

Manitowoc 10000B-1

Product Guide

ASME B30.5

Imperial



Features

- 100 USt capacity
- 230 ft heavy-lift boom
- Max boom + jib combination:
200 ft + 70 ft
- 285 HP engine
- 535 fpm maximum line speed
- 25,200 lb rated line pull

Features



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.

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.

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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")

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 4,630 psi

Swing system 3,989psi

Control system 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 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 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 853 ft working length

Rear drum 754 ft working length

Line speed: Single line on the first drum layer

Hoisting: 390 ft/min

Lowering: 390 ft/min

➤ **Optional third drum:** free-fall is optional; drum grooved for 26 mm wire rope. Wire rope capacity working length is 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.

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

Swing speed: 3.2 rpm

Specifications



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 508 ft working length.

Line speed: Single line on the first drum layer

Hoisting: 157 ft/min

Lowering: 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

Carbody weight (2 pieces): 14,330 lb



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

36" wide each crawler.

Travel speed

(High/Low) 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.

Basic boom length 60' consists of the boom butt section 25', boom insert 10' and boom top section 25'.

Specifications

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.
- 15 USt ball hook, 1,310 lb wedge socket for 26 mm wire rope.
- 40 USt hook block, 1,881 lb with one 24" Nominal O.D. roller bearing sheaves.
- 90 USt hook block, 4,060 lb, with three 24" Nominal O.D. roller bearing sheaves.
- 100 USt hook block, 2,946 lb with four 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 220,300 lb including upperworks and lowerworks, full upper counterweights, full carbody counterweight and 60' basic boom.

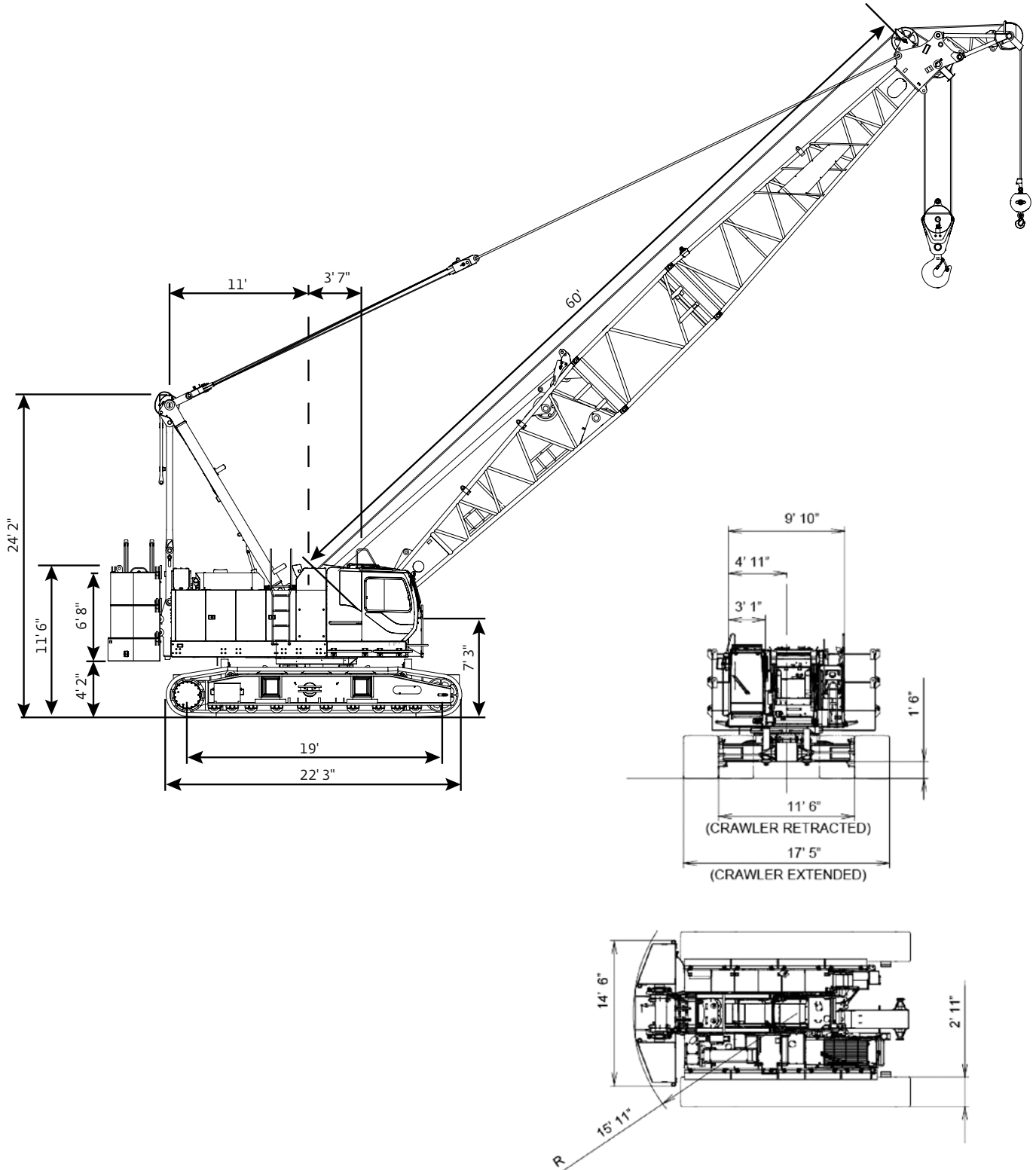
Ground pressure

Approximately 13.6 psi with basic boom and no load.

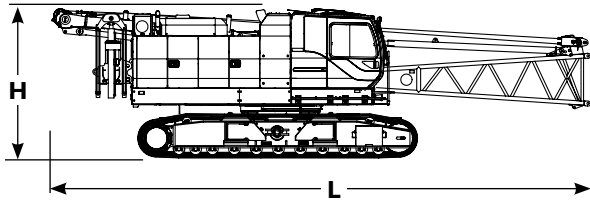
Gradeability

With basic boom: 40%.

Outline dimensions

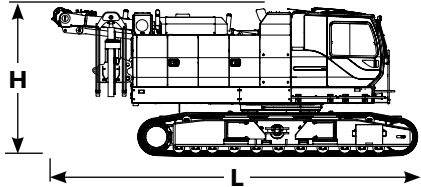


Outline dimensions



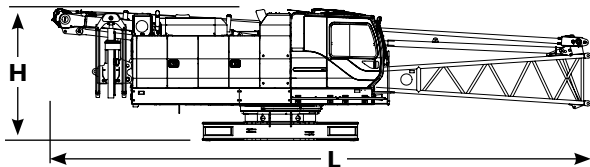
Upperworks	x 1
Length	51' 9"
Width	11' 8"
Height	11' 6"
Weight	126,808 lb

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.



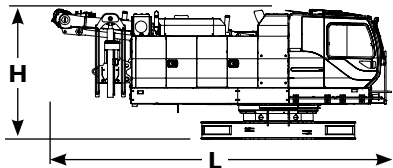
Upperworks	x 1
Length	30' 11"
Width	11' 6"
Height	11' 6"
Weight	119,808 lb

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



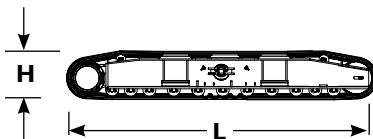
Upperworks without crawlers	x 1
Length	51' 9"
Width	9' 10"
Height	10' 0"
Weight	74,206 lb

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

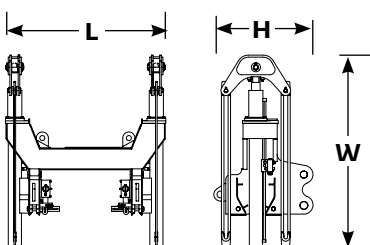


Upperworks without crawlers	x 1
Length	28' 5"
Width	9' 10"
Height	10' 0"
Weight	66,887 lb

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



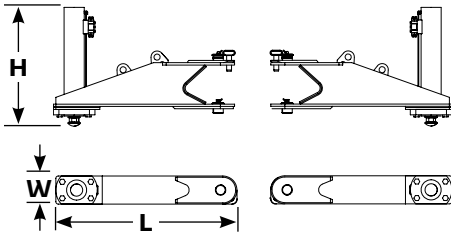
Crawlers	x 2
Length	22' 2"
Width	2' 11"
Height	3' 9"
Weight	26,301 lb



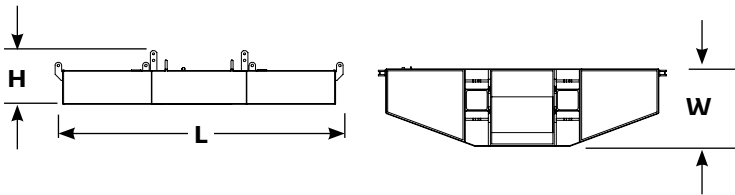
Self removal unit	x 1
Length	5' 3"
Width	6' 3"
Height	3' 3"
Weight	1,918 lb

Option

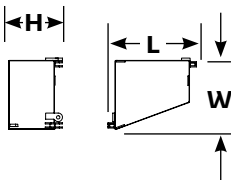
Outline dimensions



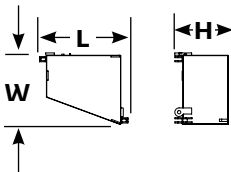
Hydraulic jack (if removed)	x 1
Length	4' 10"
Width	0' 9"
Height	3' 2"
Weight	705 lb



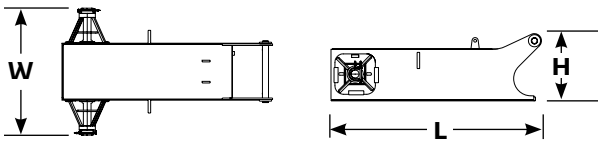
Upper counterweight A	x 1
Length	14' 6"
Width	3' 11"
Height	2' 9"
Weight	25,573 lb



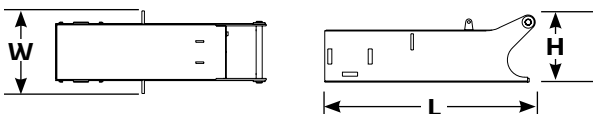
Upper counterweight B	x 2
Length	4' 9"
Width	3' 10"
Height	2' 11"
Weight	12,676 lb



Upper counterweight C	x 2
Length	4' 9"
Width	3' 10"
Height	2' 11"
Weight	12,676 lb



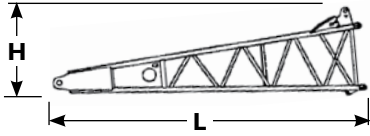
Carbody counterweight with float	x 1
Length	6' 10"
Width	4' 2"
Height	2' 2"
Weight	7,319 lb



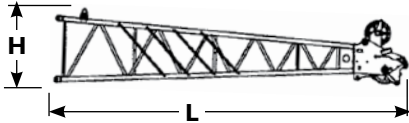
Carbody counterweight without float	x 1
Length	6' 10"
Width	2' 8"
Height	2' 2"
Weight	7,165 lb

Option

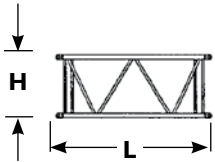
Outline dimensions



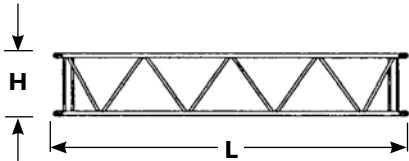
Boom butt 25'	x 1
Length	25' 7"
Width	5' 8"
Height	6' 9"
Weight	4,927 lb



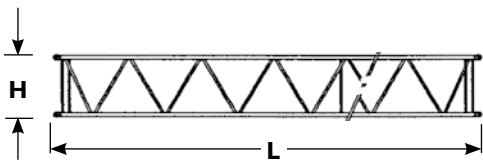
Boom top 25'	x 1
Length	27' 4"
Width	5' 6"
Height	5' 5"
Weight	3,360 lb



Boom insert 10'	x 1,2
Length	10' 4"
Width	5' 6"
Height	5' 7"
Weight	840 lb

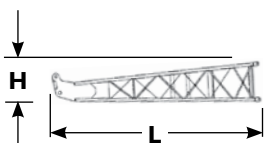


Boom insert 20'	x 1,2
Length	20' 5"
Width	5' 6"
Height	5' 7"
Weight	1,445 lb



Boom insert 40'	x 1,2,3
Length	40' 4"
Width	5' 6"
Height	5' 7"
Weight	2,635 lb

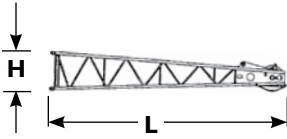
Note: Use of one "A" type insert with lug required for any boom combinations that require a 40' insert.



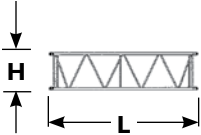
Fixed jib butt	x 1
Length	15' 9"
Width	2' 8"
Height	2' 8"
Weight	440 lb

Option

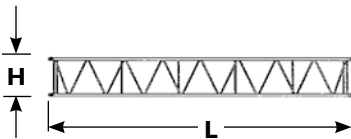
Outline dimensions



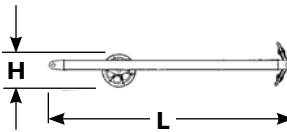
Fixed jib top		x 1
Length		16' 5"
Width		2' 8"
Height		2' 8"
Weight		620 lb



Fixed jib insert 10'		x 1,2
Length		10' 2"
Width		2' 8"
Height		2' 8"
Weight		220 lb



Fixed jib insert 20'		x 1,2
Length		20' 3"
Width		2' 8"
Height		2' 8"
Weight		400 lb



Fixed jib strut		x 1
Length		11' 11"
Width		2' 9"
Height		2' 1"
Weight		550 lb

Option

Performance data

Line pull		
	Rated line pull lb	*Maximum line pull lb
Front drum	25,200	46,800
Rear drum	25,200	46,800
Optional 3rd drum	25,200	46,800

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

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

Front and rear winch performance (optional: third winch)							
Layer		Line speed ft/min					
		1	2	3	4	5	6
Single line pull lb							
Rated line pull	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
	25,000	141	141	141	141	141	141
	30,000	118	118	119	121	122	123
	35,000	103	104	105	105	–	–
	40,000	92	92	–	–	–	–

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

Load chart notes

- 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 ft	Upper boom point	30	40	50	60	70
Deduct lb	700	2,400	3,200	4,200	5,200	6,200

- 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).
- 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 lb	25,000	50,000	75,000	100,000	125,000

No. of parts of line	6	7	8
Maximum loads lb	150,000	175,000	200,000

Maximum load for fixed jib

No. of parts of line	1
Maximum loads lb	24,000

Maximum load for upper boom point (on liftcrane boom)

No. of parts of line	1	2
Maximum loads lb	25,000	50,000

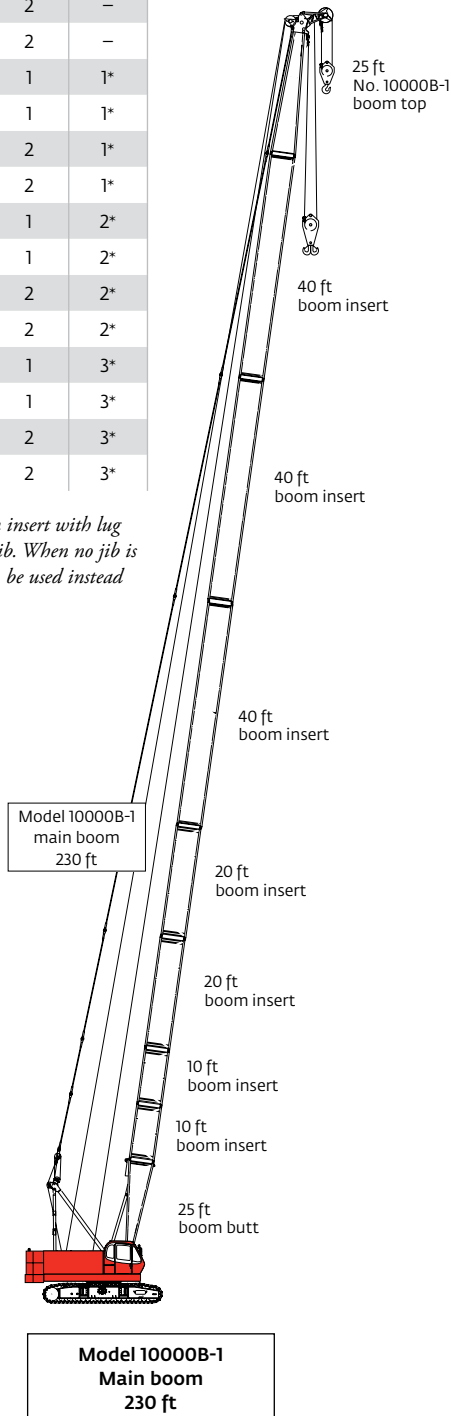
- Lifting capacities listed apply only to the machine as originally manufactured for and supplied by Manitowoc Cranes, Inc. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.
- Designed and rated to comply with ASME Code B30.5.

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

Boom combinations

No. 10000B-1 heavy-lift boom combinations			
Boom length ft	Boom inserts		
	10 ft	20 ft	40 ft
60	1	–	–
70	2	1	–
80	1	1	–
90	2	1	–
100	1	2	–
110	2	2	–
120	1	1	1*
130	2	1	1*
140	1	2	1*
150	2	2	1*
160	1	1	2*
170	2	1	2*
180	1	2	2*
190	2	2	2*
200	1	1	3*
210	2	1	3*
220	1	2	3*
230	2	2	3*

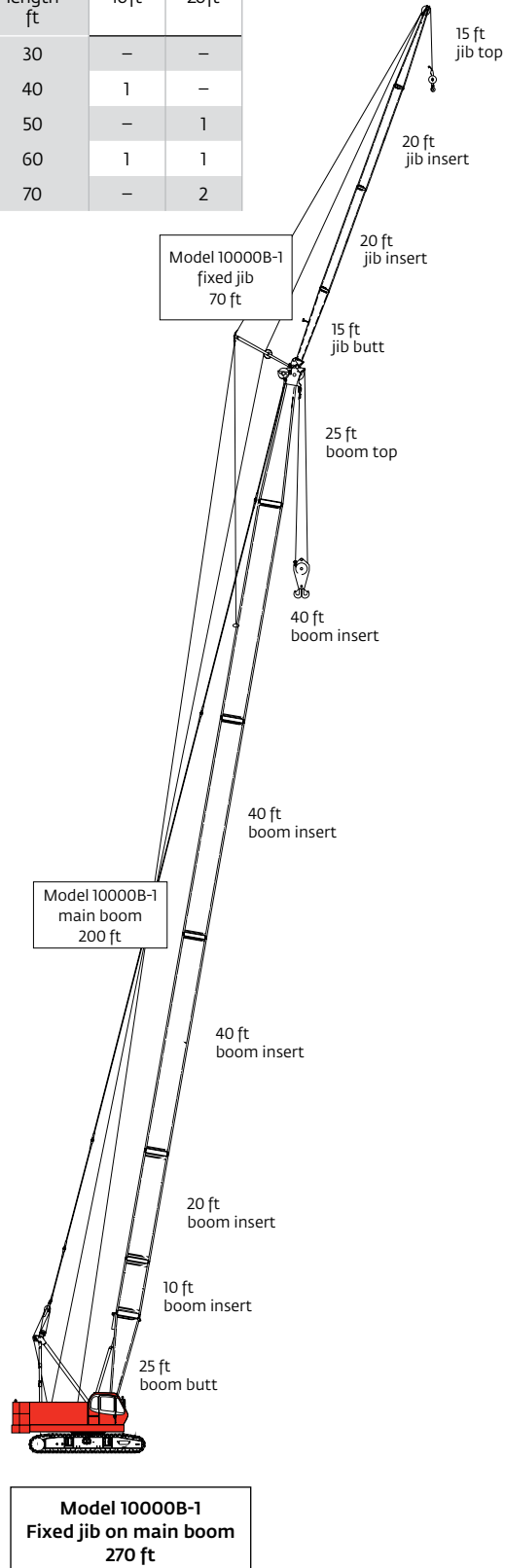
* NOTE: One 40 ft boom insert with lug 40A is required for fixed jib. When no jib is installed a 40 ft boom can be used instead of 40A.



Boom combinations

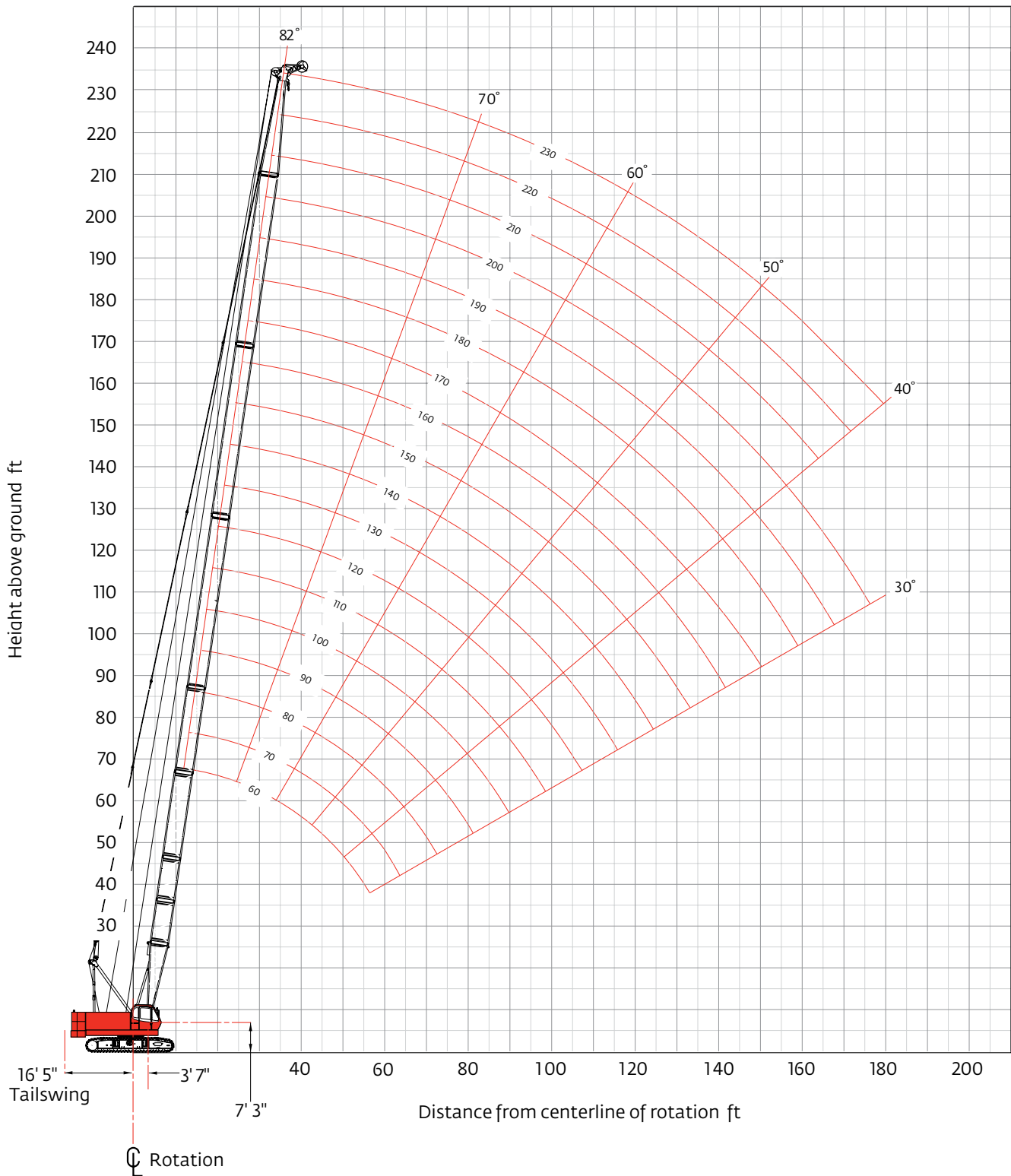
No. 10000B-1 fixed jib combinations

Fixed jib length ft	Fixed jib inserts	
	10ft	20ft
30	-	-
40	1	-
50	-	1
60	1	1
70	-	2



Heavy-lift boom range diagram

No. 1000B-1 main boom



Heavy-lift boom load charts

Model 10000B-1 liftcrane boom capacities - 10000B-1 main boom

76,280 lb crane counterweight, 14,330 lb carbody counterweight crawler extended

360° Rating

lb x 1 000

Boom ft	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230
Radius																		
14	200.0																	
16	177.0	177.0																
18	150.0	150.0	150.0	150.0														
20	135.0	135.0	135.0	135.0	135.0													
24	111.7	111.7	111.5	111.5	111.3	111.3	111.1	100.0										
28	89.2	89.0	88.8	88.8	88.6	88.4	88.4	88.1	87.9	87.7								
34	68.1	67.9	67.4	67.4	67.2	67.0	67.0	66.7	66.5	66.3	66.3	66.1	65.9	65.4				
40	54.6	54.4	54.2	54.0	53.7	53.5	53.5	53.3	53.1	52.6	52.9	52.4	52.2	52.0	50.0	50.0	46.7	42.7
45	46.7	46.5	46.2	46.0	45.8	45.6	45.6	45.4	45.1	44.7	44.9	44.5	44.3	44.0	44.0	43.8	43.4	40.1
55	36.1	35.9	35.4	35.4	35.0	34.8	34.8	34.6	34.3	33.9	33.9	33.7	33.2	33.0	33.0	32.8	32.6	32.1
75				23.5	23.1	22.9	22.7	22.4	22.2	21.8	21.8	21.6	21.1	20.9	20.9	20.7	20.2	20.0
95						16.5	16.3	16.0	15.6	15.4	15.4	14.9	14.7	14.3	14.3	14.1	13.8	13.4
105							14.1	13.8	13.4	13.2	13.2	12.7	12.3	12.1	12.1	11.9	11.4	11.2
115								12.1	11.6	11.2	11.2	11.0	10.5	10.1	10.3	9.9	9.7	9.2
125									10.3	9.9	9.7	9.4	9.0	8.8	8.8	8.3	7.9	7.4
135											8.5	8.1	7.7	7.2	7.2	6.8	6.6	6.1
145												7.0	6.6	6.1	6.1	5.7	5.2	4.8
155													5.7	5.2	5.0	4.6	4.4	3.9
165														4.4	4.1	3.7	3.5	
175															3.5			

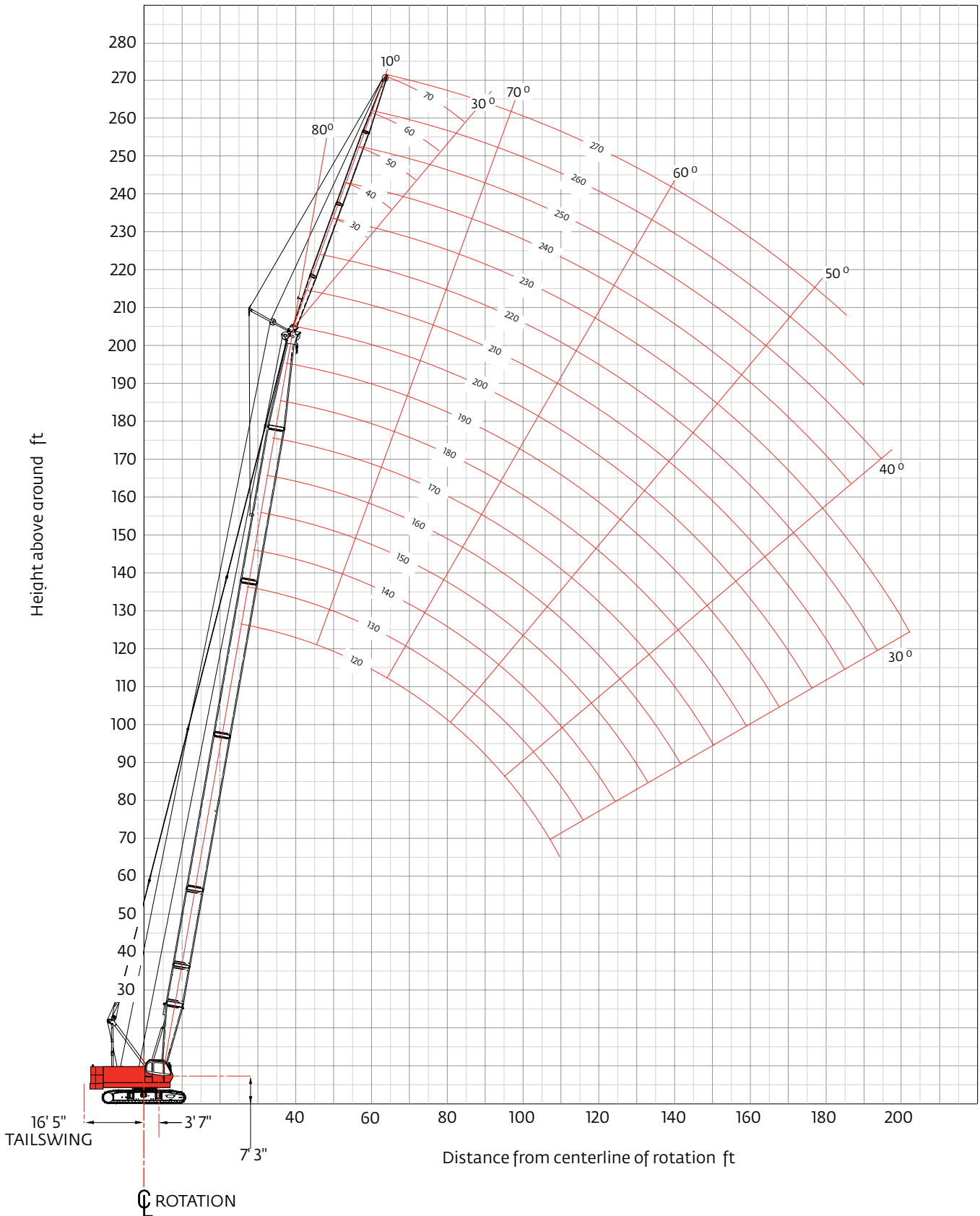
Meets ASME B30.5 Requirements – Capacities do not exceed 75% of static tipping load.
 NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

For complete chart, refer to www.cranelibrary.com.

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. 1000B-1 fixed jib on main boom



Fixed jib load charts

Model 1000B-1 liftcrane jib capacities No. 1000B-1 fixed jib on main boom

76,280 lb upper counterweight, 14,330 lb carbody counterweight crawler extended
360° Rating lb x 1 000

		10° Offset					30° Offset						
		Boom ft	90	120	160	180	200	Boom ft	90	120	160	180	200
jib length 30 ft	Radius												
	30		24.0										
	40		24.0	24.0					21.0				
	50		24.0	24.0	24.0	24.0	24.0		21.0	21.0			
	60		24.0	24.0	24.0	24.0	24.0		18.9	21.0	21.0	21.0	21.0
	80		10.1	21.1	20.1	19.8	19.0			20.8	20.8	20.2	19.9
	100		7.4	15.3	14.2	13.6	13.1			15.6	14.7	14.1	13.7
	120			11.6	10.4	9.8	9.3				10.7	10.2	9.7
	140				7.8	7.1	6.5					7.4	7.0
	160				5.8	4.9	4.2						
	175				3.6								
	185												

		10° Offset					30° Offset						
		Boom ft	90	120	160	180	200	Boom ft	90	120	160	180	200
jib length 50 ft	Radius												
	30												
	40		20.0										
	50		20.0	20.0	20.0								
	60		20.0	20.0	20.0	20.0	20.0		11.4	11.4			
	80		16.8	19.5	20.0	20.0	19.7		11.2	11.2	11.4	11.4	11.4
	100		13.6	15.7	14.7	14.1	13.6		9.8	10.6	11.4	11.4	11.4
	120		11.5	11.9	10.8	10.2	9.8			9.6	10.4	10.8	10.6
	140			9.3	8.2	7.5	7.1				8.6	8.1	7.7
	160				6.2	5.4	4.7					5.9	5.3
	175			4.9	4.0	3.3						3.8	
	185			4.1									

For complete chart, refer to 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 1000B-1 liftcrane jib capacities No. 1000B-1 fixed jib on main boom

76,280 lb upper counterweight, 14,330 lb carbody counterweight crawler extended
360° Rating lb x 1 000

		10° Offset					30° Offset					
Boom ft		90	120	160	180	200	Boom ft	90	120	160	180	200
jib length 70 ft	Radius						Radius					
	45	15.7					45					
	60	14.8	15.1	15.4	15.6	15.7	60					
	75	13.9	14.4	14.8	15.0	15.1	75	8.1	8.1			
	90	11.5	13.3	14.3	14.4	14.6	90	7.6	8.1	8.1	8.1	8.1
	110	9.4	10.9	12.7	12.3	11.9	110	6.5	7.0	7.6	7.8	8.0
	130	7.9	9.2	9.7	9.1	8.6	130		6.3	6.9	7.1	7.3
	145	7.1	8.2	7.9	7.2	6.8	145		5.9	6.4	6.6	6.8
	170		6.8	5.6	4.7	4.1	170			5.9	5.5	4.9
	180			4.8	3.9		180				4.5	3.9
	190			4.0			190					
	200			3.3			200					

For complete chart, refer to 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.

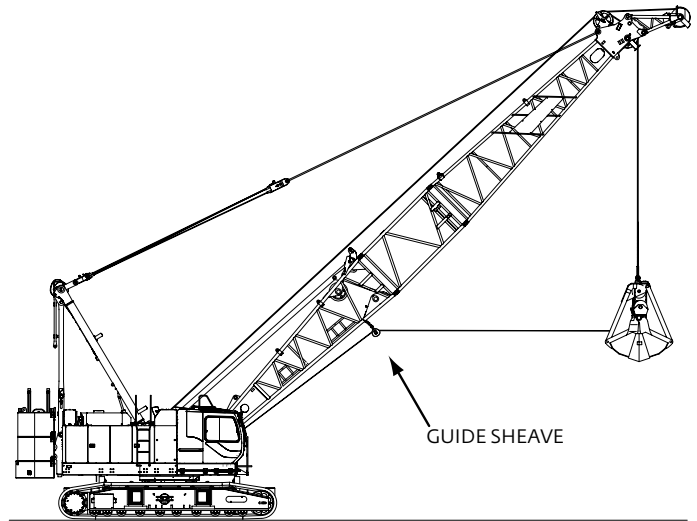
Clamshell

Boom:
 Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections.
 Basic boom length: 60 ft
 Max. boom length: 100 ft
 Limit of empty clamshell bucket weight: 4,600 lb

Boom component chart

Boom length ft	Boom arrangement
60	Base-A-Tip
70	Base-A-A-Tip, Base-B-Tip
80	Base-A-B-Tip
90	Base-A-A-B-Tip, Base-B-B-Tip, Base-C-Tip
100	Base-A-B-B-Tip, Base-A-C-Tip

Base = 25 ft
 Insert: A = 10 ft
 B = 20 ft
 C = 40 ft
 Tip = 25 ft



1. Figures represent maximum allowable capacity, and assume level ground and ideal working conditions.
2. Capacities are calculated at 66% of the minimum tipping loads.
3. 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.
4. The combined weight of the bucket and load must not exceed these capacities.
5. Boom length for clamshell operation should not exceed 100 ft.

Clamshell Capacities

11.0 Ust counterweight
 (one upper counterweight, crawlers extended)
 lb x 1 000

Boom ft	60	70	80	90	100
Radius					
30	25.0				
34	25.0	25.0			
45	22.9	22.7	22.5	21.6	
50	19.8	19.6	19.4	19.2	18.5
55	12.5	17.2	17.0	16.8	16.5
60		15.2	15.0	14.8	14.6
70			11.9	11.7	11.5
80				9.5	9.3
85					8.4
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 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

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

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.

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