Block - 460 lbs
Pill - 300 lbs

GROVE®
by Manitowoc



# TMS9000-2
## 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; strong load charts, long boom and a low gross vehicle weight.

## 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 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





Manitowoc Crane Care

**Manitowoc 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.

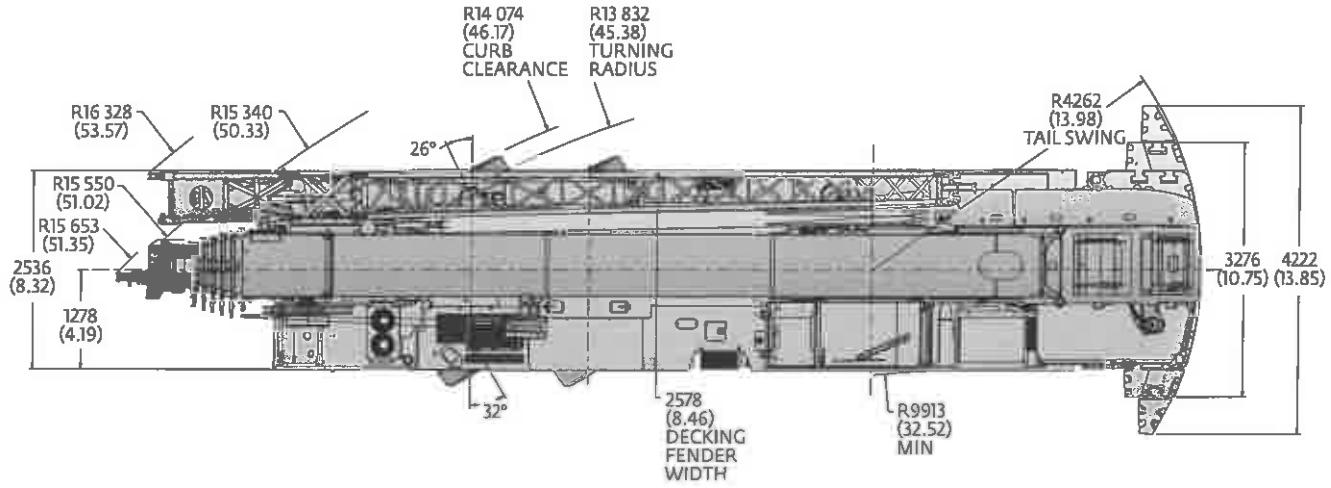
Manitowoc Finance

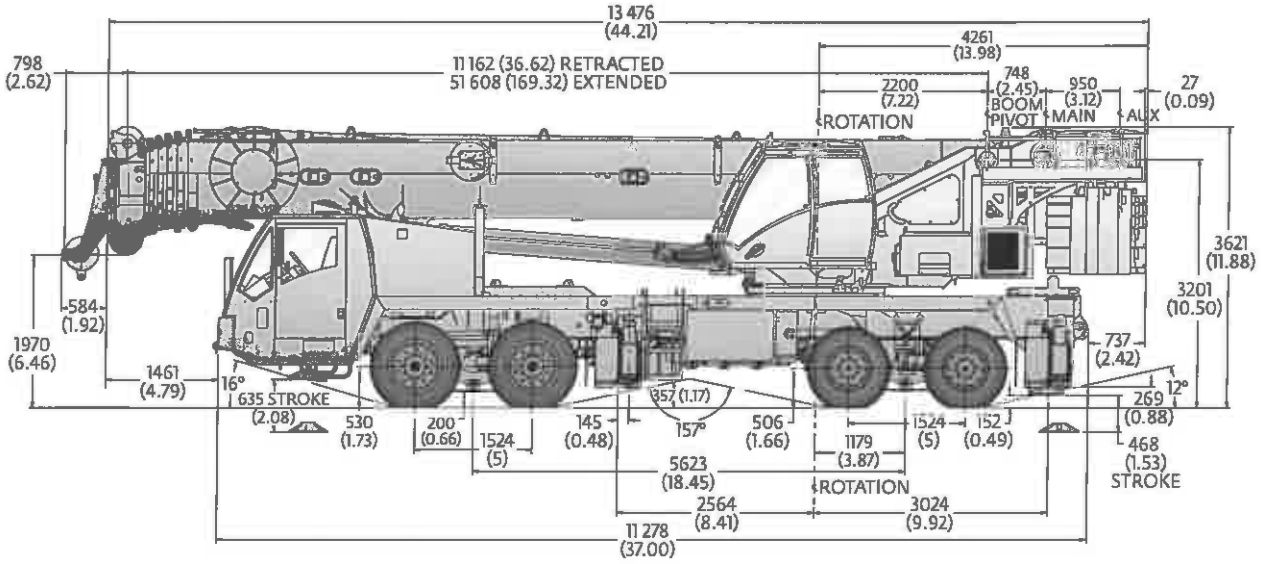
**Manitowoc Finance helps you get right to work generating profits for your business.**
Financial tools that help you capitalize on opportunity with solutions that fit your needs.

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# Dimensions

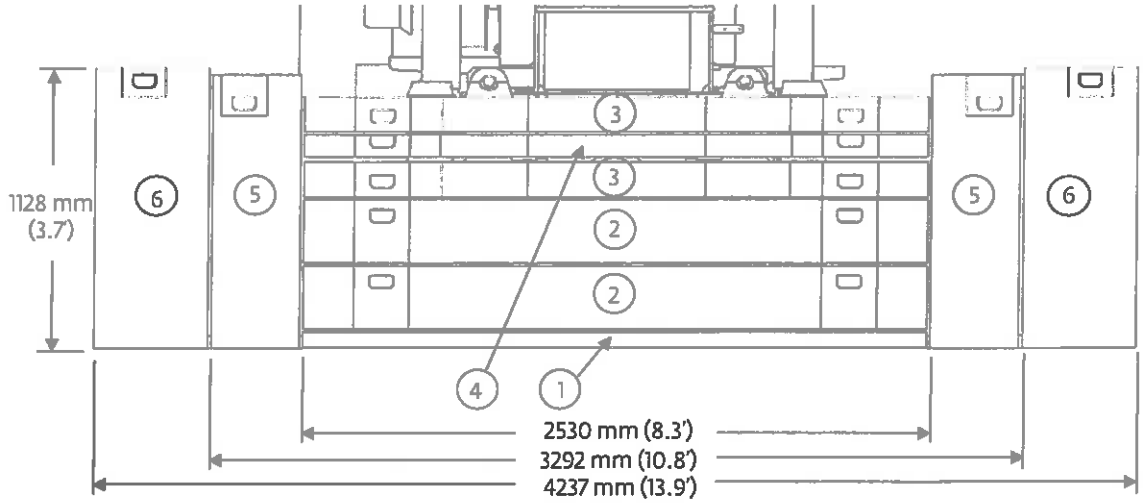



*Dimensions shown in mm (ft)*

# 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

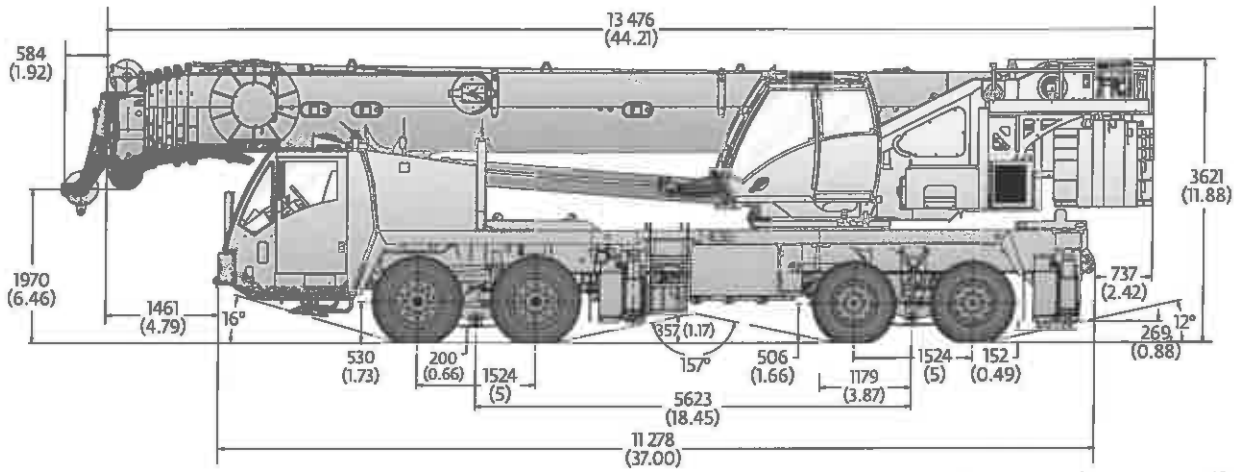
**Load chart configurations**

| | 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 | | |
| 22 000 kg (48,500 lb) | X | 2X | 2X | X | 2X | 2X |

*This configuration can also be obtained with the 2268 (5000 lb) pinned or stackable section and the 1361 (3000 lb) baseplate.

# Travel proposals

## Boom over front



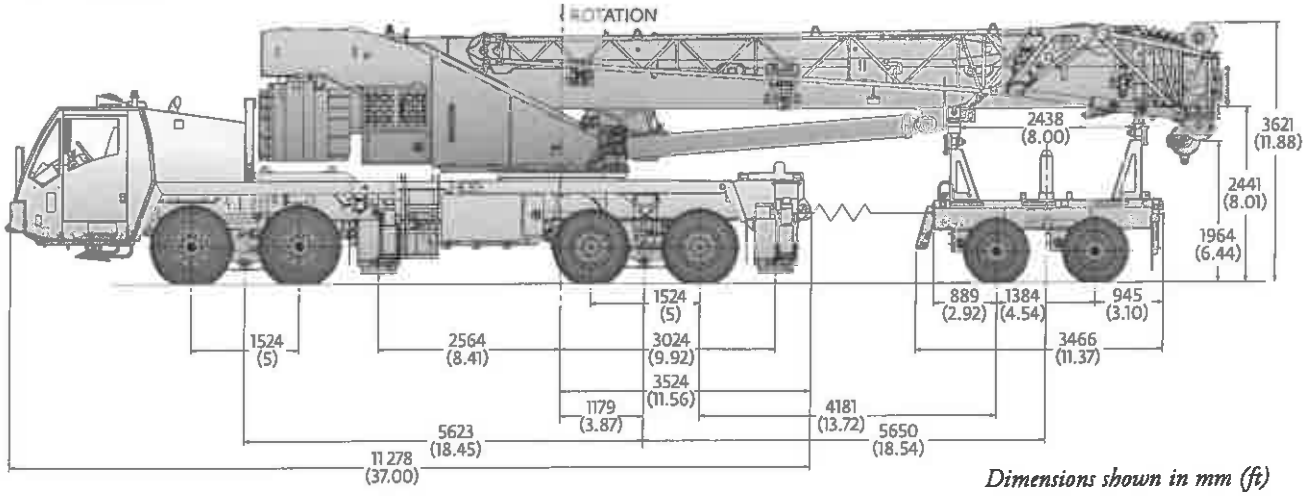

*Dimensions shown in mm (ft)*

## Unit configuration

| | Front | | Rear | | G.V.W. | |
|---|---|---|---|---|---|---|
| **Basic machine:** Includes ISX12 on-highway engine, main and auxiliary hoists with wire rope, air conditioning chassis and superstructure cabs, no counterweight and includes driver. | 18 953 kg | 41,785 lb | 17 907 kg | 39,478 lb | 36 860 kg | 81,263 lb |
| **Add:** 3000 lb counterweight on carrier deck and 3000 lb counterweight on superstructure. Total counterweight 6000 lb. | 19 521 kg | 43,035 lb | 20 070 kg | 44,246 lb | 39 590 kg | 87,282 lb |
| **Add:** 3000 lb counterweight on carrier deck and 5000 lb counterweight on superstructure. Total counterweight 8000 lb. | 18 524 kg | 40,839 lb | 23 343 kg | 51,462 lb | 41 867 kg | 92,301 lb |
| **Add:** 8000 lb counterweight on carrier deck and 8000 lb counterweight on superstructure. Total counterweight 16,000 lb. | 20 476 kg | 45,141 lb | 23 668 kg | 52,179 lb | 44 144 kg | 97,320 lb |
| Auxilary 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) | 1713 kg | 3776 lb | 6 kg | 13 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) | 2130 kg | 4695 lb | -135 kg | -298 lb | 1995 kg | 4397 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) | 2284 kg | 5034 lb | -168 kg | -370 lb | 2116 kg | 4664 lb |
| 11,0 t (12.1 USt) top-swiveling overhaul weight 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 |
| **Substitute:** 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




*Dimensions shown in mm (ft)*

## Unit configuration

| | Front | | Rear | | Boom Dolly | | G.V.W. | |
|---|---|---|---|---|---|---|---|---|
| **Typical machine:** Includes ISX12 on-highway engine, main and auxiliary hoists with wire rope, auxiliary boom nose, manual bifold swingaway, stowed overhaul weight, 45 t (50 USt) hook block hanging at boom nose, no counterweight, includes driver and 6800 lb boom dolly. | 15 961 kg | 35,187 lb | 14 521 kg | 32,013 lb | 12 132 kg | 26,747 lb | 42 614 kg | 93,947 lb |
| **Add:** 6000 lb counterweight on front carrier deck or pinned to the superstructure, 5000 lb counterweight on rear chassis counterweight carrier, 15,000 lb on boom dolly. Total counterweight 26,000 lb. | 18 173 kg | 40,064 lb | 17 377 kg | 38,309 lb | 18 945 kg | 41,766 lb | 54 494 kg | 120,139 lb |
| **Add:** 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. | 18 173 kg | 40,064 lb | 17 377 kg | 38,309 lb | 24 478 kg | 53,966 lb | 60 028 kg | 132,339 lb |
| **Substitute:** 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 | -9 kg | -20 lb | -6 kg | -14 lb | 291 kg | 641 lb | 275 kg | 608 lb |
| **Substitute:** 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 | -2 kg | -4 lb | -2 kg | -4 lb | 400 kg | 883 lb | 397 kg | 875 lb |
| **Substitute:** 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

| | |
|---|---|
| **Auxiliary boom nose** | 86 kg (190 lb) |
| **Hook blocks and overhaul weights:** | |
| 100 t (110 USt), seven-sheave | 1140 kg (2513 lb) + |
| 75 t (83 USt), five-sheave | 722 kg (1592 lb) + |
| 45 t (50 USt), three-sheave | 560 kg (1235 lb) + |
| 26 t (28 USt), one-sheave | 323 kg (712 lb) + |
| 11 t (12 USt) overhaul weight | 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 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 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 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

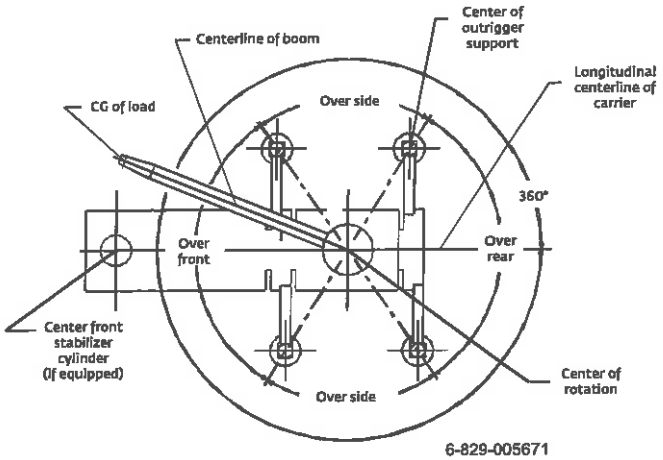
| Wire rope layer | Hoist line pull | Drum rope capacity m (ft) | |
|---|---|---|---|
| | Available* | Layer | Total |
| 1 | 10 900 kg (24,000 lb) | 33,5 m (110 ft) | 33,5 m (110 ft) |
| 2 | 10 000 kg (22,100 lb) | 36,6 m (120 ft) | 70,1 m (230 ft) |
| 3 | 9250 kg (20,400 lb) | 39,7 m (130 ft) | 109,9 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.

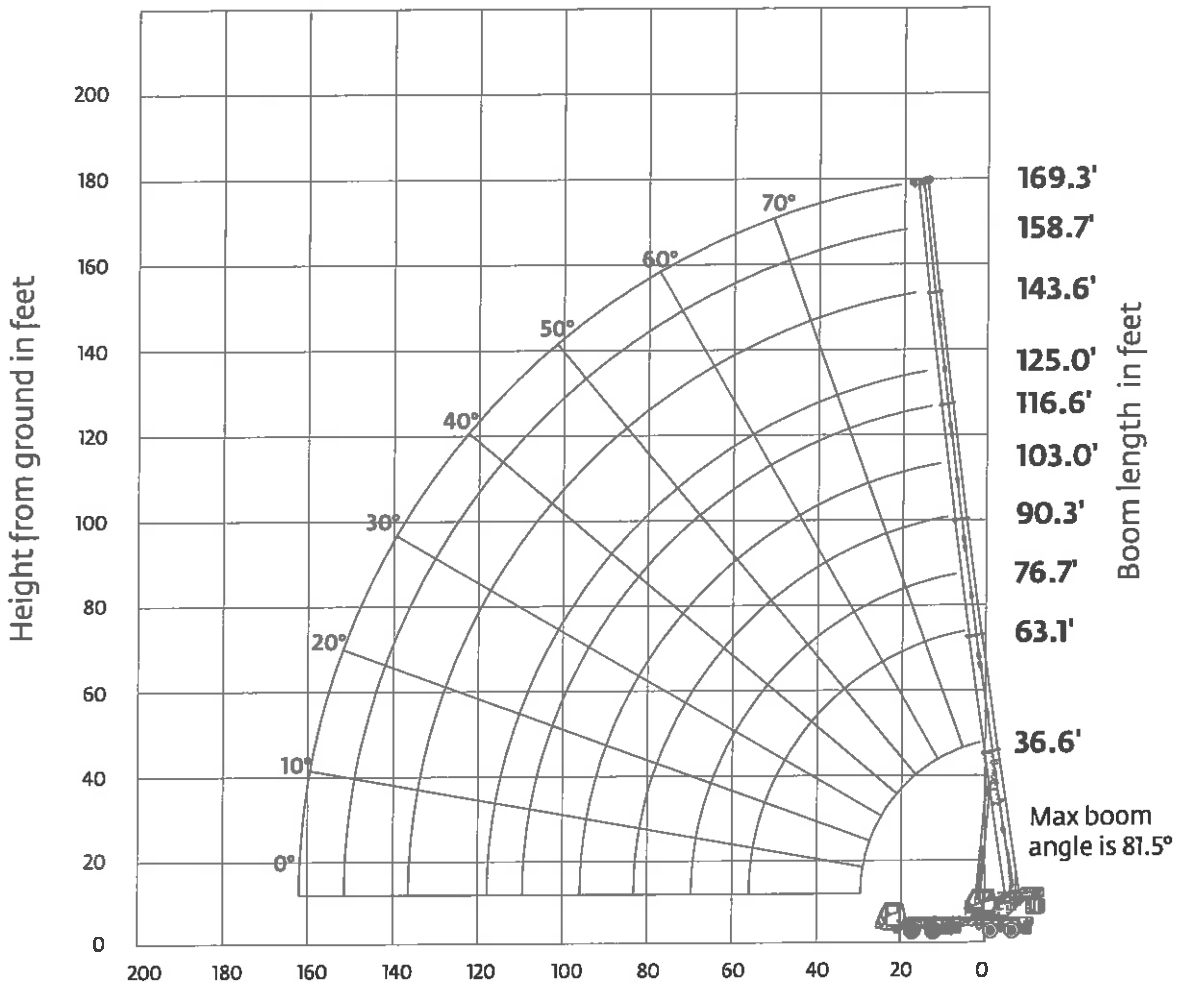


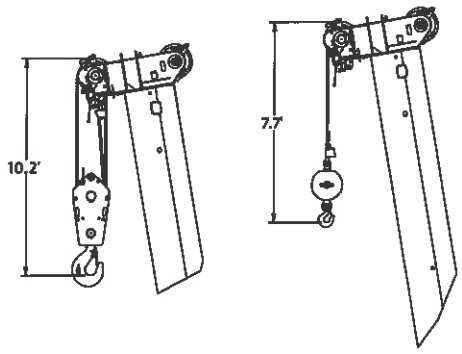

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*THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.*
*The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.*

# 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

| Feet | 37 | 50 | 62-64 | 75-77 | 88-90 | 100-103 | 111-114 | 122-126 | 136-140 | 147-154 | 159-165 | 169 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 230,000* | | | | | | | | | | | |
| 9.0 | 180,000 | 164,000 | | | | | | | | | | |
| 10.0 | 173,500 | 158,000 | 146,000 | 128,500 | | | | | | | | |
| 12.0 | 155,500 | 148,500 | 135,500 | 124,000 | 94,600 | | | | | | | |
| 15.0 | 134,500 | 135,500 | 123,500 | 114,000 | 94,600 | 74,950 | | | | | | |
| 20.0 | 108,000 | 109,500 | 110,000 | 99,950 | 93,900 | 73,500 | 58,050 | 45,800 | | | | |
| 25.0 | 84,850 | 86,450 | 87,050 | 86,650 | 84,150 | 71,000 | 58,050 | 45,800 | 37,900 | 30,000 | | |
| 30.0 | | 70,450 | 71,050 | 70,700 | 72,000 | 62,850 | 56,550 | 45,800 | 37,900 | 30,000 | 25,250 | 21,200 |
| 35.0 | | 58,000 | 58,350 | 59,900 | 59,050 | 56,150 | 50,350 | 45,800 | 37,900 | 30,000 | 25,250 | 21,200 |
| 40.0 | | 48,650 | 48,300 | 49,800 | 49,000 | 50,350 | 45,000 | 43,550 | 37,900 | 30,000 | 25,250 | 21,200 |
| 45.0 | | | 41,450 | 42,300 | 41,500 | 42,800 | 40,750 | 38,750 | 37,900 | 30,000 | 25,250 | 21,200 |
| 50.0 | | | 36,350 | 36,150 | 37,350 | 36,450 | 36,250 | 34,800 | 34,450 | 30,000 | 25,250 | 21,200 |
| 55.0 | | | 31,300 | 31,200 | 32,400 | 31,550 | 31,400 | 31,900 | 31,200 | 29,400 | 25,250 | 21,200 |
| 60.0 | | | | 27,300 | 28,400 | 27,500 | 28,250 | 28,050 | 27,300 | 27,300 | 24,850 | 21,200 |
| 65.0 | | | | 25,350 | 25,000 | 24,150 | 24,850 | 24,650 | 24,050 | 23,900 | 23,150 | 20,600 |
| 70.0 | | | | 17,600 | 22,200 | 21,700 | 22,400 | 21,850 | 21,800 | 21,100 | 21,650 | 19,300 |
| 75.0 | | | | | 20,200 | 19,600 | 20,000 | 19,600 | 19,400 | 19,200 | 19,250 | 18,100 |
| 80.0 | | | | | 19,250 | 18,500 | 18,000 | 18,050 | 17,400 | 17,900 | 17,250 | 17,000 |
| 85.0 | | | | | | 16,900 | 16,350 | 16,400 | 15,800 | 16,300 | 15,700 | 15,700 |
| 90.0 | | | | | | 15,400 | 14,950 | 14,850 | 14,900 | 14,750 | 14,300 | 14,200 |
| 95.0 | | | | | | 13,050 | 14,200 | 13,500 | 13,600 | 13,400 | 12,950 | 12,850 |
| 100.0 | | | | | | | 13,100 | 12,350 | 12,550 | 12,350 | 11,800 | 11,650 |
| 105.0 | | | | | | | 10,900 | 11,250 | 11,500 | 11,300 | 10,700 | 10,600 |
| 110.0 | | | | | | | | 10,600 | 10,550 | 10,350 | 9780 | 9650 |
| 115.0 | | | | | | | | 9480 | 9680 | 9490 | 8910 | 8790 |
| 120.0 | | | | | | | | | 8900 | 8710 | 8130 | 8010 |
| 125.0 | | | | | | | | | 8190 | 7990 | 7420 | 7290 |
| 130.0 | | | | | | | | | 7770 | 7340 | 6770 | 6640 |
| 135.0 | | | | | | | | | | 6750 | 6170 | 6050 |
| 140.0 | | | | | | | | | | 6200 | 5620 | 5500 |
| 145.0 | | | | | | | | | | 5710 | 5120 | 4990 |
| 150.0 | | | | | | | | | | | 4650 | 4530 |
| 155.0 | | | | | | | | | | | 4230 | 4100 |
| 160.0 | | | | | | | | | | | | 3700 |

*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

| Feet | 37 | 50 | 62-64 | 75-77 | 88-90 | 100-103 | 111-114 | 122-126 | 136-140 | 147-154 | 159-165 | 169 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 180,000 | | | | | | | | | | | |
| 9.0 | 178,000 | 164,000 | | | | | | | | | | |
| 10.0 | 168,000 | 158,000 | 146,000 | 128,500 | | | | | | | | |
| 12.0 | 150,500 | 148,500 | 135,500 | 124,000 | 94,600 | | | | | | | |
| 15.0 | 130,000 | 131,000 | 123,500 | 114,000 | 94,600 | 74,950 | | | | | | |
| 20.0 | 102,000 | 103,500 | 104,000 | 99,950 | 93,900 | 73,500 | 58,050 | 45,800 | | | | |
| 25.0 | 79,700 | 81,350 | 81,950 | 81,550 | 82,800 | 71,000 | 58,050 | 45,800 | 37,900 | 30,000 | | |
| 30.0 | | 64,600 | 64,900 | 66,500 | 65,600 | 62,850 | 56,550 | 45,800 | 37,900 | 30,000 | 25,250 | 21,200 |
| 35.0 | | 52,700 | 52,150 | 53,650 | 52,750 | 54,050 | 50,350 | 45,800 | 37,900 | 30,000 | 25,250 | 21,200 |
| 40.0 | | 42,750 | 43,650 | 43,400 | 44,750 | 43,750 | 43,550 | 42,700 | 37,900 | 30,000 | 25,250 | 21,200 |
| 45.0 | | | 36,050 | 35,850 | 37,150 | 36,150 | 35,950 | 36,700 | 35,850 | 30,000 | 25,250 | 21,200 |
| 50.0 | | | 30,250 | 31,800 | 31,400 | 30,850 | 31,450 | 31,000 | 30,250 | 30,000 | 25,250 | 21,200 |
| 55.0 | | | 26,950 | 27,250 | 26,850 | 26,350 | 27,100 | 26,500 | 26,450 | 25,750 | 25,250 | 21,200 |
| 60.0 | | | | 23,650 | 23,800 | 23,700 | 23,500 | 23,550 | 22,850 | 23,400 | 22,700 | 21,200 |
| 65.0 | | | | 20,750 | 21,800 | 21,200 | 20,550 | 20,600 | 20,650 | 20,450 | 19,950 | 19,800 |
| 70.0 | | | | 14,900 | 19,400 | 18,800 | 18,850 | 18,200 | 18,400 | 18,050 | 17,550 | 17,400 |
| 75.0 | | | | | 17,350 | 16,850 | 17,100 | 16,300 | 16,500 | 16,300 | 15,700 | 15,550 |
| 80.0 | | | | | 15,650 | 15,100 | 15,300 | 15,100 | 14,750 | 14,550 | 13,950 | 13,850 |
| 85.0 | | | | | | 13,550 | 13,800 | 13,850 | 13,250 | 13,050 | 12,450 | 12,300 |
| 90.0 | | | | | | 12,250 | 12,500 | 12,500 | 12,050 | 11,750 | 11,150 | 11,000 |
| 95.0 | | | | | | 10,450 | 11,300 | 11,350 | 11,050 | 10,600 | 10,000 | 9880 |
| 100.0 | | | | | | | 10,300 | 10,300 | 10,000 | 9570 | 8980 | 8850 |
| 105.0 | | | | | | | 9240 | 9410 | 9100 | 8650 | 8070 | 7940 |
| 110.0 | | | | | | | | 8590 | 8280 | 7830 | 7250 | 7120 |
| 115.0 | | | | | | | | 7870 | 7530 | 7090 | 6510 | 6380 |
| 120.0 | | | | | | | | | 6860 | 6410 | 5840 | 5710 |
| 125.0 | | | | | | | | | 6250 | 5800 | 5230 | 5100 |
| 130.0 | | | | | | | | | 5700 | 5240 | 4670 | 4540 |
| 135.0 | | | | | | | | | | 4730 | 4160 | 4030 |
| 140.0 | | | | | | | | | | 4270 | 3690 | 3560 |
| 145.0 | | | | | | | | | | 3840 | 3260 | 3130 |
| 150.0 | | | | | | | | | | | 2860 | 2730 |
| 155.0 | | | | | | | | | | | 2490 | 2360 |
| 160.0 | | | | | | | | | | | | 2030 |

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# Load chart
## Main boom


36.6 ft - 169.3 ft
Fixed lengths


26,000 lb


100%
23 ft


360°




Pounds

| Feet | 37 | 49-50 | 62-64 | 75-77 | 88-90 | 100-103 | 111-114 | 122-126 | 136-140 | 147-154 | 159-165 | 169 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 180,000 | | | | | | | | | | | |
| 9.0 | 173,500 | 164,000 | | | | | | | | | | |
| 10.0 | 163,500 | 158,000 | 146,000 | 128,500 | | | | | | | | |
| 12.0 | 146,500 | 147,500 | 135,500 | 124,000 | 94,600 | | | | | | | |
| 15.0 | 126,000 | 127,500 | 123,500 | 114,000 | 94,600 | 74,950 | | | | | | |
| 20.0 | 97,050 | 98,600 | 99,200 | 98,700 | 93,900 | 73,500 | 58,050 | 45,800 | | | | |
| 25.0 | 74,900 | 76,250 | 76,600 | 76,850 | 77,350 | 71,000 | 58,050 | 45,800 | 37,900 | 30,000 | | |
| 30.0 | | 59,450 | 58,600 | 60,150 | 59,050 | 60,450 | 56,550 | 45,800 | 37,900 | 30,000 | 25,250 | 21,200 |
| 35.0 | | 45,700 | 46,700 | 46,450 | 47,850 | 46,800 | 46,600 | 45,650 | 37,900 | 30,000 | 25,250 | 21,200 |
| 40.0 | | 36,700 | 36,950 | 38,550 | 38,100 | 37,500 | 38,300 | 37,650 | 36,750 | 30,000 | 25,250 | 21,200 |
| 45.0 | | | 31,400 | 31,750 | 31,350 | 30,750 | 31,550 | 30,950 | 30,900 | 30,000 | 25,250 | 21,200 |
| 50.0 | | | 26,300 | 26,650 | 27,300 | 27,050 | 26,450 | 26,500 | 26,250 | 26,350 | 25,250 | 21,200 |
| 55.0 | | | 22,400 | 22,700 | 23,850 | 23,200 | 23,300 | 22,550 | 22,800 | 22,400 | 21,850 | 21,200 |
| 60.0 | | | | 19,550 | 20,650 | 20,050 | 20,300 | 20,250 | 19,650 | 19,450 | 18,750 | 18,600 |
| 65.0 | | | | 17,050 | 18,100 | 17,500 | 17,750 | 17,750 | 17,150 | 17,100 | 16,450 | 16,300 |
| 70.0 | | | | 11,500 | 16,050 | 15,500 | 15,750 | 15,750 | 15,450 | 14,950 | 14,350 | 14,200 |
| 75.0 | | | | | 14,250 | 13,700 | 13,950 | 13,950 | 13,650 | 13,200 | 12,550 | 12,450 |
| 80.0 | | | | | 12,750 | 12,750 | 12,750 | 12,450 | 12,150 | 11,650 | 11,050 | 10,900 |
| 85.0 | | | | | | 11,700 | 11,450 | 11,100 | 10,800 | 10,350 | 9770 | 9640 |
| 90.0 | | | | | | 10,550 | 10,300 | 9990 | 9680 | 9220 | 8630 | 8500 |
| 95.0 | | | | | | 8,630 | 9300 | 8980 | 8670 | 8210 | 7620 | 7490 |
| 100.0 | | | | | | | 8410 | 8080 | 7770 | 7320 | 6730 | 6610 |
| 105.0 | | | | | | | 7620 | 7280 | 6970 | 6520 | 5940 | 5810 |
| 110.0 | | | | | | | | 6570 | 6260 | 5810 | 5230 | 5100 |
| 115.0 | | | | | | | | 5940 | 5610 | 5160 | 4590 | 4460 |
| 120.0 | | | | | | | | | 5030 | 4580 | 4000 | 3880 |
| 125.0 | | | | | | | | | 4500 | 4050 | 3470 | 3350 |
| 130.0 | | | | | | | | | 4020 | 3560 | 2990 | 2860 |
| 135.0 | | | | | | | | | | 3120 | 2550 | 2420 |
| 140.0 | | | | | | | | | | 2720 | 2140 | 2010 |
| 145.0 | | | | | | | | | | 2350 | 1760 | 1640 |
| 150.0 | | | | | | | | | | | 1420 | 1290 |
| 155.0 | | | | | | | | | | | 1110 | |

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# Load chart
## Main boom


36.6 ft - 169.3 ft
Fixed lengths


21,000 lb


100%
23 ft


360°




Pounds

| Feet | 37 | 49-50 | 62-64 | 75-77 | 88-90 | 100-103 | 111-114 | 122-126 | 136-140 | 147-154 | 159-165 | 169 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 180,000 | | | | | | | | | | | |
| 9.0 | 171,000 | 164,000 | | | | | | | | | | |
| 10.0 | 161,000 | 158,000 | 146,000 | 128,500 | | | | | | | | |
| 12.0 | 144,500 | 145,500 | 135,500 | 124,000 | 94,600 | | | | | | | |
| 15.0 | 124,500 | 125,500 | 123,500 | 114,000 | 94,600 | 74,950 | | | | | | |
| 20.0 | 94,500 | 96,100 | 96,700 | 96,150 | 93,900 | 73,500 | 58,050 | 45,800 | | | | |
| 25.0 | 71,150 | 72,550 | 72,900 | 74,550 | 73,600 | 71,000 | 58,050 | 45,800 | 37,900 | 30,000 | | |
| 30.0 | | 54,850 | 55,800 | 55,550 | 56,900 | 55,850 | 55,600 | 45,800 | 37,900 | 30,000 | 25,250 | 21,200 |
| 35.0 | | 41,450 | 42,450 | 44,050 | 43,700 | 43,050 | 42,950 | 43,200 | 37,900 | 30,000 | 25,250 | 21,200 |
| 40.0 | | 33,250 | 34,750 | 35,100 | 34,600 | 34,150 | 34,800 | 34,350 | 34,300 | 30,000 | 25,250 | 21,200 |
| 45.0 | | | 28,450 | 28,800 | 29,450 | 29,200 | 28,600 | 28,650 | 28,750 | 28,500 | 25,250 | 21,200 |
| 50.0 | | | 23,750 | 24,050 | 25,250 | 24,600 | 24,850 | 24,100 | 24,150 | 23,950 | 23,050 | 21,200 |
| 55.0 | | | 20,100 | 20,400 | 21,550 | 20,900 | 21,150 | 21,200 | 20,500 | 20,250 | 19,600 | 19,450 |
| 60.0 | | | | 17,500 | 18,600 | 18,000 | 18,250 | 18,250 | 17,900 | 17,400 | 16,950 | 16,800 |
| 65.0 | | | | 15,950 | 16,300 | 15,750 | 16,150 | 16,050 | 15,700 | 15,250 | 14,600 | 14,450 |
| 70.0 | | | | 9800 | 14,350 | 14,550 | 14,400 | 14,050 | 13,750 | 13,250 | 12,650 | 12,500 |
| 75.0 | | | | | 12,700 | 13,000 | 12,750 | 12,400 | 12,100 | 11,600 | 11,000 | 10,850 |
| 80.0 | | | | | 11,300 | 11,550 | 11,300 | 11,000 | 10,700 | 10,200 | 9620 | 9490 |
| 85.0 | | | | | | 10,350 | 10,100 | 9790 | 9480 | 9010 | 8410 | 8280 |
| 90.0 | | | | | | 9290 | 9050 | 8720 | 8410 | 7950 | 7360 | 7230 |
| 95.0 | | | | | | 7440 | 8110 | 7780 | 7480 | 7020 | 6430 | 6300 |
| 100.0 | | | | | | | 7280 | 6950 | 6650 | 6200 | 5610 | 5480 |
| 105.0 | | | | | | | 6560 | 6220 | 5910 | 5460 | 4880 | 4750 |
| 110.0 | | | | | | | | 5560 | 5250 | 4800 | 4220 | 4090 |
| 115.0 | | | | | | | | 4980 | 4650 | 4200 | 3620 | 3500 |
| 120.0 | | | | | | | | | 4110 | 3660 | 3090 | 2960 |
| 125.0 | | | | | | | | | 3620 | 3170 | 2600 | 2470 |
| 130.0 | | | | | | | | | 3180 | 2720 | 2150 | 2020 |
| 135.0 | | | | | | | | | | 2310 | 1740 | 1610 |
| 140.0 | | | | | | | | | | 1940 | 1360 | 1240 |
| 145.0 | | | | | | | | | | 1610 | 1020 | |

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# Load chart
## Main boom


36.6 ft - 169.3 ft
Fixed lengths


16,000 lb


100%
23 ft


360°




Pounds

| Feet | 37 | 49-50 | 62-64 | 75-77 | 88-90 | 100-103 | 111-114 | 122-126 | 136-140 | 147-154 | 159-165 | 169 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 179,500 | | | | | | | | | | | |
| 9.0 | 168,500 | 164,000 | | | | | | | | | | |
| 10.0 | 159,000 | 158,000 | 146,000 | 128,500 | | | | | | | | |
| 12.0 | 142,000 | 143,500 | 135,500 | 124,000 | 94,600 | | | | | | | |
| 15.0 | 122,500 | 123,500 | 123,000 | 114,000 | 94,600 | 74,950 | | | | | | |
| 20.0 | 92,000 | 93,550 | 94,150 | 93,650 | 93,900 | 73,500 | 58,050 | 45,800 | | | | |
| 25.0 | 67,450 | 69,850 | 68,950 | 70,650 | 69,350 | 70,900 | 58,050 | 45,800 | 37,900 | 30,000 | | |
| 30.0 | | 49,850 | 50,950 | 50,700 | 52,150 | 51,100 | 50,850 | 45,800 | 37,900 | 30,000 | 25,250 | 21,200 |
| 35.0 | | 37,950 | 39,650 | 40,000 | 39,450 | 38,800 | 39,700 | 38,950 | 37,900 | 30,000 | 25,250 | 21,200 |
| 40.0 | | 29,750 | 31,350 | 31,700 | 32,050 | 32,150 | 31,550 | 31,600 | 31,700 | 30,000 | 25,250 | 21,200 |
| 45.0 | | | 25,500 | 25,800 | 27,050 | 26,400 | 26,650 | 26,500 | 25,950 | 25,700 | 24,750 | 21,200 |
| 50.0 | | | 21,150 | 21,450 | 22,650 | 22,000 | 22,250 | 22,300 | 21,850 | 21,350 | 20,650 | 20,450 |
| 55.0 | | | 17,800 | 18,600 | 19,250 | 18,650 | 19,200 | 18,900 | 18,550 | 18,000 | 17,300 | 17,150 |
| 60.0 | | | | 16,450 | 16,650 | 16,850 | 16,750 | 16,350 | 16,050 | 15,550 | 14,900 | 14,750 |
| 65.0 | | | | 14,300 | 14,450 | 14,750 | 14,550 | 14,200 | 13,850 | 13,350 | 12,750 | 12,600 |
| 70.0 | | | | 8100 | 12,650 | 12,950 | 12,700 | 12,350 | 12,050 | 11,550 | 10,950 | 10,800 |
| 75.0 | | | | | 11,100 | 11,400 | 11,150 | 10,850 | 10,550 | 10,050 | 9460 | 9320 |
| 80.0 | | | | | 9850 | 10,100 | 9890 | 9560 | 9250 | 8780 | 8170 | 8040 |
| 85.0 | | | | | | 9000 | 8760 | 8430 | 8130 | 7660 | 7060 | 6930 |
| 90.0 | | | | | | 8020 | 7780 | 7450 | 7150 | 6690 | 6090 | 5960 |
| 95.0 | | | | | | 6250 | 6920 | 6590 | 6290 | 5830 | 5240 | 5110 |
| 100.0 | | | | | | | 6160 | 5830 | 5520 | 5070 | 4480 | 4360 |
| 105.0 | | | | | | | 5490 | 5150 | 4840 | 4390 | 3810 | 3680 |
| 110.0 | | | | | | | | 4550 | 4240 | 3790 | 3210 | 3080 |
| 115.0 | | | | | | | | 4020 | 3690 | 3240 | 2660 | 2540 |
| 120.0 | | | | | | | | | 3190 | 2740 | 2170 | 2040 |
| 125.0 | | | | | | | | | 2750 | 2290 | 1720 | 1590 |
| 130.0 | | | | | | | | | 2340 | 1880 | 1310 | 1180 |
| 135.0 | | | | | | | | | | 1510 | | |
| 140.0 | | | | | | | | | | 1170 | | |

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# Load chart
## Main boom


36.6 ft - 169.3 ft
Fixed lengths


8000 lb


100%
23 ft


360°




Pounds

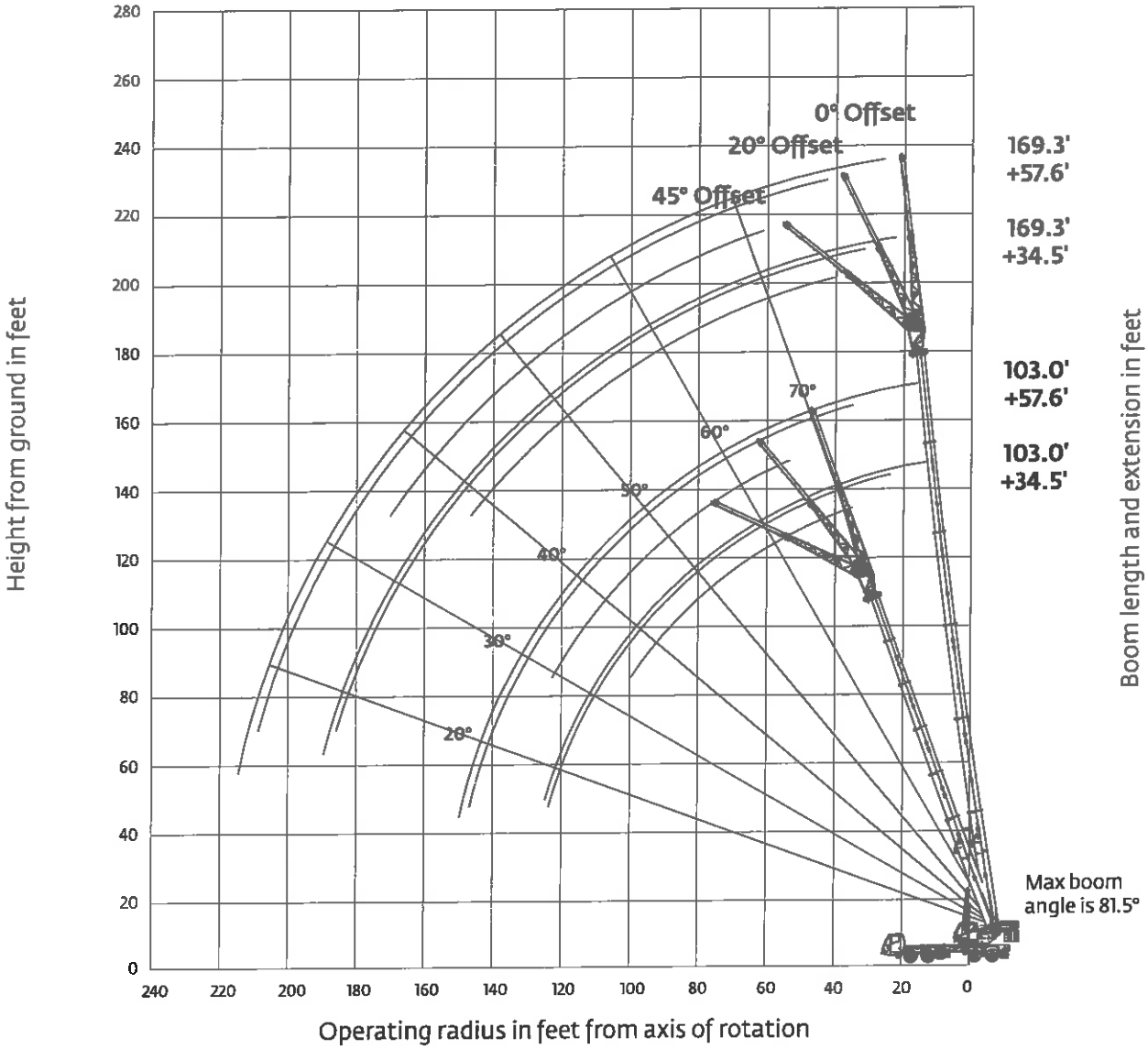
| Feet | 37 | 49-50 | 62-64 | 75-77 | 88-90 | 100-103 | 111-114 | 122-126 | 136-140 | 147-154 | 159-165 | 169 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 175,000 | | | | | | | | | | | |
| 9.0 | 164,500 | 164,000 | | | | | | | | | | |
| 10.0 | 155,000 | 156,000 | 146,000 | 128,500 | | | | | | | | |
| 12.0 | 139,000 | 140,000 | 135,500 | 124,000 | 94,600 | | | | | | | |
| 15.0 | 119,500 | 121,000 | 121,500 | 114,000 | 94,600 | 74,950 | | | | | | |
| 20.0 | 86,500 | 87,900 | 88,250 | 89,100 | 89,050 | 73,500 | 58,050 | 45,800 | | | | |
| 25.0 | 57,450 | 60,100 | 61,350 | 61,000 | 62,750 | 61,350 | 58,050 | 45,800 | 37,900 | 30,000 | | |
| 30.0 | | 42,200 | 44,000 | 44,400 | 43,850 | 43,100 | 44,100 | 43,250 | 37,900 | 30,000 | 25,250 | 21,200 |
| 35.0 | | 31,350 | 33,050 | 33,400 | 34,650 | 34,050 | 33,700 | 33,300 | 33,400 | 30,000 | 25,250 | 21,200 |
| 40.0 | | 24,250 | 25,850 | 26,200 | 27,500 | 26,800 | 27,100 | 27,100 | 26,500 | 26,050 | 25,100 | 21,200 |
| 45.0 | | | 20,800 | 22,150 | 22,350 | 21,850 | 22,400 | 22,000 | 21,600 | 21,000 | 20,250 | 20,100 |
| 50.0 | | | 17,100 | 18,400 | 18,550 | 18,850 | 18,600 | 18,200 | 17,800 | 17,250 | 16,800 | 16,650 |
| 55.0 | | | 14,200 | 15,550 | 15,750 | 16,050 | 15,800 | 15,450 | 15,100 | 14,600 | 13,950 | 13,800 |
| 60.0 | | | | 13,200 | 13,400 | 13,750 | 13,500 | 13,150 | 12,800 | 12,300 | 11,650 | 11,500 |
| 65.0 | | | | 11,350 | 11,500 | 11,850 | 11,600 | 11,250 | 10,900 | 10,450 | 9810 | 9670 |
| 70.0 | | | | 5410 | 9980 | 10,250 | 10,000 | 9700 | 9380 | 8900 | 8270 | 8140 |
| 75.0 | | | | | 8660 | 8960 | 8720 | 8380 | 8070 | 7590 | 6980 | 6840 |
| 80.0 | | | | | 7550 | 7830 | 7590 | 7260 | 6950 | 6480 | 5870 | 5740 |
| 85.0 | | | | | | 6860 | 6620 | 6290 | 5980 | 5520 | 4920 | 4790 |
| 90.0 | | | | | | 6020 | 5770 | 5450 | 5140 | 4680 | 4090 | 3960 |
| 95.0 | | | | | | 4370 | 5030 | 4710 | 4400 | 3950 | 3350 | 3230 |
| 100.0 | | | | | | | 4380 | 4050 | 3750 | 3290 | 2710 | 2580 |
| 105.0 | | | | | | | 3810 | 3470 | 3160 | 2710 | 2130 | 2000 |
| 110.0 | | | | | | | | 2950 | 2640 | 2190 | 1610 | 1480 |
| 115.0 | | | | | | | | 2500 | 2170 | 1720 | 1140 | 1020 |
| 120.0 | | | | | | | | | 1740 | 1290 | | |
| 125.0 | | | | | | | | | 1360 | | | |
| 130.0 | | | | | | | | | 1010 | | | |

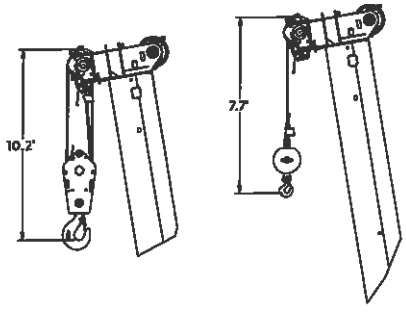
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# Working range

## Main boom and hydraulic or manual extension

36.6 ft - 169.3 ft main boom, 34.5 ft - 57.6 ft hydraulic or manual offsettable extension



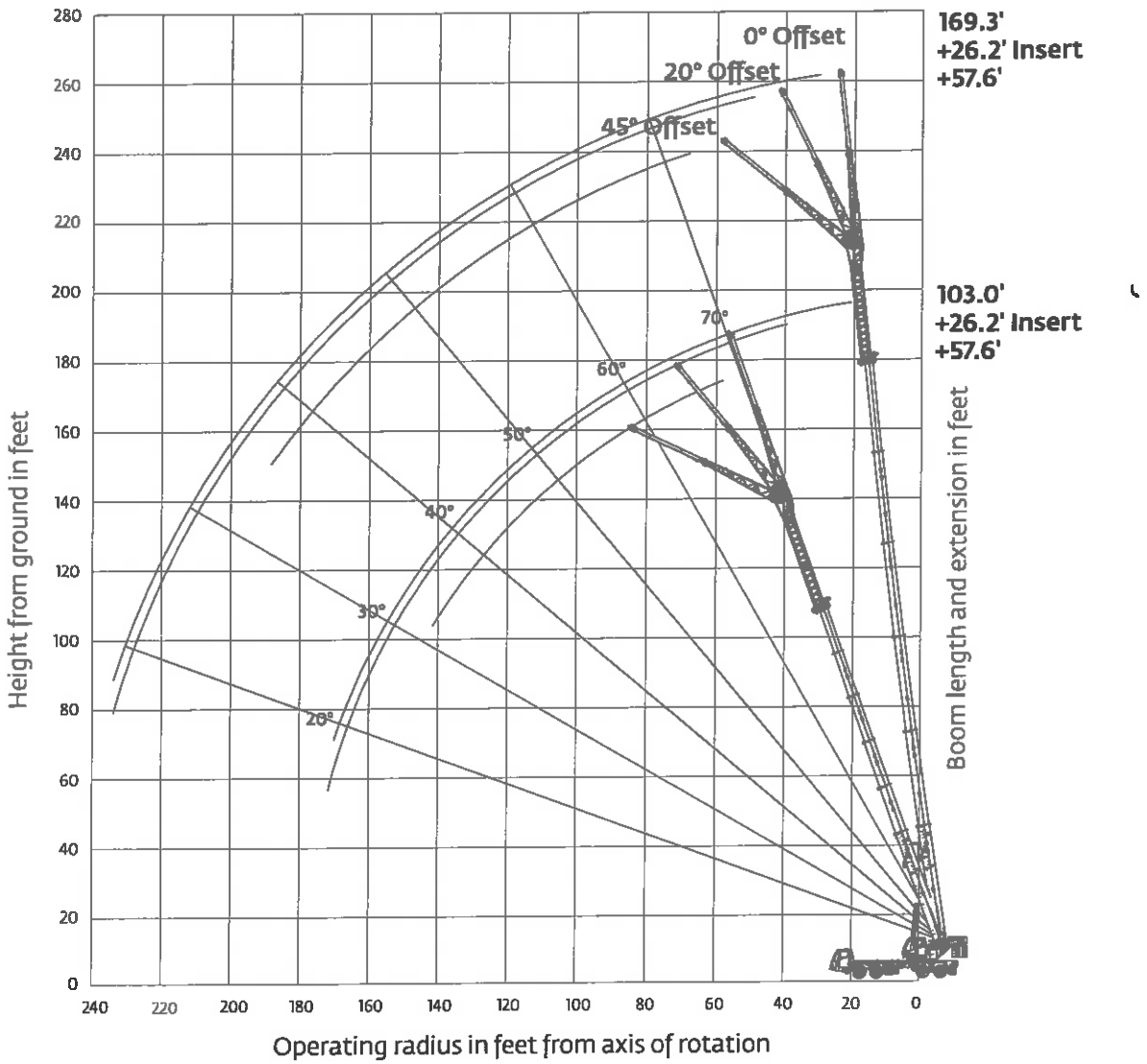



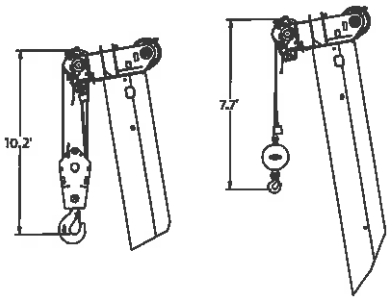

**Dimensions are for the largest grove furnished hook block and overhaul ball, with anti-two block activated.**

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# Working range
## Main boom, extension and insert

**36.6 ft - 169.3 ft main boom and 34.5 ft - 57.6 hydraulic or manual offsettable extension with 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, extension and insert


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

| Feet | 34.5 ft | | | 57.6 ft | | | 83.8 ft | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0° | 20° | 45° | 0° | 20° | 45° | 0° | 20° | 45° |
| 40.0 | 10,750 | | | | | | | | |
| 45.0 | 10,750 | | | 6660 | | | | | |
| 50.0 | 10,750 | 10,900 | | 6660 | | | | | |
| 55.0 | 10,750 | 10,900 | | 6660 | | | 6040 | | |
| 60.0 | 10,750 | 10,900 | 11,200 | 6660 | | | 6040 | | |
| 65.0 | 10,750 | 10,900 | 11,200 | 6660 | | | 6040 | | |
| 70.0 | 10,750 | 10,900 | 11,200 | 6660 | 7190 | | 6040 | | |
| 75.0 | 10,750 | 10,900 | 11,200 | 6660 | 7190 | | 6040 | | |
| 80.0 | 10,750 | 10,900 | 11,200 | 6660 | 7190 | 6090 | 6040 | | |
| 85.0 | 10,750 | 10,900 | 11,050 | 6660 | 7190 | 6010 | 6040 | 6410 | |
| 90.0 | 10,750 | 10,850 | 10,900 | 6660 | 7190 | 5930 | 6040 | 6410 | |
| 95.0 | 10,450 | 10,250 | 10,300 | 6660 | 7170 | 5860 | 6040 | 6410 | 4880 |
| 100.0 | 9820 | 9660 | 9750 | 6660 | 7020 | 5800 | 6040 | 6240 | 4730 |
| 105.0 | 9240 | 9110 | 9220 | 6660 | 6880 | 5740 | 6040 | 6020 | 4600 |
| 110.0 | 8700 | 8610 | 8720 | 6660 | 6750 | 5690 | 6040 | 5820 | 4470 |
| 115.0 | 8200 | 8130 | 8250 | 6660 | 6620 | 5620 | 6040 | 5630 | 4350 |
| 120.0 | 7540 | 7690 | 7810 | 6660 | 6510 | 5560 | 6040 | 5450 | 4240 |
| 125.0 | 6830 | 7280 | 7400 | 6470 | 6400 | 5490 | 5800 | 5280 | 4130 |
| 130.0 | 6180 | 6590 | 6860 | 6110 | 6160 | 5440 | 5460 | 5120 | 4030 |
| 135.0 | 5580 | 5960 | 6190 | 5760 | 5830 | 5390 | 5150 | 4970 | 3930 |
| 140.0 | 5030 | 5370 | 5570 | 5410 | 5520 | 5350 | 4850 | 4830 | 3830 |
| 145.0 | 4520 | 4830 | | 4890 | 5230 | 5310 | 4570 | 4690 | 3740 |
| 150.0 | 4050 | 4330 | | 4410 | 4950 | 5190 | 4300 | 4470 | 3660 |
| 155.0 | 3610 | 3870 | | 3970 | 4540 | 4920 | 3860 | 4220 | 3580 |
| 160.0 | 3200 | 3430 | | 3560 | 4080 | 4420 | 3440 | 3980 | 3500 |
| 165.0 | 2820 | 3020 | | 3170 | 3660 | 3940 | 3050 | 3630 | 3430 |
| 170.0 | 2470 | 2640 | | 2810 | 3260 | | 2680 | 3220 | 3360 |
| 175.0 | 2140 | 2280 | | 2470 | 2880 | | 2340 | 2850 | 3170 |
| 180.0 | 1840 | 1950 | | 2160 | 2520 | | 2020 | 2490 | 2770 |
| 185.0 | 1550 | 1630 | | 1860 | 2190 | | 1720 | 2150 | 2400 |
| 190.0 | 1260 | | | 1580 | 1870 | | 1430 | 1840 | |
| 195.0 | | | | 1320 | 1570 | | 1170 | 1540 | |
| 200.0 | | | | 1080 | 1280 | | | 1250 | |

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# Load chart

## Main boom, extension and insert


169.3 ft
Fixed lengths


34.5 ft - 57.6 ft
Manual offsettable swingaway


26.2 ft
Insert


36,000 lb


100%
23 ft


360°




Pounds

| Feet | 34.5 ft | | | 57.6 ft | | | 83.8 ft | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0° | 20° | 45° | 0° | 20° | 45° | 0° | 20° | 45° |
| 40.0 | 10,750 | | | | | | | | |
| 45.0 | 10,750 | | | 6660 | | | | | |
| 50.0 | 10,750 | 10,900 | | 6660 | | | | | |
| 55.0 | 10,750 | 10,900 | | 6660 | | | 6040 | | |
| 60.0 | 10,750 | 10,900 | 11,200 | 6660 | | | 6040 | | |
| 65.0 | 10,750 | 10,900 | 11,200 | 6660 | | | 6040 | | |
| 70.0 | 10,750 | 10,900 | 11,200 | 6660 | 7190 | | 6040 | | |
| 75.0 | 10,750 | 10,900 | 11,200 | 6660 | 7190 | | 6040 | | |
| 80.0 | 10,750 | 10,900 | 11,200 | 6660 | 7190 | 6090 | 6040 | | |
| 85.0 | 10,750 | 10,900 | 11,050 | 6660 | 7190 | 6010 | 6040 | 6410 | |
| 90.0 | 10,550 | 10,850 | 10,900 | 6660 | 7,90 | 5930 | 6040 | 6410 | |
| 95.0 | 9430 | 10,150 | 10,300 | 6660 | 7170 | 5860 | 6040 | 6410 | 4880 |
| 100.0 | 8410 | 9080 | 9640 | 6660 | 7020 | 5800 | 6040 | 6240 | 4730 |
| 105.0 | 7490 | 8110 | 8620 | 6660 | 6880 | 5740 | 6040 | 6020 | 4600 |
| 110.0 | 6670 | 7240 | 7690 | 6660 | 6750 | 5690 | 6040 | 5820 | 4470 |
| 115.0 | 5920 | 6460 | 6850 | 6340 | 6620 | 5620 | 6040 | 5630 | 4350 |
| 120.0 | 5250 | 5740 | 6090 | 5660 | 6510 | 5560 | 5590 | 5450 | 4240 |
| 125.0 | 4640 | 5090 | 5400 | 5040 | 5920 | 5490 | 4970 | 5280 | 4130 |
| 130.0 | 4080 | 4490 | 4760 | 4470 | 5290 | 5440 | 4390 | 5120 | 4030 |
| 135.0 | 3560 | 3940 | 4170 | 3950 | 4710 | 5340 | 3860 | 4700 | 3930 |
| 140.0 | 3090 | 3440 | 3630 | 3470 | 4180 | 4740 | 3380 | 4170 | 3830 |
| 145.0 | 2650 | 2970 | | 3030 | 3690 | 4190 | 2930 | 3670 | 3740 |
| 150.0 | 2250 | 2540 | | 2620 | 3230 | 3680 | 2510 | 3210 | 3660 |
| 155.0 | 1870 | 2130 | | 2230 | 2810 | 3190 | 2120 | 2780 | 3290 |
| 160.0 | 1530 | 1750 | | 1880 | 2410 | 2740 | 1760 | 2380 | 2840 |
| 165.0 | 1200 | 1400 | | 1550 | 2030 | 2320 | 1430 | 2000 | 2420 |
| 170.0 | | 1070 | | 1240 | 1680 | | 1110 | 1650 | 2020 |
| 175.0 | | | | | 1360 | | | 1320 | 1650 |
| 180.0 | | | | | 1050 | | | 1010 | 1300 |

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# Load chart

## Main boom, extension and insert


169.3 ft
Fixed lengths


34.5 ft - 57.6 ft
Hydraulic offsettable swingaway


26.2 ft
Insert


48,500 lb


100%
23 ft


360°




Pounds

| Feet | 34.5 ft | | | 57.6 ft | | | 83.8 ft | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° |
| 40.0 | 10,600 | | | | | | | | |
| 45.0 | 10,600 | | | 6500 | | | | | |
| 50.0 | 10,600 | 10,600 | | 6500 | | | | | |
| 55.0 | 10,600 | 10,600 | | 6500 | | | 5910 | | |
| 60.0 | 10,600 | 10,600 | 10,850 | 6500 | | | 5910 | | |
| 65.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | | 5910 | | |
| 70.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | | 5910 | | |
| 75.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | | 5910 | 5910 | |
| 80.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | 5930 | 5910 | 5910 | |
| 85.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | 5850 | 5910 | 5910 | |
| 90.0 | 10,600 | 10,450 | 10,450 | 6500 | 6500 | 5780 | 5910 | 5910 | 4870 |
| 95.0 | 10,000 | 9840 | 9840 | 6500 | 6500 | 5710 | 5910 | 5910 | 4720 |
| 100.0 | 9370 | 9250 | 9250 | 6500 | 6500 | 5640 | 5910 | 5910 | 4570 |
| 105.0 | 8790 | 8700 | 8700 | 6500 | 6500 | 5580 | 5910 | 5820 | 4430 |
| 110.0 | 8250 | 8190 | 8190 | 6500 | 6350 | 5510 | 5910 | 5620 | 4300 |
| 115.0 | 7750 | 7710 | 7710 | 6500 | 6200 | 5440 | 5910 | 5430 | 4180 |
| 120.0 | 7280 | 7270 | 7270 | 6450 | 6070 | 5370 | 5730 | 5240 | 4060 |
| 125.0 | 6690 | 6690 | 6850 | 6060 | 5940 | 5310 | 5370 | 5070 | 3950 |
| 130.0 | 6030 | 6030 | 6460 | 5690 | 5690 | 5250 | 5030 | 4910 | 3840 |
| 135.0 | 5430 | 5430 | 5820 | 5350 | 5350 | 5200 | 4710 | 4710 | 3740 |
| 140.0 | 4880 | 4880 | 5240 | 5030 | 5030 | 5130 | 4410 | 4410 | 3640 |
| 145.0 | 4370 | 4370 | | 4720 | 4720 | 4840 | 4130 | 4130 | 3550 |
| 150.0 | 3900 | 3900 | | 4290 | 4290 | 4560 | 3860 | 3860 | 3460 |
| 155.0 | 3460 | 3460 | | 3840 | 3840 | 4290 | 3610 | 3610 | 3380 |
| 160.0 | 3050 | 3050 | | 3430 | 3430 | 3970 | 3270 | 3270 | 3300 |
| 165.0 | 2670 | 2670 | | 3040 | 3040 | 3540 | 2880 | 2880 | 3220 |
| 170.0 | 2320 | 2320 | | 2680 | 2680 | | 2510 | 2510 | 3070 |
| 175.0 | 1990 | 1990 | | 2340 | 2340 | | 2170 | 2170 | 2690 |
| 180.0 | 1680 | 1680 | | 2020 | 2020 | | 1850 | 1850 | 2330 |
| 185.0 | 1380 | 1380 | | 1730 | 1730 | | 1550 | 1550 | 1990 |
| 190.0 | 1070 | | | 1450 | 1450 | | 1260 | 1260 | |
| 195.0 | | | | 1180 | 1180 | | | | |

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# Load chart

## Main boom, extension and insert


169.3 ft
Fixed lengths


34.5 ft - 57.6 ft
Hydraulic offsettable swingaway


26.2 ft
Insert


36,000 lb


100%
23 ft


360°




Pounds

| Feet | 34.5 ft | | | 57.6 ft | | | 83.8 ft | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° |
| 40.0 | 10,600 | | | | | | | | |
| 45.0 | 10,600 | | | 6500 | | | | | |
| 50.0 | 10,600 | 10,600 | | 6500 | | | | | |
| 55.0 | 10,600 | 10,600 | | 6500 | | | 5910 | | |
| 60.0 | 10,600 | 10,600 | 10,850 | 6500 | | | 5910 | | |
| 65.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | | 5910 | | |
| 70.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | | 5910 | | |
| 75.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | | 5910 | 5910 | |
| 80.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | 5930 | 5910 | 5910 | |
| 85.0 | 10,600 | 10,600 | 10,850 | 6500 | 6500 | 5850 | 5910 | 5910 | |
| 90.0 | 10,450 | 10,450 | 10,450 | 6500 | 6500 | 5780 | 5910 | 5910 | 4870 |
| 95.0 | 9310 | 9310 | 9840 | 6500 | 6500 | 5710 | 5910 | 5910 | 4720 |
| 100.0 | 8280 | 8280 | 8970 | 6500 | 6500 | 5640 | 5910 | 5910 | 4570 |
| 105.0 | 7360 | 7360 | 8000 | 6500 | 6500 | 5580 | 5910 | 5820 | 4430 |
| 110.0 | 6530 | 6530 | 7120 | 6500 | 6350 | 5510 | 5910 | 5620 | 4300 |
| 115.0 | 5790 | 5790 | 6330 | 6230 | 6200 | 5440 | 5910 | 5430 | 4180 |
| 120.0 | 5110 | 5110 | 5610 | 5550 | 5550 | 5370 | 5440 | 5240 | 4060 |
| 125.0 | 4500 | 4500 | 4960 | 4920 | 4920 | 5310 | 4810 | 4810 | 3950 |
| 130.0 | 3930 | 3930 | 4360 | 4350 | 4350 | 5190 | 4230 | 4230 | 3840 |
| 135.0 | 3420 | 3420 | 3810 | 3830 | 3830 | 4610 | 3700 | 3700 | 3740 |
| 140.0 | 2940 | 2940 | 3300 | 3350 | 3350 | 4070 | 3220 | 3220 | 3640 |
| 145.0 | 2510 | 2510 | | 2900 | 2900 | 3580 | 2760 | 2760 | 3530 |
| 150.0 | 2100 | 2100 | | 2490 | 2490 | 3120 | 2350 | 2350 | 3060 |
| 155.0 | 1720 | 1720 | | 2110 | 2110 | 2690 | 1960 | 1960 | 2630 |
| 160.0 | 1380 | 1380 | | 1750 | 1750 | 2290 | 1600 | 1600 | 2230 |
| 165.0 | 1050 | 1050 | | 1420 | 1420 | 1910 | 1260 | 1260 | 1850 |
| 170.0 | | | | 1110 | 1110 | | | | 1500 |
| 175.0 | | | | | | | | | 1170 |

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# Load chart

## Main boom, extension and insert


169.3 ft
Fixed lengths


34.5 ft - 57.6 ft
Heavy duty hydraulic offsettable swingaway


26.2 ft
Insert


48,500 lb


100%
23 ft


360°




Pounds

| Feet | 34.5 ft | | | 57.6 ft | | | 83.8 ft | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° |
| 40.0 | 10,400 | | | | | | | | |
| 45.0 | 10,400 | | | 6410 | | | | | |
| 50.0 | 10,400 | 10,400 | | 6410 | | | | | |
| 55.0 | 10,400 | 10,400 | | 6410 | | | 5800 | | |
| 60.0 | 10,400 | 10,400 | 10,700 | 6410 | | | 5800 | | |
| 65.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | | 5800 | | |
| 70.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | | 5800 | | |
| 75.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | | 5800 | 5800 | |
| 80.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | 5930 | 5800 | 5800 | |
| 85.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | 5850 | 5800 | 5800 | |
| 90.0 | 10,400 | 10,300 | 10,300 | 6410 | 6410 | 5770 | 5800 | 5800 | 4820 |
| 95.0 | 9820 | 9670 | 9670 | 6410 | 6410 | 5700 | 5800 | 5800 | 4660 |
| 100.0 | 9180 | 9080 | 9080 | 6410 | 6410 | 5640 | 5800 | 5800 | 4520 |
| 105.0 | 8590 | 8520 | 8520 | 6410 | 6410 | 5570 | 5800 | 5750 | 4380 |
| 110.0 | 8050 | 8010 | 8010 | 6410 | 6330 | 5490 | 5800 | 5540 | 4240 |
| 115.0 | 7550 | 7530 | 7530 | 6410 | 6190 | 5420 | 5800 | 5350 | 4120 |
| 120.0 | 7090 | 7090 | 7090 | 6300 | 6050 | 5350 | 5570 | 5160 | 3990 |
| 125.0 | 6500 | 6500 | 6670 | 5910 | 5910 | 5280 | 5200 | 4990 | 3880 |
| 130.0 | 5850 | 5850 | 6280 | 5540 | 5540 | 5230 | 4860 | 4830 | 3770 |
| 135.0 | 5250 | 5250 | 5650 | 5190 | 5190 | 5180 | 4540 | 4540 | 3670 |
| 140.0 | 4690 | 4690 | 5060 | 4870 | 4870 | 4990 | 4240 | 4240 | 3570 |
| 145.0 | 4180 | 4180 | | 4570 | 4570 | 4700 | 3960 | 3960 | 3470 |
| 150.0 | 3710 | 3710 | | 4120 | 4120 | 4410 | 3690 | 3690 | 3380 |
| 155.0 | 3270 | 3270 | | 3680 | 3680 | 4140 | 3440 | 3440 | 3300 |
| 160.0 | 2860 | 2860 | | 3260 | 3260 | 3810 | 3100 | 3100 | 3210 |
| 165.0 | 2480 | 2480 | | 2870 | 2870 | 3380 | 2710 | 2710 | 3140 |
| 170.0 | 2130 | 2130 | | 2510 | 2510 | | 2340 | 2340 | 2910 |
| 175.0 | 1800 | 1800 | | 2170 | 2170 | | 2000 | 2000 | 2530 |
| 180.0 | 1490 | 1490 | | 1860 | 1860 | | 1680 | 1680 | 2170 |
| 185.0 | 1160 | 1160 | | 1560 | 1560 | | 1380 | 1380 | 1830 |
| 190.0 | | | | 1280 | 1280 | | 1090 | 1090 | |

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# Load chart

## Main boom, extension and insert


169.3 ft
Fixed lengths


34.5 ft - 57.6 ft
Heavy duty hydraulic offsettable swingaway


26.2 ft
Insert


36,000 lb


100%
23 ft


360°



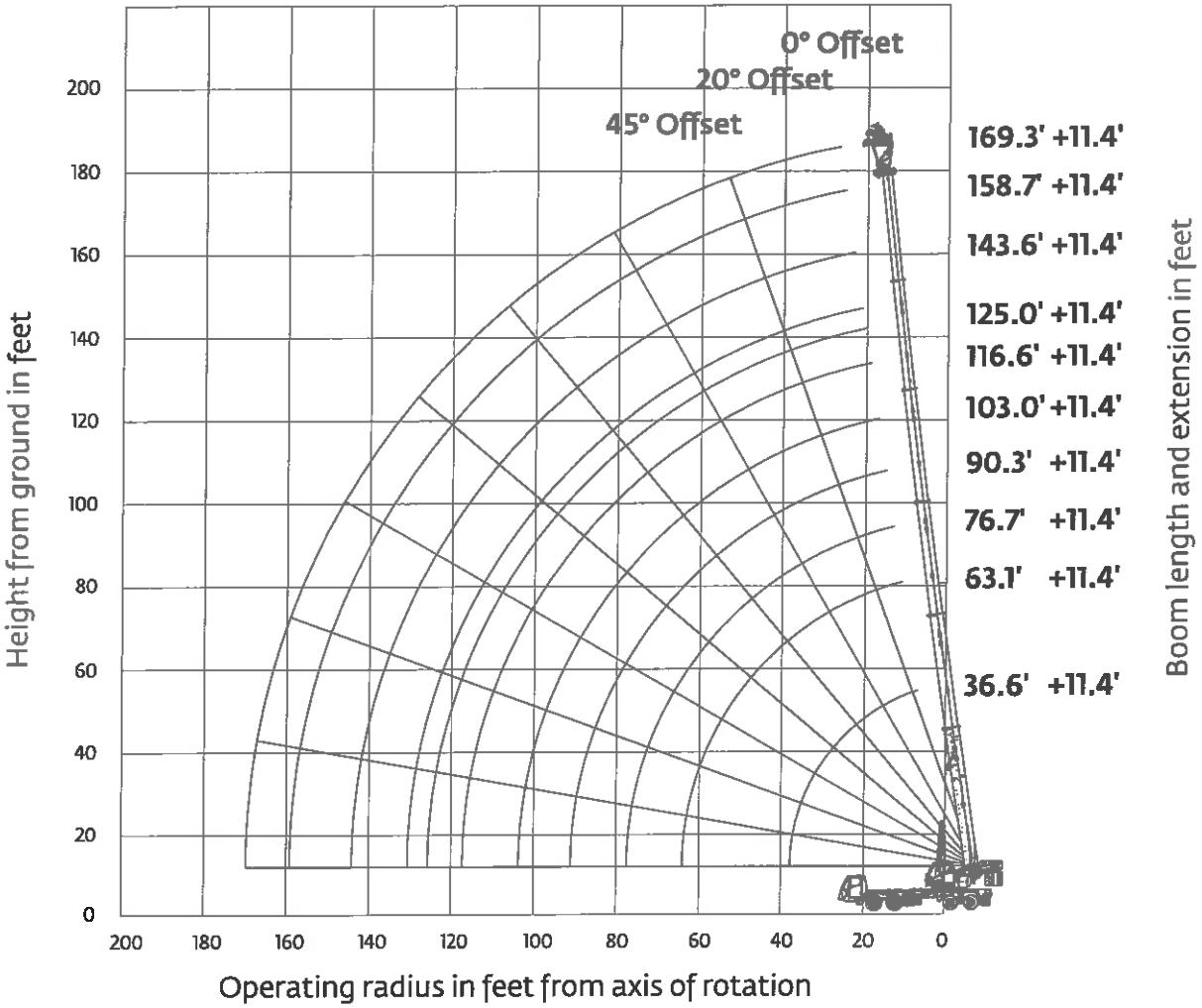

Pounds

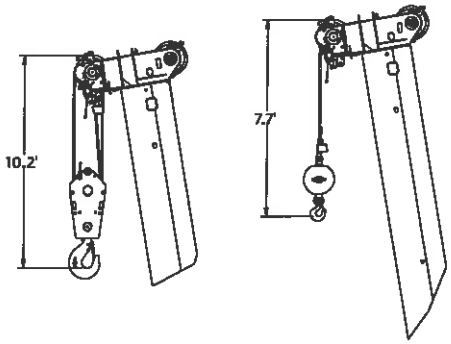
| Feet | 34.5 ft | | | 57.6 ft | | | 83.8 ft | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° |
| 40.0 | 10,400 | | | | | | | | |
| 45.0 | 10,400 | | | 6410 | | | | | |
| 50.0 | 10,400 | 10,400 | | 6410 | | | | | |
| 55.0 | 10,400 | 10,400 | | 6410 | | | 5800 | | |
| 60.0 | 10,400 | 10,400 | 10,700 | 6410 | | | 5800 | | |
| 65.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | | 5800 | | |
| 70.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | | 5800 | | |
| 75.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | | 5800 | 5800 | |
| 80.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | 5930 | 5800 | 5800 | |
| 85.0 | 10,400 | 10,400 | 10,700 | 6410 | 6410 | 5850 | 5800 | 5800 | |
| 90.0 | 10,250 | 10,250 | 10,300 | 6410 | 6410 | 5770 | 5800 | 5800 | 4820 |
| 95.0 | 9130 | 9130 | 9670 | 6410 | 6410 | 5700 | 5800 | 5800 | 4660 |
| 100.0 | 8100 | 8100 | 8810 | 6410 | 6410 | 5640 | 5800 | 5800 | 4520 |
| 105.0 | 7180 | 7180 | 7830 | 6410 | 6410 | 5570 | 5800 | 5750 | 4380 |
| 110.0 | 6350 | 6350 | 6950 | 6410 | 6330 | 5490 | 5800 | 5540 | 4240 |
| 115.0 | 5600 | 5600 | 6160 | 6070 | 6070 | 5420 | 5800 | 5350 | 4120 |
| 120.0 | 4930 | 4930 | 5440 | 5380 | 5380 | 5350 | 5280 | 5160 | 3990 |
| 125.0 | 4310 | 4310 | 4780 | 4760 | 4760 | 5280 | 4650 | 4650 | 3880 |
| 130.0 | 3750 | 3750 | 4180 | 4190 | 4190 | 5050 | 4070 | 4070 | 3770 |
| 135.0 | 3230 | 3230 | 3630 | 3660 | 3660 | 4460 | 3540 | 3540 | 3670 |
| 140.0 | 2760 | 2760 | 3120 | 3180 | 3180 | 3930 | 3050 | 3050 | 3570 |
| 145.0 | 2320 | 2320 | | 2740 | 2740 | 3430 | 2600 | 2600 | 3380 |
| 150.0 | 1910 | 1910 | | 2320 | 2320 | 2970 | 2180 | 2180 | 2910 |
| 155.0 | 1540 | 1540 | | 1940 | 1,940 | 2540 | 1790 | 1790 | 2480 |
| 160.0 | 1190 | 1190 | | 1580 | 1580 | 2140 | 1430 | 1430 | 2070 |
| 165.0 | | | | 1250 | 1250 | 1760 | 1090 | 1090 | 1700 |
| 170.0 | | | | | | | | | 1340 |
| 175.0 | | | | | | | | | 1010 |

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# Working range
## Integrated heavy duty jib

**36.6 ft - 169.3 ft main boom and 11.4 ft hydraulic or manual offsettable 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 eavy duty jib



**36.6 ft - 169.3 ft**
**Fixed lengths**



**11.4 ft**
**Hydraulic integrated heavy duty jib**



**48,500 lb**



**100%**
**23 ft**



**360°**





**Pounds**

| Feet | 37 ft | | | 87 ft - 90 ft | | | 124 ft - 126 ft | | | 169.3 ft | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° |
| 10.0 | 68,600 | 61,850 | 54,400 | | | | | | | | | |
| 15.0 | 60,050 | 53,550 | 49,100 | 68,600 | 68,600 | 59,300 | | | | | | |
| 20.0 | 51,350 | 47,450 | 45,100 | 68,600 | 64,600 | 56,000 | 35,500 | | | | | |
| 25.0 | 44,950 | 42,900 | 42,200 | 68,600 | 59,900 | 53,150 | 36,100 | 34,900 | 32,400 | | | |
| 30.0 | 40,150 | 39,450 | 39,450 | 64,400 | 55,950 | 50,700 | 36,100 | 34,900 | 32,400 | | | |
| 35.0 | 36,450 | 36,450 | 37,050 | 57,250 | 52,600 | 48,600 | 36,100 | 34,900 | 32,400 | 16,150 | 15,500 | 14,200 |
| 40.0 | 34,000 | | | 50,500 | 49,700 | 46,750 | 36,100 | 34,900 | 32,400 | 16,150 | 15,500 | 14,200 |
| 45.0 | | | | 41,850 | 41,850 | 42,000 | 36,100 | 34,900 | 32,400 | 16,150 | 15,500 | 14,200 |
| 50.0 | | | | 35,350 | 35,350 | 35,400 | 32,650 | 32,650 | 32,400 | 16,150 | 15,500 | 14,200 |
| 55.0 | | | | 30,400 | 30,400 | 30,400 | 29,350 | 29,350 | 29,450 | 16,150 | 15,500 | 14,200 |
| 60.0 | | | | 27,450 | 27,400 | 27,400 | 26,300 | 26,300 | 26,400 | 16,150 | 15,500 | 14,200 |
| 65.0 | | | | 24,800 | 24,800 | 24,700 | 23,250 | 23,150 | 23,150 | 16,150 | 15,500 | 14,200 |
| 70.0 | | | | 21,950 | 21,950 | 21,800 | 21,350 | 21,350 | 21,400 | 16,150 | 15,500 | 14,200 |
| 75.0 | | | | 19,550 | 19,550 | 19,350 | 19,000 | 19,000 | 18,950 | 15,250 | 15,200 | 14,200 |
| 80.0 | | | | 17,550 | 17,500 | 17,300 | 17,050 | 17,050 | 17,000 | 14,200 | 14,200 | 14,200 |
| 85.0 | | | | 15,800 | 15,750 | 15,550 | 15,300 | 15,300 | 15,200 | 13,300 | 13,300 | 13,300 |
| 90.0 | | | | 14,300 | 14,200 | 12,250 | 13,750 | 13,750 | 13,650 | 12,450 | 12,450 | 12,450 |
| 95.0 | | | | | | | 12,400 | 12,400 | 12,400 | 11,700 | 11,700 | 11,700 |
| 100.0 | | | | | | | 11,700 | 11,700 | 11,600 | 10,850 | 10,850 | 10,900 |
| 105.0 | | | | | | | 10,650 | 10,600 | 10,500 | 9850 | 9850 | 9830 |
| 110.0 | | | | | | | 9690 | 9650 | 9530 | 8890 | 8890 | 8850 |
| 115.0 | | | | | | | 8820 | 8780 | 8640 | 8020 | 8020 | 7970 |
| 120.0 | | | | | | | 8040 | 7980 | 7840 | 7230 | 7230 | 7170 |
| 125.0 | | | | | | | 7330 | 7260 | 6200 | 6510 | 6510 | |
| 130.0 | | | | | | | | | | 5860 | 5850 | |
| 135.0 | | | | | | | | | | 5250 | 5240 | |
| 140.0 | | | | | | | | | | 4700 | 4680 | |
| 145.0 | | | | | | | | | | 4190 | 4170 | |
| 150.0 | | | | | | | | | | 3720 | 3690 | |
| 155.0 | | | | | | | | | | 3280 | 3250 | |
| 160.0 | | | | | | | | | | 2870 | 2830 | |
| 165.0 | | | | | | | | | | 2500 | | |
| 170.0 | | | | | | | | | | 2150 | | |

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# Load chart
## Integrated Heavy duty jib


36.6 ft - 169.3 ft
Fixed lengths


11.4 ft
Hydraulic
integrated
heavy duty jib


36,000 lb


100%
23 ft


360°




Pounds

| Feet | 37 ft | | | 87 ft - 90 ft | | | 124 ft - 126 ft | | | 169.3 ft | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° | 0° | 0° - 20° | 20° - 45° |
| 10.0 | 68,600 | 61,850 | 54,400 | | | | | | | | | |
| 15.0 | 60,050 | 53,550 | 49,100 | 68,600 | 68,600 | 59,300 | | | | | | |
| 20.0 | 51,350 | 47,450 | 45,100 | 68,600 | 64,600 | 56,000 | 35,500 | | | | | |
| 25.0 | 44,950 | 42,900 | 42,200 | 68,600 | 59,900 | 53,150 | 36,100 | 34,900 | 32,400 | | | |
| 30.0 | 40,150 | 39,450 | 39,450 | 64,400 | 55,950 | 50,700 | 36,100 | 34,900 | 32,400 | | | |
| 35.0 | 36,450 | 36,450 | 37,050 | 53,200 | 52,600 | 48,600 | 36,100 | 34,900 | 32,400 | 16,150 | 15,500 | 14,200 |
| 40.0 | 34,000 | | | 42,750 | 42,750 | 43,000 | 36,100 | 34,900 | 32,400 | 16,150 | 15,500 | 14,200 |
| 45.0 | | | | 35,200 | 35,200 | 35,350 | 35,050 | 34,900 | 32,400 | 16,150 | 15,500 | 14,200 |
| 50.0 | | | | 31,350 | 31,200 | 31,200 | 29,650 | 29,400 | 29,550 | 16,150 | 15,500 | 14,200 |
| 55.0 | | | | 26,750 | 26,750 | 26,750 | 26,150 | 26,150 | 26,250 | 16,150 | 15,500 | 14,200 |
| 60.0 | | | | 23,100 | 23,100 | 23,050 | 22,500 | 22,500 | 22,600 | 16,150 | 15,500 | 14,200 |
| 65.0 | | | | 20,150 | 20,150 | 20,050 | 19,550 | 19,550 | 19,600 | 16,150 | 15,500 | 14,200 |
| 70.0 | | | | 17,700 | 17,700 | 17,550 | 17,400 | 17,400 | 17,400 | 16,150 | 15,500 | 14,200 |
| 75.0 | | | | 15,700 | 15,700 | 15,500 | 15,700 | 15,700 | 15,700 | 14,900 | 14,900 | 14,200 |
| 80.0 | | | | 13,950 | 13,900 | 13,750 | 13,950 | 13,950 | 13,900 | 13,150 | 13,150 | 13,200 |
| 85.0 | | | | 12,800 | 12,800 | 13,050 | 12,450 | 12,450 | 12,350 | 11,600 | 11,600 | 11,650 |
| 90.0 | | | | 12,150 | 12,150 | 9100 | 11,100 | 11,100 | 11,000 | 10,300 | 10,300 | 10,300 |
| 95.0 | | | | | | | 10,200 | 10,200 | 9840 | 9140 | 9140 | 9160 |
| 100.0 | | | | | | | 9530 | 9530 | 8790 | 8110 | 8110 | 8110 |
| 105.0 | | | | | | | 8720 | 8690 | 7840 | 7190 | 7190 | 7170 |
| 110.0 | | | | | | | 7890 | 7850 | 7000 | 6360 | 6360 | 6330 |
| 115.0 | | | | | | | 7140 | 7090 | 6240 | 5610 | 5610 | 5570 |
| 120.0 | | | | | | | 6460 | 5690 | 5540 | 4940 | 4940 | 4880 |
| 125.0 | | | | | | | 5860 | 5070 | 4910 | 4320 | 4320 | |
| 130.0 | | | | | | | 2880 | | | 3750 | 3750 | |
| 135.0 | | | | | | | | | | 3240 | 3230 | |
| 140.0 | | | | | | | | | | 2760 | 2750 | |
| 145.0 | | | | | | | | | | 2320 | 2300 | |
| 150.0 | | | | | | | | | | 1920 | 1890 | |
| 155.0 | | | | | | | | | | 1540 | 1510 | |
| 160.0 | | | | | | | | | | 1200 | 1160 | |

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# 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 the total extension 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 556 liters (147 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.



**Denotes optional equipment*

## 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 block heater.

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