Manitowoc 999
Product Guide

Features

• 250 t (275 USt) capacity
• 1 115 m-ton (8,268 ft-kips) maximum load moment
• 88,4 m (290 ft) heavy-lift boom
• 100,6 m (330 ft) fixed jib on heavy-lift boom
• 128,0 m (420 ft) luffing jib on heavy-lift boom
Features

Hydraulics
Our closed-loop system provides a separate hydraulic circuit to power each crane function. The result is truly independent, variable-speed operation of the swing, load hoist, boom hoist and travel functions.

EPIC®
Manitowoc’s field-proven Electronically Processed Independent Controls (EPIC) system delivers high productivity and precise load control by instantly matching an operator’s commands to the crane function. EPIC’s microprocessor maximizes a Manitowoc crane’s function capability and simplifies servicing by pinpointing any problem in the crane’s engine, power transmission and other operating systems. In addition, EPIC increases versatility by easily tailoring a Manitowoc crane’s operation for specialized applications, with or without attachments. EPIC is a key reason no other crane can match the performance and reliability of Manitowoc.

FACT™ Connectors
Manitowoc’s Fast Aligning Connection Technology (FACT) quickly aligns crane components for fast, safe assembly and disassembly.

Crawler drive shafts
The crawler drive shafts prevent contaminants from entering the system. By eliminating the need to disconnect hydraulic systems, crawler removal and assembly is safer and easier.
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Specifications

Upperworks

Engine

Cummins Model QSM11 diesel, 6 cylinder, 298 kW (400 BHP) @ 1800 governed RPM.

Includes engine block heater (120 V), ether starting aid, manually operated disconnect clutch for cold weather start, high silencing muffler, hydraulic oil cooler, radiator and fan.

Multiple hydraulic pump drive transmission provides independent power for all machine functions.

Two 12 volt maintenance-free, Group 8D batteries, 1300 CCA at -18°C (0° F), 24 volt starting and 110 amp alternator.

Two diesel fuel tanks for total of 719 L (190 gal) with level indicator in Operator’s Cab.

Controls

Modulating electronic-over-hydraulic controls provide infinite speed response directly proportional to control lever movement. Controls include Manitowoc’s exclusive EPIC® Electronically Processed Independent Control system providing microprocessor driven control logic, pump control, on-board diagnostics, and service information.

Block-up limit control is standard for hoist and whip lines.

Integrated Rated Capacity Limiter system (RCL) is standard for main boom and upper boom point. “Function cut-out” or “warning only” operation is available via a keyed switch on the RCL console.

Optional travel and swing alarms are available.

Optional foot controls for travel.

Hydraulic system

Six high-pressure piston pumps are driven through a multi-hydraulic pump transmission. These six pumps provide independent “closed loop” hydraulic power for front drum, rear drum, boom hoist system, swing system, and both left and right crawler operation.

<table>
<thead>
<tr>
<th>System</th>
<th>kg/cm² (psi)</th>
<th>lpm (gpm)</th>
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<tr>
<td>Front Drum</td>
<td>422 (6,000)</td>
<td>379 (100)</td>
</tr>
<tr>
<td>Rear Drum</td>
<td>422 (6,000)</td>
<td>379 (100)</td>
</tr>
<tr>
<td>Boom Hoist</td>
<td>422 (6,000)</td>
<td>227 (60)</td>
</tr>
<tr>
<td>Swing System</td>
<td>386 (5,500)</td>
<td>227 (60)</td>
</tr>
<tr>
<td>Left Crawler</td>
<td>422 (6,000)</td>
<td>227 (60)</td>
</tr>
<tr>
<td>Right Crawler</td>
<td>422 (6,000)</td>
<td>227 (60)</td>
</tr>
<tr>
<td>Auxiliary Pump*</td>
<td>422 (6,000)</td>
<td>379 (100)</td>
</tr>
</tbody>
</table>

*Optional pump powers auxiliary drum on liftcrane.

Hydraulic reservoir capacity is 454 L (120 gal) and is equipped with breather, clean out access, and internal diffuser.

Each function is equipped with relief valves to protect the hydraulic circuit from overload or shock.

Replaceable, spin on ten full flow line filter is furnished in the hydraulic circuit. All oil is filtered prior to suction on closed loop hydraulic pumps.

Hydraulic system also includes pump transmission disconnect clutch and hydraulic oil cooler.

Drums

Two equal width winches 940 mm (37”) wide and 540 mm (21-1/4”) diameter are driven by independent variable displacement axial piston hydraulic motors through planetary reduction mounted on separate front and rear shafts with anti-friction bearings. Drums are grooved for 26 mm rope.

Powered hoisting/lowering operation is standard with automatic (spring applied, hydraulically released) multi-disc brakes, and drum rotation indicators.

Optional free-fall operation for front and/or rear drum(s). Wet disk brake manually applied by foot pedal with locking latch in operator’s cab. Operator may select free-fall or powered lowering mode using a selector switch.

Optional auxiliary (third) hydraulic powered drum rated at 89,0 kN (20,000 lb) line pull mounted in boom butt. Includes third drum control system.

Optional auxiliary drum preparation includes electric wiring, controls, hydraulic pump and plumbing.
Specifications

Boom hoist

Independent boom hoist consists of a 343 mm (13-1/2”) wide and 483 mm (19”) diameter drum grooved for 22,23 mm (7/8”) diameter wire rope. Includes 323,1 m (1,060’) of 22,23 mm (7/8”) diameter wire rope for 20 part line reeving.

Drum is powered by a fixed displacement hydraulic motor coupled to an internal brake and planetary gearbox equipped with ratcheting pawl.

Boom hoist speed: raise 88,4 m (290’) full main boom from 0˚- 82˚ in 2 minutes, 50 seconds.

Mast and gantry

Moving mast is 9,1 m (30’) long and connects the boom hoist reeving to the steel boom suspension strap rigging. When used with optional self-erect package, the mast is utilized for crane assembly and disassembly. It is capable of lifting and positioning the crawler assemblies, stacking the counterweights, and assembling the boom and jib.

Gantry includes gantry raising cylinders capable of lifting the entire upperworks counterweight for removal and installation. Counterweight attaches to rotating bed with power actuated pins.

Air cushioned boom stop and automatic boom stop standard.

Counterweight

<table>
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<tr>
<th>Qty</th>
<th>Item</th>
<th>Unit Weight</th>
<th>Total Weight</th>
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<tr>
<td></td>
<td></td>
<td>kg</td>
<td>lb</td>
</tr>
<tr>
<td>1</td>
<td>Upperworks Tray</td>
<td>9572</td>
<td>21,000</td>
</tr>
<tr>
<td>1</td>
<td>Center Box</td>
<td>10,660</td>
<td>23,500</td>
</tr>
<tr>
<td>6</td>
<td>Upper Side Box</td>
<td>7938</td>
<td>17,500</td>
</tr>
<tr>
<td></td>
<td>Series 1 total</td>
<td>67,860</td>
<td>149,600</td>
</tr>
<tr>
<td>2</td>
<td>Upperworks Upper Side Box</td>
<td>7938</td>
<td>17,500</td>
</tr>
<tr>
<td>2</td>
<td>Carbody Lower Box</td>
<td>9,978</td>
<td>22,000</td>
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<td></td>
<td>Optional: Add to Series 1 for Series 2 total</td>
<td>103,690</td>
<td>228,600</td>
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<tr>
<td>2</td>
<td>Carbody Lower Box</td>
<td>8,345</td>
<td>18,000</td>
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<tr>
<td></td>
<td>Optional: Add to Series 1 for Series 2 total</td>
<td>13,589</td>
<td>229,600</td>
</tr>
</tbody>
</table>

Counterweight includes connecting pins, brackets, and stops.

Optional low-profile counterweight boxes for Series 3 only. Consists of twelve 6 622 kg (14,600 lb) upper side counterweight boxes in lieu of the standard ten 7 938 kg (17,500 lb) counterweight boxes. Low profile boxes allow greater versatility for transport of boom and counterweight sections where specific markets have transport restrictions.

Swing system

High strength fabricated steel alloy rotating bed is mounted on 2,76 m (108-9/16”) diameter turntable triple-row ball bearing.

Independent swing powered by a fixed displacement hydraulic motor coupled to a planetary gearbox with internal brake. 360˚ positive swing lock.

Swing system maximum speed: 1.8 rpm.

Operator’s cab

Fully enclosed and insulated steel module located on a pivoting mount at the left front corner of rotating bed, allowing module repositioning for transportation. Module is equipped with sliding door, large safety glass windows on all sides and roof. Signal horn, cab space heater, front and roof windshield wipers, dome light, sun visor and shade, fire extinguisher and air circulating fan are standard.

Optional air conditioner.

Optional nylon protective window covers.

Lowerworks

Connects rotating bed to crawler assemblies. High strength fabricated steel assembly with FACT™ connection system for fast installation and removal of crawler assemblies.

Crawlers

Crawler assemblies are 8,59 m (28’ 3”) long with 1,22 m (48”) wide cast steel crawler pads and sealed “low maintenance” intermediate rollers. Each crawler is identical and can be mounted on either side of the carbody. Each crawler is powered independently by a variable displacement hydraulic motor and includes two hydraulically powered pin actuators for fast installation and removal from carbody. Carbody mounted drive motors are connected to crawler final reduction via telescoping shafts. This permits crawlers to be removed without opening their hydraulic circuits. Crawlers provide ample tractive effort that allows counter
rotation with full rated load. Maximum ground speed of 1.61 kph (1.0 mph).

- Optional self-erect system includes: carbody jacking cylinders with pads, controls, 41 mton (45 ton) assembly block, boom-butt installation support, and crawler handling chains.

### Attachments

#### No. 82 Heavy-lift main boom

The liftcrane is equipped with a 21.3 m (70') No. 82 basic heavy-lift angle chord boom consisting of a 9.1 m (30') butt and 12.2 m (40') top with eight 76.2 cm (30”) diameter roller bearing sheaves on one shaft. Includes rope guides, boom hoist wire rope, and boom angle indicator. The No. 82 boom utilizes steel suspension straps and Manitowoc’s exclusive FACT™ connection system. The FACT connection system consists of two vertical pins, two horizontal connection pins and alignment pads for each boom connection location.

Powered boom hinge system including cylinder, piping, operating controls and locking device standard.

Luffing jib preparation included as standard.

- Optional 3.0 m (10’), 6.1 m (20’), and 12.2 m (40’) No. 82 boom inserts with steel boom suspension straps, and FACT™ connection system.

- Optional No. 82 or No. 22EL detachable upper boom point with one 76.2 cm (30”) diameter tapered roller bearing steel sheave grooved for 26 mm or (1”) rope with rope guard for liftcrane.

- Optional No. 22EL basic heavy-lift boom similar to No. 82 described above, but with pinned boom connections and boom suspension pendants in lieu of FACT™ boom connection system and steel boom suspension straps.

- Optional 3.0 m (10’), 6.1 m (20’), and 12.2 m (40’) No. 22 boom inserts with pinned boom connections and boom suspension pendants.

- Optional 12.2 m (40’) No. 22C open throat top with six 76.2 cm (30”) diameter straight roller bearing sheaves on one shaft and boom suspension pendants. Used with No. 22E boom butt and inserts.

- Optional 15.2 m (50’) No. 22E light tapered top and 9.1 m (30’) tapered insert with pinned boom connections and boom suspension pendants. Used with No. 22E boom butt and inserts.

#### No. 82 Long reach boom top

- Optional 15.2 m (50’) No. 82 basic long reach boom top with four 76.2 cm (30”) diameter straight roller bearing sheaves. Includes rope guides, steel boom suspension straps, and FACT™ connection system. Utilizes existing 9.1 m (30’) butt and No. 82 boom inserts for lengths up to 103.6 m (340’). Requires one 12.2 m (40’) light weight boom insert for lengths equal to or greater than 94.4 m (310’).

#### No. 134 Fixed jib

- Optional No. 134 basic fixed jib 9.1 m (30’) length consisting of 4.6 m (15’) jib butt and 4.6 m (15’) jib top with 3.7 m (12’) jib strut, pendants and backstay. Includes RCL hardware. For use with booms No. 82, No. 82LR, or No. 22EL, or as a fixed jib extension on No. 149 luffing jib.

- Optional No. 134 fixed jib inserts 3.0 m (10’) and 6.1 m (20’) with pendants.

Utilize fixed jib inserts in combination with the No. 134 basic fixed jib for total lengths up to 24.4 m (80’).

Note: Jib lengths greater than 18.3 m (60’) require the use of at least one 6.1 m (20’) No. 134 fixed jib insert.

#### No. 123 Fixed jib

- Optional No. 123 basic fixed jib 9.1 m (30’) length consisting of 4.6 m (15’) jib butt and 4.6 m (15’) jib top with 3.7 m (12’) jib strut, pendants and backstay. For use with No. 82LR boom top, No. 22C open throat top or No. 22E light tapered top.

- Optional No. 123 fixed jib inserts 3.0 m (10’) and 6.1 m (20’) with pendants.

Utilize fixed jib inserts in combination with the No. 123 basic fixed jib for total lengths up to 18.3 m (60’).

#### No. 149 Luffing jib

- Optional 21.3 m (70’) basic No. 149 luffing jib assembly with RCL hardware consisting of 7.6 m (25’) butt, 6.1 m (20’) insert and 7.6 m (25’) top with three 68.6 cm (27”) straight roller bearing sheaves and pin connected jib sections, steel jib suspension straps, fixed strut, jib strut, backstay straps, jib point wheel, 26 mm luffing jib hoist line, and FACT™ connection system. Used only with No. 82 heavy-lift boom.
Specifications

Optional 3,0 m (10’), 6,1 m (20’), and 12,2 m (40’) No. 149 inserts with steel jib suspension straps. Utilize luffing jib inserts in combination with the No. 149 basic luffing jib for total lengths up to 73,2 m (240’).

Optional 6,1 m (20’) insert with sheaves and guides for intermediate fall that provides up to two-part load line at intermediate position in luffing jib. Use of insert may require intermediate luffing jib suspension.

Can be assembled in the air.

Note: Only one 3,0 m (10’) insert is allowed in the luffing jib.

Optional 3,0 m (10’), 6,1 m (20’), and 12,2 m (40’) No. 149 inserts with steel jib suspension straps. Utilize luffing jib inserts in combination with the No. 149 basic luffing jib for total lengths up to 73,2 m (240’).

Optional 6,1 m (20’) insert with sheaves and guides for intermediate fall that provides up to two-part load line at intermediate position in luffing jib. Use of insert may require intermediate luffing jib suspension.

Can be assembled in the air.

Note: Only one 3,0 m (10’) insert is allowed in the luffing jib.

Optional 6,1 m (20’) insert with sheaves and guides for intermediate fall that provides up to two-part load line at intermediate position in luffing jib. Use of insert may require intermediate luffing jib suspension.

Can be assembled in the air.

Note: Only one 3,0 m (10’) insert is allowed in the luffing jib.

Optional 9,1 m (30’) basic fixed jib extension includes jib stop, backstay, wheel, and mounting parts for use on No. 135 luffing jib.

Optional No. 138 3,0 m (10’) inserts with pendants. Utilize fixed jib inserts in combination with the No. 138 basic fixed jib extension for total lengths up to 18,3 m (60’).

Optional 3,0 m (10’), 6,1 m (20’), and 12,2 m (40’) No. 135 inserts with pendants. Utilize luffing jib inserts in combination with the No. 135 basic luffing jib for total lengths up to 57,8 m (170’).

Optional luffing jib fold-under erection equipment includes wire rope guide and manual pin release parts to allow jib to fold under.

Note: Only one 3,0 m (10’) insert is allowed in the luffing jib.

Note: 7 m (23’) top, inserts, and pendants for inserts from No. 23 boom can be used as part of No. 135 luffing jib. No. 23 boom top requires modifications.

Optional 3,0 m (10’), 6,1 m (20’), and 12,2 m (40’) No. 138 3,0 m (10’) inserts with pendants. Utilize fixed jib inserts in combination with the No. 138 basic fixed jib extension for total lengths up to 18,3 m (60’).

Optional blocks and hooks –

13,6 mton (15 ton) swivel hook and weight ball.
41 mton (45 ton) hook block with one 76,2 cm (30”) sheave for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock (assembly block).
54 mton (60 ton) hook block with two 76,2 cm (30”) sheaves for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock.
91 mton (100 ton) hook block with three 76,2 cm (30”) sheaves for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock.
181,4 mton (200 ton) hook block with six 76,2 cm (30”) sheaves for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock.

Upper block single sheave to be added to 181,4 mton (200 ton) load block for upgrade to 208,6 mton (230 ton) capacity.

Optional equipment

Optional blocks and hooks –

13,6 mton (15 ton) swivel hook and weight ball.
41 mton (45 ton) hook block with one 76,2 cm (30”) sheave for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock.
54 mton (60 ton) hook block with two 76,2 cm (30”) sheaves for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock.
91 mton (100 ton) hook block with three 76,2 cm (30”) sheaves for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock.
181,4 mton (200 ton) hook block with six 76,2 cm (30”) sheaves for 26 mm or (1”) wire rope with swivel hook, hook latch, and swivel lock.

Optional hydraulic test kit: required to properly analyze the performance of the EPIC® control system.

Optional service interval kits: for the regularly scheduled maintenance of general crane operations.

Optional lighting packages: consult factory for available options.

Optional special paint: in color(s) other than Manitowoc standard red and black.

Optional special customer decals: custom vinyl decal(s) of name and/or logo from artwork supplied by customer.

Optional export packaging: basic crane, boom and jib sections.

Optional applications

Options for limited clamshell work: guide bars for lower boom point; Rud-O-Matic® No. 1866 spring-powered three-barrel tagline with 76,2 cm (36”) diameter wheel; and pressure rollers for the front and rear hoisting drums. Front drum is closing line. Rear
Specifications

drum is holding line. Manitowoc’s EPIC® controls can be changed from liftcrane to clamshell mode with the flip of a switch.

On units equipped with the (pin-connected, pendant-supported) 22EL boom, it is also possible to replace the “L” boom top with the open-throat top for improved performance in clamshell operation. The open throat top may not be mounted to the (FACT™ connected, strap-supported) No. 82 boom.

Options for dedicated clamshell work. Manitowoc recommends: the open throat top, detachable upper boom point with two 91,4 cm (36”) diameter roller-bearing-mounted sheaves and cheek plates, pressure rollers on the front and rear drums, and Rud-O-Matic® No. 1866 spring-powered three-barrel tagline with 76,2 cm (30”) diameter wheel. Freefall hoisting drums are also recommended. Front drum is closing line. Rear drum is holding line.

Options for limited dragline work. Manitowoc recommends these options: Guide bars for lower boom point; pressure rollers for the front and rear hoisting drums, freefall drums, and fairlead with dirt guard. Front drum is drag line. Rear drum is hoist line. Manitowoc’s EPIC® controls can be changed from liftcrane to dragline mode with the flip of a switch.
Outline dimensions

1. FRONT HOIST DRUM - WHIP
2. REAR HOIST DRUM - MAIN (SERVES AS LUFFING DRUM WHEN LUFFING JIB IS ATTACHED)
3. BOOM HOIST DRUM
Outline dimensions

- 4.45 m (14' 7") (SERIES 3)
- 3.96 m (13' 0")
- 3.0 m (9' 10")
- 3.88 m (12' 9") (SERIES 2)
- 3.65 m (12' 0") (SERIES 1)
- 1.12 m (3' 8")
- 1.22 m (4' 0")
- 0.33 m (1' 1")
- 0.22 m (0' 9")
- 7.06 m (23' 2")
Outline dimensions

Basic crane  x 1
Length 11.87 m 38' 11"
Width 3.00 m 9' 10"
Height 3.38 m 11' 1"
Weight 39 689 kg 87,500 lb
Note: Weight includes carbody, upperworks, operator’s cab, gantry, backhitch, mast, boom-boist wire rope, maximum hoist and whip lines on drums, optional self-assembly jacks, full hydraulic fluid reservoir, and half tank of fuel.

Crawlers with catwalks  x 2
Length 8.59 m 28' 3"
Width 1.48 m 4' 10"
Height 1.30 m 4' 3"
Weight 19 622 kg 43,260 lb

Upper center counterweight  x 1
Length 2.31 m 7' 7"
Width 1.27 m 4' 2"
Height 1.71 m 5' 7"
Weight 10 659 kg 23,500 lb

Counterweight tray  x 1
Length 2.24 m 7' 4"
Width 3.96 m 13' 0"
Height 0.34 m 1' 2"
Weight 9 548 kg 21,050 lb

Upper side counterweight standard profile
Series 1  x 6
Series 2  x 8
Series 3  x 10
Length 2.24 m 7' 4"
Width 1.07 m 3' 6"
Height 0.69 m 2' 3"
Weight 7 938 kg 17,500 lb
Outline dimensions

**Upper side counterweight**
- Series 3 only
- Optional low profile
- x 12
  - Length: 2.24 m (7' 4")
  - Width: 1.07 m (3' 6'')
  - Height: 0.48 m (1' 7'')
  - Weight: 6,611 kg (14,485 lb)

**Lower carbody counterweight**
- Series 2, 3
- x 2
  - Length: 2.97 m (9' 9'')
  - Width: 1.80 m (5' 11'')
  - Height: 0.82 m (2' 8'')
  - Weight: 9,979 kg (22,000 lb)

**Upper carbody counterweight**
- Series 3
- x 2
  - Length: 2.74 m (9' 0'')
  - Width: 1.50 m (4' 11'')
  - Height: 0.39 m (1' 4'')
  - Weight: 8,165 kg (18,000 lb)

**No. 82 Boom butt 9.1 m (30') and wire rope guide, boom stop**
- x 1
  - Length: 10.49 m (34' 5'')
  - Width: 2.41 m (7' 11'')
  - Height: 2.71 m (8' 11'')
  - Weight: 4,910 kg (10,825 lb)

  *Note: Includes boom butt support for self-erect option, boom angle indicator, and cable reel.*

**No. 82 Boom top 12.2 m (40') and wire rope guide, straps**
- x 1
  - Length: 12.75 m (41' 10'')
  - Width: 2.41 m (7' 11'')
  - Height: 2.82 m (9' 3'')
  - Weight: 5,609 kg (12,365 lb)

*Option*
### Outline dimensions

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. 82 Main boom 3.0 m (10')</strong></td>
<td>3.20 m</td>
<td>2.41 m</td>
<td>2.59 m</td>
<td>971 kg</td>
</tr>
<tr>
<td><strong>insert and straps x 1, 2</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. 82 Main boom 6.1 m (20')</strong></td>
<td>6.25 m</td>
<td>2.41 m</td>
<td>2.54 m</td>
<td>1397 kg</td>
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<tr>
<td><strong>insert and straps x 1, 2</strong></td>
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<tr>
<td><strong>No. 82 Main boom 12.2 m (40')</strong></td>
<td>12.34 m</td>
<td>2.41 m</td>
<td>2.54 m</td>
<td>2431 kg</td>
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<tr>
<td><strong>insert and straps x 1, 2, 3, 4, 5</strong></td>
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<tr>
<td><strong>No. 82 Long reach boom top 15.2 m (50') and wire rope guide, straps x 1</strong></td>
<td>16.02 m</td>
<td>2.41 m</td>
<td>2.54 m</td>
<td>3216 kg</td>
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<tr>
<td><strong>No. 82 Long reach boom, light weight 12.2 m (40') insert and straps x 1</strong></td>
<td>12.34 m</td>
<td>2.41 m</td>
<td>2.54 m</td>
<td>2137 kg</td>
</tr>
</tbody>
</table>

*Option*
Outline dimensions

No. 22E Boom butt 9,1 m (30') and wire rope guide, boom stop x 1
Length 10,49 m 34' 5"
Width 2,41 m 7' 11"
Height 2,71 m 8' 11"
Weight 4 791 kg 10,570 lb
Note: Includes boom butt support for self-erect option, boom angle indicator, and cable reel.

No. 22L Boom top 12,2 m (40') and wire rope guide, pendants x 1
Length 12,75 m 41' 10"
Width 2,41 m 7' 11"
Height 2,82 m 9' 3"
Weight 5 255 kg 11,585 lb

No. 22C Boom top 12,2 m (40') and wire rope guide, pendants x 1
Length 12,89 m 42' 4"
Width 2,41 m 7' 11"
Height 2,41 m 7' 11"
Weight 4 437 kg 9,780 lb

No. 22E Main boom 3,0 m (10') insert and pendants x 1, 2
Length 3,18 m 10' 5"
Width 2,41 m 7' 11"
Height 2,57 m 8' 5"
Weight 874 kg 1,935 lb

No. 22E Main boom 6,1 m (20') insert and pendants x 1, 2
Length 6,22 m 20' 5"
Width 2,41 m 7' 11"
Height 2,57 m 8' 5"
Weight 1 416 kg 3,130 lb

No. 22E Main boom 12,2 m (40') insert and pendants x 1, 2, 3, 4, 5
Length 12,32 m 40' 5"
Width 2,41 m 7' 11"
Height 2,57 m 8' 5"
Weight 2 404 kg 5,300 lb
### Outline dimensions

<table>
<thead>
<tr>
<th><strong>Product</strong></th>
<th><strong>Description</strong></th>
<th><strong>Units</strong></th>
<th><strong>Dimensions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 22E Light tapered top</td>
<td>15,2 m (50') and pendants</td>
<td>x 1</td>
<td>Length: 15,90 m (52' 2&quot;)&lt;br&gt;Width: 1,91 m (6' 3&quot;)&lt;br&gt;Height: 1,67 m (5' 6&quot;)&lt;br&gt;Weight: 2,967 kg (6,540 lb)</td>
</tr>
<tr>
<td>No. 22E Light tapered top</td>
<td>9,1 m (30') tapered insert and pendants</td>
<td>x 1</td>
<td>Length: 9,27 m (30' 5&quot;)&lt;br&gt;Width: 2,41 m (7' 11&quot;)&lt;br&gt;Height: 2,41 m (7' 11&quot;)&lt;br&gt;Weight: 1,855 kg (4,090 lb)</td>
</tr>
<tr>
<td>No. 134 Jib butt</td>
<td>4,6 m (15') and strut, stop</td>
<td>x 1</td>
<td>Length: 4,67 m (15' 4&quot;)&lt;br&gt;Width: 0,86 m (2' 10&quot;)&lt;br&gt;Height: 1,29 m (4' 3&quot;)&lt;br&gt;Weight: 635 kg (1,400 lb)</td>
</tr>
<tr>
<td>No. 134 Jib top</td>
<td>4,6 m (15') and pendants</td>
<td>x 1</td>
<td>Length: 4,93 m (16' 2&quot;)&lt;br&gt;Width: 0,79 m (2' 7&quot;)&lt;br&gt;Height: 0,79 m (2' 7&quot;)&lt;br&gt;Weight: 553 kg (1,220 lb)</td>
</tr>
<tr>
<td>No. 134 Jib insert</td>
<td>3,0 m (10') and pendants</td>
<td>x 1</td>
<td>Length: 3,12 m (10' 3&quot;)&lt;br&gt;Width: 0,79 m (2' 7&quot;)&lt;br&gt;Height: 0,79 m (2' 7&quot;)&lt;br&gt;Weight: 218 kg (480 lb)</td>
</tr>
<tr>
<td>No. 134 Jib insert</td>
<td>6,1 m (20') and pendants</td>
<td>x 1, 2</td>
<td>Length: 6,17 m (20' 3&quot;)&lt;br&gt;Width: 0,79 m (2' 7&quot;)&lt;br&gt;Height: 0,79 m (2' 7&quot;)&lt;br&gt;Weight: 340 kg (750 lb)</td>
</tr>
</tbody>
</table>

**Option**
Outline dimensions

No. 123 Jib butt 4,6 m (15')
and strut  x 1
Length  4,75 m  15' 7"
Width  0,86 m  2' 10"
Height  1,16 m  3' 10"
Weight 460 kg  1,015 lb

No. 123 Jib top 4,6 m (15')
and pendants  x 1
Length  4,93 m  16' 2"
Width  0,79 m  2' 7"
Height  0,79 m  2' 7"
Weight 422 kg  930 lb

No. 123 Jib insert 3,0 m (10')
and pendants  x 1, 2, 3
Length  3,12 m 10' 3"
Width  0,79 m  2' 7"
Height  0,79 m  2' 7"
Weight 217 kg  480 lb

No. 123 Jib insert 6,1 m (20')
and pendants  x 1
Length 6,17 m  20' 3"
Width  0,79 m  2' 7"
Height  0,79 m  2' 7"
Weight 341 kg  750 lb

No. 135 Luffing jib 8,2 m (27')
butt and truts  x 1
Length 8,81 m 28' 11"
Width  1,57 m  5' 2"
Height  2,92 m  9' 7"
Weight 4 477 kg  9,870 lb

No. 135 Luffing jib top
7,0 m (23') and roller, pendants  x 1
Length 7,80 m 25' 7"
Width  1,52 m  5' 0"
Height  2,02 m  6' 8"
Weight 1 984 kg  4,375 lb

Note: Includes wire rope guide.
Outline dimensions

No. 135 Luffing jib insert
3.0 m (10') and pendants x 1
Length 3.15 m 10' 4"
Width 1.52 m 5' 0"
Height 1.30 m 4' 3"
Weight 381 kg 840 lb

No. 135 Luffing jib insert
6.1 m (20') and pendants x 1, 2
Length 6.20 m 20' 4"
Width 1.52 m 5' 0"
Height 1.30 m 4' 3"
Weight 612 kg 1,350 lb

No. 135 Luffing jib insert
12.2 m (40') and pendants x 1, 2, 3
Length 12.29 m 40' 4"
Width 1.52 m 5' 0"
Height 1.30 m 4' 3"
Weight 1,050 kg 2,315 lb

No. 149 Luffing jib 7.6 m (25')
butt and struts x 1
Length 10.41 m 34' 2"
Width 2.08 m 6' 10"
Height 3.10 m 10' 2"
Weight 5,718 kg 12,620 lb

No. 149 Luffing jib top 7.6 m (25')
and roller, straps x 1
Length 10.24 m 33' 7"
Width 2.08 m 6' 10"
Height 2.49 m 8' 2"
Weight 2,664 kg 5,875 lb
Note: Includes wire rope guide, roller and sheave for upper boom point.

No. 149 Luffing jib insert
3.0 m (10') and straps x 1
Length 3.23 m 10' 7"
Width 2.08 m 6' 10"
Height 1.91 m 6' 3"
Weight 578 kg 1,280 lb

Option
### No. 149 Luffing jib insert 6.1 m (20') and straps

- **Length**: 6.27 m (20' 7'')
- **Width**: 2.08 m (6' 10'')
- **Height**: 1.91 m (6' 3'')
- **Weight**: 941 kg (2,080 lb)

### No. 149 Luffing jib insert INTERMEDIATE FALL 6.1 m (20') and straps

- **Length**: 6.27 m (20' 7'')
- **Width**: 2.08 m (6' 10'')
- **Height**: 2.49 m (8' 2'')
- **Weight**: 374 kg (3,035 lb)

### No. 149 Luffing jib insert 12.2 m (40') and straps

- **Length**: 12.37 m (40' 7'')
- **Width**: 2.08 m (6' 10'')
- **Height**: 1.91 m (6' 3'')
- **Weight**: 1,660 kg (3,665 lb)

### No. 138 Fixed jib 4.6 m (15') butt and strut

- **Length**: 5.64 m (18' 6'')
- **Width**: 2.08 m (6' 10'')
- **Height**: 1.91 m (6' 3'')
- **Weight**: 350 kg (775 lb)

### No. 138 Fixed jib 4.6 m (15') top and roller, pendant

- **Length**: 5.51 m (18' 1'')
- **Width**: 0.76 m (2' 6'')
- **Height**: 1.05 m (3' 5'')
- **Weight**: 370 kg (817 lb)

### No. 138 Jib insert 3.0 m (10') and pendants

- **Length**: 3.12 m (10' 3'')
- **Width**: 0.76 m (2' 6'')
- **Height**: 0.58 m (1' 11'')
- **Weight**: 98 kg (215 lb)

---

**Option**
### Outline dimensions

**No. 82 or No. 22EL Upper boom point**  
* x 1

<table>
<thead>
<tr>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,64 m</td>
<td>0,41 m</td>
<td>0,81 m</td>
<td>420 kg</td>
</tr>
<tr>
<td>8' 8&quot;</td>
<td>1' 4&quot;</td>
<td>2' 8&quot;</td>
<td>925 lb</td>
</tr>
</tbody>
</table>

**No. 82 Long reach boom top upper boom point**  
* x 1

<table>
<thead>
<tr>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,09 m</td>
<td>0,37 m</td>
<td>1,01 m</td>
<td>157 kg</td>
</tr>
<tr>
<td>3' 7&quot;</td>
<td>1' 3&quot;</td>
<td>3' 4&quot;</td>
<td>345 lb</td>
</tr>
</tbody>
</table>

**Hook block for 26 mm or (1") wire rope**

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Weight</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>227 mt</td>
<td>2 744 kg</td>
<td>2,39 m</td>
<td>0,94 m</td>
</tr>
<tr>
<td>250 t</td>
<td>6,050 lb</td>
<td>7' 10&quot;</td>
<td>3' 1&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Weight</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 mt</td>
<td>3 026 kg</td>
<td>2,28 m</td>
<td>0,89 m</td>
</tr>
</tbody>
</table>
| 220 t    | 6,670 lb | 7' 5"   | 2' 11"

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Weight</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>182 mt</td>
<td>2 540 kg</td>
<td>2,28 m</td>
<td>0,89 m</td>
</tr>
</tbody>
</table>
| 200 t    | 5,600 lb | 7' 5"   | 2' 11"

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Weight</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>91 mt</td>
<td>1 769 kg</td>
<td>1,98 m</td>
<td>0,89 m</td>
</tr>
</tbody>
</table>
| 100 t    | 3,900 lb | 6' 6"   | 2' 11"

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Weight</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 mt</td>
<td>1 202 kg</td>
<td>1,80 m</td>
<td>0,89 m</td>
</tr>
</tbody>
</table>
| 60 t     | 2,650 lb | 5' 11"  | 2' 11"

*Single sheave upper block can be added for 208,6 mt (230 ton) capacity.

**Self assembly hook block for 26 mm or (1") wire rope**

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Weight</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 mt</td>
<td>1 179 kg</td>
<td>1,83 m</td>
<td>0,91 m</td>
</tr>
</tbody>
</table>
| 45 t     | 2,600 lb | 6' 0"   | 3' 0"

**Weight ball**

<table>
<thead>
<tr>
<th>Capacity/Swivel</th>
<th>Weight</th>
<th>Diameter</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,6 mt</td>
<td>594 kg</td>
<td>0,56 m</td>
<td>1' 10&quot;</td>
</tr>
<tr>
<td>15 t</td>
<td>1310 lb</td>
<td>1,07 m</td>
<td>3' 6&quot;</td>
</tr>
</tbody>
</table>
## Trailer load out summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight each item</th>
<th>Quantity on Trailer Load #</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 999 Basic crane</td>
<td>39 689 (87,500)</td>
<td>1</td>
</tr>
<tr>
<td>Crawler assembly</td>
<td>19 622 (43,260)</td>
<td>1 1</td>
</tr>
<tr>
<td>Counterweight tray</td>
<td>9 548 (21,050)</td>
<td></td>
</tr>
<tr>
<td>Upper center counterweight</td>
<td>10 659 (23,500)</td>
<td>1</td>
</tr>
<tr>
<td>Upper side counterweight</td>
<td>7 938 (17,500)</td>
<td>2 2 2 2 2</td>
</tr>
<tr>
<td>Lower carbody counterweight</td>
<td>9 979 (22,000)</td>
<td>1 1</td>
</tr>
<tr>
<td>Upper carbody counterweight</td>
<td>8 165 (18,000)</td>
<td>2</td>
</tr>
<tr>
<td>9.1 m (30') No. 82 Boom butt***</td>
<td>4 910 (10,825)</td>
<td>1</td>
</tr>
<tr>
<td>12.2 m (40') No. 82 Boom top</td>
<td>5 609 (12,365)</td>
<td>1</td>
</tr>
<tr>
<td>3.0 m (10') No. 82 Boom insert</td>
<td>971 (2,140)</td>
<td>1</td>
</tr>
<tr>
<td>6.1 m (20') No. 82 Boom insert</td>
<td>1 397 (3,080)</td>
<td>1</td>
</tr>
<tr>
<td>12.2 m (40') No. 82 Boom Insert***</td>
<td>2 431 (5,360)</td>
<td>1 1 1 1 1 ***</td>
</tr>
<tr>
<td>10.0 m (30') No. 134 jib &amp; strut</td>
<td>1 188 (2,620)</td>
<td>1</td>
</tr>
<tr>
<td>3.0 m (10') No. 134 jib insert</td>
<td>218 (480)</td>
<td>1</td>
</tr>
<tr>
<td>6.1 m (20') No. 134 jib Insert</td>
<td>340 (750)</td>
<td>2</td>
</tr>
<tr>
<td>227 mton (250 ton) Hook block</td>
<td>2 744 (6,050)</td>
<td>1</td>
</tr>
<tr>
<td>41 mton (45 ton) Self-assembly block</td>
<td>1 179 (2,600)</td>
<td>1</td>
</tr>
<tr>
<td>13.6 mton (15 ton) Weight ball</td>
<td>594 (1,310)</td>
<td></td>
</tr>
<tr>
<td>No. 82 Upper boom point</td>
<td>420 (925)</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1 814 (4,000)</td>
<td>1 1</td>
</tr>
<tr>
<td>Approximate total shipping weight kg (lb)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Step deck trailer recommended.

** Does not include auxiliary drum.

*** One insert includes jib backstay lugs.
Transport data

**Low profile counterweight**
European Union style enclosed trailer

**Standard profile counterweight**
North American style open flat bed trailer

---

**INTERIOR**

- 3.09 m (10' 2'')
- 4.05 m (13' 3'')
- 0.96 m (3' 1'')

**TRAILER WIDTH**

- 2.14 m (7' 0'')
- 2.56 m (8' 8'')

**TOP OF BACKSTAY LUG**

- 3.05 m (10' 0'')
- 2.56 m (8' 8'')

**LOW PROFILE**

- 0.96 m (3' 1'')
- 0.58 m (1' 11'')

---

**LOW PROFILE**

- 0.04 m (0' 2'')
- 2.45 m (8' 0'')

**INSIDE OF TRAILER**

- 0.58 m (1' 11'')
- 0.96 m (3' 1'')
Note: Read the assembly folio in the operator’s manual for a complete description of approved crane assembly procedures.
## Performance data

### Wire rope lengths

**Boom No. 82 or No. 22EL**  
- or -  
**Fixed jib No. 134 on boom No. 82 or No. 22EL**

<table>
<thead>
<tr>
<th>m</th>
<th>(ft)</th>
<th>Whip line</th>
<th>Hoist line</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Front or aux drum (1 part of line)</td>
<td>Front or aux drum (2 parts of line)</td>
</tr>
<tr>
<td>m</td>
<td>(ft)</td>
<td>m</td>
<td>(ft)</td>
</tr>
<tr>
<td>21,3</td>
<td>70</td>
<td>55</td>
<td>(180)</td>
</tr>
<tr>
<td>24,4</td>
<td>80</td>
<td>61</td>
<td>(200)</td>
</tr>
<tr>
<td>27,4</td>
<td>90</td>
<td>67</td>
<td>(220)</td>
</tr>
<tr>
<td>30,5</td>
<td>100</td>
<td>73</td>
<td>(240)</td>
</tr>
<tr>
<td>33,5</td>
<td>110</td>
<td>79</td>
<td>(260)</td>
</tr>
<tr>
<td>36,6</td>
<td>120</td>
<td>85</td>
<td>(280)</td>
</tr>
<tr>
<td>39,6</td>
<td>130</td>
<td>91</td>
<td>(300)</td>
</tr>
<tr>
<td>42,7</td>
<td>140</td>
<td>98</td>
<td>(320)</td>
</tr>
<tr>
<td>45,7</td>
<td>150</td>
<td>104</td>
<td>(340)</td>
</tr>
<tr>
<td>48,8</td>
<td>160</td>
<td>110</td>
<td>(360)</td>
</tr>
<tr>
<td>51,8</td>
<td>170</td>
<td>116</td>
<td>(380)</td>
</tr>
<tr>
<td>54,9</td>
<td>180</td>
<td>122</td>
<td>(400)</td>
</tr>
<tr>
<td>57,9</td>
<td>190</td>
<td>128</td>
<td>(420)</td>
</tr>
<tr>
<td>61,0</td>
<td>200</td>
<td>134</td>
<td>(440)</td>
</tr>
<tr>
<td>64,0</td>
<td>210</td>
<td>140</td>
<td>(460)</td>
</tr>
<tr>
<td>67,1</td>
<td>220</td>
<td>146</td>
<td>(480)</td>
</tr>
<tr>
<td>70,1</td>
<td>230</td>
<td>152</td>
<td>(500)</td>
</tr>
<tr>
<td>73,2</td>
<td>240</td>
<td>158</td>
<td>(520)</td>
</tr>
<tr>
<td>76,2</td>
<td>250</td>
<td>165</td>
<td>(540)</td>
</tr>
<tr>
<td>79,2</td>
<td>260</td>
<td>171</td>
<td>(560)</td>
</tr>
<tr>
<td>82,3</td>
<td>270</td>
<td>177</td>
<td>(580)</td>
</tr>
<tr>
<td>85,3</td>
<td>280</td>
<td>183</td>
<td>(600)</td>
</tr>
<tr>
<td>88,4</td>
<td>290</td>
<td>189</td>
<td>(620)</td>
</tr>
<tr>
<td>91,4</td>
<td>300</td>
<td>195</td>
<td>(640)</td>
</tr>
<tr>
<td>94,5</td>
<td>310</td>
<td>201</td>
<td>(660)</td>
</tr>
<tr>
<td>97,5</td>
<td>320</td>
<td>207</td>
<td>(680)</td>
</tr>
<tr>
<td>100,6</td>
<td>330</td>
<td>213</td>
<td>(700)</td>
</tr>
</tbody>
</table>

**NOTE:** Line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

Front and rear drums each provide 131 kN (29,500 lb) maximum single line pull.  
Auxiliary drum provides 89 kN (20,000 lb) maximum single line pull.
## Performance data

### Wire rope lengths

**Luffing jib No. 149 on boom No. 82**

<table>
<thead>
<tr>
<th>Boom length (m)</th>
<th>Hoist line</th>
<th>Whip line</th>
<th>Intermediate fall line</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Front drum</td>
<td>Front drum or auxiliary drum</td>
<td>Auxiliary drum</td>
</tr>
<tr>
<td></td>
<td>1 Part (m) (ft)</td>
<td>2 Part (m) (ft)</td>
<td>1 Part (m) (ft)</td>
</tr>
<tr>
<td>24,4 (80)</td>
<td>381 (1250)</td>
<td>210 (690)</td>
<td>312 (1025)</td>
</tr>
<tr>
<td>27,4 (90)</td>
<td>396 (1300)</td>
<td>216 (710)</td>
<td>328 (1075)</td>
</tr>
<tr>
<td>30,5 (100)</td>
<td>396 (1300)</td>
<td>223 (730)</td>
<td>335 (1100)</td>
</tr>
<tr>
<td>33,5 (110)</td>
<td>411 (1350)</td>
<td>229 (750)</td>
<td>343 (1125)</td>
</tr>
<tr>
<td>36,6 (120)</td>
<td>411 (1350)</td>
<td>235 (770)</td>
<td>351 (1150)</td>
</tr>
<tr>
<td>39,6 (130)</td>
<td>427 (1400)</td>
<td>241 (790)</td>
<td>358 (1175)</td>
</tr>
<tr>
<td>42,7 (140)</td>
<td>442 (1450)</td>
<td>247 (810)</td>
<td>373 (1225)</td>
</tr>
<tr>
<td>45,7 (150)</td>
<td>442 (1450)</td>
<td>253 (830)</td>
<td>381 (1250)</td>
</tr>
<tr>
<td>48,8 (160)</td>
<td>442 (1450)</td>
<td>259 (850)</td>
<td>389 (1275)</td>
</tr>
<tr>
<td>51,8 (170)</td>
<td>442 (1450)</td>
<td>265 (870)</td>
<td>396 (1300)</td>
</tr>
<tr>
<td>54,9 (180)</td>
<td>442 (1450)</td>
<td>271 (890)</td>
<td>404 (1325)</td>
</tr>
<tr>
<td>57,9 (190)</td>
<td>442 (1450)</td>
<td>277 (910)</td>
<td>419 (1375)</td>
</tr>
<tr>
<td>61,0 (200)</td>
<td>442 (1450)</td>
<td>283 (930)</td>
<td>427 (1400)</td>
</tr>
</tbody>
</table>

**NOTE:** Line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

Front and rear drums each provide 131 kN (29,500 lb) maximum single line pull.

Auxiliary drum provides 89 kN (20,000 lb) maximum single line pull.
### Performance data

#### Wire rope lengths

**Luffing jib No. 135 on boom No. 82 or No. 22EL**

<table>
<thead>
<tr>
<th>Boom and luffing jib length (m (ft))</th>
<th>Front drum</th>
<th>Maximum required parts of line (m (ft))</th>
<th>Auxiliary drum</th>
<th>Maximum required parts of line (m (ft))</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.7 (140)</td>
<td>229 (750)</td>
<td>4</td>
<td>229 (750)</td>
<td>4</td>
</tr>
<tr>
<td>45.7 (150)</td>
<td>244 (800)</td>
<td>4</td>
<td>244 (800)</td>
<td>4</td>
</tr>
<tr>
<td>48.8 (160)</td>
<td>259 (850)</td>
<td>4</td>
<td>259 (850)</td>
<td>4</td>
</tr>
<tr>
<td>51.8 (170)</td>
<td>274 (900)</td>
<td>4</td>
<td>274 (900)</td>
<td>4</td>
</tr>
<tr>
<td>54.9 (180)</td>
<td>290 (950)</td>
<td>4</td>
<td>290 (950)</td>
<td>4</td>
</tr>
<tr>
<td>57.9 (190)</td>
<td>305 (1,000)</td>
<td>4</td>
<td>305 (1,000)</td>
<td>4</td>
</tr>
<tr>
<td>61.0 (200)</td>
<td>320 (1,050)</td>
<td>4</td>
<td>320 (1,050)</td>
<td>4</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>335 (1,100)</td>
<td>4</td>
<td>335 (1,100)</td>
<td>4</td>
</tr>
<tr>
<td>67.1 (220)</td>
<td>351 (1,150)</td>
<td>4</td>
<td>351 (1,150)</td>
<td>4</td>
</tr>
<tr>
<td>70.1 (230)</td>
<td>366 (1,200)</td>
<td>4</td>
<td>366 (1,200)</td>
<td>4</td>
</tr>
<tr>
<td>73.2 (240)</td>
<td>381 (1,250)</td>
<td>4</td>
<td>381 (1,250)</td>
<td>4</td>
</tr>
<tr>
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<td>381 (1,250)</td>
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<td>396 (1,300)</td>
<td>4</td>
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<tr>
<td>79.2 (260)</td>
<td>381 (1,250)</td>
<td>3</td>
<td>411 (1,350)</td>
<td>4</td>
</tr>
<tr>
<td>82.3 (270)</td>
<td>381 (1,250)</td>
<td>3</td>
<td>427 (1,400)</td>
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<tr>
<td>85.3 (280)</td>
<td>381 (1,250)</td>
<td>3</td>
<td>442 (1,450)</td>
<td>4</td>
</tr>
<tr>
<td>88.4 (290)</td>
<td>381 (1,250)</td>
<td>3</td>
<td>457 (1,500)</td>
<td>4</td>
</tr>
<tr>
<td>91.4 (300)</td>
<td>381 (1,250)</td>
<td>2</td>
<td>457 (1,500)</td>
<td>3</td>
</tr>
<tr>
<td>94.5 (310)</td>
<td>381 (1,250)</td>
<td>2</td>
<td>457 (1,500)</td>
<td>3</td>
</tr>
<tr>
<td>97.5 (320)</td>
<td>381 (1,250)</td>
<td>2</td>
<td>457 (1,500)</td>
<td>3</td>
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<tr>
<td>100.6 (330)</td>
<td>381 (1,250)</td>
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<td>457 (1,500)</td>
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<tr>
<td>103.6 (340)</td>
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<tr>
<td>106.7 (350)</td>
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<td>457 (1,500)</td>
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<tr>
<td>109.7 (360)</td>
<td>381 (1,250)</td>
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<td>457 (1,500)</td>
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</tr>
<tr>
<td>112.8 (370)</td>
<td>381 (1,250)</td>
<td>2</td>
<td>457 (1,500)</td>
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</tbody>
</table>

**NOTE:** Line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

**Fixed jib No. 138 on luffing jib No. 135 on boom No. 82 or No. 22EL**

<table>
<thead>
<tr>
<th>Whip line (m (ft))</th>
<th>Front or aux drum (1 part of line)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.6 (330)</td>
<td>210 (690)</td>
</tr>
<tr>
<td>103.6 (340)</td>
<td>216 (710)</td>
</tr>
<tr>
<td>106.7 (350)</td>
<td>223 (730)</td>
</tr>
<tr>
<td>109.7 (360)</td>
<td>229 (750)</td>
</tr>
<tr>
<td>112.8 (370)</td>
<td>235 (770)</td>
</tr>
<tr>
<td>115.8 (380)</td>
<td>241 (790)</td>
</tr>
<tr>
<td>118.9 (390)</td>
<td>247 (810)</td>
</tr>
<tr>
<td>121.9 (400)</td>
<td>253 (830)</td>
</tr>
<tr>
<td>125.0 (410)</td>
<td>259 (850)</td>
</tr>
<tr>
<td>128.0 (420)</td>
<td>265 (870)</td>
</tr>
<tr>
<td>131.1 (430)</td>
<td>271 (890)</td>
</tr>
</tbody>
</table>

**NOTE:** Line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

Front and rear drums each provide 131 kN (29,500 lb) maximum single line pull.

Auxiliary drum provides 89 kN (20,000 lb) maximum single line pull.
### Wire rope lengths
**Boom No. 82LR**
- or -
**Fixed jib No. 134 or No. 123 on boom No. 82LR**

<table>
<thead>
<tr>
<th>Boom or boom and fixed jib length m (ft)</th>
<th>Whip line</th>
<th>Hoist line</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Front or aux drum (1 part of line)</td>
<td>Front or aux drum (2 parts of line)</td>
</tr>
<tr>
<td>m (ft)</td>
<td>m (ft)</td>
<td>m (ft)</td>
</tr>
<tr>
<td>36,6 (120)</td>
<td>85 (280)</td>
<td>— —</td>
</tr>
<tr>
<td>39,6 (130)</td>
<td>91 (300)</td>
<td>— —</td>
</tr>
<tr>
<td>42,7 (140)</td>
<td>98 (320)</td>
<td>— —</td>
</tr>
<tr>
<td>45,7 (150)</td>
<td>104 (340)</td>
<td>152 (500)</td>
</tr>
<tr>
<td>48,8 (160)</td>
<td>110 (360)</td>
<td>162 (530)</td>
</tr>
<tr>
<td>51,8 (170)</td>
<td>116 (380)</td>
<td>171 (560)</td>
</tr>
<tr>
<td>54,9 (180)</td>
<td>122 (400)</td>
<td>180 (590)</td>
</tr>
<tr>
<td>57,9 (190)</td>
<td>128 (420)</td>
<td>189 (620)</td>
</tr>
<tr>
<td>61,0 (200)</td>
<td>134 (440)</td>
<td>198 (650)</td>
</tr>
<tr>
<td>64,0 (210)</td>
<td>140 (460)</td>
<td>207 (680)</td>
</tr>
<tr>
<td>67,1 (220)</td>
<td>146 (480)</td>
<td>216 (710)</td>
</tr>
<tr>
<td>70,1 (230)</td>
<td>152 (500)</td>
<td>226 (740)</td>
</tr>
<tr>
<td>73,2 (240)</td>
<td>158 (520)</td>
<td>235 (770)</td>
</tr>
<tr>
<td>76,2 (250)</td>
<td>165 (540)</td>
<td>244 (800)</td>
</tr>
<tr>
<td>79,2 (260)</td>
<td>171 (560)</td>
<td>253 (830)</td>
</tr>
<tr>
<td>82,3 (270)</td>
<td>177 (580)</td>
<td>262 (860)</td>
</tr>
<tr>
<td>85,3 (280)</td>
<td>183 (600)</td>
<td>271 (890)</td>
</tr>
<tr>
<td>88,4 (290)</td>
<td>189 (620)</td>
<td>280 (920)</td>
</tr>
<tr>
<td>91,4 (300)</td>
<td>195 (640)</td>
<td>290 (950)</td>
</tr>
<tr>
<td>94,5 (310)</td>
<td>201 (660)</td>
<td>299 (980)</td>
</tr>
<tr>
<td>97,5 (320)</td>
<td>207 (680)</td>
<td>308 (1,010)</td>
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<tr>
<td>100,6 (330)</td>
<td>213 (700)</td>
<td>317 (1,040)</td>
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<tr>
<td>103,6 (340)</td>
<td>219 (720)</td>
<td>326 (1,070)</td>
</tr>
<tr>
<td>106,7 (350)</td>
<td>226 (740)</td>
<td>335 (1,100)</td>
</tr>
<tr>
<td>109,7 (360)</td>
<td>232 (760)</td>
<td>344 (1,130)</td>
</tr>
<tr>
<td>112,8 (370)</td>
<td>238 (780)</td>
<td>— —</td>
</tr>
<tr>
<td>115,8 (380)</td>
<td>244 (800)</td>
<td>— —</td>
</tr>
</tbody>
</table>

**NOTE:** Wire lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

Front and rear drums each provide 131 kN (29,500 lb) maximum single line pull.
Auxiliary drum provides 89 kN (20,000 lb) maximum single line pull.
## Performance data

### Wire rope lengths

**Boom No. 22E with open throat top**

- or -

**Fixed jib No. 123 on boom No. 22E with open throat top**

<table>
<thead>
<tr>
<th>Boom or boom and fixed jib length m (ft)</th>
<th>Whip line</th>
<th>Hoist line</th>
<th>Auxiliary Hoist line</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rear drum (1 part of line)</td>
<td>Rear drum (2 parts of line)</td>
<td>Front drum</td>
</tr>
<tr>
<td>m (ft)</td>
<td>m (ft)</td>
<td>m (ft)</td>
<td>Inline Offset m (ft)</td>
</tr>
<tr>
<td>21.3 (70)</td>
<td>55 (180)</td>
<td>79 (260)</td>
<td>351 (1,150)</td>
</tr>
<tr>
<td>24.4 (80)</td>
<td>61 (200)</td>
<td>88 (290)</td>
<td>396 (1,300)</td>
</tr>
<tr>
<td>27.4 (90)</td>
<td>67 (220)</td>
<td>98 (320)</td>
<td>411 (1,350)</td>
</tr>
<tr>
<td>30.5 (100)</td>
<td>73 (240)</td>
<td>107 (350)</td>
<td>457 (1,500)</td>
</tr>
<tr>
<td>33.5 (110)</td>
<td>79 (260)</td>
<td>116 (380)</td>
<td>457 (1,500)</td>
</tr>
<tr>
<td>36.6 (120)</td>
<td>85 (280)</td>
<td>125 (410)</td>
<td>465 (1,525)</td>
</tr>
<tr>
<td>39.6 (130)</td>
<td>91 (300)</td>
<td>134 (440)</td>
<td>465 (1,525)</td>
</tr>
<tr>
<td>42.7 (140)</td>
<td>98 (320)</td>
<td>143 (470)</td>
<td>465 (1,525)</td>
</tr>
<tr>
<td>45.7 (150)</td>
<td>104 (340)</td>
<td>152 (500)</td>
<td>480 (1,575)</td>
</tr>
<tr>
<td>48.8 (160)</td>
<td>110 (360)</td>
<td>162 (530)</td>
<td>480 (1,575)</td>
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<tr>
<td>51.8 (170)</td>
<td>116 (380)</td>
<td>171 (560)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>54.9 (180)</td>
<td>122 (400)</td>
<td>180 (590)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>57.9 (190)</td>
<td>128 (420)</td>
<td>189 (620)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>61.0 (200)</td>
<td>134 (440)</td>
<td>198 (650)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>140 (460)</td>
<td>207 (680)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>67.1 (220)</td>
<td>146 (480)</td>
<td>216 (710)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>70.1 (230)</td>
<td>152 (500)</td>
<td>226 (740)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>73.2 (240)</td>
<td>158 (520)</td>
<td>235 (770)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>76.2 (250)</td>
<td>165 (540)</td>
<td>244 (800)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>79.2 (260)</td>
<td>171 (560)</td>
<td>253 (830)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>82.3 (270)</td>
<td>177 (580)</td>
<td>262 (860)</td>
<td>488 (1,600)</td>
</tr>
<tr>
<td>85.3 (280)</td>
<td>183 (600)</td>
<td>271 (890)</td>
<td>488 (1,600)</td>
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<td>88.4 (290)</td>
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<tr>
<td>91.4 (300)</td>
<td>195 (640)</td>
<td>290 (950)</td>
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</tr>
<tr>
<td>94.5 (310)</td>
<td>201 (660)</td>
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<tr>
<td>97.5 (320)</td>
<td>207 (680)</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**NOTE:** Line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

Front and rear drums each provide 131 kN (29,500 lb) maximum single line pull.

Auxiliary drum provides 89 kN (20,000 lb) maximum single line pull.

*Wire rope lengths greater than 625 m (2,050') cannot be stored on auxiliary drum. Auxiliary drum cannot be used with 21.3 m (70') boom. Capacity chart restrictions will occur when auxiliary drum is used. Auxiliary drum maximum capacity is 127 010 kg (280,000 lb) with 14 parts line.*
### Performance data

#### Wire rope lengths

**Boom No. 22E with light tapered top**

- or -

**No. 123 Fixed jib on Boom No. 22E with light tapered top**

<table>
<thead>
<tr>
<th>Boom or boom and fixed jib length (m)</th>
<th>Whip line Rear or aux drum (1 part of line)</th>
<th>Hoist line Front drum</th>
<th>Maximum required parts of line</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m (ft)</td>
<td>m (ft)</td>
<td></td>
</tr>
<tr>
<td>33.5 (110)</td>
<td>79 (260)</td>
<td>116 (380)</td>
<td>358 (1,175)</td>
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<tr>
<td>36.6 (120)</td>
<td>85 (280)</td>
<td>125 (410)</td>
<td>389 (1,275)</td>
</tr>
<tr>
<td>39.6 (130)</td>
<td>91 (300)</td>
<td>134 (440)</td>
<td>419 (1,375)</td>
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<tr>
<td>42.7 (140)</td>
<td>98 (320)</td>
<td>143 (470)</td>
<td>450 (1,475)</td>
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<tr>
<td>45.7 (150)</td>
<td>104 (340)</td>
<td>152 (500)</td>
<td>450 (1,475)</td>
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<td>48.8 (160)</td>
<td>110 (360)</td>
<td>162 (530)</td>
<td>457 (1,500)</td>
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<tr>
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<tr>
<td>64.0 (210)</td>
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<td>216 (710)</td>
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<td>97.5 (320)</td>
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<td>308 (1,010)</td>
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<tr>
<td>100.6 (330)</td>
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<td>317 (1,040)</td>
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<tr>
<td>103.6 (340)</td>
<td>219 (720)</td>
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<tr>
<td>106.7 (350)</td>
<td>226 (740)</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

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Front and rear drums each provide 131 kN (29,500 lb) maximum single line pull.

Auxiliary drum provides 89 kN (20,000 lb) maximum single line pull.
### Performance data

#### Wire rope specifications 5:1 safety factor
- **Boom No. 82** or **No. 22EL** or
- **Boom No. 82** with **No. 82 long reach** rop or
- **Boom No. 22E** with **open throat** top or
- **Boom No. 22E** with **light tapered top**

- or -
- **Fixed jib No. 134** on boom **No. 82** or **No. 22EL** or
- **Fixed jib No. 134** on boom **No. 82LR** or
- **Fixed jib No. 123** on boom **No. 82** with **long reach** top or
- **Fixed jib No. 123** on boom **No. 22E** with **open throat** top or
- **Fixed jib No. 123** on boom **No. 22E** with **light tapered top**

#### Wire rope specifications 3.5:1 safety factor
- **Boom No. 82** or **No. 22EL** or
- **Boom No. 82** with **No. 82 long reach** rop or
- **Boom No. 22E** with **open throat** top or
- **Boom No. 22E** with **light tapered top**

- or -
- **Fixed jib No. 134** on boom **No. 82** or **No. 22EL** or
- **Fixed jib No. 134** on boom **No. 82LR** or
- **Fixed jib No. 123** on boom **No. 82** with **long reach** top or
- **Fixed jib No. 123** on boom **No. 22E** with **open throat** top or
- **Fixed jib No. 123** on boom **No. 22E** with **light tapered top**

<table>
<thead>
<tr>
<th>Function</th>
<th>Part number</th>
<th>Size wire rope</th>
<th>Minimum breaking strength</th>
<th>Maximum load per line</th>
<th>Approximate weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoist line</td>
<td>No. 719431</td>
<td>26 mm</td>
<td>656,1 kN (147,500 lb)</td>
<td>13,380 kg (29,500 lb)</td>
<td>3,39 kg/m (2.28 lb/ft)</td>
</tr>
<tr>
<td>Whip line</td>
<td>No. 719431</td>
<td>26 mm</td>
<td>656,1 kN (147,500 lb)</td>
<td>13,380 kg (29,500 lb)</td>
<td>3,39 kg/m (2.28 lb/ft)</td>
</tr>
<tr>
<td>Maximum capacity hoist line</td>
<td>No. 719430</td>
<td>26 mm</td>
<td>695,3 kN (156,250 lb)</td>
<td>14,175 kg (31,250 lb)</td>
<td>3,56 kg/m (2.39 lb/ft)</td>
</tr>
<tr>
<td>Auxiliary line</td>
<td>No. 719378</td>
<td>26 mm</td>
<td>445,0 kN (100,000 lb)</td>
<td>9,070 kg (20,000 lb)</td>
<td>3,17 kg/m (2.13 lb/ft)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Part number</th>
<th>Size wire rope</th>
<th>Minimum breaking strength</th>
<th>Maximum load per line</th>
<th>Approximate weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoist line</td>
<td>No. 719387</td>
<td>26 mm</td>
<td>459,5 kN (103,250 lb)</td>
<td>13,380 kg (29,500 lb)</td>
<td>2,89 kg/m (1.94 lb/ft)</td>
</tr>
<tr>
<td>Whip line</td>
<td>No. 719387</td>
<td>26 mm</td>
<td>459,5 kN (103,250 lb)</td>
<td>13,380 kg (29,500 lb)</td>
<td>2,89 kg/m (1.94 lb/ft)</td>
</tr>
<tr>
<td>Maximum capacity hoist line</td>
<td>No. 719383*</td>
<td>26 mm</td>
<td>536,1 kN (119,400 lb)</td>
<td>14,175 kg (31,250 lb)</td>
<td>2,89 kg/m (1.94 lb/ft)</td>
</tr>
<tr>
<td>Auxiliary line</td>
<td>No. 719387</td>
<td>26 mm</td>
<td>311,5 kN (70,000 lb)</td>
<td>9,070 kg (20,000 lb)</td>
<td>2,89 kg/m (1.94 lb/ft)</td>
</tr>
</tbody>
</table>

* EEIPS wire rope
** IPS wire rope
## Performance data

**Wire rope specifications 5:1 safety factor**
No. 138 Fixed jib on
No. 135 Luffing jib on
Boom No. 82 or No. 22EL
- or -
No. 134 Fixed jib on
No. 149 Luffing jib on boom No. 82

<table>
<thead>
<tr>
<th>Function</th>
<th>Part number</th>
<th>Size wire rope</th>
<th>Minimum breaking strength</th>
<th>Maximum load per line</th>
<th>Approximate weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whip line</td>
<td>No. 719431</td>
<td>26 mm</td>
<td>656,1 kN (147,500 lb)</td>
<td>13 380 kg (29,500 lb)</td>
<td>3,39 kg/m (2.28 lb/ft)</td>
</tr>
<tr>
<td>Auxiliary drum whip line</td>
<td>No. 719378 No. 719434</td>
<td>26 mm</td>
<td>445,0 kN (100,000 lb)</td>
<td>9 070 kg (20,000 lb)</td>
<td>3,17 kg/m (2.13 lb/ft)</td>
</tr>
</tbody>
</table>

* 12 474 kg (27,500 lb) for No. 138 Fixed jib extension

**Wire rope specifications 3.5:1 safety factor**
No. 138 Fixed jib on
No. 135 Luffing jib on
Boom No. 82 or No. 22EL
- or -
No. 134 Fixed jib on
No. 149 Luffing jib on boom No. 82

<table>
<thead>
<tr>
<th>Function</th>
<th>Part number</th>
<th>Size wire rope</th>
<th>Minimum breaking strength</th>
<th>Maximum load per line</th>
<th>Approximate weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whip line</td>
<td>No. 719387</td>
<td>26 mm</td>
<td>459,5 kN (103,250 lb)</td>
<td>13 380 kg (29,500 lb)</td>
<td>2,89 kg/m (1.94 lb/ft)</td>
</tr>
<tr>
<td>Auxiliary line</td>
<td>No. 719387</td>
<td>26 mm</td>
<td>311,5 kN (70,000 lb)</td>
<td>9 070 kg (20,000 lb)</td>
<td>2,89 kg/m (1.94 lb/ft)</td>
</tr>
</tbody>
</table>

** 12 474 kg (27,500 lb) for No. 138 Fixed jib extension.

**IPS wire rope**
### Performance data

#### Main & whip drums - 131 kN (29,500 lb)

<table>
<thead>
<tr>
<th>Line pull kg (lb)</th>
<th>Full power drum - continuous duty</th>
<th>Single line pull/single line speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Layer 1</td>
<td>Layer 2</td>
</tr>
<tr>
<td></td>
<td>m/min (ft/min)</td>
<td>m/min (ft/min)</td>
</tr>
<tr>
<td>0 (0)</td>
<td>87 (285)</td>
<td>95 (310)</td>
</tr>
<tr>
<td>2,268 (5,000)</td>
<td>82 (270)</td>
<td>90 (295)</td>
</tr>
<tr>
<td>4,536 (10,000)</td>
<td>79 (260)</td>
<td>87 (285)</td>
</tr>
<tr>
<td>6,803 (15,000)</td>
<td>76 (250)</td>
<td>82 (270)</td>
</tr>
<tr>
<td>9,072 (20,000)</td>
<td>72 (235)</td>
<td>73 (240)</td>
</tr>
<tr>
<td>11,340 (25,000)</td>
<td>61 (200)</td>
<td>63 (205)</td>
</tr>
<tr>
<td>13,380 (29,500)</td>
<td>53 (175)</td>
<td>55 (180)</td>
</tr>
</tbody>
</table>

**NOTE:** Line pull is infinitely variable.

#### Auxiliary drum - 89,0 kN (20,000 lb)

<table>
<thead>
<tr>
<th>Line pull kg (lb)</th>
<th>Full power drum - continuous duty</th>
<th>Single line pull/single line speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Layer 1</td>
<td>Layer 4</td>
</tr>
<tr>
<td></td>
<td>m/min (ft/min)</td>
<td>m/min (ft/min)</td>
</tr>
<tr>
<td>0 (0)</td>
<td>116 (380)</td>
<td>146 (480)</td>
</tr>
<tr>
<td>2,268 (5,000)</td>
<td>0110 (360)</td>
<td>137 (450)</td>
</tr>
<tr>
<td>4,536 (10,000)</td>
<td>104 (340)</td>
<td>128 (420)</td>
</tr>
<tr>
<td>6,803 (15,000)</td>
<td>95 (310)</td>
<td>98 (320)</td>
</tr>
<tr>
<td>9,072 (20,000)</td>
<td>73 (240)</td>
<td>76 (250)</td>
</tr>
</tbody>
</table>

**NOTE:** Line pull is infinitely variable.

#### Drum capacities - wire rope

<table>
<thead>
<tr>
<th>Front or rear grooved drum</th>
<th>Maximum length</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 mm wire rope*</td>
<td>No lagging</td>
</tr>
<tr>
<td></td>
<td>With lagging</td>
</tr>
<tr>
<td></td>
<td>Maximum length</td>
</tr>
<tr>
<td></td>
<td>No lagging</td>
</tr>
<tr>
<td></td>
<td>With lagging</td>
</tr>
<tr>
<td></td>
<td>526 m (1,727 ft)</td>
</tr>
<tr>
<td>Auxiliary drum</td>
<td>403 m (1,323 ft)</td>
</tr>
<tr>
<td>26 mm wire rope*</td>
<td>431 m (1,415 ft)</td>
</tr>
<tr>
<td>Auxiliary drum</td>
<td>407 m (1,355 ft)</td>
</tr>
<tr>
<td>(1&quot;) wire rope*</td>
<td>435 m (1,428 ft)</td>
</tr>
<tr>
<td>Boom hoist drum</td>
<td>323 m (1,060 ft)</td>
</tr>
<tr>
<td>22,23 mm (7/8&quot;) wire rope</td>
<td>—</td>
</tr>
</tbody>
</table>

*5 m (17') is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging.

#### Working weight

<table>
<thead>
<tr>
<th>Configuration</th>
<th>kg (lb)</th>
<th>Series 1</th>
<th>Series 2</th>
<th>Series 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>21,3 m (70') No. 82 Boom</td>
<td>161 081 (355,124)</td>
<td>196 924 (434,144)</td>
<td>229 138 (505,164)</td>
<td></td>
</tr>
<tr>
<td>76,2 m (250') No. 82 Boom combined with 24,4 m (80') No. 134 Fixed jib</td>
<td>—</td>
<td>—</td>
<td>242 240 (534,048)</td>
<td></td>
</tr>
<tr>
<td>61,0 m (200') No. 82 Boom combined with 51,8 m (170') No. 135 Luffing jib</td>
<td>177 973* (392,364)*</td>
<td>216 074** (476,362)**</td>
<td>248 711 (548,315)</td>
<td></td>
</tr>
</tbody>
</table>

**Typical working weight includes optional self-assembly carbody jacks, hydraulic reservoir full, fuel half-full, drums with standard lengths of wire rope, upper boom point, 227 mt (250 t) hook block, and 13,6 mt (15 t) hook and weight ball.**

**Note:** Upper boom point not used with fixed jib or luffing jib.

*48,8 m (160') No. 82 boom maximum allowed.

**57,9 m (190') No. 82 boom maximum allowed.
### Maximum length – unassisted raising

<table>
<thead>
<tr>
<th>Over end of blocked crawlers or side of crawlers m (ft)</th>
<th>Main boom</th>
<th>Fixed jib</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.4 (290)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>85.3 (280)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>82.3 (270)</td>
<td>9.1 (30)</td>
<td></td>
</tr>
<tr>
<td>79.2 (260)</td>
<td>18.3 (60)</td>
<td></td>
</tr>
<tr>
<td>76.2 (250)</td>
<td>24.4 (80)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start.

Boom lengths of 76.2 m (250') through 88.4 m (290') require only two middle sheaves in lower boom point, all others must be removed from lower boom point.

### Maximum length – unassisted raising

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Luffing jib</th>
<th>Main boom</th>
<th>Luffing jib</th>
</tr>
</thead>
<tbody>
<tr>
<td>57.9* (190)*</td>
<td>61.0 (200)</td>
<td>61.0 (200)</td>
<td>9.1 (30)</td>
<td>21.3 (70)</td>
</tr>
<tr>
<td>61.0* (200)</td>
<td>51.8 (170)</td>
<td>9.1 (30)</td>
<td>21.3 (70)</td>
<td>9.1 (30)</td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start.

*Requires lower boom point to be removed.

#Without intermediate fall.

### Maximum length – unassisted raising

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Luffing jib</th>
<th>Main boom</th>
<th>Luffing jib</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.4 (80)</td>
<td>51.8 (170)</td>
<td>24.4 (80)</td>
<td>54.9 (180)</td>
<td>51.8 (170)</td>
</tr>
<tr>
<td>27.4 (90)</td>
<td>48.8 (160)</td>
<td>27.4 (90)</td>
<td>51.8 (170)</td>
<td>27.4 (90)</td>
</tr>
<tr>
<td>30.5 (100)</td>
<td>42.7 (140)</td>
<td>30.5 (100)</td>
<td>48.8 (160)</td>
<td>30.5 (100)</td>
</tr>
<tr>
<td>33.5 (110)</td>
<td>39.6 (130)</td>
<td>33.5 (110)</td>
<td>42.7 (140)</td>
<td>33.5 (110)</td>
</tr>
<tr>
<td>36.6 (120)</td>
<td>36.6-73.2</td>
<td>36.6 (120)</td>
<td>39.6-73.2</td>
<td>36.6 (120)</td>
</tr>
<tr>
<td>39.6 (130)</td>
<td>30.5-73.2</td>
<td>39.6 (130)</td>
<td>36.6-73.2</td>
<td>39.6 (130)</td>
</tr>
<tr>
<td>42.7 (140)</td>
<td>27.4-73.2</td>
<td>42.7 (140)</td>
<td>30.5-73.2</td>
<td>42.7 (140)</td>
</tr>
<tr>
<td>45.7 (150)</td>
<td>21.3-73.2</td>
<td>45.7 (150)</td>
<td>24.4-73.2</td>
<td>45.7 (150)</td>
</tr>
<tr>
<td>48.8 (160)</td>
<td>21.3-73.2</td>
<td>48.8 (160)</td>
<td>21.3-73.2</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>51.8 (170)</td>
<td>21.3-73.2</td>
<td>51.8 (170)</td>
<td>21.3-73.2</td>
<td>51.8 (170)</td>
</tr>
<tr>
<td>54.9 (180)</td>
<td>21.3-64.0</td>
<td>54.9 (180)</td>
<td>21.3-70.1</td>
<td>54.9 (180)</td>
</tr>
<tr>
<td>57.9# (190)</td>
<td>21.3-54.9</td>
<td>57.9# (190)</td>
<td>21.3-57.9</td>
<td>57.9# (190)</td>
</tr>
<tr>
<td>61.0* (200)</td>
<td>21.3-39.6</td>
<td>61.0* (200)</td>
<td>21.3-51.8</td>
<td>61.0* (200)</td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start.

#Requires only two middle sheaves in lower boom point, all others must be removed from lower boom point.

*Requires lower boom point to be removed.

**With intermediate fall.

***Without intermediate fall.
### Performance data

#### Maximum length – unassisted raising

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Fixed jib</th>
<th>Layout jack-knife method</th>
<th>Fold under jack-knife method</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 138 Fixed jib on No. 135 Luffing jib on No. 82 or No. 22EL Main boom Series 3</td>
<td>48.8 (160)</td>
<td>9.1 - 18.3 (30 - 60)</td>
<td>42.7 - 51.8 (140 - 170)</td>
<td>42.7 (140)</td>
</tr>
<tr>
<td></td>
<td>51.8 (170)</td>
<td>9.1 - 18.3 (30 - 60)</td>
<td>42.7 - 51.8 (140 - 170)</td>
<td>42.7 - 45.7 (140 - 150)</td>
</tr>
<tr>
<td></td>
<td>54.9 (180)</td>
<td>9.1 - 18.3 (30 - 60)</td>
<td>42.7 - 51.8 (140 - 170)</td>
<td>42.7 - 48.8 (140 - 160)</td>
</tr>
<tr>
<td></td>
<td>57.9# (190)#</td>
<td>9.1 - 18.3 (30 - 60)</td>
<td>42.7 - 51.8 (140 - 170)</td>
<td>42.7 - 51.8 (140 - 170)</td>
</tr>
<tr>
<td></td>
<td>61.0* (200)*</td>
<td>9.1 - 18.3 (30 - 60)</td>
<td>42.7 - 51.8 (140 - 170)</td>
<td>42.7 - 51.8 (140 - 170)</td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start.

#Requires only two middle sheaves in lower boom point, all others must be removed from lower boom point.

*Lower boom point must be removed.

#### Maximum length – unassisted raising

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Luffing jib</th>
<th>Layout jack-knife method</th>
<th>Fold under jack-knife method</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 135 Luffing jib on No. 82 or No. 22EL Main boom Series 3</td>
<td>21.3 (70)</td>
<td>21.3 - 51.8 (70 - 170)</td>
<td>39.6 (130)</td>
<td>51.8 (170)</td>
</tr>
<tr>
<td></td>
<td>24.4 (80)</td>
<td>21.3 - 51.8 (70 - 170)</td>
<td>42.7 (140)</td>
<td>48.8 - 51.8 (160 - 170)</td>
</tr>
<tr>
<td></td>
<td>27.4 (90)</td>
<td>21.3 - 51.8 (70 - 170)</td>
<td>45.7 (150)</td>
<td>39.6 - 51.8 (130 - 170)</td>
</tr>
<tr>
<td></td>
<td>30.5 (100)</td>
<td>21.3 - 51.8 (70 - 170)</td>
<td>48.8 (160)</td>
<td>33.5 - 51.8 (110 - 170)</td>
</tr>
<tr>
<td></td>
<td>33.5 (110)</td>
<td>21.3 - 51.8 (70 - 170)</td>
<td>51.8 (170)</td>
<td>27.4 - 51.8 (90 - 170)</td>
</tr>
<tr>
<td></td>
<td>36.6 (120)</td>
<td>21.3 - 51.8 (70 - 170)</td>
<td>54.9 (180)</td>
<td>21.3 - 51.8 (70 - 170)</td>
</tr>
<tr>
<td></td>
<td>39.6 (130)</td>
<td>21.3 - 48.8 (70 - 160)</td>
<td>57.9# (190)</td>
<td>21.3 - 51.8 (70 - 170)</td>
</tr>
<tr>
<td></td>
<td>42.7 (140)</td>
<td>21.3 - 45.7 (70 - 150)</td>
<td>61.0* (200)*</td>
<td>21.3 - 51.8 (70 - 170)</td>
</tr>
<tr>
<td></td>
<td>45.7 (150)</td>
<td>21.3 - 36.6 (70 - 120)</td>
<td></td>
<td>51.8 (170)</td>
</tr>
<tr>
<td></td>
<td>48.8 (160)</td>
<td>21.3 - 30.5 (70 - 100)</td>
<td></td>
<td>54.9 (180)</td>
</tr>
<tr>
<td></td>
<td>51.8 (170)</td>
<td>21.3 - 24.4 (70 - 80)</td>
<td></td>
<td>57.9# (190)</td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start.

#Requires only two middle sheaves in lower boom point, all others must be removed from lower boom point.

*Lower boom point must be removed.
### Performance data

#### Maximum length – unassisted raising

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Fixed jib</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 82LR Boom - or - No. 134 Fixed jib on No. 82LR Boom Series 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103.6 (340)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>91.4 (300)</td>
<td>24.4 (80)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start. Upper boom point cannot be used when jib is attached. Upper boom point cannot be used on 103.6 m (340') boom.

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Fixed jib</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 123 Fixed jib on No. 82LR Boom Series 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103.6 (340)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>91.4 (300)</td>
<td>18.3 (6)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start. Upper boom point cannot be used when jib is attached. Upper boom point cannot be used on 103.6 m (340') boom.

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Fixed jib</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.22E Boom with light tapered top - or - No. 123 Fixed jib on No.22E Boom with light tapered top Series 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94.5 (310)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>91.4 (300)</td>
<td>9.1 (30)</td>
<td></td>
</tr>
<tr>
<td>88.4 (290)</td>
<td>18.3 (60)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start. Upper boom point cannot be used when jib is attached. Upper boom point cannot be used on 94.5 m (310') boom.

<table>
<thead>
<tr>
<th>Over end of blocked crawlers m (ft)</th>
<th>Main boom</th>
<th>Fixed jib</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.22E Boom with open throat top - or - No. 123 Fixed jib on No.22E Boom with open throat top Series 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>88.4 (290)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>85.3 (280)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>82.3 (270)</td>
<td>9.1 (30)</td>
<td></td>
</tr>
<tr>
<td>79.2 (260)</td>
<td>18.3 (60)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Load block(s), hook(s) and weight ball(s) on ground at start. Upper boom point cannot be used when jib is attached. Upper boom point cannot be used on 88.4 m (290') boom.

#### Main boom attachments

<table>
<thead>
<tr>
<th>Main boom (with top)</th>
<th>Fixed jib</th>
<th>Luffing jib</th>
<th>Fixed jib (extension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 82° (Heavy-lift)</td>
<td>No. 134</td>
<td>No. 149° No. 134</td>
<td>No. 138</td>
</tr>
<tr>
<td>No. 82LR° (Long-reach top)</td>
<td>No. 134 No. 123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 22EL (Heavy-lift)</td>
<td>No. 134 No. 123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 22E (Open throat top)</td>
<td>No. 134</td>
<td>No. 135</td>
<td>No. 138</td>
</tr>
<tr>
<td>No. 22E (Light tapered top)</td>
<td>No. 123</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Use straps and FACT™ connections. All others use pendants and pinned connections.*
No. 82 or No. 22EL Boom combinations

<table>
<thead>
<tr>
<th>Boom Length m (ft)</th>
<th>Boom Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,0 m (10 ft)</td>
</tr>
<tr>
<td>21,3 (70)</td>
<td>—</td>
</tr>
<tr>
<td>24,4 (80)</td>
<td>1</td>
</tr>
<tr>
<td>27,4 (90)</td>
<td>1</td>
</tr>
<tr>
<td>30,5 (100)</td>
<td>1</td>
</tr>
<tr>
<td>33,5 (110)</td>
<td>—</td>
</tr>
<tr>
<td>36,6 (120)</td>
<td>1</td>
</tr>
<tr>
<td>39,6 (130)</td>
<td>—</td>
</tr>
<tr>
<td>42,7 (140)</td>
<td>1</td>
</tr>
<tr>
<td>45,7 (150)</td>
<td>—</td>
</tr>
<tr>
<td>48,8 (160)</td>
<td>—</td>
</tr>
<tr>
<td>51,8 (170)</td>
<td>—</td>
</tr>
<tr>
<td>54,9 (180)</td>
<td>1</td>
</tr>
<tr>
<td>57,9 (190)</td>
<td>—</td>
</tr>
<tr>
<td>61,0 (200)</td>
<td>1</td>
</tr>
<tr>
<td>64,0 (210)</td>
<td>—</td>
</tr>
<tr>
<td>67,1 (220)</td>
<td>1</td>
</tr>
<tr>
<td>70,1 (230)</td>
<td>—</td>
</tr>
<tr>
<td>73,2 (240)</td>
<td>1</td>
</tr>
<tr>
<td>76,2 (250)</td>
<td>—</td>
</tr>
<tr>
<td>79,2 (260)</td>
<td>1</td>
</tr>
<tr>
<td>82,3 (270)</td>
<td>—</td>
</tr>
<tr>
<td>85,3 (280)</td>
<td>1</td>
</tr>
<tr>
<td>88,4 (290)</td>
<td>—</td>
</tr>
</tbody>
</table>

No. 134 Fixed Jib combinations

<table>
<thead>
<tr>
<th>Boil Length m (ft)</th>
<th>Fixed Jib Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,0 m (10 ft)</td>
</tr>
<tr>
<td>9,1 (30)</td>
<td>—</td>
</tr>
<tr>
<td>12,2 (40)</td>
<td>1</td>
</tr>
<tr>
<td>15,2 (50)</td>
<td>—</td>
</tr>
<tr>
<td>18,3 (60)</td>
<td>1</td>
</tr>
<tr>
<td>21,3 (70)</td>
<td>—</td>
</tr>
<tr>
<td>24,4 (80)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Can be used as fixed jib extension for No. 149 Luffing Jib.
### No. 82LR Boom Combinations

<table>
<thead>
<tr>
<th>Boom Length m (ft)</th>
<th>Boom Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,0 m (10 ft)</td>
</tr>
<tr>
<td>36,6 (120)</td>
<td>-</td>
</tr>
<tr>
<td>39,6 (130)</td>
<td>1</td>
</tr>
<tr>
<td>42,7 (140)</td>
<td>-</td>
</tr>
<tr>
<td>45,7 (150)</td>
<td>1</td>
</tr>
<tr>
<td>48,8 (160)</td>
<td>-</td>
</tr>
<tr>
<td>51,8 (170)</td>
<td>1</td>
</tr>
<tr>
<td>54,9 (180)</td>
<td>-</td>
</tr>
<tr>
<td>57,9 (190)</td>
<td>1</td>
</tr>
<tr>
<td>61,0 (200)</td>
<td>-</td>
</tr>
<tr>
<td>64,0 (210)</td>
<td>1</td>
</tr>
<tr>
<td>67,1 (220)</td>
<td>-</td>
</tr>
<tr>
<td>70,1 (230)</td>
<td>1</td>
</tr>
<tr>
<td>73,2 (240)</td>
<td>-</td>
</tr>
<tr>
<td>76,2 (250)</td>
<td>1</td>
</tr>
<tr>
<td>79,2 (260)</td>
<td>-</td>
</tr>
<tr>
<td>82,3 (270)</td>
<td>1</td>
</tr>
<tr>
<td>85,3 (280)</td>
<td>-</td>
</tr>
<tr>
<td>88,4 (290)</td>
<td>1</td>
</tr>
<tr>
<td>91,4 (300)</td>
<td>-</td>
</tr>
<tr>
<td>94,5 (310)</td>
<td>1</td>
</tr>
<tr>
<td>97,5 (320)</td>
<td>-</td>
</tr>
<tr>
<td>100,6 (330)</td>
<td>1</td>
</tr>
<tr>
<td>103,6 (340)</td>
<td>-</td>
</tr>
</tbody>
</table>

*Light weight insert

### No. 123 Fixed Jib Combinations

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Fixed Jib Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,0 m (10 ft)</td>
</tr>
<tr>
<td>9,1 (30)</td>
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<tr>
<td>12,2 (40)</td>
<td>1</td>
</tr>
<tr>
<td>15,2 (50)</td>
<td>-</td>
</tr>
<tr>
<td>18,3 (60)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: No. 123 Fixed Jib can also be used with No. 22E Boom with Open Throat Top or Light Tapered Top.

---

**Model 999 Series 3**
- No. 82LR Boom 103,6 m (340 ft)
- No. 124 Fixed Jib on No. 82LR Boom 115,8 m (380 ft)
- No. 123 Fixed Jib on No. 82LR Boom 109,7 m (360 ft)

---

**Manitowoc 999**

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**Boom combinations**

### No. 123 Fixed jib combinations

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Fixed Jib Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,0 m (10 ft)</td>
</tr>
<tr>
<td>9,1 (30)</td>
<td>—</td>
</tr>
<tr>
<td>12,2 (40)</td>
<td>1</td>
</tr>
<tr>
<td>15,2 (50)</td>
<td>—</td>
</tr>
<tr>
<td>18,3 (60)</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: No. 123 Fixed Jib can also be used with No. 82LR Boom.*

---

**Model 999 Series 3**

*No. 22E Boom with Open Throat Top 88,4 m (290 ft)*

- 12,2 m (40 ft) No. 22E Boom Butt
- 12,2 m (40 ft) No. 22E Boom Insert
- 12,2 m (40 ft) No. 22E Boom Insert
- 9,1 m (30 ft) No. 22E Boom Butt

**Model 999 Series 3**

*No. 22E Boom with Open Throat Top 97,5 m (320 ft)*

- 12,2 m (40 ft) No. 22E Boom Butt
- 12,2 m (40 ft) No. 22E Boom Insert
- 9,1 m (30 ft) No. 22E Boom Butt

---

**No. 22E Boom with Open Throat Top 88,4 m (290 ft)**

- 12,2 m (40 ft) No. 22E Boom Butt
- 12,2 m (40 ft) No. 22E Boom Insert
- 9,1 m (30 ft) No. 22E Boom Butt

---

**No. 22E Boom with Open Throat Top 97,5 m (320 ft)**

- 12,2 m (40 ft) No. 22E Boom Butt
- 12,2 m (40 ft) No. 22E Boom Insert
- 9,1 m (30 ft) No. 22E Boom Butt
### Boom combinations

**No. 22E with light tapered top & tapered insert boom combinations**

<table>
<thead>
<tr>
<th>Boom Length (m (ft))</th>
<th>Boom Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.0 m (10 ft)</td>
</tr>
<tr>
<td>36.6 (120)</td>
<td>1</td>
</tr>
<tr>
<td>39.6 (130)</td>
<td>—</td>
</tr>
<tr>
<td>42.7 (140)</td>
<td>1</td>
</tr>
<tr>
<td>45.7 (150)</td>
<td>—</td>
</tr>
<tr>
<td>48.8 (160)</td>
<td>1</td>
</tr>
<tr>
<td>51.8 (170)</td>
<td>—</td>
</tr>
<tr>
<td>54.9 (180)</td>
<td>1</td>
</tr>
<tr>
<td>57.9 (190)</td>
<td>—</td>
</tr>
<tr>
<td>61.0 (200)</td>
<td>1</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>—</td>
</tr>
<tr>
<td>67.1 (220)</td>
<td>1</td>
</tr>
<tr>
<td>70.1 (230)</td>
<td>—</td>
</tr>
<tr>
<td>73.2 (240)</td>
<td>1</td>
</tr>
<tr>
<td>76.2 (250)</td>
<td>—</td>
</tr>
<tr>
<td>79.2 (260)</td>
<td>1</td>
</tr>
<tr>
<td>82.3 (270)</td>
<td>—</td>
</tr>
<tr>
<td>85.3 (280)</td>
<td>1</td>
</tr>
<tr>
<td>88.4 (290)</td>
<td>—</td>
</tr>
<tr>
<td>91.4 (300)</td>
<td>1</td>
</tr>
<tr>
<td>94.5 (310)</td>
<td>—</td>
</tr>
</tbody>
</table>
No. 135 Luffing jib combinations

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Luffing Jib Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.0 m (10 ft)</td>
</tr>
<tr>
<td></td>
<td>6.1 m (20 ft)</td>
</tr>
<tr>
<td></td>
<td>12.2 m (40 ft)</td>
</tr>
<tr>
<td>21.3 (70)</td>
<td>—</td>
</tr>
<tr>
<td>24.4 (80)</td>
<td>1</td>
</tr>
<tr>
<td>27.4 (90)</td>
<td>1 —</td>
</tr>
<tr>
<td>30.5 (100)</td>
<td>1 —</td>
</tr>
<tr>
<td>33.5 (110)</td>
<td>— 1</td>
</tr>
<tr>
<td>36.6 (120)</td>
<td>1 1</td>
</tr>
<tr>
<td>39.6 (130)</td>
<td>— — 2</td>
</tr>
<tr>
<td>42.7 (140)</td>
<td>1 — 2</td>
</tr>
<tr>
<td>45.7 (150)</td>
<td>1 — 2</td>
</tr>
<tr>
<td>48.8 (160)</td>
<td>1 1 2</td>
</tr>
<tr>
<td>51.8 (170)</td>
<td>0 0 3</td>
</tr>
</tbody>
</table>

No. 138 Fixed jib combinations

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Fixed Jib Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.0 m (10 ft)</td>
</tr>
<tr>
<td>9.1 (30)</td>
<td>—</td>
</tr>
<tr>
<td>12.2 (40)</td>
<td>1</td>
</tr>
<tr>
<td>15.2 (50)</td>
<td>2</td>
</tr>
<tr>
<td>18.3 (60)</td>
<td>3</td>
</tr>
</tbody>
</table>

Model 999 Series 3
No. 135 Luffing jib on No. 82 or No. 22EL Boom
112.8 m (370 ft)

Model 999 Series 3
No. 138 Fixed jib on No. 135 Luffing jib on No. 82 or No. 22EL Boom
131.1 m (430 ft)
No. 149 Luffing jib combinations

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Luffing Jib Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>21,3 (70)</td>
<td>1</td>
</tr>
<tr>
<td>24,4 (80)</td>
<td>1</td>
</tr>
<tr>
<td>27,4 (90)</td>
<td>1</td>
</tr>
<tr>
<td>30,5 (100)</td>
<td>1</td>
</tr>
<tr>
<td>33,5 (110)</td>
<td>1</td>
</tr>
<tr>
<td>36,6 (120)</td>
<td>1</td>
</tr>
<tr>
<td>39,6 (130)</td>
<td>1</td>
</tr>
<tr>
<td>42,7 (140)</td>
<td>1</td>
</tr>
<tr>
<td>45,7 (150)</td>
<td>1</td>
</tr>
<tr>
<td>48,8 (160)</td>
<td>1</td>
</tr>
<tr>
<td>51,8 (170)</td>
<td>1</td>
</tr>
<tr>
<td>54,9 (180)</td>
<td>1</td>
</tr>
<tr>
<td>57,9 (190)</td>
<td>1</td>
</tr>
<tr>
<td>61,0 (200)</td>
<td>1</td>
</tr>
<tr>
<td>64,0 (210)</td>
<td>1</td>
</tr>
<tr>
<td>67,1 (220)</td>
<td>1</td>
</tr>
<tr>
<td>70,1 (230)</td>
<td>1</td>
</tr>
<tr>
<td>73,2 (240)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Optional 6,1 m (20') insert with intermediate fall available for No. 149 luffing jib.
Heavy-lift boom range diagram

No. 82 Long-reach boom

[Diagram of heavy-lift boom range with different heights and rotations, indicating mast tailswing and tailswing positions.]
### Heavy-lift boom load charts

#### Liftcrane boom capacities - Series 3
<table>
<thead>
<tr>
<th>Boom m (ft) Radius</th>
<th>99,609 kg (219,600 lb) Upperworks Counterweight 360° Rating</th>
<th>36,288 kg (80,000 lb) Carbody Counterweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0 (17)</td>
<td>219.0 (462.5)</td>
<td></td>
</tr>
<tr>
<td>6.0 (20)</td>
<td>183.0 (397.5)</td>
<td>180.7 (396.4)</td>
</tr>
<tr>
<td>8.0 (26)</td>
<td>139.0 (309.3)</td>
<td>138.5 (308.3)</td>
</tr>
<tr>
<td>10.0 (32)</td>
<td>111.5 (252.2)</td>
<td>111.1 (251.2)</td>
</tr>
<tr>
<td>11.0 (36)</td>
<td>100.2 (221.8)</td>
<td>100.3 (220.0)</td>
</tr>
<tr>
<td>12.0 (40)</td>
<td>88.8 (190.3)</td>
<td>88.3 (190.4)</td>
</tr>
<tr>
<td>14.0 (46)</td>
<td>70.9 (156.1)</td>
<td>70.9 (156.2)</td>
</tr>
<tr>
<td>15.0 (50)</td>
<td>64.4 (139.0)</td>
<td>64.4 (139.0)</td>
</tr>
<tr>
<td>18.0 (60)</td>
<td>50.1 (108.2)</td>
<td>50.0 (108.0)</td>
</tr>
<tr>
<td>24.0 (80)</td>
<td>33.6 (72.6)</td>
<td>33.6 (72.5)</td>
</tr>
<tr>
<td>30.0 (100)</td>
<td>24.4 (52.7)</td>
<td>24.3 (52.5)</td>
</tr>
<tr>
<td>34.0 (110)</td>
<td>20.2 (45.6)</td>
<td>19.9 (45.0)</td>
</tr>
<tr>
<td>36.0 (120)</td>
<td>18.5 (39.8)</td>
<td>18.2 (39.2)</td>
</tr>
<tr>
<td>40.0 (130)</td>
<td>—</td>
<td>15.3 (34.5)</td>
</tr>
<tr>
<td>42.0 (140)</td>
<td>13.9 (29.3)</td>
<td>13.9 (29.1)</td>
</tr>
<tr>
<td>46.0 (150)</td>
<td>—</td>
<td>11.7 (26.4)</td>
</tr>
<tr>
<td>50.0 (160)</td>
<td>8.7 (18.4)</td>
<td>5.8 (13.0)</td>
</tr>
<tr>
<td>52.0 (170)</td>
<td>8.5 (19.1)</td>
<td>8.3 (18.4)</td>
</tr>
<tr>
<td>58.0 (190)</td>
<td>5.8 (13.0)</td>
<td>6.1 (13.6)</td>
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<td>64.0 (210)</td>
<td>3.4 (7.6)</td>
<td>4.1 (9.1)</td>
</tr>
<tr>
<td>70.0 (230)</td>
<td>1.8 (4.1)</td>
<td>1.9 (4.2)</td>
</tr>
</tbody>
</table>

#### Fixed Jib No. 134 on Heavy-Lift Boom No. 82 or No. 22EL

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Deduct from Capacity when fixed jib is attached kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 (30)</td>
<td>1,220 (2,700)</td>
</tr>
<tr>
<td>12.2 (40)</td>
<td>1,590 (3,500)</td>
</tr>
<tr>
<td>15.2 (50)</td>
<td>1,950 (4,300)</td>
</tr>
<tr>
<td>18.3 (60)</td>
<td>2,310 (5,100)</td>
</tr>
<tr>
<td>21.3 (70)</td>
<td>2,770 (6,100)</td>
</tr>
<tr>
<td>24.4 (80)</td>
<td>3,220 (7,100)</td>
</tr>
</tbody>
</table>

*NOTE: Special equipment required.

Meet 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.
Long-reach top range diagram

No. 82 Long-reach boom
### Long-reach top load chart

#### Liftcrane boom capacities - Series 3
**Boom No. 82LR**

<table>
<thead>
<tr>
<th>Boom m (ft)</th>
<th>Radius</th>
<th>99,609 kg (219,600 lb) Upperworks Counterweight</th>
<th>360° Rating</th>
<th>36,288 kg (80,000 lb) Carbody Counterweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3 (24)</td>
<td>120.4 (265.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.0 (28)</td>
<td>110.2 (252.4)</td>
<td>118.7 (265.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.0 (30)</td>
<td>102.0 (240.3)</td>
<td>111.3 (260.7)</td>
<td>106.8 (236.0)</td>
<td></td>
</tr>
<tr>
<td>11.0 (34)</td>
<td>94.9 (219.1)</td>
<td>90.4 (195.0)</td>
<td>90.3 (194.5)</td>
<td>93.1 (206.4)</td>
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<tr>
<td>12.0 (40)</td>
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<td>73.0 (160.8)</td>
<td>72.5 (159.7)</td>
<td>79.7 (175.4)</td>
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<tr>
<td>14.0 (46)</td>
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<td>72.8 (160.2)</td>
<td>72.3 (159.1)</td>
<td>68.3 (150.7)</td>
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<tr>
<td>15.0 (50)</td>
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<td>66.4 (143.5)</td>
<td>66.0 (142.5)</td>
<td>65.8 (141.2)</td>
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<tr>
<td>16.0 (55)</td>
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<td>60.9 (126.3)</td>
<td>60.4 (125.2)</td>
<td>59.8 (123.9)</td>
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<tr>
<td>18.0 (60)</td>
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<td>52.1 (112.0)</td>
<td>51.8 (111.5)</td>
<td>51.3 (110.8)</td>
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<tr>
<td>22.0 (70)</td>
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<td>39.1 (89.6)</td>
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<td>24.0 (80)</td>
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<td>34.8 (75.2)</td>
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<tr>
<td>30.0 (100)</td>
<td>26.7 (57.8)</td>
<td>26.6 (57.5)</td>
<td>26.0 (56.3)</td>
<td>25.7 (55.5)</td>
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<tr>
<td>36.0 (120)</td>
<td>19.9 (41.7)</td>
<td>20.8 (42.4)</td>
<td>20.2 (41.7)</td>
<td>19.5 (40.9)</td>
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<tr>
<td>42.0 (140)</td>
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<td>16.2 (34.6)</td>
<td>15.8 (34.2)</td>
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<tr>
<td>48.0 (155)</td>
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<td>12.8 (29.9)</td>
<td>12.5 (28.4)</td>
<td>12.1 (27.5)</td>
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<tr>
<td>54.0 (175)</td>
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<td>11.1 (22.3)</td>
<td>11.7 (21.6)</td>
<td>11.3 (20.6)</td>
</tr>
<tr>
<td>60.0 (195)</td>
<td>8.3 (17.2)</td>
<td>8.0 (18.9)</td>
<td>7.6 (17.3)</td>
<td>7.2 (16.3)</td>
</tr>
<tr>
<td>64.0 (215)</td>
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<td>6.2 (13.0)</td>
<td>5.8 (12.1)</td>
</tr>
<tr>
<td>68.0 (225)</td>
<td>4.1 (8.3)</td>
<td>4.1 (8.2)</td>
<td>4.7 (8.0)</td>
<td>3.9 (7.8)</td>
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<tr>
<td>72.0 (240)</td>
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<td>1.2 (3.1)</td>
<td>1.2 (3.0)</td>
<td>1.2 (3.0)</td>
</tr>
<tr>
<td>76.0 (255)</td>
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<td>0.4 (0.9)</td>
<td>0.4 (0.9)</td>
<td>0.4 (0.9)</td>
</tr>
</tbody>
</table>

### Fixed jib No. 134 on No. 82 Long reach top on boom No. 82

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Deduct from Capacity when Fixed jib is attached kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 (30)</td>
<td>1,220 (2,700)</td>
</tr>
<tr>
<td>12.2 (40)</td>
<td>1,590 (3,500)</td>
</tr>
<tr>
<td>15.2 (50)</td>
<td>1,950 (4,300)</td>
</tr>
<tr>
<td>18.3 (60)</td>
<td>2,310 (5,100)</td>
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<tr>
<td>21.3 (70)</td>
<td>2,770 (6,100)</td>
</tr>
<tr>
<td>24.4 (80)</td>
<td>3,220 (7,100)</td>
</tr>
</tbody>
</table>

### Fixed jib No. 134 on No. 82 Long reach top on boom No. 82

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Deduct from Capacity when Fixed jib is attached kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 (30)</td>
<td>1,330 (2,950)</td>
</tr>
<tr>
<td>12.2 (40)</td>
<td>1,410 (3,080)</td>
</tr>
<tr>
<td>15.2 (50)</td>
<td>1,680 (3,740)</td>
</tr>
<tr>
<td>18.3 (60)</td>
<td>2,000 (4,410)</td>
</tr>
</tbody>
</table>

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.

Manitowoc 999
Open throat top boom range diagram

No. 22E Main boom with open throat top

Distance from centerline of rotation m (ft)

Height above ground m (ft)

Tailswing

Rotation

Mast tailswing

5.87 m (19 ft)

7.73 m (25 ft)

1.52 m (5 ft)

2.46 m (8 ft)

62°

80°

70°

60°

53°

40°

30°

20°

10°

5°

0°
## Open throat top load chart

### Liftcrane boom capacities - Series 3
**Boom No. 22E with open throat top**

<table>
<thead>
<tr>
<th>Radius m (ft)</th>
<th>99 609 kg (219,600 lb) Upperworks Counterweight (360° Rating)</th>
<th>36 288 kg (80,000 lb) Carbody Counterweight (kg (lb) x 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.6 (15)</td>
<td>208.6 (460.0)</td>
<td>90                  (200.0)</td>
</tr>
<tr>
<td>5.5 (18)</td>
<td>199.7 (441.2)</td>
<td>95                  (210.0)</td>
</tr>
<tr>
<td>6.0 (20)</td>
<td>184.1 (400.0)</td>
<td>100                 (220.0)</td>
</tr>
<tr>
<td>8.0 (26)</td>
<td>140.1 (311.8)</td>
<td>121                 (260.0)</td>
</tr>
<tr>
<td>10.0 (32)</td>
<td>112.7 (254.7)</td>
<td>121                 (260.0)</td>
</tr>
<tr>
<td>12.0 (40)</td>
<td>88.4 (190.8)</td>
<td>88                  (190.0)</td>
</tr>
<tr>
<td>15.0 (50)</td>
<td>64.9 (140.1)</td>
<td>64                  (138.9)</td>
</tr>
<tr>
<td>18.0 (60)</td>
<td>50.7 (109.6)</td>
<td>50                  (108.7)</td>
</tr>
<tr>
<td>22.0 (70)</td>
<td>— (75.8)</td>
<td>38                  (68.2)</td>
</tr>
<tr>
<td>24.0 (80)</td>
<td>34.3 (74.2)</td>
<td>38                  (76.0)</td>
</tr>
<tr>
<td>28.0 (90)</td>
<td>— (57.3)</td>
<td>27                  (62.6)</td>
</tr>
<tr>
<td>30.0 (100)</td>
<td>25.0 (54.0)</td>
<td>25                  (54.0)</td>
</tr>
<tr>
<td>34.0 (110)</td>
<td>— (42.7)</td>
<td>20                  (46.8)</td>
</tr>
<tr>
<td>36.0 (120)</td>
<td>19.0 (41.1)</td>
<td>19                  (40.3)</td>
</tr>
<tr>
<td>40.0 (130)</td>
<td>— (32.2)</td>
<td>15                  (35.6)</td>
</tr>
<tr>
<td>42.0 (140)</td>
<td>14.5 (30.6)</td>
<td>14                  (30.6)</td>
</tr>
<tr>
<td>46.0 (150)</td>
<td>12.3 (27.5)</td>
<td>12                  (27.5)</td>
</tr>
<tr>
<td>50.0 (160)</td>
<td>9.3 (22.7)</td>
<td>10                  (23.7)</td>
</tr>
<tr>
<td>52.0 (170)</td>
<td>9.0 (20.2)</td>
<td>9                   (20.3)</td>
</tr>
<tr>
<td>58.0 (190)</td>
<td>6.3 (14.1)</td>
<td>6                   (14.5)</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>3.9 (8.7)</td>
<td>3                   (8.7)</td>
</tr>
<tr>
<td>68.0 (225)</td>
<td>2.2 (4.4)</td>
<td>2                   (4.4)</td>
</tr>
<tr>
<td>70.0 (230)</td>
<td>2.0 (4.4)</td>
<td>2                   (4.4)</td>
</tr>
</tbody>
</table>

### Fixed jib No. 123 on No. 22C open throat top on boom No. 22E

<table>
<thead>
<tr>
<th>Jib Length m (ft)</th>
<th>Deduct from Capacity when fixed jib is attached kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 (30)</td>
<td>1130 (2,500)</td>
</tr>
<tr>
<td>12.2 (40)</td>
<td>1410 (3,100)</td>
</tr>
<tr>
<td>15.2 (50)</td>
<td>1680 (3,700)</td>
</tr>
<tr>
<td>18.3 (60)</td>
<td>2000 (4,400)</td>
</tr>
</tbody>
</table>

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.
Light tapered top range diagram

No. 22E Main boom with light tapered top

Distance from centerline of rotation m (ft)

Height above ground m (ft)
### Light tapered top load chart

<table>
<thead>
<tr>
<th>Boom No. 22E with light tapered top</th>
<th>99 609 kg (219,600 lb) Upperworks Counterweight 360° Rating</th>
<th>36 288 kg (80,000 lb) Carbody Counterweight</th>
<th>kg (lb) x 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radius (ft)</td>
<td>33.5 (110)</td>
<td>39.6 (130)</td>
<td>45.7 (150)</td>
</tr>
<tr>
<td>7.3</td>
<td>120.4 (265.5)</td>
<td>97.0 (202.3)</td>
<td>73.4 (158.4)</td>
</tr>
<tr>
<td>8.0</td>
<td>119.9 (256.4)</td>
<td>79.0 (176)</td>
<td>73.7 (158.4)</td>
</tr>
<tr>
<td>9.0</td>
<td>110.7 (239.6)</td>
<td>62.0 (137)</td>
<td>73.7 (157.8)</td>
</tr>
<tr>
<td>10.0</td>
<td>97.0 (202.3)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>12.0</td>
<td>74.2 (160.0)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>14.0</td>
<td>59.9 (131.8)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>15.0</td>
<td>54.5 (117.7)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>18.0</td>
<td>42.6 (92.2)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>22.0</td>
<td>32.7 (70.3)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>28.0</td>
<td>23.8 (54.0)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>32.0</td>
<td>19.8 (46.8)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>36.0</td>
<td>16.4 (35.5)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>42.0</td>
<td>12.7 (27.4)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>48.0</td>
<td>9.9 (21.4)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>52.0</td>
<td>8.2 (16.4)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>56.0</td>
<td>7.1 —</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>60.0</td>
<td>5.8 —</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>64.0</td>
<td>4.5 (8.7)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>70.0</td>
<td>3.1 (6.8)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
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<tr>
<td>74.0</td>
<td>2.5 (5.8)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
<tr>
<td>76.0</td>
<td>1.9 (4.3)</td>
<td>59.0 (130.0)</td>
<td>69.5 (152.5)</td>
</tr>
</tbody>
</table>

### Fixed Jib No. 123 on light tapered top boom No. 22E

<table>
<thead>
<tr>
<th>Jib Length (ft)</th>
<th>Deduct from Capacity when fixed jib is attached kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1</td>
<td>1130 (2,500)</td>
</tr>
<tr>
<td>12.2</td>
<td>1410 (3,100)</td>
</tr>
<tr>
<td>15.2</td>
<td>1680 (3,700)</td>
</tr>
<tr>
<td>18.3</td>
<td>2000 (4,400)</td>
</tr>
</tbody>
</table>

*Meas 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.*
Fixed jib range diagram

No. 134 Fixed jib on No. 82 or No. 22EL main boom

Distance from centerline of rotation m (ft)

Height above ground m (ft)
Fixed jib load charts

Liftcrane boom capacities
Fixed jib No. 134 with 3 810 mm (12’ 6”) strut on boom No. 82 or No. 22EL

<table>
<thead>
<tr>
<th>Boom m (ft) Radius</th>
<th>5° Offset</th>
<th>25° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 (30)</td>
<td>26.7 (59.0)</td>
<td>— (48.9)</td>
</tr>
<tr>
<td>12.0 (40)</td>
<td>26.7 (59.0)</td>
<td>19.3 (43.8)</td>
</tr>
<tr>
<td>16.0 (50)</td>
<td>26.7 (59.0)</td>
<td>16.3 (36.7)</td>
</tr>
<tr>
<td>22.0 (70)</td>
<td>25.3 (56.2)</td>
<td>14.4 (32.2)</td>
</tr>
<tr>
<td>28.0 (90)</td>
<td>23.8 (53.3)</td>
<td>14.4 (31.8)</td>
</tr>
<tr>
<td>36.0 (120)</td>
<td>19.3 (41.7)</td>
<td>11.6 (28.1)</td>
</tr>
<tr>
<td>48.0 (150)</td>
<td>— (28.5)</td>
<td>7.6 (17.7)</td>
</tr>
<tr>
<td>56.0 (180)</td>
<td>8.2 (19.3)</td>
<td>7.1 (16.6)</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>4.9 (10.9)</td>
<td>4.8 (10.7)</td>
</tr>
<tr>
<td>72.0 (240)</td>
<td>4.5 (10.1)</td>
<td>—</td>
</tr>
<tr>
<td>80.0 (270)</td>
<td>2.2 (4.3)</td>
<td>—</td>
</tr>
</tbody>
</table>

Meet 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.

Manitowoc 999
### Liftcrane boom capacities

**Fixed jib No. 134 with 3 810 mm (12' 6") strut on boom No. 82 or No. 22EL**

- 99 609 kg (219,600 lb) Upperworks Counterweight
- 36 288 kg (80,000 lb) Carbody Counterweight

<table>
<thead>
<tr>
<th>Jib Length: 24.4 m (80 ft)</th>
<th>5° Offset</th>
<th>25° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom m (ft) Radius</td>
<td>27.4 (90)</td>
<td>27.4 (90)</td>
</tr>
<tr>
<td></td>
<td>39.6 (130)</td>
<td>39.6 (130)</td>
</tr>
<tr>
<td></td>
<td>54.9 (180)</td>
<td>54.9 (180)</td>
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<tr>
<td></td>
<td>70.1 (230)</td>
<td>70.1 (230)</td>
</tr>
<tr>
<td></td>
<td>79.2 (260)</td>
<td>79.2 (260)</td>
</tr>
</tbody>
</table>

- 5° Offset
- 25° Offset

**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. 123 Fixed jib on No. 82LR boom
Fixed jib load charts

### Liftcrane boom capacities

<table>
<thead>
<tr>
<th>Jib Length 9.1 m (30 ft)</th>
<th>Boom (ft) Radius</th>
<th>0° Offset</th>
<th>20° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12 (35)</td>
<td>18,1 (40.0)</td>
<td>18,1 (40.0)</td>
</tr>
<tr>
<td></td>
<td>16 (40)</td>
<td>18,1 (40.0)</td>
<td>18,1 (40.0)</td>
</tr>
<tr>
<td></td>
<td>22 (60)</td>
<td>18,1 (40.0)</td>
<td>18,1 (40.0)</td>
</tr>
<tr>
<td></td>
<td>28 (80)</td>
<td>18,1 (40.0)</td>
<td>18,1 (40.0)</td>
</tr>
<tr>
<td></td>
<td>36 (100)</td>
<td>18,1 (40.0)</td>
<td>18,1 (40.0)</td>
</tr>
<tr>
<td></td>
<td>48 (120)</td>
<td>13,5 (32.2)</td>
<td>12,6 (30.2)</td>
</tr>
<tr>
<td></td>
<td>56 (150)</td>
<td>10,6 (24.2)</td>
<td>9,7 (22.2)</td>
</tr>
<tr>
<td></td>
<td>68 (210)</td>
<td>6,4 (16.7)</td>
<td>5,6 (14.4)</td>
</tr>
<tr>
<td></td>
<td>76 (240)</td>
<td>3,8 (10.2)</td>
<td>3,4 (8.8)</td>
</tr>
<tr>
<td></td>
<td>80 (270)</td>
<td>2,8 (5.0)</td>
<td>2,4 (4.3)</td>
</tr>
</tbody>
</table>

### Liftcrane boom capacities

<table>
<thead>
<tr>
<th>Jib Length 12.2 m (40 ft)</th>
<th>Boom (ft) Radius</th>
<th>0° Offset</th>
<th>20° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10,7 (35)</td>
<td>13,6 (30.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16,0 (50)</td>
<td>13,6 (30.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22,0 (70)</td>
<td>13,6 (30.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28,0 (100)</td>
<td>13,6 (30.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36,0 (130)</td>
<td>13,6 (29.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40,0 (160)</td>
<td>13,6 (27.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48,0 (190)</td>
<td>12,7 (20.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>56,0 (220)</td>
<td>9,8 (15.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>68,0 (240)</td>
<td>6,7 (11.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>76,0 (260)</td>
<td>4,2 (7.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>84,0 (280)</td>
<td>2,1 (4.1)</td>
<td></td>
</tr>
</tbody>
</table>

### Notice

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.
<table>
<thead>
<tr>
<th>Boom m (ft) Radius</th>
<th>0° Offset</th>
<th>20° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.2 (40)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>18.0 (50)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>24.0 (70)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>32.0 (100)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>36.0 (130)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>44.0 (160)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>52.0 (190)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>60.0 (220)</td>
<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
</tr>
<tr>
<td>68.0 (240)</td>
<td>8.8 (15.6)</td>
<td>7.1 (11.9)</td>
</tr>
<tr>
<td>80.0 (270)</td>
<td>6.8 (12.5)</td>
<td>5.1 (9.3)</td>
</tr>
<tr>
<td>84.0 (280)</td>
<td>2.5 (4.9)</td>
<td>2.0 (4.0)</td>
</tr>
</tbody>
</table>

Meet 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. 134 Fixed Jib on No. 82LR Boom
### Liftcrane Boom Capacities

**Fixed Jib No. 134 with 3 810 mm (12' 6") strut on Boom No. 82LR**

99 609 kg (219,600 lb) Upperworks Counterweight 36 288 kg (80,000 lb) Carbody Counterweight

<table>
<thead>
<tr>
<th>360° Rating</th>
<th>kg (lb) x 1 000</th>
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</thead>
<tbody>
<tr>
<td>5˚ Offset</td>
<td>25˚ Offset</td>
</tr>
<tr>
<td><strong>Boom</strong></td>
<td><strong>Radius</strong></td>
</tr>
<tr>
<td><strong>m (ft)</strong></td>
<td><strong>m (ft)</strong></td>
</tr>
<tr>
<td>36,6 (120)</td>
<td>51,8 (170)</td>
</tr>
<tr>
<td>10,7 (35)</td>
<td>26,7 (59.0)</td>
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<tr>
<td>14,0 (40)</td>
<td>26,7 (59.0)</td>
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<tr>
<td>26,0 (70)</td>
<td>26,0 (59.0)</td>
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<tr>
<td>32,0 (100)</td>
<td>22,2 (51.4)</td>
</tr>
<tr>
<td>40,0 (130)</td>
<td>18,1 (40.3)</td>
</tr>
<tr>
<td>48,0 (160)</td>
<td>13,4 (28.9)</td>
</tr>
<tr>
<td>56,0 (190)</td>
<td>— (20.9)</td>
</tr>
<tr>
<td>68,0 (220)</td>
<td>6,1 (14.4)</td>
</tr>
<tr>
<td>76,0 (250)</td>
<td>— (10.2)</td>
</tr>
<tr>
<td>80,0 (270)</td>
<td>2,5 (4.4)</td>
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<table>
<thead>
<tr>
<th><strong>Jib Length</strong></th>
<th><strong>m (ft)</strong></th>
</tr>
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<tbody>
<tr>
<td>9,1 m (30 ft)</td>
<td></td>
</tr>
<tr>
<td>10,7 m (35 ft)</td>
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</tr>
<tr>
<td>12,2 m (40 ft)</td>
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<tr>
<td>14,0 m (45 ft)</td>
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</tr>
<tr>
<td>16,0 m (50 ft)</td>
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</tr>
<tr>
<td>20,0 m (60 ft)</td>
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</tr>
<tr>
<td>26,0 m (70 ft)</td>
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</tr>
<tr>
<td>40,0 m (130 ft)</td>
<td></td>
</tr>
<tr>
<td>48,0 m (160 ft)</td>
<td></td>
</tr>
<tr>
<td>56,0 m (190 ft)</td>
<td></td>
</tr>
<tr>
<td>68,0 m (220 ft)</td>
<td></td>
</tr>
<tr>
<td>76,0 m (250 ft)</td>
<td></td>
</tr>
<tr>
<td>80,0 m (270 ft)</td>
<td></td>
</tr>
<tr>
<td>84,0 m (280 ft)</td>
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**Jib Length 9.1 m (30 ft)**

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<th>25˚ Offset</th>
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</thead>
<tbody>
<tr>
<td><strong>Boom</strong></td>
<td><strong>Radius</strong></td>
</tr>
<tr>
<td><strong>m (ft)</strong></td>
<td><strong>m (ft)</strong></td>
</tr>
<tr>
<td>36,6 (120)</td>
<td>51,8 (170)</td>
</tr>
<tr>
<td>12,2 (40)</td>
<td>18,9 (41.7)</td>
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<tr>
<td>16,0 (50)</td>
<td>17,8 (39.7)</td>
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<tr>
<td>20,0 (60)</td>
<td>16,8 (38.0)</td>
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<tr>
<td>26,0 (90)</td>
<td>15,6 (33.9)</td>
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<tr>
<td>32,0 (120)</td>
<td>14,6 (30.9)</td>
</tr>
<tr>
<td>40,0 (150)</td>
<td>13,1 (25.4)</td>
</tr>
<tr>
<td>48,0 (180)</td>
<td>10,9 (24.5)</td>
</tr>
<tr>
<td>56,0 (210)</td>
<td>10,7 (17.6)</td>
</tr>
<tr>
<td>68,0 (240)</td>
<td>6,7 (11.9)</td>
</tr>
<tr>
<td>76,0 (260)</td>
<td>4,5 (7.5)</td>
</tr>
<tr>
<td>84,0 (280)</td>
<td>2,2 (4.3)</td>
</tr>
</tbody>
</table>

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 Boom Capacities

**Fixed Jib No. 134 with 3 810 mm (12' 6") strut on Boom No. 82LR**

<table>
<thead>
<tr>
<th>Jib Length 18.3 m (60 ft)</th>
<th>5° Offset</th>
<th>25° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boom m (ft) Radius</strong></td>
<td>36.6 (120)</td>
<td>51.8 (170)</td>
</tr>
<tr>
<td>12.2 (40)</td>
<td>14.4 (31.9)</td>
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<tr>
<td>16.0 (50)</td>
<td>13.6 (30.5)</td>
<td>14.2 (31.7)</td>
</tr>
<tr>
<td>20.0 (60)</td>
<td>12.9 (29.2)</td>
<td>13.5 (30.5)</td>
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<tr>
<td>26.0 (90)</td>
<td>11.9 (25.9)</td>
<td>12.7 (27.6)</td>
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<tr>
<td>32.0 (120)</td>
<td>11.0 (23.2)</td>
<td>11.9 (25.2)</td>
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<tr>
<td>40.0 (150)</td>
<td>10.1 (21.2)</td>
<td>11.0 (23.2)</td>
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<tr>
<td>48.0 (180)</td>
<td>9.3 (20.1)</td>
<td>10.3 (21.5)</td>
</tr>
<tr>
<td>56.0 (210)</td>
<td>—</td>
<td>9.6 (18.9)</td>
</tr>
<tr>
<td>68.0 (240)</td>
<td>—</td>
<td>6.8 (12.7)</td>
</tr>
<tr>
<td>76.0 (270)</td>
<td>—</td>
<td>4.9 (6.8)</td>
</tr>
<tr>
<td>84.0 (280)</td>
<td>—</td>
<td>2.5 (4.9)</td>
</tr>
</tbody>
</table>

| **Boom m (ft) Radius**    | 36.6 (120) | 51.8 (170) | 70.1 (230) | 82.3 (270) | 91.5 (300) | 36.6 (120) | 51.8 (170) | 70.1 (230) | 82.3 (270) | 91.5 (300) |
| 13.7 (45)                 | 9.2 (20.5)  |           |           |           |           | 5.8 (12.9) | 6.5 (14.5) |           |           |           |
| 20.0 (60)                 | 9.0 (20.1)  | 9.1 (20.3) | 9.2 (20.6) |           |           | 5.8 (12.9) | 6.5 (14.5) | 6.8 (15.2) | 6.6 (14.7) | 6.2 (13.8) |
| 26.0 (80)                 | 8.5 (19.3)  | 8.9 (19.9) | 9.1 (20.2) | 9.2 (20.4) | 9.2 (20.4) | 5.7 (12.8) | 6.5 (14.4) | 6.8 (15.1) | 6.6 (14.7) | 6.2 (13.8) |
| 32.0 (100)                | 7.8 (17.7)  | 8.5 (19.2) | 8.9 (19.9) | 9.0 (20.0) | 9.1 (20.1) | 5.0 (11.5) | 5.7 (13.1) | 6.4 (14.5) | 6.6 (14.7) | 6.2 (13.8) |
| 40.0 (130)                | 7.0 (16.6)  | 7.8 (17.3) | 8.4 (18.7) | 8.8 (19.5) | 8.9 (19.7) | —         | 4.7 (10.4) | 5.3 (11.7) | 5.6 (12.5) | 5.9 (13.1) |
| 48.0 (160)                | 6.3 (14.4)  | 7.1 (16.1) | 7.8 (17.7) | 8.2 (18.5) | 8.5 (19.1) | —         | 4.7 (10.4) | 5.3 (11.7) | 5.6 (12.5) | 5.9 (13.1) |
| 56.0 (180)                | 5.7 (12.9)  | 6.5 (14.6) | 7.3 (16.3) | 7.7 (17.2) | 8.0 (17.8) | —         | 4.7 (10.4) | 5.3 (11.7) | 5.6 (12.5) | 5.9 (13.1) |
| 64.0 (210)                | 5.6 (12.9)  | 6.0 (12.8) | 5.1 (11.0) | 4.5 (9.5)  | —         | —         | 4.9 (10.8) | 5.2 (11.5) | 5.2 (11.0) | —         |
| 72.0 (240)                | 5.6 (12.9)  | 6.0 (12.8) | 5.1 (11.0) | 4.5 (9.5)  | —         | —         | 4.9 (10.8) | 5.2 (11.5) | 5.2 (11.0) | —         |
| 80.0 (260)                | 3.5 (7.1)   | 3.0 (6.1)  | 2.5 (4.9)  | —         | —         | —         | 3.6 (7.6)  | 3.1 (6.4)  | —         | —         |
| 88.0 (300)                | 2.6 (4.0)   | 2.2 (3.9)  | —         | —         | —         | —         | 2.7 (5.3)  | —         | —         | —         |

*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.

99 609 kg (219,600 lb) Upperworks Counterweight 36 288 kg (80,000 lb) Carbody Counterweight 360° Rating 1 000 kg (lb)
Fixed jib range diagram

No. 123 Fixed Jib on No. 22E Main Boom with Open Throat Top
### Liftcrane Boom Capacities

**Fixed Jib No. 123 with 3 810 mm (12' 6") strut on Boom No. 22E with Open Throat Top**

- **Upperworks Counterweight:** 99 609 kg (219,600 lb)
- **Carbody Counterweight:** 36 288 kg (80,000 lb)

<table>
<thead>
<tr>
<th>Boom Length (m)</th>
<th>0° Offset</th>
<th>20° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radius (m)</td>
<td>27.4 (90)</td>
<td>39.6 (130)</td>
</tr>
<tr>
<td>9.1 (30)</td>
<td>18.1 (40.0)</td>
<td>—</td>
</tr>
<tr>
<td>12.0 (40)</td>
<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
</tr>
<tr>
<td>16.0 (50)</td>
<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
</tr>
<tr>
<td>18.0 (60)</td>
<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
</tr>
<tr>
<td>22.0 (75)</td>
<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
</tr>
<tr>
<td>32.0 (100)</td>
<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
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<tr>
<td>44.0 (140)</td>
<td>15.0 (34.8)</td>
<td>14.2 (33.0)</td>
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<tr>
<td>52.0 (170)</td>
<td>10.8 (24.0)</td>
<td>9.9 (22.0)</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>6.1 (13.5)</td>
<td>5.3 (11.8)</td>
</tr>
<tr>
<td>72.0 (240)</td>
<td>3.1 (6.2)</td>
<td>—</td>
</tr>
<tr>
<td>76.2 (250)</td>
<td>—</td>
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</tbody>
</table>

**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 Boom Capacities**

Fixed Jib No. 123 with 3 810 mm (12' 6") strut on Boom No. 22E with Open Throat Top

- 99 609 kg (219,600 lb) Uppenworks Counterweight
- 36 288 kg (80,000 lb) Carbody Counterweight
- 360° Rating

<table>
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<th>20° Offset</th>
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</thead>
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<td>Boom m (ft) Radius</td>
<td>9.1 (30)</td>
<td>12.0 (40)</td>
</tr>
<tr>
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<td>16.0 (50)</td>
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<tr>
<td></td>
<td>64.0 (210)</td>
<td>72.0 (240)</td>
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<td>80.0 (260)</td>
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</tr>
<tr>
<td></td>
<td>99.0 (360)</td>
<td>130.0 (400)</td>
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</table>

#### 0° Offset

<table>
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<tr>
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<th>51.8 (170)</th>
<th>64.0 (210)</th>
<th>79.2 (260)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 (30)</td>
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</tr>
<tr>
<td>12.0 (40)</td>
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<td>16.0 (50)</td>
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<tr>
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<td>9.0 (20.0)</td>
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<td>—</td>
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<tr>
<td>64.0 (210)</td>
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<td>6.7 (14.9)</td>
<td>5.6 (12.4)</td>
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<td>—</td>
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<tr>
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#### 20° Offset

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<th>51.8 (170)</th>
<th>64.0 (210)</th>
<th>79.2 (260)</th>
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<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
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<tr>
<td>18.0 (60)</td>
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<td>32.0 (100)</td>
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<td>44.0 (140)</td>
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<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
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<tr>
<td>64.0 (210)</td>
<td>8.6 (19.2)</td>
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<td>9.0 (20.0)</td>
<td>9.0 (20.0)</td>
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<tr>
<td>72.0 (240)</td>
<td>7.0 (15.6)</td>
<td>6.0 (13.4)</td>
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<td>—</td>
<td>—</td>
</tr>
<tr>
<td>80.0 (260)</td>
<td>—</td>
<td>4.3 (9.0)</td>
<td>4.3 (9.0)</td>
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</table>

#### 360° Rating

<table>
<thead>
<tr>
<th>Radius (ft)</th>
<th>27.4 (90)</th>
<th>39.6 (130)</th>
<th>51.8 (170)</th>
<th>64.0 (210)</th>
<th>79.2 (260)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 (30)</td>
<td>4.5 (10.0)</td>
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<td>—</td>
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</tr>
<tr>
<td>12.0 (40)</td>
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</tr>
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<tr>
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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.

Manitowoc 999

61
Fixed jib range diagram

No. 123 Fixed Jib on No. 22E Main Boom with Light Tapered Top
### Liftcrane Boom Capacities

**Fixed Jib No. 123 with 3 810 mm (12’ 6”) strut on**  
**Boom No. 22E with Open Throat Top**

99,609 kg (219,600 lb) Upperworks Counterweight 36,288 kg (80,000 lb) Carbody Counterweight  
360° Rating kg (lb) x 1,000

<table>
<thead>
<tr>
<th>Jib Length 91.9 m (30 ft)</th>
<th>Boom m (ft) Radius</th>
<th>0° Offset</th>
<th>20° Offset</th>
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<tbody>
<tr>
<td></td>
<td>33.5 (110)</td>
<td>48.8 (160)</td>
<td>61.0 (200)</td>
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<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
</tr>
<tr>
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<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
<td>18.1 (40.0)</td>
</tr>
<tr>
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<td>15.6 (33.8)</td>
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<tr>
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<td>4.0 (9.3)</td>
<td>3.0 (7.0)</td>
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<tr>
<td>68.0 (220)</td>
<td>2.7 (6.1)</td>
<td>(—)</td>
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</tr>
<tr>
<td>76.0 (250)</td>
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<td>84.0 (280)</td>
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<table>
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<th>Boom m (ft) Radius</th>
<th>0° Offset</th>
<th>20° Offset</th>
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<td>48.8 (160)</td>
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</tr>
<tr>
<td>12.0 (40)</td>
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<tr>
<td>16.0 (55)</td>
<td>13.6 (30.0)</td>
<td>13.6 (30.0)</td>
<td>13.6 (30.0)</td>
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<td>13.6 (30.0)</td>
<td>13.6 (30.0)</td>
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<td>13.6 (30.0)</td>
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<td>13.6 (30.0)</td>
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<td>48.0 (150)</td>
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<td>(24.4)</td>
<td>(25.7)</td>
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<td>8.3 (19.0)</td>
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<td>6.6 (15.4)</td>
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<tr>
<td>84.0 (280)</td>
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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.
### Liftcrane Boom Capacities

Fixed Jib No. 123 with 3 810 mm (12' 6") strut on Boom No. 22E with Light Tapered Top

<table>
<thead>
<tr>
<th>Boom Length 15.2 m (50 ft)</th>
<th>Jib Length 18.3 m (60 ft)</th>
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<td><strong>0° Offset</strong></td>
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<td>Radius 9.1 (30)</td>
<td>99 609 kg (219,600 lb)</td>
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<tr>
<td>Radius 12.0 (40)</td>
<td>9,0 (20.0)</td>
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<tr>
<td>Radius 16.0 (55)</td>
<td>9,0 (20.0)</td>
</tr>
<tr>
<td>Radius 20.0 (70)</td>
<td>9,0 (20.0)</td>
</tr>
<tr>
<td>Radius 28.0 (90)</td>
<td>9,0 (20.0)</td>
</tr>
<tr>
<td>Radius 36.0 (120)</td>
<td>9,0 (20.0)</td>
</tr>
<tr>
<td>Radius 48.0 (150)</td>
<td>8,9 (20.0)</td>
</tr>
<tr>
<td>Radius 56.0 (180)</td>
<td>8,4 (19.3)</td>
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<tr>
<td>Radius 68.0 (220)</td>
<td>5,0 (11.6)</td>
</tr>
<tr>
<td>Radius 76.0 (250)</td>
<td>2,9 (6.5)</td>
</tr>
<tr>
<td>Radius 84.0 (280)</td>
<td>1,9 (4.0)</td>
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<table>
<thead>
<tr>
<th>Boom Length 18.3 m (60 ft)</th>
<th>Jib Length 18.3 m (60 ft)</th>
</tr>
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<tbody>
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<td><strong>0° Offset</strong></td>
<td><strong>20° Offset</strong></td>
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<td>Radius 9.1 (30)</td>
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</tr>
<tr>
<td>Radius 12.0 (40)</td>
<td>4,5 (10.0)</td>
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<tr>
<td>Radius 16.0 (55)</td>
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<tr>
<td>Radius 28.0 (90)</td>
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<td>Radius 36.0 (120)</td>
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<tr>
<td>Radius 48.0 (150)</td>
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<tr>
<td>Radius 56.0 (180)</td>
<td>4,5 (10.0)</td>
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<tr>
<td>Radius 68.0 (220)</td>
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<tr>
<td>Radius 76.0 (250)</td>
<td>3,8 (8.5)</td>
</tr>
<tr>
<td>Radius 84.0 (280)</td>
<td>2,0 (4.2)</td>
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</table>

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.
## Liftcrane Luffing Jib Capacities - Series 3

### Luffing Jib No. 135 on Boom No. 82 or No. 22EL

**99 609 kg (219,600 lb)** Upperworks Counterweight 36 288 kg (80,000 lb) Carbody Counterweight

360° Rating kg (lb) x 1000

### 88° Boom Angle

<table>
<thead>
<tr>
<th>Luffing Jib Length 21.3 m (70 ft)</th>
<th>Boom m (ft) Radius</th>
<th>21.3 (70)</th>
<th>30.5 (100)</th>
<th>42.7 (140)</th>
<th>51.8 (170)</th>
<th>61.0 (200)</th>
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</thead>
<tbody>
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<td>12.2 (40)</td>
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<td>14.0 (45)</td>
<td>43.5 (96.7)</td>
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<td>25.4 (51.8)</td>
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<tr>
<td>28.0 (100)</td>
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<table>
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<th>Luffing Jib Length 26.0 m (85 ft)</th>
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<th>21.3 (70)</th>
<th>30.5 (100)</th>
<th>42.7 (140)</th>
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<td>25.1 (55.9)</td>
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<td>29.4 (64.5)</td>
<td>24.4 (53.8)</td>
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<th>42.7 (140)</th>
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<th>61.0 (200)</th>
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<tr>
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<tbody>
<tr>
<td>38.0 (120)</td>
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### Notes
- 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 Capacities - Series 3
Luffing Jib No. 135 on Boom No. 82 or No. 22EL

99 609 kg (219,600 lb) Upperworks Counterweight 36 288 kg (80,000 lb) Carbody Counterweight

<table>
<thead>
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<th>Boom Length</th>
<th>0°</th>
<th>75°</th>
<th>90°</th>
<th>105°</th>
<th>120°</th>
<th>135°</th>
<th>150°</th>
<th>165°</th>
<th>180°</th>
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<td>21,3</td>
<td>21,3</td>
<td>21,3</td>
<td>21,3</td>
<td>21,3</td>
<td>21,3</td>
<td>21,3</td>
<td>21,3</td>
</tr>
<tr>
<td>30,5 m (100 ft)</td>
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<td>30,5</td>
<td>30,5</td>
<td>30,5</td>
<td>30,5</td>
<td>30,5</td>
<td>30,5</td>
<td>30,5</td>
<td>30,5</td>
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<tr>
<td>42,7 m (140 ft)</td>
<td>42,7</td>
<td>42,7</td>
<td>42,7</td>
<td>42,7</td>
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<td>42,7</td>
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<td>51,8 m (170 ft)</td>
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Meet 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

### Liftcrane Luffing Jib Capacities - Series 3
**Luffing Jib No. 135 on Boom No. 82 or No. 22EL**

99,609 kg (219,600 lb) Upperworks Counterweight 36,288 kg (80,000 lb) Carbody Counterweight

<table>
<thead>
<tr>
<th>360° Rating</th>
<th>kg (lb) x 1,000</th>
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### 60° Boom Angle

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<th>51.8 (170)</th>
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<tr>
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### 42° Boom Angle

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</table>

*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.*

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**Page 68**
Luffing jib range diagram

No. 149 Luffing jib on No. 82 Main Boom

Distance from centerline of rotation m (ft)

Height above ground m (ft)

Tailswing
Rotation
773 m (251 ft)
153 m (50 ft)
2.46 m (8 ft)

Mast tailswing

70°
74.8°
70°
60°
60°
50°
40°
30°
20°
10°
# Luffing jib load charts

**Liftcrane Luffing Jib Capacities - Series 3**  
**Luffing Jib No. 149 on Boom No. 82**

### 99 609 kg (219,600 lb) Upperworks Counterweight  
36 288 kg (80,000 lb) Carbody Counterweight

### 88° Boom Angle

<table>
<thead>
<tr>
<th>Radius (ft)</th>
<th>Boom m (100)</th>
<th>24,4 (80)</th>
<th>36,6 (120)</th>
<th>42,7 (140)</th>
<th>54,9 (180)</th>
<th>61,0 (200)</th>
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<tbody>
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<td>72,5 (160.0)</td>
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<td>49,1 (120.1)</td>
<td>38,8 (90.3)</td>
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<td>52,7 (132.5)</td>
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<table>
<thead>
<tr>
<th>Radius (ft)</th>
<th>Boom m (100)</th>
<th>24,4 (80)</th>
<th>36,6 (120)</th>
<th>42,7 (140)</th>
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<th>61,0 (200)</th>
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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

**Liftcrane Luffing Jib Capacities - Series 3**

#### Luffing Jib No. 149 on Boom No. 82

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<th>Boom m (ft)</th>
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Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.
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Luffing jib load charts

### Liftcrane Luffing Jib Capacities - Series 3
### Luffing Jib No. 149 on Boom No. 82

**99 609 kg (219,600 lb) Upperworks Counterweight  36 288 kg (80,000 lb) Carbody Counterweight**

### 75° Boom Angle

<table>
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<th>24.4 (80)</th>
<th>36.6 (120)</th>
<th>42.7 (140)</th>
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**Fixed Jib Length 18.3 m (60 ft)**

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**Fixed Jib Length 73.2 m (240 ft)**

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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.
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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 on luffing jib range diagram
### Fixed jib on luffing jib load charts

**Liftcrane Fixed Jib on Luffing Capacities - Series 3**
**Fixed Jib No. 138 at 3 Degree Angle on Luffing Jib No. 135 on Boom No. 82 or No. 22EL**

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**Fixed Jib Length** 9.1 m (30 ft)

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**Upperworks Counterweight** 99 609 kg (219,600 lb)
**Carbody Counterweight** 36 288 kg (80,000 lb)

**88° Boom Angle**

*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.*
## Liftcrane Fixed Jib on Luffing Capacities - Series 3
### Fixed Jib No. 138 at 3 Degree Angle on Luffing Jib No. 135 on Boom No. 82 or No. 22EL

### Luffing Jib m (ft) Boom m (ft) Radius

<table>
<thead>
<tr>
<th>Luffing Jib</th>
<th>Boom Radius</th>
<th>Fixed Jib Length 9.1 m (30 ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>36° Rating</td>
<td>99 609 kg (219,600 lb) Upperworks Counterweight</td>
<td>36 288 kg (80,000 lb) Carbody Counterweight</td>
</tr>
<tr>
<td>83° Boom Angle</td>
<td>99 609 kg (219,600 lb) Upperworks Counterweight</td>
<td>36 288 kg (80,000 lb) Carbody Counterweight</td>
</tr>
</tbody>
</table>

### Fixed Jib Length 9.1 m (30 ft)

<table>
<thead>
<tr>
<th>Luffing Jib m (ft)</th>
<th>Boom m (ft) Radius</th>
<th>42.7 (140)</th>
<th>45.7 (150)</th>
<th>48.8 (160)</th>
<th>51.8 (170)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.0 (85)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>28.0 (90)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>30.0 (95)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>34.0 (100)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>38.0 (120)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>44.0 (140)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>52.0 (170)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>60.0 (200)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>72.0 (230)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
<tr>
<td>80.0 (260)</td>
<td></td>
<td>48.8 (160)</td>
<td>54.9 (180)</td>
<td>61.0 (200)</td>
<td>48.8 (160)</td>
</tr>
</tbody>
</table>

### Notice
- This capacity chart is for reference only and must not be used for lifting purposes.
- 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.
## Liftcrane Fixed Jib on Luffing Capacities - Series 3

### Fixed Jib No. 138 at 3 Degree Angle on Luffing Jib No. 135 on Boom No. 82 or No. 22EL

### 90° Boom Angle

<table>
<thead>
<tr>
<th>Luffing Jib (ft)</th>
<th>42,7 (140)</th>
<th>45,7 (150)</th>
<th>48,9 (160)</th>
<th>51,8 (170)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48,0 (155)</td>
<td>48,8 (160)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>48,8 (160)</td>
</tr>
<tr>
<td>50,0 (160)</td>
<td>50,0 (160)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>50,0 (160)</td>
</tr>
<tr>
<td>52,0 (170)</td>
<td>52,0 (170)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>52,0 (170)</td>
</tr>
<tr>
<td>58,0 (190)</td>
<td>58,0 (190)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>58,0 (190)</td>
</tr>
<tr>
<td>64,0 (210)</td>
<td>64,0 (210)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>64,0 (210)</td>
</tr>
<tr>
<td>72,0 (230)</td>
<td>72,0 (230)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>72,0 (230)</td>
</tr>
<tr>
<td>76,0 (250)</td>
<td>76,0 (250)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>76,0 (250)</td>
</tr>
<tr>
<td>84,0 (300)</td>
<td>84,0 (300)</td>
<td>54,9 (180)</td>
<td>61,0 (200)</td>
<td>84,0 (300)</td>
</tr>
</tbody>
</table>

*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 on luffing jib range diagram

No. 134 Fixed Jib on No. 149 Luffing Jib on No. 82 Main Boom

Height above ground m (ft)

1.9 to 6.9
7.0 to 9.5
9.6 to 12.9
13.0 to 16.9
17.0 to 20.9
21.0 to 25.0
25.1 to 30.0
30.1 to 36.0
36.1 to 43.2
43.3 to 51.0
51.1 to 59.5
59.6 to 68.5
68.6 to 77.5
77.6 to 87.0
87.1 to 96.5
96.6 to 106.5
106.6 to 117.0
117.1 to 128.0
128.1 to 140.0
140.1 to 153.0
153.1 to 167.5
167.6 to 183.0
183.1 to 200.0
200.1 to 219.0
219.1 to 240.0
240.1 to 264.0
264.1 to 288.0
288.1 to 315.0
315.1 to 345.0
345.1 to 378.0
378.1 to 412.0
412.1 to 448.0
448.1 to 486.0
486.1 to 526.0
526.1 to 569.0
569.1 to 615.0
615.1 to 664.0
664.1 to 716.0
716.1 to 771.5

Distance from centerline of rotation m (ft)

2.46 m (8 ft)

Tailswing

27.2 m (90 ft)

Mast tailswing

Rotation
### Liftcrane Fixed jib on Luffing Capacities - Series 3
#### No. 134 Fixed Jib on No. 149 Luffing Jib on No. 82 Main Boom

<table>
<thead>
<tr>
<th>Fixed Jib Length 9.1 m (30 ft)</th>
<th>99 609 kg (219,600 lb) Upperworks Counterweight</th>
<th>36 288 kg (80,000 lb) Carbody Counterweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>88° Boom Angle</td>
<td>51,8 (170)</td>
<td>54,9 (180)</td>
</tr>
<tr>
<td>22.0 (70)</td>
<td>24.4 (80)</td>
<td>36.6 (120)</td>
</tr>
<tr>
<td>28.0 (90)</td>
<td>20.4 (45.6)</td>
<td>17.6 (39.2)</td>
</tr>
<tr>
<td>34.0 (110)</td>
<td>17.4 (39.0)</td>
<td>14.5 (32.6)</td>
</tr>
<tr>
<td>40.0 (130)</td>
<td>14.2 (31.9)</td>
<td>11.6 (26.1)</td>
</tr>
<tr>
<td>48.0 (150)</td>
<td>10.4 (25.2)</td>
<td>8.6 (20.8)</td>
</tr>
<tr>
<td>52.0 (170)</td>
<td>9.0 (21.0)</td>
<td>7.5 (17.6)</td>
</tr>
<tr>
<td>58.0 (190)</td>
<td>7.2 (16.1)</td>
<td>6.1 (13.7)</td>
</tr>
<tr>
<td>64.0 (220)</td>
<td>4.6 (10.5)</td>
<td>5.4 (13.2)</td>
</tr>
<tr>
<td>72.0 (240)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>76.0 (250)</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed Jib Length 18.3 m (60 ft)</th>
<th>99 609 kg (219,600 lb) Upperworks Counterweight</th>
<th>36 288 kg (80,000 lb) Carbody Counterweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>88° Boom Angle</td>
<td>51,8 (170)</td>
<td>54,9 (180)</td>
</tr>
<tr>
<td>24.0 (85)</td>
<td>24.4 (80)</td>
<td>36.6 (120)</td>
</tr>
<tr>
<td>28.0 (90)</td>
<td>20.6 (45.6)</td>
<td>17.6 (39.2)</td>
</tr>
<tr>
<td>34.0 (110)</td>
<td>17.4 (39.0)</td>
<td>14.5 (32.6)</td>
</tr>
<tr>
<td>40.0 (130)</td>
<td>14.2 (31.9)</td>
<td>11.6 (26.1)</td>
</tr>
<tr>
<td>48.0 (150)</td>
<td>10.4 (25.2)</td>
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</tr>
<tr>
<td>58.0 (190)</td>
<td>7.2 (16.1)</td>
<td>6.1 (13.7)</td>
</tr>
<tr>
<td>64.0 (220)</td>
<td>4.6 (10.5)</td>
<td>5.4 (13.2)</td>
</tr>
<tr>
<td>72.0 (240)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>76.0 (250)</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*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.*
### Liftcrane Fixed Jib on Luffing Capacities - Series 3
No. 134 Fixed Jib on No. 149 Liftcrane Jib on No. 82 Main Boom

<table>
<thead>
<tr>
<th>Radius (m ft)</th>
<th>51.8 (170)</th>
<th>54.9 (180)</th>
<th>61.0 (200)</th>
<th>64.0 (210)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.0 (90)</td>
<td>24.4 (80)</td>
<td>24.4 (80)</td>
<td>24.4 (80)</td>
<td>24.4 (80)</td>
</tr>
<tr>
<td>30.0 (95)</td>
<td>36.0 (120)</td>
<td>36.6 (120)</td>
<td>36.6 (120)</td>
<td>36.6 (120)</td>
</tr>
<tr>
<td>34.0 (110)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
</tr>
<tr>
<td>38.0 (120)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
</tr>
<tr>
<td>44.0 (140)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
</tr>
<tr>
<td>52.0 (170)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
</tr>
<tr>
<td>60.0 (200)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
<td>57.9 (190)</td>
</tr>
</tbody>
</table>

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

Mets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.
### Fixed Jib on Luffing Jib Load Charts

**Liftcrane Fixed Jib on Luffing Capacities - Series 3**
**Fixed Jib No. 138 at 3 Degree Angle on Luffing Jib No. 135 on Boom No. 82 or No. 22EL**

**80° Boom Angle**

<table>
<thead>
<tr>
<th>Fixed Jib Length 9.1m (30 ft)</th>
<th>51.8 (170)</th>
<th>54.9 (180)</th>
<th>61.0 (200)</th>
<th>64.0 (210)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom m (ft) Radius</td>
<td>24.4 (80)</td>
<td>36.6 (120)</td>
<td>57.9 (190)</td>
<td>36.6 (120)</td>
</tr>
<tr>
<td>32.0 (105)</td>
<td>20.3 (44.9)</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38.0 (130)</td>
<td>17.6 (37.1)</td>
<td>18.1 (37.7)</td>
<td>—</td>
<td>(31.4)</td>
</tr>
<tr>
<td>48.0 (155)</td>
<td>11.9 (27.1)</td>
<td>12.9 (29.3)</td>
<td>11.6 (26.3)</td>
<td>(35.8)</td>
</tr>
<tr>
<td>50.0 (160)</td>
<td>11.0 (25.6)</td>
<td>12.2 (28.0)</td>
<td>10.8 (25.0)</td>
<td>(35.8)</td>
</tr>
<tr>
<td>52.0 (170)</td>
<td>10.2 (22.7)</td>
<td>11.5 (25.5)</td>
<td>10.1 (22.5)</td>
<td>(35.8)</td>
</tr>
<tr>
<td>58.0 (190)</td>
<td>8.1 (18.1)</td>
<td>9.6 (21.4)</td>
<td>7.9 (17.6)</td>
<td>(35.8)</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>6.5 (14.5)</td>
<td>8.2 (18.1)</td>
<td>6.3 (15.1)</td>
<td>(35.8)</td>
</tr>
<tr>
<td>72.0 (230)</td>
<td>— (13.6)</td>
<td>5.2 (12.4)</td>
<td>— (11.0)</td>
<td>(35.8)</td>
</tr>
<tr>
<td>76.0 (250)</td>
<td>— (13.6)</td>
<td>5.2 (12.4)</td>
<td>— (11.0)</td>
<td>(35.8)</td>
</tr>
<tr>
<td>84.0 (270)</td>
<td>— (13.6)</td>
<td>5.2 (12.4)</td>
<td>— (11.0)</td>
<td>(35.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed Jib Length 18.3m (60 ft)</th>
<th>51.8 (170)</th>
<th>54.9 (180)</th>
<th>61.0 (200)</th>
<th>64.0 (210)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom m (ft) Radius</td>
<td>24.4 (80)</td>
<td>36.6 (120)</td>
<td>57.9 (190)</td>
<td>36.6 (120)</td>
</tr>
<tr>
<td>38.0 (125)</td>
<td>— (24.8)</td>
<td>— (24.8)</td>
<td>— (24.8)</td>
<td>— (24.8)</td>
</tr>
<tr>
<td>48.0 (130)</td>
<td>9.3 (24.5)</td>
<td>9.7 (24.1)</td>
<td>9.1 (23.5)</td>
<td>— (23.5)</td>
</tr>
<tr>
<td>50.0 (160)</td>
<td>8.9 (20.2)</td>
<td>9.2 (21.1)</td>
<td>9.0 (20.7)</td>
<td>— (20.7)</td>
</tr>
<tr>
<td>52.0 (170)</td>
<td>8.4 (18.8)</td>
<td>8.8 (19.5)</td>
<td>9.0 (20.7)</td>
<td>— (20.7)</td>
</tr>
<tr>
<td>58.0 (190)</td>
<td>7.4 (16.4)</td>
<td>7.6 (16.9)</td>
<td>7.1 (17.9)</td>
<td>— (17.9)</td>
</tr>
<tr>
<td>64.0 (210)</td>
<td>6.5 (14.4)</td>
<td>6.7 (14.8)</td>
<td>6.2 (14.8)</td>
<td>— (14.8)</td>
</tr>
<tr>
<td>72.0 (230)</td>
<td>5.2 (12.4)</td>
<td>5.7 (13.3)</td>
<td>5.1 (12.8)</td>
<td>— (12.8)</td>
</tr>
<tr>
<td>76.0 (250)</td>
<td>4.5 (9.9)</td>
<td>4.4 (10.5)</td>
<td>4.2 (9.3)</td>
<td>— (9.3)</td>
</tr>
<tr>
<td>84.0 (270)</td>
<td>3.2 (8.4)</td>
<td>— (9.3)</td>
<td>3.2 (7.8)</td>
<td>— (7.8)</td>
</tr>
<tr>
<td>90.0 (300)</td>
<td>3.2 (8.4)</td>
<td>— (9.3)</td>
<td>3.2 (7.8)</td>
<td>— (7.8)</td>
</tr>
</tbody>
</table>

- **Upperworks Counterweight**: 99 609 kg (219,600 lb)
- **Carbody Counterweight**: 36 288 kg (80,000 lb)
- **Load Chart Rating**: 360°
- **Load Chart Rating Factor**: 1.000

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

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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 – for every one of the more than 7,000 Manitowoc cranes currently in use throughout the world.

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

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- **2,000 hour kit**
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- 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

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 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

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

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Melbourne  
Sydney  
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Beijing  
Xi’an  
India  
Hyderabad  
Pune  
Korea  
Seoul  
Philippines  
Makati City  
Singapore

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Charlieu  
La Clayette  
Moullins  
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Wilhelmshaven  
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