



# model 5000



product  
guide

- 50 ton Lift Capacity
- 1,200 ft-kips  
Maximum Load Moment
- 160' Heavy-Duty Boom
- 190' Fixed Jib  
on Heavy-Duty Boom
- 213 HP engine
- 338 fpm line speed
- 35,000 lb Maximum Line Pull
- 16,800 lb Rated Line Pull
- 15,500 lb Material Rehandling  
Clamshell capacity
- Fast, efficient self-assembly  
and disassembly
- Manitowoc Crane CARE  
comprehensive support



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# specifications

## Upperworks



### Engine

Mitsubishi 6D16-TLA2B, 6 cylinder, water-cooled diesel, direct fuel injection with turbocharger, 159 kW (213 HP) @ 2000 high-idle RPM. Maximum torque 593 lb·ft (804 N·m) net at 1,600 rpm (SAE J 1349).

One diesel fuel tank, 74 gallons (280 liters).

Two 12 volt 120 AH capacity, 24 volt system and 80 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** ..... 4,120 psi (290 kg/cm2)

**Swing system** ..... 3,200 psi (225 kg/cm2)

**Control system** ..... 1,490 psi (105 kg/cm2)



### Hydraulic System

All three 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, boom hoist circuit and hook hoist circuit. The third variable displacement pump is used in the swing circuit. In addition, two gear pumps are used in the control system and auxiliary equipment.

**Maximum pressure rating** ..... 4,125 psi (28,4 MPa)

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

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

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

**Reservoir capacity:** 66 US gallon (250 liter).

**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.

**Clutch:** internally expanding band clutch.

**Brake:** externally contracting spring set, hydraulically released, band type brake operated through a counterbalance valve. An external ratchet is fitted for locking the drum.

**Drums:** front and rear 16.5" (419 mm) P.C.D. X 16.9" (427 mm) wide, grooved for 3/4" (20 mm) wire rope.

#### Wire rope capacity:

Front drum 558' (170 m) working length

Rear drum 426' (130 m) working length

Storage length (each drum) 919' (280 m)

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

**Hoisting** .....230 ft/min (70 m/min)

**Lowering** .....230 ft/min (70 m/min)

Line speed based on single line on the first drum layer.

**Standard third drum:** Third drum is powered by hydraulic variable displacement piston-type motor, driven through a planetary reducer. Powered hoisting/lowering and free-fall operation is standard. Drum turn indicator is also standard.

**Clutch:** internally expanding band clutch.

**Brake:** externally contracting spring set, hydraulically released, band type brake operated through a counterbalance valve. An external ratchet is fitted for locking the drum.

**Drum:** third drum 11.6" (294 mm) P.C.D. X 14.9" (378 mm), grooved for 9/16" (14,5 mm) wire rope.

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

**Hoisting** .....197 ft/min (60 m/min)

**Lowering** .....197 ft/min (60 m/min)

Line speed based on single line on the first drum layer.

#### Wire rope capacity:

Third drum 787' (240 m) working length

Storage length (each drum) 787' (240 m)

model 5000





# specifications

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## 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** 3.5 rpm



## Boom Hoist

Single drum powered by a hydraulic variable displacement piston motor through a planetary reducer. Grooved drum including 407' (124 m) of 9/16" (14,5 mm) diameter wire rope reeved with 12 parts of lline. Boom hoist speed: 223 ft/min (68 m/min) hoisting/lowering.

**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.



## 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 | 5 000       | 11,023 | 5 000        | 11,023 |
| 1                   | Counterweight B | 5 000       | 11,023 | 5 000        | 11,023 |
| 1                   | Counterweight C | 5 400       | 11,905 | 5 400        | 11,905 |
| Counterweight TOTAL |                 | 15 400      | 33,951 |              |        |



## 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 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 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 and the engine ignition key. The swing 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 devices

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, safety latch on hook blocks, and load moment indicator.

## Lowerworks



## Carbody

The durable carbody features steel welded construction with 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



# specifications

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), as well as, differential track speed.

### Crawler shoes

59 shoes, 36" (914 mm) wide, each crawler.

### Travel speed

0.87 mph (1,4 km/h)

## Attachments



### Boom

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

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

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 10' (3,0 m), 20' (6,1 m), 30' (9,14 m) inserts.

Maximum total length of boom 160' (48,77 m).



### Fixed Jib

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

Basic jib length 20' (6,10 m) consists of Jib butt section 10' (3,0 m) and Jib top section 10' (3,0 m).

Optional jib inserts of 10' (3,0 m), and 20' (6,1 m) are available for extension capabilities up to 60' (18,3 m).

Maximum total length 190' (57,9 m) consists of boom 130' (39,6 m) and jib 60' (18,3 m).

## Tools and Accessories

A set of tools and accessories are furnished.

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## Optional Equipment

### Optional: Blocks and Hooks

7 US ton ball hook, 202 lbs.

30 US ton hook block, 670 lbs, two 16" Nom. OD roller bearing sheaves grooved for 3/4" dia. wire rope, and roller bearing swivel with hook latch.

50 US ton hook block, 1,089 lbs, four 16" Nom. OD roller bearing sheaves grooved for 3/4" wire rope, roller bearing swivel with hook latch.

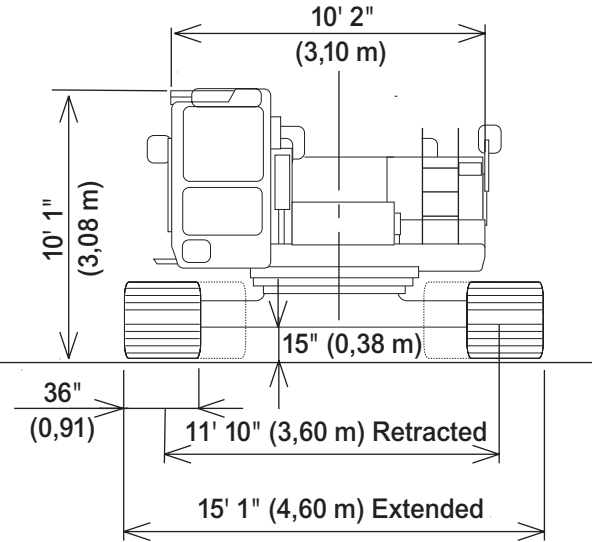
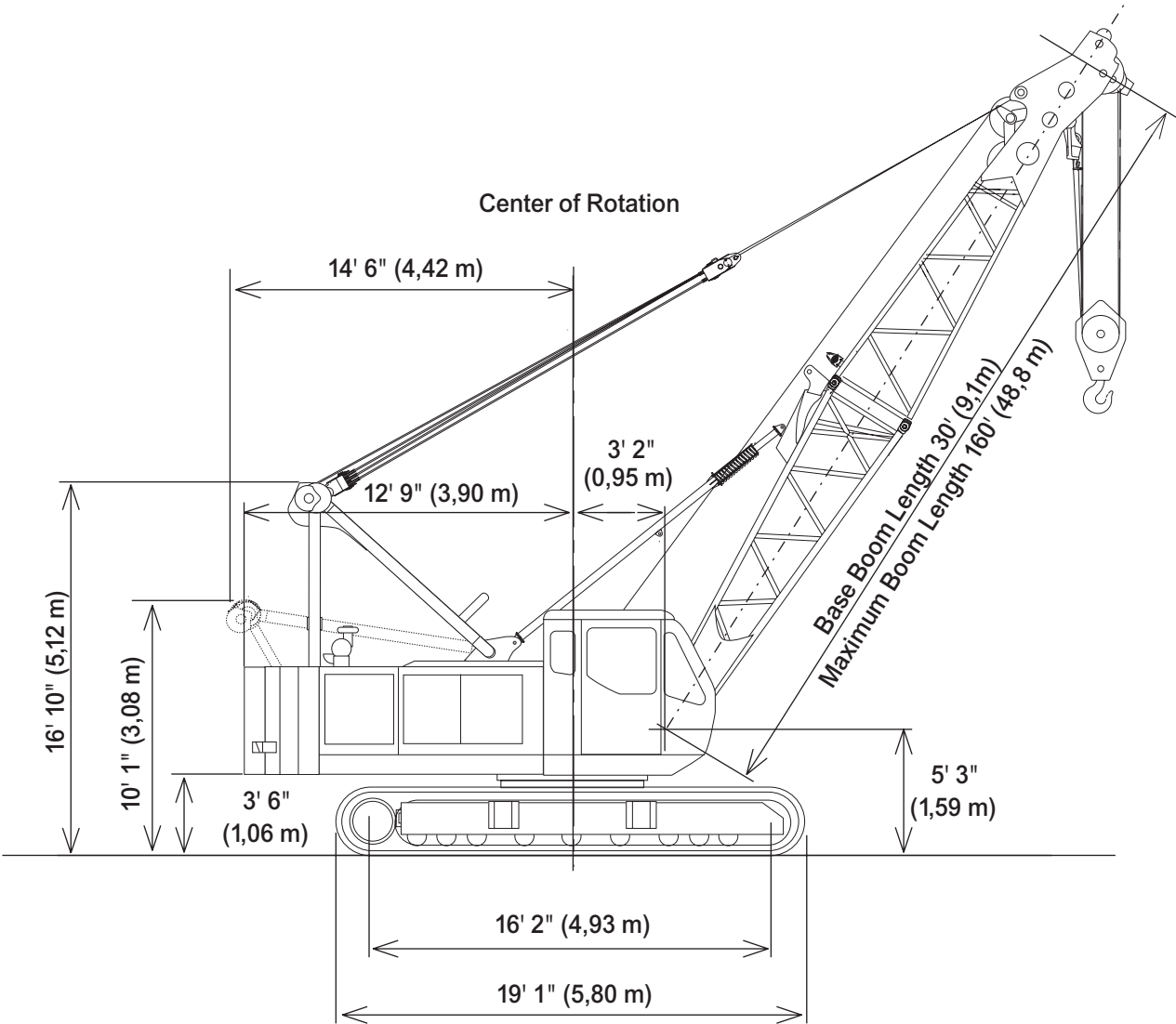
Detachable upper boom point  
Custom color

model 5000



outline dimensions

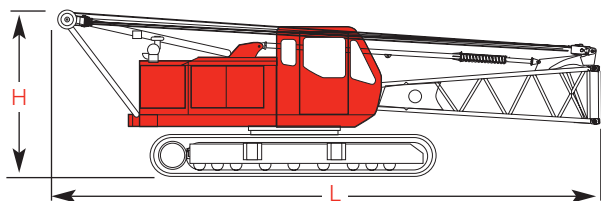
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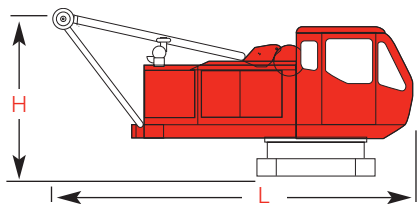
# outline dimensions

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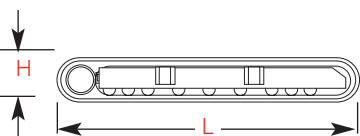


| Upperworks |           | x 1       |
|------------|-----------|-----------|
| Length     | 12,05 m   | 39' 6"    |
| Width      | 3,69 m    | 11' 10"   |
| Height     | 3,08 m    | 10' 1"    |
| Weight     | 30 530 kg | 67,320 lb |

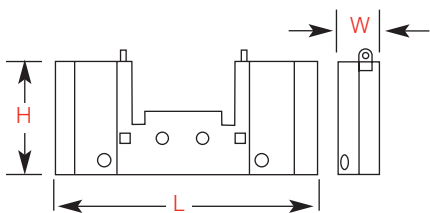
Note: Weight includes base machine, crawler, gantry, maximum hoist and whip lines on drums, third drum, boom butt, full hydraulic fluid reservoir, and half tank of fuel.



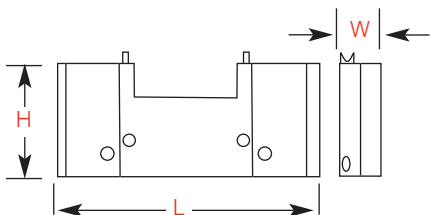
| Upperworks |           | x 1       |
|------------|-----------|-----------|
| Length     | 5,97 m    | 19' 7"    |
| Width      | 3,45 m    | 11' 3"    |
| Height     | 2,70 m    | 9' 9"     |
| Weight     | 16 900 kg | 37,265 lb |



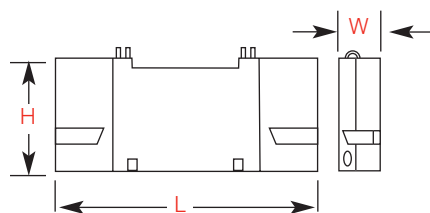
| Crawlers |          | x 2       |
|----------|----------|-----------|
| Length   | 5,81 m   | 19' 0"    |
| Width    | 0,91 m   | 3' 0"     |
| Height   | 0,90 m   | 2' 11"    |
| Weight   | 6 300 kg | 13,890 lb |



| Upper Counterweight A |          | x 1       |
|-----------------------|----------|-----------|
| Length                | 2,95 m   | 9' 8"     |
| Width                 | 0,47 m   | 1' 6"     |
| Height                | 1,25 m   | 4' 8"     |
| Weight                | 5 000 kg | 11,023 lb |



| Upper Counterweight B |          | x 1       |
|-----------------------|----------|-----------|
| Length                | 2,95 m   | 9' 8"     |
| Width                 | 0,47 m   | 1' 6"     |
| Height                | 1,25 m   | 4' 8"     |
| Weight                | 5 000 kg | 11,023 lb |



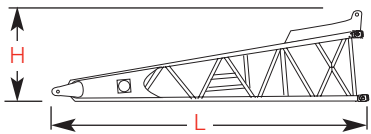
| Upper Counterweight C |          | x 1       |
|-----------------------|----------|-----------|
| Length                | 2,95 m   | 9' 8"     |
| Width                 | 0,49 m   | 1' 7"     |
| Height                | 1,25 m   | 4' 8"     |
| Weight                | 5 400 kg | 11,905 lb |

Option

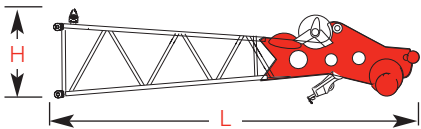


# outline dimensions

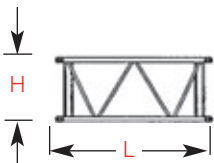
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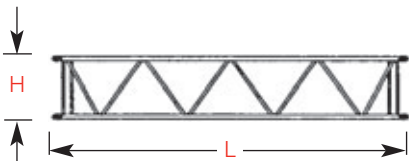
| Boom Butt 15' |        | x 1      |
|---------------|--------|----------|
| Length        | 4,73 m | 15' 6"   |
| Width         | 1,37 m | 4' 6"    |
| Height        | 1,63 m | 5' 4"    |
| Weight        | 590 kg | 1,300 lb |



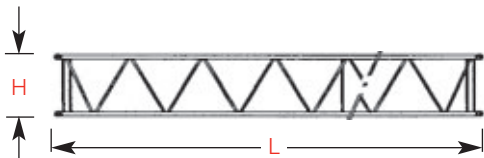
| Boom Top 15' |        | x 1      |
|--------------|--------|----------|
| Length       | 5,10 m | 16' 9"   |
| Width        | 1,37 m | 4' 6"    |
| Height       | 1,37 m | 4' 6"    |
| Weight       | 930 kg | 2,050 lb |



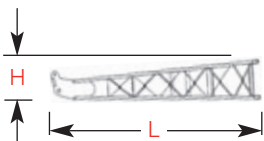
| ▶ | Boom Insert 3,0 m (10') |        | x 1, 2 |
|---|-------------------------|--------|--------|
|   | Length                  | 3,15 m | 10' 4" |
|   | Width                   | 1,37 m | 4' 6"  |
|   | Height                  | 1,50 m | 4' 11" |
|   | Weight                  | 240 kg | 530 lb |



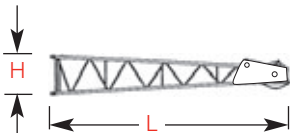
| ▶ | Boom Insert 6,1 m (20') |        | x 1, 2, 3 |
|---|-------------------------|--------|-----------|
|   | Length                  | 6,20 m | 20' 4"    |
|   | Width                   | 1,37 m | 4' 6"     |
|   | Height                  | 1,50 m | 4' 11"    |
|   | Weight                  | 430 kg | 950 lb    |



| ▶ | Boom Insert 9,14 m (30') |        | x 1, 2   |
|---|--------------------------|--------|----------|
|   | Length                   | 9,25 m | 30' 4"   |
|   | Width                    | 1,37 m | 4' 6"    |
|   | Height                   | 1,50 m | 4' 11"   |
|   | Weight                   | 570 kg | 1,260 lb |



| ▶ | Fixed Jib Butt |        | x 1    |
|---|----------------|--------|--------|
|   | Length         | 3,19 m | 10' 6" |
|   | Width          | 0,57 m | 1' 11" |
|   | Height         | 0,56 m | 1' 10" |
|   | Weight         | 130 kg | 290 lb |

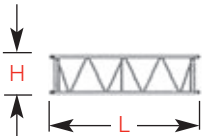


| ▶ | Fixed Jib Top |        | x 1    |
|---|---------------|--------|--------|
|   | Length        | 3,38 m | 11' 0" |
|   | Width         | 0,57 m | 1' 11" |
|   | Height        | 0,47 m | 1' 6"  |
|   | Weight        | 170 kg | 375 lb |

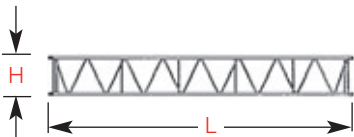
▶ Option



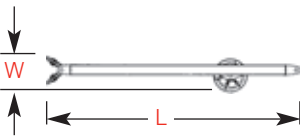
## outline dimensions



|                              |        |        |
|------------------------------|--------|--------|
| Fixed Jib Insert 3,0 m (10') | x 1, 2 |        |
| Length                       | 3,12 m | 10' 3" |
| Width                        | 0,57 m | 1' 11" |
| Height                       | 0,47 m | 1' 6"  |
| Weight                       | 95 kg  | 210 lb |



|                              |        |        |
|------------------------------|--------|--------|
| Fixed Jib Insert 6,1 m (20') | x 1    |        |
| Length                       | 6,16 m | 20' 3" |
| Width                        | 0,57 m | 1' 11" |
| Height                       | 0,47 m | 1' 6"  |
| Weight                       | 165 kg | 365 lb |



|                 |        |        |
|-----------------|--------|--------|
| Fixed Jib Strut | x 1    |        |
| Length          | 3,17 m | 10' 5" |
| Width           | 0,62 m | 2' 0"  |
| Weight          | 200 kg | 440 lb |

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Option



# winch performance data

## Line pull

|                   | Rated line pull          | *Maximum line pull        |
|-------------------|--------------------------|---------------------------|
| Front Drum        | 16,800 lbs<br>(7 620 kg) | 35,273 lbs<br>(16 000 kg) |
| Rear Drum         | 16,800 lbs<br>(7 620 kg) | 35,273 lbs<br>(16 000 kg) |
| Standard 3rd Drum | N/A<br>(N/A)             | 11,000 lbs<br>(4 990 kg)  |

\* Maximumline pull is not based on wire rope strength.

## Wire rope specifications

| Use             | Specs                   | Diameter<br>inch (mm) | Working<br>Length<br>feet (m) | Breaking<br>Strength<br>lbs (kg) |
|-----------------|-------------------------|-----------------------|-------------------------------|----------------------------------|
| Front Drum      | IWRC<br>6 X Fi (25) C/O | 3/4" (19,4)           | 558' (170)                    | 58,900 (26 700)                  |
| Rear Drum       | IWRC<br>6 X Fi (25) C/O | 3/4" (19,4)           | 426' (130)                    | 58,900 (26 700)                  |
| Boom Hoist Drum | IWRC<br>6 X WS (26) C/O | 9/16" (14,5)          | 407' (124)                    | 33,500 (15 200)                  |
| Third Drum      | IWRC<br>6 X WS (26) C/O | 9/16" (14,5)          | 787' (240)                    | 33,500 (15 200)                  |

## Model 5000 Front & Rear Winch

| Line speed (ft/min) |        |     |     |     |     |     |     |     |
|---------------------|--------|-----|-----|-----|-----|-----|-----|-----|
| Layer               |        | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
| Line Pull (lbs)     |        |     |     |     |     |     |     |     |
|                     | 0      | 230 | 248 | 266 | 284 | 302 | 320 | 338 |
|                     | 5,000  | 229 | 246 | 264 | 282 | 299 | 317 | 334 |
|                     | 10,000 | 227 | 244 | 263 | 279 | 296 | 313 | 330 |
| Rated Line pull     | 16,800 | 201 | 201 | 198 | 193 | 185 | 182 | 180 |
|                     | 20,000 | 164 | 158 | 153 | 153 | 153 | 151 | 148 |
|                     | 25,000 | 123 | 121 | 119 | 115 |     |     |     |
|                     | 30,000 | 97  |     |     |     |     |     |     |

| Line speed (m/min) |        |    |    |    |    |    |    |     |
|--------------------|--------|----|----|----|----|----|----|-----|
|                    | Layer  | 1  | 2  | 3  | 4  | 5  | 6  | 7   |
| Line Pull          | (kgf)  |    |    |    |    |    |    |     |
|                    | 0      | 70 | 76 | 81 | 87 | 92 | 97 | 103 |
|                    | 2 268  | 70 | 75 | 80 | 86 | 91 | 96 | 102 |
|                    | 4 536  | 69 | 74 | 80 | 85 | 90 | 95 | 101 |
| Rated Line pull    | 7 620  | 61 | 61 | 60 | 59 | 56 | 55 | 55  |
|                    | 9 072  | 50 | 48 | 47 | 47 | 47 | 46 | 45  |
|                    | 11 340 | 37 | 37 | 36 | 35 |    |    |     |
|                    | 13 608 | 30 |    |    |    |    |    |     |

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



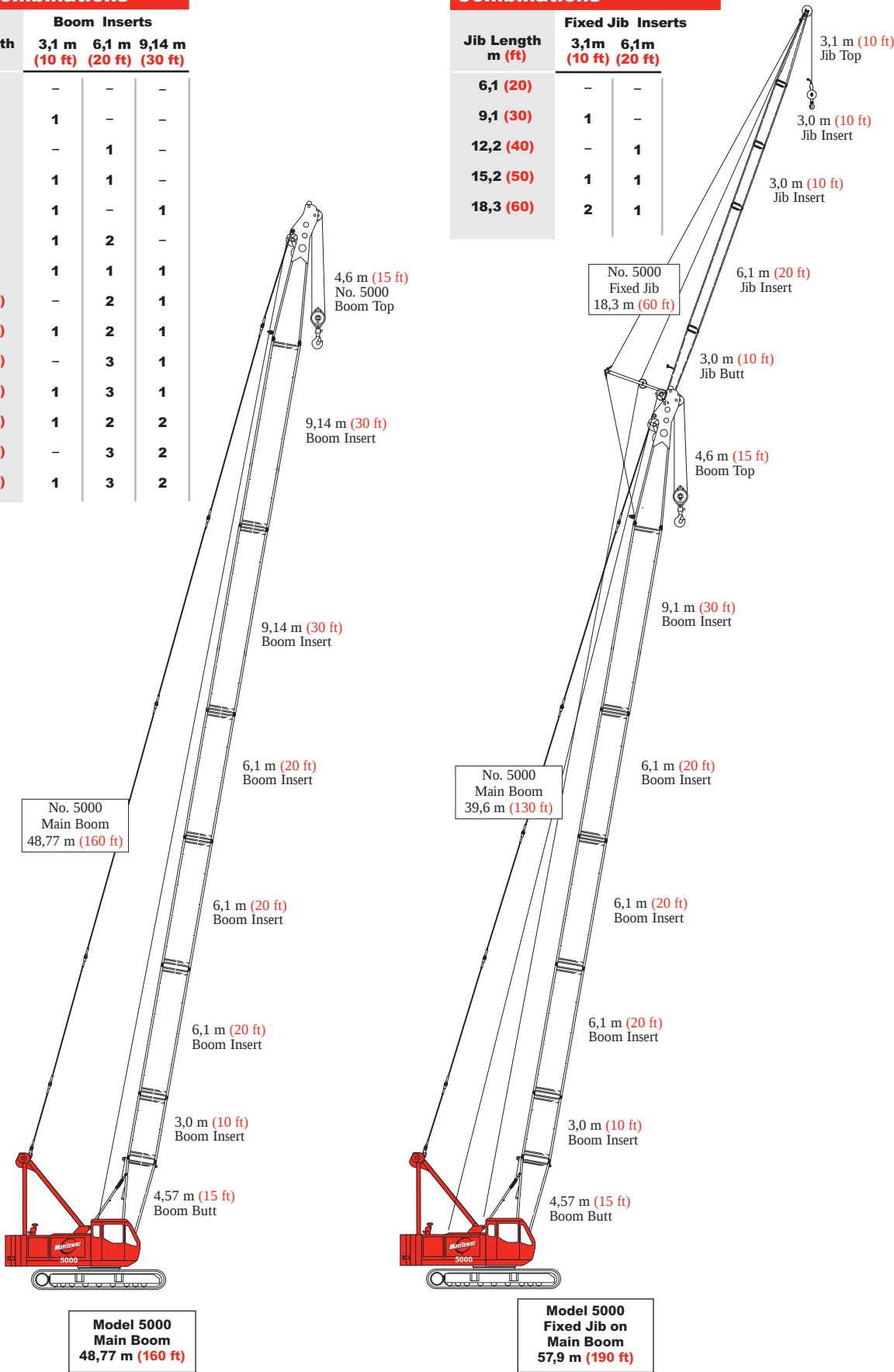
# boom combinations

## No. 5000 Heavy-Lift Boom Combinations

| Boom Length<br>m (ft) | Boom Inserts     |                  |                   |
|-----------------------|------------------|------------------|-------------------|
|                       | 3,1 m<br>(10 ft) | 6,1 m<br>(20 ft) | 9,14 m<br>(30 ft) |
| 9,14 (30)             | -                | -                | -                 |
| 12,2 (40)             | 1                | -                | -                 |
| 15,2 (50)             | -                | 1                | -                 |
| 18,3 (60)             | 1                | 1                | -                 |
| 21,3 (70)             | 1                | -                | 1                 |
| 24,4 (80)             | 1                | 2                | -                 |
| 27,4 (90)             | 1                | 1                | 1                 |
| 30,5 (100)            | -                | 2                | 1                 |
| 33,5 (110)            | 1                | 2                | 1                 |
| 36,6 (120)            | -                | 3                | 1                 |
| 39,6 (130)            | 1                | 3                | 1                 |
| 42,7 (140)            | 1                | 2                | 2                 |
| 45,7 (150)            | -                | 3                | 2                 |
| 48,8 (160)            | 1                | 3                | 2                 |

## No. 5000 Fixed Jib Combinations

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





# load chart notes

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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.

Maximum rated single line pull is 12,566 lb. at 221 FPM when using one to seven parts of line, 13,800 lb. with eight parts of line.

3.

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.

4.

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 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.

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   | Upper Boom Point | 20'   | 30'   | 40'   | 50'   | 60'   |
|--------------|------------------|-------|-------|-------|-------|-------|
| Deduct (lbs) | 330              | 1,760 | 1,980 | 2,200 | 2,430 | 2,700 |

8.

The total load that can be lifted by the fixed jib is limited by rated fixed jib loads. The total load that can be lifted with the upper boom point is limited by the rated upper boom point loads.
9.

Boom lengths for jib mounting are 90 ft (27,43 m) to 130 ft (39,62 m).
10.

An upper boom point cannot be used on a 160 ft (48,77 m) 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      |
|----------------------|--------|--------|--------|--------|
| Maximum Loads (lbs)  | 12,566 | 25,132 | 37,698 | 50,264 |

| No. of Parts of Lines | 5      | 6      | 7      | 8       |
|-----------------------|--------|--------|--------|---------|
| Maximum Loads (lbs)   | 62,830 | 75,396 | 87,962 | 100,000 |

Maximum Load for Fixed Jib

| No. of Parts of Line | 1      |
|----------------------|--------|
| Maximum Loads (lbs)  | 11,000 |

Maximum Load for Upper Boom Point

| No. of Parts of Line | 1      |
|----------------------|--------|
| Maximum Loads (lbs)  | 12,000 |

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.

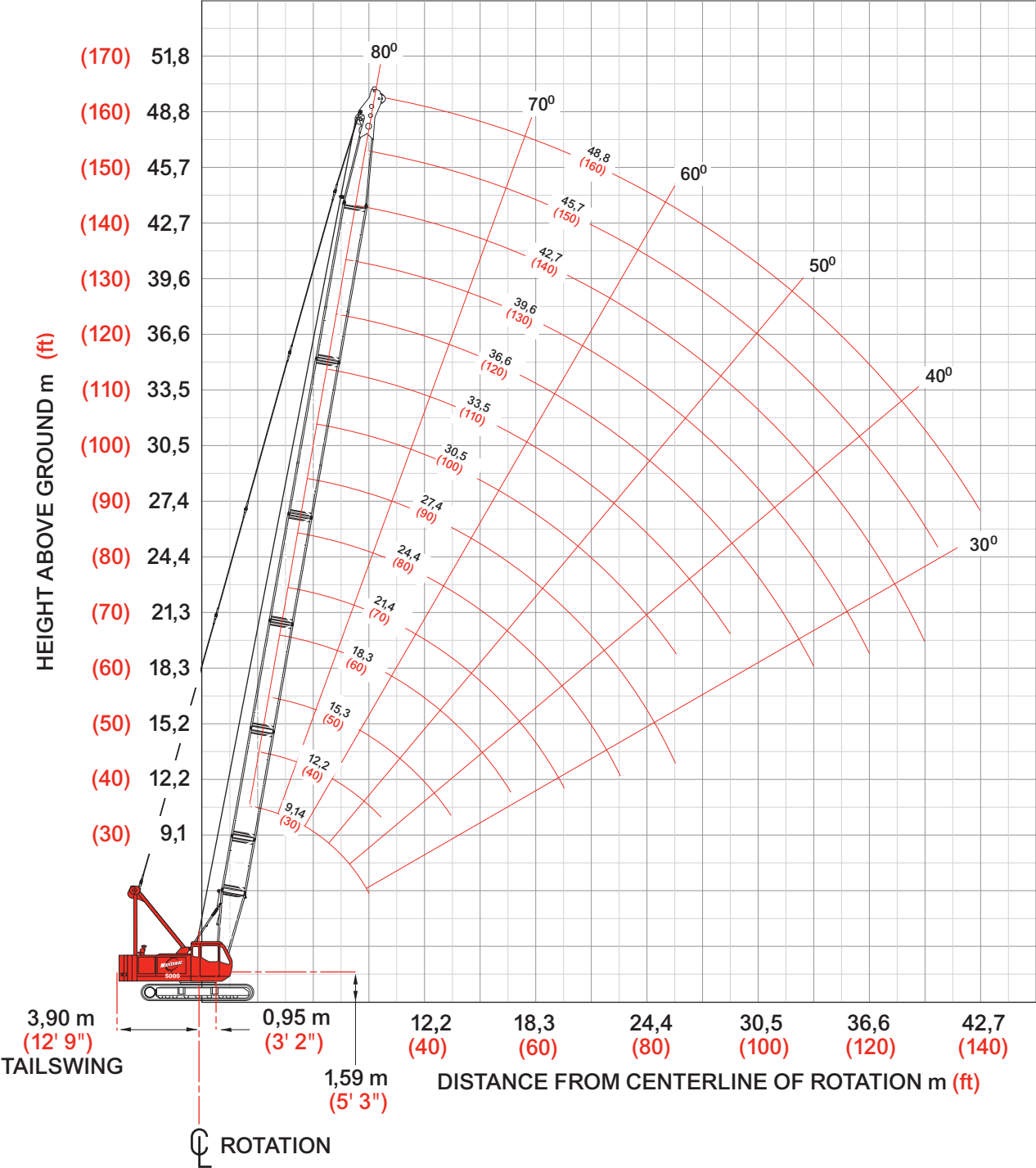
Designed and rated to comply with ANSI Code B30.5.

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

# heavy-lift boom range diagram

No. 5000 Heavy-Lift Boom

13





# heavy-lift load charts

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## Liftcrane Boom Capacities No. 5000 Heavy-Lift Boom

33,951 lb Counterweights (3 Upper Counterweights, Crawlers Extended)

| 360° Rating |       | lb x 1 000 |      |      |      |      |      |      |      |      |      |      |      |      |  |
|-------------|-------|------------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Boom<br>ft  | 30    | 40         | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150  | 160  |  |
| Radius      |       |            |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 12          | 100.0 | 100.0      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 14          | 85.6  | 85.6       | 85.6 |      |      |      |      |      |      |      |      |      |      |      |  |
| 16          | 74.1  | 74.1       | 74.1 | 72.2 |      |      |      |      |      |      |      |      |      |      |  |
| 18          | 63.2  | 63.0       | 62.8 | 62.6 | 62.5 | 57.6 |      |      |      |      |      |      |      |      |  |
| 20          | 53.7  | 53.4       | 53.3 | 53.1 | 53.0 | 52.8 | 50.1 |      |      |      |      |      |      |      |  |
| 24          | 41.1  | 40.9       | 40.7 | 40.5 | 40.4 | 40.2 | 40.0 | 39.9 | 38.0 |      |      |      |      |      |  |
| 28          | 33.2  | 33.0       | 32.8 | 32.6 | 32.4 | 32.3 | 32.1 | 31.9 | 31.8 | 31.7 | 29.0 |      |      |      |  |
| 30          | 28.1  | 30.0       | 29.8 | 29.6 | 29.5 | 29.3 | 29.1 | 29.0 | 28.8 | 28.7 | 28.3 | 25.3 | 23.8 |      |  |
| 45          |       |            | 17.4 | 17.2 | 17.0 | 16.8 | 16.6 | 16.5 | 16.3 | 16.2 | 16.0 | 15.8 | 15.8 | 15.5 |  |
| 55          |       |            |      | 13.2 | 13.0 | 12.8 | 12.6 | 12.4 | 12.3 | 12.2 | 11.9 | 11.8 | 11.7 | 11.5 |  |
| 65          |       |            |      |      | 10.4 | 10.1 | 9.9  | 9.8  | 9.6  | 9.5  | 9.3  | 9.1  | 9.0  | 8.8  |  |
| 75          |       |            |      |      |      | 8.3  | 8.1  | 7.9  | 7.7  | 7.6  | 7.4  | 7.2  | 7.1  | 6.9  |  |
| 85          |       |            |      |      |      |      | 6.7  | 6.5  | 6.3  | 6.2  | 6.0  | 5.8  | 5.7  | 5.5  |  |
| 95          |       |            |      |      |      |      |      |      | 5.3  | 5.1  | 4.9  | 4.7  | 4.6  | 4.4  |  |
| 110         |       |            |      |      |      |      |      |      |      | 3.9  | 3.7  | 3.5  | 3.4  | 3.1  |  |
| 120         |       |            |      |      |      |      |      |      |      |      | 3.1  | 2.9  | 2.7  | 2.5  |  |
| 130         |       |            |      |      |      |      |      |      |      |      |      | 2.4  | 2.2  | 2.0  |  |
| 140         |       |            |      |      |      |      |      |      |      |      |      |      |      | 1.5  |  |

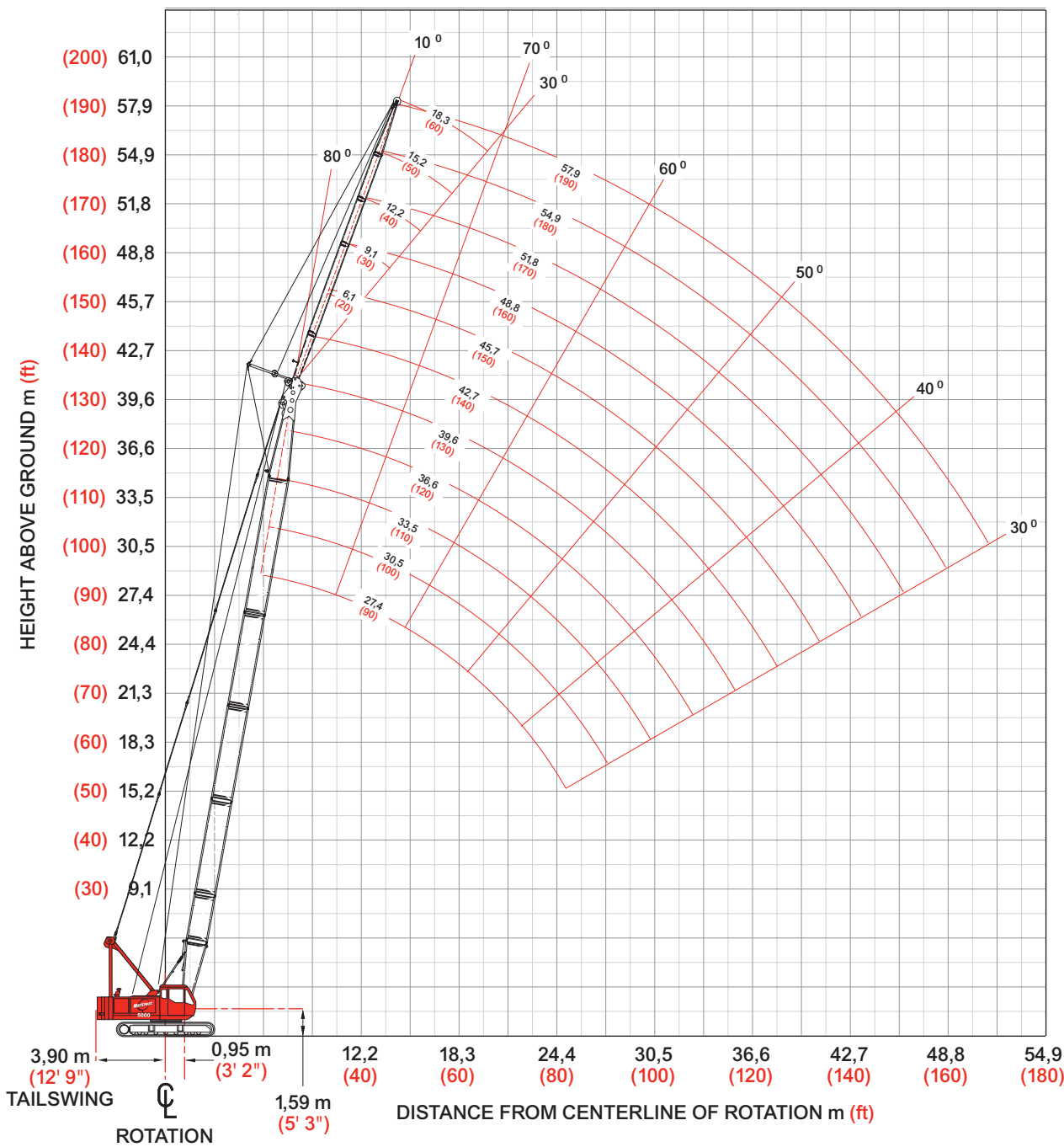


Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

fixed jib range diagram

No. 5000 Fixed Jib

15





# fixed jib load charts

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## Liftcrane Jib Capacities No. 5000 Fixed Jib on Main Boom

33,951 lb Counterweights (3 Upper Counterweights, Crawlers Extended)  
360° Rating lb x 1 000

| 10° Offset |            |      |      |      |      |      | 30° Offset |            |     |     |     |     |     |
|------------|------------|------|------|------|------|------|------------|------------|-----|-----|-----|-----|-----|
| Jib 20 ft  | Boom<br>ft | 90   | 100  | 110  | 120  | 130  | Jib 20 ft  | Boom<br>ft | 90  | 100 | 110 | 120 | 130 |
|            | Radius     |      |      |      |      |      |            | Radius     |     |     |     |     |     |
|            | 30         | 11.0 | 11.0 |      |      |      |            | 30         |     |     |     |     |     |
|            | 40         | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |            | 40         | 9.9 | 9.9 | 9.9 | 9.9 |     |
|            | 50         | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |            | 50         | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 |
|            | 60         | 10.2 | 10.0 | 9.9  | 9.7  | 9.5  |            | 60         | 9.8 | 9.8 | 9.7 | 9.7 | 9.7 |
|            | 70         | 7.9  | 7.7  | 7.6  | 7.2  | 7.1  |            | 70         | 8.2 | 7.9 | 7.8 | 7.7 | 7.5 |
|            | 80         | 6.2  | 6.0  | 5.9  | 5.6  | 5.3  |            | 80         | 6.4 | 6.2 | 6.1 | 6.0 | 5.6 |
|            | 90         | 5.0  | 4.6  | 4.4  | 4.2  | 3.9  |            | 90         | 5.1 | 4.7 | 4.6 | 4.4 | 4.2 |
|            | 95         | 4.4  | 4.0  | 3.8  | 3.6  | 3.3  |            | 95         | 4.4 | 4.1 | 4.0 | 3.8 | 3.5 |
|            | 100        |      | 3.5  | 3.3  | 3.0  | 2.8  |            | 100        |     | 3.6 | 3.5 | 3.2 | 2.9 |
|            | 110        |      |      | 2.4  | 2.1  | 1.9  |            | 110        |     |     | 2.5 | 2.2 | 2.0 |

| Jib 30 ft | Boom ft | 90   | 100  | 110  | 120  | 130  | Boom ft | 90  | 100 | 110 | 120 | 130 |
|-----------|---------|------|------|------|------|------|---------|-----|-----|-----|-----|-----|
|           | Radius  |      |      |      |      |      | Radius  |     |     |     |     |     |
|           | 30      |      |      |      |      |      | 30      |     |     |     |     |     |
|           | 40      | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 40      |     |     |     |     |     |
|           | 50      | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 50      | 9.0 | 9.0 | 9.0 | 9.0 |     |
|           | 60      | 10.5 | 10.3 | 10.1 | 10.0 | 9.8  | 60      | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
|           | 70      | 8.2  | 8.0  | 7.9  | 7.7  | 7.5  | 70      | 8.4 | 8.3 | 8.2 | 8.1 | 7.9 |
|           | 80      | 6.5  | 6.3  | 6.2  | 6.0  | 5.6  | 80      | 6.8 | 6.6 | 6.5 | 6.3 | 6.2 |
|           | 90      | 5.2  | 4.9  | 4.8  | 4.5  | 4.2  | 90      | 5.4 | 5.2 | 5.1 | 4.9 | 4.6 |
|           | 95      | 4.6  | 4.4  | 4.1  | 3.9  | 3.6  | 95      | 4.8 | 4.6 | 4.5 | 4.3 | 4.0 |
|           | 100     |      | 3.8  | 3.6  | 3.4  | 3.0  | 100     | 4.2 | 4.0 | 3.9 | 3.7 | 3.4 |
|           | 110     |      | 2.9  | 2.7  | 2.4  | 2.1  | 110     |     | 3.0 | 2.9 | 2.6 | 2.4 |

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.





# fixed jib load charts

## Liftcrane Jib Capacities No. 5000 Fixed Jib on Main Boom

33,951 lb Counterweights (3 Upper Counterweights, Crawlers Extended)

360° Rating

lb x 1 000

10° Offset

30° Offset

| Jib 50 ft | Boom<br>ft | 90  | 100 | 110 | 120 | 130 |
|-----------|------------|-----|-----|-----|-----|-----|
|           | Radius     |     |     |     |     |     |
|           | 40         | 7.0 | 7.0 |     |     |     |
|           | 50         | 6.7 | 6.9 | 6.9 | 6.9 | 7.0 |
|           | 55         | 6.5 | 6.7 | 6.7 | 6.8 | 7.0 |
|           | 60         | 6.4 | 6.6 | 6.6 | 6.6 | 6.8 |
|           | 70         | 6.0 | 6.2 | 6.2 | 6.3 | 6.5 |
|           | 80         | 5.8 | 5.9 | 6.1 | 5.8 | 6.0 |
|           | 90         | 5.5 | 5.4 | 5.2 | 4.9 | 4.6 |
|           | 95         | 5.1 | 4.8 | 4.6 | 4.2 | 4.0 |
|           | 100        |     | 4.2 | 4.0 | 3.7 | 3.5 |
|           | 110        |     | 3.3 | 3.1 | 2.8 | 2.5 |

| Jib 50 ft | Boom<br>ft | 90  | 100 | 110 | 120 | 130 |
|-----------|------------|-----|-----|-----|-----|-----|
|           | Radius     |     |     |     |     |     |
|           | 40         |     |     |     |     |     |
|           | 50         |     |     |     |     |     |
|           | 55         | 5.0 |     |     |     |     |
|           | 60         | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
|           | 70         | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
|           | 80         | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
|           | 90         | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
|           | 95         | 5.0 | 4.9 | 4.9 | 4.8 | 4.7 |
|           | 100        | 4.9 | 4.6 | 4.6 | 4.3 | 4.1 |
|           | 110        | 3.9 | 3.6 | 3.4 | 3.2 | 3.0 |

| Jib 60 ft | Boom<br>ft | 90  | 100 | 110 | 120 | 130 |
|-----------|------------|-----|-----|-----|-----|-----|
|           | Radius     |     |     |     |     |     |
|           | 40         |     |     |     |     |     |
|           | 50         | 4.9 | 4.9 | 4.9 |     |     |
|           | 55         | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
|           | 60         | 4.6 | 4.6 | 4.6 | 4.8 | 4.8 |
|           | 70         | 4.3 | 4.3 | 4.5 | 4.5 | 4.5 |
|           | 80         | 3.9 | 4.1 | 4.1 | 4.2 | 4.3 |
|           | 90         | 3.7 | 3.8 | 4.0 | 3.9 | 4.0 |
|           | 95         | 3.6 | 3.7 | 3.9 | 3.8 | 3.9 |
|           | 100        | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 |
|           | 110        | 3.3 | 3.3 | 3.2 | 3.0 | 2.7 |

| Jib 60 ft | Boom<br>ft | 90  | 100 | 110 | 120 | 130 |
|-----------|------------|-----|-----|-----|-----|-----|
|           | Radius     |     |     |     |     |     |
|           | 40         |     |     |     |     |     |
|           | 50         |     |     |     |     |     |
|           | 55         |     |     |     |     |     |
|           | 60         | 3.4 | 3.4 |     |     |     |
|           | 70         | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
|           | 80         | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
|           | 90         | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
|           | 95         | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
|           | 100        | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 |
|           | 110        | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 |

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.

# clamshell

18

**Boom:**

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

Basic boom length: 30 ft (9,14 m)

Max. boom length: 60 ft (18,3 m)

Limit on clamshell bucket weight: 4,600 lbs (2 100 kg)

Boom Component Chart

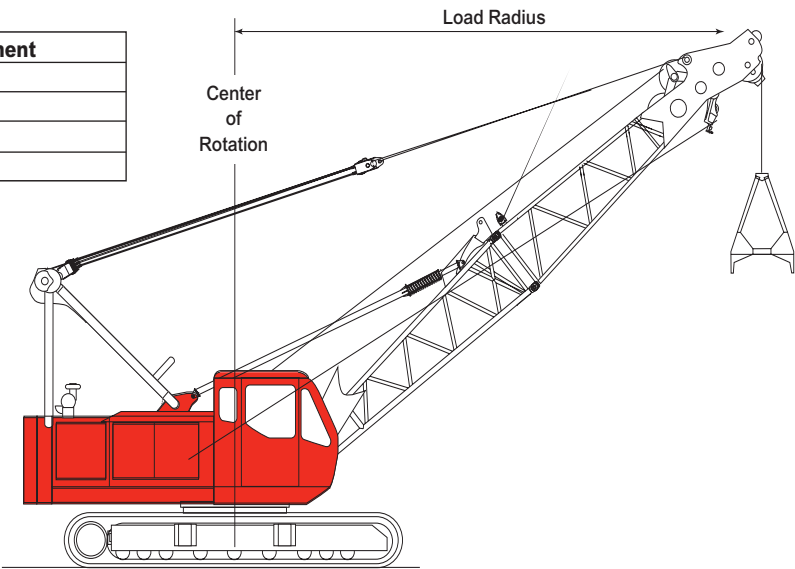
| Boom length ft (m) | Boom arrangement |
|--------------------|------------------|
| 30 (9,1)           | Butt-Top         |
| 40 (12,2)          | Butt-A-Top       |
| 50 (15,2)          | Butt-B-Top       |
| 60 (18,3)          | Butt-A-B-Top     |

Butt = 15 ft (4,57 m)

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

          B = 20 ft (6,10 m)

Top = 15 ft (4,57 m)



## Clamshell Capacities

22,045 lb Counterweight (2 Upper Counterweights, Crawlers Extended)

| lb x 1 000 |      |      |      |      |
|------------|------|------|------|------|
| Boom ft    | 30   | 40   | 50   | 60   |
| Radius     |      |      |      |      |
| 18         | 15.5 |      |      |      |
| 20         | 15.5 |      |      |      |
| 24         | 15.5 | 15.5 |      |      |
| 28         | 15.5 | 15.5 | 15.5 |      |
| 32         |      | 15.5 | 15.5 | 15.5 |
| 34         |      | 15.5 | 15.5 | 15.5 |
| 36         |      | 15.5 | 15.5 | 15.5 |
| 40         |      |      | 14.3 | 14.1 |
| 45         |      |      |      | 12.0 |
| 50         |      |      |      | 10.4 |

Notes: Figures represent maximum allowable capacity, and assume level, firm ground and ideal working conditions. Capacities are calculated at 67.5% of the minimum clamshell tipping load. Capacities are the 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 60' (18,29 m). Consult your authorized distributor for rated loads during rapid cycle operations.



dragline

19

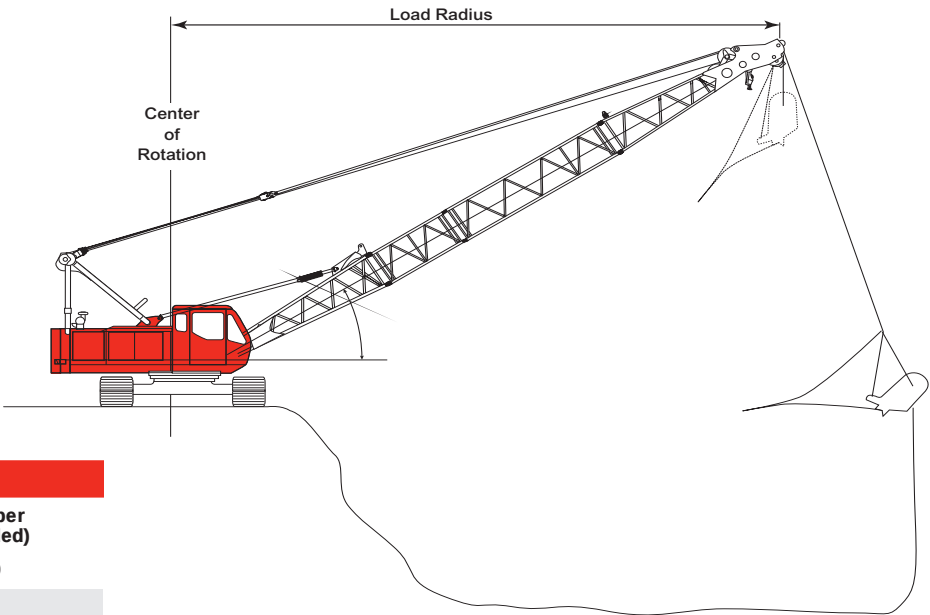
Boom:

Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections.  
Basic boom length: 30 ft (9,14 m)  
Max. boom length: 60 ft (18,3 m)  
Optional fairlead: Full-revolving type.

Boom Component Chart

| Boom length ft (m) | Boom arrangement |
|--------------------|------------------|
| 30 (9,1)           | Butt-Top         |
| 40 (12,2)          | Butt-A-Top       |
| 50 (15,2)          | Butt-B-Top       |
| 60 (18,3)          | Butt-A-B-Top     |

Butt = 15 ft (4,57 m)  
Insert: A = 10 ft (3,05 m)  
          B = 20 ft (6,10 m)  
Top = 15 ft (4,57 m)



Dragline Capacities

22,045 lb Counterweight (2 Upper Counterweights, Crawlers Extended)  
lb x 1 000

| Boom ft | 30   | 40   | 50   | 60   |
|---------|------|------|------|------|
| Radius  |      |      |      |      |
| 26      | 15.5 |      |      |      |
| 28      | 15.5 |      |      |      |
| 30      | 15.5 |      |      |      |
| 34      |      | 15.5 |      |      |
| 38      |      | 15.5 |      |      |
| 42      |      |      | 14.9 |      |
| 46      |      |      | 13.2 |      |
| 50      |      |      |      | 11.6 |
| 54      |      |      |      | 10.5 |
| 56      |      |      |      | 10.0 |

Notes: Figures represent maximum allowable capacity, and assume level, firm ground and ideal working conditions. Capacities are calculated at 75.0% of the minimum dragline tipping load. Capacities are the 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. Do not operate the dragline using boom angles of less than 30 degree. Boom length for dragline operation should not exceed 60' (18,29 m). Consult your authorized distributor for rated loads during rapid cycle operations.



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