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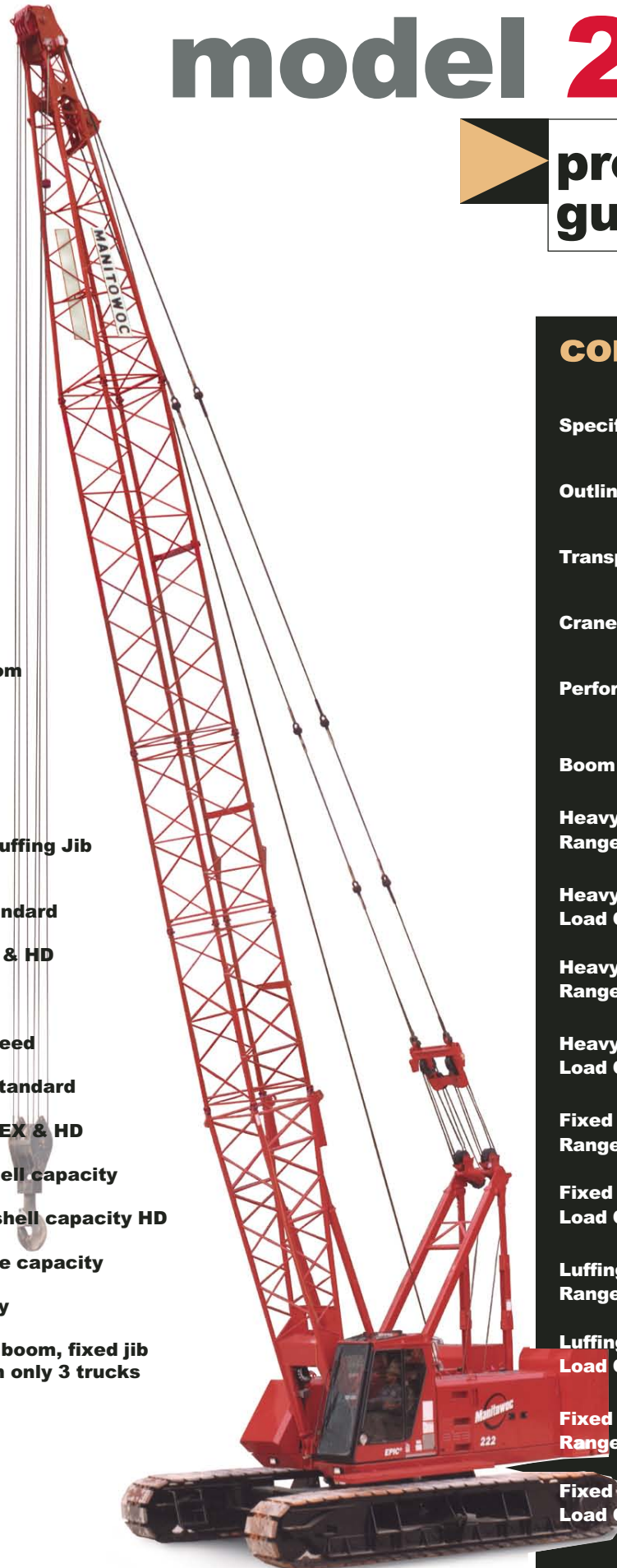
# model 222



## product guide

### features

- 91 mton (100 ton) capacity
- 307 mton-m (2,224 ft-kips) Maximum Load Moment
- 61,0 m (200') Heavy-Lift Boom
- 76,2 m (250') Fixed Jib on Heavy-Lift Boom
- 80,8 m (265') Luffing Jib on Heavy-Lift Boom
- 96,0 m (315') Fixed Jib on Luffing Jib on Heavy-Lift Boom
- 172 kW (230 HP) engine standard
- 261 kW (350 HP) engine EX & HD
- EPIC® controls
- 174 m/min (570 fpm) line speed
- 89 kN (20,000 lb) line pull standard
- 178 kN (40,000 lb) line pull EX & HD
- 7 938 kg (17,600 lb) Clamshell capacity
- 13 600 kg (30,000 lb) Clamshell capacity HD
- 8 160 kg (18,000 lb) Dragline capacity
- Fast, efficient self-assembly
- Complete crane, maximum boom, fixed jib and counterweight ships on only 3 trucks
- Manitowoc CraneCARE<sup>SM</sup>



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# specifications

## Upperworks

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### Engine

**222:** Cummins 6 CTA 8.3C diesel, 6 cylinder, 172 kW (230 BHP) @ 2200 governed RPM.

One 12 volt maintenance-free, Group 8D battery, 1400 CCA at -18°C (0° F), 12 volt starting and 80 amp alternator.

**222EX & 222HD:** Cummins M11 diesel, 6 cylinder, 261 kW (350 BHP) @ 2100 governed RPM.

Two 12 volt maintenance-free, Group 8D batteries, 1400 CCA at -18°C (0° F), 12 volt starting and 100 amp alternator.

Optional additional pad for mounting of accessory hydraulic pumps on Cummins M11 only.

Manually operated disconnect clutch for cold weather starting. Multiple hydraulic pump drive transmission provides independent power for all machine functions.

Optional: consult factory for other available engines.

One 340 l (90 gal) capacity diesel fuel tank, mounted on rear of upperworks, 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® *Electronic Processed Independent Controls* 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 Load Moment Indicator system (LMI) is standard for main boom, upper boom point, and fixed jib. "Function cut-out" or "warning only" operation is available via a keyed switch on the LMI console.

Optional travel and swing alarms are available.



### 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.

System	kg/cm <sup>2</sup> (psi)	lpm (gpm)
Front Drum	422 (6,000)	284 (75)
Rear Drum	422 (6,000)	284 (75)
Boom Hoist	422 (6,000)	155 (41)
Swing System	316 (4,500)	155 (41)
Left Crawler	422 (6,000)	155 (41)
Right Crawler	422 (6,000)	155 (41)

Hydraulic reservoir capacity is 568 l (150 gal) and is equipped with breather, dipstick, 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 micron (absolute) full flow line filter is furnished in the hydraulic circuit. All oil is filtered prior to return to the hydraulic reservoir.

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

Optional **222EX & 222HD** only: Open Loop Hydraulic Power Package consists of: low profile 1 022 liter (270 gal) hydraulic tank mounted along the top left side of machinery enclosure. Additional hydraulic oil cooler and fan assembly. One main hydraulic pump up to 492 lpm (130 gpm). One pilot hydraulic pump. Ten micron filtration system and machine plumbing. Hydraulic manifold with up to five quick-disconnect couplings mounted on the front of the machine. Primary controls and valving.



### Drums

Two equal width winches 543 mm (21-3/8") wide are driven by independent variable displacement axial piston hydraulic motors through planetary reduction mounted on separate front and rear shafts with anti-friction bearings.

Front Hoist	Diameter	Max Line Pull
222, 222EX	483 mm (19")	89 kn (20,000 lb)
222HD	647 mm (25-1/2")	178 kn (40,000 lb)

Rear Hoist	Diameter	Max Line Pull
All Models	483 mm (19")	89 kn (20,000 lb)

Optional **222HD** only: 178 kn (40,000 lb) high pull rear hoist drum can be ordered in place of standard rear 543 mm (21-3/8") wide 647 mm (25-1/2") diameter drum.

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

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Free-fall operation for front and rear drums includes internally expanding clutch assembly and external contracting band 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 66,7 kN (15,000 lb) line pull for third line over upper boom point, or luffing jib intermediate fall, mounted on front of rotating bed. Includes third sheave with boom top wire rope guide and boom butt wire rope guide and third drum control system.
- Optional auxiliary drum rated at 66,7 kN (15,000 lb) line pull as described above, mounted in boom butt.
- Optional **222EX & 222HD** only: 111 kN (25,000 lb) third hydraulic drum, for third line over boom point or luffing jib intermediate fall, mounted on front of rotating bed. Includes third sheave with boom top wire rope guide and boom butt wire rope guide and third drum control system.
- Optional auxiliary drum preparation includes electric wiring and hydraulic plumbing.
- Optional bolt-on liftcrane laggings.
- Optional bolt-on clamshell laggings.
- Optional wire rope for various applications (see pages 14-15).



## Boom Hoist

Independent two-drum boom hoist with grooved drums including 131,1 m (430') of 15,88 mm (5/8") diameter wire rope reeved with 10 parts of line.

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

Boom hoist speed: raise 61,0 m (200') full main boom from 0° - 82° in 80 seconds.



## Swing System

High strength fabricated steel alloy rotating bed is mounted on 1,64 m (64-3/4") diameter turntable bearing.

Reinforced rotating bed for duty cycle operation on the 222EX & 222HD.

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: 3.6 rpm.



## Counterweight

Total standard upper counterweight assembly is 24 177 kg (53,000 lb) consisting of one inner 12 927 kg (28,500 lb) counterweight and one outer 11 249 kg (24,800 lb) counterweight.

During self-assembly, the crane boom butt and hoist are used to lift the counterweights up onto lugs at the rear of the rotating bed upperworks via a tethered remote control. The counterweights are then secured in place by two pins for fast, safe assembly.

- Optional Series B counterweight system consisting of one 4 536 kg (10,000 lb) middle counterweight box and four crawler frame counterweights at 1 588 kg (3,500 lb) each. Includes connecting pins, brackets, and stops.



## Operator's Cab

Fully enclosed and insulated steel module mounted to the left front corner of rotating bed. 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 equipment.

- Optional air conditioning for operator's cab.
- Optional nylon protective window covers for operator's cab.

## Attachments



## No. 222 Heavy-Lift Main Boom

The base 222 & 222EX liftcranes come standard with a 12,2 m (40') No. 222 basic heavy-lift tubular chord boom consisting of a 5,8 m (19') butt and 6,4 m (21') open throat top with four 50,8 cm (20") diameter roller bearing sheaves on one shaft.

The basic heavy-lift boom also includes a boom angle indicator, pendant rigging, cushioned boom stops, and automatic boom hoist stop.

Anti-two block limit controls for main and whip lines.

4,7 m (15' 6") gantry and telescopic backhitch with anti-friction bearings and nylon sheaves in gantry and equalizer system.

- Optional No. 222 3,0 m (10'), 6,1 m (20'), and 12,2 m (40') main boom inserts with pendants.

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Optional 222 & 222EX detachable upper boom point with one 50.8 cm (20") roller bearing steel sheave grooved for 22,23 mm (7/8") diameter rope with rope guard for lift crane.



## No. 222HD Heavy-Duty Main Boom

The base 222HD liftcrane comes standard with a 12,2 m (40') No. 222HD basic heavy-duty tubular chord boom consisting of 5,8 m (19') butt and 6,4 m (21') open throat top with two 86,3 cm (34") diameter taper roller bearing sheaves on one shaft.

The basic heavy-duty boom also includes a boom angle indicator, pendant rigging, cushioned boom stops, and automatic boom hoist stop.

Anti-two block limit controls for main and whip lines.

4,7 m (15' 6") gantry and telescopic backhitch with anti-friction bearings and nylon sheaves in gantry and equalizer system.

Optional No. 222HD 3,0 m (10') and 6,1 m (20') main boom inserts with pendants.

Note: 222HD utilizes No. 222 12,2 m (40') insert(s).

Optional 222HD heavy duty detachable upper boom point with one 76,2 cm (30") roller bearing steel sheave grooved for 31,75 mm (1-1/4") diameter rope with rope guard for liftcrane.



## No. 10 Fixed Jib

Optional No. 10 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.

Optional No. 10 fixed jib inserts 3,0 m (10').

Utilize up to three fixed jib inserts in combination with the No. 10 basic fixed jib for total lengths of 12,2 m (40'), 15,2 m (50'), and 18,3 m (60').

Optional jib point roller assembly for use on No. 10 fixed jib extension on No. 222 luffing jib.



## No. 260 Boom for No. 222 Luffing Jib

Optional 16,8 m (55') basic No. 260 boom for No. 222 luffing jib assembly consisting of: 8,8 m (29') No. 260 transition insert with wire rope guide, 2,1 m (7') boom cap assembly, pendants for transition and cap, and pendant spreader.

Note: above utilizes existing 5,8 m (19') No. 222 boom butt from base crane.

Optional 3,0 m (10'), 6,1 m (20'), and 12,2 m (40') No. 260 boom inserts with pendants.



## No. 222 Luffing Jib requires No. 260 Main Boom

Optional 15,2 m (50') basic No. 222 luffing jib assembly consisting of: 5,8 m (19') No. 222 luffing jib butt with one 48,9 cm (19-1/4") diameter roller bearing sheave (intermediate-fall), 4,8 m (16') fixed strut assembly, 4,8 m (16') jib strut assembly, jib stop assembly, backstay pendants, luffing jib point roller assembly, 51,9 cm (20-7/16") grooved bolt-on lagging for luffing (rear drum), luffing jib hoist line, block up limit, LMI (load moment indicator) hardware for intermediate-fall, luffing jib, and fixed jib extension on luffing jib

Note: above utilizes existing 3,0 m (10') No. 222 boom insert and existing 6,4 m (21') No. 222 boom top from base crane – use existing No. 222 inserts for longer lengths)

## Lowerworks



## Carbody

Steel fabricated carbody with wide flange wings for mounting to crawler side frames.

Two variable displacement travel motors driven through planetary gearboxes provide narrow-profile mounting within the crawler modules.



## Crawlers

Crawler assemblies are 6,83 m (22' 5") long with 91,4 cm (36") wide cast steel crawler pads.

Crawlers have full counter-rotation capability.

Hydraulic extension/retraction of crawler assemblies with tethered remote control.

Maximum ground speed of 1,56 kph (0.97 mph).

Optional crawler handling package includes a high capacity wire rope guide mounted on the boom butt, sheave frame that attaches to the boom butt, single sheave 20 mton (22 ton) self assembly block for 22 mm (7/8") or 31 mm (1-1/4") wire rope, and four 1,8 m (6') nylon eye round slings.



## Optional Equipment

- ▶ Optional **222 & 222EX** Blocks and hooks –
  - 11 mton (12 ton) Swivel hook with 336 kg (740 lb) weight ball
  - 11 mton (12 ton) Non-swivel hook with 336 kg (740 lb) weight ball
  - 27 mton (30 ton) hook block with two 50,8 cm (20") sheaves for 22,23 mm (7/8") wire rope with swivel hook, hook latch, and swivel lock
  - 36 mton (40 ton) hook block with two 50,8 cm (20") sheaves for 22,23 mm (7/8") wire rope with swivel hook, hook latch, and swivel lock
  - 45 mton (50 ton) hook block with three 50,8 cm (20") sheaves for 22,23 mm (7/8") wire rope with swivel hook, hook latch, and swivel lock
  - 54 mton (60 ton) hook block with three 50,8 cm (20") sheaves for 22,23 mm (7/8") wire rope with swivel hook, hook latch, and swivel lock
  - 64 mton (70 ton) hook block with four 50,8 cm (20") sheaves for 22,23 mm (7/8") wire rope with swivel hook, hook latch, and swivel lock
  - 82 mton (90 ton) hook block with four 50,8 cm (20") sheaves for 22,23 mm (7/8") wire rope with swivel hook, hook latch, and swivel lock
  - 91 mton (100 ton) hook block with five 50,8 cm (20") sheaves for 22,23 mm (7/8") wire rope with swivel hook, hook latch, and swivel lock
- ▶ Optional **222HD** Blocks and hooks –
  - 17 mton (19 ton) Swivel hook with 340 kg (749 lb) weight ball
  - 32 mton (35 ton) hook block with two 76,2 cm (30") sheaves for 31,75 mm (1-1/4") wire rope with swivel hook, hook latch, and swivel lock
  - 36 mton (40 ton) hook block with two 76,2 cm (30") sheaves for 31,75 mm (1-1/4") wire rope with swivel hook, hook latch, and swivel lock
  - 82 mton (90 ton) hook block with two 76,2 cm (30") sheaves for 31,75 mm (1-1/4") wire rope with swivel hook, hook latch, and swivel lock
  - 91 mton (100 ton) hook block with two 76,2 cm (30") sheaves for 31,75 mm (1-1/4") wire rope with swivel hook, hook latch, and swivel lock
- ▶ Optional US Standard Tool Kit: includes all US tools required for routine maintenance (with the exception of a torque wrench).

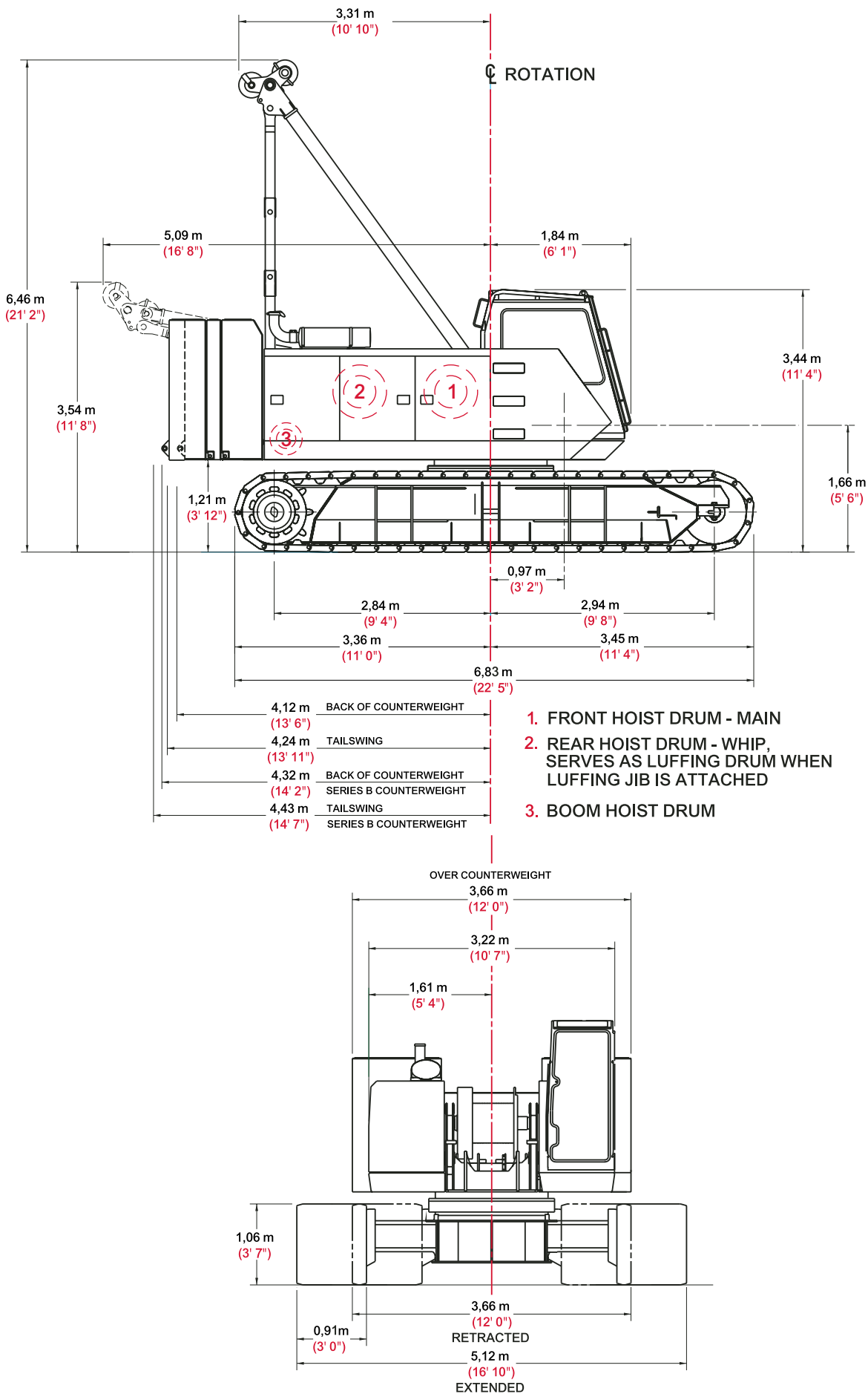
- ▶ Optional Hydraulic Test Kit: required to properly analyze the performance of the EPIC® control system.
- ▶ Optional Service Interval Kits: for the regularly scheduled maintenance of general crane operations.
- ▶ Optional Lighting Packages: consult Factory for available options.
- ▶ Optional Special 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

- ▶ Optional **222 & 222EX** Clamshell: includes 51,9 cm (20-7/16") diameter laggings with helical grooves for 22,23 mm (7/8") rope for front and rear drums. Tagline, Rud-O-Matic® No. 1248 two barrel with 50,8 cm (20") wheel for maximum 24,4 m (80') boom. Boom point roller guide. Pressure rollers on both drums. Clamshell control system - upgrade to basic machine.
  - ▶ Optional **222HD** Clamshell: includes laggings with helical grooves for 31,75 mm (1-1/4") rope for front and rear drums. Tagline, Rud-O-Matic® No. 1848 three barrel with 76,2 mm (30") wheel for maximum 30,5 m (100') boom. Boom point roller guide. Pressure rollers on both drums. Clamshell control system - upgrade to basic machine.
- NOTE: 222HD clamshell package requires the purchase of 222HD high pull rear hoist drum.
- ▶ Optional **222 & 222EX** Dragline: includes 51,9 cm (20-7/16") diameter laggings with helical grooves for 22,23 mm (7/8") rope for both front and rear drums. Fairlead, hinged type with roller bearing steel sheaves. Boom point roller guide. Pressure rollers on both drums.
  - ▶ Optional **222HD** Dragline: includes 51,9 cm (20-7/16") diameter laggings with helical grooves for 31,75 mm (1-1/4") rope for both front and rear drums. Fairlead, hinged type with roller bearing steel sheaves. Boom point roller guide. Pressure rollers on both drums.
  - ▶ Optional Pile Driving: includes extended lower boom point shaft for attachment of fixed pile leads.

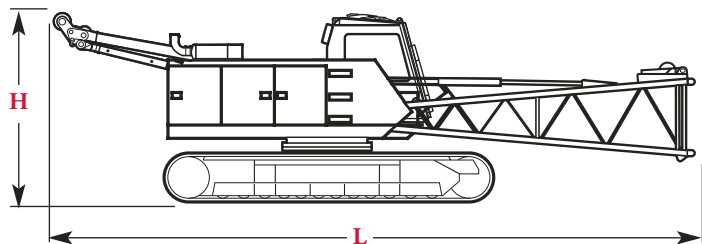
# outline dimensions

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# outline dimensions

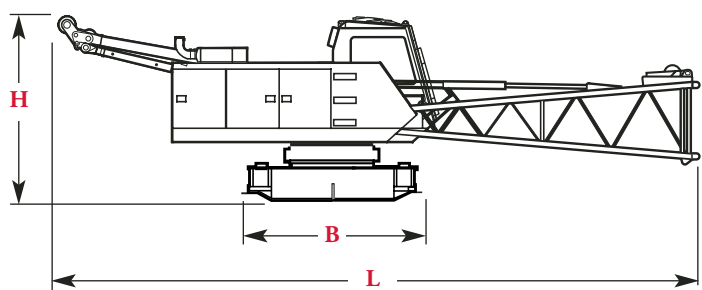
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## Basic Crane x 1

Length	11,86 m	38' 11"
Width (retracted)	3,66 m	12' 0"
Height	3,56 m	11' 8"
Weight (222)	42 102 kg	92,818 lb
Weight (222EX)	44 124 kg	97,277 lb
Weight (222HD)	45 249 kg	99,756 lb

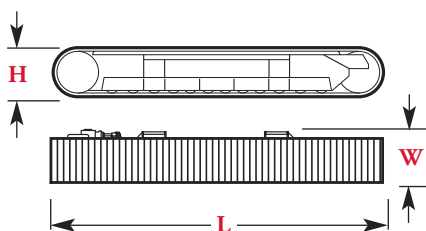
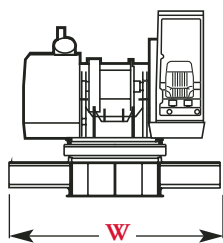
Note: Weight includes crawlers, carbody, and upperworks with hydraulic fluid, half tank of fuel, standard wire rope, gantry, and boom butt.



## Basic Crane with crawlers removed x 1

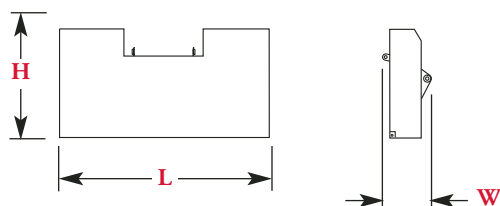
Length	11,86 m	38' 11"
Width	3,66 m	12' 0"
Height	3,25 m	10' 8"
Base	3,23 m	10' 7"
Weight (222)	24 657 kg	54,360 lb
Weight (222EX)	26 680 kg	58,819 lb
Weight (222HD)	27 804 kg	61,298 lb

Note: Weight includes carbody, and upperworks with hydraulic fluid, half tank of fuel, standard wire rope, gantry, and boom butt.



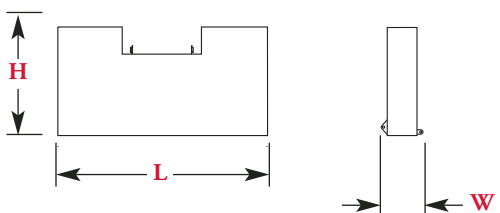
## Crawlers x 2

Length	6,83 m	22' 5"
Width	1,07 m	3' 6"
Height	1,09 m	3' 7"
Weight	8 654 kg	19,079 lb



## Inner Counterweight x 1

Length	3,66 m	12' 0"
Width	0,84 m	2' 9"
Height	1,85 m	6' 1"
Weight	12 927 kg	28,500 lb

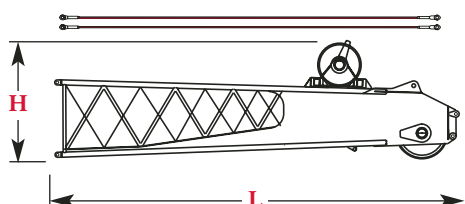
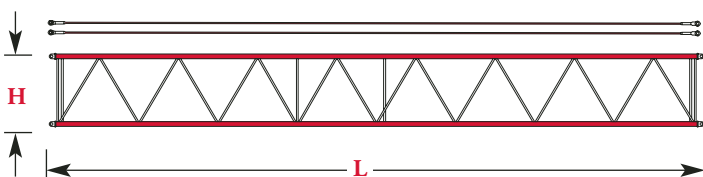
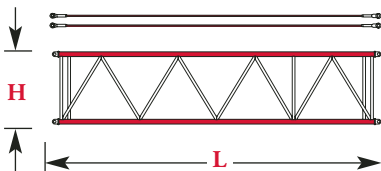
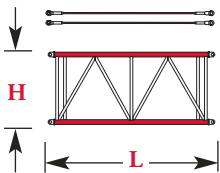
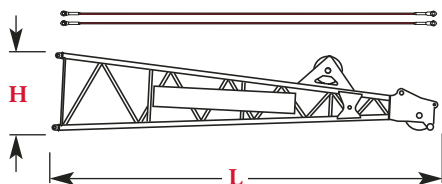
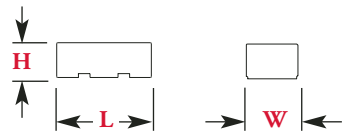
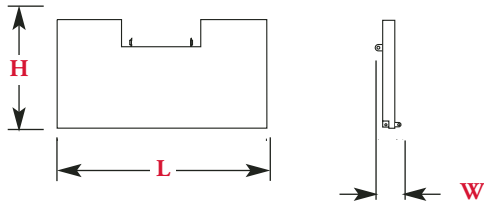


## Outer Counterweight x 1

Length	3,66 m	12' 0"
Width	0,69 m	2' 3"
Height	1,85 m	6' 1"
Weight	11 249 kg	24,800 lb

# outline dimensions

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## Middle Counterweight - Series B

x 1

Length	3,66 m	12' 0"
Width	0,41 m	1' 4"
Height	1,85 m	6' 1"
Weight	4 536 kg	10,000 lb

## Crawler Frame

### Counterweights - Series B x 4

Length	0,89 m	2' 11"
Width	0,66 m	2' 2"
Height	0,36 m	1' 2"
Weight each	1 588 kg	3,500 lb

## 222 & 222EX Boom top 6,4 m (21') & Pendants

x 1

Length	6,76 m	22' 2"
Width	1,30 m	4' 3"
Height	1,37 m	4' 6"
Weight	1 077 kg	2,375 lb

## No. 222 Main Boom 3,1 m (10') Insert & Pendants

x 1, 2

Length	3,15 m	10' 4"
Width	1,30 m	4' 3"
Height	1,52 m	5' 0"
Weight	375 kg	826 lb

## No. 222 Main Boom 6,1 m (20') Insert & Pendants

x 1, 2

Length	6,20 m	20' 4"
Width	1,30 m	4' 3"
Height	1,52 m	5' 0"
Weight	610 kg	1,345 lb

## No. 222 Main Boom 12,2 m (40') Insert & Pendants

x 1, 2, 3

Length	12,29 m	40' 4"
Width	1,30 m	4' 3"
Height	1,52 m	5' 0"
Weight	1 089 kg	2,400 lb

## 222HD Boom top 6,4 m (21') & Pendants

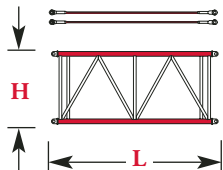
x 1

Length	6,40 m	21' 0"
Width	1,30 m	4' 3"
Height	1,63 m	5' 4"
Weight	2 654 kg	5,850 lb

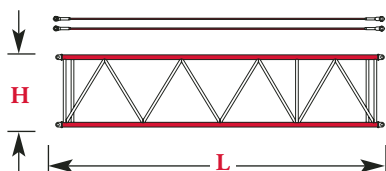
Optional



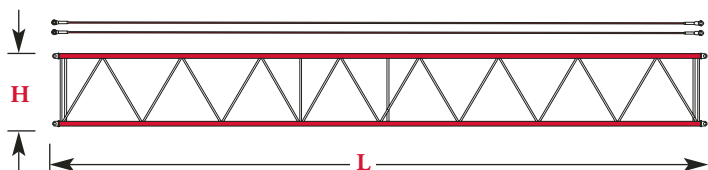
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<b>No. 222HD Main Boom 3,0 m (10')</b>		
<b>Insert &amp; Pendants</b>	<b>x 1, 2</b>	
Length	3,15 m	10' 4"
Width	1,30 m	4' 3"
Height	1,52 m	5' 0"
Weight	480 kg	1,059 lb

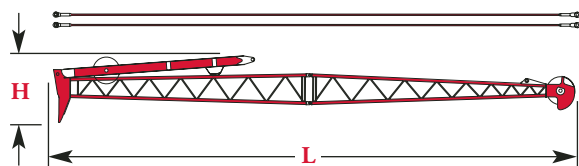


<b>No. 222HD Main Boom 6,1 m (20')</b>		
<b>Insert &amp; Pendants</b>	<b>x 1, 2</b>	
Length	6,20 m	20' 4"
Width	1,30 m	4' 3"
Height	1,52 m	5' 0"
Weight	826 kg	1,821 lb

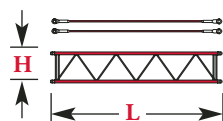


<b>No. 222HD Main Boom 12,2 m (40')</b>		
<b>Insert &amp; Pendants</b>	<b>x 1, 2</b>	
Length	12,19 m	40' 4"
Width	1,30 m	4' 3"
Height	1,52 m	5' 0"
Weight	1 089 kg	2,400 lb

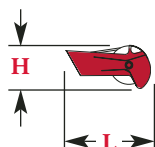
Note: same insert as No. 222 Main Boom



<b>No. 10 Fixed Jib 3,1 m (10')</b>		
<b>Strut &amp; Pendants</b>	<b>x 1</b>	
Length	9,53 m	31' 4"
Width	0,71 m	2' 4"
Height	1,24 m	4' 1"
Weight	728 kg	1,604 lb



<b>No. 10 Jib Inserts 3,1 m (10')</b>		
<b>Strut &amp; Pendants</b>	<b>x 1, 2, 3</b>	
Length	3,12 m	10' 3"
Width	0,61 m	2' 0"
Height	0,61 m	2' 0"
Weight	105 kg	232 lb

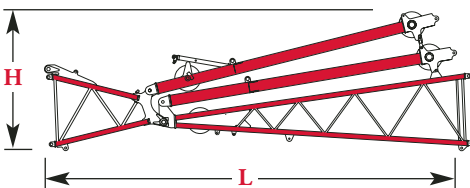
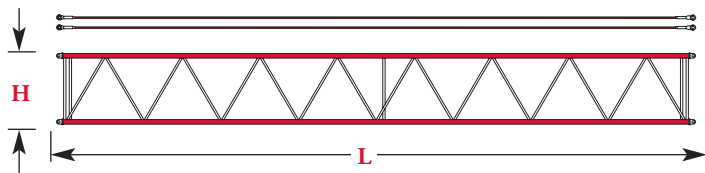
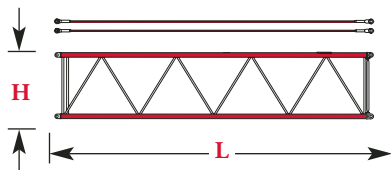
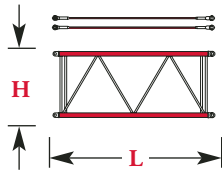
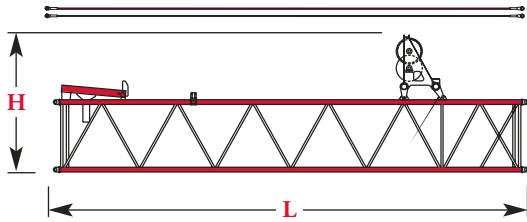


<b>Upper Boom Point</b>	<b>x 1</b>	
Length	1,27 m	4' 2"
Width	0,66 m	2' 2"
Height	0,53 m	1' 9"
Weight	153 kg	338 lb

Optional

# outline dimensions

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## No. 260 Main Boom 8,8 m (29') Transition Insert & Pendants x 1

Length	8,99 m	29' 4"
Width	1,93 m	6' 4"
Height	2,59 m	8' 6"
Weight	1 219 kg	2,687 lb

## No. 260 Main Boom 3,0 m (10') Insert & Pendants x 1

Length	3,15 m	10' 4"
Width	1,63 m	5' 4"
Height	1,52 m	5' 0"
Weight	411 kg	905 lb

## No. 260 Main Boom 6,1 m (20') Insert & Pendants x 1, 2

Length	6,20 m	20' 4"
Width	1,63 m	5' 4"
Height	1,52 m	5' 0"
Weight	674 kg	1,485 lb

## No. 260 Main Boom 12,2 m (40') Insert & Pendants x 1

Length	12,19 m	40' 4"
Width	1,63 m	5' 4"
Height	1,52 m	5' 0"
Weight	1 211 kg	2,670 lb

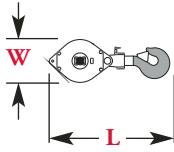
## No. 260 Boom Cap 2,1 m (7') & No. 222 Luffing Jib Butt 5,8 m (19') & Strut Assembly x 1

Length	8,05 m	26' 5"
Width	1,63 m	5' 4"
Height	2,54 m	8' 4"
Weight	2 744 kg	6,050 lb

Optional

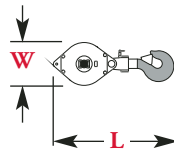
# outline dimensions

11



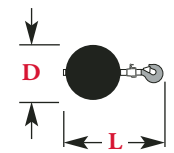
## 222, 222EX Hook block for 22,23 mm (7/8") wire rope

Capacity	91 mt	100 t	Length	1,7 m	5' 7"
Weight	1 121 kg	2,472 lb	Width	0,6 m	2' 1"
Capacity	82 mt	90 t	Length	1,5 m	5' 1"
Weight	974 kg	2,148 lb	Width	0,6 m	2' 1"
Capacity	54,4 mt	60 t	Length	1,3 m	4' 4"
Weight	636 kg	1,400 lb	Width	0,6 m	2' 1"
Capacity	45,4 mt	50 t	Length	1,3 m	4' 4"
Weight	595 kg	1,310 lb	Width	0,6 m	2' 1"
Capacity	36,3 mt	40 t	Length	1,2 m	4' 1"
Weight	590 kg	1,300 lb	Width	0,6 m	2' 1"
Capacity	27,2 mt	30 t	Length	1,1 m	3' 9"
Weight	535 kg	1,178 lb	Width	0,6 m	2' 1"



## 222HD Hook block for 31,75 mm (1-1/4") wire rope

Capacity	91,0 mt	100 t	Length	1,8 m	5' 11"
Weight	1 978 kg	4,361 lb	Width	0,9 m	3' 0"
Capacity	82,0 mt	90 t	Length	1,8 m	5' 11"
Weight	1 978 kg	4,361 lb	Width	0,9 m	3' 0"
Capacity	36,3 mt	40 t	Length	1,7 m	5' 6"
Weight	1 495 kg	3,295 lb	Width	0,9 m	2' 11"
Capacity	32,0 mt	35 t	Length	1,7 m	5' 6"
Weight	1 495 kg	3,295 lb	Width	0,9 m	2' 11"



## 222 & 222EX Weight Ball

Capacity/Swivel	13,6 mt	12 t	Diameter	0,5 m	1' 6"
Weight	336 kg	740 lb	Length	1,2 m	4' 0"
Capacity/Non-Swivel	13,6 mt	12 t	Diameter	0,5 m	1' 6"
Weight	336 kg	740 lb	Length	1,2 m	4' 0"

## 222HD Weight Ball

Capacity/Swivel	17 mt	19 t	Diameter	0,5 m	1' 6"
Weight	340 kg	749 lb	Length	1,2 m	4' 0"

■ Optional

# transport data

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## Trailer Load Out Summary

Model 222 Series B  
No. 10 Fixed Jib 18,3 m (60') on  
No. 222 Main Boom 57,9 m (190')

Item	Weight each Item kg (lb)	Quantity on Trailer Load #		
		1	2	3
No. 222 Basic Crane with Crawlers	42 102 (92,818)	1		
Standard Outer Counterweight	11 249 (24,800)		1	
Standard Inner Counterweight	12 927 (28,500)			1
Series B Middle Counterweight	4 536 (10,000)		1	
Series B Crawler Frame Counterweight	1 588 (3,500)		1	3
12,2 m (40') No. 222 Boom Insert, Pendants	1 089 (2,400)		2	1
6,1 m (20') No. 222 Boom Insert, Pendants	610 (1,345)			1
3,0 m (10') No. 222 Boom Insert, Pendants	375 (826)			1
Standard Boom Top 5,9 m (19')	1 077 (2,375)			1
Upper Boom Point	153 (338)		1	
9,1 m (30') No. 10 Fixed Jib Basic	728 (1,604)		1	
3,0 m (10') No. 10 Jib Insert, Pendants	105 (232)		3	
Hook Block 91,0 mton (100 ton)	1 121 (2,472)			1
Weight Ball	336 (740)		1	
<b>Approximate Total Shipping Weight kg (lb)</b>		<b>42 102 (92,818)</b>	<b>21 083 (46,478)</b>	<b>21 963 (48,418)</b>

## Trailer Load Out Summary

Model 222 Series B  
No. 10 Fixed Jib 18,3 m (60') on  
No. 222 Luffing Jib 39,6 m (130') on No. 260 Boom 38,1 m (125')

Item	Weight each Item kg (lb)	Quantity on Trailer Load #				
		1	2	3	4	5
No. 222 Basic Crane with Crawlers	42 102 (92,818)	1				
Standard Outer Counterweight	11 249 (24,800)		1			
Standard Inner Counterweight	12 927 (28,500)			1		
Series B Middle Counterweight	4 536 (10,000)		1			
Series B Crawler Frame Counterweight	1 588 (3,500)		1	3		
12,2 m (40') No. 222 Boom Insert, Pendants	1 089 (2,400)		2			
3,0 m (10') No. 222 Boom Insert, Pendants	375 (826)			1		
Standard Boom Top 5,9 m (19')	1 077 (2,375)			1		
Upper Boom Point	153 (338)				1	
9,1 m (30') No. 10 Fixed Jib Basic	728 (1,604)		1			
3,0 m (10') No. 10 Jib Insert, Pendants	105 (232)		3			
Hook Block 91,0 mton (100 ton)	1 121 (2,472)				1	
Weight Ball	336 (740)				1	
12,2 m (40') No. 260 Boom Insert, Pendants	1 211 (2,670)				1	
6,1 m (20') No. 260 Boom Insert, Pendants	674 (1,485)				1	
3,0 m (10') No. 260 Boom Insert, Pendants	411 (905)				1	
8,8 m (29') No. 260 Transition, Pendants	1 219 (2,687)					1
3,0 m (10') No. 260 Boom Cap with attached 4,5 m (15') No. 222 Luffing Jib Butt, Pendants, Strut Assembly, Rope Guide	2 744 (6,050)					1
<b>Approximate Total Shipping Weight kg (lb)</b>		<b>42 102 (92,818)</b>	<b>20 594 (45,400)</b>	<b>19 143 (42,201)</b>	<b>3 906 (8,610)</b>	<b>3 963 (8,737)</b>

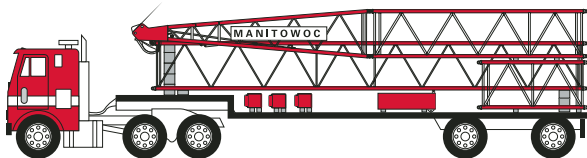
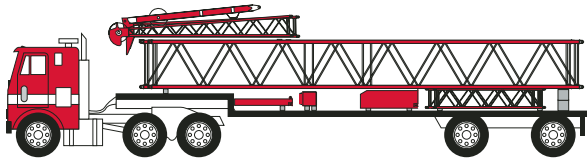
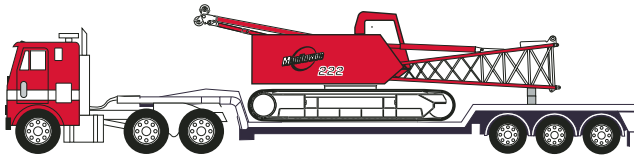
# crane assembly

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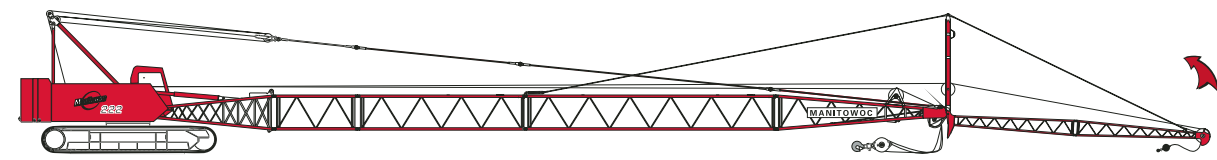
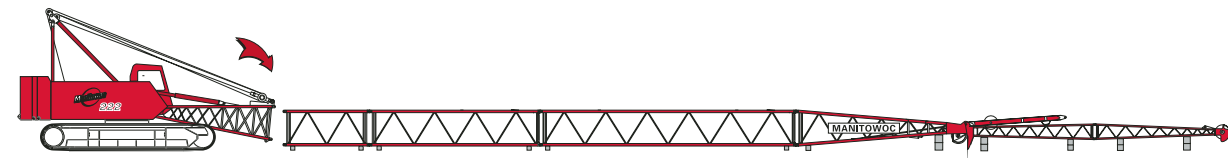
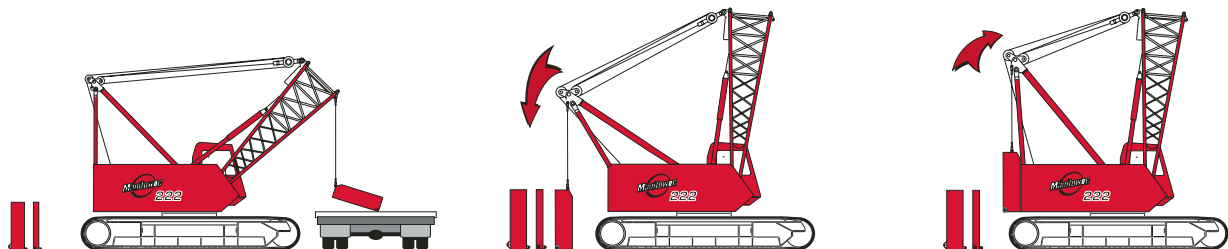
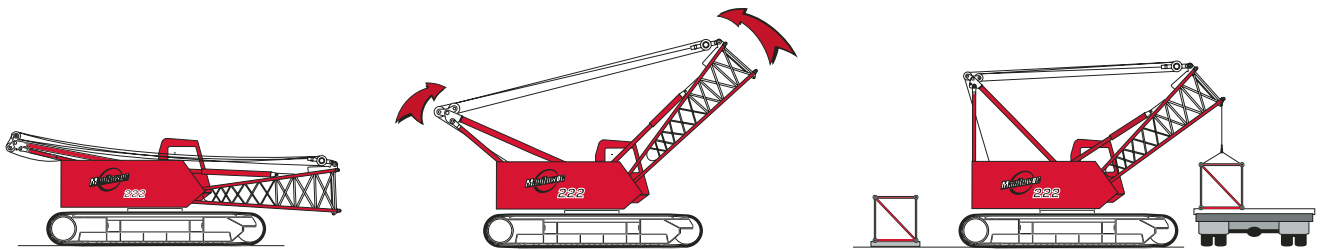
## Fast Self Assembly

### Three Trucks, Three People, Three Hours

Extremely well designed and utilizing efficient use of space allows the Manitowoc Model 222 to be mobilized with only three people using three trucks in three hours - or less - with maximum boom, fixed jib and counterweight.



  
3 hours



model 222  


# performance data

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## Wire Rope Lengths - No. 222 Main Boom or No. 10 Fixed Jib on No. 222 Main Boom

Boom or Boom and Fixed Jib Length	Whip Line		Hoist line		Maximum Required parts of line*
	Rear Drum (1 part of line)		Front Drum		
	m	(ft)	m	(ft)	
12,2 (40)	32	(105)	152	(500)	10
15,2 (50)	38	(125)	183	(600)	10
18,3 (60)	44	(145)	198	(650)	9
21,3 (70)	50	(165)	206	(675)	8
24,4 (80)	56	(185)	206	(675)	7
27,4 (90)	62	(205)	206	(675)	6
30,5 (100)	69	(225)	221	(725)	6
33,5 (110)	75	(245)	221	(725)	5
36,6 (120)	81	(265)	221	(725)	4
39,6 (130)	87	(285)	221	(725)	4
42,7 (140)	93	(305)	221	(725)	4
45,7 (150)	99	(325)	221	(725)	3
48,8 (160)	105	(345)	221	(725)	3
51,8 (170)	111	(365)	221	(725)	3
54,9 (180)	117	(385)	221	(725)	2
57,9 (190)	123	(405)	221	(725)	2
61,0 (200)	130	(425)	221	(725)	2
64,0 (210)	136	(445)	-	-	-
67,1 (220)	142	(465)	-	-	-
70,1 (230)	148	(485)	-	-	-
73,2 (240)	154	(505)	-	-	-
76,2 (250)	160	(525)	-	-	-

Note: Hoist line and whip 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.

\* Based on 89 kN (20 kips) maximum single line pull.

## Wire Rope Lengths - No. 222HD Main Boom or No. 10 Fixed Jib on No. 222HD Main Boom

Boom or Boom and Fixed Jib Length	Whip Line		Hoist line		Maximum Required parts of line*
	Rear Drum (1 part of line)		Front Drum		
	m	(ft)	m	(ft)	
12,2 (40)	32	(105)	85	(280)	5
15,2 (50)	38	(125)	104	(340)	5
18,3 (60)	44	(145)	122	(400)	5
21,3 (70)	50	(165)	122	(400)	4
24,4 (80)	56	(185)	133	(435)	4
27,4 (90)	62	(205)	133	(435)	3
30,5 (100)	69	(225)	133	(435)	3
33,5 (110)	75	(245)	149	(490)	3
36,6 (120)	81	(265)	149	(490)	2
39,6 (130)	87	(285)	149	(490)	2
42,7 (140)	93	(305)	149	(490)	2
45,7 (150)	99	(325)	149	(490)	2
48,8 (160)	105	(345)	-	-	-
51,8 (170)	111	(365)	-	-	-
54,9 (180)	117	(385)	-	-	-

Note: Hoist line and whip 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.

\* Based on 178 kN (40 kips) maximum single line pull.

## Drum Capacities - Wire Rope

	Maximum Length	
	No Lagging	With Lagging
Front or Rear Drum 22,23 mm (7/8") Wire Rope*	250 m (819 ft) 6 Layers	265 m (870 ft) 6 Layers
Auxiliary Drum 15,88 mm (5/8") Wire Rope**	80 m (264 ft) 4 Layers	-
Front or Rear Drum 31,75 mm (1-1/4") Wire Rope***	136 m (447 ft) 4 Layers	143 m (470 ft) 4 Layers
Boom Hoist Drum 15,88 mm (5/8") Wire Rope	131 m (430 ft) 5 Layers	-

\* 5 m (16') is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging for 22,23 mm (7/8") wire rope.

\*\* 3 m (9') is deducted from maximum spooling capacities for 3 dead wraps on Auxiliary Drum for 22,23 mm (7/8") wire rope.

\*\*\* 6 m (21') is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging for 31,75 mm (1-1/4") wire rope.



# performance data

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## Wire Rope Lengths - No. 222 Luffing Jib on No. 260 Main Boom

Boom Only (Includes All Luffing Jib Lengths)	Hoist Line			Intermediate Fall Line			
	Front Drum		Maximum Required Parts of Line*	Auxiliary Drum (1 Part of line**)		Auxiliary Drum (2 Parts of line**)	
	m	(ft)		m	(ft)	m	(ft)
16,8 (55)	198	(650)	4	46	(150)	64	(210)
19,8 (65)	213	(700)	4	52	(170)	73	(240)
22,9 (75)	229	(750)	4	58	(190)	82	(270)
25,9 (85)	229	(750)	4	64	(210)	91	(300)
29,0 (95)	236	(775)	3	70	(230)	101	(330)
32,0 (105)	251	(825)	3	76	(250)	107	(350)
35,1 (115)	251	(825)	3	82	(270)	-	-
38,1 (125)	251	(825)	3	88	(290)	-	-
41,1 (135)	251	(825)	3	94	(310)	-	-
44,2 (145)	251	(825)	2	101	(330)	-	-

**Note:** Hoist line lengths given in table include all luffing jib lengths. Hoist and intermediate fall 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.

\* Based on 89 kN (20 kips) line pull.

\*\* Based on 50 kN (11.25 kips) line pull.

## Wire Rope Lengths - No. 10 Fixed Jib on No. 222 Luffing Jib on No. 260 Main Boom

Boom and Luffing Jib and Fixed Jib Length	Hoist Line	
	Front Drum (1 Part of line*)	
	m	(ft)
74,7 (245)	162	(530)
77,7 (255)	168	(550)
80,8 (265)	174	(570)
83,8 (275)	180	(590)
86,9 (285)	186	(610)
89,9 (295)	192	(630)
93,0 (305)	198	(650)
96,0 (315)	204	(670)

**Note:** Hoist line lengths given in table include all luffing jib lengths and fixed jib lengths. Hoist and intermediate fall 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.

\* Based on 89 kN (20 kips) line pull.

## Wire Rope Specifications

Part Number Function	3.5:1 Safety Factor Regular Lay, 6x25 Filler Wire, Extra Improved Plow Steel, IWRC			5:1 Safety Factor Rotation Resistant, 2 160 N/mm <sup>2</sup> DYFORM 34LR 2160		
	No. 719111 Hoist Line	No. 719111 Whip Line	No. 719371 Luffing Jib Intermediate Fall Line	No. 719414 Hoist Line	No. 719414 Whip Line	No. 719427 Luffing Jib Intermediate Fall Line
Size Wire Rope	22,23 mm (7/8")	22,23 mm (7/8")	15,88 mm (5/8")	22,23 mm (7/8")	22,23 mm (7/8")	15,88 mm (5/8")
Minimum Breaking Strength	36 110 kg (79,600 lb)	36 110 kg (79,600 lb)	20 590 kg (45,400 lb)	48 140 kg (106,120 lb)	48 140 kg (106,120 lb)	25 590 kg (56,420 lb)
Maximum Load Per Line	9 070 kg (20,000 lb)	9 070 kg (20,000 lb)	5 100 kg (11,250 lb)	9 070 kg (20,000 lb)	9 070 kg (20,000 lb)	5 100 kg (11,250 lb)
Approximate Weight	2,11 kg/m (1.42 lb/ft)	2,11 kg/m (1.42 lb/ft)	1,07 kg/m (0.72 lb/ft)	2,46 kg/m (1.65 lb/ft)	2,46 kg/m (1.65 lb/ft)	1,25 kg/m (0.84 lb/ft)

# performance data

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<b>Hoist Drum - 89 kN (20 kips)</b>						
Full Power Drum - Continuous Duty Single Line Pull/Single Line Speed						
Layer	m/min (ft/min)					
	1	2	3	4	5	6
Line Pull kg (lb)						
0 (0)	121 (395)	131 (430)	142 (465)	152 (500)	163 (535)	174 (570)
2 268 (5,000)	113 (369)	122 (399)	131 (429)	140 (458)	148 (487)	157 (515)
4 536 (10,000)	105 (343)	112 (368)	119 (389)	120 (394)	122 (399)	123 (404)
6 803 (15,000)	83 (272)	84 (276)	86 (281)	87 (286)	89 (291)	90 (296)
9 072 (20,000)	66 (218)	68 (223)	69 (227)	71 (232)	72 (237)	74 (242)

NOTE: Line pull is infinitely variable.

<b>Hoist Drum - 178 kN (40 kips)</b>				
Full Power Drum - Continuous Duty Single Line Pull/Single Line Speed				
Layer	m/min (ft/min)			
	1	2	3	4
Line Pull kg (lb)				
0 (0)	63 (207)	69 (227)	75 (246)	81 (266)
4 536 (10,000)	59 (195)	65 (212)	69 (228)	75 (245)
9 072 (20,000)	55 (182)	60 (196)	64 (210)	68 (222)
13 608 (30,000)	47 (154)	48 (158)	49 (162)	51 (167)
18 144 (40,000)	39 (127)	40 (131)	41 (135)	42 (139)

NOTE: Line pull is infinitely variable.

<b>Auxiliary Drum - 66,7 kN (15 kips)</b>				
Full Power Drum - Continuous Duty Single Line Pull/Single Line Speed				
Layer	m/min (ft/min)			
	1	2	3	4
Line Pull kg (lb)				
0 (0)	60 (196)	66 (215)	71 (234)	77 (252)
2 268 (5,000)	59 (191)	64 (209)	70 (228)	75 (245)
4 536 (10,000)	57 (188)	62 (204)	66 (218)	71 (232)
6 803 (15,000)	54 (176)			

NOTE: Line pull is infinitely variable.

<b>Auxiliary Drum - 111 kN (25 kips)</b>									
Full Power Drum - Continuous Duty Single Line Pull/Single Line Speed									
Layer	m/min (ft/min)								
	1	2	3	4	5	6	7	8	9
Line Pull kg (lb)									
0 (0)	41 (133)	46 (151)	52 (170)	57 (188)	63 (206)	69 (225)	74 (243)	80 (261)	85 (280)
2 268 (5,000)	41 (132)	46 (150)	51 (168)	57 (186)	62 (203)	67 (221)	73 (239)	78 (255)	83 (273)
4 536 (10,000)	40 (130)	45 (148)	50 (164)	55 (180)	60 (196)	65 (213)	69 (228)	74 (243)	79 (258)
6 803 (15,000)	39 (127)	44 (143)	48 (157)	52 (172)	56 (185)	60 (197)			
9 072 (20,000)	37 (122)	42 (137)	46 (150)						
11 340 (25,000)	36 (117)								

NOTE: Line pull is infinitely variable.

# performance data

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## Maximum Length – Unassisted Raising

Method	No. 10 Fixed Jib on No. 222 Main Boom			
	222, 222EX Series B		222, 222EX	
	Main Boom	Fixed Jib	Main Boom	Fixed Jib
Over end of blocked crawlers m (ft)	61,0 (200)	-	61,0 (200)	-
	57,9 (190)	18,3 (60)	57,9 (190)	18,3 (60)
Over side of extended crawlers m (ft)	61,0 (200)	-	61,0 (200)	-
	57,9 (190)	18,3 (60)	57,9 (190)	-
	54,9 (180)	-	54,9 (180)	12,2 (40)
	51,8 (170)	-	51,8 (170)	18,3 (60)
Over side of retracted crawlers m (ft)	57,9 (190)	-	-	-
	54,9 (180)	-	-	-
	51,8 (170)	15,2 (50)	51,8 (170)	-
	48,8 (160)	18,3 (60)	48,8 (160)	-
			45,7 (150)	15,2 (50)
			42,7 (140)	18,3 (60)

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

## Maximum Length – Unassisted Raising

Method	No. 222 Luffing Jib on No. 260 Main Boom			
	222, 222EX Series B		Jack-Knife Procedure	
	In-Line Procedure Main Boom	Luffing Jib	Main Boom	Luffing Jib
Over end of blocked crawlers m (ft)	16,8 (55)	15,2 - 36,6 (50 - 120)	16,8 (55)	39,6 - 45,7 (130 - 150)
	19,8 (65)	15,2 - 33,5 (50 - 110)	19,8 (65)	36,6 - 45,7 (120 - 150)
	22,9 (75)	15,2 - 30,5 (50 - 100)	22,9 (75)	33,5 - 45,7 (110 - 150)
	25,9 (85)	15,2 - 24,4 (50 - 80)	25,9 (85)	27,4 - 45,7 (90 - 150)
	29,0 (95)	15,2 - 21,3 (50 - 70)	29,0 (95)	24,4 - 45,7 (80 - 150)
	32,0 (105)	15,2 - 18,3 (50 - 60)	32,0 (105)	21,3 - 45,7 (70 - 150)
	-	-	35,1 (115)	15,2 - 45,7 (50 - 150)
	-	-	38,1 (125)	15,2 - 42,7 (50 - 140)
	-	-	41,1 (135)	15,2 - 30,5 (50 - 100)
	-	-	44,2 (145)	18,3 (60)

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

## Maximum Length – Unassisted Raising

Method	No. 10 Fixed Jib on No. 222 Luffing Jib on No. 260 Main Boom		
	222, 222EX Series B		
	Jack-Knife Procedure		
	Main Boom	Luffing Jib	Fixed Jib
Over end of blocked crawlers m (ft)	35,1 (115)	30,5 - 39,6 (100 - 130)	9,1 - 18,3 (30 - 60)
	38,1 (125)	30,5 - 39,6 (100 - 130)	9,1 - 18,3 (30 - 60)
	41,1 (135)	30,5 (100)	9,1 - 18,3 (30 - 60)

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

## Working Weight

Configuration	kg (lb)	
	222 Series B	222
12,2 m (40') No. 222 Main Boom	79 853 (176,043)	68 965 (152,043)
57,9 m (190') No. 222 Main Boom combined with 18,3 m (60') No. 10 Fixed Jib	85 148 (187,714)	74 260 (163,714)

Typical working weight consists of: hydraulic reservoirs full, fuel half-full, drums loaded with standard lengths of wire rope, upper boom point, 91 mt (100 t) hook block, and standard weight ball.

Note: Upper boom point not used with fixed jib.

# boom combinations

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## No. 222 Heavy-Lift Boom Combinations

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

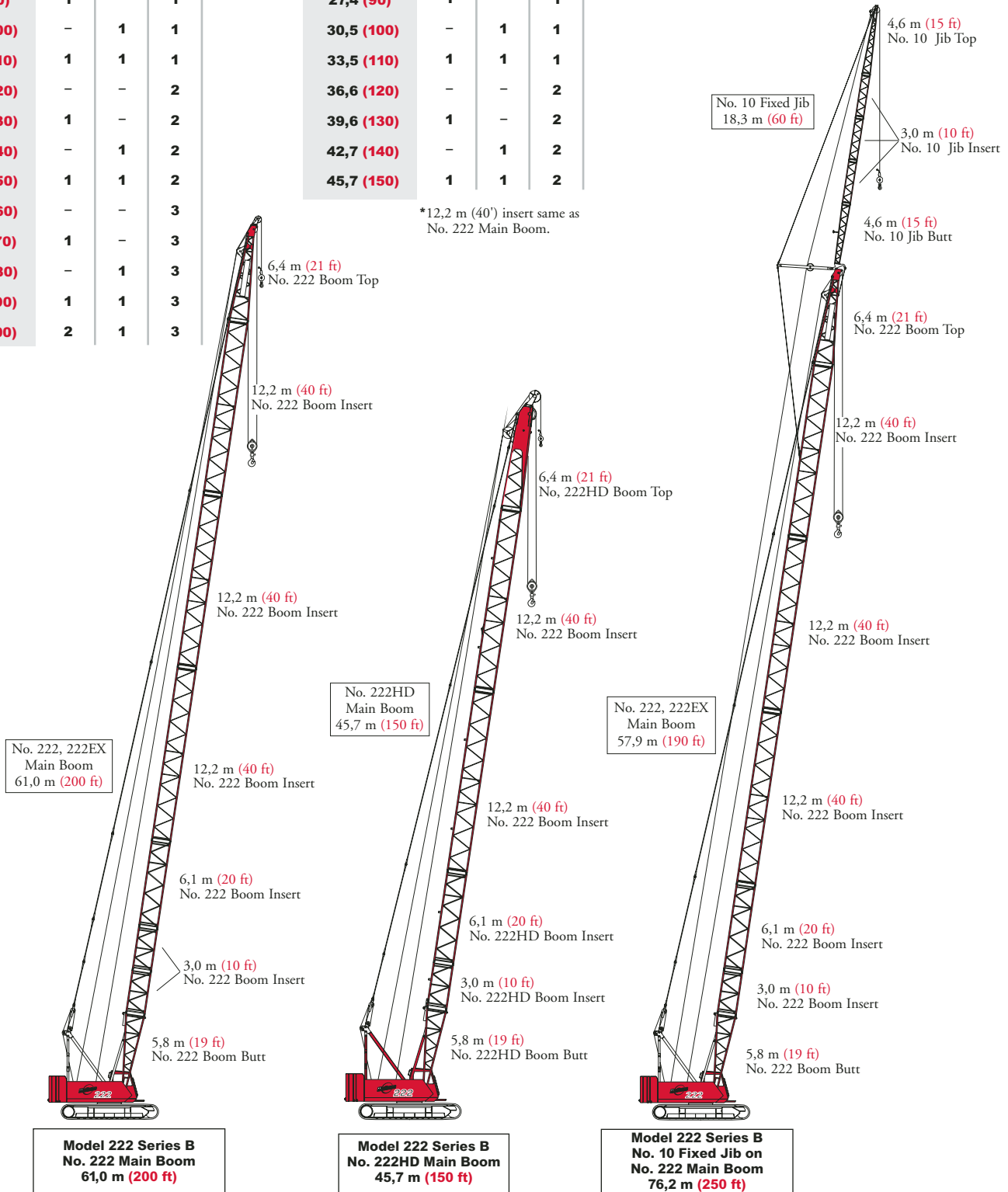
## No. 222HD Heavy-Duty Boom Combinations

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

\*12,2 m (40') insert same as No. 222 Main Boom.

## No. 10 Fixed Jib Combinations

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



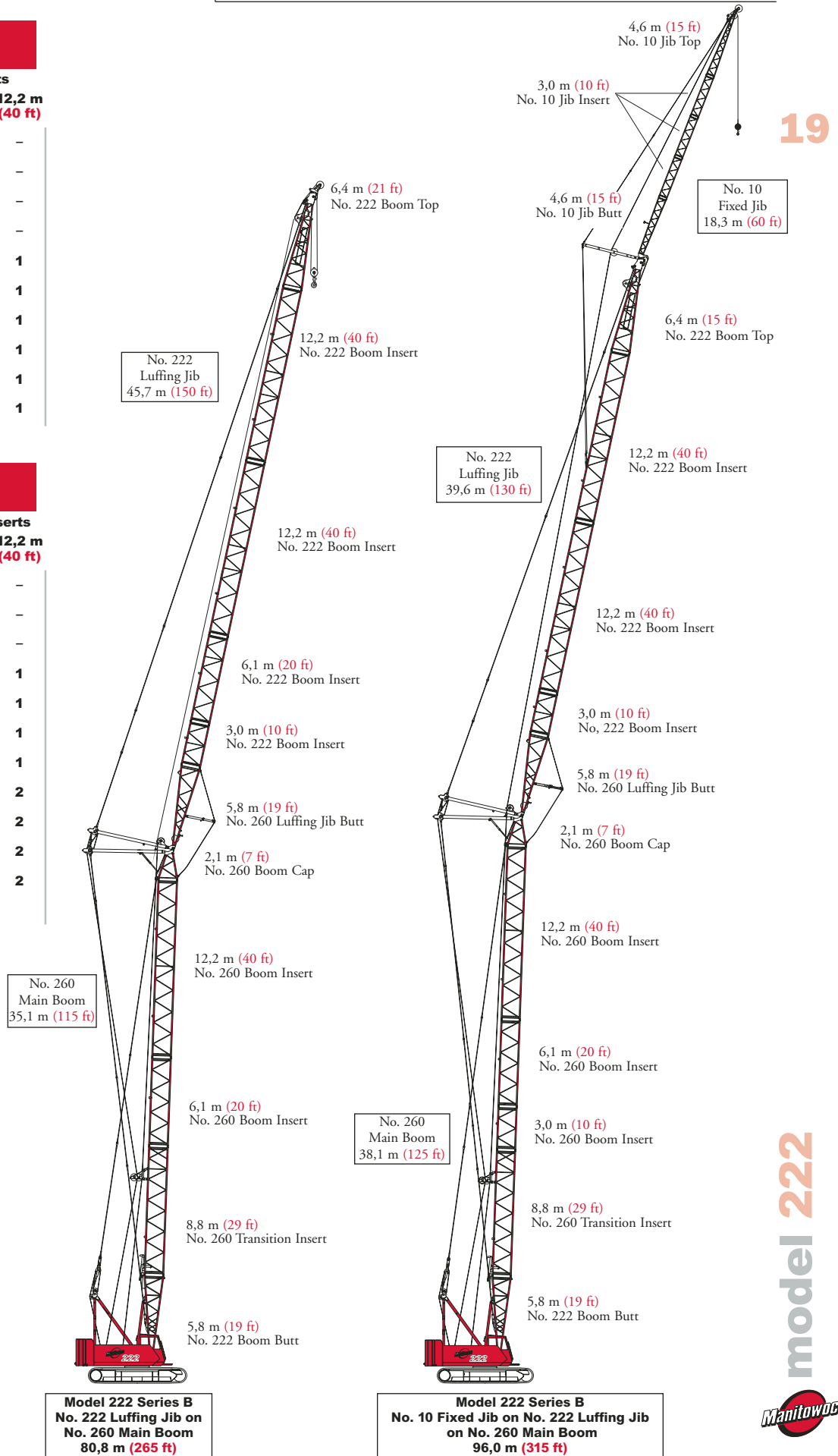
# boom combinations

## No. 260 Main Boom Combinations

Boom Length m (ft)	Boom Inserts		
	3,1 m (10 ft)	6,1 m (20 ft)	12,2 m (40 ft)
16,8 (55)	-	-	-
19,8 (65)	1	-	-
22,9 (75)	-	1	-
25,9 (85)	1	1	-
29,0 (95)	-	-	1
32,0 (105)	1	-	1
35,1 (115)	-	1	1
38,1 (125)	1	1	1
41,2 (135)	-	2	1
44,3 (145)	1	2	1

## No. 222 Luffing Jib Combinations

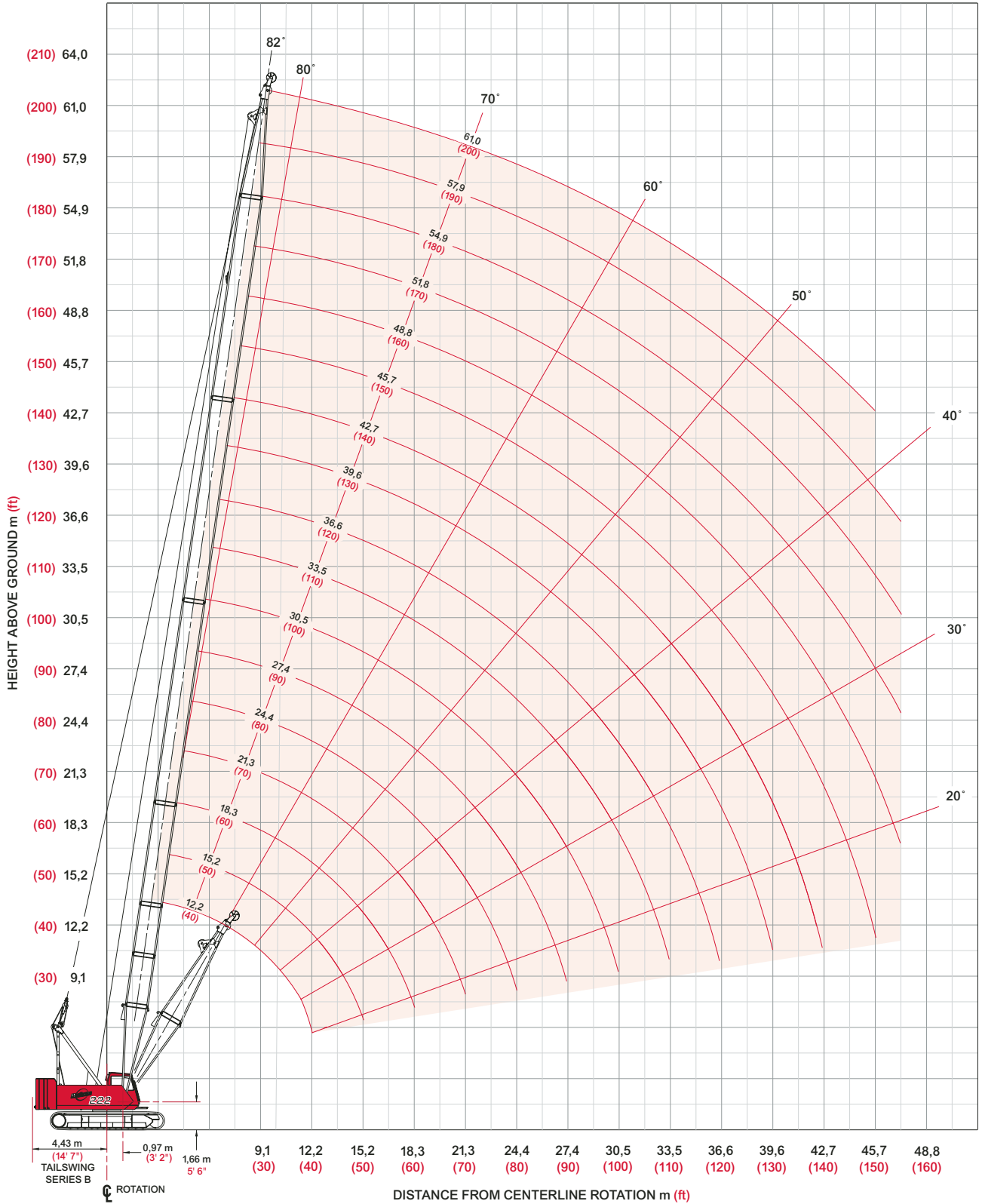
Luffing Jib Length m (ft)	Luffing Jib Inserts		
	3,1 m (10 ft)	6,1 m (20 ft)	12,2 m (40 ft)
15,2 (50)	1	-	-
18,3 (60)	-	1	-
21,3 (70)	1	1	-
24,4 (80)	-	-	1
27,4 (90)	1	-	1
30,5 (100)	-	1	1
33,5 (110)	1	1	1
36,6 (120)	-	-	2
39,6 (130)	1	-	2
42,7 (140)	-	1	2
45,7 (150)	1	1	2



# heavy-lift boom range diagram

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## No. 222 Main Boom





# heavy-lift boom load charts

## Liftcrane Boom Capacities - Series B Boom No. 222 with Open Throat Top

28 710 kg (63,300 lb) Counterweight 6 350 kg (14,000 lb) Crawler Frame Counterweight  
6,81 m (22' 4") Crawlers extended  
360° Rating kg (lb) x 1 000

Boom m (ft)	12,2 (40)	18,3 (60)	24,4 (80)	30,5 (100)	36,6 (120)	42,7 (140)	48,8 (160)	54,9 (180)	61,0 (200)
Radius									
3,0 (10)	90,7 (200.0)								
4,5 (15)	68,2 (148.2)	66,0 (142.6)	- (133.5)						
6,0 (20)	49,3 (106.5)	47,0 (101.8)	44,0 (95.8)	41,7 (90.1)					
9,0 (30)	28,4 (61.2)	28,3 (61.2)	27,9 (60.6)	26,6 (58.1)	25,2 (54.7)	24,0 (52.0)	21,2 (46.7)	- (34.5)	
12,0 (40)	16,6 (35.4)	19,2 (41.6)	19,1 (41.3)	18,9 (41.0)	18,1 (39.3)	17,3 (38.1)	16,7 (36.0)	14,5 (32.0)	10,7 (23.3)
18,0 (60)		10,2 (21.4)	11,2 (24.4)	11,1 (24.0)	10,9 (23.6)	10,7 (23.2)	10,0 (21.6)	9,3 (20.2)	8,9 (19.3)
24,0 (80)			7,0 (14.5)	7,6 (16.5)	7,4 (16.1)	7,2 (15.7)	7,1 (15.3)	6,6 (14.3)	6,0 (12.9)
30,0 (100)				4,8 (10.0)	5,4 (11.7)	5,2 (11.3)	5,0 (10.9)	4,6 (10.0)	4,1 (8.8)
36,0 (120)					3,3 (6.7)	3,8 (8.1)	3,6 (7.7)	3,2 (7.0)	2,8 (6.0)
42,0 (140)						2,1 (4.3)	2,4 (5.1)	2,2 (4.8)	1,8 (4.0)
46,0 (155)							1,6 (3.1)	1,6 (3.3)	

## Liftcrane Boom Capacities Boom No. 222 with Open Throat Top

24 180 kg (53 300 lb) Counterweight  
6,81 m (22' 4") Crawlers extended  
360° Rating kg (lb) x 1 000

Boom m (ft)	12,2 (40)	18,3 (60)	24,4 (80)	30,5 (100)	36,6 (120)	42,7 (140)	48,8 (160)	54,9 (180)	61,0 (200)
Radius									
3,0 (10)	90,7 (200.0)								
4,5 (15)	68,2 (148.2)	66,0 (142.6)	- (133.5)						
6,0 (20)	43,6 (93.8)	43,5 (93.7)	43,4 (93.5)	41,7 (90.1)					
9,0 (30)	23,9 (51.6)	23,8 (51.4)	23,7 (51.1)	23,5 (50.8)	23,4 (50.5)	23,3 (50.1)	21,2 (46.7)	- (34.5)	
12,0 (40)	16,2 (35.1)	16,1 (34.8)	15,9 (34.5)	15,8 (34.2)	15,6 (33.9)	15,5 (33.5)	15,3 (33.1)	14,5 (32.0)	10,7 (23.3)
18,0 (60)		9,4 (20.5)	9,3 (20.1)	9,1 (19.8)	9,0 (19.5)	8,8 (19.2)	8,6 (18.8)	8,5 (18.4)	8,3 (18.0)
24,0 (80)			6,3 (13.7)	6,2 (13.4)	6,0 (13.0)	5,8 (12.6)	5,6 (12.2)	5,4 (11.8)	5,2 (11.4)
30,0 (100)				4,5 (9.7)	4,3 (9.3)	4,1 (8.9)	3,9 (8.5)	3,7 (8.1)	3,5 (7.6)
36,0 (120)					3,1 (6.7)	3,0 (6.5)	2,8 (6.1)	2,6 (5.6)	2,4 (5.2)
42,0 (140)						2,1 (4.3)	2,0 (4.4)	1,8 (4.0)	1,6 (3.5)
46,0 (155)							1,6 (3.1)	1,4 (3.0)	

## Fixed Jib No. 10 on Boom No. 222

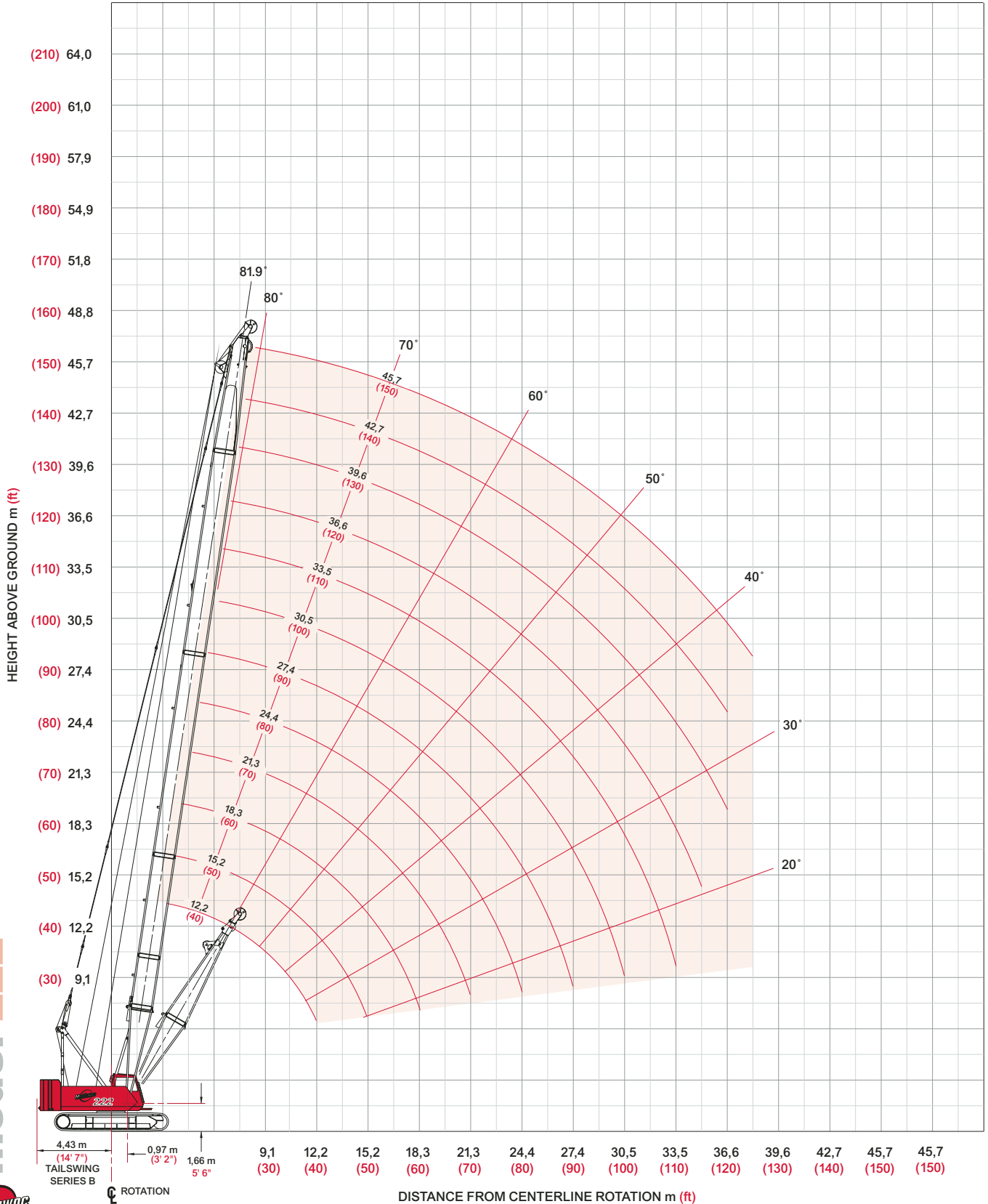
Jib Length m (ft)	Deduct from Capacity with fixed jib attached kg (lb)
9,1 (30)	770 (1,700)
12,2 (40)	950 (2,100)
15,2 (50)	1 170 (2,600)
18,3 (60)	1 400 (3,100)

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.

# heavy-duty boom range diagram

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## No. 222HD Main Boom



# heavy-duty boom load charts

## Liftcrane Boom Capacities - Series B Boom No. 222HD with Open Throat Top

28 710 kg (63,300 lb) Counterweight 6 350 kg (14,000 lb) Crawler Frame Counterweight  
6,81 m (22' 4") Crawlers extended  
360° Rating kg (lb) x 1 000

Boom m (ft)	12,2 (40)	18,3 (60)	24,4 (80)	30,5 (100)	36,6 (120)	42,7 (140)	45,7 (150)
Radius 3,0 (10)	90,7 (200.0)						
4,0 (13)	76,8 (171.0)	77,4 (170.7)					
4,5 (15)	68,2 (148.2)	67,5 (145.8)					
6,0 (20)	50,7 (109.2)	47,5 (102.7)	43,8 (94.6)	41,0 (88.5)			
9,0 (30)	27,4 (59.1)	27,1 (58.6)	27,0 (58.1)	25,2 (54.6)	23,9 (51.6)	22,5 (48.6)	22,1 (47.8)
12,0 (40)	16,4 (34.3)	18,0 (38.9)	17,8 (38.5)	17,5 (38.0)	17,4 (38.0)	16,9 (36.1)	16,6 (35.5)
18,0 (60)		8,7 (18.1)	9,8 (21.3)	9,6 (20.8)	9,6 (20.7)	9,1 (19.6)	8,9 (19.2)
24,0 (80)			4,9 (10.1)	6,0 (13.0)	6,0 (13.0)	5,5 (11.8)	5,4 (11.7)
30,0 (100)				2,6 (5.2)	3,6 (7.6)	3,3 (7.0)	3,3 (7.1)
36,0 (120)						1,7 (3.4)	1,8 (3.7)
38,0 (125)							1,3 (3.0)

## Liftcrane Boom Capacities Boom No. 222HD with Open Throat Top

24 180 kg (53,300 lb) Counterweight  
6,81 m (22' 4") Crawlers extended  
360° Rating kg (lb) x 1 000

Boom m (ft)	12,2 (40)	18,3 (60)	24,4 (80)	30,5 (100)	36,6 (120)	42,7 (140)	45,7 (150)
Radius 3,0 (10)	90,7 (200.0)						
4,0 (13)	75,9 (169.0)	75,8 (167.2)					
4,5 (15)	67,9 (147.4)	67,1 (145.8)					
6,0 (20)	42,7 (91.8)	42,6 (91.5)	42,4 (91.1)	41,0 (88.5)			
9,0 (30)	22,8 (49.3)	22,6 (48.8)	22,4 (48.3)	22,2 (47.8)	22,1 (47.7)	21,9 (47.2)	22,0 (47.3)
12,0 (40)	15,1 (32.6)	14,9 (32.1)	14,7 (31.7)	14,4 (31.2)	14,4 (31.1)	14,2 (30.6)	14,2 (30.7)
18,0 (60)		8,1 (17.6)	7,9 (17.1)	7,7 (16.6)	7,6 (16.5)	7,4 (15.9)	7,4 (16.0)
24,0 (80)			4,7 (10.1)	4,6 (10.0)	4,6 (9.9)	4,3 (9.3)	4,4 (9.4)
30,0 (100)				2,6 (5.2)	2,8 (6.1)	2,6 (5.6)	2,6 (5.7)
36,0 (120)						1,5 (3.2)	1,5 (3.3)

## Fixed Jib No. 10 on Boom No. 222HD

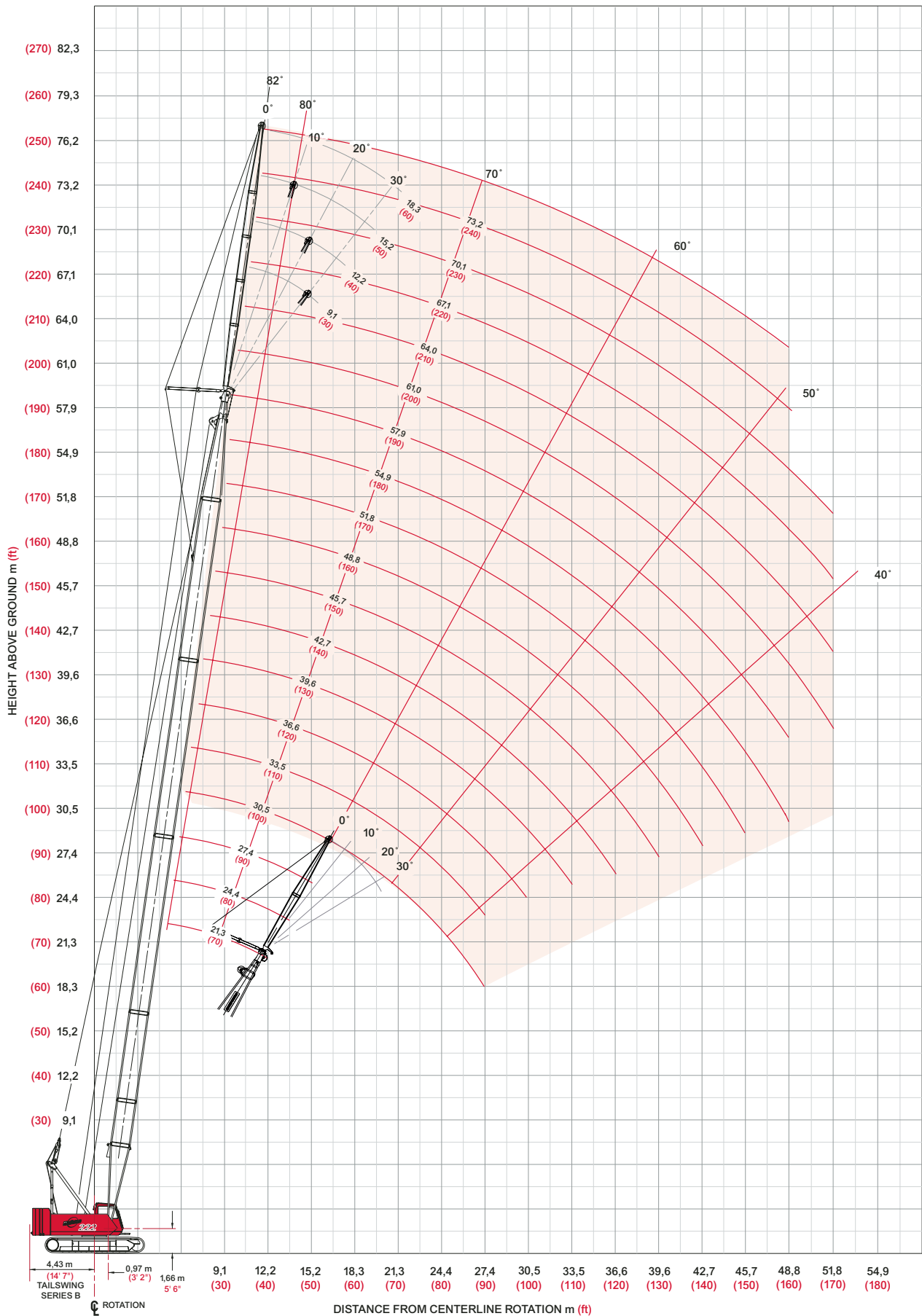
Jib Length m (ft)	Deduct from Capacity with fixed jib attached kg (lb)
9,1 (30)	770 (1,700)
12,2 (40)	950 (2,100)
15,2 (50)	1 170 (2,600)
18,3 (60)	1 400 (3,100)

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. 10 Fixed Jib on No. 222 Main Boom

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# fixed jib load charts

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## Liftcrane Jib Capacities - Series B

### Jib No. 10 with 3,81 m (12' 6") Strut on Boom No. 222 with Open Throat Top

28 710 kg (63,300 lb) Counterweight 6 350 kg (14,000 lb) Crawler Frame Counterweight

6,81 m (22' 4") Crawlers extended

360° Rating

kg (lb) x 1 000

Boom m (ft)	0° Offset					30° Offset				
	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
<b>Radius</b>										
7,6 (25)	9,0 (20.0)									
10,0 (30)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)							
12,0 (40)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	- (17.2)	8,2 (18.1)	- (19.5)			
16,0 (50)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	7,5 (16.6)	7,0 (15.9)	7,7 (17.5)	8,2 (18.6)	8,6 (19.4)	
18,0 (60)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	7,5 (16.6)	6,5 (14.3)	7,2 (15.9)	7,8 (17.1)	8,2 (18.0)	8,5 (18.7)
22,0 (70)	8,7 (20.0)	8,6 (19.7)	8,2 (18.9)	7,3 (17.0)	6,5 (15.1)	-	6,5 (14.6)	7,0 (15.8)	7,5 (16.8)	7,0 (16.2)
26,0 (90)	7,1 (14.6)	6,8 (14.0)	6,4 (13.2)	5,8 (11.9)	5,0 (10.2)			6,4 (13.8)	6,1 (12.7)	5,4 (11.1)
34,0 (110)		4,6 (10.5)	4,3 (9.8)	3,8 (8.6)	3,1 (7.1)				- (4.2)	3,4 (7.8)
42,0 (140)			2,8 (6.0)	2,4 (5.2)	1,8 (4.0)					
46,0 (150)				1,9 (4.3)	- (3.2)					
50,0 (170)				1,3 (-)						

Boom m (ft)	0° Offset					30° Offset				
	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
<b>Radius</b>										
7,6 (25)	9,0 (20.0)									
10,0 (30)	9,0 (20.0)	9,0 (20.0)								
12,0 (40)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	- (20.0)		- (14.8)				
16,0 (50)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	7,7 (17.0)	5,7 (13.0)	6,1 (14.0)	6,4 (14.6)		
18,0 (60)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	7,7 (17.0)	5,3 (11.6)	5,8 (12.7)	6,1 (13.4)	6,4 (14.0)	- (14.5)
22,0 (70)	7,5 (17.4)	8,6 (19.7)	8,3 (19.0)	7,3 (16.9)	6,4 (15.0)	- (10.6)	5,1 (11.6)	5,5 (12.4)	5,8 (13.1)	6,0 (13.6)
26,0 (90)	6,1 (12.8)	6,8 (14.0)	6,4 (13.3)	5,8 (11.9)	5,0 (10.1)			5,0 (10.9)	5,3 (11.6)	5,6 (11.4)
34,0 (110)		4,7 (10.6)	4,3 (9.8)	3,8 (8.6)	3,1 (7.1)				4,2 (9.5)	3,5 (8.0)
42,0 (140)			2,9 (6.3)	2,4 (5.3)	1,8 (4.0)					
46,0 (150)			- (5.2)	1,9 (4.4)	- (3.2)					
50,0 (170)				1,4 (-)						

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

# fixed jib load charts

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## Liftcrane Jib Capacities - Series B

### Jib No. 10 with 3,81 m (12' 6") Strut on Boom No. 222 with Open Throat Top

28 710 kg (63,300 lb) Counterweight 6 350 kg (14,000 lb) Crawler Frame Counterweight

6,81 m (22' 4") Crawlers extended

360° Rating

kg (lb) x 1 000

		0° Offset					30° Offset				
Boom m (ft)		21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
Jib Length 15,2 m (50 ft)	Radius 10,0 (30)	9,0 (20.0)									
	12,0 (40)	9,0 (20.0)	9,0 (20.0)	- (20.0)	-						
	16,0 (50)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	8,6 (19.2)	7,6 (16.9)	4,8 (11.0)				
	18,0 (60)	8,4 (18.1)	8,9 (19.8)	8,8 (19.5)	8,4 (18.6)	7,5 (16.7)	4,4 (9.8)	4,8 (10.5)	- (11.0)		
	22,0 (70)	6,5 (14.9)	8,3 (18.8)	8,2 (18.8)	7,3 (16.8)	6,4 (14.9)	3,9 (8.9)	4,2 (9.6)	4,5 (10.2)	4,7 (10.6)	4,8 (10.9)
	26,0 (90)	5,3 (11.0)	6,8 (14.1)	6,5 (13.3)	5,7 (11.8)	5,0 (10.1)		3,8 (8.3)	4,1 (8.9)	4,3 (9.3)	4,5 (9.7)
	34,0 (110)		4,7 (10.6)	4,3 (9.8)	3,7 (8.5)	3,0 (7.0)			- (7.9)	3,7 (8.4)	3,6 (8.2)
	42,0 (140)			3,0 (6.4)	2,5 (5.3)	1,8 (4.0)					2,2 (4.9)
	46,0 (150)			2,4 (5.4)	2,0 (4.5)	- (3.2)					
	50,0 (170)				1,5 (3.0)						

		0° Offset					30° Offset				
Boom m (ft)		21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
Jib Length 18,3 m (60 ft)	Radius 10,0 (30)	8,1 (18.2)									
	12,0 (40)	7,9 (17.5)	7,7 (17.0)	- (16.1)							
	16,0 (50)	7,3 (16.4)	7,3 (16.4)	7,0 (15.7)	6,5 (14.6)	5,9 (13.1)					
	18,0 (60)	6,9 (15.3)	7,1 (15.8)	6,9 (15.3)	6,5 (14.3)	5,8 (12.9)	3,8 (8.5)	- (9.0)			
	22,0 (70)	5,7 (13.2)	6,6 (14.9)	6,6 (14.8)	6,3 (14.0)	5,7 (12.7)	3,3 (7.6)	3,6 (8.2)	3,8 (8.6)	3,9 (8.9)	
	26,0 (90)	4,6 (9.7)	5,9 (12.3)	6,3 (13.3)	5,7 (11.7)	4,9 (10.0)	3,0 (6.4)	3,2 (7.0)	3,4 (7.4)	3,6 (7.8)	3,7 (8.0)
	34,0 (110)	3,3 (7.6)	4,2 (9.6)	4,3 (9.8)	3,7 (8.5)	3,0 (6.9)			2,9 (6.6)	3,1 (6.9)	3,2 (7.2)
	42,0 (140)		3,3 (7.1)	3,0 (6.5)	2,4 (5.3)	1,8 (3.9)					2,3 (5.0)
	46,0 (150)			2,5 (5.6)	2,0 (4.5)	- (3.2)					- (4.2)
	50,0 (170)			1,9 (4.2)	1,5 (3.1)						



# fixed jib load charts

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## Liftcrane Jib Capacities

### Jib No. 10 with 3,81 m (12' 6") Strut on Boom No. 222 with Open Throat Top

24 180 kg (53,300 lb) Counterweight

6,81 m (22' 4") Crawlers extended

360° Rating

kg (lb) x 1 000

Boom m (ft)	0° Offset					30° Offset				
	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
Radius 7,6 (25)	9,0 (20.0)									
10,0 (30)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)							
12,0 (40)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	- (17.2)	8,2 (18.1)	- (19.5)			
16,0 (50)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	7,5 (16.6)	7,0 (15.9)	7,7 (17.5)	8,2 (18.6)	8,6 (19.4)	
18,0 (60)	9,0 (20.0)	9,0 (19.9)	8,7 (19.1)	8,5 (18.5)	7,5 (16.6)	6,5 (14.3)	7,2 (15.9)	7,8 (17.1)	8,2 (18.0)	8,5 (18.7)
22,0 (70)	7,3 (16.8)	6,9 (16.1)	6,6 (15.3)	6,3 (14.6)	6,0 (13.9)	-	6,5 (14.6)	6,9 (15.8)	6,7 (15.6)	6,5 (15.1)
26,0 (90)	5,8 (12.0)	5,5 (11.3)	5,1 (10.5)	4,8 (9.8)	4,5 (9.1)			5,4 (11.0)	5,1 (10.5)	4,9 (9.9)
34,0 (110)		3,6 (8.3)	3,3 (7.6)	3,0 (6.8)	2,6 (6.1)				- (7.3)	2,9 (6.7)
42,0 (140)			2,2 (4.9)	1,9 (4.1)	1,5 (3.4)					
46,0 (150)				1,5 (3.4)						

Boom m (ft)	0° Offset					30° Offset				
	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
Radius 7,6 (25)	9,0 (20.0)									
10,0 (30)	9,0 (20.0)	9,0 (20.0)								
12,0 (40)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	- (20.0)		- (14.8)				
16,0 (50)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	7,7 (17.0)	5,7 (13.0)	6,1 (14.0)	6,4 (14.6)		
18,0 (60)	9,0 (20.0)	9,0 (19.9)	8,7 (19.2)	8,5 (18.5)	7,7 (17.0)	5,3 (11.6)	5,8 (12.7)	6,1 (13.4)	6,4 (14.0)	- (14.5)
22,0 (70)	7,3 (16.9)	7,0 (16.1)	6,6 (15.4)	6,3 (14.7)	6,0 (14.0)	- (10.6)	5,1 (11.6)	5,5 (12.4)	5,8 (13.1)	6,0 (13.6)
26,0 (90)	5,8 (12.1)	5,5 (11.3)	5,1 (10.6)	4,8 (9.8)	4,5 (9.1)			5,0 (10.9)	5,3 (10.7)	5,0 (10.2)
34,0 (110)		3,7 (8.4)	3,3 (7.6)	3,0 (6.9)	2,6 (6.1)				3,3 (7.5)	3,0 (7.0)
42,0 (140)			2,3 (4.9)	1,9 (4.1)	1,6 (3.4)					
46,0 (150)			- (4.3)	1,5 (3.5)						

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

# fixed jib load charts

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## Liftcrane Jib Capacities

Jib No. 10 with 3,81 m (12' 6") Strut on Boom No. 222 with Open Throat Top

24 180 kg (53,300 lb) Counterweight

6,81 m (22' 4") Crawlers extended

360° Rating

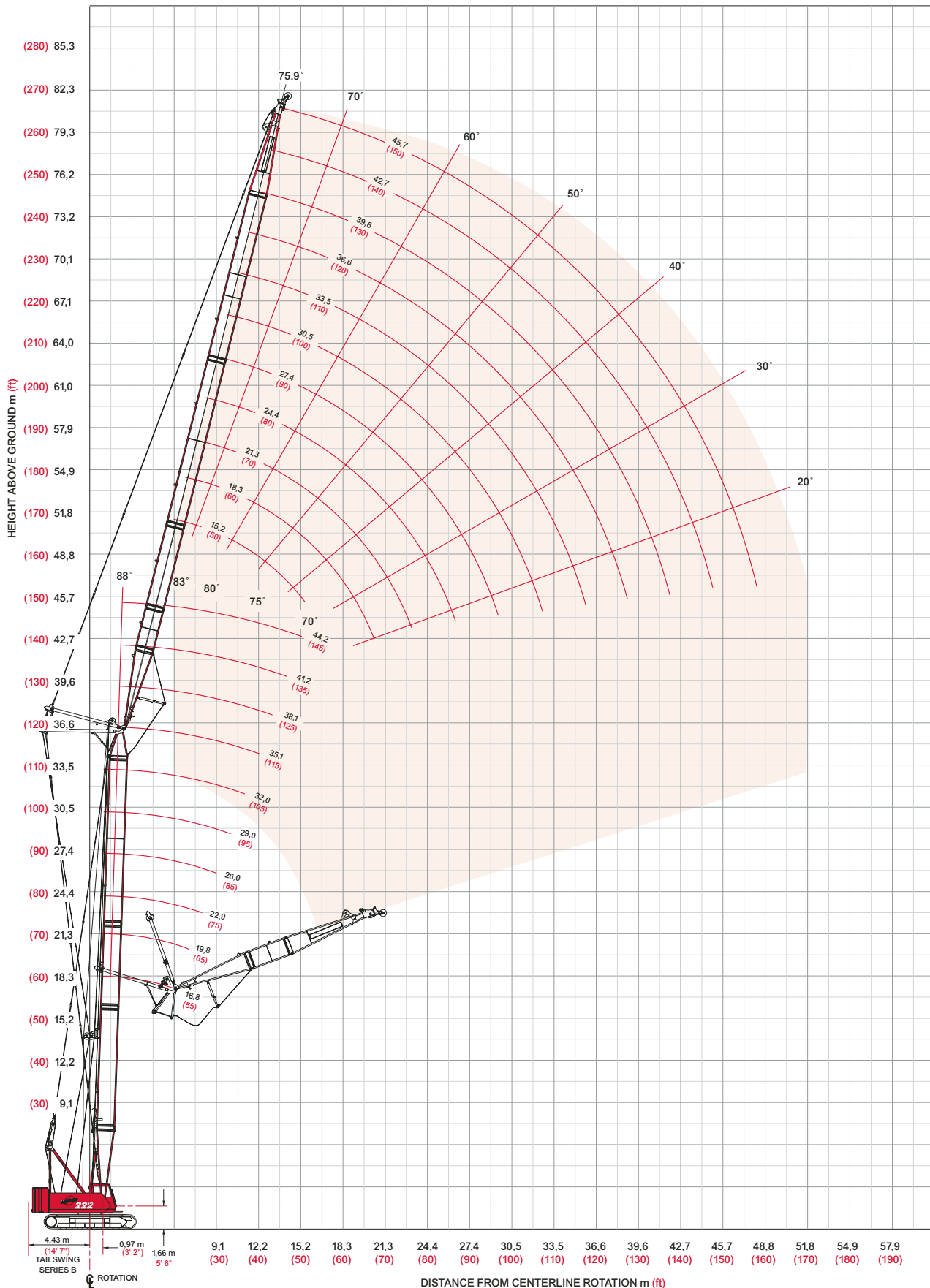
kg (lb) x 1 000

Boom m (ft)	0° Offset					30° Offset				
	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
Radius										
Jib Length 15,2 m (50 ft)	10,0 (30)	9,0 (20.0)								
	12,0 (40)	9,0 (20.0)	9,0 (20.0)	- (20.0)						
	16,0 (50)	9,0 (20.0)	9,0 (20.0)	9,0 (20.0)	8,6 (19.2)	7,6 (16.9)	4,8 (11.0)			
	18,0 (60)	8,4 (18.1)	8,9 (19.8)	8,8 (19.3)	8,4 (18.6)	7,5 (16.7)	4,4 (9.8)	4,8 (10.5)	- (11.0)	
	22,0 (70)	6,5 (14.9)	7,0 (16.2)	6,6 (15.4)	6,3 (14.7)	6,0 (14.0)	3,9 (8.9)	4,2 (9.6)	4,5 (10.2)	4,7 (10.6)
	26,0 (90)	5,3 (11.0)	5,5 (11.3)	5,2 (10.6)	4,8 (9.9)	4,5 (9.1)		3,8 (8.3)	4,1 (8.9)	4,3 (9.3)
	34,0 (110)		3,7 (8.4)	3,3 (7.6)	3,0 (6.9)	2,7 (6.2)			- (7.9)	3,4 (7.7)
	42,0 (140)			2,3 (4.9)	1,9 (4.1)	1,6 (3.4)				
	46,0 (150)			1,9 (4.3)	1,5 (3.5)					

Boom m (ft)	0° Offset					30° Offset				
	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)	21,3 (70)	30,5 (100)	39,6 (130)	48,8 (160)	57,9 (190)
Radius										
Jib Length 18,3 m (60 ft)	10,0 (30)	8,1 (18.2)								
	12,0 (40)	7,9 (17.5)	7,7 (17.0)	- (16.1)						
	16,0 (50)	7,3 (16.4)	7,3 (16.4)	7,0 (15.7)	6,5 (14.6)	5,9 (13.1)				
	18,0 (60)	6,9 (15.3)	7,1 (15.8)	6,9 (15.3)	6,5 (14.3)	5,8 (12.9)	3,8 (8.5)	- (9.0)		
	22,0 (70)	5,7 (13.2)	6,6 (14.9)	6,6 (14.9)	6,2 (14.0)	5,7 (12.7)	3,3 (7.6)	3,6 (8.2)	3,8 (8.6)	3,9 (8.9)
	26,0 (90)	4,6 (9.7)	5,5 (11.4)	5,2 (10.6)	4,9 (9.9)	4,5 (9.2)	3,0 (6.4)	3,2 (7.0)	3,4 (7.4)	3,6 (7.8)
	34,0 (110)	3,3 (7.6)	3,7 (8.4)	3,4 (7.7)	3,0 (6.9)	2,7 (6.2)			2,9 (6.6)	3,1 (6.9)
	42,0 (140)		2,6 (5.7)	2,3 (4.9)	1,9 (4.2)	1,6 (3.4)				
	46,0 (150)			1,9 (4.3)	1,5 (3.5)					- (3.5)

# luffing jib range diagram

## No. 222 Luffing Jib on No. 260 Main Boom



# Luffing jib load charts

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## Liftcrane Luffing Jib Capacities - Series B

### Luffing Jib No. 222 on Boom No. 260

28 710 kg (63,300 lb) Counterweight    6 350 kg (14,000 lb) Crawler Frame Counterweight

6,81 m (22' 4") Crawlers extended

360° Rating

kg (lb) x 1 000

### 88° Boom Angle

Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	35,1 (115)	41,2 (135)	Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	35,1 (115)	41,2 (135)
<b>Radius</b>						<b>Radius</b>					
<b>Luffing Jib Length 15,2 m (50 ft)</b>	6,1 (20)	31,7 (70.0)				6,1 (20)					
	8,0 (26)	25,6 (56.9)	26,7 (59.3)	25,3 (56.2)	23,2 (51.5)	8,0 (26)	22,9 (50.8)				
	9,0 (30)	23,2 (50.7)	24,7 (53.9)	23,7 (51.9)	21,9 (48.0)	9,0 (30)	21,0 (45.9)	21,8 (47.7)	20,6 (45.2)	18,8 (41.3)	- (35.4)
	11,0 (36)	19,7 (43.6)	21,4 (47.3)	20,9 (46.3)	19,7 (43.5)	11,0 (36)	18,0 (39.9)	19,2 (42.5)	18,5 (41.0)	17,2 (38.0)	15,1 (33.5)
	12,0 (40)	18,3 (39.8)	19,5 (42.4)	19,7 (43.1)	18,6 (40.7)	12,0 (40)	16,7 (36.5)	18,0 (39.4)	17,6 (38.5)	16,4 (36.0)	14,5 (31.9)
	14,0 (45)	15,9 (35.9)	16,7 (37.7)	16,9 (38.3)	16,8 (37.8)	14,0 (45)	14,6 (33.0)	16,1 (36.1)	15,9 (35.7)	15,0 (33.6)	13,5 (30.1)
	18,0 (60)					18,0 (60)	11,6 (25.3)	12,0 (26.0)	12,0 (26.0)	12,0 (25.9)	11,4 (25.0)
	20,0 (65)					20,0 (65)	10,4 (23.4)	10,4 (23.4)	10,4 (23.4)	10,4 (23.3)	10,4 (23.3)
	24,0 (80)					24,0 (80)	8,1 (17.4)	8,2 (17.8)	8,2 (17.8)	8,1 (17.7)	8,1 (17.7)
	26,0 (85)					26,0 (85)		- (16.4)	- (16.4)	- (16.3)	- (16.3)

Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	35,1 (115)	38,1 (125)	Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	35,1 (115)
<b>Radius</b>						<b>Radius</b>				
<b>Luffing Jib Length 36,6 m (120 ft)</b>	11,0 (36)	15,4 (34.0)				11,0 (36)				
	12,0 (40)	14,5 (31.6)	15,1 (33.1)	14,3 (31.4)	13,1 (28.8)	12,0 (40)				
	14,0 (45)	12,8 (28.8)	13,7 (30.8)	13,2 (29.5)	12,2 (27.3)	14,0 (45)	11,5 (25.8)	12,0 (26.9)	11,3 (25.3)	9,8 (21.9)
	18,0 (60)	10,3 (22.4)	11,4 (25.0)	11,3 (24.7)	10,6 (23.3)	18,0 (60)	9,3 (20.4)	10,2 (22.4)	9,9 (21.8)	9,2 (20.2)
	24,0 (80)	7,7 (16.8)	7,8 (17.0)	7,8 (16.9)	7,8 (16.9)	24,0 (80)	7,0 (15.3)	7,5 (16.3)	7,5 (16.3)	7,5 (16.2)
	28,0 (90)	6,3 (14.3)	6,3 (14.3)	6,3 (14.3)	6,2 (14.3)	28,0 (90)	5,9 (13.4)	6,0 (13.7)	6,0 (13.7)	5,9 (13.6)
	30,0 (100)	5,7 (12.3)	5,7 (12.3)	5,7 (12.3)	5,6 (12.2)	30,0 (100)	5,3 (11.6)	5,3 (11.6)	5,3 (11.6)	5,3 (11.4)
	34,0 (110)	4,6 (10.6)	4,7 (10.6)	4,7 (10.6)	4,7 (10.6)	34,0 (110)	4,4 (10.0)	4,4 (10.0)	4,4 (10.0)	4,2 (9.7)
	40,0 (130)					40,0 (130)	3,3 (7.5)	3,3 (7.5)	3,3 (7.5)	3,1 (7.0)
	44,0 (145)					44,0 (145)	2,3 (5.1)	2,7 (6.1)	2,7 (6.0)	2,5 (5.6)
	46,0 (150)					46,0 (150)	- (3.8)	- (5.5)	- (5.5)	2,2 (5.1)

model 222



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 B

### Luffing Jib No. 222 on Boom No. 260

28 710 kg (63,300 lb) Counterweight 6 350 kg (14,000 lb) Crawler Frame Counterweight

6,81 m (22' 4") Crawlers extended

360° Rating

kg (lb) x 1 000

### 70° Boom Angle

Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	35,1 (115)	41,2 (135)	Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	35,1 (115)	41,2 (135)
<b>Radius</b>						<b>Radius</b>					
<b>Luffing Jib Length 15,2 m (50 ft)</b>	18,0 (60)	20,0 (65)	24,0 (80)	26,0 (85)	28,0 (90)	<b>Luffing Jib Length 24,4 m (80 ft)</b>	18,0 (60)	20,0 (65)	24,0 (80)	26,0 (85)	28,0 (90)
	11,2 (24.2)	- (23.2)	9,7 (21.8)	9,3 (20.9)	8,9 (19.9)		7,3 (15.9)	7,0 (15.1)	- (14.2)		
				7,0 (15.1)	6,5 (14.2)						
				- (13.9)	5,9 (13.1)			6,6 (14.7)	6,2 (13.9)	5,8 (13.0)	
					- (12.1)			5,9 (13.5)	5,6 (12.8)	5,2 (12.0)	4,8 (11.1)
								5,3 (11.6)	5,1 (11.0)	4,7 (10.3)	4,4 (9.5)
									4,6 (10.3)	4,3 (9.6)	4,0 (8.9)
										- (8.9)	3,6 (8.2)
											3,3 (7.4)
											3,2 (7.4)
											3,6 (8.2)
											3,3 (7.4)
											2,9 (6.4)
											2,7 (6.0)

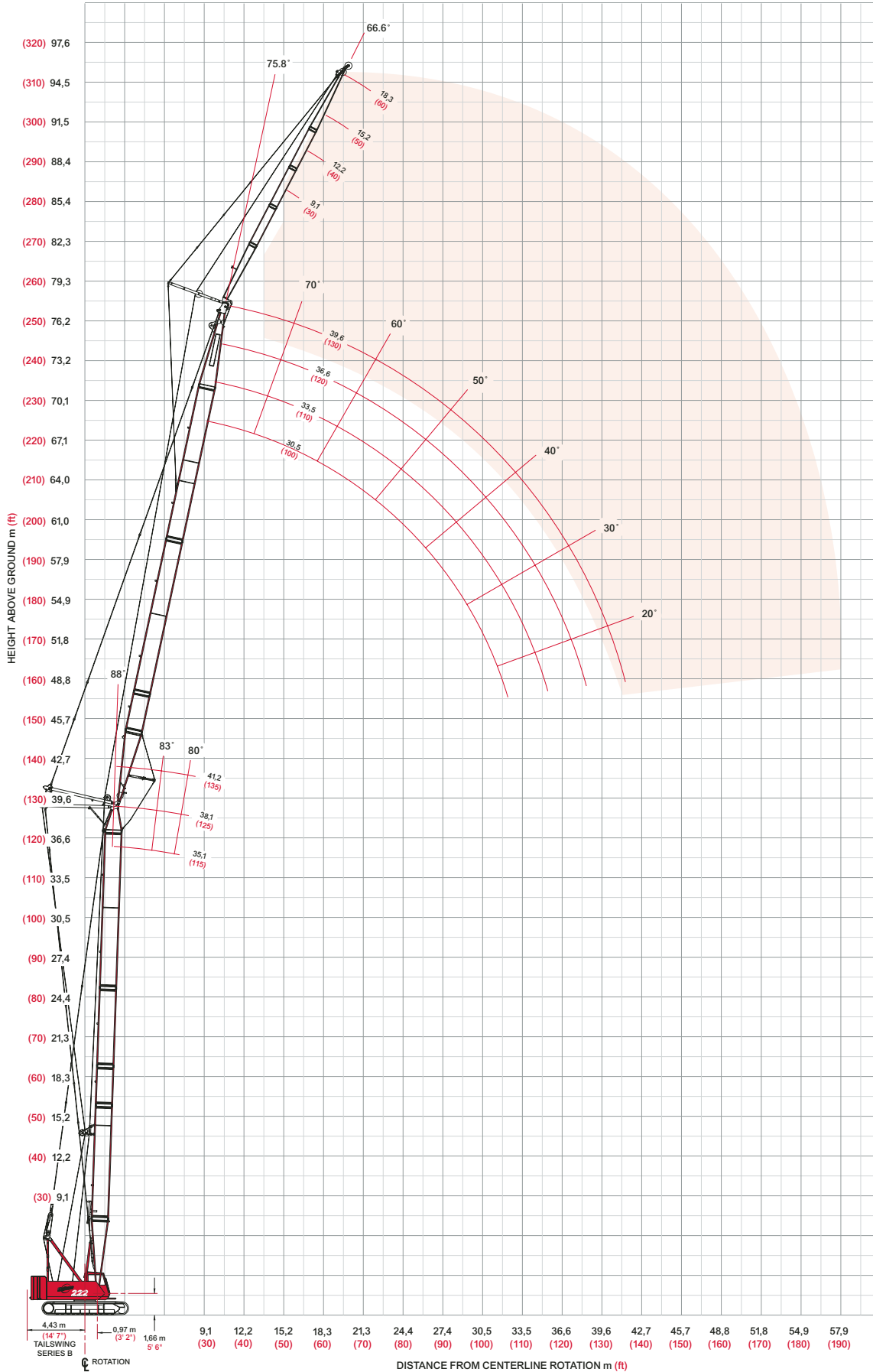
Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	35,1 (115)	38,1 (125)	Boom m (ft)	16,8 (55)	22,9 (75)	29,0 (95)	
<b>Radius</b>						<b>Radius</b>				
<b>Luffing Jib Length 120 ft)</b>	28,0 (90)	32,0 (105)	36,0 (120)	38,0 (125)	40,0 (130)	<b>Luffing Jib Length 150 ft)</b>	28,0 (90)	32,0 (105)	36,0 (120)	38,0 (125)
	5,5 (12.5)	4,4 (9.9)	4,1 (9.2)	3,8 (8.4)	3,6 (7.9)		4,0 (9.0)	4,0 (9.0)	3,8 (8.4)	3,8 (8.4)
				2,8 (6.0)	2,6 (5.6)			3,3 (7.1)	3,0 (6.5)	3,0 (6.5)
				3,3 (7.4)	3,0 (6.8)			3,0 (6.6)	2,7 (6.0)	2,7 (6.0)
				3,0 (6.9)	2,8 (6.4)			3,0 (6.6)	2,7 (6.0)	2,7 (6.0)
				2,8 (6.4)	2,5 (5.7)			2,7 (6.1)	2,4 (5.5)	2,4 (5.6)
				2,5 (5.5)	2,3 (5.0)			2,7 (6.1)	2,4 (5.5)	2,4 (5.6)
				2,7 (6.0)	2,5 (5.5)			2,4 (5.2)	2,2 (4.7)	2,2 (4.7)
				2,3 (5.1)	2,1 (4.6)			2,4 (5.2)	2,2 (4.7)	2,2 (4.7)
				2,1 (4.6)	1,8 (4.0)			2,1 (4.8)	1,9 (4.3)	2,0 (4.4)
				- (4.3)	1,6 (3.7)			2,1 (4.8)	1,9 (4.3)	2,0 (4.4)
					1,6 (3.7)			2,0 (4.5)	1,7 (4.0)	1,7 (4.0)
					1,5 (3.4)			2,0 (4.5)	1,7 (4.0)	1,7 (4.0)
					1,4 (3.1)			1,7 (4.1)	1,6 (3.7)	1,6 (3.7)
					- (3.1)			1,7 (4.1)	1,6 (3.7)	1,6 (3.7)
								1,6 (3.5)	1,4 (3.1)	1,4 (3.1)

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. 10 Fixed Jib on No. 222 Luffing Jib on No. 260 Main Boom

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model 222  
Manitowac



# fixed jib on luffing jib load charts

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## Liftcrane Fixed Jib on Luffing Capacities - Series B Fixed Jib No. 10 on Luffing Jib No. 222 on Boom No. 260

28 710 kg (63,300 lb) Counterweight 6 350 kg (14,000 lb) Crawler Frame Counterweight  
6,81 m (22' 4") Crawlers extended  
360° Rating

kg (lb) x 1 000  
88° Boom Angle

Fixed Jib Length 9,1 m (30 ft) 7° offset	Luffing Jib	30,5			33,5		36,6		39,6	
	m (ft)	(100)			(110)		(120)		(130)	
	Boom m (ft)	35,1 (115)	38,1 (125)	41,2 (135)	35,1 (115)	38,1 (125)	35,1 (115)	38,1 (125)	35,1 (115)	38,1 (125)
Radius										
14,0 (45)	9,0 (20.0)	9,0 (20.0)	8,5 (18.9)							
18,0 (60)	8,7 (19.2)	8,1 (17.9)	7,5 (16.5)	8,2 (18.1)	7,6 (16.8)	7,8 (17.1)	7,2 (15.8)	7,3 (16.0)	6,7 (14.8)	
28,0 (90)	4,8 (11.0)	4,8 (11.0)	4,8 (10.9)	4,9 (11.2)	4,9 (11.2)	5,0 (11.4)	4,9 (11.3)	5,1 (11.6)	4,9 (11.1)	
36,0 (120)	3,5 (7.6)	3,5 (7.6)	3,4 (7.5)	3,5 (7.7)	3,5 (7.7)	3,5 (7.7)	3,6 (7.8)	3,6 (7.8)	3,5 (7.7)	
46,0 (150)						2,6 (5.8)	2,4 (5.5)	2,4 (5.4)	2,3 (5.3)	
50,0 (165)								1,9 (4.3)	1,8 (4.1)	

Fixed Jib Length 18,3 m (60 ft) 7° offset	Luffing Jib	30,5			33,5		36,6		39,6	
	m (ft)	(100)			(110)		(120)		(130)	
	Boom m (ft)	35,1 (115)	38,1 (125)	41,2 (135)	35,1 (115)	38,1 (125)	35,1 (115)	38,1 (125)	35,1 (115)	38,1 (125)
Radius										
18,0 (60)	- (8.0)	- (8.0)	- (8.0)	- (8.0)	- (8.0)	- (8.0)				
28,0 (90)	3,6 (8.0)	3,6 (8.0)	3,6 (8.0)	3,6 (8.0)	3,6 (8.0)	3,6 (8.0)	3,6 (8.0)	3,6 (8.0)	3,6 (8.0)	
36,0 (120)	3,3 (7.2)	3,2 (7.0)	3,1 (6.7)	3,4 (7.4)	3,2 (7.0)	3,3 (7.3)	3,1 (6.9)	3,3 (7.2)	3,1 (6.8)	
46,0 (150)	2,1 (4.9)	2,1 (4.7)	2,0 (4.5)	2,2 (5.0)	2,1 (4.8)	2,2 (5.1)	2,1 (4.8)	2,2 (5.1)	2,1 (4.8)	
50,0 (165)	1,8 (4.1)	1,8 (4.0)	1,7 (3.8)	1,9 (4.2)	1,8 (4.0)	1,9 (4.3)	1,8 (4.0)	1,9 (4.3)	1,8 (4.0)	
56,0 (185)						1,5 (3.5)	1,5 (3.3)	1,5 (3.3)	1,4 (3.2)	
58,0 (190)								- 3.1		

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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##### **200 Hour – Part No. 499973-0**

Consists of the following:

- Engine Water Filter (Part No. 413360-0)
- Primary Fuel Filter (Part No. 413392-0)
- Secondary Fuel Filter (Part No. 413393-0)
- Engine Oil Filter (Part No. 413394-0)

- Primary Air Filter (Part No. 426721-0)
- Secondary Air Filter (Part No. 426726-0)

##### **1,000 Hour – Part No. 499974-0**

Consists of the entire 200 Hour Service Kit (Part No. 499973-0), plus the following:

- Hydraulic Filter in Tank (Part No. 426727-0)
- Filter, Breather (Part No. 910636-2)
- Hydraulic Filter - Spin on (Part No. 970150-2)

##### **2,000 Hour – Part No. 499975-0**

Consists of the entire 1,000 Hour Service Kit (Part No. 499974-0), plus the following:

- Compressor Belt (Part No. 227220-0)

#### Cummins M11 261 kw (350 BHP) Diesel

##### **200 Hour – Part No. 495061-0**

Consists of the following:

- Engine Water Filter (Part No. 413624-0)
- Fuel Filter (Part No. 413623-0)
- Engine Oil Filter (Part No. 413619-0)
- Air Filter (Part No. 413401-0)

##### **1,000 Hour – Part No. 495062-0**

Consists of the entire 200 Hour Service Kit (Part No. 495061-0), plus the following:

- Hydraulic Filter in Tank (Part No. 426727-0)
- Filter, Breather (Part No. 910636-2)
- Two each Hydraulic Filters - Spin on (Part No. 970150-2)

##### **2,000 Hour – Part No. 495063-0**

Consists of the entire 1,000 Hour Service Kit (Part No. 495062-0), plus the following:

- Alternator Belt (Part No. 413621-0)
- Fan Belt (Part No. 413622-0)

#### **Hydraulic Test Kit – Part No. 499791-6**

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

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

#### **Hydraulic Test Kit with case – Part No. 499792-9**

The above kit (Part No. 4299791-6) plus a custom heavy-duty carrying case.

#### **U.S. Standard Tools Kit – Part No. 22205-1**

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

## Field Service

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

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

## Technical Support

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

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

## Technical Documentation

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

A complete set of Operator's, Parts, Capacity, Vendor, and Service Technician's Manuals are shipped with each crane.

Additional copies available through your Authorized Manitowoc Distributor.

- **Crane Operator's Manual – Part No. 899721**
- **Crane Parts Manual – Part No. 899720**
- **Crane Capacity Manual – Part No. 899730**
- **Crane Vendor Manual – Part No. 899722**
- **Service Technician's Manual (EPIC) – Part No. 899732**

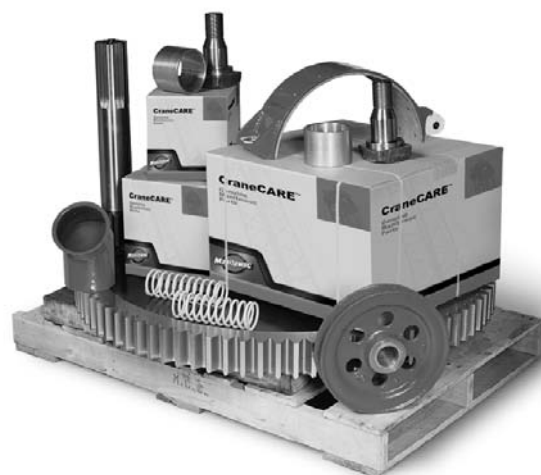
CD rom versions of the Operator's and Parts Manuals are shipped with each crane.

Also available are the following CDs:

- **222 Maintenance Operation Service Parts (MOPS) CD – Part No. 899800-0**
- **Ground Bearing Pressure Estimator CD – Part No. 899765-0**
- **Crane Selection and Planning Software (CompuCRANE®) CD – Part No. 899766-0**
- **Capacity Chart (all EPIC models) CD – Part No. 899801-0**

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

- **Model 222 Assembly Video – Part No. 899802-0**
- **Model 222 Operation Video – Part No. 899803-0**
- **Model 222 Lubrication Video – Part No. 899804-0**
- **Your Capacity Chart Video – Part No. 899737**
- **Respect the Limits Video – Part No. 899734**
- **Crane Safety Video – Part No. 899736**
- **Boom Inspection/Repair Video – Part No. 899738**





Backed by Manitowoc

## CraneCARE<sup>SM</sup>

CraneCARE is Manitowoc's comprehensive service and support program. It includes classroom and on-site training, prompt parts availability, expert field service, technical support and documentation — for every one of the more than 7,000 Manitowoc cranes currently in use throughout the world. That's commitment you won't find anywhere else. That's CraneCARE.



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