,0 (14.7)	6,9 (14.3)	6,9 (14.3)	6,8 (14.1)	6,7 (13.8)	6,5 (13.4)	
32,0 (105)								6,4 (14.1)	6,3 (13.8)	6,1 (13.4)	6,0 (13.2)	6,0 (13.2)	5,8 (12.7)	5,6 (12.3)	5,5 (12.1)	5,5 (12.1)	5,4 (11.9)	5,2 (11.4)	5,1 (11.2)	
34,0 (115)									5,8 (12.1)	5,5 (11.6)	5,4 (11.2)	5,4 (11.2)	5,2 (11.0)	5,0 (10.5)	4,9 (10.1)	5,0 (10.3)	4,8 (9.9)	4,6 (9.7)	4,5 (9.2)	
38,0 (125)										4,7 (10.3)	4,5 (9.9)	4,4 (9.7)	4,3 (9.4)	4,1 (9.0)	4,0 (8.8)	4,0 (8.8)	3,8 (8.3)	3,6 (7.9)	3,4 (7.4)	
40,0 (135)											4,1 (8.5)	3,9 (8.1)	3,7 (7.7)	3,5 (7.2)	3,5 (7.2)	3,4 (6.8)	3,2 (6.6)	3,2 (6.6)	3,0 (6.1)	
44,0 (145)												3,2 (7.0)	3,0 (6.6)	2,8 (6.1)	2,8 (6.1)	2,6 (5.7)	2,4 (5.2)	2,2 (4.8)		
46,0 (155)													2,7 (5.7)	2,5 (5.2)	2,5 (5.0)	2,3 (4.6)	2,1 (4.4)	1,9 (3.9)		
50,0 (165)														2,0 (4.4)	1,9 (4.1)	1,7 (3.7)	1,6 (3.5)			
53,3 (175)																				

Meets ASME B30.5 Requirements – Capacities do not exceed 75% of static tipping load.

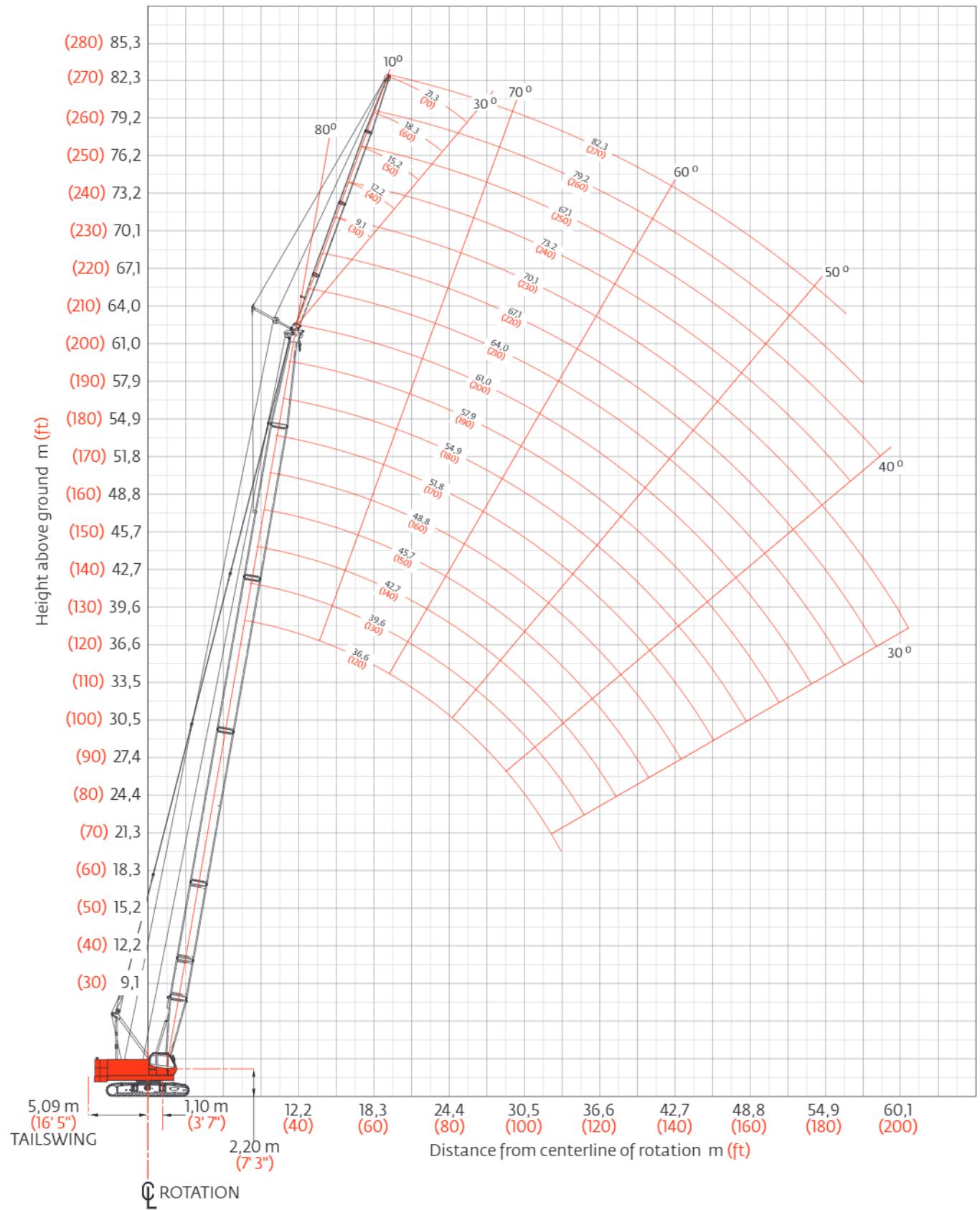
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

For complete chart, refer to [www.cranelibrary.com](http://www.cranelibrary.com).

Meets ASME B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

# Fixed jib range diagram

No. 12000-1 fixed jib on main boom



# Fixed jib load charts

## Model 12000-1 liftcrane fixed jib capacities - No. 12000-1 fixed jib on main boom

34 600 kg (76,280 lb) crane counterweight, 6 500 kg (14,330 lb) carbody counterweight crawler extended  
360° Rating kg (lb) × 1000

10° offset

Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)
Radius					
Jib 9,1 m (30 ft)	10,0 (30) 10,8 (24.0)				
	12,0 (40) 10,8 (24.0)	10,8 (24.0)			
	14,0 (50) 10,8 (24.0)	10,8 (24.0)	10,8 (24.0)	— (24.0)	(24.0)
	18,0 (60) 10,8 (24.0)	10,8 (24.0)	10,8 (24.0)	10,8 (24.0)	10,8 (24.0)
	24,0 (80) 10,1 (21.9)	9,7 (21.1)	9,3 (20.1)	9,0 (19.8)	8,8 (19.0)
	30,0 (100) 7,4 (16.1)	7,1 (15.3)	6,6 (14.2)	6,3 (13.6)	6,1 (13.1)
	36,0 (120) 5,3 (11.6)		4,8 (10.4)	4,5 (9.8)	4,3 (9.3)
	42,0 (140) 3,6 (7.8)			3,3 (7.1)	3,0 (6.5)
	48,0 (160) 2,7 (5.8)			2,3 (4.9)	2,0 (4.2)
	52,0 (175) 2,2 (—)			1,7 (3.6)	1,5 (—)
	56,0 (185) 1,8 (4.1)				

30° offset

Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)
Radius					
Jib 9,1 m (30 ft)	10,0 (30)				
	12,0 (40) — (21.0)				
	14,0 (50) 9,5 (21.0)				
	18,0 (60) 9,5 (21.0)				
	24,0 (80) 8,6 (18.9)				
	30,0 (100) 7,2 (15.6)				
	36,0 (120) 5,0 (10.7)				
	42,0 (140) 3,4 (7.4)				
	48,0 (160) 2,3 (—)				
	52,0 (175) 56,0 (185)				

Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)
Radius					
Jib 15,2 m (50 ft)	10,0 (30) 9,0 (—)				
	12,0 (40) 9,0 (20.0)	9,0 (—)			
	14,0 (50) 9,0 (20.0)	9,0 (20.0)	9,0 (20.0)		
	18,0 (60) 9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	
	24,0 (80) 7,7 (16.8)	8,9 (19.5)	9,0 (20.0)	9,0 (20.0)	8,9 (19.7)
	30,0 (100) 6,2 (13.6)	7,2 (15.7)	6,8 (14.7)	6,5 (14.1)	6,3 (13.6)
	36,0 (120) 5,2 (11.5)	5,5 (11.9)	5,0 (10.8)	4,7 (10.2)	4,5 (9.8)
	42,0 (140) 4,3 (9.3)		3,8 (8.2)	3,5 (7.5)	3,3 (7.1)
	48,0 (160) 2,9 (6.2)			2,5 (5.4)	2,2 (4.7)
	52,0 (175) 2,3 (4.9)			1,9 (4.0)	1,6 (3.3)
	58,0 (185) 1,8 (4.1)				

Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)
Radius					
Jib 15,2 m (50 ft)	10,0 (30)				
	12,0 (40)				
	14,0 (50)				
	18,0 (60) 5,1 (11.4)				
	24,0 (80) 5,1 (11.2)				
	30,0 (100) 4,4 (9.8)				
	36,0 (120) 4,3 (9.6)				
	42,0 (140) 4,0 (8.6)				
	48,0 (160) 2,7 (5.9)				
	52,0 (175) 1,9 (3.8)				
	58,0 (185) 1,8 (4.1)				

For complete chart, refer to [www.cranelibrary.com](http://www.cranelibrary.com).

Meets ASME B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

# Fixed jib load charts

## Model 12000-1 liftcrane fixed jib capacities - No. 12000-1 fixed jib on main boom

34 600 kg (76,280 lb) crane counterweight, 6 500 kg (14,330 lb) carbody counterweight crawler extended  
360° Rating kg (lb) x 1000

		10° offset					30° offset						
		Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)	Boom m (ft)	27,4 (90)	36,6 (120)	48,8 (160)	54,9 (180)	61,0 (200)
		Radius	12,0 (45)	7,1 (15.7)				Radius	12,0 (45)	3,6 (—)			
Jib 21,3 m (70 ft)	18,0 (60)	6,7 (14.8)	6,8 (15.1)	6,9 (15.4)	7,0 (15.6)	7,1 (15.7)		18,0 (60)	3,6 (—)				
	22,0 (75)	6,4 (13.9)	6,6 (14.4)	6,7 (14.8)	6,8 (15.0)	6,9 (15.1)		22,0 (75)	3,6 (8.1)	3,6 (8.1)			
	26,0 (90)	5,5 (11.5)	6,3 (13.3)	6,5 (14.3)	6,6 (14.4)	6,7 (14.6)		26,0 (90)	3,5 (7.6)	3,6 (8.1)	3,6 (8.1)	3,6 (8.1)	3,6 (8.1)
	32,0 (110)	4,4 (9.4)	5,1 (10.9)	6,0 (12.7)	6,0 (12.3)	5,8 (11.9)		32,0 (110)	3,0 (6.5)	3,3 (7.0)	3,5 (7.6)	3,6 (7.8)	3,6 (8.0)
	38,0 (130)	3,7 (7.9)	4,3 (9.2)	4,7 (9.7)	4,4 (9.1)	4,2 (8.6)		38,0 (130)	2,7 (—)	2,9 (6.3)	3,1 (6.9)	3,2 (7.1)	3,3 (7.3)
	44,0 (145)	3,2 (7.1)	3,7 (8.2)	3,6 (7.9)	3,3 (7.2)	3,1 (6.8)		44,0 (145)	2,6 (5.9)	2,9 (6.4)	3,0 (6.6)	3,0 (6.8)	
	50,0 (170)		3,2 (6.8)	2,7 (5.6)	2,4 (4.7)	2,0 (4.1)		50,0 (170)			2,6 (5.9)	2,7 (5.5)	2,5 (4.9)
	54,0 (180)			2,2 (4.8)	1,8 (3.9)			54,0 (180)				2,1 (4.5)	1,8 (3.9)
	56,0 (190)			2,0 (4.0)	1,6 (—)			56,0 (190)					1,6 (—)
	60,0 (200)			1,6 (3.3)				60,0 (200)					

For complete chart, refer to [www.cranelibrary.com](http://www.cranelibrary.com).

Meets ASME B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

# Clamshell

## Boom:

Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections.

Basic boom length: 15,2 m (50 ft)

Max. boom length: 30,5 m (100 ft)

Limit of empty clamshell bucket weight: 2 100 kg (4,600 lb)

## Boom component chart

Boom length m (ft)	Boom arrangement
15,2 (50)	Base-Tip
18,3 (60)	Base-A-Tip
21,3 (70)	Base-A-A-Tip, Base-B-Tip
24,4 (80)	Base-A-B-Tip
27,4 (90)	Base-A-A-B-Tip, Base-B-B-Tip, Base-C-Tip
30,5 (100)	Base-A-B-B-Tip, Base-A-C-Tip

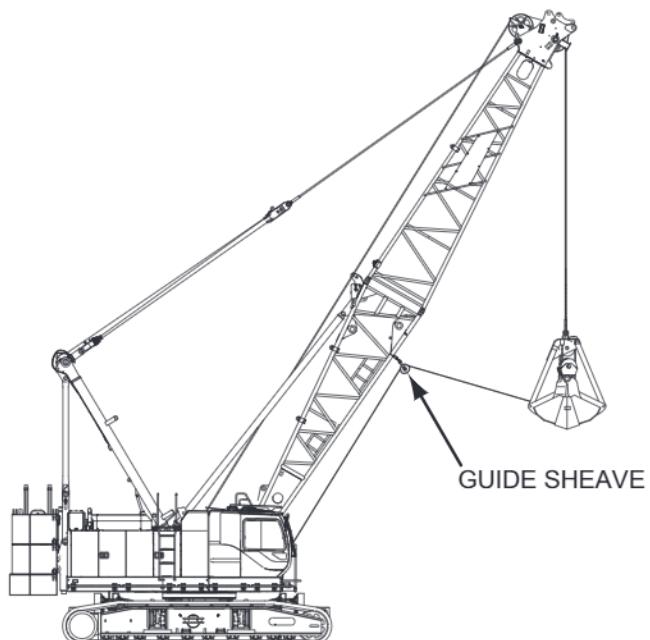
Base = 7,6 m (25 ft)

Insert: A = 3,05 m (10 ft)

B = 6,10 m (20 ft)

C = 12,2 m (40 ft)

Tip = 7,2 m (25 ft)



- Figures represent maximum allowable capacity, and assume level ground and ideal working conditions.
- Capacities are calculated at 66% of the minimum tipping loads.
- Capacities are maximum recommended by PCSA Standard #4. Allowances must be made by the user for such unfavorable conditions as a soft or uneven supporting surface, rapid cycle operations, or bucket suction.
- The combined weight of the bucket and load must not exceed these capacities.
- Boom length for clamshell operation should not exceed 30,5 m (100 ft).

## Clamshell Capacities

10 000 kg (22,050 lb) counterweight  
(one upper counterweight, crawlers extended)

kg (lb) x 1 000

Boom m (ft)	15,2 (50)	18,3 (60)	21,3 (70)	24,4 (80)	27,4 (90)	30,5 (100)
Radius						
7,0 (22)	10,0 (25.0)					
8,0 (26)	10,0 (25.0)					
9,0 (30)	10,0 (25.0)	10,0 (25.0)				
10,0 (34)	10,0 (25.0)	9,7 (25.0)	9,7 (25.0)			
14,0 (45)	10,0 (23.1)	7,8 (22.9)	7,8 (22.7)	7,8 (22.5)	7,8 (21.6)	
15,0 (50)		6,6 (19.8)	6,6 (19.6)	6,6 (19.4)	6,6 (19.2)	6,6 (18.5)
17,0 (55)		5,7 (12.5)	5,7 (17.2)	5,7 (17.0)	5,7 (16.8)	5,7 (16.5)
18,0 (60)			5,0 (15.2)	5,0 (15.0)	5,0 (14.8)	5,0 (14.6)
21,0 (70)				4,4 (11.9)	4,3 (11.7)	4,2 (11.5)
24,0 (80)					— (9.5)	— (9.3)
25,0 (85)						— (8.4)
27,0 (90)						— (7.7)

# Manitowoc Crane Care

**Crane Care** is Manitowoc's comprehensive service and support program. It includes classroom and on-site training, prompt parts availability, expert field service, technical support and documentation.

That's commitment you won't find anywhere else.

That's Crane Care.

## Service training

Manitowoc specialists work with you in our training centers and in the field to make sure you know how to get maximum performance, reliability and life from your cranes.

Manitowoc Cranes Technical Training Centers provide valuable multi-level training, which is available for all models and attachments, in the following format:

- **Intro to Canbus and Canbus 1, 2, 3**
- **Intro to EPIC and EPIC 1, 2, 3**
- **Small Crawler 1**
- **Canbus 1 and 2 assembly, operation and maintenance**
- **EPIC 1 and 2 assembly, operation and maintenance**

Refer to [www.manitowoc.com](http://www.manitowoc.com) for course descriptions.

## Parts availability

Genuine Manitowoc replacement parts are accessible through your distributor 24 hours a day, 7 days a week, 365 days a year.

### Service interval kits

#### 200 hour kit

#### 1,000 hour kit

#### 2,000 hour kit

#### Hydraulic test kit

#### U.S. standard tools kit

## Field service

Factory-trained service experts are always ready to help maintain your crane's peak performance.

For a worldwide listing of dealer locations, please consult our website at: [www.manitowoc.com](http://www.manitowoc.com)

## Technical support

Manitowoc's dealer network and factory personnel are available 24 hours a day, 7 days a week, 365 days a year to answer your technical questions and more, with the help of computerized programs that simplify crane selection, lift planning, and ground-bearing calculations.

For a worldwide listing of dealer locations, please consult our website at: [www.manitowoc.com](http://www.manitowoc.com)

## Technical documentation

Manitowoc has the industry's most extensive documentation; available in major languages and formats that include print, videotape, and DVD/CD.

Additional copies available through your Authorized Manitowoc Distributor.

- Crane operator's manual
- Crane parts manual
- Crane capacity manual
- Crane vendor manual
- Crane service manual
- Luffing jib operator's/parts manual
- Capacity chart manual - attachments

Available from your Authorized Manitowoc Cranes Distributor, these videos are available in NTSC, PAL, SECAM, and DVD formats.

- Your Capacity Chart Video
- Respect the Limits Video
- Crane Safety Video
- Boom Inspection/Repair Video

## Crane Care Package

Manitowoc has assembled all of the available literature, CD's and videos listed above plus several Manitowoc premiums into one complete Crane Care Package, which is supplied to the owner of each new crane.

# **Notes**

## Manitowoc Cranes

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#### Americas

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Alphaville  
**Mexico**  
Monterrey  
**Chile**  
Santiago

#### Europe, Middle East, Africa

**France**  
Baudemont  
Cergy  
Decines  
**Germany**  
Langenfeld  
**Italy**  
Lainate  
**Netherlands**  
Breda  
**Poland**  
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**U.A.E.**  
Dubai  
**U.K.**  
Buckingham

#### China

**Beijing**  
Chengdu  
Guangzhou  
Xian

#### Greater Asia-Pacific

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Brisbane  
Melbourne  
**India**  
Chennai  
Delhi  
Hyderabad  
Pune  
**Korea**  
Seoul  
**Philippines**  
Makati City  
**Singapore**

### Factories

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Fânzeres  
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Port Washington  
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