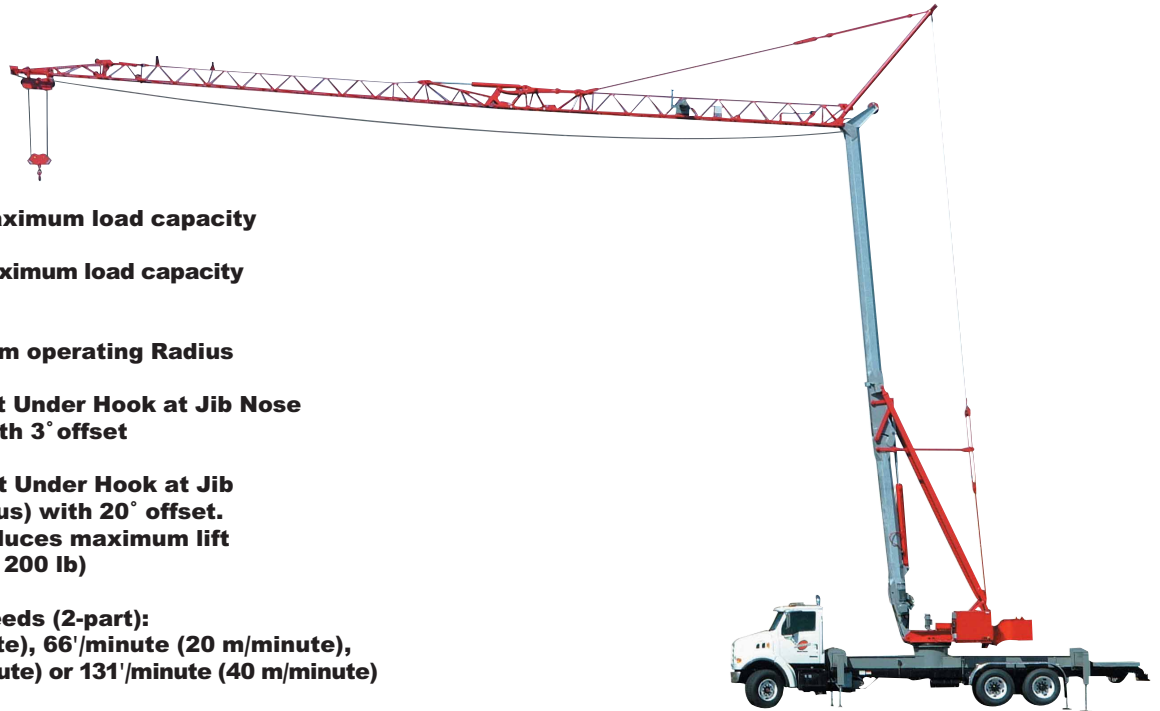


model S282

product guide

features

- 2.2 ton (2,0 mton) maximum load capacity
- 1.3 ton (1,18 mton) maximum load capacity at Jib Nose
- 82' (25,0 m) maximum operating Radius
- 54' 1" (16,5 m) Height Under Hook at Jib Nose (maximum radius) with 3° offset
- 75' 5" (23,0 m) Height Under Hook at Jib Nose (maximum radius) with 20° offset. (Offsetting the jib reduces maximum lift capacity to 1.1 ton (2 200 lb))
- 4-Full Load Hoist Speeds (2-part): 13'/minute (4 m/minute), 66'/minute (20 m/minute), 111'/minute (34 m/minute) or 131'/minute (40 m/minute)
- Variable Slewing Speeds: 0 to 0,8 rpm
- Trolley "full-load" Speed Range: 82'/minute (25 m/minute) -164'/minute (50 m/minute)
- Rope Reeving 2-part line
- 480v 3-phase Self Contained Power Supply
- Radio Remote Controls and a hard wired secondary controller if the radio remote is inoperable
- 19' 10" (6,1 m) Fully Extended Out-and-Down Outriggers
- Rugged, weatherproof, automotive style electrical system
- Sterling Truck Chassis
- Manitowoc CraneCARESM comprehensive support



contents

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| Outline Dimensions | 4 |
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| CraneCARE SM | 8 |



specifications

Upperworks

2

Mast

Mast – 50' (15,2 m) total length in two pieces: 18' 8.4" (5,7 m) mast foot, and 28' 10.4" (8,8 m) top mast, erected hydraulically. Octagonal section 1/4" (6,0 mm) thick makes for a light, yet strong structure. **Finish:** Galvanized inside and outside.

Jib – 82' (25,0 m) total length lattice structure in three pieces, parts two and three erected hydraulically. **Finish:** Painted Manitowoc Red RAL 3001.

▶ A 20° offset work position for the jib is available: to be selected/prepared before erection and lifting. (not able to luff).

▶ The crane is able to work with a folded jib, also referred to as the “obstacle avoid position.” With jib in this position, total working jib length is 31' 2" (9,5 m). The jib can be folded from both 0° or 20° offset positions.



Mechanisms

Hoist Rope Specifications: **Rope Diameter:** 0,35" (9,0 mm) galvanized hoist, **Construction:** 24 x 7, Right Hand Lay, **Min. Breaking Load:** 15,400 lb (68,500 N), **Mass per unit length:** 0,23 lb/ft (0,34 kg/m), **Strength of wire:** 2160 N/mm², **Number of external wires:** 84, **External Wire Diameter:** 0,022 in (0,57 mm)/strand, **Safety Factor:** 7

Hoisting System – Adjustable Frequency converter control, “9 LVF 10”, 10 Hp (7,5 kW), 2,200 lb (1 000 kg) / fall (max. line pull). 3 “full load” hook speeds (2-part): 13'/min (4 m/min), 65'/min (20 m/min), and 131'/min (40 m/min) or 118'/min (36 m/min). Control ramped for smooth speed control.

Slewing System – Adjustable Frequency converter control, “RVF 30”, 1,5 Hp (1,1 kW), 22 lb-ft (30 N·m) starting torque. variable speeds: 0 rpm to 0,8 rpm. Control ramped for smooth speed control. 360° free (continuous) swing.

Tailswing (Rotation Radius) – All Configurations: 9' 6" (2,8x m) tailswing over counterweights.

Trolley System – Standard “across the line” motor control, “3 D2 V5”, 3 Hp (2,2 kW). Ability to “lift” 1 mton when the jib is with an offset of 20°. 2 trolley “full-load” speeds: 82'/min (25 m/min), and 164'/min (50 m/min).

Design – Conforms to ANSI B30.5.



Outriggers

Outriggers – Out-and-Down style, hydraulically operated, control box mounted on truck chassis back by rear axles.

Outrigger Stance – All Configurations: 21' 10" (6,7x m) front to back, 19' 10" (6,1 x m) side-to-side outrigger stance, to center of pads. Intermediate outrigger position of approximately 13' 7" (4,1x m) to be offered. Audible “swing alarm” to be provided-actuated by any movement of swing control lever(s).



Mounting

Sub-Frame – Torsionally resistant, rigid 4-plate design, mounted under crane full length of truck frame.

Fenders and Platform – Fenders and platform to be supplied on top of truck chassis and below crane for access and serviceability of upperworks.



Electrical System

System – A self contained 480v 3 phase, 60 Hz power system.

Electrical – Supplied by 480V / 60 Hz / 3 ph generator, mounted on truck chassis and PTO driven from truck engine.



Crane Control Station

All functional controls on the crane are completed by radio remote control with a hard-wired secondary controller available if the radio remote is inoperable.

Crane Safety Devices:

1. The unit is designed to operate in winds up to 45 mph (72 km/hr). When allowed to “weather vane”, the unit is stable up to 93 mph (150 km/hr).
2. Load limiter which stops hoist if the load is more than +10% of the max load
3. Limit moment cut-out: prevents a moment that is more than +10%
4. Hoist and trolley limiter to avoid mechanical shock between pulley block and trolley, and trolley and jib end/foot.
5. The hook speed should slow down when it is getting closer to the top and nearing the trolley.
6. On the electric panel, a positive open door contact will cut-out the crane when door is open.



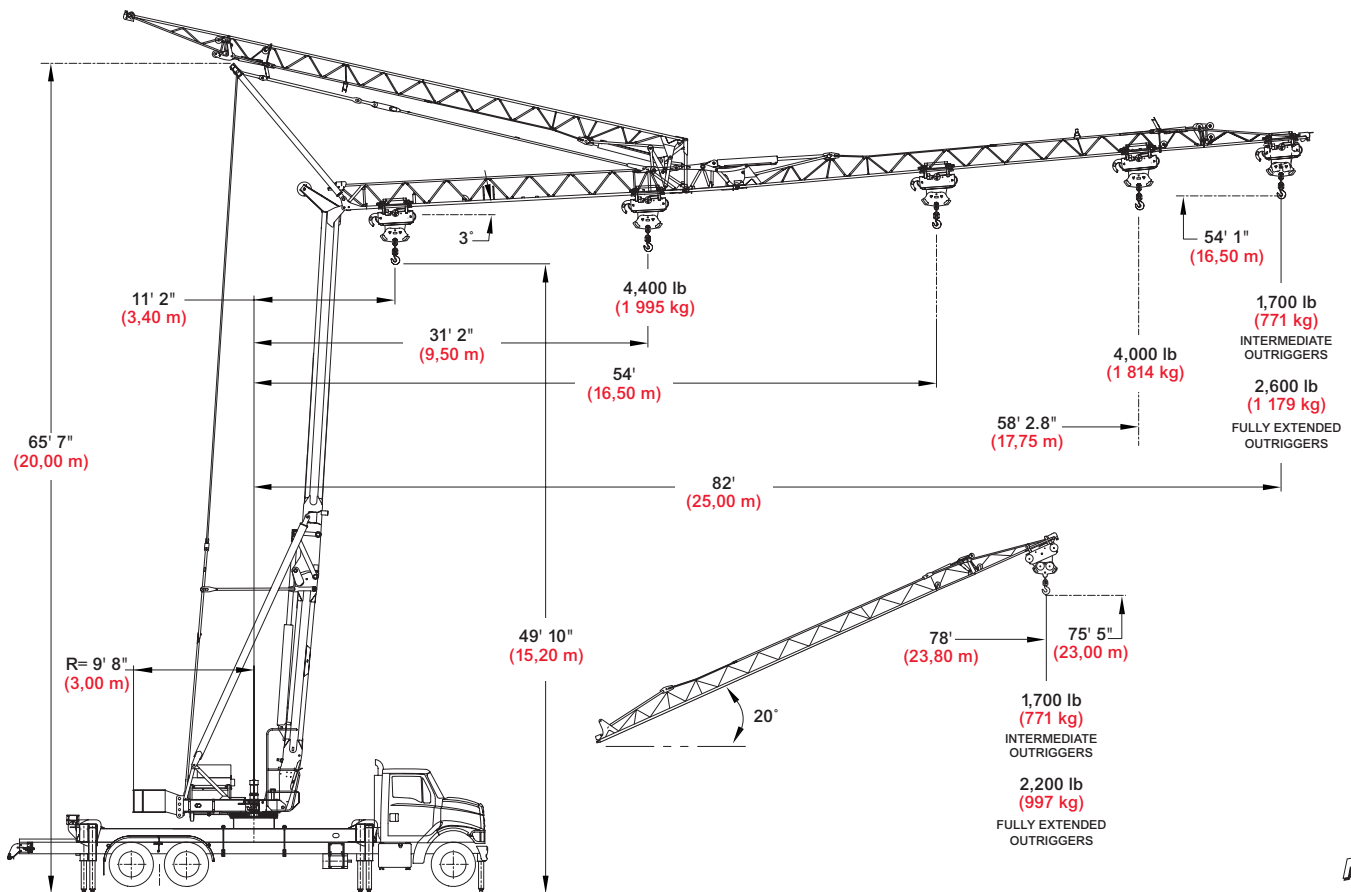
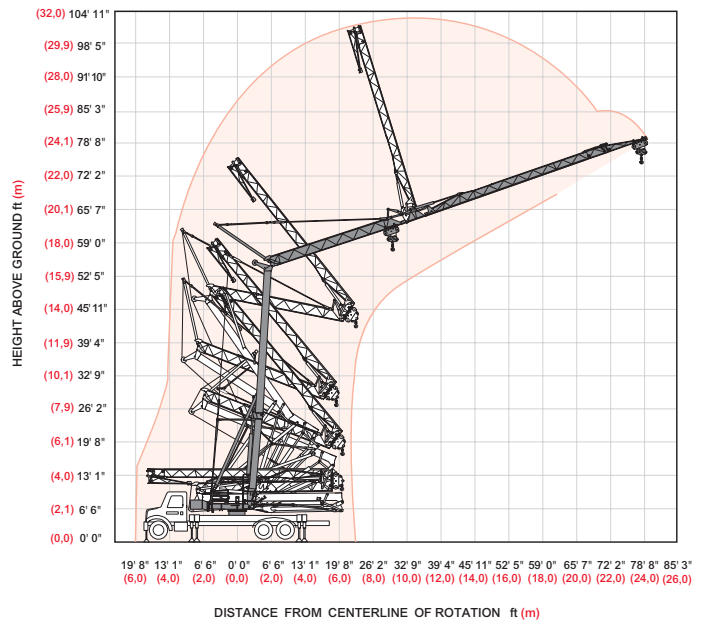
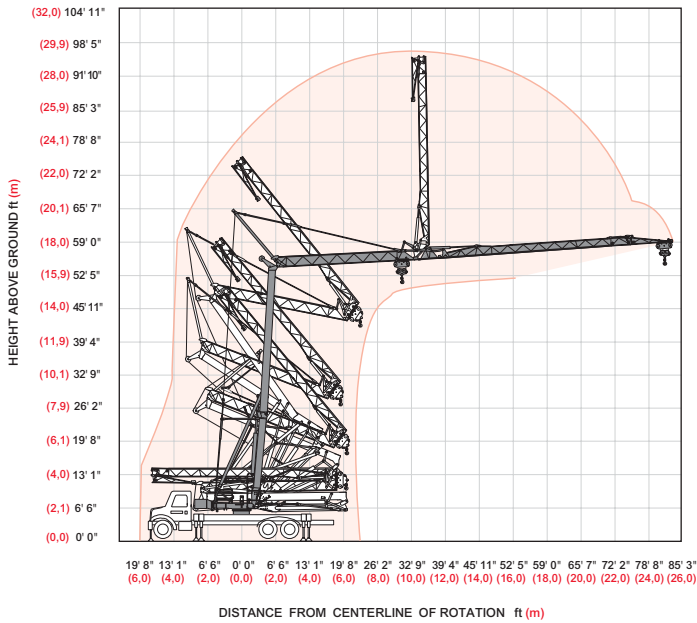
Warning Systems

Audible Swing Alarm – Provided-actuated by any movement of swing control lever(s)

Warning

1. The operator must read and understand the owner's manual before operating this crane.
2. Positioning or operation of crane beyond areas shown is not intended or approved except where specified in owner's manual.
3. Practical working loads depend on supporting surface, wind, and other factors affecting stability such as hazardous surroundings, experience of personnel, and proper handling, all of which must be taken into account by the operator.

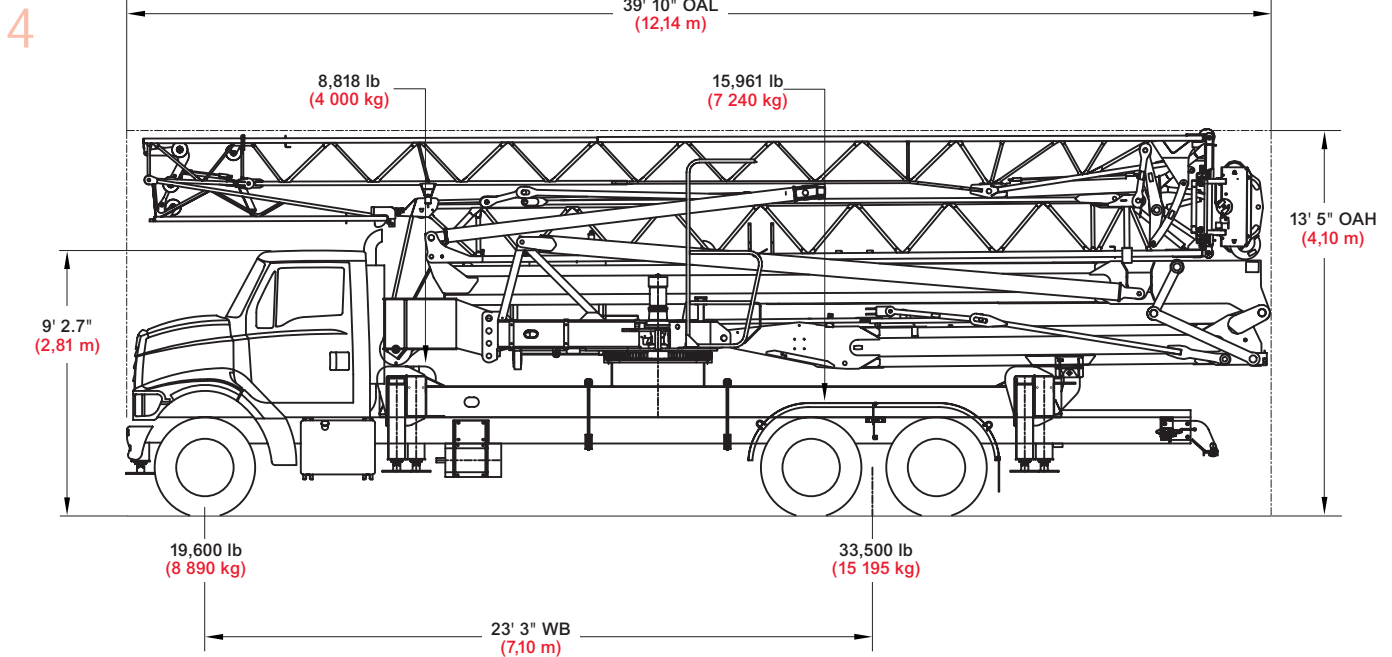
outline dimensions



model S282



outline dimensions



Chassis Data

| | |
|--|------------------------------------|
| Crane Overall Dimensions | S282 |
| Overall Length (OAL) (in transport position) | 39' 10" (12,14 m) |
| Overhang Allowed (in transport position) | 1' 10" (559 mm) |
| Overall Height (in transport position) | 13' 5" (4,00 m) |
| Overall Width (in transport position) | 8' 0" (2,44 m) |

Maximum Tip Height

| | |
|--|--------------------------------------|
| Hook Height with 82' radius (at Jib Tip - Horizontal) | 54' 1" (16,50 m) |
| Hook Height at Jib Tip with 78' radius - Maximum Offset of 20' Maximum Load | 75' 5" (23,00 m) |
| Maximum Load | 4,400 lb (1 995 kg) |
| Maximum Load with Fully Extended Outriggers & 82' Jib (offset of 3') | 2,600 lb (1 179 kg) |
| Maximum Load with Fully Extended Outriggers & 78' Jib (offset of 20') | 2,200 lb (997 kg) |
| Maximum Load with Intermediate Outriggers and 82' Jib (offset of 3') | 1,700 lb (771 kg) |
| Maximum Load with Intermediate Outriggers and 78' Jib (offset of 20') | 1,700 lb (771 kg) |

Weights

| | |
|--------------------------------------|--|
| Total Crane (LT 9501) | 52,481 lb (23 805 kg) |
| Total Crane (LT 7501) | 52,046 lb (23 608 kg) |
| Front (steer) Axles (LT 9501) | 19,249 lb (8 731 kg) |
| Front (steer) Axles (LT 7501) | 18,662 lb (8 465 kg) |
| Rear (drive) Axles (LT 9501) | 33,232 lb (15 074 kg) |
| Rear (drive) Axles (LT 7501) | 33,384 lb (15 143 kg) |
| Crane Counterweight (LT 9501) | 8,761 lb (3 974 kg) |
| Crane Counterweight (LT 7501) | 9,666 lb (4 384 kg) |

OAH Overall Height
 CT Cab to Tandem
 CA Cab to Axle
 WB Wheel Base
 OAL Overall Length
 BBC Bumper to Back of Cab
 AF Afterframe
 EOF End of Frame

model S282

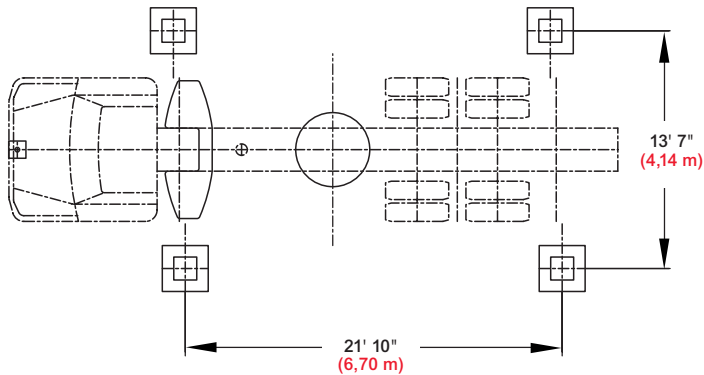
outline dimensions

5

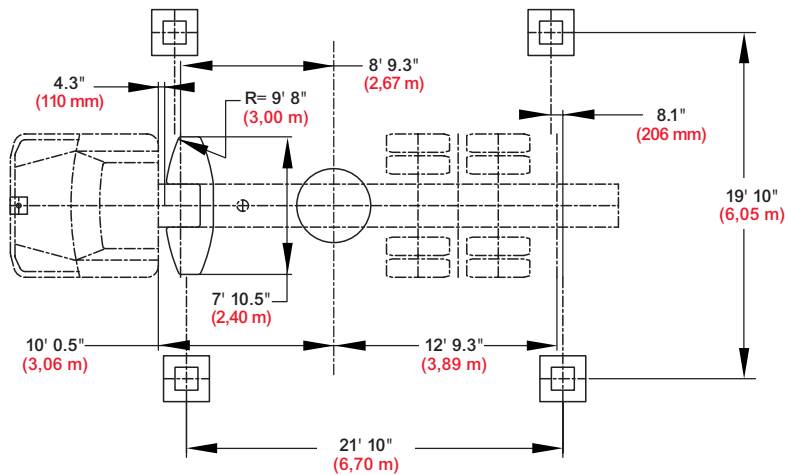
| Mechanisms | | | | | | | ch - PS | kW | |
|-------------------------|----------|----------------|----------------|---------------|---------------|-------------|---------|-----|--|
| ▲ Hoisting | 9 LVF 10 | fpm (mpm) | 13 (4,0) | 66 (20,1) | 108 (32,9) | 131 (39,9) | 10.0 | 7.5 | |
| | | lb (kg) | 4,400 (1 995) | 4,400 (1 995) | 2,600 (1 179) | 2,200 (997) | | | |
| ◀ ▶ Trolleying | 3D2V5 | fpm (mpm) | 82-165 (25-50) | | | | 3.0 | 2.2 | |
| ● Slewing | RVF 30 | rpm tr/m U/min | 0 → 0,8 | | | | 1.5 | 1.1 | |
| CEI 38 IEC 38 | | | | kVA | | | | | |
| 480V (+6% - 10%) -60 Hz | | | | 15 kVA | | | | | |

Outrigger Spread Outline Dimensions

Intermediate



Fully Extended



model S282



boom/jib load charts

6

82' 0" (25,0 m) Jib at 3° Offset

With Intermediate and Fully Extended Outriggers

| Boom/Jib ft (m) | 31' 2" (9,5) | 59' (18,0) | 82'* (25,0) | 82'*** (25,0) |
|------------------------------|--------------------------------------|--------------------------|-------------------------------------|--------------------------|
| | lb (kg) | lb (kg) | lb (kg) | lb (kg) |
| | 4,400† (1 995) | 4,000 (1 814) | 1,700 (771) | 2,600 (1 179) |
| | | | INTERMEDIATE | FULLY EXTENDED |
| Height Under Hook | At Jib Foot (min. radius) | | At Jib End (max. radius) | |
| | 49' 10" (15,20 m) | | 54' 1" (16,50 m) | |

†Maxium Load-4,400 lb (1 995 kg)

*Weight with outriggers in Intermediate Position only

**Weight with outriggers in Fully Extended Position only

78' 0" (23,8 m) Jib at 20° Offset

| Boom/Jib ft (m) | 78'* (23,8) | 78'*** (23,8) | - | - |
|------------------------------|--------------------------------------|-------------------------|-------------------------------------|-------------------|
| | lb (kg) | lb (kg) | | |
| | 1,700 (771) | 2,200† (997) | - | - |
| | | | INTERMEDIATE | FULLY EXTENDED |
| Height Under Hook | At Jib Foot (min. radius) | | At Jib End (max. radius) | |
| | 49' 10" (15,20 m) | | 75' 5" (23,00 m) | |

†Maxium Load-2,200 lb (997 kg) all along jib

*Weight with outriggers in Intermediate Position only

**Weight with outriggers in Fully Extended Position only

31' 2" (9,50 m) Jib at 3° Offset

With Intermediate and Fully Extended Outriggers
(obstacle avoid position-jib folded back)

| Boom/Jib ft (m) | 31' 2"*** (9,5) | 31' 2"*** (9,5) | - | - |
|------------------------------|--------------------------------------|--------------------------|-------------------------------------|-------------------|
| | lb (kg) | lb (kg) | | |
| | 4,400† (1 995) | 4,400 (1 995) | - | - |
| | | | INTERMEDIATE | FULLY EXTENDED |
| Height Under Hook | At Jib Foot (min. radius) | | At Jib End (max. radius) | |
| | 49' 10" (15,20 m) | | 50' 0" (15,24 m) | |

†Maxium Load-4,400 lb (1 995 kg) all along jib

*Weight with outriggers in Intermediate Position only

**Weight with outriggers in Fully Extended Position only

30' 7" (9,32 m) Jib at 20° Offset

(obstacle avoid position-jib folded back)

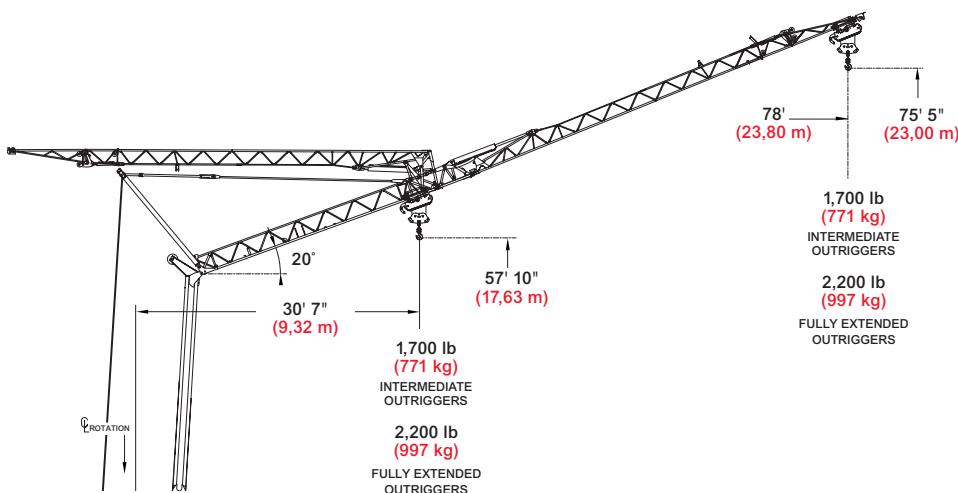
| Boom/Jib ft (m) | 30'* (9,2) | 30'*** (9,2) | - | - |
|------------------------------|--------------------------------------|-------------------------|-------------------------------------|-------------------|
| | lb (kg) | lb (kg) | | |
| | 1,700 (771) | 2,200† (997) | - | - |
| | | | INTERMEDIATE | FULLY EXTENDED |
| Height Under Hook | At Jib Foot (min. radius) | | At Jib End (max. radius) | |
| | 49' 10" (15,20 m) | | 57' 10" (17,63 m) | |

†Maxium Load-2,200 lb (997 kg) all along jib

*Weight with outriggers in Intermediate Position only

**Weight with outriggers in Fully Extended Position only

Raised Jib



model S282

CraneCARE is Manitowoc Boom Trucks' complete service and support program. Incorporated into this program are service training, immediate parts availability, professional field service, and technical support and documentation. CraneCARE is available for every one of the thousands of cranes still operating all over the world.

That's dedication and devotion that you won't get anywhere else.

That's **CraneCARE**.

Service Training

A certified Manitowoc Boom Trucks service specialist works with you in your training facility or in the field to ensure that you know how to achieve maximum performance, dependability, and years from your cranes.

A reputable Manitowoc Boom Trucks Service technician comes to you to provide valuable training to all distributors on the crane's LMI system.

Parts Availability

Genuine Manitowoc Boom Trucks replacement parts may be obtained through your MBT distributor on a regular basis.

Hydraulic Test Kit with Case – Part No. 499792-9

- Small national O-ring kit
- Pressure gauges
- Fluke multi-meter
- Hydraulic flow meters
- Multi-load grease gun
- 6-drawer tool box
- 17-piece wrench set

Field Service

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

For a worldwide listing of dealer locations, please consult our website at: www.manitowocbt.com.

Technical Support

Manitowoc Boom Trucks' dealer network and factory personnel are available 24 hours a day, 7 days a week, 365 days a year to answer your technical questions and more.

For a worldwide listing of dealer locations, please consult our website at: www.manitowocbt.com.

Technical Documentation

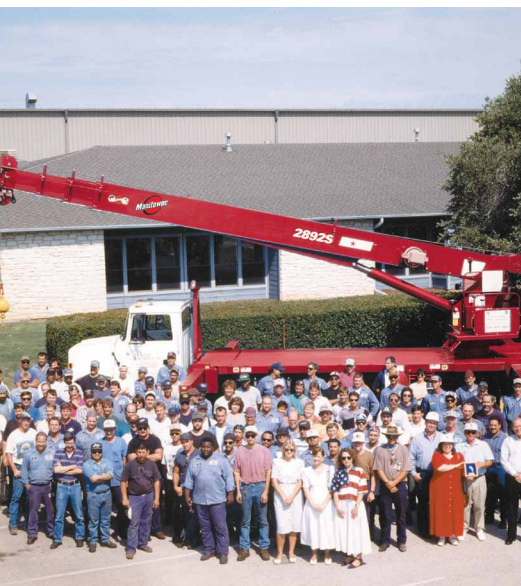
Manitowoc Boom Trucks boast an extensive, easy-to-understand library of documentation.

A complete set of Operator's parts and service manuals are included with each crane.

Additional copies are available through your Authorized Manitowoc Boom Trucks Distributor.



model S282



Backed by Manitowoc Boom Trucks,
part of Manitowoc Crane Group

CraneCARESM

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