

# TMS9000-2

## Preliminary Product Guide

ASME B30.5  
Imperial 85%



### Features

- 100 t (115 USt)
- 11,2 m - 51,6 m (36 ft -169 ft) six-section greaseless MEGAFORM™ boom
- TWIN-LOCK™ boom pinning system
- Several 10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold swingaway extension options and an 8 m (26 ft) insert
- Crane Control System (CCS)
- Tilt superstructure cab
- Up to 22 000 kg (48,500 lb) counterweight with hydraulic removal system

# GROVE TMS9000-2

The TMS9000-2 sets a new standard for truck mounted cranes; with the strongest load charts and the longest boom all at a lighter gross vehicle weight for superior roadability than any other truck crane in its class.

## Features

### > MEGAFORM™ boom

The Grove MEGAFORM™ boom shape eliminates weight and increases capacity compared to conventional shapes. The simplified TWIN-LOCK™ boom pinning system automatically pins the sections in position using two horizontal large diameter pins. A single cylinder inside the boom reduces weight which has been used elsewhere to strengthen the machine.

### > Counterweight

Up to 22 000 kg (48,500 lb) of counterweight can be power installed and removed from the superstructure cab — allowing for easy transport to and from the job site. Wing weights are interchangeable with previous model.

### > Control system

Crane functions are controlled by Crane Control System (CCS). CCS offers a user-friendly interface, two full graphic displays mounted vertically for easier viewing and a jog dial for easier navigation and data input. The system allows the electronic controllers to be reprogrammed by the operator for specific speed and reaction. Parts commonality across Grove, Manitowoc and Potain product lines enhances operator familiarization and serviceability.

### > Outriggers

Two-stage outriggers provide four position settings - 0%, 57%, 79%, and 100%.

### > Optional power luffing extension

For improved up-and-over reach, a power luffing extension is available on the TMS9000-2. It is hydraulically offsettable from the superstructure cab, 0° to 45°. Additional extensions are also available including integrated heavy duty and manually offsettable options.

### > CraneSTAR is an exclusive and innovative crane asset management system

that helps improve your profitability and reduce costs by remotely monitoring critical crane data.

Visit [www.cranestar.com](http://www.cranestar.com) for more information.



**CraneSTAR®**

## Job site benefits

- Multiple ladders on the carrier make accessing the crane easy
- Standard hydraulic tilt cab 0° - 20° for exceptional visibility and operator comfort while working with long boom, inserts, and swingaway
- TWINLOCK™ boom pinning system helps maximize the crane's load chart capacity by eliminating weight inside the extended boom
- Four position outriggers provide more flexibility for setup in congested work environments
- Traction control provides improved traction on the job site
- Available hydraulically offsettable 10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold 0° - 45° offset capability swingaway. This option is conveniently operated inside the cab and is easily stowed and erected using hydraulics
- Available hydraulically offsettable 10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension with integrated 3,5 m (11.4 ft) heavy duty jib for tilt- up work.
- Standard wireless rigging remote enables convenient setup



**Maniowoc Crane Care when you need it.**  
The assurance of the world's most advanced crane service and support to get you back to work fast.



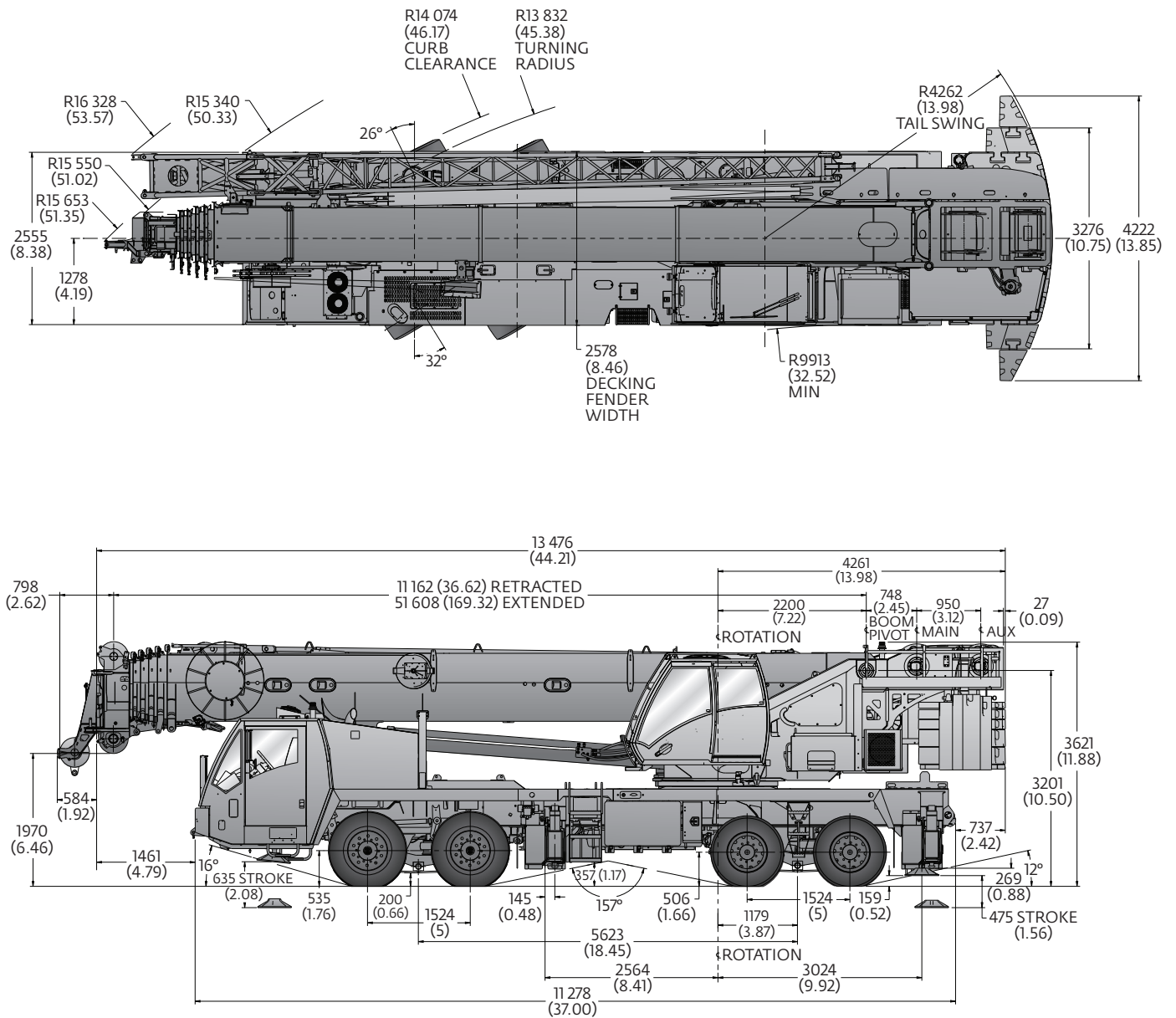
**Maniowoc Finance helps you get right to work generating profits for your business.**  
Financial tools that help you capitalize on opportunity with solutions that fit your needs.

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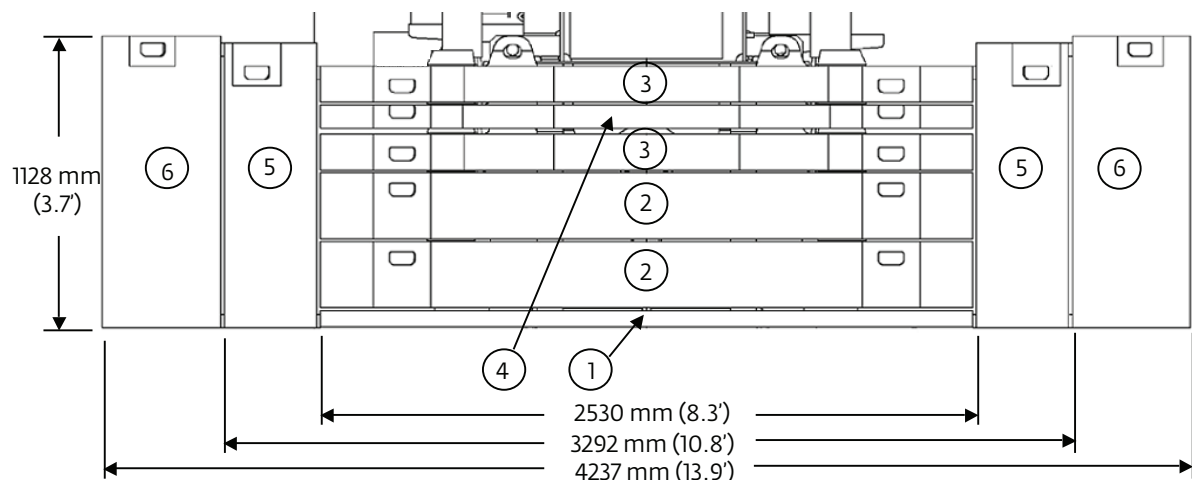
# Dimensions



Dimensions shown in mm (ft)

# Counterweight

## Counterweight configurations

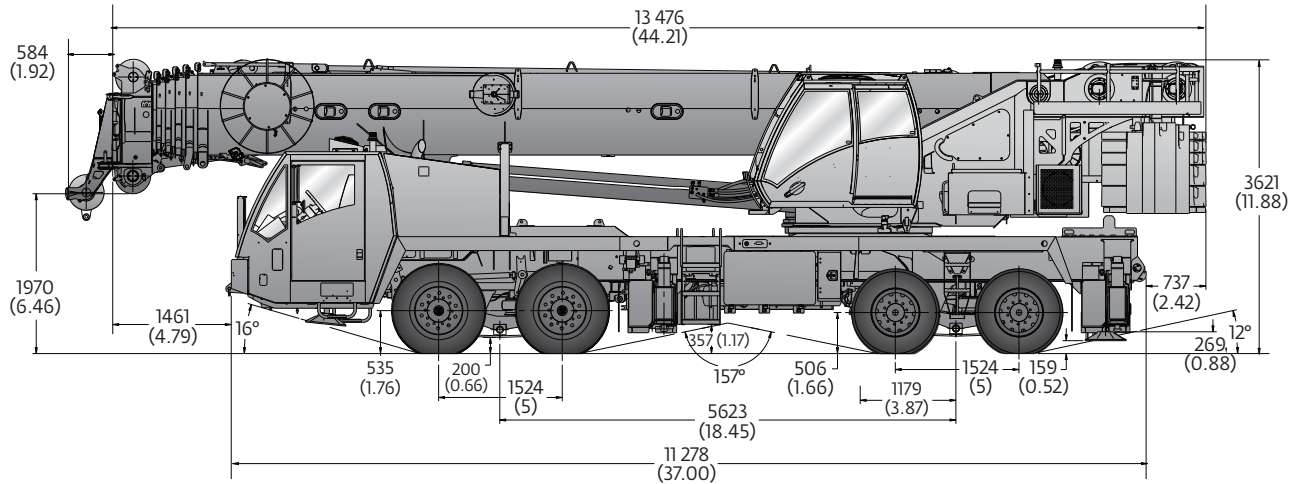


- 1. 1361 kg (3000 lb) baseplate
- 2. 4536 kg (10,000 lb) stackable
- 3. 2268 kg (5000 lb) pinned or stackable
- 4. 1361 kg (3000 lb) pinned or stackable
- 5. 1814 kg (4000 lb) wing
- 6. 1021 kg (2250 lb) wing

| Load chart configurations |   |    |    |   |    |    |
|---------------------------|---|----|----|---|----|----|
|                           | 1 | 2  | 3  | 4 | 5  | 6  |
| 0                         |   |    |    |   |    |    |
| 2722 kg (6000 lb)         | X |    |    | X |    |    |
| 3629 kg (8000 lb)         |   |    | X  | X |    |    |
| 4990 kg (11,000 lb)       | X |    | X  | X |    |    |
| 7258 kg (16,000 lb)       | X |    | 2X | X |    |    |
| 9525 kg (21,000 lb)       | X | X  | X  | X |    |    |
| 11 793 kg (26,000 lb)     | X | X  | 2X | X |    |    |
| 16 329 kg (36,000 lb)     | X | 2X | 2X | X |    |    |
| 19 958 kg (44,000 lb)     | X | 2X | 2X | X | 2X |    |
| 22 000 kg (48,500 lb)     | X | 2X | 2X | X | 2X | 2X |

# Travel proposals

## Boom over front



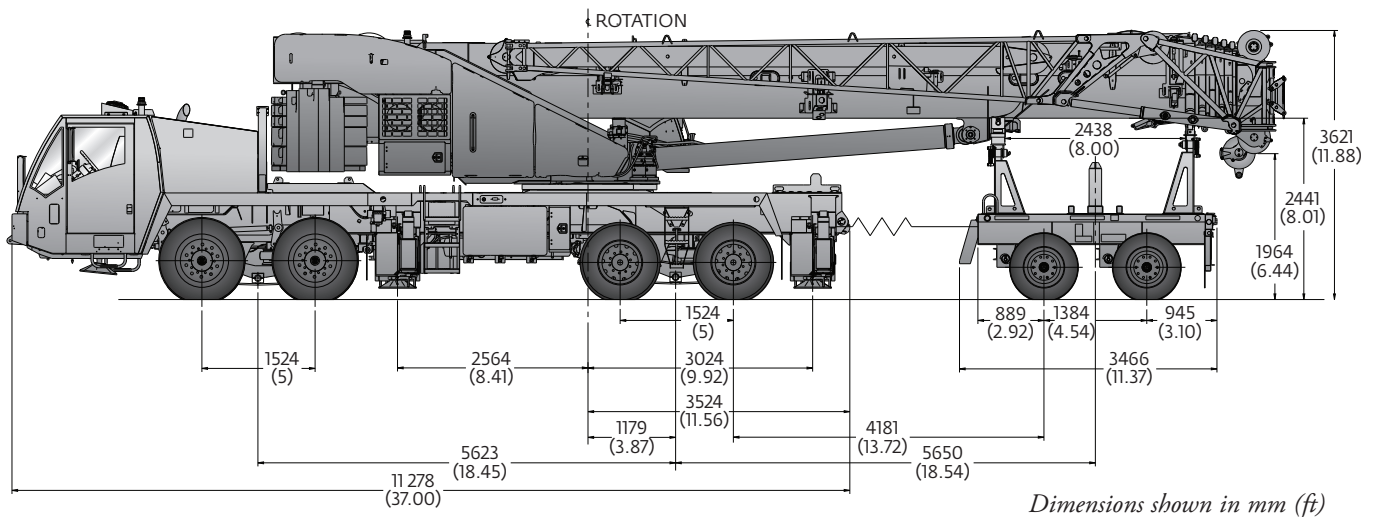
Dimensions shown in mm (ft)

## Unit configuration

|                                                                                                                                                                                           | Front     |           | Rear      |           | G.V.W.    |            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|------------|
| <b>Basic machine:</b> Includes ISX12 on-highway engine, main and auxiliary hoists with wire rope, air conditioning chassis and superstructure cabs, no counterweight and includes driver. | 19 156 kg | 42,231 lb | 17 562 kg | 38,717 lb | 36 718 kg | 80,948 lb  |
| <b>Add:</b> 3000 lb counterweight on carrier deck and 3000 lb counterweight on superstructure. Total counterweight 6000 lb.                                                               | 19 723 kg | 43,481 lb | 19 725 kg | 43,486 lb | 39 448 kg | 86,967 lb  |
| <b>Add:</b> 3000 lb counterweight on carrier deck and 6000 lb counterweight on superstructure. Total counterweight 9000 lb.                                                               | 19 124 kg | 42,160 lb | 21 694 kg | 47,826 lb | 40 817 kg | 89,986 lb  |
| <b>Add:</b> 8000 lb counterweight on carrier deck and 8000 lb counterweight on superstructure. Total counterweight 16,000 lb.                                                             | 20 678 kg | 45,587 lb | 23 323 kg | 51,418 lb | 44 001 kg | 97,005 lb  |
| Auxiliary boom nose                                                                                                                                                                       | 155 kg    | 342 lb    | -69 kg    | -152 lb   | 86 kg     | 190 lb     |
| Manual 10,5 m to 17,6 m (34.5 ft - 57.6 ft) bi-fold swingaway (includes brackets)                                                                                                         | 1769 kg   | 3899 lb   | -50 kg    | -110 lb   | 1719 kg   | 3789 lb    |
| Hydraulic 10,5 m to 17,6 m (34.5 ft - 57.6 ft) bi-fold swingaway (includes brackets and hose reel)                                                                                        | 2163 kg   | 4768 lb   | -186 kg   | -411 lb   | 1976 kg   | 4357 lb    |
| Hydraulic 10,5 m to 17,6 m (34.5 ft-57.6 ft) bifold swingaway with integrated 3,6 m (11,4 ft) heavy duty jib (includes stowage brackets and hose reel)                                    | 2268 kg   | 5000 lb   | -152 kg   | -336 lb   | 2116 kg   | 4664 lb    |
| 11,0 t (12.1 USt) top-swiveling headache ball stowed                                                                                                                                      | 434 kg    | 958 lb    | -140 kg   | -309 lb   | 294 kg    | 648 lb     |
| 45 t (50 USt), three-sheave quick-reeving hook block at bumper                                                                                                                            | 764 kg    | 1685 lb   | -314 kg   | -693 lb   | 450 kg    | 992 lb     |
| <b>Substitute:</b> K-100™ synthetic rope in lieu of wire rope on main and auxiliary hoist                                                                                                 | 264 kg    | 583 lb    | -952 kg   | -2098 lb  | -687 kg   | -1515 lb   |
| Maximum Allowable                                                                                                                                                                         | 23 224 kg | 51,200 lb | 27 216 kg | 60,000 lb | 50 440 kg | 111,200 lb |

# Travel proposals

## Trailing boom dolly



## Unit configuration

|                                                                                                                                                                                                                                                                                  | Front     |           | Rear      |           | Boom Dolly |           | G.V.W.    |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|------------|
| <b>Typical machine:</b> Includes ISX12 on-highway engine, main and auxiliary hoists with wire rope, auxiliary boom nose, manual bifold swingaway, stowed headache ball, 45 t (50 USt) hook block hanging at boom nose, no counterweight, includes driver and 6800 lb boom dolly. | 16 373 kg | 36,096 lb | 13 971 kg | 30,801 lb | 12 085 kg  | 26,643 lb | 42 429 kg | 93,540 lb  |
| <b>Add:</b> 6000 lb counterweight on front carrier deck, 5000 lb counterweight on rear chassis counterweight carrier, 15,000 lb on boom dolly. Total counterweight 26,000 lb.                                                                                                    | 18 517 kg | 40,824 lb | 16 895 kg | 37,246 lb | 18 898 kg  | 41,662 lb | 54 310 kg | 119,732 lb |
| <b>Add:</b> 6000 lb counterweight on the front carrier deck or pinned to superstructure, 5000 lb counterweight on rear chassis counterweight carrier, 25,000 lb on three-axle 9000 lb boom dolly. Total counterweight 36,000 lb.                                                 | 18 517 kg | 40,824 lb | 16 895 kg | 37,246 lb | 24 431 kg  | 53,862 lb | 59 843 kg | 131 932 lb |
| <b>Substitute:</b> Hydraulic 10,5 m to 17,6 m (34.5 ft - 57.6 ft) bifold swingaway (includes brackets and hose reel) in lieu of the manual swingaway                                                                                                                             | -5 kg     | -11 lb    | -4 kg     | -8 lb     | 302 kg     | 665 lb    | 293 kg    | 646 lb     |
| <b>Substitute:</b> Hydraulic 10,5 m to 17,6 m (34.5 ft-57.6 ft) bifold swingaway with integrated 3 m (10 ft) heavy duty jib (includes stowage brackets and hose reel) in lieu of the manual swingaway                                                                            | 25 kg     | 55 lb     | 16 kg     | 36 lb     | 356 kg     | 784 lb    | 397 kg    | 875 lb     |
| <b>Substitute:</b> K-100™ synthetic rope in lieu of wire rope on main and auxiliary hoist                                                                                                                                                                                        | -553 kg   | -1219 lb  | -134 kg   | -296 lb   | -          | -         | -687 kg   | -1514 lb   |



# Load handling

|                            |                |
|----------------------------|----------------|
| <b>Auxiliary boom nose</b> | 86 kg (190 lb) |
|----------------------------|----------------|

## Hook blocks and headache balls:

|                             |                    |
|-----------------------------|--------------------|
| 91 t (100 USt)              | 658 kg (1451 lb) + |
| 60 t (65 USt) 5-sheave      | 564 kg (1243 lb) + |
| 45 t (50 USt) 3-sheave      | 450 kg (992 lb) +  |
| 26 t (28 USt) 1-sheave      | 323 kg (712 lb) +  |
| 11 t (12 USt) overhaul ball | 294 kg (648 lb) +  |

+ Refer to rating plate for actual weight.

When lifting over extension and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

| Hoists    | Cable specs                                                                                  | Permissible line pulls | Nominal cable length |
|-----------|----------------------------------------------------------------------------------------------|------------------------|----------------------|
| Main      | 19 mm (3/4 in) 35x7 Class Rotation Resistant<br>Min. Breaking Strength 38 918 kg (85,800 lb) | 7784 kg (17,160 lb)    | 250 m (820 ft)       |
| Main      | 22 mm (7/8 in) K-100™ Synthetic rope<br>Min. Breaking Strength 31 800 kg (84,000 lb)         | 7620 kg (16,800 lb)    | 257 m (843 ft)       |
| Auxiliary | 19 mm (3/4 in) 35x7 Class Rotation Resistant Min. Breaking Strength 38 918 kg (85,800 lb)    | 7764 kg (17,160 lb)    | 177 m (581 ft)       |
| Auxiliary | 22 mm (7/8 in) K-100™ Synthetic rope<br>Min. Breaking Strength 31 800 kg (84,000 lb)         | 7620 kg (16,800 lb)    | 184 m (604 ft)       |

The approximate weight of 19 mm (3/4 in) wire rope is 2.2 kg/m (1.5 lb/ft)

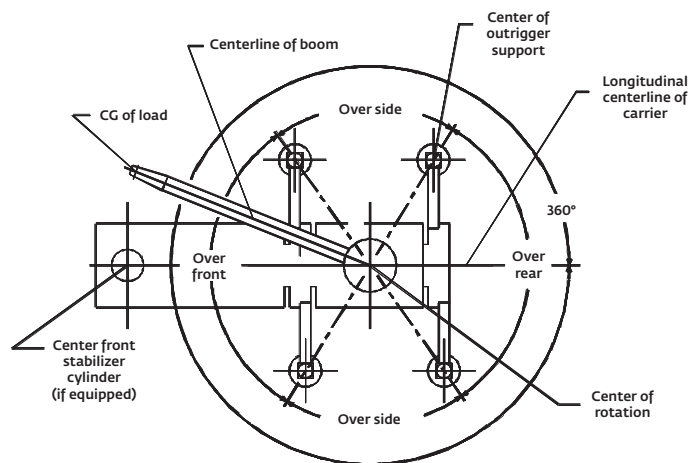
| Hoist performance |                       |                           |                  |
|-------------------|-----------------------|---------------------------|------------------|
| Wire rope layer   | Hoist line pull       | Drum rope capacity m (ft) |                  |
|                   | Available*            | Layer                     | Total            |
| 1                 | 10 900 kg (24,000 lb) | 33,5 m (110 ft)           | 33,5 m (110 ft)  |
| 2                 | 10 000 kg (22,100 lb) | 36,6 m (120 ft)           | 70,1 m (230 ft)  |
| 3                 | 9250 kg (20,400 lb)   | 39,7 m (130 ft)           | 109,9 m (360 ft) |
| 4                 | 8700 kg (19,100 lb)   | 42,8 m (141 ft)           | 152,7 m (501 ft) |
| 5                 | 8000 kg (17,700 lb)   | 45,9 m (151 ft)           | 198,6 m (652 ft) |
| 6                 | 7550 kg (16,600 lb)   | 49,0 m (161 ft)           | 247,6 m (812 ft) |

\*Max lifting capacity

19 mm 35x7 Class: 7784 kg (17,160 lb)

## Working area diagram

Bold lines determine the limiting position of any load for operation within working areas indicated.



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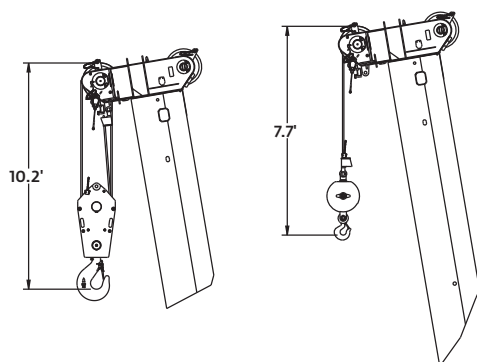
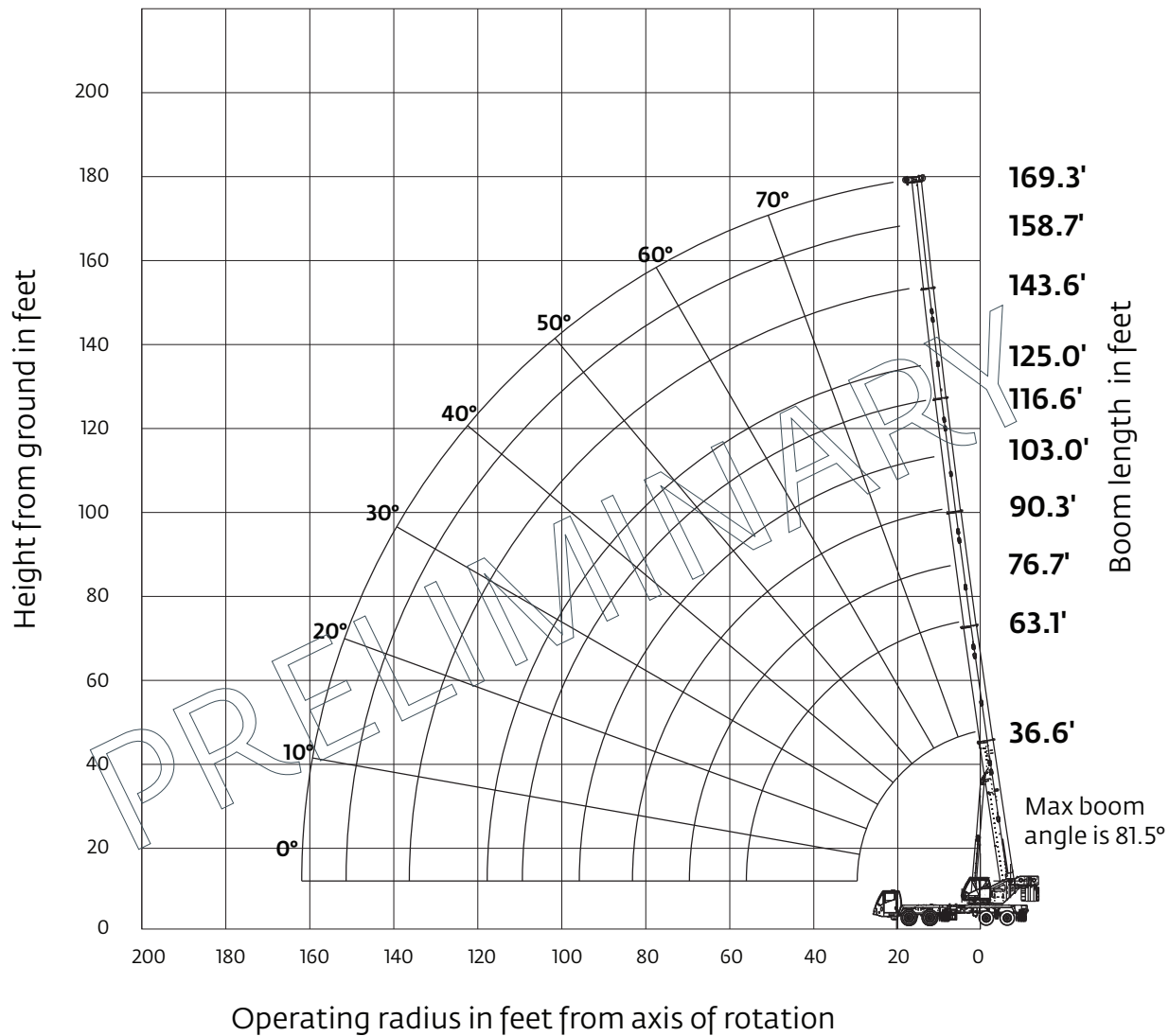
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# Working range

Main boom

36.6 ft - 169.3 ft main boom



Dimensions are for the largest Grove furnished hook block and overhaul ball, with anti-two block activated.

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# Load chart

## Main boom

 36.6 ft - 169.3 ft  
Fixed lengths

 48,500 lb

 100%  
23 ft

 360°



Pounds x 1000

| Feet  | 36.6     | 49.7 - 50.1 | 61.6 - 63.6 | 75.2 - 77.4 | 88.1-90.3 | 100.8 - 103.0 | 111.4-114.4 | 124.6-125.8 | 130.0-133.7 | 147.3-153.3 | 160.9-165.0 | 169.3  |
|-------|----------|-------------|-------------|-------------|-----------|---------------|-------------|-------------|-------------|-------------|-------------|--------|
| 8.0   | 230,000* |             |             |             |           |               |             |             |             |             |             |        |
| 9.0   | 180,000  | 164,000     | 152,500     | 129,000     |           |               |             |             |             |             |             |        |
| 10.0  | 173,500  | 158,000     | 146,000     | 128,500     |           |               |             |             |             |             |             |        |
| 12.0  | 155,500  | 148,500     | 135,500     | 123,500     | 94,650    |               |             |             |             |             |             |        |
| 15.0  | 134,500  | 135,500     | 123,500     | 114,000     | 94,650    | 75,000        |             |             |             |             |             |        |
| 20.0  | 108,000  | 109,500     | 110,000     | 99,950      | 93,900    | 73,550        | 58,050      | 45,800      | 40,950      |             |             |        |
| 25.0  | 84,850   | 86,450      | 87,050      | 86,650      | 84,150    | 71,000        | 58,050      | 45,800      | 40,950      | 30,050      |             |        |
| 30.0  |          | 70,450      | 71,050      | 70,700      | 72,000    | 62,850        | 56,600      | 45,800      | 39,550      | 30,050      | 24,450      | 21,200 |
| 35.0  |          | 58,000      | 58,350      | 59,900      | 59,050    | 56,150        | 50,350      | 45,800      | 35,300      | 30,050      | 24,450      | 21,200 |
| 40.0  |          | 48,650      | 48,300      | 49,800      | 49,000    | 50,350        | 45,000      | 43,550      | 35,300      | 30,050      | 24,450      | 21,200 |
| 45.0  |          |             | 41,450      | 42,300      | 41,500    | 42,800        | 40,750      | 38,750      | 31,800      | 30,050      | 24,450      | 21,200 |
| 50.0  |          |             | 36,400      | 36,400      | 37,650    | 36,900        | 36,800      | 34,800      | 28,800      | 30,050      | 24,450      | 21,200 |
| 55.0  |          |             | 31,500      | 31,700      | 32,950    | 32,100        | 31,950      | 31,900      | 26,300      | 29,400      | 24,450      | 21,200 |
| 60.0  |          |             |             | 27,650      | 28,850    | 28,000        | 28,750      | 28,550      | 24,100      | 27,350      | 24,150      | 21,200 |
| 65.0  |          |             |             | 25,350      | 25,450    | 24,650        | 25,400      | 25,200      | 22,200      | 24,500      | 22,150      | 20,600 |
| 70.0  |          |             |             | 17,600      | 22,600    | 22,150        | 22,500      | 22,350      | 20,500      | 21,650      | 20,350      | 19,300 |
| 75.0  |          |             |             |             | 20,200    | 19,750        | 20,450      | 19,950      | 19,050      | 19,250      | 18,800      | 18,100 |
| 80.0  |          |             |             |             | 19,500    | 17,800        | 18,400      | 18,450      | 17,450      | 18,050      | 17,400      | 17,000 |
| 85.0  |          |             |             |             |           | 16,900        | 16,700      | 16,750      | 15,800      | 16,700      | 15,950      | 15,800 |
| 90.0  |          |             |             |             |           | 15,750        | 15,150      | 15,200      | 14,600      | 15,150      | 14,700      | 14,550 |
| 95.0  |          |             |             |             |           | 13,050        | 13,750      | 13,850      | 13,750      | 13,750      | 13,350      | 13,200 |
| 100.0 |          |             |             |             |           |               | 12,800      | 12,650      | 13,000      | 12,550      | 12,100      | 12,000 |
| 105.0 |          |             |             |             |           |               | 11,200      | 11,550      | 11,900      | 11,600      | 11,050      | 10,900 |
| 110.0 |          |             |             |             |           |               |             | 10,600      | 10,950      | 10,650      | 10,100      | 9970   |
| 115.0 |          |             |             |             |           |               |             | 9750        | 10,050      | 9790        | 9220        | 9100   |
| 120.0 |          |             |             |             |           |               |             |             | 9290        | 8990        | 8430        | 8310   |
| 125.0 |          |             |             |             |           |               |             |             | 8570        | 8270        | 7710        | 7590   |
| 130.0 |          |             |             |             |           |               |             |             |             | 7610        | 7050        | 6930   |
| 135.0 |          |             |             |             |           |               |             |             |             | 7000        | 6440        | 6320   |
| 140.0 |          |             |             |             |           |               |             |             |             | 6450        | 5880        | 5760   |
| 145.0 |          |             |             |             |           |               |             |             |             |             | 5370        | 5250   |
| 150.0 |          |             |             |             |           |               |             |             |             |             | 4900        | 4770   |
| 155.0 |          |             |             |             |           |               |             |             |             |             | 4460        | 4340   |
| 160.0 |          |             |             |             |           |               |             |             |             |             |             | 3930   |

\*Requires special equipment.

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# Load chart

## Main boom

  
36.6 ft - 169.3 ft  
Fixed lengths

  
36,000 lb

  
100%  
23 ft

  
360°



Pounds x 1000

| Feet  | 36.6    | 49.7-50.1 | 61.6 - 63.6 | 75.2 - 77.4 | 88.1-90.3 | 100.8 - 103.0 | 111.4-114.4 | 124.6-125.8 | 130.0-133.7 | 147.3-153.3 | 160.9-165.0 | 169.3  |
|-------|---------|-----------|-------------|-------------|-----------|---------------|-------------|-------------|-------------|-------------|-------------|--------|
| 9.0   | 178,000 | 164,000   | 160,000     | 129,000     |           |               |             |             |             |             |             |        |
| 10.0  | 168,000 | 158,000   | 146,000     | 128,500     |           |               |             |             |             |             |             |        |
| 12.0  | 150,500 | 148,500   | 135,500     | 123,500     | 94,650    |               |             |             |             |             |             |        |
| 15.0  | 130,000 | 131,000   | 123,500     | 114,000     | 94,650    | 75,000        |             |             |             |             |             |        |
| 20.0  | 102,000 | 103,500   | 104,000     | 99,950      | 93,900    | 73,550        | 58,050      | 45,800      | 40,950      |             |             |        |
| 25.0  | 79,700  | 81,350    | 81,950      | 81,550      | 82,800    | 71,000        | 58,050      | 45,800      | 40,950      | 30,050      |             |        |
| 30.0  |         | 64,600    | 64,900      | 66,500      | 65,600    | 62,850        | 56,600      | 45,800      | 39,550      | 30,050      | 24,450      | 21,200 |
| 35.0  |         | 52,700    | 52,150      | 53,650      | 52,800    | 54,200        | 50,350      | 45,800      | 35,300      | 30,050      | 24,450      | 21,200 |
| 40.0  |         | 43,300    | 44,350      | 44,200      | 45,400    | 44,600        | 44,450      | 43,550      | 35,300      | 30,050      | 24,450      | 21,200 |
| 45.0  |         |           | 36,750      | 36,600      | 37,900    | 37,000        | 36,800      | 37,550      | 31,800      | 30,050      | 24,450      | 21,200 |
| 50.0  |         |           | 30,850      | 32,300      | 32,050    | 31,250        | 31,950      | 31,750      | 28,800      | 30,050      | 24,450      | 21,200 |
| 55.0  |         |           | 27,450      | 27,800      | 27,450    | 26,900        | 27,700      | 27,150      | 26,300      | 26,400      | 24,450      | 21,200 |
| 60.0  |         |           |             | 24,150      | 23,800    | 23,300        | 24,050      | 23,800      | 23,050      | 23,600      | 23,200      | 21,200 |
| 65.0  |         |           |             | 21,150      | 22,300    | 21,350        | 21,050      | 21,150      | 20,250      | 21,000      | 20,300      | 20,400 |
| 70.0  |         |           |             | 15,250      | 19,800    | 19,250        | 18,700      | 18,650      | 18,850      | 18,550      | 18,100      | 17,950 |
| 75.0  |         |           |             |             | 17,700    | 17,150        | 16,950      | 16,700      | 17,050      | 16,750      | 16,150      | 16,050 |
| 80.0  |         |           |             |             | 16,000    | 15,450        | 15,200      | 14,900      | 15,300      | 15,000      | 14,400      | 14,250 |
| 85.0  |         |           |             |             |           | 13,900        | 13,650      | 13,400      | 13,750      | 13,450      | 12,850      | 12,750 |
| 90.0  |         |           |             |             |           | 12,550        | 12,300      | 12,050      | 12,400      | 12,100      | 11,550      | 11,400 |
| 95.0  |         |           |             |             |           | 10,750        | 11,150      | 10,850      | 11,200      | 10,950      | 10,350      | 10,250 |
| 100.0 |         |           |             |             |           |               | 10,100      | 9850        | 10,200      | 9910        | 9330        | 9210   |
| 105.0 |         |           |             |             |           |               | 9240        | 8920        | 9270        | 8980        | 8400        | 8280   |
| 110.0 |         |           |             |             |           |               |             | 8090        | 8430        | 8140        | 7570        | 7450   |
| 115.0 |         |           |             |             |           |               |             | 7,40        | 7680        | 7380        | 6820        | 6700   |
| 120.0 |         |           |             |             |           |               |             |             | 6990        | 6700        | 6130        | 6010   |
| 125.0 |         |           |             |             |           |               |             |             | 6380        | 6080        | 5510        | 5390   |
| 130.0 |         |           |             |             |           |               |             |             |             | 5510        | 4950        | 4820   |
| 135.0 |         |           |             |             |           |               |             |             |             | 4990        | 4430        | 4300   |
| 140.0 |         |           |             |             |           |               |             |             |             | 4510        | 3950        | 3830   |
| 145.0 |         |           |             |             |           |               |             |             |             |             | 3510        | 3380   |
| 150.0 |         |           |             |             |           |               |             |             |             |             | 3100        | 2980   |
| 155.0 |         |           |             |             |           |               |             |             |             |             | 2730        | 2600   |
| 160.0 |         |           |             |             |           |               |             |             |             |             |             | 2260   |

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# Load chart

## Main boom



36.6 ft - 169.3 ft  
Fixed lengths



26,000 lb



100%  
23 ft



360°



Pounds x 1000

| Feet  | 36.6    | 49.7-50.1 | 61.6 - 63.6 | 75.2 - 77.4 | 88.1-90.3 | 100.8 - 103.0 | 111.4-114.4 | 124.6-125.8 | 130.0-133.7 | 147.3-153.3 | 160.9-165.0 | 169.3  |
|-------|---------|-----------|-------------|-------------|-----------|---------------|-------------|-------------|-------------|-------------|-------------|--------|
| 9.0   | 173,500 | 164,000   | 152,500     | 129,000     |           |               |             |             |             |             |             |        |
| 10.0  | 163,500 | 158,000   | 146,000     | 128,500     | 95,450    |               |             |             |             |             |             |        |
| 12.0  | 146,500 | 147,500   | 135,500     | 123,500     | 94,350    | 74,550        |             |             |             |             |             |        |
| 15.0  | 126,000 | 127,500   | 123,500     | 114,000     | 94,250    | 74,550        | 57,500      |             |             |             |             |        |
| 20.0  | 97,050  | 98,600    | 99,200      | 98,700      | 93,900    | 73,150        | 57,500      | 45,450      | 40,950      | 29,800      | 24,150      |        |
| 25.0  | 74,900  | 76,250    | 76,600      | 76,850      | 77,350    | 71,000        | 57,500      | 45,450      | 40,950      | 29,800      | 24,150      | 21,050 |
| 30.0  |         | 59,550    | 58,950      | 60,550      | 59,650    | 61,100        | 56,500      | 45,450      | 39,550      | 29,800      | 24,150      | 21,050 |
| 35.0  |         | 46,550    | 47,600      | 47,400      | 48,850    | 47,850        | 47,700      | 45,400      | 35,300      | 29,800      | 24,150      | 21,050 |
| 40.0  |         | 37,450    | 37,750      | 39,350      | 39,050    | 38,450        | 38,900      | 38,650      | 35,300      | 29,800      | 24,150      | 21,050 |
| 45.0  |         |           | 32,100      | 32,450      | 32,050    | 31,550        | 32,000      | 31,750      | 31,250      | 29,800      | 24,150      | 21,050 |
| 50.0  |         |           | 26,900      | 27,250      | 27,300    | 26,600        | 26,800      | 27,250      | 26,100      | 27,100      | 24,150      | 21,050 |
| 55.0  |         |           | 22,850      | 23,200      | 24,400    | 23,800        | 23,500      | 23,200      | 23,600      | 23,100      | 22,450      | 21,050 |
| 60.0  |         |           |             | 20,050      | 21,150    | 20,600        | 20,300      | 20,000      | 20,400      | 20,050      | 19,400      | 19,250 |
| 65.0  |         |           |             | 17,450      | 18,550    | 18,000        | 17,700      | 17,400      | 17,800      | 17,450      | 17,000      | 16,850 |
| 70.0  |         |           |             | 11,850      | 16,450    | 15,900        | 15,650      | 15,350      | 15,750      | 15,450      | 14,850      | 14,700 |
| 75.0  |         |           |             |             | 14,600    | 14,100        | 13,850      | 13,550      | 13,950      | 13,650      | 13,050      | 12,900 |
| 80.0  |         |           |             |             | 13,050    | 12,750        | 12,800      | 12,000      | 12,400      | 12,100      | 11,500      | 11,350 |
| 85.0  |         |           |             |             |           | 12,000        | 11,800      | 10,700      | 11,050      | 10,750      | 10,150      | 10,050 |
| 90.0  |         |           |             |             |           | 10,850        | 10,600      | 9530        | 9890        | 9600        | 9010        | 8890   |
| 95.0  |         |           |             |             |           | 8930          | 9610        | 8510        | 8860        | 8570        | 7990        | 7860   |
| 100.0 |         |           |             |             |           |               | 8700        | 7600        | 7950        | 7660        | 7080        | 6960   |
| 105.0 |         |           |             |             |           |               | 7900        | 6790        | 7140        | 6850        | 6270        | 6150   |
| 110.0 |         |           |             |             |           |               |             | 6070        | 6410        | 6120        | 5550        | 5430   |
| 115.0 |         |           |             |             |           |               |             | 5420        | 5750        | 5460        | 4890        | 4770   |
| 120.0 |         |           |             |             |           |               |             |             | 5160        | 4870        | 4300        | 4180   |
| 125.0 |         |           |             |             |           |               |             |             | 4630        | 4320        | 3760        | 3640   |
| 130.0 |         |           |             |             |           |               |             |             |             | 3830        | 3270        | 3150   |
| 135.0 |         |           |             |             |           |               |             |             |             | 3380        | 2810        | 2690   |
| 140.0 |         |           |             |             |           |               |             |             |             | 2960        | 2400        | 2280   |
| 145.0 |         |           |             |             |           |               |             |             |             | 2590        | 2020        | 1890   |
| 150.0 |         |           |             |             |           |               |             |             |             |             | 1660        | 1540   |
| 155.0 |         |           |             |             |           |               |             |             |             |             | 1340        | 1210   |

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# Load chart

## Main boom

 36.6 ft - 169.3 ft  
Fixed lengths

 16,000 lb

 100%  
23 ft

 360°



Pounds x 1000

| Feet  | 36.6    | 49.7-50.1 | 61.6 - 63.6 | 75.2 - 77.4 | 88.1-90.3 | 100.8 - 103.0 | 111.4-114.4 | 124.6-125.8 | 128.5-133.7 | 147.3-153.3 | 160.9-165.0 | 169.3  |
|-------|---------|-----------|-------------|-------------|-----------|---------------|-------------|-------------|-------------|-------------|-------------|--------|
| 9.0   | 168,500 | 164,000   | 152,500     | 129,000     |           |               |             |             |             |             |             |        |
| 10.0  | 159,000 | 158,000   | 146,000     | 128,500     | 95,450    |               |             |             |             |             |             |        |
| 12.0  | 142,000 | 143,500   | 135,500     | 123,500     | 94,350    | 74,550        |             |             |             |             |             |        |
| 15.0  | 122,500 | 123,500   | 123,000     | 114,000     | 94,250    | 74,550        | 57,500      | 45,450      |             |             |             |        |
| 20.0  | 92,000  | 93,550    | 94,150      | 93,650      | 93,900    | 73,150        | 57,500      | 45,450      | 40,950      | 29,800      | 24,150      |        |
| 25.0  | 67,450  | 69,850    | 69,150      | 70,850      | 69,900    | 71,000        | 57,500      | 45,450      | 40,950      | 29,800      | 24,150      | 21,050 |
| 30.0  |         | 51,050    | 52,200      | 51,950      | 53,650    | 52,450        | 52,250      | 45,450      | 40,950      | 29,800      | 24,150      | 21,050 |
| 35.0  |         | 38,900    | 39,700      | 41,050      | 40,600    | 39,950        | 40,900      | 40,200      | 39,550      | 29,800      | 24,150      | 21,050 |
| 40.0  |         | 30,500    | 32,150      | 32,550      | 32,150    | 31,750        | 32,450      | 32,550      | 31,300      | 29,800      | 24,150      | 21,050 |
| 45.0  |         |           | 26,150      | 26,500      | 27,800    | 27,150        | 26,850      | 26,500      | 26,950      | 26,400      | 24,150      | 21,050 |
| 50.0  |         |           | 21,700      | 22,050      | 23,300    | 22,650        | 22,400      | 22,050      | 22,500      | 22,100      | 21,450      | 21,050 |
| 55.0  |         |           | 18,300      | 18,650      | 19,800    | 19,250        | 19,200      | 18,650      | 19,050      | 18,700      | 18,000      | 17,850 |
| 60.0  |         |           |             | 16,100      | 17,150    | 16,850        | 17,150      | 16,000      | 17,050      | 16,100      | 15,450      | 15,350 |
| 65.0  |         |           |             | 13,900      | 14,900    | 15,250        | 15,000      | 13,800      | 14,800      | 13,900      | 13,250      | 13,150 |
| 70.0  |         |           |             | 8,470       | 13,050    | 13,350        | 13,150      | 11,950      | 12,950      | 12,050      | 11,450      | 11,300 |
| 75.0  |         |           |             |             | 11,500    | 11,800        | 11,600      | 10,450      | 11,400      | 10,500      | 9910        | 9790   |
| 80.0  |         |           |             |             | 10,150    | 10,450        | 10,250      | 9130        | 10,050      | 9200        | 8600        | 8470   |
| 85.0  |         |           |             |             |           | 9340          | 9110        | 7990        | 8940        | 8060        | 7470        | 7340   |
| 90.0  |         |           |             |             |           | 8340          | 8110        | 6990        | 7940        | 7060        | 6480        | 6350   |
| 95.0  |         |           |             |             |           | 6550          | 7230        | 6120        | 7060        | 6190        | 5610        | 5480   |
| 100.0 |         |           |             |             |           |               | 6450        | 5350        | 6280        | 5410        | 4830        | 4710   |
| 105.0 |         |           |             |             |           |               | 5770        | 4660        | 5580        | 4720        | 4150        | 4020   |
| 110.0 |         |           |             |             |           |               |             | 4050        | 4960        | 4100        | 3530        | 3410   |
| 115.0 |         |           |             |             |           |               |             | 3490        | 4400        | 3540        | 2970        | 2850   |
| 120.0 |         |           |             |             |           |               |             |             | 3900        | 3030        | 2470        | 2340   |
| 125.0 |         |           |             |             |           |               |             |             | 2870        | 2570        | 2010        | 1890   |
| 130.0 |         |           |             |             |           |               |             |             |             | 2150        | 1590        | 1470   |
| 135.0 |         |           |             |             |           |               |             |             |             | 1770        | 1200        | 1080   |
| 140.0 |         |           |             |             |           |               |             |             |             | 1420        |             |        |
| 145.0 |         |           |             |             |           |               |             |             |             | 1100        |             |        |

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# Load chart

## Main boom

 36.6 ft - 169.3 ft  
Fixed lengths

 6000 lb

 100%  
23 ft

 360°



Pounds x 1000

| Feet  | 36.6    | 49.7-50.1 | 61.6 - 63.6 | 75.2 - 77.4 | 88.1-90.3 | 100.8 - 103.0 | 111.4-114.4 | 125.0-128.5 | 136.4-139.9 | 148.1-153.3 | 160.9-165.0 | 169.3  |
|-------|---------|-----------|-------------|-------------|-----------|---------------|-------------|-------------|-------------|-------------|-------------|--------|
| 9.0   | 163,500 | 164,000   | 152,500     | 129,000     |           |               |             |             |             |             |             |        |
| 10.0  | 154,000 | 155,000   | 146,000     | 128,500     |           |               |             |             |             |             |             |        |
| 12.0  | 138,000 | 139,000   | 135,500     | 123,500     | 94,650    |               |             |             |             |             |             |        |
| 15.0  | 118,000 | 119,500   | 120,000     | 114,000     | 94,650    | 75,000        |             |             |             |             |             |        |
| 20.0  | 84,400  | 85,800    | 86,150      | 88,000      | 86,950    | 73,550        | 58,050      | 45,800      |             |             |             |        |
| 25.0  | 55,950  | 58,750    | 60,100      | 59,850      | 61,850    | 60,450        | 58,050      | 45,800      | 37,900      | 30,050      |             |        |
| 30.0  |         | 41,150    | 43,050      | 43,500      | 43,000    | 42,300        | 43,350      | 42,600      | 37,900      | 30,050      | 24,450      | 21,200 |
| 35.0  |         | 30,450    | 32,200      | 32,650      | 34,100    | 33,350        | 33,000      | 31,900      | 31,850      | 30,050      | 24,450      | 21,200 |
| 40.0  |         | 23,500    | 25,150      | 25,550      | 26,900    | 26,200        | 26,000      | 25,050      | 26,200      | 25,650      | 24,450      | 21,200 |
| 45.0  |         |           | 20,200      | 20,750      | 21,850    | 21,850        | 21,950      | 21,700      | 21,200      | 20,650      | 19,950      | 19,750 |
| 50.0  |         |           | 16,600      | 17,100      | 18,100    | 18,450        | 18,200      | 18,000      | 17,500      | 17,100      | 16,450      | 16,300 |
| 55.0  |         |           | 13,750      | 14,250      | 15,300    | 15,650        | 15,400      | 15,250      | 14,750      | 14,250      | 13,600      | 13,450 |
| 60.0  |         |           |             | 12,000      | 13,050    | 13,350        | 13,150      | 12,950      | 12,500      | 12,000      | 11,350      | 11,250 |
| 65.0  |         |           |             | 10,150      | 11,200    | 11,500        | 11,300      | 11,100      | 10,650      | 10,150      | 9560        | 9430   |
| 70.0  |         |           |             | 5070        | 9660      | 9990          | 9760        | 9580        | 9130        | 8670        | 8050        | 7920   |
| 75.0  |         |           |             |             | 8370      | 8690          | 8460        | 8290        | 7850        | 7380        | 6780        | 6650   |
| 80.0  |         |           |             |             | 7280      | 7580          | 7360        | 7190        | 6750        | 6290        | 5700        | 5570   |
| 85.0  |         |           |             |             |           | 6630          | 6400        | 6230        | 5800        | 5350        | 4760        | 4630   |
| 90.0  |         |           |             |             |           | 5800          | 5570        | 5400        | 4970        | 4530        | 3940        | 3820   |
| 95.0  |         |           |             |             |           | 4160          | 4840        | 4670        | 4240        | 3800        | 3220        | 3100   |
| 100.0 |         |           |             |             |           |               | 4200        | 4030        | 3600        | 3160        | 2590        | 2460   |
| 105.0 |         |           |             |             |           |               | 3640        | 3450        | 3030        | 2590        | 2020        | 1890   |
| 110.0 |         |           |             |             |           |               |             | 2940        | 2510        | 2080        | 1510        | 1390   |
| 115.0 |         |           |             |             |           |               |             | 2480        | 2050        | 1610        | 1050        |        |
| 120.0 |         |           |             |             |           |               |             |             | 1630        | 1200        |             |        |
| 125.0 |         |           |             |             |           |               |             |             | 1250        |             |             |        |

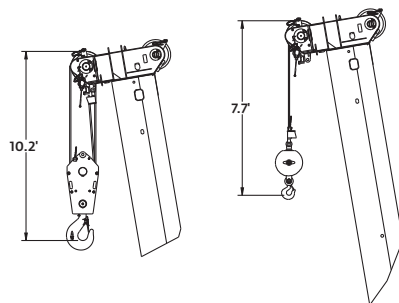
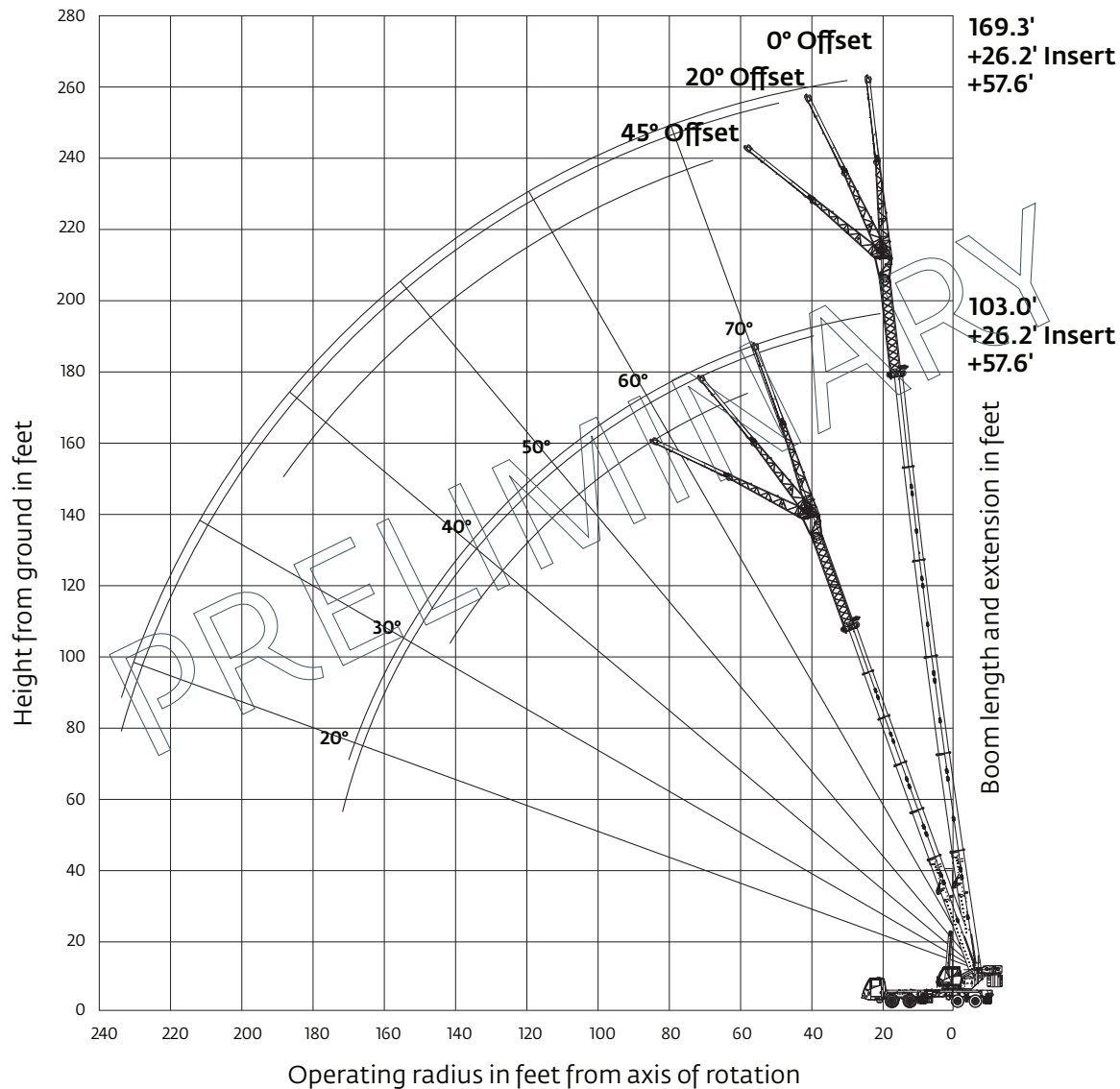
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# Working range

Main boom and manually offsettable extension

36.6 ft - 169.3 ft main boom, 34.5 ft - 57.6 ft manually offsettable extension and 26.2 ft insert



Dimensions are for the largest Grove furnished hook block and overhaul ball, with anti-two block activated.

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# Load chart

## Main boom and manually offsettable extension

 **169.3 ft**  
Fixed lengths
  **34.5 ft - 57.6 ft**  
Manual offsettable swingaway
  **26.2 ft**  
Insert
  **48,500 lb**
 **100%**  
**23 ft**
 **360°**



Pounds x 1000

| Feet | 34.5 ft |        |        | 57.6 ft |      |      | 83.8 ft |      |      |
|------|---------|--------|--------|---------|------|------|---------|------|------|
|      | 0°      | 20°    | 45°    | 0°      | 20°  | 45°  | 0°      | 20°  | 45°  |
| 35   | 10,650  |        |        |         |      |      |         |      |      |
| 40   | 10,650  |        |        |         |      |      |         |      |      |
| 45   | 10,650  |        |        | 7340    |      |      |         |      |      |
| 50   | 10,650  | 10,800 |        | 7340    |      |      |         |      |      |
| 55   | 10,650  | 10,800 | 11,100 | 7340    |      |      | 4290    |      |      |
| 60   | 10,650  | 10,800 | 11,100 | 7340    | 7960 |      | 4290    |      |      |
| 65   | 10,650  | 10,800 | 11,100 | 7340    | 7960 |      | 4290    |      |      |
| 70   | 10,650  | 10,800 | 11,100 | 7340    | 7960 |      | 4290    | 4770 |      |
| 75   | 10,650  | 10,800 | 11,100 | 7340    | 7960 |      | 4290    | 4770 |      |
| 80   | 10,650  | 10,800 | 11,100 | 7340    | 7960 | 6160 | 4290    | 4770 |      |
| 85   | 10,650  | 10,800 | 11,100 | 7340    | 7960 | 6160 | 4290    | 4770 |      |
| 90   | 10,650  | 10,800 | 10,800 | 7340    | 7960 | 6030 | 4290    | 4770 |      |
| 95   | 10,350  | 10,150 | 10,200 | 7340    | 7230 | 5970 | 4290    | 4770 | 3710 |
| 100  | 9720    | 9560   | 9660   | 7340    | 7080 | 5910 | 4290    | 4770 | 3610 |
| 105  | 9130    | 9010   | 9120   | 7340    | 6930 | 5860 | 4290    | 4760 | 3510 |
| 110  | 8590    | 8500   | 8620   | 7340    | 6800 | 5820 | 4290    | 4650 | 3420 |
| 115  | 8090    | 8030   | 8150   | 7340    | 6680 | 5780 | 4290    | 4500 | 3330 |
| 120  | 7630    | 7590   | 7710   | 7340    | 6560 | 5740 | 4290    | 4360 | 3250 |
| 125  | 7070    | 7180   | 7300   | 7340    | 6450 | 5710 | 4290    | 4230 | 3160 |
| 130  | 6400    | 6790   | 6910   | 7110    | 6350 | 5690 | 4290    | 4100 | 3090 |
| 135  | 5790    | 6170   | 6400   | 6770    | 6250 | 5670 | 4290    | 3980 | 3010 |
| 140  | 5230    | 5580   | 5770   | 6450    | 6160 | 5660 | 4290    | 3860 | 2940 |
| 145  | 4710    | 5030   | 5180   | 6070    | 6080 | 5650 | 4290    | 3760 | 2870 |
| 150  | 4230    | 4510   | 4630   | 5580    | 5920 | 5650 | 4210    | 3650 | 2810 |
| 155  | 3780    | 4040   | 4120   | 5130    | 5660 | 5650 | 4070    | 3550 | 2750 |
| 160  | 3350    | 3590   | 3640   | 4710    | 5200 | 5510 | 3870    | 3460 | 2690 |
| 165  | 2930    | 3150   |        | 4320    | 4770 | 5030 | 3660    | 3370 | 2630 |
| 170  | 2530    | 2720   |        | 3950    | 4360 | 4580 | 3460    | 3280 | 2580 |
| 175  | 2160    | 2310   |        | 3610    | 3990 | 4160 | 3260    | 3200 | 2530 |
| 180  | 1810    | 1930   |        | 3290    | 3630 | 3750 | 2940    | 3120 | 2480 |
| 185  | 1480    |        |        | 2990    | 3290 | 3360 | 2630    | 3050 | 2430 |
| 190  | 1170    |        |        | 2710    | 2970 |      | 2330    | 2970 | 2390 |
| 195  |         |        |        | 2450    | 2670 |      | 2060    | 2710 | 2350 |
| 200  |         |        |        | 2170    | 2380 |      | 1790    | 2410 | 2310 |
| 205  |         |        |        | 1910    | 2060 |      | 1550    | 2120 | 2270 |
| 210  |         |        |        |         | 1750 |      | 1310    | 1850 | 2170 |
| 215  |         |        |        |         |      |      |         | 1590 | 1860 |

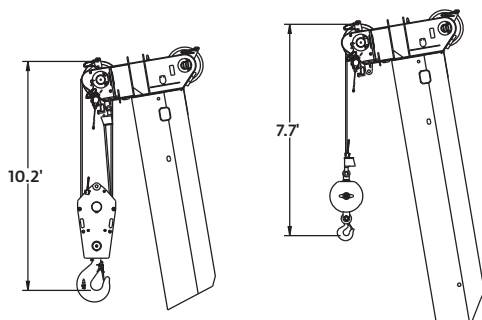
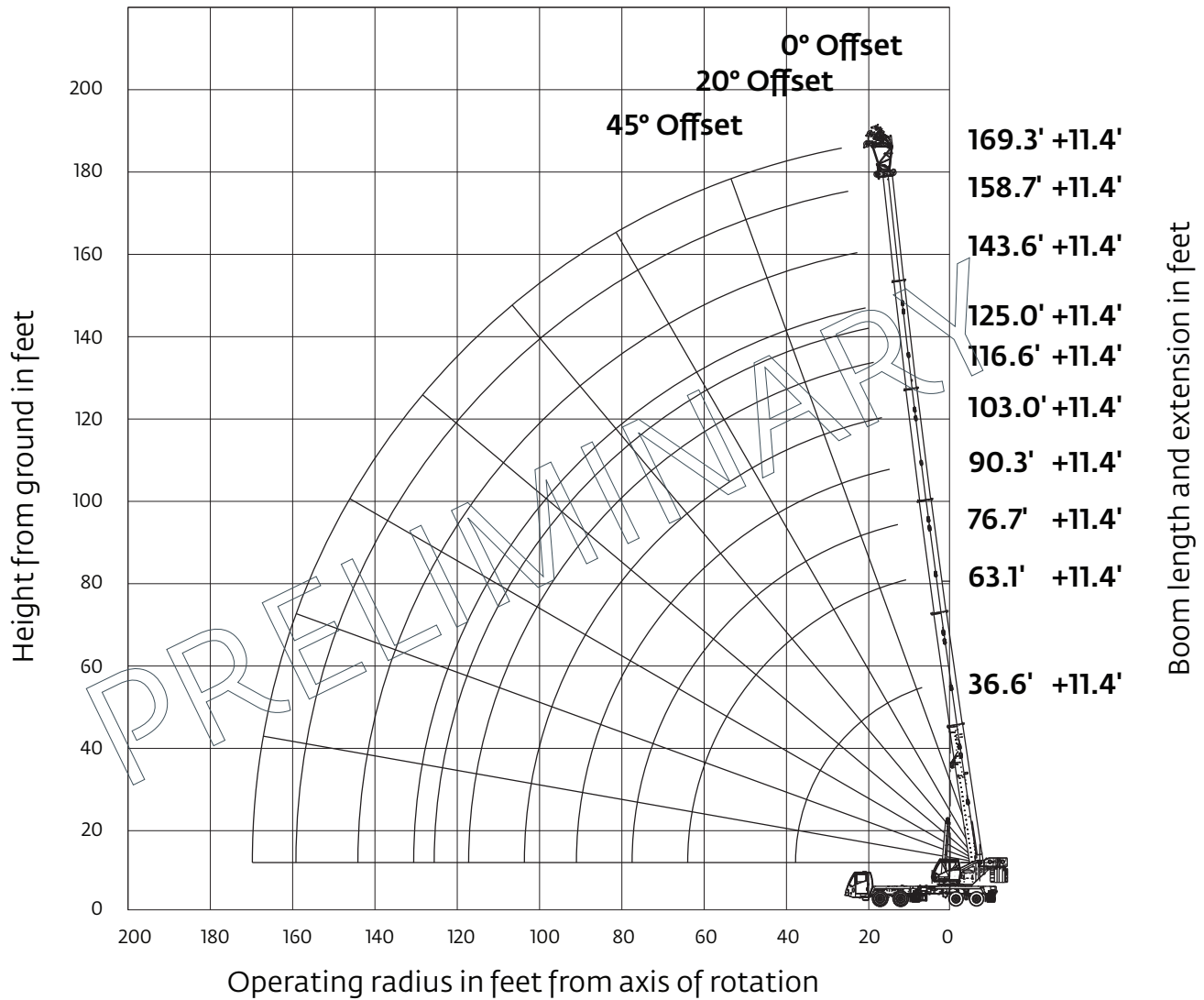
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# Working range

Integrated heavy duty jib

36.6 ft - 169.3 ft main boom and integrated heavy duty jib



Dimensions are for the largest Grove furnished hook block and overhaul ball, with anti-two block activated.

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# Load chart

## Integrated heavy duty jib



| Feet | 103.0 ft |        |        | 143.0 ft |        |        | 169.3 ft |        |        |
|------|----------|--------|--------|----------|--------|--------|----------|--------|--------|
|      | 0°       | 20°    | 45°    | 0°       | 20°    | 45°    | 0°       | 20°    | 45°    |
| 10   | 55,600   | 51,050 |        |          |        |        |          |        |        |
| 12   | 55,600   | 51,050 | 44,700 |          |        |        |          |        |        |
| 15   | 55,600   | 51,050 | 44,700 | 24,900   |        |        |          |        |        |
| 20   | 55,600   | 51,050 | 44,700 | 24,900   | 23,050 |        |          |        |        |
| 25   | 55,600   | 51,050 | 44,700 | 24,900   | 23,050 | 20,250 |          |        |        |
| 30   | 55,600   | 50,650 | 44,700 | 24,900   | 23,050 | 20,250 | 16,700   | 15,450 | 13,350 |
| 35   | 52,350   | 45,800 | 41,150 | 24,900   | 23,050 | 20,250 | 16,700   | 15,450 | 13,350 |
| 40   | 46,850   | 41,800 | 37,950 | 24,900   | 23,050 | 20,250 | 16,700   | 15,450 | 13,350 |
| 45   | 42,300   | 38,450 | 35,250 | 24,900   | 23,050 | 20,250 | 16,700   | 15,450 | 13,350 |
| 50   | 36,250   | 35,550 | 32,850 | 24,100   | 23,050 | 20,250 | 16,700   | 15,450 | 13,350 |
| 55   | 31,350   | 31,750 | 30,800 | 22,000   | 21,500 | 20,250 | 16,700   | 15,450 | 13,350 |
| 60   | 27,400   | 27,750 | 28,100 | 20,200   | 19,800 | 19,300 | 16,700   | 15,450 | 13,350 |
| 65   | 24,150   | 24,450 | 24,750 | 18,600   | 18,300 | 18,050 | 16,700   | 15,450 | 13,350 |
| 70   | 21,350   | 21,650 | 21,900 | 17,250   | 16,950 | 16,750 | 16,700   | 15,450 | 13,350 |
| 75   | 19,050   | 19,250 | 19,500 | 16,000   | 15,750 | 15,600 | 16,350   | 15,450 | 13,350 |
| 80   | 17,150   | 17,250 | 17,500 | 14,900   | 14,700 | 14,550 | 15,250   | 15,050 | 13,350 |
| 85   | 15,400   | 15,600 | 15,800 | 13,950   | 13,750 | 13,650 | 14,300   | 14,100 | 13,350 |
| 90   | 13,950   | 14,100 | 14,250 | 13,050   | 12,900 | 12,800 | 13,450   | 13,300 | 13,150 |
| 95   | 12,650   | 12,800 | 12,900 | 12,150   | 12,100 | 12,050 | 12,350   | 12,500 | 12,400 |
| 100  | 11,500   | 11,650 | 11,700 | 11,300   | 11,350 | 11,350 | 11,200   | 11,400 | 11,600 |
| 105  | 10,550   | 10,650 | 10,700 | 10,450   | 10,600 | 10,650 | 10,150   | 10,300 | 10,500 |
| 110  |          |        |        | 9520     | 9670   | 9810   | 9210     | 9380   | 9550   |
| 115  |          |        |        | 8670     | 8810   | 8940   | 8360     | 8520   | 8680   |
| 120  |          |        |        | 7910     | 8040   | 8150   | 7590     | 7740   | 7890   |
| 125  |          |        |        | 7220     | 7340   | 7440   | 6890     | 7030   | 7170   |
| 130  |          |        |        | 6590     | 6700   | 6780   | 6250     | 6380   | 6510   |
| 135  |          |        |        | 6030     | 6120   | 6190   | 5670     | 5790   | 5900   |
| 140  |          |        |        | 5520     | 5590   | 5650   | 5130     | 5250   | 5350   |
| 145  |          |        |        | 5070     | 5130   | 5160   | 4640     | 4750   | 4840   |
| 150  |          |        |        |          |        |        | 4190     | 4280   | 4360   |
| 155  |          |        |        |          |        |        | 3770     | 3860   | 3930   |
| 160  |          |        |        |          |        |        | 3390     | 3460   | 3520   |
| 165  |          |        |        |          |        |        | 3040     | 3100   | 3150   |
| 170  |          |        |        |          |        |        | 2730     | 2780   | 2810   |

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.  
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



# Specifications

## Super Structure



### Boom

11,2 m - 51,6 m (36.6 ft - 169.3 ft) six-section greaseless MEGAFORM™ boom with TWIN-LOCK™ pinning system. Maximum tip height: 54,8 m (179.8 ft).



### Boom nose

Five nylatron sheaves, mounted with removable pin-type rope guards. Quick reeve boom nose. Removable auxiliary boom nose with removable pin type rope guard.



### Boom elevation

Single lift cylinder with integrated valve provides boom angle from -3° to +82°.



### \*Optional offsettable lattice extensions

10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension manually offset at 0°, 20°, and 45°. Maximum tip height: 72,3 m (237.3 ft).

10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension hydraulically offset from 0° - 45°. Controlled from the crane cab. Maximum tip height: 72,3 m (237.3 ft).

10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension with integrated 3,5 m (11.4 ft) heavy duty jib, manually offset at 0°, 20°, and 45°. Maximum tip height: 72,3 m (237.3 ft).

10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension with integrated 3,5 m (11.4 ft) heavy duty jib, hydraulically offset from 0° - 45°. Controlled from the crane cab. Maximum tip height: 72,3 m (237.3 ft).



### \* Optional lattice insert

One 8 m (26.2 ft) insert for use with lattice swingaway extension to increase length up to 25,6 m (83.8 ft). Maximum tip height: 80,3 m (263.4 ft)



### Rated Capacity Limiter and anti-two block system

Load moment and anti-two block system with audio/visual warning and control lever lockout provides electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication, slew angle and warning of impending two-block condition.



### Crane Control System (CCS)

Full electronic control of all crane movements using electrical control allowing user customization of levels and response. Integrated with the RCL and engine management system by CAN-BUS. Full-color high resolution graphic display.



### Cab

All aluminum construction cab with acoustical lining tilts hydraulically to +20° and includes tinted safety glass, air conditioning,

adjustable operator's seat with hydraulic suspension, hinged front (with wiper) and rear windows, sun visor and window shade. Other features include diesel heater/defroster, stereo radio/disc player, armrest integrated crane controls, and ergonomically arranged instrumentation.



### Swing

Two planetary gearboxes with axial piston fixed displacement motors. Infinitely variable to 1.9 rpm. Spring-applied park brakes and hydraulic service brakes.



### Counterweight

7258 kg (16,000 lb) consisting of multiple sections with hydraulic installation/removal system operated from the cab.

\*Optional "Heavy Lift" counterweight package consisting of (2) 4636 kg (10,000 lb) sections in addition to standard, for a total of 16 329 kg (36,000 lb).

\*Optional "XL" counterweight package consisting of (2) 1814 kg (4000 lb) and (2) 1021 kg (2250 lb) wing sections in addition to standard and "Heavy Lift" package, for a total of 22 000 kg (48,500 lb).

\*Optional "Special XL" counterweight package consisting of two 1814 kg (4000 lb) and two 1021 kg (2250 lb) wing sections in addition to modified standard counterweight package (a 907 kg (2000 lb) slab and a 1360 kg (3,000lb) slab in lieu of one 2268 kg (5000 lb) slab and "Heavy Lift" package, for a total of 22 000 kg (48,500 lb).



### Hydraulic system

Two load-sensing axial piston variable displacement pump (load sensing) with power limiting control and one gear pump for slewing and steering. Dual fan electric oil cooler. On screen display of hydraulic oil temperature. Tank capacity 658 liters (174 gallons).



### Hoist

Main and auxiliary hoists are powered by axial piston motors with planetary gears and brakes. "Thumb-thumper" hoist drum rotation indicator alerts operator of hoist movement. Standard minimum wrap indication with lock-out.

Hoist line pull:

1st Layer: 10 900 kg (24,000 lb)

3rd Layer: 9250 kg (20,400 lb)

5th Layer: 8000 kg (17,700 lb)

Maximum line speed:

113 m/min (370 fpm)

Maximum permissible line pull:

7784 kg (17,160 lb) 35X7 Class

Rope diameter: 19 mm (3/4 in)

Rope length main hoist : 250 m (820 ft)

Rope length auxiliary hoist : 177 m (581 ft)

Maximum rope storage: 292 m (960 ft)



### Cameras

Standard back-up, right-side and hoist cameras.

# Specifications

## Carrier



### Chassis

Torsionally rigid frame, four-axle carrier, fabricated from high strength, low alloy steel with towing and tie-down lugs.



### Outrigger system

Four hydraulic telescoping, two-stage, double box beam outriggers and integral holding valves.

Quick release type outrigger floats 500 mm (20 in) diameter.

Four position setting with fully extended, 79%, 57%, and fully retracted capacities. Fifth (5th) front jack with sliding self-storing pad and automatic first-retract.

Outrigger Monitoring System standard (required for North America and Canada).

Maximum outrigger pad load: 49,900 kg (110,000 lb)



### Outrigger controls

Located in the superstructure cab and on either side of carrier. Crane level indicators located at all stations.

Auto leveling and wireless remote control standard.



### Engine

Cummins ISX 12 six-cylinder, turbo charged and after cooled diesel engine. 12 L 336 kW (450 bhp) at 1800 rpm. Maximum torque 2102 Nm (1550 lb-ft) at 1400 rpm. "On Highway" EPA, CARB compliant. Equipped with engine compression brake, ether start aid and 110 volt blackheater.

Fuel Requirement: Maximum of 15 ppm sulfur content (Ultra Low Sulfur Diesel). Diesel exhaust fluid required.



### Fuel tank capacity

376 L (100 gal)



### Transmission

Roadranger 11 speeds forward, 3 reverse, manual.

Optional automated Eaton Fuller Ultrashift® PLUS Transmission



### Steering

Front axles, single circuit, mechanical steering with hydraulic power assist. Turning radius: 13,8 m (45.4 ft).



### Axles

**Front:** (2) tube-type steering axles, 2,12 m (83.4 in) track.

**Rear:** (2) single reduction drive axles, 1,89 m (74.5 in) track. Inter-axle differential locks.

Drive: 8 x 4 x 4.



### Brakes

S-cam, dual air split system operating on all wheels. Spring-applied, air released parking brake acting on rear axles. Air dryer. ABS with traction control.



### Suspension

**Front:** Walking beam with air bags and shock absorbers.

**Rear:** Walking beam with air bags and shock absorbers.



### Tires

**Front:** 445/65R 22.5 tubeless, mounted on aluminum disc wheels.

**Rear:** 315/80R 22.5 tubeless, mounted on aluminum disc wheels.



### Lights

Lighting package including turn indicators, head, tail, brake, and hazard warning lights.



### Cab

Single-driver design, aluminum fabricated with acoustical lining and tinted safety glass. Air conditioning. Fabric covered seat with air adjustment. Driving controls and engine instrumentation including tilt telescope multifunction steering wheel, tachometer, speedometer, trip meter, voltmeter, water temp., oil, fuel level, air pressure gauge, engine high temp./low oil pressure A/V warning. Other standard items include display for back-up and passenger side cameras, hot water heater/defroster, electric windshield wash/wipe, fire extinguisher, wireless rigging remote with battery charging station, seat belt and door lock.



### Electrical system

Four maintenance-free batteries provide 24 V electrical system. Standard lockable battery disconnect.



### Maximum speed

105 kph (65 mph)



### Gradeability (theoretical)

70%, 1st gear

## Miscellaneous standard equipment

Aluminum fenders with rear storage compartments; dual rear view mirrors; electronic back-up alarm; sling/tool box; tire inflation kit; air cleaner restriction indicator; headache ball stowage tray; air conditioning; air horn; hoist access platform

## \*Optional equipment

- Auxiliary Lighting and Convenience Package: Includes amber strobe light for superstructure and carrier cab, and boom nose mounted, boom position indicator light (fully wired)
- Dual boom base mounted floodlights (manual or power-adjusted)
- Hook blocks
- Pintle hook (rear)
- Trailing Boom Package
- Steel outrigger pads
- Counterweight packages
- Tow cable
- Wind speed indicator
- Winterfront radiator cover
- Counterweight slings
- Cross axle differential locks
- Electric controlled 360° lock
- Rear counterweight stowage
- Single axis joysticks
- K-100™ synthetic rope
- Boom dolly camera
- CraneSTAR asset management system

# Symbols glossary



Axles



Counterweight



Height (no max)



Radius



Boom



Drive



Heavy duty jib



Outriggers



Boom elevation



Electrical system



Hoist



Rotation



Boom extension



Engine



Hookblock



Speed



Boom length



Extension



Hydraulic system



Steering



Boom nose



Frame



Insert



Suspension



Brakes



Fuel tank capacity



Lights



Swing



Cab



Gear



Oil



Tires



Camera



Grade



Outrigger controls



Transmission



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