

# Maniowoc 21000

## Product Guide



### Features

- 907 t (1,000 USt) capacity with MAX-ER®
- 756 t (834 USt) capacity
- 5 381 m-ton (38,920 ft-kips) maximum load moment
- 109,7 m (360 ft) heavy-lift boom
- 121,9 m (400 ft) long-reach boom
- 195,1 m (640 ft) luffing jib on heavy-lift boom



# Features

## 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.

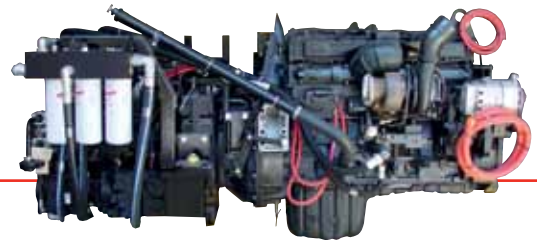


## FACT™ Connectors

Manitowoc's Fast Aligning Connection Technology (FACT) automatically aligns crane components for fast, easy assembly with increased safety.

## Hydraulics

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



## Octa-trac®

The 21000 uses Manitowoc's patented Octa-trac eight-crawler travel system. With Octa-trac, the left- and right-side crawlers each consist of two dual-crawler modules mounted at the ends of a connecting beam for improved transportation and ground bearing.



# Contents

|                                             |    |
|---------------------------------------------|----|
| Specifications                              | 5  |
| Outline dimensions                          | 10 |
| Transport data                              | 17 |
| Crane assembly                              | 18 |
| Performance data                            | 20 |
| Boom combinations                           | 23 |
| Main boom range diagram / load charts       | 25 |
| Long-reach boom range diagram / load charts | 27 |
| MAX-ER® outline dimensions                  | 29 |
| MAX-ER® performance data                    | 32 |
| MAX-ER® boom combinations                   | 34 |
| MAX-ER® range diagrams / load charts        | 36 |
| Manitowoc Crane Care                        | 42 |

# Notes



# Specifications

## Upperworks



### Engine

Cummins Model QSK19-C600 diesel, 6 cylinder, 450 kW (600 BHP) @ 2000 governed RPM.

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

Two 12 volt maintenance-free, Group 8D batteries, 1155 CCA at -18°C (0° F), 24 volt starting and 120 amp alternator.

One 927 l (245 gal) capacity diesel fuel tank, mounted in rear of upperworks, with level indicator in operator's cab.

Optional: Cold-weather package with heater for fluids, brake pedals, batteries, and computer display.



### 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 auxiliary lines.

Integrated Rated Capacity Limiter system (RCL) is standard for main boom. "Function cut-out" or "warning only" operation is selected via a keyed switch on the RCL console. Includes travel and swing alarms.

Optional: Upper boom point assembly with RCL.

Optional: Anemometer (wind indicator).



### Hydraulic system

Twelve high-pressure piston pumps, driven by a multi-pump transmission, provide independent closed-loop hydraulic power for the hoisting drums, mast hoist, boom hoist, swing, and crawlers.

A gear pump provides power for jacks, pin pullers, and other accessories.

Hydraulic reservoir has 719 l (190 gal) capacity and is equipped with breather, cleanout access, filters, and internal diffuser.

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

System includes oil cooler and replaceable spin-on and full flow filters. All oil is filtered twice: at the reservoir and before entering the hydraulic pumps.

| System                                           | Pumps | kg/cm <sup>2</sup> (psi) | lpm (gpm) |
|--------------------------------------------------|-------|--------------------------|-----------|
| Front hoist drum                                 |       |                          |           |
| Rear hoist drums*                                | 2     | 422 (6,000)              | 379 (100) |
| Boom hoist                                       | 2     | 422 (6,000)              | 303 (80)  |
| Swing                                            | 2     | 422 (6,000)              | 303 (80)  |
| Left crawlers<br>(also diverts for luffing drum) | 2     | 422 (6,000)              | 303 (80)  |
| Right crawlers<br>(also diverts for mast hoist)  | 2     | 422 (6,000)              | 303 (80)  |
| Accessory system                                 | 1     | 211 (3,000)              | 95 (25)   |
| Optional MAX-ER jacking                          | 1     | 211 (3,000)              | 246 (65)  |

\*Also powers optional boom-butt-mounted hoist drum.



### Drums

Basic crane is equipped with front and rear hoist drums, each 1 780 mm (65-1/2") wide, 660 mm (26") diameter, and grooved for 32 mm wire rope.

Front drum is mounted on front section of rotating bed. Rear drum is mounted on rear section. Each end of each drum is driven by a variable-displacement hydraulic motor and a planetary reduction gear box equipped with bi-directional brake.

Drum rotation indicator is standard for each drum.

Hoists include 32 mm wire rope.

Optional: Hydraulically powered auxiliary drum mounted in boom butt. Uses 1-1/8" wire rope with a line pull of 144 kN (32,300 lb).

Optional: Hydraulically powered auxiliary/luffing drum mounted on rear section of rotating bed. Same dimensions and specifications as main hoisting drums.

# Specifications



## Mast hoist

Dual-drum mast hoist mounted in rear section of rotating bed is powered by a variable-displacement hydraulic motor and a planetary reduction gear box with internal brake. Ratcheting pawl standard. Includes mast-hoist wire rope. Each drum equipped with lagging 508 mm (20") wide and 584 mm (23") diameter.



## Boom hoist

Independent boom hoist, mounted in mast butt, has grooved drum 1 397 mm (55") wide and 787 mm (31") diameter.

Drum is powered by two variable-displacement hydraulic motors coupled to integral brakes and planetary reduction gearboxes. Ratcheting pawl, rotation indicator, pressure roller, and wire rope for reeving 20-part boom hoist line are standard.



## Swing system

High strength fabricated steel alloy rotating bed is mounted on 3,40 m (11' 2") diameter triple-row roller bearing.

The rotating bed is composed of front and rear sections joined with FACT™ alignment, four power-actuated pins, and H-FACT® hydraulic quick coupler system. The front section is equipped with a hoist drum and the power plant. The rear section includes a second hoist drum, gantry, and mast hoist.

Independent swing is powered by two swing drives, each composed of a fixed-displacement hydraulic motor coupled to a planetary reduction gearbox with internal brake. 360° positive swing lock is standard.

Swing system maximum speed: 1.0 rpm.



## Boom support system

### Gantry

The 8,5 m (28') long retractable gantry provides the geometry to raise the stationary mast. Gantry top is connected to mast-hoist equalizer by 12-part reeving. Equalizer is connected to mast top by high-strength steel straps. The gantry's telescoping backhitch is equipped with power actuated locking pins.

### Mast

Stationary No. 81 lattice mast provides geometry to raise and support all boom lengths. 30,5 m (100') mast standard for basic crane; 42,7 m (140') mast required for MAX-ER® applications. Boom-hoist rope reeved from drum in mast butt through sheaves in mast top and boom-hoist equalizer forms 20-part boom-hoist rigging. High-strength steel straps connect equalizer to boom top.

Cushioned boom stop and automatic boom stop are standard.



## Counterweight

|                        |                 | kg     | lb      | kg      | lb      |
|------------------------|-----------------|--------|---------|---------|---------|
| 1<br>28<br>2<br>1<br>— | Upperworks      |        |         |         |         |
|                        | Tray            | 11 657 | 25,700  | 11 657  | 25,700  |
|                        | Box             | 8 165  | 18,000  | 228 620 | 504,000 |
|                        | Railing         | 34     | 75      | 68      | 150     |
|                        | Platform        | 272    | 600     | 272     | 600     |
|                        | Pins & Hardware | 103    | 250     | 103     | 250     |
| Upperworks TOTAL       |                 |        | 240 720 |         | 530,700 |
| 2<br>2                 | Upperworks      |        |         |         |         |
|                        | Inner Box       | 24 268 | 53,500  | 48 536  | 107,000 |
|                        | Outer Box       | 21 092 | 46,500  | 42,184  | 93,000  |
| Upperworks TOTAL       |                 |        | 90 720  |         | 200,000 |
| TOTAL                  |                 |        | 331 440 |         | 730,700 |



## Operator's cab

Fully enclosed and insulated steel module is mounted at left front corner of rotating bed on a pivoting frame that permits cab to be repositioned for transportation or tilted for increased upward visibility.

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, air circulating fan, and air conditioning are standard.

Optional: Nylon protective window covers.

## Attachments



## No. 80 Heavy-lift boom

The liftcrane is equipped with No. 80 heavy-lift boom. 30,5 m (100') minimum length consists of a 9,1 m (30') butt, 12,2 m (40') insert, 6,1 m (20') transition insert, and 3,0 m (10') top with fifteen 762 mm (30") diameter roller bearing sheaves for 544-metric-ton (600-ton) maximum capacity. Rating can be increased

# Specifications

to 756 metric-tons (831 tons) with optional boom point. Includes rope guides and boom angle indicator. Boom also includes 6,1 m (20') and 12,2 m (40') inserts to increase boom length to 109,7 m (360').

The No. 80 boom uses steel suspension straps and Manitowoc's exclusive FACT™ connection system consisting of two vertical pins, two horizontal connection pins, and alignment pads for each boom connection location.

Liftcrane attachment includes 32 mm rotation resistant wire rope for two load lines, each 1 676 m (5,500').

Luffing jib preparation is standard.

Includes 544-metric-ton (600-ton) load block with duplex hook.

Optional: Detachable upper boom point with one 762 mm (30") diameter tapered roller bearing steel sheave with rope guard.

Optional: Two stabilizers to permit 360° swing when crawlers are in narrow configuration. Each fabricated steel stabilizer includes hydraulic leveling jack and a support pad. One stabilizer is mounted to each crawler beam. Stabilizers are controlled individually from hydraulic controls mounted to the stabilizer frame.



## No. 80-81 Long-reach boom

Optional: No. 81 boom inserts and top. Used with components of No. 80 boom to form No. 80-81 long-reach boom. Minimum boom length, 54,9 m (180'); maximum length, 121,9 m (400'). Intermediate suspension required for No. 80-81 boom lengths of 103,6 m (340') or more.

No. 80-81 boom starts with components of No. 80 boom, finishes with components of No. 81 boom.

No. 81 components include: 6,1 m (20') and 12,2 m (40') straight inserts; 6,1 m (20') tapered insert (for transition from No. 80 to No. 81 boom); 6,1 m (20') straight transition insert for transition from pin-type FACT™ connectors on tapered insert to hook-type FACT™ connectors on No. 81 inserts; 9,1 m (30') No. 81 boom top; steel rigging straps; wire rope guide; and RCL hardware.



## No. 81 Luffing jib

Optional: 91,4 m (300') No. 81 luffing jib, for use on No. 80 boom, either with basic Model 21000 or with MAX-ER attachment.

No. 81 luffing jib uses inserts, top, and rigging components from No. 81 boom. Luffing jib butt is used only in luffing jib.

Luffing jib attachment includes 23,0 m (75' 5") No. 481 main strut with 11 sheaves, 24,6 m (80' 8") No. 481 jib strut with 11 sheaves, main-strut backstay straps, jib-support straps, 32 mm diameter wire rope for 22-part reeving between the struts, and RCL hardware.

Optional: Third drum on rear section of rotating bed is used for luffing.

Minimum length, 36,6 m (120'); maximum length, 91,4 m (300').

Luffing jib attachment includes dolly to support jib point during jackknife erection and lowering.

Uses same upper boom point as No. 80 or No. 80-81 boom.



## MAX-ER®

The MAX-ER® attachment boosts the 21000's maximum capacity to 907 metric tons (1,000 tons).

Its components include:

One 12,2 m (40') No. 81 insert, added to increase mast length to 42,7 m (140').

Two additional swing drives (for a total of four) mounted on the rotating module. Each swing drive is powered by a fixed-displacement hydraulic motor coupled to a planetary reduction gearbox and internal brake.

A wheeled or hanging MAX-ER counterweight assembly attached to the top of the mast by steel straps and to the rear of the upperworks by shear-frame inserts.

The hanging MAX-ER counterweight is 17,9 m (58' 9") or 22,1 m (72' 6") behind the crane's centerline of rotation, and the wheeled MAX-ER counterweight

# Specifications

is 18,0 m (59' 0") or 22,0 m (72' 0") behind the crane's centerline of rotation.

The wheeled counterweight uses large off-road tires, which can be positioned for traveling, crabbing, or swinging.

It also includes hydraulic support jacks and pads.

## Wheeled counterweight assembly

| Item                               | Qty. | Unit weight |        | Total weight   |                  |
|------------------------------------|------|-------------|--------|----------------|------------------|
|                                    |      | kg          | lb     | kg             | lb               |
| Base/wheel assembly                | 1    | 42 524      | 93,750 | 42 524         | 93,750           |
| Catwalk                            | 1    | 726         | 1,600  | 726            | 1,600            |
| Cylinder support<br>(Sub assembly) | 4    | 126         | 277    | 504            | 1,108            |
| Hydraulic cylinder                 | 2    | 1 950       | 4,300  | 3 900          | 8,600            |
| A-Frame                            | 2    | 3 495       | 7,705  | 6 990          | 15,410           |
| Counterweight                      |      |             |        |                |                  |
| Side box                           | 18   | 19 958      | 44,000 | 395 245        | 792,000          |
| Center box                         | 4    | 19 958      | 44,000 | 79 832         | 176,000          |
| Tray                               | 1    | 15 381      | 33,910 | 15 381         | 33,910           |
| Miscellaneous                      |      |             |        | 736            | 1,622            |
|                                    |      |             |        | <b>509 840</b> | <b>1,124,000</b> |

## Hanging counterweight assembly

| Item                               | Qty. | Unit weight |        | Total weight   |                  |
|------------------------------------|------|-------------|--------|----------------|------------------|
|                                    |      | kg          | lb     | kg             | lb               |
| Sub plate for counterweight tray   | 2    | 2 404       | 5,300  | 4 808          | 10,600           |
| Cylinder support<br>(Sub Assembly) | 4    | 126         | 277    | 504            | 1,108            |
| Hydraulic cylinder                 | 2    | 1 950       | 4,300  | 3 900          | 8,600            |
| A-Frame                            | 2    | 3 495       | 7,705  | 6 990          | 15,410           |
| Counterweight                      |      |             |        |                |                  |
| Side box                           | 20   | 19 958      | 44,000 | 399 160        | 880,000          |
| Center box                         | 4    | 19 958      | 44,000 | 79 832         | 176,000          |
| Tray                               | 1    | 15 381      | 33,910 | 15 381         | 33,910           |
| Miscellaneous                      |      |             |        | 755            | 1,672            |
|                                    |      |             |        | <b>511 330</b> | <b>1,127,300</b> |

A 544-mton (600-ton) load block with duplex hook.

Optional: 907-mton (1,000-ton) capacity duplex hook with roller thrust bearing and heavy-duty positive locking bar latches. Hook is used with the basic crane's 544-mton (600-ton) load block and the MAX-ER's standard 544-mton (600-ton) load block to provide 907-mton (1,000-ton) capacity.

Optional: Additional fifteen sheaves in No. 80 boom point. Required for 907-mton (1,000-ton) capacity.

## Lowerworks



### Carbody

Connects rotating bed and crawler assemblies. Fabricated steel rotating module is mounted to carbody module by 3,4 m (11' 2") diameter triple-row roller bearing.

Module is equipped with FACT connectors and powered pins.

For 9,1 m (30') "narrow" stance, crawler beams attach directly to carbody module.

For standard 14,5 m (47' 6") "wide" stance, two transverse carbody beams mount to the carbody module, and the crawler beams are then mounted to the transverse beams.



### Crawlers

The 21000 uses Manitowoc's patented Octa-trac® eight-crawler travel system.

With Octa-trac, the left- and right-side crawlers each consist of two dual-crawler modules mounted at the ends of a connecting beam. The overall assembly measures 14,0 m (46' 0") long.

Each of Octa-trac's four dual-crawler modules has two parallel treads, each 4,95 m (16' 3") long and 1,22 m

(4' 0") wide. Together, the two treads give each crawler module an overall width of 3,5 m (11' 6").

All eight treads are powered hydraulically, with the four right-side treads operating in unison, and the four left-side treads operating in unison.

Crawlers permit travel and counter-rotation with full rated load. Maximum travel speed, 1,1 kph (0.7 mph).

## Crane assembly equipment

Portable engine-powered hydraulic unit to engage and disengage hydraulic connecting pins in the lowerworks; extend and retract the crawler beam hydraulic jacks; and extend and retract the boom cylinders. Various lifting slings and shackles, and counterweight tray handling pendants.

## Optional equipment

Optional: Blocks and Hooks, each with 762 mm (30") roller-bearing sheaves for 32 mm wire rope, a roller-bearing swivel hook, a hook latch, and a swivel lock.

23-mton (25-ton) swivel hook and weight ball

907-mton (1,000-ton) duplex hook assembly with roller thrust bearing, and heavy-duty positive locking bar latches. Can be used with one 544-mton (600-ton) block for up to 544-mton (600-ton) rating, or with two 544-mton (600-ton) blocks for higher capacities.

Optional: Wire rope for various applications.

Optional: Equipment and testing for special code compliance.

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 dealer for available options.

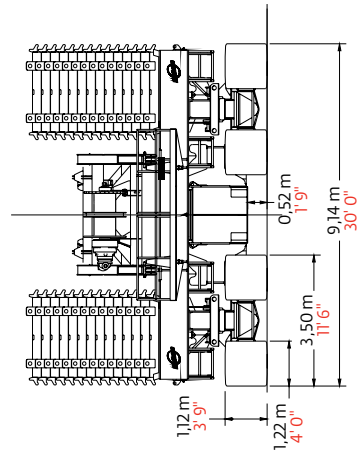
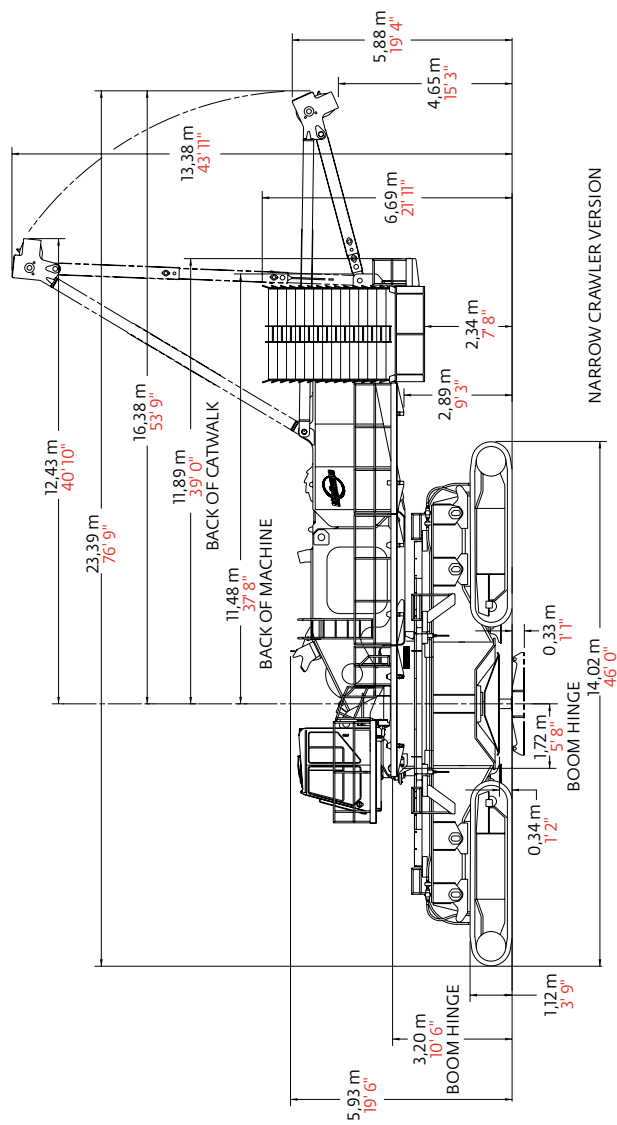
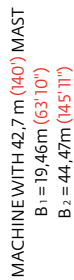
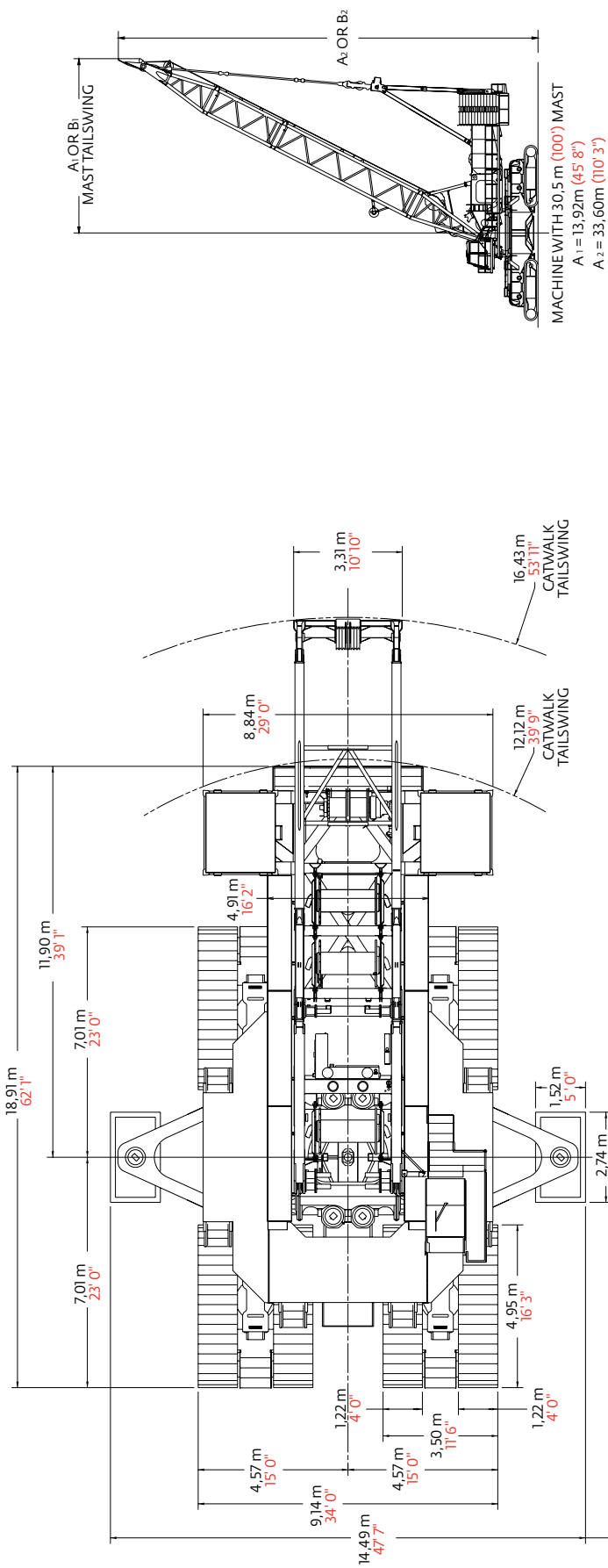
Optional: Special paint colors other than Manitowoc standard red and black.

Optional: Custom vinyl decals of customer name and/or logo from artwork supplied by customer.

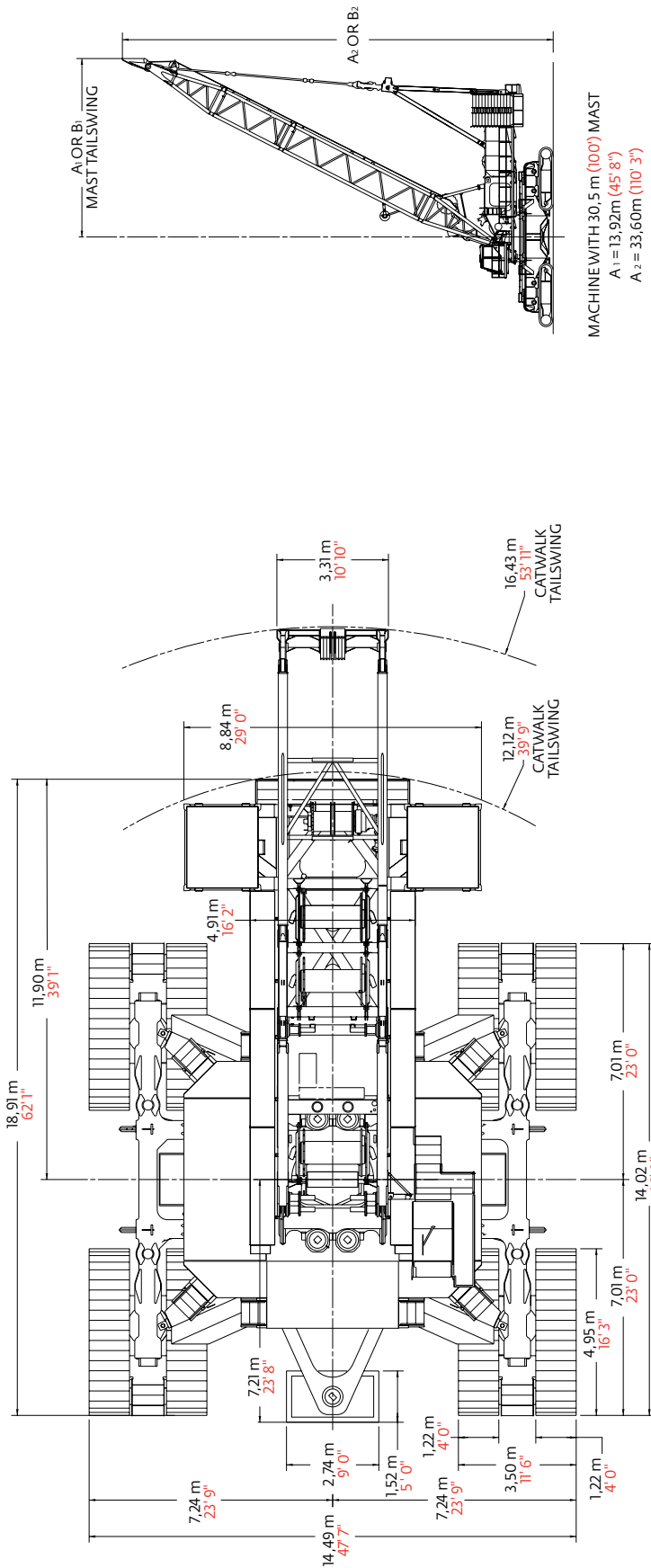
Optional: Export Packaging: basic crane, boom and jibsections. MAX-ER® export packaging available.



# Outline dimensions

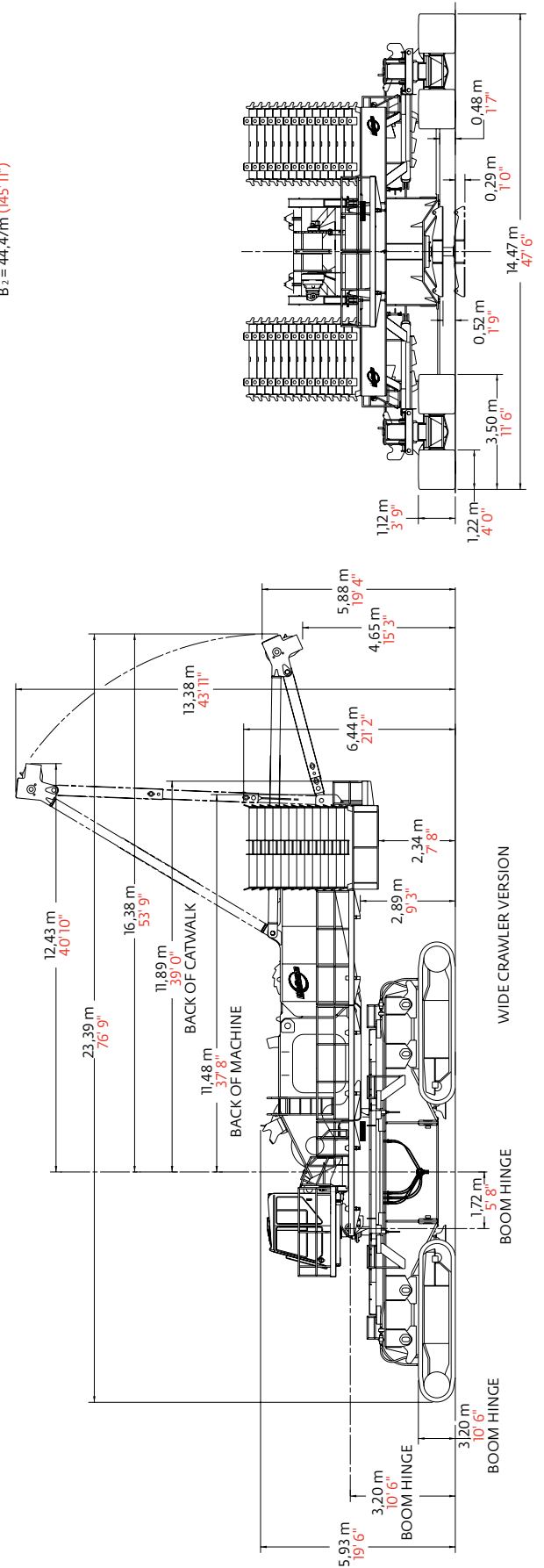


# Outline dimensions

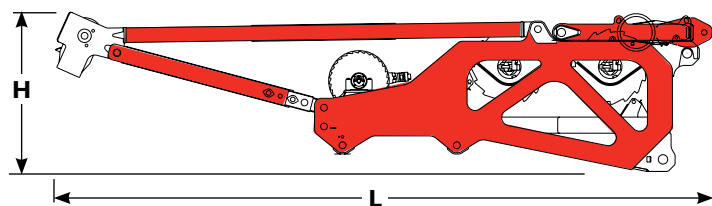


MACHINE WITH 30.5 m (100') MAST  
 A<sub>1</sub> = 13.92 m (45' 8")  
 A<sub>2</sub> = 33.60 m (110' 3")

MACHINE WITH 42.7 m (140') MAST  
 B<sub>1</sub> = 19.46 m (63' 10")  
 B<sub>2</sub> = 44.47 m (145' 11")



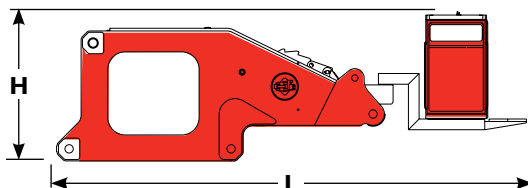
# Outline dimensions



## Rotating bed - rear section x 1

|        |           |           |
|--------|-----------|-----------|
| Length | 12,15 m   | 39' 11"   |
| Width  | 3,31 m    | 10' 11"   |
| Height | 2,84 m    | 9' 4"     |
| Weight | 36 139 kg | 79,675 lb |

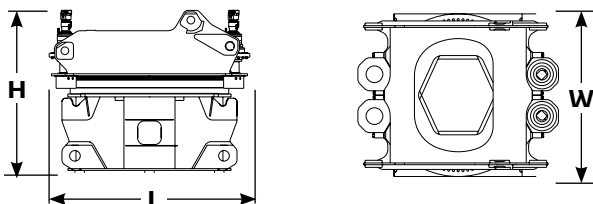
*Note: Weight includes rotating bed rear section, gantry, mast hoist with wire rope, equalizer, second hoist drum with wire rope and optional luffing/auxiliary third hoist drum with wire rope.*



## Rotating bed - front section and cab x 1

|        |           |           |
|--------|-----------|-----------|
| Length | 8,95 m    | 29' 5"    |
| Width  | 3,40 m    | 11' 2"    |
| Height | 2,51 m    | 8' 3"     |
| Weight | 42 984 kg | 94,765 lb |

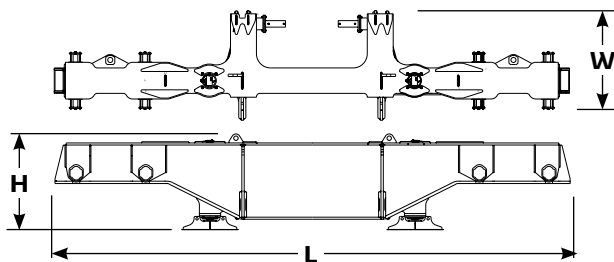
*Note: Weight includes rotating bed front section, first hoist drum with wire rope, diesel powerplant, operator's cab, full hydraulic fluid reservoir, and half tank of fuel.*



## Carbody with rotating module and two swing drives x 1

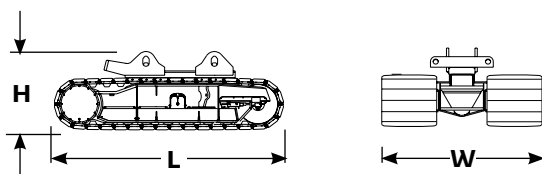
|        |           |           |
|--------|-----------|-----------|
| Length | 4,31 m    | 14' 2"    |
| Width  | 3,51 m    | 11' 6"    |
| Height | 4,11 m    | 13' 6"    |
| Weight | 42 456 kg | 93,600 lb |

*Note: Two additional swing drives required for MAX-ER. Total additional weight for both is 1 678 kg (3,700 lb).*



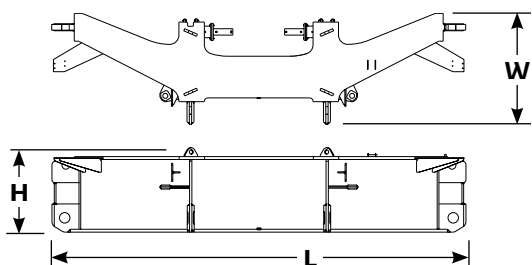
## Crawler beam x 2

|        |           |           |
|--------|-----------|-----------|
| Length | 11,12 m   | 36' 6"    |
| Width  | 2,35 m    | 7' 9"     |
| Height | 2,04 m    | 6' 9"     |
| Weight | 23 736 kg | 52,330 lb |



## Crawlers x 4

|        |           |           |
|--------|-----------|-----------|
| Length | 4,97 m    | 16' 4"    |
| Width  | 3,50 m    | 11' 6"    |
| Height | 1,71 m    | 5' 8"     |
| Weight | 32 622 kg | 71,920 lb |

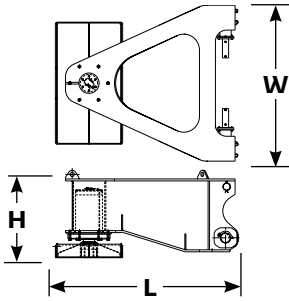


## Wide-stance carbody beam and struts x 2

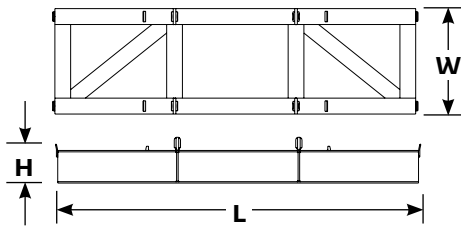
|        |           |           |
|--------|-----------|-----------|
| Length | 9,11 m    | 29' 11"   |
| Width  | 2,44 m    | 8' 0"     |
| Height | 1,86 m    | 6' 1"     |
| Weight | 22 897 kg | 50,480 lb |

► Option

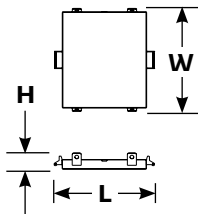
# Outline dimensions



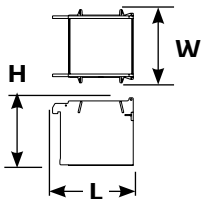
| Outriggers and jacks, pads |           | x 2       |
|----------------------------|-----------|-----------|
| Length                     | 4,15 m    | 13' 8"    |
| Width                      | 3,51 m    | 11' 6"    |
| Height                     | 1,97 m    | 6' 6"     |
| Weight                     | 12 305 kg | 27,130 lb |



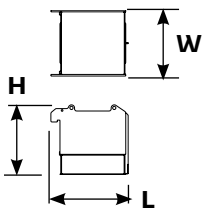
| Counterweight tray |           | x 1       |
|--------------------|-----------|-----------|
| Length             | 8,79 m    | 28' 10"   |
| Width              | 2,54 m    | 8' 4"     |
| Height             | 1,14 m    | 3' 9"     |
| Weight             | 11 657 kg | 25,700 lb |



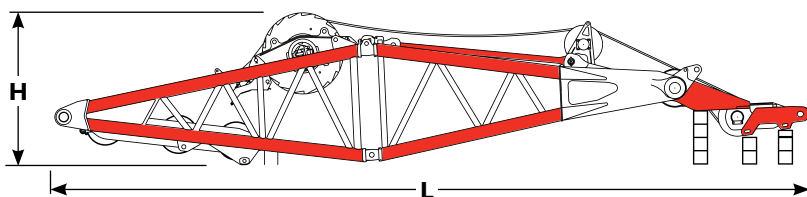
| Side counterweight |          | x 28      |
|--------------------|----------|-----------|
| Length             | 2,55 m   | 8' 5"     |
| Width              | 2,61 m   | 8' 7"     |
| Height             | 0,41 m   | 1' 4"     |
| Weight             | 8 164 kg | 18,000 lb |



| Carbody - inner counterweight |           | x 2       |
|-------------------------------|-----------|-----------|
| Length                        | 1,95 m    | 6' 5"     |
| Width                         | 1,77 m    | 5' 10"    |
| Height                        | 1,65 m    | 5' 5"     |
| Weight                        | 24 267 kg | 53,500 lb |



| Carbody - outer counterweight |           | x 2       |
|-------------------------------|-----------|-----------|
| Length                        | 1,84 m    | 6' 1"     |
| Width                         | 1,56 m    | 5' 2"     |
| Height                        | 1,66 m    | 5' 6"     |
| Weight                        | 21 092 kg | 46,500 lb |

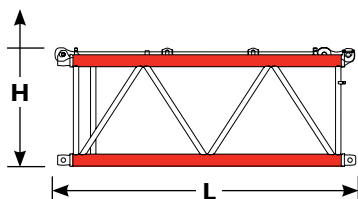


| No. 81 Mast top, butt, boom hoist drum, wire rope guides, supports and straps, No. 80 Boom equalizer |           | x 1       |
|------------------------------------------------------------------------------------------------------|-----------|-----------|
| Length                                                                                               | 15,01 m   | 49' 3"    |
| Width                                                                                                | 2,41 m    | 7' 11"    |
| Height                                                                                               | 3,06 m    | 10' 1"    |
| Weight                                                                                               | 36 786 kg | 81,100 lb |

Note: Includes standard amount of wire rope.

Option

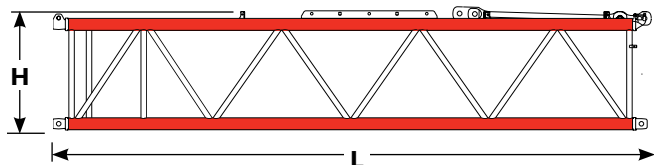
# Outline dimensions



**No. 81 6,1 m (20') Mast insert and straps**

x 1

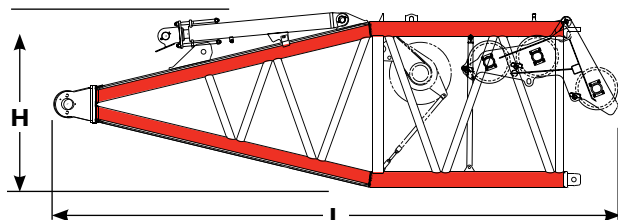
|        |          |          |
|--------|----------|----------|
| Length | 6,35 m   | 20' 10"  |
| Width  | 3,38 m   | 11' 1"   |
| Height | 2,50 m   | 8' 3"    |
| Weight | 3 771 kg | 8,315 lb |



**No. 81 12,2 m (40') Mast insert, mast equalizer and straps**

x 1

|        |          |           |
|--------|----------|-----------|
| Length | 12,45 m  | 40' 10"   |
| Width  | 3,38 m   | 11' 1"    |
| Height | 2,50 m   | 8' 3"     |
| Weight | 7 565 kg | 16,680 lb |

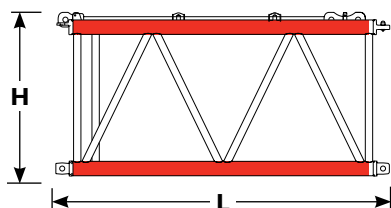


**No. 80 Boom butt, 9,1 m (30') Boom stop, wire rope guides**

x 1

|        |           |           |
|--------|-----------|-----------|
| Length | 10,19 m   | 33' 5"    |
| Width  | 3,96 m    | 13' 0"    |
| Height | 3,14 m    | 10' 4"    |
| Weight | 15 778 kg | 34,785 lb |

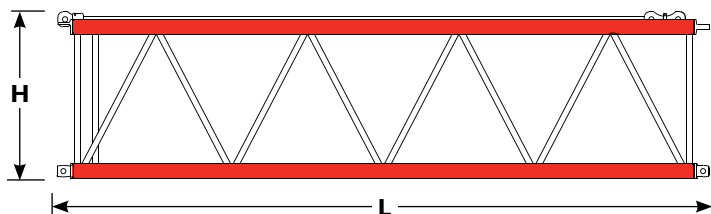
*Note: Optional auxiliary drum shown.*



**No. 80 6,1 m (20') Boom insert and straps**

x 1, 2

|        |          |           |
|--------|----------|-----------|
| Length | 6,34 m   | 20' 10"   |
| Width  | 3,96 m   | 13' 0"    |
| Height | 3,14 m   | 10' 4"    |
| Weight | 7 474 kg | 16,480 lb |

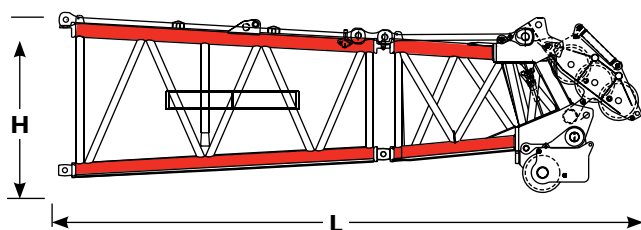


**No. 80 12,2 m (40') Boom insert and straps**

x 1, 2 3, 4, 5, 6

|        |           |           |
|--------|-----------|-----------|
| Length | 12,45 m   | 40' 10"   |
| Width  | 3,96 m    | 13' 0"    |
| Height | 3,14 m    | 10' 4"    |
| Weight | 11 341 kg | 25,005 lb |

*Note: For 12,2 m (40') insert with equalizer rail, add 719 kg (1,585 lb) and 178 mm (0' 7") in height.*



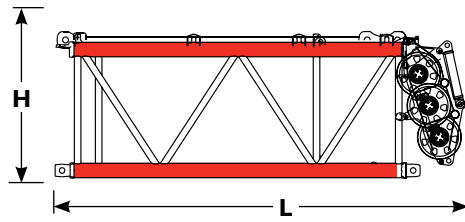
**No. 80 Tapered insert 6,1 m (20'), boom top 3,0 m (10'), wire rope guide and straps**

x 1

|        |           |           |
|--------|-----------|-----------|
| Length | 11,18 m   | 36' 8"    |
| Width  | 3,96 m    | 13' 0"    |
| Height | 3,14 m    | 10' 4"    |
| Weight | 25 945 kg | 57,200 lb |

 *Option*

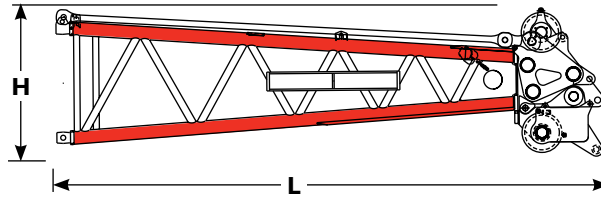
# Outline dimensions



## ▶ No. 81 Transition insert 6,1 m (20') wire rope guide and straps x 1

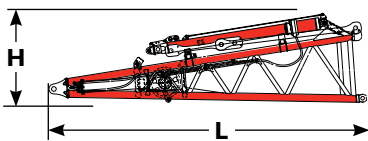
|        |          |           |
|--------|----------|-----------|
| Length | 7,11 m   | 23' 4"    |
| Width  | 3,96 m   | 13' 0"    |
| Height | 3,14 m   | 10' 4"    |
| Weight | 6 576 kg | 14,501 lb |

*Note: Shown with wire rope guides from No. 80 Boom top in stowed position.*



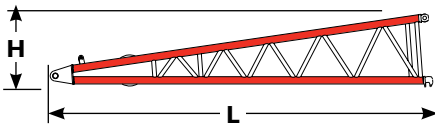
## ▶ No. 81 Boom top 9,1 m (30') wire rope guide and straps x 1

|        |          |           |
|--------|----------|-----------|
| Length | 10,46 m  | 34' 4"    |
| Width  | 3,38 m   | 11' 1"    |
| Height | 2,50 m   | 8' 3"     |
| Weight | 5 112 kg | 33,320 lb |



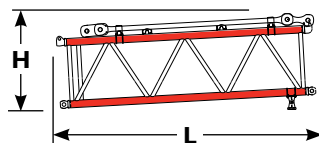
## ▶ No. 81 Luffing jib - main strut, butt, wire rope guides, stops and straps x 1

|        |          |           |
|--------|----------|-----------|
| Length | 7,75 m   | 25' 5"    |
| Width  | 3,42 m   | 11' 3"    |
| Height | 2,30 m   | 7' 7"     |
| Weight | 7 263 kg | 16,013 lb |



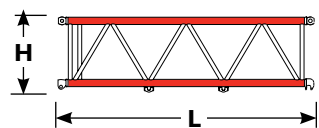
## ▶ No. 81 Luffing jib - jib strut, butt and wire rope guides x 1

|        |          |           |
|--------|----------|-----------|
| Length | 9,35 m   | 30' 9"    |
| Width  | 3,17 m   | 10' 5"    |
| Height | 1,77 m   | 5' 10"    |
| Weight | 4 707 kg | 10,376 lb |



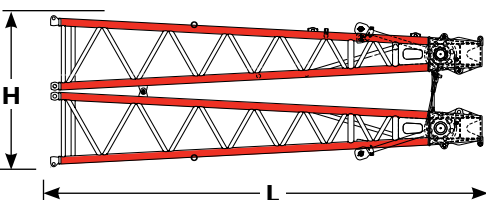
## ▶ No. 81 Luffing jib - 6,1 m (20') main strut insert and straps x 1

|        |          |          |
|--------|----------|----------|
| Length | 6,28 m   | 20' 8"   |
| Width  | 2,44 m   | 8' 0"    |
| Height | 3,14 m   | 10' 4"   |
| Weight | 3 208 kg | 7,704 lb |



## ▶ No. 81 Luffing jib - 6,1 m (20') jib strut insert x 1

|        |          |          |
|--------|----------|----------|
| Length | 6,28 m   | 20' 8"   |
| Width  | 2,44 m   | 8' 0"    |
| Height | 1,85 m   | 6' 1"    |
| Weight | 2 184 kg | 4,814 lb |



## ▶ No. 81 Luffing jib - main strut top and jib strut top x 1

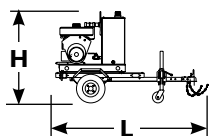
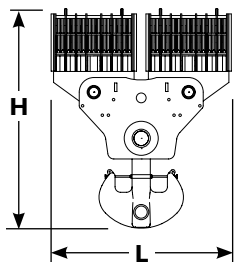
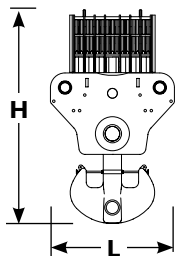
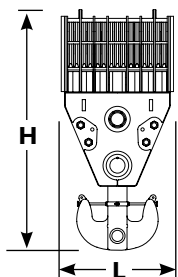
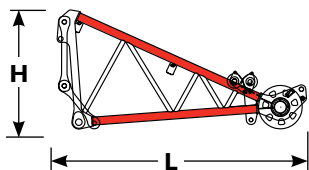
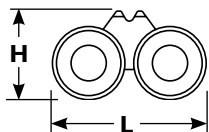
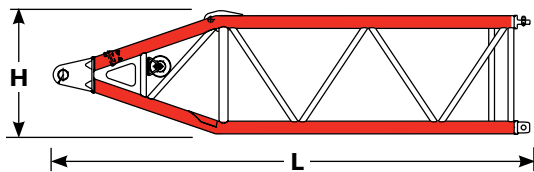
|        |          |           |
|--------|----------|-----------|
| Length | 10,24 m  | 33' 7"    |
| Width  | 2,44 m   | 8' 0"     |
| Height | 3,63 m   | 11' 11"   |
| Weight | 9 931 kg | 21,894 lb |

*Note: Shown in standard shipping configuration*

▶ Option



# Outline dimensions



## No. 81 Luffing jib butt 9,1 m (30') and wire rope guide x1

|        |          |           |
|--------|----------|-----------|
| Length | 9,40 m   | 30'10"    |
| Width  | 1,78 m   | 5'11"     |
| Height | 0,82 m   | 2'8"      |
| Weight | 7 699 kg | 16,975 lb |

## No. 81 Luffing jib dolly x1

|        |          |          |
|--------|----------|----------|
| Length | 2,88 m   | 9'6"     |
| Width  | 2,37 m   | 7'10"    |
| Height | 1,60 m   | 5'3"     |
| Weight | 3 057 kg | 6,740 lb |

## Upper boom point 4,6 m (15') wire rope guide and straps x1

|        |          |          |
|--------|----------|----------|
| Length | 4,26 m   | 14'0"    |
| Width  | 1,17 m   | 3'10"    |
| Height | 2,21 m   | 7'3"     |
| Weight | 1 360 kg | 3,000 lb |

*Note: Can be on No. 80 or No. 81 Boom.*

## 544-mton (600-ton) block with 544-mton (600-ton) hook x1

|        |           |           |
|--------|-----------|-----------|
| Length | 1,68 m    | 5'10"     |
| Width  | 1,26 m    | 4'2"      |
| Height | 2,51 m    | 12'7"     |
| Weight | 16 828 kg | 37,100 lb |

## 544-mton (600-ton) block with 907-mton (1,000-ton) hook x1

|        |           |           |
|--------|-----------|-----------|
| Length | 1,76 m    | 8'6"      |
| Width  | 1,26 m    | 3'9"      |
| Height | 3,04 m    | 14'8"     |
| Weight | 21 318 kg | 47,000 lb |

## 907-mton (1,000-ton) block with 907-mton (1,000-ton) hook x1

|        |           |           |
|--------|-----------|-----------|
| Length | 2,59 m    | 12'5"     |
| Width  | 1,15 m    | 3'10"     |
| Height | 3,13 m    | 15'0"     |
| Weight | 31 751 kg | 70,000 lb |

## Portable hydraulic power unit x1

|        |        |          |
|--------|--------|----------|
| Length | 1,95 m | 6'1"     |
| Width  | 1,4 m  | 4'5"     |
| Height | 1,3 m  | 4'2"     |
| Weight | 839 kg | 1,850 lb |

Option

# Transport data

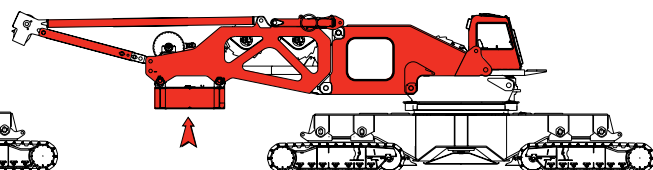
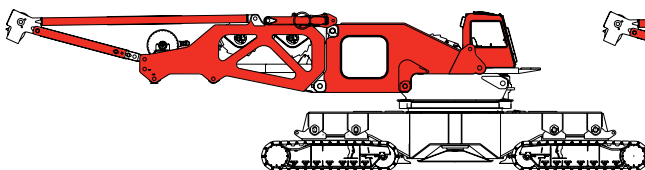
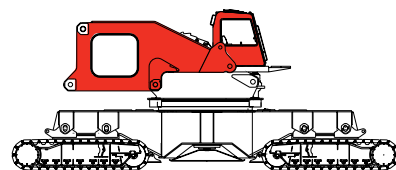
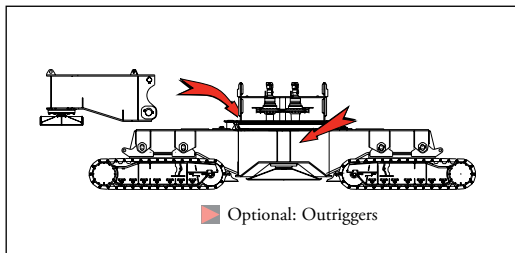
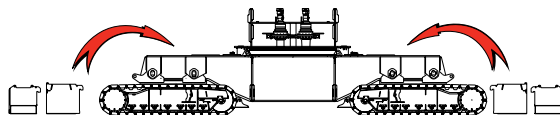
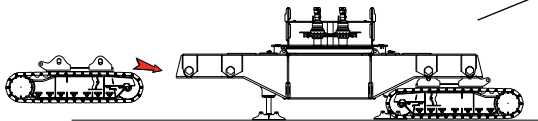
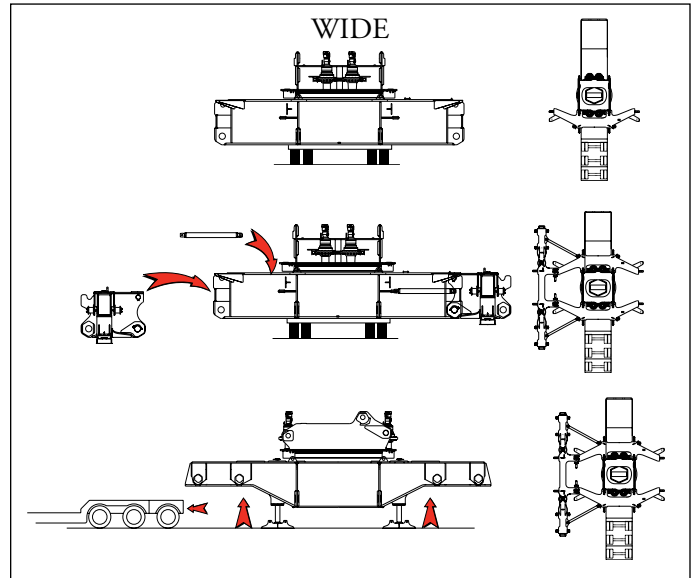
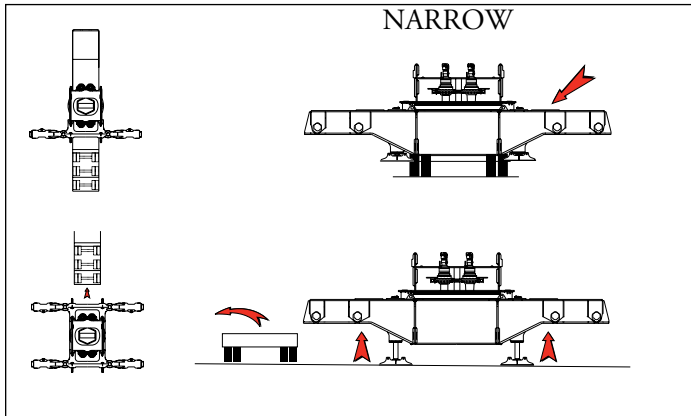
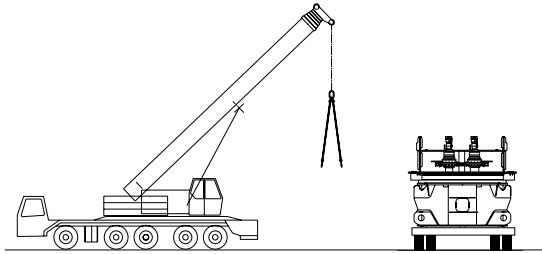
## Trailer load out summary

| Item                                                        | Model 21000 narrow configuration<br>No. 80 Boom 109,7 m (360') and No. 81 Mast 30,5 m (100') |                               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                                             | Weight<br>each item                                                                          | Quantity on<br>trailer load # |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
|                                                             | kg (lb)                                                                                      | 1                             | 2-3                | 4-7                | 8                  | 9                  | 10-11              | 12-13              | 14                 | 15                 | 16                 | 17                 | 18-26              | 27                 | 28-30              | 31                 | 32-35              | 36                 | 37                 | 38                 |
| Carbody, slewing adapter frame, swingers                    | 42 456<br>(93,600)                                                                           | 1                             |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Crawler beam                                                | 23 736<br>(52,330)                                                                           |                               | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Crawler assembly                                            | 32 622<br>(71,920)                                                                           |                               |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Rotating bed front and cab                                  | 42 984<br>(94,765)                                                                           |                               |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Rotating bed rear                                           | 36 139<br>(79,675)                                                                           |                               |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbody inner counterweight                                 | 24 267<br>(53,500)                                                                           |                               |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbody outer counterweight                                 | 21 092<br>(46,500)                                                                           |                               |                    |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Counterweight tray and catwalk                              | 11 657<br>(25,700)                                                                           |                               |                    |                    |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Side counterweight box                                      | 8 164<br>(18,000)                                                                            |                               |                    |                    |                    |                    |                    |                    |                    | 1                  | 1                  |                    |                    |                    | 1                  | 1                  | 1                  |                    |                    |                    |
| No. 81 Mast top and butt, equalizer, guides                 | 36 786<br>(81,100)                                                                           |                               |                    |                    |                    |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| 6,1 m (20') No. 81 Mast insert and straps                   | 3 771<br>(8,315)                                                                             |                               |                    |                    |                    |                    |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| 12,2 m (40') No. 81 Mast insert and straps                  | 7 565<br>(16,680)                                                                            |                               |                    |                    |                    |                    |                    |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |                    |                    |
| 9,1 m (30') No. 80 Boom butt, stop & guides                 | 15 778<br>(34,785)                                                                           |                               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |                    |                    |
| 6,1 m (20') No. 80 Boom insert and straps                   | 7 474<br>(16,480)                                                                            |                               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    | 1                  |                    |                    |                    |                    |
| 12,2 m (40') No. 80 Boom insert and straps                  | 11 341<br>(25,005)                                                                           |                               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    | 1                  |                    | 1                  |                    |                    |                    |
| 6,1 m (20') No. 80 Transition insert and 3,0 m (10') top    | 25 945<br>(57,200)                                                                           |                               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    | 1                  |                    |                    |
| 544-mton (600-ton) hook block                               | 16 828<br>(37,100)                                                                           |                               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    | 1                  |                    |
| Miscellaneous*                                              |                                                                                              |                               |                    |                    |                    |                    |                    |                    | 1                  |                    | 1                  | 1                  |                    |                    |                    | 1                  |                    |                    | 1                  | 1                  |
| Approximate total shipping weight each trailer load kg (lb) |                                                                                              | 42 456<br>(93,600)            | 23 736<br>(52,330) | 36 622<br>(71,920) | 42 984<br>(94,765) | 36 139<br>(79,675) | 24 267<br>(53,500) | 21 092<br>(46,500) | 11 657<br>(25,700) | 36 786<br>(81,100) | 11 935<br>(26,315) | 15 729<br>(34,680) | 16 328<br>(36,000) | 15 778<br>(34,785) | 19 505<br>(43,005) | 15 638<br>(34,480) | 19 505<br>(43,005) | 25 945<br>(57,200) | 16 828<br>(37,100) | 18 144<br>(40,000) |

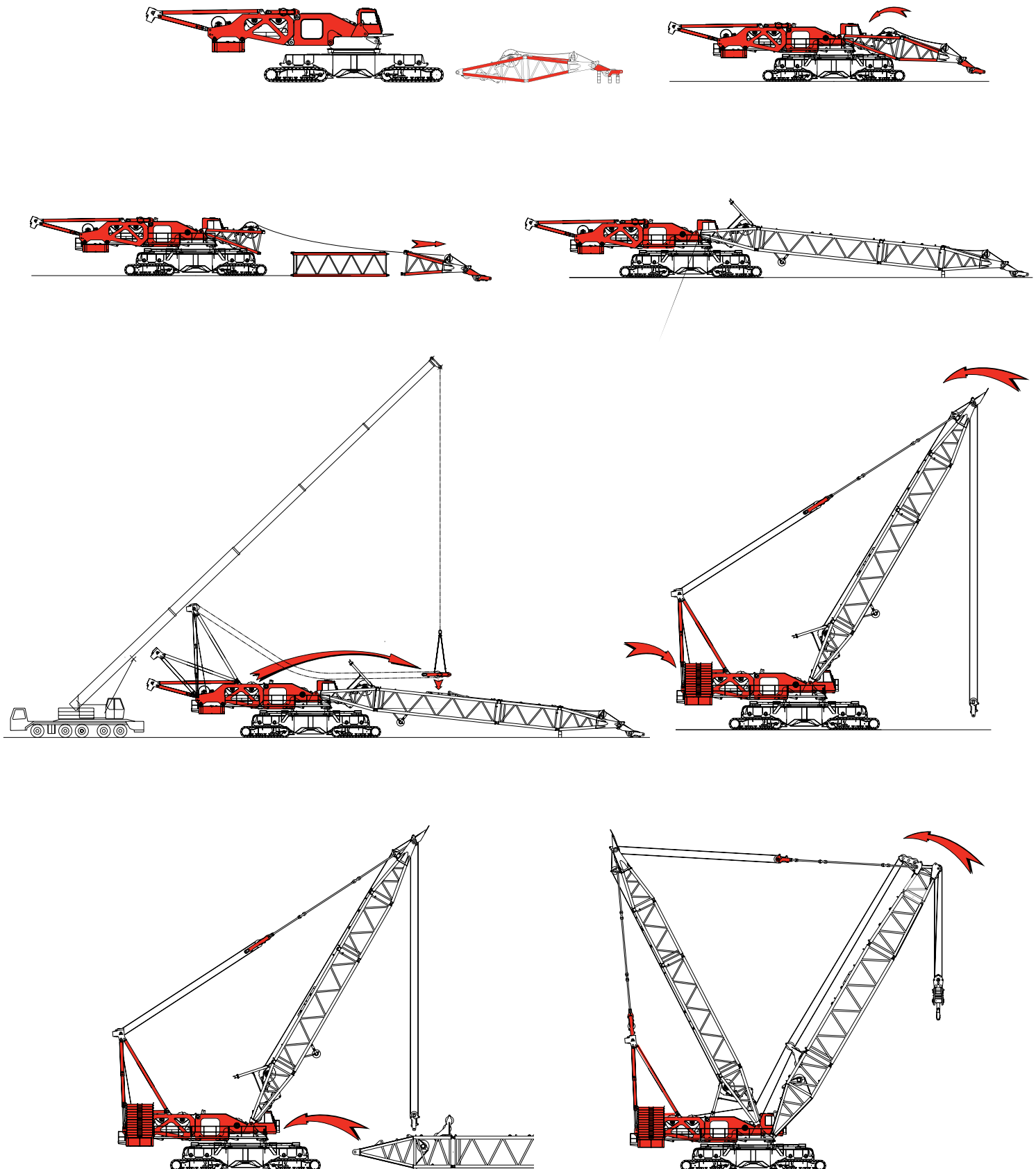
Trailer configurations - double drop (#1); single drop (#'s 8-9, 15, 17, 27-36); flat (#'s 2-7, 14, 16, 18-26, 37-38).

\*Miscellaneous weights vary and are not listed in trailer load totals

# Assembly



# Assembly



# Performance data

## Wire rope lengths

### Boom No. 80

#### Single drum - single boom point

| Boom<br>length | Whip line<br>drum 2 or 3 |       |                      |         | Hoist line<br>drum 1 |         | Maximum<br>required<br>parts of<br>line |
|----------------|--------------------------|-------|----------------------|---------|----------------------|---------|-----------------------------------------|
|                | (1 part of<br>line)      |       | (2 parts of<br>line) |         |                      |         |                                         |
|                | m                        | (ft)  | m                    | (ft)    | m                    | (ft)    |                                         |
| 30,5 (100)     | 88                       | (290) | 130                  | (425)   | 975                  | (3,200) | 28                                      |
| 36,6 (120)     | 101                      | (330) | 145                  | (475)   | 1158                 | (3,800) | 28                                      |
| 42,7 (140)     | 113                      | (370) | 160                  | (525)   | 1341                 | (4,400) | 28                                      |
| 48,8 (160)     | 125                      | (410) | 183                  | (600)   | 1494                 | (4,900) | 28                                      |
| 54,9 (180)     | 137                      | (450) | 198                  | (650)   | 1554                 | (5,100) | 26                                      |
| 61,0 (200)     | 149                      | (490) | 221                  | (725)   | 1585                 | (5,200) | 24                                      |
| 67,1 (220)     | 162                      | (530) | 236                  | (775)   | 1615                 | (5,300) | 22                                      |
| 73,2 (240)     | 174                      | (570) | 251                  | (825)   | 1615                 | (5,300) | 20                                      |
| 79,2 (260)     | 186                      | (610) | 274                  | (900)   | 1615                 | (5,300) | 18                                      |
| 85,3 (280)     | 198                      | (650) | 290                  | (950)   | 1676                 | (5,500) | 18                                      |
| 91,4 (300)     | 210                      | (690) | 312                  | (1,025) | 1676                 | (5,500) | 16                                      |
| 97,5 (320)     | 223                      | (730) | 328                  | (1,075) | 1676                 | (5,500) | 16                                      |
| 103,6 (340)    | 235                      | (770) | 343                  | (1,125) | 1676                 | (5,500) | 14                                      |
| 109,7 (360)    | 247                      | (810) | 366                  | (1,200) | 1676                 | (5,500) | 14                                      |

Note: Line lengths are based on single part lead line. 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.

## Wire rope lengths

### Boom No. 80

#### Tandem drums - tandem boom point

| Boom length<br>m (ft) | Whip line drum 3 |       |                   |       | Hoist line |         |        |         | Total parts<br>of line |
|-----------------------|------------------|-------|-------------------|-------|------------|---------|--------|---------|------------------------|
|                       | (1 part of line) |       | (2 parts of line) |       | Drum 1     |         | Drum 2 |         |                        |
|                       | m                | (ft)  | m                 | (ft)  | m          | (ft)    | m      | (ft)    |                        |
| 30,5 (100)            | 88               | (290) | 130               | (425) | 640        | (2,100) | 640    | (2,100) | 36                     |
| 36,6 (120)            | 101              | (330) | 145               | (475) | 701        | (2,300) | 701    | (2,300) | 32                     |
| 42,7 (140)            | 113              | (370) | 160               | (525) | 792        | (2,600) | 792    | (2,600) | 32                     |
| 48,8 (160)            | 125              | (410) | 183               | (600) | 792        | (2,600) | 792    | (2,600) | 28                     |

Note: Hoist line lengths are based on tandem drums both reeved to main load block. Each drum is dead ended in main load block reeving. Total parts of line requires using both drums 1 and 2.

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.

# Performance data

## Wire rope lengths Boom No. 80-81 Single drum

| Boom length<br>m (ft) | Whip line<br>drum 2 or 3 |       |                   |         | Hoist line<br>drum 1 |         | Maximum required parts of line |
|-----------------------|--------------------------|-------|-------------------|---------|----------------------|---------|--------------------------------|
|                       | (1 part of line)         |       | (2 parts of line) |         | m                    | (ft)    |                                |
| 54,9 (180)            | 137                      | (450) | 198               | (650)   | 1 676                | (5,500) | 28                             |
| 61,0 (200)            | 149                      | (490) | 221               | (725)   | 1 676                | (5,500) | 24                             |
| 67,1 (220)            | 162                      | (530) | 236               | (775)   | 1 676                | (5,500) | 22                             |
| 73,2 (240)            | 174                      | (570) | 251               | (825)   | 1 676                | (5,500) | 20                             |
| 79,2 (260)            | 186                      | (610) | 274               | (900)   | 1 676                | (5,500) | 18                             |
| 85,3 (280)            | 198                      | (650) | 290               | (950)   | 1 676                | (5,500) | 18                             |
| 91,4 (300)            | 210                      | (690) | 312               | (1,025) | 1 676                | (5,500) | 16                             |
| 97,5 (320)            | 223                      | (730) | 328               | (1,075) | 1 676                | (5,500) | 16+                            |
| 103,6 (340)           | 235                      | (770) | 343               | (1,125) | 1 676                | (5,500) | 14                             |
| 109,7 (360)           | 247                      | (810) | 366               | (1,200) | 1 676                | (5,500) | 14                             |
| 115,8 (380)           | 259                      | (770) | 381               | (1,125) | 1 676                | (5,500) | 12                             |
| 121,9 (400)           | 271                      | (810) | 404               | (1,200) | 1 676                | (5,500) | 12                             |

Note: Line lengths are based on single part lead line. 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.

## Drum capacities - wire rope

| Drum 1, 2, 3, 6<br>(Hoist or whip) | Maximum length        | Number of layers |
|------------------------------------|-----------------------|------------------|
| 32 mm wire rope*                   | 1 475 m<br>(4,840 ft) | 10               |

\*7 m (22') is deducted from maximum spooling capacities for 3 dead wraps per drum.

## Drum identification

| Drum number | Function                                        |
|-------------|-------------------------------------------------|
| 1           | Front load drum - standard                      |
| 2           | Rear load drum - standard                       |
| 3           | Auxiliary load drum or luffing hoist - optional |
| 4           | Boom hoist - standard                           |
| 5           | Mast hoist - standard                           |
| 6           | Auxiliary load drum - optional                  |

## Wire rope specifications

Boom No. 80

- or -

Boom No. 80-81

- or -

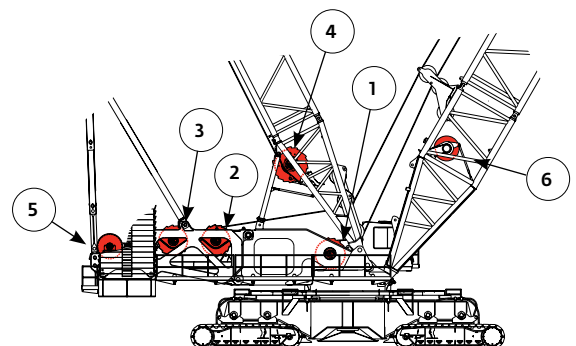
Luffing jib No. 81 on boom No. 80

|                             |                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------|
| Function                    | 5:1 safety factor<br>rotation resistant<br>regular right hand lay<br>2 160 N/mm <sup>2</sup> |
| Part number                 | No. 719413                                                                                   |
| Size wire rope              | 32 mm<br>—                                                                                   |
| Minimum breaking strength   | 110 680 kg<br>(244,000 lb)                                                                   |
| Maximum load                | 22 140 kg<br>(48,800 lb)                                                                     |
| Per line approximate weight | 4,81 kg/m<br>(3.23 lb/ft)                                                                    |

## Working weight

| Configuration                               | kg (lb)                |
|---------------------------------------------|------------------------|
| 30,5 m (100')<br>No. 80 Boom                | 814 683<br>(1,796,070) |
| 121,9 m (400')<br>No. 80-81 long-reach boom | 866 194<br>(1,909,630) |

Typical working weight includes: hydraulic reservoirs full, fuel half-full, drums loaded with standard lengths of wire rope, upper boom point, 544 mt (600 t) hook block, and 23,0 mt (25 t) weight ball.



# Performance data

## Drums 1 & 2 - 217 kN (48,800 lb)

| Line pull<br>kg (lb) | Single line pull/single line speed* |             |             |              |              |              |              |              |              |              |
|----------------------|-------------------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | m/min (ft/min)                      |             |             |              |              |              |              |              |              |              |
| Layer                | 1                                   | 2           | 3           | 4            | 5            | 6            | 7            | 8            | 9            | 10           |
| 0<br>(0)             | 91<br>(300)                         | 84<br>(274) | 99<br>(326) | 114<br>(376) | 107<br>(350) | 123<br>(402) | 130<br>(426) | 138<br>(452) | 146<br>(478) | 153<br>(503) |
| 22,2<br>(5,000)      | 89<br>(293)                         | 82<br>(269) | 97<br>(318) | 111<br>(366) | 104<br>(342) | 119<br>(389) | 126<br>(413) | 133<br>(437) | 141<br>(461) | 148<br>(485) |
| 44,5<br>(10,000)     | 88<br>(287)                         | 80<br>(264) | 94<br>(309) | 109<br>(355) | 101<br>(332) | 115<br>(378) | 122<br>(400) | 129<br>(431) | 135<br>(445) | 142<br>(466) |
| 66,7<br>(20,000)     | 83<br>(273)                         | 77<br>(252) | 89<br>(294) | 102<br>(334) | 96<br>(314)  | 108<br>(354) | 113<br>(373) | 129<br>(422) | 125<br>(410) | 130<br>(428) |
| 133,4<br>(30,000)    | 80<br>(261)                         | 73<br>(242) | 85<br>(279) | 92<br>(302)  | 90<br>(297)  | 93<br>(307)  | 95<br>(312)  | 120<br>(392) | 98<br>(322)  | 100<br>(327) |
| 178,0<br>(40,000)    | 70<br>(230)                         | 69<br>(226) | 71<br>(235) | 74<br>(245)  | 73<br>(240)  | 76<br>(249)  | 77<br>(254)  | 96<br>(317)  | 81<br>(265)  | 82<br>(269)  |
| 217<br>(48,800)      | 61<br>(199)                         | 59<br>(194) | 62<br>(204) | 65<br>(213)  | 64<br>(208)  | 67<br>(219)  | 69<br>(224)  | 79<br>(259)  | 71<br>(233)  | 72<br>(238)  |

NOTE: Line pull is infinitely variable.

\*Based on lagging diameter of 660 mm (26").

## Drum 3 - 217 kN (48,800 lb)

| Line pull<br>kg (lb) | Single line pull/single line speed* |             |              |              |              |              |              |              |              |              |
|----------------------|-------------------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | m/min (ft/min)                      |             |              |              |              |              |              |              |              |              |
| Layer                | 1                                   | 2           | 3            | 4            | 5            | 6            | 7            | 8            | 9            | 10           |
| 0<br>(0)             | 88<br>(288)                         | 96<br>(315) | 104<br>(342) | 112<br>(368) | 120<br>(395) | 129<br>(422) | 137<br>(448) | 145<br>(475) | 153<br>(502) | 161<br>(528) |
| 22,2<br>(5,000)      | 86<br>(281)                         | 93<br>(306) | 101<br>(331) | 109<br>(356) | 116<br>(381) | 124<br>(406) | 131<br>(430) | 138<br>(454) | 146<br>(479) | 153<br>(503) |
| 44,5<br>(10,000)     | 83<br>(273)                         | 91<br>(297) | 98<br>(320)  | 105<br>(344) | 112<br>(367) | 119<br>(389) | 126<br>(412) | 132<br>(434) | 139<br>(456) | 146<br>(478) |
| 66,7<br>(20,000)     | 79<br>(258)                         | 85<br>(279) | 91<br>(299)  | 97<br>(319)  | 103<br>(338) | 109<br>(357) | 111<br>(363) | 112<br>(366) | 113<br>(370) | 114<br>(373) |
| 133,4<br>(30,000)    | 73<br>(241)                         | 74<br>(244) | 75<br>(247)  | 77<br>(251)  | 77<br>(254)  | 78<br>(257)  | 79<br>(260)  | 80<br>(263)  | 81<br>(267)  | 82<br>(270)  |
| 178,0<br>(40,000)    | 58<br>(189)                         | 59<br>(193) | 60<br>(196)  | 61<br>(199)  | 62<br>(202)  | 62<br>(205)  | 64<br>(209)  | 65<br>(212)  | 66<br>(215)  | 66<br>(218)  |
| 217<br>(48,800)      | 49<br>(161)                         | 50<br>(165) | 51<br>(168)  | 52<br>(171)  | 53<br>(174)  | 54<br>(178)  | 55<br>(181)  | 56<br>(184)  | 57<br>(187)  | 58<br>(190)  |

NOTE: Line pull is infinitely variable.

\*Based on drum diameter of 660 mm (26").

## Drums and laggings - liftcrane

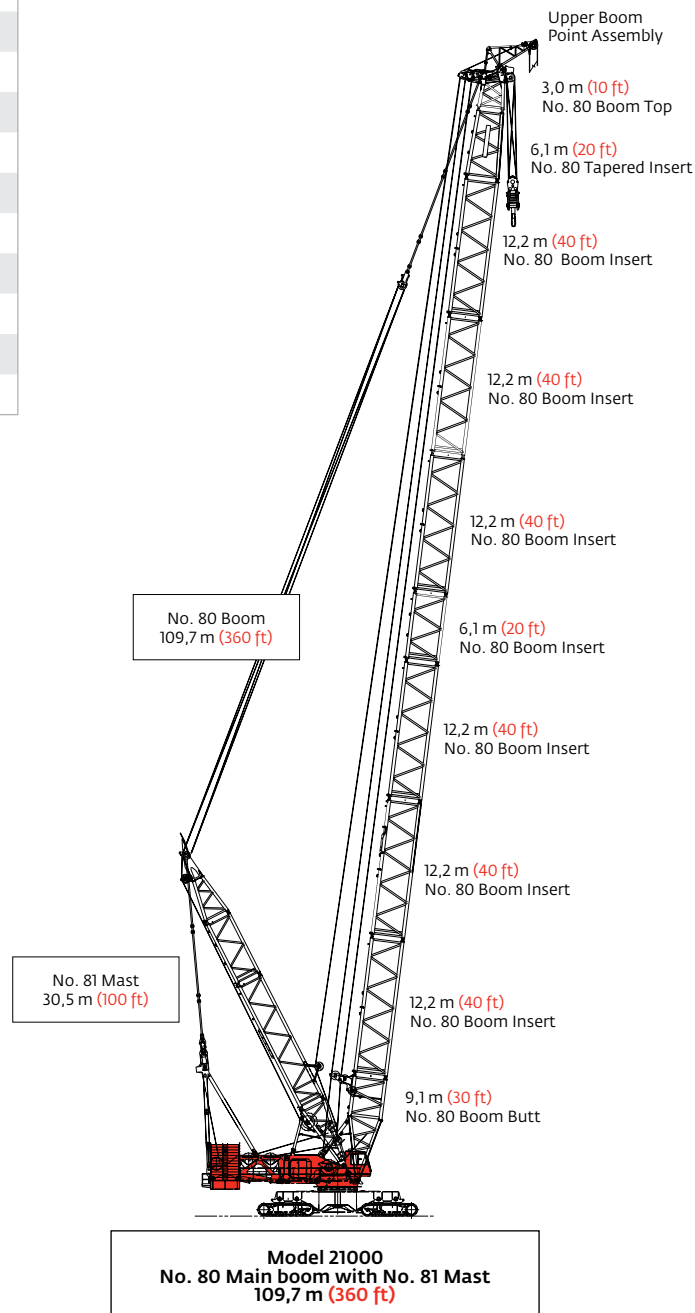
| Basic<br>liftcrane | Drums           |               |                  |           |                 |                       |                |
|--------------------|-----------------|---------------|------------------|-----------|-----------------|-----------------------|----------------|
|                    | Application     | Drums         |                  |           |                 |                       |                |
|                    |                 | Drum location | Drum part number | Drum type | Drum diameter   | Drum width            | Wire rope size |
|                    |                 | Drum 1        | 192244           | Grooved   | 660 mm<br>(26") | 1 664 mm<br>(65-1/2") | 32 mm<br>—     |
|                    |                 | Drum 2        | 192244           | Grooved   | 660 mm<br>(26") | 1 664 mm<br>(65-1/2") | 32 mm<br>—     |
|                    | Whip (optional) | Drum 3        | 192244           | Grooved   | 660 mm<br>(26") | 1 664 mm<br>(65-1/2") | 32 mm<br>—     |



# Boom combinations

| No. 80 Main boom combinations |                     |                     |                   |
|-------------------------------|---------------------|---------------------|-------------------|
| Boom length<br>m (ft)         | Luffing jib inserts |                     |                   |
|                               | 6,1 m<br>(20 ft)    | 12,2 m*<br>(40 ft)* | 12,2 m<br>(40 ft) |
| 30,5 (100)                    | —                   | —                   | —                 |
| 36,6 (120)                    | 1                   | —                   | —                 |
| 42,7 (140)                    | —                   | 1                   | —                 |
| 48,8 (160)                    | 1                   | 1                   | —                 |
| 54,9 (180)                    | —                   | 2                   | —                 |
| 61,0 (200)                    | 1                   | 2                   | —                 |
| 67,1 (220)                    | —                   | 2                   | 1                 |
| 73,2 (240)                    | 1                   | 2                   | 1                 |
| 79,2 (260)                    | —                   | 2                   | 2                 |
| 85,3 (280)                    | 1                   | 2                   | 2                 |
| 91,4 (300)                    | —                   | 2                   | 3                 |
| 97,5 (320)                    | 1                   | 2                   | 3                 |
| 103,6 (340)                   | —                   | 2                   | 4                 |
| 109,7 (360)                   | 1                   | 2                   | 4                 |

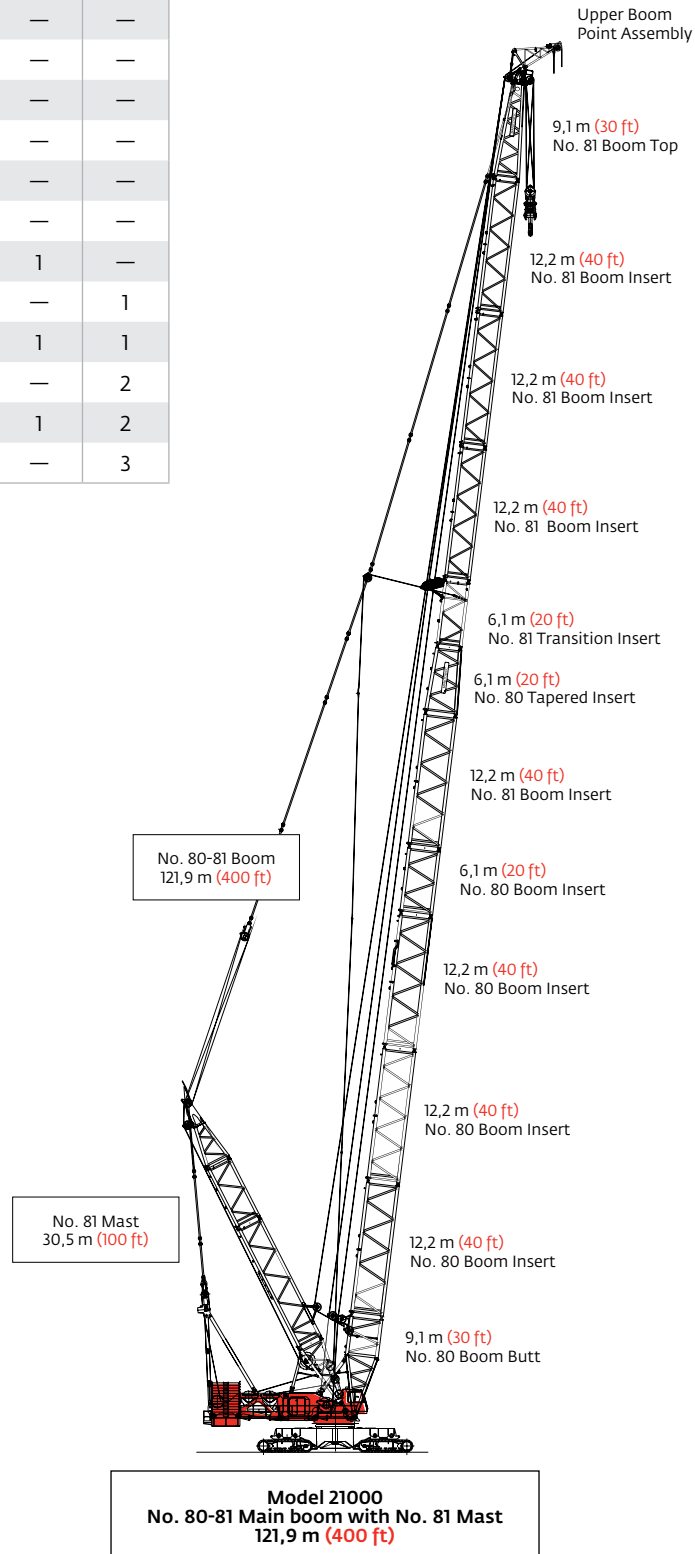
\*Inserts do not require boom support strap.



# Boom combinations

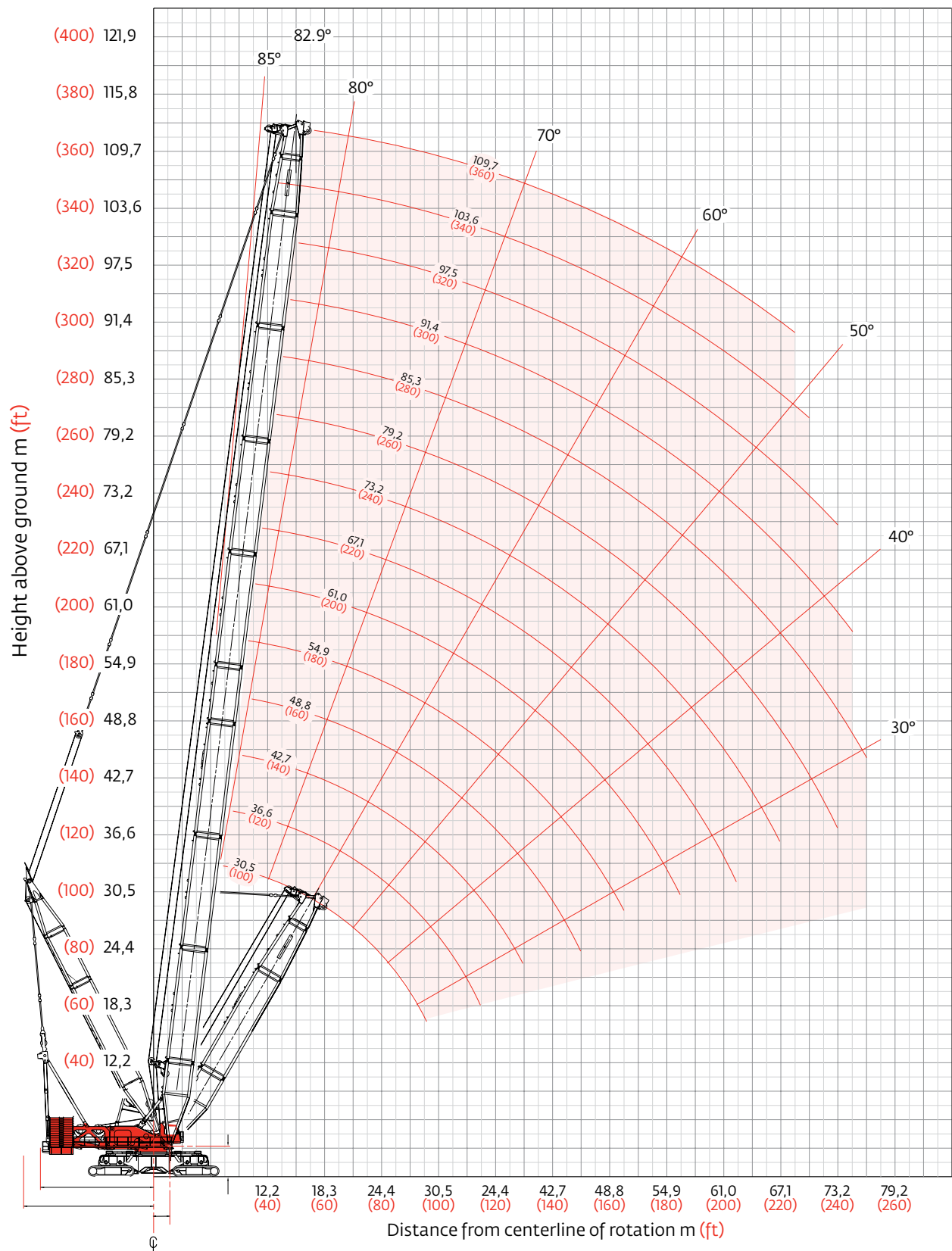
| No. 80-81 Main boom combinations |                  |                     |                   |                  |                   |
|----------------------------------|------------------|---------------------|-------------------|------------------|-------------------|
| Boom length<br>m (ft)            | No. 80 Inserts   |                     |                   | No. 81 Inserts   |                   |
|                                  | 6,1 m<br>(20 ft) | 12,2 m*<br>(40 ft)* | 12,2 m<br>(40 ft) | 6,1 m<br>(20 ft) | 12,2 m<br>(40 ft) |
| 54,9 (180)                       | —                | —                   | —                 | —                | —                 |
| 61,0 (200)                       | 1                | —                   | —                 | —                | —                 |
| 67,1 (220)                       | —                | 1                   | —                 | —                | —                 |
| 73,2 (240)                       | 1                | 1                   | —                 | —                | —                 |
| 79,2 (260)                       | —                | 1                   | 1                 | —                | —                 |
| 85,3 (280)                       | 1                | 1                   | 1                 | —                | —                 |
| 91,4 (300)                       | 1                | 1                   | 1                 | 1                | —                 |
| 97,5 (320)                       | 1                | 1                   | 1                 | —                | 1                 |
| 103,6 (340)                      | 1                | 1                   | 1                 | 1                | 1                 |
| 109,7 (360)                      | 1                | 1                   | 1                 | —                | 2                 |
| 115,8 (380)                      | 1                | 1                   | 1                 | 1                | 2                 |
| 121,9 (400)                      | 1                | 1                   | 1                 | —                | 3                 |

\*Inserts do not require boom support strap.



# Heavy-lift boom range diagram

No. 80 Heavy-lift boom



# Heavy-lift boom load charts

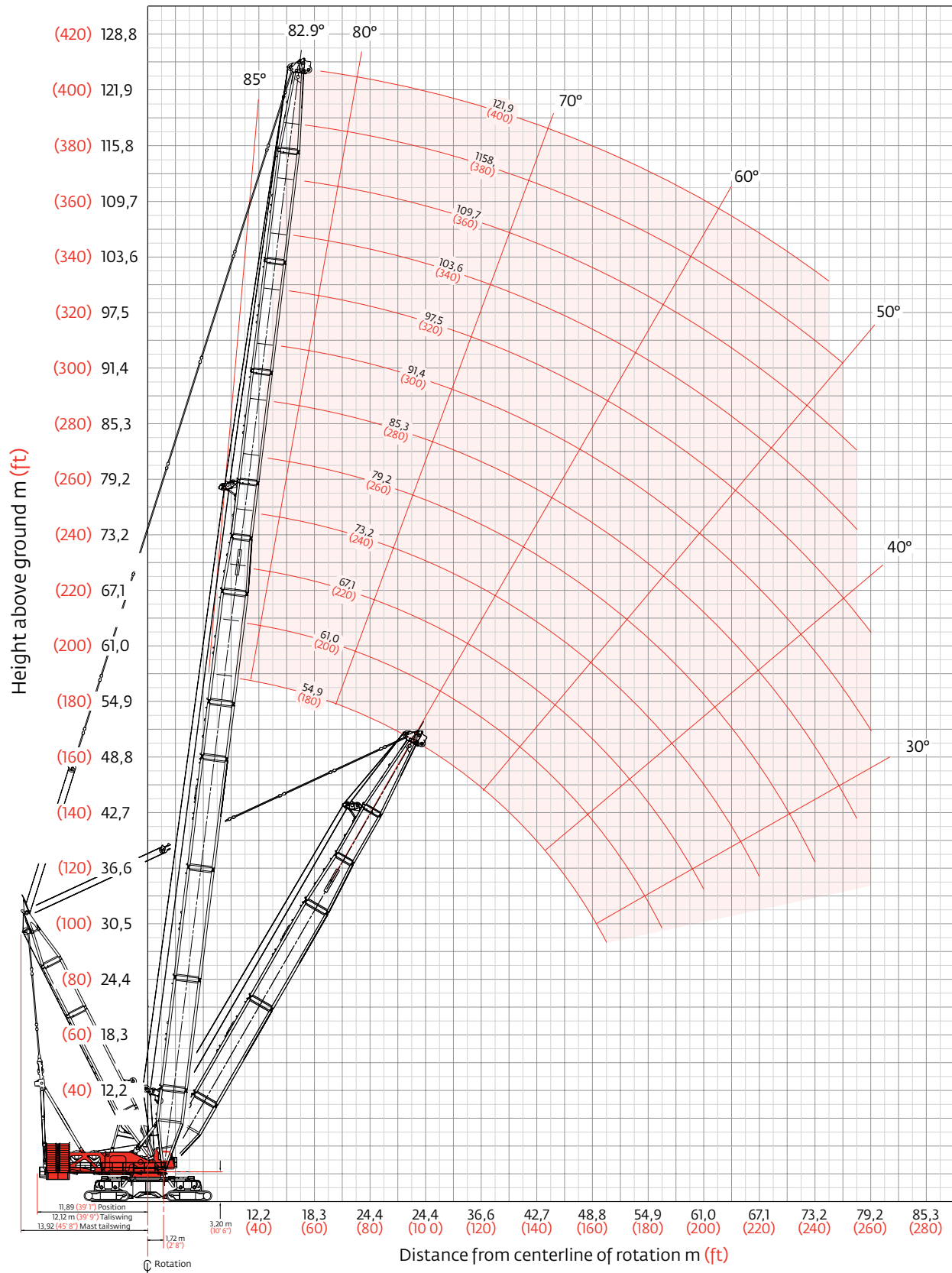
| Liftcrane boom capacities           |                                                                                                           |                   |                   |                   |                  |                  |                                              |                  |                  |                  |                  |                  |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------|-------------------|-------------------|------------------|------------------|----------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Boom No. 80 with 30,5 m (100') Mast |                                                                                                           |                   |                   |                   |                  |                  |                                              |                  |                  |                  |                  |                  |
| Boom<br>m (ft)<br>Radius            | 240 720 kg (530,700 lb) Crane counterweight                                                               |                   |                   |                   |                  |                  | 90 720 kg (200,000 lb) carbody counterweight |                  |                  |                  |                  |                  |
|                                     | 360° Rating for wide crawler arrangement or narrow crawler arrangement with outriggers<br>kg (lb) x 1 000 |                   |                   |                   |                  |                  |                                              |                  |                  |                  |                  |                  |
|                                     | 30,5<br>(100)                                                                                             | 36,6<br>(120)     | 42,7<br>(140)     | 48,8<br>(160)     | 54,9<br>(180)    | 61,0<br>(200)    | 73,2<br>(240)                                | 85,3<br>(280)    | 91,4<br>(300)    | 97,5<br>(320)    | 103,6<br>(340)   | 109,7<br>(360)   |
| 7,0<br>(23)                         | 756,6<br>(1668.2)                                                                                         |                   |                   |                   |                  |                  |                                              |                  |                  |                  |                  |                  |
| 8,0<br>(26)                         | 667,4<br>(1485.0)                                                                                         | 665,0<br>(1478.8) |                   |                   |                  |                  |                                              |                  |                  |                  |                  |                  |
| 9,0<br>(30)                         | 595,8<br>(1293.6)                                                                                         | 593,0<br>(1287.6) | 591,8<br>(1283.8) | —<br>(1277.5)     |                  |                  |                                              |                  |                  |                  |                  |                  |
| 10,0<br>(34)                        | 537,5<br>(1144.1)                                                                                         | 534,8<br>(1138.3) | 533,1<br>(1134.7) | 530,3<br>(1128.6) | —<br>(1130.8)    |                  |                                              |                  |                  |                  |                  |                  |
| 12,0<br>(40)                        | 448,3<br>(972.7)                                                                                          | 445,7<br>(967.2)  | 444,2<br>(963.7)  | 441,5<br>(957.8)  | 442,5<br>(960.2) | 440,5<br>(955.7) | —<br>(948.2)                                 |                  |                  |                  |                  |                  |
| 16,0<br>(50)                        | 333,6<br>(774.1)                                                                                          | 331,2<br>(768.8)  | 329,8<br>(765.6)  | 327,2<br>(759.9)  | 328,4<br>(762.5) | 326,3<br>(757.9) | 322,9<br>(750.3)                             | 319,1<br>(742.1) | 317,7<br>(737.1) | 316,1<br>(733.5) |                  |                  |
| 18,0<br>(60)                        | 292,9<br>(633.8)                                                                                          | 290,9<br>(629.4)  | 289,5<br>(626.5)  | 287,2<br>(621.5)  | 288,5<br>(624.5) | 286,5<br>(620.3) | 283,3<br>(613.5)                             | 279,9<br>(606.1) | 277,8<br>(601.6) | 276,3<br>(598.4) | 274,5<br>(593.7) | 272,8<br>(589.9) |
| 22,0<br>(70)                        | 231,6<br>(529.6)                                                                                          | 229,7<br>(525.3)  | 228,4<br>(522.5)  | 226,3<br>(517.7)  | 227,6<br>(520.7) | 225,7<br>(516.4) | 222,5<br>(509.4)                             | 219,0<br>(501.8) | 216,9<br>(497.2) | 215,4<br>(493.9) | 213,3<br>(489.2) | 211,7<br>(485.7) |
| 24,0<br>(80)                        | 208,9<br>(452.1)                                                                                          | 207,0<br>(447.9)  | 205,8<br>(445.2)  | 203,6<br>(440.5)  | 205,0<br>(443.6) | 203,0<br>(439.2) | 199,8<br>(432.1)                             | 196,4<br>(424.4) | 194,2<br>(419.6) | 192,7<br>(416.3) | 190,5<br>(411.5) | 188,9<br>(408.0) |
| 26,0<br>(90)                        | 189,8<br>(392.0)                                                                                          | 187,9<br>(388.1)  | 186,7<br>(385.5)  | 184,6<br>(380.8)  | 186,1<br>(384.1) | 184,0<br>(379.6) | 180,8<br>(372.4)                             | 177,3<br>(364.6) | 175,1<br>(359.7) | 173,5<br>(356.4) | 171,4<br>(351.6) | 169,8<br>(348.0) |
| 30,0<br>(100)                       |                                                                                                           | 157,5<br>(340.4)  | 156,3<br>(337.9)  | 154,2<br>(333.3)  | 155,7<br>(336.7) | 153,7<br>(332.1) | 150,4<br>(324.8)                             | 146,8<br>(317.0) | 144,6<br>(312.1) | 143,1<br>(308.7) | 140,9<br>(303.8) | 139,2<br>(300.2) |
| 34,0<br>(110)                       |                                                                                                           | 134,2<br>(301.4)  | 133,2<br>(299.1)  | 131,1<br>(294.6)  | 132,7<br>(298.0) | 130,6<br>(293.4) | 127,3<br>(286.1)                             | 123,7<br>(278.2) | 121,5<br>(273.3) | 119,9<br>(269.9) | 117,7<br>(265.0) | 116,0<br>(261.3) |
| 36,0<br>(120)                       |                                                                                                           |                   | 123,5<br>(266.7)  | 121,5<br>(262.4)  | 123,1<br>(265.9) | 121,0<br>(261.3) | 117,7<br>(253.9)                             | 114,0<br>(245.9) | 111,7<br>(240.4) | 110,0<br>(236.4) | 107,6<br>(230.5) | 105,6<br>(226.1) |
| 40,0<br>(130)                       |                                                                                                           |                   | —<br>(236.1)      | 103,7<br>(232.2)  | 106,5<br>(238.2) | 104,0<br>(232.9) | 100,3<br>(224.7)                             | 96,0<br>(215.3)  | 93,3<br>(209.4)  | 91,5<br>(205.3)  | 88,7<br>(199.2)  | 86,7<br>(194.8)  |
| 44,0<br>(150)                       |                                                                                                           |                   |                   | 88,6<br>(182.8)   | 91,4<br>(189.3)  | 89,1<br>(184.0)  | 85,3<br>(175.6)                              | 80,9<br>(166.1)  | 78,2<br>(160.1)  | 76,3<br>(155.9)  | 73,6<br>(149.7)  | 71,5<br>(145.2)  |
| 48,0<br>(160)                       |                                                                                                           |                   |                   |                   | 78,9<br>(169.4)  | 76,6<br>(164.2)  | 72,8<br>(155.8)                              | 68,5<br>(146.3)  | 65,7<br>(140.1)  | 63,8<br>(136.0)  | 61,0<br>(129.8)  | 58,9<br>(125.3)  |
| 52,0<br>(170)                       |                                                                                                           |                   |                   |                   |                  | 66,0<br>(146.7)  | 62,3<br>(138.4)                              | 57,9<br>(128.8)  | 55,1<br>(122.6)  | 53,3<br>(118.5)  | 50,4<br>(112.2)  | 48,4<br>(107.7)  |
| 54,0<br>(180)                       |                                                                                                           |                   |                   |                   |                  | 61,3<br>(131.0)  | 57,6<br>(122.9)                              | 53,2<br>(113.3)  | 50,5<br>(107.1)  | 48,6<br>(102.9)  | 45,7<br>(96.7)   | 43,7<br>(92.1)   |
| 60,0<br>(200)                       |                                                                                                           |                   |                   |                   |                  |                  | 45,4<br>(96.4)                               | 41,1<br>(86.9)   | 38,3<br>(80.7)   | 36,4<br>(76.6)   | 33,5<br>(70.3)   | 31,5<br>(65.7)   |
| 64,0<br>(210)                       |                                                                                                           |                   |                   |                   |                  |                  | 38,5<br>(85.0)                               | 34,3<br>(75.6)   | 31,4<br>(69.4)   | 29,6<br>(65.3)   | 26,7<br>(59.0)   | 24,6<br>(54.4)   |
| 66,0<br>(220)                       |                                                                                                           |                   |                   |                   |                  |                  | 35,4<br>(74.5)                               | 31,2<br>(65.3)   | 28,4<br>(59.2)   | 26,5<br>(55.0)   | 23,6<br>(48.7)   | 21,6<br>(44.2)   |
| 70,0<br>(230)                       |                                                                                                           |                   |                   |                   |                  |                  |                                              | 25,4<br>(55.9)   | 22,7<br>(49.8)   | 20,8<br>(45.7)   | 17,9<br>(39.3)   |                  |
| 74,0<br>(240)                       |                                                                                                           |                   |                   |                   |                  |                  |                                              | 20,3<br>(47.2)   | 17,6<br>(41.1)   | —<br>(37.0)      |                  |                  |
| 76,0<br>(250)                       |                                                                                                           |                   |                   |                   |                  |                  |                                              | 17,9<br>(39.1)   |                  |                  |                  |                  |

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.

# Long-reach top range diagram

No. 80-81 Long-reach boom

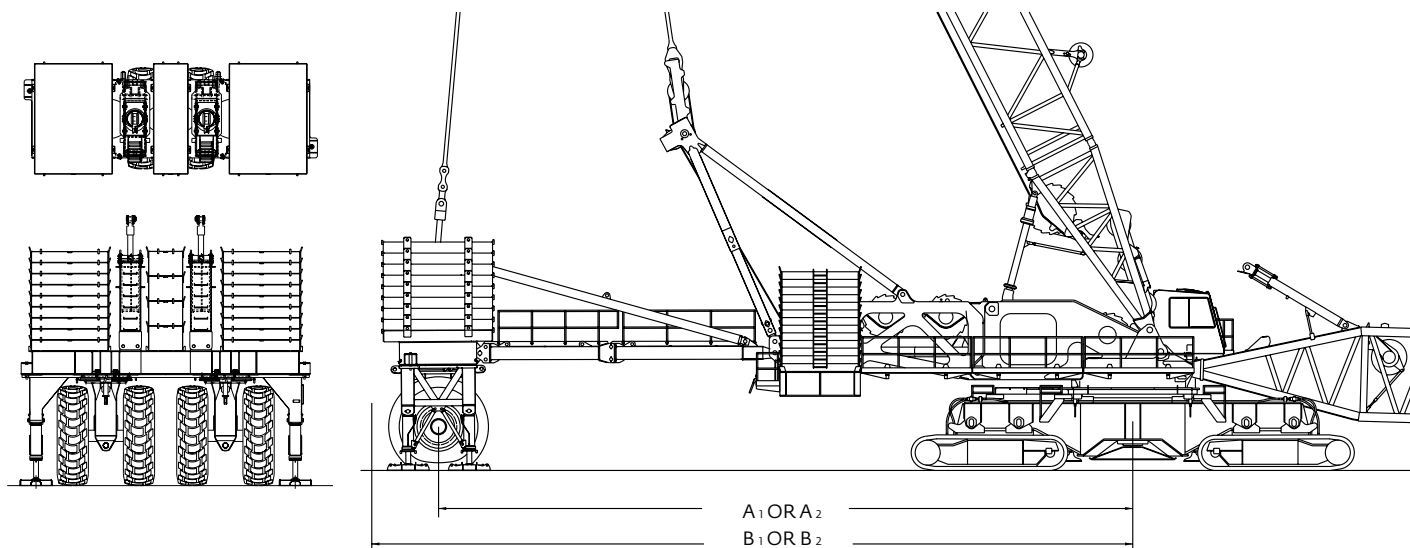


# Long-reach top load chart

| Liftcrane boom capacities<br>Boom No. 80-81 with 30,5 m (100') mast |                                                                                                                                                                                                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Boom<br>m (ft)<br>Radius                                            | 240 720 kg (530,700 lb) Crane Counterweight 90 720 kg (200,000 lb) Carbody Counterweight<br>360° Rating for wide crawler arrangement or narrow crawler arrangement with outriggers<br>kg (lb) x1 000 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|                                                                     | 54,9<br>(180)                                                                                                                                                                                        | 61,0<br>(200)    | 67,1<br>(220)    | 73,2<br>(240)    | 79,2<br>(260)    | 85,3<br>(280)    | 91,4<br>(300)    | 97,5<br>(320)    | 103,6<br>(340)   | 109,7<br>(360)   | 115,8<br>(380)   | 121,9<br>(400)   |
| 9,8<br>(32)                                                         | 544,3<br>(1200.0)                                                                                                                                                                                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| 12,0<br>(40)                                                        | 446,4<br>(968.8)                                                                                                                                                                                     | 443,5<br>(962.2) | 443,0<br>(957.7) | —<br>(948.4)     |                  |                  |                  |                  |                  |                  |                  |                  |
| 14,0<br>(45)                                                        | 381,6<br>(859.5)                                                                                                                                                                                     | 378,8<br>(853.2) | 376,7<br>(848.7) | 374,6<br>(843.7) | 373,6<br>(840.3) | 371,3<br>(835.2) |                  |                  |                  |                  |                  |                  |
| 16,0<br>(50)                                                        | 332,3<br>(771.1)                                                                                                                                                                                     | 329,5<br>(764.9) | 327,5<br>(760.5) | 325,2<br>(755.4) | 323,7<br>(752.0) | 321,4<br>(746.9) | 321,2<br>(744.5) | 320,7<br>(743.6) |                  |                  |                  |                  |
| 18,0<br>(60)                                                        | 292,4<br>(633.2)                                                                                                                                                                                     | 289,9<br>(627.7) | 288,0<br>(623.5) | 285,8<br>(619.0) | 284,4<br>(615.9) | 282,3<br>(611.3) | 281,3<br>(609.3) | 281,0<br>(608.8) | 280,1<br>(606.1) | 279,6<br>(604.9) | —<br>(585.6)     | —<br>(504.8)     |
| 22,0<br>(70)                                                        | 231,6<br>(529.4)                                                                                                                                                                                     | 229,1<br>(524.0) | 227,3<br>(519.9) | 225,1<br>(515.2) | 223,7<br>(512.1) | 221,6<br>(507.4) | 220,6<br>(505.3) | 220,3<br>(504.7) | 219,1<br>(501.9) | 218,6<br>(500.9) | 217,5<br>(498.4) | 210,1<br>(467.6) |
| 24,0<br>(80)                                                        | 209,0<br>(452.2)                                                                                                                                                                                     | 206,5<br>(446.9) | 204,7<br>(442.9) | 202,5<br>(438.1) | 201,1<br>(435.0) | 199,0<br>(430.2) | 198,0<br>(428.1) | 197,7<br>(427.4) | 196,4<br>(424.5) | 195,9<br>(423.5) | 194,8<br>(420.9) | 195,4<br>(419.5) |
| 26,0<br>(90)                                                        | 190,0<br>(392.6)                                                                                                                                                                                     | 187,6<br>(387.4) | 185,7<br>(383.4) | 183,6<br>(378.6) | 182,1<br>(375.4) | 179,9<br>(370.6) | 178,9<br>(368.4) | 178,7<br>(367.7) | 177,4<br>(364.8) | 176,9<br>(363.7) | 175,7<br>(361.1) | 175,0<br>(359.7) |
| 30,0<br>(100)                                                       | 159,6<br>(345.2)                                                                                                                                                                                     | 157,2<br>(340.0) | 155,4<br>(336.0) | 153,3<br>(331.2) | 151,8<br>(328.0) | 149,6<br>(323.1) | 148,6<br>(321.0) | 148,3<br>(320.3) | 147,0<br>(317.3) | 146,5<br>(316.2) | 145,2<br>(313.5) | 144,6<br>(312.0) |
| 34,0<br>(110)                                                       | 136,5<br>(306.5)                                                                                                                                                                                     | 134,2<br>(301.4) | 132,5<br>(297.5) | 130,2<br>(292.6) | 128,8<br>(289.4) | 126,6<br>(284.5) | 125,6<br>(282.3) | 125,2<br>(281.6) | 123,9<br>(278.6) | 123,3<br>(277.4) | 122,1<br>(274.7) | 121,5<br>(273.3) |
| 36,0<br>(120)                                                       | 126,9<br>(274.3)                                                                                                                                                                                     | 124,6<br>(269.3) | 122,9<br>(265.4) | 120,7<br>(260.5) | 119,2<br>(257.3) | 117,0<br>(252.4) | 116,0<br>(250.2) | 115,7<br>(249.5) | 114,3<br>(246.4) | 113,8<br>(245.3) | 112,5<br>(242.5) | 111,8<br>(241.0) |
| 40,0<br>(130)                                                       | 110,6<br>(247.1)                                                                                                                                                                                     | 108,4<br>(242.2) | 106,6<br>(238.3) | 104,3<br>(233.4) | 102,8<br>(230.0) | 100,0<br>(224.0) | 98,9<br>(221.6)  | 98,7<br>(221.2)  | 97,1<br>(217.7)  | 96,6<br>(216.6)  | 95,2<br>(213.5)  | 94,4<br>(211.8)  |
| 44,0<br>(150)                                                       | 96,5<br>(200.4)                                                                                                                                                                                      | 94,0<br>(195.0)  | 92,0<br>(190.6)  | 89,4<br>(184.8)  | 87,7<br>(181.2)  | 85,0<br>(175.0)  | 83,8<br>(172.6)  | 83,6<br>(172.1)  | 82,0<br>(168.4)  | 81,5<br>(167.3)  | 80,0<br>(164.0)  | 79,3<br>(162.3)  |
| 48,0<br>(160)                                                       | 84,0<br>(180.4)                                                                                                                                                                                      | 81,6<br>(175.2)  | 79,6<br>(170.9)  | 77,0<br>(165.1)  | 75,3<br>(161.4)  | 72,5<br>(155.3)  | 71,4<br>(152.8)  | 71,2<br>(152.3)  | 69,5<br>(148.5)  | 69,0<br>(147.4)  | 67,5<br>(144.1)  | 66,7<br>(142.4)  |
| 52,0<br>(170)                                                       |                                                                                                                                                                                                      | 71,0<br>(157.7)  | 69,2<br>(153.6)  | 66,5<br>(147.7)  | 64,9<br>(144.1)  | 62,1<br>(137.9)  | 60,9<br>(135.4)  | 60,6<br>(134.8)  | 59,0<br>(131.1)  | 58,4<br>(129.9)  | 56,9<br>(126.6)  | 56,2<br>(124.9)  |
| 54,0<br>(180)                                                       |                                                                                                                                                                                                      | 66,3<br>(142.1)  | 64,5<br>(138.1)  | 61,9<br>(132.3)  | 60,2<br>(128.6)  | 57,4<br>(122.5)  | 56,2<br>(119.9)  | 56,0<br>(119.4)  | 54,3<br>(115.6)  | 53,7<br>(114.4)  | 52,2<br>(111.1)  | 51,5<br>(109.3)  |
| 58,0<br>(190)                                                       |                                                                                                                                                                                                      |                  | 56,2<br>(124.3)  | 53,5<br>(118.5)  | 51,9<br>(114.8)  | 49,1<br>(108.7)  | 47,9<br>(106.1)  | 47,7<br>(105.6)  | 46,0<br>(101.8)  | 45,4<br>(100.6)  | 43,9<br>(97.2)   | 43,1<br>(95.5)   |
| 60,0<br>(200)                                                       |                                                                                                                                                                                                      |                  | 52,3<br>(111.7)  | 49,8<br>(106.0)  | 48,1<br>(102.4)  | 45,3<br>(96.3)   | 44,2<br>(93.7)   | 43,9<br>(93.2)   | 42,2<br>(89.3)   | 41,6<br>(88.1)   | 40,1<br>(84.8)   | 39,3<br>(83.0)   |
| 64,0<br>(210)                                                       |                                                                                                                                                                                                      |                  |                  | 42,9<br>(94.7)   | 41,3<br>(91.2)   | 38,5<br>(85.0)   | 37,4<br>(82.5)   | 37,2<br>(82.0)   | 35,4<br>(78.1)   | 34,8<br>(76.9)   | 33,3<br>(73.5)   | 32,5<br>(71.8)   |
| 66,0<br>(220)                                                       |                                                                                                                                                                                                      |                  |                  | 39,8<br>(84.3)   | 38,2<br>(80.9)   | 35,4<br>(74.8)   | 34,3<br>(72.3)   | 34,1<br>(71.8)   | 32,3<br>(67.9)   | 31,8<br>(66.7)   | 30,2<br>(63.3)   | 29,4<br>(61.5)   |
| 70,0<br>(230)                                                       |                                                                                                                                                                                                      |                  |                  |                  | 32,5<br>(71.4)   | 29,8<br>(65.4)   | 28,6<br>(62.9)   | 28,4<br>(62.5)   | 26,7<br>(58.6)   | 26,1<br>(57.4)   | 24,6<br>(54.0)   | 23,8<br>(52.2)   |
| 74,0<br>(240)                                                       |                                                                                                                                                                                                      |                  |                  |                  | —<br>(62.7)      | 24,7<br>(56.8)   | 23,6<br>(54.4)   | 23,4<br>(53.9)   | 21,6<br>(50.0)   | 21,1<br>(48.8)   | 19,5<br>(45.4)   | 18,8<br>(43.7)   |
| 76,0<br>(250)                                                       |                                                                                                                                                                                                      |                  |                  |                  |                  | 22,3<br>(48.8)   | 21,2<br>(46.4)   | 21,0<br>(46.0)   | 19,3<br>(42.1)   | 18,7<br>(40.9)   | 17,2<br>(37.5)   |                  |
| 78,0<br>(260)                                                       |                                                                                                                                                                                                      |                  |                  |                  |                  |                  | 19,0<br>(39.1)   | 18,8<br>(38.7)   |                  |                  |                  |                  |

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.

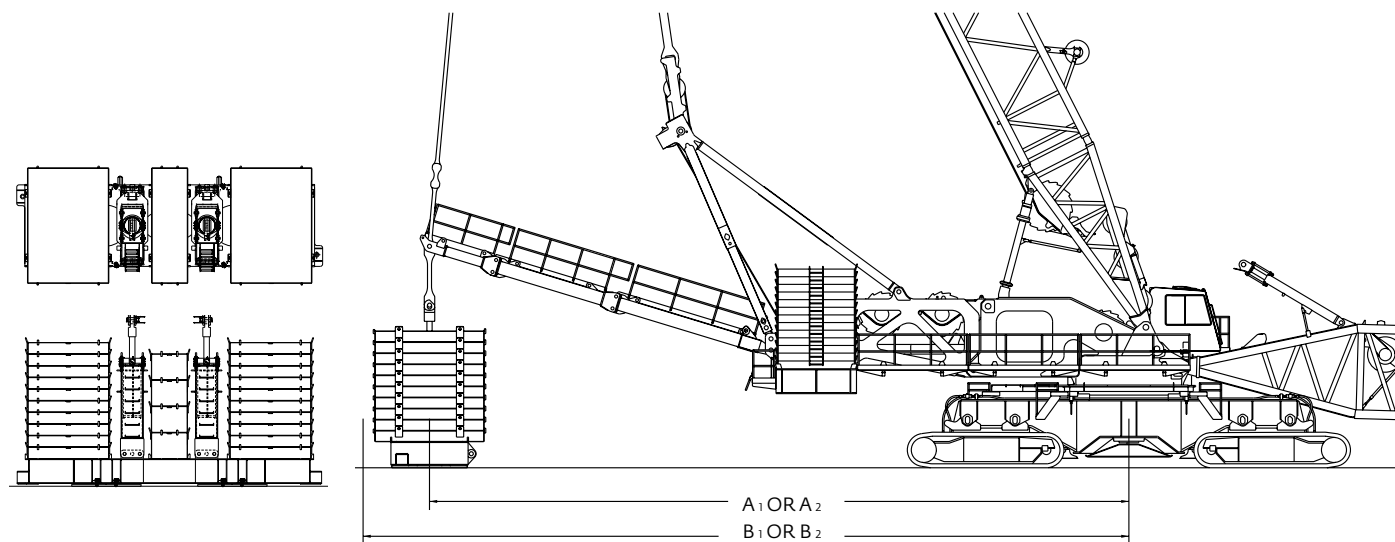
# Outline dimensions



WHEELED COUNTERWEIGHT

A<sub>1</sub> = ONE-PIECE SHEAR FRAME 18,0 M (59' 0")  
 A<sub>2</sub> = TWO-PIECE SHEAR FRAME 22,0 M (72' 0")

B<sub>1</sub> = ONE-PIECE SHEAR FRAME 20,4 M (67' 0")  
 B<sub>2</sub> = TWO-PIECE SHEAR FRAME 24,4 M (80' 0")

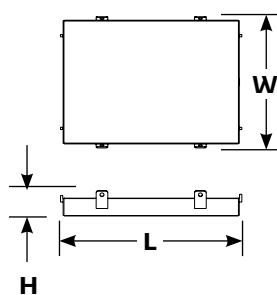
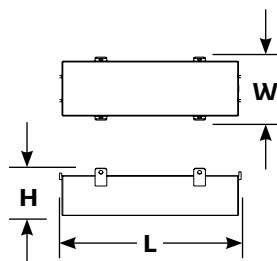
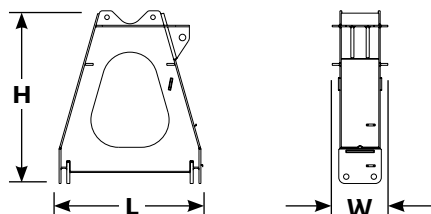
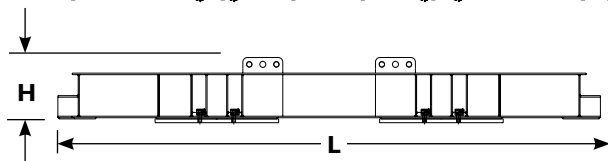
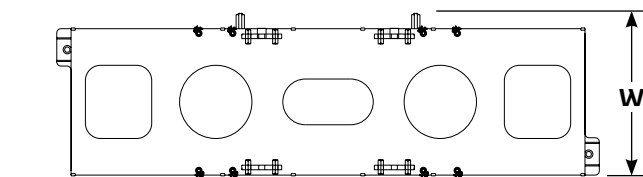
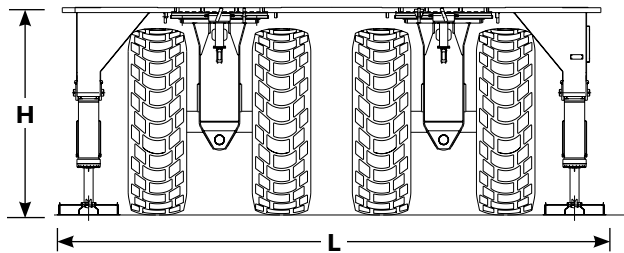
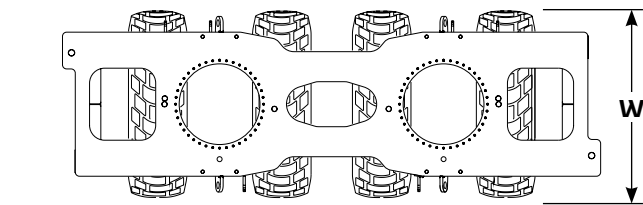


FREE HANGING COUNTERWEIGHT

A<sub>1</sub> = TWO-PIECE SHEAR FRAME 17,9 M (58' 9")  
 A<sub>2</sub> = THREE-PIECE SHEAR FRAME 22,1 M (72' 6")

B<sub>1</sub> = TWO-PIECE SHEAR FRAME 20,1 M (66' 0")  
 B<sub>2</sub> = THREE-PIECE SHEAR FRAME 24,2 M (79' 6")

# Outline dimensions



| Wheeled carrier x 1 |           |            |
|---------------------|-----------|------------|
| Length              | 9,14 m    | 30' 0"     |
| Width               | 3,55 m    | 11' 8"     |
| Height              | 3,55 m    | 11' 8"     |
| Weight              | 63 299 kg | 139,555 lb |

| Counterweight tray x 1 |           |           |
|------------------------|-----------|-----------|
| Length                 | 9,14 m    | 30' 0"    |
| Width                  | 2,71 m    | 8' 11"    |
| Height                 | 1,03 m    | 3' 5"     |
| Weight                 | 15 381 kg | 33,910 lb |

| A-Frame x 2 |          |          |
|-------------|----------|----------|
| Length      | 2,38 m   | 7' 10"   |
| Width       | 0,92 m   | 3' 1"    |
| Height      | 2,87 m   | 9' 5"    |
| Weight      | 3 658 kg | 8,065 lb |

| Center counterweight box x 4 |           |           |
|------------------------------|-----------|-----------|
| Length                       | 3,56 m    | 11' 8"    |
| Width                        | 1,24 m    | 4' 10"    |
| Height                       | 0,93 m    | 3' 1"     |
| Weight                       | 19 958 kg | 44,000 lb |

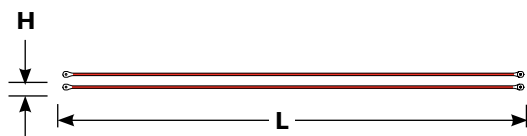
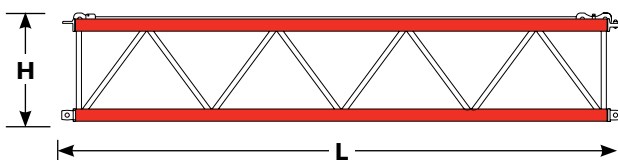
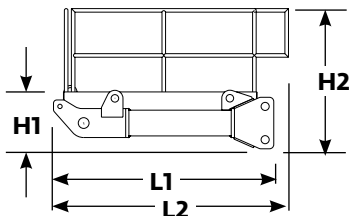
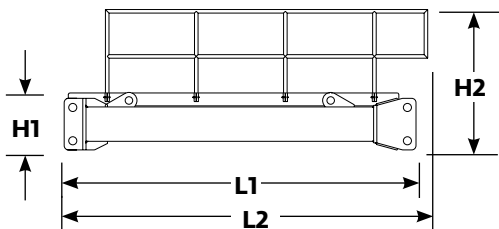
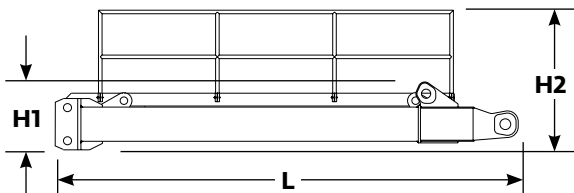
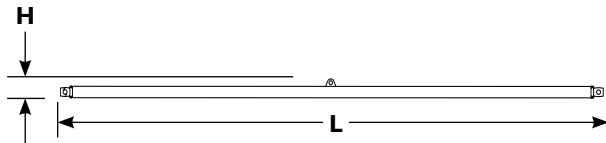
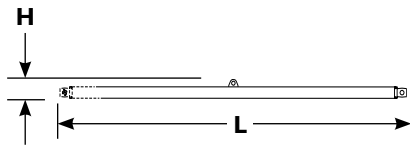
| Side counterweight box x 18, 20 |           |           |
|---------------------------------|-----------|-----------|
| Length                          | 3,56 m    | 11' 8"    |
| Width                           | 2,59 m    | 8' 6"     |
| Height                          | 0,50 m    | 1' 8"     |
| Weight                          | 19 958 kg | 44,000 lb |

Note: Wheeled carrier requires 18 counterweights,  
hanging tray requires 20 counterweights.

Option



# Outline dimensions



| Struts - 5,5 m (18') |        |          |
|----------------------|--------|----------|
|                      |        | x 2      |
| Length               | 5,79 m | 19' 0"   |
| Width                | 0,28 m | 0' 11"   |
| Height               | 0,28 m | 0' 11"   |
| Weight               | 757 kg | 1,670 lb |

Note: For wheeled counterweight.

| Struts - 9,1 m (30') |         |          |
|----------------------|---------|----------|
|                      |         | x 2      |
| Length               | 9,45 m  | 31' 0"   |
| Width                | 0,28 m  | 0' 11"   |
| Height               | 0,28 m  | 0' 11"   |
| Weight               | 1183 kg | 2,610 lb |

Note: For wheeled counterweight.

| Front shear frame and railings |         |          |
|--------------------------------|---------|----------|
|                                |         | x 1      |
| Length                         | 5,66 m  | 18' 7"   |
| Width                          | 3,40 m  | 11' 2"   |
| Height 1                       | 0,81 m  | 2' 8"    |
| Weight                         | 4177 kg | 9,210 lb |

Note: Shown with railings attached in operating position.

Height 2 1,66 m 5' 6"

| Rear shear frame and railings |         |          |
|-------------------------------|---------|----------|
|                               |         | x 1      |
| Length 1                      | 4,40 m  | 14' 6"   |
| Width                         | 3,40 m  | 11' 2"   |
| Height 1                      | 0,67 m  | 2' 3"    |
| Weight                        | 3626 kg | 7,995 lb |

Note: Shown with railings attached in operating position.

Length 2 4,52 m 15' 1"

Height 2 1,66 m 5' 6"

| Shear frame adapter and railings |         |          |
|----------------------------------|---------|----------|
|                                  |         | x 1      |
| Length 1                         | 2,61 m  | 8' 7"    |
| Width                            | 3,40 m  | 11' 2"   |
| Height 1                         | 0,67 m  | 2' 3"    |
| Weight                           | 3225 kg | 7,110 lb |

Note: Shown with railings attached in operating position.

Length 2 2,77 m 9' 1"

Height 2 1,66 m 5' 6"

| No. 81 Mast insert 12,2 m (40') and straps |         |           |
|--------------------------------------------|---------|-----------|
|                                            |         | x 1       |
| Length                                     | 12,45 m | 40' 10"   |
| Width                                      | 3,38 m  | 11' 1"    |
| Height                                     | 2,50 m  | 8' 3"     |
| Weight                                     | 8085 kg | 17,825 lb |

| Straps 8,1 m (26' 8") |         |          |
|-----------------------|---------|----------|
|                       |         | x 2      |
| Length                | 8,41 m  | 27' 6"   |
| Width                 | 0,08 m  | 0' 3"    |
| Height                | 0,28 m  | 0' 11"   |
| Weight                | 1238 kg | 2,730 lb |

# Performance data

## Wire rope lengths Boom No. 80 with MAX-ER® Tandem drums - single boom point

| Boom length<br>m (ft) | Hoist line       |         | Maximum required parts of line |
|-----------------------|------------------|---------|--------------------------------|
|                       | Drum 1 or 2<br>m | (ft)    |                                |
| 42,7 (140)            | 1 067            | (3,500) | 44                             |
| 48,8 (160)            | 1 189            | (3,900) | 44                             |
| 54,9 (180)            | 1 341            | (4,400) | 44                             |
| 61,0 (200)            | 1 341            | (4,400) | 40                             |
| 67,1 (220)            | 1 463            | (4,800) | 40                             |
| 73,2 (240)            | 1 463            | (4,800) | 36                             |
| 79,2 (260)            | 1 463            | (4,800) | 32                             |
| 85,3 (280)            | 1 463            | (4,800) | 28                             |
| 91,4 (300)            | 1 463            | (4,800) | 28                             |

Note: Hoist line lengths are based on tandem drums both reeved to main load block. Each drum is dead ended in main load block reeving. Total parts of line requires using both drums 1 and 2.

Hoist 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.

## Wire rope lengths Boom No. 80 with MAX-ER® Tandem drums - single boom point

| Boom length<br>m (ft) | Hoist line       |         | Maximum required parts of line |
|-----------------------|------------------|---------|--------------------------------|
|                       | Drum 1 or 2<br>m | (ft)    |                                |
| 97,5 (320)            | 1 463            | (4,800) | 24                             |
| 103,6 (340)           | 1 463            | (4,800) | 24                             |
| 109,7 (360)           | 1 463            | (4,800) | 20                             |
| 115,8 (380)           | 1 463            | (4,800) | 16                             |

Note: Hoist line lengths are based on tandem drums, both reeved to main load block. Each drum is dead ended in main load block reeving. Total parts of line requires using both drums 1 and 2.

Hoist 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.

# Performance data

## Wire rope lengths Luffing jib No. 81 on Boom No. 80 with MAX-ER® Single drum - single jib point

| Boom length<br>m (ft) | Maximum parts of line for full hoisting range<br>Jib length m (ft) |               |               |               |               |               |               |               |               |               | Hoist line drum 1 |         | Hoist line drum 2<br>(1 part of line) (2 parts of line) |         |     |         |
|-----------------------|--------------------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------|---------------------------------------------------------|---------|-----|---------|
|                       | 36,6<br>(120)                                                      | 42,7<br>(140) | 48,8<br>(160) | 54,9<br>(180) | 61,0<br>(200) | 67,1<br>(220) | 73,2<br>(240) | 79,2<br>(260) | 85,3<br>(280) | 91,4<br>(300) | m                 | (ft)    | m                                                       | (ft)    | m   | (ft)    |
| 54,9 (180)            | 16                                                                 | 14            | 14            | 14            | 12            | 12            | 10            | 10            | 8             | 8             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 61,0 (200)            | 14                                                                 | 14            | 14            | 12            | 12            | 10            | 10            | 10            | 8             | 8             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 67,1 (220)            | 14                                                                 | 14            | 12            | 12            | 10            | 10            | 10            | 8             | 8             | 6             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 73,2 (240)            | 14                                                                 | 12            | 12            | 10            | 10            | 10            | 10            | 8             | 8             | 6             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 79,2 (260)            | 12                                                                 | 12            | 10            | 10            | 10            | 10            | 8             | 8             | 6             | 6             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 85,3 (280)            | 12                                                                 | 10            | 10            | 10            | 10            | 8             | 8             | 8             | 6             | 6             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 91,4 (300)            | 10                                                                 | 10            | 10            | 10            | 8             | 8             | 8             | 6             | 6             | 6             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 97,5 (320)            | 10                                                                 | 10            | 10            | 8             | 8             | 8             | 6             | 6             | 6             | 6             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |
| 103,6 (340)           | 10                                                                 | 10            | 8             | 8             | 8             | 8             | 6             | 6             | 6             | 6             | 1 676             | (5,500) | 427                                                     | (1,400) | 610 | (2,000) |

Note: Line lengths are based on single part lead line. 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.

## Wire rope lengths Luffing jib No. 81 on Boom No. 80 with MAX-ER® Tandem drums - single jib point

| Boom length<br>m (ft) | Parts of line for maximum capacity<br>Jib Length m (ft) |               |               |               |               |               | Hoist line drum 1 |         | Hoist line drum 2 |         |
|-----------------------|---------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------|-------------------|---------|
|                       | 36,6<br>(120)                                           | 42,7<br>(140) | 48,8<br>(160) | 54,9<br>(180) | 61,0<br>(200) | 67,1<br>(220) | m                 | (ft)    | m                 | (ft)    |
| 54,9 (180)            | 24                                                      | 20            | 20            | 16            | 16            | 12            | 1 250             | (4,100) | 1 250             | (4,100) |
| 61,0 (200)            | 20                                                      | 20            | 16            | 16            | 16            | 12            | 1 250             | (4,100) | 1 250             | (4,100) |
| 67,1 (220)            | 20                                                      | 16            | 16            | 16            | 12            |               | 1 250             | (4,100) | 1 250             | (4,100) |
| 73,2 (240)            | 16                                                      | 16            | 16            | 12            | 12            |               | 1 250             | (4,100) | 1 250             | (4,100) |
| 79,2 (260)            | 16                                                      | 16            | 12            | 12            |               |               | 1 250             | (4,100) | 1 250             | (4,100) |
| 85,3 (280)            | 16                                                      | 12            | 12            |               |               |               | 1 250             | (4,100) | 1 250             | (4,100) |
| 91,4 (300)            | 12                                                      | 12            |               |               |               |               | 1 250             | (4,100) | 1 250             | (4,100) |

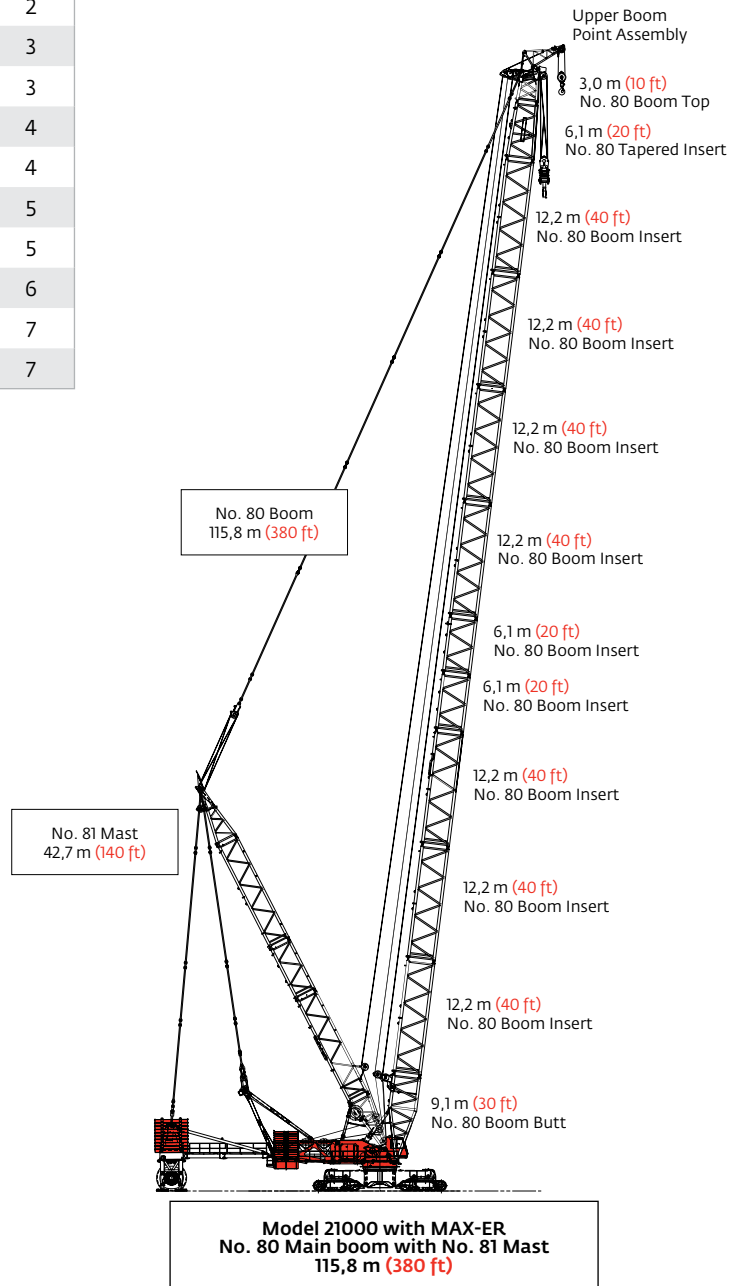
Note: Hoist line lengths are based on tandem drums both reeved to main load block. Each drum is dead ended in main load block reeving. Total parts of line requires using both drums 1 and 2.

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.

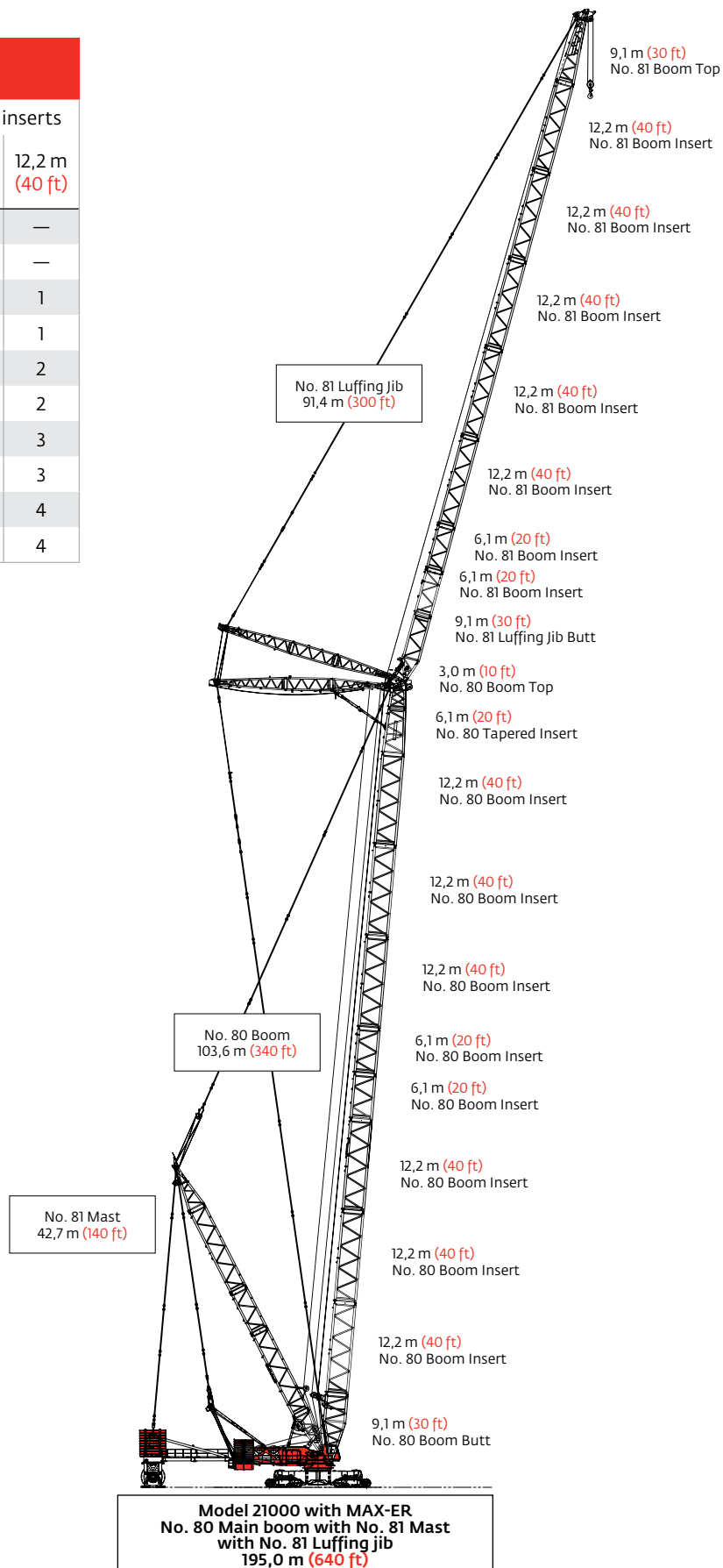
# Boom combinations

## No. 80 Main boom combinations

| Boom length<br>m (ft) | Boom inserts     |                   |
|-----------------------|------------------|-------------------|
|                       | 6,1 m<br>(20 ft) | 12,2 m<br>(40 ft) |
| 54,9 (180)            | —                | 2                 |
| 61,0 (200)            | 1                | 2                 |
| 67,1 (220)            | —                | 3                 |
| 73,2 (240)            | 1                | 3                 |
| 79,2 (260)            | —                | 4                 |
| 85,3 (280)            | 1                | 4                 |
| 91,4 (300)            | —                | 5                 |
| 97,5 (320)            | 1                | 5                 |
| 103,6 (340)           | —                | 6                 |
| 109,7 (360)           | 1                | 7                 |
| 115,8 (380)           | 2                | 7                 |

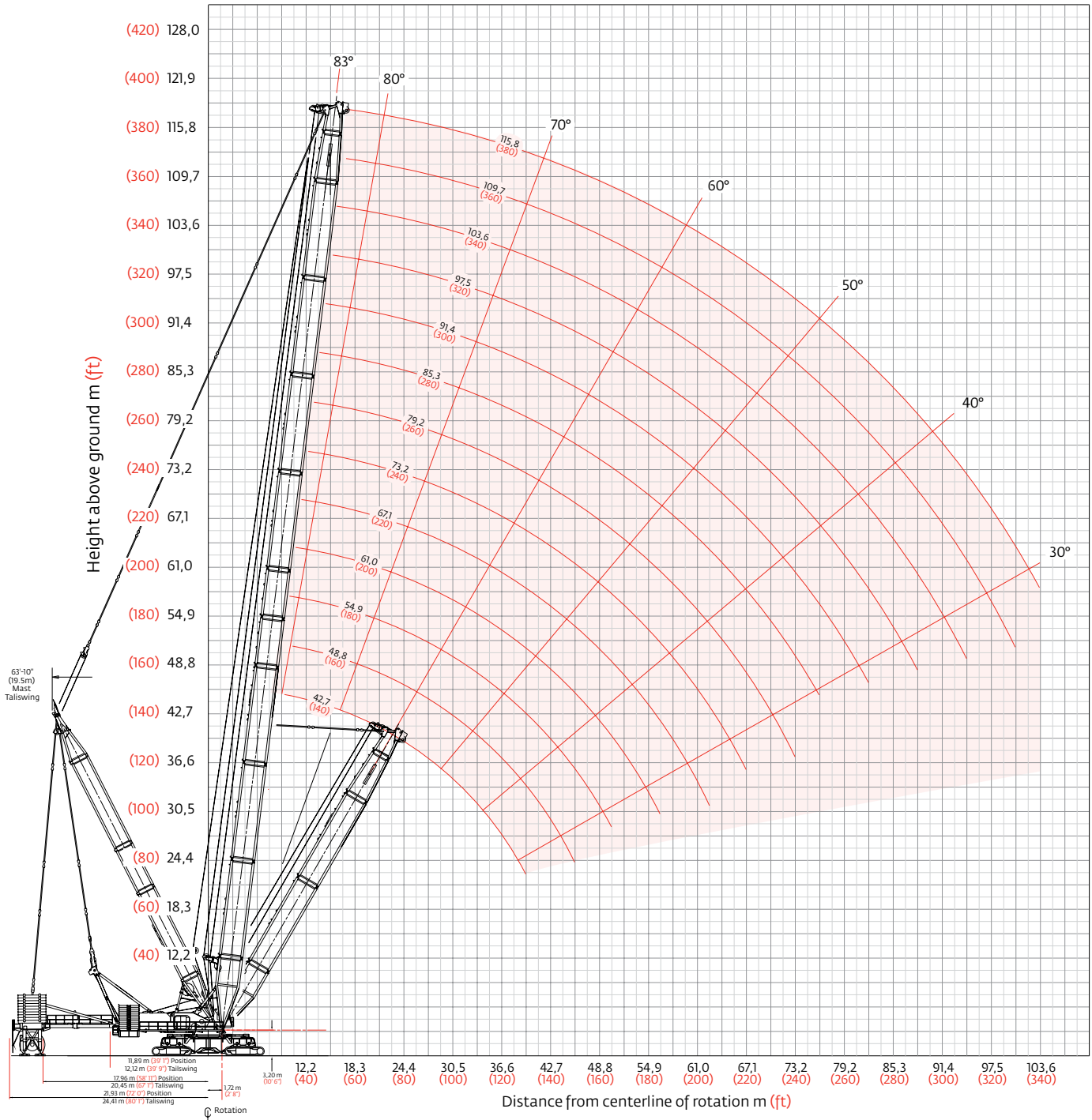


| No. 81 Luffing jib combinations |                  |                   |
|---------------------------------|------------------|-------------------|
| Luffing jib length<br>m (ft)    | Boom inserts     |                   |
|                                 | 6,1 m<br>(20 ft) | 12,2 m<br>(40 ft) |
| 36,6 (120)                      | —                | —                 |
| 42,7 (140)                      | 1                | —                 |
| 48,8 (160)                      | —                | 1                 |
| 54,9 (180)                      | 1                | 1                 |
| 61,0 (200)                      | —                | 2                 |
| 67,1 (220)                      | 1                | 2                 |
| 73,2 (240)                      | —                | 3                 |
| 79,2 (260)                      | 1                | 3                 |
| 85,3 (280)                      | —                | 4                 |
| 91,4 (300)                      | 1                | 4                 |



# Heavy-lift boom range diagram

No. 80 Heavy-lift boom with MAX-ER®



# Heavy-lift boom load charts

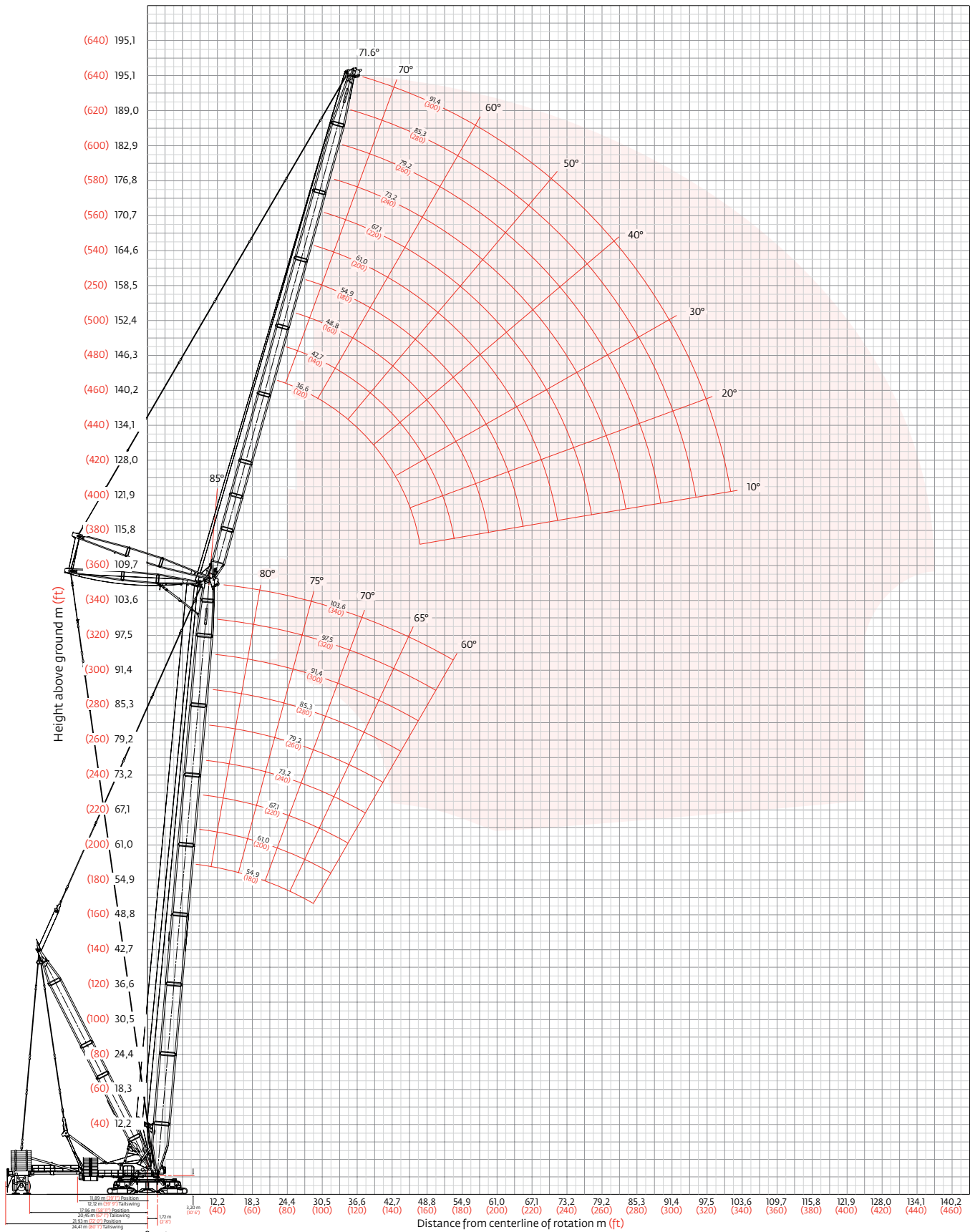
| Liftcrane boom capacities - MAX-ER®<br>Boom No. 80 with 42,7 m (140') mast |                                                                                                                                                                                                                                                    |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|
| Boom<br>m (ft)<br>Radius                                                   | 208 060 kg (458,700 lb) Counterweight 90 720 kg (200,000 lb) Carbody counterweight<br>511 330 kg (1,127,300 lb) Hanging counterweight<br>360° Rating for wide crawler arrangement or narrow crawler arrangement with outriggers<br>kg (lb) x 1 000 |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |
|                                                                            | 42,7<br>(140)                                                                                                                                                                                                                                      | 48,8<br>(160)     | 54,9<br>(180)     | 61,0<br>(200)     | 67,0<br>(220)     | 73,2<br>(240)     | 85,3<br>(280)     | 91,4<br>(300)     | 97,5<br>(320)     | 103,6<br>(340)   | 109,7<br>(360)   | 115,8<br>(380)   |
| 8,5<br>(28)                                                                | 907,1<br>(2000.0)                                                                                                                                                                                                                                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |
| 9,0<br>(32)                                                                | 907,1<br>(2000.0)                                                                                                                                                                                                                                  | —<br>(2000.0)     |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |
| 10,0<br>(36)                                                               | 907,1<br>(2000.0)                                                                                                                                                                                                                                  | 907,1<br>(2000.0) | —<br>(1941.3)     | —<br>(1863.9)     |                   |                   |                   |                   |                   |                  |                  |                  |
| 12,0<br>(40)                                                               | 907,1<br>(2000.0)                                                                                                                                                                                                                                  | 907,1<br>(2000.0) | 880,5<br>(1941.3) | 845,4<br>(1863.9) | 796,7<br>(1756.5) | —<br>(1641.6)     |                   |                   |                   |                  |                  |                  |
| 14,0<br>(50)                                                               | 899,7<br>(1911.9)                                                                                                                                                                                                                                  | 899,2<br>(1906.6) | 877,3<br>(1903.0) | 845,4<br>(1863.9) | 796,2<br>(1753.7) | 742,1<br>(1628.9) | 618,9<br>(1356.3) | —<br>(1247.8)     | —<br>(1103.8)     |                  |                  |                  |
| 18,0<br>(60)                                                               | 734,2<br>(1593.4)                                                                                                                                                                                                                                  | 731,8<br>(1588.2) | 730,3<br>(1584.8) | 729,6<br>(1580.6) | 731,4<br>(1576.3) | 718,4<br>(1573.8) | 605,3<br>(1332.3) | 557,2<br>(1226.4) | 500,6<br>(1103.8) | 439,1<br>(968.1) | 386,3<br>(851.7) | —<br>(753.0)     |
| 20,0<br>(70)                                                               | 660,2<br>(1362.8)                                                                                                                                                                                                                                  | 657,8<br>(1357.7) | 656,3<br>(1354.3) | 654,4<br>(1350.0) | 652,4<br>(1345.6) | 651,2<br>(1343.1) | 598,1<br>(1307.8) | 550,8<br>(1204.7) | 500,6<br>(1103.8) | 439,1<br>(968.1) | 386,3<br>(851.7) | 341,5<br>(753.0) |
| 24,0<br>(80)                                                               | 547,7<br>(1188.0)                                                                                                                                                                                                                                  | 545,5<br>(1183.1) | 543,9<br>(1179.7) | 541,9<br>(1175.3) | 539,9<br>(1170.8) | 538,7<br>(1168.2) | 536,4<br>(1160.5) | 529,6<br>(1155.7) | 493,5<br>(1085.2) | 439,1<br>(968.1) | 386,3<br>(851.7) | 341,5<br>(753.0) |
| 26,0<br>(90)                                                               | 504,1<br>(1051.0)                                                                                                                                                                                                                                  | 501,9<br>(1046.1) | 500,3<br>(1042.8) | 498,3<br>(1038.3) | 496,3<br>(1033.7) | 495,1<br>(1031.2) | 491,6<br>(1023.4) | 489,4<br>(1018.5) | 486,6<br>(1021.7) | 439,1<br>(968.1) | 386,3<br>(851.7) | 341,5<br>(753.0) |
| 30,0<br>(100)                                                              | 433,8<br>(940.6)                                                                                                                                                                                                                                   | 431,6<br>(935.8)  | 430,2<br>(932.6)  | 428,1<br>(928.0)  | 426,0<br>(923.4)  | 424,8<br>(920.8)  | 421,3<br>(913.0)  | 419,1<br>(908.1)  | 420,5<br>(911.4)  | 420,7<br>(906.4) | 386,3<br>(851.7) | 341,5<br>(753.0) |
| 32,0<br>(110)                                                              | 405,1<br>(849.7)                                                                                                                                                                                                                                   | 403,0<br>(845.1)  | 401,5<br>(841.9)  | 399,4<br>(837.3)  | 397,3<br>(832.6)  | 396,1<br>(830.0)  | 392,6<br>(822.2)  | 390,4<br>(817.3)  | 391,9<br>(820.6)  | 389,6<br>(815.6) | 379,4<br>(812.0) | 337,3<br>(727.7) |
| 36,0<br>(120)                                                              | 354,8<br>(764.4)                                                                                                                                                                                                                                   | 354,9<br>(769.1)  | 353,4<br>(766.0)  | 351,3<br>(761.3)  | 349,2<br>(756.6)  | 348,0<br>(754.0)  | 344,5<br>(746.2)  | 342,3<br>(741.3)  | 343,8<br>(744.6)  | 341,5<br>(739.6) | 339,8<br>(736.0) | 317,8<br>(694.6) |
| 38,0<br>(130)                                                              | 325,6<br>(667.0)                                                                                                                                                                                                                                   | 334,6<br>(704.5)  | 333,1<br>(701.4)  | 331,0<br>(696.8)  | 328,9<br>(692.1)  | 327,7<br>(689.5)  | 324,1<br>(681.6)  | 321,9<br>(676.7)  | 323,4<br>(680.0)  | 321,2<br>(675.1) | 319,5<br>(671.4) | 308,1<br>(661.9) |
| 42,0<br>(140)                                                              |                                                                                                                                                                                                                                                    | 298,9<br>(645.7)  | 298,2<br>(645.9)  | 296,1<br>(641.3)  | 293,9<br>(636.5)  | 292,7<br>(633.9)  | 289,2<br>(626.1)  | 286,9<br>(621.2)  | 288,5<br>(624.5)  | 286,2<br>(619.5) | 284,5<br>(615.9) | 282,5<br>(610.9) |
| 48,0<br>(160)                                                              |                                                                                                                                                                                                                                                    |                   | 256,2<br>(554.3)  | 254,3<br>(550.5)  | 252,1<br>(545.8)  | 251,0<br>(543.3)  | 247,4<br>(535.4)  | 245,2<br>(530.5)  | 246,7<br>(533.9)  | 244,5<br>(528.9) | 242,8<br>(525.3) | 240,5<br>(520.2) |
| 54,0<br>(180)                                                              |                                                                                                                                                                                                                                                    |                   |                   | 221,4<br>(478.7)  | 219,5<br>(474.8)  | 218,3<br>(472.3)  | 214,8<br>(464.5)  | 212,5<br>(459.6)  | 214,1<br>(463.0)  | 211,8<br>(458.0) | 210,2<br>(454.4) | 207,9<br>(449.4) |
| 60,0<br>(200)                                                              |                                                                                                                                                                                                                                                    |                   |                   |                   | 192,9<br>(415.5)  | 192,0<br>(415.2)  | 188,5<br>(407.5)  | 186,3<br>(402.6)  | 187,9<br>(406.1)  | 185,6<br>(401.1) | 184,0<br>(397.5) | 181,7<br>(392.5) |
| 66,0<br>(220)                                                              |                                                                                                                                                                                                                                                    |                   |                   |                   |                   | 170,1<br>(365.0)  | 166,9<br>(360.5)  | 164,7<br>(355.7)  | 166,3<br>(359.2)  | 164,1<br>(354.3) | 162,4<br>(350.7) | 160,2<br>(345.7) |
| 74,0<br>(240)                                                              |                                                                                                                                                                                                                                                    |                   |                   |                   |                   |                   | 143,4<br>(321.2)  | 141,2<br>(316.4)  | 142,9<br>(320.0)  | 140,6<br>(315.1) | 139,0<br>(311.6) | 136,8<br>(306.6) |
| 78,0<br>(260)                                                              |                                                                                                                                                                                                                                                    |                   |                   |                   |                   |                   |                   | 131,2<br>(282.9)  | 132,9<br>(286.7)  | 130,7<br>(281.8) | 129,1<br>(278.3) | 126,8<br>(273.3) |
| 86,0<br>(280)                                                              |                                                                                                                                                                                                                                                    |                   |                   |                   |                   |                   |                   |                   | 115,6<br>(257.9)  | 113,5<br>(253.1) | 111,9<br>(249.6) | 109,6<br>(244.7) |
| 90,0<br>(300)                                                              |                                                                                                                                                                                                                                                    |                   |                   |                   |                   |                   |                   |                   |                   | 105,9<br>(228.0) | 104,4<br>(224.7) | 99,4<br>(210.2)  |
| 98,0<br>(320)                                                              |                                                                                                                                                                                                                                                    |                   |                   |                   |                   |                   |                   |                   |                   |                  | 91,0<br>(202.7)  | 76,3<br>(171.3)  |
| 102,0<br>(340)                                                             |                                                                                                                                                                                                                                                    |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  | 65,2<br>(133.9)  |

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

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

# Luffing jib range diagram

No. 81 Luffing jib on No. 80 Boom with MAX-ER®





# Luffing jib load charts

## Liftcrane luffing jib capacities - MAX-ER® Luffing jib No. 81 on Boom No. 80

224 390 kg (497,700 lb) Counterweight 90 720 kg (200,000 lb) Carbody counterweight  
509 840 kg (1,124,000 lb) Wheeled counterweight  
360° Rating for wide crawler arrangement or narrow crawler arrangement with outriggers kg (lb) x1 000

### 85° Boom angle

| Luffing jib length 36,6 m (120 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)     | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)   |
|------------------------------------|--------------------------|-------------------|------------------|------------------|------------------|------------------|
|                                    | 18,3<br>(60)             | 453,5<br>(1000.0) |                  |                  |                  |                  |
|                                    | 20,0<br>(70)             | 451,1<br>(969.1)  |                  |                  |                  |                  |
|                                    | 24,0<br>(80)             | 417,4<br>(913.3)  | —<br>(787.0)     |                  |                  |                  |
|                                    | 30,0<br>(100)            | 372,1<br>(812.7)  | 317,6<br>(689.8) | 270,2<br>(585.7) | 229,4<br>(498.5) | —<br>(415.9)     |
|                                    | 36,0<br>(120)            | 300,3<br>(647.0)  | 253,5<br>(547.1) | 219,3<br>(474.1) | 190,3<br>(412.0) | 164,3<br>(356.3) |
|                                    | 42,0<br>(140)            | 233,8<br>(484.3)  | 205,8<br>(445.1) | 180,4<br>(390.2) | 158,5<br>(343.1) | 138,7<br>(300.5) |
|                                    | 48,0<br>(160)            |                   |                  |                  |                  |                  |
|                                    | 54,0<br>(180)            |                   |                  |                  |                  |                  |
|                                    | 60,0<br>(200)            |                   |                  |                  |                  |                  |
|                                    | 64,0<br>(215)            |                   |                  |                  |                  |                  |

| Luffing jib length 54,9 m (180 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)   |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|------------------|
|                                    | 18,3<br>(60)             |                  |                  |                  |                  |                  |
|                                    | 20,0<br>(70)             |                  |                  |                  |                  |                  |
|                                    | 24,0<br>(80)             | 339,8<br>(749.2) | —<br>(622.1)     |                  |                  |                  |
|                                    | 30,0<br>(100)            | 319,5<br>(696.3) | 265,8<br>(579.7) | 224,1<br>(488.4) | 187,3<br>(411.9) | —<br>(317.6)     |
|                                    | 36,0<br>(120)            | 272,6<br>(591.0) | 227,7<br>(493.9) | 193,8<br>(420.9) | 165,4<br>(359.6) | 139,9<br>(306.6) |
|                                    | 42,0<br>(140)            | 226,7<br>(489.4) | 190,3<br>(411.0) | 164,0<br>(354.5) | 141,6<br>(306.6) | 122,1<br>(264.7) |
|                                    | 48,0<br>(160)            | 187,0<br>(402.6) | 158,0<br>(340.2) | 137,4<br>(296.4) | 120,0<br>(259.1) | 104,7<br>(226.3) |
|                                    | 54,0<br>(180)            | 155,5<br>(334.4) | 132,0<br>(284.1) | 115,8<br>(249.5) | 102,0<br>(220.0) | 89,8<br>(193.9)  |
|                                    | 60,0<br>(200)            | 132,9<br>(287.7) | 113,1<br>(244.5) | 99,7<br>(215.6)  | 88,2<br>(190.8)  | 78,1<br>(168.8)  |
|                                    | 64,0<br>(215)            |                  |                  | 94,1<br>—        | 82,5<br>—        | 72,7<br>(158.1)  |

| Luffing jib length 73,2 m (240 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)   |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|------------------|
|                                    | 27,4<br>(90)             | 220,4<br>(486.1) |                  |                  |                  |                  |
|                                    | 30,0<br>(100)            | 220,4<br>(486.1) | 191,0<br>(421.1) | —<br>(357.5)     | —<br>(299.4)     |                  |
|                                    | 36,0<br>(120)            | 219,7<br>(483.4) | 188,2<br>(410.2) | 159,9<br>(349.8) | 135,2<br>(297.6) | 106,9<br>(235.7) |
|                                    | 44,0<br>(150)            | 190,9<br>(405.7) | 161,0<br>(341.8) | 137,9<br>(293.2) | 118,1<br>(251.3) | 100,6<br>(214.5) |
|                                    | 54,0<br>(180)            | 151,4<br>(326.7) | 127,1<br>(274.3) | 109,6<br>(236.7) | 94,6<br>(204.6)  | 81,5<br>(176.3)  |
|                                    | 64,0<br>(210)            | 118,0<br>(260.1) | 99,0<br>(218.3)  | 85,9<br>(189.5)  | 74,8<br>(165.0)  | 65,0<br>(143.3)  |
|                                    | 72,0<br>(240)            | 97,7<br>(210.2)  | 82,2<br>(176.8)  | 71,6<br>(154.2)  | 62,7<br>(135.1)  | 54,7<br>(118.0)  |
|                                    | 0,0<br>(270)             |                  | 71,4<br>—        | 62,2<br>(135.6)  | 54,4<br>(117.6)  | 47,5<br>(102.3)  |
|                                    | 88,0<br>(300)            |                  |                  |                  |                  |                  |
|                                    | 100,0<br>(330)           |                  |                  |                  |                  |                  |

| Luffing jib length 91,4 m (300 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)   | 103,6<br>(340)  |
|------------------------------------|--------------------------|------------------|------------------|------------------|-----------------|-----------------|
|                                    | 27,4<br>(90)             |                  |                  |                  |                 |                 |
|                                    | 30,0<br>(100)            |                  |                  |                  |                 |                 |
|                                    | 36,0<br>(120)            | 149,6<br>(330.0) | 130,0<br>(286.7) | 114,1<br>(251.6) | 97,7<br>(215.6) | —<br>(177.9)    |
|                                    | 44,0<br>(150)            | 140,9<br>(299.4) | 130,0<br>(283.3) | 113,0<br>(243.7) | 96,6<br>(208.4) | 78,4<br>(172.5) |
|                                    | 54,0<br>(180)            | 112,1<br>(242.2) | 112,8<br>(244.3) | 96,9<br>(210.4)  | 82,8<br>(179.9) | 70,2<br>(152.6) |
|                                    | 64,0<br>(210)            | 87,1<br>(192.1)  | 88,9<br>(196.0)  | 80,0<br>(176.4)  | 68,5<br>(151.0) | 58,2<br>(128.4) |
|                                    | 72,0<br>(240)            | 70,4<br>(150.3)  | 72,1<br>(154.3)  | 67,9<br>(146.2)  | 58,2<br>(125.3) | 49,5<br>(106.8) |
|                                    | 80,0<br>(270)            | 56,0<br>(115.6)  | 57,7<br>(119.2)  | 57,6<br>(121.5)  | 49,5<br>(104.3) | 42,1<br>(89.0)  |
|                                    | 88,0<br>(300)            | 44,1<br>(87.5)   | 45,6<br>(90.4)   | 47,0<br>(93.6)   | 42,5<br>(88.5)  | 36,2<br>(75.5)  |
|                                    | 100,0<br>(330)           |                  |                  | 33,0<br>(72.1)   | 33,8<br>(73.5)  | 30,7<br>(67.6)  |

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 - MAX-ER® Luffing jib No. 81 on boom No. 80

224 390 kg (497,700 lb) Counterweight 90 720 kg (200,000 lb) Carbody counterweight  
509 840 kg (1,124,000 lb) Wheeled counterweight  
360° Rating for wide crawler arrangement or narrow crawler arrangement with outriggers kg (lb) x 1 000  
**75° Boom angle**

| Luffing jib length 36,6 m (120 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)   |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|------------------|
|                                    | 34,0<br>(110)            | 369,6<br>(826.6) |                  |                  |                  |                  |
|                                    | 36,0<br>(120)            | 348,1<br>(754.8) | —<br>(736.4)     |                  |                  |                  |
|                                    | 40,0<br>(130)            | 311,4<br>(693.5) | 303,9<br>(676.8) | 295,9<br>(658.8) |                  |                  |
|                                    | 44,0<br>(150)            | 281,1<br>(594.6) | 274,4<br>(580.4) | 267,1<br>(565.1) | —<br>(520.2)     |                  |
|                                    | 50,0<br>(170)            | 244,1<br>(516.7) | 238,5<br>(505.4) | 232,4<br>(492.4) | 219,8<br>(469.3) | 186,0<br>(397.8) |
|                                    | 56,0<br>(190)            |                  | 209,1<br>—       | 204,4<br>(433.3) | 196,7<br>(418.1) | 167,1<br>(355.0) |
|                                    | 64,0<br>(210)            |                  |                  |                  |                  | 141,6<br>(312.3) |
|                                    | 72,0<br>(230)            |                  |                  |                  |                  |                  |
|                                    | 80,0<br>(250)            |                  |                  |                  |                  |                  |
|                                    | —<br>(270)               |                  |                  |                  |                  |                  |

| Luffing jib length 54,9 m (180 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)   |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|------------------|
|                                    | 34,0<br>(110)            |                  |                  |                  |                  |                  |
|                                    | 36,0<br>(120)            |                  |                  |                  |                  |                  |
|                                    | 40,0<br>(130)            |                  |                  |                  |                  |                  |
|                                    | 44,0<br>(150)            | 276,6<br>(585.2) | —<br>(569.5)     |                  |                  |                  |
|                                    | 50,0<br>(170)            | 240,7<br>(510.2) | 234,1<br>(496.4) | 225,1<br>(481.7) | —<br>(415.6)     |                  |
|                                    | 56,0<br>(190)            | 212,1<br>(450.4) | 206,4<br>(438.2) | 200,3<br>(425.2) | 179,9<br>(387.2) | 147,2<br>(317.3) |
|                                    | 64,0<br>(210)            | 182,1<br>(401.5) | 177,1<br>(390.6) | 171,9<br>(379.0) | 161,2<br>(355.5) | 132,2<br>(291.6) |
|                                    | 72,0<br>(230)            | —<br>(359.7)     | 153,9<br>(350.6) | 149,4<br>(340.4) | 142,7<br>(324.2) | 116,6<br>(265.3) |
|                                    | 80,0<br>(250)            |                  |                  | —<br>(306.8)     | 124,1<br>(293.4) | 101,5<br>(239.7) |
|                                    | —<br>(270)               |                  |                  |                  |                  | —<br>(214.2)     |

| Luffing jib length 73,2 m (240 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)   |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|------------------|
|                                    | 50,0<br>(160)            | 213,7<br>(475.4) |                  |                  |                  |                  |
|                                    | 54,0<br>(180)            | 205,6<br>(448.5) | 196,8<br>(433.9) |                  |                  |                  |
|                                    | 60,0<br>(200)            | 188,7<br>(409.5) | 186,0<br>(402.7) | 171,0<br>(374.3) | 144,4<br>(316.4) |                  |
|                                    | 68,0<br>(220)            | 163,6<br>(367.2) | 160,6<br>(360.1) | 155,3<br>(348.3) | 134,6<br>(299.8) | 110,2<br>(245.6) |
|                                    | 76,0<br>(250)            | 140,7<br>(309.2) | 140,4<br>(308.6) | 135,7<br>(298.3) | 122,6<br>(269.8) | 100,0<br>(220.0) |
|                                    | 84,0<br>(280)            | 121,4<br>(261.9) | 123,8<br>(267.5) | 119,6<br>(258.5) | 110,4<br>(239.0) | 89,3<br>(193.1)  |
|                                    | 92,0<br>(310)            |                  | 103,5<br>—       | 105,8<br>(221.3) | 96,2<br>(201.7)  | 79,0<br>(167.4)  |
|                                    | 100,0<br>(340)           |                  |                  |                  |                  | 68,8<br>—        |
|                                    | 112,0<br>(370)           |                  |                  |                  |                  |                  |
|                                    | 120,0<br>(390)           |                  |                  |                  |                  |                  |

| Luffing jib length 91,4 m (300 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)  |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|-----------------|
|                                    | 50,0<br>(160)            |                  |                  |                  |                  |                 |
|                                    | 54,0<br>(180)            |                  |                  |                  |                  |                 |
|                                    | 60,0<br>(200)            | 121,6<br>(262.9) | 124,5<br>(270.7) |                  |                  |                 |
|                                    | 68,0<br>(220)            | 101,6<br>(229.3) | 107,9<br>(242.7) | 111,1<br>(248.7) | 102,0<br>(225.0) |                 |
|                                    | 76,0<br>(250)            | 83,0<br>(182.1)  | 89,7<br>(196.9)  | 95,5<br>(209.8)  | 98,5<br>(216.4)  | 85,3<br>(187.8) |
|                                    | 84,0<br>(280)            | 66,7<br>(141.9)  | 72,9<br>(155.3)  | 79,1<br>(168.5)  | 84,1<br>(179.9)  | 78,9<br>(171.3) |
|                                    | 92,0<br>(310)            | 53,1<br>(108.8)  | 58,4<br>(120.0)  | 63,9<br>(131.5)  | 69,3<br>(143.2)  | 71,5<br>(152.6) |
|                                    | 100,0<br>(340)           | 41,7<br>(82.4)   | 46,2<br>(91.2)   | 50,8<br>(100.7)  | 55,8<br>(110.9)  | 60,4<br>(120.9) |
|                                    | 112,0<br>(370)           |                  |                  | 35,5<br>(76.7)   | 39,1<br>(84.3)   | 43,0<br>(92.8)  |
|                                    | 120,0<br>(390)           |                  |                  |                  |                  | 34,1<br>(77.5)  |

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.

# Luffing jib load charts

## Liftcrane luffing jib capacities - MAX-ER® Luffing jib No. 81 on boom No. 80

224 390 kg (497,700 lb) Counterweight 90 720 kg (200,000 lb) Carbody counterweight  
509 840 kg (1,124,000 lb) Wheeled counterweight  
360° Rating for wide crawler arrangement or narrow crawler arrangement with outriggers kg (lb) x1000  
**65° Boom angle**

| Luffing jib length 36,6 m (120 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 54,9<br>(180)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)   |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|------------------|
|                                    | 50,0<br>(160)            | 232,1<br>(525.9) |                  |                  |                  |                  |
|                                    | 52,0<br>(170)            | 222,2<br>(491.9) |                  |                  |                  |                  |
|                                    | 58,0<br>(190)            | 196,4<br>(433.8) | 188,1<br>(415.5) | 179,1<br>(395.6) |                  |                  |
|                                    | 64,0<br>(210)            |                  | 167,7<br>(369.7) | 159,9<br>(352.5) | 150,9<br>(332.8) |                  |
|                                    | 70,0<br>(230)            |                  |                  | 143,4<br>(315.7) | 135,7<br>(298.7) | 126,7<br>(279.0) |
|                                    | 76,0<br>(250)            |                  |                  |                  | 122,2<br>(268.6) | 114,5<br>(251.7) |
|                                    | 82,0<br>(270)            |                  |                  |                  |                  | —<br>(226.6)     |
|                                    | 88,0<br>(290)            |                  |                  |                  |                  |                  |
|                                    | 94,0<br>(310)            |                  |                  |                  |                  |                  |
|                                    | 100,0<br>(330)           |                  |                  |                  |                  |                  |

| Luffing jib length 54,9 m (180 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)    | 91,4<br>(300)    | 103,6<br>(340)  |
|------------------------------------|--------------------------|------------------|------------------|------------------|------------------|-----------------|
|                                    | 50,0<br>(160)            |                  |                  |                  |                  |                 |
|                                    | 52,0<br>(170)            |                  |                  |                  |                  |                 |
|                                    | 58,0<br>(190)            |                  |                  |                  |                  |                 |
|                                    | 64,0<br>(210)            | 171,3<br>(377.8) | 162,9<br>(359.2) |                  |                  |                 |
|                                    | 70,0<br>(230)            | 154,2<br>(339.5) | 146,6<br>(322.8) | 138,5<br>(304.9) |                  |                 |
|                                    | 76,0<br>(250)            | 139,5<br>(306.6) | 132,7<br>(291.7) | 125,4<br>(275.6) | 117,3<br>(257.8) |                 |
|                                    | 84,0<br>(270)            |                  | 116,7<br>(264.5) | 110,5<br>(250.2) | 103,3<br>(234.0) | 95,3<br>(216.0) |
|                                    | 88,0<br>(290)            |                  |                  | 103,8<br>(227.4) | 97,1<br>(213.0)  | 89,7<br>(196.6) |
|                                    | 96,0<br>(310)            |                  |                  |                  | 85,5<br>(193.8)  | 79,4<br>(179.3) |
|                                    | 100,0<br>(330)           |                  |                  |                  |                  | 74,5<br>(162.8) |

| Luffing jib length 73,2 m (240 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)    | 67,1<br>(220)    | 79,2<br>(260)   | 91,4<br>(300)   | 103,6<br>(340)  |
|------------------------------------|--------------------------|------------------|------------------|-----------------|-----------------|-----------------|
|                                    | 70,0<br>(225)            | 149,2<br>(337.3) |                  | —               |                 |                 |
|                                    | 74,0<br>(235)            | 139,5<br>(320.1) |                  |                 |                 |                 |
|                                    | 80,0<br>(250)            | 126,7<br>(296.8) | 119,6<br>(280.4) | 112,1<br>—      |                 |                 |
|                                    | 88,0<br>(270)            | 112,1<br>(269.6) | 105,8<br>(254.5) | 99,1<br>(238.5) | 91,7<br>—       |                 |
|                                    | 96,0<br>(300)            | 99,6<br>(235.0)  | 94,0<br>(221.7)  | 88,0<br>(207.5) | 81,3<br>(192.0) | 74,1<br>(175.1) |
|                                    | 108,0<br>(330)           |                  | —<br>(194.0)     | 73,8<br>(181.7) | 68,3<br>(167.8) | 62,0<br>(152.6) |
|                                    | 116,0<br>(360)           |                  |                  |                 | —<br>(147.0)    | 54,1<br>(133.4) |
|                                    | 124,0<br>(390)           |                  |                  |                 |                 | —<br>(110.9)    |
|                                    | 132,0<br>(420)           |                  |                  |                 |                 |                 |
|                                    | 136,0<br>(450)           |                  |                  |                 |                 |                 |

| Luffing jib length 91,4 m (300 ft) | Boom<br>m (ft)<br>Radius | 54,9<br>(180)   | 67,1<br>(220)   | 79,2<br>(260)   | 91,4<br>(300)   | 103,6<br>(340)  |
|------------------------------------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                    | 70,0<br>(225)            |                 |                 |                 |                 |                 |
|                                    | 74,0<br>(235)            |                 |                 |                 |                 |                 |
|                                    | 80,0<br>(250)            | 91,8<br>—       |                 |                 |                 |                 |
|                                    | 88,0<br>(270)            | 76,1<br>(192.5) | 85,0<br>—       |                 |                 |                 |
|                                    | 96,0<br>(300)            | 61,4<br>(153.6) | 70,6<br>(174.1) | 78,9<br>(188.8) |                 |                 |
|                                    | 108,0<br>(330)           | 43,3<br>(119.1) | 50,8<br>(138.1) | 59,0<br>(157.4) | 62,8<br>(154.7) | 55,2<br>(131.0) |
|                                    | 116,0<br>(360)           | —<br>(90.8)     | 40,1<br>(106.6) | 47,0<br>(124.1) | 54,6<br>(135.0) | 49,3<br>(119.0) |
|                                    | 124,0<br>(390)           |                 | —<br>(81.3)     | 37,1<br>(95.3)  | 43,4<br>(111.1) | 43,0<br>(103.7) |
|                                    | 132,0<br>(420)           |                 |                 |                 | 34,7<br>(85.1)  | 36,3<br>(87.6)  |
|                                    | 136,0<br>(450)           |                 |                 |                 |                 | 32,6<br>(69.3)  |

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.

# 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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- **Intro to Canbus and Canbus 1, 2, 3**
- **Intro to EPIC and EPIC 1, 2, 3**
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- **Canbus 1 and 2 assembly, operation and maintenance**
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Refer to [www.manitowoc.com](http://www.manitowoc.com) for course descriptions.

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**2,000 hour kit**

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**U.S. standard tools 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

### Crane Care Package

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



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